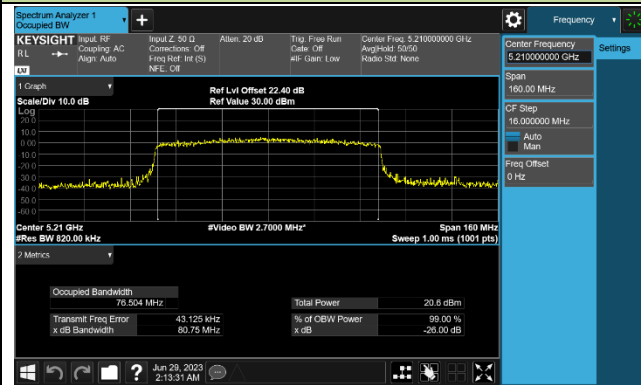
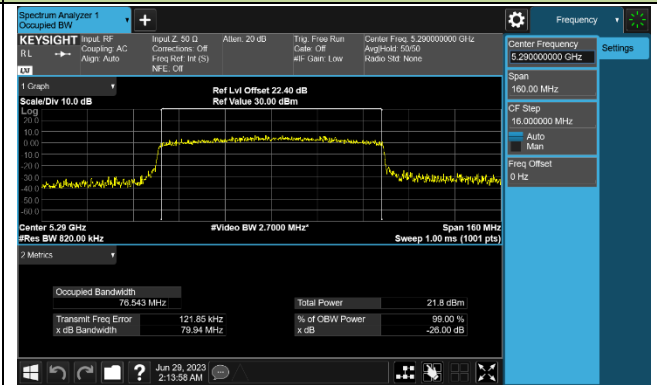


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

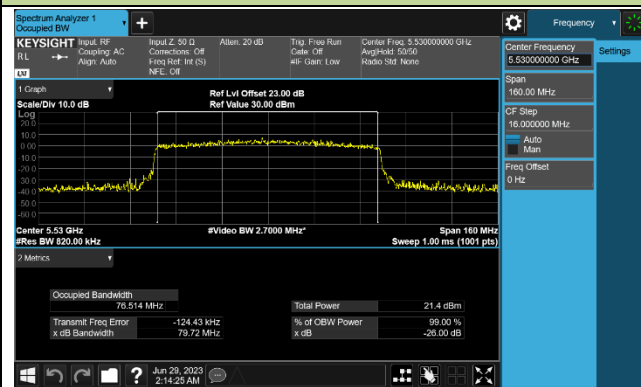
Channel 42 (5210MHz)



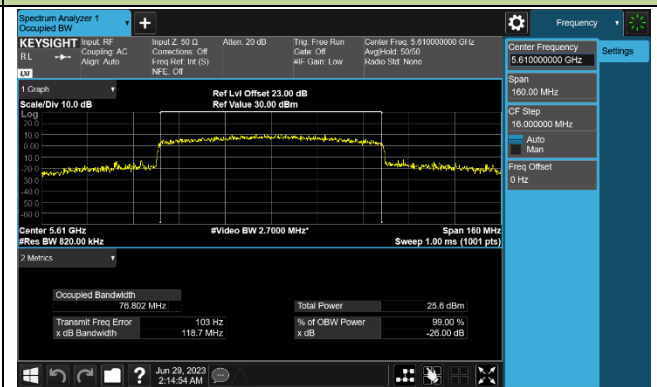
Channel 58 (5290MHz)



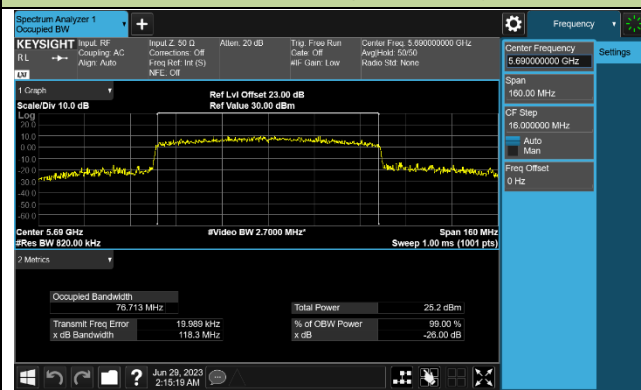
Channel 106 (5530MHz)



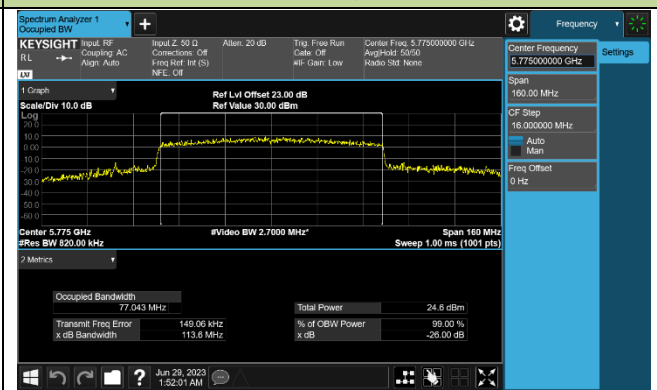
Channel 122 (5610MHz)



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.

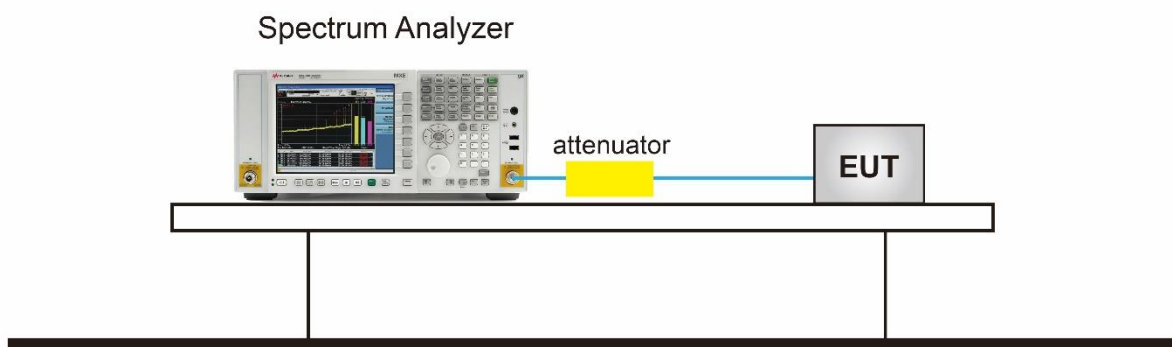
### 7.3.2. Test Procedure used

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



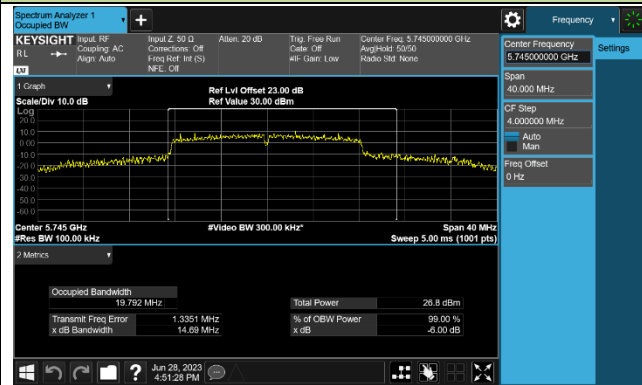
### 7.3.5. Test Result

Product	AX1500 Wi-Fi 6 Range Extender	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/6/28~2023/6/29

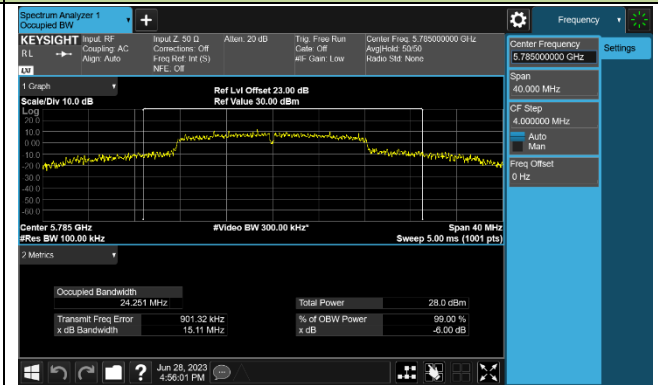
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11a	6Mbps	149	5745	14.690	≥ 0.5	Pass
802.11a	6Mbps	157	5785	15.110	≥ 0.5	Pass
802.11a	6Mbps	165	5825	15.080	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	14.360	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	16.730	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	15.880	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	32.530	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	30.030	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	73.810	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	13.870	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	13.890	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	15.050	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	27.620	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	30.100	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	73.850	≥ 0.5	Pass

802.11a 6dB Bandwidth

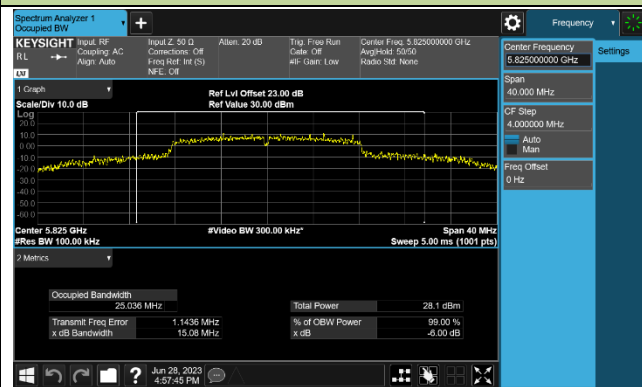
Channel 149 (5745MHz)



Channel 157 (5785MHz)

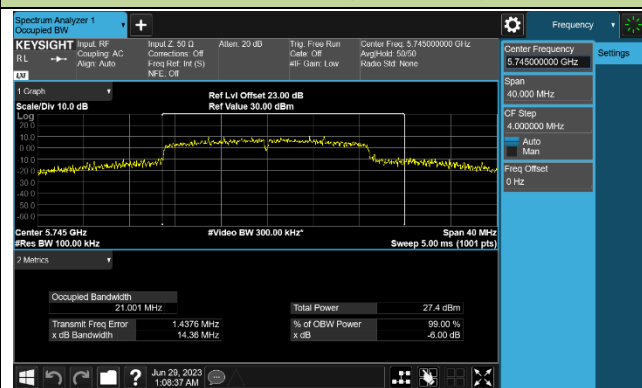


Channel 165 (5825MHz)

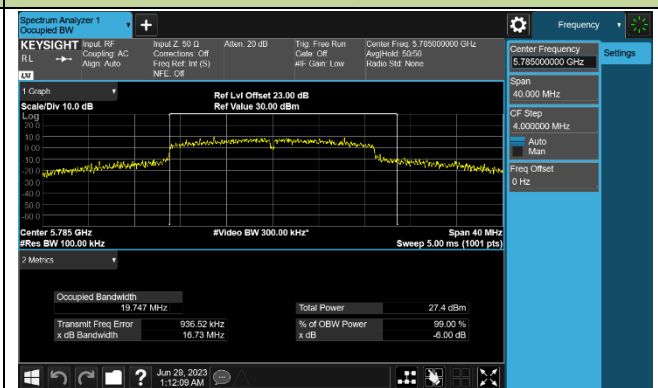


802.11ac-VHT20 6dB Bandwidth

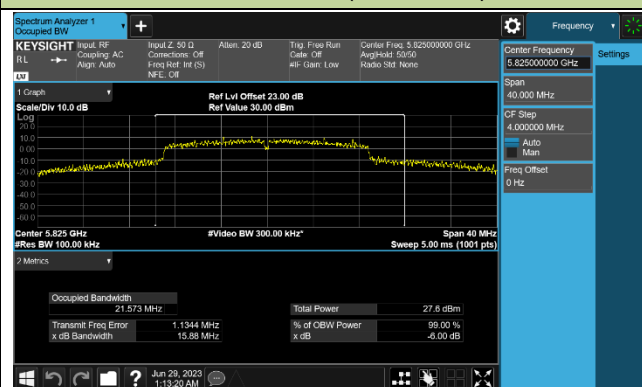
Channel 149 (5745MHz)



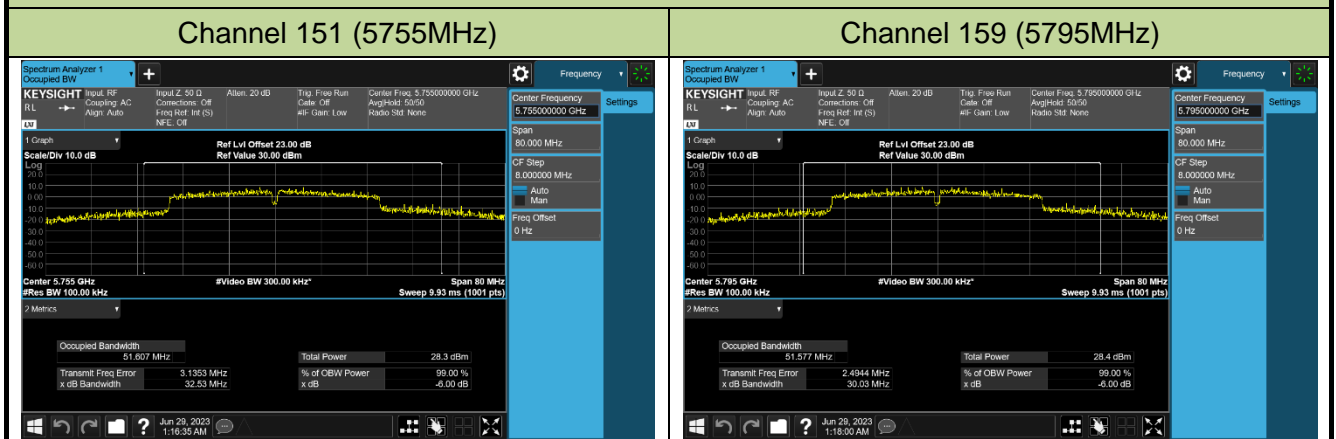
Channel 157 (5785MHz)



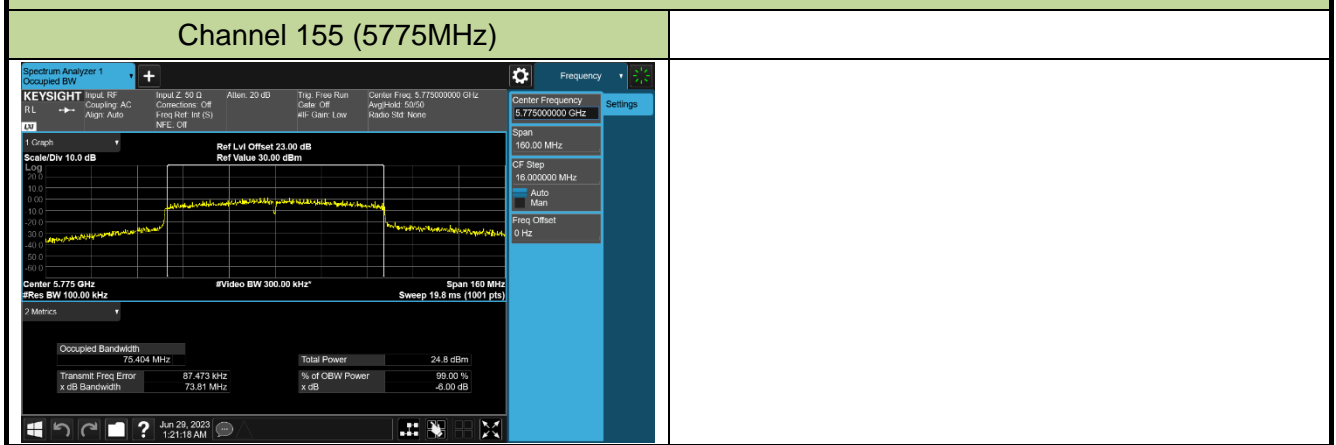
Channel 165 (5825MHz)



802.11ac-VHT40 6dB Bandwidth

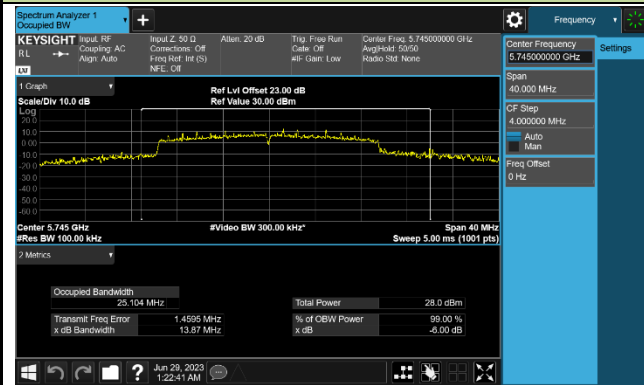


802.11ac-VHT80 6dB Bandwidth

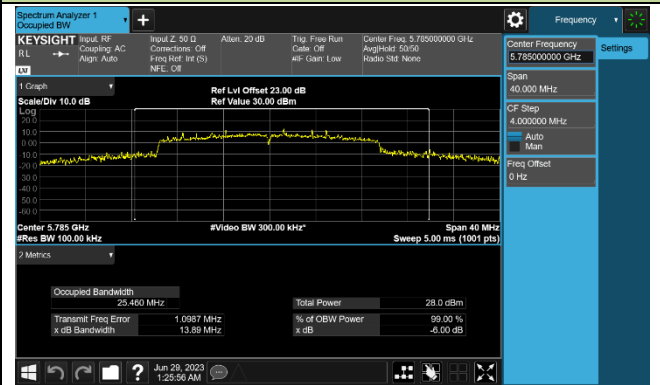


802.11ax-HE20 6dB Bandwidth

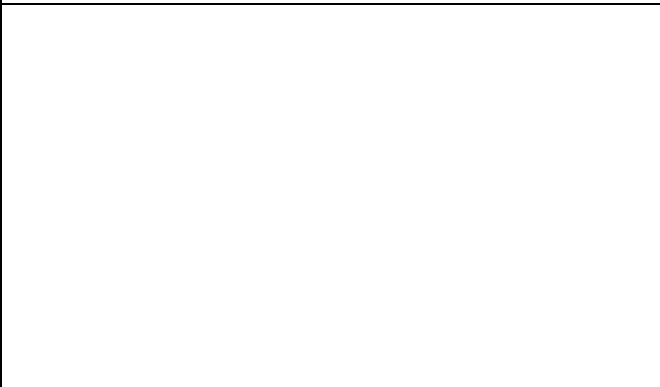
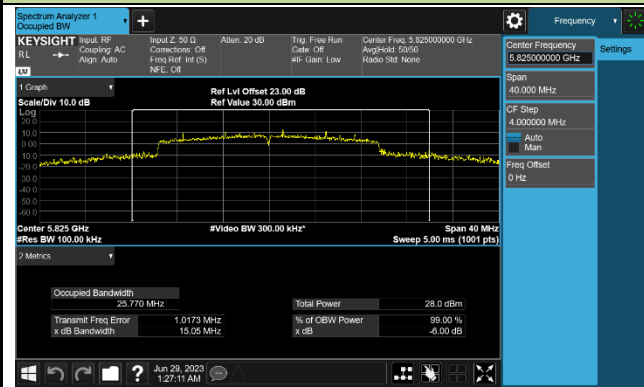
Channel 149 (5745MHz)



Channel 157 (5785MHz)

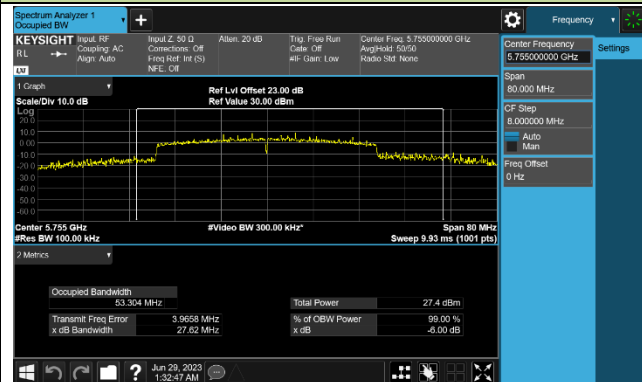


Channel 165 (5825MHz)

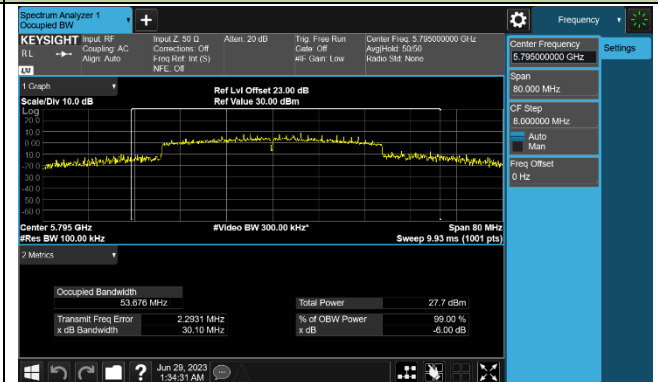


### 802.11ax-HE40 6dB Bandwidth

#### Channel 151 (5755MHz)

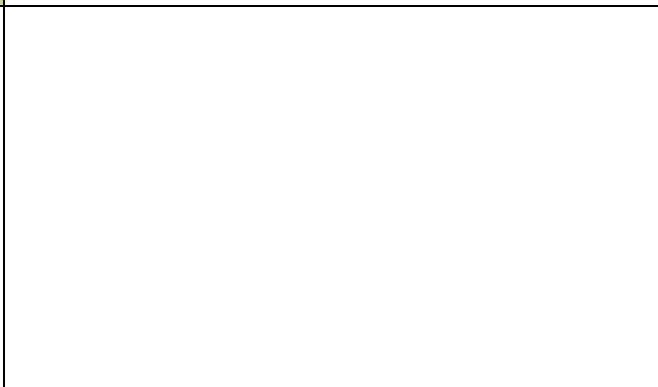
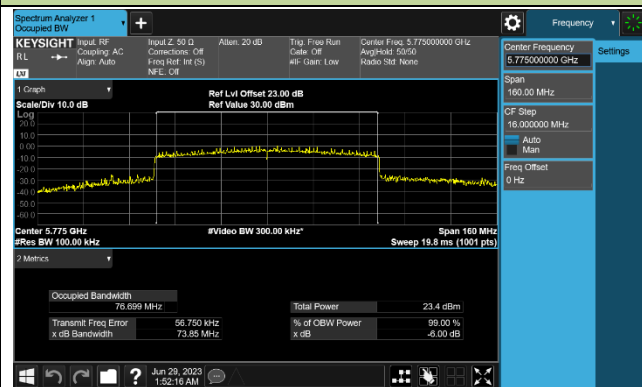


#### Channel 159 (5795MHz)



### 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 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.

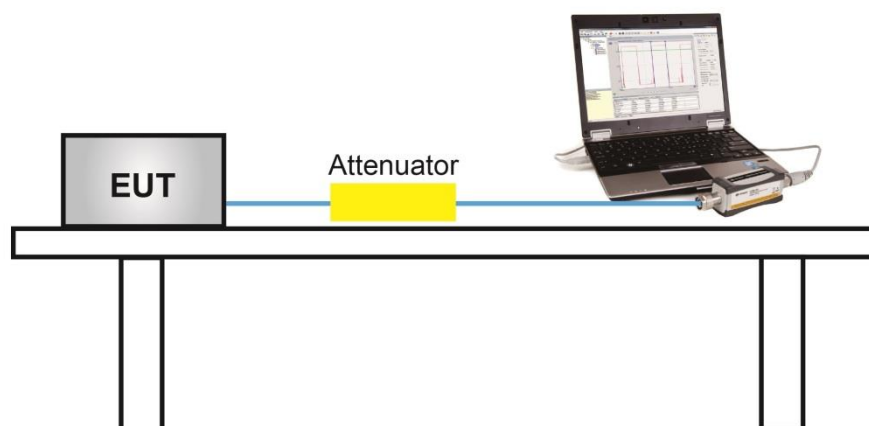
### 7.4.2. Test Procedure Used

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	AX1500 Wi-Fi 6 Range Extender	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/6/20~2023/8/31
Test Mode	CDD Mode		

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	19.65	19.79	22.73	≤ 30.00	Pass
11a	6Mbps	44	5220	23.33	23.22	26.29	≤ 30.00	Pass
11a	6Mbps	48	5240	23.11	23.18	26.16	≤ 30.00	Pass
11a	6Mbps	52	5260	18.45	20.10	22.36	≤ 23.98	Pass
11a	6Mbps	60	5300	18.37	18.92	21.66	≤ 23.98	Pass
11a	6Mbps	64	5320	18.69	18.92	21.82	≤ 23.98	Pass
11a	6Mbps	100	5500	18.35	18.14	21.26	≤ 23.98	Pass
11a	6Mbps	116	5580	18.01	18.47	21.26	≤ 23.98	Pass
11a	6Mbps	140	5700	18.31	18.15	21.24	≤ 23.98	Pass
11a	6Mbps	144	5720	18.76	18.92	21.85	≤ 22.48	Pass
11a	6Mbps	149	5745	23.57	22.92	26.27	≤ 30.00	Pass
11a	6Mbps	157	5785	22.35	24.09	26.32	≤ 30.00	Pass
11a	6Mbps	165	5825	22.84	24.18	26.57	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	19.60	19.83	22.73	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	23.02	23.18	26.11	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	23.11	23.18	26.16	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	17.24	19.08	21.27	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.40	18.32	20.89	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	17.63	18.16	20.91	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.00	17.46	20.75	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	17.86	18.95	21.45	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.05	18.28	21.18	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.11	17.92	21.03	≤ 22.81	Pass
11ac-VHT20	MCS0	149	5745	23.51	23.00	26.27	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.63	23.07	26.37	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.74	23.32	26.55	≤ 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	17.00	17.10	20.06	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	22.19	22.22	25.22	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.98	20.38	23.70	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	17.88	18.08	20.99	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	17.94	18.24	21.10	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	19.72	21.16	23.51	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.14	19.32	22.76	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	20.42	21.01	23.74	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	22.38	23.92	26.23	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	22.45	23.80	26.19	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	14.92	15.12	18.03	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	15.78	16.35	19.08	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	17.41	17.27	20.35	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	20.34	20.47	23.42	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	21.09	20.45	23.79	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	20.70	20.01	23.38	≤ 30.00	Pass
11ax-HE20	MCS0	36	5180	18.97	18.95	21.97	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	23.34	23.27	26.32	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	22.73	22.90	25.83	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.20	19.08	21.25	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.03	17.85	20.47	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	16.81	17.60	20.23	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.10	18.54	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	17.66	18.59	21.16	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	17.61	17.65	20.64	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.25	18.22	21.25	≤ 22.75	Pass
11ax-HE20	MCS0	149	5745	23.06	23.71	26.41	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.24	23.61	26.44	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	22.81	23.81	26.35	≤ 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	16.82	16.66	19.75	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	22.93	22.80	25.88	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	21.19	20.50	23.87	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	17.49	17.84	20.68	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	18.05	18.37	21.22	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	20.12	21.38	23.81	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	18.77	18.85	21.82	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.13	20.44	23.30	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	23.51	23.58	26.56	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	22.88	24.19	26.59	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	16.41	16.41	19.42	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	16.95	17.43	20.21	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	17.49	17.26	20.39	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.18	21.38	23.83	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.87	20.82	23.86	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	20.73	20.35	23.55	≤ 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 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) =  $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.48$  dBm.

For 802.11ac Ch144 (5720MHz), Average Power Limit (dBm) =  $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.81$  dBm.

For 802.11ax Ch144 (5720MHz), Average Power Limit (dBm) =  $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.75$  dBm.

Product	AX1500 Wi-Fi 6 Range Extender	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/6/20~2023/8/31
Test Mode	Beamforming Mode		

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-VHT20	MCS0	36	5180	19.60	19.83	22.73	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	23.02	23.18	26.11	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	23.11	23.18	26.16	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	17.24	19.08	21.27	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.40	18.32	20.89	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	17.63	18.16	20.91	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.00	17.46	20.75	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	17.86	18.95	21.45	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.05	18.28	21.18	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.11	17.92	21.03	≤ 22.81	Pass
11ac-VHT20	MCS0	149	5745	23.51	23.00	26.27	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.63	23.07	26.37	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.74	23.32	26.55	≤ 30.00	Pass
11ac-VHT40	MCS0	38	5190	17.00	17.10	20.06	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	22.19	22.22	25.22	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.98	20.38	23.70	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	17.88	18.08	20.99	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	17.94	18.24	21.10	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	19.72	21.16	23.51	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.14	19.32	22.76	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	20.42	21.01	23.74	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	22.38	23.92	26.23	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	22.45	23.80	26.19	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	14.92	15.12	18.03	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	15.78	16.35	19.08	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	17.41	17.27	20.35	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	20.34	20.47	23.42	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	21.09	20.45	23.79	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	20.70	20.01	23.38	≤ 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
11ax-HE20	MCS0	36	5180	18.97	18.95	21.97	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	23.34	23.27	26.32	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	22.73	22.90	25.83	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.20	19.08	21.25	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.03	17.85	20.47	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	16.81	17.60	20.23	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.10	18.54	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	17.66	18.59	21.16	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	17.61	17.65	20.64	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.25	18.22	21.25	≤ 22.75	Pass
11ax-HE20	MCS0	149	5745	23.06	23.71	26.41	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.24	23.61	26.44	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	22.81	23.81	26.35	≤ 30.00	Pass
11ax-HE40	MCS0	38	5190	16.82	16.66	19.75	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	22.93	22.80	25.88	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	21.19	20.50	23.87	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	17.49	17.84	20.68	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	18.05	18.37	21.22	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	20.12	21.38	23.81	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	18.77	18.85	21.82	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.13	20.44	23.30	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	23.51	23.58	26.56	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	22.88	24.19	26.59	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	16.41	16.41	19.42	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	16.95	17.43	20.21	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	17.49	17.26	20.39	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.18	21.38	23.83	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.87	20.82	23.86	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	20.73	20.35	23.55	≤ 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 5125 - 5250MHz Band: Average Power Limit (dBm) = 30dBm

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

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

For 802.11ac Ch144 (5720MHz), Average Power Limit (dBm) =  $11+10*\log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)=22.81$  dBm.

For 802.11ax Ch144 (5720MHz), Average Power Limit (dBm) =  $11+10*\log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)=22.75$  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.

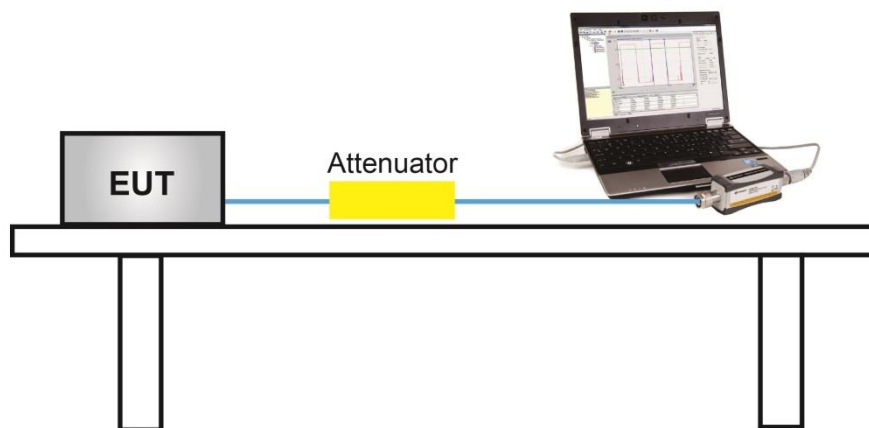
### 7.5.2. Test Procedure Used

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 the antenna exceeds 6dBi.

### 7.6.2. Test Procedure Used

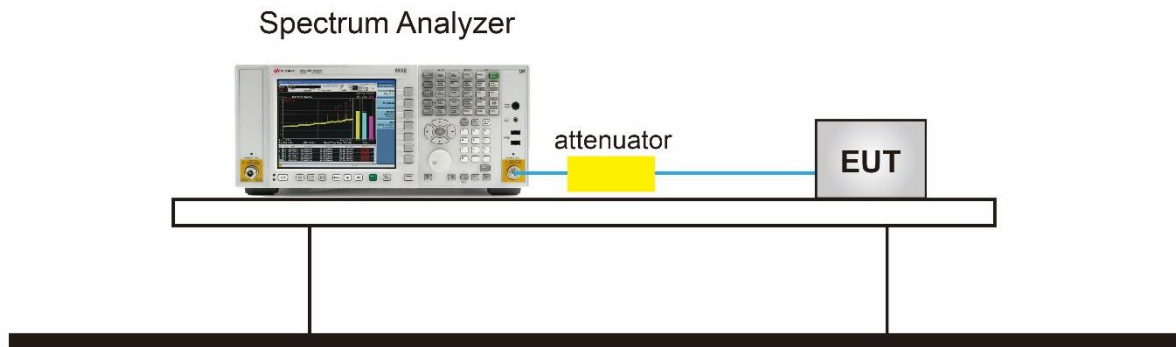
KDB 789033 D02v02r01-SectionF

### 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	AX1500 Wi-Fi 6 Range Extender	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/6/28~2023/6/29
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	6.516	6.344	92.77%	9.767	≤ 17.00	Pass
11a	6Mbps	44	5220	10.087	8.999	92.77%	12.913	≤ 17.00	Pass
11a	6Mbps	48	5240	10.635	11.120	92.77%	14.220	≤ 17.00	Pass
11a	6Mbps	52	5260	7.409	7.641	92.77%	10.863	≤ 11.00	Pass
11a	6Mbps	60	5300	7.584	7.404	92.77%	10.831	≤ 11.00	Pass
11a	6Mbps	64	5320	7.165	7.448	92.77%	10.645	≤ 11.00	Pass
11a	6Mbps	100	5500	7.855	7.177	92.77%	10.865	≤ 11.00	Pass
11a	6Mbps	116	5580	7.650	7.470	92.77%	10.897	≤ 11.00	Pass
11a	6Mbps	140	5700	7.249	7.446	92.77%	10.685	≤ 11.00	Pass
11a	6Mbps	144	5720	7.493	7.563	92.77%	10.864	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	9.089	9.626	92.63%	12.709	≤ 17.00	Pass
11ac-VHT20	MCS0	44	5220	11.233	11.047	92.63%	14.484	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	11.277	11.147	92.63%	14.555	≤ 17.00	Pass
11ac-VHT20	MCS0	52	5260	6.679	8.212	92.63%	10.856	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	7.012	8.056	92.63%	10.908	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	7.154	7.721	92.63%	10.790	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	7.260	6.949	92.63%	10.450	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	6.803	7.480	92.63%	10.497	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	7.244	7.365	92.63%	10.648	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	7.294	7.502	92.63%	10.742	≤ 11.00	Pass
11ac-VHT40	MCS0	38	5190	2.629	3.073	84.93%	6.576	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	8.460	8.439	84.93%	12.169	≤ 17.00	Pass
11ac-VHT40	MCS0	54	5270	6.553	7.668	84.93%	10.866	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	4.496	4.162	84.93%	8.052	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	3.860	4.030	84.93%	7.666	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	7.315	6.731	84.93%	10.752	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	6.525	6.413	84.93%	10.189	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	7.234	6.922	84.93%	10.800	≤ 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	-1.656	-1.591	74.10%	2.689	≤ 17.00	Pass
11ac-VHT80	MCS0	58	5290	-0.195	0.031	74.10%	4.232	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	0.325	-0.583	74.10%	4.207	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	4.111	3.965	74.10%	8.351	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	4.115	3.417	74.10%	8.092	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	7.850	7.882	90.18%	11.325	≤ 17.00	Pass
11ax-HE20	MCS0	44	5220	11.168	11.378	90.18%	14.733	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	11.471	12.044	90.18%	15.226	≤ 17.00	Pass
11ax-HE20	MCS0	52	5260	6.720	8.038	90.18%	10.888	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	6.960	7.476	90.18%	10.685	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	7.253	7.359	90.18%	10.766	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	7.436	7.431	90.18%	10.893	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	7.057	7.154	90.18%	10.565	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	7.322	6.999	90.18%	10.623	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	7.477	7.393	90.18%	10.894	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	2.411	3.059	82.48%	6.594	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	7.838	8.391	82.48%	11.970	≤ 17.00	Pass
11ax-HE40	MCS0	54	5270	6.761	7.319	82.48%	10.896	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	4.092	4.401	82.48%	8.096	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	3.613	3.702	82.48%	7.505	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	7.212	6.931	82.48%	10.921	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	4.608	5.003	82.48%	8.657	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	6.453	6.702	82.48%	10.426	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	-1.078	-0.929	73.16%	3.365	≤ 17.00	Pass
11ax-HE80	MCS0	58	5290	-0.004	0.013	73.16%	4.372	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	-0.490	-0.703	73.16%	3.772	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	4.216	3.479	73.16%	8.231	≤ 11.00	Pass
11ax-HE80	MCS0	138	5690	3.529	3.521	73.16%	7.893	≤ 11.00	Pass

Note 1: When EUT duty cycle < 98%,

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

Note 2:

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

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

Product	AX1500 Wi-Fi 6 Range Extender	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/6/28~2023/6/29
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

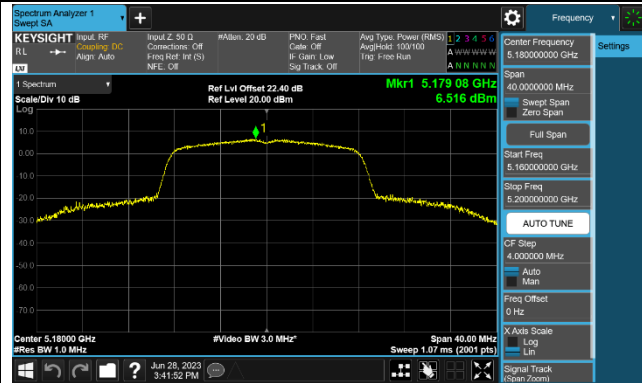
Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/510 KHz)	Ant 1 PSD (dBm/510 KHz)	Duty Cycle (%)	Total PSD (dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	9.042	9.246	92.77%	12.481	≤ 30.00	Pass
11a	6Mbps	157	5785	9.226	9.860	92.77%	12.891	≤ 30.00	Pass
11a	6Mbps	165	5825	9.161	10.234	92.77%	13.067	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	9.171	8.964	92.63%	12.412	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	9.383	8.507	92.63%	12.310	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	9.398	9.423	92.63%	12.753	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	6.072	7.199	84.93%	10.392	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	6.135	6.966	84.93%	10.290	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	1.045	1.030	74.10%	5.350	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	8.924	9.776	90.18%	12.830	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	9.134	9.418	90.18%	12.738	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	8.956	9.755	90.18%	12.833	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	6.243	7.143	82.48%	10.563	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	5.610	6.896	82.48%	10.147	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	0.712	-0.302	73.16%	4.602	≤ 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) +  $10 \cdot \log (1/\text{Duty Cycle})$ .

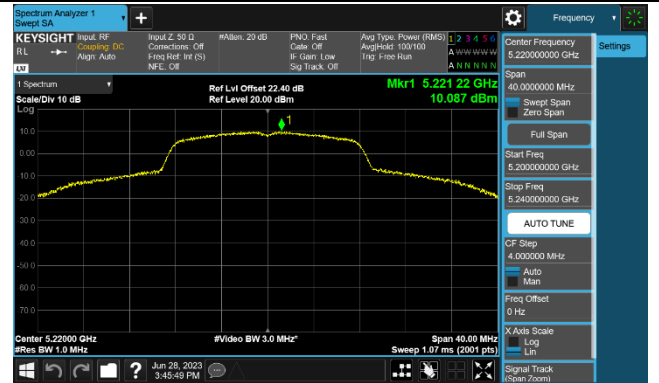
Note 2: PSD Limit (dBm/500kHz) = 30(dBm/500kHz).

## 802.11a Power Spectral Density - Ant 0

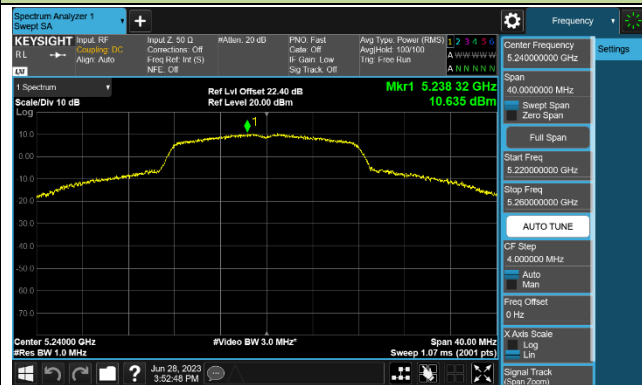
Channel 36 (5180MHz)



Channel 44 (5220MHz)



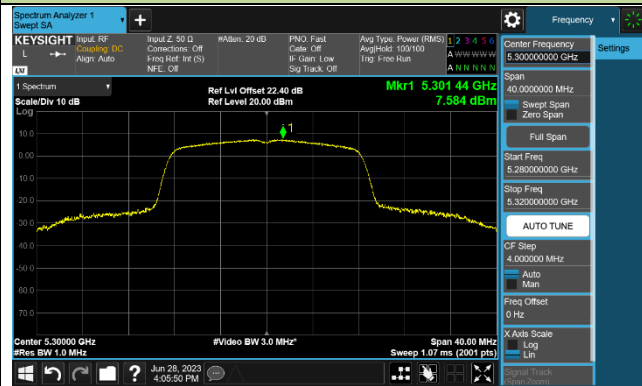
Channel 48 (5240MHz)



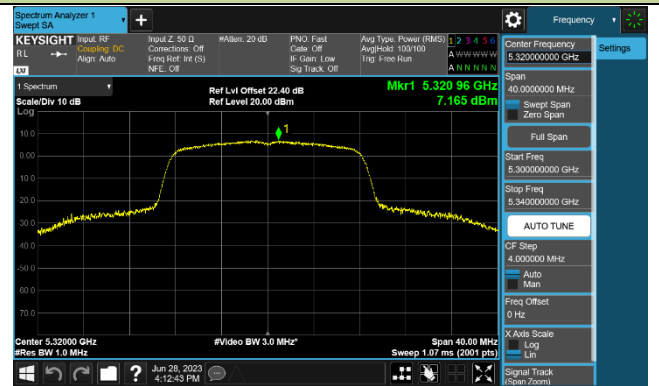
Channel 52 (5260MHz)



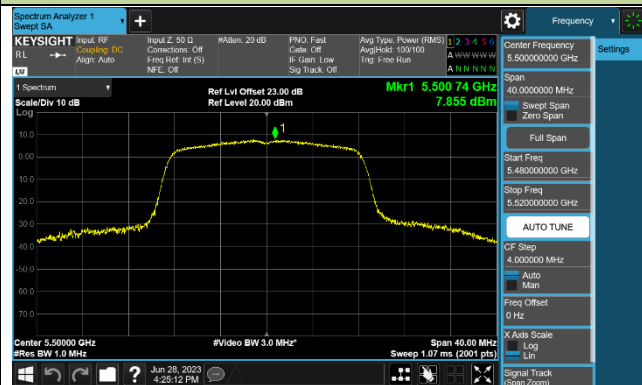
Channel 60 (5300MHz)



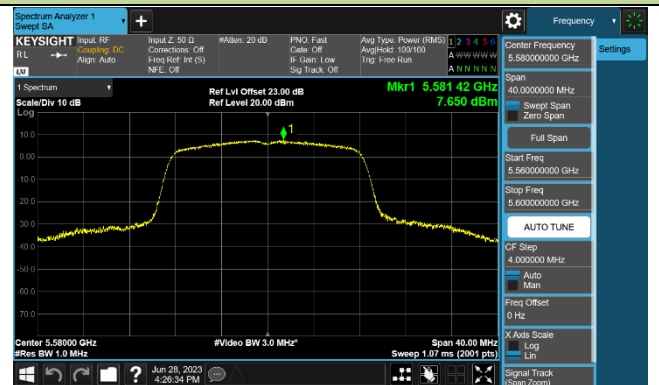
Channel 64 (5320MHz)

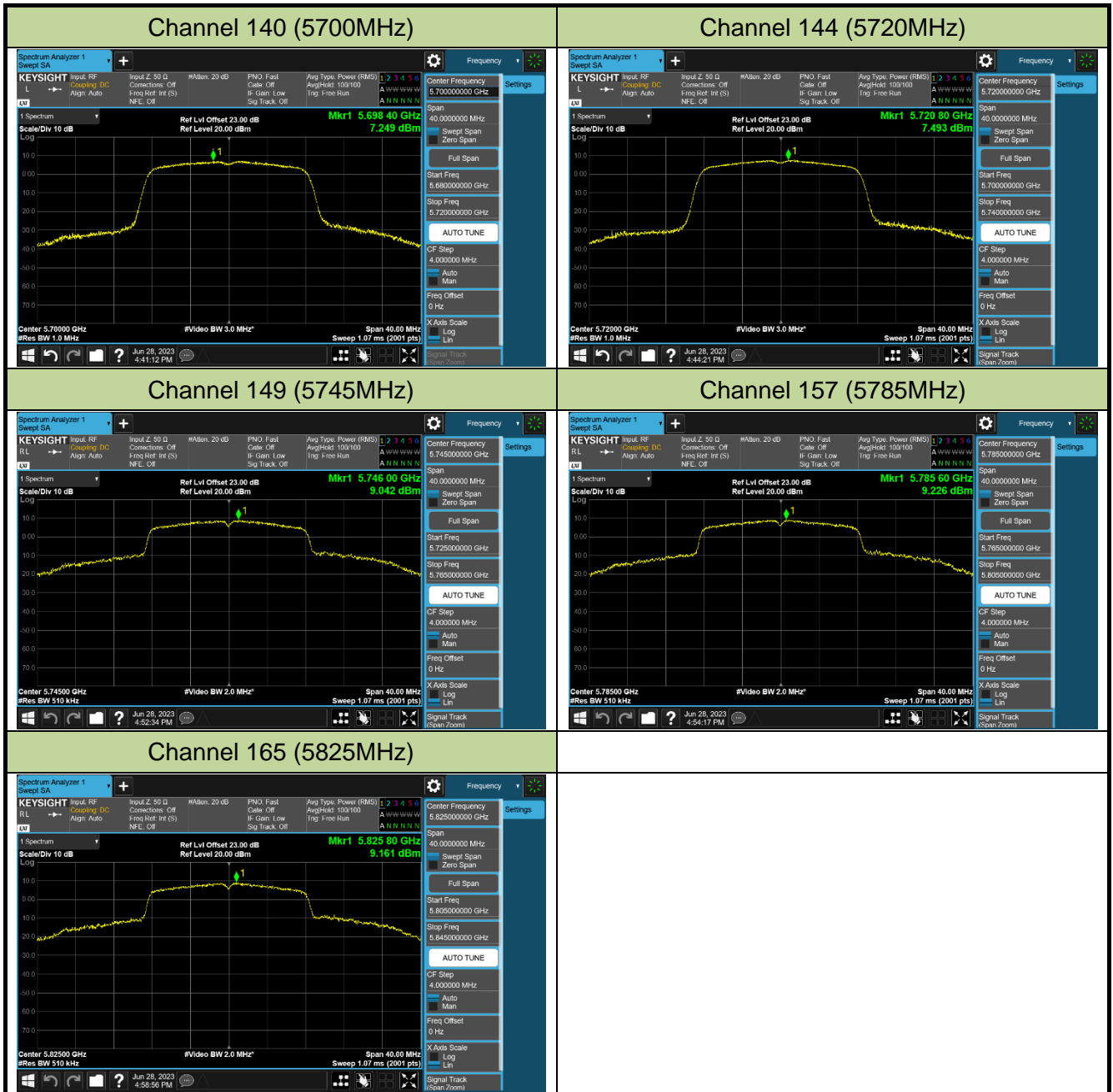


Channel 100 (5500MHz)



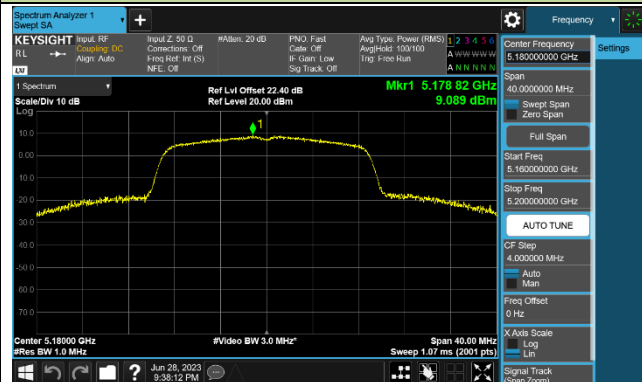
Channel 116 (5580MHz)





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

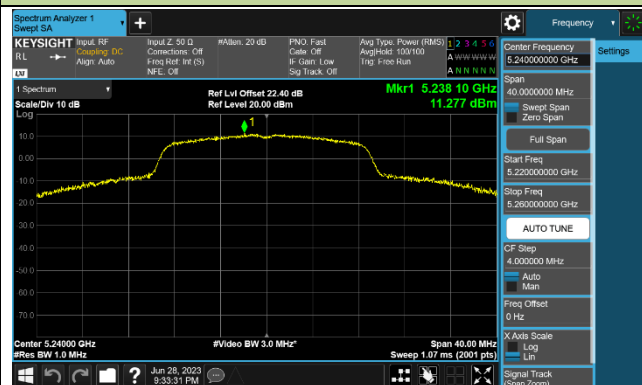
Channel 36 (5180MHz)



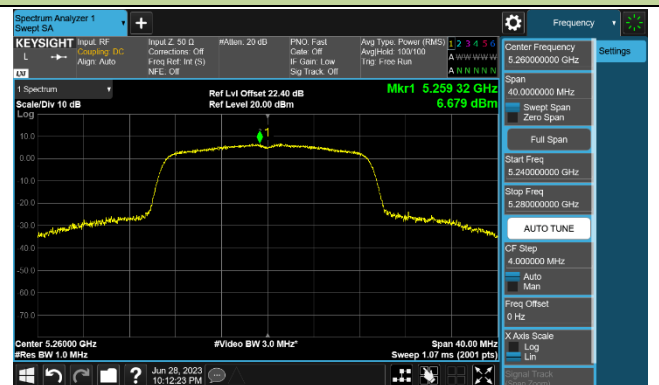
Channel 44 (5220MHz)



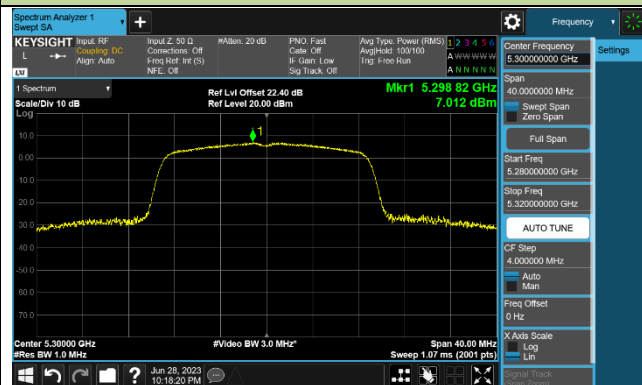
Channel 48 (5240MHz)



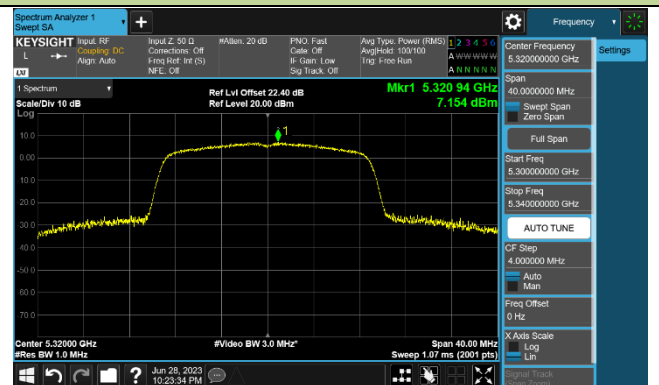
Channel 52 (5260MHz)



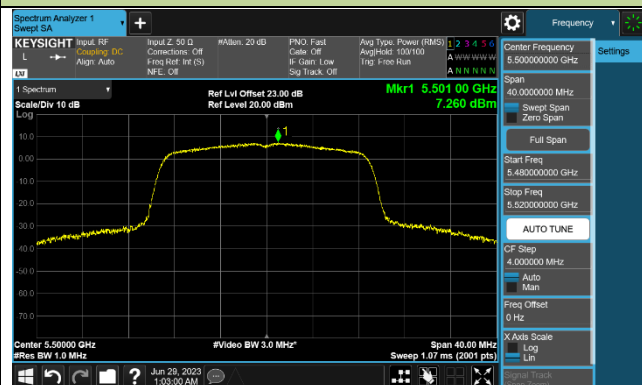
Channel 60 (5300MHz)



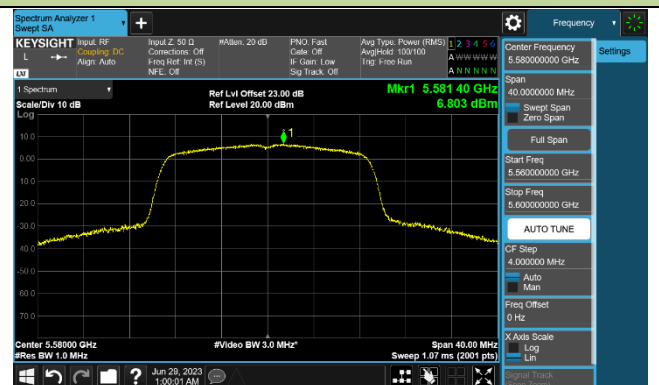
Channel 64 (5320MHz)

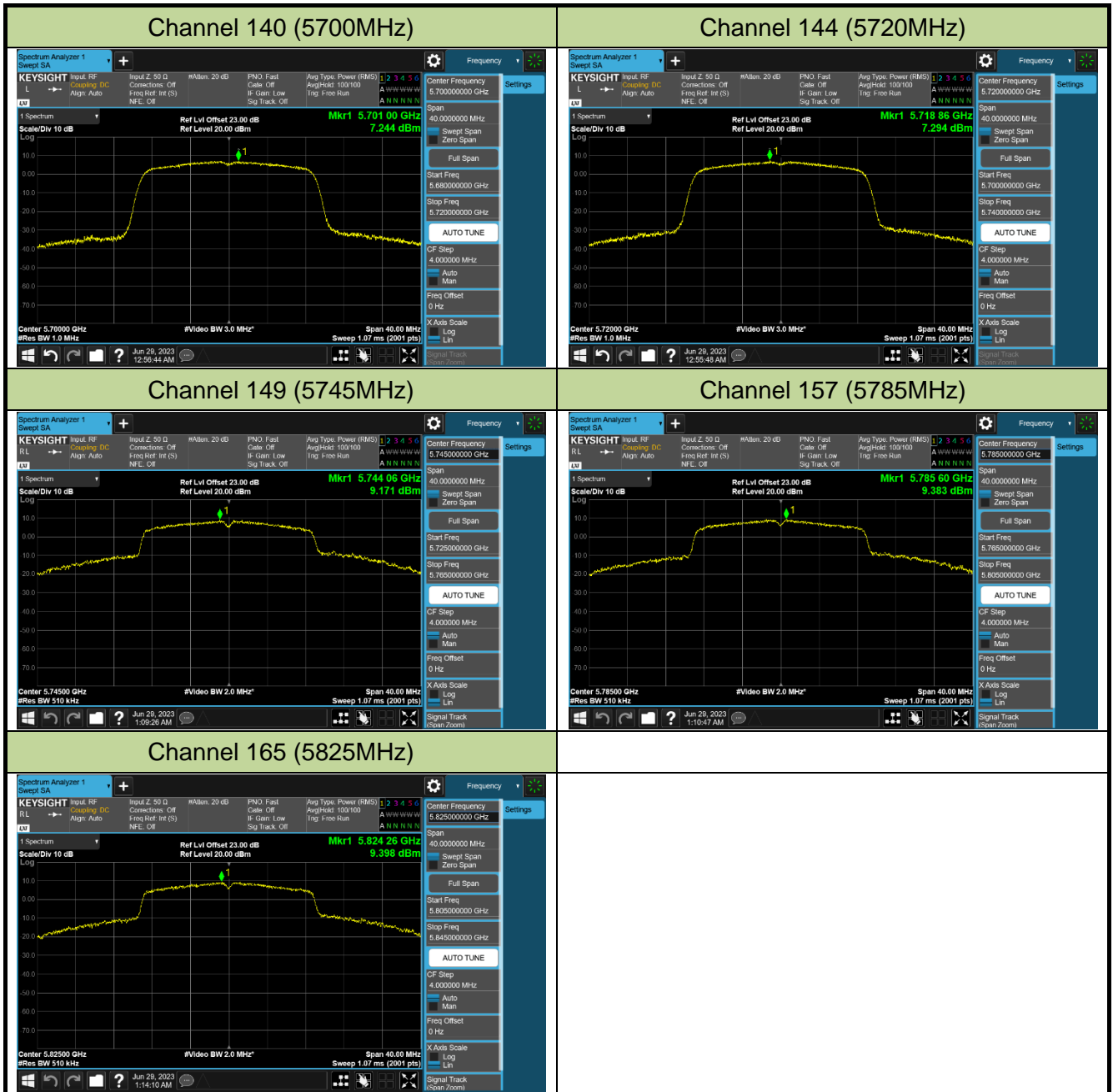


Channel 100 (5500MHz)



Channel 116 (5580MHz)

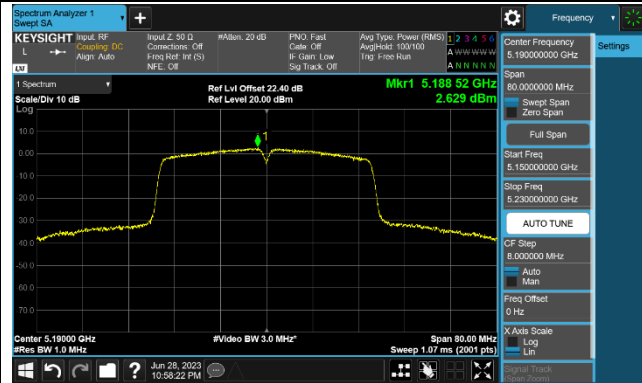




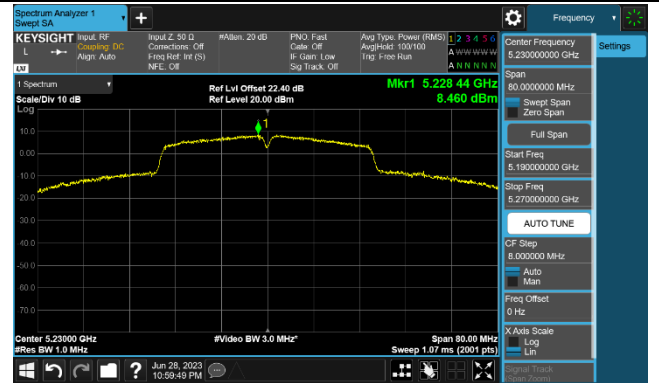


### 802.11ac-VHT40 Power Spectral Density - Ant 0

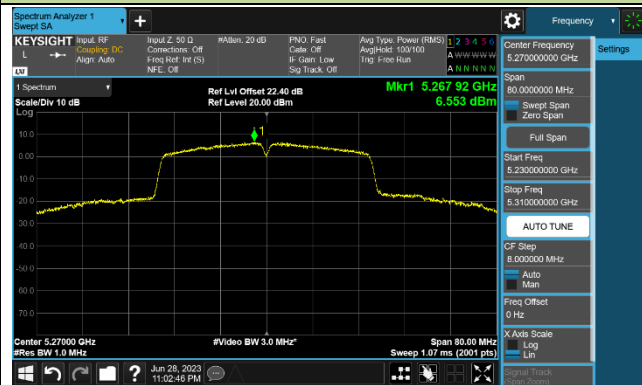
Channel 38 (5190MHz)



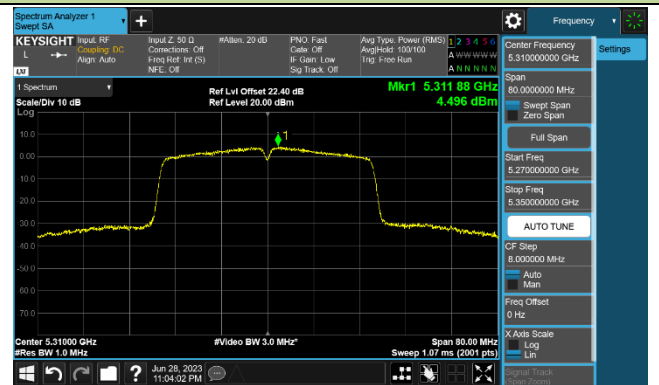
Channel 46 (5230MHz)



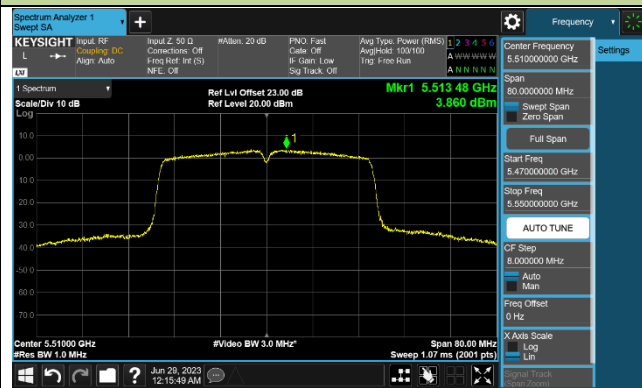
Channel 54 (5270MHz)



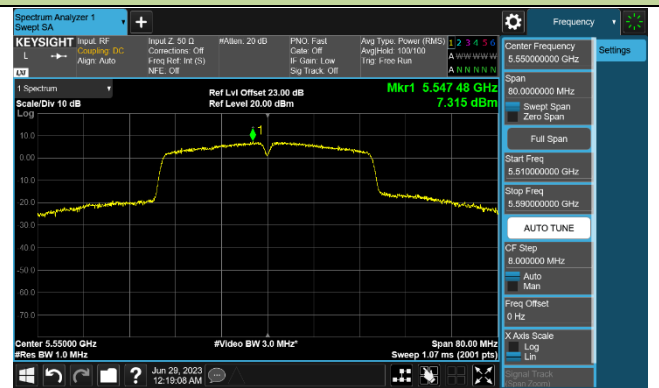
Channel 62 (5310MHz)



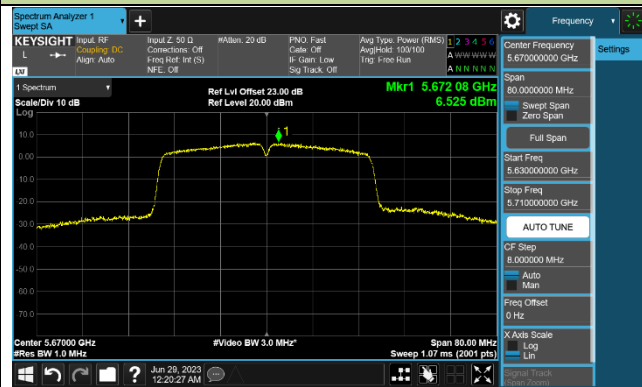
Channel 102 (5510MHz)



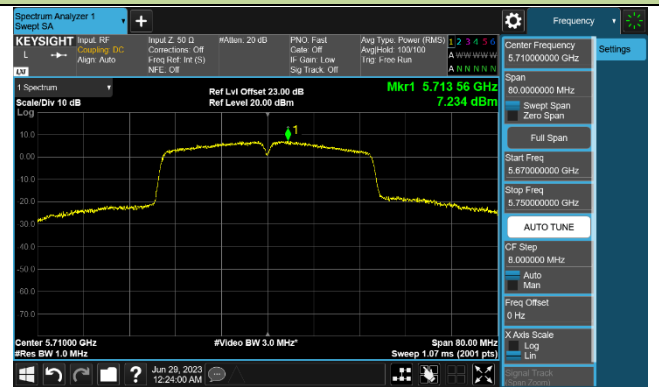
Channel 110 (5550MHz)

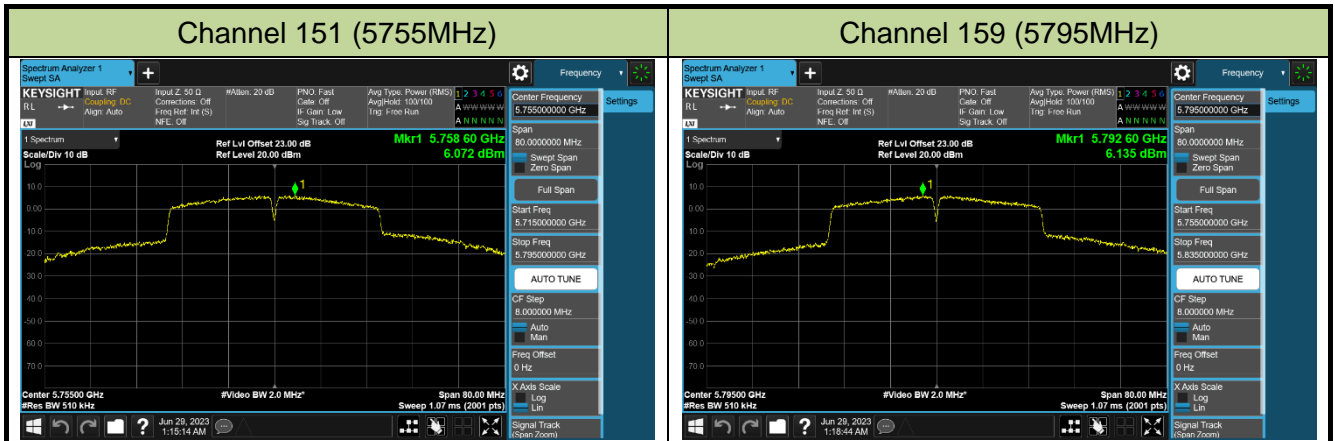


Channel 134 (5670MHz)

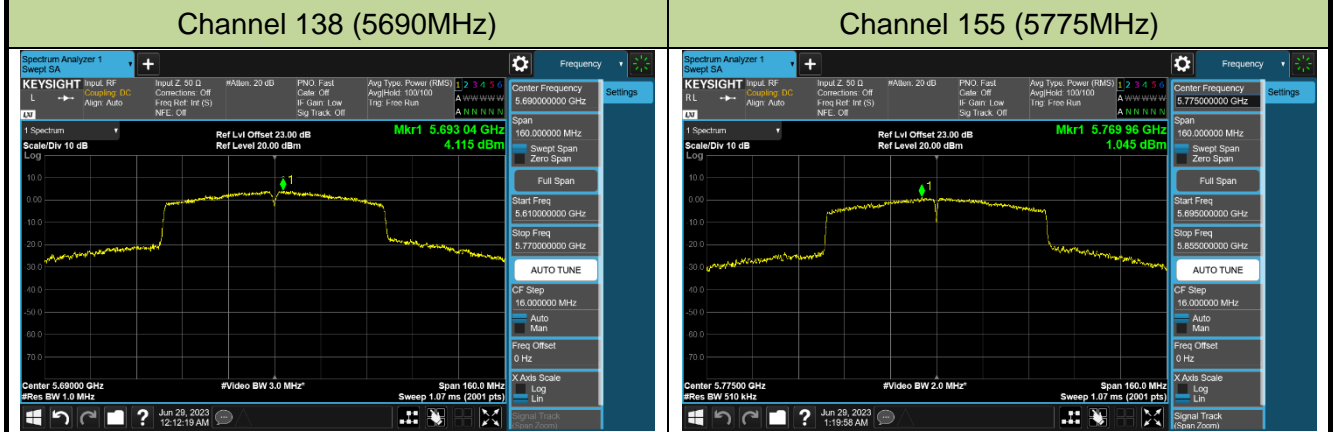
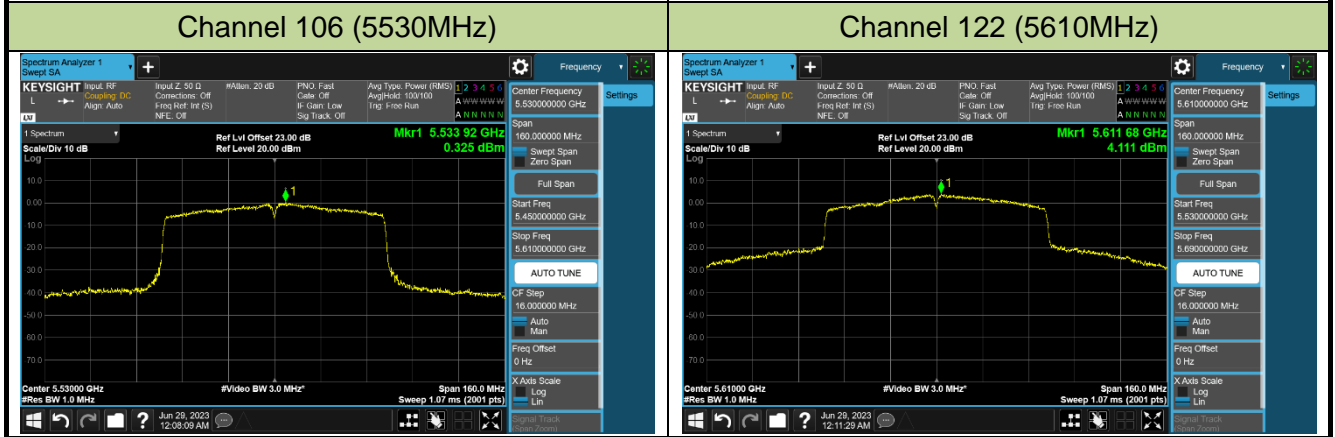
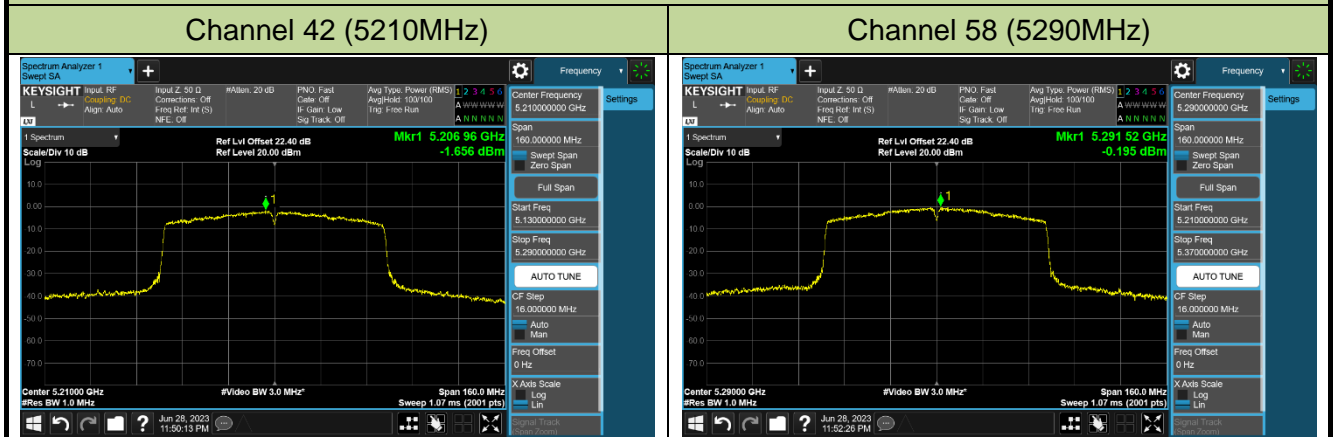


Channel 142 (5710MHz)



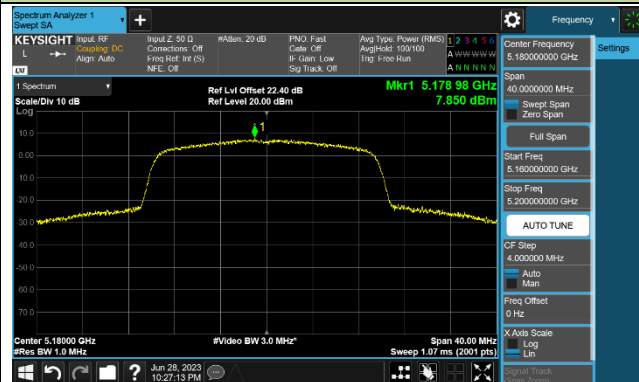


## 802.11ac-VHT80 Power Spectral Density - Ant 0

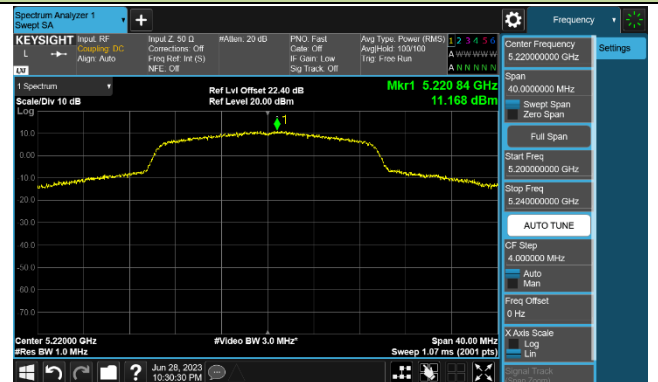


### 802.11ax-HE20 Power Spectral Density - Ant 0

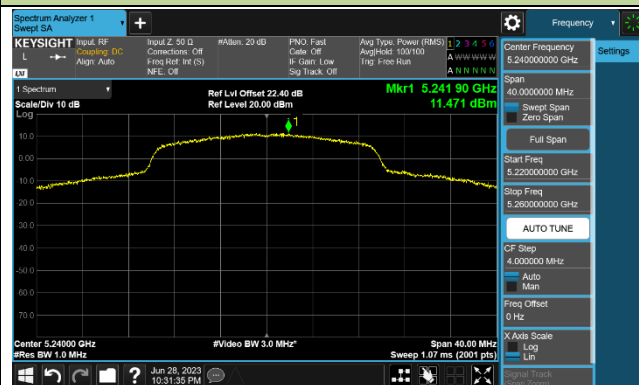
#### Channel 36 (5180MHz)



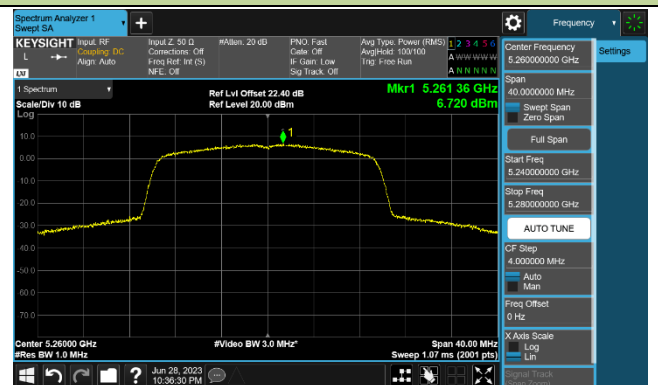
#### Channel 44 (5220MHz)



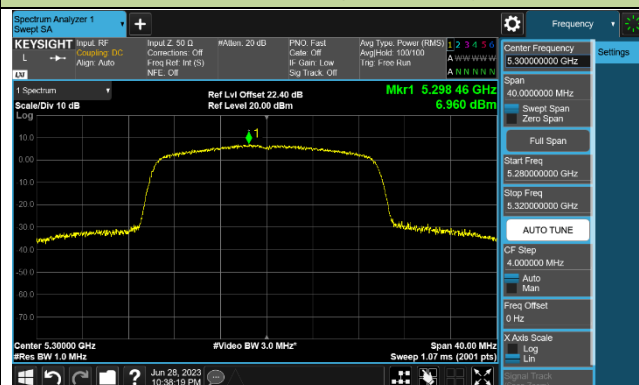
#### Channel 48 (5240MHz)



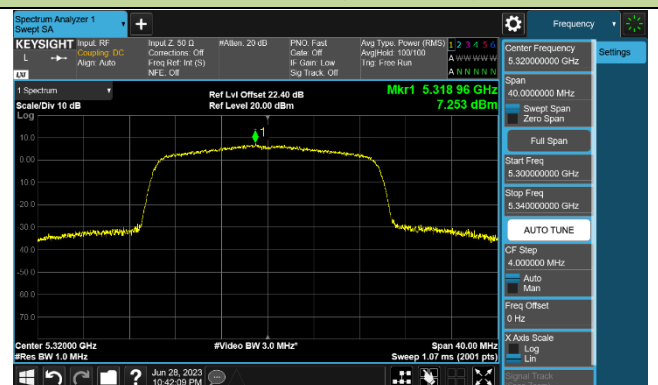
#### Channel 52 (5260MHz)



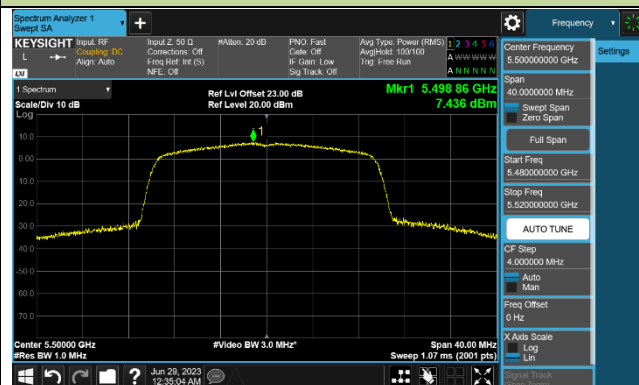
#### Channel 60 (5300MHz)



#### Channel 64 (5320MHz)



#### Channel 100 (5500MHz)



#### Channel 116 (5580MHz)

