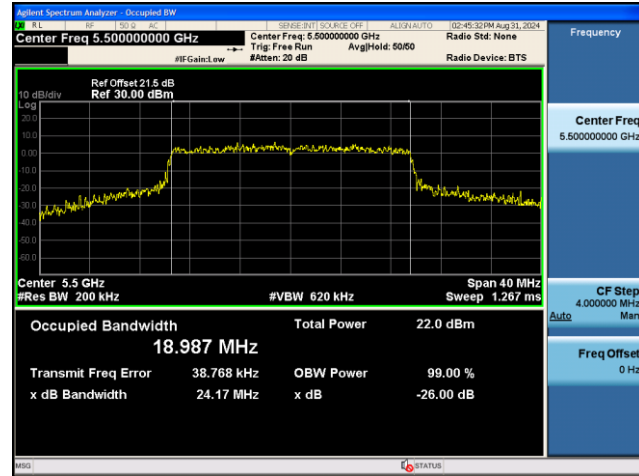
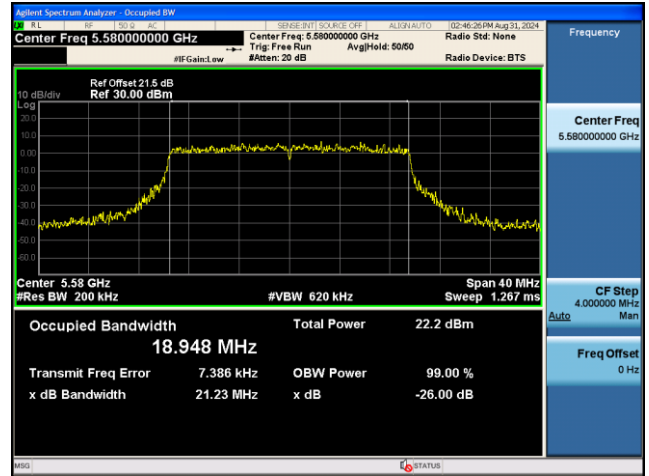


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

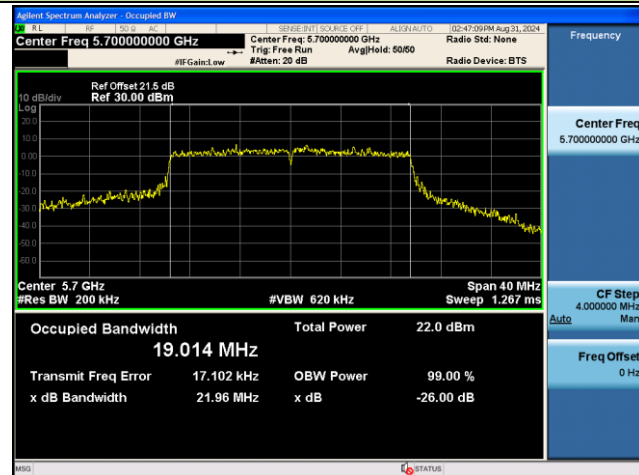
Channel 100 (5500MHz)



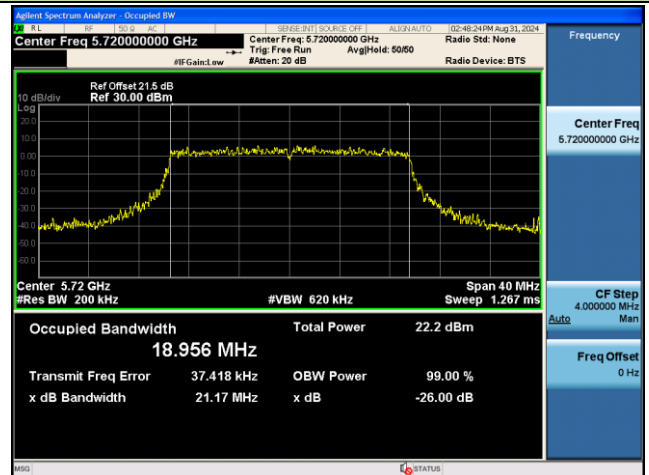
Channel 116 (5580MHz)



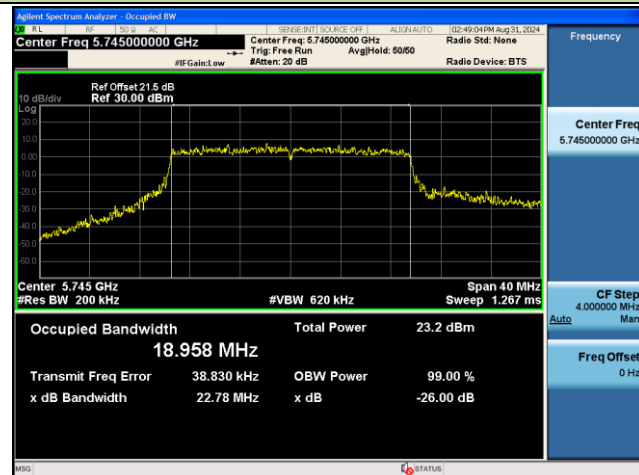
Channel 140 (5700MHz)



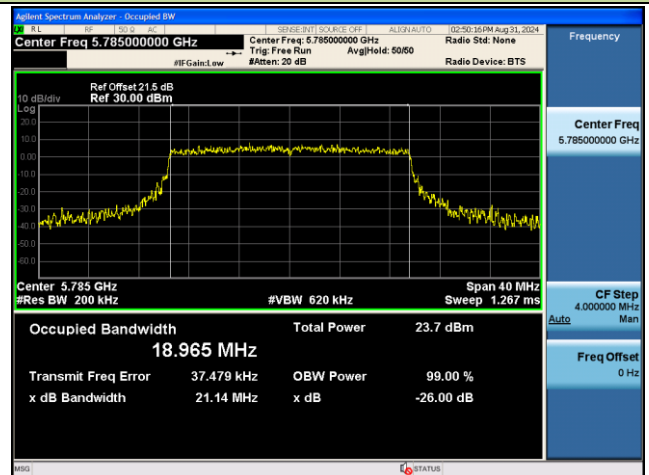
Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



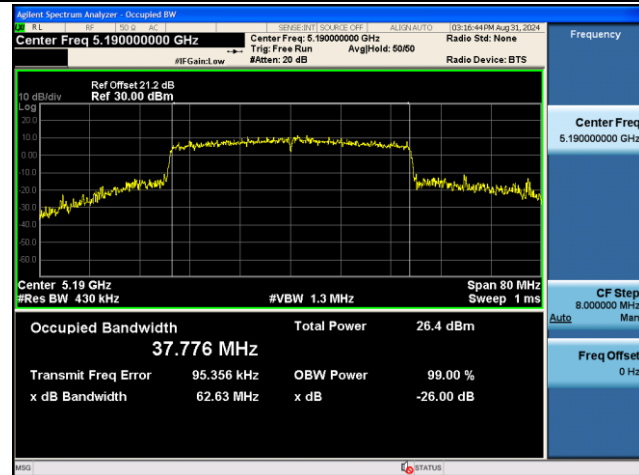
802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

Channel 165 (5825MHz)

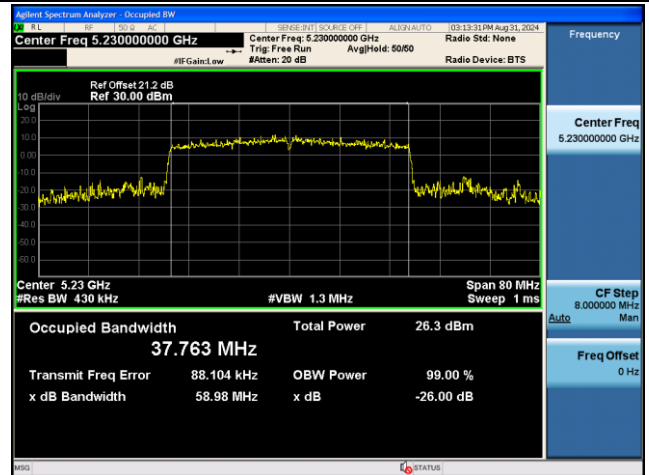


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

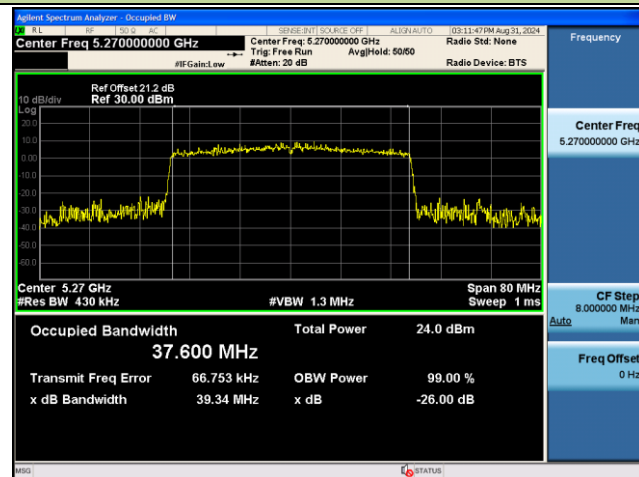
Channel 38 (5190MHz)



Channel 46 (5230MHz)



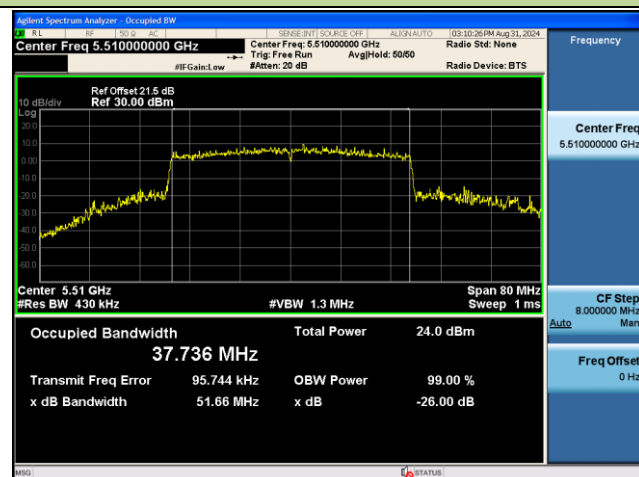
Channel 54 (5270MHz)



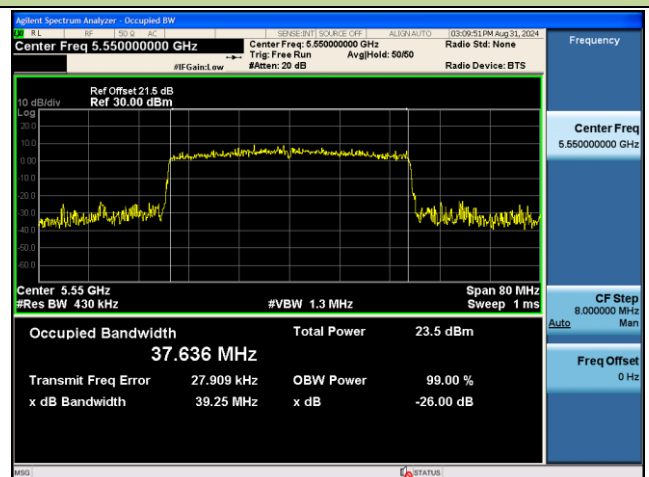
Channel 62 (5310MHz)



Channel 102 (5510MHz)

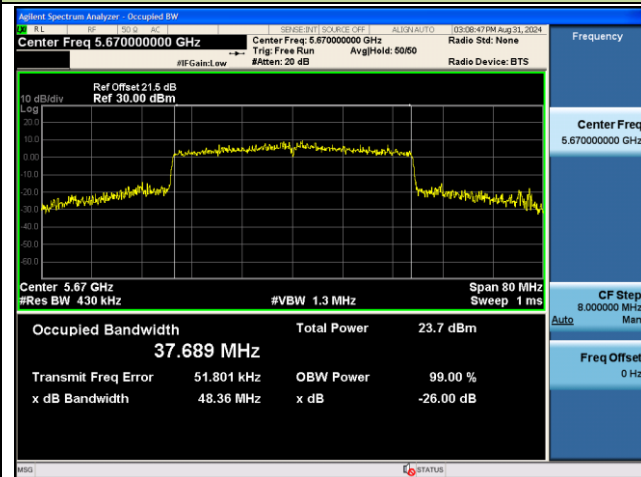


Channel 110 (5550MHz)

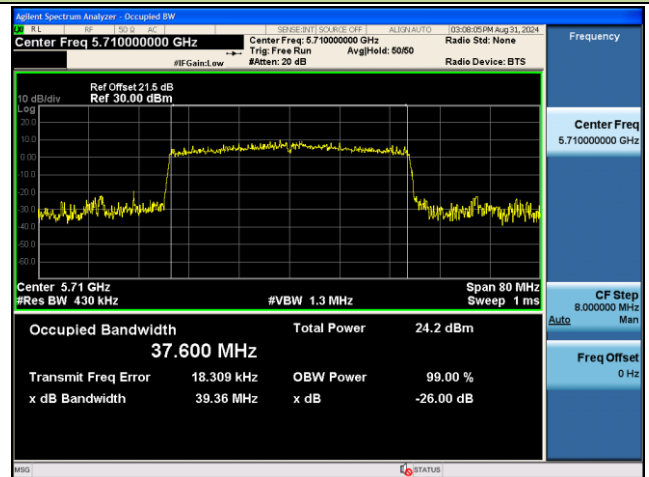


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

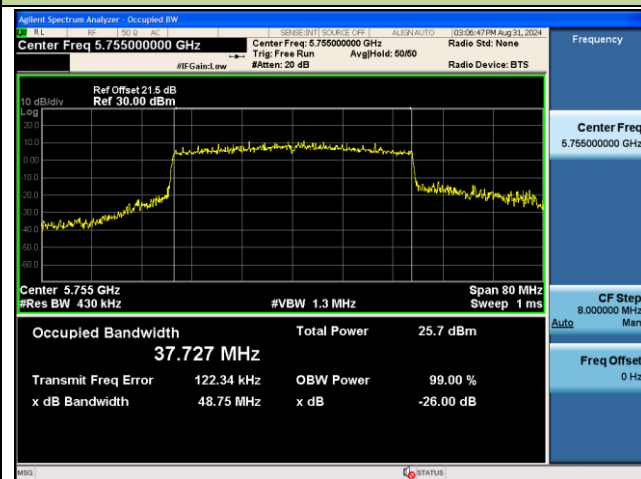
Channel 134 (5670MHz)



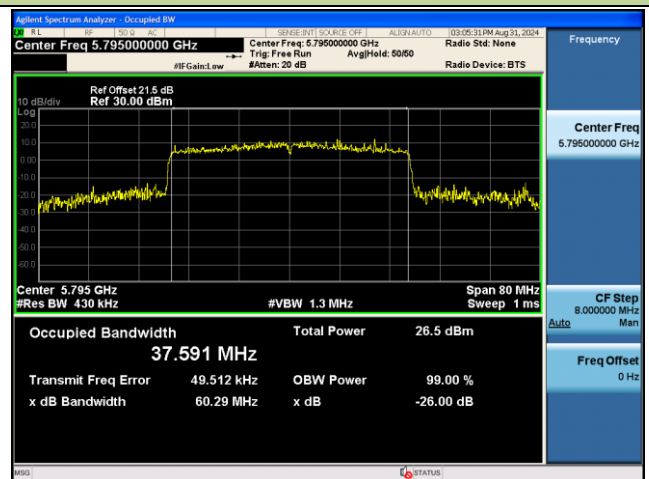
Channel 142 (5710MHz)



Channel 151 (5755MHz)

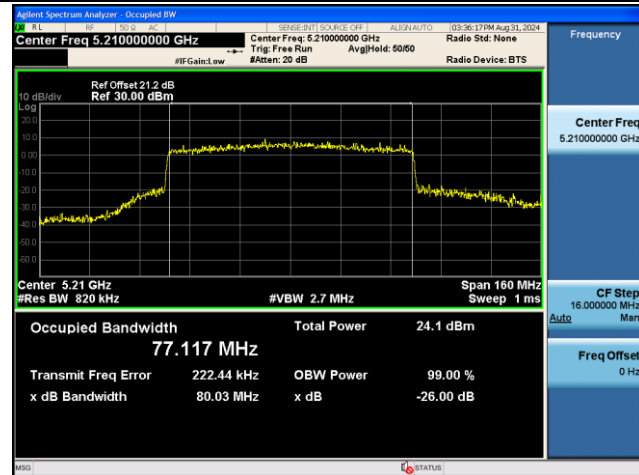


Channel 159 (5795MHz)

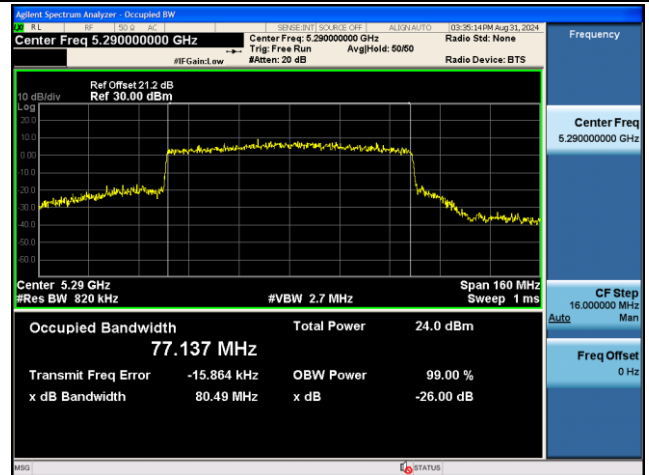


8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

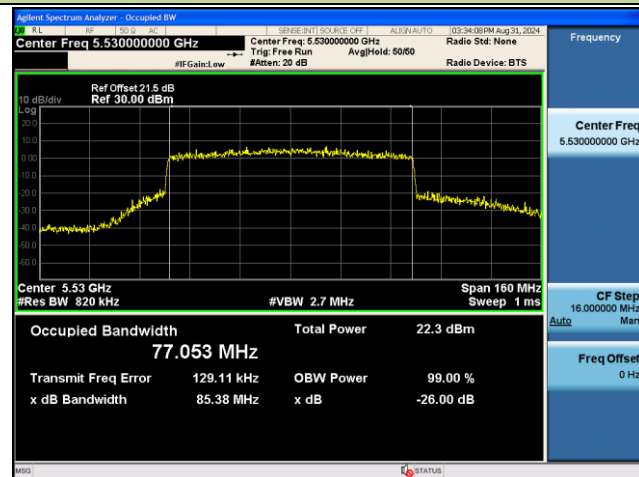
Channel 42 (5210MHz)



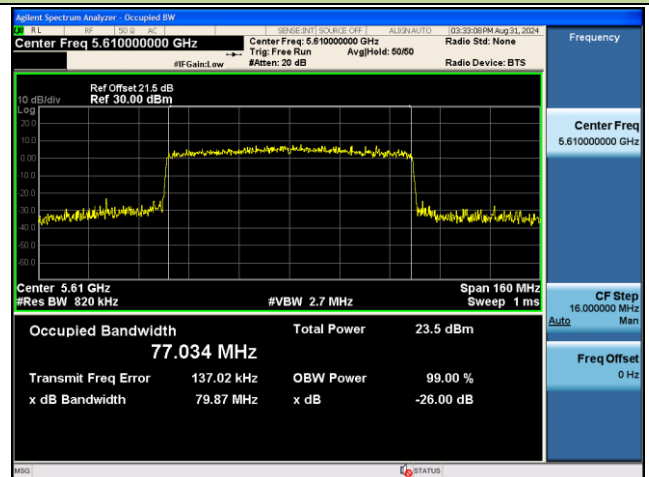
Channel 58 (5290MHz)



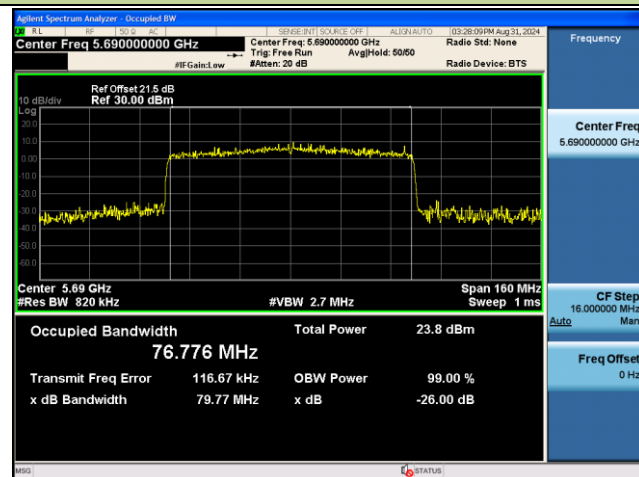
Channel 106 (5530MHz)



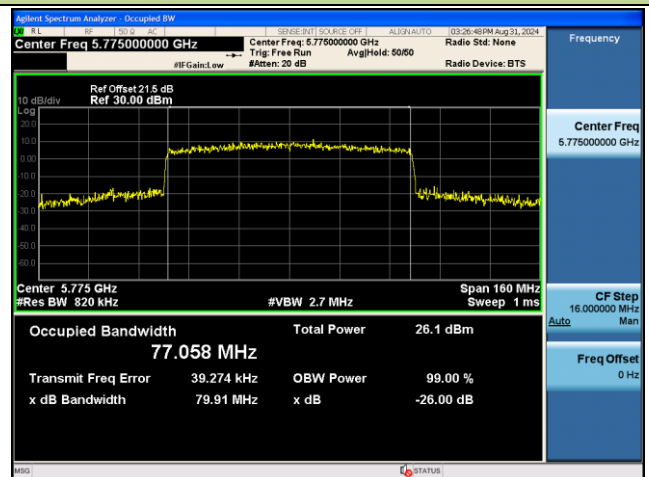
Channel 122 (5610MHz)



Channel 138 (5690MHz)

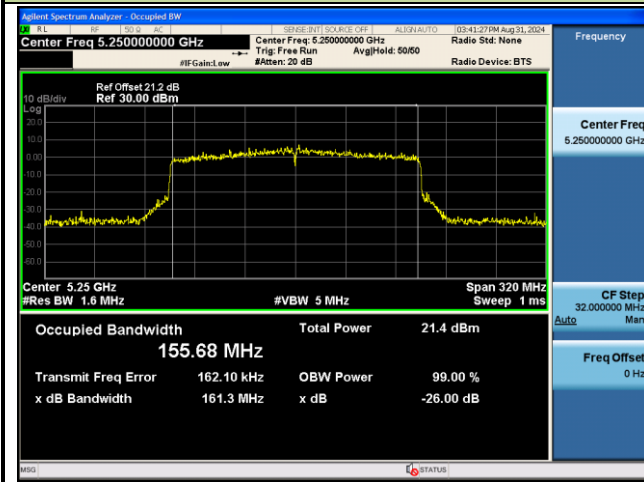


Channel 155 (5775MHz)

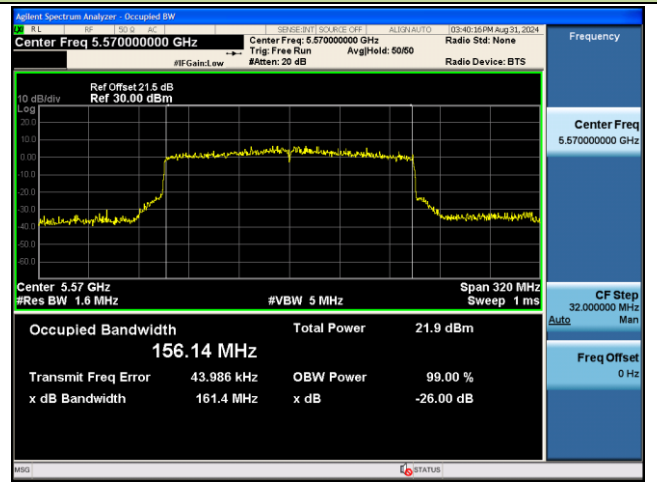


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

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.

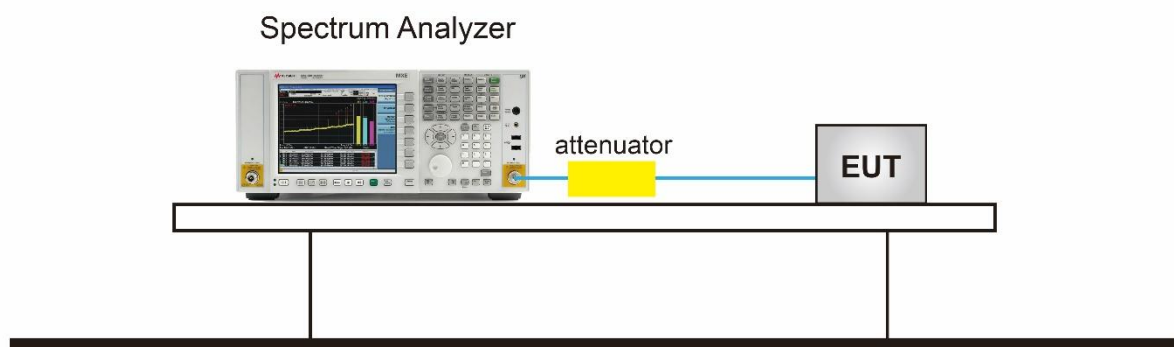
7.3.2. Test Procedure used

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



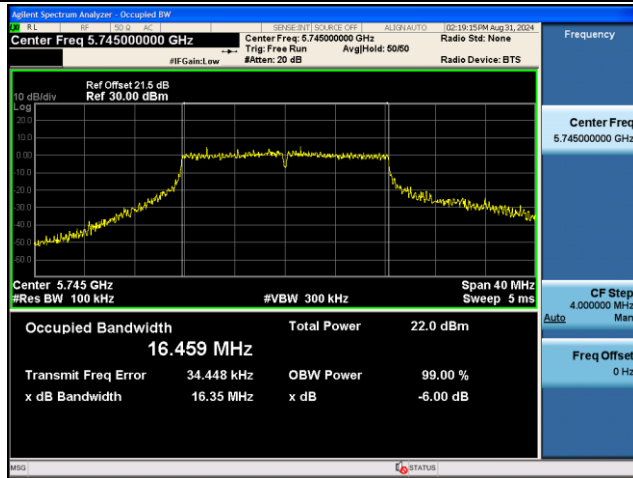
7.3.5.TestResult

Product	AX3000 Wi-Fi 6 Portable Router	Test Engineer	Wen
Test Site	SR6	Test Date	2024/8/31

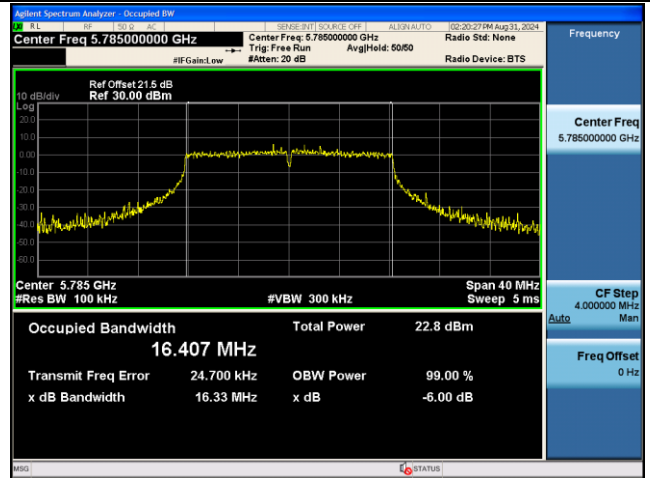
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 2						
802.11a	6Mbps	149	5745	16.35	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.33	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.34	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.64	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.61	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.45	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	36.27	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	35.18	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	73.97	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	18.24	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	18.82	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	18.21	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	33.85	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	36.06	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	77.03	≥ 0.5	Pass

802.11a 6dB Bandwidth

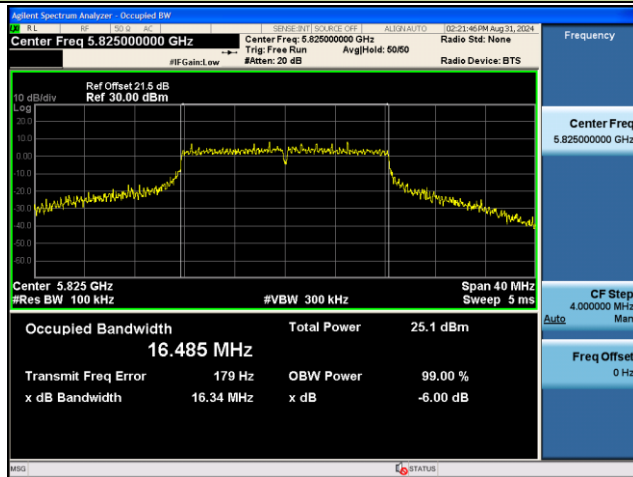
Channel 149 (5745MHz)



Channel 157 (5785MHz)

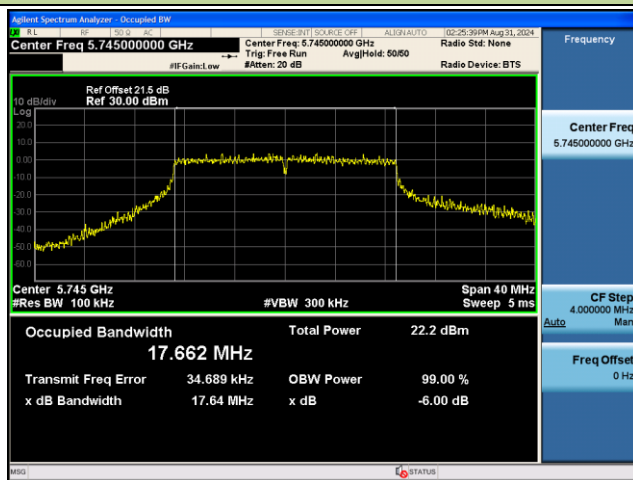


Channel 165 (5825MHz)

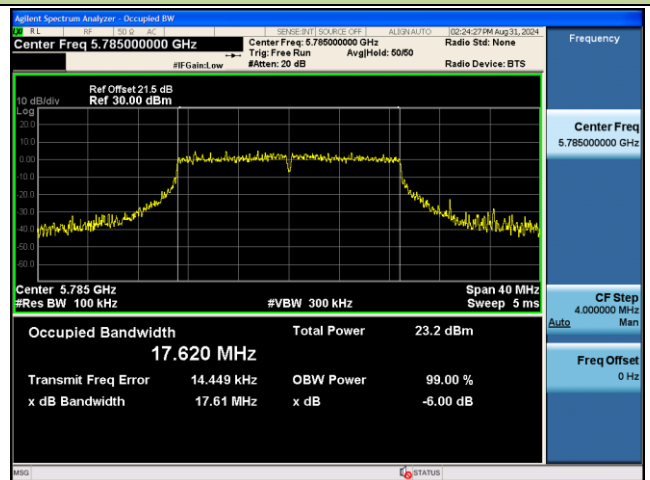


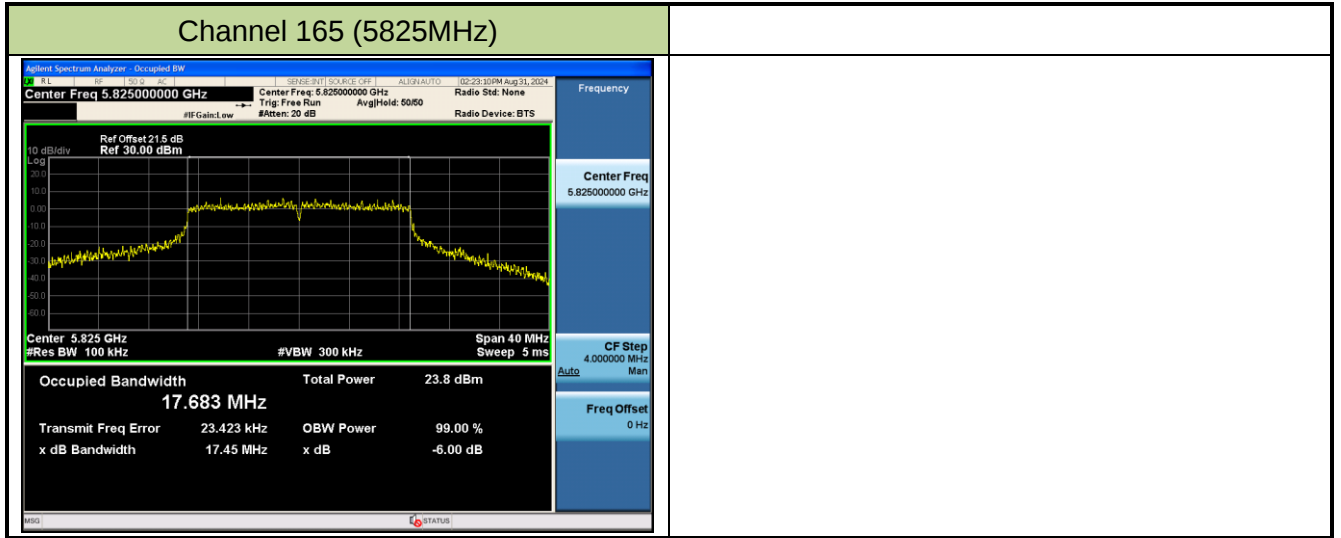
802.11ac-VHT20 6dB Bandwidth

Channel 149 (5745MHz)



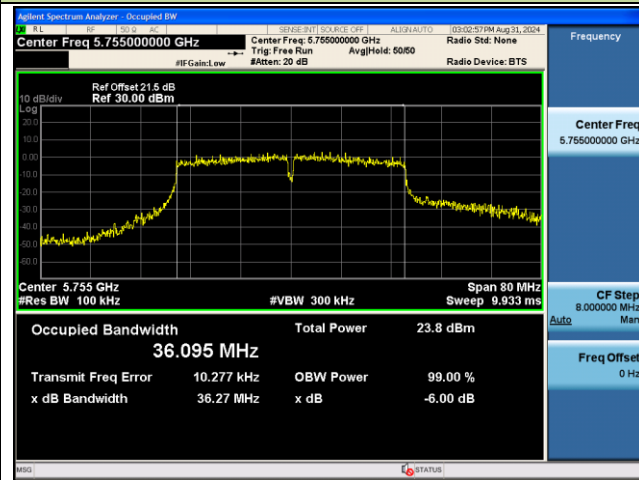
Channel 157 (5785MHz)



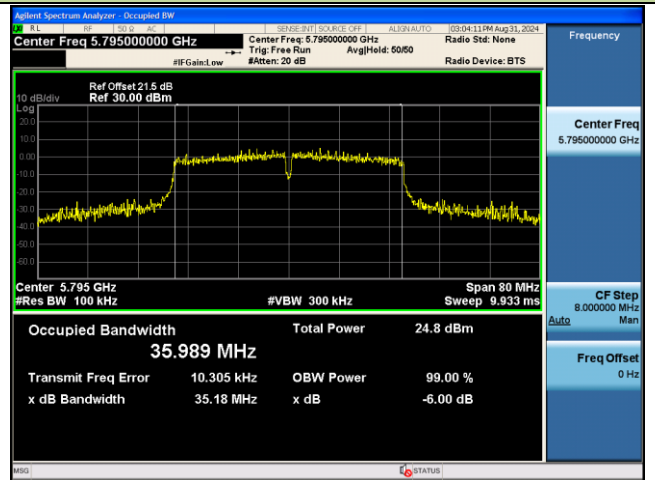


802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)

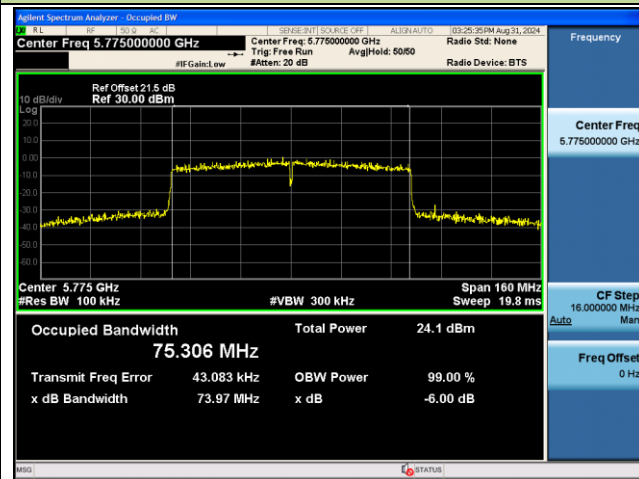


Channel 159 (5795MHz)



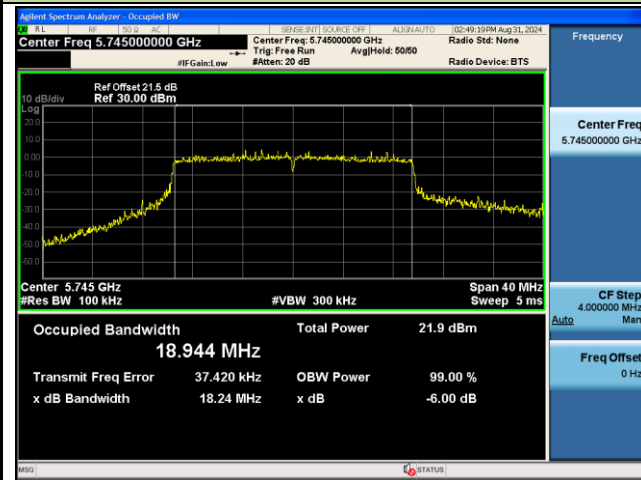
802.11ac-VHT80 6dB Bandwidth

Channel 155 (5775MHz)

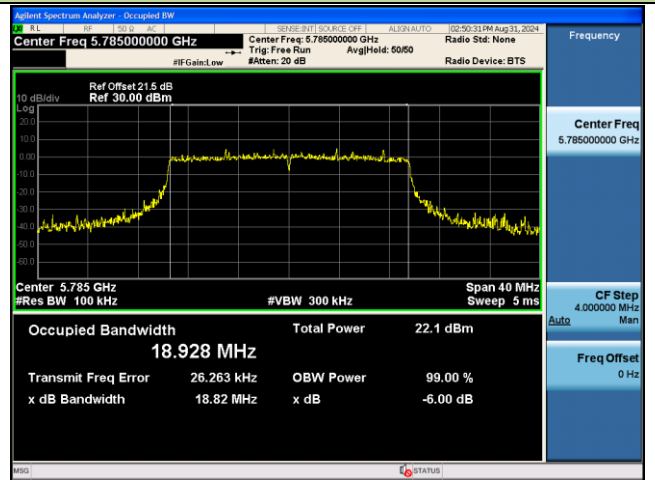


802.11ax-HE20 6dB Bandwidth

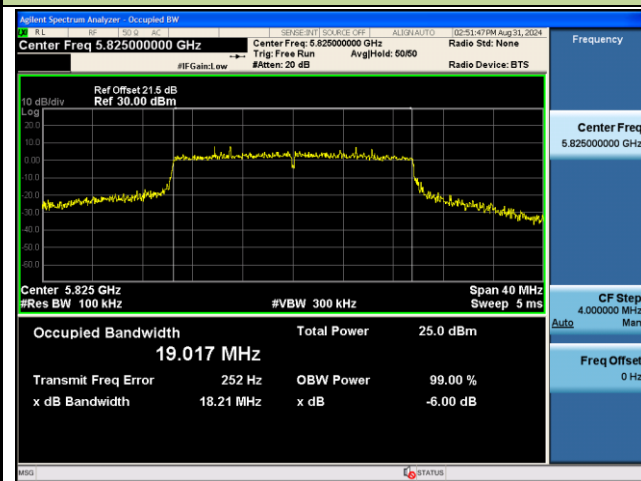
Channel 149 (5745MHz)



Channel 157 (5785MHz)

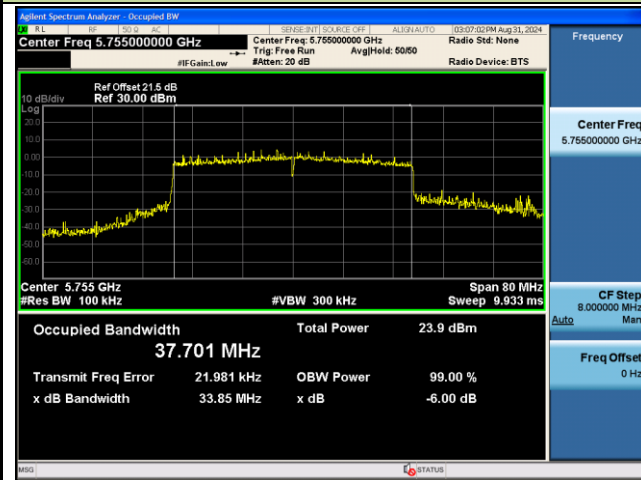


Channel 165 (5825MHz)

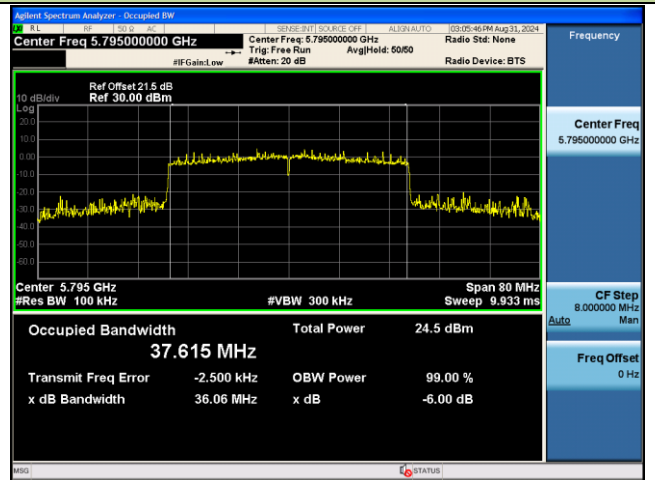


802.11ax-HE40 6dB Bandwidth

Channel 151 (5755MHz)

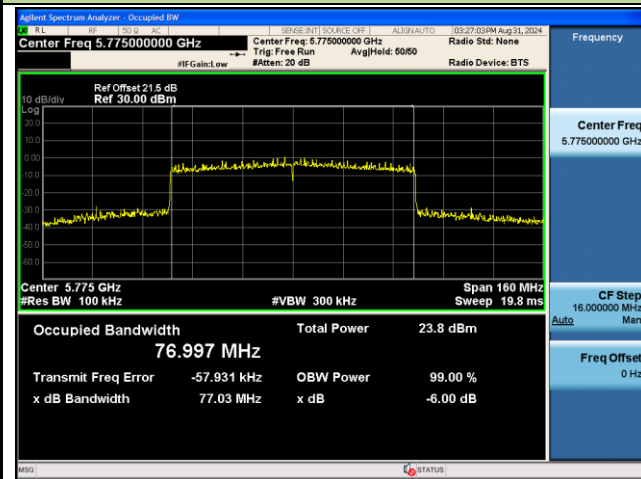


Channel 159 (5795MHz)



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.

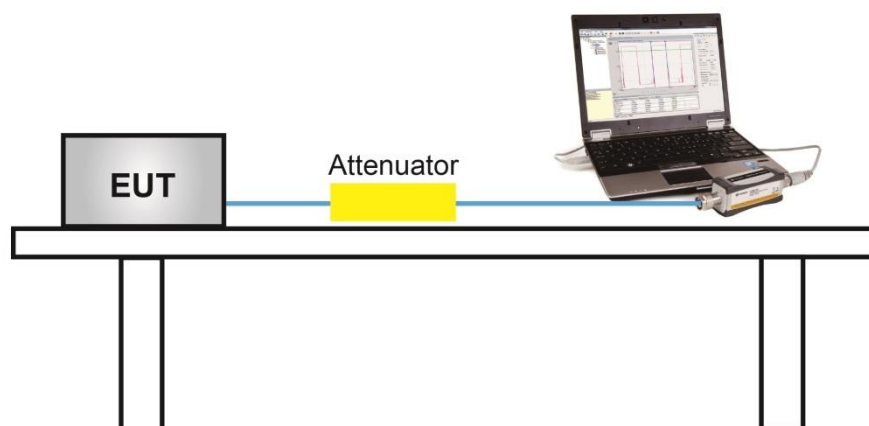
7.4.2. Test Procedure Used

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 Portable Router	Test Engineer	Wen
Test Site	SR6	Test Date	2024/8/25~2024/8/31
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 1	Ant 2	Ant 3			
11a	6Mbps	36	5180	19.45	19.61	19.41	24.26	≤ 30.00	Pass
11a	6Mbps	40	5200	20.02	20.17	19.84	24.78	≤ 30.00	Pass
11a	6Mbps	48	5240	19.98	20.02	19.83	24.72	≤ 30.00	Pass
11a	6Mbps	52	5260	16.10	16.17	15.91	20.83	≤ 23.98	Pass
11a	6Mbps	60	5300	15.67	15.76	15.60	20.45	≤ 23.98	Pass
11a	6Mbps	64	5320	15.63	15.77	15.67	20.46	≤ 23.98	Pass
11a	6Mbps	100	5500	16.52	16.61	16.53	21.32	≤ 23.98	Pass
11a	6Mbps	116	5580	16.74	16.79	16.75	21.53	≤ 23.98	Pass
11a	6Mbps	140	5700	16.46	16.45	16.46	21.23	≤ 23.98	Pass
11a	6Mbps	144	5720	16.31	16.38	16.14	21.05	≤ 22.85	Pass
11a	6Mbps	149	5745	18.21	18.41	18.33	23.09	≤ 30.00	Pass
11a	6Mbps	157	5785	19.53	19.76	19.64	24.42	≤ 30.00	Pass
11a	6Mbps	165	5825	21.34	21.17	21.38	26.07	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	19.12	19.21	18.88	23.84	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5200	20.23	20.25	20.03	24.94	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	20.60	20.63	20.48	25.34	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	16.01	16.13	15.93	20.80	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	15.71	15.76	15.70	20.49	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	15.60	15.85	15.68	20.48	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	16.57	16.98	17.04	21.64	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	17.00	17.46	17.28	22.02	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	16.39	16.33	16.55	21.20	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	16.67	16.85	16.81	21.55	≤ 22.88	Pass
11ac-VHT20	MCS0	149	5745	18.27	18.41	18.34	23.11	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	19.05	19.25	19.13	23.92	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	19.72	19.96	19.96	24.65	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)			Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 1	Ant 2	Ant 3			
11ac-VHT40	MCS0	38	5190	21.44	21.52	20.96	26.08	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	20.52	20.77	20.57	25.39	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	18.62	18.58	18.35	23.29	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	18.06	18.24	18.12	22.91	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	18.69	19.30	18.86	23.73	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	18.43	18.99	18.69	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	18.23	18.35	18.46	23.12	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	18.71	18.90	18.62	23.52	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	19.51	19.69	19.82	24.45	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	20.75	20.88	20.85	25.60	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	19.75	19.79	19.25	24.37	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	18.87	18.91	18.73	23.61	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	17.13	17.24	17.62	22.11	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	18.54	19.01	18.76	23.55	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	18.63	18.91	18.72	23.53	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	21.32	21.55	21.16	26.12	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	17.04	17.08	16.82	21.75	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	17.06	17.52	17.45	22.12	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	19.79	19.97	19.47	24.52	≤ 30.00	Pass
11ax-HE20	MCS0	40	5200	20.81	20.94	20.51	25.53	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	20.21	20.41	19.95	24.97	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	16.72	16.74	16.54	21.44	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	16.42	16.38	16.22	21.11	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	16.46	16.45	16.36	21.19	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	16.74	16.93	17.14	21.71	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	17.12	17.29	17.20	21.98	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	17.04	17.10	17.04	21.83	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	17.35	17.25	17.25	22.05	≤ 22.93	Pass
11ax-HE20	MCS0	149	5745	18.41	18.62	18.52	23.29	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	18.68	18.73	18.75	23.49	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	21.33	21.67	21.56	26.29	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)			Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 1	Ant 2	Ant 3			
11ax-HE40	MCS0	38	5190	21.55	21.42	21.32	26.20	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	21.27	21.02	21.04	25.88	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	18.90	18.62	18.78	23.54	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	18.22	18.27	18.36	23.05	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	18.90	18.96	19.13	23.77	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	18.65	18.89	18.68	23.51	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	18.63	18.85	18.75	23.52	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	18.57	19.10	18.65	23.55	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	20.47	20.66	20.58	25.34	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	21.11	21.25	21.15	25.94	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	19.48	19.46	19.23	24.16	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	19.02	19.08	18.94	23.78	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	17.29	17.81	17.86	22.43	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	18.74	19.20	19.03	23.77	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	18.86	19.13	19.09	23.80	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	21.18	21.28	21.14	25.97	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	16.85	16.87	16.73	21.59	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	17.25	17.77	17.65	22.33	≤ 23.98	Pass

Note 1:

The Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

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

Product	AX3000 Wi-Fi 6 Portable Router	Test Engineer	Wen
Test Site	SR6	Test Date	2024/8/25~2024/8/31
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 1	Ant 2	Ant 3			
11ac-VHT20	MCS0	36	5180	19.12	19.21	18.88	23.84	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5200	20.23	20.25	20.03	24.94	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	20.60	20.63	20.48	25.34	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	16.01	16.13	15.93	20.80	≤ 23.32	Pass
11ac-VHT20	MCS0	60	5300	15.71	15.76	15.70	20.49	≤ 23.32	Pass
11ac-VHT20	MCS0	64	5320	15.60	15.85	15.68	20.48	≤ 23.32	Pass
11ac-VHT20	MCS0	100	5500	16.57	16.98	17.04	21.64	≤ 23.56	Pass
11ac-VHT20	MCS0	116	5580	17.00	17.46	17.28	22.02	≤ 23.56	Pass
11ac-VHT20	MCS0	140	5700	16.39	16.33	16.55	21.20	≤ 23.56	Pass
11ac-VHT20	MCS0	144	5720	16.67	16.85	16.81	21.55	≤ 22.46	Pass
11ac-VHT20	MCS0	149	5745	18.27	18.41	18.34	23.11	≤ 29.90	Pass
11ac-VHT20	MCS0	157	5785	19.05	19.25	19.13	23.92	≤ 29.90	Pass
11ac-VHT20	MCS0	165	5825	19.72	19.96	19.96	24.65	≤ 29.90	Pass
11ac-VHT40	MCS0	38	5190	21.44	21.52	20.96	26.08	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	20.52	20.77	20.57	25.39	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	18.62	18.58	18.35	23.29	≤ 23.32	Pass
11ac-VHT40	MCS0	62	5310	18.06	18.24	18.12	22.91	≤ 23.32	Pass
11ac-VHT40	MCS0	102	5510	18.02	18.75	18.55	23.22	≤ 23.56	Pass
11ac-VHT40	MCS0	110	5550	18.43	18.99	18.69	23.48	≤ 23.56	Pass
11ac-VHT40	MCS0	134	5670	18.23	18.35	18.46	23.12	≤ 23.56	Pass
11ac-VHT40	MCS0	142	5710	18.71	18.90	18.62	23.52	≤ 23.56	Pass
11ac-VHT40	MCS0	151	5755	19.51	19.69	19.82	24.45	≤ 29.90	Pass
11ac-VHT40	MCS0	159	5795	20.75	20.88	20.85	25.60	≤ 29.90	Pass
11ac-VHT80	MCS0	42	5210	19.75	19.79	19.25	24.37	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	17.96	18.15	17.91	22.78	≤ 23.32	Pass
11ac-VHT80	MCS0	106	5530	17.13	17.24	17.62	22.11	≤ 23.56	Pass
11ac-VHT80	MCS0	122	5610	18.54	19.01	18.76	23.55	≤ 23.56	Pass
11ac-VHT80	MCS0	138	5690	18.63	18.91	18.72	23.53	≤ 23.56	Pass
11ac-VHT80	MCS0	155	5775	21.32	21.55	21.16	26.12	≤ 29.90	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)			Total Average Power (dBm)	Power Limit (dBm)	Result
				Ant 1	Ant 2	Ant 3			
11ac-VHT160	MCS0	50	5250	17.04	17.08	16.82	21.75	≤ 23.32	Pass
11ac-VHT160	MCS0	114	5570	17.06	17.52	17.45	22.12	≤ 23.56	Pass
11ax-HE20	MCS0	36	5180	19.79	19.97	19.47	24.52	≤ 30.00	Pass
11ax-HE20	MCS0	40	5200	20.81	20.94	20.51	25.53	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	20.21	20.41	19.95	24.97	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	16.72	16.74	16.54	21.44	≤ 23.32	Pass
11ax-HE20	MCS0	60	5300	16.42	16.38	16.22	21.11	≤ 23.32	Pass
11ax-HE20	MCS0	64	5320	16.46	16.45	16.36	21.19	≤ 23.32	Pass
11ax-HE20	MCS0	100	5500	16.74	16.93	17.14	21.71	≤ 23.56	Pass
11ax-HE20	MCS0	116	5580	17.12	17.29	17.20	21.98	≤ 23.56	Pass
11ax-HE20	MCS0	140	5700	17.04	17.10	17.04	21.83	≤ 23.56	Pass
11ax-HE20	MCS0	144	5720	17.35	17.25	17.25	22.05	≤ 22.51	Pass
11ax-HE20	MCS0	149	5745	18.41	18.62	18.52	23.29	≤ 29.90	Pass
11ax-HE20	MCS0	157	5785	18.68	18.73	18.75	23.49	≤ 29.90	Pass
11ax-HE20	MCS0	165	5825	21.33	21.67	21.56	26.29	≤ 29.90	Pass
11ax-HE40	MCS0	38	5190	21.55	21.42	21.32	26.20	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	21.27	21.02	21.04	25.88	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	18.26	18.11	17.93	22.87	≤ 23.32	Pass
11ax-HE40	MCS0	62	5310	18.22	18.27	18.36	23.05	≤ 23.32	Pass
11ax-HE40	MCS0	102	5510	18.25	18.74	18.66	23.33	≤ 23.56	Pass
11ax-HE40	MCS0	110	5550	18.65	18.89	18.68	23.51	≤ 23.56	Pass
11ax-HE40	MCS0	134	5670	18.63	18.85	18.75	23.52	≤ 23.56	Pass
11ax-HE40	MCS0	142	5710	18.57	19.10	18.65	23.55	≤ 23.56	Pass
11ax-HE40	MCS0	151	5755	20.47	20.66	20.58	25.34	≤ 29.90	Pass
11ax-HE40	MCS0	159	5795	21.11	21.25	21.15	25.94	≤ 29.90	Pass
11ax-HE80	MCS0	42	5210	19.48	19.46	19.23	24.16	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	18.50	18.59	18.48	23.29	≤ 23.32	Pass
11ax-HE80	MCS0	106	5530	17.29	17.81	17.86	22.43	≤ 23.56	Pass
11ax-HE80	MCS0	122	5610	18.25	18.67	18.52	23.25	≤ 23.56	Pass
11ax-HE80	MCS0	138	5690	18.38	18.60	18.54	23.28	≤ 23.56	Pass
11ax-HE80	MCS0	155	5775	21.18	21.28	21.14	25.97	≤ 29.90	Pass
11ax-HE160	MCS0	50	5250	16.85	16.87	16.73	21.59	≤ 23.32	Pass
11ax-HE160	MCS0	114	5570	17.25	17.77	17.65	22.33	≤ 23.56	Pass

Note 1:

The Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2:

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

For 5250 - 5350MHz Band: Average Power Limit (dBm) = $23.98 - (6.66 - 6) = 23.32\text{dBm}$.

For 5470 - 5725MHz Band: Average Power Limit (dBm) = $23.98 - (6.42 - 6) = 23.56\text{dBm}$.

For 5725 - 5850MHz Band: Average Power Limit (dBm) = $30 - (6.10 - 6) = 29.90\text{dBm}$.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) - (6.42 - 6)$

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.

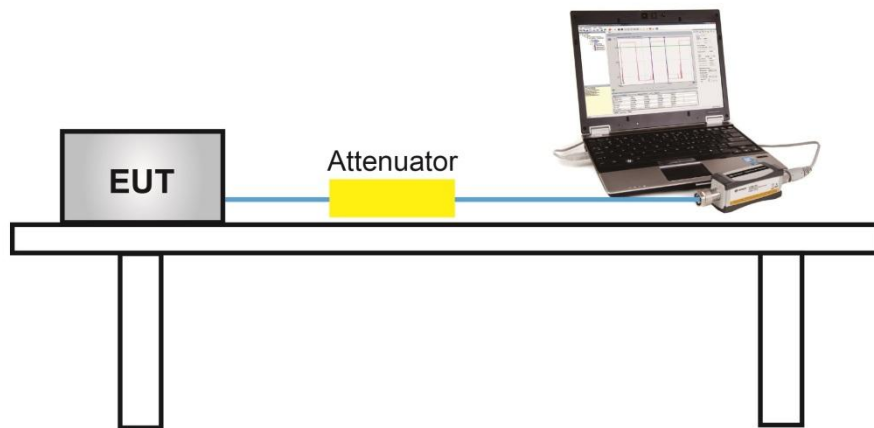
7.5.2. Test Procedure Used

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.

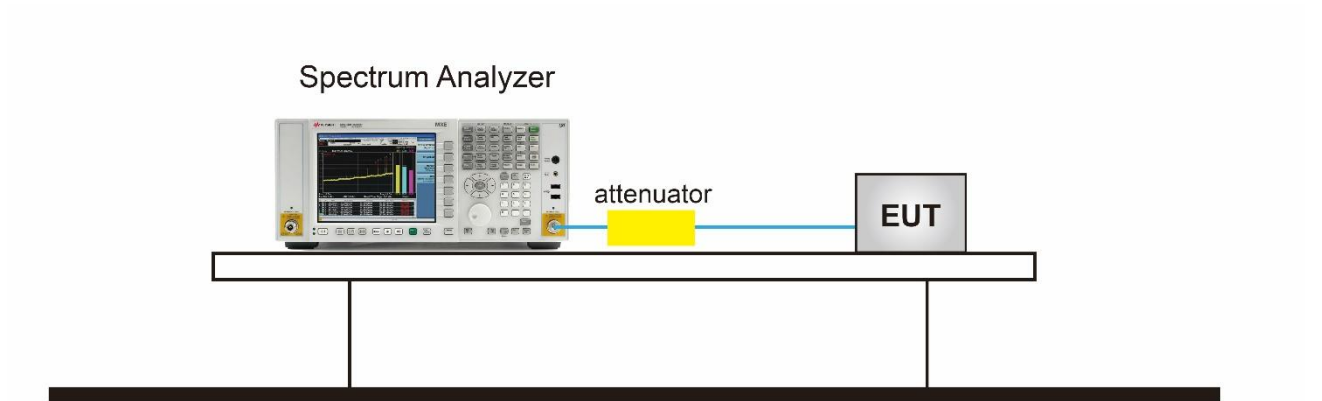
7.6.2. Test Procedure Used

KDB 789033 D02v02r01-Section F

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 Portable Router	Test Engineer	Wen
Test Site	SR6	Test Date	2024/8/25~2024/8/31
Mode	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	8.553	8.415	8.240	96.28%	13.340	≤ 17.00	Pass
11a	6Mbps	40	5200	9.013	9.103	8.873	96.28%	13.933	≤ 17.00	Pass
11a	6Mbps	48	5240	8.982	8.849	8.822	96.28%	13.821	≤ 17.00	Pass
11a	6Mbps	52	5260	5.475	5.364	5.069	96.28%	10.242	≤ 10.34	Pass
11a	6Mbps	60	5300	5.028	5.179	5.003	96.28%	10.007	≤ 10.34	Pass
11a	6Mbps	64	5320	5.249	5.299	5.076	96.28%	10.145	≤ 10.34	Pass
11a	6Mbps	100	5500	5.016	5.692	5.529	96.28%	10.358	≤ 10.58	Pass
11a	6Mbps	116	5580	5.228	5.745	5.427	96.28%	10.408	≤ 10.58	Pass
11a	6Mbps	140	5700	5.197	5.500	5.335	96.28%	10.282	≤ 10.58	Pass
11a	6Mbps	144	5720	5.663	5.619	5.149	96.28%	10.419	≤ 10.58	Pass
11ac-VHT20	MCS0	36	5180	7.457	7.776	7.438	95.99%	12.509	≤ 17.00	Pass
11ac-VHT20	MCS0	40	5200	8.715	8.804	8.502	95.99%	13.624	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	9.123	9.459	9.074	95.99%	14.171	≤ 17.00	Pass
11ac-VHT20	MCS0	52	5260	4.913	4.883	4.713	95.99%	9.786	≤ 10.34	Pass
11ac-VHT20	MCS0	60	5300	4.911	4.880	4.429	95.99%	9.694	≤ 10.34	Pass
11ac-VHT20	MCS0	64	5320	4.798	4.881	4.560	95.99%	9.697	≤ 10.34	Pass
11ac-VHT20	MCS0	100	5500	5.255	5.693	5.442	95.99%	10.416	≤ 10.58	Pass
11ac-VHT20	MCS0	116	5580	5.042	5.666	5.460	95.99%	10.346	≤ 10.58	Pass
11ac-VHT20	MCS0	140	5700	5.080	5.502	5.082	95.99%	10.175	≤ 10.58	Pass
11ac-VHT20	MCS0	144	5720	5.417	5.604	5.385	95.99%	10.419	≤ 10.58	Pass
11ac-VHT40	MCS0	38	5190	7.130	7.371	7.445	92.14%	12.444	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	7.243	7.341	7.317	92.14%	12.427	≤ 17.00	Pass
11ac-VHT40	MCS0	54	5270	5.186	5.179	4.892	92.14%	10.215	≤ 10.34	Pass
11ac-VHT40	MCS0	62	5310	5.029	4.956	4.983	92.14%	10.116	≤ 10.34	Pass
11ac-VHT40	MCS0	102	5510	3.938	4.193	4.863	92.14%	9.476	≤ 10.58	Pass
11ac-VHT40	MCS0	110	5550	3.616	4.479	4.173	92.14%	9.231	≤ 10.58	Pass
11ac-VHT40	MCS0	134	5670	4.308	4.308	4.584	92.14%	9.529	≤ 10.58	Pass
11ac-VHT40	MCS0	142	5710	4.533	4.727	4.969	92.14%	9.873	≤ 10.58	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT80	MCS0	42	5210	2.685	2.859	2.540	91.53%	7.852	≤ 17.00	Pass
11ac-VHT80	MCS0	58	5290	2.253	2.003	2.388	91.53%	7.373	≤ 10.34	Pass
11ac-VHT80	MCS0	106	5530	-0.447	0.408	0.306	91.53%	5.261	≤ 10.58	Pass
11ac-VHT80	MCS0	122	5610	1.156	1.682	0.793	91.53%	6.381	≤ 10.58	Pass
11ac-VHT80	MCS0	138	5690	1.699	1.750	1.825	91.53%	6.914	≤ 10.58	Pass
11ac-VHT160	MCS0	50	5250	-2.064	-1.995	-2.376	91.36%	3.022	≤ 10.34	Pass
11ac-VHT160	MCS0	114	5570	-2.820	-2.157	-2.125	91.36%	2.808	≤ 10.58	Pass
11ax-HE20	MCS0	36	5180	7.841	7.971	7.992	94.82%	12.937	≤ 17.00	Pass
11ax-HE20	MCS0	40	5200	9.054	9.231	8.839	94.82%	14.046	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	8.663	8.754	8.408	94.82%	13.613	≤ 17.00	Pass
11ax-HE20	MCS0	52	5260	5.475	5.464	5.046	94.82%	10.335	≤ 10.34	Pass
11ax-HE20	MCS0	60	5300	5.109	5.032	5.142	94.82%	10.097	≤ 10.34	Pass
11ax-HE20	MCS0	64	5320	5.261	5.158	4.833	94.82%	10.090	≤ 10.34	Pass
11ax-HE20	MCS0	100	5500	4.701	5.508	4.972	94.82%	10.076	≤ 10.58	Pass
11ax-HE20	MCS0	116	5580	5.061	5.541	5.134	94.82%	10.253	≤ 10.58	Pass
11ax-HE20	MCS0	140	5700	4.796	5.134	4.984	94.82%	9.976	≤ 10.58	Pass
11ax-HE20	MCS0	144	5720	5.253	5.343	5.367	94.82%	10.323	≤ 10.58	Pass
11ax-HE40	MCS0	38	5190	7.806	7.471	7.261	90.57%	12.720	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	7.499	7.348	7.466	90.57%	12.640	≤ 17.00	Pass
11ax-HE40	MCS0	54	5270	5.040	4.935	4.859	90.57%	10.147	≤ 10.34	Pass
11ax-HE40	MCS0	62	5310	5.001	5.099	4.938	90.57%	10.215	≤ 10.34	Pass
11ax-HE40	MCS0	102	5510	4.389	4.858	4.769	90.57%	9.878	≤ 10.58	Pass
11ax-HE40	MCS0	110	5550	4.155	4.659	4.610	90.57%	9.682	≤ 10.58	Pass
11ax-HE40	MCS0	134	5670	4.402	4.757	5.090	90.57%	9.960	≤ 10.58	Pass
11ax-HE40	MCS0	142	5710	4.980	5.032	5.006	90.57%	10.207	≤ 10.58	Pass
11ax-HE80	MCS0	42	5210	2.287	2.508	2.273	90.03%	7.585	≤ 17.00	Pass
11ax-HE80	MCS0	58	5290	2.424	2.266	2.306	90.03%	7.560	≤ 10.34	Pass
11ax-HE80	MCS0	106	5530	-0.337	1.026	0.799	90.03%	5.763	≤ 10.58	Pass
11ax-HE80	MCS0	122	5610	1.323	2.086	1.877	90.03%	7.001	≤ 10.58	Pass
11ax-HE80	MCS0	138	5690	2.061	1.868	2.309	90.03%	7.310	≤ 10.58	Pass
11ax-HE160	MCS0	50	5250	-2.559	-2.625	-2.035	90.12%	2.825	≤ 10.34	Pass
11ax-HE160	MCS0	114	5570	-2.792	-1.777	-1.851	90.12%	3.107	≤ 10.58	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{ 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)} \}$ (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{ 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)} \} + 10 \cdot \log (1/\text{Duty Cycle})$ (dBm/MHz).

Note 2:

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

For 5250 - 5350 MHz Band: PSD Limit (dBm/MHz) = 11 - (6.66 - 6) = 10.34 dBm/MHz

For 5470 - 5725 MHz Band: PSD Limit (dBm/MHz) = 11 - (6.42 - 6) = 10.58 dBm/MHz.

Product	AX3000 Wi-Fi 6 Portable Router	Test Engineer	Wen
Test Site	SR6	Test Date	2024/8/25~2024/8/31
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/MCS	Ch. No.	Freq. (MHz)	Ant 1 PSD (dBm/510KHz)	Ant 2 PSD (dBm/510KHz)	Ant 3 PSD (dBm/510KHz)	Duty Cycle (%)	Total PSD (Bm/510k Hz)	Limit (dBm/500kHz)	Result
11a	6Mbps	149	5745	4.459	4.595	4.883	96.28%	9.585	≤ 29.90	Pass
11a	6Mbps	157	5785	5.920	5.705	6.239	96.28%	10.896	≤ 29.90	Pass
11a	6Mbps	165	5825	7.343	7.667	7.551	96.28%	12.458	≤ 29.90	Pass
11ac-VHT20	MCS0	149	5745	4.102	4.229	4.177	95.99%	9.119	≤ 29.90	Pass
11ac-VHT20	MCS0	157	5785	4.983	5.583	5.280	95.99%	10.238	≤ 29.90	Pass
11ac-VHT20	MCS0	165	5825	5.515	5.739	5.835	95.99%	10.647	≤ 29.90	Pass
11ac-VHT40	MCS0	151	5755	3.250	3.201	3.338	92.14%	8.390	≤ 29.90	Pass
11ac-VHT40	MCS0	159	5795	4.515	4.534	4.745	92.14%	9.726	≤ 29.90	Pass
11ac-VHT80	MCS0	155	5775	0.758	1.443	2.132	91.53%	6.636	≤ 29.90	Pass
11ax-HE20	MCS0	149	5745	4.108	4.310	4.265	94.82%	9.231	≤ 29.90	Pass
11ax-HE20	MCS0	157	5785	4.381	5.075	4.685	94.82%	9.725	≤ 29.90	Pass
11ax-HE20	MCS0	165	5825	6.696	7.479	7.455	94.82%	12.227	≤ 29.90	Pass
11ax-HE40	MCS0	151	5755	3.537	3.980	4.232	90.57%	9.127	≤ 29.90	Pass
11ax-HE40	MCS0	159	5795	4.671	4.866	4.588	90.57%	9.911	≤ 29.90	Pass
11ax-HE80	MCS0	155	5775	0.578	1.784	1.622	90.03%	6.587	≤ 29.90	Pass

Note 1: When EUT duty cycle ≥ 98%,

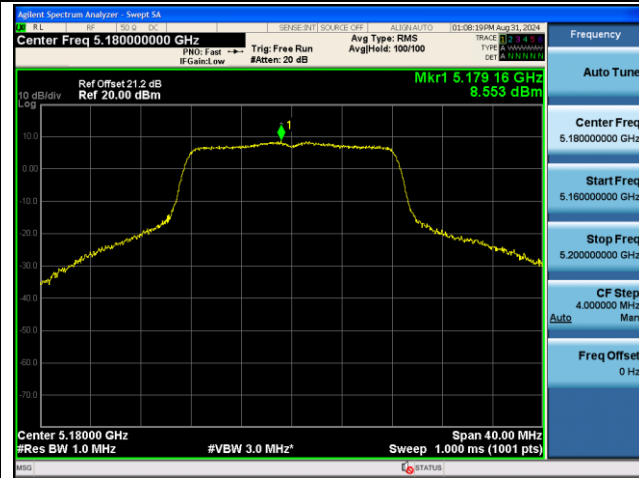
the total PSD (dBm/510kHz) = $10 \cdot \log \{ 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)} \}$ (dBm/510kHz).

When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = $10 \cdot \log \{ 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)} \}$ (dBm/510kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

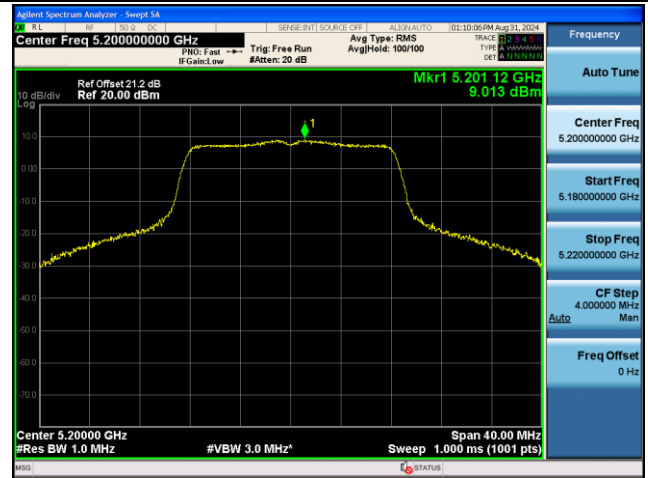
Note 2: PSD Limit (dBm/500kHz) = 30 - (6.10 - 6) = 29.90 (dBm/500kHz).

802.11a Power Spectral Density - Ant 1

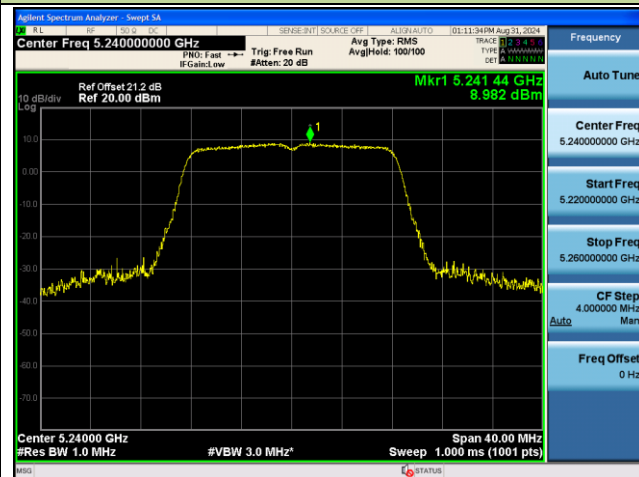
Channel 36 (5180MHz)



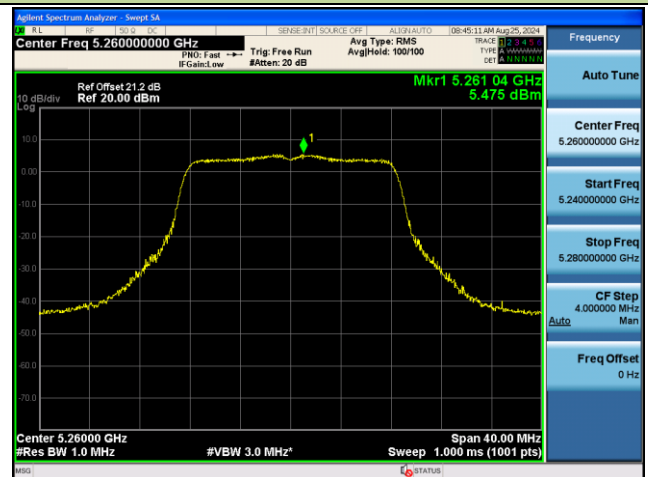
Channel 40 (5200MHz)



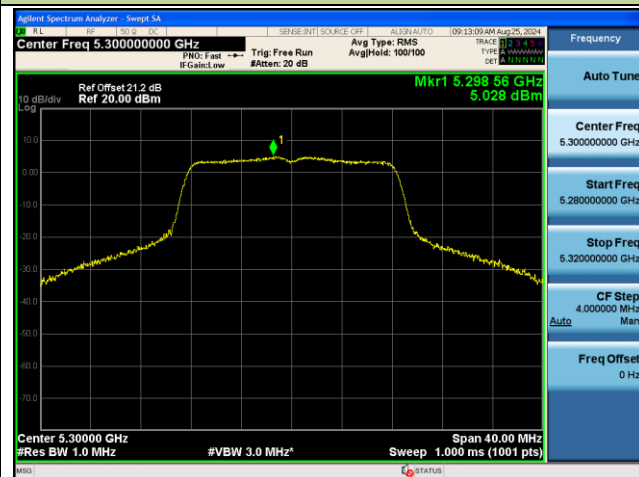
Channel 48 (5240MHz)



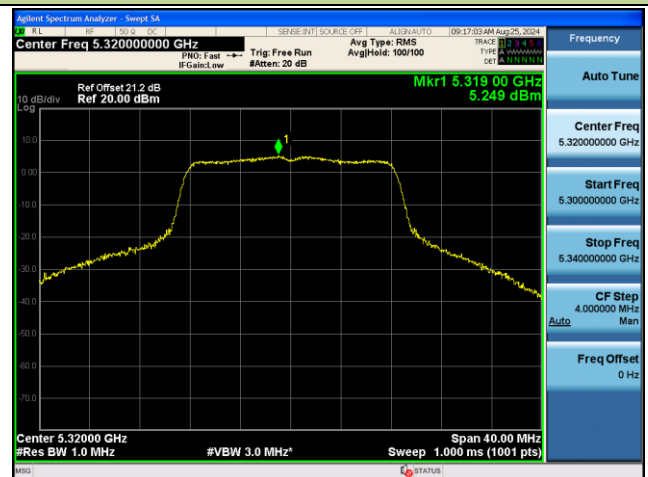
Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

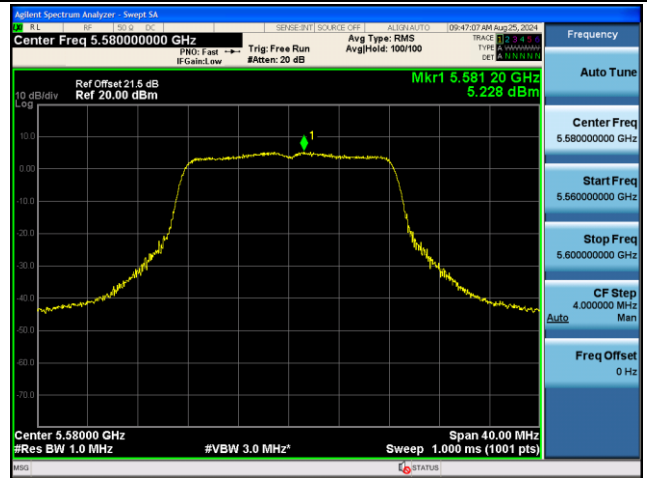


802.11a Power Spectral Density - Ant 1

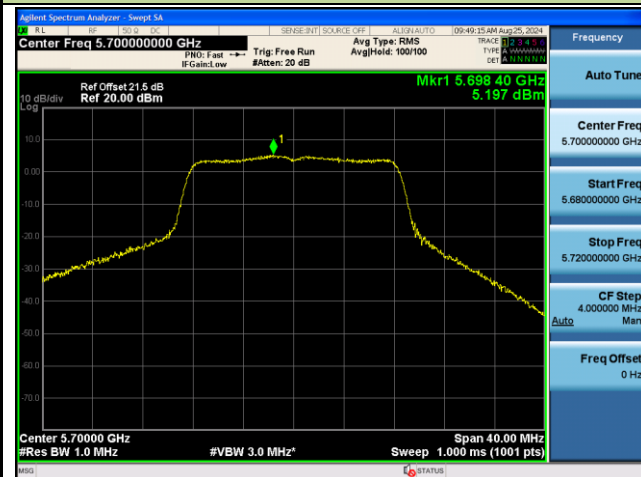
Channel 100 (5500MHz)



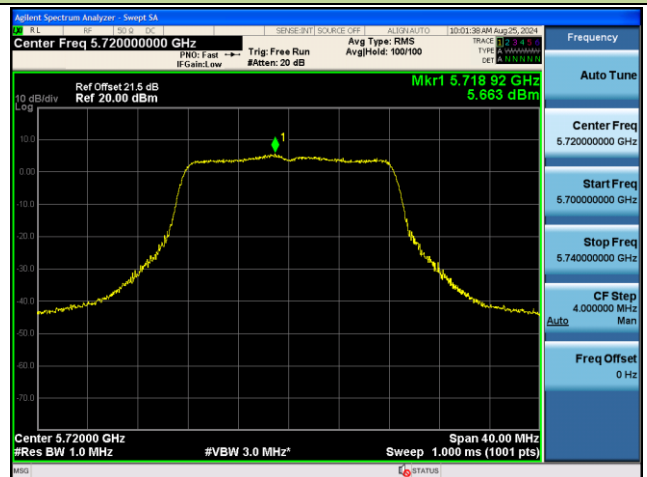
Channel 116 (5580MHz)



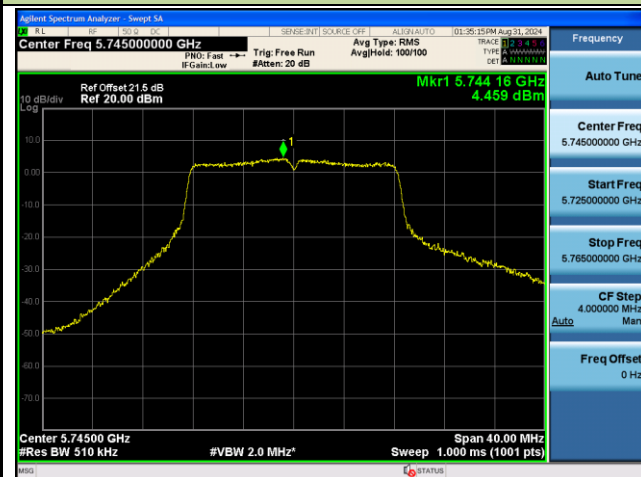
Channel 140 (5700MHz)



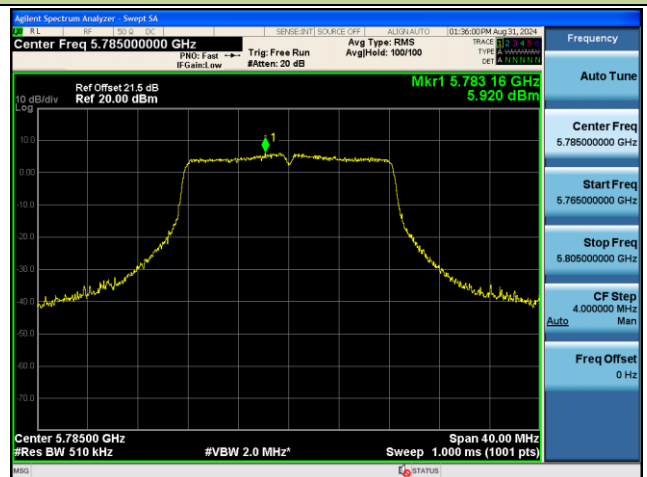
Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



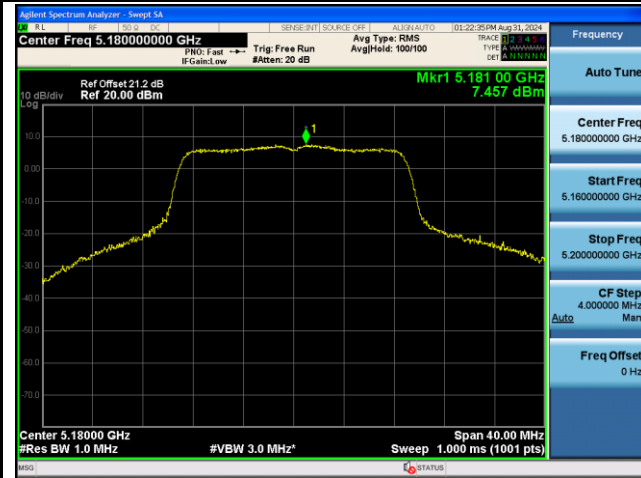
802.11a Power Spectral Density - Ant 1

Channel 165 (5825MHz)

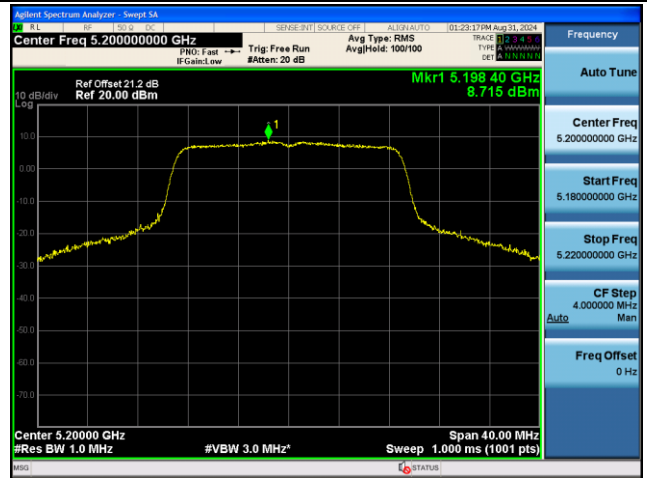


802.11ac-VHT20 Power Spectral Density - Ant 1

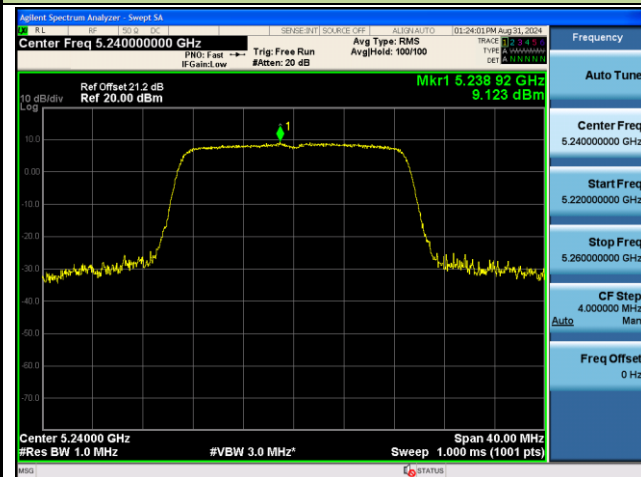
Channel 36 (5180MHz)



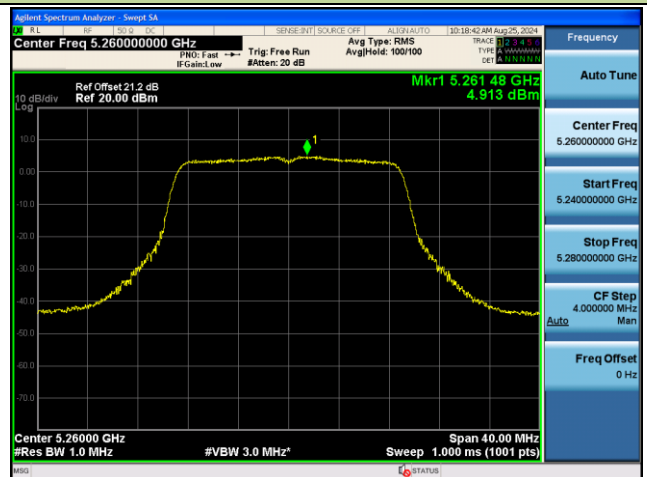
Channel 40 (5200MHz)



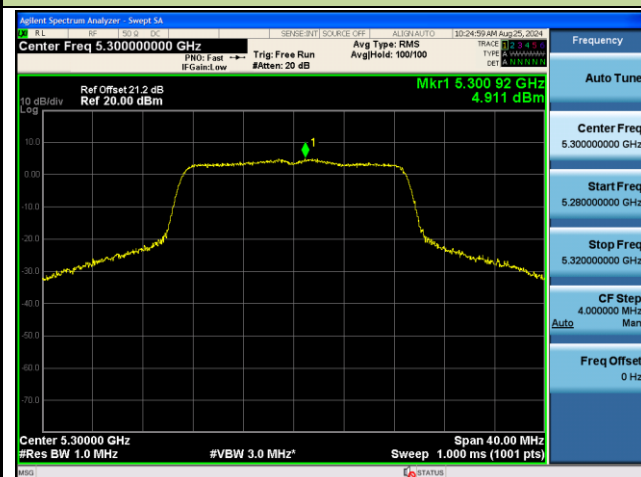
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

