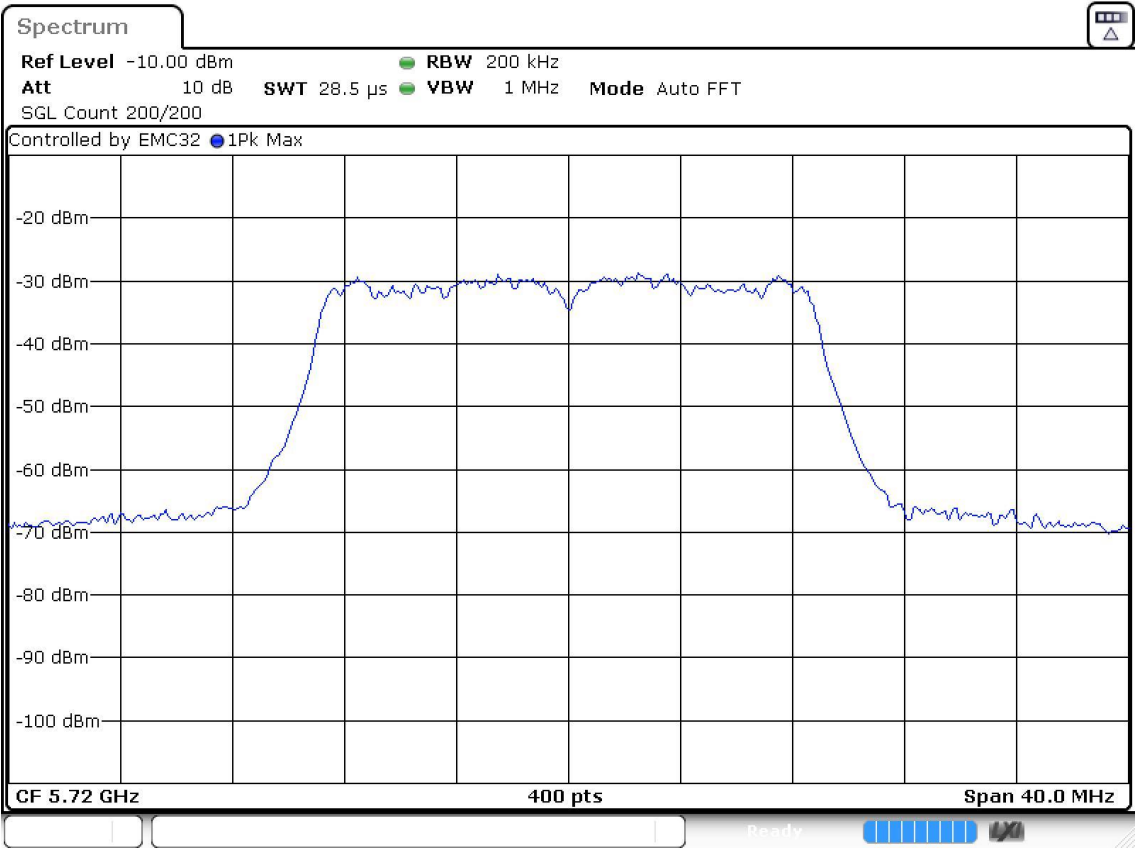
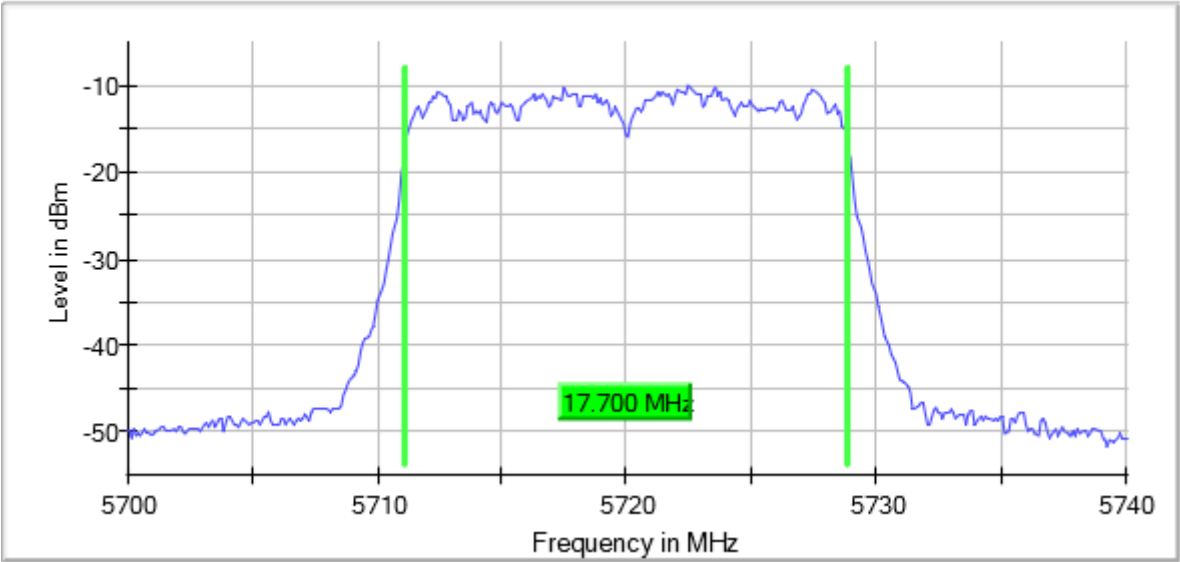


Active Port = 1  
Modulation = 802.11ac VHT20 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5720.00000

Images:

99 % Bandwidth



Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Occ Ch BW (MHz) |
|------|------------|-----------------|
| 1    | 5510.00000 | 36.250          |
|      | 5550.00000 | 36.250          |
|      | 5710.00000 | 36.250          |

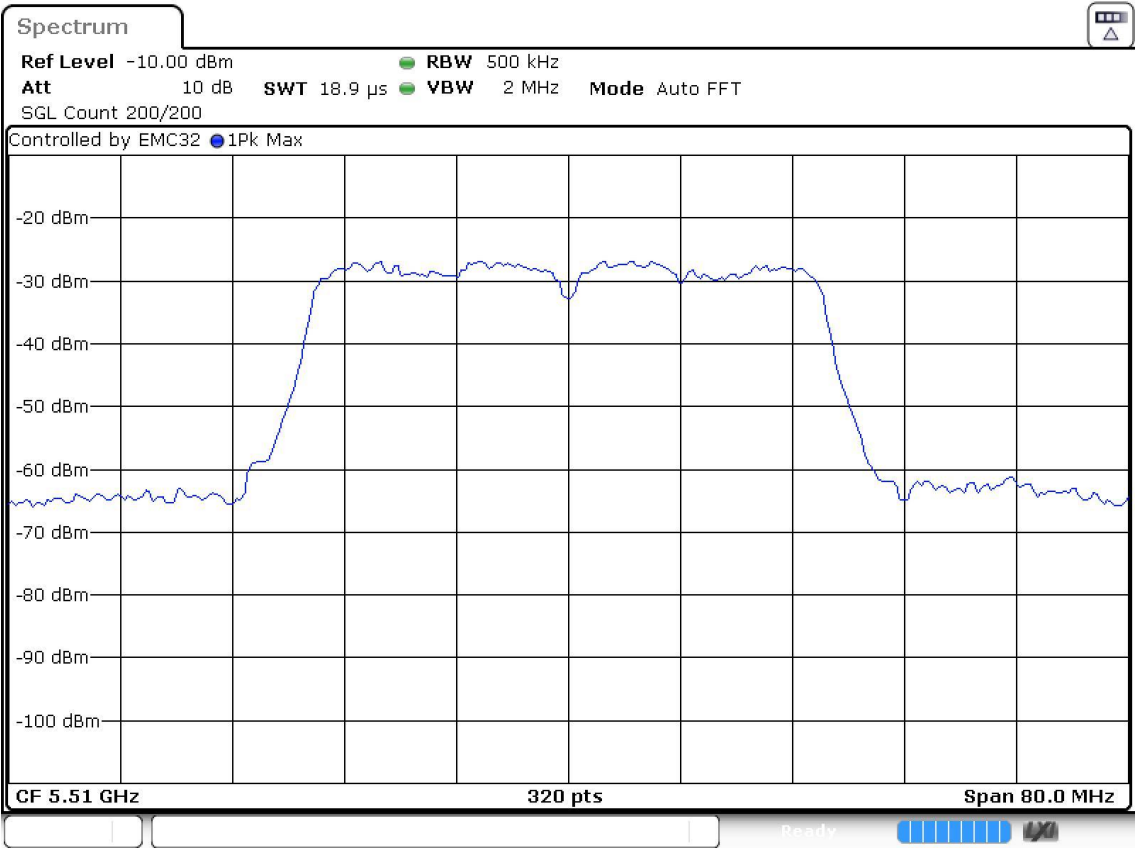
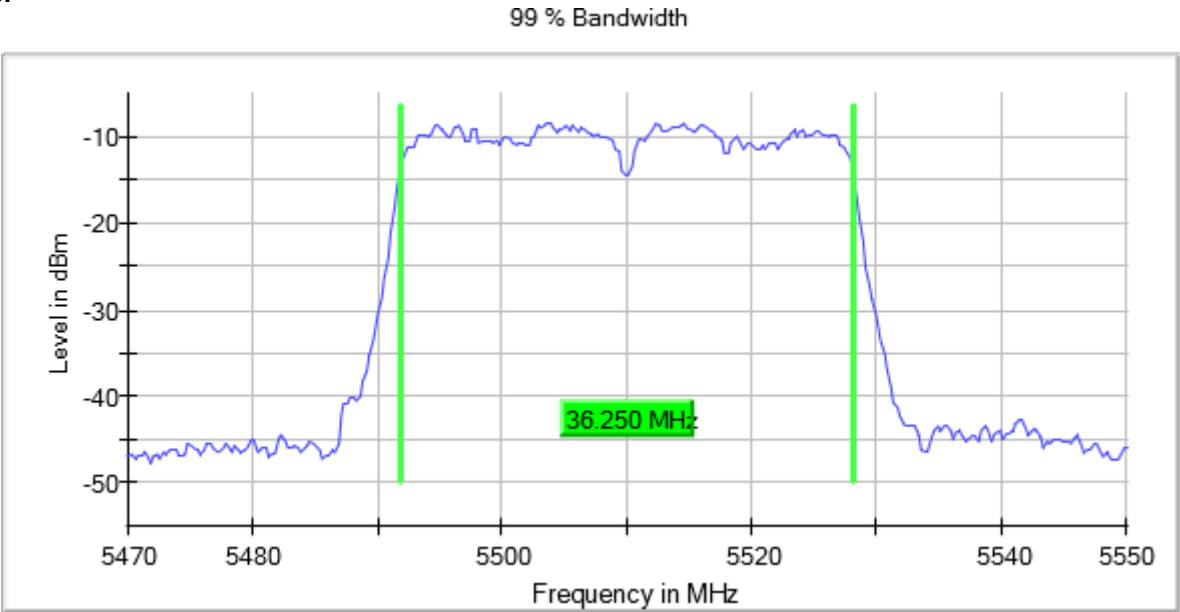
Verdict

Pass

Attachments

Active Port = 1  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5510.00000

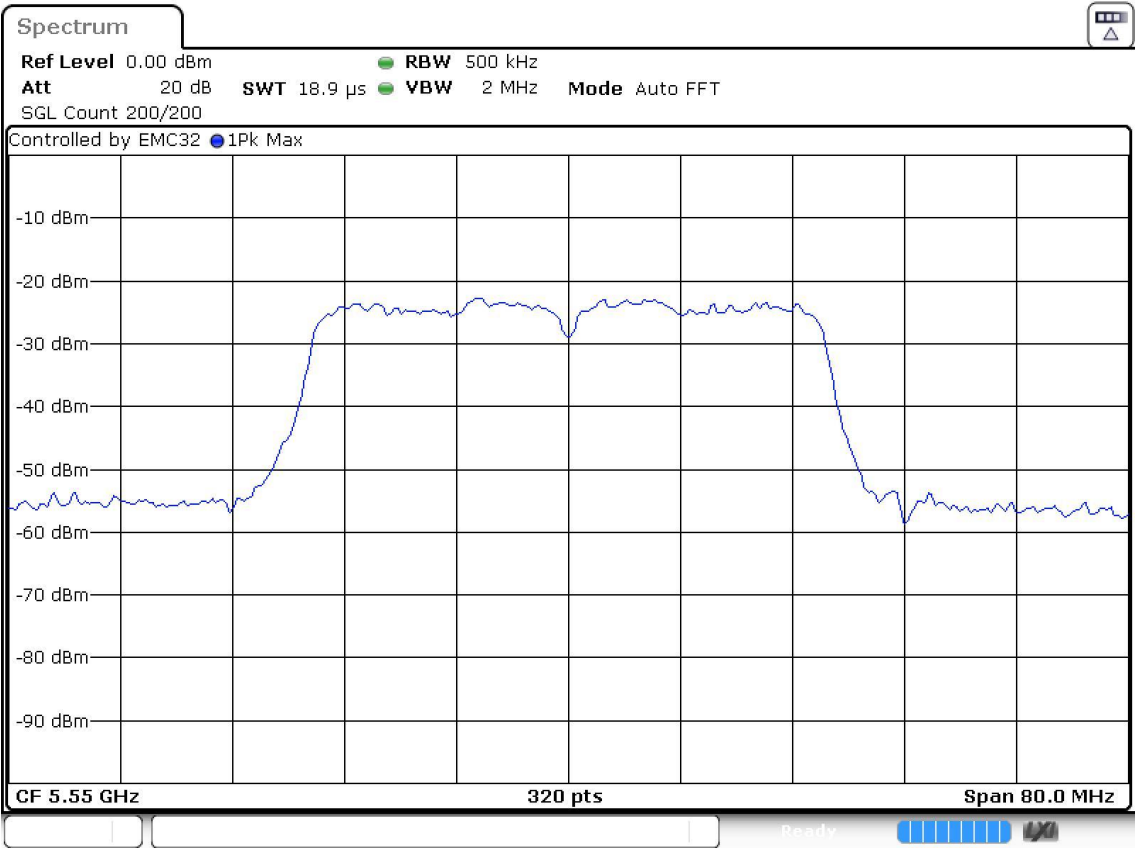
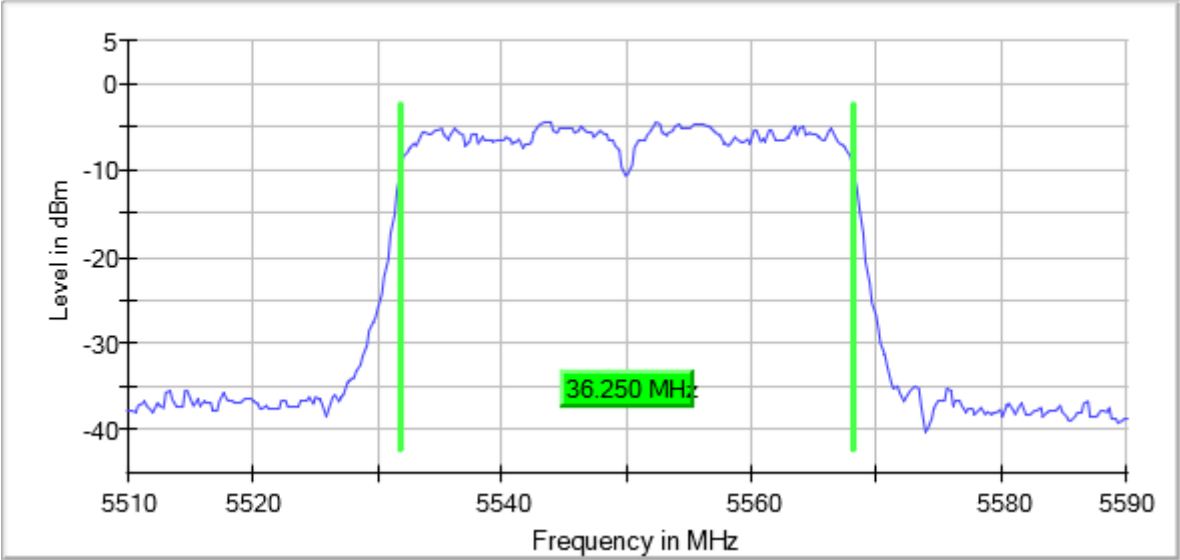
Images:



Active Port = 1  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5550.00000

Images:

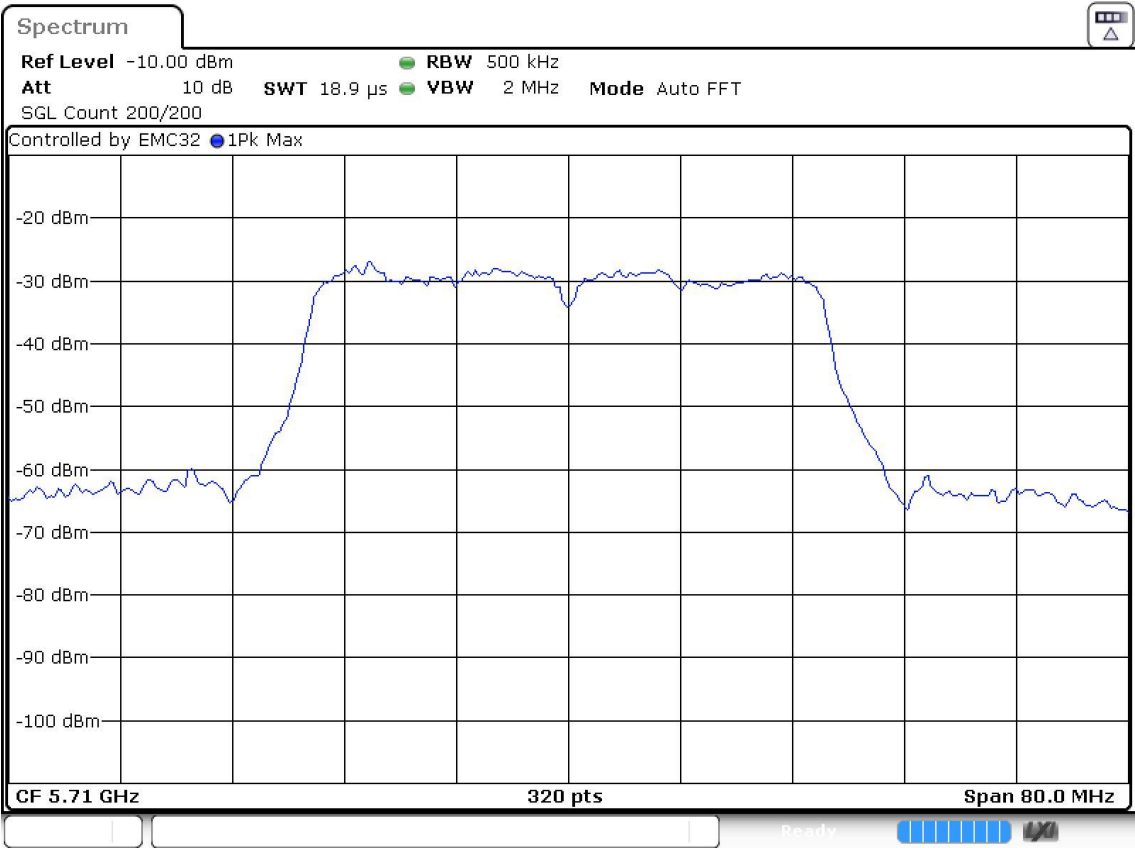
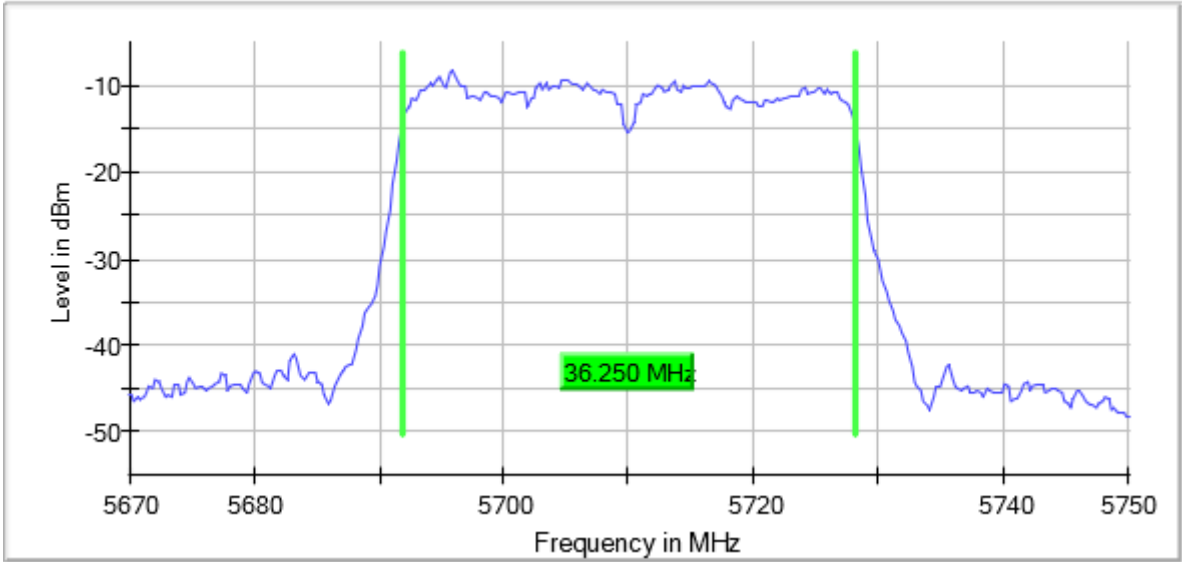
99 % Bandwidth



Active Port = 1  
Frequency MHz = 5710.00000  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO

Images:

99 % Bandwidth



Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Occ Ch BW (MHz) |
|------|------------|-----------------|
| 1    | 5530.00000 | 76.500          |
|      | 5690.00000 | 76.500          |

Verdict

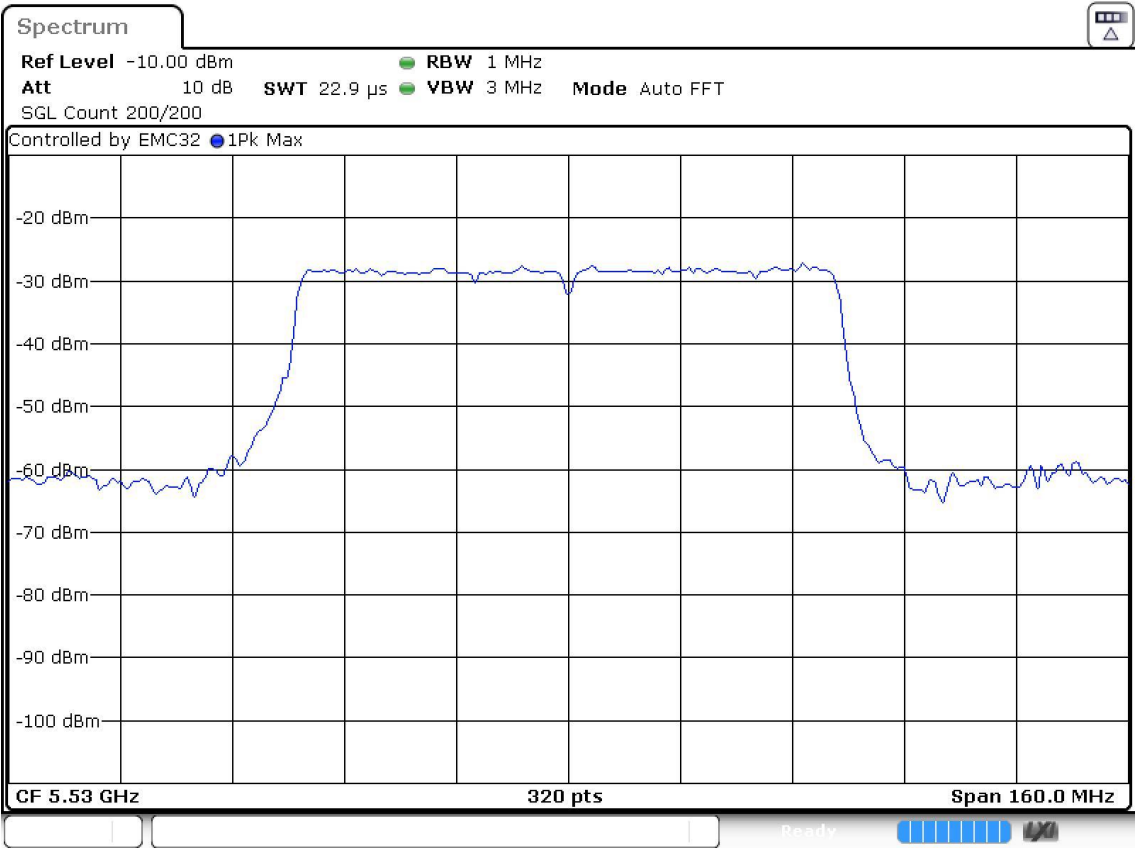
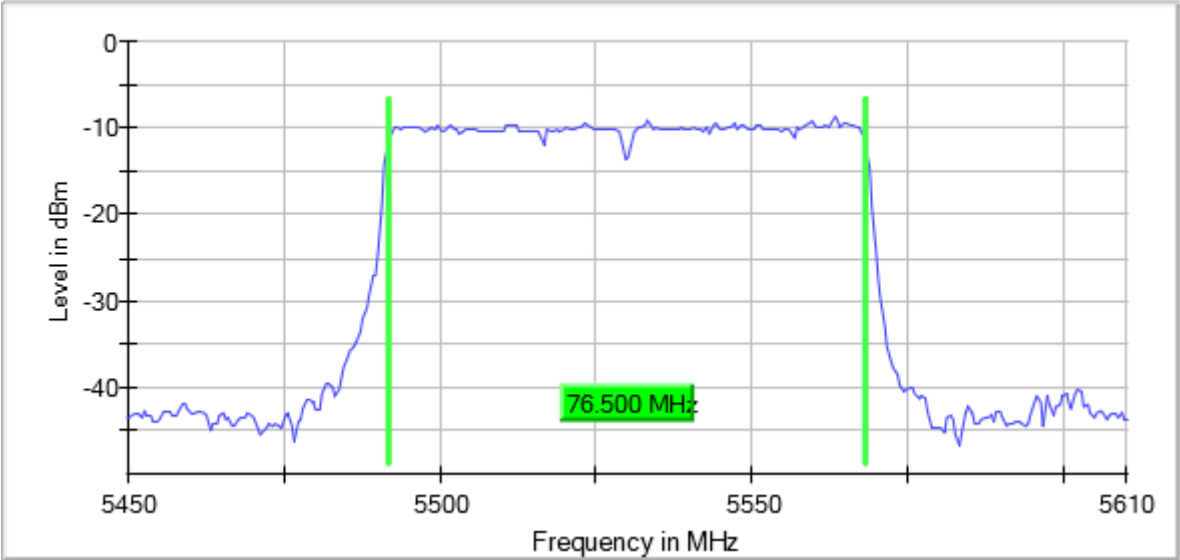
Pass

Attachments

Active Port = 1  
Modulation = 802.11ac VHT80 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5530.00000

Images:

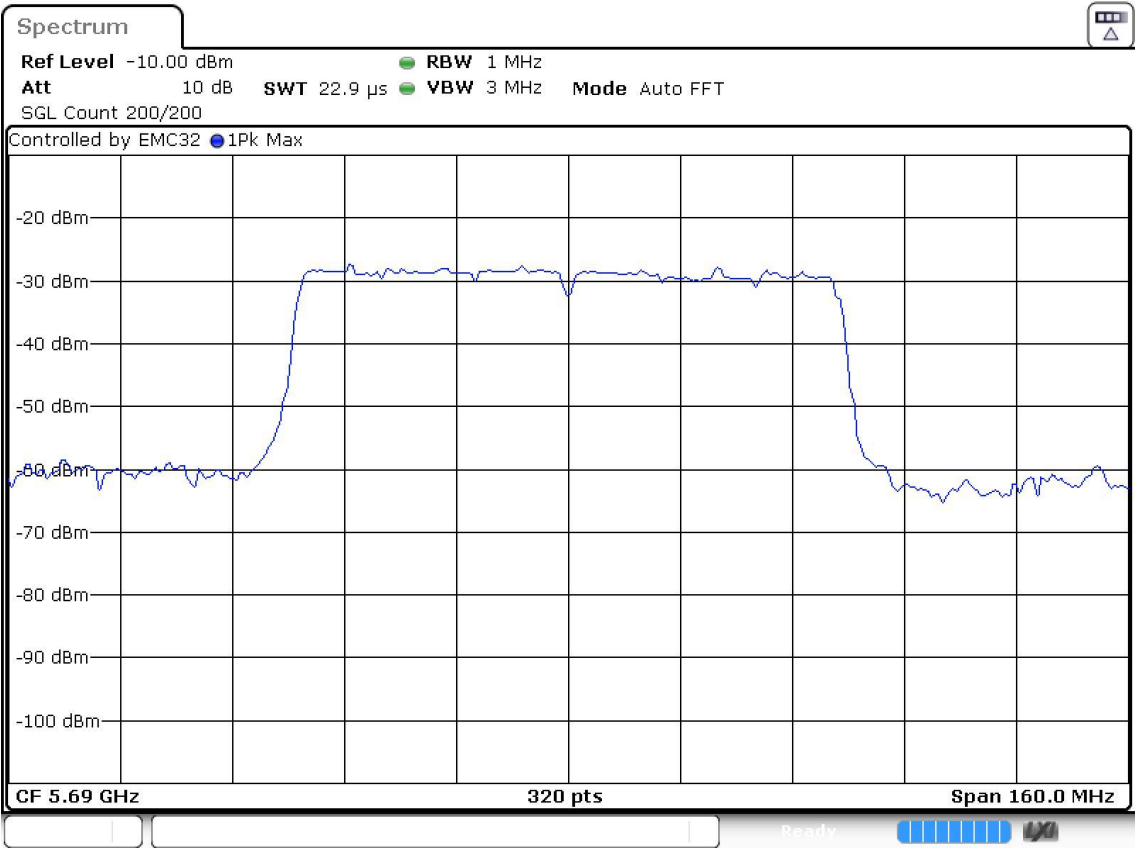
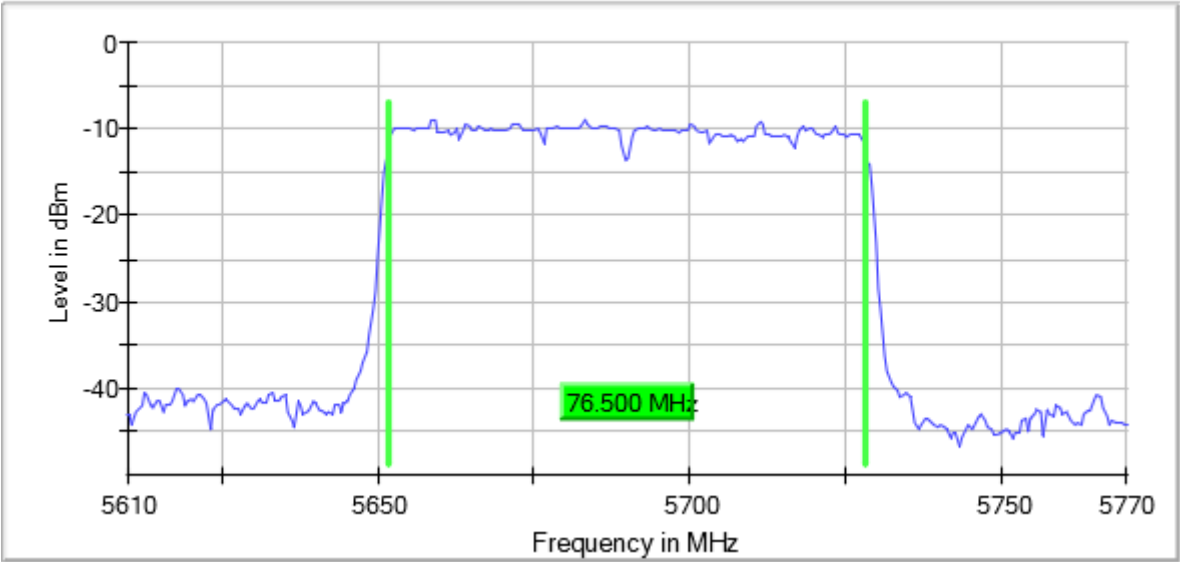
99 % Bandwidth



Active Port = 1  
Frequency MHz = 5690.00000  
Modulation = 802.11ac VHT80 (OFDM MCS0) MIMO Mode = SISO

Images:

99 % Bandwidth



# Section 15.407 Subclause 15.403(i) [Ebw] Transmitter 26 dB Emission Bandwidth (EBW)

**Limits**

The 26 dB Emission Bandwidth was measured using the method according to point C) 1) of 789033 D02 General UNII Test Procedures New Rules v02r01.

Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

**Results**

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5500.00000 | 20.500    |
|      | 5580.00000 | 20.400    |
|      | 5720.00000 | 20.300    |

**Verdict**

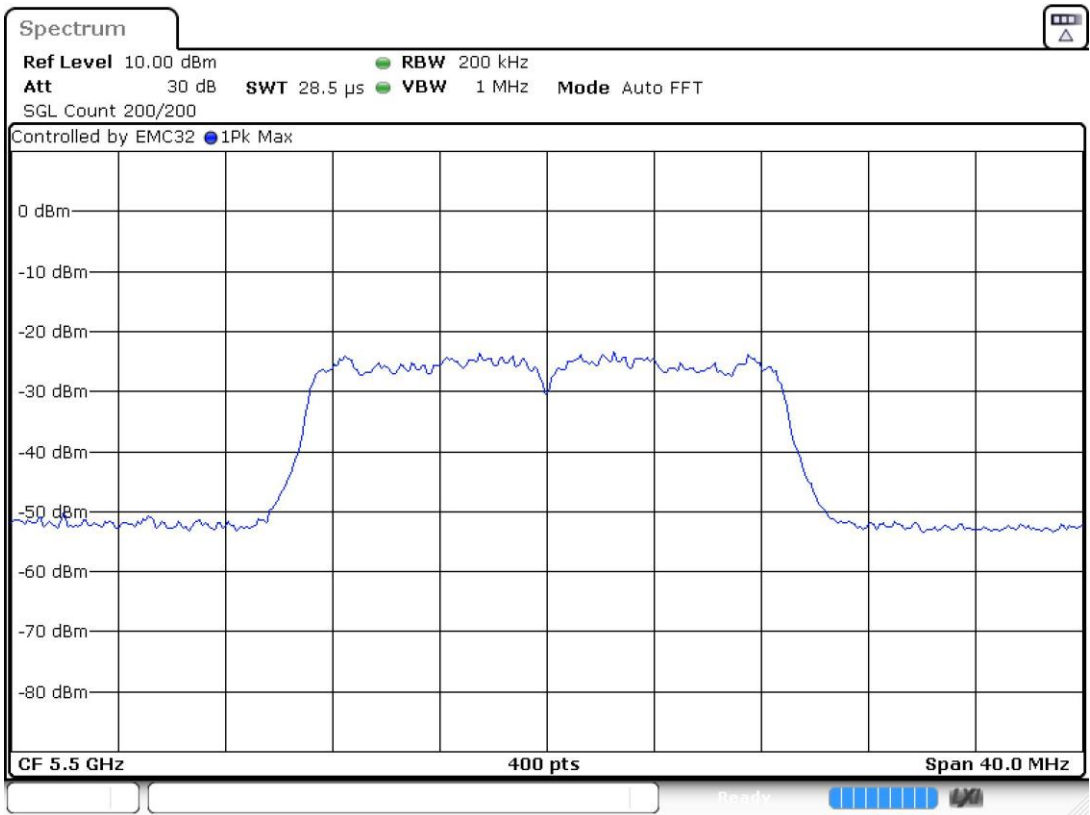
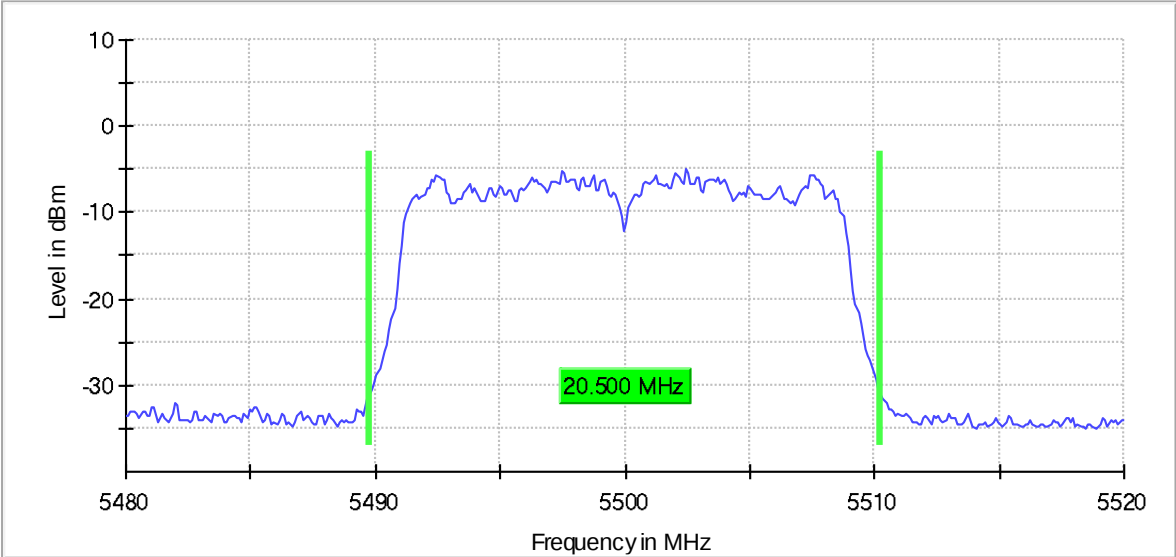
Pass

Attachments

Active Port = 1  
Frequency MHz = 5500.00000  
Modulation = 802.11n HT20 (OFDM MCS0) MIMO Mode = SISO

Images:

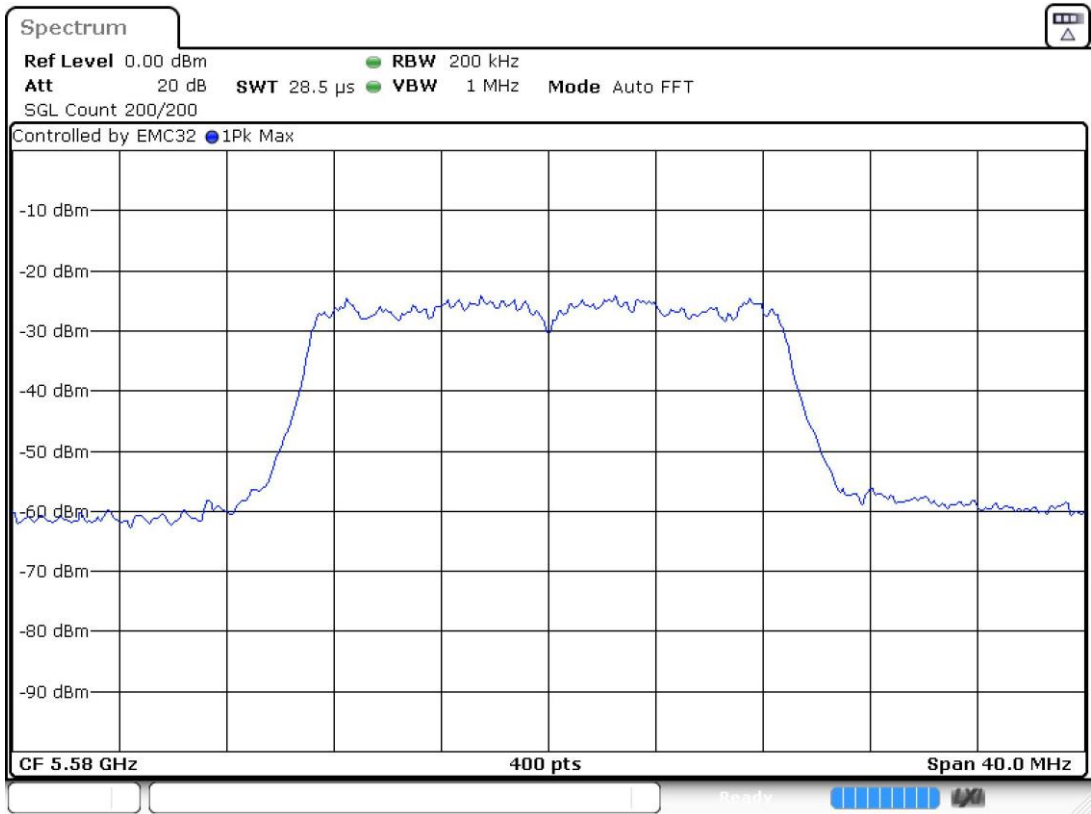
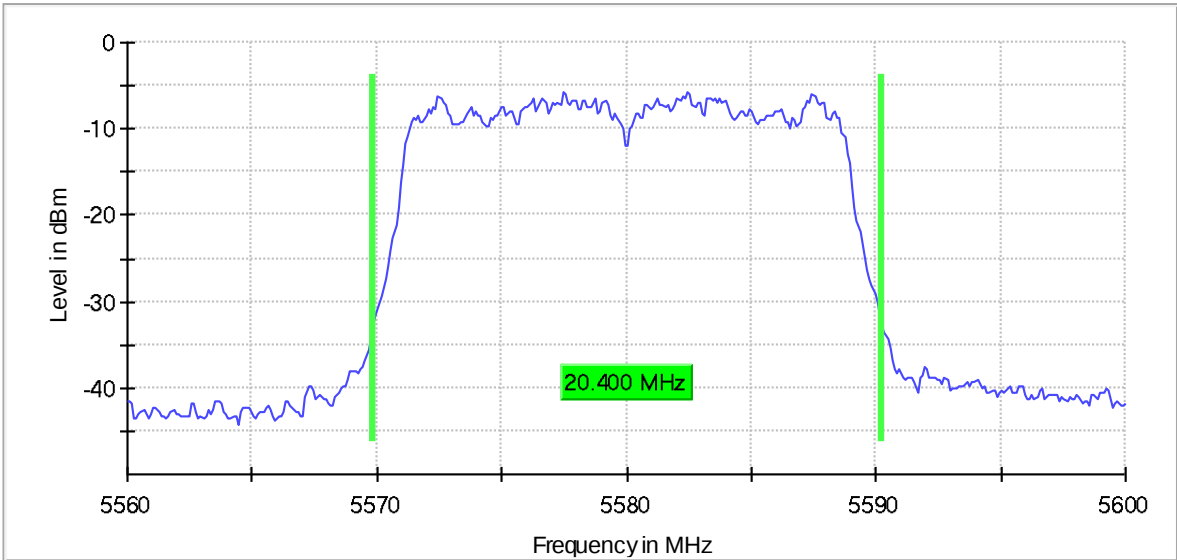
26 dB Bandwidth



Active Port = 1  
Frequency MHz = 5580.00000  
Modulation = 802.11n HT20 (OFDM MCS0) MIMO Mode = SISO

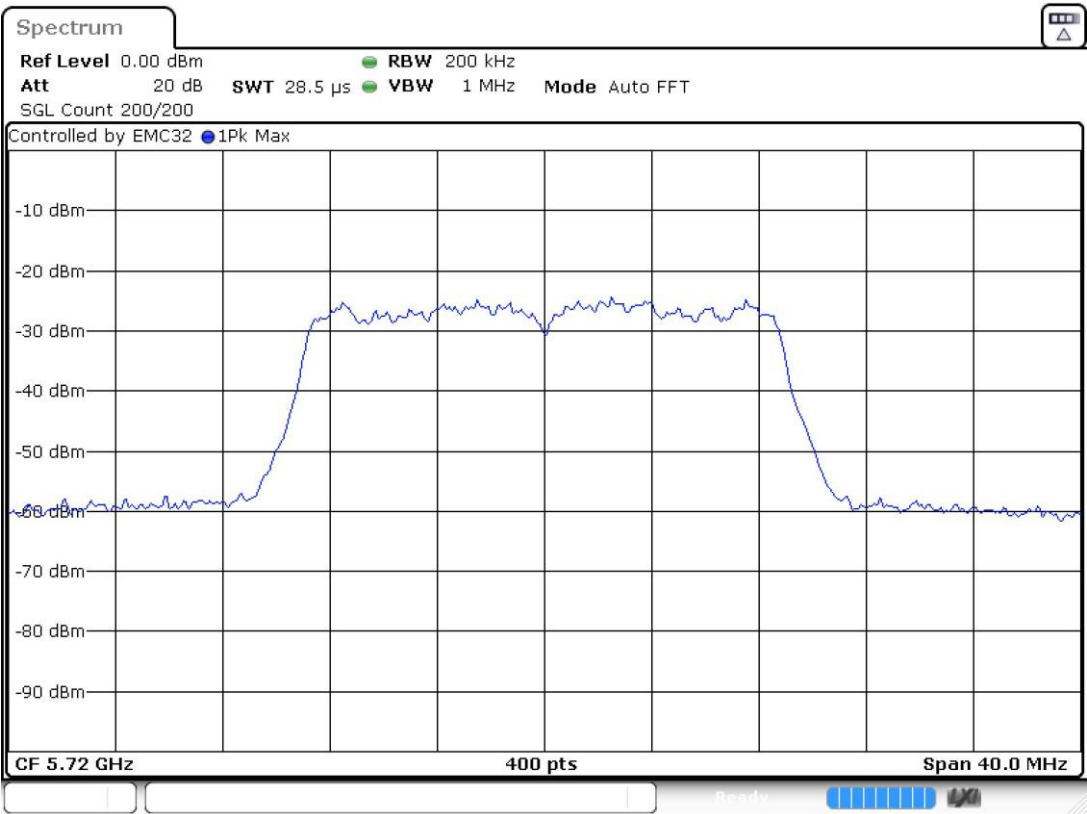
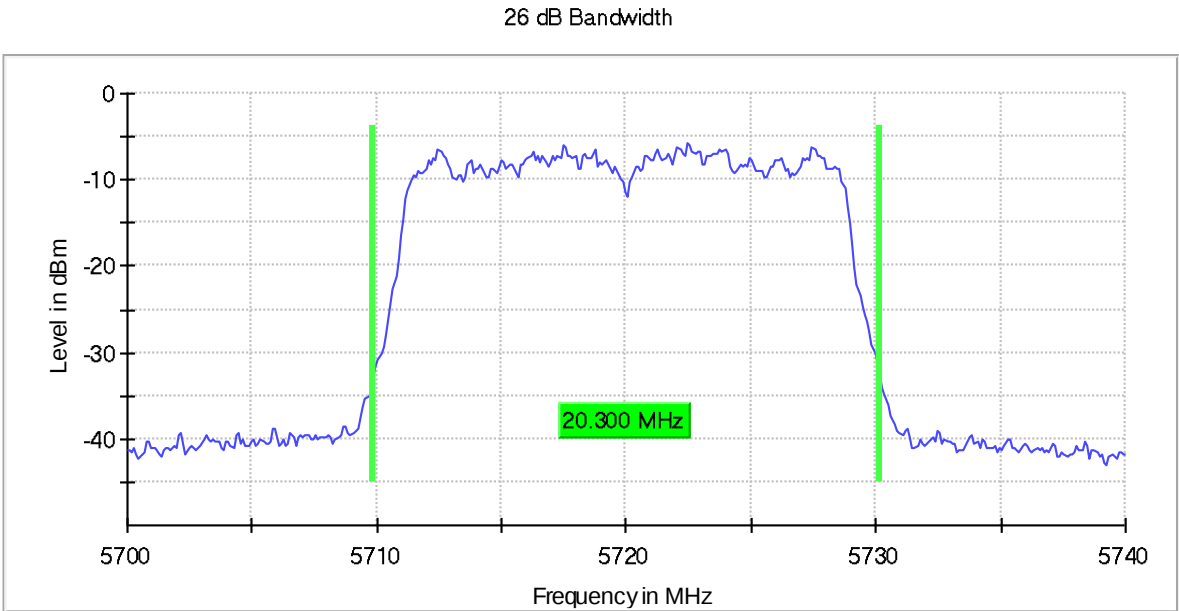
Images:

26 dB Bandwidth



Active Port = 1  
Frequency MHz = 5720.00000  
Modulation = 802.11n HT20 (OFDM MCS0) MIMO Mode = SISO

Images:



Modulation: 802.11n HT40 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5510.00000 | 39.92     |
|      | 5550.00000 | 40.525    |
|      | 5710.00000 | 40.675    |

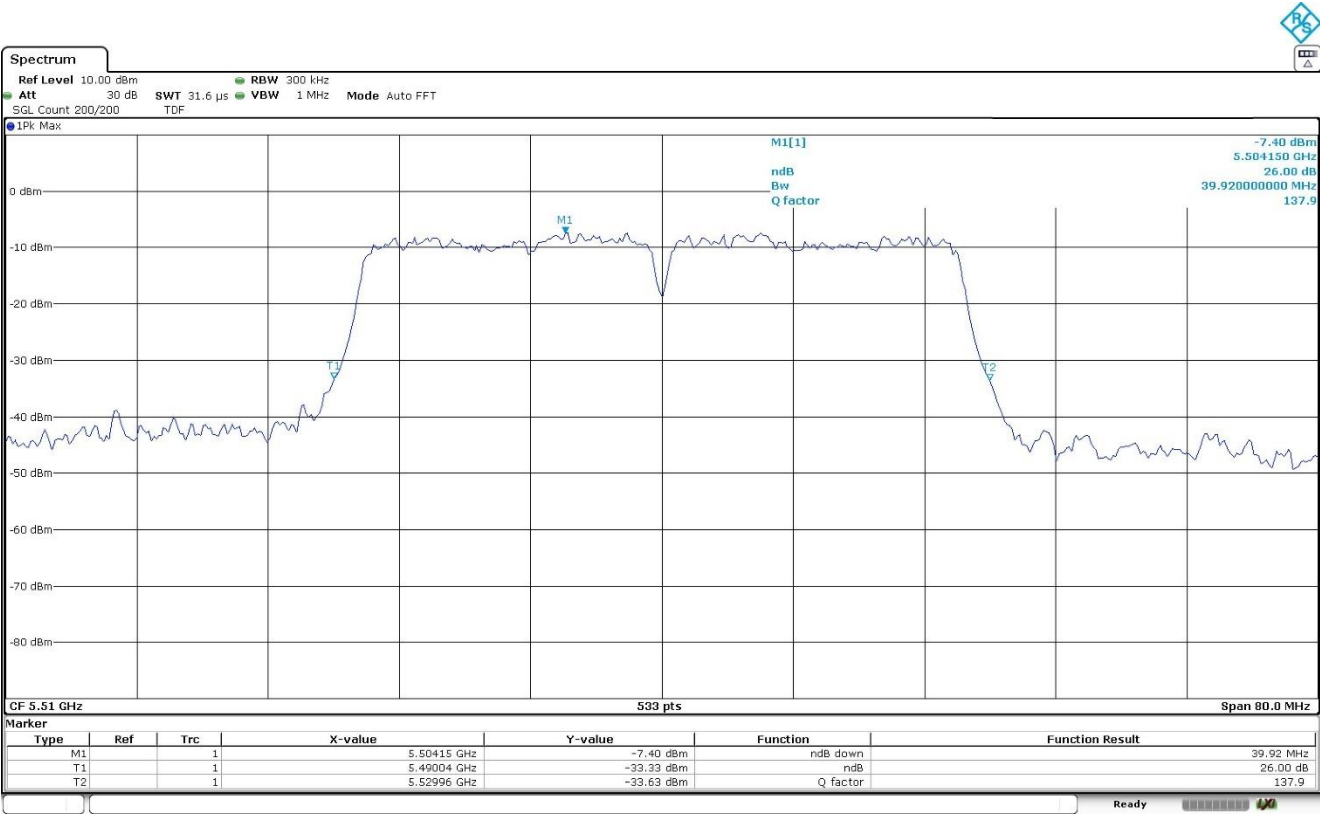
Verdict

Pass

Attachments

Active Port = 1  
Frequency MHz = 5510.00000  
Modulation = 802.11n HT40 (OFDM MCS0) MIMO Mode = SISO

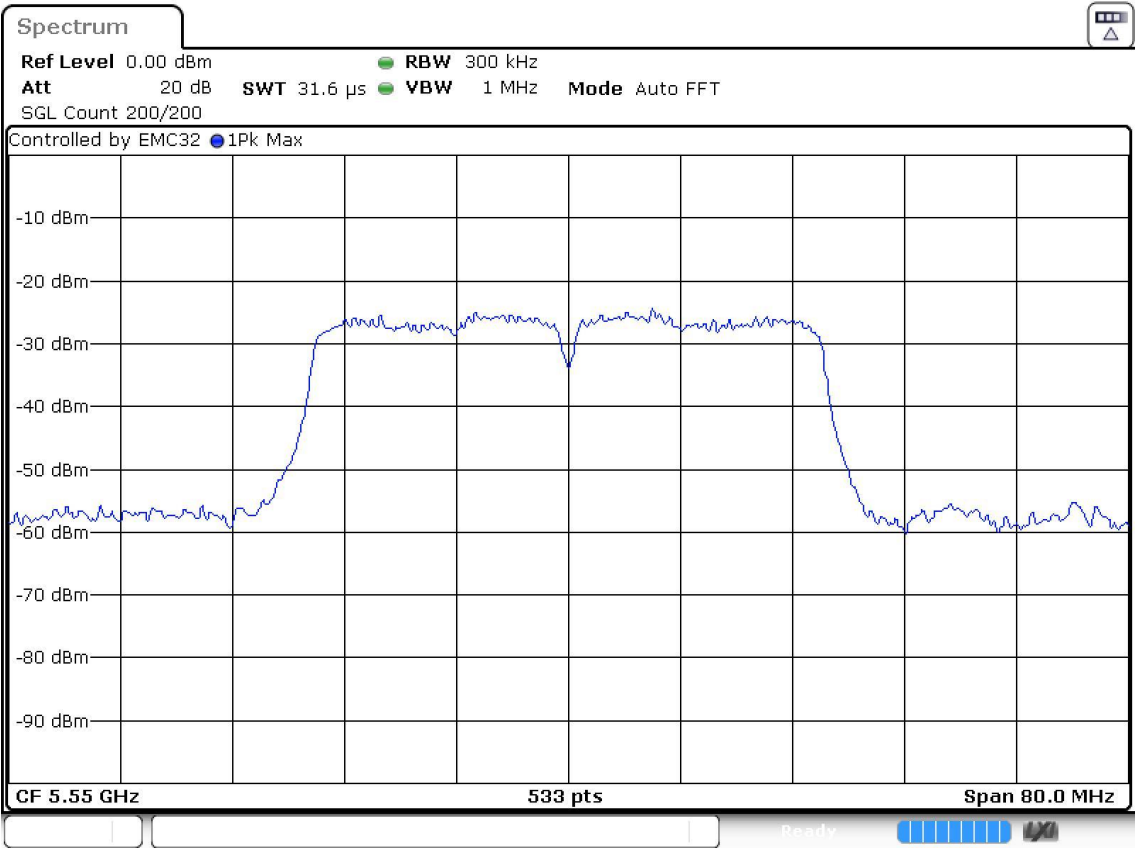
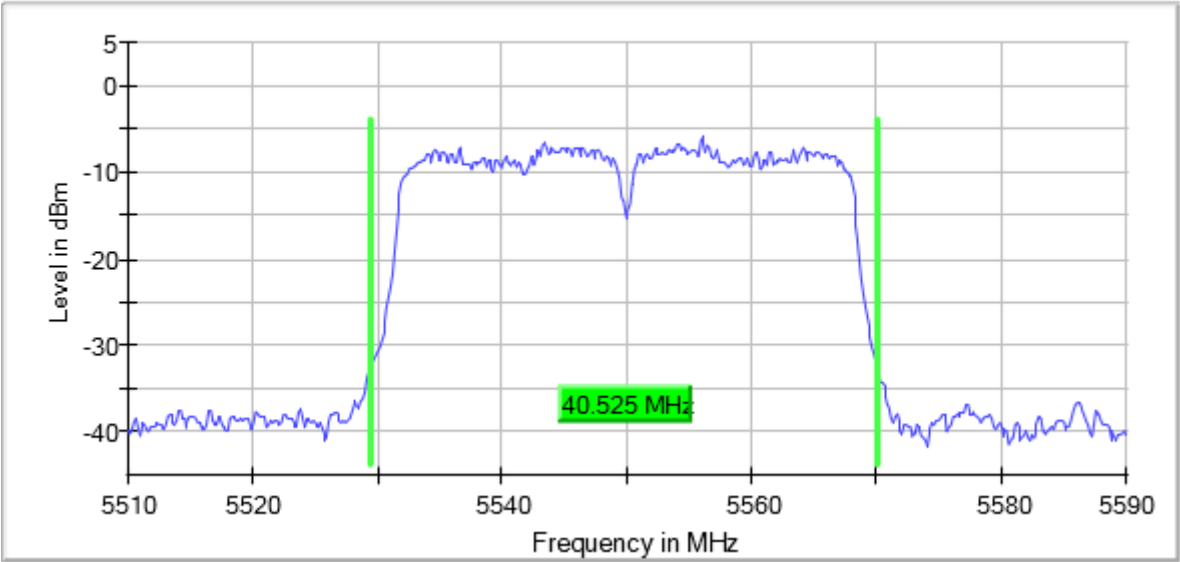
Images:



Active Port = 1  
Frequency MHz = 5550.00000  
Modulation = 802.11n HT40 (OFDM MCS0) MIMO Mode = SISO

Images:

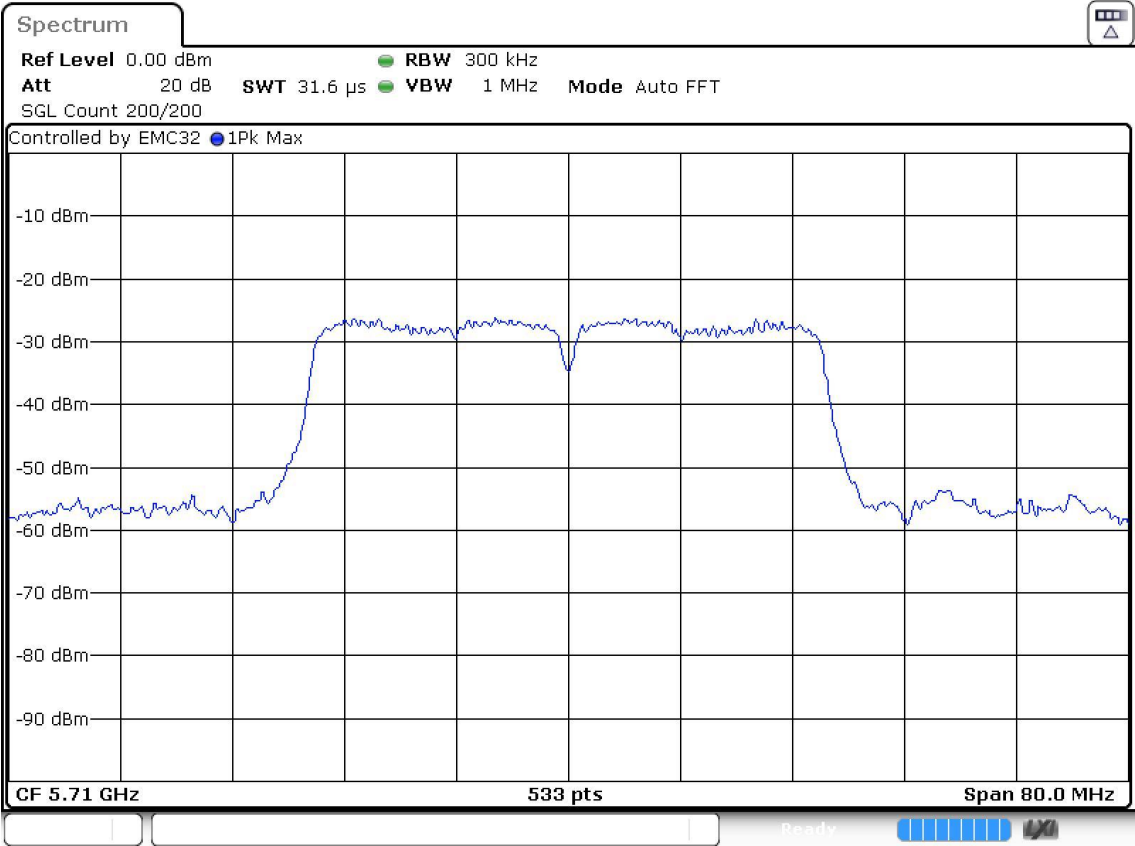
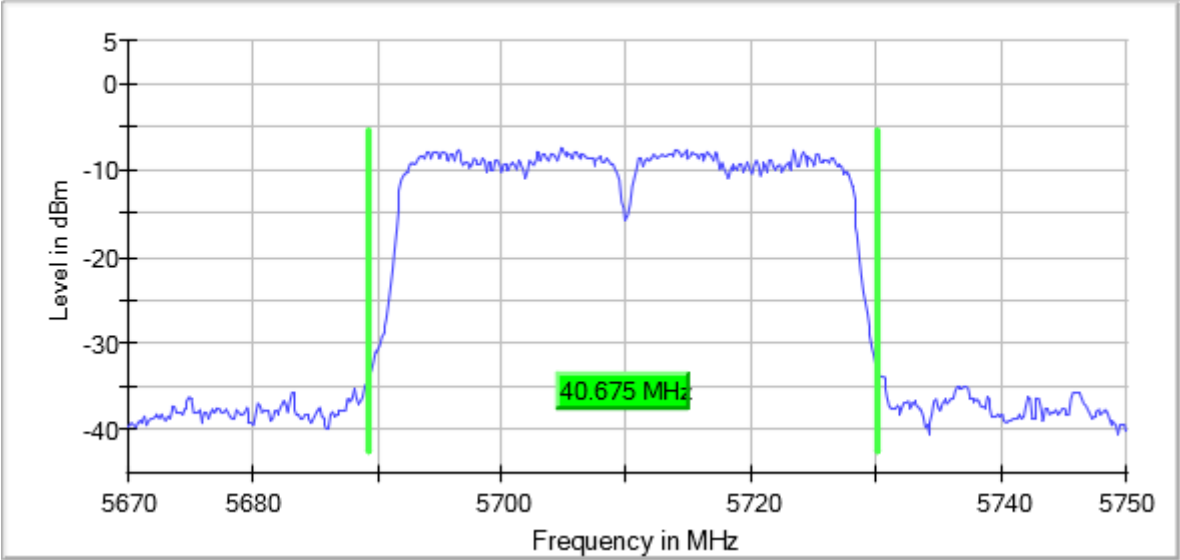
26 dB Bandwidth



Active Port = 1  
Frequency MHz = 5710.00000  
Modulation = 802.11n HT40 (OFDM MCS0) MIMO Mode = SISO

Images:

26 dB Bandwidth



Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5500.00000 | 20.000    |
|      | 5580.00000 | 19.800    |
|      | 5720.00000 | 19.900    |

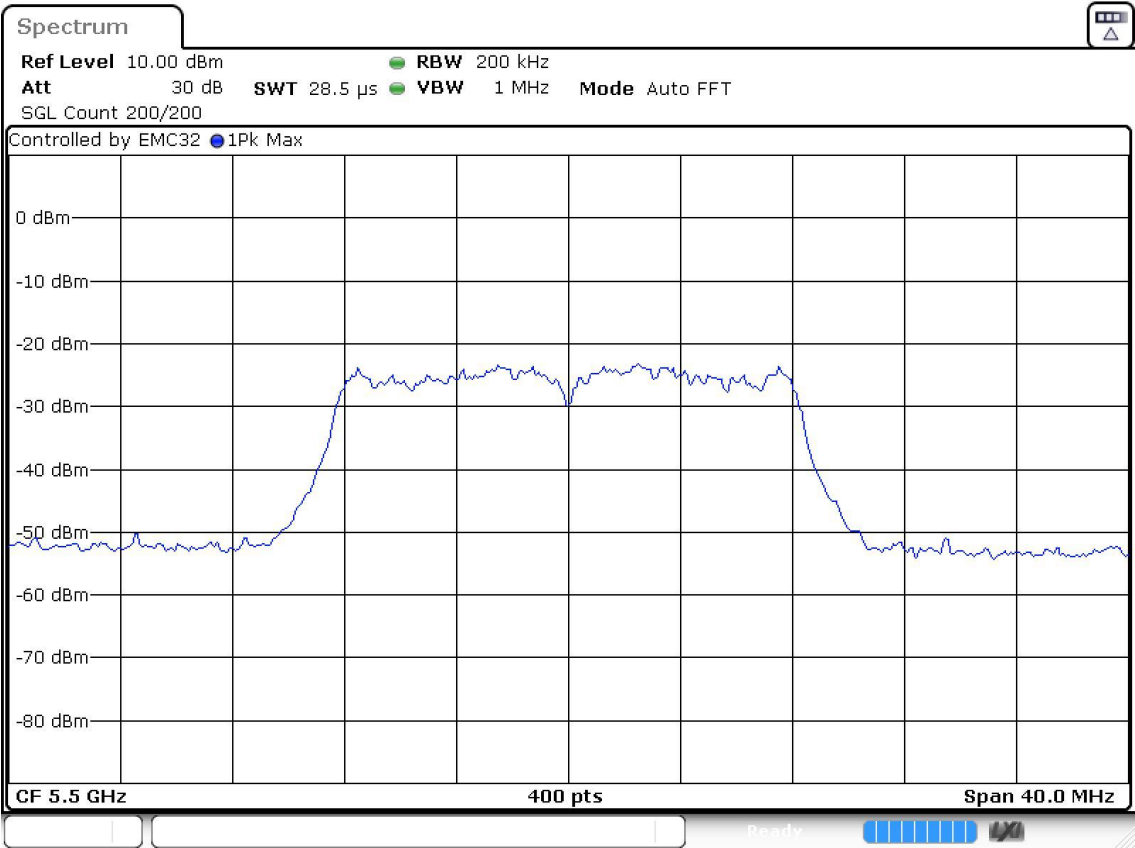
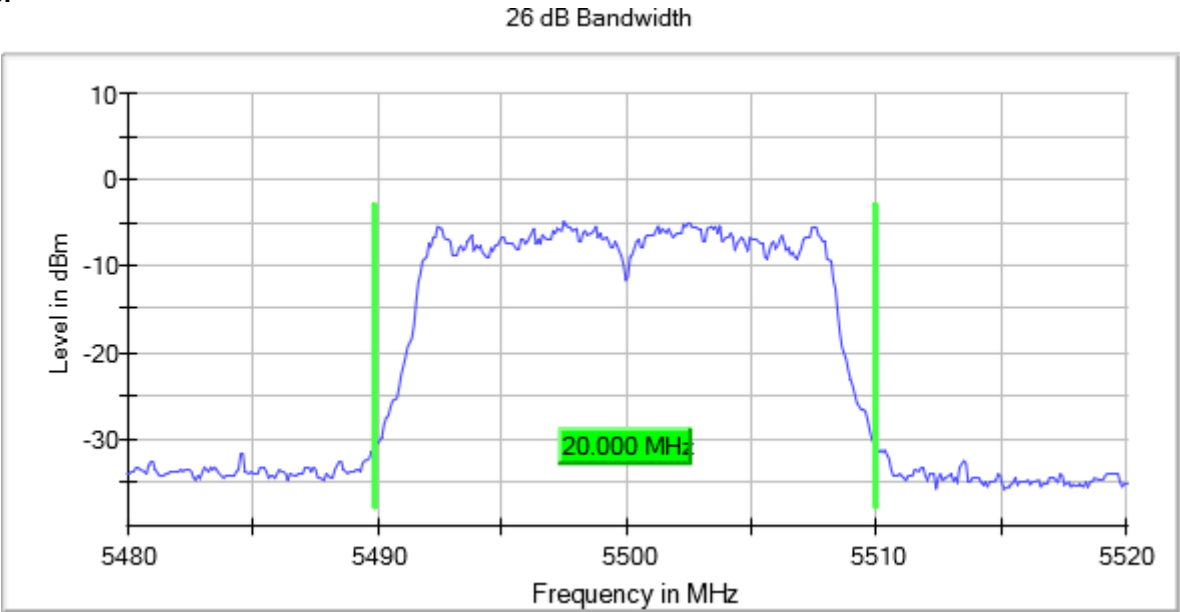
Verdict

Pass

Attachments

Active Port = 1                      Frequency MHz = 5500.00000  
Modulation = 802.11a (OFDM 6 Mbit/s)   MIMO Mode = SISO

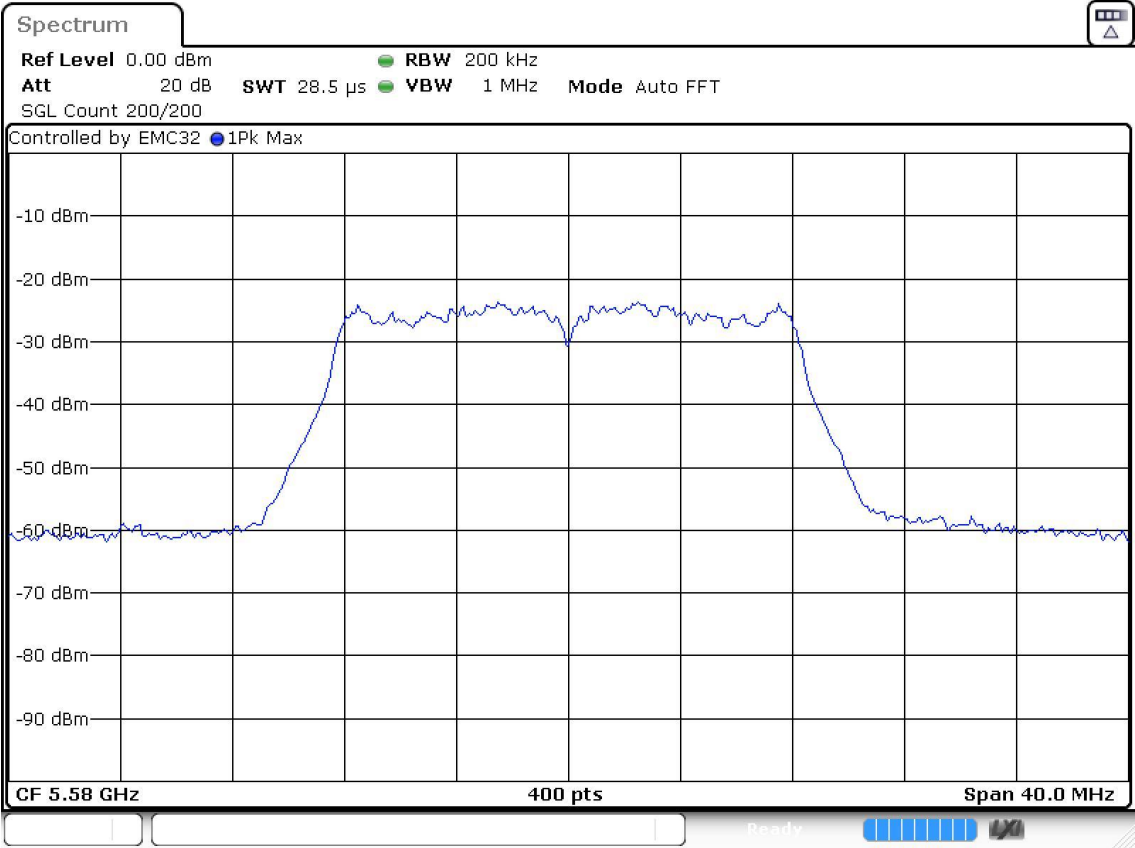
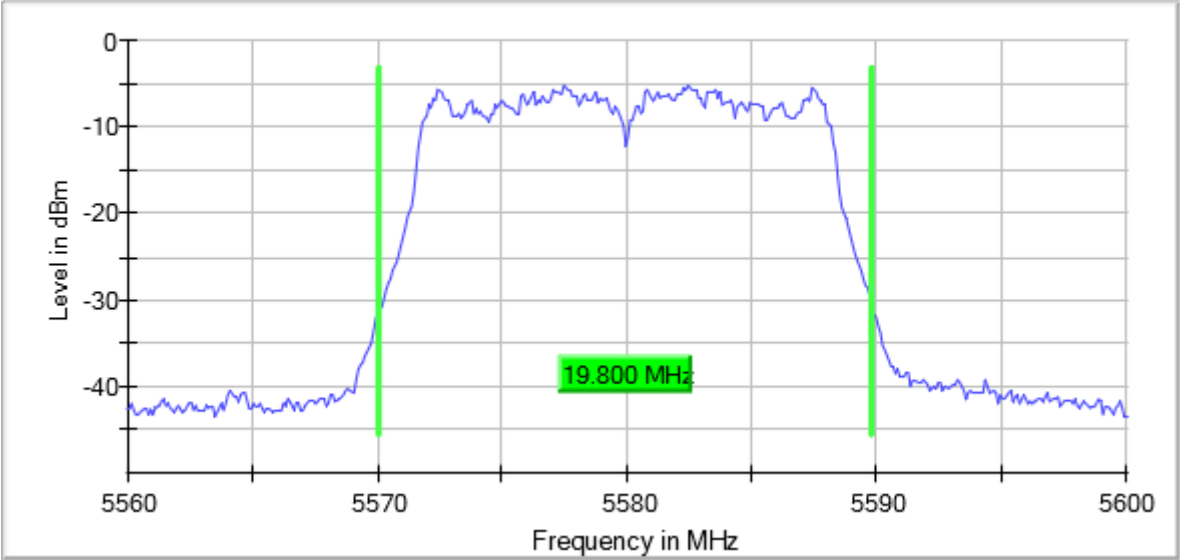
Images:



Active Port = 1                      Frequency MHz = 5580.00000  
Modulation = 802.11a (OFDM 6 Mbit/s)    MIMO Mode = SISO

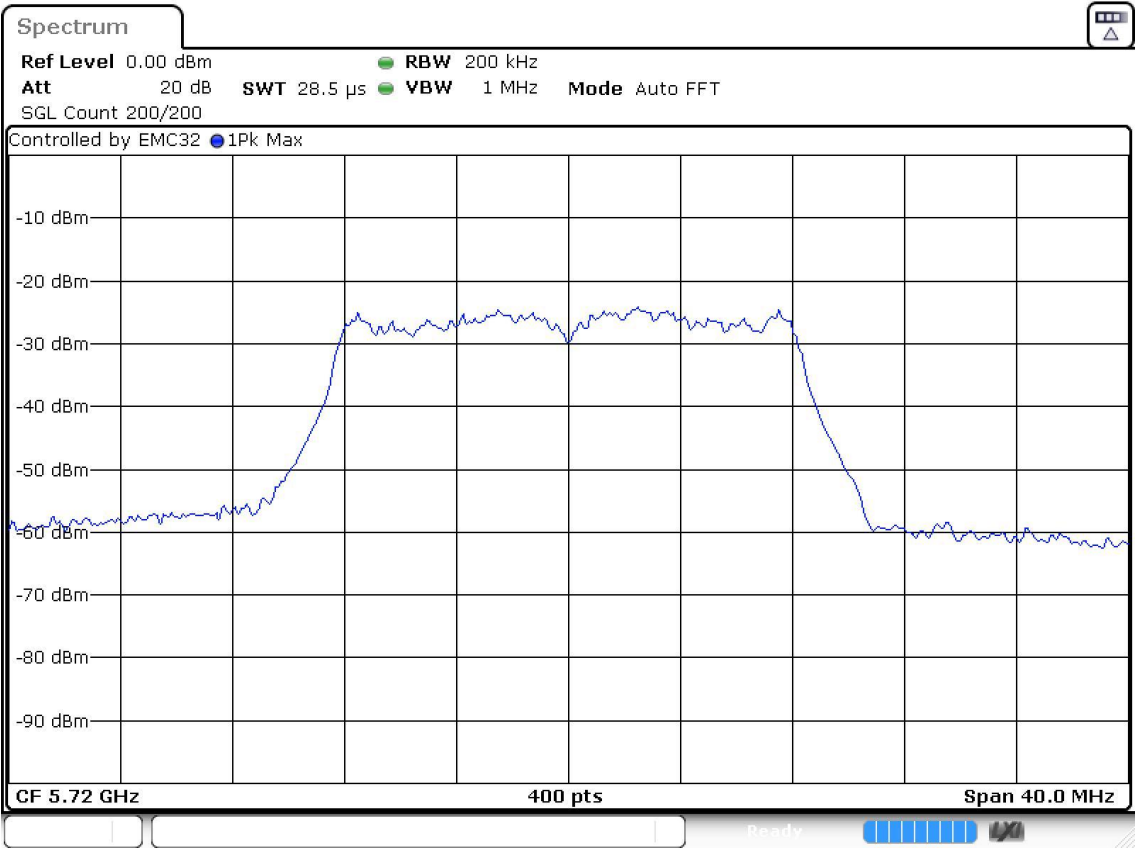
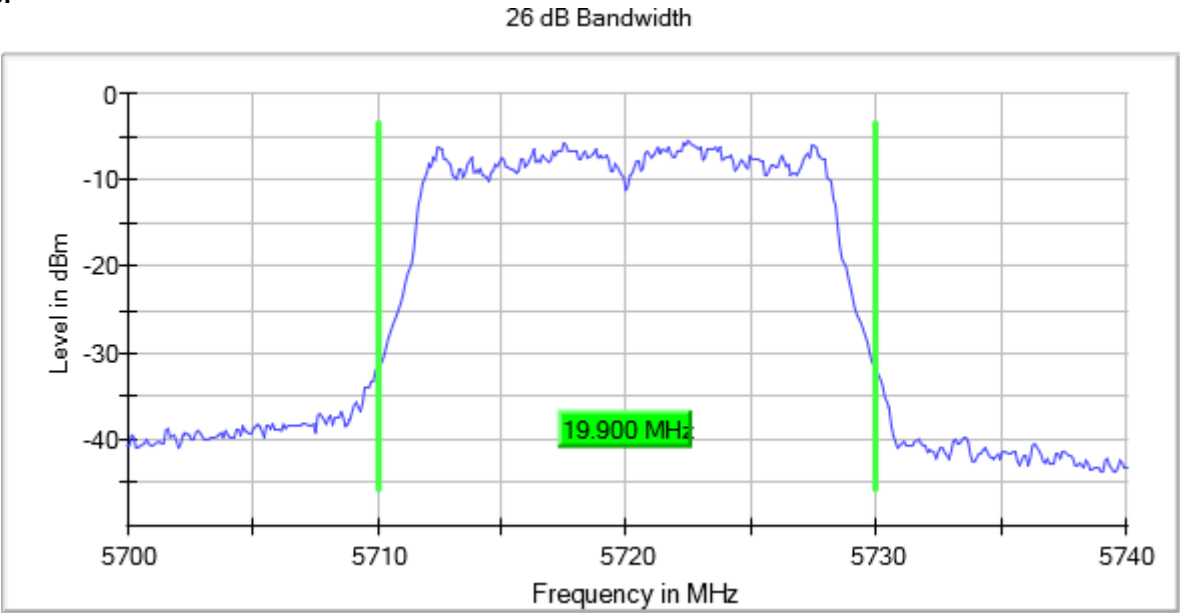
Images:

26 dB Bandwidth



Active Port = 1                      Frequency MHz = 5720.00000  
Modulation = 802.11a (OFDM 6 Mbit/s)    MIMO Mode = SISO

Images:



Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5500.00000 | 20.000    |
|      | 5580.00000 | 20.400    |
|      | 5720.00000 | 20.300    |

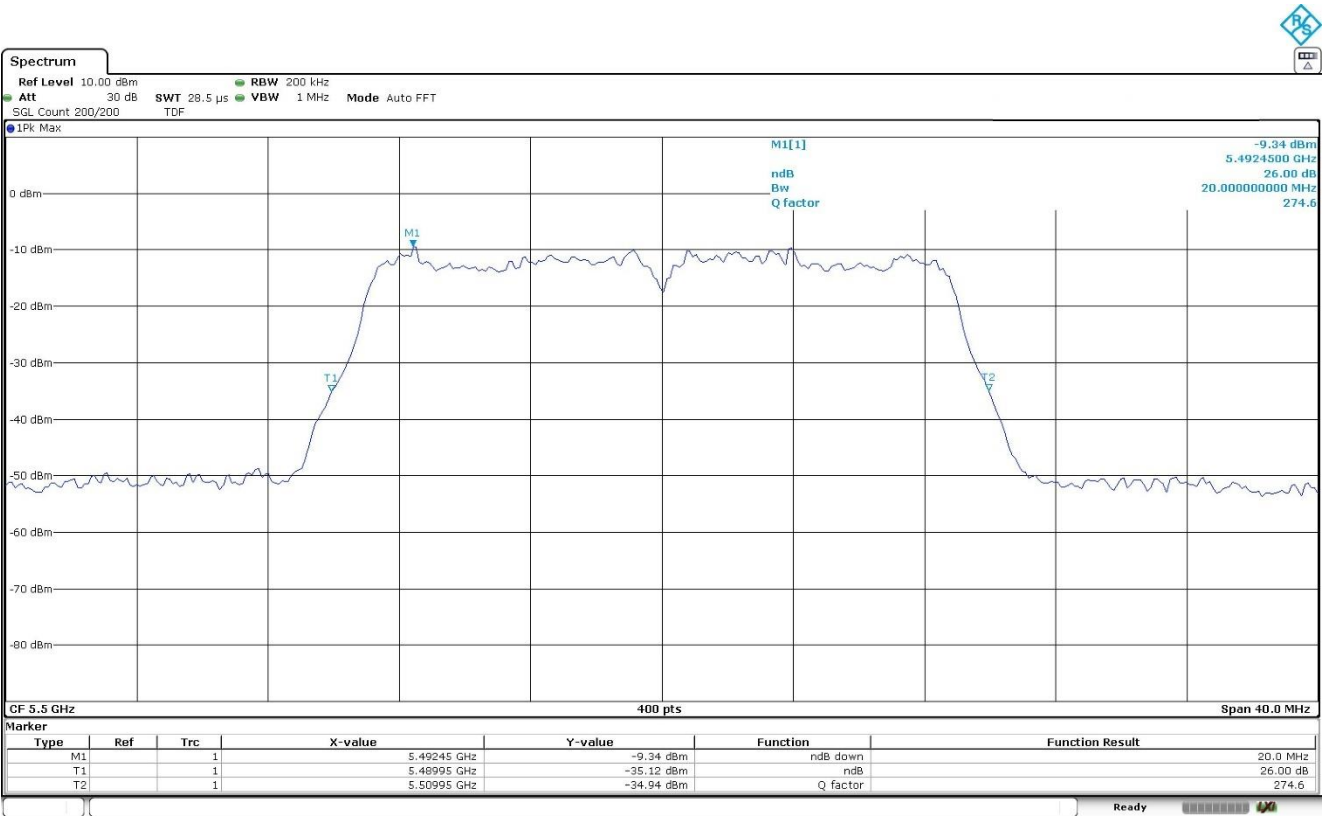
Verdict

Pass

Attachments

Active Port = 1  
Frequency MHz = 5500.00000  
Modulation = 802.11ac VHT20 (OFDM MCS0) MIMO Mode = SISO

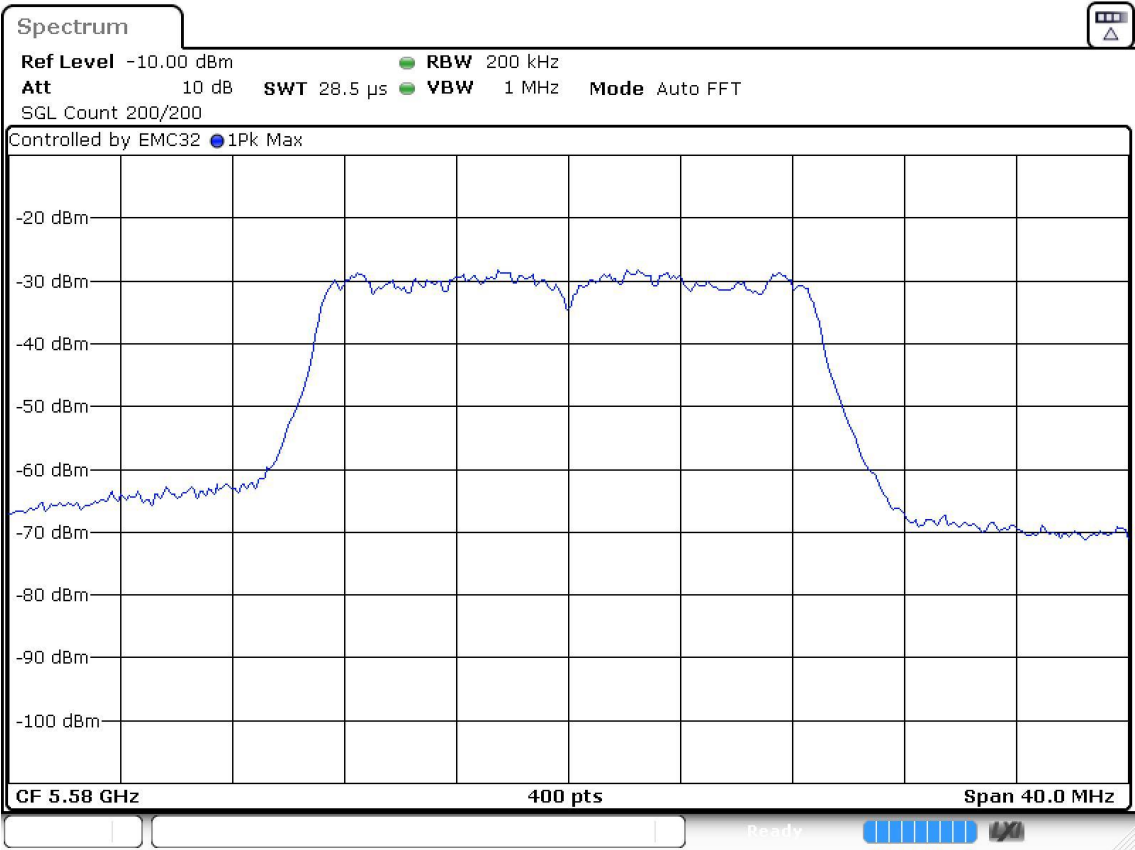
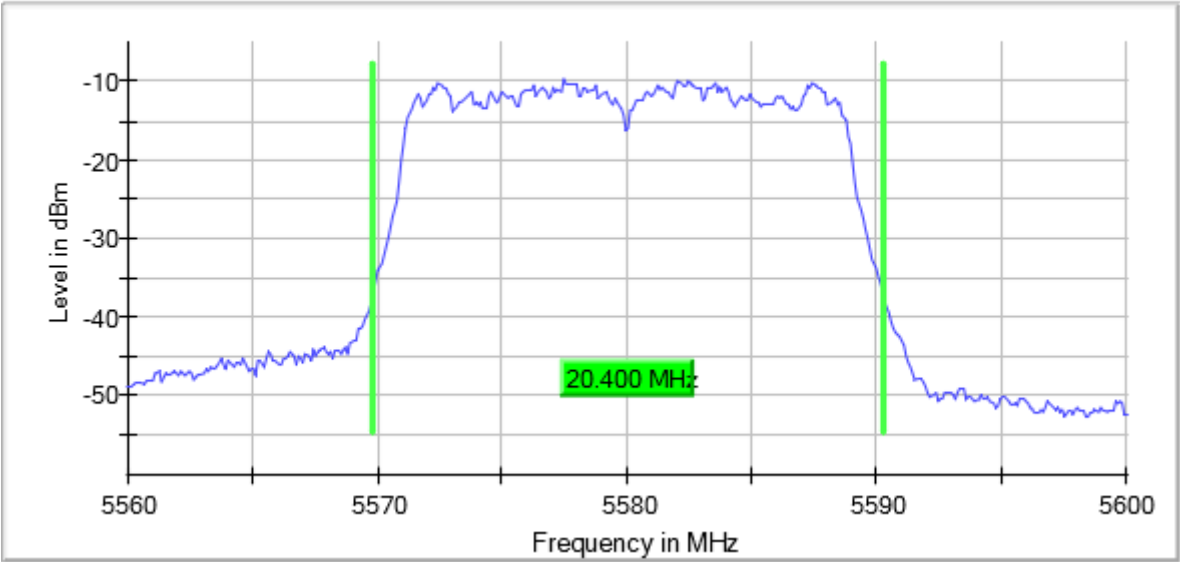
Images:



Active Port = 1  
Modulation = 802.11ac VHT20 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5580.00000

Images:

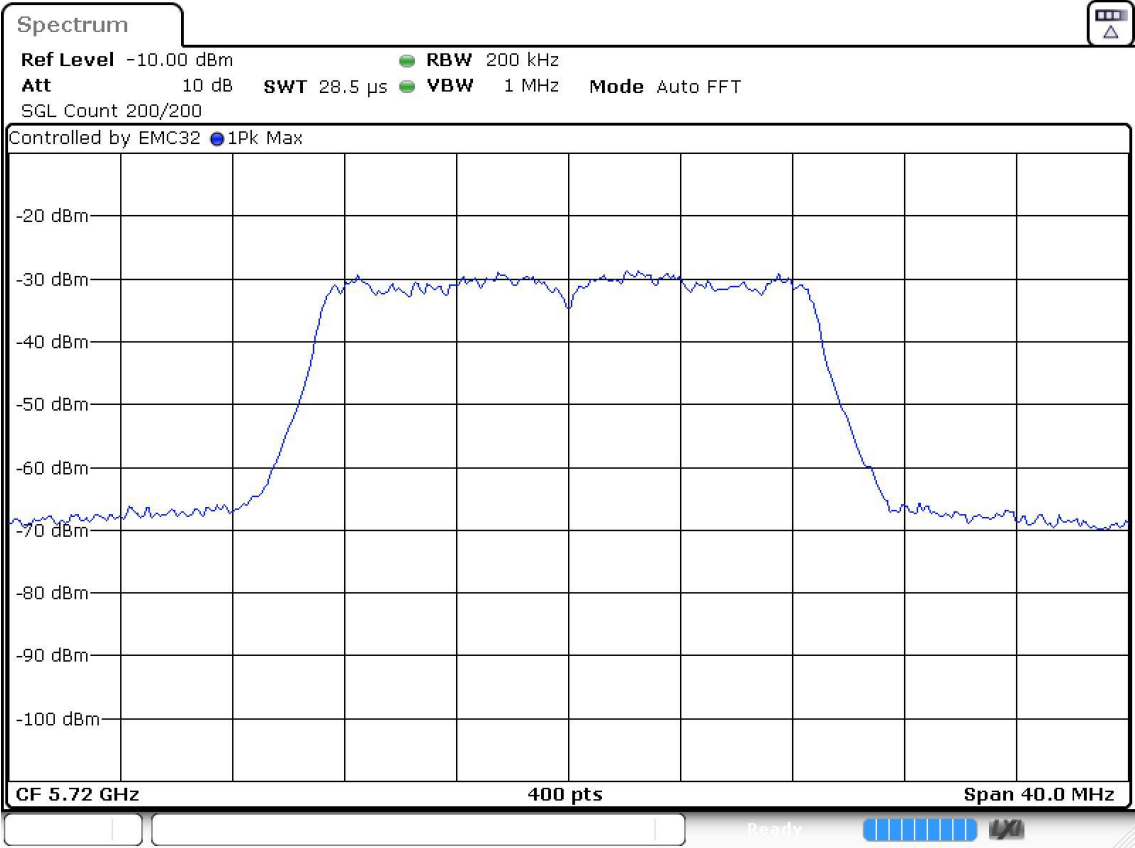
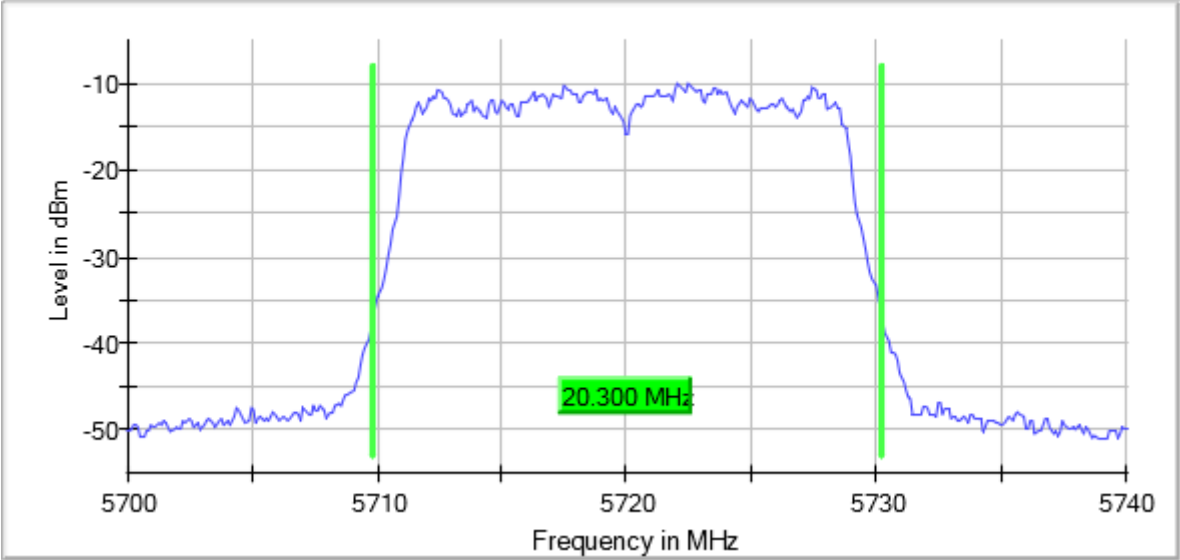
26 dB Bandwidth



Active Port = 1  
Modulation = 802.11ac VHT20 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5720.00000

Images:

26 dB Bandwidth



Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5510.00000 | 39.170    |
|      | 5550.00000 | 40.375    |
|      | 5710.00000 | 40.375    |

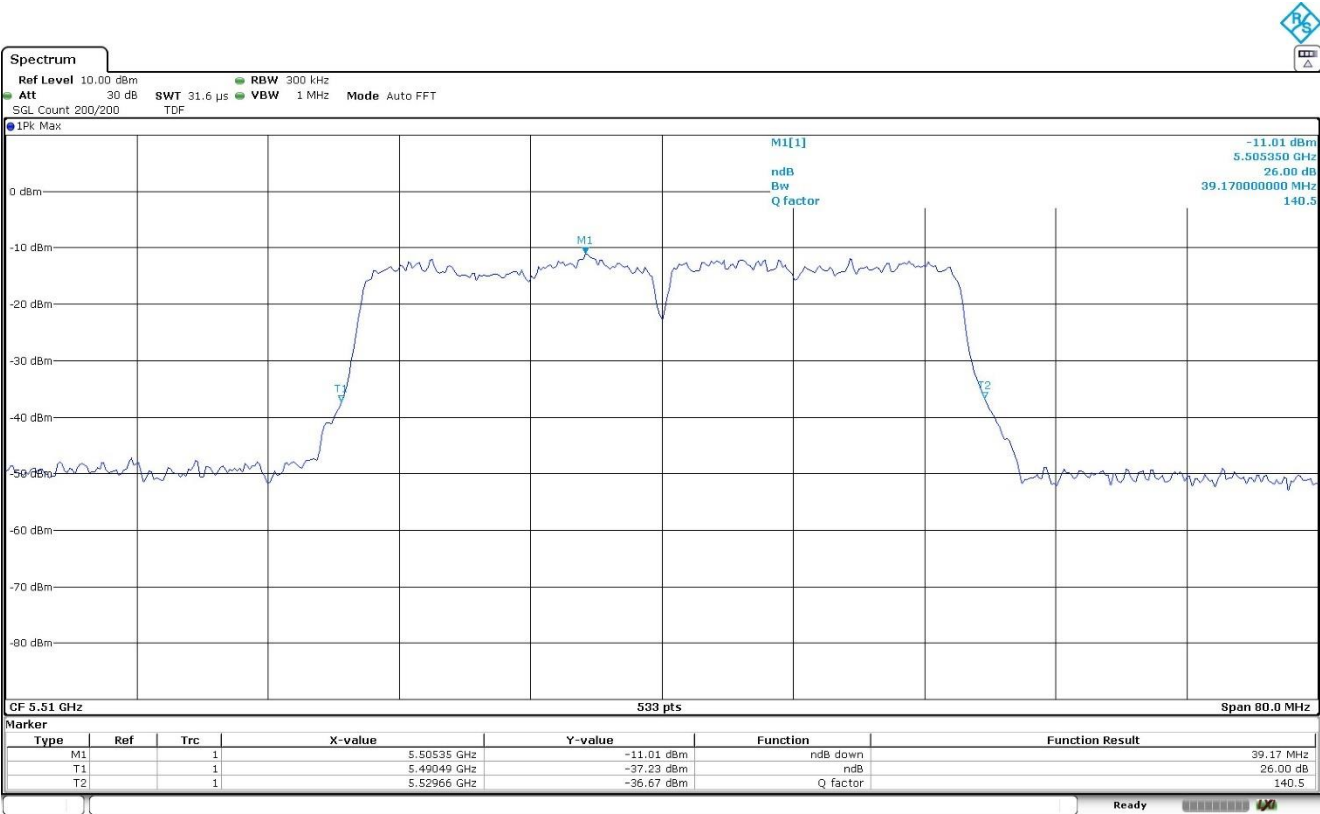
Verdict

Pass

Attachments

Active Port = 1  
Frequency MHz = 5510.00000  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO

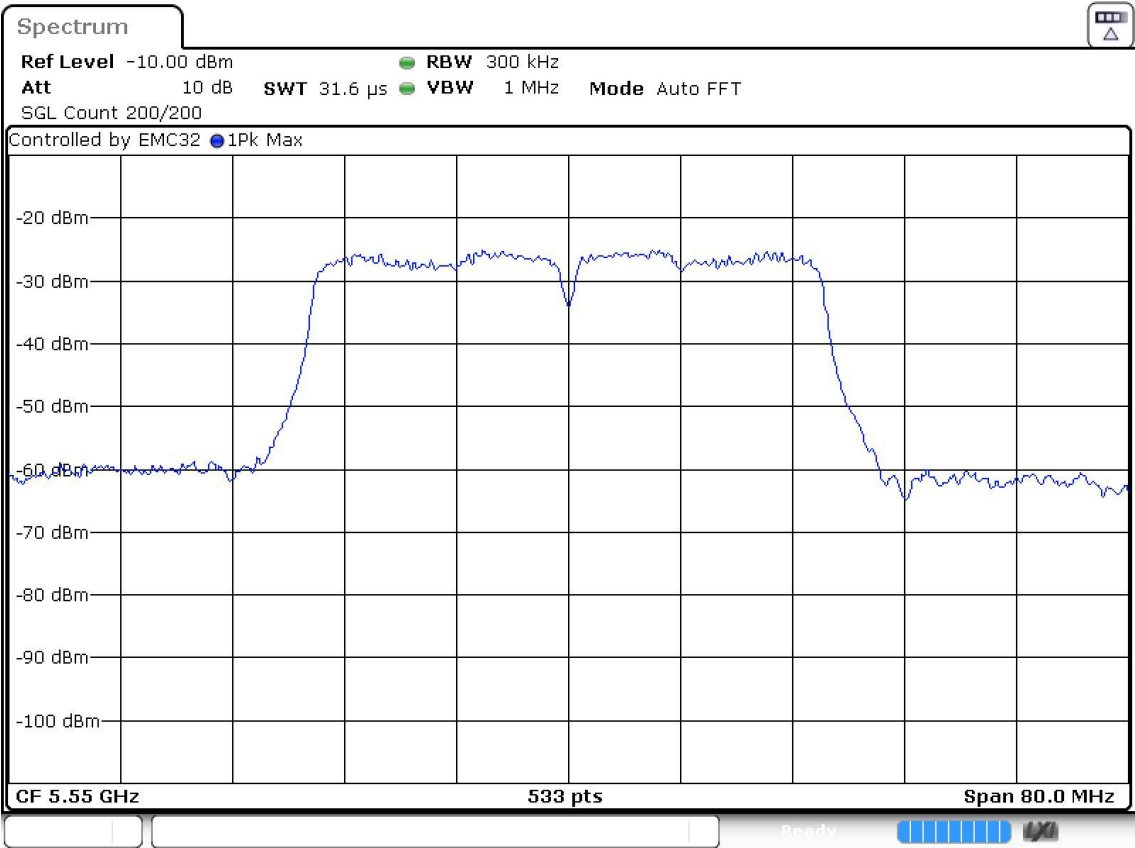
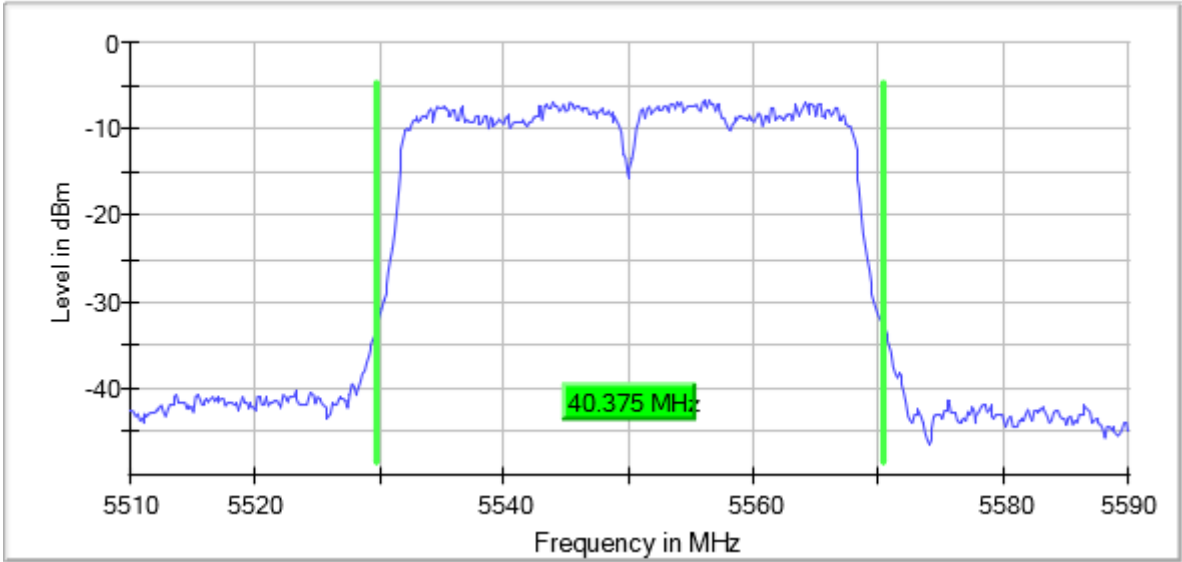
Images:



Active Port = 1  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5550.00000

Images:

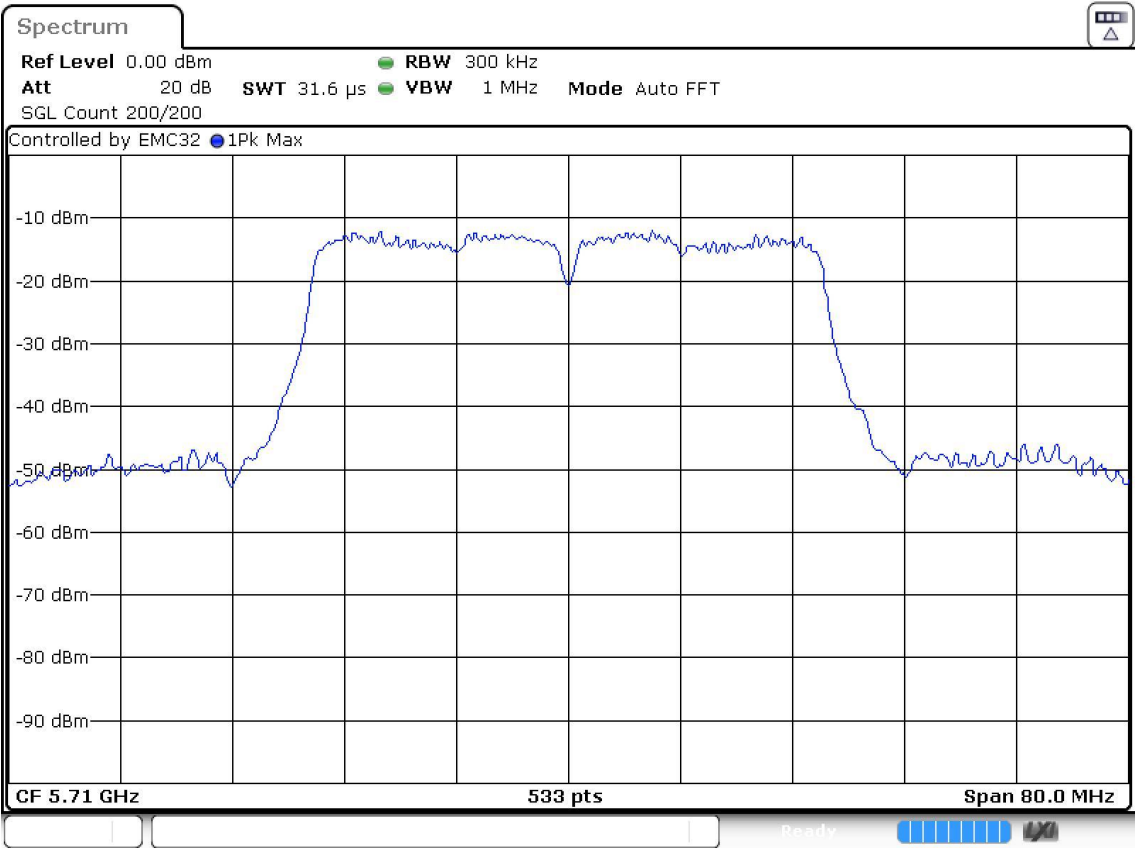
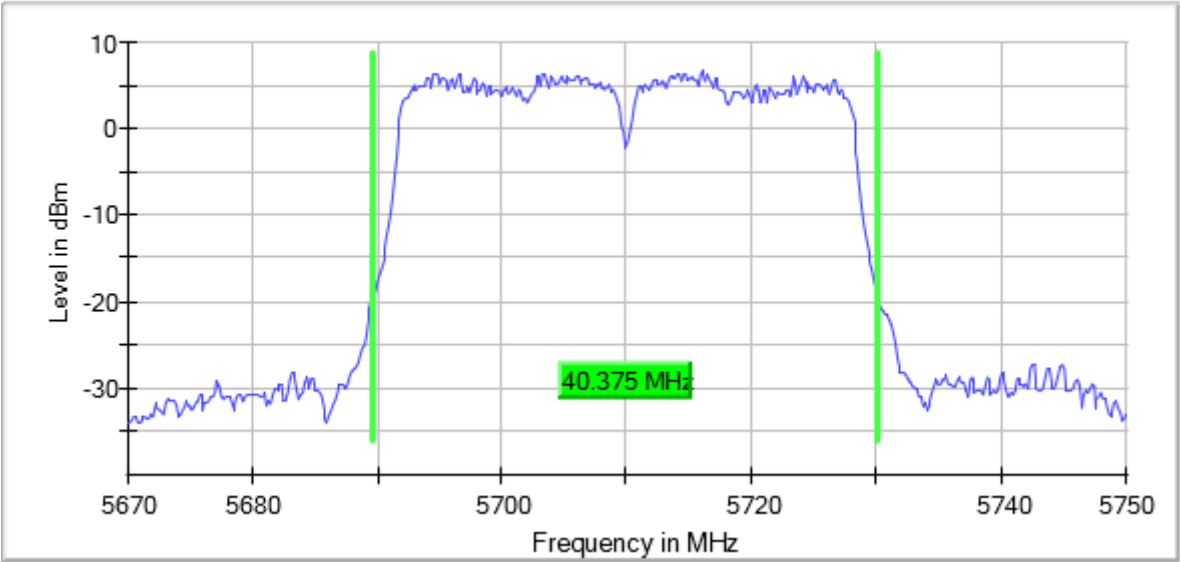
26 dB Bandwidth



Active Port = 1  
Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5710.00000

Images:

26 dB Bandwidth



Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

| Port | Freq (MHz) | Ebw (MHz) |
|------|------------|-----------|
| 1    | 5530.00000 | 81.500    |
|      | 5690.00000 | 85.000    |

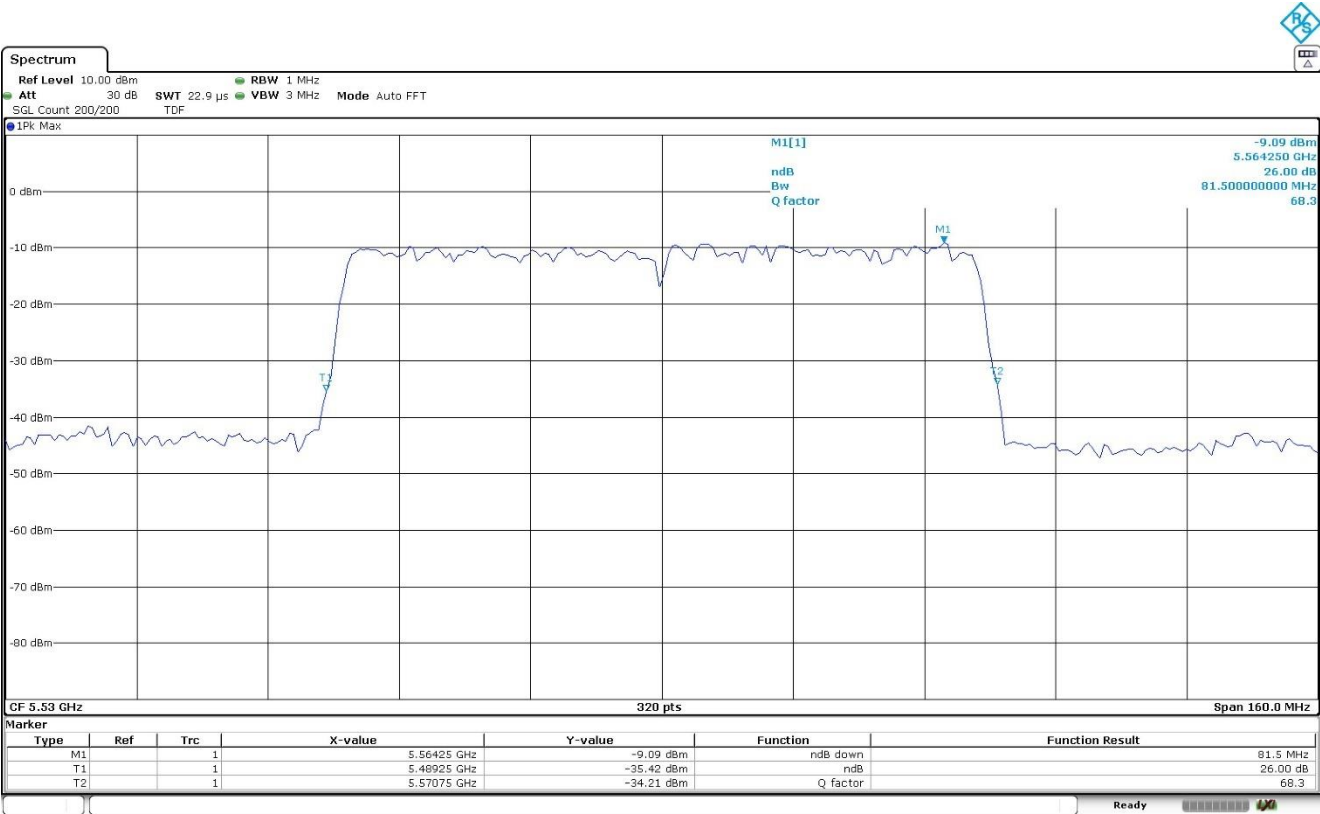
Verdict

Pass

Attachments

Active Port = 1  
Frequency MHz = 5530.00000  
Modulation = 802.11ac VHT80 (OFDM MCS0) MIMO Mode = SISO

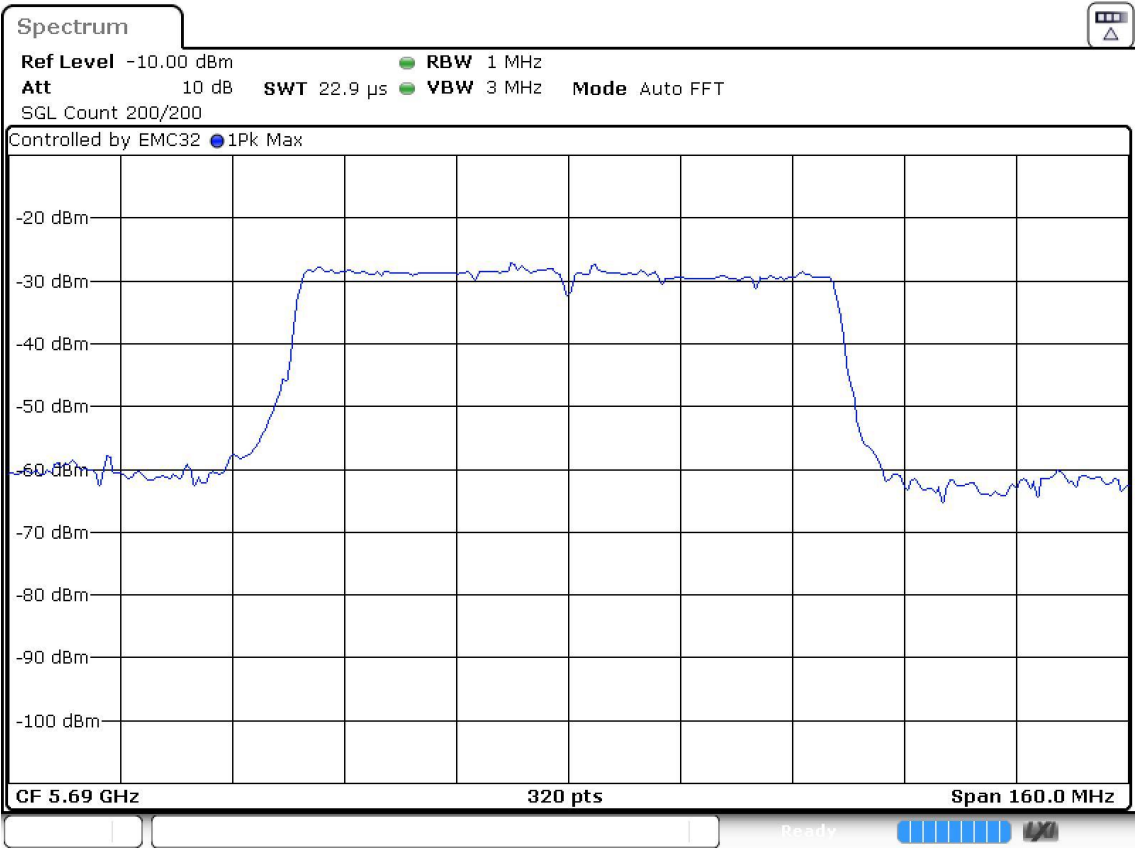
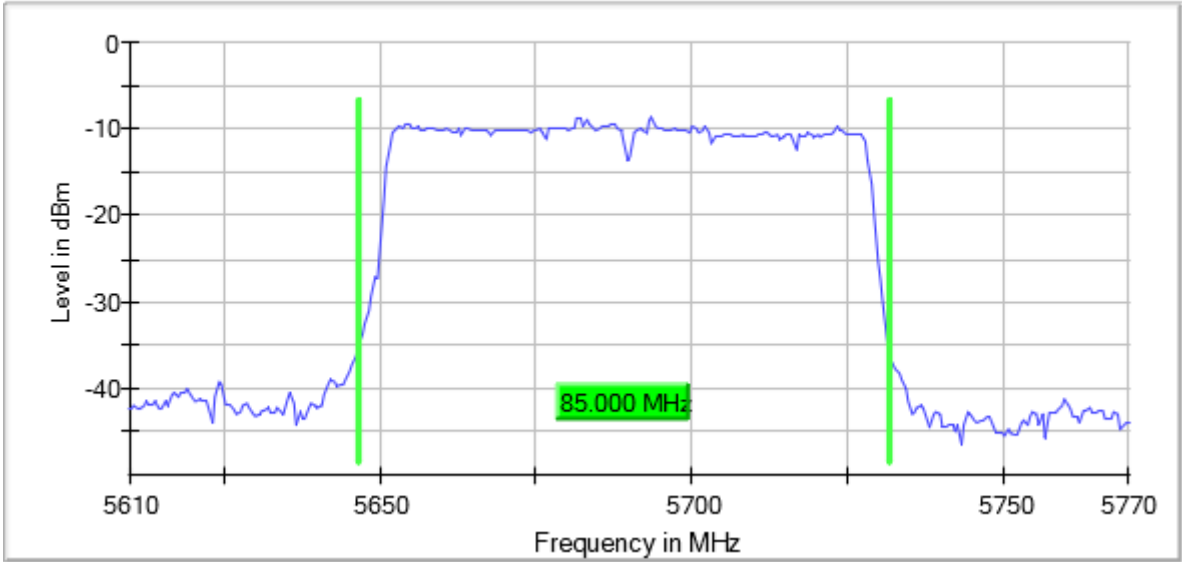
Images:



Active Port = 1  
Modulation = 802.11ac VHT80 (OFDM MCS0) MIMO Mode = SISO  
Frequency MHz = 5690.00000

Images:

26 dB Bandwidth



## RSS-247 6.2.3.2 / FCC 15.407 (b) (3) (6) [Rse] Transmitter Out of Band Radiated Emissions For transmitters operating in the 5.47-5.725 GHz band

### Limits

\* FCC 15.407: For transmitters operating in the 5.725–5.85 GHz band: All emissions shall be limited to a level of –27 dBm/MHz (68.23 dBμV/m at 3 m distance) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)):

| Frequency Range (MHz) | Field strength (μV/m) | Field strength (dBμV/m) | Measurement distance (m) |
|-----------------------|-----------------------|-------------------------|--------------------------|
| 0.009-0.490           | 2400/F(kHz)           | -                       | 300                      |
| 0.490-1.705           | 24000/F(kHz)          | -                       | 30                       |
| 1.705 - 30.0          | 30                    | -                       | 30                       |
| 30 - 88               | 100                   | 40                      | 3                        |
| 88 - 216              | 150                   | 43.5                    | 3                        |
| 216 - 960             | 200                   | 46                      | 3                        |
| 960 - 40000           | 500                   | 54                      | 3                        |

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

\* RSS-247:

Attenuation below the general field strength limits specified in RSS-Gen is not required.

### Frequency range tested for Radiated emissions:

Start frequency: no radiofrequency signal generated in the device found below 10<sup>th</sup> sub-harmonic, no further investigation required.

Stop frequency: it has been performed the radiated spurious emissions until 10<sup>th</sup> harmonic.

MIMO Mode: SISO

Tests results for worst-case 20MHz Modulation: 802.11n HT20 (OFDM MCS0)

Tests results for worst-case 40MHz Modulation: 802.11n HT40 (OFDM MCS0)

Tests results for worst-case 80MHz Modulation: 802.11ac VHT80 (OFDM MCS0)

Duty Cycle correction for 20MHz: 0dB  
Duty Cycle correction for 40MHz: +0.39dB  
Duty Cycle correction for 80MHz: +0.92dB

Frequency Range GHz = [0.03, 1]

The spurious frequencies detected do not depend on the channel neither the modulation

Results

| Port | Freq Rng (GHz) | Unwanted Freq (MHz) | Unwanted Lvl (dBµV/m) | Unwanted Lvl Corrected (dBµV/m) | Pol | Detector |
|------|----------------|---------------------|-----------------------|---------------------------------|-----|----------|
| 1    | [0.03, 1]      | 43.793              | 30.50                 | 30.50                           | H   | QP       |
|      |                | 43.793              | 32.59                 | 32.59                           | H   | PK       |
|      |                | 54.910              | 31.59                 | 31.59                           | H   | PK       |
|      |                | 54.910              | 27.70                 | 27.70                           | H   | QP       |
|      |                | 58.663              | 32.68                 | 32.68                           | H   | PK       |
|      |                | 58.663              | 28.99                 | 28.99                           | H   | QP       |
|      |                | 59.294              | 30.12                 | 30.12                           | H   | PK       |
|      |                | 59.294              | 26.61                 | 26.61                           | H   | QP       |
|      |                | 60.235              | 30.52                 | 30.52                           | H   | QP       |
|      |                | 60.235              | 32.42                 | 32.42                           | H   | PK       |
|      |                | 66.288              | 32.41                 | 32.41                           | H   | PK       |
|      |                | 66.288              | 30.49                 | 30.49                           | H   | QP       |

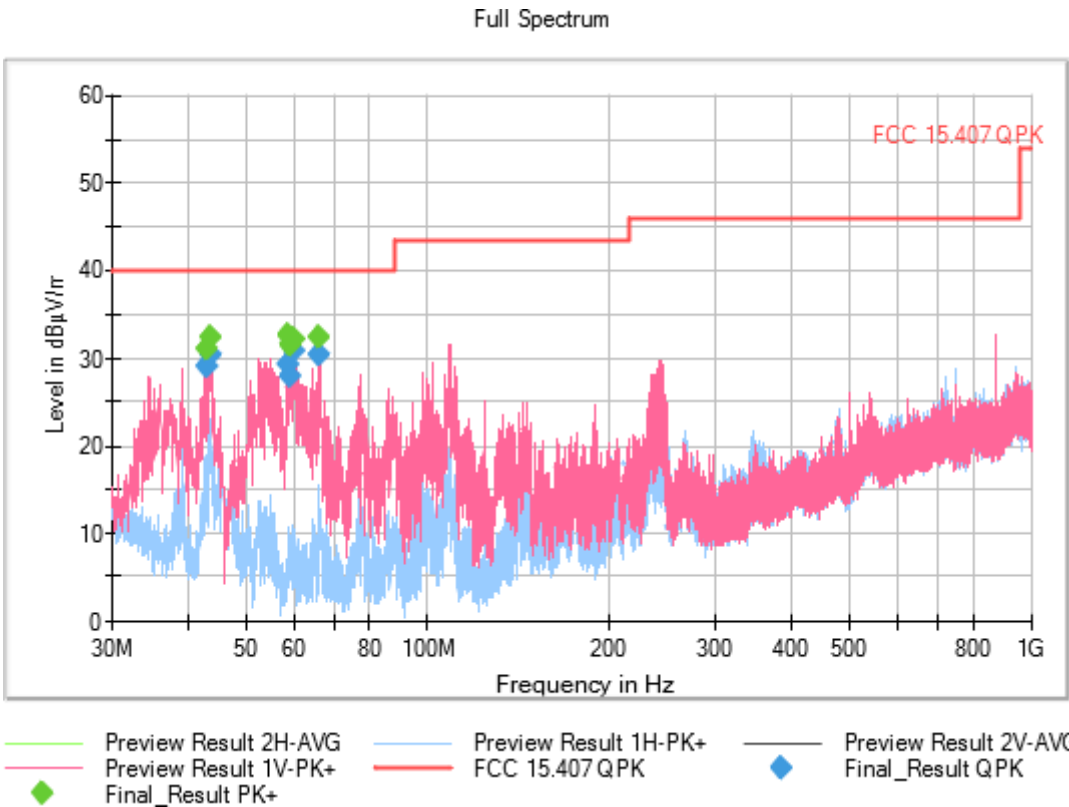
Verdict

Pass

Attachments

Active Port = 1  
Frequency Range GHz = [0.03, 1]  
The spurious frequencies detected do not depend on the transmission Band or the Modulation  
MIMO Mode = SISO

Images:



Frequency Range GHz = [1, 17]

Modulation: 802.11a (OFDM 6 Mbit/s)

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11n HT20 (OFDM MCS0)

Results

| Port | Freq (MHz) | Unwanted Freq (MHz) | Unwanted Lvl (dBµV/m) | Unwanted Lvl (dBµV/m) Corrected | PoI | Detector |
|------|------------|---------------------|-----------------------|---------------------------------|-----|----------|
| 1    | 5580.00000 | 1334.565            | 42.47                 | 42.47                           | V   | AVG      |
| 1    | 5580.00000 | 1334.565            | 56.84                 | 56.84                           | V   | PK       |
| 1    | 5720.00000 | 1334.730            | 42.21                 | 42.21                           | V   | AVG      |
| 1    | 5720.00000 | 1334.730            | 56.69                 | 56.69                           | V   | PK       |

Modulation: 802.11n HT40 (OFDM MCS0)

Results

| Port | Freq (MHz) | Unwanted Freq (MHz) | Unwanted Lvl (dBµV/m) | Unwanted Lvl (dBµV/m) Corrected | PoI | Detector |
|------|------------|---------------------|-----------------------|---------------------------------|-----|----------|
| 1    | 5510.00000 | 1008.800            | 55.78                 | 56.17                           | V   | PK       |
| 1    | 5510.00000 | 1008.800            | 41.82                 | 42.21                           | V   | AVG      |
| 1    | 5510.00000 | 1343.420            | 57.16                 | 57.52                           | V   | PK       |
| 1    | 5510.00000 | 1343.420            | 42.71                 | 43.10                           | V   | AVG      |
| 1    | 5550.00000 | 1000.110            | 57.04                 | 57.43                           | V   | PK       |
| 1    | 5550.00000 | 1000.110            | 39.67                 | 40.06                           | V   | AVG      |
| 1    | 5710.00000 | 1004.070            | 56.93                 | 57.32                           | V   | PK       |
| 1    | 5710.00000 | 1004.070            | 39.13                 | 39.52                           | V   | AVG      |

Modulation: 802.11ac VHT20 (OFDM MCS0)

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11ac VHT40 (OFDM MCS0)

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11ac VHT80 (OFDM MCS0)

Results

| Port | Freq (MHz) | Unwanted Freq (MHz) | Unwanted Lvl (dBµV/m) | Unwanted Lvl (dBµV/m) Corrected | Pol | Detector |
|------|------------|---------------------|-----------------------|---------------------------------|-----|----------|
| 1    | 5530.00000 | 1010.450            | 47.77                 | 48.69                           | V   | PK       |
| 1    | 5530.00000 | 1010.450            | 39.64                 | 40.56                           | V   | AVG      |
| 1    | 5530.00000 | 1357.280            | 50.22                 | 51.14                           | V   | PK       |
| 1    | 5530.00000 | 1357.280            | 40.99                 | 41.91                           | V   | AVG      |
| 1    | 5690.00000 | 1004.675            | 57.67                 | 58.59                           | V   | PK       |
| 1    | 5690.00000 | 1004.675            | 39.02                 | 39.94                           | V   | AVG      |

Verdict

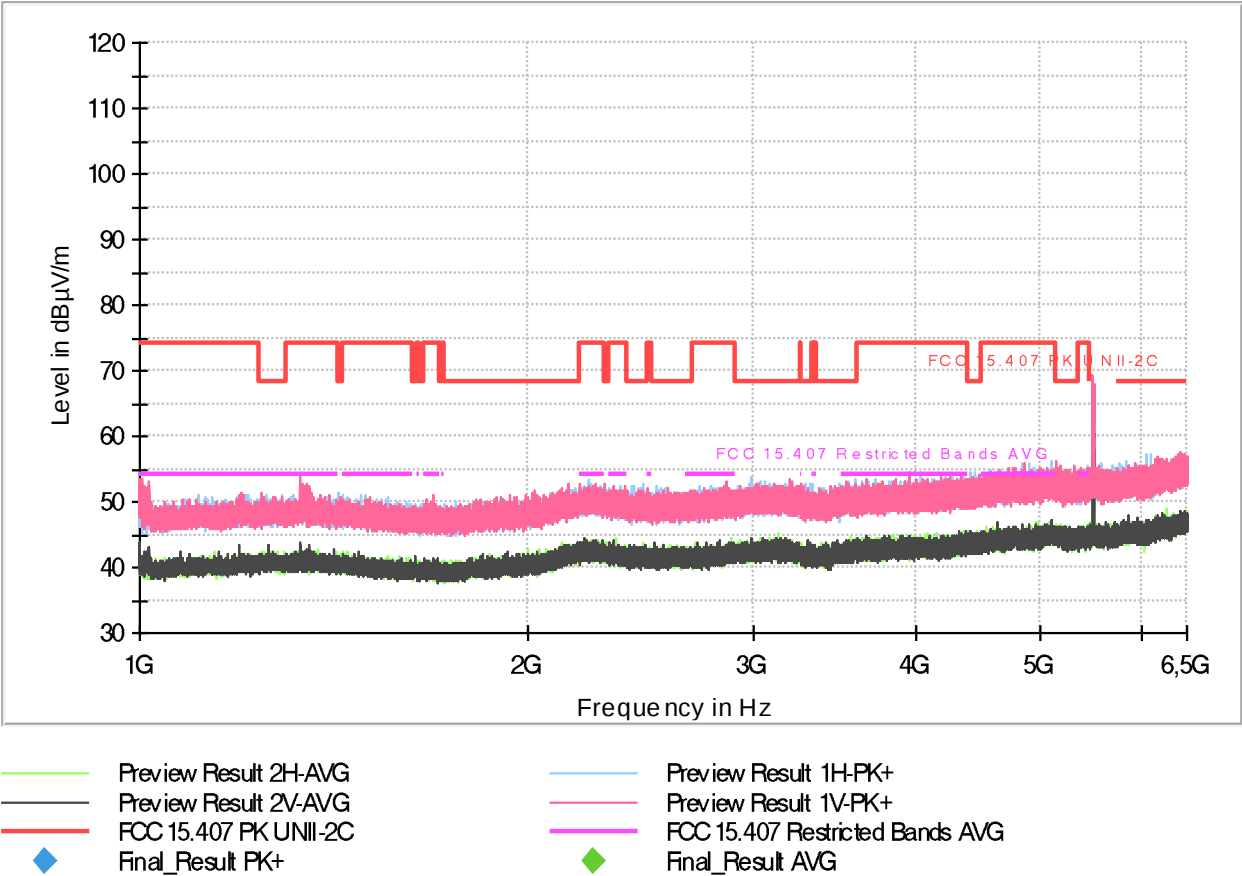
Pass

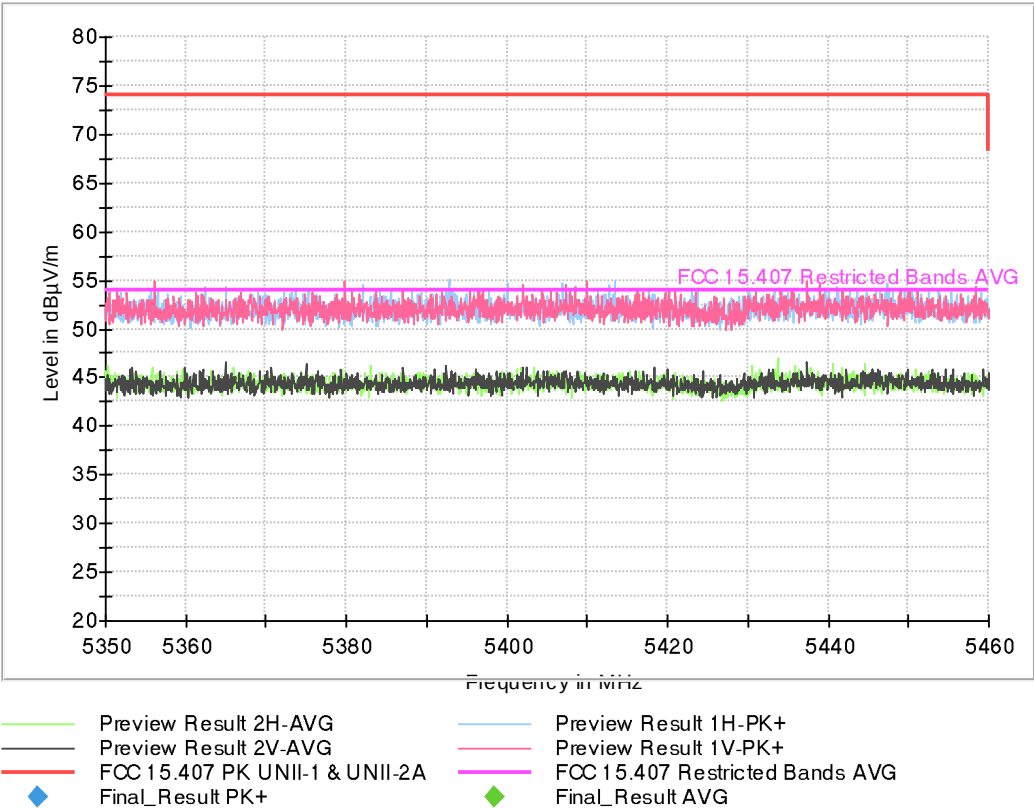
Attachments

Active Port = 1                      Frequency Range GHz = [1, 6.5]  
Frequency MHz = 5500.00000    Modulation = 802.11n HT20 (OFDM MCS0)  
MIMO Mode = SISO

Images:

Full Spectrum





Active Port = 1                      Frequency Range GHz = [1, 6.5]  
Frequency MHz = 5580.00000    Modulation = 802.11n HT20 (OFDM MCS0)  
MIMO Mode = SISO

Images:

Full Spectrum

