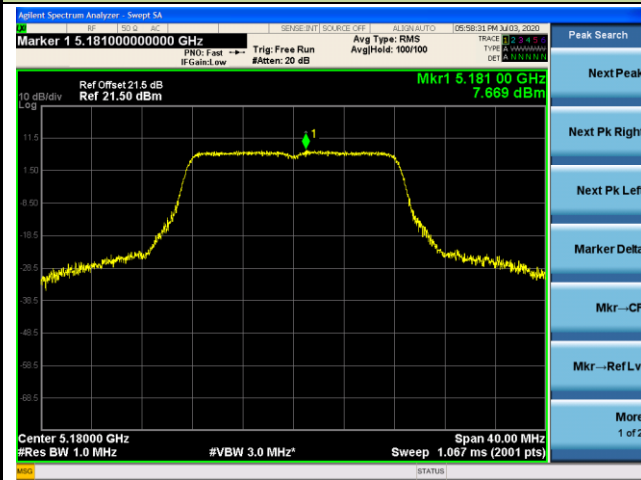
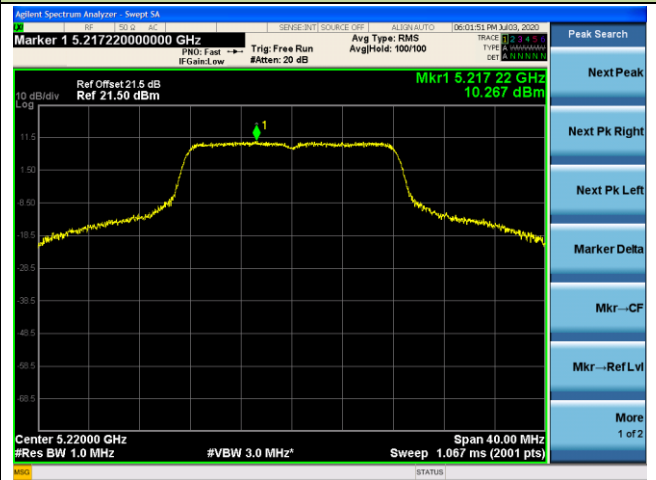


802.11a Power Spectral Density - Ant 1 / Ant 0 + 1

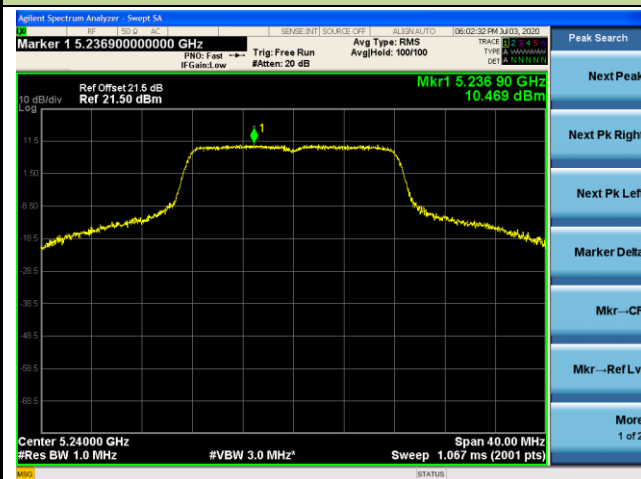
Channel 36 (5180MHz)



Channel 44 (5220MHz)

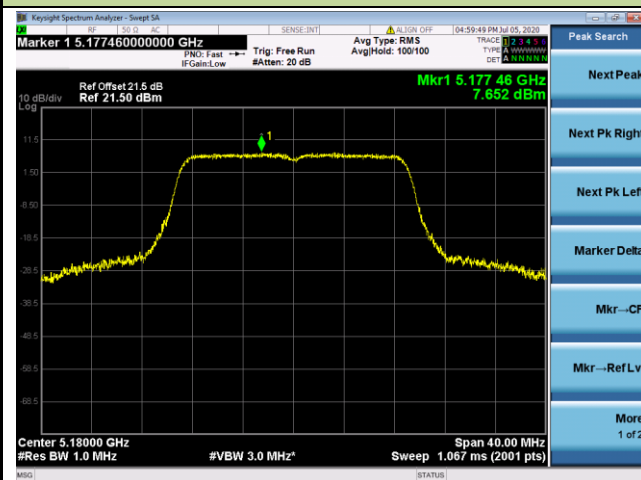


Channel 48 (5240MHz)

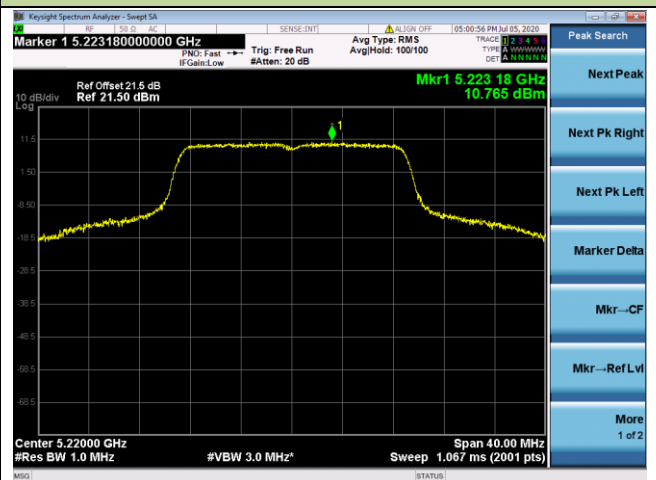


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 + 1

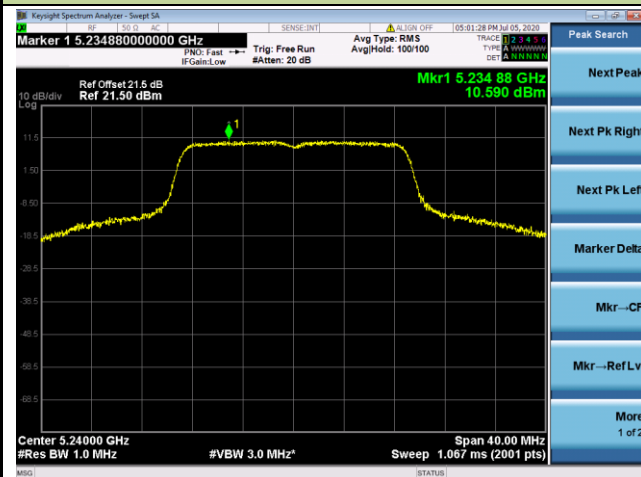
Channel 36 (5180MHz)



Channel 44 (5220MHz)

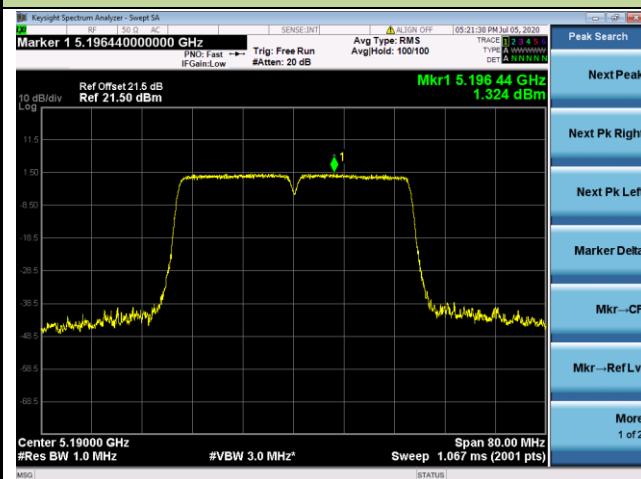


Channel 48 (5240MHz)

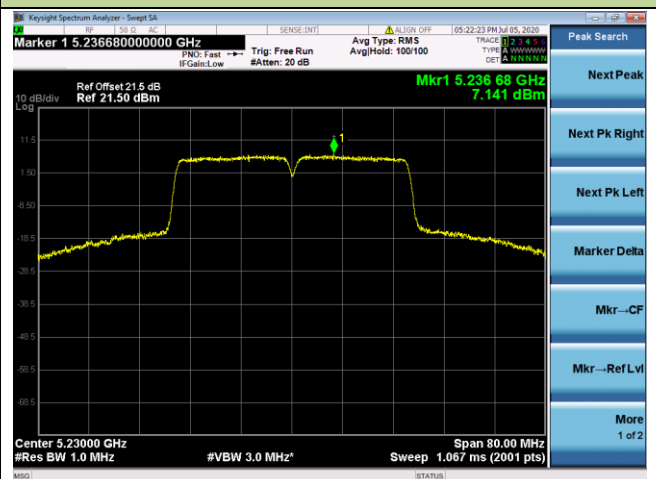


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)

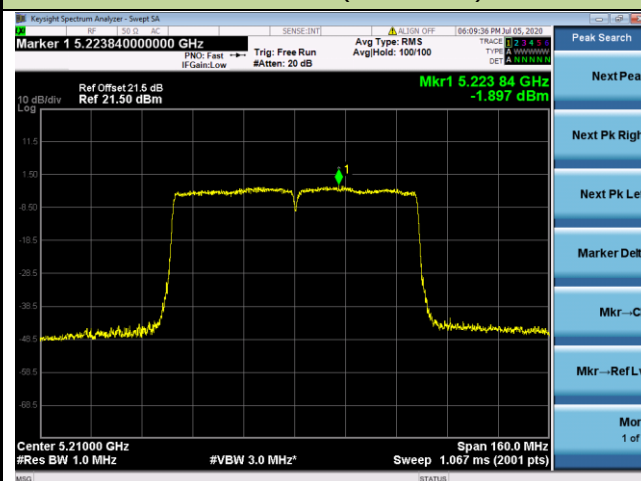


Channel 46 (5230MHz)



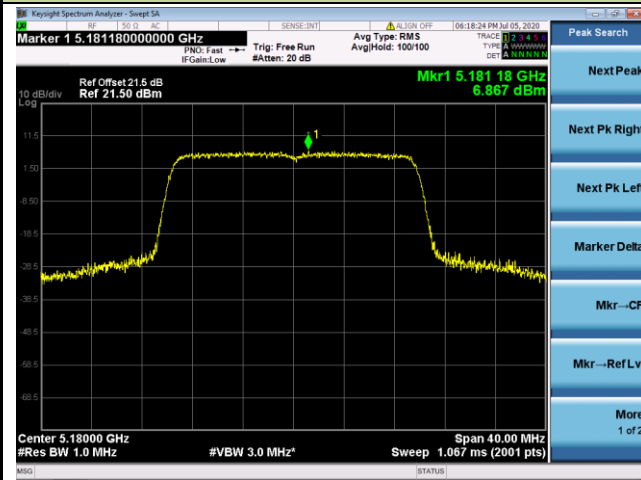
802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

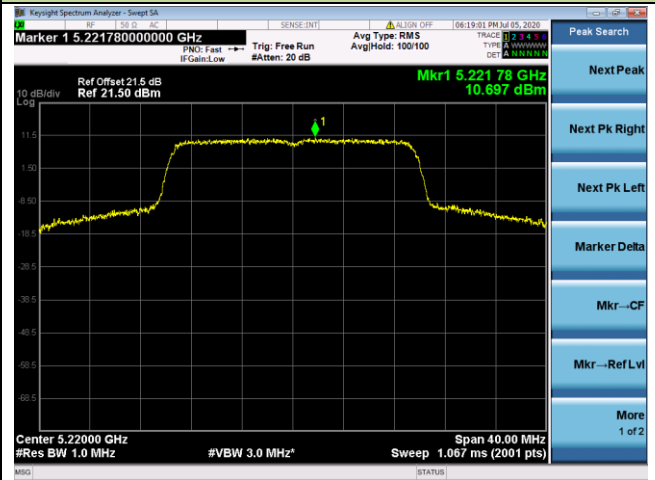


802.11ax-HE20 Power Spectral Density - Ant 1 / Ant 0 + 1

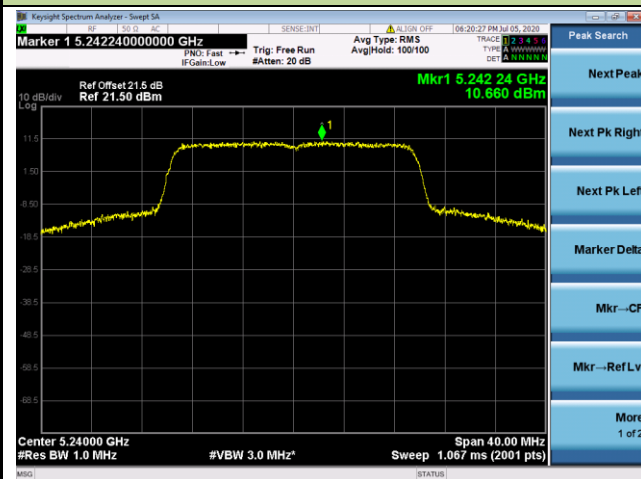
Channel 36 (5180MHz)



Channel 44 (5220MHz)

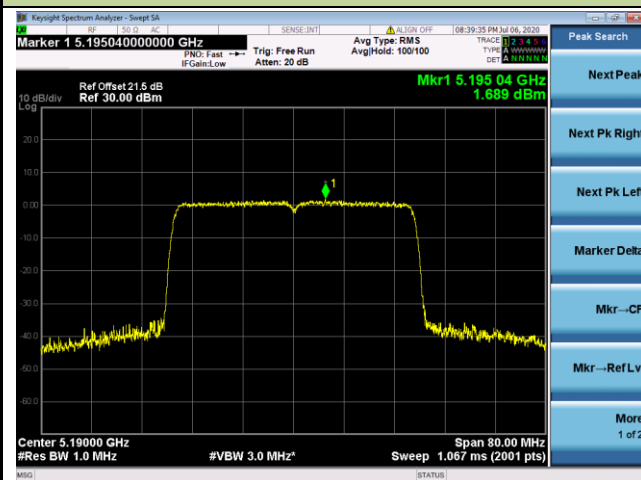


Channel 48 (5240MHz)

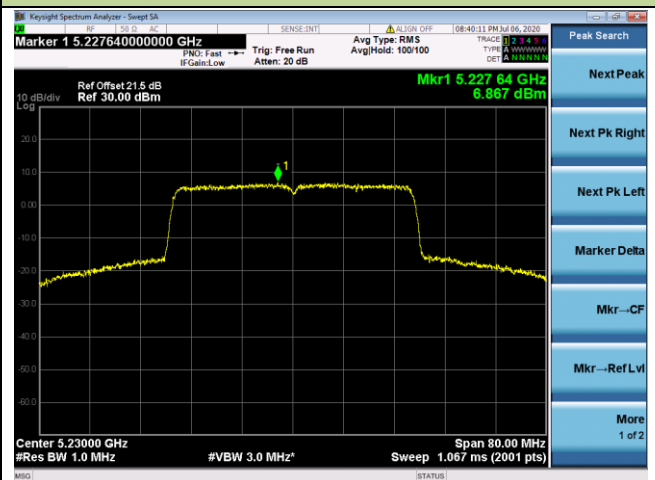


802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)

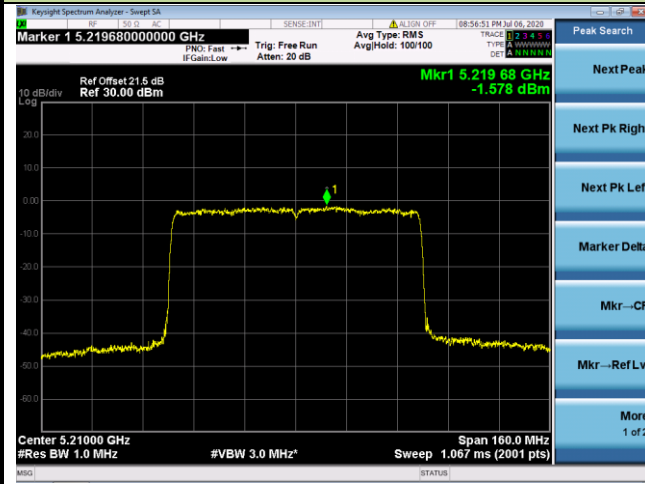


Channel 46 (5230MHz)



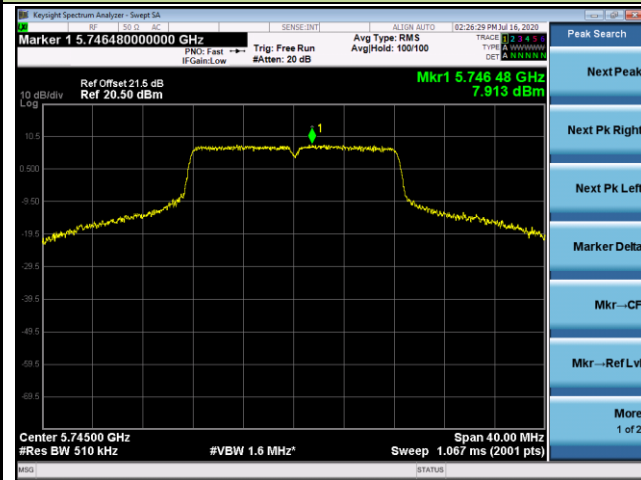
802.11ax-HE80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

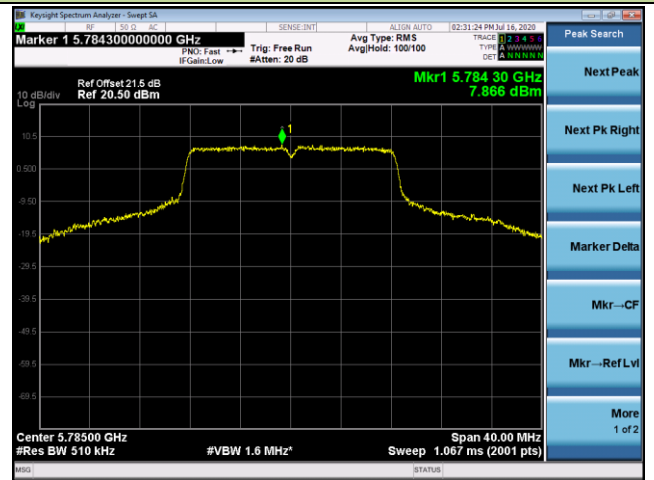


802.11a Power Spectral Density - Ant 0 / Ant 0 + 1

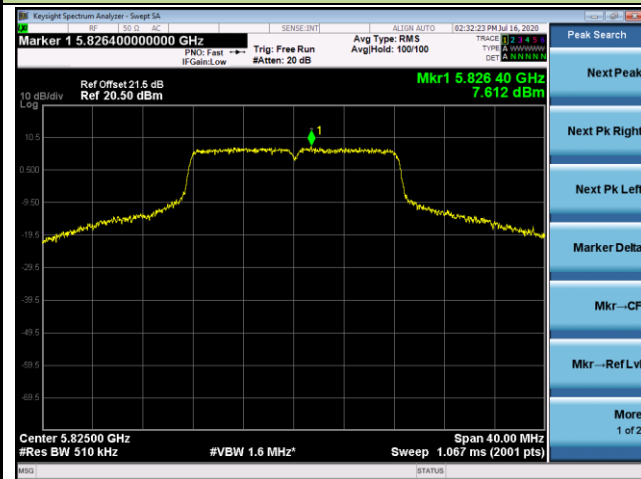
Channel 149 (5745MHz)



Channel 157 (5785MHz)

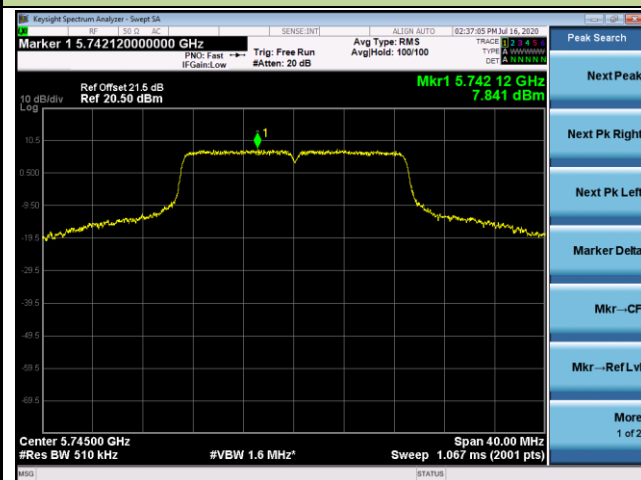


Channel 165 (5825MHz)

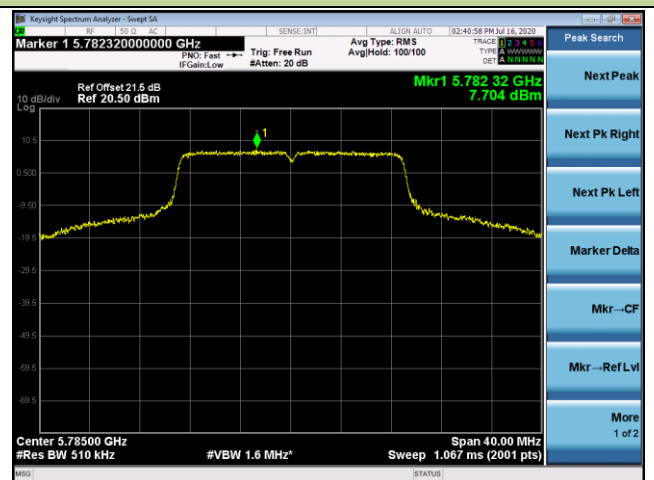


802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 + 1

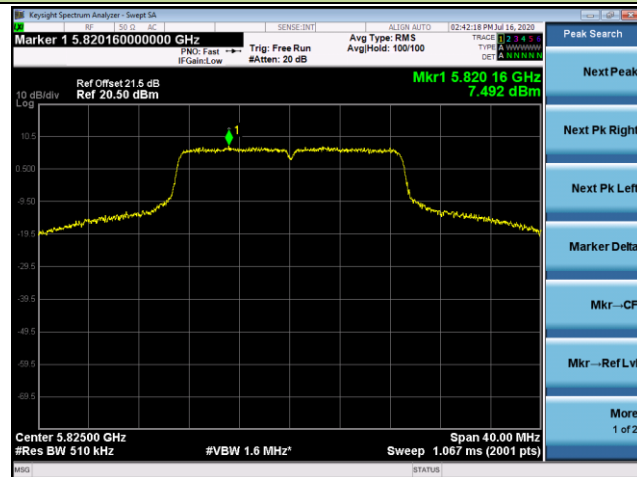
Channel 149 (5745MHz)



Channel 157 (5785MHz)

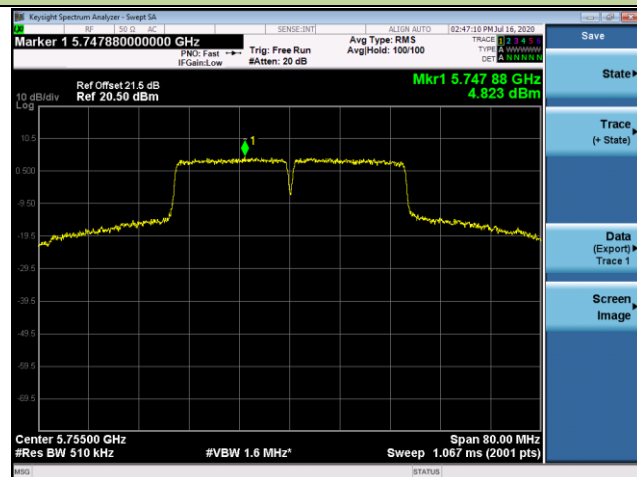


Channel 165 (5825MHz)

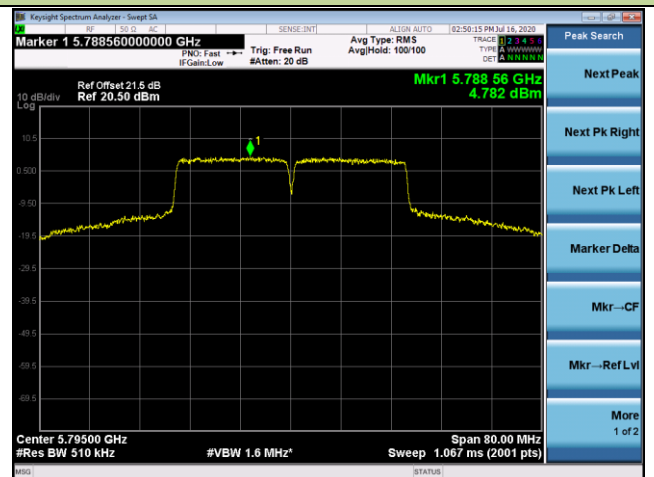


802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)

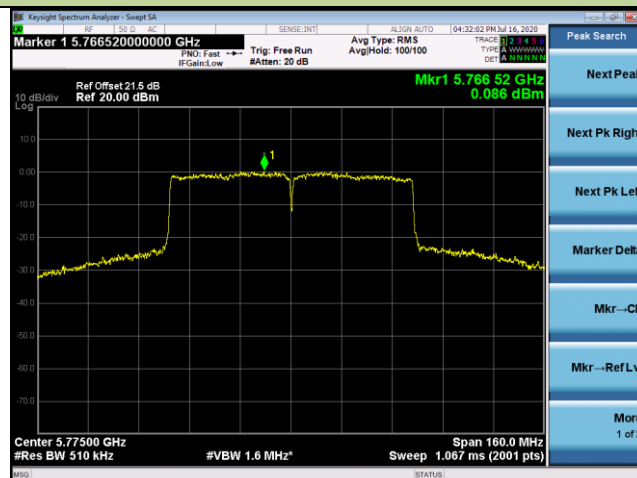


Channel 159 (5795MHz)



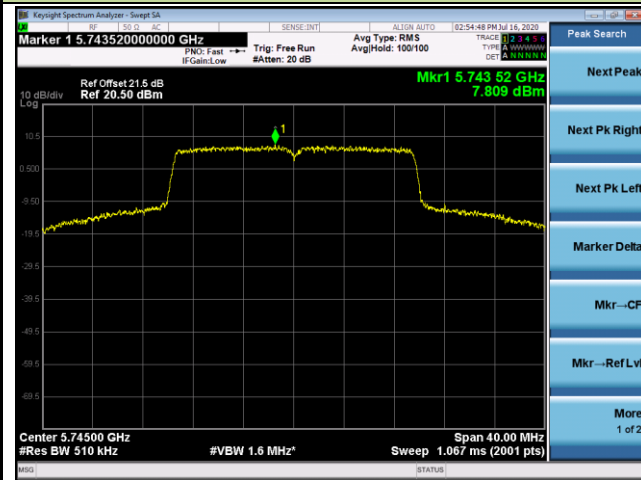
802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 155 (5775MHz)

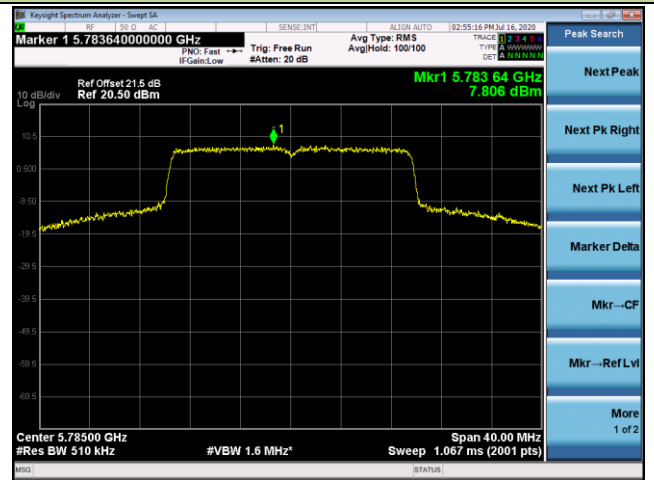


802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1

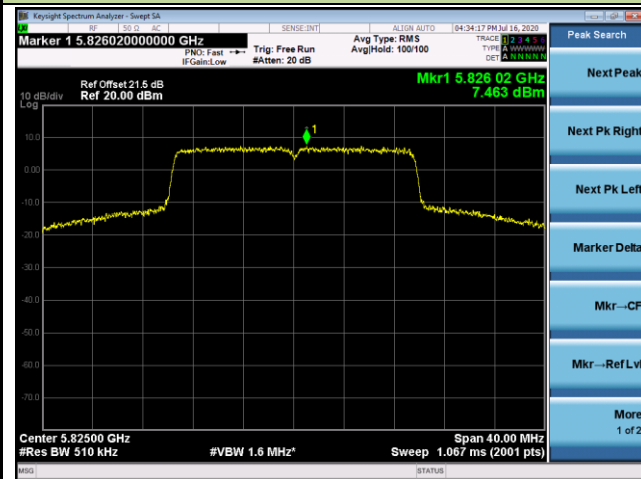
Channel 149 (5745MHz)



Channel 157 (5785MHz)

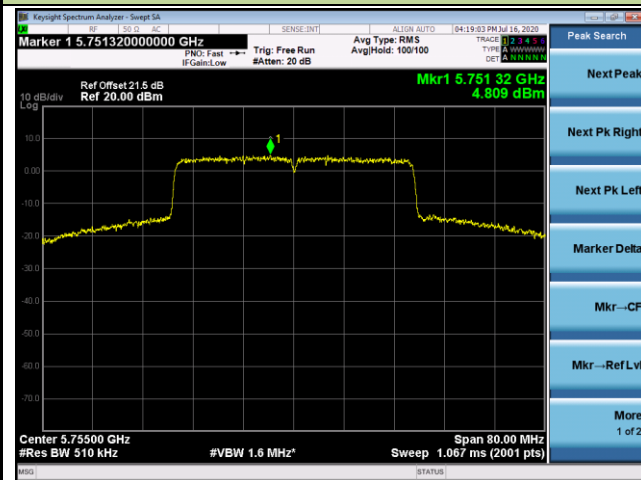


Channel 165 (5825MHz)

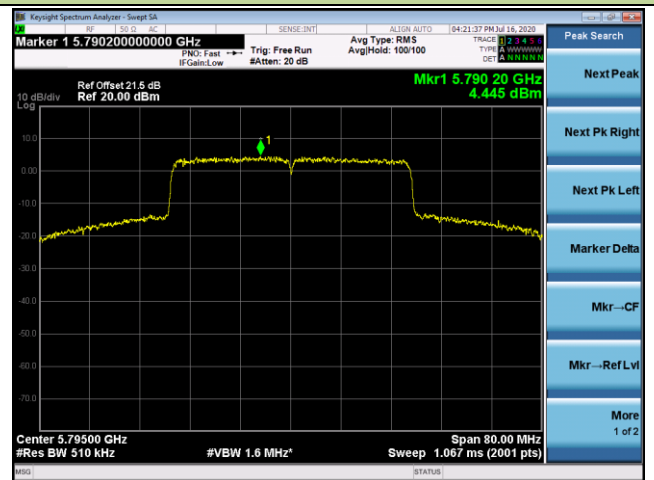


802.11ax-HE40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)

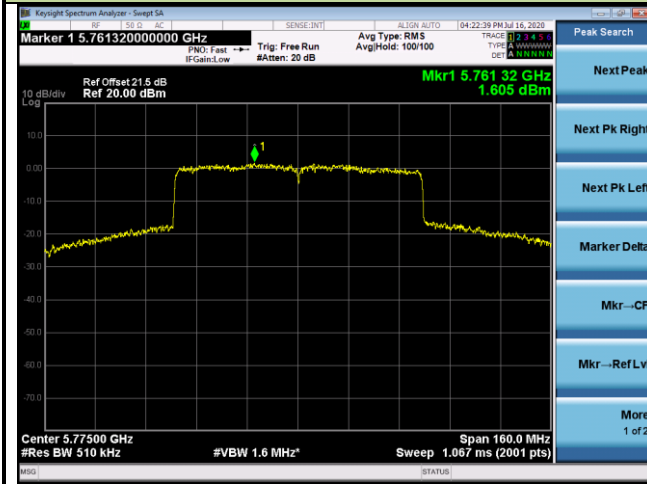


Channel 159 (5795MHz)



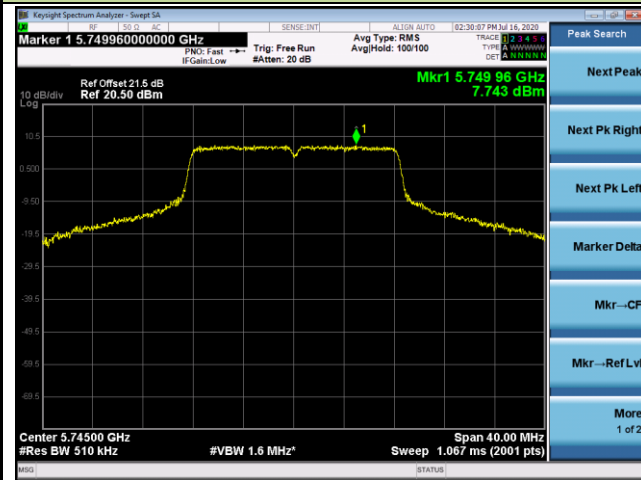
802.11ax-HE80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 155 (5775MHz)

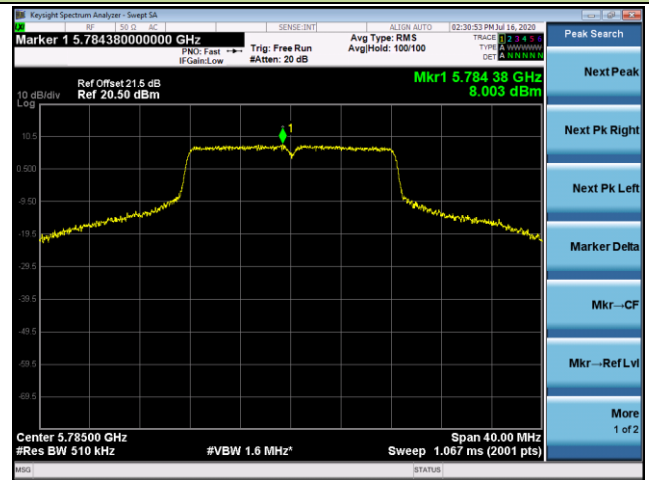


802.11a Power Spectral Density - Ant 1 / Ant 0 + 1

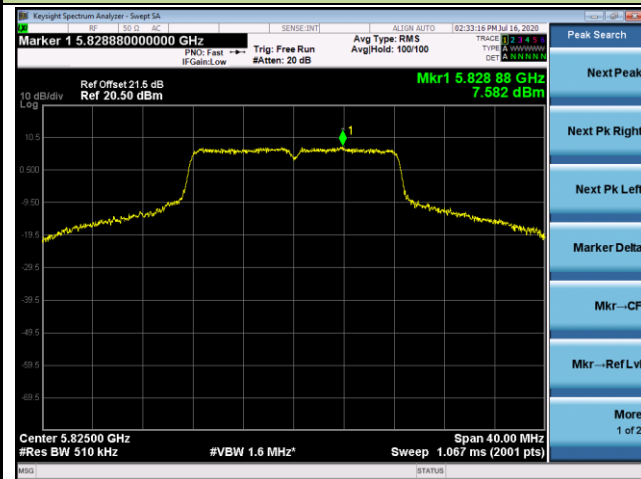
Channel 149 (5745MHz)



Channel 157 (5785MHz)

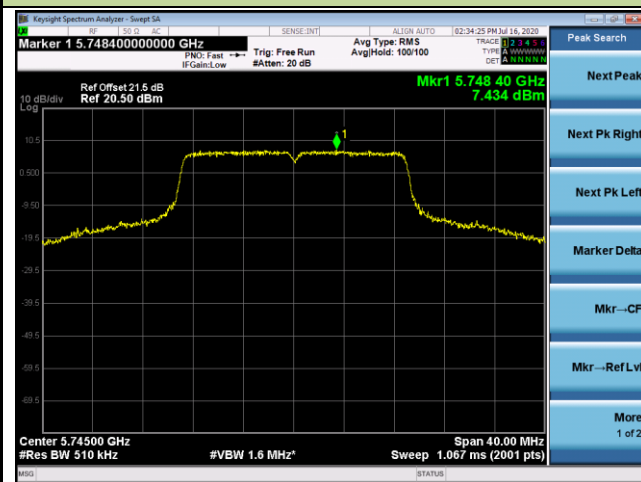


Channel 165 (5825MHz)

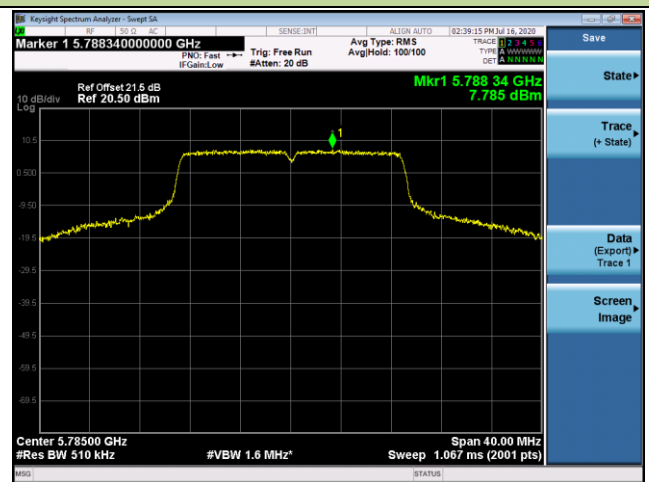


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 + 1

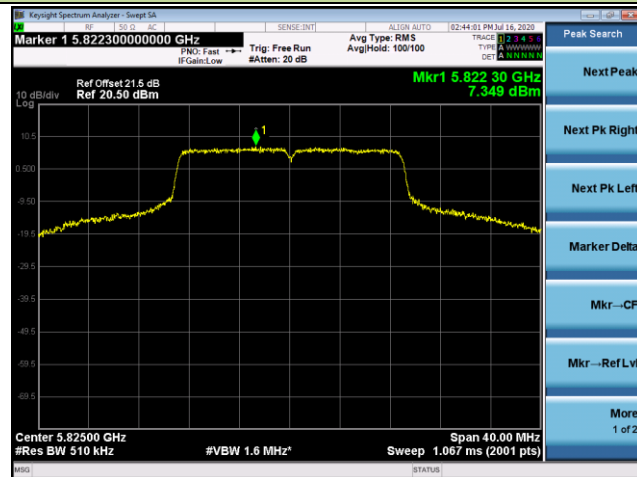
Channel 149 (5745MHz)



Channel 157 (5785MHz)

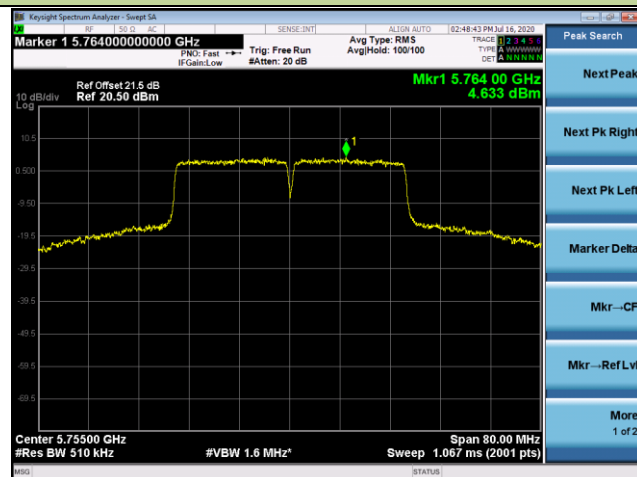


Channel 165 (5825MHz)

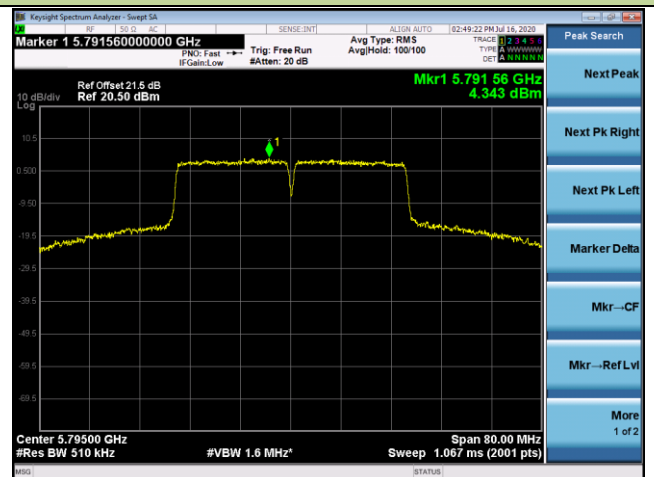


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 151 (5755MHz)

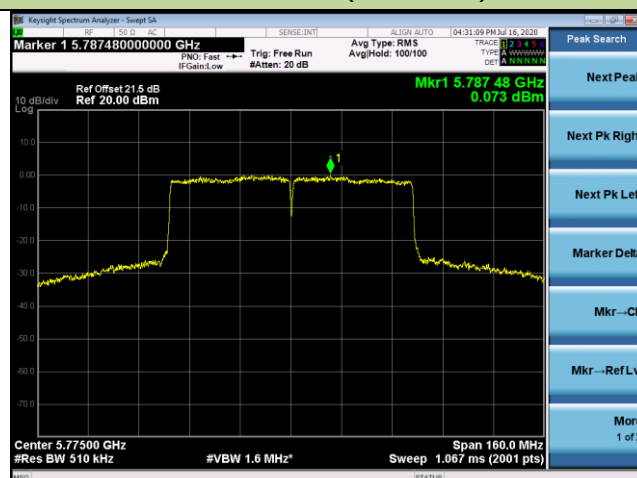


Channel 159 (5795MHz)



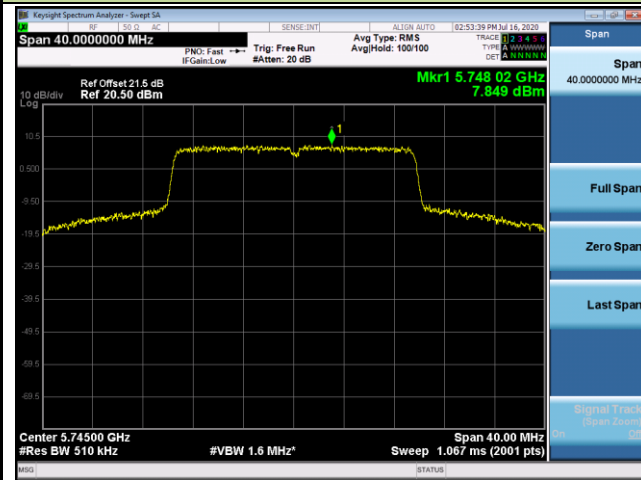
802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 155 (5775MHz)

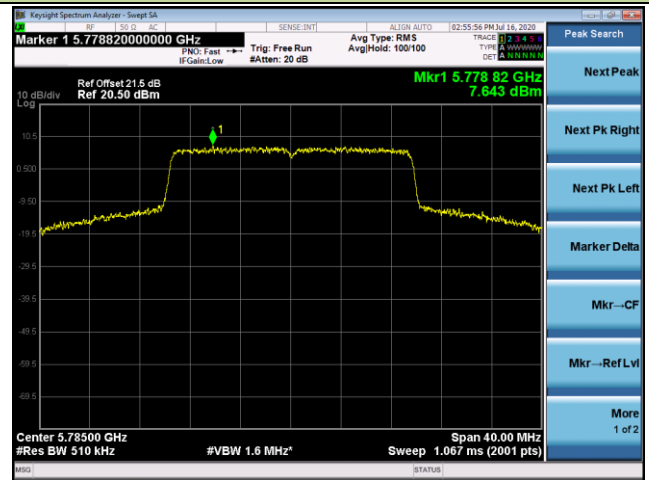


802.11ax-HE20 Power Spectral Density - Ant 1 / Ant 0 + 1

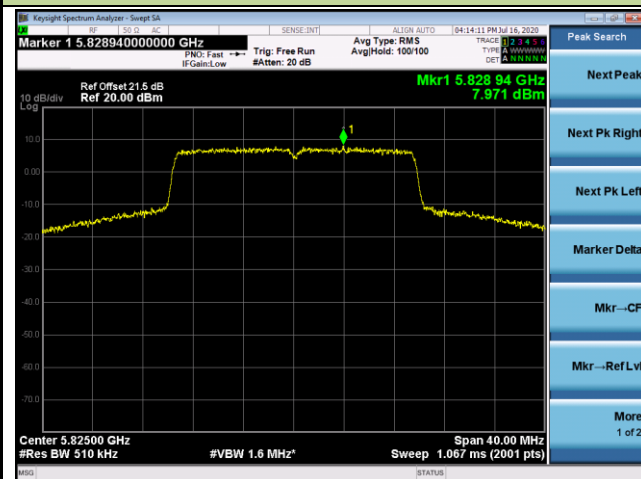
Channel 149 (5745MHz)



Channel 157 (5785MHz)

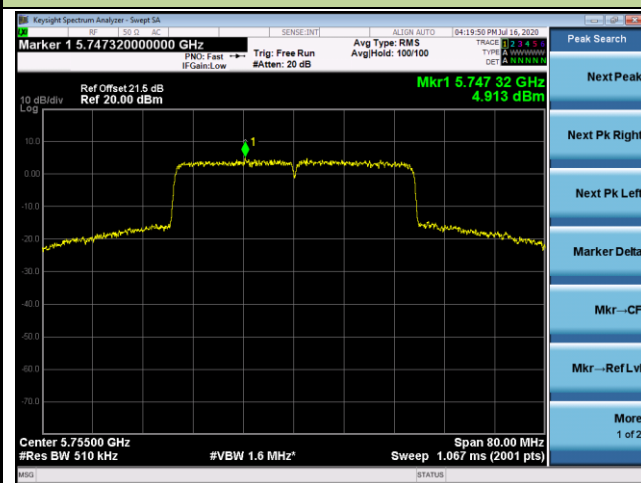


Channel 165 (5825MHz)

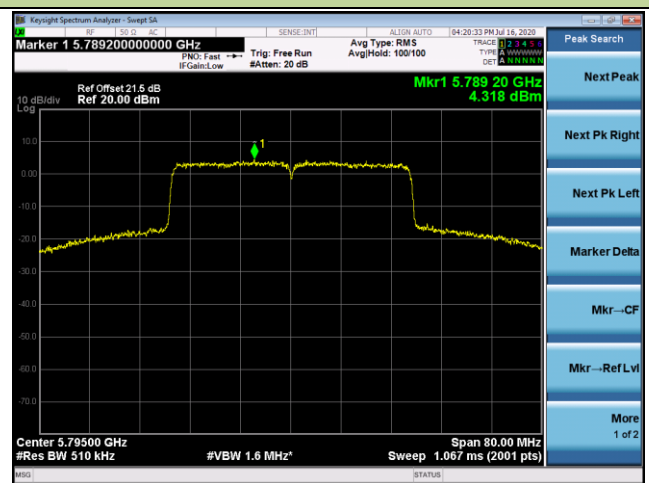


802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 151 (5755MHz)

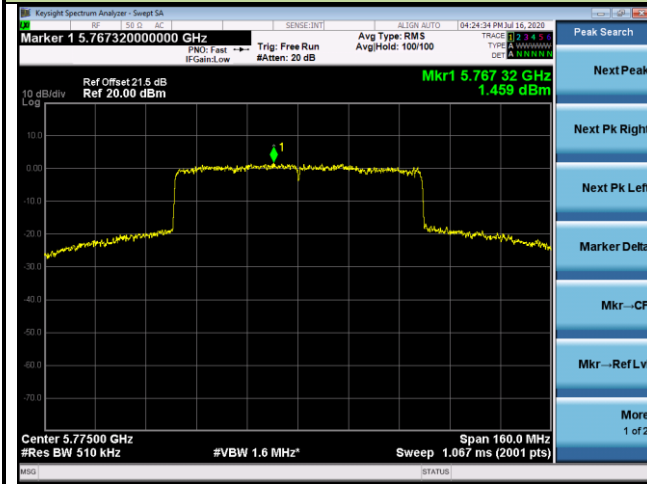


Channel 159 (5795MHz)



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

Channel 155 (5775MHz)



Product	AX1800 Wi-Fi 6 Range Extender	Temperature	23 ~ 26°C
Test Engineer	Kevin Ker	Relative Humidity	40 ~ 60%
Test Site	SR1	Test Date	2020/07/03 ~ 2020/08/06
Mode	Power Spectral Density (U-NII- 1) Beamforming Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT20	MCS0	36	5180	2.32	1.92	97.86	5.23	≤ 17.00	Pass
11ac-VHT20	MCS0	44	5220	10.27	10.77	97.86	13.63	≤ 17.00	Pass
11ac-VHT20	MCS0	48	5240	10.36	10.59	97.86	13.58	≤ 17.00	Pass
11ac-VHT40	MCS0	38	5190	-2.93	-3.09	95.59	0.20	≤ 17.00	Pass
11ac-VHT40	MCS0	46	5230	7.52	7.14	95.59	10.54	≤ 17.00	Pass
11ac-VHT80	MCS0	42	5210	-5.14	-5.52	93.87	-2.04	≤ 17.00	Pass
11ax-HE20	MCS0	36	5180	3.09	3.09	98.02	6.10	≤ 17.00	Pass
11ax-HE20	MCS0	44	5220	10.61	10.70	98.02	13.67	≤ 17.00	Pass
11ax-HE20	MCS0	48	5240	10.37	10.66	98.02	13.53	≤ 17.00	Pass
11ax-HE40	MCS0	38	5190	-2.04	-1.98	95.98	1.18	≤ 17.00	Pass
11ax-HE40	MCS0	46	5230	7.29	6.87	95.98	10.27	≤ 17.00	Pass
11ax-HE80	MCS0	42	5210	-5.99	-5.51	92.58	-2.40	≤ 17.00	Pass

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

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

Product	AX1800 Wi-Fi 6 Range Extender	Temperature	24~27°C
Test Engineer	Kevin Ker	Relative Humidity	58~60%
Test Site	SR2	Test Date	2020/07/16 ~ 2020/08/06
Test Item	Power Spectral Density (U-NII-3) Beamforming Mode		

Test Mode	Data Rate/MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/500kHz)	Ant 1 PSD (dBm/500kHz)	Duty Cycle (%)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
11ac-VHT20	MCS0	149	5745	5.97	6.10	97.86	9.14	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	1.57	1.85	97.86	10.85	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	5.59	6.07	97.86	8.94	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	2.33	2.01	95.59	5.38	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	1.41	1.54	95.59	4.68	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	-4.13	-5.01	93.87	-1.27	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	6.52	6.44	98.02	9.49	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	7.81	7.64	98.02	10.74	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	5.96	5.91	98.02	8.95	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	2.12	2.23	95.98	5.36	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	2.22	2.19	95.98	5.39	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	-4.69	-5.41	92.58	-1.69	≤ 30.00	Pass

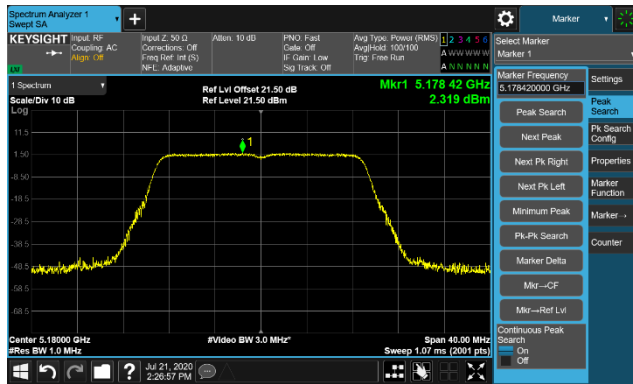
Note: When EUT duty cycle ≥ 98%,

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/500kHz) + Constant Factor (dB).

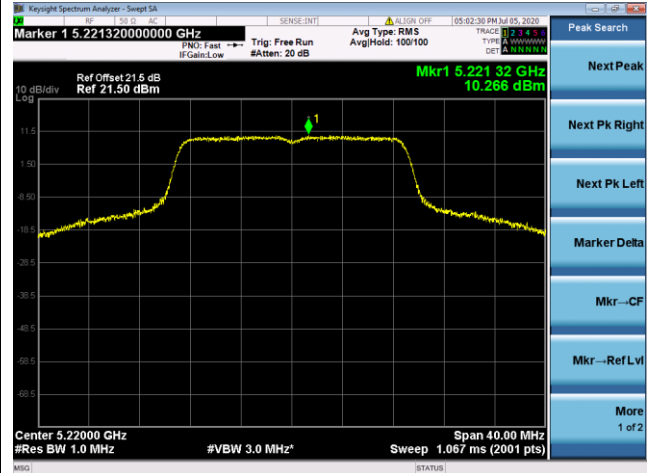
When EUT duty cycle < 98%, the total PSD (dBm/500kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/500kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

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

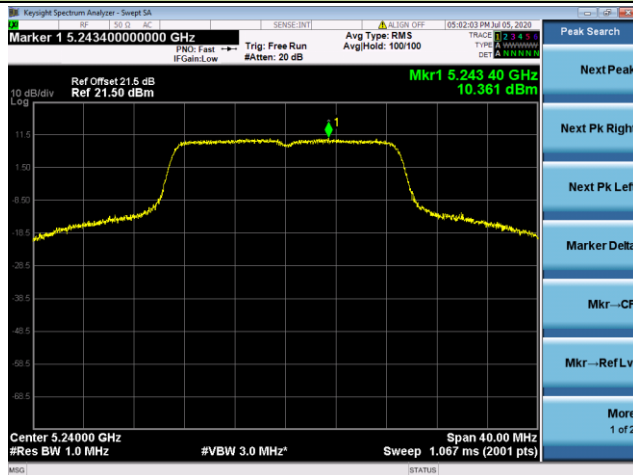
Channel 36 (5180MHz)



Channel 44 (5220MHz)

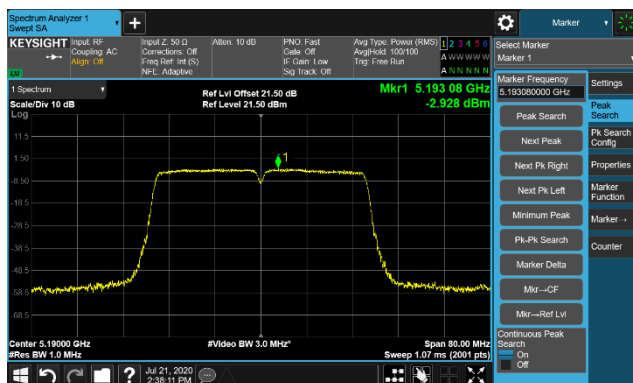


Channel 48 (5240MHz)

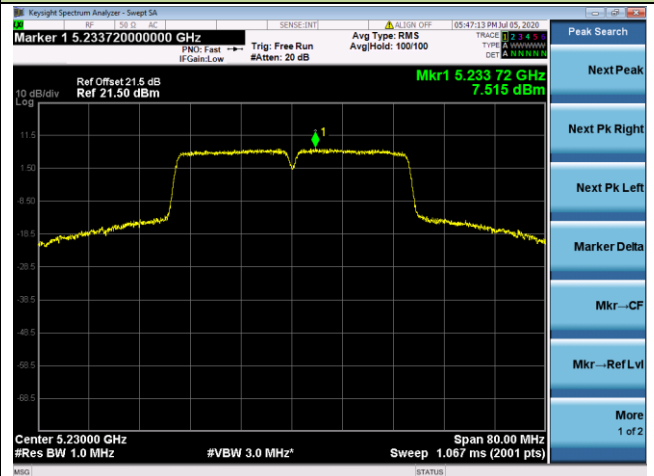


802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 38 (5190MHz)

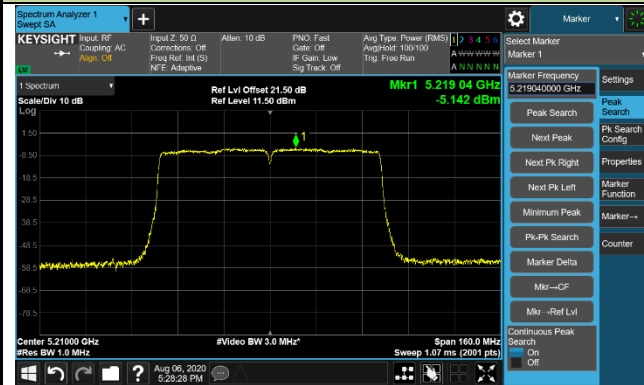


Channel 46 (5230MHz)



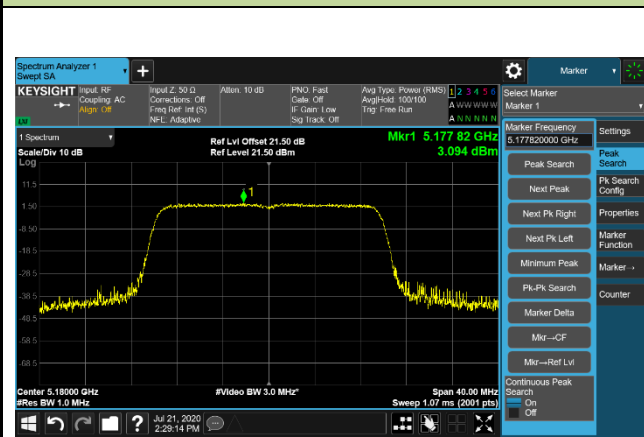
802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 42 (5210MHz)

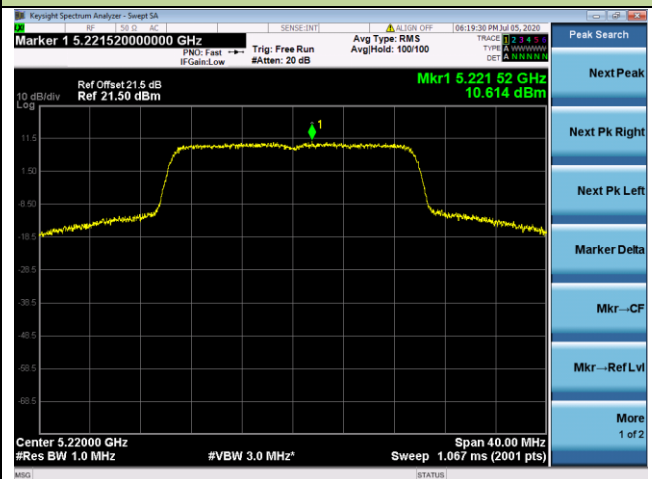


802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1

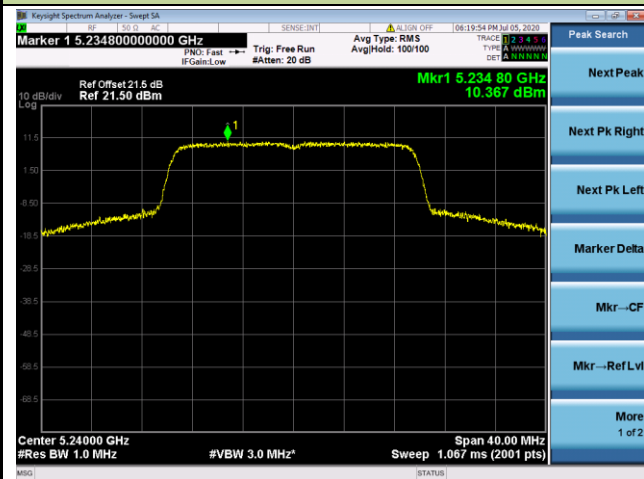
Channel 36 (5180MHz)



Channel 44 (5220MHz)

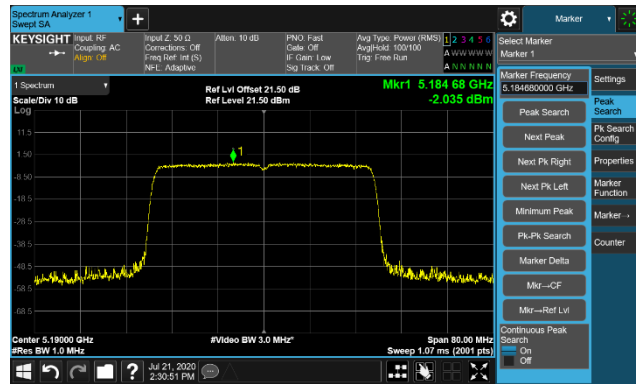


Channel 48 (5240MHz)

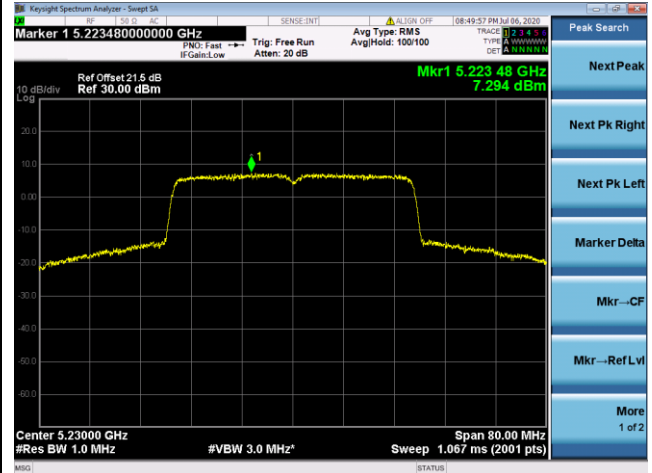


802.11ax-HE40 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 38 (5190MHz)

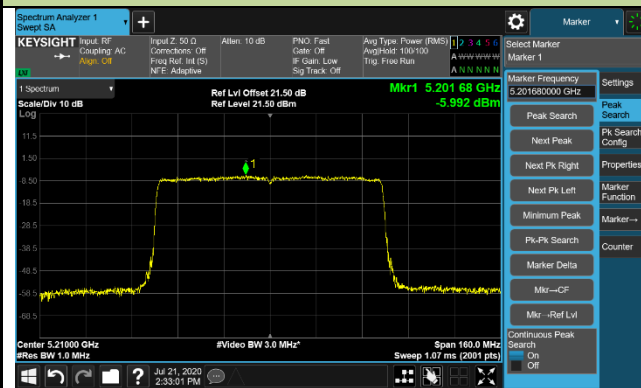


Channel 46 (5230MHz)



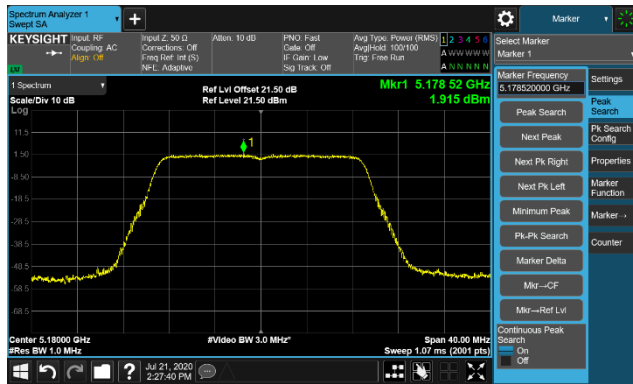
802.11ax-HE80 Power Spectral Density - Ant 0 / Ant 0 + 1

Channel 42 (5210MHz)

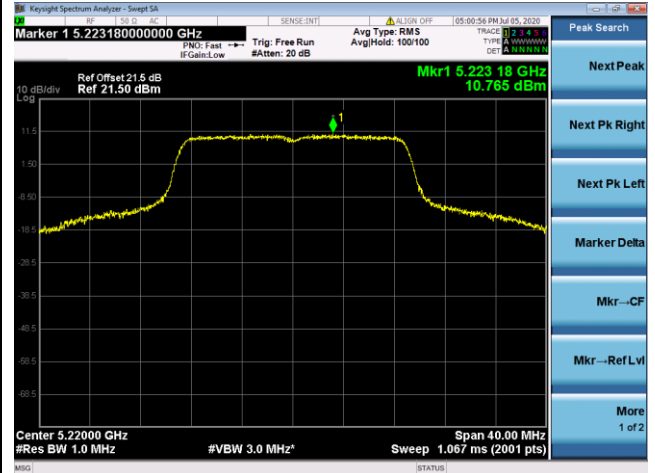


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 + 1

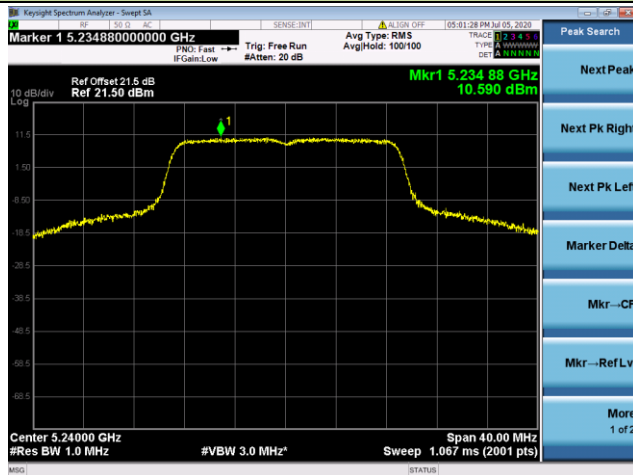
Channel 36 (5180MHz)



Channel 44 (5220MHz)

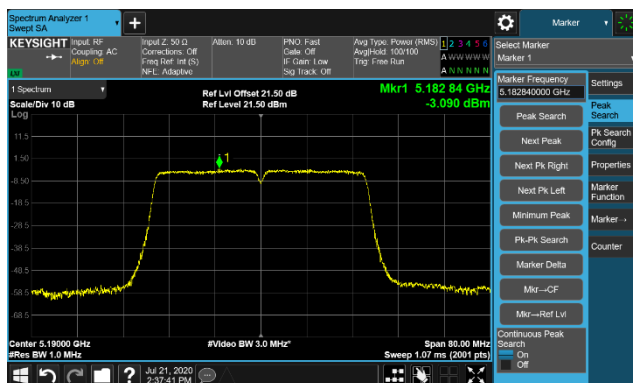


Channel 48 (5240MHz)

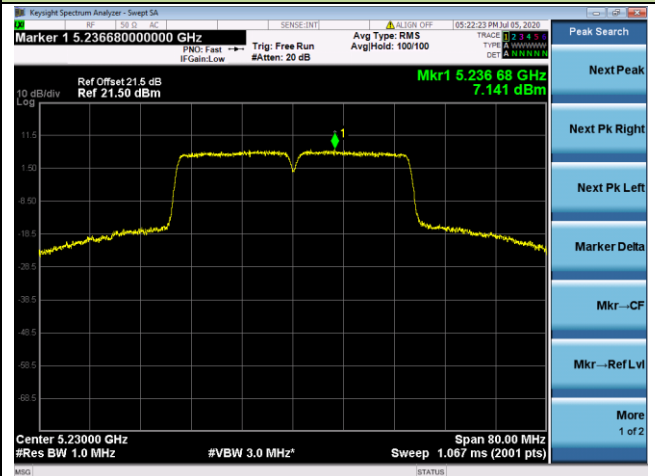


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)

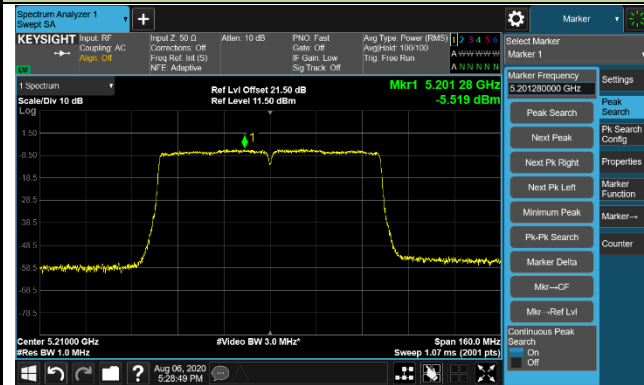


Channel 46 (5230MHz)



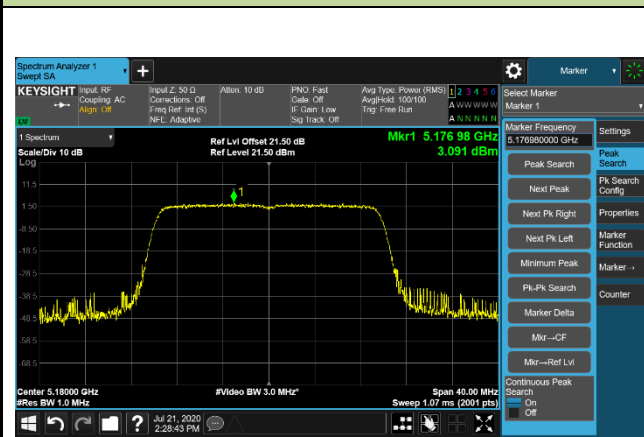
802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

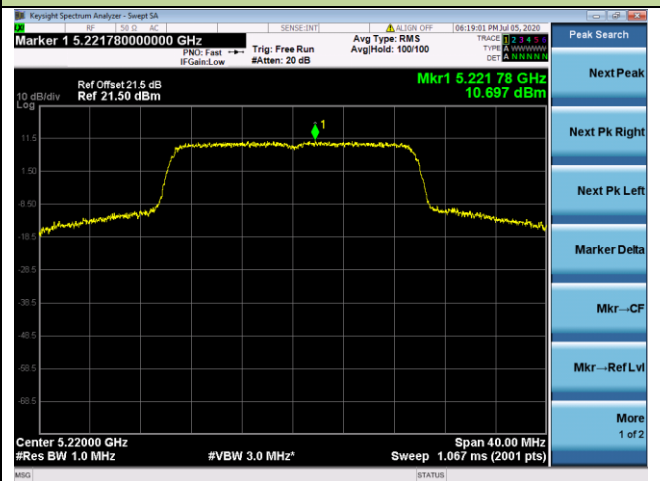


802.11ax-HE20 Power Spectral Density - Ant 1 / Ant 0 + 1

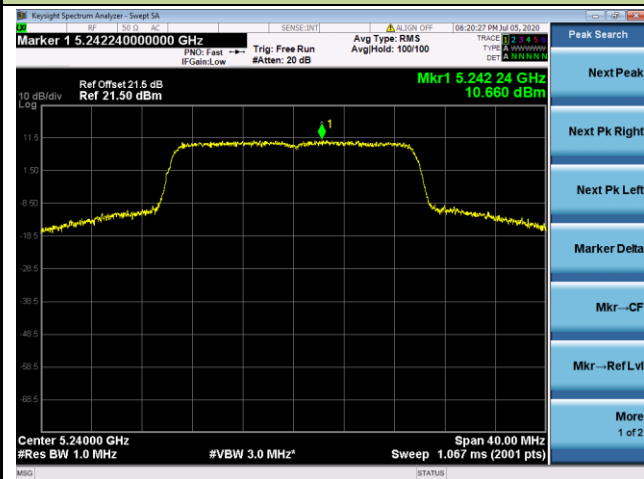
Channel 36 (5180MHz)



Channel 44 (5220MHz)

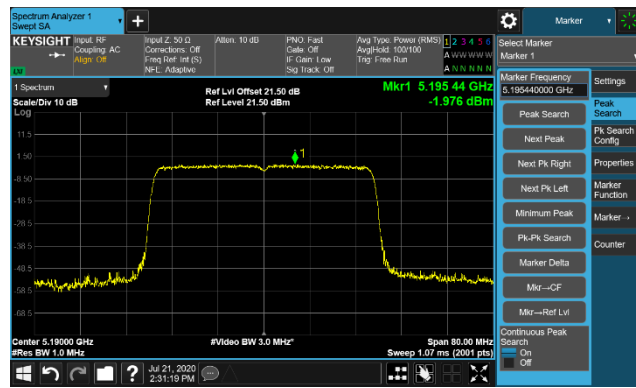


Channel 48 (5240MHz)

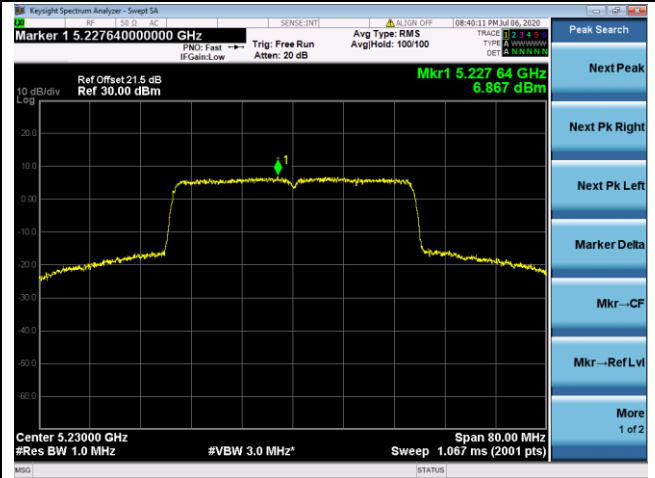


802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 38 (5190MHz)

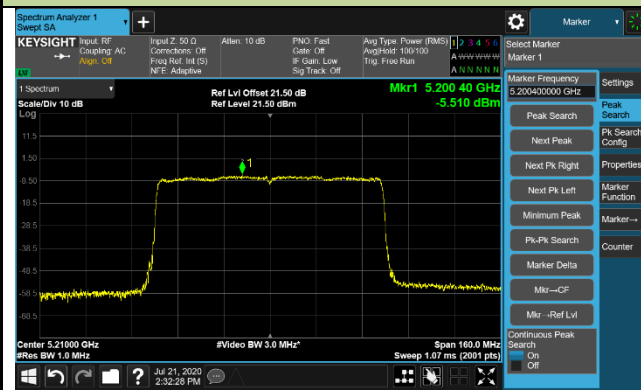


Channel 46 (5230MHz)



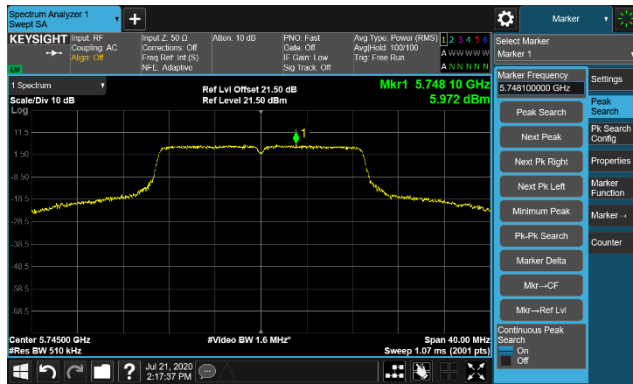
802.11ax-HE80 Power Spectral Density - Ant 1 / Ant 0 + 1

Channel 42 (5210MHz)

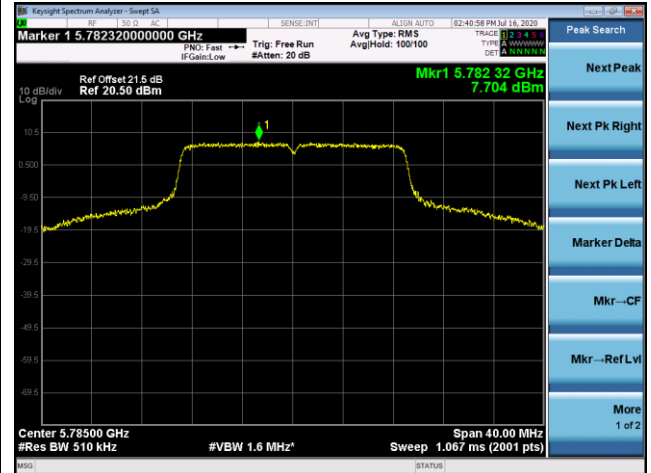


802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 + 1

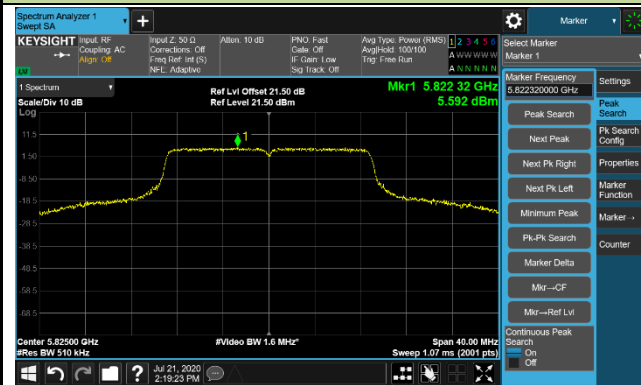
Channel 149 (5745MHz)



Channel 157 (5785MHz)

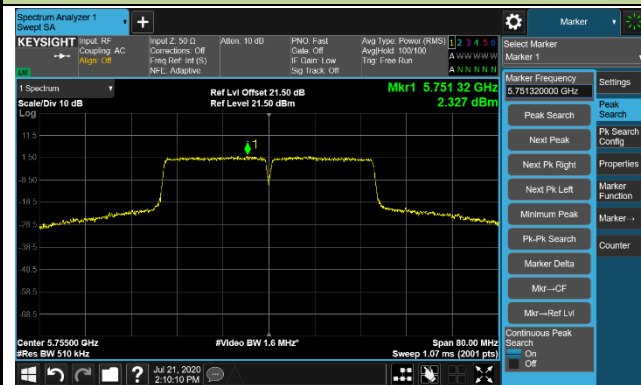


Channel 165 (5825MHz)



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

Channel 151 (5755MHz)



Channel 159 (5795MHz)

