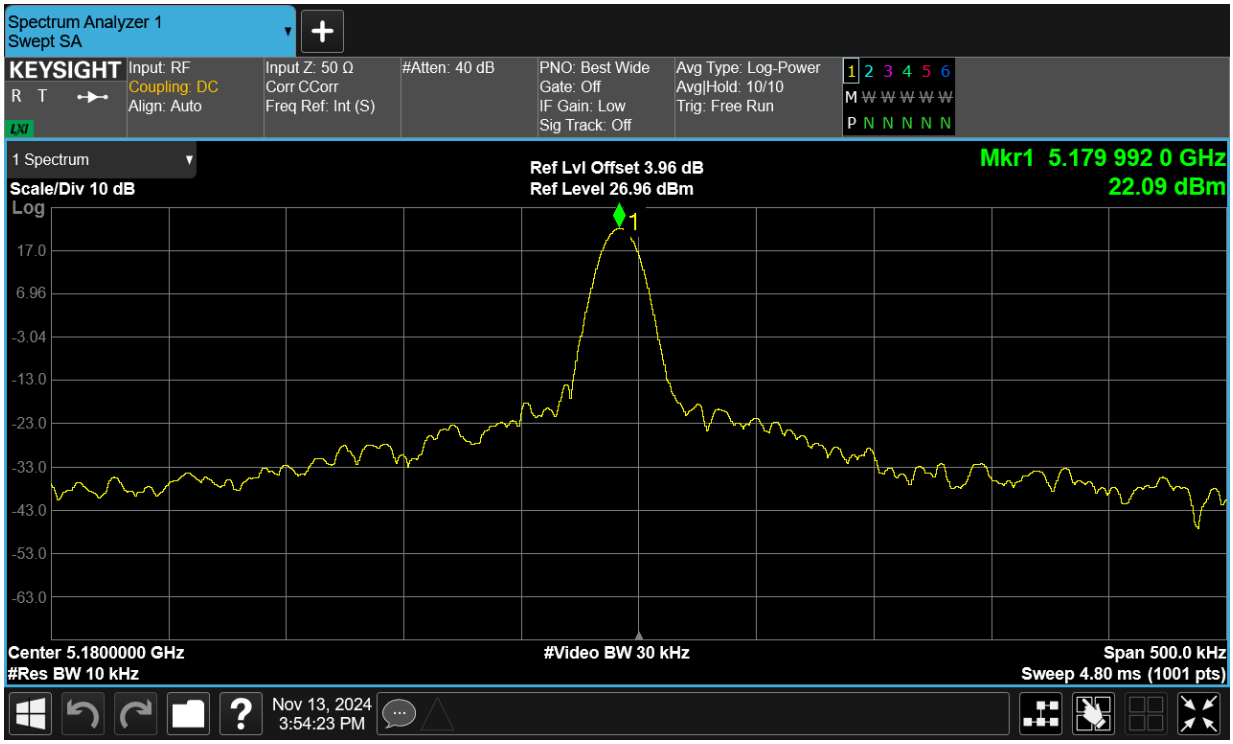
Test Data

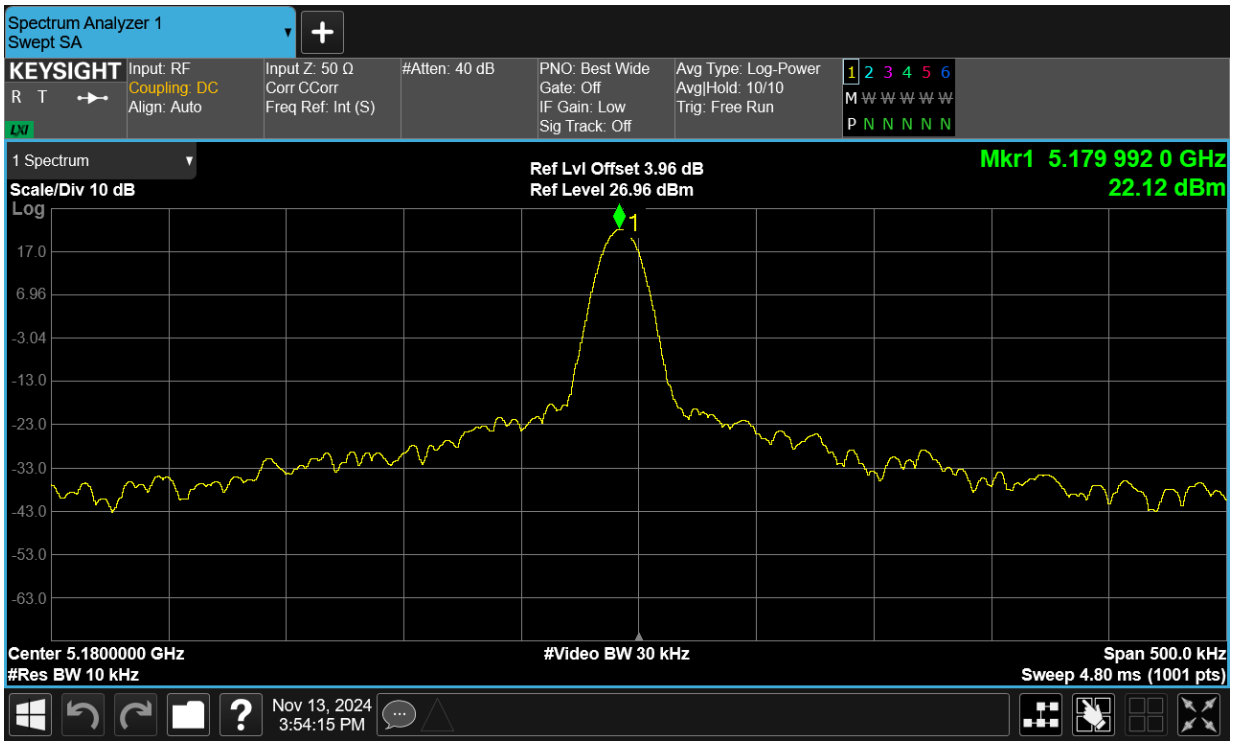
Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
HVNT	a	5180	Ant1	5179.992	-1.54	Within authorized band	Pass
LVNT	a	5180	Ant1	5179.992	-1.54		Pass
NVHT	a	5180	Ant1	5179.9925	-1.45		Pass
NVLT	a	5180	Ant1	5179.9935	-1.25		Pass
NVNT	a	5180	Ant1	5179.9945	-1.06		Pass
HVNT	ac80	5210	Ant1	5209.9905	-1.82		Pass
LVNT	ac80	5210	Ant1	5209.9905	-1.82		Pass
NVHT	ac80	5210	Ant1	5209.991	-1.73		Pass
NVLT	ac80	5210	Ant1	5209.9915	-1.63		Pass
NVNT	ac80	5210	Ant1	5209.991774676	-1.58		Pass
HVNT	n40	5190	Ant1	5189.9915	-1.64		Pass
LVNT	n40	5190	Ant1	5189.992	-1.54		Pass
NVHT	n40	5190	Ant1	5189.9925	-1.45		Pass
NVLT	n40	5190	Ant1	5189.993	-1.35		Pass
NVNT	n40	5190	Ant1	5189.994	-1.16		Pass
Remark: “NTNV” means Normal Temperature Normal Voltage, “NVHT” means Normal Voltage High Temperature, “NVLT” means Normal Voltage LowTemperature, “LVNT” means Low Voltage Normal Temperature, “HVNT” means High Voltage Normal Temperature.							

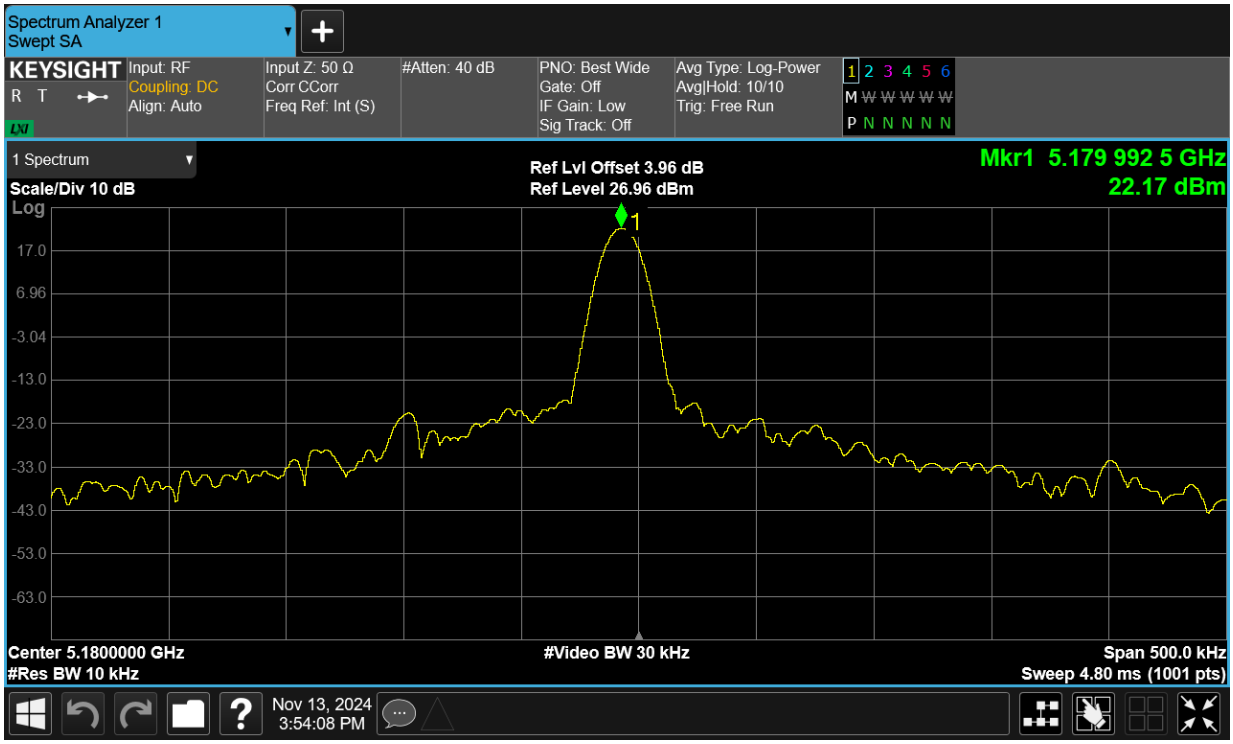
Test Graphs
Freq. Stability HVNT a 5180MHz Ant1



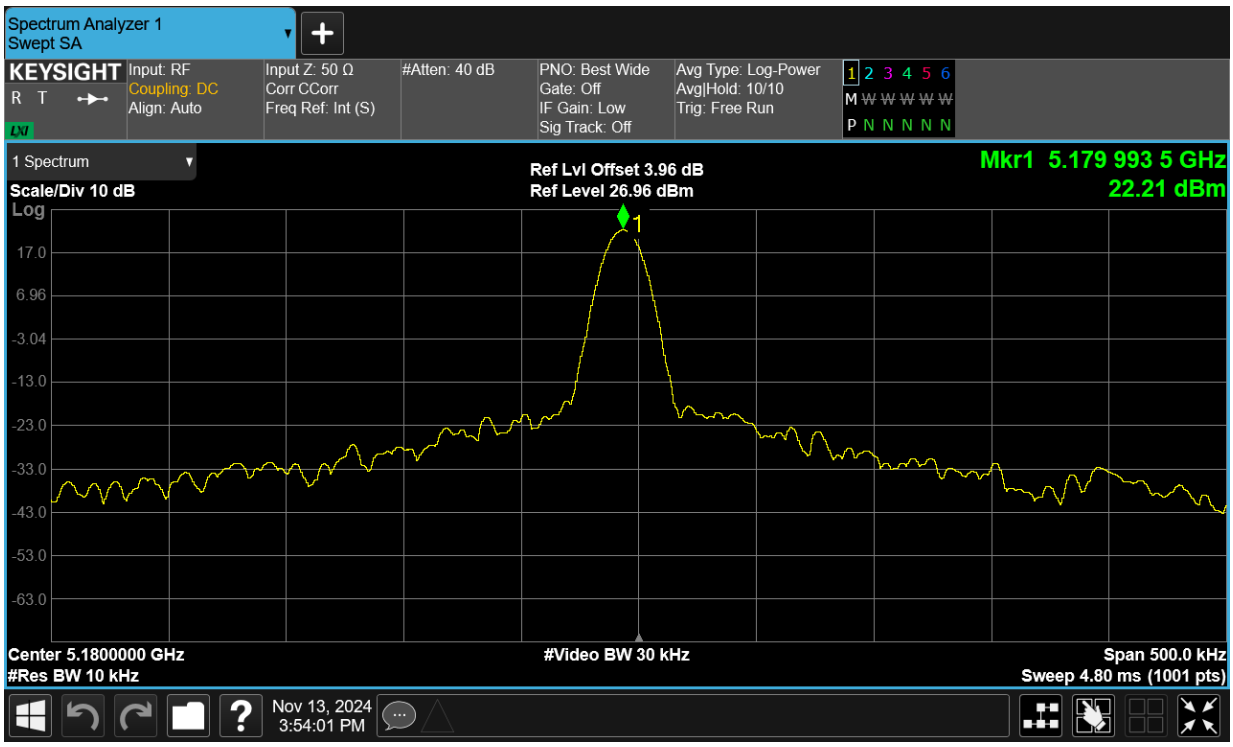
Freq. Stability LVNT a 5180MHz Ant1



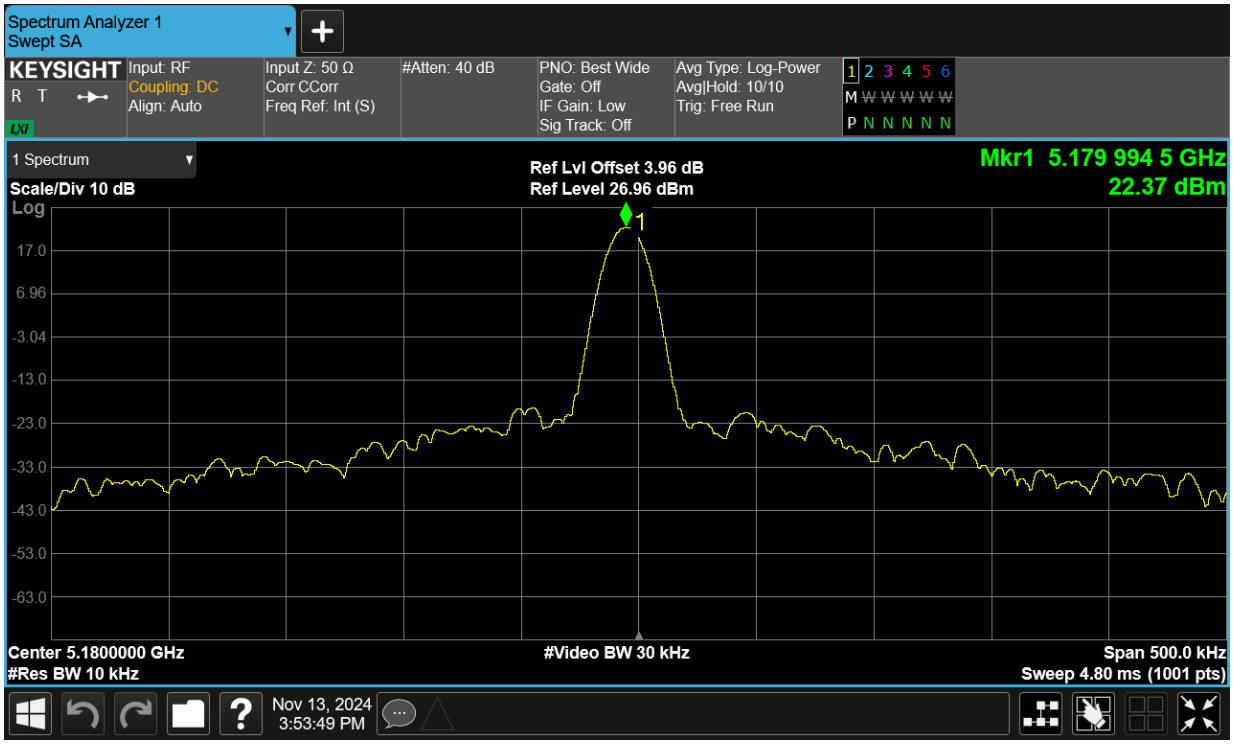
Freq. Stability NVHT a 5180MHz Ant1



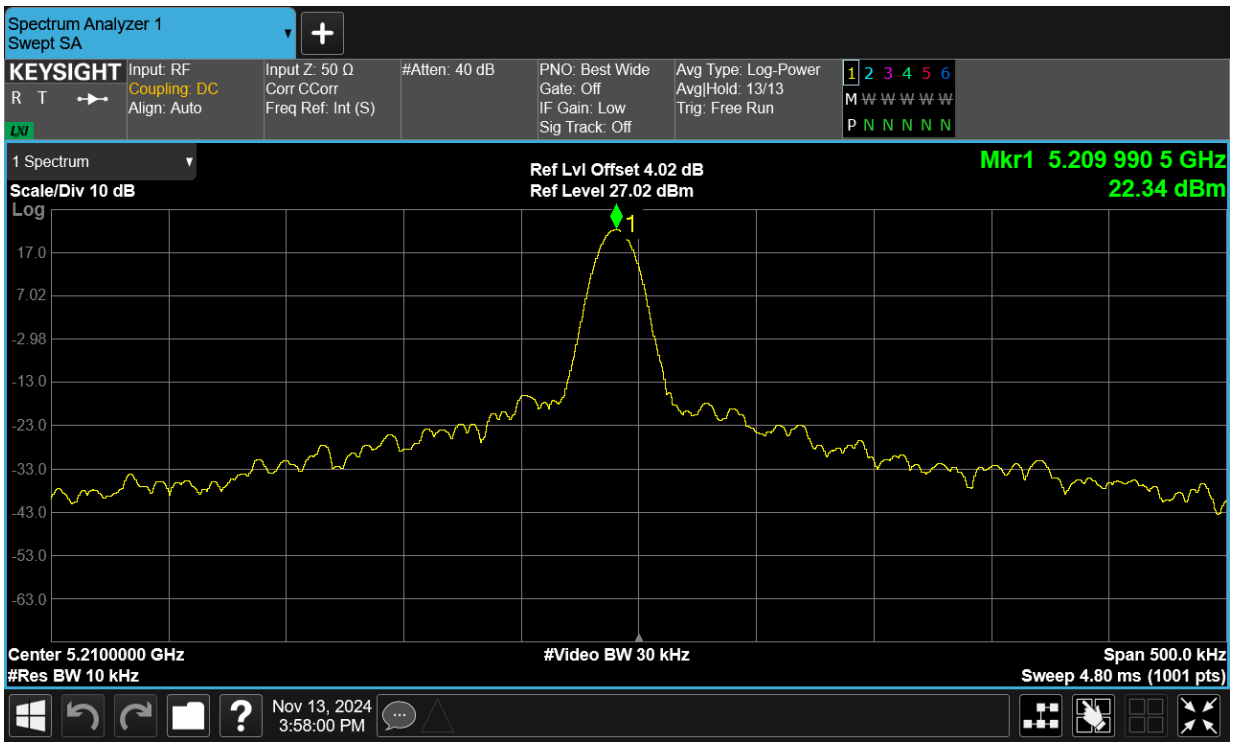
Freq. Stability NVLT a 5180MHz Ant1



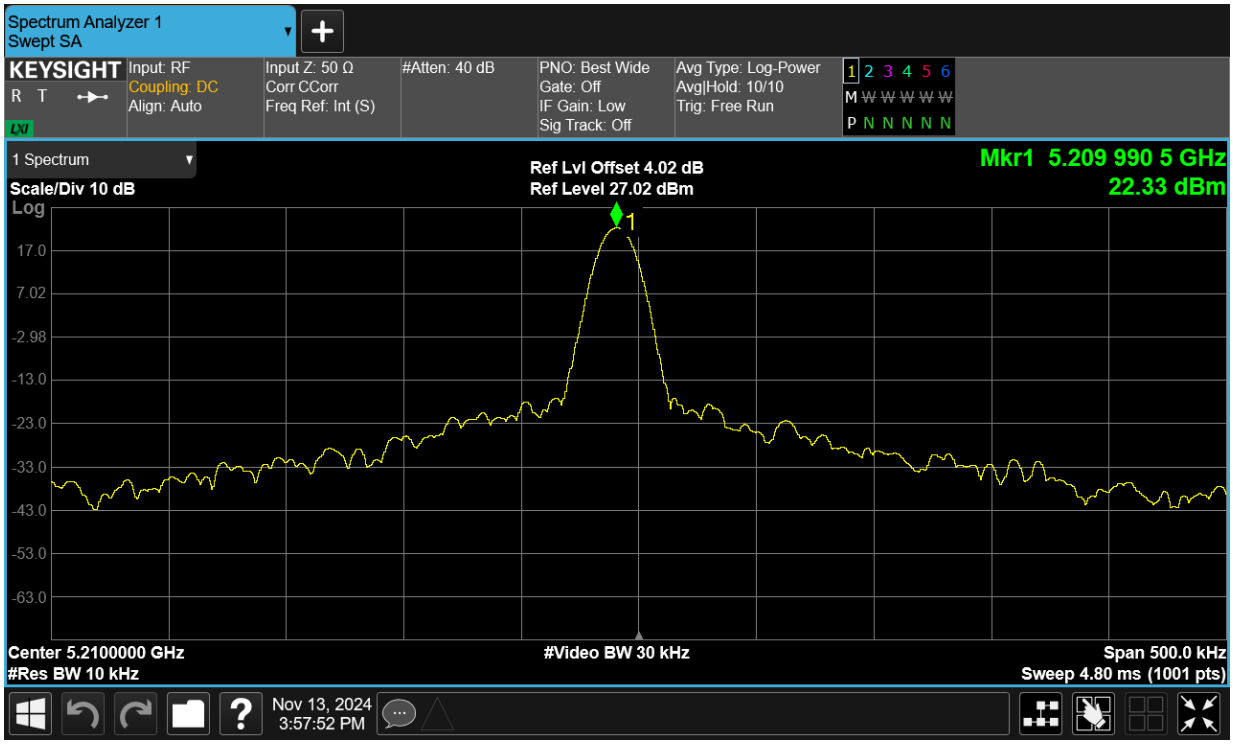
Freq. Stability NVNT a 5180MHz Ant1



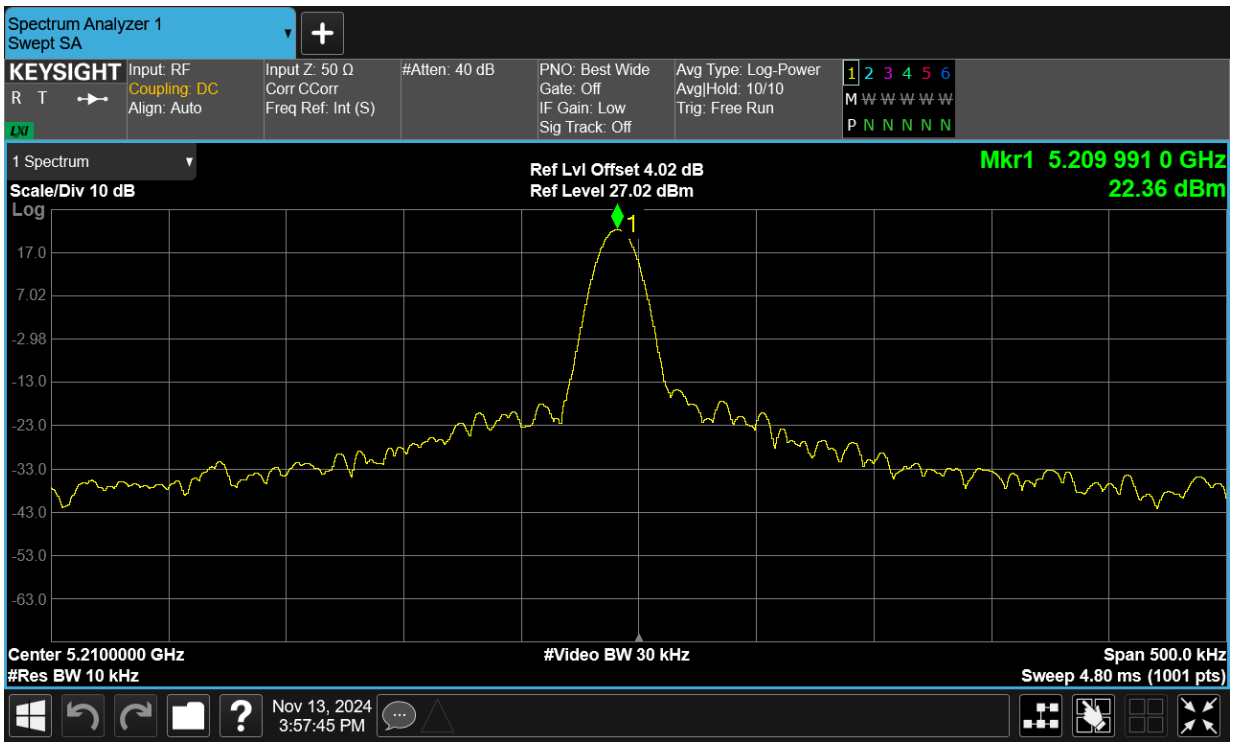
Freq. Stability HVNT ac80 5210MHz Ant1



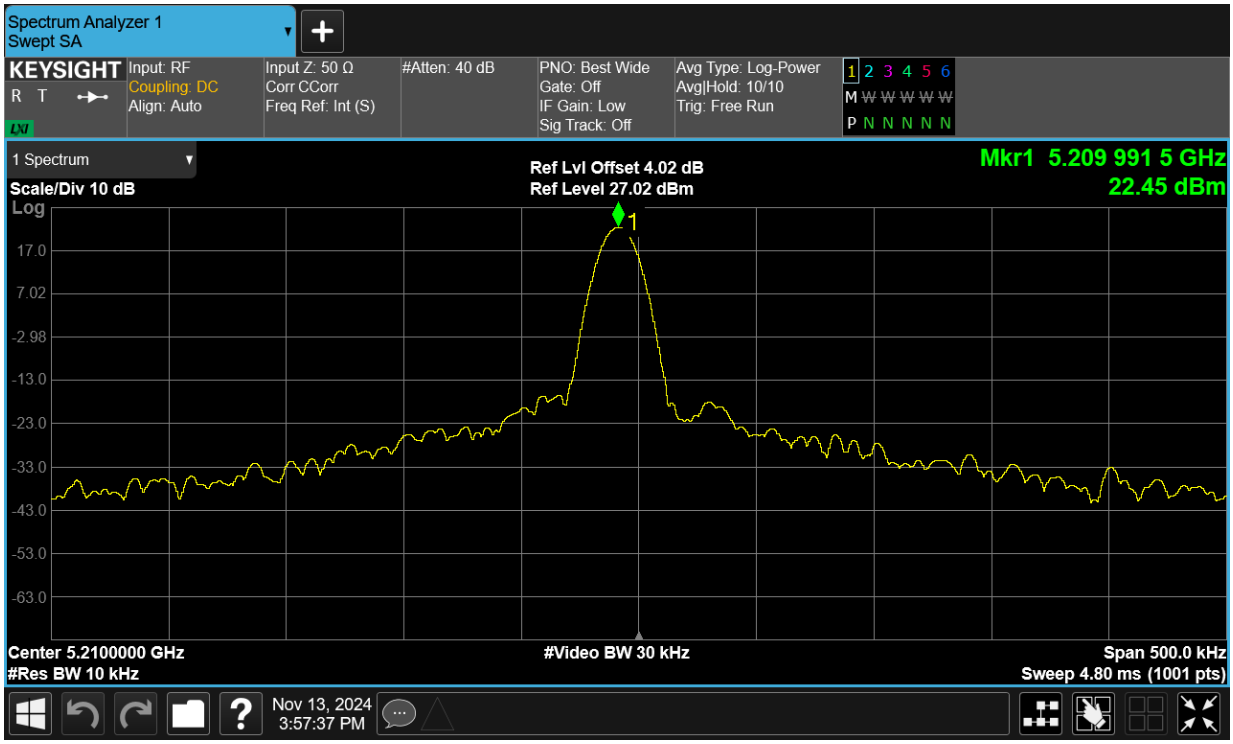
Freq. Stability LVNT ac80 5210MHz Ant1



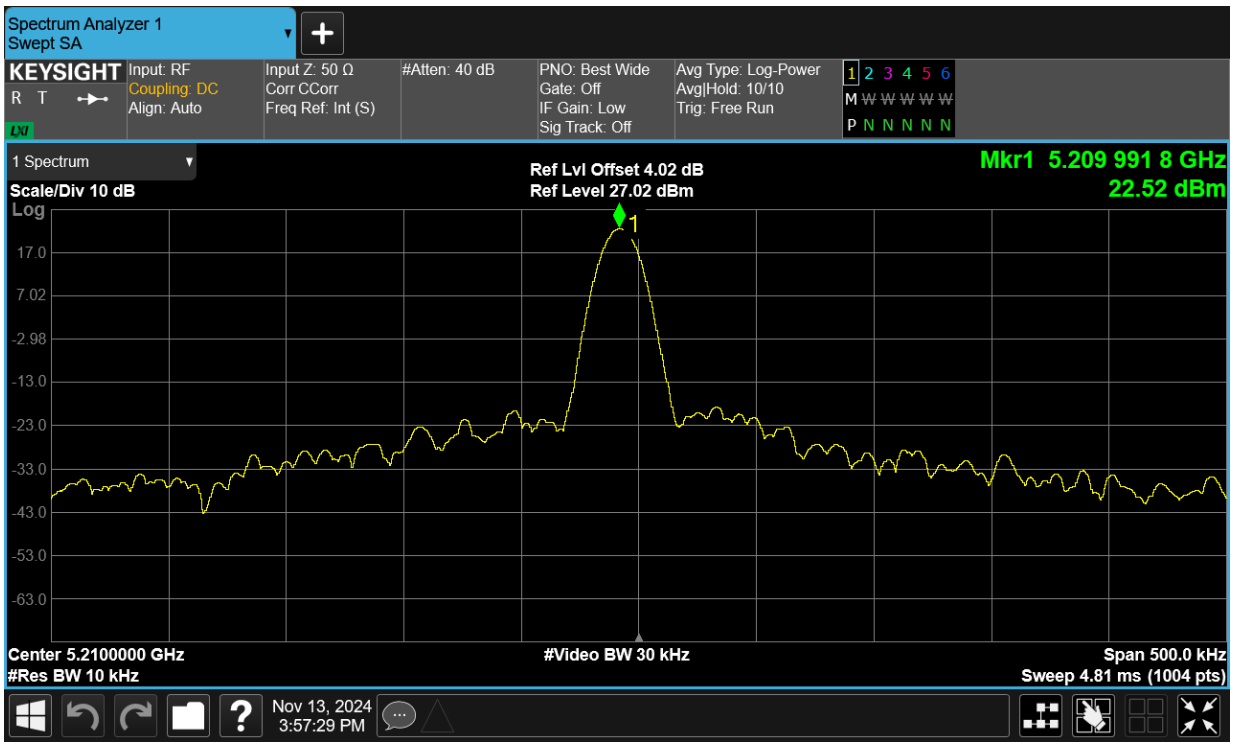
Freq. Stability NVHT ac80 5210MHz Ant1



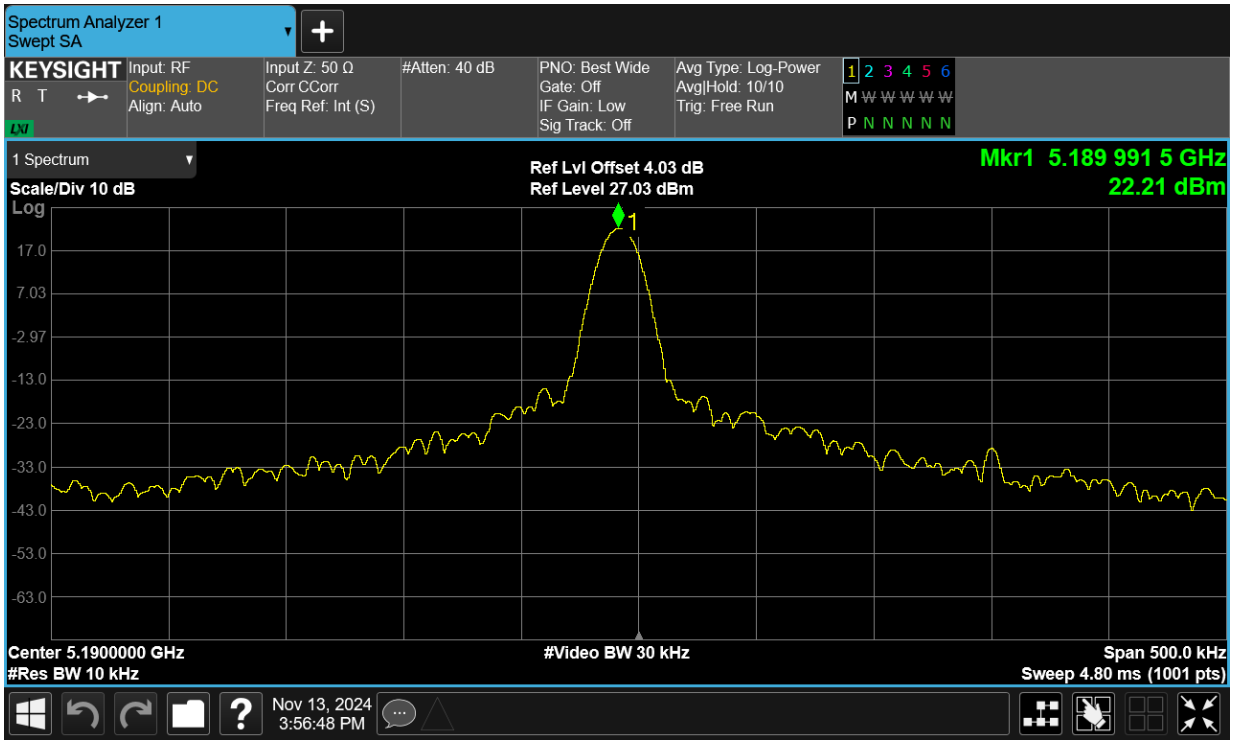
Freq. Stability NVLT ac80 5210MHz Ant1



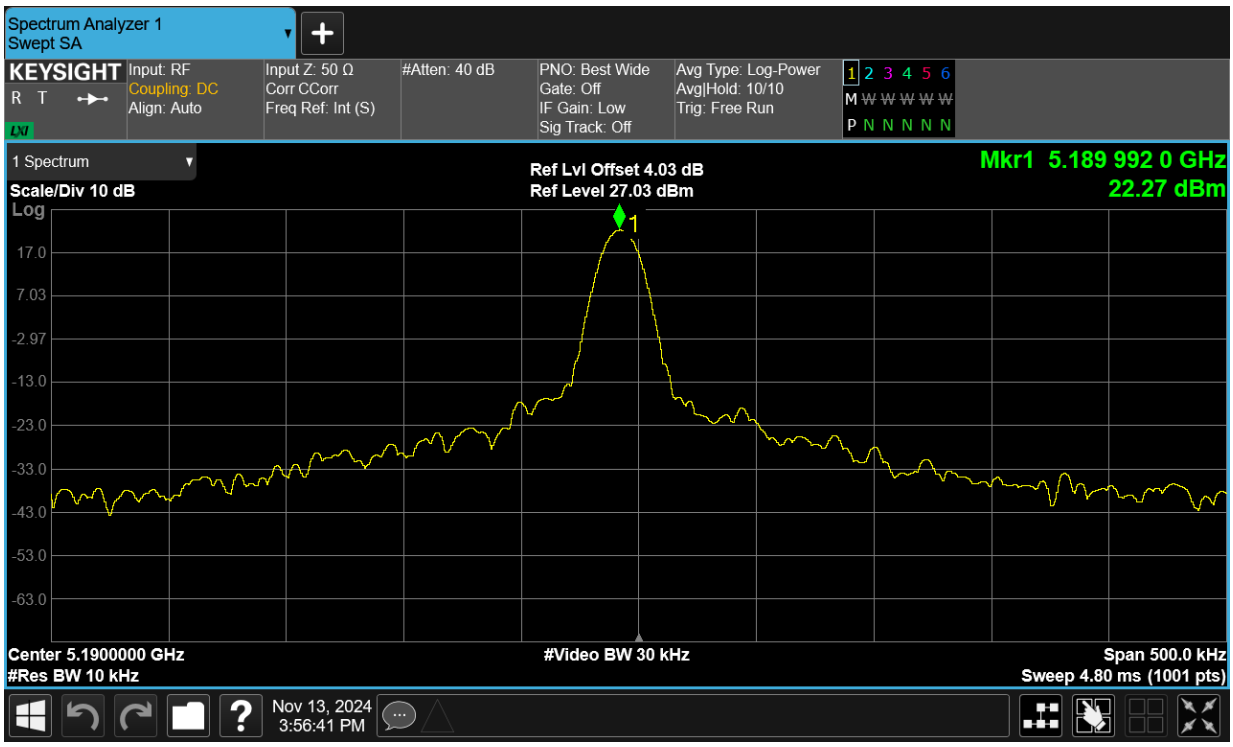
Freq. Stability NVNT ac80 5210MHz Ant1



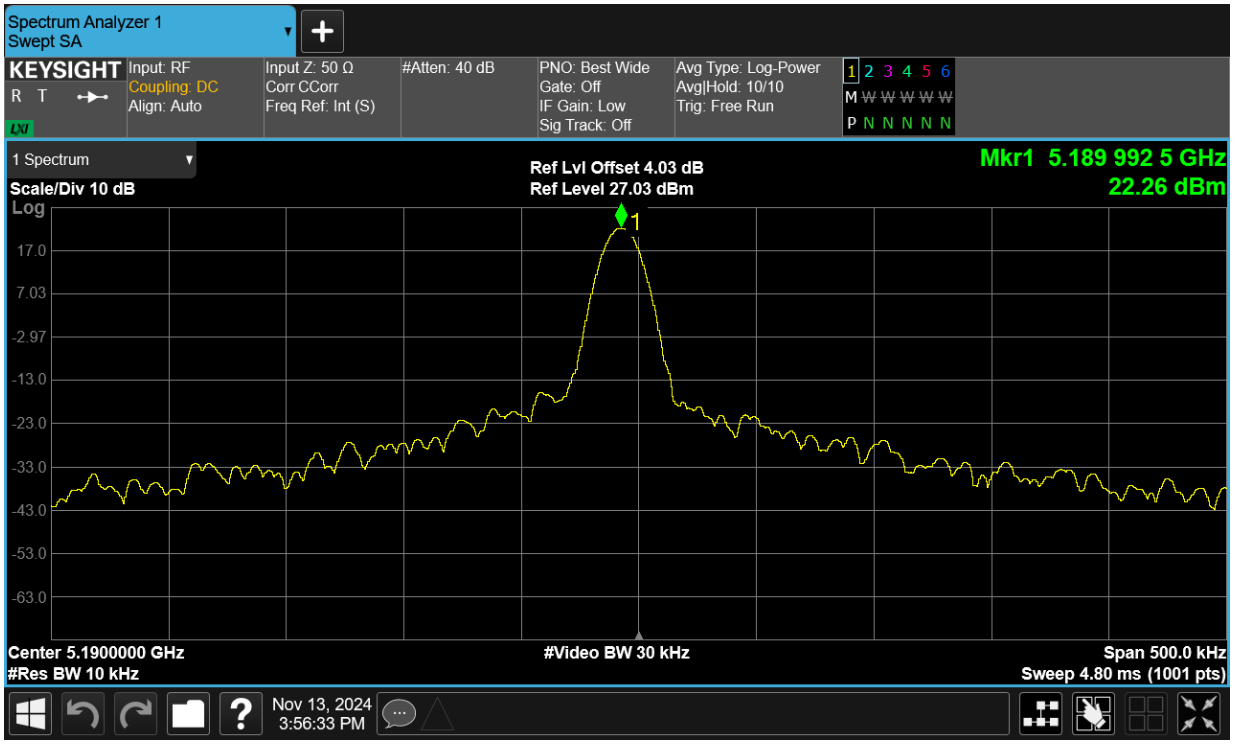
Freq. Stability HVNT n40 5190MHz Ant1



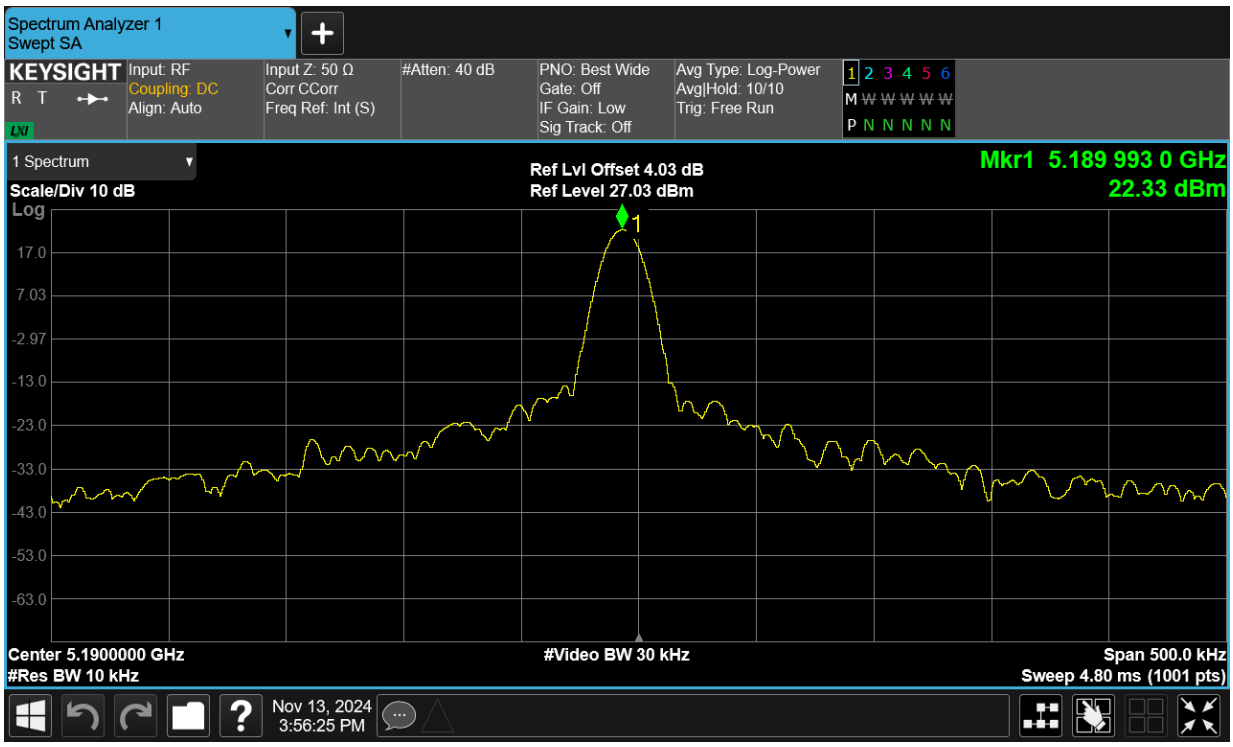
Freq. Stability LVNT n40 5190MHz Ant1



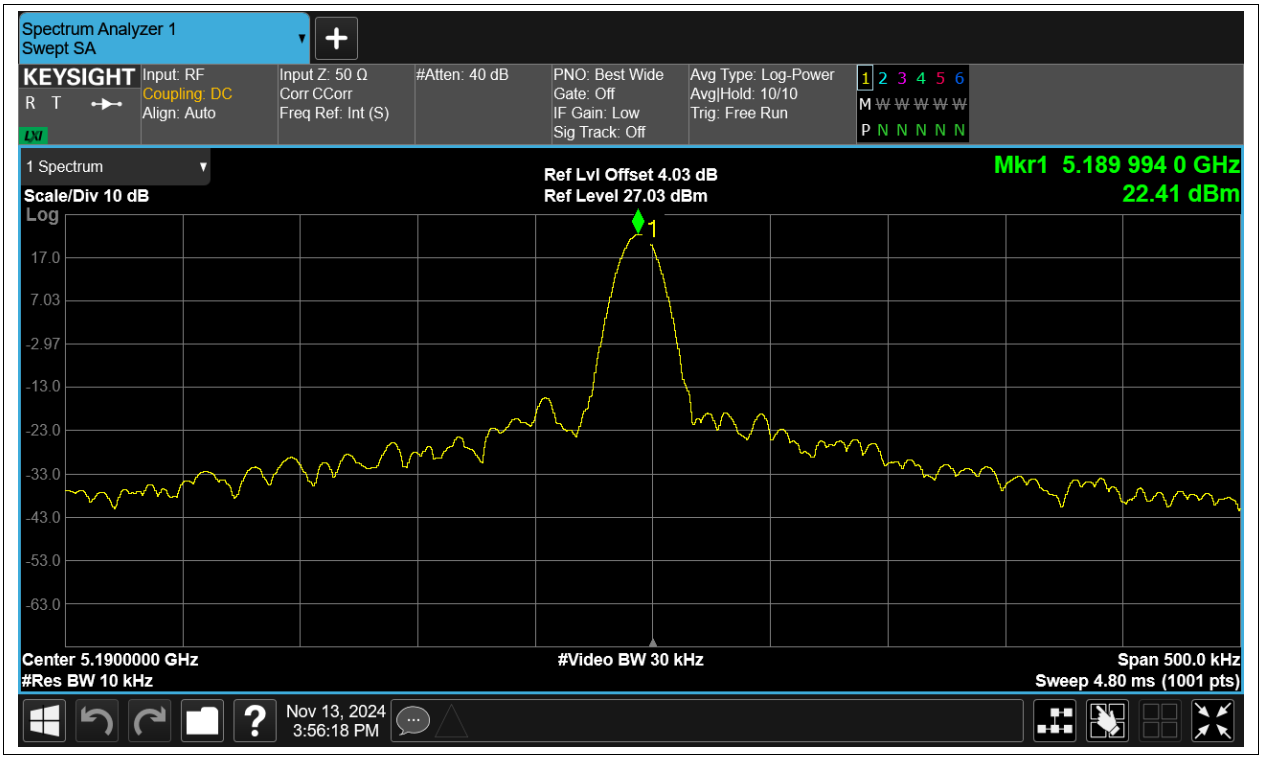
Freq. Stability NVHT n40 5190MHz Ant1



Freq. Stability NVLT n40 5190MHz Ant1



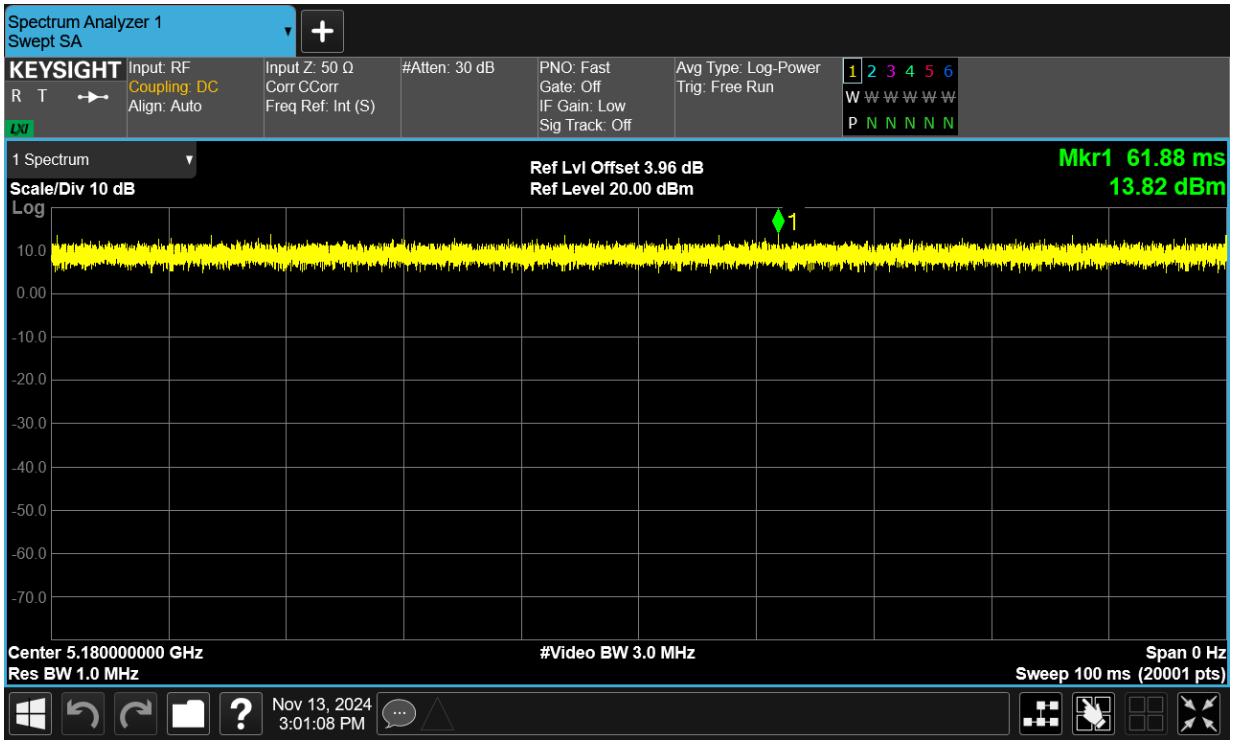
Freq. Stability NVNT n40 5190MHz Ant1


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
Ref Lvl Offset 4.03 dB
Ref Level 27.03 dBm
Mkr1 5.189 994 0 GHz
22.41 dBm
Log
17.0
7.03
-2.97
-13.0
-23.0
-33.0
-43.0
-53.0
-63.0
Center 5.1900000 GHz
#Res BW 10 kHz
#Video BW 30 kHz
Span 500.0 kHz
Sweep 4.80 ms (1001 pts)
Nov 13, 2024
3:56:18 PM

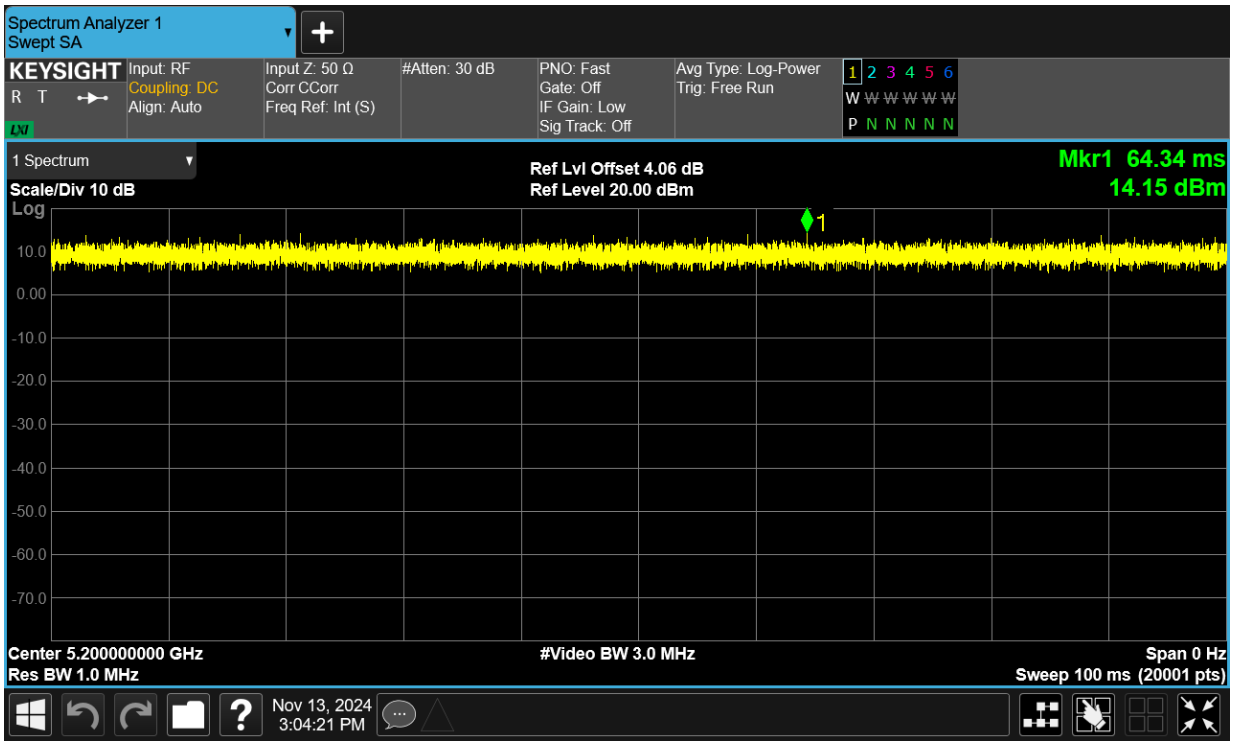
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant1	100	0
NVNT	a	5200	Ant1	100	0
NVNT	a	5240	Ant1	100	0
NVNT	ac20	5180	Ant1	100	0
NVNT	ac20	5200	Ant1	100	0
NVNT	ac20	5240	Ant1	100	0
NVNT	ac40	5190	Ant1	100	0
NVNT	ac40	5230	Ant1	100	0
NVNT	ac80	5210	Ant1	100	0
NVNT	n20	5180	Ant1	100	0
NVNT	n20	5200	Ant1	100	0
NVNT	n20	5240	Ant1	100	0
NVNT	n40	5190	Ant1	100	0
NVNT	n40	5230	Ant1	100	0

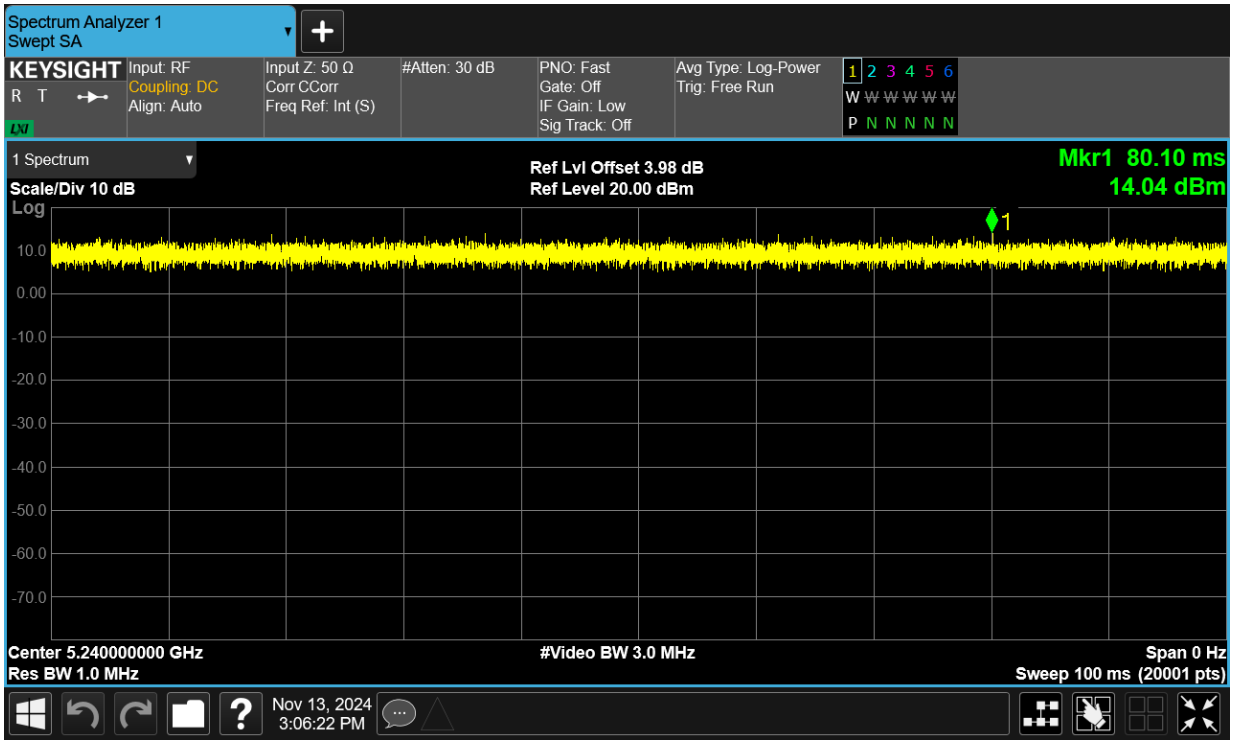
Test Graphs
Duty Cycle NVNT a 5180MHz Ant1



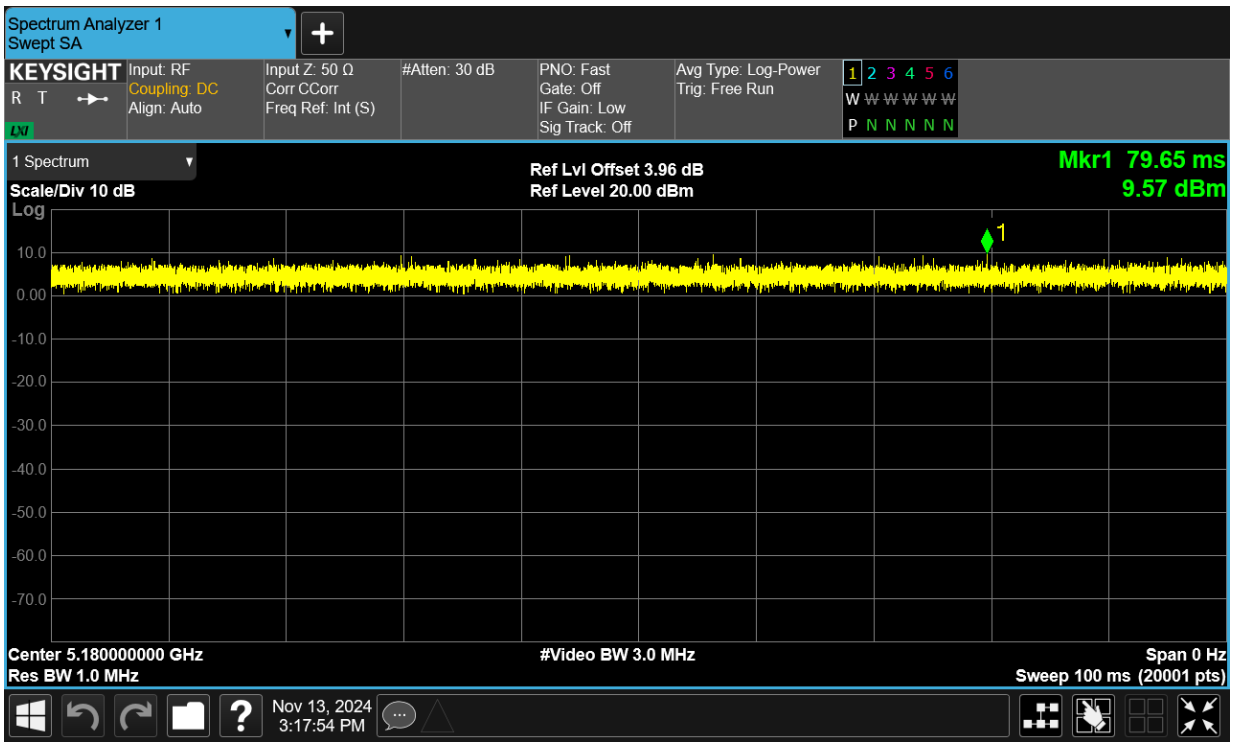
Duty Cycle NVNT a 5200MHz Ant1



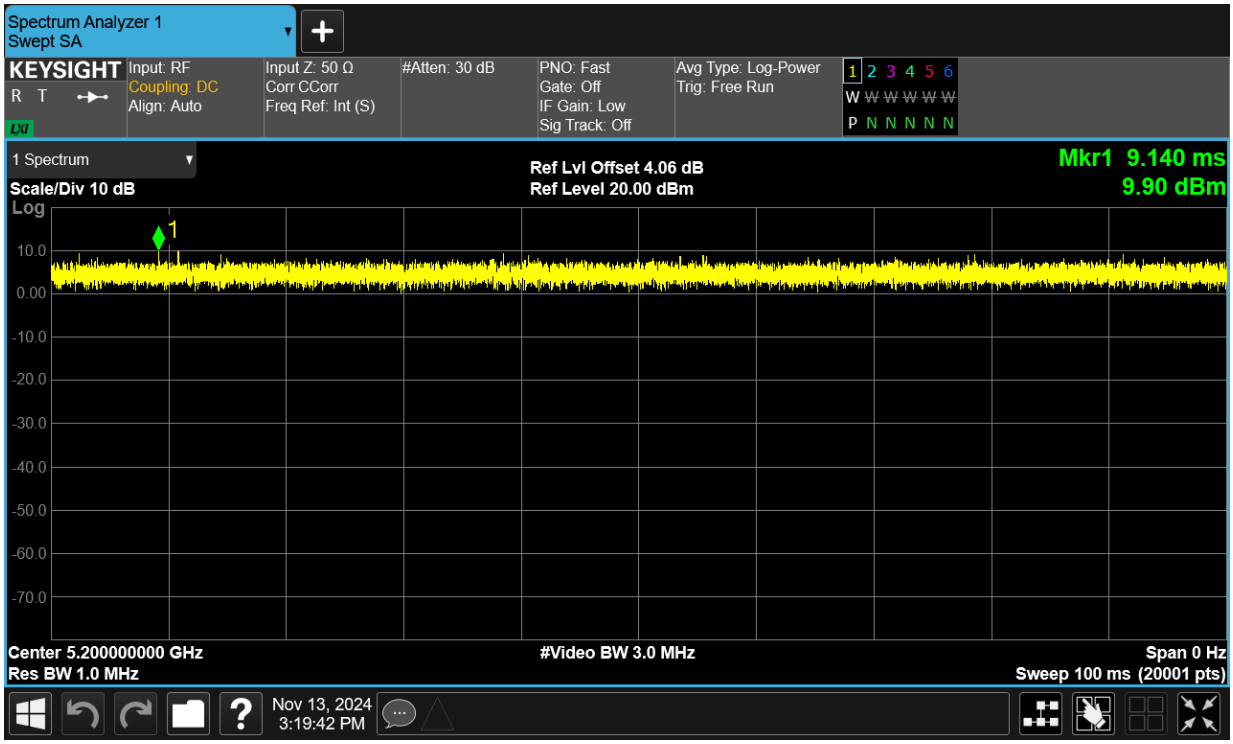
Duty Cycle NVNT a 5240MHz Ant1



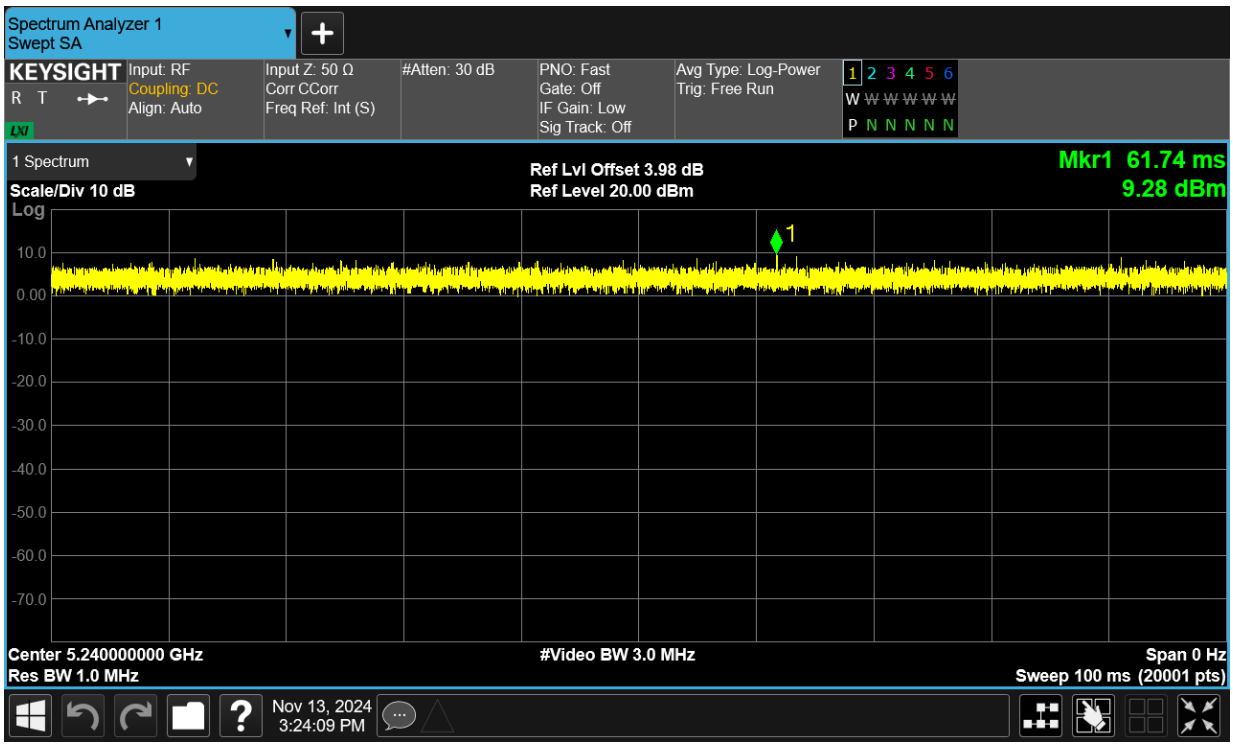
Duty Cycle NVNT ac20 5180MHz Ant1



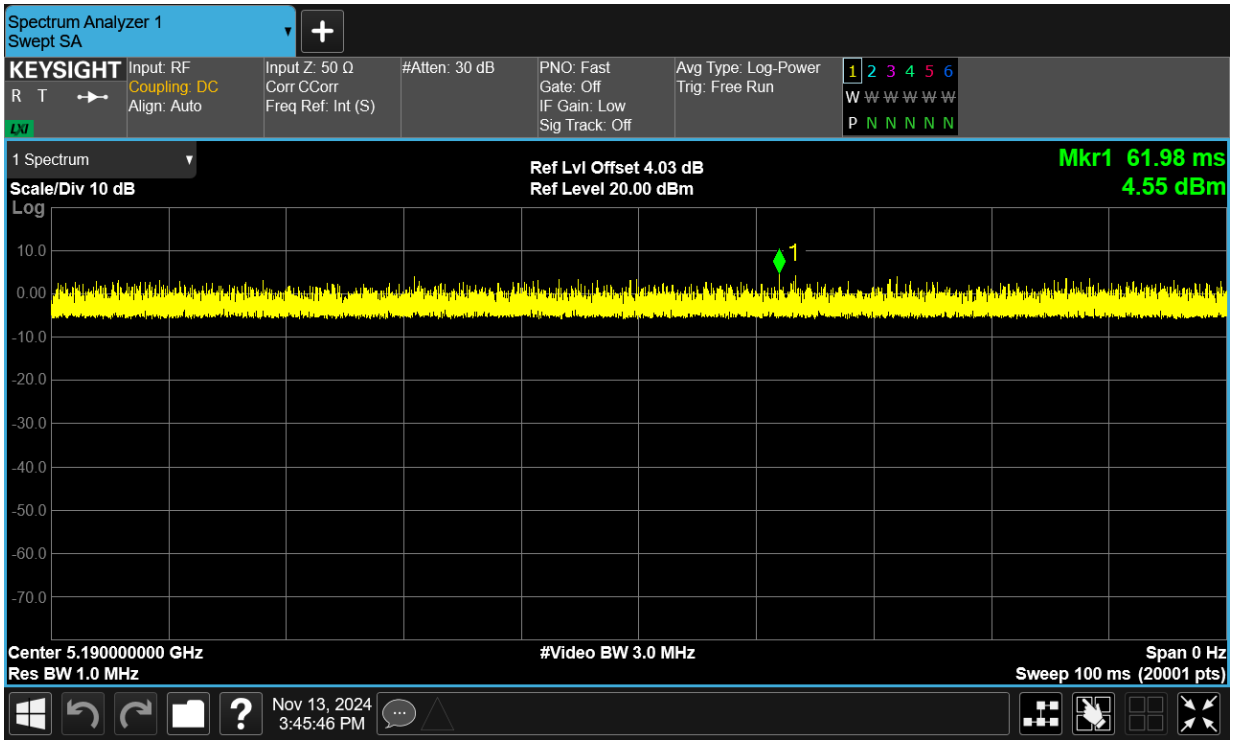
Duty Cycle NVNT ac20 5200MHz Ant1



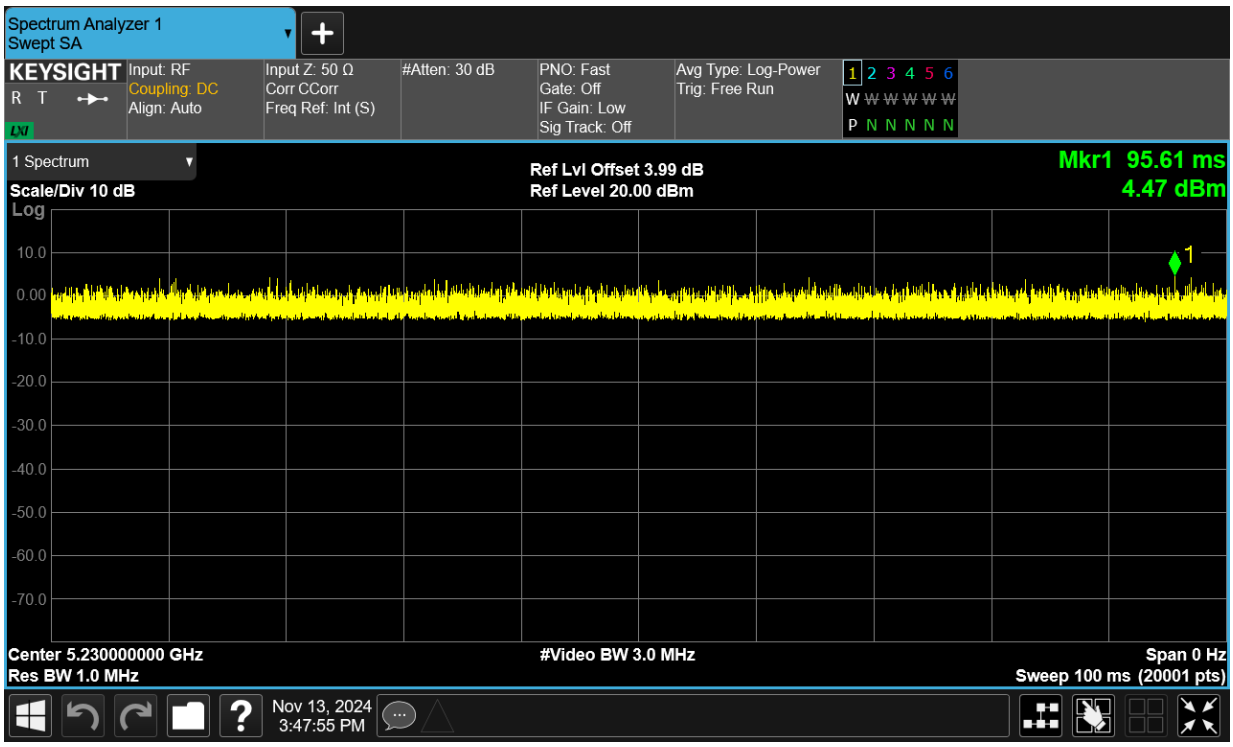
Duty Cycle NVNT ac20 5240MHz Ant1



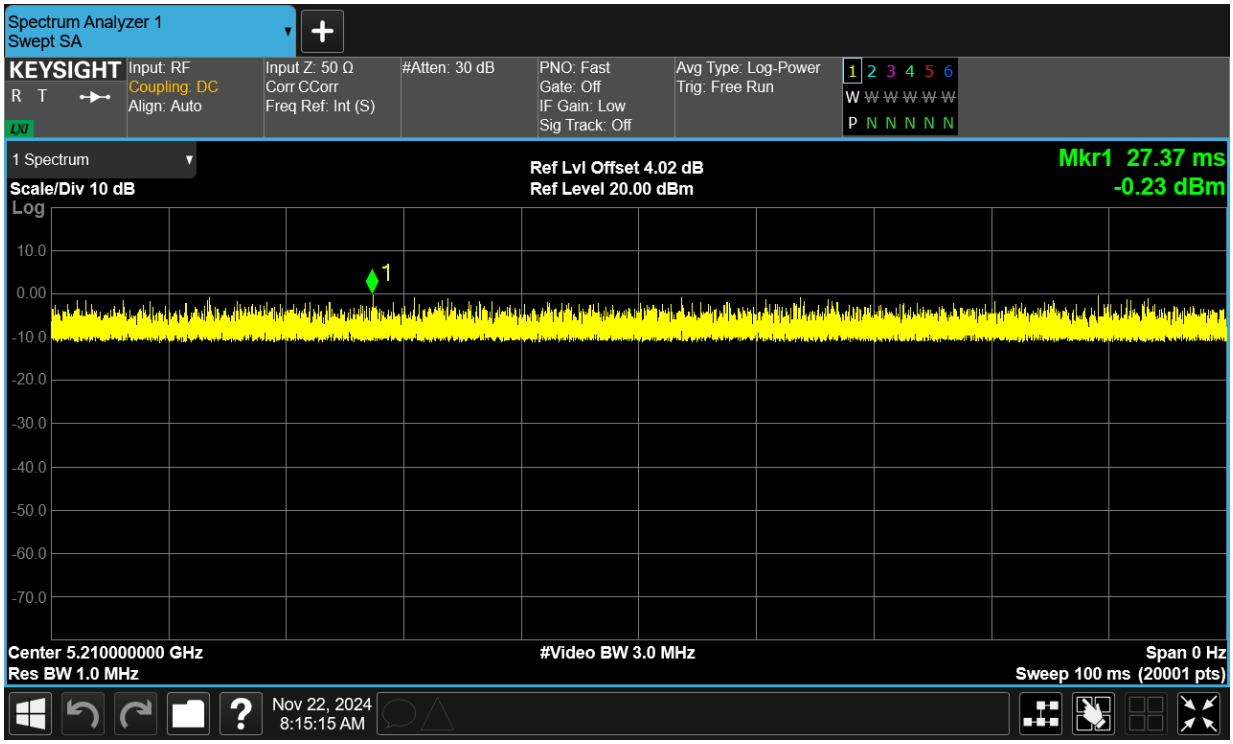
Duty Cycle NVNT ac40 5190MHz Ant1



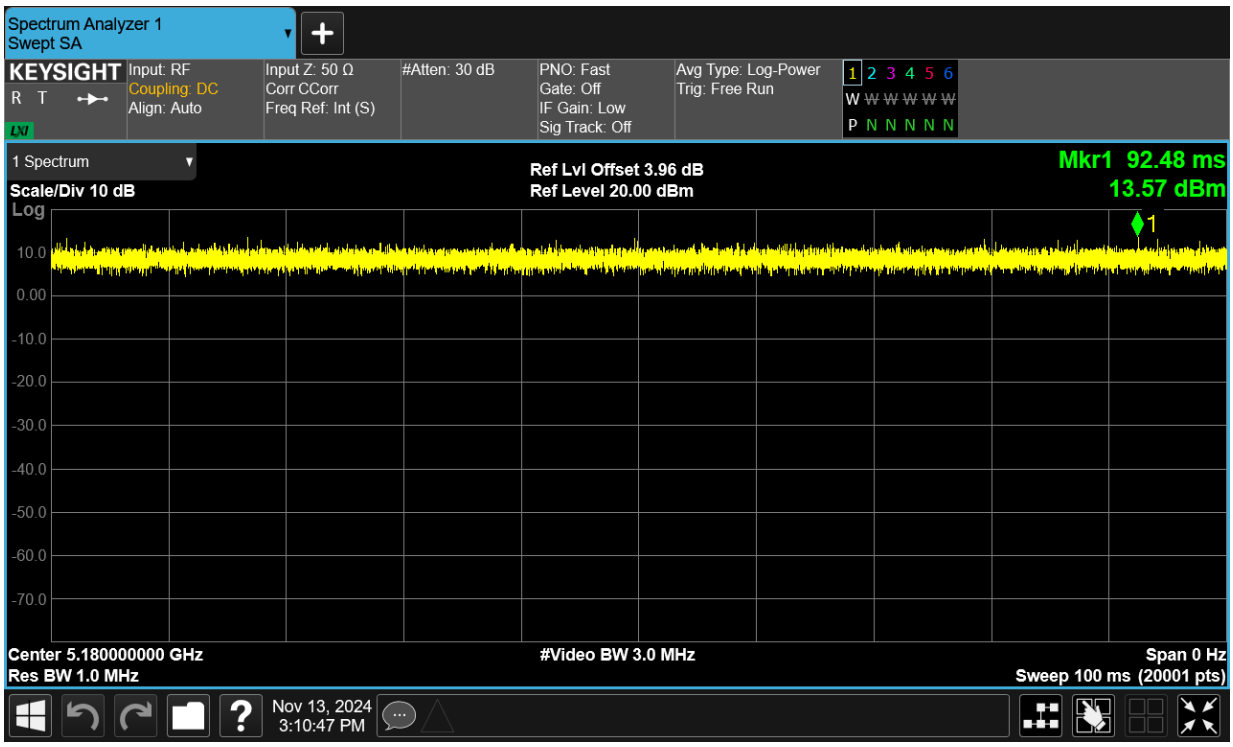
Duty Cycle NVNT ac40 5230MHz Ant1



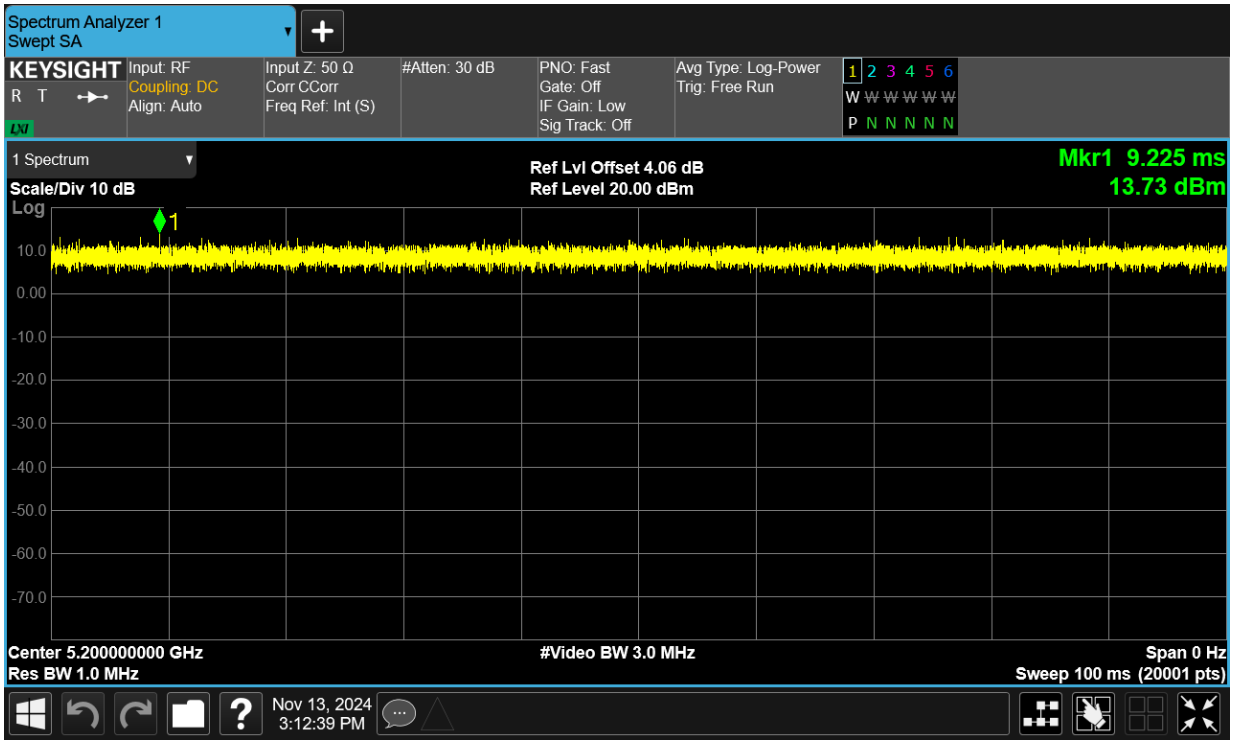
Duty Cycle NVNT ac80 5210MHz Ant1



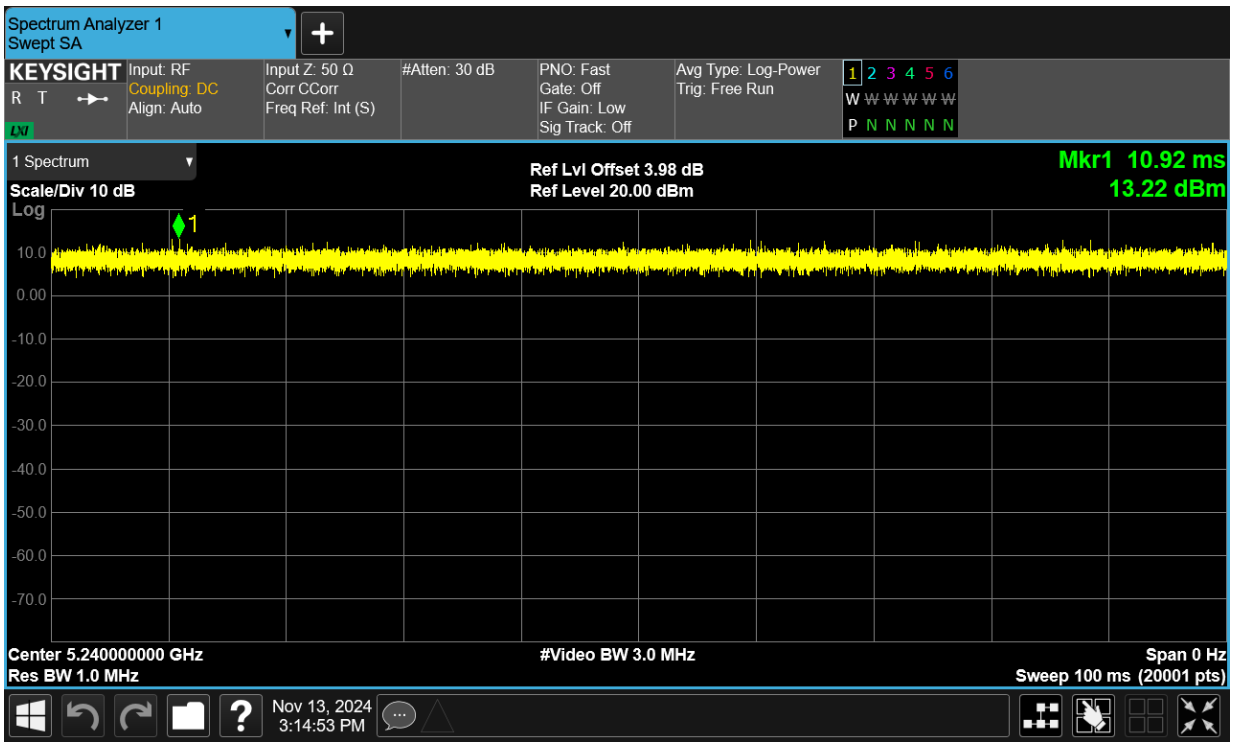
Duty Cycle NVNT n20 5180MHz Ant1



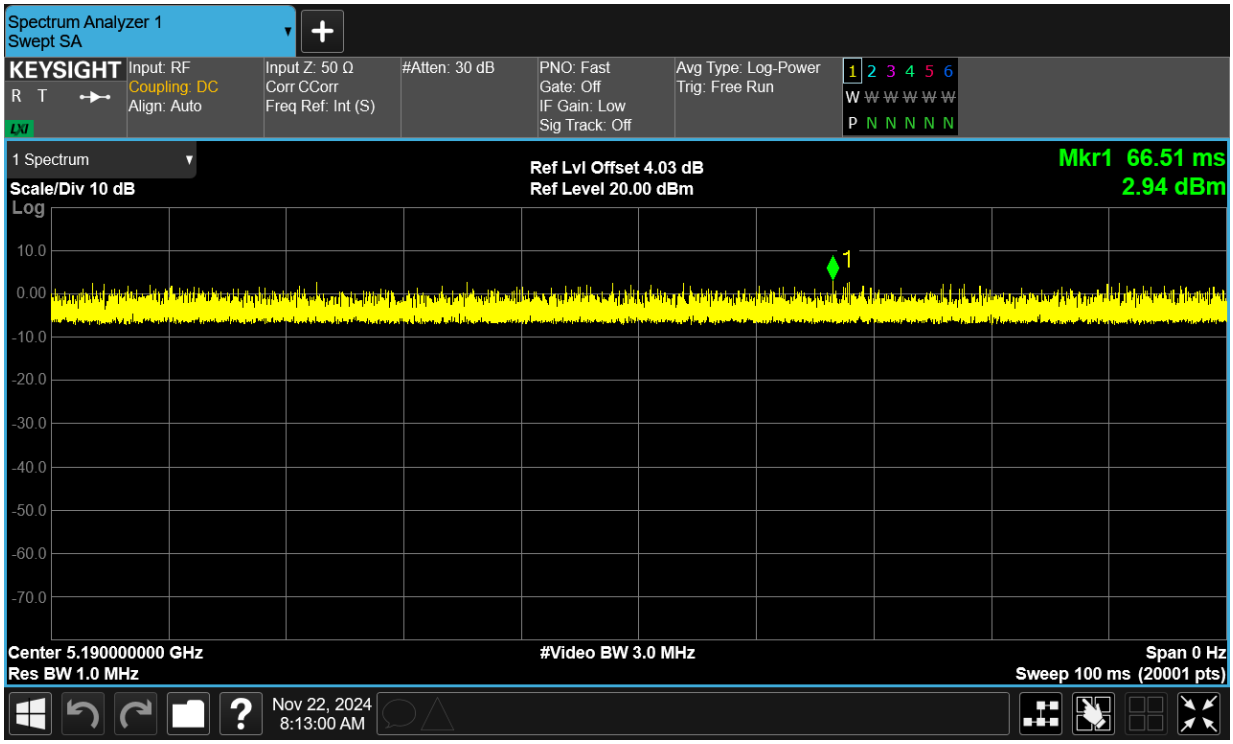
Duty Cycle NVNT n20 5200MHz Ant1



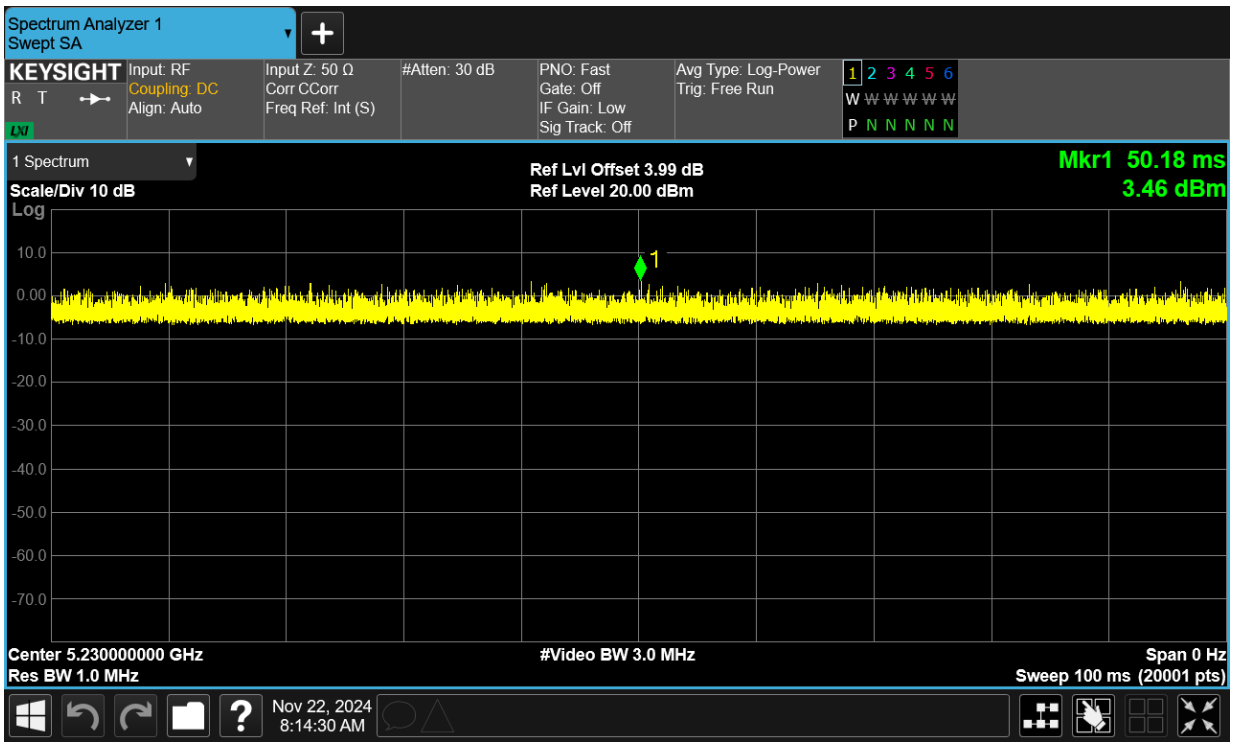
Duty Cycle NVNT n20 5240MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1



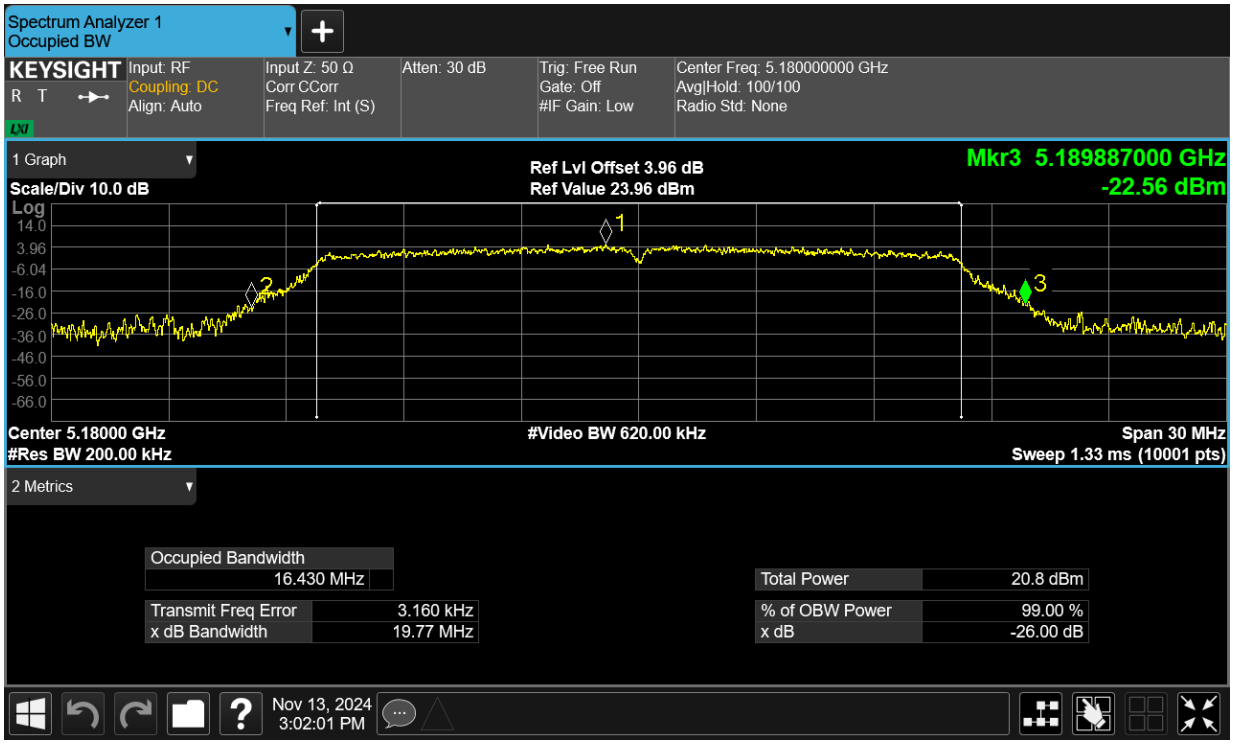
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	15.37	0	15.37	24	Pass
NVNT	a	5200	Ant1	15.86	0	15.86	24	Pass
NVNT	a	5240	Ant1	15.22	0	15.22	24	Pass
NVNT	ac20	5180	Ant1	11.06	0	11.06	24	Pass
NVNT	ac20	5200	Ant1	11.19	0	11.19	24	Pass
NVNT	ac20	5240	Ant1	10.28	0	10.28	24	Pass
NVNT	ac40	5190	Ant1	10.8	0	10.8	23	Pass
NVNT	ac40	5230	Ant1	11.05	0	11.05	24	Pass
NVNT	ac80	5210	Ant1	8.94	0	8.94	24	Pass
NVNT	n20	5180	Ant1	14.67	0	14.67	24	Pass
NVNT	n20	5200	Ant1	15.06	0	15.06	24	Pass
NVNT	n20	5240	Ant1	14.44	0	14.44	24	Pass
NVNT	n40	5190	Ant1	9.72	0	9.72	24	Pass
NVNT	n40	5230	Ant1	9.77	0	9.77	24	Pass

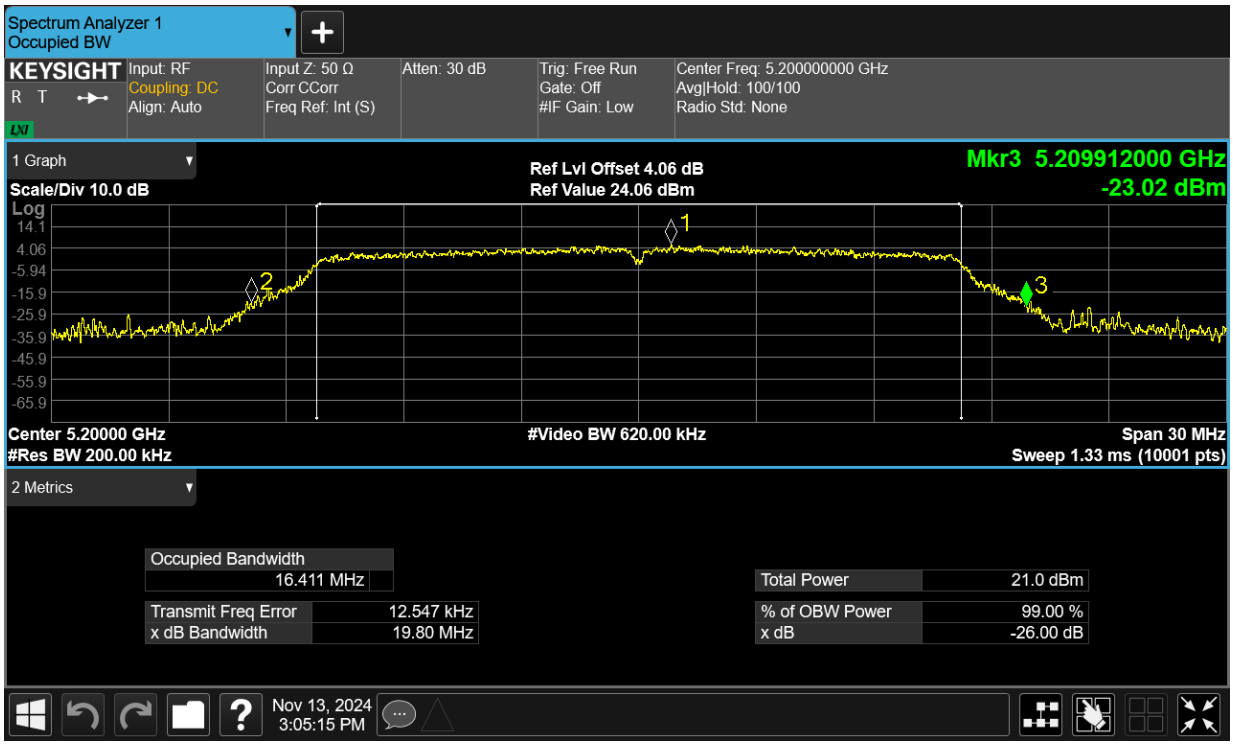
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	19.768
NVNT	a	5200	Ant1	19.799
NVNT	a	5240	Ant1	19.643
NVNT	ac20	5180	Ant1	20.211
NVNT	ac20	5200	Ant1	19.809
NVNT	ac20	5240	Ant1	19.992
NVNT	ac40	5190	Ant1	39.133
NVNT	ac40	5230	Ant1	39.449
NVNT	ac80	5210	Ant1	78.883
NVNT	n20	5180	Ant1	20.036
NVNT	n20	5200	Ant1	20.14
NVNT	n20	5240	Ant1	20.118
NVNT	n40	5190	Ant1	39.418
NVNT	n40	5230	Ant1	40.056

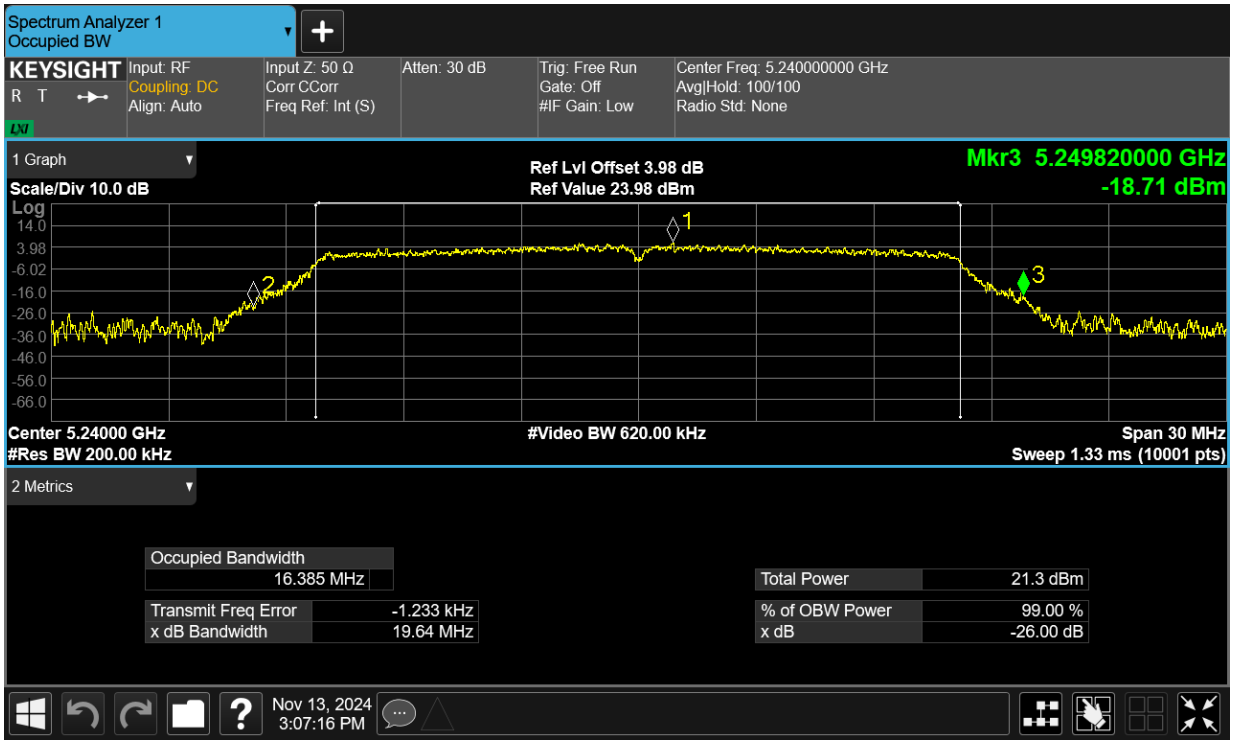
Test Graphs
-26dB Bandwidth NVNT a 5180MHz Ant1



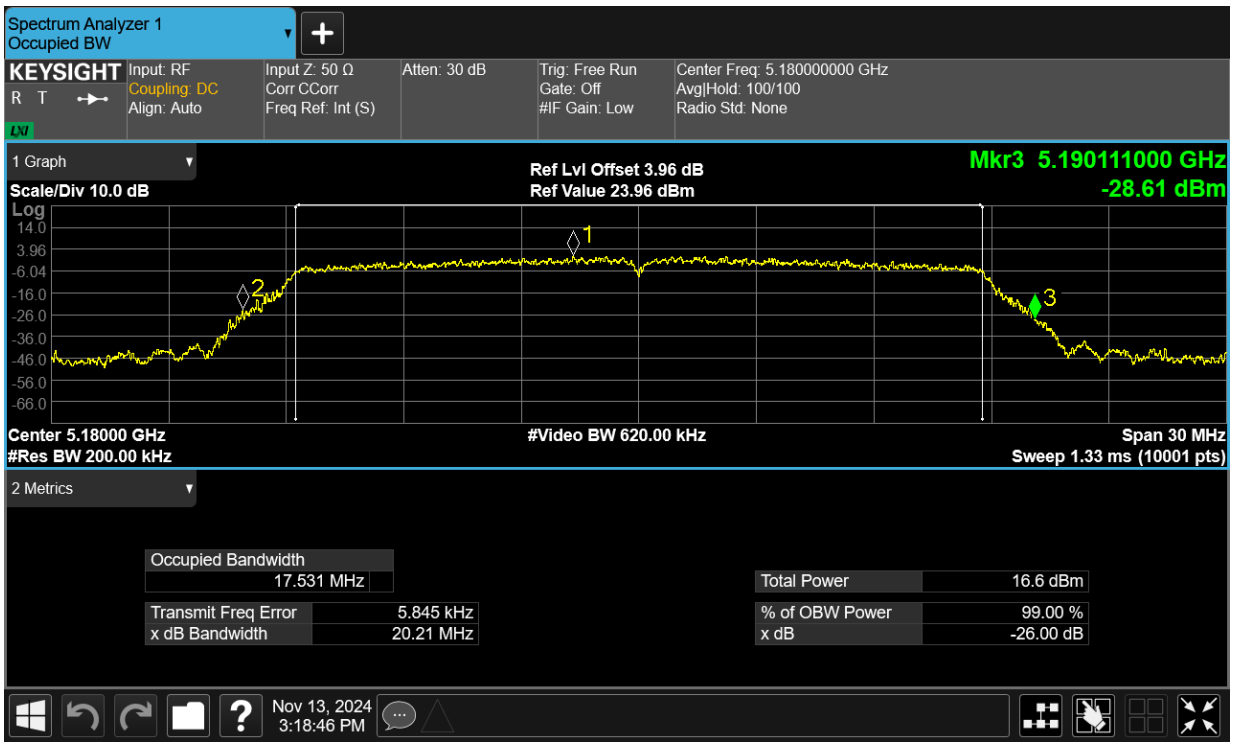
-26dB Bandwidth NVNT a 5200MHz Ant1



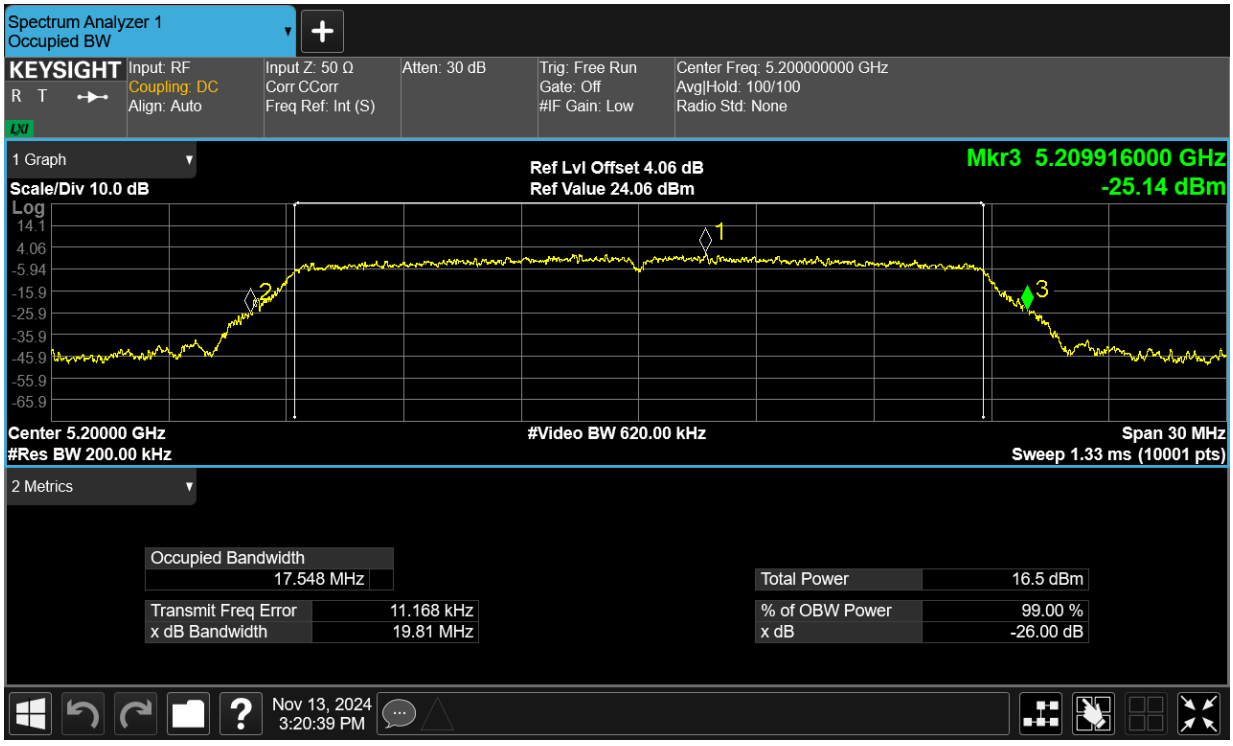
-26dB Bandwidth NVNT a 5240MHz Ant1



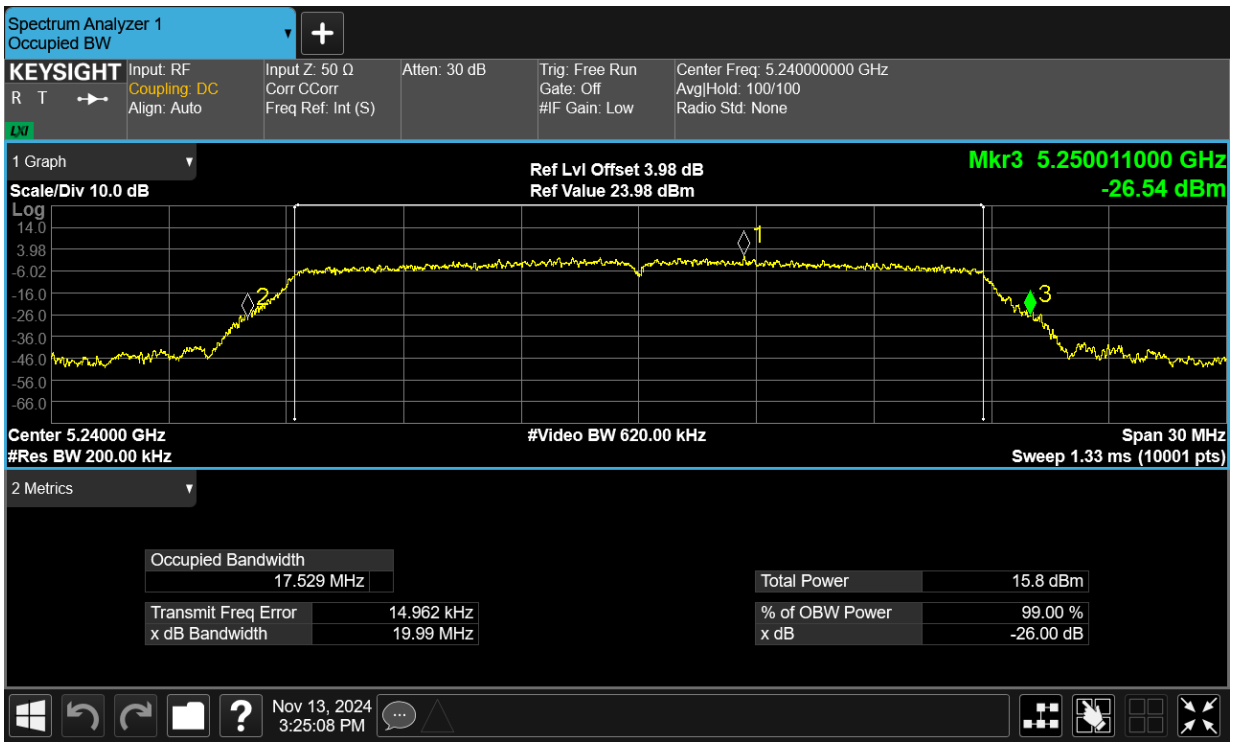
-26dB Bandwidth NVNT ac20 5180MHz Ant1



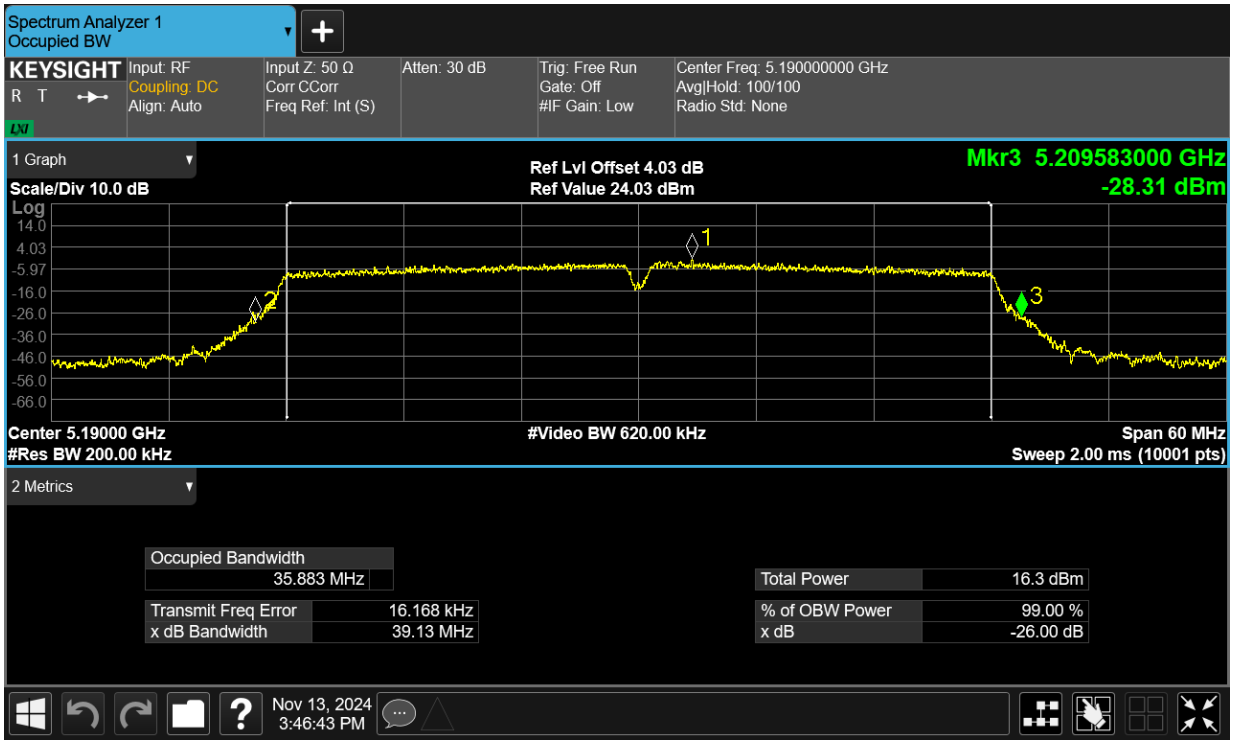
-26dB Bandwidth NVNT ac20 5200MHz Ant1



-26dB Bandwidth NVNT ac20 5240MHz Ant1

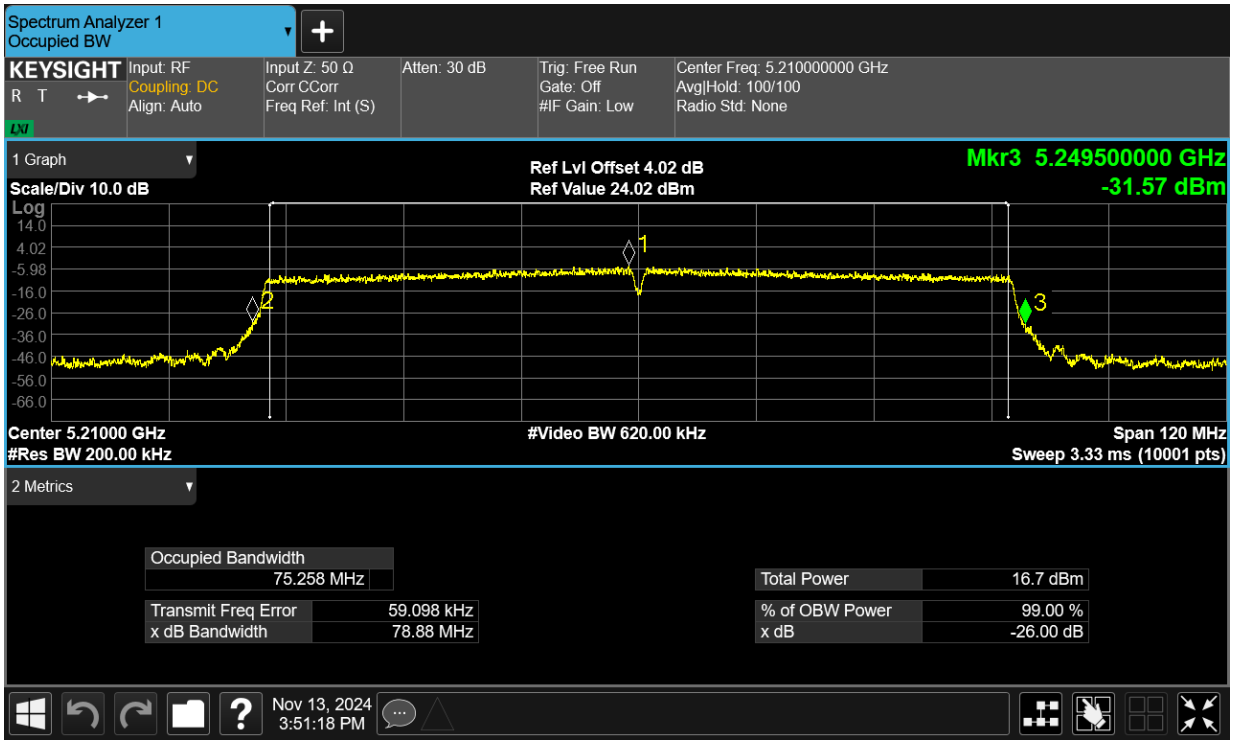


-26dB Bandwidth NVNT ac40 5190MHz Ant1

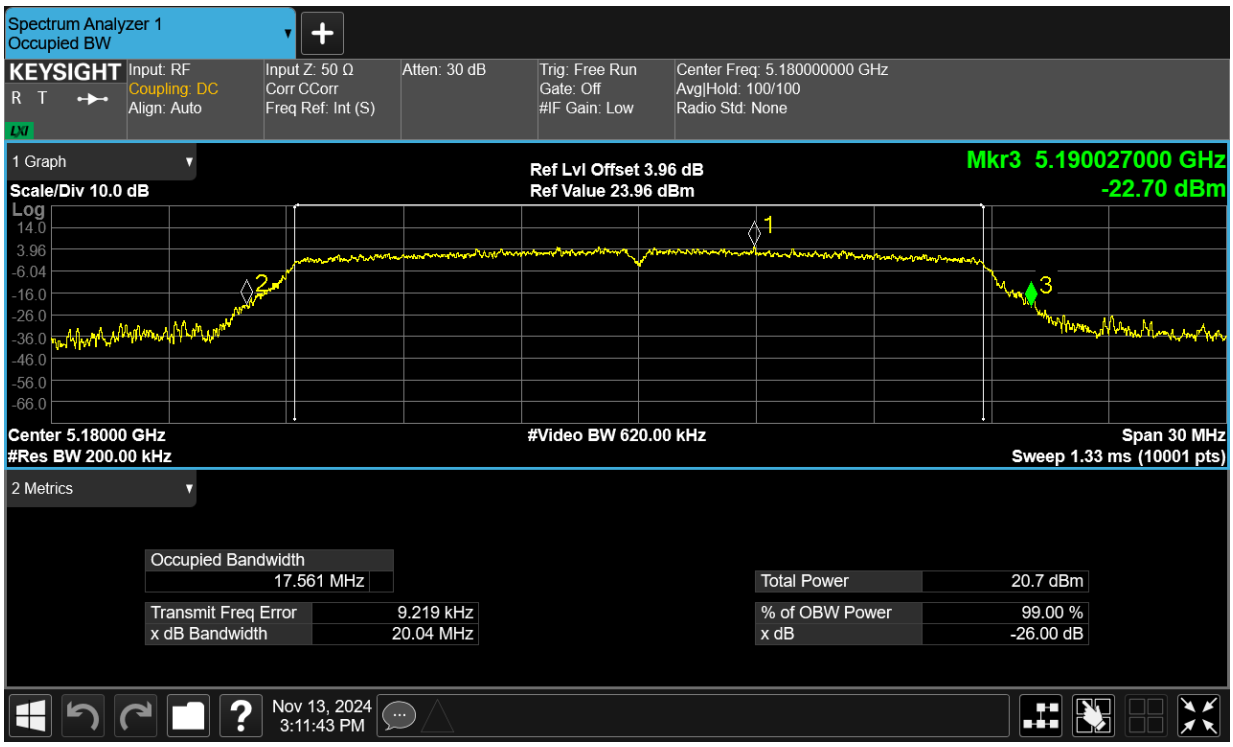


-26dB Bandwidth NVNT ac40 5230MHz Ant1

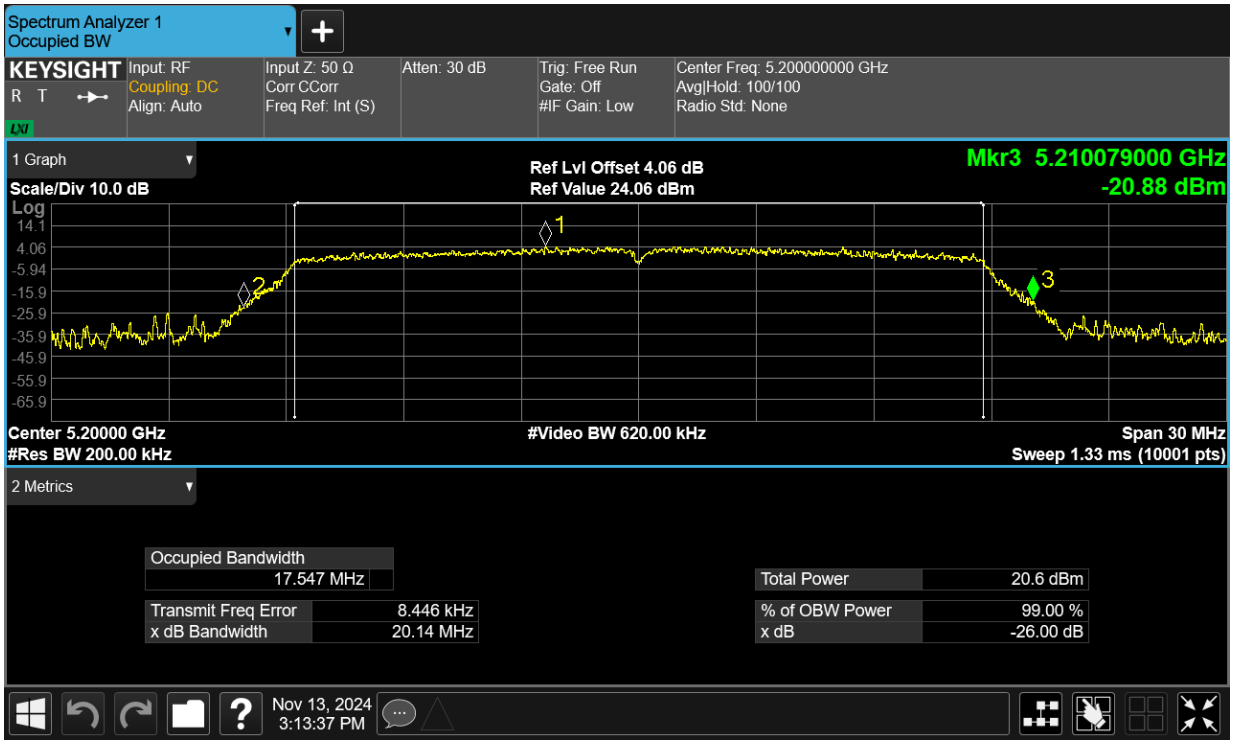
-26dB Bandwidth NVNT ac80 5210MHz Ant1



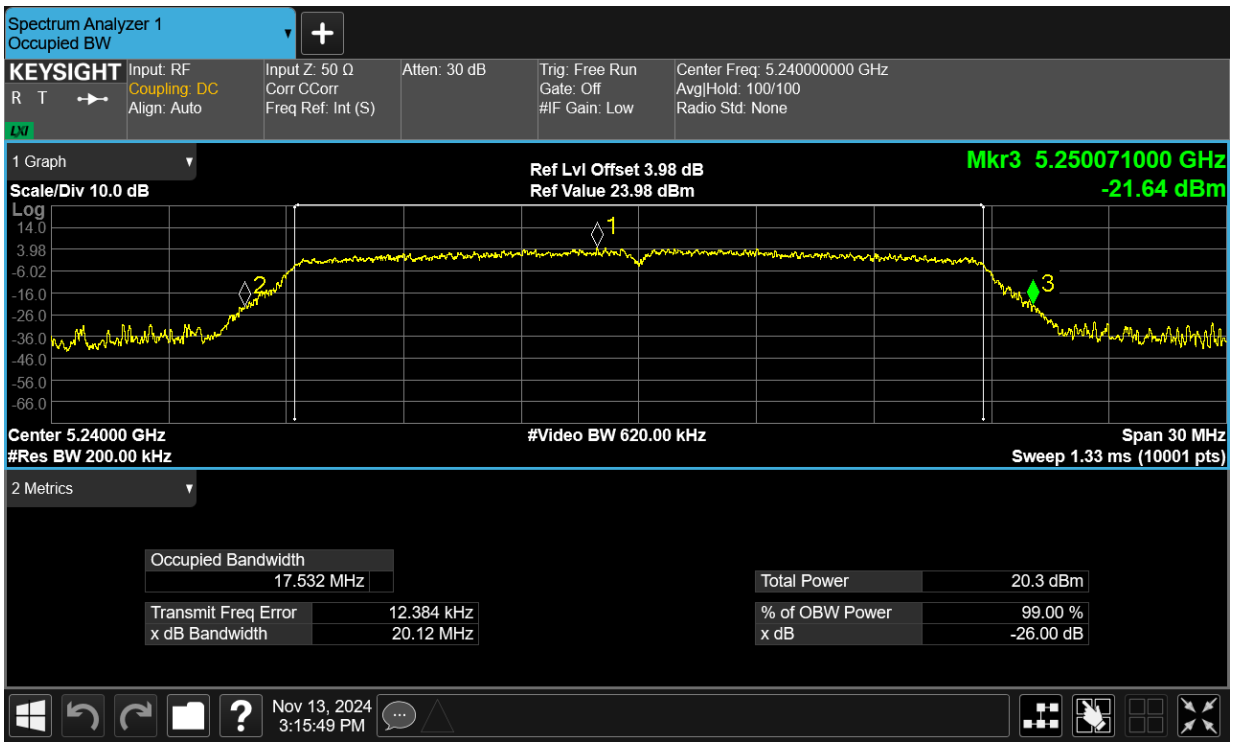
-26dB Bandwidth NVNT n20 5180MHz Ant1



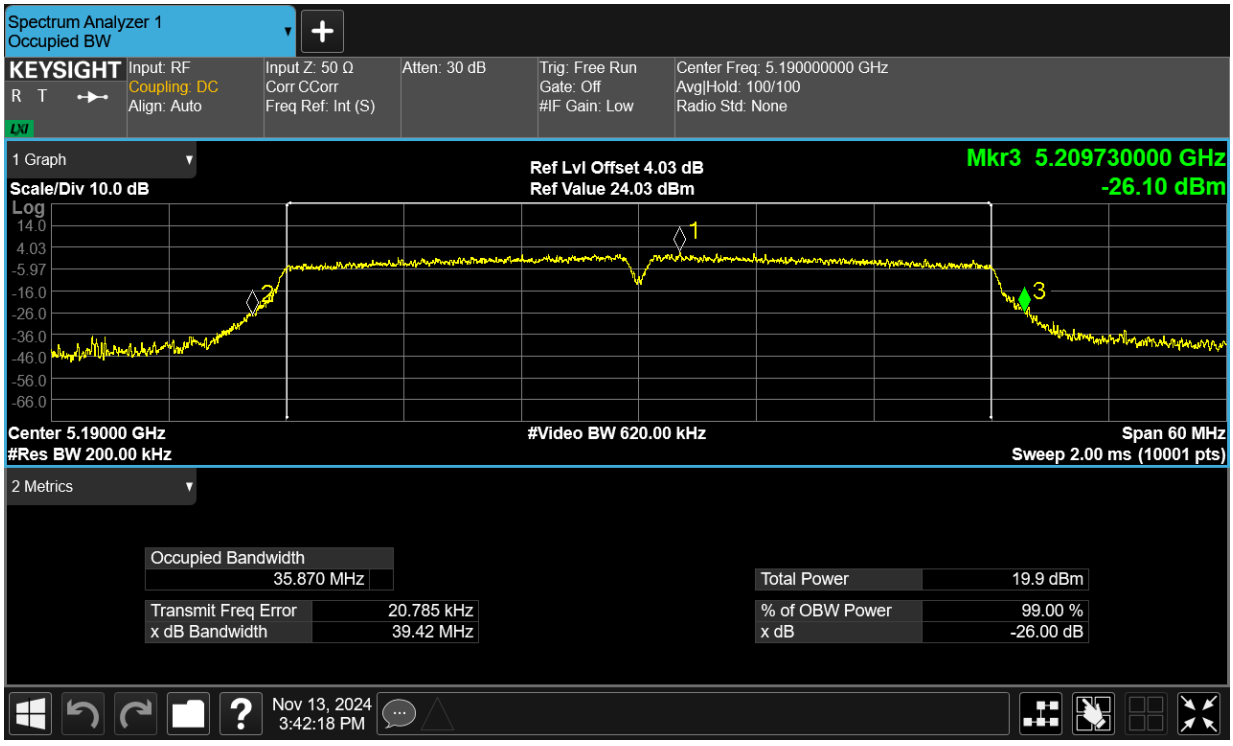
-26dB Bandwidth NVNT n20 5200MHz Ant1



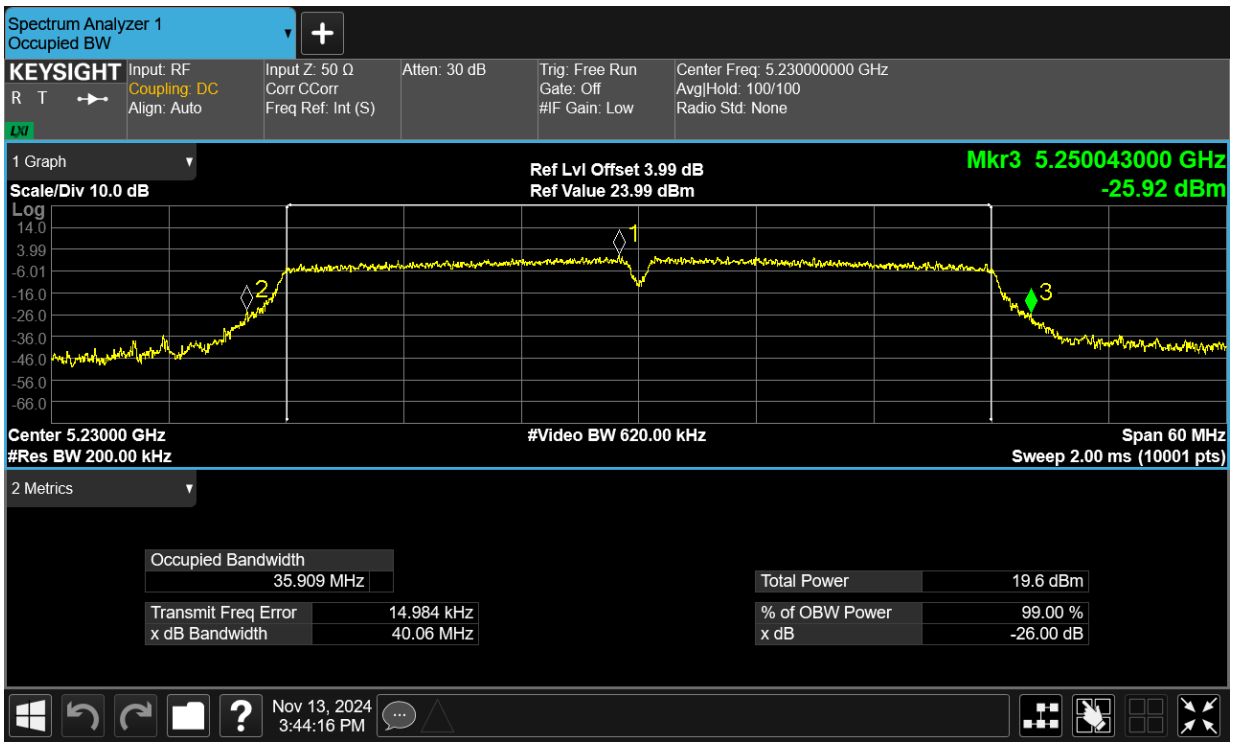
-26dB Bandwidth NVNT n20 5240MHz Ant1



-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1

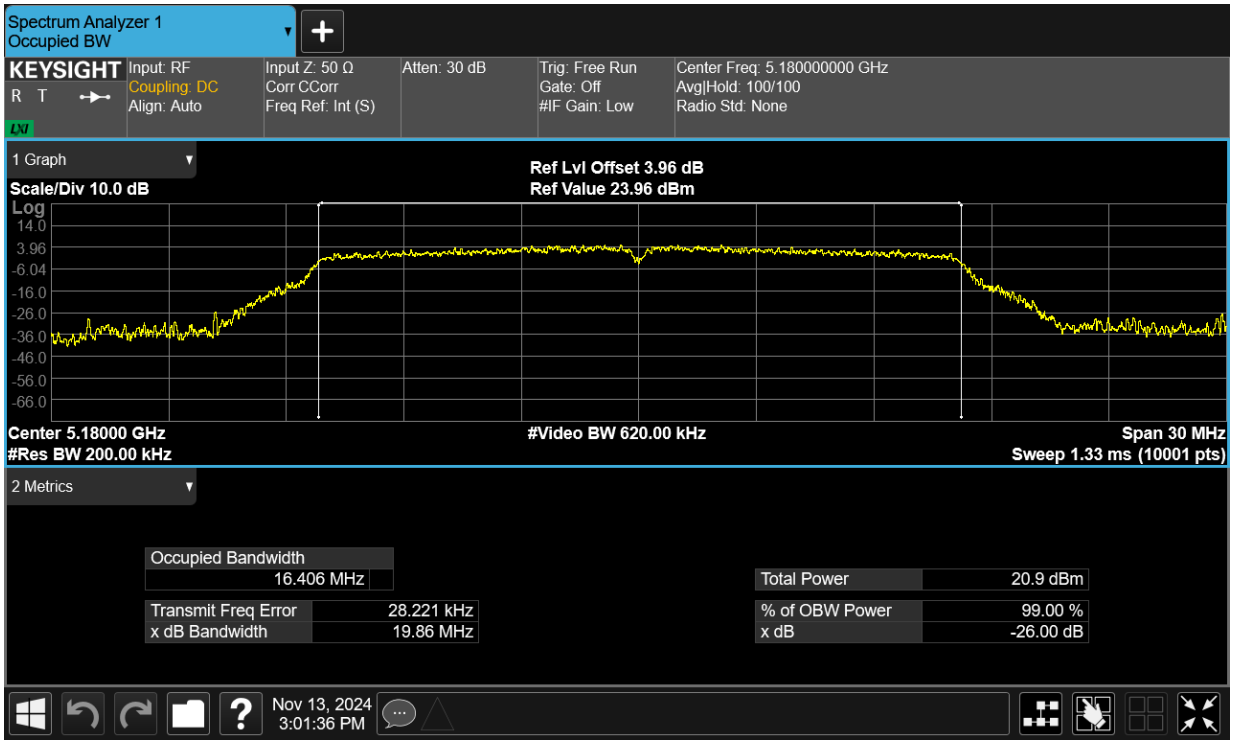


Occupied Channel Bandwidth

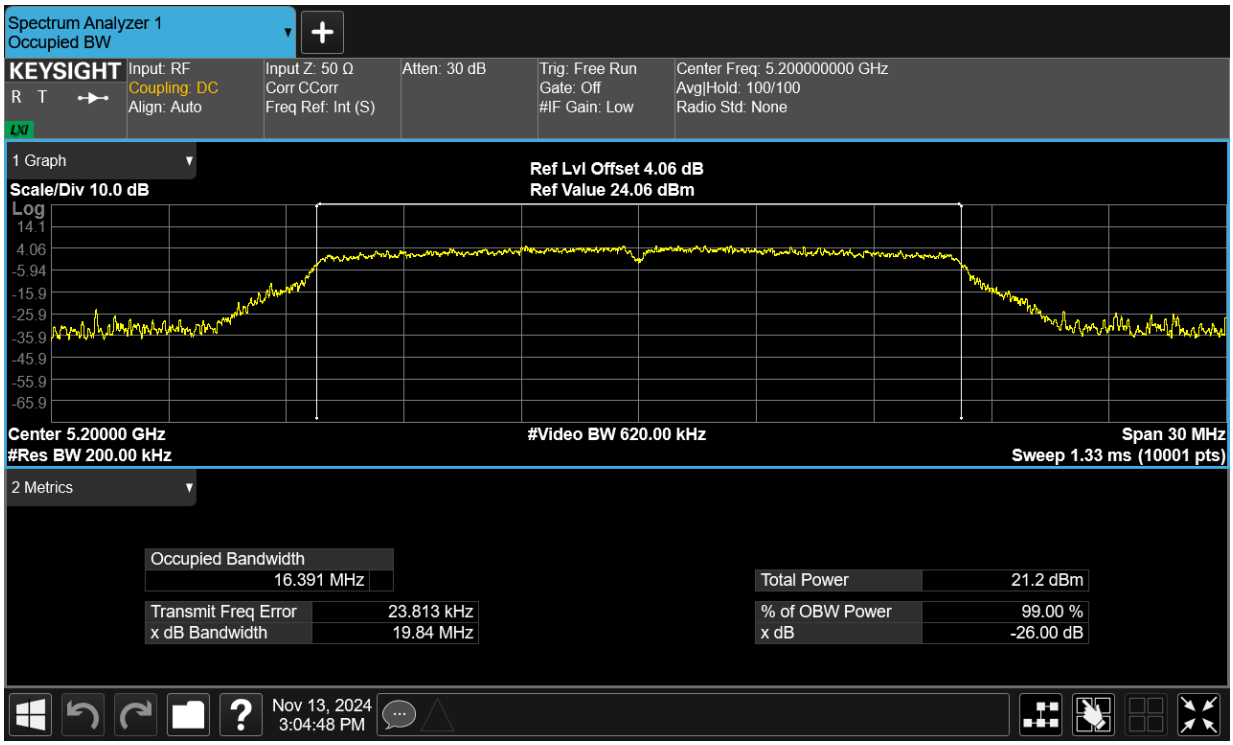
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.406
NVNT	a	5200	Ant1	16.391
NVNT	a	5240	Ant1	16.403
NVNT	ac20	5180	Ant1	17.545
NVNT	ac20	5200	Ant1	17.531
NVNT	ac20	5240	Ant1	17.537
NVNT	ac40	5190	Ant1	35.982
NVNT	ac40	5230	Ant1	36.004
NVNT	ac80	5210	Ant1	75.2
NVNT	n20	5180	Ant1	17.557
NVNT	n20	5200	Ant1	17.553
NVNT	n20	5240	Ant1	17.531
NVNT	n40	5190	Ant1	35.94
NVNT	n40	5230	Ant1	35.941

Test Graphs

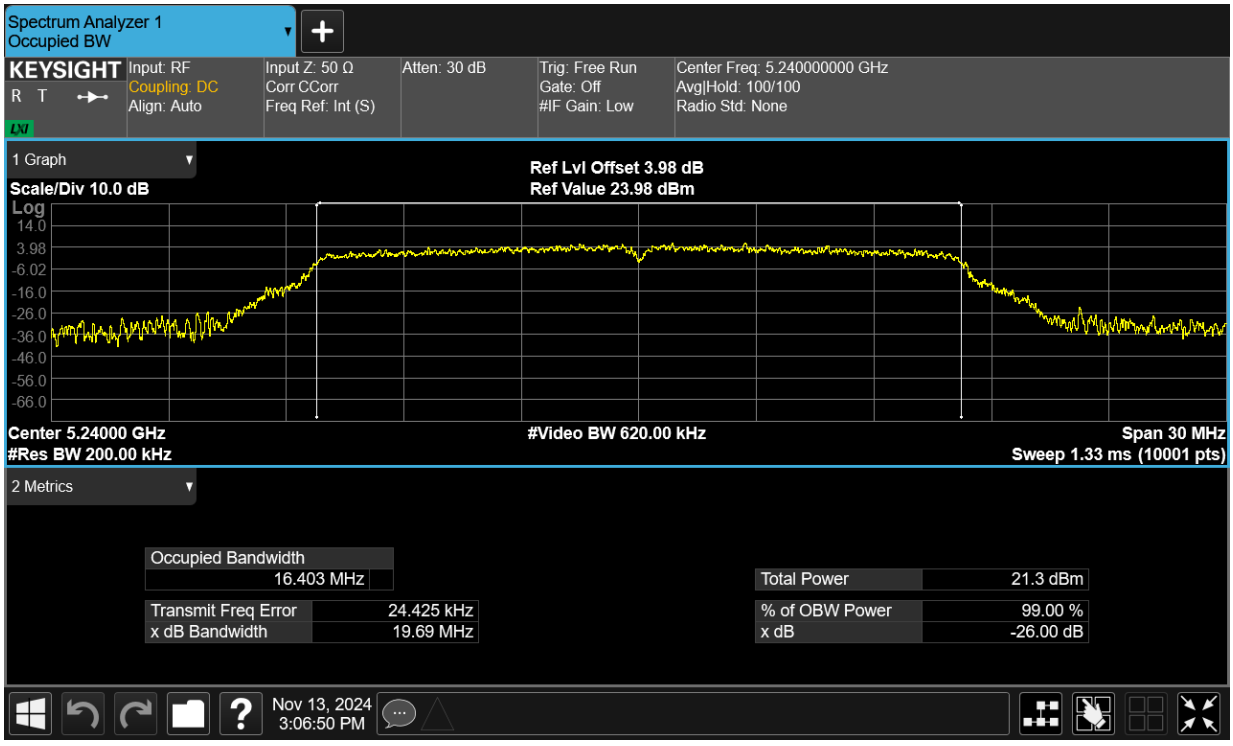
OBW NVNT a 5180MHz Ant1



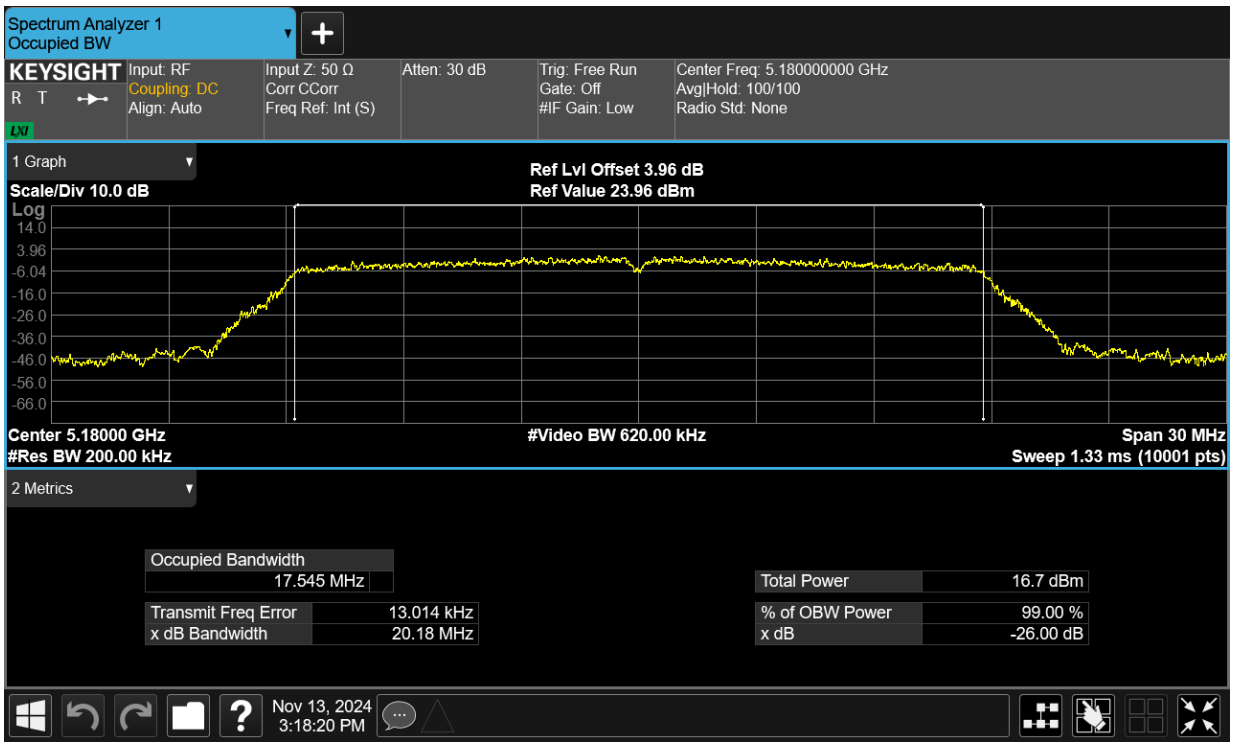
OBW NVNT a 5200MHz Ant1



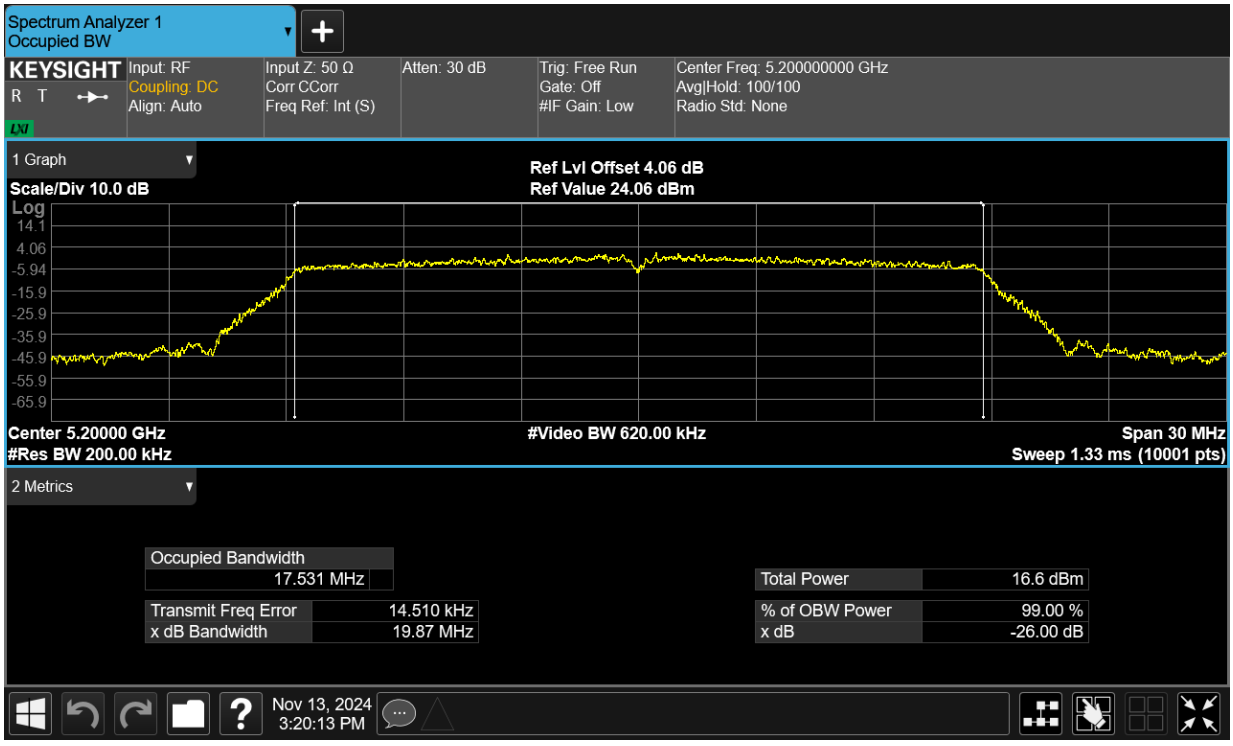
OBW NVNT a 5240MHz Ant1



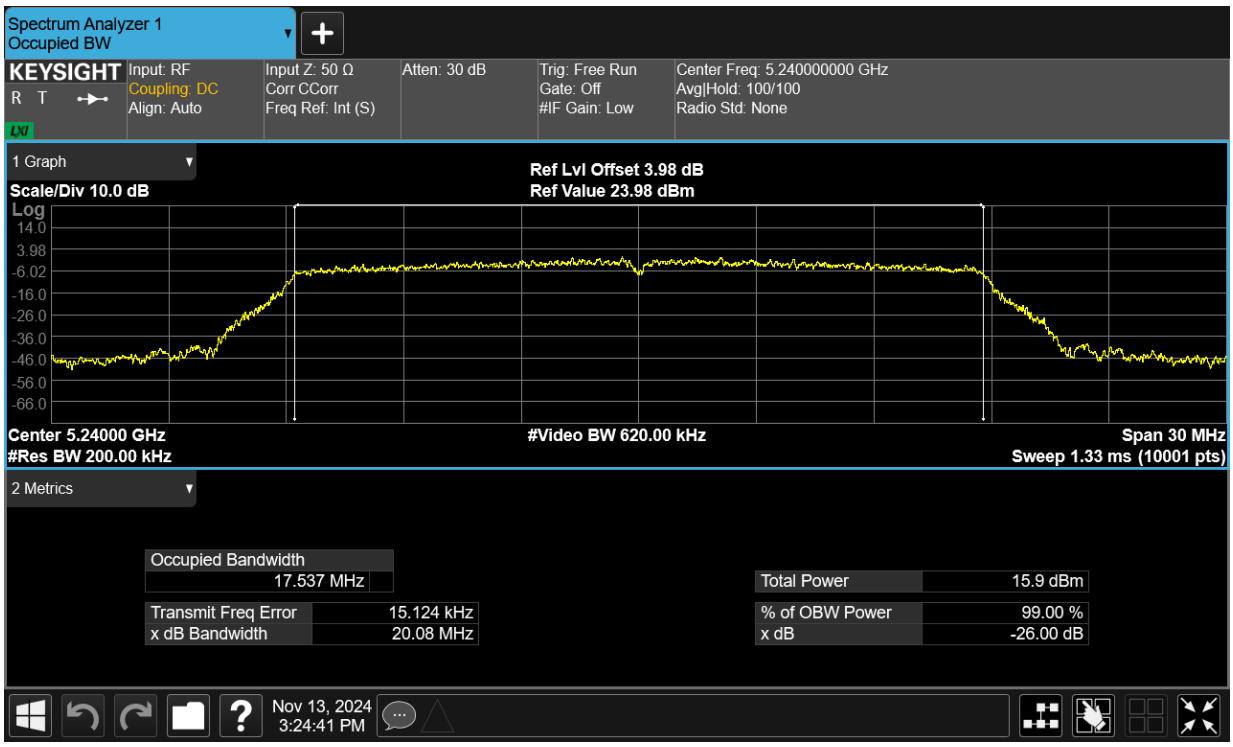
OBW NVNT ac20 5180MHz Ant1



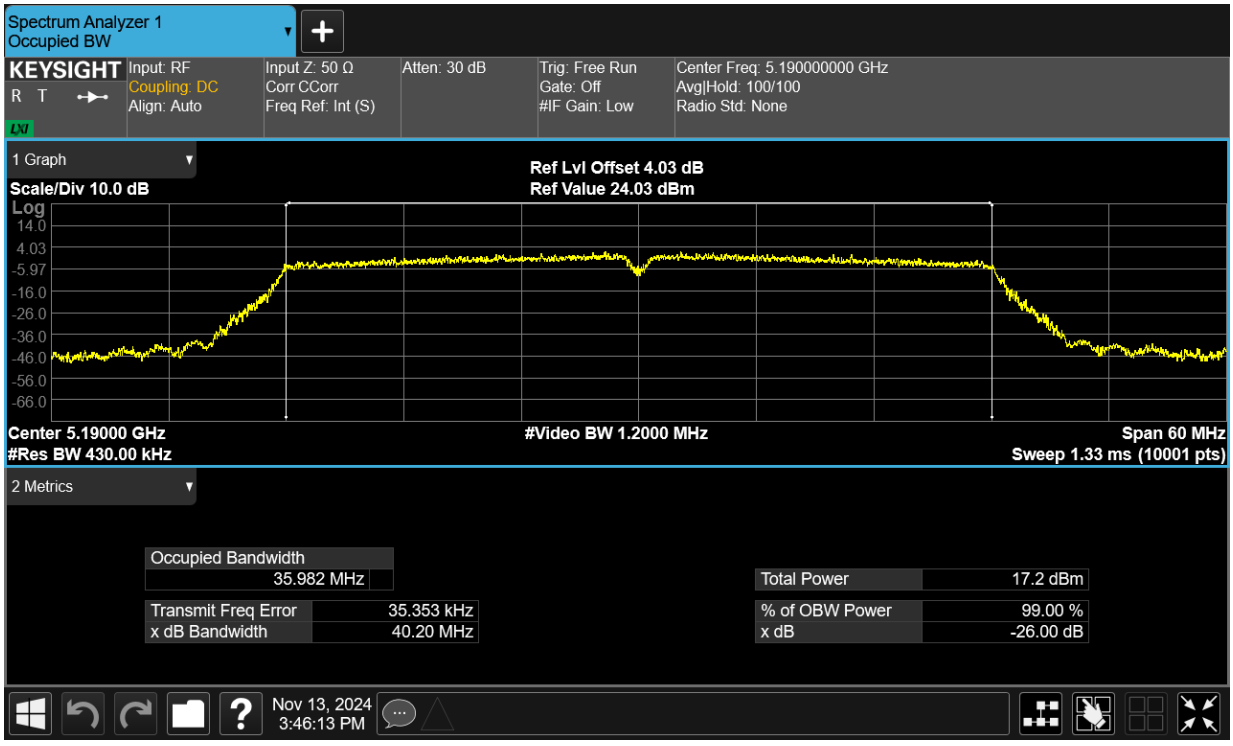
OBW NVNT ac20 5200MHz Ant1



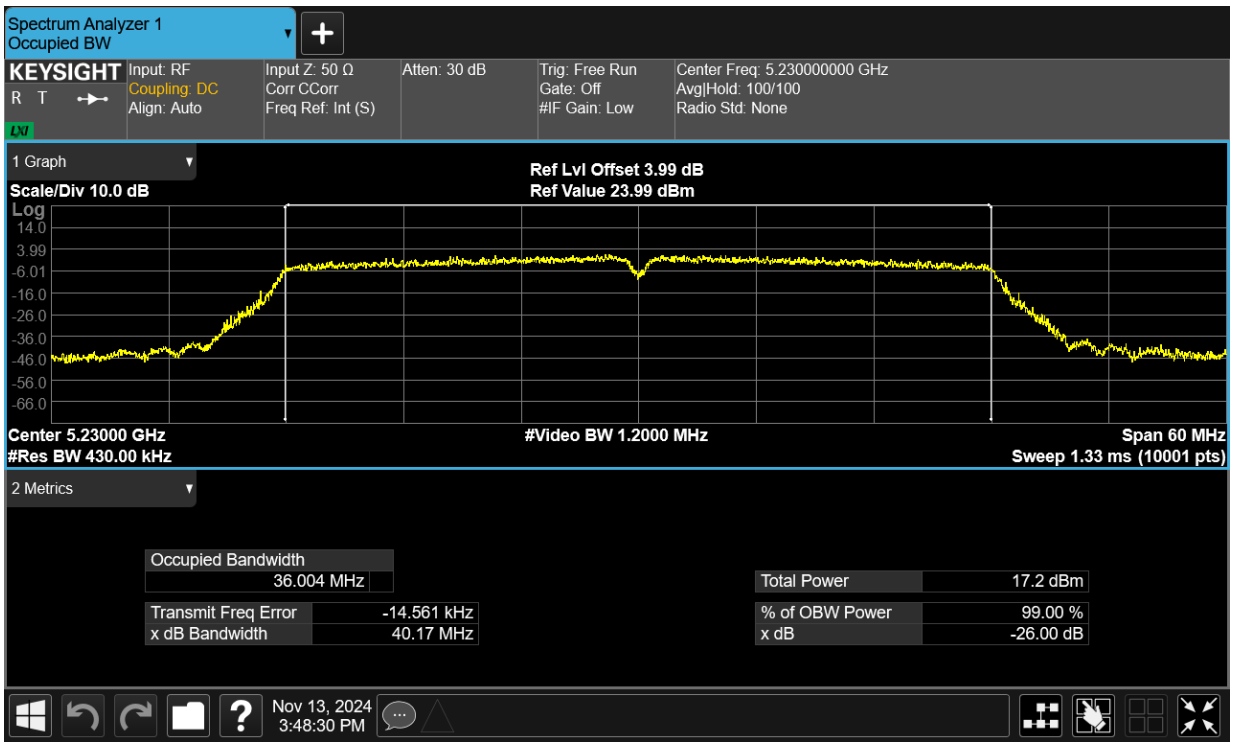
OBW NVNT ac20 5240MHz Ant1



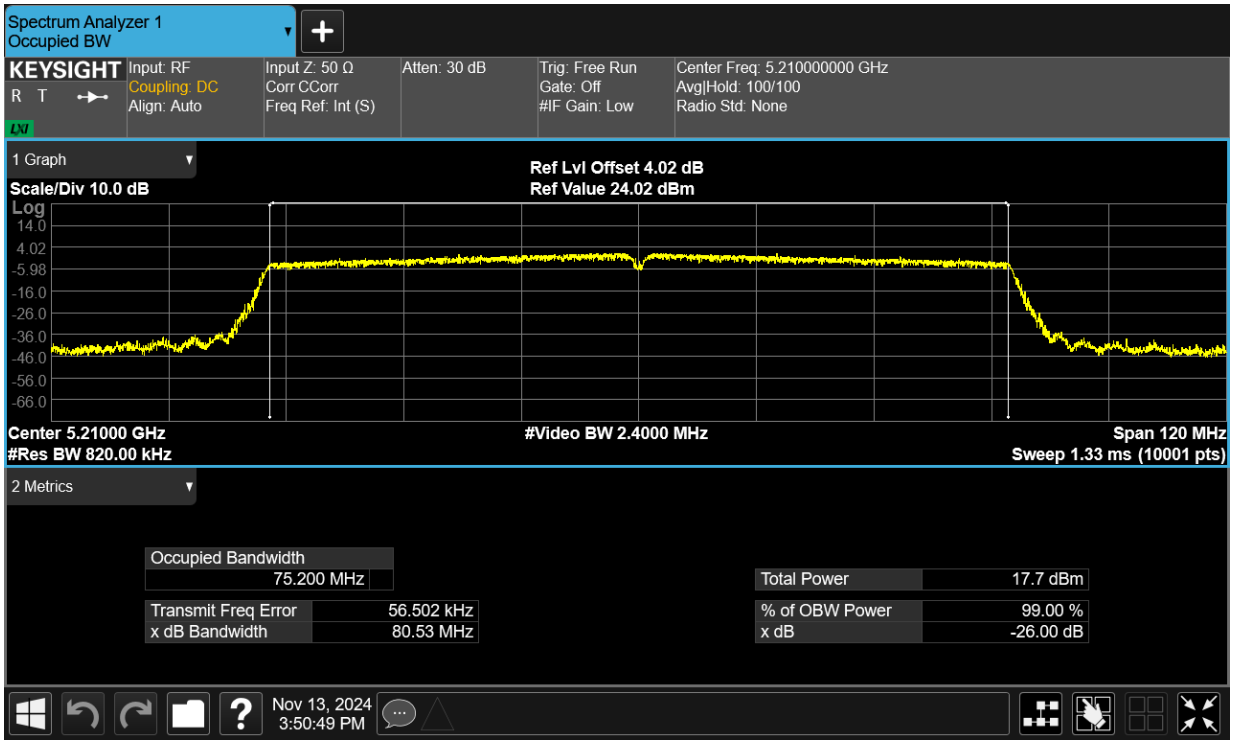
OBW NVNT ac40 5190MHz Ant1



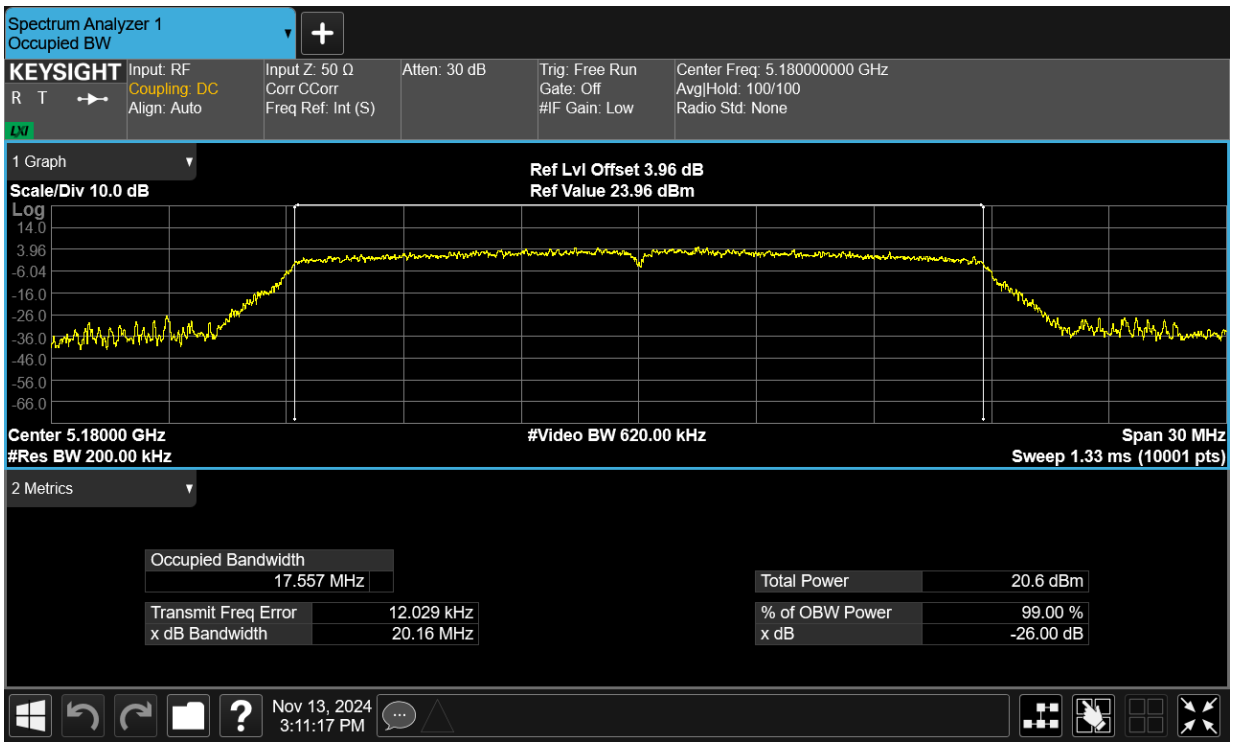
OBW NVNT ac40 5230MHz Ant1



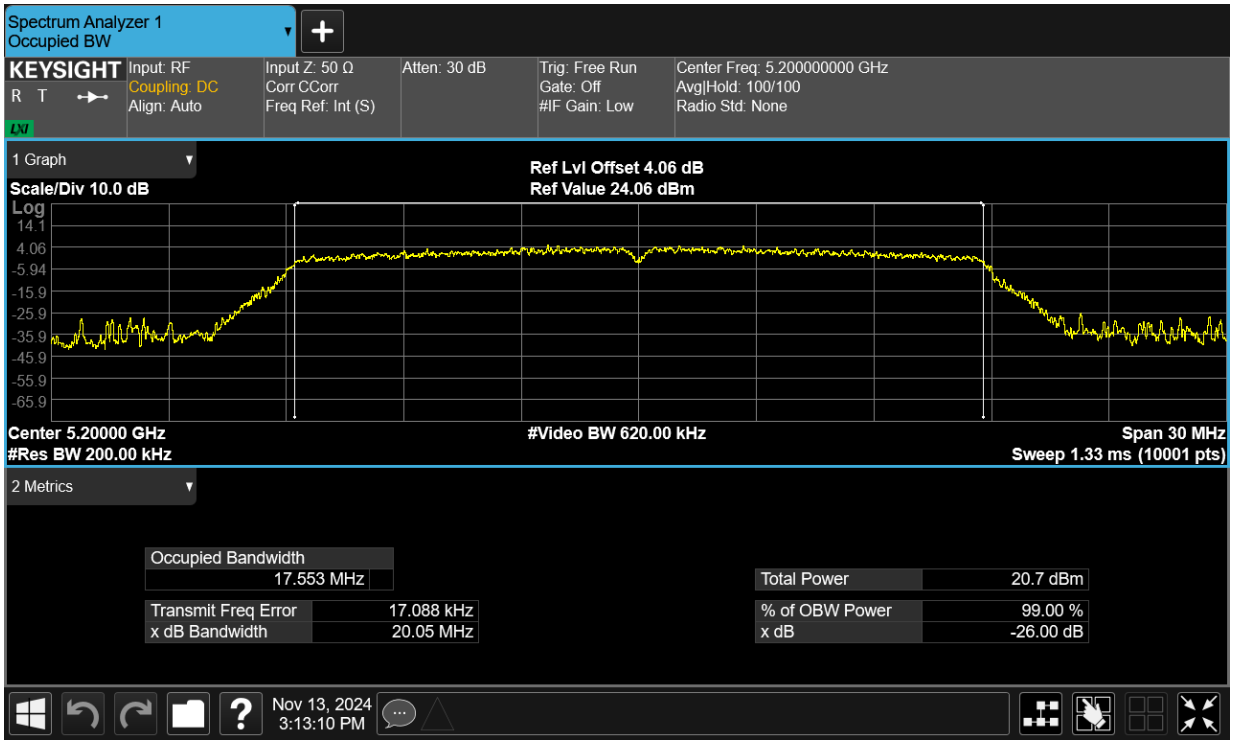
OBW NVNT ac80 5210MHz Ant1



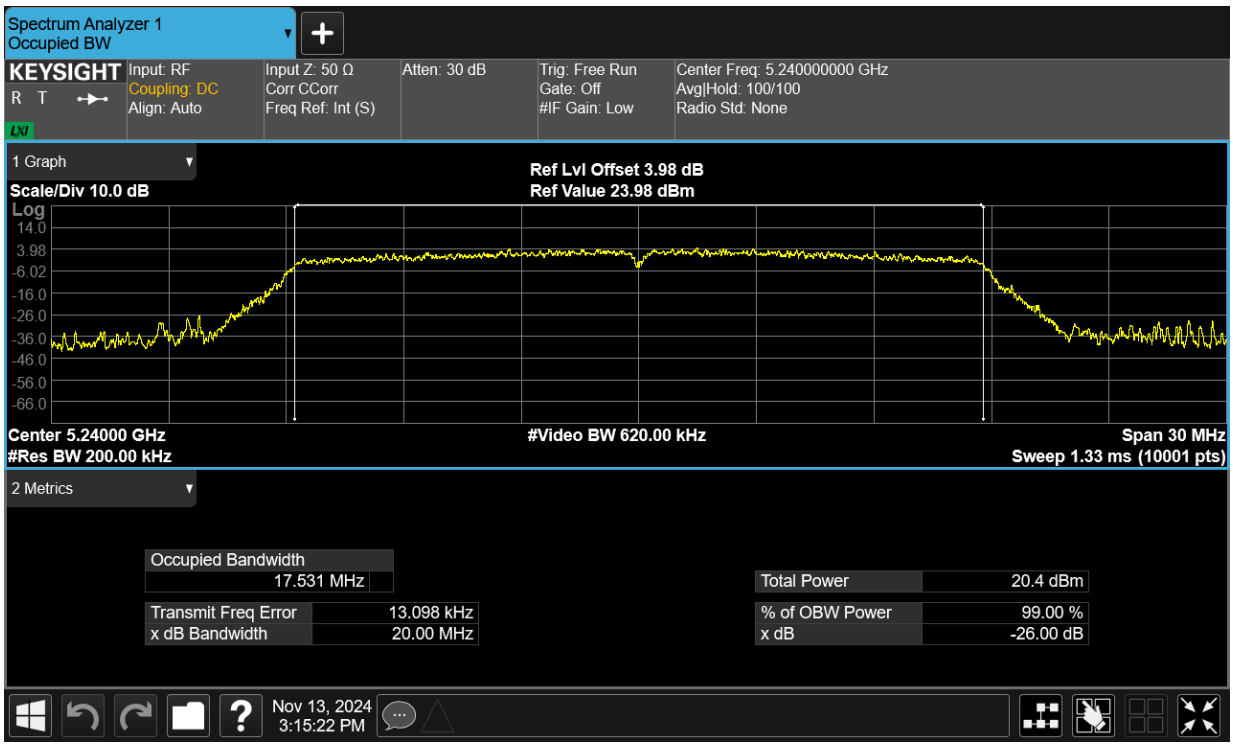
OBW NVNT n20 5180MHz Ant1



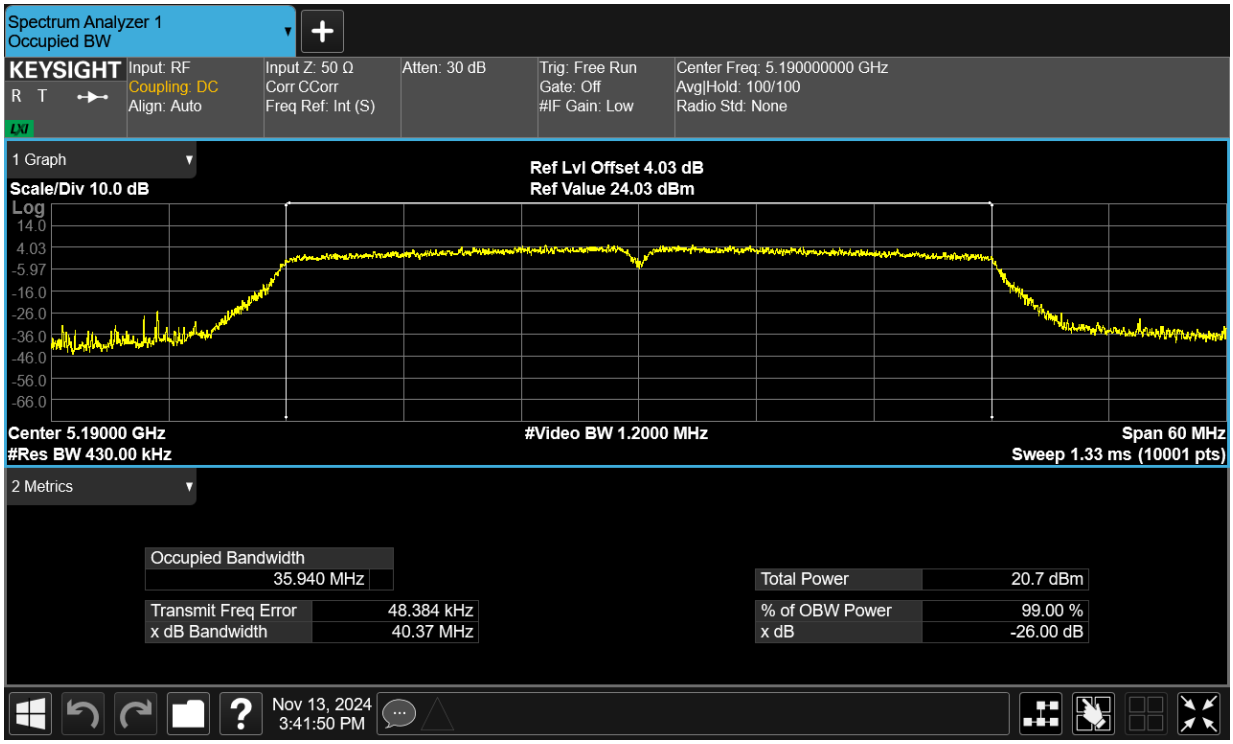
OBW NVNT n20 5200MHz Ant1



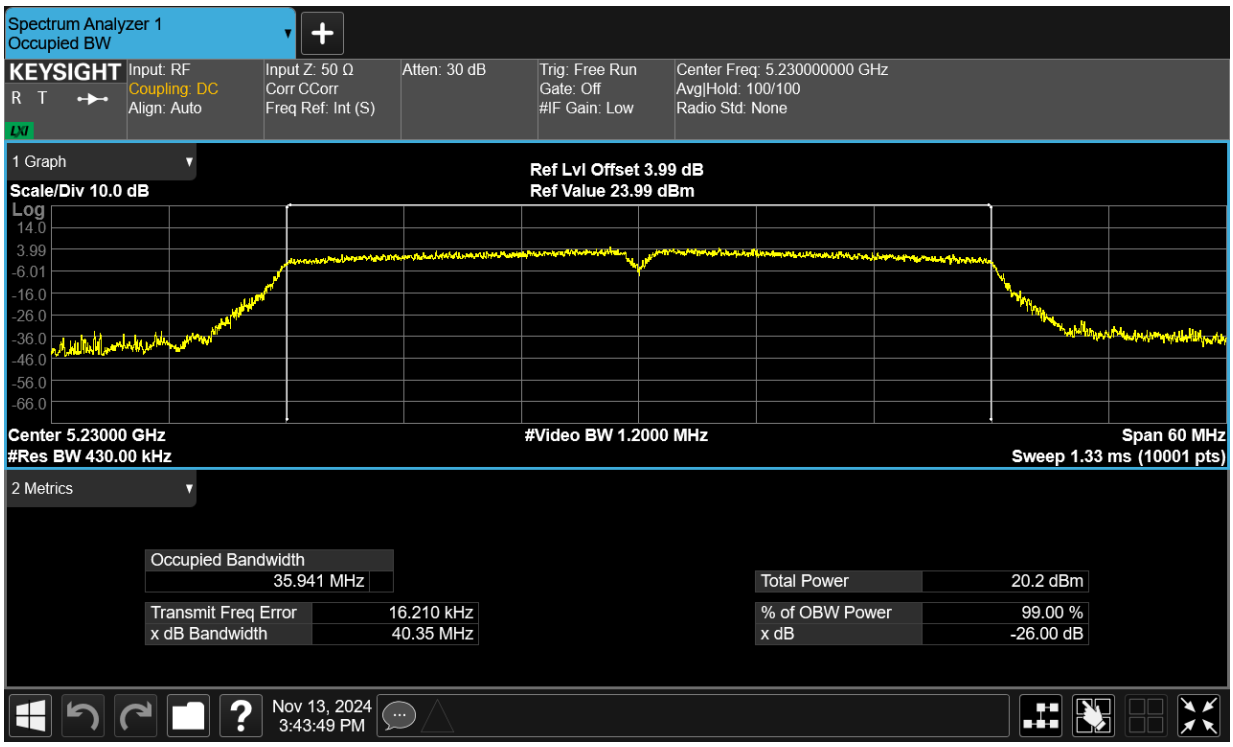
OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



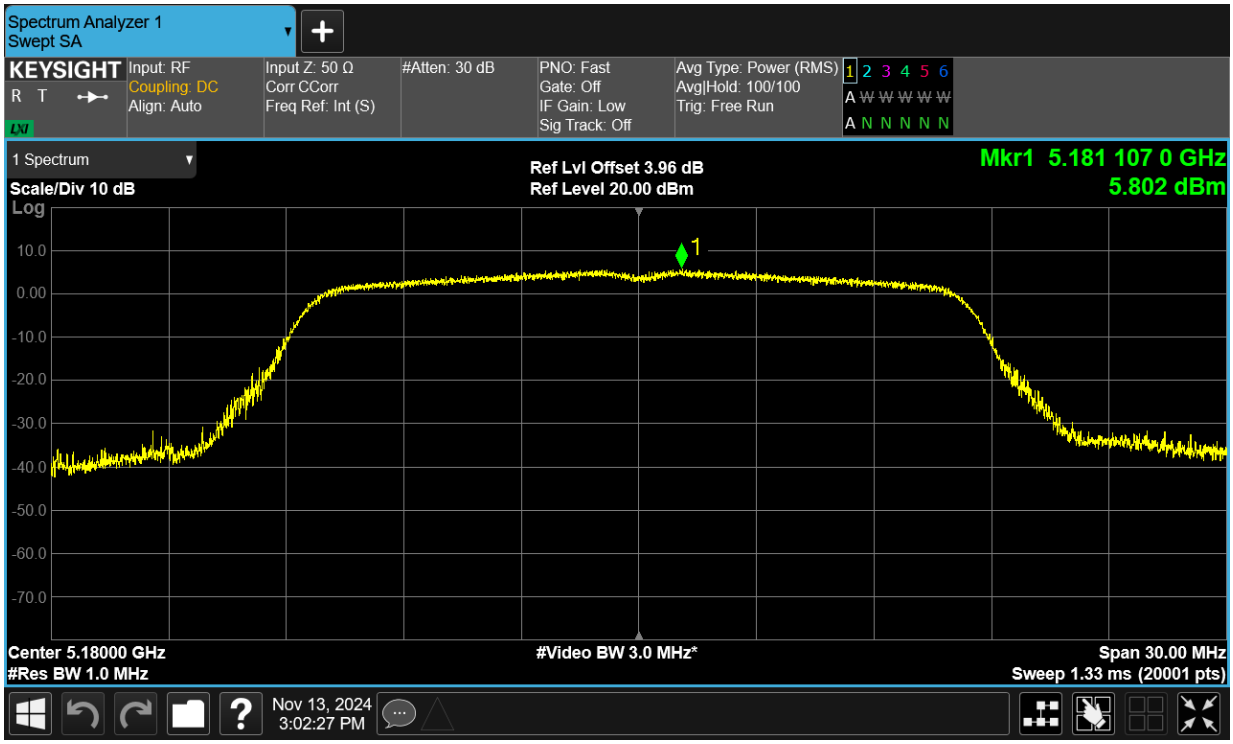
OBW NVNT n40 5230MHz Ant1



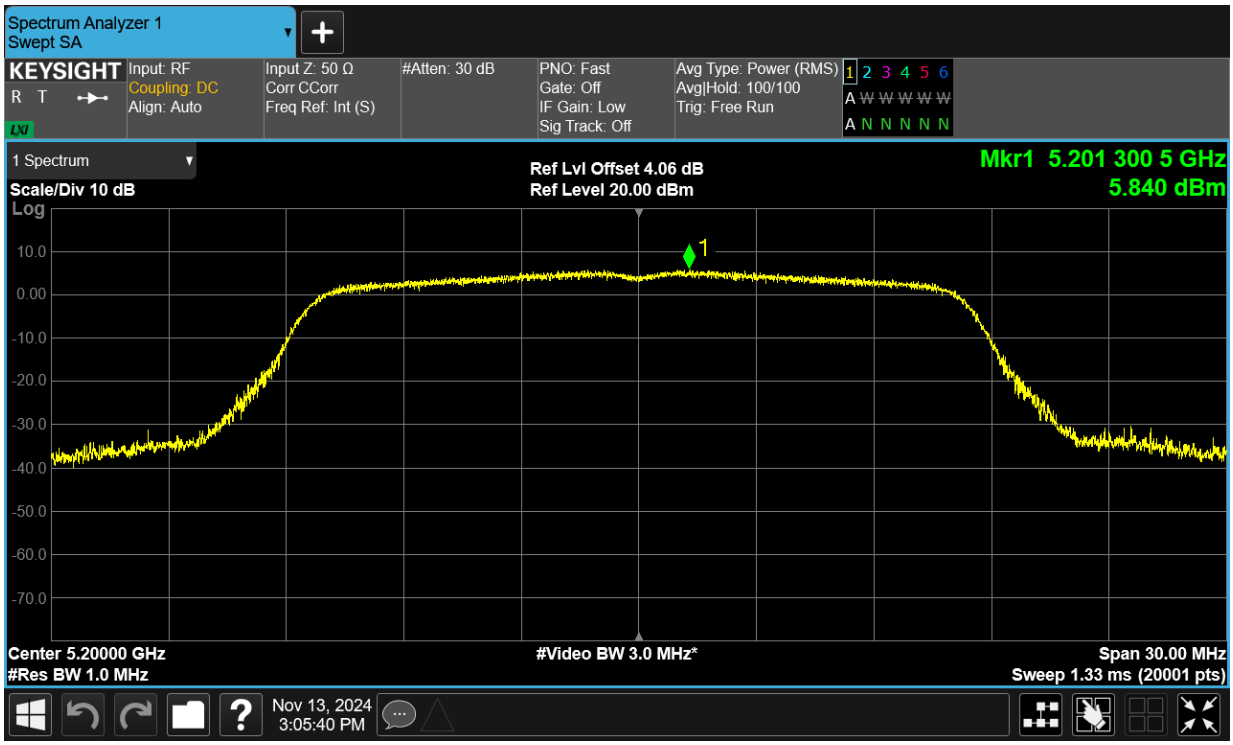
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	5.802	11	Pass
NVNT	a	5200	Ant1	5.84	11	Pass
NVNT	a	5240	Ant1	6.135	11	Pass
NVNT	ac20	5180	Ant1	1.249	11	Pass
NVNT	ac20	5200	Ant1	1.304	11	Pass
NVNT	ac20	5240	Ant1	0.842	11	Pass
NVNT	ac40	5190	Ant1	-1.402	11	Pass
NVNT	ac40	5230	Ant1	-1.323	11	Pass
NVNT	ac80	5210	Ant1	-4.486	11	Pass
NVNT	n20	5180	Ant1	5.534	11	Pass
NVNT	n20	5200	Ant1	5.367	11	Pass
NVNT	n20	5240	Ant1	5.153	11	Pass
NVNT	n40	5190	Ant1	2.391	11	Pass
NVNT	n40	5230	Ant1	1.88	11	Pass

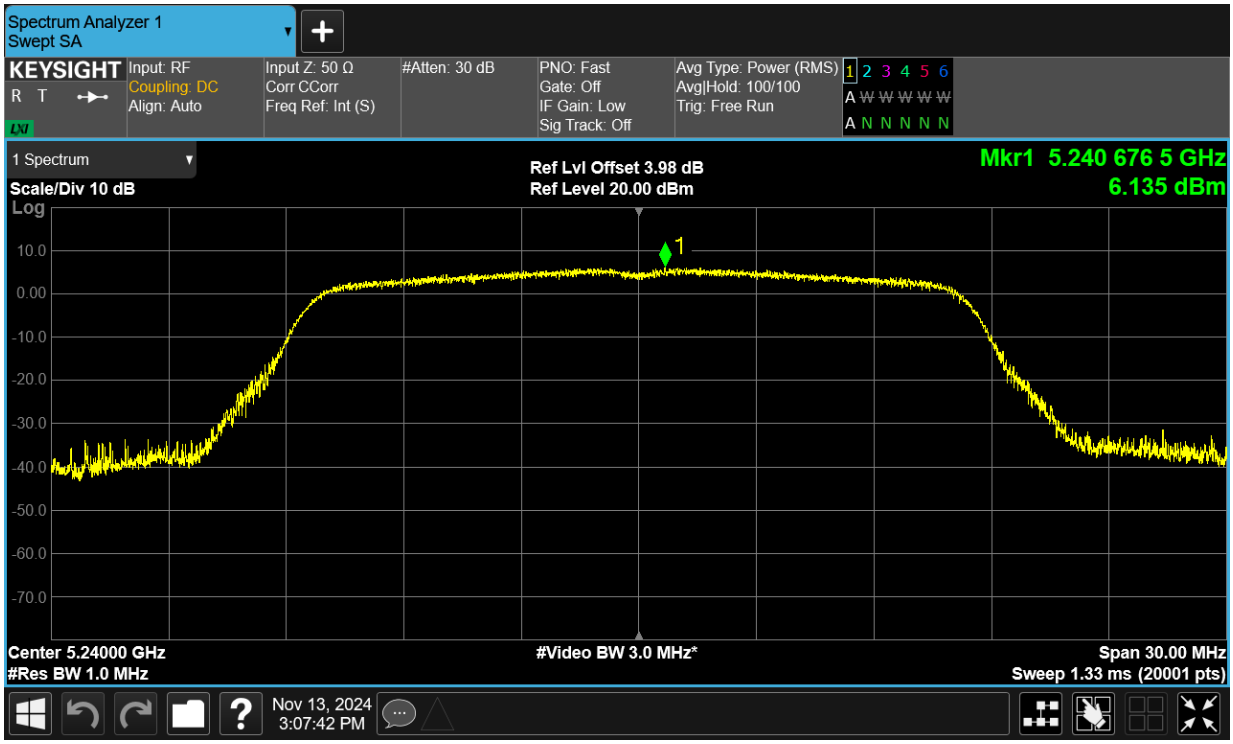
Test Graphs
PSD NVNT a 5180MHz Ant1



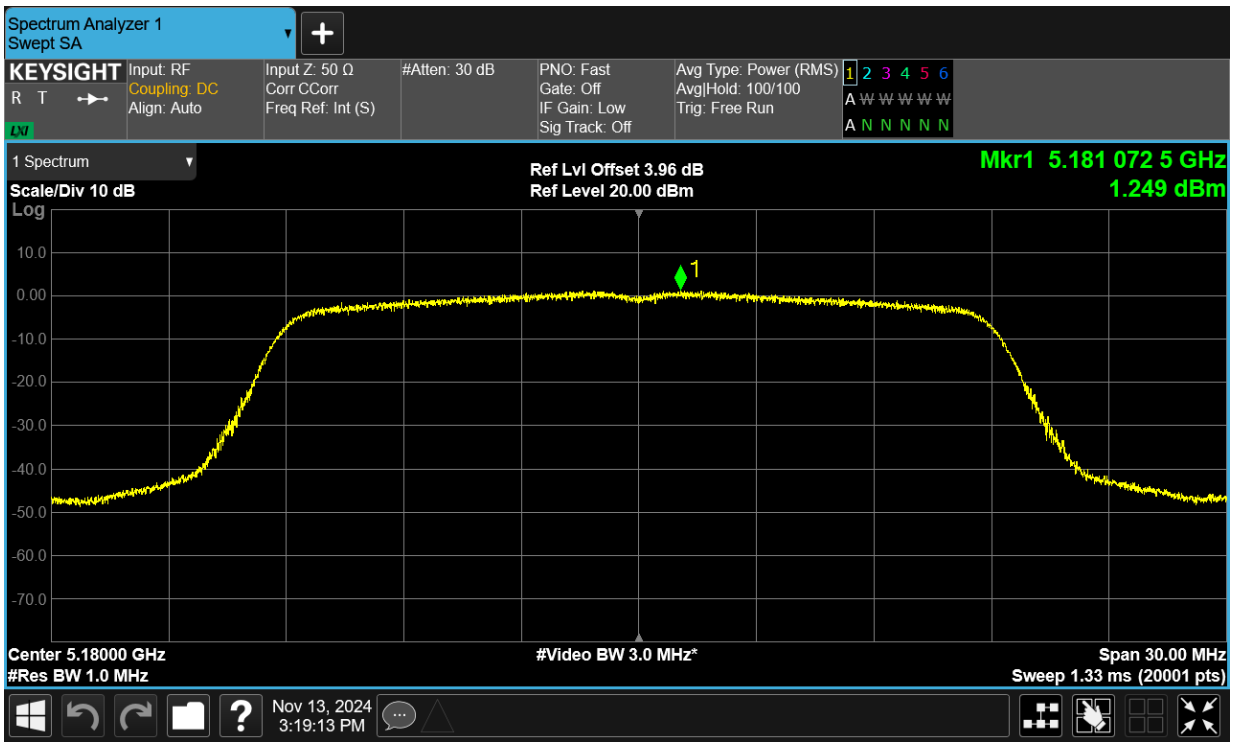
PSD NVNT a 5200MHz Ant1



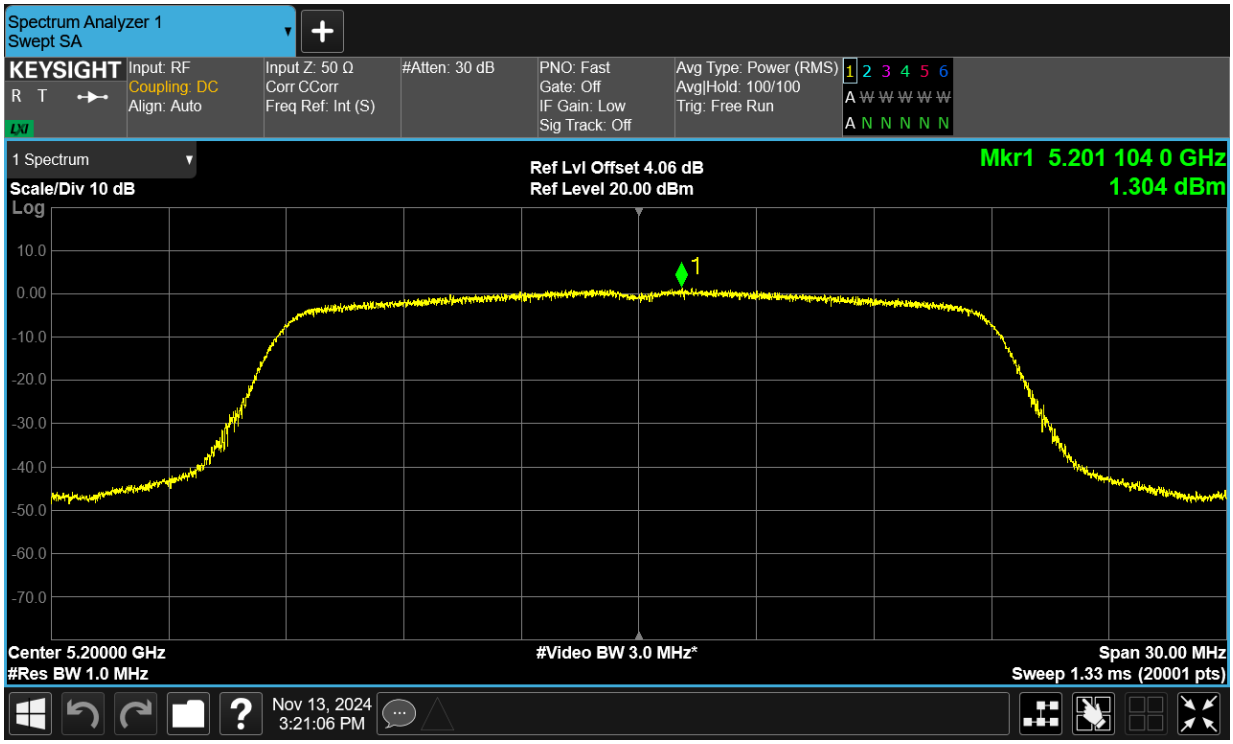
PSD NVNT a 5240MHz Ant1



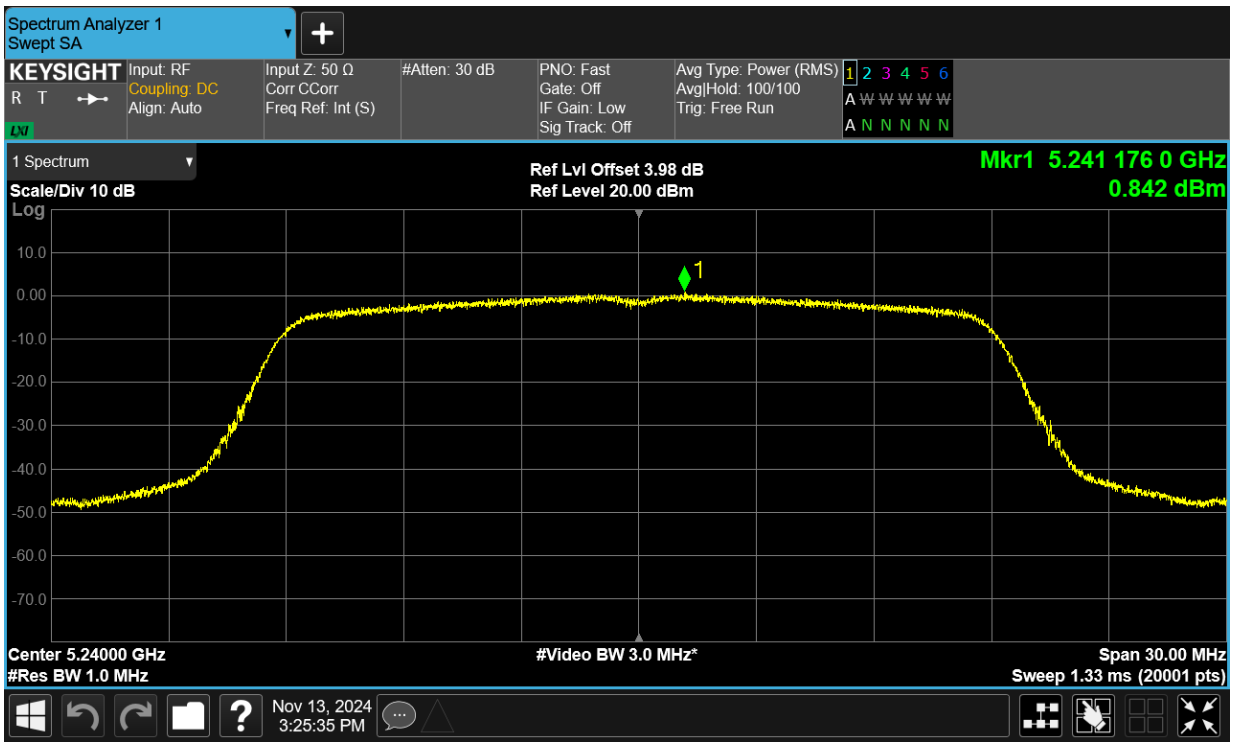
PSD NVNT ac20 5180MHz Ant1



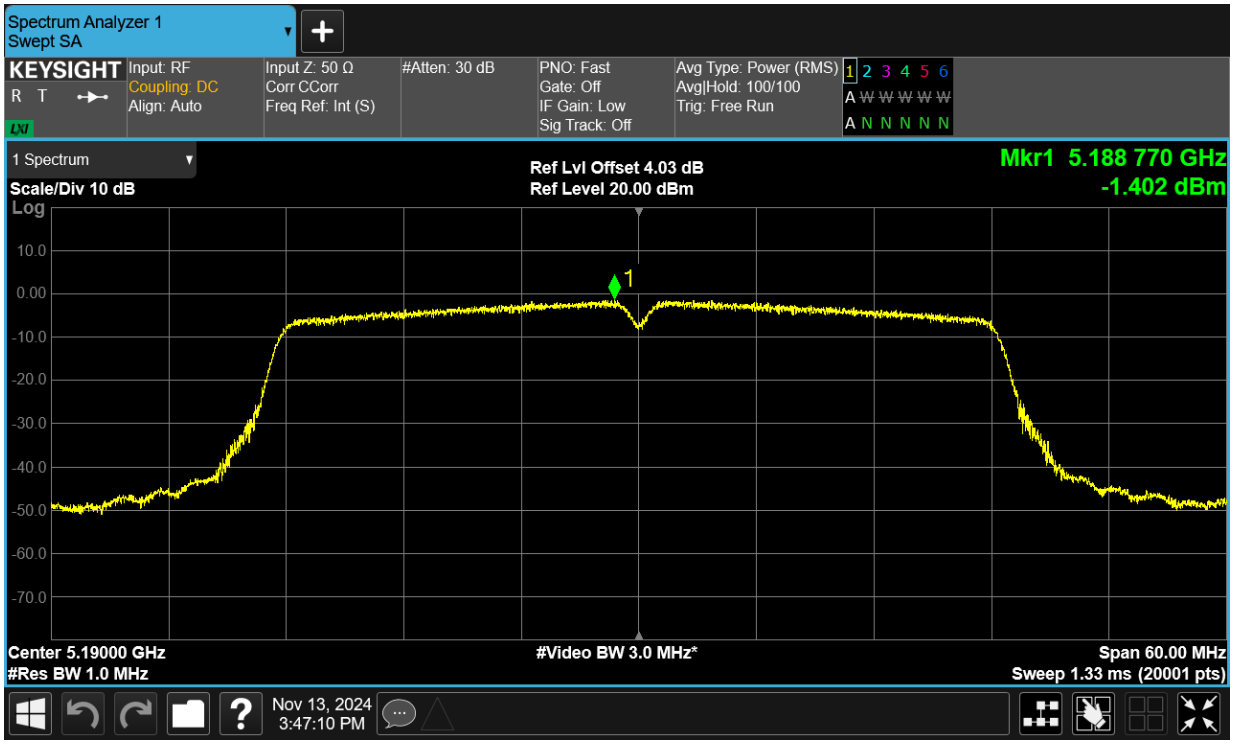
PSD NVNT ac20 5200MHz Ant1



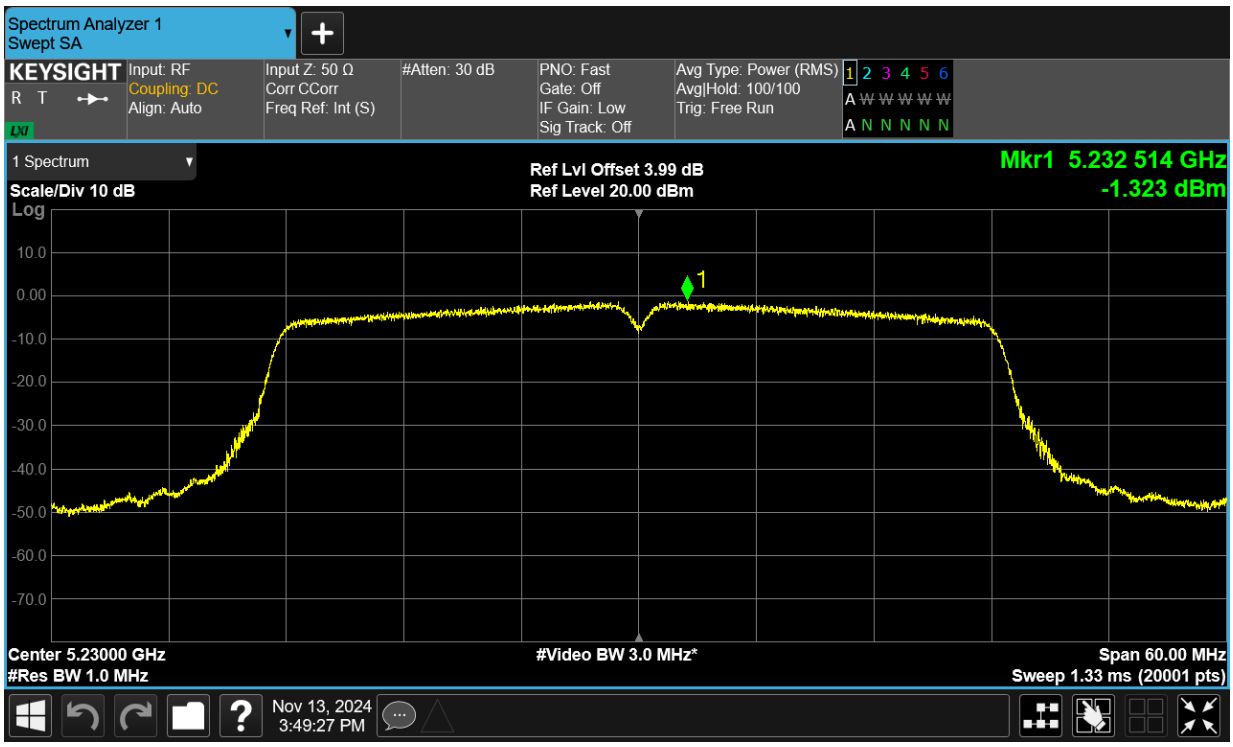
PSD NVNT ac20 5240MHz Ant1



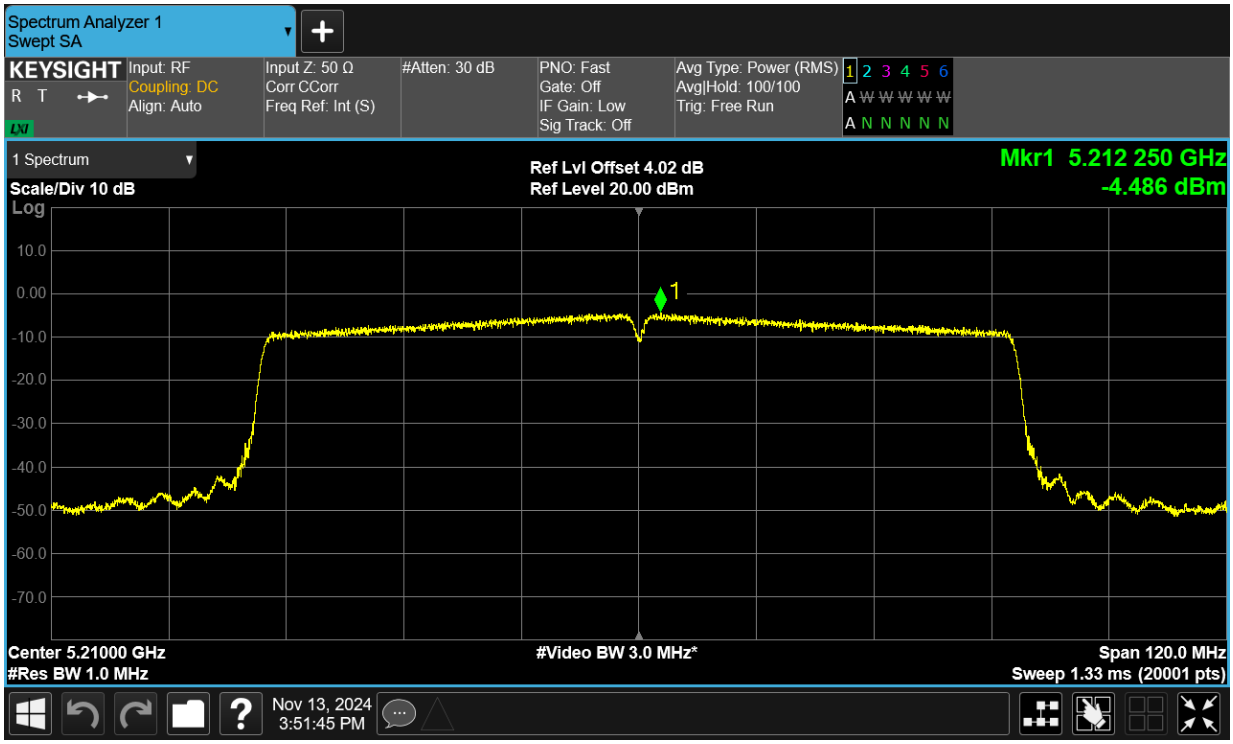
PSD NVNT ac40 5190MHz Ant1



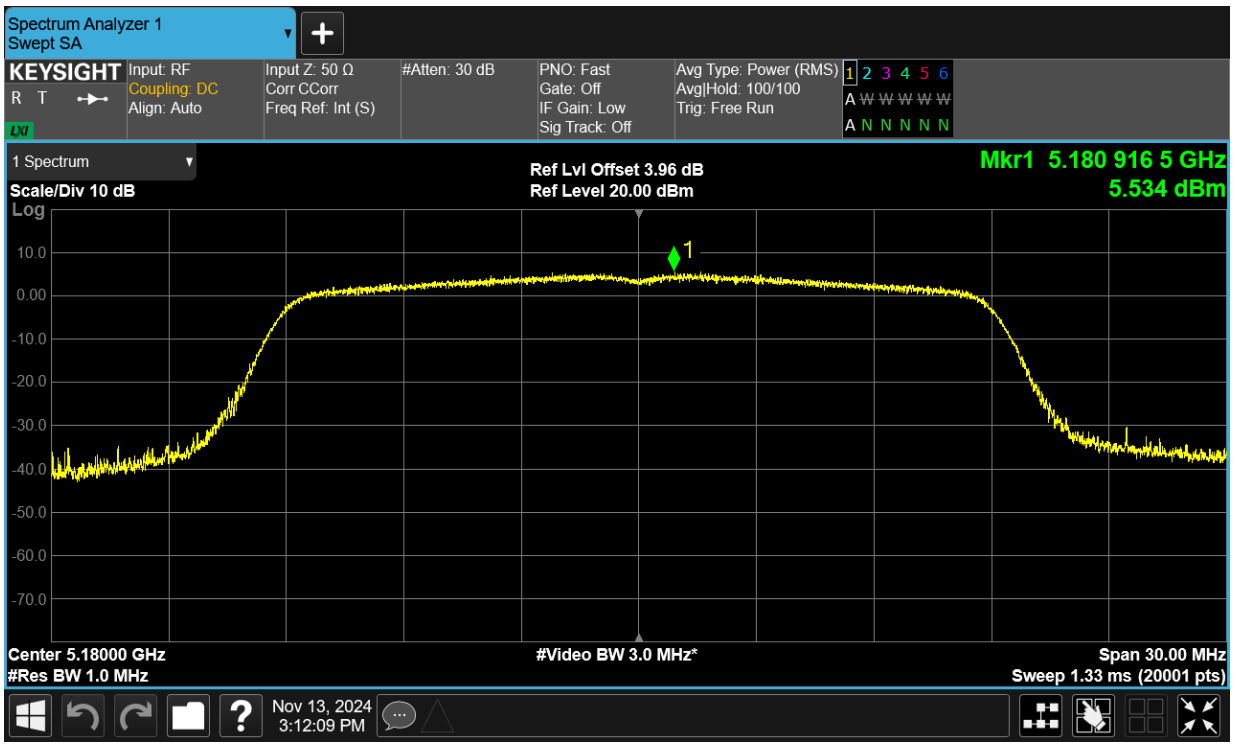
PSD NVNT ac40 5230MHz Ant1



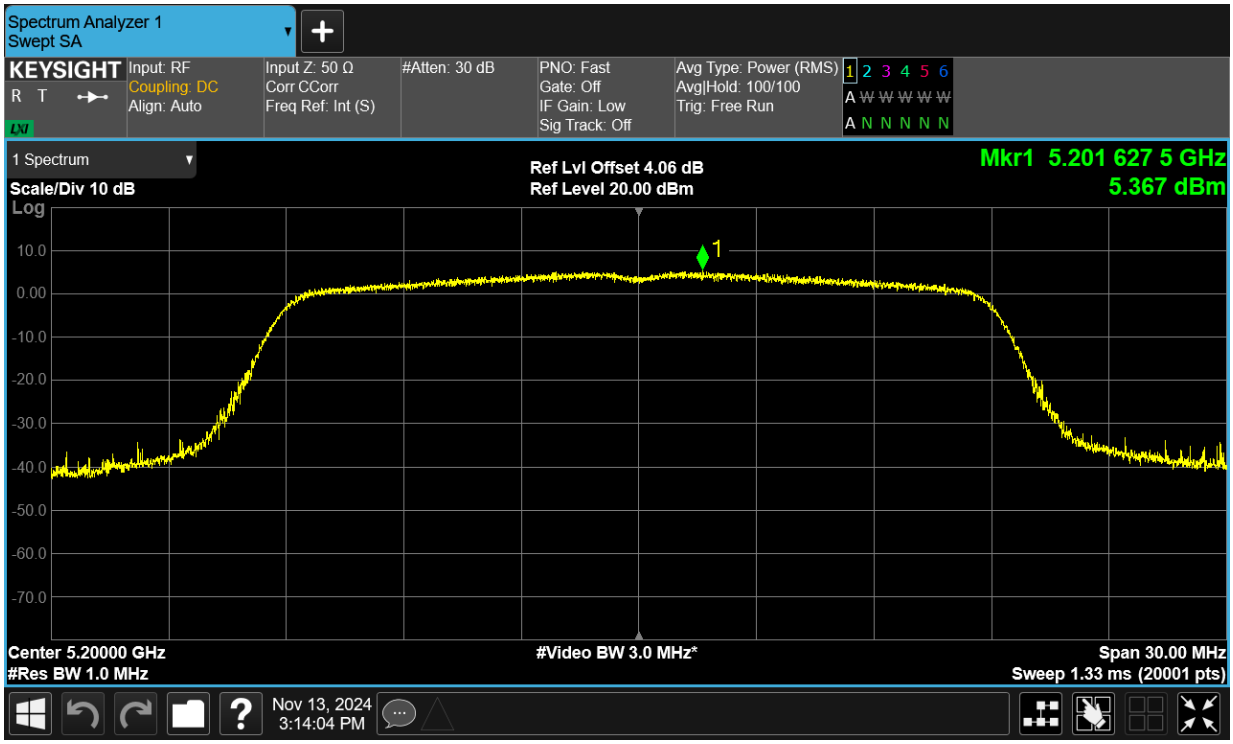
PSD NVNT ac80 5210MHz Ant1



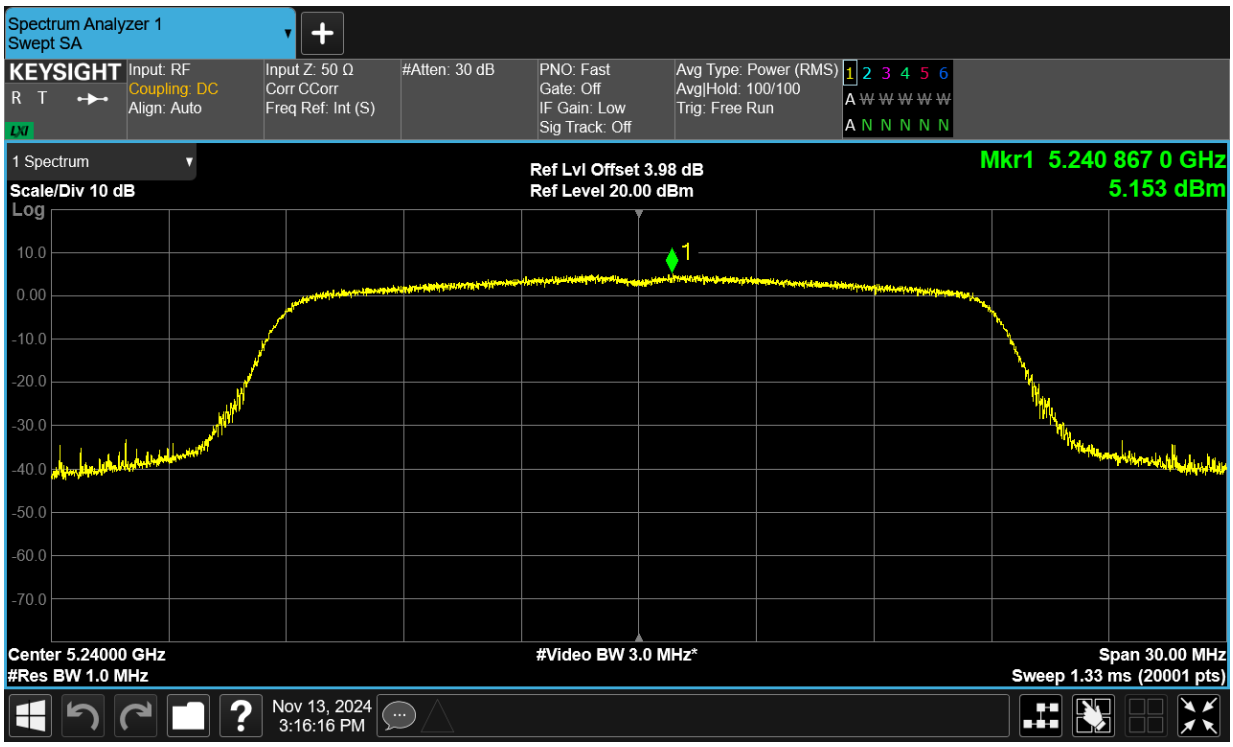
PSD NVNT n20 5180MHz Ant1



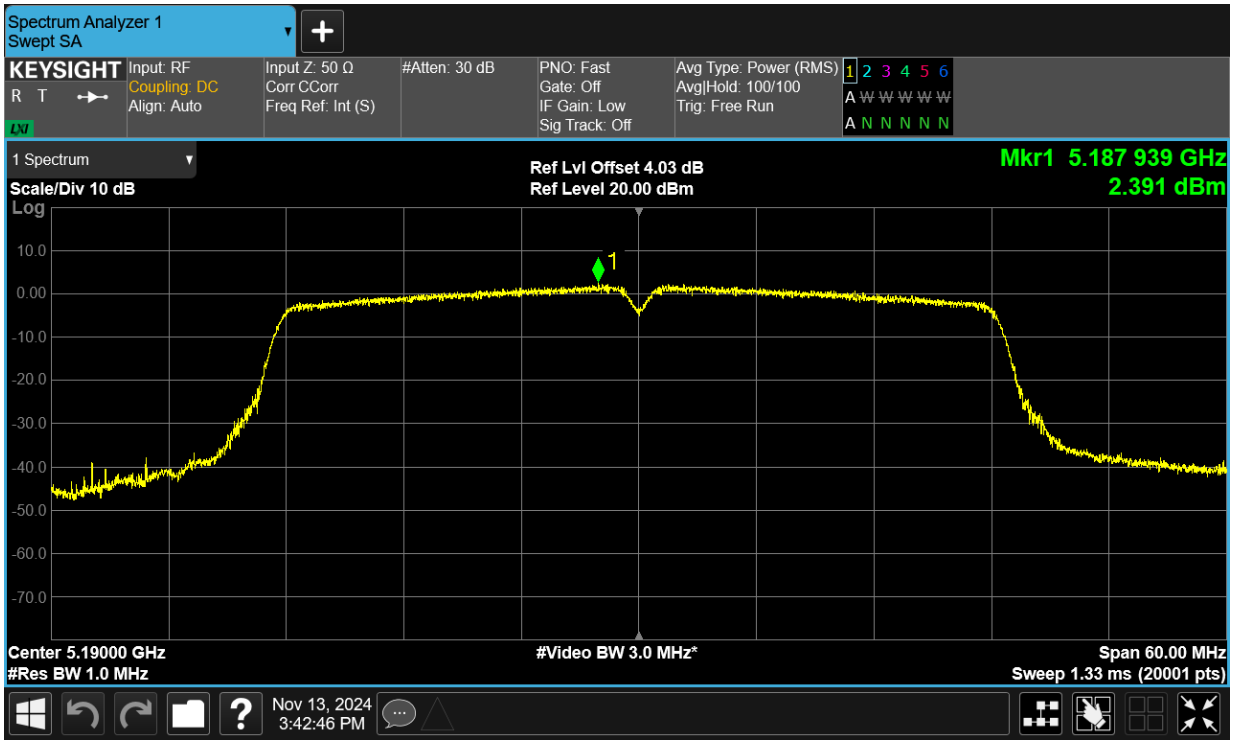
PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1



PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1