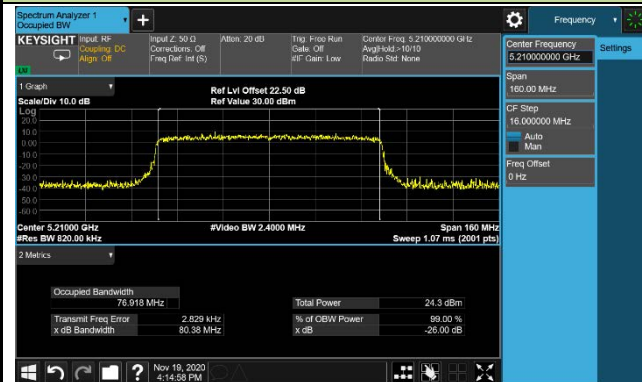


## 802.11ax-HE80 26dB Bandwidth &amp; 99% Bandwidth

## Channel 42 (5210MHz)



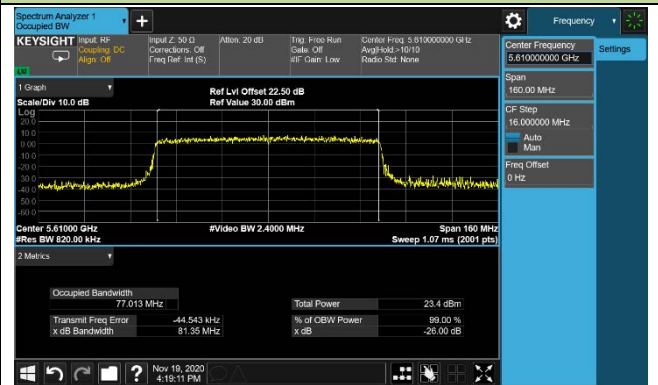
## Channel 58 (5290MHz)



## Channel 106 (5530MHz)



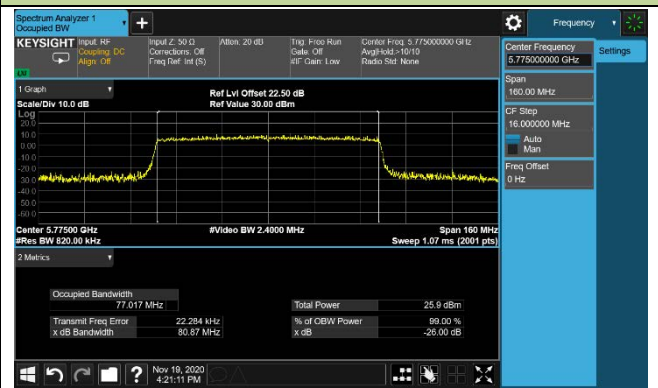
## Channel 122 (5610MHz)



## Channel 138 (5690MHz)



## Channel 155 (5775MHz)



### 6.3. 6dB Bandwidth Measurement

#### 6.3.1.Test Limit

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

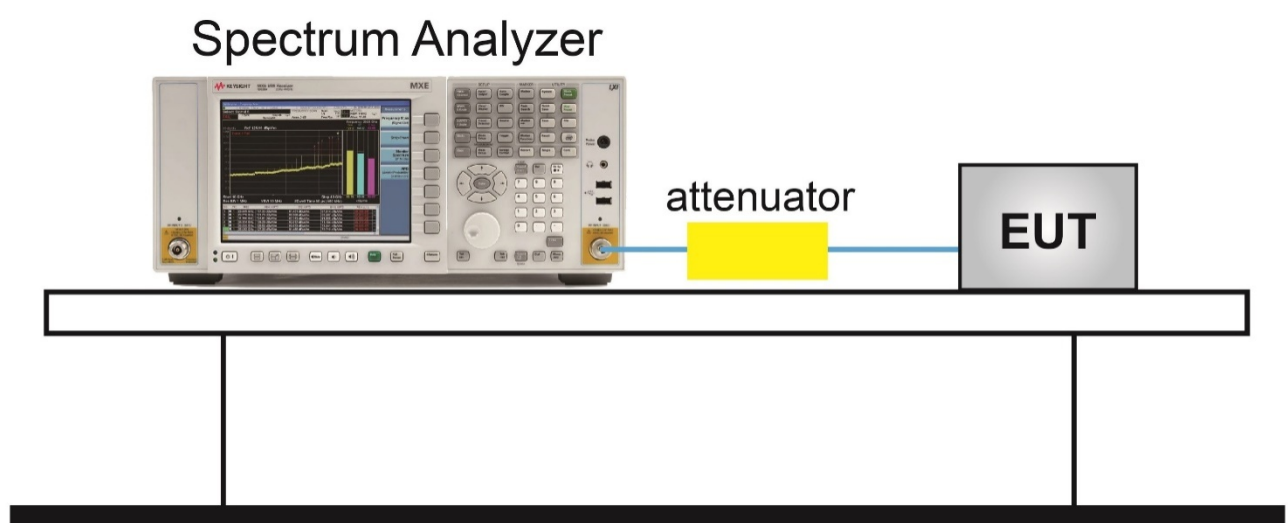
#### 6.3.2.Test Procedure used

KDB 789033 D02v02r01- Section C.2

#### 6.3.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW  $\geq 3 \times$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### 6.3.4.Test Setup



### 6.3.5.Test Result

|               |                            |           |            |
|---------------|----------------------------|-----------|------------|
| Product       | HIT Dragonfly Access Point | Test Site | SR2        |
| Test Engineer | Eric Lin                   | Test Date | 2020/11/19 |
| Test item     | 6dB bandwidth (U-NII-3)    |           |            |

| Test Mode      | Data Rate/<br>MCS | Channel<br>No. | Frequency<br>(MHz) | 6dB Bandwidth<br>(MHz) | Limit<br>(MHz) | Result |
|----------------|-------------------|----------------|--------------------|------------------------|----------------|--------|
| 802.11a        | 6Mbps             | 149            | 5745               | 15.93                  | $\geq 0.5$     | Pass   |
| 802.11a        | 6Mbps             | 157            | 5785               | 16.36                  | $\geq 0.5$     | Pass   |
| 802.11a        | 6Mbps             | 165            | 5825               | 16.38                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT20 | MCS0              | 149            | 5745               | 17.65                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT20 | MCS0              | 157            | 5785               | 17.63                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT20 | MCS0              | 165            | 5825               | 17.60                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT40 | MCS0              | 151            | 5755               | 36.44                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT40 | MCS0              | 159            | 5795               | 36.41                  | $\geq 0.5$     | Pass   |
| 802.11ac-VHT80 | MCS0              | 155            | 5775               | 72.89                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE20  | MCS0              | 149            | 5745               | 18.06                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE20  | MCS0              | 157            | 5785               | 18.19                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE20  | MCS0              | 165            | 5825               | 18.54                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE40  | MCS0              | 151            | 5755               | 37.79                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE40  | MCS0              | 159            | 5795               | 37.85                  | $\geq 0.5$     | Pass   |
| 802.11ax-HE80  | MCS0              | 155            | 5775               | 76.34                  | $\geq 0.5$     | Pass   |

Note: The Data only show the max power Antenna Port in the test report.

## 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)

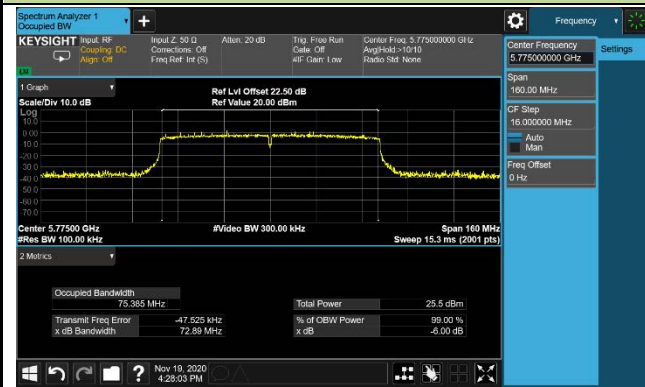


## Channel 159 (5795MHz)



## 802.11ac-VHT80 6dB Bandwidth

## Channel 155 (5775MHz)



## 802.11ax-HE20 6dB Bandwidth

## Channel 149 (5745MHz)



## Channel 157 (5785MHz)



## Channel 165 (5825MHz)

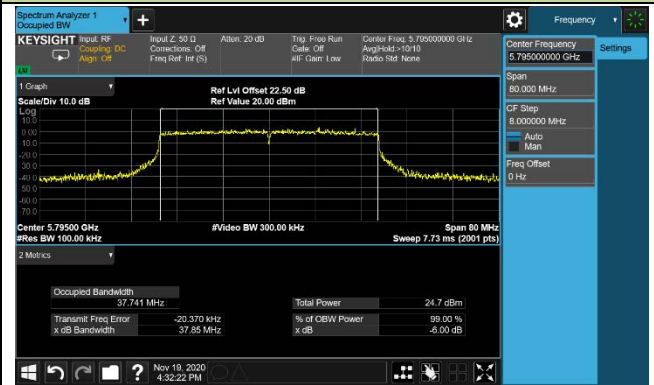


## 802.11ax-HE40 6dB Bandwidth

## Channel 151 (5755MHz)

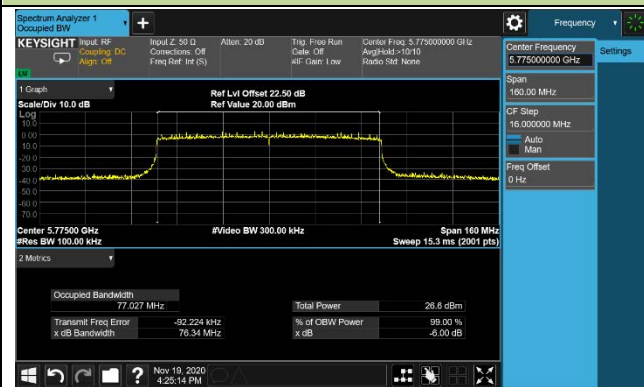


## Channel 159 (5795MHz)



## 802.11ax-HE80 6dB Bandwidth

## Channel 155 (5775MHz)



## 6.4. Output Power Measurement

### 6.4.1. Test Limit

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W 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.

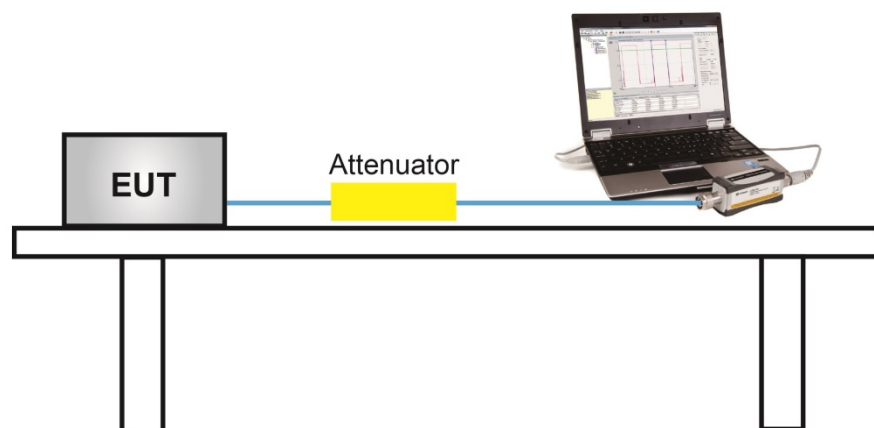
### 6.4.2. Test Procedure Used

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

### 6.4.3. 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.

### 6.4.4. Test Setup





### 6.4.5.Test Result

|               |                            |           |            |
|---------------|----------------------------|-----------|------------|
| Product       | HIT Dragonfly Access Point | Test Site | SR2        |
| Test Engineer | Eric Lin                   | Test Date | 2020/11/18 |
| Test item     | Output Power               |           |            |

| Test Mode  | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 0<br>Average<br>Power<br>(dBm) | Ant 1<br>Average<br>Power<br>(dBm) | Total Average<br>Power (dBm) | Average<br>Power Limit<br>(dBm) | Result |
|------------|-------------------|----------------|----------------|------------------------------------|------------------------------------|------------------------------|---------------------------------|--------|
| 11a        | 6Mbps             | 36             | 5180           | 19.41                              | 18.95                              | 22.20                        | ≤ 29.69                         | Pass   |
| 11a        | 6Mbps             | 44             | 5220           | 19.77                              | 19.59                              | 22.69                        | ≤ 29.69                         | Pass   |
| 11a        | 6Mbps             | 48             | 5240           | 19.98                              | 19.68                              | 22.84                        | ≤ 29.69                         | Pass   |
| 11a        | 6Mbps             | 52             | 5260           | 18.31                              | 18.05                              | 21.19                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 60             | 5300           | 18.01                              | 17.76                              | 20.90                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 64             | 5320           | 17.50                              | 17.41                              | 20.47                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 100            | 5500           | 18.07                              | 18.14                              | 21.12                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 116            | 5580           | 17.03                              | 16.94                              | 20.00                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 140            | 5700           | 17.17                              | 17.04                              | 20.12                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 144            | 5720           | 17.02                              | 17.17                              | 20.11                        | ≤ 23.67                         | Pass   |
| 11a        | 6Mbps             | 149            | 5745           | 19.02                              | 18.94                              | 21.99                        | ≤ 29.69                         | Pass   |
| 11a        | 6Mbps             | 157            | 5785           | 18.82                              | 19.05                              | 21.95                        | ≤ 29.69                         | Pass   |
| 11a        | 6Mbps             | 165            | 5825           | 19.04                              | 19.21                              | 22.14                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 36             | 5180           | 19.11                              | 18.81                              | 21.97                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 40             | 5220           | 19.52                              | 19.38                              | 22.46                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 48             | 5240           | 19.85                              | 19.43                              | 22.66                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 52             | 5260           | 18.88                              | 18.76                              | 21.83                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 60             | 5300           | 18.82                              | 18.57                              | 21.71                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 64             | 5320           | 17.98                              | 17.47                              | 20.74                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 100            | 5500           | 18.89                              | 18.84                              | 21.88                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 116            | 5580           | 18.66                              | 18.46                              | 21.57                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 140            | 5700           | 18.32                              | 18.53                              | 21.44                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 144            | 5720           | 18.46                              | 18.48                              | 21.48                        | ≤23.67                          | Pass   |
| 11ac-VHT20 | MCS0              | 149            | 5745           | 18.62                              | 18.91                              | 21.78                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 157            | 5785           | 18.67                              | 18.47                              | 21.58                        | ≤ 29.69                         | Pass   |
| 11ac-VHT20 | MCS0              | 165            | 5825           | 18.76                              | 18.64                              | 21.71                        | ≤ 29.69                         | Pass   |

| Test Mode  | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 0<br>Average<br>Power<br>(dBm) | Ant 1<br>Average<br>Power<br>(dBm) | TotalAverage<br>Power(dBm) | Average Power<br>Limit(dBm) | Result |
|------------|-------------------|----------------|----------------|------------------------------------|------------------------------------|----------------------------|-----------------------------|--------|
| 11ac-VHT40 | MCS0              | 38             | 5190           | 17.79                              | 17.63                              | 20.72                      | ≤ 29.69                     | Pass   |
| 11ac-VHT40 | MCS0              | 46             | 5230           | 19.97                              | 19.85                              | 22.92                      | ≤ 29.69                     | Pass   |
| 11ac-VHT40 | MCS0              | 54             | 5270           | 19.98                              | 19.56                              | 22.79                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 62             | 5310           | 17.15                              | 17.31                              | 20.24                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 102            | 5510           | 18.11                              | 17.85                              | 20.99                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 110            | 5550           | 19.71                              | 19.37                              | 22.55                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 134            | 5670           | 18.30                              | 18.44                              | 21.38                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 142            | 5710           | 18.95                              | 18.79                              | 21.88                      | ≤ 23.67                     | Pass   |
| 11ac-VHT40 | MCS0              | 151            | 5755           | 19.08                              | 18.89                              | 22.00                      | ≤ 29.69                     | Pass   |
| 11ac-VHT40 | MCS0              | 159            | 5795           | 19.07                              | 18.92                              | 22.01                      | ≤ 29.69                     | Pass   |
| 11ac-VHT80 | MCS0              | 42             | 5210           | 17.71                              | 17.49                              | 20.61                      | ≤ 29.69                     | Pass   |
| 11ac-VHT80 | MCS0              | 58             | 5290           | 18.10                              | 17.96                              | 21.04                      | ≤ 29.69                     | Pass   |
| 11ac-VHT80 | MCS0              | 106            | 5530           | 17.45                              | 17.68                              | 20.58                      | ≤ 29.69                     | Pass   |
| 11ac-VHT80 | MCS0              | 122            | 5610           | 17.61                              | 17.33                              | 20.48                      | ≤ 23.67                     | Pass   |
| 11ac-VHT80 | MCS0              | 138            | 5690           | 19.65                              | 19.68                              | 22.68                      | ≤ 23.67                     | Pass   |
| 11ac-VHT80 | MCS0              | 155            | 5775           | 19.42                              | 19.09                              | 22.27                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 36             | 5180           | 18.61                              | 18.58                              | 21.61                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 40             | 5220           | 19.84                              | 19.51                              | 22.69                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 48             | 5240           | 19.48                              | 19.38                              | 22.44                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 52             | 5260           | 19.02                              | 18.98                              | 22.01                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 60             | 5300           | 18.99                              | 18.93                              | 21.97                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 64             | 5320           | 18.49                              | 18.36                              | 21.44                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 100            | 5500           | 18.28                              | 18.19                              | 21.25                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 116            | 5580           | 18.71                              | 18.55                              | 21.64                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 140            | 5700           | 18.17                              | 18.35                              | 21.27                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 144            | 5720           | 18.85                              | 18.95                              | 21.91                      | ≤ 23.67                     | Pass   |
| 11ax-HE20  | MCS0              | 149            | 5745           | 18.82                              | 18.56                              | 21.70                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 157            | 5785           | 18.54                              | 18.71                              | 21.64                      | ≤ 29.69                     | Pass   |
| 11ax-HE20  | MCS0              | 165            | 5825           | 18.68                              | 18.92                              | 21.81                      | ≤ 29.69                     | Pass   |

| Test Mode | Data Rate/<br>MCS | Channel<br>No. | Freq.<br>(MHz) | Ant 0<br>Average<br>Power<br>(dBm) | Ant 1<br>Average<br>Power<br>(dBm) | TotalAverage<br>Power(dBm) | Average Power<br>Limit(dBm) | Result |
|-----------|-------------------|----------------|----------------|------------------------------------|------------------------------------|----------------------------|-----------------------------|--------|
| 11ax-HE40 | MCS0              | 38             | 5190           | 17.64                              | 17.47                              | 20.57                      | ≤ 29.69                     | Pass   |
| 11ax-HE40 | MCS0              | 46             | 5230           | 19.93                              | 19.46                              | 22.71                      | ≤ 29.69                     | Pass   |
| 11ax-HE40 | MCS0              | 54             | 5270           | 19.01                              | 18.58                              | 21.81                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 62             | 5310           | 18.75                              | 18.43                              | 21.60                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 102            | 5510           | 16.74                              | 17.10                              | 19.93                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 110            | 5550           | 19.07                              | 19.13                              | 22.11                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 134            | 5670           | 17.59                              | 17.83                              | 20.72                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 142            | 5710           | 18.99                              | 19.01                              | 22.01                      | ≤ 23.67                     | Pass   |
| 11ax-HE40 | MCS0              | 151            | 5755           | 18.97                              | 18.65                              | 21.82                      | ≤ 29.69                     | Pass   |
| 11ax-HE40 | MCS0              | 159            | 5795           | 18.81                              | 18.59                              | 21.71                      | ≤ 29.69                     | Pass   |
| 11ax-HE80 | MCS0              | 42             | 5210           | 17.82                              | 17.40                              | 20.63                      | ≤ 29.69                     | Pass   |
| 11ax-HE80 | MCS0              | 58             | 5290           | 18.21                              | 18.06                              | 21.15                      | ≤ 29.69                     | Pass   |
| 11ax-HE80 | MCS0              | 106            | 5530           | 17.15                              | 17.01                              | 20.09                      | ≤ 23.67                     | Pass   |
| 11ax-HE80 | MCS0              | 122            | 5610           | 18.23                              | 18.12                              | 21.19                      | ≤ 23.67                     | Pass   |
| 11ax-HE80 | MCS0              | 138            | 5690           | 19.04                              | 19.17                              | 22.12                      | ≤ 23.67                     | Pass   |
| 11ax-HE80 | MCS0              | 155            | 5775           | 18.47                              | 18.62                              | 21.56                      | ≤ 29.69                     | Pass   |

Note 1:

The Total Average Power (dBm) =  $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)}\}$ .

Note 2:

For 5150 - 5250MHz: Average Power Limit (dBm) = 30 dBm-(6.31-6) dBi =29.69dBm.

For 5250 - 5350MHz: Average Power Limit (dBm) = 11dBm+10log (20.17) =24.05dBm>23.98dBm, Final Limit=23.98dBm-(6.31-6) dBi=23.67dBm;

For 5470~5725MHz: Average Power Limit (dBm) = 11dBm+10log (19.95) =24.00dBm>23.98dBm; Final Limit=23.98dBm-(6.31-6) dBi=23.67dBm;

For 5725~5850MHz: Average Power Limit (dBm) = 30 dBm-(6.31-6) dBi =29.69dBm.

## **6.5. Transmit Power Control**

### **6.5.1.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.

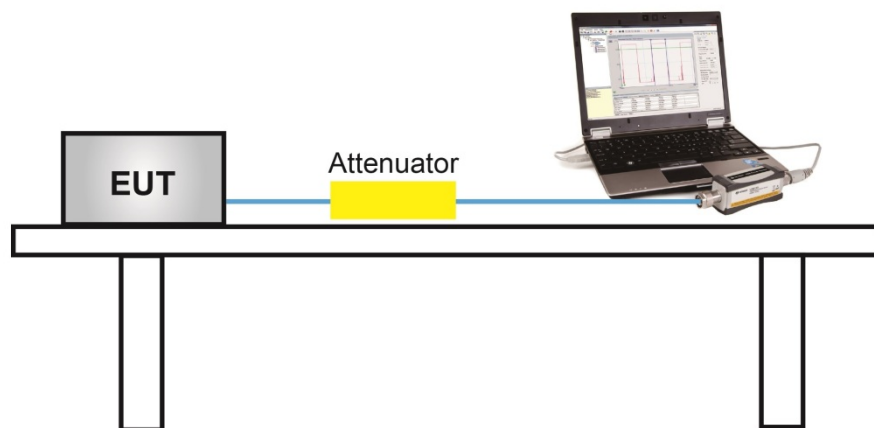
### **6.5.2.Test Procedure Used**

KDB 789033 D02v01- Section E)3) b) Method PM-G

### **6.5.3.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.

### **6.5.4.Test Setup**



### **6.5.5.Test Result**

Manufacturer declared that device support TPC mechanism in the operation description.

## **6.6. Power Spectral Density Measurement**

### **6.6.1. Test Limit**

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 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.

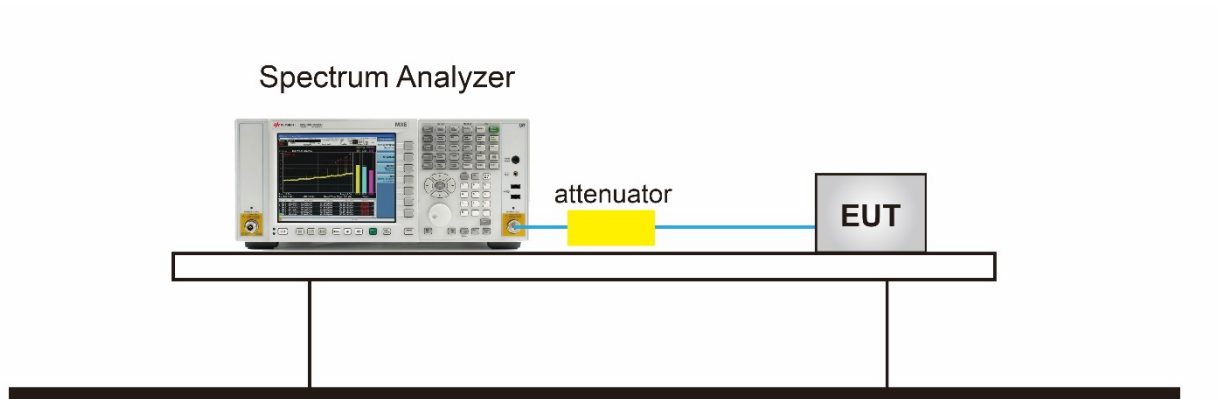
### **6.6.2. Test Procedure Used**

KDB 789033 D02v02r01-Section F

### **6.6.3. 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 = 100 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.

#### 6.6.4.Test Setup



### 6.6.5.Test Result

|               |                                           |           |            |
|---------------|-------------------------------------------|-----------|------------|
| Product       | HIT Dragonfly Access Point                | Test Site | SR2        |
| Test Engineer | Eric Lin                                  | Test Date | 2020/11/19 |
| Test Item     | Power Spectral Density (U-NII- 1& 2A &2C) |           |            |

| Test Mode  | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/MHz) | Ant 1 PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/ MHz) | PSD Limit (dBm/MHz) | Result |
|------------|----------------|---------|-------------|---------------------|---------------------|----------------|----------------------|---------------------|--------|
| 11a        | 6Mbps          | 36      | 5180        | 8.62                | 8.61                | 93.23          | 11.93                | ≤16.69              | Pass   |
| 11a        | 6Mbps          | 44      | 5220        | 9.10                | 8.97                | 93.23          | 12.35                | ≤16.69              | Pass   |
| 11a        | 6Mbps          | 48      | 5240        | 9.14                | 9.04                | 93.23          | 12.41                | ≤16.69              | Pass   |
| 11a        | 6Mbps          | 52      | 5260        | 7.12                | 7.05                | 93.23          | 10.40                | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 60      | 5300        | 6.56                | 6.59                | 93.23          | 9.89                 | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 64      | 5320        | 6.00                | 6.14                | 93.23          | 9.39                 | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 100     | 5500        | 6.07                | 6.07                | 93.23          | 9.39                 | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 116     | 5580        | 5.09                | 5.07                | 93.23          | 8.39                 | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 140     | 5700        | 5.42                | 5.56                | 93.23          | 8.81                 | ≤10.69              | Pass   |
| 11a        | 6Mbps          | 144     | 5720        | 5.56                | 5.71                | 93.23          | 8.95                 | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 36      | 5180        | 7.69                | 7.35                | 93.97          | 10.80                | ≤16.69              | Pass   |
| 11ac-VHT20 | MCS0           | 40      | 5220        | 8.15                | 8.51                | 93.97          | 11.61                | ≤16.69              | Pass   |
| 11ac-VHT20 | MCS0           | 48      | 5240        | 8.64                | 8.30                | 93.97          | 11.75                | ≤16.69              | Pass   |
| 11ac-VHT20 | MCS0           | 52      | 5260        | 7.41                | 7.21                | 93.97          | 10.59                | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 60      | 5300        | 7.32                | 7.34                | 93.97          | 10.61                | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 64      | 5320        | 6.31                | 6.44                | 93.97          | 9.66                 | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 100     | 5500        | 6.66                | 6.55                | 93.97          | 9.89                 | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 116     | 5580        | 6.69                | 6.76                | 93.97          | 10.00                | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 140     | 5700        | 6.48                | 6.76                | 93.97          | 9.90                 | ≤10.69              | Pass   |
| 11ac-VHT20 | MCS0           | 144     | 5720        | 6.58                | 6.78                | 93.97          | 9.96                 | ≤10.69              | Pass   |

| Test Mode  | Data Rate/<br>MCS | Ch. No. | Freq.<br>(MHz) | Ant 0 PSD<br>(dBm/MHz) | Ant 1 PSD<br>(dBm/MHz) | Duty Cycle<br>(%) | Total PSD<br>(dBm/ MHz) | PSD Limit<br>(dBm/MHz) | Result |
|------------|-------------------|---------|----------------|------------------------|------------------------|-------------------|-------------------------|------------------------|--------|
| 11ac-VHT40 | MCS0              | 38      | 5190           | 3.99                   | 3.72                   | 95.64             | 7.06                    | ≤16.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 46      | 5230           | 5.98                   | 6.05                   | 95.64             | 9.22                    | ≤16.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 54      | 5270           | 6.10                   | 6.11                   | 95.64             | 9.31                    | ≤10.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 62      | 5310           | 3.14                   | 3.52                   | 95.64             | 6.54                    | ≤10.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 102     | 5510           | 3.18                   | 3.49                   | 95.64             | 6.54                    | ≤10.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 110     | 5550           | 4.34                   | 4.10                   | 95.64             | 7.43                    | ≤10.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 134     | 5670           | 3.67                   | 3.65                   | 95.64             | 6.87                    | ≤10.69                 | Pass   |
| 11ac-VHT40 | MCS0              | 142     | 5710           | 4.40                   | 4.63                   | 95.64             | 7.72                    | ≤10.69                 | Pass   |
| 11ac-VHT80 | MCS0              | 42      | 5210           | 0.55                   | 0.36                   | 88.73             | 3.99                    | ≤16.69                 | Pass   |
| 11ac-VHT80 | MCS0              | 58      | 5290           | 0.61                   | 0.74                   | 88.73             | 4.21                    | ≤10.69                 | Pass   |
| 11ac-VHT80 | MCS0              | 106     | 5530           | -1.00                  | -0.88                  | 88.73             | 2.59                    | ≤10.69                 | Pass   |
| 11ac-VHT80 | MCS0              | 122     | 5610           | -0.41                  | -0.03                  | 88.73             | 3.32                    | ≤10.69                 | Pass   |
| 11ac-VHT80 | MCS0              | 138     | 5690           | 1.74                   | 1.97                   | 88.73             | 5.39                    | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 36      | 5180           | 7.29                   | 7.06                   | 94.99             | 10.41                   | ≤16.69                 | Pass   |
| 11ax-HE20  | MCS0              | 40      | 5220           | 8.19                   | 8.40                   | 94.99             | 11.53                   | ≤16.69                 | Pass   |
| 11ax-HE20  | MCS0              | 48      | 5240           | 8.21                   | 8.46                   | 94.99             | 11.57                   | ≤16.69                 | Pass   |
| 11ax-HE20  | MCS0              | 52      | 5260           | 7.38                   | 7.17                   | 94.99             | 10.51                   | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 60      | 5300           | 7.26                   | 7.14                   | 94.99             | 10.43                   | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 64      | 5320           | 6.74                   | 6.64                   | 94.99             | 9.92                    | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 100     | 5500           | 5.91                   | 6.15                   | 94.99             | 9.26                    | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 116     | 5580           | 6.39                   | 6.56                   | 94.99             | 9.71                    | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 140     | 5700           | 6.66                   | 6.70                   | 94.99             | 9.91                    | ≤10.69                 | Pass   |
| 11ax-HE20  | MCS0              | 144     | 5720           | 6.95                   | 6.80                   | 94.99             | 10.11                   | ≤10.69                 | Pass   |



| Test Mode | Data Rate/<br>MCS | Ch. No. | Freq.<br>(MHz) | Ant 0 PSD<br>(dBm/MHz) | Ant 1 PSD<br>(dBm/MHz) | Duty<br>Cycle<br>(%) | Total PSD<br>(dBm/ MHz) | PSD Limit<br>(dBm/MHz) | Result |
|-----------|-------------------|---------|----------------|------------------------|------------------------|----------------------|-------------------------|------------------------|--------|
| 11ax-HE40 | MCS0              | 38      | 5190           | 2.97                   | 2.91                   | 95.03                | 6.17                    | ≤16.69                 | Pass   |
| 11ax-HE40 | MCS0              | 46      | 5230           | 5.72                   | 5.13                   | 95.03                | 8.67                    | ≤16.69                 | Pass   |
| 11ax-HE40 | MCS0              | 54      | 5270           | 4.71                   | 4.70                   | 95.03                | 7.94                    | ≤10.69                 | Pass   |
| 11ax-HE40 | MCS0              | 62      | 5310           | 4.24                   | 4.03                   | 95.03                | 7.37                    | ≤10.69                 | Pass   |
| 11ax-HE40 | MCS0              | 102     | 5510           | 1.43                   | 1.53                   | 95.03                | 4.71                    | ≤10.69                 | Pass   |
| 11ax-HE40 | MCS0              | 110     | 5550           | 3.66                   | 3.71                   | 95.03                | 6.92                    | ≤10.69                 | Pass   |
| 11ax-HE40 | MCS0              | 134     | 5670           | 2.67                   | 2.88                   | 95.03                | 6.01                    | ≤10.69                 | Pass   |
| 11ax-HE40 | MCS0              | 142     | 5710           | 4.06                   | 4.06                   | 95.03                | 7.29                    | ≤10.69                 | Pass   |
| 11ax-HE80 | MCS0              | 42      | 5210           | 0.26                   | 0.28                   | 94.57                | 3.52                    | ≤16.69                 | Pass   |
| 11ax-HE80 | MCS0              | 58      | 5290           | 1.45                   | 1.06                   | 94.57                | 4.51                    | ≤10.69                 | Pass   |
| 11ax-HE80 | MCS0              | 106     | 5530           | -1.19                  | -0.95                  | 94.57                | 2.19                    | ≤10.69                 | Pass   |
| 11ax-HE80 | MCS0              | 122     | 5610           | 0.05                   | 0.27                   | 94.57                | 3.41                    | ≤10.69                 | Pass   |
| 11ax-HE80 | MCS0              | 138     | 5690           | 1.59                   | 1.32                   | 94.57                | 4.71                    | ≤10.69                 | Pass   |

Note 1:

When EUT duty cycle < 98%, the total PSD (dBm/MHz) =  $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$  (dBm/MHz) +  $10 \cdot \log (1/\text{Duty Cycle})$ .

Note 2:

For 5150 - 5250MHz: PSD Limit (dBm/MHz) = 17 dBm/MHz - (6.31 - 6) dBi = 16.69dBm/MHz.

For 5250 - 5350MHz: PSD Limit (dBm/MHz) = 11 dBm/MHz - (6.31 - 6) dBi= 10.69dBm/MHz.

For 5470 - 5725MHz: PSD Limit (dBm/MHz) = 11 dBm/MHz - (6.31 - 6) dBi= 10.69dBm/MHz.

|               |                                  |           |            |
|---------------|----------------------------------|-----------|------------|
| Product       | HIT Dragonfly Access Point       | Test Site | SR2        |
| Test Engineer | Eric Lin                         | Test Date | 2020/11/19 |
| Test Item     | Power Spectral Density (U-NII-3) |           |            |

| Test Mode  | Data Rate/<br>MCS | Ch. No. | Freq.<br>(MHz) | Ant 0 PSD<br>(dBm/510KHz) | Ant 1 PSD<br>(dBm/510KHz) | Duty<br>Cycle<br>(%) | Total PSD<br>(dBm/<br>510kHz) | Limit<br>(dBm/<br>500kHz) | Result |
|------------|-------------------|---------|----------------|---------------------------|---------------------------|----------------------|-------------------------------|---------------------------|--------|
| 11a        | 6Mbps             | 149     | 5745           | 4.84                      | 4.54                      | 93.23                | 8.01                          | ≤29.69                    | Pass   |
| 11a        | 6Mbps             | 157     | 5785           | 4.40                      | 4.66                      | 93.23                | 7.85                          | ≤29.69                    | Pass   |
| 11a        | 6Mbps             | 165     | 5825           | 4.89                      | 4.97                      | 93.23                | 8.24                          | ≤29.69                    | Pass   |
| 11ac-VHT20 | MCS0              | 149     | 5745           | 4.34                      | 4.03                      | 93.97                | 7.47                          | ≤29.69                    | Pass   |
| 11ac-VHT20 | MCS0              | 157     | 5785           | 3.99                      | 4.16                      | 93.97                | 7.36                          | ≤29.69                    | Pass   |
| 11ac-VHT20 | MCS0              | 165     | 5825           | 4.60                      | 4.77                      | 93.97                | 7.97                          | ≤29.69                    | Pass   |
| 11ac-VHT40 | MCS0              | 151     | 5755           | 1.39                      | 1.48                      | 95.64                | 4.64                          | ≤29.69                    | Pass   |
| 11ac-VHT40 | MCS0              | 159     | 5795           | 1.47                      | 1.48                      | 95.64                | 4.68                          | ≤29.69                    | Pass   |
| 11ac-VHT80 | MCS0              | 155     | 5775           | -1.19                     | -1.03                     | 88.73                | 2.42                          | ≤29.69                    | Pass   |
| 11ax-HE20  | MCS0              | 149     | 5745           | 3.92                      | 3.78                      | 94.99                | 7.08                          | ≤29.69                    | Pass   |
| 11ax-HE20  | MCS0              | 157     | 5785           | 3.46                      | 3.78                      | 94.99                | 6.86                          | ≤29.69                    | Pass   |
| 11ax-HE20  | MCS0              | 165     | 5825           | 4.17                      | 4.32                      | 94.99                | 7.48                          | ≤29.69                    | Pass   |
| 11ax-HE40  | MCS0              | 151     | 5755           | 1.09                      | 1.05                      | 95.03                | 4.30                          | ≤29.69                    | Pass   |
| 11ax-HE40  | MCS0              | 159     | 5795           | 1.19                      | 0.94                      | 95.03                | 4.30                          | ≤29.69                    | Pass   |
| 11ax-HE80  | MCS0              | 155     | 5775           | -1.87                     | -1.63                     | 94.57                | 1.51                          | ≤29.69                    | Pass   |

Note 1:

When EUT duty cycle < 98%, the total PSD (dBm/510kHz) =  $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$  (dBm/510kHz) +  $10 \cdot \log (1/\text{Duty Cycle})$ .

Note 2: PSD Limit (dBm/500kHz) = 30 dBm/500kHz - (6.31 - 6) dBi= 29.69dBm/500kHz.

## 802.11a Power Spectral Density - Ant 0 / Ant 0 + 1

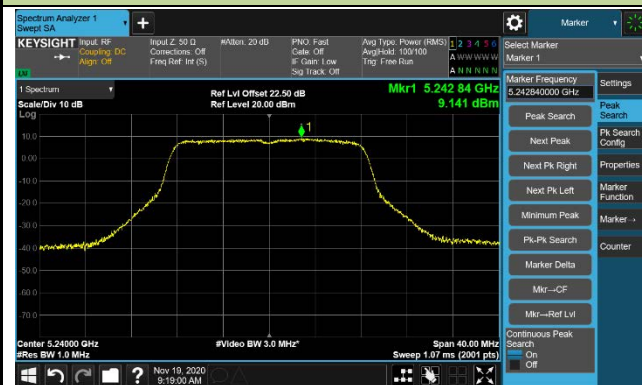
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)

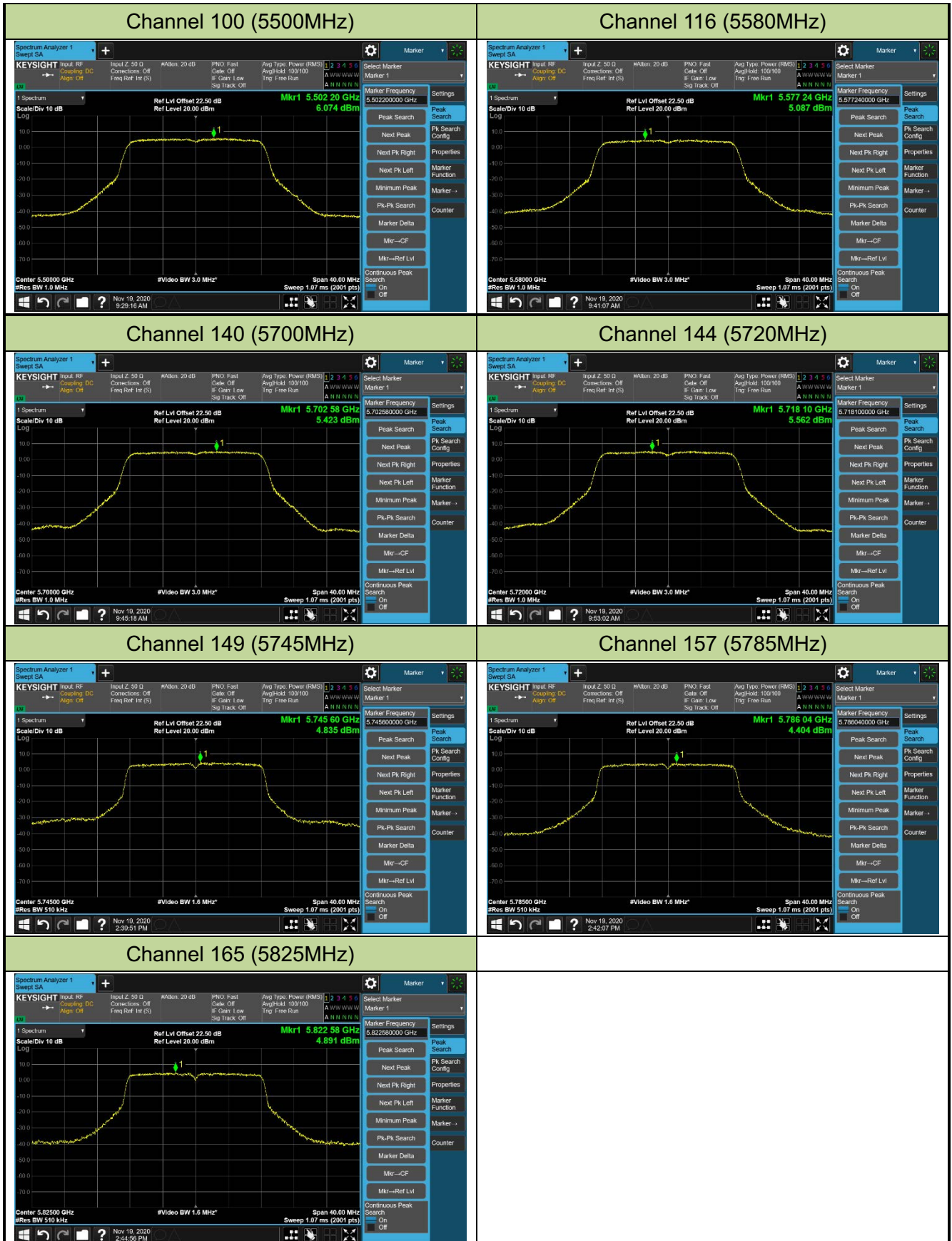


Channel 60 (5300MHz)



Channel 64 (5320MHz)





## 802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 + 1

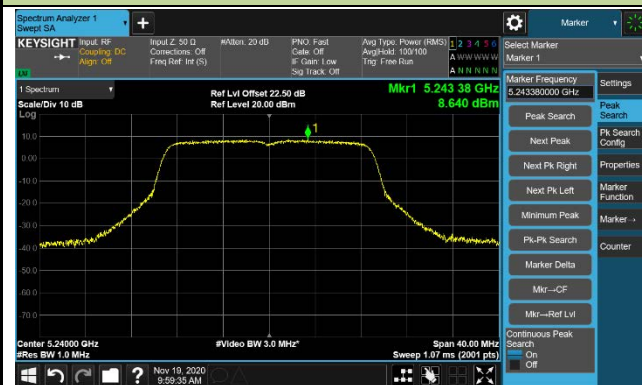
Channel 36 (5180MHz)



Channel 44 (5220MHz)



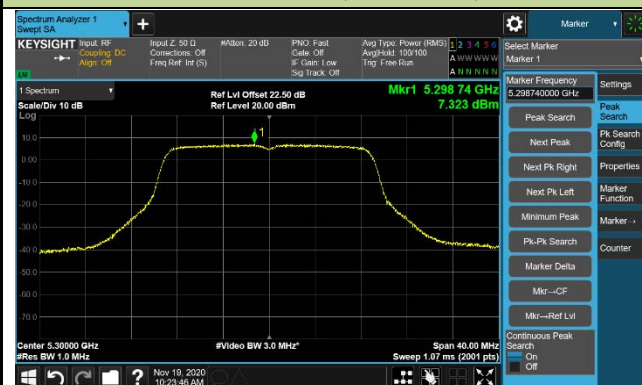
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)





Channel 100 (5500MHz)



Channel 116 (5580MHz)



Channel 140 (5700MHz)



Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



## 802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)

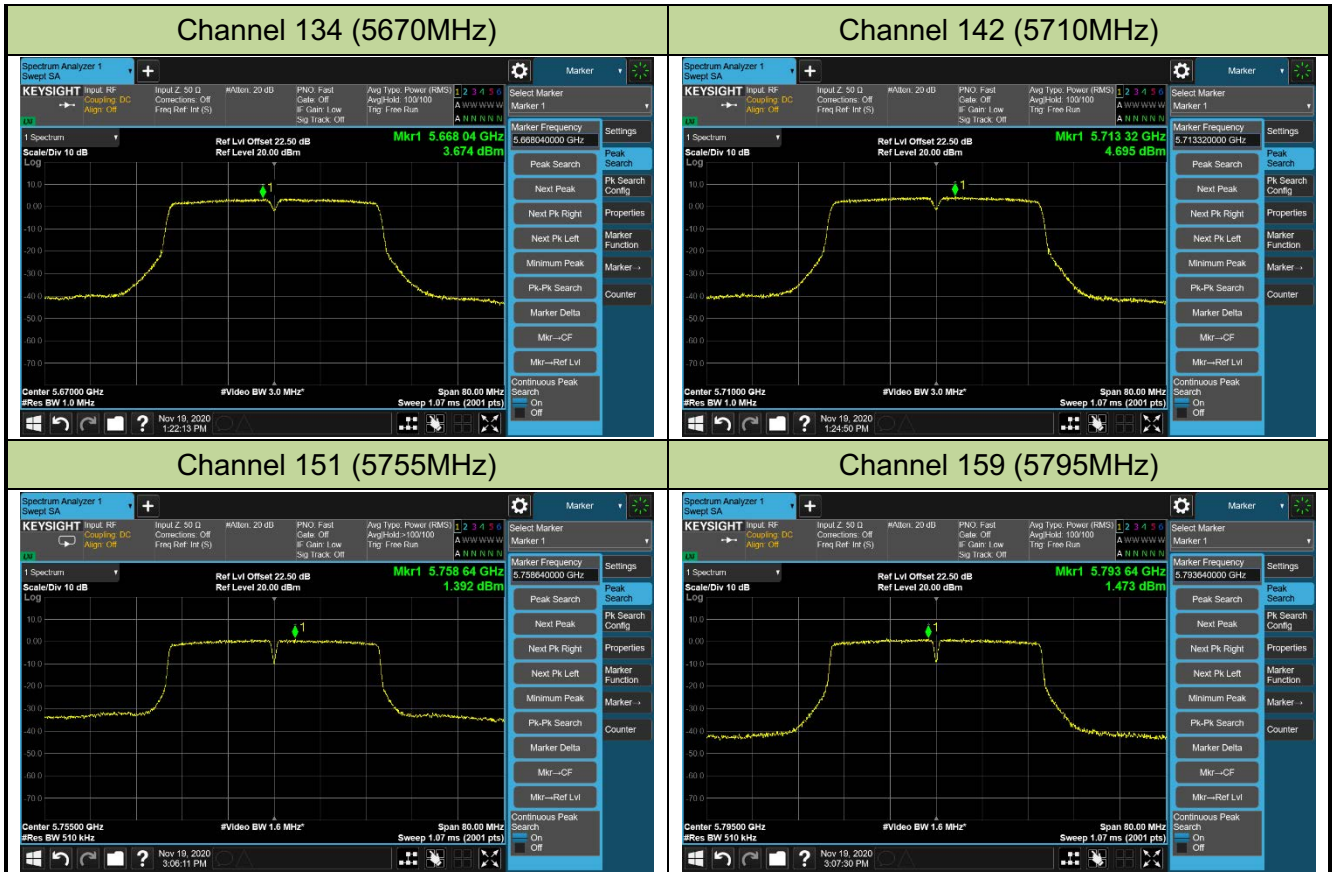


Channel 102 (5510MHz)



Channel 110 (5550MHz)







## 802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 + 1

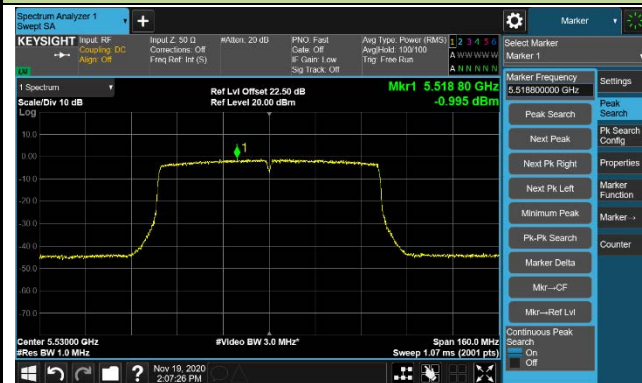
Channel 42 (5210MHz)



Channel 58 (5290MHz)



Channel 106 (5530MHz)



Channel 122 (5610MHz)



Channel 138 (5690MHz)



Channel 155 (5775MHz)



## 802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)



