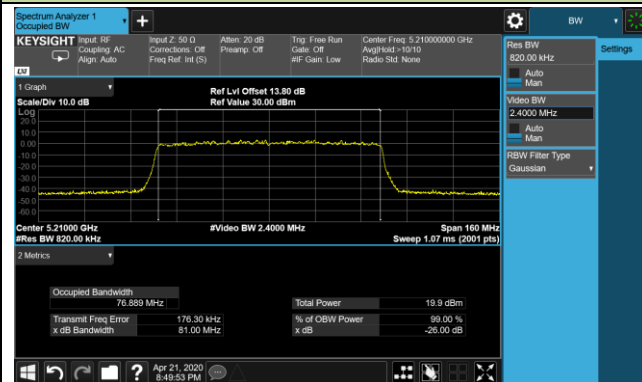
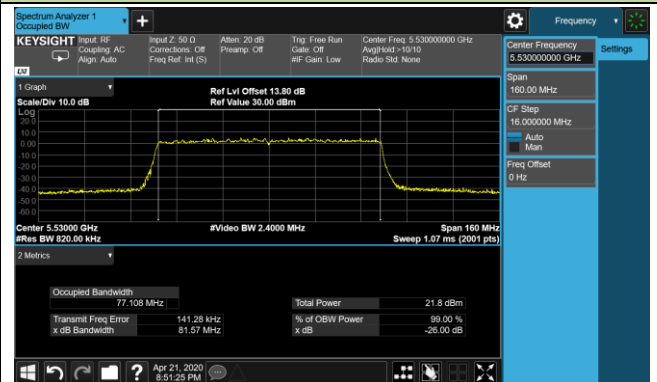


8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

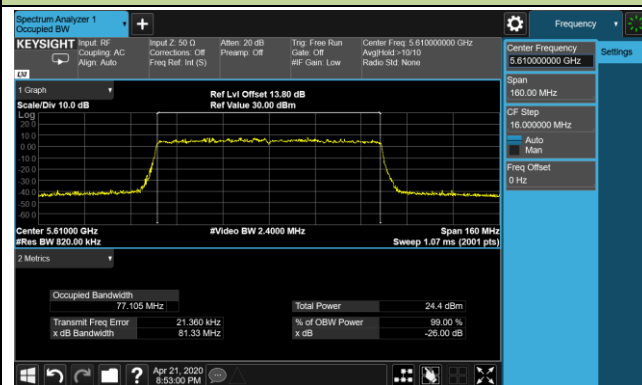
Channel 42 (5210MHz)



Channel 106 (5530MHz)



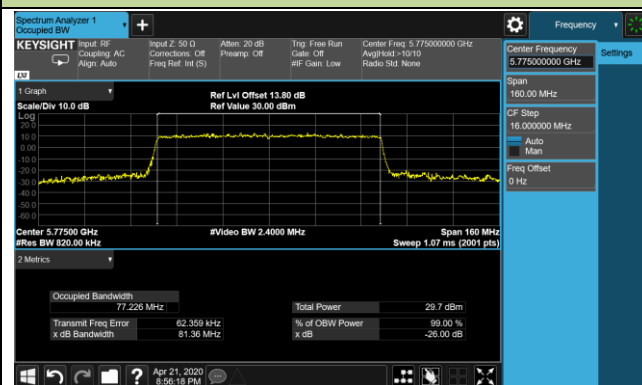
Channel 122 (5610MHz)



Channel 138 (5690MHz)

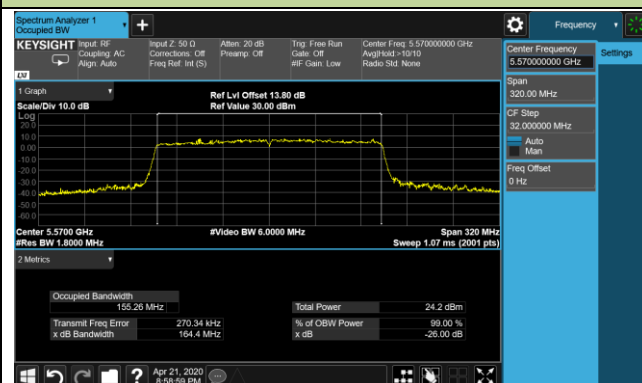


Channel 155 (5775MHz)



802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

Channel 114 (5570MHz)

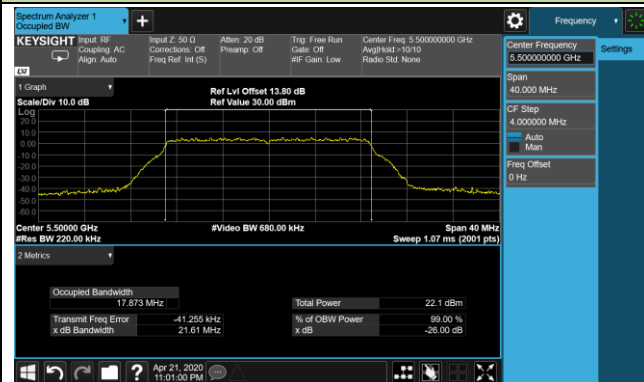


Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	24 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	48 ~ 56%
Test Site	SR1	Test Date	2020/04/21~2020/04/22
Test Mode	U-NII-2C (N _{SS} =2)		

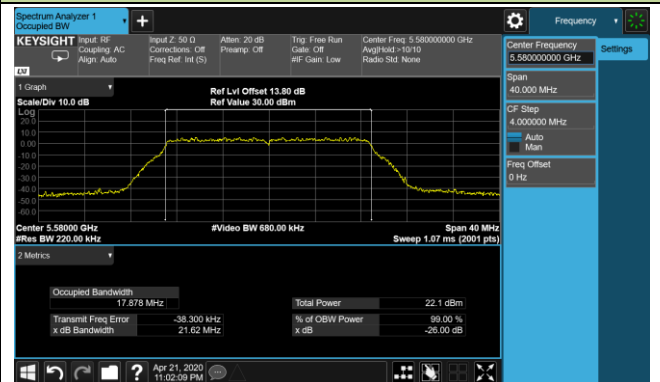
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 1 / Ant 0 + 1 + 2 + 3					
802.11ac-VHT20	MCS0	100	5500	21.61	17.87
802.11ac-VHT20	MCS0	116	5580	21.62	17.88
802.11ac-VHT20	MCS0	140	5700	21.57	17.86
802.11ac-VHT20	MCS0	144	5720	21.46	17.87
802.11ac-VHT40	MCS0	102	5510	39.57	36.32
802.11ac-VHT40	MCS0	110	5550	39.57	36.32
802.11ac-VHT40	MCS0	134	5670	39.60	36.35
802.11ac-VHT40	MCS0	142	5710	39.71	36.30
802.11ac-VHT80	MCS0	106	5530	81.58	75.99
802.11ac-VHT80	MCS0	122	5610	81.07	75.73
802.11ac-VHT80	MCS0	138	5690	81.48	75.85
802.11ac-VHT160	MCS0	114	5570	163.90	153.68
802.11ax-HE20	MCS0	100	5500	21.41	19.03
802.11ax-HE20	MCS0	116	5580	21.63	19.04
802.11ax-HE20	MCS0	140	5700	21.36	19.06
802.11ax-HE20	MCS0	144	5720	21.21	19.04
802.11ax-HE40	MCS0	102	5510	39.65	37.64
802.11ax-HE40	MCS0	110	5550	39.88	37.59
802.11ax-HE40	MCS0	134	5670	39.90	37.60
802.11ax-HE40	MCS0	142	5710	39.89	37.59
802.11ax-HE80	MCS0	106	5530	81.14	76.93
802.11ax-HE80	MCS0	122	5610	81.17	76.96
802.11ax-HE80	MCS0	138	5690	81.06	76.85
802.11ax-HE160	MCS0	114	5570	163.30	155.10

802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

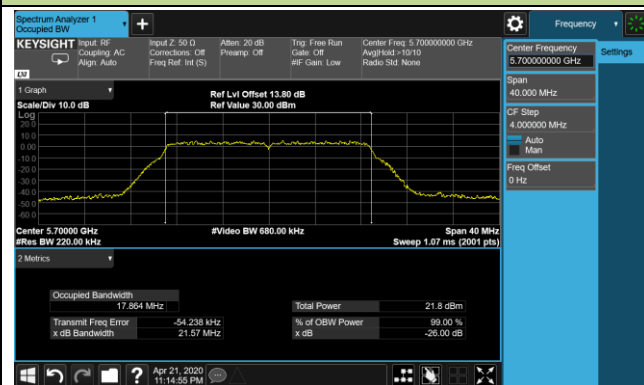
Channel 100 (5500MHz)



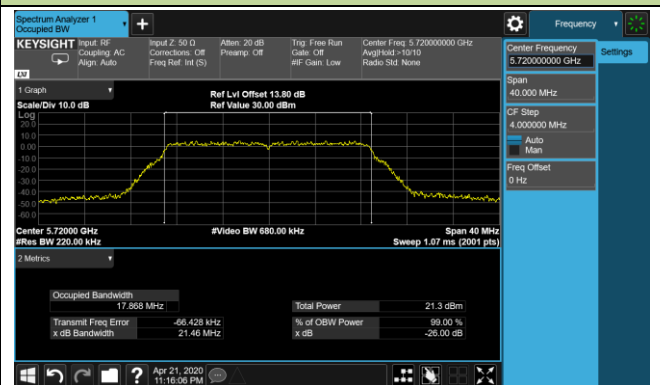
Channel 120 (5580MHz)



Channel 140 (5700MHz)

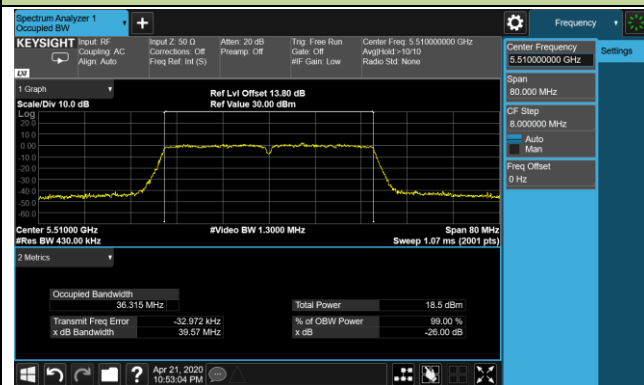


Channel 144 (5720MHz)

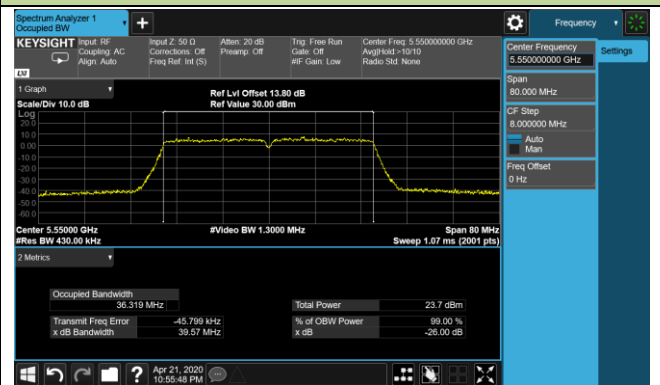


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth

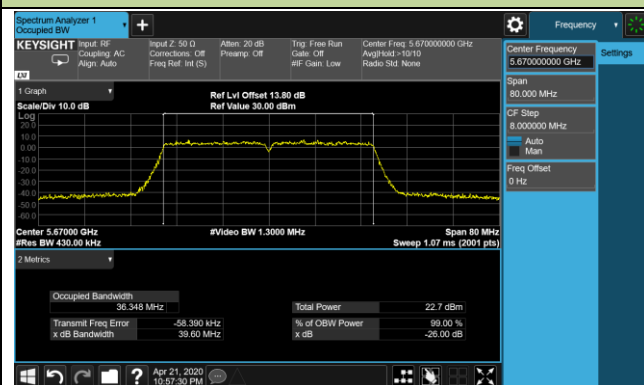
Channel 102 (5510MHz)



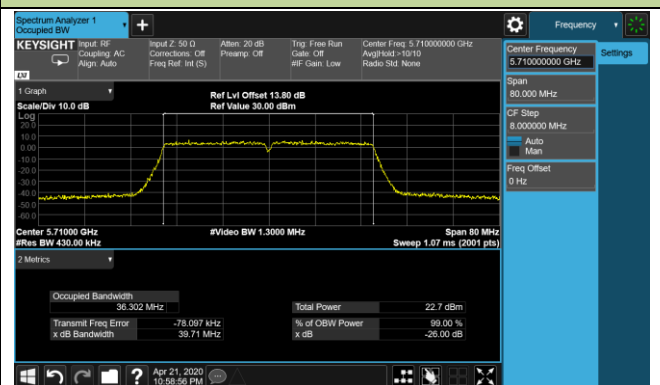
Channel 110 (5550MHz)



Channel 134 (5670MHz)

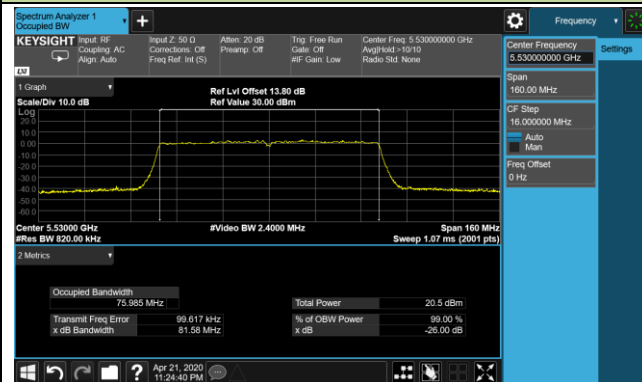


Channel 142 (5710MHz)

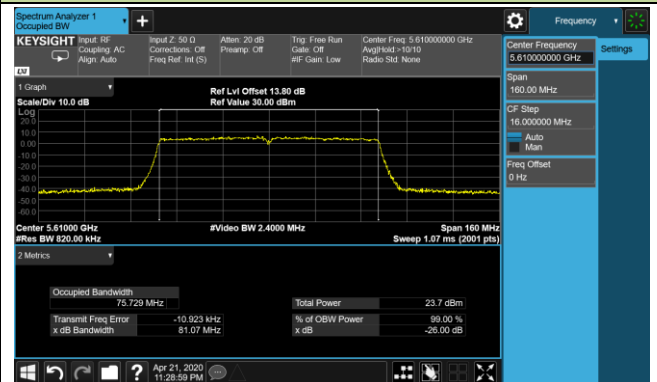


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth

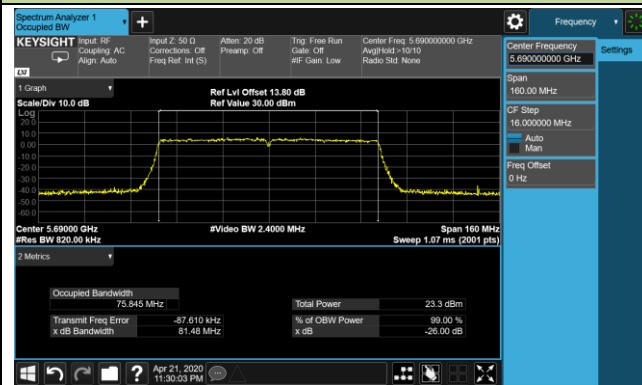
Channel 106 (5530MHz)



Channel 122 (5610MHz)

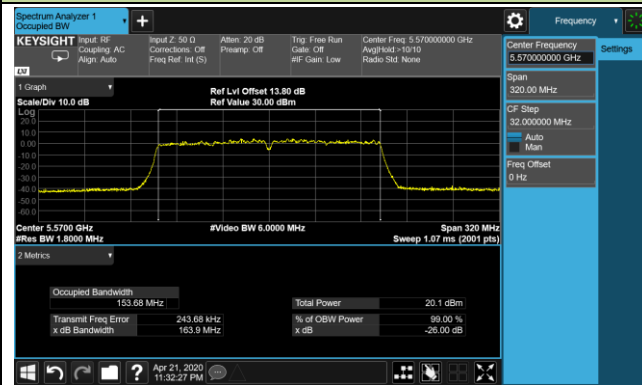


Channel 138 (5690MHz)



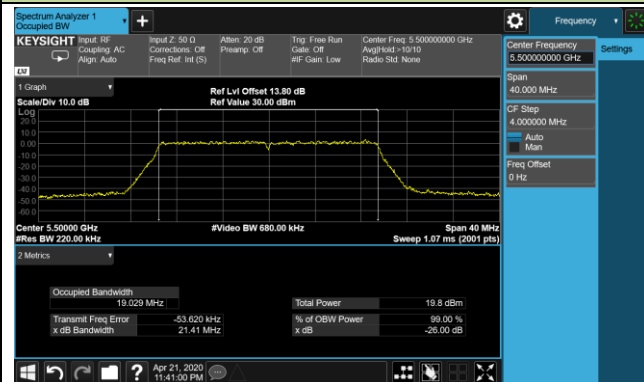
802.11ac-VHT160 26dB Bandwidth & 99% Bandwidth

Channel 114 (5570MHz)

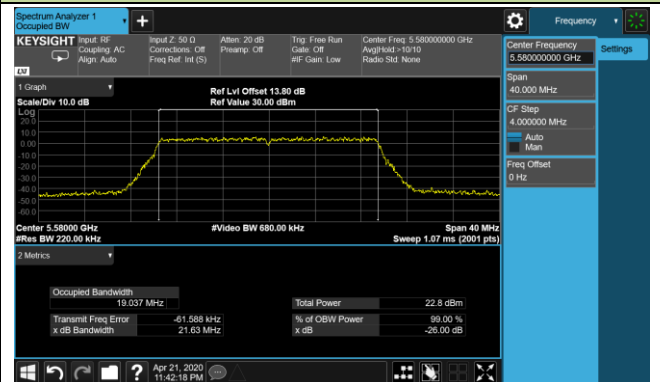


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth - Ant 2 / Ant 1+ 2 +3 +4

Channel 100 (5500MHz)



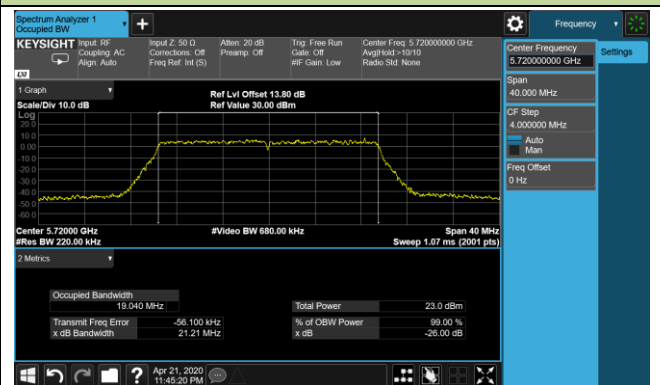
Channel 116 (5580MHz)



Channel 140 (5700MHz)

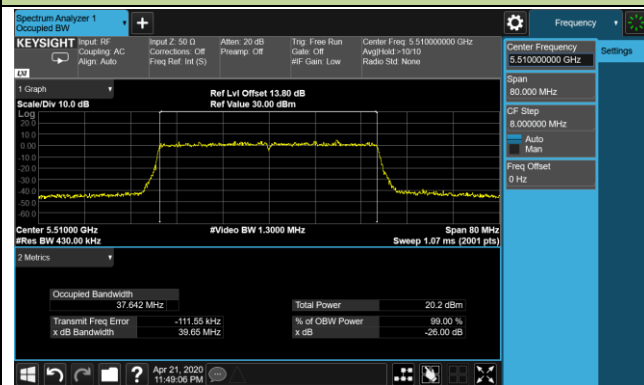


Channel 144 (5720MHz)

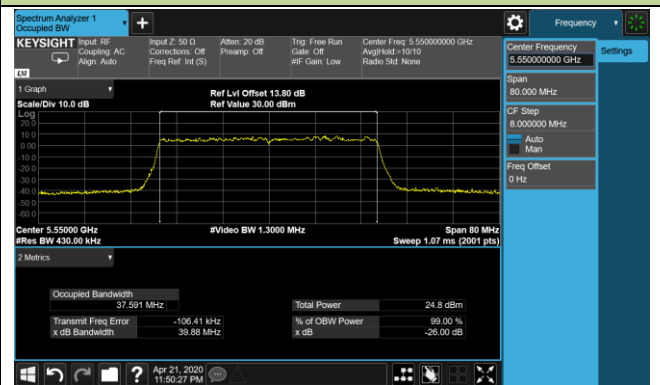


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth - Ant 2 / Ant 1+ 2 +3 +4

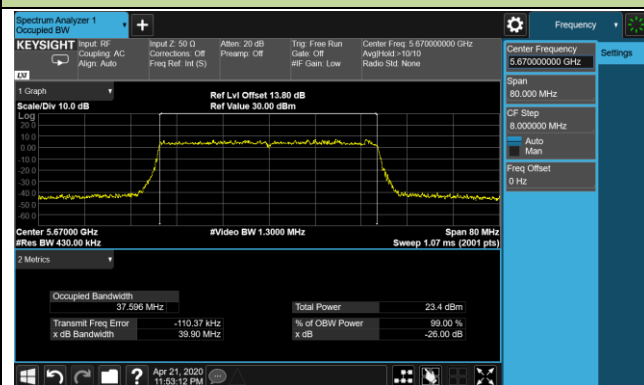
Channel 102 (5510MHz)



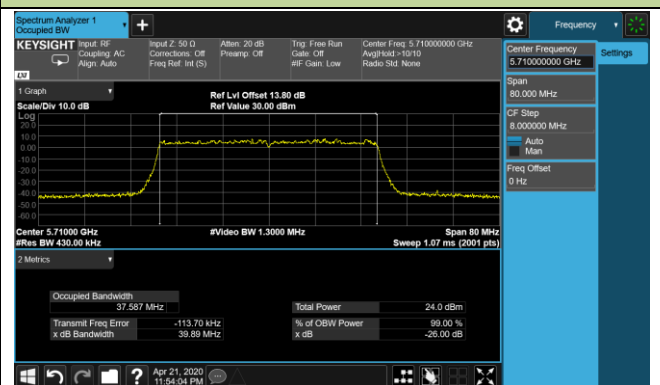
Channel 110 (5550MHz)



Channel 134 (5670MHz)

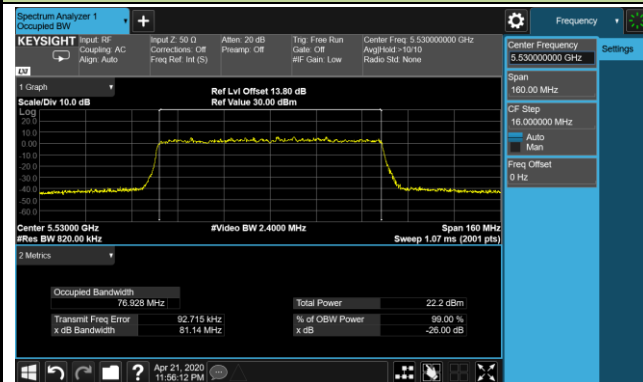


Channel 142 (5710MHz)

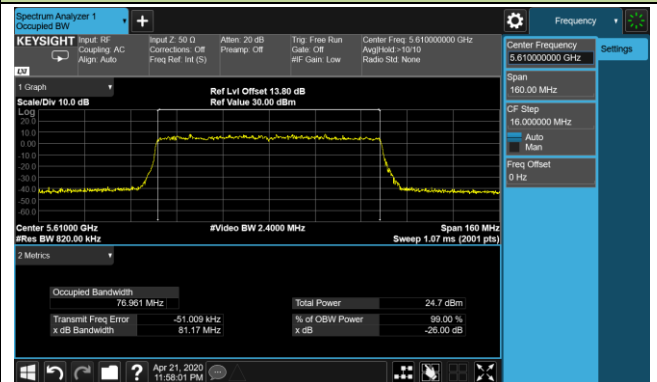


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth - Ant 2 / Ant 1+ 2 +3 +4

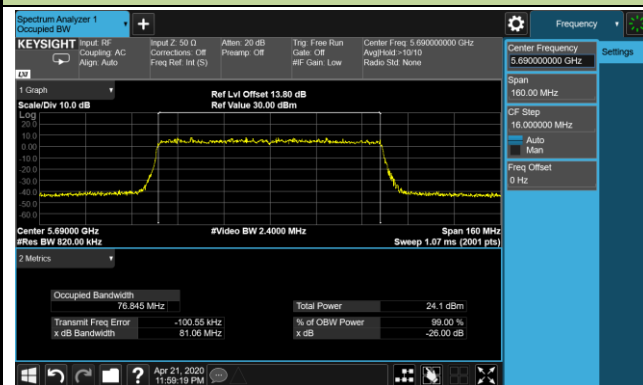
Channel 106 (5530MHz)



Channel 122 (5610MHz)

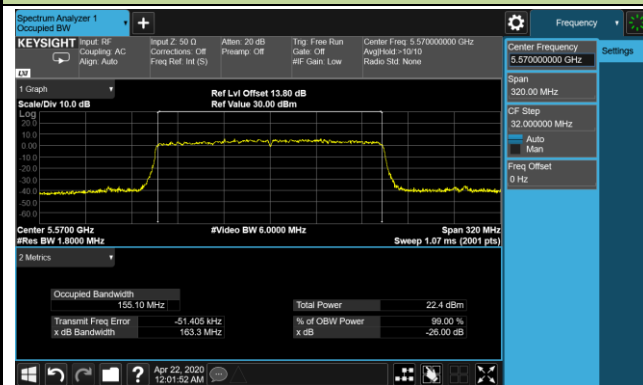


Channel 138 (5690MHz)



802.11ax-HE160 26dB Bandwidth & 99% Bandwidth - Ant 2 / Ant 1+ 2 +3 +4

Channel 114 (5570MHz)



7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

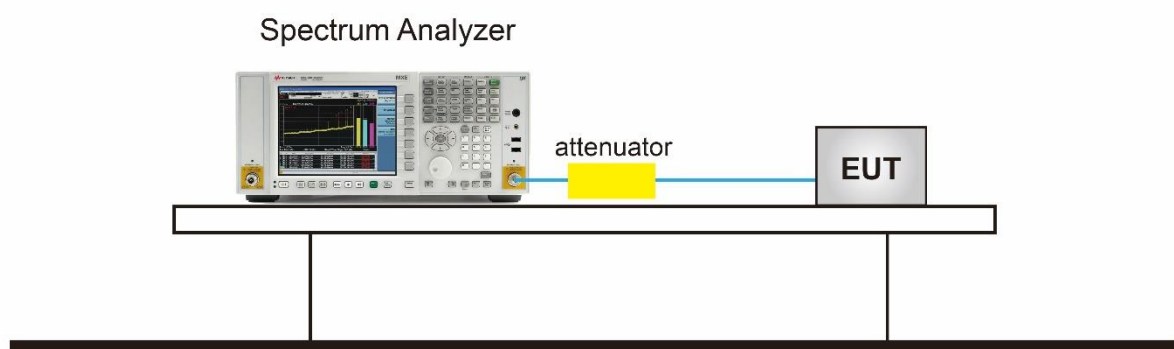
7.3.2. Test Procedure used

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 $\geq 3 \times$ 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



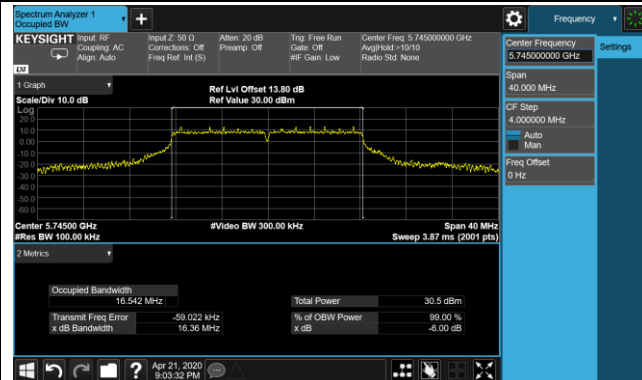
7.3.5.Test Result

Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	24°C
Test Engineer	Kevin Ker	Relative Humidity	56%
Test Site	SR1	Test Date	2020/04/21
Test Mode	U-NII-3		

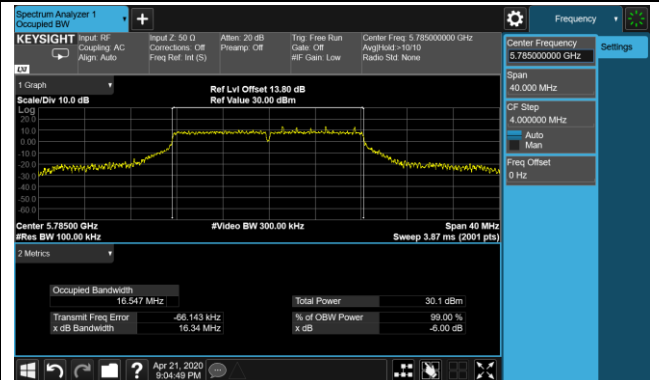
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1 / Ant 0 + 1 + 2 + 3						
802.11a	6Mbps	149	5745	16.36	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.34	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.35	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.59	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.60	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.60	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	36.36	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	36.35	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	75.30	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	18.83	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	18.85	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	18.91	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	36.34	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	36.64	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	76.26	≥ 0.5	Pass

802.11a 6dB Bandwidth

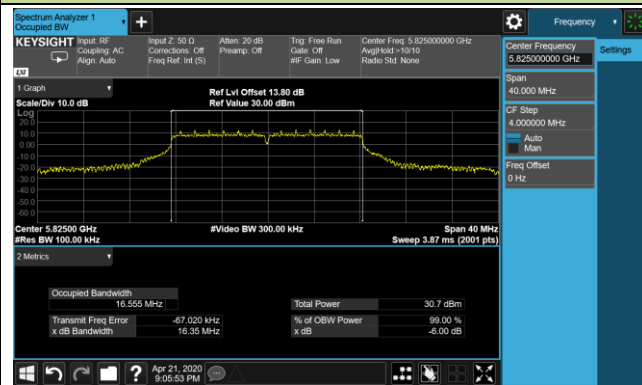
Channel 149 (5745MHz)



Channel 157 (5785MHz)

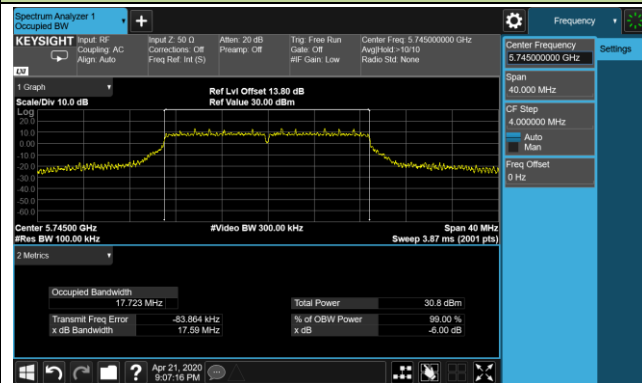


Channel 165 (5825MHz)

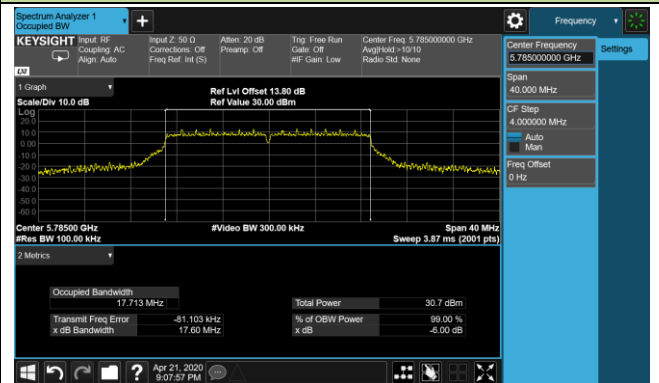


802.11ac-VHT20 6dB Bandwidth

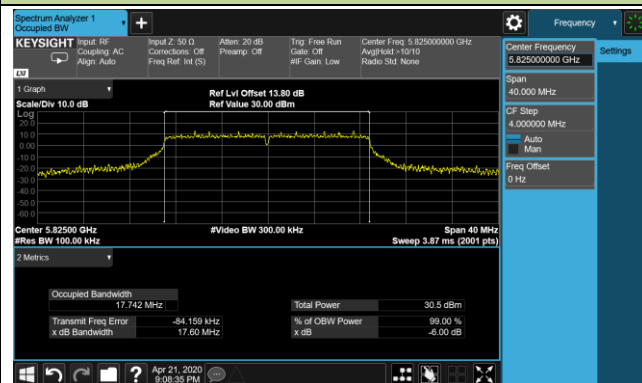
Channel 149 (5745MHz)



Channel 157 (5785MHz)

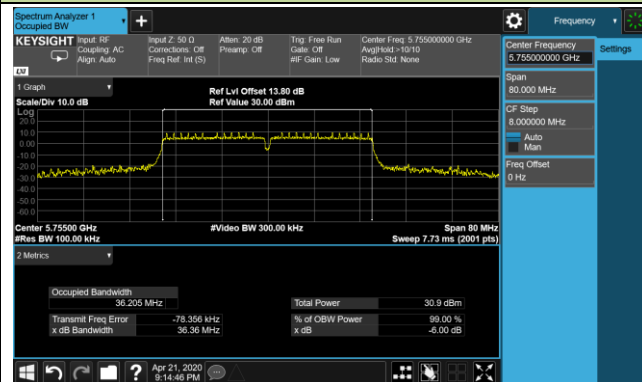


Channel 165 (5825MHz)

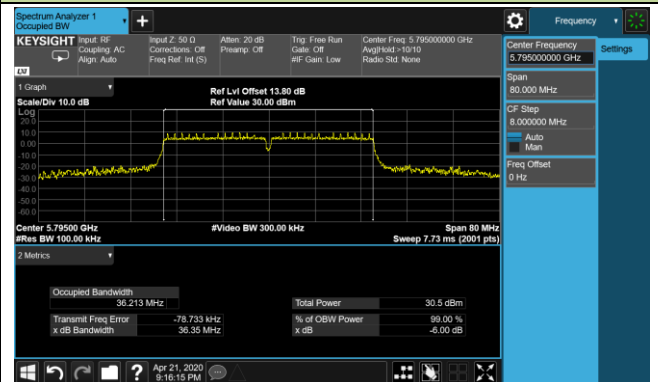


802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)

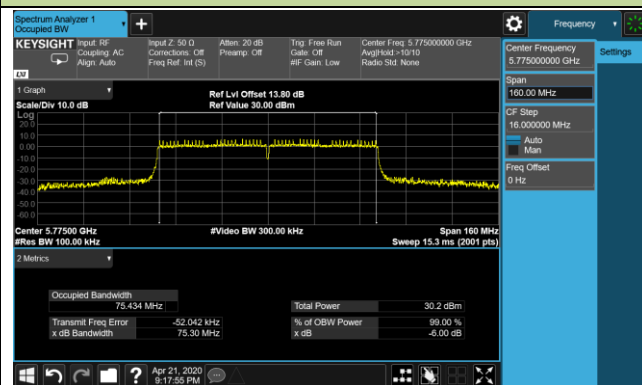


Channel 159 (5795MHz)



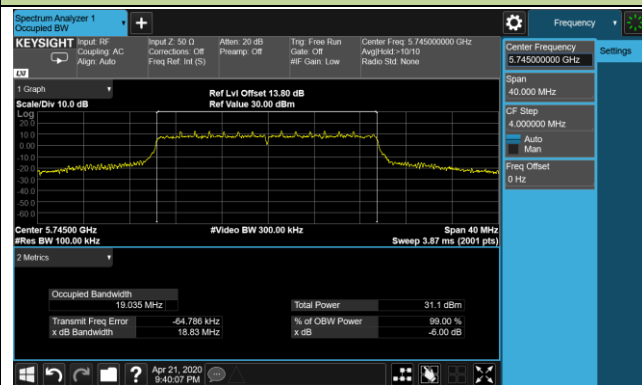
802.11ac-VHT80 6dB Bandwidth

Channel 155 (5775MHz)

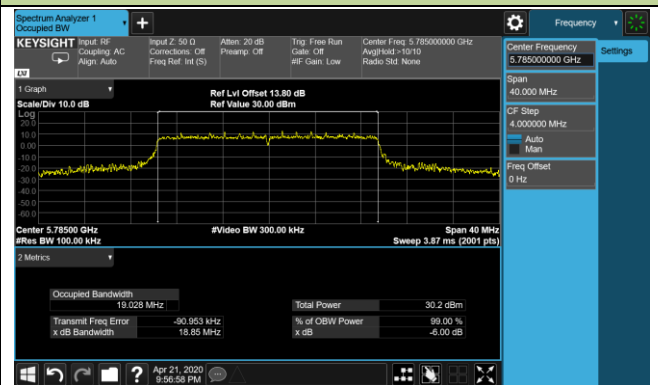


802.11ax-HE20 6dB Bandwidth

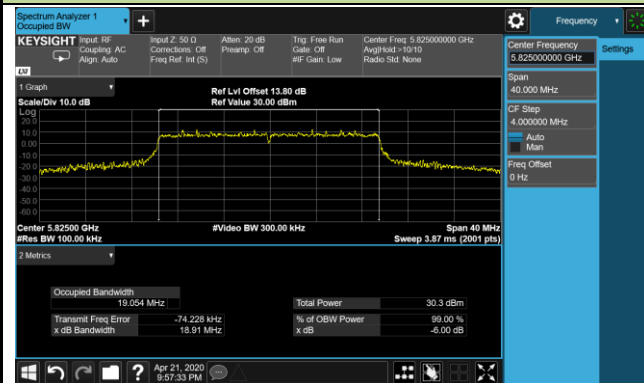
Channel 149 (5745MHz)



Channel 157 (5785MHz)

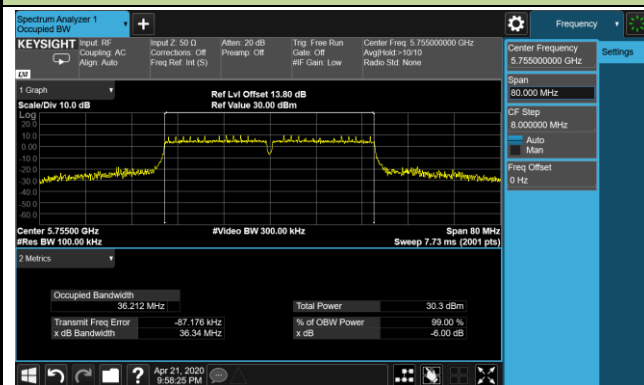


Channel 165 (5825MHz)

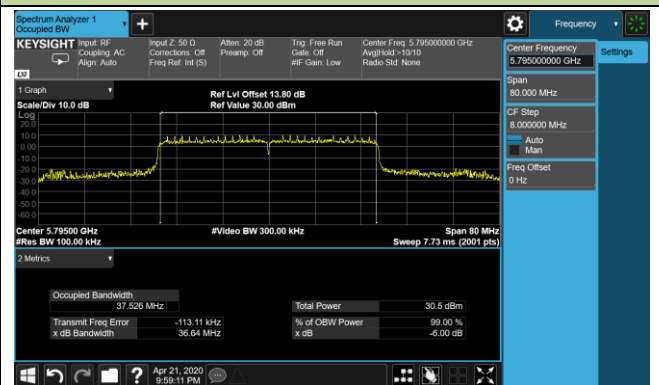


802.11ax-HE40 6dB Bandwidth

Channel 151 (5755MHz)

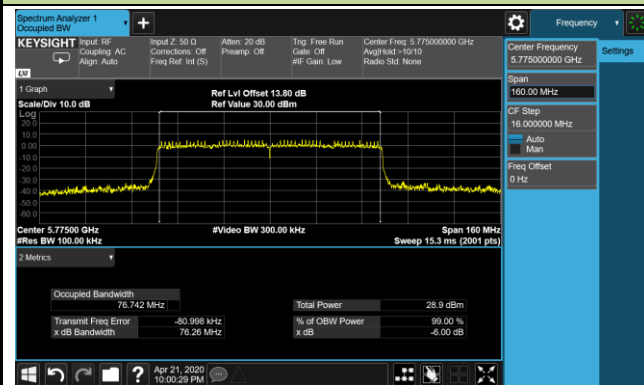


Channel 159 (5795MHz)



802.11ax-HE80 6dB Bandwidth

Channel 155 (5775MHz)



7.4. Output Power Measurement

7.4.1. Test Limit

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

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

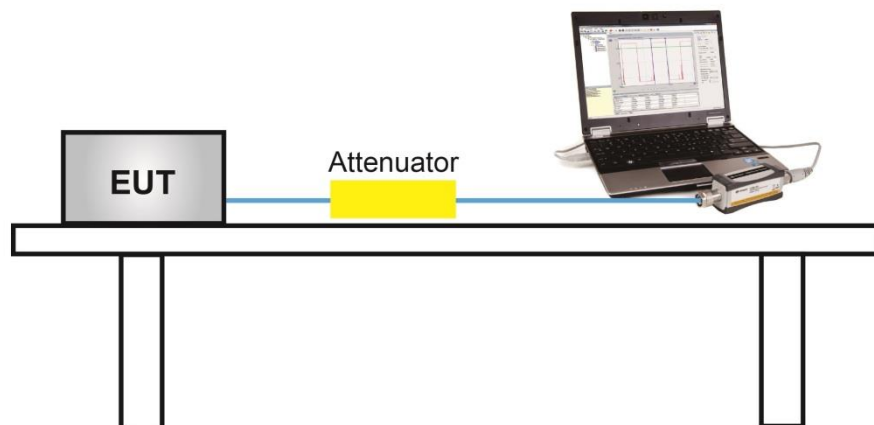
7.4.2. Test Procedure Used

KDB 789033D02v02r01- Section E)3)b) Method PM-G

7.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

7.4.4. Test Setup



7.4.5.Test Result

Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	23 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	46 ~ 56%
Test Site	SR1	Test Date	2020/04/18 ~ 2020/05/15
Test Mode	CDD Mode (N _{ss} =1)		

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	22.93	23.16	--	--	26.06	≤ 30.00	Pass
11a	6Mbps	44	5220	24.84	24.93	--	--	27.90	≤ 30.00	Pass
11a	6Mbps	48	5240	24.53	24.62	--	--	27.59	≤ 30.00	Pass
11a	6Mbps	100	5500	13.84	14.25	13.71	14.45	20.09	≤23.98	Pass
11a	6Mbps	116	5580	14.05	14.31	13.96	14.87	20.33	≤23.98	Pass
11a	6Mbps	140	5700	13.65	13.51	13.99	13.96	19.80	≤23.98	Pass
11a	6Mbps	144	5720	13.71	13.28	13.92	13.74	19.69	≤22.95	Pass
11a	6Mbps	149	5745	23.63	23.58	23.82	23.51	29.66	≤ 30.00	Pass
11a	6Mbps	157	5785	23.41	23.28	23.93	23.64	29.59	≤ 30.00	Pass
11a	6Mbps	165	5825	23.32	23.47	23.49	23.47	29.46	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	21.81	21.65	--	--	24.74	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	24.54	25.03	--	--	27.80	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.37	24.28	--	--	27.34	≤ 30.00	Pass
11ac-VHT20	MCS0	100	5500	14.28	14.45	14.32	14.75	17.38	≤23.98	Pass
11ac-VHT20	MCS0	116	5580	14.12	14.21	14.73	14.78	20.49	≤23.98	Pass
11ac-VHT20	MCS0	140	5700	14.12	13.93	14.54	14.51	20.30	≤23.98	Pass
11ac-VHT20	MCS0	144	5720	13.69	13.57	14.18	13.85	19.85	≤22.96	Pass
11ac-VHT20	MCS0	149	5745	23.47	23.26	23.89	23.85	29.65	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.36	23.15	23.87	23.57	29.52	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	23.44	23.34	23.71	23.65	29.56	≤ 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	18.85	18.46	--	--	21.67	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	24.31	24.05	--	--	27.19	≤ 30.00	Pass
11ac-VHT40	MCS0	102	5510	17.72	17.53	17.43	17.44	23.55	≤23.98	Pass
11ac-VHT40	MCS0	110	5550	17.32	17.42	17.19	17.26	23.32	≤23.98	Pass
11ac-VHT40	MCS0	134	5670	17.39	17.22	17.73	17.79	23.56	≤23.98	Pass
11ac-VHT40	MCS0	142	5710	17.10	16.55	17.24	17.33	23.09	≤23.98	Pass
11ac-VHT40	MCS0	151	5755	23.68	23.65	23.95	23.61	29.75	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	23.32	23.36	23.75	23.68	29.55	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	17.94	17.79	--	--	20.88	≤ 30.00	Pass
11ac-VHT80	MCS0	106	5530	17.21	17.61	18.02	17.74	23.68	≤23.98	Pass
11ac-VHT80	MCS0	122	5610	17.64	17.58	17.68	17.75	23.68	≤23.98	Pass
11ac-VHT80	MCS0	138	5690	17.85	17.63	17.34	17.19	23.53	≤23.98	Pass
11ac-VHT80	MCS0	155	5775	23.09	23.04	23.90	23.56	29.43	≤ 30.00	Pass
11ac-VHT160	MCS0	114	5570	15.31	15.42	15.18	15.12	21.28	≤23.98	Pass
11ax-HE20	MCS0	36	5180	21.52	21.47	--	--	24.51	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.28	24.21	--	--	27.26	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.19	24.20	--	--	27.21	≤ 30.00	Pass
11ax-HE20	MCS0	100	5500	14.39	14.66	14.34	14.38	20.46	≤23.98	Pass
11ax-HE20	MCS0	116	5580	14.32	14.58	14.88	14.62	20.63	≤23.98	Pass
11ax-HE20	MCS0	140	5700	14.53	14.39	14.76	14.92	20.68	≤23.98	Pass
11ax-HE20	MCS0	144	5720	14.27	13.84	14.29	14.38	20.22	≤22.97	Pass
11ax-HE20	MCS0	149	5745	23.83	23.53	24.19	23.93	29.90	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.34	23.14	23.73	23.67	29.50	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	23.64	23.13	23.85	24.01	29.69	≤ 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	17.19	16.83	--	--	20.02	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	23.32	24.24	--	--	26.81	≤ 30.00	Pass
11ax-HE40	MCS0	102	5510	17.52	17.28	17.65	17.59	23.53	≤23.98	Pass
11ax-HE40	MCS0	110	5550	17.25	17.26	17.14	17.24	23.24	≤23.98	Pass
11ax-HE40	MCS0	134	5670	17.25	17.26	17.43	17.51	23.38	≤23.98	Pass
11ax-HE40	MCS0	142	5710	17.36	16.79	17.54	17.70	23.38	≤23.98	Pass
11ax-HE40	MCS0	151	5755	23.42	23.56	23.83	23.73	29.66	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	23.69	23.53	23.81	23.97	29.77	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	16.85	16.54	--	--	19.71	≤ 30.00	Pass
11ax-HE80	MCS0	106	5530	17.26	17.57	17.41	17.36	23.42	≤23.98	Pass
11ax-HE80	MCS0	122	5610	17.32	17.22	17.51	17.44	23.39	≤23.98	Pass
11ax-HE80	MCS0	138	5690	17.65	17.17	17.12	17.86	23.48	≤23.98	Pass
11ax-HE80	MCS0	155	5775	21.33	21.41	21.99	21.70	27.64	≤ 30.00	Pass
11ax-HE160	MCS0	114	5570	15.38	16.37	14.88	16.42	21.83	≤ 23.98	Pass

Note 1:

For 5150 – 5250MHz Band:

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

For 5470 - 5725MHz and 5725 ~5850MHz Bands:

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 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	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	23 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	46 ~ 56%
Test Site	SR1	Test Date	2020/04/18 ~ 2020/05/15
Test Mode	Beamforming Mode (N _{ss} =1)		

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	16.15	15.69	--	--	18.94	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	24.54	25.03	--	--	27.80	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	24.37	24.28	--	--	27.34	≤ 30.00	Pass
11ac-VHT20	MCS0	100	5500	12.13	12.27	11.61	11.55	17.92	≤ 22.32	Pass
11ac-VHT20	MCS0	116	5580	14.12	14.21	14.73	14.78	20.49	≤ 22.32	Pass
11ac-VHT20	MCS0	140	5700	10.90	11.14	10.68	10.63	16.86	≤ 22.32	Pass
11ac-VHT20	MCS0	144	5720	13.69	13.57	14.18	13.85	19.85	≤ 21.31	Pass
11ac-VHT20	MCS0	149	5745	19.78	19.54	20.22	20.13	25.95	≤ 28.65	Pass
11ac-VHT20	MCS0	157	5785	22.26	21.73	22.65	22.69	28.37	≤ 28.65	Pass
11ac-VHT20	MCS0	165	5825	19.69	19.46	19.84	19.73	25.70	≤ 28.65	Pass
11ac-VHT40	MCS0	38	5190	14.17	13.63	--	--	16.92	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	24.65	24.24	--	--	27.46	≤ 30.00	Pass
11ac-VHT40	MCS0	102	5510	11.11	10.86	10.40	10.25	16.69	≤ 22.32	Pass
11ac-VHT40	MCS0	110	5550	16.35	16.21	16.19	16.06	22.22	≤ 22.32	Pass
11ac-VHT40	MCS0	134	5670	11.84	12.03	11.93	11.58	17.87	≤ 22.32	Pass
11ac-VHT40	MCS0	142	5710	16.33	16.11	16.16	15.98	22.17	≤ 22.32	Pass
11ac-VHT40	MCS0	151	5755	13.65	13.71	13.88	14.05	19.85	≤ 28.65	Pass
11ac-VHT40	MCS0	159	5795	16.54	16.44	16.86	16.78	22.68	≤ 28.65	Pass
11ac-VHT80	MCS0	42	5210	16.02	15.55	--	--	18.80	≤ 30.00	Pass
11ac-VHT80	MCS0	106	5530	10.96	11.03	11.04	10.52	16.91	≤ 22.32	Pass
11ac-VHT80	MCS0	122	5610	10.83	11.01	11.07	10.48	16.87	≤ 22.32	Pass
11ac-VHT80	MCS0	138	5690	16.31	16.21	16.19	16.03	22.21	≤ 22.32	Pass
11ac-VHT80	MCS0	155	5775	12.78	12.72	13.05	13.11	18.94	≤ 28.65	Pass
11ac-VHT160	MCS0	114	5570	10.23	9.76	9.88	9.61	15.90	≤ 22.32	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-HE20	MCS0	36	5180	17.31	16.54	--	--	19.95	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	24.28	24.21	--	--	27.26	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	24.19	24.20	--	--	27.21	≤ 30.00	Pass
11ax-HE20	MCS0	100	5500	12.98	12.86	13.05	12.81	18.95	≤ 22.32	Pass
11ax-HE20	MCS0	116	5580	14.32	14.58	14.88	14.62	20.63	≤ 22.32	Pass
11ax-HE20	MCS0	140	5700	14.53	14.39	14.76	14.92	20.68	≤ 22.32	Pass
11ax-HE20	MCS0	144	5720	14.27	13.84	14.29	14.38	20.22	≤ 21.32	Pass
11ax-HE20	MCS0	149	5745	19.45	19.33	20.12	20.18	25.81	≤ 28.65	Pass
11ax-HE20	MCS0	157	5785	22.13	21.75	22.65	20.53	27.85	≤ 28.65	Pass
11ax-HE20	MCS0	165	5825	19.36	19.21	19.89	20.05	25.66	≤ 28.65	Pass
11ax-HE40	MCS0	38	5190	16.06	15.60	--	--	18.85	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	25.01	24.37	--	--	27.71	≤ 30.00	Pass
11ax-HE40	MCS0	102	5510	11.86	11.82	11.96	11.77	17.87	≤ 22.32	Pass
11ax-HE40	MCS0	110	5550	16.38	16.21	16.27	16.11	22.26	≤ 22.32	Pass
11ax-HE40	MCS0	134	5670	12.92	13.02	12.77	12.85	18.91	≤ 22.32	Pass
11ax-HE40	MCS0	142	5710	16.47	16.23	16.27	16.02	22.27	≤ 22.32	Pass
11ax-HE40	MCS0	151	5755	16.44	16.34	16.78	16.85	22.63	≤ 28.65	Pass
11ax-HE40	MCS0	159	5795	18.45	18.33	18.78	18.72	24.59	≤ 28.65	Pass
11ax-HE80	MCS0	42	5210	14.06	13.75	--	--	16.92	≤ 30.00	Pass
11ax-HE80	MCS0	106	5530	9.02	8.88	8.92	8.75	14.91	≤ 22.32	Pass
11ax-HE80	MCS0	122	5610	13.88	13.96	14.02	13.88	19.96	≤ 22.32	Pass
11ax-HE80	MCS0	138	5690	16.44	16.24	16.21	16.10	22.27	≤ 22.32	Pass
11ax-HE80	MCS0	155	5775	13.41	13.35	13.81	13.86	19.63	≤ 28.65	Pass
11ax-HE160	MCS0	114	5570	11.18	11.15	10.56	10.76	16.94	≤ 22.32	Pass

Note 1:

For 5150 – 5250MHz Bands: The Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)}\}$.

For 5470 - 5725MHz and 5725 – 5850MHz Bands: 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) = 30dBm

For 5470 - 5725MHz Bands: Average Power Limit (dBm) = 23.98 - (7.65 - 6) = 22.32dBm.

For 5725 - 5850MHz Bands: Average Power Limit (dBm) = 30 – (7.35 – 6) = 28.65dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log (5\text{MHz} + \text{BW}_{26\text{dBc}} / 2) - (7.65 - 6)$

Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	23 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	46 ~ 56%
Test Site	SR1	Test Date	2020/04/18 ~ 2020/05/15
Test Mode	CDD Mode (N _{ss} =2)		

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	100	5500	16.21	16.24	16.24	16.34	22.28	≤23.98	Pass
11ac-VHT20	MCS0	116	5580	16.18	16.21	16.22	16.28	22.24	≤23.98	Pass
11ac-VHT20	MCS0	140	5700	16.23	16.27	16.39	16.24	22.30	≤23.98	Pass
11ac-VHT20	MCS0	144	5720	16.25	15.53	16.38	16.01	22.08	≤23.98	Pass
11ac-VHT40	MCS0	102	5510	17.45	17.54	17.65	17.41	23.53	≤23.98	Pass
11ac-VHT40	MCS0	110	5550	17.75	17.61	17.67	17.54	23.66	≤23.98	Pass
11ac-VHT40	MCS0	134	5670	17.56	17.71	17.91	17.82	23.77	≤23.98	Pass
11ac-VHT40	MCS0	142	5710	17.63	17.76	17.84	17.76	23.77	≤23.98	Pass
11ac-VHT80	MCS0	106	5530	17.54	17.63	17.81	17.49	23.64	≤23.98	Pass
11ac-VHT80	MCS0	122	5610	17.06	17.16	17.93	17.72	23.50	≤23.98	Pass
11ac-VHT80	MCS0	138	5690	17.13	17.29	17.89	17.64	23.52	≤23.98	Pass
11ac-VHT160	MCS0	114	5570	16.44	16.58	16.74	16.37	22.56	≤23.98	Pass
11ax-HE20	MCS0	100	5500	16.16	16.48	16.15	16.41	22.32	≤23.98	Pass
11ax-HE20	MCS0	116	5580	16.16	16.22	16.73	16.63	22.46	≤23.98	Pass
11ax-HE20	MCS0	140	5700	15.75	15.20	15.88	15.89	21.71	≤23.98	Pass
11ax-HE20	MCS0	144	5720	16.63	16.09	16.89	16.78	22.63	≤23.98	Pass
11ax-HE40	MCS0	102	5510	17.52	17.64	17.28	17.14	23.42	≤23.98	Pass
11ax-HE40	MCS0	110	5550	17.49	17.32	17.70	17.56	23.54	≤23.98	Pass
11ax-HE40	MCS0	134	5670	17.31	17.35	17.83	17.64	23.56	≤23.98	Pass
11ax-HE40	MCS0	142	5710	16.87	15.68	17.28	17.15	22.81	≤23.98	Pass
11ax-HE80	MCS0	106	5530	17.52	17.48	17.61	17.59	23.57	≤23.98	Pass
11ax-HE80	MCS0	122	5610	17.23	17.27	17.45	17.21	23.31	≤23.98	Pass
11ax-HE80	MCS0	138	5690	17.16	17.33	17.36	17.15	23.27	≤23.98	Pass
11ax-HE160	MCS0	114	5570	16.78	16.84	16.41	16.28	22.60	≤23.98	Pass

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

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.

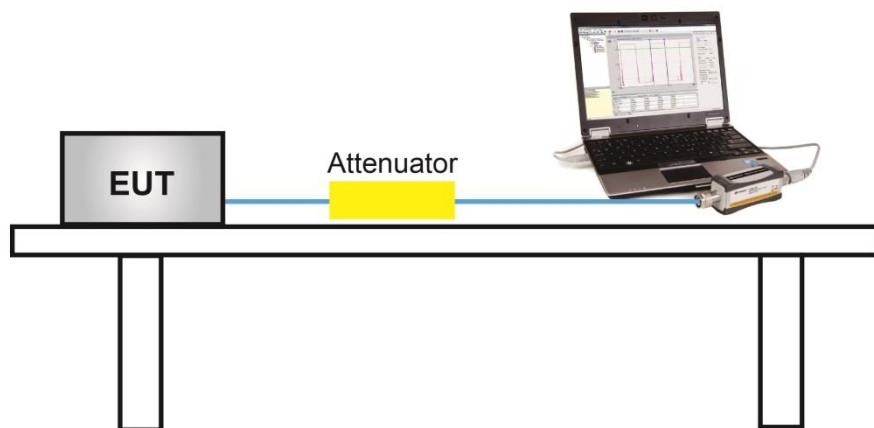
7.5.2.Test Procedure Used

KDB 789033 D02v01- 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.

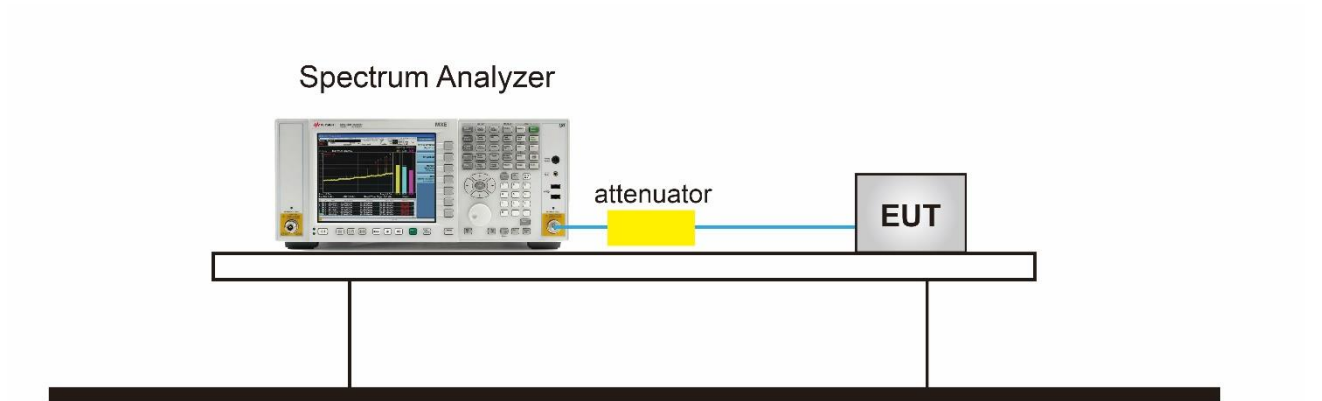
7.6.2. Test Procedure Used

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 = 100 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.
11. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 6.99$ dB to the measured result.

7.6.4.Test Setup



7.6.5.Test Result

Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	23 ~ 25°C
Test Engineer	Kevin Ker	Relative Humidity	40 ~ 56%
Test Site	SR1	Test Date	2020/04/20 ~ 2020/05/15
Mode	Power Spectral Density (U-NII- 1/2C) CDD Mode (N _{ss} =1)		

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	11.73	11.48	--	--	93.55	14.91	≤ 17.00	Pass
11a	6Mbps	44	5220	13.33	13.47	--	--	93.55	16.70	≤ 17.00	Pass
11a	6Mbps	48	5240	13.41	13.39	--	--	93.55	16.70	≤ 17.00	Pass
11a	6Mbps	100	5500	1.90	3.13	2.71	2.64	93.55	8.93	≤ 9.35	Pass
11a	6Mbps	116	5580	2.13	3.72	3.10	2.29	93.55	9.17	≤ 9.35	Pass
11a	6Mbps	140	5700	2.06	2.69	2.72	2.10	93.55	8.71	≤ 9.35	Pass
11a	6Mbps	144	5720	2.17	2.62	2.44	2.00	93.55	8.62	≤ 9.35	Pass
11ac-VHT20	MCS0	36	5180	10.08	10.37	--	--	98.06	13.24	≤ 17.00	Pass
11ac-VHT20	MCS0	44	5220	13.10	13.25	--	--	98.06	16.19	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	12.81	13.24	--	--	98.06	16.04	≤ 17.00	Pass
11ac-VHT20	MCS0	100	5500	2.91	3.14	3.05	2.68	98.06	8.97	≤ 9.35	Pass
11ac-VHT20	MCS0	116	5580	3.01	2.51	3.28	3.21	98.06	9.03	≤ 9.35	Pass
11ac-VHT20	MCS0	140	5700	2.63	3.34	3.27	1.75	98.06	8.81	≤ 9.35	Pass
11ac-VHT20	MCS0	144	5720	3.02	3.04	2.94	2.42	98.06	8.88	≤ 9.35	Pass
11ac-VHT40	MCS0	38	5190	2.95	3.45	--	--	95.75	6.41	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	9.58	9.55	--	--	95.75	12.77	≤ 17.00	Pass
11ac-VHT40	MCS0	102	5510	2.92	3.23	2.76	2.36	95.75	9.04	≤ 9.35	Pass
11ac-VHT40	MCS0	110	5550	2.59	2.82	2.72	2.51	95.75	8.87	≤ 9.35	Pass
11ac-VHT40	MCS0	134	5670	2.65	3.29	3.30	2.31	95.75	9.12	≤ 9.35	Pass
11ac-VHT40	MCS0	142	5710	2.40	2.84	2.94	2.54	95.75	8.89	≤ 9.35	Pass
11ac-VHT80	MCS0	42	5210	-0.10	-0.27	--	--	90.34	3.27	≤ 17.00	Pass
11ac-VHT80	MCS0	106	5530	-0.82	-0.53	0.11	0.11	90.34	6.20	≤ 9.35	Pass
11ac-VHT80	MCS0	122	5610	-0.17	-0.05	0.21	0.18	90.34	6.51	≤ 9.35	Pass
11ac-VHT80	MCS0	138	5690	-0.35	-0.47	0.05	0.12	90.34	6.31	≤ 9.35	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-VHT160	MCS0	114	5570	-4.67	-4.64	-5.18	-5.10	88.26	1.67	≤ 9.35	Pass
11ax-HE20	MCS0	36	5180	9.68	9.82	--	--	97.50	12.87	≤ 17.00	Pass
11ax-HE20	MCS0	44	5220	12.50	12.68	--	--	97.50	15.71	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	12.46	12.28	--	--	97.50	15.49	≤ 17.00	Pass
11ax-HE20	MCS0	100	5500	2.82	3.50	3.10	2.20	97.50	9.06	≤ 9.35	Pass
11ax-HE20	MCS0	116	5580	3.34	2.85	3.37	3.14	97.50	9.31	≤ 9.35	Pass
11ax-HE20	MCS0	140	5700	2.96	3.29	3.07	2.30	97.50	9.05	≤ 9.35	Pass
11ax-HE20	MCS0	144	5720	2.42	2.75	2.65	2.21	97.50	8.64	≤ 9.35	Pass
11ax-HE40	MCS0	38	5190	1.87	1.44	--	--	96.08	4.84	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	9.61	9.58	--	--	96.08	12.78	≤ 17.00	Pass
11ax-HE40	MCS0	102	5510	2.71	2.53	3.10	1.48	96.08	8.69	≤ 9.35	Pass
11ax-HE40	MCS0	110	5550	3.04	3.15	3.17	3.10	96.08	9.31	≤ 9.35	Pass
11ax-HE40	MCS0	134	5670	2.41	2.86	2.97	2.57	96.08	8.90	≤ 9.35	Pass
11ax-HE40	MCS0	142	5710	2.37	2.86	3.21	2.52	96.08	8.95	≤ 9.35	Pass
11ax-HE80	MCS0	42	5210	-1.27	-1.86	--	--	91.49	1.84	≤ 17.00	Pass
11ax-HE80	MCS0	106	5530	0.20	0.04	0.77	0.74	91.49	6.85	≤ 9.35	Pass
11ax-HE80	MCS0	122	5610	-0.48	-0.17	-0.20	-0.19	91.49	6.15	≤ 9.35	Pass
11ax-HE80	MCS0	122	5690	-0.28	-0.40	-0.39	-0.55	91.49	6.00	≤ 9.35	Pass
11ax-HE160	MCS0	114	5570	-3.88	-3.60	-3.20	-4.24	87.80	2.87	≤ 9.35	Pass

Note 1: When EUT duty cycle ≥ 98%,

For 5150 - 5250MHz Band, the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/MHz).

For 5470 - 5725MHz Band, 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%,

For 5150 - 5250MHz Band, the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

For 5470 - 5725MHz Band, 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) = 17dBm/MHz.

For 5470 - 5725MHz Band: PSD Limit (dBm/MHz) = 11 - (7.65 - 6) = 9.35dBm/MHz.

Product	AX6600 Tri-Band Wi-Fi 6 Gaming Router	Temperature	24°C
Test Engineer	Kevin Ker	Relative Humidity	58%
Test Site	SR2	Test Date	2020/04/20 ~ 2020/05/14
Test Item	Power Spectral Density (U-NII-3) CDD Mode (N _{ss} =1)		

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 (%)	Constant Factor (dB)	Total PSD(dBm/500kHz)	Limit (dBm/500kHz)	Result
11a	6Mbps	149	5745	3.95	4.21	4.43	3.88	93.55	6.99	17.42	≤ 28.65	Pass
11a	6Mbps	157	5785	3.74	4.03	4.17	3.64	93.55	6.99	17.20	≤ 28.65	Pass
11a	6Mbps	165	5825	4.21	4.42	4.35	3.60	93.55	6.99	17.45	≤ 28.65	Pass
11ac-VHT20	MCS0	149	5745	3.62	3.83	3.81	3.44	98.06	6.99	16.69	≤ 28.65	Pass
11ac-VHT20	MCS0	157	5785	3.51	3.86	4.23	3.90	98.06	6.99	16.89	≤ 28.65	Pass
11ac-VHT20	MCS0	165	5825	3.94	4.26	4.57	3.79	98.06	6.99	17.16	≤ 28.65	Pass
11ac-VHT40	MCS0	151	5755	0.26	1.26	1.03	1.51	95.75	6.99	14.23	≤ 28.65	Pass
11ac-VHT40	MCS0	159	5795	0.47	0.81	1.10	0.48	95.75	6.99	13.92	≤ 28.65	Pass
11ac-VHT80	MCS0	155	5775	-3.00	-2.62	-2.60	-3.21	90.34	6.99	10.60	≤ 28.65	Pass
11ax-HE20	MCS0	149	5745	3.49	3.64	3.92	3.71	97.50	6.99	16.81	≤ 28.65	Pass
11ax-HE20	MCS0	157	5785	2.91	2.51	3.05	1.98	97.50	6.99	15.75	≤ 28.65	Pass
11ax-HE20	MCS0	165	5825	2.99	3.35	3.29	2.79	97.50	6.99	16.23	≤ 28.65	Pass
11ax-HE40	MCS0	151	5755	0.59	0.79	0.92	0.44	96.08	6.99	13.87	≤ 28.65	Pass
11ax-HE40	MCS0	159	5795	0.28	0.28	0.47	-0.06	96.08	6.99	13.43	≤ 28.65	Pass
11ax-HE80	MCS0	155	5775	-4.96	-4.34	-4.47	-4.98	91.49	6.99	8.72	≤ 28.65	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/500kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/100kHz) + Constant Factor (dB).

When EUT duty cycle < 98%, the total PSD (dBm/500kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/100kHz) + Constant Factor (dB) + $10 \cdot \log (1/\text{Duty Cycle})$.

Note 2: PSD Limit (dBm/500kHz) = 30 - (7.35 - 6) = 28.65dBm/500kHz.

802.11a Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 36 (5180MHz)



Channel 44 (5220MHz)

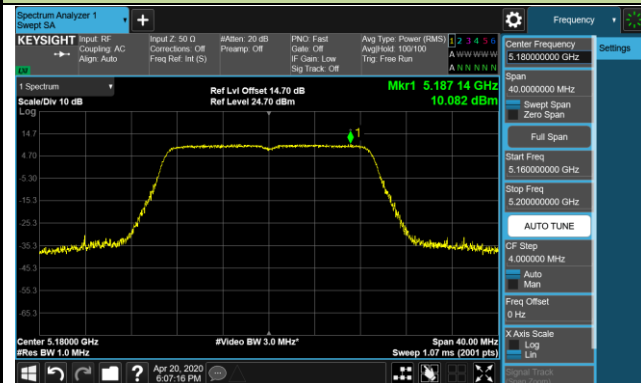


Channel 48 (5240MHz)

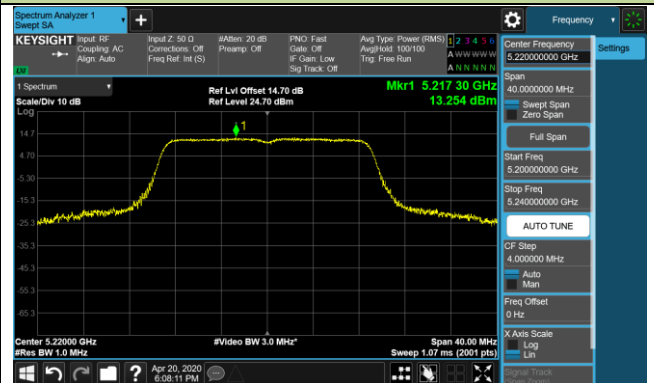


802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 + 1

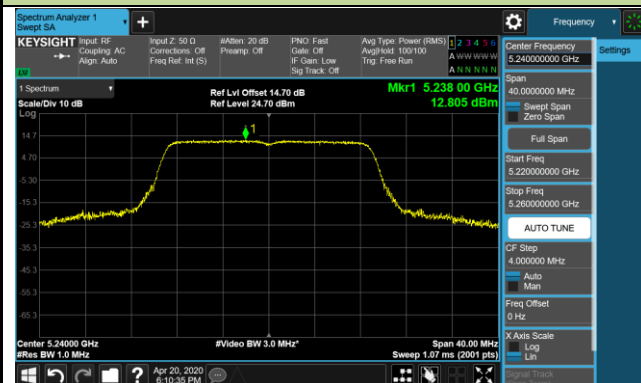
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

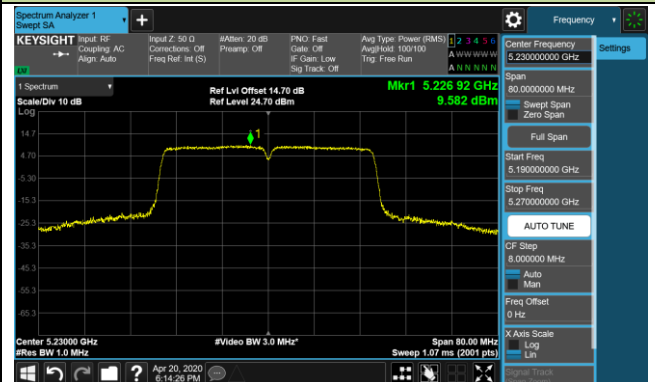


802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 38 (5190MHz)

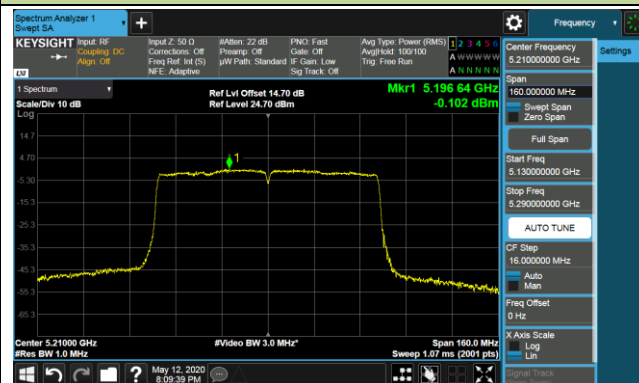


Channel 46 (5230MHz)



802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 42 (5210MHz)

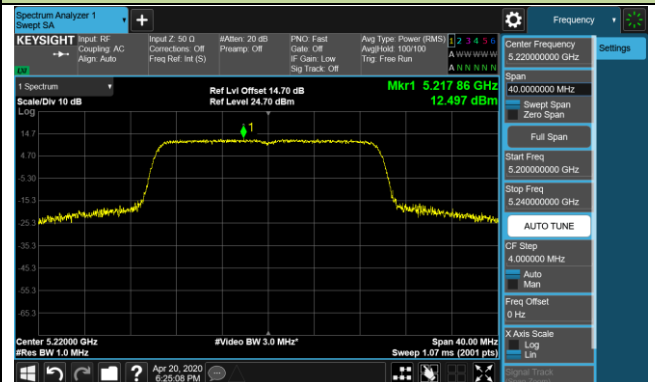


802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 36 (5180MHz)



Channel 44 (5220MHz)

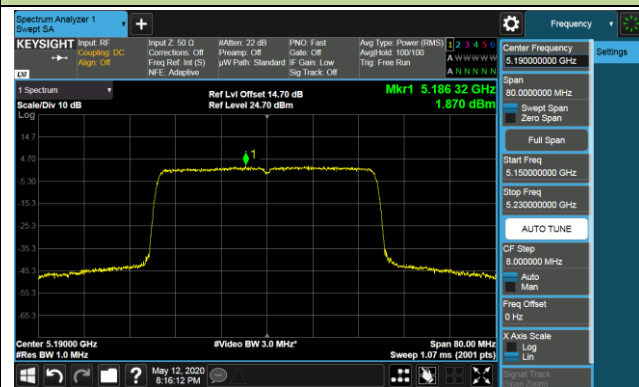


Channel 48 (5240MHz)

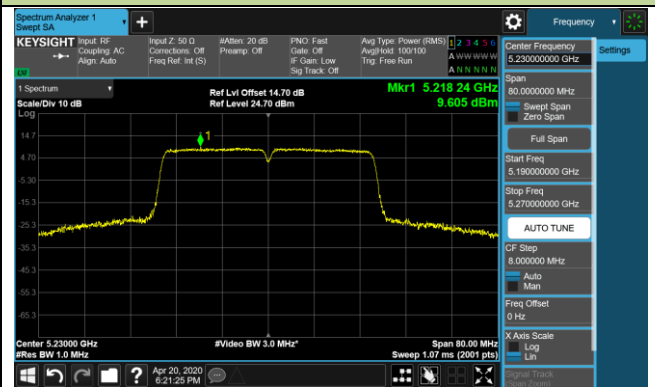


802.11ax-HE40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 38 (5190MHz)



Channel 46 (5230MHz)



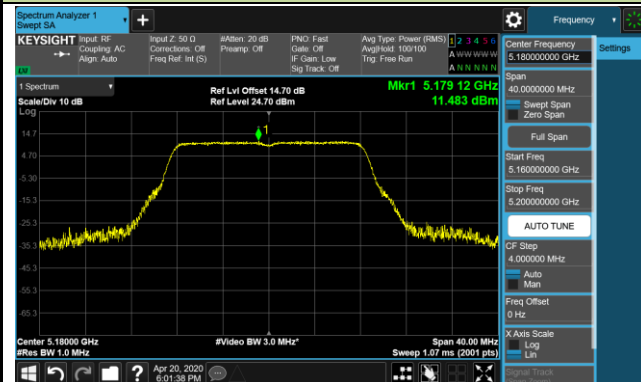
802.11ax-HE80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 42 (5210MHz)

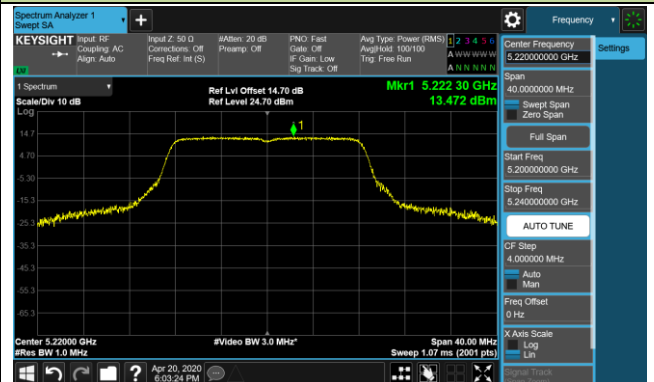


802.11a Power Spectral Density - Ant 1 / Ant 0 + 1

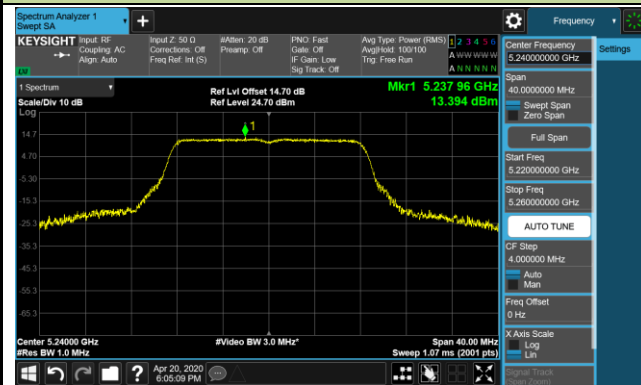
Channel 36 (5180MHz)



Channel 44 (5220MHz)

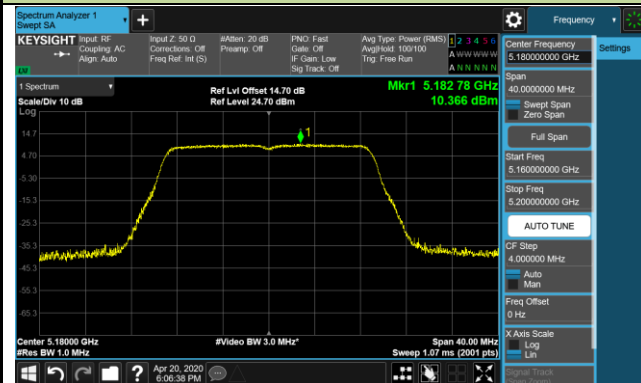


Channel 48 (5240MHz)

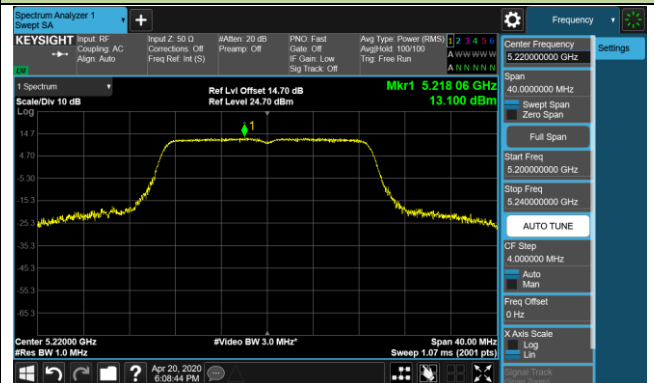


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

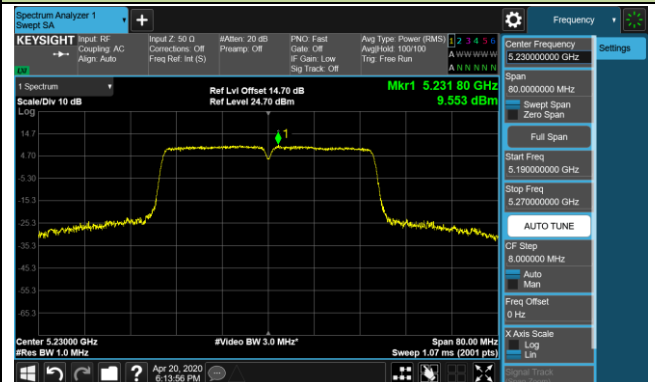


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)

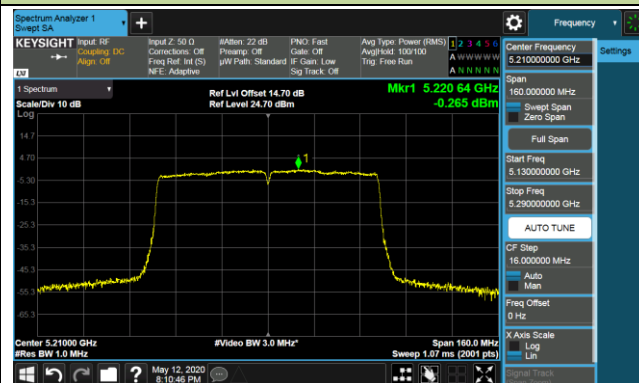


Channel 46 (5230MHz)



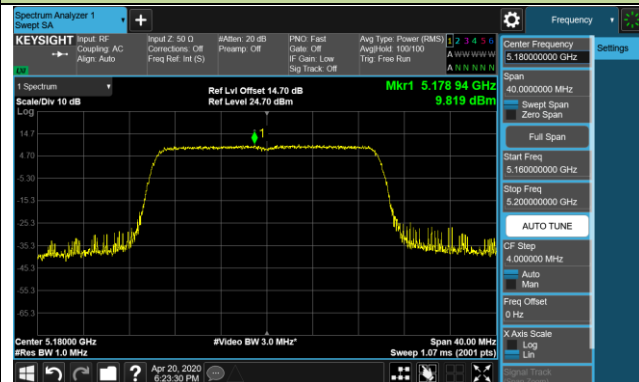
802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

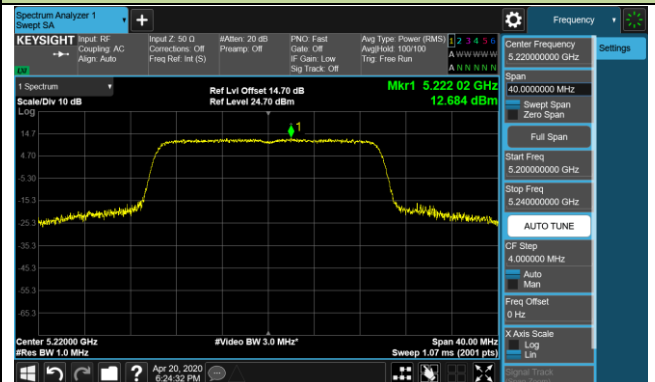


802.11ax-HE20 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 36 (5180MHz)



Channel 44 (5220MHz)

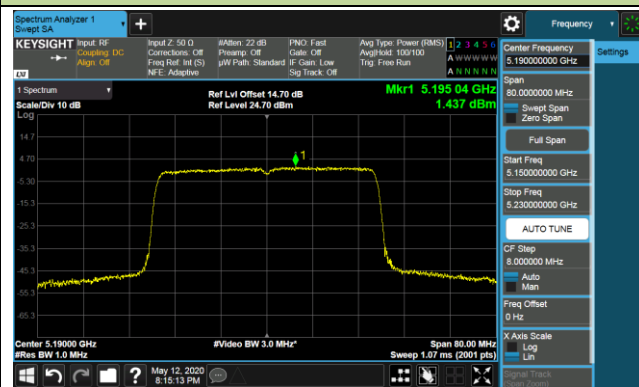


Channel 48 (5240MHz)

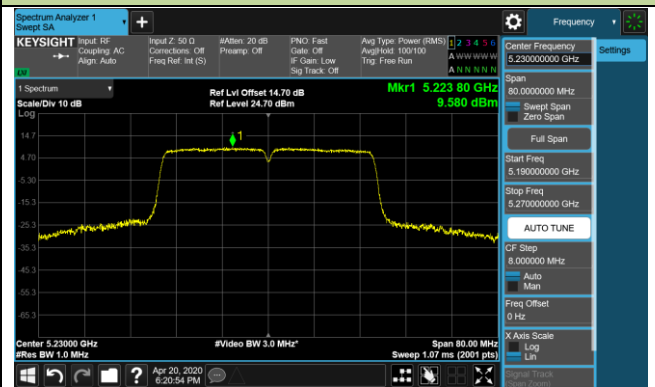


802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)



Channel 46 (5230MHz)



802.11ax-HE80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

