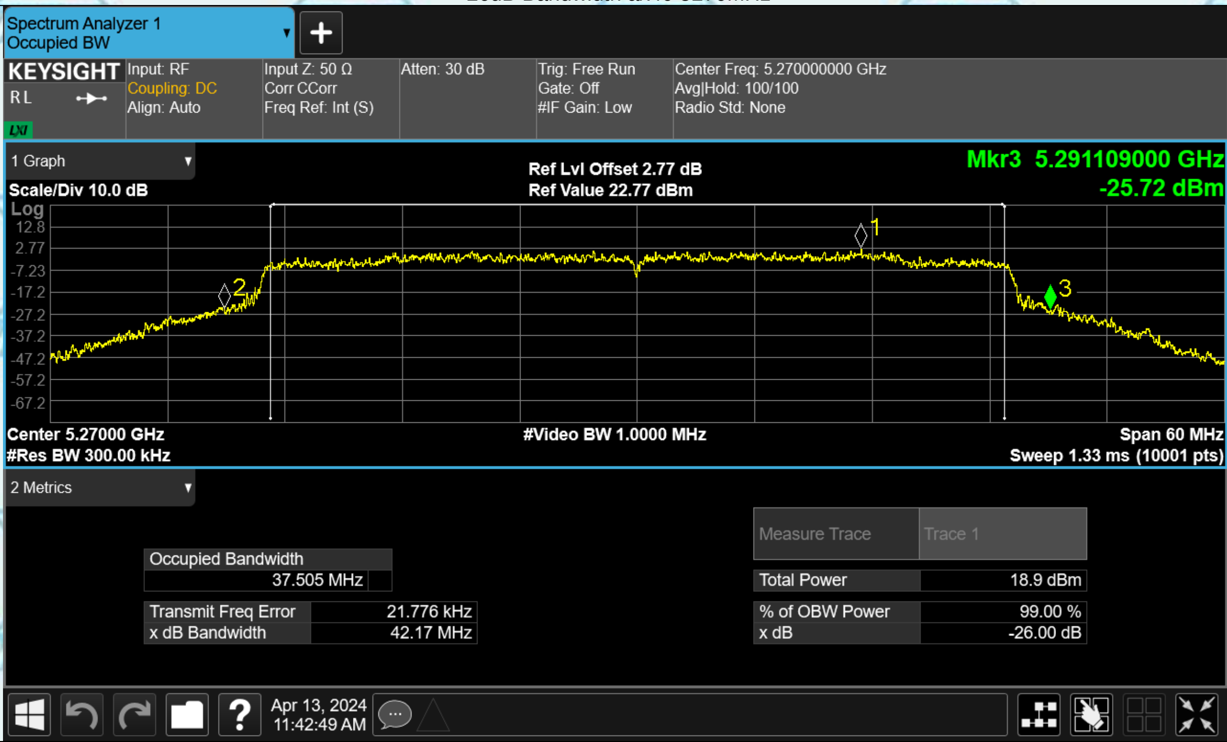
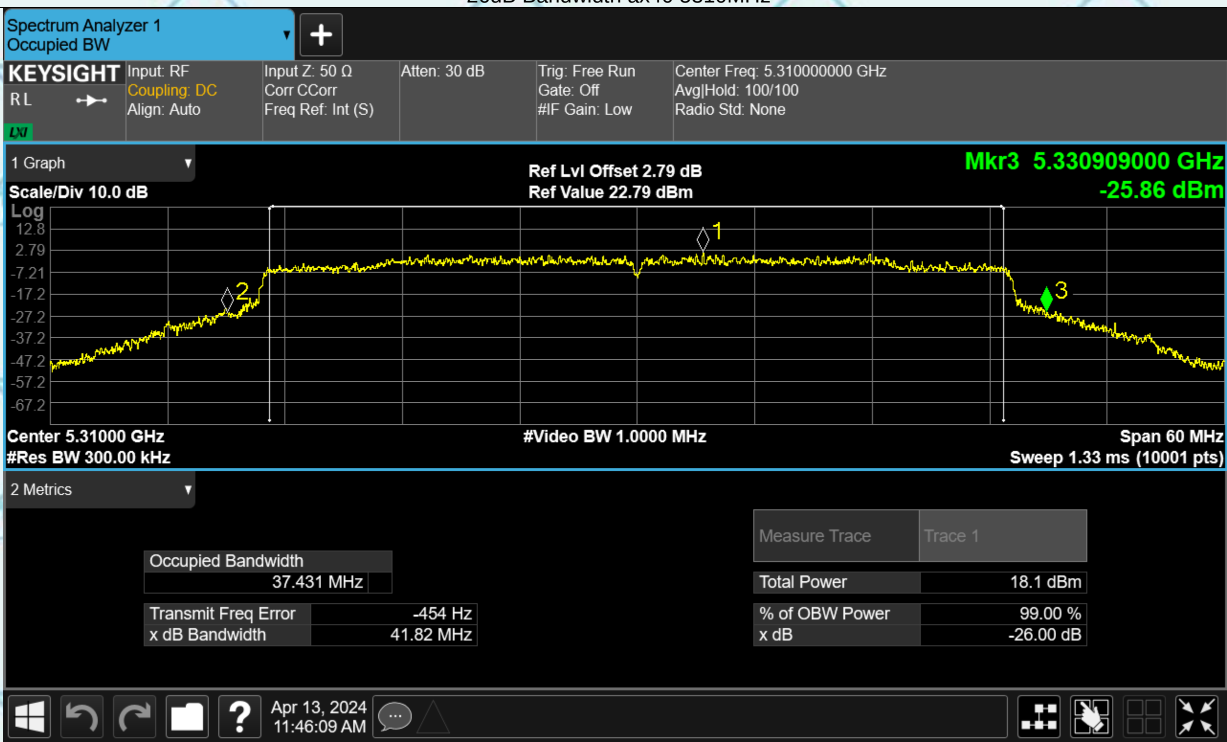
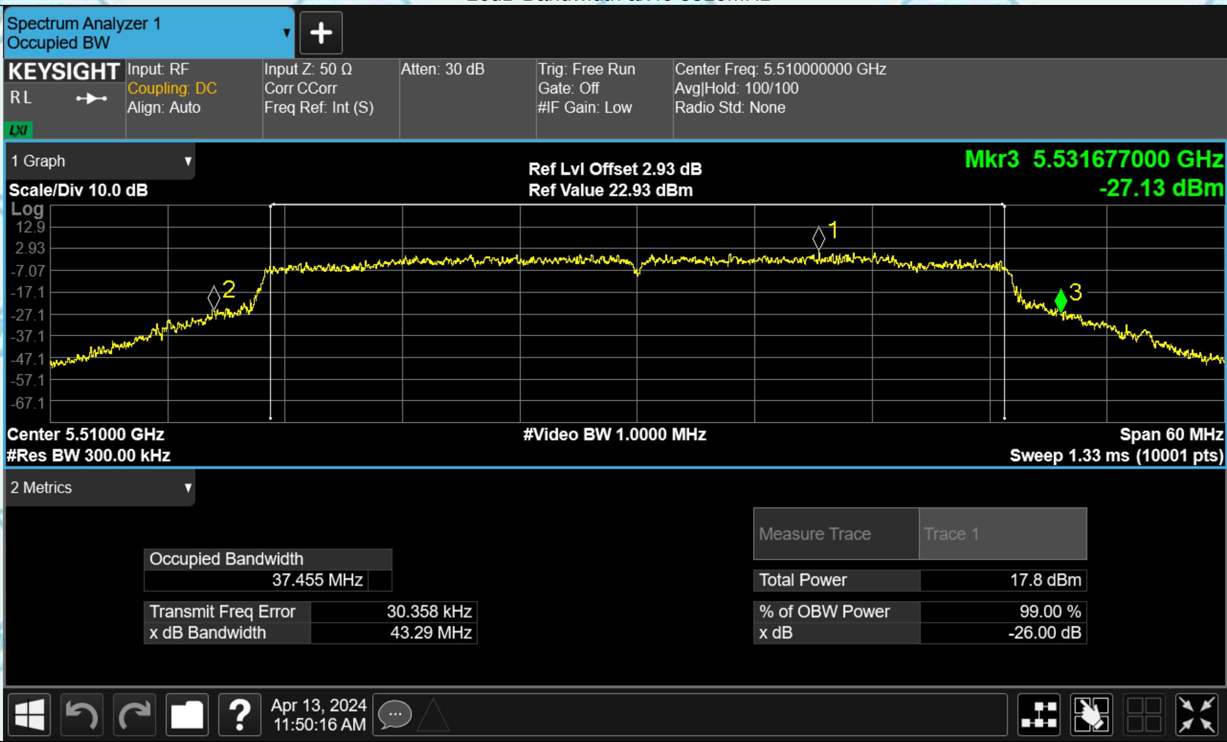
-26dB Bandwidth ax40 5270MHz



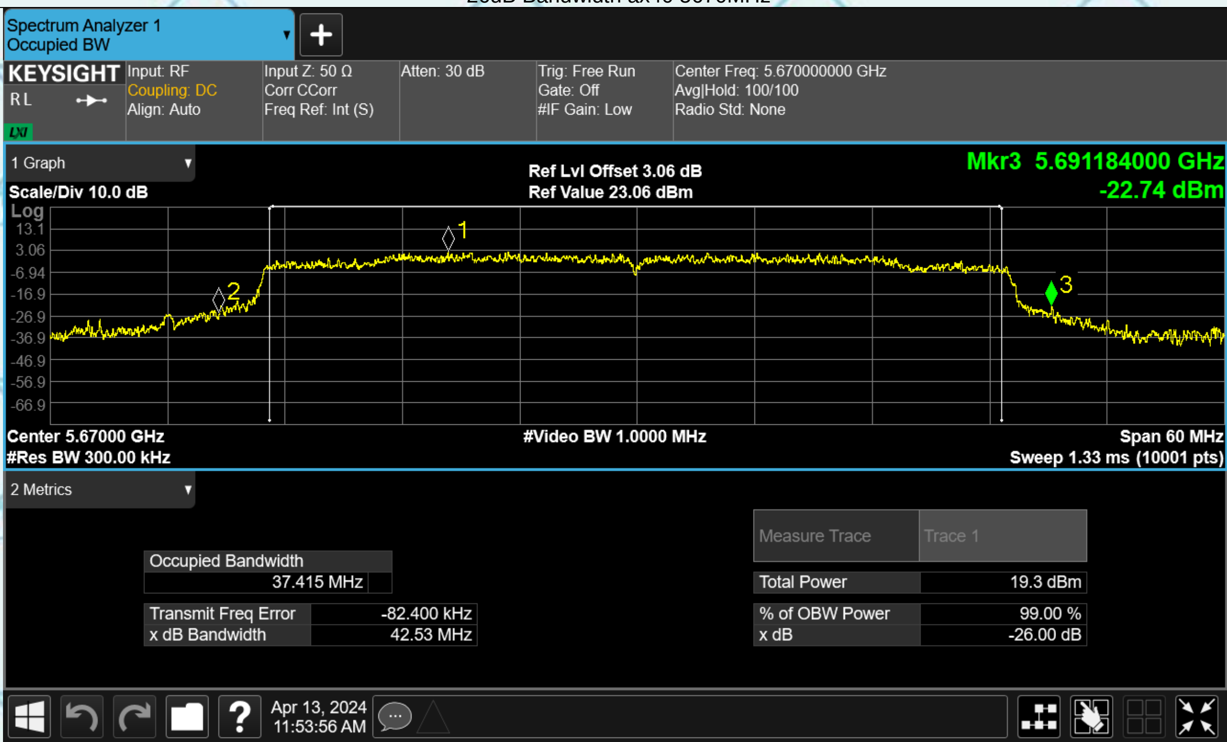
-26dB Bandwidth ax40 5310MHz



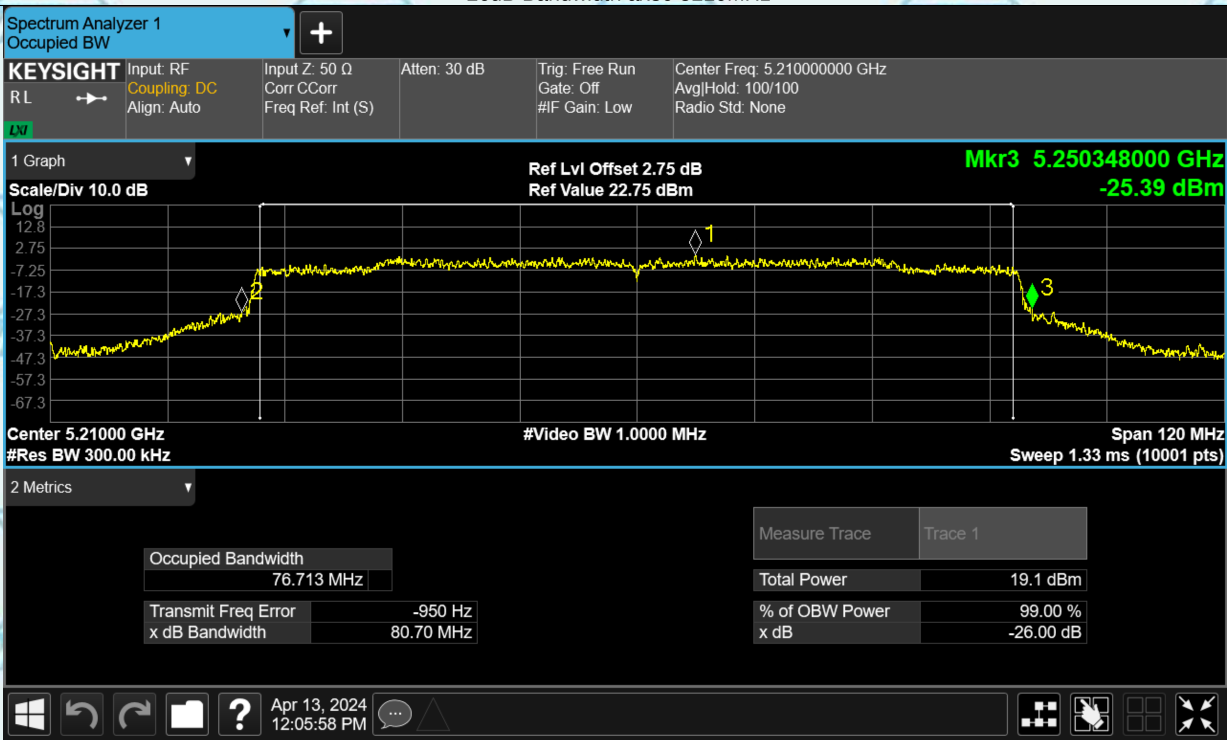
-26dB Bandwidth ax40 5510MHz



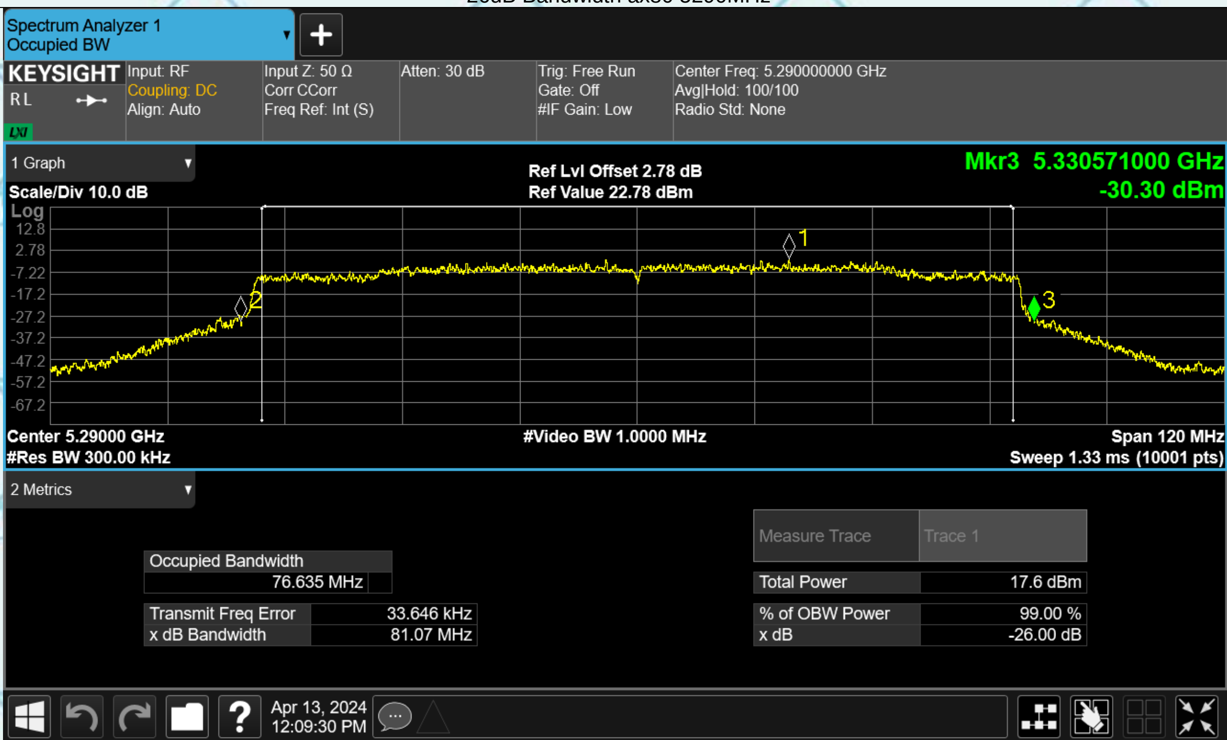
-26dB Bandwidth ax40 5670MHz



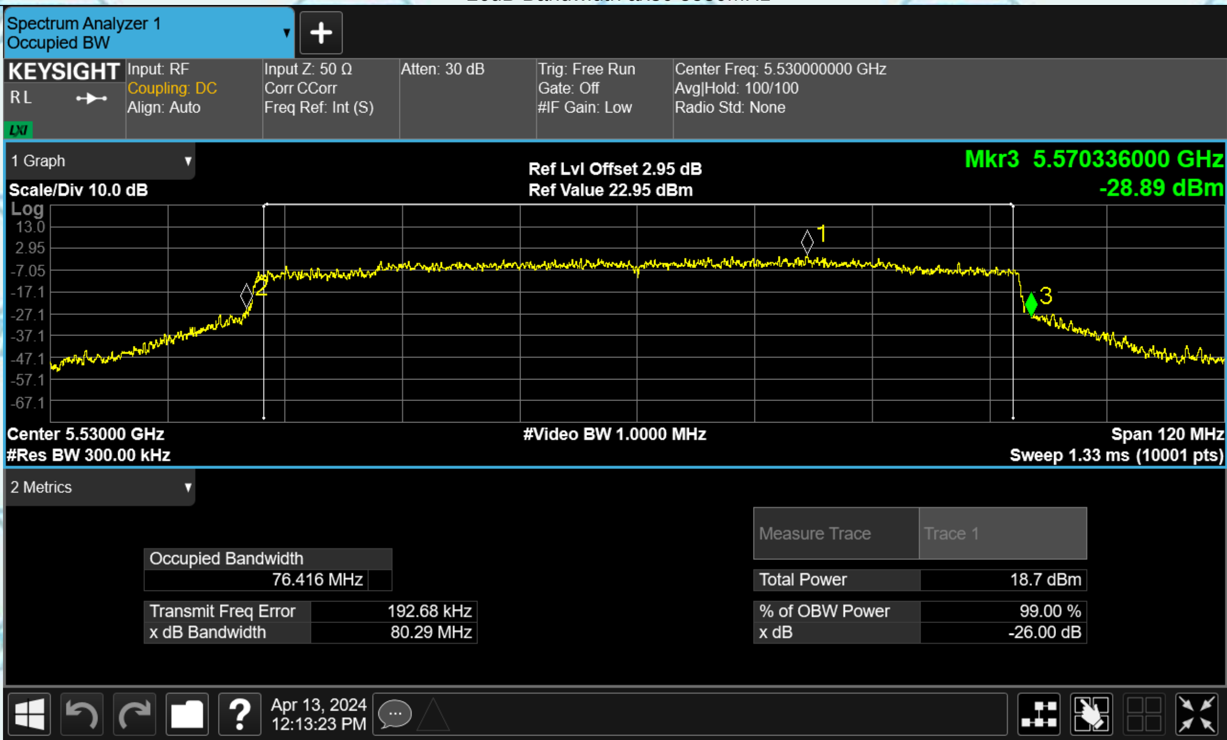
-26dB Bandwidth ax80 5210MHz



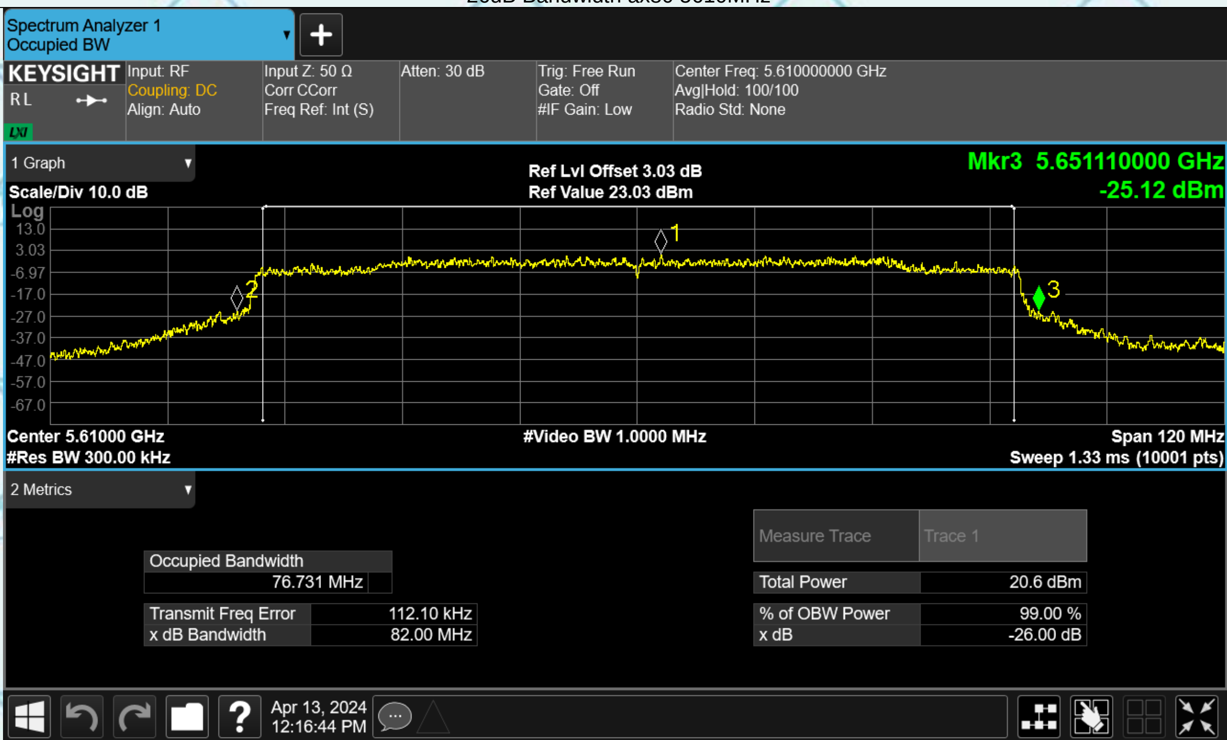
-26dB Bandwidth ax80 5290MHz



-26dB Bandwidth ax80 5530MHz

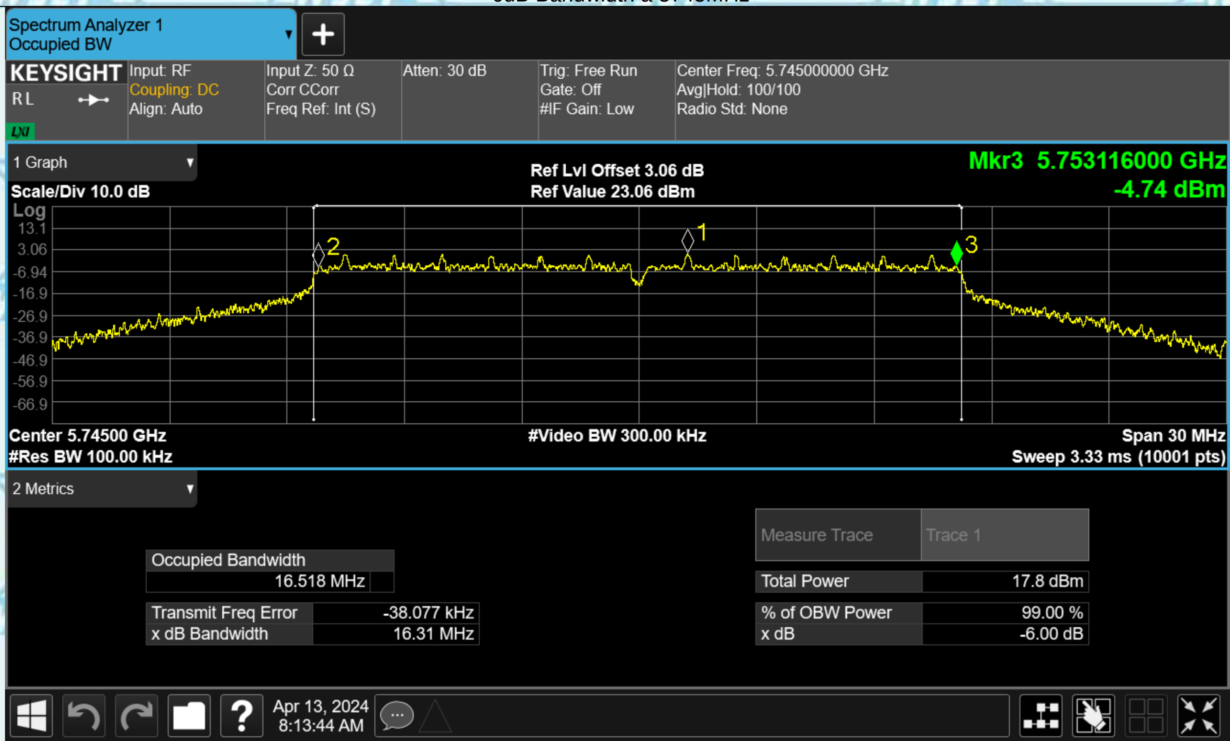


-26dB Bandwidth ax80 5610MHz

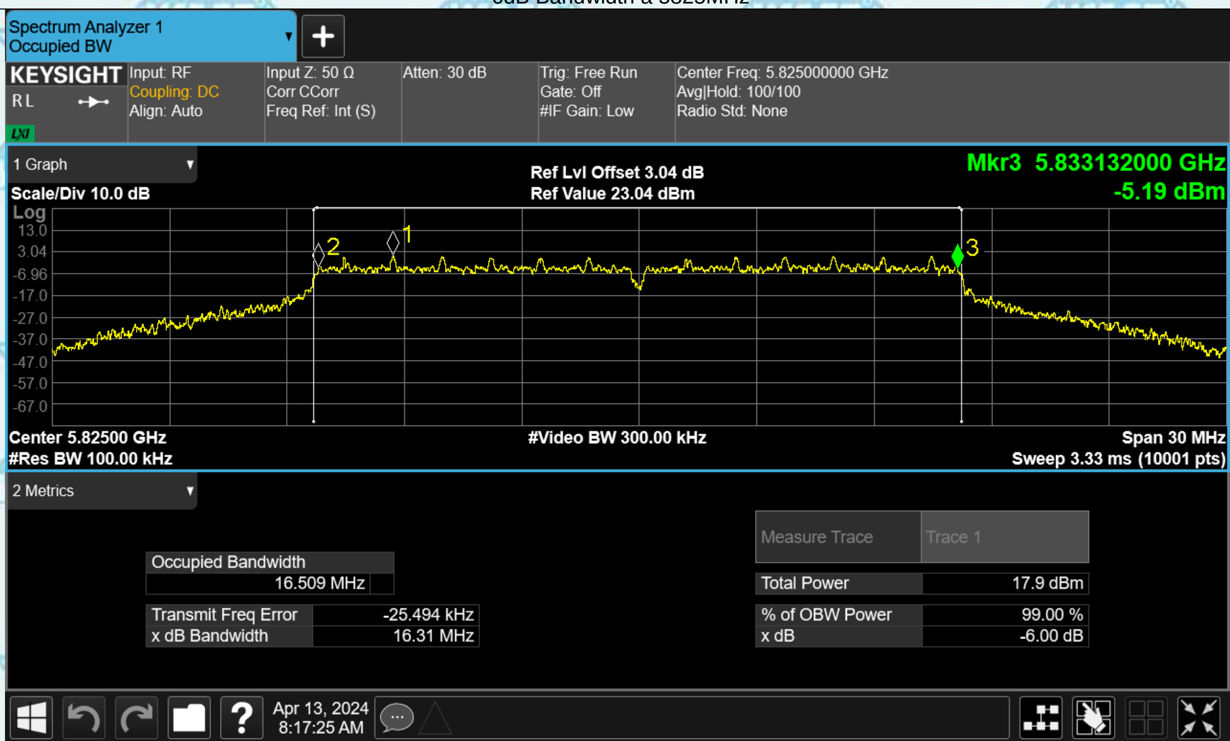


-6dB Bandwidth

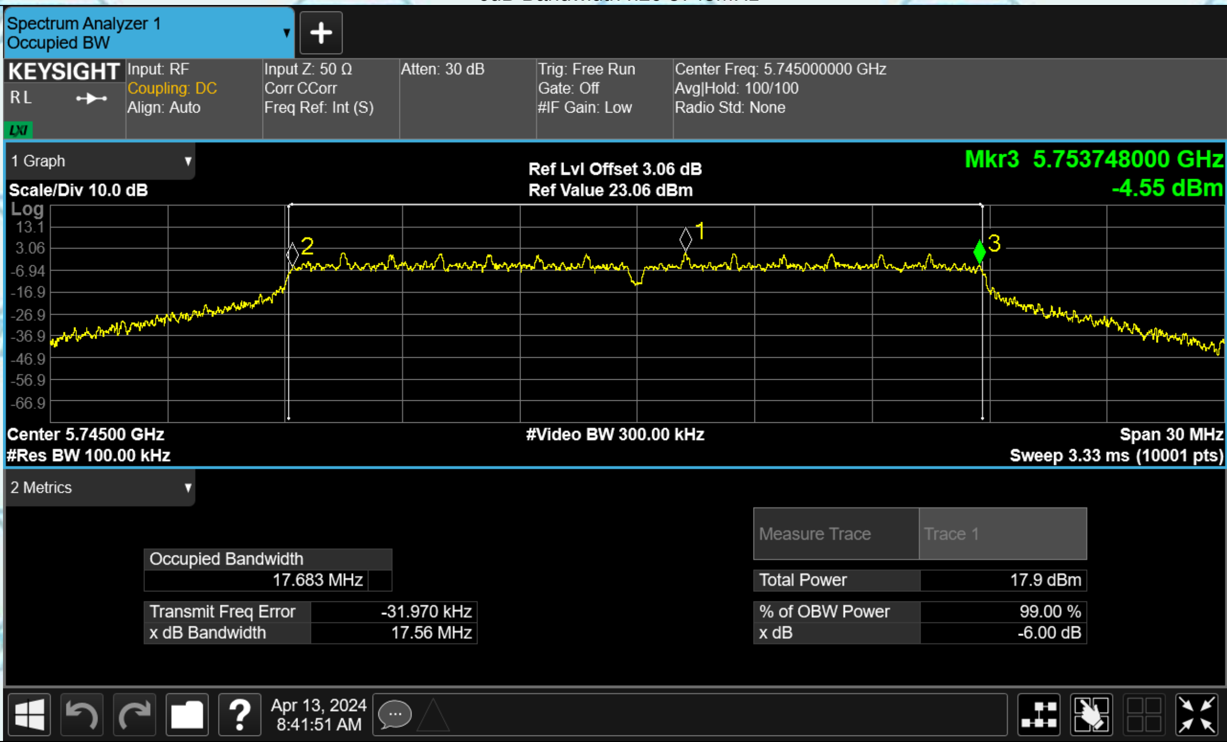
-6dB Bandwidth a 5745MHz



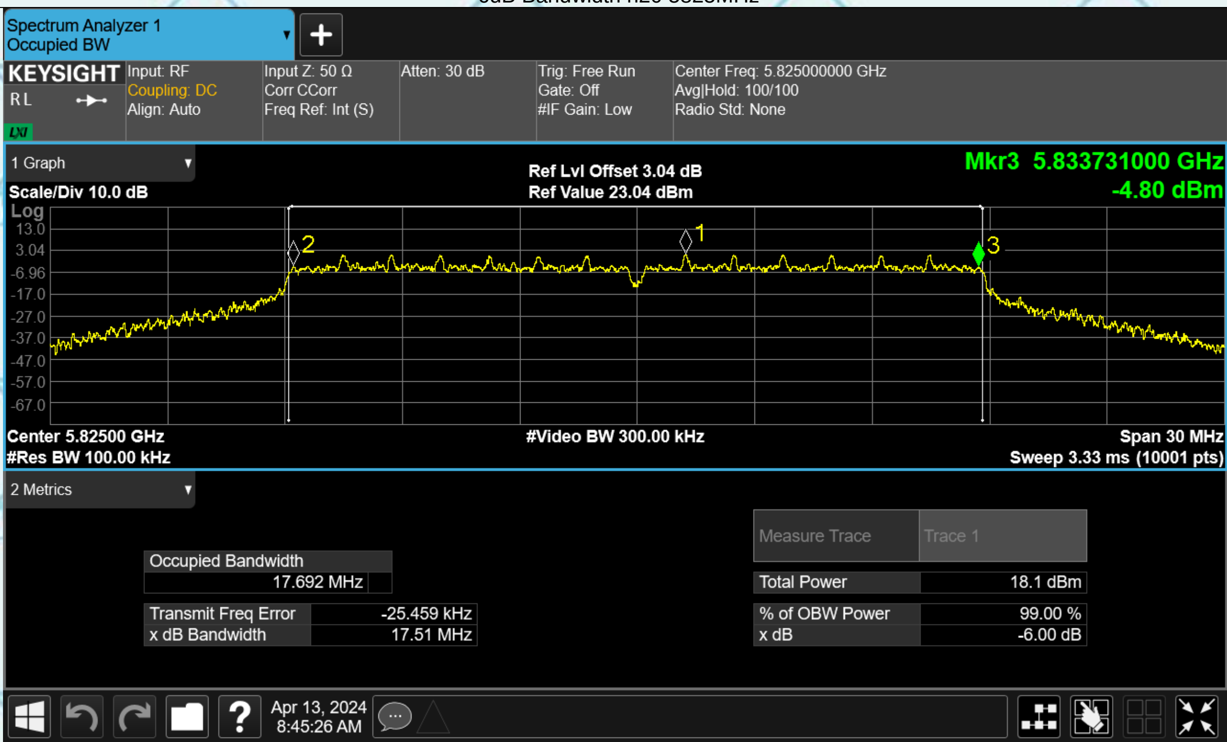
-6dB Bandwidth a 5825MHz



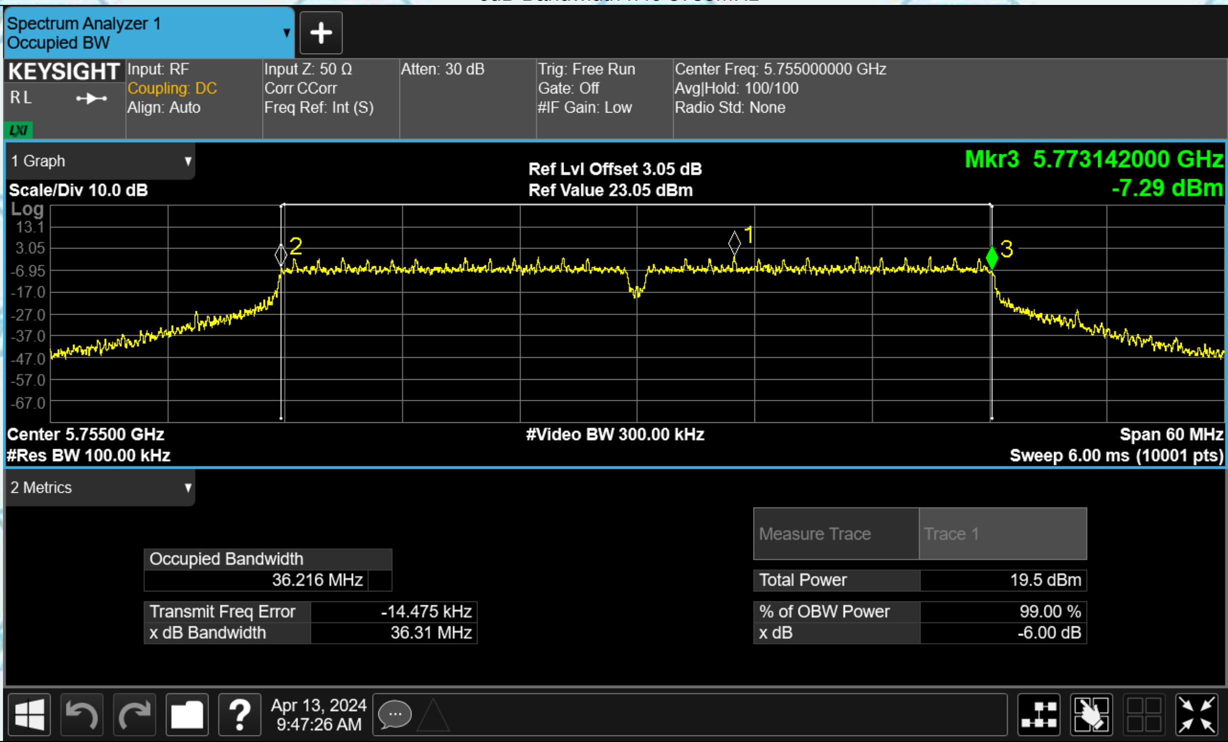
-6dB Bandwidth n20 5745MHz



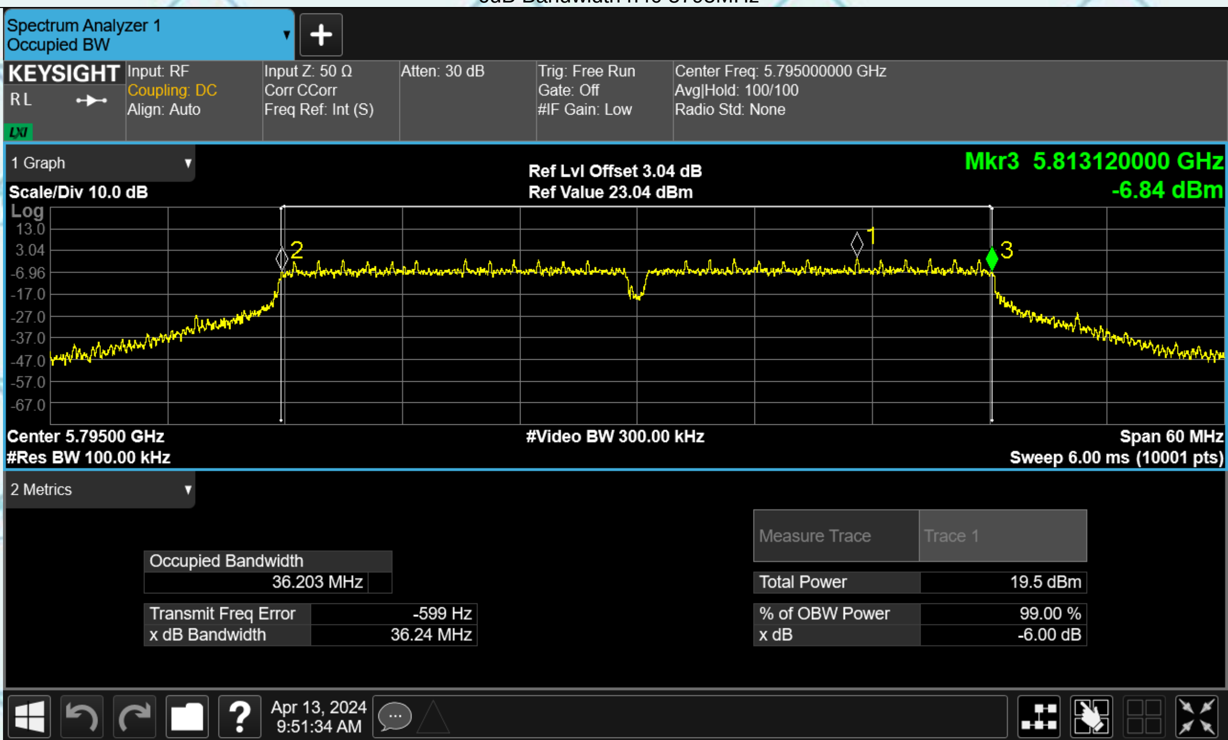
-6dB Bandwidth n20 5825MHz



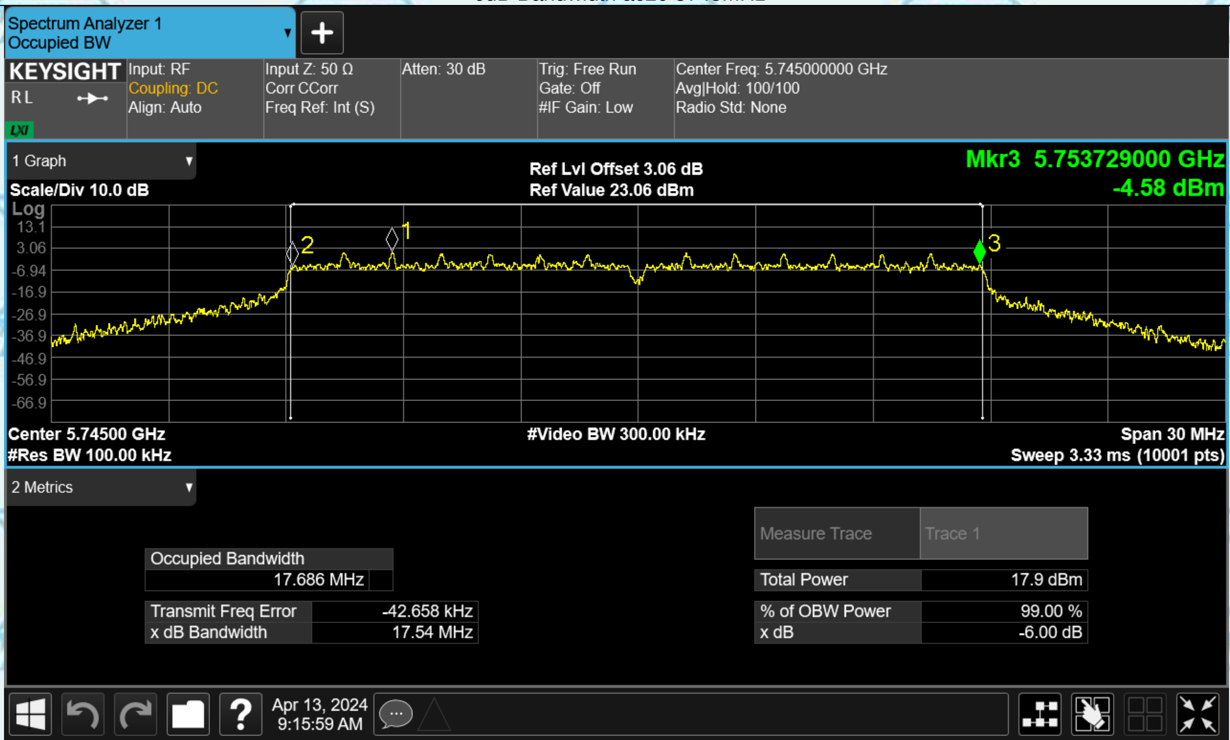
-6dB Bandwidth n40 5755MHz



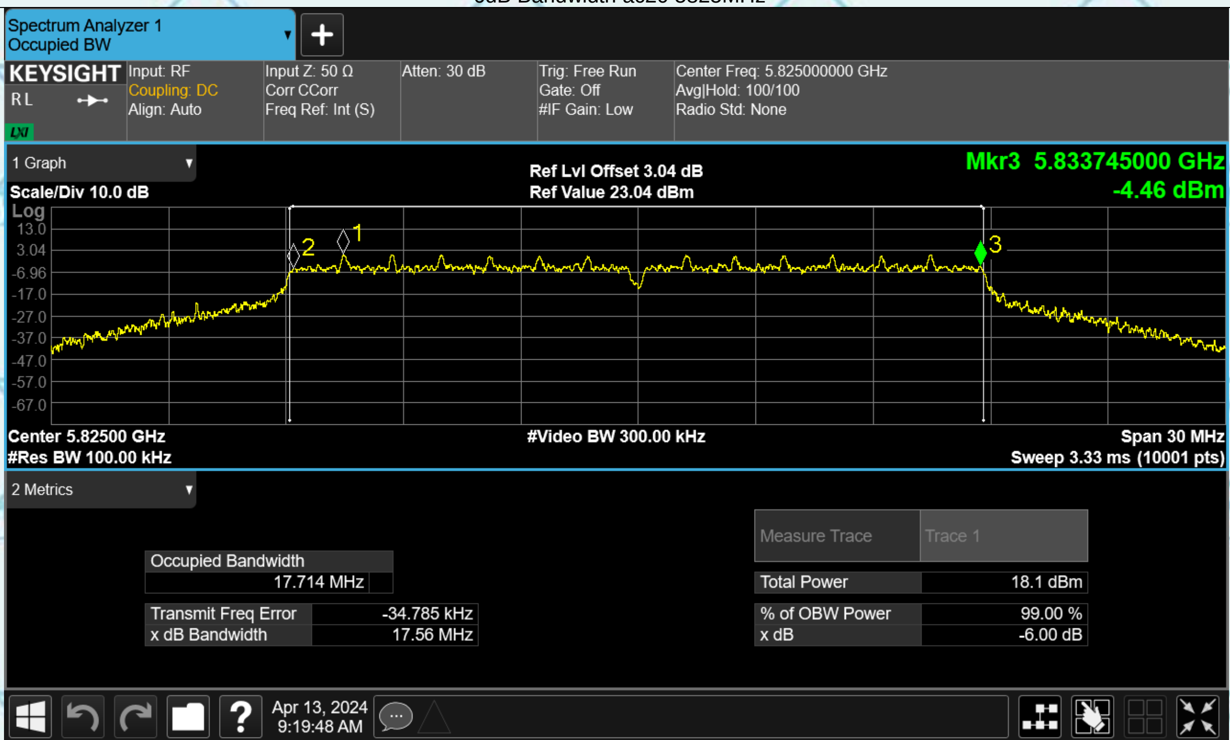
-6dB Bandwidth n40 5795MHz



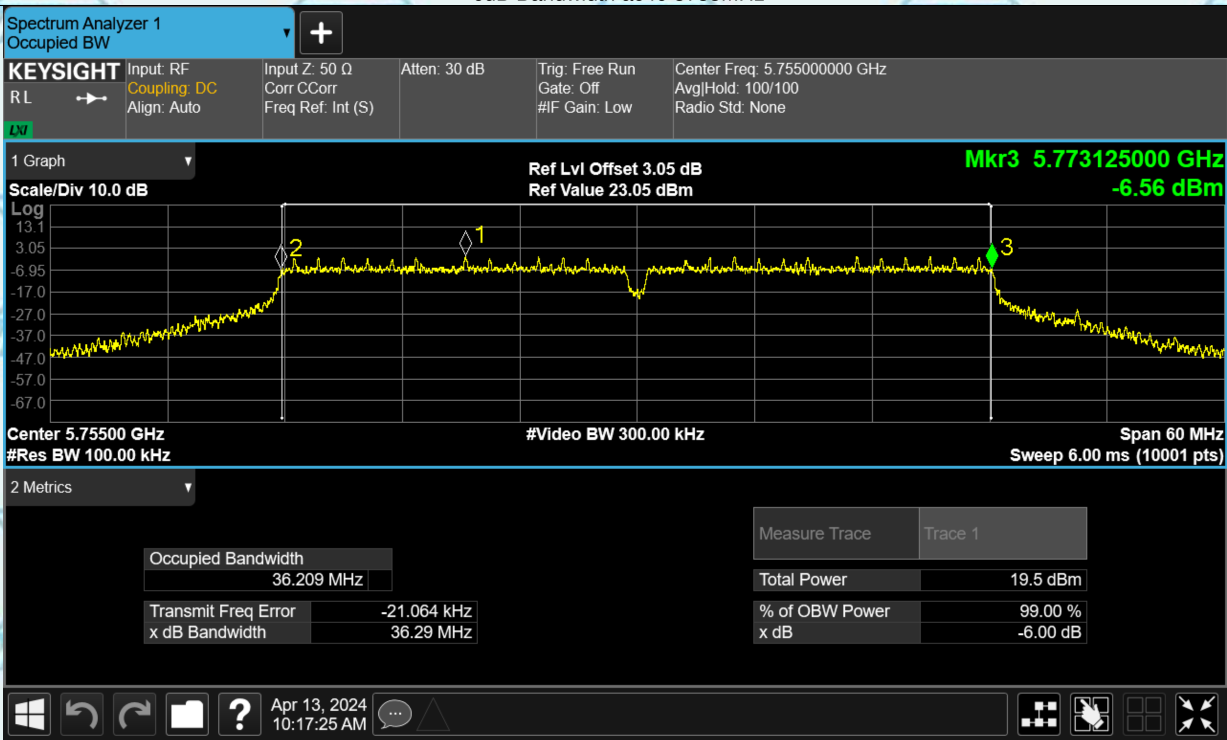
-6dB Bandwidth ac20 5745MHz



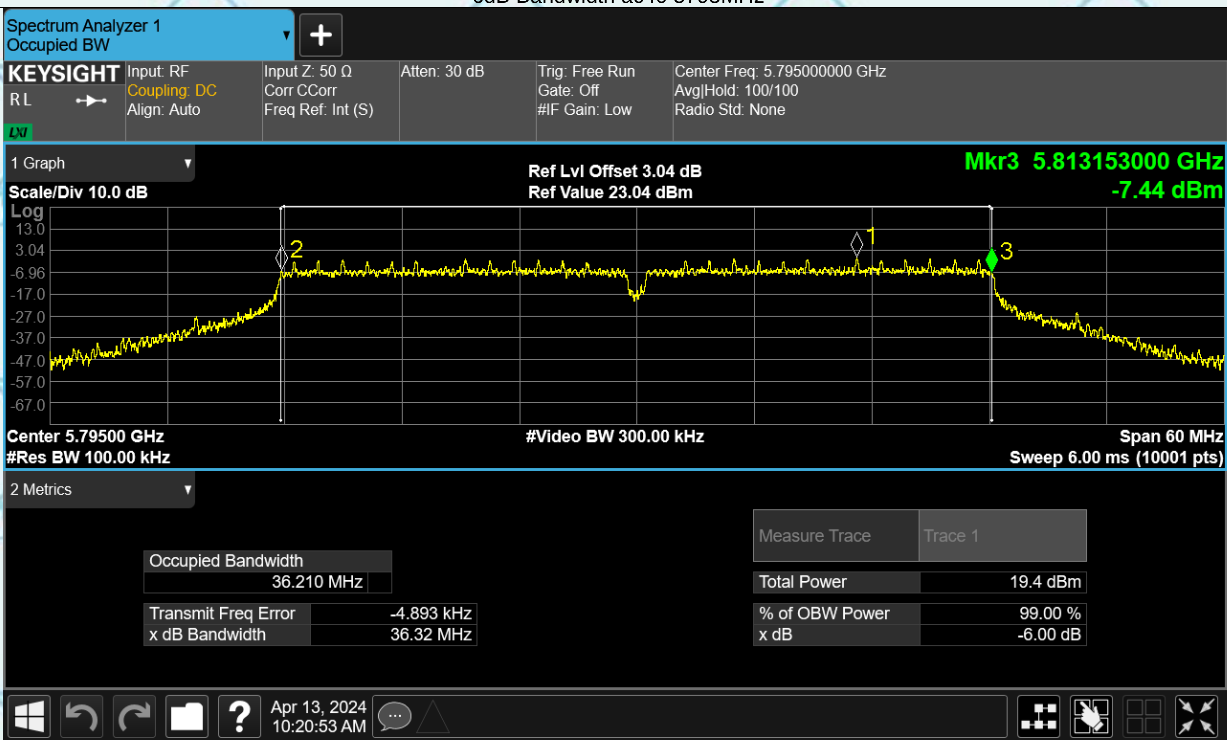
-6dB Bandwidth ac20 5825MHz



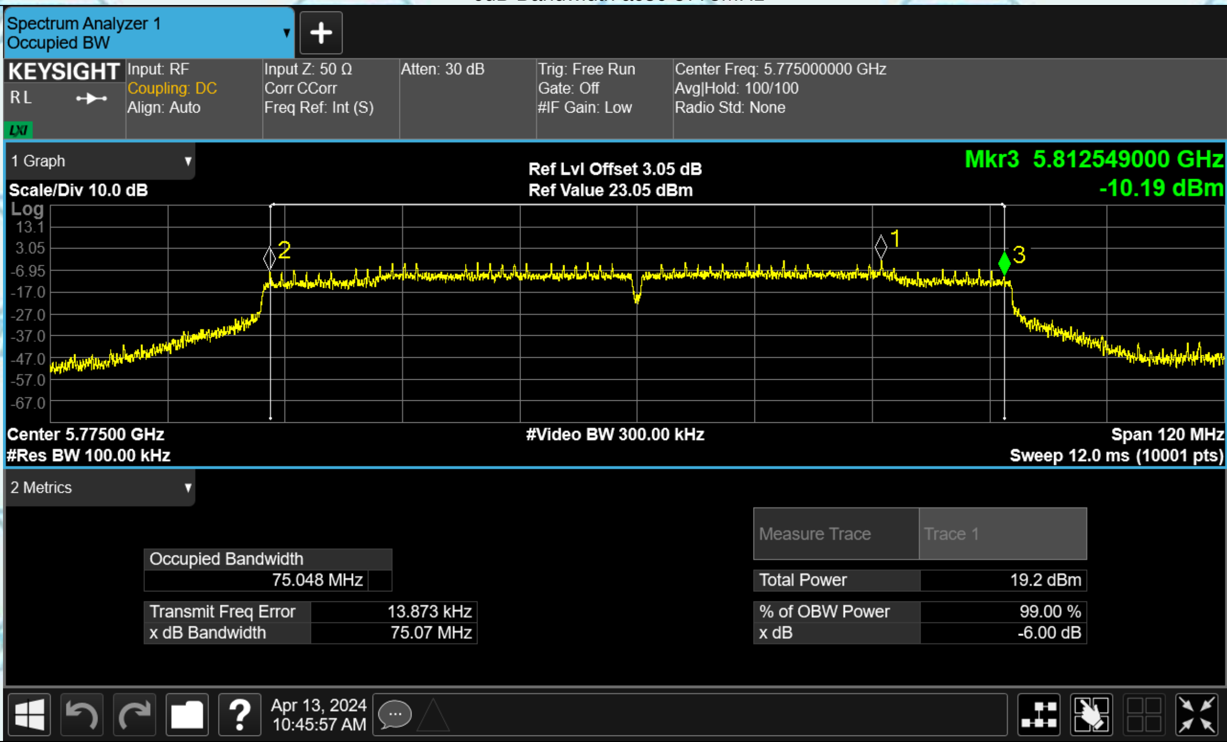
-6dB Bandwidth ac40 5755MHz



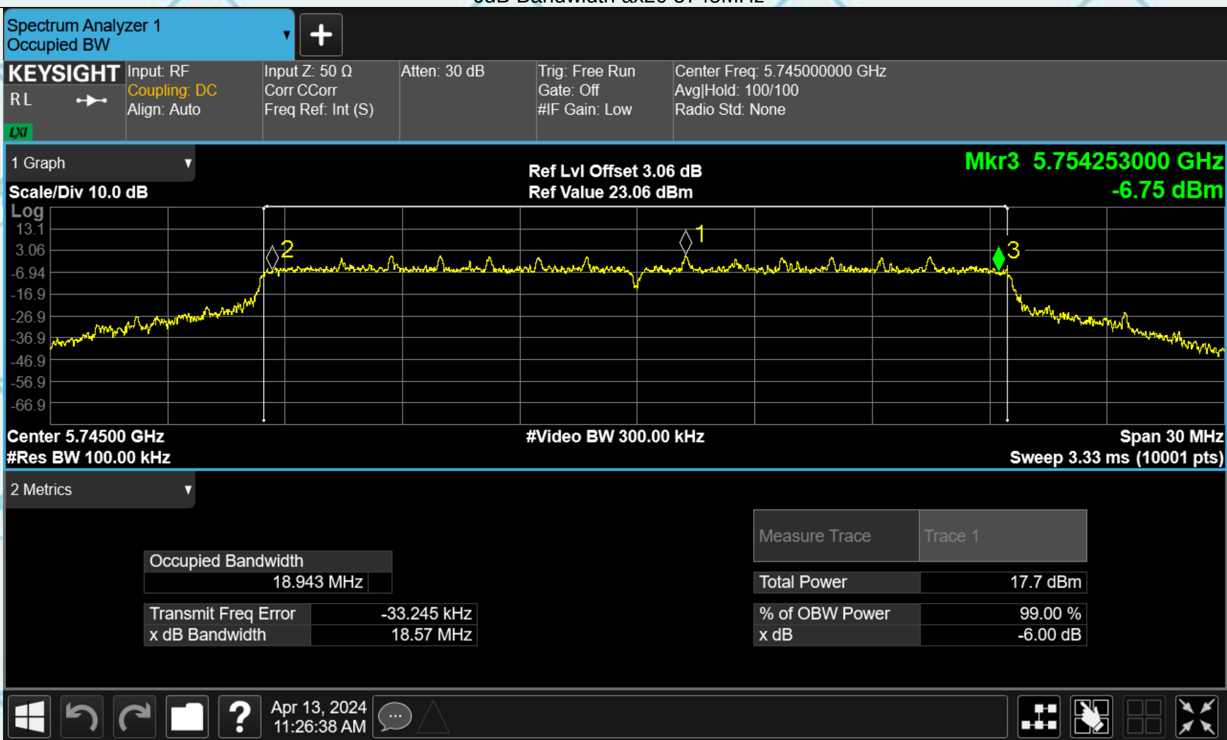
-6dB Bandwidth ac40 5795MHz



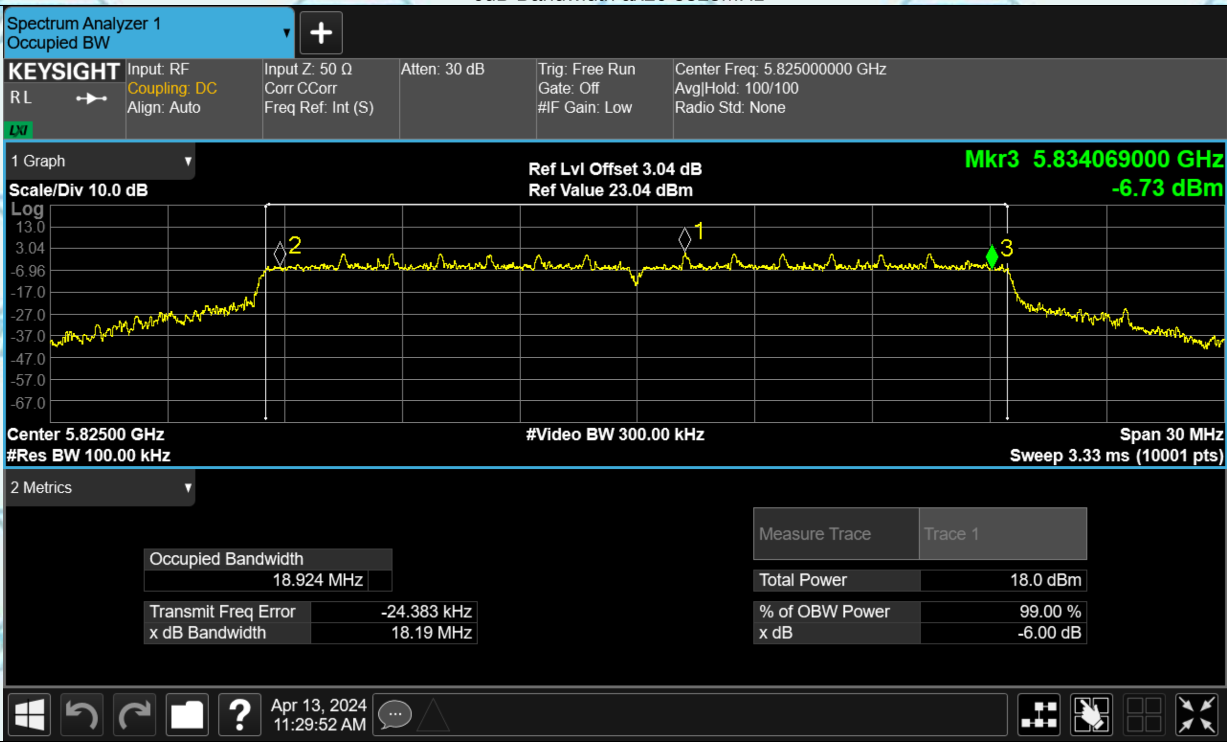
-6dB Bandwidth ac80 5775MHz



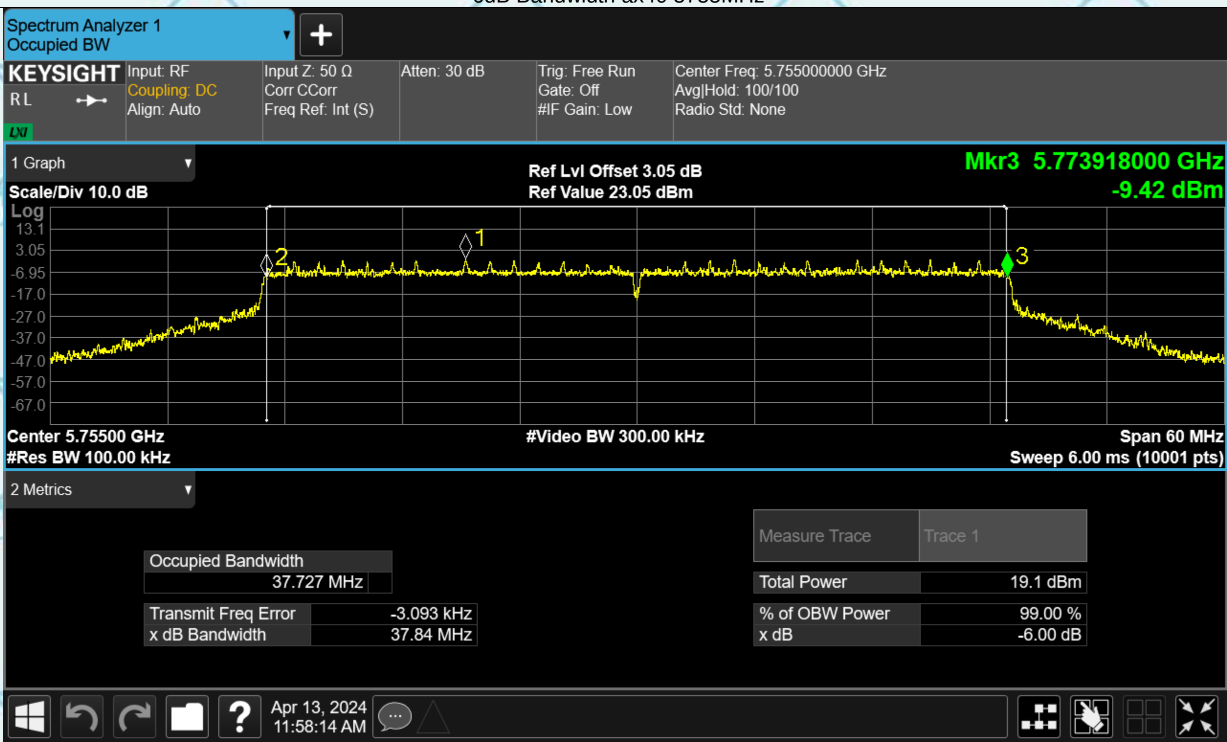
-6dB Bandwidth ax20 5745MHz



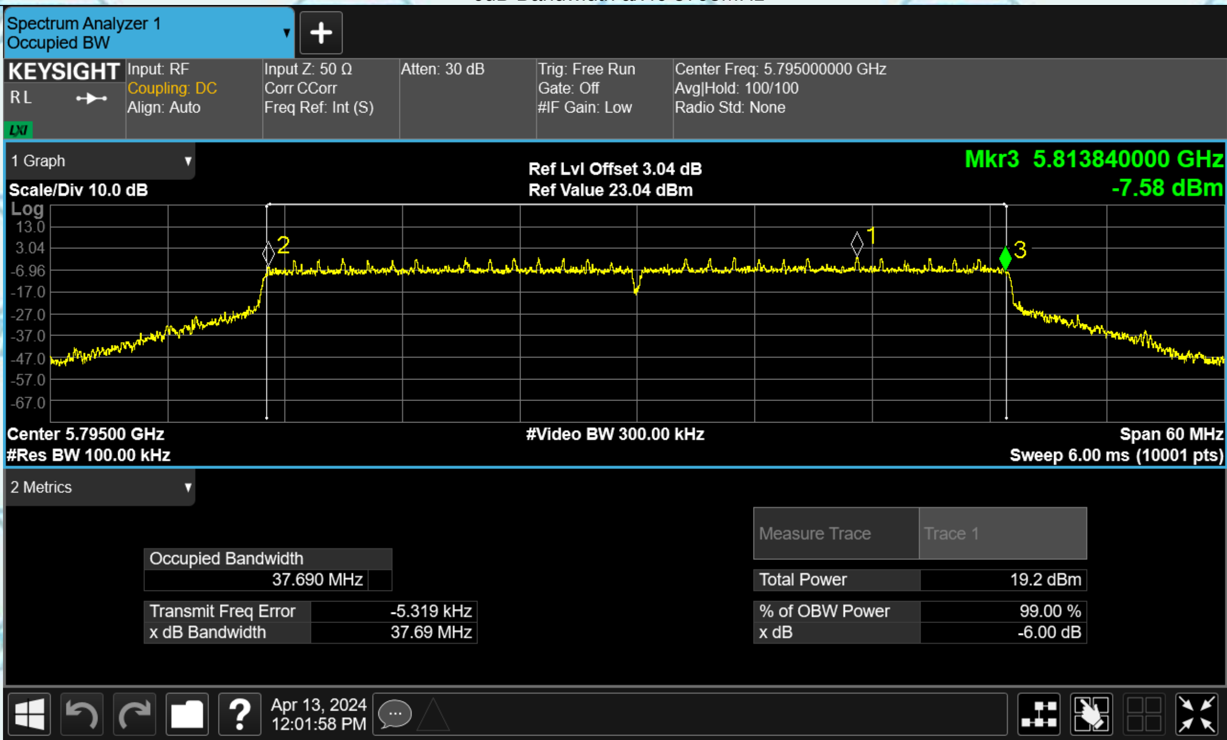
-6dB Bandwidth ax20 5825MHz



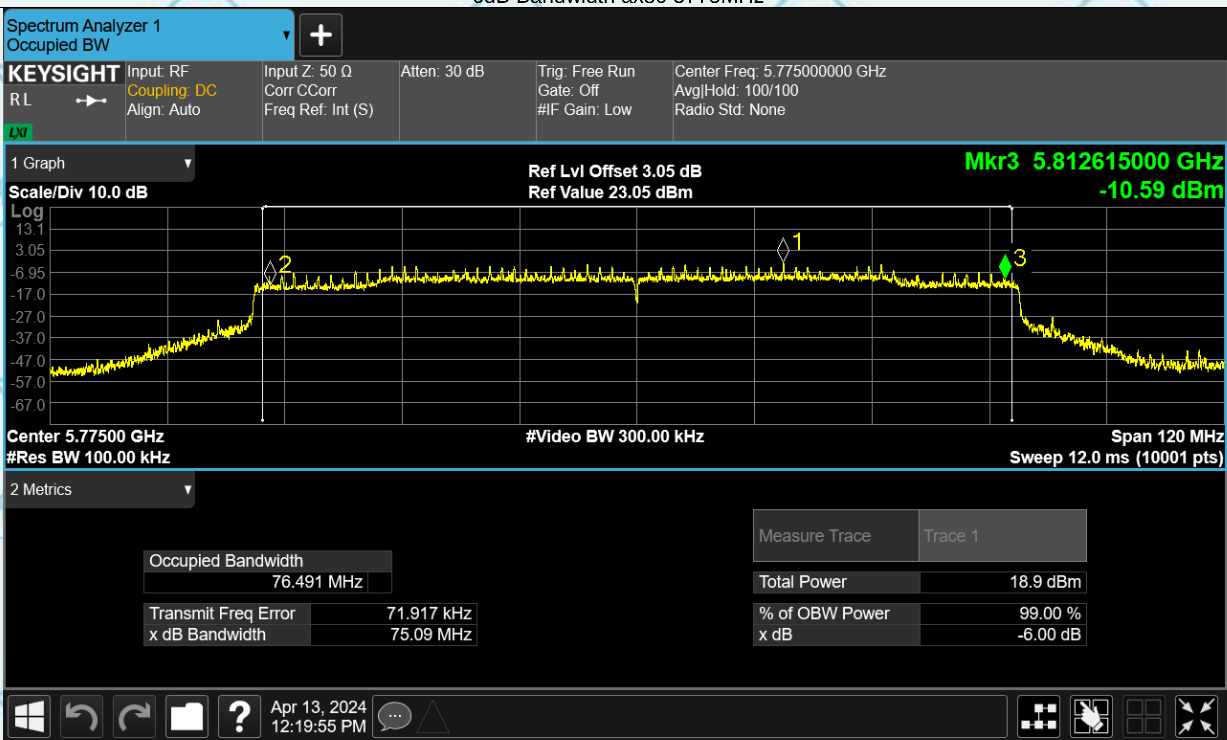
-6dB Bandwidth ax40 5755MHz



-6dB Bandwidth ax40 5795MHz



-6dB Bandwidth ax80 5775MHz



7.5 AVERAGE POWER

(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,

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

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 kth antenna.

For power measurements on IEEE 802.11 devices, 1,2
Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less, for 20-MHz channel widths with NANT ≥ 5.
Note: Nant=2, satisfy the condition Nant≤4, so Array gain=0dB, Directional gain=Gant+Array gain=2.91dBi+0dB=2.91dBi, not more than 6, so the power limit is unchanged.

Product	: EUT-Sample	Test Mode	: See Section 3.4
Test Item	: Average Power	Temperature	: 25 ℃
Test Voltage	: DC 11.61V	Humidity	: 56%RH
Test Result	: PASS		

MAIN Ant1

Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
a	5180	10.26	24	Pass
a	5240	10.08	24	Pass
a	5260	9.97	24	Pass
a	5320	10.36	24	Pass
a	5500	10.27	24	Pass
a	5700	10.52	24	Pass
a	5745	11.08	30	Pass
a	5825	10.87	30	Pass
n20	5180	10.21	24	Pass
n20	5240	10.08	24	Pass
n20	5260	9.99	24	Pass
n20	5320	10.34	24	Pass
n20	5500	10.62	24	Pass
n20	5700	10.52	24	Pass
n20	5745	11.17	30	Pass
n20	5825	11.11	30	Pass
n40	5190	11.35	24	Pass
n40	5230	11.75	24	Pass
n40	5270	11.58	24	Pass
n40	5310	10.99	24	Pass
n40	5510	10.87	24	Pass
n40	5670	12.20	24	Pass
n40	5755	12.73	30	Pass
n40	5795	12.63	30	Pass
ac20	5180	10.12	24	Pass
ac20	5240	9.98	24	Pass
ac20	5260	9.92	24	Pass
ac20	5320	10.30	24	Pass
ac20	5500	10.44	24	Pass
ac20	5700	10.52	24	Pass
ac20	5745	11.06	30	Pass
ac20	5825	11.03	30	Pass
ac40	5190	11.19	24	Pass
ac40	5230	11.59	24	Pass
ac40	5270	11.43	24	Pass
ac40	5310	10.86	24	Pass
ac40	5510	10.59	24	Pass
ac40	5670	12.05	24	Pass
ac40	5755	12.47	30	Pass
ac40	5795	12.43	30	Pass
ac80	5210	11.45	24	Pass
ac80	5290	10.07	24	Pass
ac80	5530	11.22	24	Pass
ac80	5610	12.91	24	Pass
ac80	5775	12.03	30	Pass
ax160	5250	5.93	24	Pass
ax160	5570	8.87	24	Pass
ax20	5180	9.95	24	Pass
ax20	5240	9.88	24	Pass
ax20	5260	9.78	24	Pass
ax20	5320	10.11	24	Pass
ax20	5500	10.22	24	Pass
ax20	5700	10.33	24	Pass
ax20	5745	11.04	30	Pass
ax20	5825	11.01	30	Pass
ax40	5190	10.95	24	Pass
ax40	5230	11.46	24	Pass
ax40	5270	11.26	24	Pass
ax40	5310	10.58	24	Pass

ax40	5510	10.41	24	Pass
ax40	5670	11.73	24	Pass
ax40	5755	12.33	30	Pass
ax40	5795	12.31	30	Pass
ax80	5210	11.20	24	Pass
ax80	5290	9.77	24	Pass
ax80	5530	10.92	24	Pass
ax80	5610	12.68	24	Pass
ax80	5775	11.86	30	Pass

AUX Ant2

Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
a	5180	9.05	24	Pass
a	5240	8.94	24	Pass
a	5260	8.76	24	Pass
a	5320	9.3	24	Pass
a	5500	8.83	24	Pass
a	5700	10.11	24	Pass
a	5745	12.69	30	Pass
a	5825	12.72	30	Pass
n20	5180	12.36	24	Pass
n20	5240	12.1	24	Pass
n20	5260	11.89	24	Pass
n20	5320	12.49	24	Pass
n20	5500	11.93	24	Pass
n20	5700	12.72	24	Pass
n20	5745	12.89	30	Pass
n20	5825	12.89	30	Pass
n40	5190	13.43	24	Pass
n40	5230	13.85	24	Pass
n40	5270	13.42	24	Pass
n40	5310	12.88	24	Pass
n40	5510	12.31	24	Pass
n40	5670	14.15	24	Pass
n40	5755	14.23	30	Pass
n40	5795	14.16	30	Pass
ac20	5180	12.28	24	Pass
ac20	5240	12.06	24	Pass
ac20	5260	11.81	24	Pass
ac20	5320	12.4	24	Pass
ac20	5500	11.85	24	Pass
ac20	5700	12.61	24	Pass
ac20	5745	12.8	30	Pass
ac20	5825	12.77	30	Pass
ac40	5190	13.18	24	Pass
ac40	5230	13.57	24	Pass
ac40	5270	13.24	24	Pass
ac40	5310	12.76	24	Pass
ac40	5510	12.02	24	Pass
ac40	5670	13.96	24	Pass
ac40	5755	14.05	30	Pass
ac40	5795	13.99	30	Pass
ac80	5210	13.65	24	Pass
ac80	5290	11.93	24	Pass
ac80	5530	12.85	24	Pass
ac80	5610	15.08	24	Pass
ac80	5775	13.76	30	Pass
ax160	5250	8.25	24	Pass
ax160	5570	10.97	24	Pass
ax20	5180	12.04	24	Pass
ax20	5240	11.83	24	Pass
ax20	5260	11.62	24	Pass
ax20	5320	12.15	24	Pass
ax20	5500	11.69	24	Pass
ax20	5700	12.4	24	Pass
ax20	5745	12.62	30	Pass
ax20	5825	12.59	30	Pass
ax40	5190	12.91	24	Pass
ax40	5230	13.4	24	Pass
ax40	5270	13.01	24	Pass
ax40	5310	12.49	24	Pass
ax40	5510	11.97	24	Pass

ax40	5670	13.79	24	Pass
ax40	5755	13.84	30	Pass
ax40	5795	13.76	30	Pass
ax80	5210	13.39	24	Pass
ax80	5290	11.62	24	Pass
ax80	5530	12.58	24	Pass
ax80	5610	14.74	24	Pass
ax80	5775	13.48	30	Pass

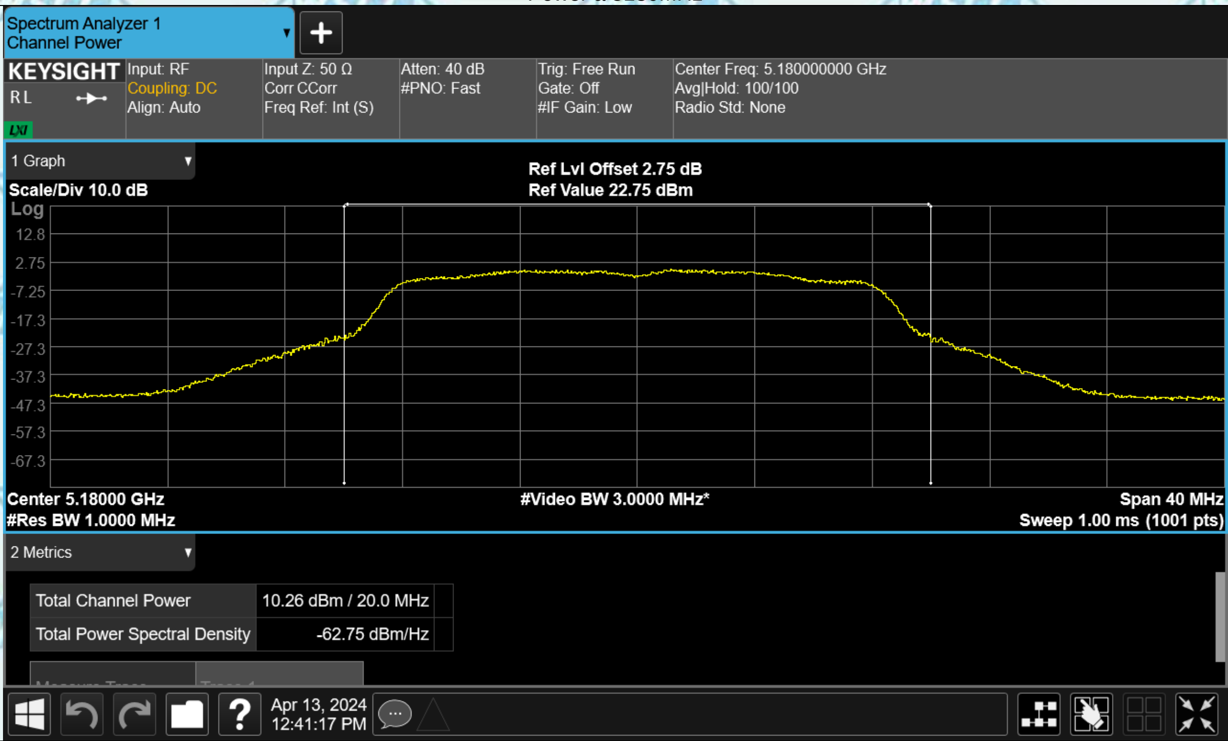
MiMO Mode

Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
n20	5180	14.43	24	Pass
n20	5240	14.22	24	Pass
n20	5260	14.05	24	Pass
n20	5320	14.56	24	Pass
n20	5500	14.33	24	Pass
n20	5700	14.77	24	Pass
n20	5745	15.12	30	Pass
n20	5825	15.10	30	Pass
n40	5190	15.52	24	Pass
n40	5230	15.94	24	Pass
n40	5270	15.61	24	Pass
n40	5310	15.05	24	Pass
n40	5510	14.66	24	Pass
n40	5670	16.29	24	Pass
n40	5755	16.55	30	Pass
n40	5795	16.47	30	Pass
ac20	5180	14.34	24	Pass
ac20	5240	14.15	24	Pass
ac20	5260	13.98	24	Pass
ac20	5320	14.49	24	Pass
ac20	5500	14.21	24	Pass
ac20	5700	14.70	24	Pass
ac20	5745	15.03	30	Pass
ac20	5825	15.00	30	Pass
ac40	5190	15.31	24	Pass
ac40	5230	15.70	24	Pass
ac40	5270	15.44	24	Pass
ac40	5310	14.92	24	Pass
ac40	5510	14.37	24	Pass
ac40	5670	16.12	24	Pass
ac40	5755	16.34	30	Pass
ac40	5795	16.29	30	Pass
ac80	5210	15.70	24	Pass
ac80	5290	14.11	24	Pass
ac80	5530	15.12	24	Pass
ac80	5610	**17.14**	24	Pass
ac80	5775	15.99	30	Pass
ax160	5250	10.25	24	Pass
ax160	5570	13.06	24	Pass
ax20	5180	14.13	24	Pass
ax20	5240	13.97	24	Pass
ax20	5260	13.81	24	Pass
ax20	5320	14.26	24	Pass
ax20	5500	14.03	24	Pass
ax20	5700	14.50	24	Pass
ax20	5745	14.91	30	Pass
ax20	5825	14.88	30	Pass
ax40	5190	15.05	24	Pass
ax40	5230	15.55	24	Pass
ax40	5270	15.23	24	Pass
ax40	5310	14.65	24	Pass
ax40	5510	14.27	24	Pass
ax40	5670	15.89	24	Pass
ax40	5755	16.16	30	Pass
ax40	5795	16.11	30	Pass
ax80	5210	15.44	24	Pass
ax80	5290	13.80	24	Pass
ax80	5530	14.84	24	Pass
ax80	5610	16.84	24	Pass
ax80	5775	15.76	30	Pass

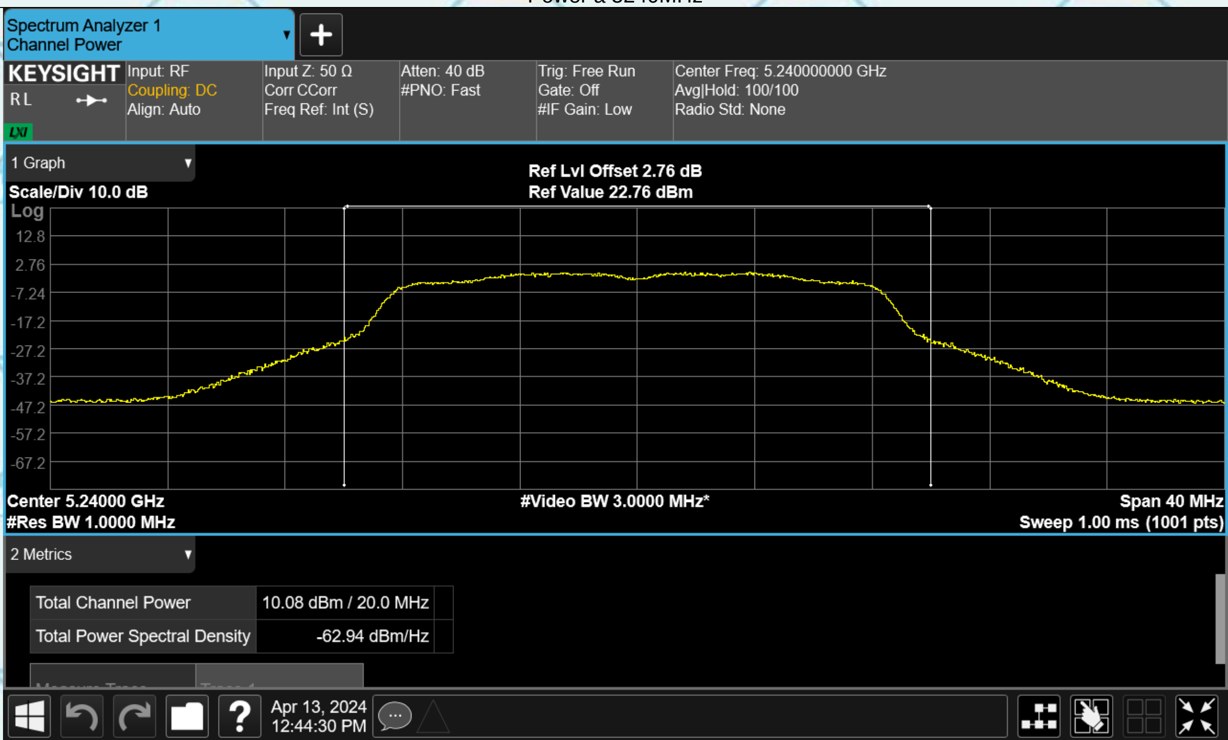
MAIN Ant1

Test Graphs

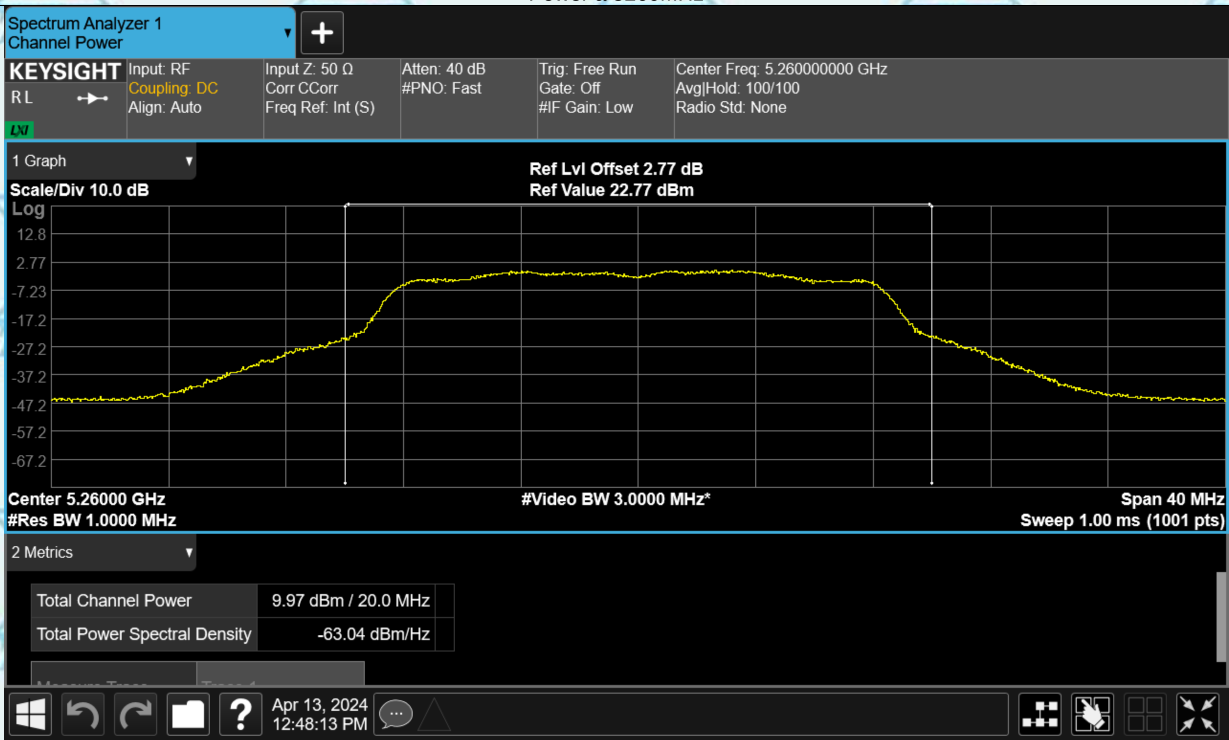
Power a 5180MHz



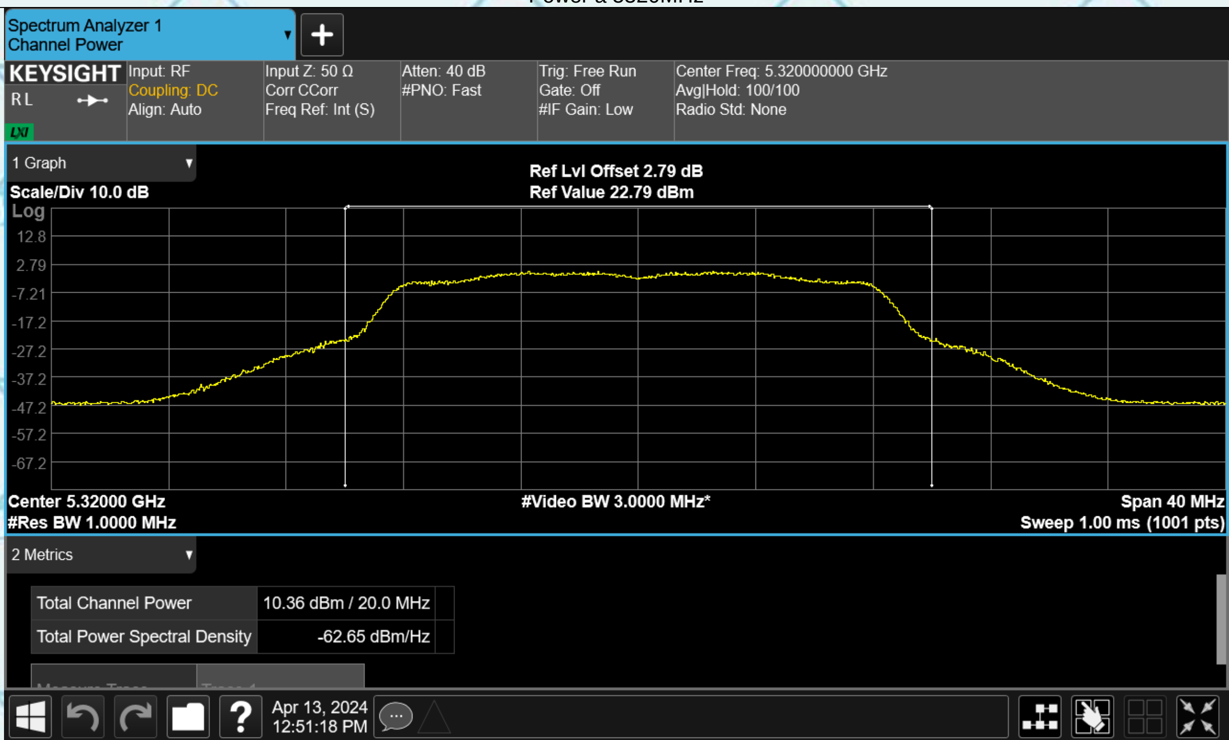
Power a 5240MHz



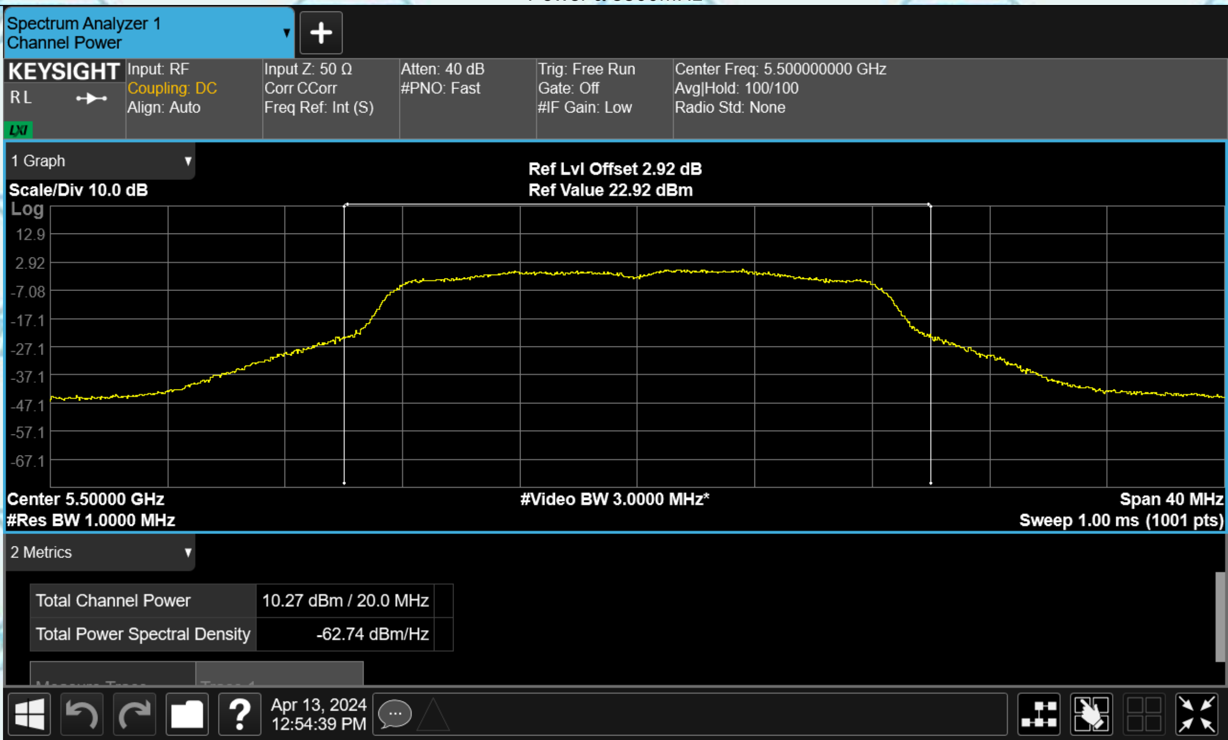
Power a 5260MHz



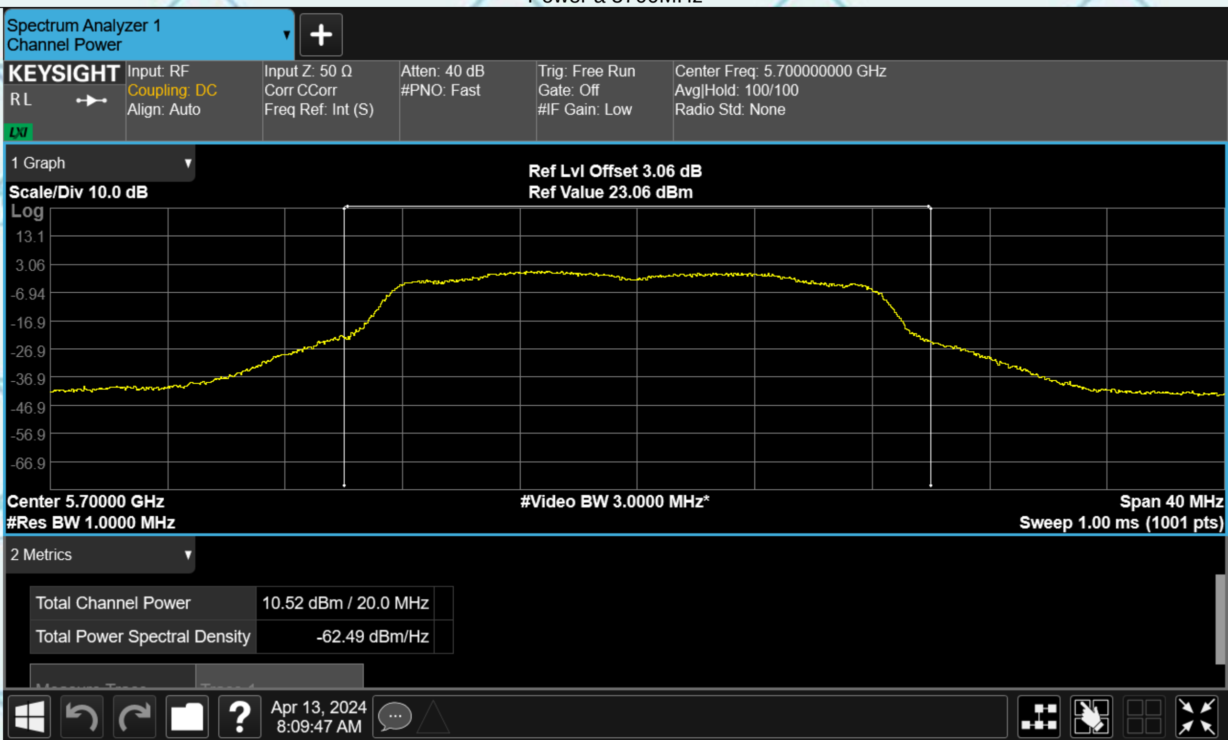
Power a 5320MHz



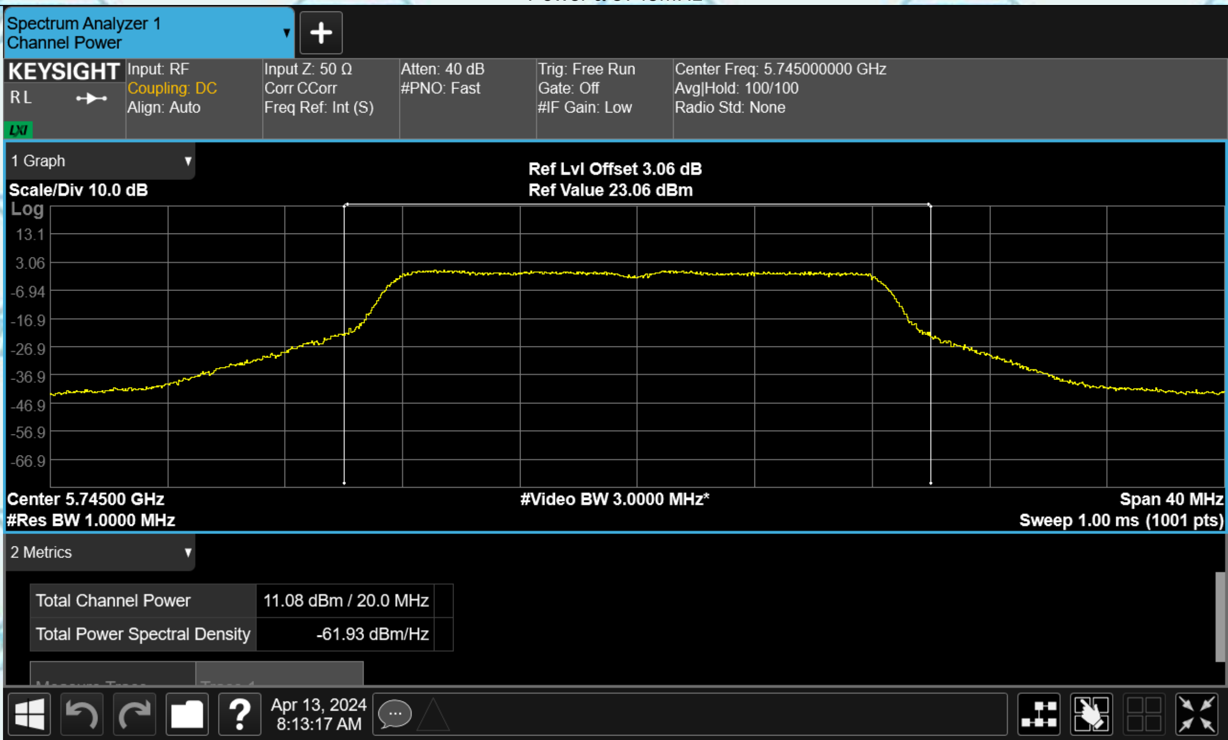
Power a 5500MHz



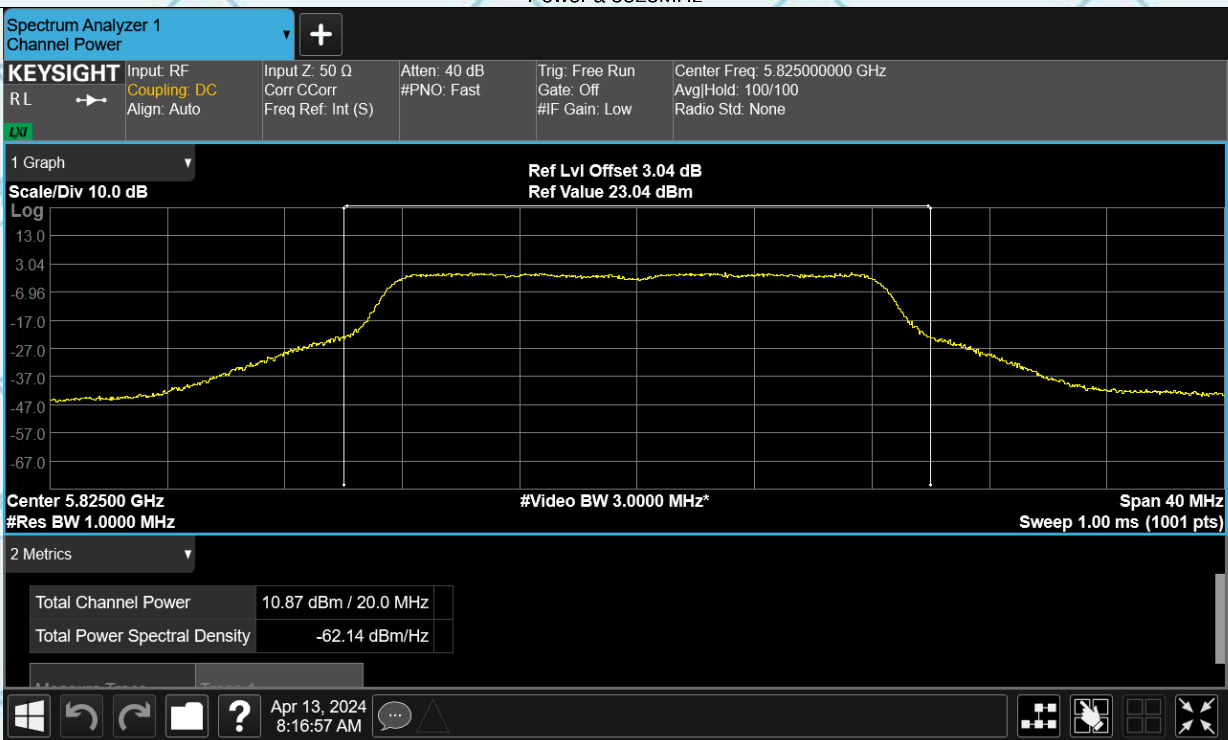
Power a 5700MHz



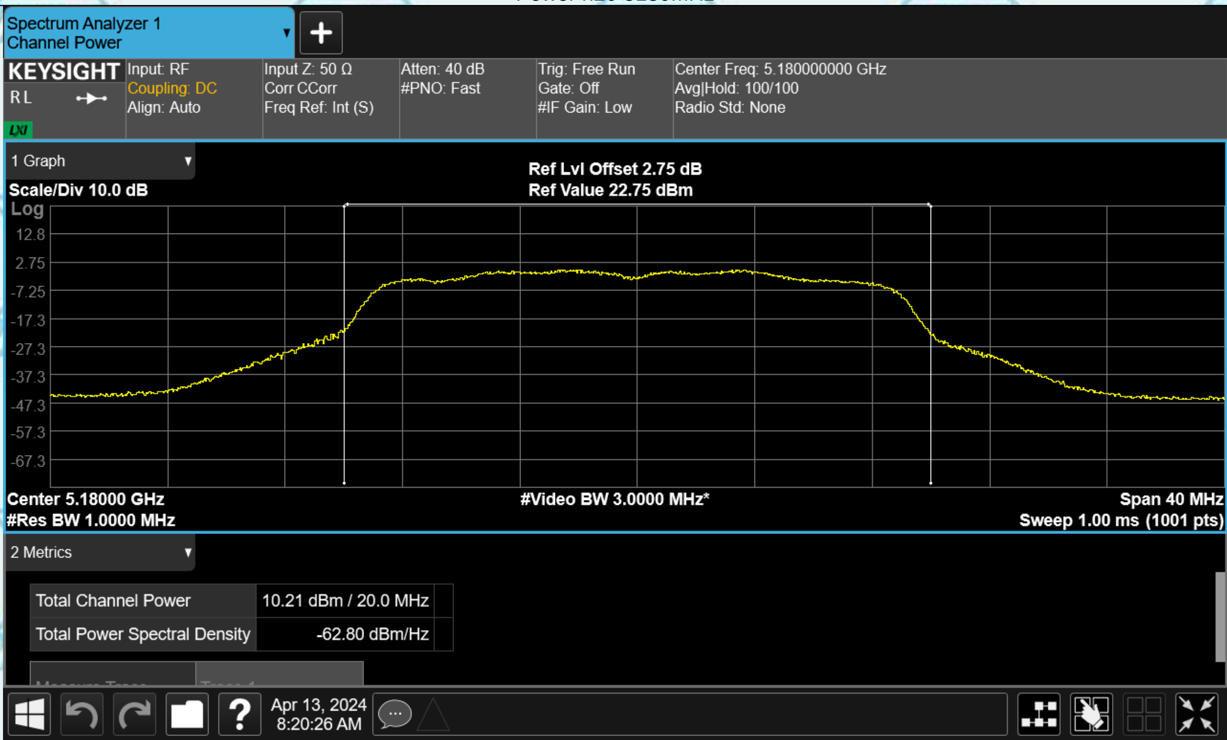
Power a 5745MHz



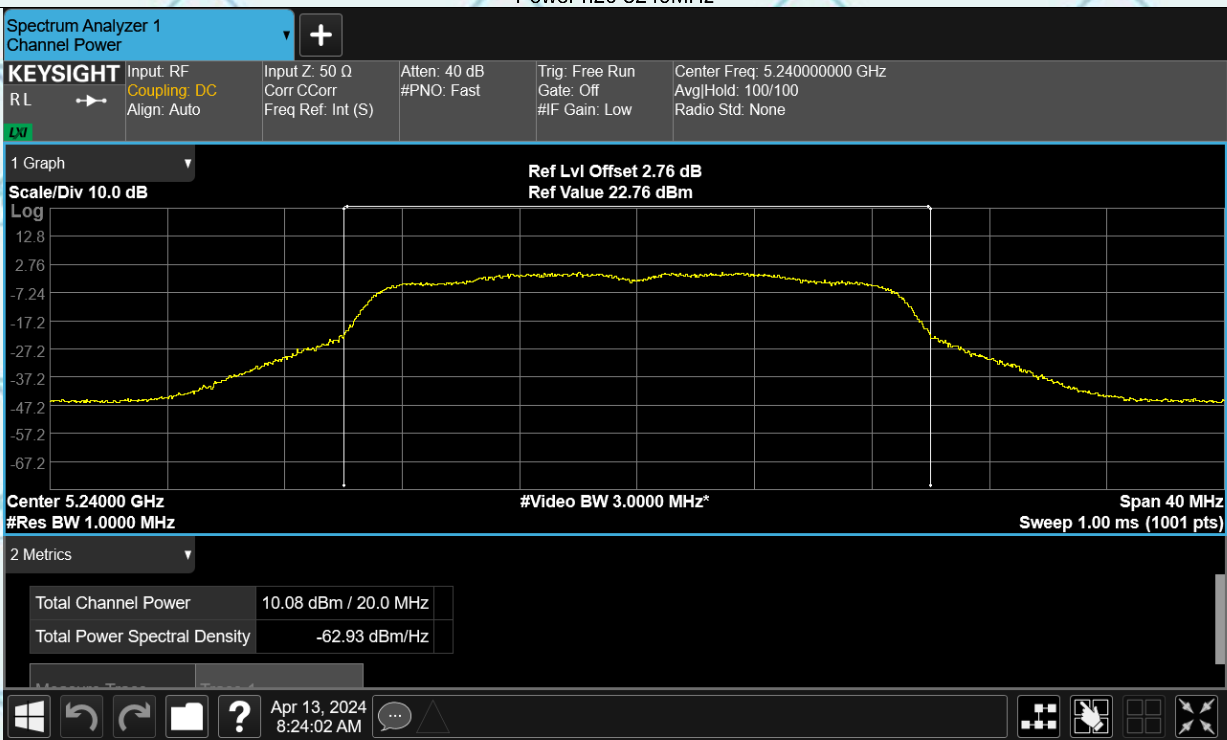
Power a 5825MHz



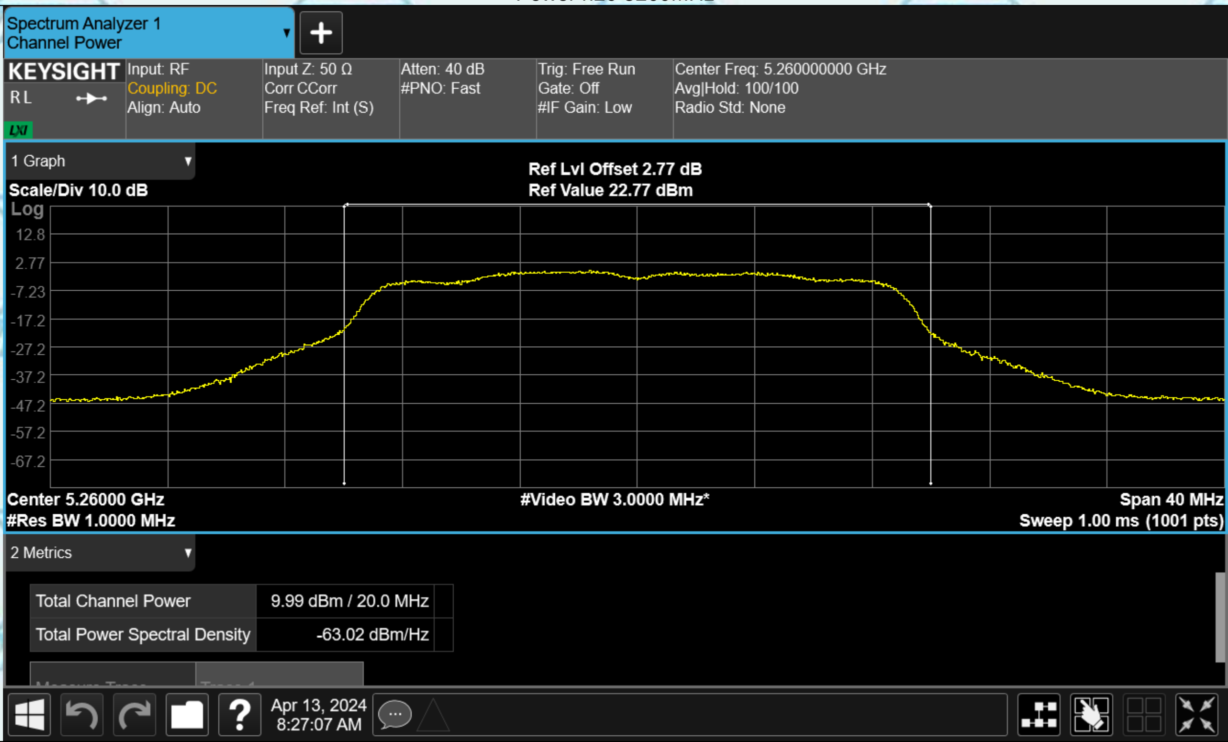
Power n20 5180MHz



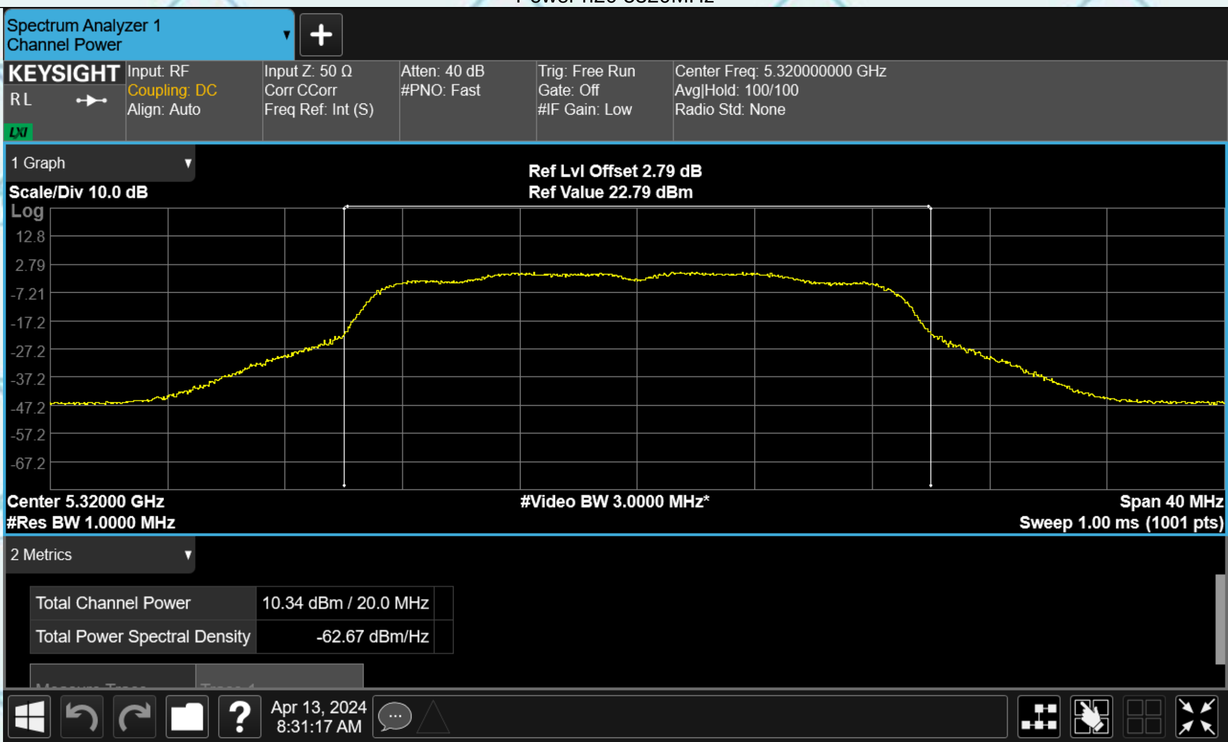
Power n20 5240MHz



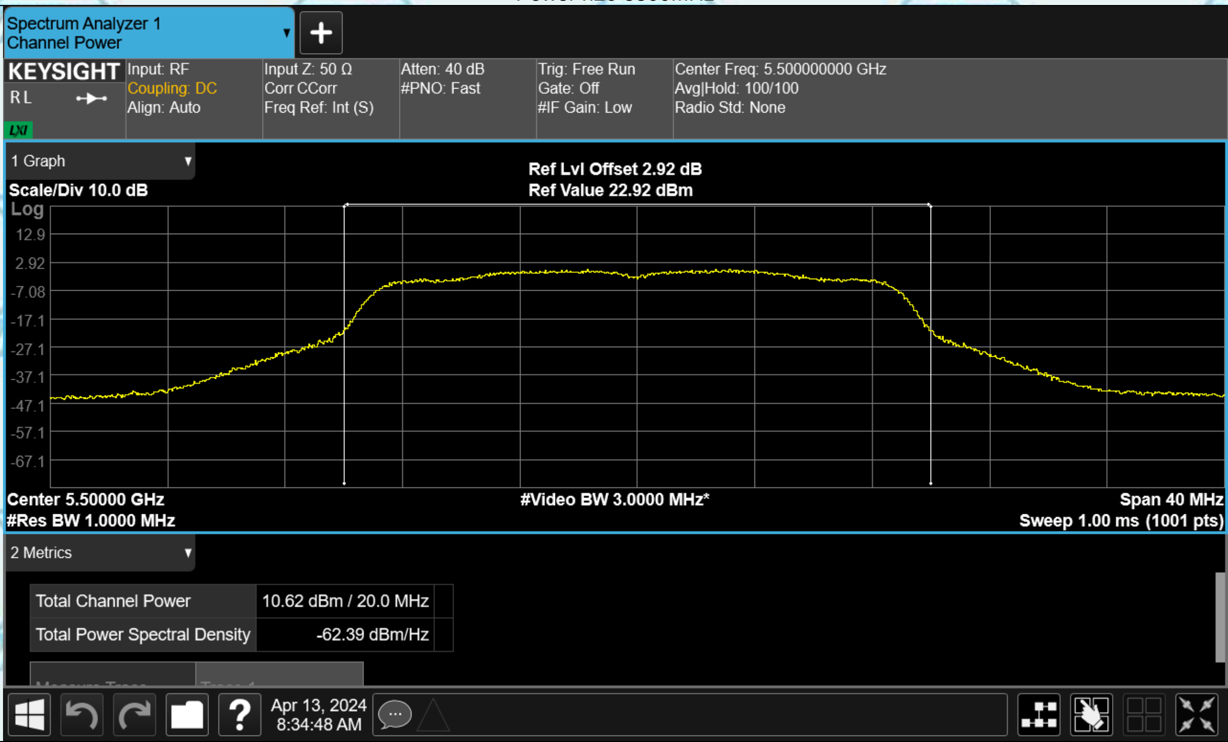
Power n20 5260MHz



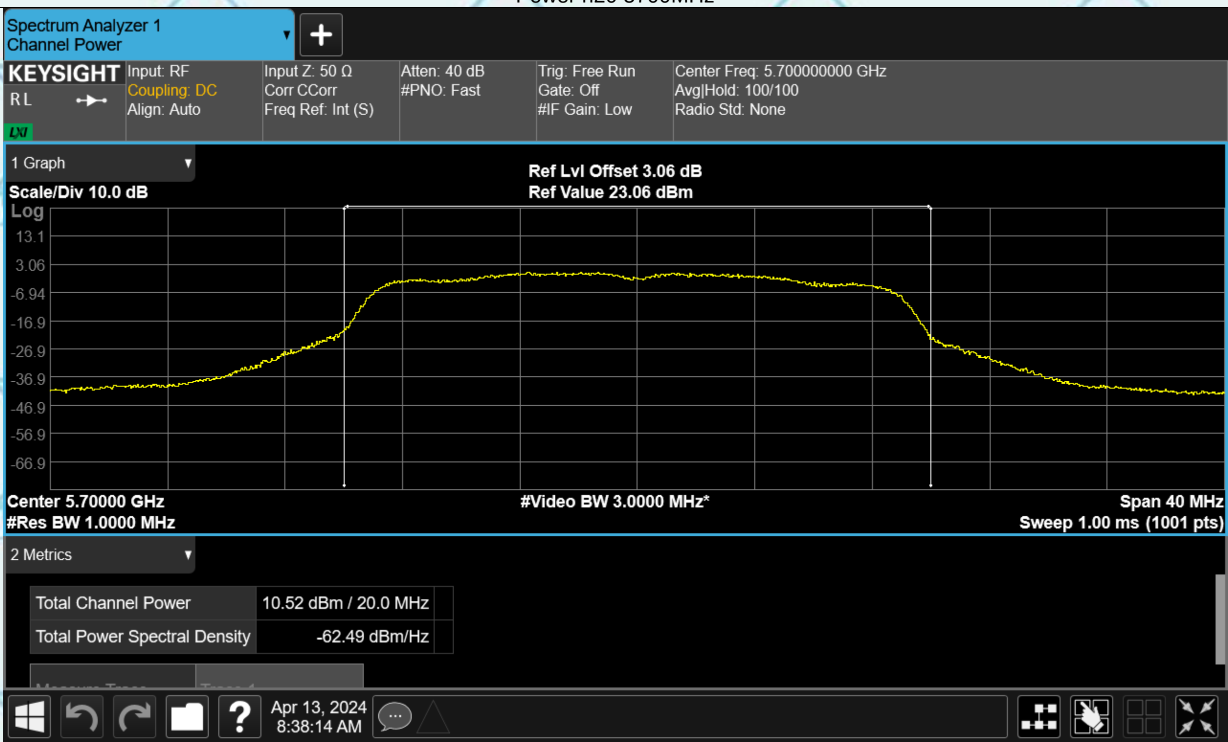
Power n20 5320MHz



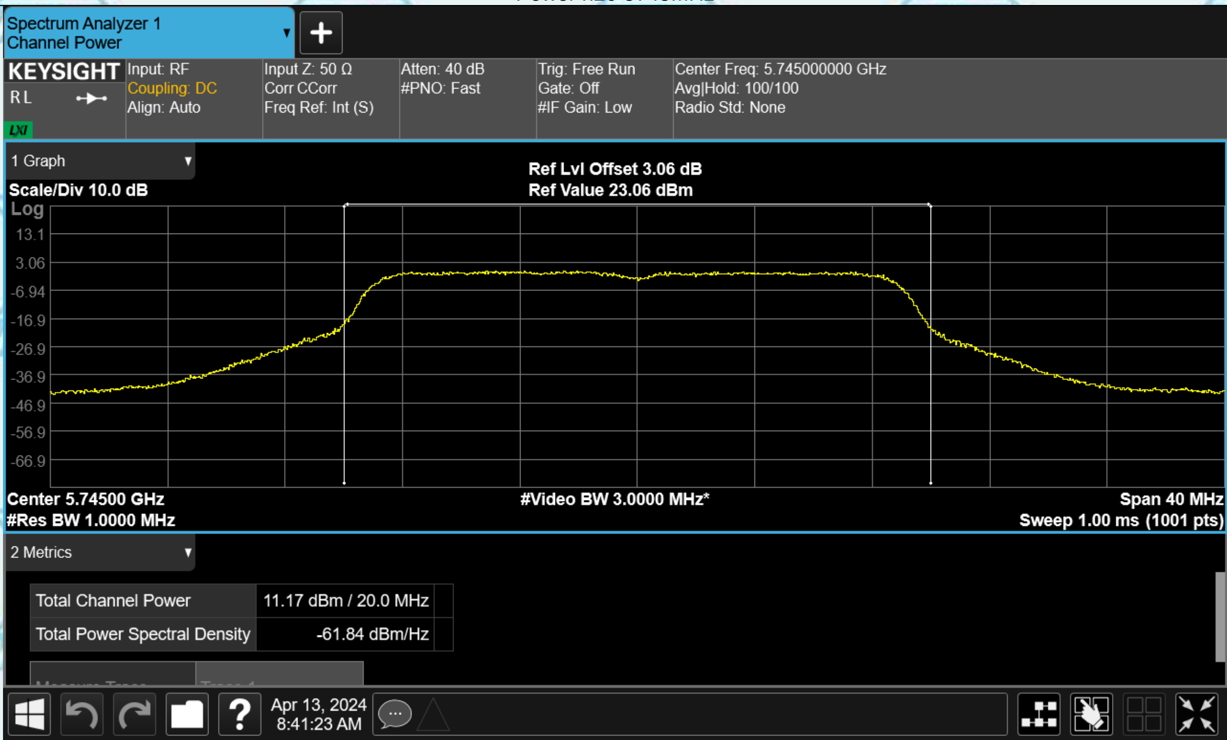
Power n20 5500MHz



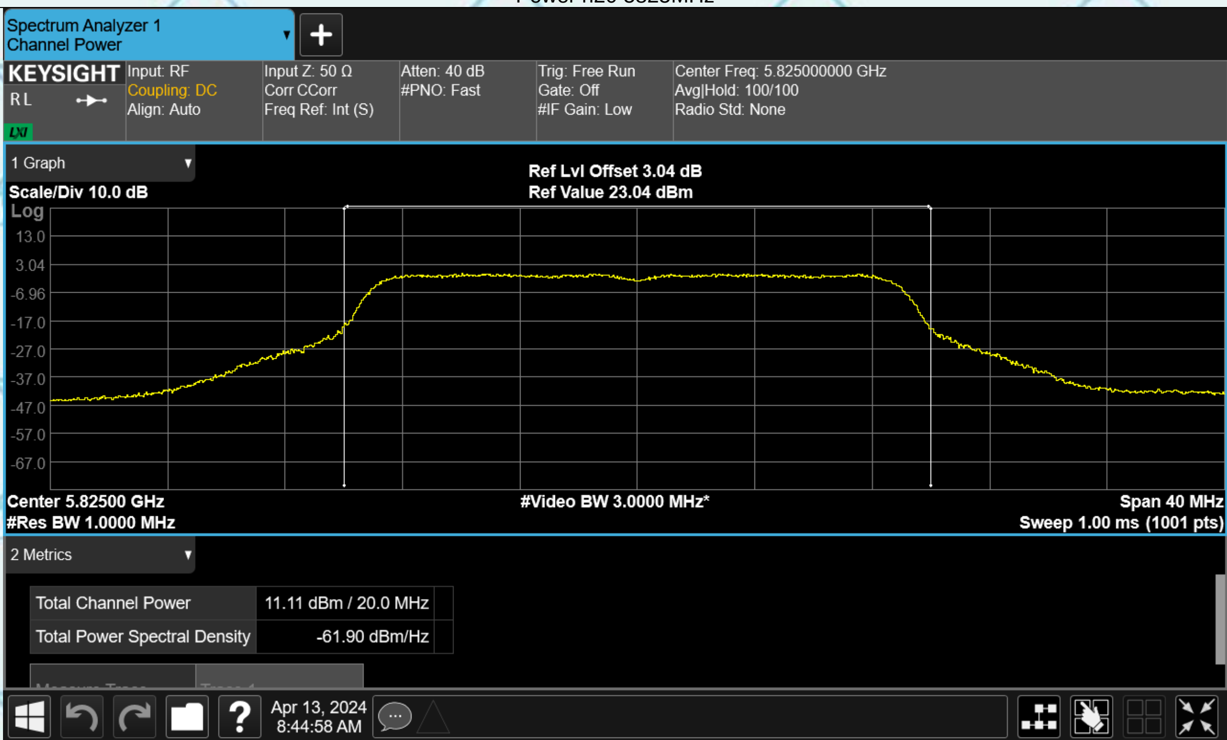
Power n20 5700MHz



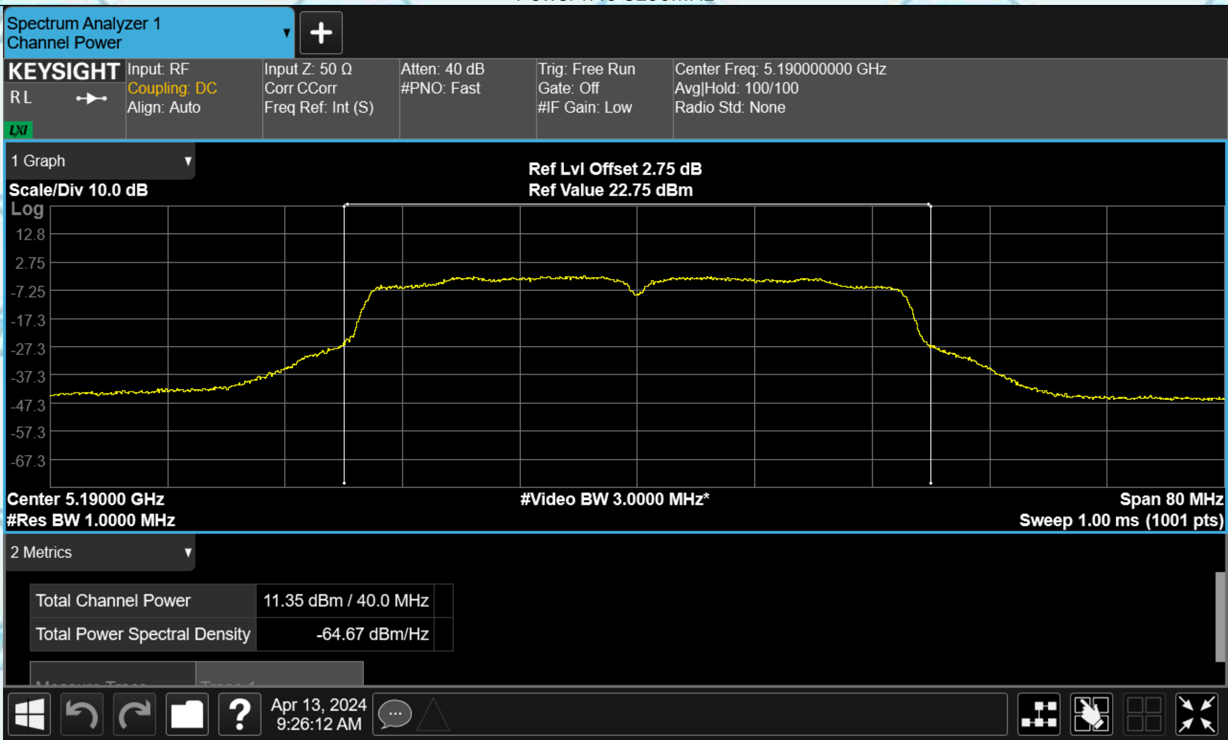
Power n20 5745MHz



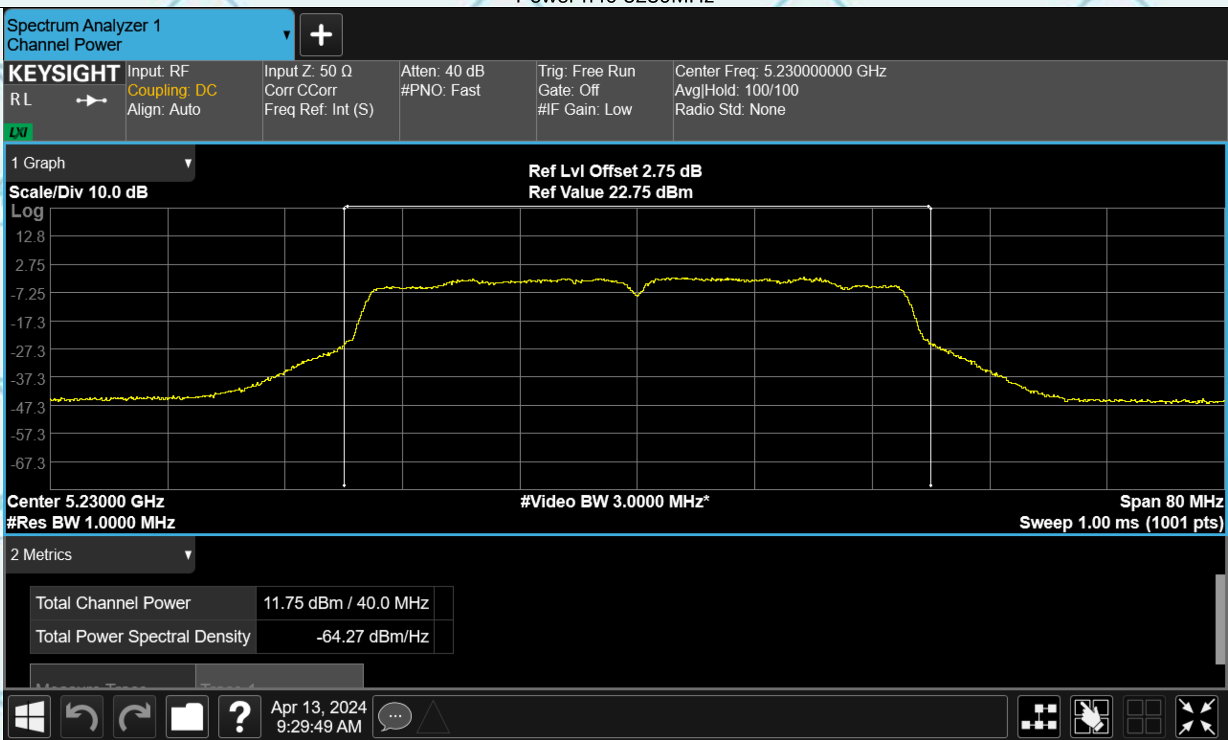
Power n20 5825MHz



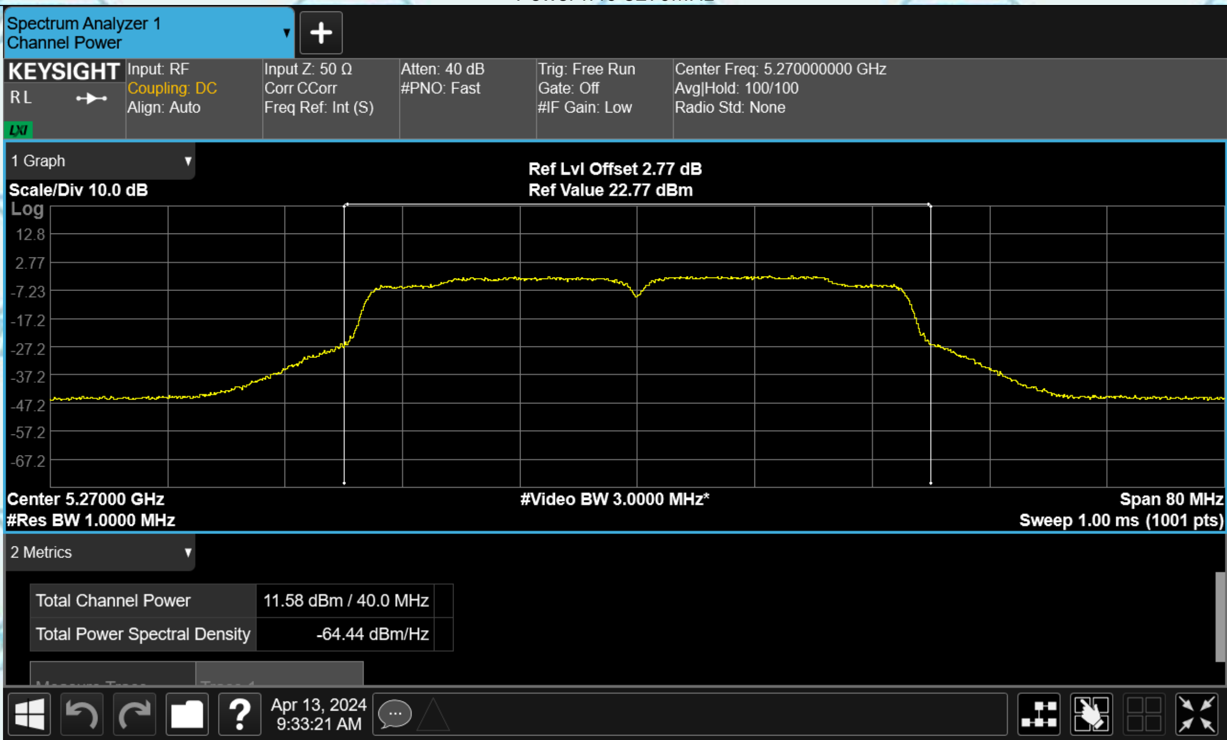
Power n40 5190MHz



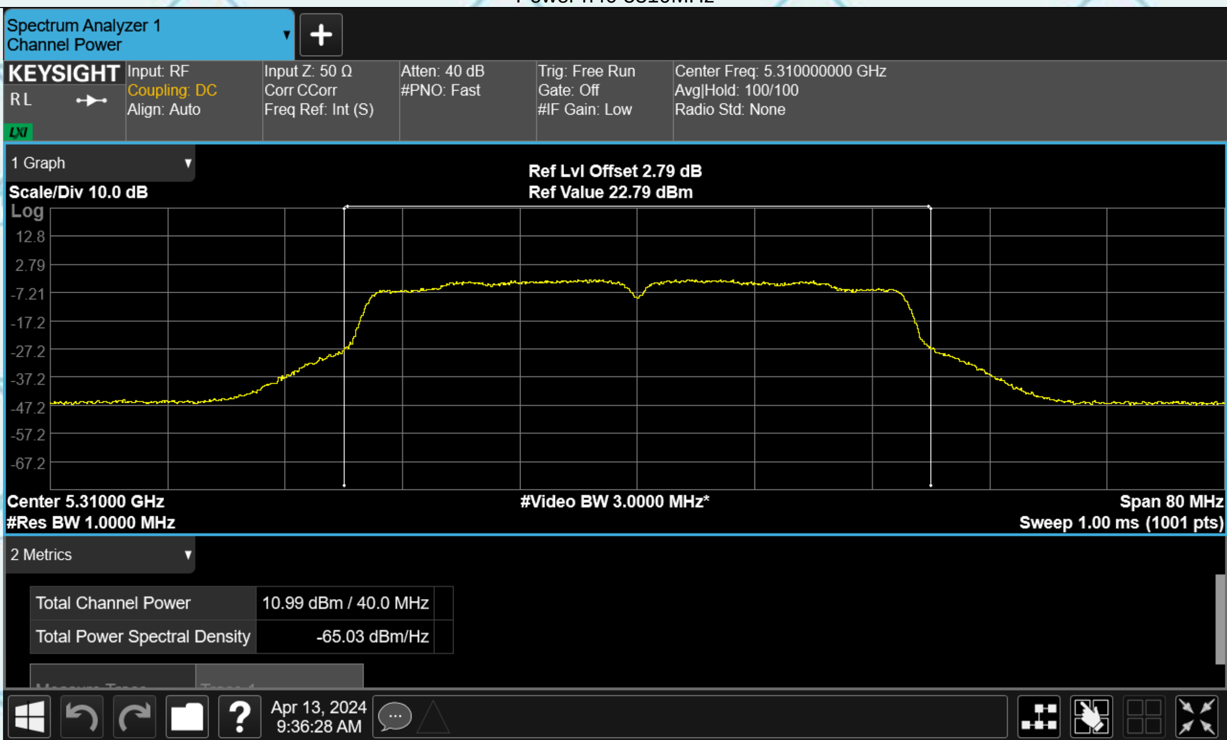
Power n40 5230MHz



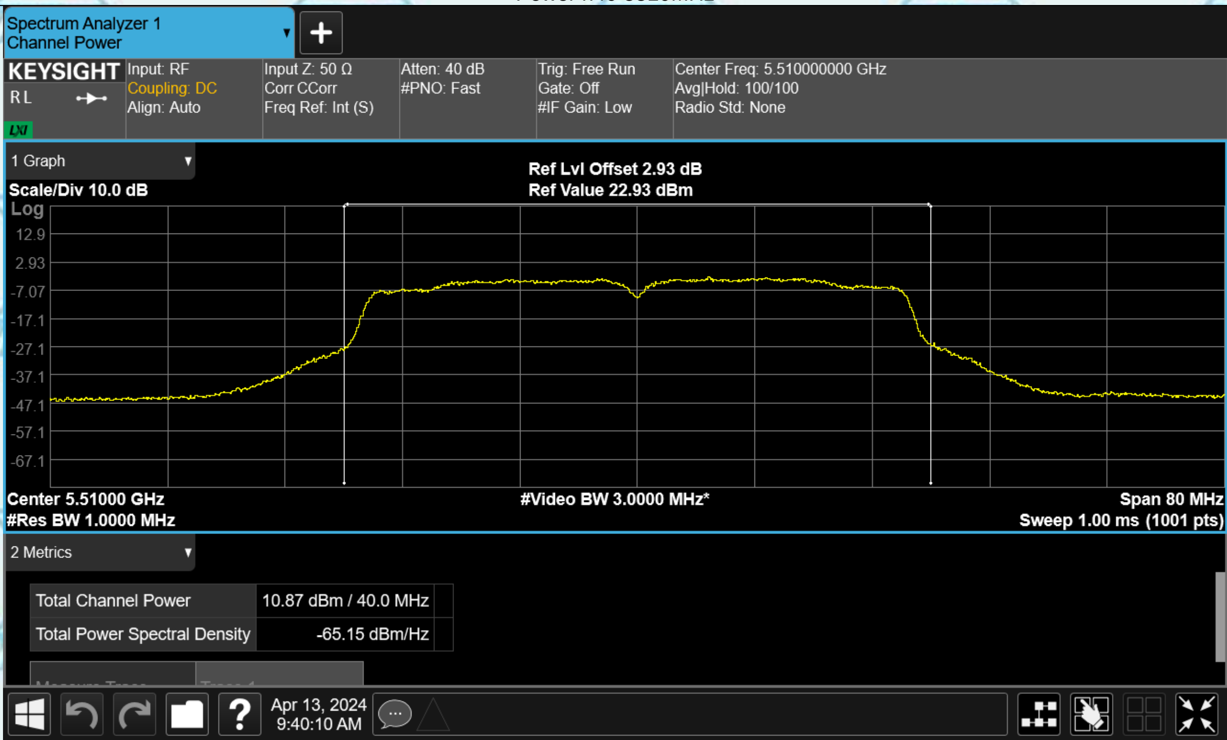
Power n40 5270MHz



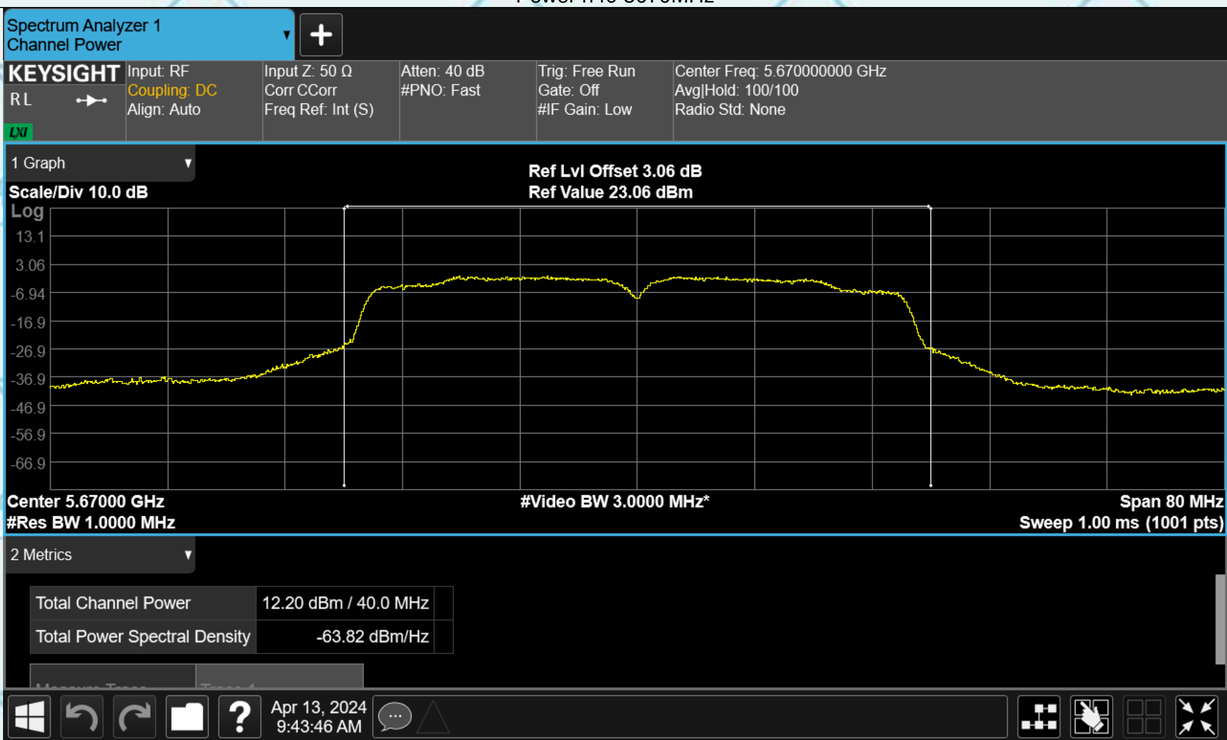
Power n40 5310MHz



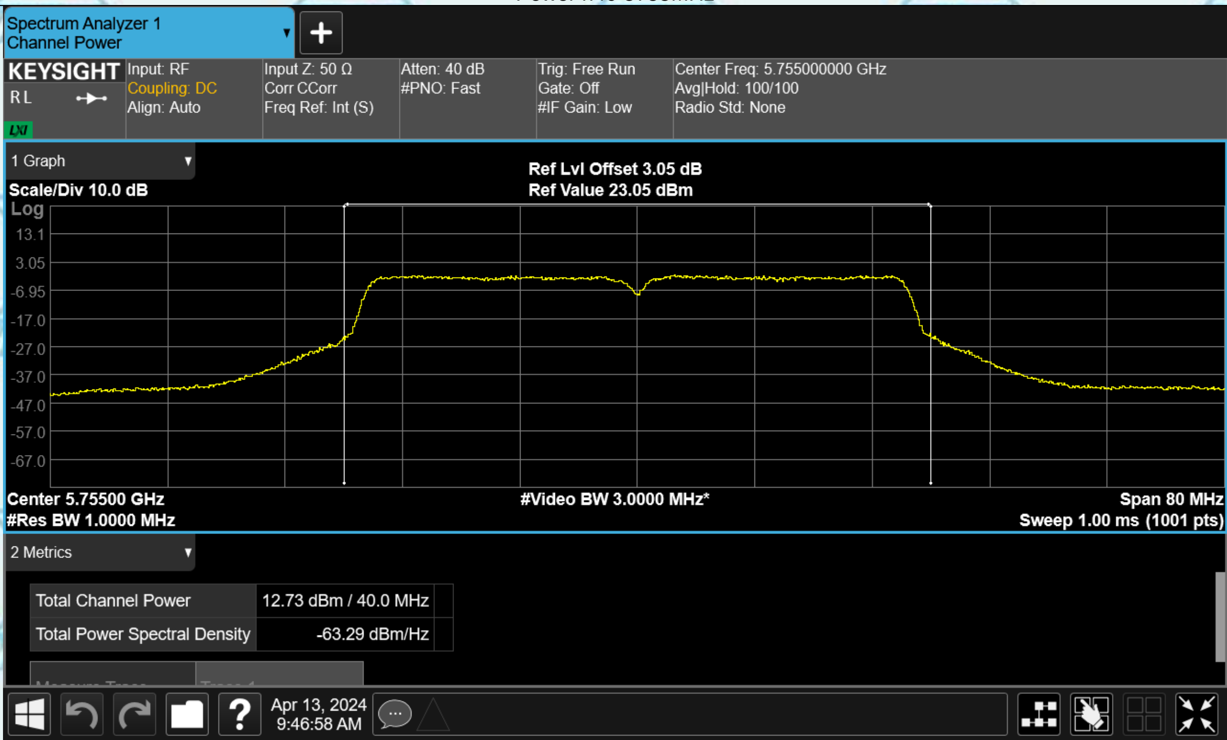
Power n40 5510MHz



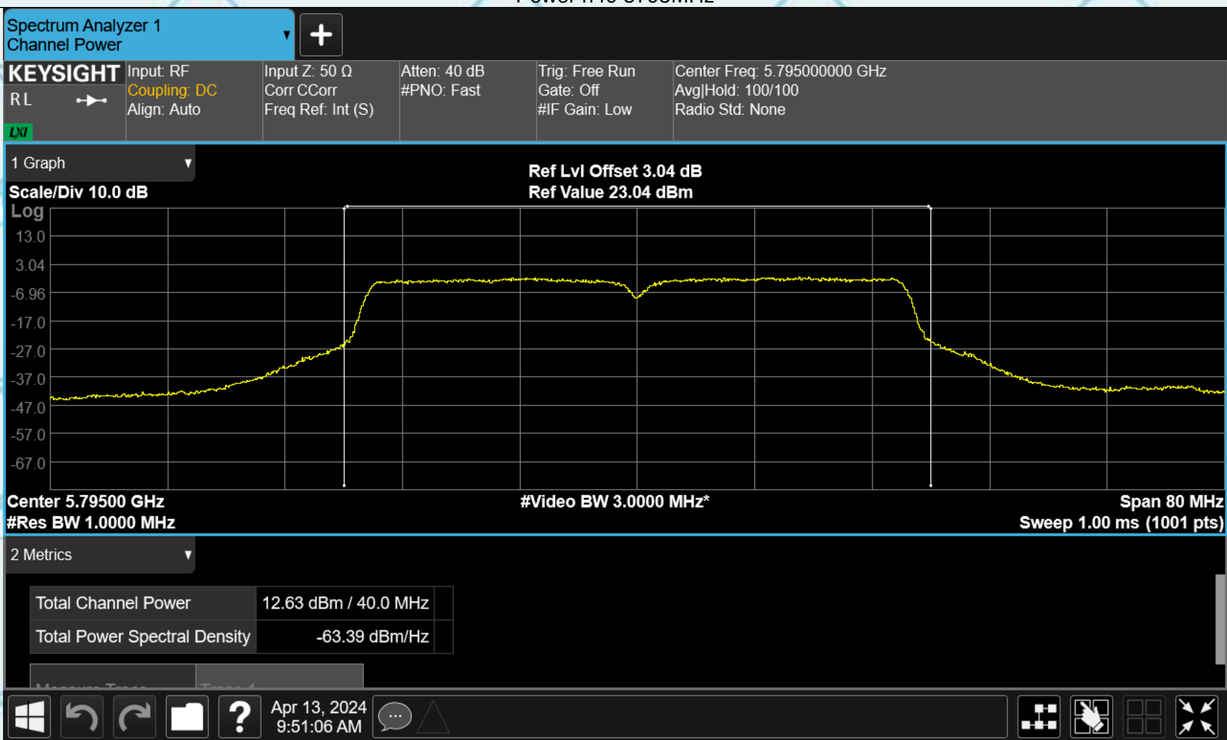
Power n40 5670MHz



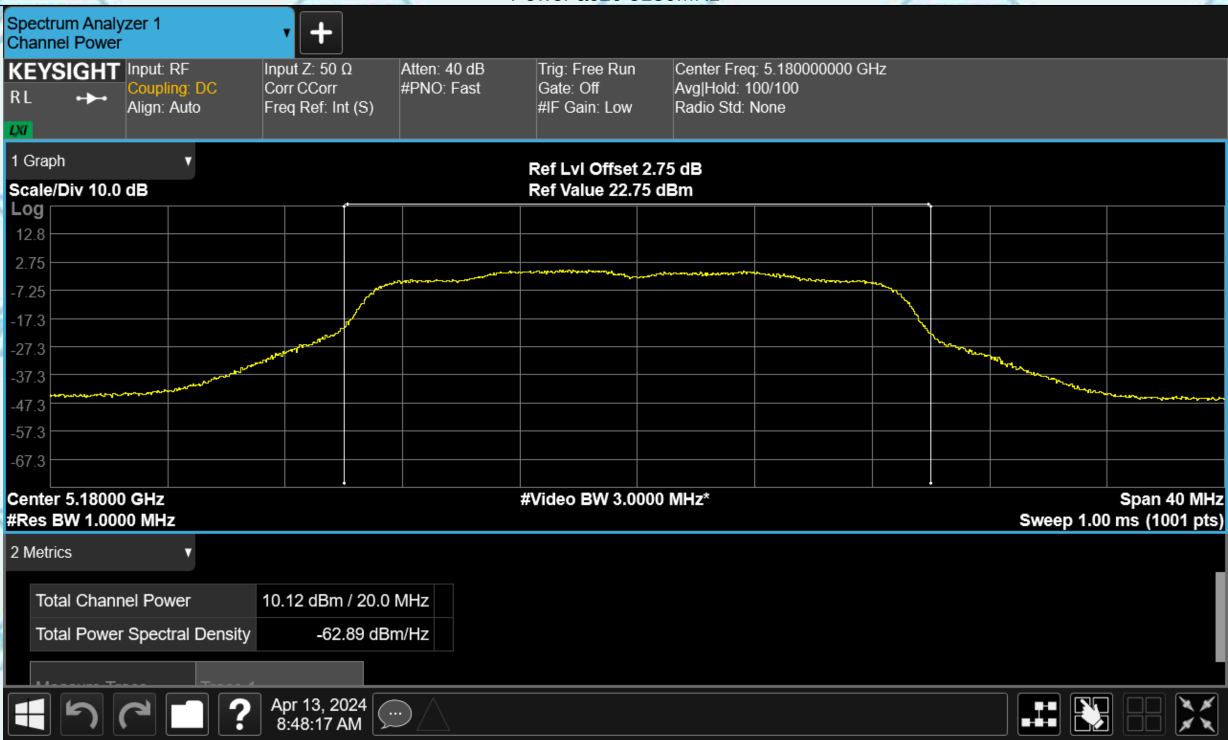
Power n40 5755MHz



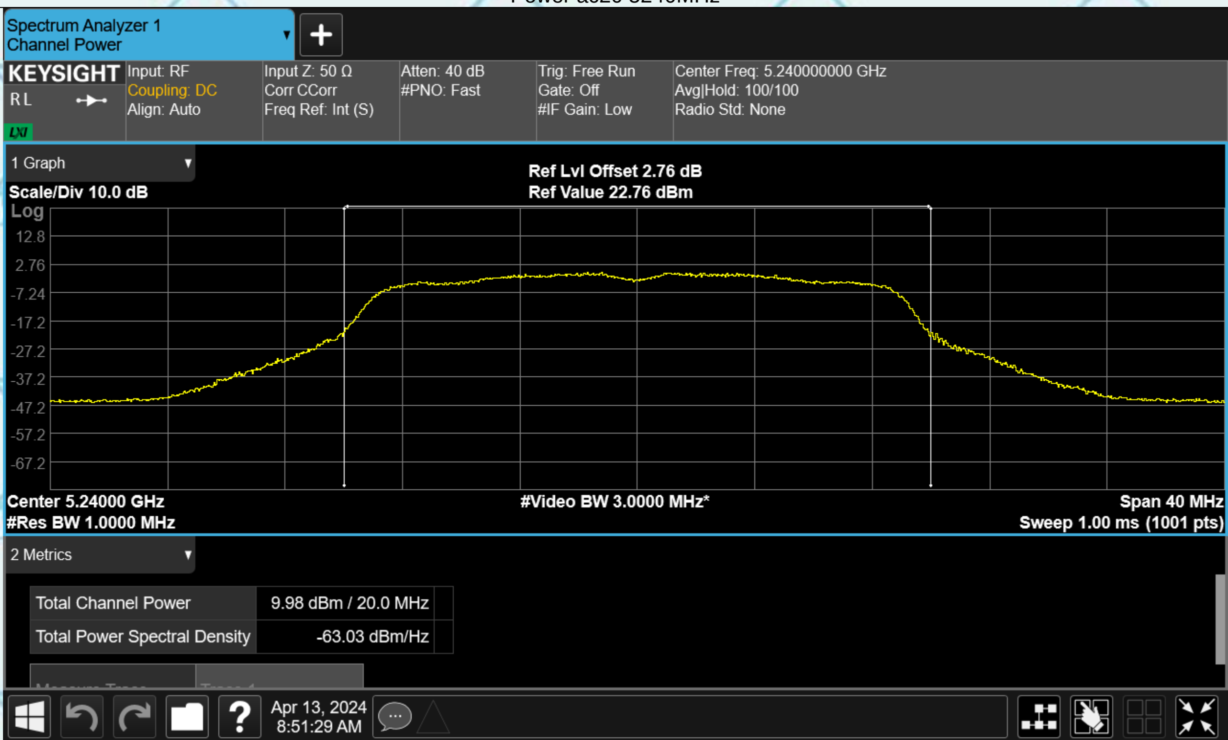
Power n40 5795MHz



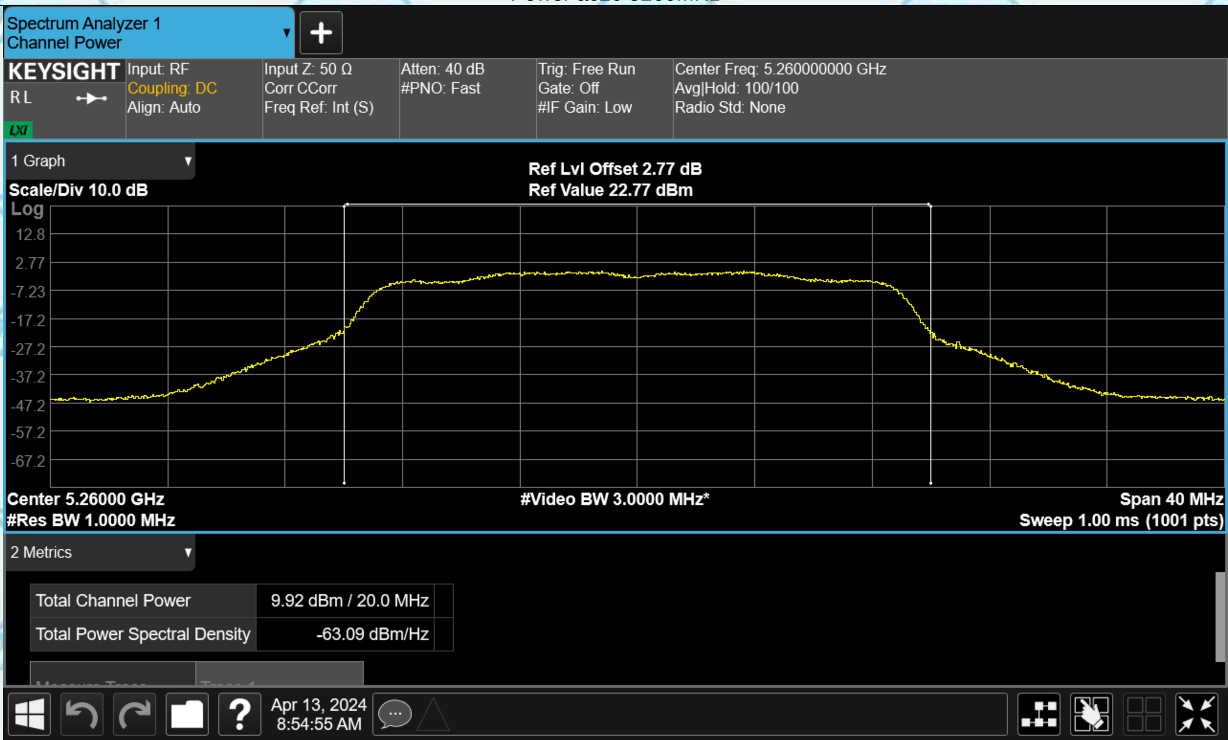
Power ac20 5180MHz



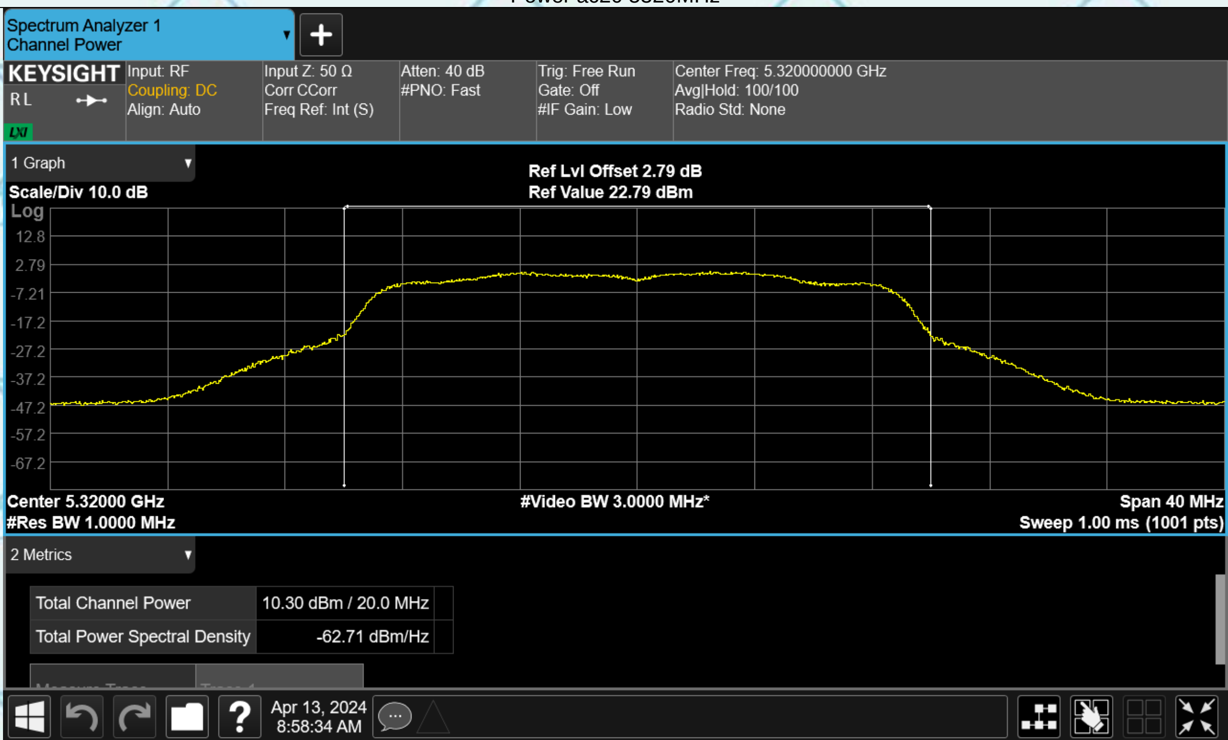
Power ac20 5240MHz



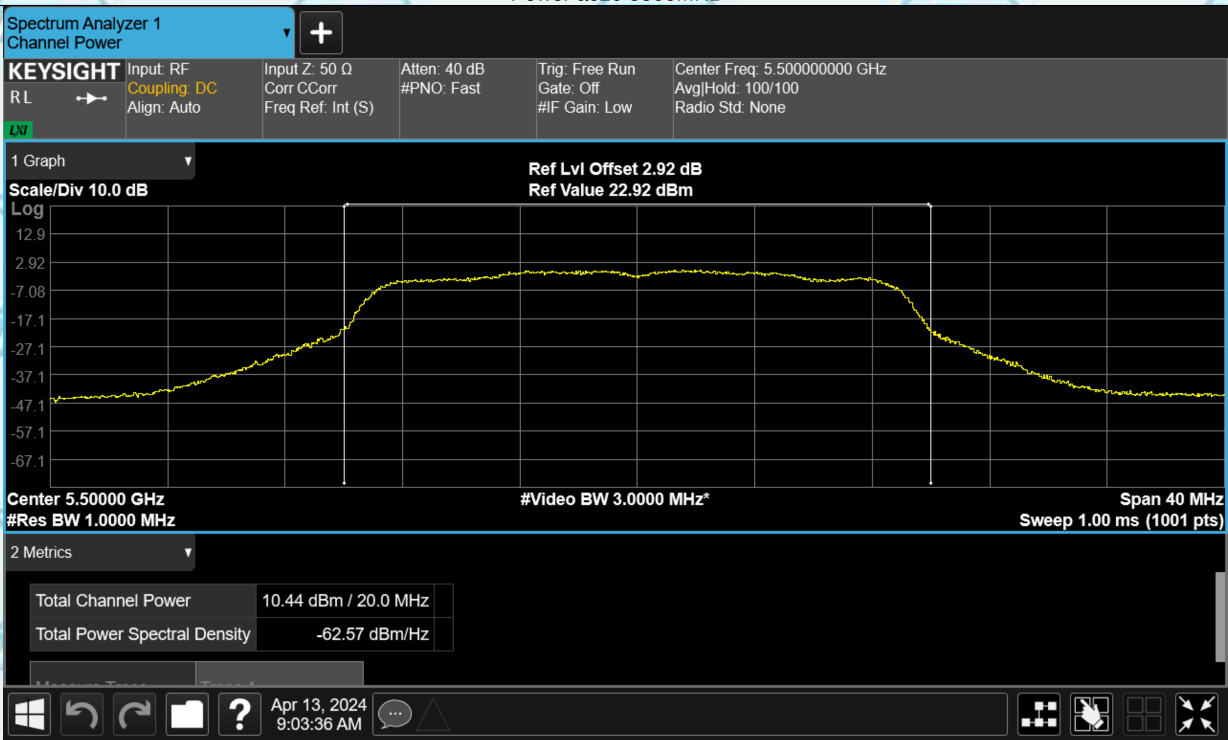
Power ac20 5260MHz



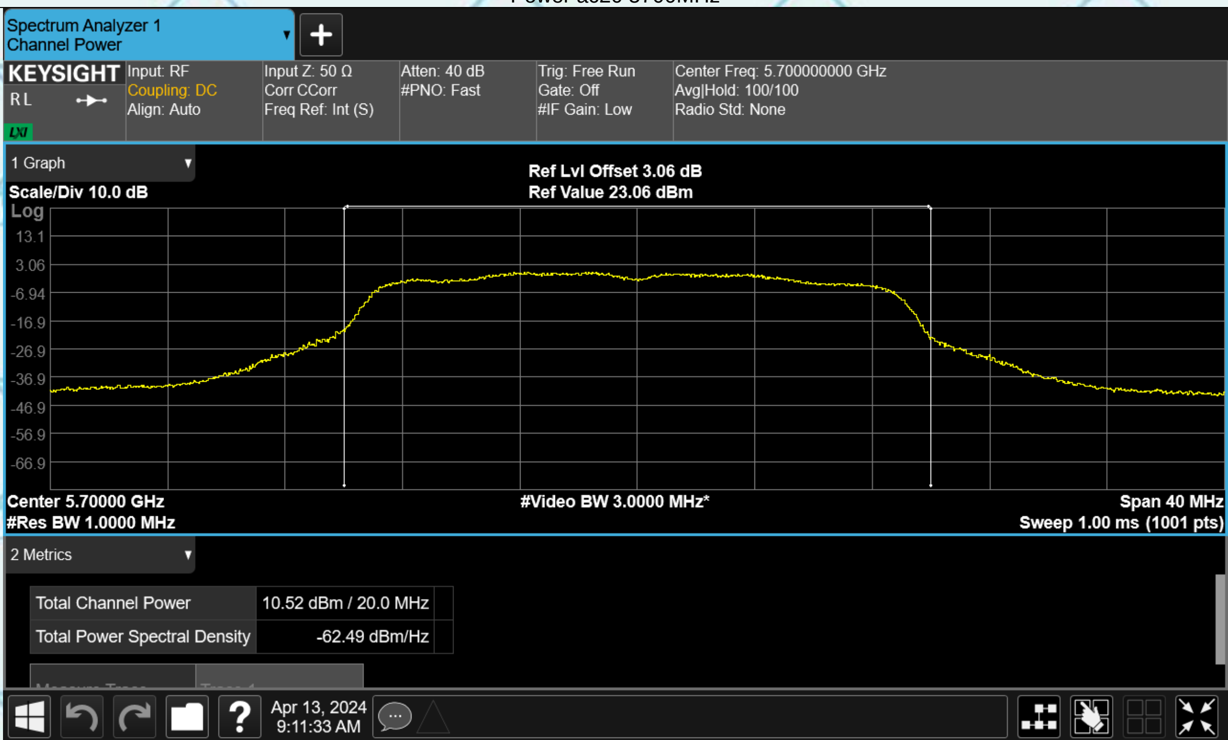
Power ac20 5320MHz



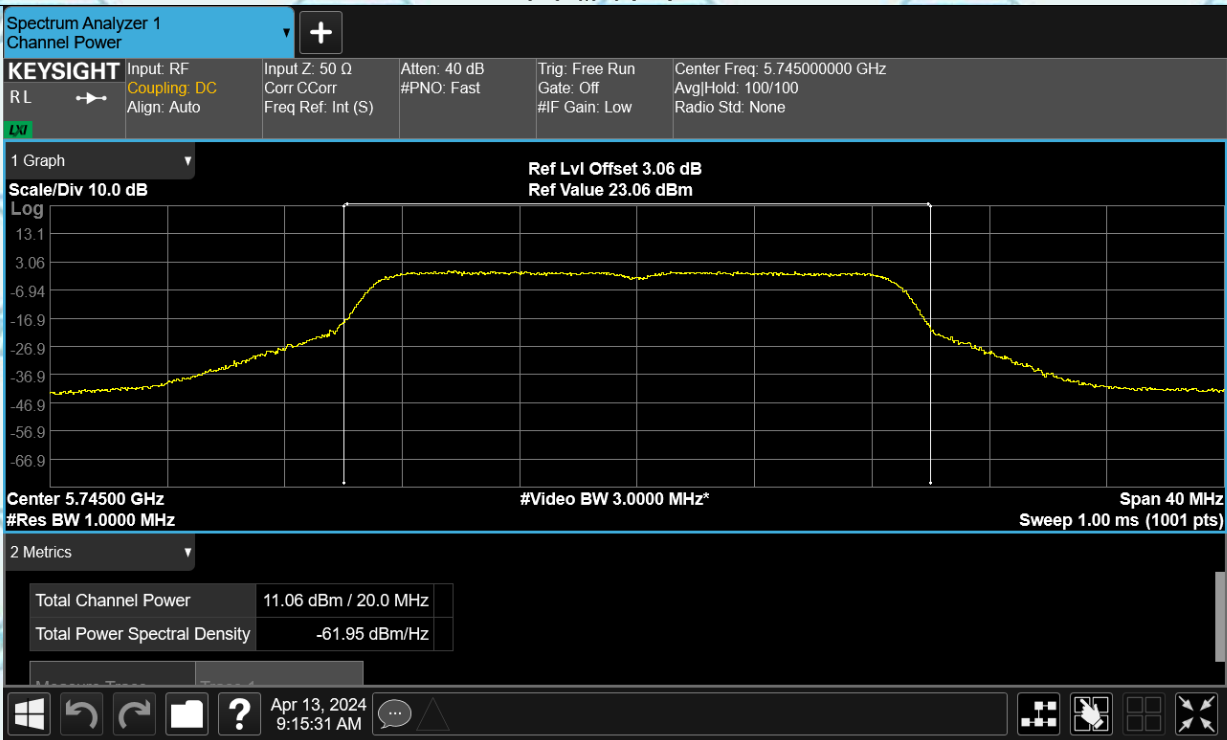
Power ac20 5500MHz



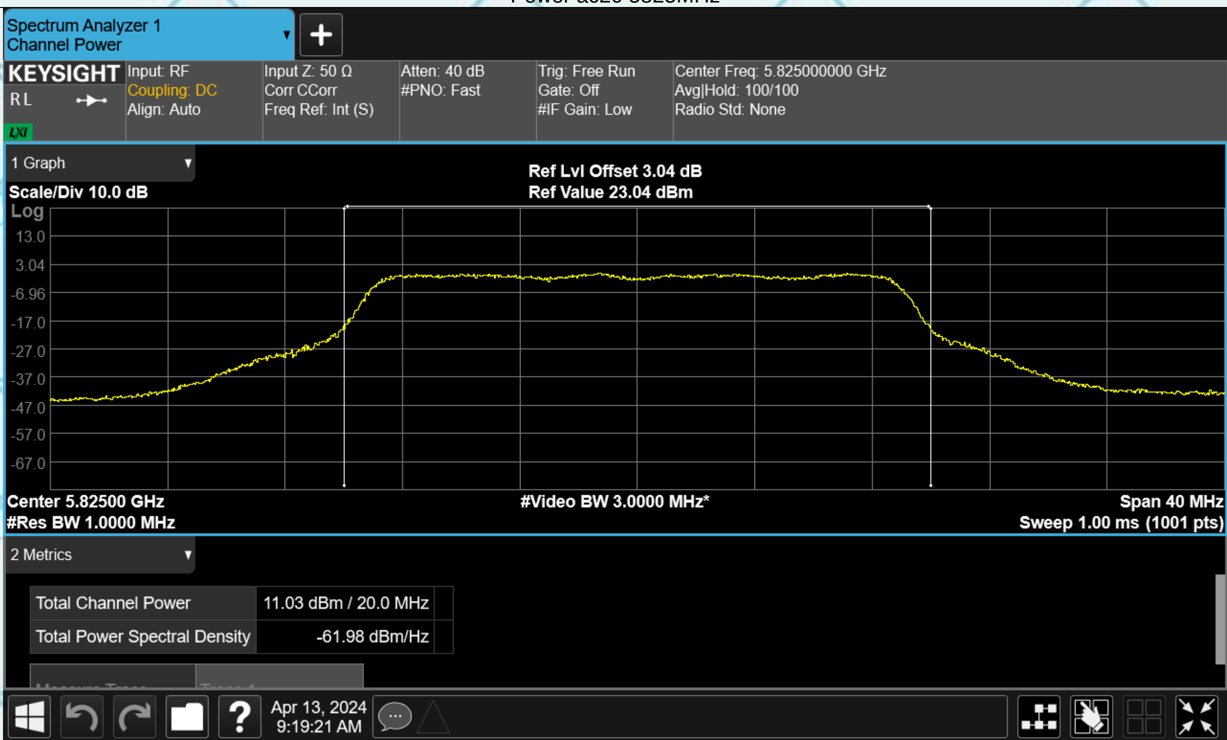
Power ac20 5700MHz



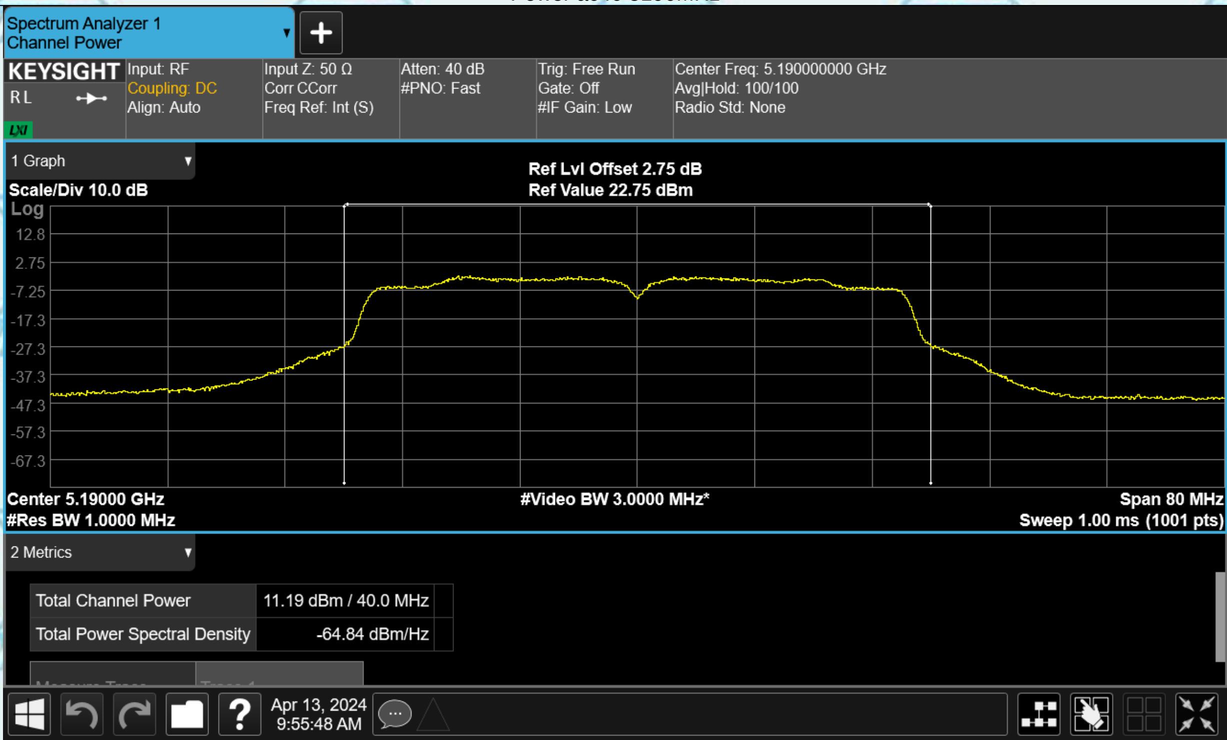
Power ac20 5745MHz



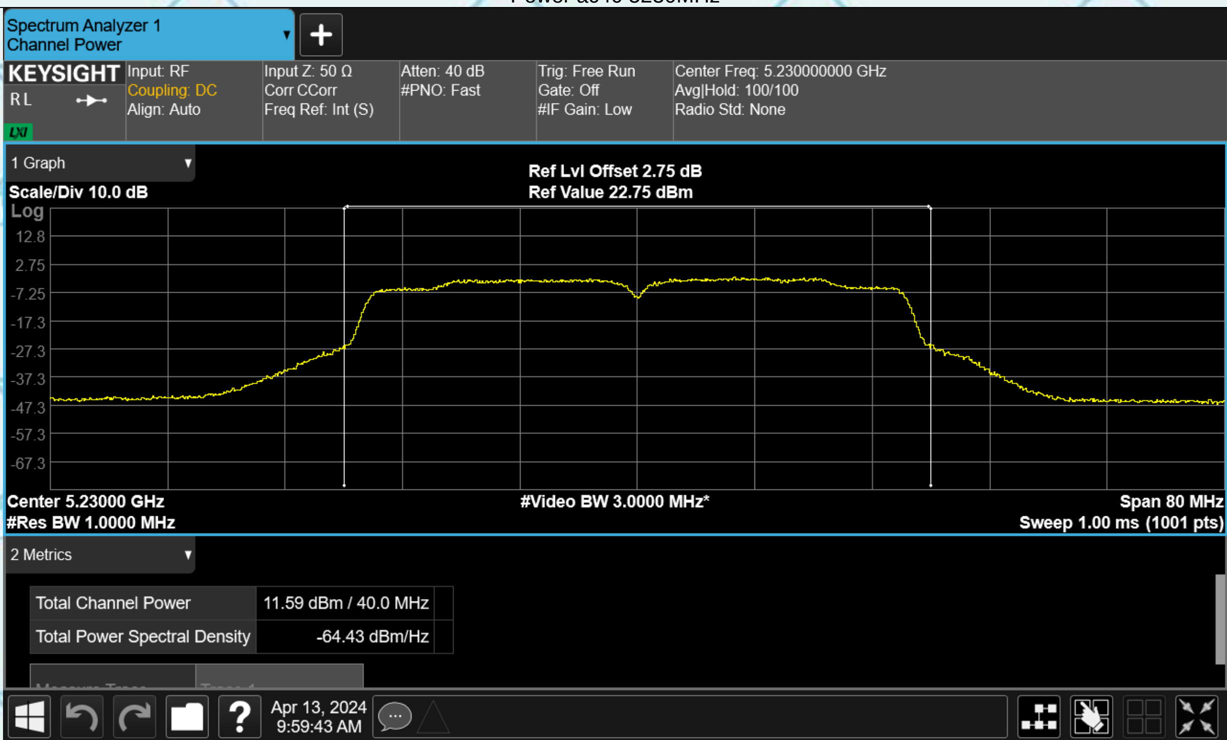
Power ac20 5825MHz



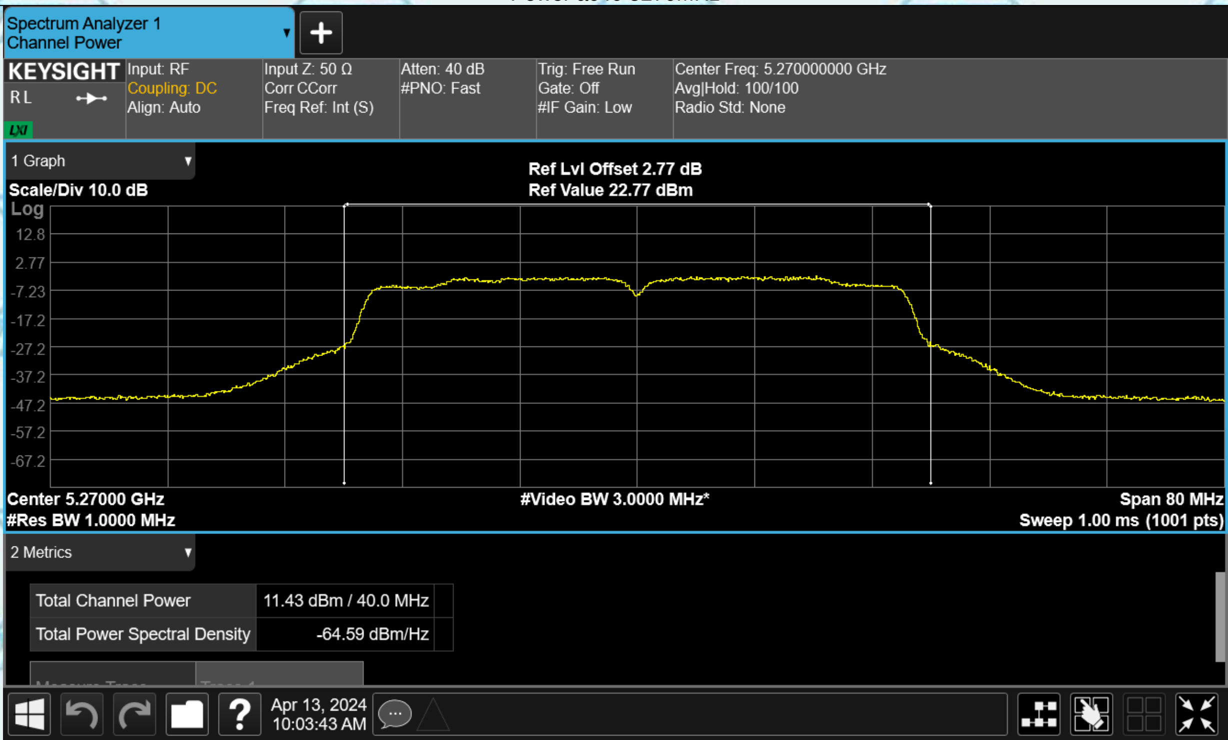
Power ac40 5190MHz



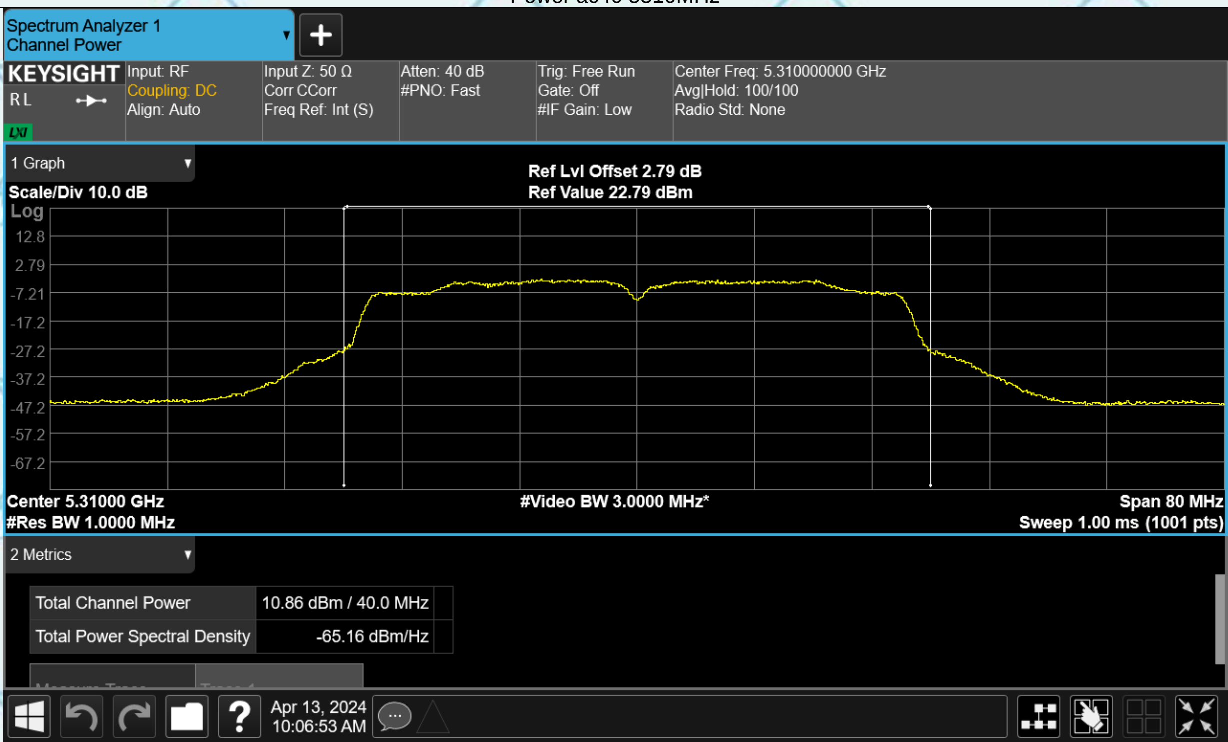
Power ac40 5230MHz



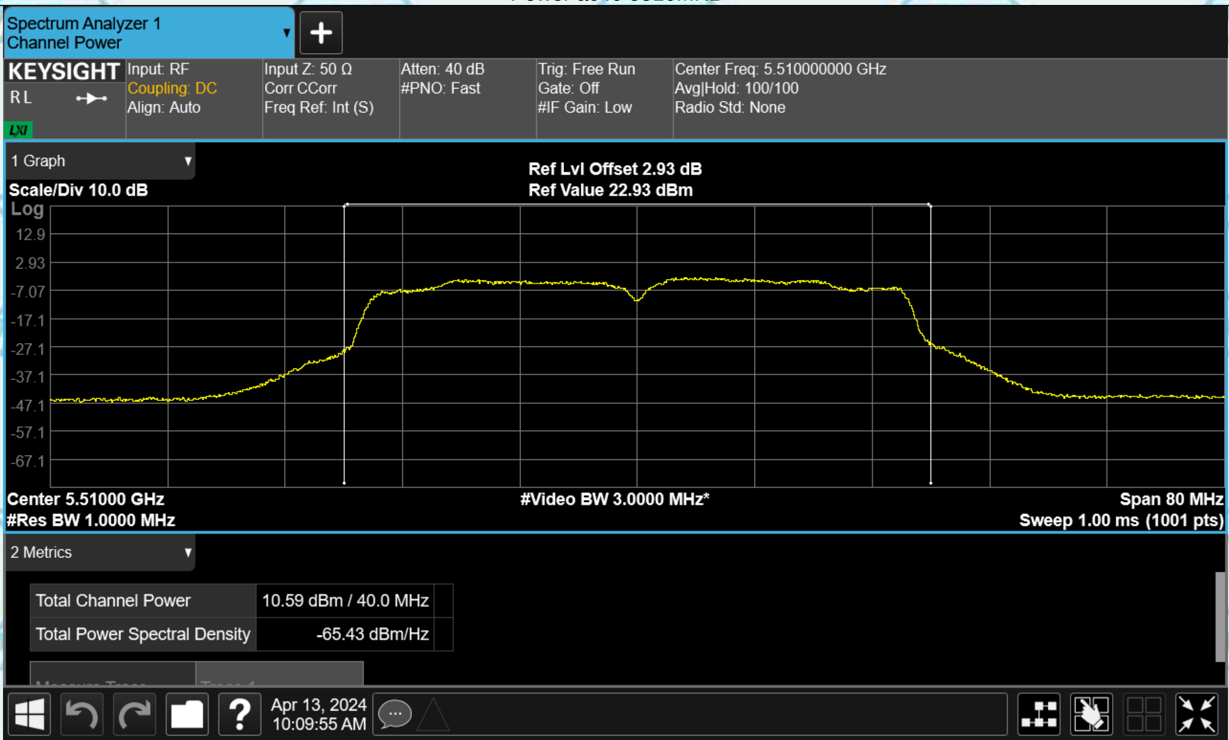
Power ac40 5270MHz



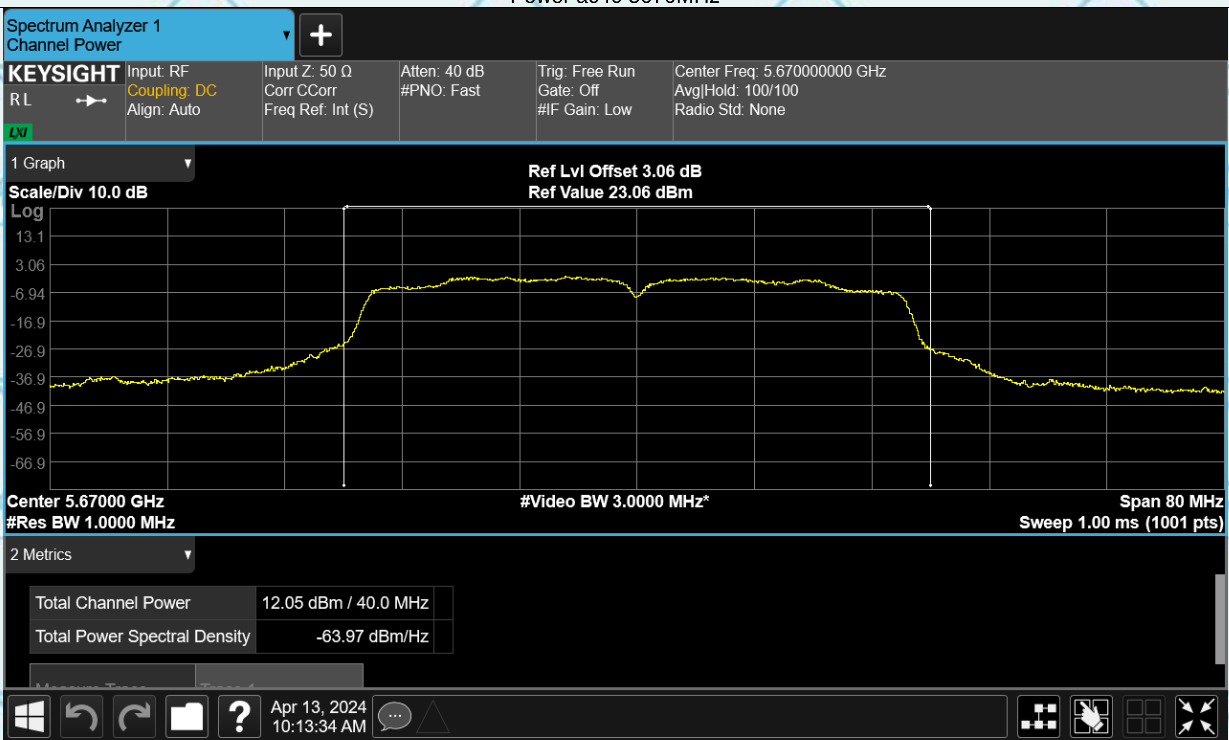
Power ac40 5310MHz



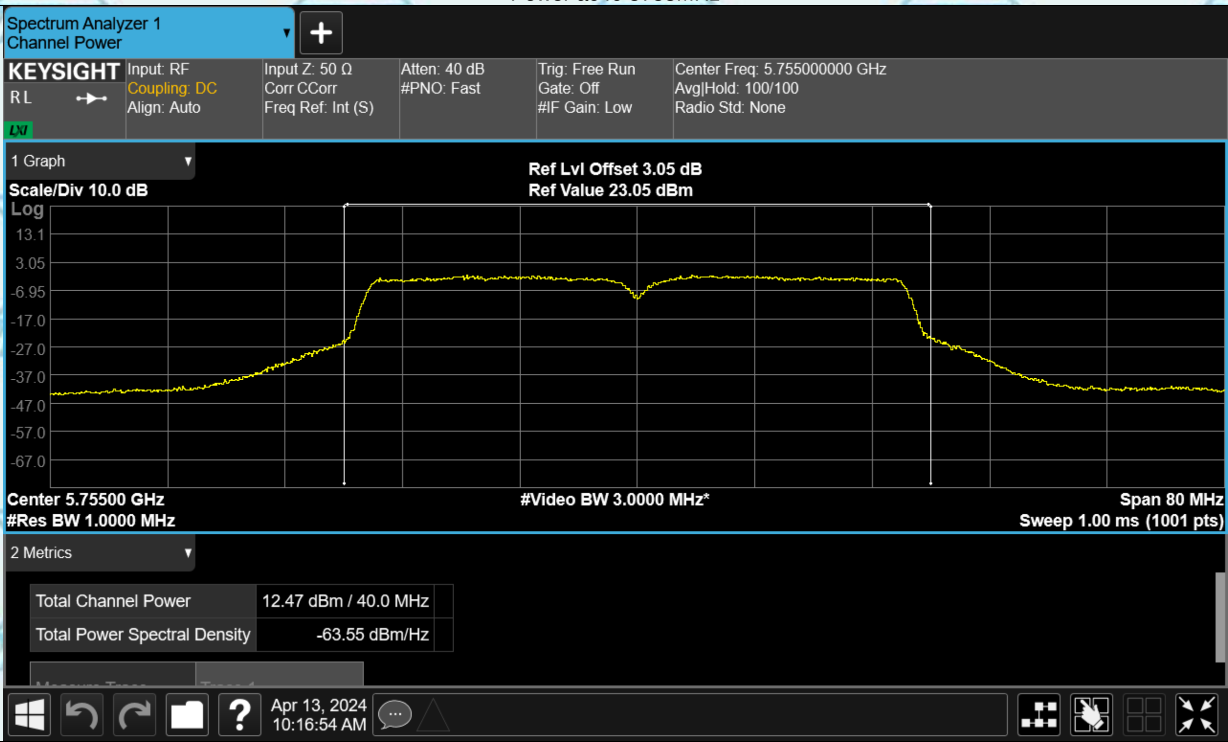
Power ac40 5510MHz



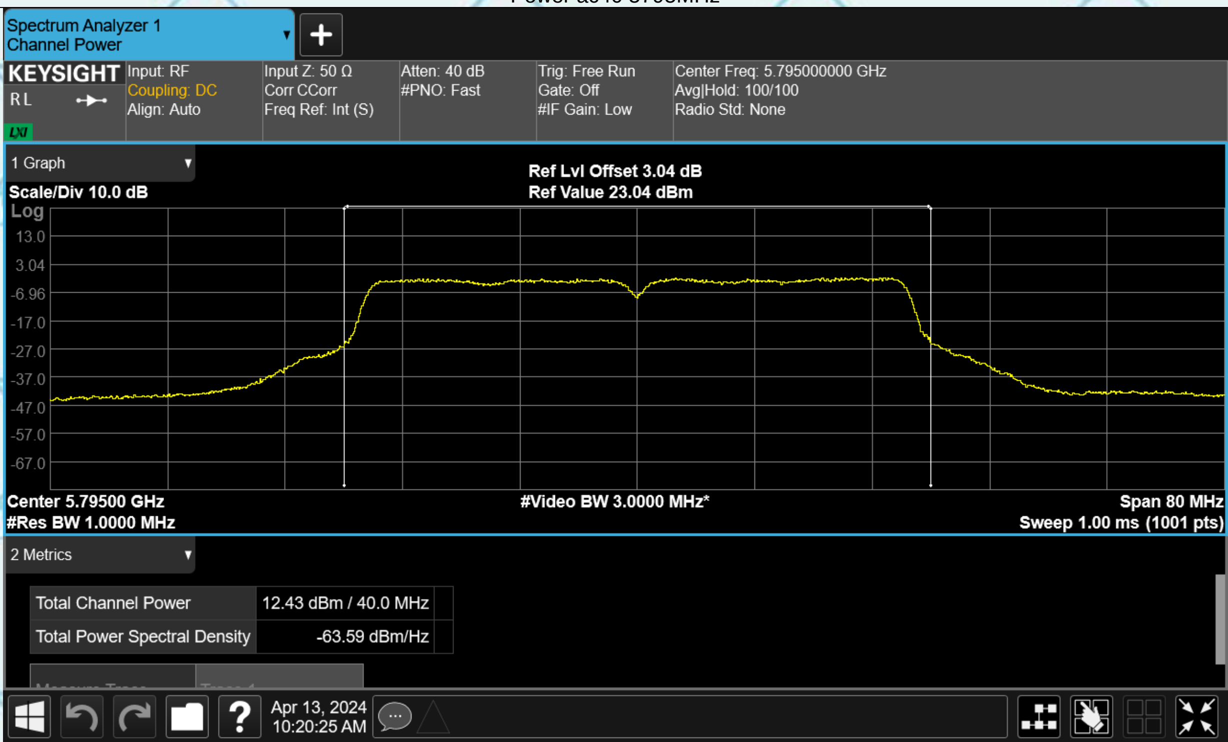
Power ac40 5670MHz



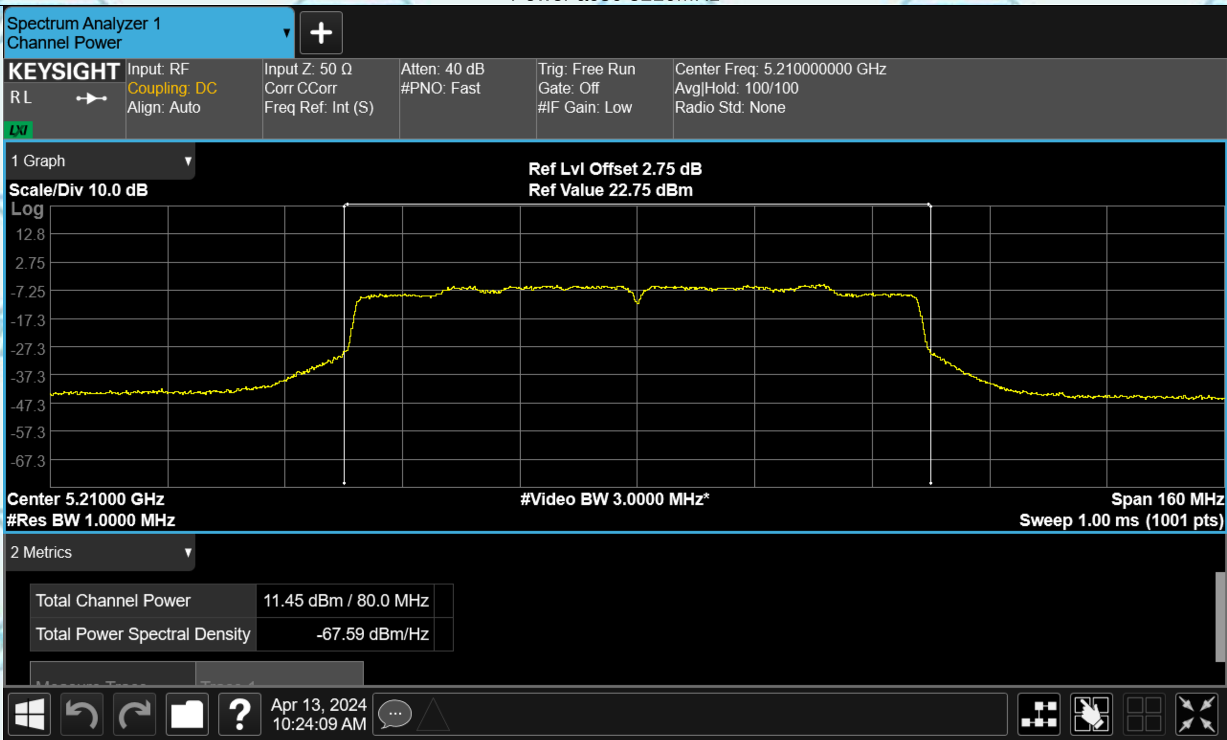
Power ac40 5755MHz



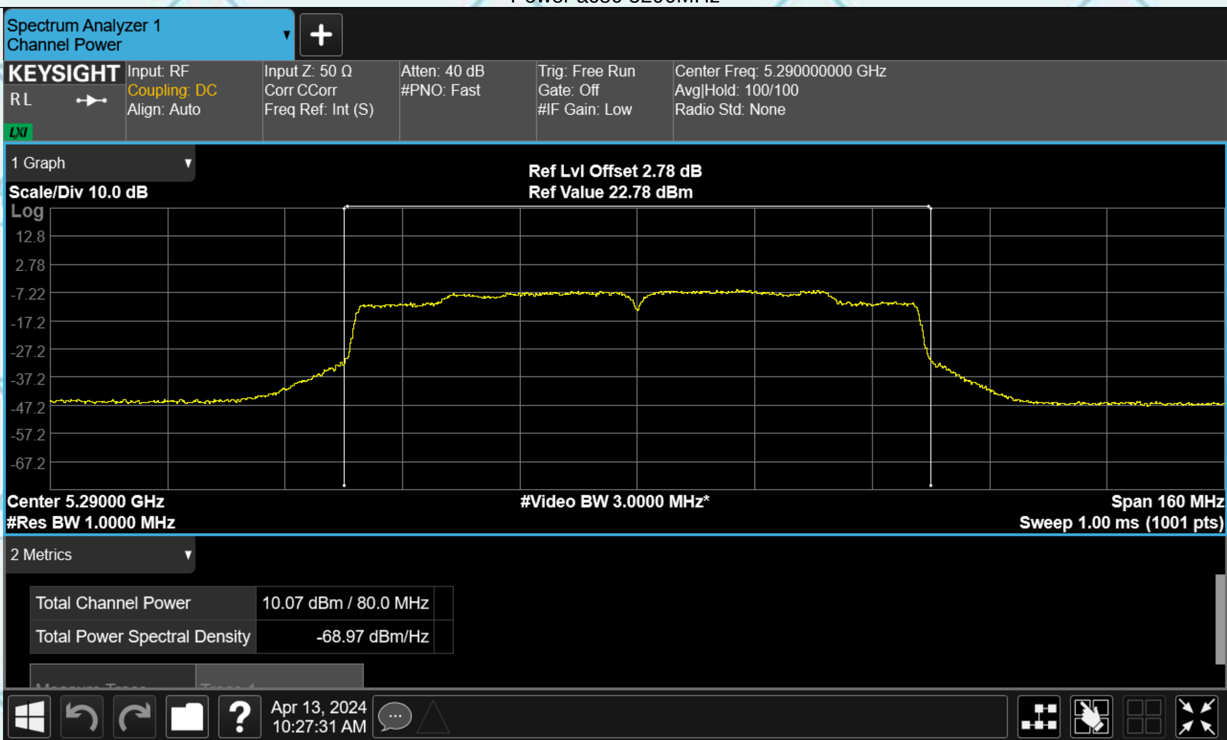
Power ac40 5795MHz



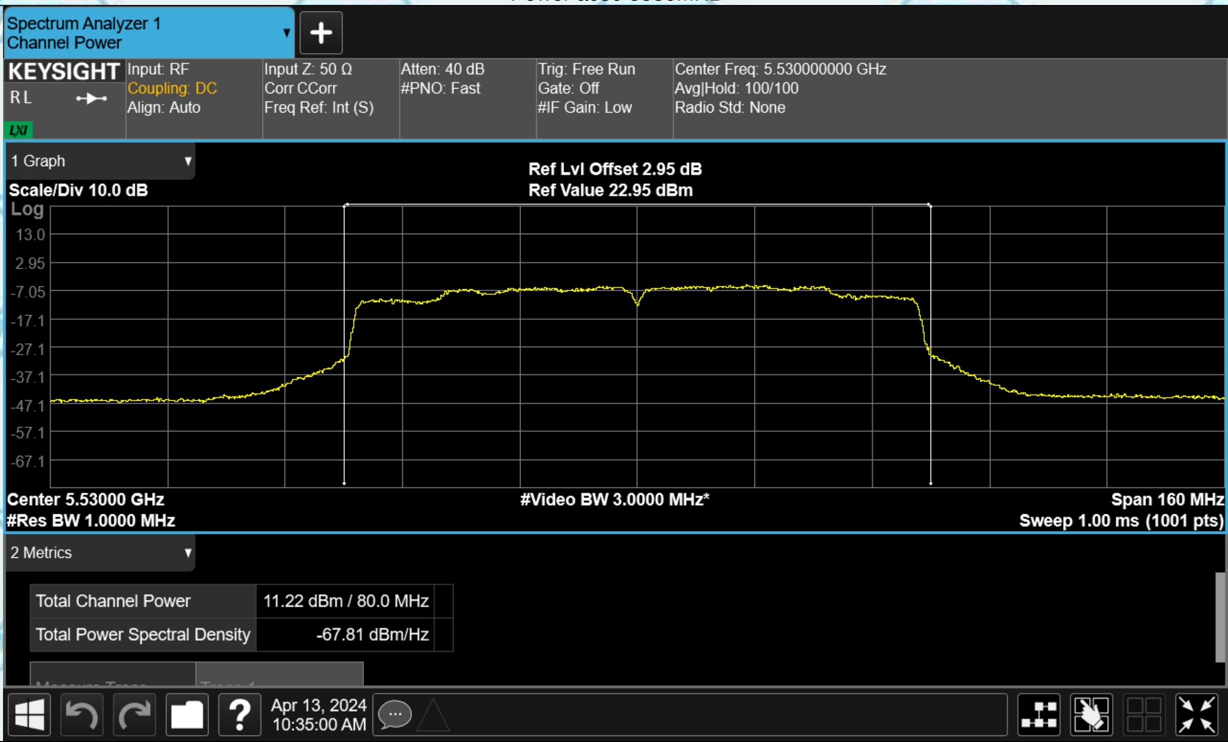
Power ac80 5210MHz



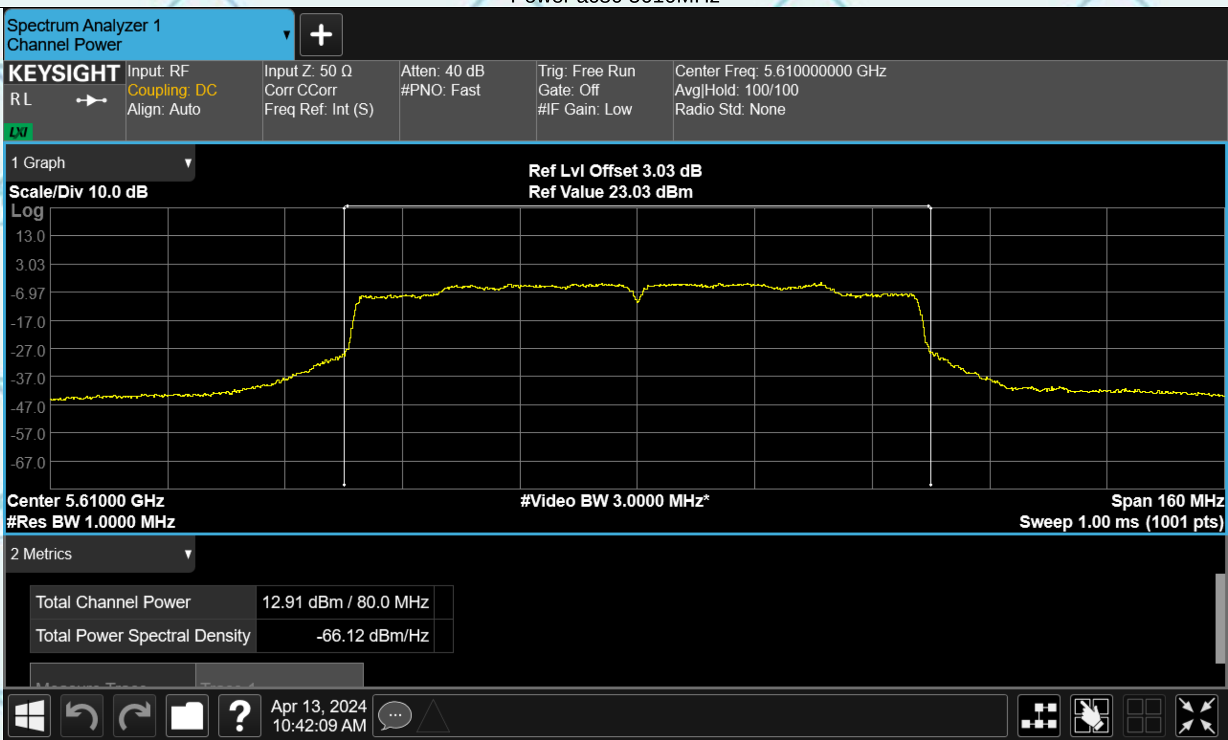
Power ac80 5290MHz



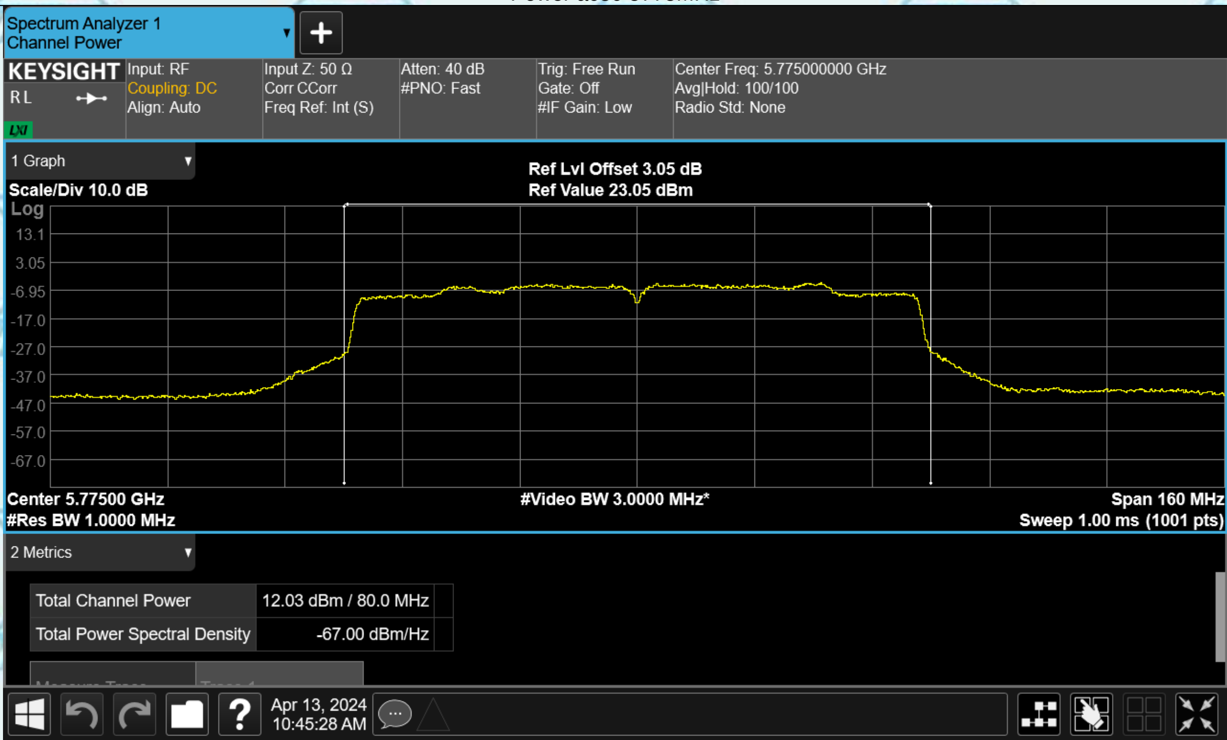
Power ac80 5530MHz



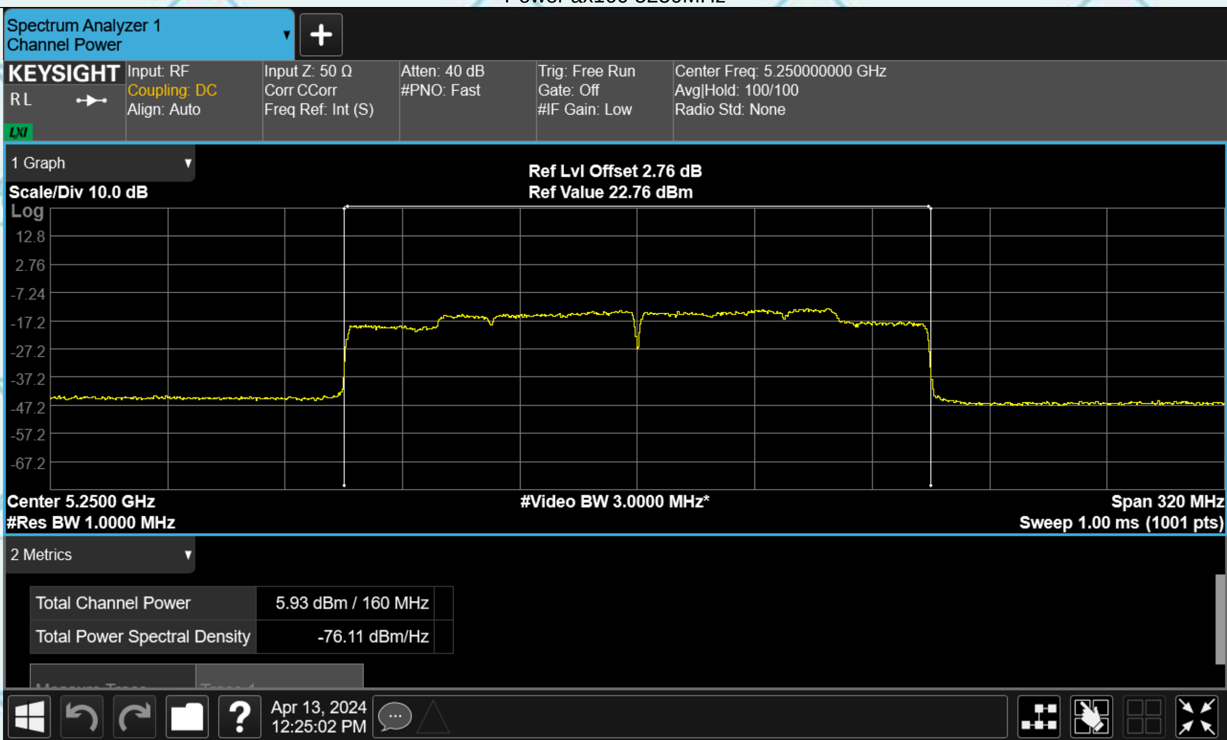
Power ac80 5610MHz



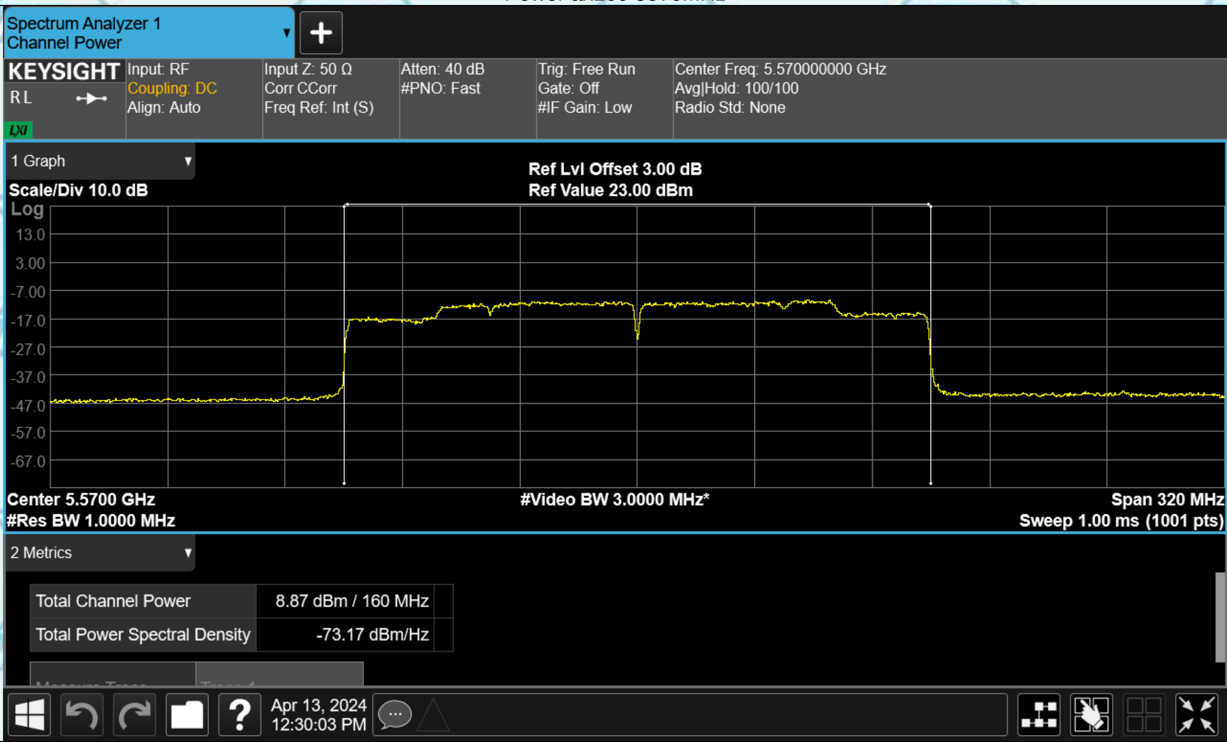
Power ac80 5775MHz



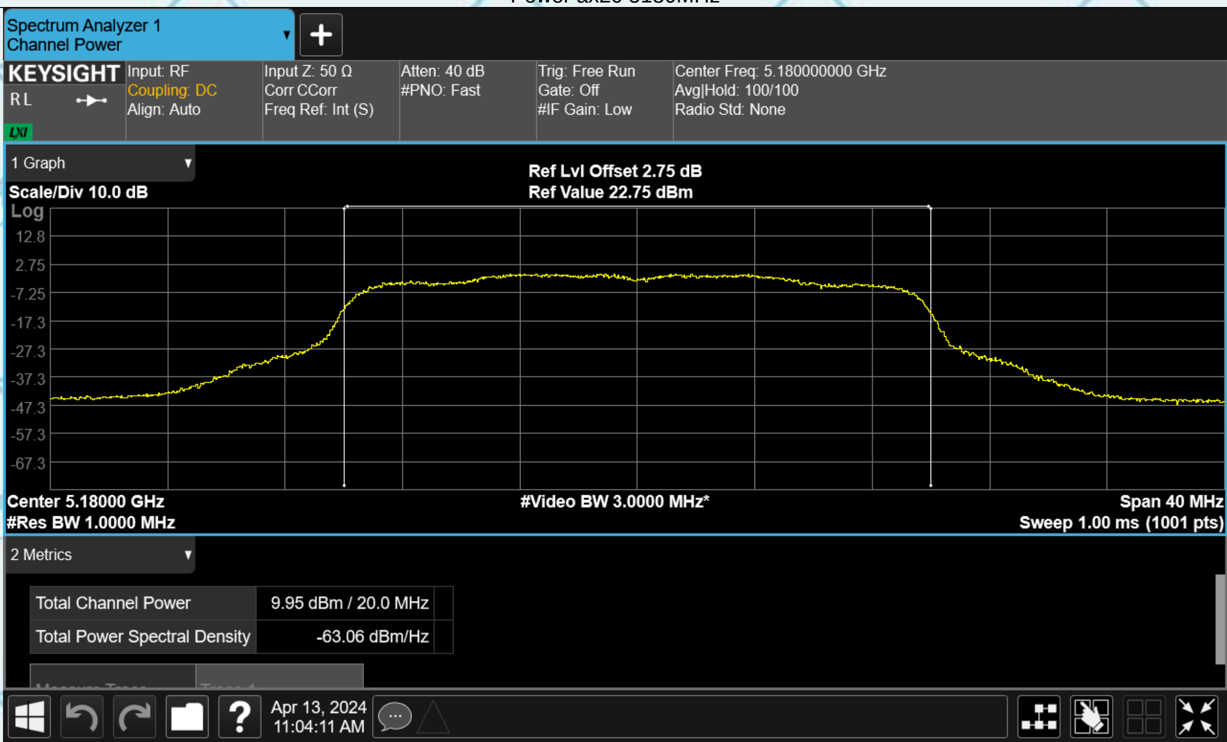
Power ax160 5250MHz



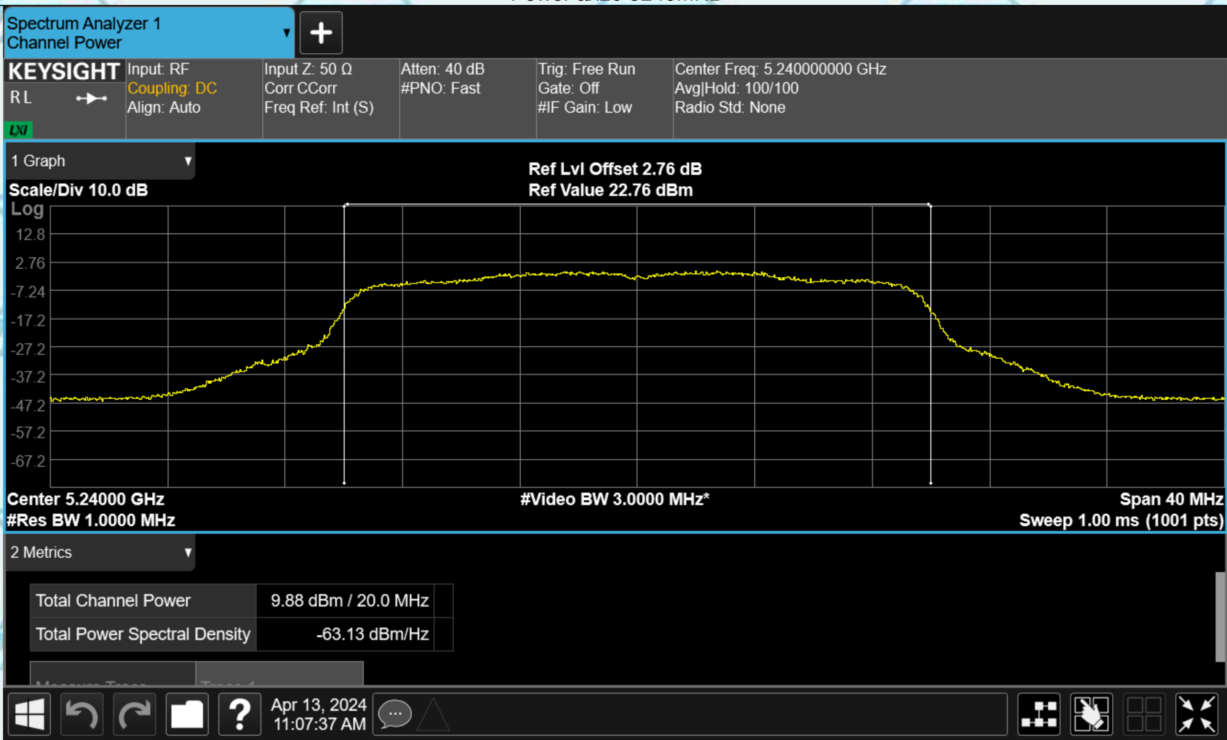
Power ax160 5570MHz



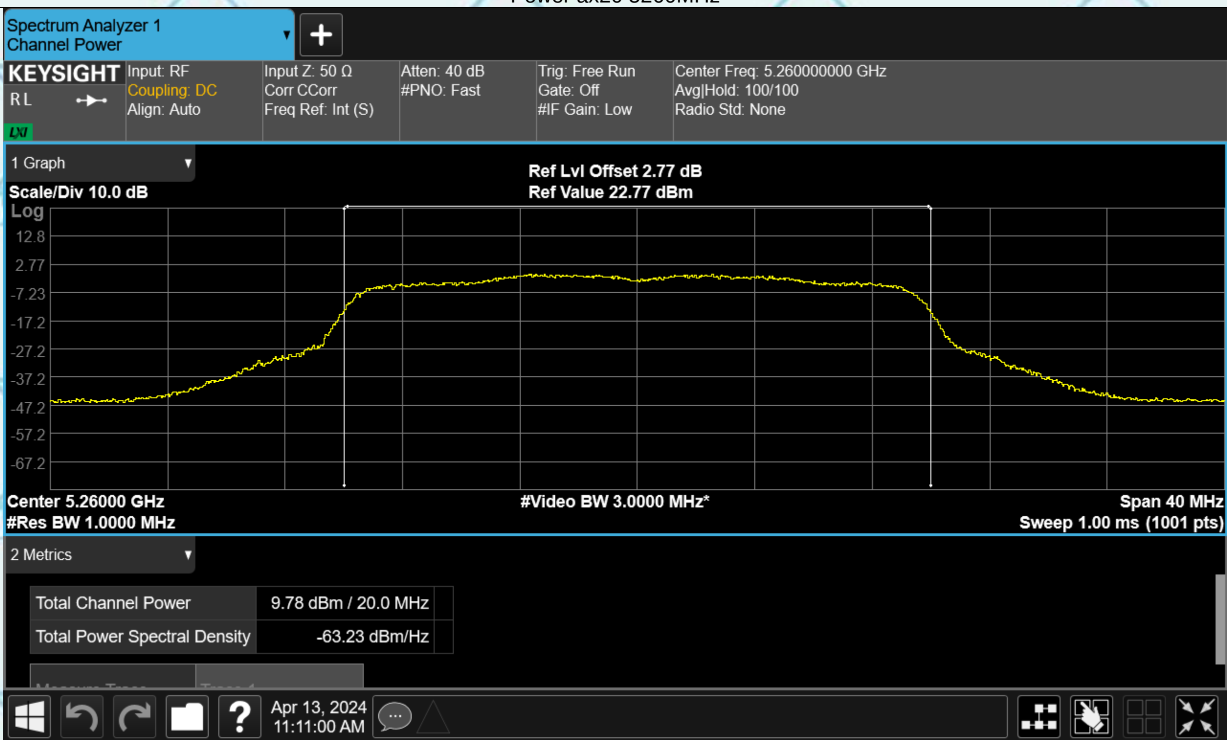
Power ax20 5180MHz



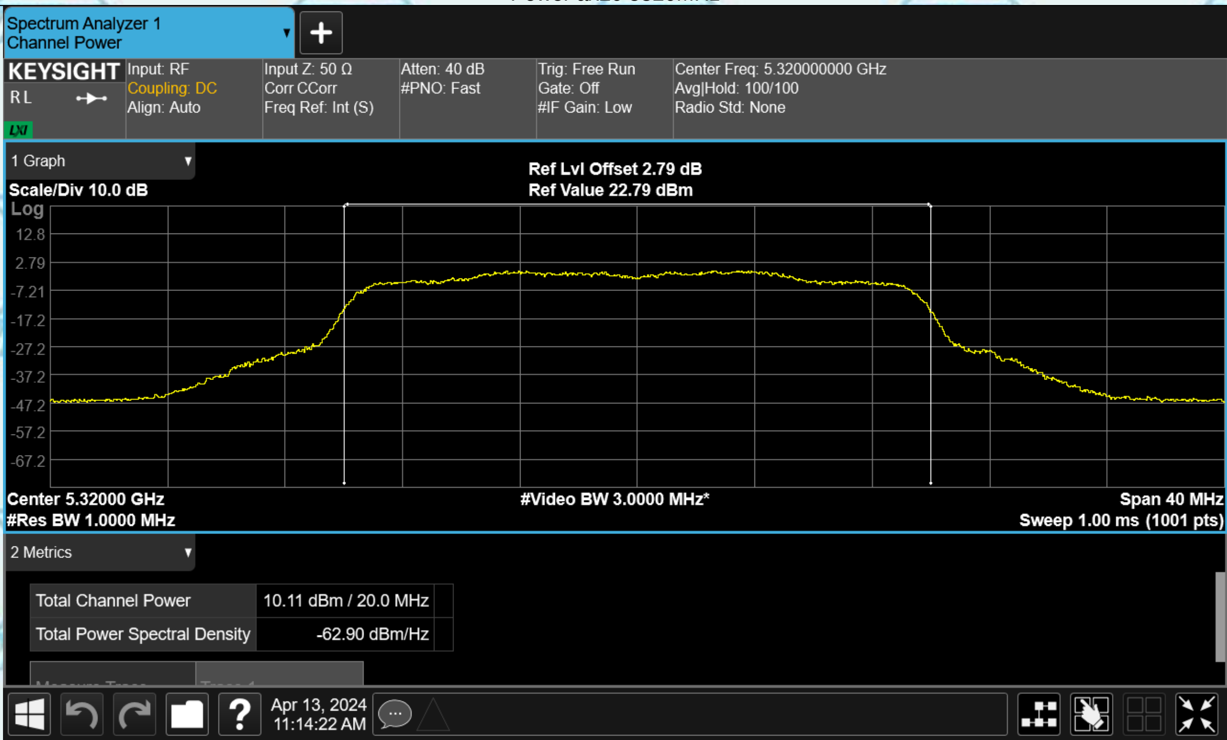
Power ax20 5240MHz



Power ax20 5260MHz



Power ax20 5320MHz



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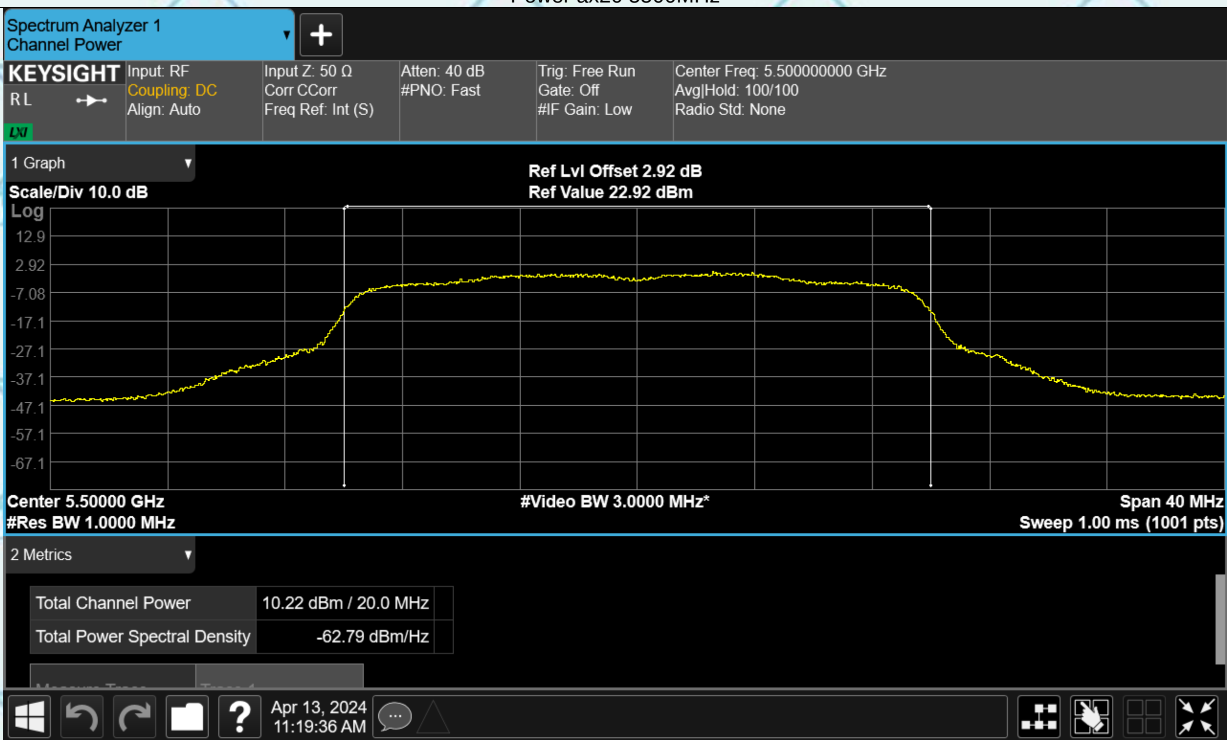
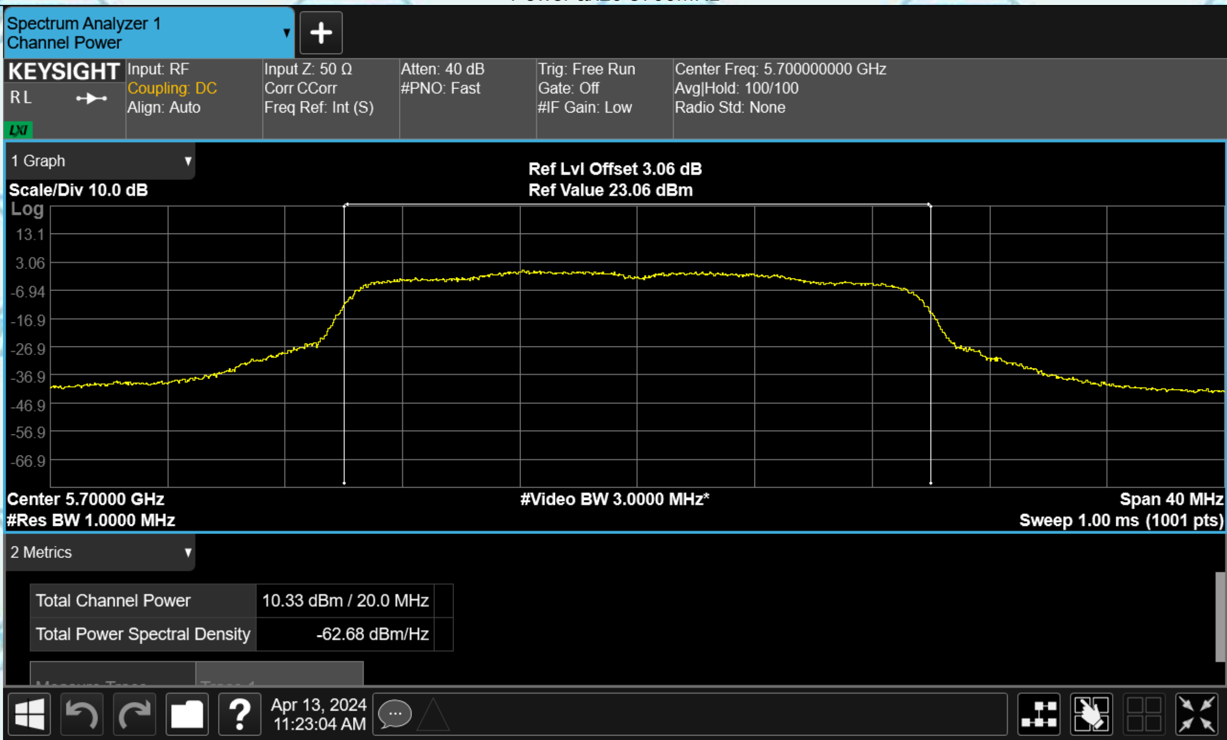


Power ax20 5700MHz



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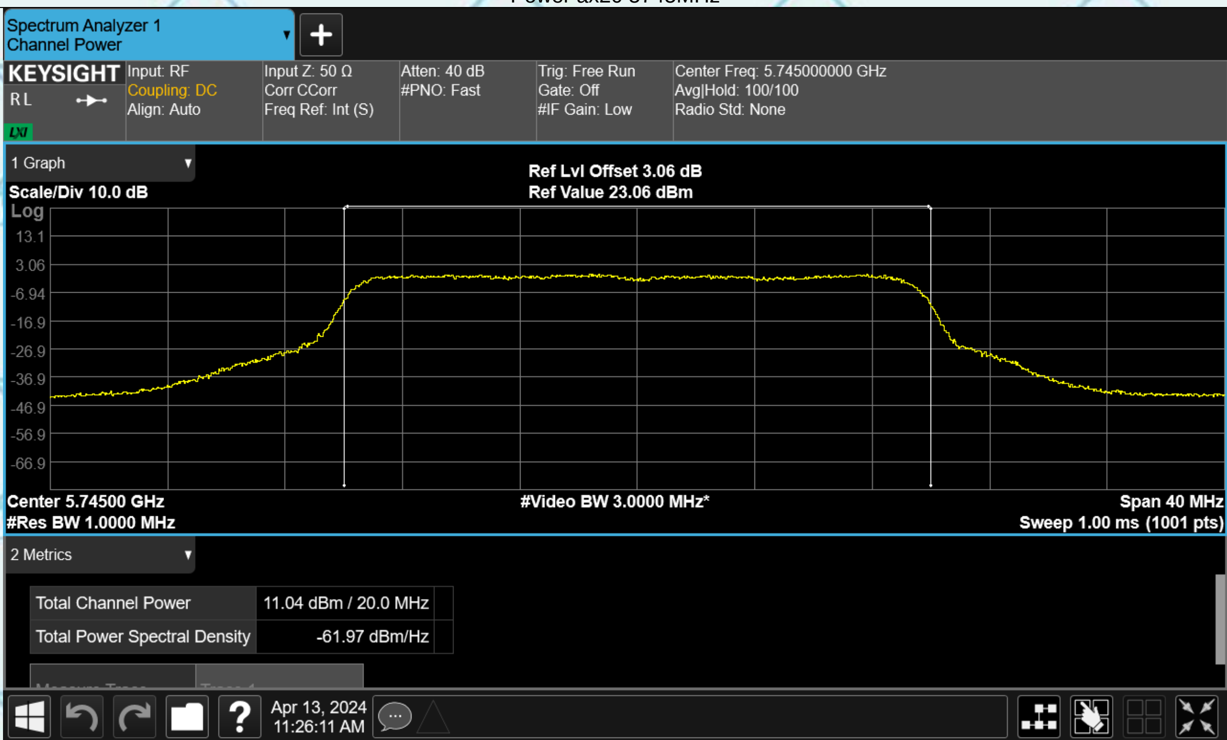
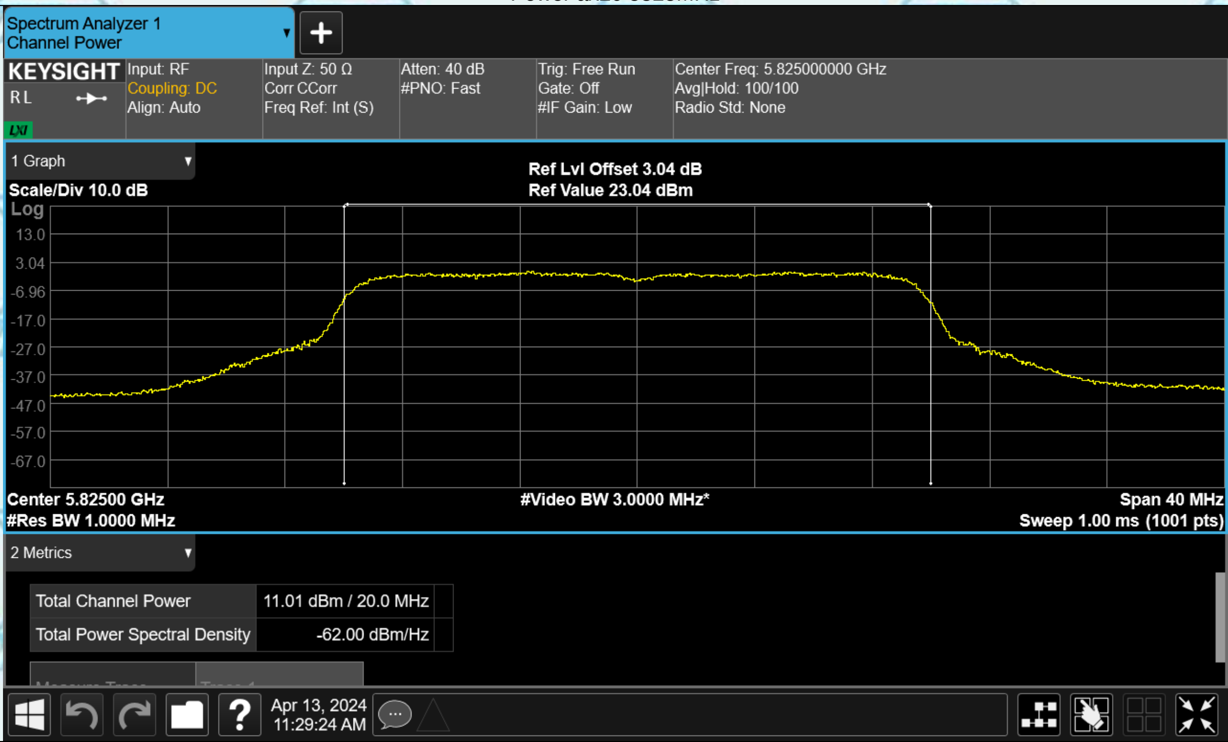
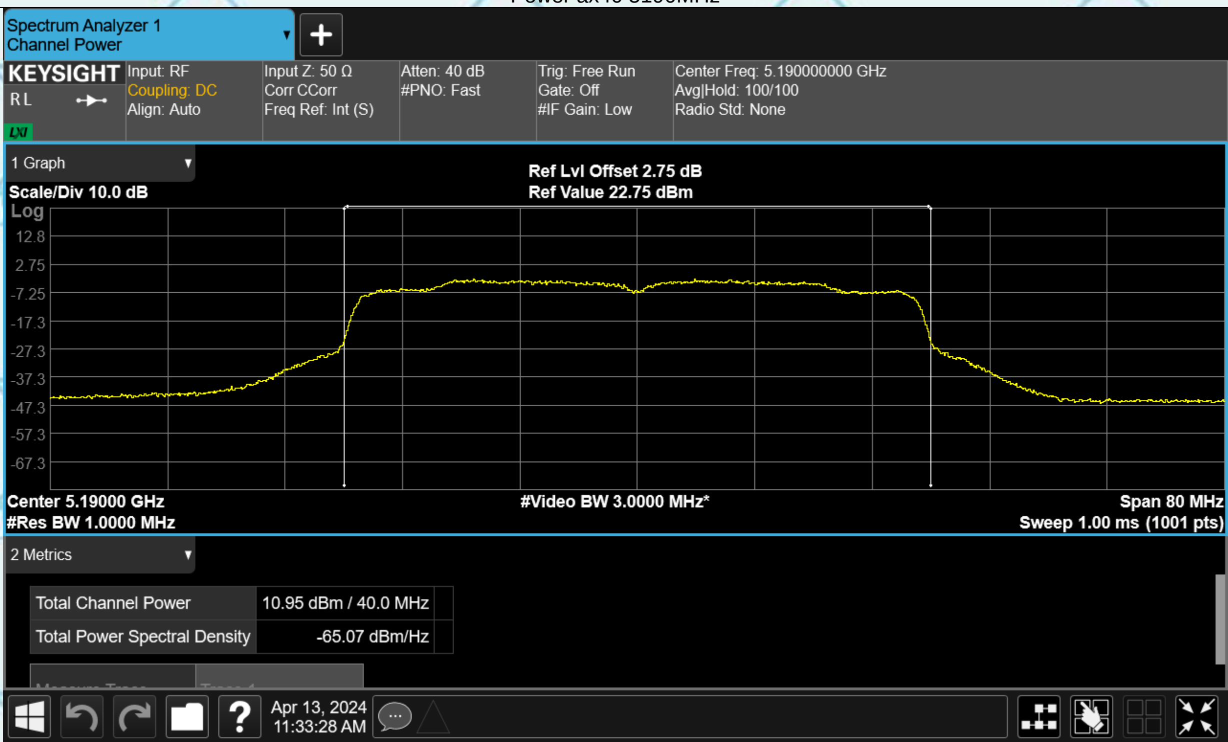


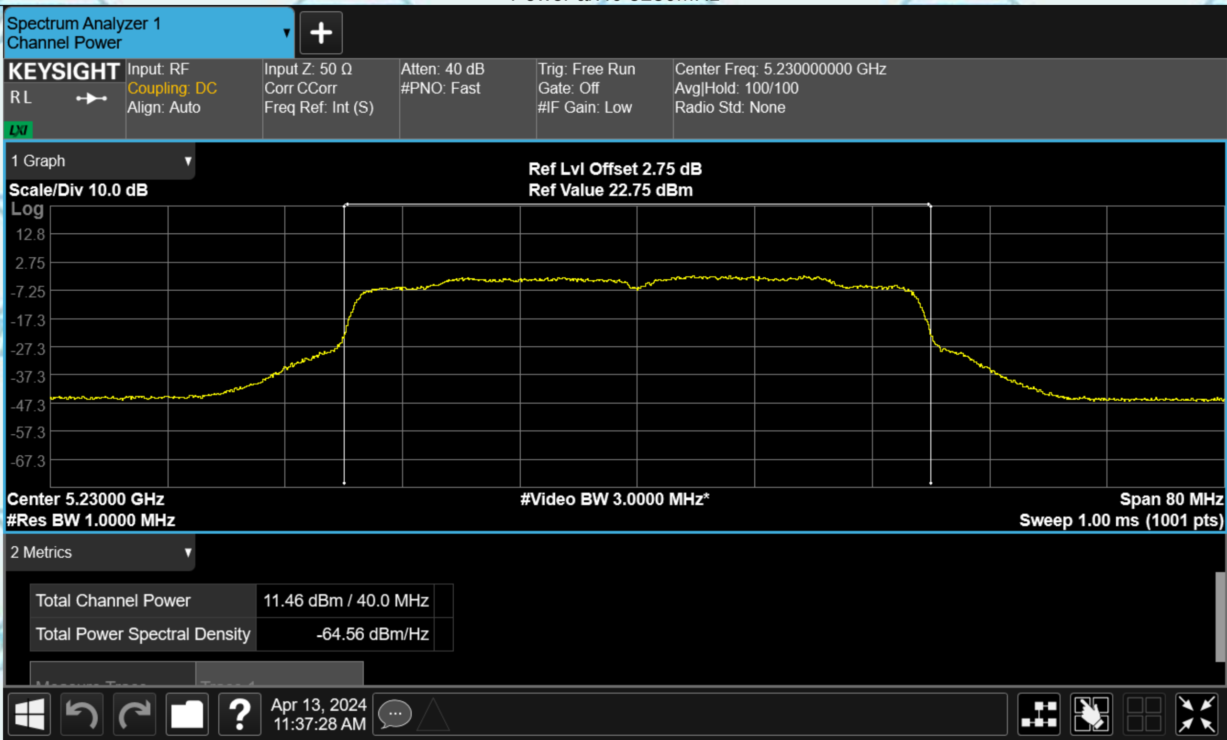
Power ax20 5825MHz



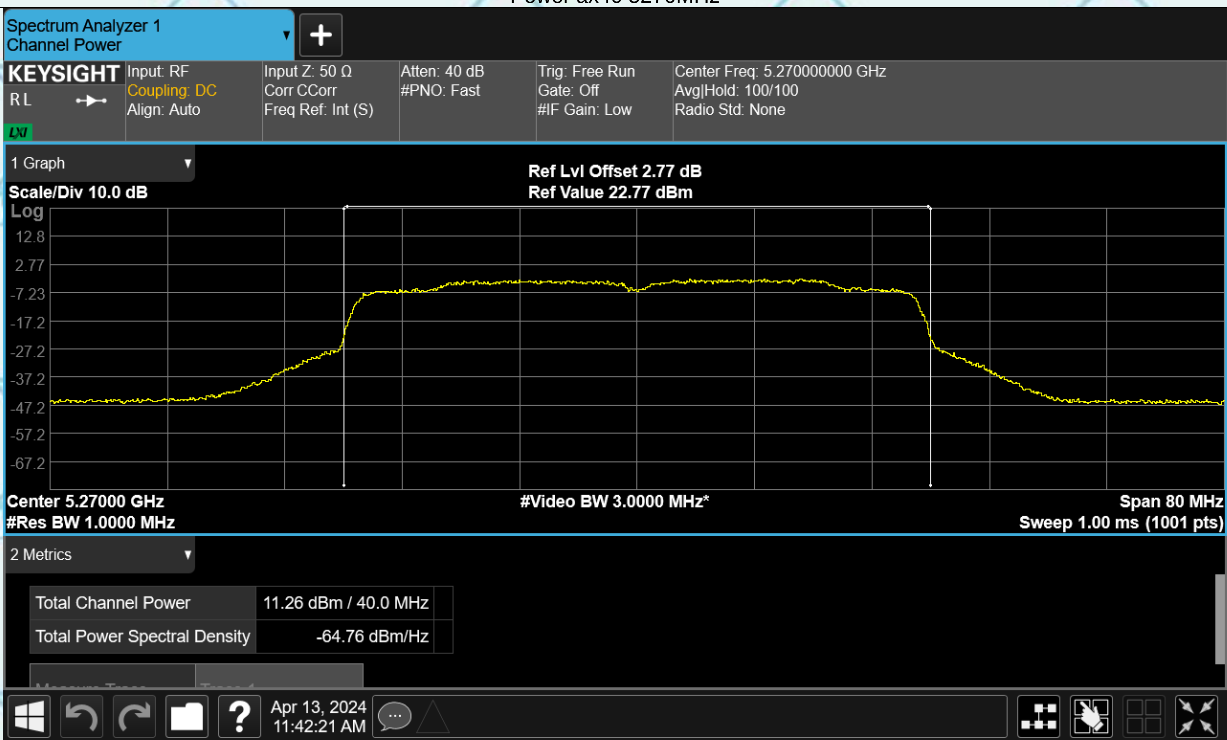
Power ax40 5190MHz



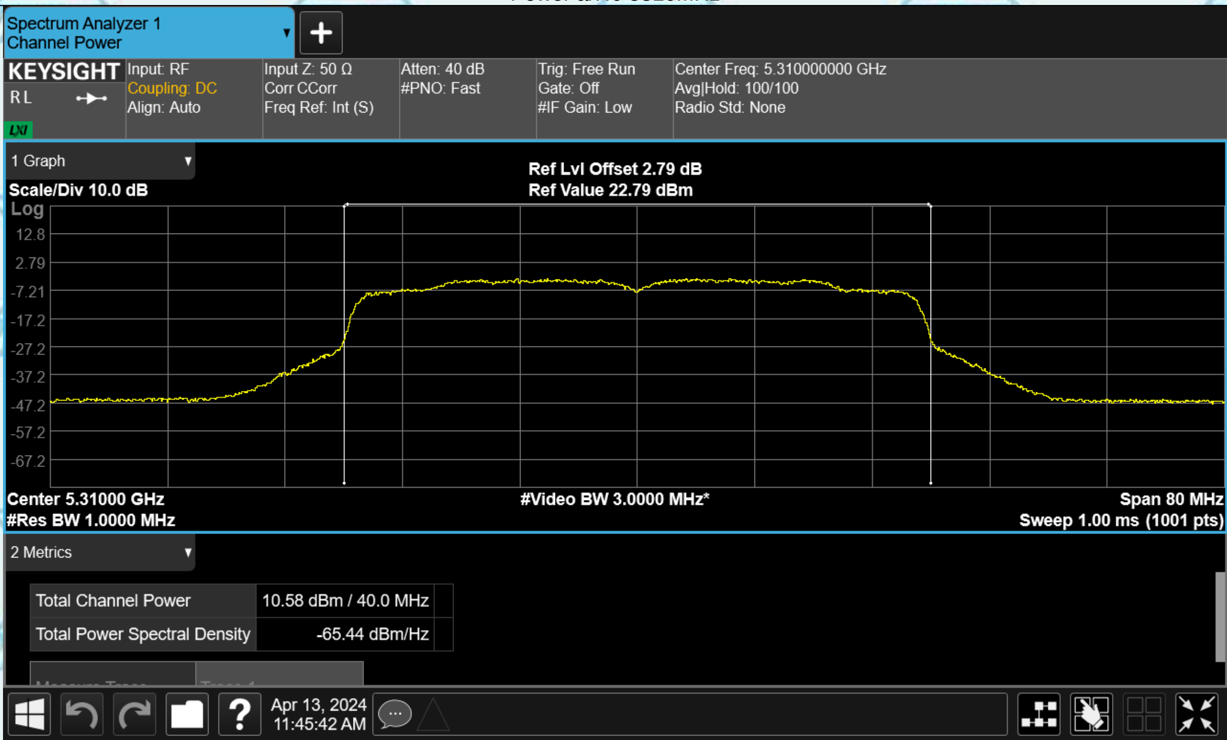
Power ax40 5230MHz



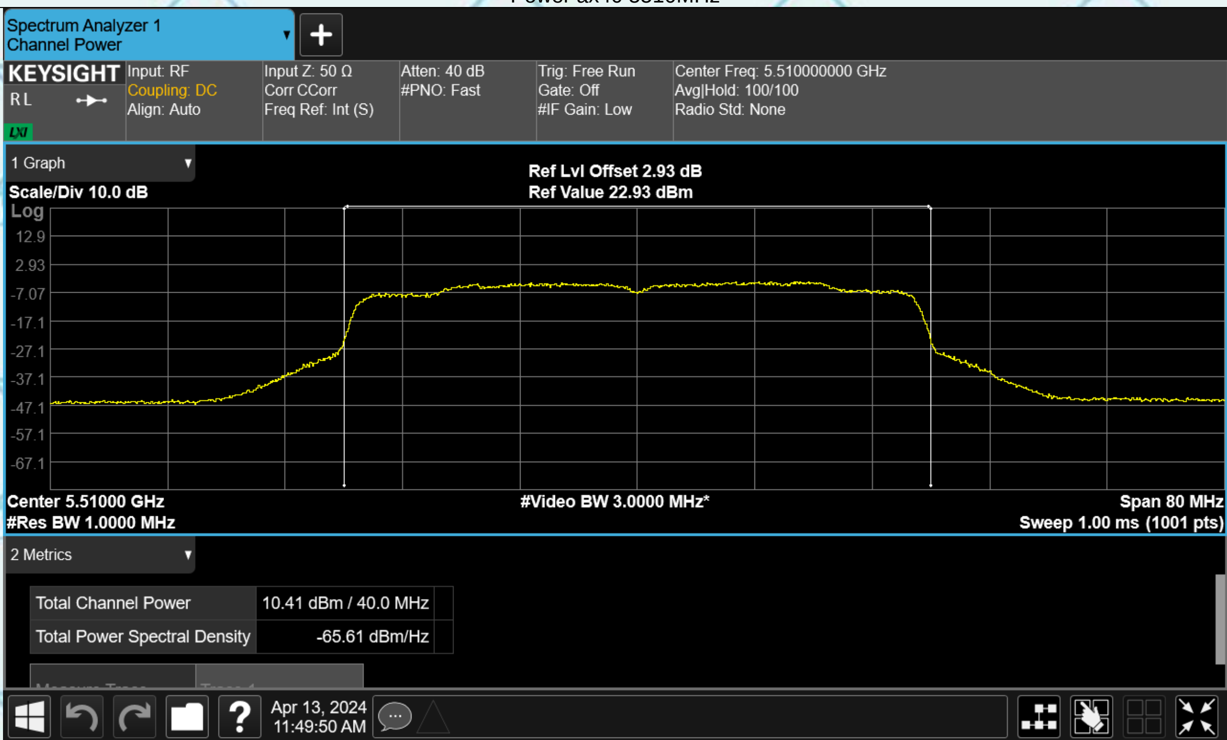
Power ax40 5270MHz



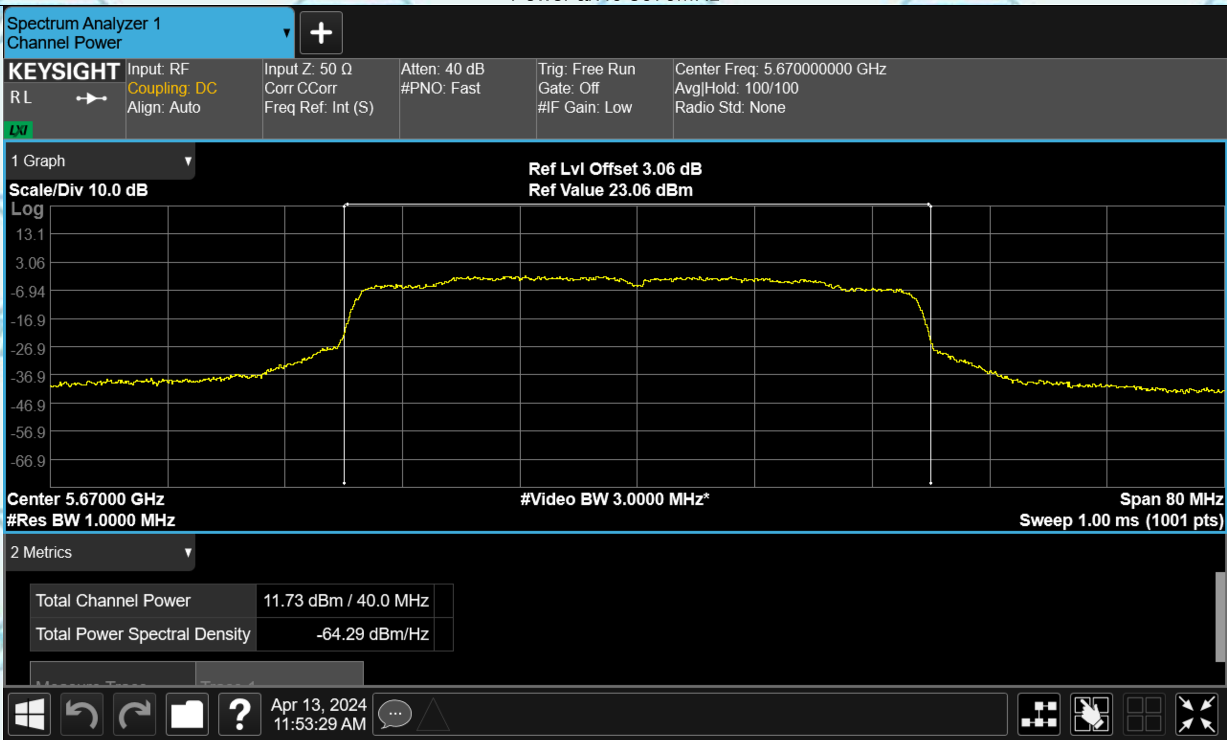
Power ax40 5310MHz



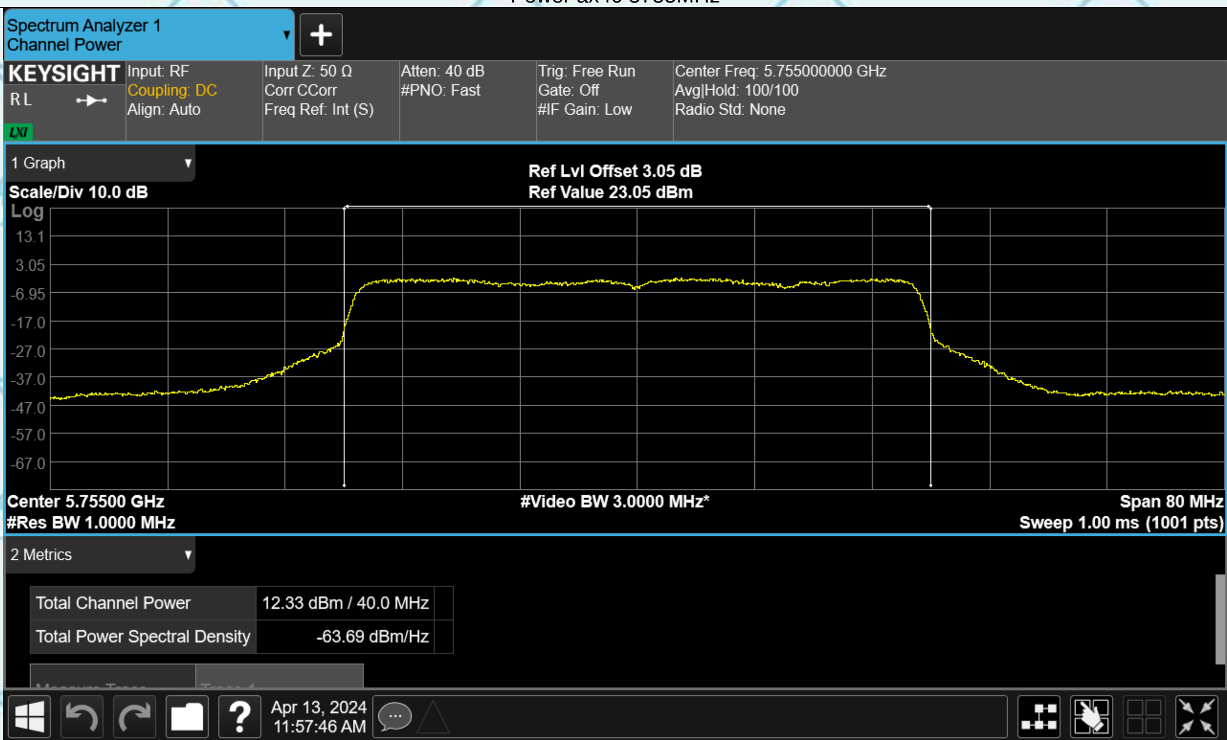
Power ax40 5510MHz



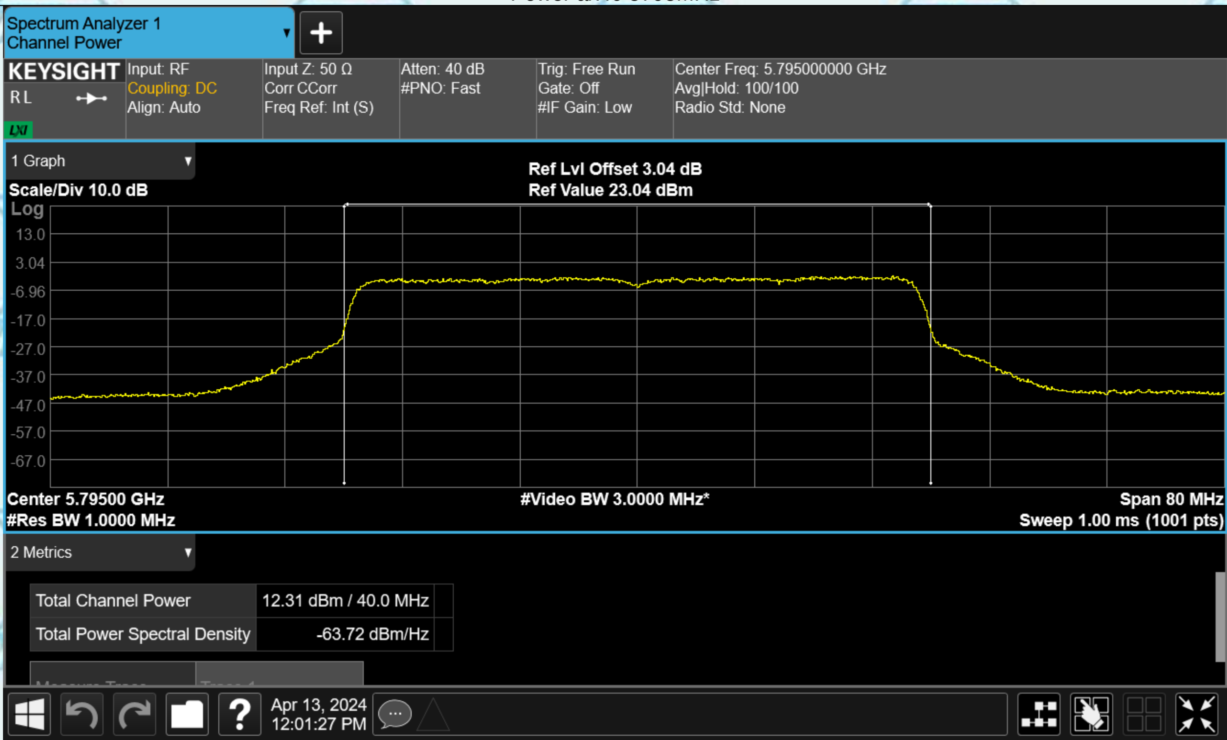
Power ax40 5670MHz



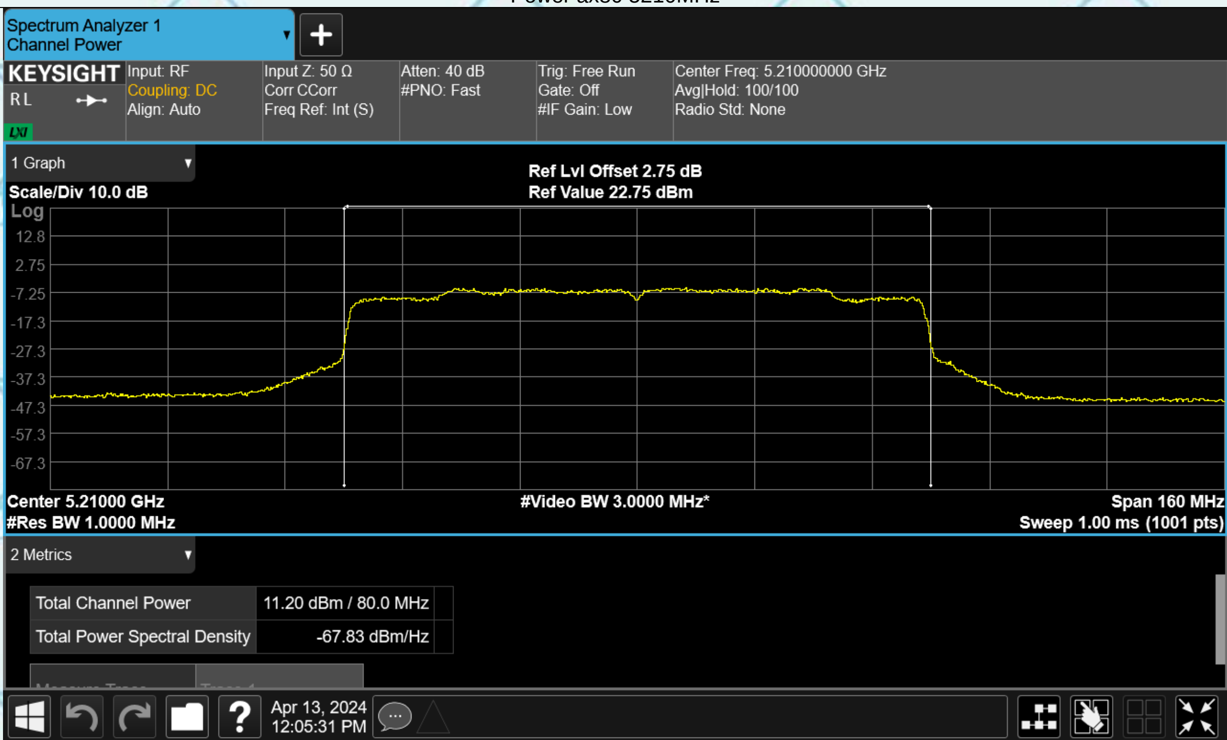
Power ax40 5755MHz



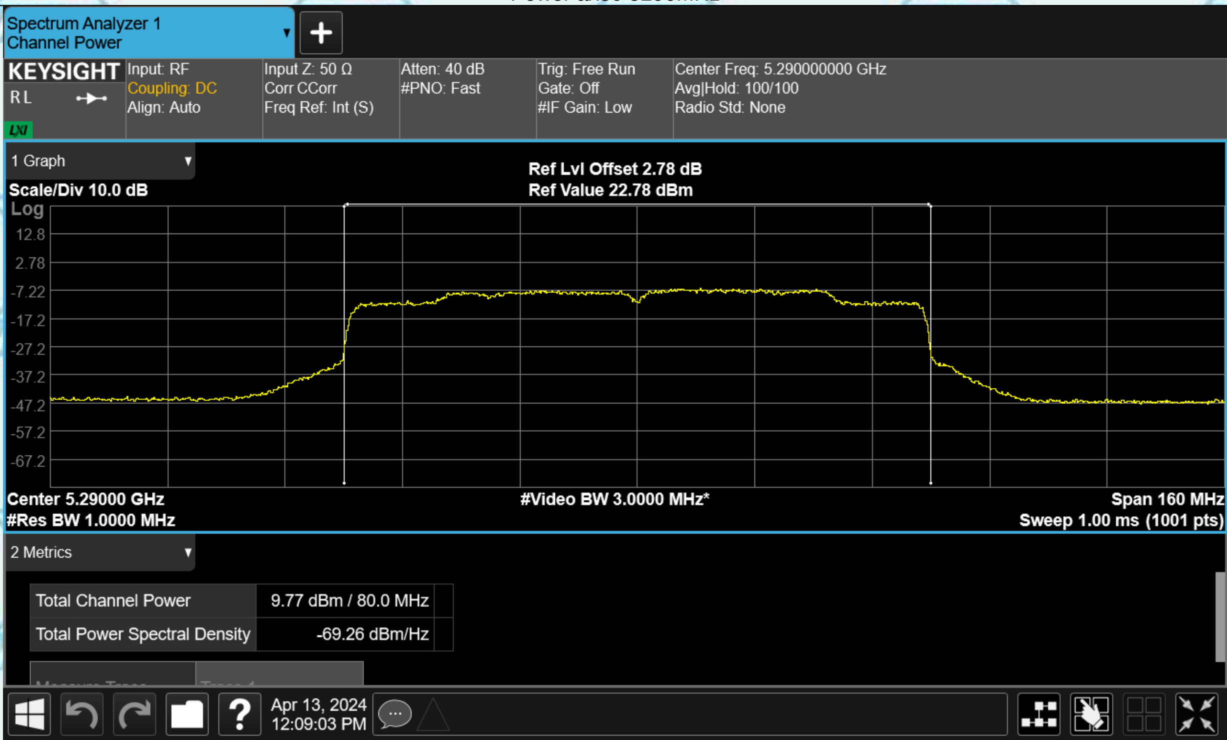
Power ax40 5795MHz



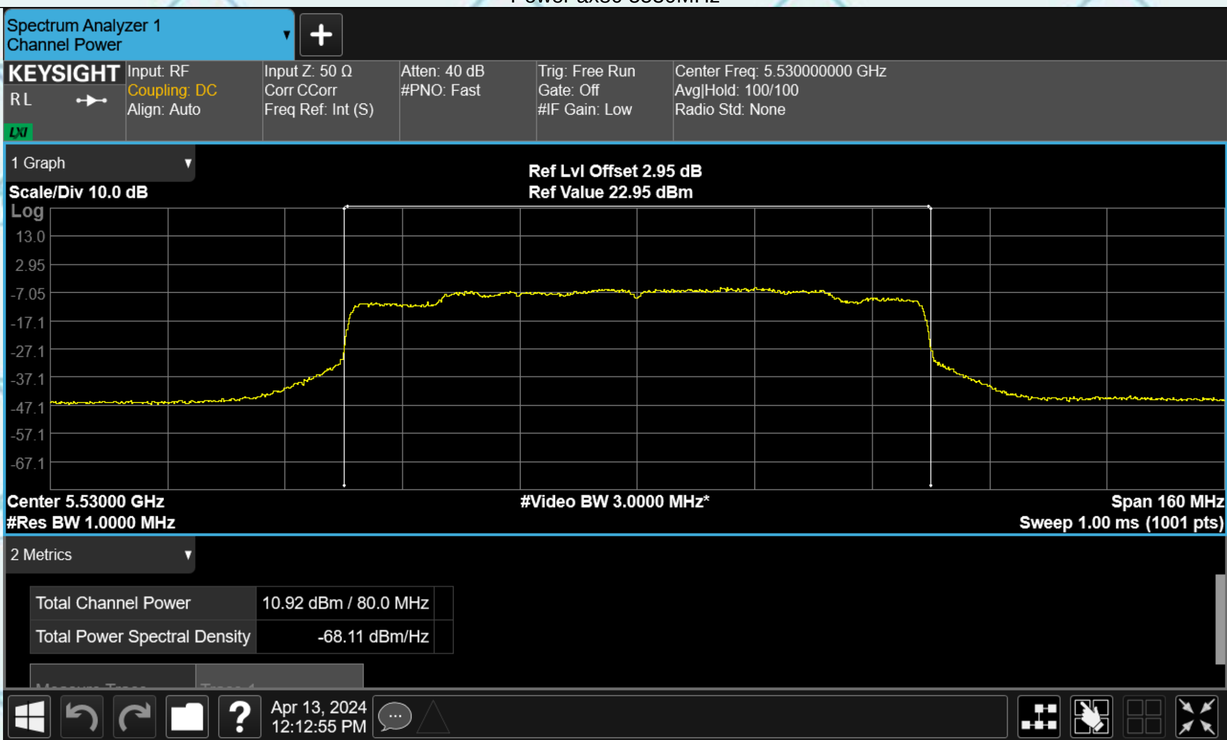
Power ax80 5210MHz



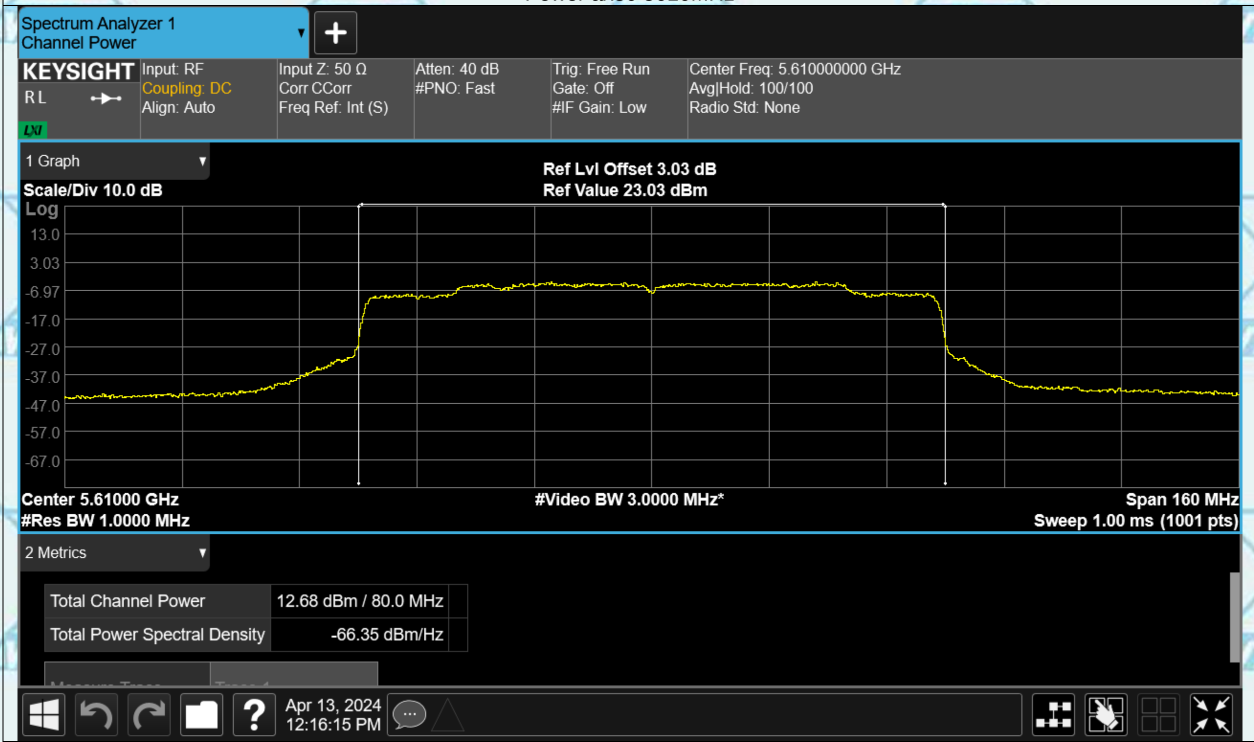
Power ax80 5290MHz



Power ax80 5530MHz



Power ax80 5610MHz



Power ax80 5775MHz