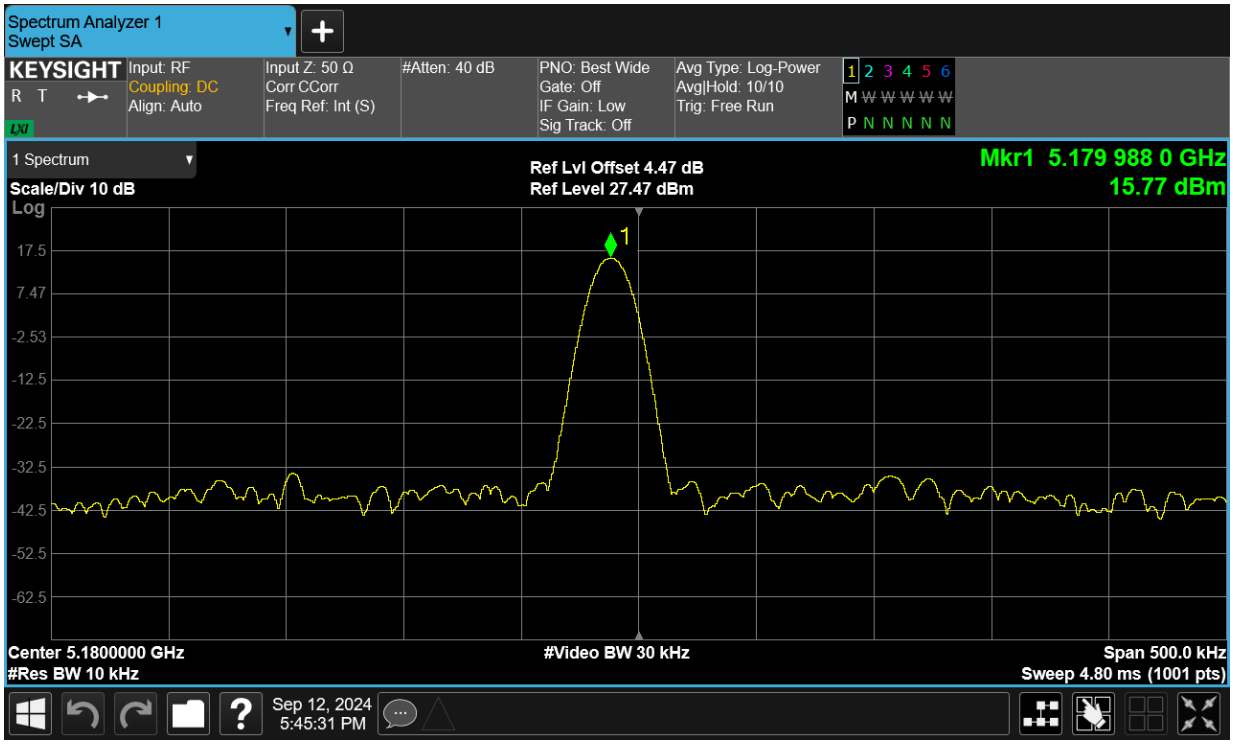
Test Data

Frequency Stability

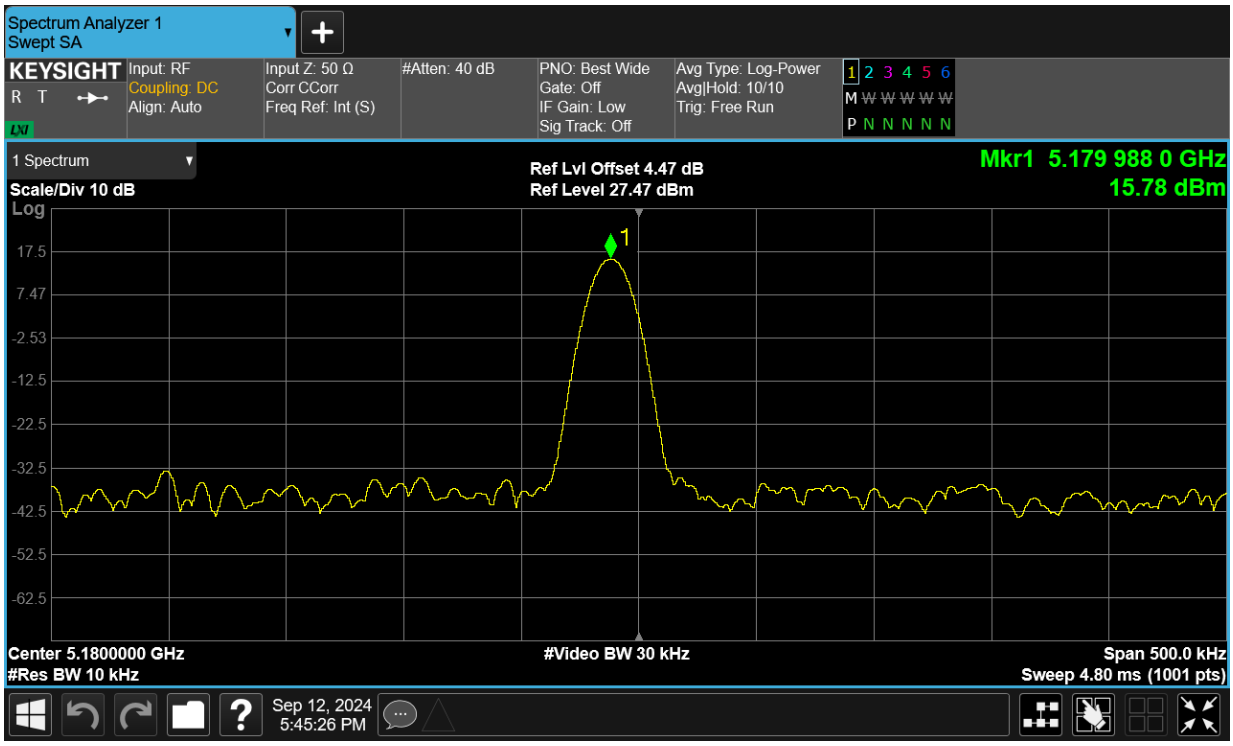
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
HVNT	a	5180	Ant1	5179.988	-2.32	Within authorized band	Pass
LVNT	a	5180	Ant1	5179.988	-2.32		Pass
NVHT	a	5180	Ant1	5179.988	-2.32		Pass
NVLT	a	5180	Ant1	5179.9875	-2.41		Pass
NVNT	a	5180	Ant1	5179.9885	-2.22		Pass
HVNT	ac80	5210	Ant1	5209.987	-2.5		Pass
LVNT	ac80	5210	Ant1	5209.9875	-2.4		Pass
NVHT	ac80	5210	Ant1	5209.9875	-2.4		Pass
NVLT	ac80	5210	Ant1	5209.9875	-2.4		Pass
NVNT	ac80	5210	Ant1	5209.98778664	-2.34		Pass
HVNT	n40	5190	Ant1	5189.9865	-2.6		Pass
LVNT	n40	5190	Ant1	5189.987	-2.5		Pass
NVHT	n40	5190	Ant1	5189.9865	-2.6		Pass
NVLT	n40	5190	Ant1	5189.987	-2.5		Pass
NVNT	n40	5190	Ant1	5189.9875	-2.41		Pass
Remark: “NTNV” means Normal Temperature Normal Voltage, “NVHT” means Normal Voltage High Temperature, “NVLT” means NormalVoltage Low Temperature, “LVNT” means Low Voltage Normal Temperature, “HVNT” means High Voltage Normal Temperature.							

Test Graphs

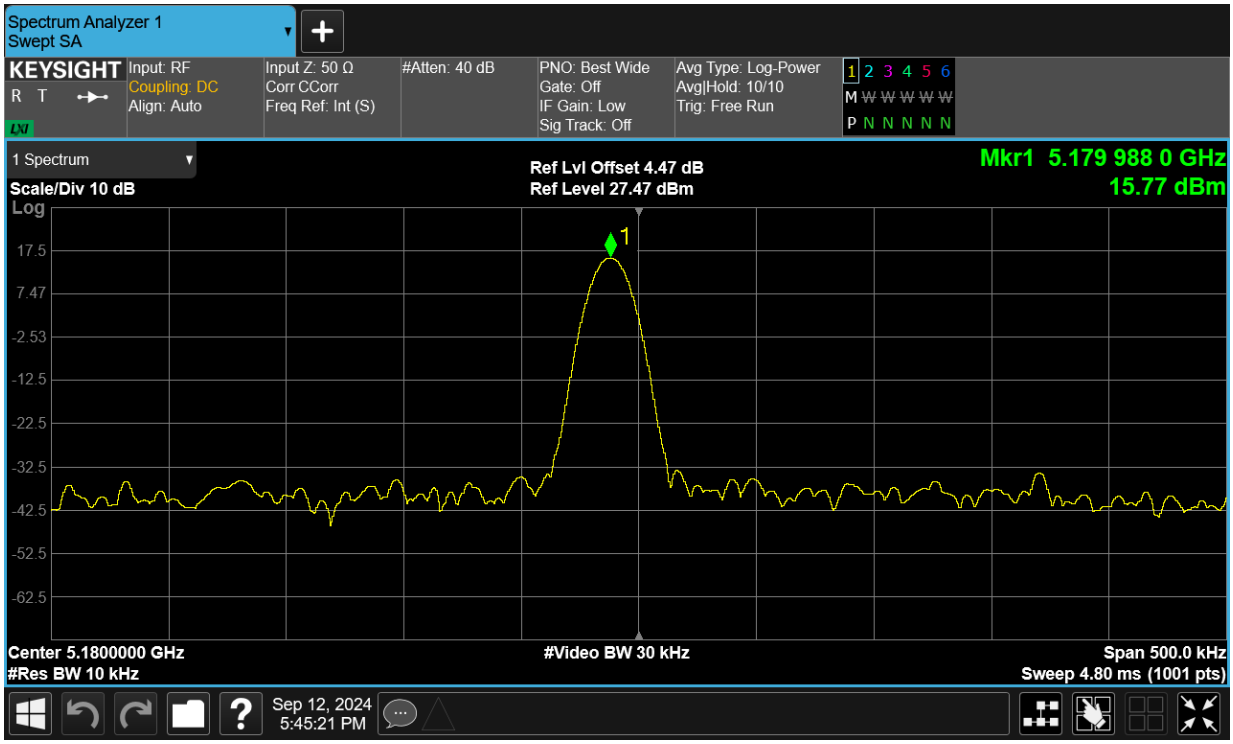
Freq. Stability HVNT a 5180MHz Ant1



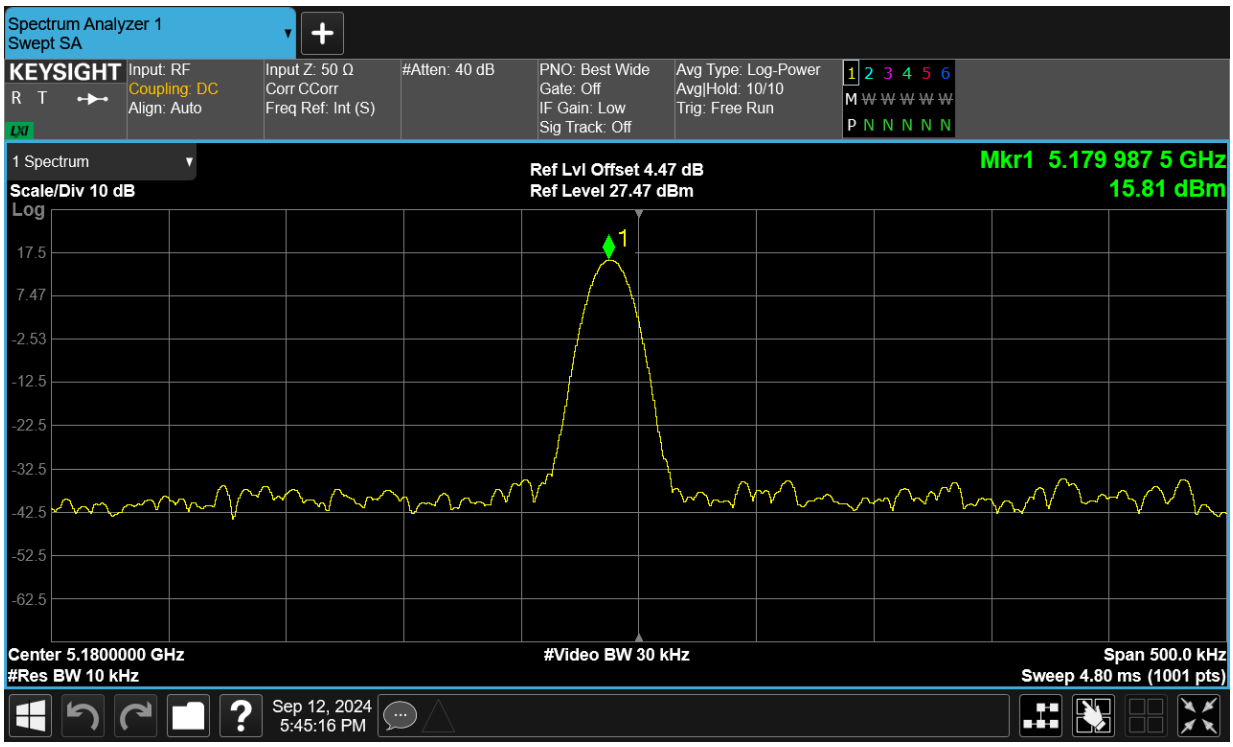
Freq. Stability LVNT a 5180MHz Ant1



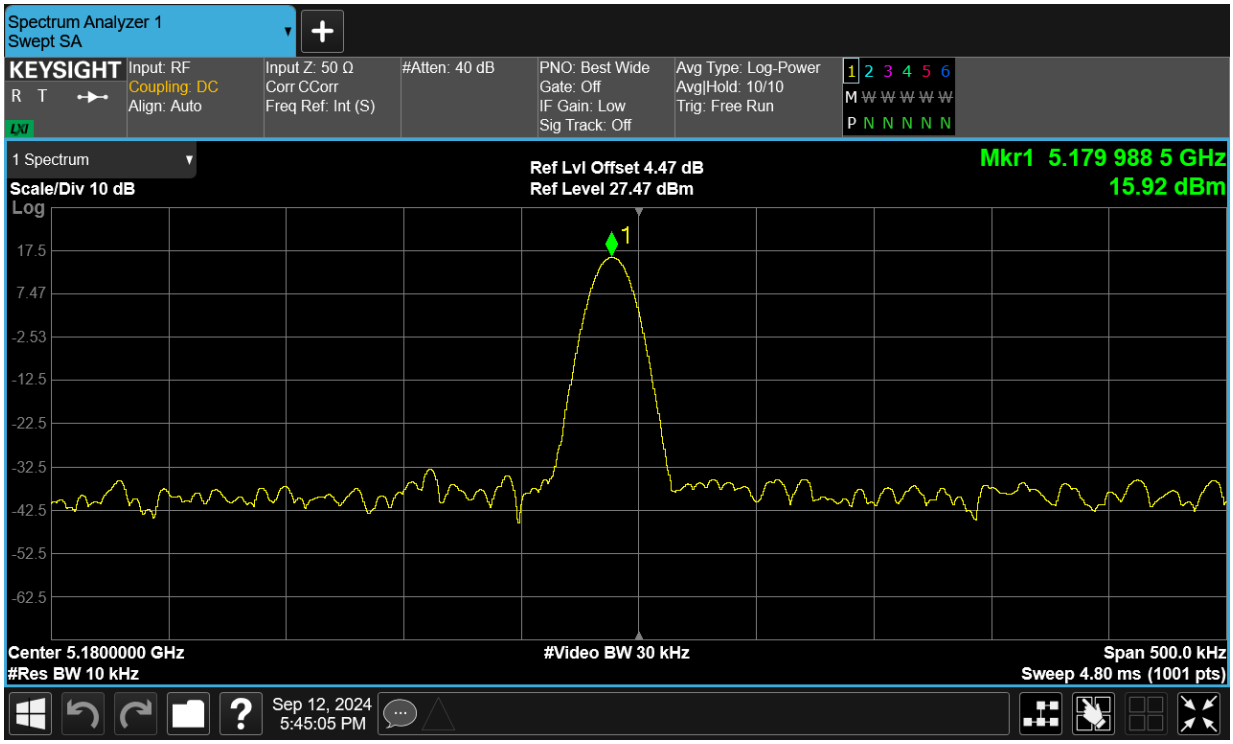
Freq. Stability NVHT a 5180MHz Ant1



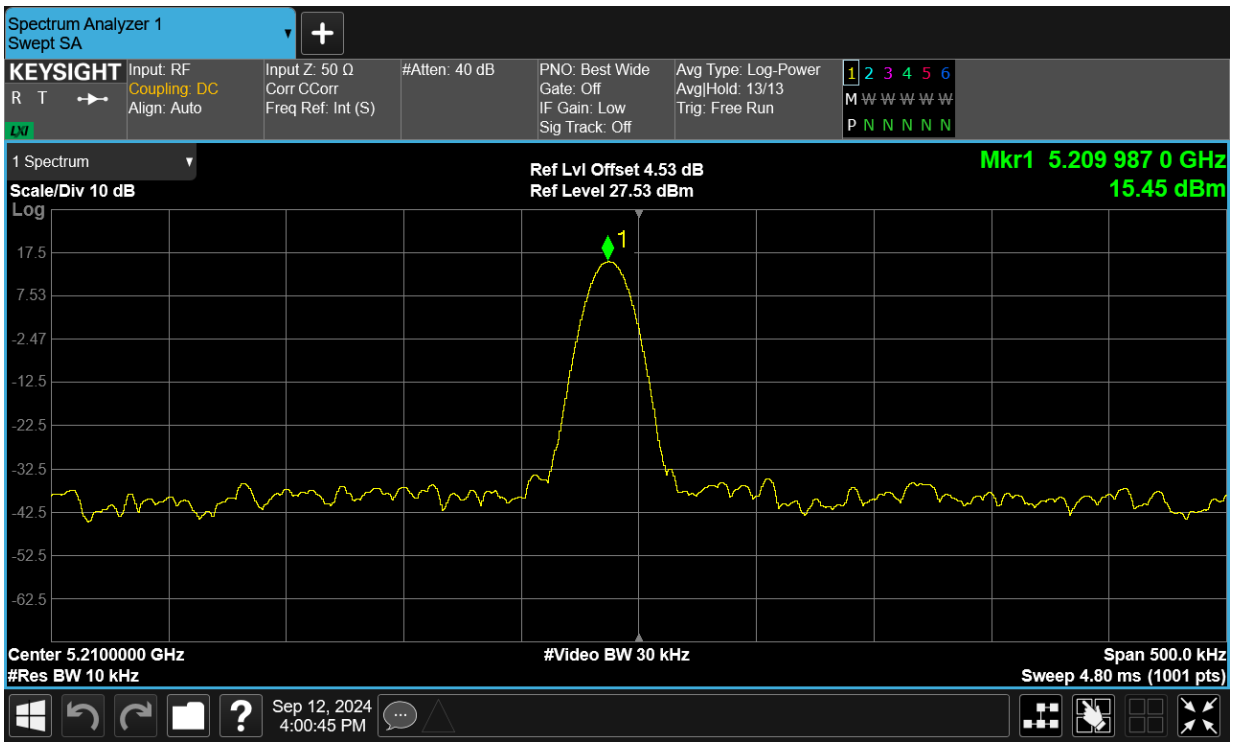
Freq. Stability NVLT a 5180MHz Ant1



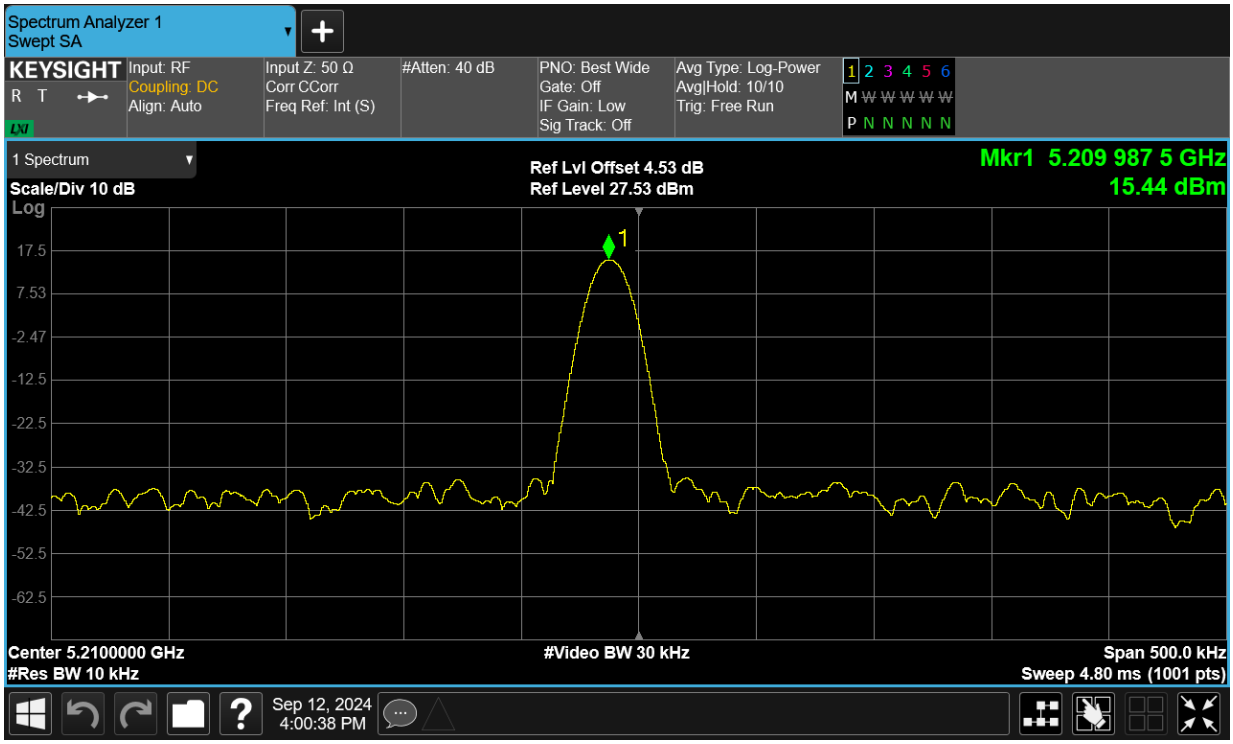
Freq. Stability NVNT a 5180MHz Ant1



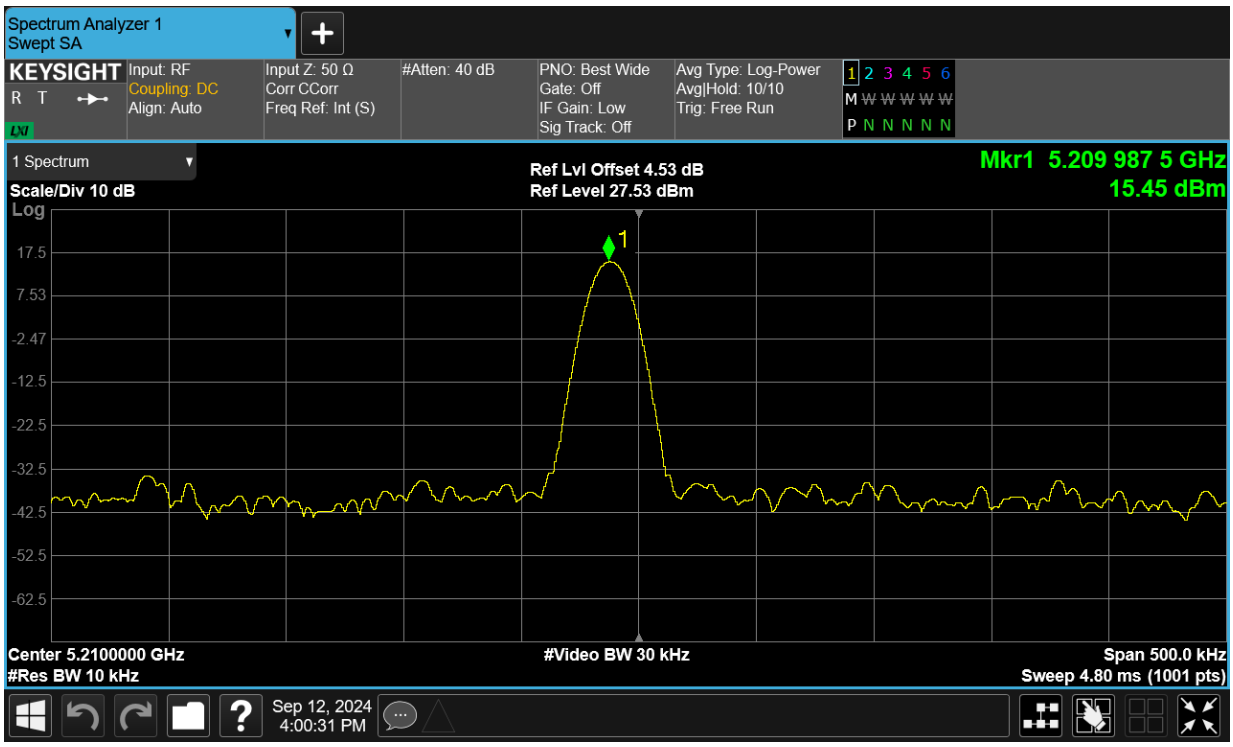
Freq. Stability HVNT ac80 5210MHz Ant1



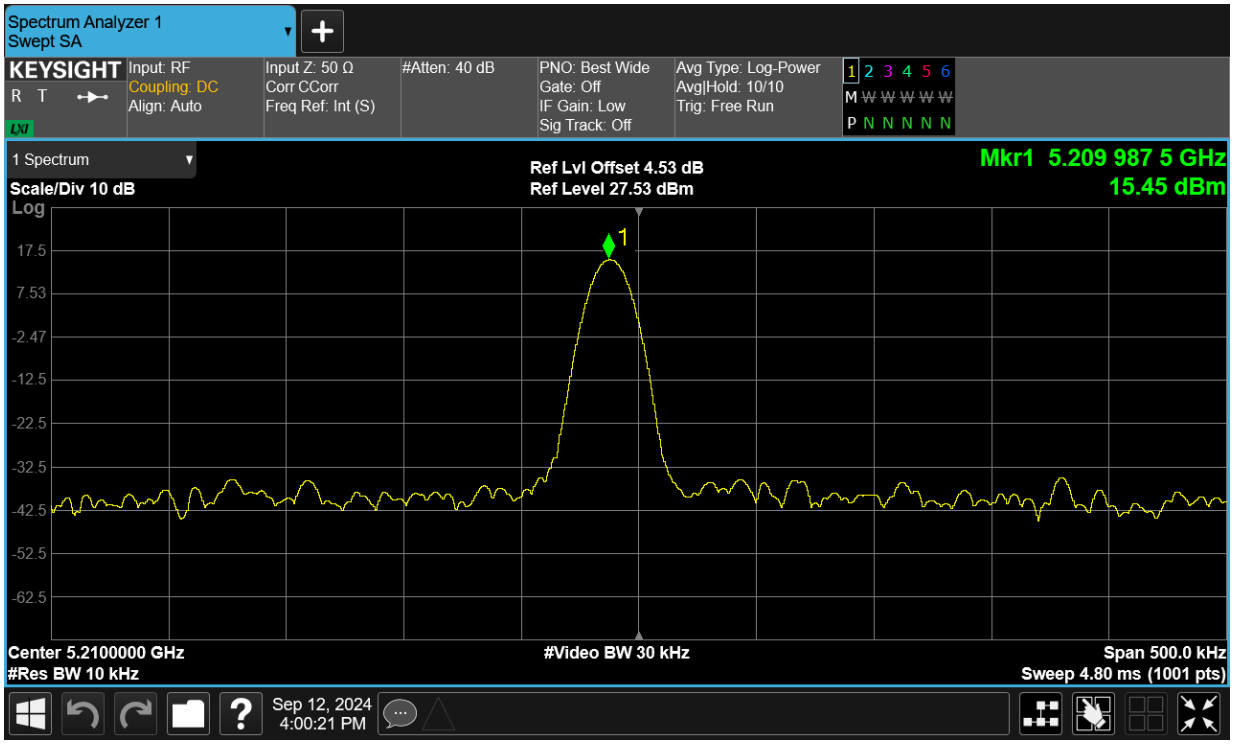
Freq. Stability LVNT ac80 5210MHz Ant1



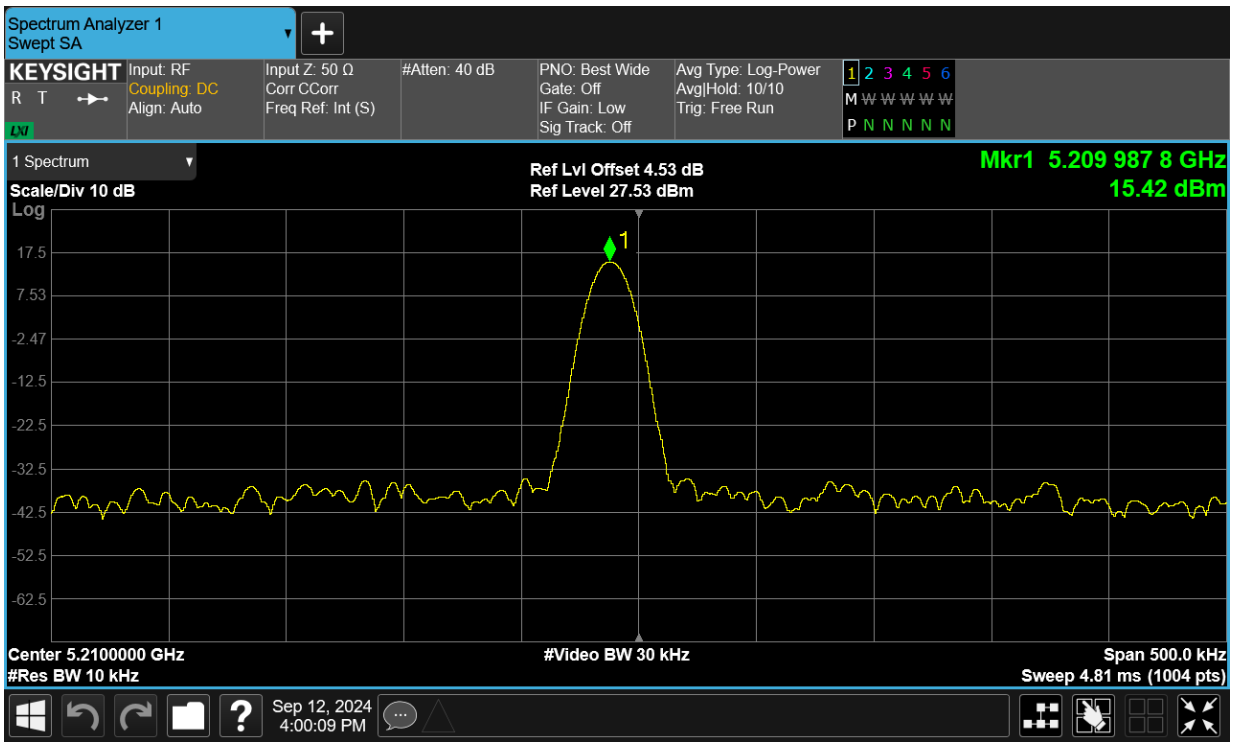
Freq. Stability NVHT ac80 5210MHz Ant1



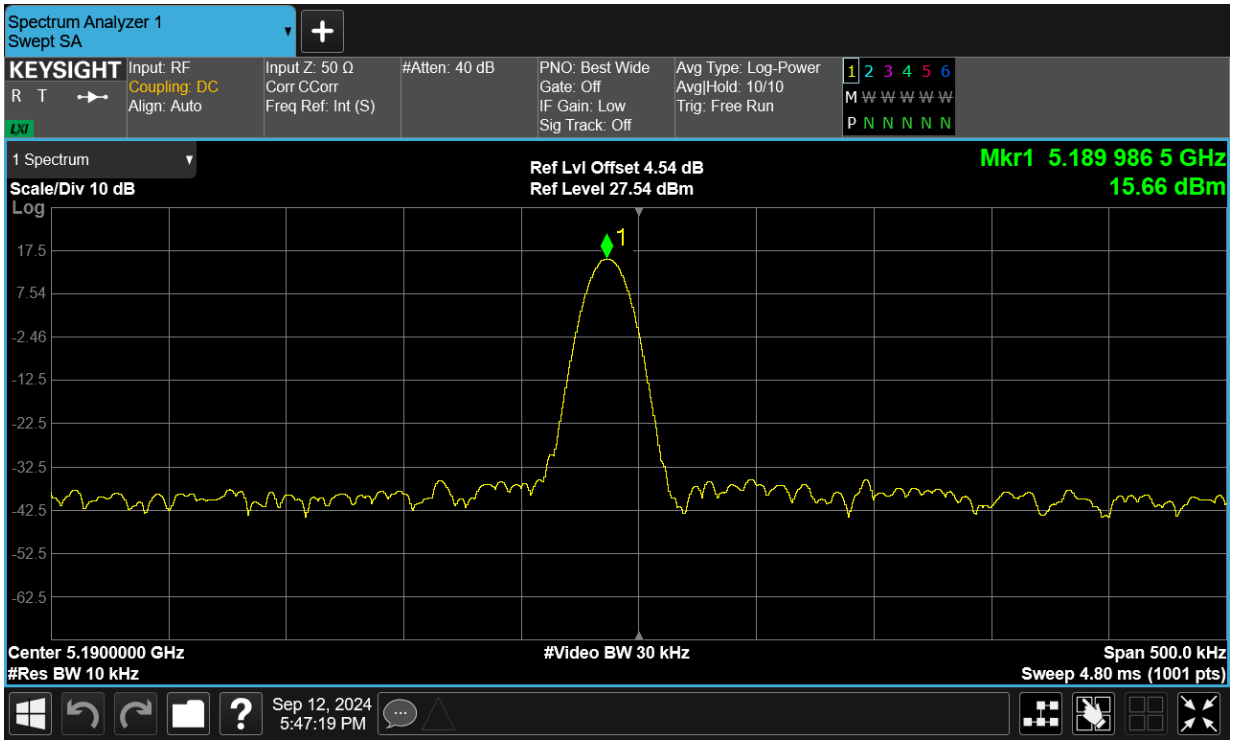
Freq. Stability NVLT ac80 5210MHz Ant1



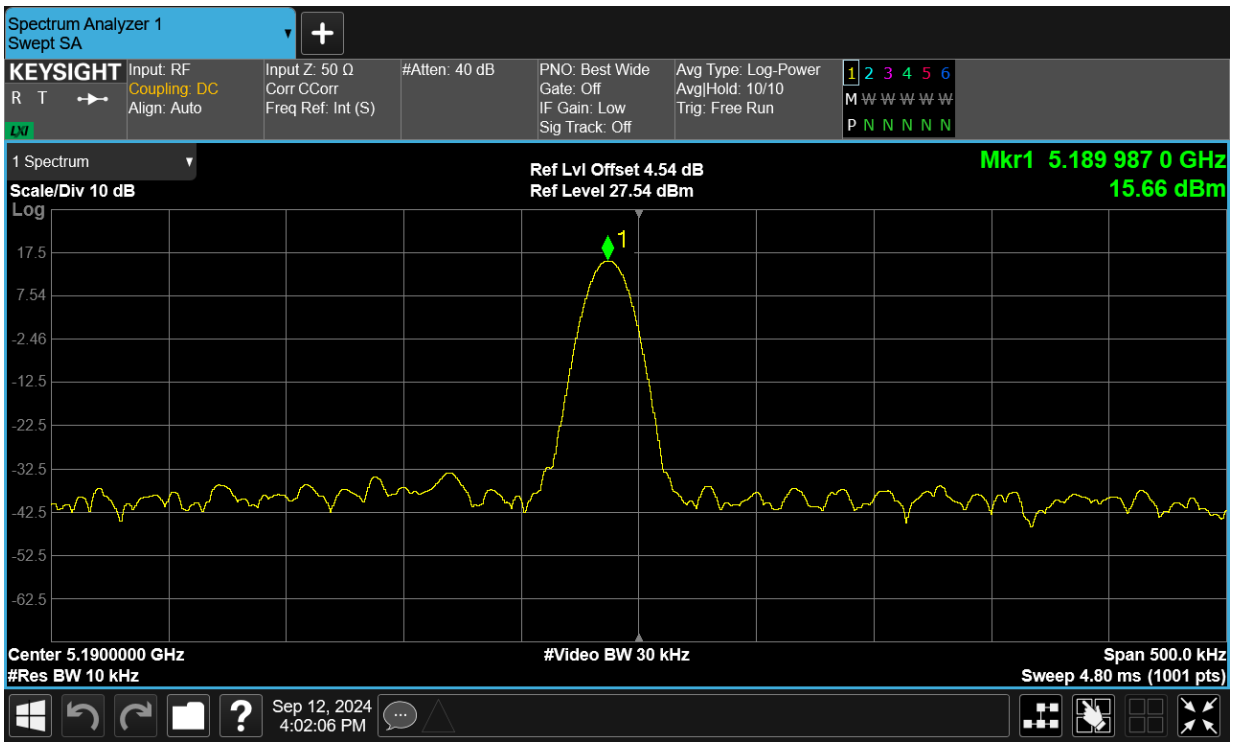
Freq. Stability NVNT ac80 5210MHz Ant1



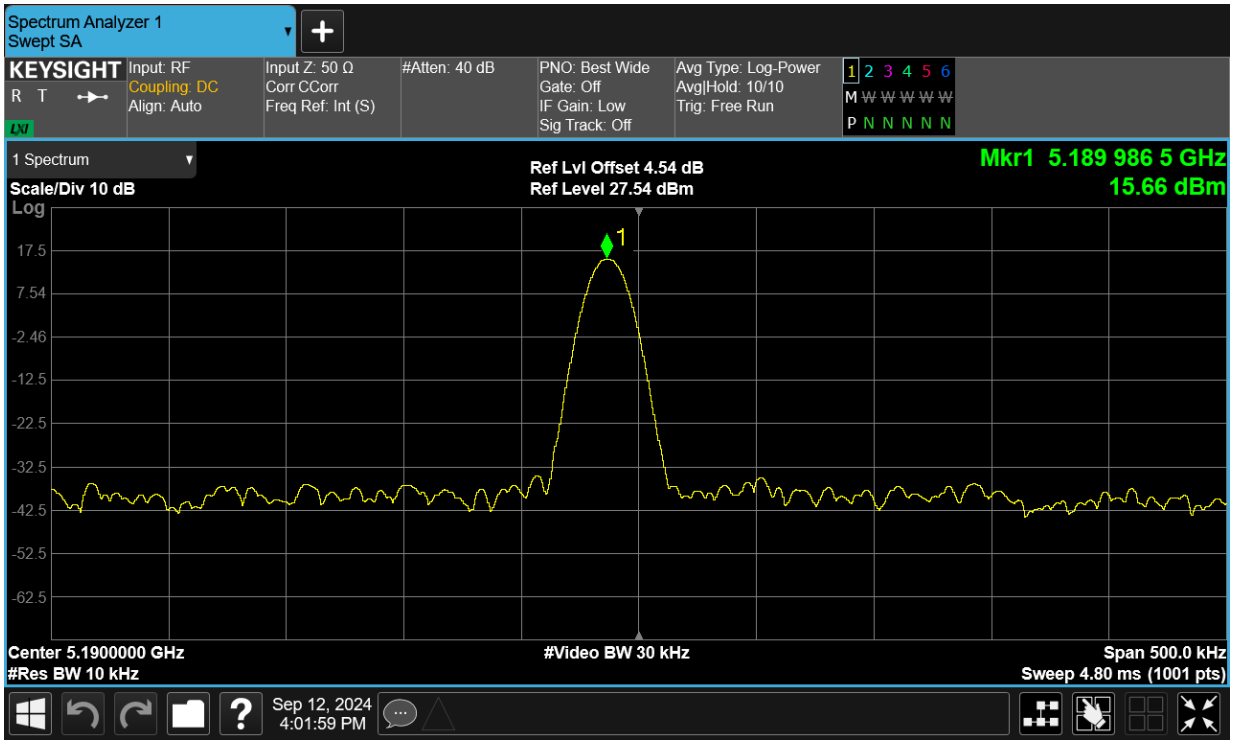
Freq. Stability HVNT n40 5190MHz Ant1



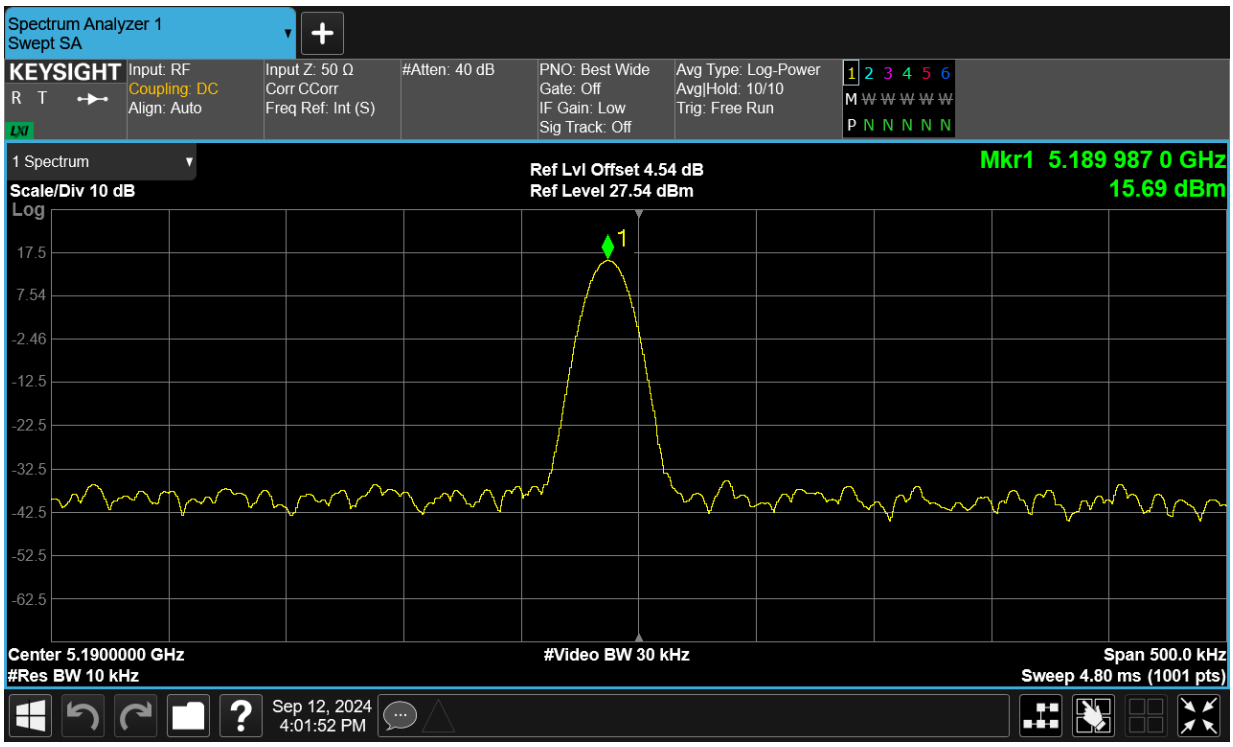
Freq. Stability LVNT n40 5190MHz Ant1



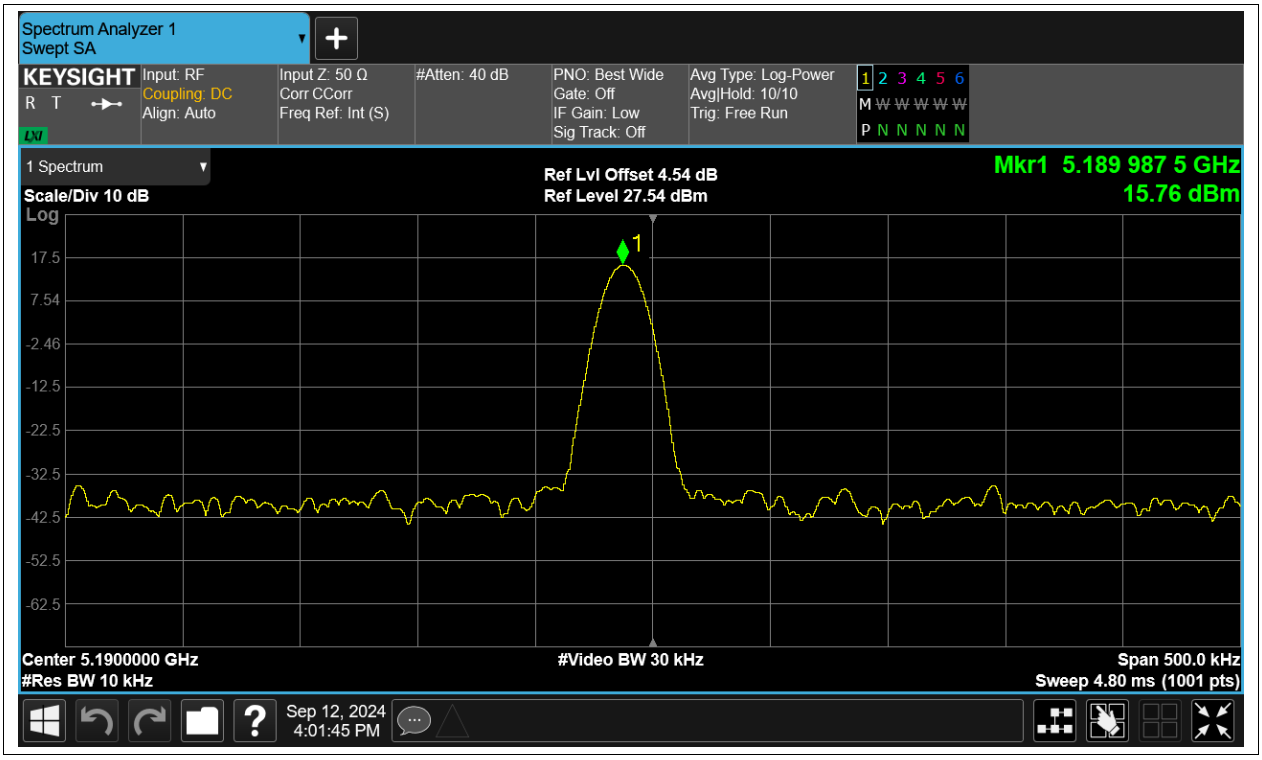
Freq. Stability NVHT n40 5190MHz Ant1



Freq. Stability NVLT n40 5190MHz Ant1



Freq. Stability NVNT n40 5190MHz Ant1

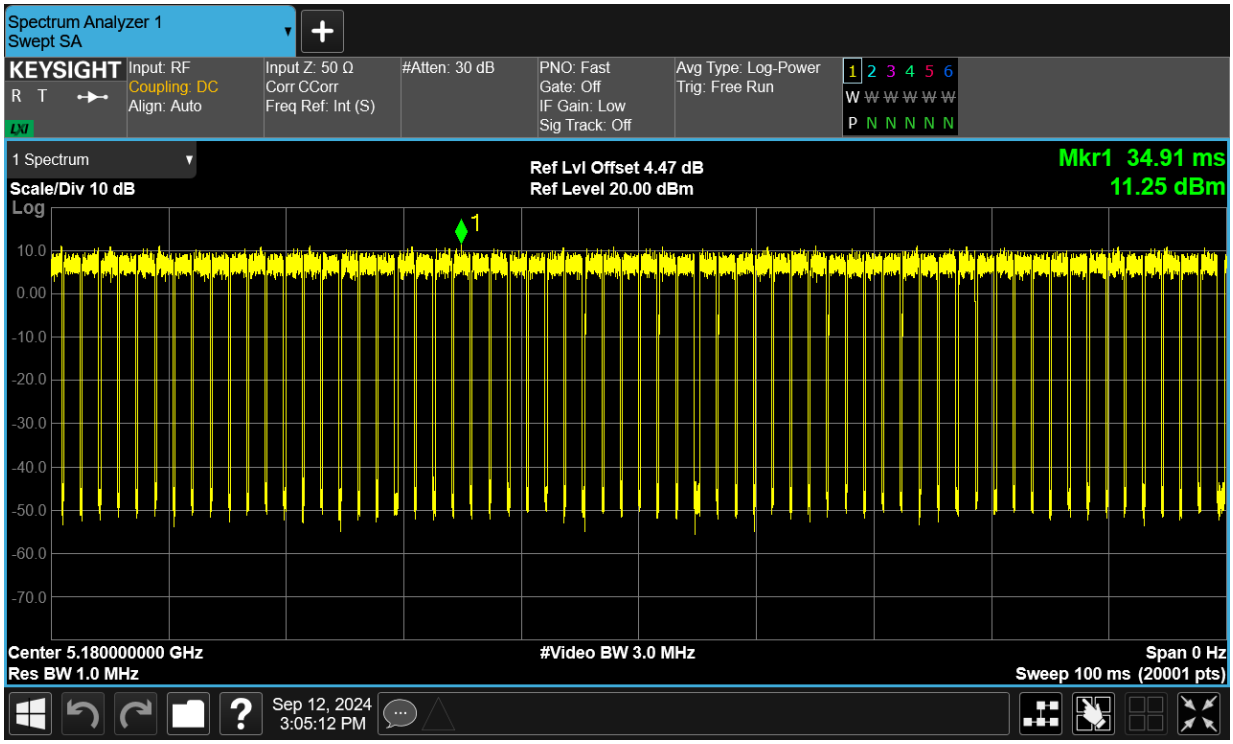

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Best Wide
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 10/10
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 4.54 dB
Ref Level 27.54 dBm
Mkr1 5.189 987 5 GHz
15.76 dBm
17.5
7.54
-2.46
-12.5
-22.5
-32.5
-42.5
-52.5
-62.5
Center 5.1900000 GHz
#Res BW 10 kHz
#Video BW 30 kHz
Span 500.0 kHz
Sweep 4.80 ms (1001 pts)
Sep 12, 2024
4:01:45 PM

Duty Cycle

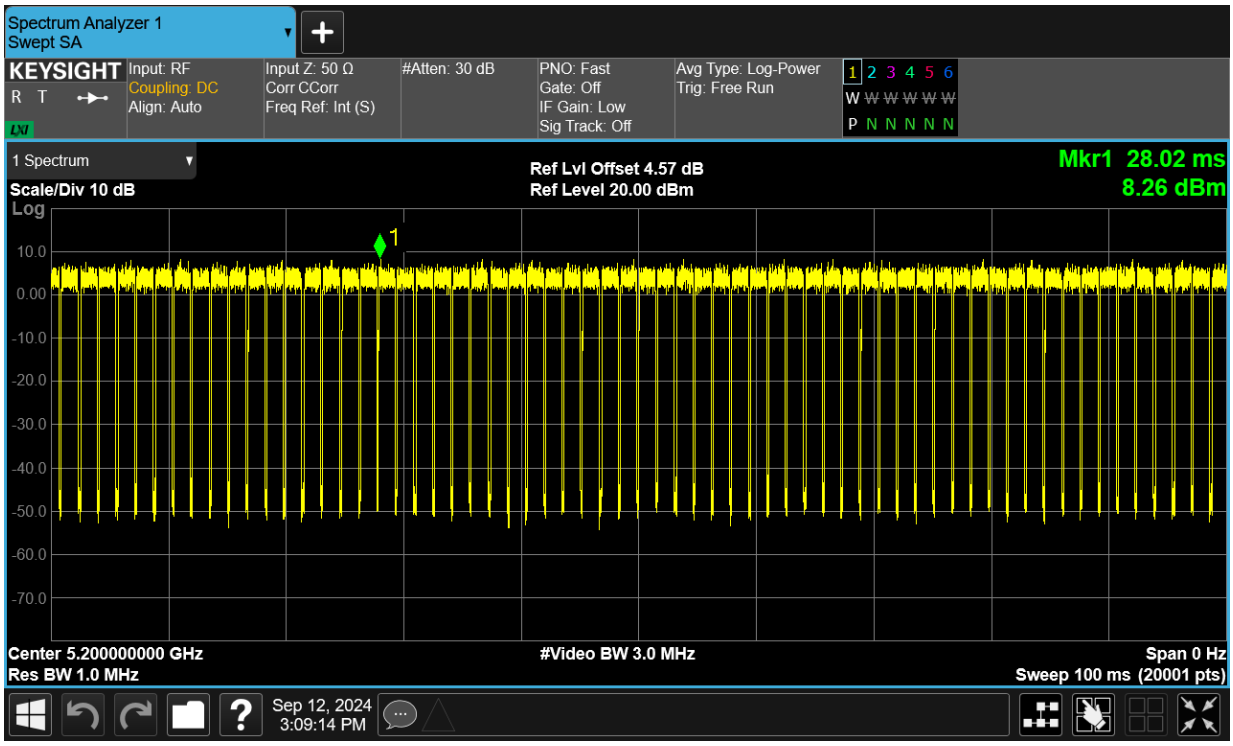
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant1	87.74	0.57
NVNT	a	5200	Ant1	88.66	0.52
NVNT	a	5240	Ant1	87.86	0.56
NVNT	ac20	5180	Ant1	86.92	0.61
NVNT	ac20	5200	Ant1	86.83	0.61
NVNT	ac20	5240	Ant1	86.34	0.64
NVNT	ac40	5190	Ant1	76.39	1.17
NVNT	ac40	5230	Ant1	76.4	1.17
NVNT	ac80	5210	Ant1	63.39	1.98
NVNT	n20	5180	Ant1	88.52	0.53
NVNT	n20	5200	Ant1	88.24	0.54
NVNT	n20	5240	Ant1	87.81	0.56
NVNT	n40	5190	Ant1	76.87	1.14
NVNT	n40	5230	Ant1	76.44	1.17

Test Graphs

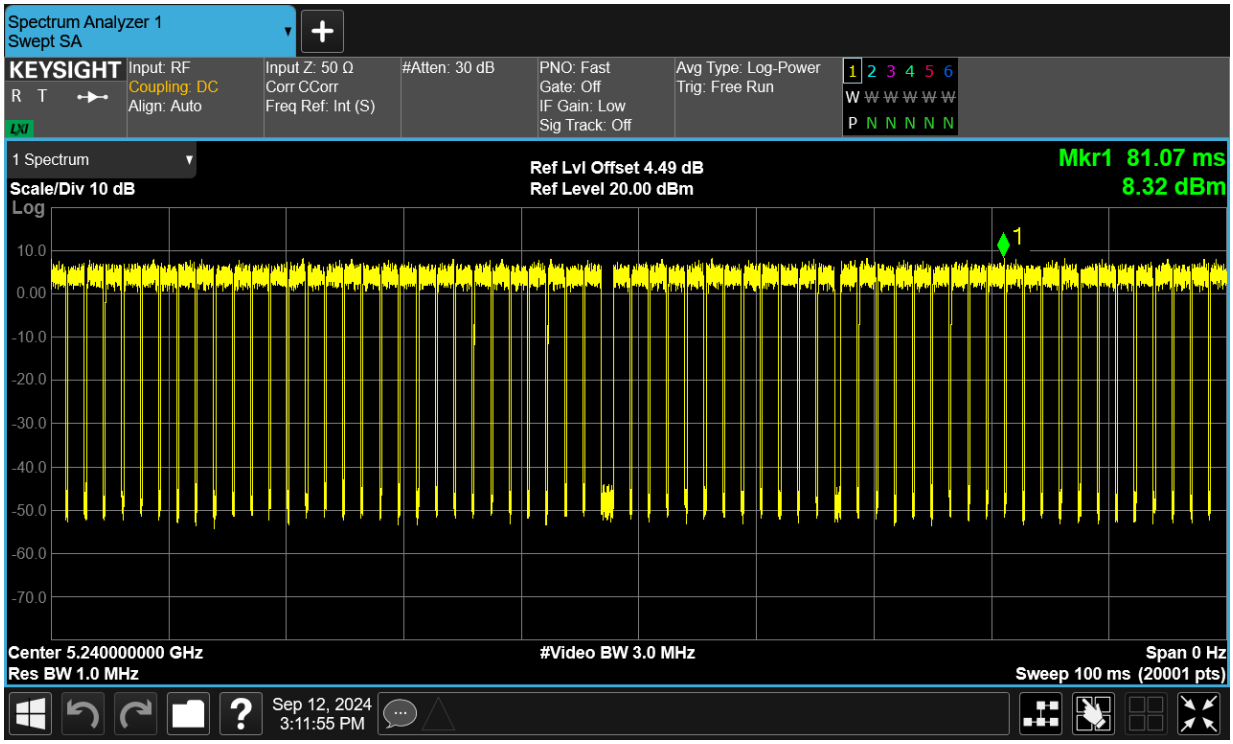
Duty Cycle NVNT a 5180MHz Ant1



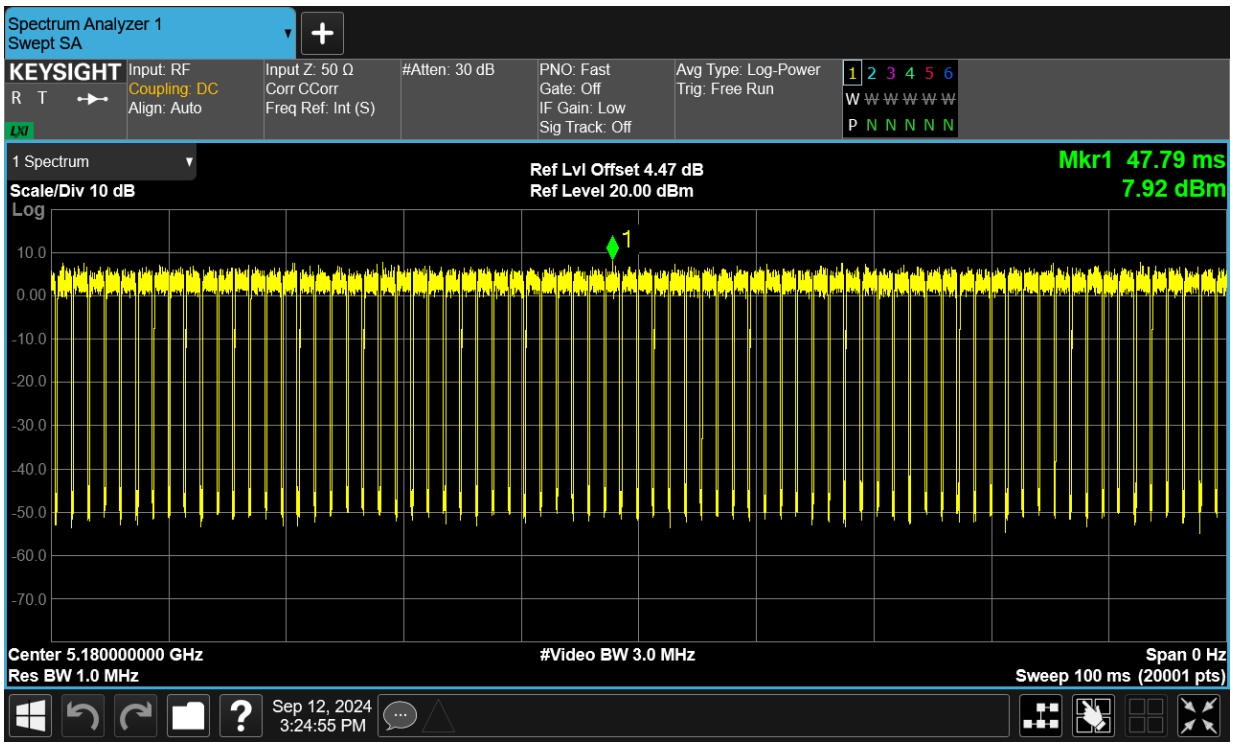
Duty Cycle NVNT a 5200MHz Ant1



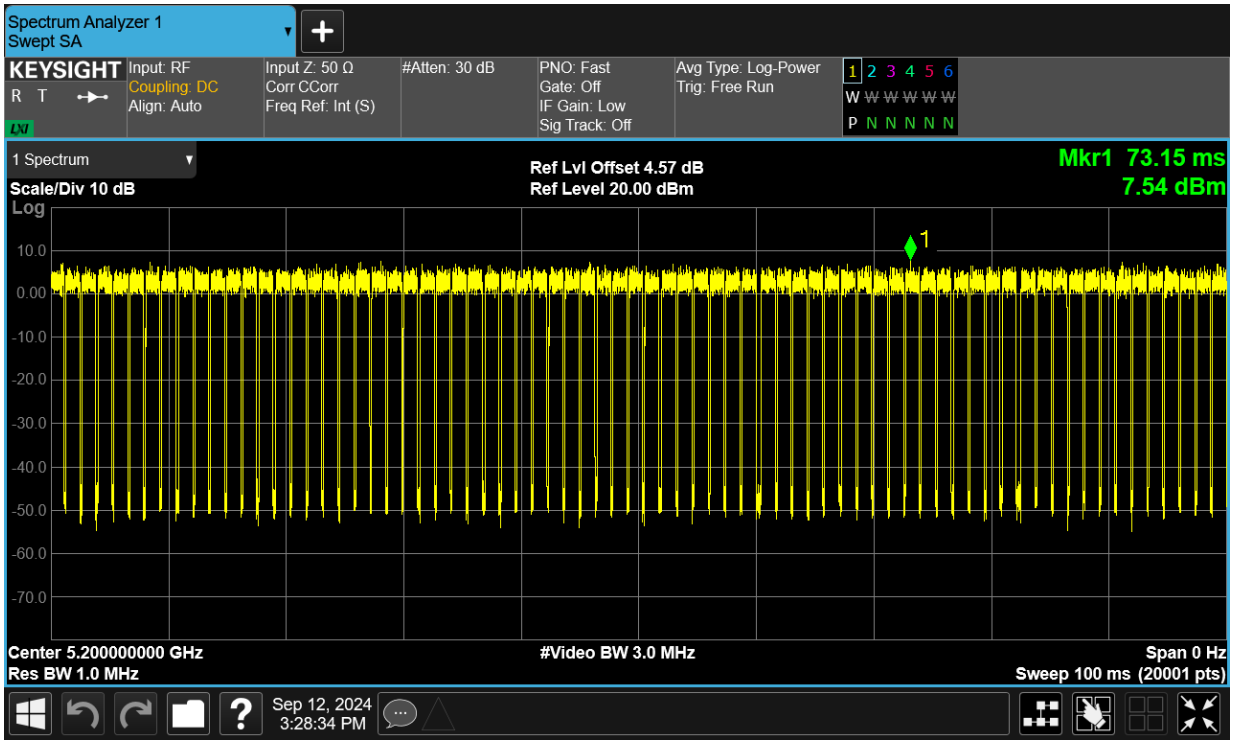
Duty Cycle NVNT a 5240MHz Ant1



Duty Cycle NVNT ac20 5180MHz Ant1

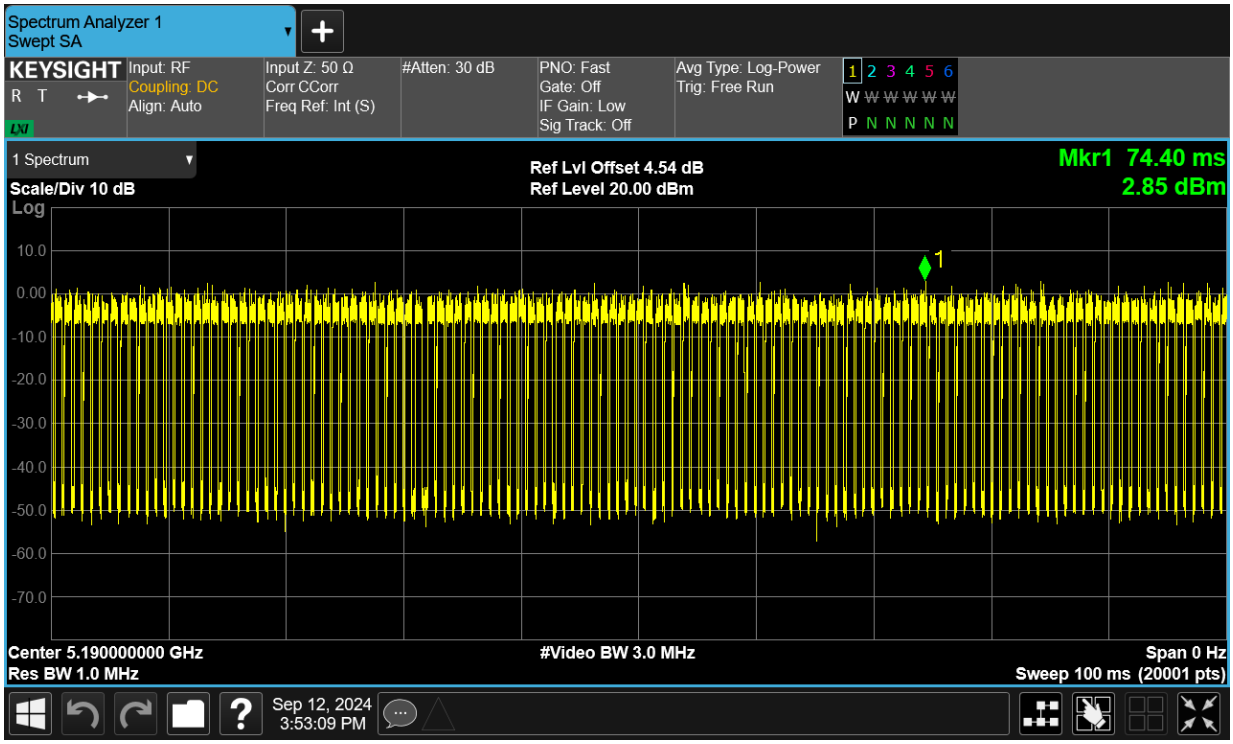


Duty Cycle NVNT ac20 5200MHz Ant1

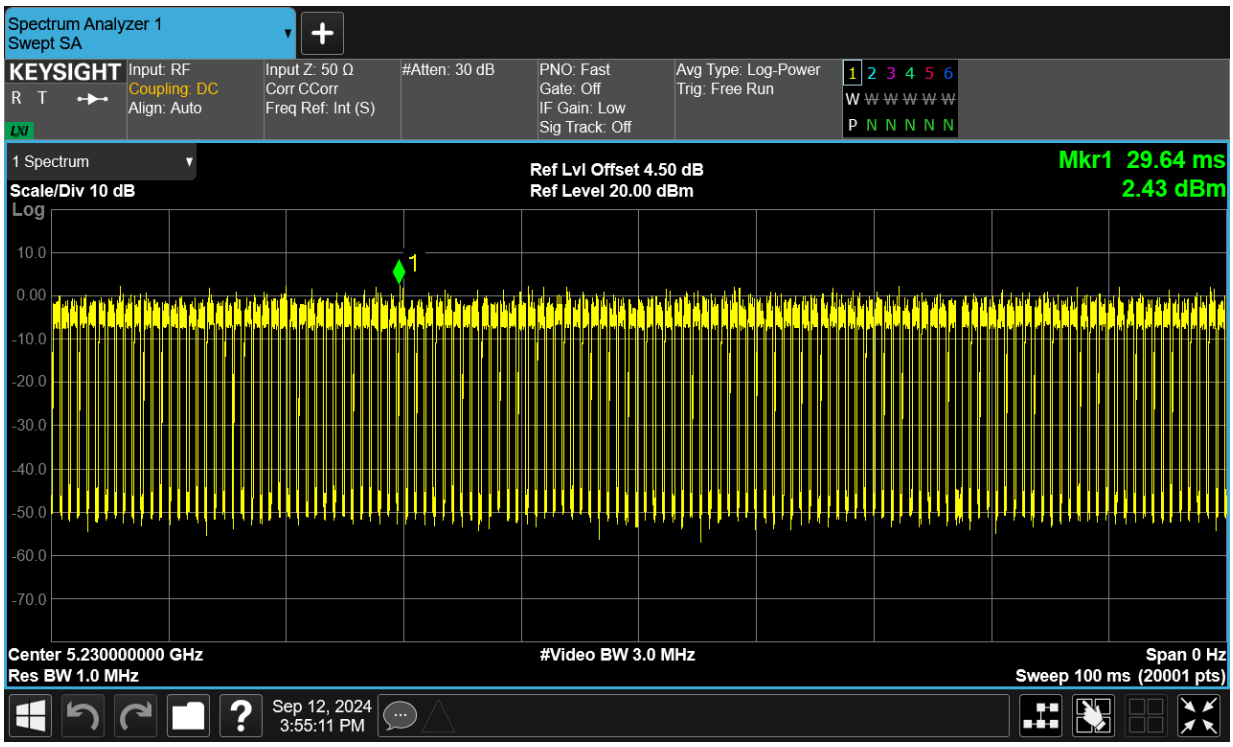


Duty Cycle NVNT ac20 5240MHz Ant1

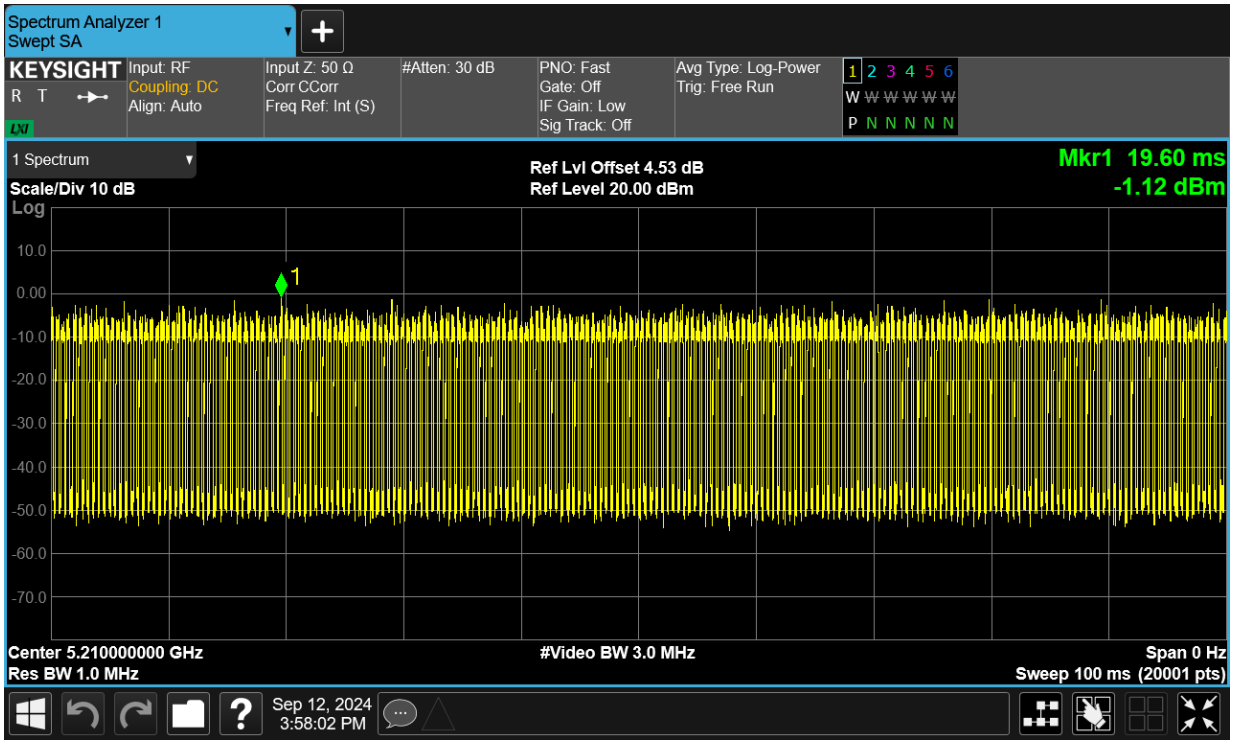
Duty Cycle NVNT ac40 5190MHz Ant1



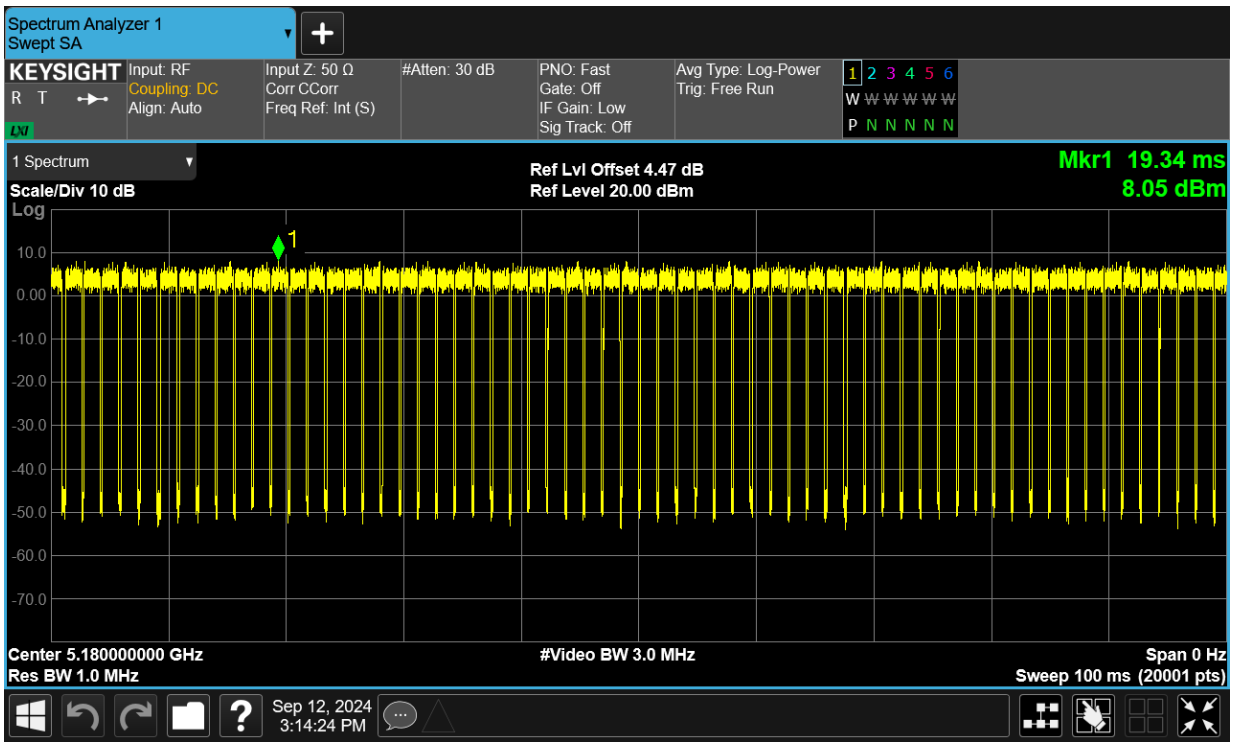
Duty Cycle NVNT ac40 5230MHz Ant1



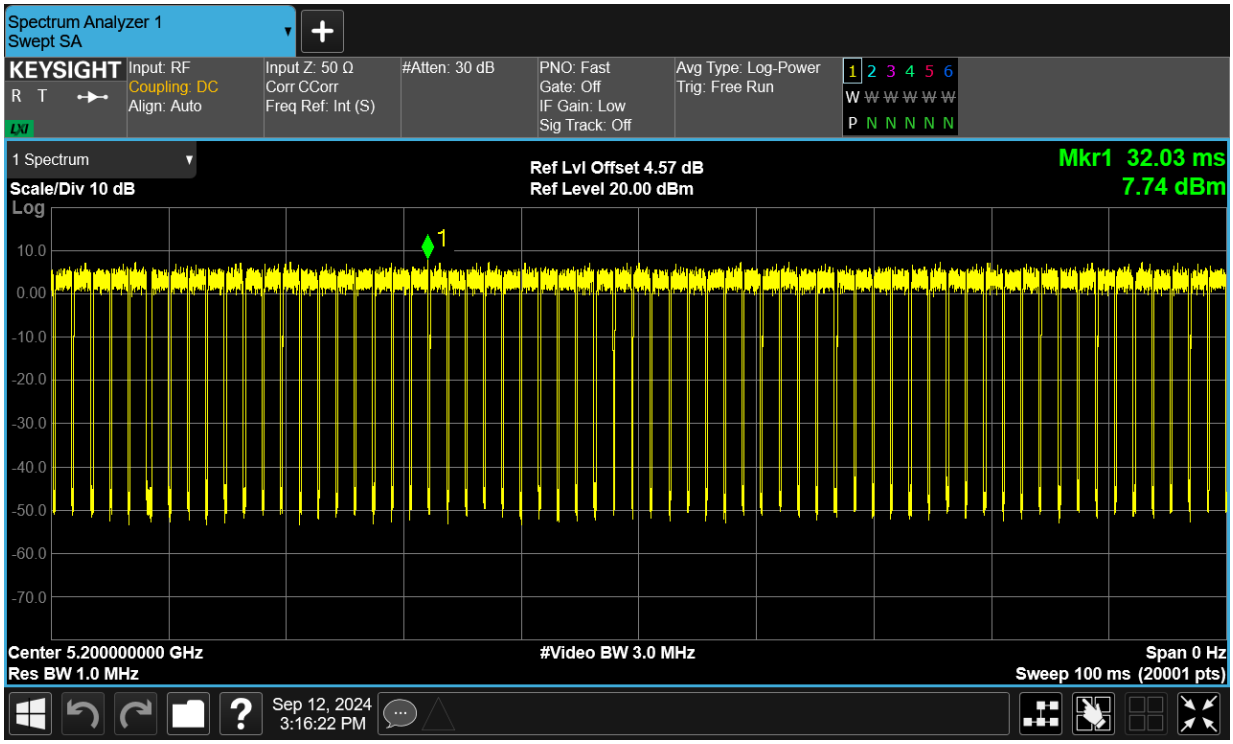
Duty Cycle NVNT ac80 5210MHz Ant1



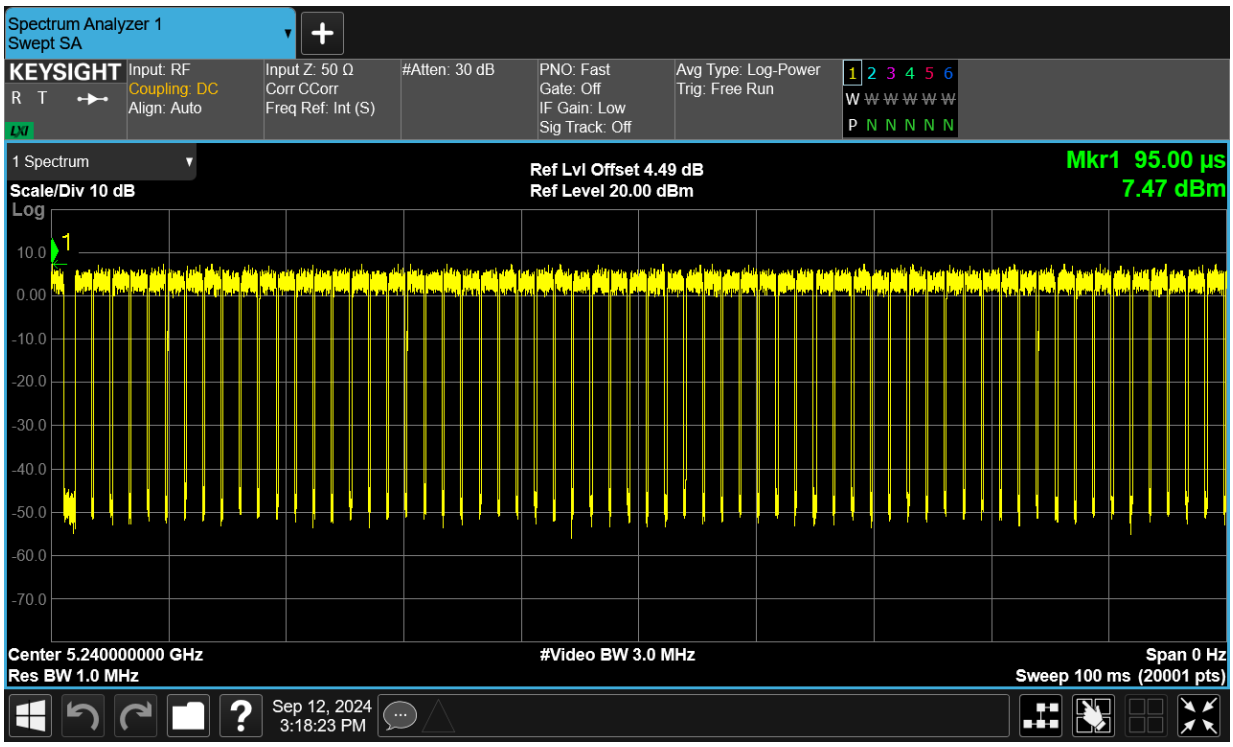
Duty Cycle NVNT n20 5180MHz Ant1



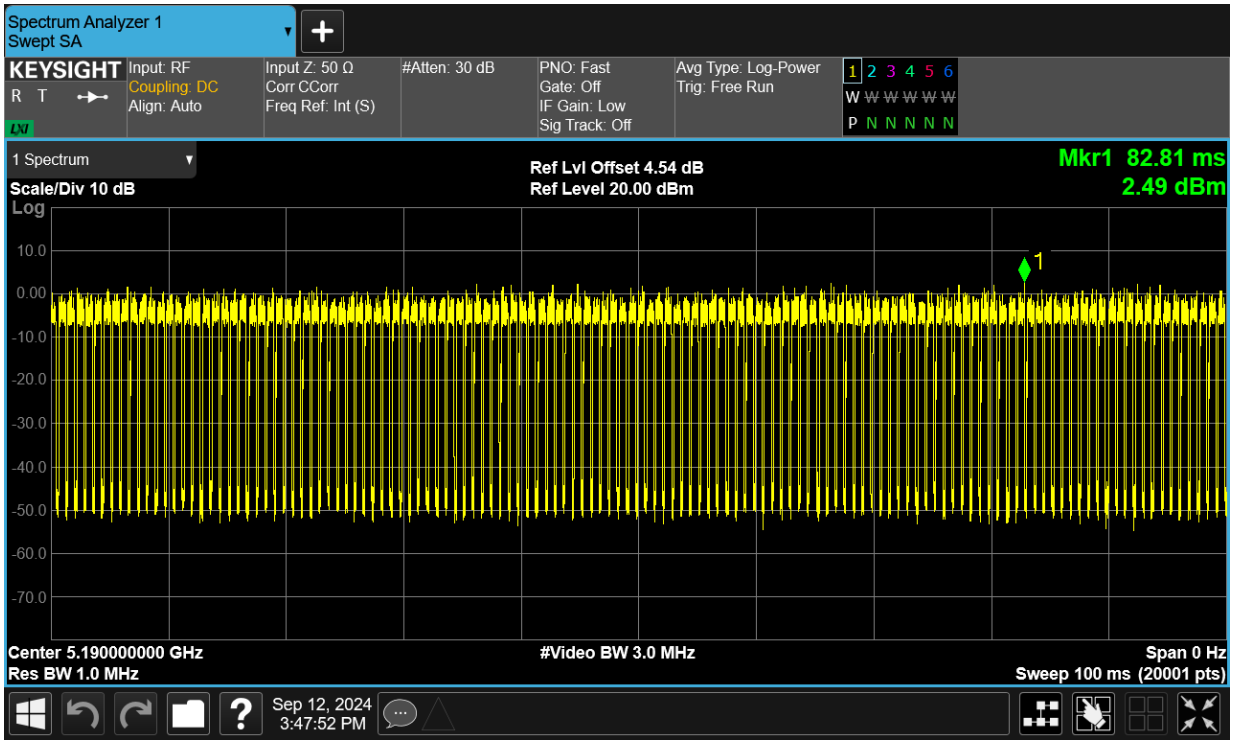
Duty Cycle NVNT n20 5200MHz Ant1



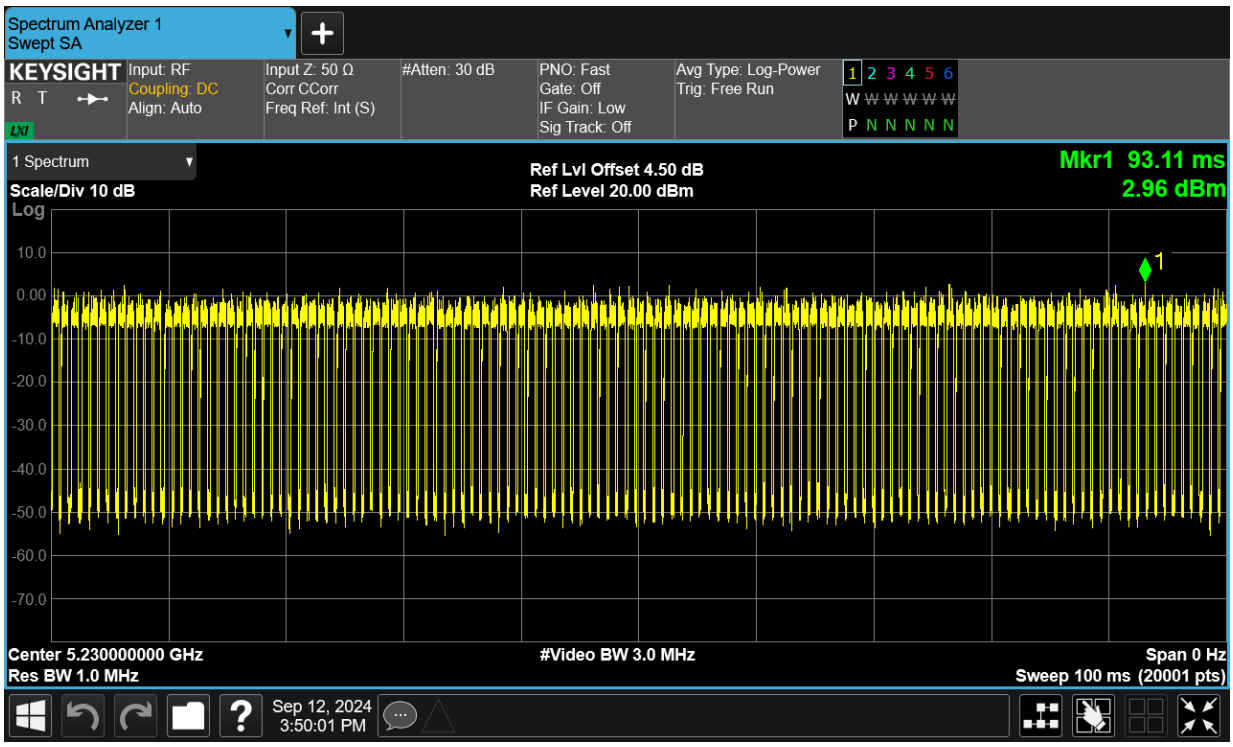
Duty Cycle NVNT n20 5240MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1



Maximum Conducted Output Power

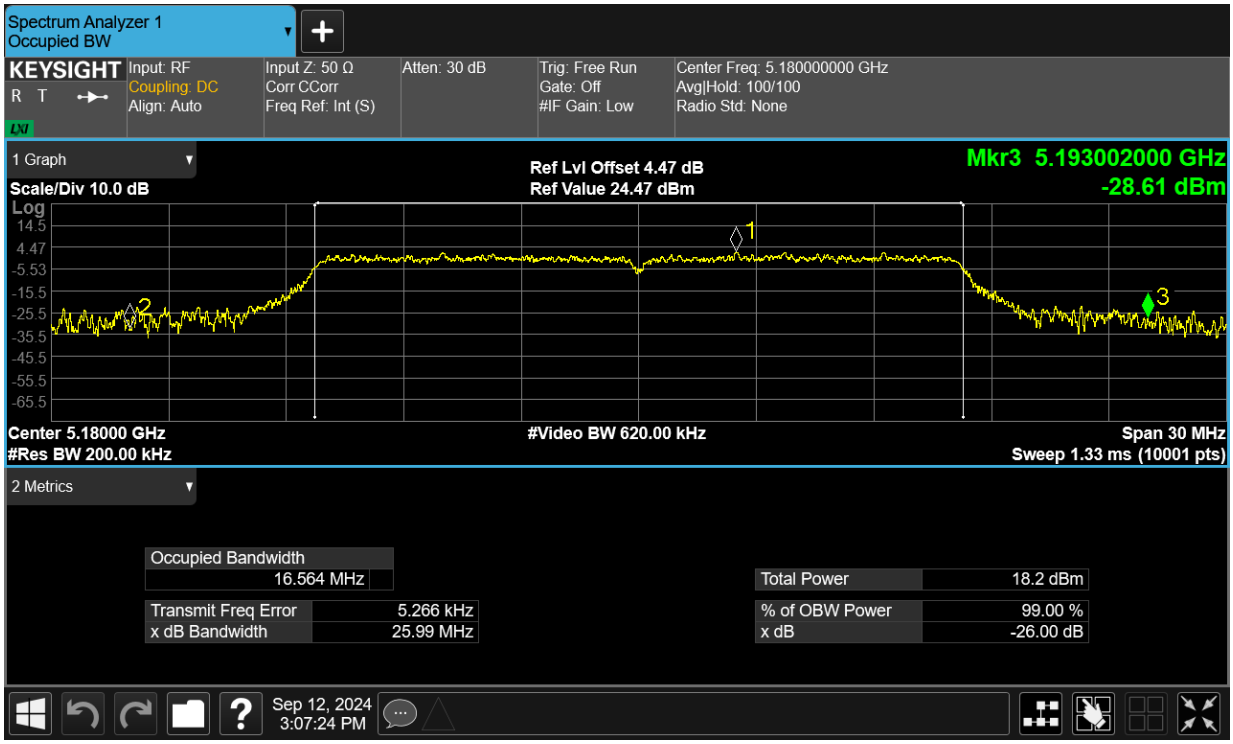
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.63	0.57	13.2	24	Pass
NVNT	a	5200	Ant1	12.14	0.52	12.66	24	Pass
NVNT	a	5240	Ant1	12.31	0.56	12.87	24	Pass
NVNT	ac20	5180	Ant1	11.67	0.61	12.28	24	Pass
NVNT	ac20	5200	Ant1	11.11	0.61	11.72	24	Pass
NVNT	ac20	5240	Ant1	11.61	0.64	12.25	24	Pass
NVNT	ac40	5190	Ant1	10.96	1.17	12.13	23	Pass
NVNT	ac40	5230	Ant1	10.54	1.17	11.71	24	Pass
NVNT	ac80	5210	Ant1	9.44	1.98	11.42	24	Pass
NVNT	n20	5180	Ant1	12.1	0.53	12.63	24	Pass
NVNT	n20	5200	Ant1	11.35	0.54	11.89	24	Pass
NVNT	n20	5240	Ant1	11.59	0.56	12.15	24	Pass
NVNT	n40	5190	Ant1	10.93	1.14	12.07	24	Pass
NVNT	n40	5230	Ant1	10.58	1.17	11.75	24	Pass

-26dB Bandwidth

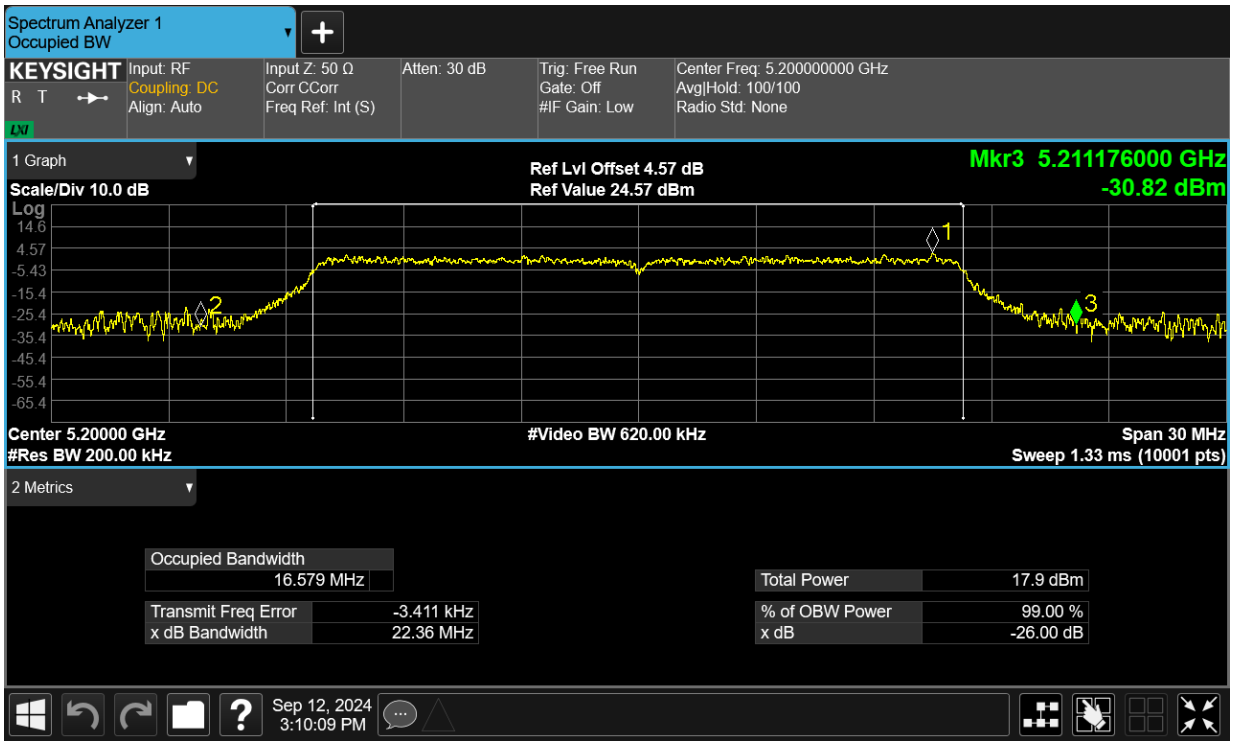
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	25.993
NVNT	a	5200	Ant1	22.36
NVNT	a	5240	Ant1	21.916
NVNT	ac20	5180	Ant1	24.253
NVNT	ac20	5200	Ant1	25.247
NVNT	ac20	5240	Ant1	26.183
NVNT	ac40	5190	Ant1	55.066
NVNT	ac40	5230	Ant1	53.786
NVNT	ac80	5210	Ant1	77.89
NVNT	n20	5180	Ant1	22.445
NVNT	n20	5200	Ant1	21.169
NVNT	n20	5240	Ant1	26.755
NVNT	n40	5190	Ant1	58.603
NVNT	n40	5230	Ant1	58.795

Test Graphs

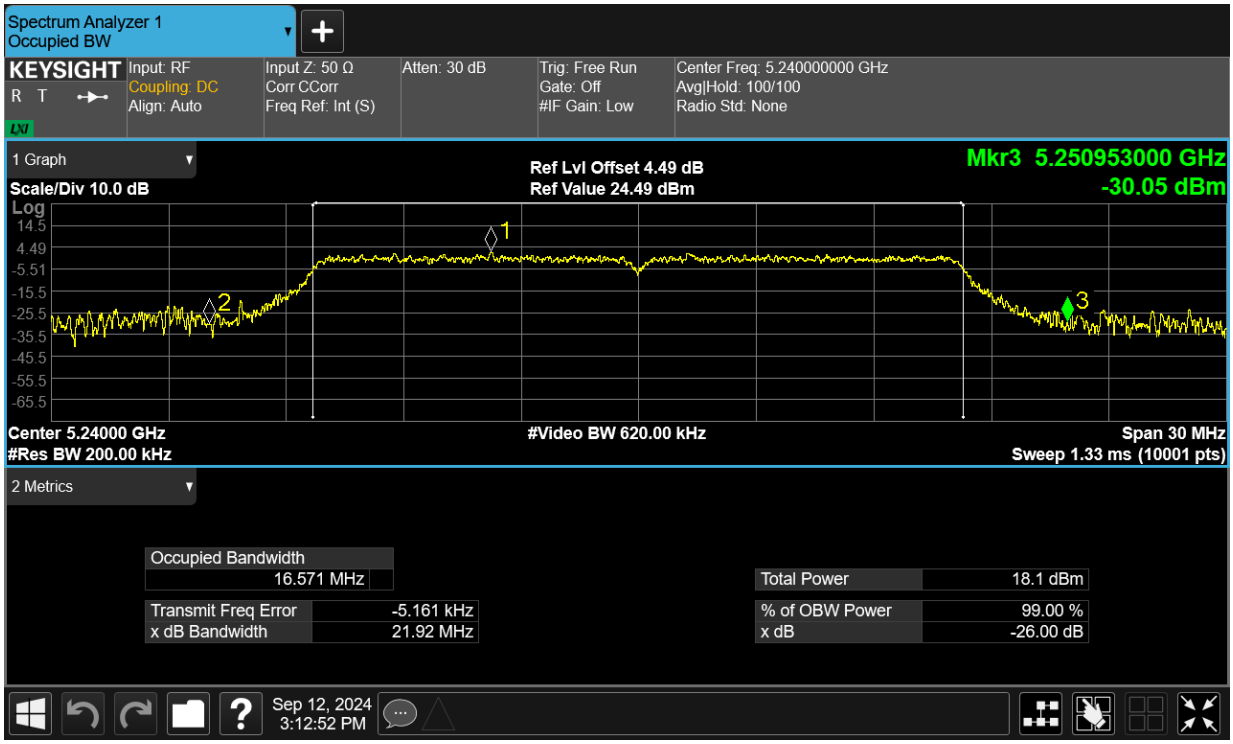
-26dB Bandwidth NVNT a 5180MHz Ant1



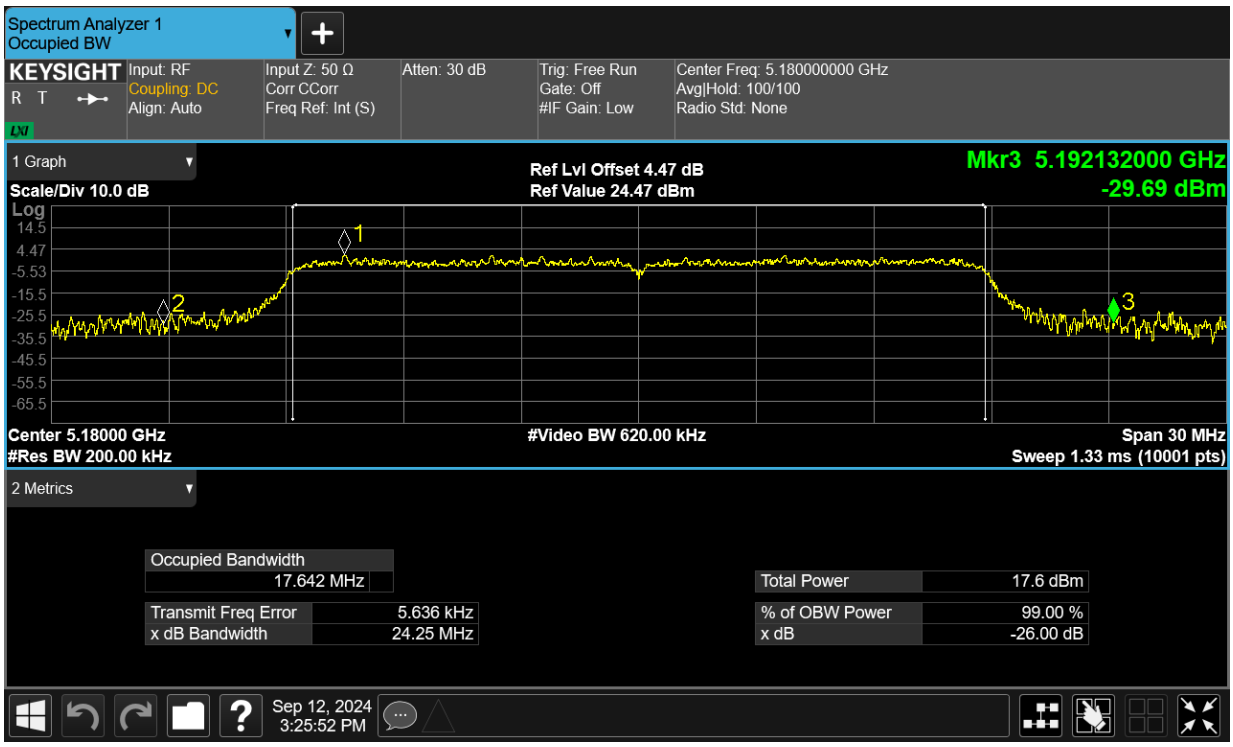
-26dB Bandwidth NVNT a 5200MHz Ant1



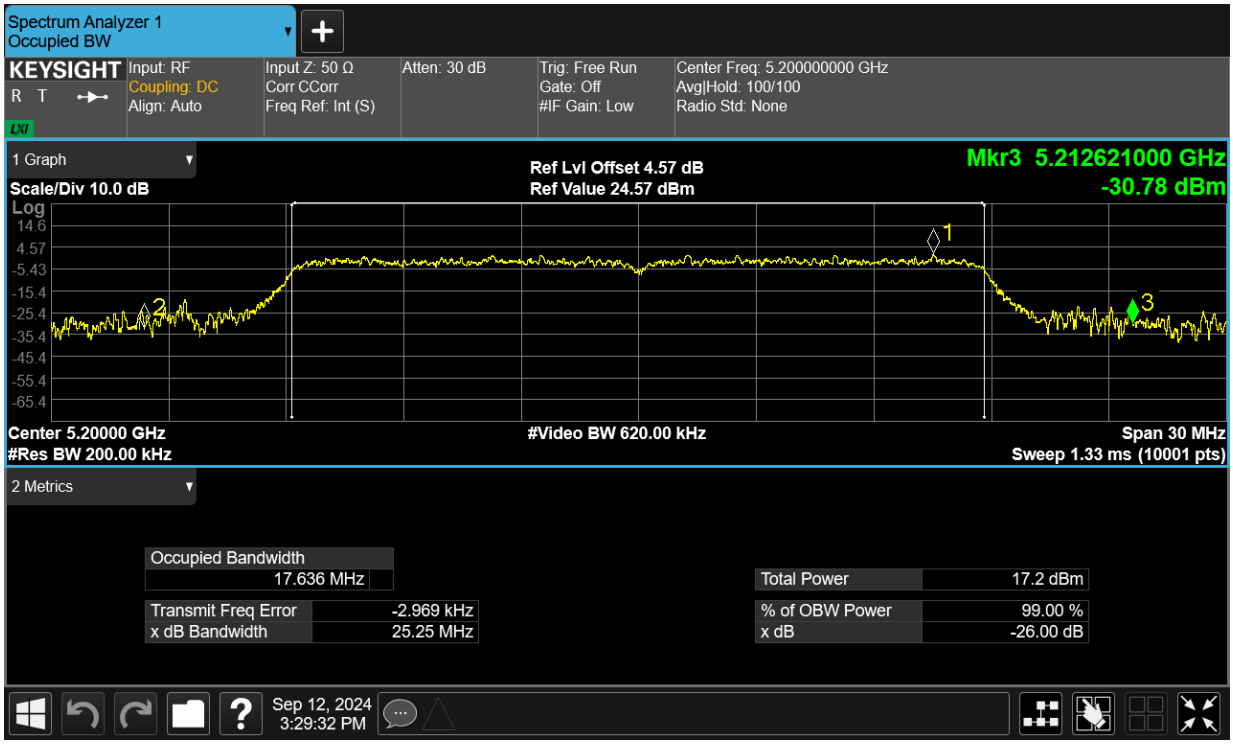
-26dB Bandwidth NVNT a 5240MHz Ant1



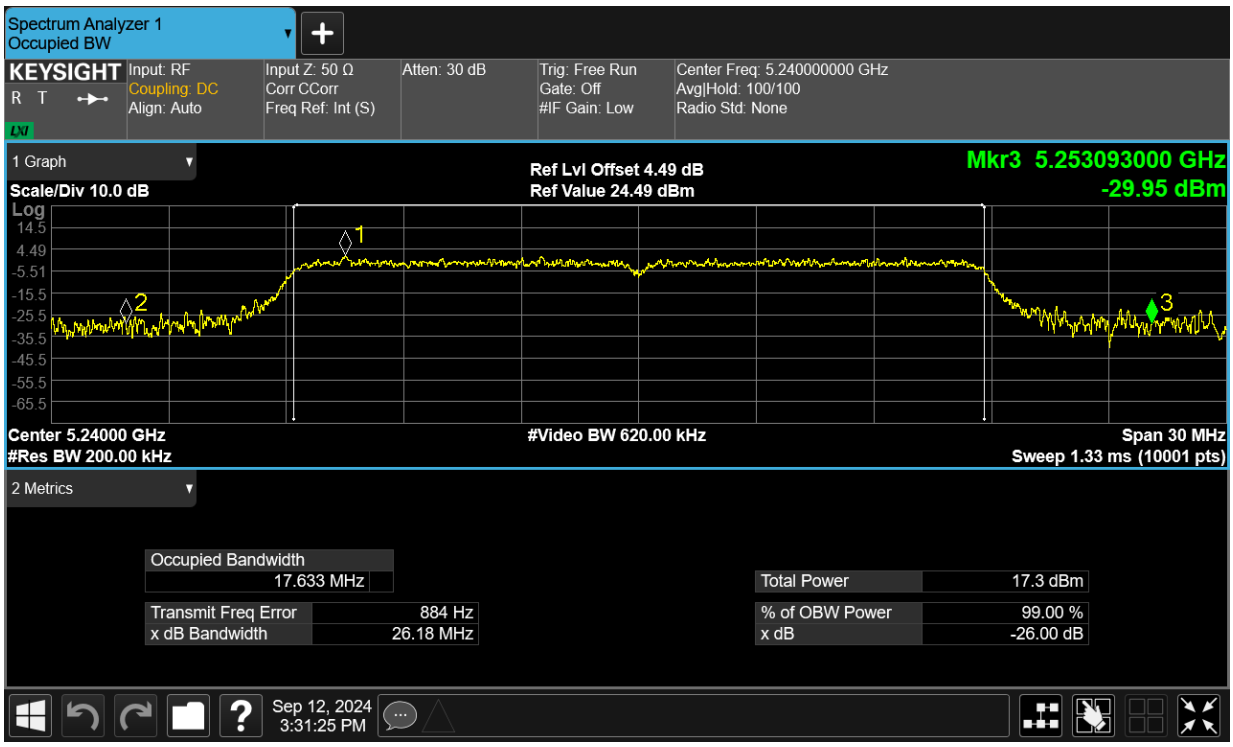
-26dB Bandwidth NVNT ac20 5180MHz Ant1



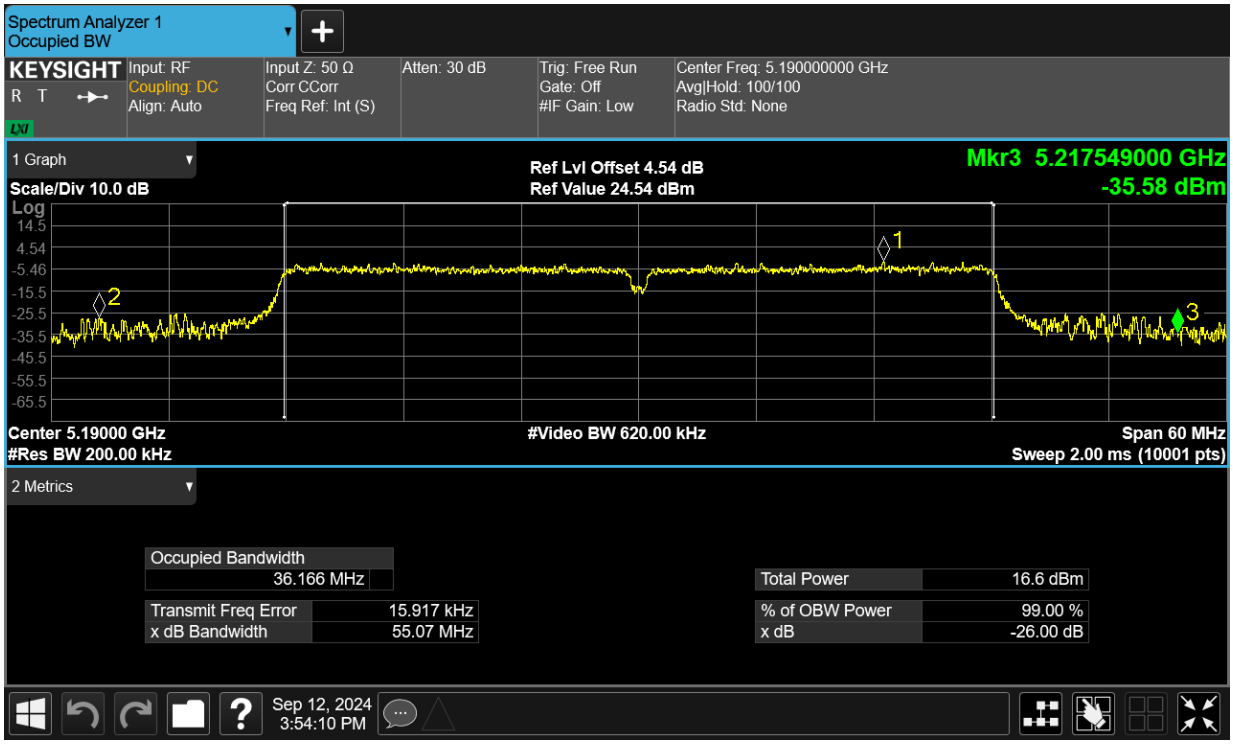
-26dB Bandwidth NVNT ac20 5200MHz Ant1



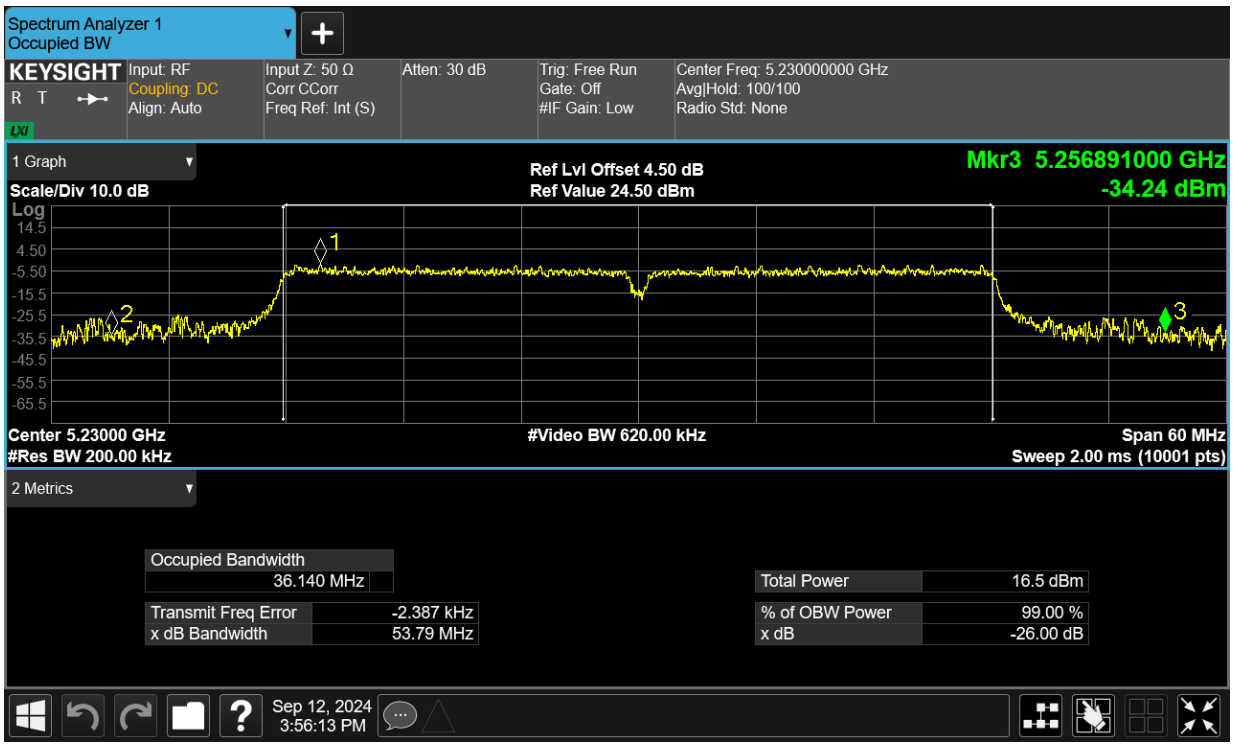
-26dB Bandwidth NVNT ac20 5240MHz Ant1



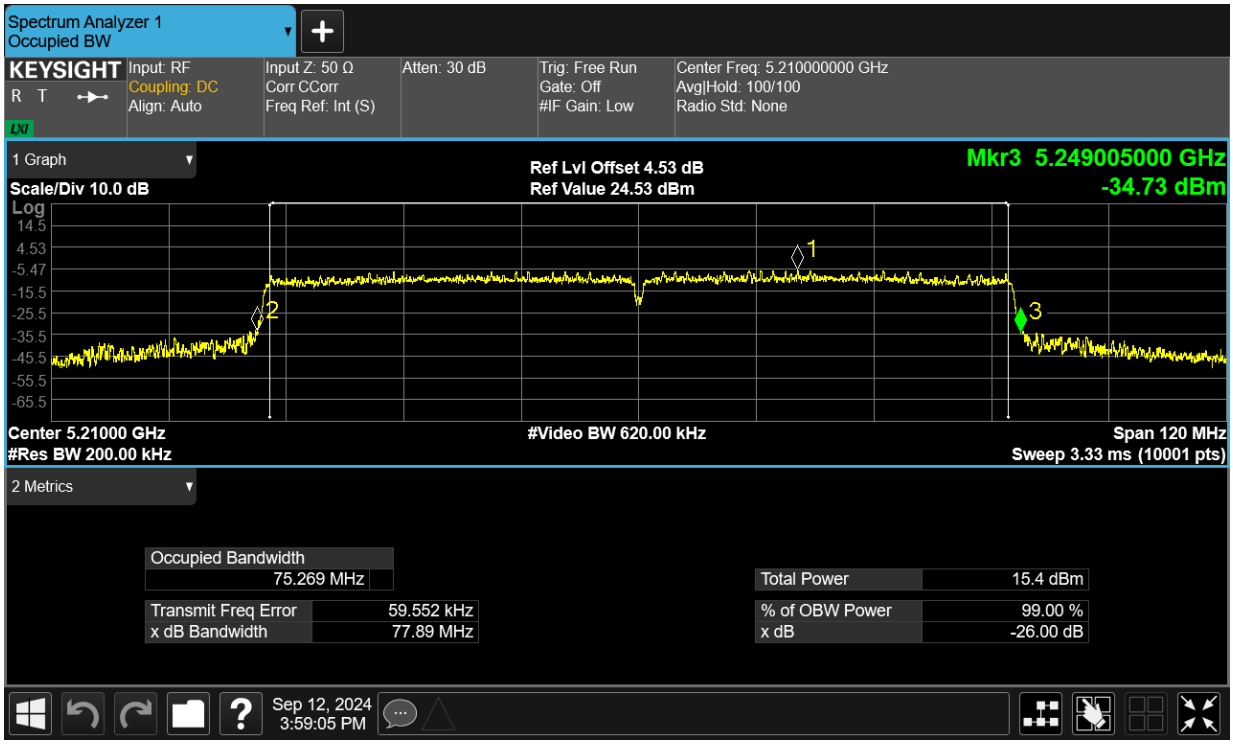
-26dB Bandwidth NVNT ac40 5190MHz Ant1



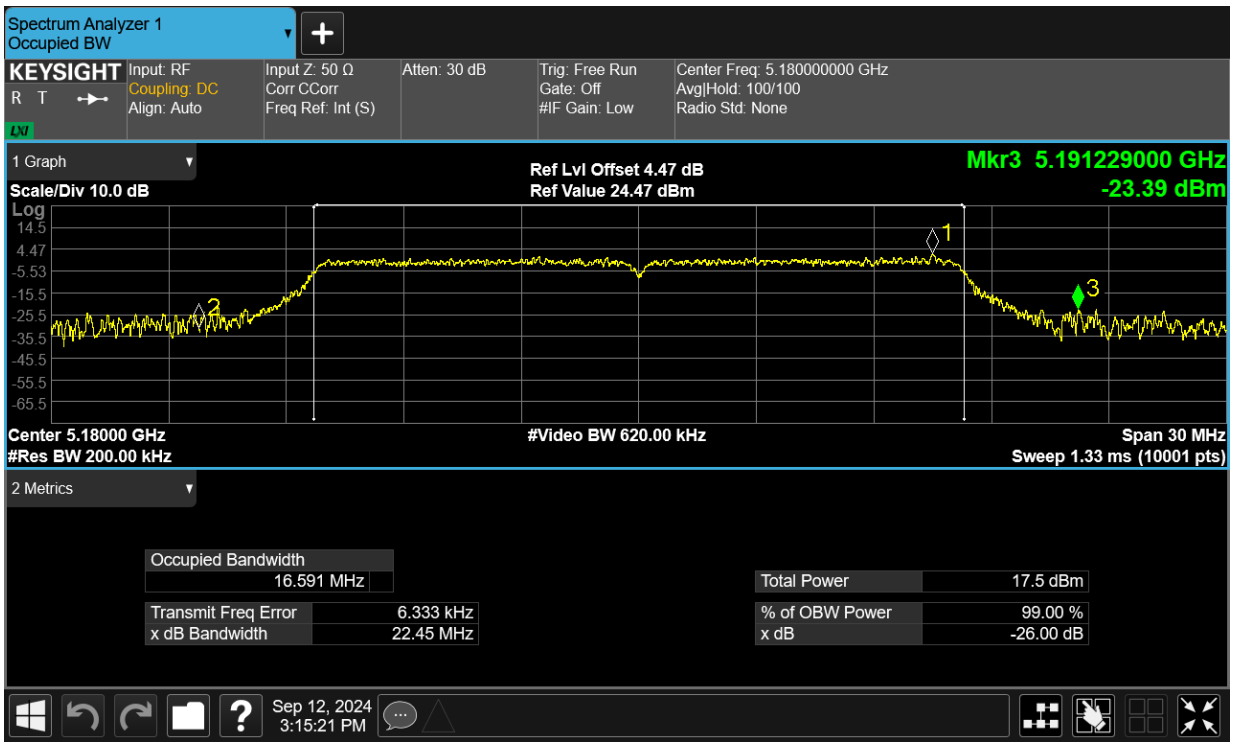
-26dB Bandwidth NVNT ac40 5230MHz Ant1



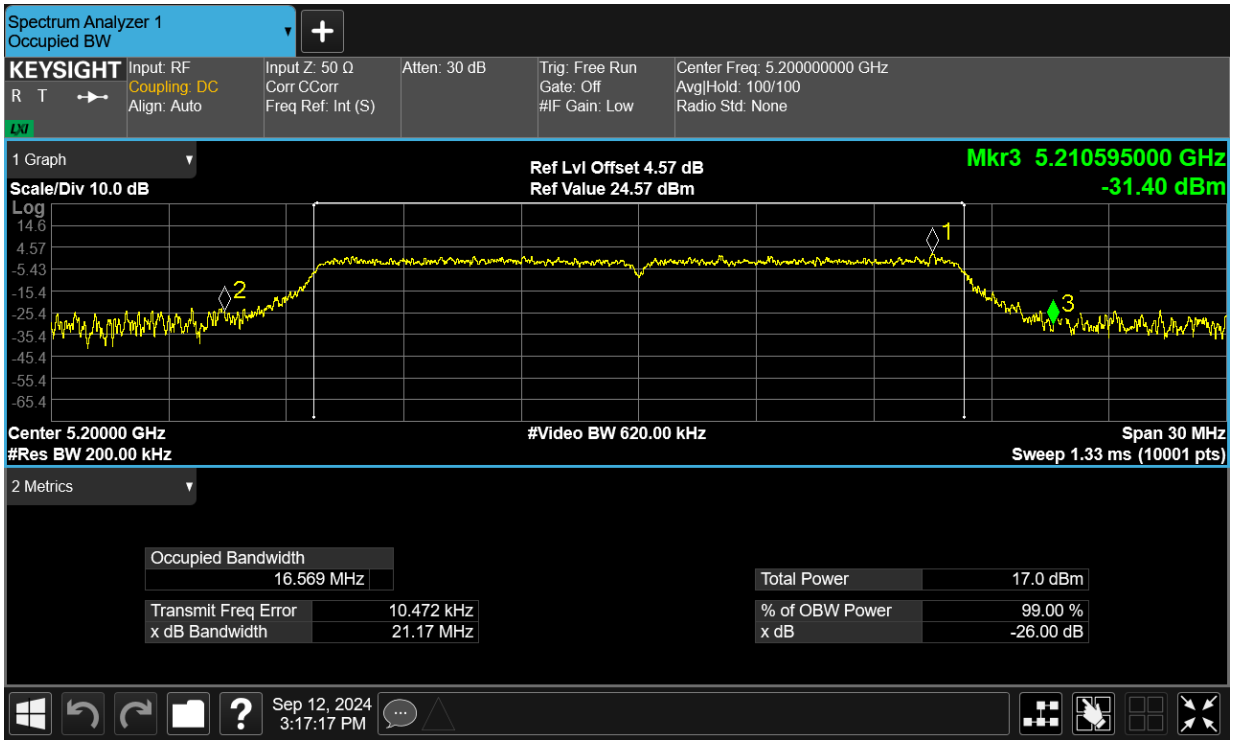
-26dB Bandwidth NVNT ac80 5210MHz Ant1



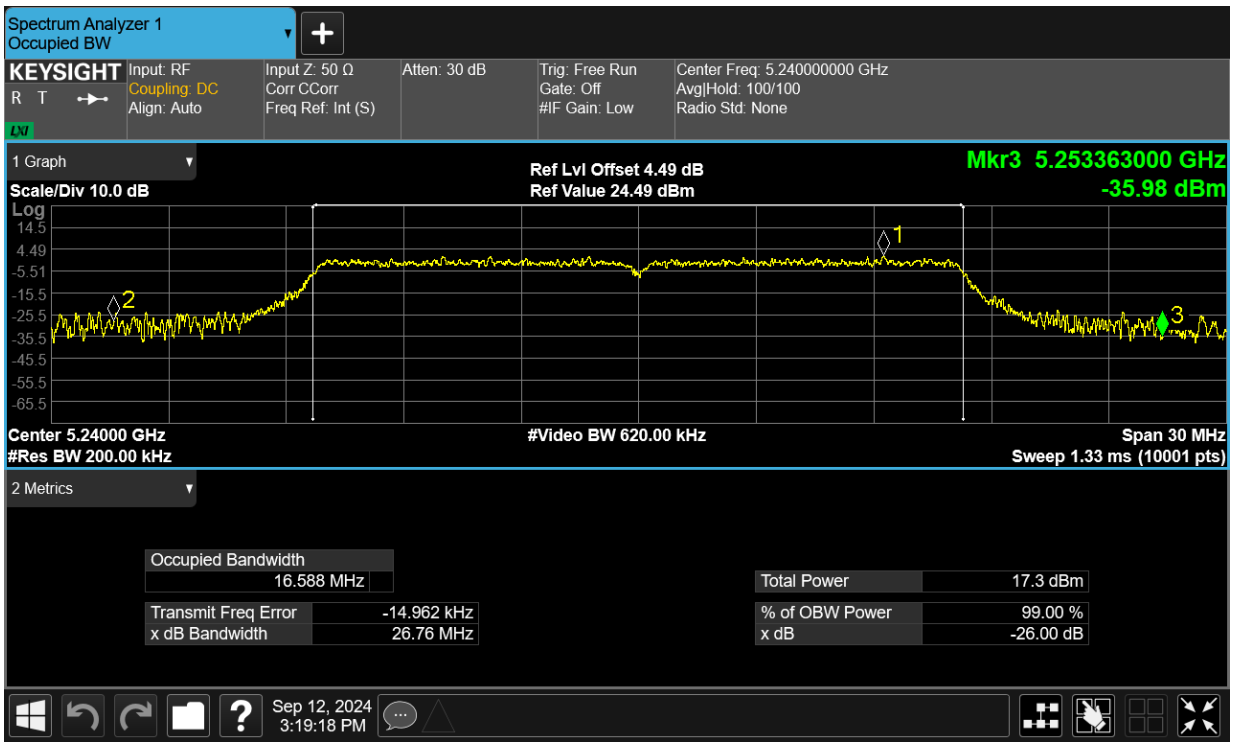
-26dB Bandwidth NVNT n20 5180MHz Ant1



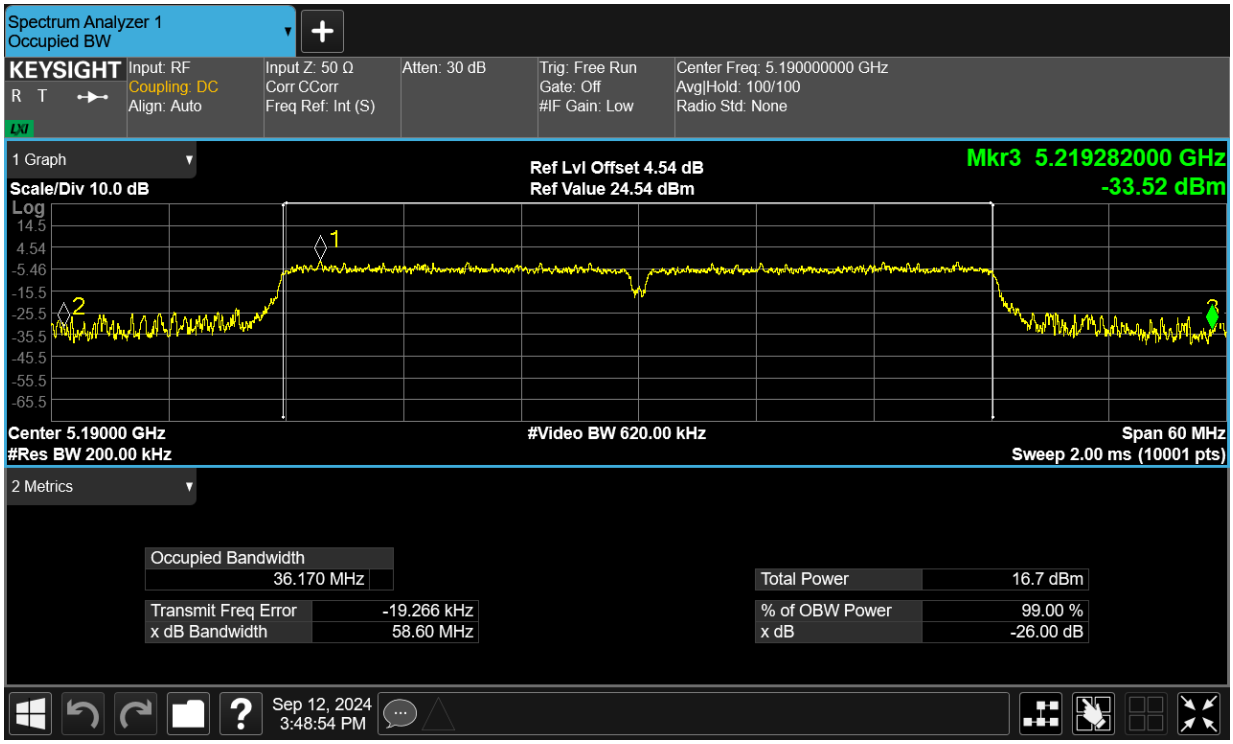
-26dB Bandwidth NVNT n20 5200MHz Ant1



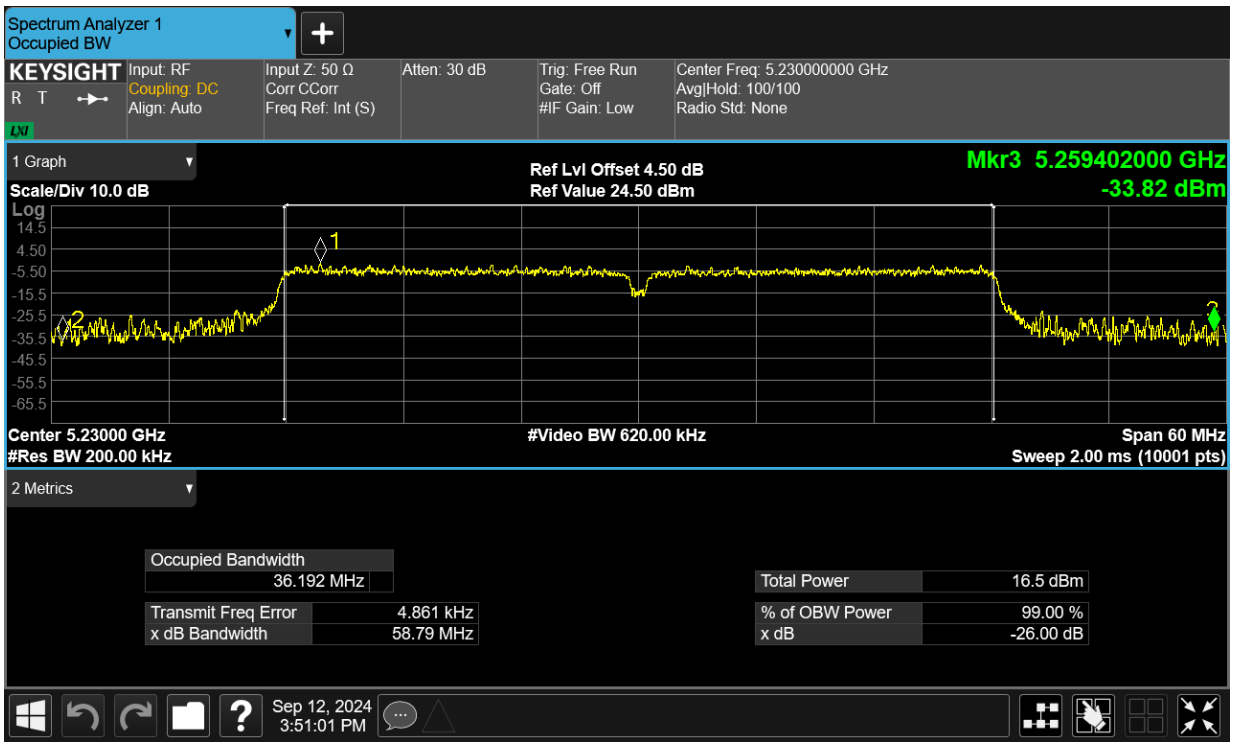
-26dB Bandwidth NVNT n20 5240MHz Ant1



-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1

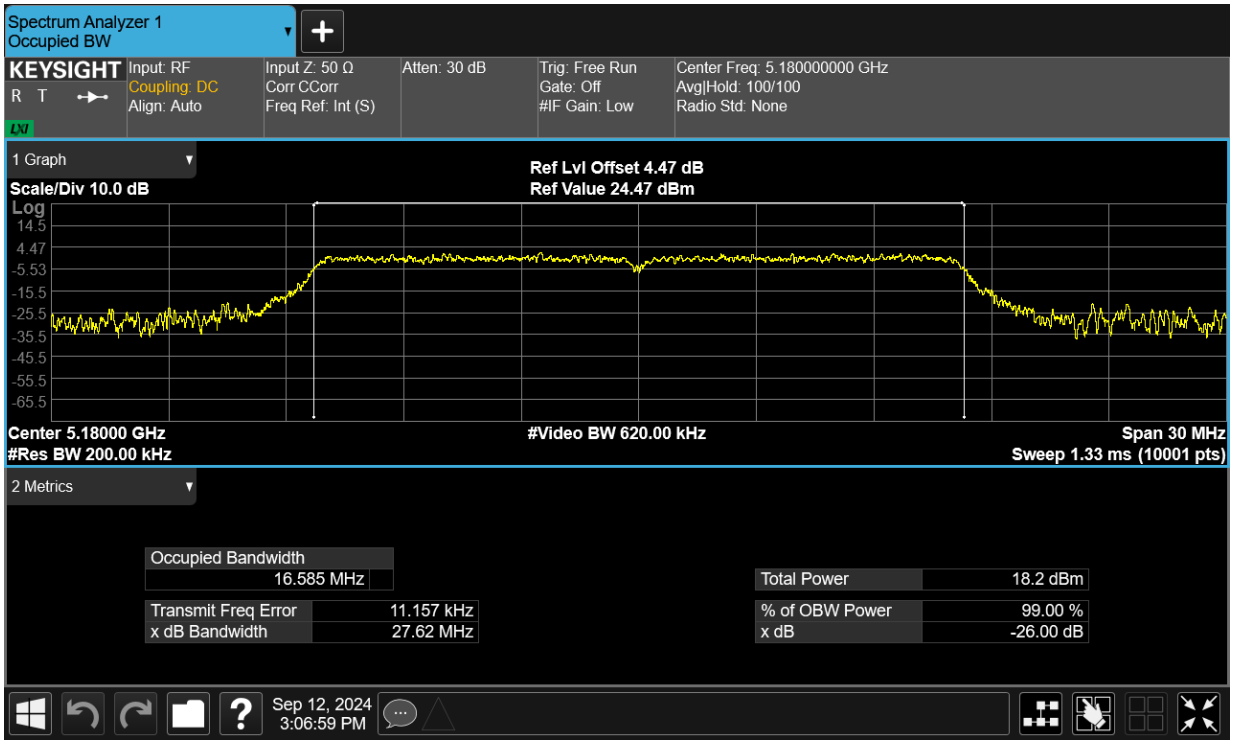


Occupied Channel Bandwidth

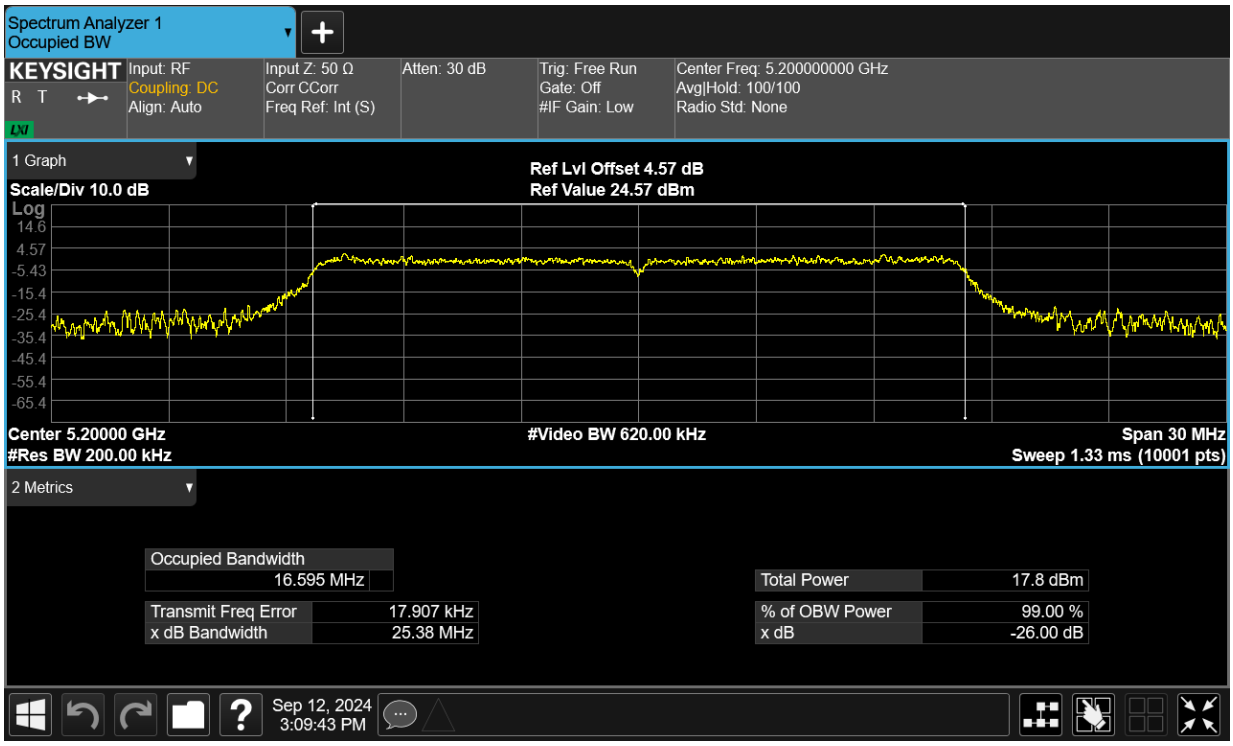
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.585
NVNT	a	5200	Ant1	16.595
NVNT	a	5240	Ant1	16.578
NVNT	ac20	5180	Ant1	17.627
NVNT	ac20	5200	Ant1	17.624
NVNT	ac20	5240	Ant1	17.65
NVNT	ac40	5190	Ant1	36.311
NVNT	ac40	5230	Ant1	36.343
NVNT	ac80	5210	Ant1	75.364
NVNT	n20	5180	Ant1	16.599
NVNT	n20	5200	Ant1	16.583
NVNT	n20	5240	Ant1	16.597
NVNT	n40	5190	Ant1	36.311
NVNT	n40	5230	Ant1	36.317

Test Graphs

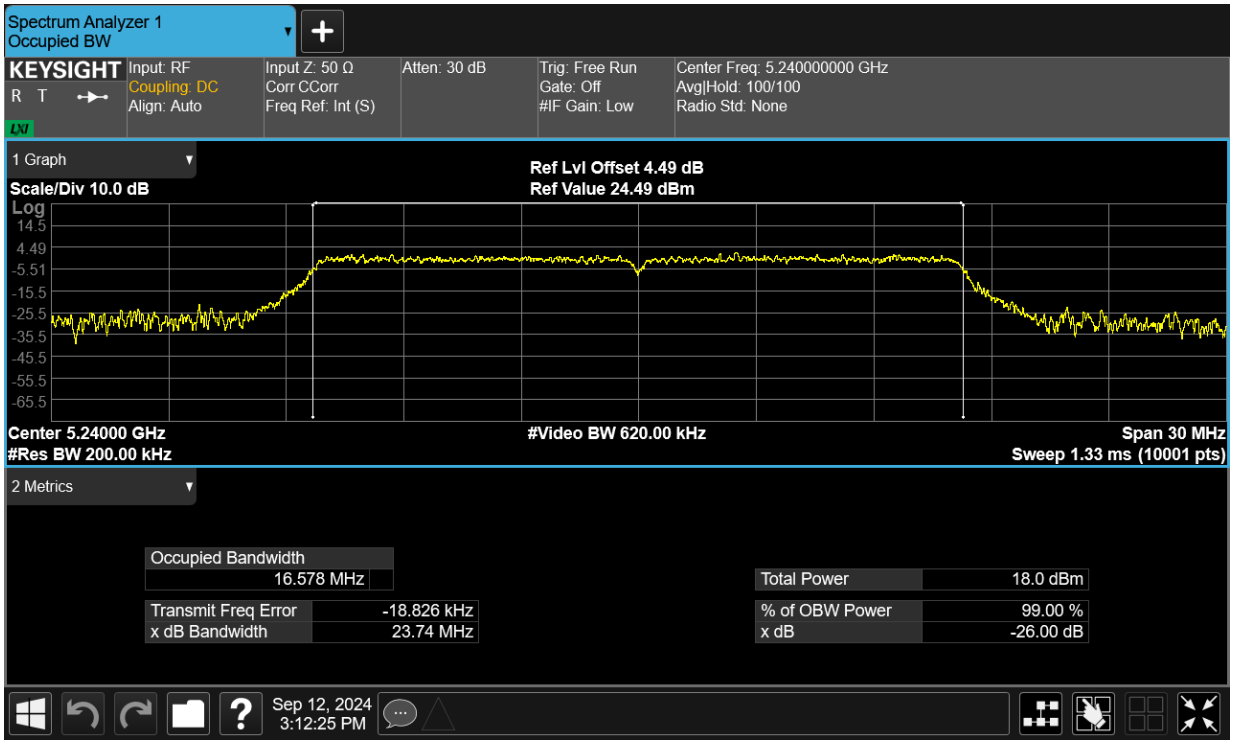
OBW NVNT a 5180MHz Ant1



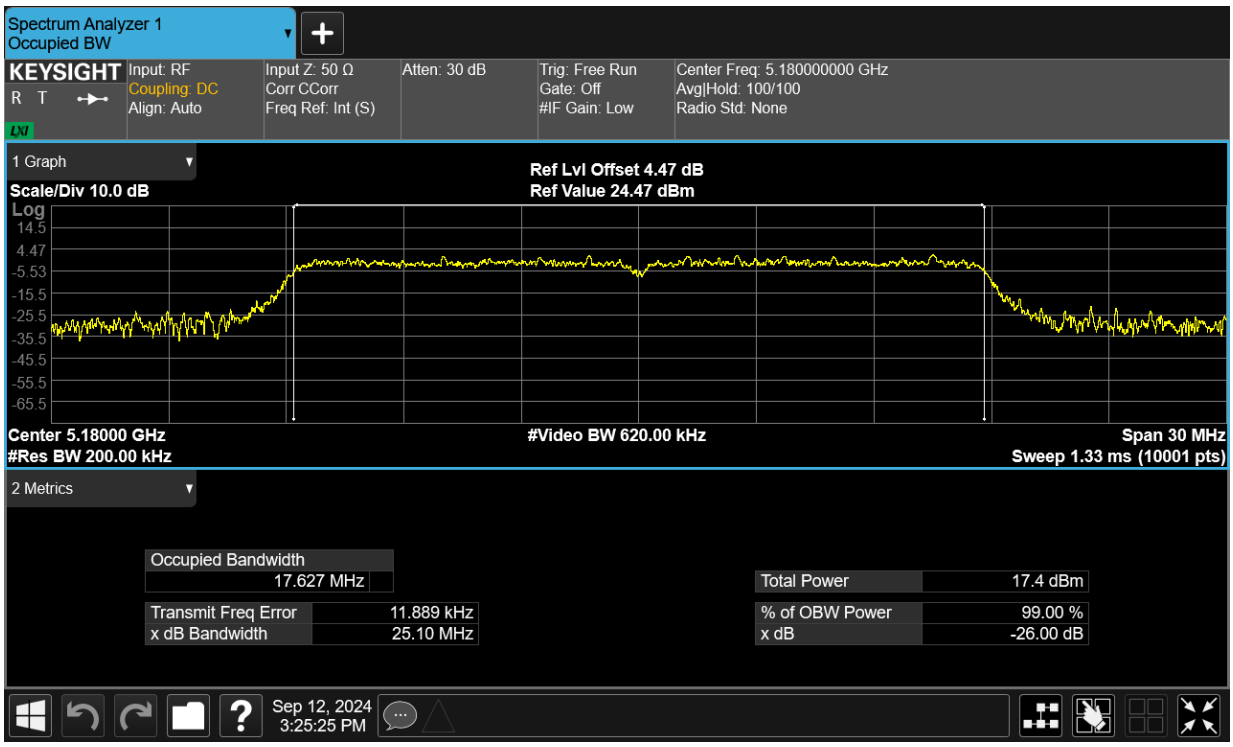
OBW NVNT a 5200MHz Ant1



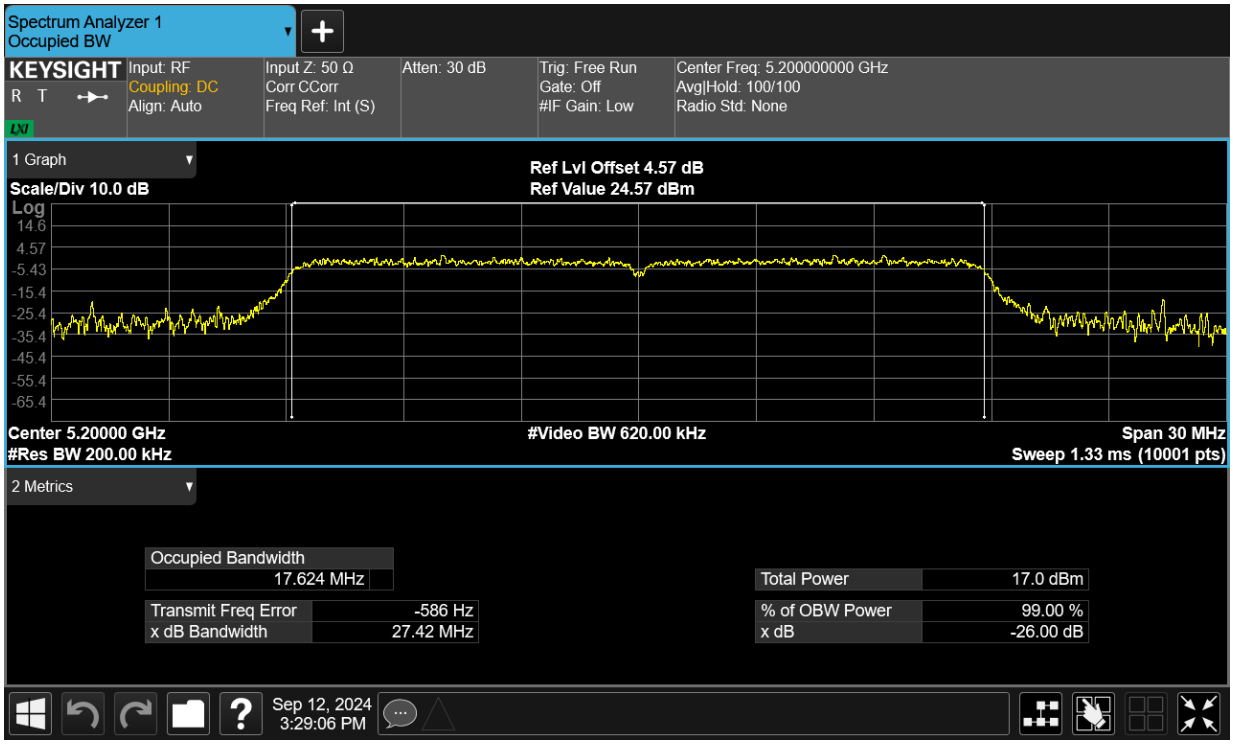
OBW NVNT a 5240MHz Ant1



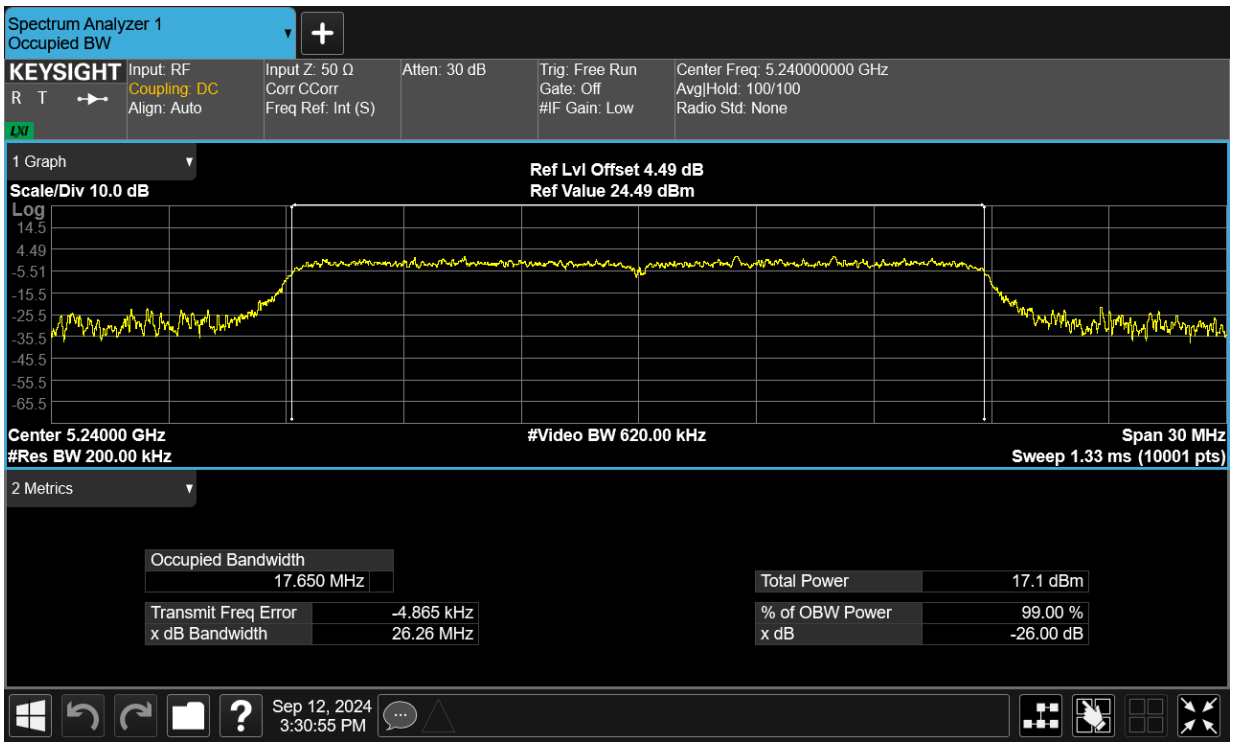
OBW NVNT ac20 5180MHz Ant1



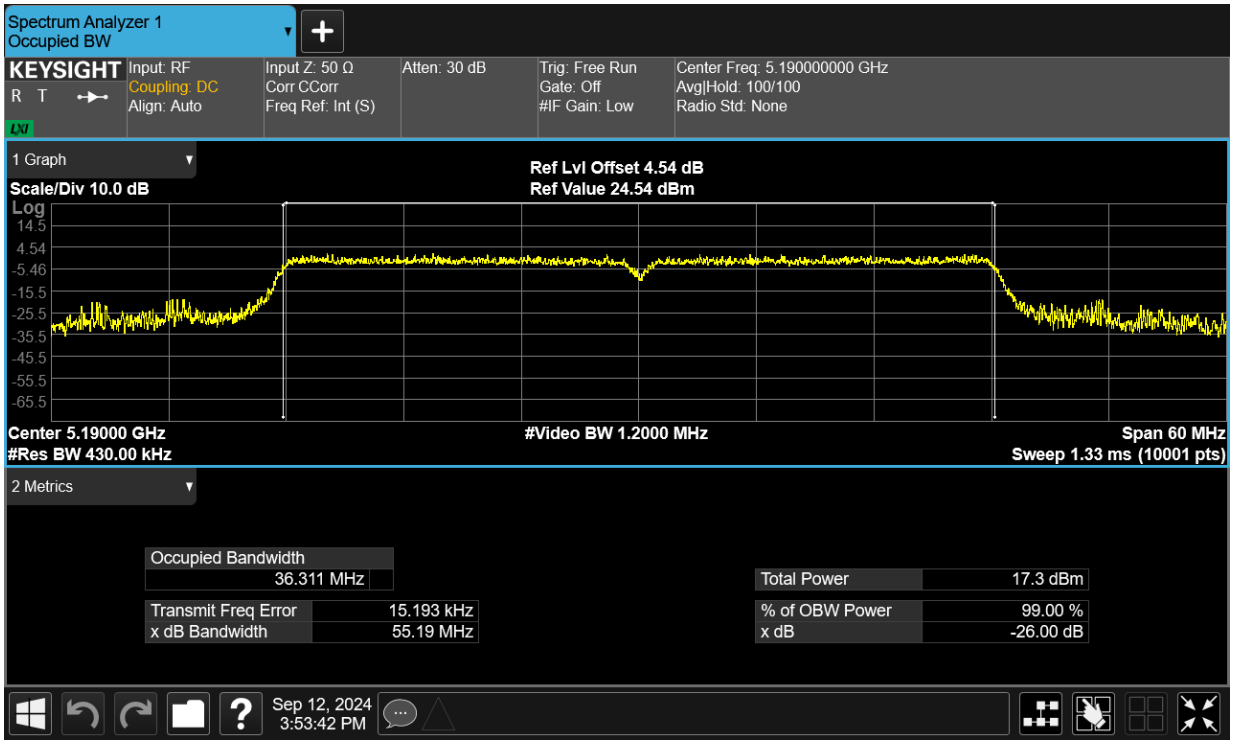
OBW NVNT ac20 5200MHz Ant1



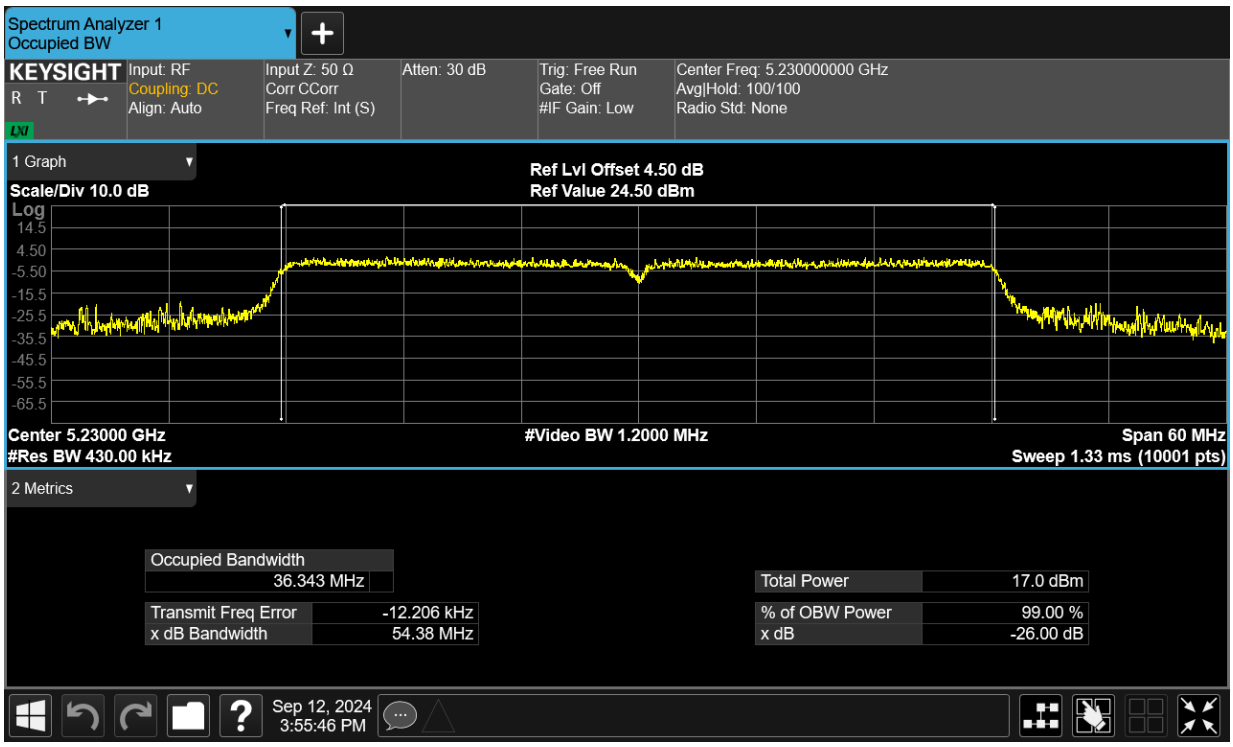
OBW NVNT ac20 5240MHz Ant1



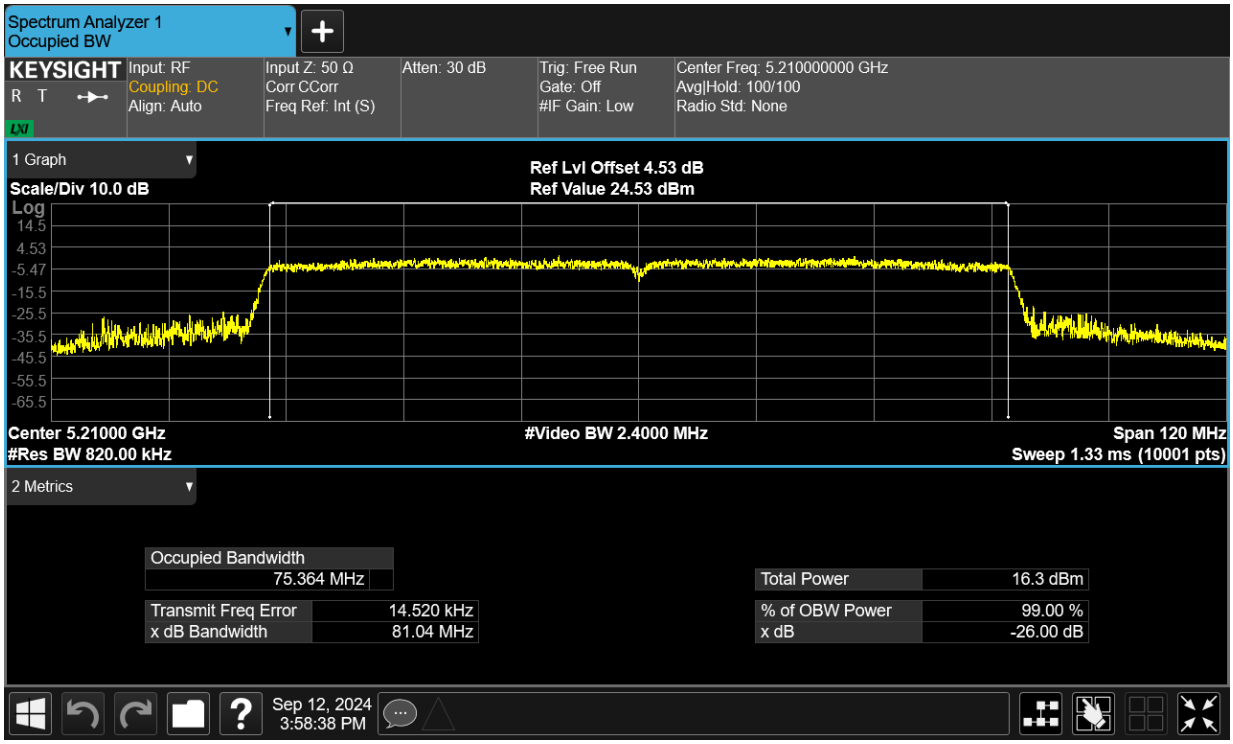
OBW NVNT ac40 5190MHz Ant1



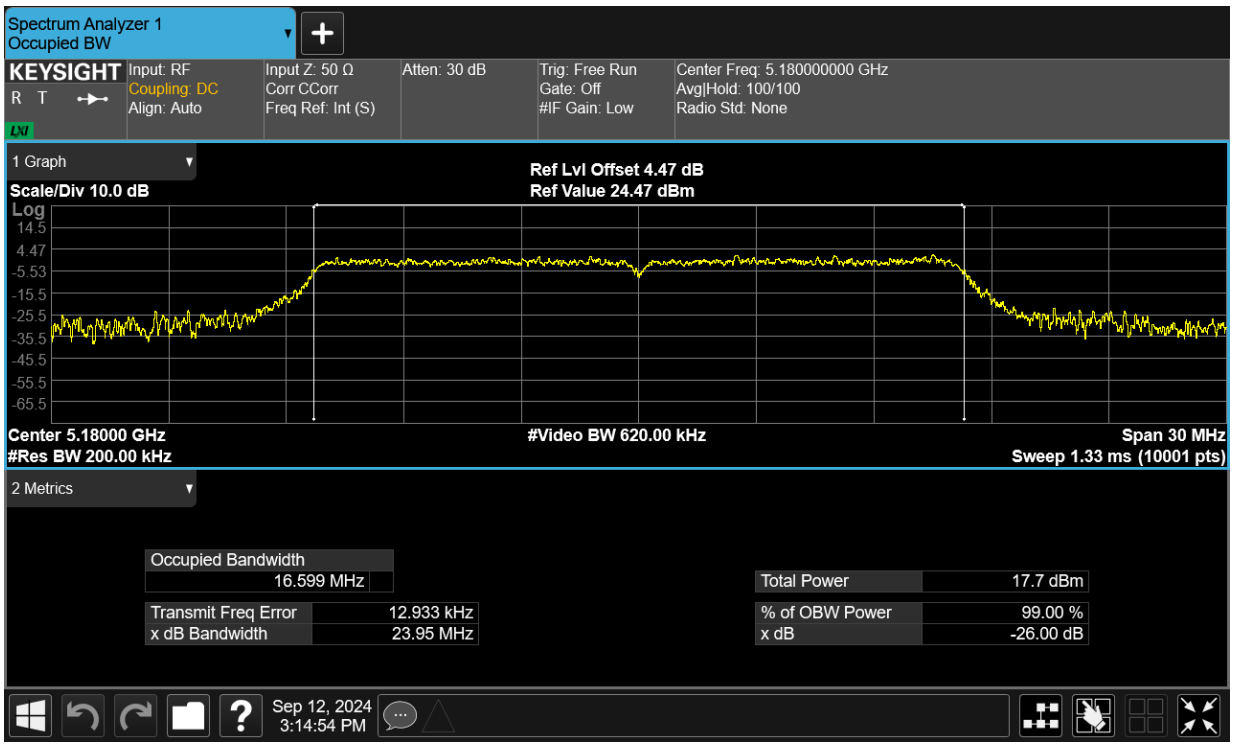
OBW NVNT ac40 5230MHz Ant1



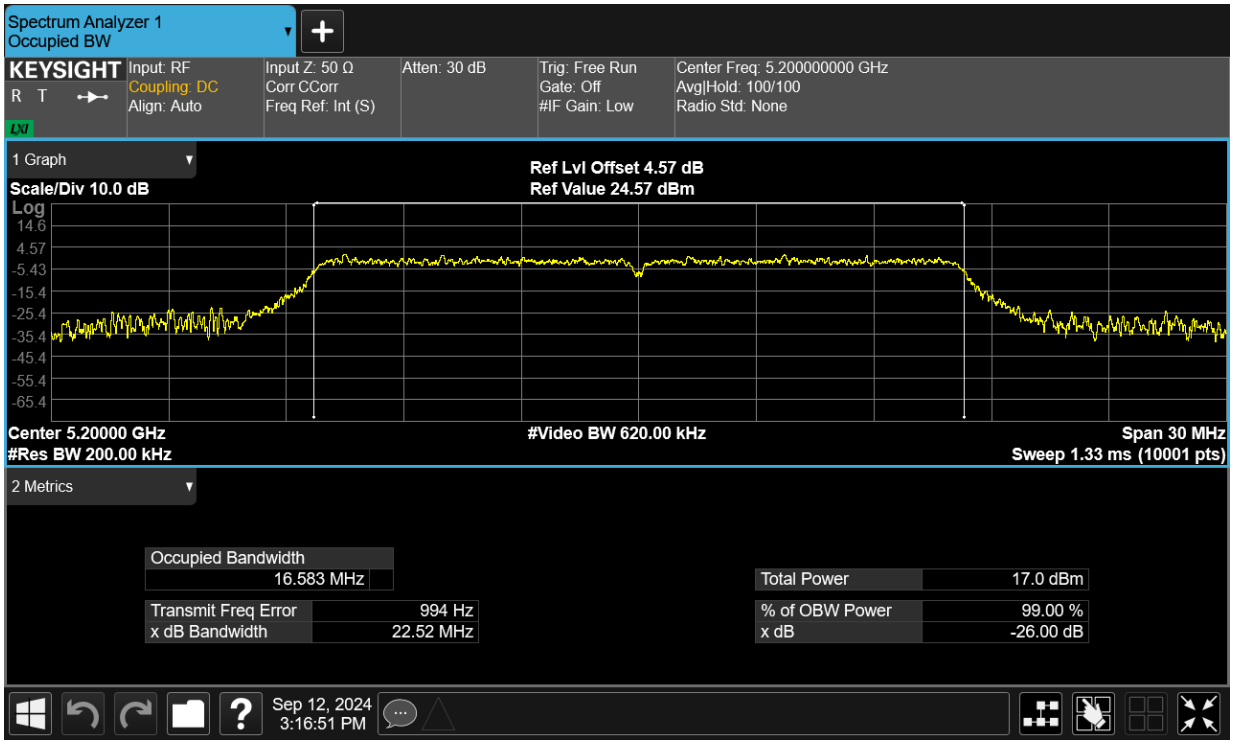
OBW NVNT ac80 5210MHz Ant1



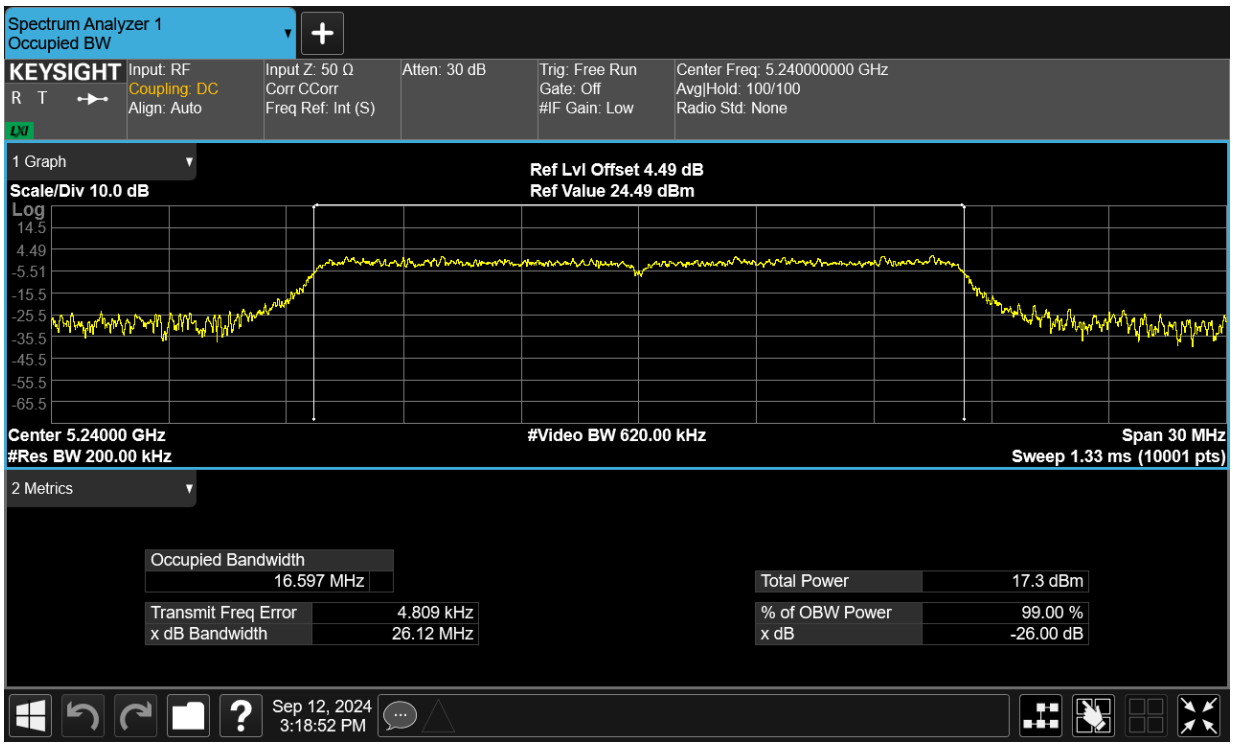
OBW NVNT n20 5180MHz Ant1



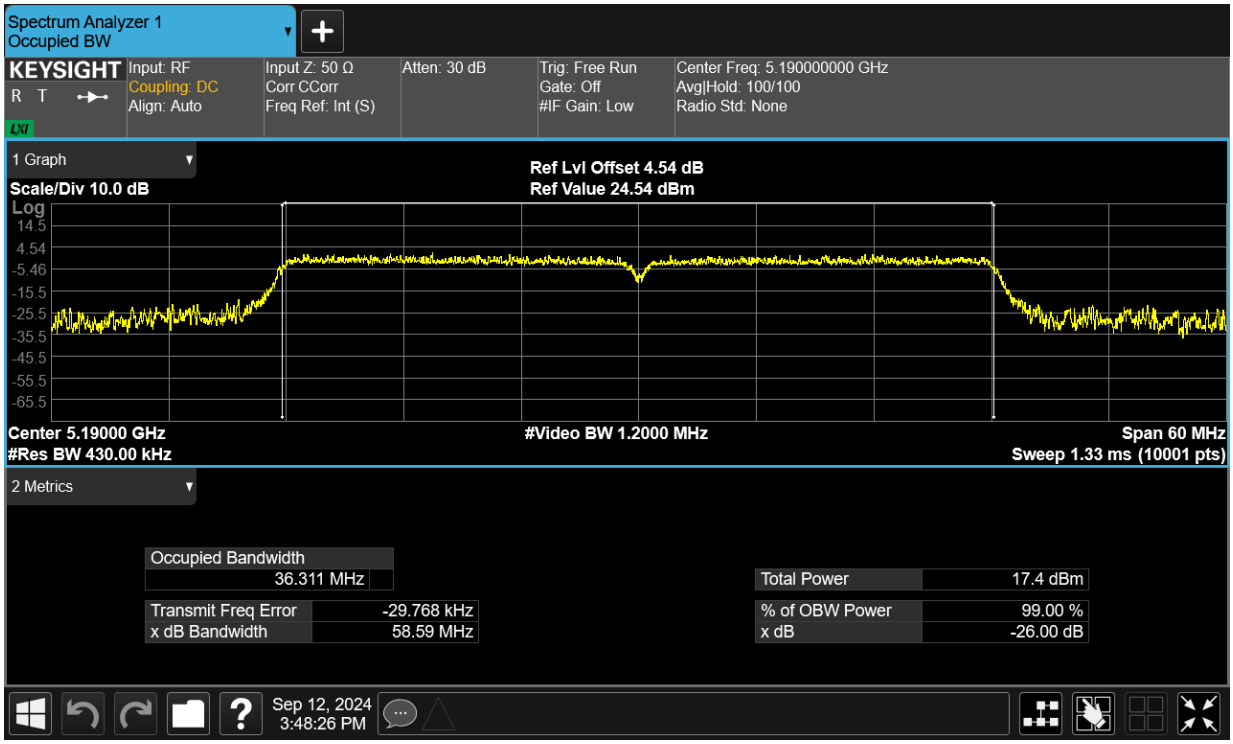
OBW NVNT n20 5200MHz Ant1



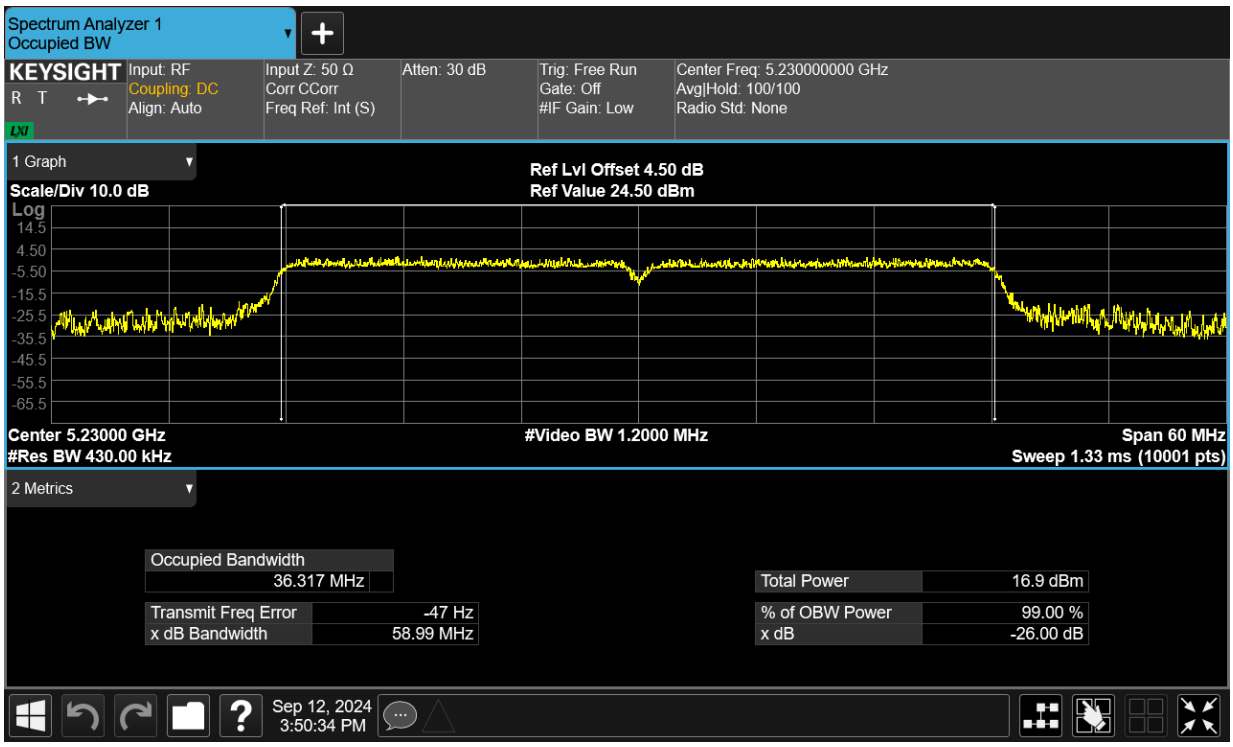
OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



OBW NVNT n40 5230MHz Ant1

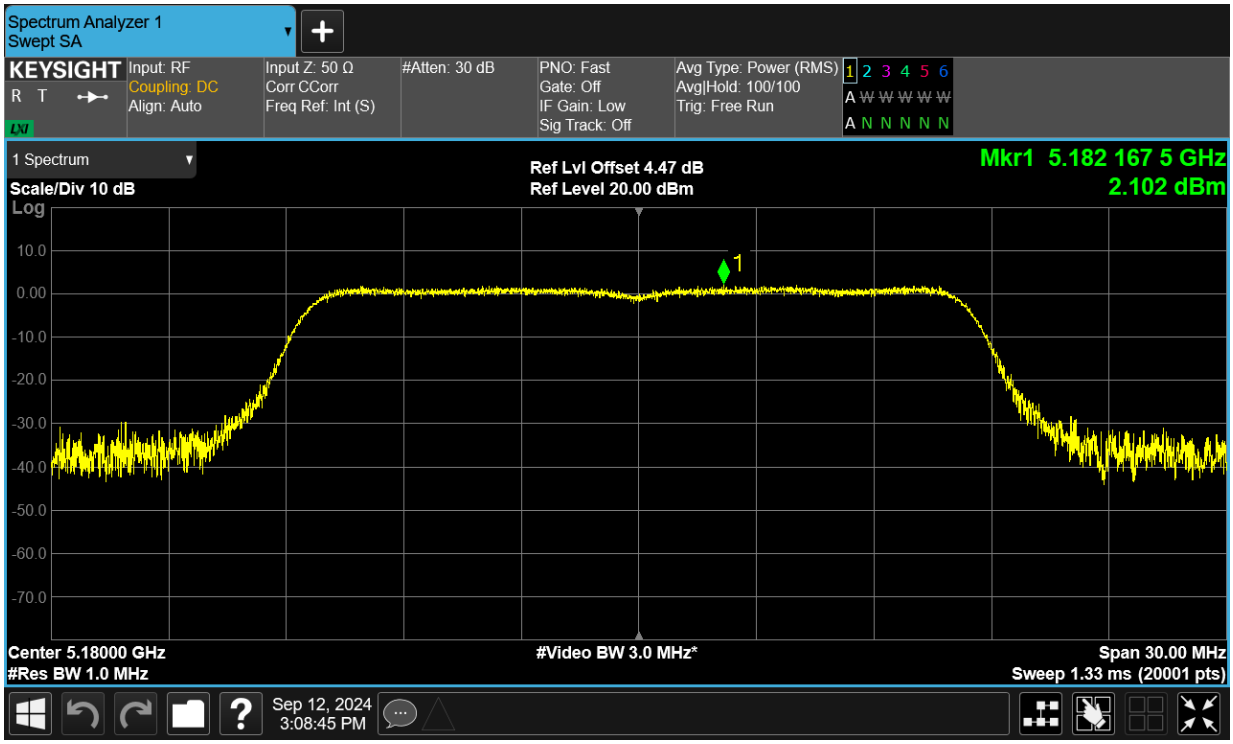


Maximum Power Spectral Density Level

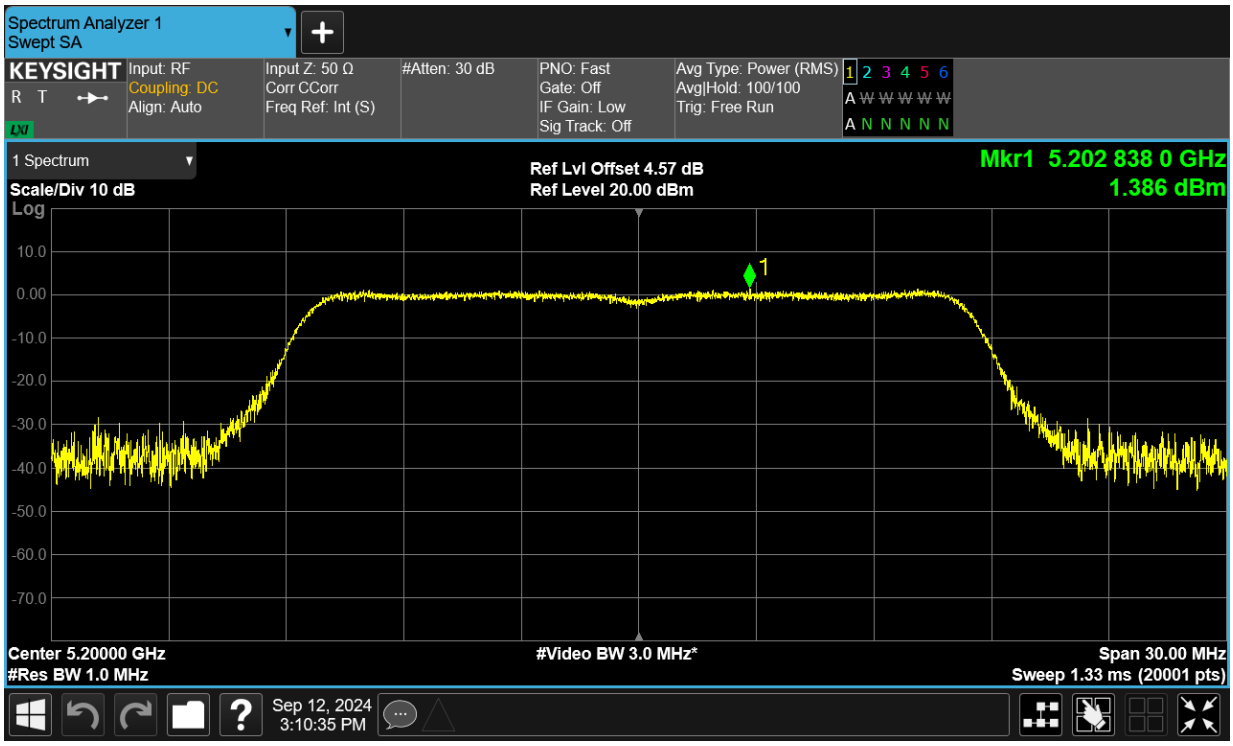
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	2.102	11	Pass
NVNT	a	5200	Ant1	1.386	11	Pass
NVNT	a	5240	Ant1	1.769	11	Pass
NVNT	ac20	5180	Ant1	1.225	11	Pass
NVNT	ac20	5200	Ant1	0.661	11	Pass
NVNT	ac20	5240	Ant1	0.599	11	Pass
NVNT	ac40	5190	Ant1	-3.199	11	Pass
NVNT	ac40	5230	Ant1	-3.25	11	Pass
NVNT	ac80	5210	Ant1	-7.886	11	Pass
NVNT	n20	5180	Ant1	1.043	11	Pass
NVNT	n20	5200	Ant1	0.559	11	Pass
NVNT	n20	5240	Ant1	0.756	11	Pass
NVNT	n40	5190	Ant1	-2.809	11	Pass
NVNT	n40	5230	Ant1	-3.07	11	Pass

Test Graphs

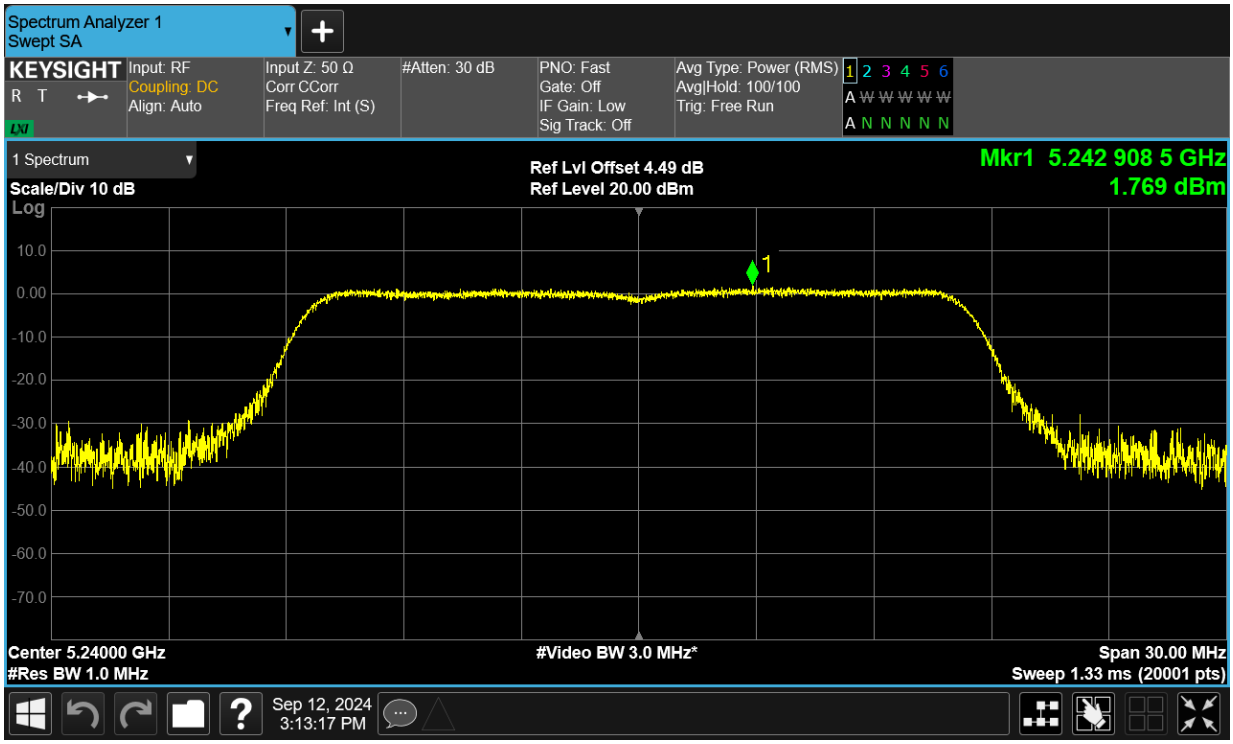
PSD NVNT a 5180MHz Ant1



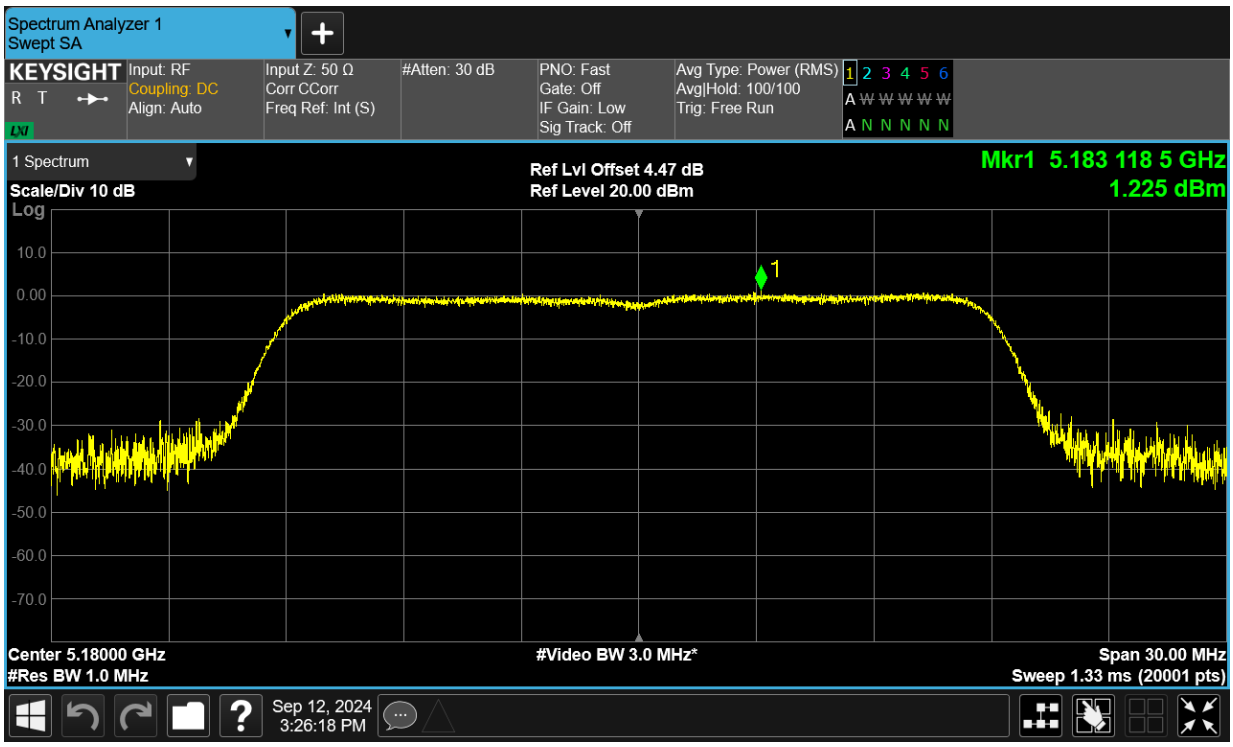
PSD NVNT a 5200MHz Ant1



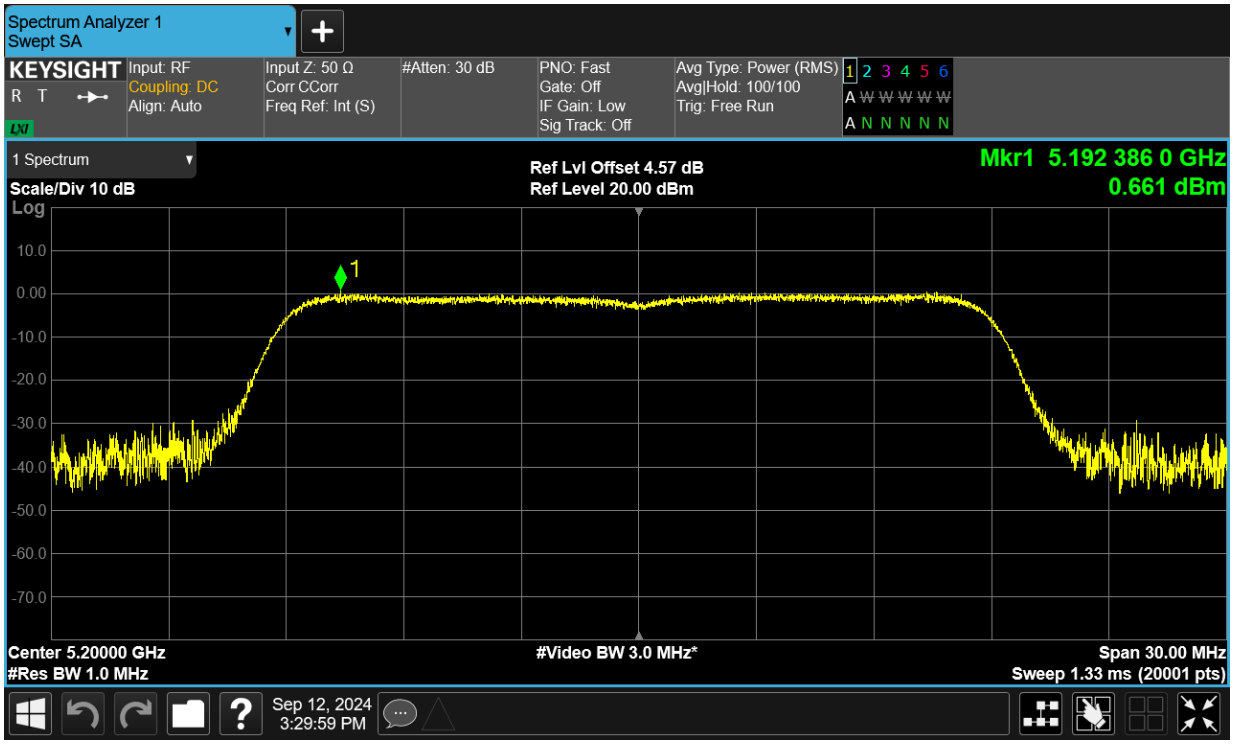
PSD NVNT a 5240MHz Ant1



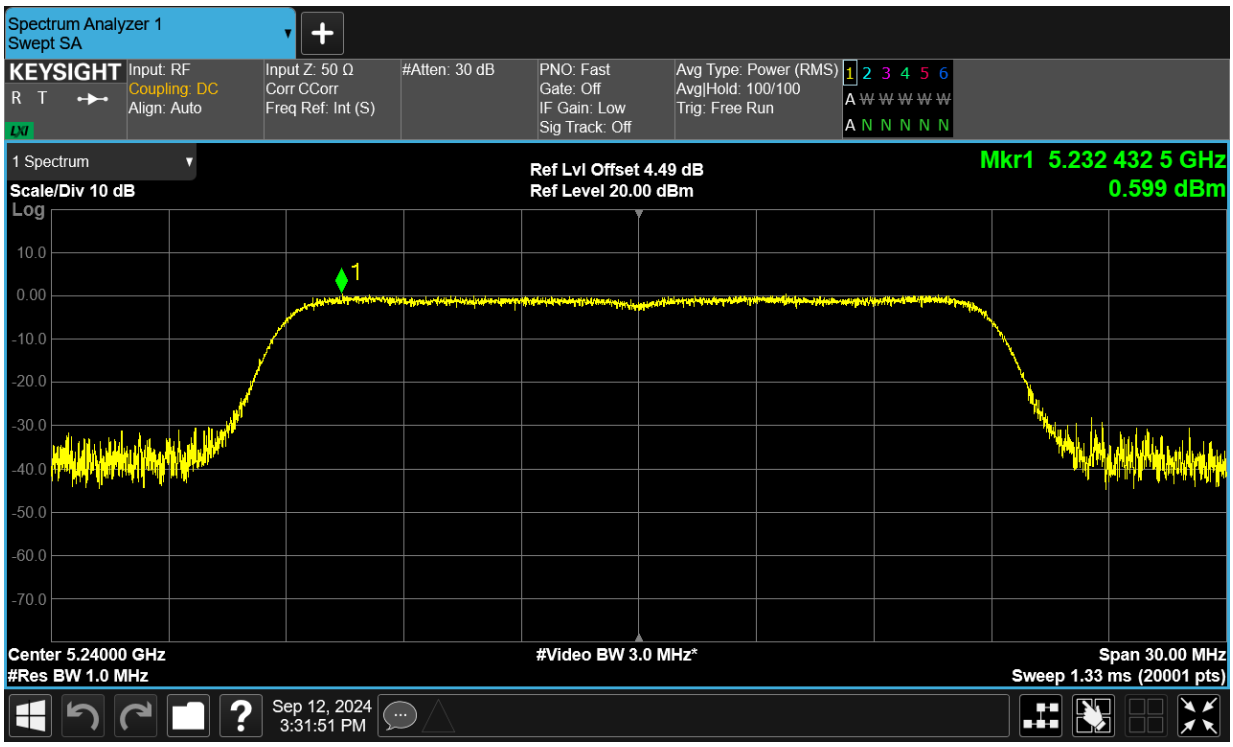
PSD NVNT ac20 5180MHz Ant1



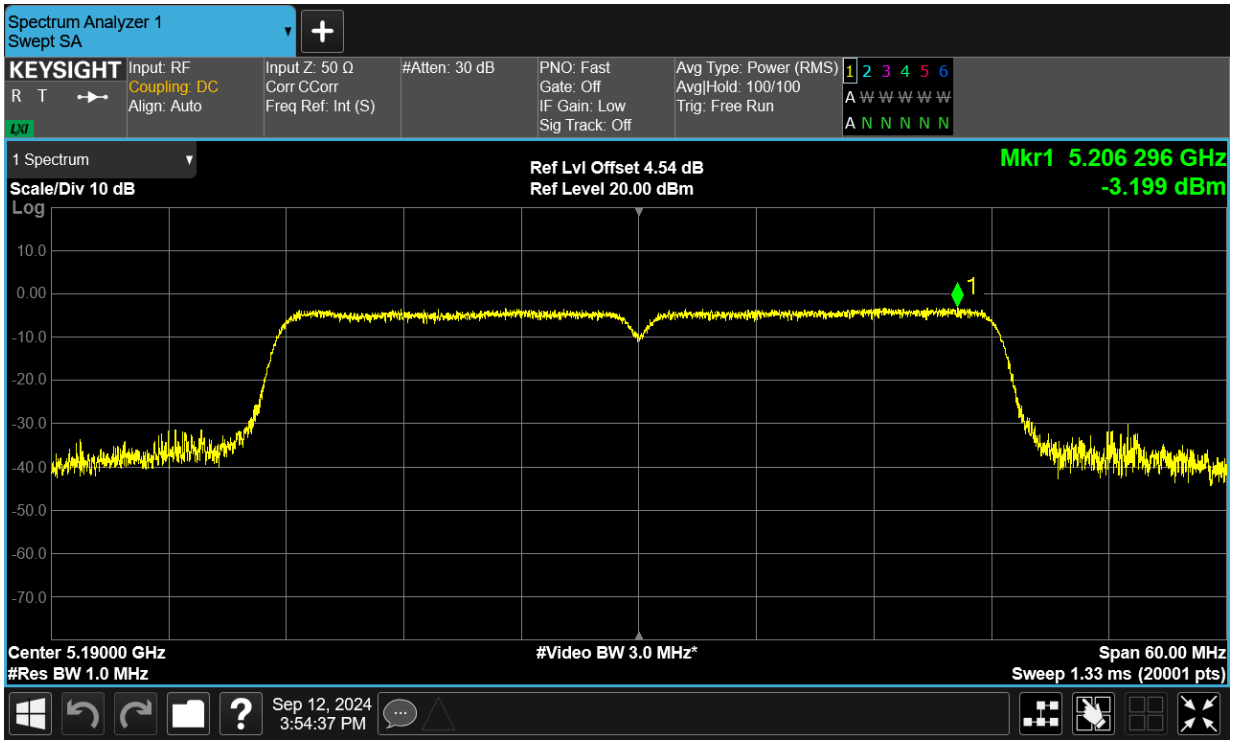
PSD NVNT ac20 5200MHz Ant1



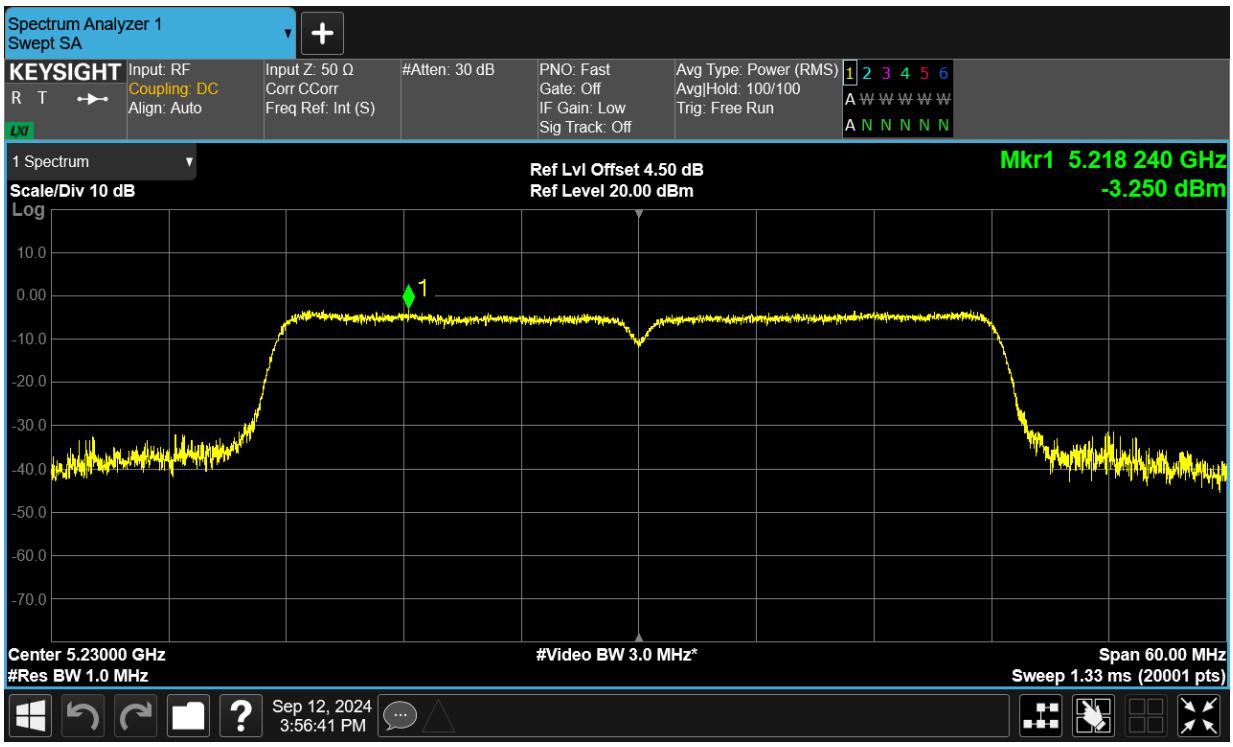
PSD NVNT ac20 5240MHz Ant1



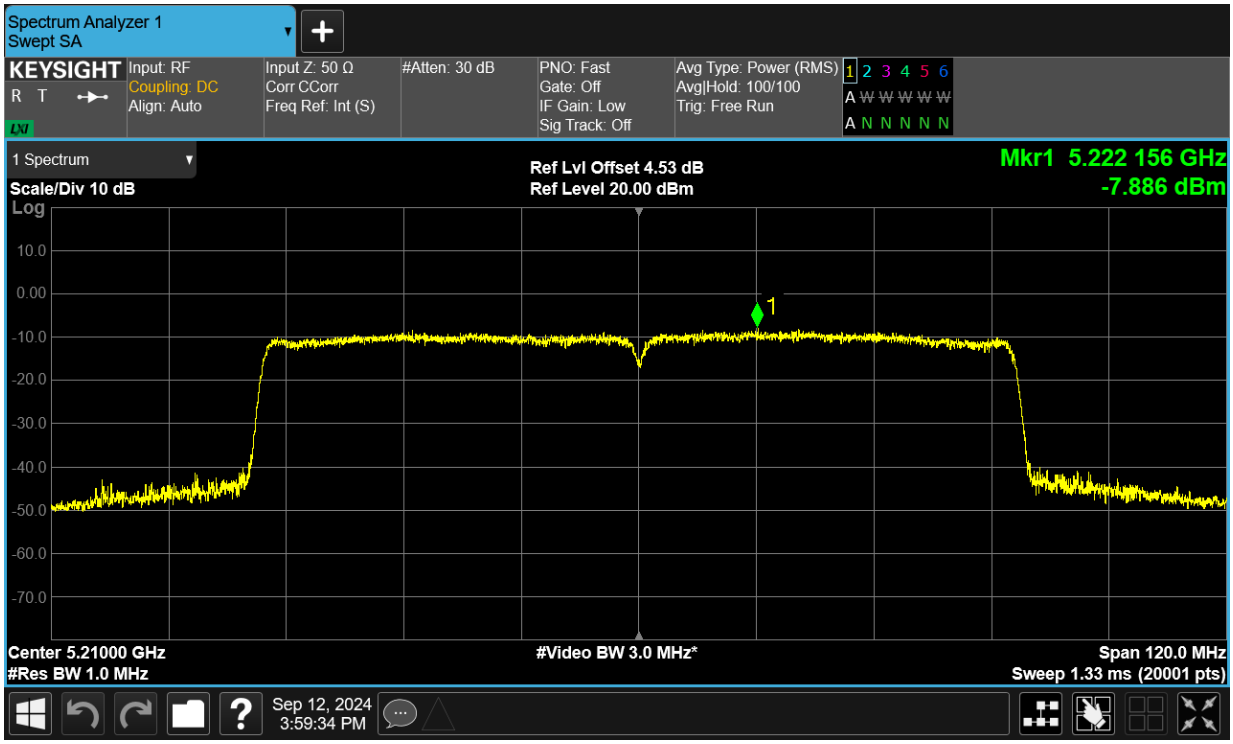
PSD NVNT ac40 5190MHz Ant1



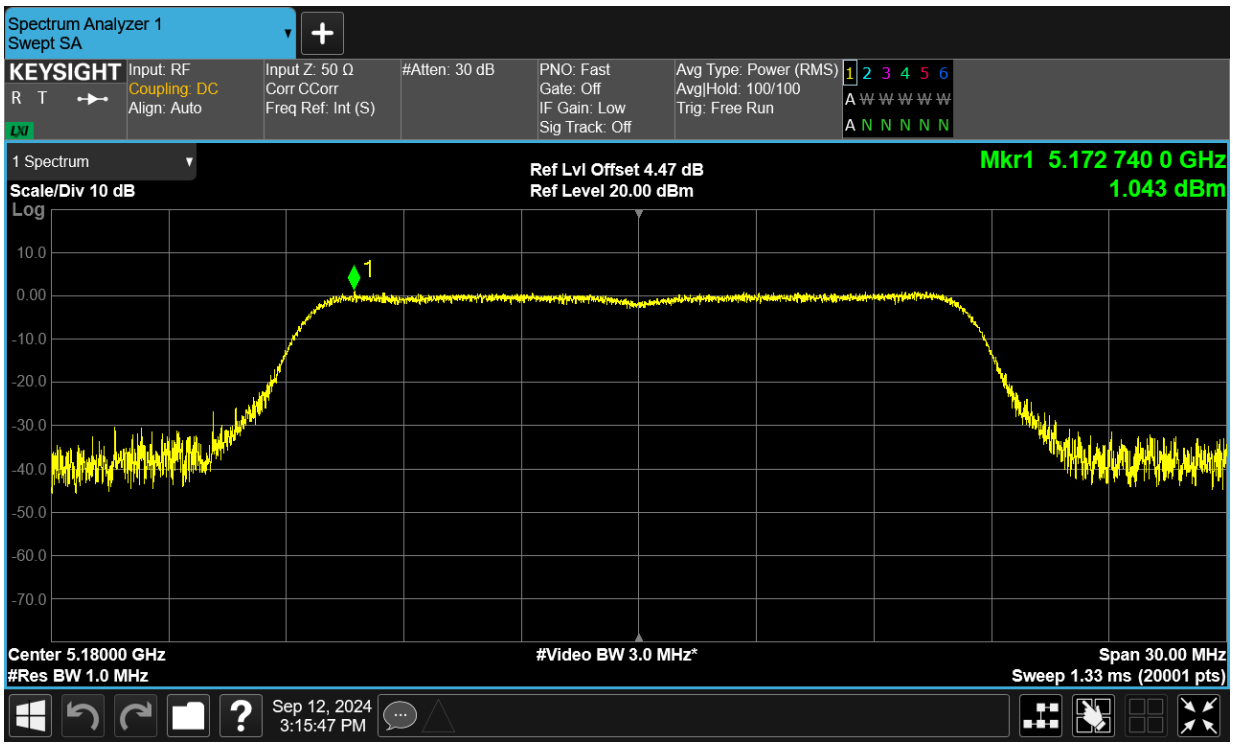
PSD NVNT ac40 5230MHz Ant1



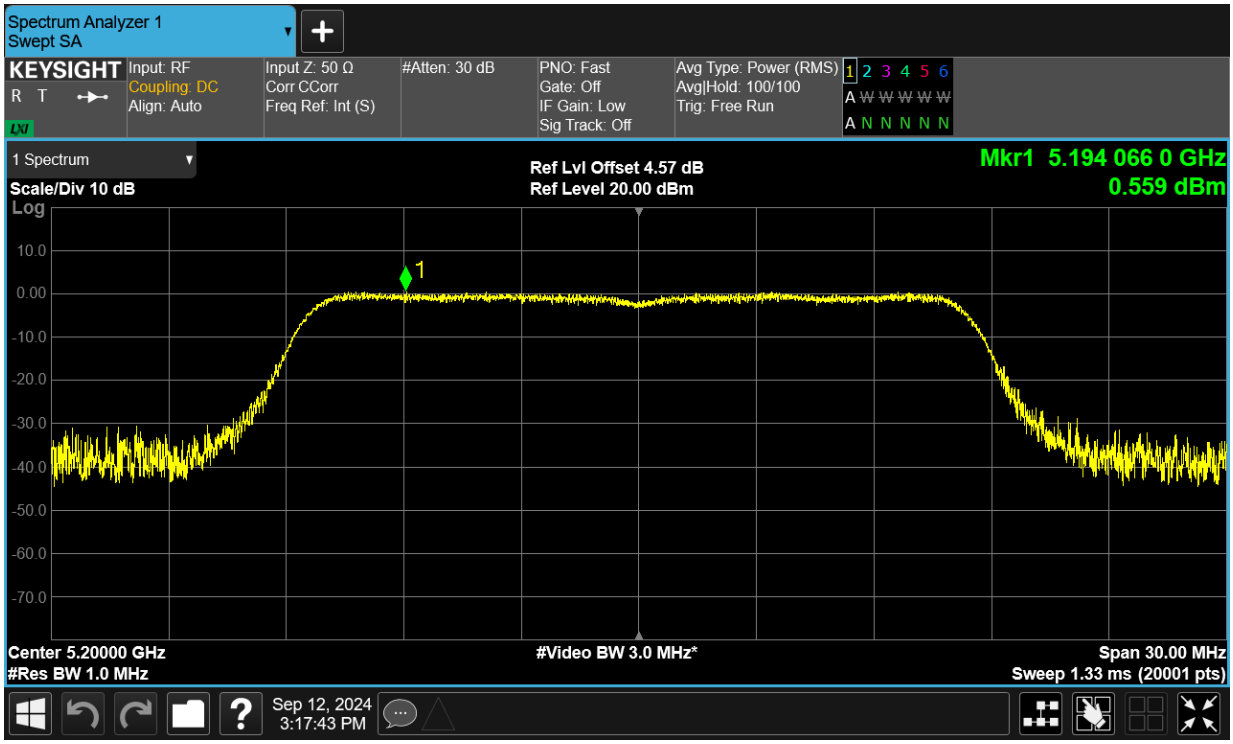
PSD NVNT ac80 5210MHz Ant1



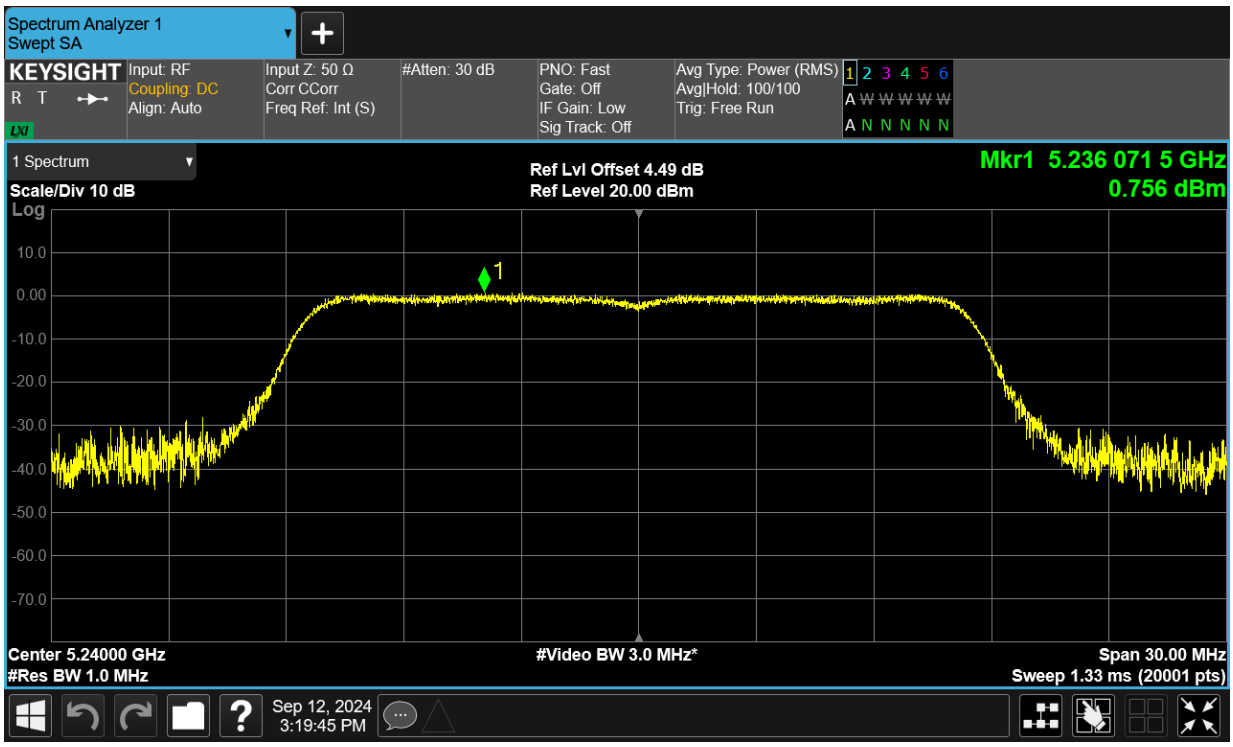
PSD NVNT n20 5180MHz Ant1



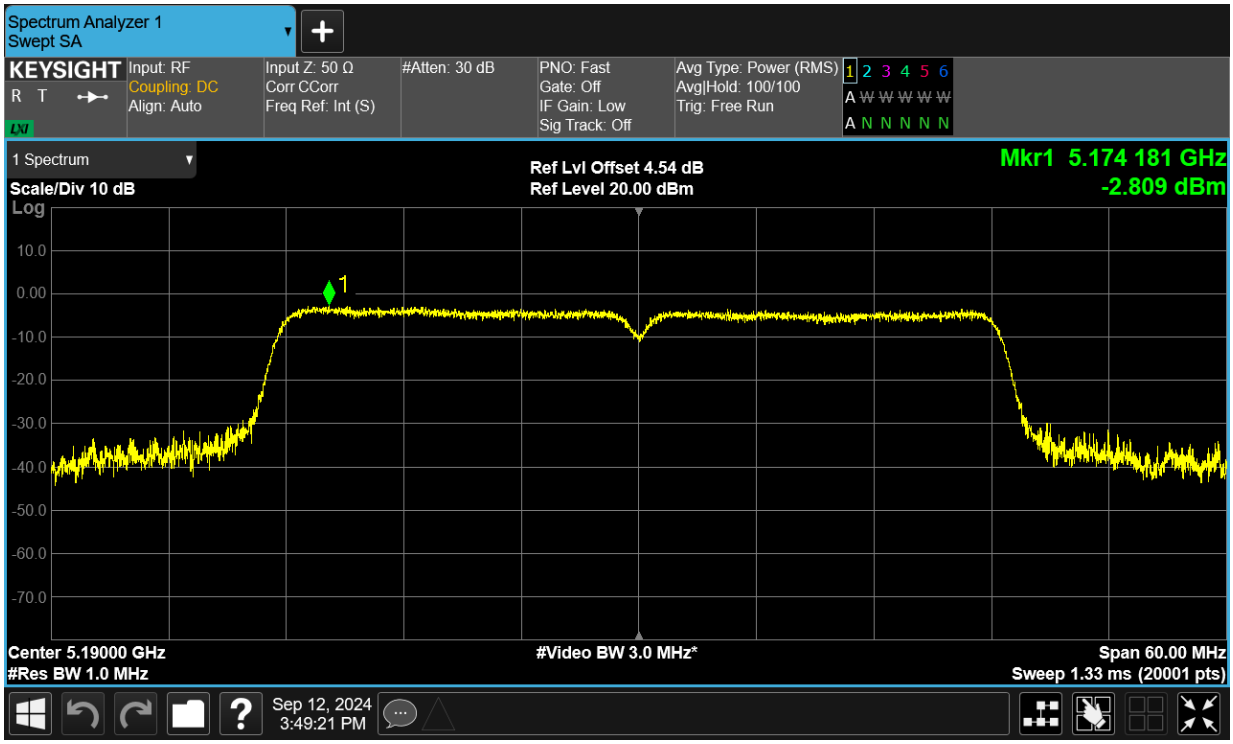
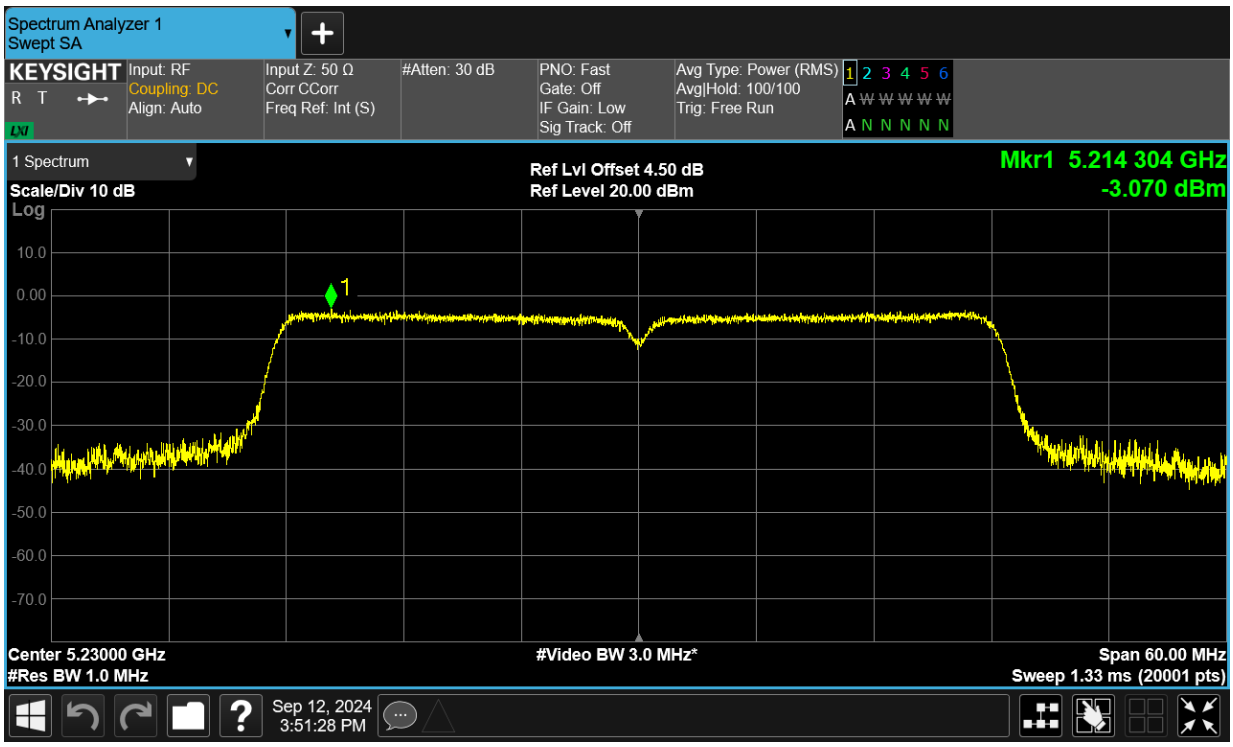
PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1



PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1