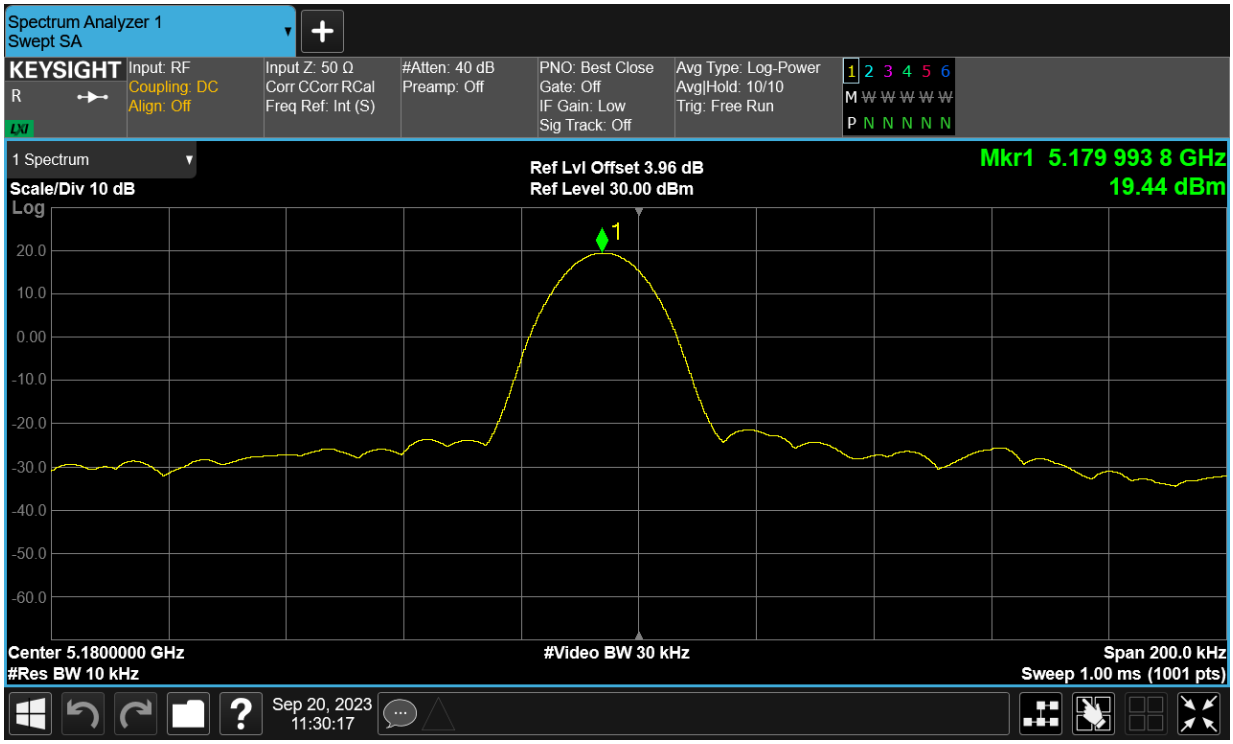
Test Data

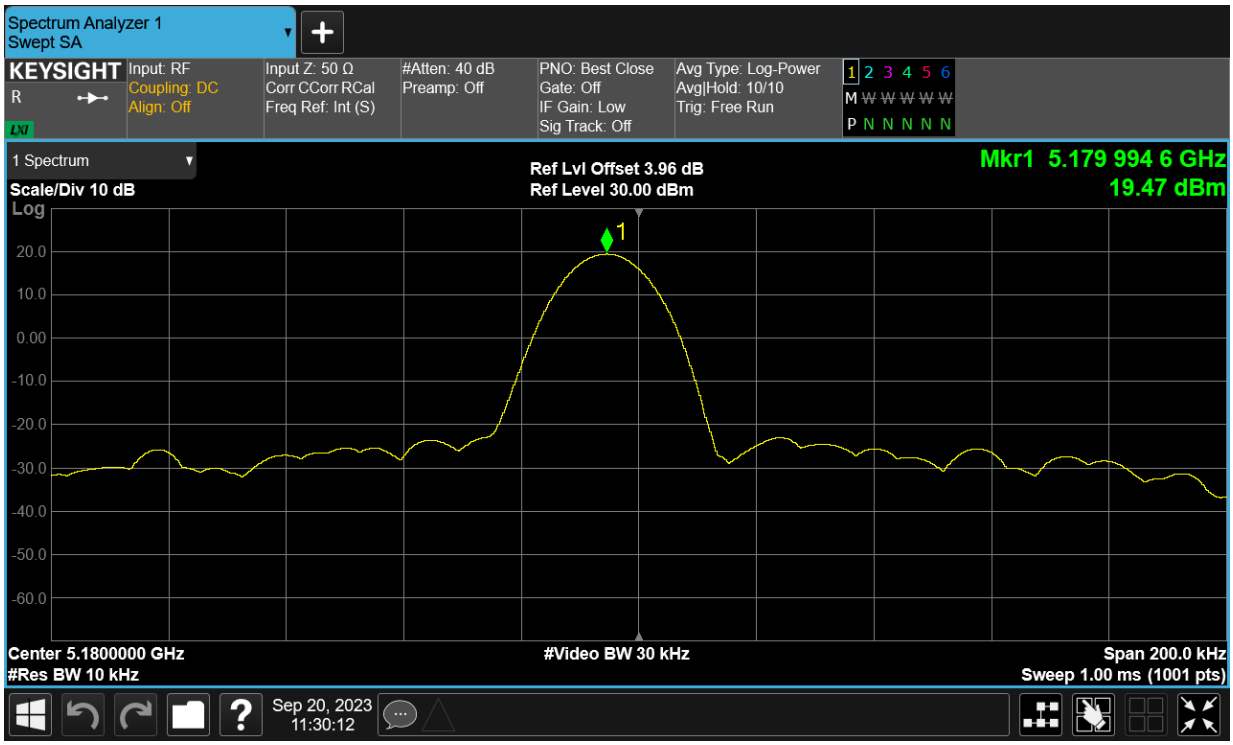
Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
HVNT	a	5180	Ant12	5179.9938	-1.2	Within authorized band	Pass
LVNT	a	5180	Ant12	5179.9946	-1.04		Pass
NVHT	a	5180	Ant12	5179.995	-0.97		Pass
NVLT	a	5180	Ant12	5179.9954	-0.89		Pass
NVNT	a	5180	Ant12	5179.994	-1.16		Pass
HVNT	ac80	5210	Ant12	5209.9912	-1.69		Pass
LVNT	ac80	5210	Ant12	5209.9912	-1.69		Pass
NVHT	ac80	5210	Ant12	5209.9912	-1.69		Pass
NVLT	ac80	5210	Ant12	5209.9912	-1.69		Pass
NVNT	ac80	5210	Ant12	5209.991326022	-1.66		Pass
HVNT	n40	5190	Ant12	5189.9914	-1.66		Pass
LVNT	n40	5190	Ant12	5189.9914	-1.66		Pass
NVHT	n40	5190	Ant12	5189.9916	-1.62		Pass
NVLT	n40	5190	Ant12	5189.9922	-1.5		Pass
NVNT	n40	5190	Ant12	5189.993	-1.35		Pass
Remark: “NTNV” means Normal Temperature Normal Voltage, “NVHT” means Normal Voltage High Temperature, “NVLT” means Normal Voltage Low Temperature, “LVNT” means Low Voltage Normal Temperature, “HVNT” means High Voltage Normal Temperature							

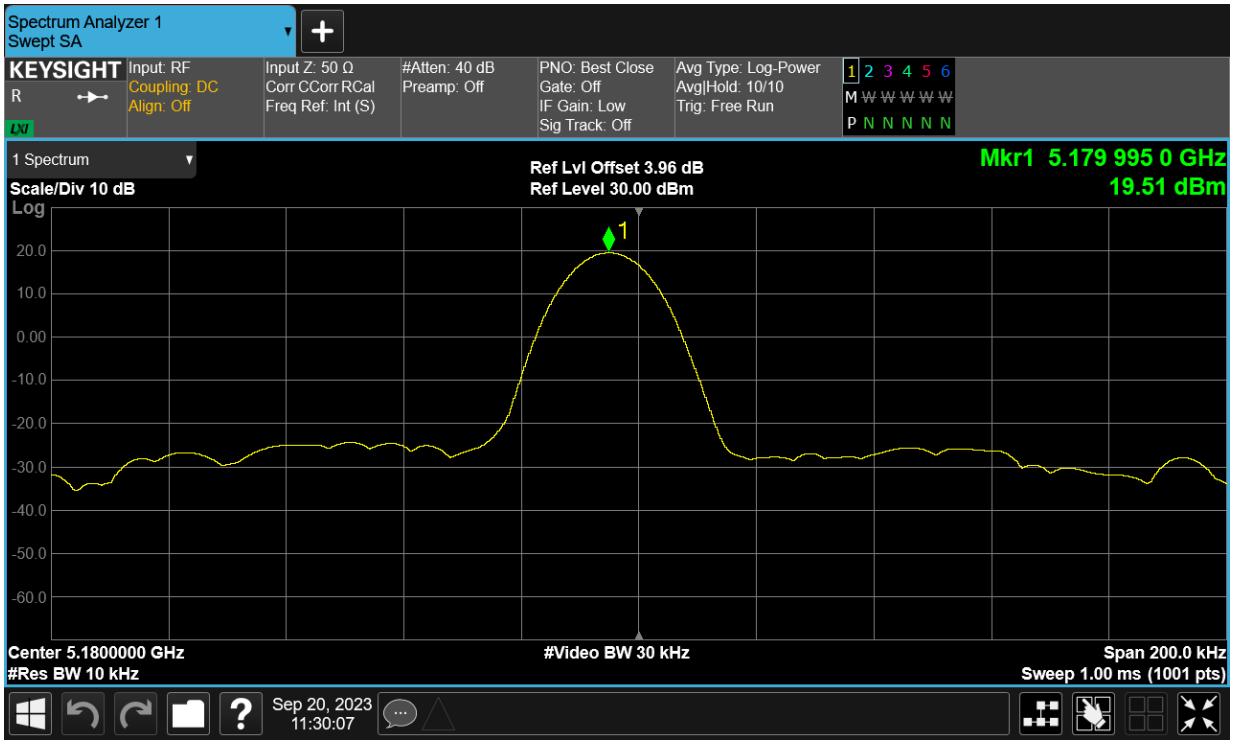
Test Graphs
Freq. Stability HVNT a 5180MHz Ant12



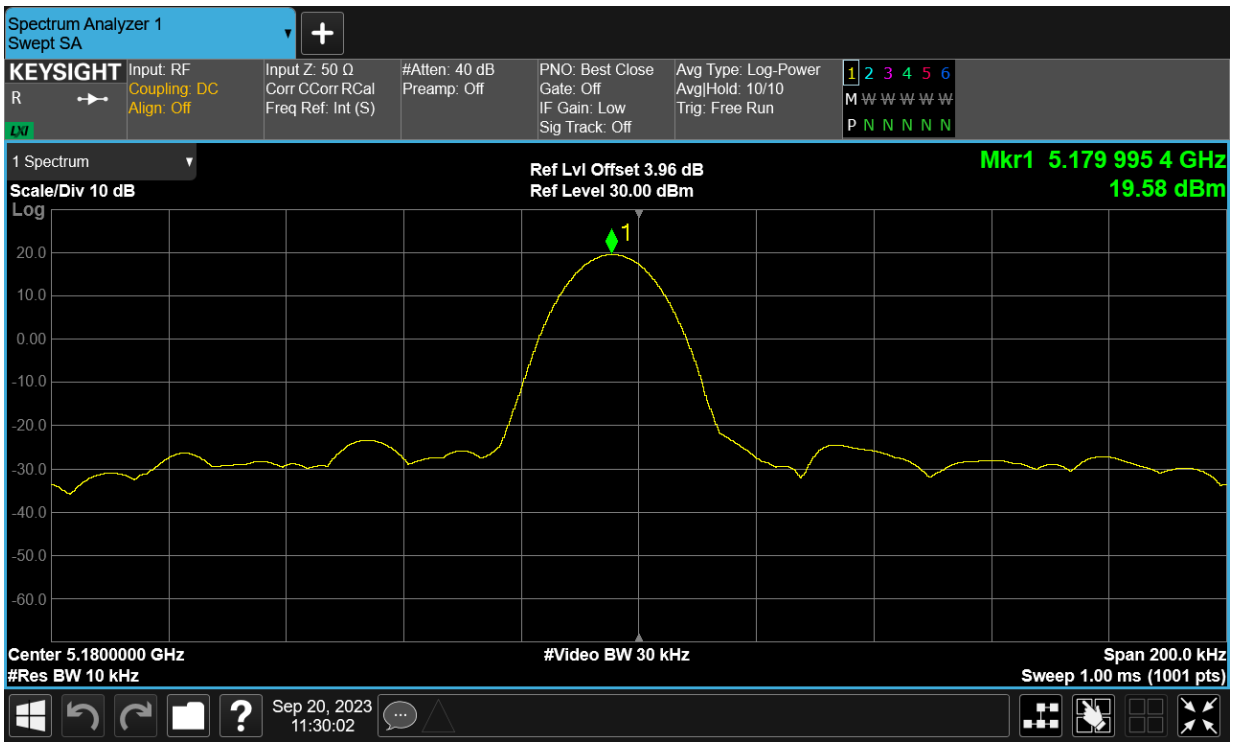
Freq. Stability LVNT a 5180MHz Ant12



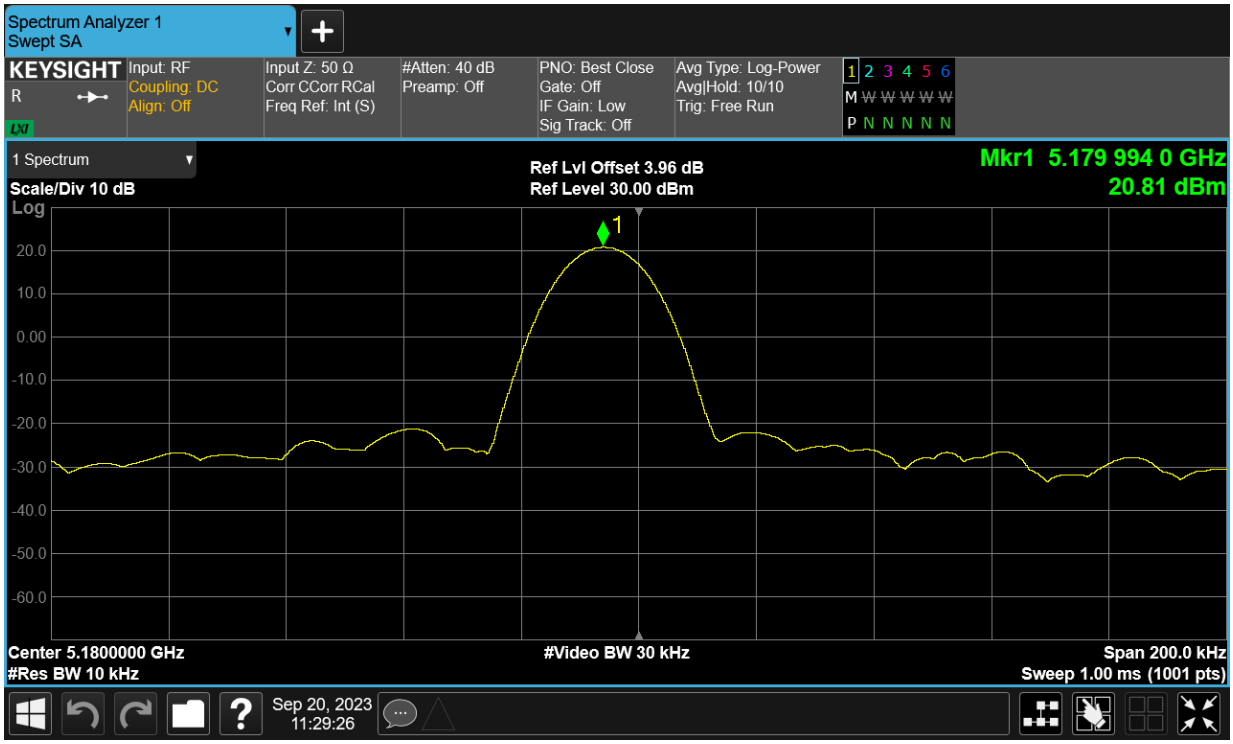
Freq. Stability NVHT a 5180MHz Ant12



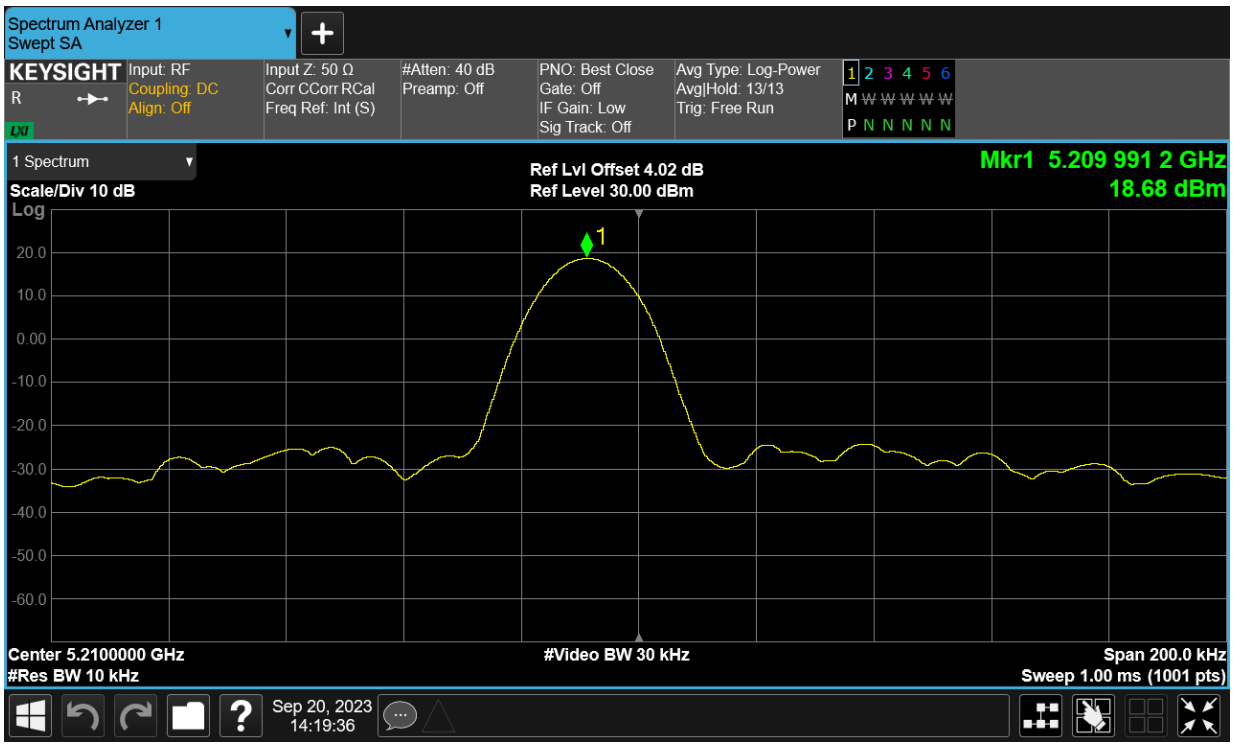
Freq. Stability NVLT a 5180MHz Ant12



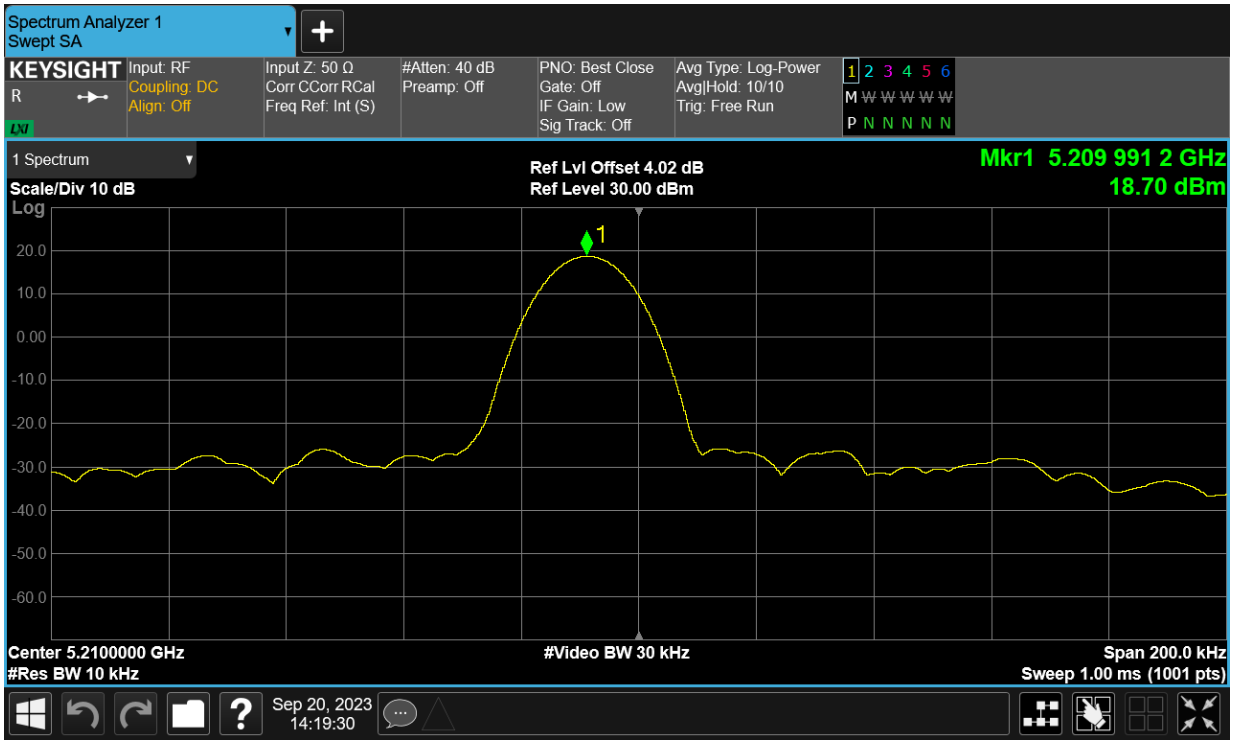
Freq. Stability NVNT a 5180MHz Ant12



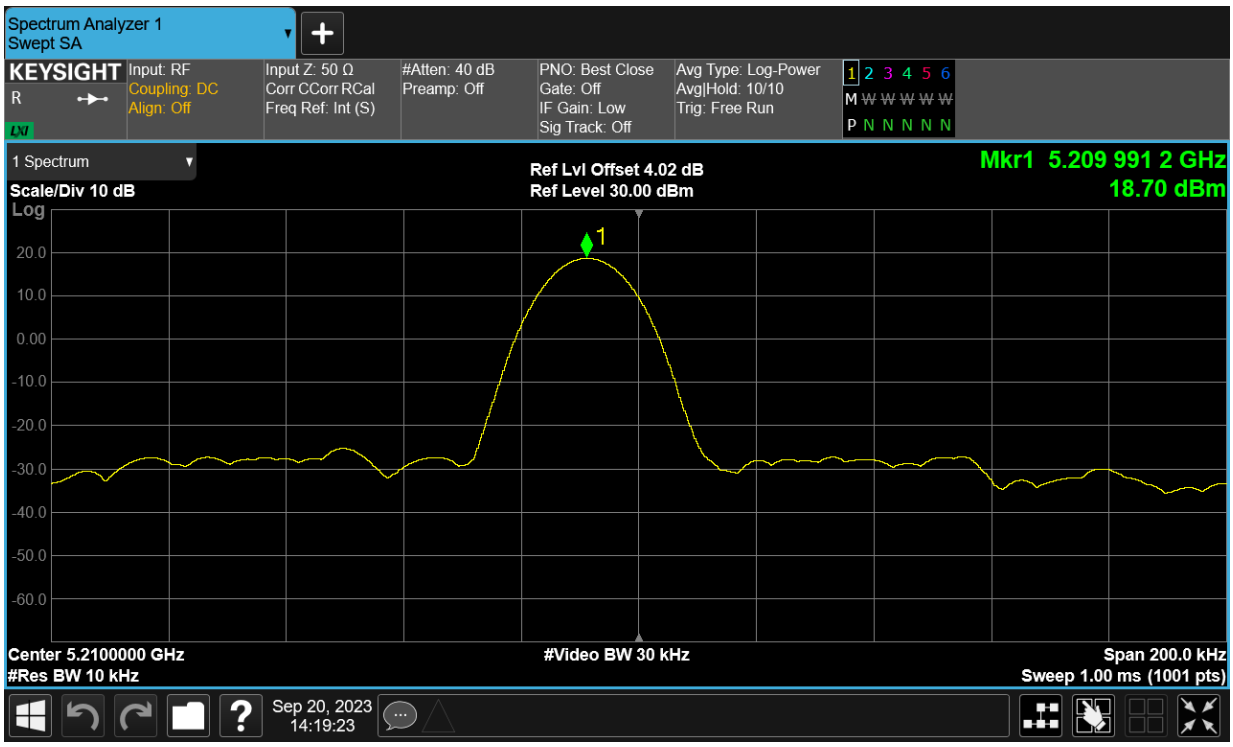
Freq. Stability HVNT ac80 5210MHz Ant12



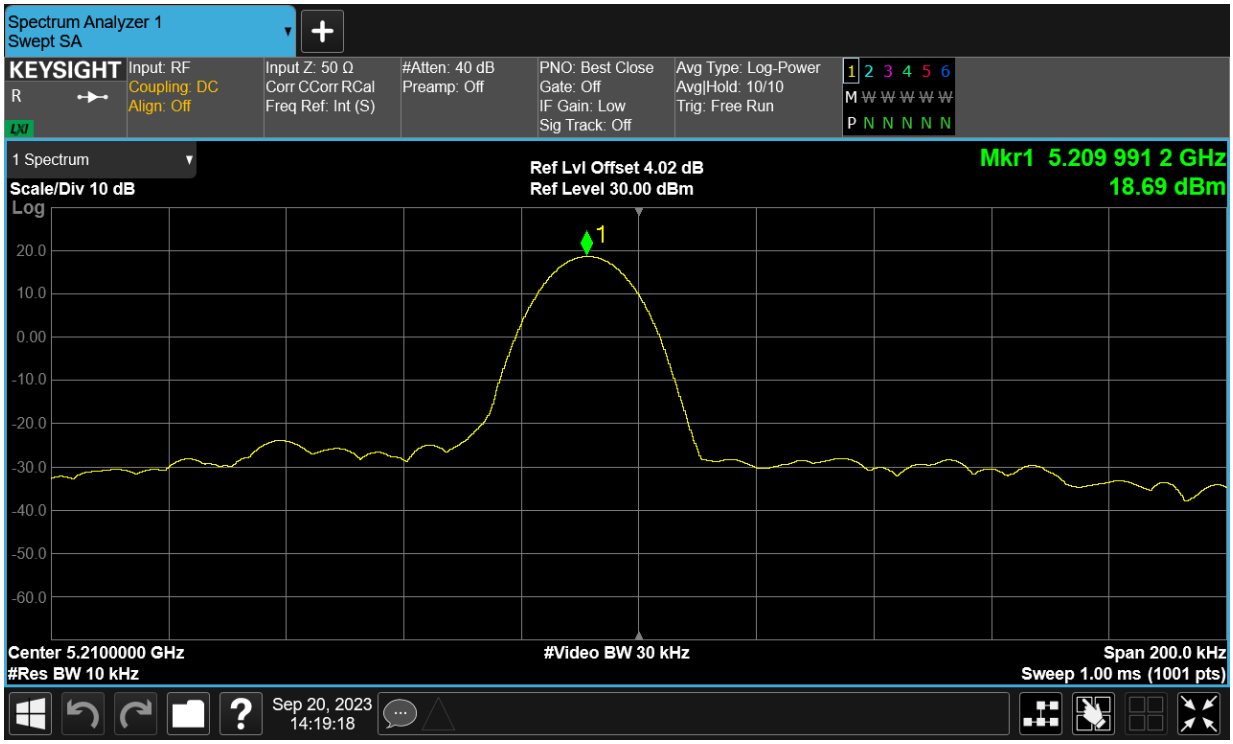
Freq. Stability LVNT ac80 5210MHz Ant12



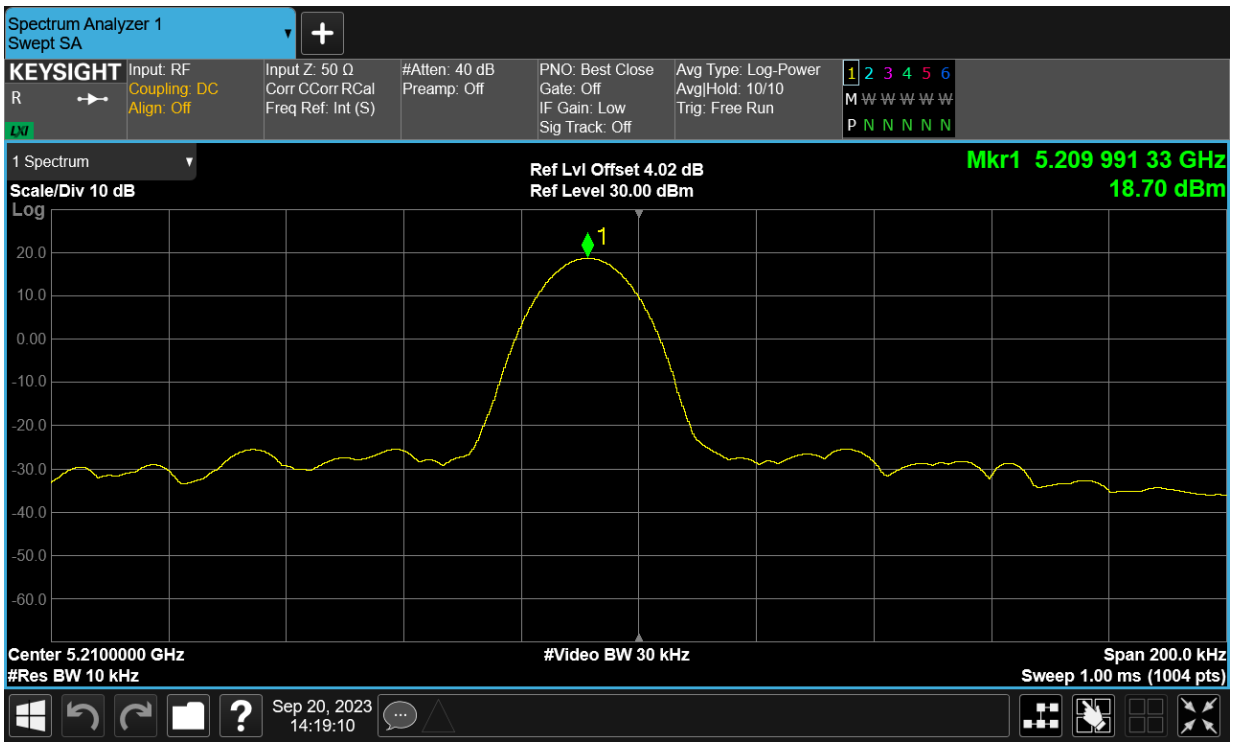
Freq. Stability NVHT ac80 5210MHz Ant12



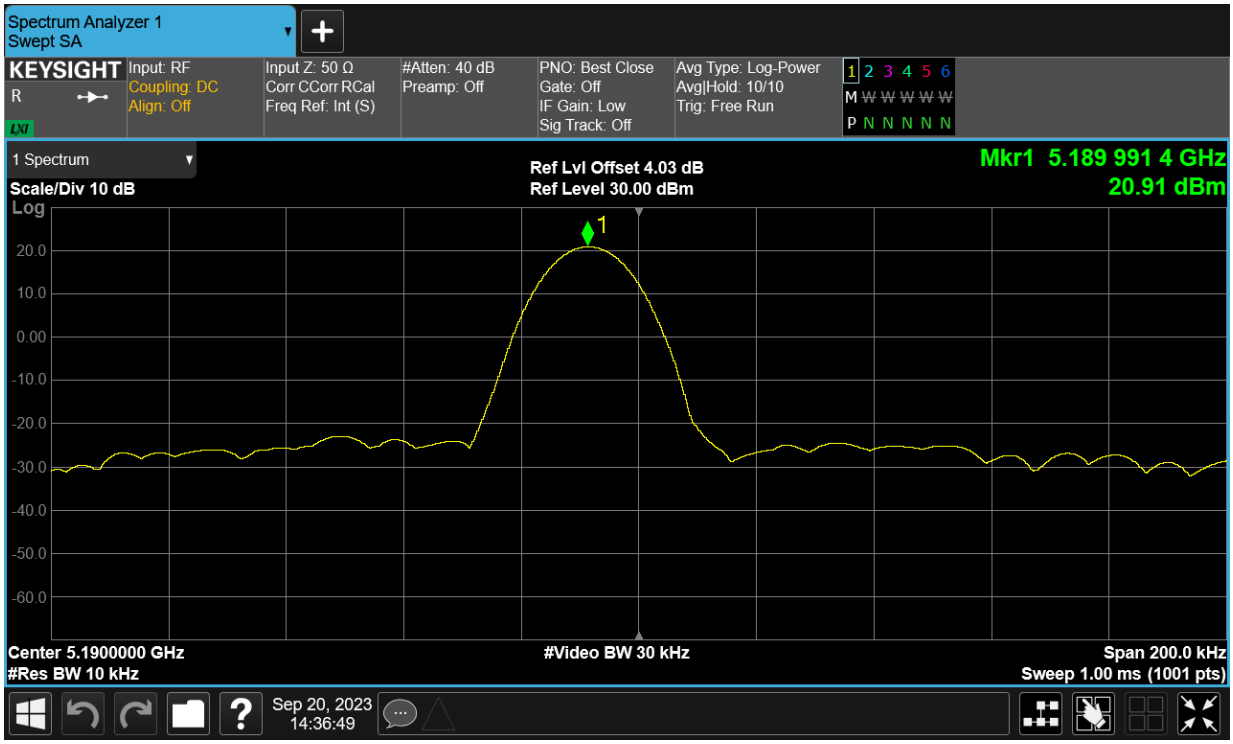
Freq. Stability NVLT ac80 5210MHz Ant12



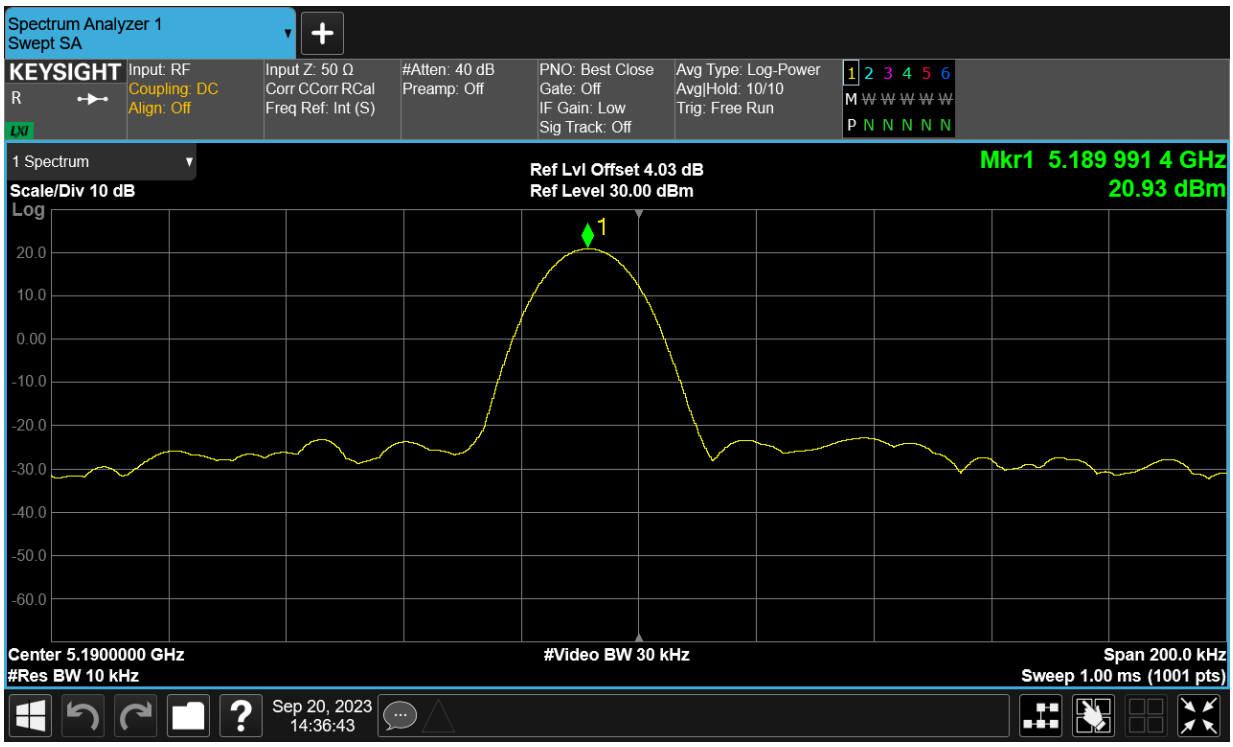
Freq. Stability NVNT ac80 5210MHz Ant12



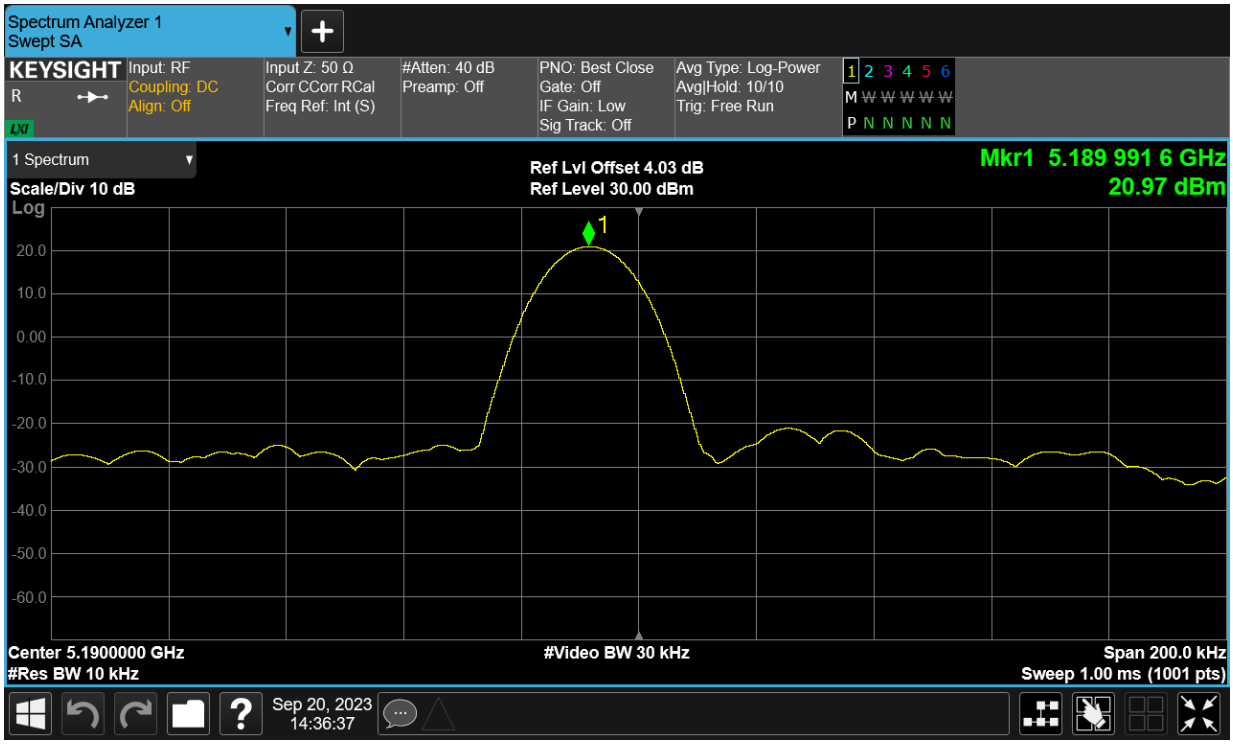
Freq. Stability HVNT n40 5190MHz Ant12



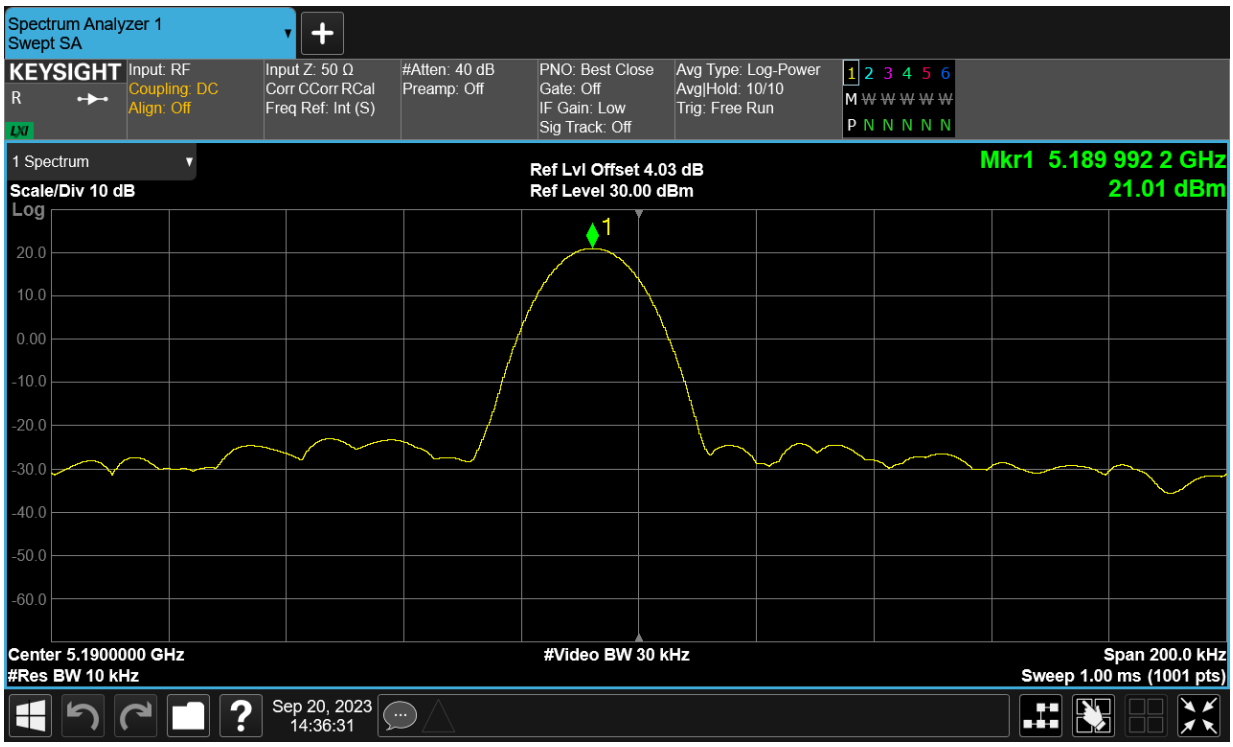
Freq. Stability LVNT n40 5190MHz Ant12



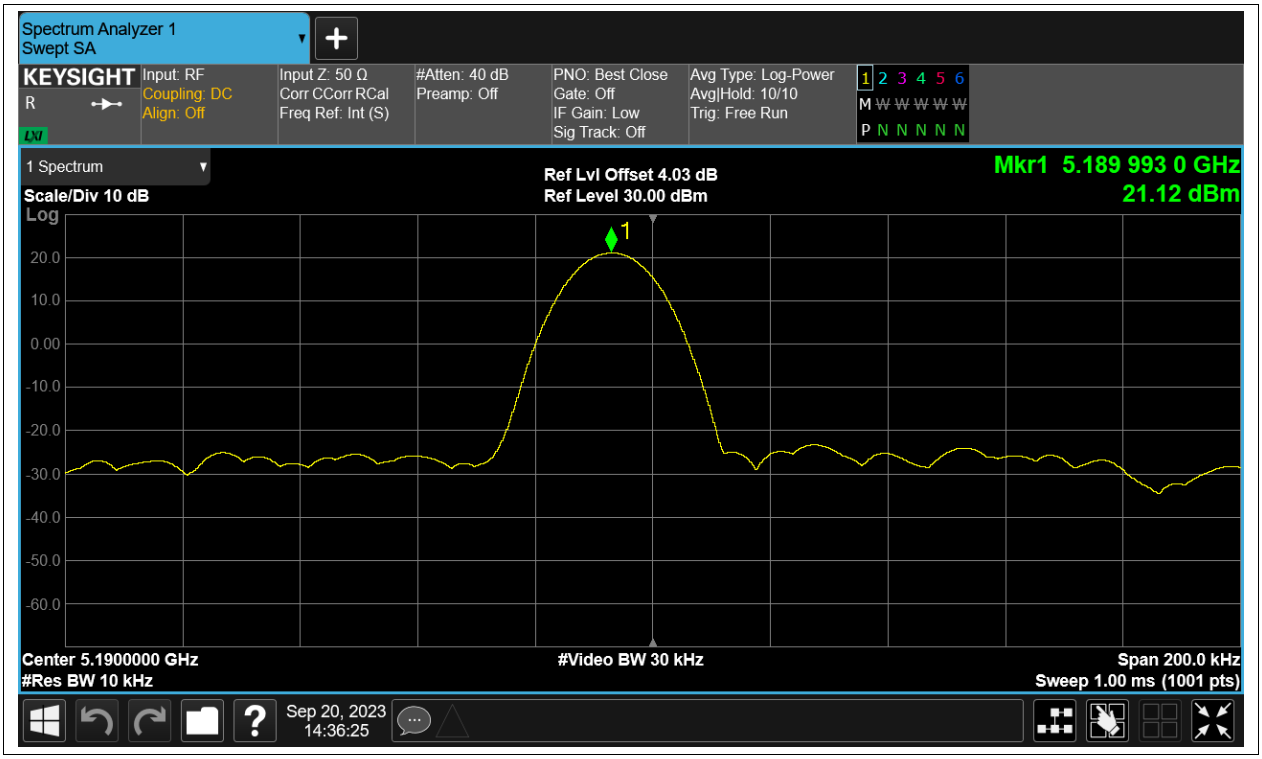
Freq. Stability NVHT n40 5190MHz Ant12



Freq. Stability NVLT n40 5190MHz Ant12



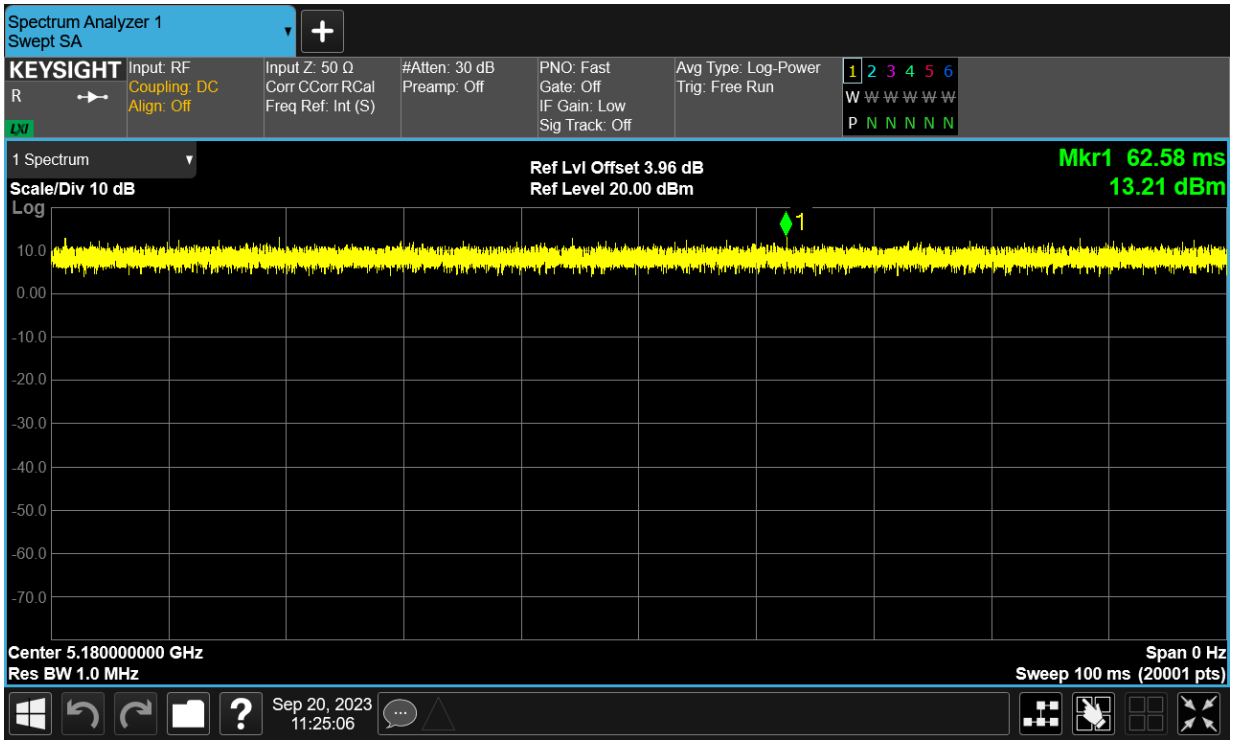
Freq. Stability NVNT n40 5190MHz Ant12


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Off
Input Z: 50 Ω
Corr CCorr RCal
Freq Ref: Int (S)
#Atten: 40 dB
Preamp: Off
PNO: Best Close
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 30.00 dBm
Mkr1 5.189 993 0 GHz
21.12 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 5.1900000 GHz
#Res BW 10 kHz
#Video BW 30 kHz
Span 200.0 kHz
Sweep 1.00 ms (1001 pts)
Sep 20, 2023
14:36:25

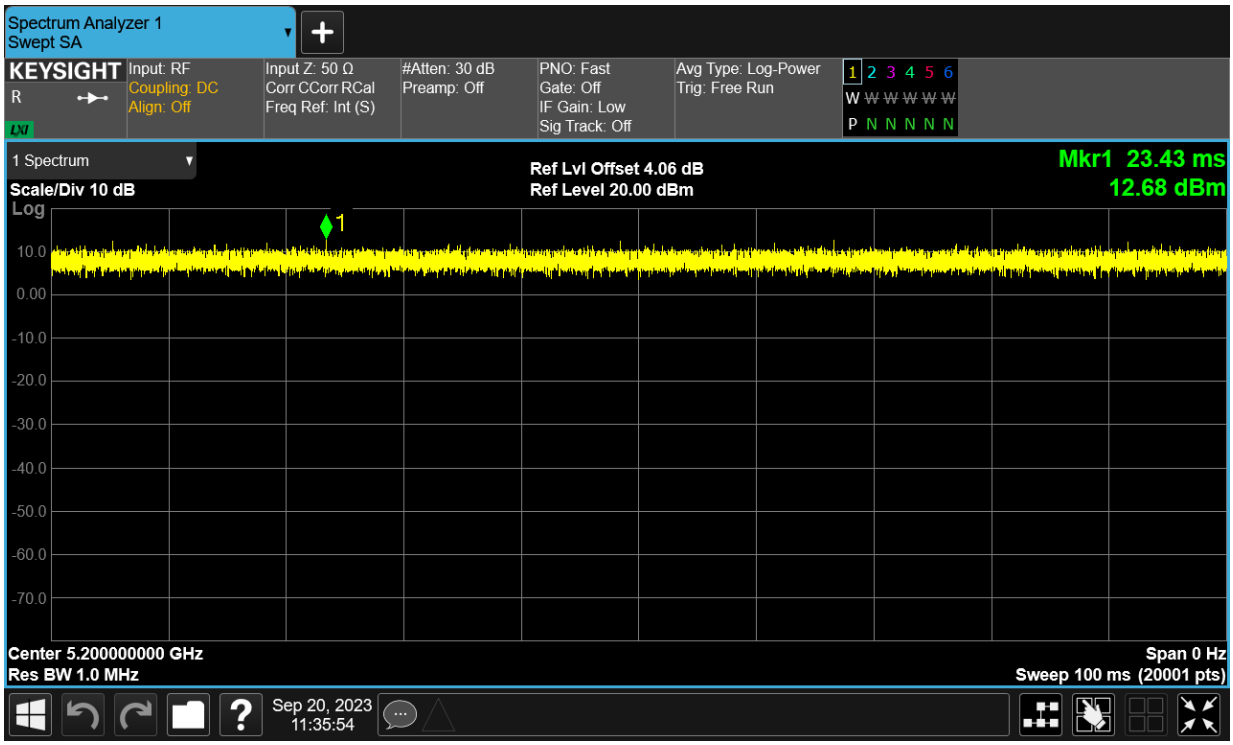
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant12	100	0
NVNT	a	5200	Ant12	100	0
NVNT	a	5240	Ant12	100	0
NVNT	ac20	5180	Ant12	100	0
NVNT	ac20	5200	Ant12	100	0
NVNT	ac20	5240	Ant12	100	0
NVNT	ac40	5190	Ant12	100	0
NVNT	ac40	5230	Ant12	100	0
NVNT	ac80	5210	Ant12	100	0
NVNT	n20	5180	Ant12	100	0
NVNT	n20	5200	Ant12	100	0
NVNT	n20	5240	Ant12	100	0
NVNT	n40	5190	Ant12	100	0
NVNT	n40	5230	Ant12	100	0

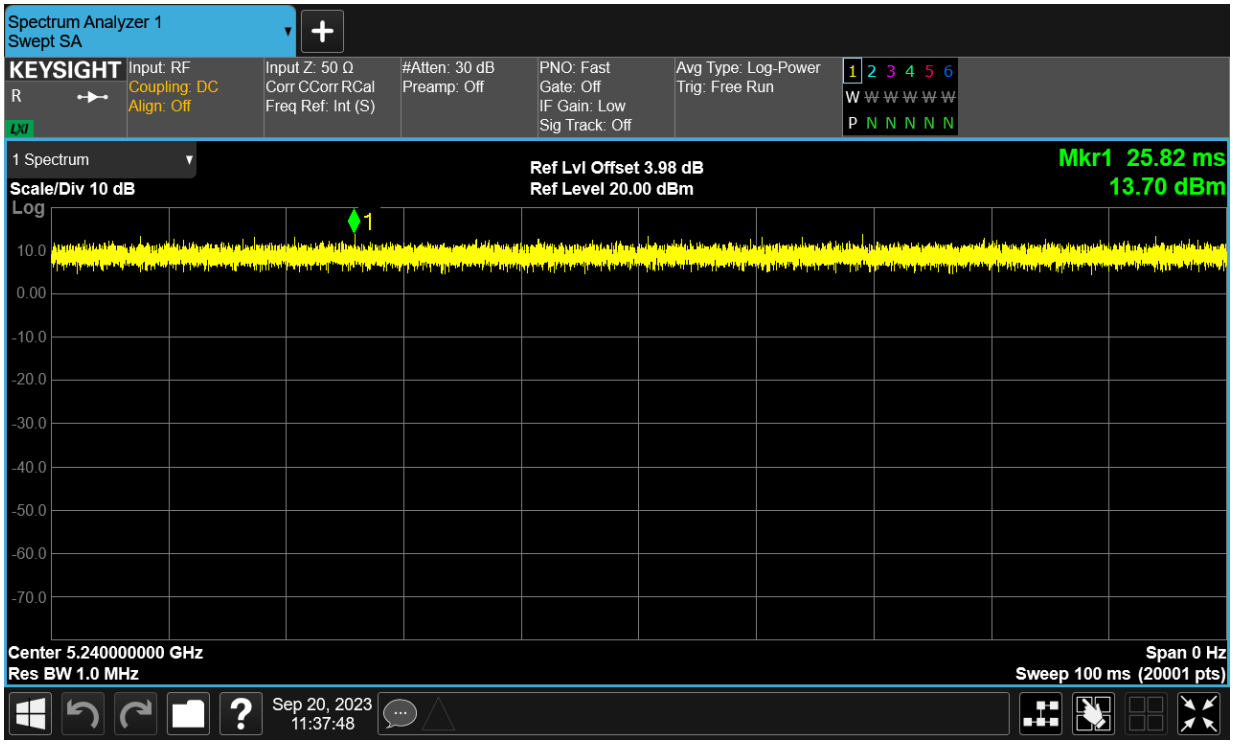
Test Graphs
Duty Cycle NVNT a 5180MHz Ant12



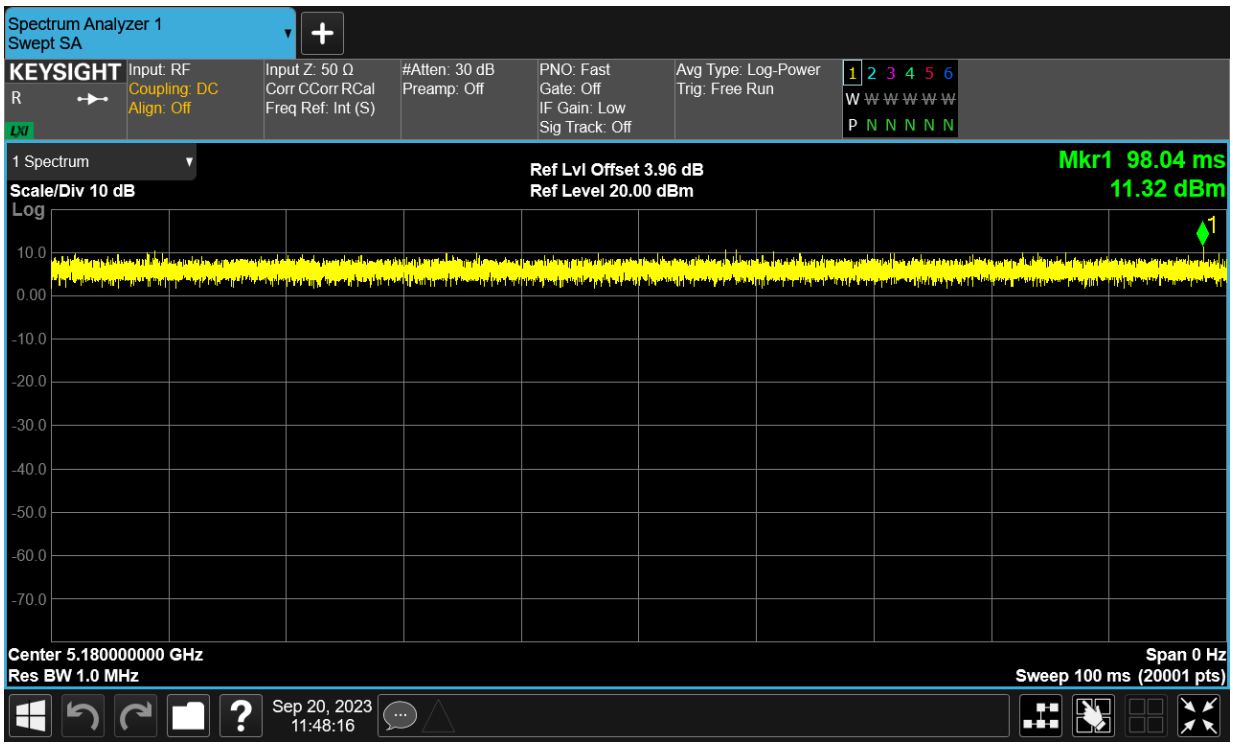
Duty Cycle NVNT a 5200MHz Ant12



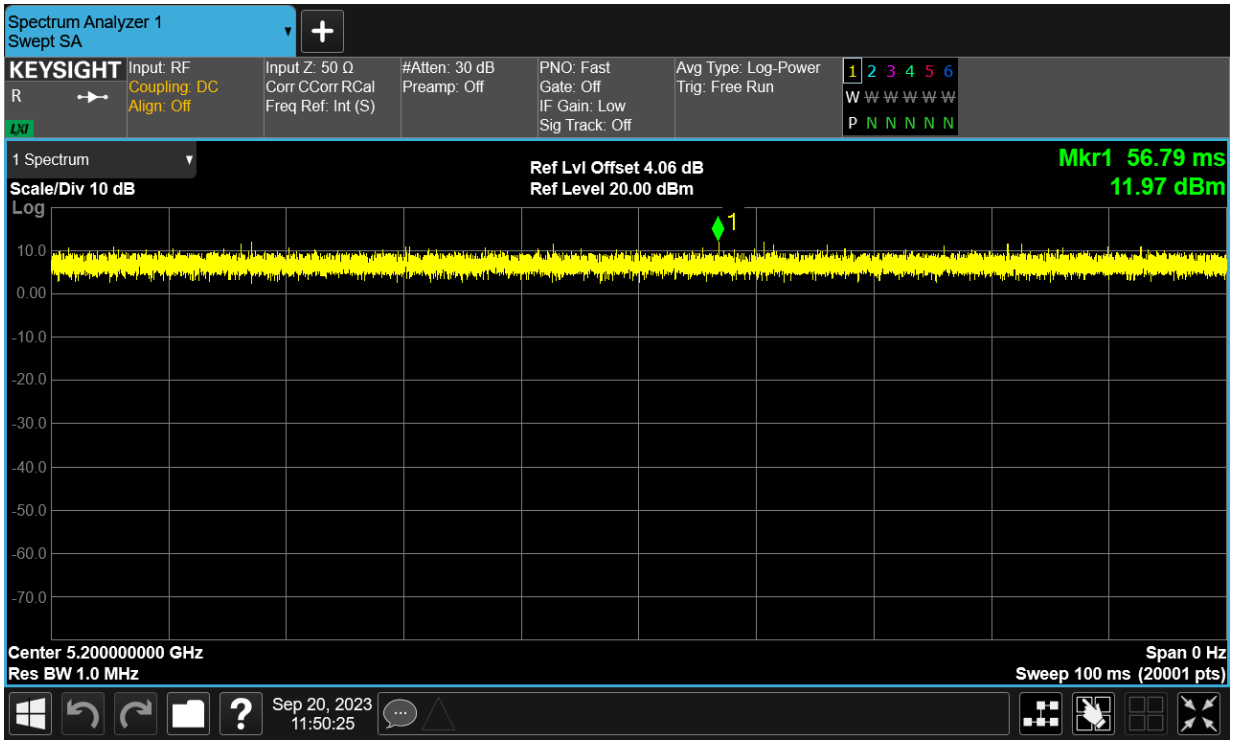
Duty Cycle NVNT a 5240MHz Ant12



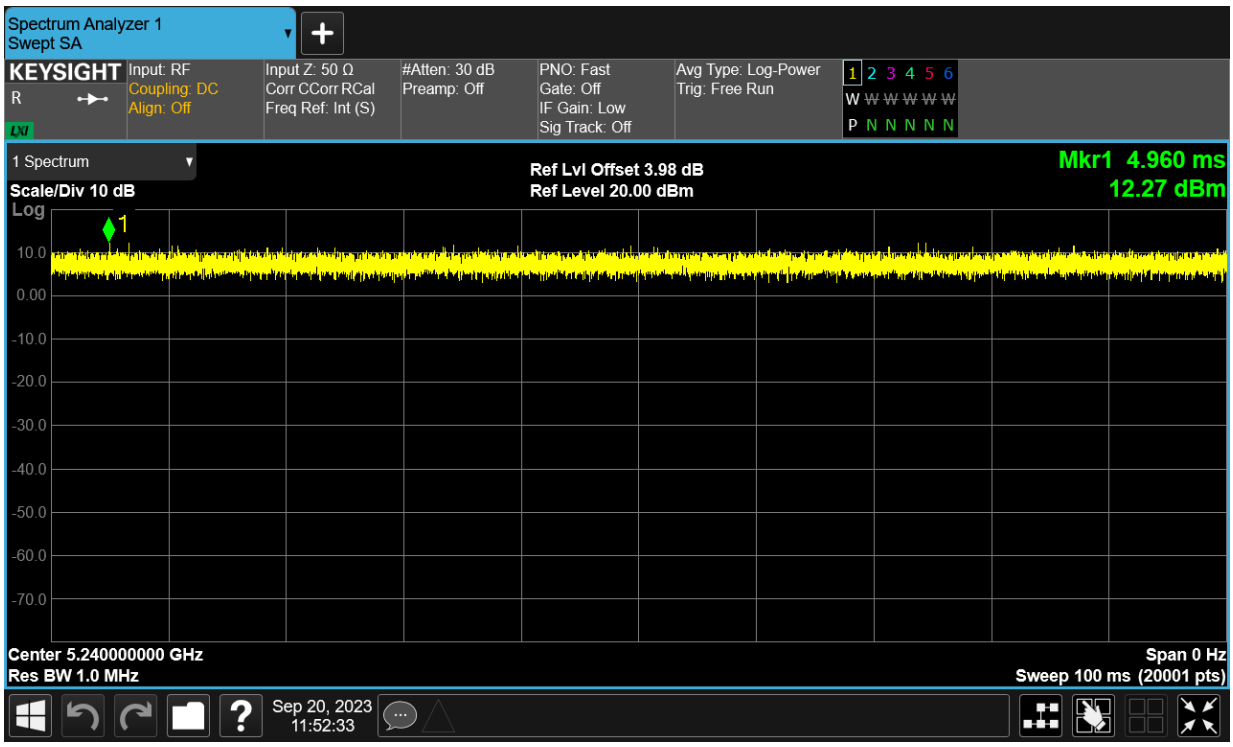
Duty Cycle NVNT ac20 5180MHz Ant12



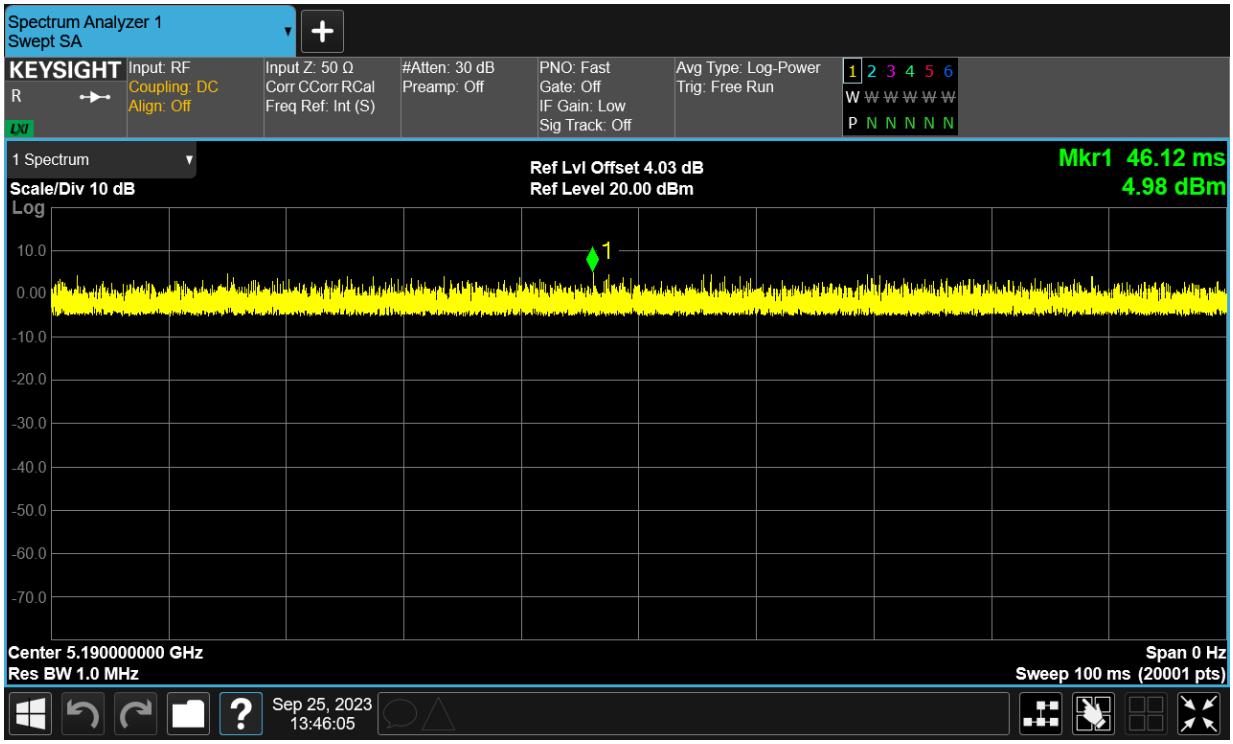
Duty Cycle NVNT ac20 5200MHz Ant12



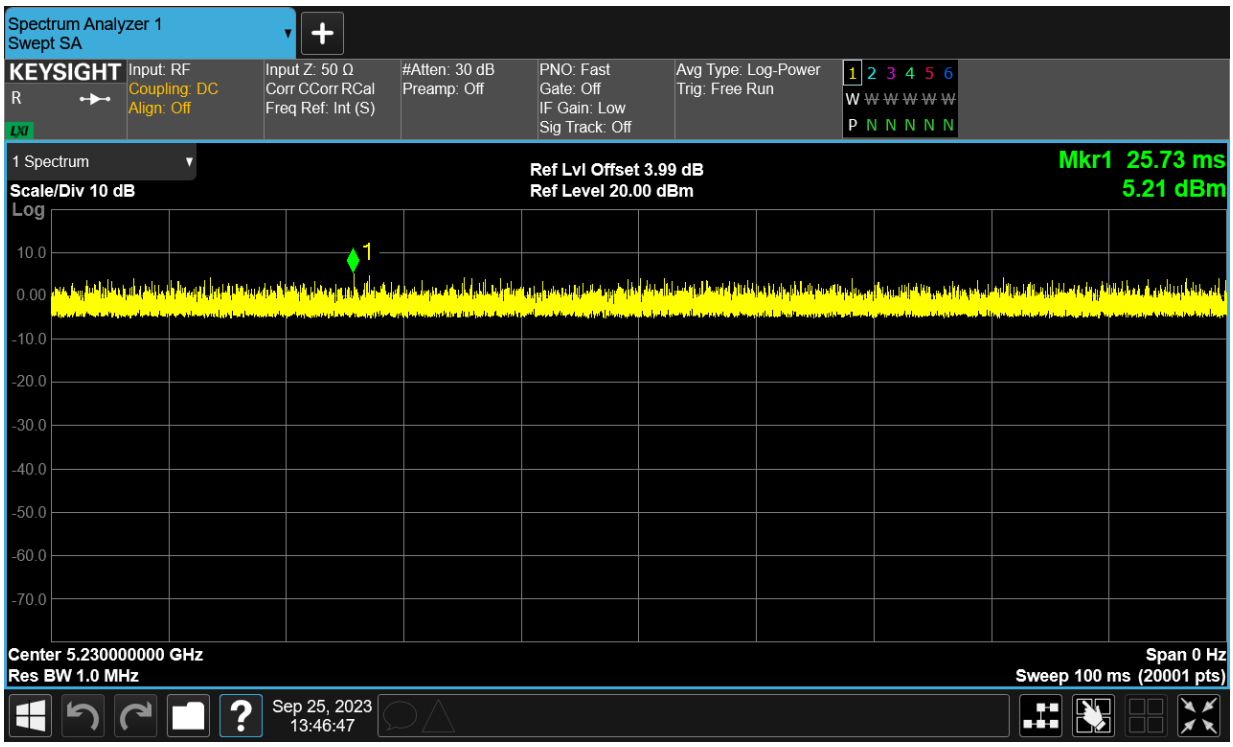
Duty Cycle NVNT ac20 5240MHz Ant12



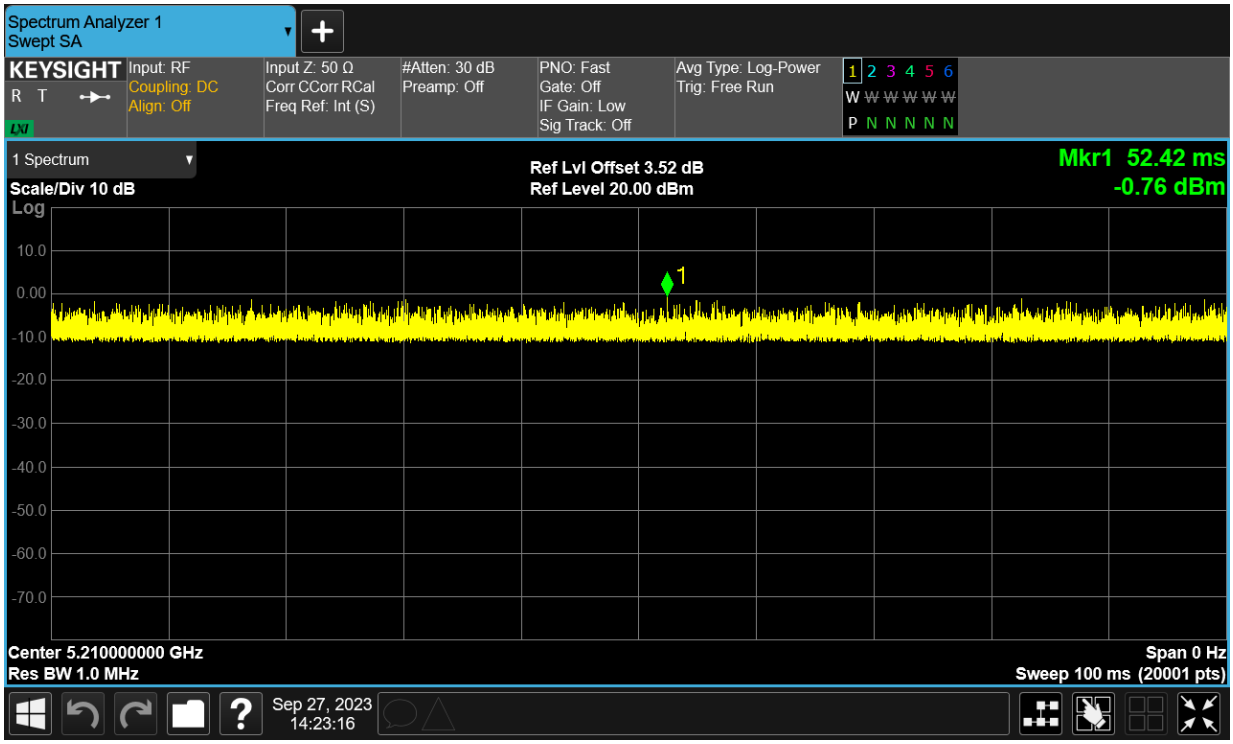
Duty Cycle NVNT ac40 5190MHz Ant12



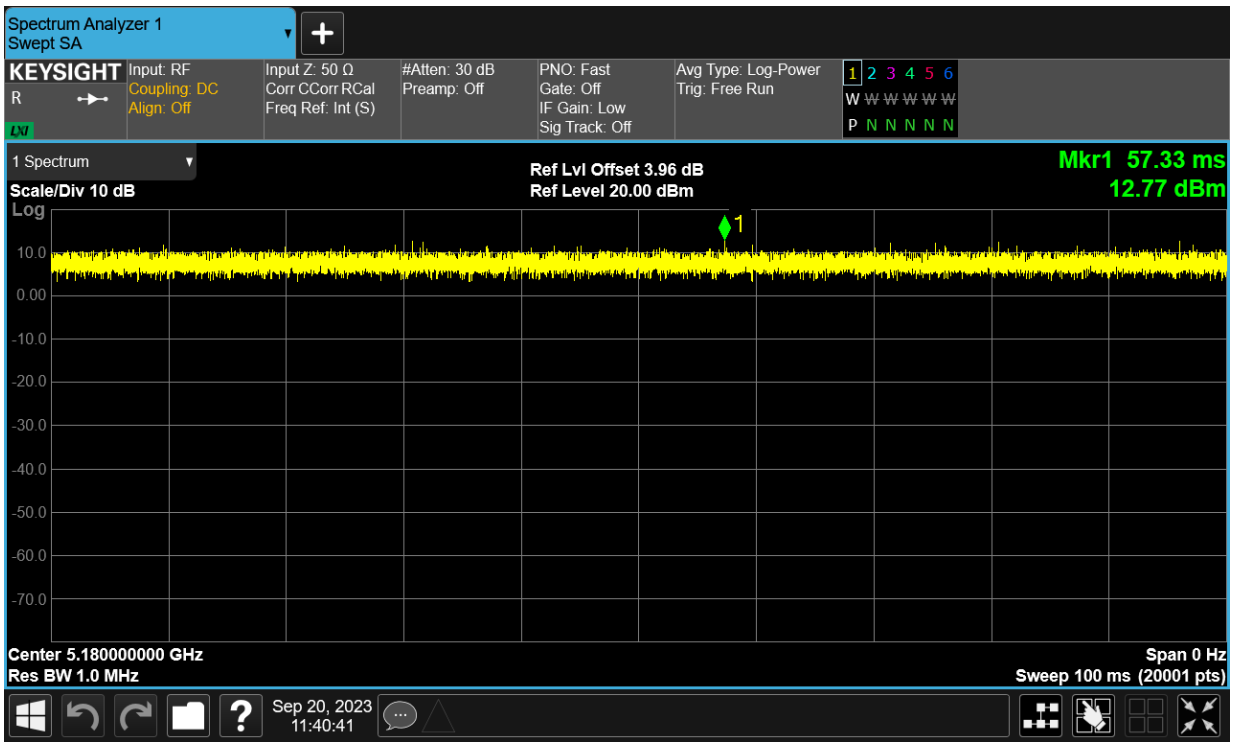
Duty Cycle NVNT ac40 5230MHz Ant12



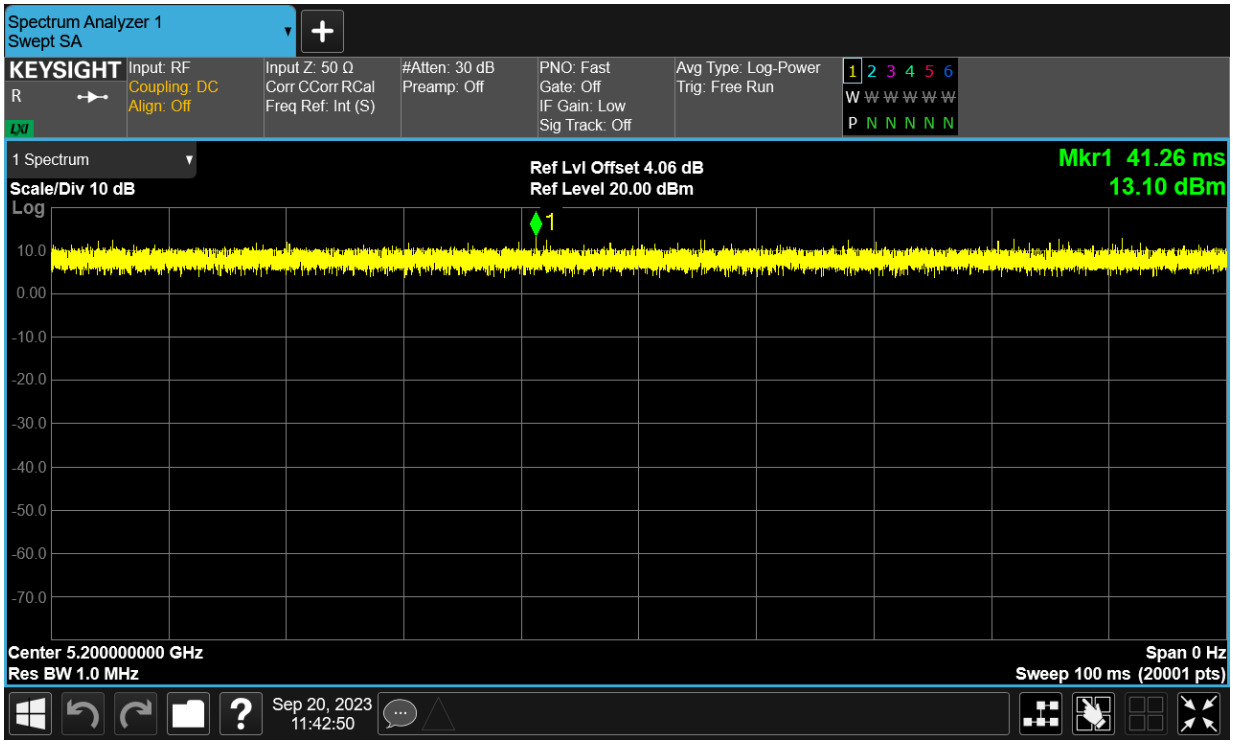
Duty Cycle NVNT ac80 5210MHz Ant12



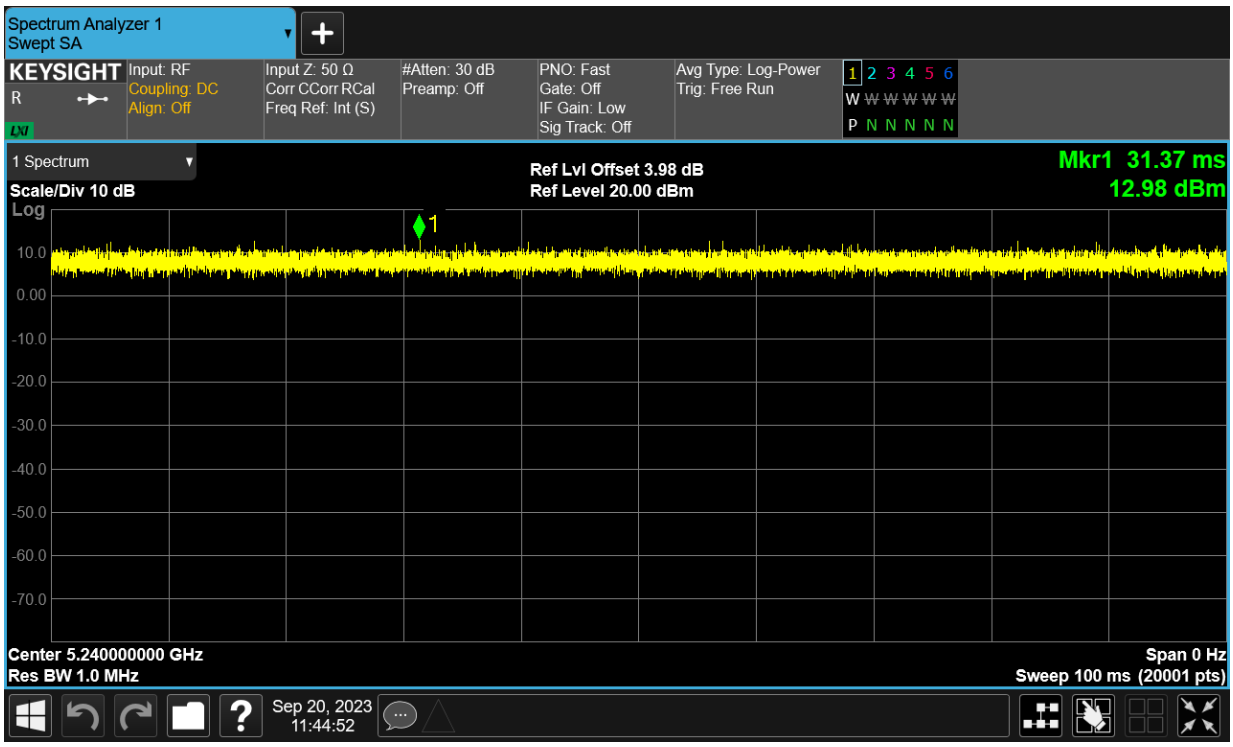
Duty Cycle NVNT n20 5180MHz Ant12



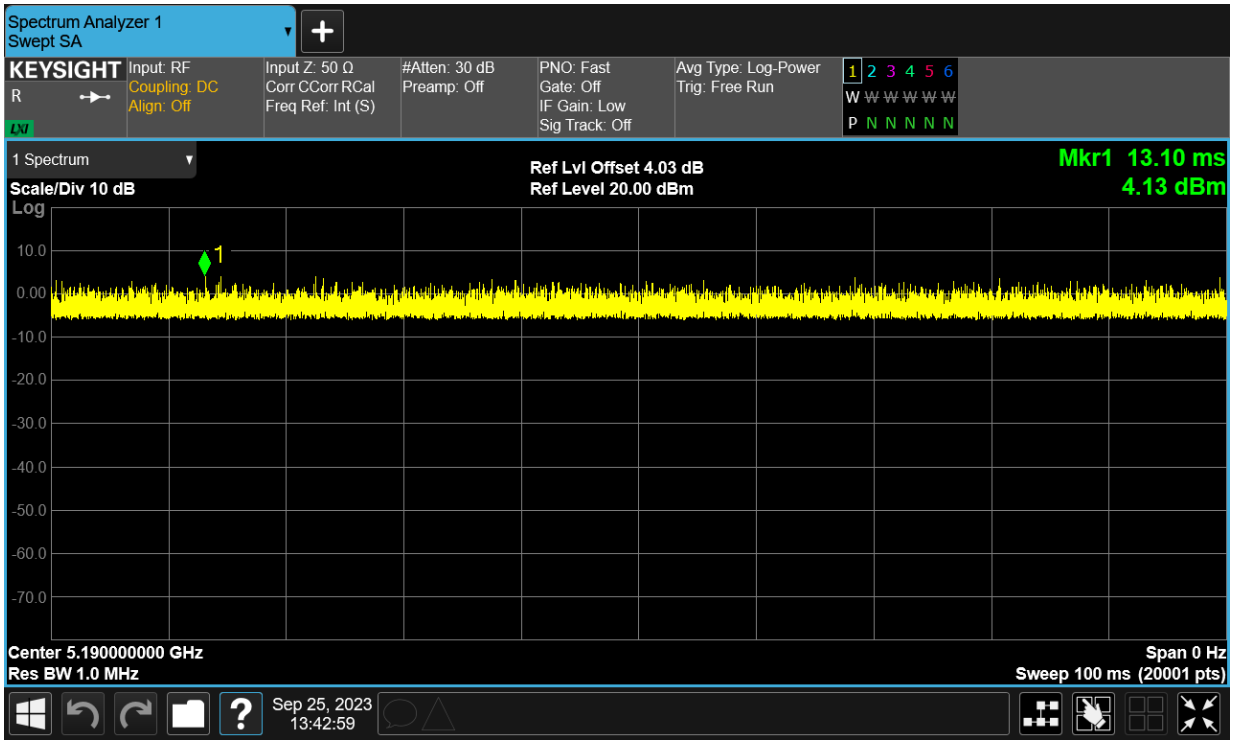
Duty Cycle NVNT n20 5200MHz Ant12



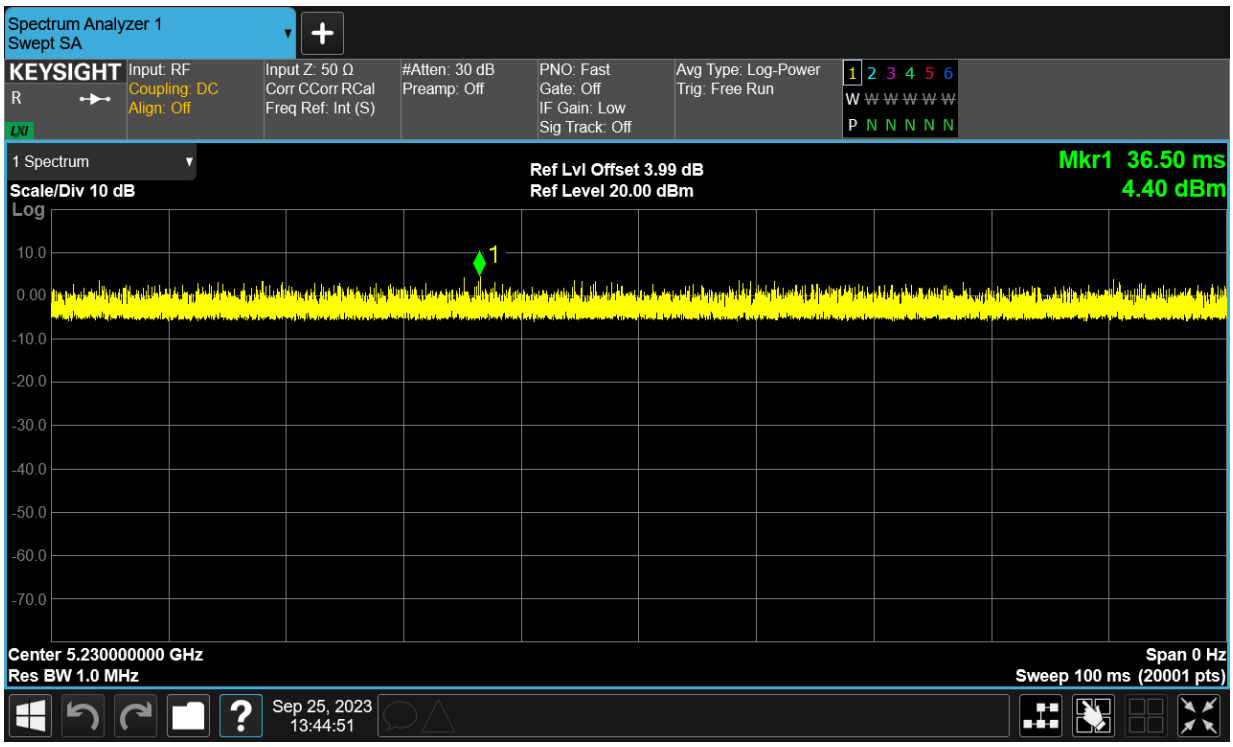
Duty Cycle NVNT n20 5240MHz Ant12



Duty Cycle NVNT n40 5190MHz Ant12



Duty Cycle NVNT n40 5230MHz Ant12



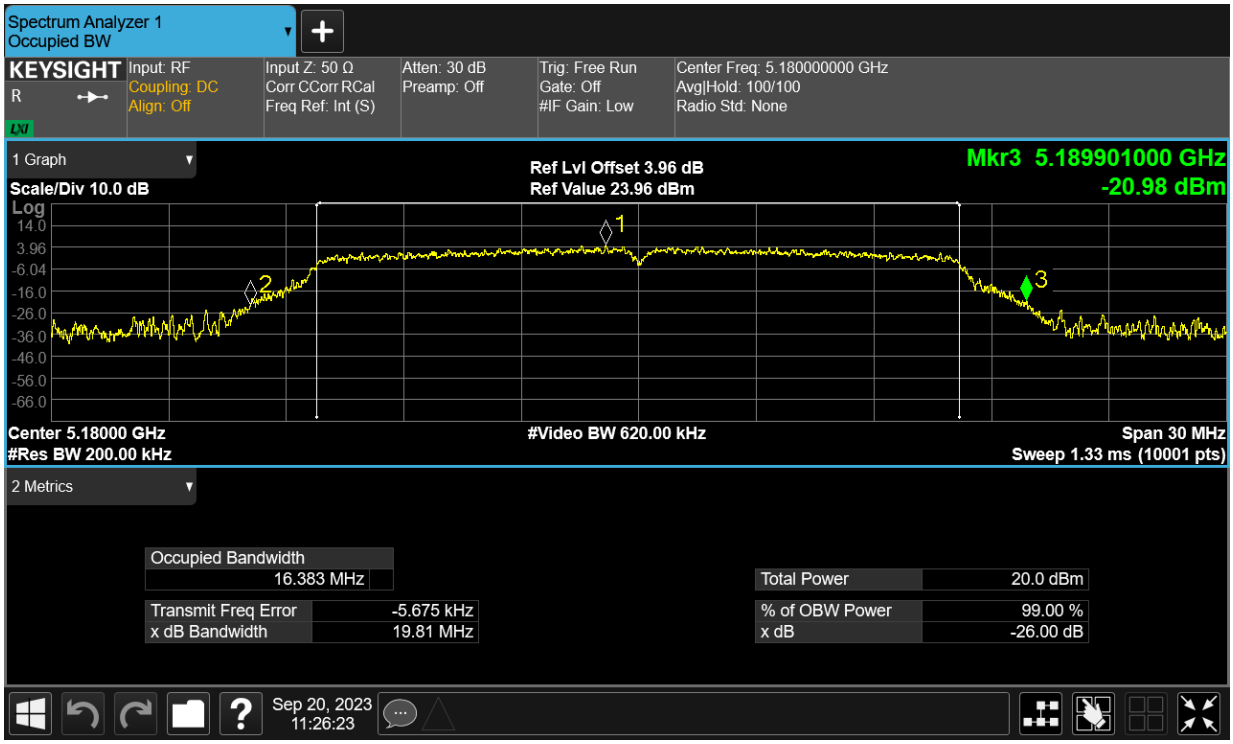
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant12	15.84	0	15.84	24	Pass
NVNT	a	5200	Ant12	15.1	0	15.1	24	Pass
NVNT	a	5240	Ant12	16.1	0	16.1	24	Pass
NVNT	ac20	5180	Ant12	13.78	0	13.78	24	Pass
NVNT	ac20	5200	Ant12	14.12	0	14.12	24	Pass
NVNT	ac20	5240	Ant12	14.96	0	14.96	24	Pass
NVNT	ac40	5190	Ant12	11.87	0	11.87	24	Pass
NVNT	ac40	5230	Ant12	12.02	0	12.02	24	Pass
NVNT	ac80	5210	Ant12	9.7	0	9.7	24	Pass
NVNT	n20	5180	Ant12	15.35	0	15.35	24	Pass
NVNT	n20	5200	Ant12	15.25	0	15.25	24	Pass
NVNT	n20	5240	Ant12	15.57	0	15.57	24	Pass
NVNT	n40	5190	Ant12	11.22	0	11.22	24	Pass
NVNT	n40	5230	Ant12	11.42	0	11.42	24	Pass

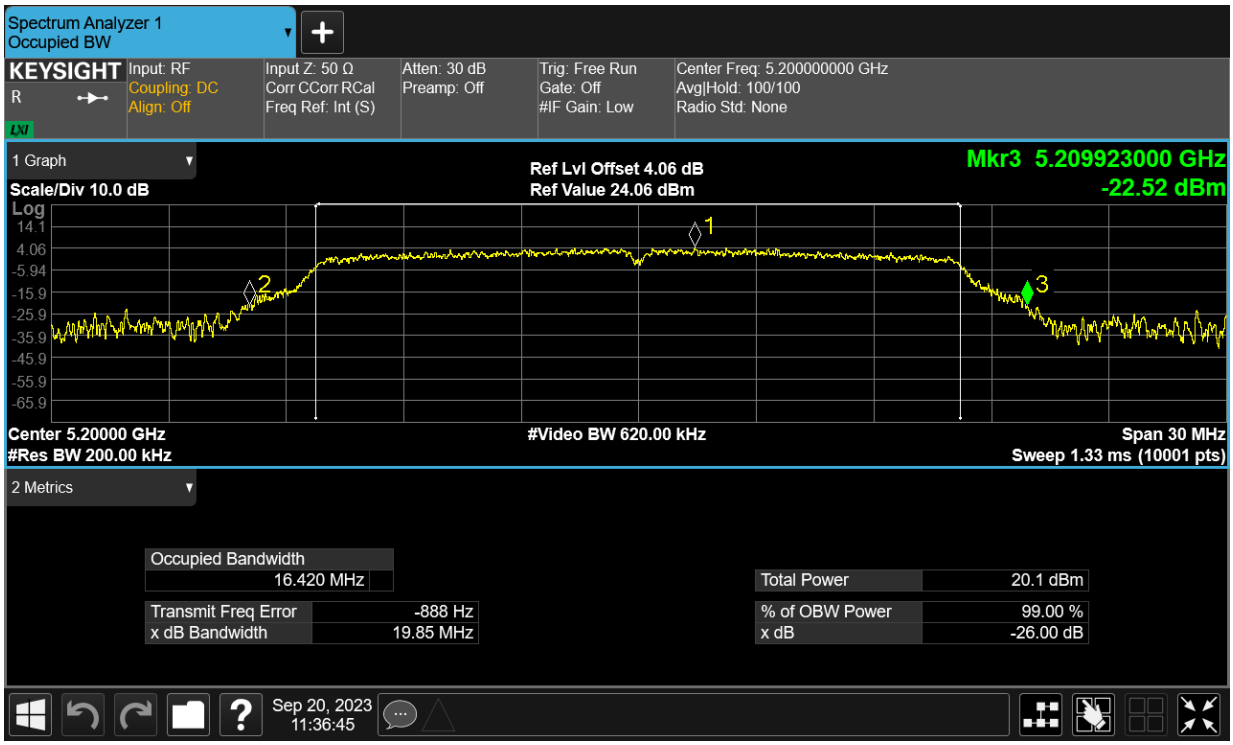
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant12	19.813
NVNT	a	5200	Ant12	19.848
NVNT	a	5240	Ant12	19.727
NVNT	ac20	5180	Ant12	20.254
NVNT	ac20	5200	Ant12	20.222
NVNT	ac20	5240	Ant12	20.015
NVNT	ac40	5190	Ant12	39.269
NVNT	ac40	5230	Ant12	39.261
NVNT	ac80	5210	Ant12	78.703
NVNT	n20	5180	Ant12	20.076
NVNT	n20	5200	Ant12	20.185
NVNT	n20	5240	Ant12	19.984
NVNT	n40	5190	Ant12	39.394
NVNT	n40	5230	Ant12	39.452

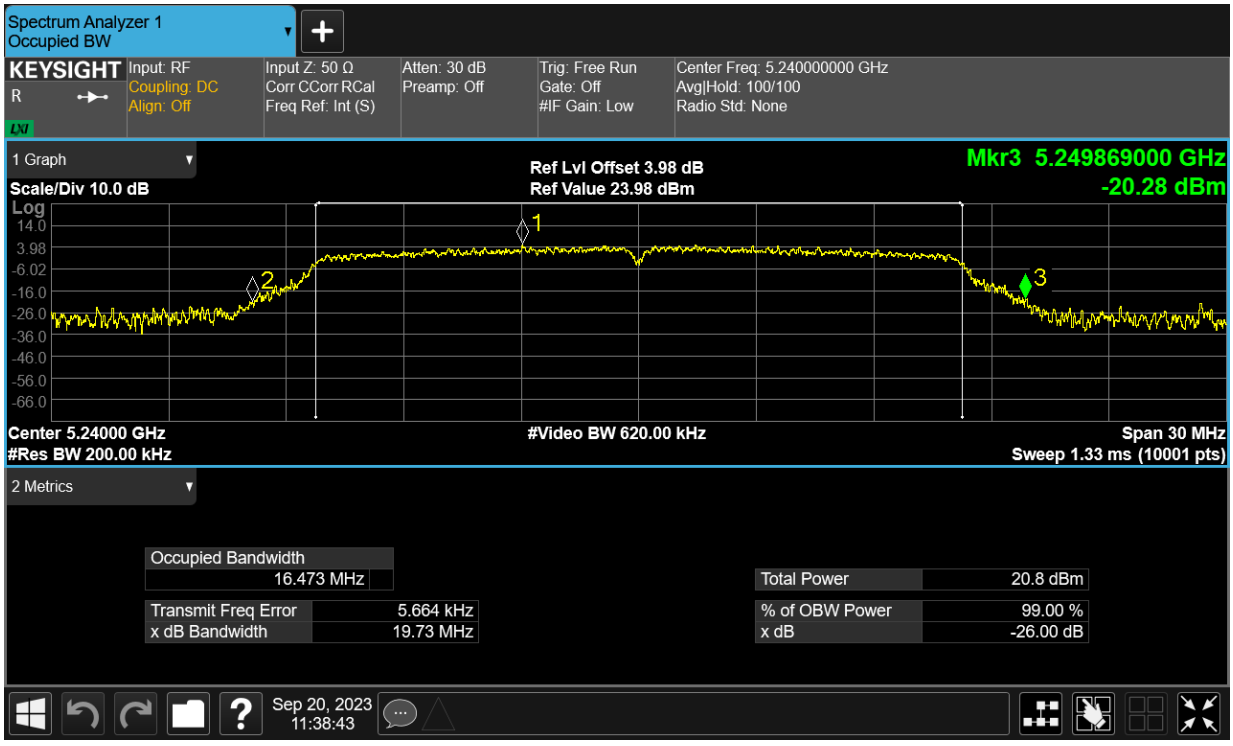
Test Graphs
-26dB Bandwidth NVNT a 5180MHz Ant12



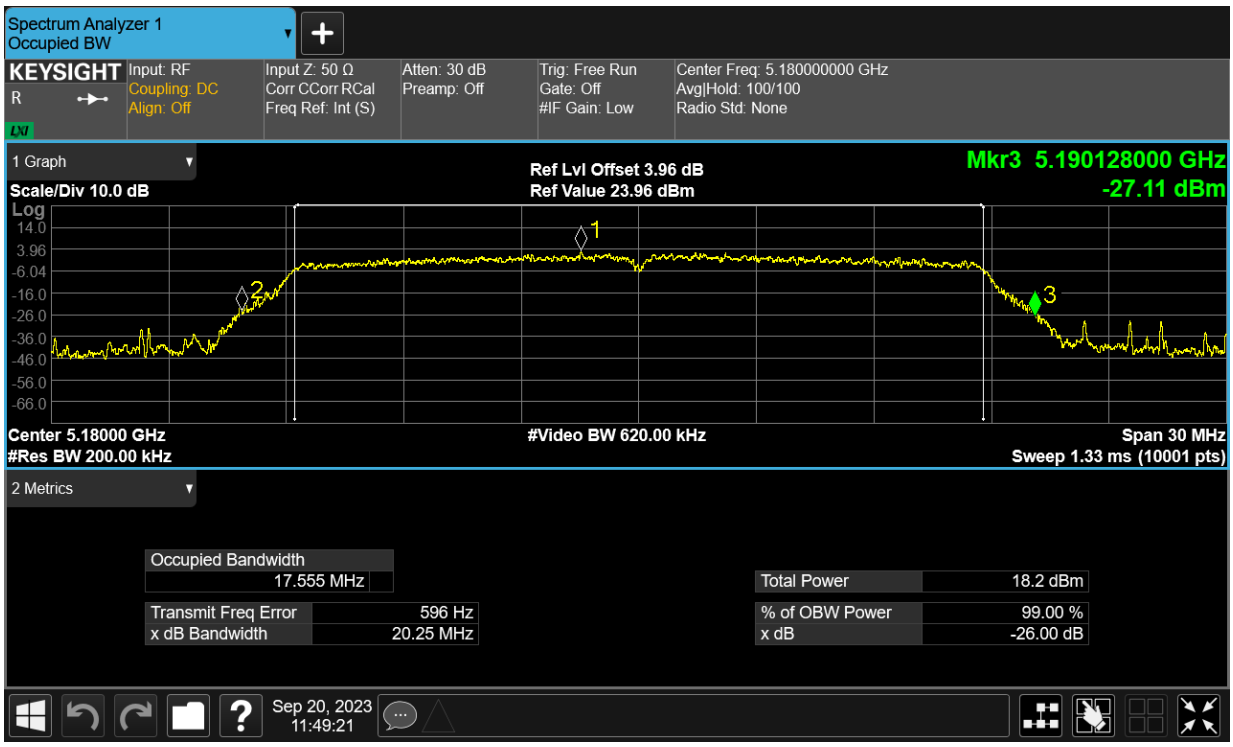
-26dB Bandwidth NVNT a 5200MHz Ant12



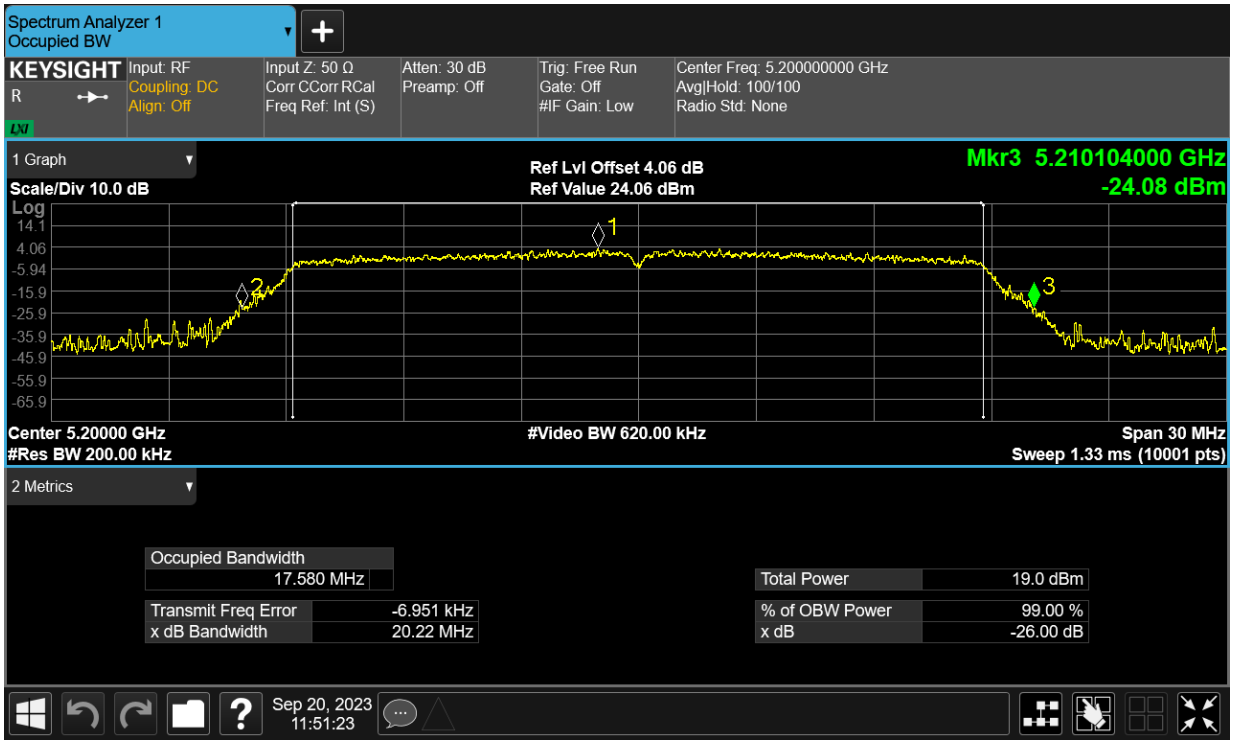
-26dB Bandwidth NVNT a 5240MHz Ant12



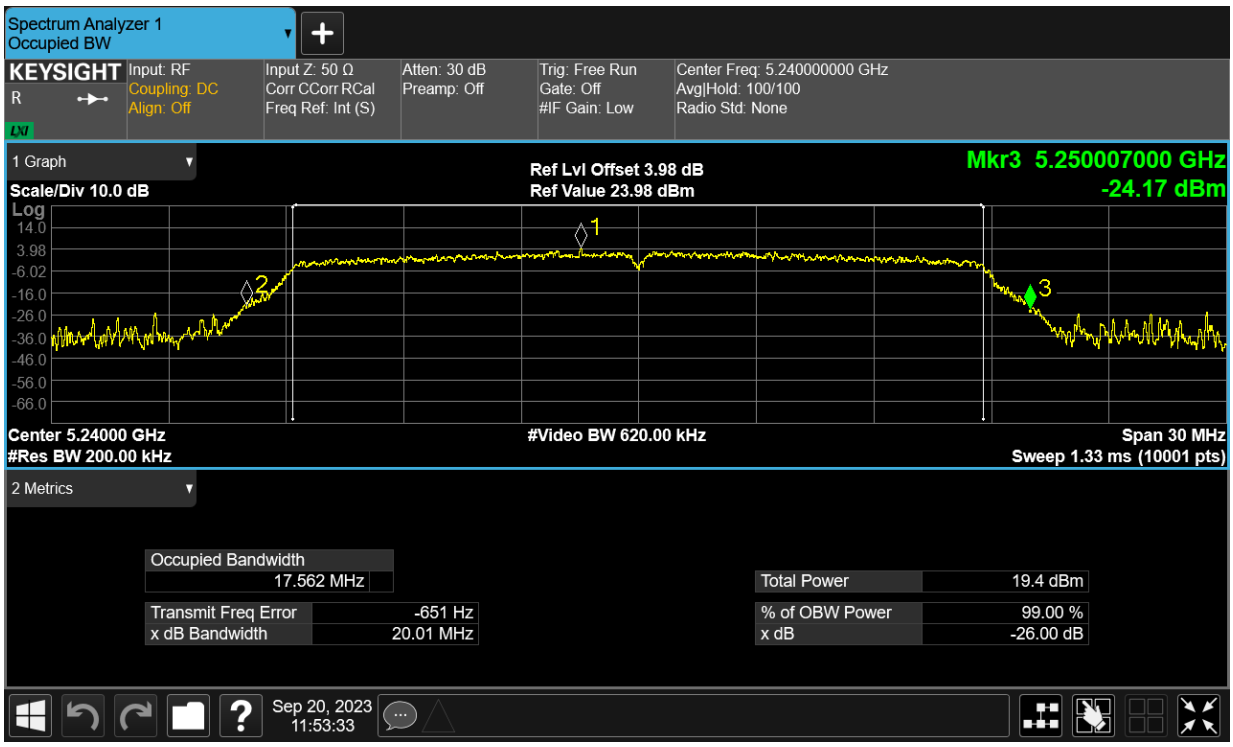
-26dB Bandwidth NVNT ac20 5180MHz Ant12



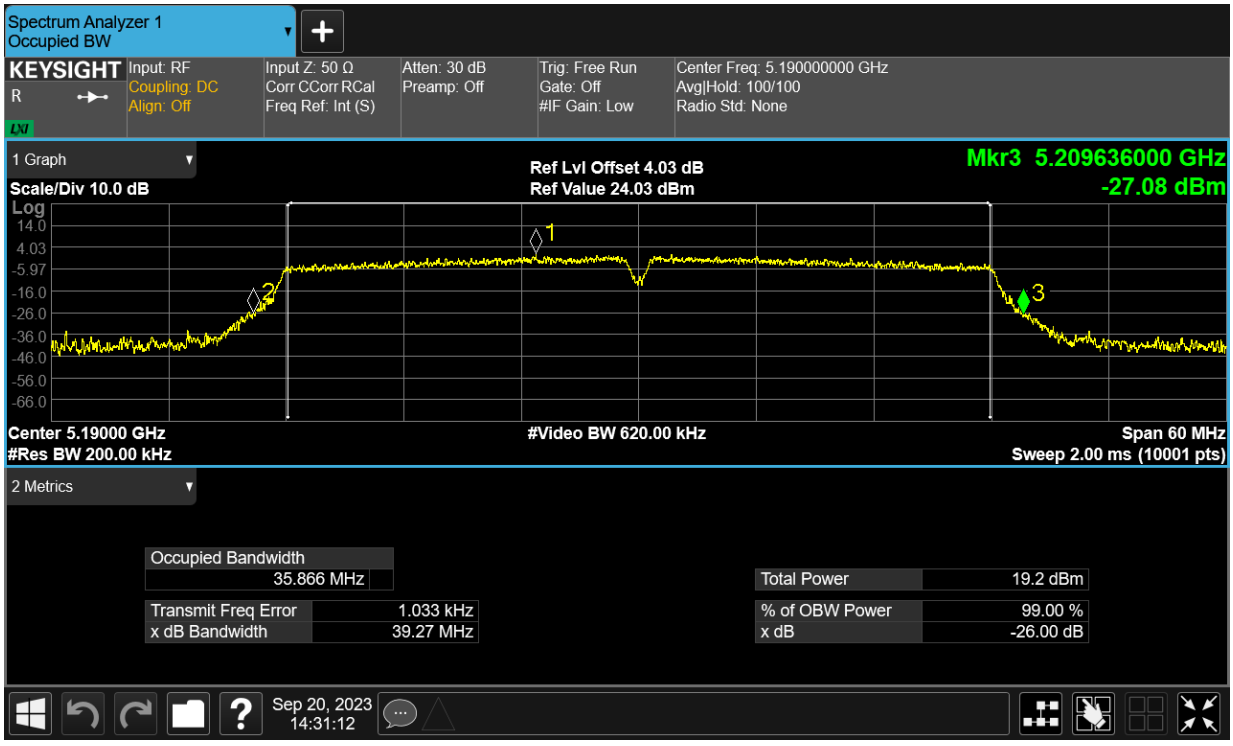
-26dB Bandwidth NVNT ac20 5200MHz Ant12



-26dB Bandwidth NVNT ac20 5240MHz Ant12

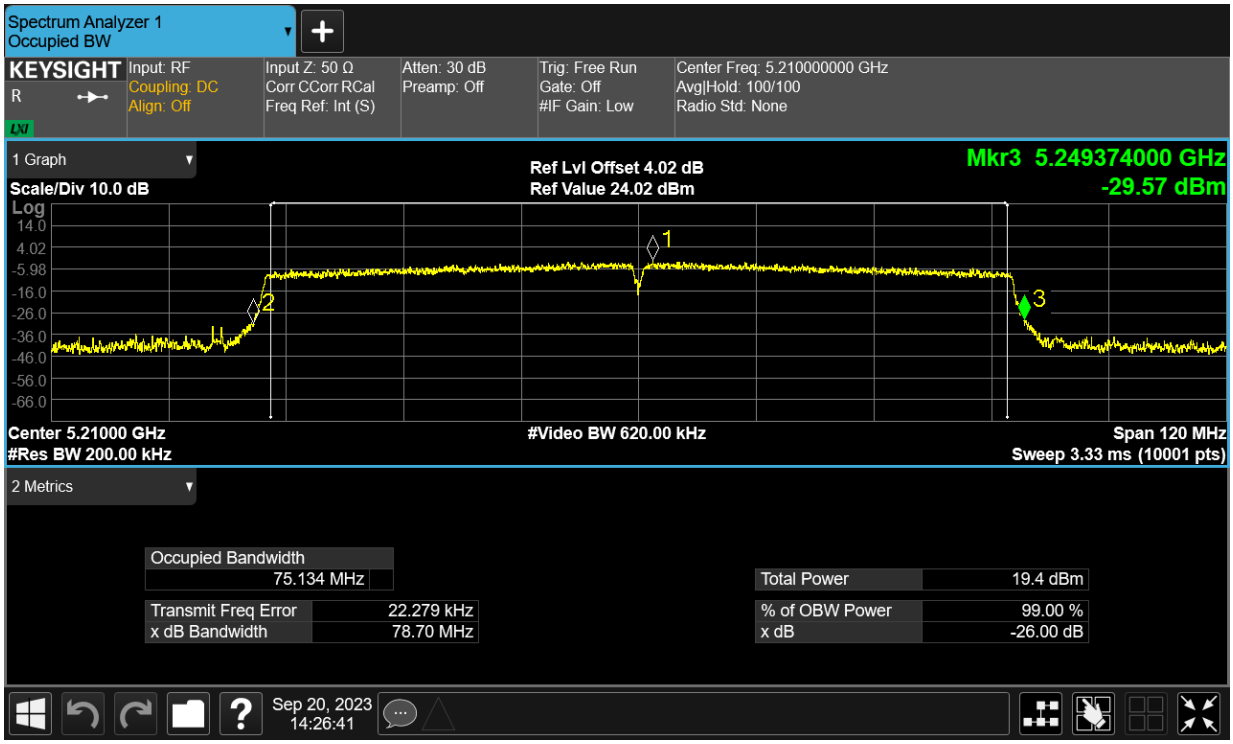


-26dB Bandwidth NVNT ac40 5190MHz Ant12

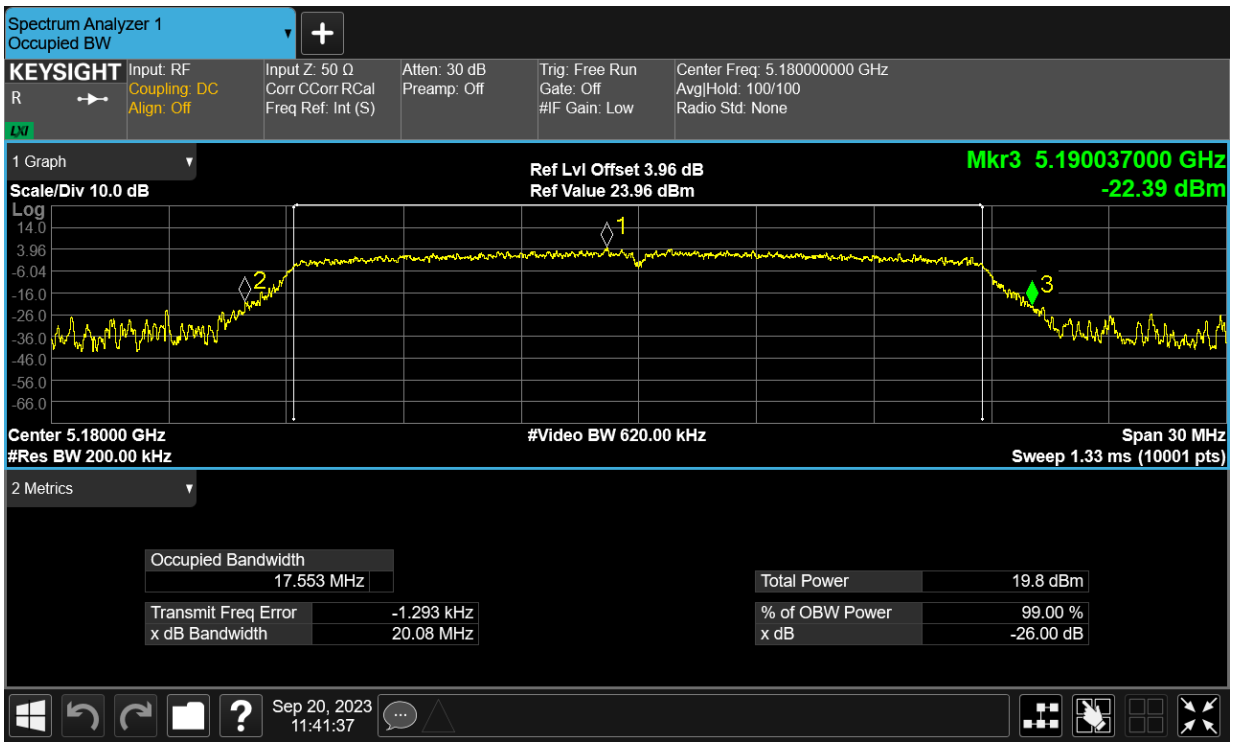


-26dB Bandwidth NVNT ac40 5230MHz Ant12

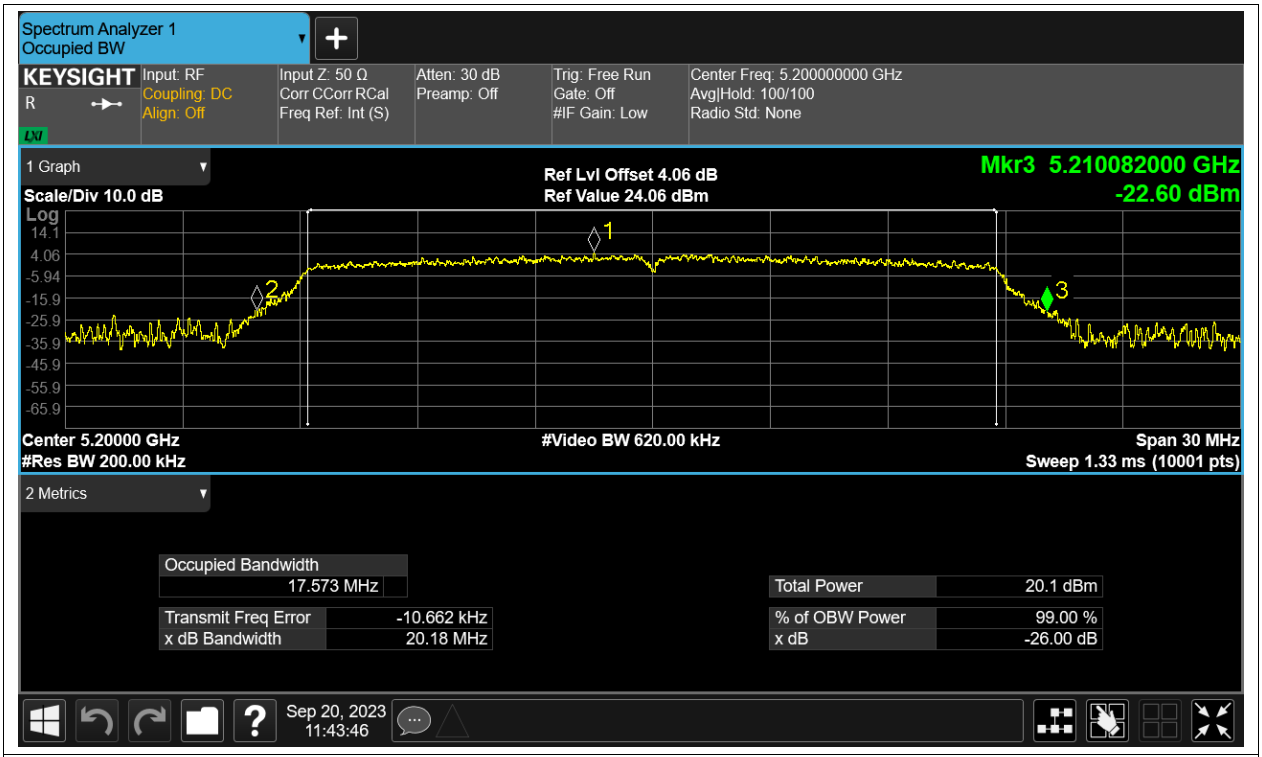
-26dB Bandwidth NVNT ac80 5210MHz Ant12



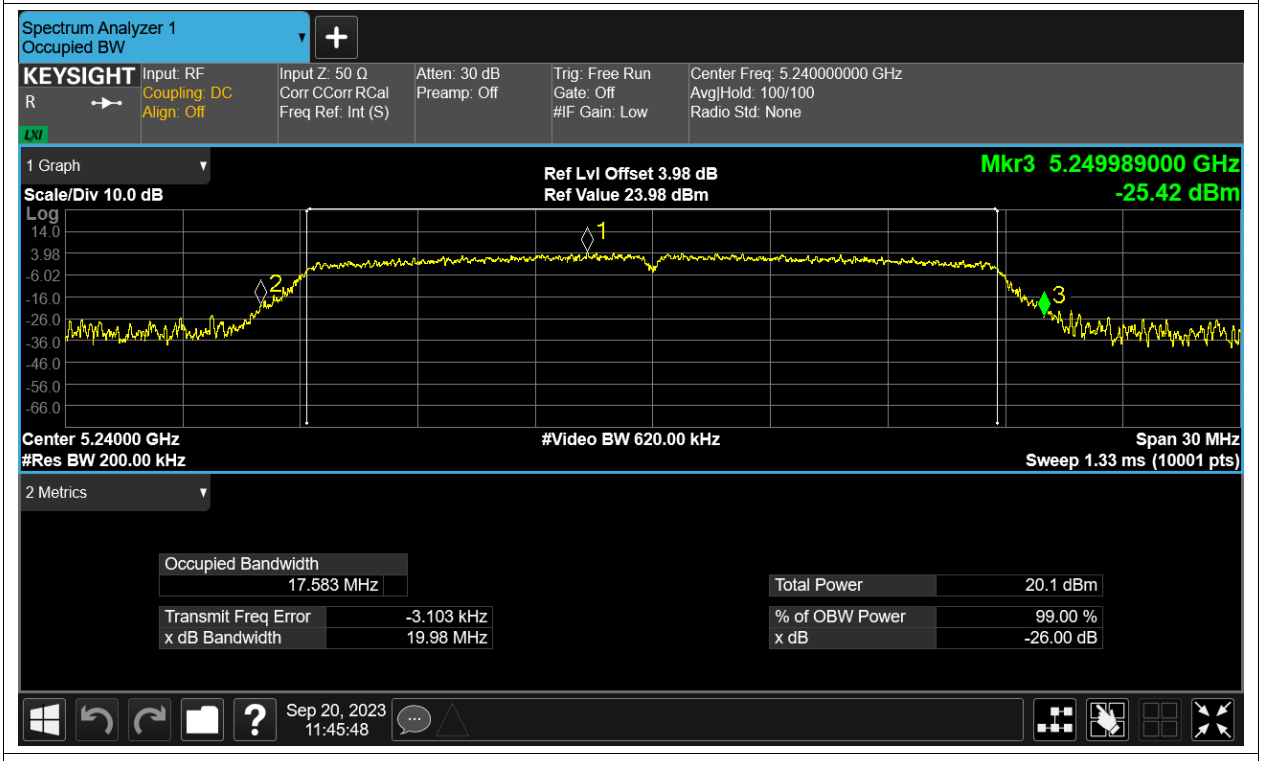
-26dB Bandwidth NVNT n20 5180MHz Ant12



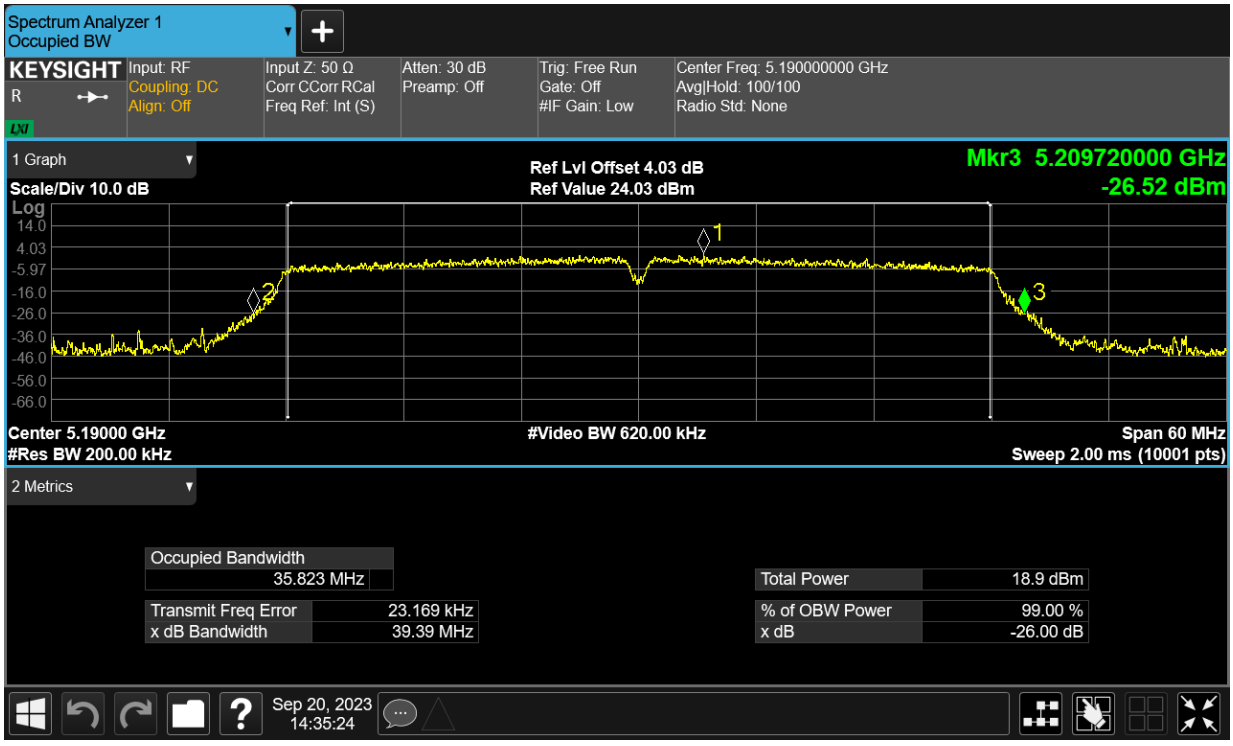
-26dB Bandwidth NVNT n20 5200MHz Ant12



-26dB Bandwidth NVNT n20 5240MHz Ant12



-26dB Bandwidth NVNT n40 5190MHz Ant12

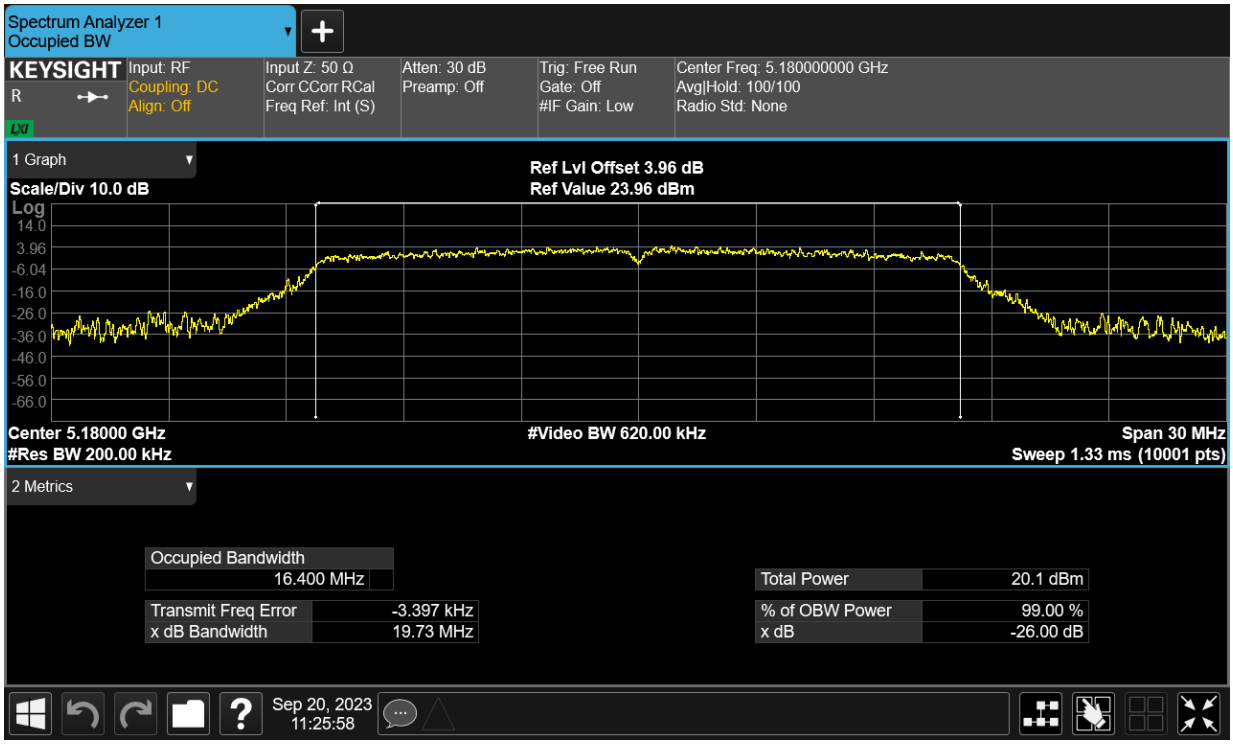


-26dB Bandwidth NVNT n40 5230MHz Ant12

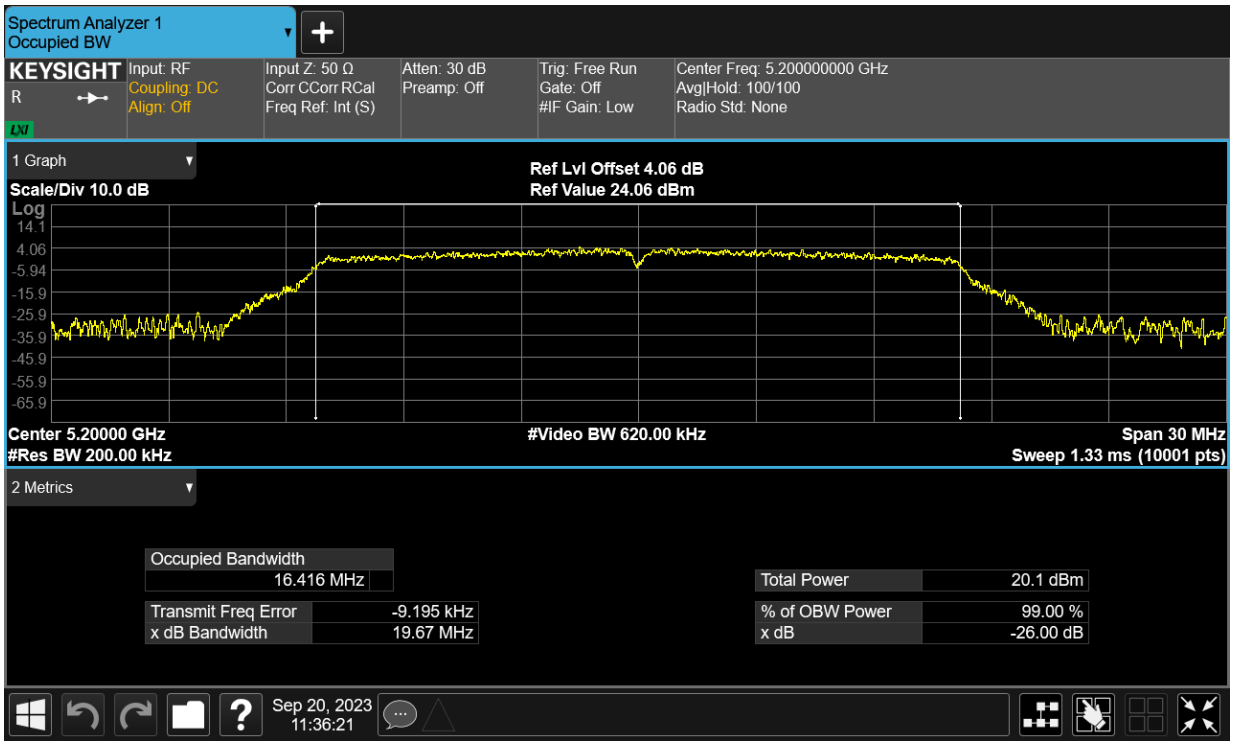
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant12	16.4
NVNT	a	5200	Ant12	16.416
NVNT	a	5240	Ant12	16.453
NVNT	ac20	5180	Ant12	17.537
NVNT	ac20	5200	Ant12	17.578
NVNT	ac20	5240	Ant12	17.567
NVNT	ac40	5190	Ant12	35.971
NVNT	ac40	5230	Ant12	35.957
NVNT	ac80	5210	Ant12	75.144
NVNT	n20	5180	Ant12	17.553
NVNT	n20	5200	Ant12	17.578
NVNT	n20	5240	Ant12	17.565
NVNT	n40	5190	Ant12	35.971
NVNT	n40	5230	Ant12	35.955

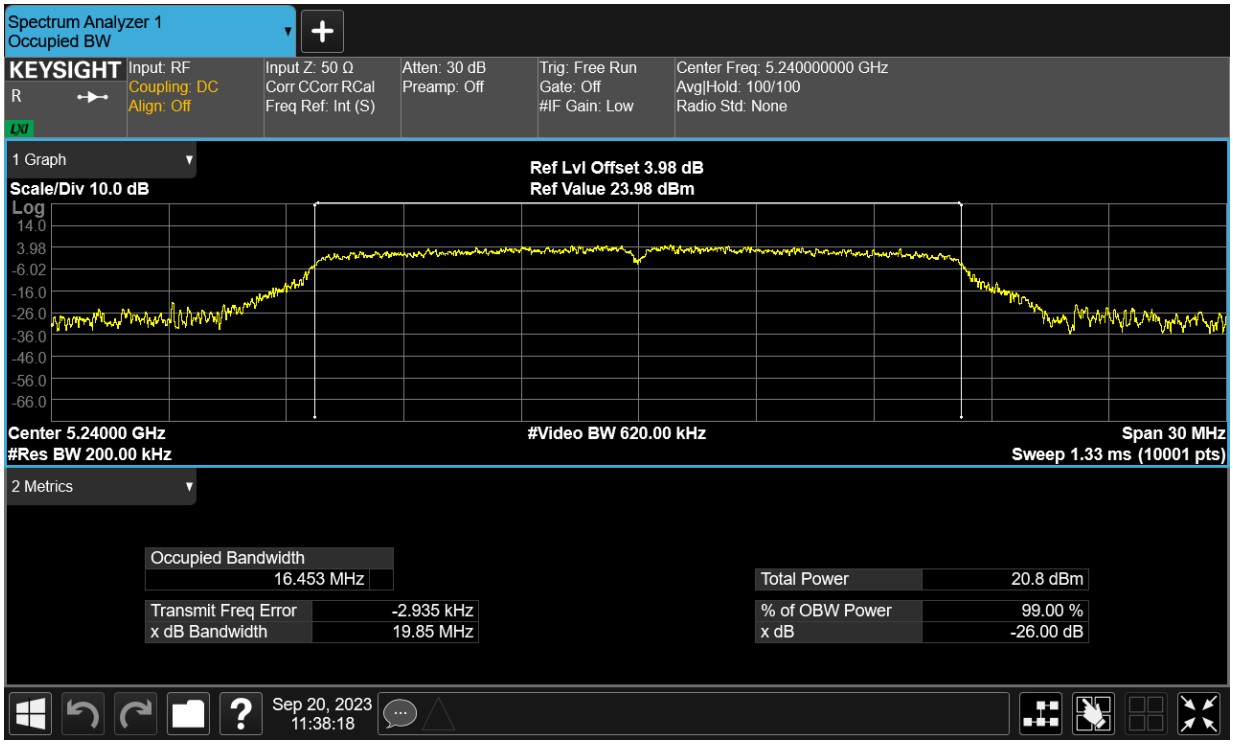
Test Graphs
OBW NVNT a 5180MHz Ant12



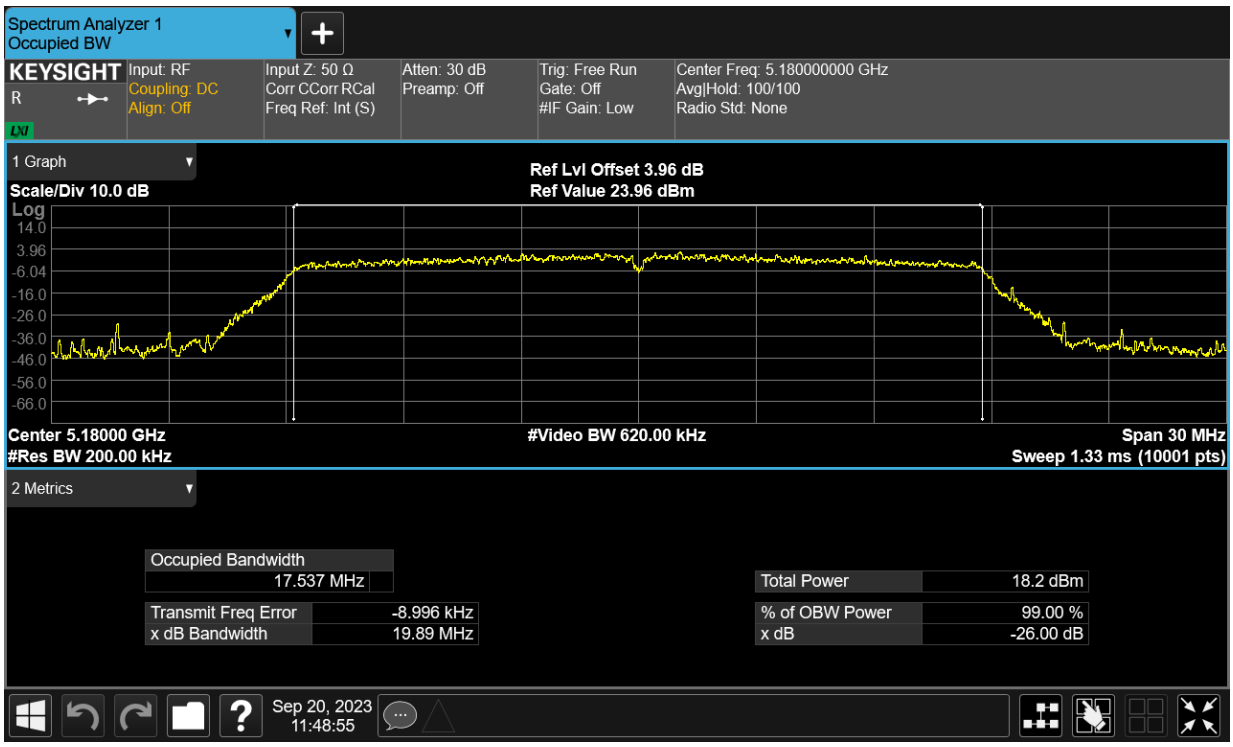
OBW NVNT a 5200MHz Ant12



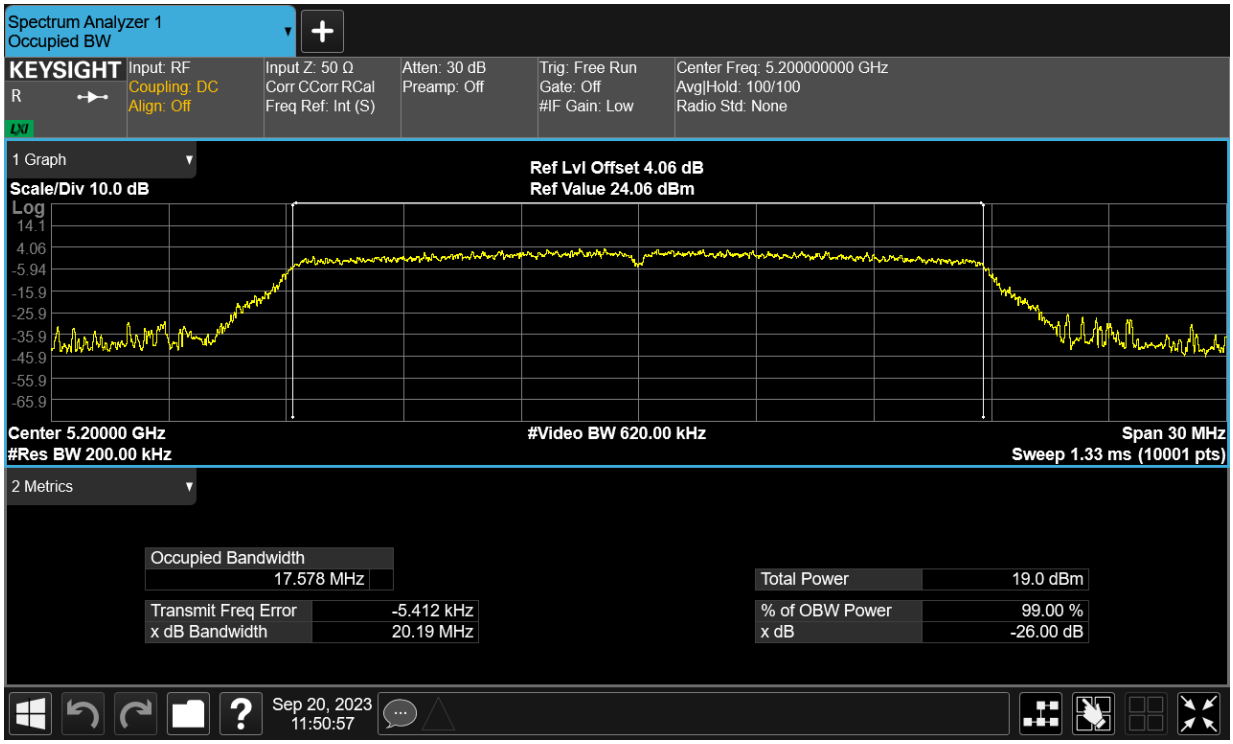
OBW NVNT a 5240MHz Ant12



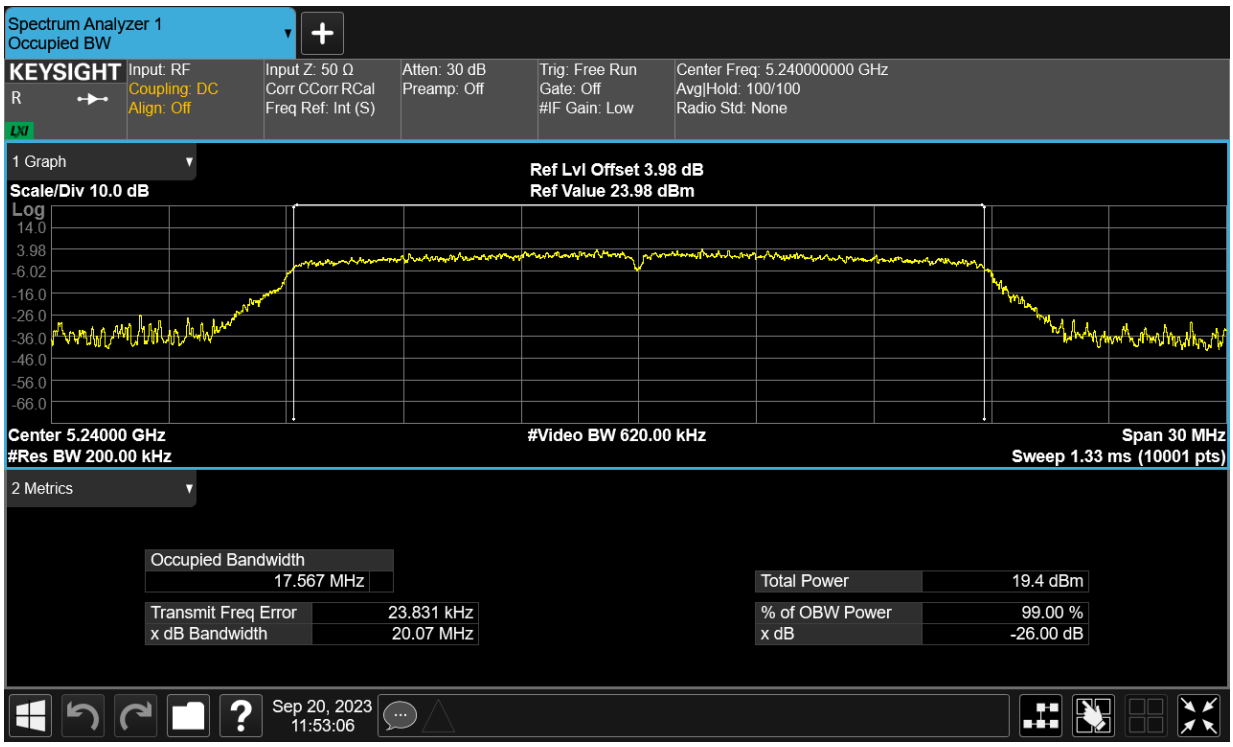
OBW NVNT ac20 5180MHz Ant12



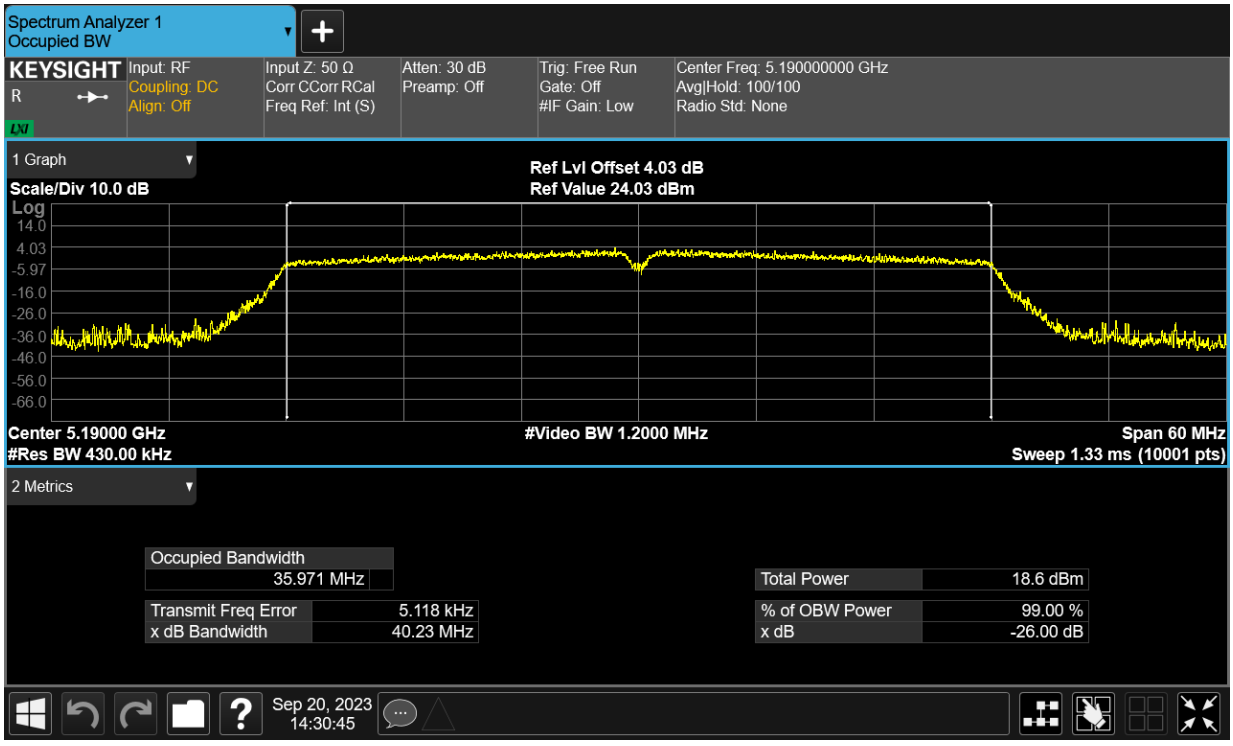
OBW NVNT ac20 5200MHz Ant12



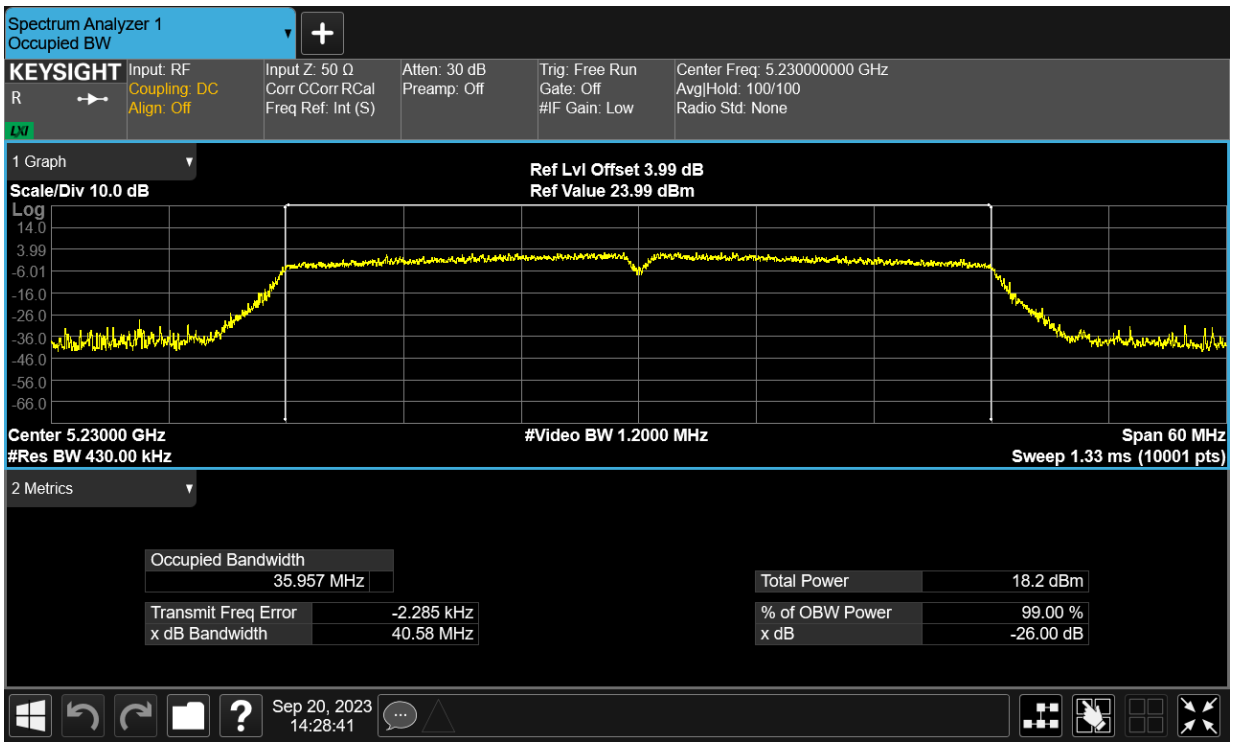
OBW NVNT ac20 5240MHz Ant12



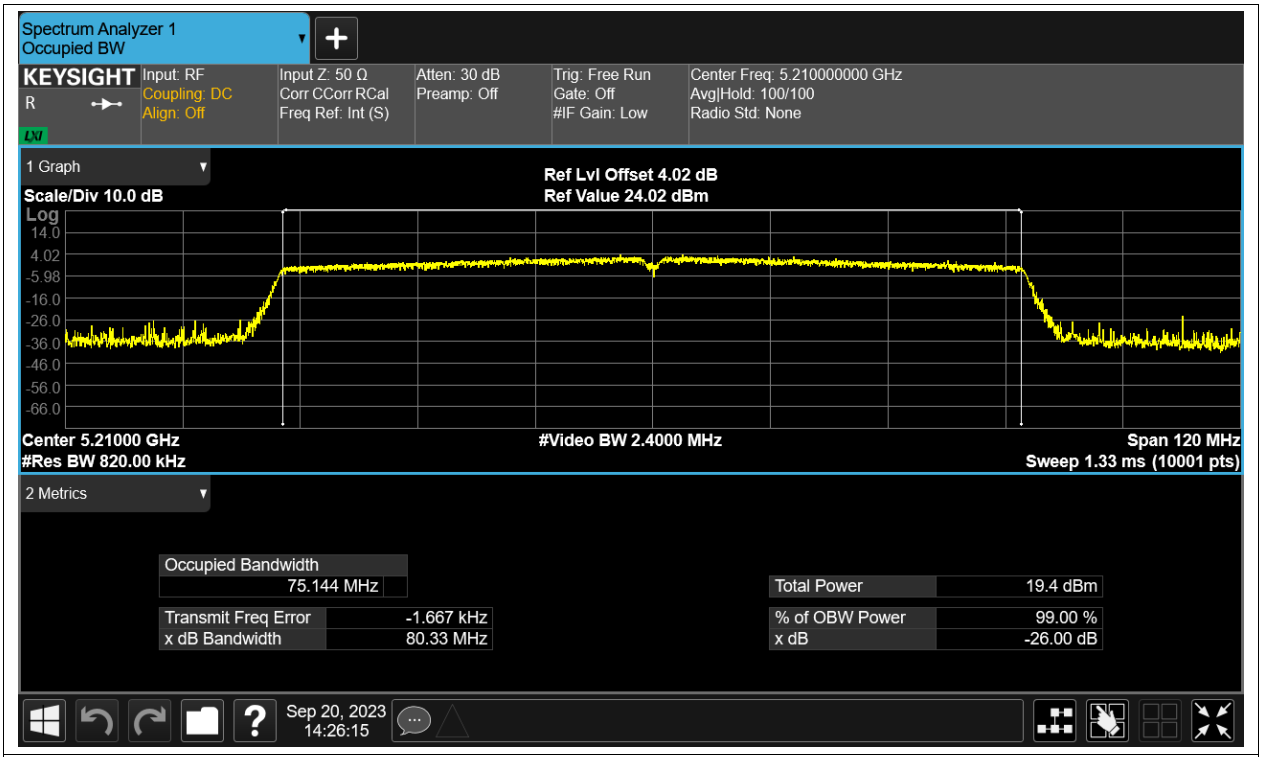
OBW NVNT ac40 5190MHz Ant12



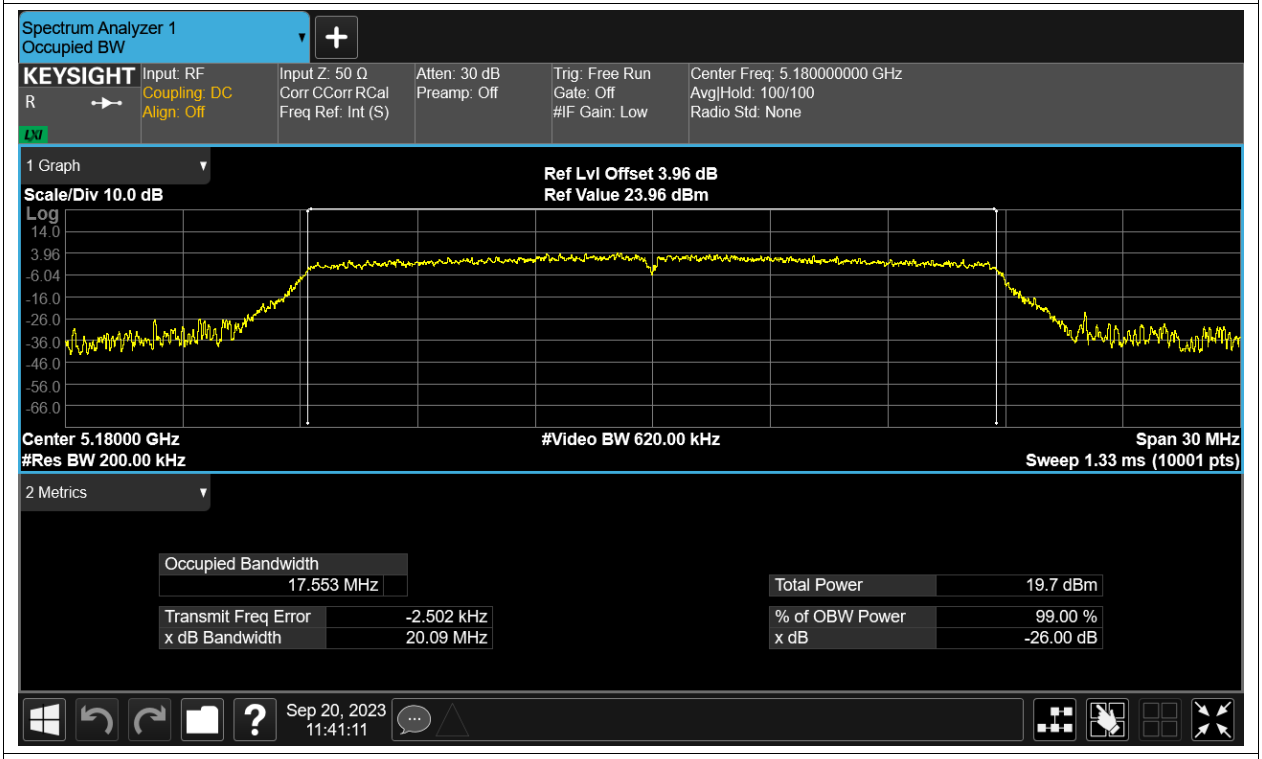
OBW NVNT ac40 5230MHz Ant12



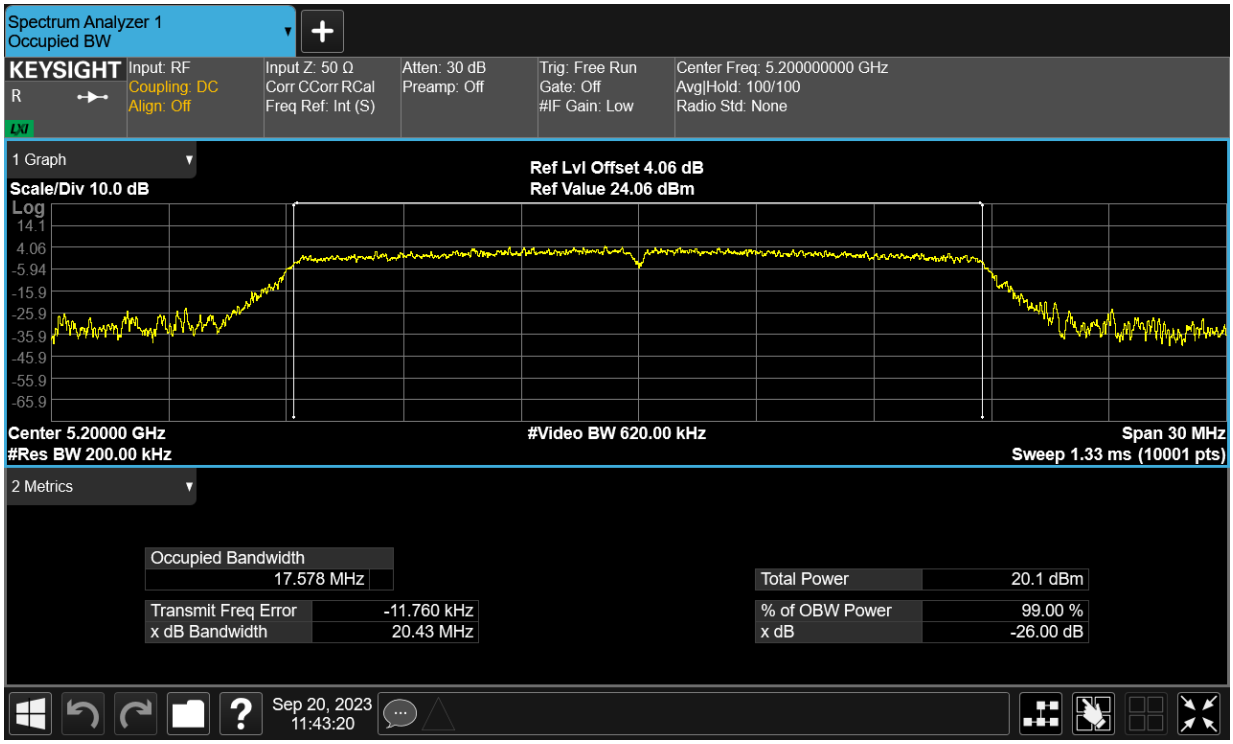
OBW NVNT ac80 5210MHz Ant12



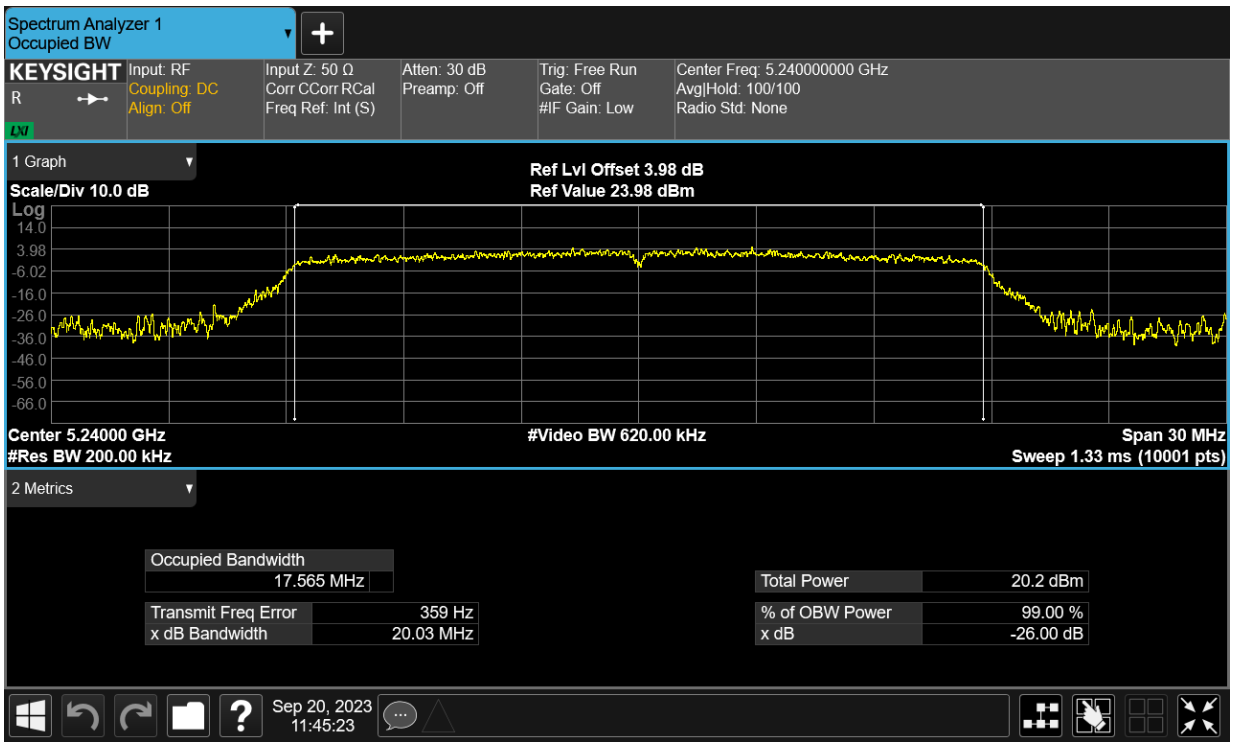
OBW NVNT n20 5180MHz Ant12



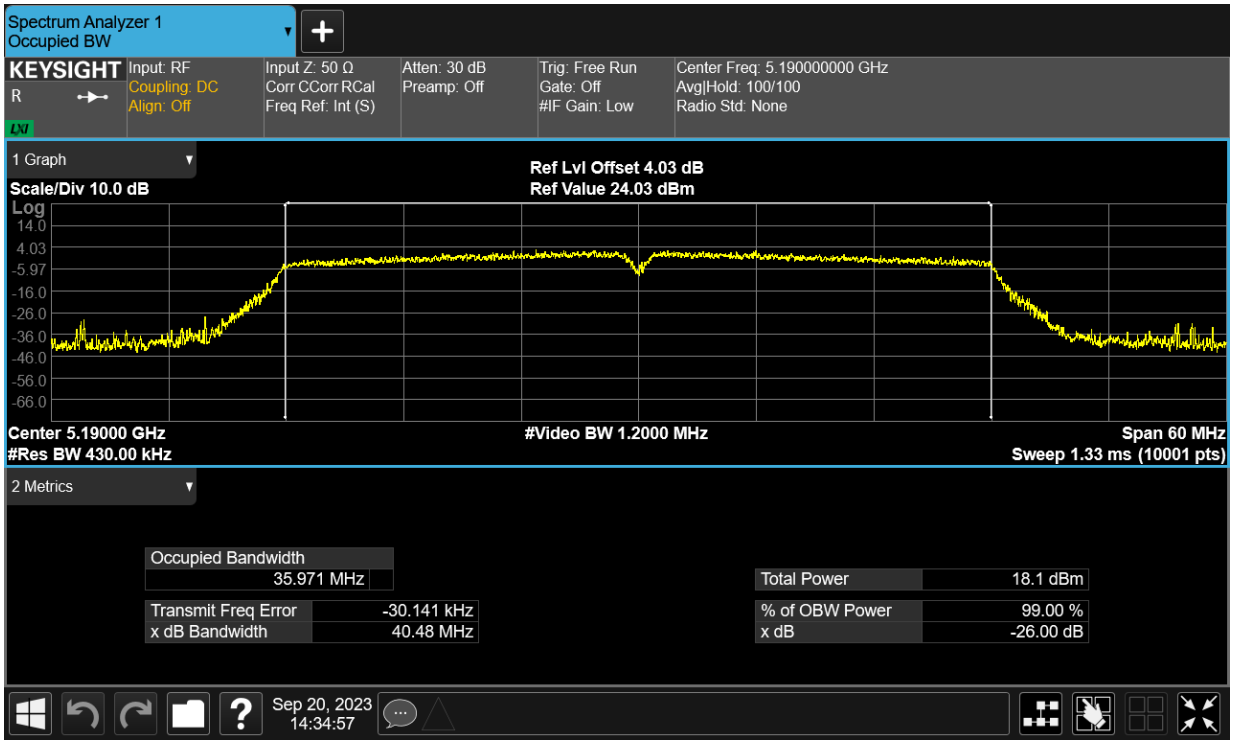
OBW NVNT n20 5200MHz Ant12



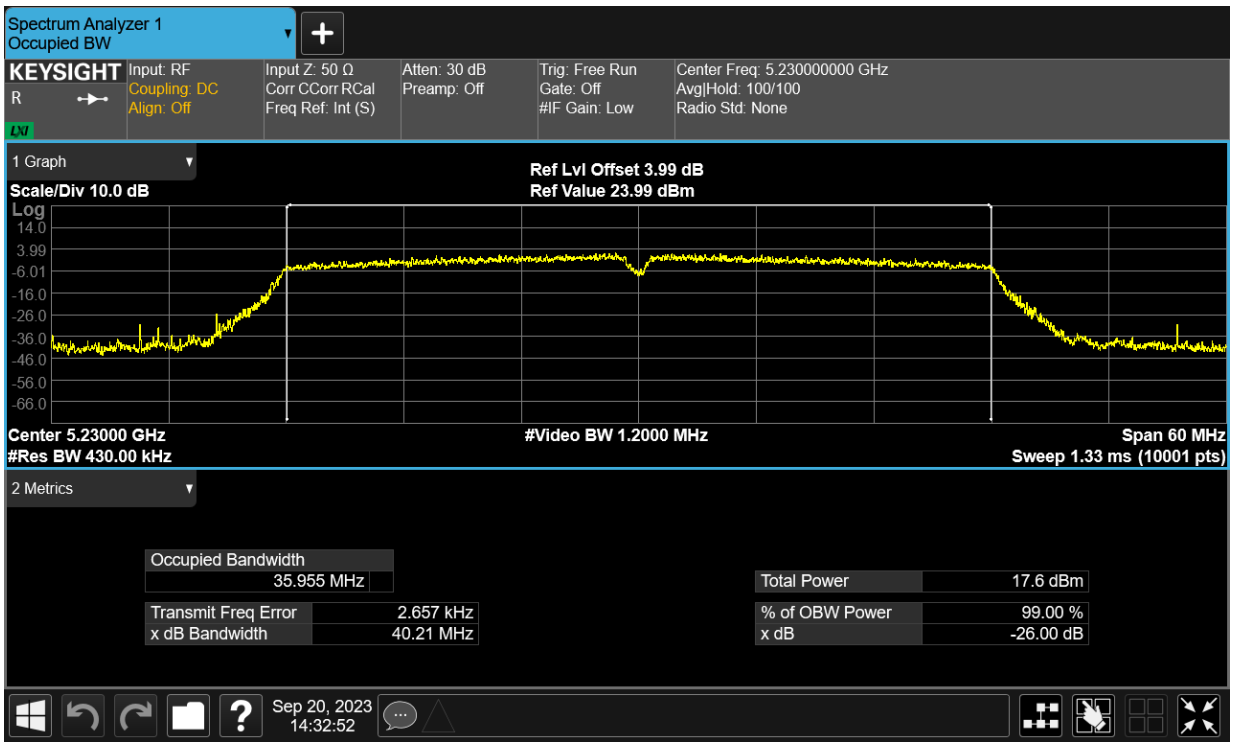
OBW NVNT n20 5240MHz Ant12



OBW NVNT n40 5190MHz Ant12



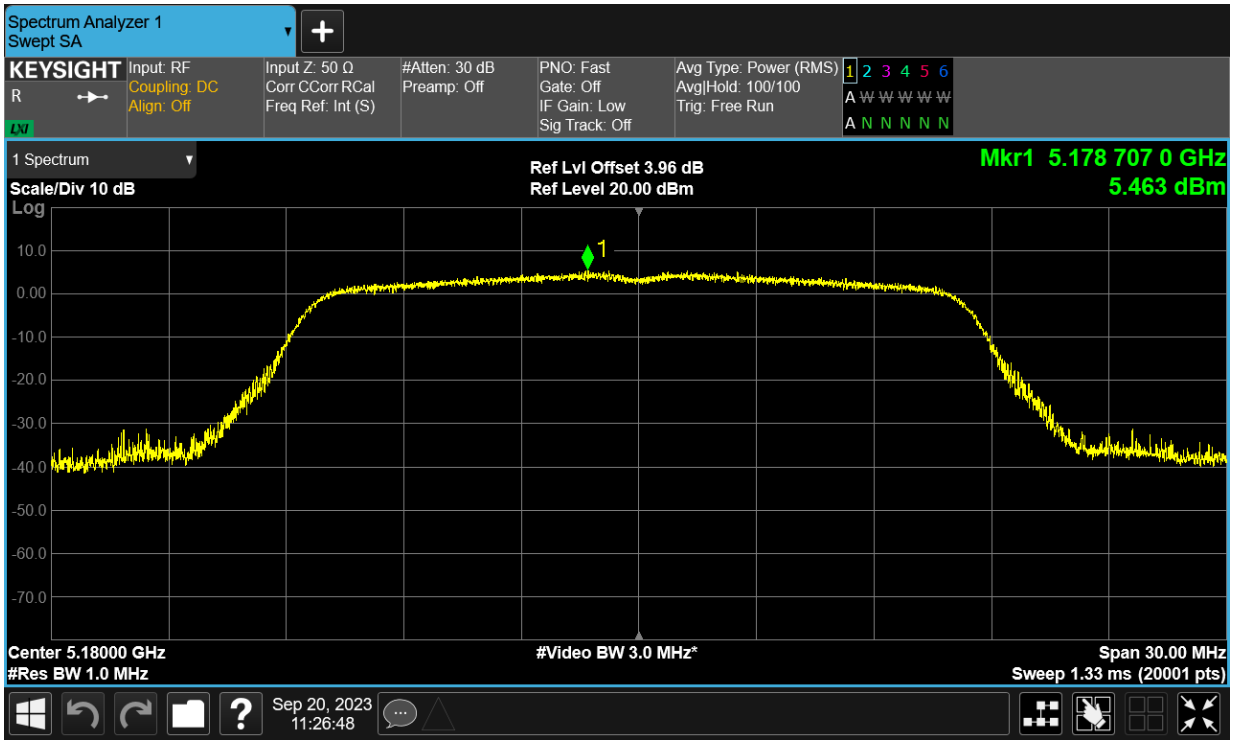
OBW NVNT n40 5230MHz Ant12



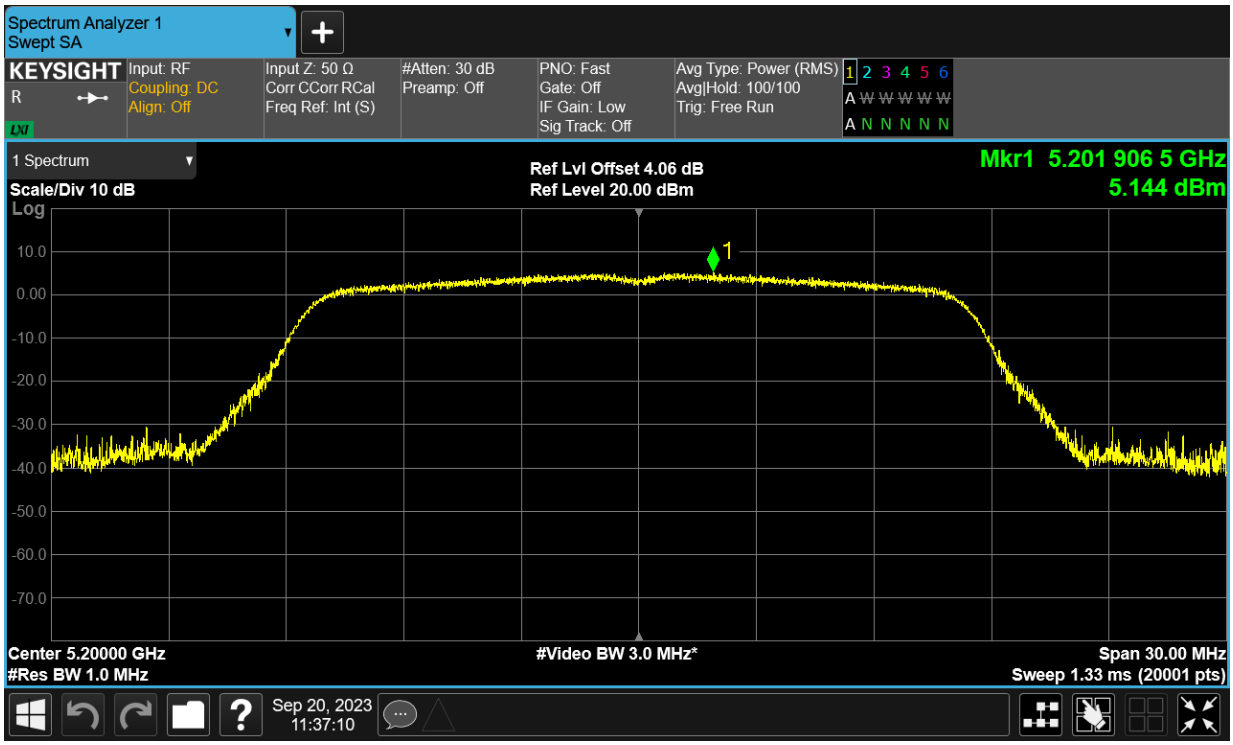
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant12	5.463	11	Pass
NVNT	a	5200	Ant12	5.144	11	Pass
NVNT	a	5240	Ant12	5.803	11	Pass
NVNT	ac20	5180	Ant12	3.282	11	Pass
NVNT	ac20	5200	Ant12	3.963	11	Pass
NVNT	ac20	5240	Ant12	4.352	11	Pass
NVNT	ac40	5190	Ant12	0.415	11	Pass
NVNT	ac40	5230	Ant12	-0.301	11	Pass
NVNT	ac80	5210	Ant12	-2.821	11	Pass
NVNT	n20	5180	Ant12	4.752	11	Pass
NVNT	n20	5200	Ant12	5.133	11	Pass
NVNT	n20	5240	Ant12	5.122	11	Pass
NVNT	n40	5190	Ant12	0.068	11	Pass
NVNT	n40	5230	Ant12	-0.687	11	Pass

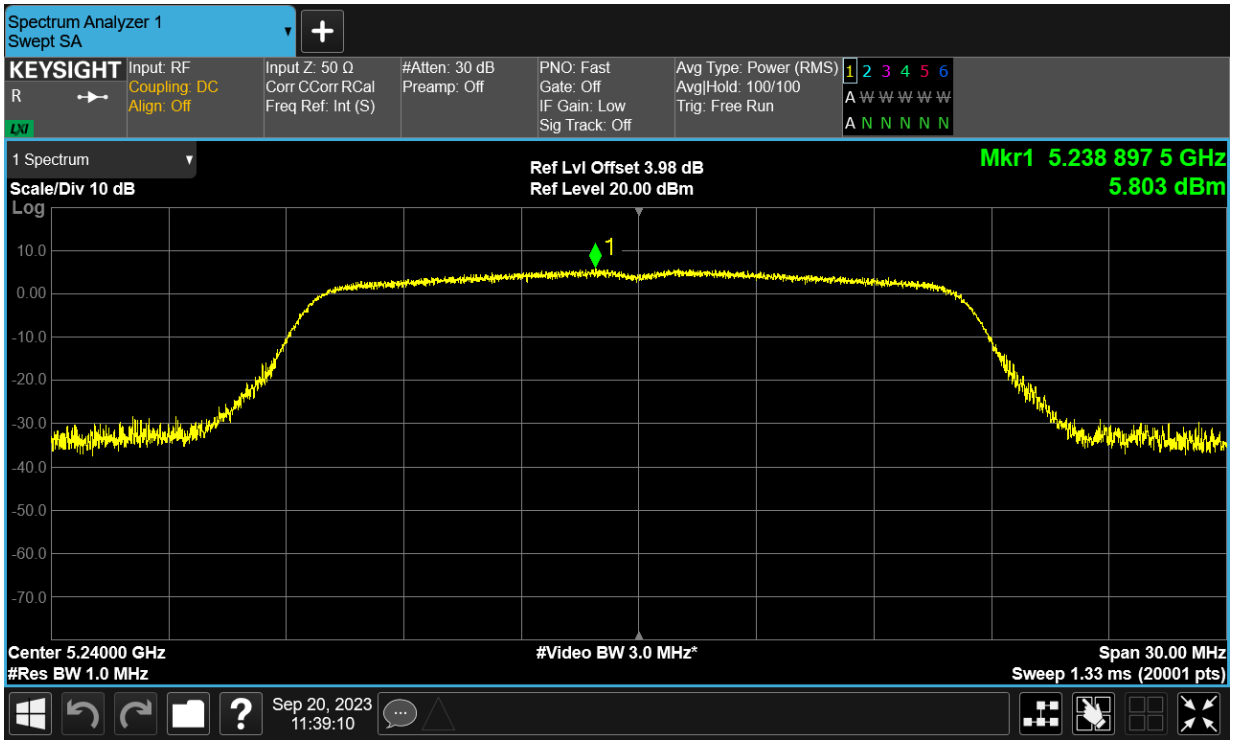
Test Graphs
PSD NVNT a 5180MHz Ant12



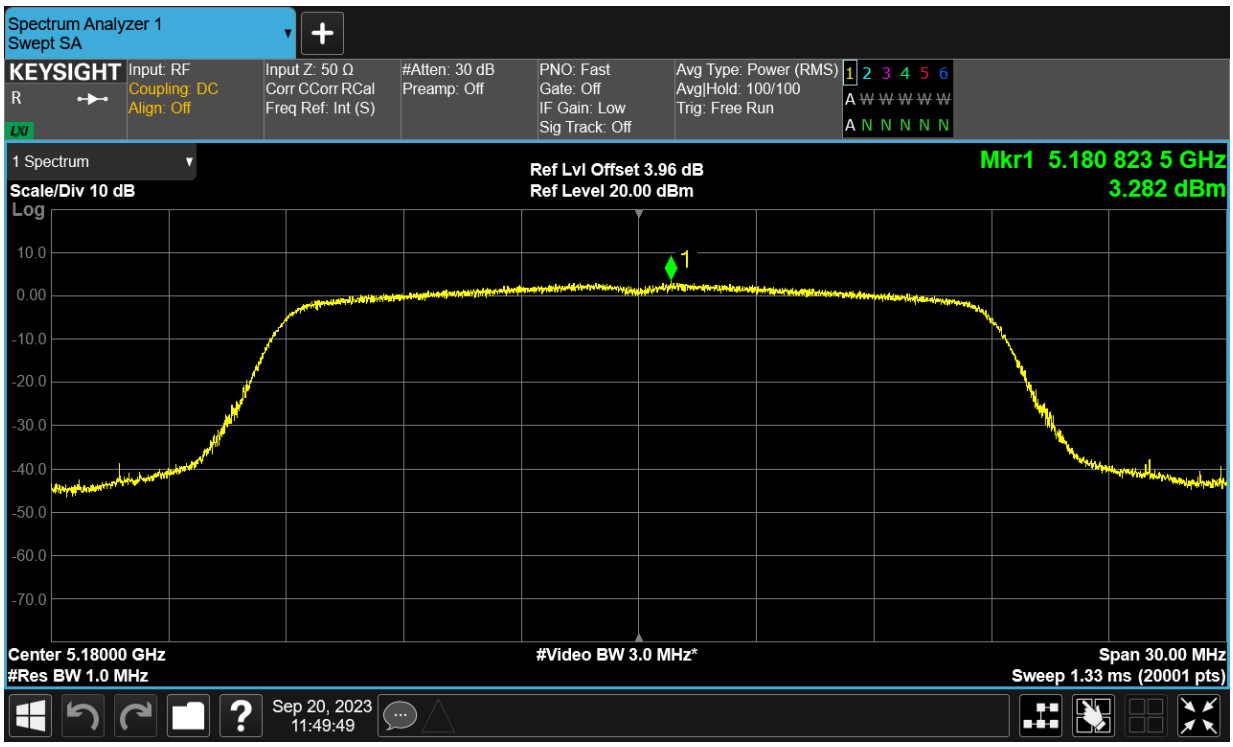
PSD NVNT a 5200MHz Ant12



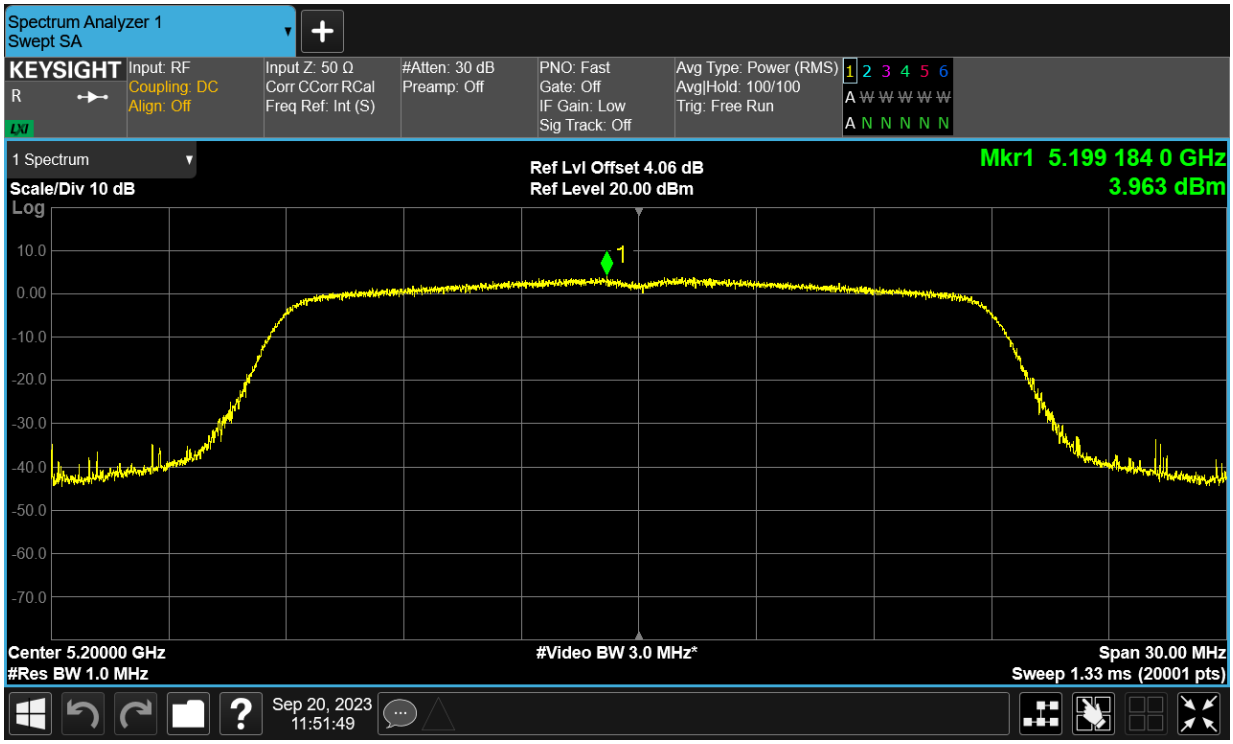
PSD NVNT a 5240MHz Ant12



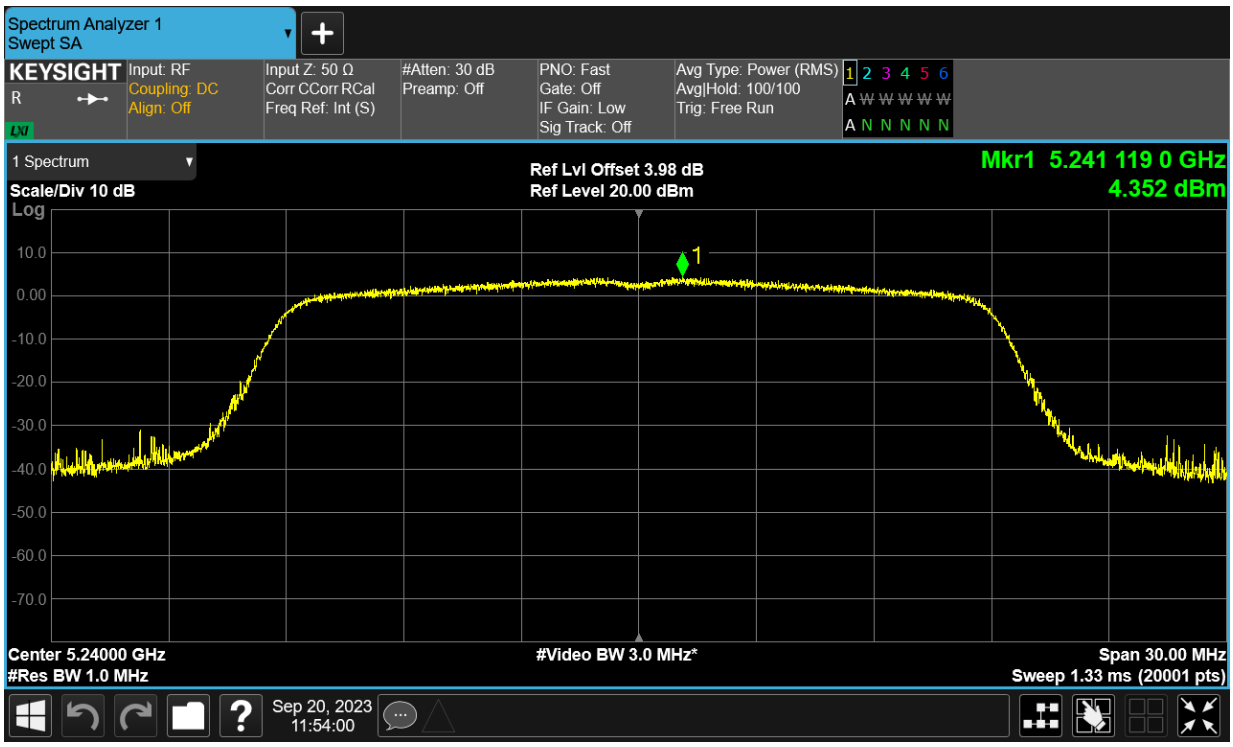
PSD NVNT ac20 5180MHz Ant12



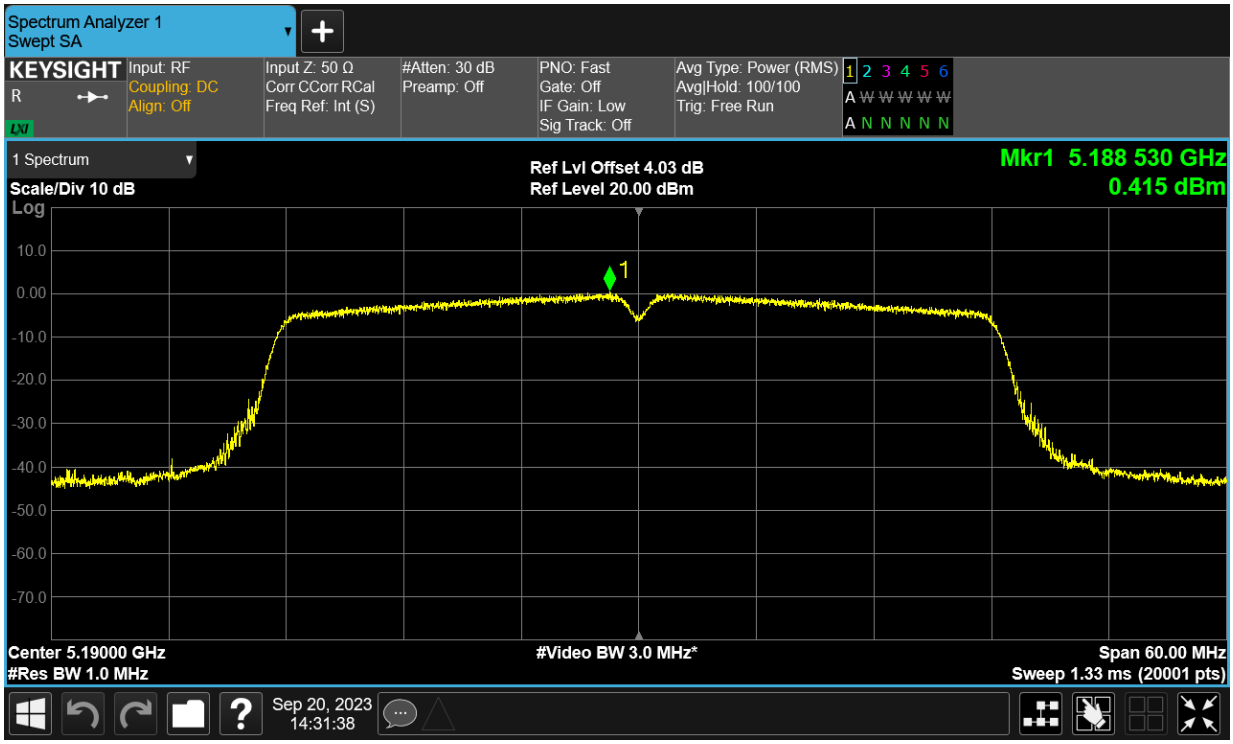
PSD NVNT ac20 5200MHz Ant12



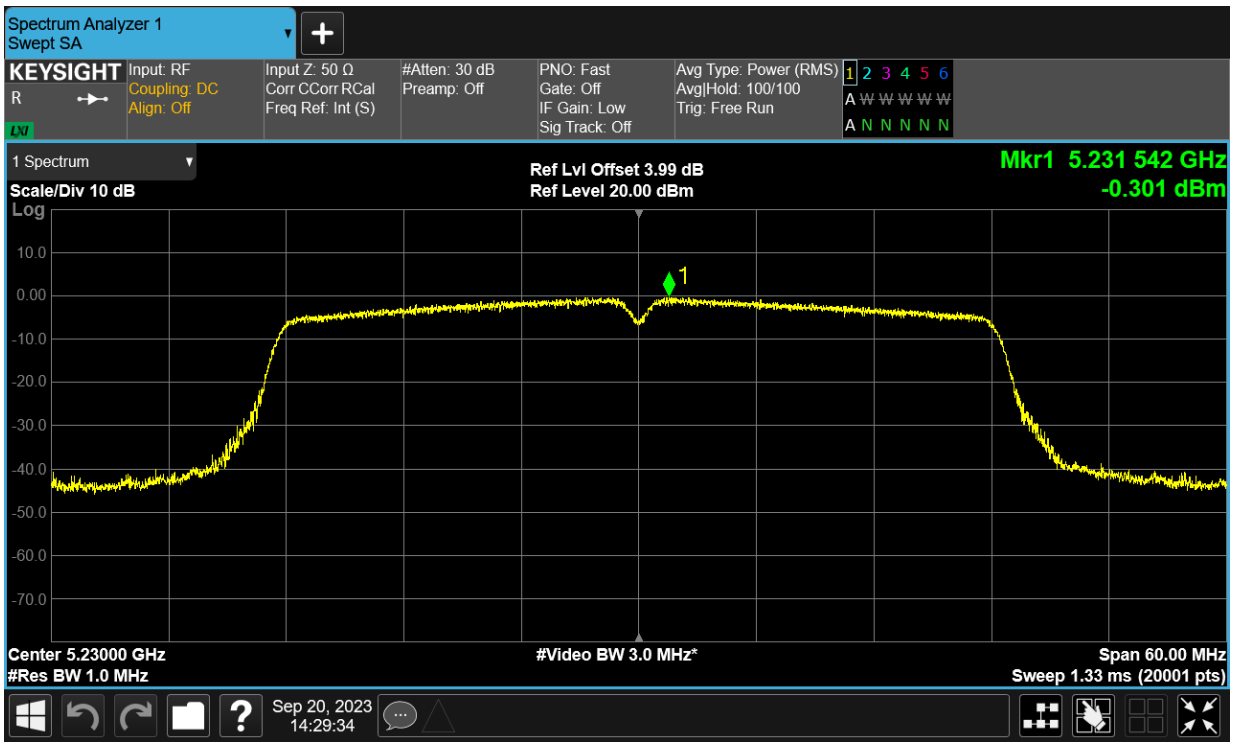
PSD NVNT ac20 5240MHz Ant12



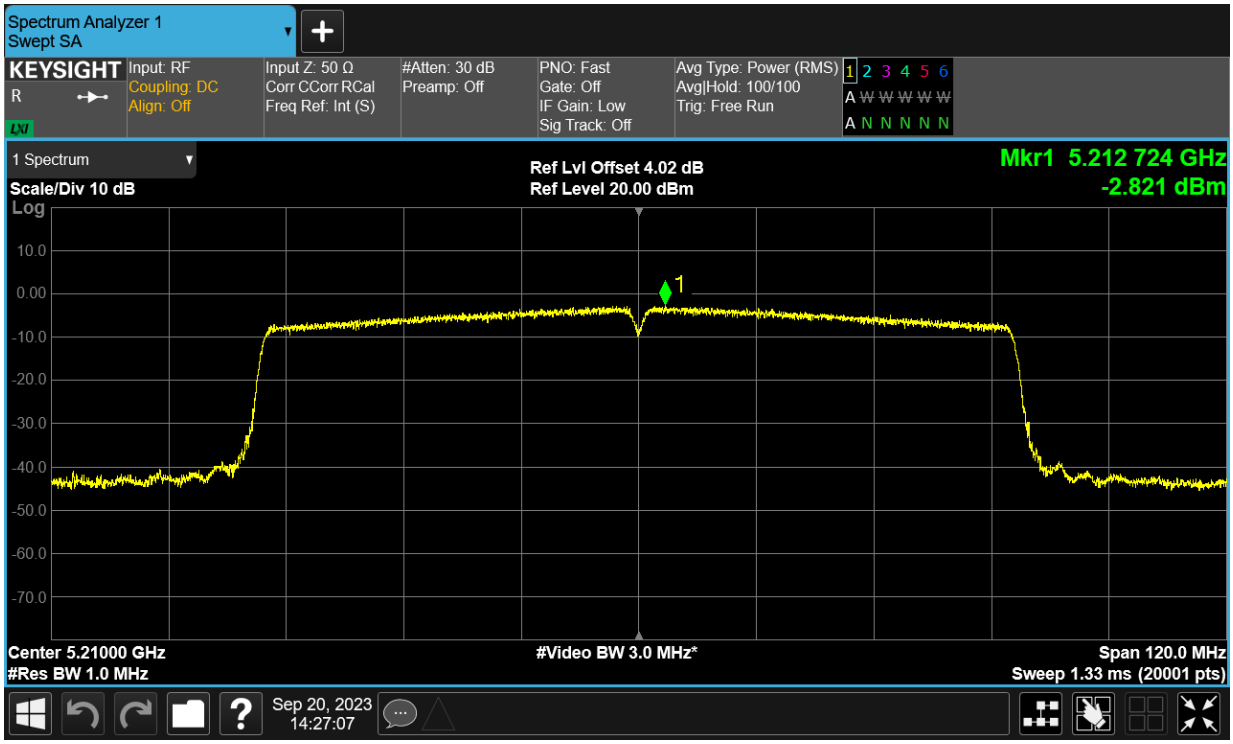
PSD NVNT ac40 5190MHz Ant12



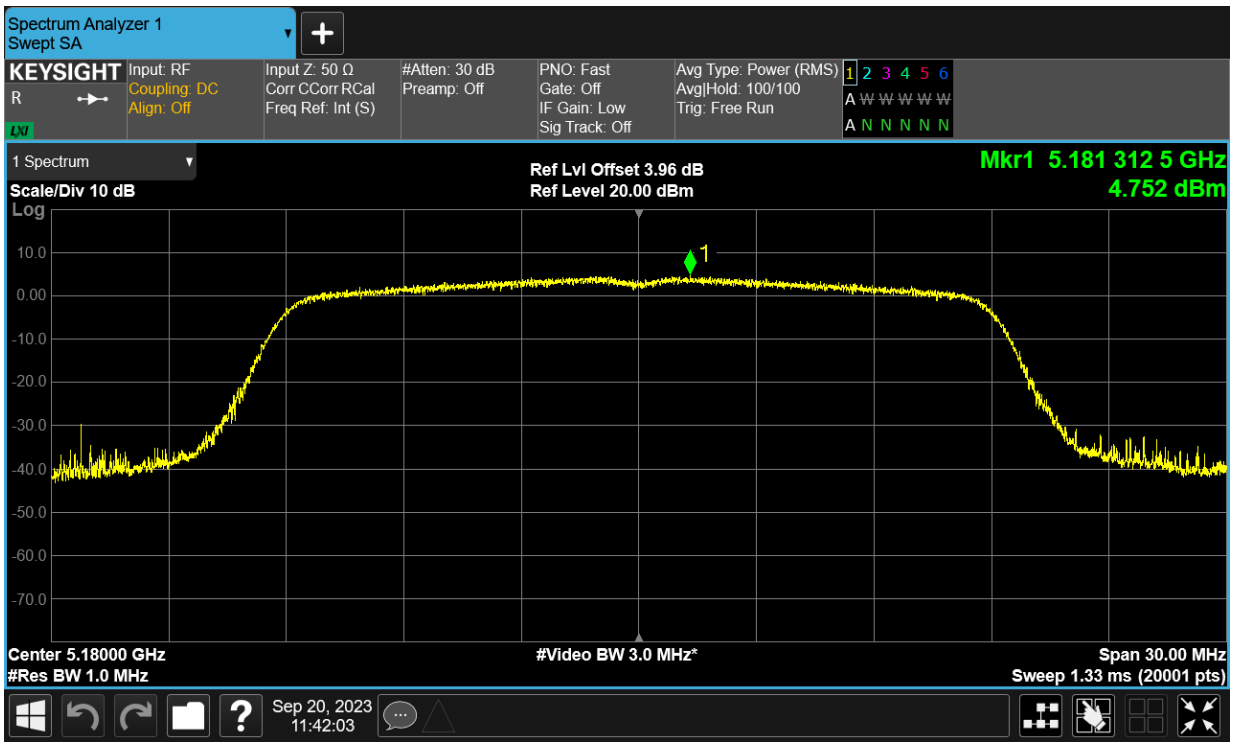
PSD NVNT ac40 5230MHz Ant12



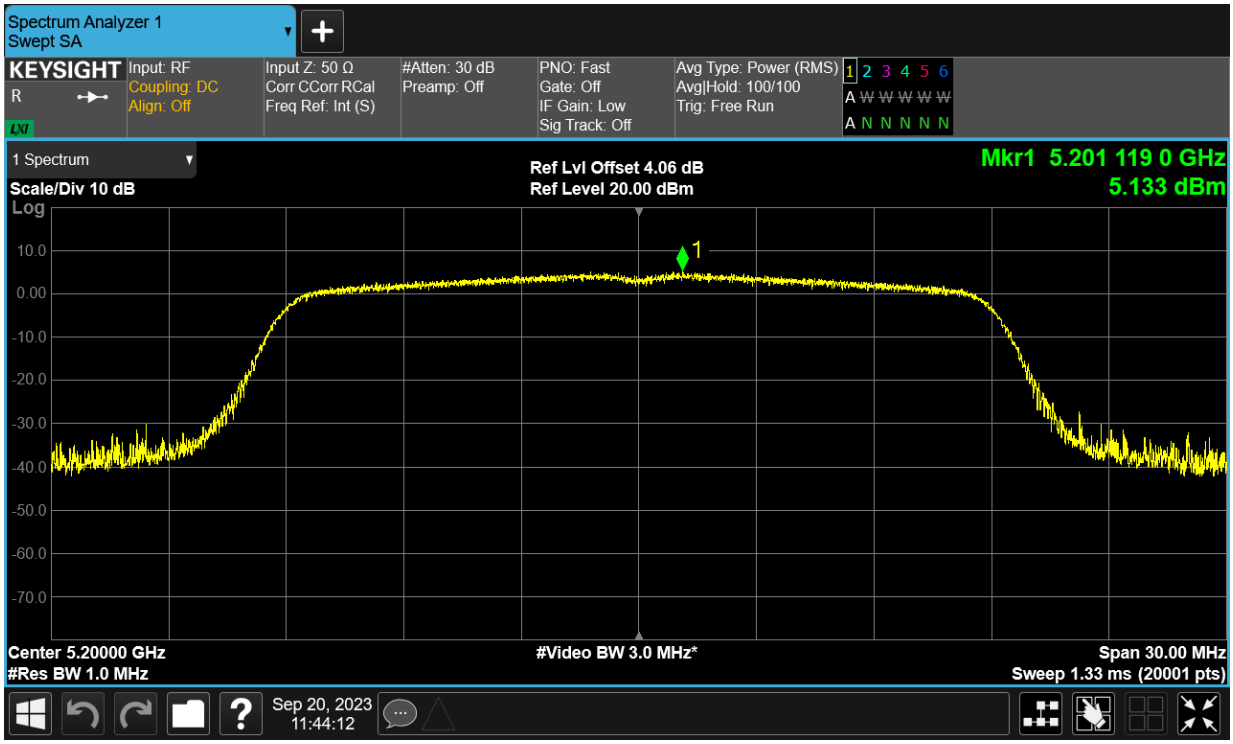
PSD NVNT ac80 5210MHz Ant12



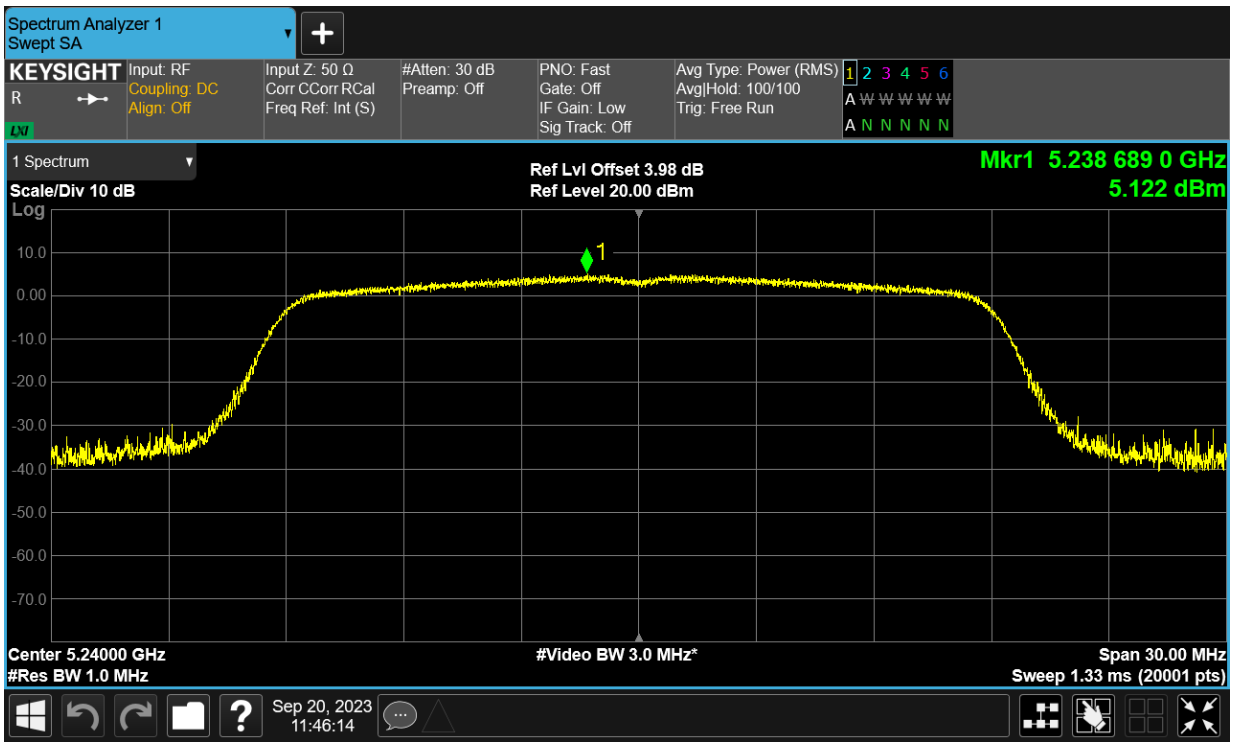
PSD NVNT n20 5180MHz Ant12



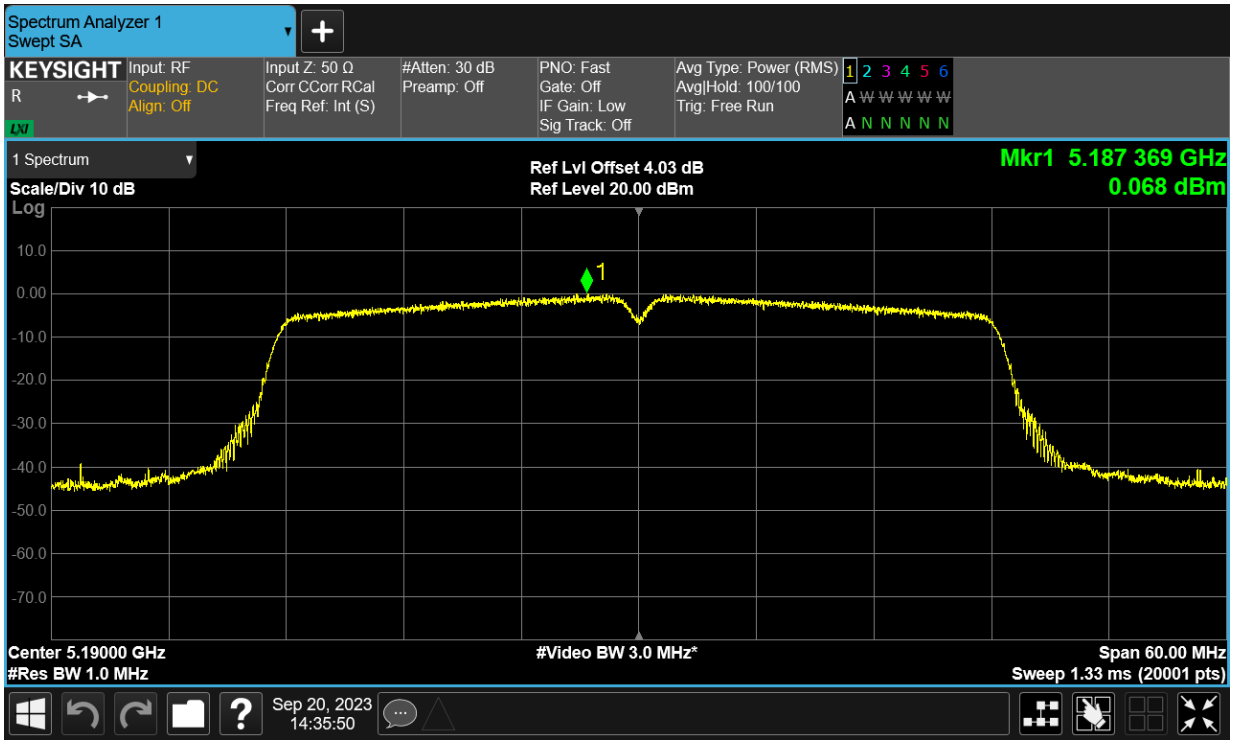
PSD NVNT n20 5200MHz Ant12



PSD NVNT n20 5240MHz Ant12



PSD NVNT n40 5190MHz Ant12



PSD NVNT n40 5230MHz Ant12