

## Appendix B

### RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Wireless Extender

Trade Mark: N/A

Test Model: LKV388mini

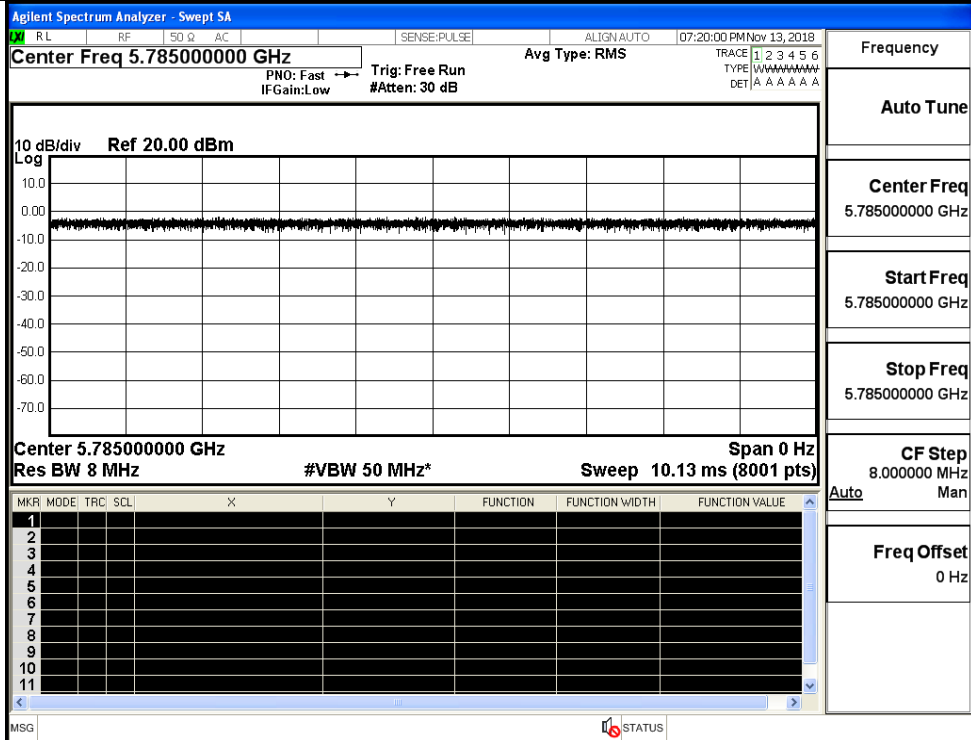
#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 23.6 ° C    |
| Relative Humidity: | 53.6%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Tom Liu     |
| Supervised by:     | Jayden Zhuo |

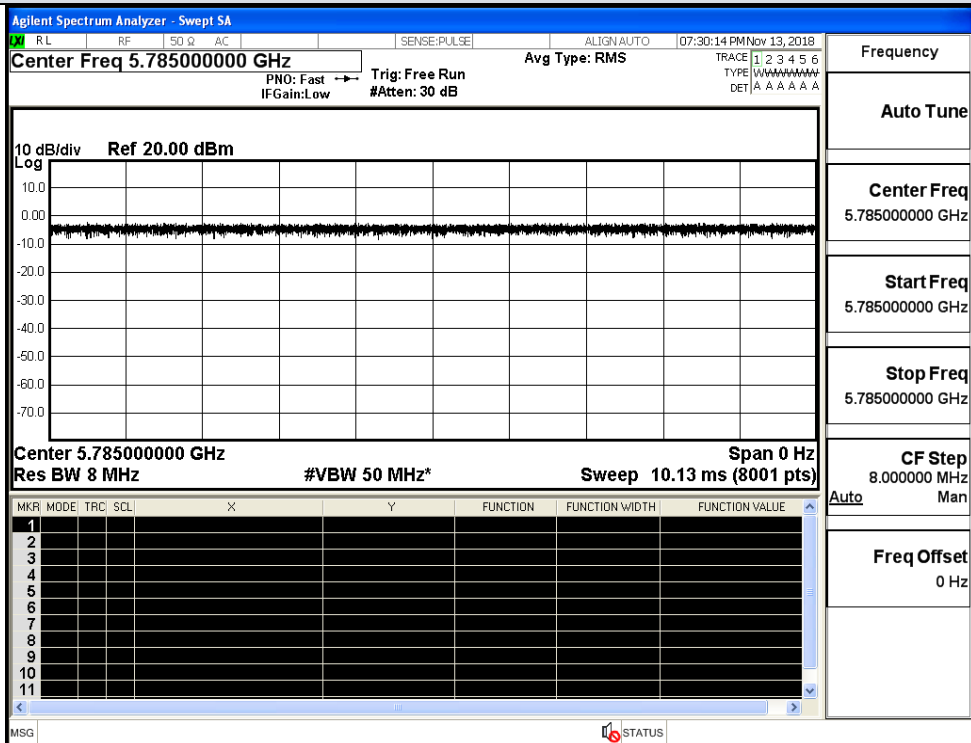
#### B.1 Duty Cycle

| Test Mode   | Test Frequency (MHz) | Duty Cycle (%) | 10log(1/x) Factor (dB) | 1/B Minimum VBW(KHz) |
|-------------|----------------------|----------------|------------------------|----------------------|
| 11A         | 5785                 | 100            | 0.00                   | 0.01                 |
| 11N20 SISO  | 5785                 | 100            | 0.00                   | 0.01                 |
| 11N40 SISO  | 5755                 | 100            | 0.00                   | 0.01                 |
| 11AC20 SISO | 5785                 | 100            | 0.00                   | 0.01                 |
| 11AC40 SISO | 5755                 | 100            | 0.00                   | 0.01                 |
| 11AC80 SISO | 5775                 | 100            | 0.00                   | 0.01                 |

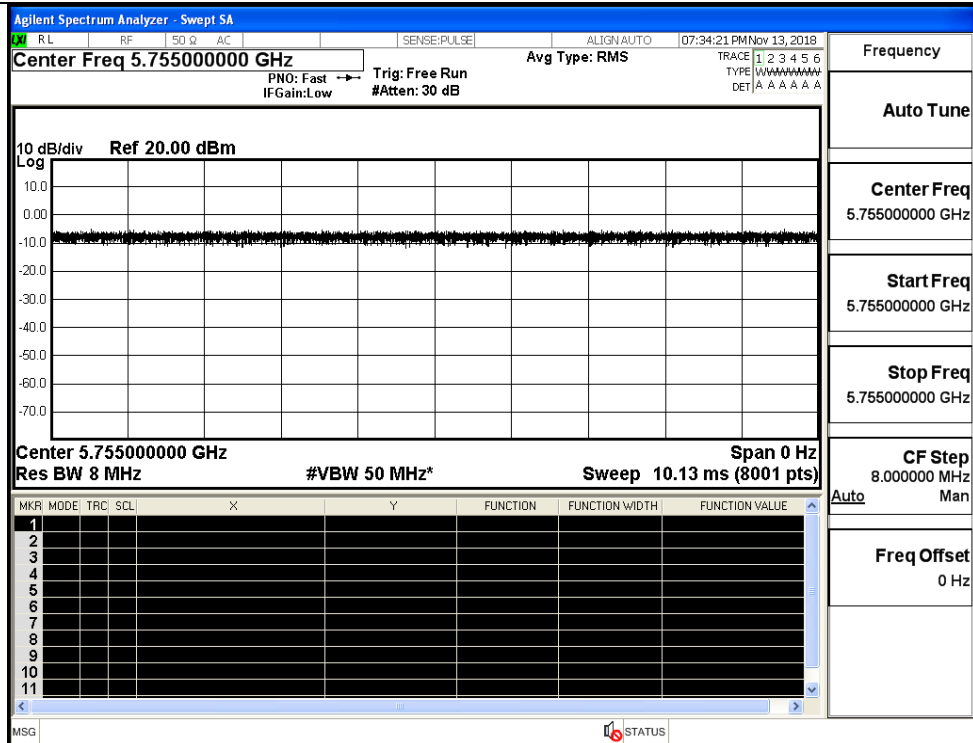
## On Time and Duty Cycle



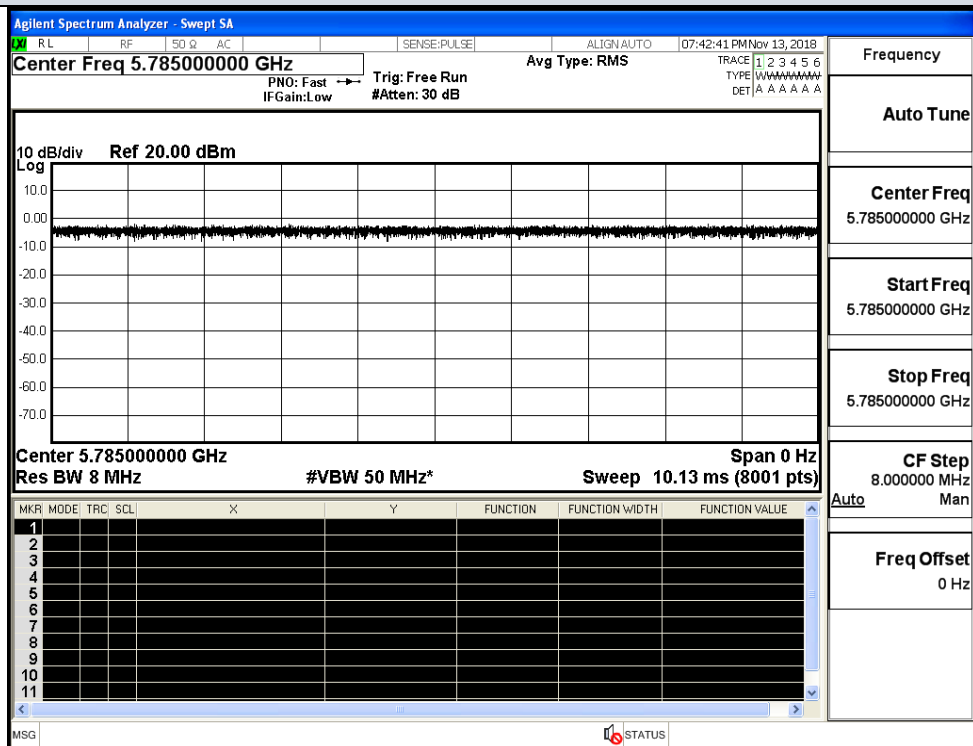
## IEEE 802.11a



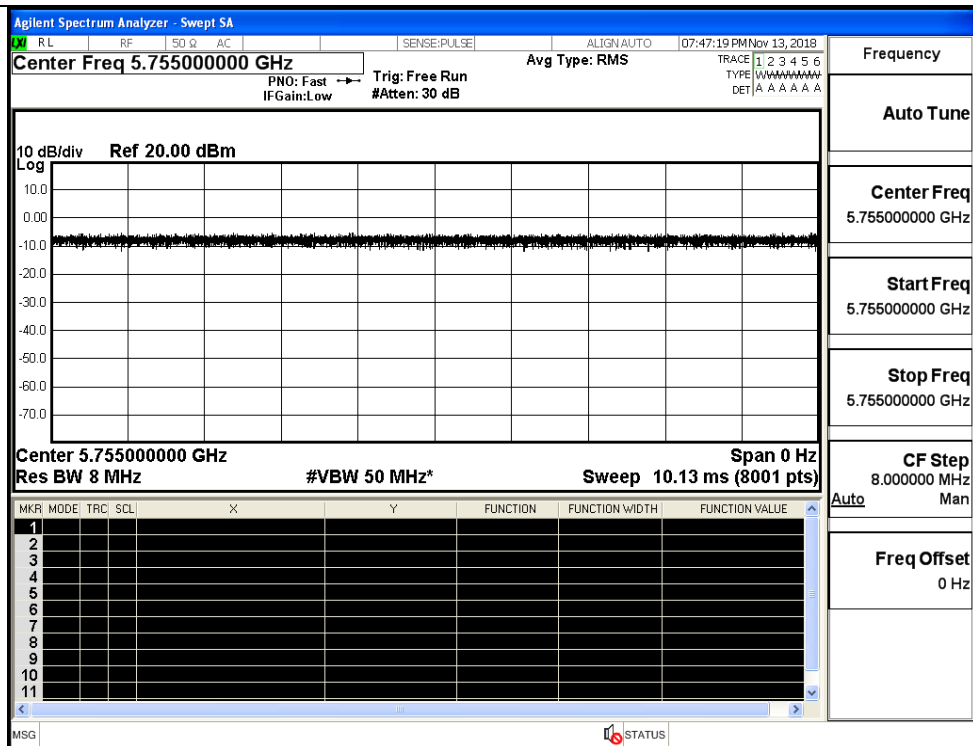
## IEEE 802.11n HT20



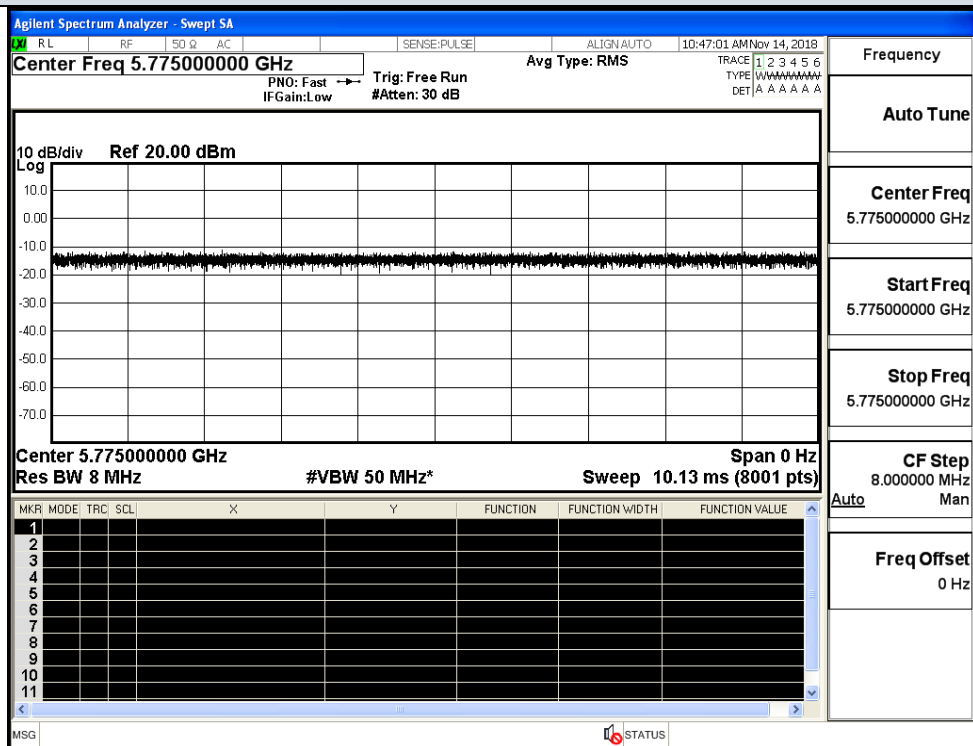
IEEE 802.11n HT40



IEEE 802.11ac VHT20



IEEE 802.11ac VHT40



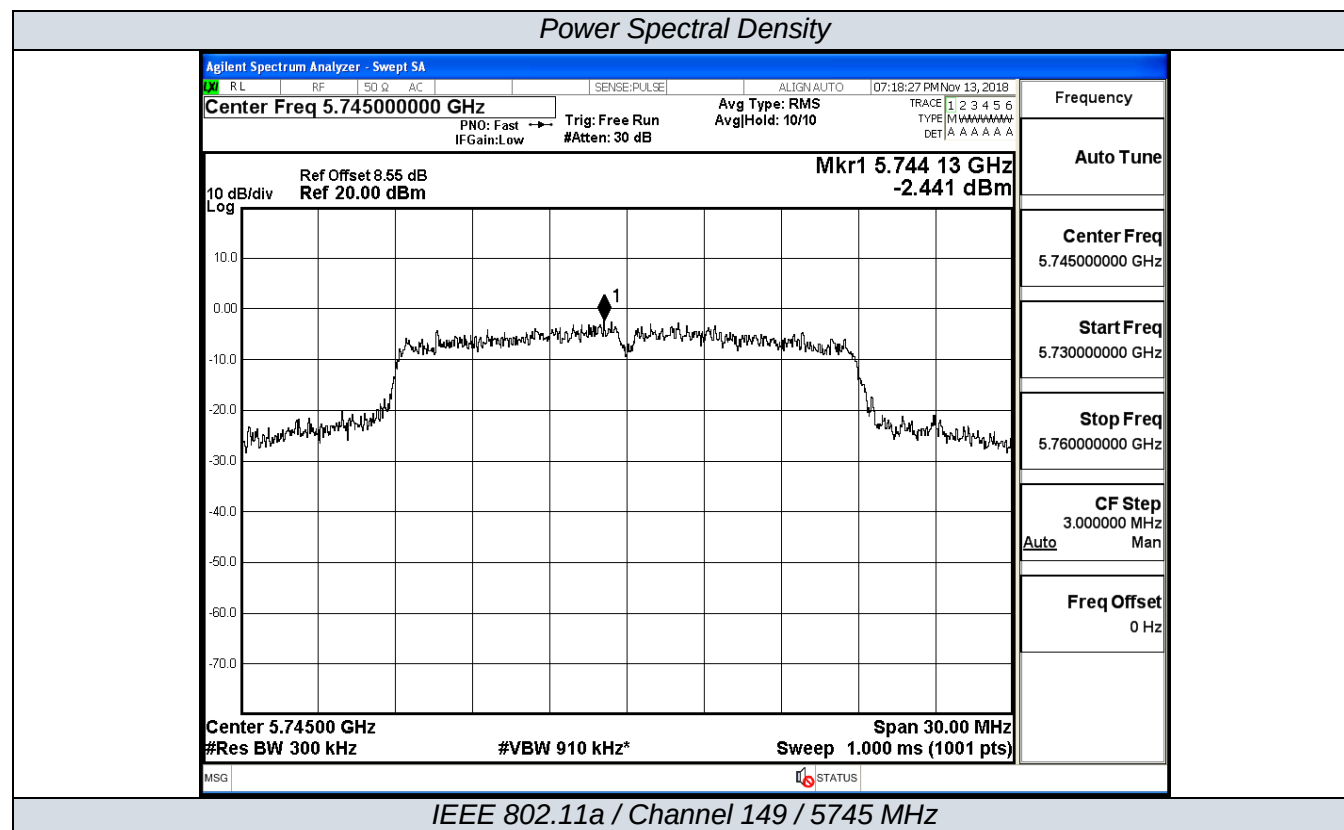
IEEE 802.11ac VHT80

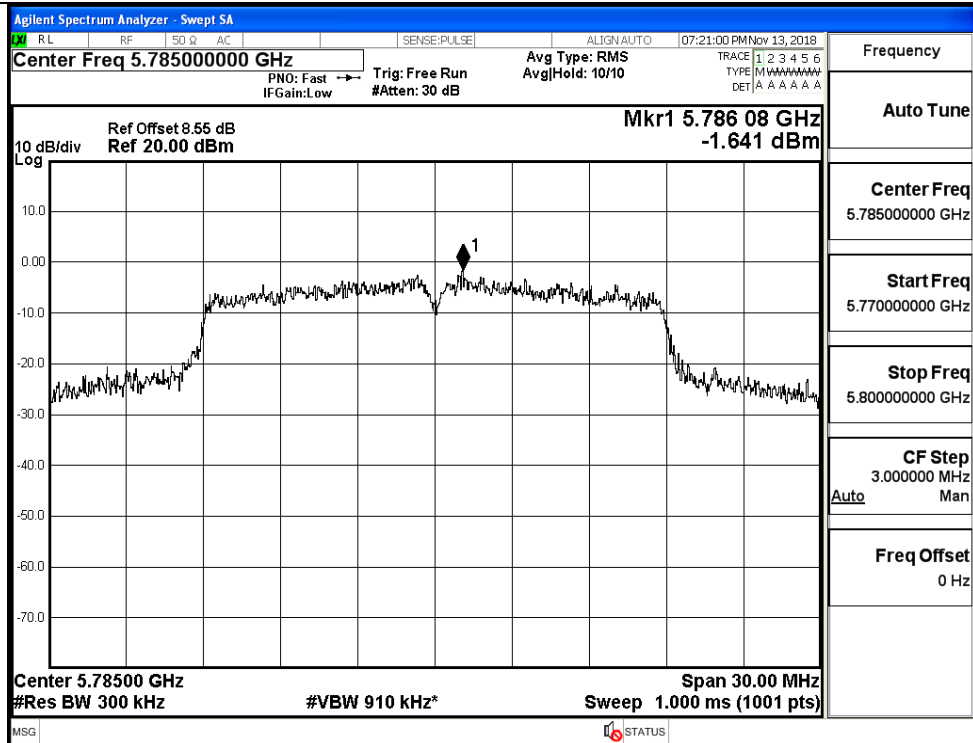
**B.2 Maximum Conduct Output Power**

| Test Mode   | Channel | Frequency (MHz) | AVG Conducted Power (dBm) | Duty Cycle Factor (dB) | Report Conducted Power (dBm) | Limit (dBm) |
|-------------|---------|-----------------|---------------------------|------------------------|------------------------------|-------------|
| 11A         | 149     | 5745            | 11.42                     | 0                      | 11.42                        | 30          |
|             | 157     | 5785            | 11.44                     | 0                      | 11.44                        |             |
|             | 165     | 5825            | 11.50                     | 0                      | 11.50                        |             |
| 11N20 SISO  | 149     | 5745            | 11.45                     | 0                      | 11.45                        | 30          |
|             | 157     | 5785            | 11.11                     | 0                      | 11.11                        |             |
|             | 165     | 5825            | 11.29                     | 0                      | 11.29                        |             |
| 11N40 SISO  | 151     | 5755            | 11.87                     | 0                      | 11.87                        | 30          |
|             | 159     | 5795            | 11.88                     | 0                      | 11.88                        |             |
| 11AC20 SISO | 149     | 5745            | 11.79                     | 0                      | 11.79                        | 30          |
|             | 157     | 5785            | 11.53                     | 0                      | 11.53                        |             |
|             | 165     | 5825            | 11.68                     | 0                      | 11.68                        |             |
| 11AC40 SISO | 151     | 5755            | 11.79                     | 0                      | 11.79                        | 30          |
|             | 159     | 5795            | 11.96                     | 0                      | 11.96                        |             |
| 11AC80 SISO | 155     | 5775            | 9.85                      | 0                      | 9.85                         | 30          |

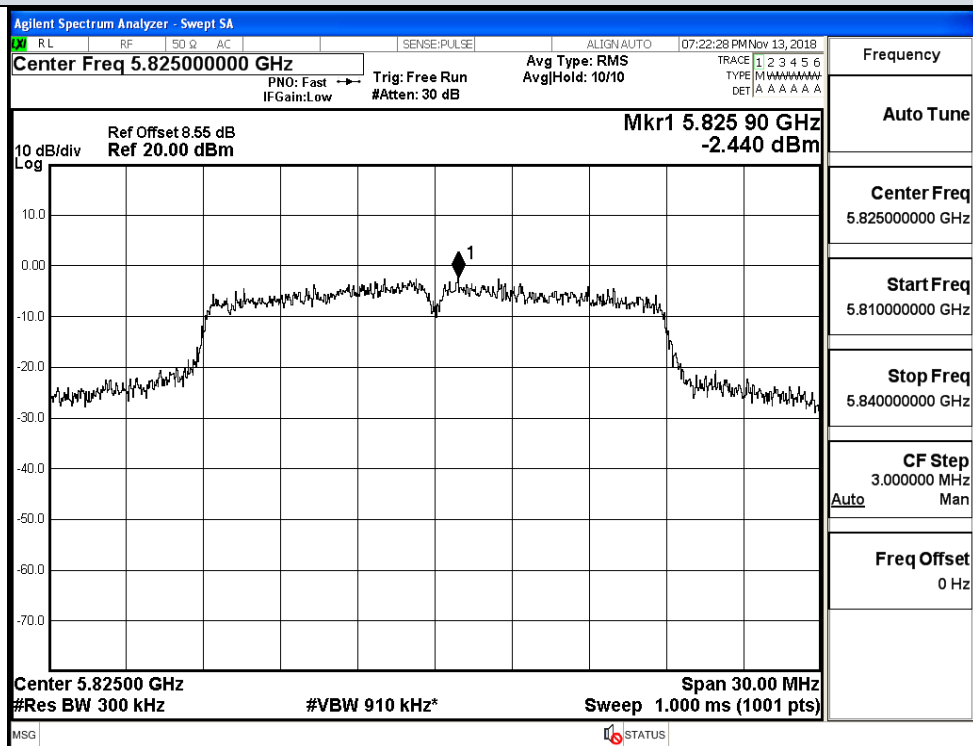
### B.3 Power Spectral Density

| Test Mode   | Channel | Frequency (MHz) | Power Density (dBm/300KHz) | Duty Cycle Factor (dB) | RBW Factor (dB) | Report Power Density (dBm/500KHz) | Limit (dBm/500KHz) |
|-------------|---------|-----------------|----------------------------|------------------------|-----------------|-----------------------------------|--------------------|
| 11A         | 149     | 5745            | -2.441                     | 0                      | 2.218           | -0.223                            | 30                 |
|             | 157     | 5785            | -1.641                     | 0                      | 2.218           | 0.577                             |                    |
|             | 165     | 5825            | -2.440                     | 0                      | 2.218           | -0.222                            |                    |
| 11N20 SISO  | 149     | 5745            | -2.252                     | 0                      | 2.218           | -0.034                            | 30                 |
|             | 157     | 5785            | -2.802                     | 0                      | 2.218           | -0.584                            |                    |
|             | 165     | 5825            | -2.913                     | 0                      | 2.218           | -0.695                            |                    |
| 11N40 SISO  | 151     | 5755            | -5.251                     | 0                      | 2.218           | -3.033                            | 30                 |
|             | 159     | 5795            | -5.177                     | 0                      | 2.218           | -2.959                            |                    |
| 11AC20 SISO | 149     | 5745            | -1.339                     | 0                      | 2.218           | 0.879                             | 30                 |
|             | 157     | 5785            | -2.457                     | 0                      | 2.218           | -0.239                            |                    |
|             | 165     | 5825            | -2.349                     | 0                      | 2.218           | -0.131                            |                    |
| 11AC40 SISO | 151     | 5755            | -5.084                     | 0                      | 2.218           | -2.866                            | 30                 |
|             | 159     | 5795            | -5.088                     | 0                      | 2.218           | -2.870                            |                    |
| 11AC80 SISO | 155     | 5775            | -11.445                    | 0                      | 2.218           | -9.227                            | 30                 |



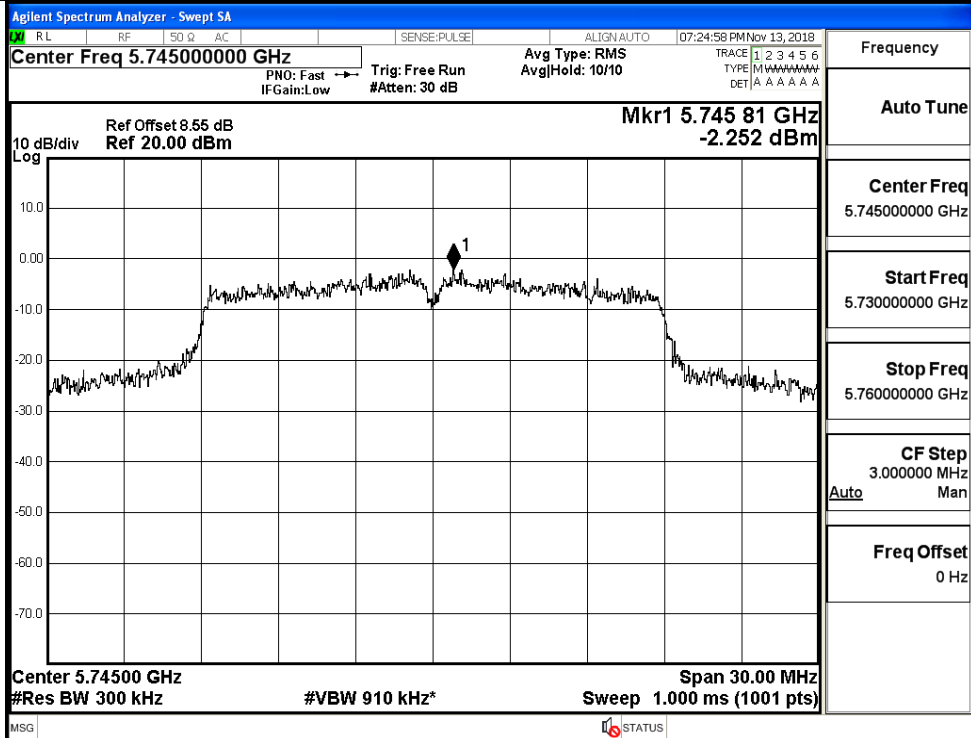


IEEE 802.11a / Channel 157 / 5785 MHz

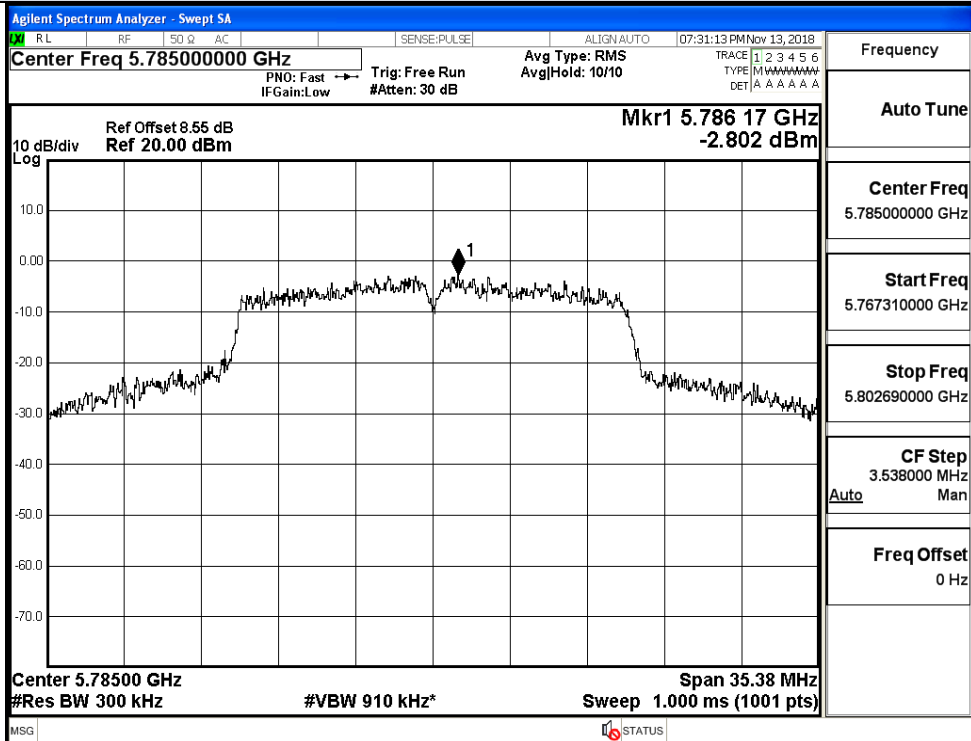


IEEE 802.11a / Channel 165 / 5825 MHz

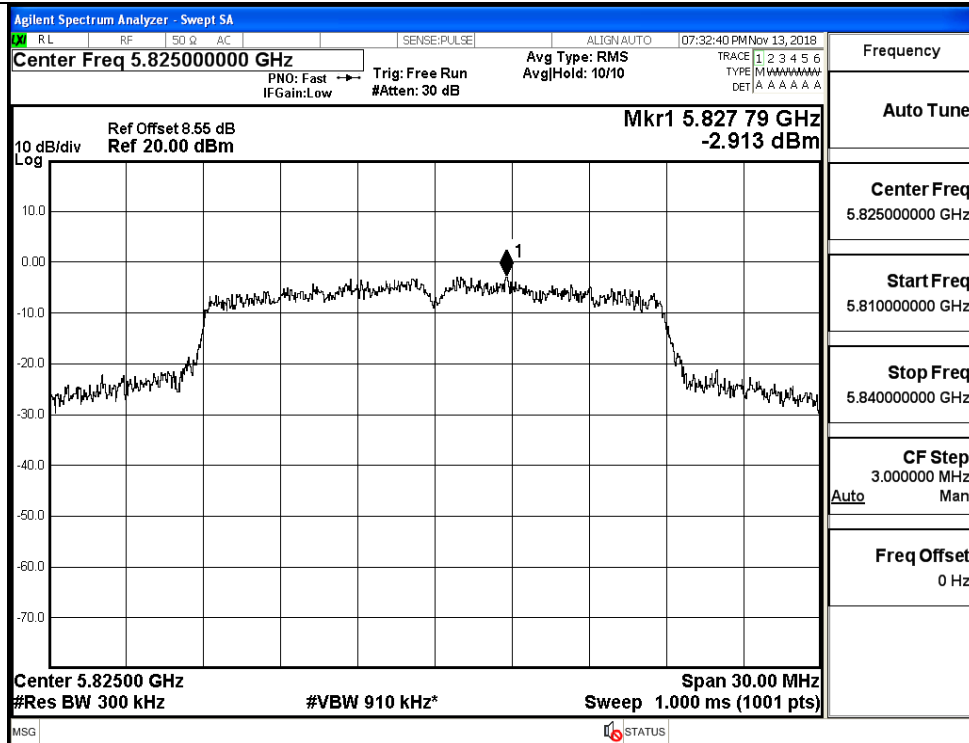
## Power Spectral Density



## IEEE 802.11n HT20 / Channel 149 / 5745 MHz

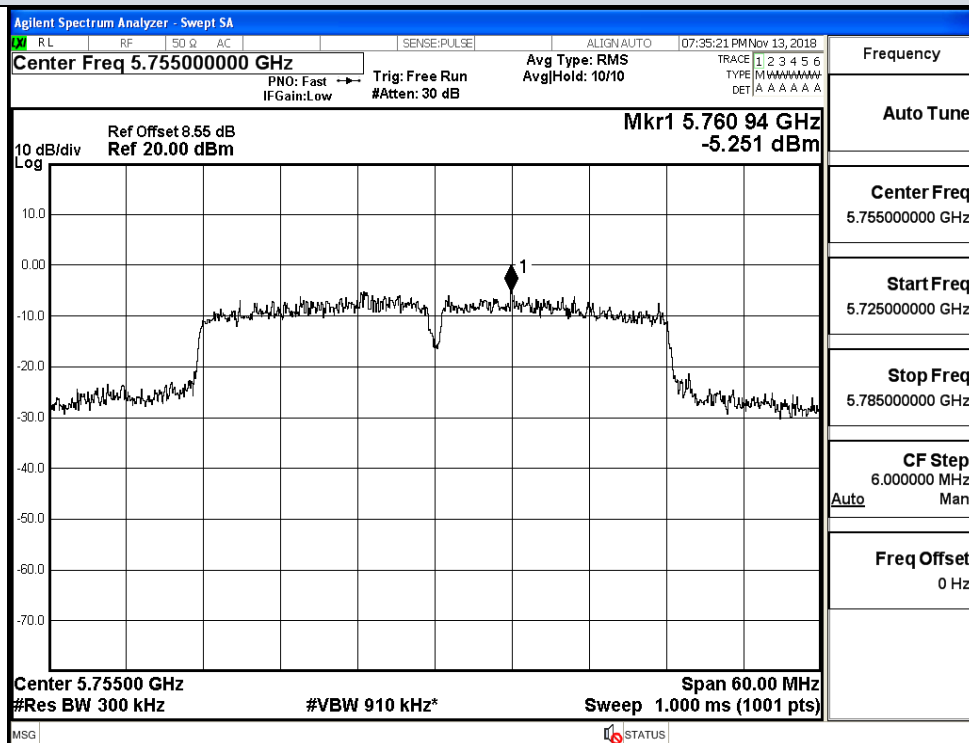


## IEEE 802.11n HT20 / Channel 157 / 5785 MHz

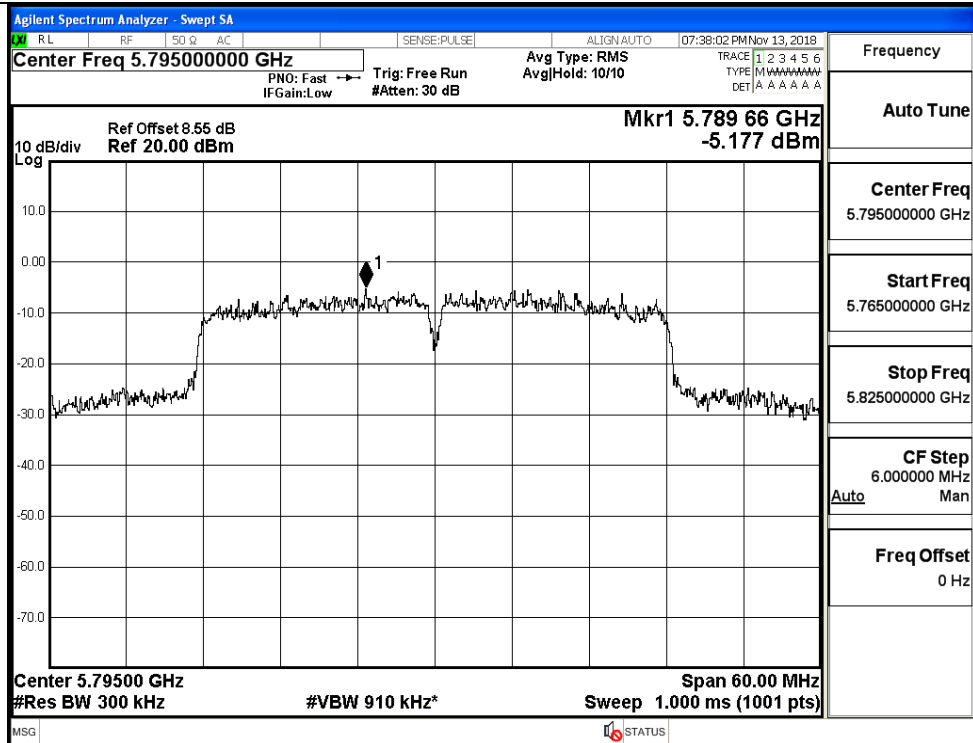


IEEE 802.11n HT20 / Channel 165 / 5825 MHz

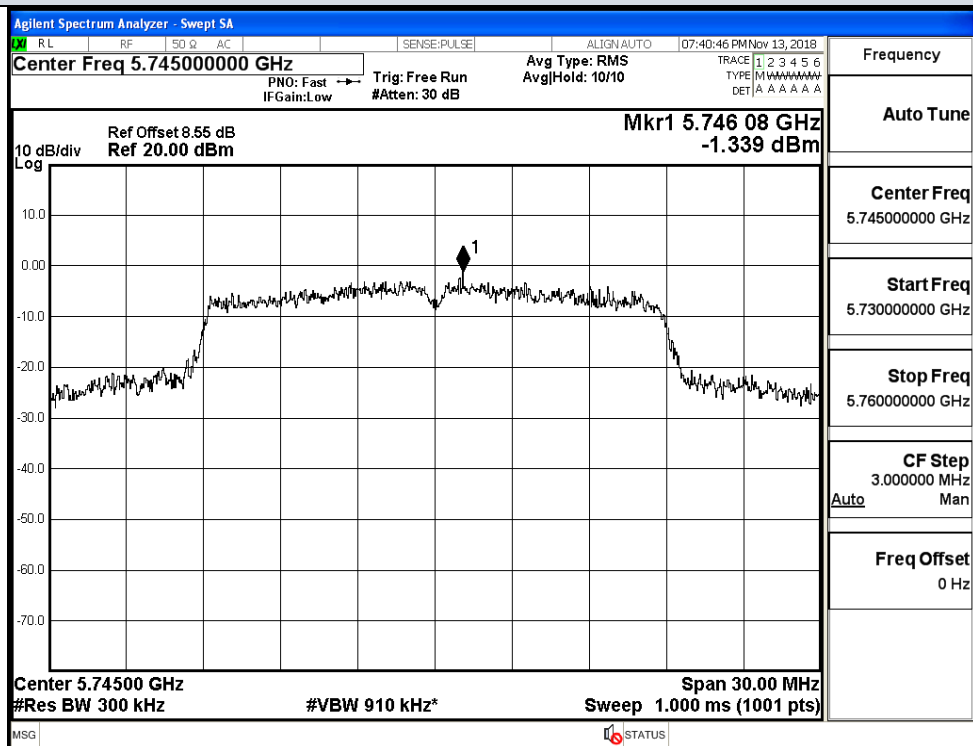
## Power Spectral Density



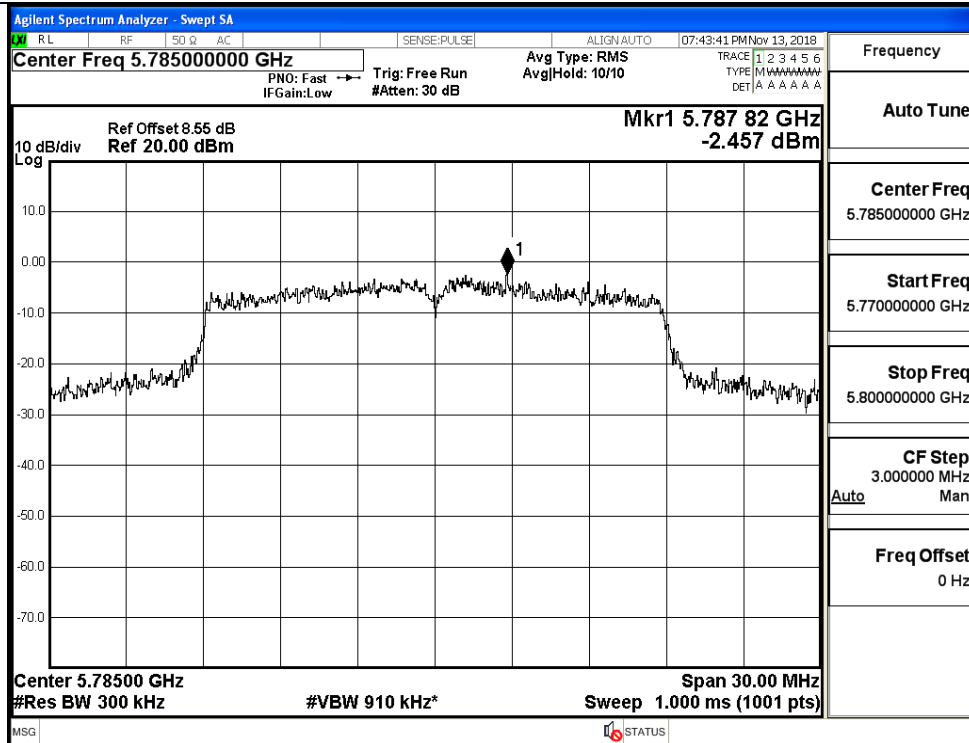
IEEE 802.11n HT40 / Channel 151 / 5755 MHz



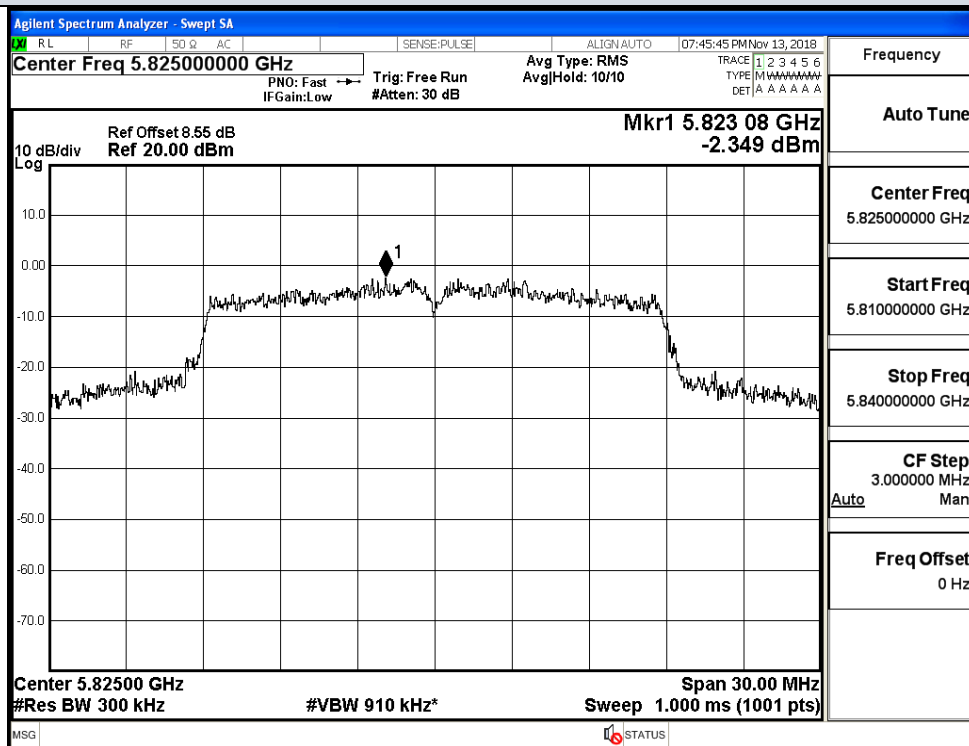
IEEE 802.11n HT40 / Channel 159 / 5795 MHz



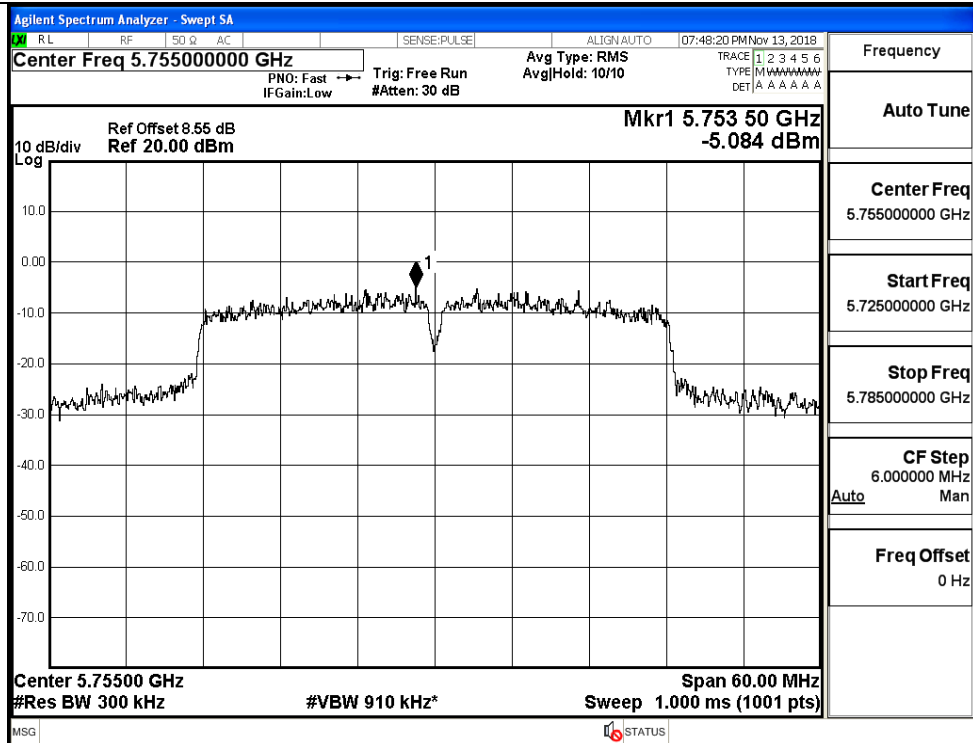
IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz



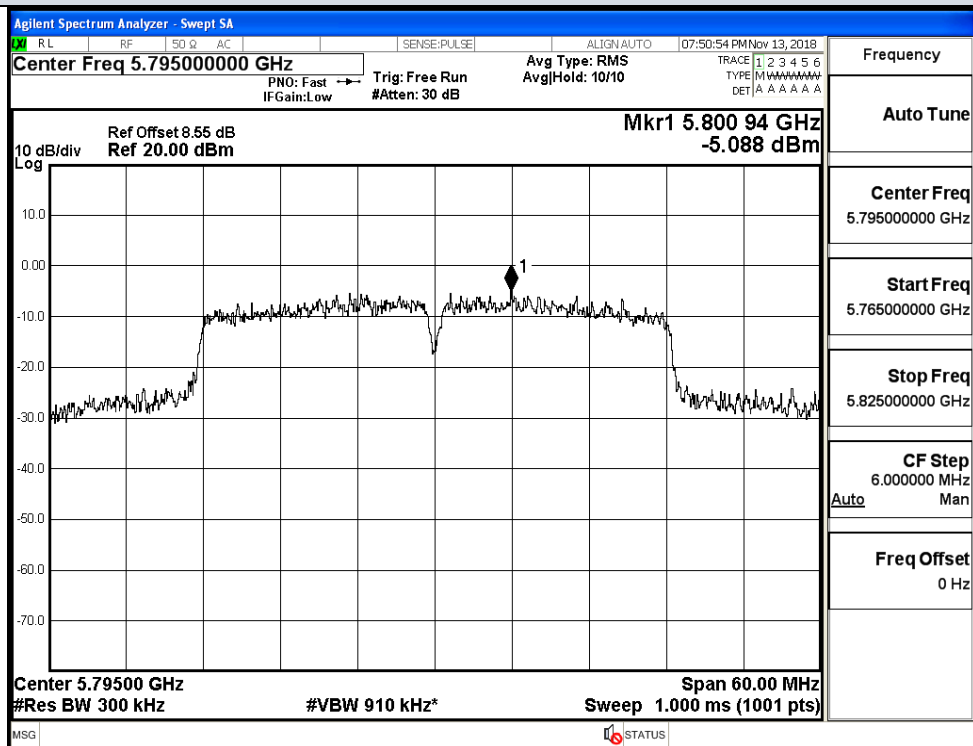
IEEE 802.11ac VHT20 / Channel 157 / 5785 MHz



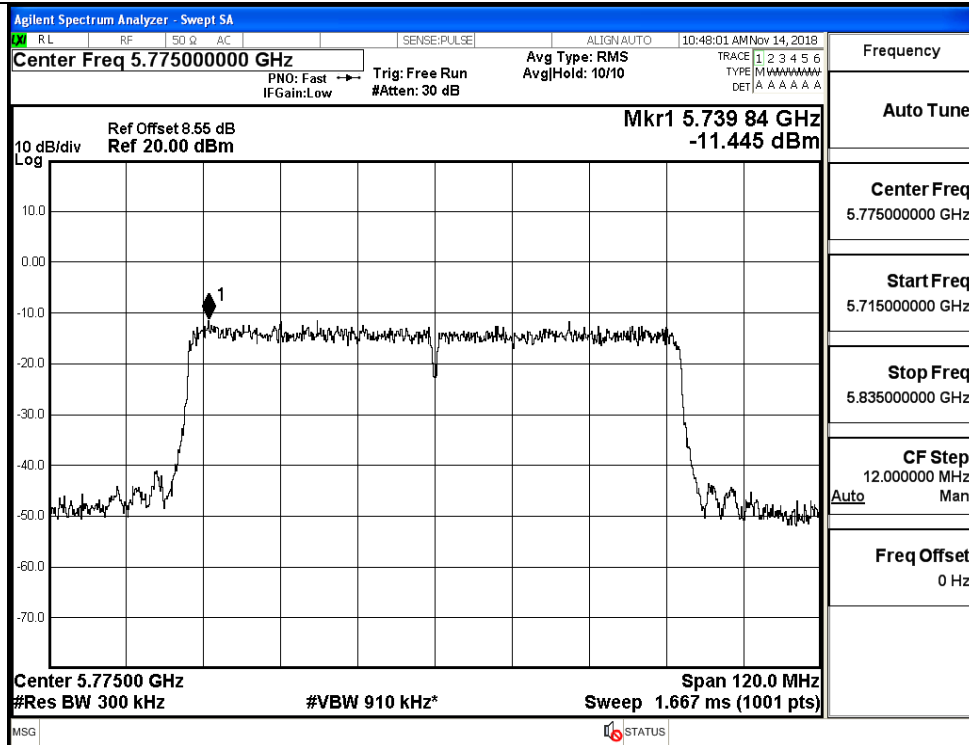
IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz



IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz



IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz

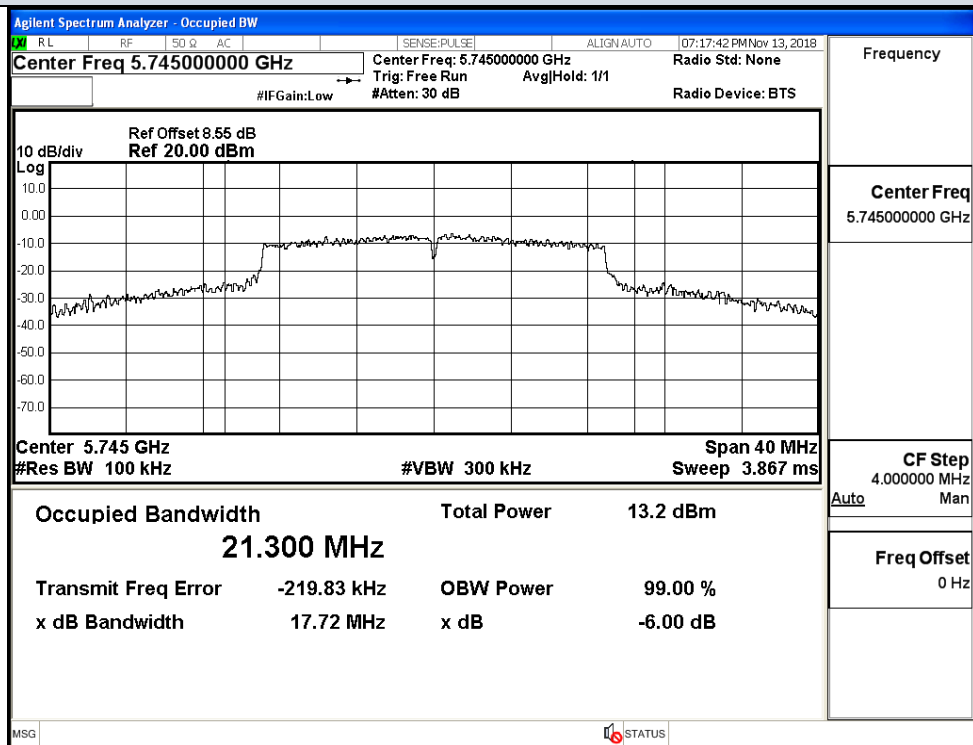


IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz

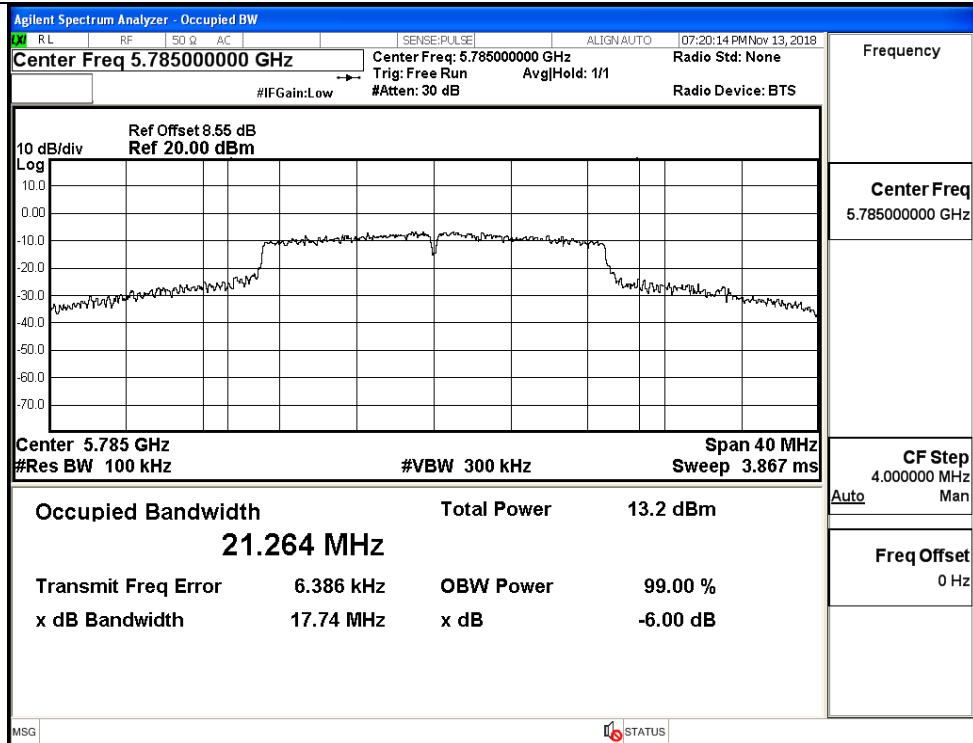
## B.4 Emission Bandwidth

| Test Mode  | Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) |
|------------|---------|-----------------|---------------------|-------------|
| 11A        | 149     | 5745            | 17.720              | $\geq 0.5$  |
|            | 157     | 5785            | 17.740              |             |
|            | 165     | 5825            | 17.700              |             |
| 11N20 SISO | 149     | 5745            | 17.700              | $\geq 0.5$  |
|            | 157     | 5785            | 17.690              |             |
|            | 165     | 5825            | 17.680              |             |
| 11N40 SISO | 151     | 5755            | 36.450              | $\geq 0.5$  |
|            | 159     | 5795            | 36.400              |             |
| 11AC20SISO | 149     | 5745            | 17.670              | $\geq 0.5$  |
|            | 157     | 5785            | 17.710              |             |
|            | 165     | 5825            | 17.710              |             |
| 11AC40SISO | 151     | 5755            | 36.430              | $\geq 0.5$  |
|            | 159     | 5795            | 36.440              |             |
| 11AC80SISO | 155     | 5775            | 76.440              | $\geq 0.5$  |

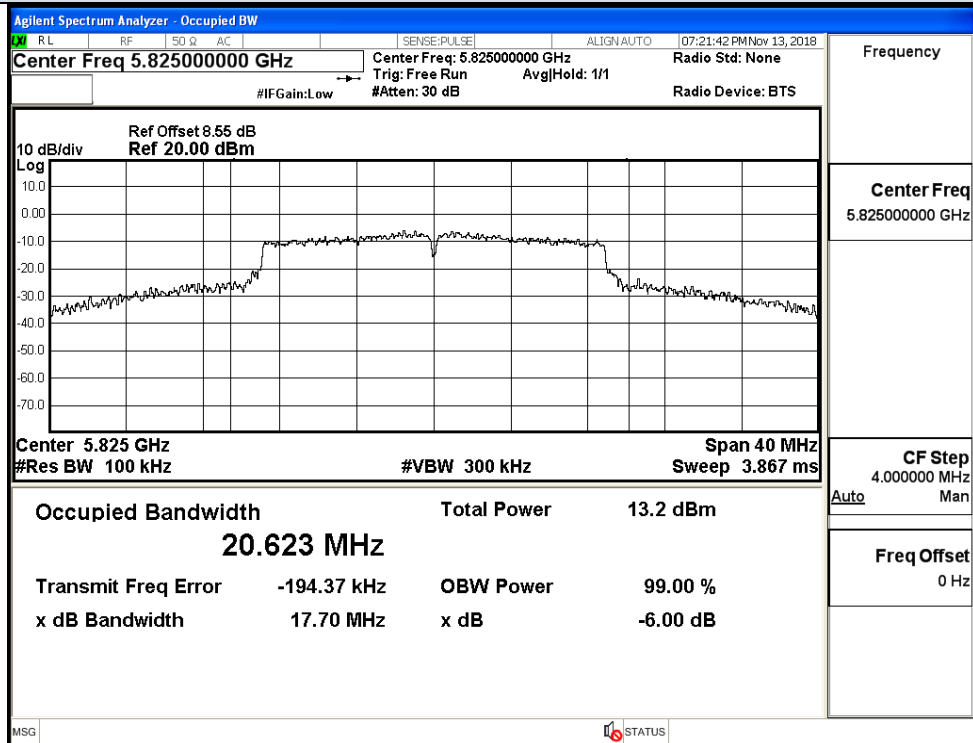
### 6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745 MHz

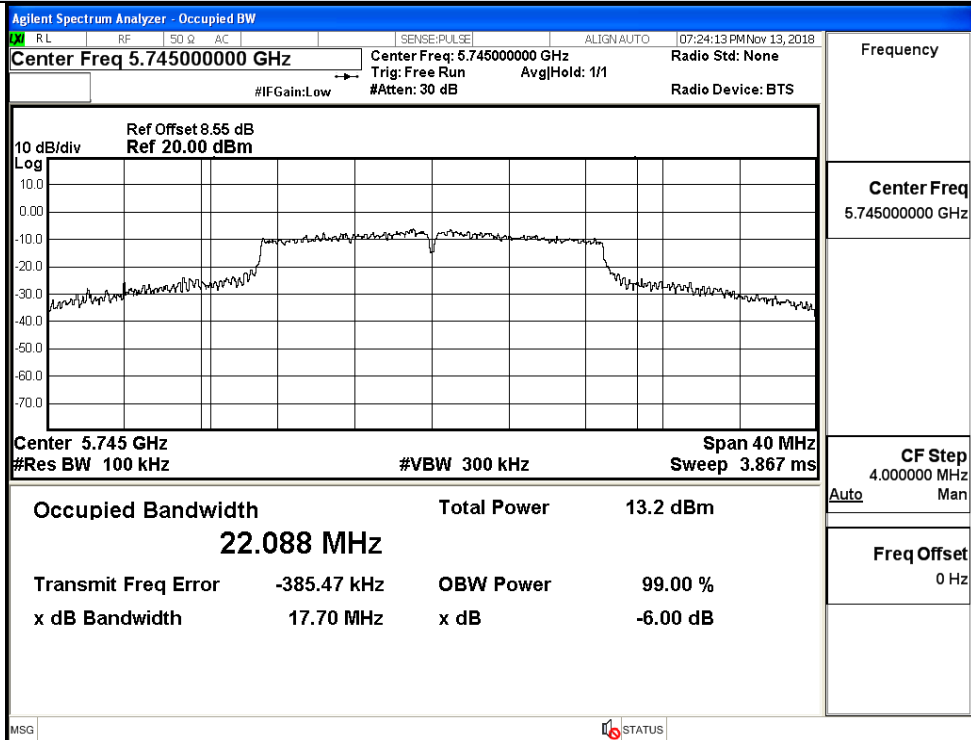


IEEE 802.11a / Channel 157 / 5785 MHz

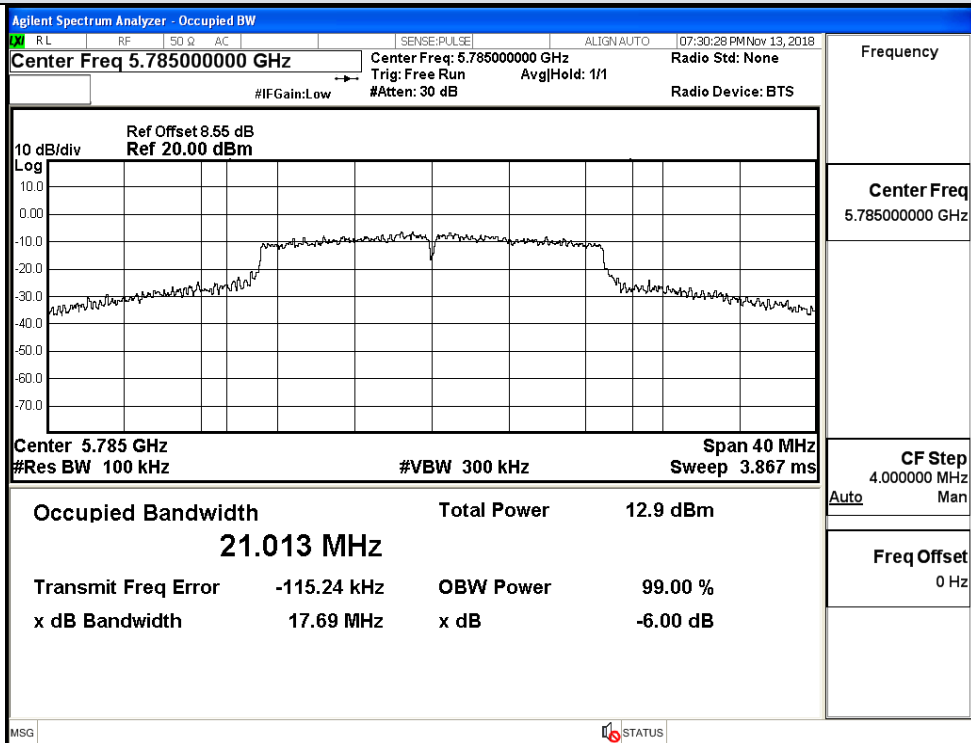


IEEE 802.11a / Channel 165 / 5825 MHz

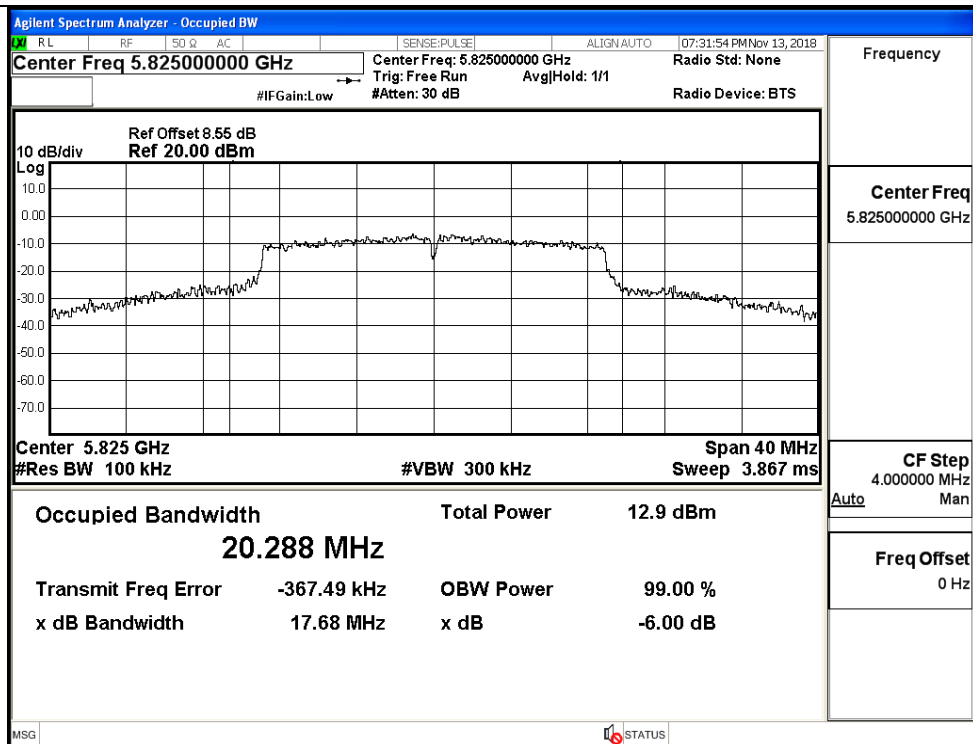
## 6dB Bandwidth



## IEEE 802.11n HT20 / Channel 149 / 5745 MHz

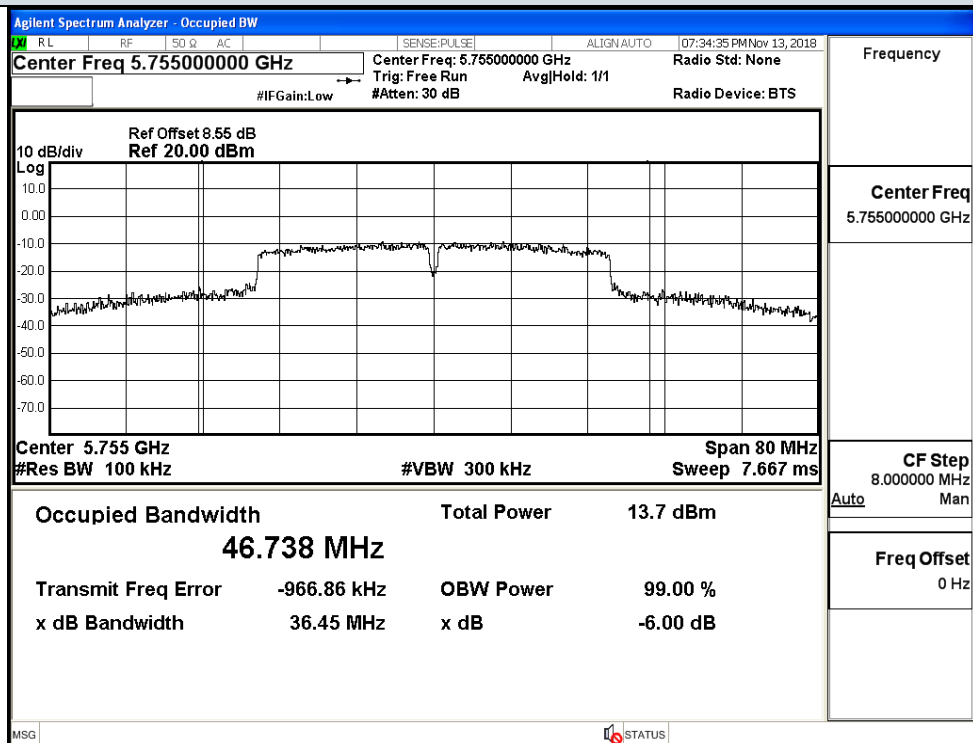


## IEEE 802.11n HT20 / Channel 157 / 5785 MHz

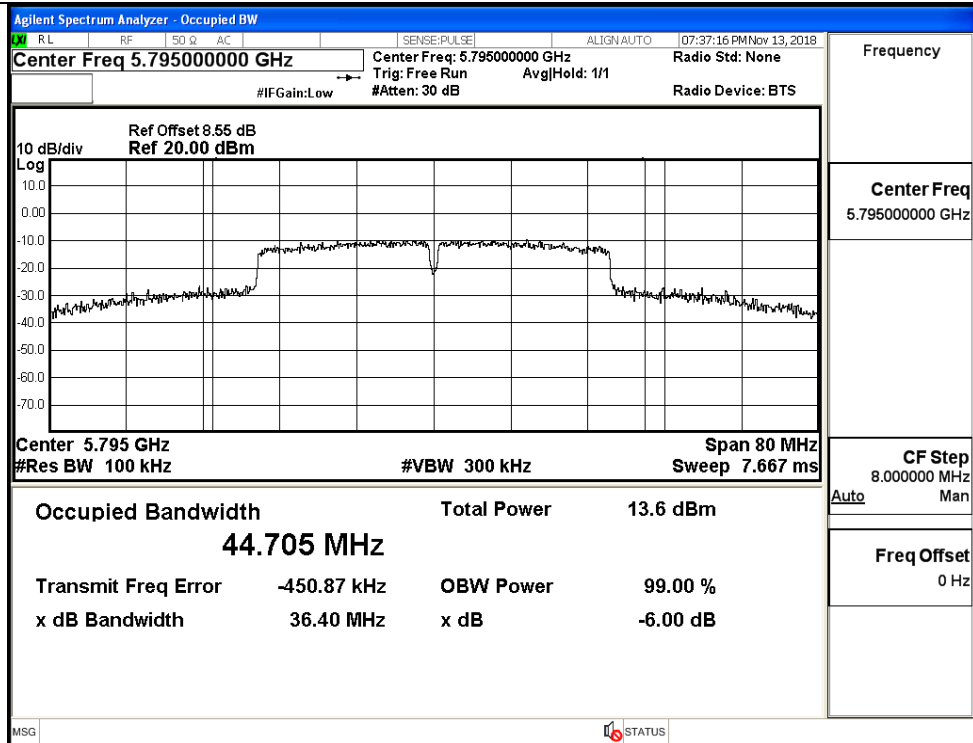


IEEE 802.11n HT20 / Channel 165 / 5825 MHz

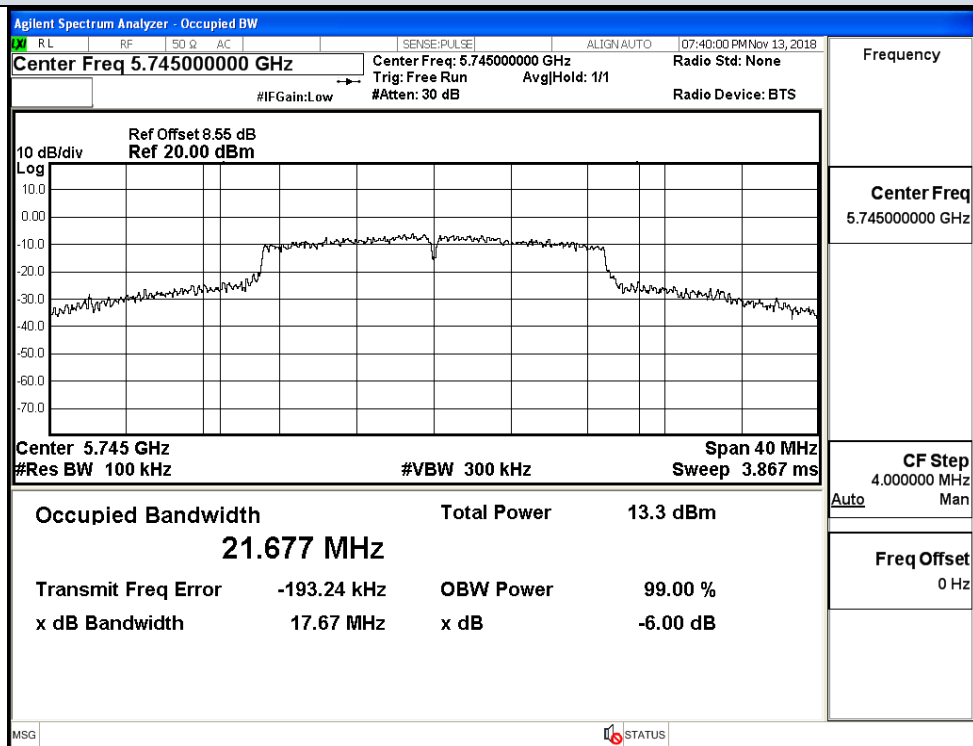
## 6dB Bandwidth



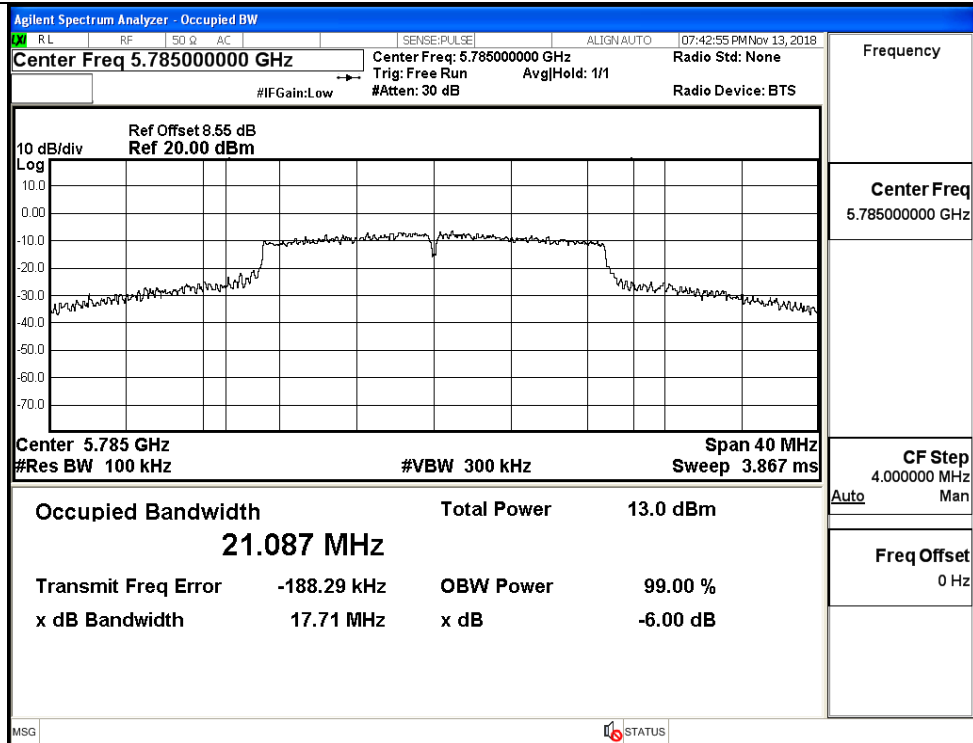
IEEE 802.11n HT40 / Channel 151 / 5755 MHz



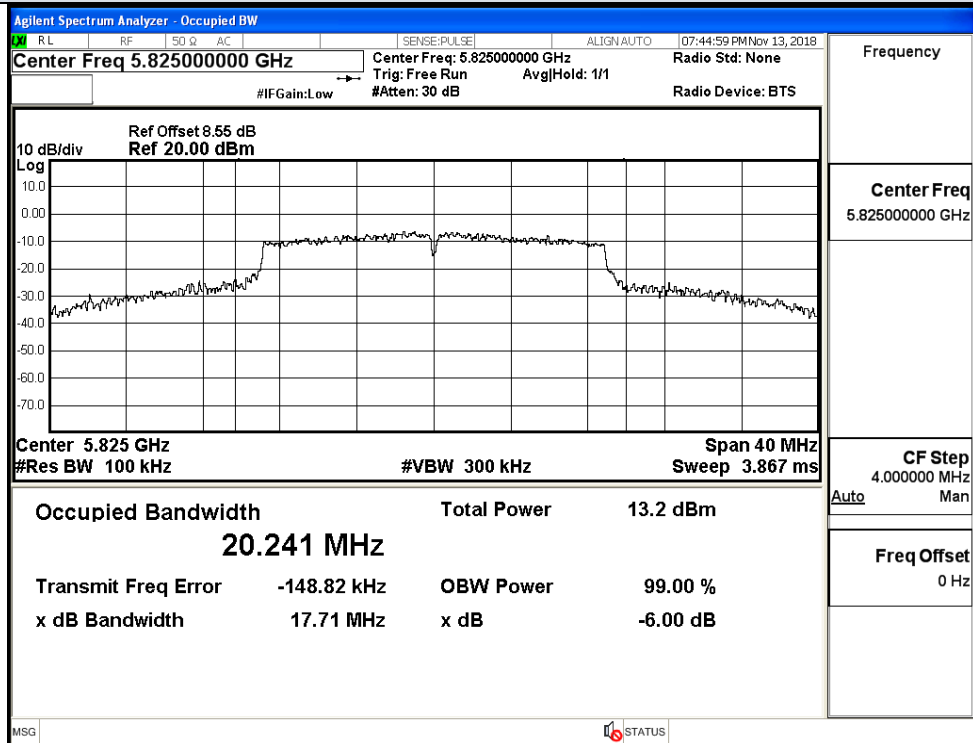
## IEEE 802.11n HT40 / Channel 159 / 5795 MHz



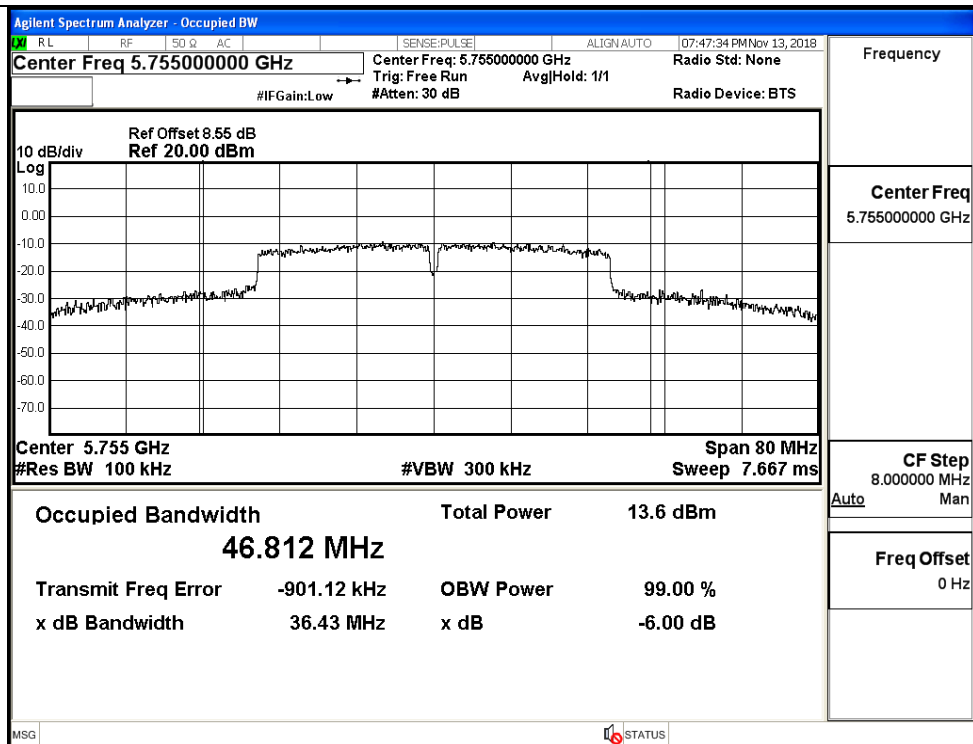
## IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz



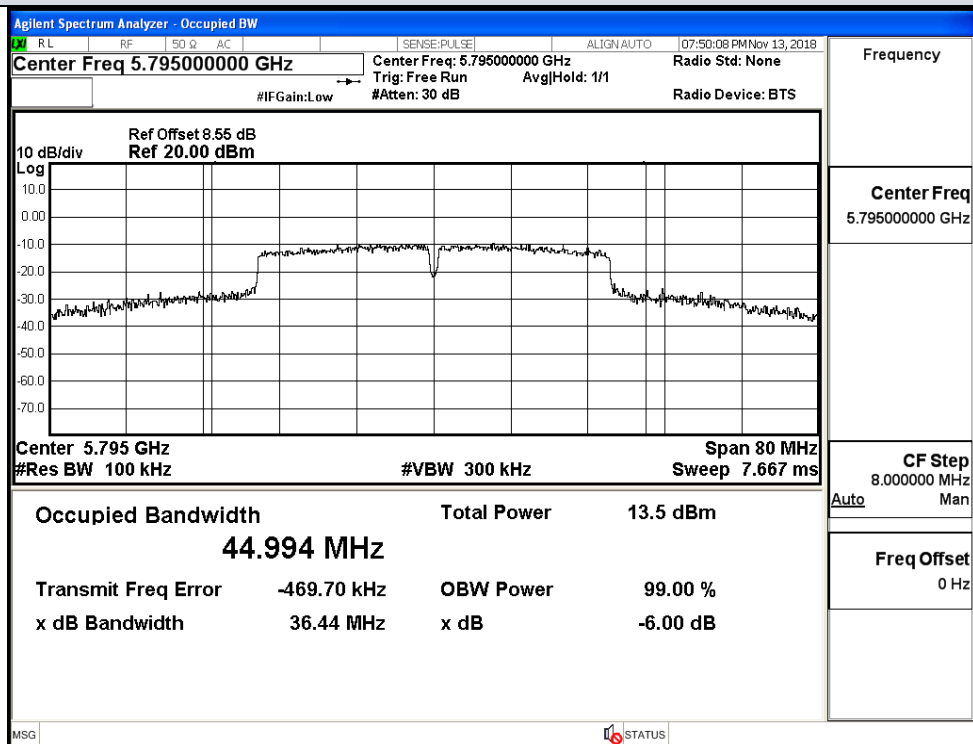
## IEEE 802.11ac VHT20 / Channel 157 / 5785 MHz



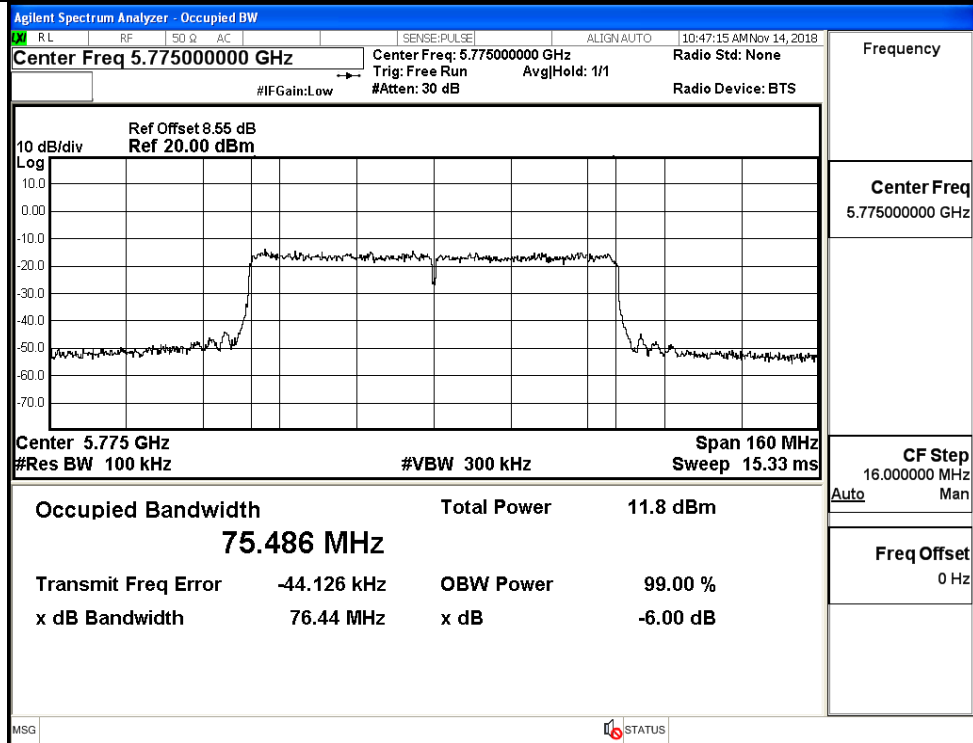
## IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz



## IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz



## IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz



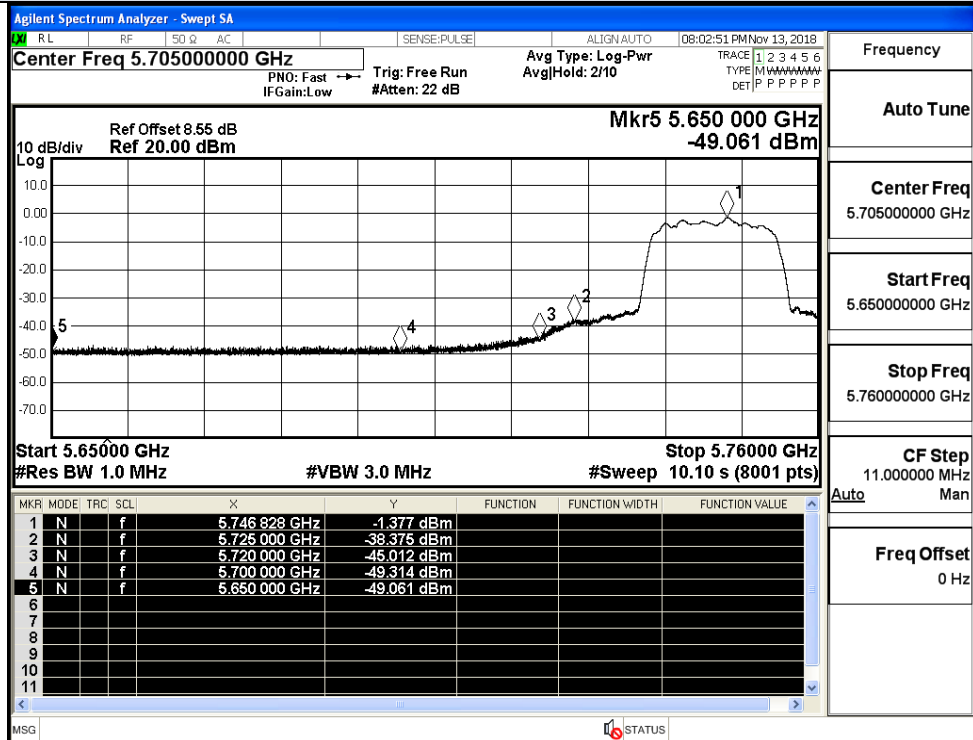
IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz

**B.5 Undesirable Emissions Measurement**

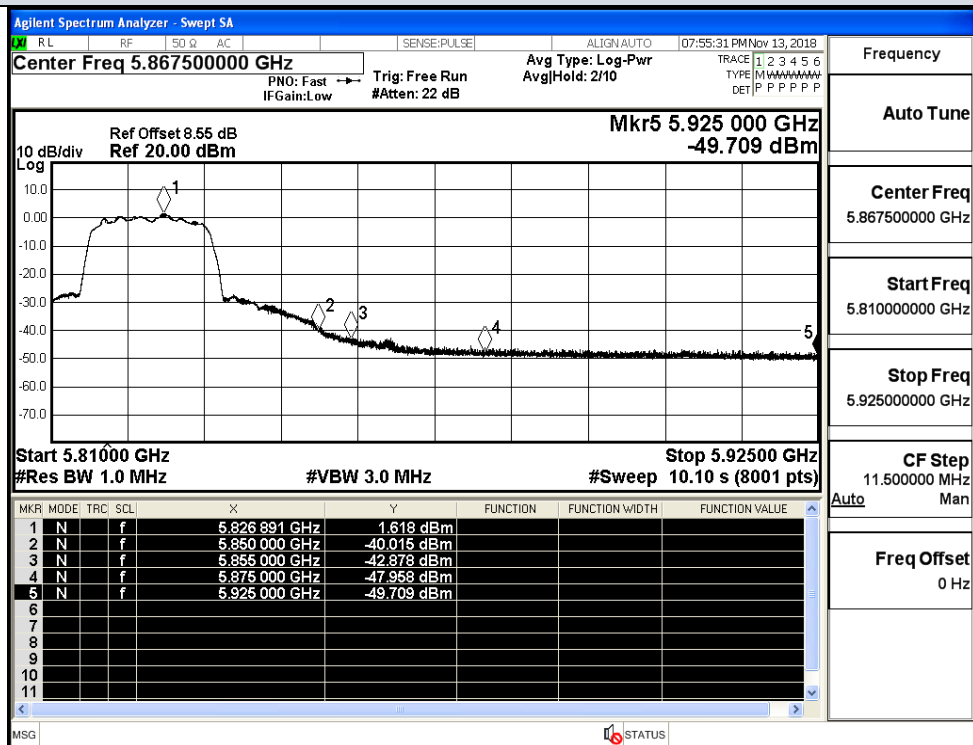
| Test Mode   | Channel | Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/MHz) | Detector | Limit (dBm/MHz) |
|-------------|---------|-----------------|-----------------------|--------------------|----------------|----------|-----------------|
| 11A         | 149     | 5650.0          | -49.061               | 2.00               | -47.061        | Peak     | -27.0           |
|             |         | 5700.0          | -49.314               | 2.00               | -47.314        | Peak     | 10.0            |
|             |         | 5720.0          | -45.012               | 2.00               | -43.012        | Peak     | 15.6            |
|             |         | 5725.0          | -38.375               | 2.00               | -36.375        | Peak     | 27.0            |
|             | 165     | 5850.0          | -40.015               | 2.00               | -38.015        | Peak     | 27.0            |
|             |         | 5855.0          | -42.878               | 2.00               | -40.878        | Peak     | 15.6            |
|             |         | 5875.0          | -47.958               | 2.00               | -45.958        | Peak     | 10.0            |
|             |         | 5925.0          | -49.709               | 2.00               | -47.709        | Peak     | -27.0           |
| 11N20 SISO  | 149     | 5650.0          | -49.800               | 2.00               | -47.800        | Peak     | -27.0           |
|             |         | 5700.0          | -45.666               | 2.00               | -43.666        | Peak     | 10.0            |
|             |         | 5720.0          | -41.818               | 2.00               | -39.818        | Peak     | 15.6            |
|             |         | 5725.0          | -34.592               | 2.00               | -32.592        | Peak     | 27.0            |
|             | 165     | 5850.0          | -29.617               | 2.00               | -27.617        | Peak     | 27.0            |
|             |         | 5855.0          | -31.907               | 2.00               | -29.907        | Peak     | 15.6            |
|             |         | 5875.0          | -48.270               | 2.00               | -46.270        | Peak     | 10.0            |
|             |         | 5925.0          | -49.955               | 2.00               | -47.955        | Peak     | -27.0           |
| 11N40 SISO  | 151     | 5650.0          | -48.612               | 2.00               | -46.612        | Peak     | -27.0           |
|             |         | 5700.0          | -44.452               | 2.00               | -42.452        | Peak     | 10.0            |
|             |         | 5720.0          | -34.659               | 2.00               | -32.659        | Peak     | 15.6            |
|             |         | 5725.0          | -33.858               | 2.00               | -31.858        | Peak     | 27.0            |
|             | 159     | 5850.0          | -34.824               | 2.00               | -32.824        | Peak     | 27.0            |
|             |         | 5855.0          | -36.725               | 2.00               | -34.725        | Peak     | 15.6            |
|             |         | 5875.0          | -45.708               | 2.00               | -43.708        | Peak     | 10.0            |
|             |         | 5925.0          | -50.049               | 2.00               | -48.049        | Peak     | -27.0           |
| 11AC20 SISO | 149     | 5650.0          | -50.113               | 2.00               | -48.113        | Peak     | -27.0           |
|             |         | 5700.0          | -48.127               | 2.00               | -46.127        | Peak     | 10.0            |
|             |         | 5720.0          | -40.736               | 2.00               | -38.736        | Peak     | 15.6            |
|             |         | 5725.0          | -35.093               | 2.00               | -33.093        | Peak     | 27.0            |
|             | 165     | 5850.0          | -29.149               | 2.00               | -27.149        | Peak     | 27.0            |
|             |         | 5855.0          | -32.835               | 2.00               | -30.835        | Peak     | 15.6            |
|             |         | 5875.0          | -46.890               | 2.00               | -44.890        | Peak     | 10.0            |
|             |         | 5925.0          | -50.093               | 2.00               | -48.093        | Peak     | -27.0           |
| 11AC40 SISO | 151     | 5650.0          | -48.566               | 2.00               | -46.566        | Peak     | -27.0           |
|             |         | 5700.0          | -44.073               | 2.00               | -42.073        | Peak     | 10.0            |
|             |         | 5720.0          | -35.681               | 2.00               | -33.681        | Peak     | 15.6            |
|             |         | 5725.0          | -34.447               | 2.00               | -32.447        | Peak     | 27.0            |
|             | 159     | 5850.0          | -35.021               | 2.00               | -33.021        | Peak     | 27.0            |
|             |         | 5855.0          | -37.631               | 2.00               | -35.631        | Peak     | 15.6            |
|             |         | 5875.0          | -45.365               | 2.00               | -43.365        | Peak     | 10.0            |
|             |         | 5925.0          | -50.178               | 2.00               | -48.178        | Peak     | -27.0           |
| 11AC80 SISO | 155     | 5650.0          | -51.610               | 2.00               | -49.610        | Peak     | -27.0           |
|             |         | 5700.0          | -44.021               | 2.00               | -42.021        | Peak     | 10.0            |
|             |         | 5720.0          | -42.765               | 2.00               | -40.765        | Peak     | 15.6            |
|             |         | 5725.0          | -40.463               | 2.00               | -38.463        | Peak     | 27.0            |
|             |         | 5850.0          | -46.626               | 2.00               | -44.626        | Peak     | 27.0            |

|  |  |        |         |      |         |      |       |
|--|--|--------|---------|------|---------|------|-------|
|  |  | 5855.0 | -47.387 | 2.00 | -45.387 | Peak | 15.6  |
|  |  | 5875.0 | -49.099 | 2.00 | -47.099 | Peak | 10.0  |
|  |  | 5925.0 | -49.572 | 2.00 | -47.572 | Peak | -27.0 |

## Undesirable Emissions Measurement

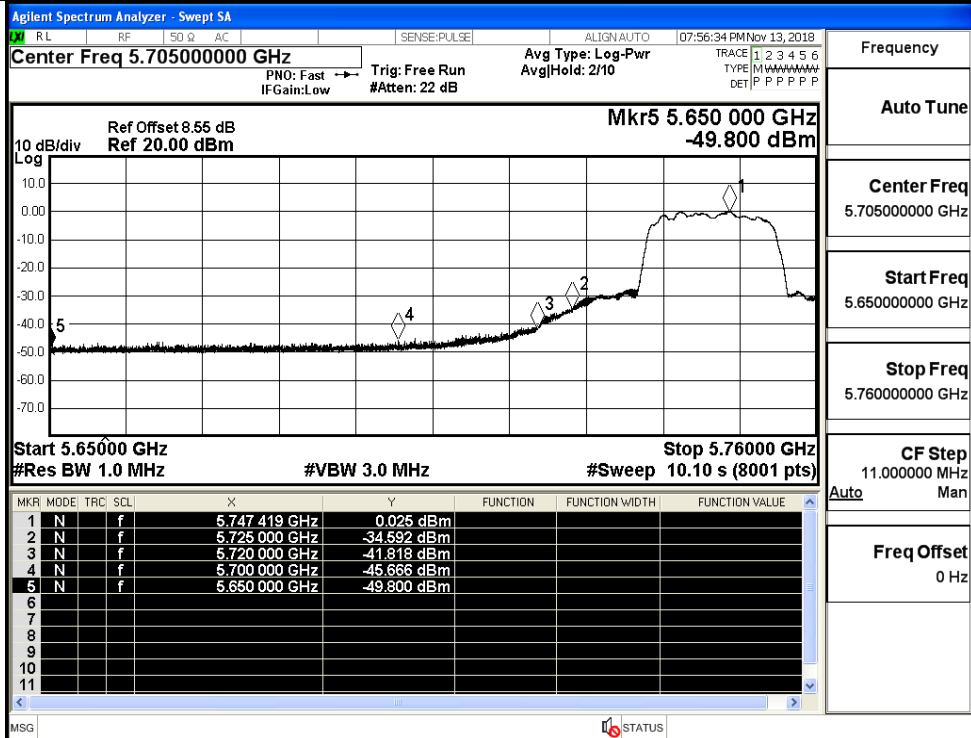


## IEEE 802.11a / Channel 149 / 5745 MHz / Peak

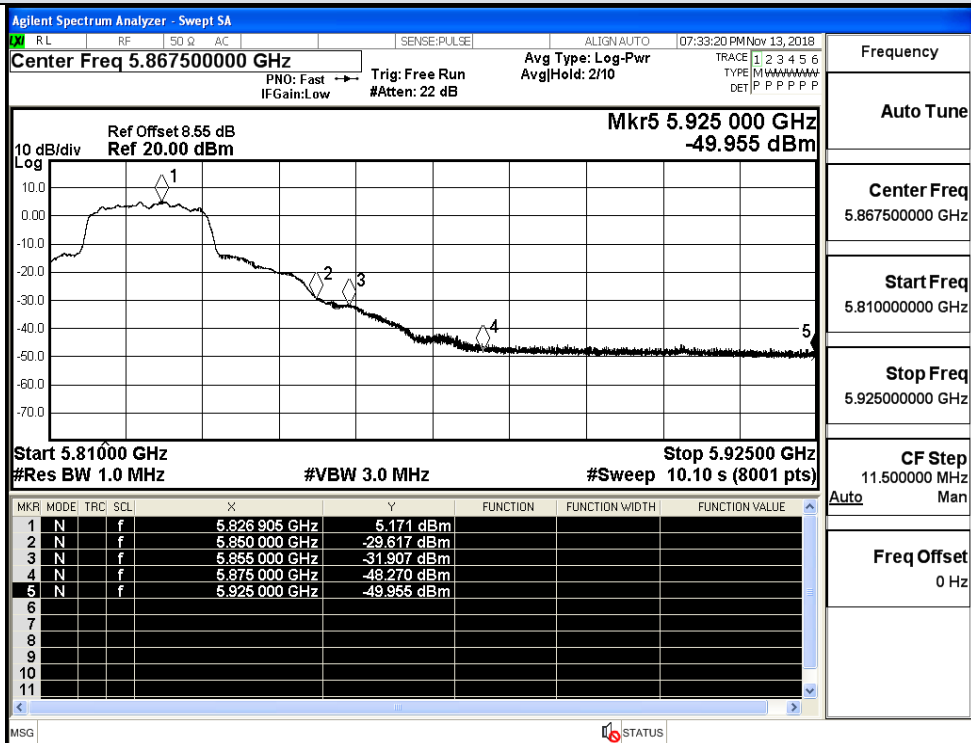


## IEEE 802.11a / Channel 165 / 5825 MHz / Peak

## Undesirable Emissions Measurement

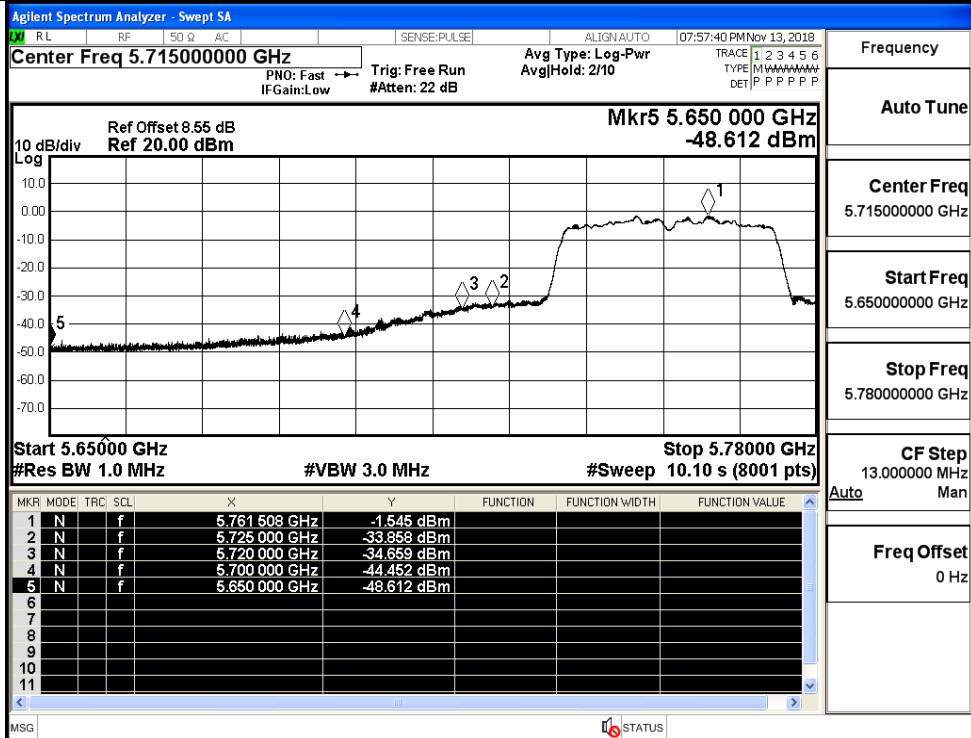


## IEEE 802.11n HT20 / Channel 149 / 5745 MHz / Peak

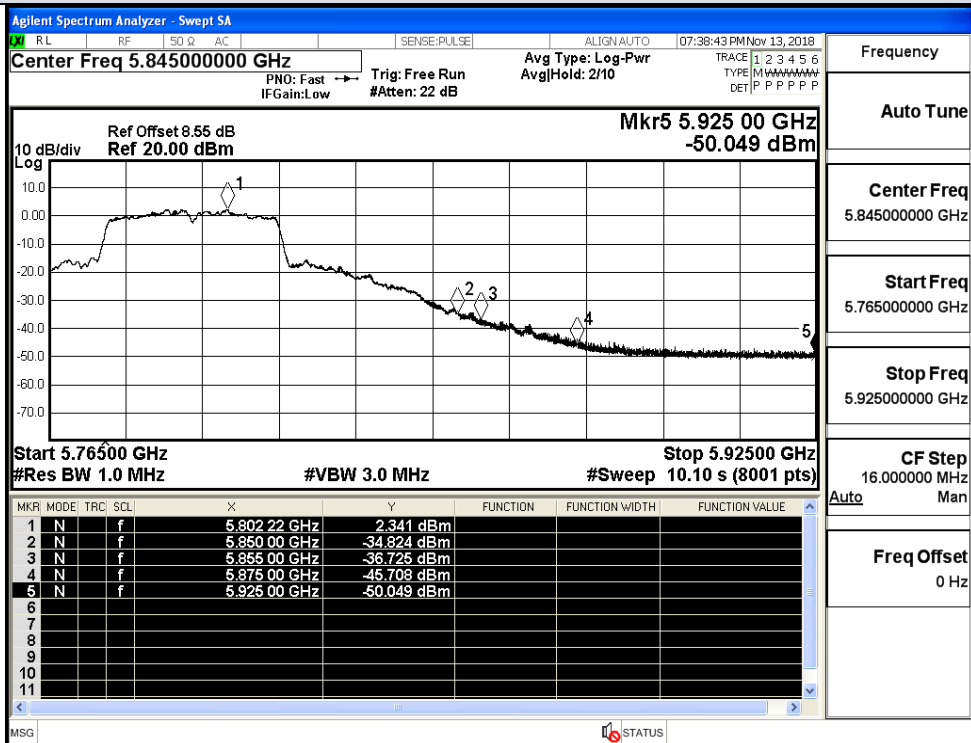


## IEEE 802.11n HT20 / Channel 165 / 5825 MHz / Peak

## Undesirable Emissions Measurement

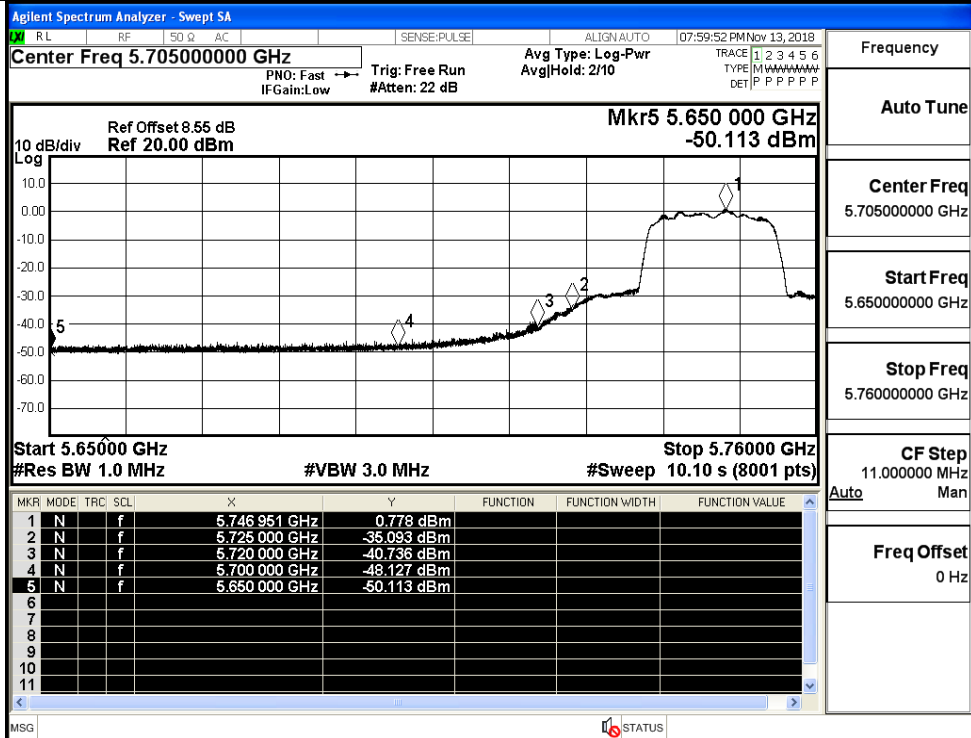


## IEEE 802.11n HT40 / Channel 151 / 5755 MHz / Peak

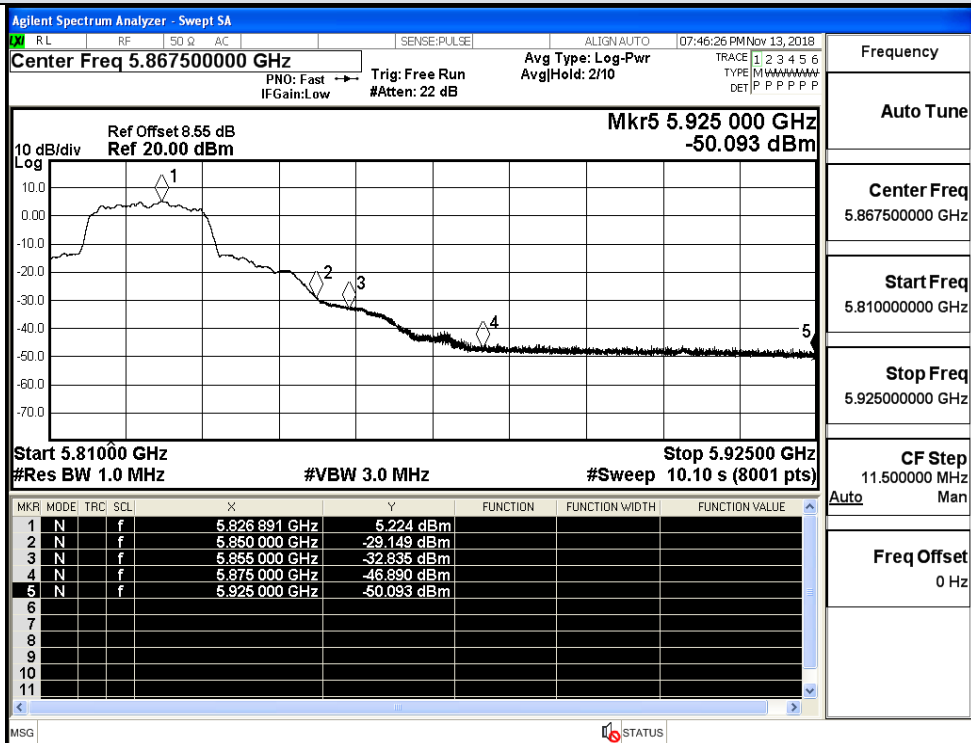


## IEEE 802.11n HT40 / Channel 159 / 5795 MHz / Peak

## Undesirable Emissions Measurement

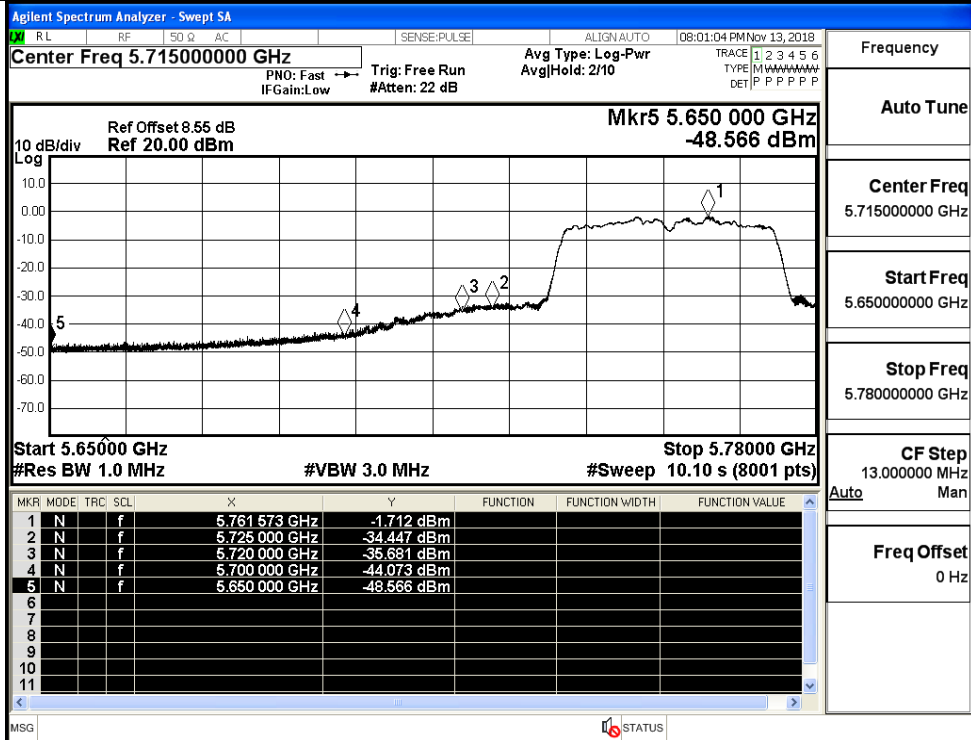


## IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz / Peak

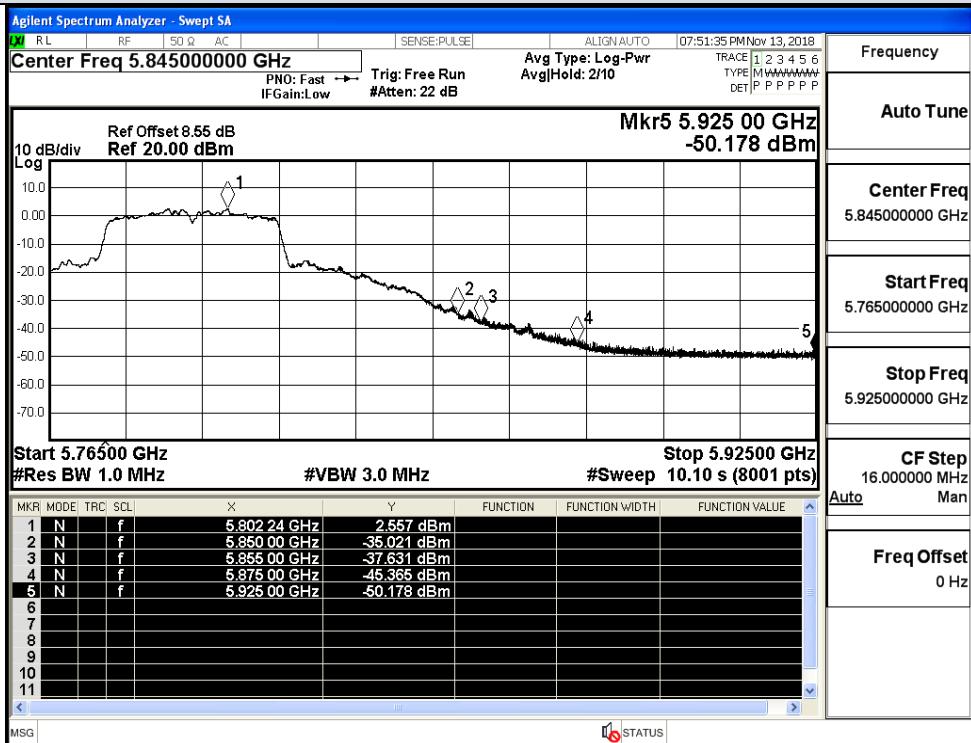


## IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz / Peak

## Undesirable Emissions Measurement

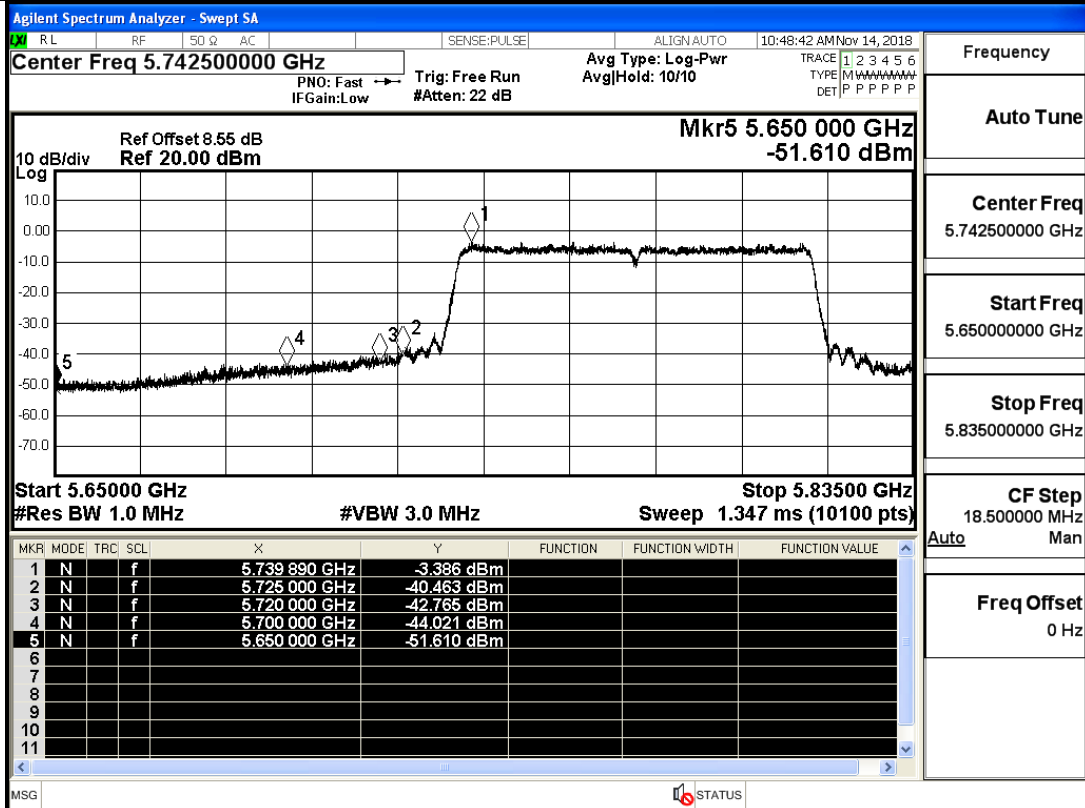


## IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz / Peak

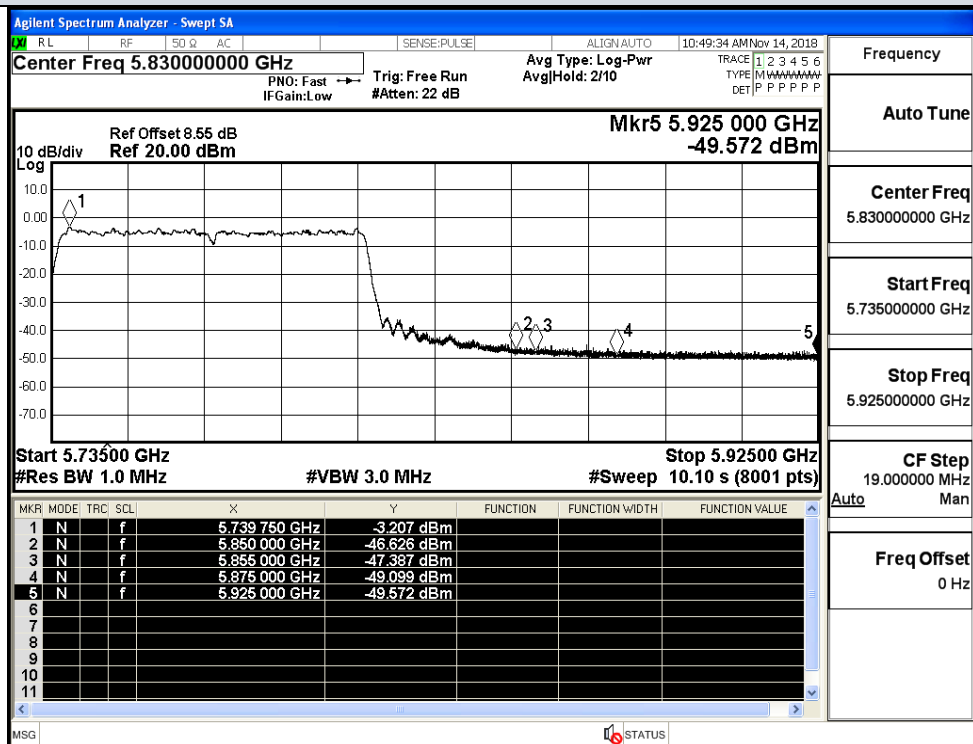


## IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz / Peak

## Undesirable Emissions Measurement



## IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz / Peak



## IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz / Peak