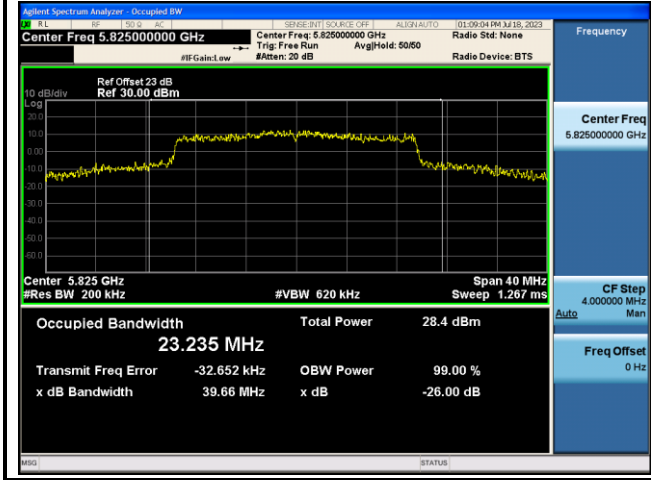


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

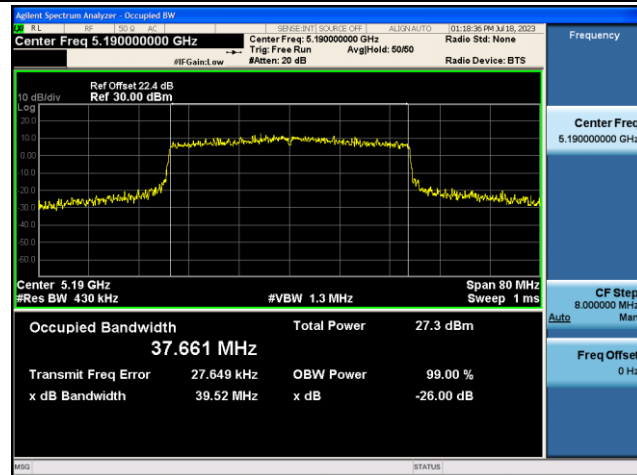
Channel 165 (5825MHz)



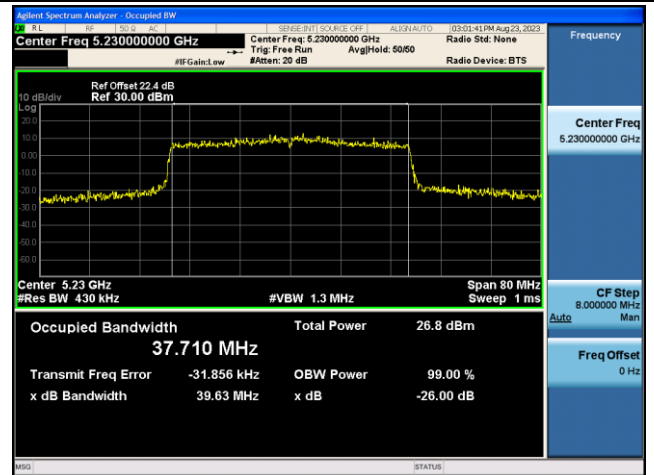
Frequency	5.82500000 GHz
Center Freq	5.82500000 GHz
CF Step	4.000000 MHz
Auto	Man
Freq Offset	0 Hz

802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

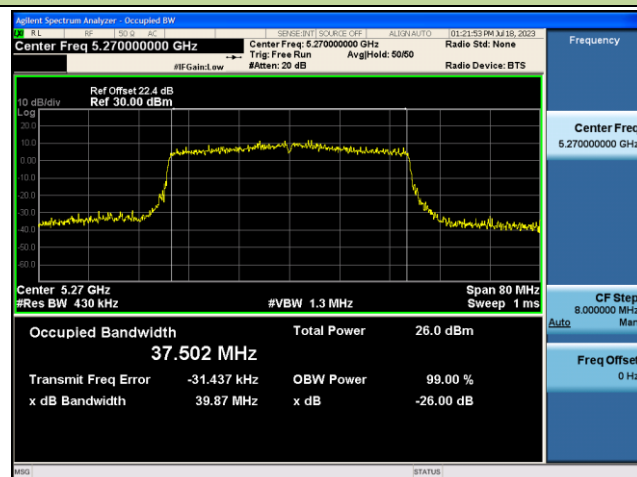
Channel 38 (5190MHz)



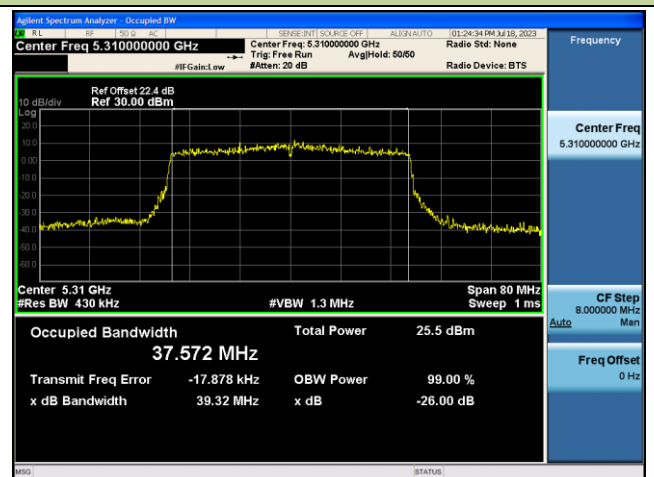
Channel 46 (5230MHz)



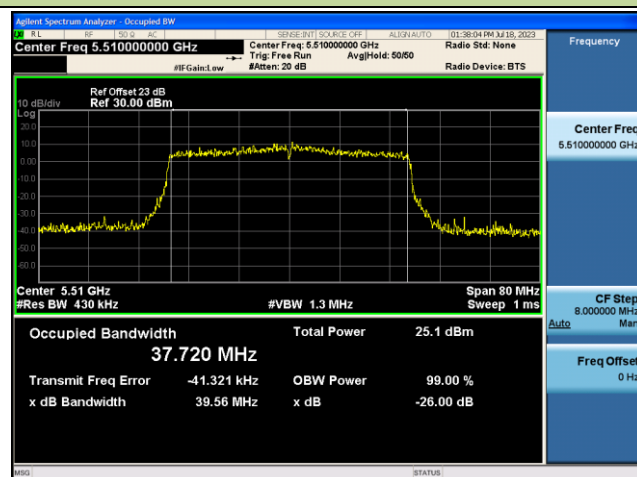
Channel 54 (5270MHz)



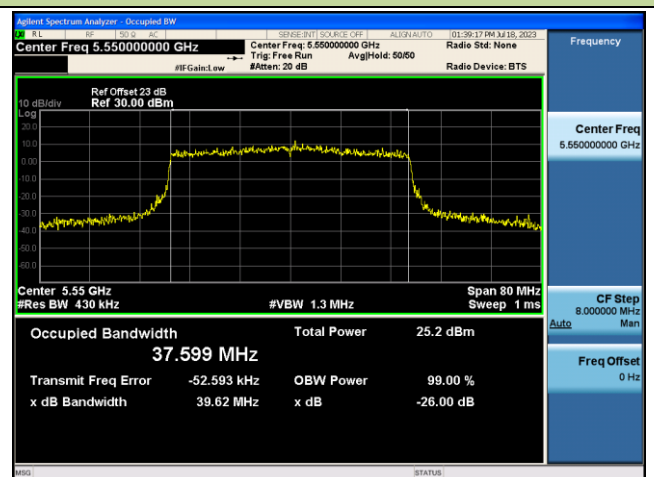
Channel 62 (5310MHz)

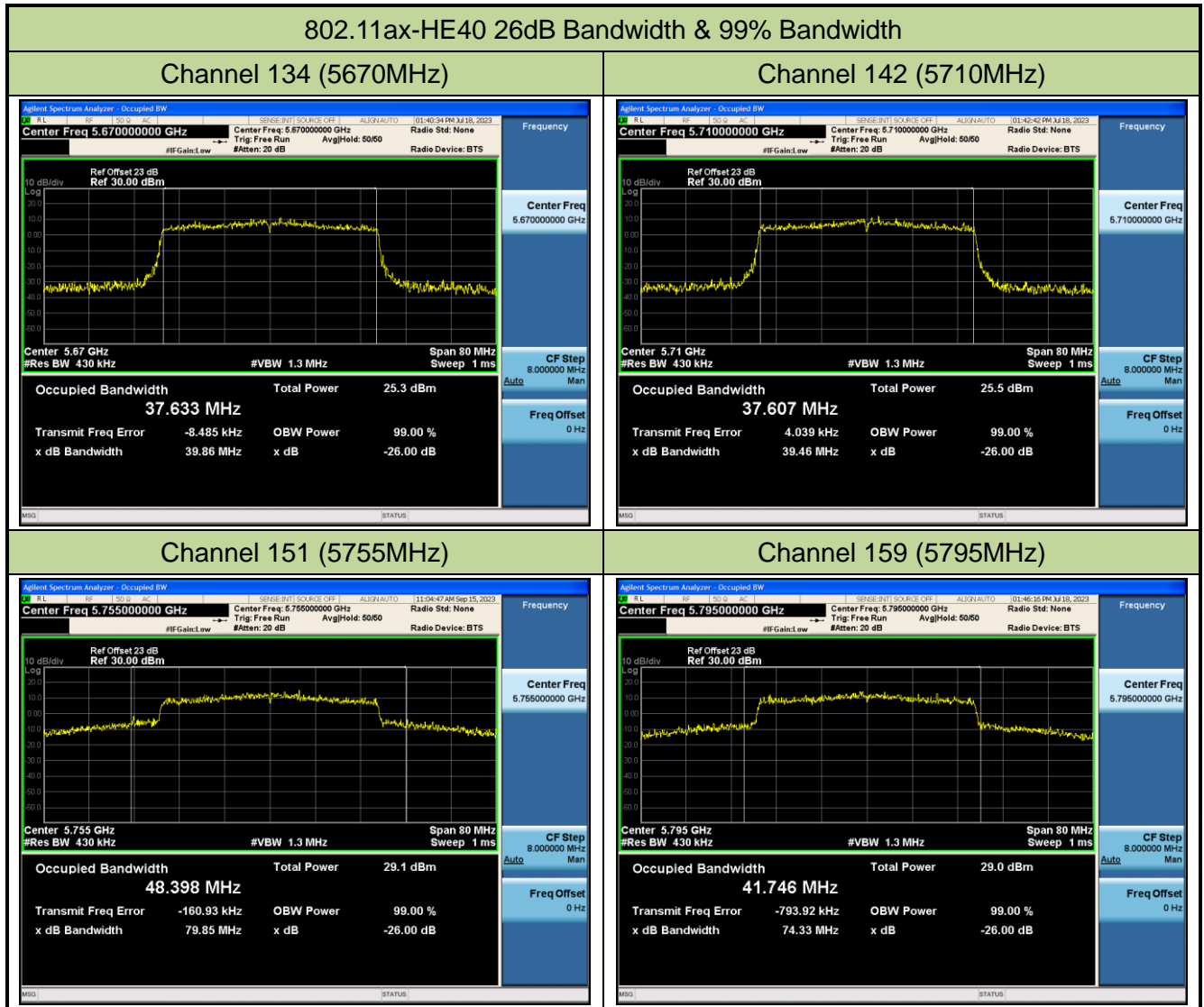


Channel 102 (5510MHz)



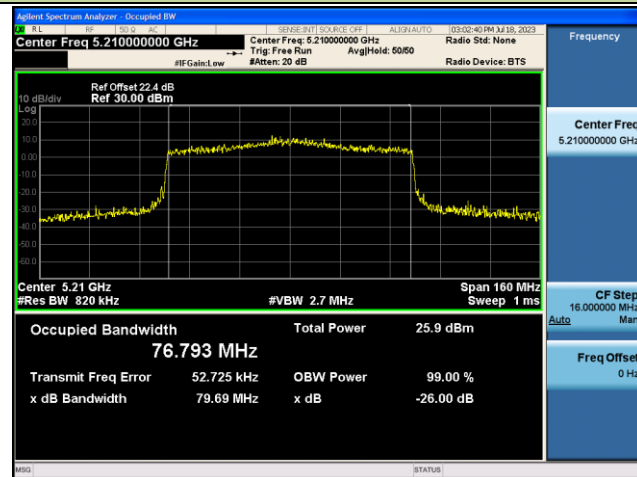
Channel 110 (5550MHz)





802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

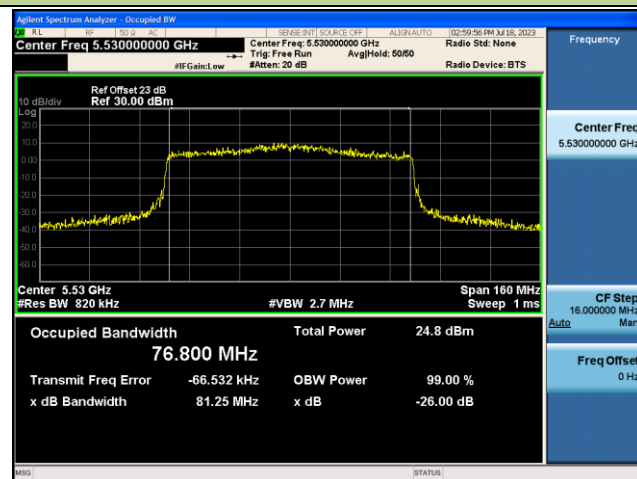
Channel 42 (5210MHz)



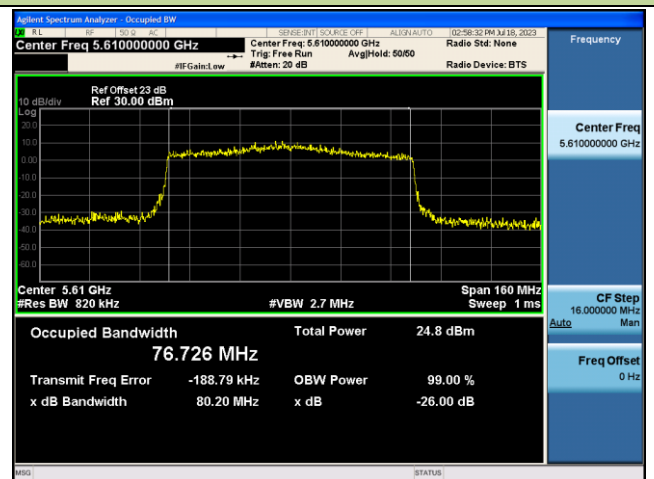
Channel 58 (5290MHz)



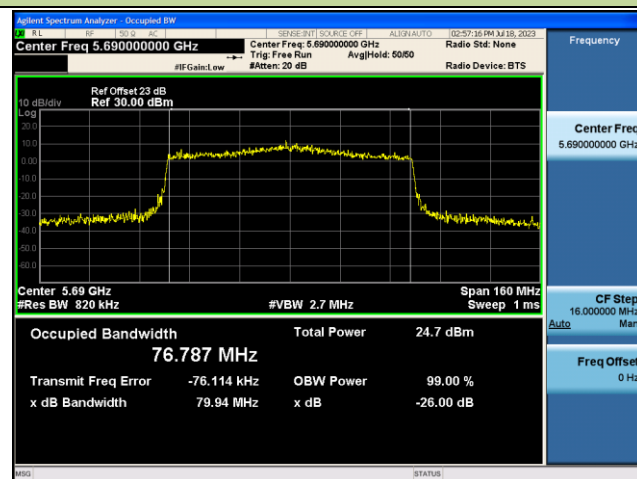
Channel 106 (5530MHz)



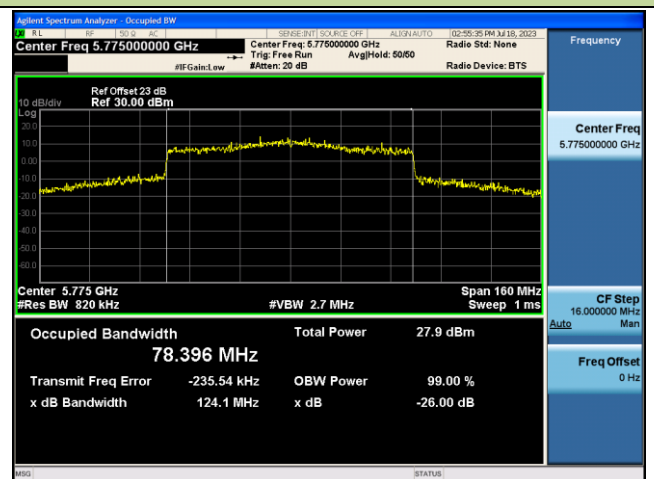
Channel 122 (5610MHz)



Channel 138 (5690MHz)



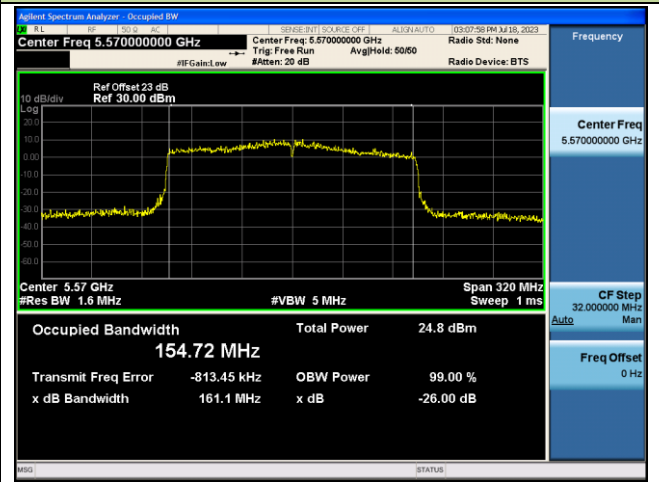
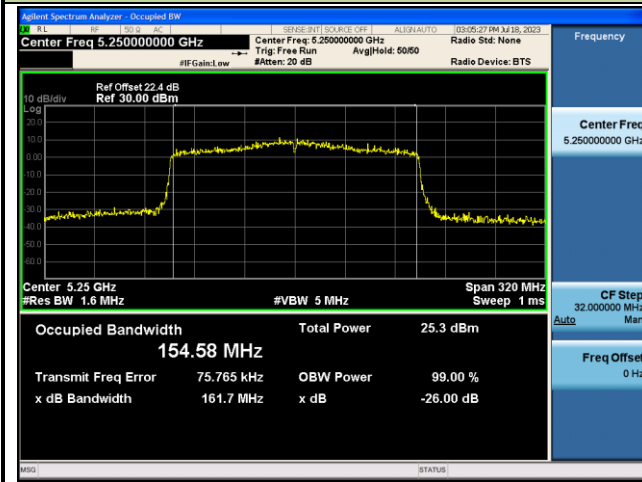
Channel 155 (5775MHz)



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.

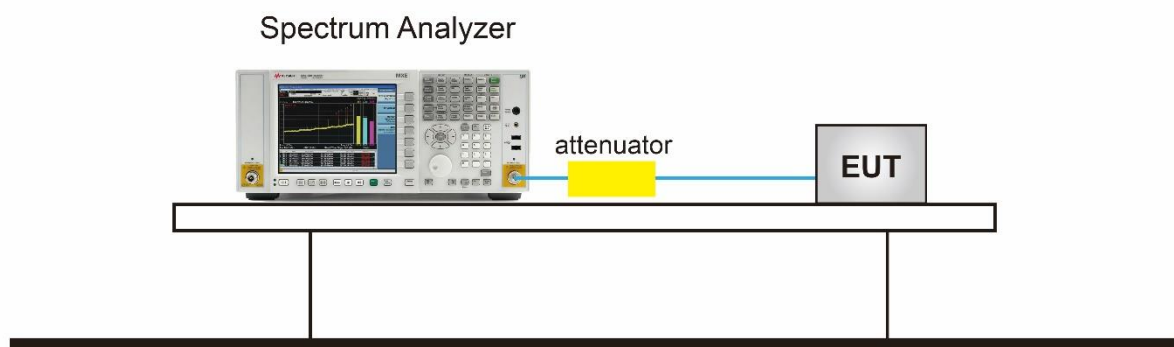
7.3.2. Test Procedure used

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



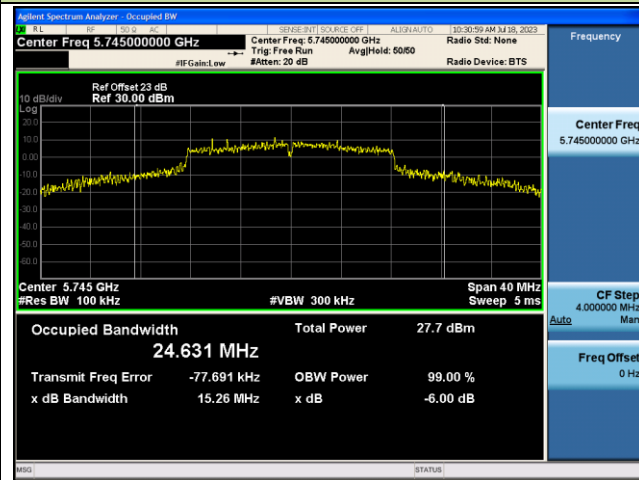
7.3.5.TestResult

Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan
Test Site	SR6	Test Date	2023/07/18~2023/09/15

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6Mbps	149	5745	15.260	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.010	≥ 0.5	Pass
802.11a	6Mbps	165	5825	15.350	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.560	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.620	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.590	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	36.040	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	36.310	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	76.330	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	18.750	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	18.950	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	18.920	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	35.460	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	38.020	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	67.000	≥ 0.5	Pass

802.11a 6dB Bandwidth

Channel 149 (5745MHz)



Channel 157 (5785MHz)

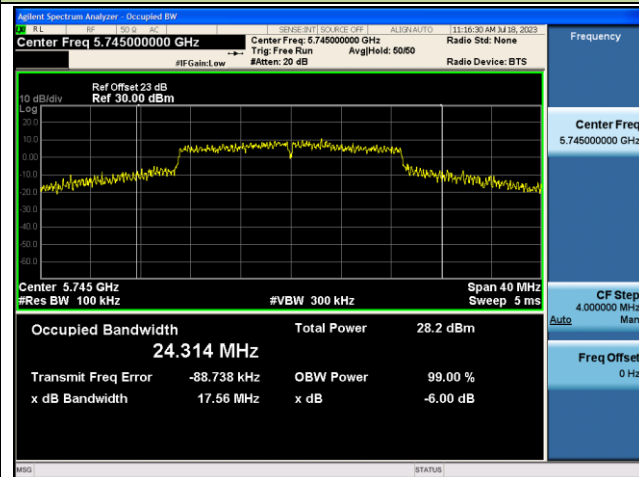


Channel 165 (5825MHz)

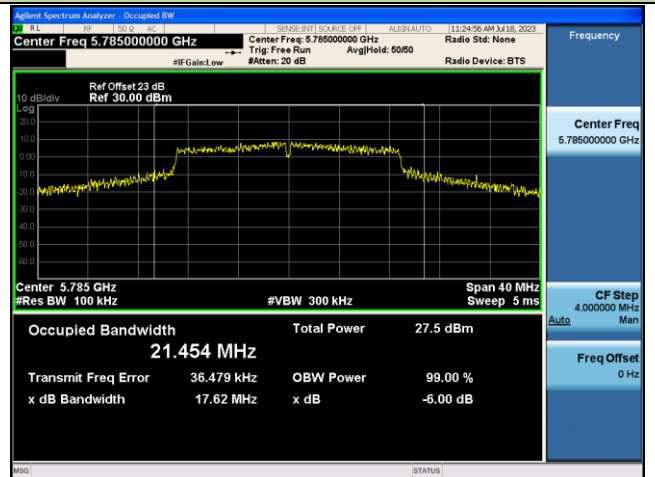


802.11ac-VHT20 6dB Bandwidth

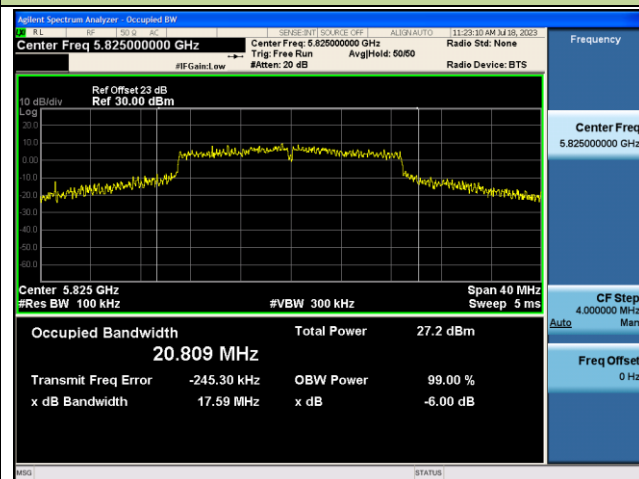
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ax-HE20 6dB Bandwidth

Channel 149 (5745MHz)



Channel 157 (5785MHz)

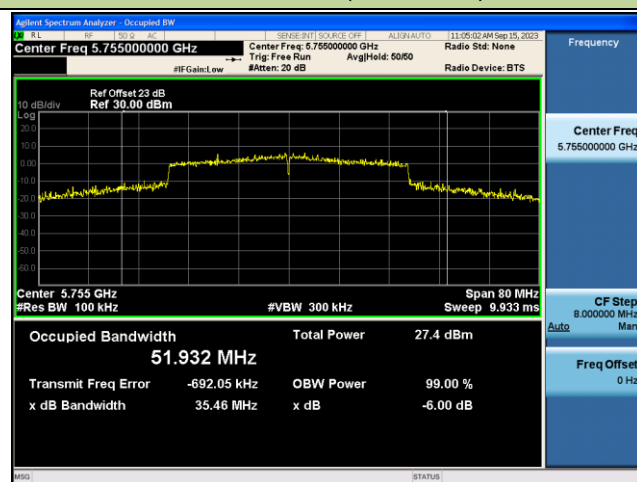


Channel 165 (5825MHz)

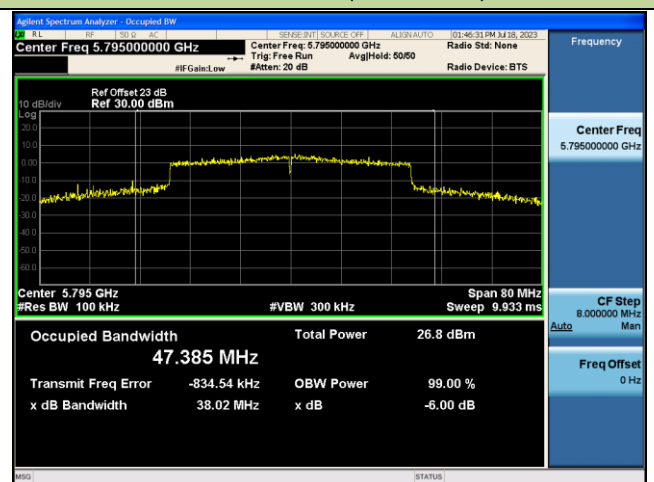


802.11ax-HE40 6dB Bandwidth

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.

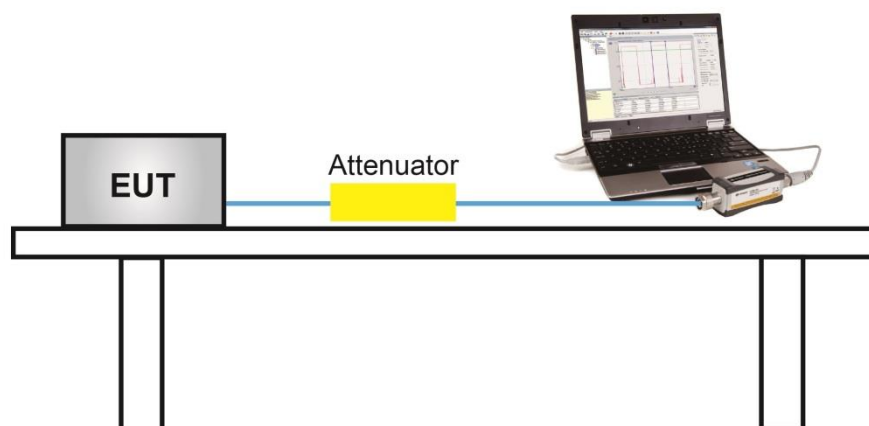
7.4.2. Test Procedure Used

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
Test Site	SR6	Test Date	2023/07/17~2023/09/15
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	23.05	22.35	25.72	≤ 30.00	Pass
11a	6Mbps	44	5220	24.04	23.83	26.95	≤ 30.00	Pass
11a	6Mbps	48	5240	24.05	23.69	26.88	≤ 30.00	Pass
11a	6Mbps	52	5260	17.80	17.78	20.80	≤ 23.98	Pass
11a	6Mbps	60	5300	17.93	18.04	21.00	≤ 23.98	Pass
11a	6Mbps	64	5320	17.76	17.59	20.69	≤ 23.98	Pass
11a	6Mbps	100	5500	18.35	18.39	21.38	≤ 23.98	Pass
11a	6Mbps	116	5580	18.89	18.66	21.79	≤ 23.98	Pass
11a	6Mbps	140	5700	17.70	17.64	20.68	≤ 23.98	Pass
11a	6Mbps	144	5720	17.77	17.56	20.68	≤ 23.59	Pass
11a	6Mbps	149	5745	24.09	24.71	27.42	≤ 30.00	Pass
11a	6Mbps	157	5785	23.66	24.19	26.94	≤ 30.00	Pass
11a	6Mbps	165	5825	23.55	24.20	26.90	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	23.21	22.85	26.04	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	25.13	24.44	27.81	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.72	24.24	27.50	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	18.15	18.27	21.22	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.83	17.77	20.81	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	18.06	17.96	21.02	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.27	18.11	21.20	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	18.73	18.62	21.69	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.14	18.05	21.11	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.14	17.87	21.02	≤ 22.74	Pass
11ac-VHT20	MCS0	149	5745	24.37	24.91	27.66	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.90	24.82	27.39	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.86	24.41	27.15	≤ 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	23.88	23.38	26.65	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.80	20.75	23.79	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	20.50	20.54	23.53	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	20.72	20.80	23.77	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	20.39	20.54	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.50	20.46	23.49	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	20.60	20.57	23.60	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	23.93	24.46	27.21	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	23.61	24.21	26.93	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	21.11	20.51	23.83	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	20.67	21.09	23.90	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	21.07	20.63	23.87	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	20.62	20.20	23.43	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	20.64	20.39	23.53	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	23.38	23.14	26.27	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	20.51	20.62	23.58	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	20.72	20.69	23.72	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	23.18	23.02	26.11	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.93	24.38	27.67	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.83	24.19	27.53	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.91	17.78	20.86	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.95	17.95	20.96	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	17.80	17.59	20.71	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.44	18.29	21.38	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	18.48	18.18	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	18.34	18.22	21.29	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.42	18.17	21.31	≤ 22.83	Pass
11ax-HE20	MCS0	149	5745	24.11	24.90	27.53	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.88	24.44	27.18	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	23.55	24.43	27.02	≤ 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	20.92	20.91	23.93	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	22.51	22.05	25.30	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	20.50	20.51	23.52	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	20.27	20.20	23.25	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	20.50	20.59	23.56	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	20.73	20.54	23.65	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	20.60	20.51	23.57	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.90	20.63	23.78	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	23.48	24.02	26.77	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	23.62	24.17	26.91	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	21.13	21.02	24.09	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	20.50	21.05	23.79	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	20.48	20.45	23.48	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.50	20.52	23.52	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.53	20.46	23.51	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	22.47	22.10	25.30	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	20.49	20.70	23.61	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	20.84	20.72	23.79	≤ 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) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.59 dBm.

For ac_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.74 dBm.

For ax_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 22.83 dBm.

Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan
Test Site	SR6	Test Date	2023/07/17~2023/09/15
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	23.21	22.85	26.04	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	25.13	24.44	27.81	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.72	24.24	27.50	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	18.15	18.27	21.22	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	17.83	17.77	20.81	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	18.06	17.96	21.02	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	18.27	18.11	21.20	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	18.73	18.62	21.69	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	18.14	18.05	21.11	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	18.14	17.87	21.02	≤ 22.74	Pass
11ac-VHT20	MCS0	149	5745	24.37	24.91	27.66	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.90	24.82	27.39	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.86	24.41	27.15	≤ 30.00	Pass
11ac-VHT40	MCS0	38	5190	22.12	21.71	24.93	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	23.88	23.38	26.65	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	20.80	20.75	23.79	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	20.50	20.54	23.53	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	20.72	20.80	23.77	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	20.39	20.54	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	20.50	20.46	23.49	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	20.60	20.57	23.60	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	23.93	24.46	27.21	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	23.61	24.21	26.93	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	21.11	20.51	23.83	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	20.67	21.09	23.90	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	21.07	20.63	23.87	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	20.62	20.20	23.43	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	20.64	20.39	23.53	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	23.38	23.14	26.27	≤ 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	20.72	20.69	23.72	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	23.18	23.02	26.11	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.93	24.38	27.67	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.83	24.19	27.53	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	17.91	17.78	20.86	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	17.95	17.95	20.96	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	17.80	17.59	20.71	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	18.44	18.29	21.38	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	18.48	18.18	21.34	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	18.34	18.22	21.29	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	18.42	18.17	21.31	≤ 22.83	Pass
11ax-HE20	MCS0	149	5745	24.11	24.90	27.53	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.88	24.44	27.18	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	23.55	24.43	27.02	≤ 30.00	Pass
11ax-HE40	MCS0	38	5190	20.92	20.91	23.93	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	22.51	22.05	25.30	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	20.50	20.51	23.52	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	20.27	20.20	23.25	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	20.50	20.59	23.56	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	20.73	20.54	23.65	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	20.60	20.51	23.57	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	20.90	20.63	23.78	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	23.48	24.02	26.77	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	23.62	24.17	26.91	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	21.13	21.02	24.09	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	20.50	21.05	23.79	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	20.48	20.45	23.48	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	20.50	20.52	23.52	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	20.53	20.46	23.51	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	22.47	22.10	25.30	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	20.49	20.70	23.61	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	20.84	20.72	23.79	≤ 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 ac_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.74 \text{ dBm}$.

For ax_ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 22.83 \text{ dBm}$.

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.

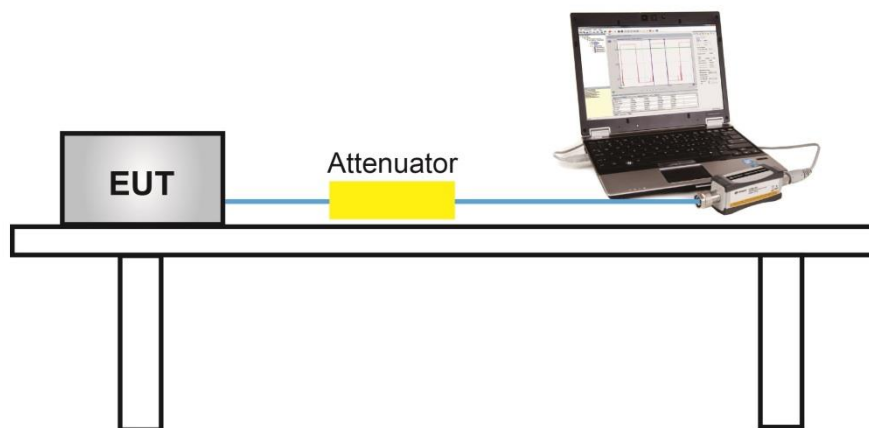
7.5.2. Test Procedure Used

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.

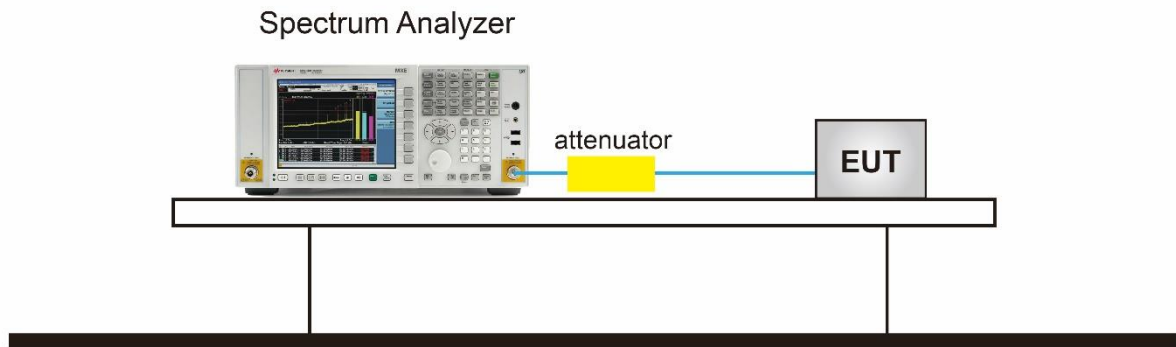
7.6.2. Test Procedure Used

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
Test Site	SR6	Test Date	2023/07/17~2023/09/15
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	11.876	11.760	93.64%	15.114	≤ 17.00	Pass
11a	6Mbps	44	5220	13.406	13.082	93.64%	16.543	≤ 17.00	Pass
11a	6Mbps	48	5240	13.623	12.985	93.64%	16.611	≤ 17.00	Pass
11a	6Mbps	52	5260	7.368	7.315	93.64%	10.637	≤ 11.00	Pass
11a	6Mbps	60	5300	7.544	7.675	93.64%	10.906	≤ 11.00	Pass
11a	6Mbps	64	5320	7.677	7.329	93.64%	10.802	≤ 11.00	Pass
11a	6Mbps	100	5500	7.481	7.157	93.64%	10.618	≤ 11.00	Pass
11a	6Mbps	116	5580	7.405	7.727	93.64%	10.865	≤ 11.00	Pass
11a	6Mbps	140	5700	7.119	7.233	93.64%	10.472	≤ 11.00	Pass
11a	6Mbps	144	5720	7.460	7.297	93.64%	10.675	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	11.383	11.472	92.36%	14.783	≤ 17.00	Pass
11ac-VHT20	MCS0	40	5220	13.607	13.065	92.36%	16.700	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	13.859	12.965	92.36%	16.790	≤ 17.00	Pass
11ac-VHT20	MCS0	52	5260	7.312	7.398	92.36%	10.711	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	7.315	7.342	92.36%	10.684	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	7.643	7.545	92.36%	10.950	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	7.287	7.116	92.36%	10.558	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	7.087	7.262	92.36%	10.531	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	7.336	7.328	92.36%	10.687	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	7.289	7.222	92.36%	10.611	≤ 11.00	Pass
11ac-VHT40	MCS0	38	5190	7.882	7.670	92.50%	11.126	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	9.907	9.031	92.50%	12.840	≤ 17.00	Pass
11ac-VHT40	MCS0	54	5270	7.146	7.404	92.50%	10.626	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	7.523	7.243	92.50%	10.734	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	6.479	6.574	92.50%	9.876	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	6.674	6.284	92.50%	9.832	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	6.522	6.449	92.50%	9.835	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	7.158	6.648	92.50%	10.259	≤ 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	5.238	5.611	91.54%	8.823	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	4.848	4.936	91.54%	8.286	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	4.262	3.832	91.54%	7.447	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	4.403	4.428	91.54%	7.810	≤ 11.00	Pass
11ac-VHT160	MCS0	50	5250	2.152	1.475	91.54%	5.221	≤ 11.00	Pass
11ac-VHT160	MCS0	114	5570	1.679	1.258	91.54%	4.868	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	11.570	11.133	92.22%	14.719	≤ 17.00	Pass
11ax-HE20	MCS0	44	5220	13.746	12.925	92.22%	16.717	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	13.579	12.820	92.22%	16.578	≤ 17.00	Pass
11ax-HE20	MCS0	52	5260	7.297	7.167	92.22%	10.595	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	7.514	7.435	92.22%	10.837	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	7.391	7.119	92.22%	10.619	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	7.696	7.359	92.22%	10.893	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	7.301	7.161	92.22%	10.594	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	7.516	7.444	92.22%	10.842	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	7.666	7.347	92.22%	10.871	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	5.631	6.302	91.97%	9.353	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	8.582	7.532	91.97%	11.462	≤ 17.00	Pass
11ax-HE40	MCS0	54	5270	7.468	7.323	91.97%	10.770	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	7.115	7.122	91.97%	10.492	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	6.635	6.916	91.97%	10.152	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	6.760	7.331	91.97%	10.429	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	6.761	6.867	91.97%	10.188	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	7.069	6.842	91.97%	10.331	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	5.286	4.776	92.15%	8.404	≤ 17.00	Pass
11ax-HE80	MCS0	58	5290	5.310	5.329	92.15%	8.685	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	4.259	4.272	92.15%	7.631	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	4.416	4.107	92.15%	7.630	≤ 11.00	Pass
11ax-HE80	MCS0	138	5690	4.151	4.462	92.15%	7.675	≤ 11.00	Pass
11ax-HE160	MCS0	50	5250	2.550	1.745	91.39%	5.567	≤ 11.00	Pass
11ax-HE160	MCS0	114	5570	2.033	1.278	91.39%	5.073	≤ 11.00	Pass

Note: When EUT duty cycle < 98%,

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

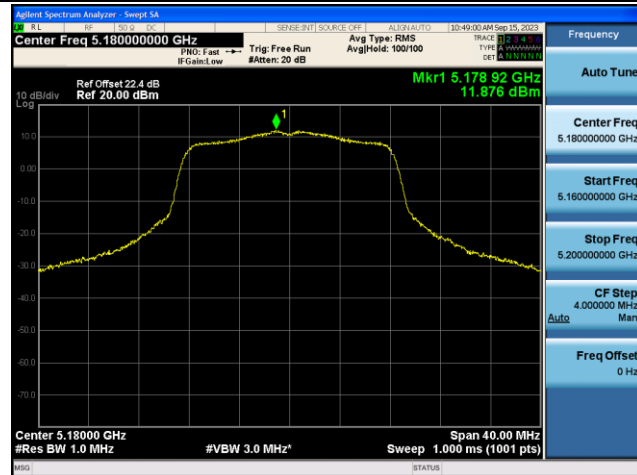
Product	AX3000 Wi-Fi 6 Air Router	Test Engineer	Xuan
Test Site	SR6	Test Date	2023/07/17~2023/09/15
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

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	10.624	11.775	93.64%	14.533	≤ 30.00	Pass
11a	6Mbps	157	5785	10.828	11.013	93.64%	14.217	≤ 30.00	Pass
11a	6Mbps	165	5825	10.381	10.664	93.64%	13.820	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	10.882	10.998	92.36%	14.296	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	10.491	10.696	92.36%	13.950	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	10.148	10.724	92.36%	13.801	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	7.620	8.203	92.50%	11.270	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	7.540	7.919	92.50%	11.083	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	4.528	4.536	91.54%	7.926	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	10.898	11.255	92.22%	14.442	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	10.626	10.775	92.22%	14.063	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	10.178	10.022	92.22%	13.463	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	8.255	7.857	91.97%	11.434	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	7.687	8.111	91.97%	11.278	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	3.341	2.829	92.15%	6.458	≤ 30.00	Pass

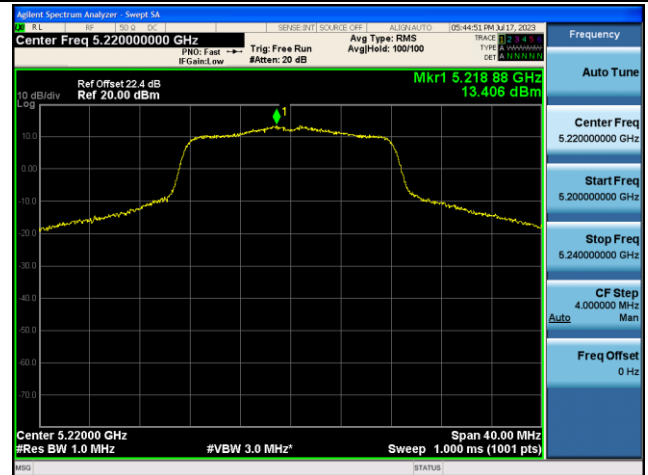
Note: When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/510kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

802.11a Power Spectral Density - Ant 0

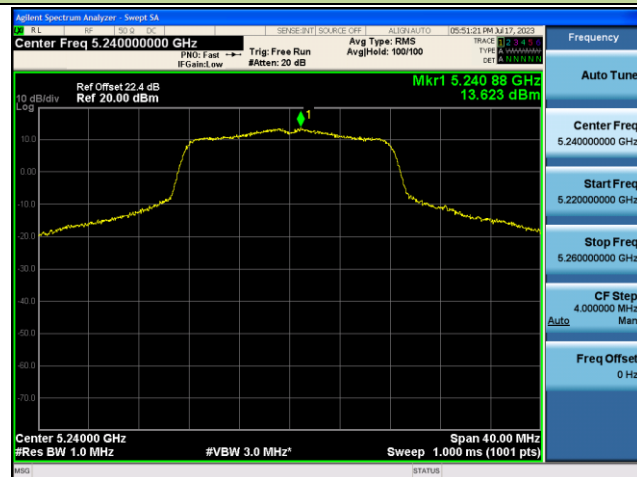
Channel 36 (5180MHz)



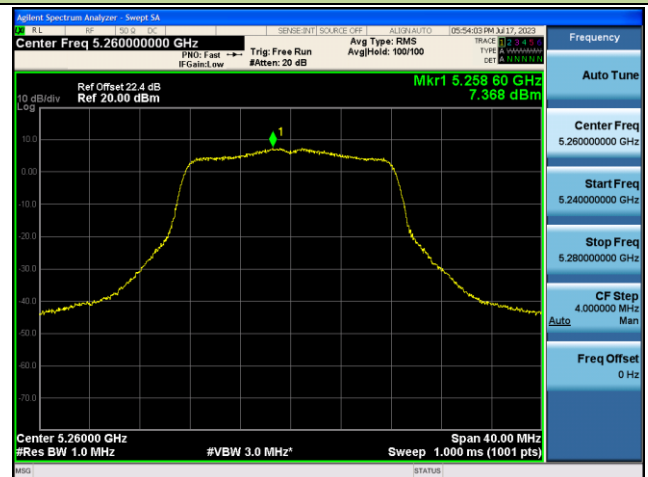
Channel 44 (5220MHz)



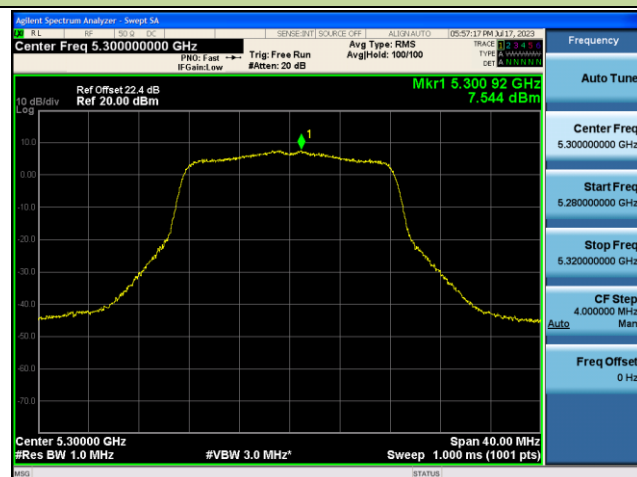
Channel 48 (5240MHz)



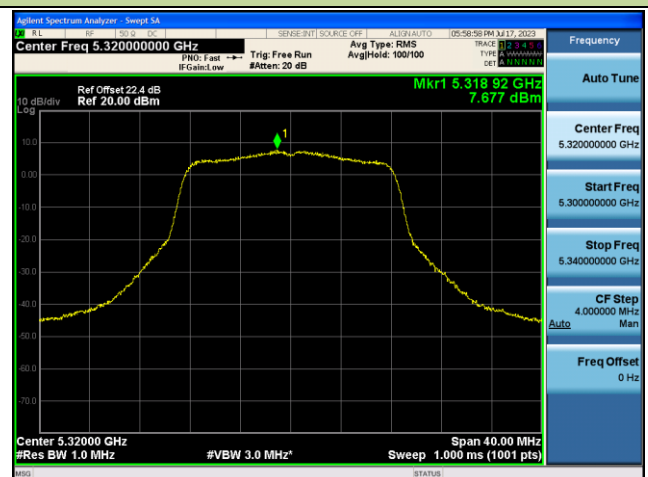
Channel 52 (5260MHz)



Channel 60 (5300MHz)

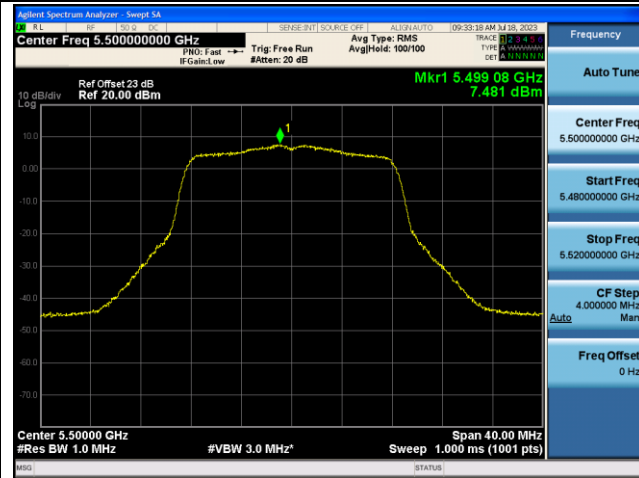


Channel 64 (5320MHz)

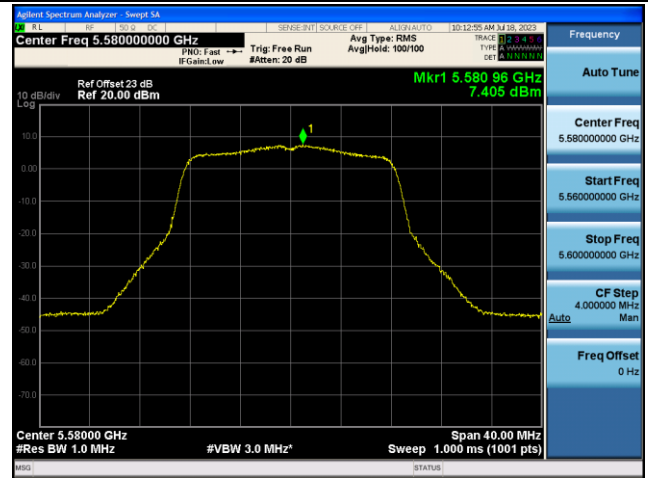


802.11a Power Spectral Density - Ant 0

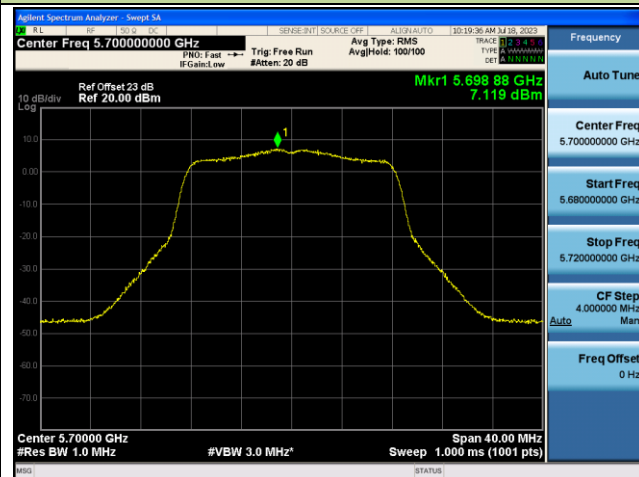
Channel 100 (5500MHz)



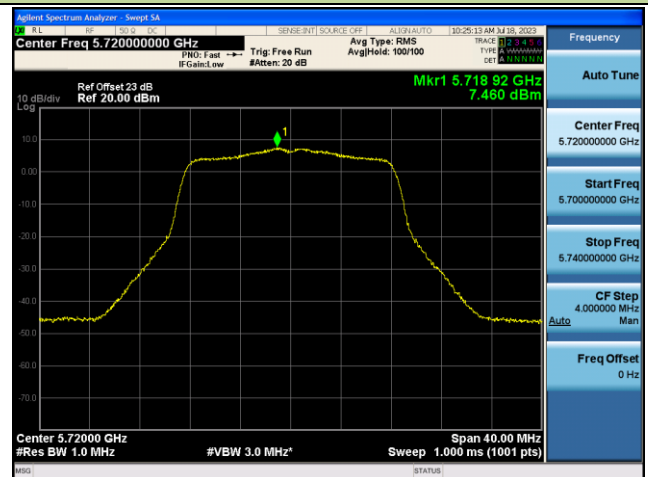
Channel 116 (5580MHz)



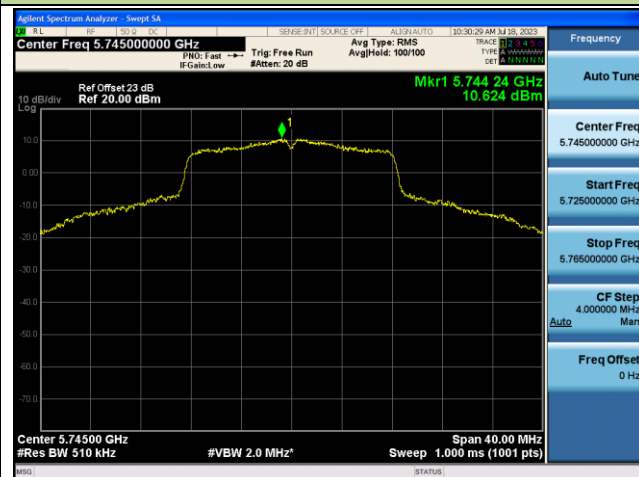
Channel 140 (5700MHz)



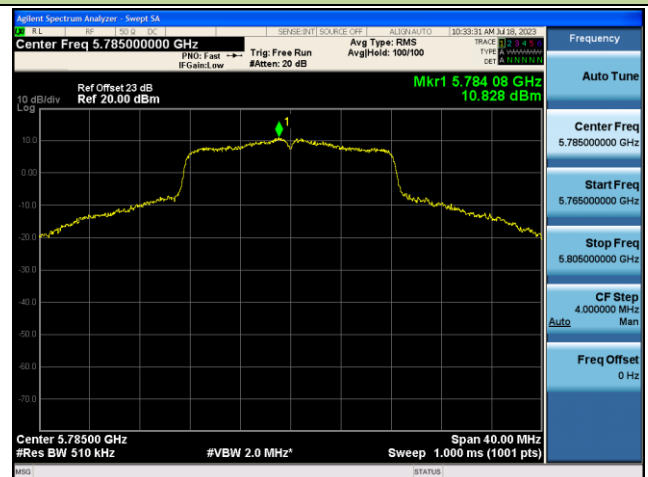
Channel 144 (5720MHz)



Channel 149 (5745MHz)

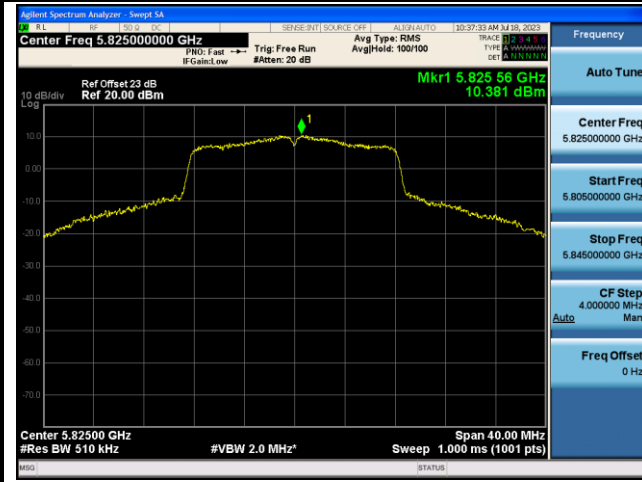


Channel 157 (5785MHz)



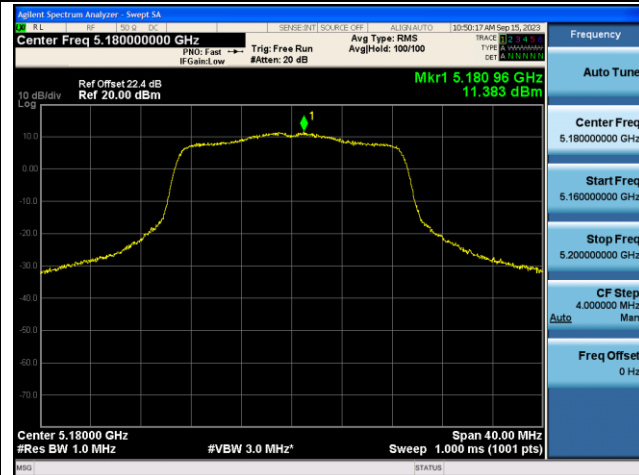
802.11a Power Spectral Density - Ant 0

Channel 165 (5825MHz)

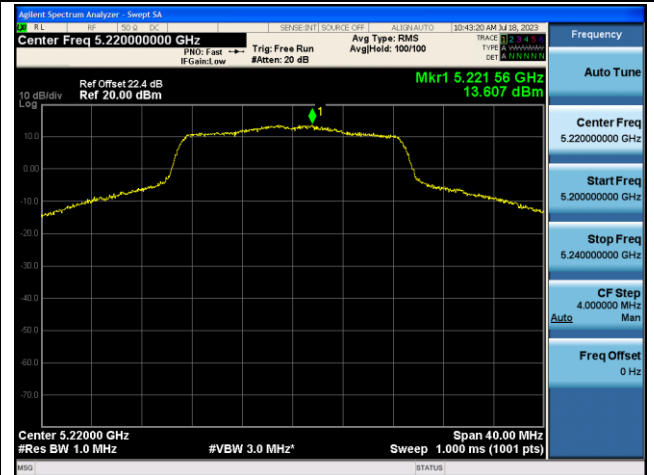


802.11ac-VHT20 Power Spectral Density - Ant 0

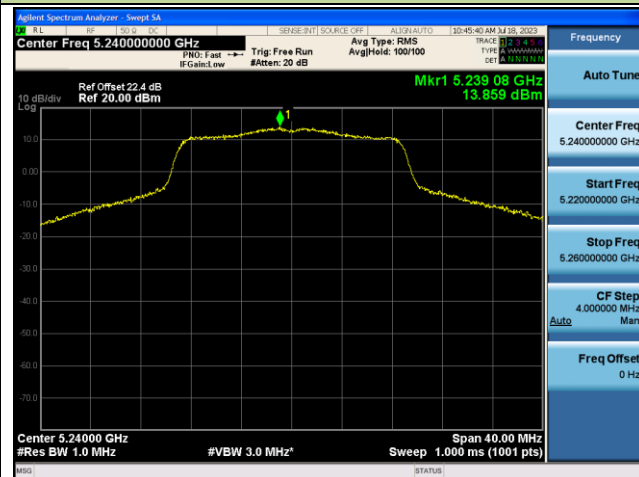
Channel 36 (5180MHz)



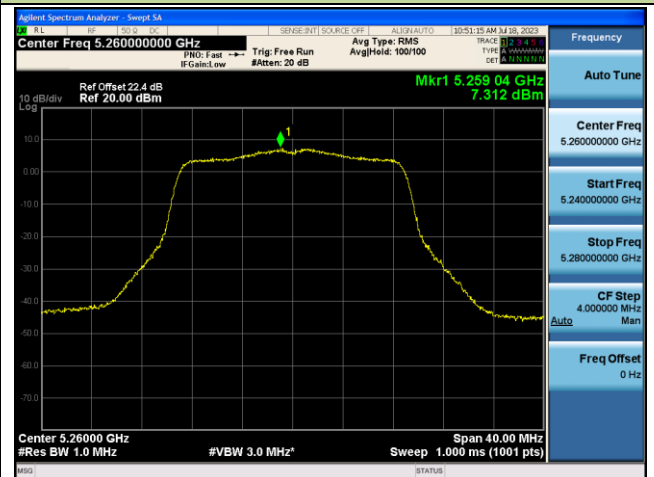
Channel 44 (5220MHz)



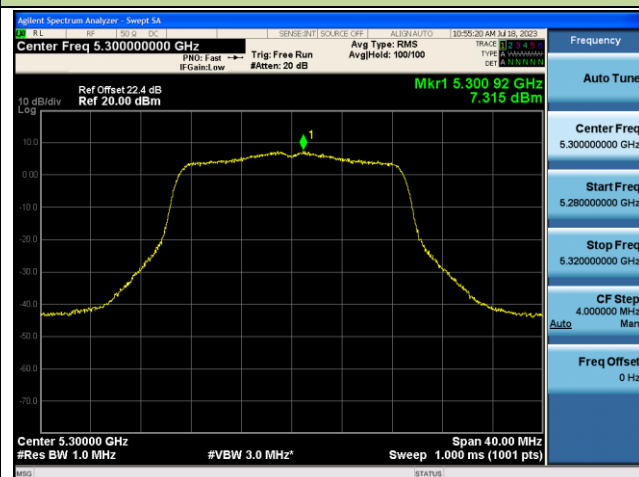
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

