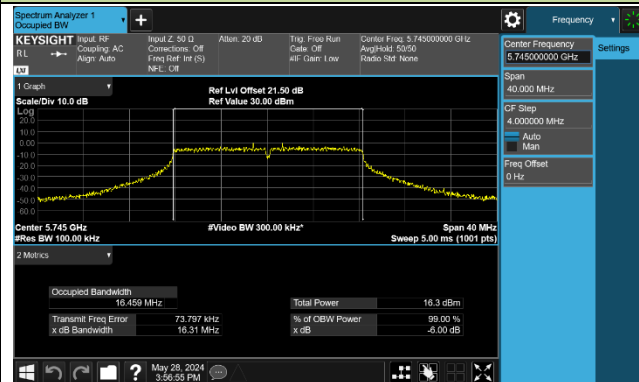
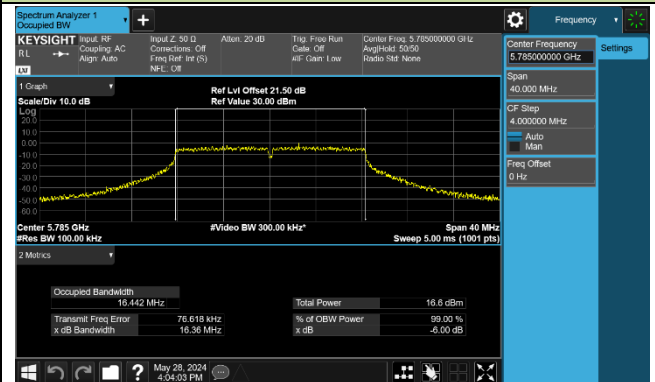


## 802.11a 6dB Bandwidth

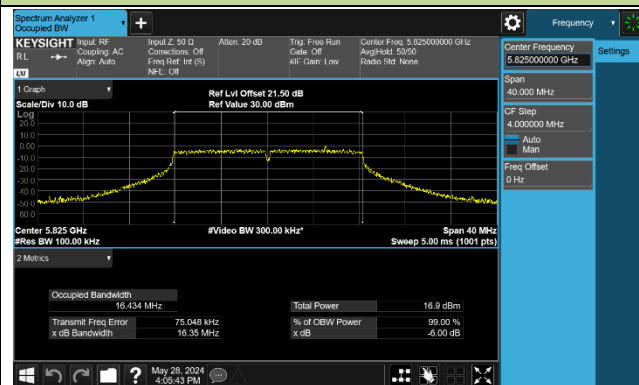
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

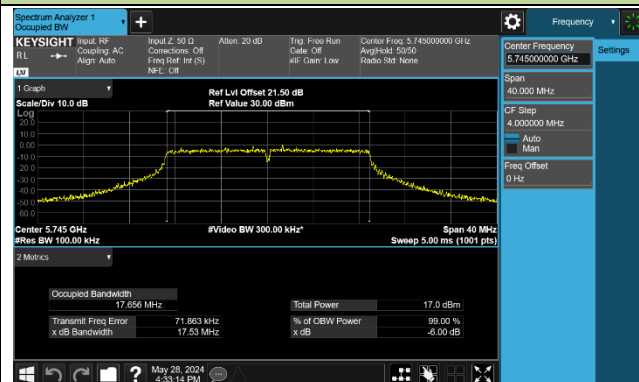


## Channel 165 (5825MHz)

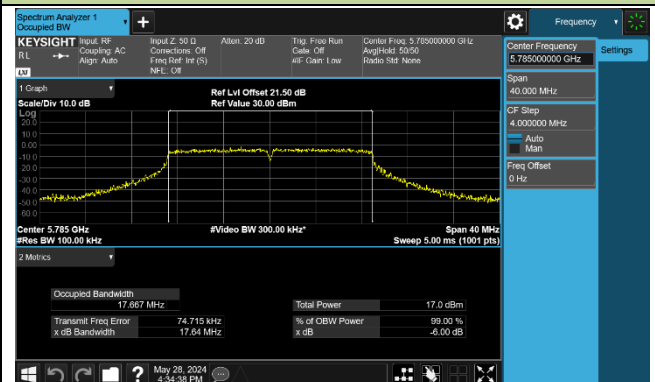


## 802.11ac-VHT20 6dB Bandwidth

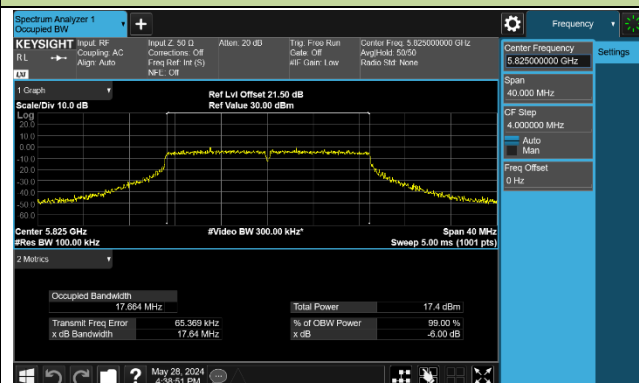
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

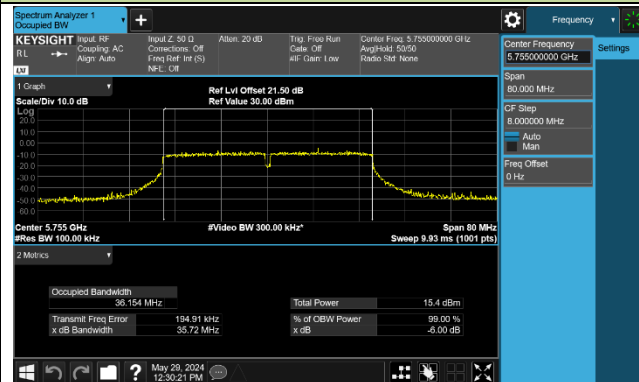


## Channel 165 (5825MHz)

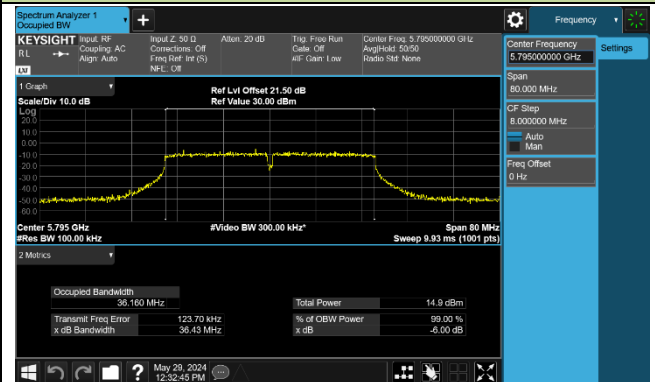


## 802.11ac-VHT40 6dB Bandwidth

## Channel 151 (5755MHz)

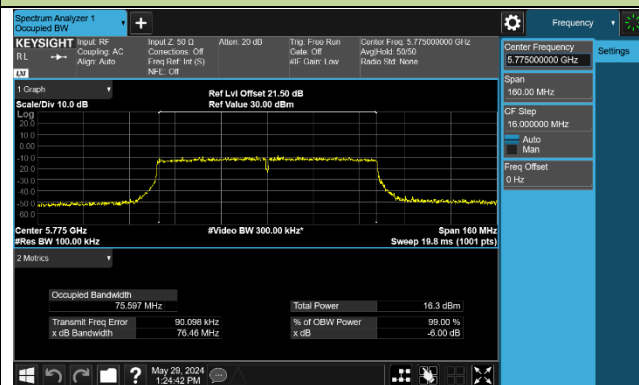


## Channel 159 (5795MHz)



## 802.11ac-VHT80 6dB Bandwidth

## Channel 155 (5775MHz)

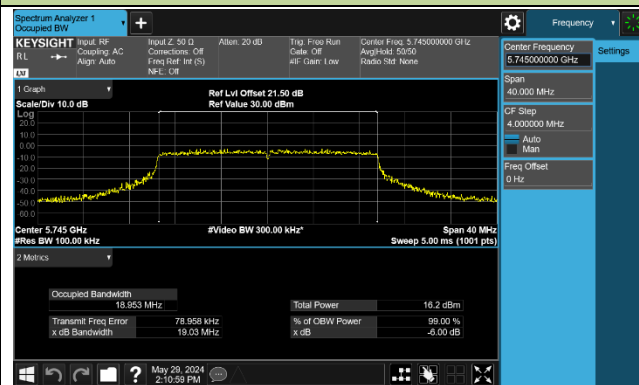


## Channel 157 (5785MHz)

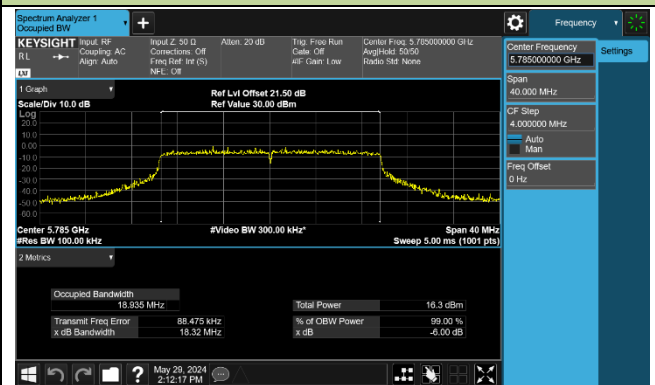


## 802.11ax-HE20 6dB Bandwidth

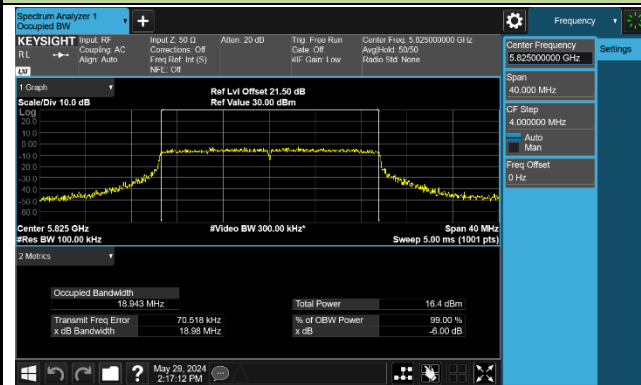
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

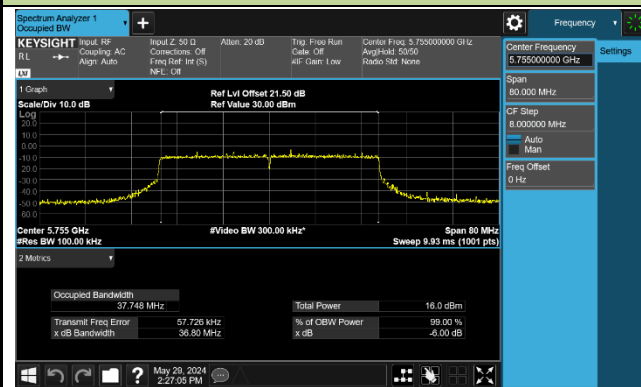


### Channel 165 (5825MHz)

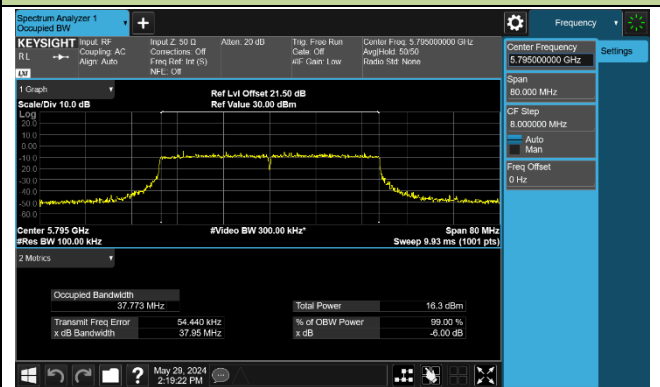


### 802.11ax-HE40 6dB Bandwidth

### Channel 151 (5755MHz)

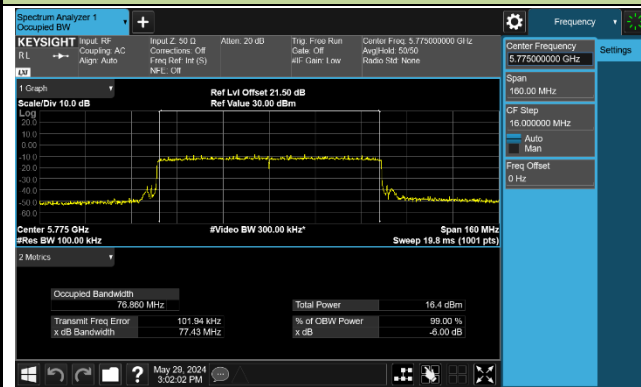


### Channel 159 (5795MHz)



### 802.11ax-HE80 6dB Bandwidth

### Channel 155 (5775MHz)



## 7.4. Output Power Measurement

### 7.4.1. Test Limit

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

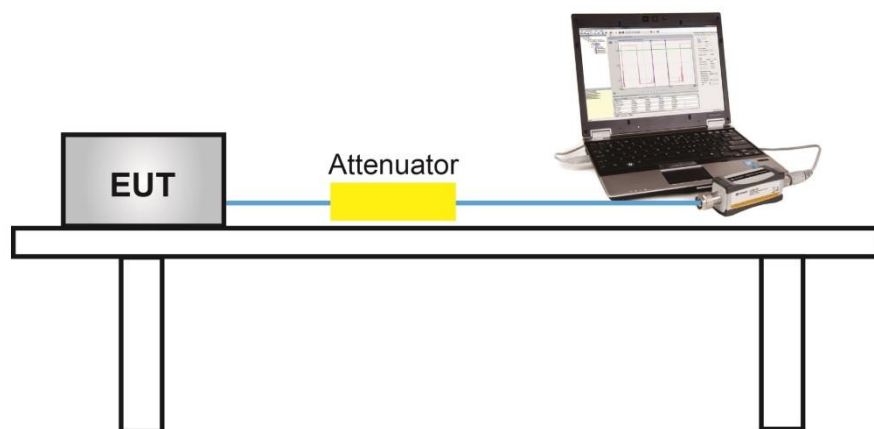
### 7.4.2. Test Procedure Used

KDB 789033 D02v02r01- Section E)3)b) Method PM-G

### 7.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

### 7.4.4. Test Setup



### 7.4.5. Test Result

|           |                                       |               |          |
|-----------|---------------------------------------|---------------|----------|
| Product   | AX1800 High Gain Wireless USB Adapter | Test Engineer | Marvin   |
| Test Site | SR6                                   | Test Date     | 2024/5/6 |
| Test Mode | CDD Mode                              |               |          |

| Test Mode  | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 1<br>Average<br>Power<br>(dBm) | Ant 2<br>Average<br>Power<br>(dBm) | Total<br>Average<br>Power<br>(dBm) | Power Limit<br>(dBm) | Result |
|------------|-------------------|----------------|----------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------|
| 11a        | 6Mbps             | 36             | 5180           | 13.56                              | 13.41                              | 16.50                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 40             | 5200           | 13.25                              | 13.35                              | 16.31                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 48             | 5240           | 13.33                              | 13.11                              | 16.23                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 52             | 5260           | 13.44                              | 13.17                              | 16.32                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 60             | 5300           | 13.39                              | 13.13                              | 16.27                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 64             | 5320           | 13.33                              | 13.05                              | 16.20                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 100            | 5500           | 13.23                              | 13.58                              | 16.42                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 116            | 5580           | 13.26                              | 13.53                              | 16.41                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 140            | 5700           | 13.22                              | 13.41                              | 16.33                              | ≤ 23.98              | Pass   |
| 11a        | 6Mbps             | 144            | 5720           | 13.17                              | 13.37                              | 16.28                              | ≤ 22.93              | Pass   |
| 11a        | 6Mbps             | 149            | 5745           | 13.39                              | 13.18                              | 16.30                              | ≤ 30.00              | Pass   |
| 11a        | 6Mbps             | 157            | 5785           | 13.35                              | 13.18                              | 16.28                              | ≤ 30.00              | Pass   |
| 11a        | 6Mbps             | 165            | 5825           | 13.46                              | 13.24                              | 16.36                              | ≤ 30.00              | Pass   |
| 11ac-VHT20 | MCS0              | 36             | 5180           | 13.10                              | 13.15                              | 16.14                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 40             | 5200           | 13.43                              | 13.38                              | 16.42                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 48             | 5240           | 13.21                              | 13.02                              | 16.13                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 52             | 5260           | 13.44                              | 13.04                              | 16.25                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 60             | 5300           | 13.37                              | 13.06                              | 16.23                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 64             | 5320           | 13.47                              | 13.04                              | 16.27                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 100            | 5500           | 13.56                              | 13.39                              | 16.49                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 116            | 5580           | 13.24                              | 13.41                              | 16.34                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 140            | 5700           | 13.05                              | 13.16                              | 16.12                              | ≤ 23.98              | Pass   |
| 11ac-VHT20 | MCS0              | 144            | 5720           | 13.13                              | 13.37                              | 16.26                              | ≤ 23.01              | Pass   |
| 11ac-VHT20 | MCS0              | 149            | 5745           | 13.35                              | 13.07                              | 16.22                              | ≤ 30.00              | Pass   |
| 11ac-VHT20 | MCS0              | 157            | 5785           | 13.33                              | 13.11                              | 16.23                              | ≤ 30.00              | Pass   |
| 11ac-VHT20 | MCS0              | 165            | 5825           | 13.34                              | 13.12                              | 16.24                              | ≤ 30.00              | Pass   |

| Test Mode  | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 1<br>Average<br>Power<br>(dBm) | Ant 2<br>Average<br>Power<br>(dBm) | Total<br>Average<br>Power<br>(dBm) | Power Limit<br>(dBm) | Result |
|------------|-------------------|----------------|----------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------|
| 11ac-VHT40 | MCS0              | 38             | 5190           | 13.34                              | 13.17                              | 16.27                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 46             | 5230           | 13.62                              | 13.10                              | 16.38                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 54             | 5270           | 13.61                              | 13.05                              | 16.35                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 62             | 5310           | 13.58                              | 13.02                              | 16.32                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 102            | 5510           | 13.27                              | 13.30                              | 16.30                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 110            | 5550           | 13.33                              | 13.45                              | 16.40                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 134            | 5670           | 13.10                              | 13.03                              | 16.08                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 142            | 5710           | 13.42                              | 13.44                              | 16.44                              | ≤ 23.98              | Pass   |
| 11ac-VHT40 | MCS0              | 151            | 5755           | 13.55                              | 13.19                              | 16.38                              | ≤ 30.00              | Pass   |
| 11ac-VHT40 | MCS0              | 159            | 5795           | 13.58                              | 13.30                              | 16.45                              | ≤ 30.00              | Pass   |
| 11ac-VHT80 | MCS0              | 42             | 5210           | 13.44                              | 13.13                              | 16.30                              | ≤ 23.98              | Pass   |
| 11ac-VHT80 | MCS0              | 58             | 5290           | 13.71                              | 13.23                              | 16.49                              | ≤ 23.98              | Pass   |
| 11ac-VHT80 | MCS0              | 106            | 5530           | 13.38                              | 13.48                              | 16.44                              | ≤ 23.98              | Pass   |
| 11ac-VHT80 | MCS0              | 122            | 5610           | 13.23                              | 13.50                              | 16.38                              | ≤ 23.98              | Pass   |
| 11ac-VHT80 | MCS0              | 138            | 5690           | 13.43                              | 13.41                              | 16.43                              | ≤ 23.98              | Pass   |
| 11ac-VHT80 | MCS0              | 155            | 5775           | 13.34                              | 13.09                              | 16.23                              | ≤ 30.00              | Pass   |
| 11ax-HE20  | MCS0              | 36             | 5180           | 13.35                              | 13.47                              | 16.42                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 40             | 5200           | 13.34                              | 13.36                              | 16.36                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 48             | 5240           | 13.30                              | 13.18                              | 16.25                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 52             | 5260           | 13.46                              | 13.07                              | 16.28                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 60             | 5300           | 13.43                              | 13.02                              | 16.24                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 64             | 5320           | 13.35                              | 13.10                              | 16.24                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 100            | 5500           | 13.26                              | 13.52                              | 16.40                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 116            | 5580           | 13.21                              | 13.40                              | 16.32                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 140            | 5700           | 13.37                              | 13.51                              | 16.45                              | ≤ 23.98              | Pass   |
| 11ax-HE20  | MCS0              | 144            | 5720           | 13.19                              | 13.30                              | 16.26                              | ≤ 23.10              | Pass   |
| 11ax-HE20  | MCS0              | 149            | 5745           | 13.39                              | 13.37                              | 16.39                              | ≤ 30.00              | Pass   |
| 11ax-HE20  | MCS0              | 157            | 5785           | 13.16                              | 13.18                              | 16.18                              | ≤ 30.00              | Pass   |
| 11ax-HE20  | MCS0              | 165            | 5825           | 13.24                              | 13.13                              | 16.20                              | ≤ 30.00              | Pass   |

| Test Mode | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 1<br>Average<br>Power<br>(dBm) | Ant 2<br>Average<br>Power<br>(dBm) | Total<br>Average<br>Power<br>(dBm) | Power Limit<br>(dBm) | Result |
|-----------|-------------------|----------------|----------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------|
| 11ax-HE40 | MCS0              | 38             | 5190           | 13.35                              | 13.26                              | 16.32                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 46             | 5230           | 13.45                              | 13.02                              | 16.25                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 54             | 5270           | 13.53                              | 13.09                              | 16.33                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 62             | 5310           | 13.67                              | 13.09                              | 16.40                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 102            | 5510           | 13.28                              | 13.32                              | 16.31                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 110            | 5550           | 13.23                              | 13.17                              | 16.21                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 134            | 5670           | 13.07                              | 13.05                              | 16.07                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 142            | 5710           | 13.25                              | 13.14                              | 16.21                              | ≤ 23.98              | Pass   |
| 11ax-HE40 | MCS0              | 151            | 5755           | 13.46                              | 13.19                              | 16.34                              | ≤ 30.00              | Pass   |
| 11ax-HE40 | MCS0              | 159            | 5795           | 13.50                              | 13.35                              | 16.44                              | ≤ 30.00              | Pass   |
| 11ax-HE80 | MCS0              | 42             | 5210           | 13.45                              | 13.19                              | 16.33                              | ≤ 23.98              | Pass   |
| 11ax-HE80 | MCS0              | 58             | 5290           | 13.49                              | 13.03                              | 16.28                              | ≤ 23.98              | Pass   |
| 11ax-HE80 | MCS0              | 106            | 5530           | 13.52                              | 13.38                              | 16.46                              | ≤ 23.98              | Pass   |
| 11ax-HE80 | MCS0              | 122            | 5610           | 13.39                              | 13.41                              | 16.41                              | ≤ 23.98              | Pass   |
| 11ax-HE80 | MCS0              | 138            | 5690           | 13.10                              | 13.28                              | 16.20                              | ≤ 23.98              | Pass   |
| 11ax-HE80 | MCS0              | 155            | 5775           | 13.37                              | 13.26                              | 16.33                              | ≤ 30.00              | Pass   |

Note 1:

The Total Average Power (dBm) =  $10 \cdot \log \{10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)}\}$ .

Note 2:

For 5250- 5350MHz and 5470 - 5725MHz Band: Average Power Limit (dBm) = 23.98 dBm.

For 5150 - 5250MHz and 5725 - 5850MHz Bands: Average Power Limit (dBm) = 30 dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) =  $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$

## 7.5. Transmit Power Control

### 7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

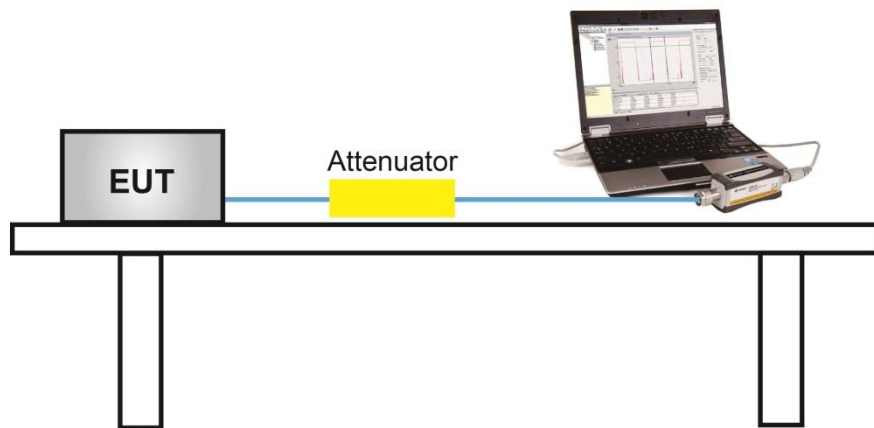
### 7.5.2. Test Procedure Used

KDB 789033 D02v02r01- Section E)3)b) Method PM-G

### 7.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.5.4. Test Setup



### 7.5.5. Test Result

The maximum e.i.r.p. is less than 500mW, so TPC function is not required.

## **7.6. Power Spectral Density Measurement**

### **7.6.1. Test Limit**

For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

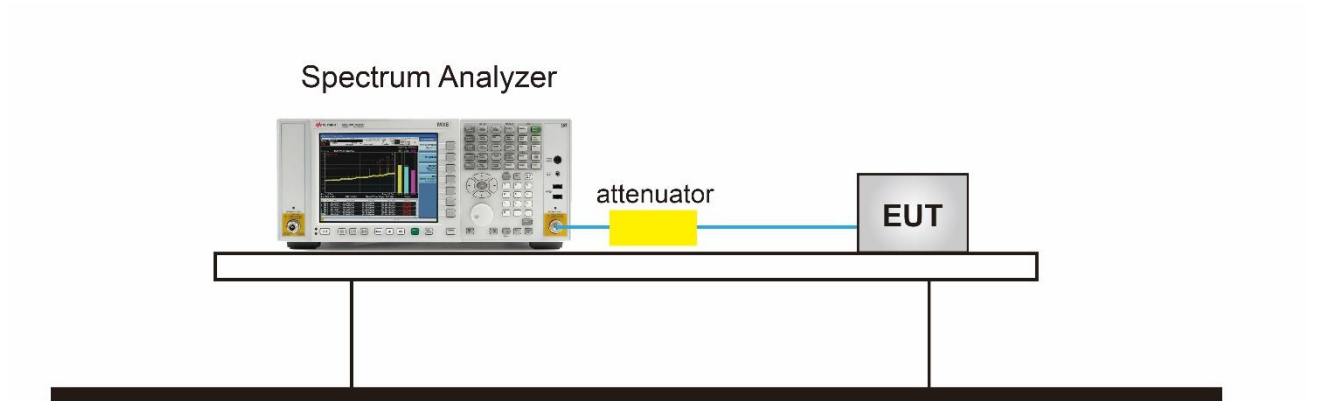
### **7.6.2. Test Procedure Used**

KDB 789033 D02v02r01-SectionF

### **7.6.3. Test Setting**

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,  
RBW = 510 kHz
4. VBW = 3MHz
5. Number of sweep points  $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add  $10 \cdot \log(1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add  $10 \cdot \log(1/0.25) = 6$  dB if the duty cycle is 25 percent.

#### 7.6.4. Test Setup



### 7.6.5. Test Result

|           |                                                      |               |                    |
|-----------|------------------------------------------------------|---------------|--------------------|
| Product   | AX1800 High Gain Wireless USB Adapter                | Test Engineer | Marvin             |
| Test Site | SR6                                                  | Test Date     | 2024/5/7~2024/5/29 |
| Mode      | Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode |               |                    |

| Test Mode  | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 1 PSD (dBm/MHz) | Ant 2 PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/MHz) | PSD Limit (dBm/MHz) | Result |
|------------|----------------|---------|-------------|---------------------|---------------------|----------------|---------------------|---------------------|--------|
| 11a        | 6Mbps          | 36      | 5180        | 0.683               | 0.725               | 87.25%         | 4.307               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 40      | 5200        | 0.760               | 0.743               | 87.25%         | 4.354               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 48      | 5240        | 0.686               | 0.530               | 87.25%         | 4.211               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 52      | 5260        | 1.127               | 0.797               | 87.25%         | 4.568               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 60      | 5300        | 1.673               | 1.241               | 87.25%         | 5.065               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 64      | 5320        | 1.311               | 0.937               | 87.25%         | 4.731               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 100     | 5500        | 1.053               | 1.330               | 87.25%         | 4.796               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 116     | 5580        | 0.755               | 0.961               | 87.25%         | 4.462               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 140     | 5700        | 0.523               | 0.841               | 87.25%         | 4.288               | ≤ 11.00             | Pass   |
| 11a        | 6Mbps          | 144     | 5720        | 0.751               | 1.004               | 87.25%         | 4.482               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 36      | 5180        | 0.452               | 0.257               | 85.09%         | 4.067               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 40      | 5200        | 0.319               | 0.313               | 85.09%         | 4.028               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 48      | 5240        | 0.323               | 0.206               | 85.09%         | 3.976               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 52      | 5260        | 0.359               | 0.347               | 85.09%         | 4.065               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 60      | 5300        | 0.876               | 0.706               | 85.09%         | 4.503               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 64      | 5320        | 0.803               | 0.330               | 85.09%         | 4.284               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 100     | 5500        | 0.588               | 0.740               | 85.09%         | 4.376               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 116     | 5580        | 0.229               | 0.446               | 85.09%         | 4.050               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 140     | 5700        | 0.287               | 0.527               | 85.09%         | 4.120               | ≤ 11.00             | Pass   |
| 11ac-VHT20 | MCS0           | 144     | 5720        | 0.410               | 0.707               | 85.09%         | 4.273               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 38      | 5190        | -2.836              | -3.359              | 87.11%         | 0.520               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 46      | 5230        | -2.281              | -2.520              | 87.11%         | 1.211               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 54      | 5270        | -2.111              | -2.376              | 87.11%         | 1.368               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 62      | 5310        | -2.077              | -2.030              | 87.11%         | 1.556               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 102     | 5510        | -2.951              | -2.887              | 87.11%         | 0.691               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 110     | 5550        | -2.755              | -2.964              | 87.11%         | 0.751               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 134     | 5670        | -3.074              | -3.018              | 87.11%         | 0.564               | ≤ 11.00             | Pass   |
| 11ac-VHT40 | MCS0           | 142     | 5710        | -2.776              | -2.677              | 87.11%         | 0.883               | ≤ 11.00             | Pass   |

| Test Mode  | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 1 PSD (dBm/MHz) | Ant 2 PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/MHz) | PSD Limit (dBm/MHz) | Result |
|------------|----------------|---------|-------------|---------------------|---------------------|----------------|---------------------|---------------------|--------|
| 11ac-VHT80 | MCS0           | 42      | 5210        | -5.644              | -6.763              | 85.99%         | -2.502              | ≤ 11.00             | Pass   |
| 11ac-VHT80 | MCS0           | 58      | 5290        | -4.861              | -5.404              | 85.99%         | -1.458              | ≤ 11.00             | Pass   |
| 11ac-VHT80 | MCS0           | 106     | 5530        | -5.797              | -5.302              | 85.99%         | -1.877              | ≤ 11.00             | Pass   |
| 11ac-VHT80 | MCS0           | 122     | 5610        | -5.921              | -5.521              | 85.99%         | -2.051              | ≤ 11.00             | Pass   |
| 11ac-VHT80 | MCS0           | 138     | 5690        | -5.380              | -5.589              | 85.99%         | -1.817              | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 36      | 5180        | 0.453               | 0.373               | 85.37%         | 4.110               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 40      | 5200        | -0.522              | -0.637              | 85.37%         | 3.118               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 48      | 5240        | 0.550               | 0.120               | 85.37%         | 4.038               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 52      | 5260        | 0.443               | 0.126               | 85.37%         | 3.985               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 60      | 5300        | 0.771               | 0.531               | 85.37%         | 4.350               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 64      | 5320        | 1.028               | 0.518               | 85.37%         | 4.478               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 100     | 5500        | 0.592               | 0.386               | 85.37%         | 4.187               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 116     | 5580        | 0.465               | 0.569               | 85.37%         | 4.215               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 140     | 5700        | 0.841               | 0.980               | 85.37%         | 4.608               | ≤ 11.00             | Pass   |
| 11ax-HE20  | MCS0           | 144     | 5720        | 0.881               | 0.413               | 85.37%         | 4.351               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 38      | 5190        | -3.741              | -3.805              | 85.27%         | -0.071              | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 46      | 5230        | -2.758              | -3.296              | 85.27%         | 0.684               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 54      | 5270        | -2.350              | -2.866              | 85.27%         | 1.102               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 62      | 5310        | -1.692              | -2.633              | 85.27%         | 1.565               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 102     | 5510        | -2.829              | -3.093              | 85.27%         | 0.743               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 110     | 5550        | -2.657              | -3.134              | 85.27%         | 0.813               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 134     | 5670        | -2.399              | -2.886              | 85.27%         | 1.067               | ≤ 11.00             | Pass   |
| 11ax-HE40  | MCS0           | 142     | 5710        | -2.082              | -2.773              | 85.27%         | 1.289               | ≤ 11.00             | Pass   |
| 11ax-HE80  | MCS0           | 42      | 5210        | -6.555              | -6.051              | 85.75%         | -2.618              | ≤ 11.00             | Pass   |
| 11ax-HE80  | MCS0           | 58      | 5290        | -5.204              | -5.712              | 85.75%         | -1.773              | ≤ 11.00             | Pass   |
| 11ax-HE80  | MCS0           | 106     | 5530        | -5.509              | -5.817              | 85.75%         | -1.982              | ≤ 11.00             | Pass   |
| 11ax-HE80  | MCS0           | 122     | 5610        | -5.578              | -6.142              | 85.75%         | -2.173              | ≤ 11.00             | Pass   |
| 11ax-HE80  | MCS0           | 138     | 5690        | -4.337              | -4.982              | 85.75%         | -0.970              | ≤ 11.00             | Pass   |

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) =  $10 \cdot \log \{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$  (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) =  $10 \cdot \log \{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} + 10 \cdot \log (1/\text{Duty Cycle})$  (dBm/MHz).

|           |                                           |               |                    |
|-----------|-------------------------------------------|---------------|--------------------|
| Product   | AX1800 High Gain Wireless USB Adapter     | Test Engineer | Marvin             |
| Test Site | SR6                                       | Test Date     | 2024/5/7~2024/5/29 |
| Test Item | Power Spectral Density (U-NII-3) CDD Mode |               |                    |

| Test Mode  | Data Rate/MCS | Ch. No. | Freq. (MHz) | Ant 1 PSD (dBm/510KHz) | Ant 2 PSD (dBm/510KHz) | Duty Cycle (%) | Total PSD(dBm/510kHz) | Limit (dBm/500kHz) | Result |
|------------|---------------|---------|-------------|------------------------|------------------------|----------------|-----------------------|--------------------|--------|
| 11a        | 6Mbps         | 149     | 5745        | -2.183                 | -2.041                 | 87.25%         | 1.491                 | ≤ 30.00            | Pass   |
| 11a        | 6Mbps         | 157     | 5785        | -1.656                 | -1.803                 | 87.25%         | 1.874                 | ≤ 30.00            | Pass   |
| 11a        | 6Mbps         | 165     | 5825        | -1.761                 | -1.866                 | 87.25%         | 1.789                 | ≤ 30.00            | Pass   |
| 11ac-VHT20 | MCS0          | 149     | 5745        | -2.380                 | -2.621                 | 85.09%         | 1.213                 | ≤ 30.00            | Pass   |
| 11ac-VHT20 | MCS0          | 157     | 5785        | -2.492                 | -2.473                 | 85.09%         | 1.229                 | ≤ 30.00            | Pass   |
| 11ac-VHT20 | MCS0          | 165     | 5825        | -2.002                 | -2.307                 | 85.09%         | 1.560                 | ≤ 30.00            | Pass   |
| 11ac-VHT40 | MCS0          | 151     | 5755        | -6.610                 | -6.320                 | 87.11%         | -2.853                | ≤ 30.00            | Pass   |
| 11ac-VHT40 | MCS0          | 159     | 5795        | -5.584                 | -5.436                 | 87.11%         | -1.900                | ≤ 30.00            | Pass   |
| 11ac-VHT80 | MCS0          | 155     | 5775        | -8.189                 | -8.471                 | 85.99%         | -4.662                | ≤ 30.00            | Pass   |
| 11ax-HE20  | MCS0          | 149     | 5745        | -1.951                 | -2.422                 | 85.37%         | 1.517                 | ≤ 30.00            | Pass   |
| 11ax-HE20  | MCS0          | 157     | 5785        | -1.827                 | -2.491                 | 85.37%         | 1.551                 | ≤ 30.00            | Pass   |
| 11ax-HE20  | MCS0          | 165     | 5825        | -2.366                 | -2.262                 | 85.37%         | 1.384                 | ≤ 30.00            | Pass   |
| 11ax-HE40  | MCS0          | 151     | 5755        | -4.823                 | -5.184                 | 85.27%         | -1.297                | ≤ 30.00            | Pass   |
| 11ax-HE40  | MCS0          | 159     | 5795        | -4.938                 | -5.371                 | 85.27%         | -1.447                | ≤ 30.00            | Pass   |
| 11ax-HE80  | MCS0          | 155     | 5775        | -7.151                 | -7.683                 | 85.75%         | -3.731                | ≤ 30.00            | Pass   |

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/510kHz) =  $10 \cdot \log \{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$  (dBm/510kHz).

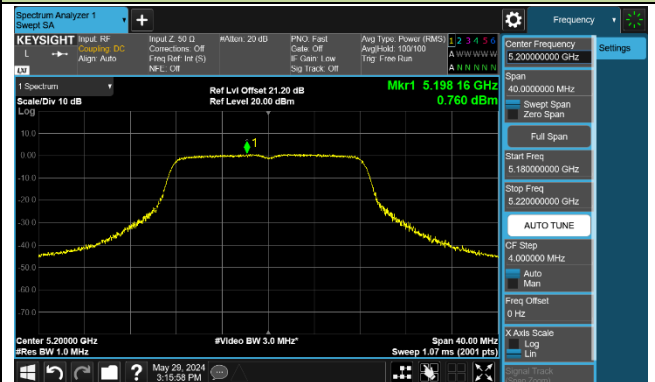
When EUT duty cycle < 98%, the total PSD (dBm/510kHz) =  $10 \cdot \log \{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$  (dBm/510kHz) +  $10 \cdot \log (1/\text{Duty Cycle})$ .

## 802.11a Power Spectral Density - Ant 1

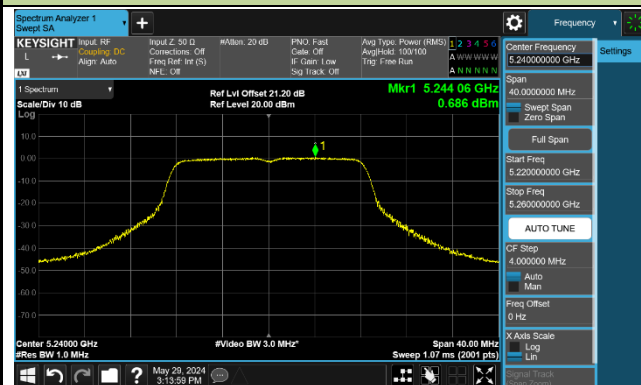
Channel 36 (5180MHz)



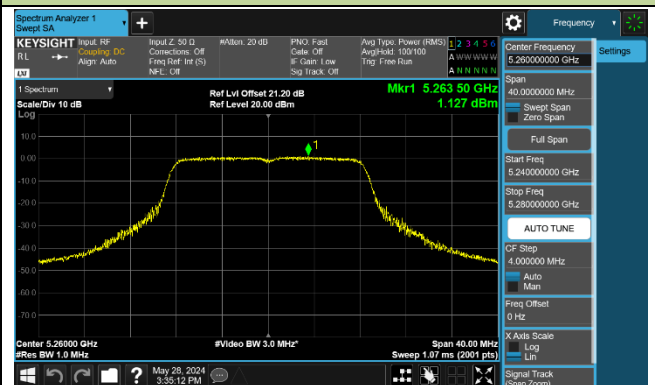
Channel 40 (5200MHz)



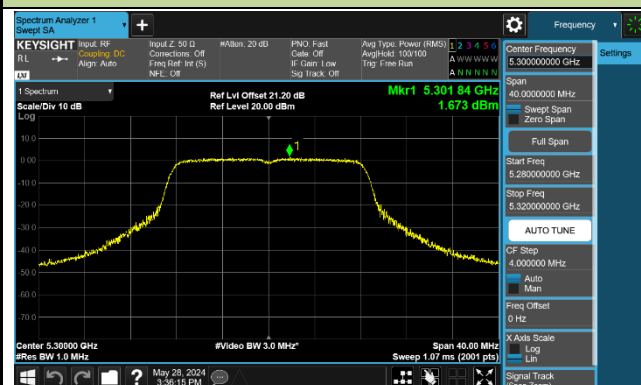
Channel 48 (5240MHz)



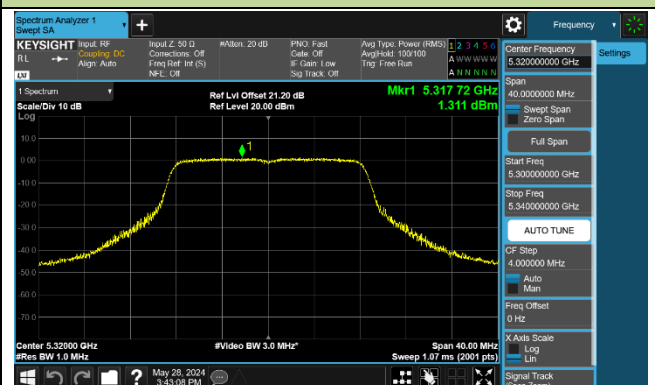
Channel 52 (5260MHz)



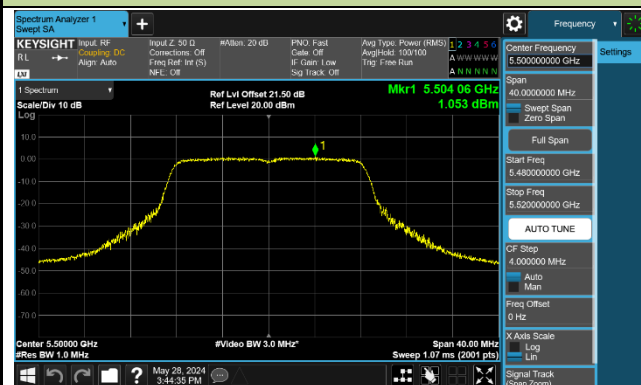
Channel 60 (5300MHz)



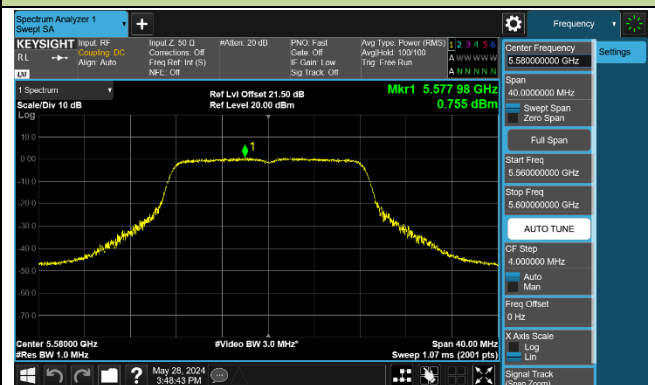
Channel 64 (5320MHz)

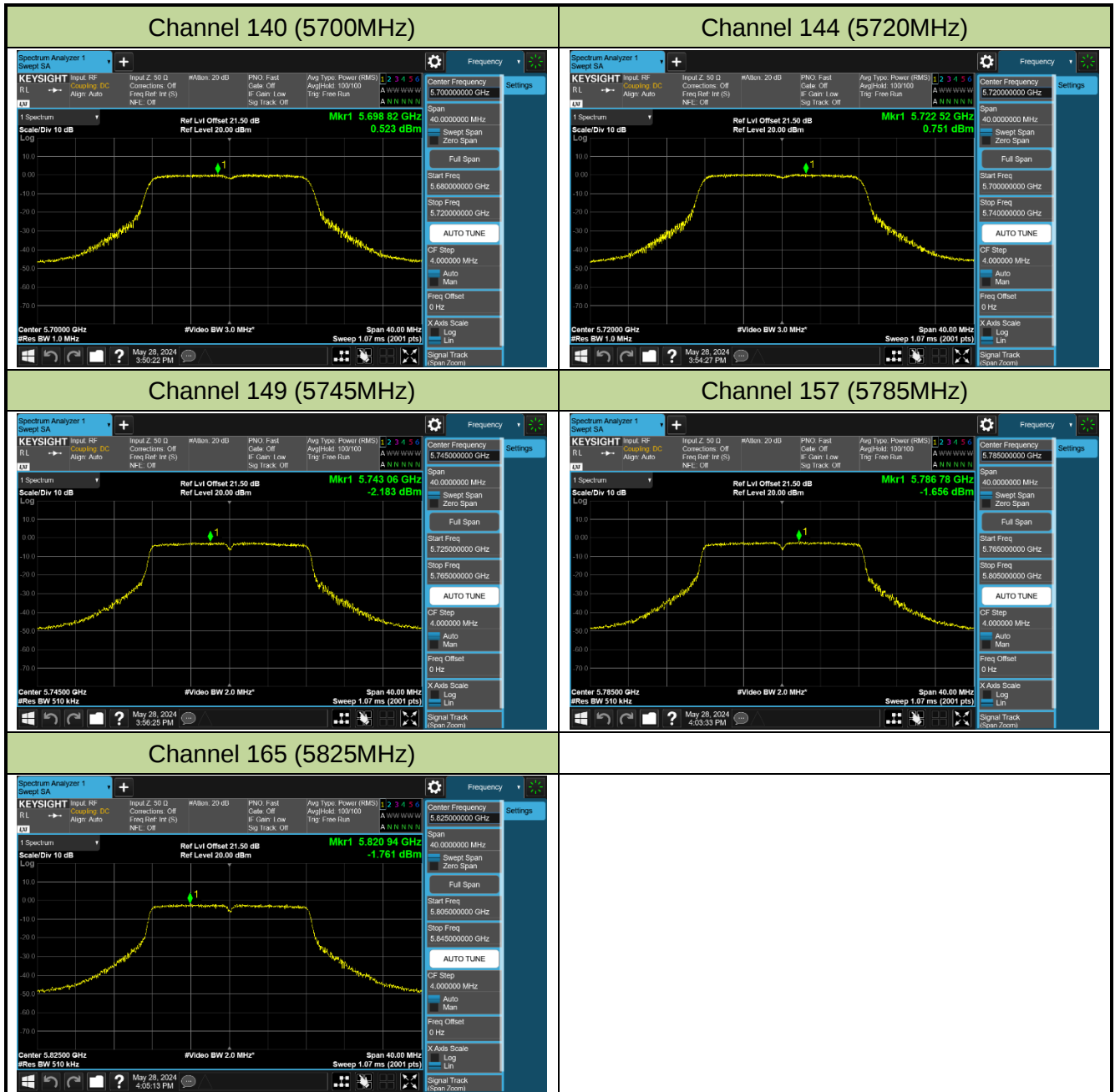


Channel 100 (5500MHz)



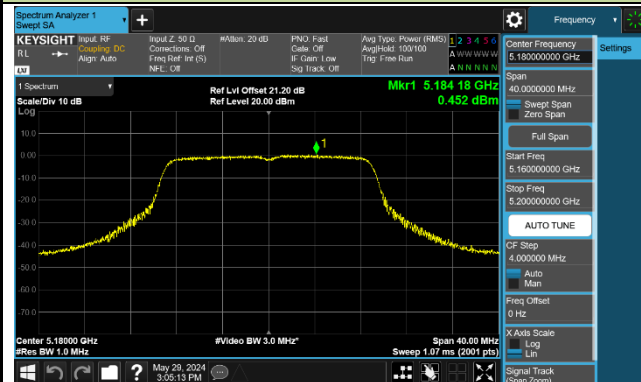
Channel 116 (5580MHz)



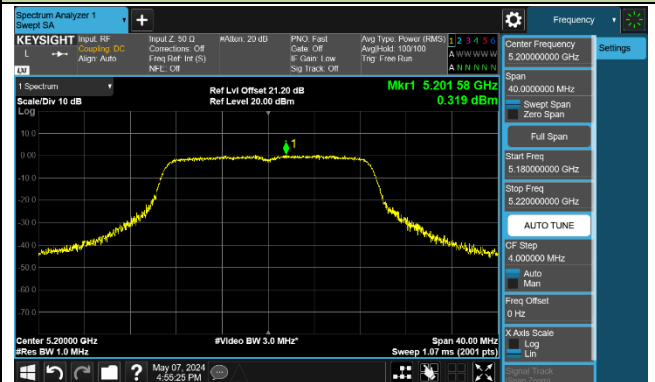


## 802.11ac-VHT20 Power Spectral Density - Ant 1

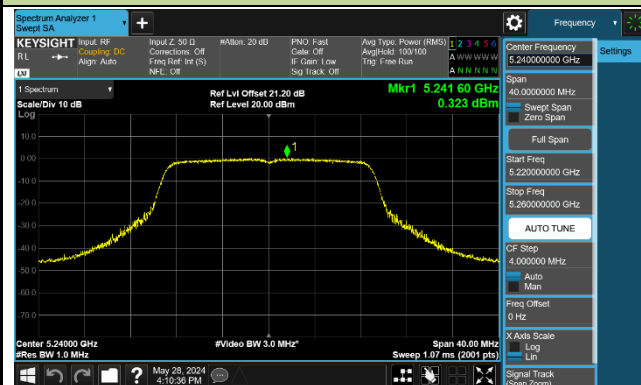
Channel 36 (5180MHz)



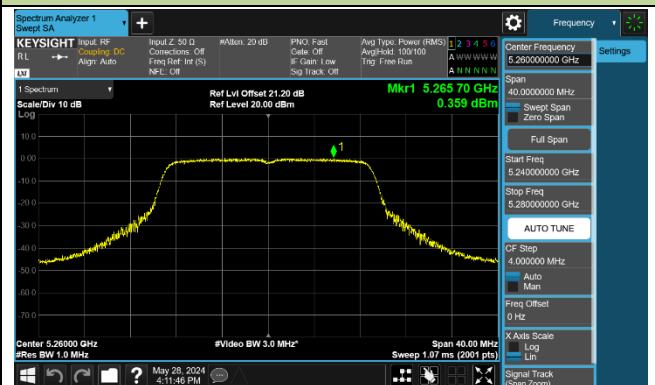
Channel 40 (5200MHz)



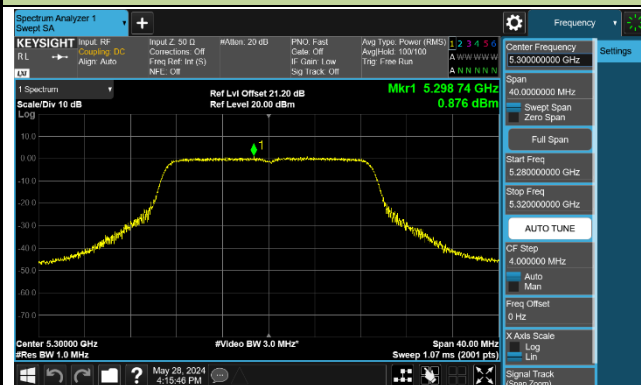
Channel 48 (5240MHz)



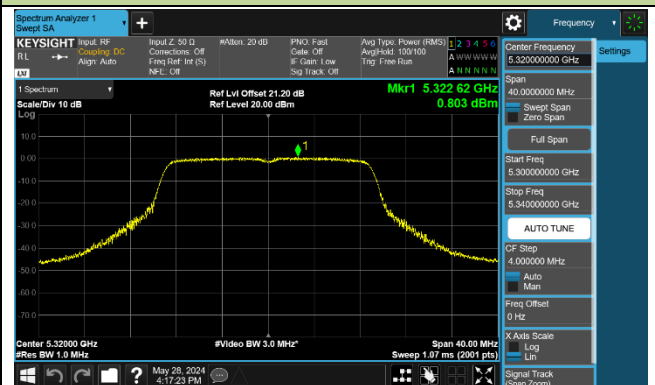
Channel 52 (5260MHz)



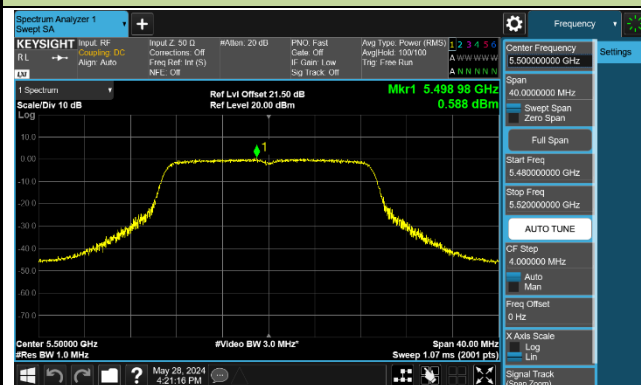
Channel 60 (5300MHz)



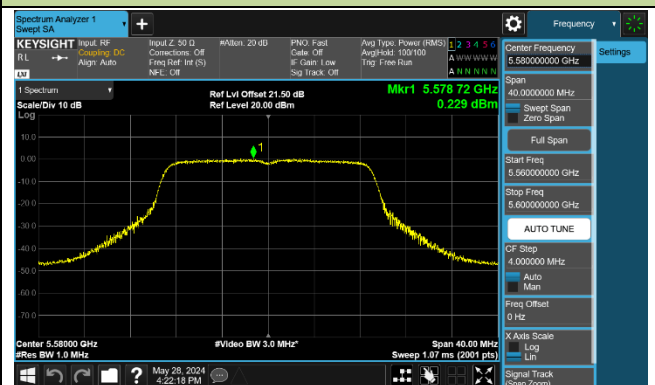
Channel 64 (5320MHz)

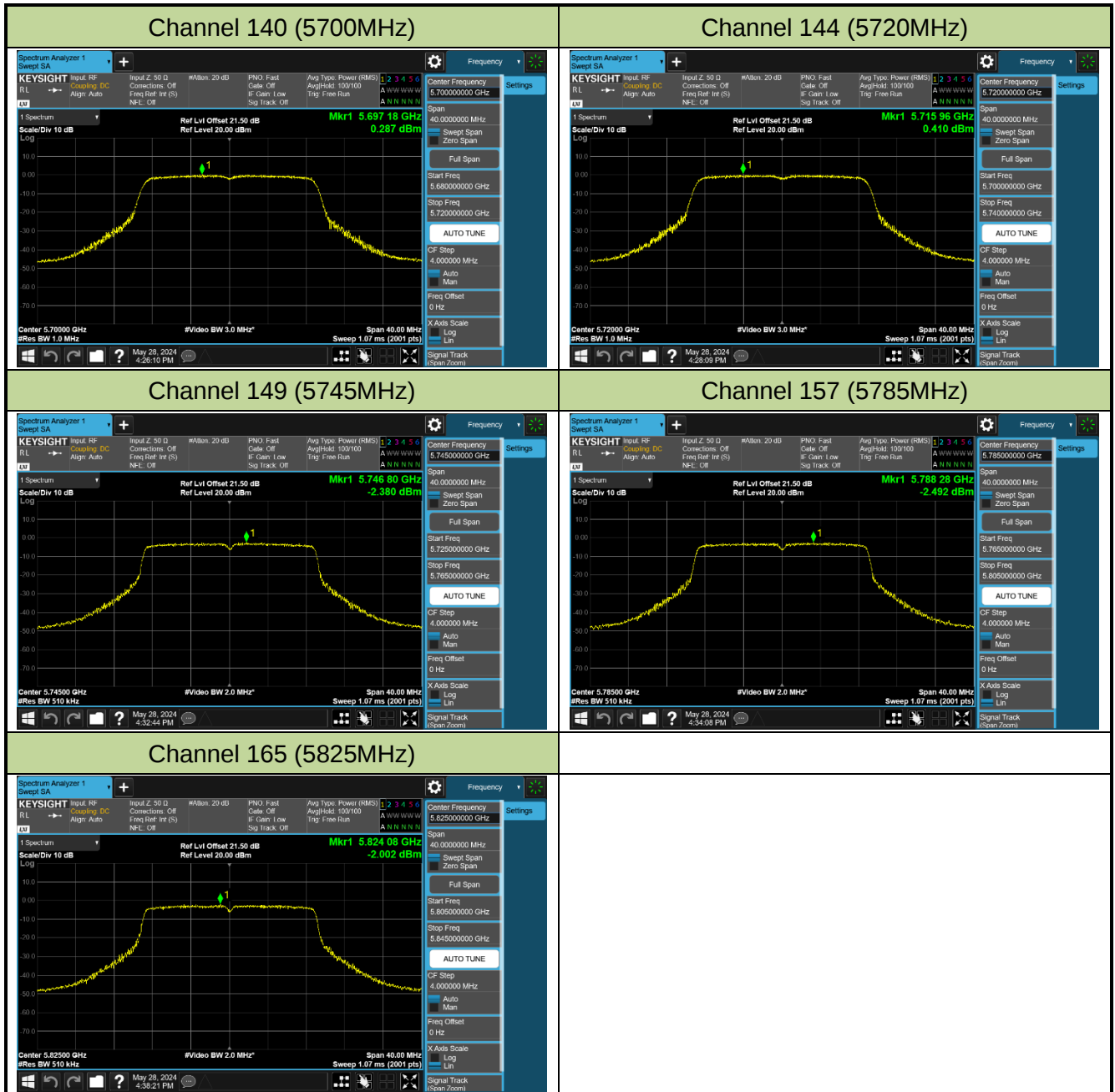


Channel 100 (5500MHz)



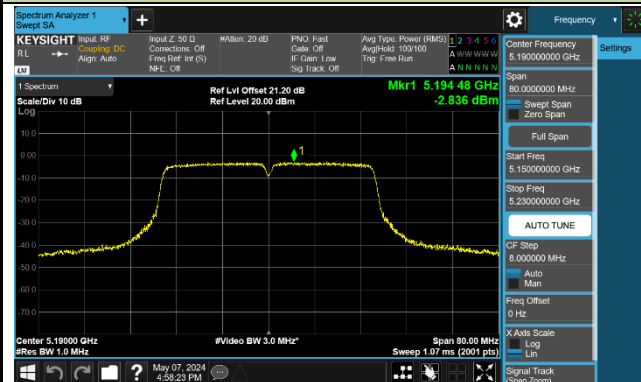
Channel 116 (5580MHz)



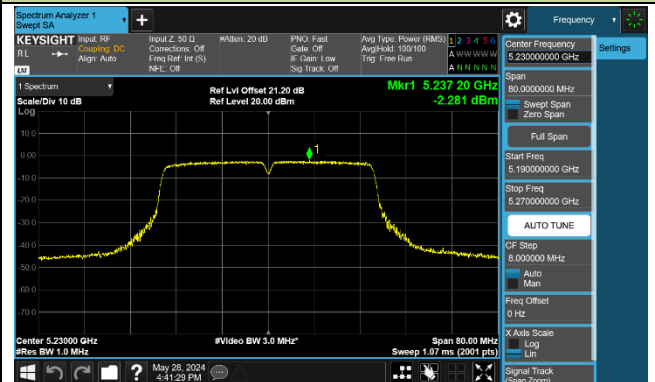


## 802.11ac-VHT40 Power Spectral Density - Ant 1

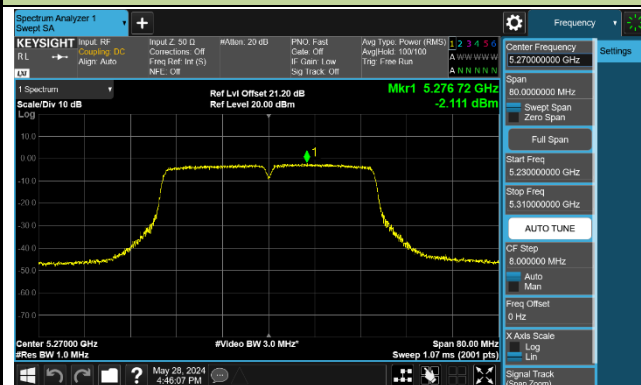
Channel 38 (5190MHz)



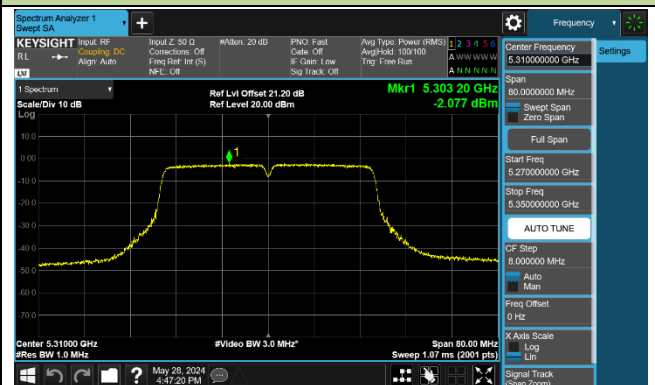
Channel 46 (5230MHz)



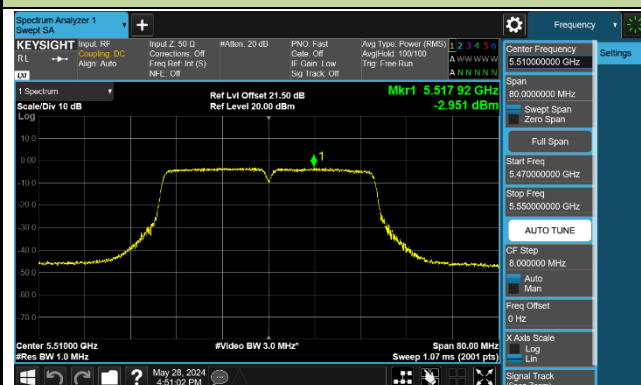
Channel 54 (5270MHz)



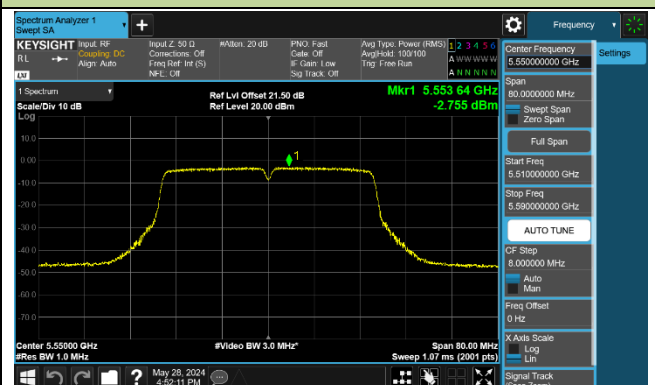
Channel 62 (5310MHz)



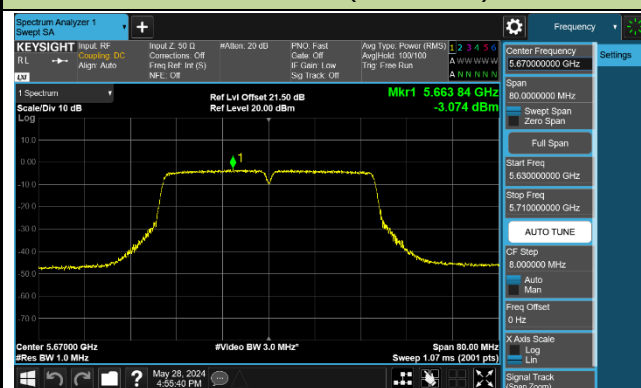
Channel 102 (5510MHz)



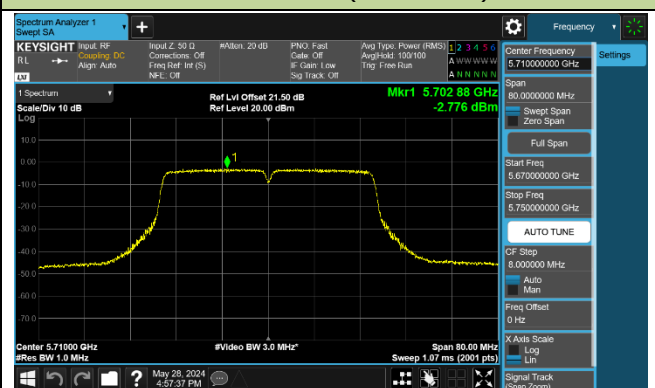
Channel 110 (5550MHz)

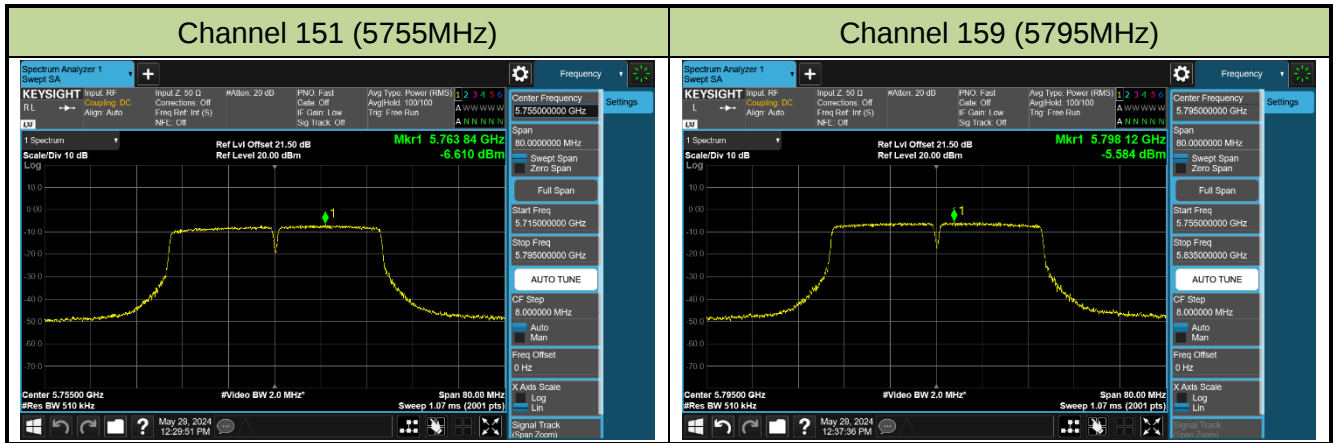


Channel 134 (5670MHz)



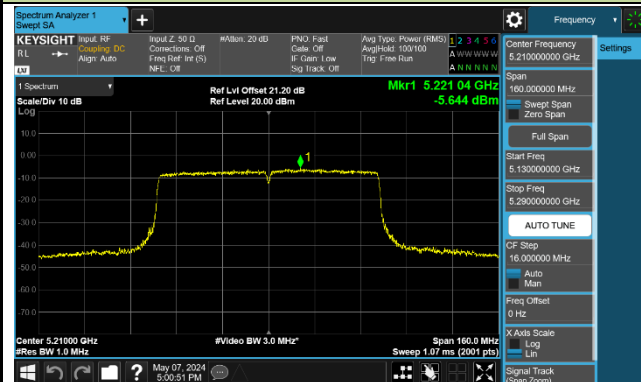
Channel 142 (5710MHz)



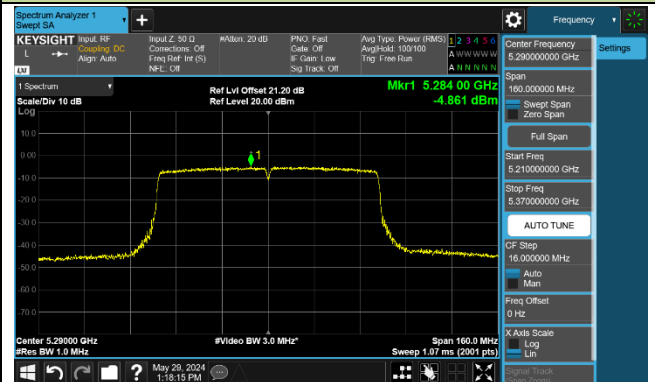


## 802.11ac-VHT80 Power Spectral Density - Ant 1

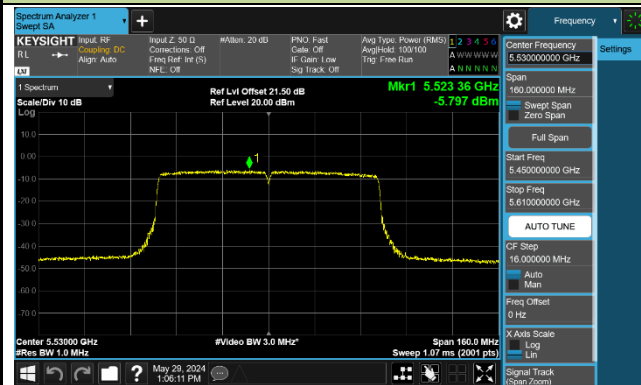
Channel 42 (5210MHz)



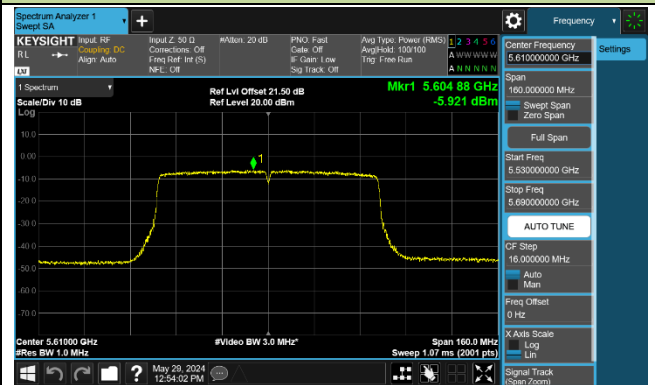
Channel 58 (5290MHz)



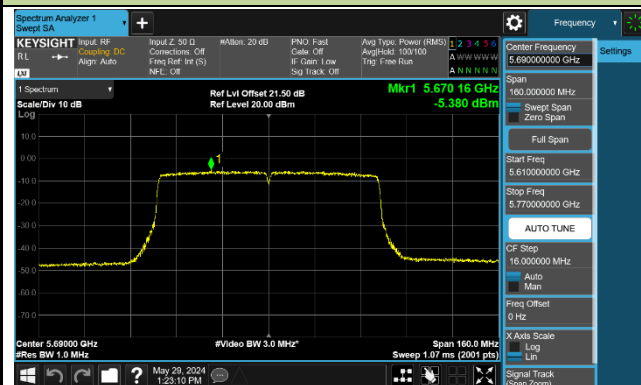
Channel 106 (5530MHz)



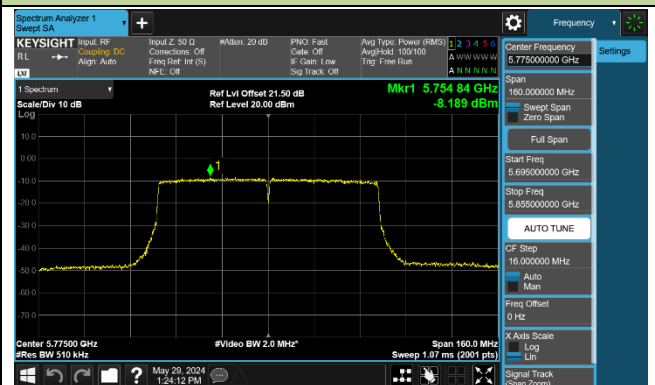
Channel 122 (5610MHz)



Channel 138 (5690MHz)

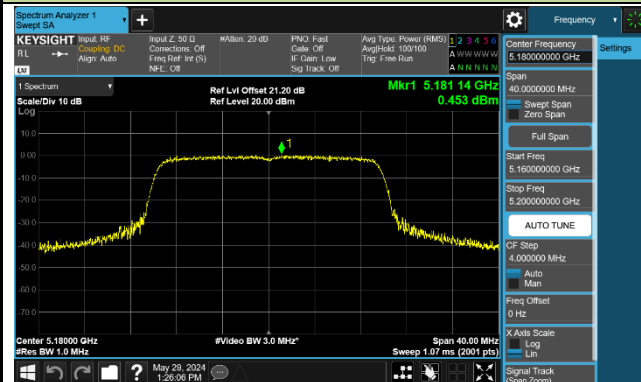


Channel 155 (5775MHz)

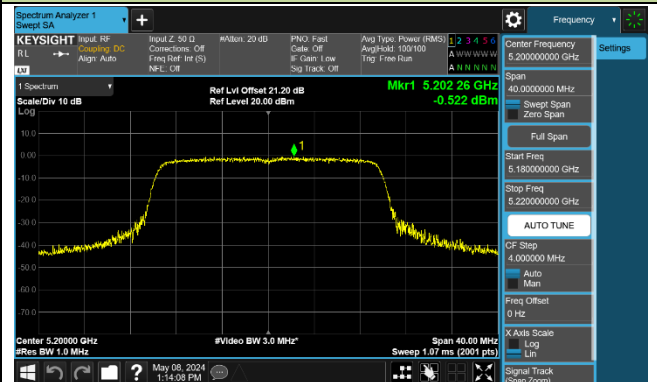


## 802.11ax-HE20 Power Spectral Density - Ant 1

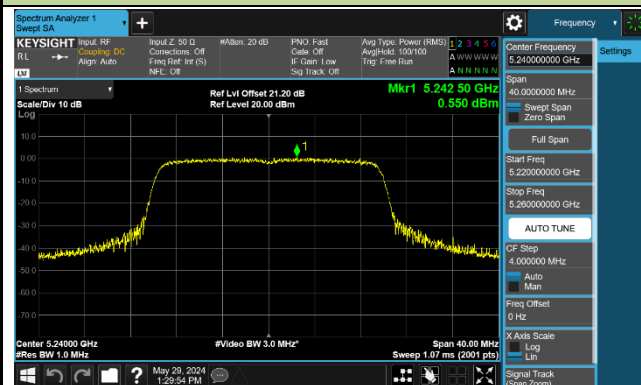
Channel 36 (5180MHz)



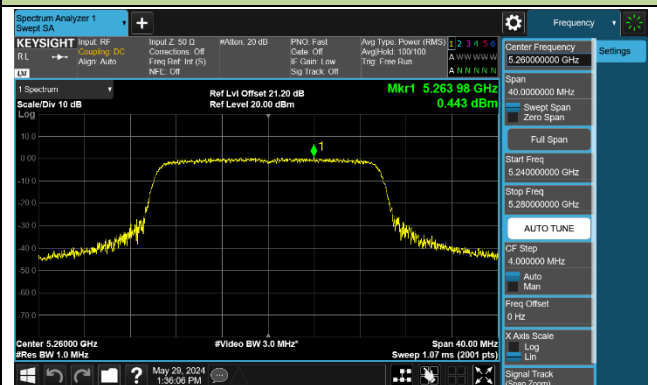
Channel 40 (5200MHz)



Channel 48 (5240MHz)



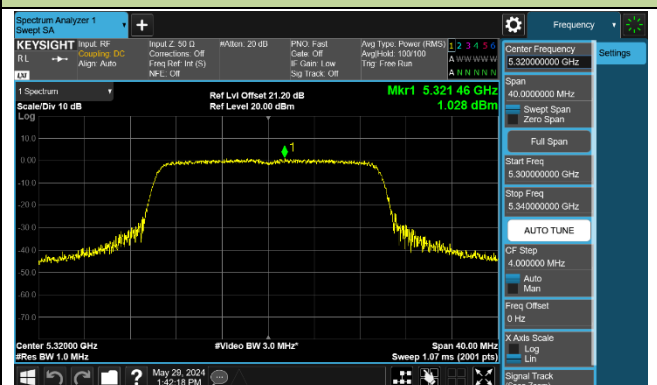
Channel 52 (5260MHz)



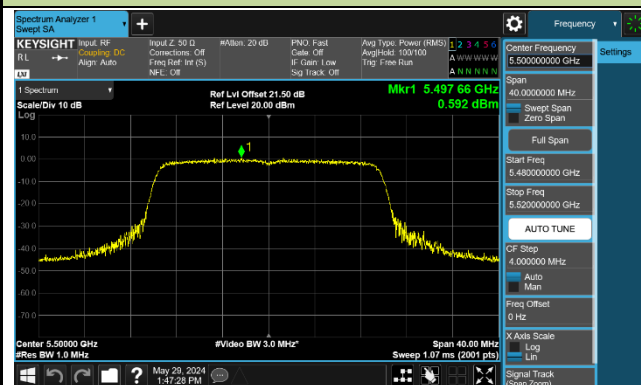
Channel 60 (5300MHz)



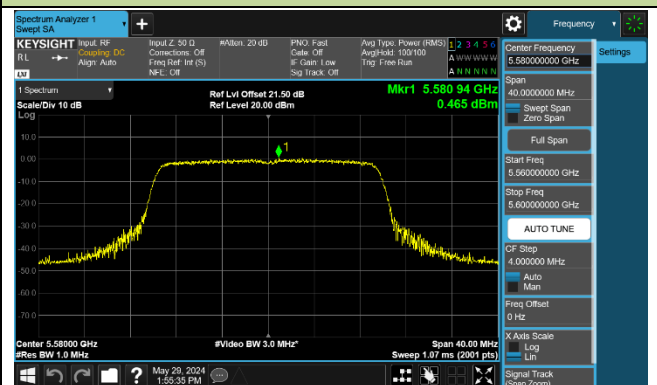
Channel 64 (5320MHz)

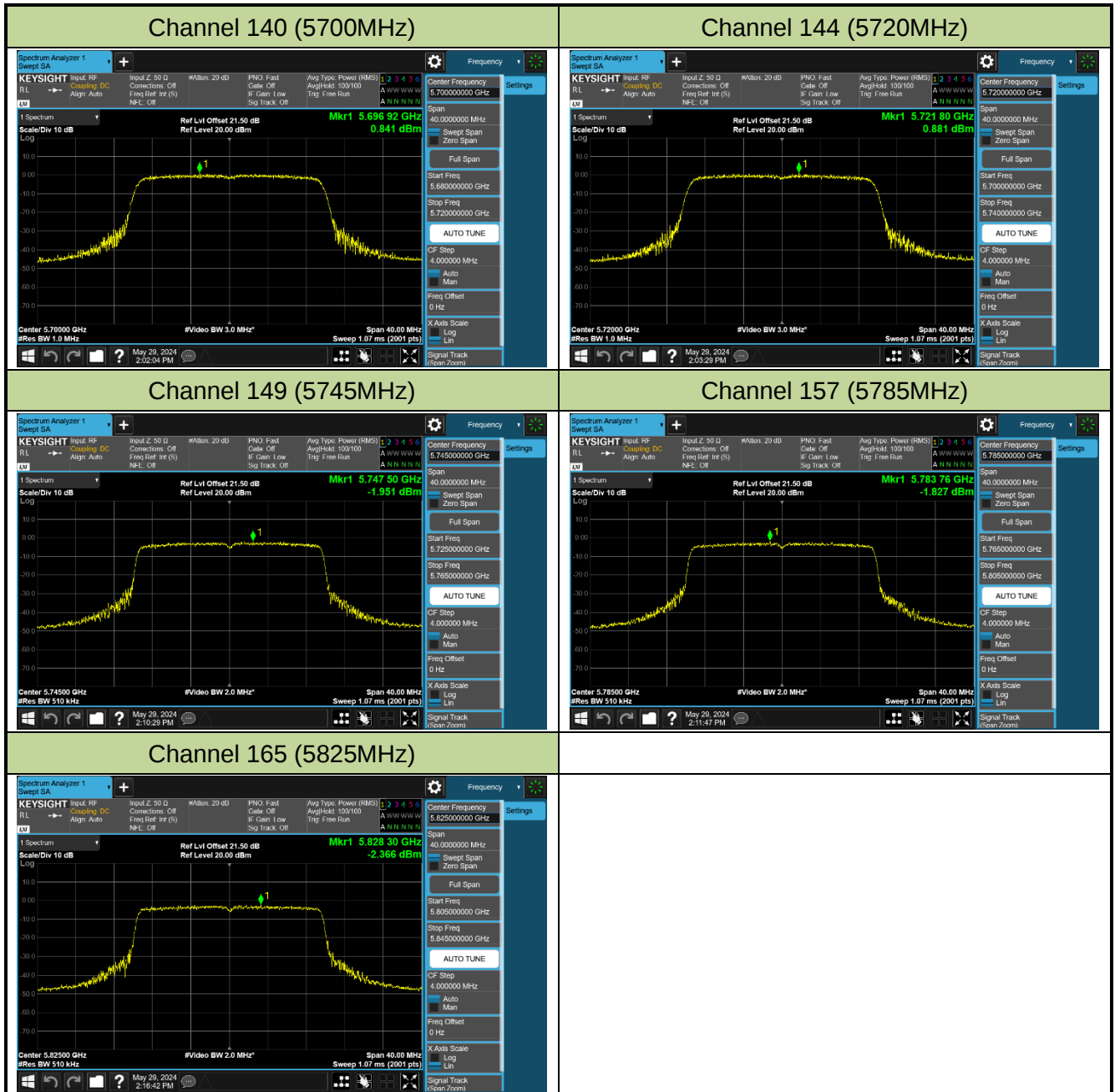


Channel 100 (5500MHz)



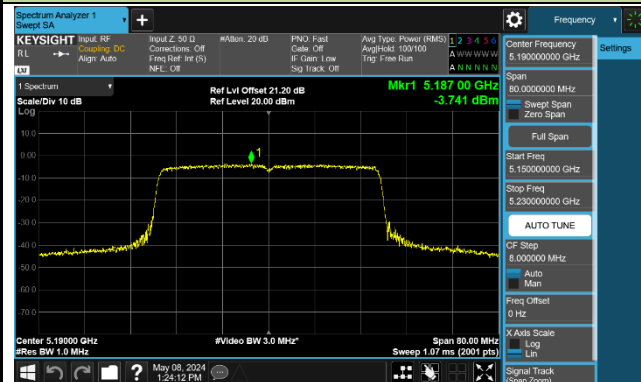
Channel 116 (5580MHz)



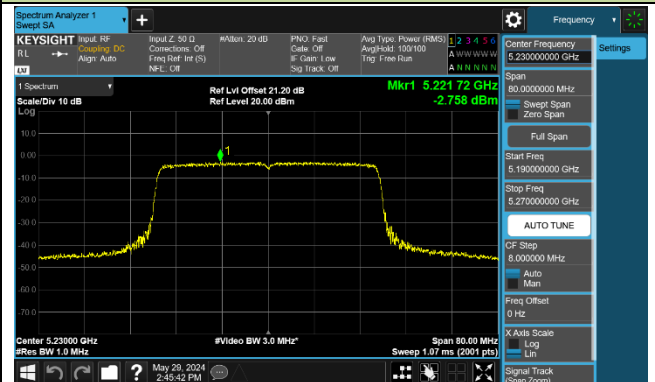


## 802.11ax-HE40 Power Spectral Density - Ant 1

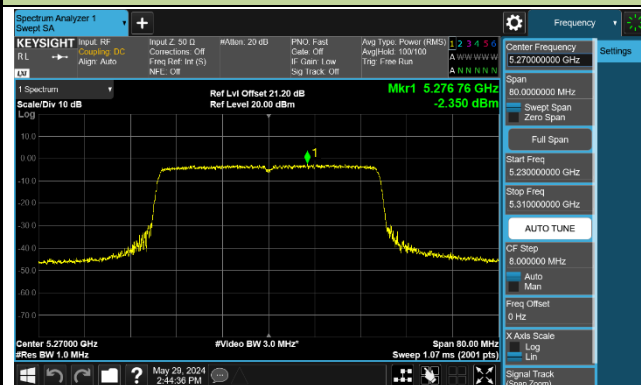
Channel 38 (5190MHz)



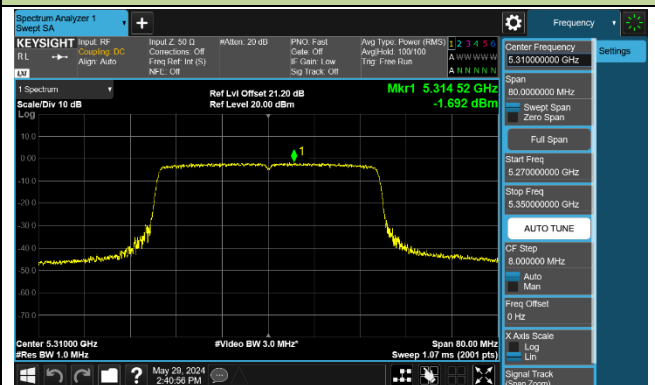
Channel 46 (5230MHz)



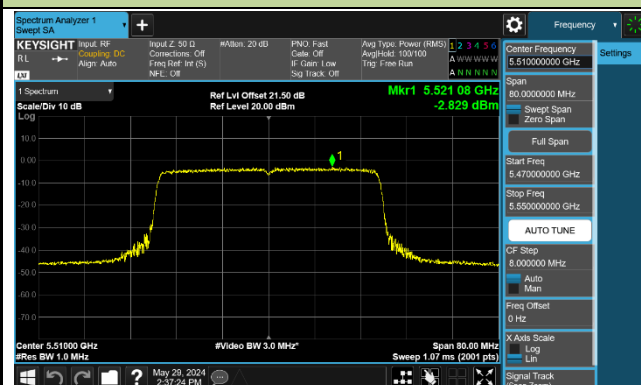
Channel 54 (5270MHz)



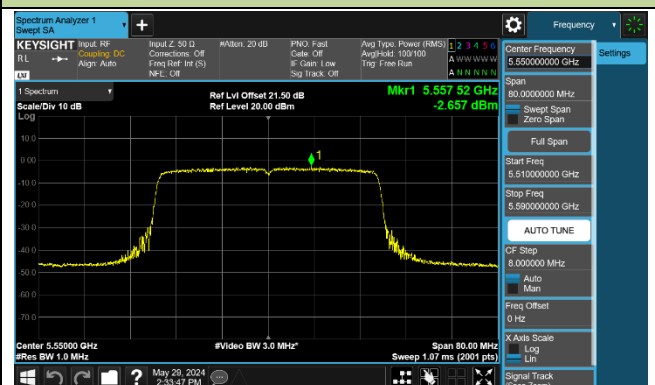
Channel 62 (5310MHz)



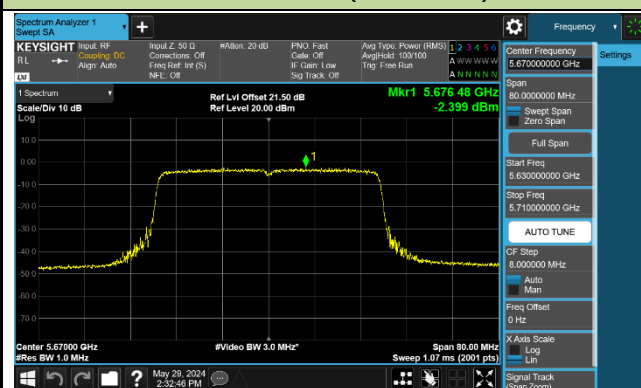
Channel 102 (5510MHz)



Channel 110 (5550MHz)



Channel 134 (5670MHz)



Channel 142 (5710MHz)

