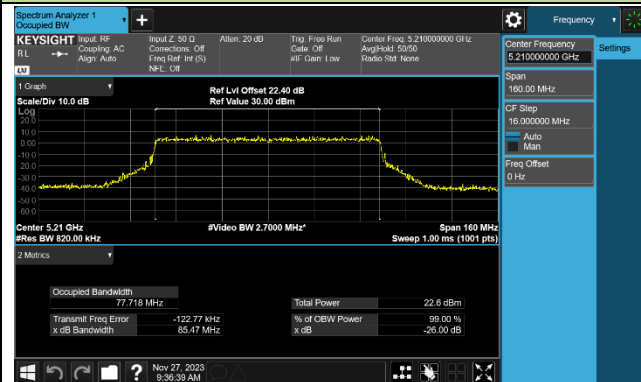
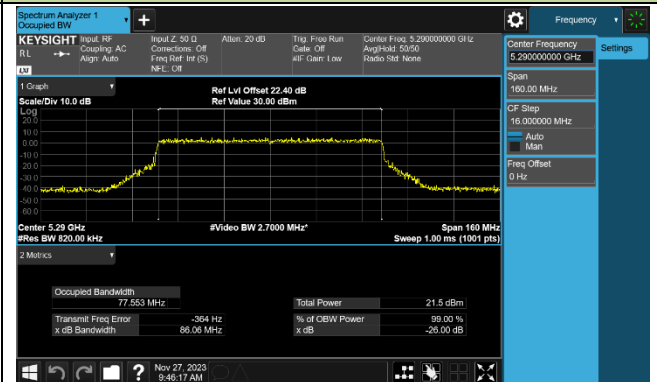


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

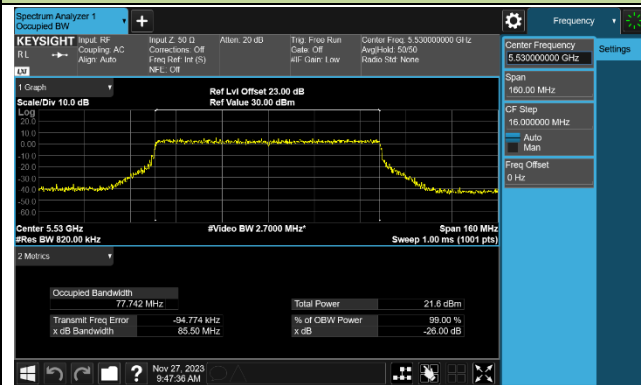
Channel 42 (5210MHz)



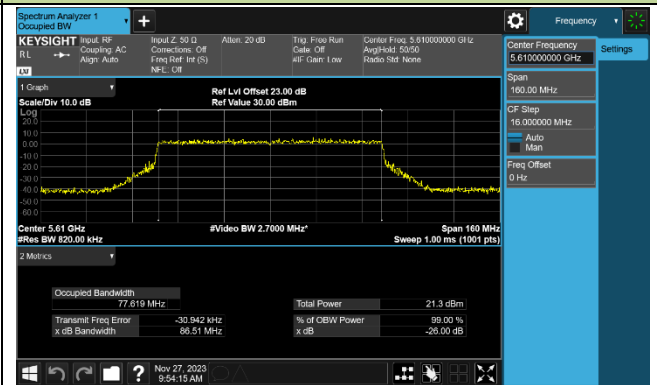
Channel 58 (5290MHz)



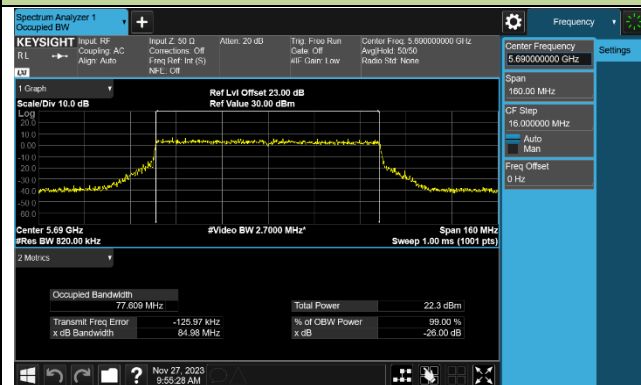
Channel 106 (5530MHz)



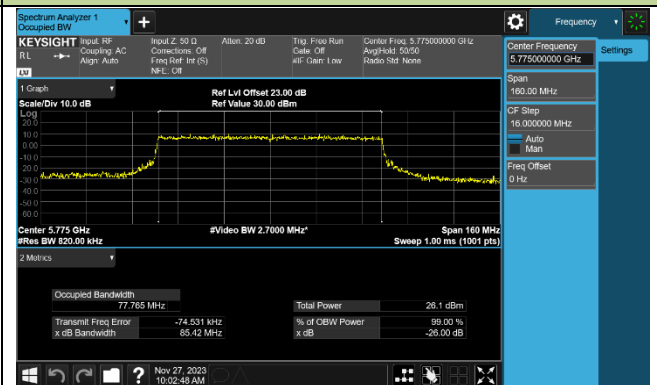
Channel 122 (5610MHz)



Channel 138 (5690MHz)

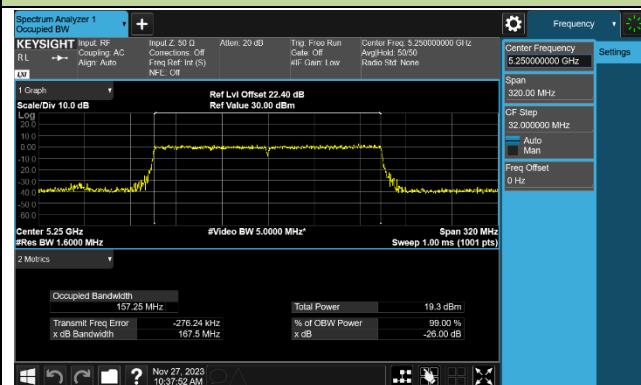


Channel 155 (5775MHz)

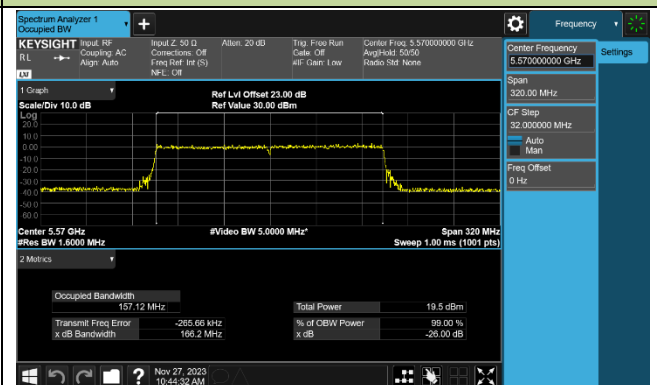


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)

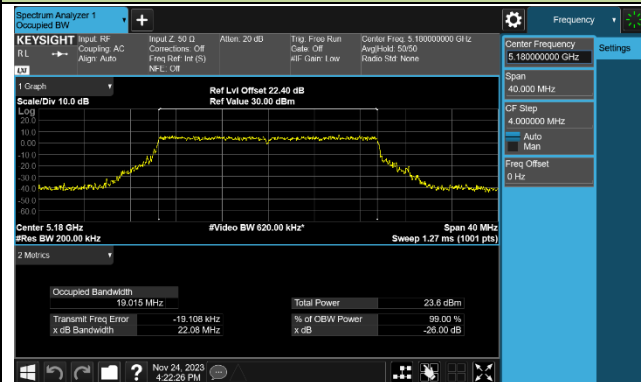


Channel 114 (5570MHz)

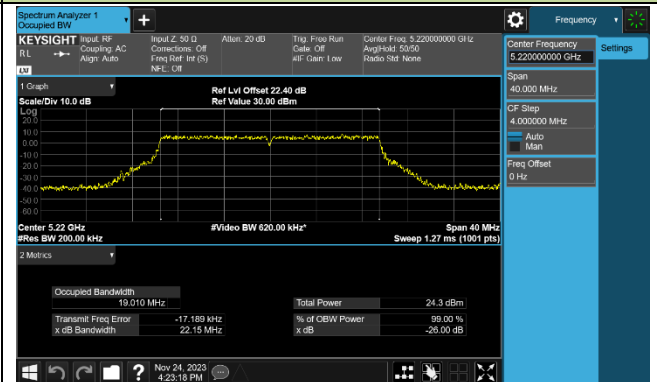


802.11be-EHT20 26dB Bandwidth & 99% Bandwidth

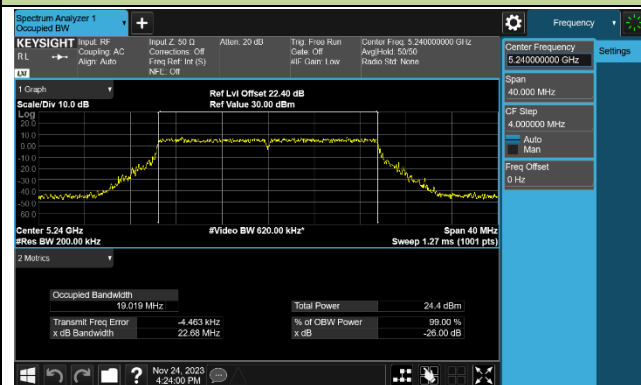
Channel 36 (5180MHz)



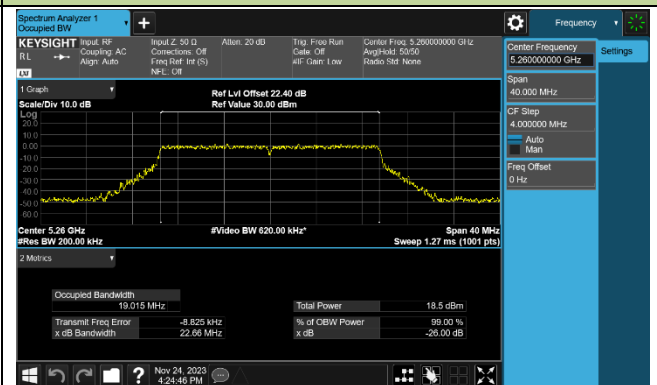
Channel 44 (5220MHz)



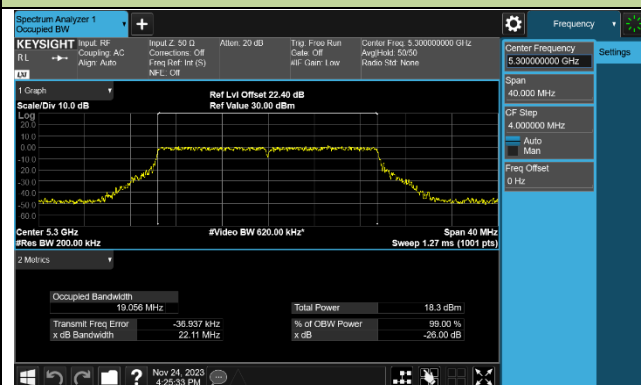
Channel 48 (5240MHz)



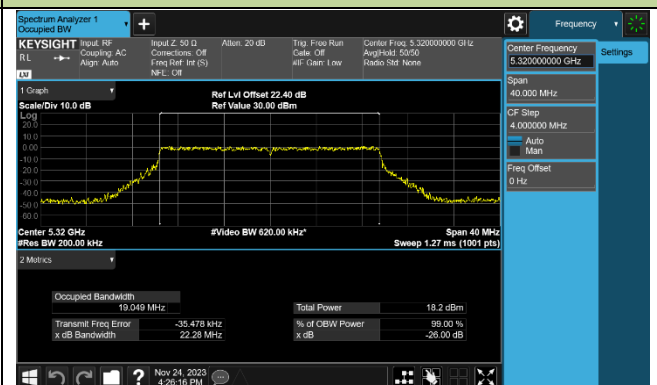
Channel 52 (5260MHz)



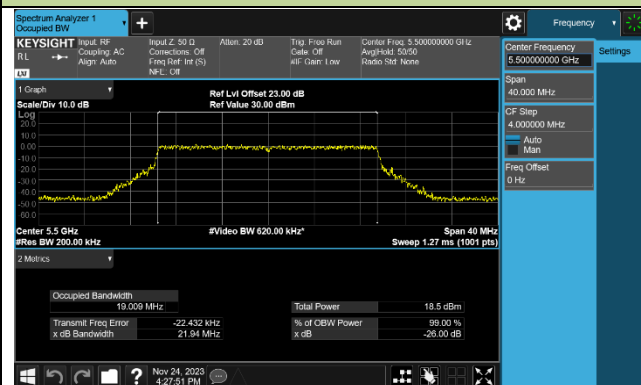
Channel 60 (5300MHz)



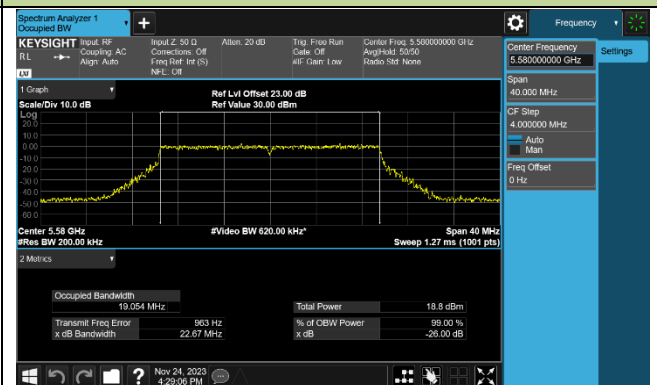
Channel 64 (5320MHz)

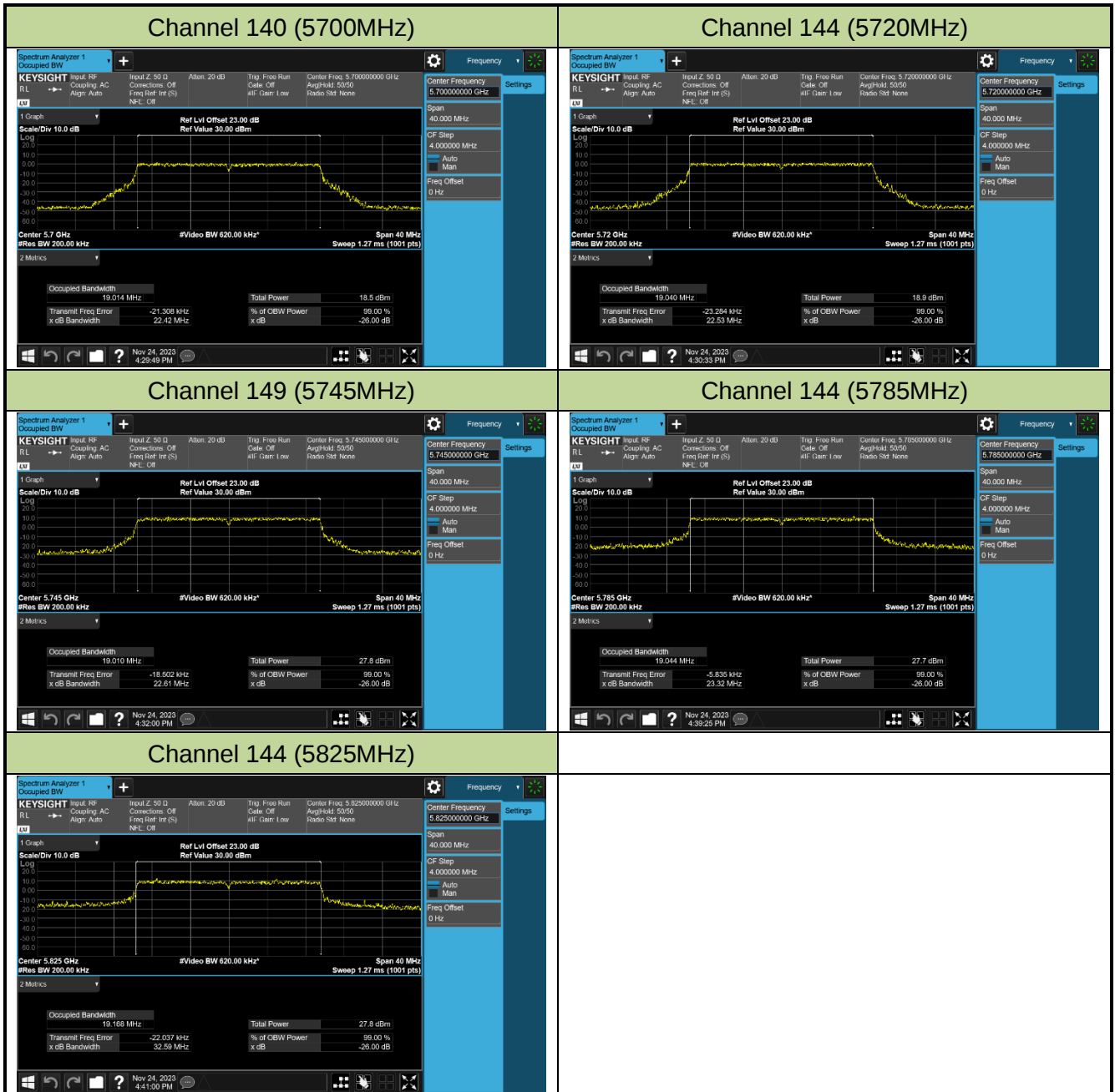


Channel 100 (5500MHz)



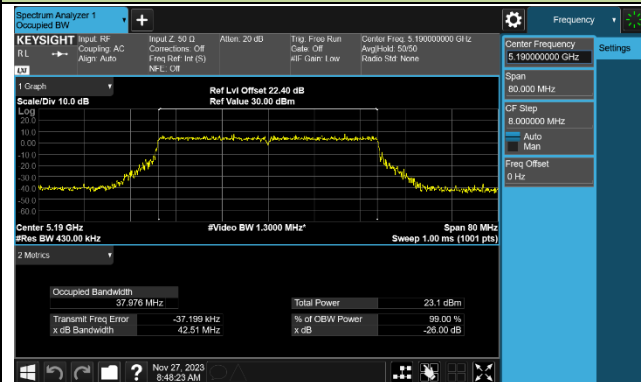
Channel 116 (5580MHz)



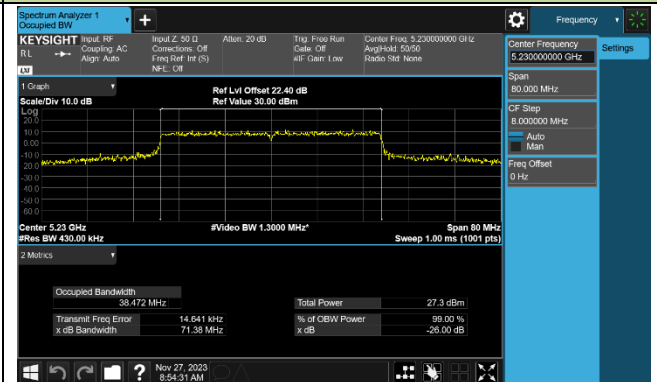


802.11be-EHT40 26dB Bandwidth & 99% Bandwidth

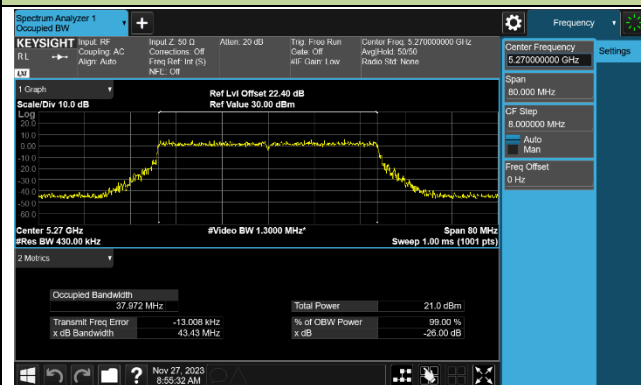
Channel 38 (5190MHz)



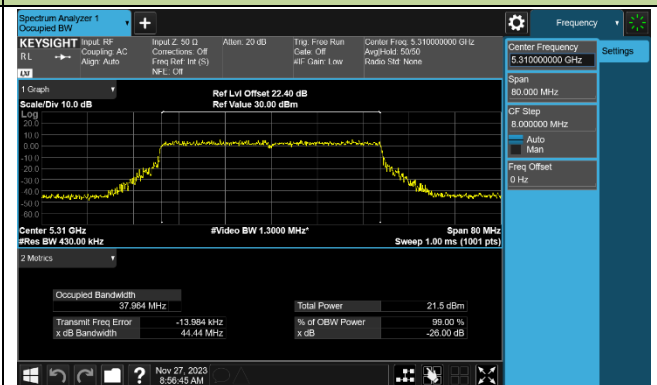
Channel 46 (5230MHz)



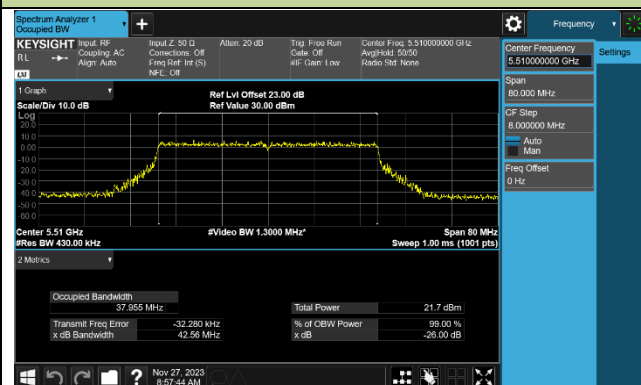
Channel 54 (5270MHz)



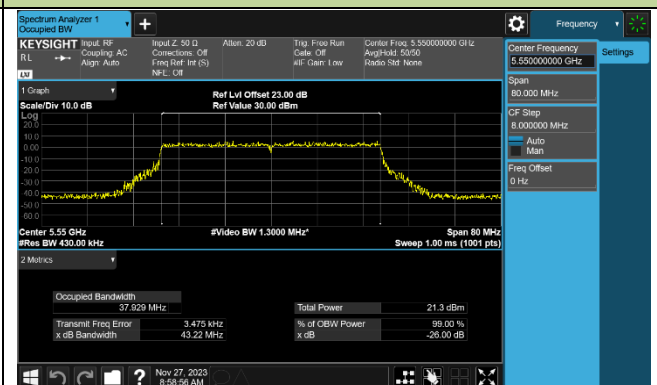
Channel 62 (5310MHz)



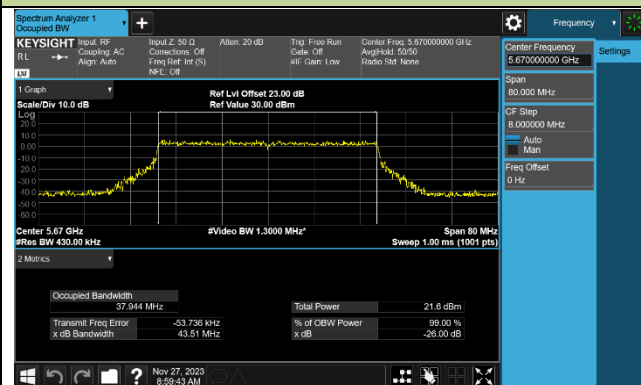
Channel 102 (5510MHz)



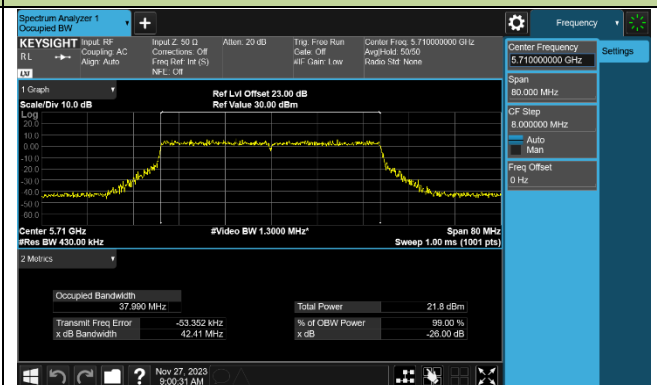
Channel 110 (5550MHz)

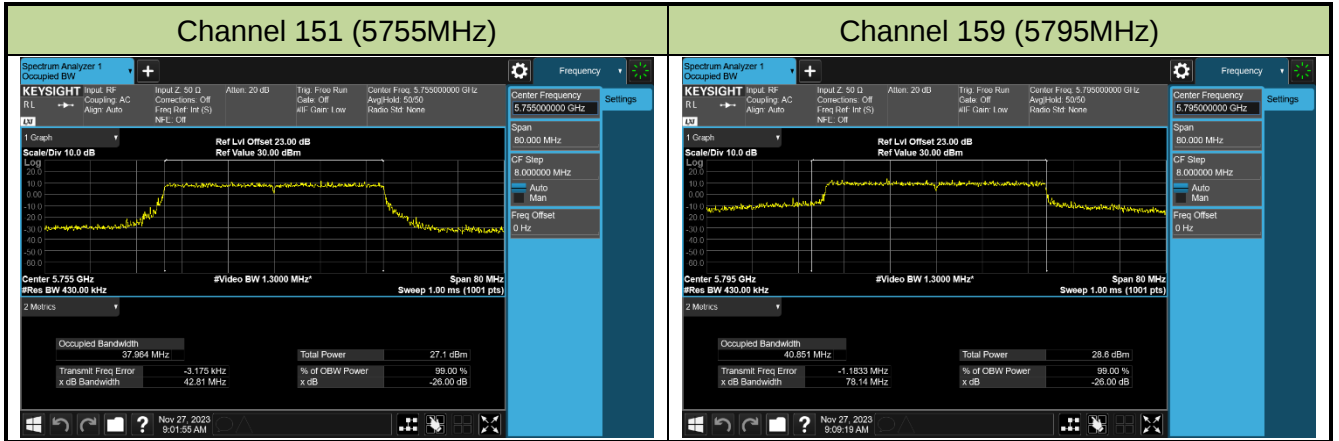


Channel 134 (5670MHz)



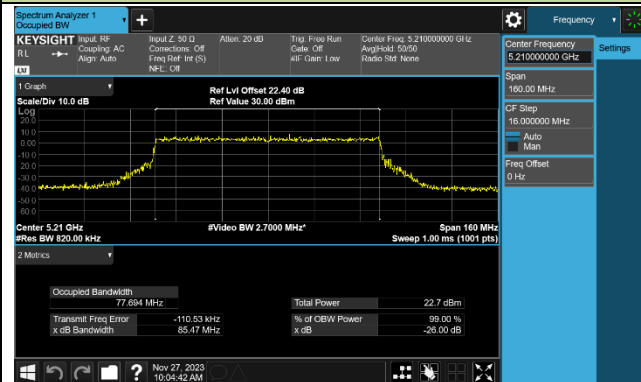
Channel 142 (5710MHz)



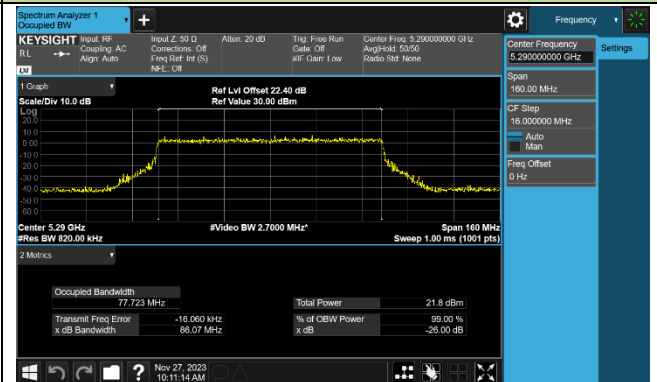


802.11be-EHT80 26dB Bandwidth & 99% Bandwidth

Channel 42 (5210MHz)



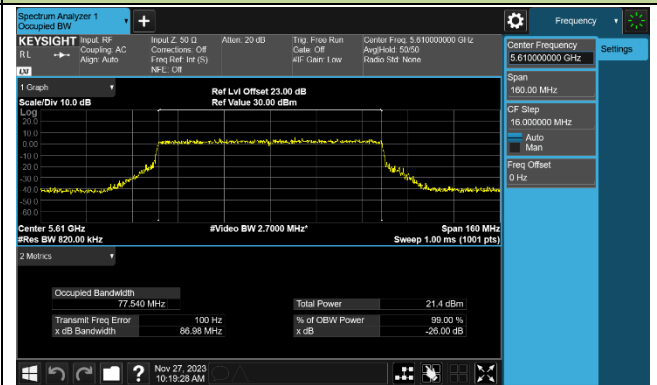
Channel 58 (5290MHz)



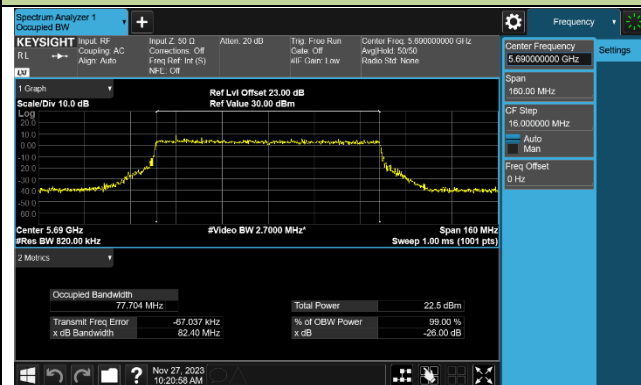
Channel 106 (5530MHz)



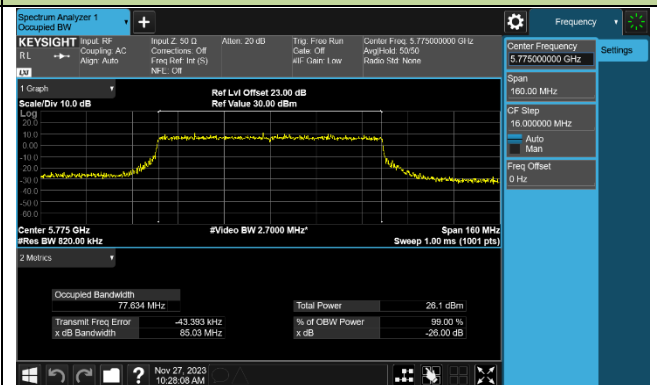
Channel 122 (5610MHz)



Channel 138 (5690MHz)

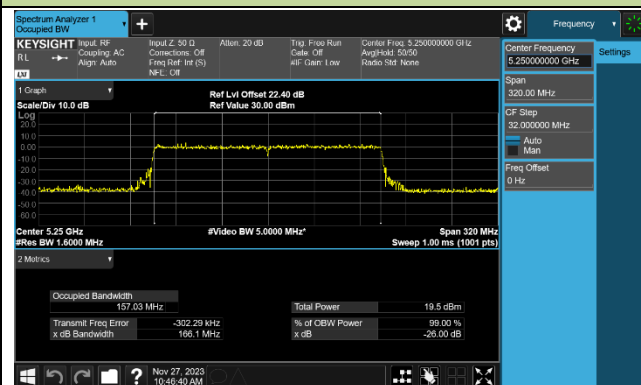


Channel 155 (5775MHz)

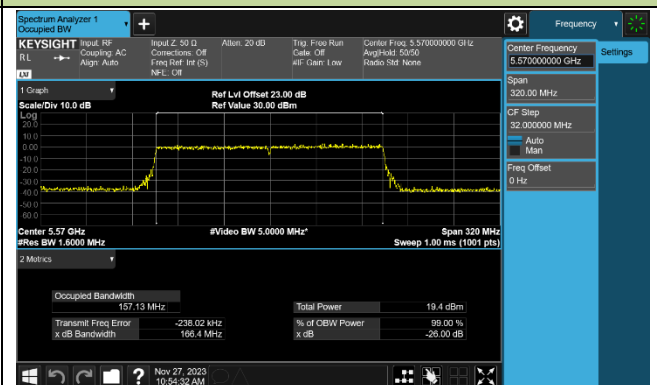


802.11be-EHT160 26dB Bandwidth & 99% Bandwidth

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.

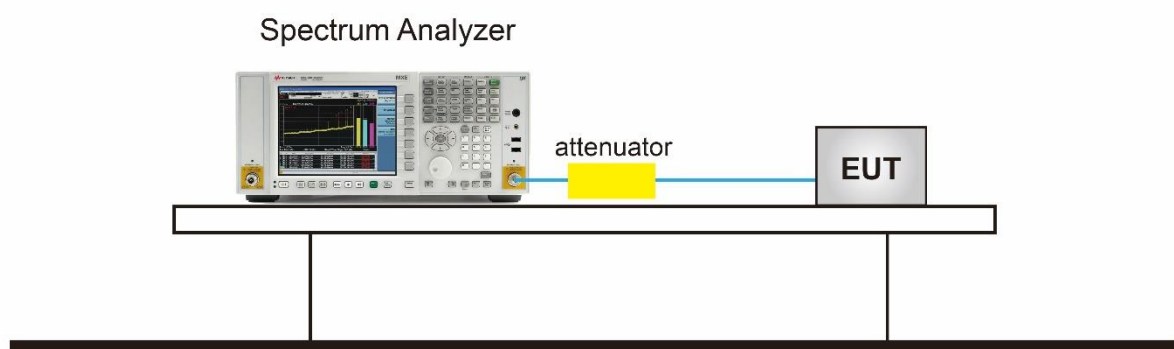
7.3.2. Test Procedure used

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



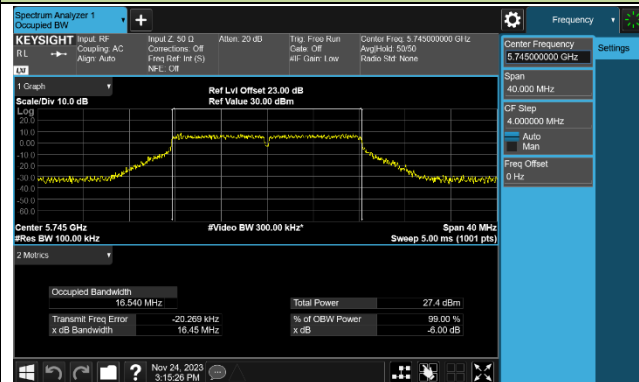
7.3.5.Test Result

Product	BE19000 Tri-Band Wi-Fi 7 Gaming Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/11/24~2023/11/27

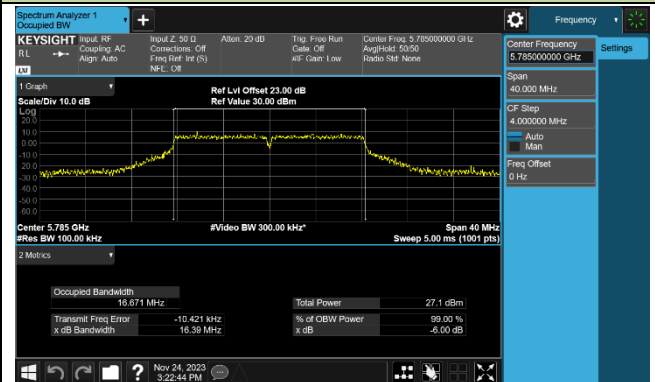
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6Mbps	149	5745	16.45	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.39	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.43	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.63	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.64	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.64	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	36.42	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	36.42	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	76.54	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	19.04	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	19.07	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	19.03	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	38.16	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	38.08	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	78.20	≥ 0.5	Pass
802.11be-EHT20	MCS0	149	5745	19.07	≥ 0.5	Pass
802.11be-EHT20	MCS0	157	5785	19.06	≥ 0.5	Pass
802.11be-EHT20	MCS0	165	5825	19.09	≥ 0.5	Pass
802.11be-EHT40	MCS0	151	5755	38.12	≥ 0.5	Pass
802.11be-EHT40	MCS0	159	5795	38.08	≥ 0.5	Pass
802.11be-EHT80	MCS0	155	5775	78.10	≥ 0.5	Pass

802.11a 6dB Bandwidth

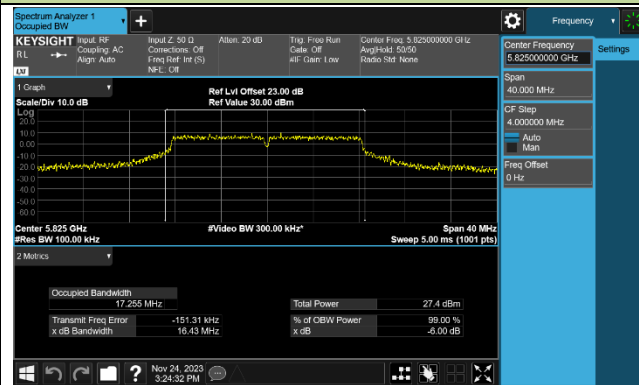
Channel 149 (5745MHz)



Channel 157 (5785MHz)

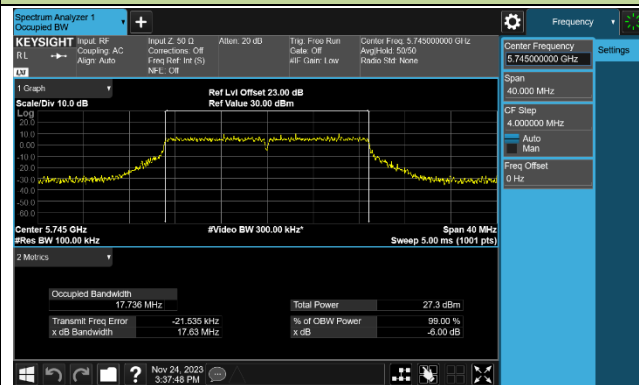


Channel 165 (5825MHz)

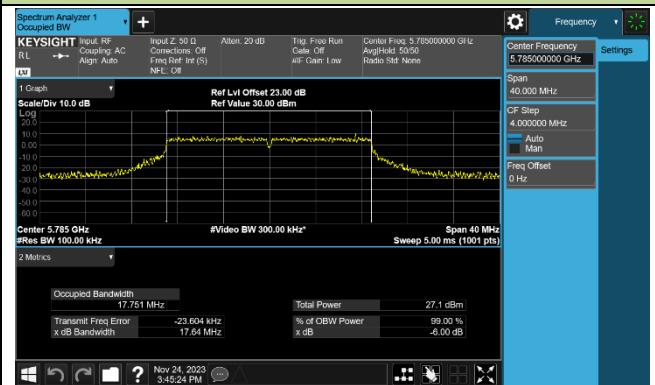


802.11ac-VHT20 6dB Bandwidth

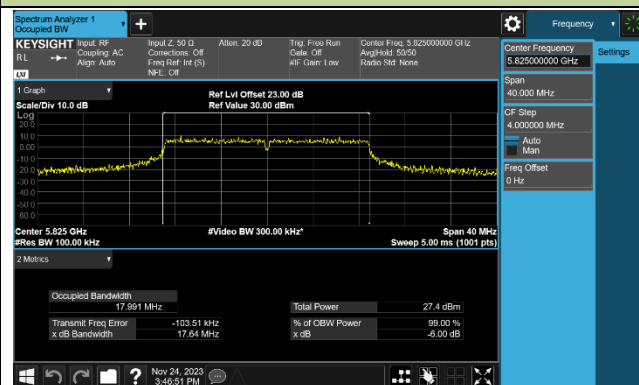
Channel 149 (5745MHz)



Channel 157 (5785MHz)

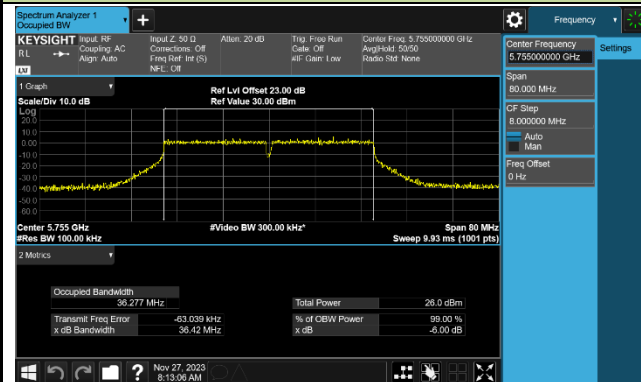


Channel 165 (5825MHz)

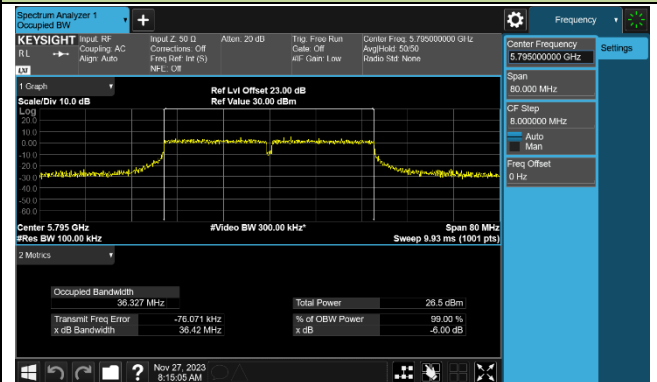


802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)

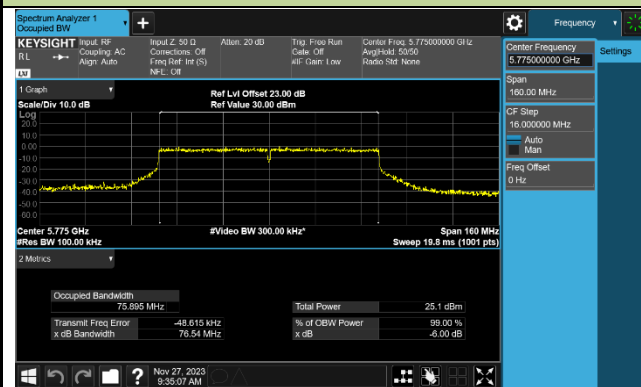


Channel 159 (5795MHz)



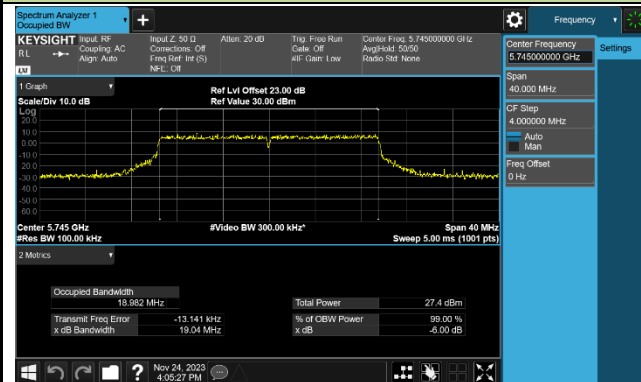
802.11ac-VHT80 6dB Bandwidth

Channel 155 (5775MHz)

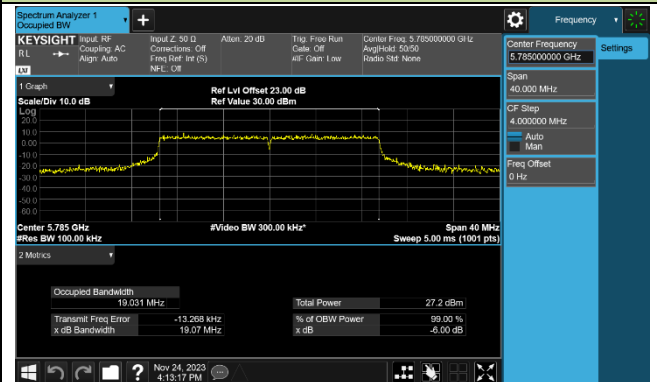


802.11ax-HE20 6dB Bandwidth

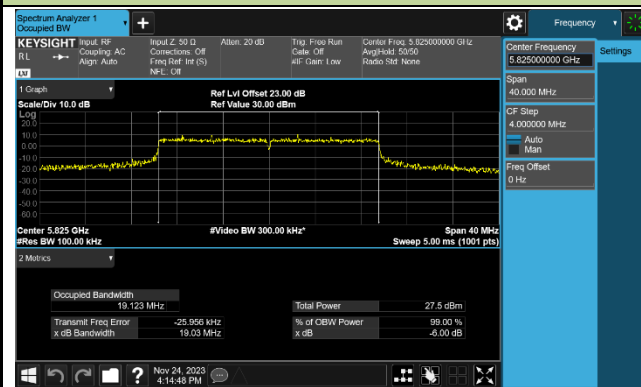
Channel 149 (5745MHz)



Channel 157 (5785MHz)

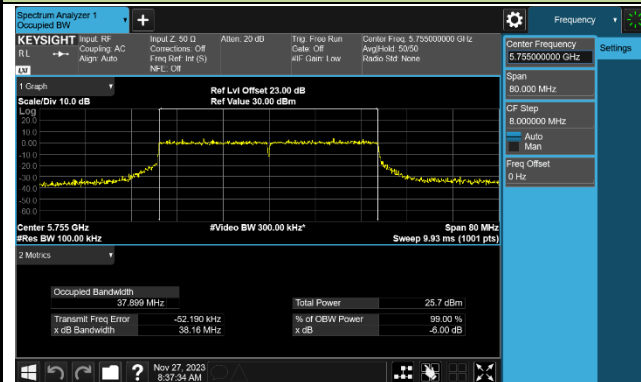


Channel 165 (5825MHz)

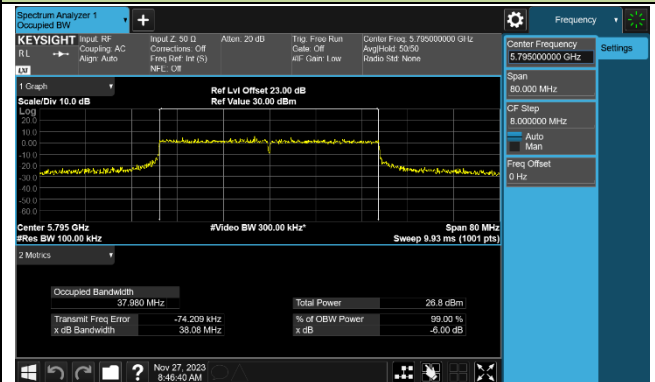


802.11ax-HE40 6dB Bandwidth

Channel 151 (5755MHz)

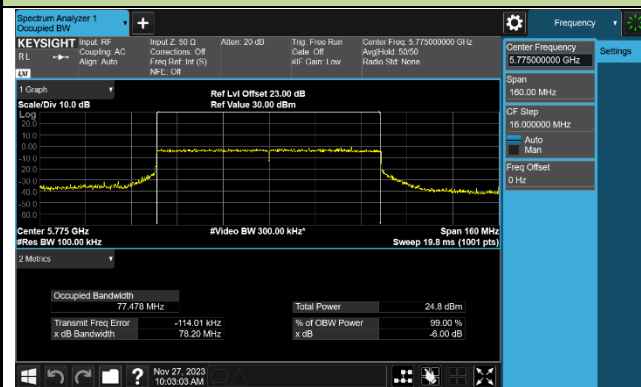


Channel 159 (5795MHz)



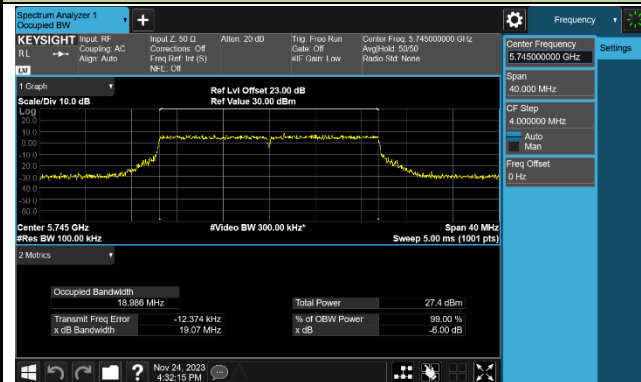
802.11ax-HE80 6dB Bandwidth

Channel 155 (5775MHz)

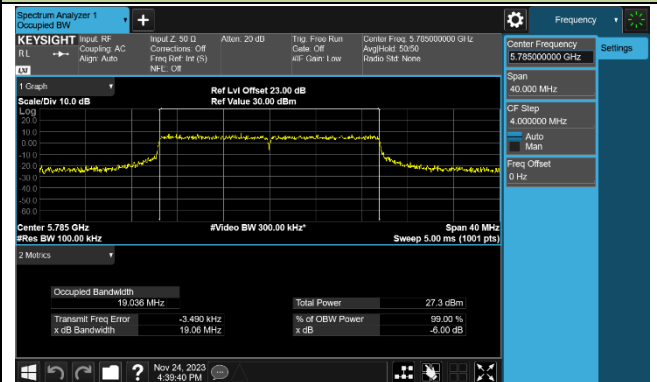


802.11be-EHT20 6dB Bandwidth

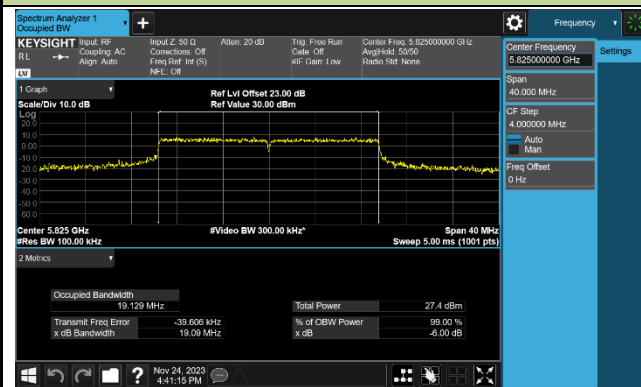
Channel 149 (5745MHz)



Channel 157 (5785MHz)

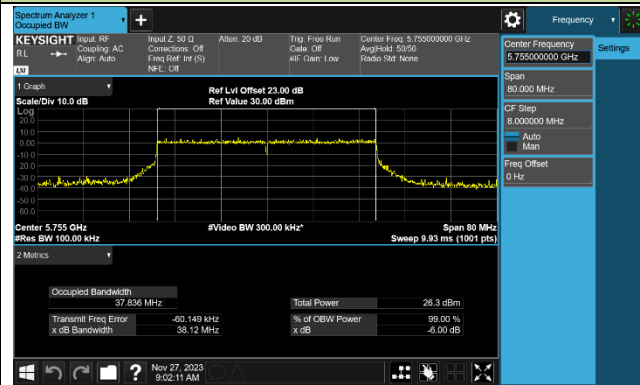


Channel 165 (5825MHz)

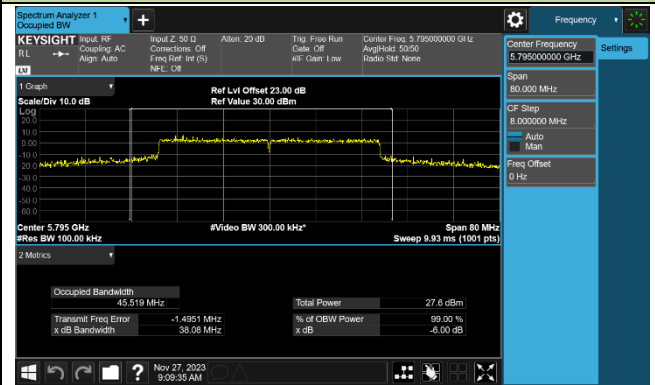


802.11be-EHT40 6dB Bandwidth

Channel 151 (5755MHz)

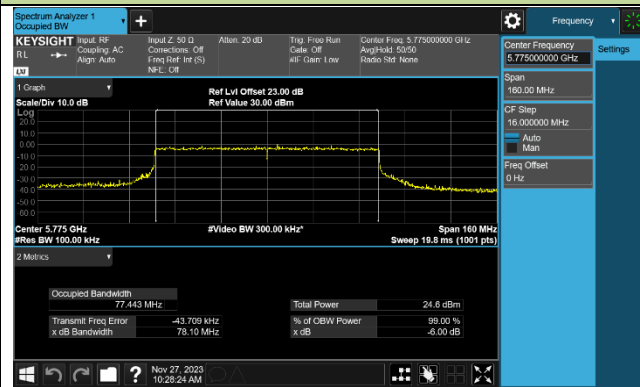


Channel 159 (5795MHz)



802.11be-EHT80 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 (30 dBm).

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

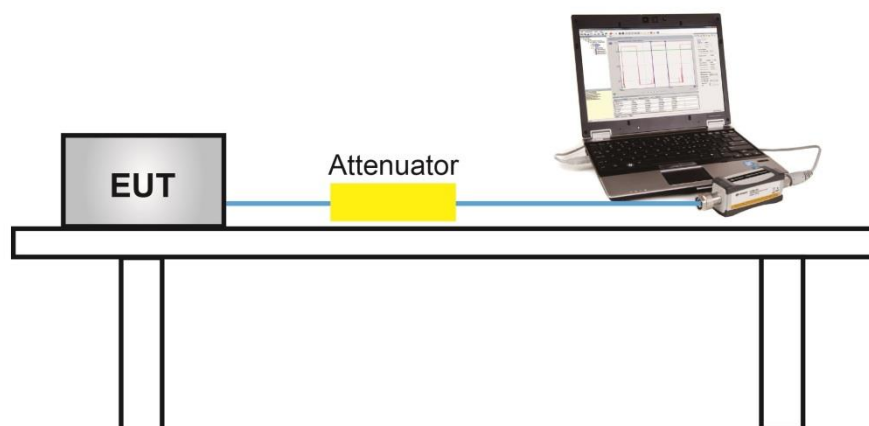
7.4.2. Test Procedure Used

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	BE19000 Tri-Band Wi-Fi 7 Gaming Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/11/09~2023/11/27
Test Mode	CDD Mode		

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11a	6Mbps	36	5180	19.83	19.52	19.51	19.71	25.67	≤ 30.00	Pass
11a	6Mbps	44	5220	19.46	19.50	19.72	19.76	25.63	≤ 30.00	Pass
11a	6Mbps	48	5240	19.41	19.15	19.80	19.70	25.54	≤ 30.00	Pass
11a	6Mbps	52	5260	13.63	13.35	13.91	13.95	19.74	≤ 23.98	Pass
11a	6Mbps	60	5300	14.07	13.48	13.91	14.12	19.92	≤ 23.98	Pass
11a	6Mbps	64	5320	13.98	13.65	13.94	14.24	19.98	≤ 23.98	Pass
11a	6Mbps	100	5500	13.94	13.17	13.98	13.93	19.79	≤ 23.98	Pass
11a	6Mbps	116	5580	14.06	13.91	13.87	13.96	19.97	≤ 23.98	Pass
11a	6Mbps	140	5700	13.87	14.02	13.76	14.14	19.97	≤ 23.98	Pass
11a	6Mbps	144	5720	14.36	14.44	13.75	14.31	20.24	≤ 23.05	Pass
11a	6Mbps	149	5745	23.77	23.38	23.31	23.62	29.54	≤ 30.00	Pass
11a	6Mbps	157	5785	23.84	23.34	23.32	23.60	29.55	≤ 30.00	Pass
11a	6Mbps	165	5825	23.70	23.21	23.30	23.75	29.52	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	20.18	20.28	20.09	20.32	26.24	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	20.01	19.90	20.29	20.35	26.16	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	19.81	19.61	20.26	20.43	26.06	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	14.21	14.02	14.38	14.69	20.35	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	14.08	14.40	14.00	14.22	20.20	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	14.01	13.52	13.96	14.35	19.99	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	14.27	13.66	14.32	14.41	20.20	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	14.20	14.13	14.25	14.41	20.27	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	14.67	14.80	14.50	14.95	20.75	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	14.46	14.37	14.06	14.55	20.38	≤ 23.02	Pass
11ac-VHT20	MCS0	149	5745	23.56	23.34	23.42	23.75	29.54	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.63	23.39	23.55	23.65	29.58	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.61	23.24	23.40	23.65	29.50	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	19.21	19.10	19.32	19.11	25.21	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	23.51	23.25	23.60	23.31	29.44	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	16.61	16.10	16.59	16.48	22.47	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	16.87	16.28	16.61	16.85	22.68	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	17.58	16.72	17.30	17.13	23.21	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	17.72	17.18	17.40	17.30	23.43	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	17.91	17.40	17.18	17.33	23.48	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	17.77	17.20	16.88	17.39	23.34	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	23.02	22.50	22.83	23.21	28.92	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	23.66	23.24	23.38	23.40	29.44	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	18.90	18.69	18.91	18.82	24.85	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	17.71	17.25	17.72	17.56	23.58	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	17.99	17.53	18.05	17.78	23.86	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	17.61	17.57	17.29	17.51	23.52	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	18.75	17.04	17.14	17.12	23.60	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	22.80	22.53	22.74	22.79	28.74	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	16.49	15.85	16.60	16.44	22.38	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	17.01	16.34	16.33	16.52	22.58	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	19.77	19.58	19.51	19.59	25.63	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	20.61	20.44	20.69	20.71	26.63	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	20.53	20.23	21.06	20.81	26.69	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	14.22	13.98	14.45	14.53	20.32	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	14.16	13.62	14.02	14.27	20.04	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	13.97	13.67	14.01	14.38	20.04	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	14.71	13.80	14.43	14.33	20.35	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	14.72	14.71	14.60	14.96	20.77	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	14.66	14.90	14.66	15.05	20.84	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	14.49	14.47	14.23	14.61	20.47	≤ 23.14	Pass
11ax-HE20	MCS0	149	5745	23.92	23.53	23.42	23.73	29.67	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.72	23.40	23.51	23.76	29.62	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	23.70	23.12	23.42	23.77	29.53	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	19.37	19.37	19.38	19.26	25.37	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	23.52	23.28	23.53	23.31	29.43	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	16.60	16.21	16.83	16.58	22.58	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	16.63	16.50	16.61	16.99	22.71	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	17.88	17.22	17.79	17.63	23.66	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	17.80	17.14	17.47	17.36	23.47	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	17.94	17.43	17.25	17.48	23.55	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	17.59	17.39	17.01	17.25	23.34	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	22.86	22.57	23.02	23.21	28.94	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	23.63	23.17	23.41	23.40	29.43	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	18.81	16.69	18.85	18.81	24.40	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	17.59	17.40	17.86	17.63	23.64	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	17.86	17.55	18.10	17.72	23.83	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	17.62	17.63	17.35	17.50	23.55	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	18.70	17.06	16.99	17.25	23.58	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	22.70	22.45	22.53	22.98	28.69	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	15.91	15.61	16.20	16.15	21.99	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	16.72	15.89	15.84	16.06	22.16	≤ 23.98	Pass
11be-EHT20	MCS0	36	5180	19.38	19.18	19.42	19.26	25.33	≤ 30.00	Pass
11be-EHT20	MCS0	40	5220	20.26	20.23	20.64	20.41	26.41	≤ 30.00	Pass
11be-EHT20	MCS0	48	5240	20.17	20.06	20.73	20.53	26.40	≤ 30.00	Pass
11be-EHT20	MCS0	52	5260	13.87	13.72	14.35	14.28	20.08	≤ 23.98	Pass
11be-EHT20	MCS0	60	5300	13.78	13.47	13.91	14.14	19.85	≤ 23.98	Pass
11be-EHT20	MCS0	64	5320	13.75	13.52	13.58	14.23	19.80	≤ 23.98	Pass
11be-EHT20	MCS0	100	5500	14.54	13.75	14.42	14.40	20.31	≤ 23.98	Pass
11be-EHT20	MCS0	116	5580	14.87	14.90	14.77	14.97	20.90	≤ 23.98	Pass
11be-EHT20	MCS0	140	5700	14.83	14.95	14.68	15.11	20.92	≤ 23.98	Pass
11be-EHT20	MCS0	144	5720	15.18	14.96	14.79	15.17	21.05	≤ 23.11	Pass
11be-EHT20	MCS0	149	5745	23.80	23.35	23.36	23.66	29.57	≤ 30.00	Pass
11be-EHT20	MCS0	157	5785	23.83	23.34	23.54	23.69	29.62	≤ 30.00	Pass
11be-EHT20	MCS0	165	5825	23.73	23.26	23.60	23.71	29.60	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11be-EHT40	MCS0	38	5190	19.13	19.18	19.33	18.74	25.12	≤ 30.00	Pass
11be-EHT40	MCS0	46	5230	23.69	23.36	23.84	23.60	29.65	≤ 30.00	Pass
11be-EHT40	MCS0	54	5270	17.05	16.63	17.02	16.77	22.89	≤ 23.98	Pass
11be-EHT40	MCS0	62	5310	17.16	16.71	17.01	17.31	23.07	≤ 23.98	Pass
11be-EHT40	MCS0	102	5510	17.59	17.28	17.57	17.54	23.52	≤ 23.98	Pass
11be-EHT40	MCS0	110	5550	18.01	17.47	17.62	17.50	23.68	≤ 23.98	Pass
11be-EHT40	MCS0	134	5670	18.30	17.74	17.54	17.68	23.85	≤ 23.98	Pass
11be-EHT40	MCS0	142	5710	18.32	17.65	17.21	17.24	23.65	≤ 23.98	Pass
11be-EHT40	MCS0	151	5755	23.21	23.11	23.25	23.43	29.27	≤ 30.00	Pass
11be-EHT40	MCS0	159	5795	23.63	23.67	23.74	23.79	29.73	≤ 30.00	Pass
11be-EHT80	MCS0	42	5210	19.12	18.88	18.86	18.91	24.96	≤ 30.00	Pass
11be-EHT80	MCS0	58	5290	17.64	17.16	17.62	17.70	23.56	≤ 23.98	Pass
11be-EHT80	MCS0	106	5530	17.89	17.46	18.03	17.78	23.82	≤ 23.98	Pass
11be-EHT80	MCS0	122	5610	17.79	17.64	17.49	17.60	23.65	≤ 23.98	Pass
11be-EHT80	MCS0	138	5690	18.59	17.13	17.03	17.27	23.57	≤ 23.98	Pass
11be-EHT80	MCS0	155	5775	22.75	22.61	22.60	22.76	28.70	≤ 30.00	Pass
11be-EHT160	MCS0	50	5250	16.17	15.56	16.05	16.01	21.97	≤ 23.98	Pass
11be-EHT160	MCS0	114	5570	16.58	15.98	15.81	16.00	22.12	≤ 23.98	Pass

Note 1:

The Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

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 802.11a Ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 23.05$ dBm.

For 802.11ac Ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 23.02$ dBm.

For 802.11ax Ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 23.14$ dBm.

For 802.11be Ch144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) = 23.11$ dBm.

Product	BE19000 Tri-Band Wi-Fi 7 Gaming Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2020/12/14~2020/12/30
Test Mode	Beamforming Mode		

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT20	MCS0	36	5180	20.18	20.28	20.09	20.32	26.24	≤ 29.14	Pass
11ac-VHT20	MCS0	40	5220	20.01	19.90	20.29	20.35	26.16	≤ 29.14	Pass
11ac-VHT20	MCS0	48	5240	19.81	19.61	20.26	20.43	26.06	≤ 29.14	Pass
11ac-VHT20	MCS0	52	5260	14.21	14.02	14.38	14.69	20.35	≤ 23.12	Pass
11ac-VHT20	MCS0	60	5300	14.08	14.40	14.00	14.22	20.20	≤ 23.12	Pass
11ac-VHT20	MCS0	64	5320	14.01	13.52	13.96	14.35	19.99	≤ 23.12	Pass
11ac-VHT20	MCS0	100	5500	14.27	13.66	14.32	14.41	20.20	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	14.20	14.13	14.25	14.41	20.27	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	14.67	14.80	14.50	14.95	20.75	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	13.72	13.59	13.41	13.82	19.66	≤ 23.02	Pass
11ac-VHT20	MCS0	149	5745	20.45	20.17	20.49	20.96	26.55	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	20.52	20.46	20.83	21.00	26.73	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	20.82	20.61	20.71	20.97	26.80	≤ 30.00	Pass
11ac-VHT40	MCS0	38	5190	19.21	19.10	19.32	19.11	25.21	≤ 29.14	Pass
11ac-VHT40	MCS0	46	5230	20.26	20.05	20.72	20.55	26.42	≤ 29.14	Pass
11ac-VHT40	MCS0	54	5270	14.56	14.10	15.08	14.87	20.69	≤ 23.12	Pass
11ac-VHT40	MCS0	62	5310	14.62	14.30	14.82	14.96	20.70	≤ 23.12	Pass
11ac-VHT40	MCS0	102	5510	14.92	14.26	15.05	14.80	20.79	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	14.53	14.07	14.50	14.55	20.44	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	14.85	14.33	14.72	14.62	20.65	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	14.34	14.92	14.67	15.17	20.81	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	20.38	20.01	20.41	20.71	26.41	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	20.66	20.02	20.69	20.62	26.53	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT80	MCS0	42	5210	18.90	18.69	18.91	18.82	24.85	≤ 29.14	Pass
11ac-VHT80	MCS0	58	5290	14.56	14.06	14.76	14.79	20.57	≤ 23.12	Pass
11ac-VHT80	MCS0	106	5530	14.82	14.10	14.78	14.60	20.60	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	14.64	14.77	14.63	14.77	20.72	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	14.59	14.12	14.34	14.63	20.45	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	20.88	20.67	20.96	20.85	26.86	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	14.86	14.42	15.05	15.11	20.89	≤ 23.12	Pass
11ac-VHT160	MCS0	114	5570	15.04	14.44	14.43	14.76	20.70	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	19.77	19.58	19.51	19.59	25.63	≤ 29.14	Pass
11ax-HE20	MCS0	40	5220	20.61	20.44	20.69	20.71	26.63	≤ 29.14	Pass
11ax-HE20	MCS0	48	5240	20.53	20.23	21.06	20.81	26.69	≤ 29.14	Pass
11ax-HE20	MCS0	52	5260	14.22	13.98	14.45	14.53	20.32	≤ 23.12	Pass
11ax-HE20	MCS0	60	5300	14.16	13.62	14.02	14.27	20.04	≤ 23.12	Pass
11ax-HE20	MCS0	64	5320	13.97	13.67	14.01	14.38	20.04	≤ 23.12	Pass
11ax-HE20	MCS0	100	5500	14.71	13.80	14.43	14.33	20.35	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	14.72	14.71	14.60	14.96	20.77	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	14.66	14.90	14.66	15.05	20.84	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	13.76	13.70	13.41	13.98	19.74	≤ 23.14	Pass
11ax-HE20	MCS0	149	5745	20.68	20.21	20.48	21.09	26.65	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	20.27	20.03	20.52	20.73	26.42	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	20.43	20.13	20.38	20.92	26.50	≤ 30.00	Pass
11ax-HE40	MCS0	38	5190	19.37	19.37	19.38	19.26	25.37	≤ 29.14	Pass
11ax-HE40	MCS0	46	5230	20.68	20.45	21.26	20.88	26.85	≤ 29.14	Pass
11ax-HE40	MCS0	54	5270	14.65	14.20	14.94	14.96	20.72	≤ 23.12	Pass
11ax-HE40	MCS0	62	5310	14.75	14.24	14.85	15.05	20.75	≤ 23.12	Pass
11ax-HE40	MCS0	102	5510	14.96	14.21	15.05	14.92	20.82	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	14.78	14.11	14.44	14.60	20.51	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	14.89	14.34	14.77	14.64	20.69	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	14.25	14.88	14.72	15.06	20.76	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	20.85	20.50	20.92	21.21	26.90	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	20.63	20.14	20.58	20.67	26.53	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ax-HE80	MCS0	42	5210	18.81	16.69	18.85	18.81	24.40	≤ 29.14	Pass
11ax-HE80	MCS0	58	5290	14.58	14.15	14.83	14.83	20.63	≤ 23.12	Pass
11ax-HE80	MCS0	106	5530	14.68	14.16	14.93	14.71	20.65	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	14.58	14.80	14.81	14.72	20.75	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	14.59	14.31	14.49	14.66	20.54	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	20.73	20.30	20.87	20.96	26.74	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	14.59	14.10	14.82	14.55	20.54	≤ 23.12	Pass
11ax-HE160	MCS0	114	5570	15.05	14.43	14.50	14.86	20.74	≤ 23.98	Pass
11be-EHT20	MCS0	36	5180	19.38	19.18	19.42	19.26	25.33	≤ 29.14	Pass
11be-EHT20	MCS0	40	5220	20.26	20.23	20.64	20.41	26.41	≤ 29.14	Pass
11be-EHT20	MCS0	48	5240	20.17	20.06	20.73	20.53	26.40	≤ 29.14	Pass
11be-EHT20	MCS0	52	5260	13.87	13.72	14.35	14.28	20.08	≤ 23.12	Pass
11be-EHT20	MCS0	60	5300	13.78	13.47	13.91	14.14	19.85	≤ 23.12	Pass
11be-EHT20	MCS0	64	5320	13.75	13.52	13.58	14.23	19.80	≤ 23.12	Pass
11be-EHT20	MCS0	100	5500	14.54	13.75	14.42	14.40	20.31	≤ 23.98	Pass
11be-EHT20	MCS0	116	5580	14.87	14.90	14.77	14.97	20.90	≤ 23.98	Pass
11be-EHT20	MCS0	140	5700	14.83	14.95	14.68	15.11	20.92	≤ 23.98	Pass
11be-EHT20	MCS0	144	5720	13.82	13.92	13.35	14.00	19.80	≤ 23.11	Pass
11be-EHT20	MCS0	149	5745	20.46	20.22	20.55	20.98	26.58	≤ 30.00	Pass
11be-EHT20	MCS0	157	5785	20.65	20.46	20.95	21.16	26.83	≤ 30.00	Pass
11be-EHT20	MCS0	165	5825	20.56	20.10	20.38	20.76	26.48	≤ 30.00	Pass
11be-EHT40	MCS0	38	5190	19.13	19.18	19.33	18.74	25.12	≤ 29.14	Pass
11be-EHT40	MCS0	46	5230	20.81	20.48	21.03	20.78	26.80	≤ 29.14	Pass
11be-EHT40	MCS0	54	5270	14.46	14.05	14.95	14.85	20.61	≤ 23.12	Pass
11be-EHT40	MCS0	62	5310	14.49	14.23	14.73	14.82	20.59	≤ 23.12	Pass
11be-EHT40	MCS0	102	5510	14.72	13.95	14.87	14.58	20.56	≤ 23.98	Pass
11be-EHT40	MCS0	110	5550	14.98	14.55	14.94	14.80	20.84	≤ 23.98	Pass
11be-EHT40	MCS0	134	5670	14.81	14.14	14.47	14.55	20.52	≤ 23.98	Pass
11be-EHT40	MCS0	142	5710	14.16	14.72	14.67	15.00	20.67	≤ 23.98	Pass
11be-EHT40	MCS0	151	5755	20.74	20.31	20.85	21.13	26.79	≤ 30.00	Pass
11be-EHT40	MCS0	159	5795	20.39	19.92	20.58	20.62	26.41	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11be-EHT80	MCS0	42	5210	19.12	18.88	18.86	18.91	24.96	≤ 29.14	Pass
11be-EHT80	MCS0	58	5290	14.73	14.20	14.94	14.85	20.71	≤ 23.12	Pass
11be-EHT80	MCS0	106	5530	14.79	14.11	14.96	14.71	20.67	≤ 23.98	Pass
11be-EHT80	MCS0	122	5610	14.70	14.70	14.57	14.81	20.72	≤ 23.98	Pass
11be-EHT80	MCS0	138	5690	14.51	14.36	14.61	14.66	20.56	≤ 23.98	Pass
11be-EHT80	MCS0	155	5775	20.75	20.51	20.91	20.96	26.81	≤ 30.00	Pass
11be-EHT160	MCS0	50	5250	14.54	13.88	14.85	14.67	20.52	≤ 23.12	Pass
11be-EHT160	MCS0	114	5570	15.06	14.66	14.54	14.85	20.80	≤ 23.98	Pass

Note 1:

The Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2:

For 5125 - 5250MHz Band: Average Power Limit (dBm) = 30 - (6.86- 6) = 29.14dBm

For 5250 - 5350MHz Band: Average Power Limit (dBm) = 23.98 - (6.86- 6) = 23.12dBm.

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

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

For 802.11ac ch144, Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 23.02dBm

For 802.11ax ch144, Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 23.14dBm

For 802.11be ch144, Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$ = 23.11dBm

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.

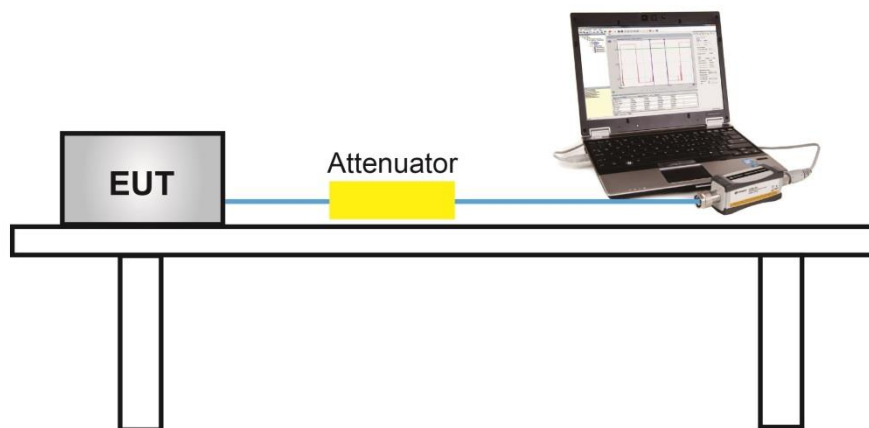
7.5.2. Test Procedure Used

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.

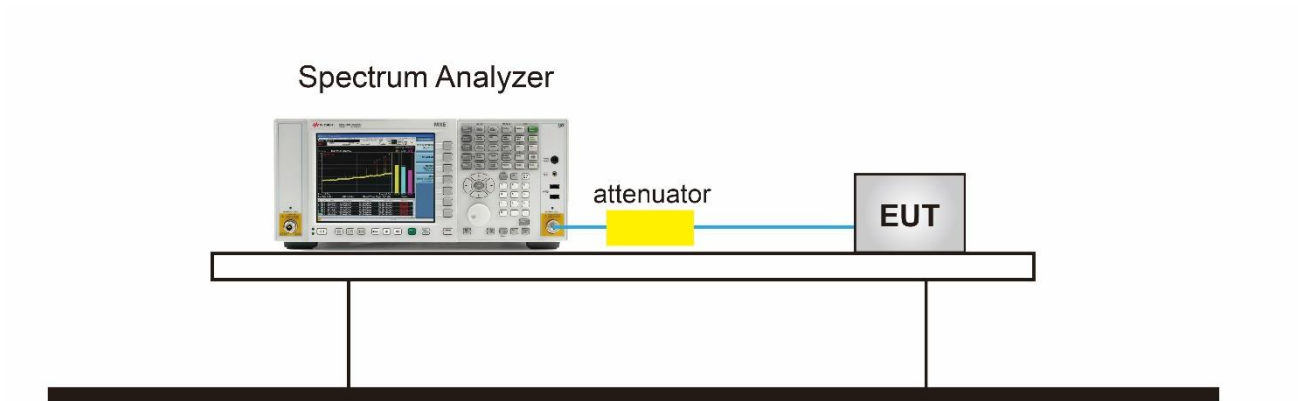
7.6.2. Test Procedure Used

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	BE19000 Tri-Band Wi-Fi 7 Gaming Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/11/09~2023/11/27
Mode	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	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	7.473	7.047	7.246	7.260	95.98%	13.458	≤ 16.14	Pass
11a	6Mbps	44	5220	7.292	7.177	7.374	7.379	95.98%	13.505	≤ 16.14	Pass
11a	6Mbps	48	5240	7.401	6.939	7.431	7.463	95.98%	13.512	≤ 16.14	Pass
11a	6Mbps	52	5260	1.476	1.068	1.936	2.024	95.98%	7.842	≤ 10.14	Pass
11a	6Mbps	60	5300	1.751	1.168	1.712	1.624	95.98%	7.769	≤ 10.14	Pass
11a	6Mbps	64	5320	2.023	1.004	1.865	1.657	95.98%	7.853	≤ 10.14	Pass
11a	6Mbps	100	5500	1.465	0.823	1.568	1.428	95.98%	7.529	≤ 11.00	Pass
11a	6Mbps	116	5580	1.741	1.392	1.375	1.288	95.98%	7.651	≤ 11.00	Pass
11a	6Mbps	140	5700	1.235	1.581	1.210	1.425	95.98%	7.564	≤ 11.00	Pass
11a	6Mbps	144	5720	1.582	1.655	1.159	1.526	95.98%	7.683	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	7.376	7.063	7.118	7.364	95.80%	13.439	≤ 16.14	Pass
11ac-VHT20	MCS0	40	5220	7.159	7.083	7.529	7.250	95.80%	13.466	≤ 16.14	Pass
11ac-VHT20	MCS0	48	5240	7.206	6.969	7.566	7.438	95.80%	13.508	≤ 16.14	Pass
11ac-VHT20	MCS0	52	5260	1.563	1.131	2.000	1.907	95.80%	7.870	≤ 10.14	Pass
11ac-VHT20	MCS0	60	5300	1.477	1.205	1.877	1.476	95.80%	7.722	≤ 10.14	Pass
11ac-VHT20	MCS0	64	5320	1.613	1.209	1.420	1.596	95.80%	7.669	≤ 10.14	Pass
11ac-VHT20	MCS0	100	5500	1.590	0.824	1.135	1.607	95.80%	7.508	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	1.045	1.305	1.408	1.308	95.80%	7.476	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	1.632	1.803	1.273	1.626	95.80%	7.795	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	2.059	1.528	0.854	1.571	95.80%	7.731	≤ 11.00	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/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-VHT40	MCS0	38	5190	3.941	3.572	4.057	3.897	91.34%	10.284	≤ 16.14	Pass
11ac-VHT40	MCS0	46	5230	7.409	7.185	7.520	7.449	91.34%	13.807	≤ 16.14	Pass
11ac-VHT40	MCS0	54	5270	1.354	0.834	1.537	1.511	91.34%	7.732	≤ 10.14	Pass
11ac-VHT40	MCS0	62	5310	1.577	1.052	1.523	1.610	91.34%	7.860	≤ 10.14	Pass
11ac-VHT40	MCS0	102	5510	1.659	0.604	1.489	1.205	91.34%	7.671	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	1.427	1.045	1.198	1.225	91.34%	7.640	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	1.848	1.298	1.383	1.161	91.34%	7.844	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	1.877	1.135	0.947	1.559	91.34%	7.809	≤ 11.00	Pass
11ac-VHT80	MCS0	42	5210	0.041	-0.459	-0.256	-0.484	93.70%	6.019	≤ 16.14	Pass
11ac-VHT80	MCS0	58	5290	-1.142	-1.724	-1.412	-0.994	93.70%	4.994	≤ 10.14	Pass
11ac-VHT80	MCS0	106	5530	-1.063	-1.281	-1.041	-1.437	93.70%	5.101	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	-1.204	-1.371	-1.854	-1.751	93.70%	4.766	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	-0.231	-1.742	-2.007	-1.818	93.70%	4.915	≤ 11.00	Pass
11ac-VHT160	MCS0	50	5250	-5.271	-6.151	-4.607	-5.055	95.09%	1.004	≤ 10.14	Pass
11ac-VHT160	MCS0	114	5570	-5.209	-5.851	-6.171	-5.858	95.09%	0.481	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	6.751	6.449	6.577	6.602	97.50%	12.727	≤ 16.14	Pass
11ax-HE20	MCS0	44	5220	7.529	7.215	7.371	7.912	97.50%	13.645	≤ 16.14	Pass
11ax-HE20	MCS0	48	5240	7.679	7.356	8.052	7.867	97.50%	13.877	≤ 16.14	Pass
11ax-HE20	MCS0	52	5260	1.347	1.103	1.925	2.049	97.50%	7.754	≤ 10.14	Pass
11ax-HE20	MCS0	60	5300	1.424	1.230	1.630	1.451	97.50%	7.567	≤ 10.14	Pass
11ax-HE20	MCS0	64	5320	1.646	1.318	1.560	1.871	97.50%	7.734	≤ 10.14	Pass
11ax-HE20	MCS0	100	5500	1.551	0.546	1.533	1.651	97.50%	7.473	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	1.601	1.797	1.581	1.746	97.50%	7.813	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	1.507	1.703	1.621	1.977	97.50%	7.836	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	1.819	1.480	1.162	1.684	97.50%	7.674	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	3.465	3.604	3.487	2.969	96.35%	9.570	≤ 16.14	Pass
11ax-HE40	MCS0	46	5230	6.897	7.027	7.244	6.956	96.35%	13.215	≤ 16.14	Pass
11ax-HE40	MCS0	54	5270	1.522	0.512	1.789	1.790	96.35%	7.616	≤ 10.14	Pass
11ax-HE40	MCS0	62	5310	1.279	0.930	1.319	1.414	96.35%	7.421	≤ 10.14	Pass
11ax-HE40	MCS0	102	5510	1.759	1.072	1.775	1.687	96.35%	7.765	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	1.669	0.881	1.373	1.270	96.35%	7.489	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	1.934	1.477	1.548	1.588	96.35%	7.822	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	2.216	1.516	1.257	1.431	96.35%	7.803	≤ 11.00	Pass

Test Mode	Data Rate/MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/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
11ax-HE80	MCS0	42	5210	-0.108	0.098	-0.433	-0.780	96.72%	5.872	≤ 16.14	Pass
11ax-HE80	MCS0	58	5290	-1.041	-1.646	-1.194	-1.152	96.72%	4.913	≤ 10.14	Pass
11ax-HE80	MCS0	106	5530	-1.029	-1.295	-1.185	-1.377	96.72%	4.946	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	-0.953	-1.315	-1.831	-1.739	96.72%	4.720	≤ 11.00	Pass
11ax-HE80	MCS0	122	5690	0.325	-1.384	-1.789	-1.568	96.72%	5.147	≤ 11.00	Pass
11ax-HE160	MCS0	50	5250	-5.720	-6.074	-5.190	-5.517	97.27%	0.527	≤ 10.14	Pass
11ax-HE160	MCS0	114	5570	-5.224	-5.921	-6.405	-6.367	97.27%	0.188	≤ 11.00	Pass
11be-EHT20	MCS0	36	5180	6.798	6.576	6.583	6.871	98.25%	12.806	≤ 16.14	Pass
11be-EHT20	MCS0	44	5220	7.808	7.676	7.875	7.717	98.25%	13.867	≤ 16.14	Pass
11be-EHT20	MCS0	48	5240	7.519	7.453	7.952	8.031	98.25%	13.844	≤ 16.14	Pass
11be-EHT20	MCS0	52	5260	1.709	1.070	1.863	1.982	98.25%	7.767	≤ 10.14	Pass
11be-EHT20	MCS0	60	5300	1.548	0.960	1.737	1.671	98.25%	7.587	≤ 10.14	Pass
11be-EHT20	MCS0	64	5320	1.940	1.060	1.336	1.863	98.25%	7.662	≤ 10.14	Pass
11be-EHT20	MCS0	100	5500	1.489	0.861	1.546	1.463	98.25%	7.446	≤ 11.00	Pass
11be-EHT20	MCS0	116	5580	2.022	1.665	1.596	1.693	98.25%	7.844	≤ 11.00	Pass
11be-EHT20	MCS0	140	5700	1.352	1.644	1.548	1.898	98.25%	7.712	≤ 11.00	Pass
11be-EHT20	MCS0	144	5720	1.855	1.612	1.593	1.897	98.25%	7.839	≤ 11.00	Pass
11be-EHT40	MCS0	38	5190	3.532	3.661	3.330	3.287	97.35%	9.592	≤ 16.14	Pass
11be-EHT40	MCS0	46	5230	7.921	7.536	7.819	7.579	97.35%	13.854	≤ 16.14	Pass
11be-EHT40	MCS0	54	5270	1.739	0.908	1.954	1.408	97.35%	7.657	≤ 10.14	Pass
11be-EHT40	MCS0	62	5310	1.912	1.447	1.715	1.952	97.35%	7.898	≤ 10.14	Pass
11be-EHT40	MCS0	102	5510	1.857	1.100	1.877	1.918	97.35%	7.838	≤ 11.00	Pass
11be-EHT40	MCS0	110	5550	2.009	1.312	1.996	1.494	97.35%	7.851	≤ 11.00	Pass
11be-EHT40	MCS0	134	5670	2.056	1.608	1.524	1.498	97.35%	7.815	≤ 11.00	Pass
11be-EHT40	MCS0	142	5710	2.081	1.478	1.622	1.519	97.35%	7.819	≤ 11.00	Pass
11be-EHT80	MCS0	42	5210	0.140	-0.175	0.276	-0.111	97.45%	6.169	≤ 16.14	Pass
11be-EHT80	MCS0	58	5290	-0.925	-1.307	-0.924	-0.704	97.45%	5.173	≤ 10.14	Pass
11be-EHT80	MCS0	106	5530	-0.654	-1.396	-0.603	-1.163	97.45%	5.192	≤ 11.00	Pass
11be-EHT80	MCS0	122	5610	-0.886	-1.322	-1.661	-1.565	97.45%	4.785	≤ 11.00	Pass
11be-EHT80	MCS0	138	5690	0.409	-1.372	-1.741	-1.704	97.45%	5.127	≤ 11.00	Pass
11be-EHT160	MCS0	50	5250	-5.506	-6.261	-5.264	-5.667	96.68%	0.508	≤ 10.14	Pass
11be-EHT160	MCS0	114	5570	-5.244	-6.457	-6.336	-6.248	96.68%	0.124	≤ 11.00	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log (1/\text{Duty Cycle})$ (dBm/MHz).

Note 2:

For 5150 - 5250MHz Band: PSD Limit (dBm/MHz) = 17 - (6.86 - 6) = 16.14dBm/MHz.

For 5250 - 5350MHz Band: PSD Limit (dBm/MHz) = 11 - (6.86 - 6) = 10.14dBm/MHz.

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

Product	BE19000 Tri-Band Wi-Fi 7 Gaming Router	Test Engineer	Xuan Yu
Test Site	SR6	Test Date	2023/11/09~2023/11/27
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/510 KHz)	Ant 1 PSD (dBm/510 KHz)	Ant 2 PSD (dBm/510 KHz)	Ant 3 PSD (dBm/510 KHz)	Duty Cycle (%)	Total PSD (dBm/510kHz)	Limit (dBm/500kHz)	Result
11a	6Mbps	149	5745	8.765	7.982	7.868	8.034	95.98%	14.376	≤ 30.00	Pass
11a	6Mbps	157	5785	8.650	8.242	8.139	8.539	95.98%	14.596	≤ 30.00	Pass
11a	6Mbps	165	5825	8.847	8.136	8.144	8.725	95.98%	14.674	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	8.482	7.628	7.713	8.216	95.80%	14.231	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	8.080	7.947	8.048	8.260	95.80%	14.292	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	8.437	8.135	7.785	8.500	95.80%	14.430	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	3.973	3.432	3.723	4.074	91.34%	10.222	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	4.794	4.535	4.832	4.510	91.34%	11.084	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	0.584	0.402	0.347	0.266	93.70%	6.705	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	8.166	7.708	7.400	7.909	97.50%	13.935	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	8.040	7.536	8.032	7.836	97.50%	13.996	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	8.430	8.075	8.080	8.152	97.50%	14.317	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	3.866	2.999	3.772	3.790	96.35%	9.803	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	5.184	4.418	5.023	4.968	96.35%	11.090	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	0.395	0.310	0.514	1.080	96.72%	6.751	≤ 30.00	Pass
11be-EHT20	MCS0	149	5745	8.404	7.968	7.575	7.915	98.25%	14.073	≤ 30.00	Pass
11be-EHT20	MCS0	157	5785	8.171	7.634	7.830	8.379	98.25%	14.110	≤ 30.00	Pass
11be-EHT20	MCS0	165	5825	8.540	7.645	7.826	8.375	98.25%	14.210	≤ 30.00	Pass
11be-EHT40	MCS0	151	5755	4.476	3.771	3.996	4.517	97.35%	10.339	≤ 30.00	Pass
11be-EHT40	MCS0	159	5795	5.928	4.947	5.268	5.175	97.35%	11.482	≤ 30.00	Pass
11be-EHT80	MCS0	155	5775	0.645	0.518	0.589	0.884	97.45%	6.794	≤ 30.00	Pass

Note 1: When EUT duty cycle ≥ 98%,

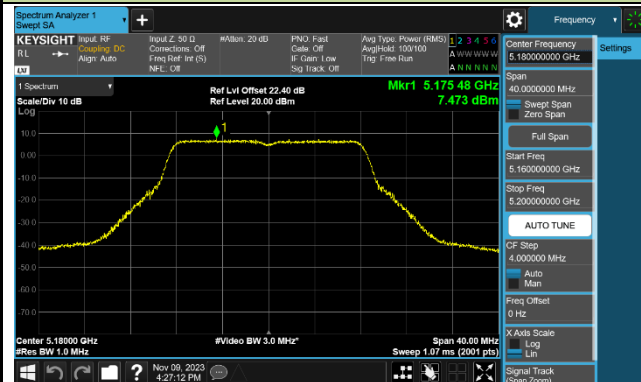
the total PSD (dBm/510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/510kHz).

When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/510kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

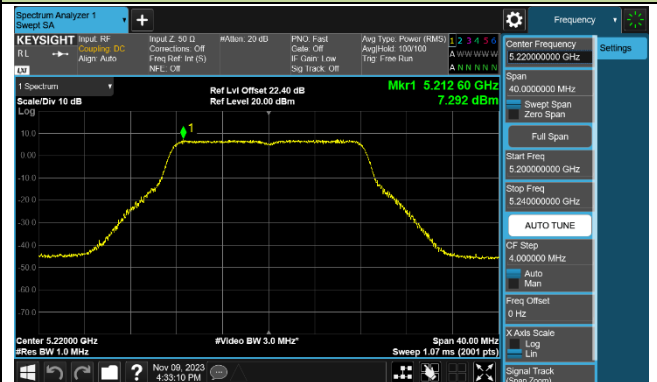
Note 2: PSD Limit (dBm/500kHz) = 30 (dBm/500kHz).

802.11a Power Spectral Density - Ant 0

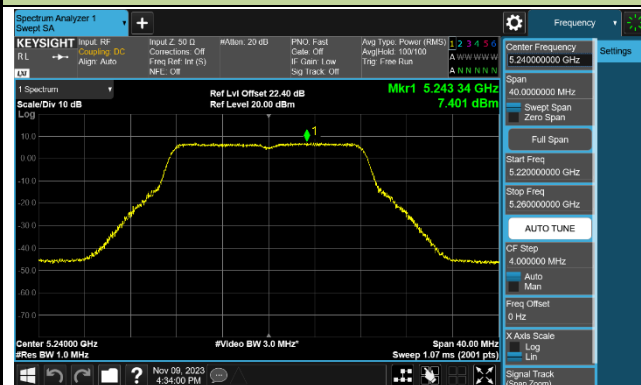
Channel 36 (5180MHz)



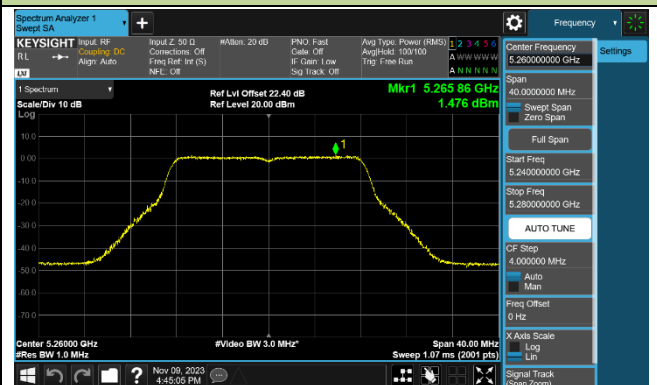
Channel 44 (5220MHz)



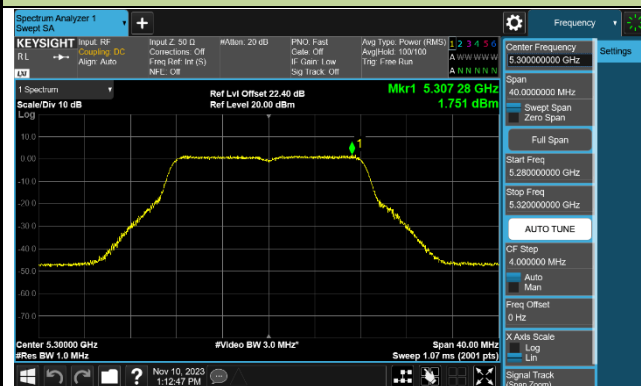
Channel 48 (5240MHz)



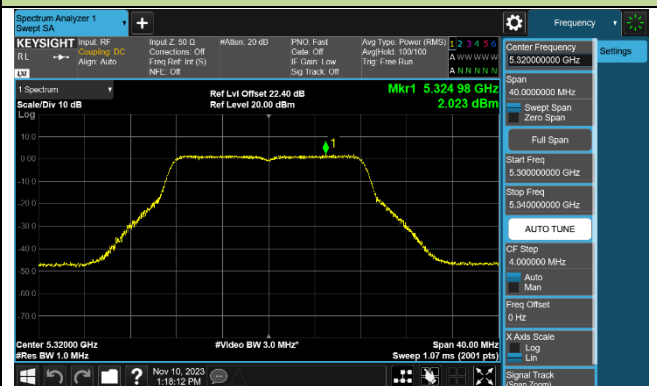
Channel 52 (5260MHz)



Channel 60 (5300MHz)



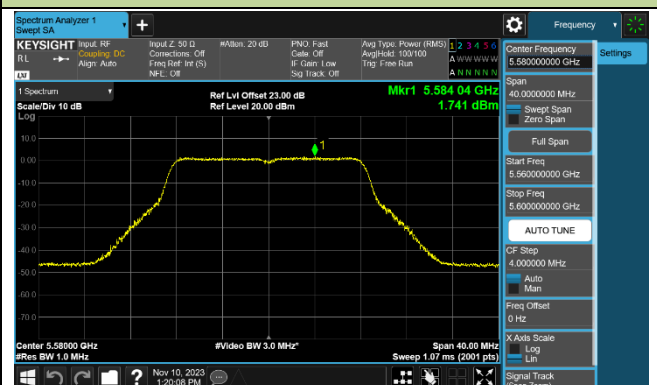
Channel 64 (5320MHz)

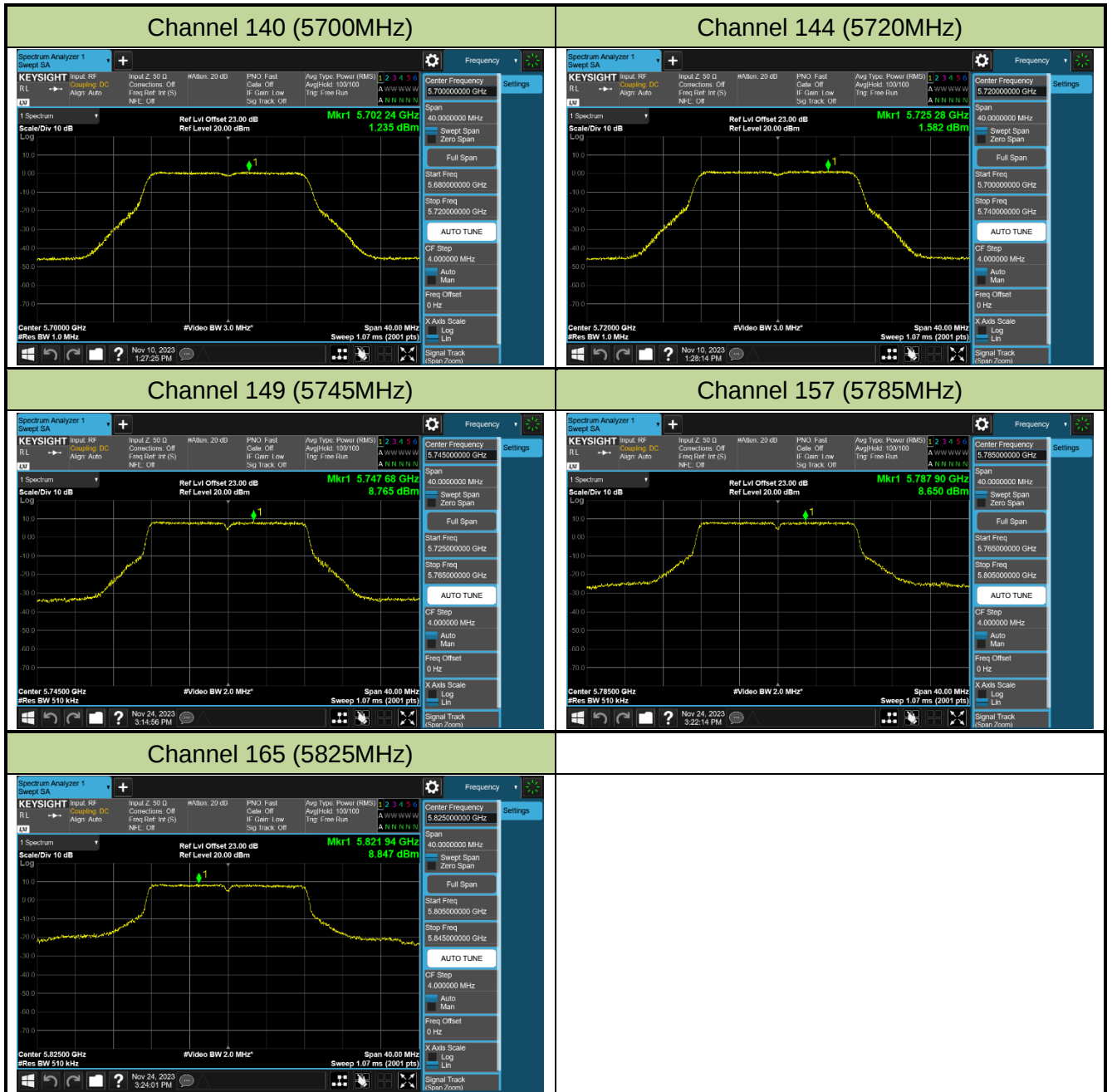


Channel 100 (5500MHz)



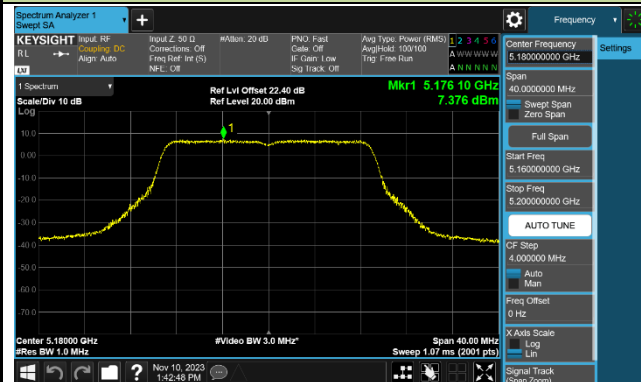
Channel 116 (5580MHz)



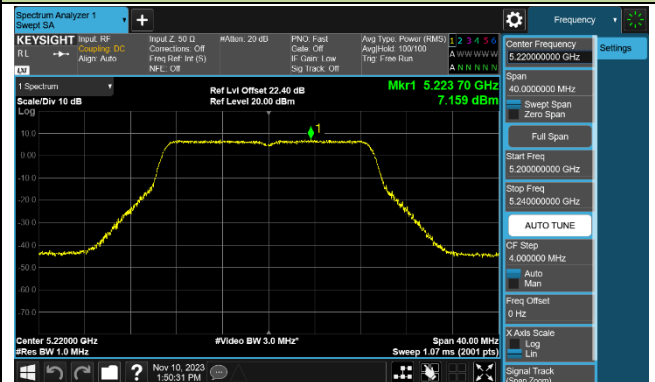


802.11ac-VHT20 Power Spectral Density - Ant 0

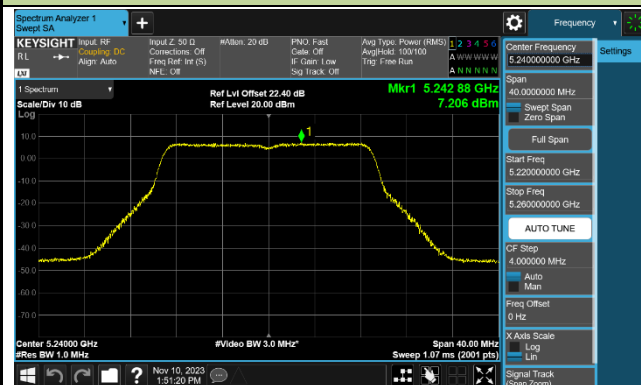
Channel 36 (5180MHz)



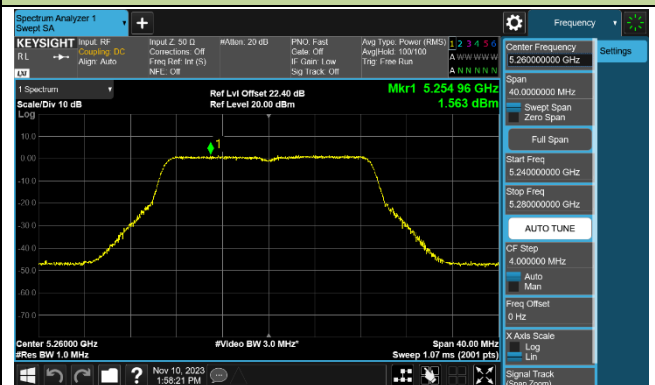
Channel 44 (5220MHz)



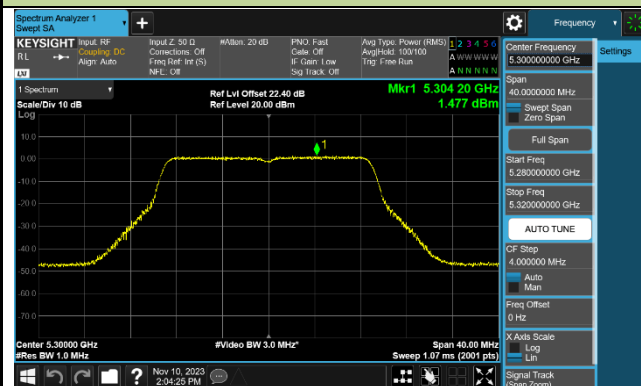
Channel 48 (5240MHz)



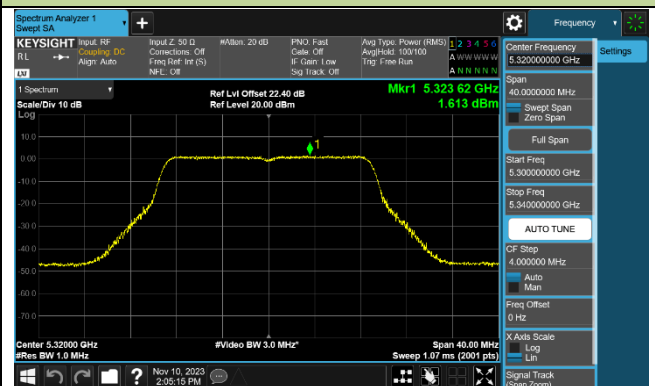
Channel 52 (5260MHz)



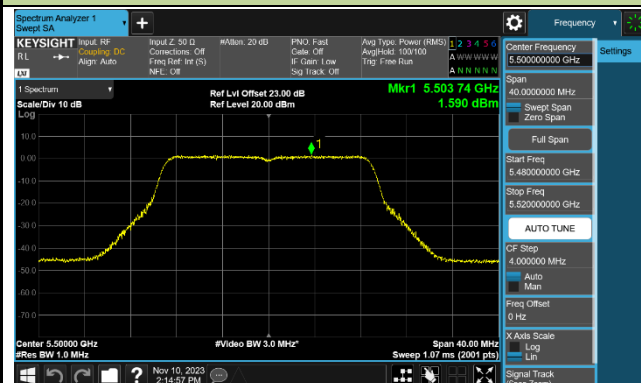
Channel 60 (5300MHz)



Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 116 (5580MHz)

