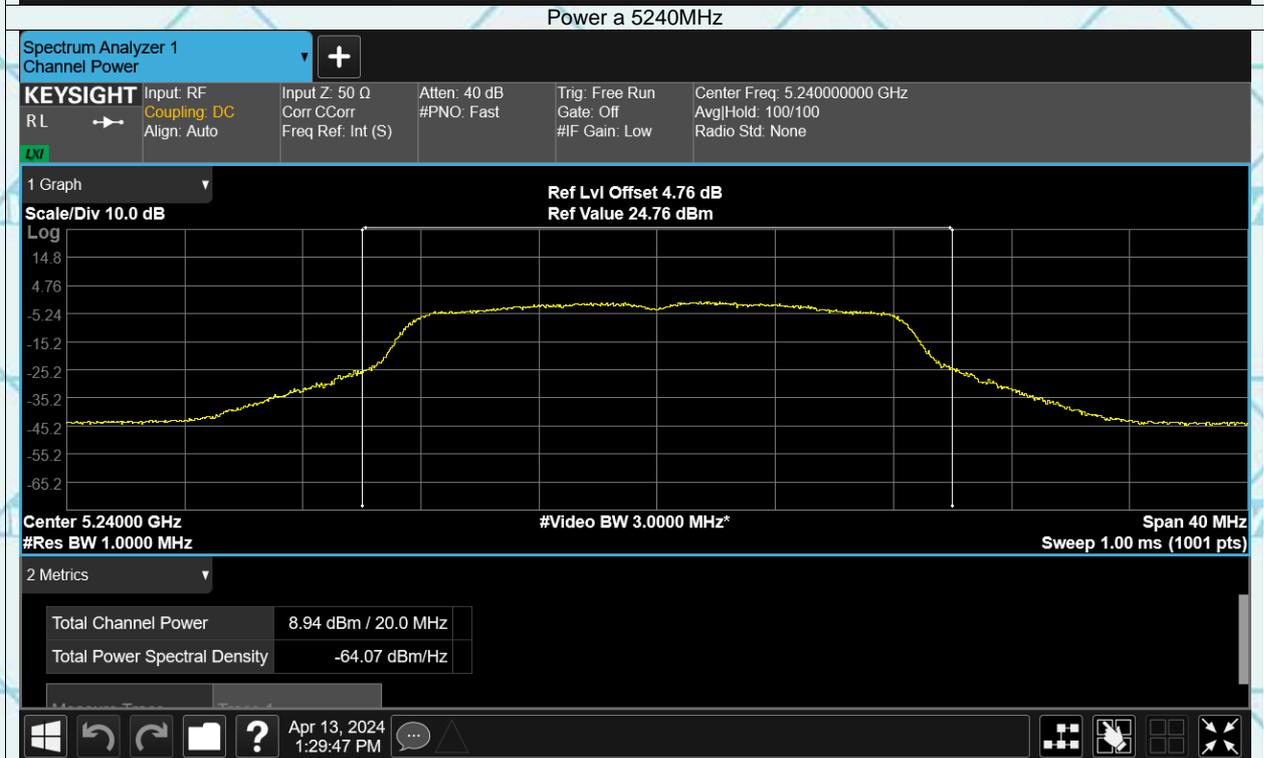
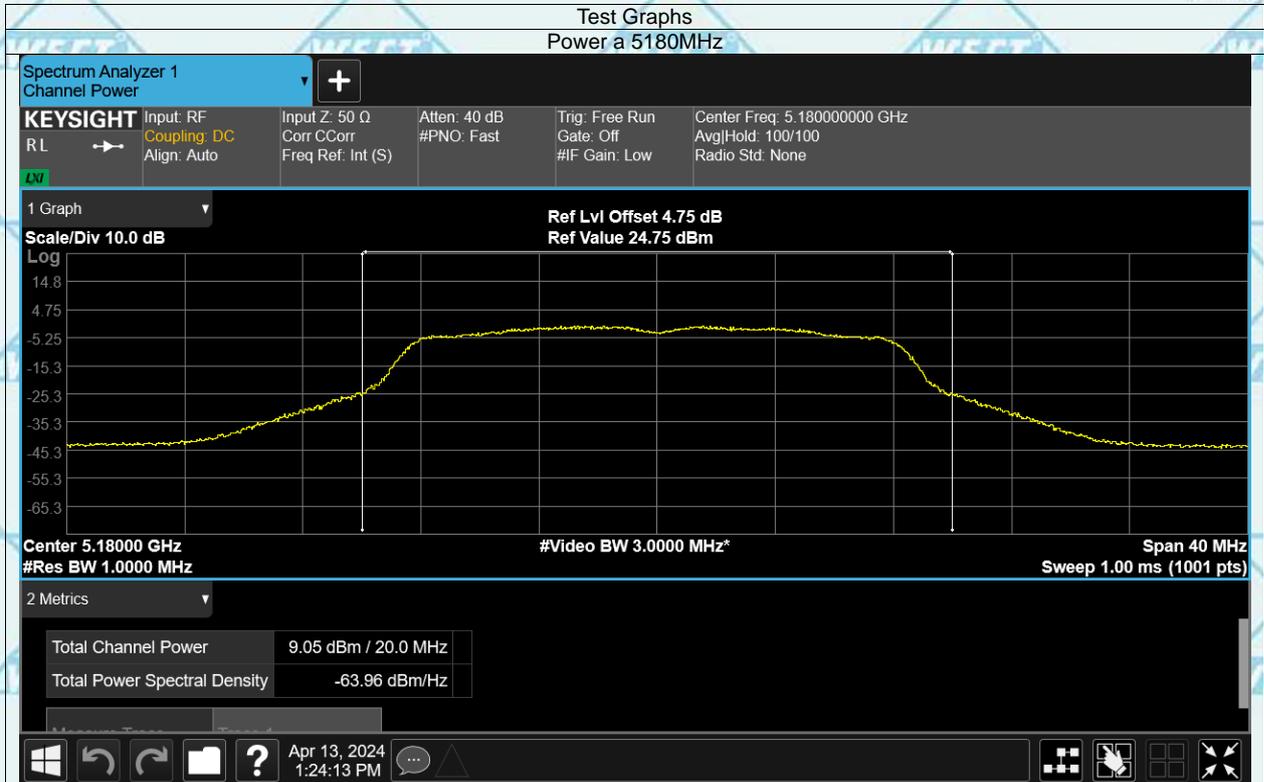
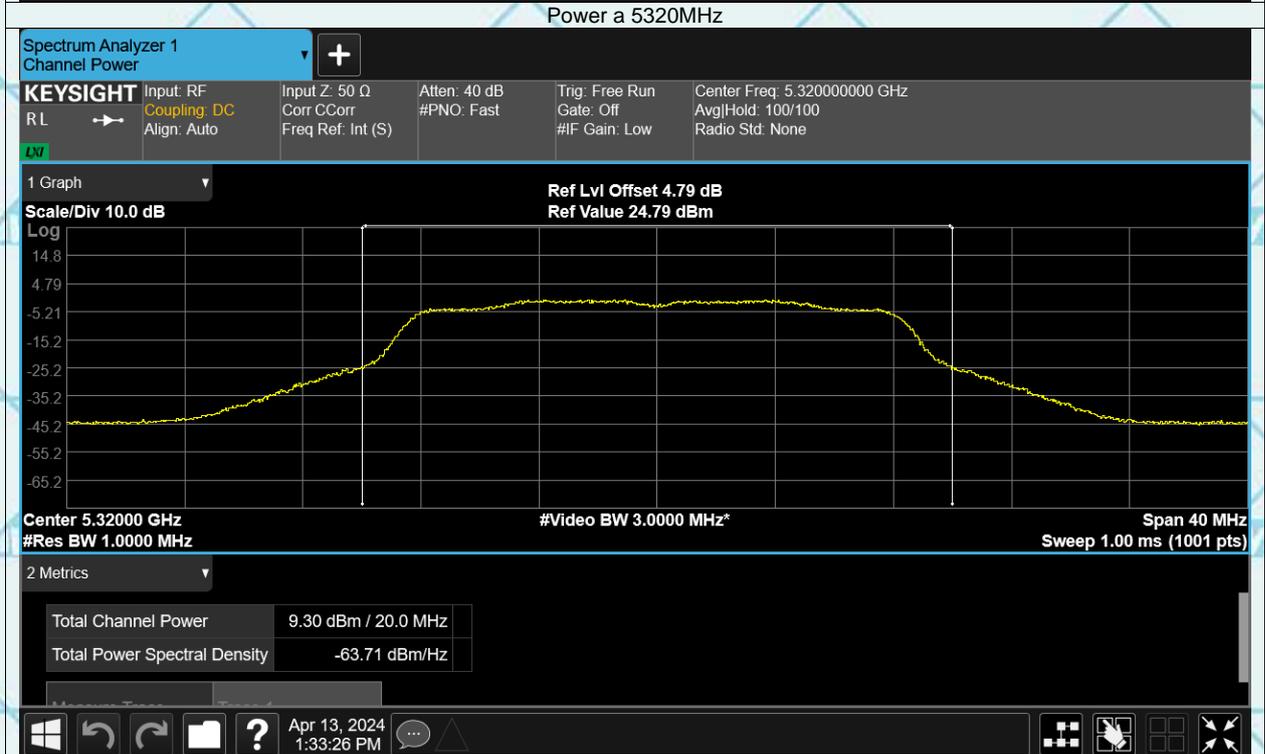
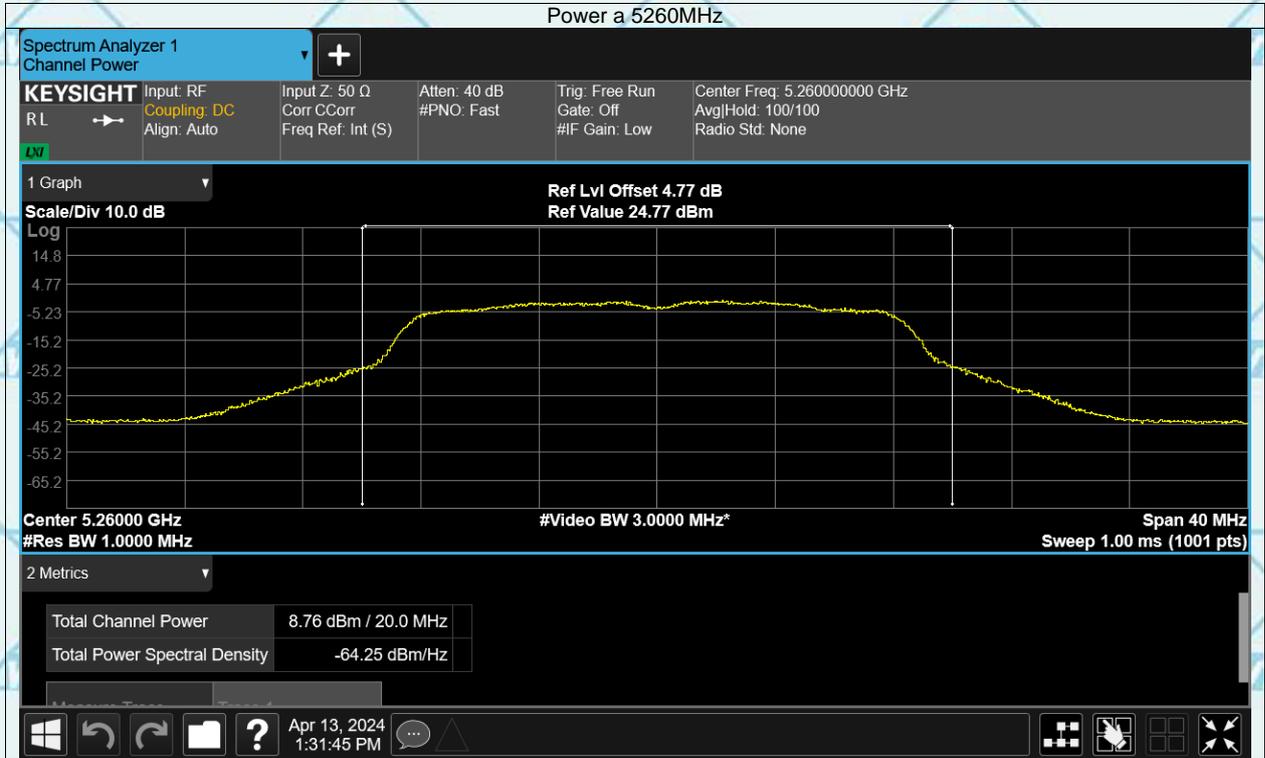
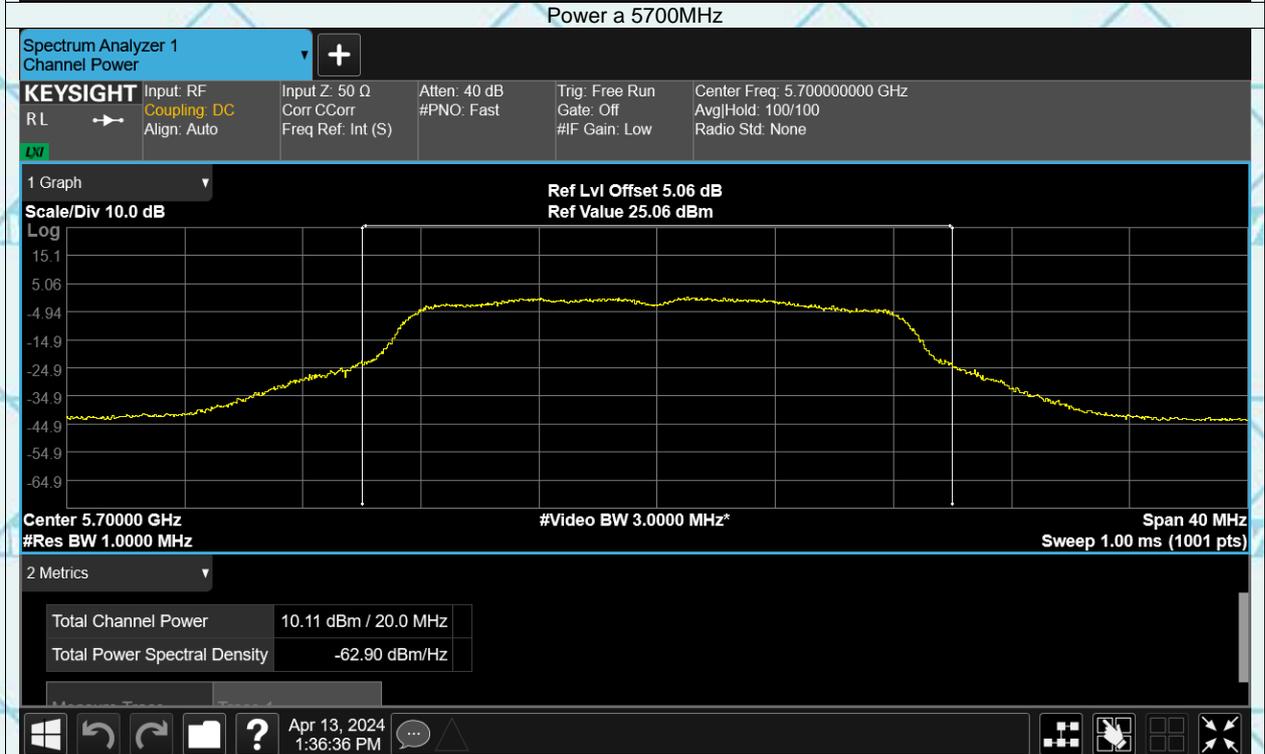
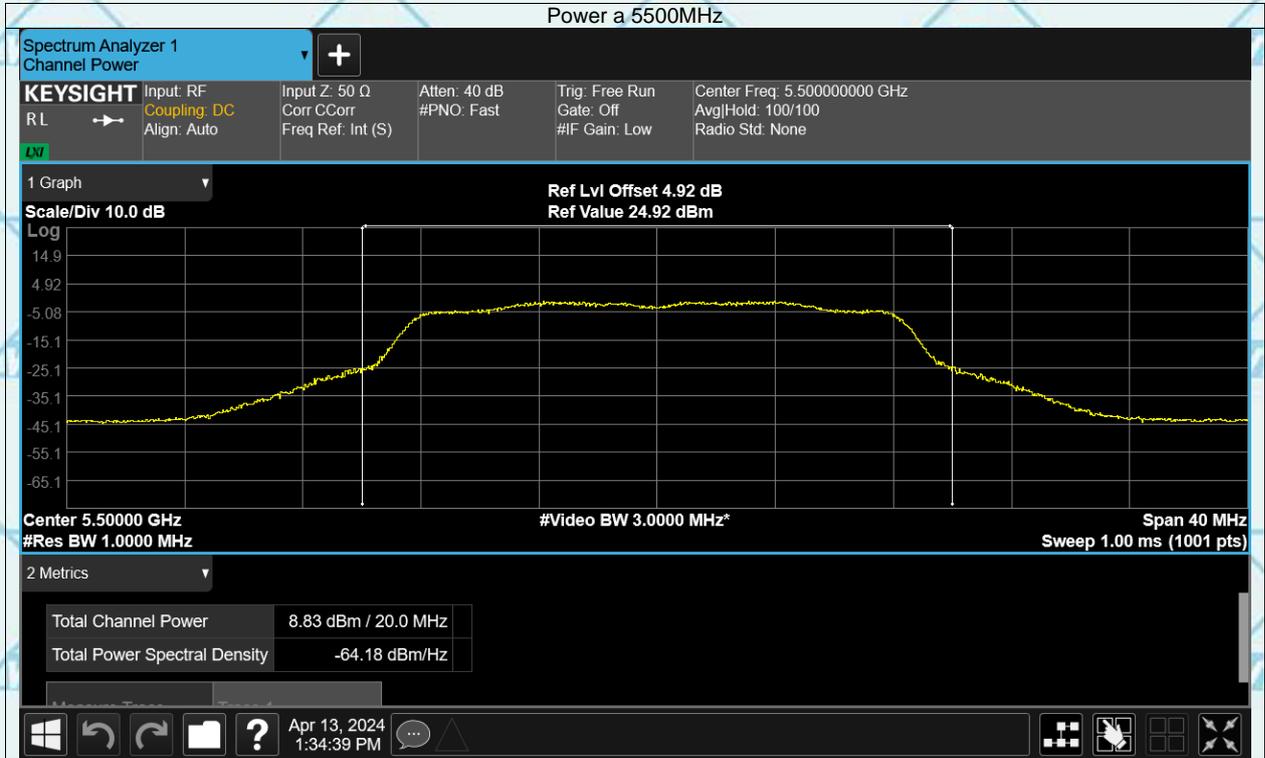


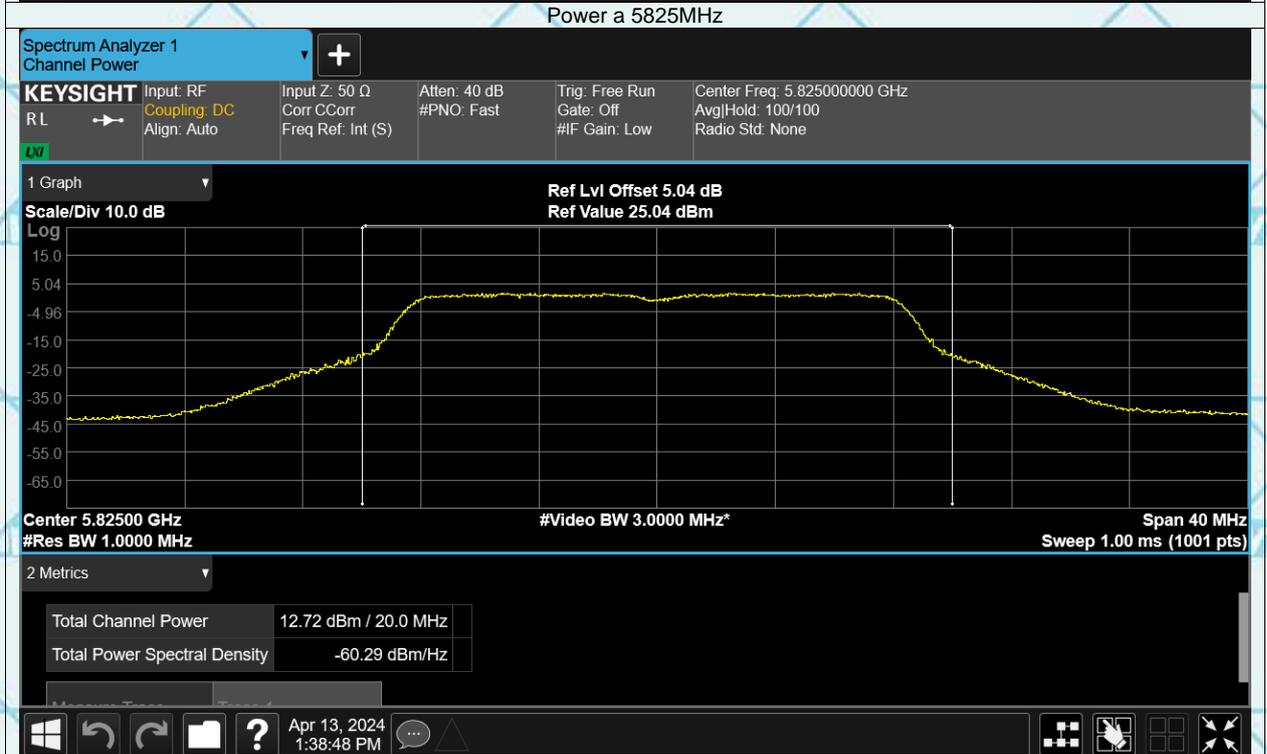
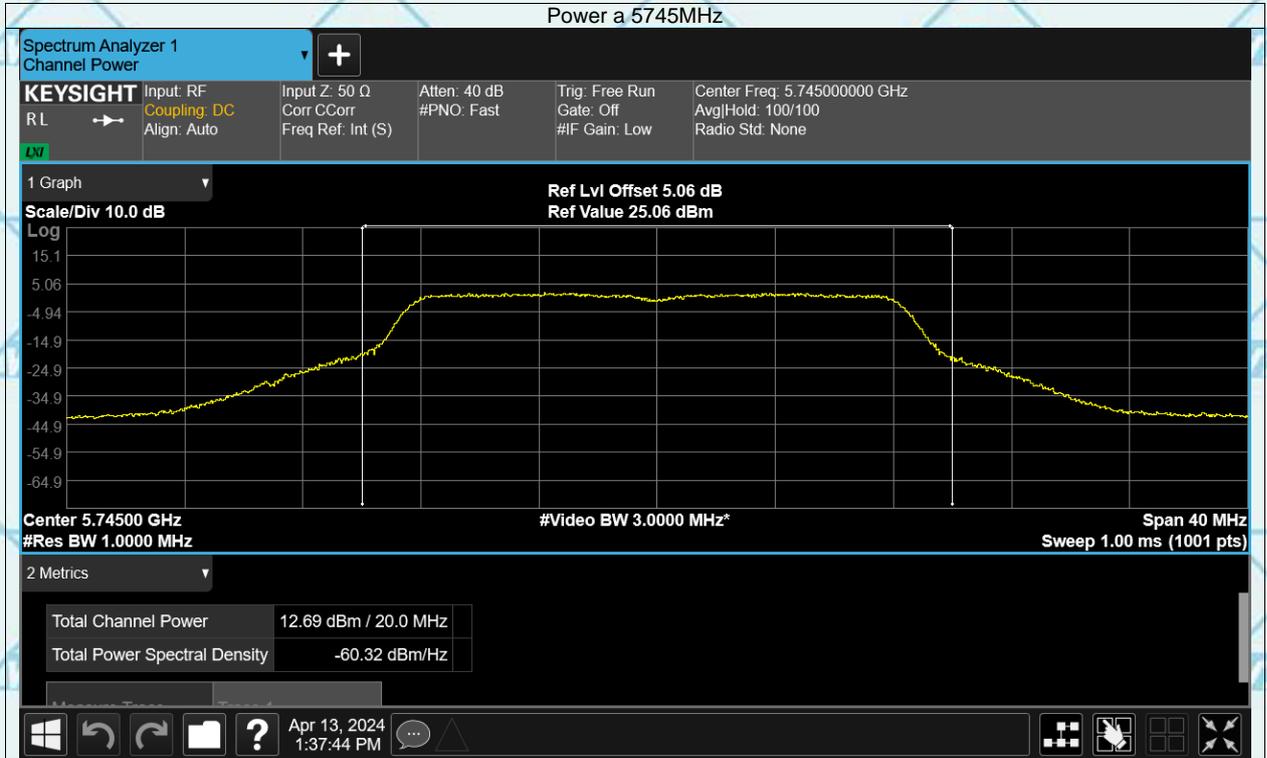


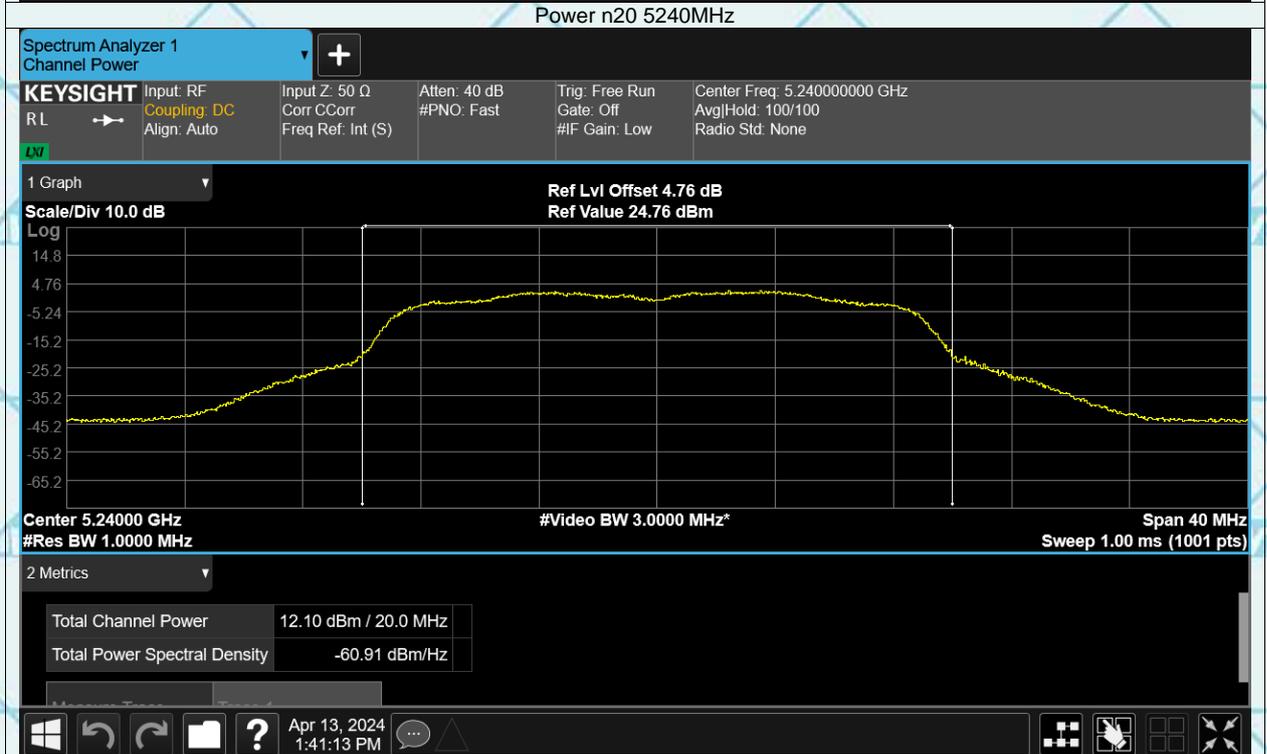
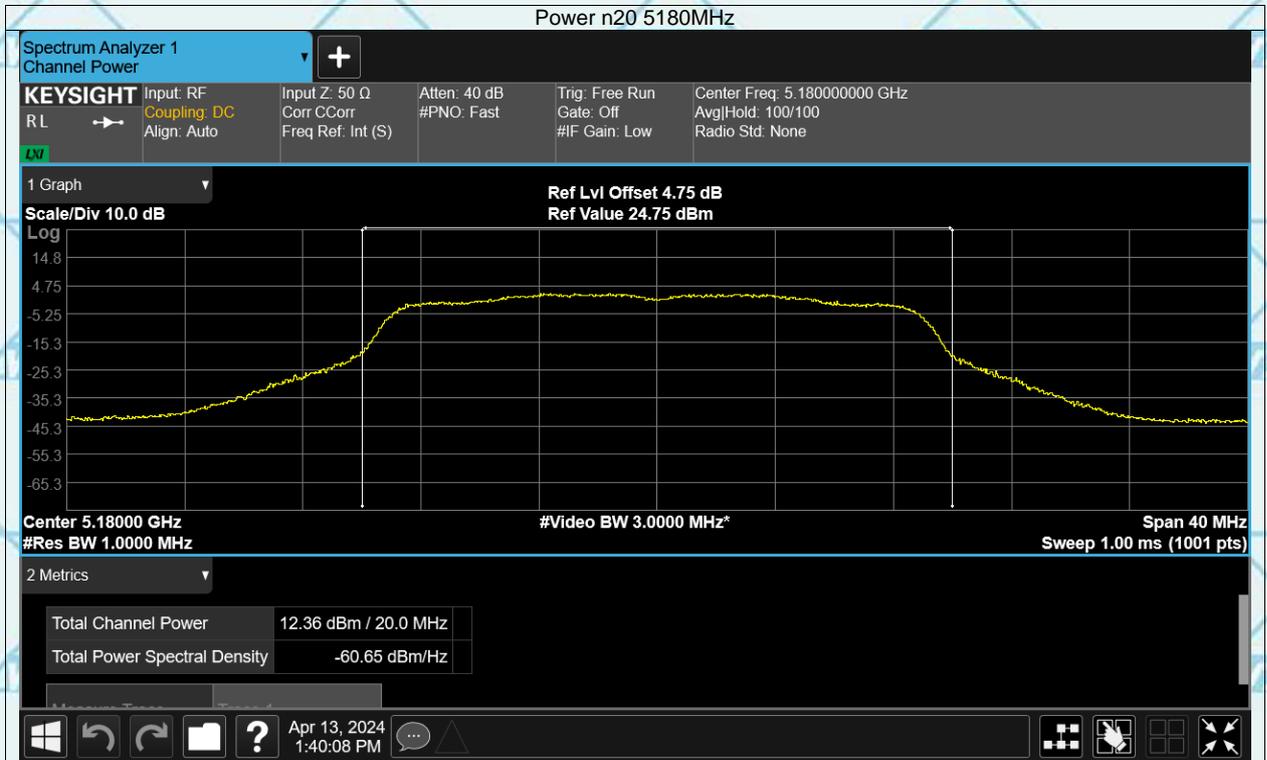
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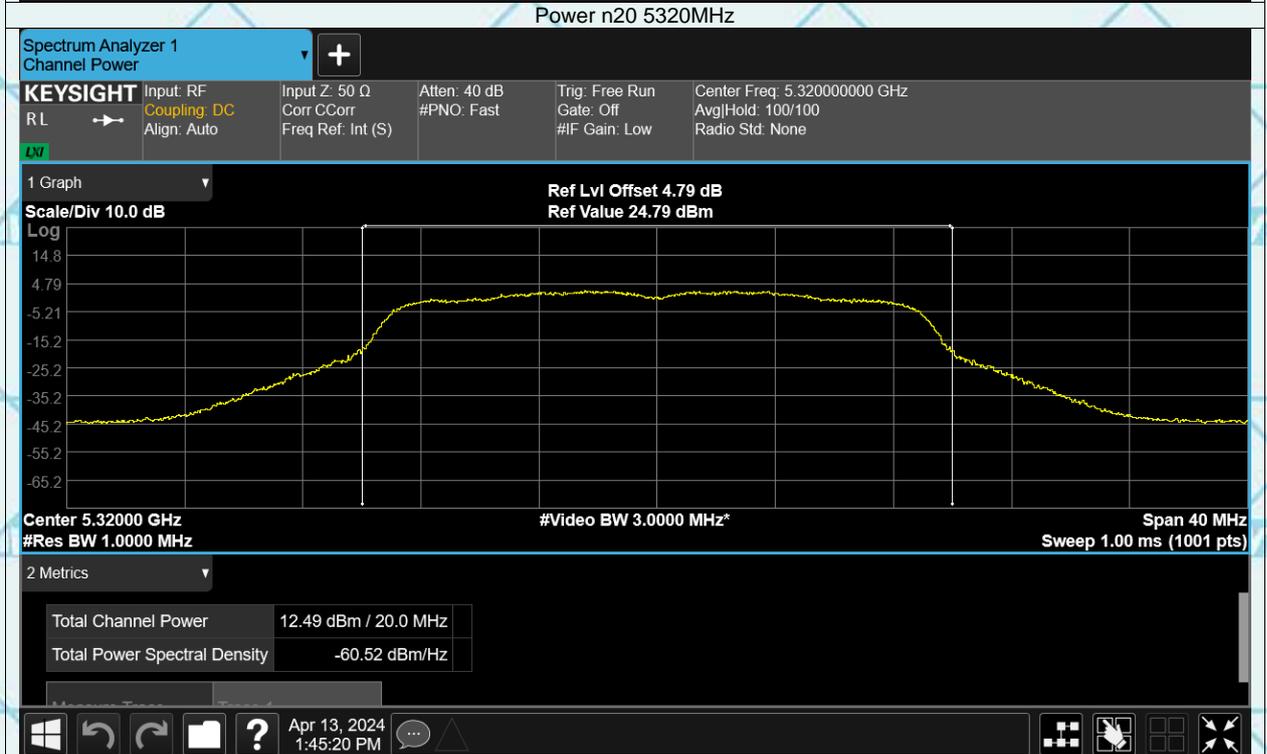
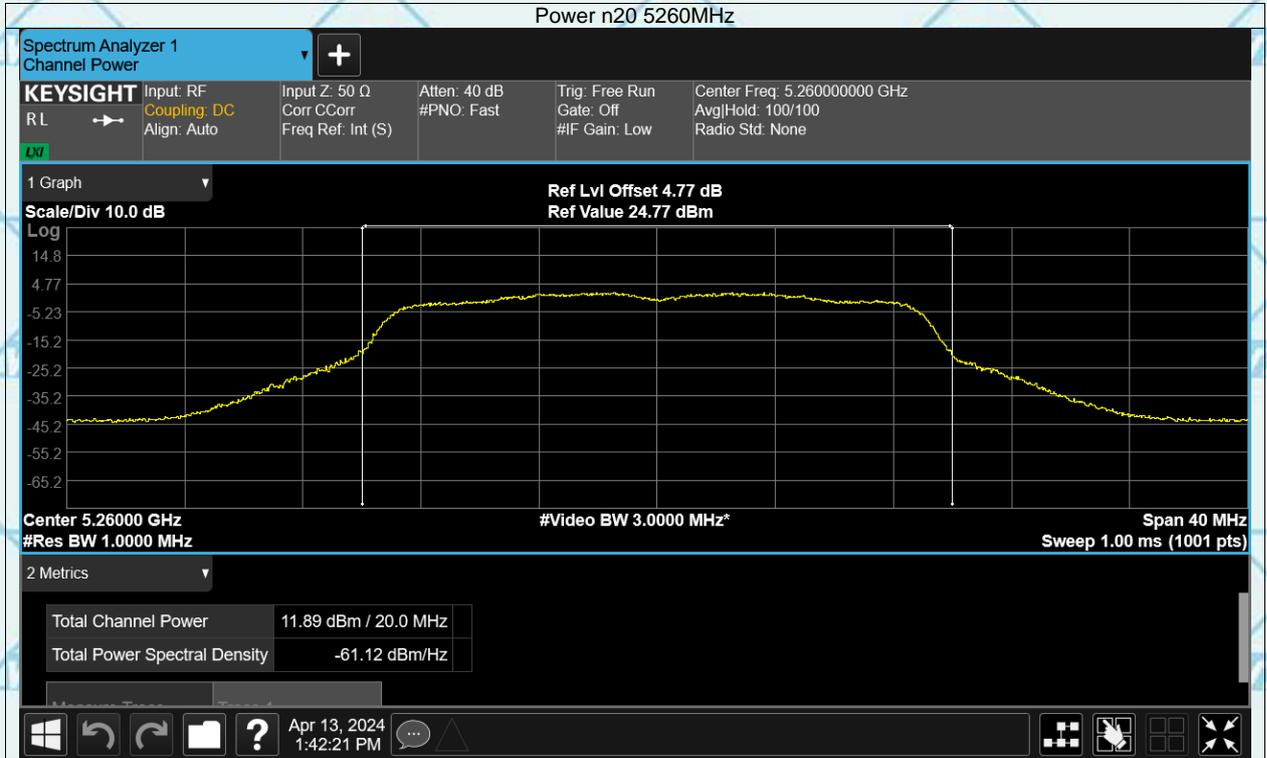


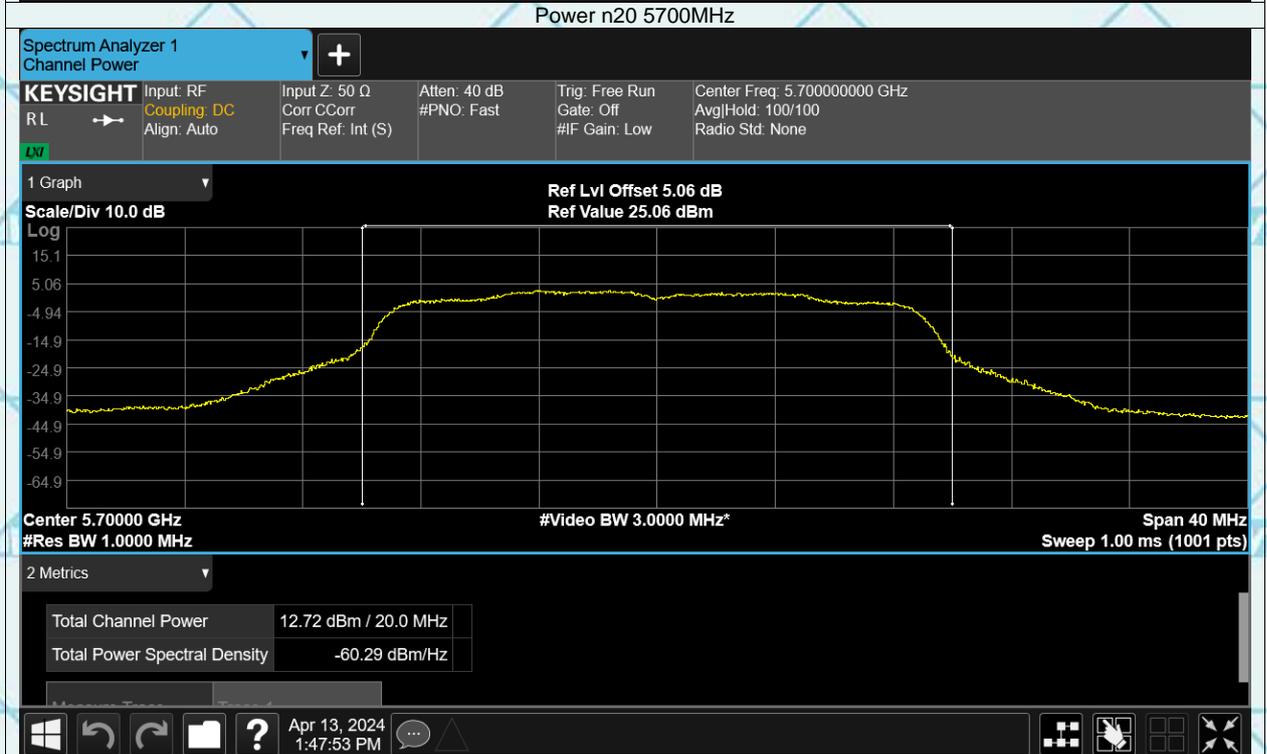
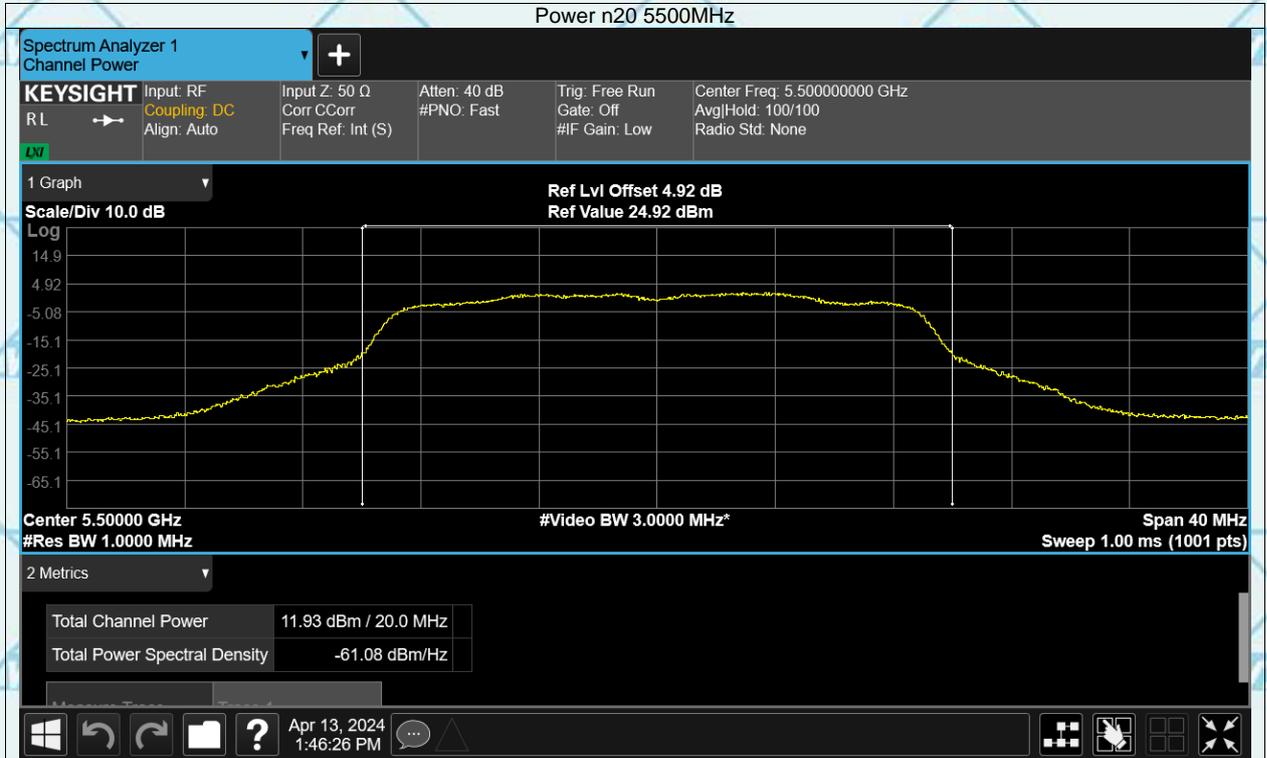


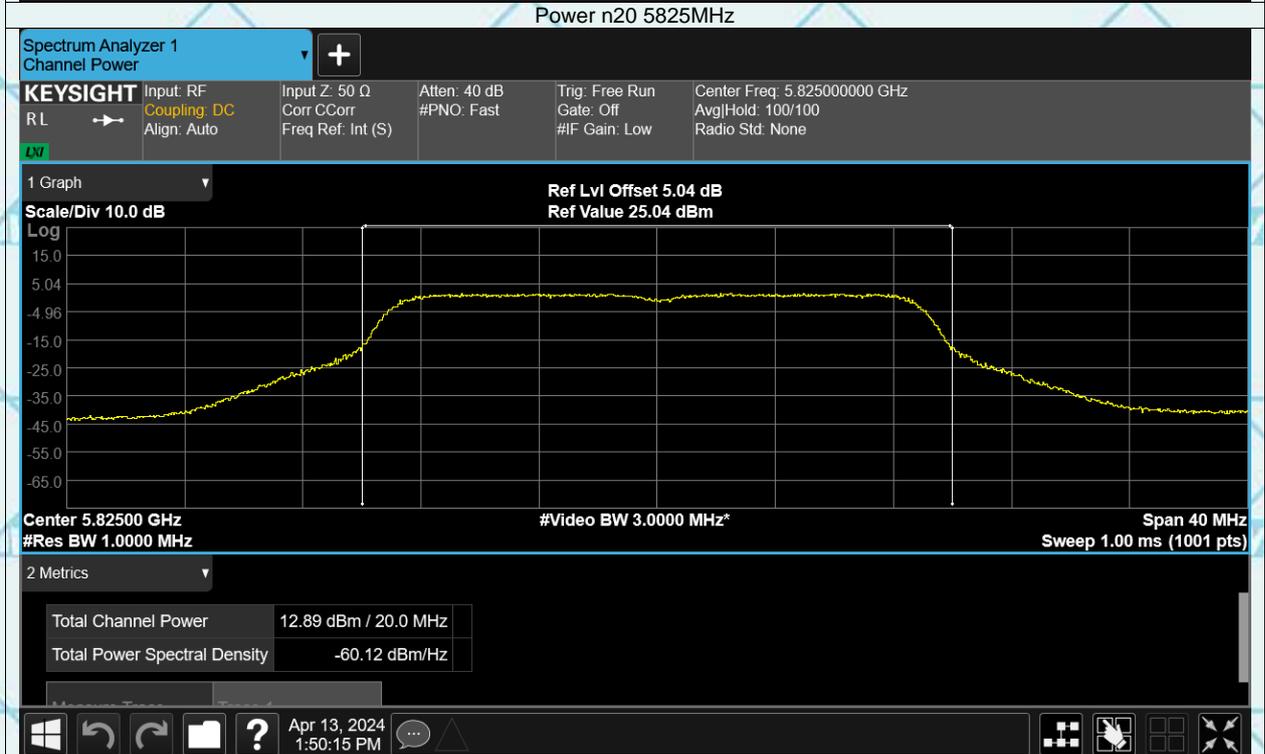
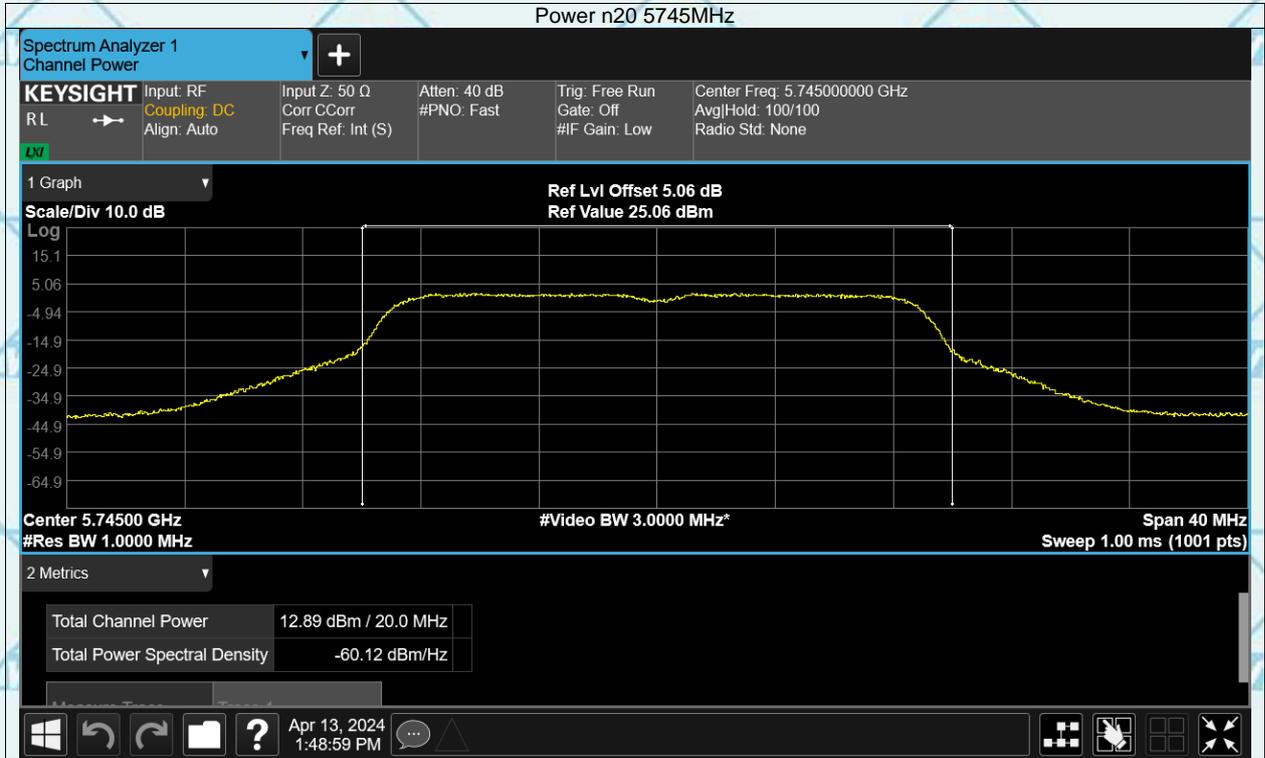


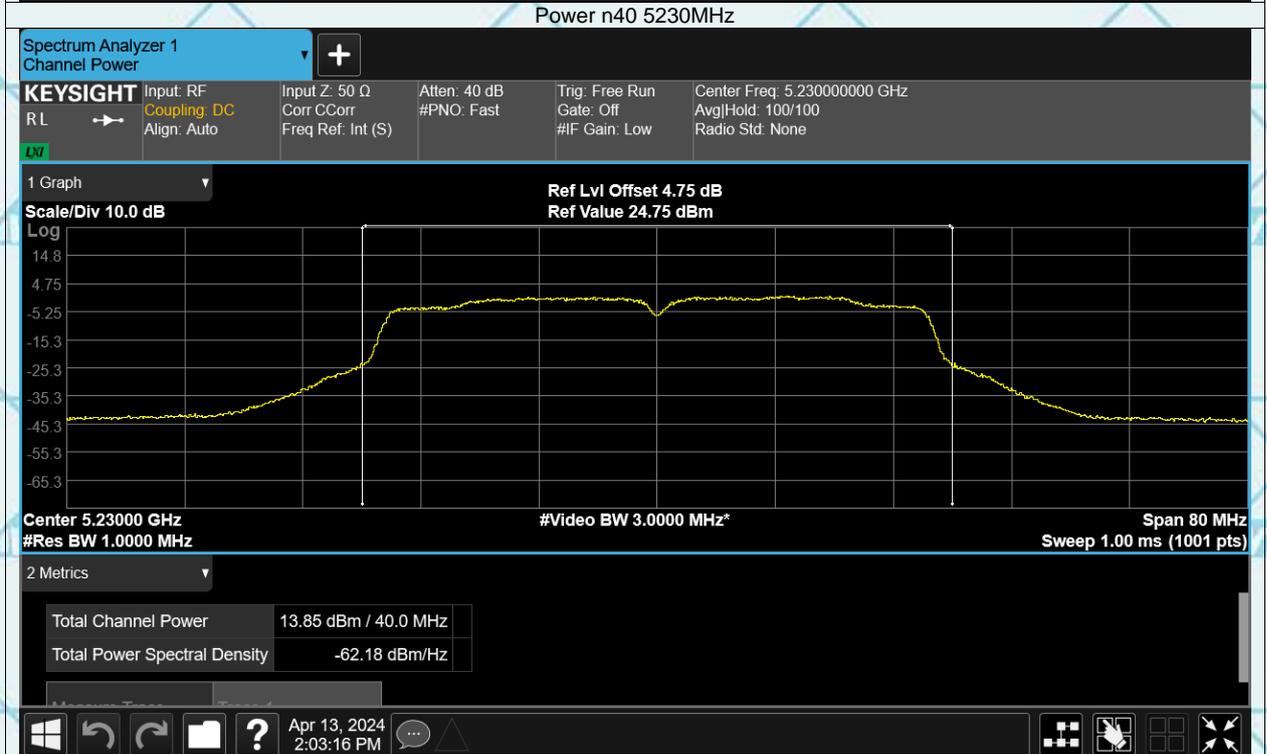
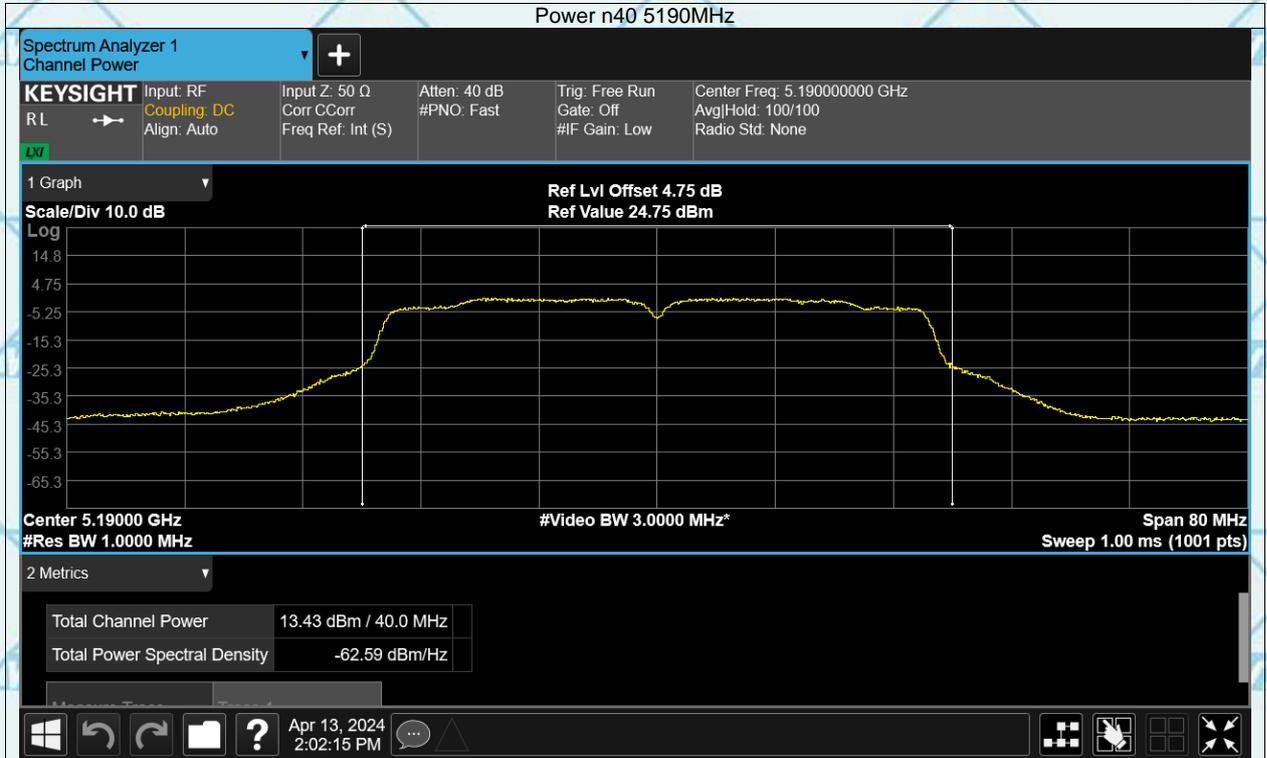


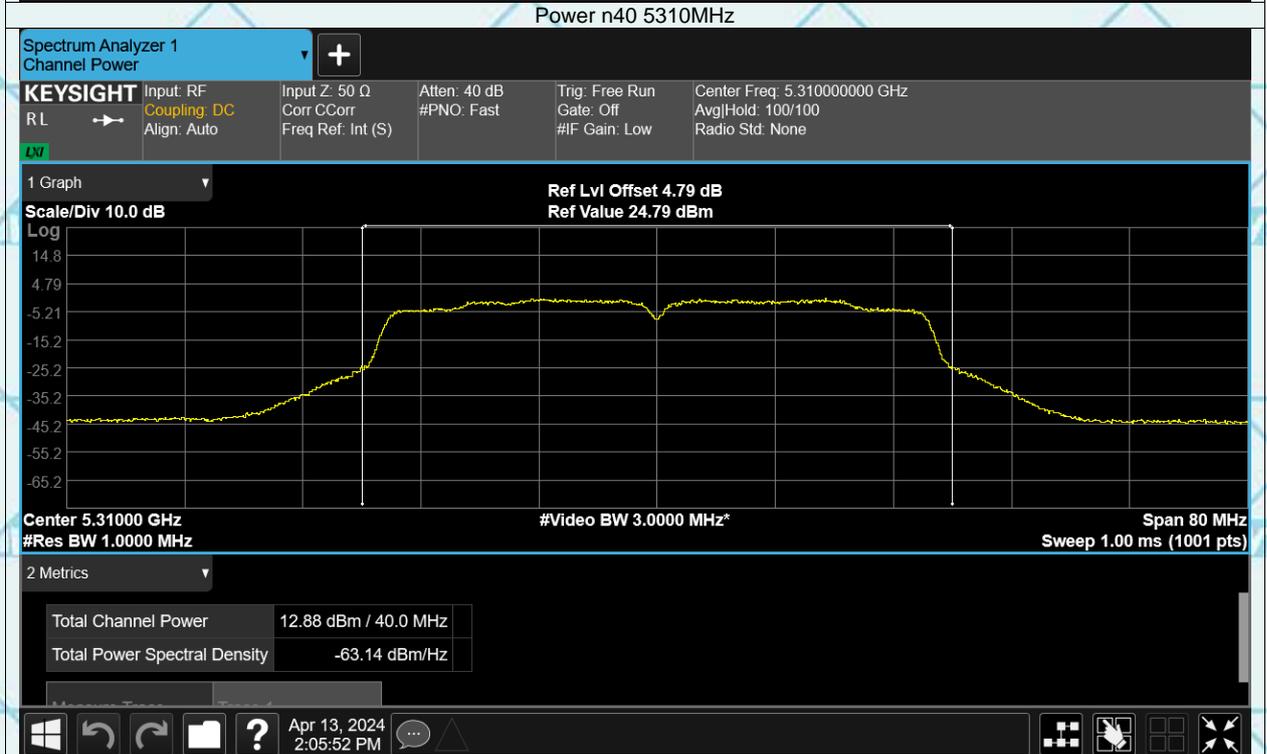
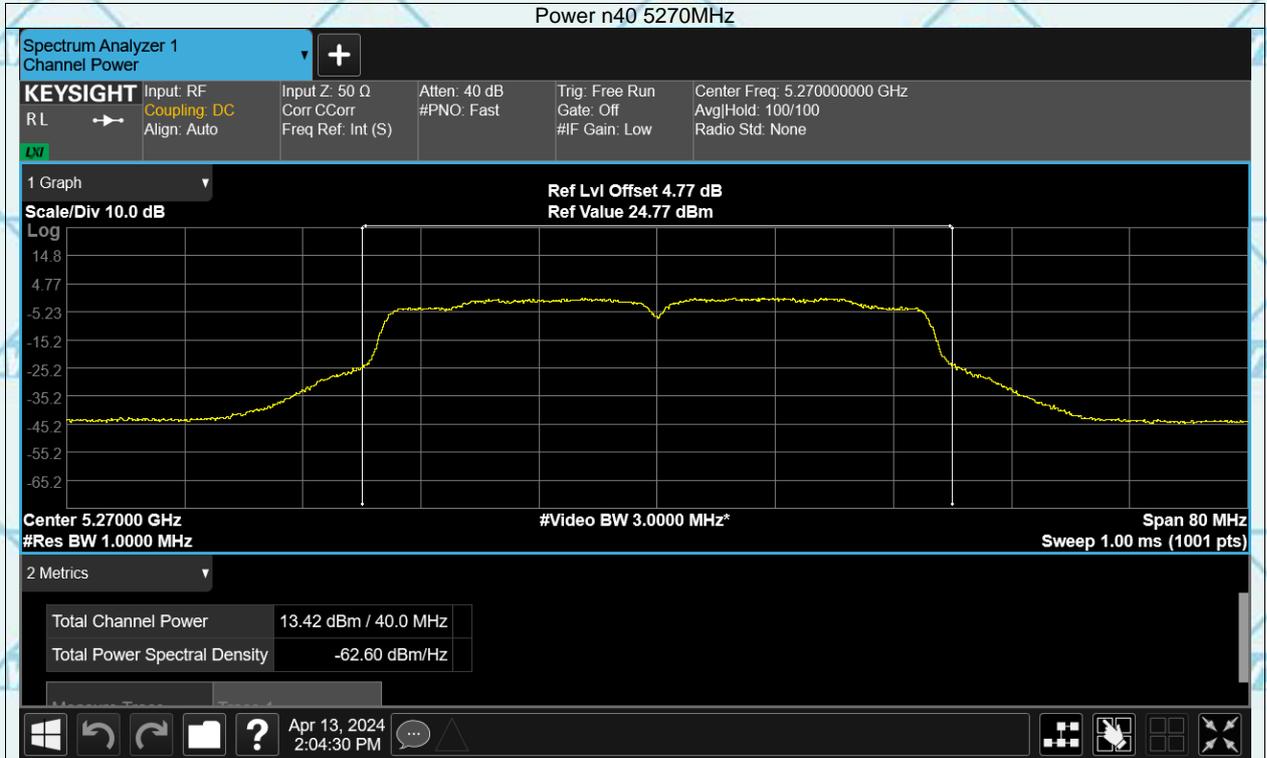


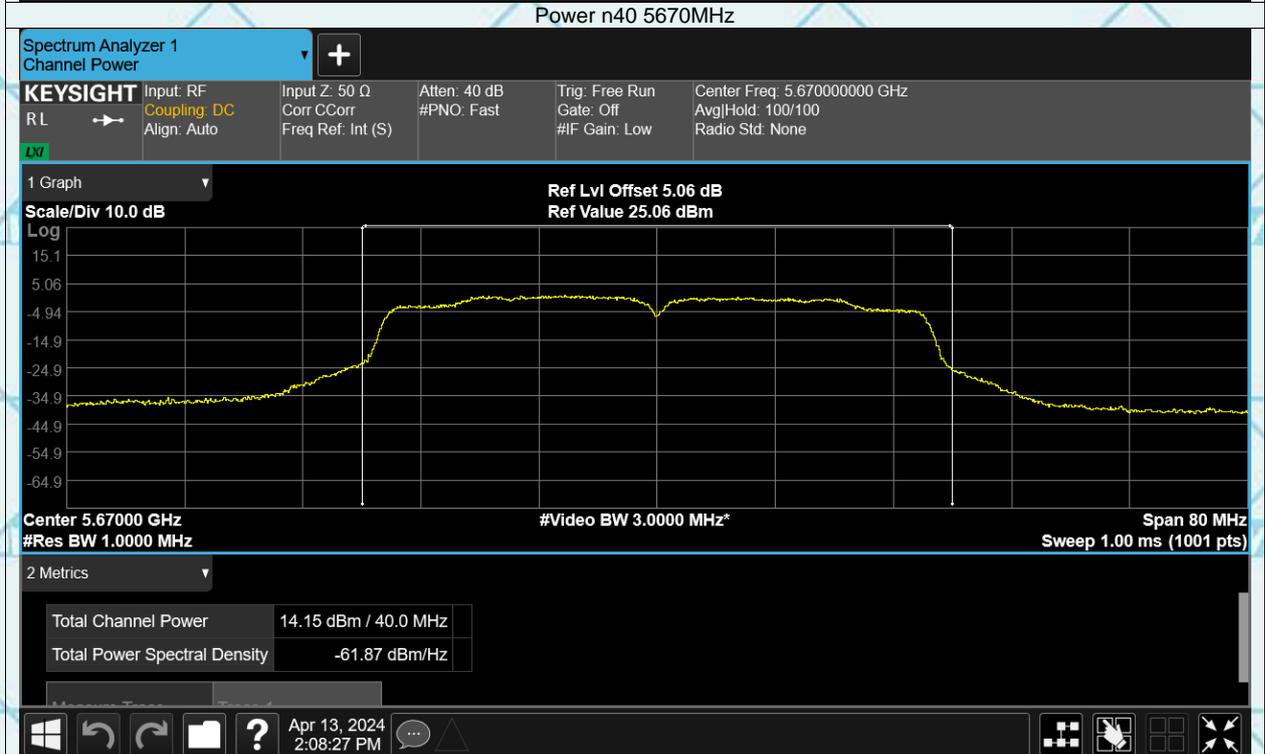
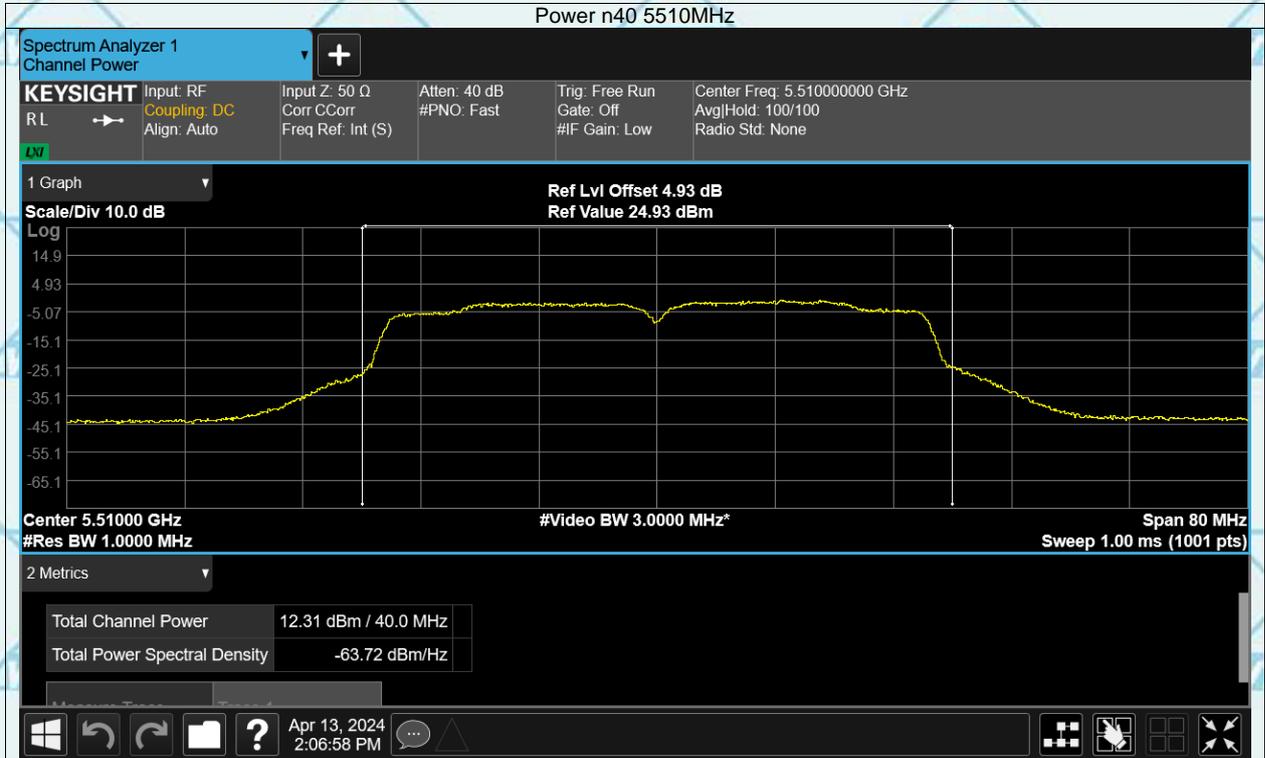


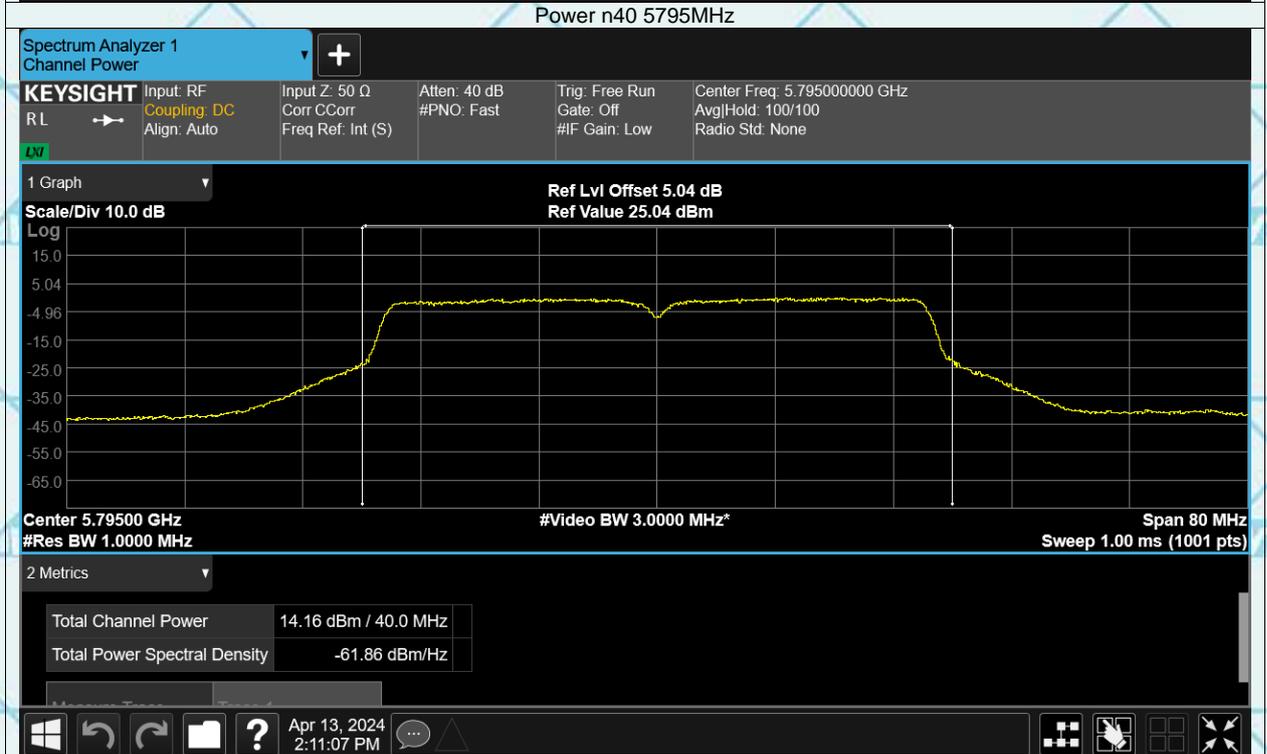
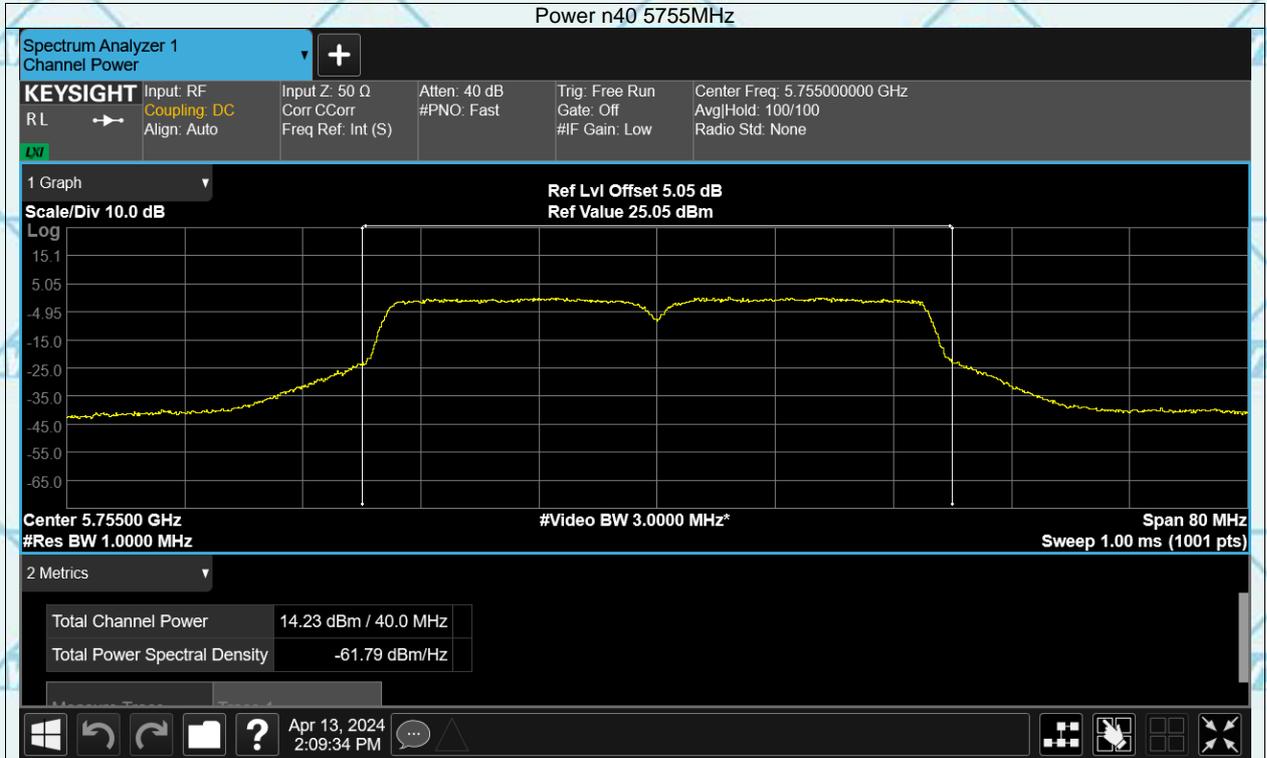


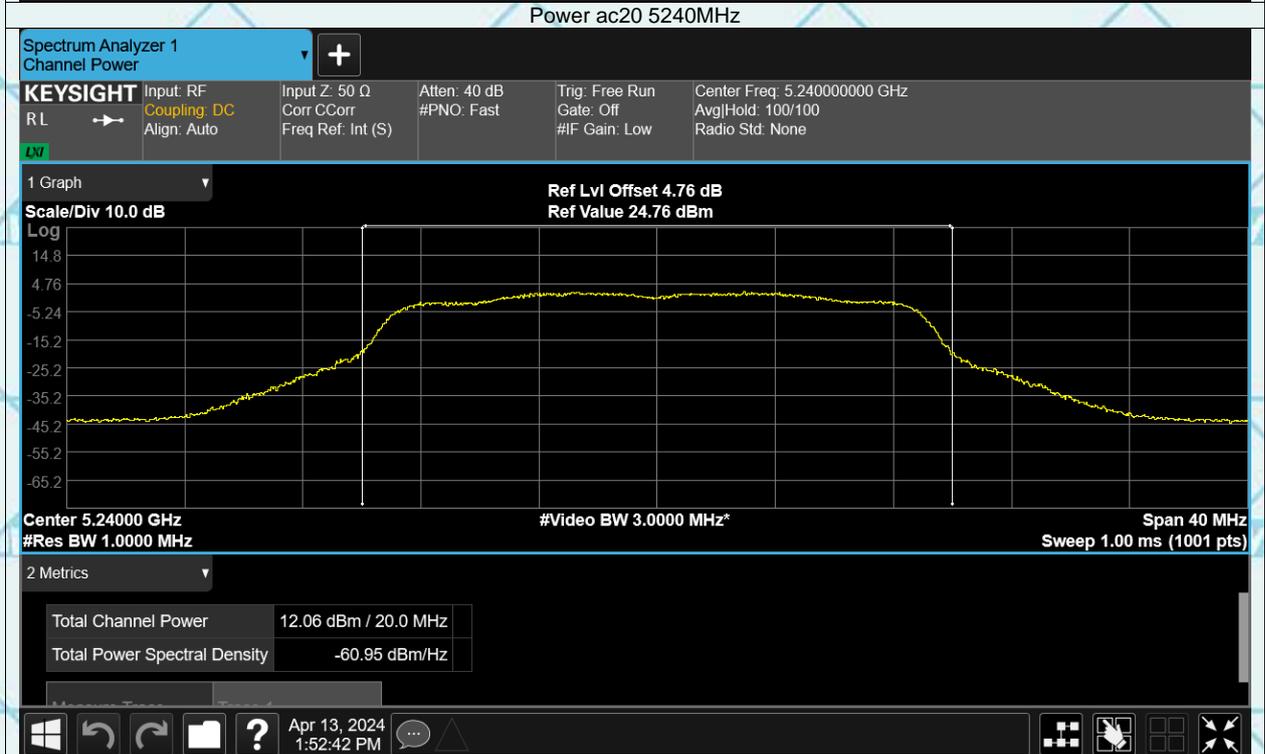
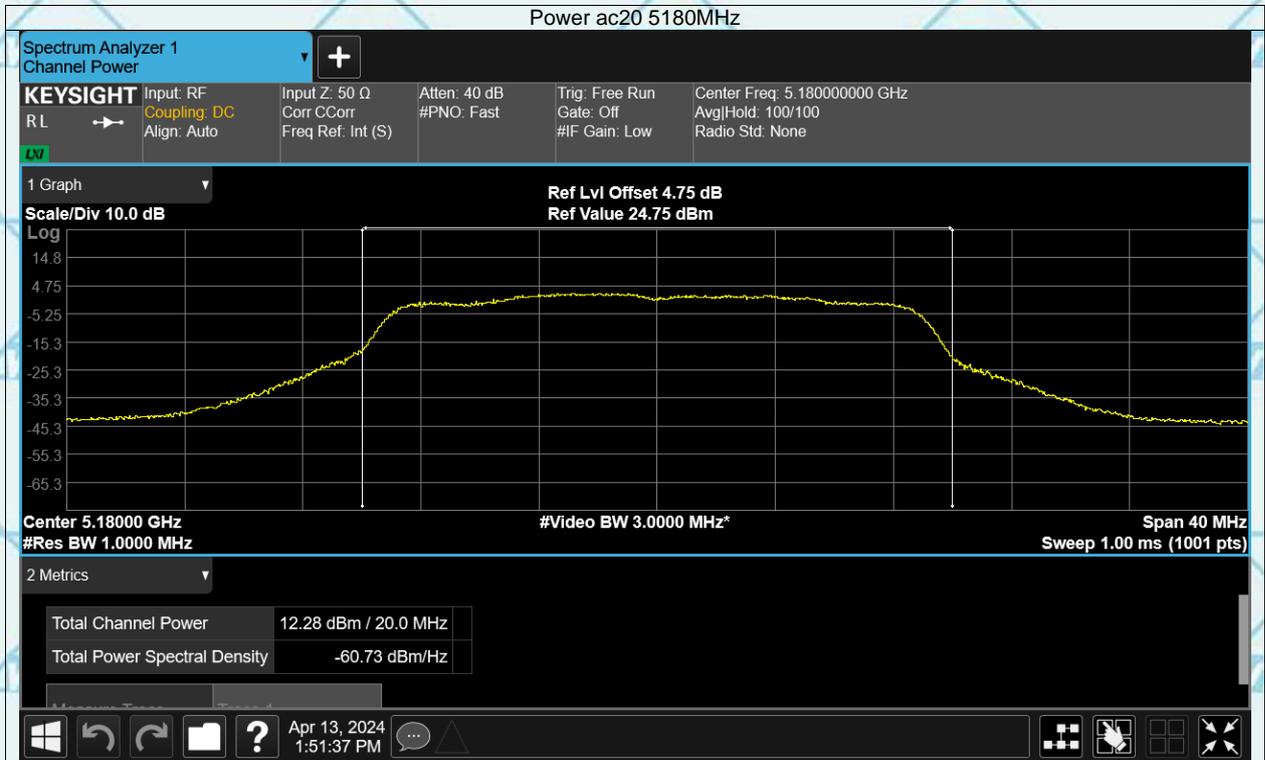


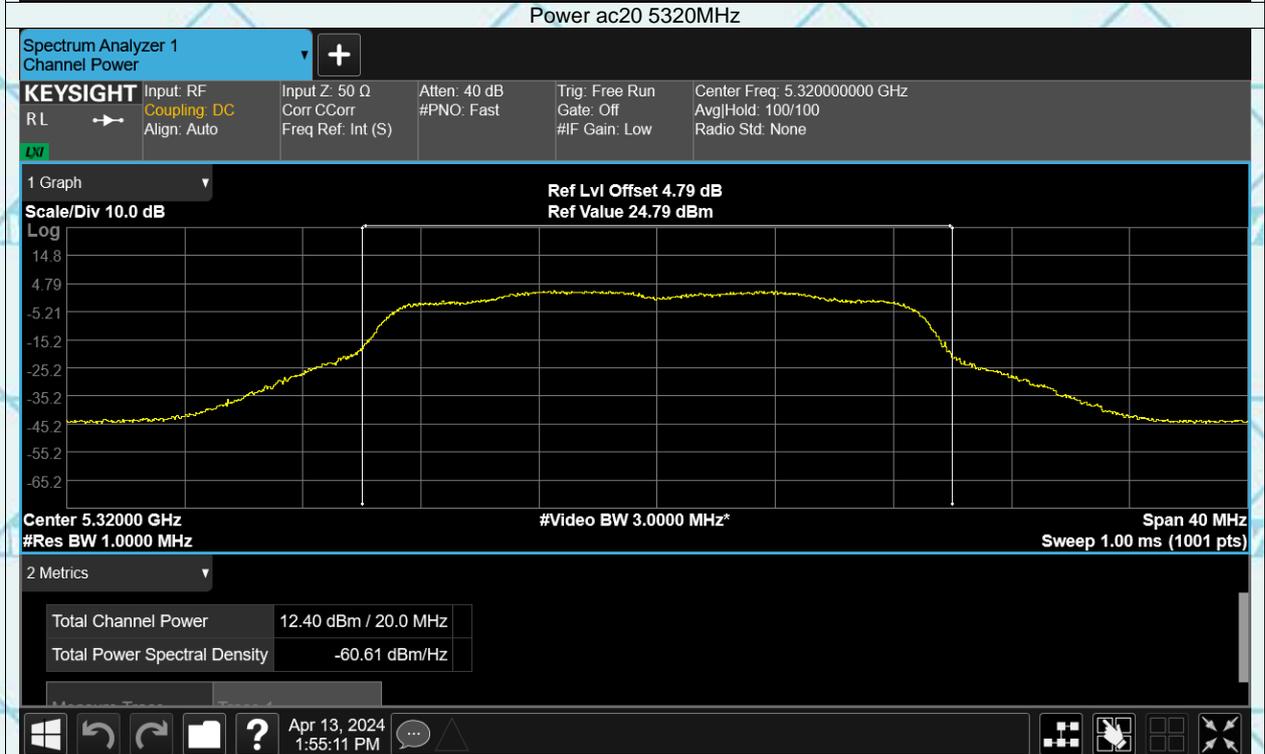
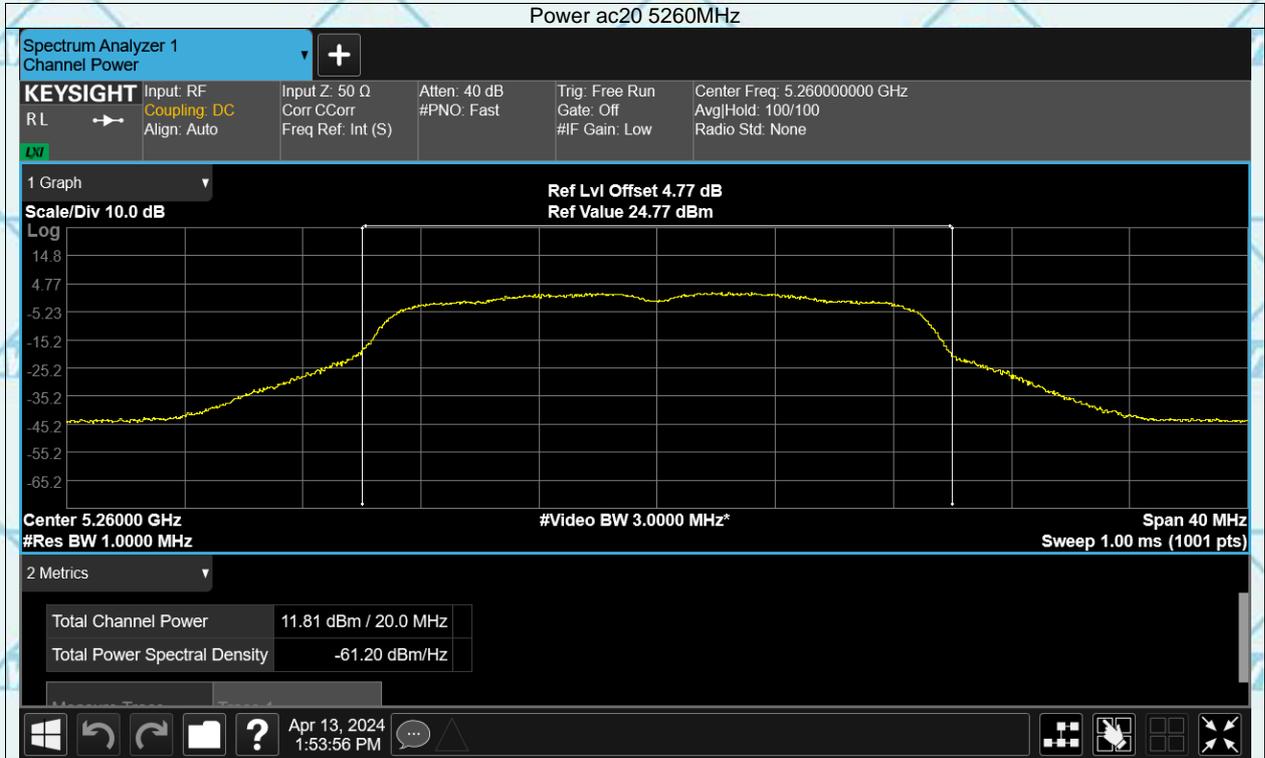


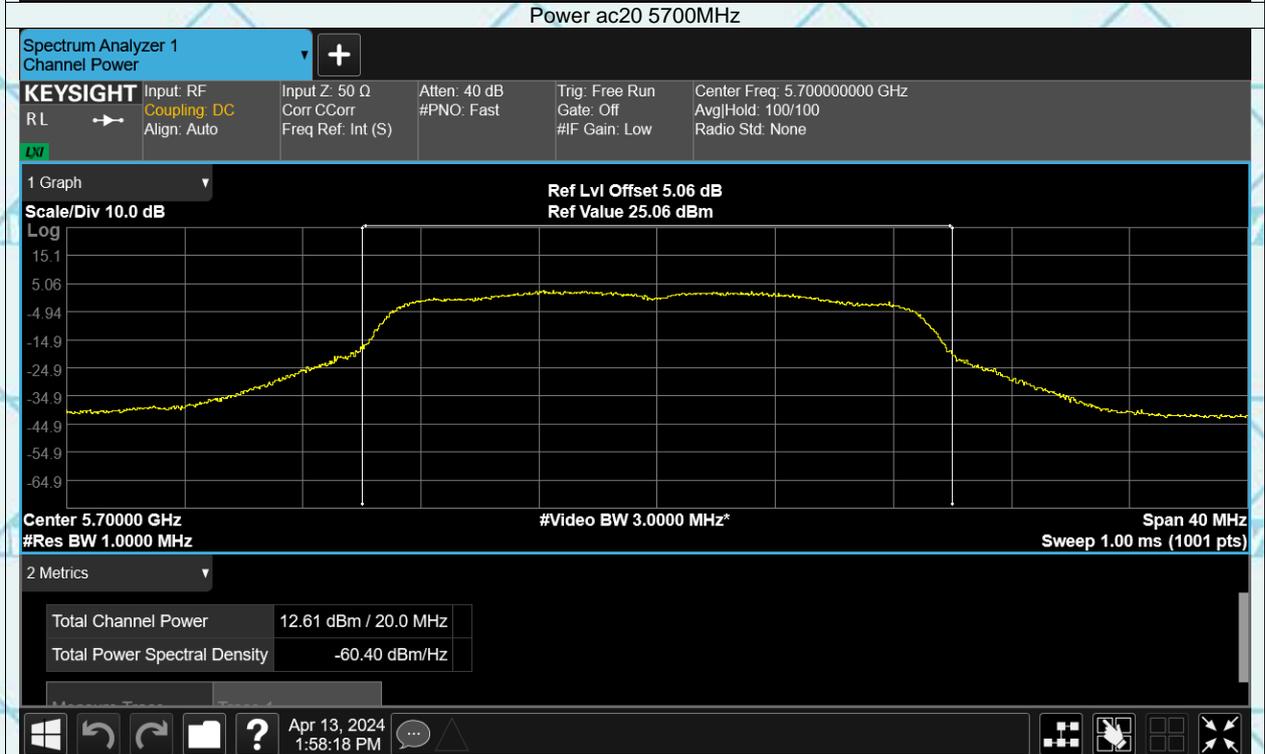
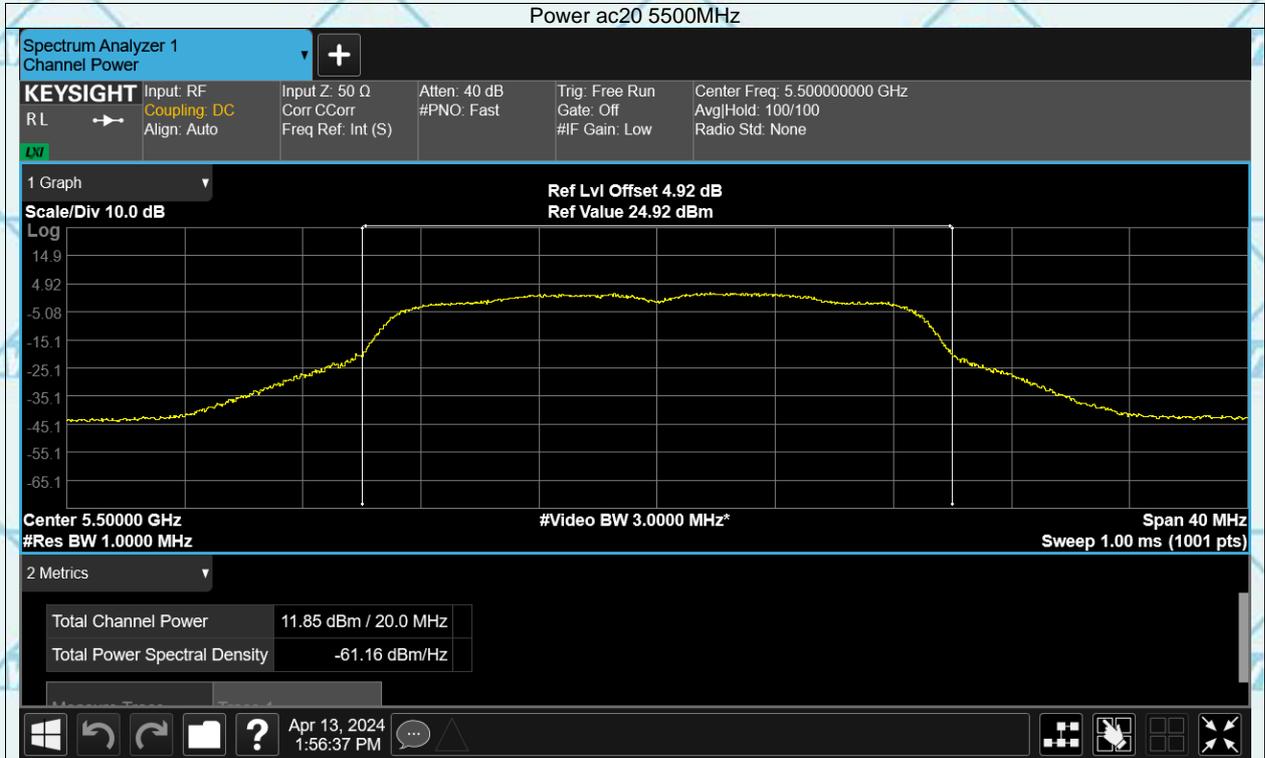


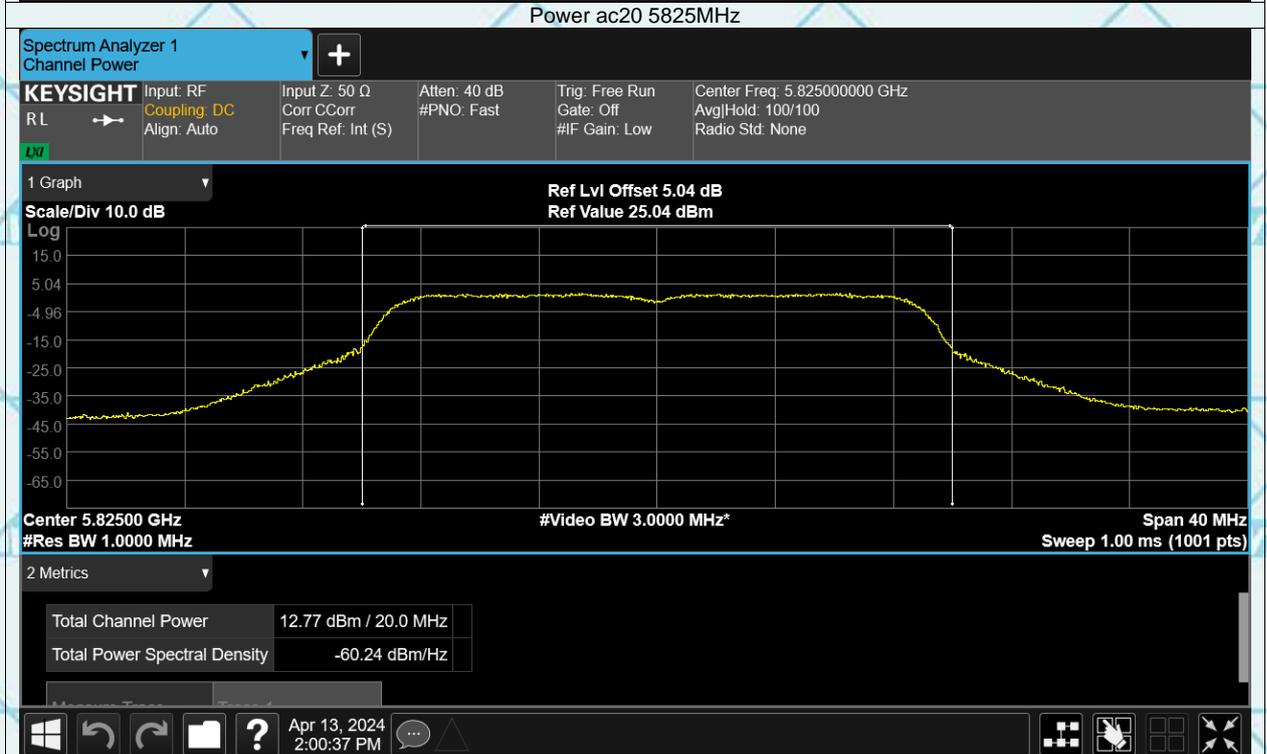
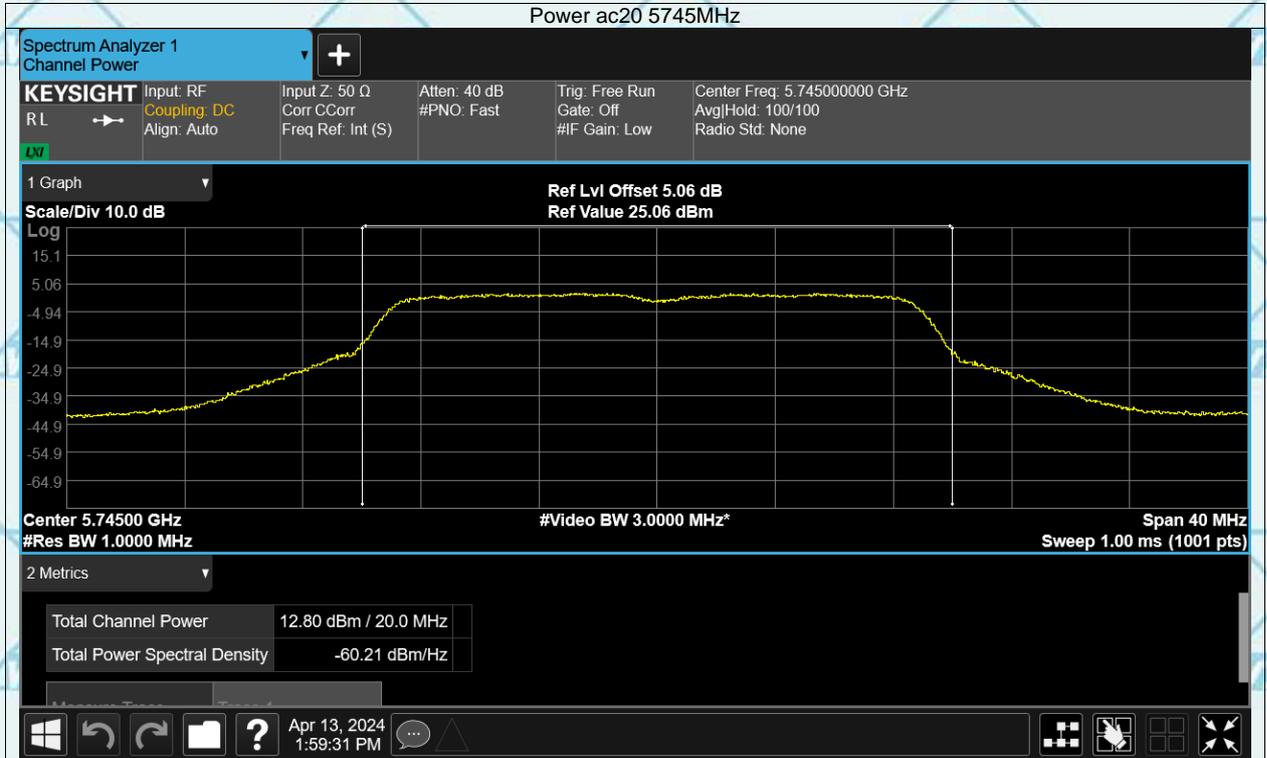


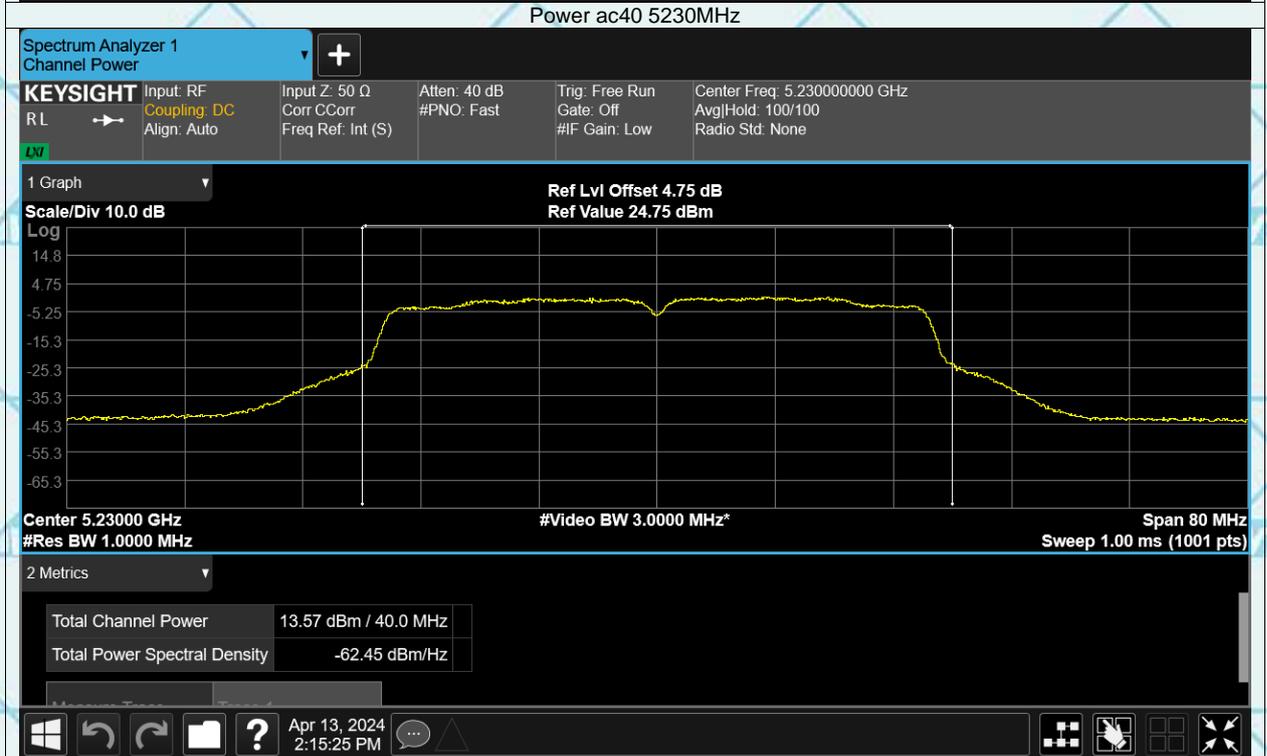
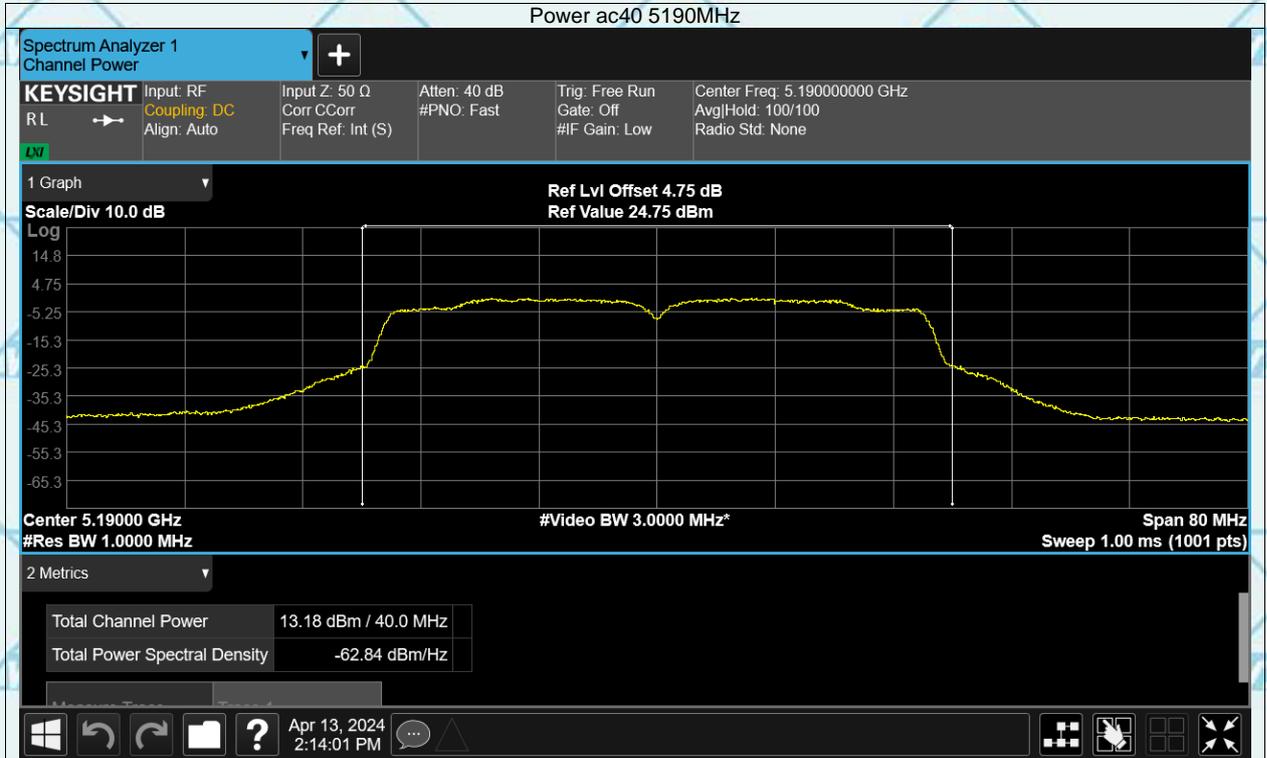


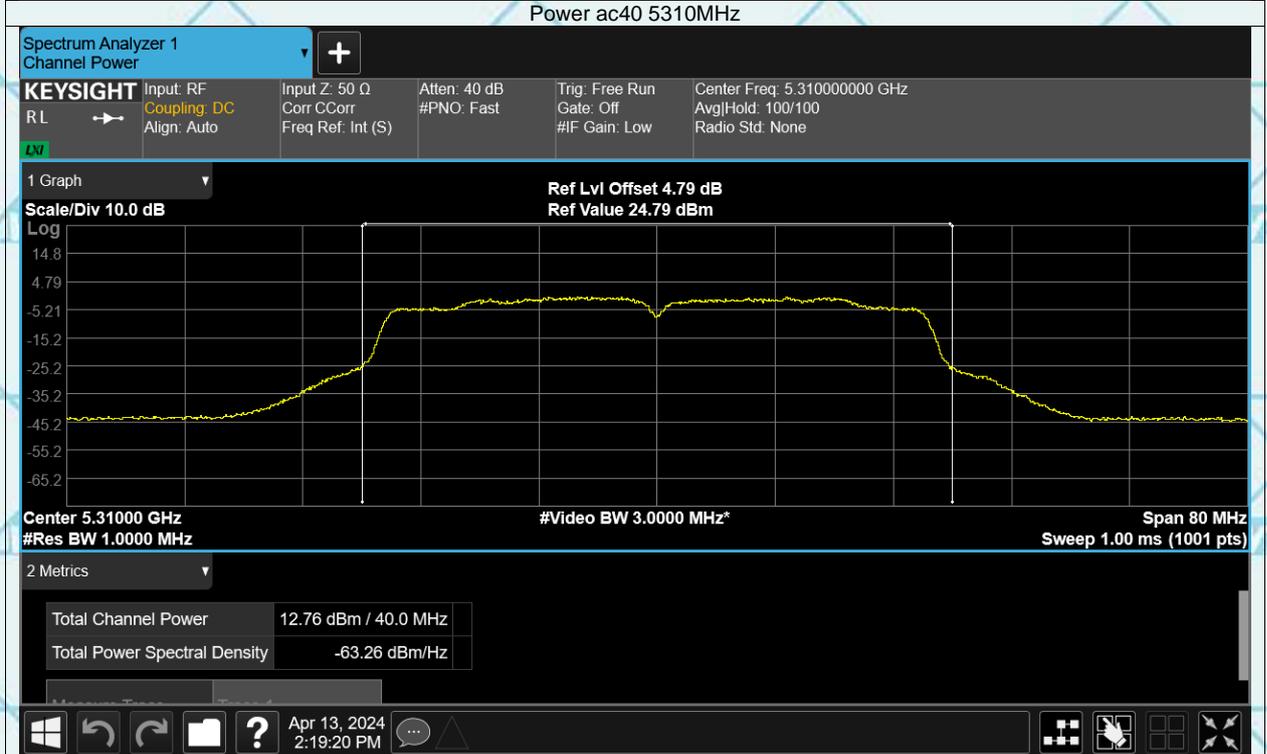
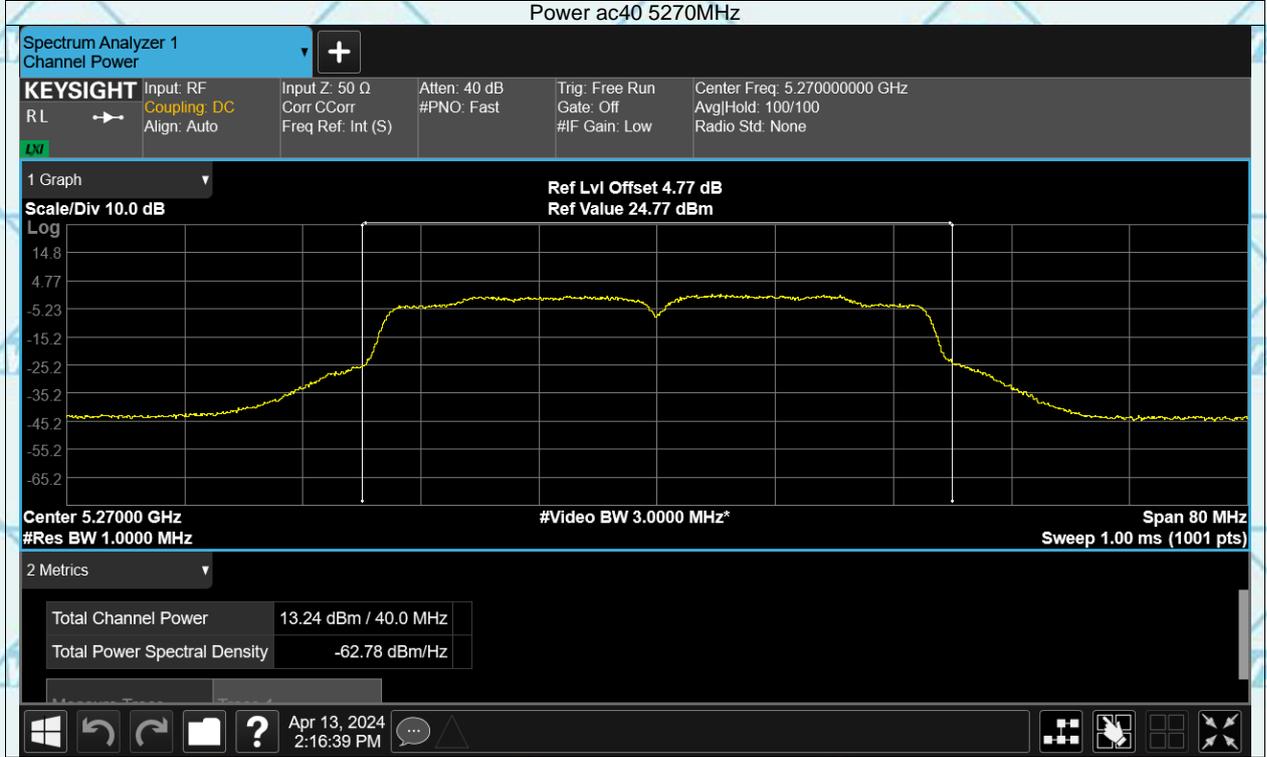


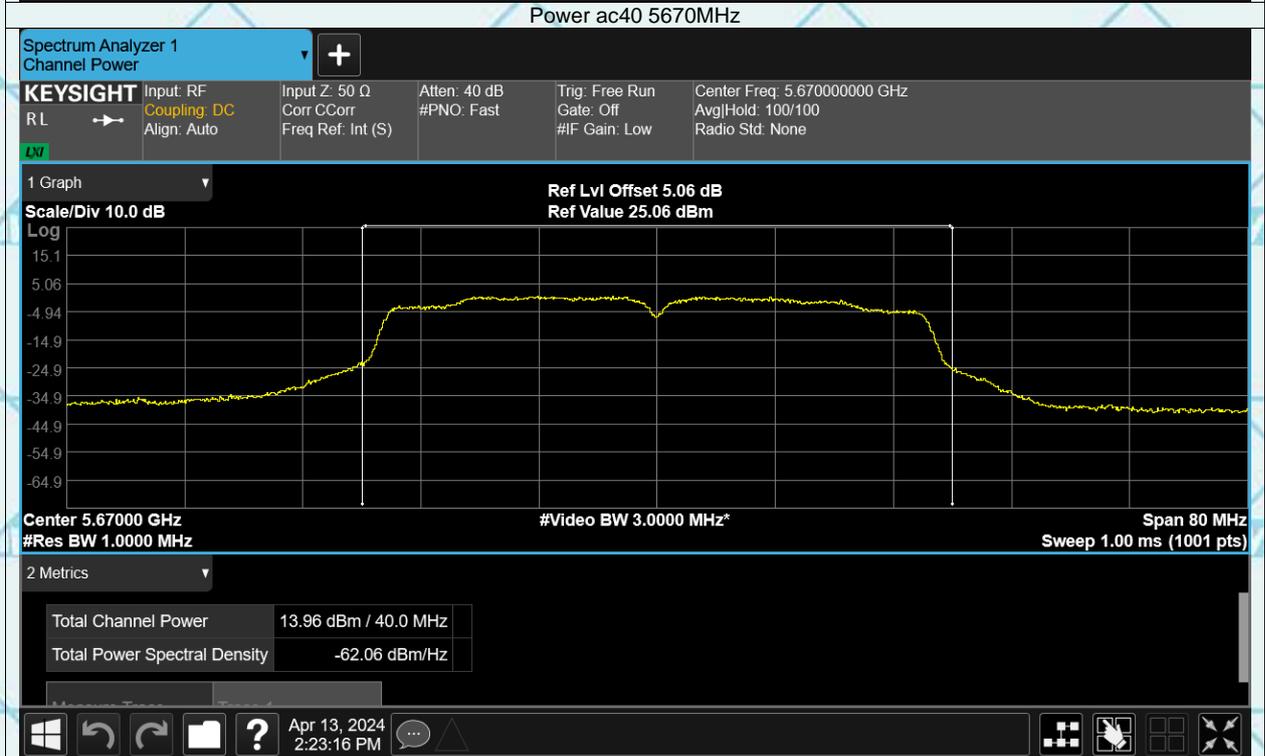
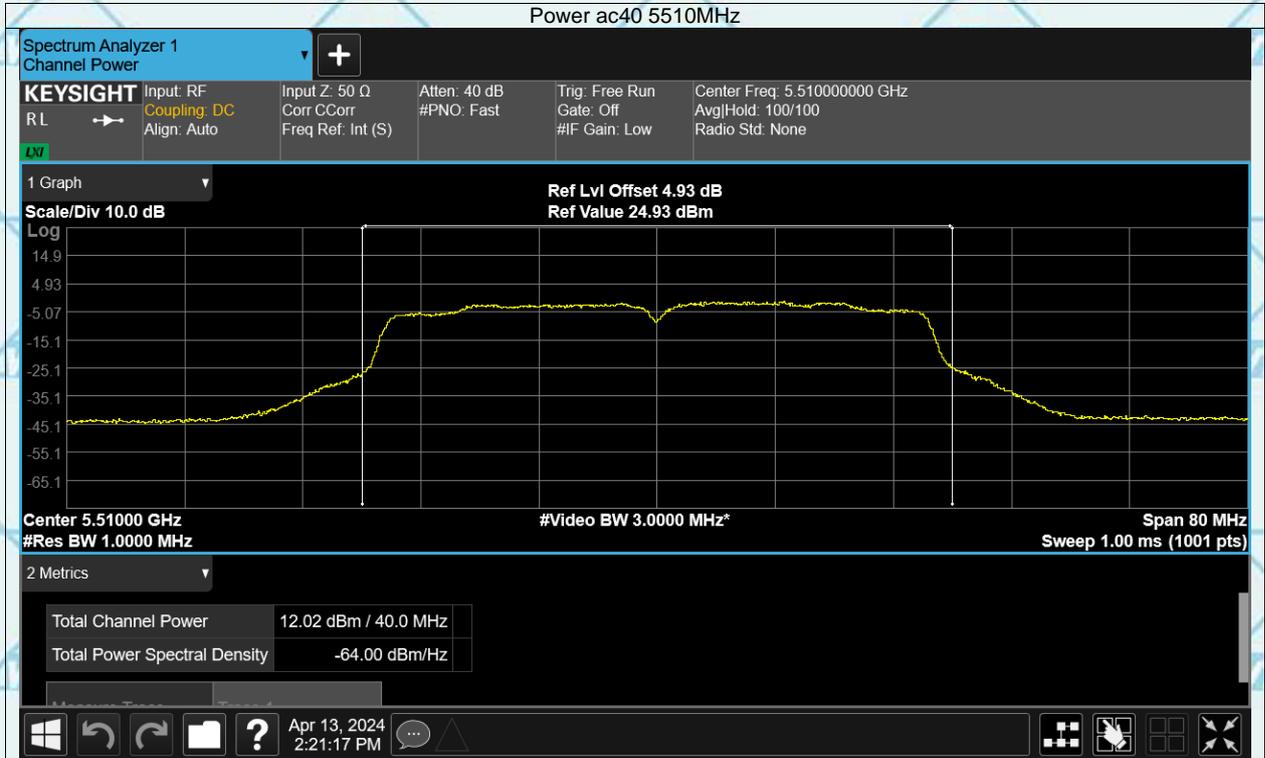


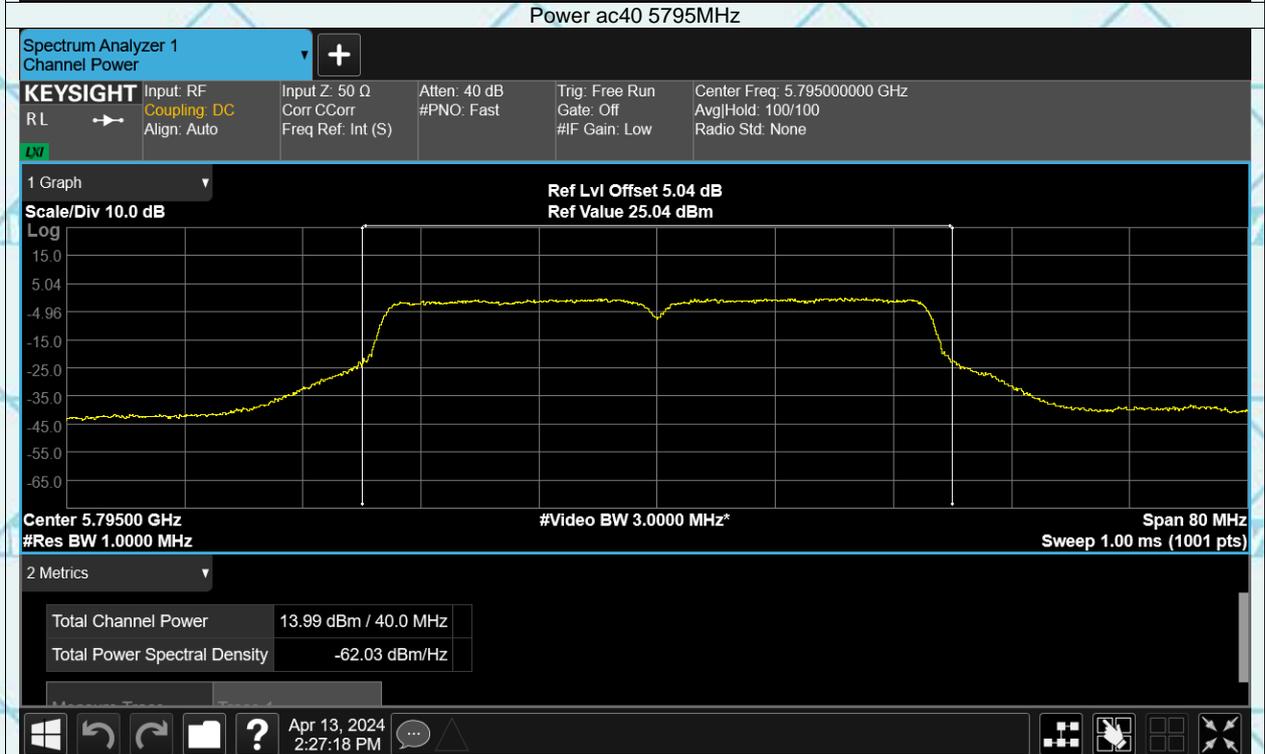
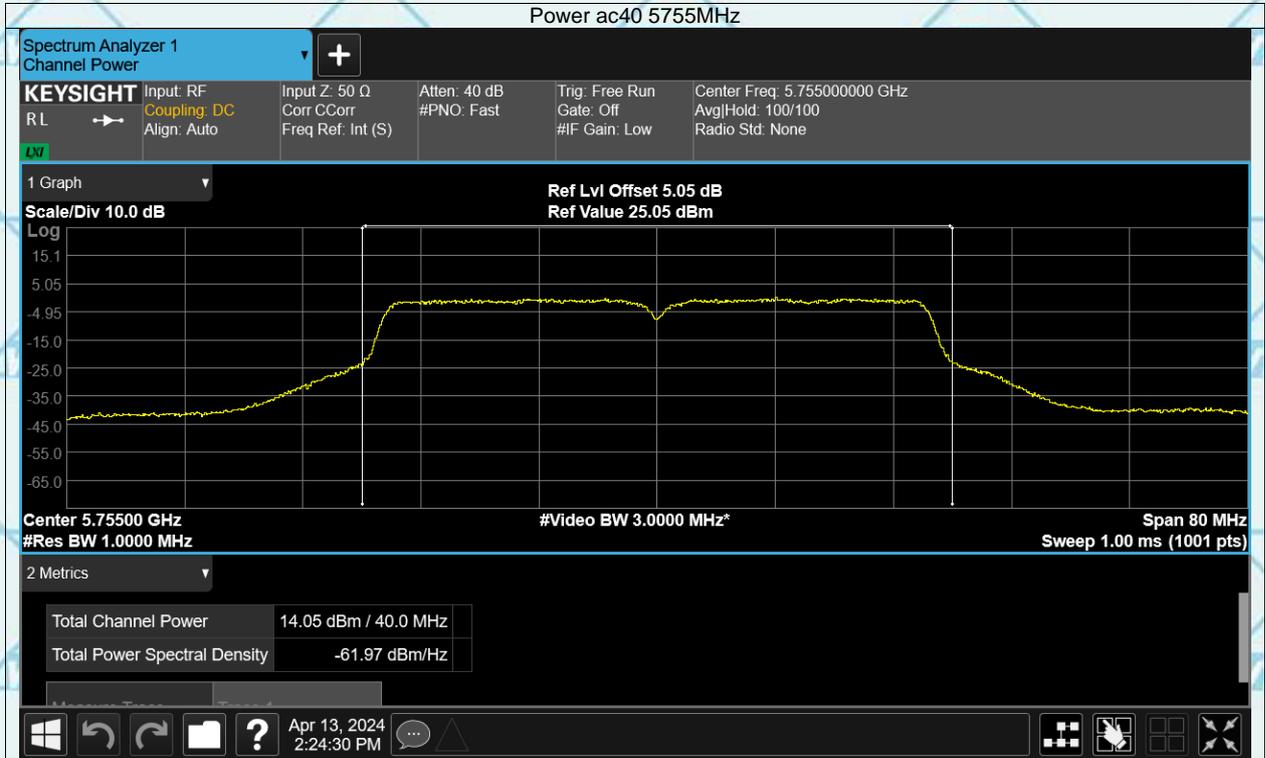


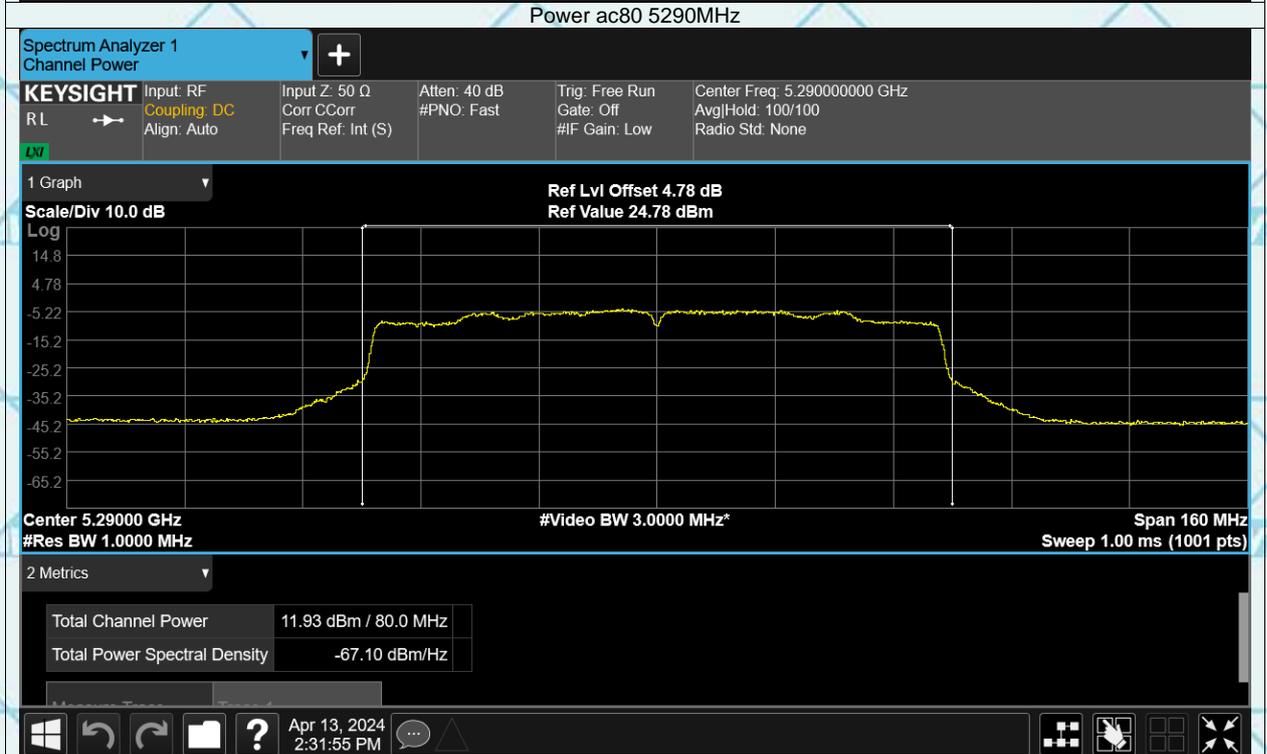
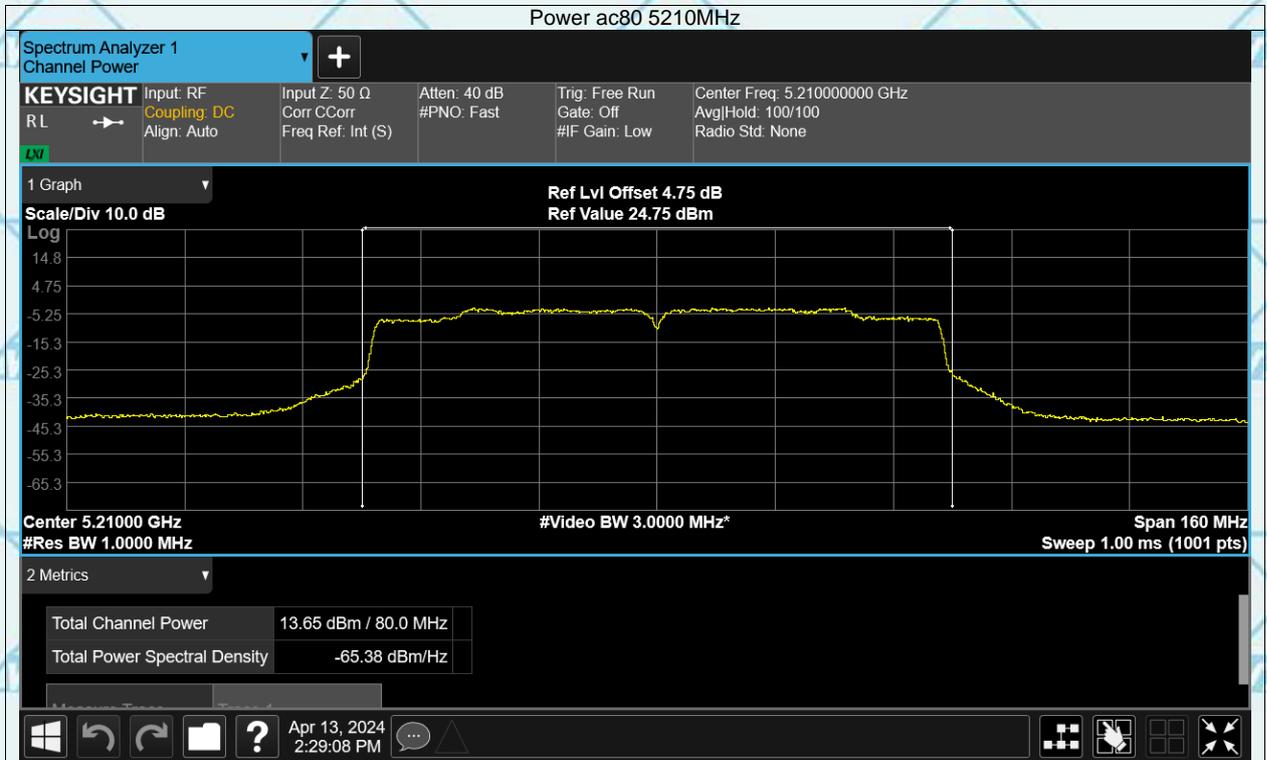


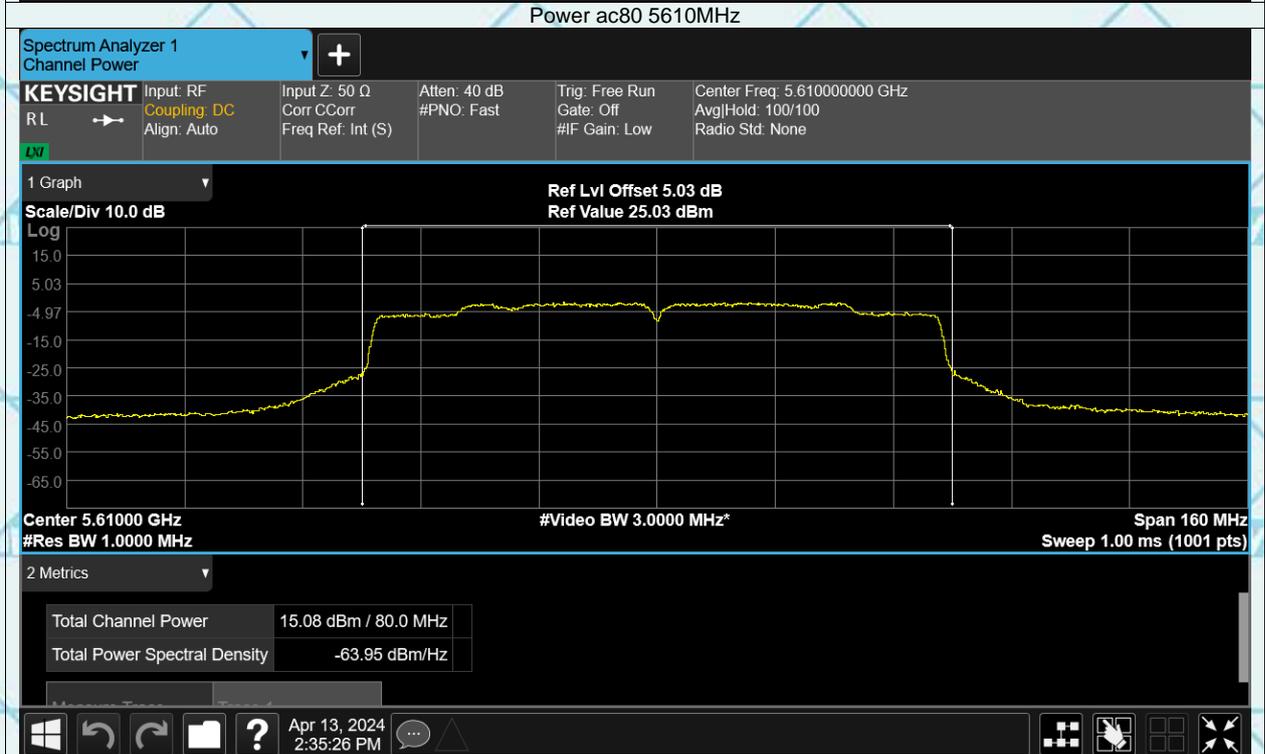
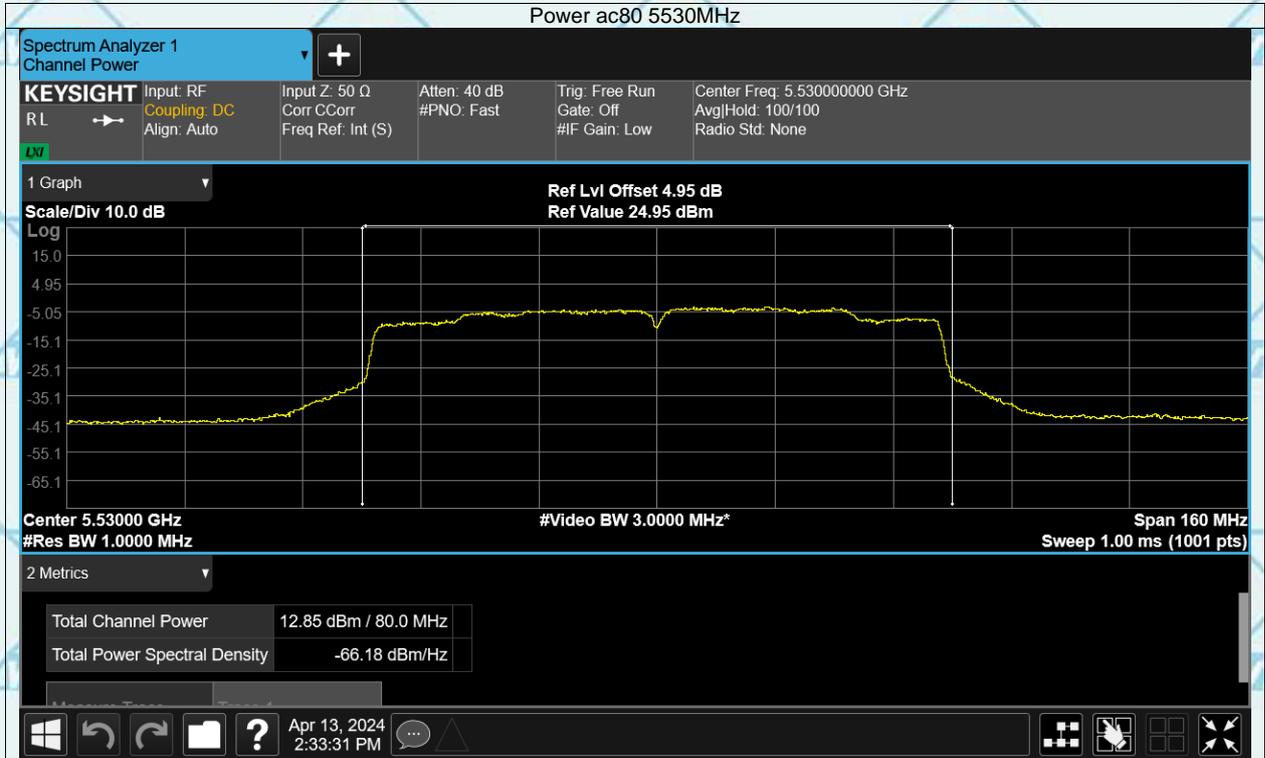


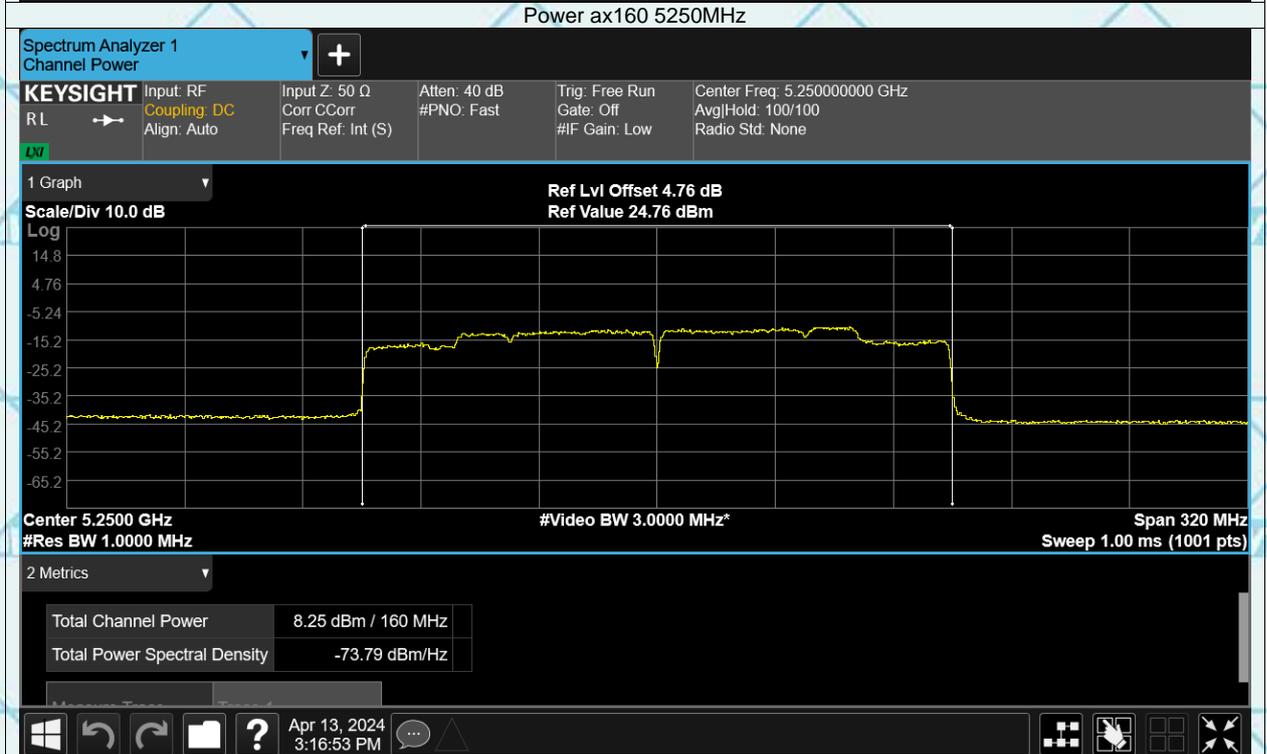
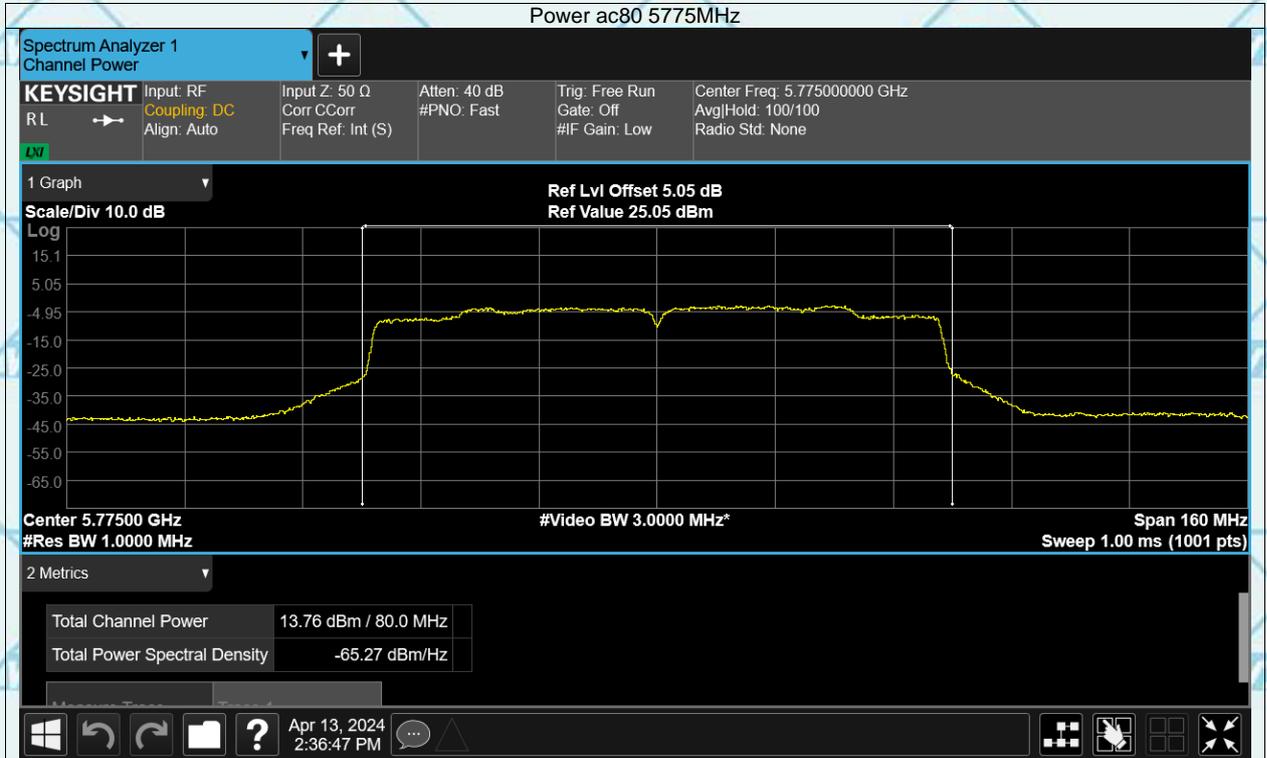


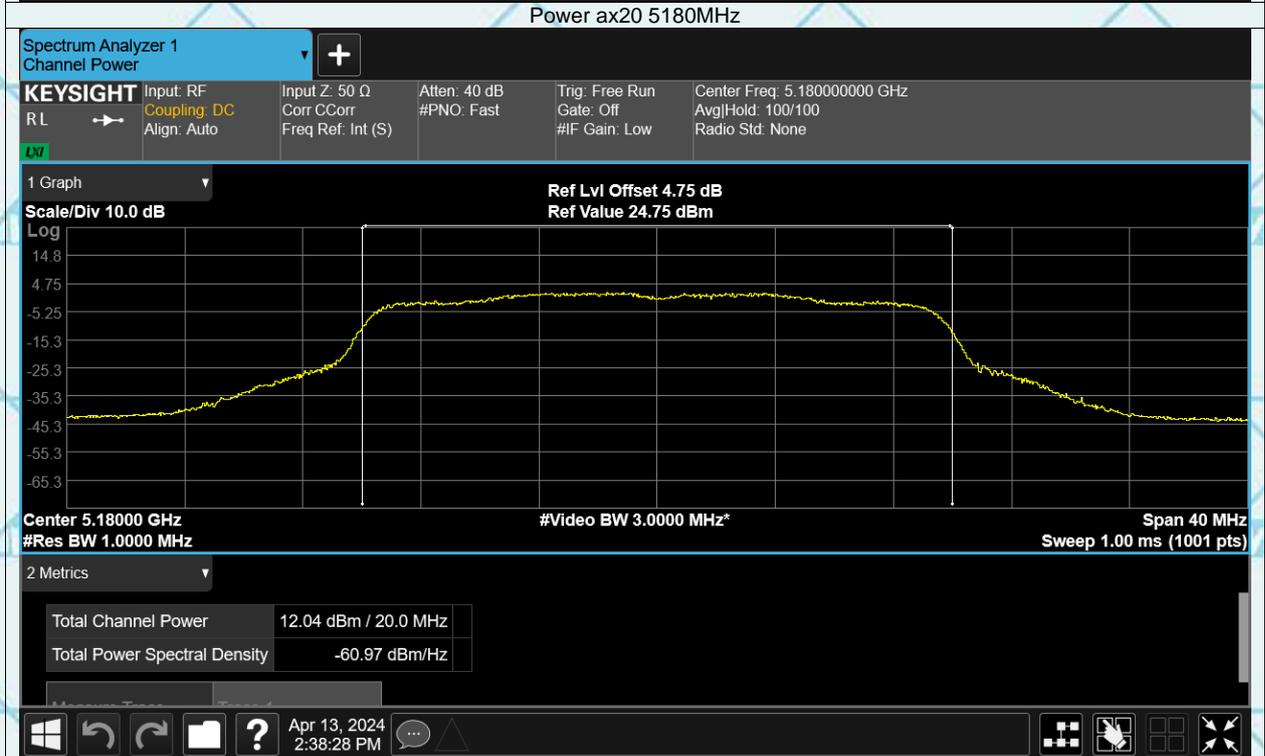
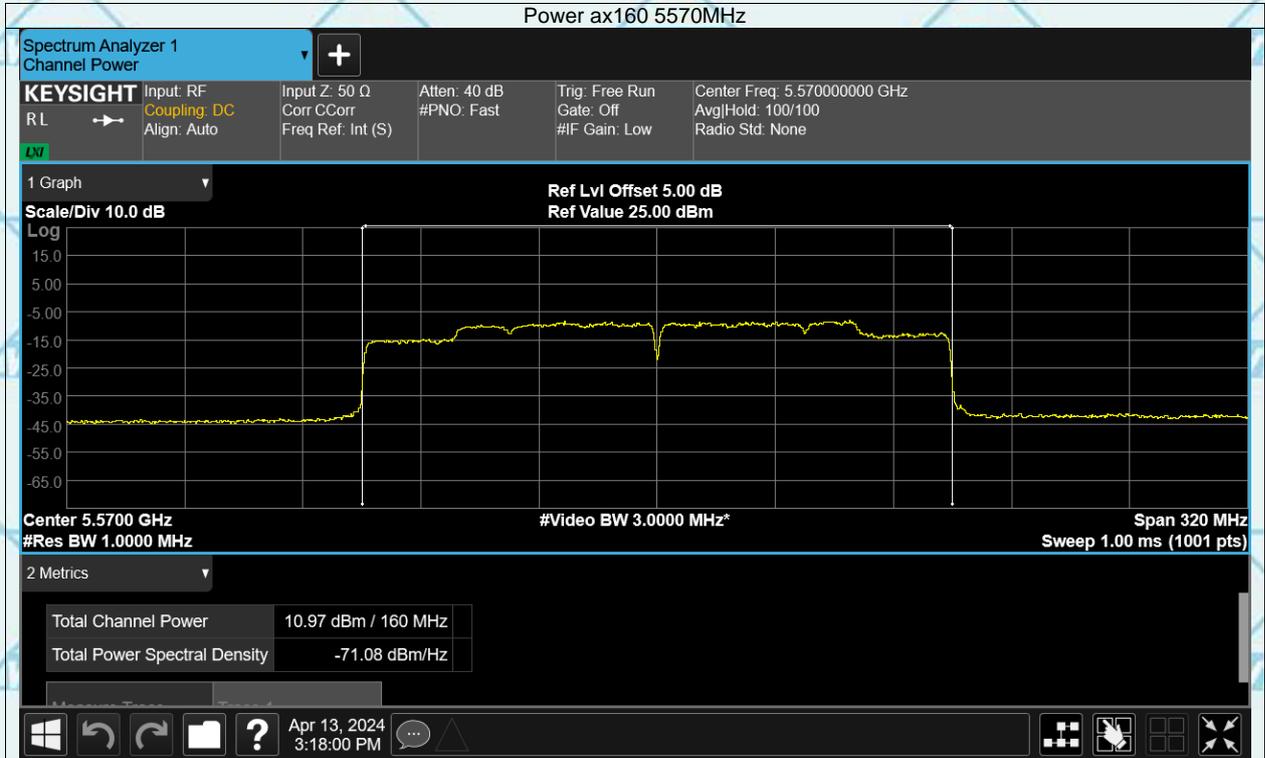


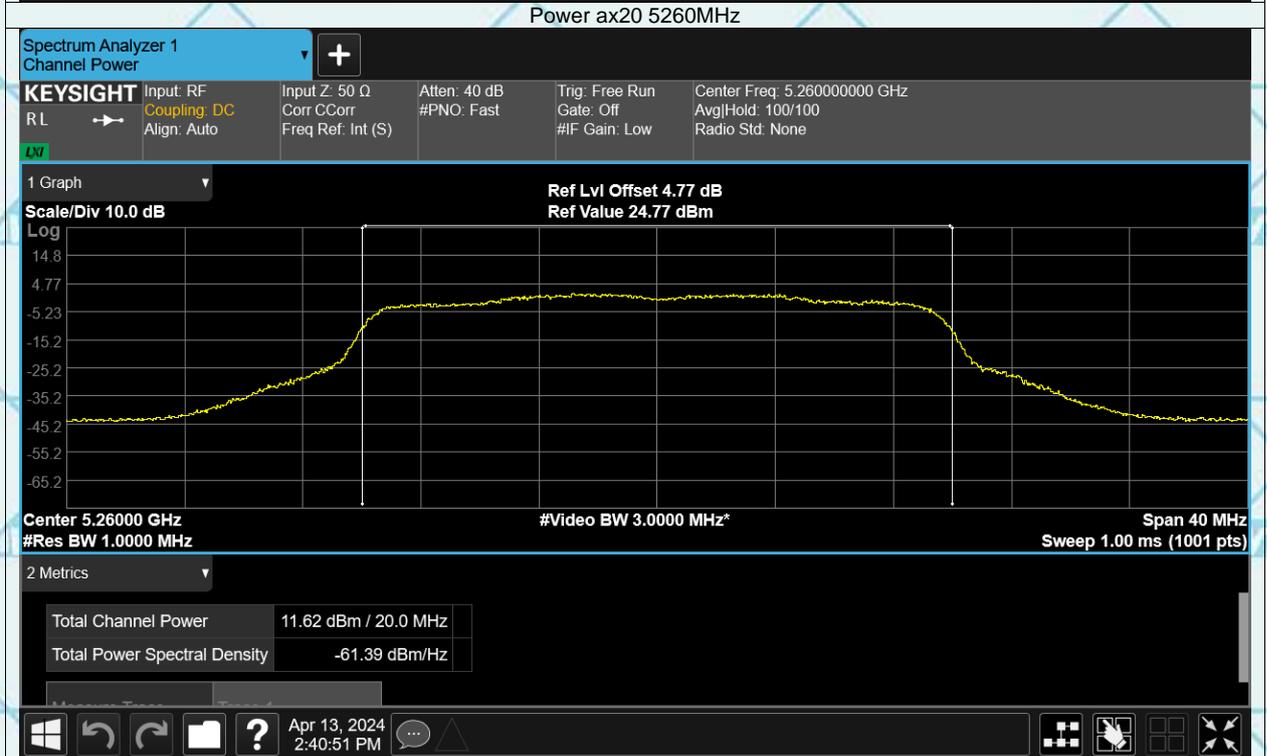
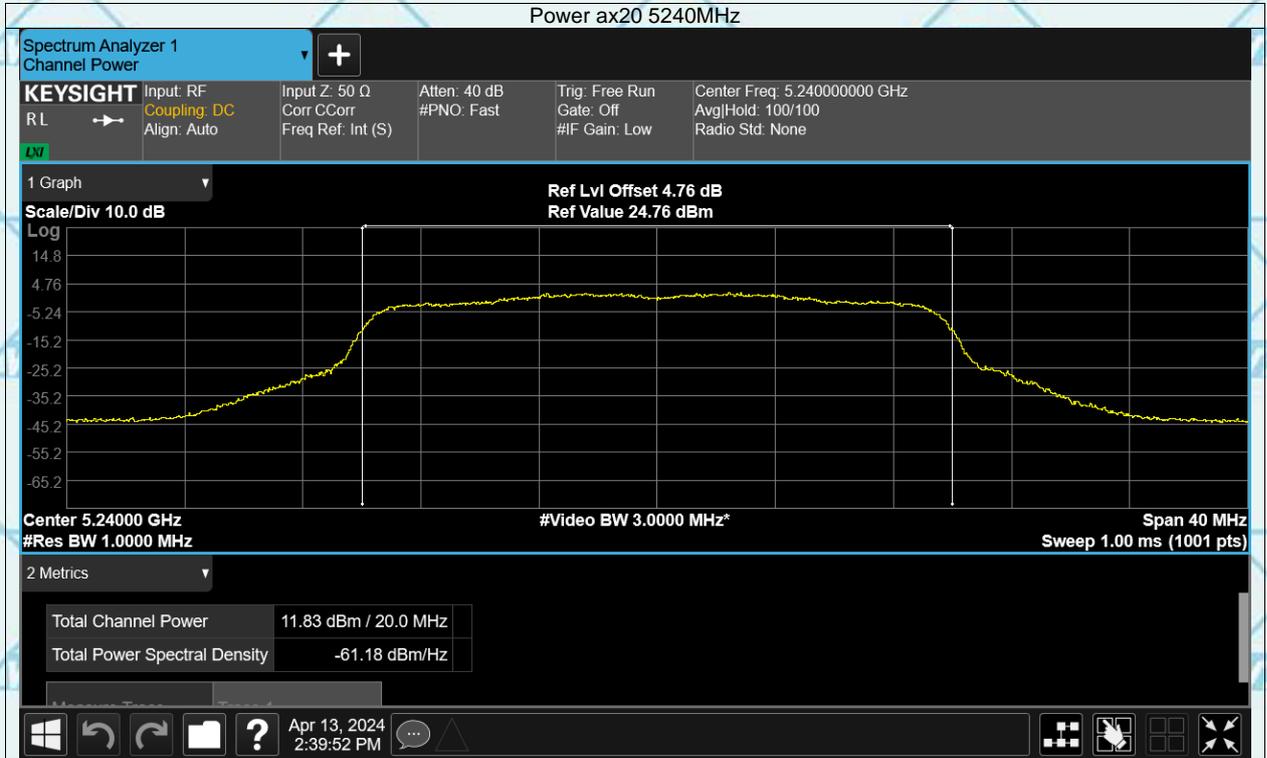


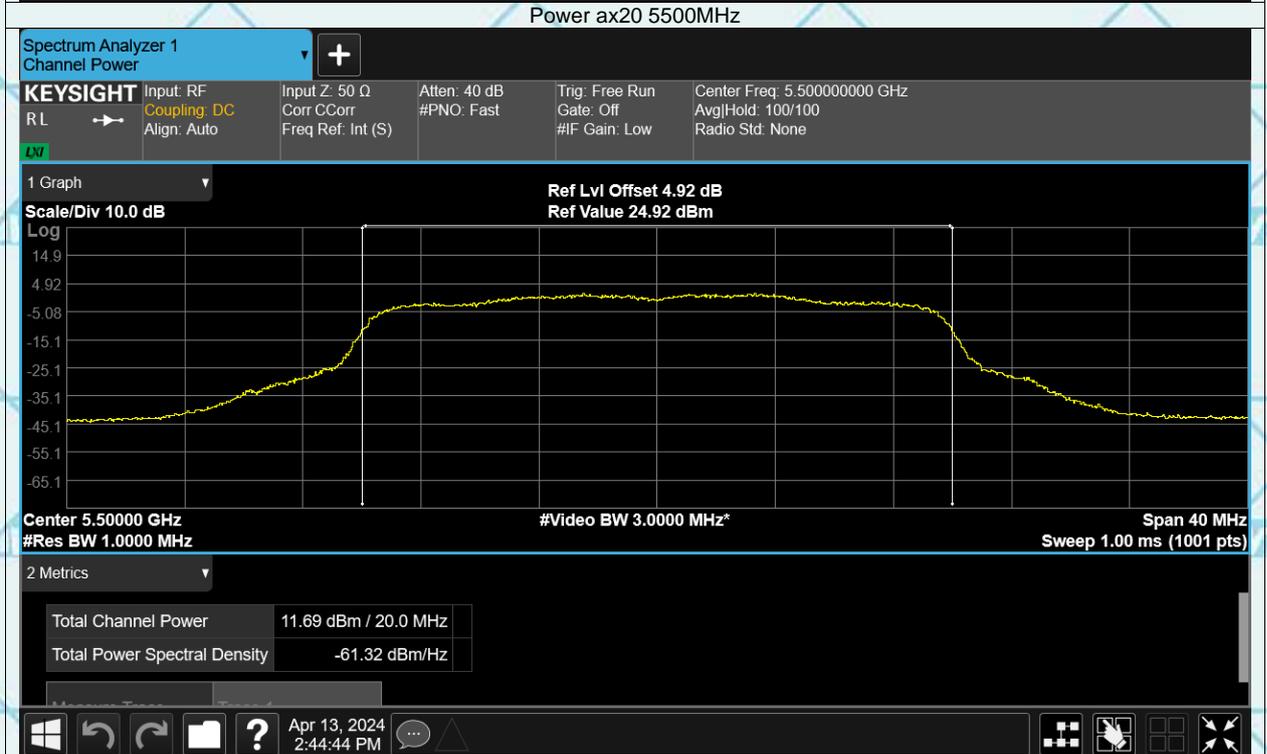
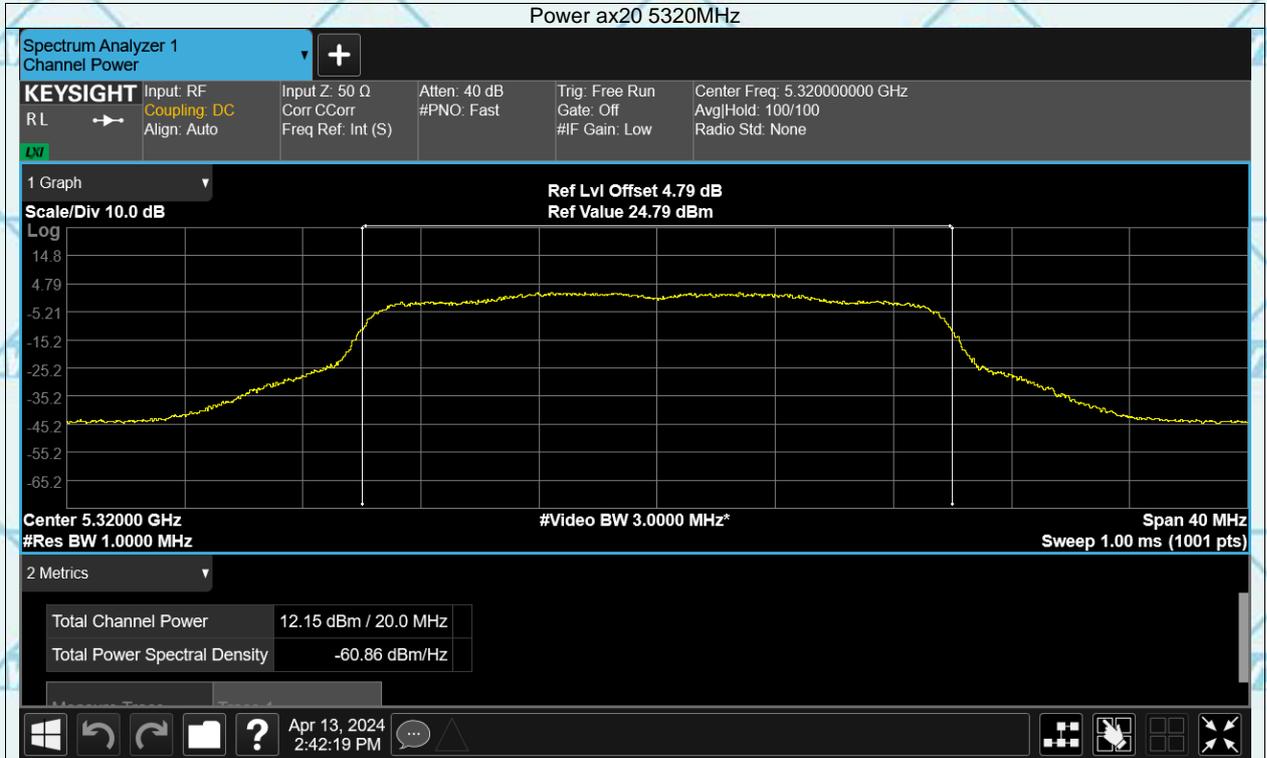


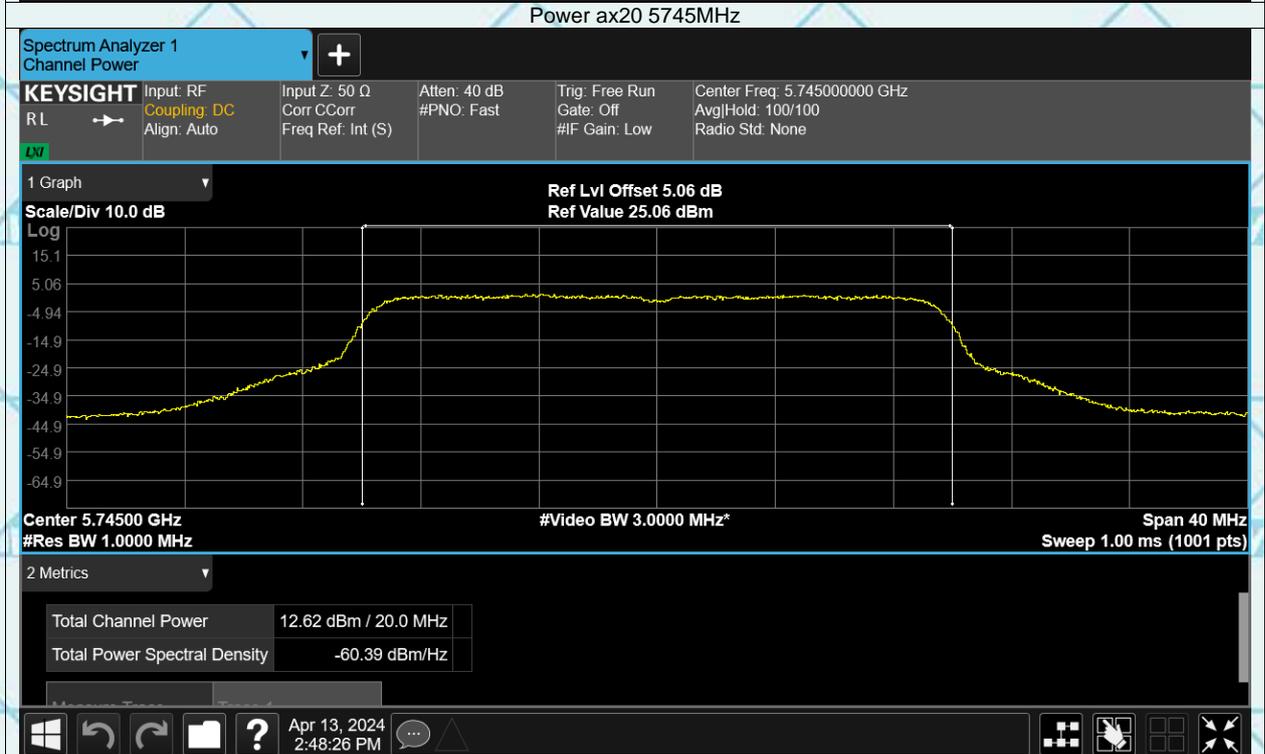
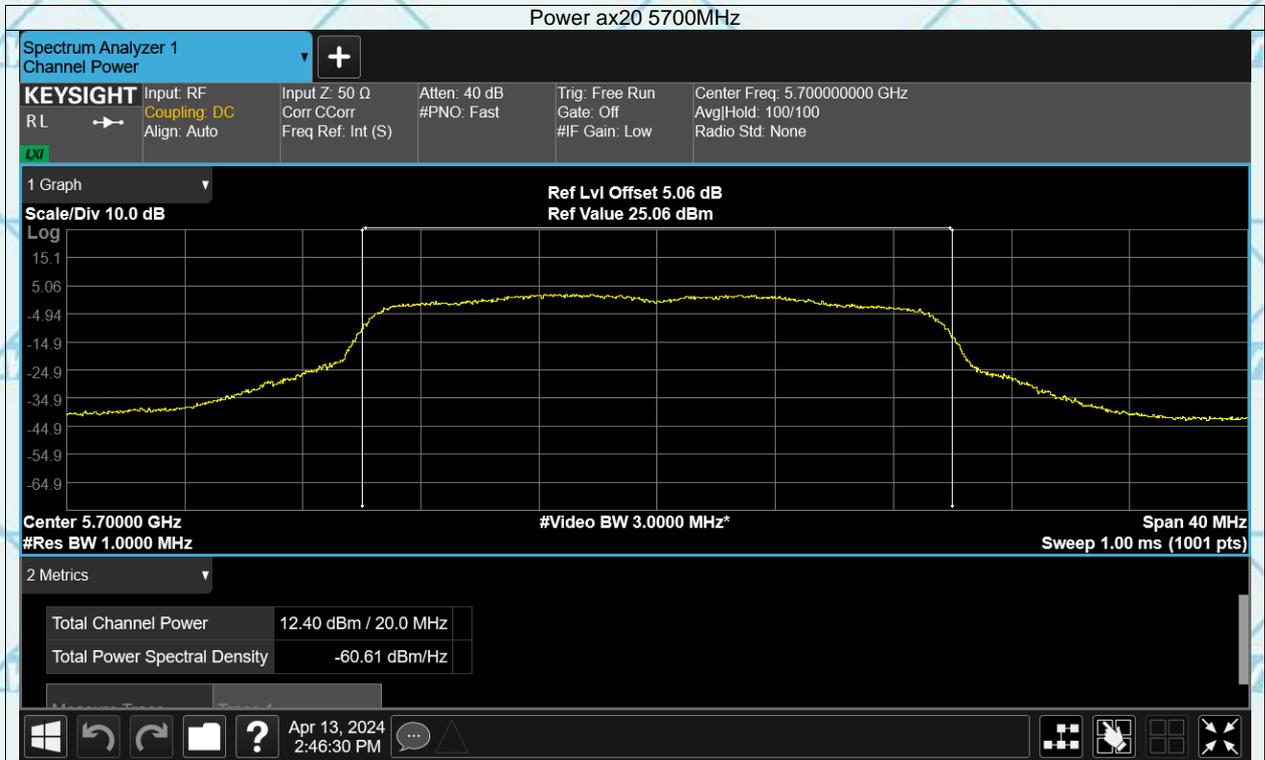


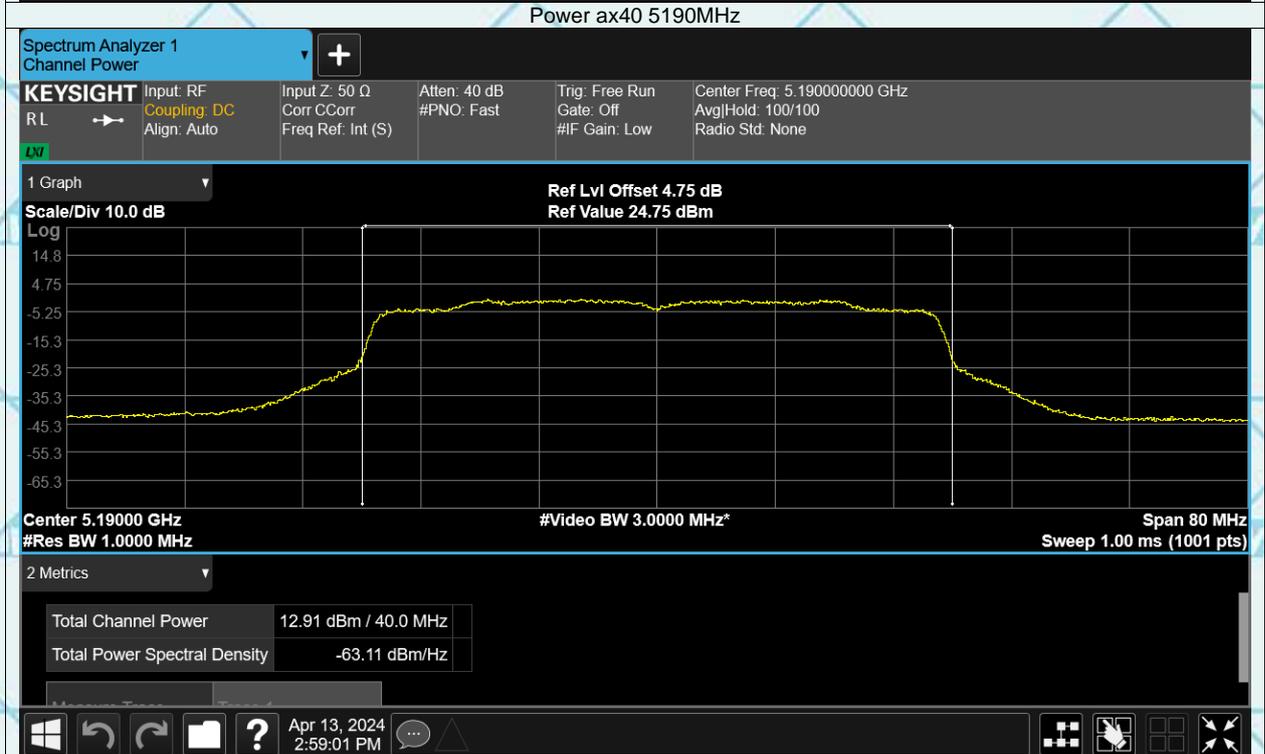
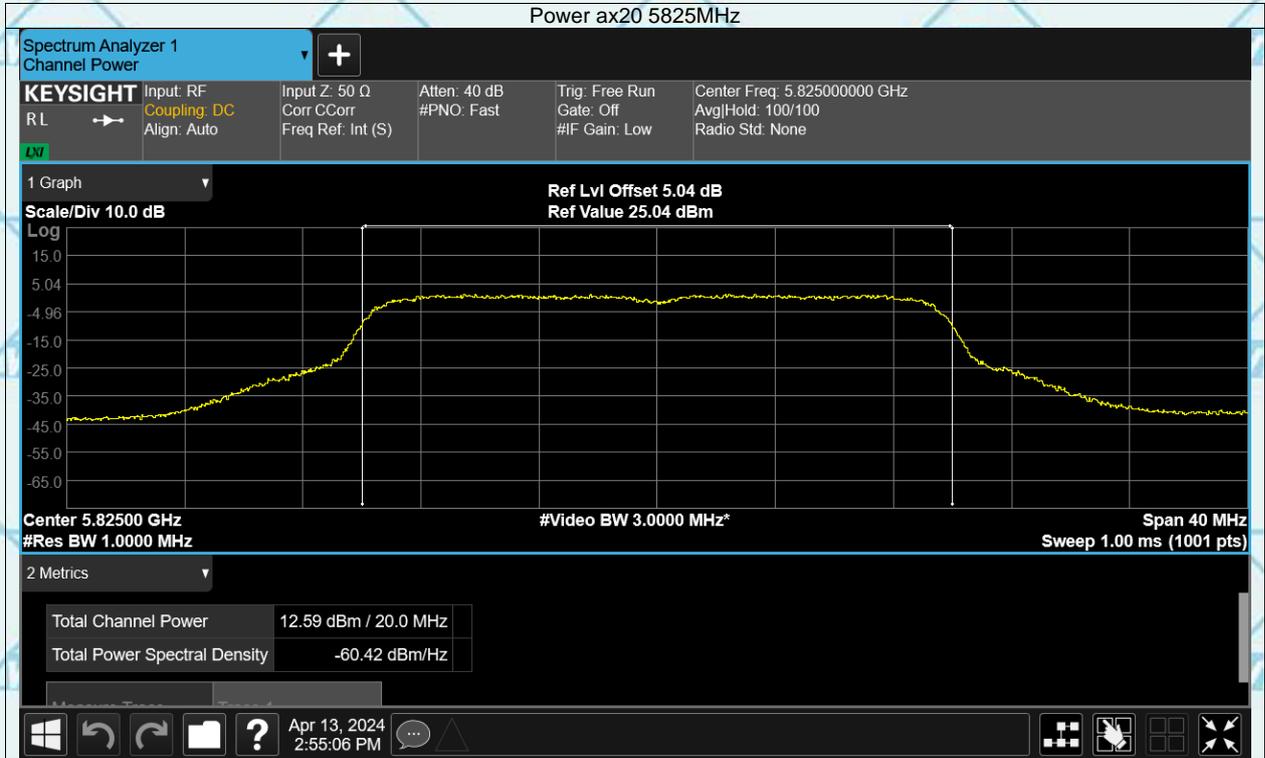


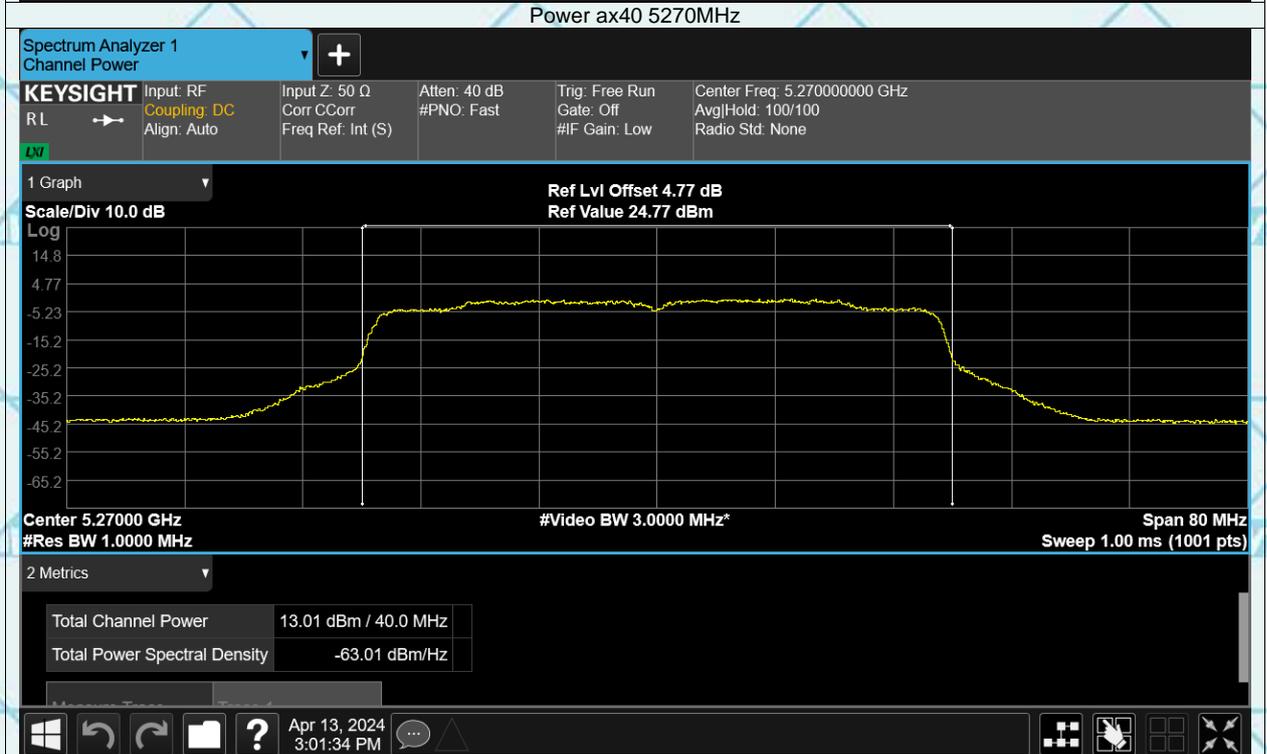


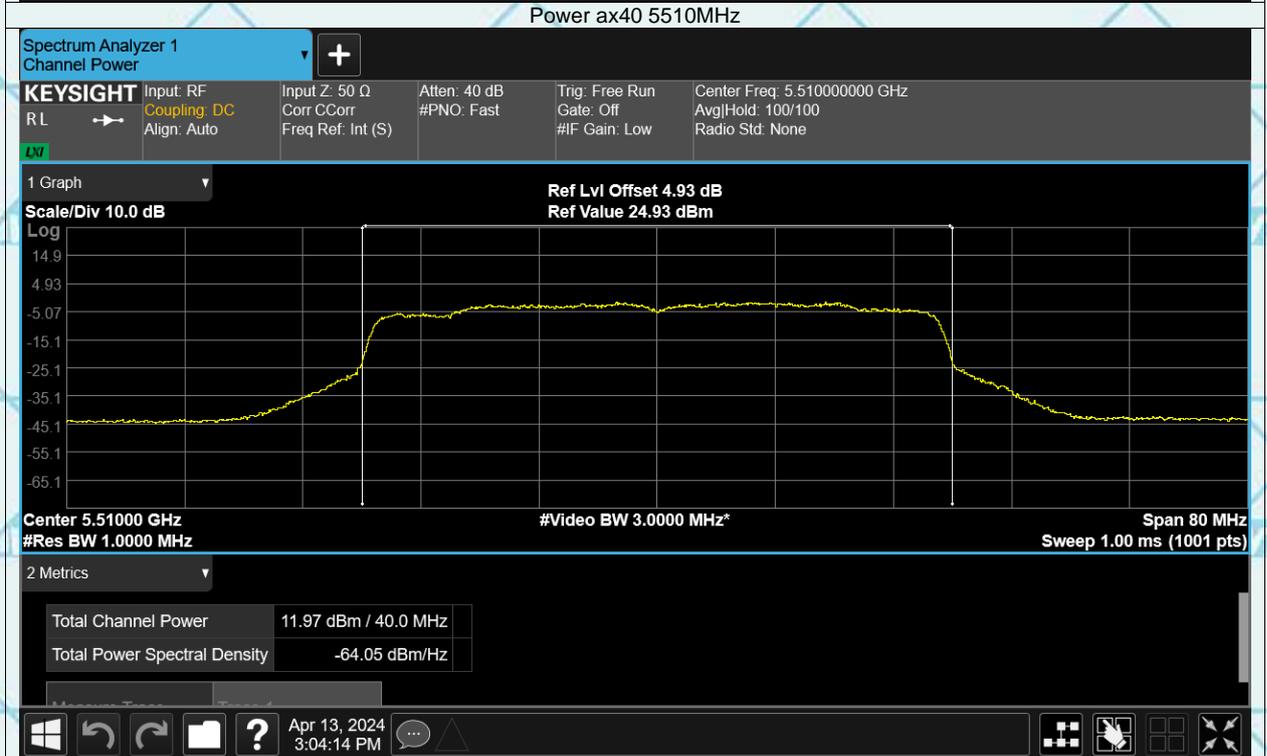
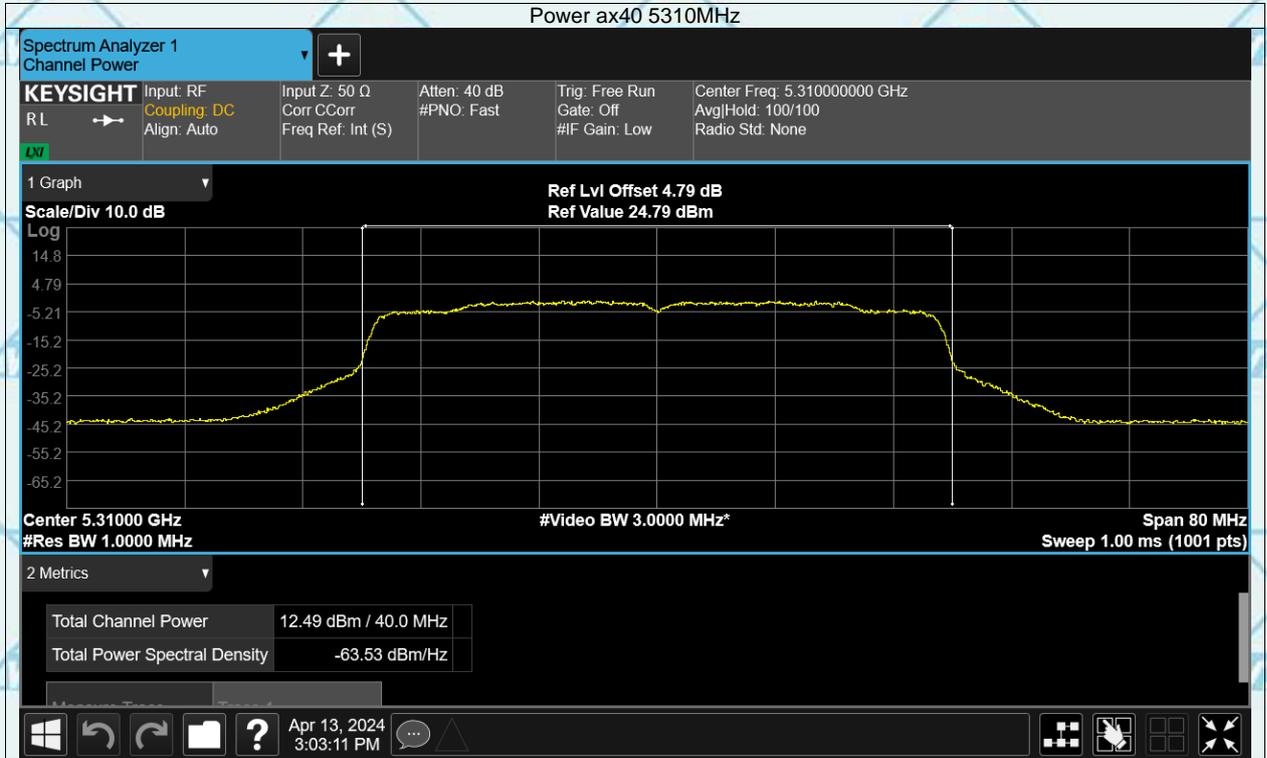


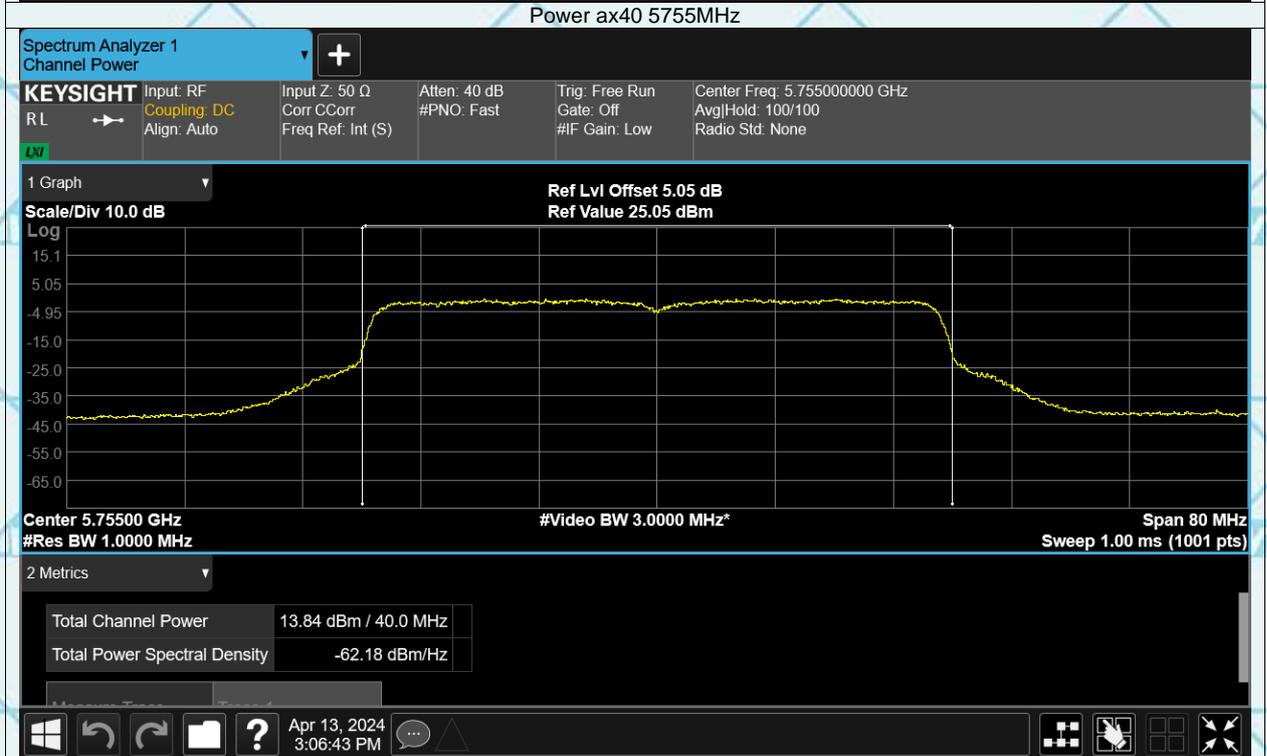
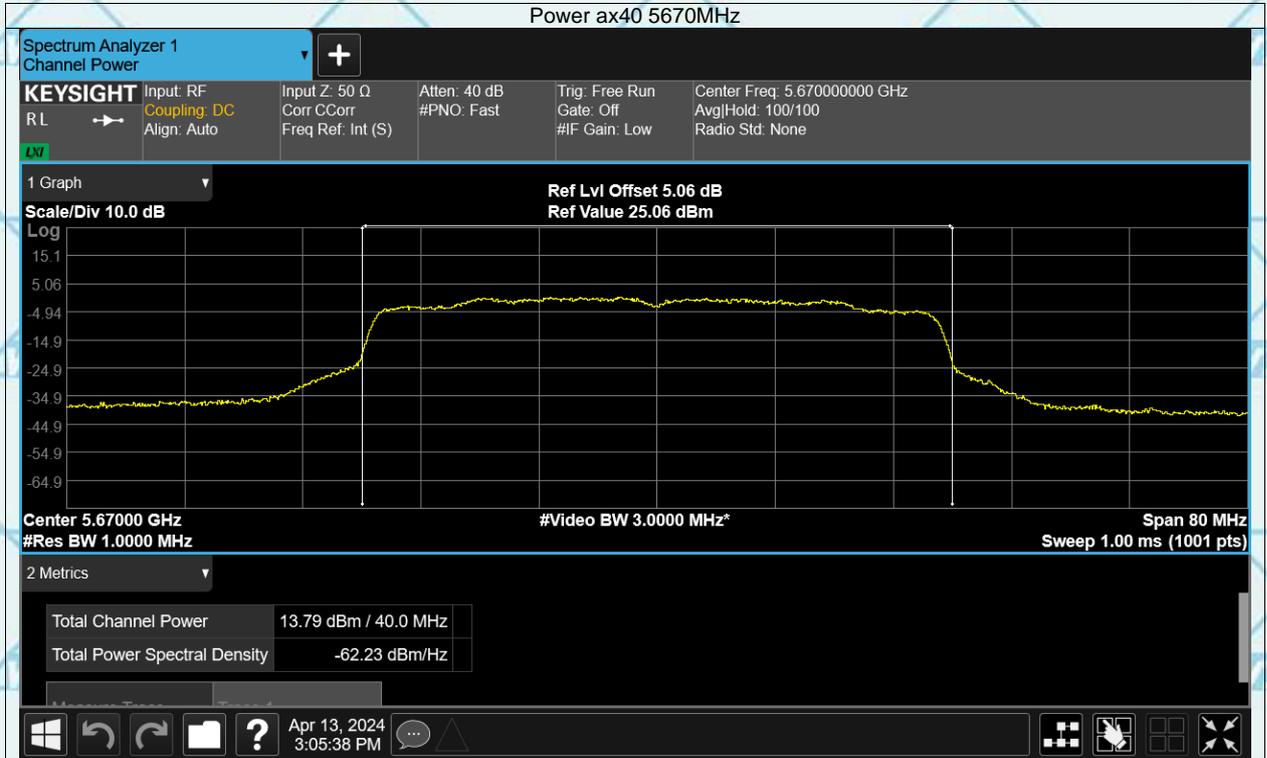


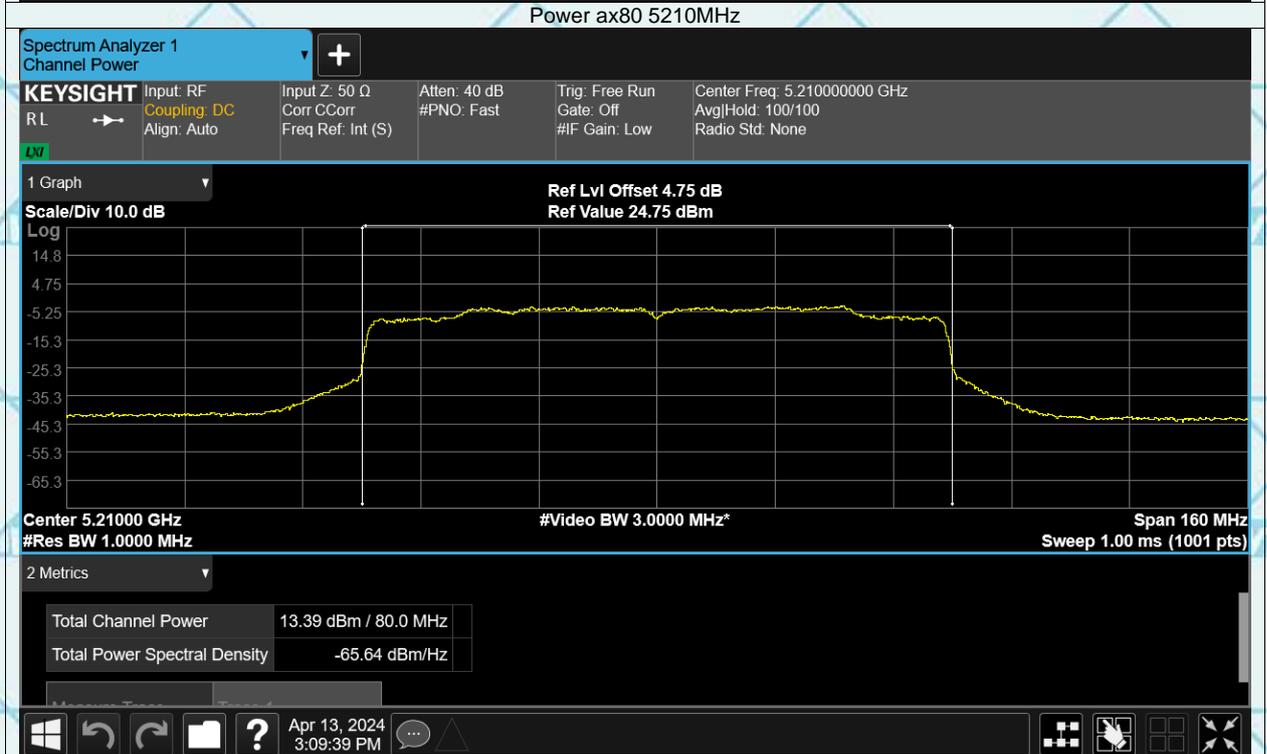
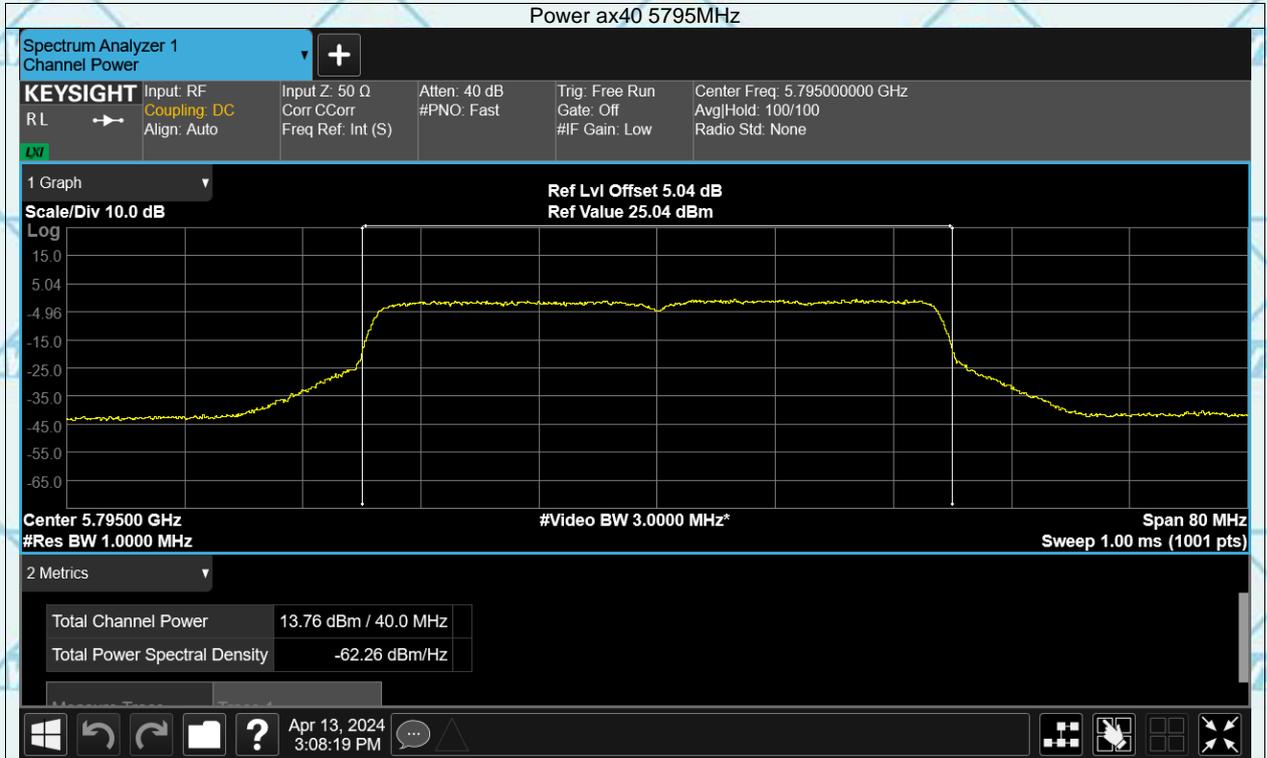


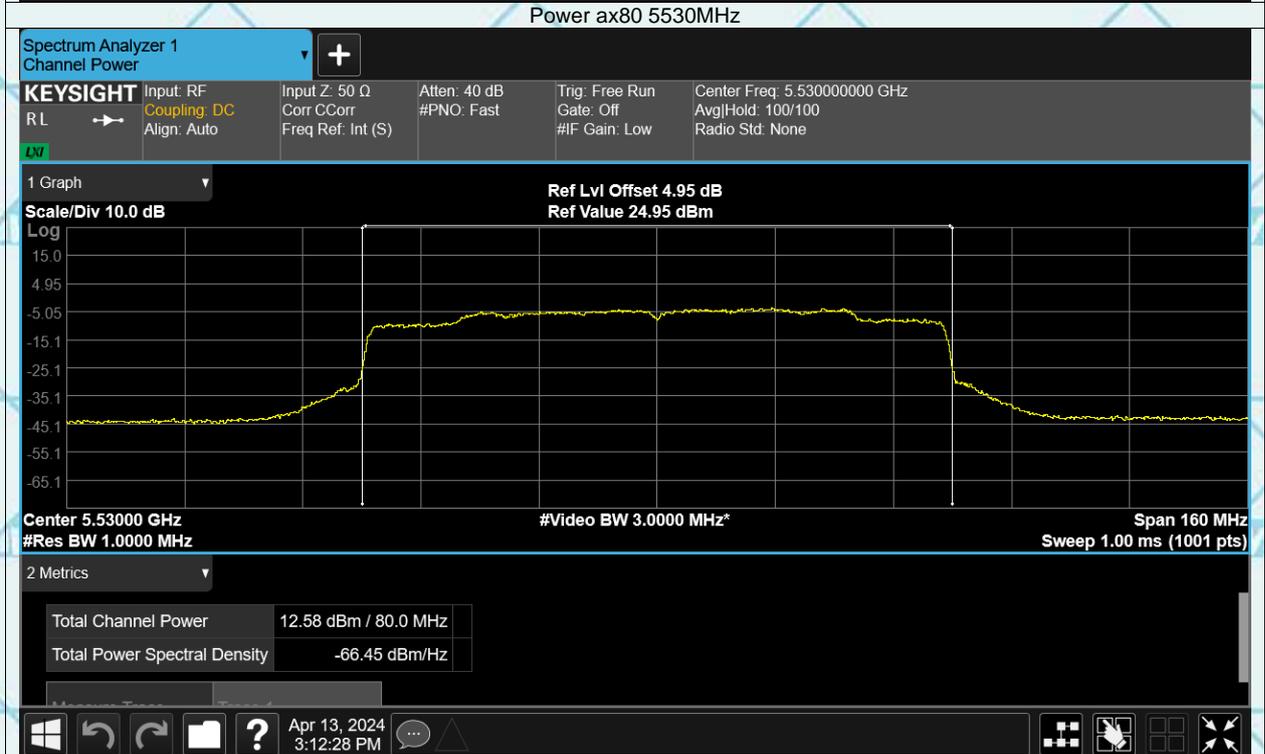
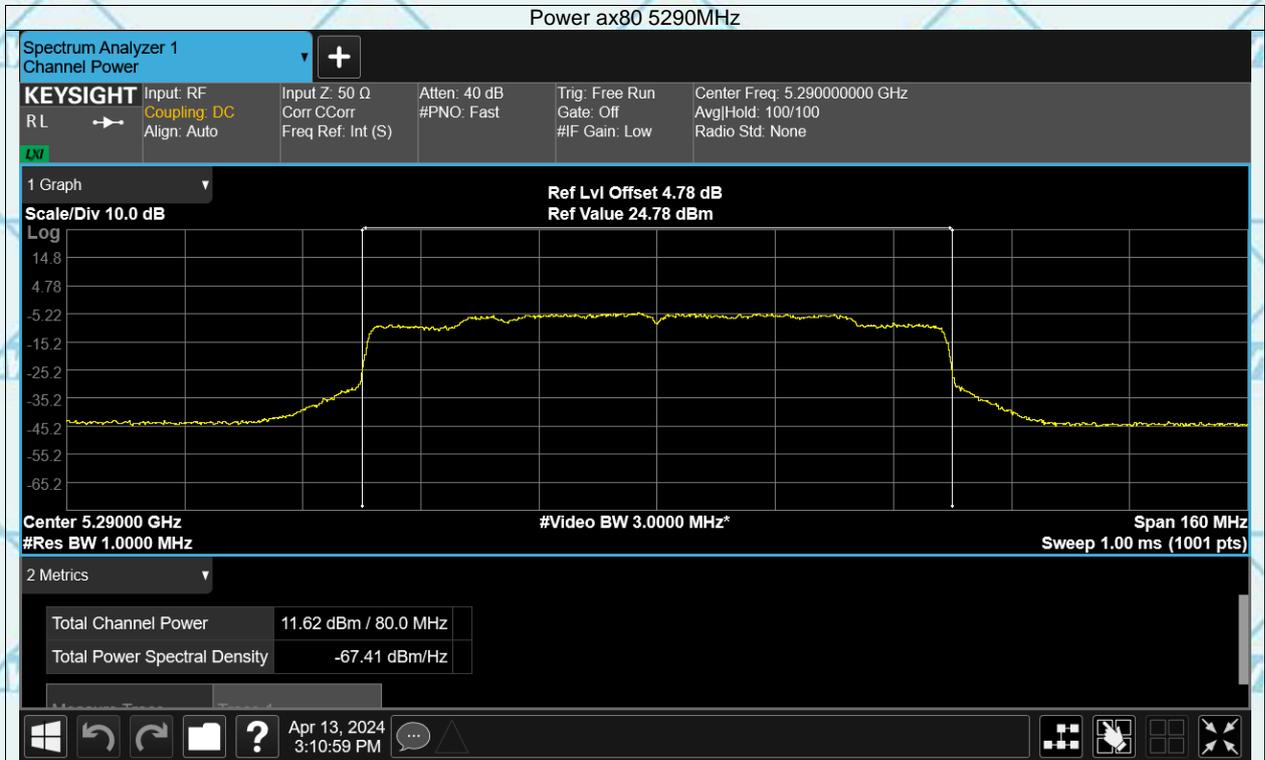


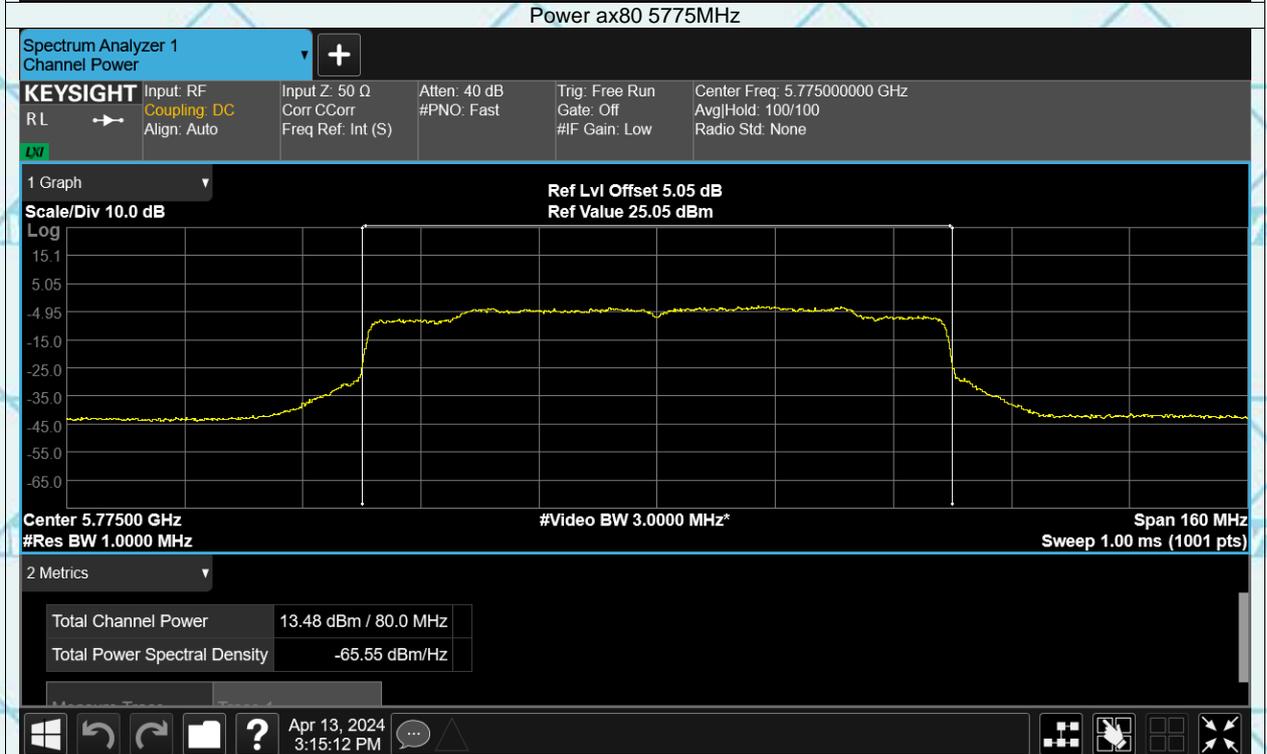
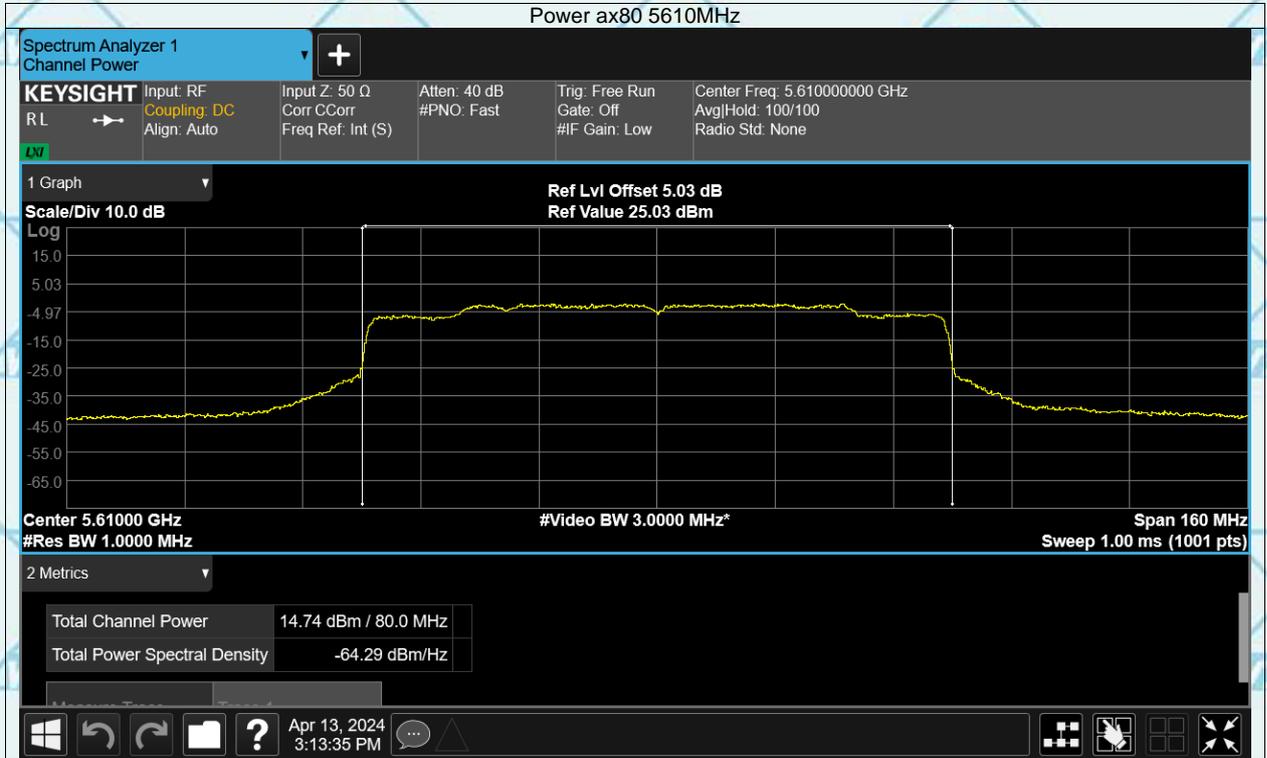














7.6 POWER SPECTRAL DENSITY

- (i) If all antennas have the same gain, G_{ANT} :
Directional gain = $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$ dBi, where N_{SS} = the number of independent spatial streams of data and G_{ANT} is the antenna gain in dBi. (This formula can also be applied when antennas have different gains if the highest antenna gain is substituted for G_{ANT} .)
- (ii) If antenna gains are not equal and each transmit antenna is driven by only one spatial stream, directional gain may be calculated by either of the following two formulas.
- *Directional gain* = $G_{ANT\ MAX} + 10 \log(N_{ANT}/N_{SS})$ dBi, where N_{SS} = the number of independent spatial streams of data and $G_{ANT\ MAX}$ is the gain of the antenna having the highest gain (in dBi).
- Or,

$$\bullet \text{ Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

For power spectral density (PSD) measurements on all devices,
 Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

Note: $N_{ANT}=2$, Array gain= $10 \log(N_{ANT}/N_{SS})=10 \log(2/1)=3.01$ dB, Directional gain= G_{ANT} +Array gain= 2.91 dBi+ 3.01 dB= 5.92 dBi, not exceeding 6, so psd limits remain unchanged.



Report No.: WSCT-A2LA-R&E240300013A-Wi-Fi2

Certificate #5768.01

For Question,
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Product	: EUT-Sample	Test Mode	: See Section 3.4
Test Item	: Power Spectral Density	Temperature	: 25 °C
Test Voltage	: DC 11.61V	Humidity	: 56%RH
Test Result	: PASS		

MAIN Ant1

Mode	Frequency (MHz)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5180	0.78	11	Pass
a	5240	0.47	11	Pass
a	5260	0.58	11	Pass
a	5320	1.03	11	Pass
a	5500	1.17	11	Pass
a	5700	0.79	11	Pass
a	5745	-2.24	30	Pass
a	5825	-2.43	30	Pass
n20	5180	0.32	11	Pass
n20	5240	0.25	11	Pass
n20	5260	0.51	11	Pass
n20	5320	0.4	11	Pass
n20	5500	1.05	11	Pass
n20	5700	0.46	11	Pass
n20	5745	-2.12	30	Pass
n20	5825	-2.61	30	Pass
n40	5190	-1.6	11	Pass
n40	5230	-1.09	11	Pass
n40	5270	-1.38	11	Pass
n40	5310	-2.1	11	Pass
n40	5510	-2.07	11	Pass
n40	5670	-0.85	11	Pass
n40	5755	-3.91	30	Pass
n40	5795	-3.99	30	Pass
ac20	5180	0.47	11	Pass
ac20	5240	0.53	11	Pass
ac20	5260	0.29	11	Pass
ac20	5320	0.63	11	Pass
ac20	5500	0.86	11	Pass
ac20	5700	0.6	11	Pass
ac20	5745	-2.75	30	Pass
ac20	5825	-2.55	30	Pass
ac40	5190	-1.61	11	Pass
ac40	5230	-1.41	11	Pass
ac40	5270	-1.1	11	Pass
ac40	5310	-2.17	11	Pass
ac40	5510	-2.38	11	Pass
ac40	5670	-0.57	11	Pass
ac40	5755	-3.58	30	Pass
ac40	5795	-3.91	30	Pass
ac80	5210	-4.78	11	Pass
ac80	5290	-5.63	11	Pass
ac80	5530	-4.24	11	Pass
ac80	5610	-2.93	11	Pass
ac80	5775	-6.48	30	Pass
ax160	5250	-12.49	11	Pass
ax160	5570	-10.05	11	Pass
ax20	5180	0.37	11	Pass
ax20	5240	0.4	11	Pass
ax20	5260	-0.09	11	Pass
ax20	5320	0.45	11	Pass
ax20	5500	0.49	11	Pass
ax20	5700	0.29	11	Pass
ax20	5745	-2.84	30	Pass
ax20	5825	-2.7	30	Pass
ax40	5190	-2.09	11	Pass
ax40	5230	-1.36	11	Pass
ax40	5270	-1.73	11	Pass
ax40	5310	-2.45	11	Pass





Report No.: WSCT-A2LA-R&E240300013A-Wi-Fi2

Certificate #5768.01

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ax40	5510	-2.39	11	Pass
ax40	5670	-1.25	11	Pass
ax40	5755	-4.32	30	Pass
ax40	5795	-4.24	30	Pass
ax80	5210	-4.38	11	Pass
ax80	5290	-6.05	11	Pass
ax80	5530	-4.49	11	Pass
ax80	5610	-3.27	11	Pass
ax80	5775	-6.91	30	Pass

AUX Antenna

Mode	Frequency (MHz)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5180	-0.73	11	Pass
a	5240	-0.42	11	Pass
a	5260	-0.7	11	Pass
a	5320	-0.29	11	Pass
a	5500	-0.5	11	Pass
a	5700	2.79	11	Pass
a	5745	-0.95	30	Pass
a	5825	-0.69	30	Pass
n20	5180	2.23	11	Pass
n20	5240	2.26	11	Pass
n20	5260	2.26	11	Pass
n20	5320	2.61	11	Pass
n20	5500	2.51	11	Pass
n20	5700	2.98	11	Pass
n20	5745	-0.68	30	Pass
n20	5825	-0.64	30	Pass
n40	5190	0.4	11	Pass
n40	5230	0.98	11	Pass
n40	5270	0.76	11	Pass
n40	5310	-0.08	11	Pass
n40	5510	-0.46	11	Pass
n40	5670	1.37	11	Pass
n40	5755	-2.24	30	Pass
n40	5795	-2.23	30	Pass
ac20	5180	2.26	11	Pass
ac20	5240	2.4	11	Pass
ac20	5260	1.93	11	Pass
ac20	5320	2.57	11	Pass
ac20	5500	2.79	11	Pass
ac20	5700	2.87	11	Pass
ac20	5745	-0.99	30	Pass
ac20	5825	-0.97	30	Pass
ac40	5190	0.27	11	Pass
ac40	5230	0.71	11	Pass
ac40	5270	0.28	11	Pass
ac40	5310	-0.04	11	Pass
ac40	5510	-0.88	11	Pass
ac40	5670	1.29	11	Pass
ac40	5755	-2.27	30	Pass
ac40	5795	-2.02	30	Pass
ac80	5210	-1.91	11	Pass
ac80	5290	-3.17	11	Pass
ac80	5530	-2.76	11	Pass
ac80	5610	-0.61	11	Pass
ac80	5775	-5.16	30	Pass
ax160	5250	-10.06	11	Pass
ax160	5570	-7.58	11	Pass
ax20	5180	1.76	11	Pass
ax20	5240	2.06	11	Pass
ax20	5260	1.56	11	Pass
ax20	5320	2.74	11	Pass
ax20	5500	2.09	11	Pass
ax20	5700	2.47	11	Pass
ax20	5745	-1.48	30	Pass
ax20	5825	-1.33	30	Pass
ax40	5190	-0.18	11	Pass
ax40	5230	0.49	11	Pass
ax40	5270	-0.09	11	Pass
ax40	5310	-0.3	11	Pass
ax40	5510	-0.89	11	Pass





Report No.: WSCT-A2LA-R&E240300013A-Wi-Fi2

Certificate #5768.01

For Question,
Please Contact with WSCT
www.wsct-cert.com

ax40	5670	0.87	11	Pass
ax40	5755	-2.95	30	Pass
ax40	5795	-2.7	30	Pass
ax80	5210	-2.51	11	Pass
ax80	5290	-3.9	11	Pass
ax80	5530	-3.33	11	Pass
ax80	5610	-1.34	11	Pass
ax80	5775	-4.84	30	Pass

MiMO Mode

Mode	Frequency (MHz)	Total PSD (dBm)	Limit (dBm)	Verdict
n20	5180	4.39	11	Pass
n20	5240	4.38	11	Pass
n20	5260	4.48	11	Pass
n20	5320	4.65	11	Pass
n20	5500	4.85	11	Pass
n20	5700	4.91	11	Pass
n20	5745	1.67	30	Pass
n20	5825	1.50	30	Pass
n40	5190	2.52	11	Pass
n40	5230	3.08	11	Pass
n40	5270	2.83	11	Pass
n40	5310	2.04	11	Pass
n40	5510	1.82	11	Pass
n40	5670	3.41	11	Pass
n40	5755	0.02	30	Pass
n40	5795	-0.01	30	Pass
ac20	5180	4.47	11	Pass
ac20	5240	4.58	11	Pass
ac20	5260	4.20	11	Pass
ac20	5320	4.72	11	Pass
ac20	5500	4.94	11	Pass
ac20	5700	4.89	11	Pass
ac20	5745	1.23	30	Pass
ac20	5825	1.32	30	Pass
ac40	5190	2.44	11	Pass
ac40	5230	2.79	11	Pass
ac40	5270	2.65	11	Pass
ac40	5310	2.03	11	Pass
ac40	5510	1.44	11	Pass
ac40	5670	3.47	11	Pass
ac40	5755	0.13	30	Pass
ac40	5795	0.15	30	Pass
ac80	5210	-0.10	11	Pass
ac80	5290	-1.22	11	Pass
ac80	5530	-0.43	11	Pass
ac80	5610	1.39	11	Pass
ac80	5775	-2.76	30	Pass
ax160	5250	-8.10	11	Pass
ax160	5570	-5.63	11	Pass
ax20	5180	4.13	11	Pass
ax20	5240	4.32	11	Pass
ax20	5260	3.82	11	Pass
ax20	5320	4.75	11	Pass
ax20	5500	4.37	11	Pass
ax20	5700	4.53	11	Pass
ax20	5745	0.90	30	Pass
ax20	5825	1.05	30	Pass
ax40	5190	1.98	11	Pass
ax40	5230	2.67	11	Pass
ax40	5270	2.18	11	Pass
ax40	5310	1.77	11	Pass
ax40	5510	1.43	11	Pass
ax40	5670	2.95	11	Pass
ax40	5755	-0.57	30	Pass
ax40	5795	-0.39	30	Pass
ax80	5210	-0.33	11	Pass
ax80	5290	-1.83	11	Pass
ax80	5530	-0.86	11	Pass
ax80	5610	0.81	11	Pass
ax80	5775	-2.74	30	Pass





MAIN Ant1

