

## Appendix C: Test results. WLAN 2.4 GHz

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# TEST CONDITIONS

(\*): Data provided by the client.

POWER SUPPLY (\*):

Vnominal: 12 Vdc  
Type of Power Supply: Battery

ANTENNA (\*):

| Technology | Antenna Gain | Type     |
|------------|--------------|----------|
| WLAN 2G4:  | +0.1 dBi     | External |

TEST FREQUENCIES (\*):

| Modulation  | Data rates                              | Low Channel | Middle Channel | High Channel |
|-------------|-----------------------------------------|-------------|----------------|--------------|
| 802.11b:    | 1 Mbit/s                                | 2412 MHz    | 2437 MHz       | 2462 MHz     |
| 802.11g:    | 6 Mbit/s                                | 2412 MHz    | 2437 MHz       | 2462 MHz     |
| 802.11n:    | HT20 MCS0<br>6.5 Mbit/s                 | 2412 MHz    | 2437 MHz       | 2462 MHz     |
| 802.11ax20: | OFDM – SU<br>Full-channel<br>allocation | 2412 MHz    | 2437 MHz *     | 2462 MHz     |
| 802.11ax20: | OFDMA – RU<br>Subcarrier<br>allocation  | 2412 MHz    | 2437 MHz       | 2462 MHz     |

The measured RU offset is indicated in the following table:

|                |   |
|----------------|---|
| Offset ChLow:  | 0 |
| Offset ChMid:  | 4 |
| Offset ChHigh: | 8 |

During transmitter test the EUT was controlled by a SW tool provided by the client to operate in a continuous transmit mode on the modulation schemes and test channels as required.

### CONDUCTED MEASUREMENTS:

The equipment under test was set up in a shielded room and it is connected to the TS8997 using a low loss RF cable. The reading of the spectrum analyser is corrected taking into account the cable loss.



### RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz and 1 GHz-17 GHz Double ridge horn antenna) is situated at a distance of 3 m and at a distance of 1.5 m for the frequency range 17 GHz-26 GHz (17 GHz-40 GHz horn antenna).

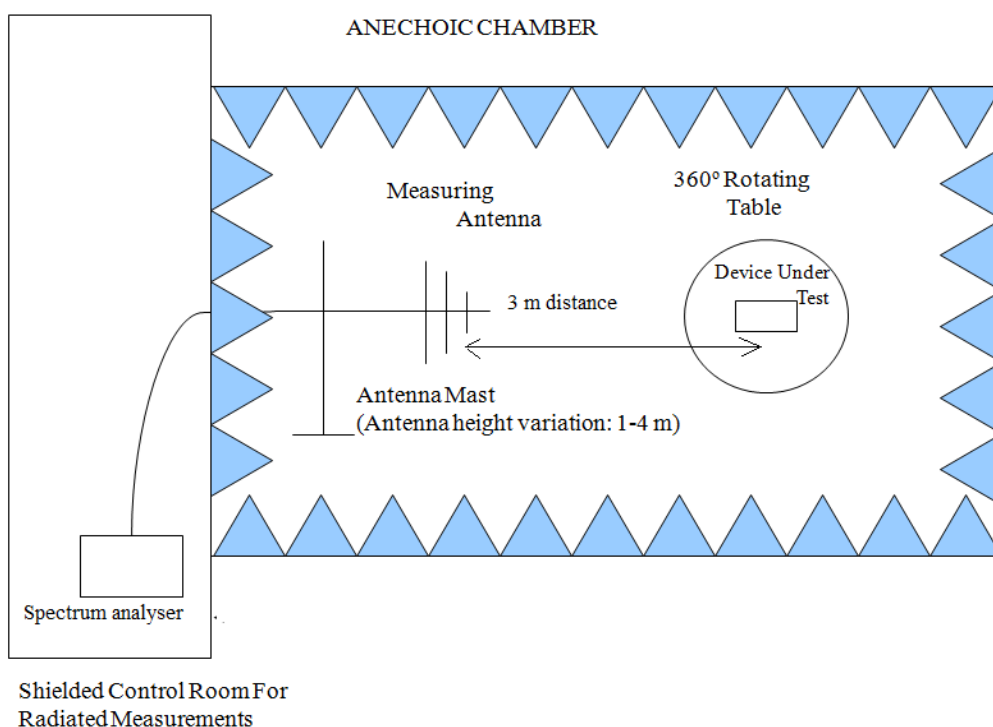
For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

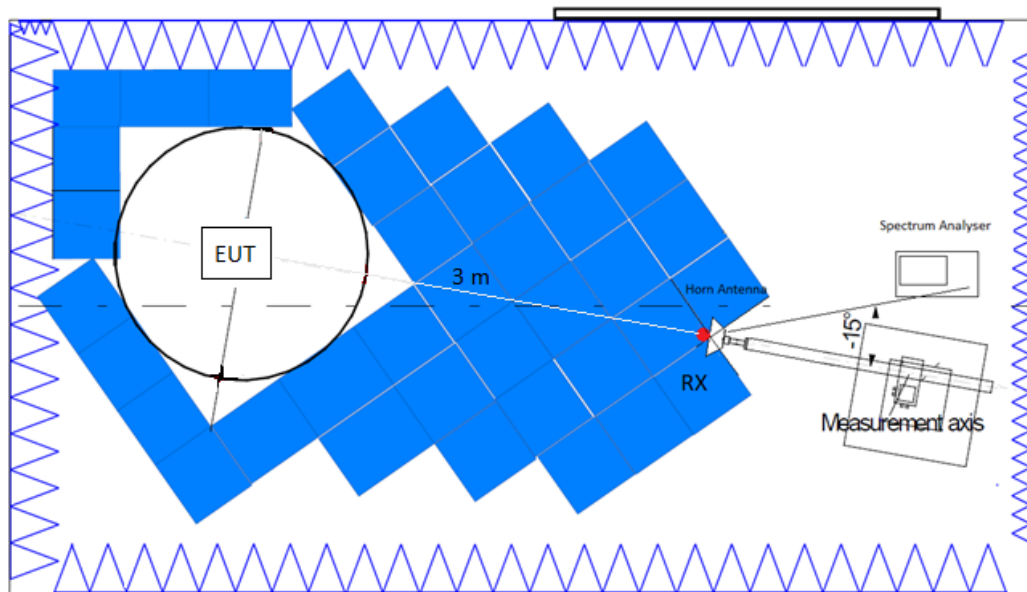
Measurements were made in both horizontal and vertical planes of polarization.

A resolution bandwidth/video bandwidth of 100 kHz / 300 kHz was used for frequencies below 1 GHz and 1 MHz / 3 MHz for frequencies above 1 GHz.

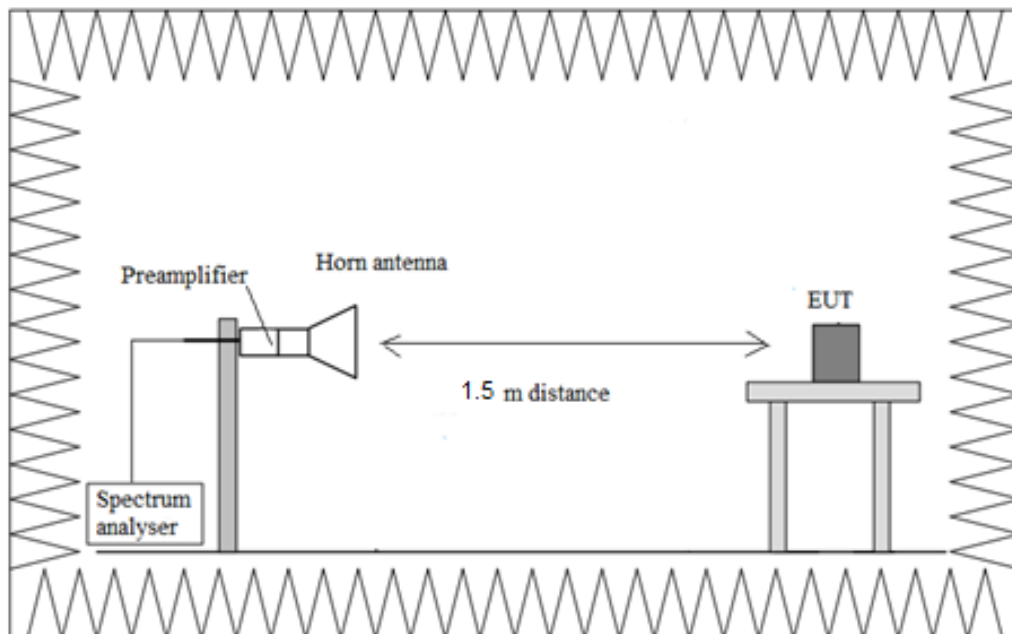
Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup  $f > 17$  GHz:



## TEST CASES DETAILS

### FCC 47 CFR Part 15.247 / RSS-247 Occupied Channel Bandwidth 99%

**Limits**

RSS-Gen 6.7 / FCC 2.1049 - Occupied Channel Bandwidth 99%

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained.

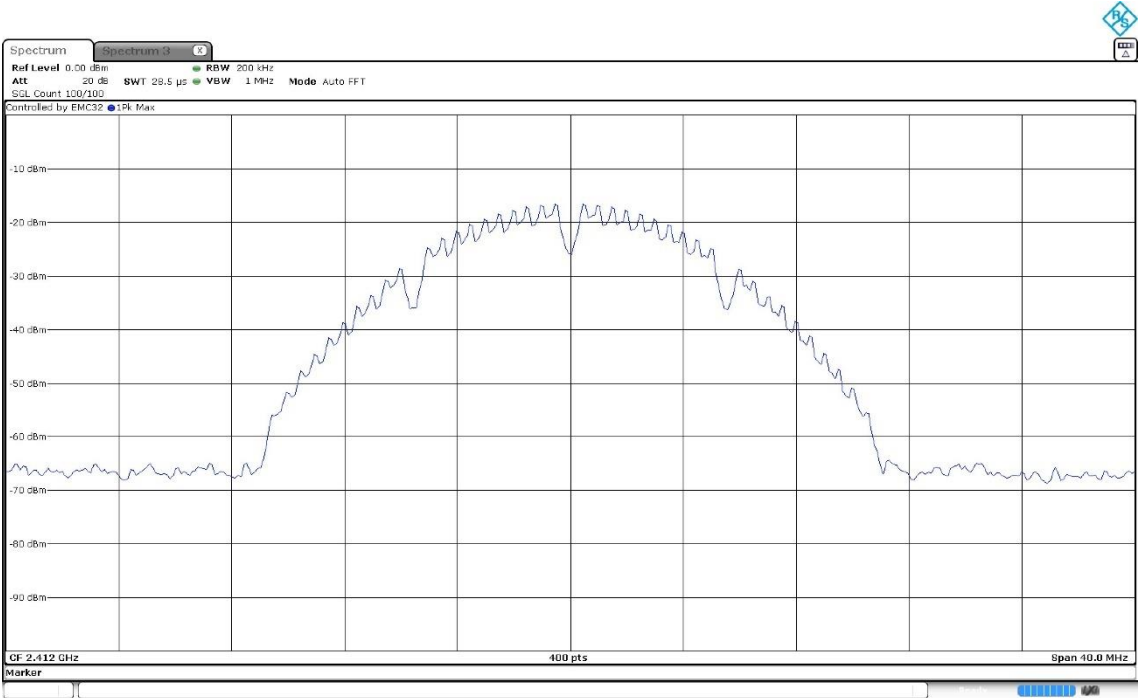
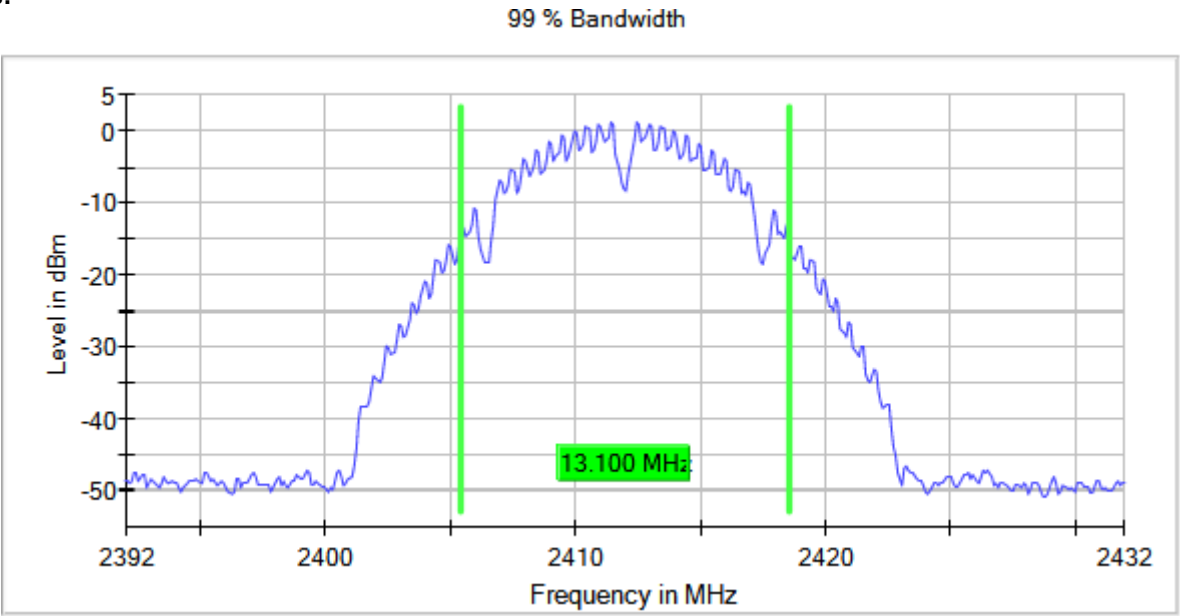
**Results**

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------------------------------|------------|------|-----------------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 13.100          |
|                      |                                   | 2437.00000 |      | 13.100          |
|                      |                                   | 2462.00000 |      | 13.000          |

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:

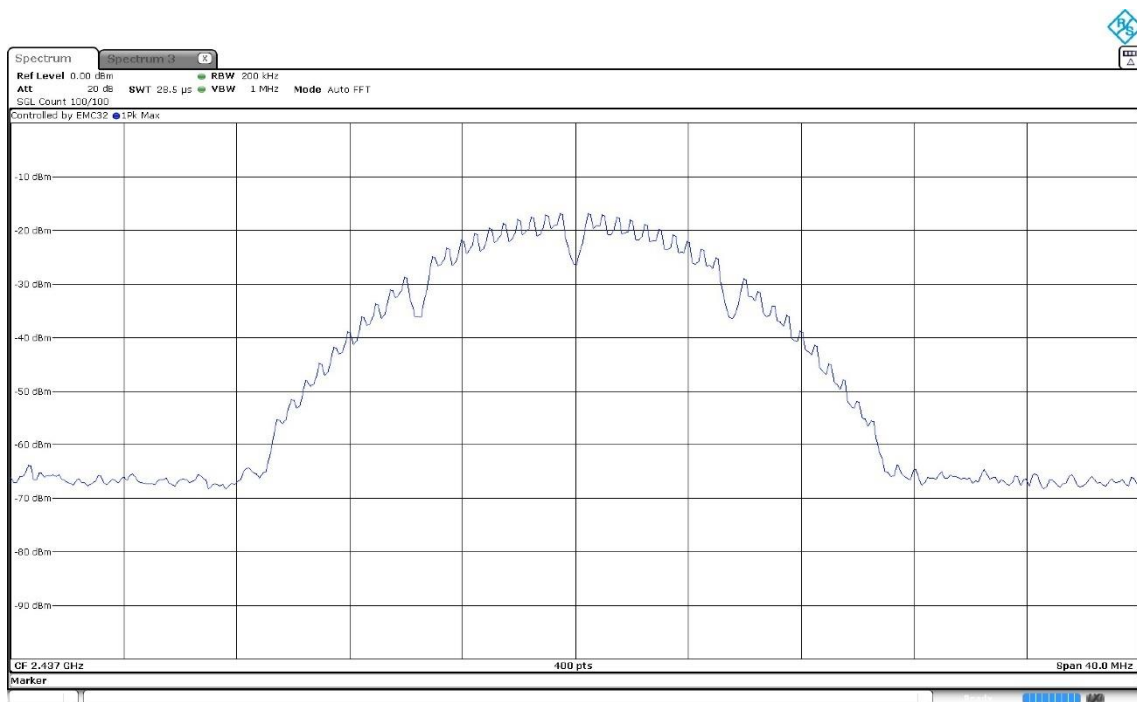
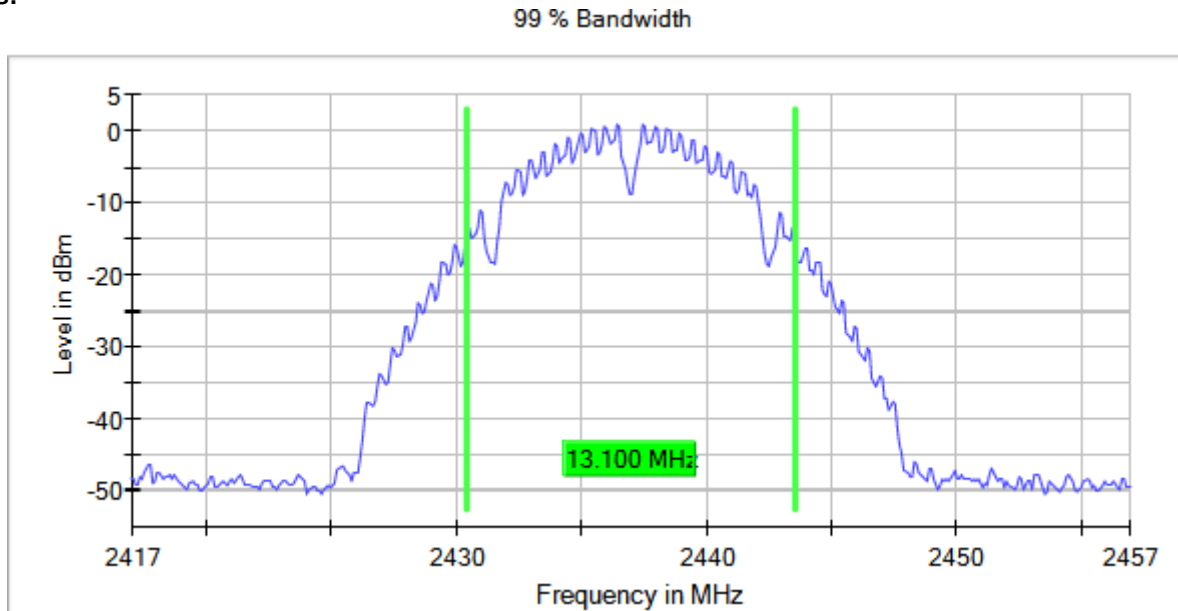


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000      Active Port = 4

Modulation = 802.11b (DSSS 1 Mbit/s)

#### Images:

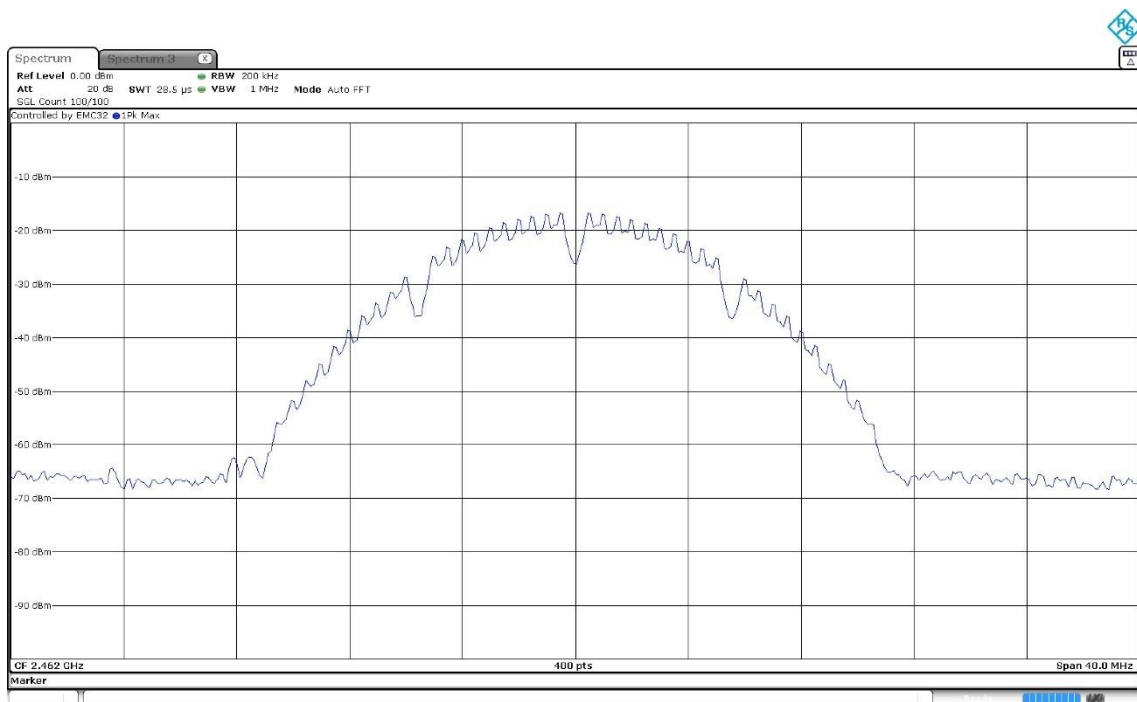
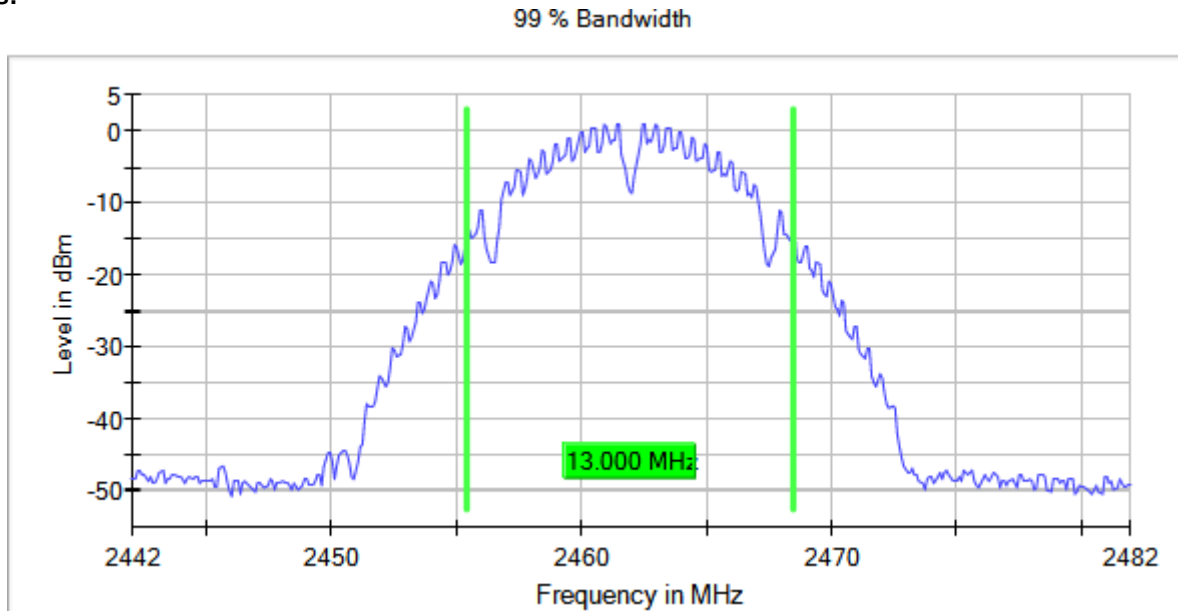


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000      Active Port = 4

Modulation = 802.11b (DSSS 1 Mbit/s)

### Images:



Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------------------------------|------------|------|-----------------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 16.400          |
|                      |                                   | 2437.00000 |      | 16.400          |
|                      |                                   | 2462.00000 |      | 16.400          |

Verdict

Pass

## Attachments

Operation Band MHz = [2400, 2483.5]

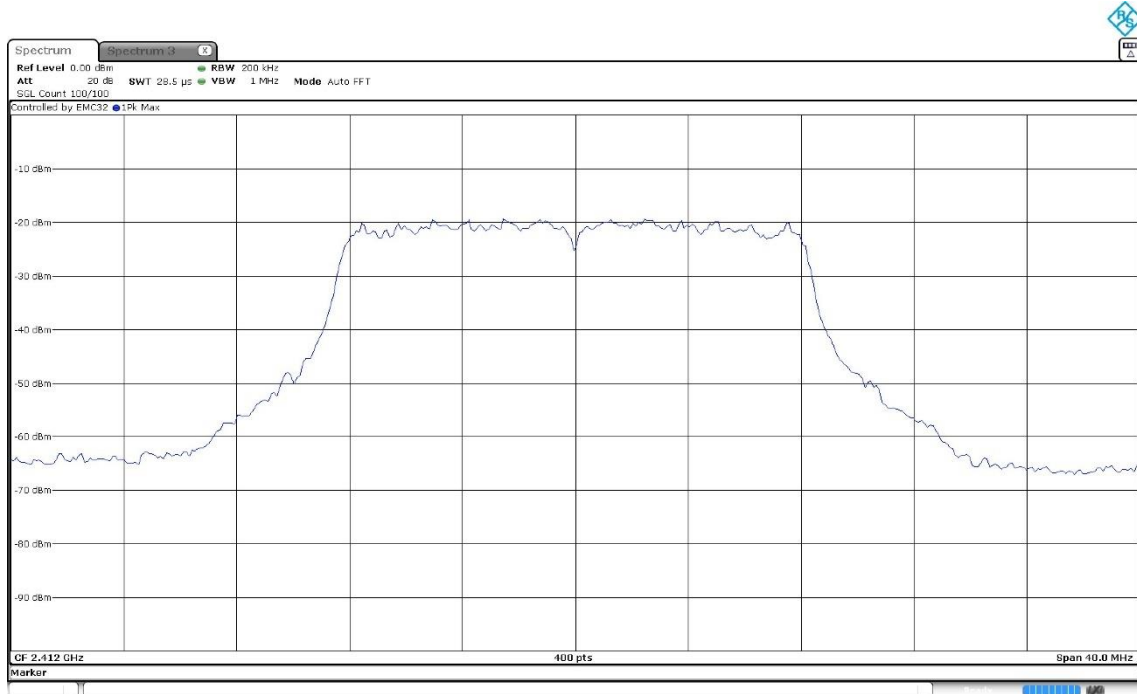
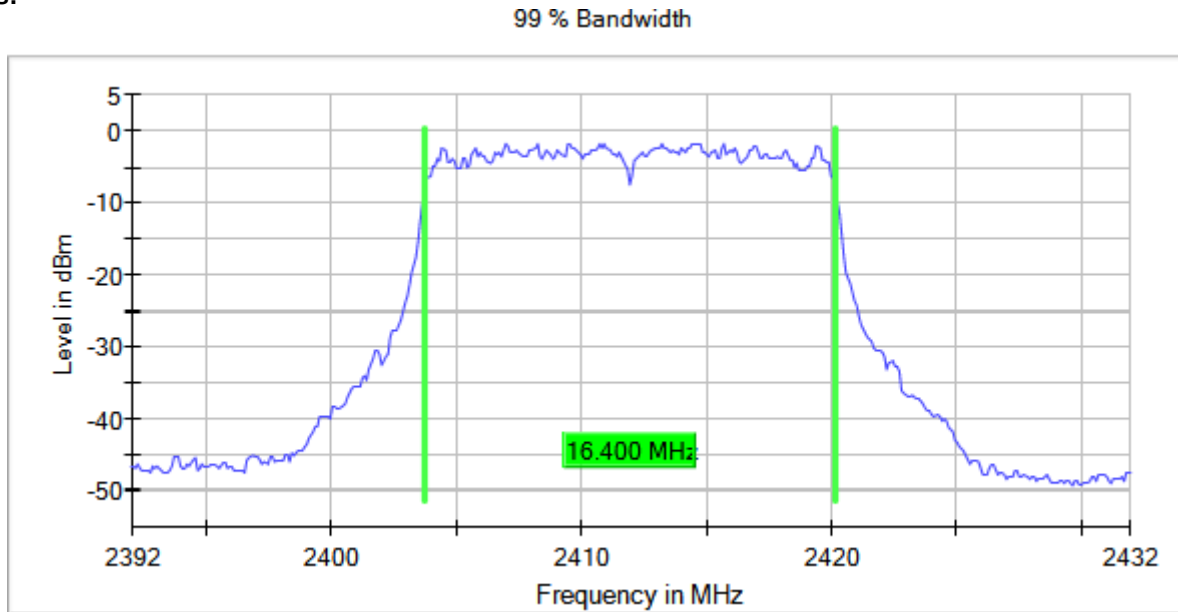
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 4

Modulation = 802.11g (OFDM 6 Mbit/s)

## Images:

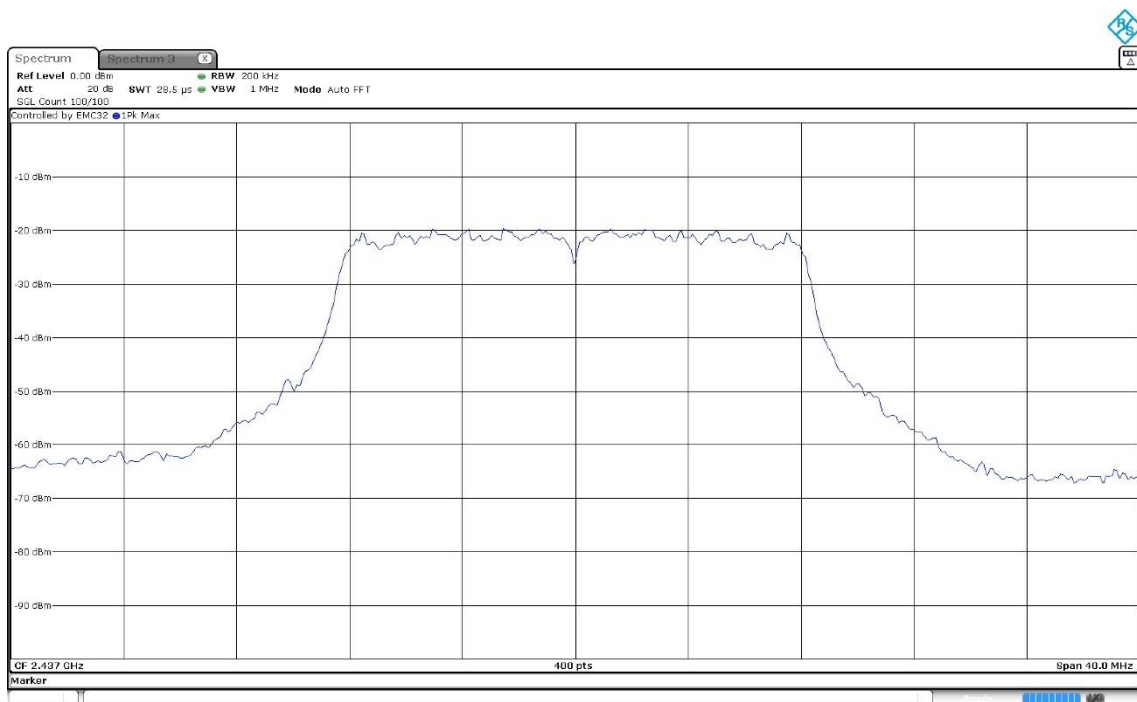
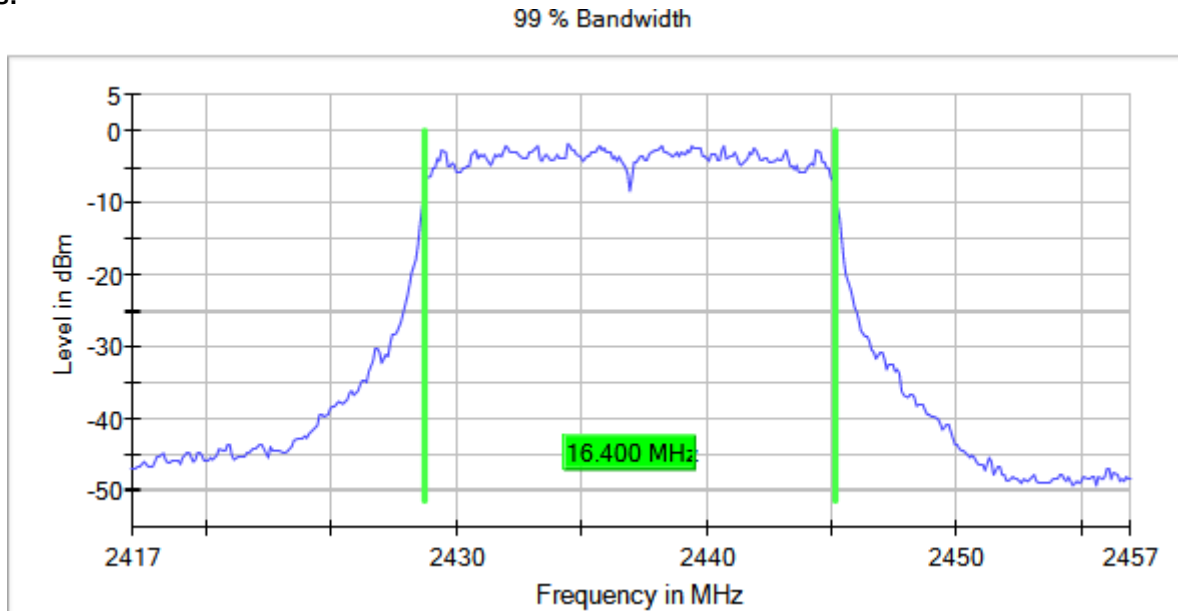


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000      Active Port = 4

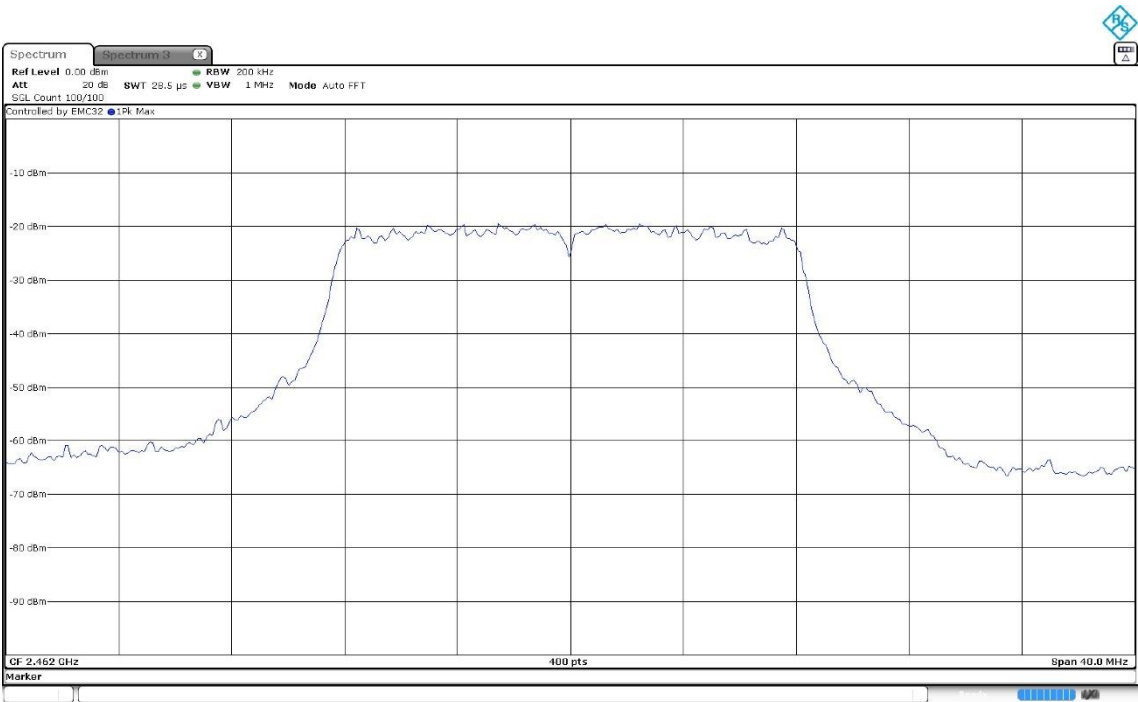
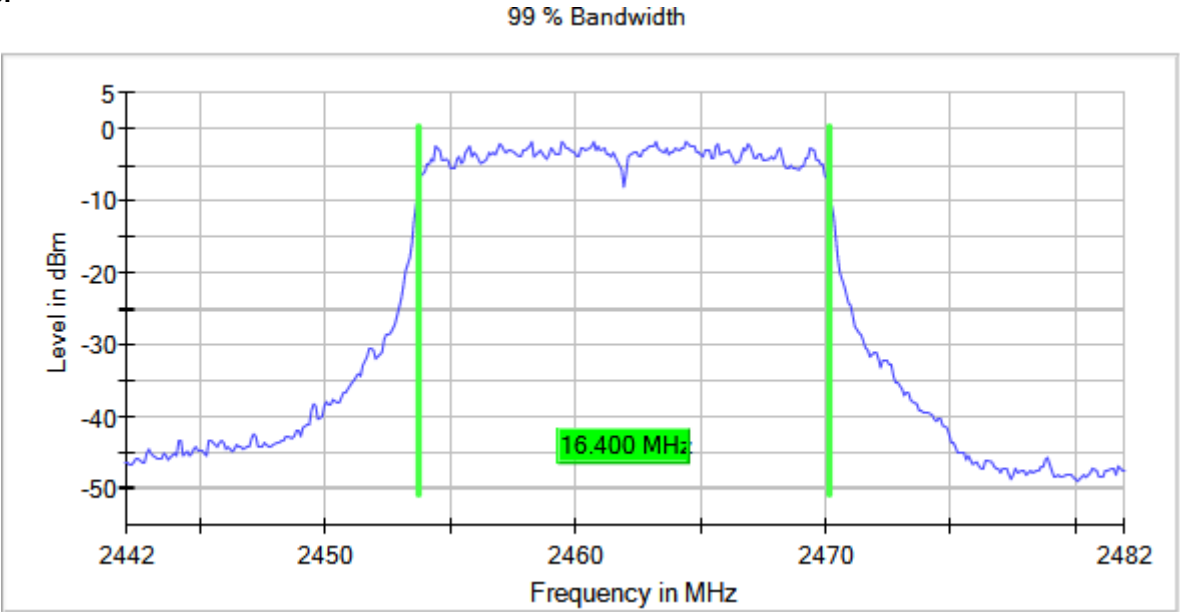
Modulation = 802.11g (OFDM 6 Mbit/s)

#### Images:



Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000      Active Port = 4  
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:



Modulation: 802.11n HT20 (OFDM MCS0)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------------------------------|------------|------|-----------------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 17.500          |
|                      |                                   | 2437.00000 |      | 17.600          |

| Operation Band (MHz) | Equipment | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------|------------|------|-----------------|
|                      |           | 2462.00000 |      | 17.500          |

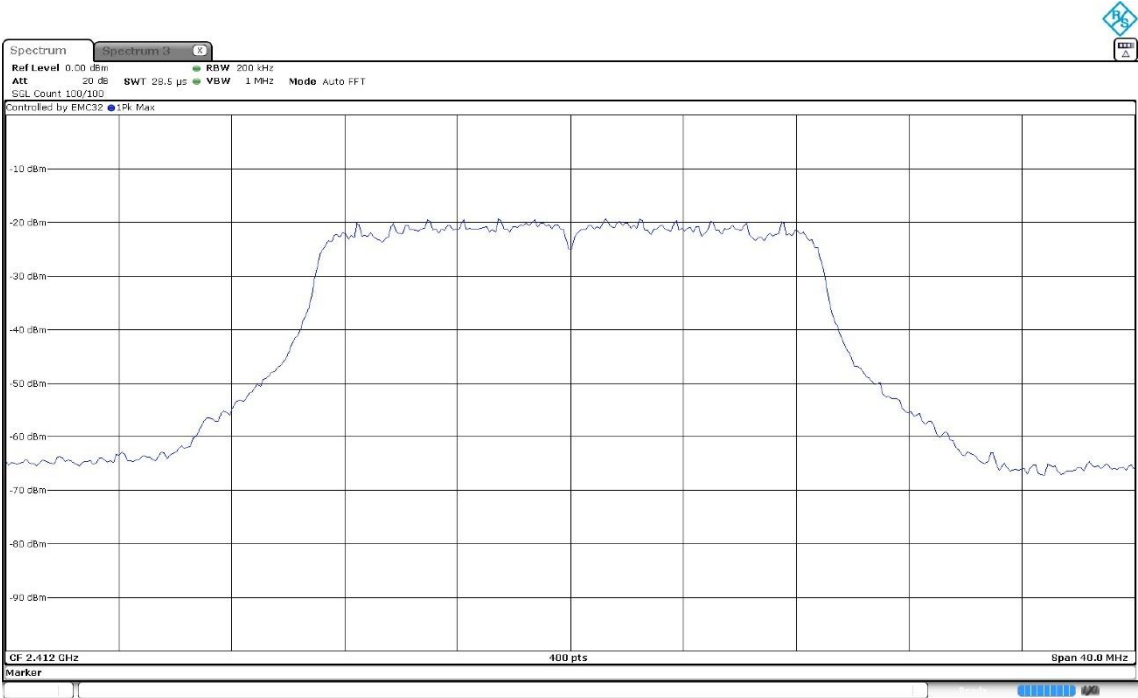
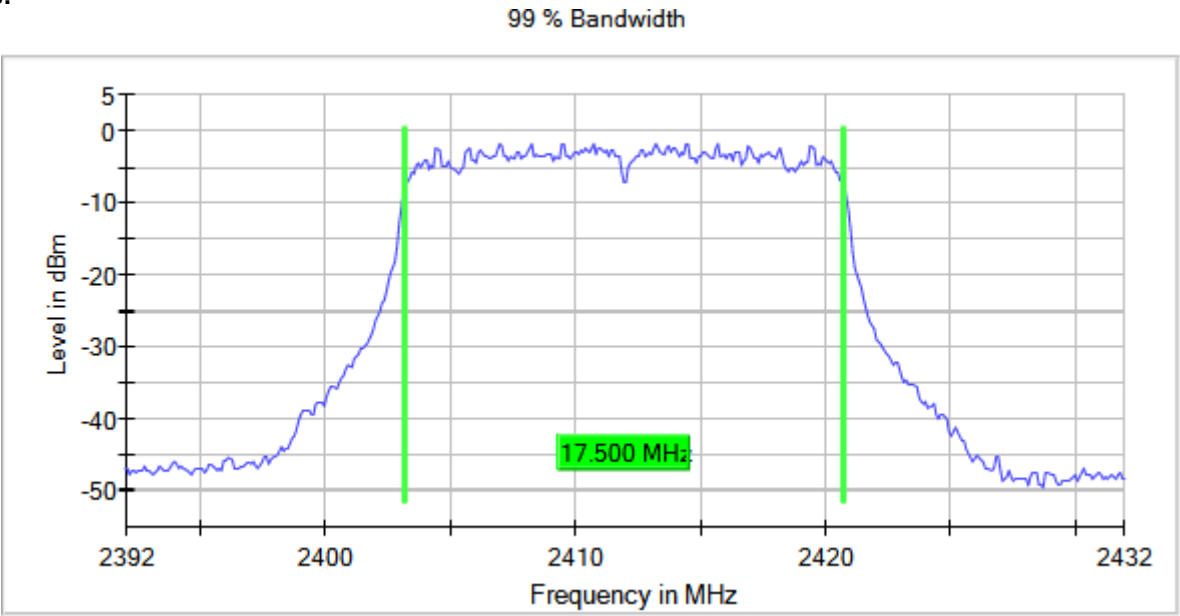
**Verdict**

Pass

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

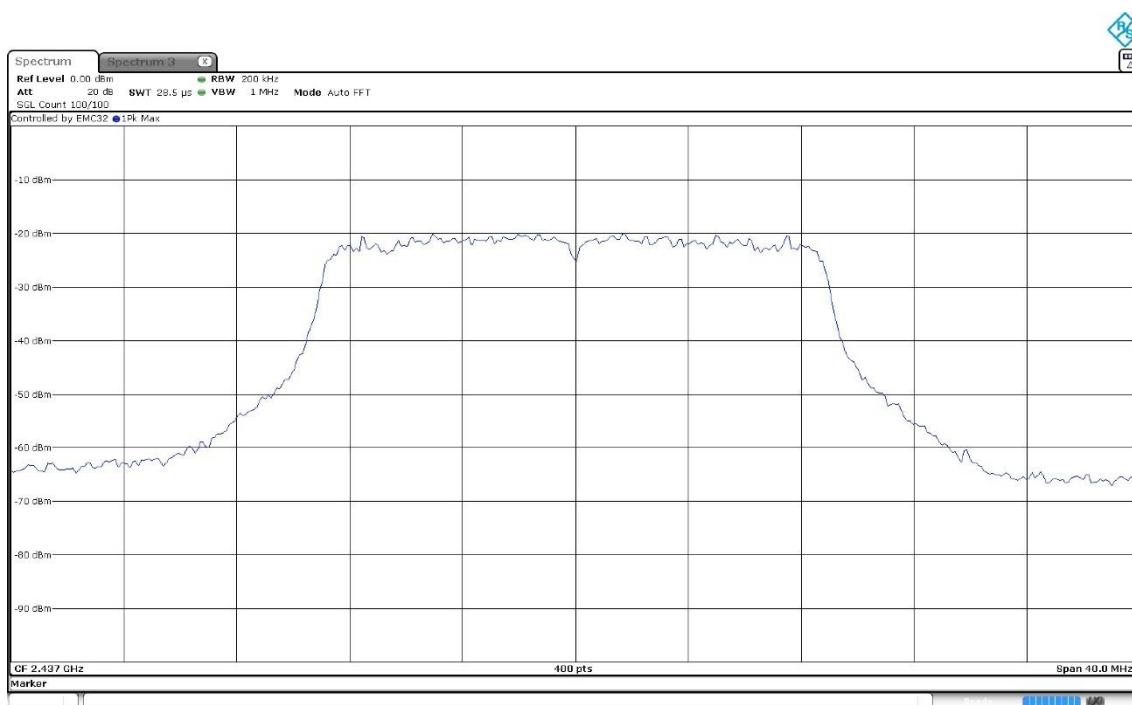
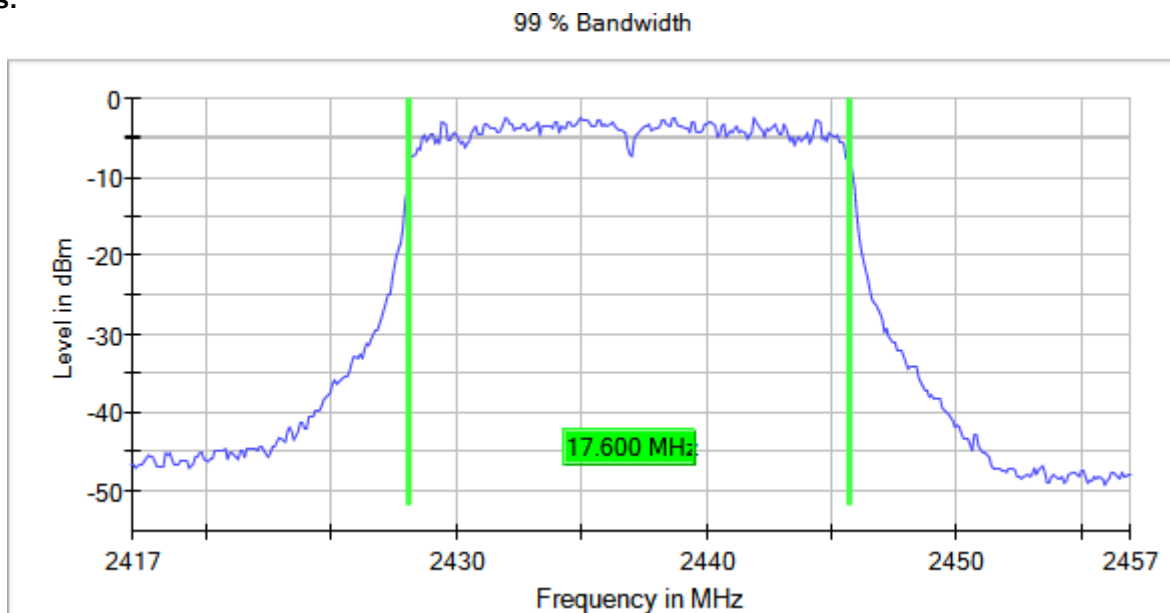
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

## Images:



Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

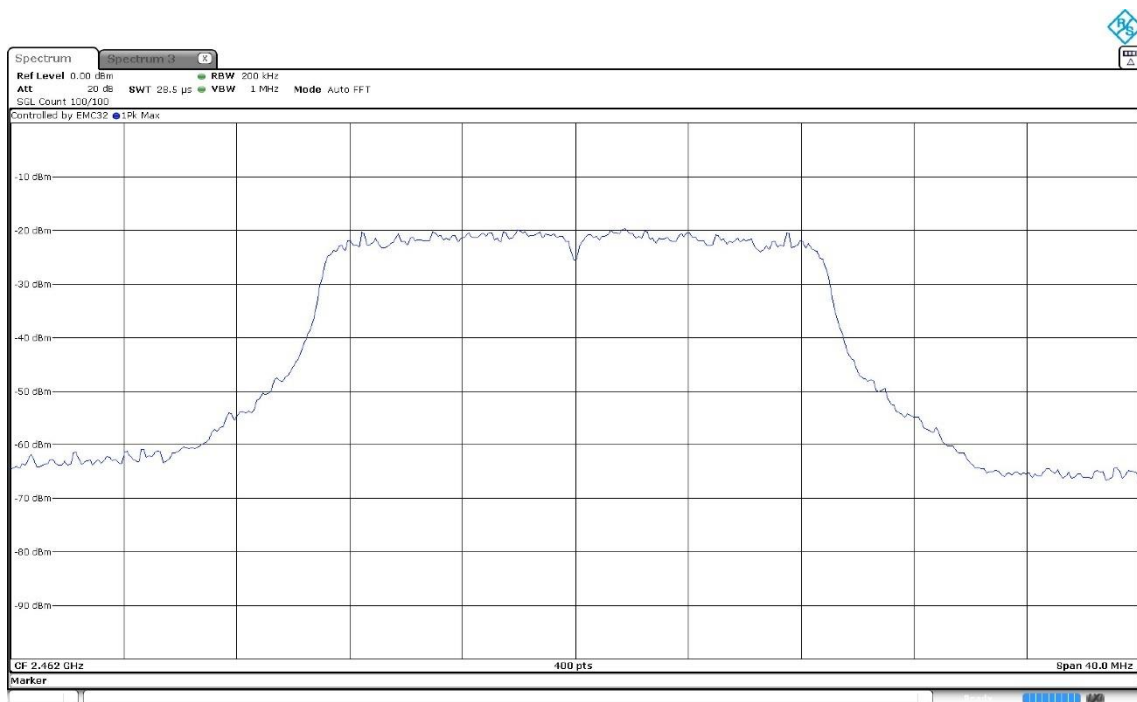
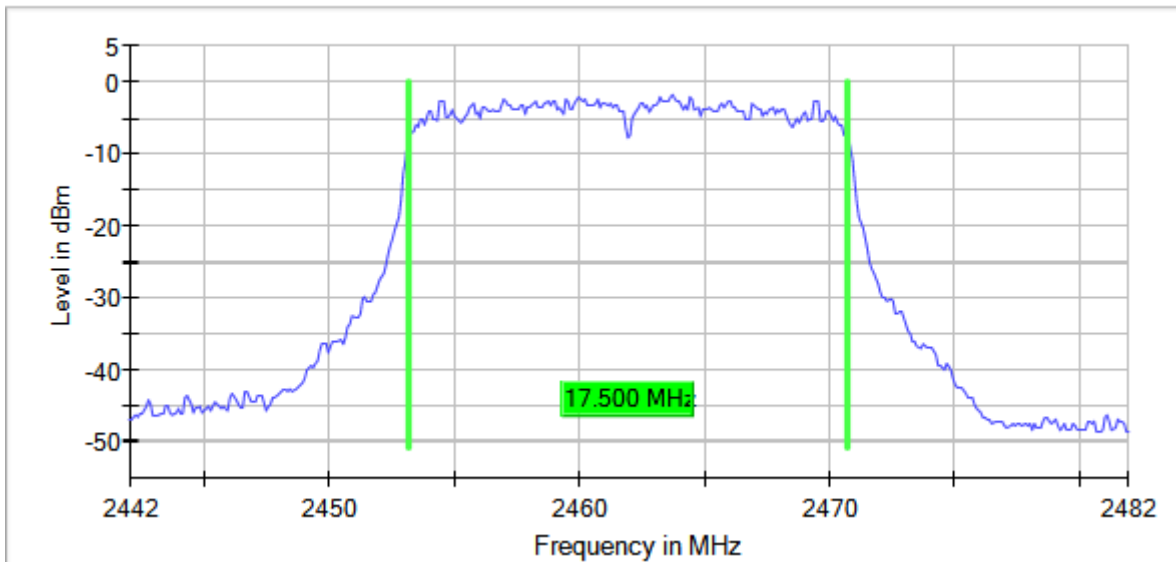
Frequency MHz = 2462.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

### Images:

99 % Bandwidth



Modulation: 802.11ax HE20 (RU 26 Offset 0)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------------------------------|------------|------|-----------------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 18.400          |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2437.00000 | 4    | 17.400          |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | 18.900          |

Modulation: 802.11ax HE20 (SU)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Occ Ch BW (MHz) |
|----------------------|-----------------------------------|------------|------|-----------------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 18.900          |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2437.00000 | 4    | 18.900          |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | 18.600          |

Verdict

Pass

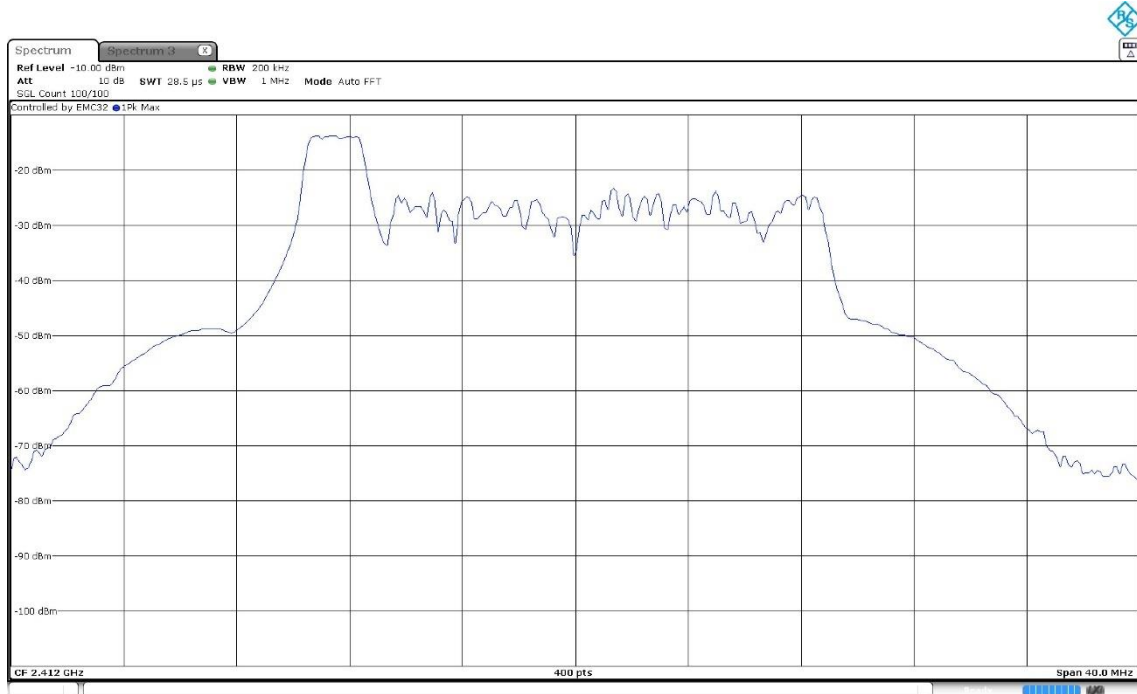
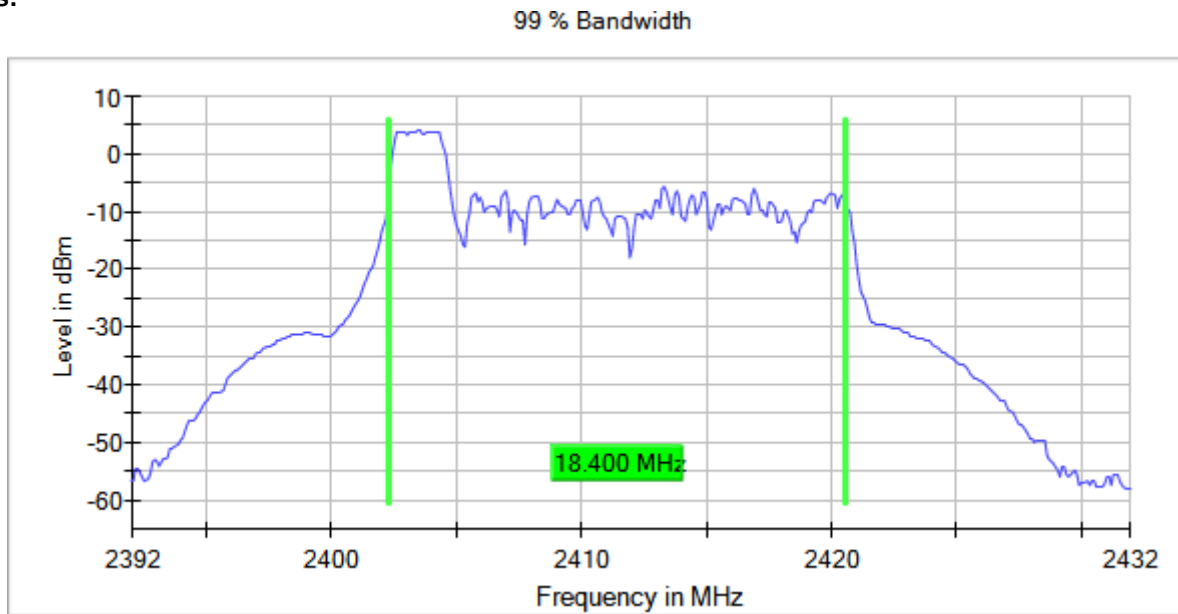
## Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000 Active Port = 4

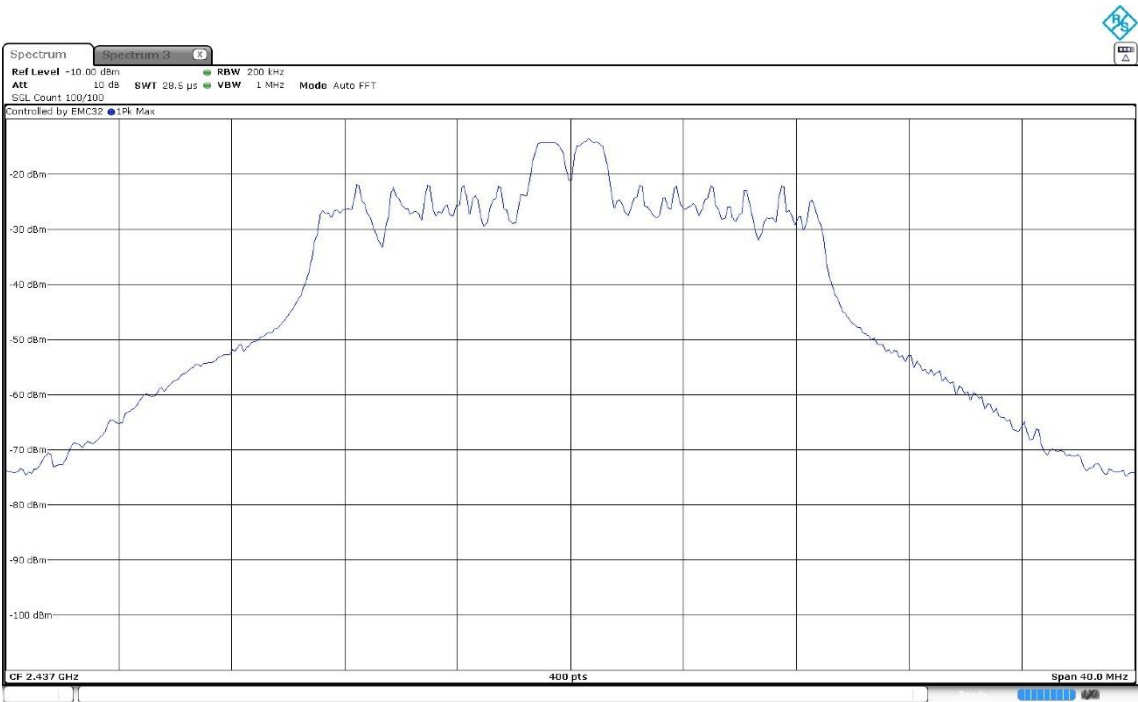
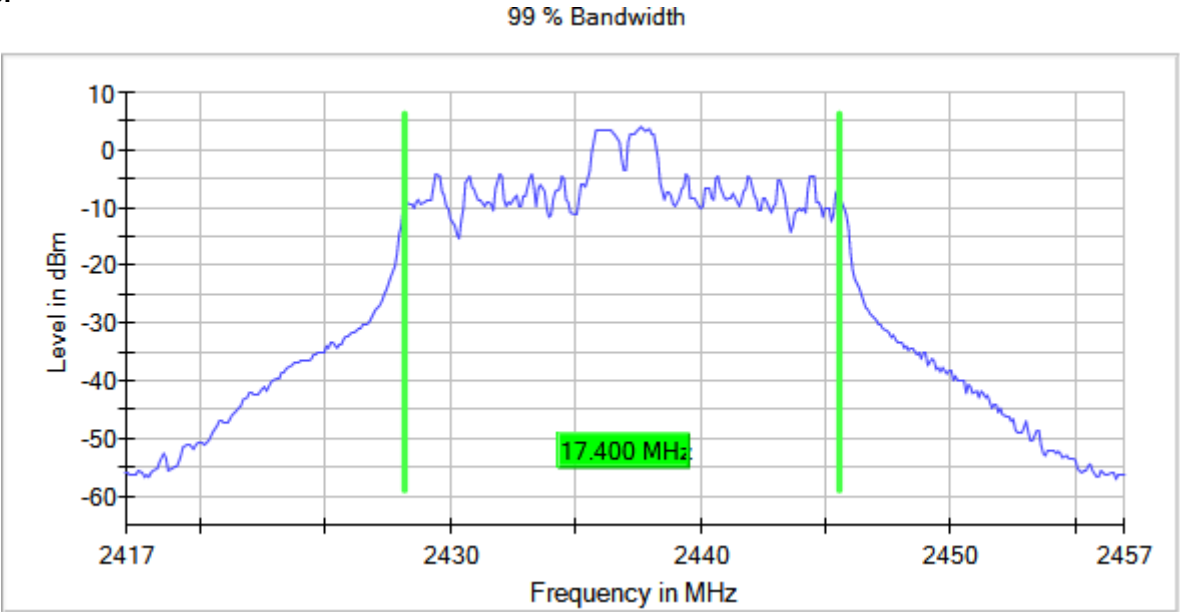
Modulation = 802.11ax HE20 (RU)

## Images:



Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2437.00000    Active Port = 4  
Modulation = 802.11ax HE20 (RU)

Images:

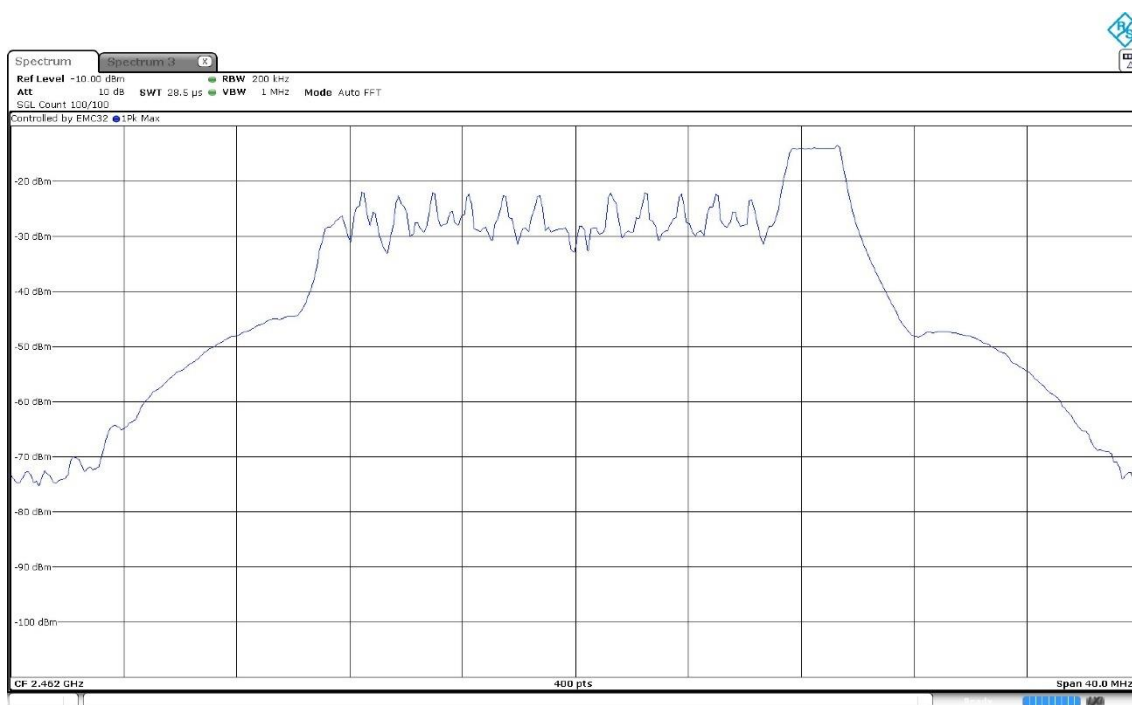
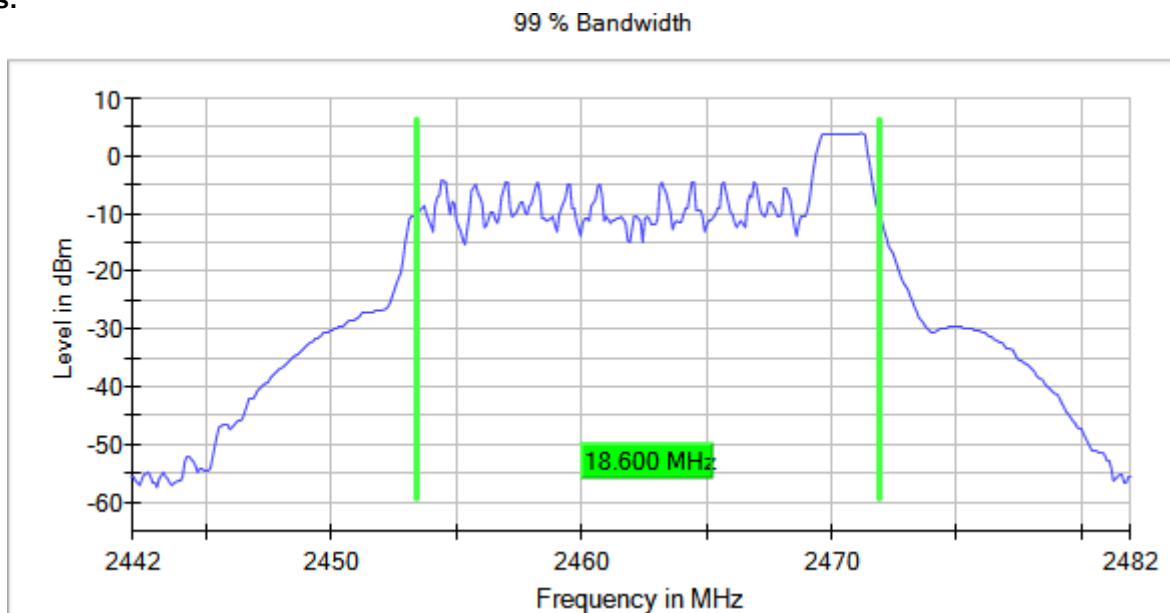


Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000 Active Port = 4

Modulation = 802.11ax HE20 (RU)

### Images:



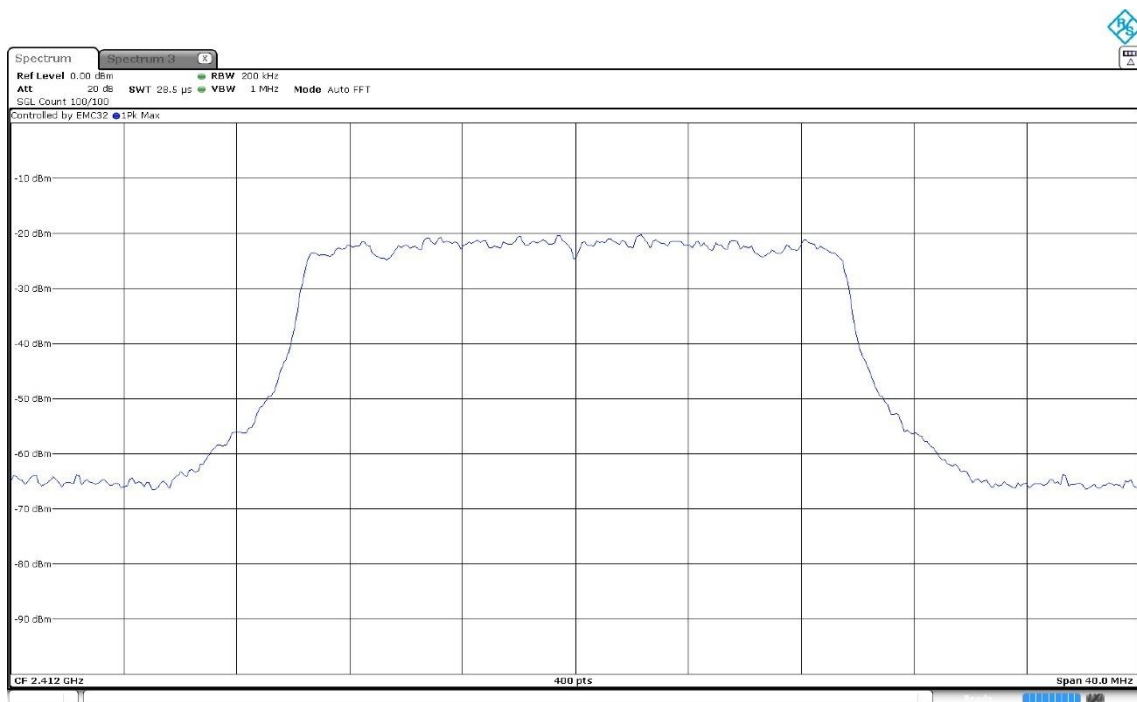
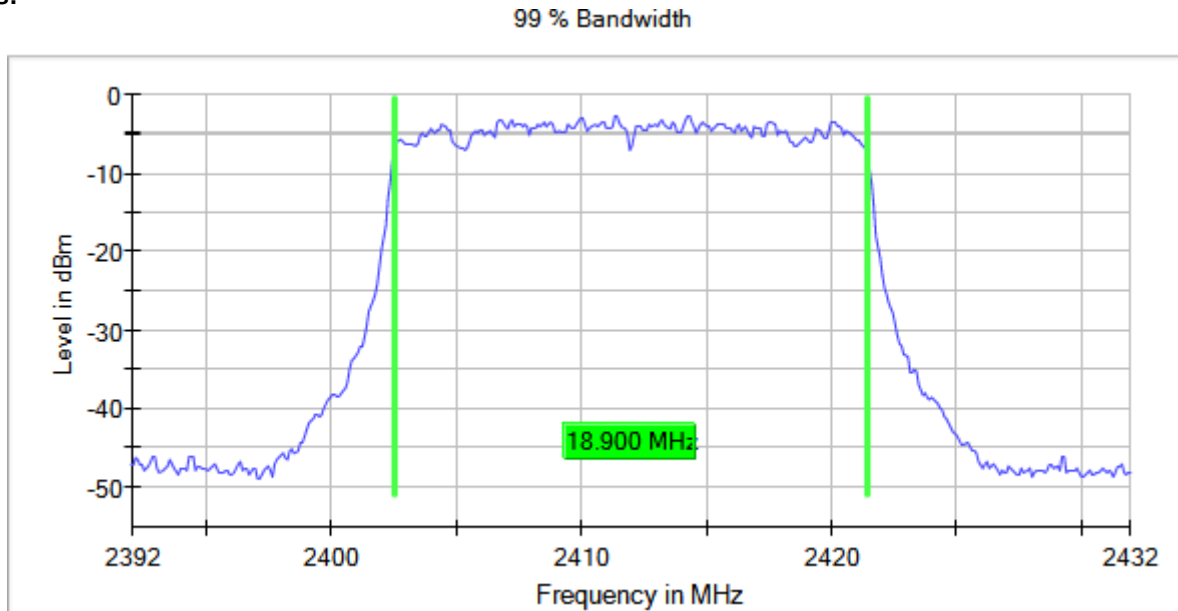
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 4

Modulation = 802.11ax HE20 (SU)

#### Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

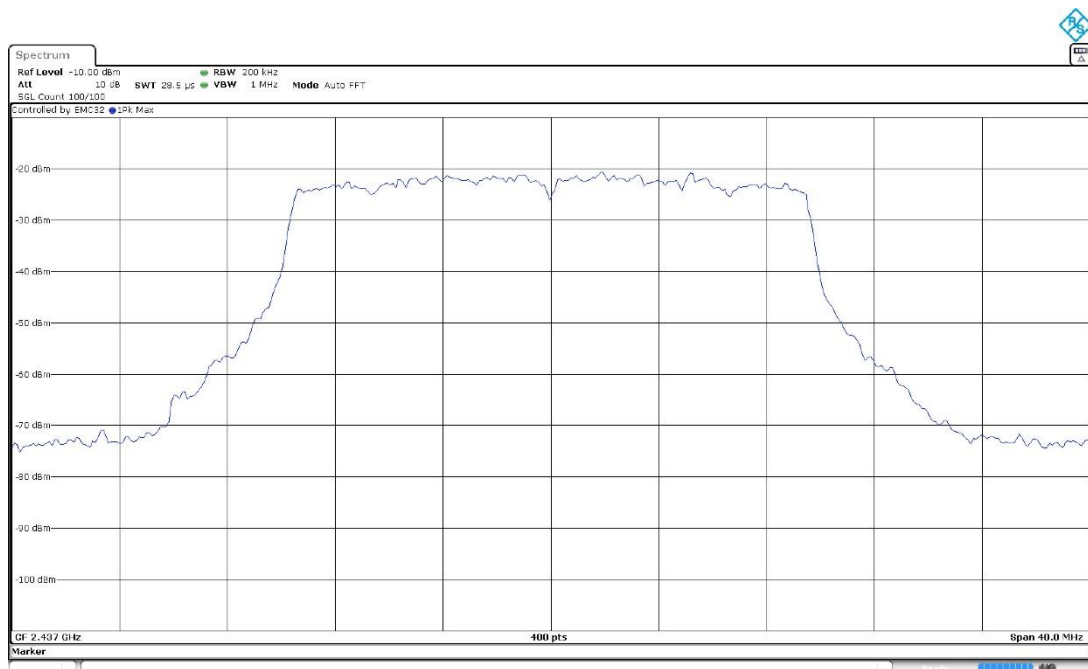
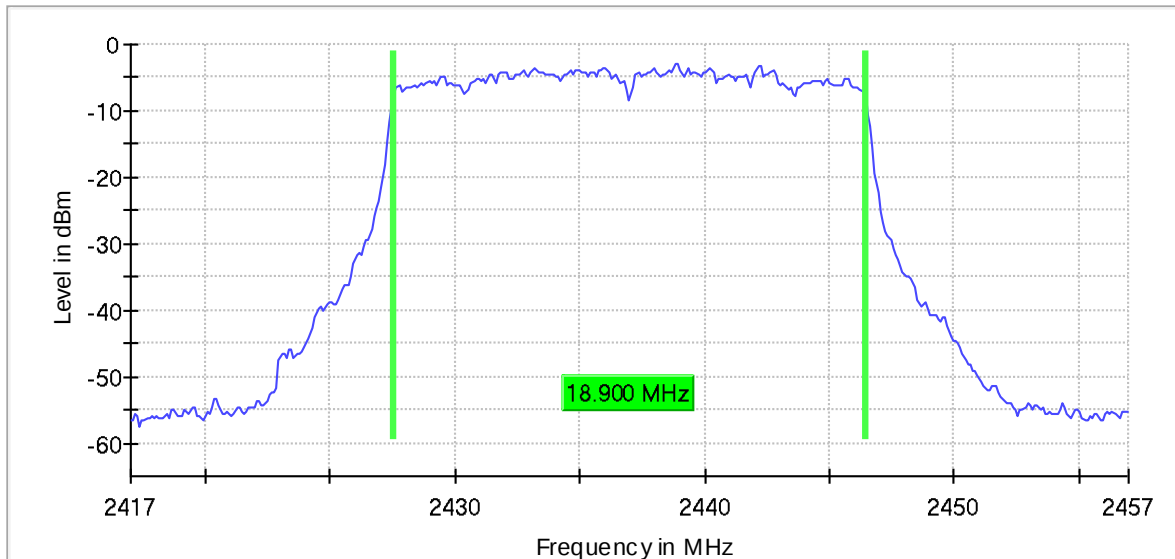
Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11ax HE20 (SU)

## Images:

99 % Bandwidth



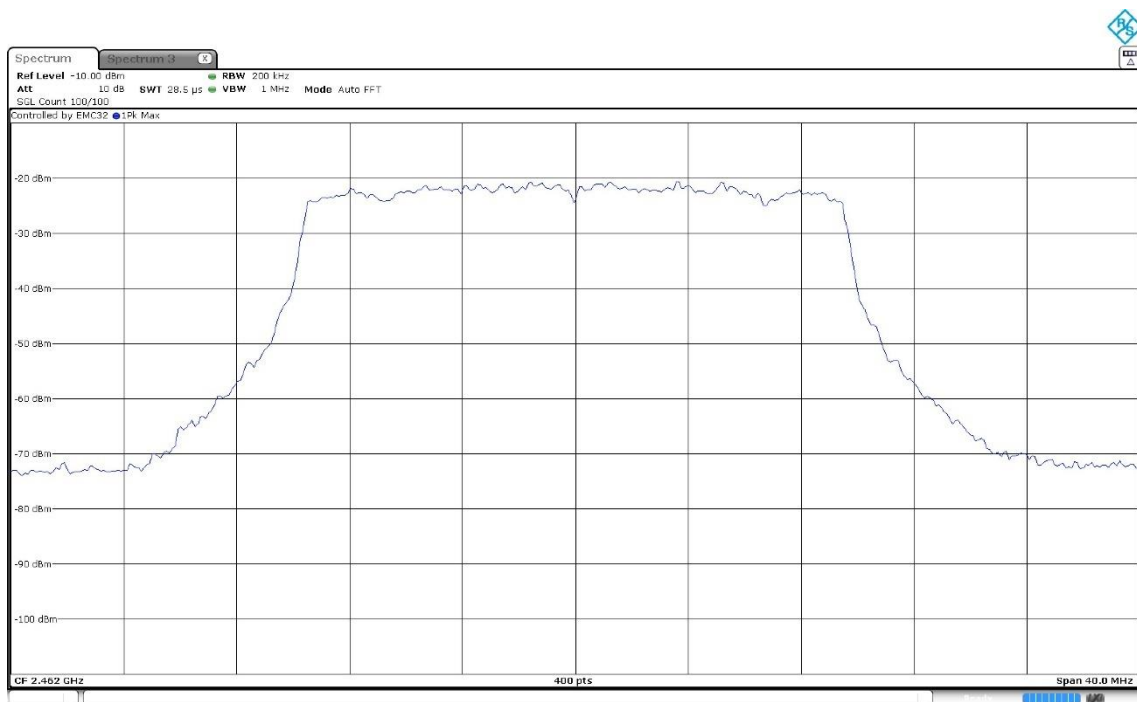
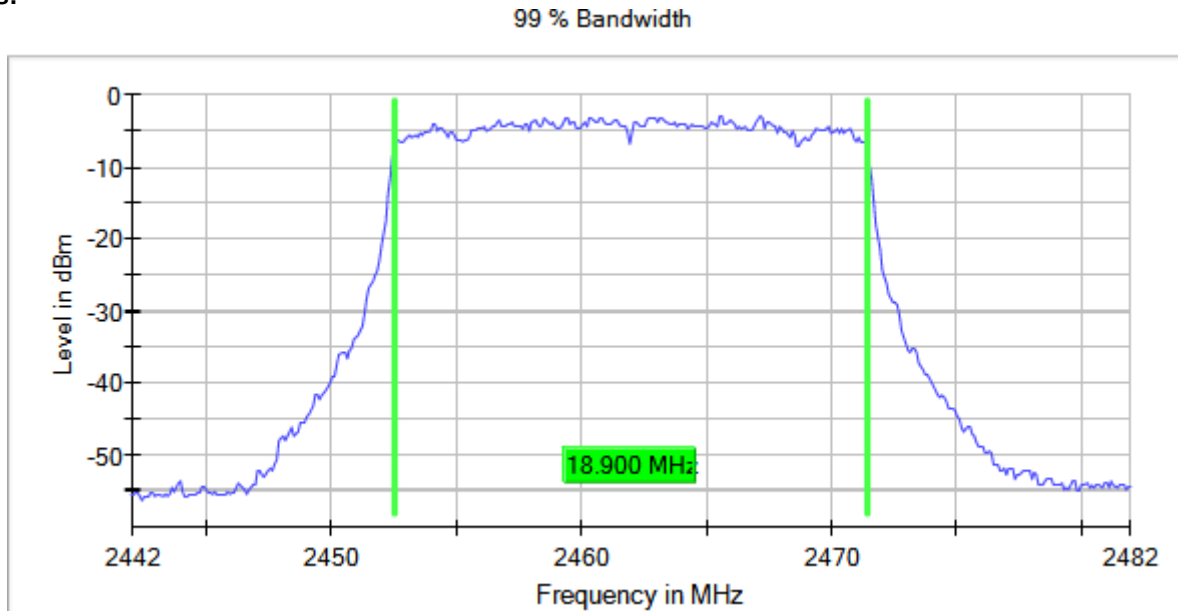
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 4

Modulation = 802.11ax HE20 (SU)

#### Images:



RSS-247 5.2 (a) / FCC 15.247 (a) (2) 6 dB Bandwidth

Limits

The minimum 6 dB bandwidth shall be at least 500 kHz.

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Ebw (MHz) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 7.200     |
|                      |                                   | 2437.00000 |      | 8.150     |
|                      |                                   | 2462.00000 |      | 7.650     |

Verdict

Pass

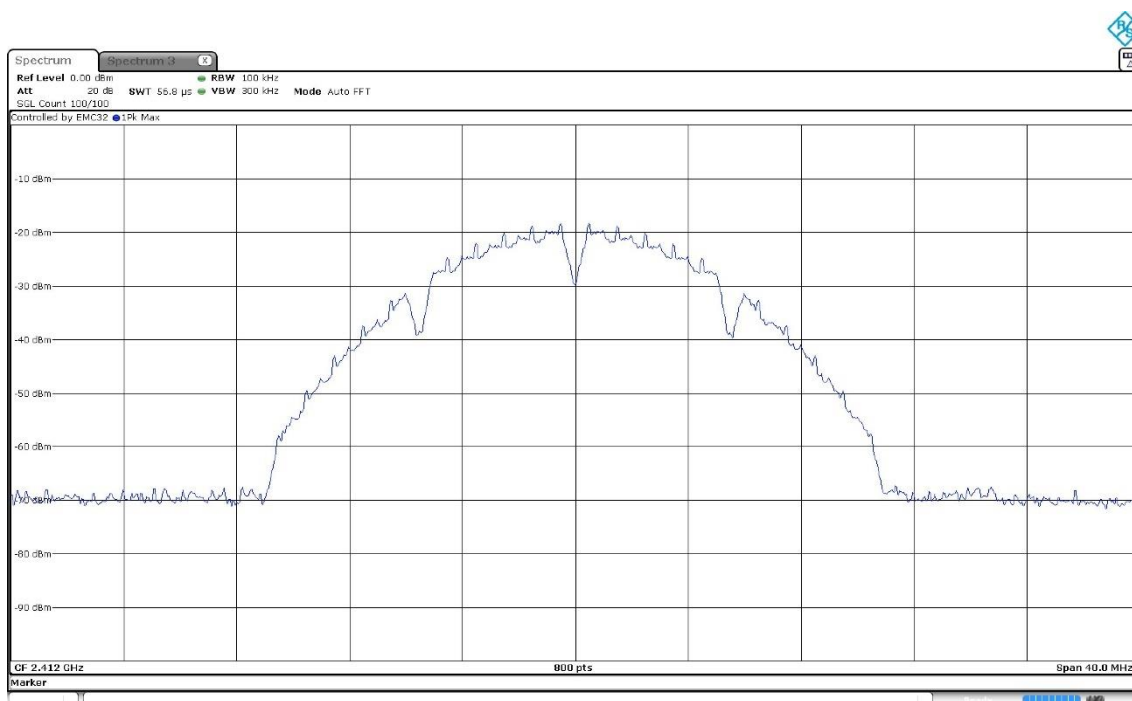
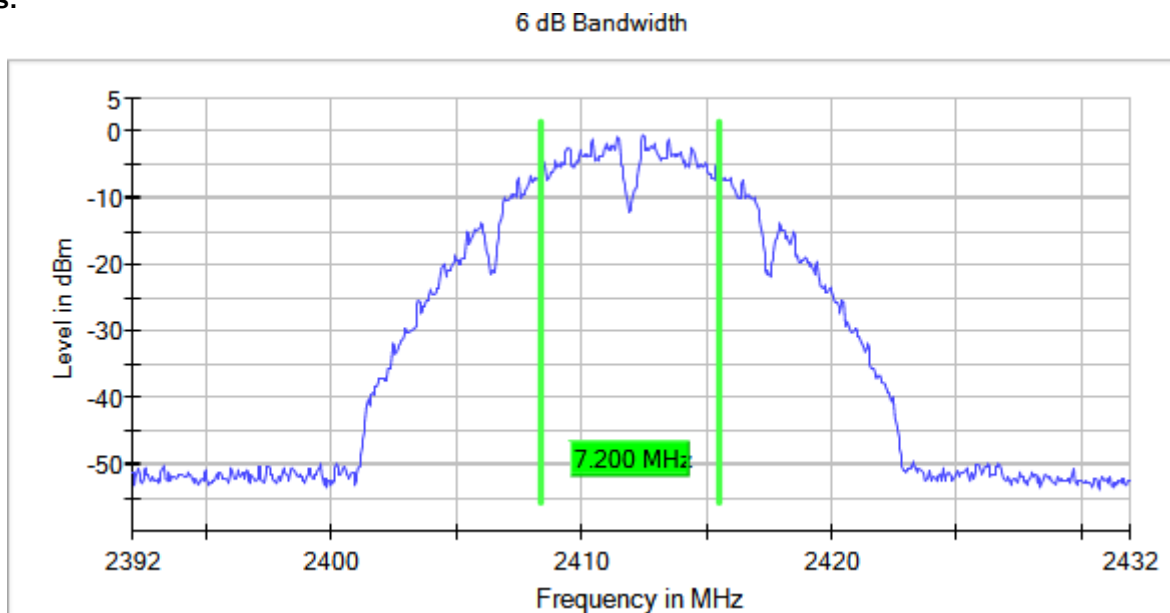
## Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000      Active Port = 4

Modulation = 802.11b (DSSS 1 Mbit/s)

## Images:

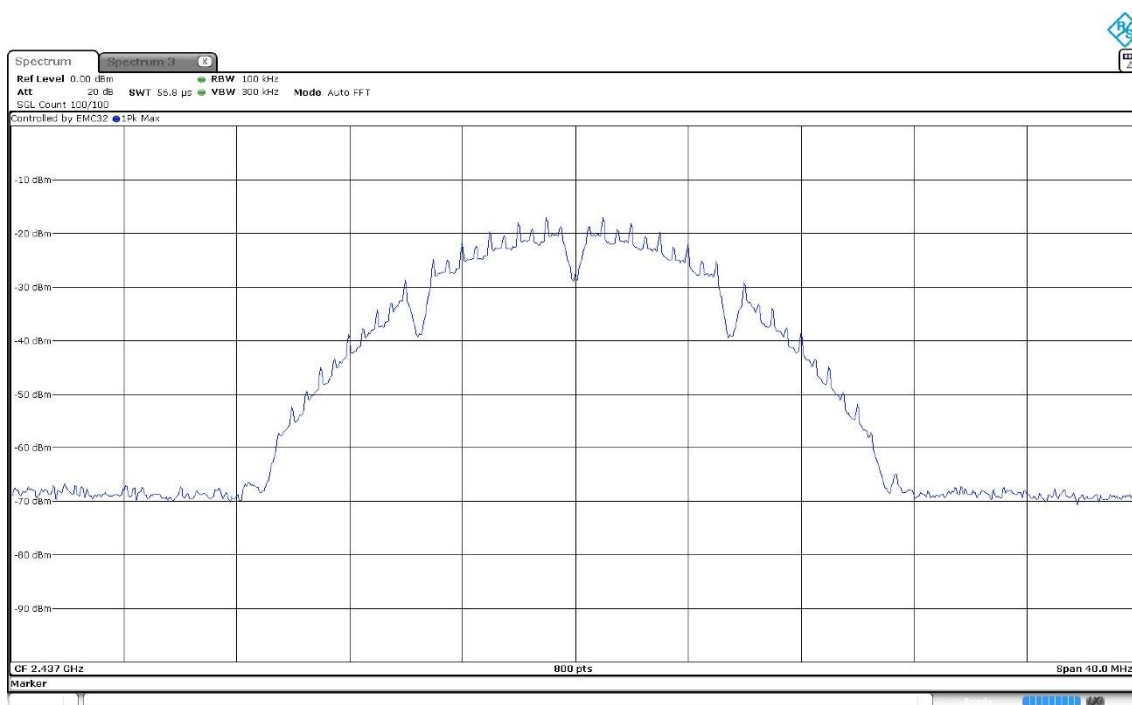
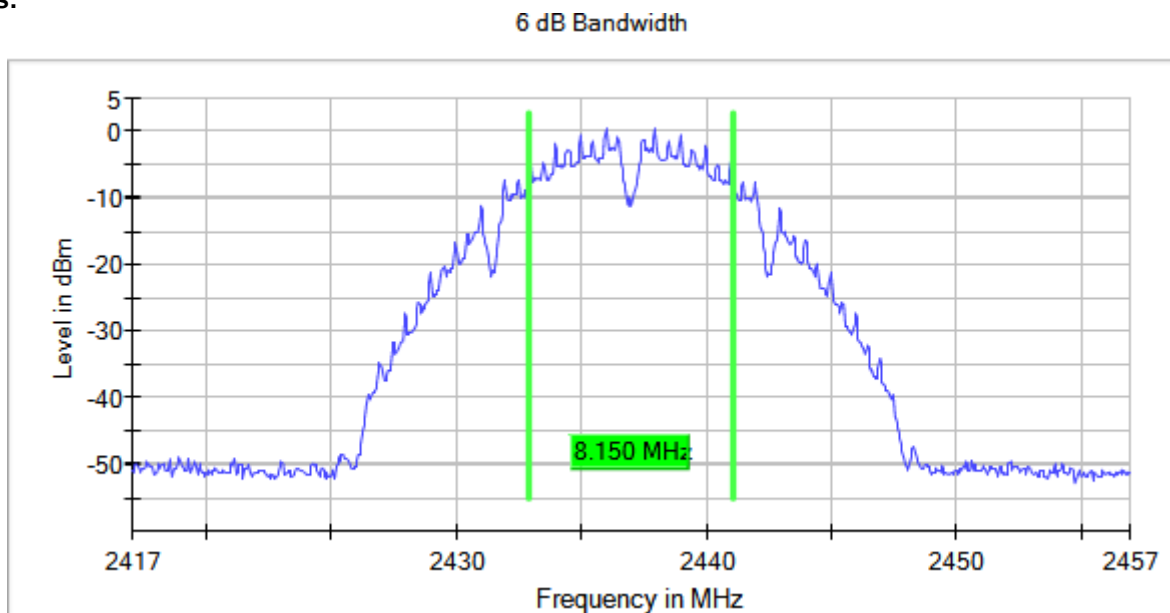


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000      Active Port = 4

Modulation = 802.11b (DSSS 1 Mbit/s)

#### Images:

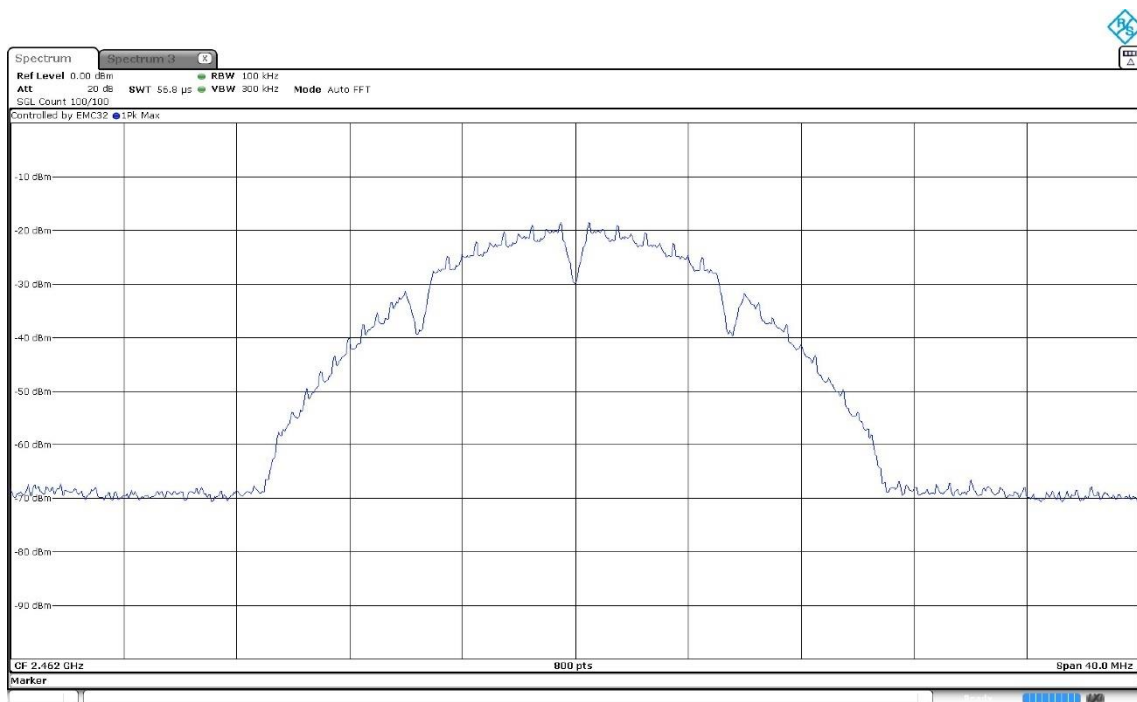
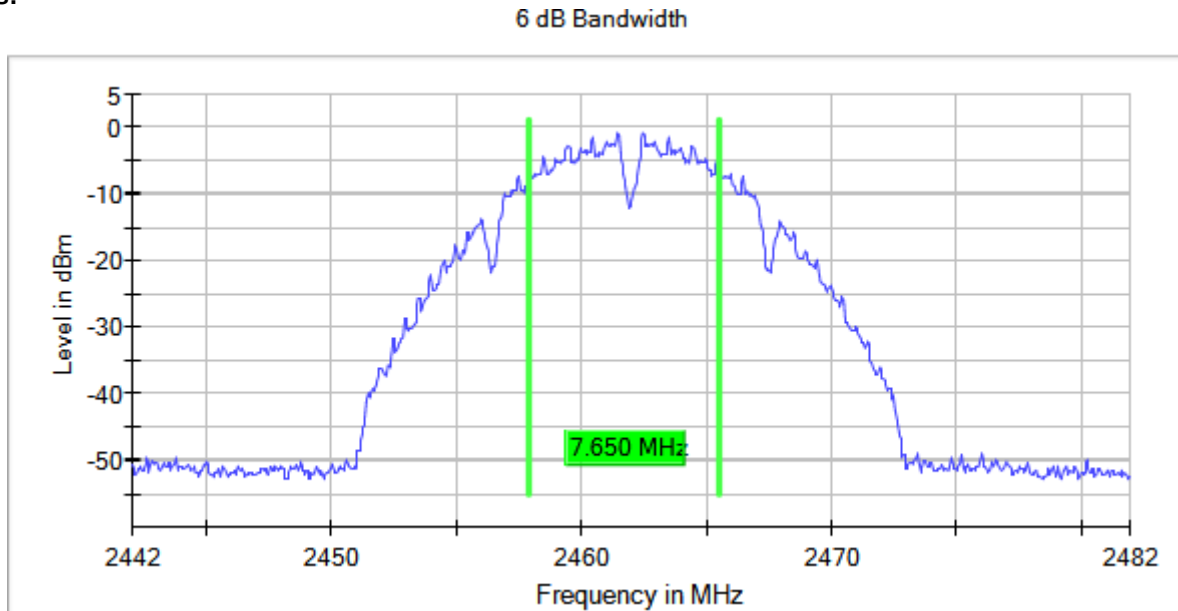


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000      Active Port = 4

Modulation = 802.11b (DSSS 1 Mbit/s)

#### Images:



Modulation: 802.11g (OFDM 6 Mbit/s)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Ebw (MHz) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 16.400    |
|                      |                                   | 2437.00000 |      | 16.400    |
|                      |                                   | 2462.00000 |      | 16.400    |

Verdict

Pass

## Attachments

Operation Band MHz = [2400, 2483.5]

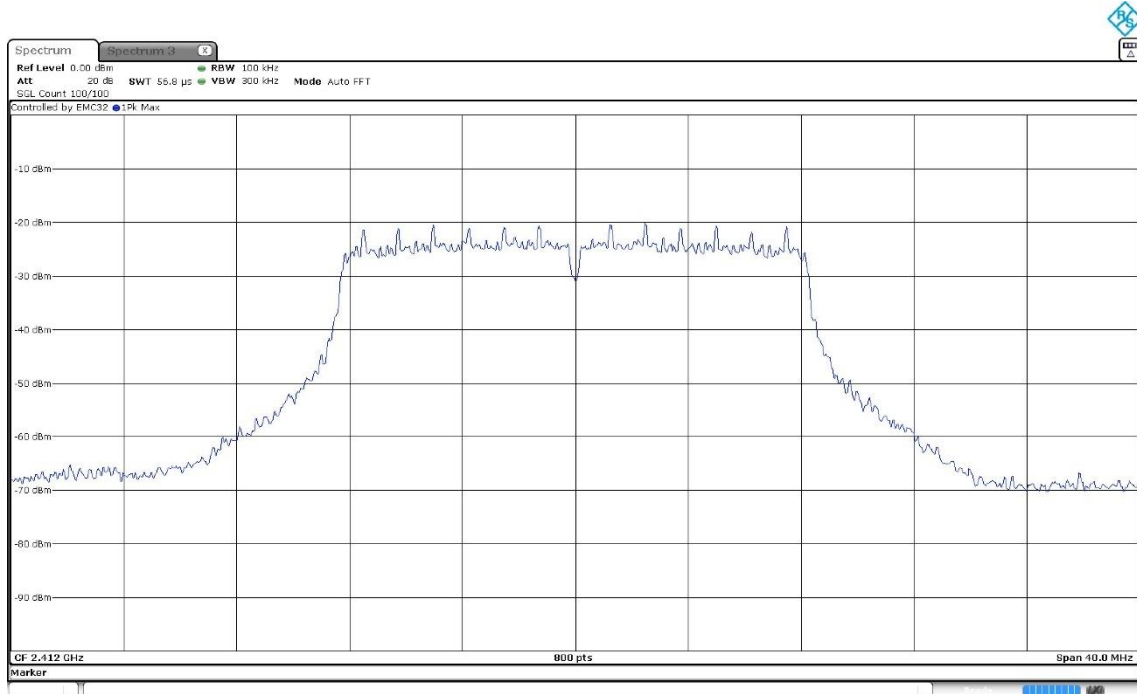
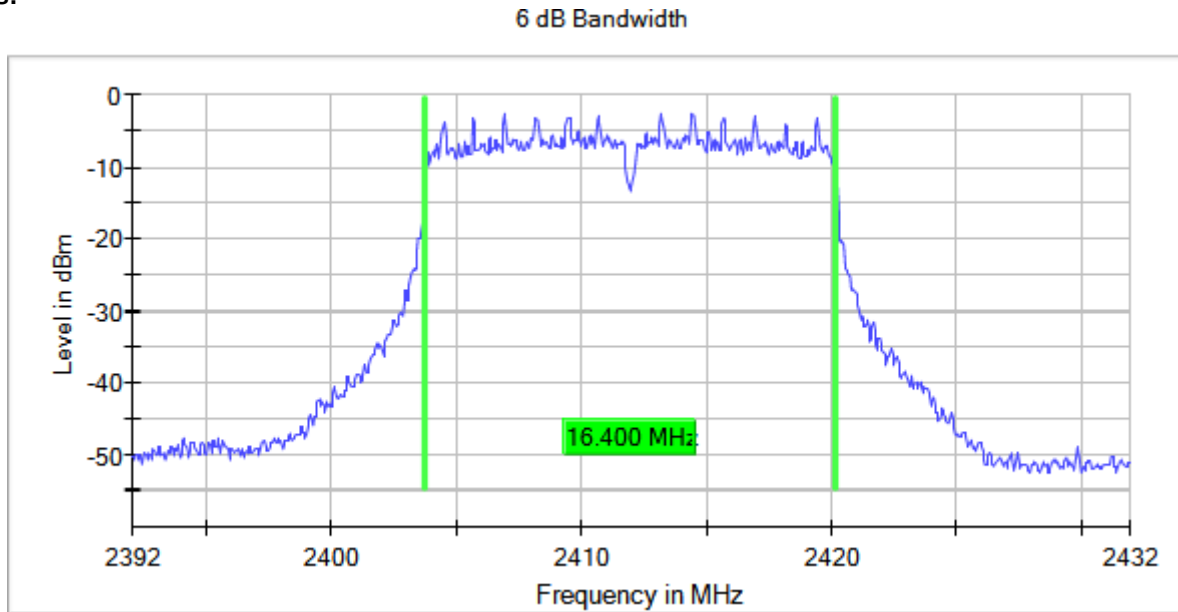
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 4

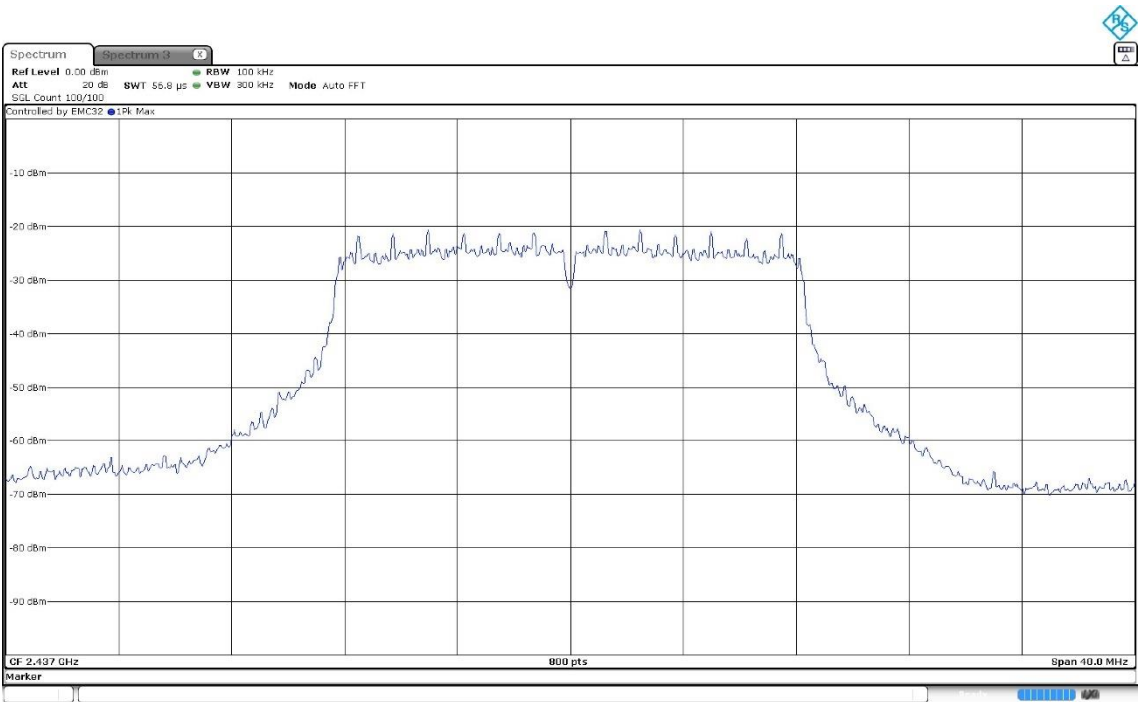
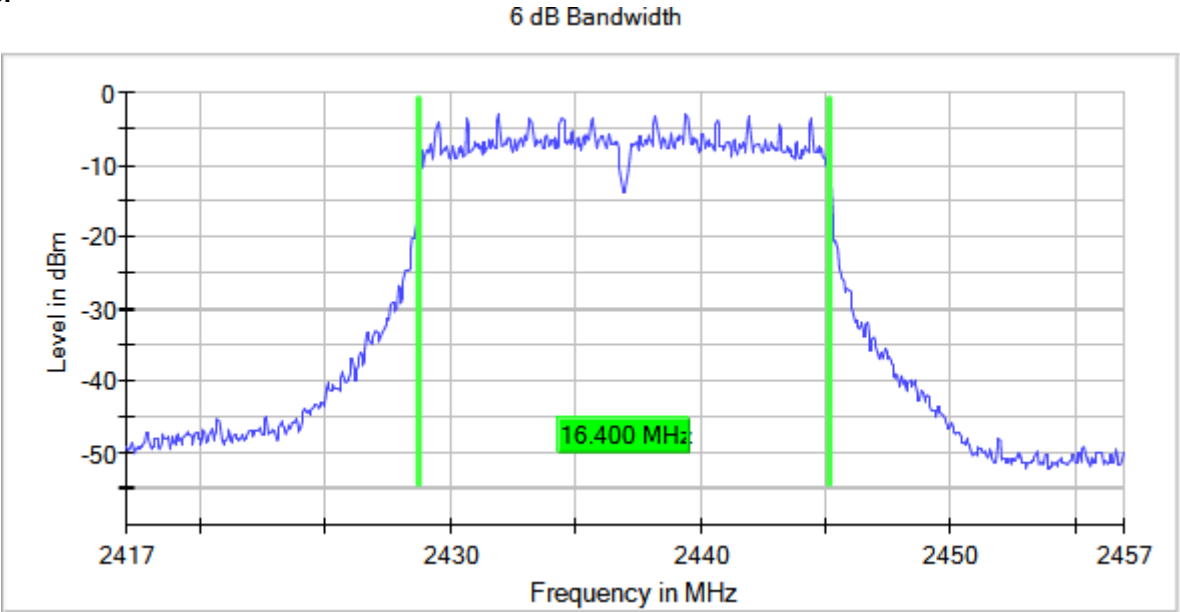
Modulation = 802.11g (OFDM 6 Mbit/s)

## Images:



Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2437.00000      Active Port = 4  
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:

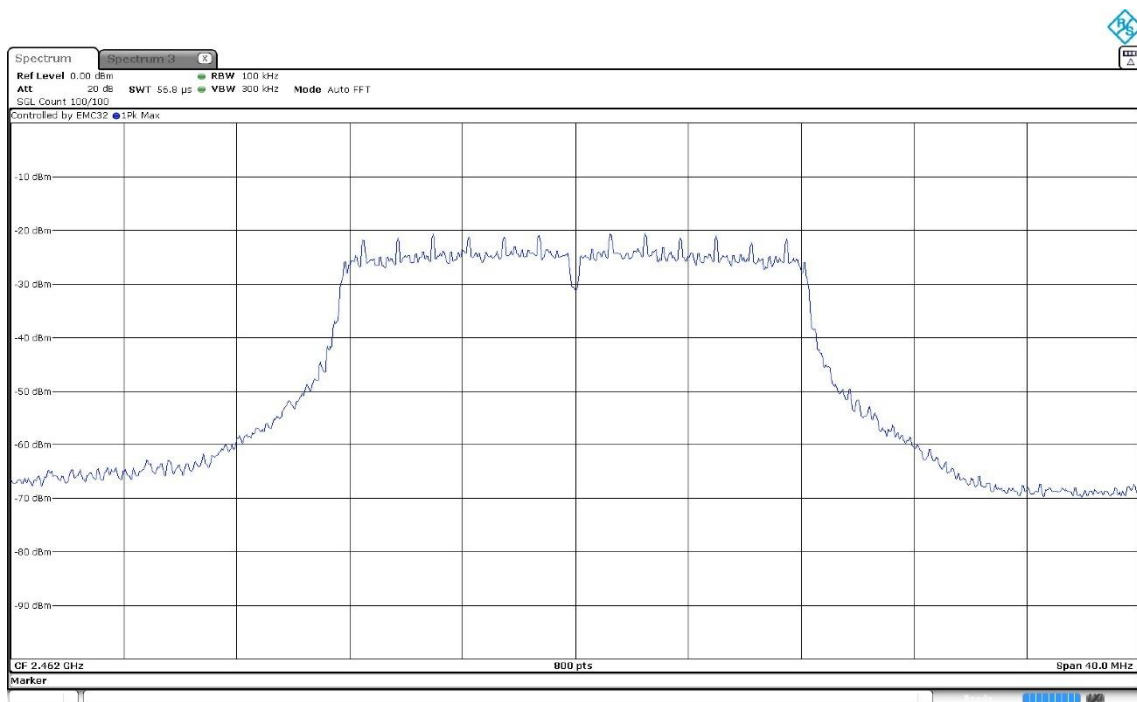
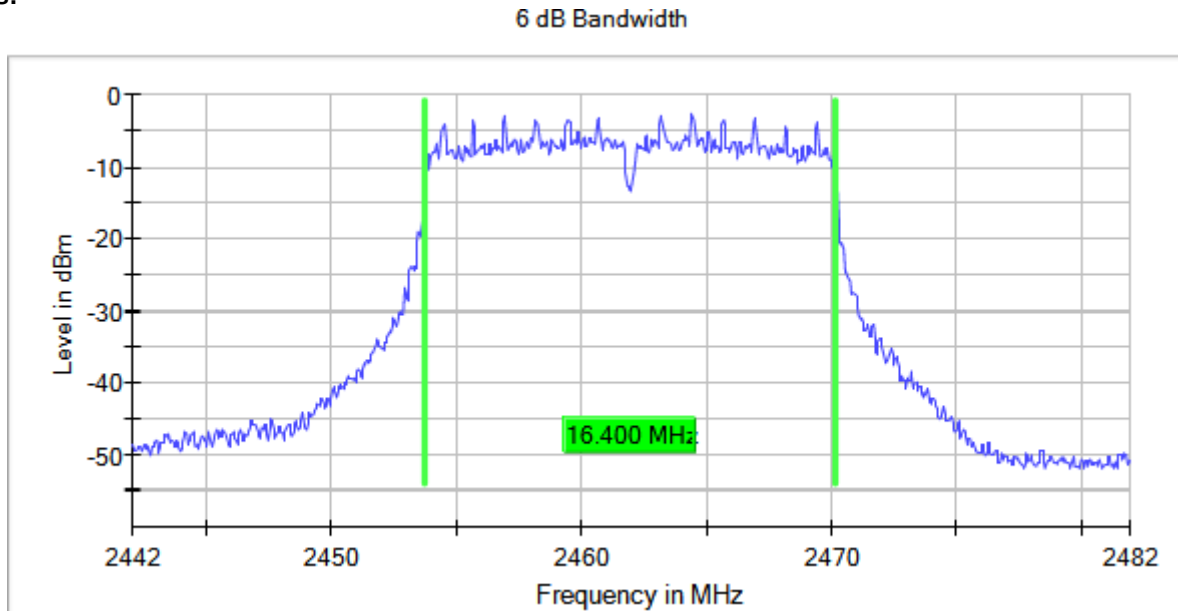


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000      Active Port = 4

Modulation = 802.11g (OFDM 6 Mbit/s)

### Images:



Modulation: 802.11n HT20 (OFDM MCS0)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Ebw (MHz) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 17.650    |
|                      |                                   | 2437.00000 |      | 17.450    |
|                      |                                   | 2462.00000 |      | 17.600    |

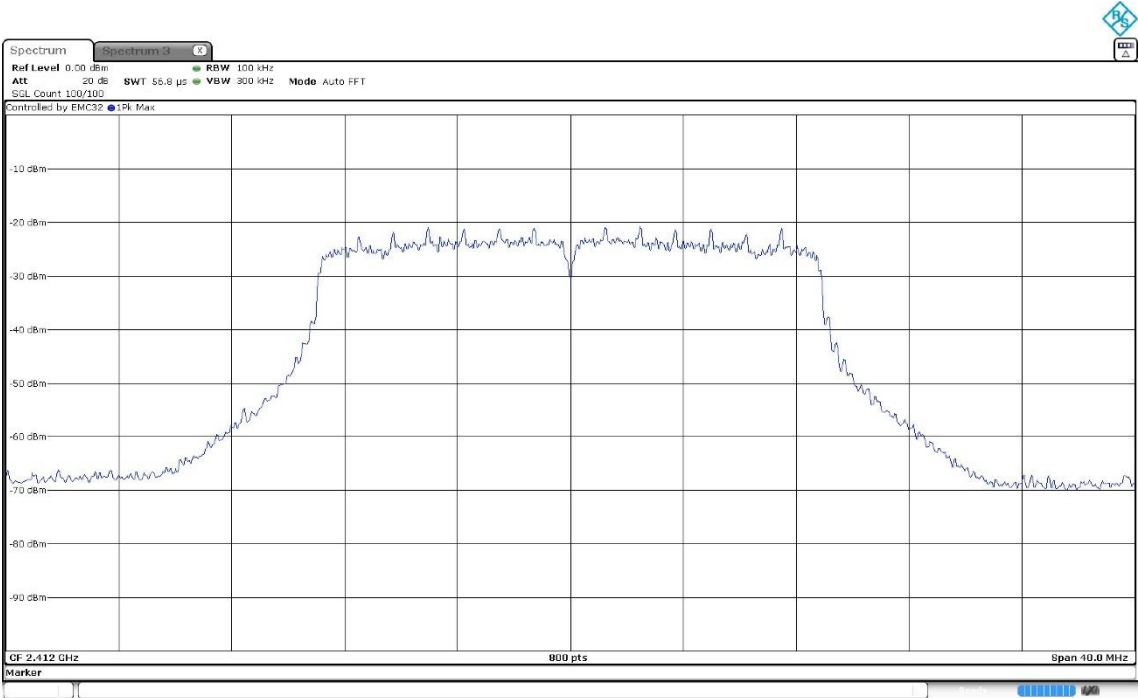
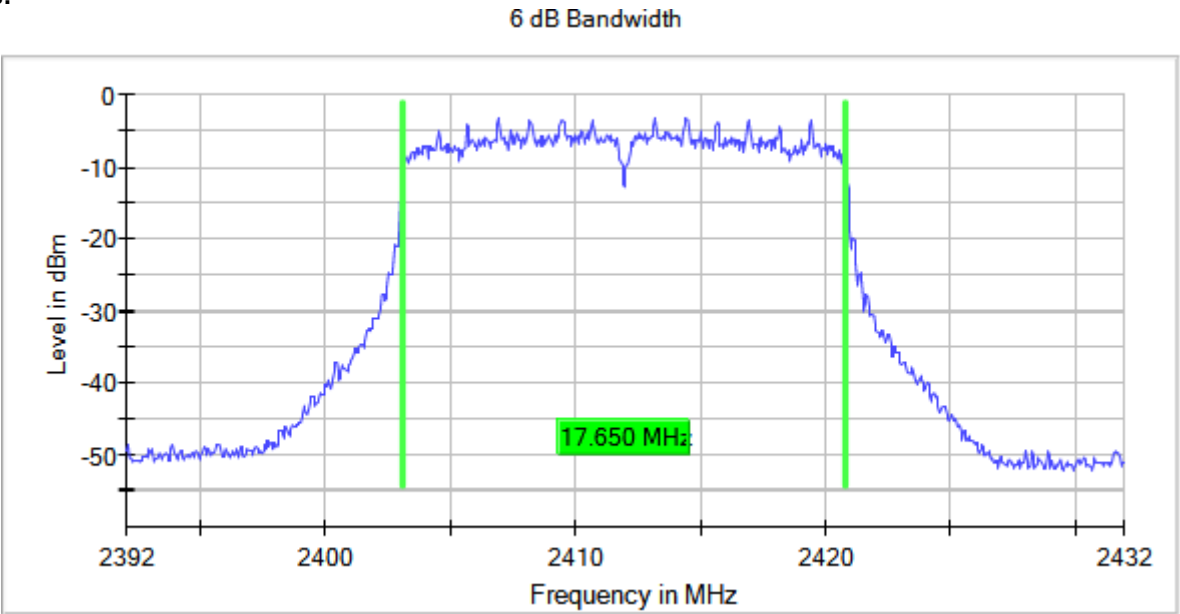
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

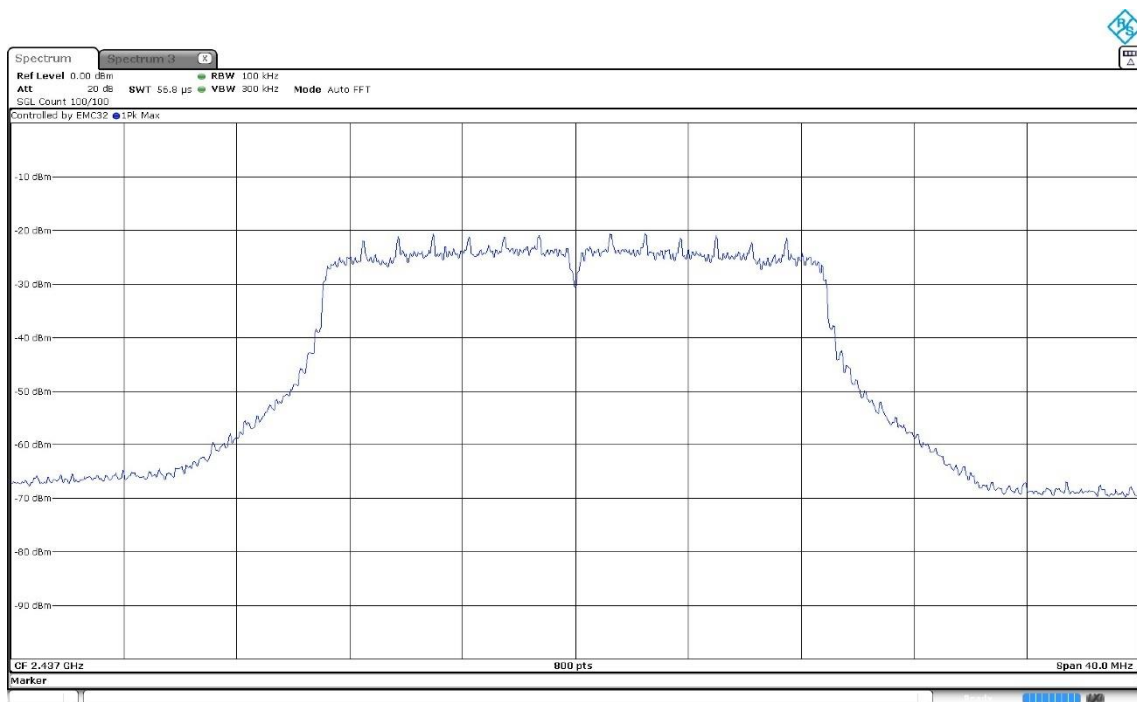
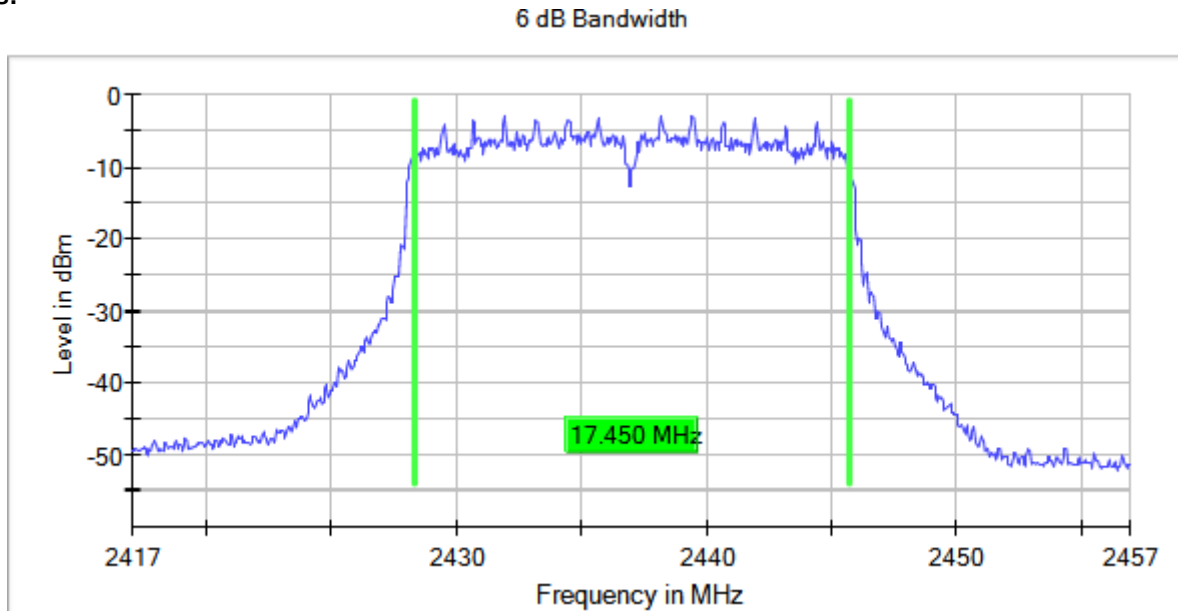
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

### Images:



Operation Band MHz = [2400, 2483.5]

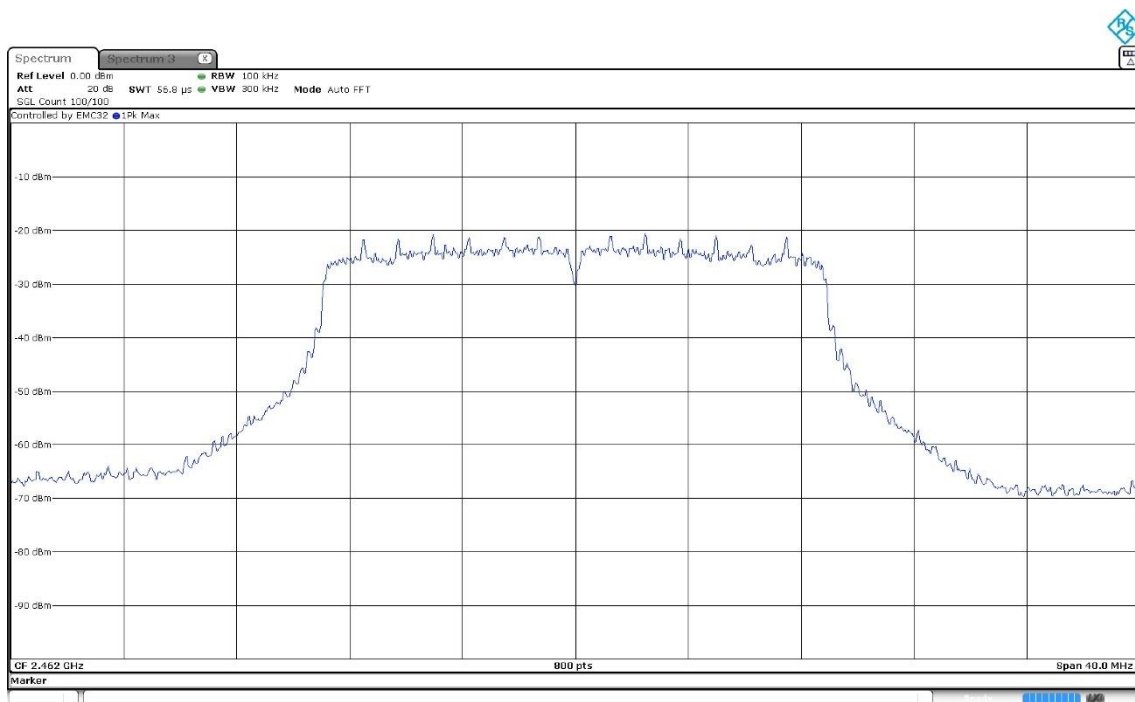
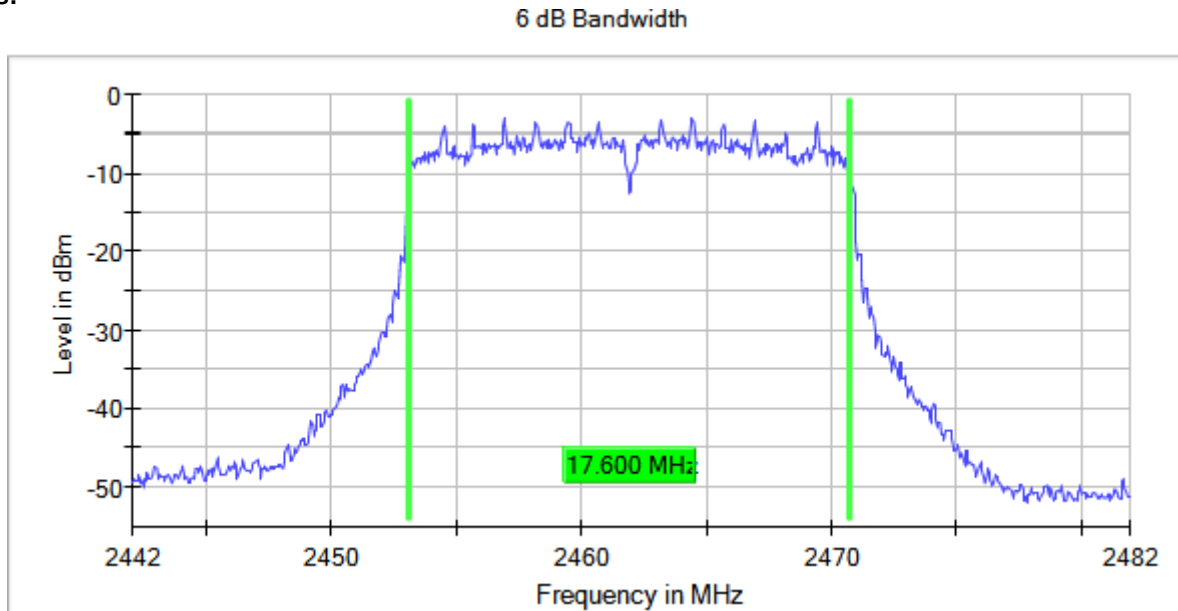
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

### Images:



Modulation: 802.11ax HE20 (RU)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Ebw (MHz) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2.150     |
|                      |                                   | 2437.00000 | 4    | 2.700     |
|                      |                                   | 2462.00000 | 4    | 2.200     |

Verdict

Pass

## Attachments

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

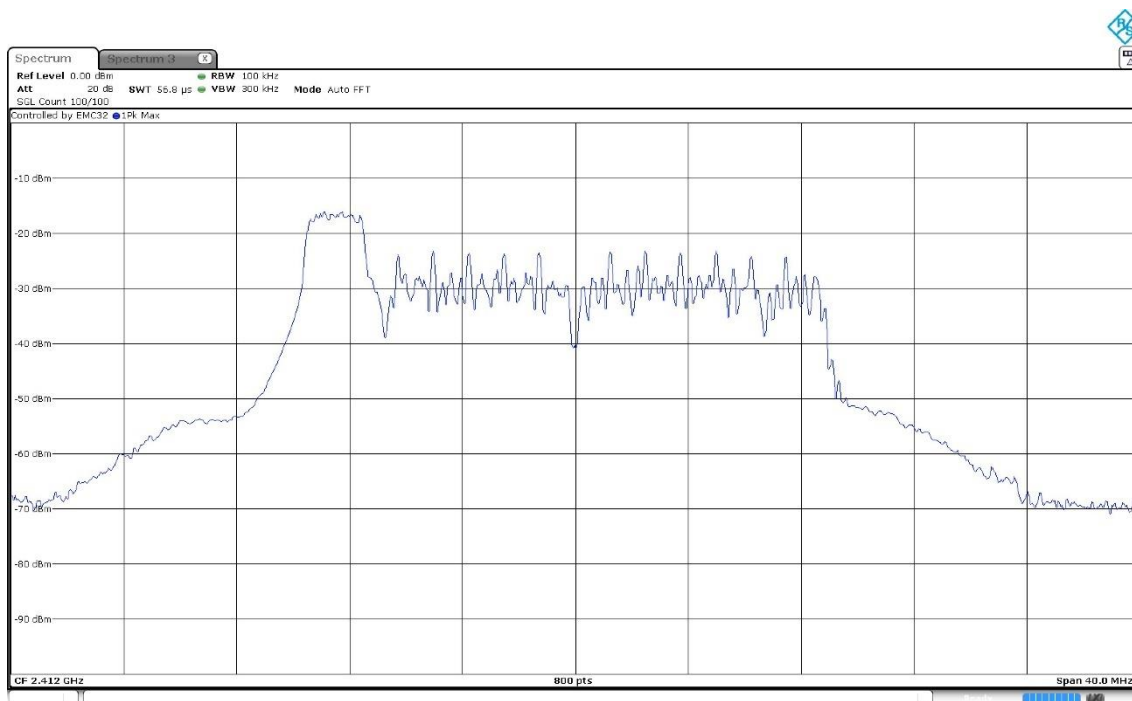
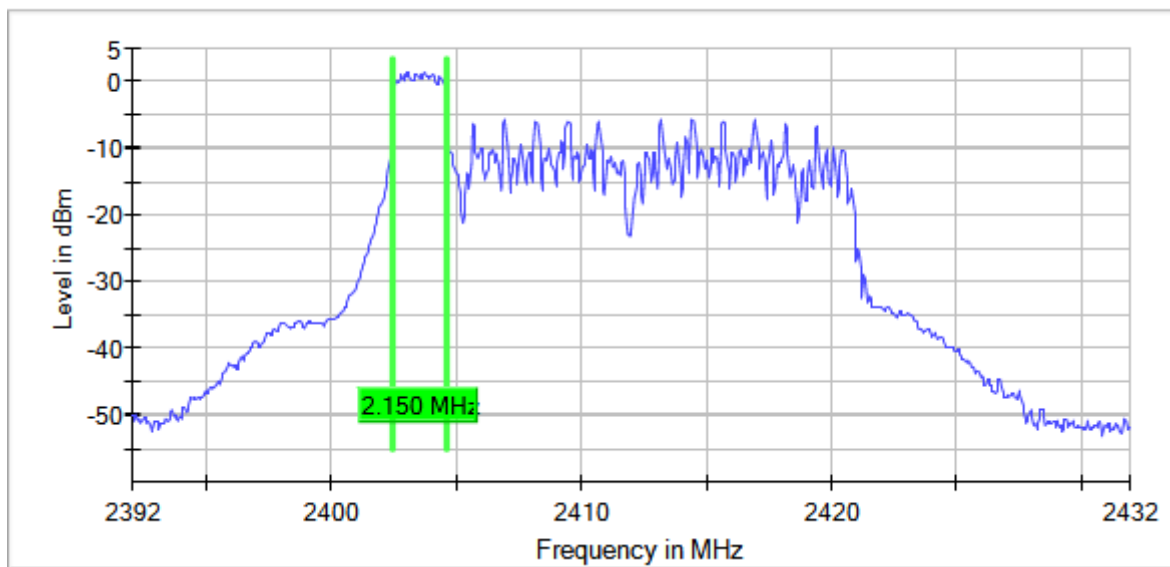
Frequency MHz = 2412.00000

Active Port = 4

Modulation = 802.11ax HE20 (OFDMA MCS0)

## Images:

6 dB Bandwidth



Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

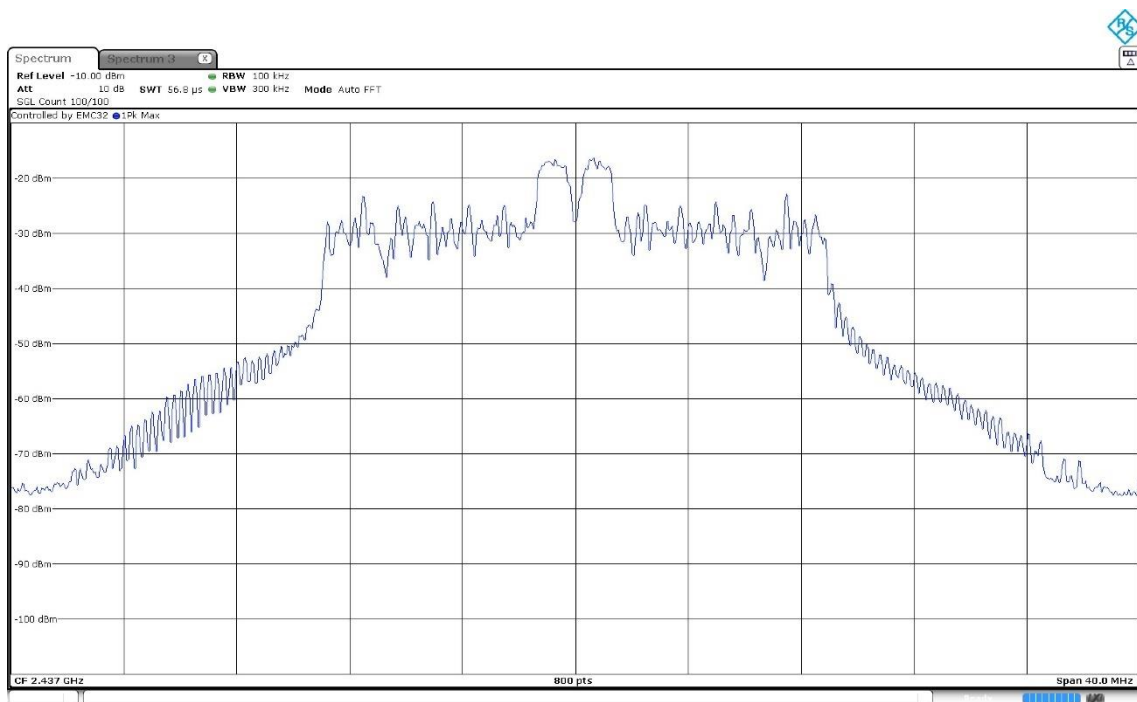
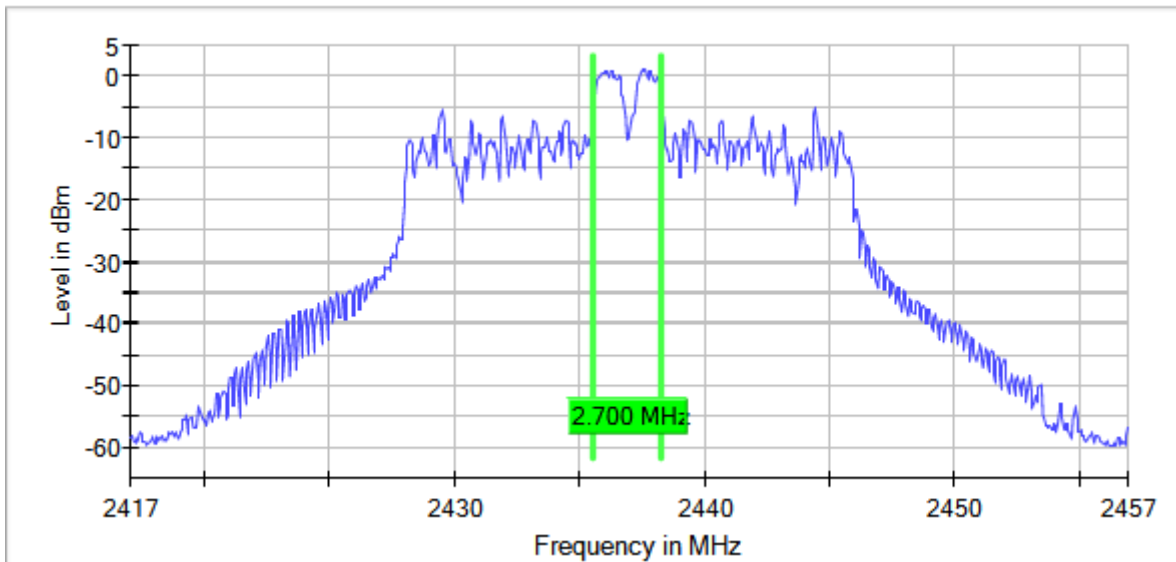
Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11ax HE20 (OFDMA MCS0)

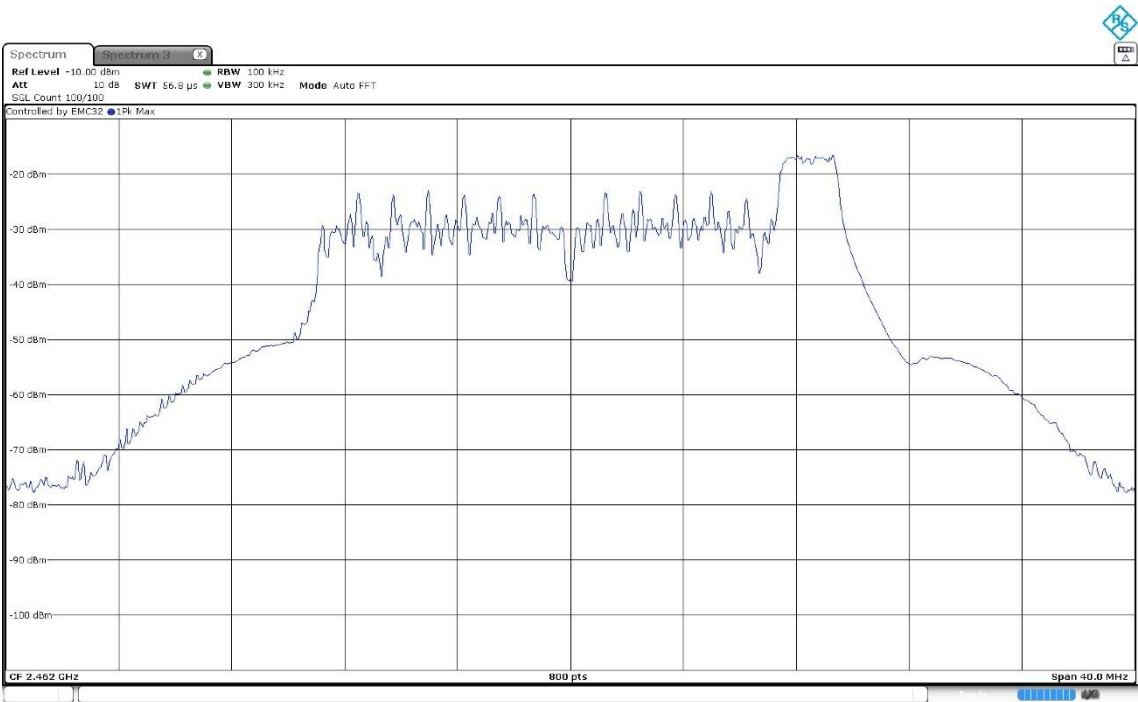
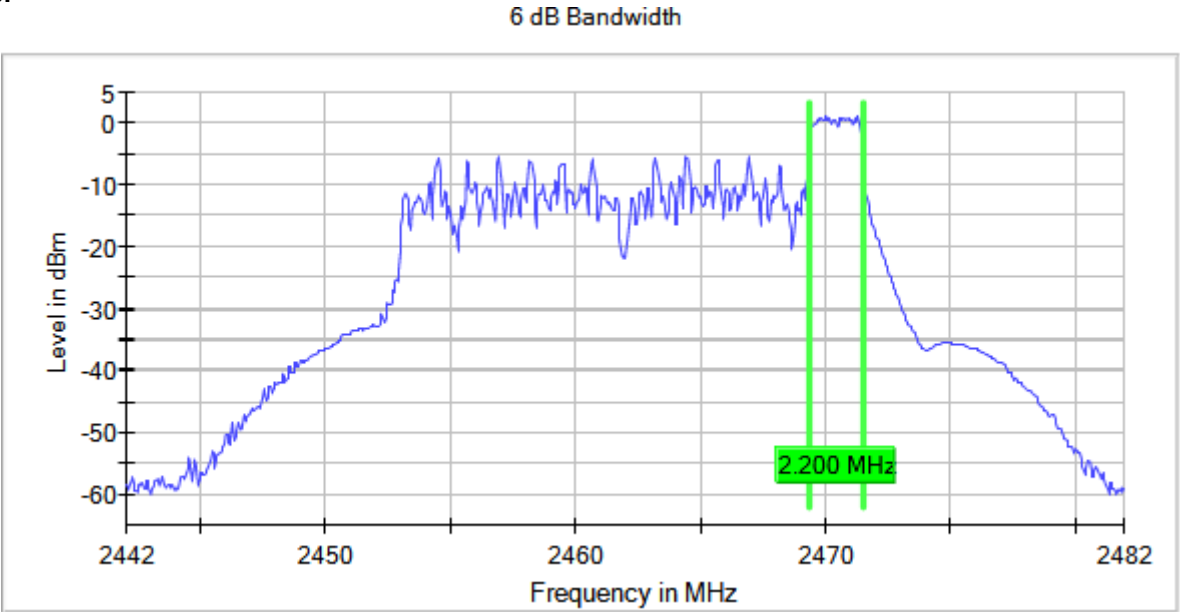
**Images:**

6 dB Bandwidth



Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000      Active Port = 4  
Modulation = 802.11ax HE20 (OFDMA MCS0)

Images:



Modulation: 802.11ax HE20 (SU)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Ebw (MHz) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 18.900    |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2437.00000 | 4    | 19.050    |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | 18.950    |

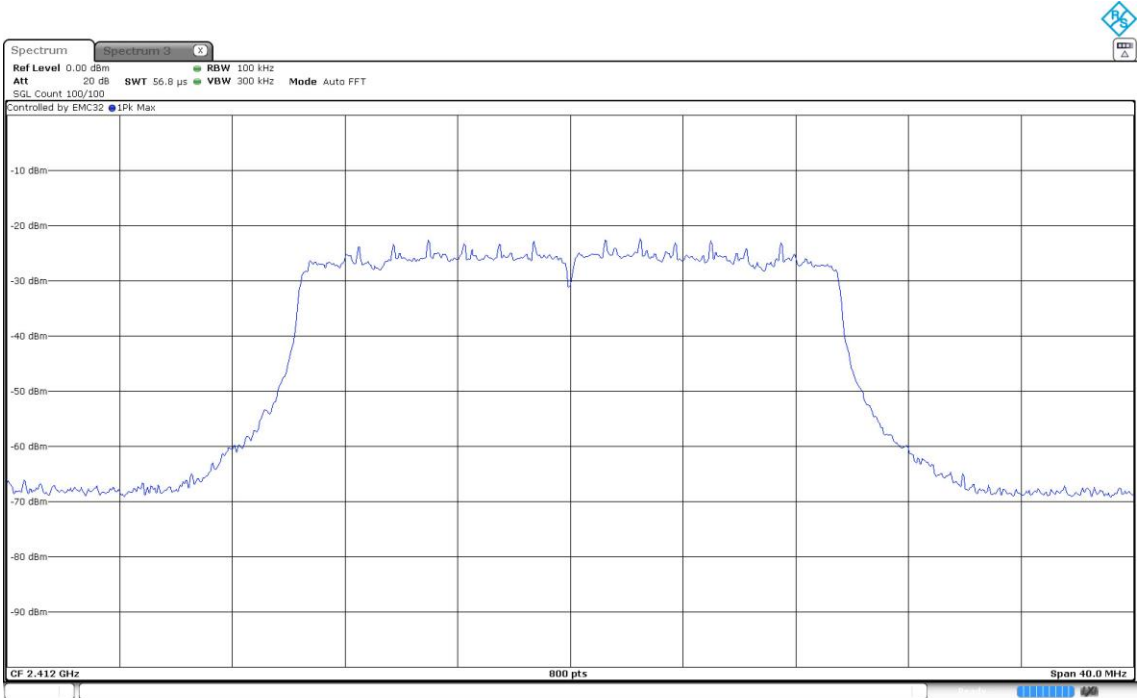
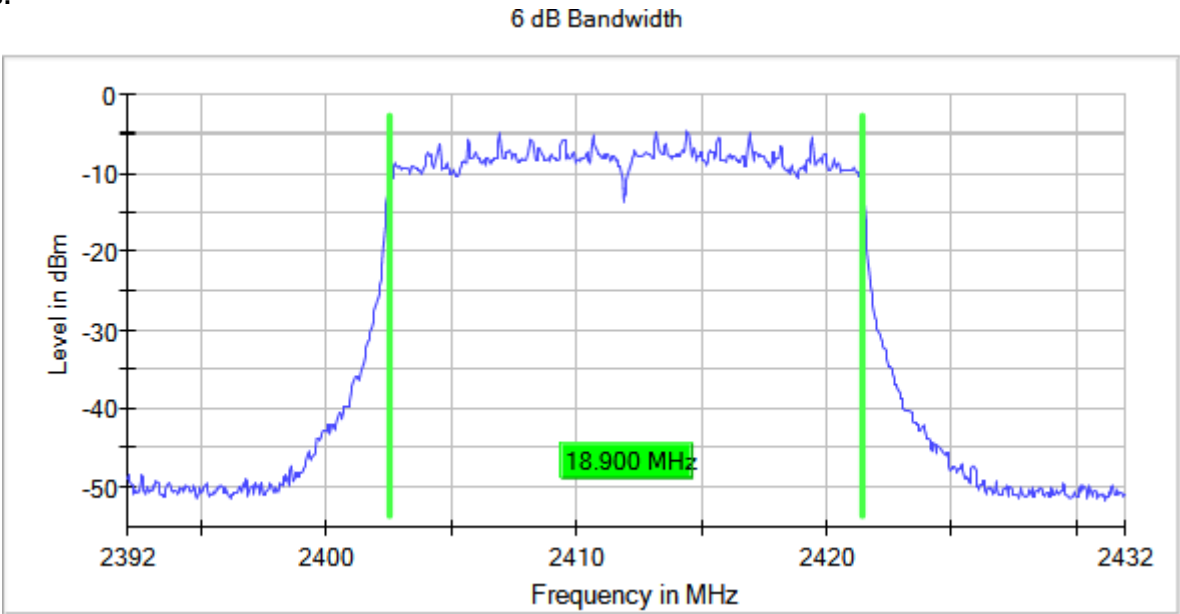
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11ax HE20 (OFDMA MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

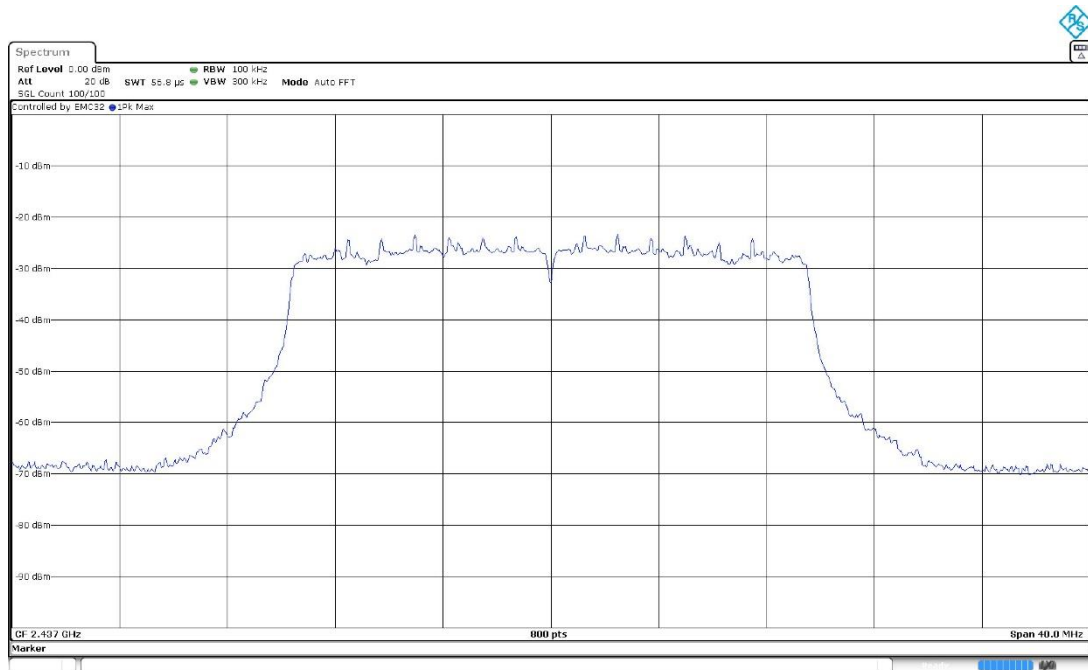
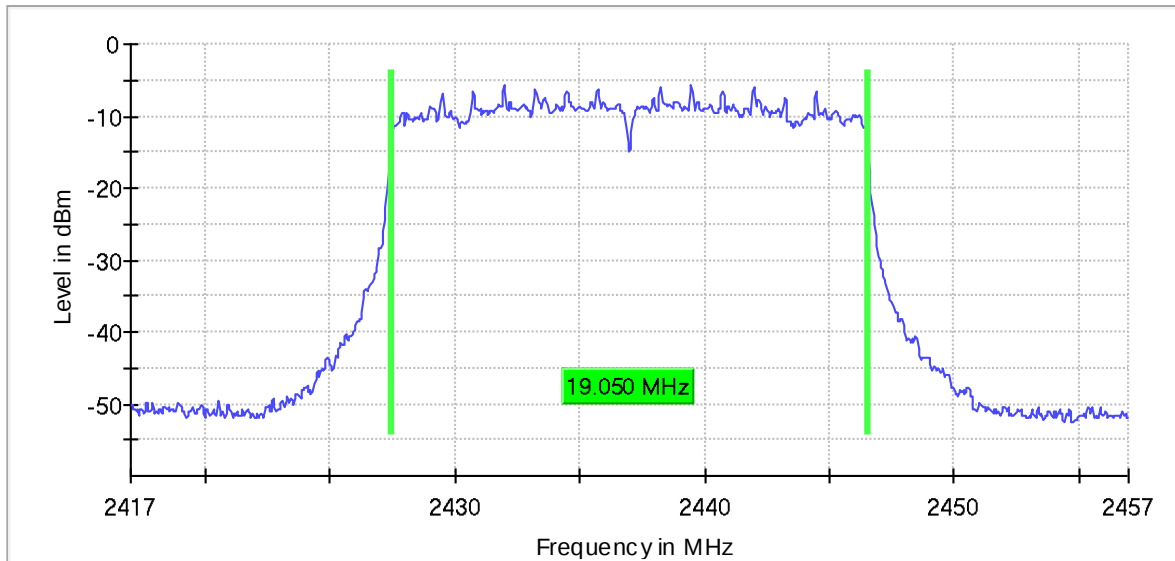
Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11ax HE20 (OFDMA MCS0)

### Images:

6 dB Bandwidth



Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

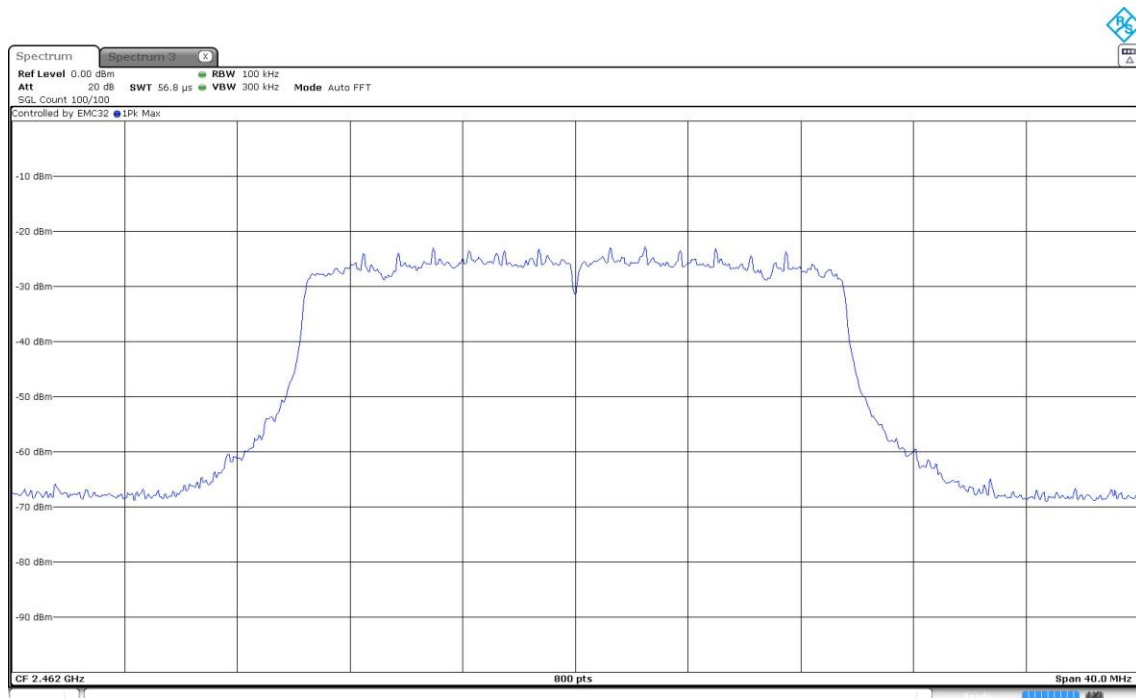
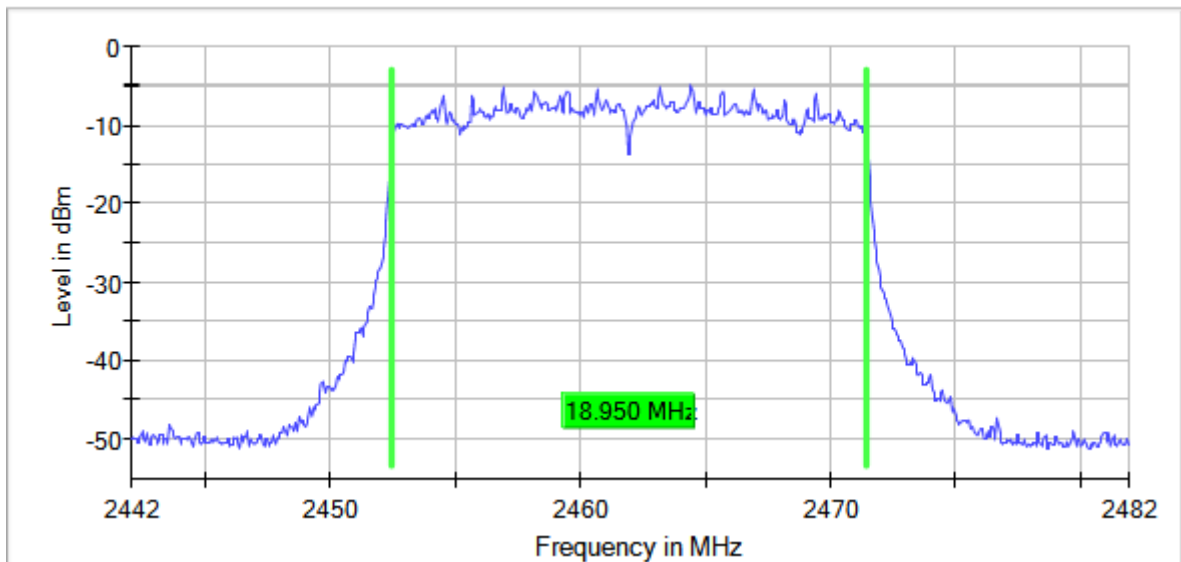
Frequency MHz = 2462.00000

Active Port = 4

Modulation = 802.11ax HE20 (OFDMA MCS0)

Images:

6 dB Bandwidth



## RSS-247 5.4 (d) / FCC 15.247 (b) (1) Maximum Average Conducted output Power

### Limits

For systems using digital modulation in the 2400-2483.5 MHz band: 1 watt (30 dBm).

The e.i.r.p. shall not exceed 4 W (36 dBm) (Canada).

### Results

The maximum peak conducted output power level of the fundamental emission was measured according to clause 11.9.2.3.2 "Method AVGPM-G" of ANSI C63.10-2013.

The EIRP power (dBm) is calculated by adding the maximum declared antenna gain to the measured conducted power.

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

Modulation: 802.11b (DSSS 1 Mbit/s)

### Results

| Equipment                         | BW (MHz) | Freq (MHz) | Port | Avg Power (dBm) | E.I.R.P. (dBm) |
|-----------------------------------|----------|------------|------|-----------------|----------------|
| Digital Transmission System (DTS) | 20       | 2412.00000 | 4    | 9.341           | 9.441          |
|                                   |          | 2437.00000 | 4    | 9.048           | 9.148          |
|                                   |          | 2462.00000 | 4    | 9.228           | 9.328          |

Modulation: 802.11g (OFDM 6 Mbit/s)

Results

| Equipment                         | BW (MHz) | Freq (MHz) | Port | Avg Power (dBm) | E.I.R.P. (dBm) |
|-----------------------------------|----------|------------|------|-----------------|----------------|
| Digital Transmission System (DTS) | 20       | 2412.00000 | 4    | 9.145           | 9.245          |
|                                   |          | 2437.00000 | 4    | 8.772           | 8.872          |
|                                   |          | 2462.00000 | 4    | 8.883           | 8.983          |

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Results

| Equipment                         | BW (MHz) | Freq (MHz) | Port | Avg Power (dBm) | E.I.R.P. (dBm) |
|-----------------------------------|----------|------------|------|-----------------|----------------|
| Digital Transmission System (DTS) | 20       | 2412.00000 | 4    | 8.885           | 8.985          |
|                                   |          | 2437.00000 | 4    | 8.566           | 8.666          |
|                                   |          | 2462.00000 | 4    | 8.745           | 8.845          |

Modulation: 802.11ax HE20 (OFDMA MCS0) SU

Results

| Equipment                         | BW (MHz) | Freq (MHz) | Port | Avg Power (dBm) | E.I.R.P. (dBm) |
|-----------------------------------|----------|------------|------|-----------------|----------------|
| Digital Transmission System (DTS) | 20       | 2412.00000 | 4    | 6.762           | 6.862          |
|                                   |          | 2437.00000 | 4    | 6.511           | 6.611          |
|                                   |          | 2462.00000 | 4    | 6.300           | 6.400          |

Modulation: 802.11ax HE20 (OFDMA MCS0) RU26 (Worst offset according to preliminary PSD testing)

Antenna configuration: SISO (port 1 and port 3) & MIMO (ports 1+3)

Results

| Equipment                         | BW (MHz) | Freq (MHz) | Port | Avg Power (dBm) | E.I.R.P. (dBm) |
|-----------------------------------|----------|------------|------|-----------------|----------------|
| Digital Transmission System (DTS) | 20       | 2412.00000 | 4    | 6.395           | 6.495          |
|                                   |          | 2437.00000 | 4    | 6.006           | 6.106          |
|                                   |          | 2462.00000 | 4    | 6.088           | 6.188          |

# RSS-247 5.2 (b) / FCC 15.247 (e) Power spectral density

**Limits**

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Modulation: 802.11b (DSSS 1 Mbit/s)

**Results**

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | PSD (dBm) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | -7.61     |
|                      |                                   | 2437.00000 |      | -8.04     |
|                      |                                   | 2462.00000 |      | -7.95     |

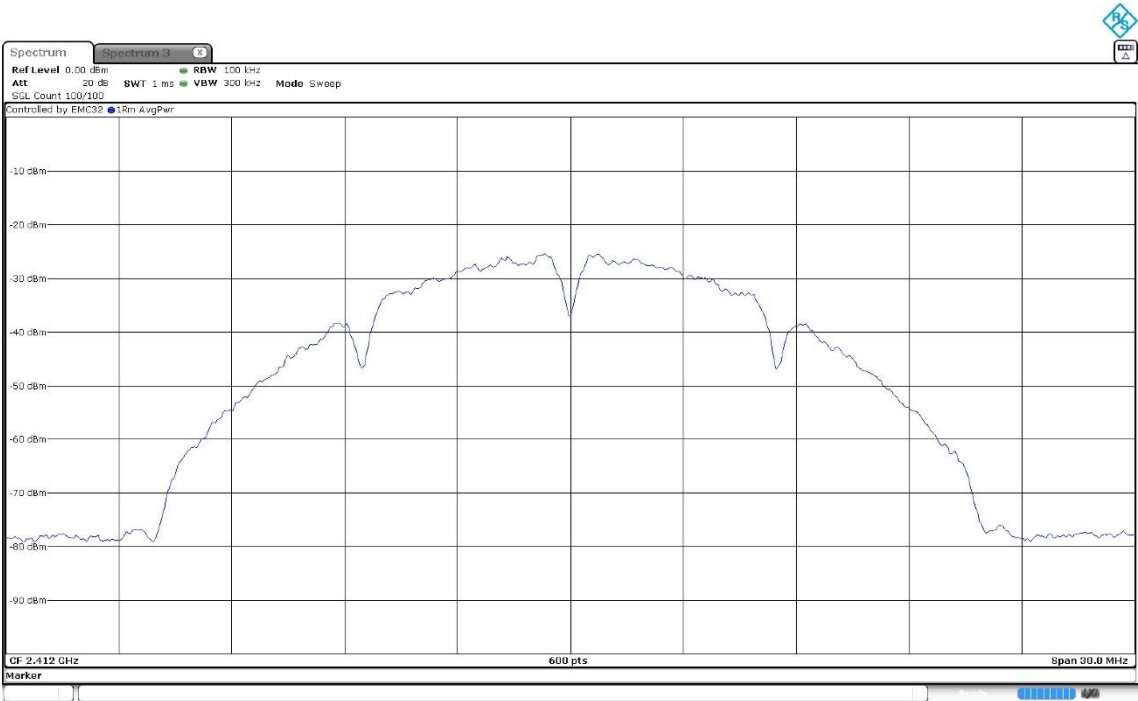
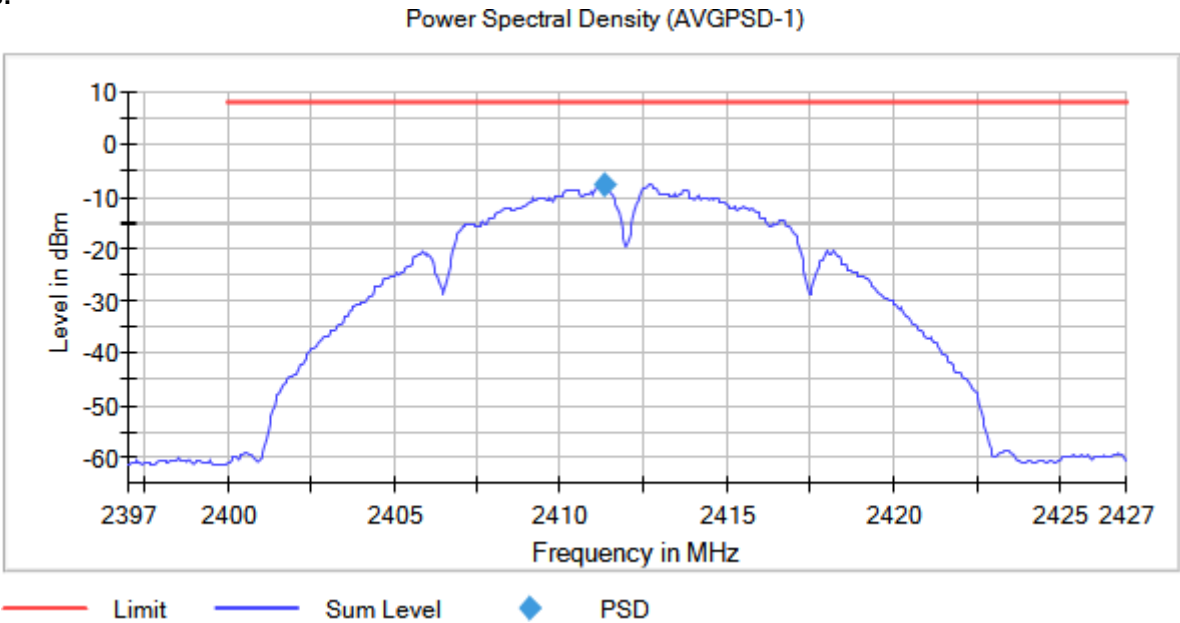
**Verdict**

Pass

Attachments

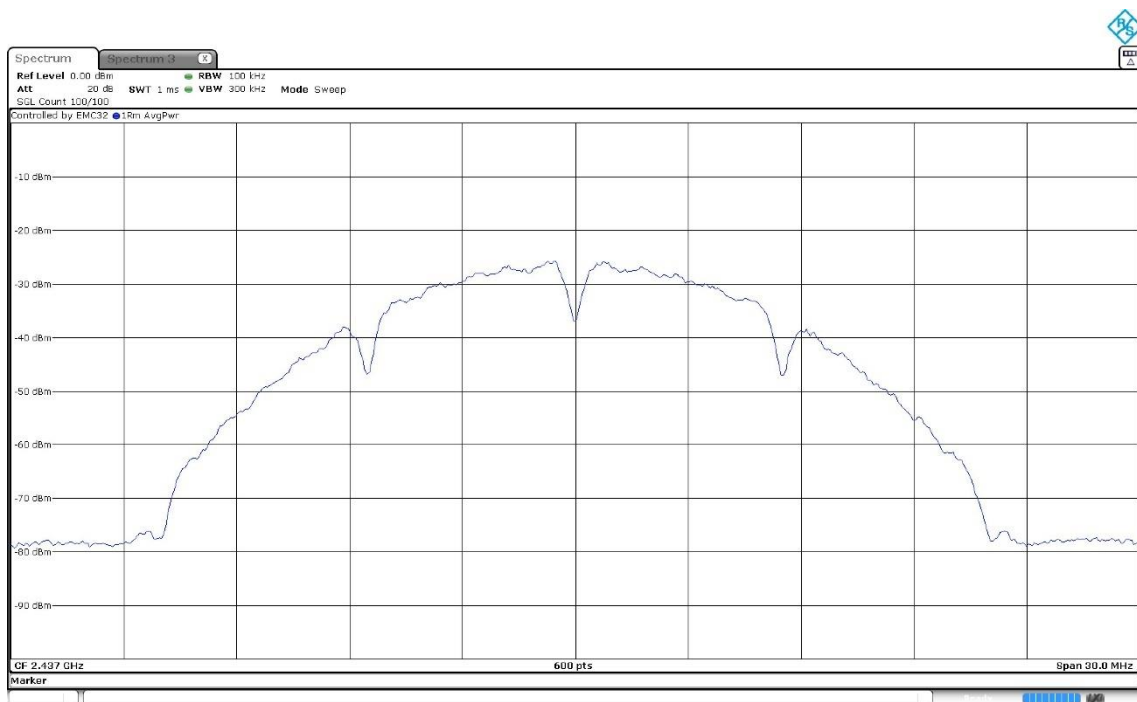
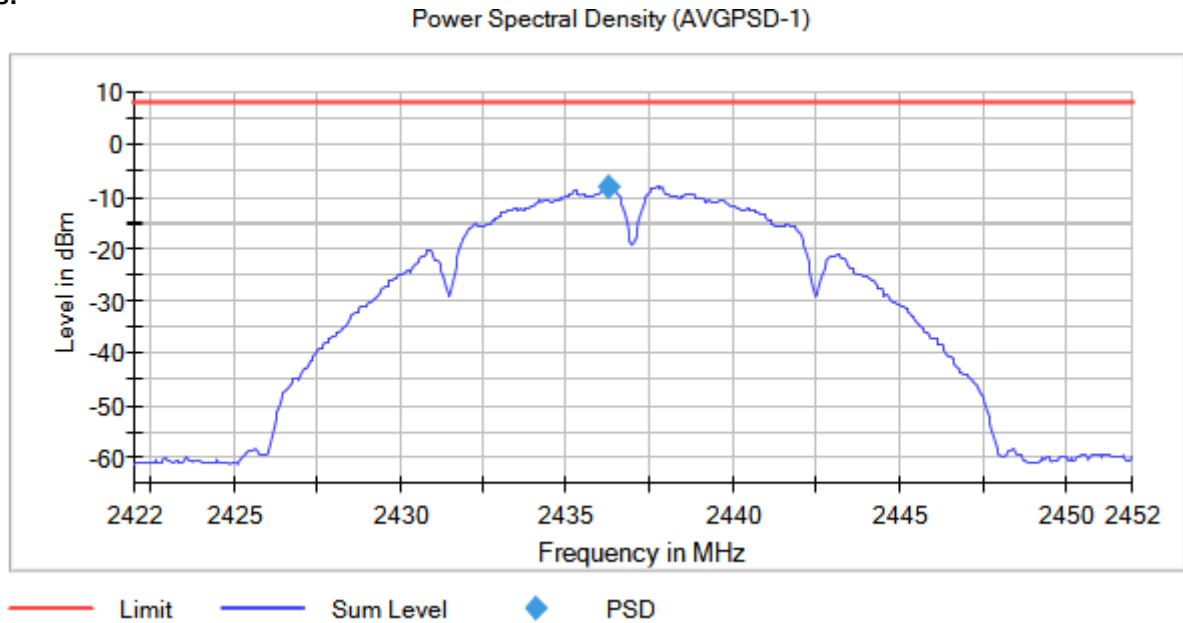
Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



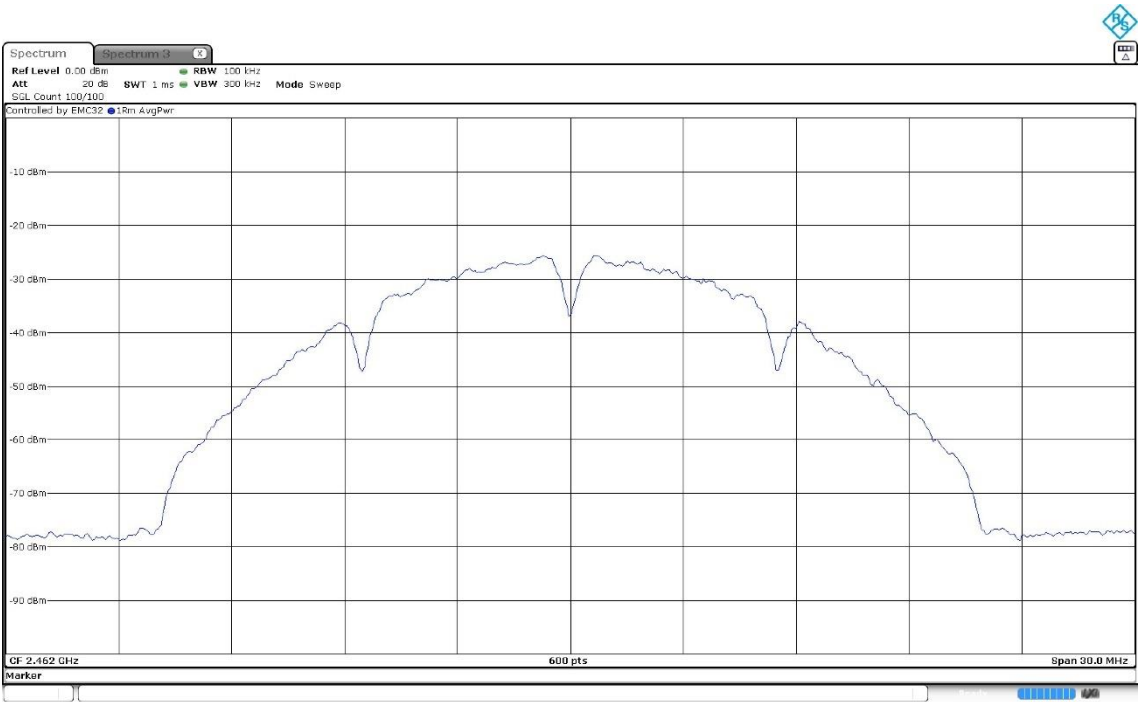
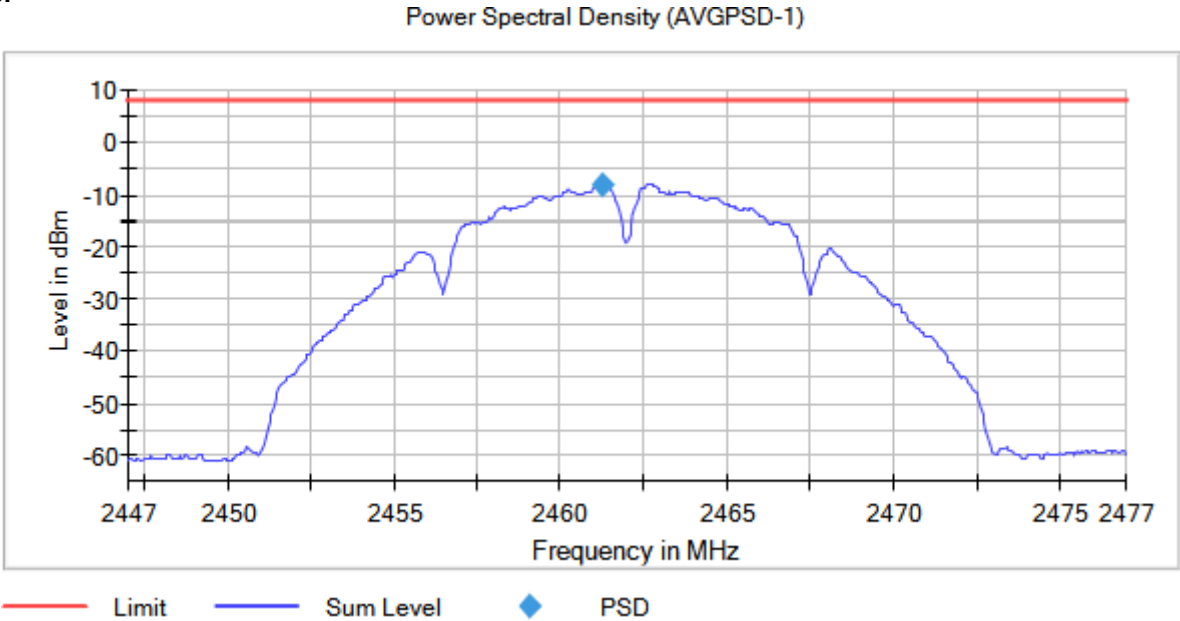
Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2437.00000    Active Port = 4  
Modulation = 802.11b (DSSS 1 Mbit/s)

**Images:**



Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000    Active Port = 4  
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



Modulation: 802.11g (OFDM 6 Mbit/s)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | PSD (dBm) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | -11.50    |
|                      |                                   | 2437.00000 |      | -11.95    |
|                      |                                   | 2462.00000 |      | -11.71    |

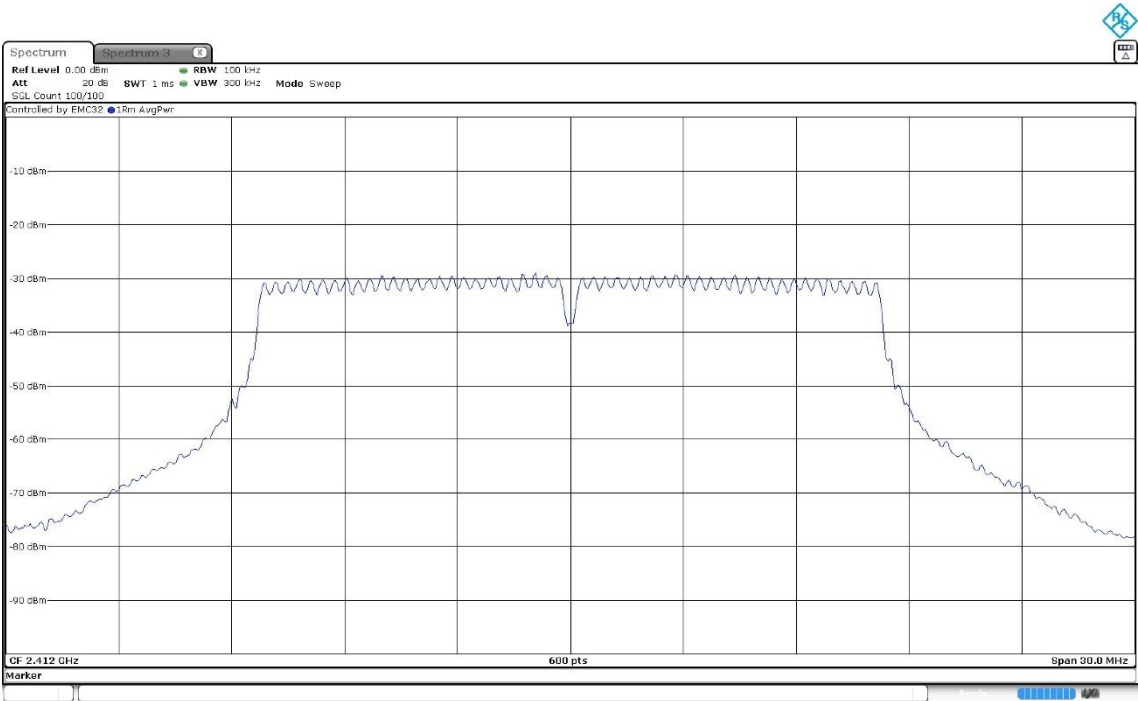
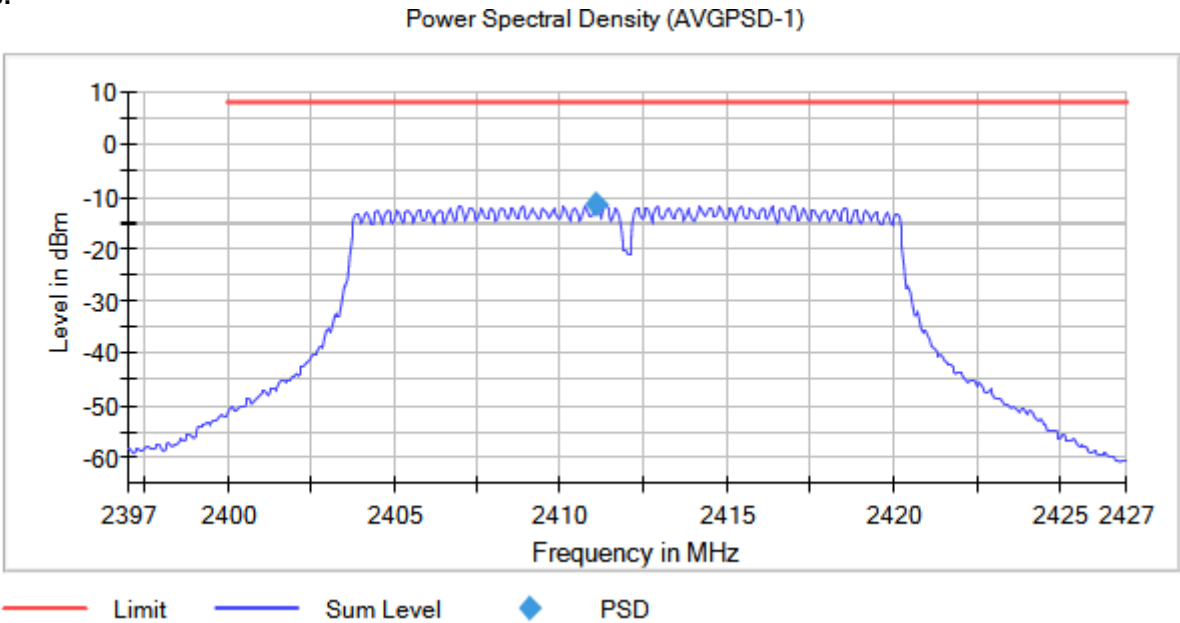
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:

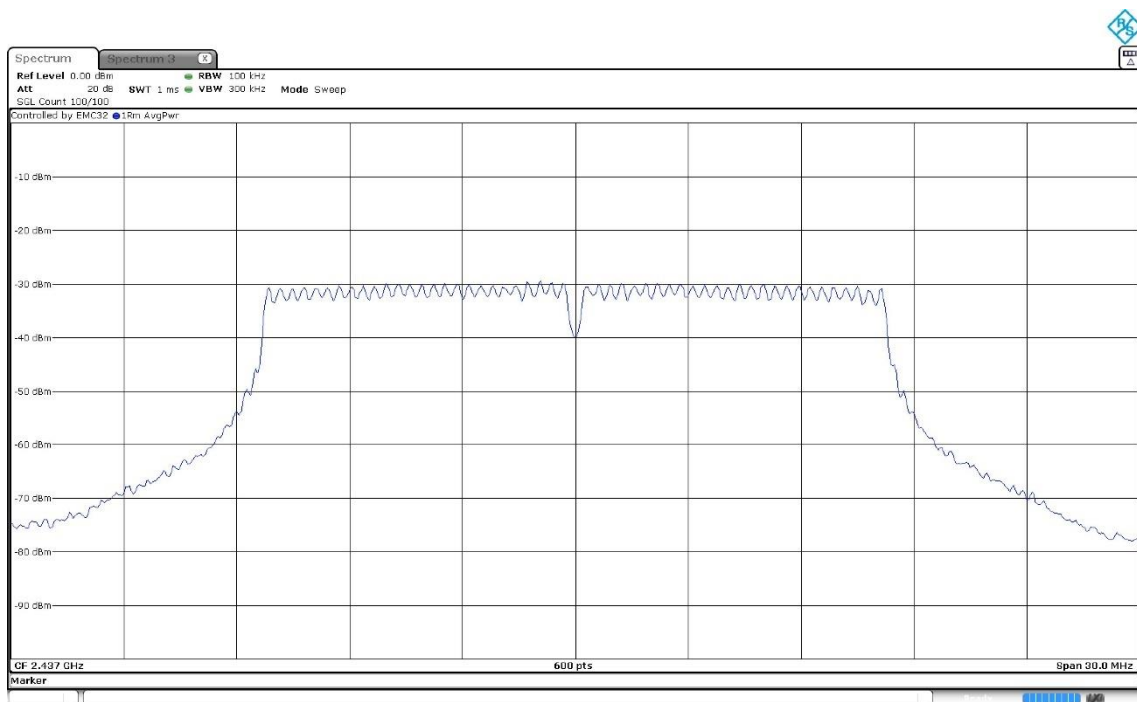
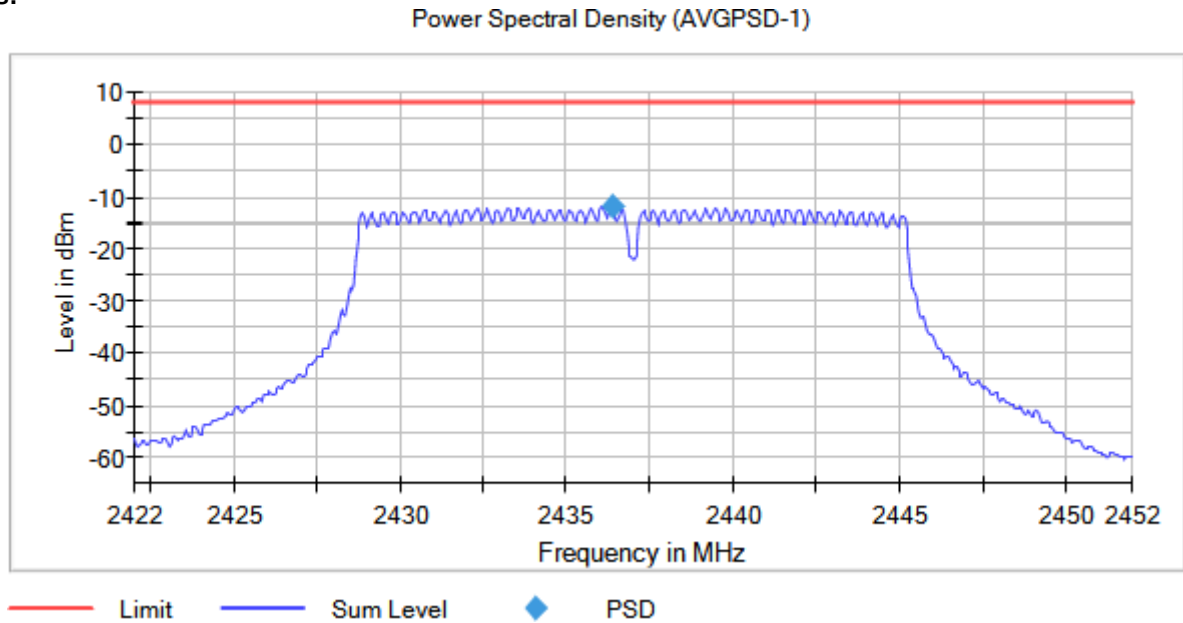


Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000      Active Port = 4

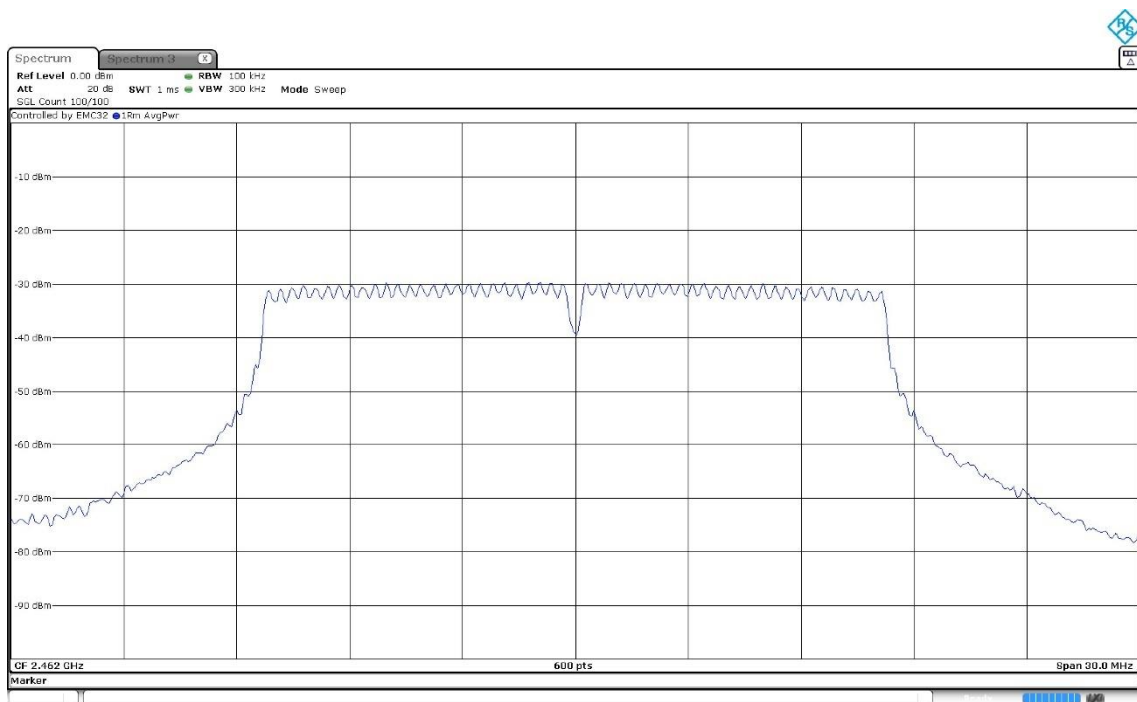
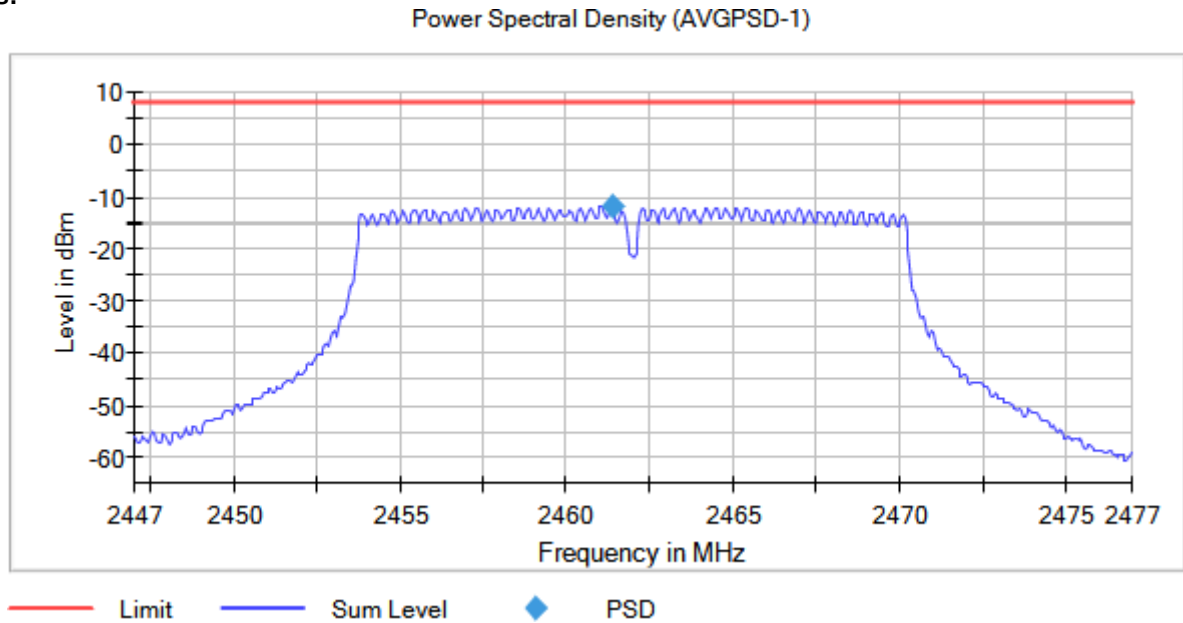
Modulation = 802.11g (OFDM 6 Mbit/s)

**Images:**



Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000      Active Port = 4  
Modulation = 802.11g (OFDM 6 Mbit/s)

**Images:**



Modulation: 802.11n HT20 (OFDM MCS0)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | PSD (dBm) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | -12.49    |
|                      |                                   | 2437.00000 |      | -12.63    |
|                      |                                   | 2462.00000 |      | -12.54    |

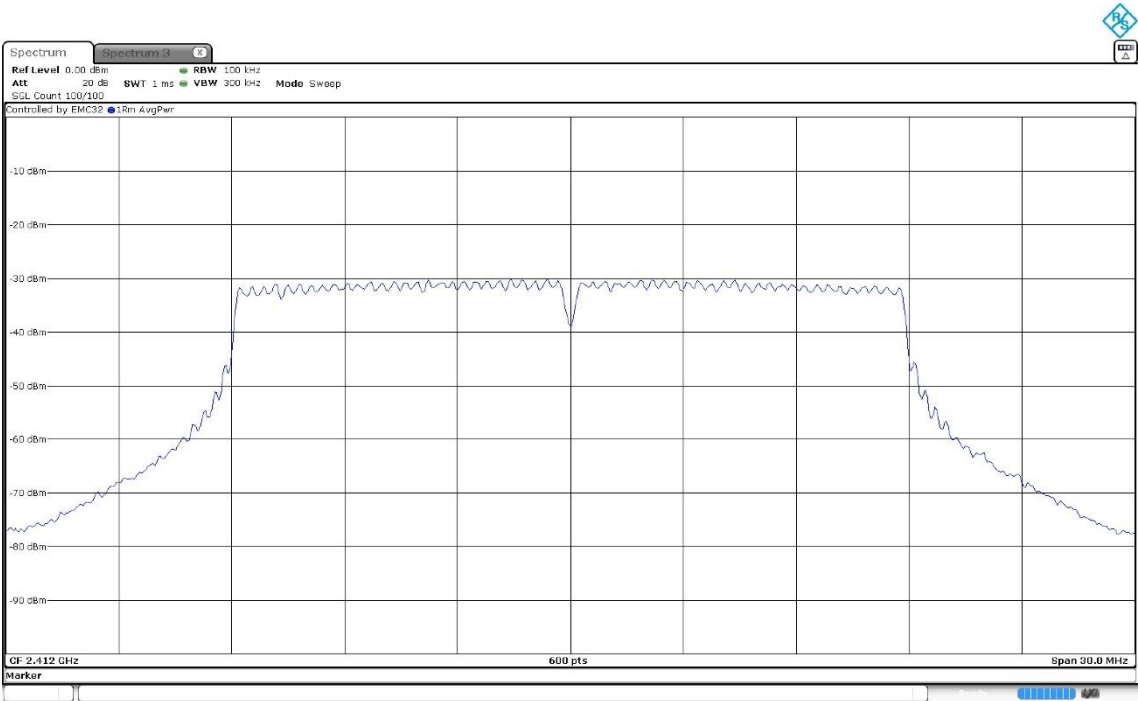
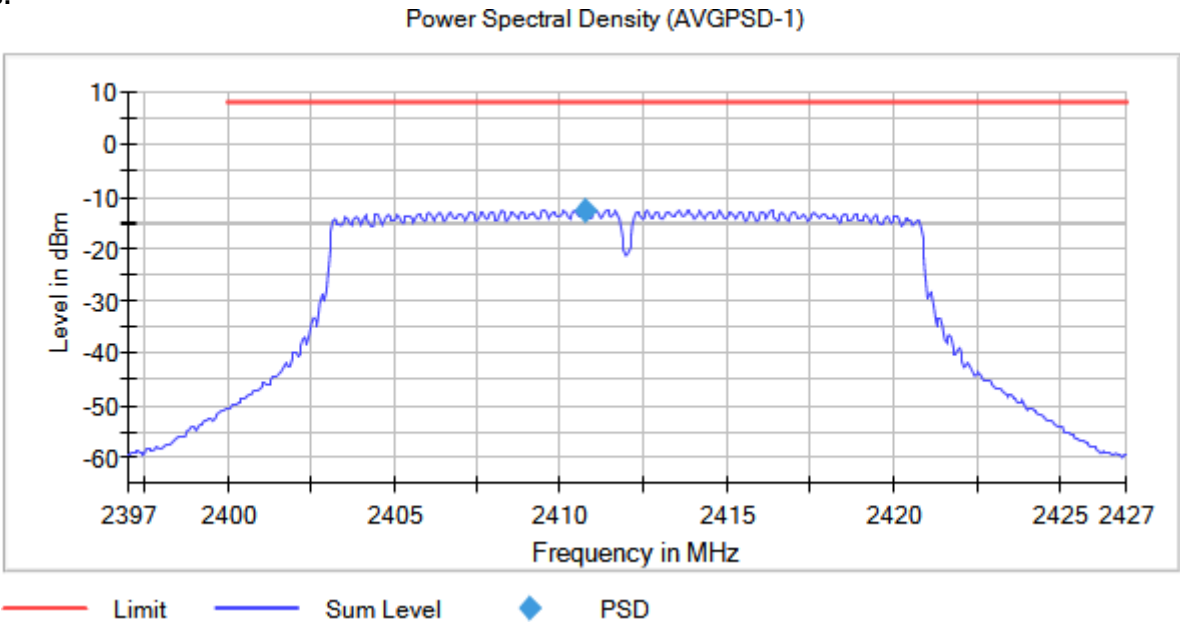
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

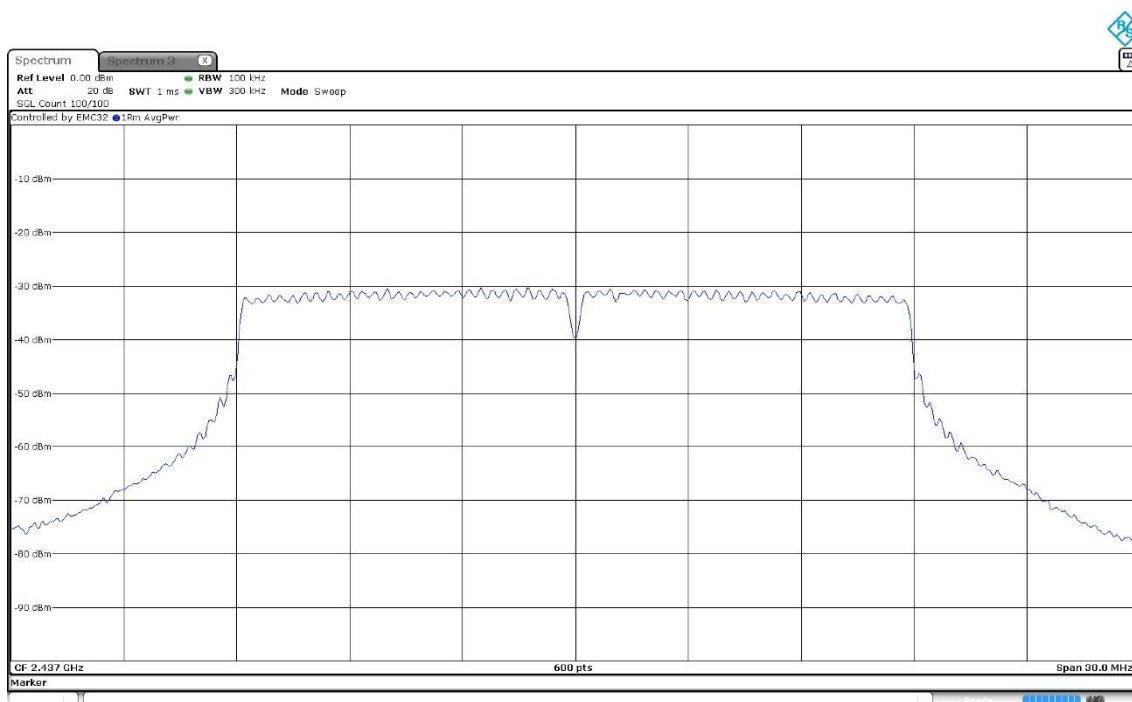
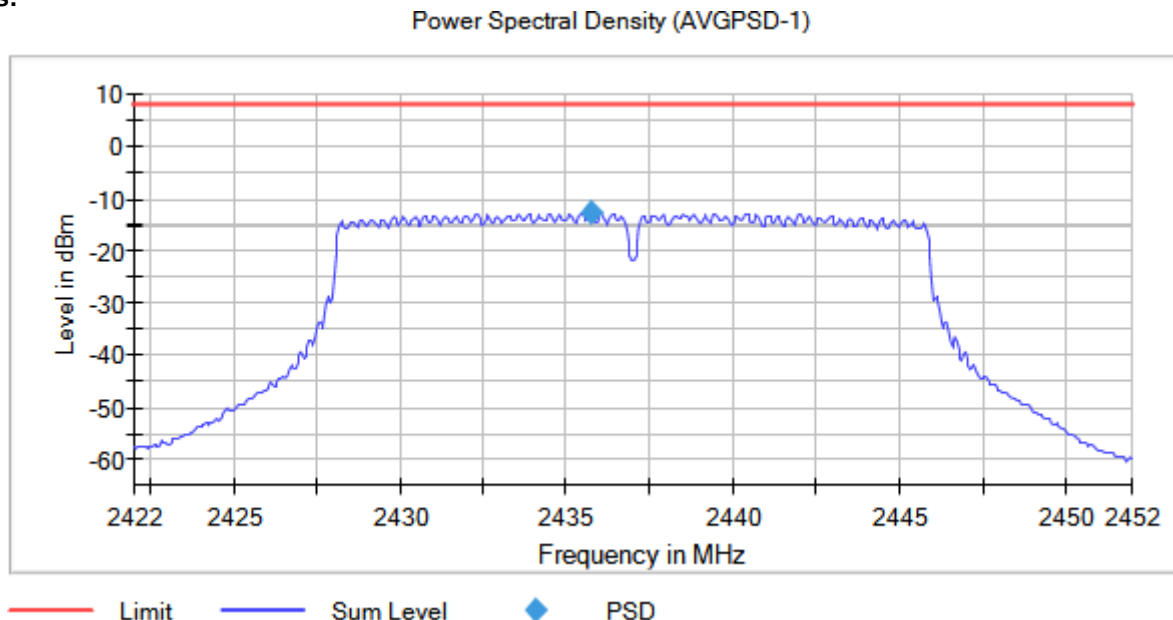
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

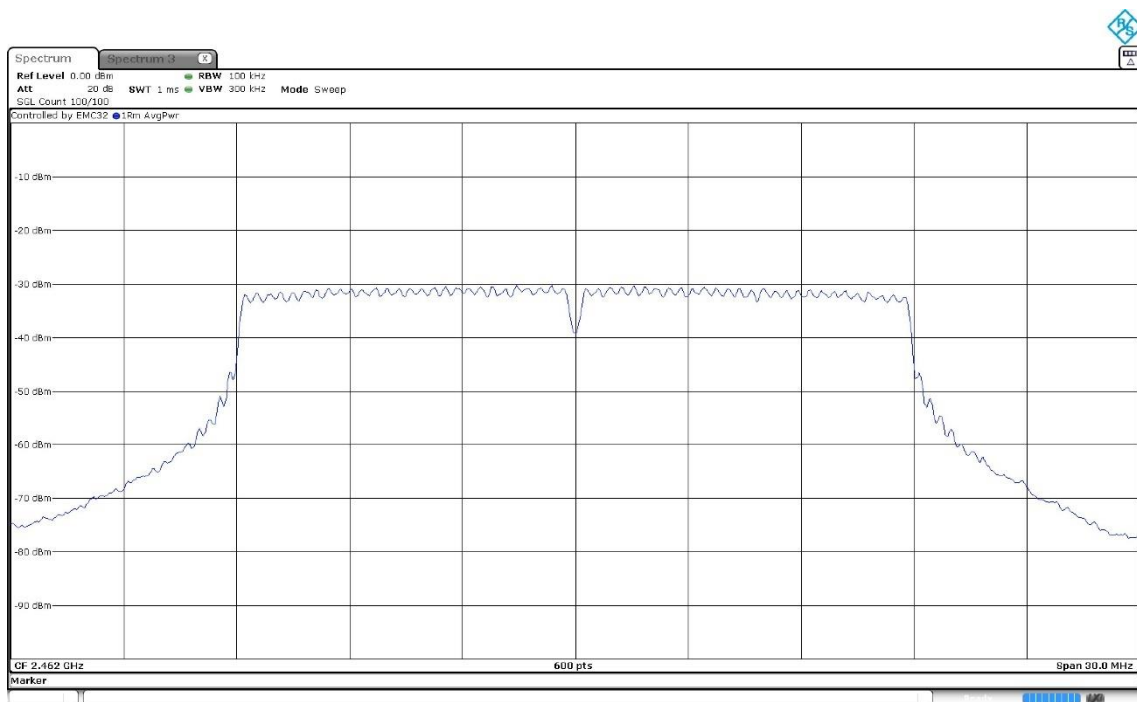
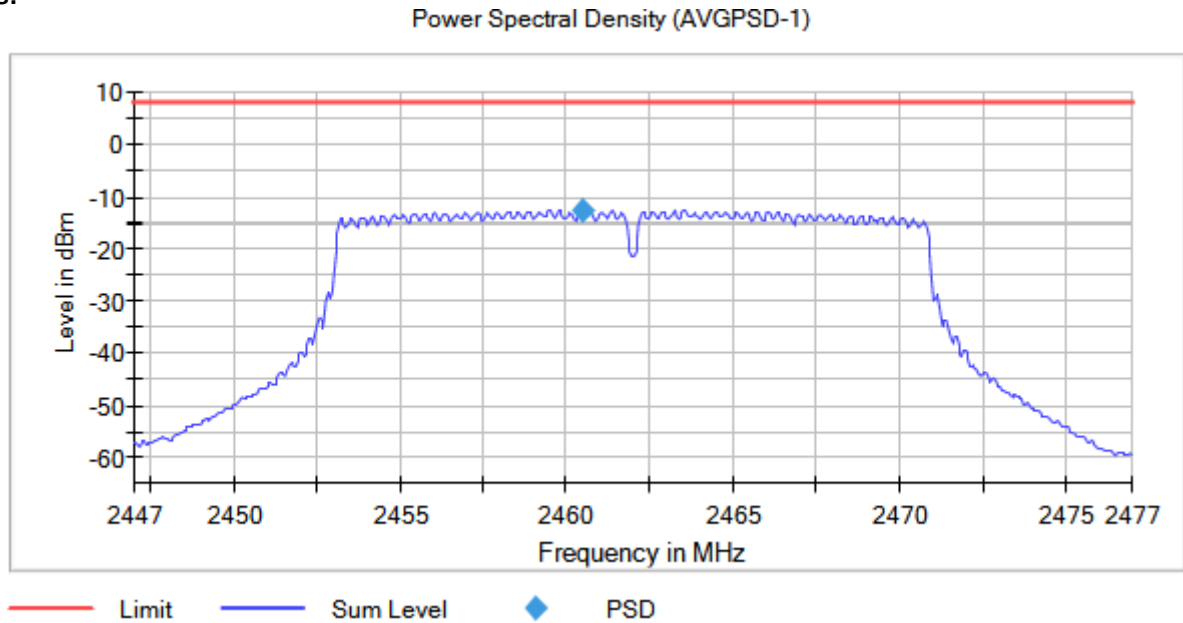
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 4

Modulation = 802.11n HT20 (OFDM MCS0)

### Images:



Modulation: 802.11ax HE20 (RU26)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | PSD (dBm) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | -5.79     |
|                      |                                   | 2437.00000 |      | -6.40     |
|                      |                                   | 2462.00000 |      | -6.20     |

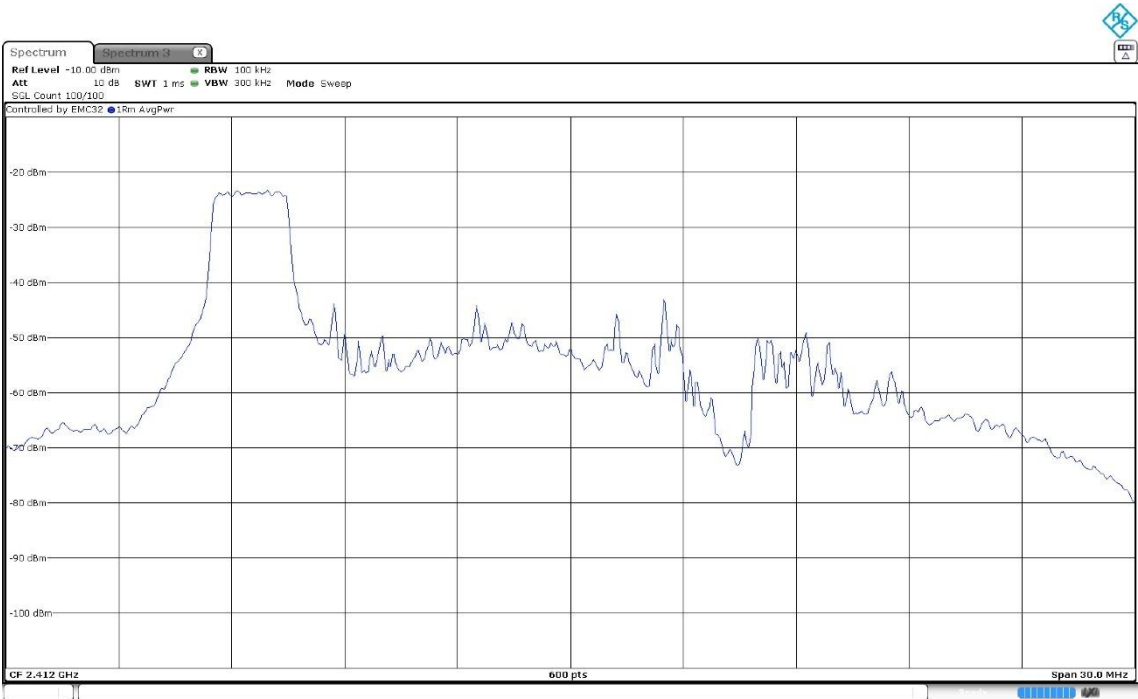
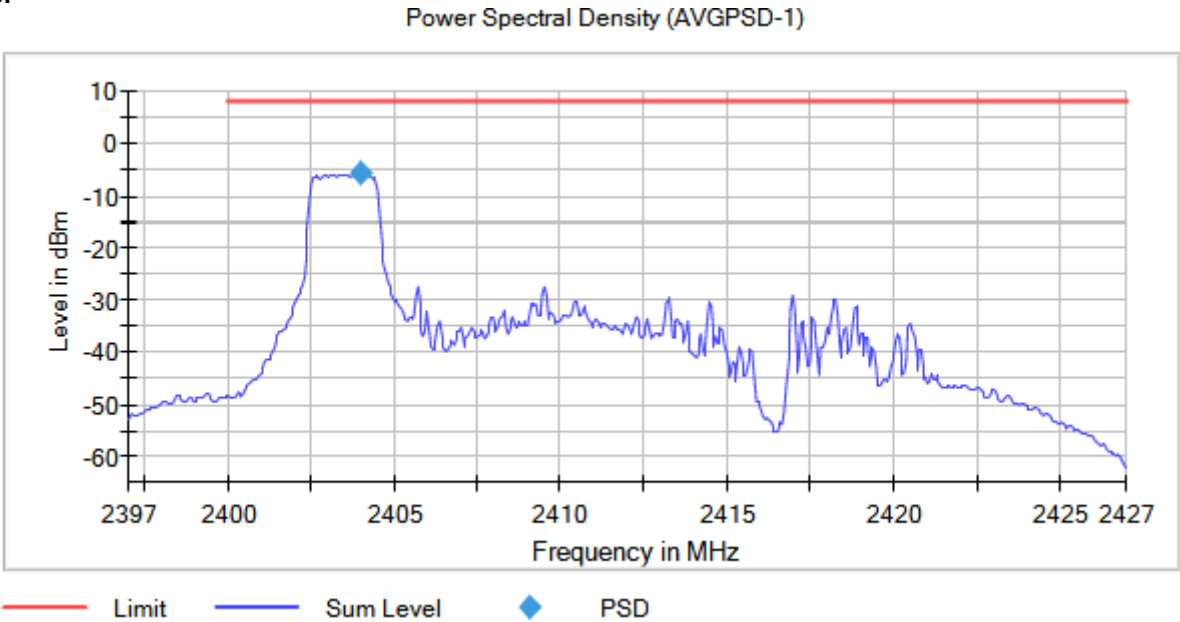
Verdict

Pass

Attachments

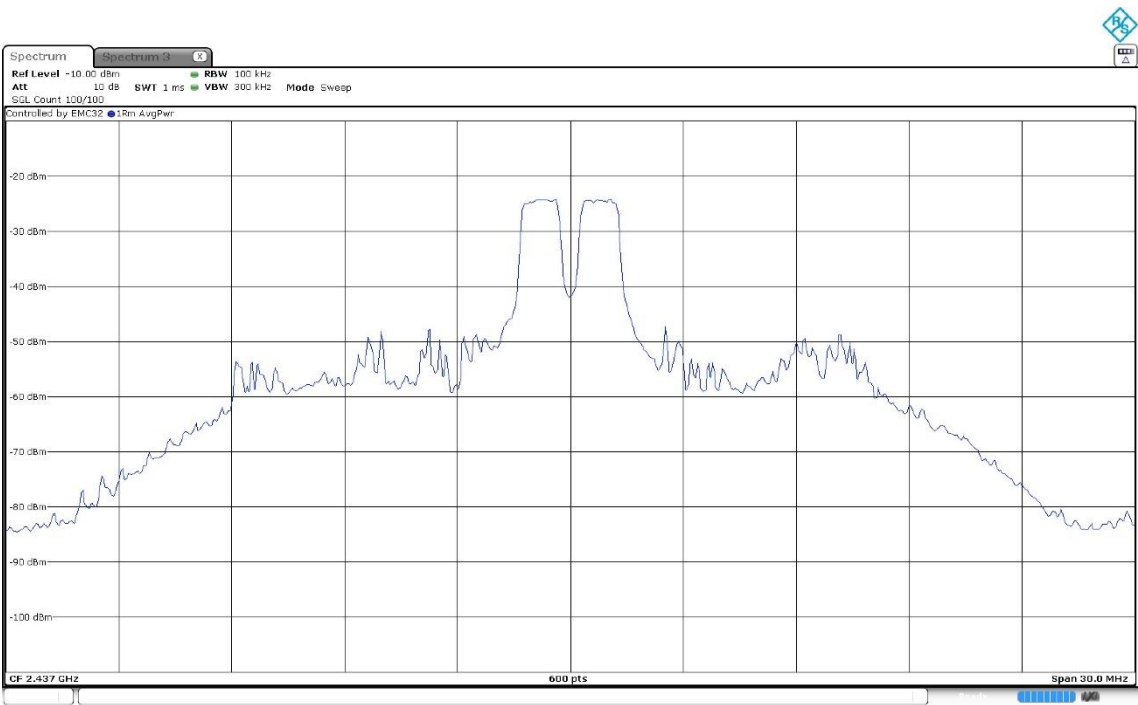
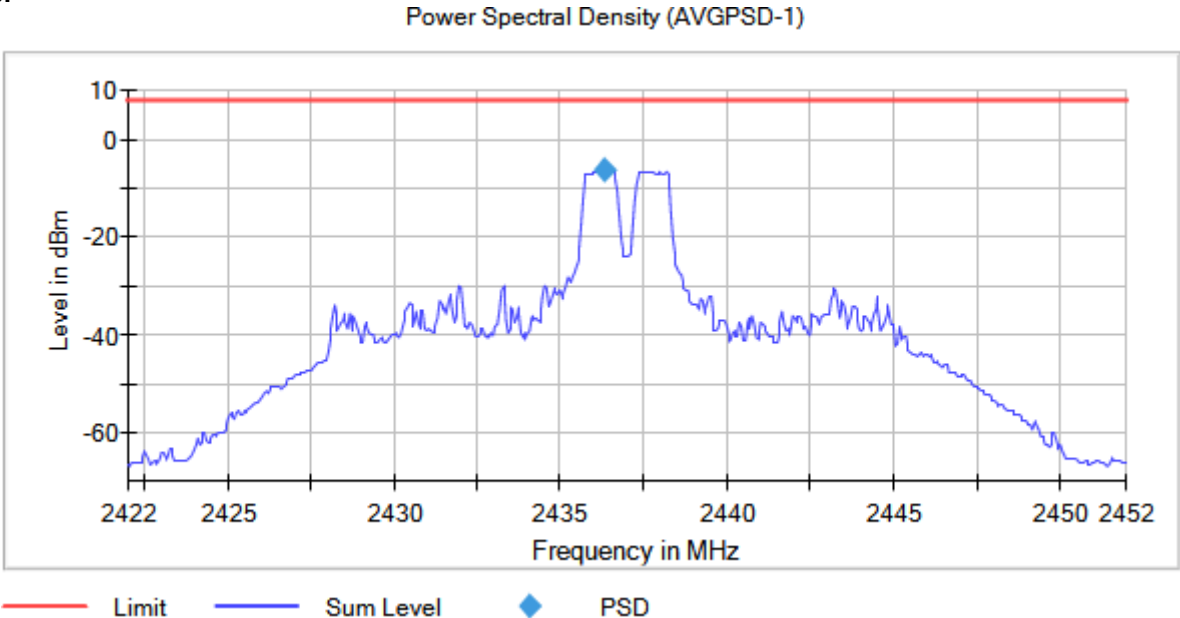
Operation Band MHz = [2400, 2483.5]      Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000      Active Port = 4  
Modulation = 802.11ax HE20 (RU26)

Images:



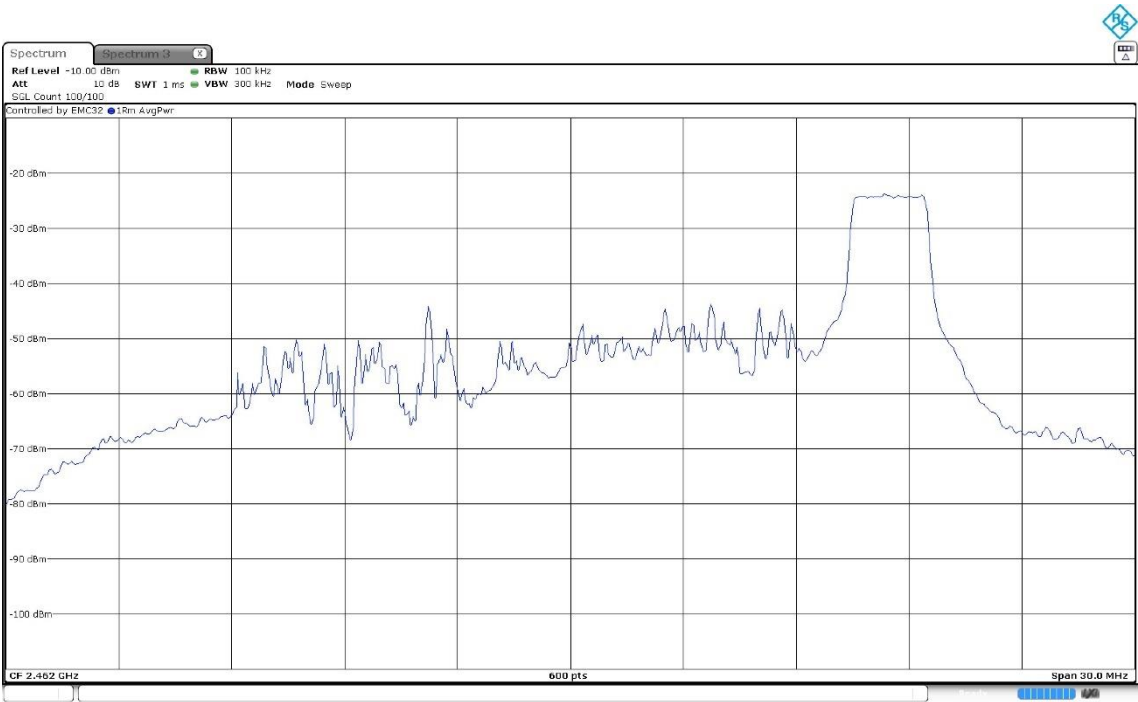
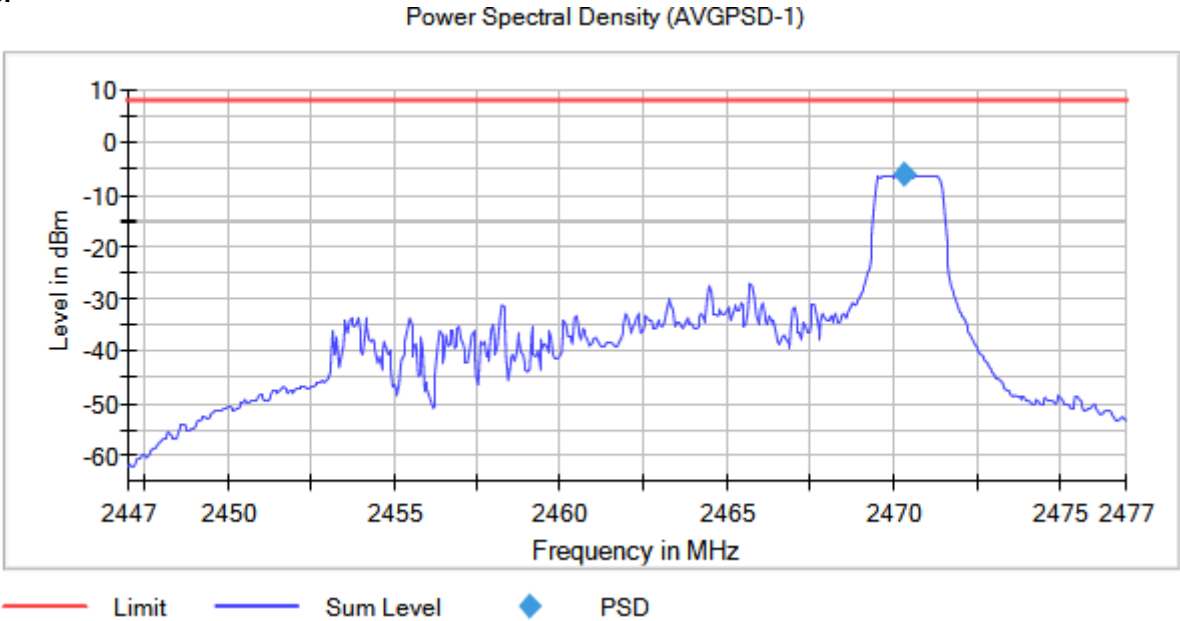
Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2437.00000    Active Port = 4  
Modulation = 802.11ax HE20 (RU26)

Images:



Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000    Active Port = 4  
Modulation = 802.11ax HE20 (RU26)

Images:



Modulation: 802.11ax HE20 (SU)

Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | PSD (dBm) |
|----------------------|-----------------------------------|------------|------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | -15.26    |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2437.00000 | 4    | -16.27    |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | -15.62    |

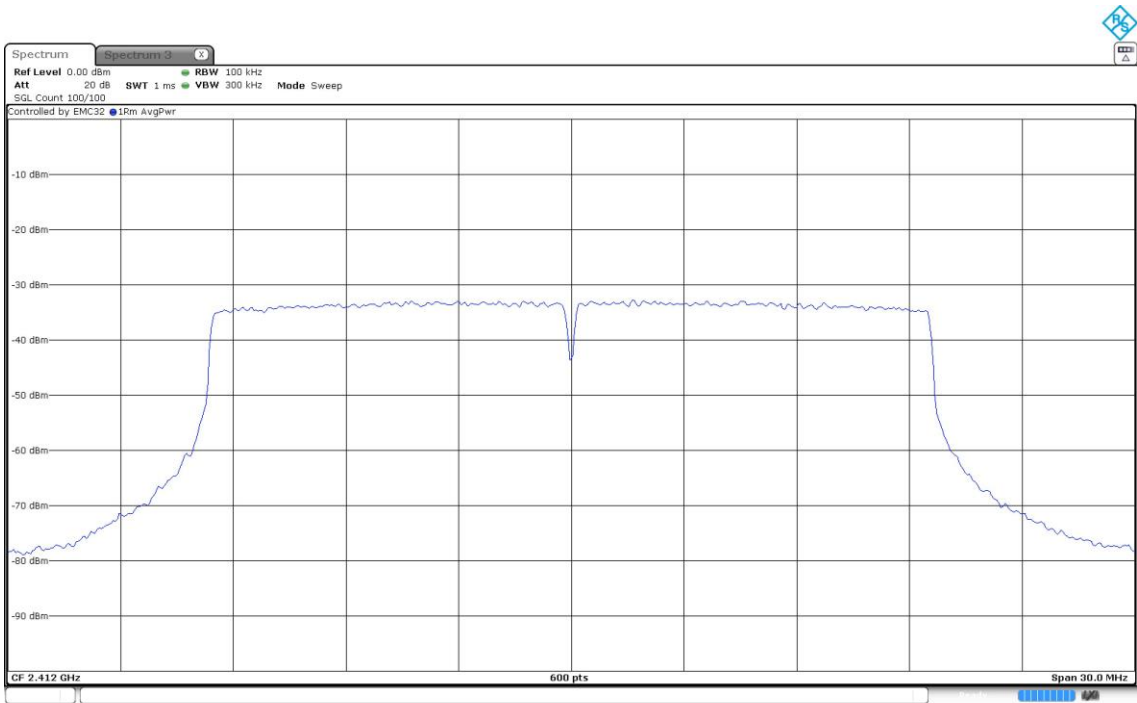
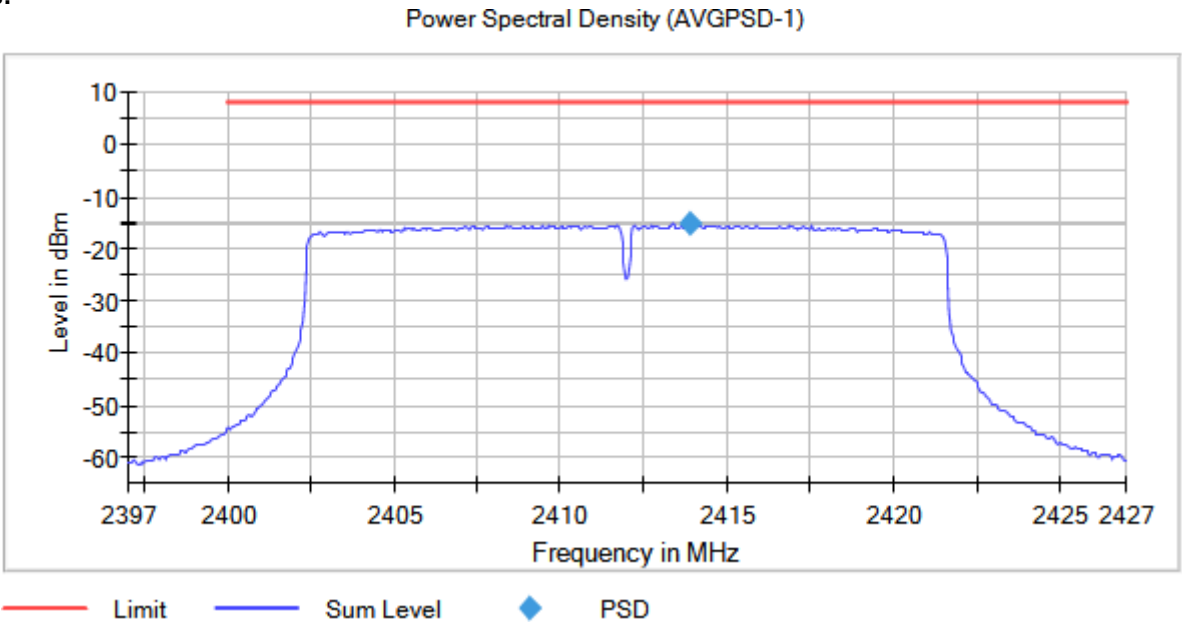
Verdict

Pass

Attachments

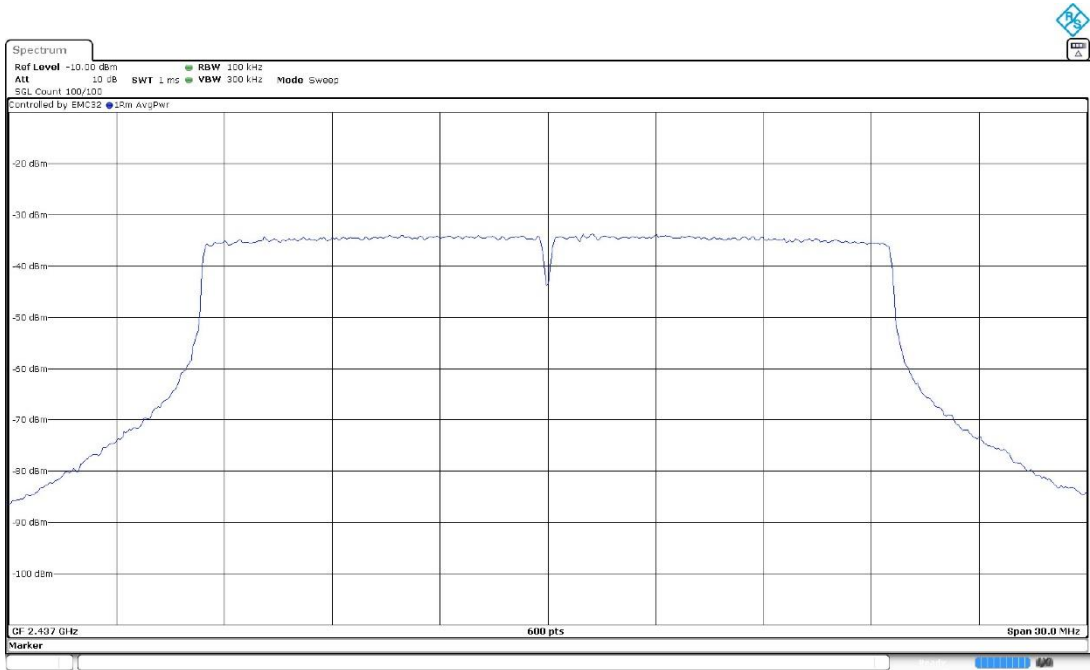
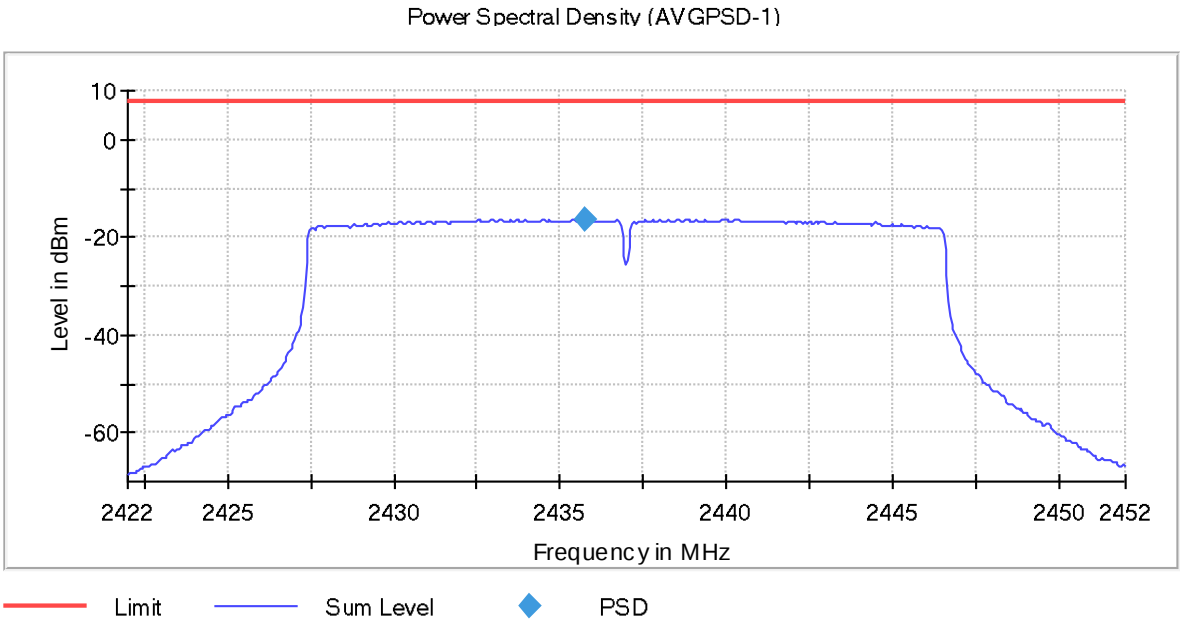
Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2412.00000    Active Port = 4  
Modulation = 802.11ax HE20 (SU)

Images:



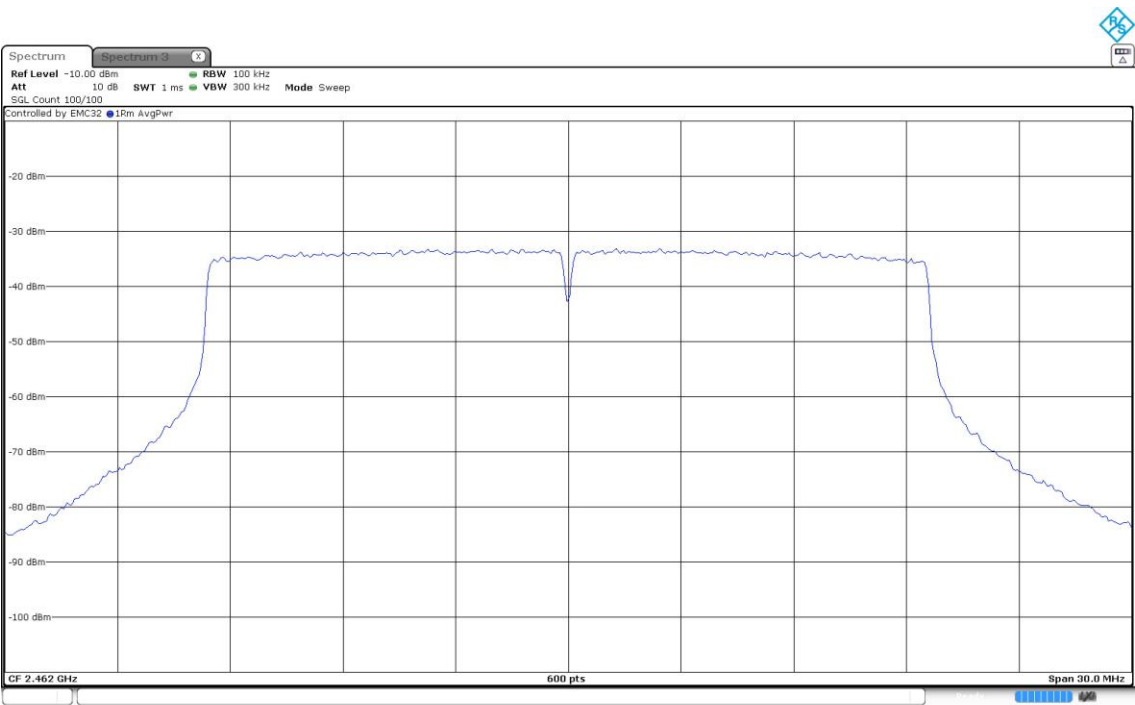
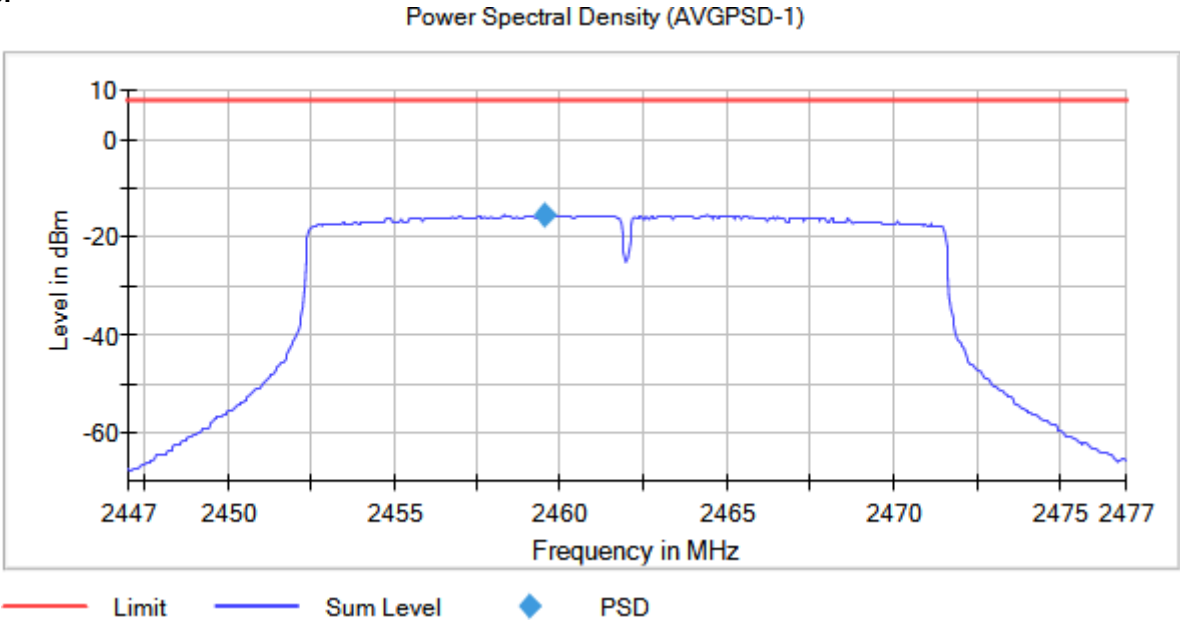
Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2437.00000    Active Port = 4  
Modulation = 802.11ax HE20 (SU)

Images:



Operation Band MHz = [2400, 2483.5]    Equipment Type = Digital Transmission System (DTS)  
Frequency MHz = 2462.00000    Active Port = 4  
Modulation = 802.11ax HE20 (SU)

Images:



## RSS-247 5.5 / FCC 15.247 (d) Band-edge emissions compliance (Transmitter)

### Limits

In any 100 kHz bandwidths outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Modulation: 802.11b (DSSS 1 Mbit/s)

### Results

| Operation Band (MHz) | Equipment                         | Freq (MHz) | Port | Freq (MHz)  | Lvl (dBm) |
|----------------------|-----------------------------------|------------|------|-------------|-----------|
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.725000 | -48.9     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.675000 | -48.9     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2316.325000 | -49.5     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2316.375000 | -49.5     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2387.025000 | -49.6     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.225000 | -49.6     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2328.675000 | -49.7     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.775000 | -49.7     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.275000 | -49.8     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2399.625000 | -49.8     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2327.825000 | -49.8     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2386.325000 | -49.9     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2328.725000 | -49.9     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2386.375000 | -49.9     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2412.00000 | 4    | 2340.775000 | -50.0     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | 2485.025000 | -48.0     |
| [2400, 2483.5]       | Digital Transmission System (DTS) | 2462.00000 | 4    | 2492.425000 | -48.5     |