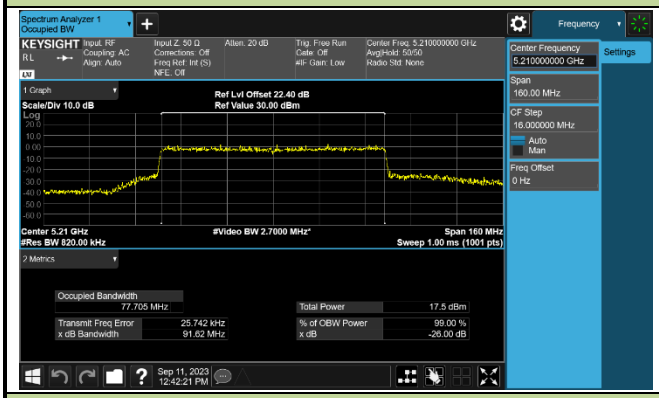
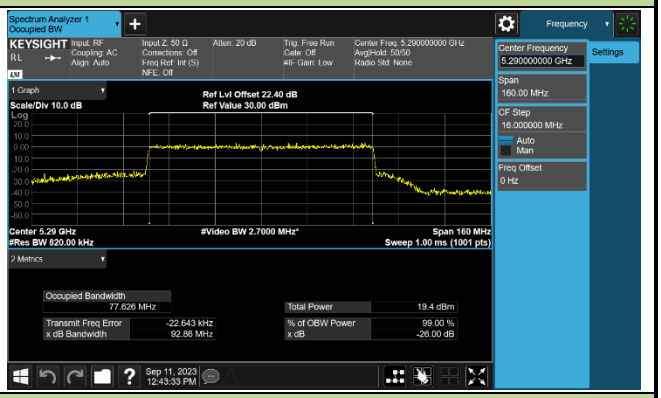
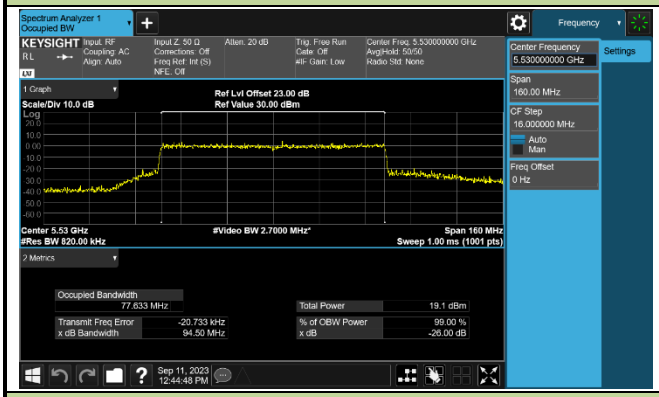
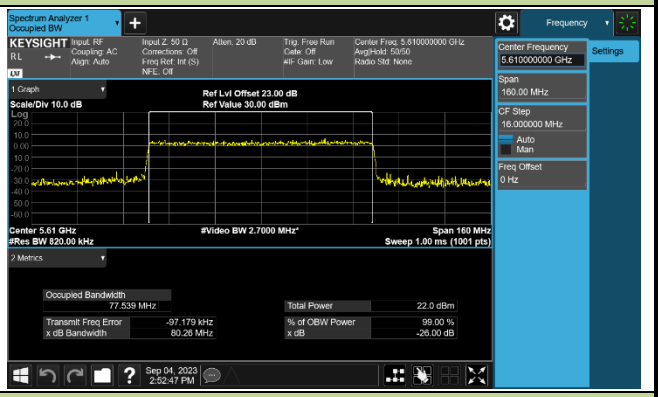
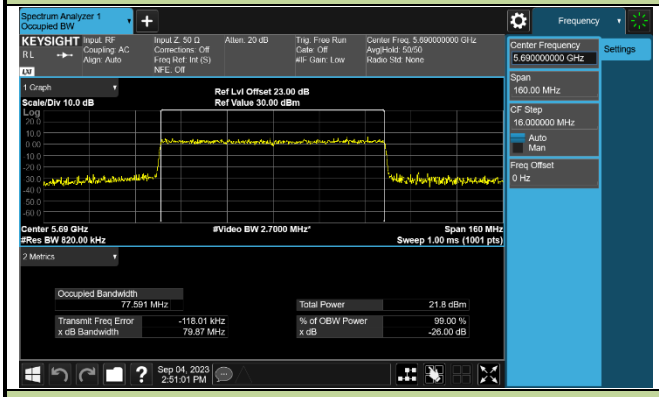
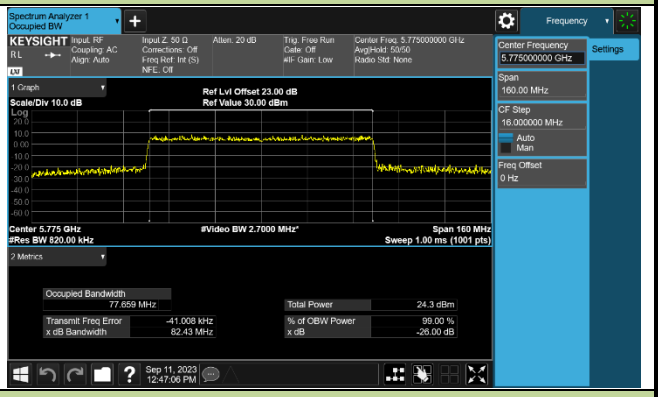
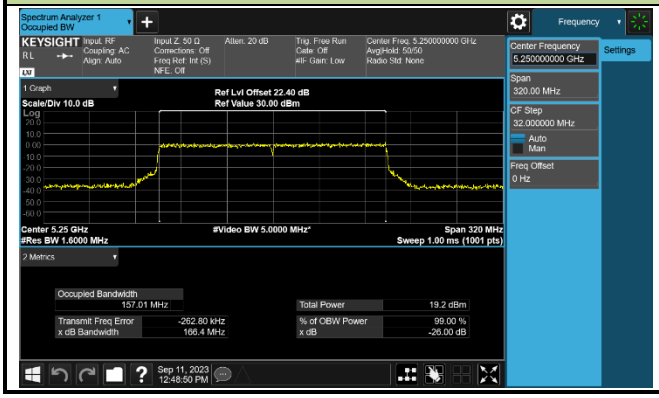
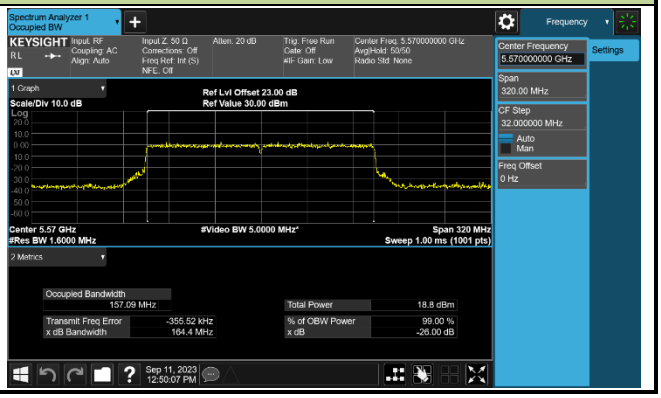
| 8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth | |
|---|---|
| Channel 42 (5210MHz) | Channel 58 (5290MHz) |
|  |  |
| Channel 106 (5530MHz) | Channel 122 (5610MHz) |
|  |  |
| Channel 138 (5690MHz) | Channel 155 (5775MHz) |
|  |  |
| 802.11ax-HE160 26dB Bandwidth & 99% Bandwidth | |
| Channel 50 (5250MHz) | Channel 114 (5570MHz) |
|  |  |

## 7.3. 6dB Bandwidth Measurement

### 7.3.1.Test Limit

The minimum 6dBbandwidth shall be at least 500 kHz.

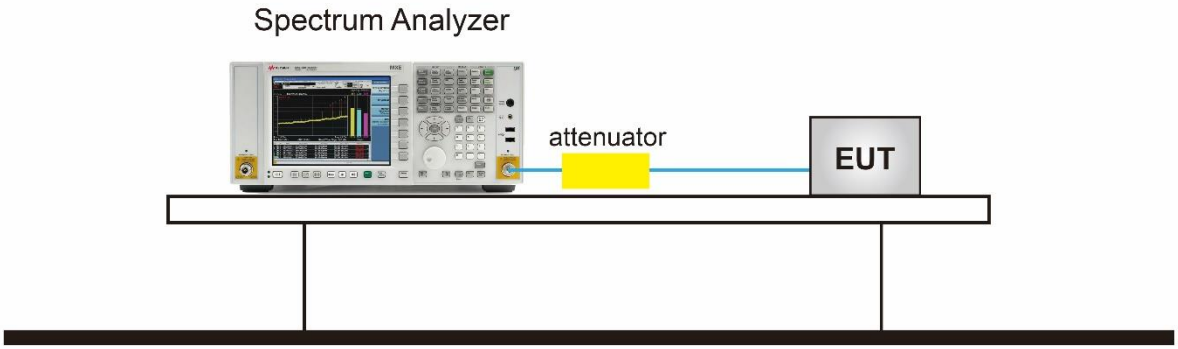
### 7.3.2.Test Procedure used

KDB 789033 D02v02r01- Section C.2

### 7.3.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW 3 × 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.

### 7.3.4.Test Setup



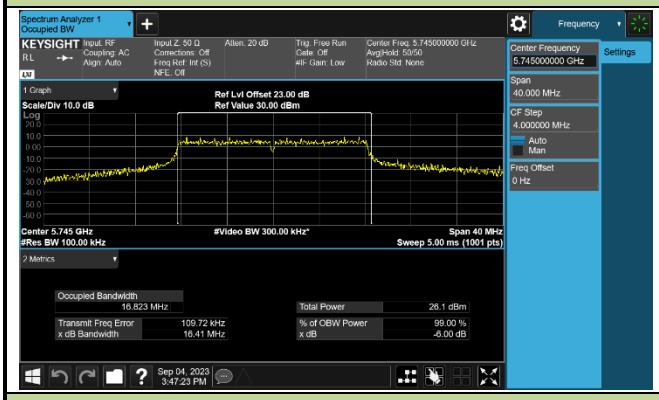
### 7.3.5.TestResult

| Product | Omada 4G+ Cat6 AX3000 Gigabit VPN Router | Test Engineer | Xuan Yu |
|---|---|---|---|
| Test Site | SR6 | Test Date | 2023/09/04~2023/09/11 |

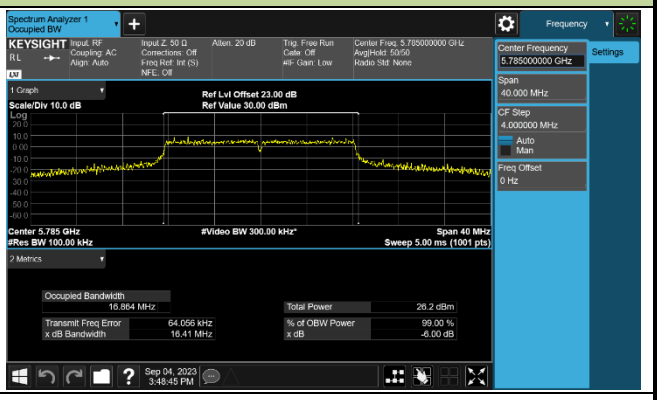
| Test Mode | Data Rate/ MCS | Channel No. | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) | Result |
|---|---|---|---|---|---|---|
| Ant 2 | | | | | | |
| 802.11a | 6Mbps | 149 | 5745 | 16.41 | ≥ 0.5 | Pass |
| 802.11a | 6Mbps | 157 | 5785 | 16.41 | ≥ 0.5 | Pass |
| 802.11a | 6Mbps | 165 | 5825 | 16.41 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | MCS0 | 149 | 5745 | 17.64 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | MCS0 | 157 | 5785 | 17.66 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | MCS0 | 165 | 5825 | 17.67 | ≥ 0.5 | Pass |
| 802.11ac-VHT40 | MCS0 | 151 | 5755 | 36.43 | ≥ 0.5 | Pass |
| 802.11ac-VHT40 | MCS0 | 159 | 5795 | 36.46 | ≥ 0.5 | Pass |
| 802.11ac-VHT80 | MCS0 | 155 | 5775 | 76.51 | ≥ 0.5 | Pass |
| 802.11ax-HE20 | MCS0 | 149 | 5745 | 18.76 | ≥ 0.5 | Pass |
| 802.11ax-HE20 | MCS0 | 157 | 5785 | 18.64 | ≥ 0.5 | Pass |
| 802.11ax-HE20 | MCS0 | 165 | 5825 | 18.86 | ≥ 0.5 | Pass |
| 802.11ax-HE40 | MCS0 | 151 | 5755 | 38.08 | ≥ 0.5 | Pass |
| 802.11ax-HE40 | MCS0 | 159 | 5795 | 38.06 | ≥ 0.5 | Pass |
| 802.11ax-HE80 | MCS0 | 155 | 5775 | 77.92 | ≥ 0.5 | Pass |

## 802.11a 6dB Bandwidth

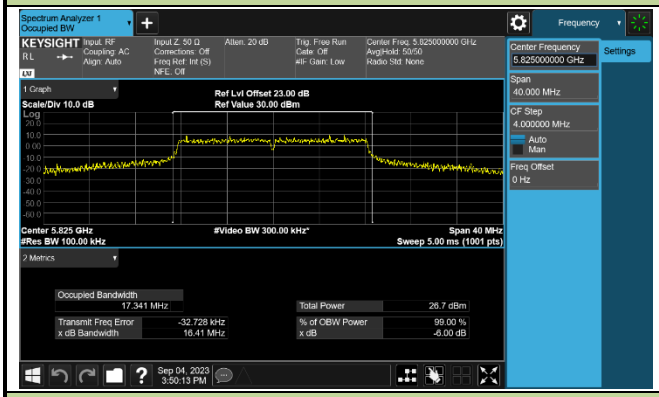
### Channel 149 (5745MHz)




### Channel 157 (5785MHz)

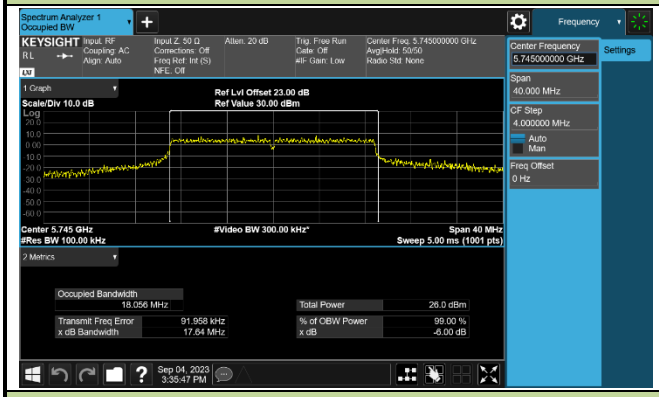



### Channel 165 (5825MHz)

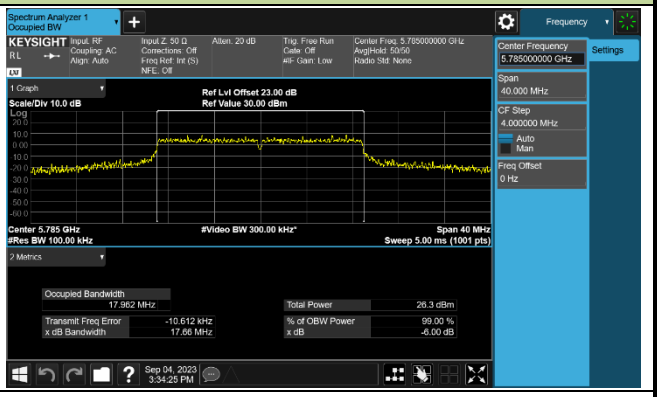



## 802.11ac-VHT20 6dB Bandwidth

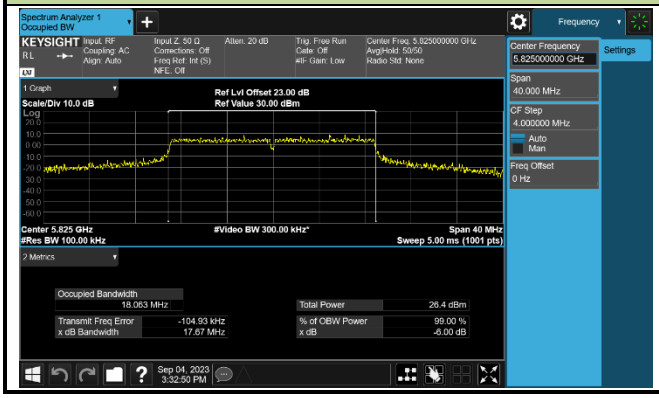
### Channel 149 (5745MHz)

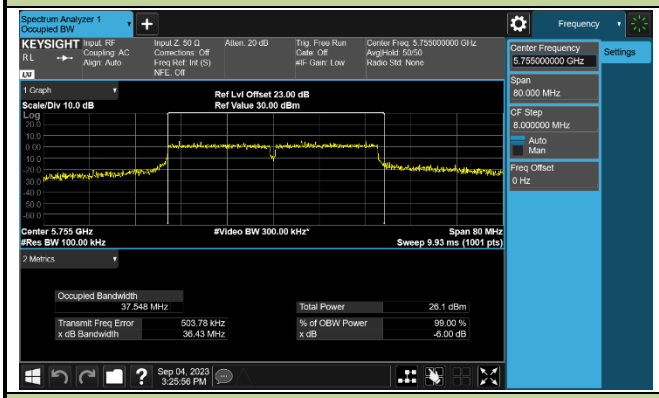
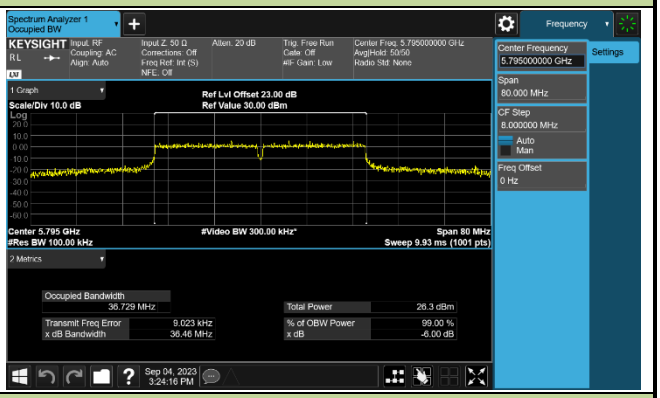
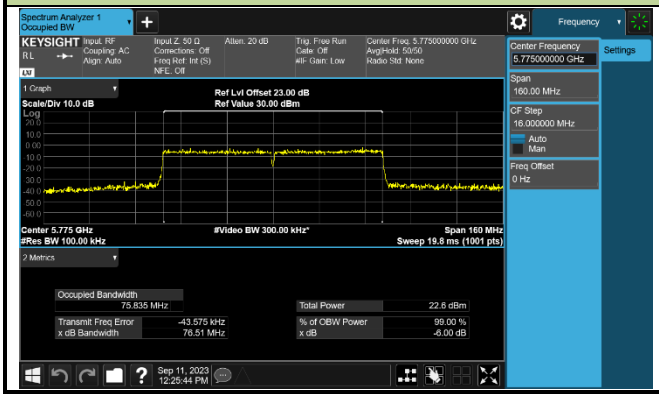


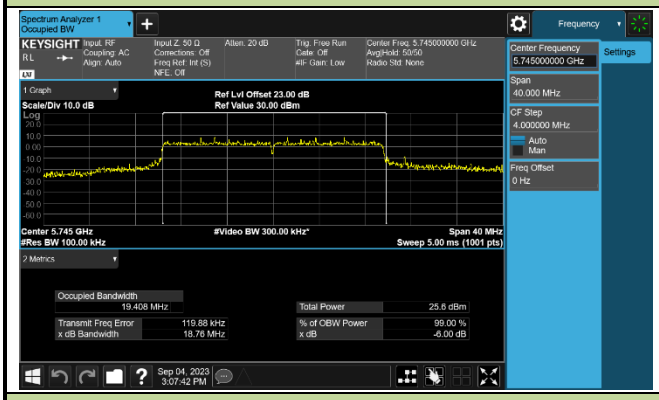
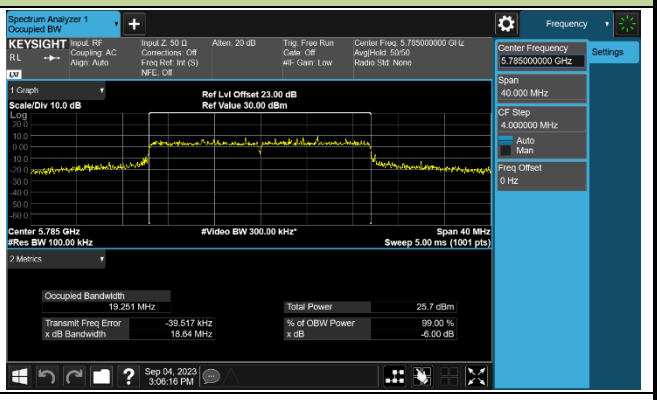
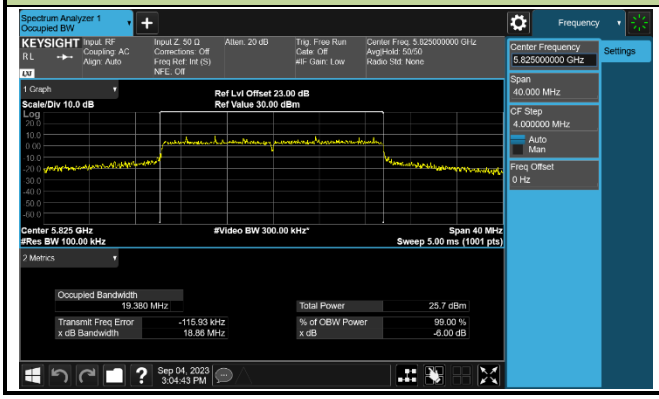

### Channel 157 (5785MHz)

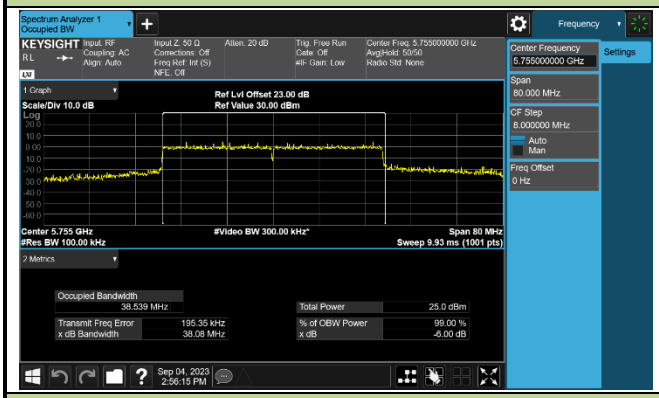
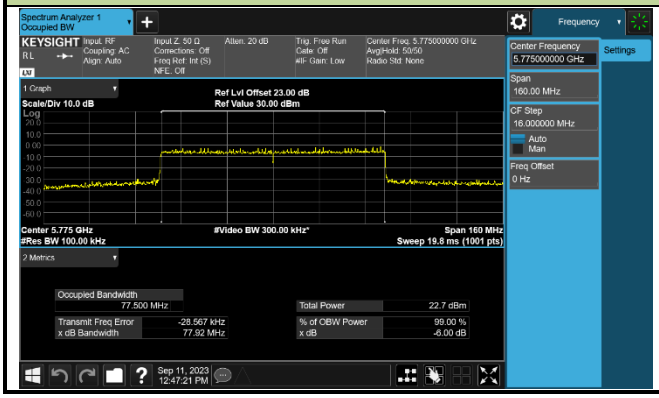



### Channel 165 (5825MHz)



| 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) | |
|  | |

## 7.4. Output Power Measurement

### 7.4.1.Test Limit

For the band 5.15-5.25 GHz, the maximum conductedoutput power over the frequency band of operation shall not exceed 1 W provided the maximumantenna 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 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 maximumconducted output power shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

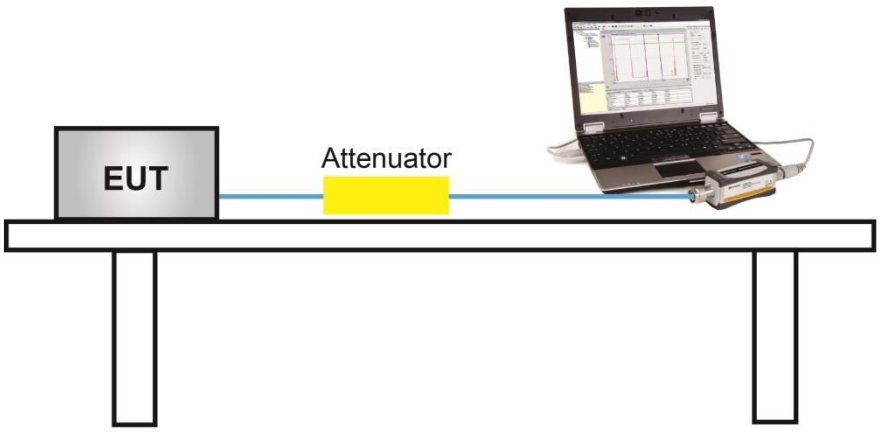
### 7.4.2.Test Procedure Used

KDB 789033D02v02r01- 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 | Omada 4G+ Cat6 AX3000 Gigabit VPN Router | Test Engineer | Xuan Yu |
|---|---|---|---|
| Test Site | SR6 | Test Date | 2023/08/24~2023/09/25 |
| Test Mode | CDD Mode | | |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11a | 6Mbps | 36 | 5180 | 22.27 | 21.80 | 22.00 | 26.80 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 44 | 5220 | 22.08 | 22.84 | 22.88 | 27.39 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 48 | 5240 | 22.22 | 22.76 | 22.94 | 27.42 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 52 | 5260 | 17.11 | 17.09 | 17.32 | 21.95 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 60 | 5300 | 16.60 | 16.81 | 17.16 | 21.63 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 64 | 5320 | 16.74 | 16.67 | 17.14 | 21.63 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 100 | 5500 | 17.07 | 16.42 | 16.72 | 21.52 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 116 | 5580 | 16.71 | 17.34 | 16.82 | 21.74 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 140 | 5700 | 17.63 | 17.09 | 17.30 | 22.12 | ≤ 23.98 | Pass |
| 11a | 6Mbps | 144 | 5720 | 17.10 | 16.96 | 16.60 | 21.66 | ≤ 22.69 | Pass |
| 11a | 6Mbps | 149 | 5745 | 22.02 | 22.31 | 22.06 | 26.90 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 157 | 5785 | 22.00 | 22.35 | 22.17 | 26.95 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 165 | 5825 | 22.30 | 22.90 | 22.41 | 27.32 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 36 | 5180 | 22.63 | 22.20 | 22.12 | 27.09 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 22.65 | 22.41 | 22.38 | 27.25 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 22.60 | 22.18 | 22.40 | 27.17 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 52 | 5260 | 17.30 | 17.56 | 17.58 | 22.25 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 60 | 5300 | 17.04 | 17.01 | 17.33 | 21.90 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 64 | 5320 | 17.01 | 16.88 | 17.30 | 21.84 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 100 | 5500 | 17.22 | 16.75 | 16.94 | 21.75 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 116 | 5580 | 16.90 | 17.63 | 17.01 | 21.96 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 140 | 5700 | 17.73 | 17.00 | 17.66 | 22.25 | ≤ 23.98 | Pass |
| 11ac-VHT20 | MCS0 | 144 | 5720 | 17.83 | 17.41 | 17.70 | 22.42 | ≤ 22.99 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 22.25 | 22.54 | 22.17 | 27.09 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 22.08 | 22.65 | 22.22 | 27.09 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 22.09 | 22.57 | 22.13 | 27.04 | ≤ 30.00 | Pass |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11ac-VHT40 | MCS0 | 38 | 5190 | 19.58 | 18.85 | 18.81 | 23.87 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 22.65 | 22.03 | 22.12 | 27.05 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 54 | 5270 | 19.11 | 18.86 | 19.33 | 23.88 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 62 | 5310 | 18.62 | 18.48 | 18.78 | 23.40 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 102 | 5510 | 19.22 | 18.76 | 18.81 | 23.71 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 110 | 5550 | 19.28 | 18.76 | 18.78 | 23.72 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 134 | 5670 | 18.91 | 18.83 | 19.03 | 23.70 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 142 | 5710 | 18.92 | 18.77 | 18.55 | 23.52 | ≤ 23.98 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 22.55 | 22.85 | 22.46 | 27.39 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 22.56 | 22.81 | 22.30 | 27.33 | ≤ 30.00 | Pass |
| 11ac-VHT80 | MCS0 | 42 | 5210 | 14.00 | 13.40 | 13.61 | 18.45 | ≤ 30.00 | Pass |
| 11ac-VHT80 | MCS0 | 58 | 5290 | 14.56 | 14.25 | 14.20 | 19.11 | ≤ 23.98 | Pass |
| 11ac-VHT80 | MCS0 | 106 | 5530 | 15.45 | 15.04 | 15.11 | 19.97 | ≤ 23.98 | Pass |
| 11ac-VHT80 | MCS0 | 122 | 5610 | 18.73 | 18.79 | 18.77 | 23.53 | ≤ 23.98 | Pass |
| 11ac-VHT80 | MCS0 | 138 | 5690 | 18.91 | 18.89 | 19.08 | 23.73 | ≤ 23.98 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | 19.43 | 19.25 | 19.13 | 24.04 | ≤ 30.00 | Pass |
| 11ac-VHT160 | MCS0 | 50 | 5250 | 14.75 | 14.26 | 14.45 | 19.26 | ≤ 23.98 | Pass |
| 11ac-VHT160 | MCS0 | 114 | 5570 | 16.59 | 16.00 | 16.16 | 21.03 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 36 | 5180 | 21.87 | 21.58 | 21.30 | 26.36 | ≤ 30.00 | Pass |
| 11ax-HE20 | MCS0 | 40 | 5220 | 22.73 | 22.32 | 22.34 | 27.24 | ≤ 30.00 | Pass |
| 11ax-HE20 | MCS0 | 48 | 5240 | 22.71 | 22.41 | 22.48 | 27.31 | ≤ 30.00 | Pass |
| 11ax-HE20 | MCS0 | 52 | 5260 | 17.51 | 17.66 | 17.84 | 22.44 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 60 | 5300 | 17.27 | 17.30 | 17.57 | 22.15 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 64 | 5320 | 17.10 | 17.08 | 17.20 | 21.90 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 100 | 5500 | 17.50 | 17.08 | 17.16 | 22.02 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 116 | 5580 | 17.49 | 17.75 | 17.66 | 22.41 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 140 | 5700 | 18.12 | 17.40 | 17.43 | 22.43 | ≤ 23.98 | Pass |
| 11ax-HE20 | MCS0 | 144 | 5720 | 17.40 | 17.32 | 17.22 | 22.09 | ≤ 23.02 | Pass |
| 11ax-HE20 | MCS0 | 149 | 5745 | 22.44 | 22.71 | 22.38 | 27.28 | ≤ 30.00 | Pass |
| 11ax-HE20 | MCS0 | 157 | 5785 | 22.36 | 22.81 | 22.36 | 27.29 | ≤ 30.00 | Pass |
| 11ax-HE20 | MCS0 | 165 | 5825 | 22.13 | 22.80 | 22.39 | 27.22 | ≤ 30.00 | Pass |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11ax-HE40 | MCS0 | 38 | 5190 | 19.30 | 18.75 | 18.55 | 23.65 | ≤ 30.00 | Pass |
| 11ax-HE40 | MCS0 | 46 | 5230 | 22.93 | 22.31 | 22.38 | 27.32 | ≤ 30.00 | Pass |
| 11ax-HE40 | MCS0 | 54 | 5270 | 19.00 | 19.07 | 19.19 | 23.86 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 62 | 5310 | 18.96 | 18.93 | 19.07 | 23.76 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 102 | 5510 | 18.90 | 18.49 | 18.58 | 23.43 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 110 | 5550 | 19.06 | 18.56 | 18.58 | 23.51 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 134 | 5670 | 18.62 | 18.67 | 18.94 | 23.52 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 142 | 5710 | 18.78 | 18.59 | 18.47 | 23.39 | ≤ 23.98 | Pass |
| 11ax-HE40 | MCS0 | 151 | 5755 | 22.36 | 22.63 | 22.22 | 27.18 | ≤ 30.00 | Pass |
| 11ax-HE40 | MCS0 | 159 | 5795 | 22.15 | 22.73 | 22.11 | 27.11 | ≤ 30.00 | Pass |
| 11ax-HE80 | MCS0 | 42 | 5210 | 13.65 | 13.22 | 13.21 | 18.14 | ≤ 30.00 | Pass |
| 11ax-HE80 | MCS0 | 58 | 5290 | 14.85 | 14.69 | 14.65 | 19.50 | ≤ 23.98 | Pass |
| 11ax-HE80 | MCS0 | 106 | 5530 | 15.45 | 15.00 | 14.93 | 19.90 | ≤ 23.98 | Pass |
| 11ax-HE80 | MCS0 | 122 | 5610 | 18.52 | 18.85 | 18.48 | 23.39 | ≤ 23.98 | Pass |
| 11ax-HE80 | MCS0 | 138 | 5690 | 18.81 | 18.45 | 18.87 | 23.49 | ≤ 23.98 | Pass |
| 11ax-HE80 | MCS0 | 155 | 5775 | 20.25 | 20.30 | 19.97 | 24.95 | ≤ 30.00 | Pass |
| 11ax-HE160 | MCS0 | 50 | 5250 | 15.84 | 15.27 | 15.36 | 20.27 | ≤ 23.98 | Pass |
| 11ax-HE160 | MCS0 | 114 | 5570 | 15.90 | 15.43 | 15.39 | 20.35 | ≤ 23.98 | Pass |

Note 1:

The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)} + 10^{(\text{Ant 2 Average Power }/10)}\}$.

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 802.11a Ch144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$=22.69 dBm.

For 802.11ac Ch144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$=22.99 dBm.

For 802.11ax Ch144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$=23.02 dBm.

| Product | Omada 4G+ Cat6 AX3000 Gigabit VPN Router | Test Engineer | Xuan Yu |
|---|---|---|---|
| Test Site | SR6 | Test Date | 2023/08/24~2023/09/25 |
| Test Mode | Beamforming Mode | | |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11ac-VHT20 | MCS0 | 36 | 5180 | 22.63 | 22.20 | 22.12 | 27.09 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 22.65 | 22.41 | 22.38 | 27.25 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 22.60 | 22.18 | 22.40 | 27.17 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 52 | 5260 | 16.80 | 17.00 | 17.04 | 21.72 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 60 | 5300 | 17.04 | 17.01 | 17.33 | 21.90 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 64 | 5320 | 17.01 | 16.88 | 17.30 | 21.84 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 100 | 5500 | 17.22 | 16.75 | 16.94 | 21.75 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 116 | 5580 | 16.90 | 17.63 | 17.01 | 21.96 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 140 | 5700 | 17.50 | 16.90 | 16.97 | 21.90 | ≤ 22.21 | Pass |
| 11ac-VHT20 | MCS0 | 144 | 5720 | 16.45 | 16.36 | 16.33 | 21.15 | ≤ 21.21 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 22.25 | 22.54 | 22.17 | 27.09 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 22.08 | 22.65 | 22.22 | 27.09 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 22.09 | 22.57 | 22.13 | 27.04 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 38 | 5190 | 19.58 | 18.85 | 18.81 | 23.87 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 22.65 | 22.03 | 22.12 | 27.05 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 54 | 5270 | 17.03 | 17.15 | 17.32 | 21.94 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 62 | 5310 | 16.94 | 17.12 | 17.24 | 21.87 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 102 | 5510 | 17.14 | 16.80 | 16.85 | 21.70 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 110 | 5550 | 17.23 | 16.98 | 16.82 | 21.78 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 134 | 5670 | 17.02 | 16.88 | 17.35 | 21.86 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 142 | 5710 | 17.16 | 17.03 | 17.04 | 21.85 | ≤ 22.21 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 22.55 | 22.85 | 22.46 | 27.39 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 22.56 | 22.81 | 22.30 | 27.33 | ≤ 28.23 | Pass |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11ac-VHT80 | MCS0 | 42 | 5210 | 14.00 | 13.40 | 13.61 | 18.45 | ≤ 28.23 | Pass |
| 11ac-VHT80 | MCS0 | 58 | 5290 | 14.56 | 14.25 | 14.20 | 19.11 | ≤ 22.21 | Pass |
| 11ac-VHT80 | MCS0 | 106 | 5530 | 15.45 | 15.04 | 15.11 | 19.97 | ≤ 22.21 | Pass |
| 11ac-VHT80 | MCS0 | 122 | 5610 | 17.40 | 17.35 | 17.43 | 22.16 | ≤ 22.21 | Pass |
| 11ac-VHT80 | MCS0 | 138 | 5690 | 17.28 | 17.04 | 17.59 | 22.08 | ≤ 22.21 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | 19.43 | 19.25 | 19.13 | 24.04 | ≤ 28.23 | Pass |
| 11ac-VHT160 | MCS0 | 50 | 5250 | 14.75 | 14.26 | 14.45 | 19.26 | ≤ 22.21 | Pass |
| 11ac-VHT160 | MCS0 | 114 | 5570 | 16.59 | 16.00 | 16.16 | 21.03 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 36 | 5180 | 21.87 | 21.58 | 21.30 | 26.36 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 40 | 5220 | 22.73 | 22.32 | 22.34 | 27.24 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 48 | 5240 | 22.71 | 22.41 | 22.48 | 27.31 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 52 | 5260 | 16.85 | 17.11 | 17.25 | 21.84 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 60 | 5300 | 17.27 | 17.30 | 17.57 | 22.15 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 64 | 5320 | 17.10 | 17.08 | 17.20 | 21.90 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 100 | 5500 | 17.50 | 17.08 | 17.16 | 22.02 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 116 | 5580 | 17.00 | 17.34 | 17.21 | 21.96 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 140 | 5700 | 17.18 | 16.89 | 16.99 | 21.79 | ≤ 22.21 | Pass |
| 11ax-HE20 | MCS0 | 144 | 5720 | 16.01 | 16.03 | 16.45 | 20.94 | ≤ 21.25 | Pass |
| 11ax-HE20 | MCS0 | 149 | 5745 | 22.44 | 22.71 | 22.38 | 27.28 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 157 | 5785 | 22.36 | 22.81 | 22.36 | 27.29 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 165 | 5825 | 22.13 | 22.80 | 22.39 | 27.22 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 38 | 5190 | 19.30 | 18.75 | 18.55 | 23.65 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 46 | 5230 | 22.93 | 22.31 | 22.38 | 27.32 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 54 | 5270 | 16.98 | 17.01 | 17.18 | 21.83 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 62 | 5310 | 17.22 | 17.01 | 17.58 | 22.05 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 102 | 5510 | 17.41 | 17.13 | 17.05 | 21.97 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 110 | 5550 | 17.12 | 17.10 | 16.83 | 21.79 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 134 | 5670 | 16.98 | 16.83 | 17.25 | 21.79 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 142 | 5710 | 17.14 | 16.98 | 16.97 | 21.80 | ≤ 22.21 | Pass |
| 11ax-HE40 | MCS0 | 151 | 5755 | 22.36 | 22.63 | 22.22 | 27.18 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 159 | 5795 | 22.15 | 22.73 | 22.11 | 27.11 | ≤ 28.23 | Pass |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Ant 2 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11ax-HE80 | MCS0 | 42 | 5210 | 13.65 | 13.22 | 13.21 | 18.14 | ≤ 28.23 | Pass |
| 11ax-HE80 | MCS0 | 58 | 5290 | 14.85 | 14.69 | 14.65 | 19.50 | ≤ 22.21 | Pass |
| 11ax-HE80 | MCS0 | 106 | 5530 | 15.45 | 15.00 | 14.93 | 19.90 | ≤ 22.21 | Pass |
| 11ax-HE80 | MCS0 | 122 | 5610 | 16.80 | 17.11 | 17.12 | 21.78 | ≤ 22.21 | Pass |
| 11ax-HE80 | MCS0 | 138 | 5690 | 16.78 | 16.88 | 17.63 | 21.88 | ≤ 22.21 | Pass |
| 11ax-HE80 | MCS0 | 155 | 5775 | 20.25 | 20.30 | 19.97 | 24.95 | ≤ 28.23 | Pass |
| 11ax-HE160 | MCS0 | 50 | 5250 | 15.84 | 15.27 | 15.36 | 20.27 | ≤ 22.21 | Pass |
| 11ax-HE160 | MCS0 | 114 | 5570 | 15.90 | 15.43 | 15.39 | 20.35 | ≤ 22.21 | Pass |

Note 1:

The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)} + 10^{(\text{Ant 2 Average Power }/10)}\}$.

Note 2:

For 5125 - 5250MHz Band: Average Power Limit (dBm) = 30 - (7.77- 6) = 28.23dBm

For 5250 - 5350MHz and 5470 - 5725MHz Band: Average Power Limit (dBm) = 23.98 - (7.77- 6) = 22.11dBm.

For 5725 - 5850MHz Band: Average Power Limit (dBm) = 30- (7.77- 6) = 28.23dBm.

For 802.11ac ch144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$ - (7.77- 6)=21.21 dBm.

For 802.11ax ch144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$ - (7.77- 6)=21.25 dBm.

## 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.

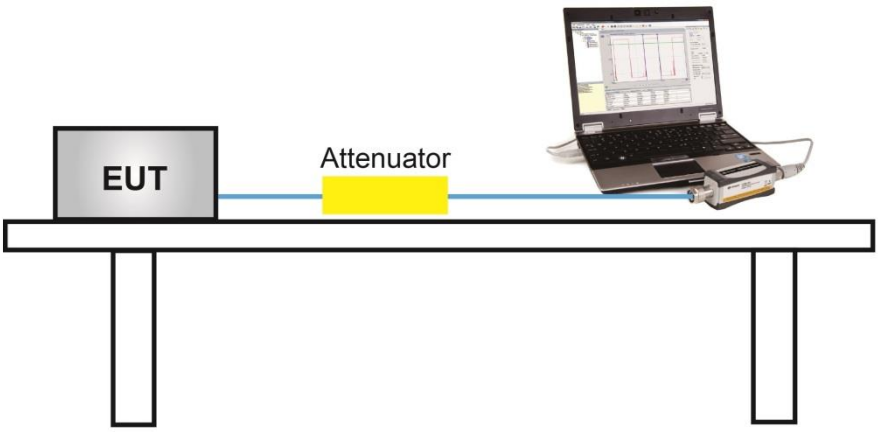
### 7.5.2.Test Procedure Used

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

Device supports TPC mechanism, details refer to the operational description.

## 7.6. Power Spectral Density Measurement

### 7.6.1.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 theantenna exceeds 6dBi.

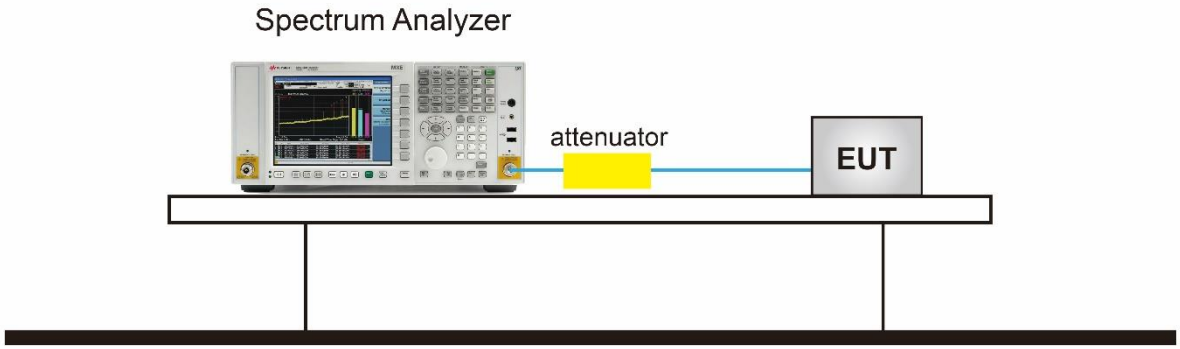
### 7.6.2.Test Procedure Used

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 ≥ 2 × (span / 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*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*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

### 7.6.4.Test Setup



### 7.6.5.Test Result

| Product | Omada 4G+ Cat6 AX3000 Gigabit VPN Router | Test Engineer | Xuan Yu |
|---|---|---|---|
| Test Site | SR6 | Test Date | 2023/08/24 ~ 2023/09/25 |
| Mode | Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode | | |

| Test Mode | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/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 | 9.990 | 9.976 | 9.977 | 96.34% | 14.914 | ≤ 15.23 | Pass |
| 11a | 6Mbps | 44 | 5220 | 9.256 | 10.016 | 10.102 | 96.34% | 14.741 | ≤ 15.23 | Pass |
| 11a | 6Mbps | 48 | 5240 | 9.461 | 10.253 | 10.178 | 96.34% | 14.912 | ≤ 15.23 | Pass |
| 11a | 6Mbps | 52 | 5260 | 3.877 | 4.030 | 4.308 | 96.34% | 9.008 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 60 | 5300 | 3.627 | 3.802 | 4.256 | 96.34% | 8.836 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 64 | 5320 | 3.960 | 3.829 | 4.367 | 96.34% | 8.991 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 100 | 5500 | 4.106 | 3.766 | 4.130 | 96.34% | 8.937 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 116 | 5580 | 3.666 | 4.011 | 4.167 | 96.34% | 8.886 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 140 | 5700 | 4.147 | 3.800 | 4.130 | 96.34% | 8.962 | ≤ 9.23 | Pass |
| 11a | 6Mbps | 144 | 5720 | 3.924 | 3.639 | 4.005 | 96.34% | 8.792 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 36 | 5180 | 10.018 | 9.549 | 9.573 | 95.62% | 14.684 | ≤ 15.23 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 9.384 | 9.601 | 10.070 | 95.62% | 14.660 | ≤ 15.23 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 9.194 | 9.826 | 9.885 | 95.62% | 14.612 | ≤ 15.23 | Pass |
| 11ac-VHT20 | MCS0 | 52 | 5260 | 3.776 | 3.913 | 4.456 | 95.62% | 9.024 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 60 | 5300 | 3.897 | 4.049 | 4.097 | 95.62% | 8.981 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 64 | 5320 | 3.871 | 3.835 | 4.122 | 95.62% | 8.910 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 100 | 5500 | 4.276 | 3.575 | 3.642 | 95.62% | 8.808 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 116 | 5580 | 3.779 | 4.022 | 3.786 | 95.62% | 8.830 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 140 | 5700 | 4.199 | 4.028 | 3.889 | 95.62% | 9.006 | ≤ 9.23 | Pass |
| 11ac-VHT20 | MCS0 | 144 | 5720 | 4.466 | 3.960 | 4.025 | 95.62% | 9.122 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 38 | 5190 | 3.874 | 3.621 | 3.558 | 97.22% | 8.580 | ≤ 15.23 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 6.531 | 6.639 | 6.763 | 97.22% | 11.539 | ≤ 15.23 | Pass |
| 11ac-VHT40 | MCS0 | 54 | 5270 | 3.824 | 4.167 | 4.334 | 97.22% | 9.007 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 62 | 5310 | 3.411 | 3.611 | 4.034 | 97.22% | 8.587 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 102 | 5510 | 3.623 | 3.455 | 3.416 | 97.22% | 8.393 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 110 | 5550 | 2.849 | 3.335 | 3.512 | 97.22% | 8.135 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 134 | 5670 | 3.605 | 3.417 | 3.641 | 97.22% | 8.449 | ≤ 9.23 | Pass |
| 11ac-VHT40 | MCS0 | 142 | 5710 | 2.811 | 3.601 | 3.414 | 97.22% | 8.182 | ≤ 9.23 | Pass |

| Test Mode | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/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 | -4.584 | -4.823 | -4.861 | 95.26% | 0.228 | ≤ 15.23 | Pass |
| 11ac-VHT80 | MCS0 | 58 | 5290 | -3.777 | -3.480 | -3.542 | 95.26% | 1.384 | ≤ 9.23 | Pass |
| 11ac-VHT80 | MCS0 | 106 | 5530 | -2.857 | -3.158 | -3.245 | 95.26% | 1.899 | ≤ 9.23 | Pass |
| 11ac-VHT80 | MCS0 | 122 | 5610 | -0.181 | 0.399 | 0.551 | 95.26% | 5.250 | ≤ 9.23 | Pass |
| 11ac-VHT80 | MCS0 | 138 | 5690 | -0.209 | 0.206 | 0.729 | 95.26% | 5.241 | ≤ 9.23 | Pass |
| 11ac-VHT160 | MCS0 | 50 | 5250 | -6.686 | -7.380 | -7.021 | 96.06% | -2.074 | ≤ 9.23 | Pass |
| 11ac-VHT160 | MCS0 | 114 | 5570 | -4.880 | -5.314 | -5.291 | 96.06% | -0.211 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 36 | 5180 | 9.302 | 8.985 | 9.137 | 95.29% | 14.124 | ≤ 15.23 | Pass |
| 11ax-HE20 | MCS0 | 44 | 5220 | 9.226 | 9.643 | 9.617 | 95.29% | 14.480 | ≤ 15.23 | Pass |
| 11ax-HE20 | MCS0 | 48 | 5240 | 9.363 | 10.072 | 9.810 | 95.29% | 14.739 | ≤ 15.23 | Pass |
| 11ax-HE20 | MCS0 | 52 | 5260 | 3.811 | 3.787 | 4.186 | 95.29% | 8.913 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 60 | 5300 | 3.989 | 3.690 | 4.090 | 95.29% | 8.907 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 64 | 5320 | 4.145 | 3.770 | 4.127 | 95.29% | 8.998 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 100 | 5500 | 3.853 | 3.542 | 3.807 | 95.29% | 8.717 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 116 | 5580 | 4.119 | 4.036 | 4.270 | 95.29% | 9.123 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 140 | 5700 | 3.871 | 3.554 | 4.064 | 95.29% | 8.815 | ≤ 9.23 | Pass |
| 11ax-HE20 | MCS0 | 144 | 5720 | 4.189 | 3.844 | 3.807 | 95.29% | 8.931 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 38 | 5190 | 3.557 | 3.005 | 3.343 | 96.31% | 8.242 | ≤ 15.23 | Pass |
| 11ax-HE40 | MCS0 | 46 | 5230 | 6.685 | 6.727 | 6.549 | 96.31% | 11.589 | ≤ 15.23 | Pass |
| 11ax-HE40 | MCS0 | 54 | 5270 | 3.293 | 3.854 | 3.736 | 96.31% | 8.569 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 62 | 5310 | 3.723 | 3.664 | 4.143 | 96.31% | 8.783 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 102 | 5510 | 3.280 | 2.695 | 2.985 | 96.31% | 7.928 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 110 | 5550 | 2.917 | 3.287 | 2.863 | 96.31% | 7.961 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 134 | 5670 | 3.028 | 2.743 | 3.408 | 96.31% | 8.003 | ≤ 9.23 | Pass |
| 11ax-HE40 | MCS0 | 142 | 5710 | 2.254 | 3.477 | 2.458 | 96.31% | 7.698 | ≤ 9.23 | Pass |
| 11ax-HE80 | MCS0 | 42 | 5210 | -4.549 | -5.251 | -4.676 | 95.55% | 0.154 | ≤ 15.23 | Pass |
| 11ax-HE80 | MCS0 | 58 | 5290 | -3.564 | -3.526 | -3.188 | 95.55% | 1.546 | ≤ 9.23 | Pass |
| 11ax-HE80 | MCS0 | 106 | 5530 | -3.021 | -3.600 | -3.235 | 95.55% | 1.690 | ≤ 9.23 | Pass |
| 11ax-HE80 | MCS0 | 122 | 5610 | -0.004 | 0.392 | -0.105 | 95.55% | 5.069 | ≤ 9.23 | Pass |
| 11ax-HE80 | MCS0 | 122 | 5690 | -0.533 | -0.097 | -0.461 | 95.55% | 4.609 | ≤ 9.23 | Pass |
| 11ax-HE160 | MCS0 | 50 | 5250 | -5.740 | -6.201 | -5.356 | 95.62% | -0.786 | ≤ 9.23 | Pass |
| 11ax-HE160 | MCS0 | 114 | 5570 | -5.771 | -6.363 | -6.545 | 95.62% | -1.248 | ≤ 9.23 | Pass |

Note 1:When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = $10*\log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$ (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} + 10*\log$ (1/Duty Cycle)(dBm/MHz).

Note 2:

For 5150 - 5250MHz Band: PSD Limit (dBm/MHz) = 17 - (7.77 - 6) = 15.23dBm/MHz.

For 5250 - 5350MHz and 5470 - 5725MHz Band:PSD Limit (dBm/MHz) = 11 - (7.77 - 6) = 9.23dBm/MHz.

| Product | Omada 4G+ Cat6 AX3000 Gigabit VPN Router | Test Engineer | Xuan Yu |
|---|---|---|---|
| Test Site | SR6 | Test Date | 2023/08/24 ~ 2023/09/25 |
| Test Item | Power Spectral Density (U-NII-3) CDD Mode | | |

| Test Mode | Data Rate/ MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/510 KHz) | Ant 1 PSD (dBm/510 KHz) | Ant 2 PSD (dBm/510 KHz) | Duty Cycle (%) | Total PSD (dBm/ 510kHz) | Limit (dBm/ 500kHz) | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| 11a | 6Mbps | 149 | 5745 | 6.206 | 7.140 | 7.388 | 96.34% | 11.874 | ≤ 28.23 | Pass |
| 11a | 6Mbps | 157 | 5785 | 6.551 | 7.592 | 7.337 | 96.34% | 12.115 | ≤ 28.23 | Pass |
| 11a | 6Mbps | 165 | 5825 | 7.233 | 8.077 | 8.037 | 96.34% | 12.733 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 6.594 | 7.066 | 6.825 | 95.62% | 11.798 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 6.292 | 7.244 | 7.073 | 95.62% | 11.855 | ≤ 28.23 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 6.568 | 7.443 | 7.059 | 95.62% | 12.004 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 3.854 | 4.724 | 4.210 | 97.22% | 9.171 | ≤ 28.23 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 3.926 | 4.914 | 4.266 | 97.22% | 9.282 | ≤ 28.23 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | -1.881 | -1.292 | -1.655 | 95.26% | 3.380 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 149 | 5745 | 5.598 | 7.389 | 6.423 | 95.29% | 11.513 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 157 | 5785 | 5.837 | 7.383 | 6.374 | 95.29% | 11.560 | ≤ 28.23 | Pass |
| 11ax-HE20 | MCS0 | 165 | 5825 | 6.036 | 7.666 | 6.783 | 95.29% | 11.860 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 151 | 5755 | 2.951 | 4.272 | 3.076 | 96.31% | 8.409 | ≤ 28.23 | Pass |
| 11ax-HE40 | MCS0 | 159 | 5795 | 3.150 | 4.643 | 3.503 | 96.31% | 8.748 | ≤ 28.23 | Pass |
| 11ax-HE80 | MCS0 | 155 | 5775 | -1.087 | -0.742 | -0.454 | 95.55% | 4.216 | ≤ 28.23 | Pass |

Note 1: When EUT duty cycle ≥ 98%,

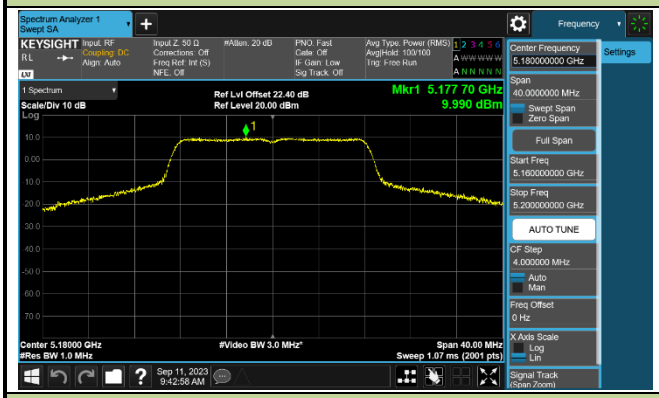
the total PSD (dBm/510kHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$ (dBm/510kHz).

When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$ (dBm/510kHz) + 10*log (1/Duty Cycle).

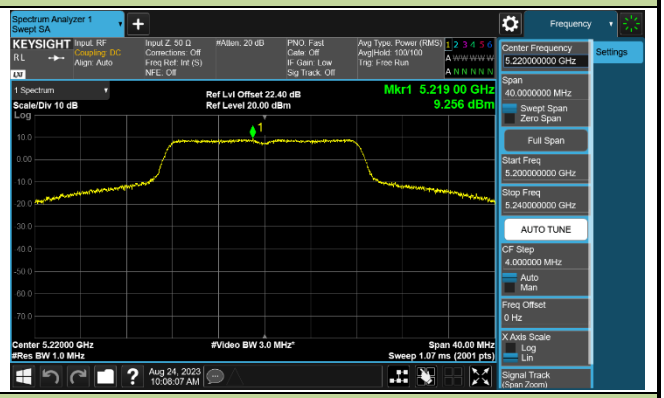
Note 2: PSD Limit (dBm/500kHz) = 30 - (7.77 - 6) = 28.23 (dBm/500kHz).

## 802.11a Power Spectral Density - Ant 0

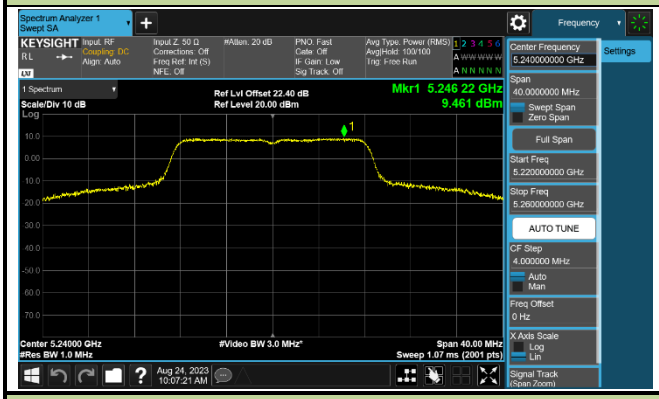
### Channel 36 (5180MHz)



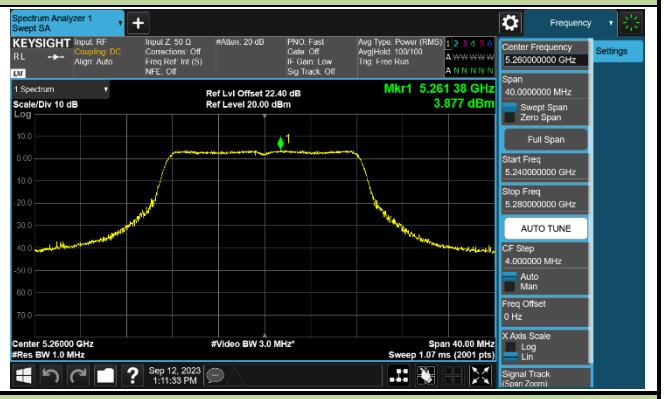

### Channel 44 (5220MHz)



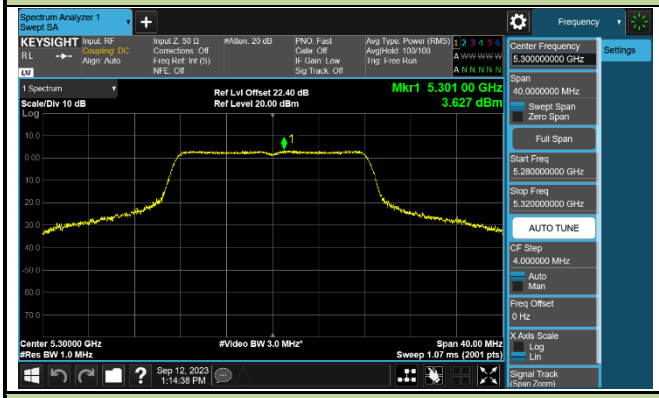

### Channel 48 (5240MHz)



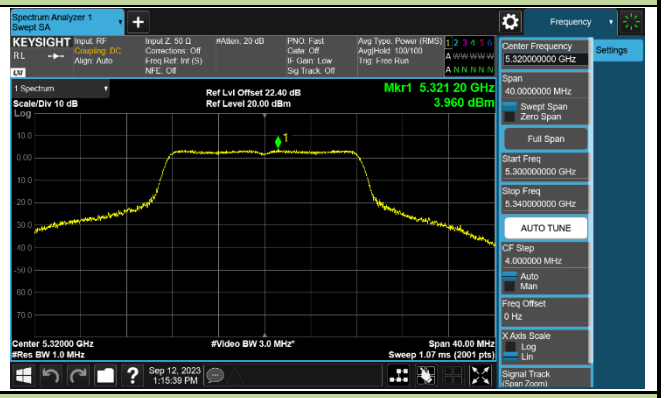

### Channel 52 (5260MHz)



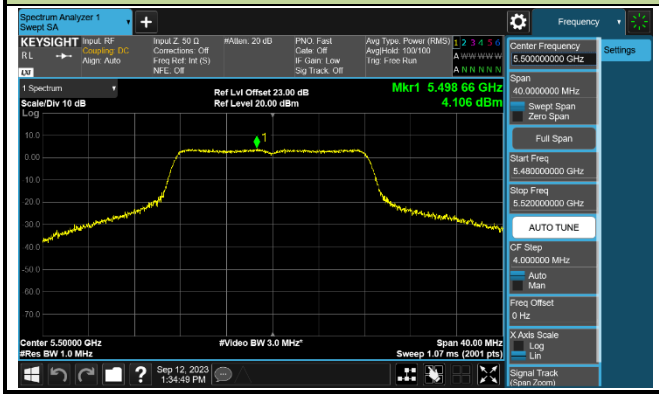

### Channel 60 (5300MHz)



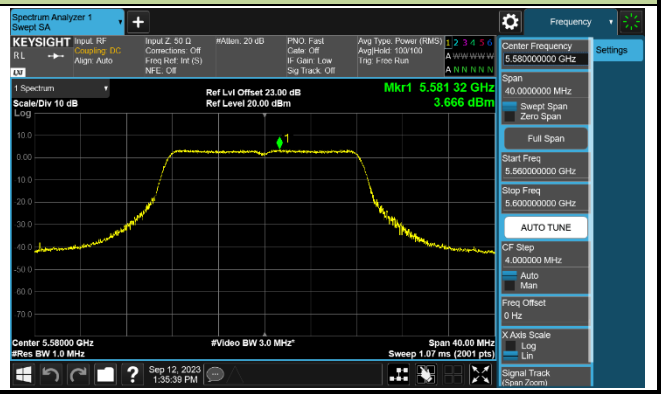

### Channel 64 (5320MHz)

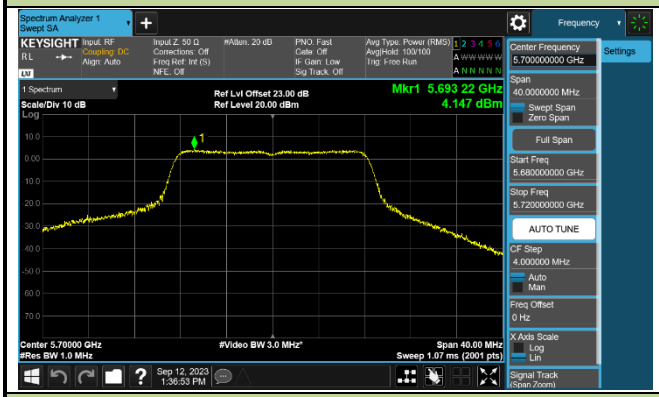
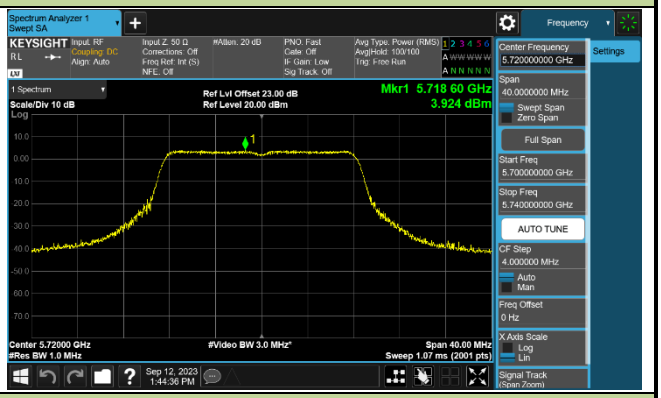
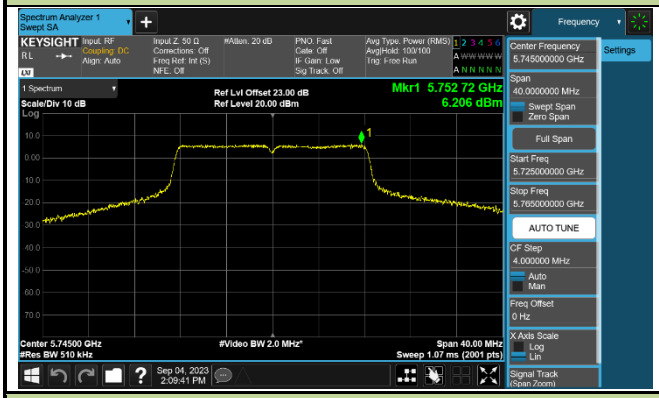
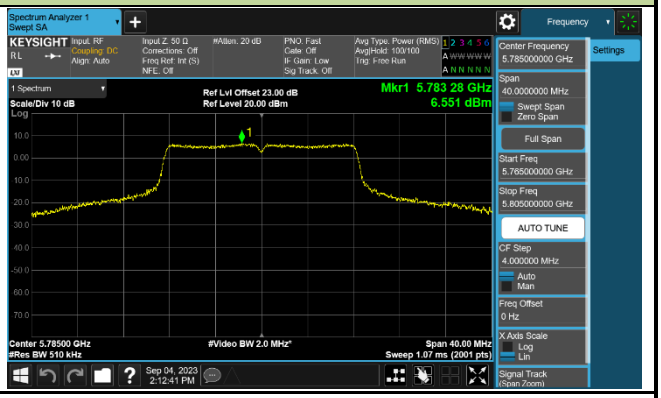
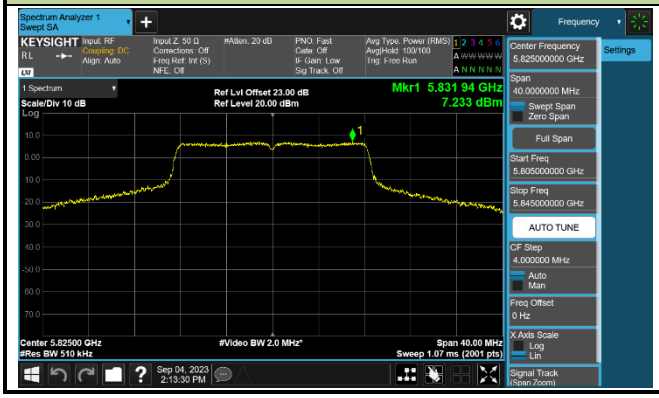


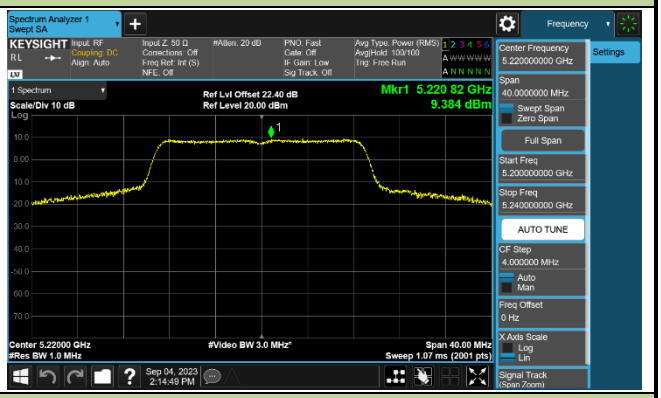
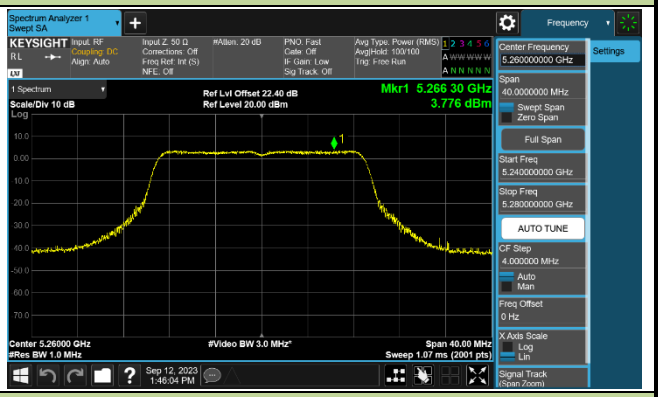
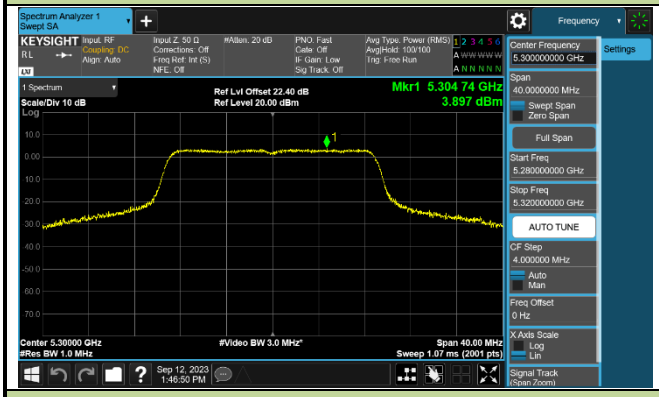
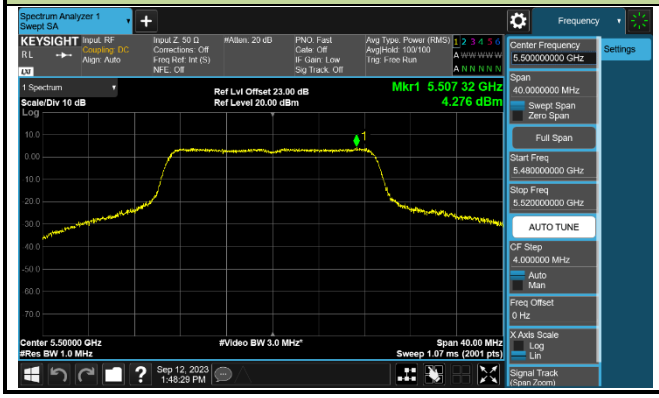
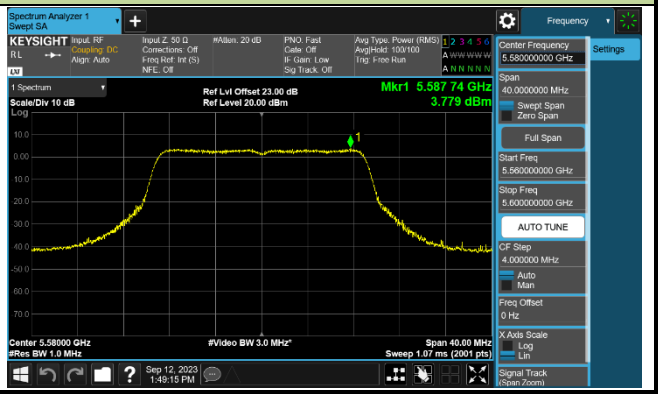

### Channel 100 (5500MHz)

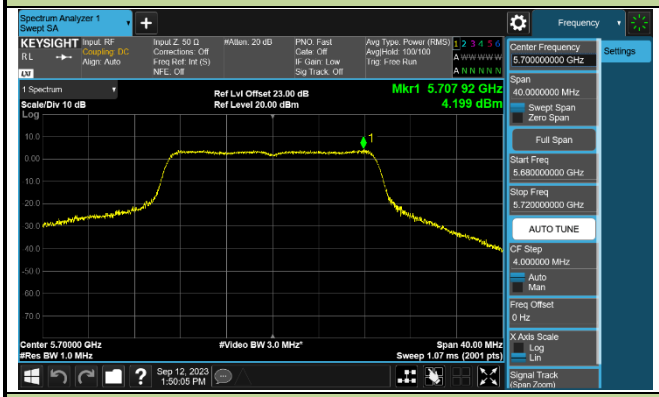
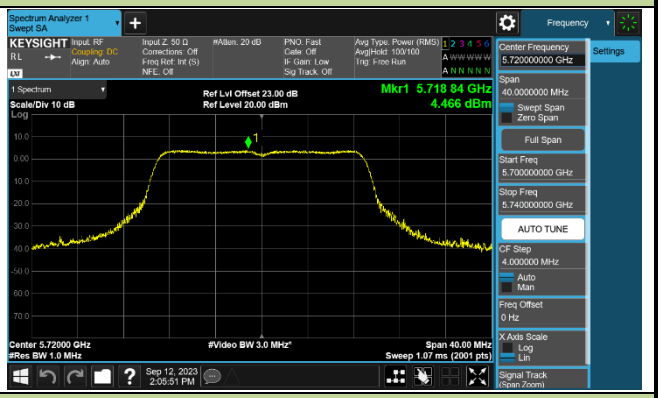
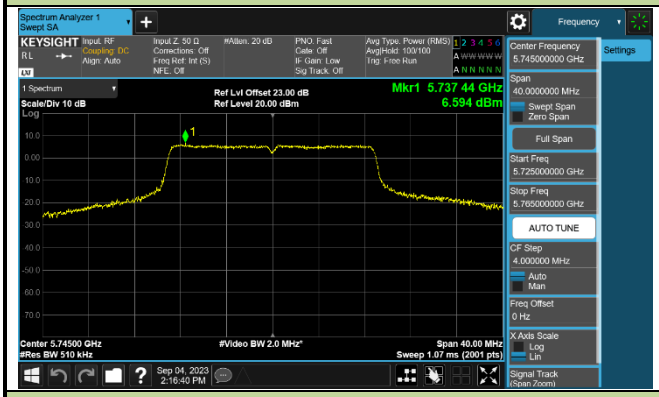
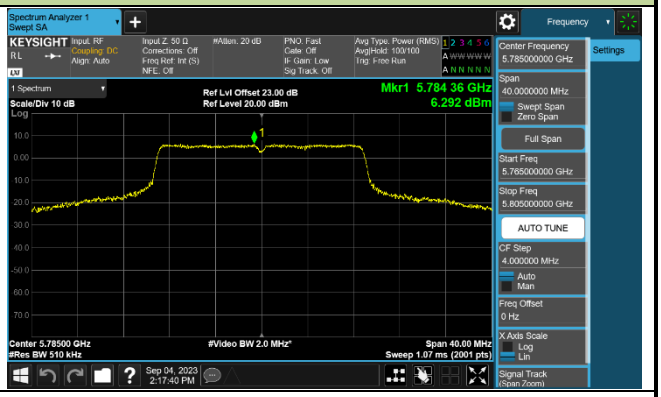
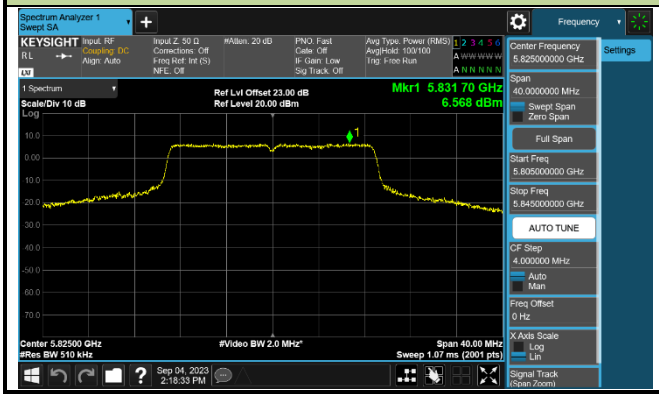



### Channel 116 (5580MHz)



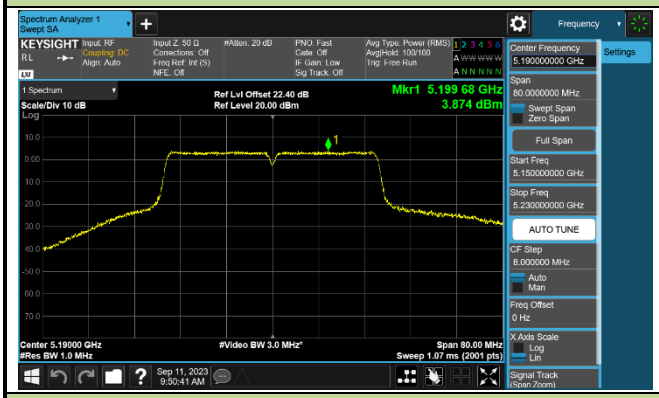
| Channel 140 (5700MHz) | Channel 144 (5720MHz) |
|---|---|
|  |  |
| **Channel 149 (5745MHz)** | **Channel 157 (5785MHz)** |
|  |  |
| **Channel 165 (5825MHz)** | |
|  | |

| 802.11ac-VHT20 Power Spectral Density - Ant 0 | |
|---|---|
| Channel 36 (5180MHz) | Channel 44 (5220MHz) |
|  |  |
| Channel 48 (5240MHz) | Channel 52 (5260MHz) |
|  |  |
| Channel 60 (5300MHz) | Channel 64 (5320MHz) |
|  |  |
| Channel 100 (5500MHz) | Channel 116 (5580MHz) |
|  |  |

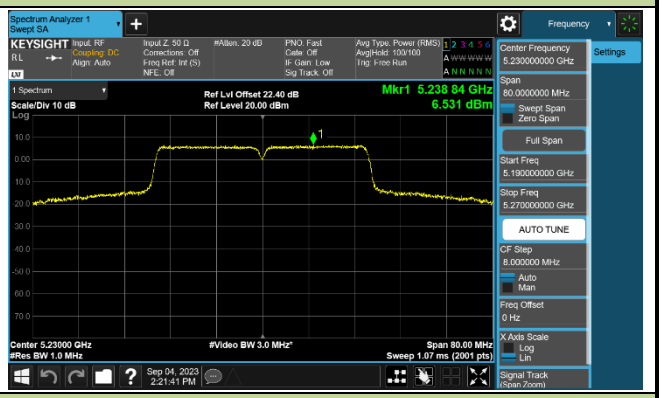
| Channel 140 (5700MHz) | Channel 144 (5720MHz) |
|---|---|
|  |  |
| **Channel 149 (5745MHz)** | **Channel 157 (5785MHz)** |
|  |  |
| **Channel 165 (5825MHz)** | |
|  | |

## 802.11ac-VHT40 Power Spectral Density - Ant 0

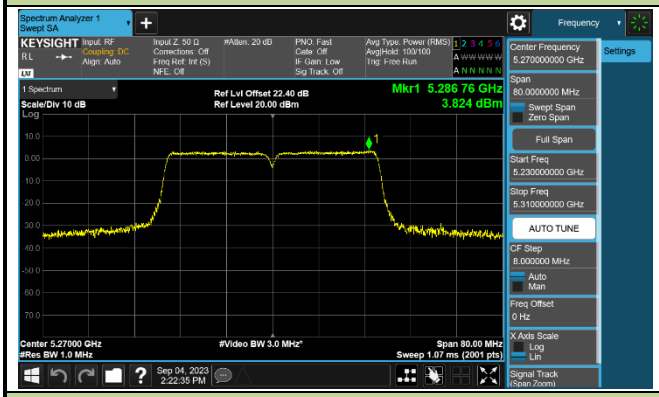
### Channel 38 (5190MHz)



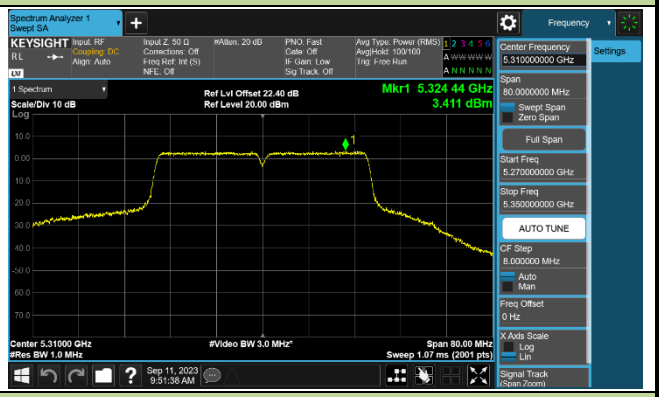

### Channel 46 (5230MHz)



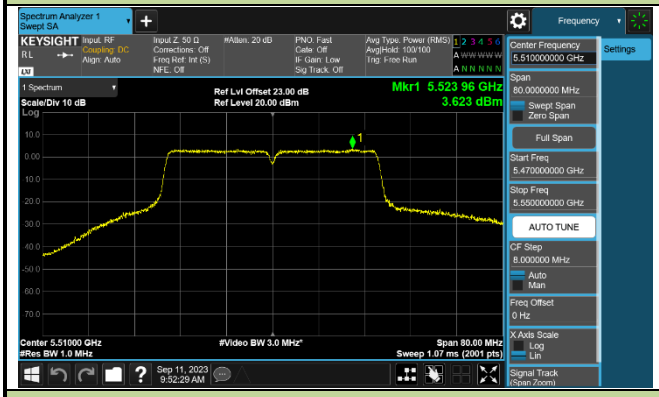

### Channel 54 (5270MHz)



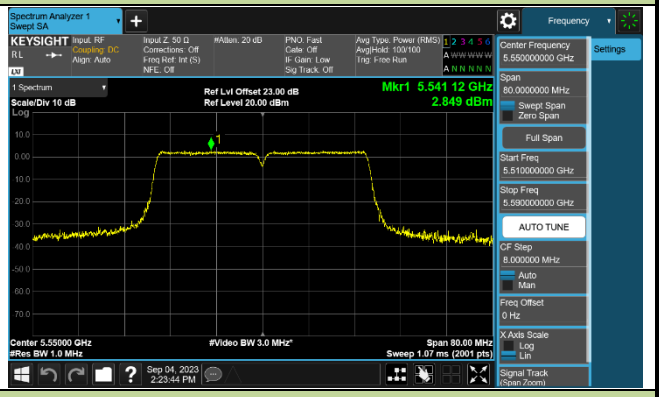

### Channel 62 (5310MHz)



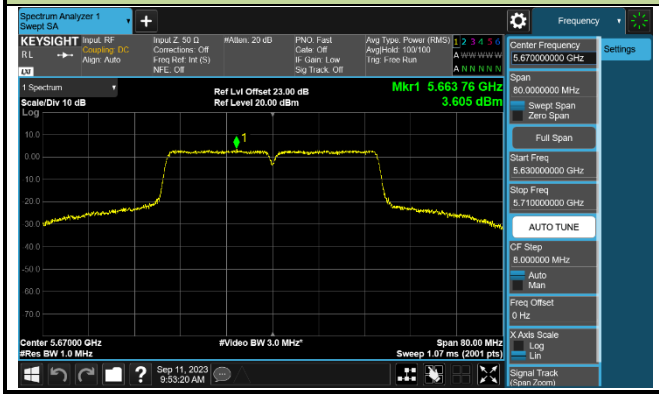

### Channel 102 (5510MHz)



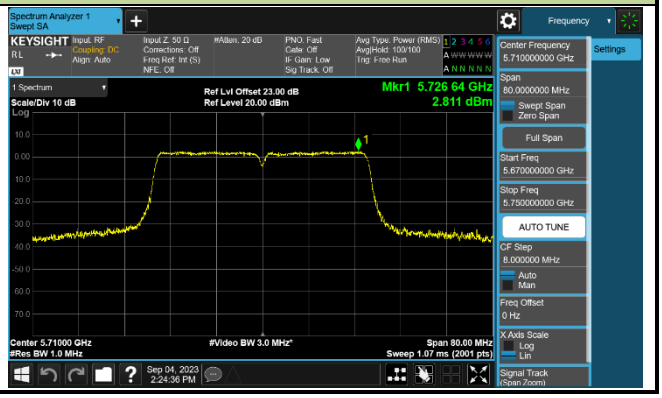

### Channel 110 (5550MHz)

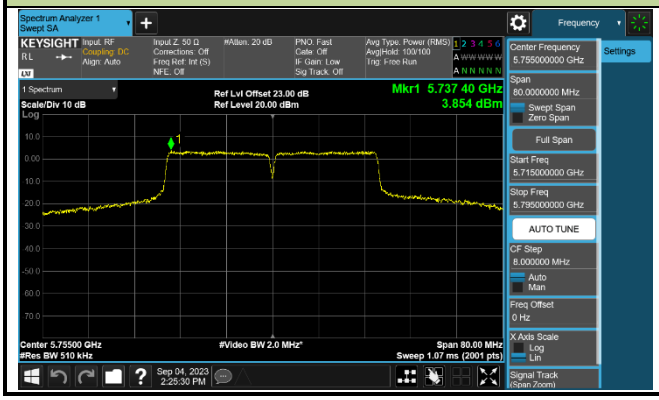
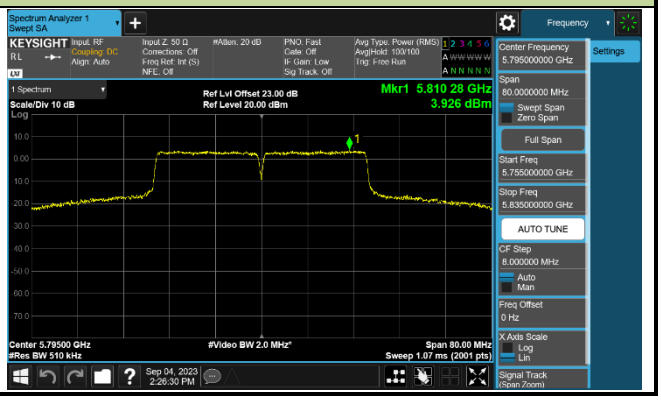



### Channel 134 (5670MHz)



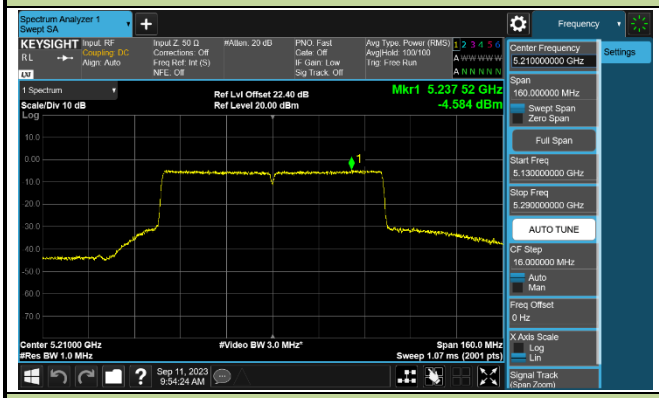

### Channel 142 (5710MHz)



| Channel 151 (5755MHz) | Channel 159 (5795MHz) |
| --- | --- |
|  |  |

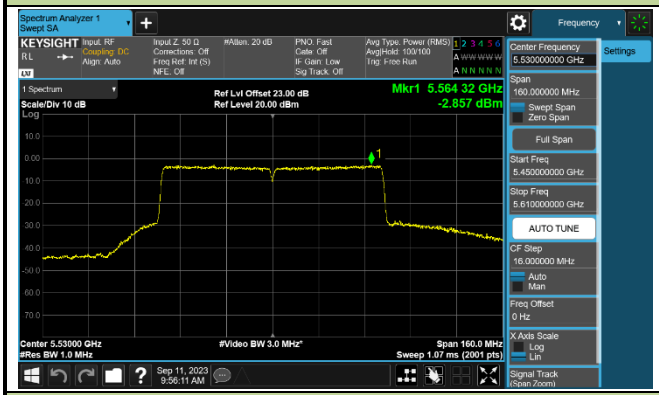
## 802.11ac-VHT80 Power Spectral Density - Ant 0

### Channel 42 (5210MHz)



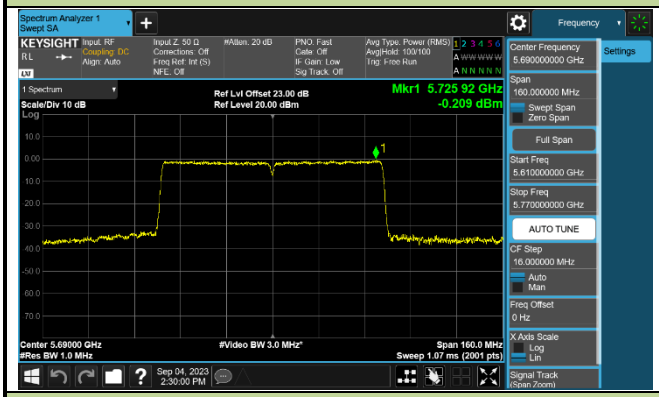

### Channel 58 (5290MHz)


### Channel 106 (5530MHz)

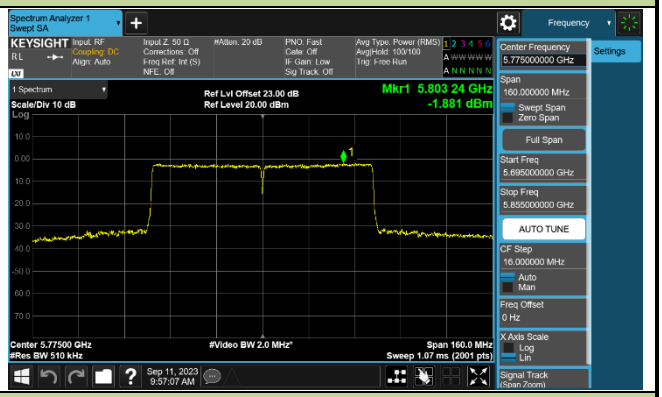



### Channel 122 (5610MHz)


### Channel 138 (5690MHz)

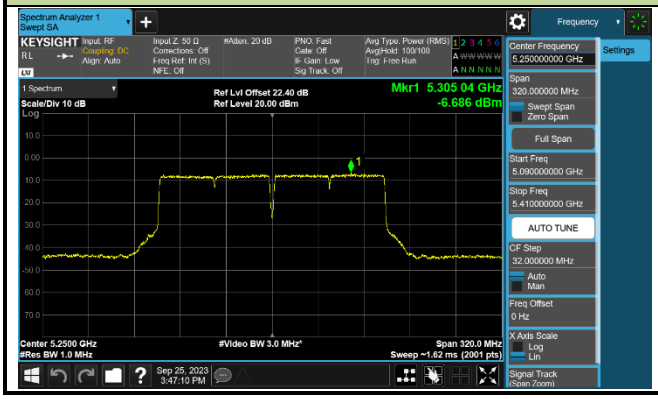



### Channel 155 (5775MHz)

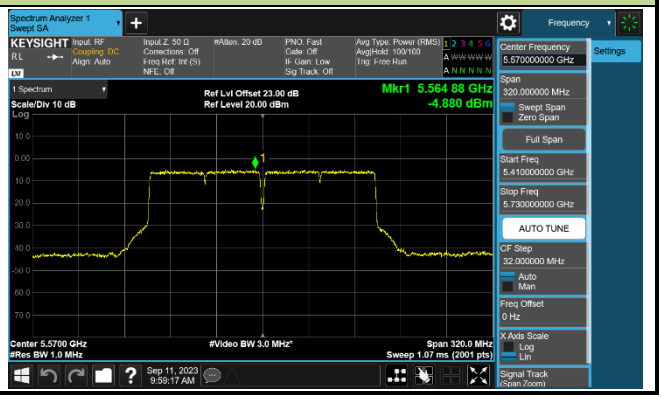


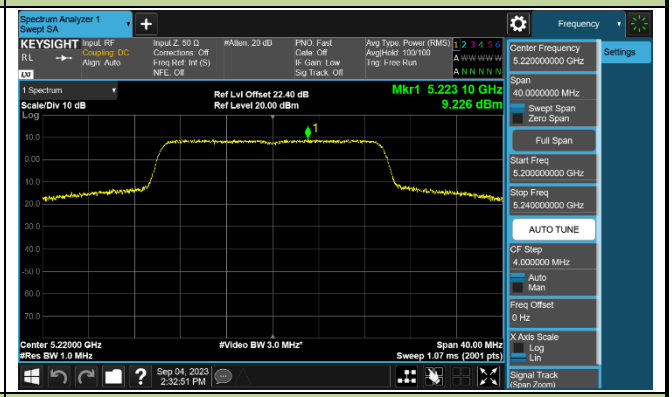
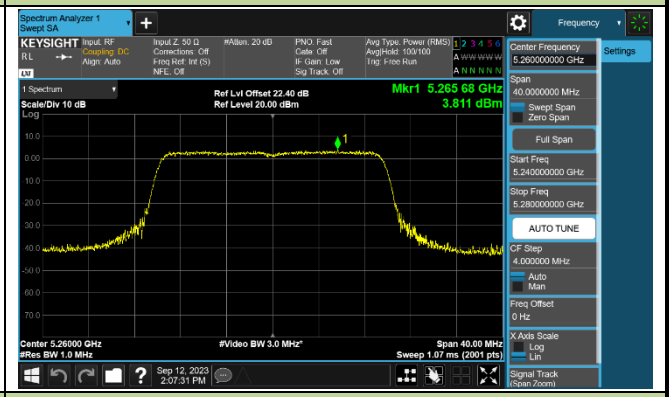
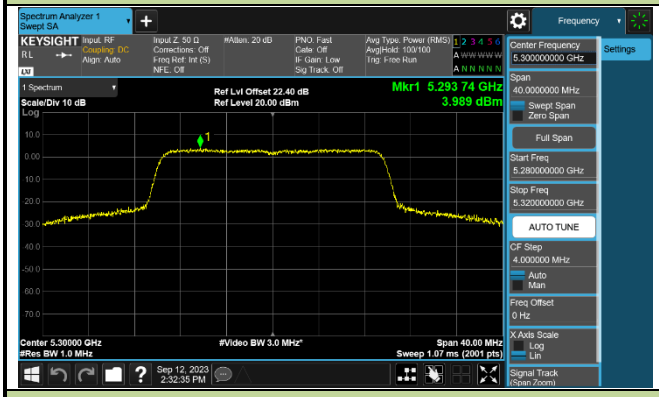
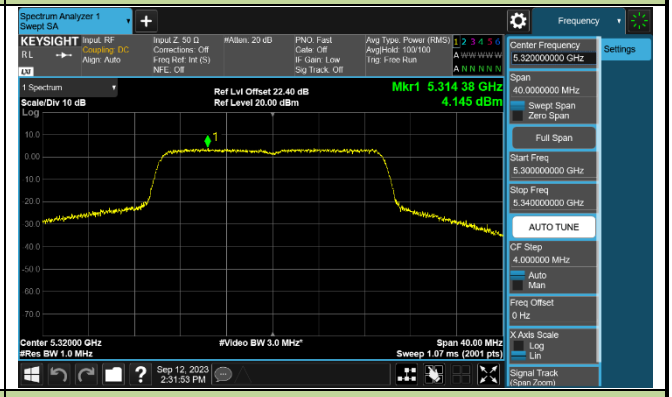
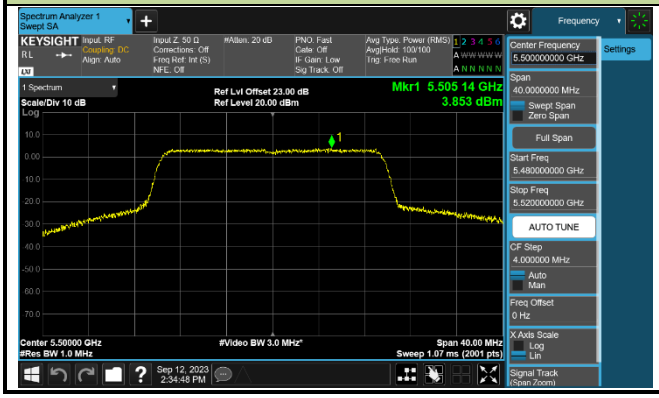
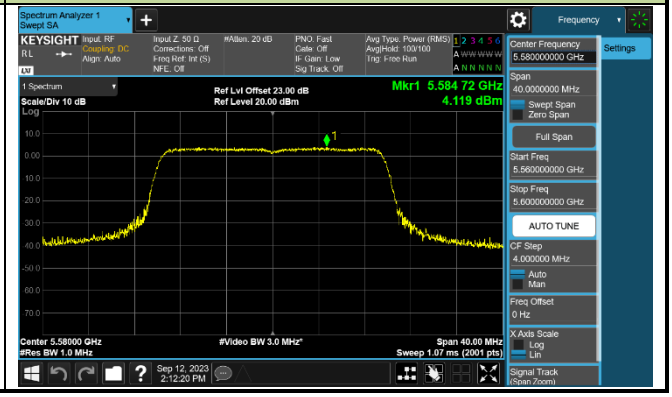

## 802.11ac-VHT160 Power Spectral Density - Ant 0

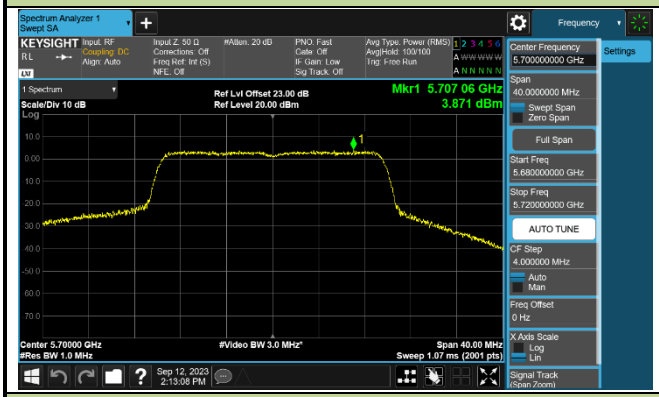
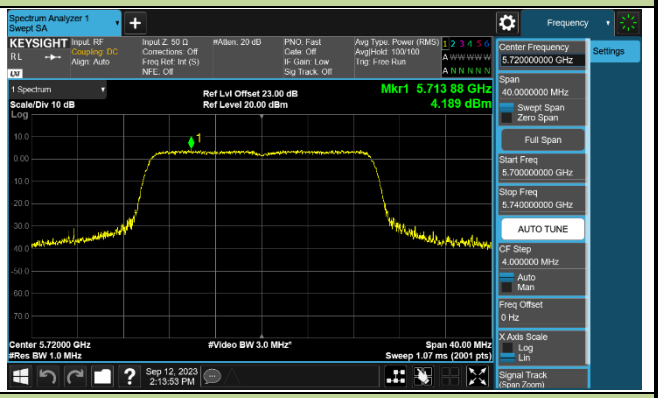
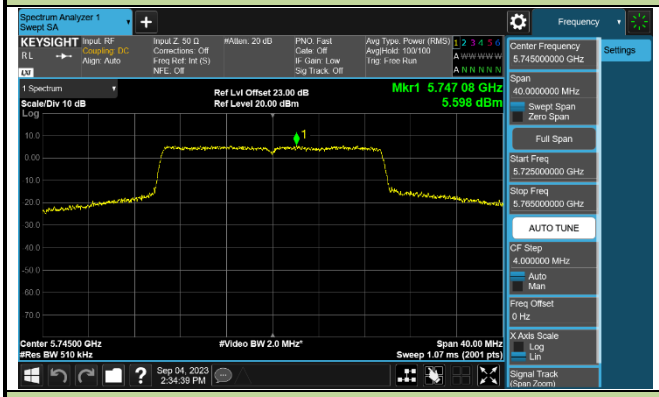
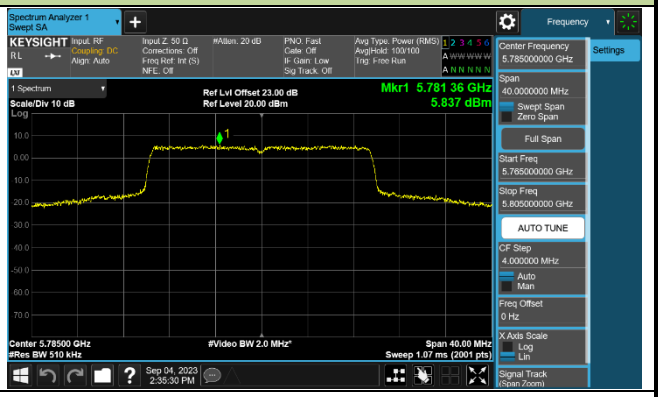
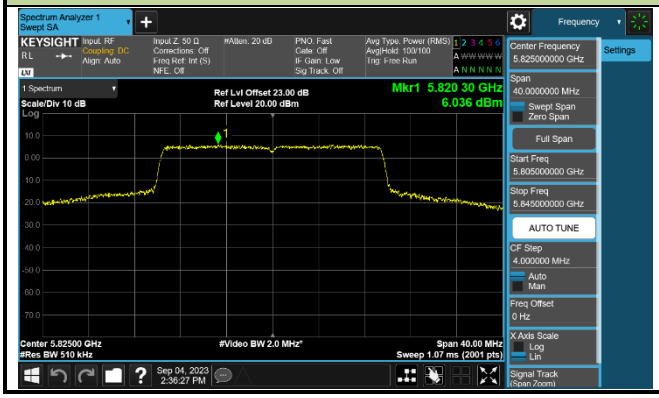
### Channel 50 (5250MHz)




### Channel 114 (5570MHz)



| 802.11ax-HE20 Power Spectral Density - Ant 0 | |
|---|---|
| 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)** | |
|  | |