



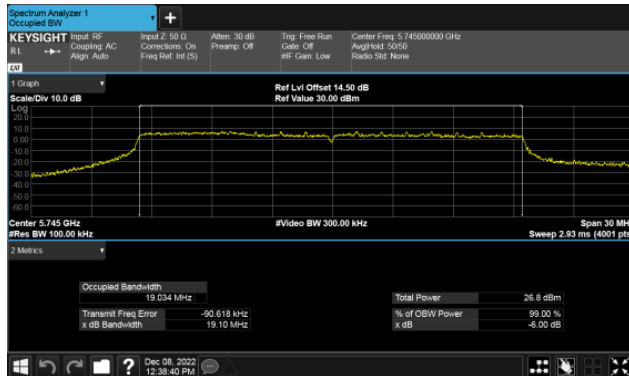
6dB Bandwidth

BeamForming

ANT D

Modulation Type: 802.11ax HE20 (7.3Mbps)

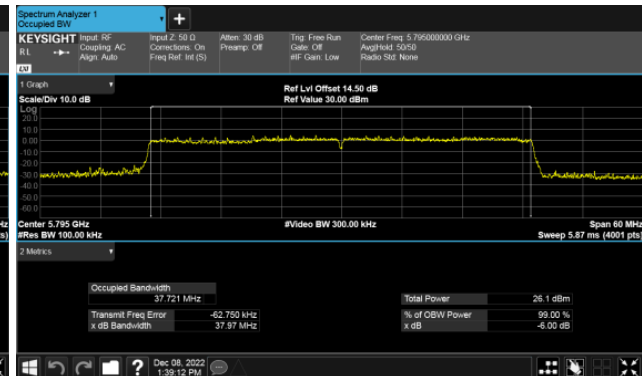
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

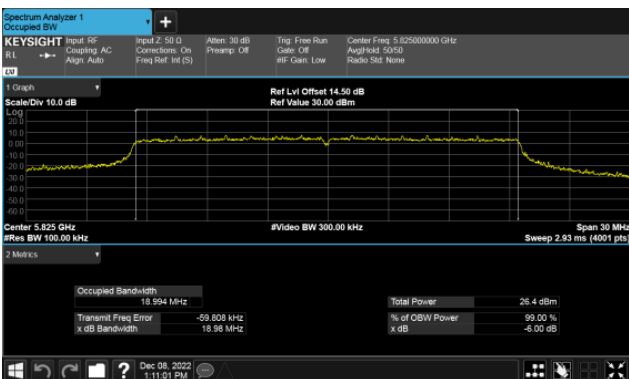
CH157



CH159



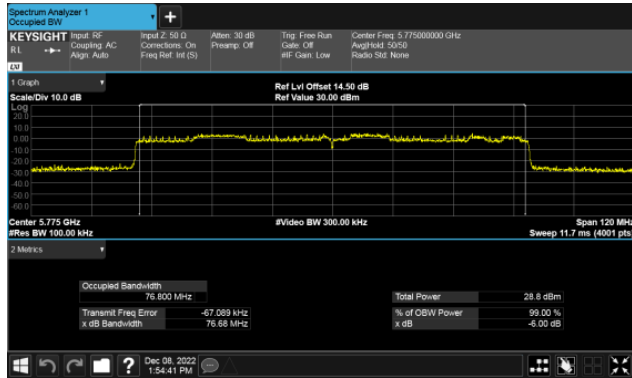
CH165





## 6dB Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155





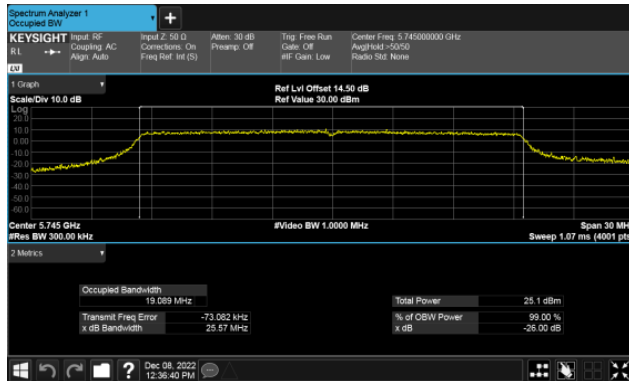
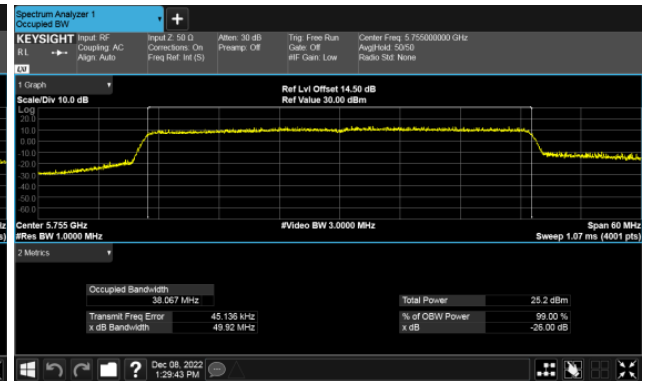
99% Occupied Bandwidth

BeamForming

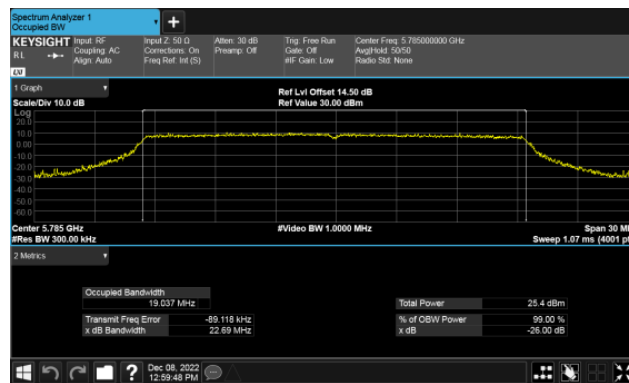
ANT A

Modulation Type: 802.11ax HE20 (7.3Mbps)

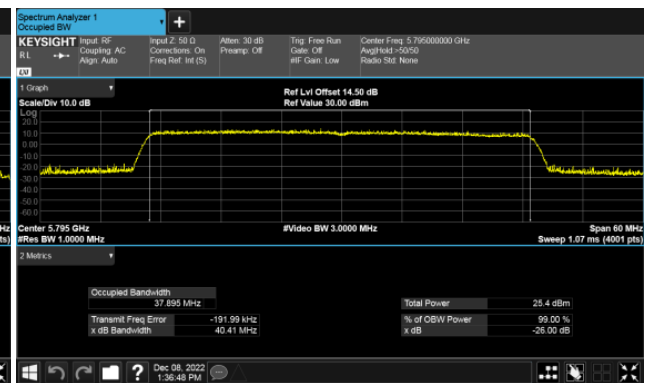
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

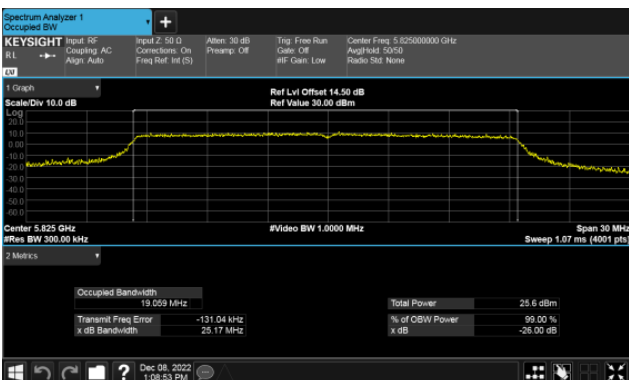
CH157



CH159



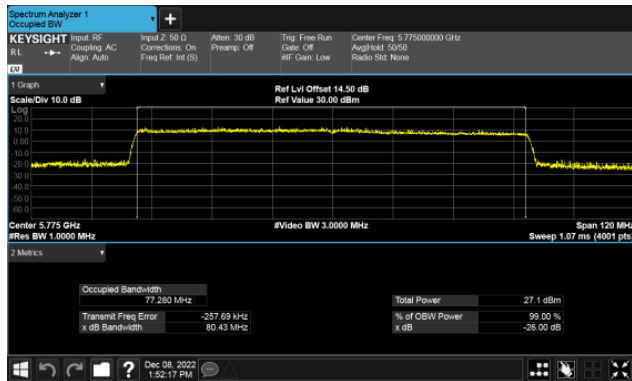
CH165





99% Occupied Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155





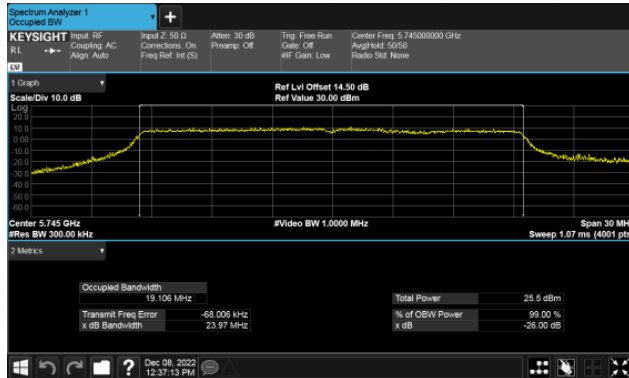
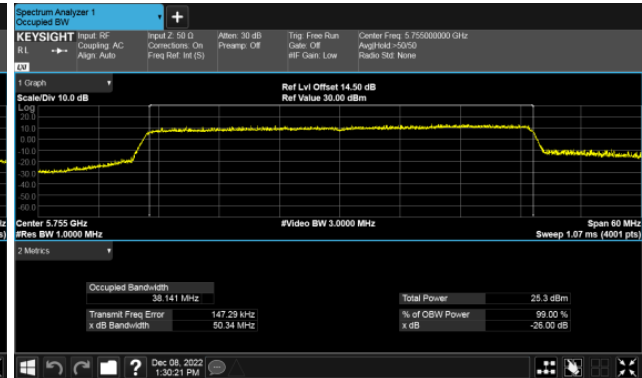
99% Occupied Bandwidth

BeamForming

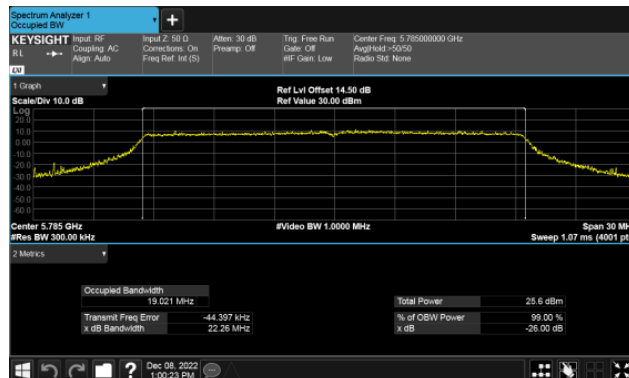
ANT B

Modulation Type: 802.11ax HE20 (7.3Mbps)

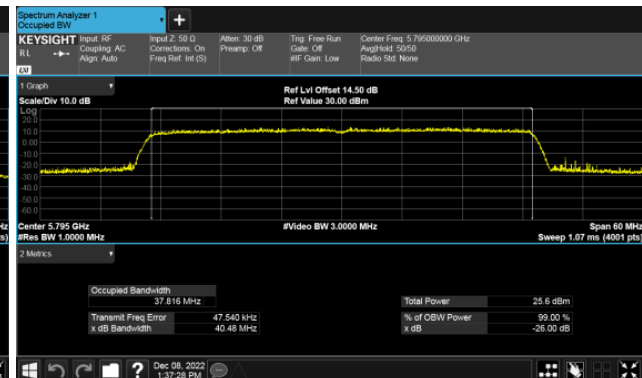
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

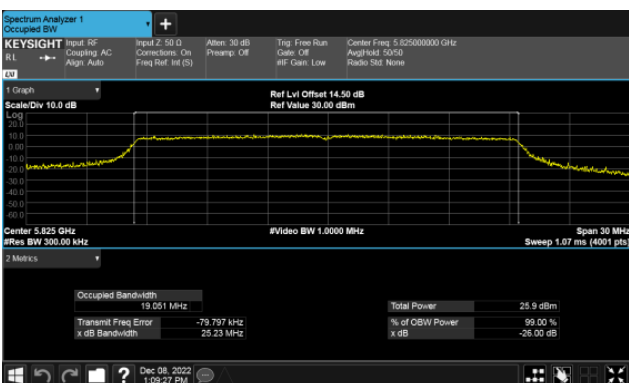
CH157



CH159



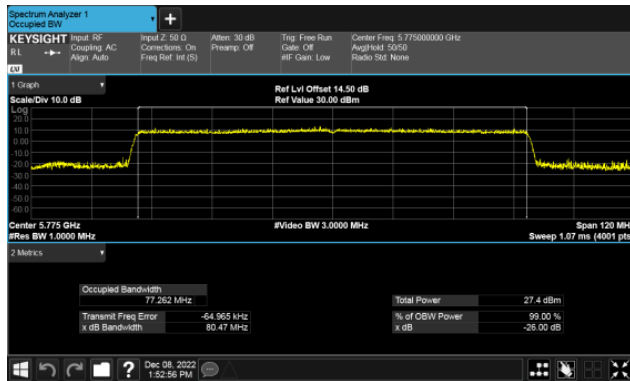
CH165





## 99% Occupied Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155





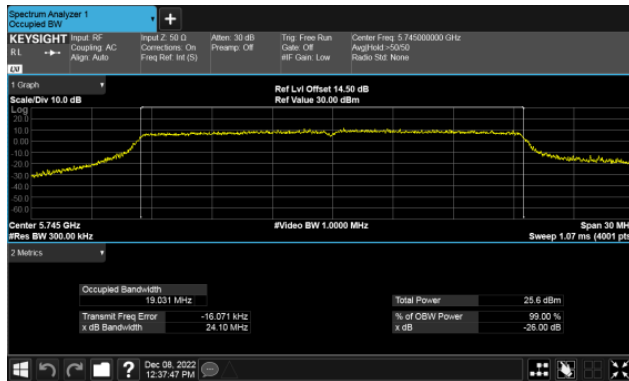
99% Occupied Bandwidth

BeamForming

ANT C

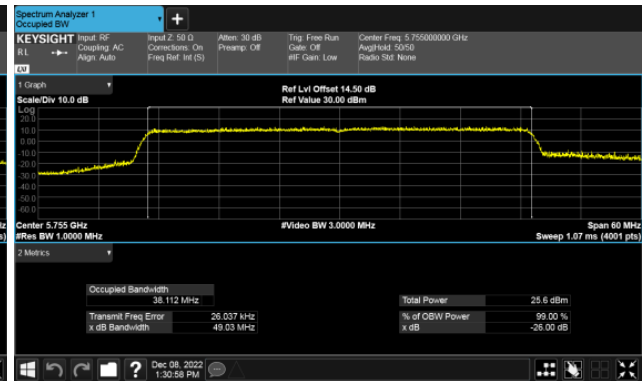
Modulation Type: 802.11ax HE20 (7.3Mbps)

CH149

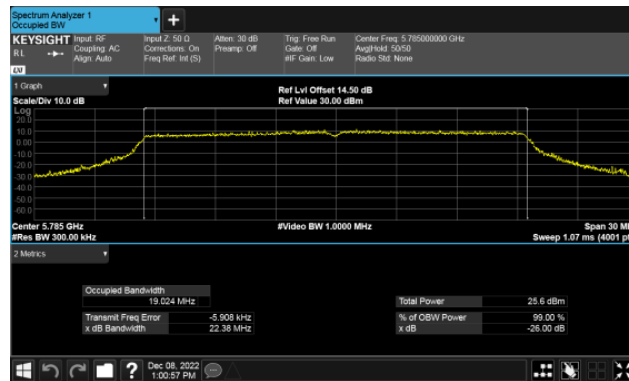


Modulation Type: 802.11ax HE40 (14.6Mbps)

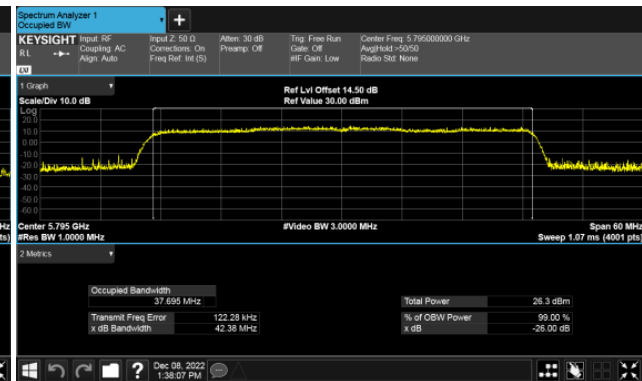
CH151



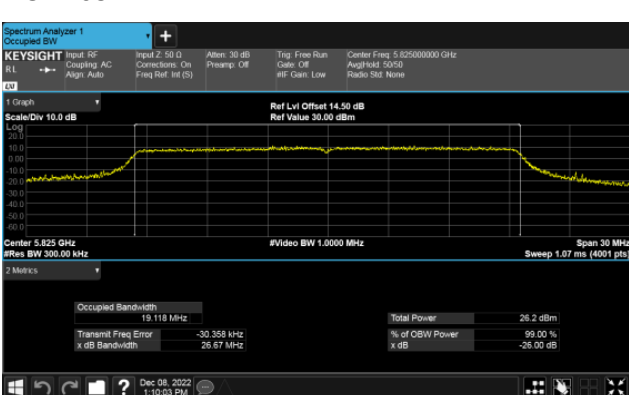
CH157



CH159



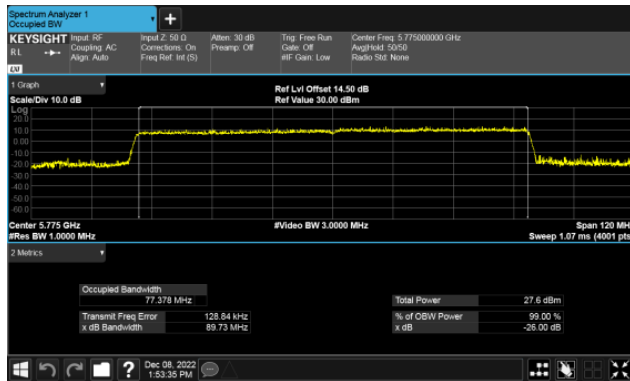
CH165





99% Occupied Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155





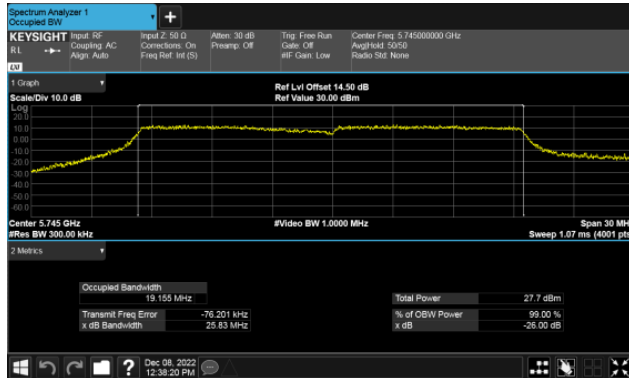
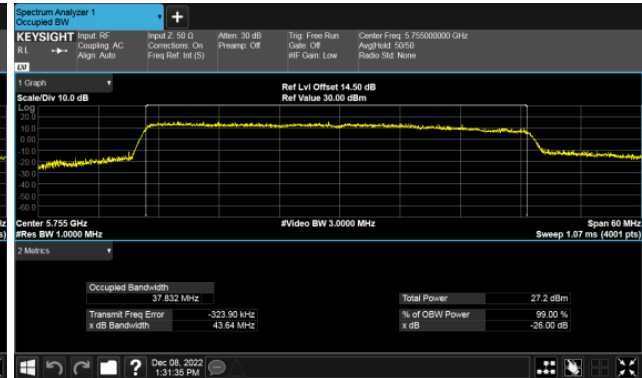
99% Occupied Bandwidth

BeamForming

ANT D

Modulation Type: 802.11ax HE20 (7.3Mbps)

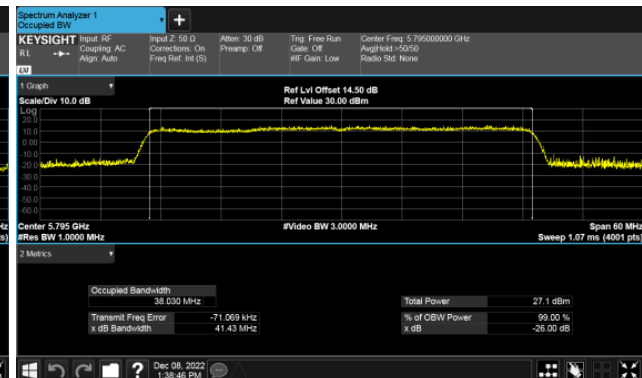
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

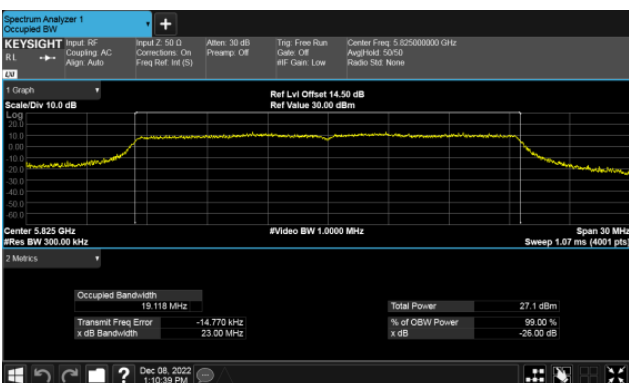
CH157



CH159



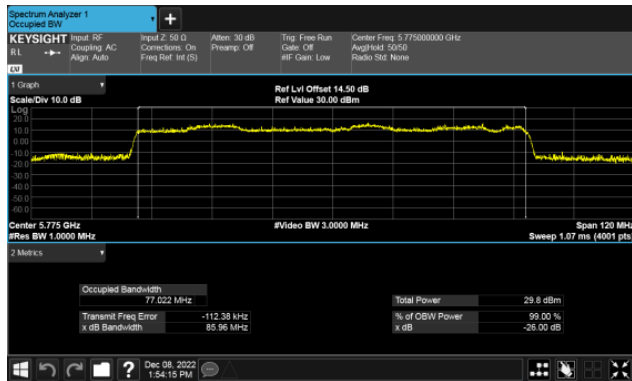
CH165





99% Occupied Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155





## 9. 26dB Bandwidth & 99% Occupied Bandwidth

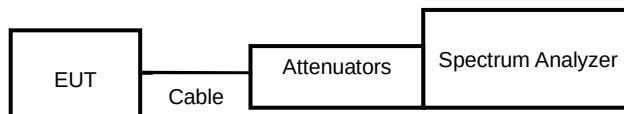
### 9.1. Test Limit

None; for reporting purposes only.

### 9.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW  $\geq 3 \times$  RBW, peak detector and max hold.

### 9.3. Test Setup Layout





#### 9.4. Test Result and Data

Non BeamForming

In the 5.2G Band

| Mode      | Channel | Frequency<br>(MHz) | 26dB Bandwidth(MHz) |       |       |       |
|-----------|---------|--------------------|---------------------|-------|-------|-------|
|           |         |                    | ANT A               | ANT B | ANT C | ANT D |
| 11a       | 36      | 5180               | 28.74               | 28.55 | 27.79 | 27.14 |
| 11a       | 40      | 5200               | 29.29               | 28.92 | 29.63 | 29.38 |
| 11a       | 48      | 5240               | 20.54               | 20.39 | 29.58 | 23.23 |
| 11ax HE20 | 36      | 5180               | 27.97               | 28.01 | 26.35 | 28.70 |
| 11ax HE20 | 40      | 5200               | 28.33               | 25.57 | 29.18 | 27.20 |
| 11ax HE20 | 48      | 5240               | 20.15               | 20.15 | 20.13 | 22.36 |
| 11ax HE40 | 38      | 5190               | 48.21               | 47.53 | 47.03 | 50.73 |
| 11ax HE40 | 46      | 5230               | 45.41               | 42.46 | 60.35 | 56.03 |
| 11ax HE80 | 42      | 5210               | 88.37               | 96.36 | 98.51 | 89.99 |

| Modulation<br>Type | Channel | Frequency<br>(MHz) | 99% Bandwidth(MHz) |       |       |       |
|--------------------|---------|--------------------|--------------------|-------|-------|-------|
|                    |         |                    | ANT A              | ANT B | ANT C | ANT D |
| 11a                | 36      | 5180               | 16.97              | 16.93 | 16.91 | 16.90 |
| 11a                | 40      | 5200               | 17.05              | 17.01 | 16.98 | 16.96 |
| 11a                | 48      | 5240               | 17.00              | 16.87 | 16.94 | 16.88 |
| 11ax HE20          | 36      | 5180               | 19.21              | 19.18 | 19.19 | 19.26 |
| 11ax HE20          | 40      | 5200               | 19.25              | 19.24 | 19.17 | 19.21 |
| 11ax HE20          | 48      | 5240               | 18.96              | 18.99 | 18.98 | 18.97 |
| 11ax HE40          | 38      | 5190               | 37.85              | 37.87 | 37.81 | 37.85 |
| 11ax HE40          | 46      | 5230               | 37.83              | 37.82 | 37.92 | 37.91 |
| 11ax HE80          | 42      | 5210               | 77.09              | 77.04 | 77.13 | 77.03 |



## BeamForming

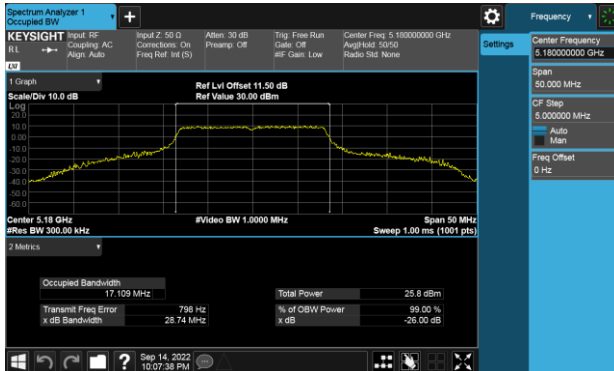
## In the 5.2G Band

| Mode      | Channel | Frequency<br>(MHz) | 26dB Bandwidth(MHz) |       |       |       |
|-----------|---------|--------------------|---------------------|-------|-------|-------|
|           |         |                    | ANT A               | ANT B | ANT C | ANT D |
| 11ax HE20 | 36      | 5180               | 28.96               | 26.32 | 26.85 | 26.07 |
| 11ax HE20 | 40      | 5200               | 28.97               | 27.61 | 28.73 | 29.61 |
| 11ax HE20 | 48      | 5240               | 20                  | 20.04 | 20.01 | 20.02 |
| 11ax HE40 | 38      | 5190               | 47.74               | 52.27 | 50.3  | 51.86 |
| 11ax HE40 | 46      | 5230               | 40.32               | 40.37 | 40.3  | 40.44 |
| 11ax HE80 | 42      | 5210               | 93.04               | 81.64 | 89.08 | 90.81 |

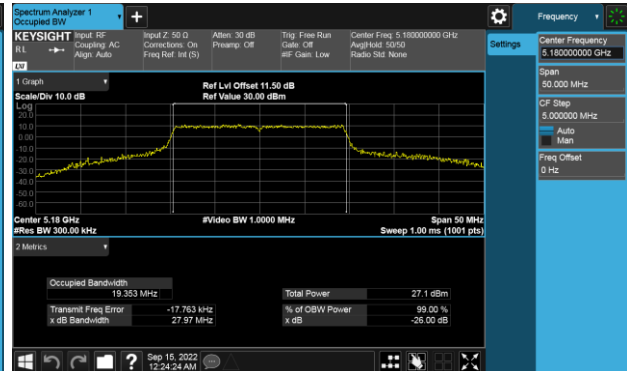
| Modulation<br>Type | Channel | Frequency<br>(MHz) | 99% Bandwidth(MHz) |       |       |       |
|--------------------|---------|--------------------|--------------------|-------|-------|-------|
|                    |         |                    | ANT A              | ANT B | ANT C | ANT D |
| 11ax HE20          | 36      | 5180               | 19.15              | 19.06 | 19.06 | 19.18 |
| 11ax HE20          | 40      | 5200               | 19.26              | 19.26 | 19.23 | 19.24 |
| 11ax HE20          | 48      | 5240               | 18.85              | 18.85 | 18.86 | 18.94 |
| 11ax HE40          | 38      | 5190               | 37.86              | 37.85 | 37.83 | 37.90 |
| 11ax HE40          | 46      | 5230               | 37.69              | 37.67 | 37.68 | 37.72 |
| 11ax HE80          | 42      | 5210               | 77.10              | 77.00 | 76.98 | 76.99 |



26dB Bandwidth  
Non BeamForming  
ANT A  
Modulation Type: 802.11a (6Mbps)  
CH36



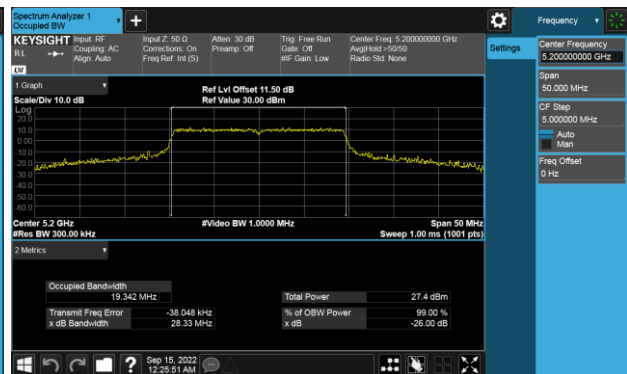
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



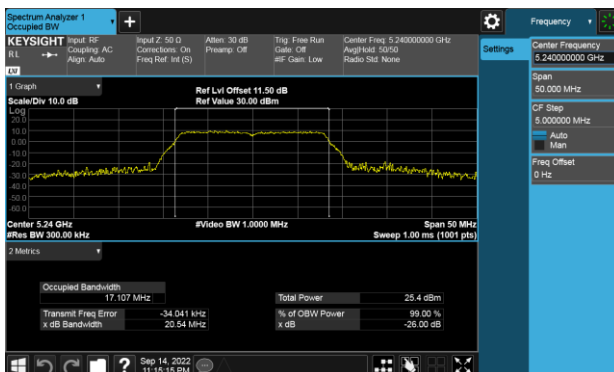
CH40



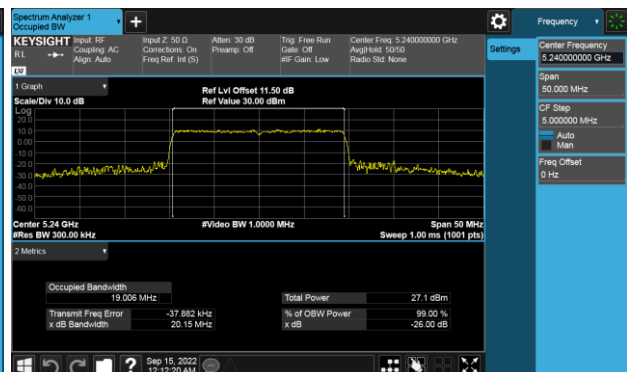
CH40



CH48



CH48





## 26dB Bandwidth

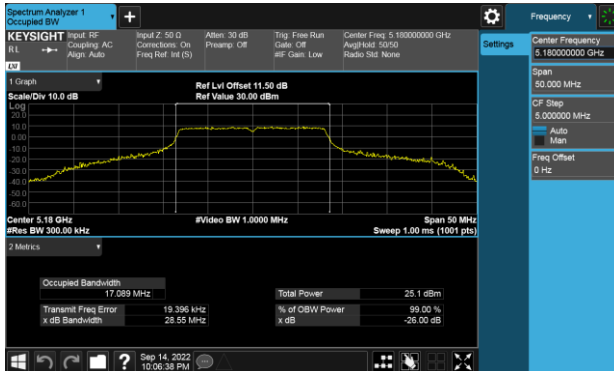
Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42

## CH46

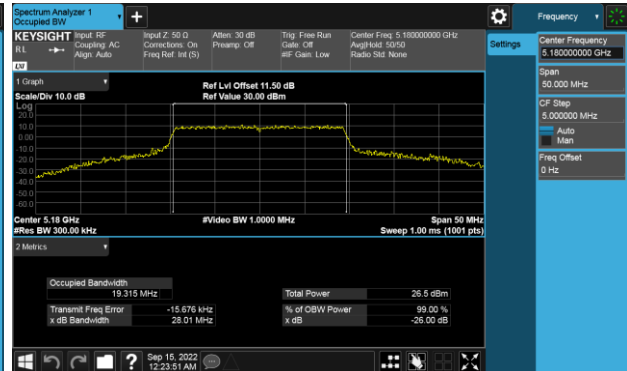




26dB Bandwidth  
Non BeamForming  
ANT B  
Modulation Type: 802.11a (6Mbps)  
CH36



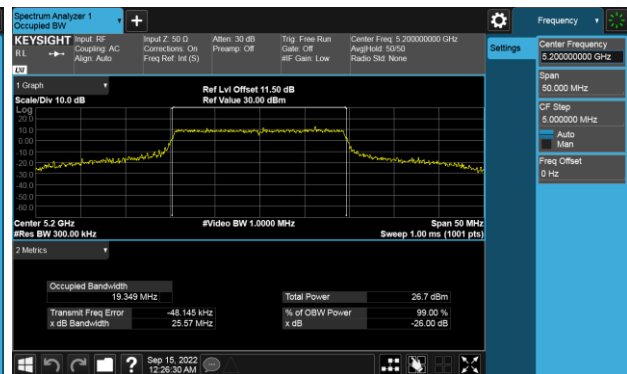
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



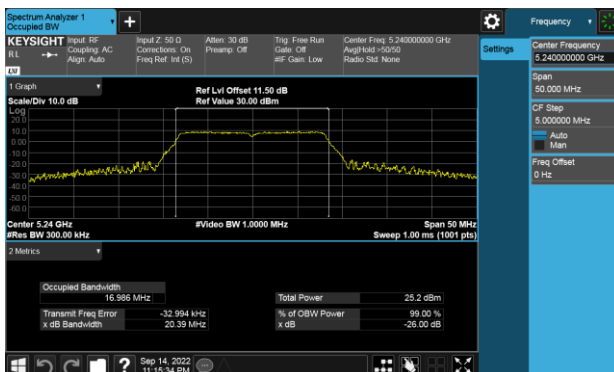
CH40



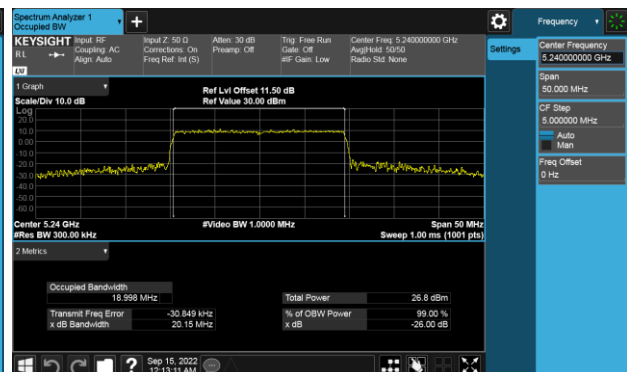
CH40



CH48



CH48





## 26dB Bandwidth

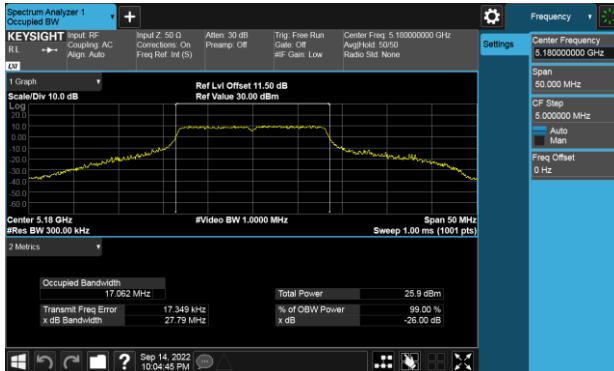
Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42

## CH46

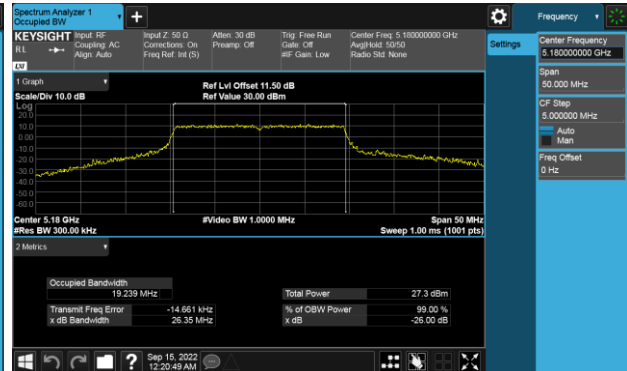




26dB Bandwidth  
Non BeamForming  
ANT C  
Modulation Type: 802.11a (6Mbps)  
CH36



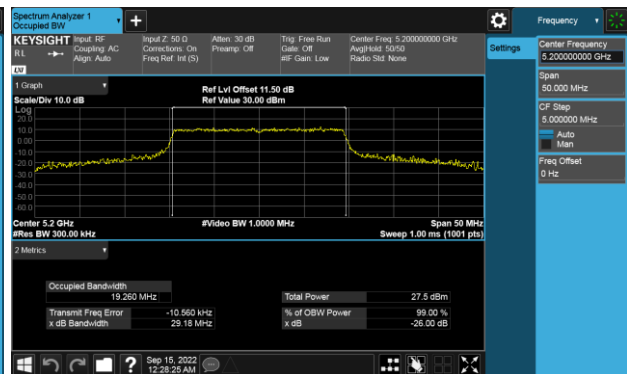
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



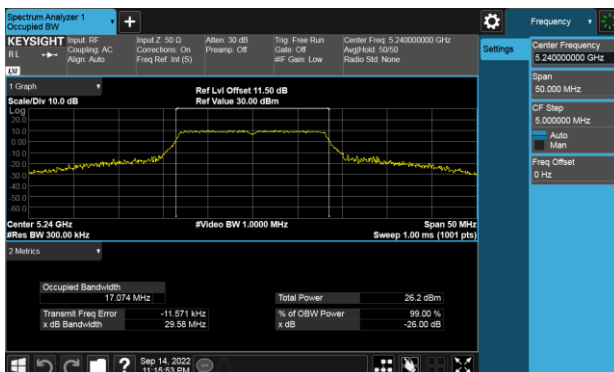
CH40



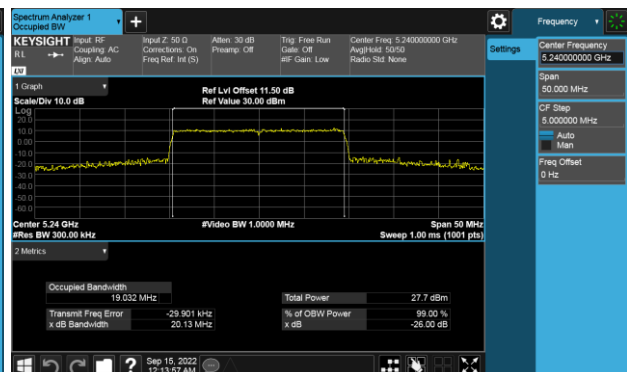
CH40



CH48



CH48





## 26dB Bandwidth

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42

## CH46

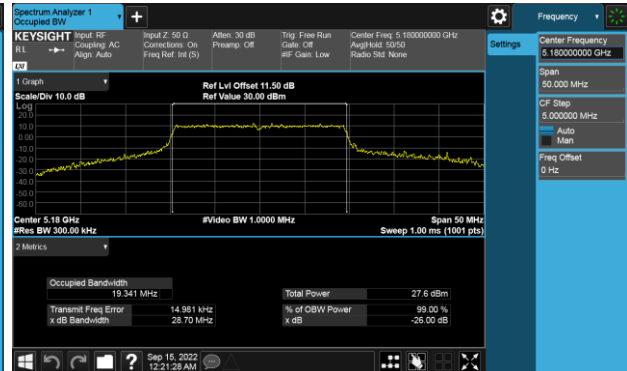




26dB Bandwidth  
Non BeamForming  
ANT D  
Modulation Type: 802.11a (6Mbps)  
CH36



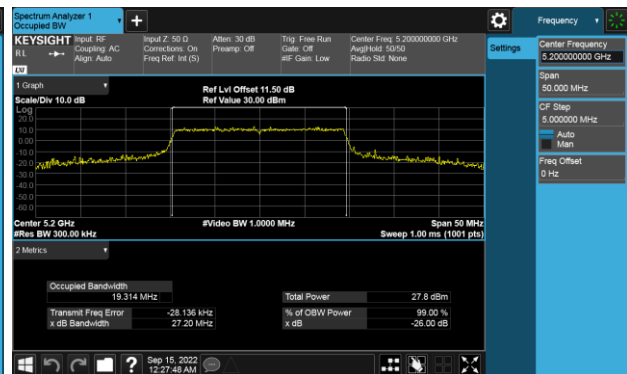
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



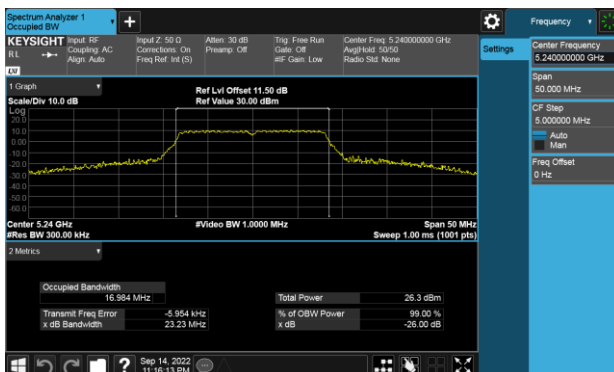
CH40



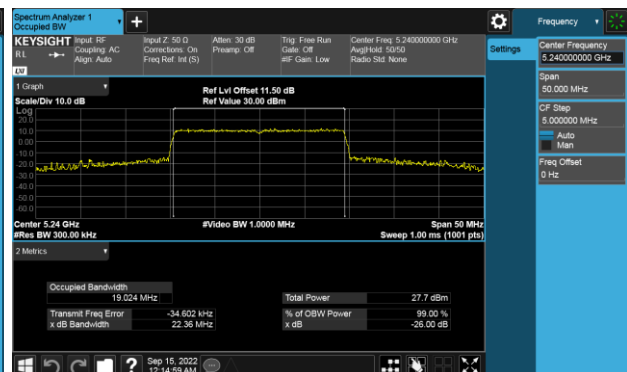
CH40



CH48



CH48





## 26dB Bandwidth

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42

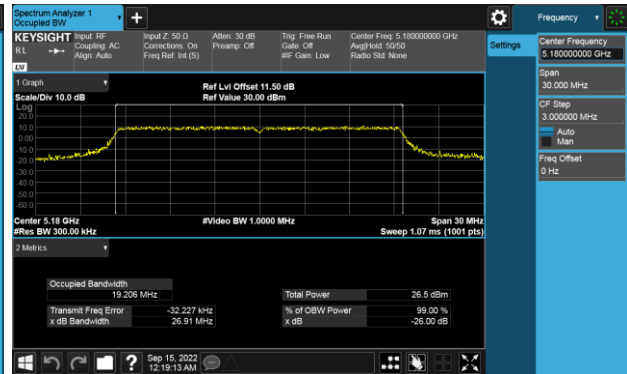
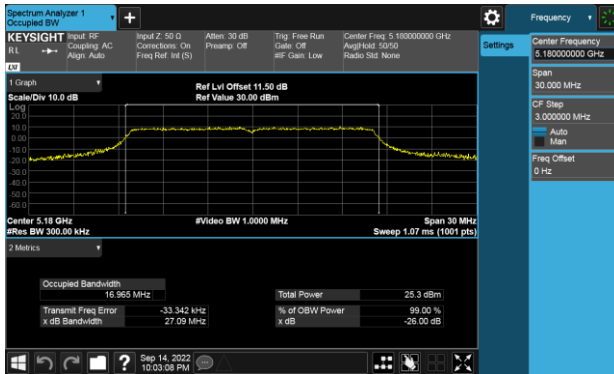
## CH46





99% Occupied Bandwidth  
Non BeamForming  
ANT A  
Modulation Type: 802.11a (6Mbps)  
CH36

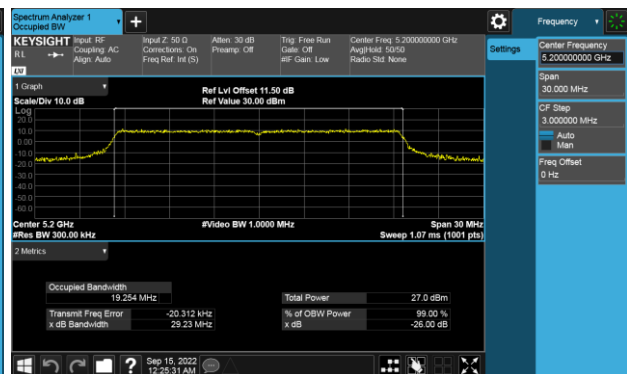
Modulation Type: 802.11ac VHT20 (6.5Mbps)  
CH36



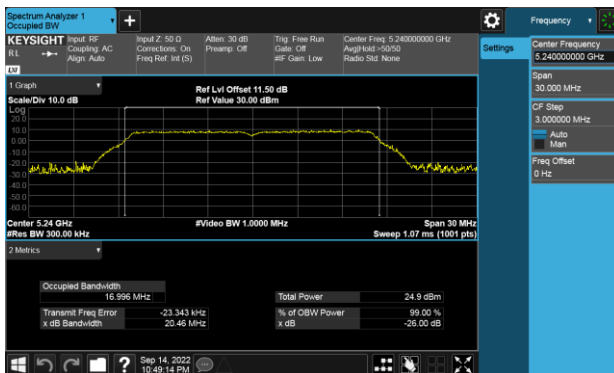
CH40



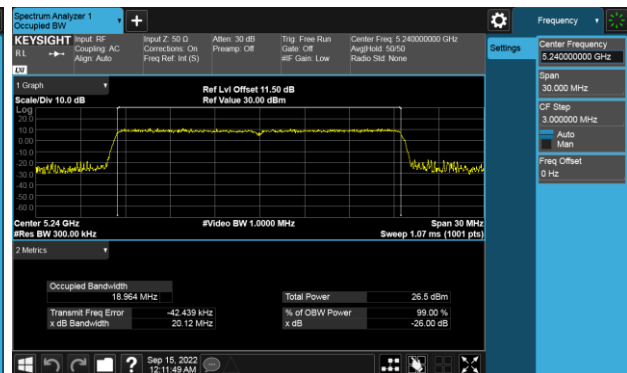
CH40



CH48

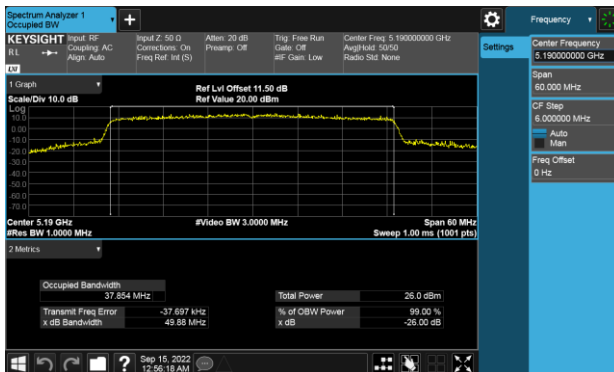


CH48

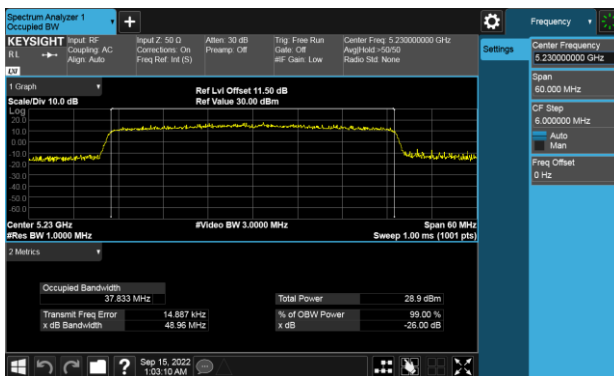




## 99% Occupied Bandwidth

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42

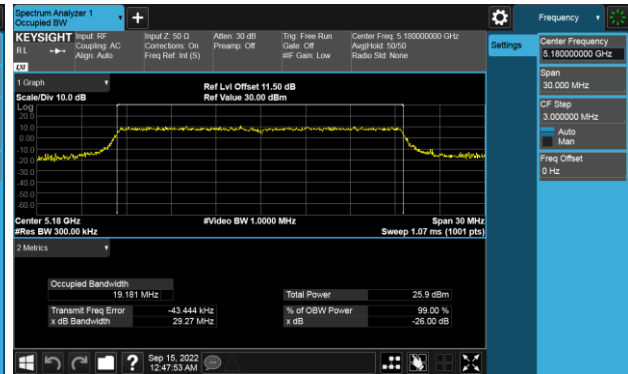
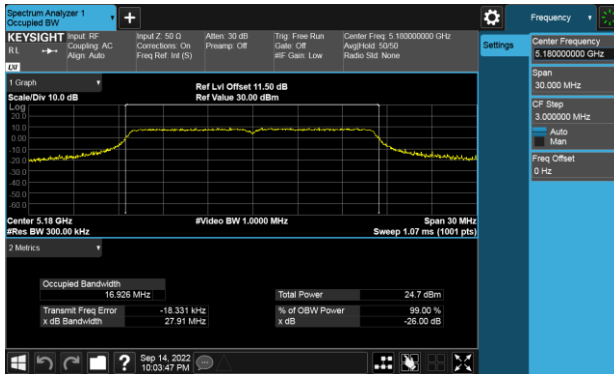
## CH46





99% Occupied Bandwidth  
Non BeamForming  
ANT B  
Modulation Type: 802.11a (6Mbps)  
CH36

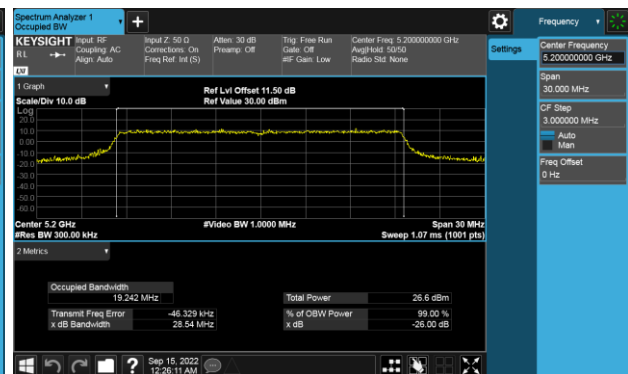
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



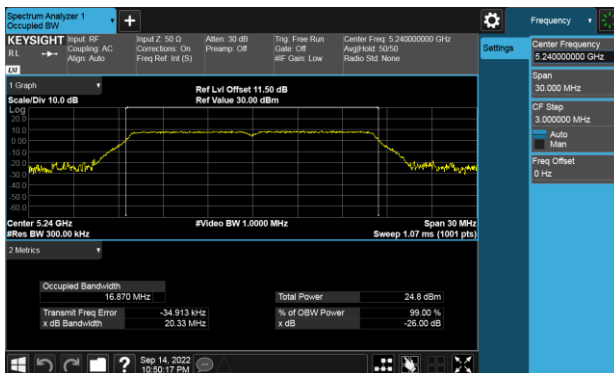
CH40



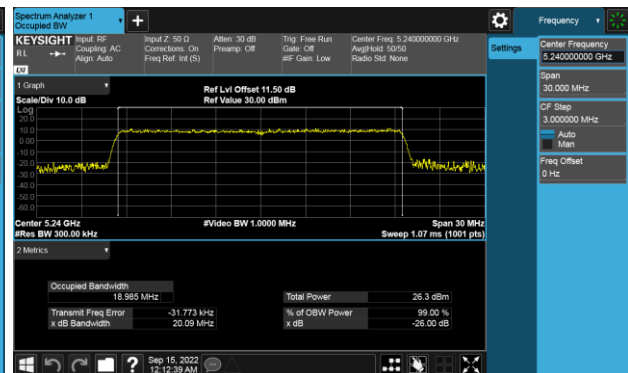
CH40



CH48



CH48





### 99% Occupied Bandwidth

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38



Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



### CH46

