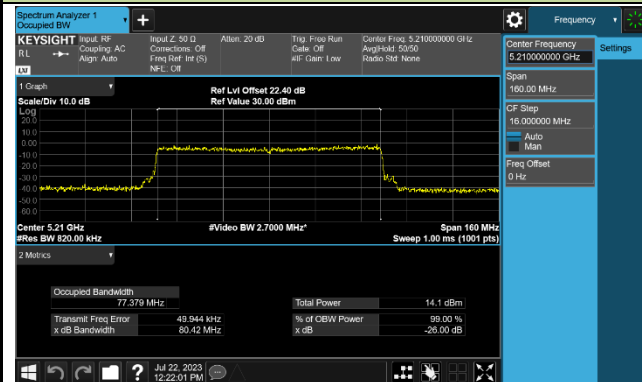
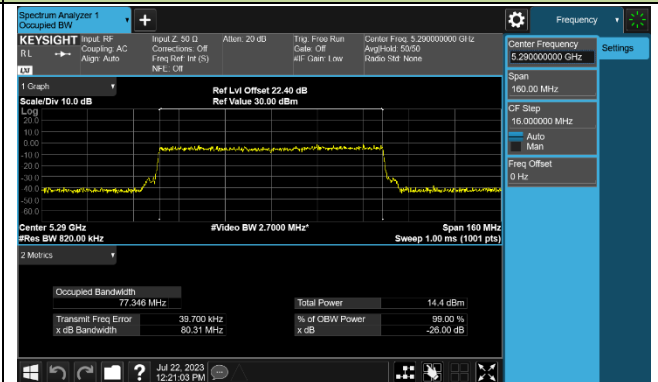


# 8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

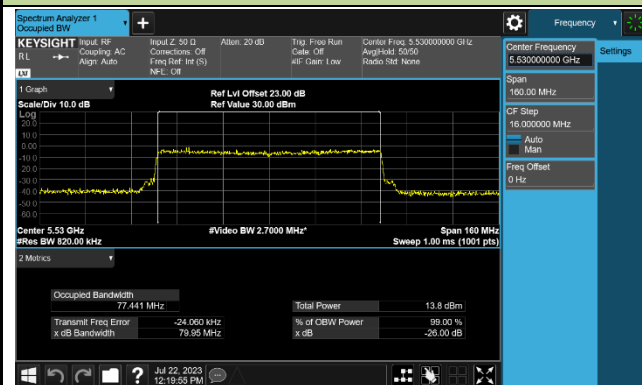
## Channel 42 (5210MHz)



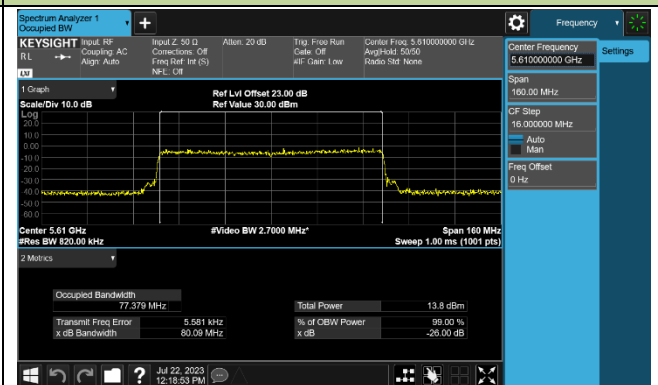
## Channel 58 (5290MHz)



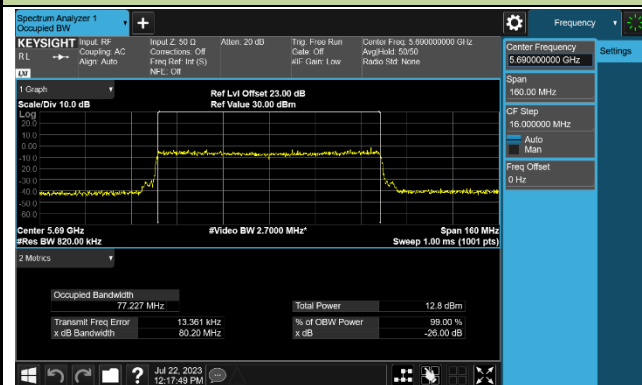
## Channel 106 (5530MHz)



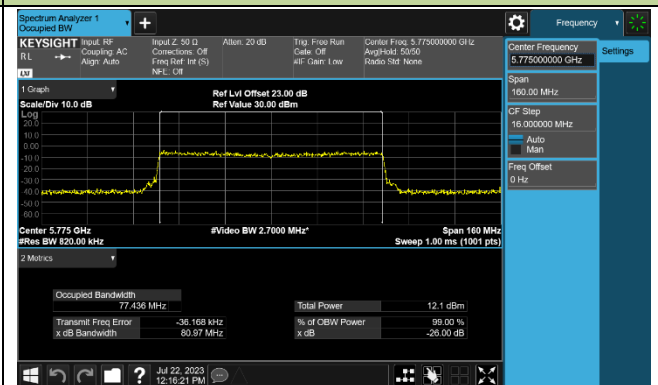
## Channel 122 (5610MHz)



## Channel 138 (5690MHz)



## Channel 155 (5775MHz)



### 7.3. 6dB Bandwidth Measurement

#### 7.3.1. Test Limit

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

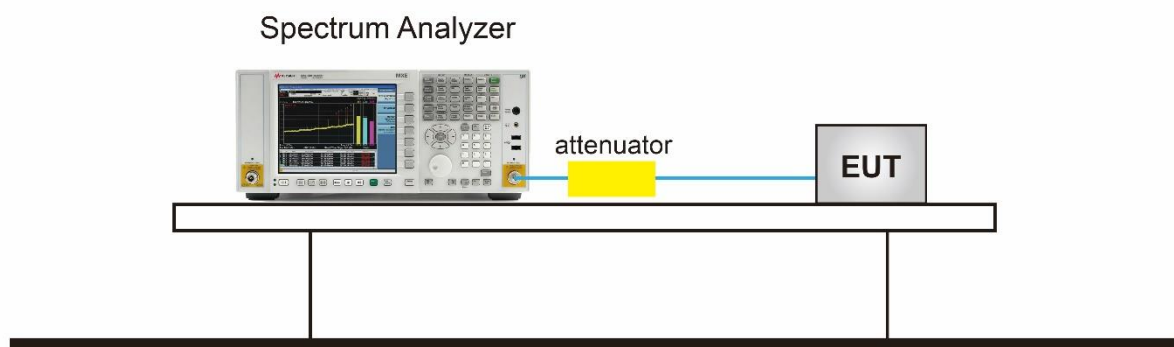
#### 7.3.2. Test Procedure used

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  $3 \times$  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.

#### 7.3.4. Test Setup



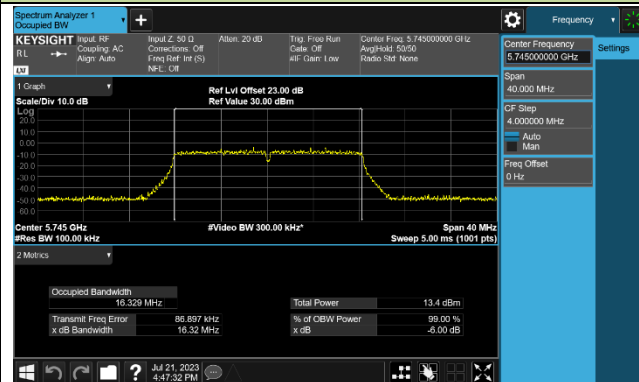
### 7.3.5.TestResult

Product	AX1800 Nano Wi-Fi 6 Wireless USB Adapter	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/7/21 ~ 2023/7/22

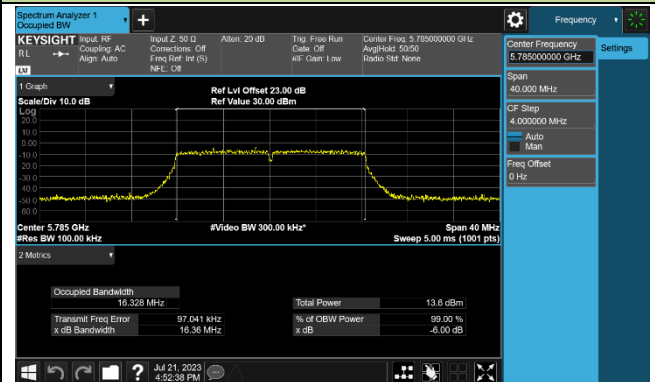
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11a	6Mbps	149	5745	16.320	$\geq 0.5$	Pass
802.11a	6Mbps	157	5785	16.360	$\geq 0.5$	Pass
802.11a	6Mbps	165	5825	16.320	$\geq 0.5$	Pass
802.11ac-VHT20	MCS0	149	5745	17.660	$\geq 0.5$	Pass
802.11ac-VHT20	MCS0	157	5785	17.650	$\geq 0.5$	Pass
802.11ac-VHT20	MCS0	165	5825	17.620	$\geq 0.5$	Pass
802.11ac-VHT40	MCS0	151	5755	36.270	$\geq 0.5$	Pass
802.11ac-VHT40	MCS0	159	5795	35.730	$\geq 0.5$	Pass
802.11ac-VHT80	MCS0	155	5775	76.500	$\geq 0.5$	Pass
802.11ax-HE20	MCS0	149	5745	18.790	$\geq 0.5$	Pass
802.11ax-HE20	MCS0	157	5785	18.900	$\geq 0.5$	Pass
802.11ax-HE20	MCS0	165	5825	19.050	$\geq 0.5$	Pass
802.11ax-HE40	MCS0	151	5755	38.000	$\geq 0.5$	Pass
802.11ax-HE40	MCS0	159	5795	38.050	$\geq 0.5$	Pass
802.11ax-HE80	MCS0	155	5775	77.970	$\geq 0.5$	Pass

## 802.11a 6dB Bandwidth

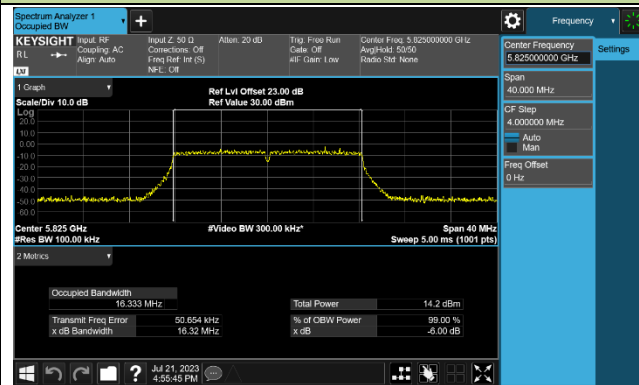
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

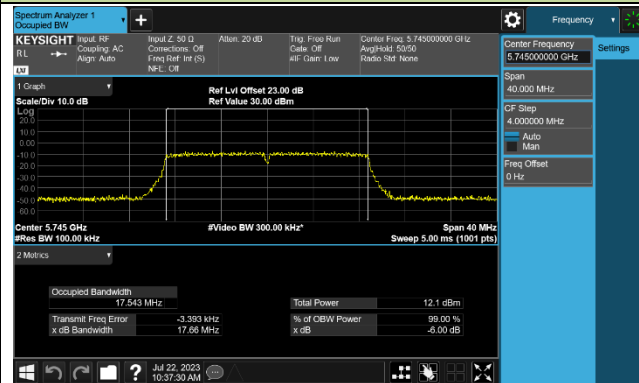


## Channel 165 (5825MHz)

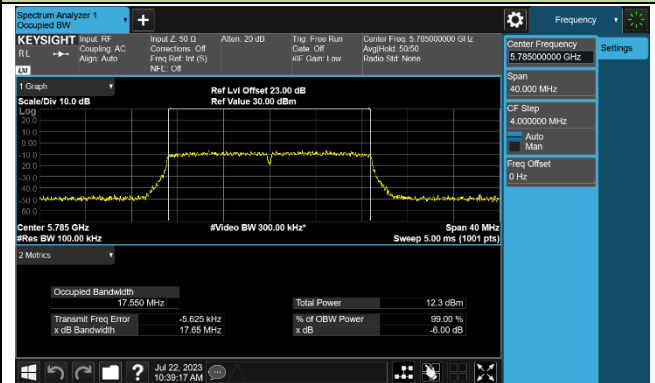


## 802.11ac-VHT20 6dB Bandwidth

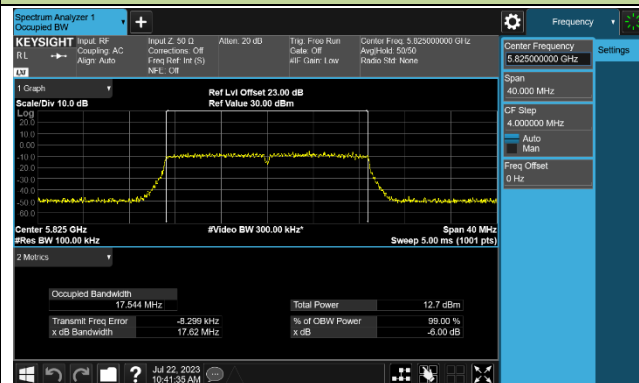
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

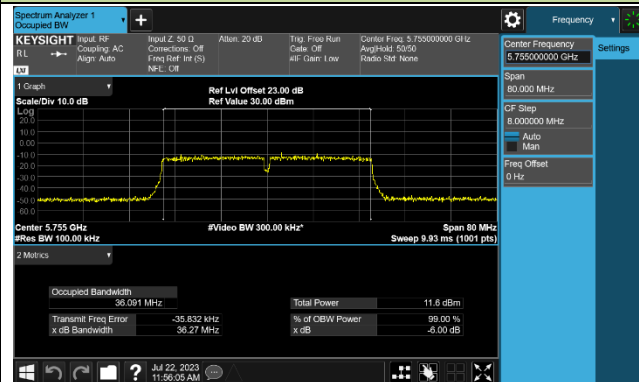


## Channel 165 (5825MHz)

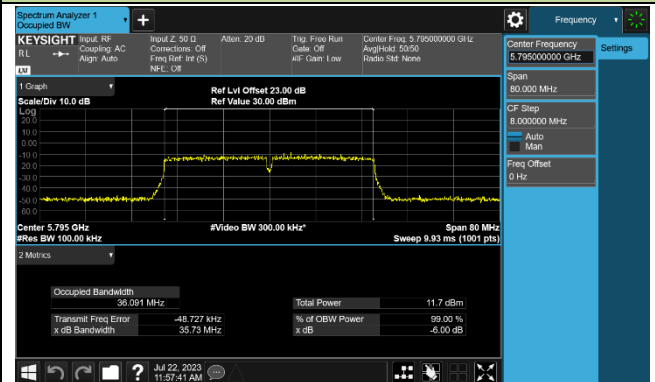


## 802.11ac-VHT40 6dB Bandwidth

## Channel 151 (5755MHz)

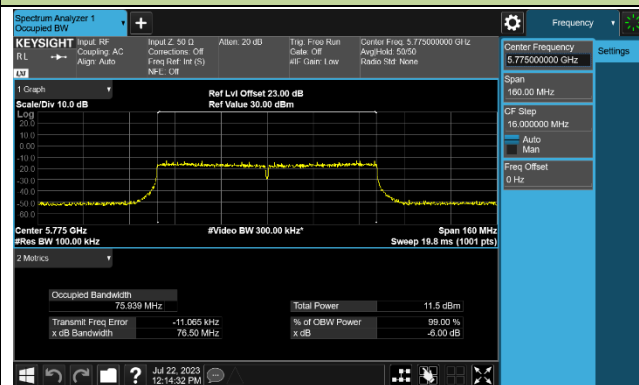


## Channel 159 (5795MHz)



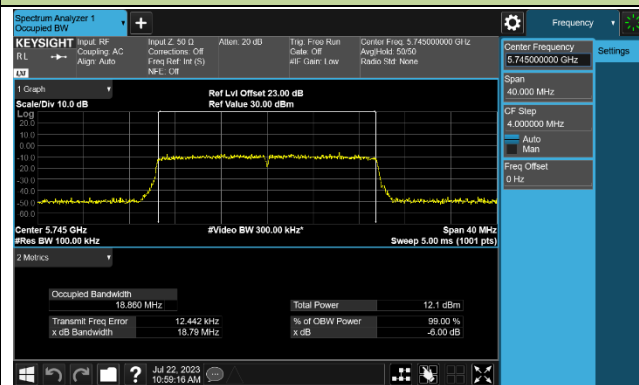
## 802.11ac-VHT80 6dB Bandwidth

## Channel 155 (5775MHz)

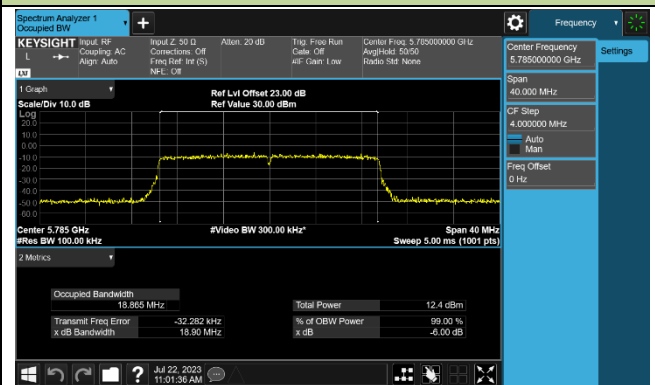


## 802.11ax-HE20 6dB Bandwidth

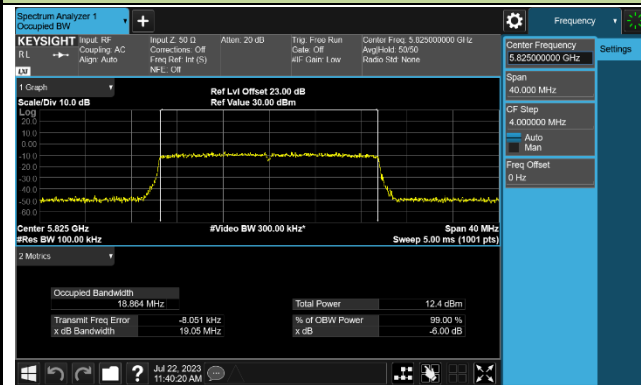
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

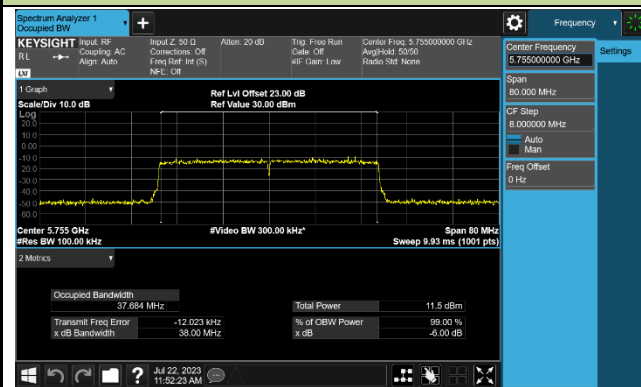


### Channel 165 (5825MHz)

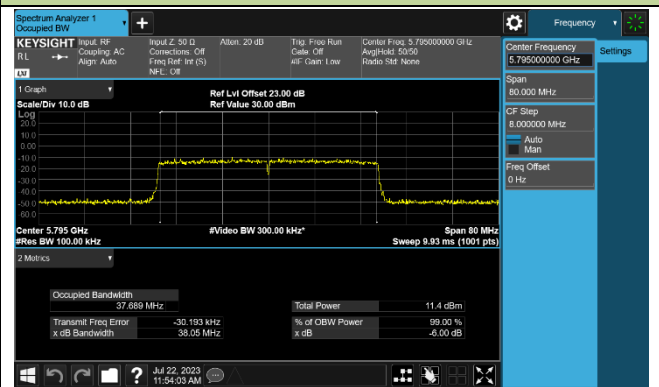


### 802.11ax-HE40 6dB Bandwidth

### Channel 151 (5755MHz)

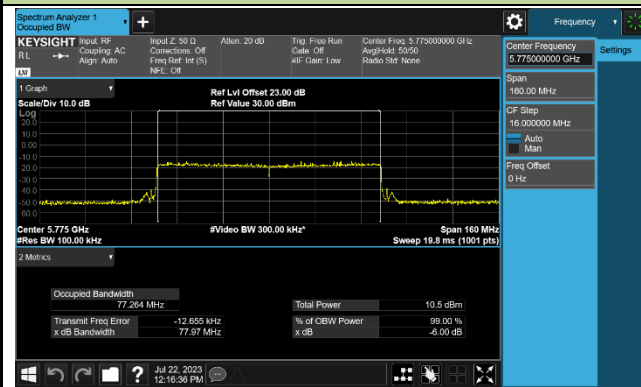


### Channel 159 (5795MHz)



### 802.11ax-HE80 6dB Bandwidth

### Channel 155 (5775MHz)



## 7.4. Output Power Measurement

### 7.4.1. Test Limit

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

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

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

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

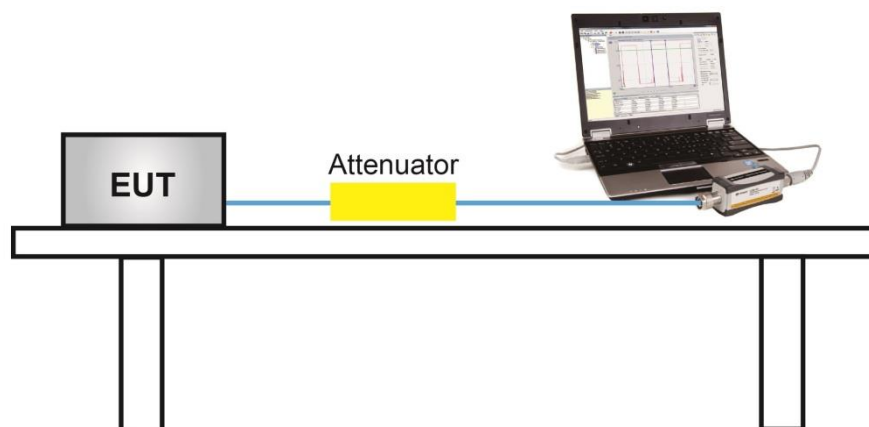
### 7.4.2. Test Procedure Used

KDB 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	AX1800 Nano Wi-Fi 6 Wireless USB Adapter	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/7/17

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11a	6Mbps	36	5180	10.11	10.25	13.19	≤ 23.98	Pass
11a	6Mbps	44	5220	10.13	10.22	13.19	≤ 23.98	Pass
11a	6Mbps	48	5240	10.08	10.18	13.14	≤ 23.98	Pass
11a	6Mbps	52	5260	10.20	10.33	13.28	≤ 23.98	Pass
11a	6Mbps	60	5300	10.13	10.23	13.19	≤ 23.98	Pass
11a	6Mbps	64	5320	10.18	10.20	13.20	≤ 23.98	Pass
11a	6Mbps	100	5500	10.08	10.28	13.19	≤ 23.98	Pass
11a	6Mbps	116	5580	8.76	8.95	11.87	≤ 23.98	Pass
11a	6Mbps	140	5700	9.06	8.85	11.97	≤ 23.98	Pass
11a	6Mbps	144	5720	8.95	8.85	11.91	≤ 22.52	Pass
11a	6Mbps	149	5745	8.41	8.26	11.35	≤ 30.00	Pass
11a	6Mbps	157	5785	8.67	8.39	11.54	≤ 30.00	Pass
11a	6Mbps	165	5825	8.41	8.53	11.48	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	10.20	10.27	13.25	≤ 23.98	Pass
11ac-VHT20	MCS0	40	5220	10.23	10.30	13.28	≤ 23.98	Pass
11ac-VHT20	MCS0	48	5240	10.19	10.25	13.23	≤ 23.98	Pass
11ac-VHT20	MCS0	52	5260	10.11	10.16	13.15	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	10.13	10.20	13.18	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	10.12	10.19	13.17	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	10.08	10.22	13.16	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	8.71	9.17	11.96	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	8.74	9.20	11.99	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	8.51	8.83	11.68	≤ 22.63	Pass
11ac-VHT20	MCS0	149	5745	8.44	8.32	11.39	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	8.35	8.30	11.34	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	8.32	8.42	11.38	≤ 30.00	Pass



Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	10.03	10.33	13.19	≤ 23.98	Pass
11ac-VHT40	MCS0	46	5230	10.08	10.44	13.27	≤ 23.98	Pass
11ac-VHT40	MCS0	54	5270	10.22	10.56	13.40	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	10.27	10.66	13.48	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	10.08	10.49	13.30	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	10.13	10.60	13.38	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	8.71	9.07	11.90	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	8.81	8.98	11.91	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	8.02	8.33	11.19	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	8.30	8.18	11.25	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	10.07	10.22	13.16	≤ 23.98	Pass
11ac-VHT80	MCS0	58	5290	10.28	10.65	13.48	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	10.12	10.33	13.24	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	10.11	10.42	13.28	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	9.20	8.82	12.02	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	8.54	8.59	11.58	≤ 30.00	Pass
11ax-HE20	MCS0	36	5180	10.30	10.38	13.35	≤ 23.98	Pass
11ax-HE20	MCS0	40	5220	10.29	10.33	13.32	≤ 23.98	Pass
11ax-HE20	MCS0	48	5240	10.26	10.30	13.29	≤ 23.98	Pass
11ax-HE20	MCS0	52	5260	10.19	10.21	13.21	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	10.18	10.10	13.15	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	10.15	10.19	13.18	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	10.22	10.35	13.30	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	9.18	8.54	11.88	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	8.52	9.12	11.84	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	8.61	8.68	11.66	≤ 22.81	Pass
11ax-HE20	MCS0	149	5745	8.40	8.43	11.43	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	8.22	8.32	11.28	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	7.80	8.45	11.15	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	10.09	10.35	13.23	≤ 23.98	Pass
11ax-HE40	MCS0	46	5230	10.11	10.47	13.30	≤ 23.98	Pass
11ax-HE40	MCS0	54	5270	10.10	10.39	13.26	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	10.05	10.35	13.21	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	10.29	10.33	13.32	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	10.35	10.53	13.45	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	8.72	8.88	11.81	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	8.85	9.05	11.96	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	8.20	8.48	11.35	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	8.15	8.46	11.32	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	10.35	10.32	13.35	≤ 23.98	Pass
11ax-HE80	MCS0	58	5290	10.07	10.57	13.34	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	10.01	10.27	13.15	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	10.03	10.35	13.20	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	8.90	8.73	11.83	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	8.24	8.38	11.32	≤ 30.00	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 Bands: Average Power Limit (dBm) = 23.98 dBm.

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

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

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

## 7.5. Transmit Power Control

### 7.5.1. Test Limit

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

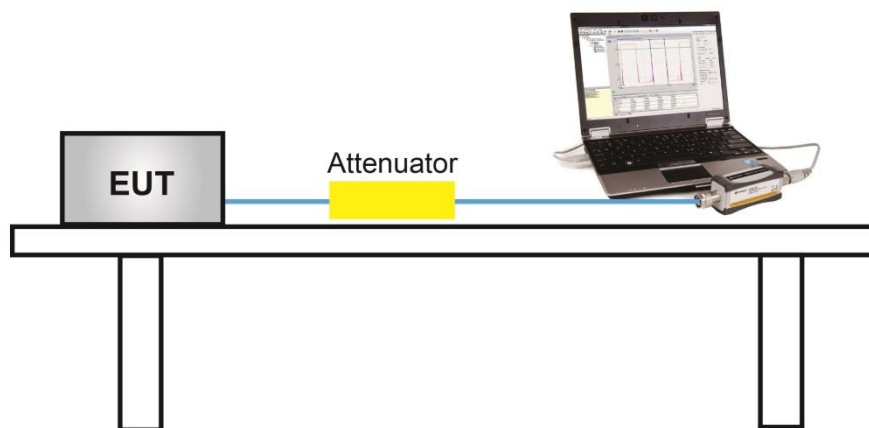
### 7.5.2. Test Procedure Used

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

### 7.5.3. Test Setting

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

### 7.5.4. Test Setup



### 7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

## **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 11 dBm in any 1 megahertz band.

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

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

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

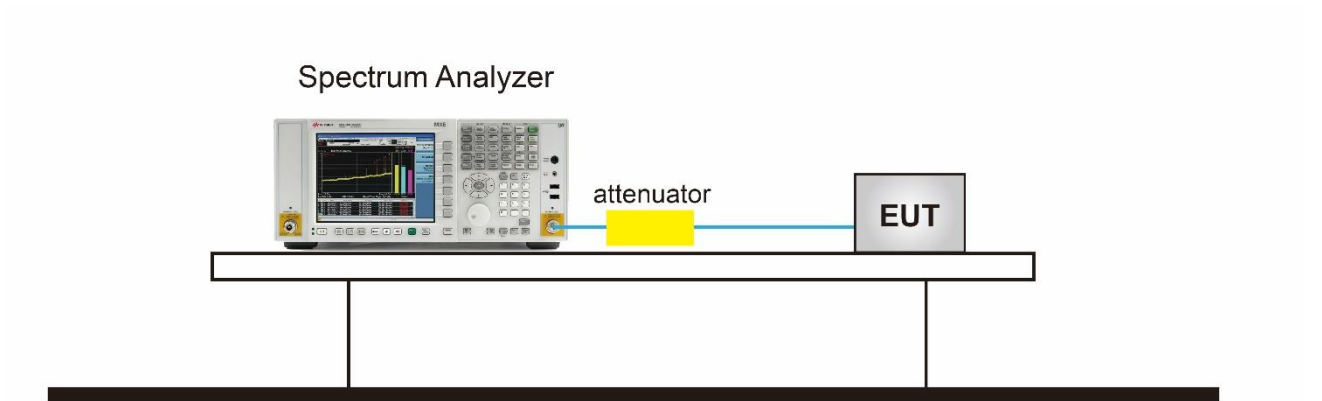
### **7.6.2. Test Procedure Used**

KDB 789033 D02v02r01-SectionF

### **7.6.3. Test Setting**

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

#### 7.6.4. Test Setup



### 7.6.5.Test Result

Product	AX1800 Nano Wi-Fi 6 Wireless USB Adapter	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/7/21~2023/7/22
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)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	-1.328	-1.496	97.62%	1.704	≤ 11.00	Pass
11a	6Mbps	44	5220	-1.807	-1.882	97.62%	1.271	≤ 11.00	Pass
11a	6Mbps	48	5240	-1.669	-1.648	97.62%	1.456	≤ 11.00	Pass
11a	6Mbps	52	5260	-1.708	-1.540	97.62%	1.492	≤ 11.00	Pass
11a	6Mbps	60	5300	-1.360	-1.215	97.62%	1.828	≤ 11.00	Pass
11a	6Mbps	64	5320	-1.560	-1.269	97.62%	1.703	≤ 11.00	Pass
11a	6Mbps	100	5500	-1.981	-1.760	97.62%	1.246	≤ 11.00	Pass
11a	6Mbps	116	5580	-2.170	-1.688	97.62%	1.193	≤ 11.00	Pass
11a	6Mbps	140	5700	-1.832	-1.322	97.62%	1.545	≤ 11.00	Pass
11a	6Mbps	144	5720	-1.985	-1.739	97.62%	1.255	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	-1.636	-1.011	96.08%	1.872	≤ 11.00	Pass
11ac-VHT20	MCS0	40	5220	-1.693	-1.787	96.08%	1.444	≤ 11.00	Pass
11ac-VHT20	MCS0	48	5240	-1.567	-1.930	96.08%	1.439	≤ 11.00	Pass
11ac-VHT20	MCS0	52	5260	-1.461	-1.872	96.08%	1.522	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	-1.705	-1.499	96.08%	1.583	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	-1.391	-1.238	96.08%	1.870	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	-1.639	-1.940	96.08%	1.397	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	-2.979	-3.299	96.08%	0.048	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	-2.866	-2.796	96.08%	0.353	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	-3.358	-3.111	96.08%	-0.049	≤ 11.00	Pass
11ac-VHT40	MCS0	38	5190	-4.654	-4.672	91.87%	-1.284	≤ 11.00	Pass
11ac-VHT40	MCS0	46	5230	-4.707	-5.260	91.87%	-1.596	≤ 11.00	Pass
11ac-VHT40	MCS0	54	5270	-4.155	-4.812	91.87%	-1.093	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	-3.925	-4.521	91.87%	-0.834	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	-4.535	-4.830	91.87%	-1.301	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	-4.766	-4.831	91.87%	-1.420	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	-5.887	-6.236	91.87%	-2.679	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	-6.469	-6.395	91.87%	-3.053	≤ 11.00	Pass

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
11ac-VHT80	MCS0	42	5210	-7.644	-7.596	96.54%	-4.457	≤ 11.00	Pass
11ac-VHT80	MCS0	58	5290	-6.989	-7.027	96.54%	-3.845	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	-7.079	-7.700	96.54%	-4.215	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	-7.291	-7.547	96.54%	-4.254	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	-9.080	-8.573	96.54%	-5.656	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	-1.450	-1.429	98.82%	1.622	≤ 11.00	Pass
11ax-HE20	MCS0	44	5220	-1.650	-2.164	98.82%	1.162	≤ 11.00	Pass
11ax-HE20	MCS0	48	5240	-1.821	-1.875	98.82%	1.214	≤ 11.00	Pass
11ax-HE20	MCS0	52	5260	-1.521	-1.841	98.82%	1.384	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	-1.731	-1.632	98.82%	1.381	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	-1.775	-1.686	98.82%	1.332	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	-1.585	-1.400	98.82%	1.570	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	-3.632	-3.611	98.82%	-0.560	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	-3.298	-3.018	98.82%	-0.094	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	-3.665	-3.655	98.82%	-0.598	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	-4.245	-4.697	99.14%	-1.417	≤ 11.00	Pass
11ax-HE40	MCS0	46	5230	-4.888	-5.172	99.14%	-1.980	≤ 11.00	Pass
11ax-HE40	MCS0	54	5270	-4.554	-5.077	99.14%	-1.760	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	-4.657	-4.704	99.14%	-1.633	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	-4.267	-4.852	99.14%	-1.502	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	-4.241	-4.740	99.14%	-1.436	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	-6.131	-6.584	99.14%	-3.304	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	-6.207	-6.232	99.14%	-3.172	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	-7.231	-7.456	97.31%	-4.213	≤ 11.00	Pass
11ax-HE80	MCS0	58	5290	-6.875	-7.475	97.31%	-4.036	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	-7.125	-7.998	97.31%	-4.411	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	-7.400	-7.459	97.31%	-4.301	≤ 11.00	Pass
11ax-HE80	MCS0	122	5690	-9.598	-9.160	97.31%	-6.245	≤ 11.00	Pass

Note: 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).

When EUT duty cycle < 98%,

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

Product	AX1800 Nano Wi-Fi 6 Wireless USB Adapter	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/7/21~2023/7/22
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)	Duty Cycle (%)	Total PSD (dBm/510kHz)	Limit (dBm/500kHz)	Result
11a	6Mbps	149	5745	-4.941	-4.861	97.62%	-1.786	≤ 30.00	Pass
11a	6Mbps	157	5785	-4.592	-4.267	97.62%	-1.312	≤ 30.00	Pass
11a	6Mbps	165	5825	-4.340	-3.666	97.62%	-0.875	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	-6.767	-6.579	96.08%	-3.488	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	-6.461	-6.261	96.08%	-3.176	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	-6.189	-6.216	96.08%	-3.019	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	-9.944	-9.671	91.87%	-6.427	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	-9.525	-9.496	91.87%	-6.132	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	-12.219	-12.144	96.54%	-9.018	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	-6.889	-6.717	98.82%	-3.740	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	-6.801	-6.531	98.82%	-3.602	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	-6.429	-6.048	98.82%	-3.172	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	-9.819	-9.695	99.14%	-6.709	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	-9.678	-9.771	99.14%	-6.676	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	-12.482	-12.515	97.31%	-9.370	≤ 30.00	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).

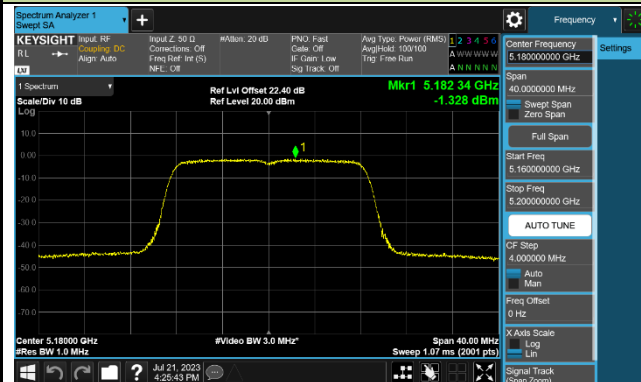
When EUT duty cycle < 98%, the total PSD (dBm/510kHz) =  $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$  (dBm/510kHz) +  $10 \cdot \log (1/\text{Duty Cycle})$ .

Note 2: PSD Limit (dBm/500kHz) = 30 (dBm/500kHz).

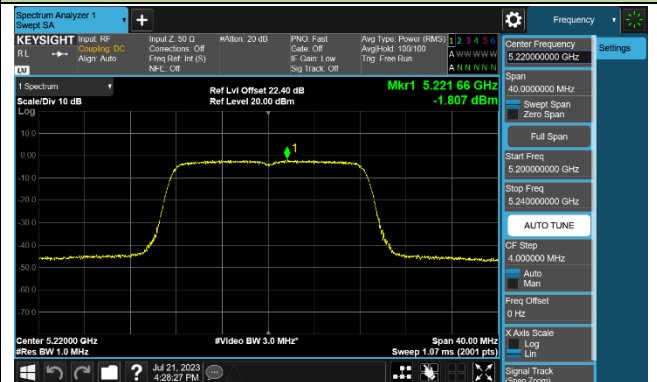


## 802.11a Power Spectral Density - Ant 0

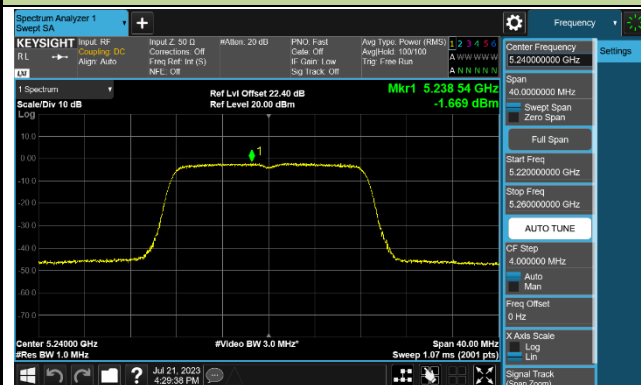
Channel 36 (5180MHz)



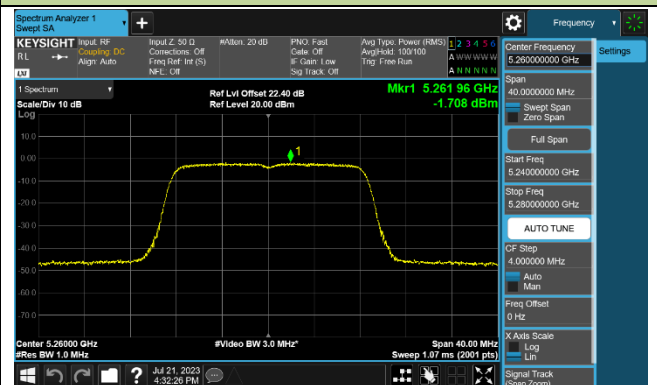
Channel 44 (5220MHz)



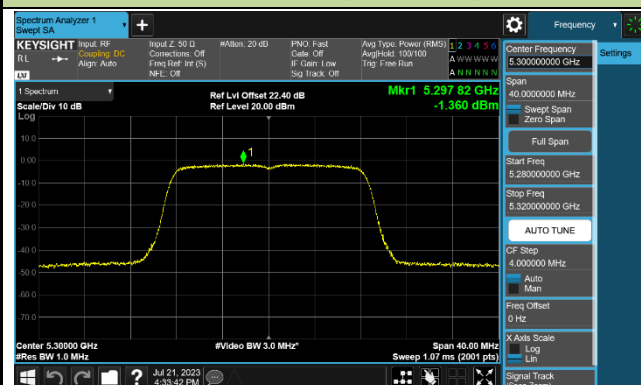
Channel 48 (5240MHz)



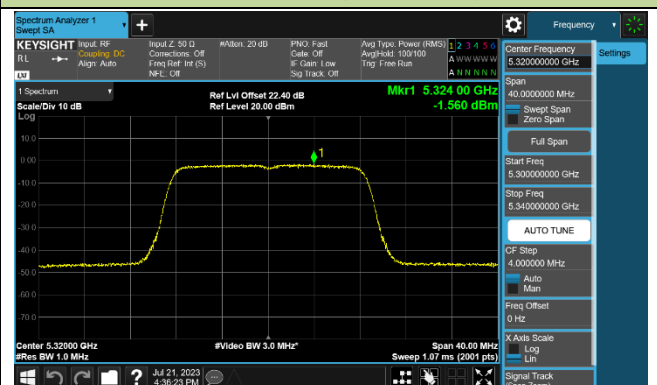
Channel 52 (5260MHz)



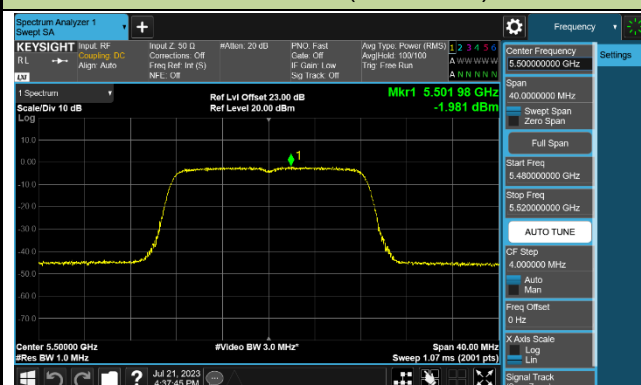
Channel 60 (5300MHz)



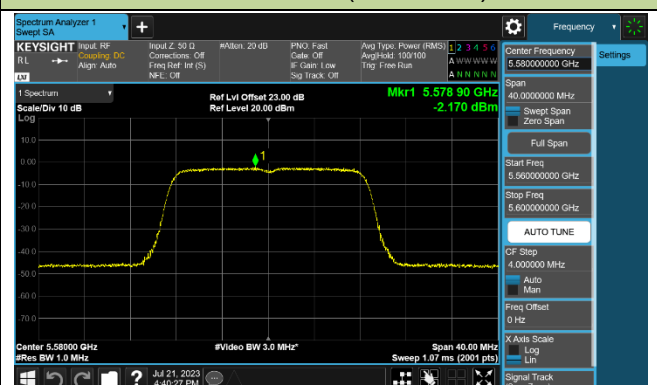
Channel 64 (5320MHz)

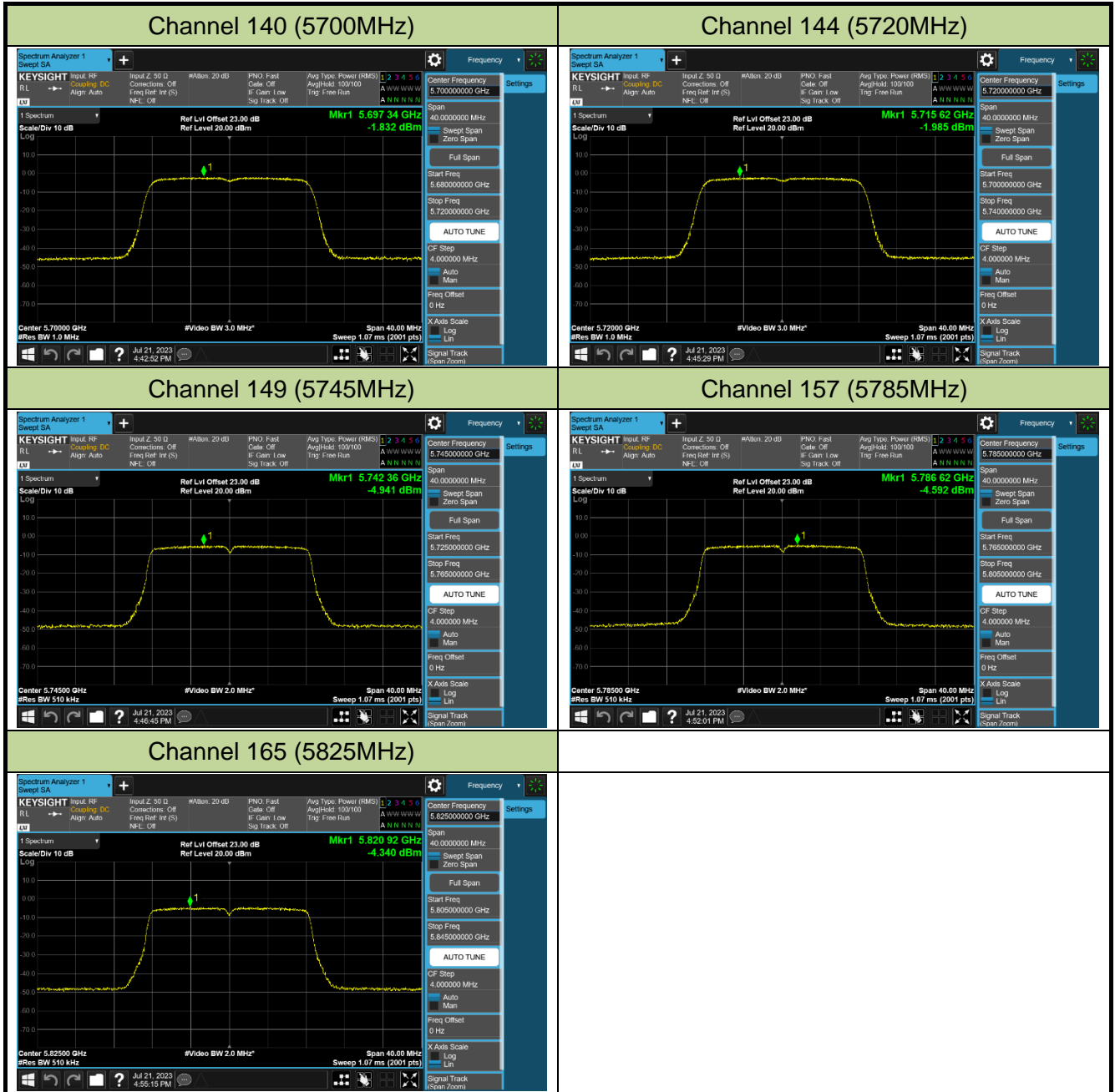


Channel 100 (5500MHz)



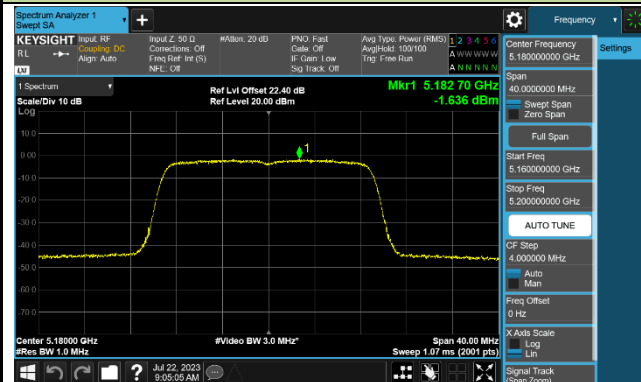
Channel 116 (5580MHz)



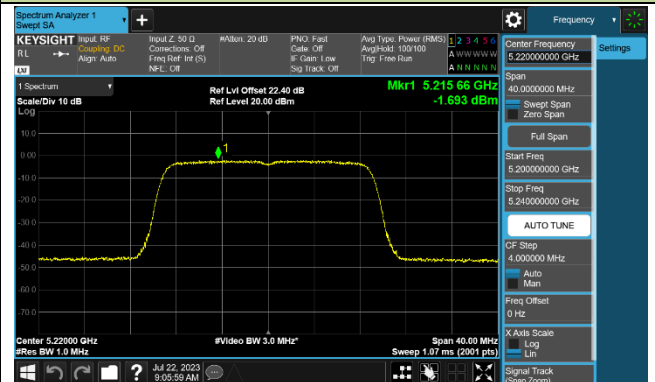


## 802.11ac-VHT20 Power Spectral Density - Ant 0

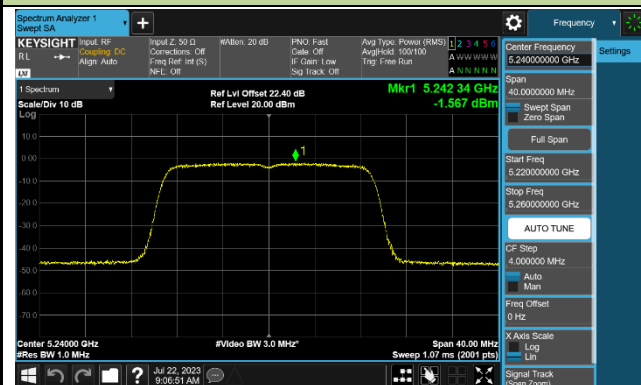
Channel 36 (5180MHz)



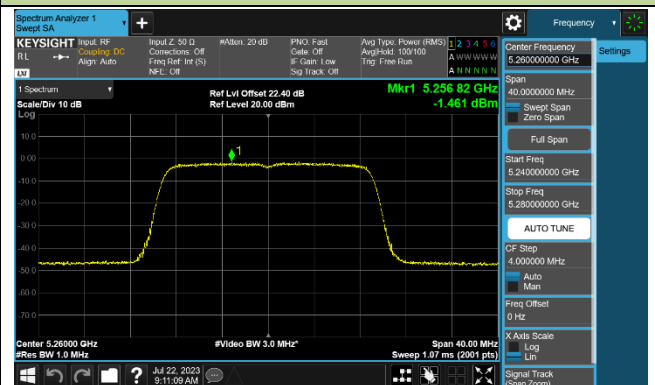
Channel 44 (5220MHz)



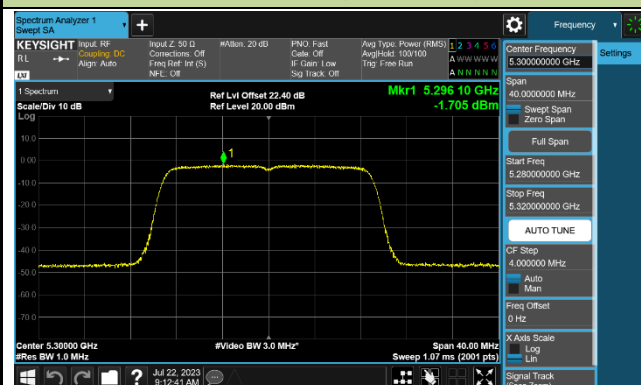
Channel 48 (5240MHz)



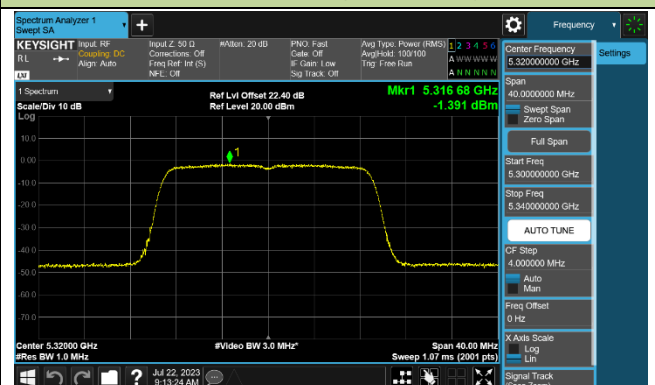
Channel 52 (5260MHz)



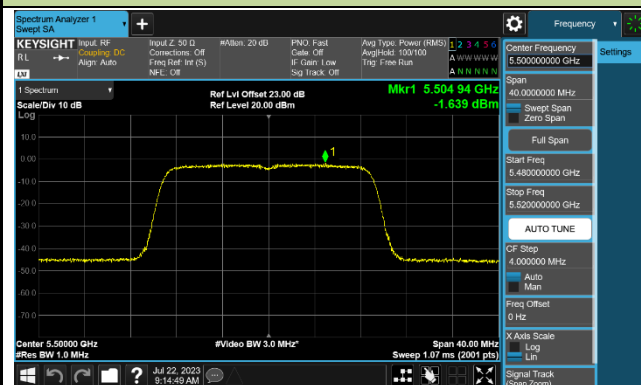
Channel 60 (5300MHz)



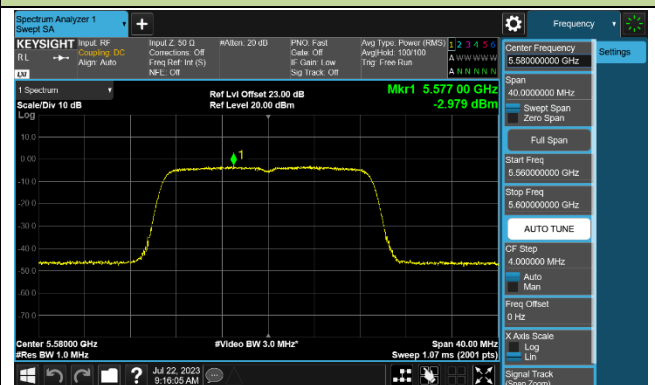
Channel 64 (5320MHz)



Channel 100 (5500MHz)



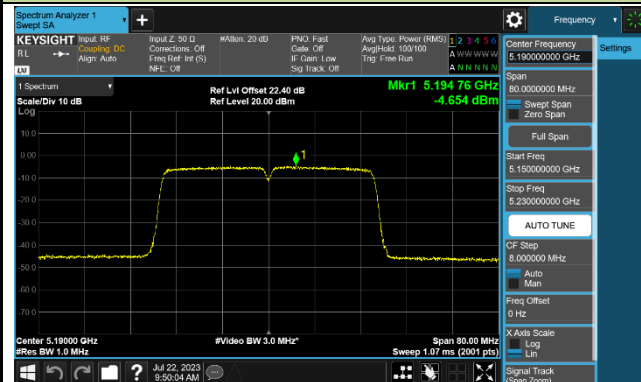
Channel 116 (5580MHz)



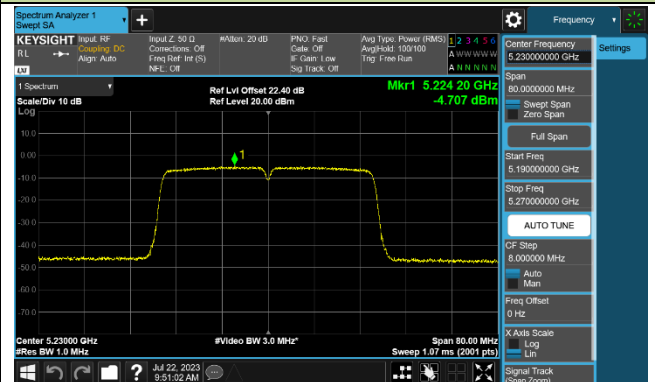


## 802.11ac-VHT40 Power Spectral Density - Ant 0

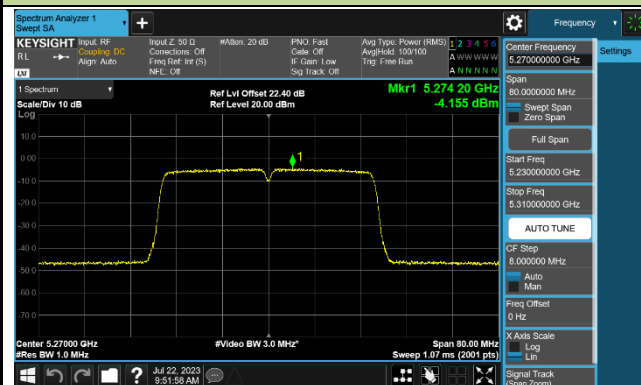
Channel 38 (5190MHz)



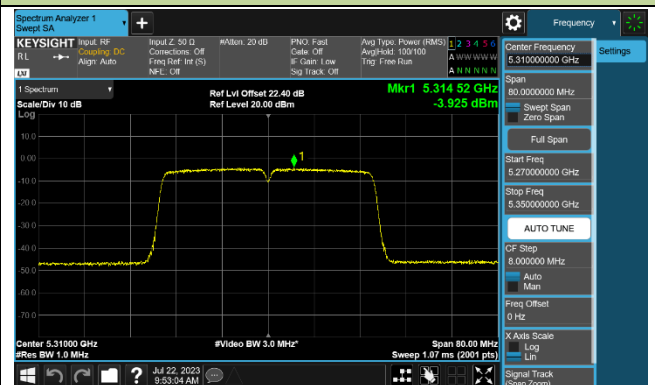
Channel 46 (5230MHz)



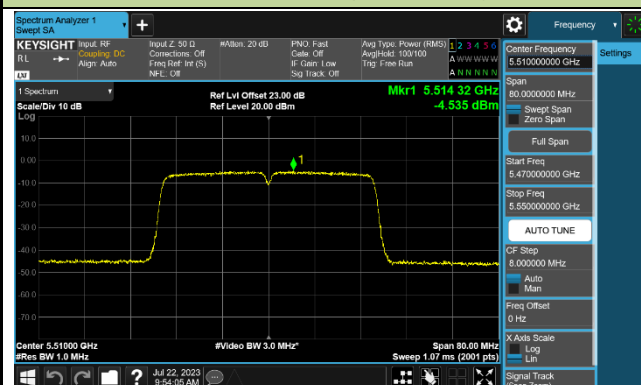
Channel 54 (5270MHz)



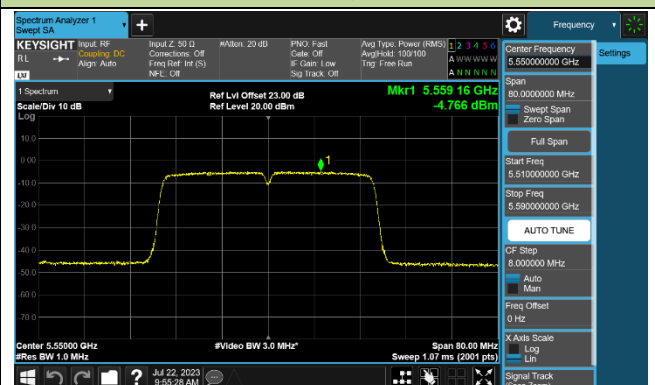
Channel 62 (5310MHz)



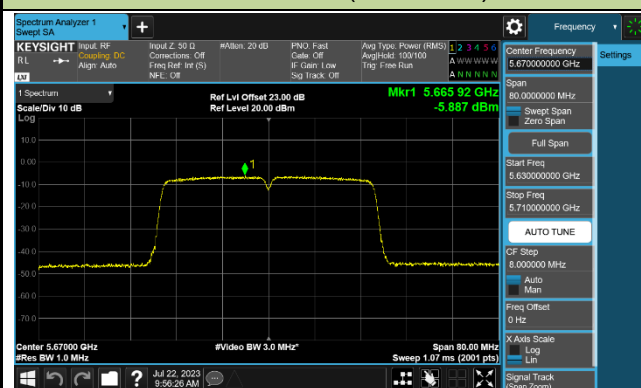
Channel 102 (5510MHz)



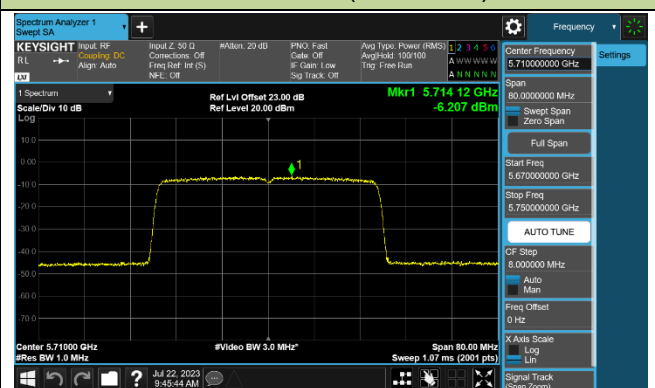
Channel 110 (5550MHz)

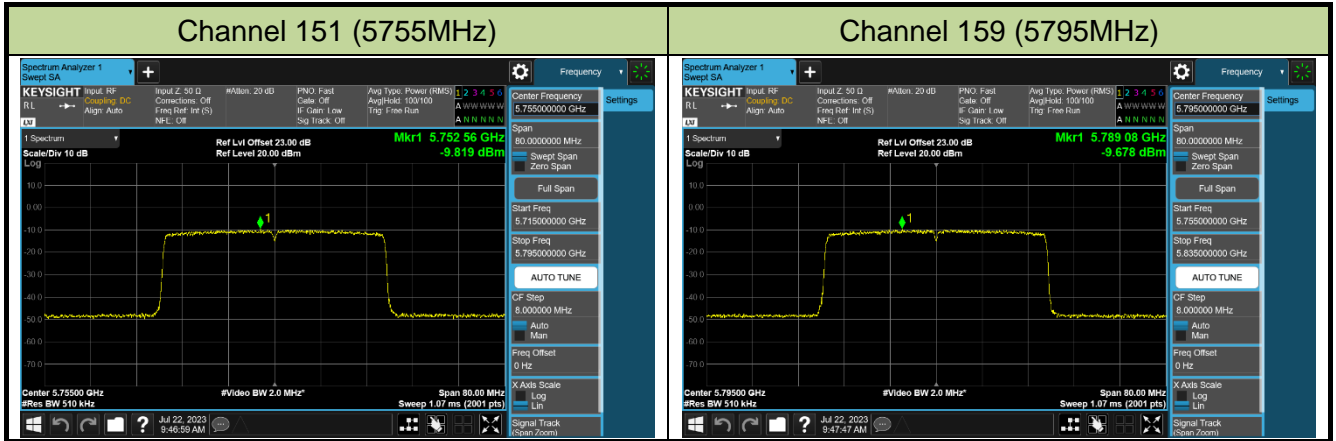


Channel 134 (5670MHz)



Channel 142 (5710MHz)

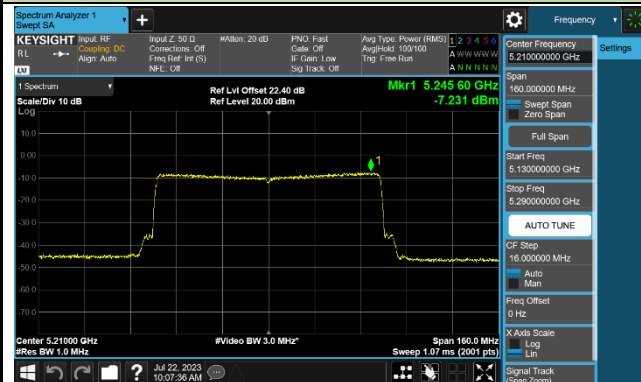




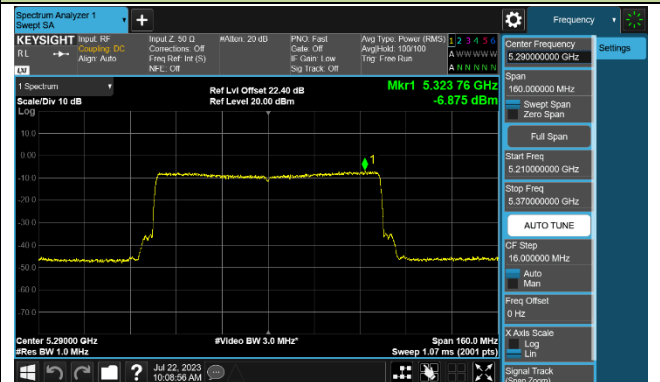


## 802.11ac-VHT80 Power Spectral Density - Ant 0

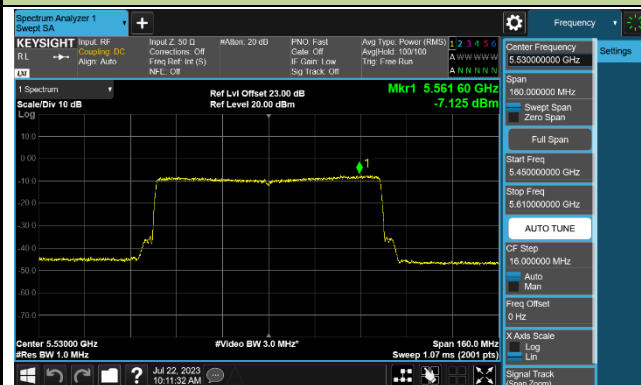
## Channel 42 (5210MHz)



## Channel 58 (5290MHz)



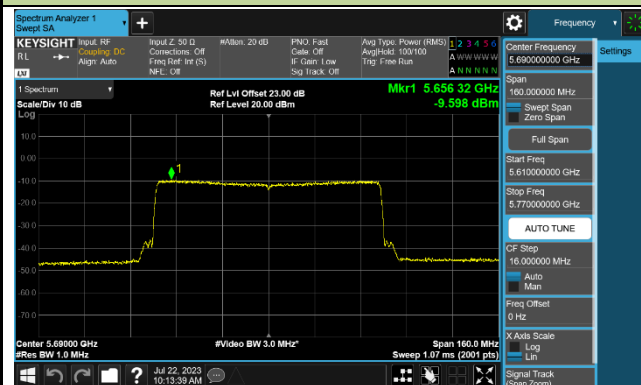
## Channel 106 (5530MHz)



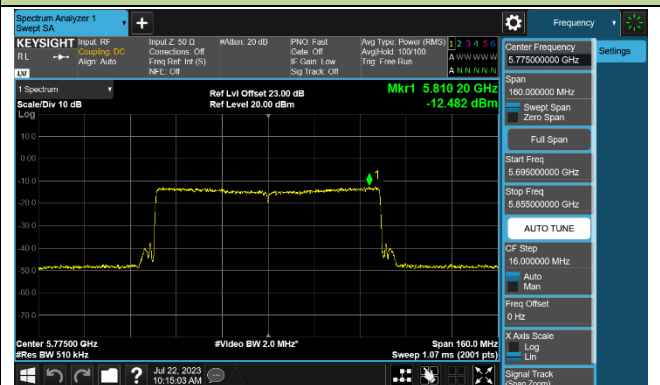
## Channel 122 (5610MHz)



## Channel 138 (5690MHz)

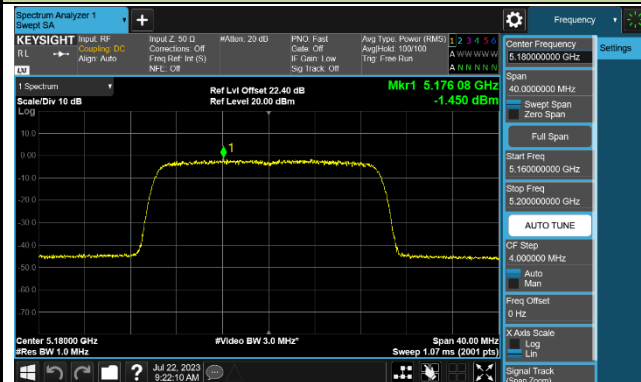


## Channel 155 (5775MHz)

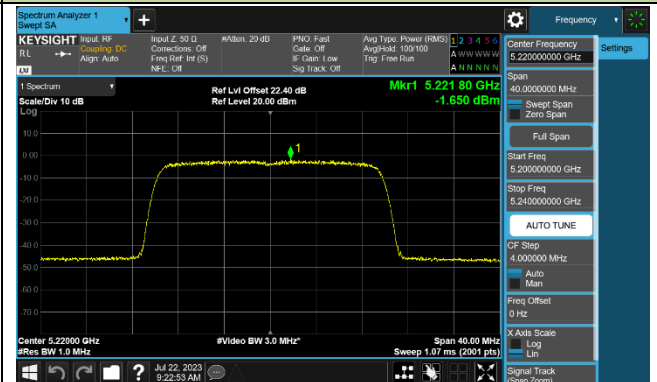


## 802.11ax-HE20 Power Spectral Density - Ant 0

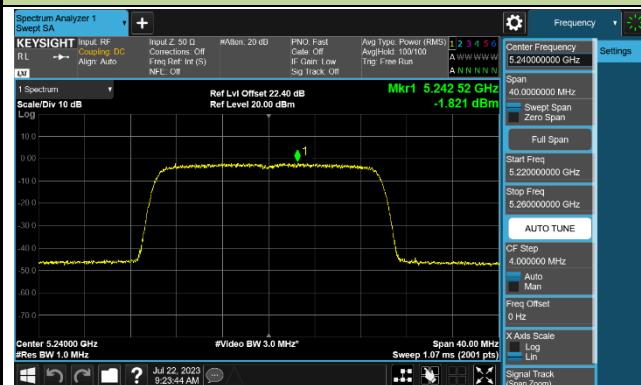
Channel 36 (5180MHz)



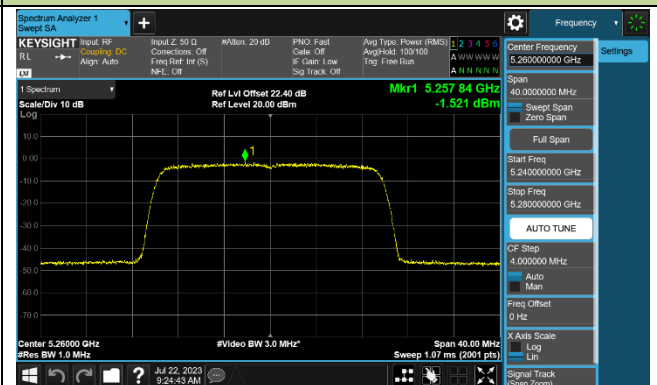
Channel 44 (5220MHz)



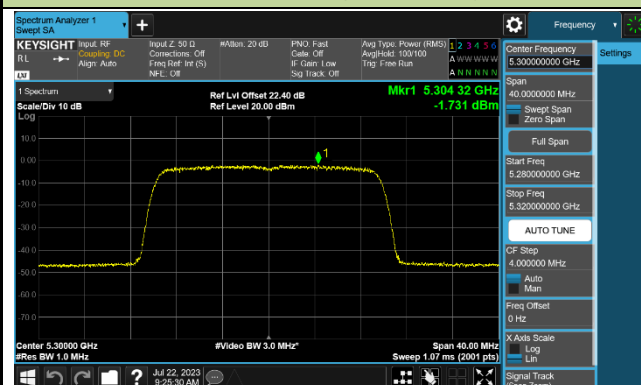
Channel 48 (5240MHz)



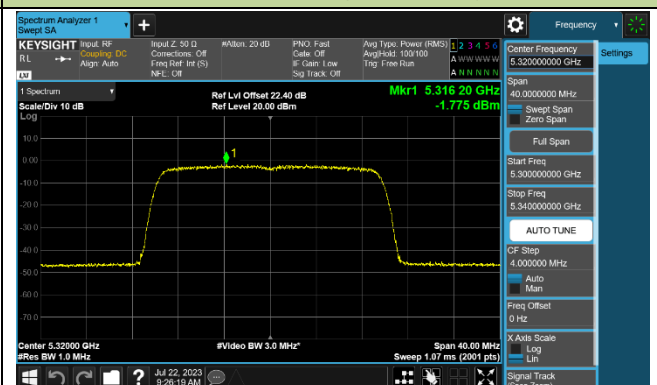
Channel 52 (5260MHz)



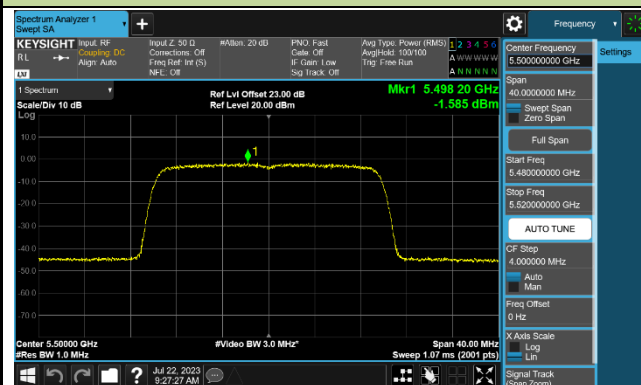
Channel 60 (5300MHz)



Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 116 (5580MHz)

