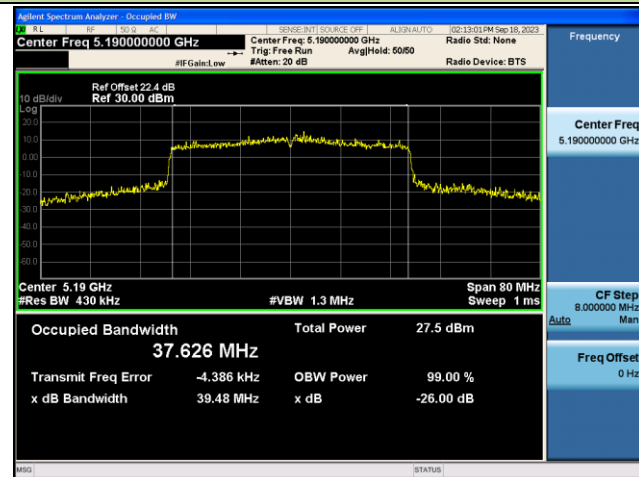


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

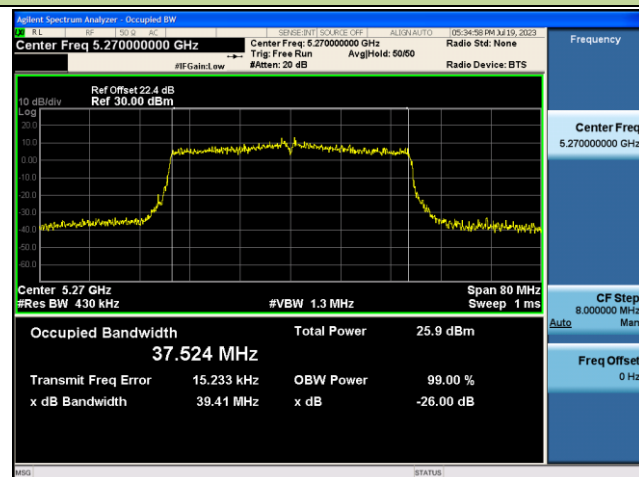
Channel 38 (5190MHz)



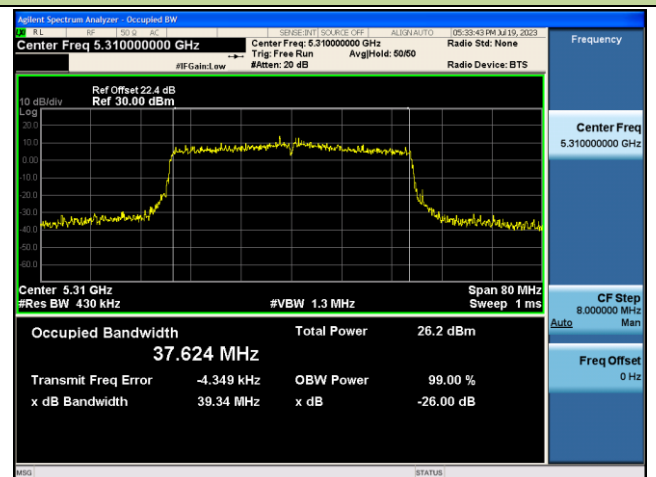
Channel 46 (5230MHz)



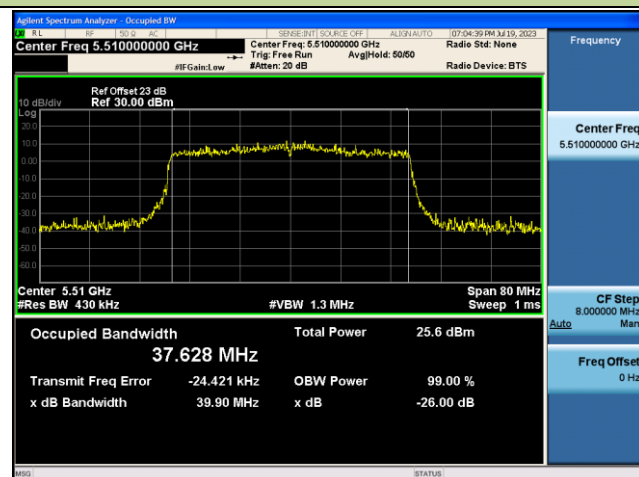
Channel 54 (5270MHz)



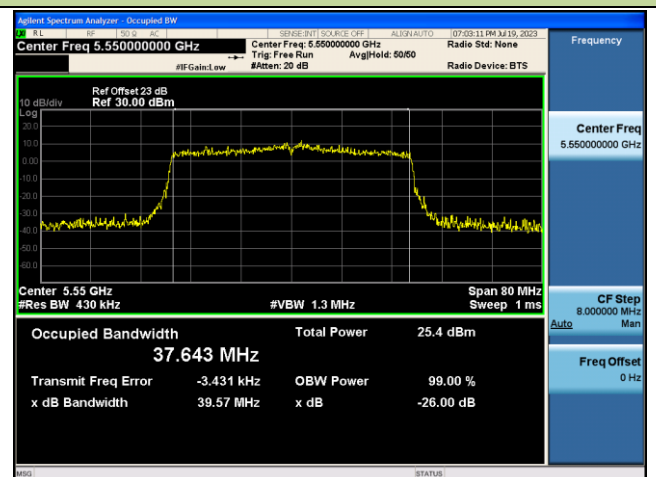
Channel 62 (5310MHz)

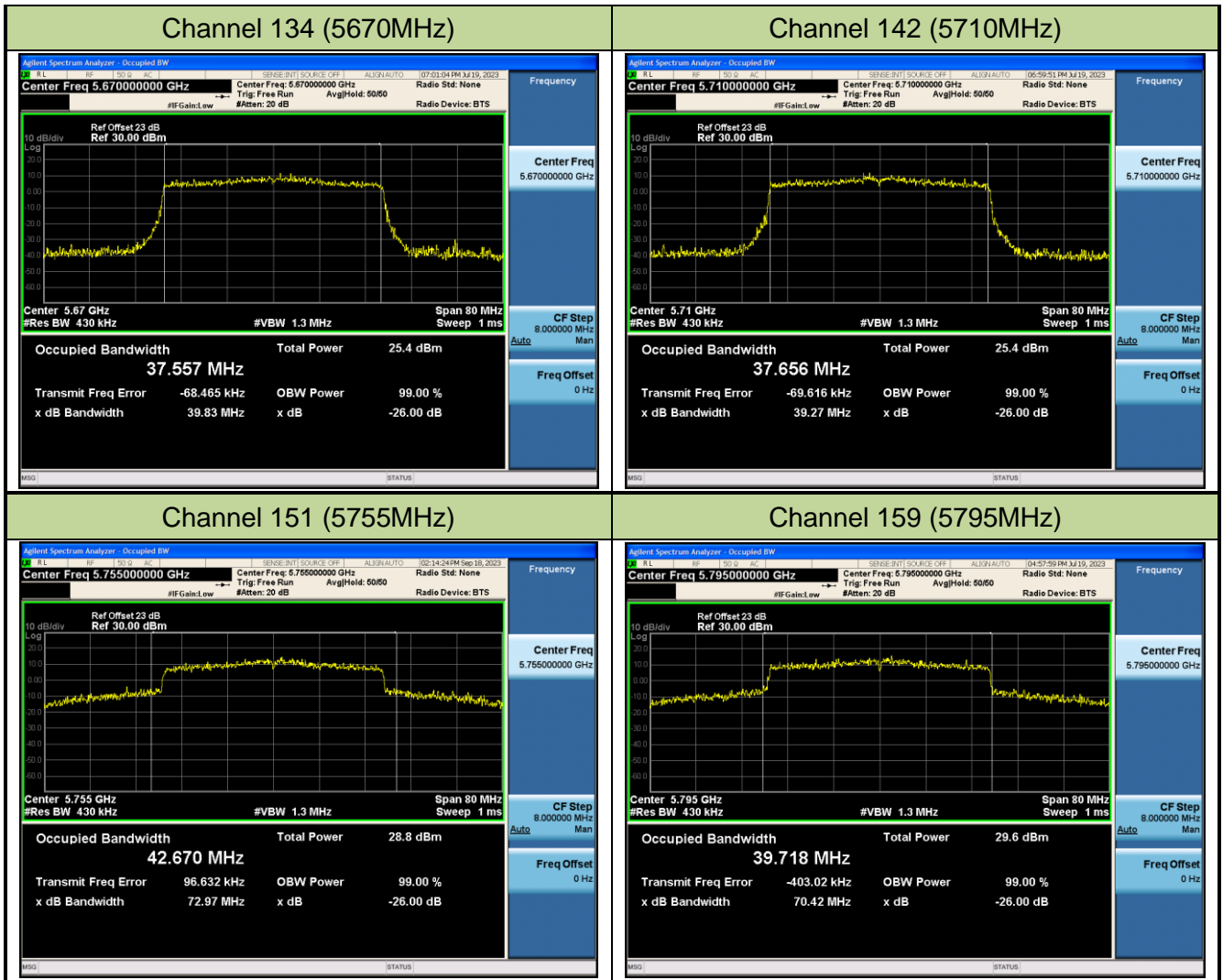


Channel 102 (5510MHz)



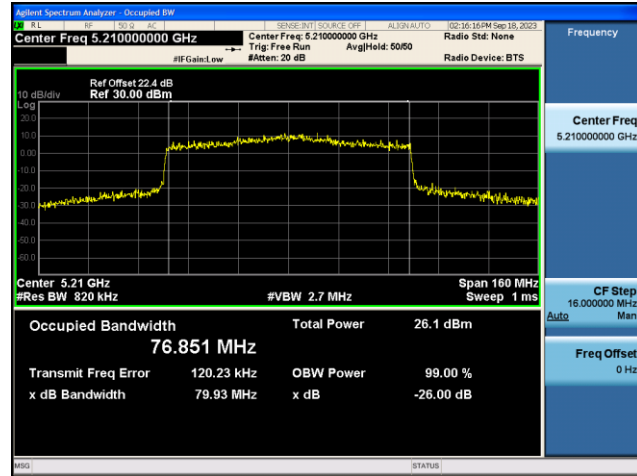
Channel 110 (5550MHz)



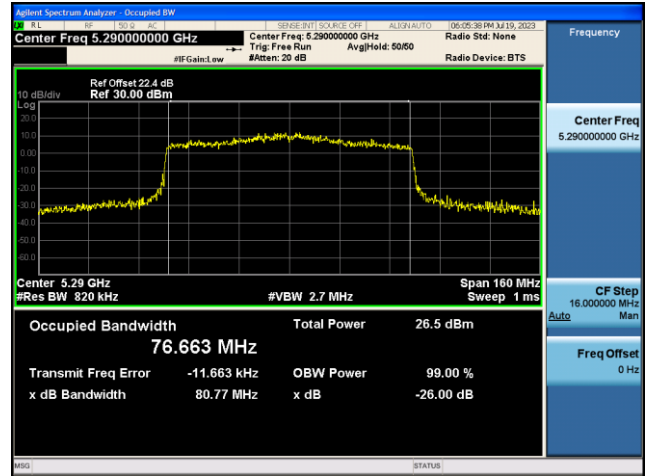


8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

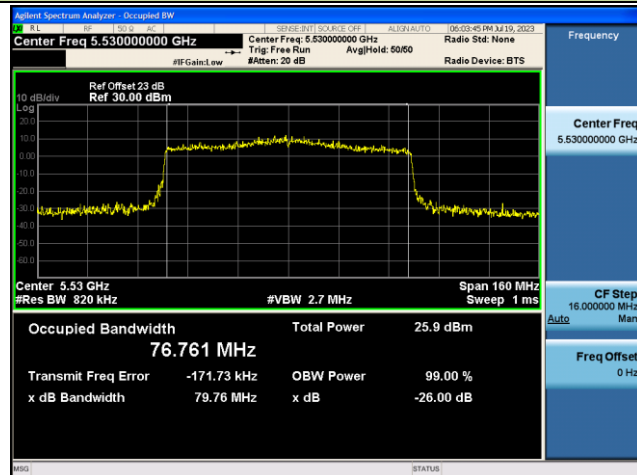
Channel 42 (5210MHz)



Channel 58 (5290MHz)



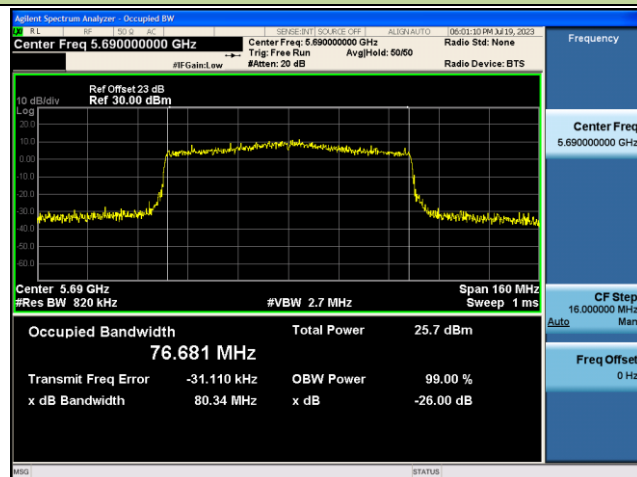
Channel 106 (5530MHz)



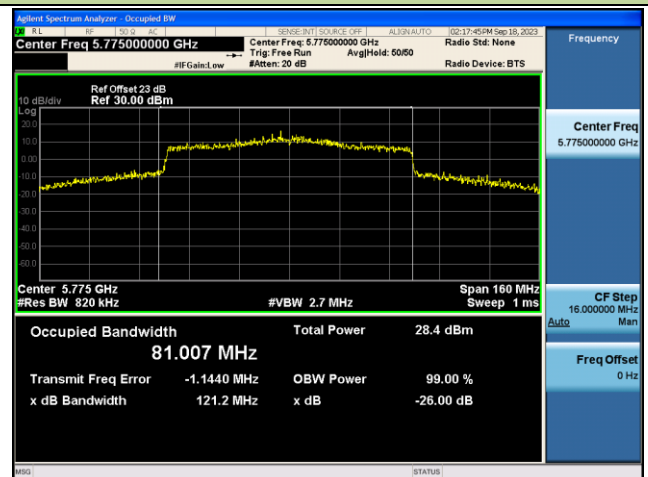
Channel 122 (5610MHz)



Channel 138 (5690MHz)

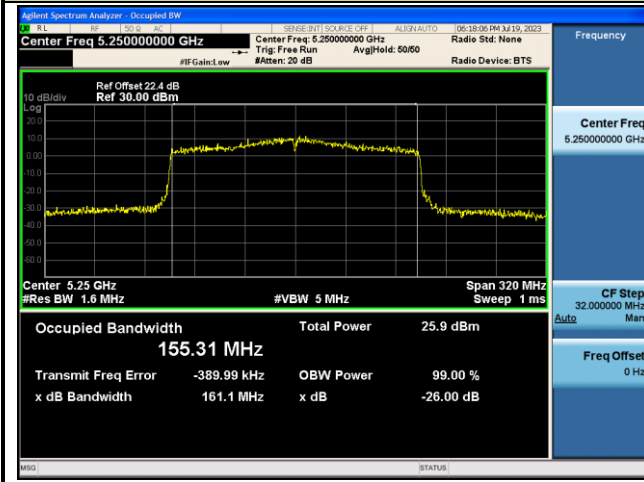


Channel 155 (5775MHz)

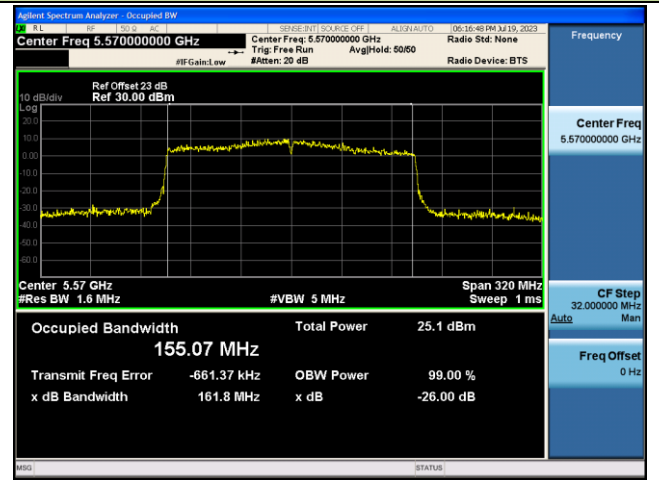


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)



Channel 114 (5570MHz)



7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

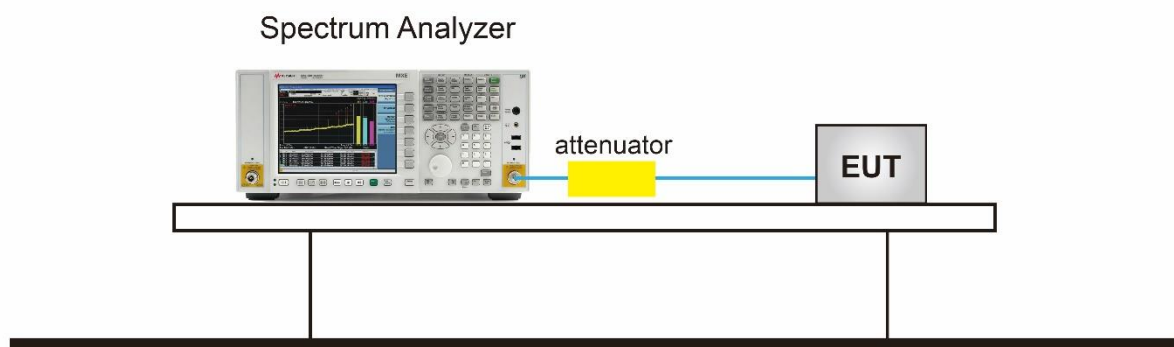
7.3.2. Test Procedure used

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



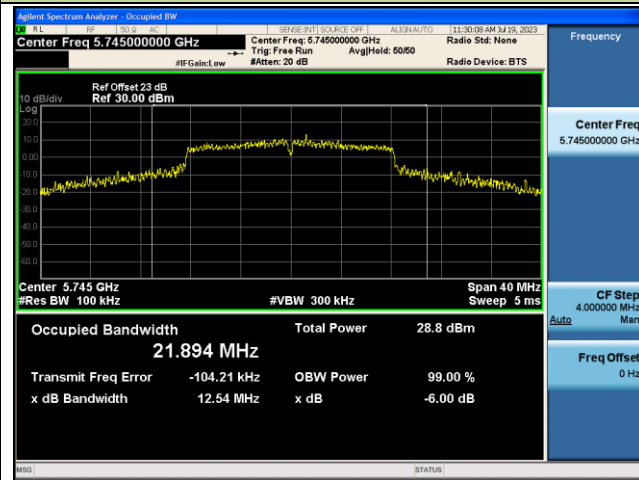
7.3.5. Test Result

Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/07/19~2023/09/18

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6Mbps	149	5745	12.540	≥ 0.5	Pass
802.11a	6Mbps	157	5785	15.080	≥ 0.5	Pass
802.11a	6Mbps	165	5825	15.670	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.630	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	15.410	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.550	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	35.810	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	35.580	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	64.330	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	18.580	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	18.240	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	18.380	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	35.830	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	37.070	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	43.950	≥ 0.5	Pass

802.11a 6dB Bandwidth

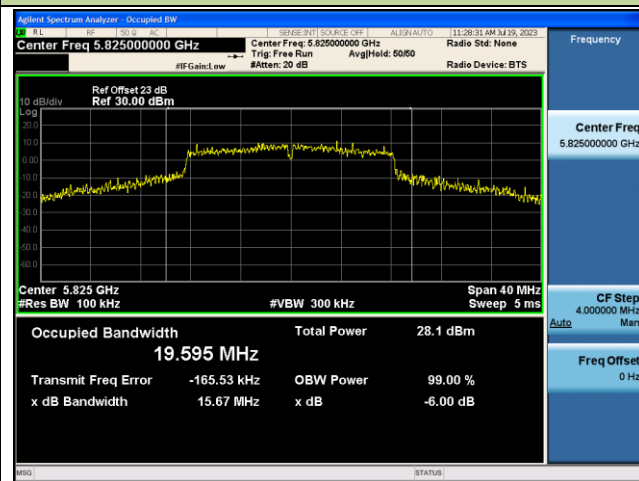
Channel 149 (5745MHz)



Channel 157 (5785MHz)

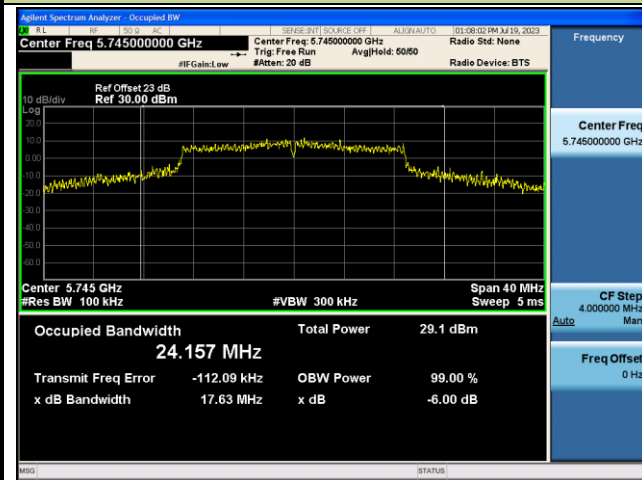


Channel 165 (5825MHz)



802.11ac-VHT20 6dB Bandwidth

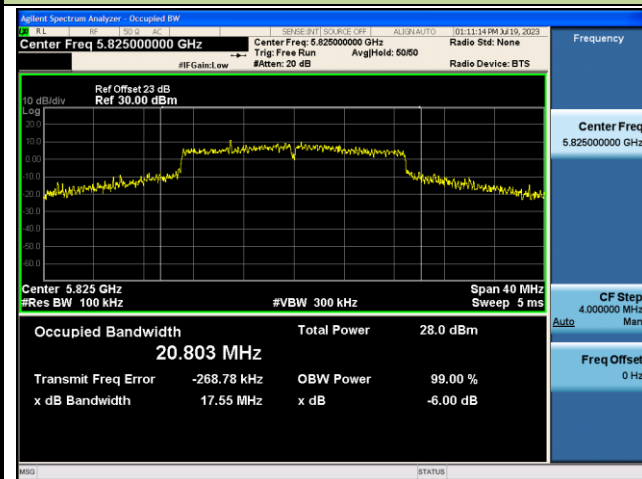
Channel 149 (5745MHz)



Channel 157 (5785MHz)

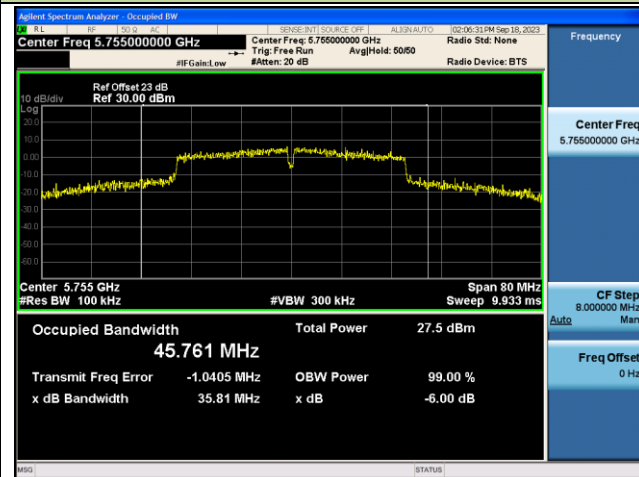


Channel 165 (5825MHz)



802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)

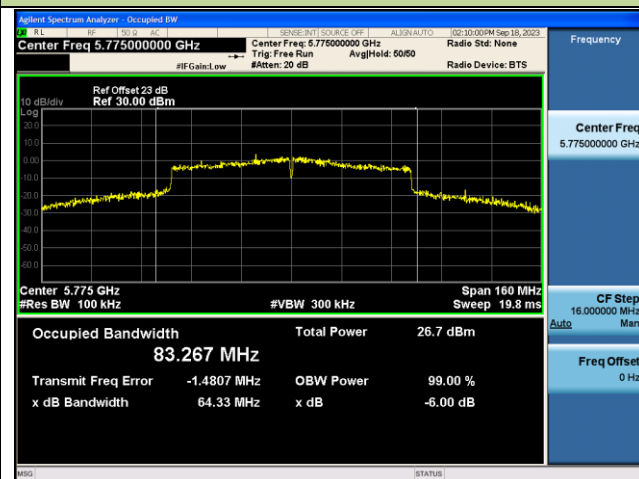


Channel 159 (5795MHz)



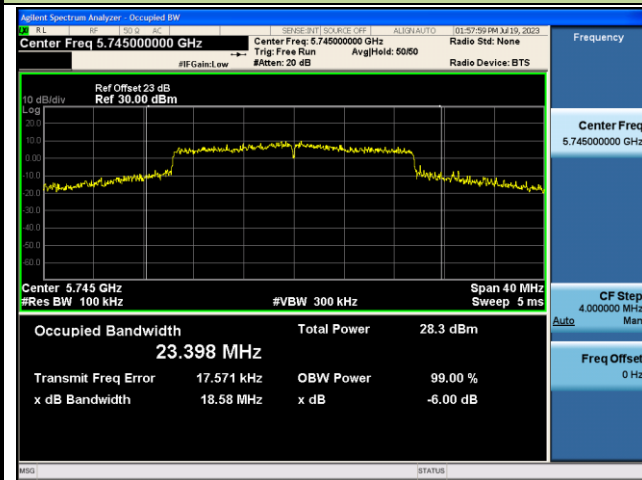
802.11ac-VHT80 6dB Bandwidth

Channel 155 (5775MHz)

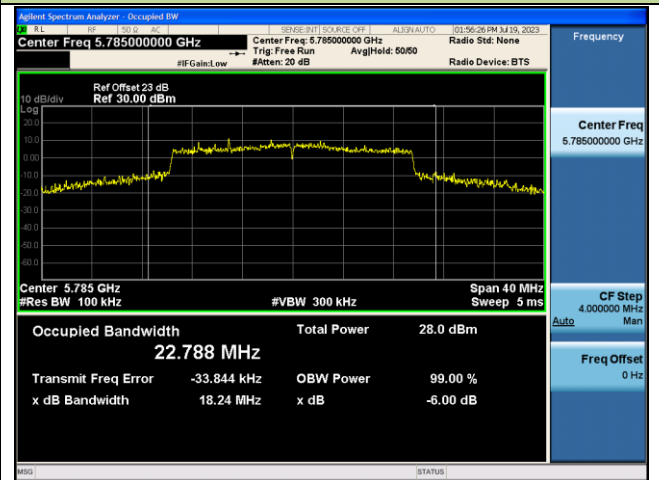


802.11ax-HE20 6dB Bandwidth

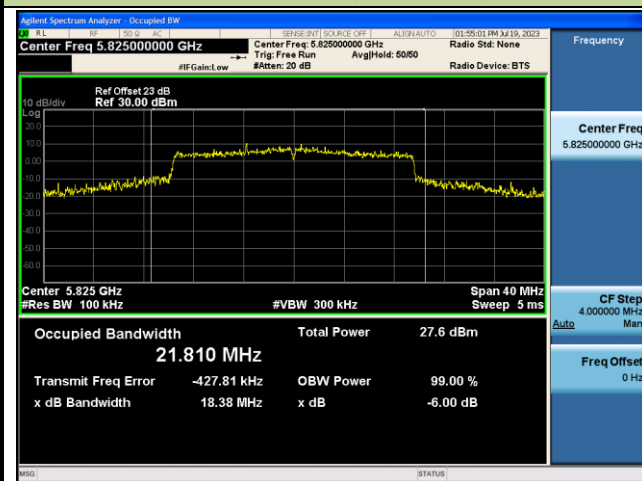
Channel 149 (5745MHz)



Channel 157 (5785MHz)

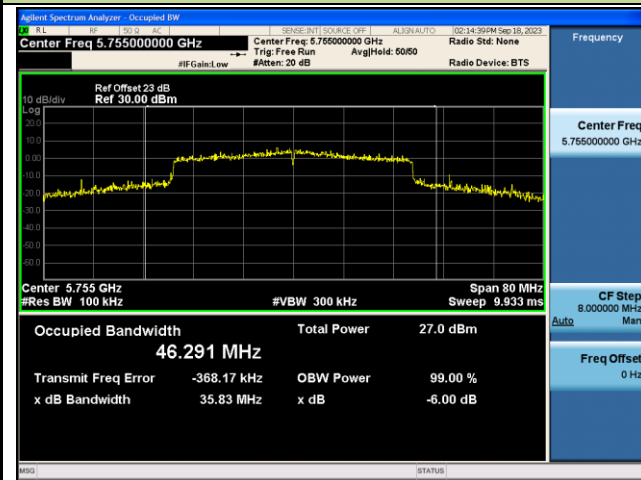


Channel 165 (5825MHz)

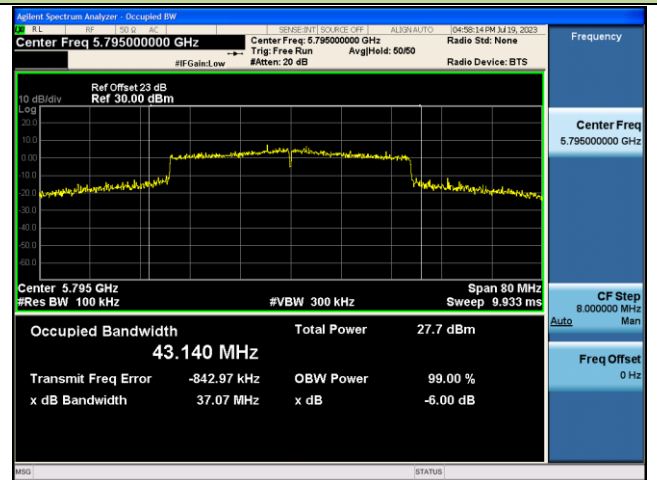


802.11ax-HE40 6dB Bandwidth

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 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.

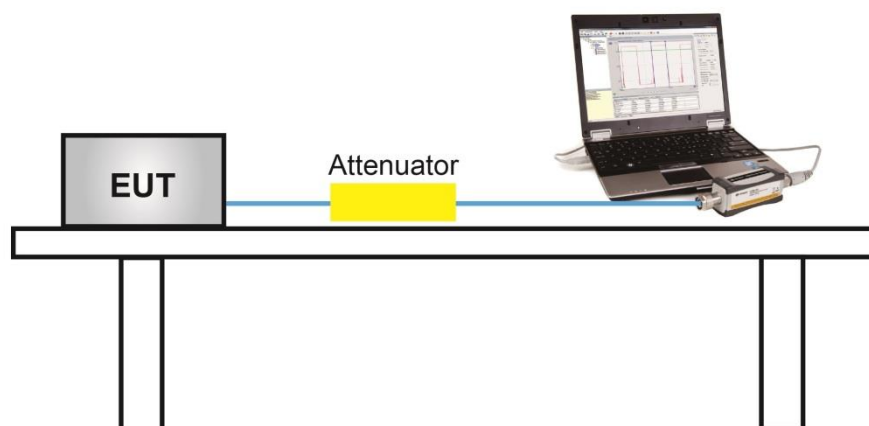
7.4.2. Test Procedure Used

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	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/07/19~2023/09/18
Test Mode	CDD Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 0	Ant 1			
11a	6Mbps	36	5180	24.42	23.30	26.91	≤ 30.00	Pass
11a	6Mbps	44	5220	23.87	23.42	26.66	≤ 30.00	Pass
11a	6Mbps	48	5240	23.86	23.59	26.74	≤ 30.00	Pass
11a	6Mbps	52	5260	17.66	17.47	20.58	≤ 23.98	Pass
11a	6Mbps	60	5300	17.13	17.07	20.11	≤ 23.98	Pass
11a	6Mbps	64	5320	17.49	17.23	20.37	≤ 23.98	Pass
11a	6Mbps	100	5500	18.35	17.52	20.97	≤ 23.98	Pass
11a	6Mbps	116	5580	18.17	17.05	20.66	≤ 23.98	Pass
11a	6Mbps	140	5700	18.07	17.16	20.65	≤ 23.98	Pass
11a	6Mbps	144	5720	18.01	17.11	20.59	≤ 22.56	Pass
11a	6Mbps	149	5745	24.96	24.39	27.69	≤ 30.00	Pass
11a	6Mbps	157	5785	24.84	24.81	27.84	≤ 30.00	Pass
11a	6Mbps	165	5825	24.57	24.84	27.72	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	24.63	23.70	27.20	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	24.82	24.30	27.58	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.62	24.11	27.38	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	18.11	18.10	21.12	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.42	17.61	20.53	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	17.91	17.78	20.86	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.47	17.79	21.15	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	18.85	18.20	21.55	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.66	18.01	21.36	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.61	17.95	21.30	≤ 22.79	Pass
11ac-VHT20	MCS0	149	5745	25.11	24.70	27.92	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	24.60	24.44	27.53	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	24.46	24.21	27.35	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 0	Ant 1			
				11ac-VHT40	MCS0			
11ac-VHT40	MCS0	46	5230	24.09	23.45	26.79	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.94	20.45	23.71	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	20.58	20.36	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	21.25	20.49	23.90	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	20.80	20.19	23.52	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.81	20.08	23.47	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	21.03	20.33	23.70	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	24.39	23.36	26.92	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	24.49	24.24	27.38	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	22.02	21.43	24.75	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	20.91	20.70	23.82	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	20.94	20.16	23.58	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	21.02	20.17	23.63	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	20.90	20.08	23.52	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	24.01	23.73	26.88	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	20.82	20.65	23.75	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	21.29	20.33	23.85	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	24.42	23.69	27.08	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.76	24.31	27.55	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.53	23.99	27.28	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.71	17.41	20.57	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.73	17.36	20.56	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	17.99	18.08	21.05	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.60	18.05	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	19.18	18.31	21.78	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	18.80	18.12	21.48	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.86	18.13	21.52	≤ 22.81	Pass
11ax-HE20	MCS0	149	5745	24.85	25.34	28.11	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	24.60	24.61	27.62	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	24.15	24.44	27.31	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 0	Ant 1			
11ax-HE40	MCS0	38	5190	22.74	22.32	25.55	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	23.88	23.41	26.66	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	20.61	20.31	23.47	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	20.87	20.43	23.67	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	20.90	20.23	23.59	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	21.01	20.39	23.72	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	21.10	20.20	23.68	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.74	20.13	23.46	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	24.45	23.40	26.97	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	24.75	24.11	27.45	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	22.03	21.10	24.60	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	20.86	20.66	23.77	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	20.90	20.12	23.54	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.91	19.93	23.46	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.96	20.22	23.62	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	24.27	23.64	26.98	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	21.40	20.29	23.89	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	20.91	20.05	23.51	≤ 23.98	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 a_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.56 dBm.

For ac_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.79 dBm.

For ax_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.81 dBm.

Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/07/19~2023/09/18
Test Mode	Beamforming Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 0	Ant 1			
11ac-VHT20	MCS0	36	5180	24.63	23.70	27.20	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	24.82	24.30	27.58	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.62	24.11	27.38	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	18.11	18.10	21.12	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.42	17.61	20.53	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	17.91	17.78	20.86	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.47	17.79	21.15	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	18.85	18.20	21.55	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.66	18.01	21.36	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.61	17.95	21.30	≤ 22.79	Pass
11ac-VHT20	MCS0	149	5745	25.11	24.70	27.92	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	24.60	24.44	27.53	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	24.46	24.21	27.35	≤ 30.00	Pass
11ac-VHT40	MCS0	38	5190	23.20	22.78	26.01	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	24.09	23.45	26.79	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.94	20.45	23.71	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	20.58	20.36	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	21.25	20.49	23.90	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	20.80	20.19	23.52	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.81	20.08	23.47	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	21.03	20.33	23.70	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	24.39	23.36	26.92	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	24.49	24.24	27.38	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	22.02	21.43	24.75	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	20.91	20.70	23.82	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	20.94	20.16	23.58	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	21.02	20.17	23.63	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	20.90	20.08	23.52	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	24.01	23.73	26.88	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 0	Ant 1			
				11ac-VHT160	MCS0			
11ac-VHT160	MCS0	114	5570	21.29	20.33	23.85	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	24.42	23.69	27.08	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.76	24.31	27.55	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.53	23.99	27.28	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.71	17.41	20.57	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.73	17.36	20.56	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	17.99	18.08	21.05	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.60	18.05	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	19.18	18.31	21.78	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	18.80	18.12	21.48	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.86	18.13	21.52	≤ 22.81	Pass
11ax-HE20	MCS0	149	5745	24.85	25.34	28.11	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	24.60	24.61	27.62	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	24.15	24.44	27.31	≤ 30.00	Pass
11ax-HE40	MCS0	38	5190	22.74	22.32	25.55	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	23.88	23.41	26.66	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	20.61	20.31	23.47	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	20.87	20.43	23.67	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	20.90	20.23	23.59	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	21.01	20.39	23.72	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	21.10	20.20	23.68	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.74	20.13	23.46	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	24.45	23.40	26.97	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	24.75	24.11	27.45	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	22.03	21.10	24.60	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	20.86	20.66	23.77	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	20.90	20.12	23.54	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.91	19.93	23.46	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.96	20.22	23.62	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	24.27	23.64	26.98	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	21.40	20.29	23.89	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	20.91	20.05	23.51	≤ 23.98	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 and 5725 - 5850MHz Band: Average Power Limit (dBm) = 30dBm

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

For ac_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.79 \text{ dBm}$.

For ax_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.81 \text{ dBm}$.

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.

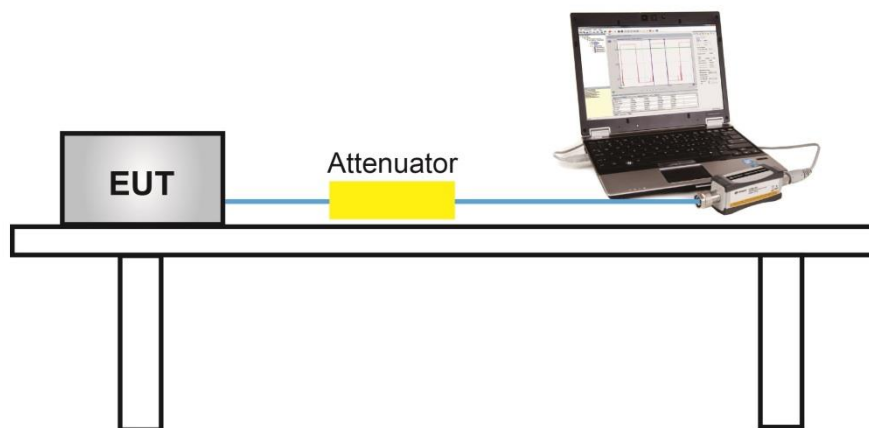
7.5.2. Test Procedure Used

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.

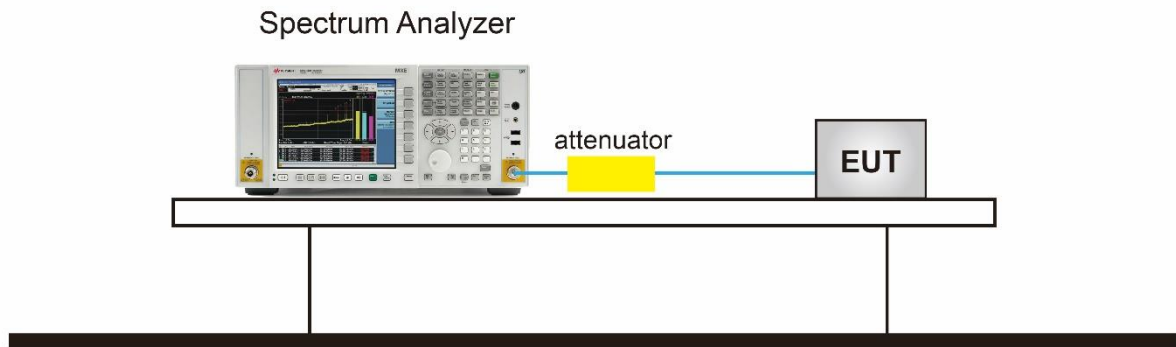
7.6.2. Test Procedure Used

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	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/07/19~2023/09/18
Mode	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)		Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
				Ant 0	Ant 1				
11a	6Mbps	36	5180	13.729	12.804	93.64%	16.587	≤ 17.00	Pass
11a	6Mbps	44	5220	13.845	13.210	93.64%	16.835	≤ 17.00	Pass
11a	6Mbps	48	5240	13.740	13.065	93.64%	16.711	≤ 17.00	Pass
11a	6Mbps	52	5260	7.670	7.496	93.64%	10.880	≤ 11.00	Pass
11a	6Mbps	60	5300	7.276	7.448	93.64%	10.659	≤ 11.00	Pass
11a	6Mbps	64	5320	7.590	7.455	93.64%	10.819	≤ 11.00	Pass
11a	6Mbps	100	5500	7.832	7.327	93.64%	10.883	≤ 11.00	Pass
11a	6Mbps	116	5580	7.826	6.748	93.64%	10.616	≤ 11.00	Pass
11a	6Mbps	140	5700	7.487	6.852	93.64%	10.477	≤ 11.00	Pass
11a	6Mbps	144	5720	7.682	6.773	93.64%	10.547	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	13.139	12.652	92.36%	16.258	≤ 17.00	Pass
11ac-VHT20	MCS0	40	5220	13.726	12.792	92.36%	16.640	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	13.630	13.124	92.36%	16.740	≤ 17.00	Pass
11ac-VHT20	MCS0	52	5260	7.611	7.489	92.36%	10.906	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	7.353	7.101	92.36%	10.584	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	7.354	7.172	92.36%	10.619	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	7.620	6.857	92.36%	10.611	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	7.758	6.896	92.36%	10.704	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	7.824	6.974	92.36%	10.775	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	7.658	7.288	92.36%	10.832	≤ 11.00	Pass
11ac-VHT40	MCS0	38	5190	9.523	9.530	92.50%	12.875	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	12.355	11.699	92.50%	15.388	≤ 17.00	Pass
11ac-VHT40	MCS0	54	5270	7.378	7.567	92.50%	10.822	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	7.002	7.017	92.50%	10.358	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	6.827	6.864	92.50%	10.194	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	6.633	6.046	92.50%	9.698	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	6.429	5.459	92.50%	9.320	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	7.210	6.176	92.50%	10.073	≤ 11.00	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)		Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
				Ant 0	Ant 1				
				11ac-VHT80	MCS0				
11ac-VHT80	MCS0	58	5290	5.656	5.835	91.54%	9.141	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	5.248	4.636	91.54%	8.347	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	5.619	4.229	91.54%	8.374	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	5.467	4.160	91.54%	8.257	≤ 11.00	Pass
11ac-VHT160	MCS0	50	5250	3.272	2.641	91.54%	6.362	≤ 11.00	Pass
11ac-VHT160	MCS0	114	5570	2.421	1.752	91.54%	5.494	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	13.305	12.081	92.22%	16.098	≤ 17.00	Pass
11ax-HE20	MCS0	44	5220	13.509	13.566	92.22%	16.900	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	13.630	13.476	92.22%	16.916	≤ 17.00	Pass
11ax-HE20	MCS0	52	5260	6.967	7.343	92.22%	10.521	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	7.102	7.226	92.22%	10.526	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	7.592	7.501	92.22%	10.909	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	7.687	6.783	92.22%	10.621	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	7.521	6.823	92.22%	10.548	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	7.887	7.119	92.22%	10.882	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	7.448	7.486	92.22%	10.829	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	8.936	8.376	91.97%	12.039	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	11.786	11.094	91.97%	14.828	≤ 17.00	Pass
11ax-HE40	MCS0	54	5270	7.516	7.192	91.97%	10.731	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	7.958	7.132	91.97%	10.938	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	6.948	6.393	91.97%	10.053	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	6.596	6.347	91.97%	9.847	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	6.630	6.080	91.97%	9.738	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	6.880	5.928	91.97%	9.804	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	5.523	4.778	92.15%	8.532	≤ 17.00	Pass
11ax-HE80	MCS0	58	5290	6.207	5.752	92.15%	9.351	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	5.124	4.519	92.15%	8.197	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	5.205	4.434	92.15%	8.202	≤ 11.00	Pass
11ax-HE80	MCS0	122	5690	5.082	4.459	92.15%	8.147	≤ 11.00	Pass
11ax-HE160	MCS0	50	5250	3.127	3.027	91.39%	6.479	≤ 11.00	Pass
11ax-HE160	MCS0	114	5570	1.968	1.600	91.39%	5.189	≤ 11.00	Pass

Note: When EUT duty cycle < 98%,

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

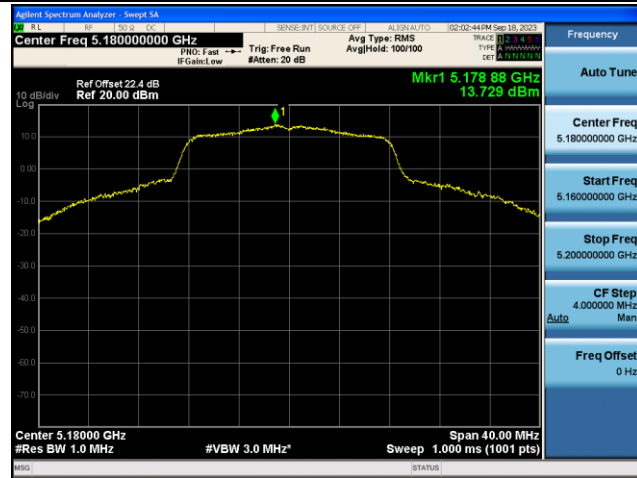
Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/07/19
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	PSD (dBm/510KHz)		Duty Cycle (%)	Total PSD (dBm/510k Hz)	Limit (dBm/500k Hz)	Result
				Ant 0	Ant 1				
11a	6Mbps	149	5745	11.974	11.576	93.64%	15.075	≤ 30.00	Pass
11a	6Mbps	157	5785	11.570	11.310	93.64%	14.738	≤ 30.00	Pass
11a	6Mbps	165	5825	11.378	10.991	93.64%	14.484	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	11.579	11.163	92.36%	14.731	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	10.906	11.151	92.36%	14.386	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	10.380	10.875	92.36%	13.990	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	8.176	7.319	92.50%	11.117	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	8.244	8.100	92.50%	11.521	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	5.376	4.454	91.54%	8.334	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	10.904	11.482	92.22%	14.565	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	10.866	10.836	92.22%	14.213	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	10.528	10.571	92.22%	13.912	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	7.689	7.120	91.97%	10.788	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	8.174	7.406	91.97%	11.181	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	5.395	3.977	92.15%	8.109	≤ 30.00	Pass

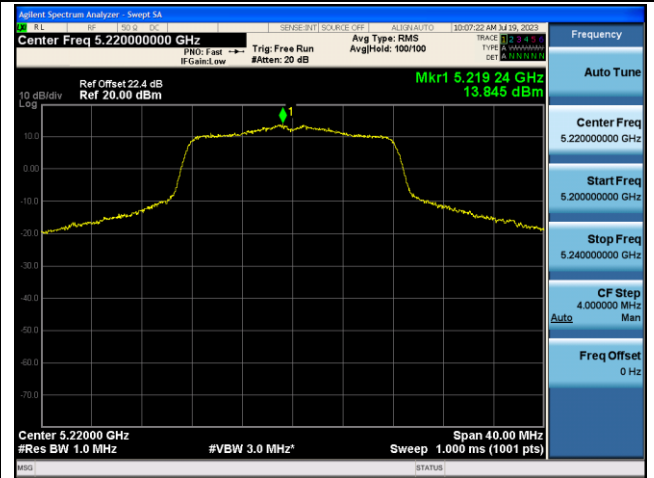
Note: When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/510kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

802.11a Power Spectral Density - Ant 0

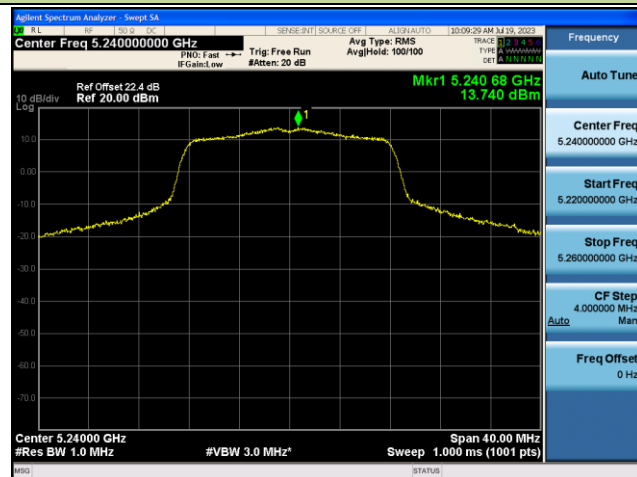
Channel 36 (5180MHz)



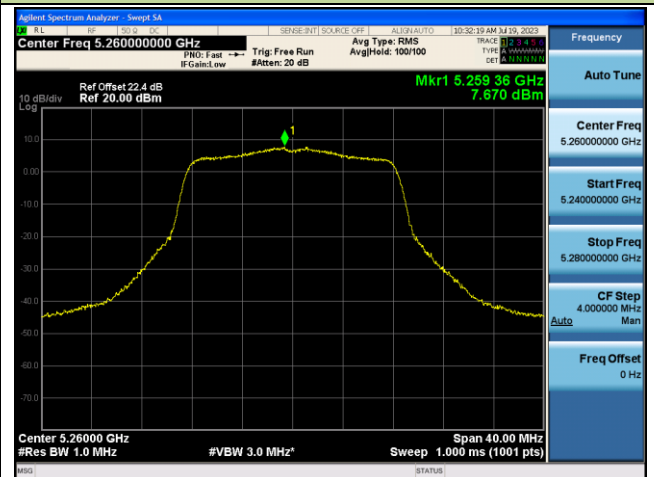
Channel 44 (5220MHz)



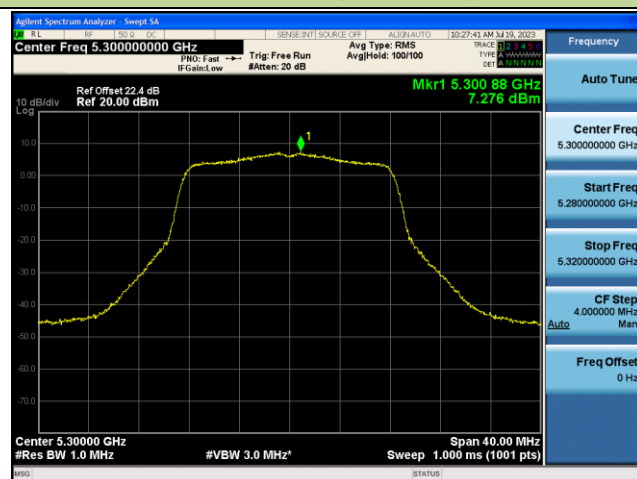
Channel 48 (5240MHz)



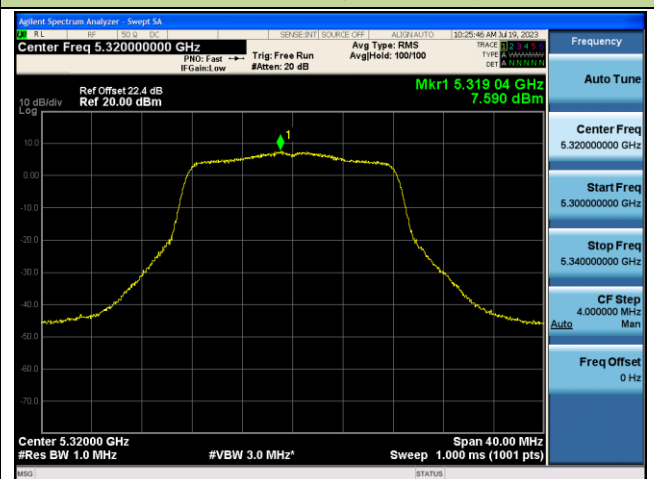
Channel 52 (5260MHz)

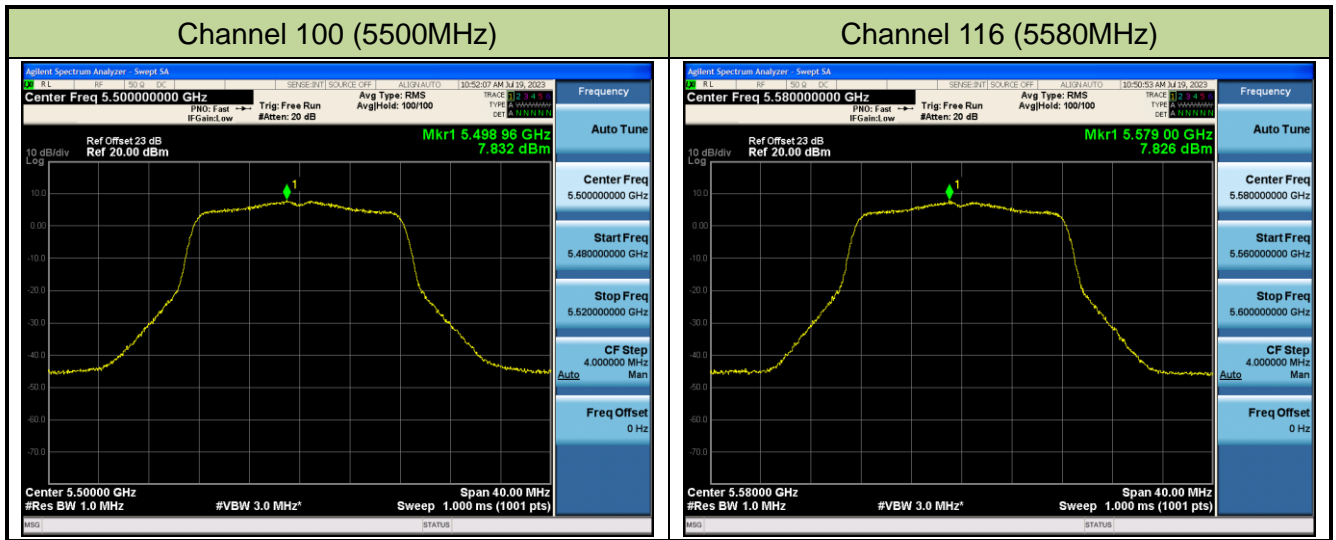


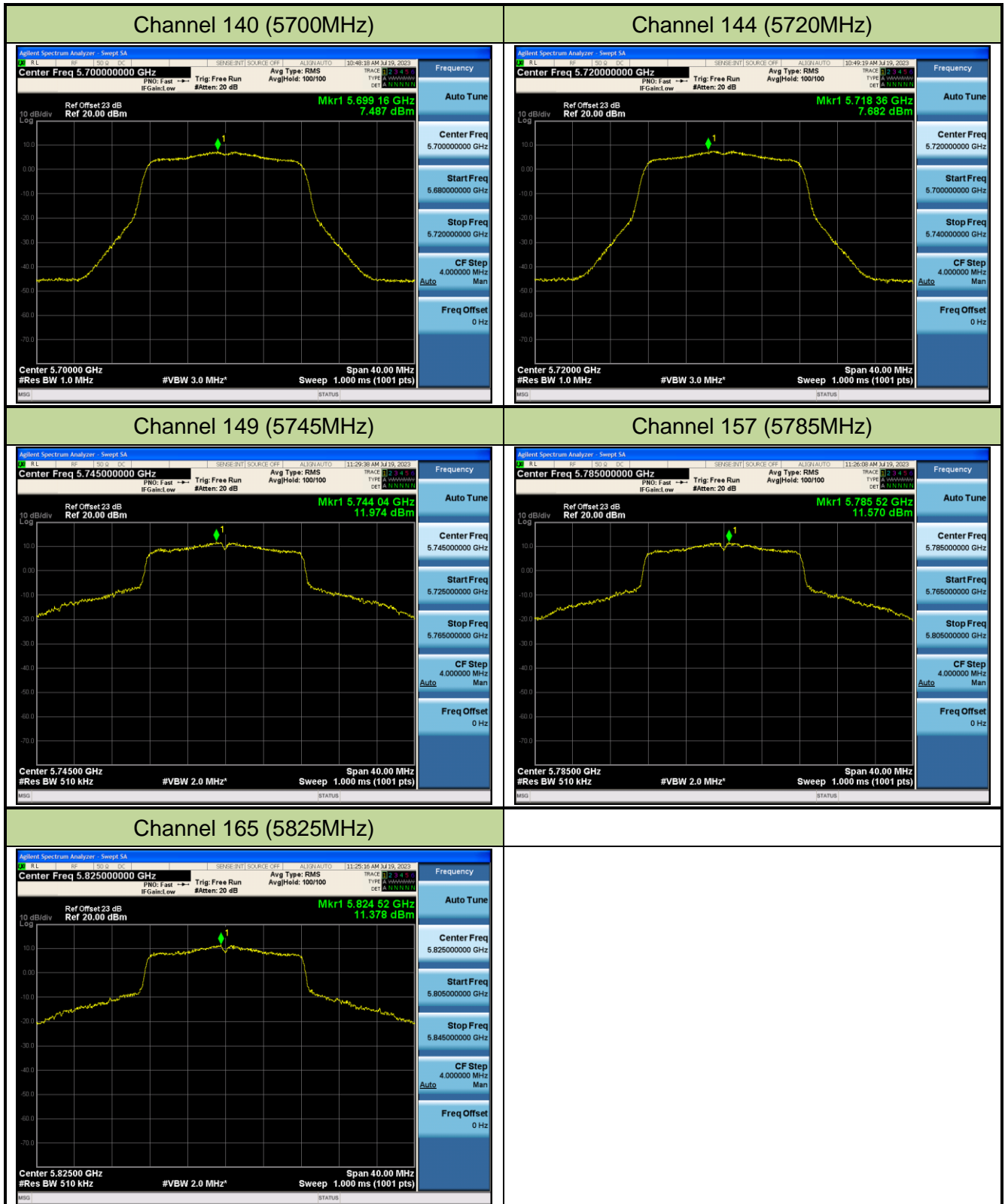
Channel 60 (5300MHz)



Channel 64 (5320MHz)







802.11ac-VHT20 Power Spectral Density - Ant 0

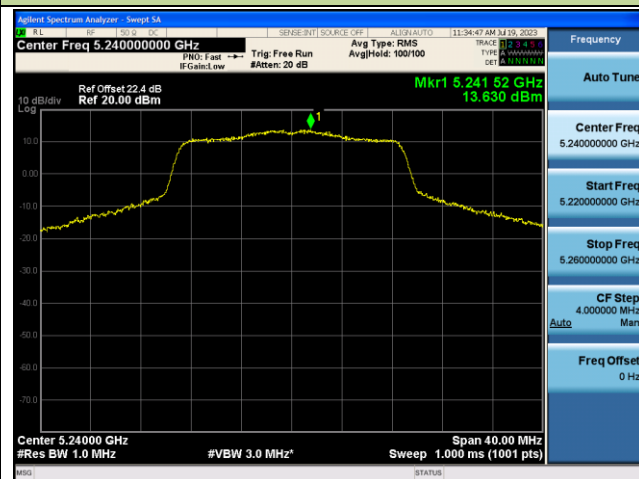
Channel 36 (5180MHz)



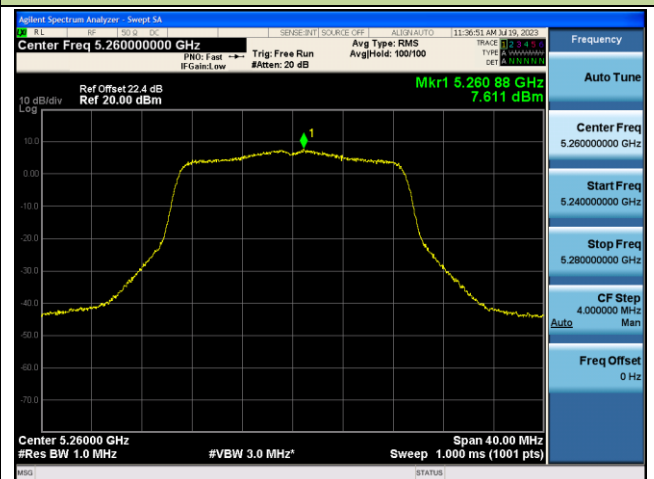
Channel 44 (5220MHz)



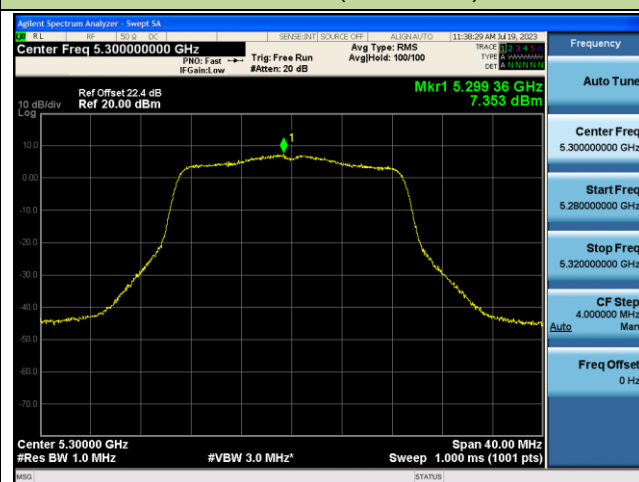
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

