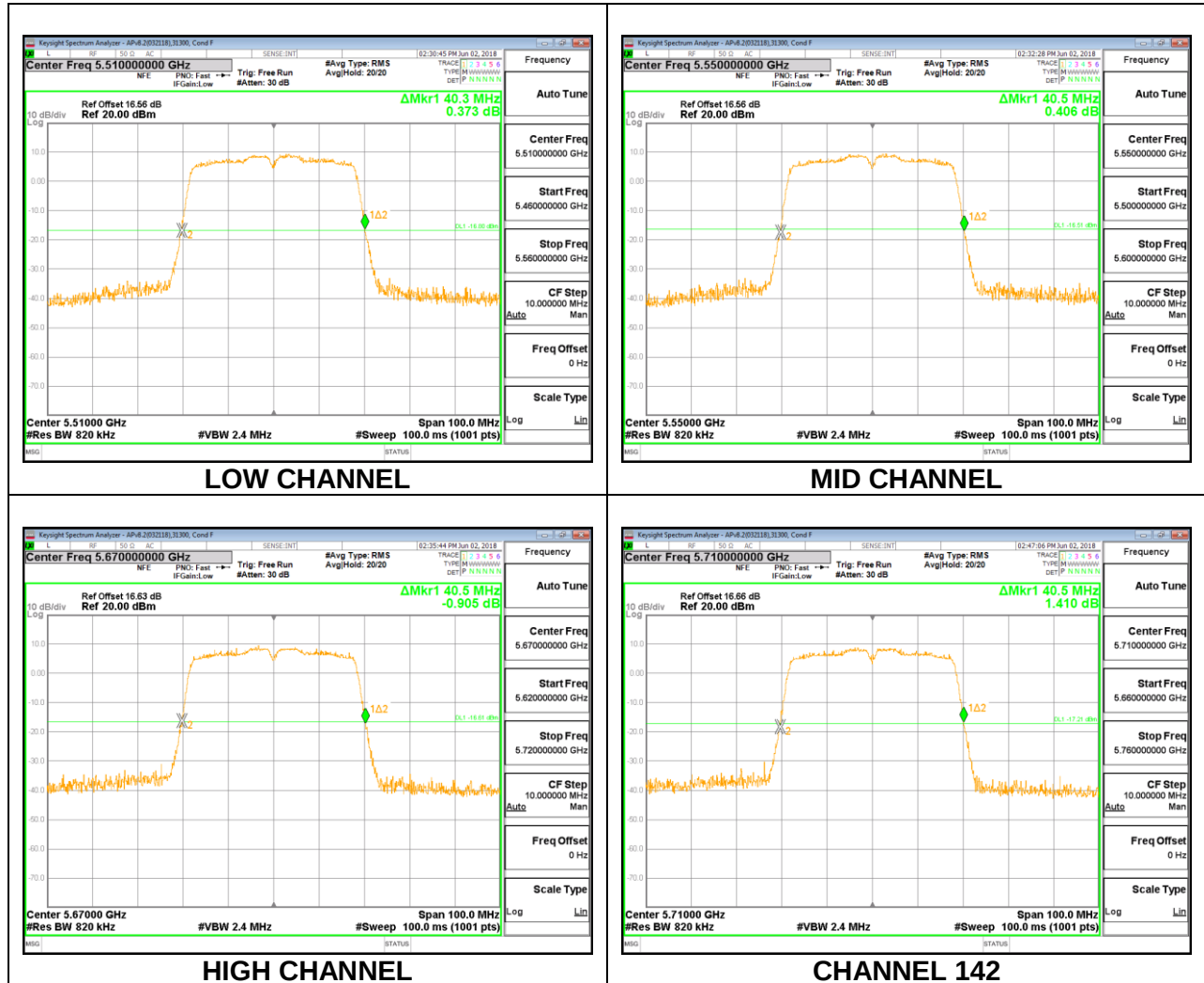


## 8.2.8. 802.11n HT40 MODE IN THE 5.6 GHz BAND

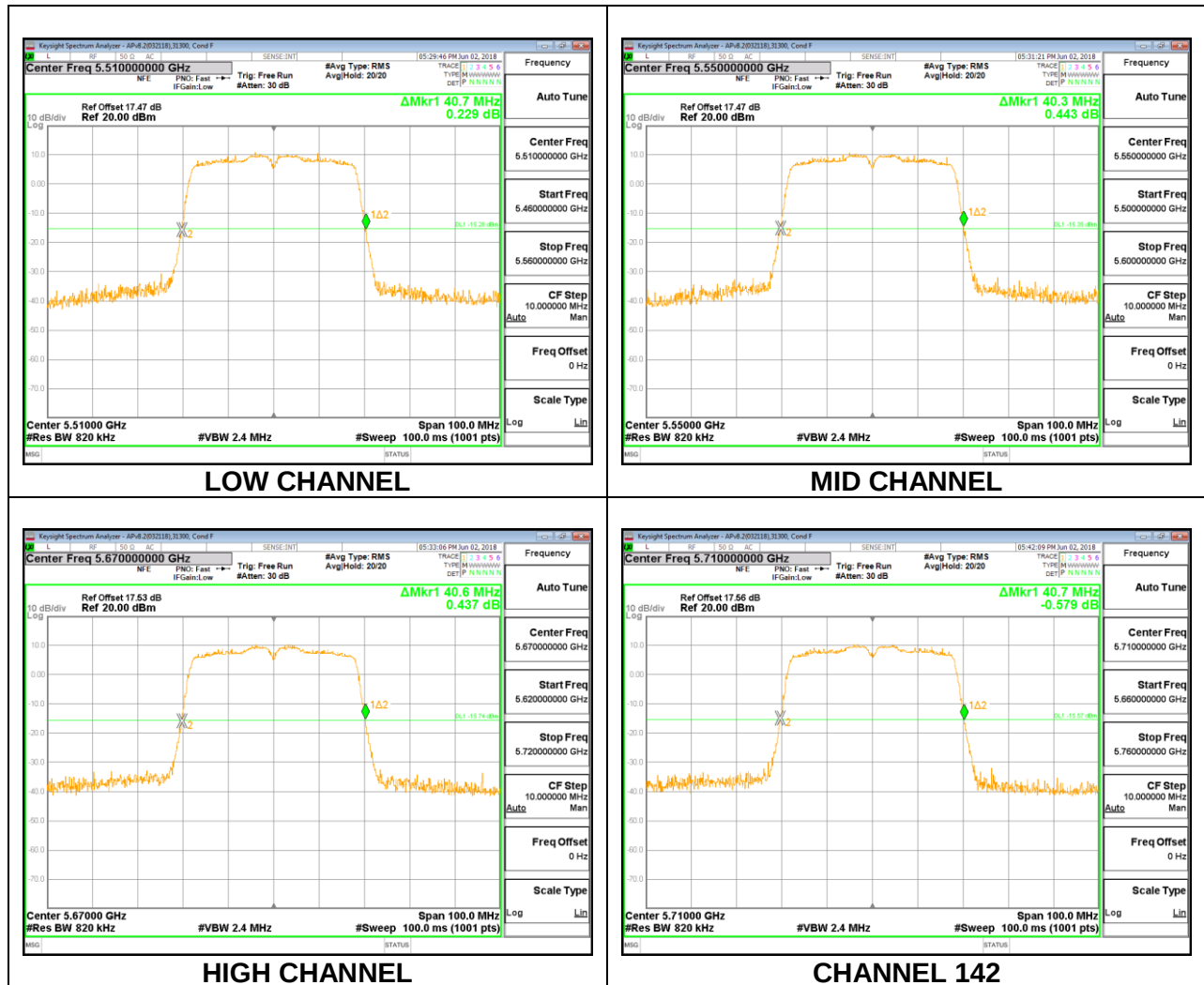
### 1TX Antenna 4 MODE

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>(MHz) |
|---------|--------------------|--------------------------|
| Low     | 5510               | 40.30                    |
| Mid     | 5550               | 40.50                    |
| High    | 5670               | 40.50                    |
| 142     | 5710               | 40.50                    |



**1TX Antenna 5 MODE**

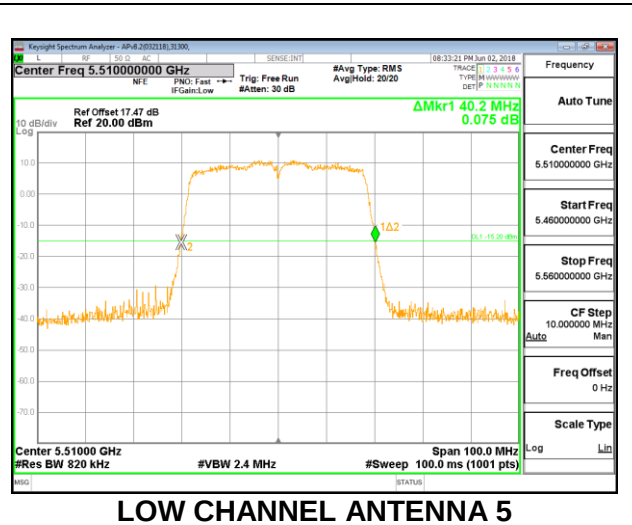
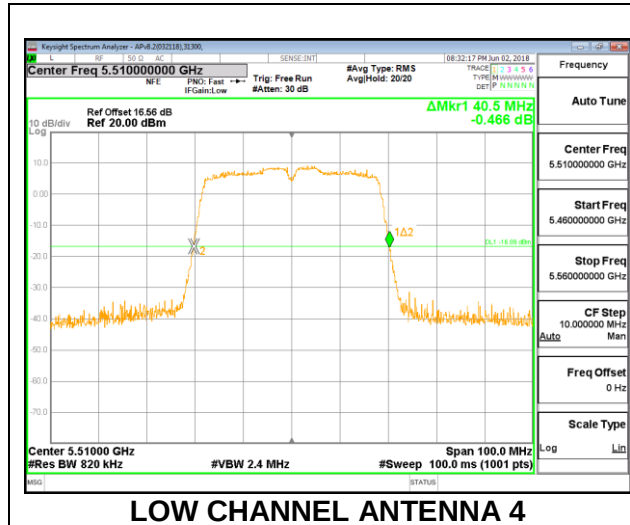
| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Low     | 5510      | 40.70           |
| Mid     | 5550      | 40.30           |
| High    | 5670      | 40.60           |
| 142     | 5710      | 40.70           |



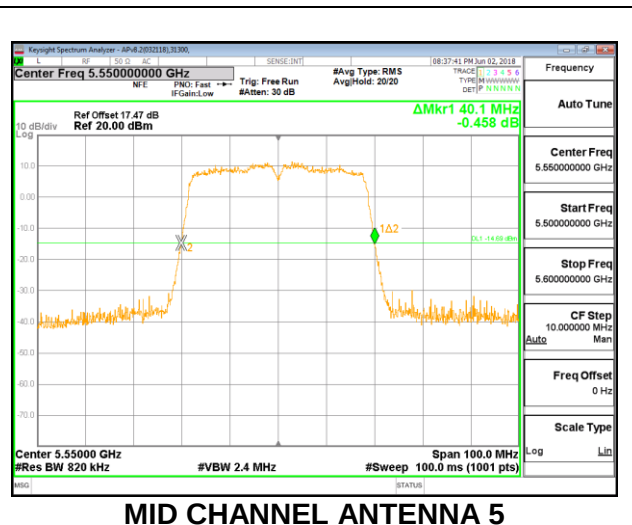
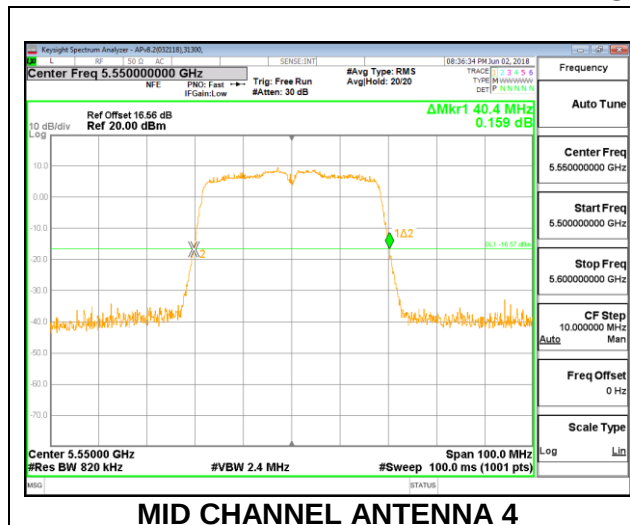
**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>Antenna 4<br>(MHz) | 26 dB Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|---------------------------------------|---------------------------------------|
| Low     | 5510               | 40.50                                 | 40.20                                 |
| Mid     | 5550               | 40.40                                 | 40.10                                 |
| High    | 5670               | 40.60                                 | 40.30                                 |
| 142     | 5710               | 40.50                                 | 40.00                                 |

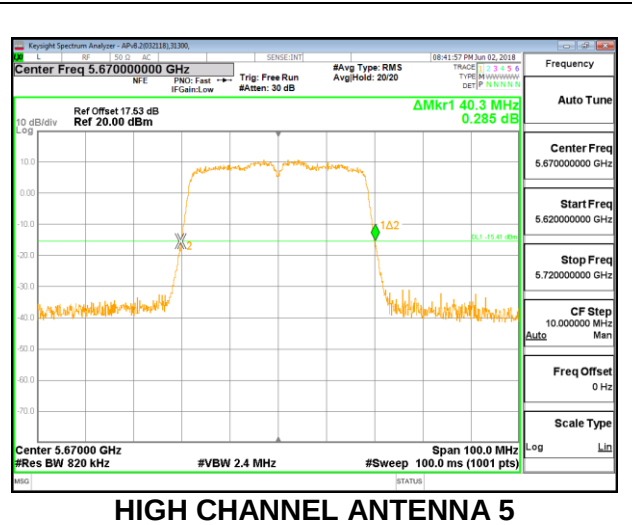
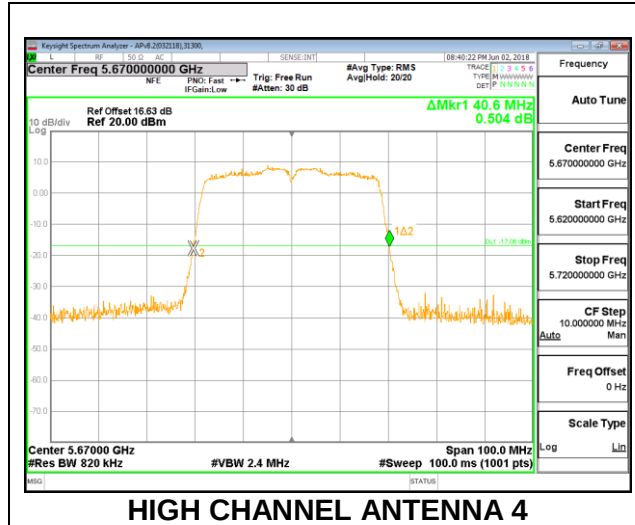
**LOW CHANNEL**



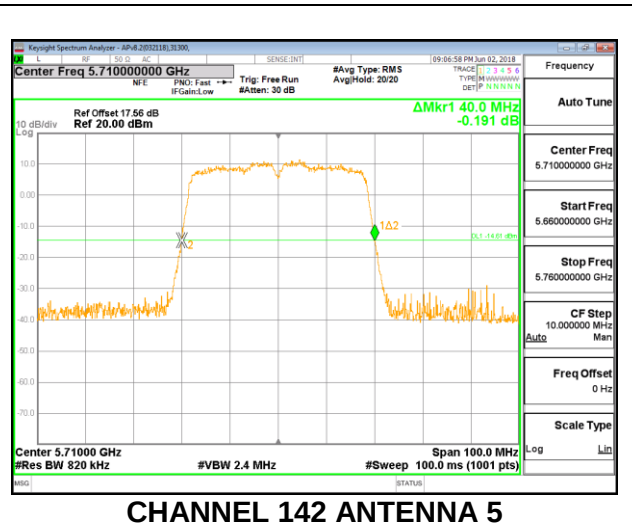
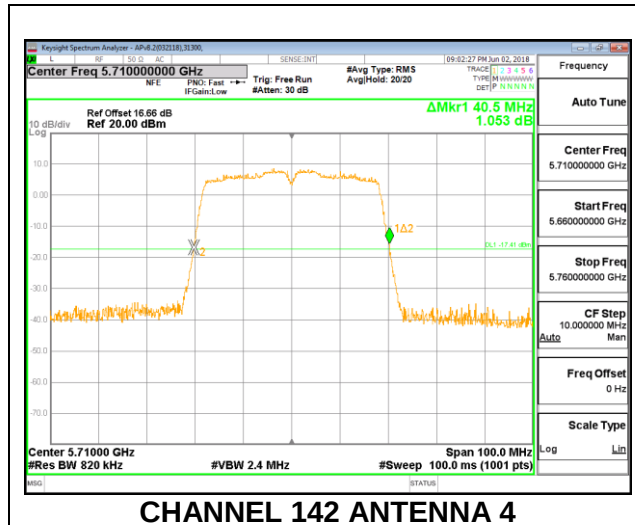
**MID CHANNEL**



## HIGH CHANNEL



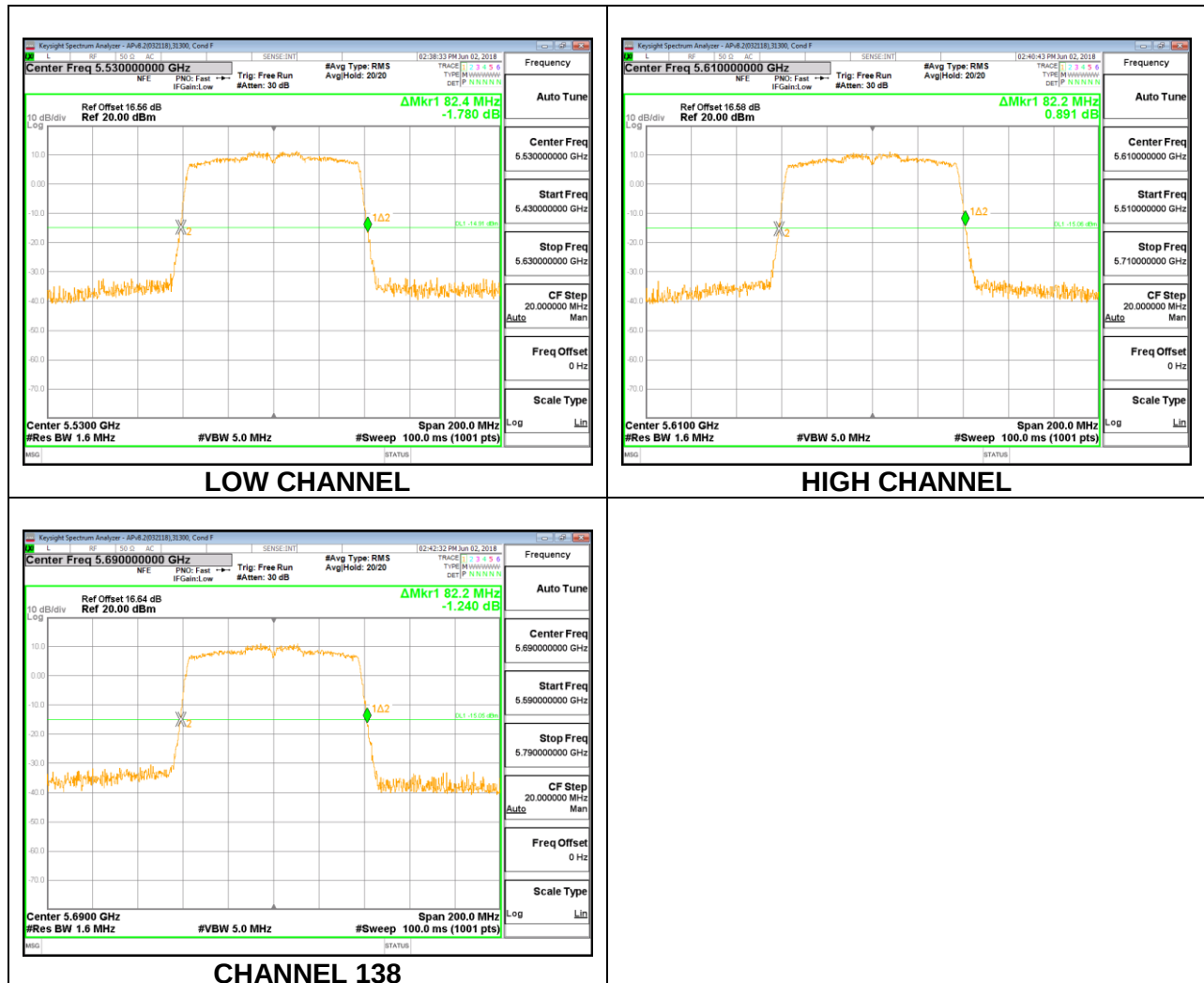
## CHANNEL 142



## 8.2.9. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

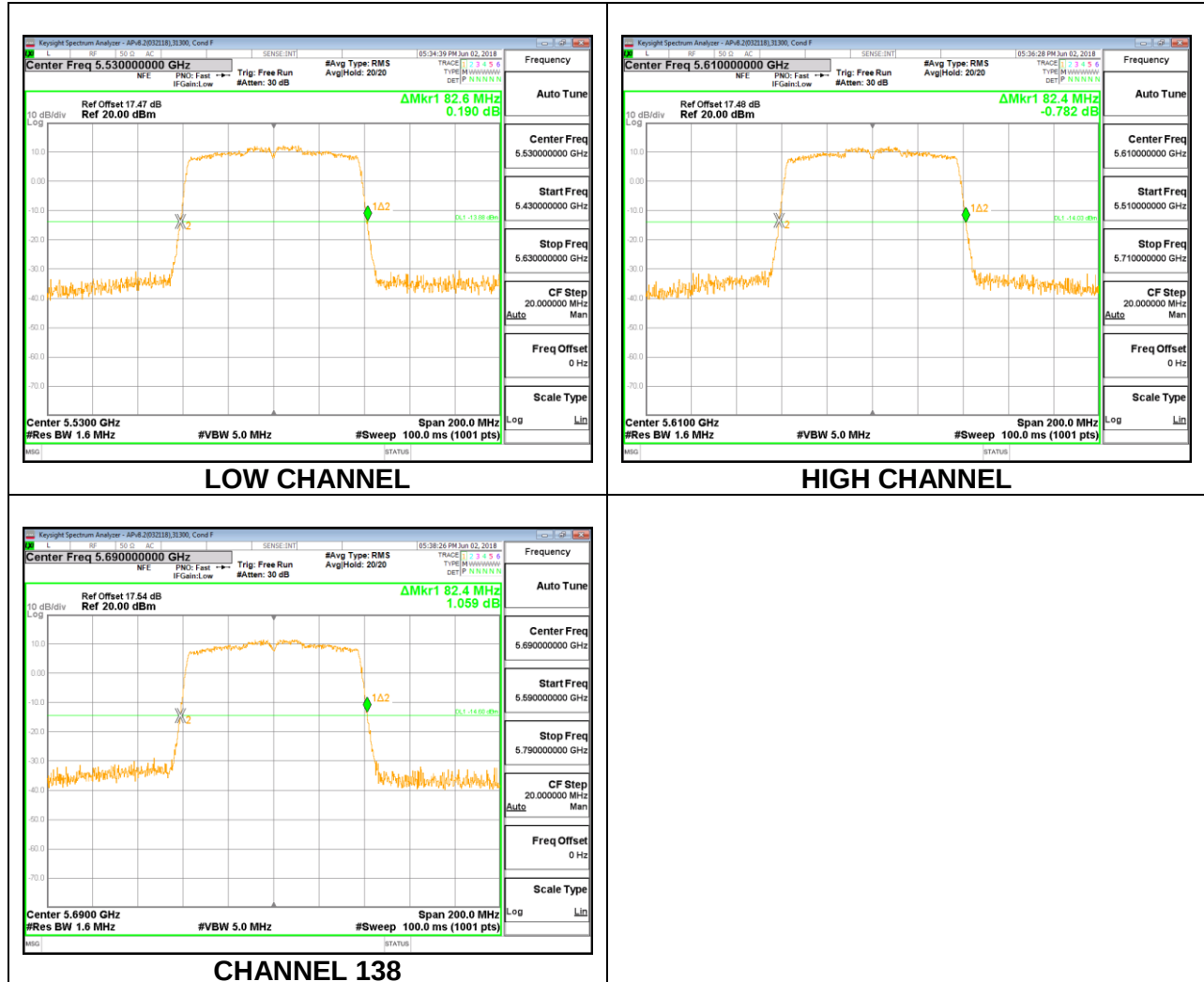
### 1TX Antenna 4 MODE

| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Low     | 5530      | 82.40           |
| High    | 5610      | 82.20           |
| 138     | 5690      | 82.20           |



**1TX Antenna 5 MODE**

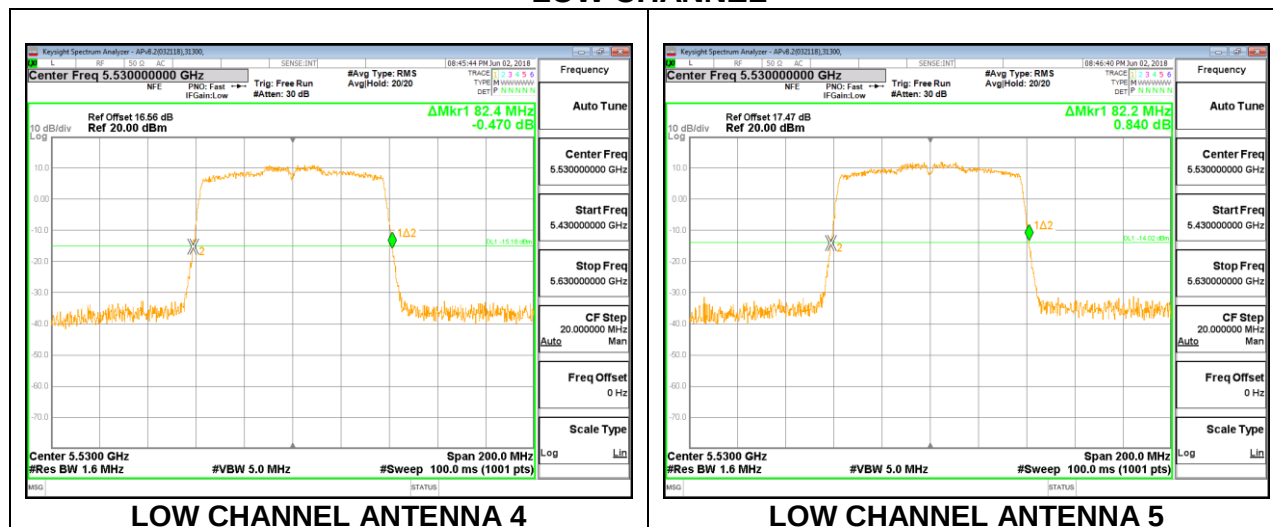
| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Low     | 5530      | 82.60           |
| High    | 5610      | 82.40           |
| 138     | 5690      | 82.40           |



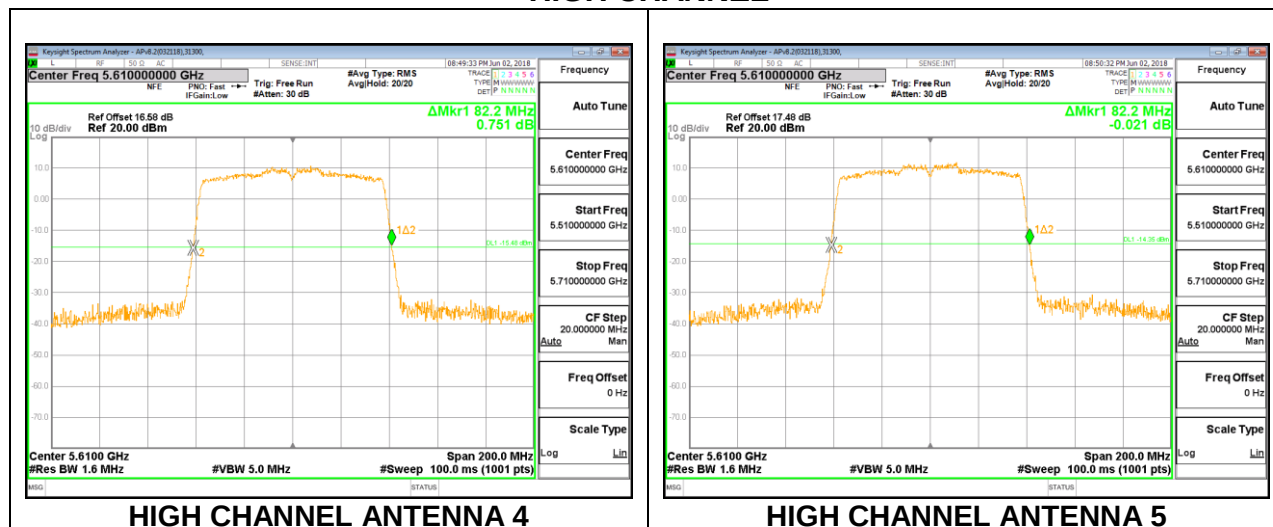
**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>Antenna 4<br>(MHz) | 26 dB Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|---------------------------------------|---------------------------------------|
| Low     | 5530               | 82.40                                 | 82.20                                 |
| High    | 5610               | 82.20                                 | 82.20                                 |
| 138     | 5690               | 82.40                                 | 82.00                                 |

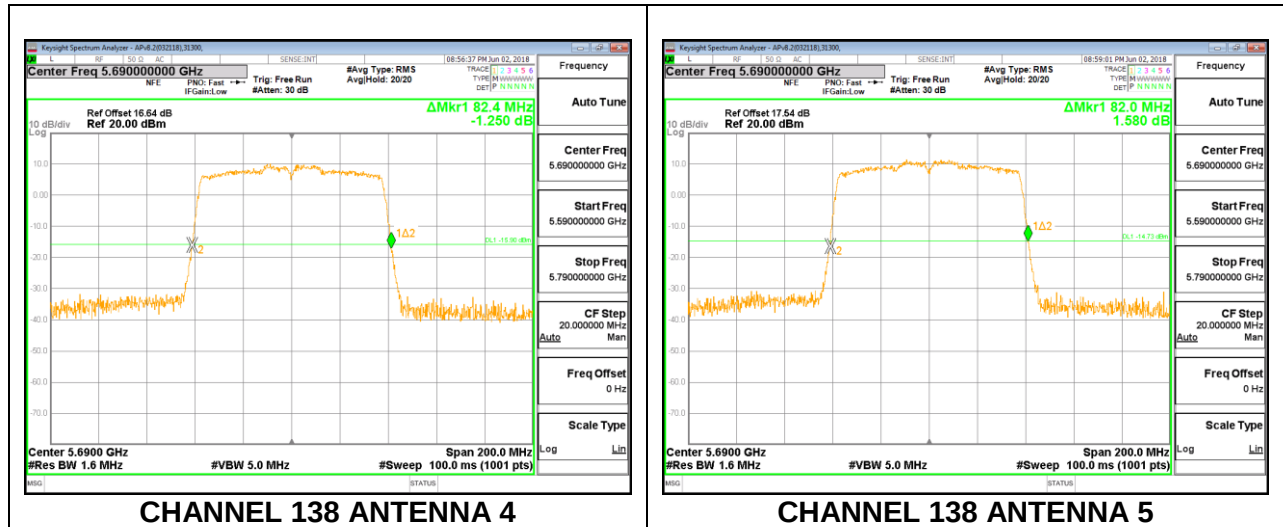
**LOW CHANNEL**



**HIGH CHANNEL**



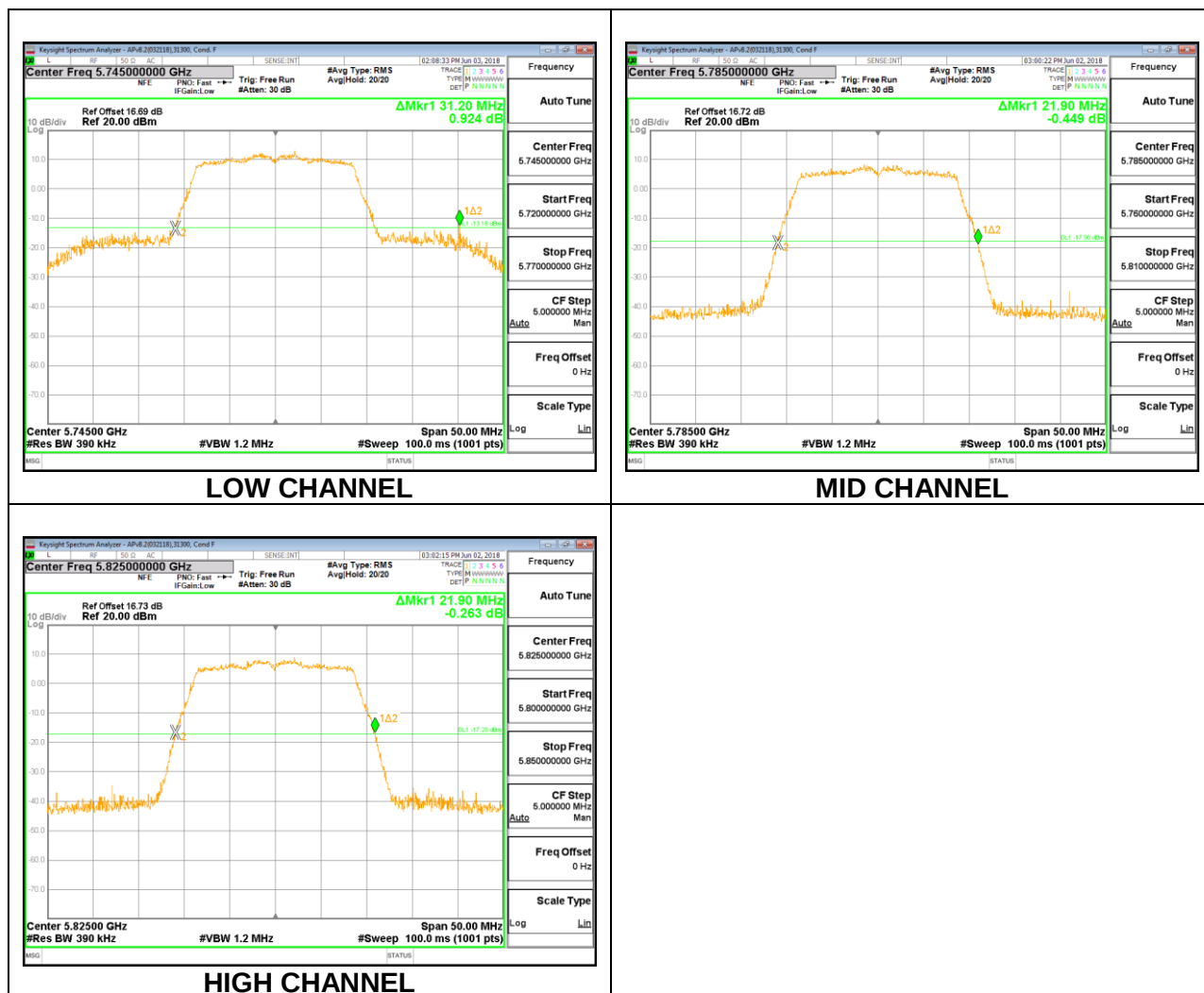
## CHANNEL 138



## 8.2.10. 802.11n HT20 MODE IN THE 5.8 GHz BAND

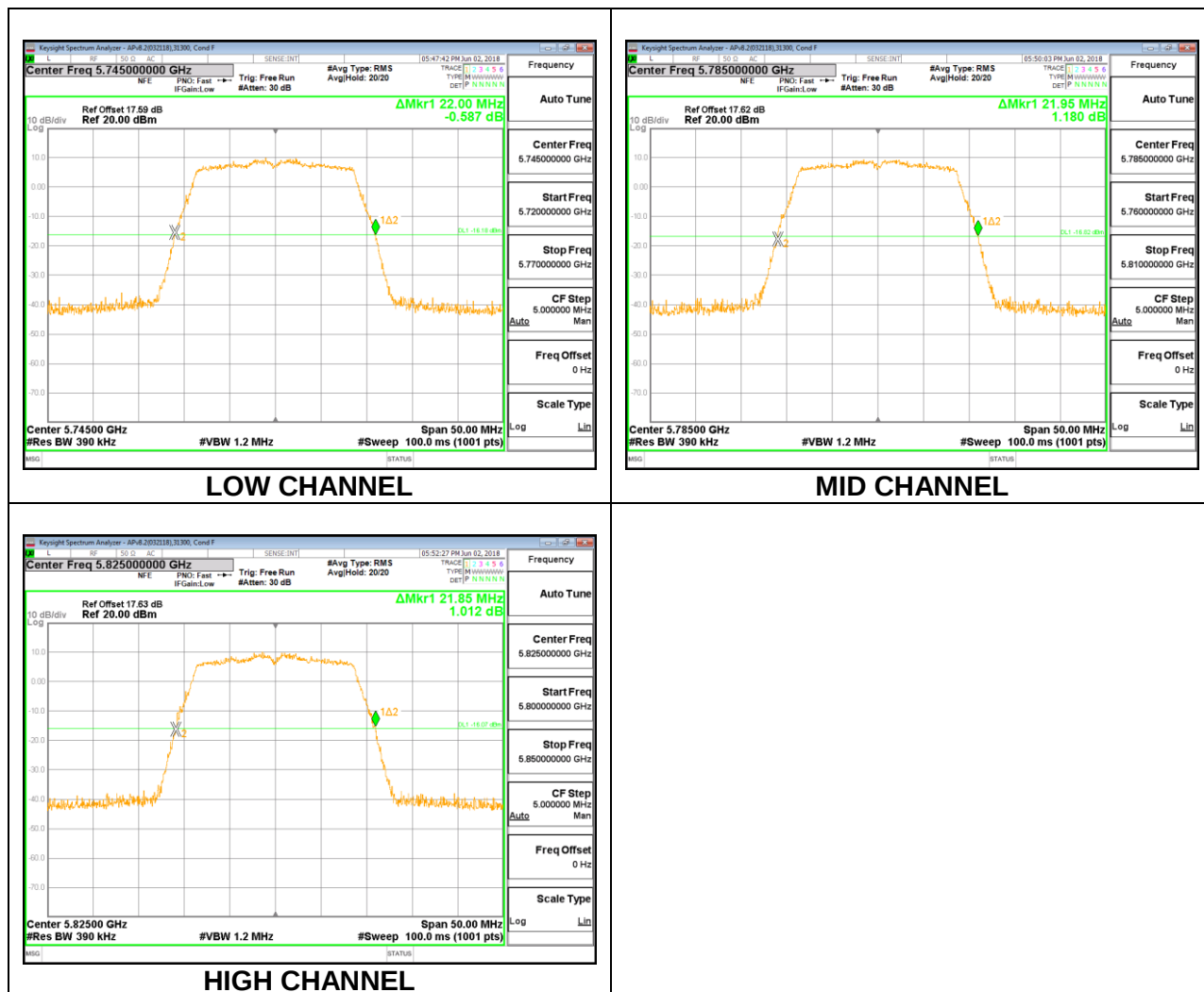
### 1TX Antenna 4 MODE

| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Low     | 5745      | 31.20           |
| Mid     | 5785      | 21.90           |
| High    | 5825      | 21.90           |



**1TX Antenna 5 MODE**

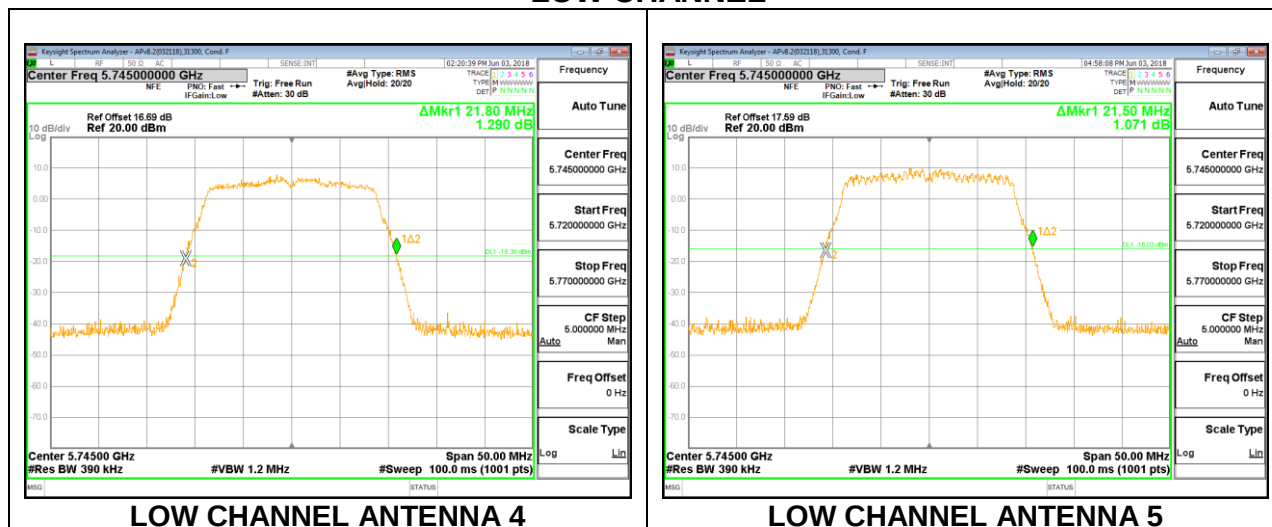
| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Low     | 5745      | 22.00           |
| Mid     | 5785      | 21.95           |
| High    | 5825      | 21.85           |



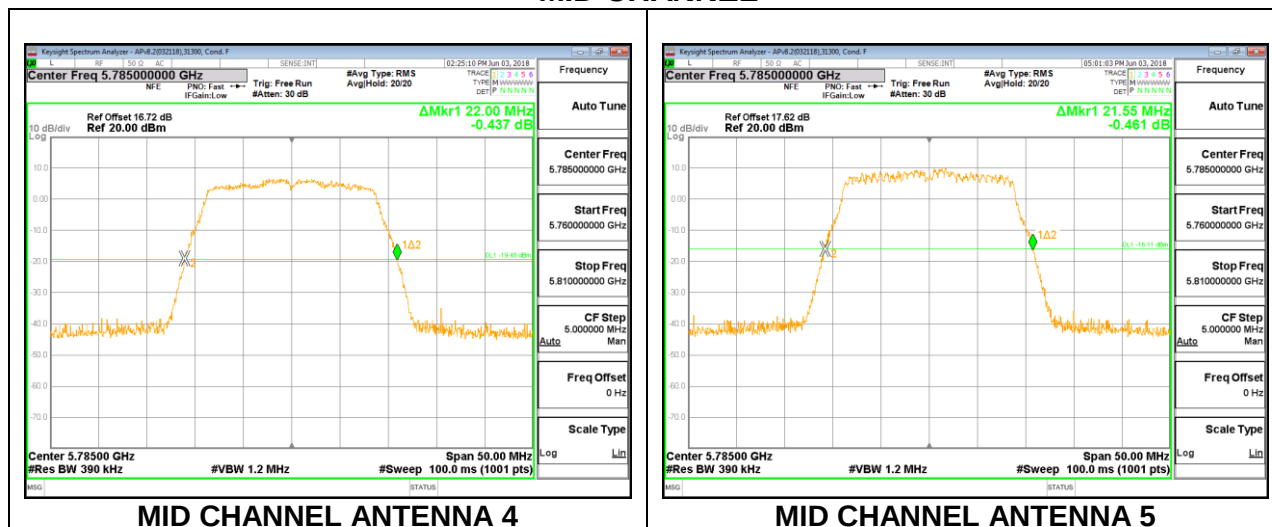
**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>Antenna 4<br>(MHz) | 26 dB Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|---------------------------------------|---------------------------------------|
| Low     | 5745               | 21.80                                 | 21.50                                 |
| Mid     | 5785               | 22.00                                 | 21.55                                 |
| High    | 5825               | 22.00                                 | 21.50                                 |

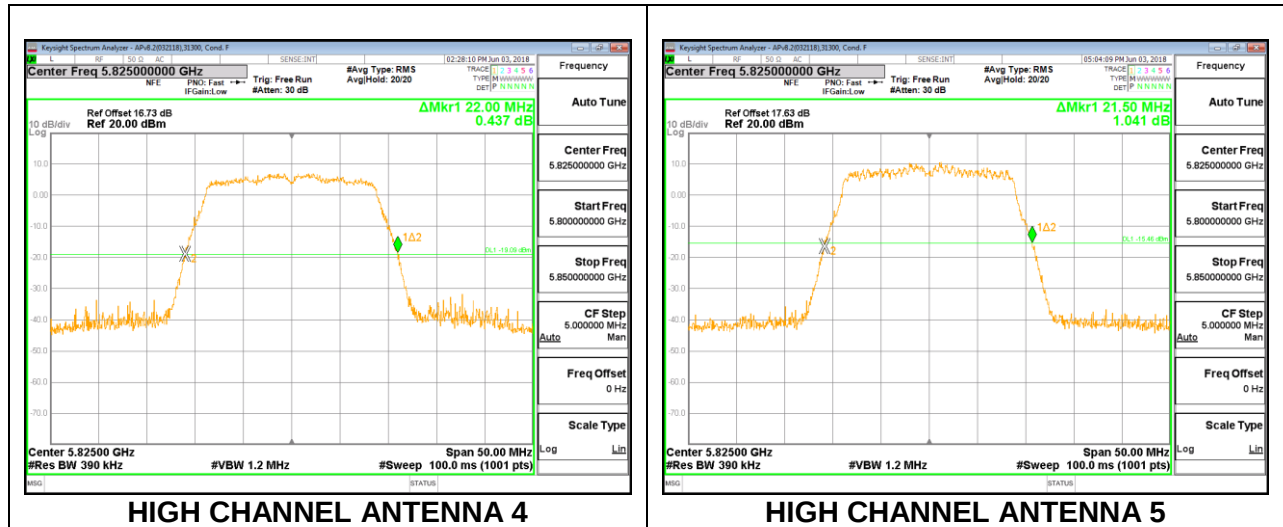
**LOW CHANNEL**



**MID CHANNEL**



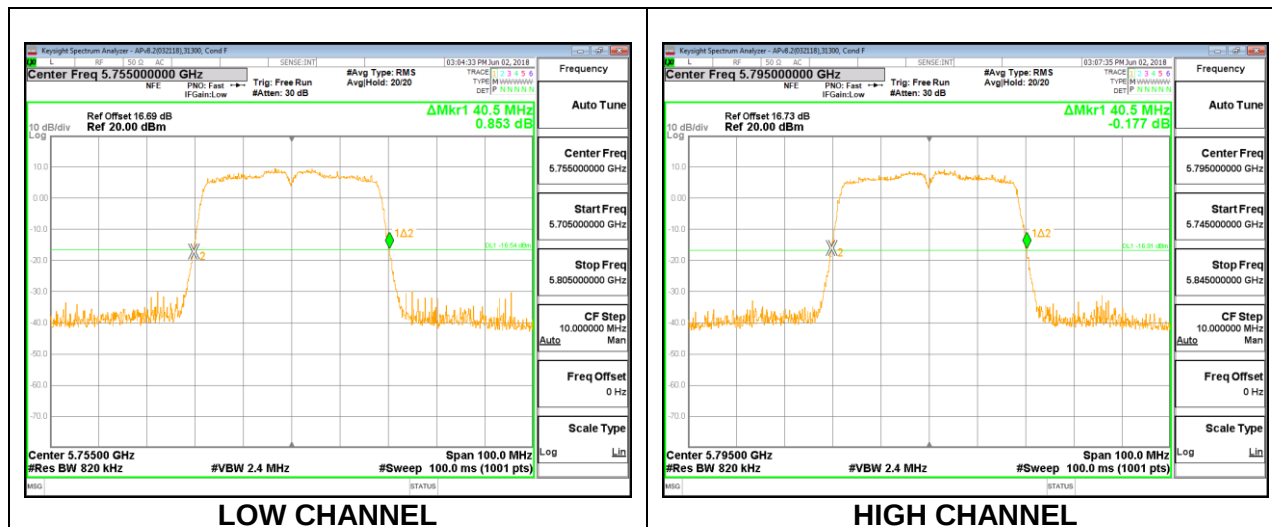
## HIGH CHANNEL



## 8.2.11. 802.11n HT40 MODE IN THE 5.8 GHz BAND

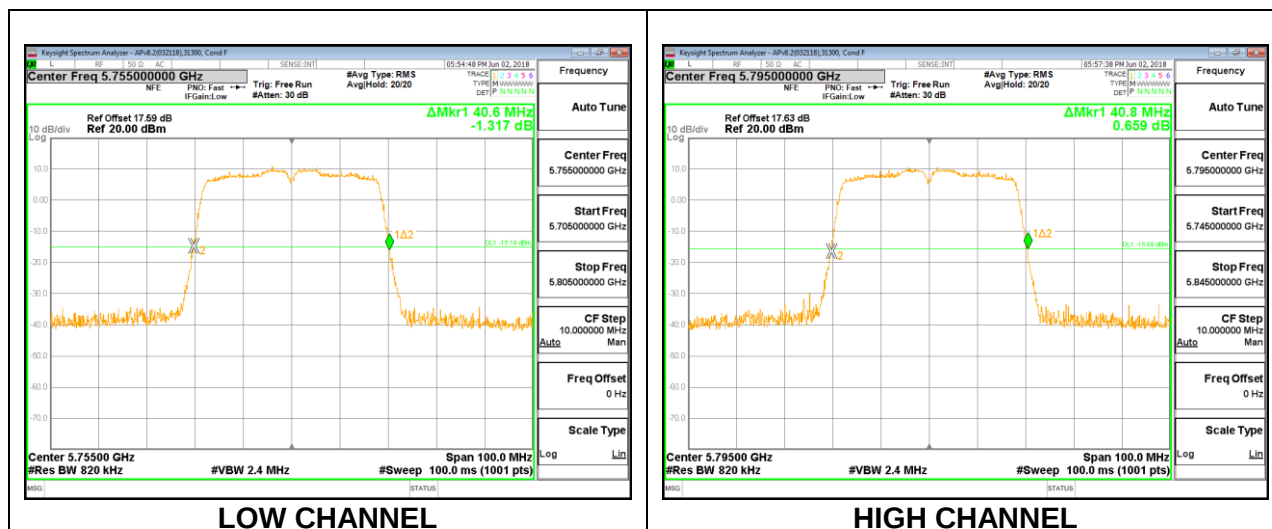
### 1TX Antenna 4 MODE

| Channel | Frequency | 26dB Bandwidth |
|---------|-----------|----------------|
|         | (MHz)     | (MHz)          |
| Low     | 5755      | 40.50          |
| High    | 5795      | 40.50          |



**1TX Antenna 5 MODE**

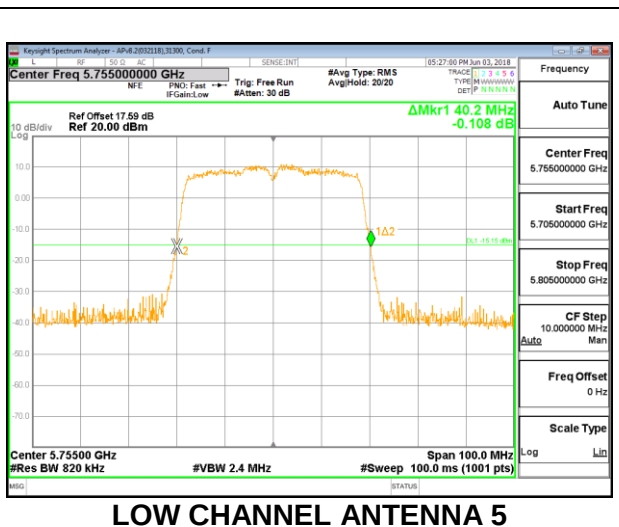
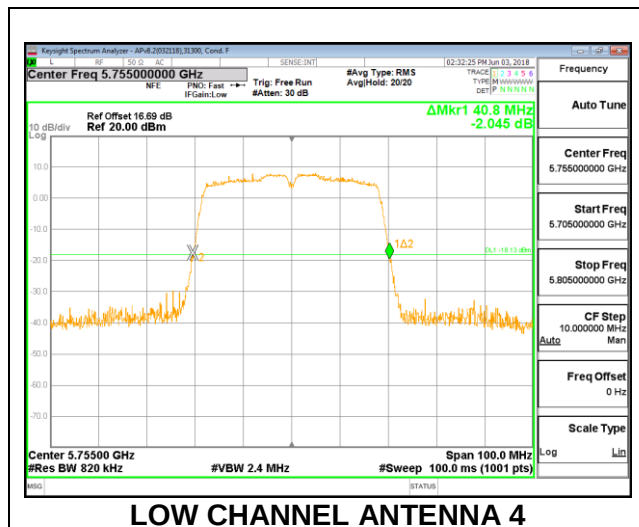
| Channel | Frequency | 26dB Bandwidth |
|---------|-----------|----------------|
|         | (MHz)     | (MHz)          |
| Low     | 5755      | 40.60          |
| High    | 5795      | 40.80          |



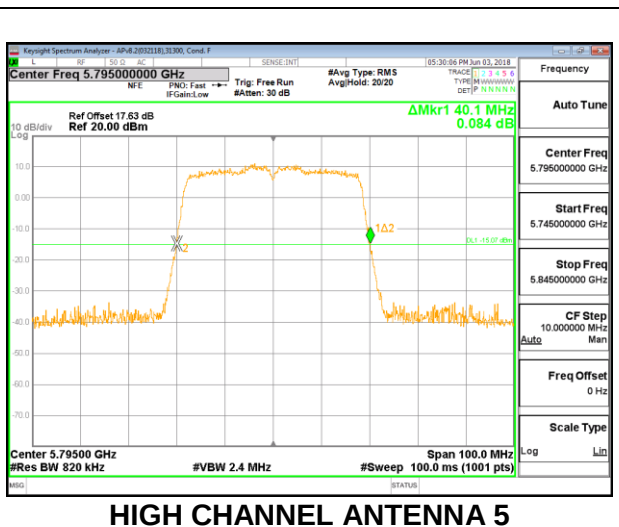
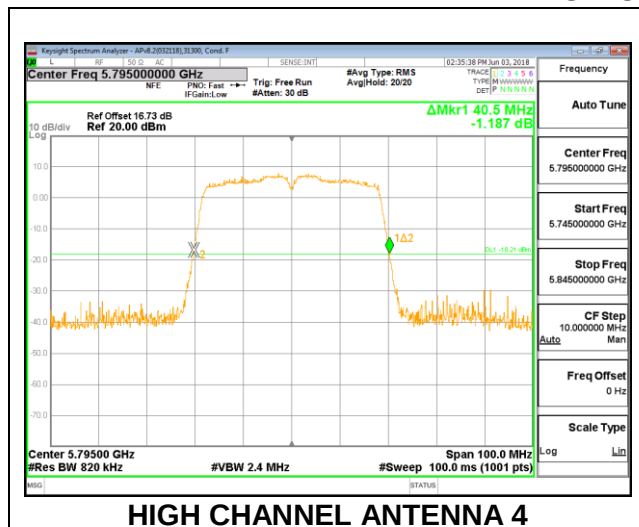
**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency | 26 dB Bandwidth<br>Antenna 4<br>(MHz) | 26 dB Bandwidth<br>Antenna 5<br>(MHz) |
|---------|-----------|---------------------------------------|---------------------------------------|
| Low     | 5755      | 40.80                                 | 40.20                                 |
| High    | 5795      | 40.50                                 | 40.10                                 |

**LOW CHANNEL**



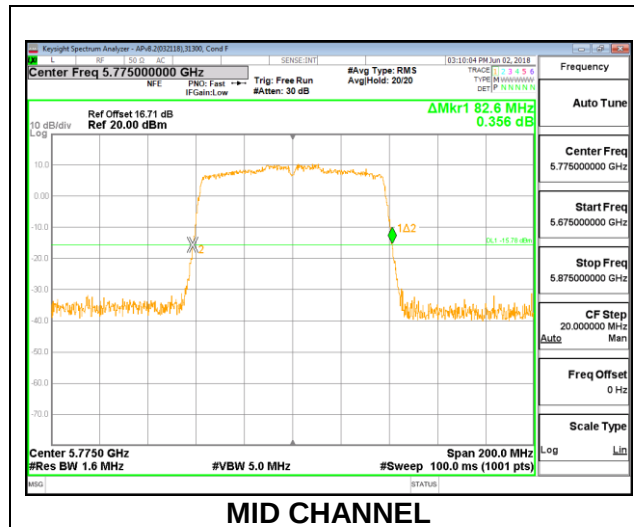
**HIGH CHANNEL**



## 8.2.12. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

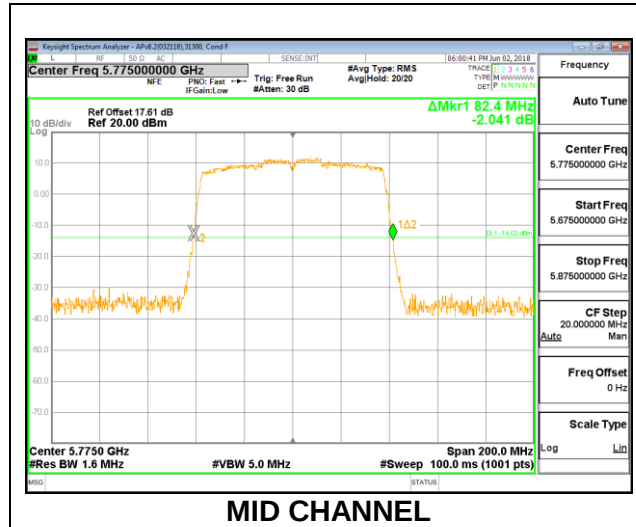
### 1TX Antenna 4 MODE

| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Mid     | 5775      | 82.60           |



**1TX Antenna 5 MODE**

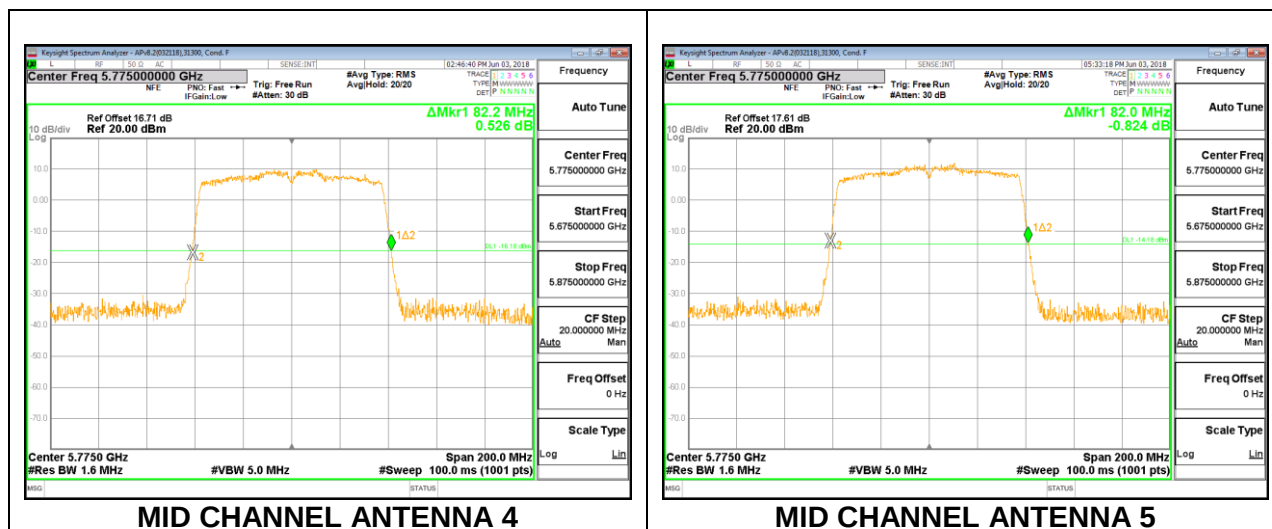
| Channel | Frequency | 26 dB Bandwidth |
|---------|-----------|-----------------|
|         | (MHz)     | (MHz)           |
| Mid     | 5775      | 82.40           |



**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>Antenna 4<br>(MHz) | 26 dB Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|---------------------------------------|---------------------------------------|
| Mid     | 5775               | 82.20                                 | 82.00                                 |

**MID CHANNEL**



### 8.3. 99% BANDWIDTH

#### LIMITS

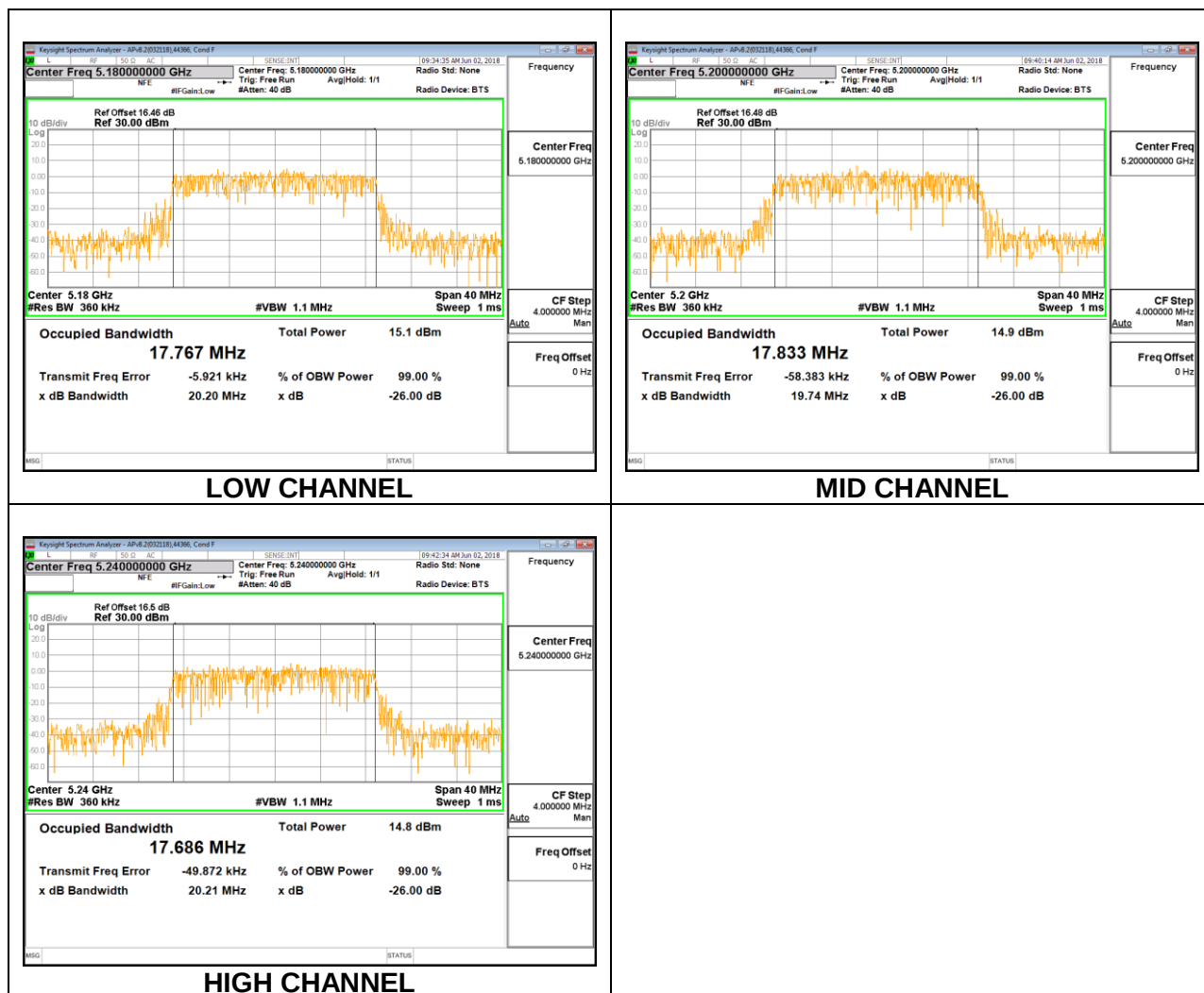
None; for reporting purposes only.

#### RESULTS

### 8.3.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

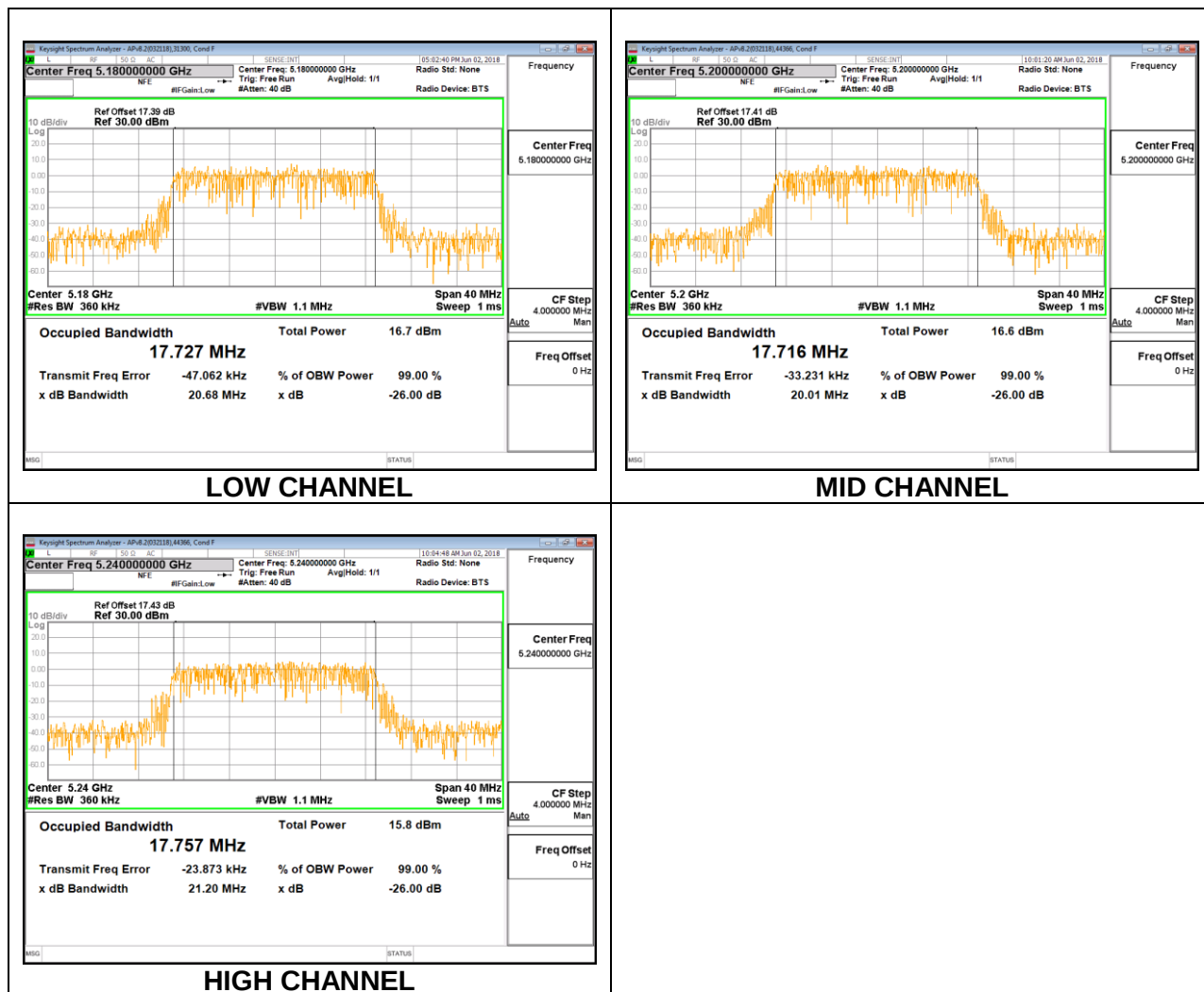
#### 1TX Antenna 4 MODE

| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|---------|--------------------|------------------------|
| Low     | 5180               | 17.7670                |
| Mid     | 5200               | 17.8330                |
| High    | 5240               | 17.6860                |



**1TX Antenna 5 MODE**

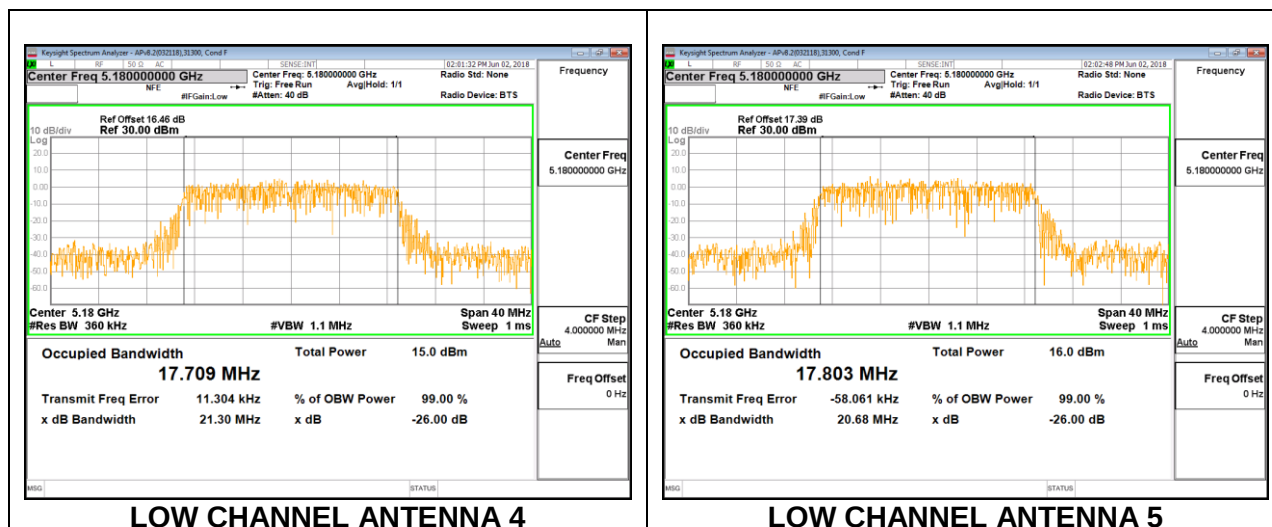
| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|---------|--------------------|------------------------|
| Low     | 5180               | 17.7270                |
| Mid     | 5200               | 17.7160                |
| High    | 5240               | 17.7570                |



**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>Antenna 4<br>(MHz) | 99% Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|-------------------------------------|-------------------------------------|
| Low     | 5180               | 17.7090                             | 17.8030                             |
| Mid     | 5200               | 17.6510                             | 17.7230                             |
| High    | 5240               | 17.8500                             | 17.6630                             |

**LOW CHANNEL**



The image displays two side-by-side screenshots of the Keysight Spectrum Analyzer software interface, showing test results for two different antennas.

**Left Screenshot (Mid Channel Antenna 4):**

- Center Freq:** 5.200000000 GHz
- Ref Offset:** 16.48 dB
- Ref:** 30.00 dBm
- Occupied Bandwidth:** 17.651 MHz
- Total Power:** 15.7 dBm
- Transmit Freq Error:** -27.399 kHz
- % of OBW Power:** 99.00 %
- x dB Bandwidth:** 20.87 MHz
- x dB:** -26.00 dB

**Right Screenshot (Mid Channel Antenna 5):**

- Center Freq:** 5.200000000 GHz
- Ref Offset:** 17.41 dB
- Ref:** 30.00 dBm
- Occupied Bandwidth:** 17.723 MHz
- Total Power:** 17.1 dBm
- Transmit Freq Error:** -13.544 kHz
- % of OBW Power:** 99.00 %
- x dB Bandwidth:** 21.45 MHz
- x dB:** -26.00 dB

Center Freq 5.240000000 GHz

Ref Offset 16.5 dB  
Ref 30.00 dBm

Center 5.24 GHz  
#Res BW 360 kHz

#VBW 1.1 MHz

Span 40 MHz  
Sweep 1 ms

Occupied Bandwidth

Total Power

15.7 dBm

17.850 MHz

Transmit Freq Error

26.321 kHz

% of OBW Power

99.00 %

x dB Bandwidth

20.72 MHz

x dB

-26.00 dB

Center Freq 5.240000000 GHz

CF Step 4.000000 MHz

Freq Offset 0 Hz

High Channel Antenna 4

Center Freq 5.240000000 GHz

Ref Offset 17.43 dB  
Ref 30.00 dBm

Center 5.24 GHz  
#Res BW 360 kHz

#VBW 1.1 MHz

Span 40 MHz  
Sweep 1 ms

Occupied Bandwidth

Total Power

17.0 dBm

17.663 MHz

Transmit Freq Error

-48.156 kHz

% of OBW Power

99.00 %

x dB Bandwidth

20.06 MHz

x dB

-26.00 dB

Center Freq 5.240000000 GHz

CF Step 4.000000 MHz

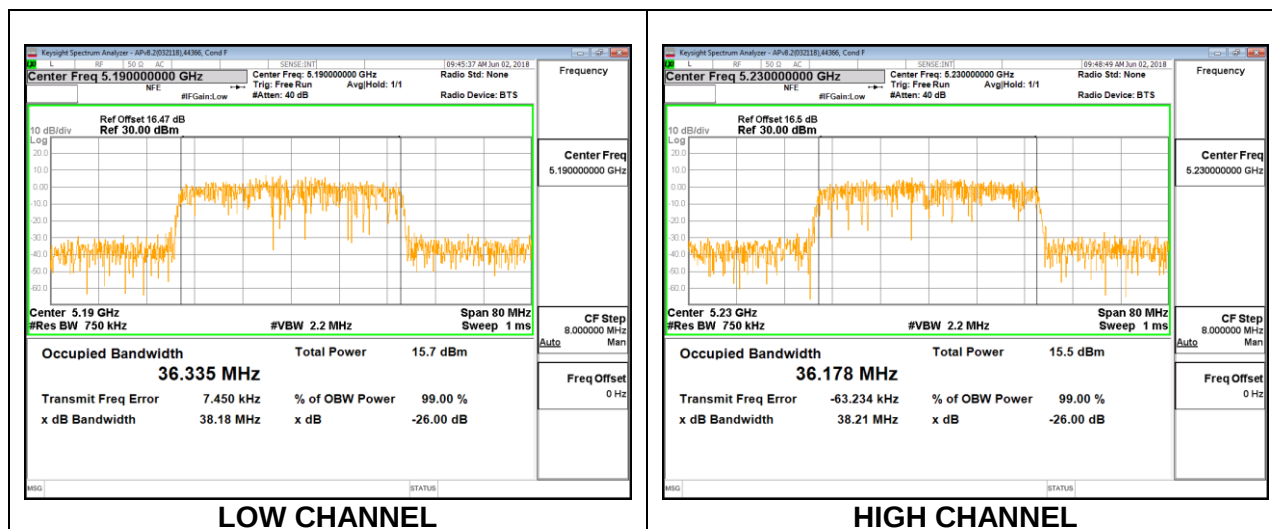
Freq Offset 0 Hz

High Channel Antenna 5

### 8.3.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

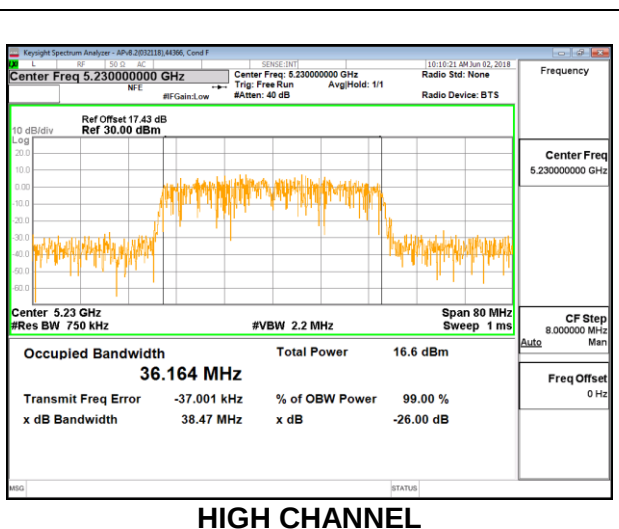
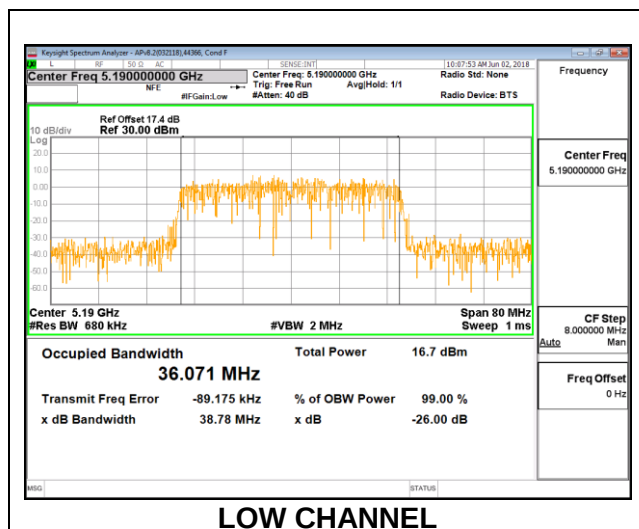
#### 1TX Antenna 4 MODE

| Channel | Frequency | 99% Bandwidth |
|---------|-----------|---------------|
|         | (MHz)     | (MHz)         |
| Low     | 5190      | 36.3550       |
| High    | 5230      | 36.1780       |



**1TX Antenna 5 MODE**

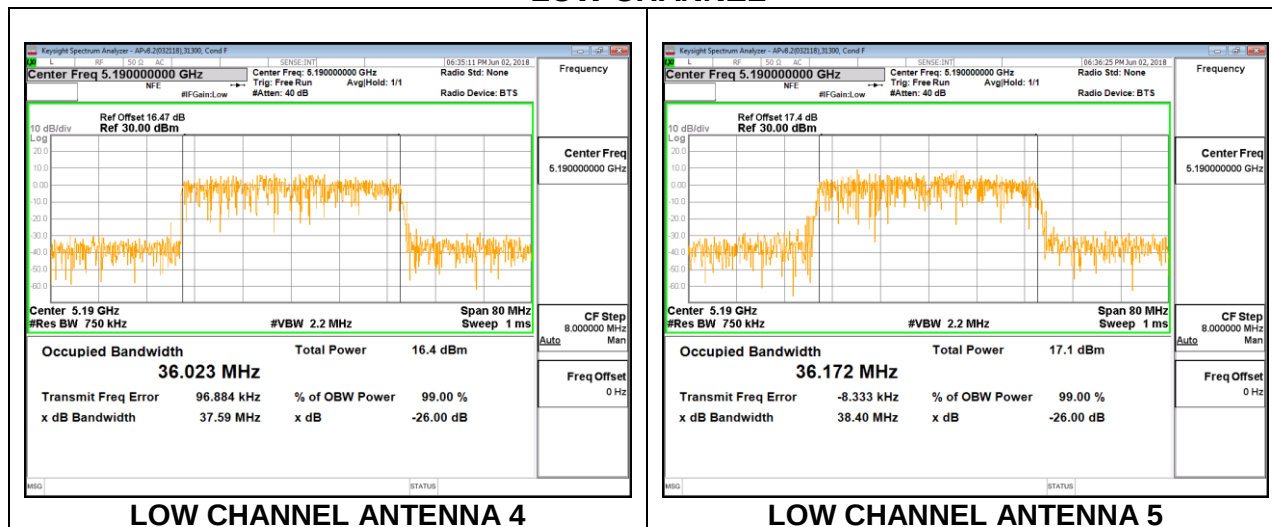
| Channel | Frequency | 99% Bandwidth |
|---------|-----------|---------------|
|         | (MHz)     | (MHz)         |
| Low     | 5190      | 36.0710       |
| High    | 5230      | 36.1640       |



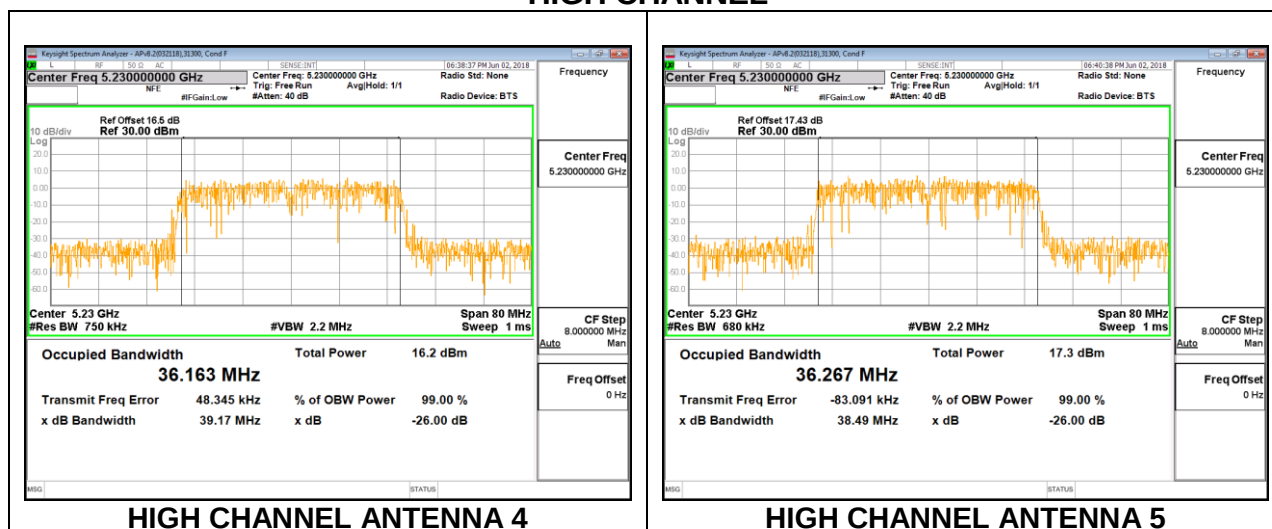
**2TX Antenna 4 + Antenna 5 CDD MODE**

| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>Antenna 4<br>(MHz) | 99% Bandwidth<br>Antenna 5<br>(MHz) |
|---------|--------------------|-------------------------------------|-------------------------------------|
| Low     | 5190               | 36.0230                             | 36.1720                             |
| High    | 5230               | 36.1630                             | 36.2670                             |

**LOW CHANNEL**



**HIGH CHANNEL**



### 8.3.3. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

#### 1TX Antenna 4 MODE

| Channel | Frequency | 99% Bandwidth |
|---------|-----------|---------------|
|         | (MHz)     | (MHz)         |
| Mid     | 5210      | 75.6620       |

