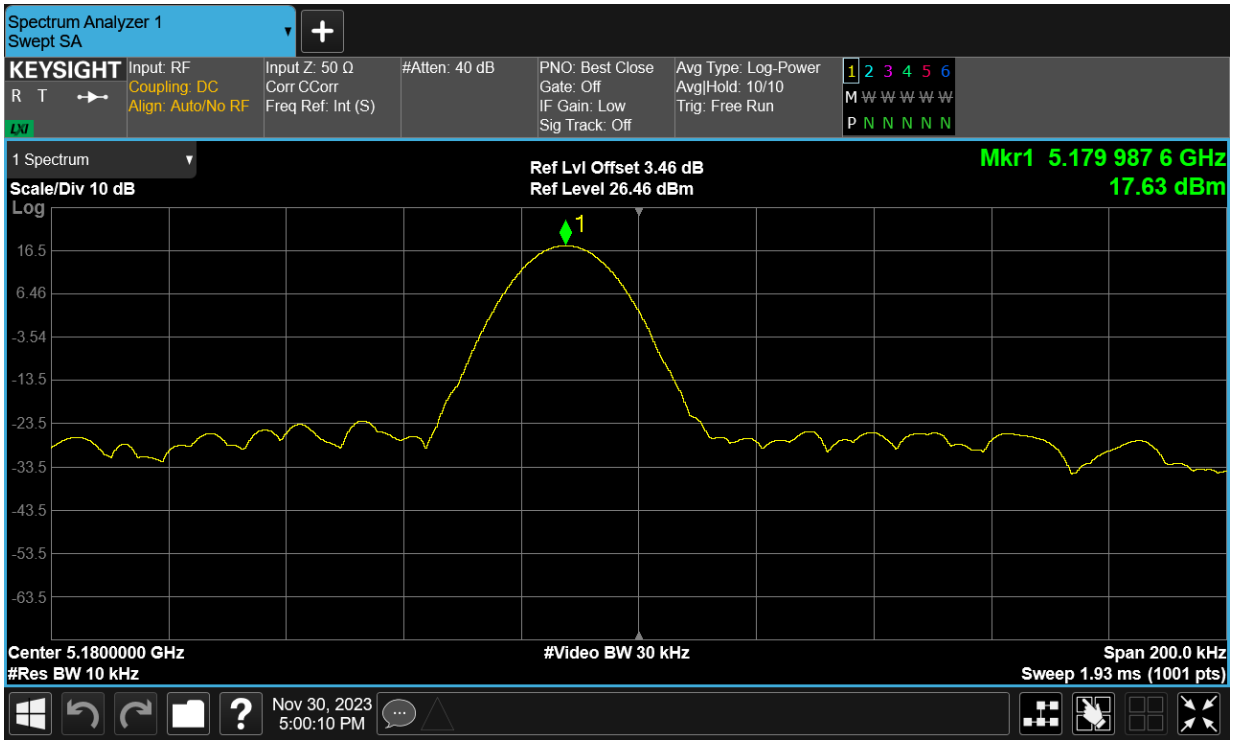
Test Data

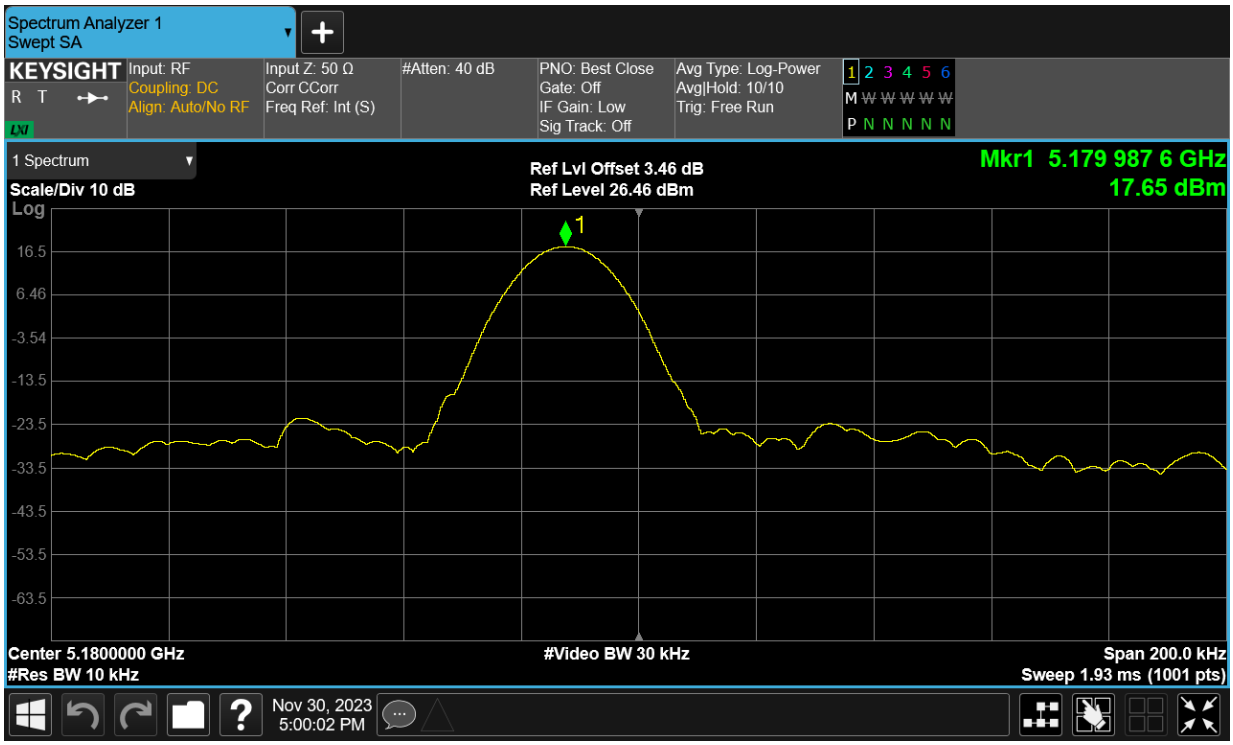
Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
HVNT	a	5180	Ant14	5179.9876	-2.39	Within authorized band	Pass
LVNT	a	5180	Ant14	5179.9876	-2.39		Pass
NVHT	a	5180	Ant14	5179.9876	-2.39		Pass
NVLT	a	5180	Ant14	5179.9876	-2.39		Pass
NVNT	a	5180	Ant14	5179.9876	-2.39		Pass
HVNT	ac80	5210	Ant14	5209.9892	-2.07		Pass
LVNT	ac80	5210	Ant14	5209.9892	-2.07		Pass
NVHT	ac80	5210	Ant14	5209.9894	-2.03		Pass
NVLT	ac80	5210	Ant14	5209.9896	-2		Pass
NVNT	ac80	5210	Ant14	5209.9897	-1.97		Pass
HVNT	n40	5190	Ant14	5189.9892	-2.08		Pass
LVNT	n40	5190	Ant14	5189.9894	-2.04		Pass
NVHT	n40	5190	Ant14	5189.9896	-2		Pass
NVLT	n40	5190	Ant14	5189.9898	-1.97		Pass
NVNT	n40	5190	Ant14	5189.9902	-1.89		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							

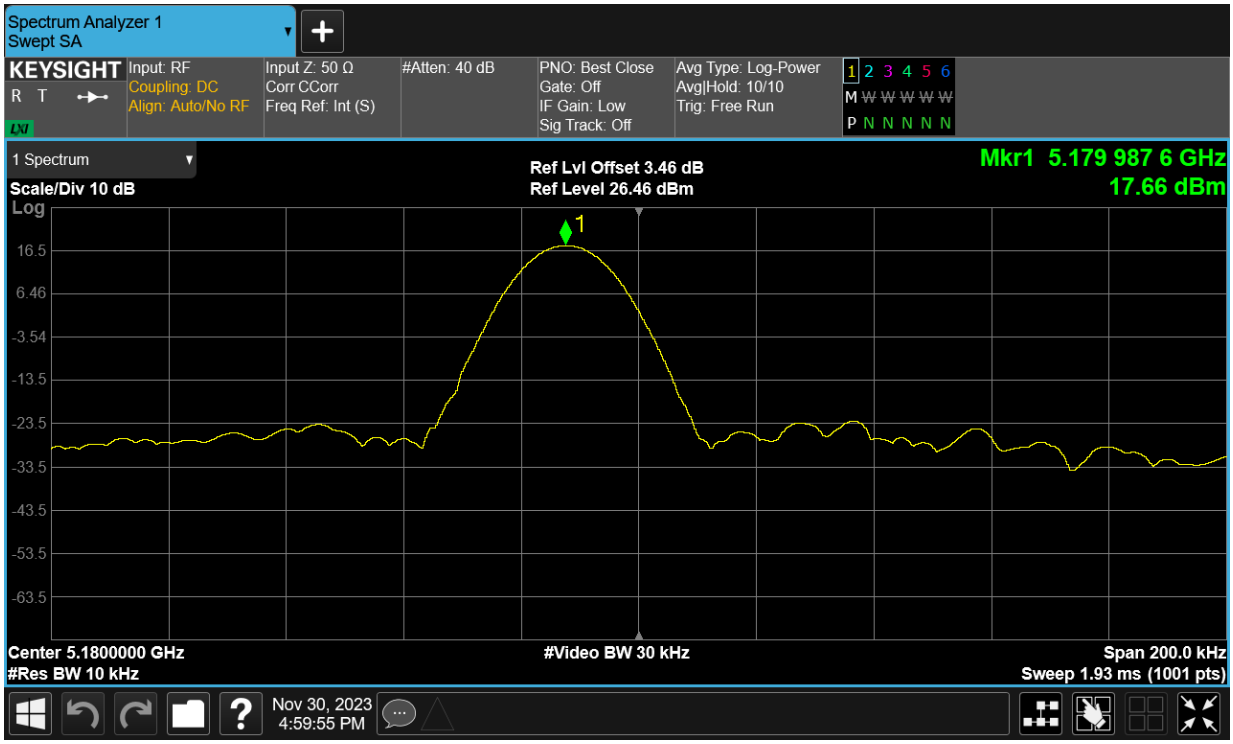
Test Graphs
Freq. Stability HVNT a 5180MHz Ant14



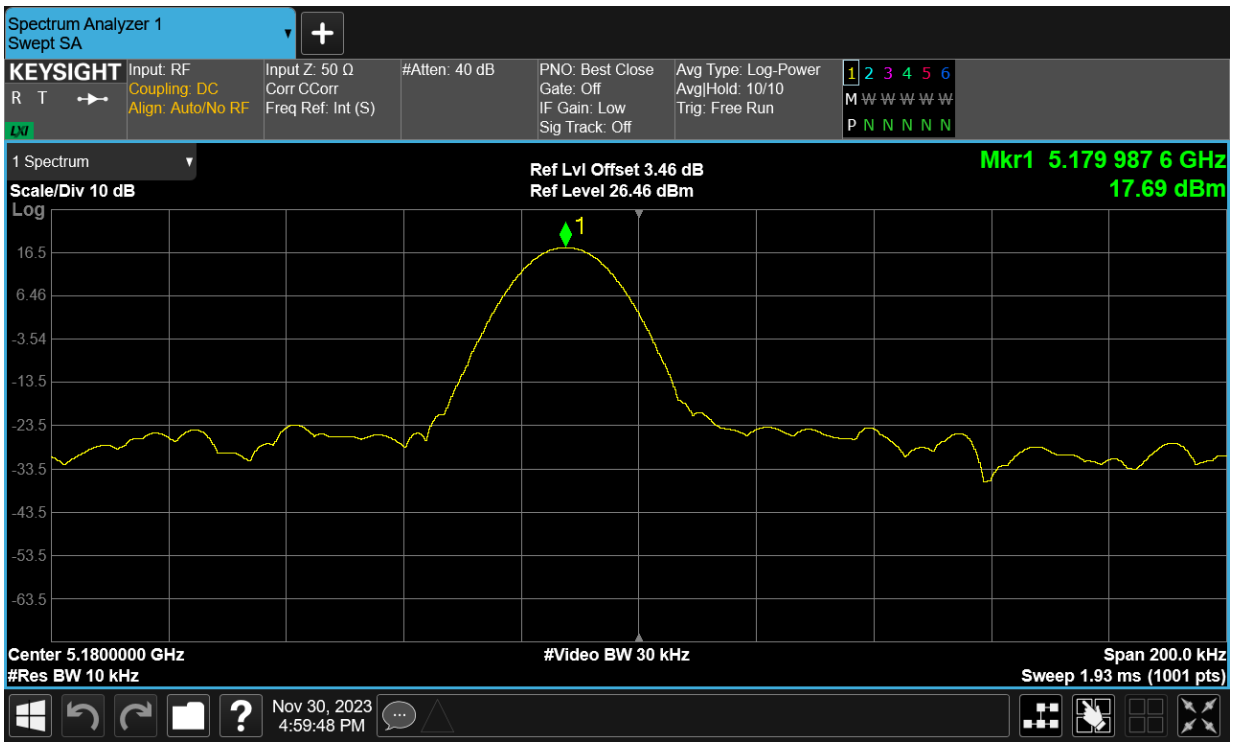
Freq. Stability LVNT a 5180MHz Ant14



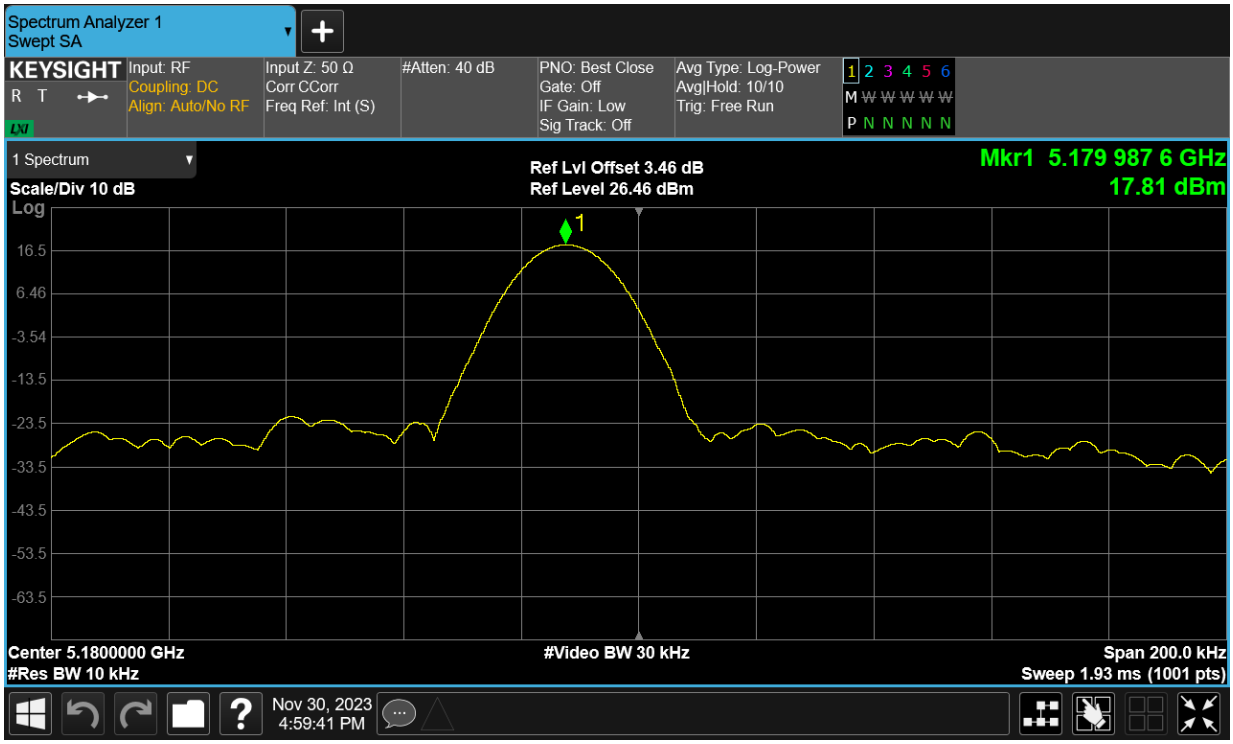
Freq. Stability NVHT a 5180MHz Ant14



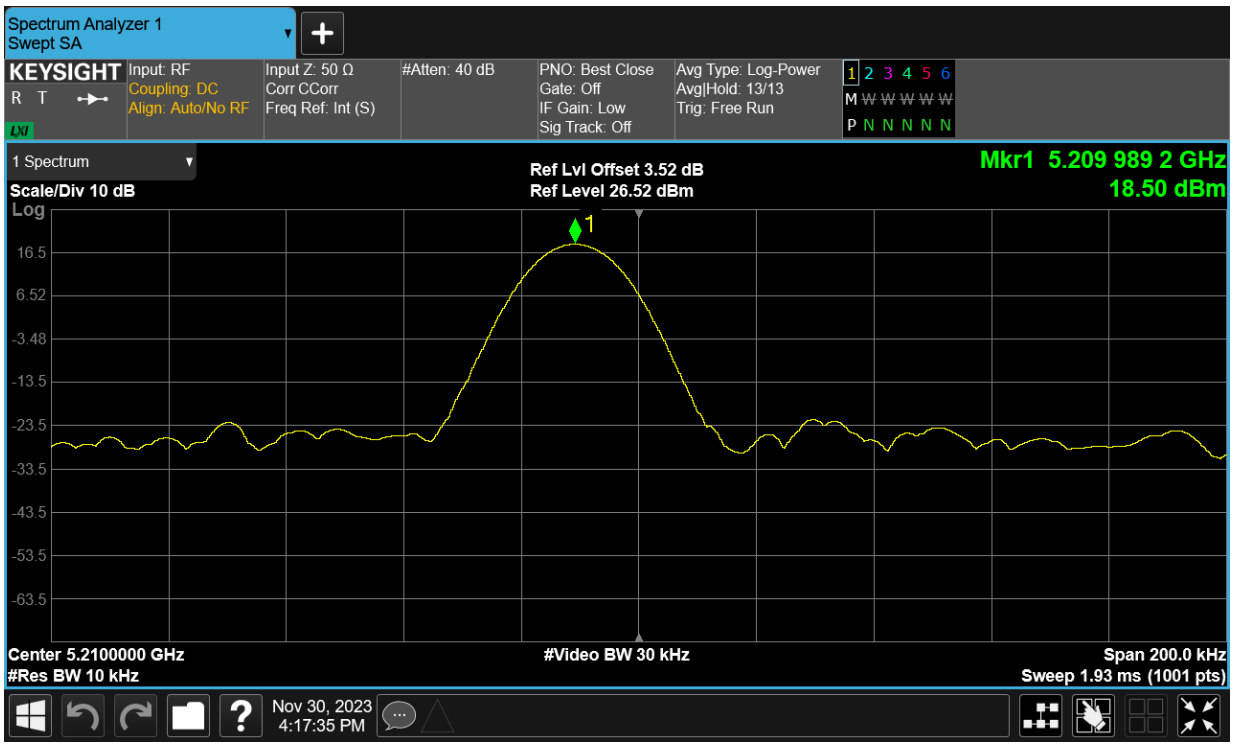
Freq. Stability NVLT a 5180MHz Ant14



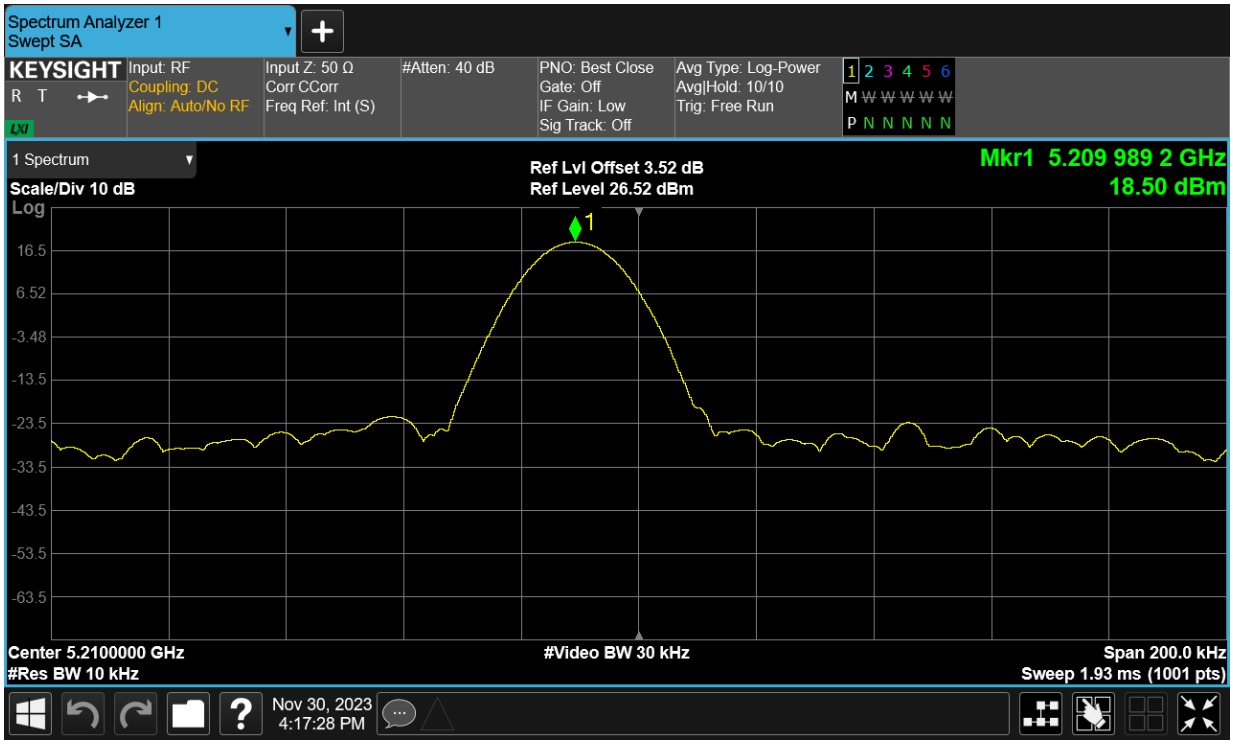
Freq. Stability NVNT a 5180MHz Ant14



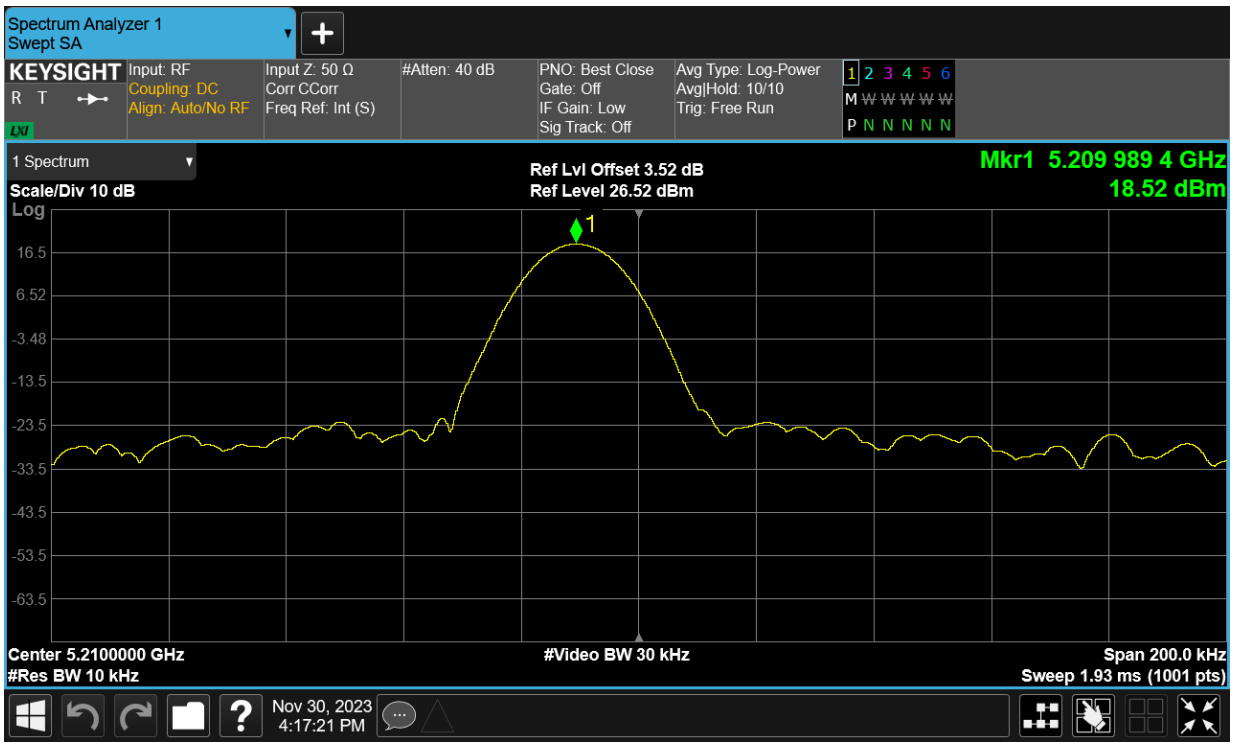
Freq. Stability HVNT ac80 5210MHz Ant14



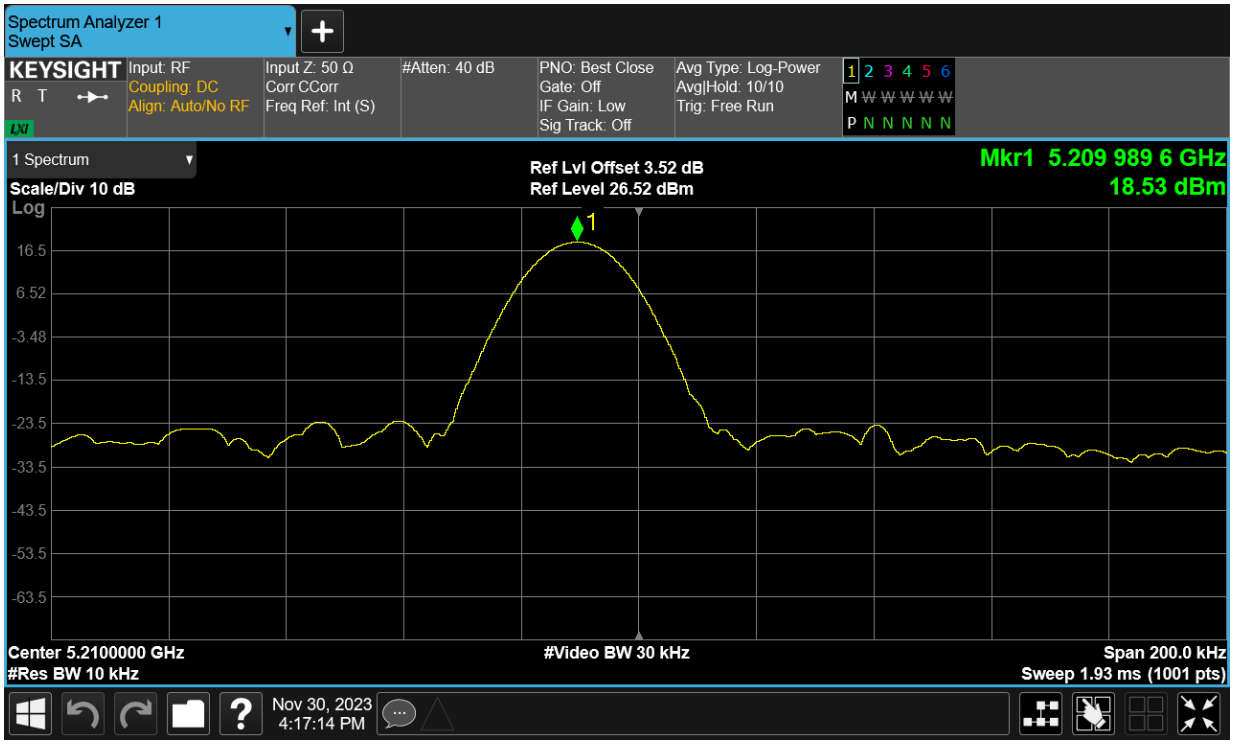
Freq. Stability LVNT ac80 5210MHz Ant14



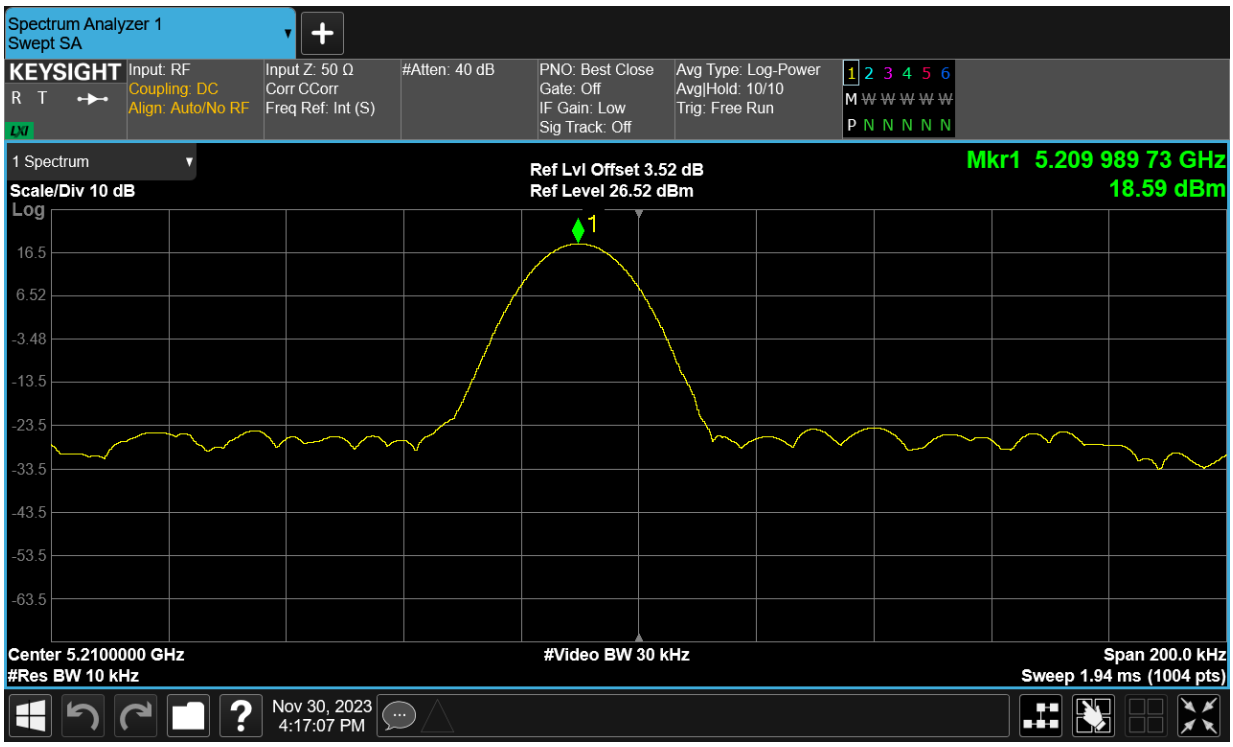
Freq. Stability NVHT ac80 5210MHz Ant14



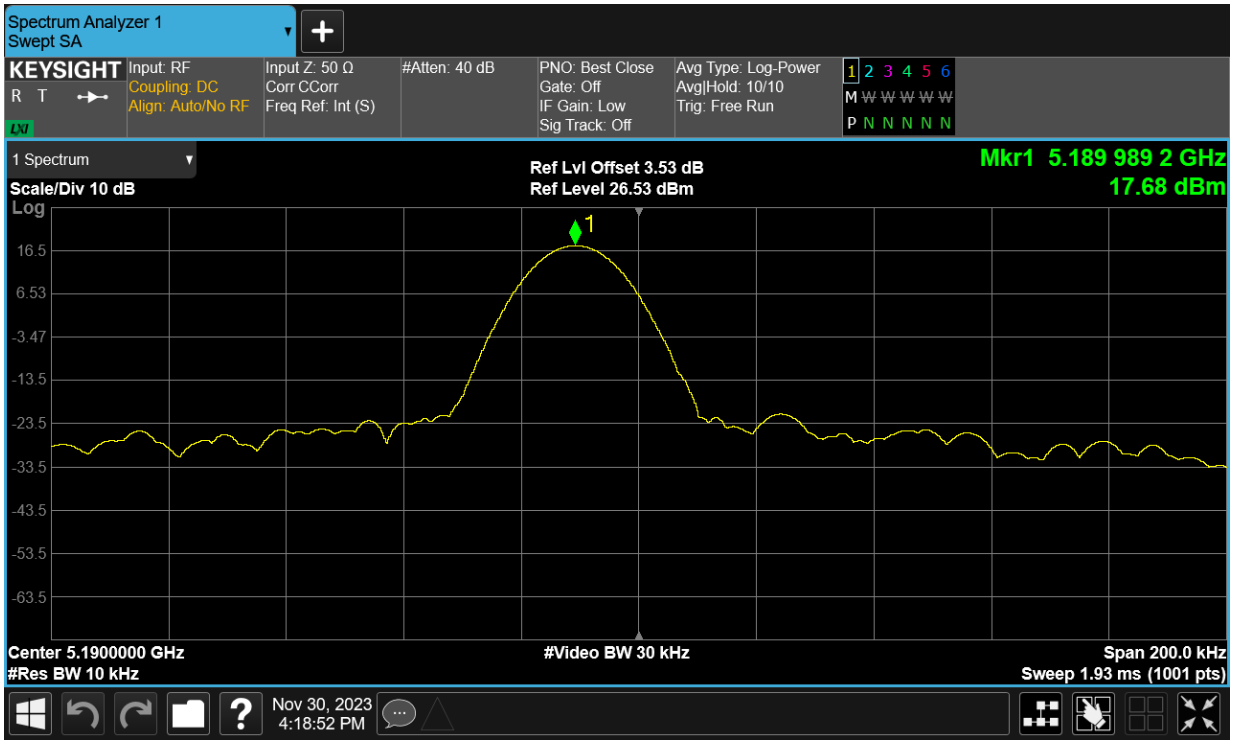
Freq. Stability NVLT ac80 5210MHz Ant14



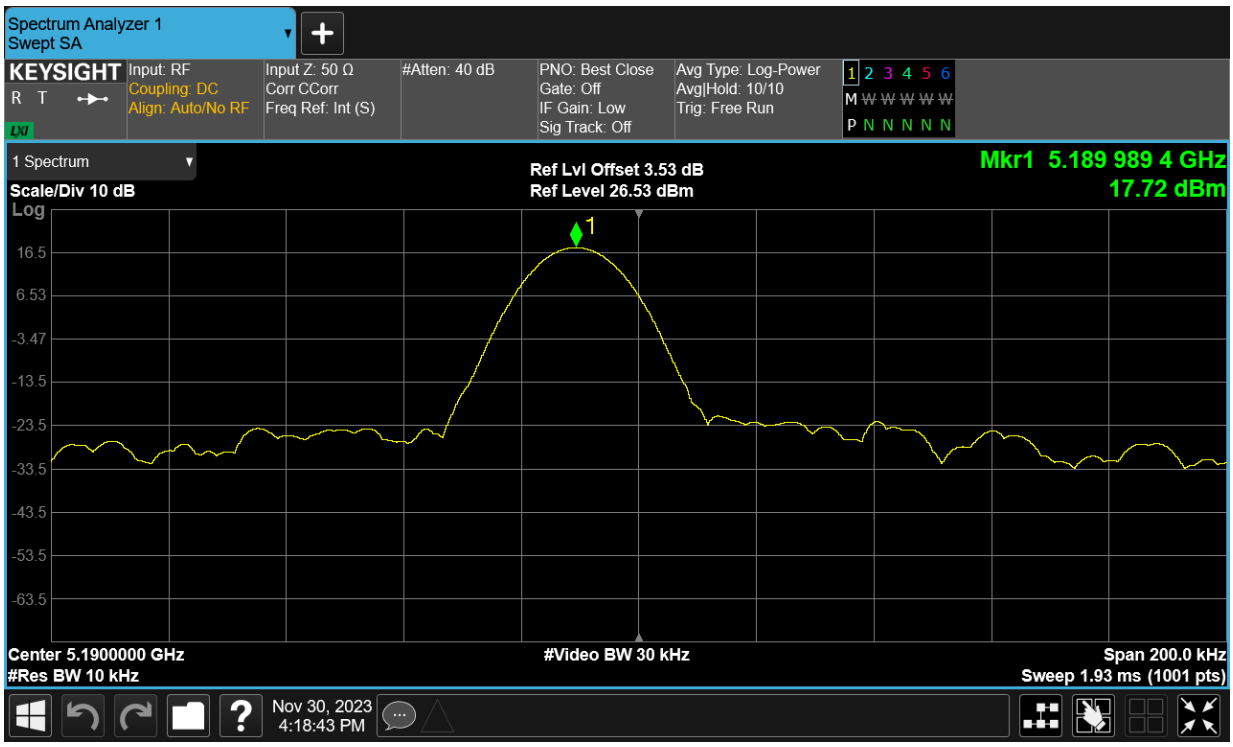
Freq. Stability NVNT ac80 5210MHz Ant14



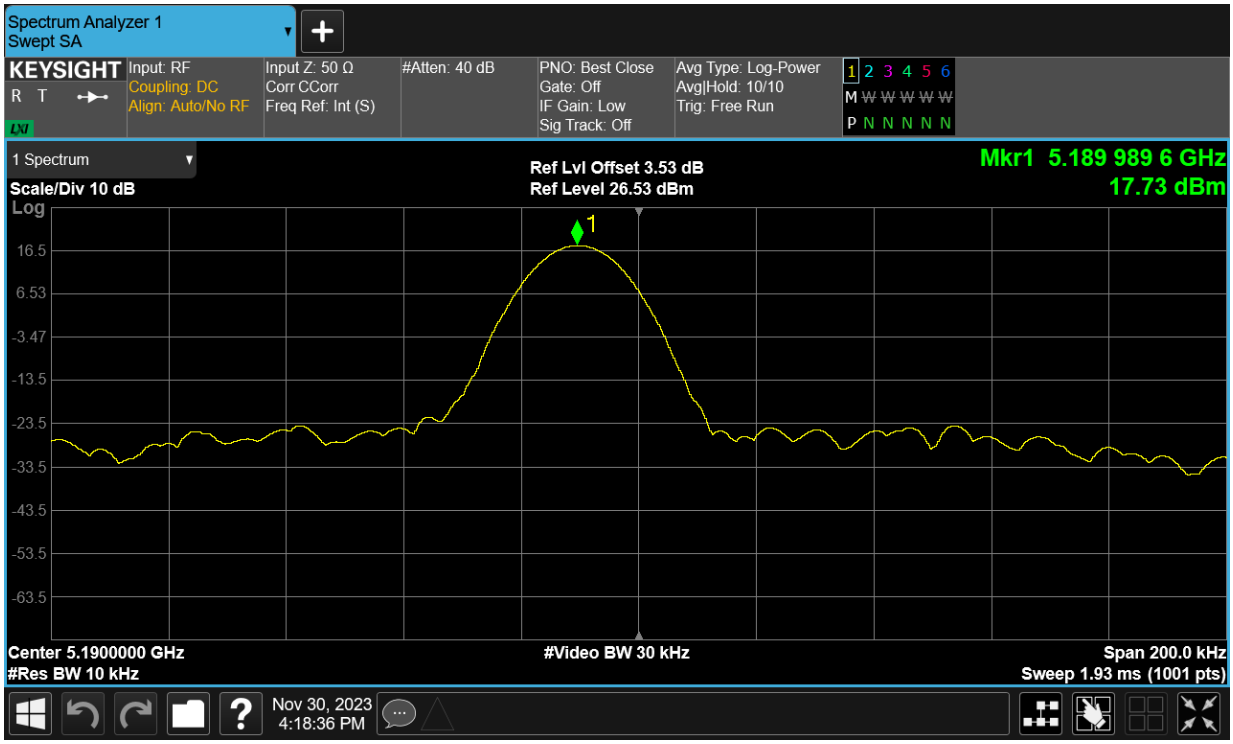
Freq. Stability HVNT n40 5190MHz Ant14



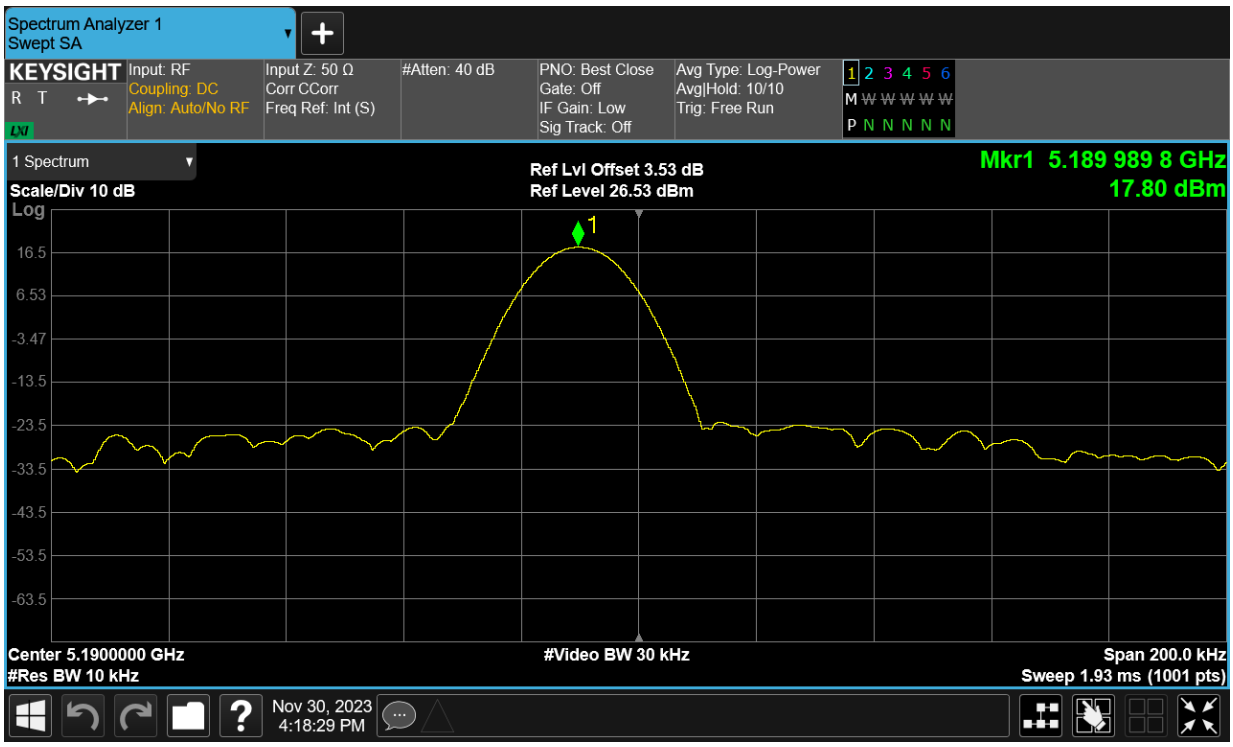
Freq. Stability LVNT n40 5190MHz Ant14



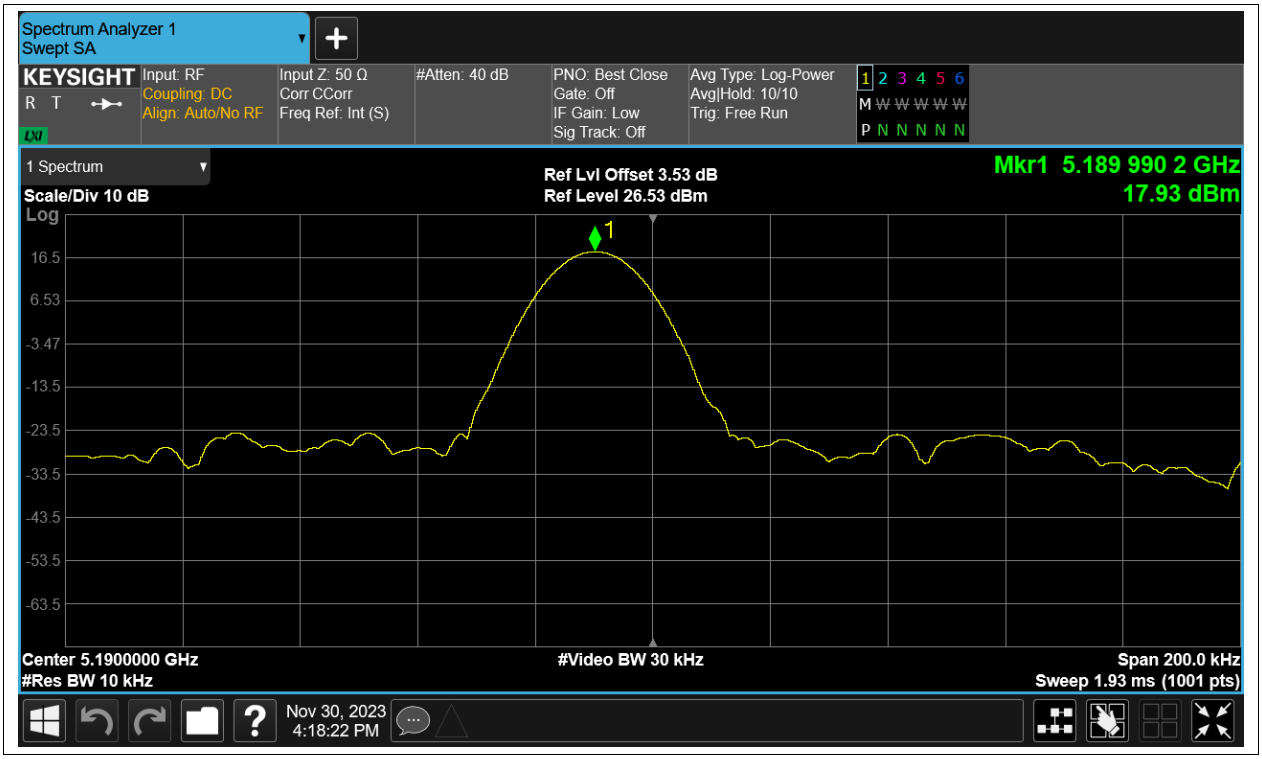
Freq. Stability NVHT n40 5190MHz Ant14



Freq. Stability NVLT n40 5190MHz Ant14



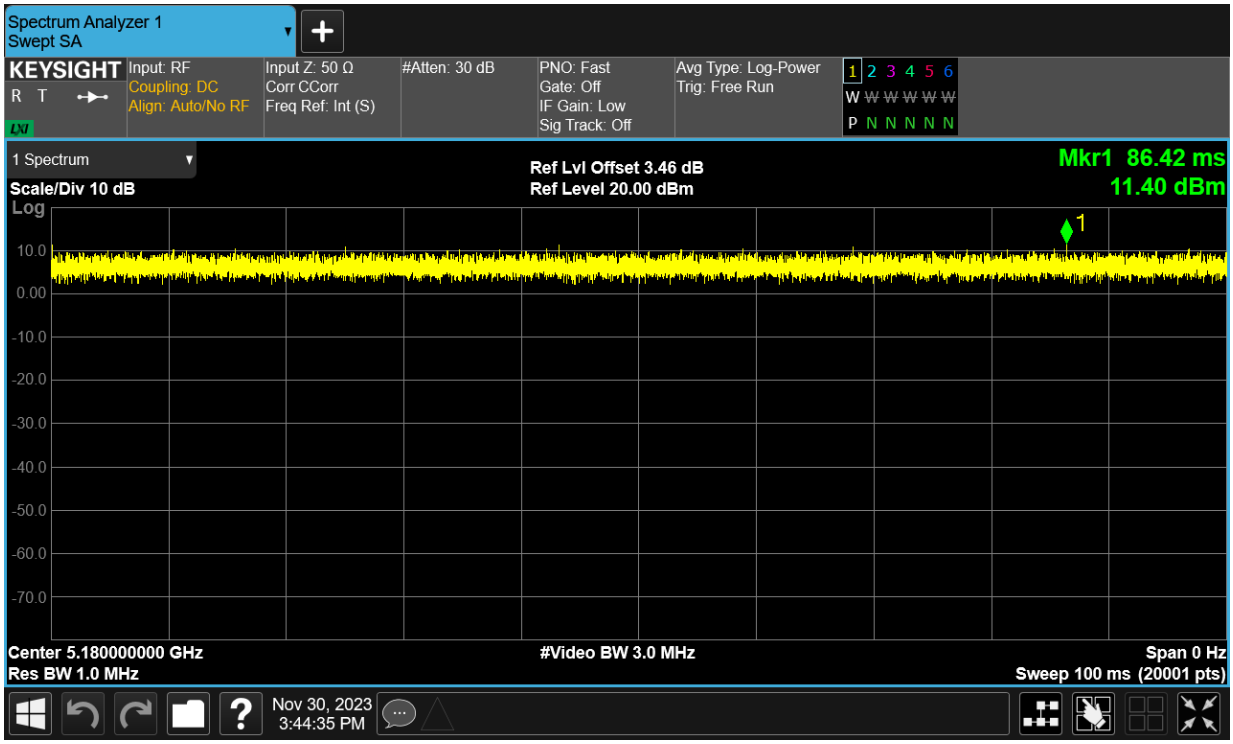
Freq. Stability NVNT n40 5190MHz Ant14


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
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 3.53 dB
Ref Level 26.53 dBm
Mkr1 5.189 990 2 GHz
17.93 dBm
Log
16.5
6.53
-3.47
-13.5
-23.5
-33.5
-43.5
-53.5
-63.5
Center 5.1900000 GHz
#Res BW 10 kHz
#Video BW 30 kHz
Span 200.0 kHz
Sweep 1.93 ms (1001 pts)
Nov 30, 2023
4:18:22 PM

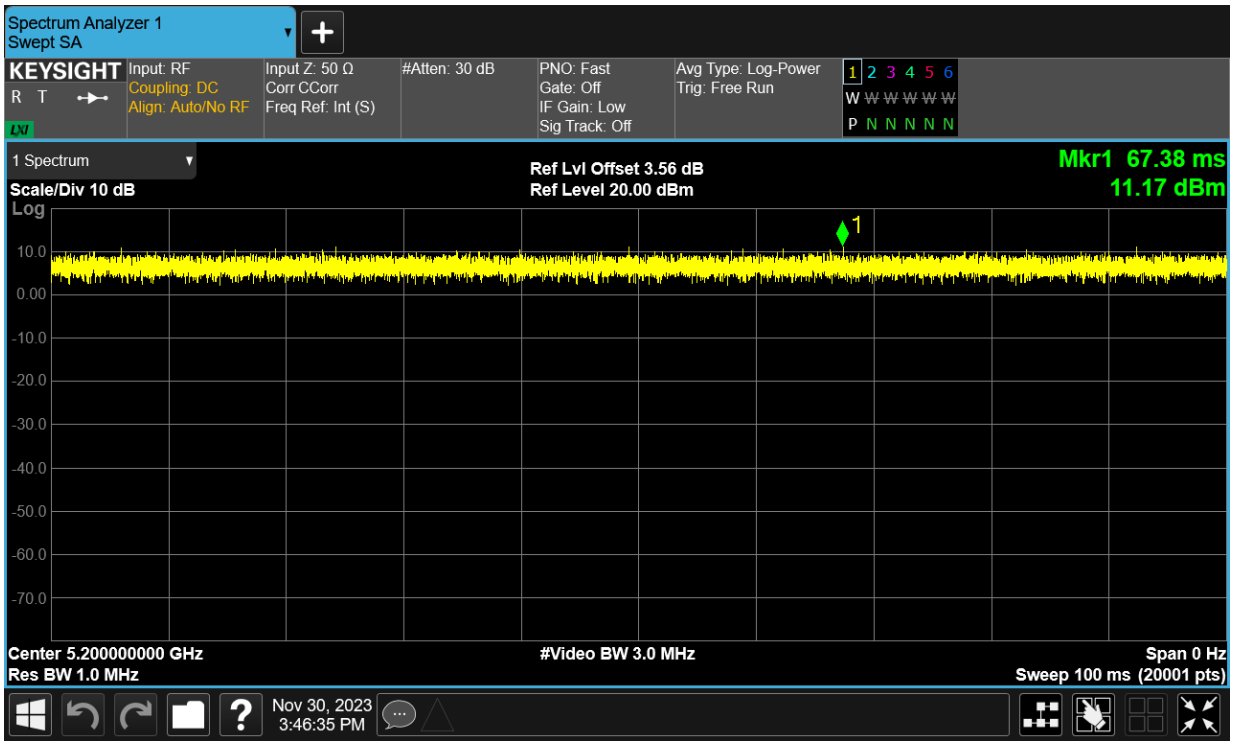
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant14	100	0
NVNT	a	5200	Ant14	100	0
NVNT	a	5240	Ant14	100	0
NVNT	ac20	5180	Ant14	100	0
NVNT	ac20	5200	Ant14	100	0
NVNT	ac20	5240	Ant14	100	0
NVNT	ac40	5190	Ant14	100	0
NVNT	ac40	5230	Ant14	100	0
NVNT	ac80	5210	Ant14	100	0
NVNT	n20	5180	Ant14	100	0
NVNT	n20	5200	Ant14	100	0
NVNT	n20	5240	Ant14	100	0
NVNT	n40	5190	Ant14	100	0
NVNT	n40	5230	Ant14	100	0

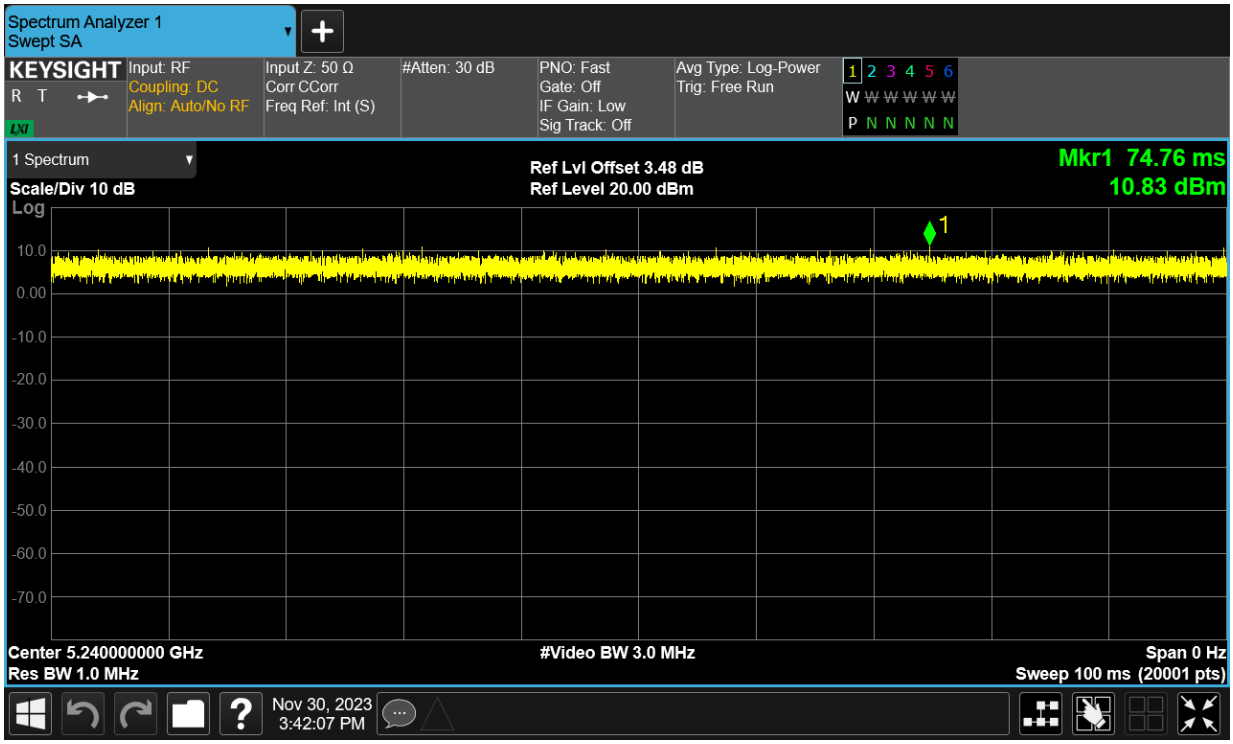
Test Graphs
Duty Cycle NVNT a 5180MHz Ant14



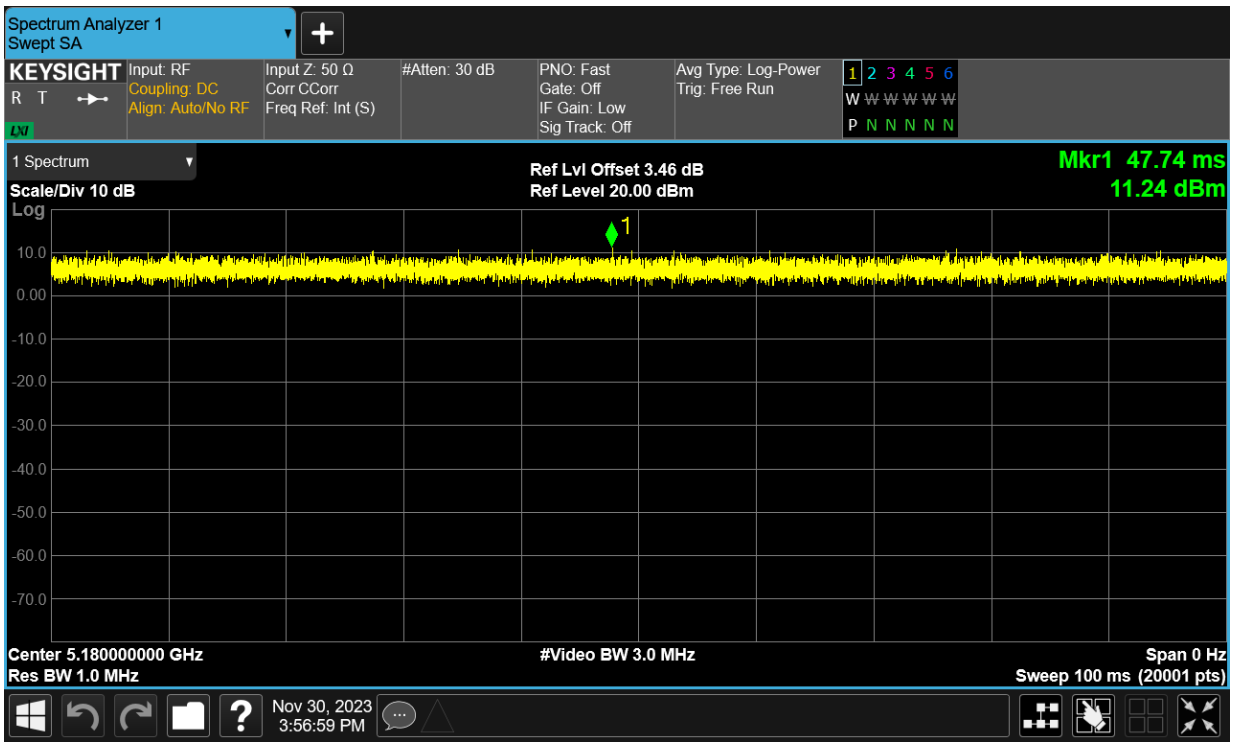
Duty Cycle NVNT a 5200MHz Ant14



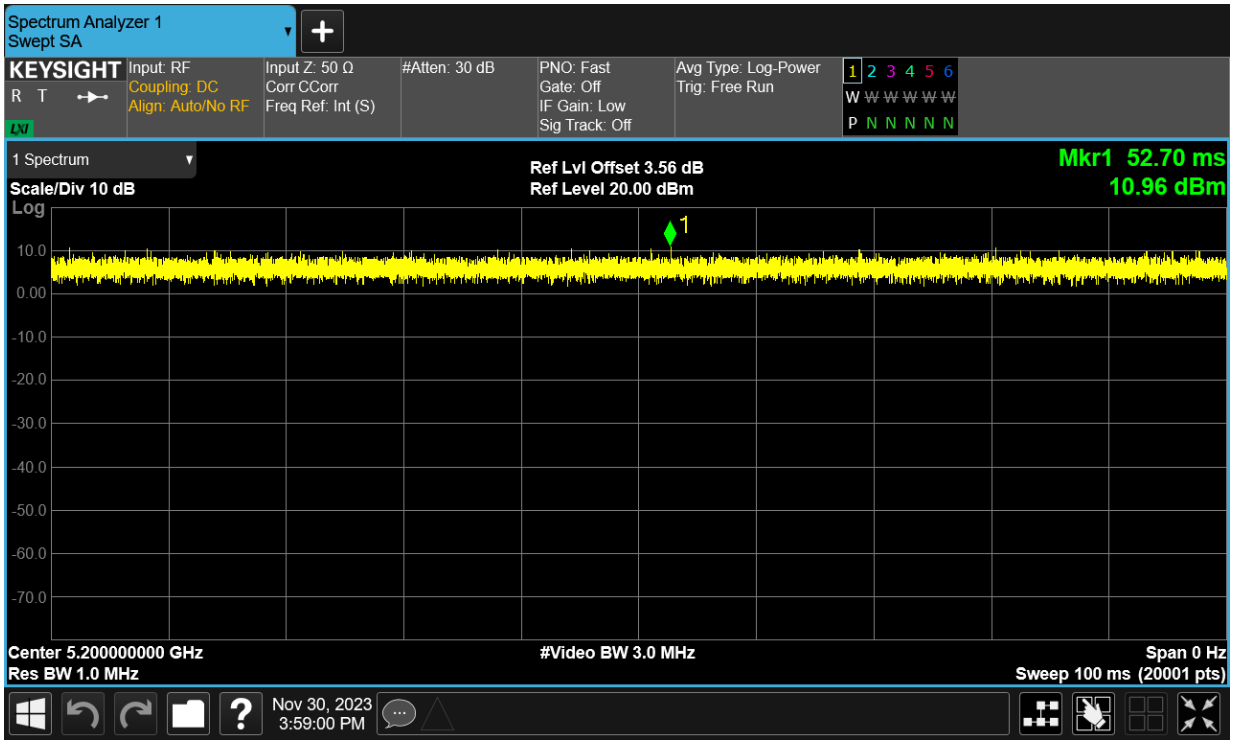
Duty Cycle NVNT a 5240MHz Ant14



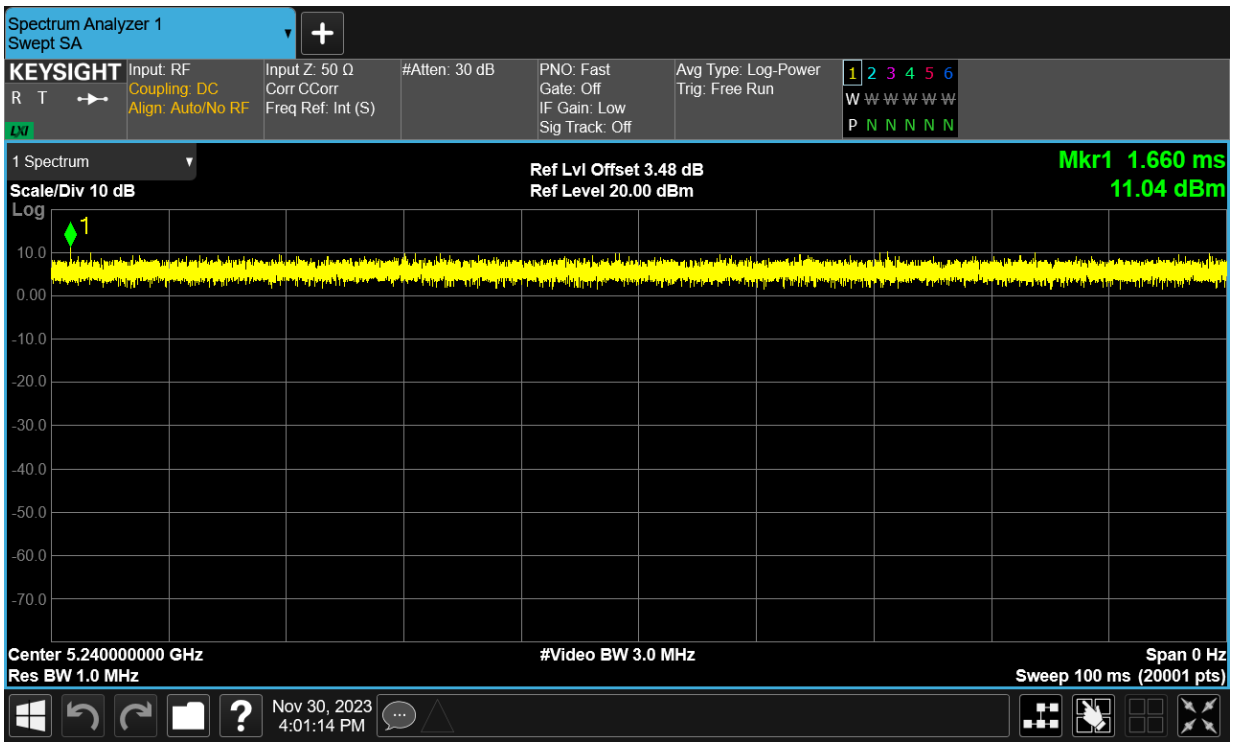
Duty Cycle NVNT ac20 5180MHz Ant14



Duty Cycle NVNT ac20 5200MHz Ant14

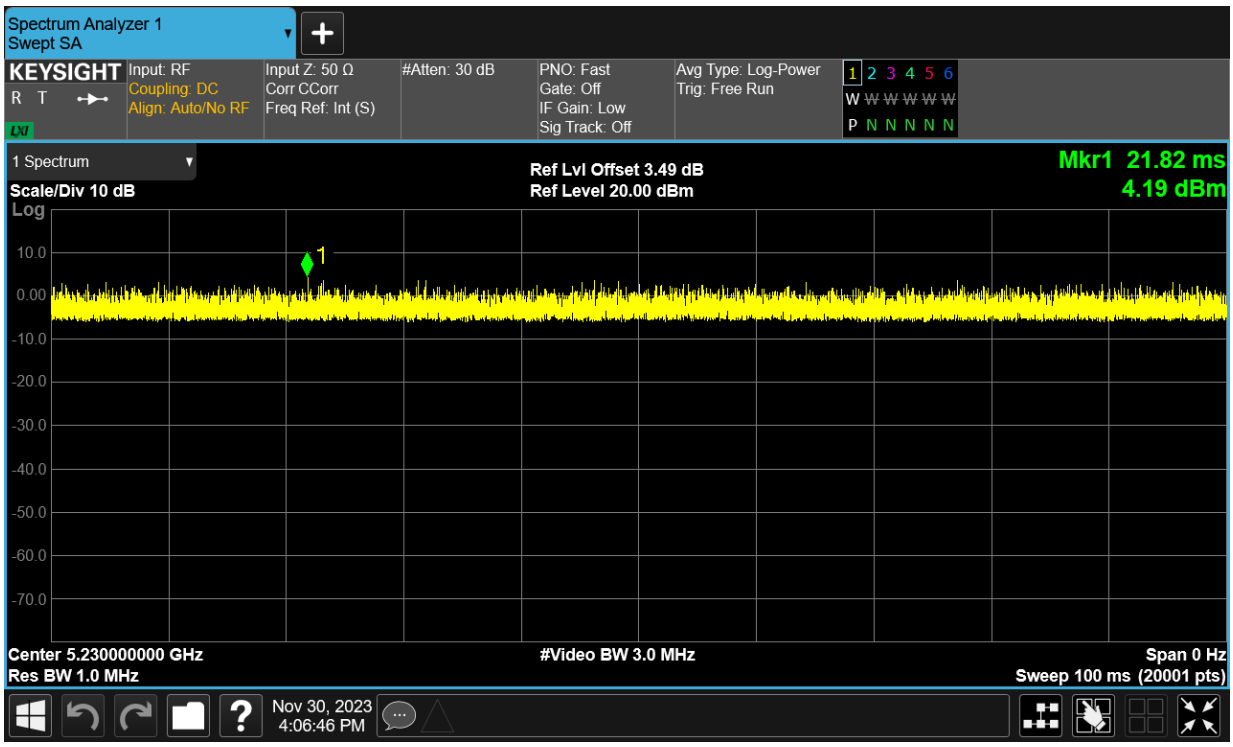


Duty Cycle NVNT ac20 5240MHz Ant14

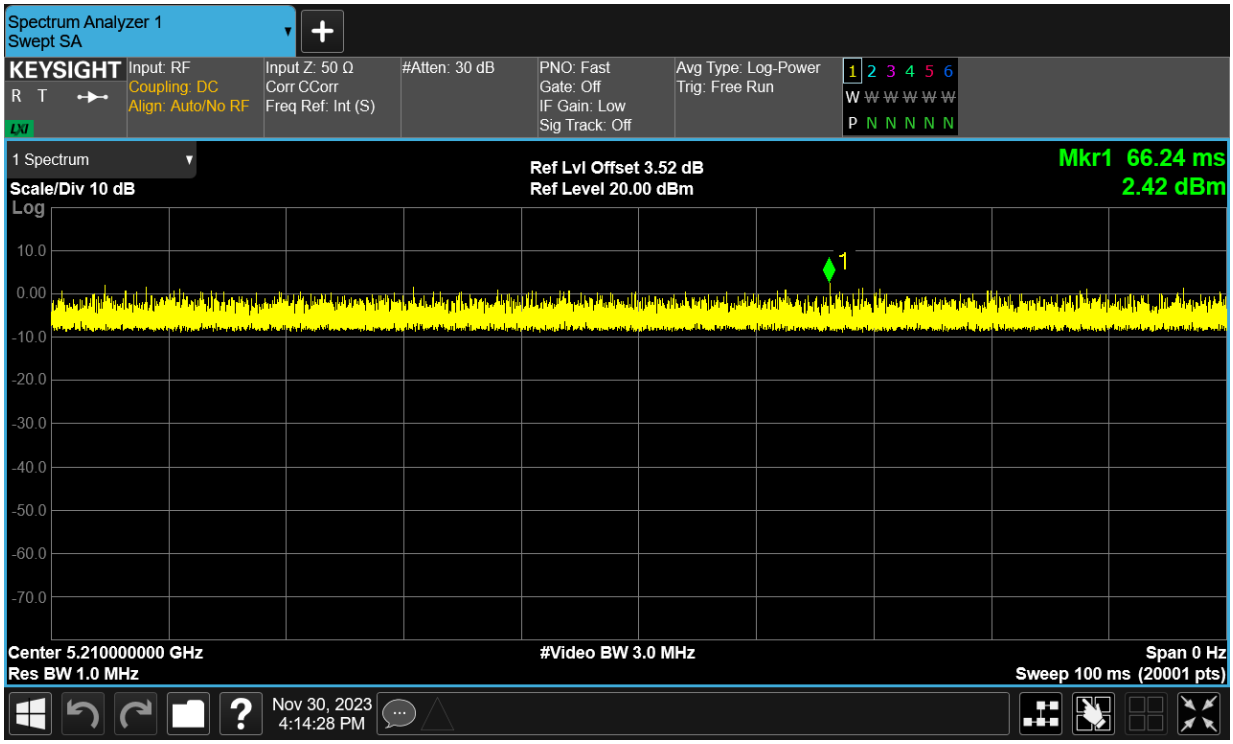


Duty Cycle NVNT ac40 5190MHz Ant14

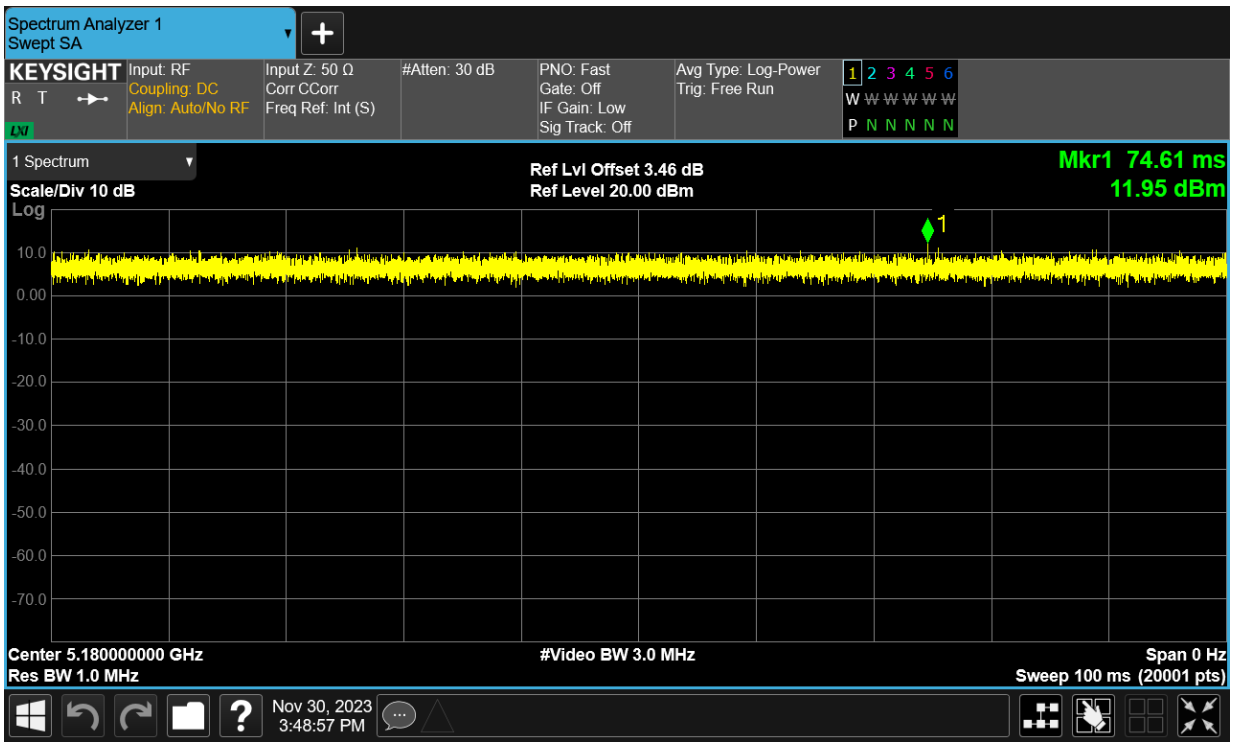
Duty Cycle NVNT ac40 5230MHz Ant14



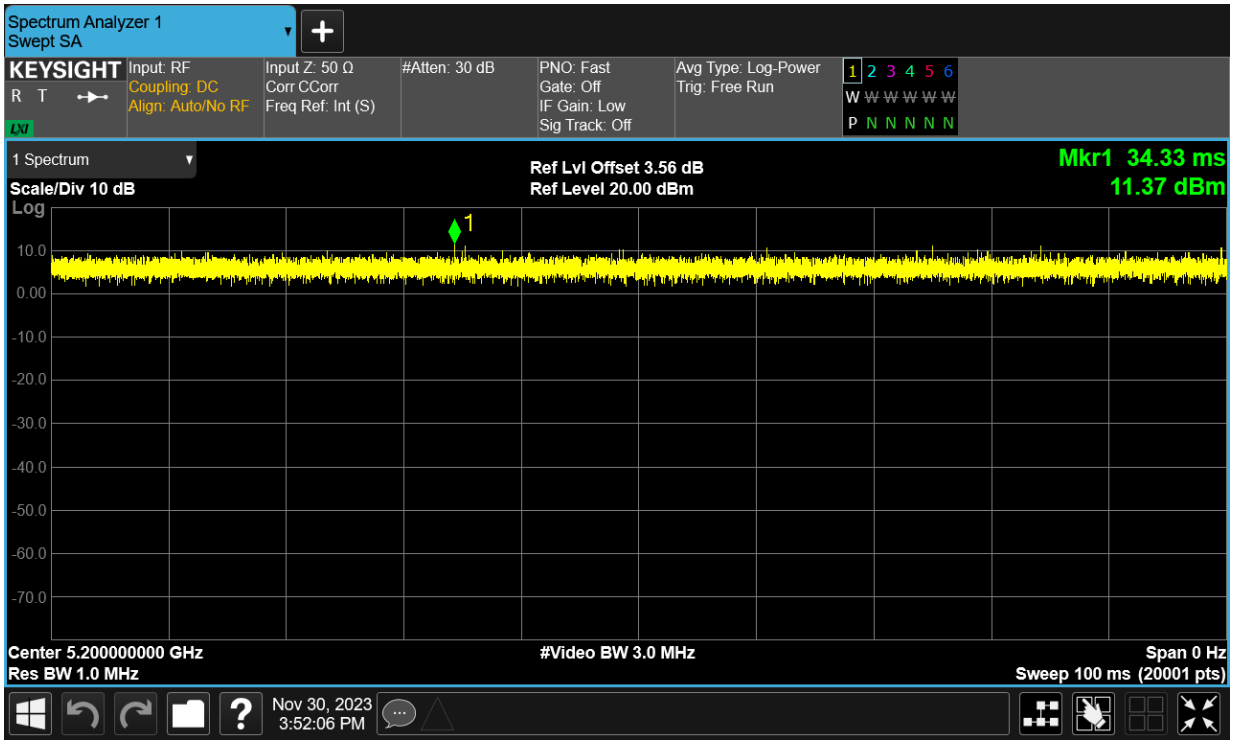
Duty Cycle NVNT ac80 5210MHz Ant14



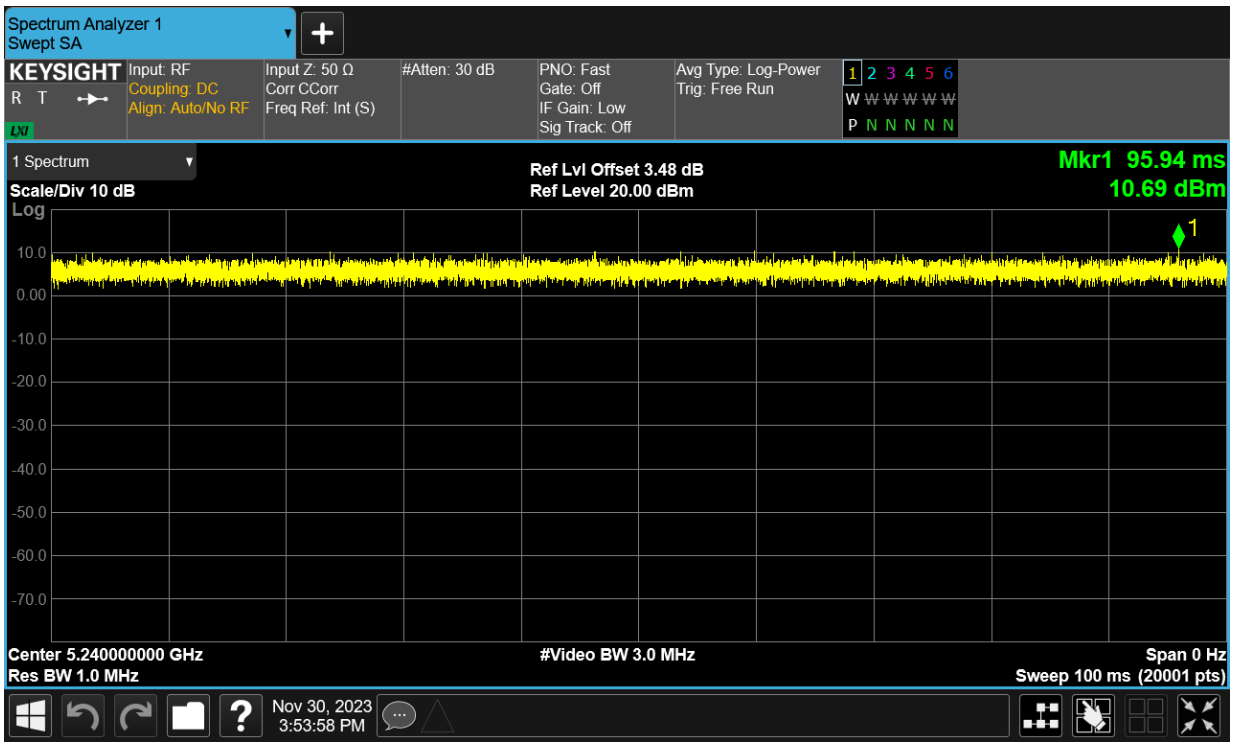
Duty Cycle NVNT n20 5180MHz Ant14



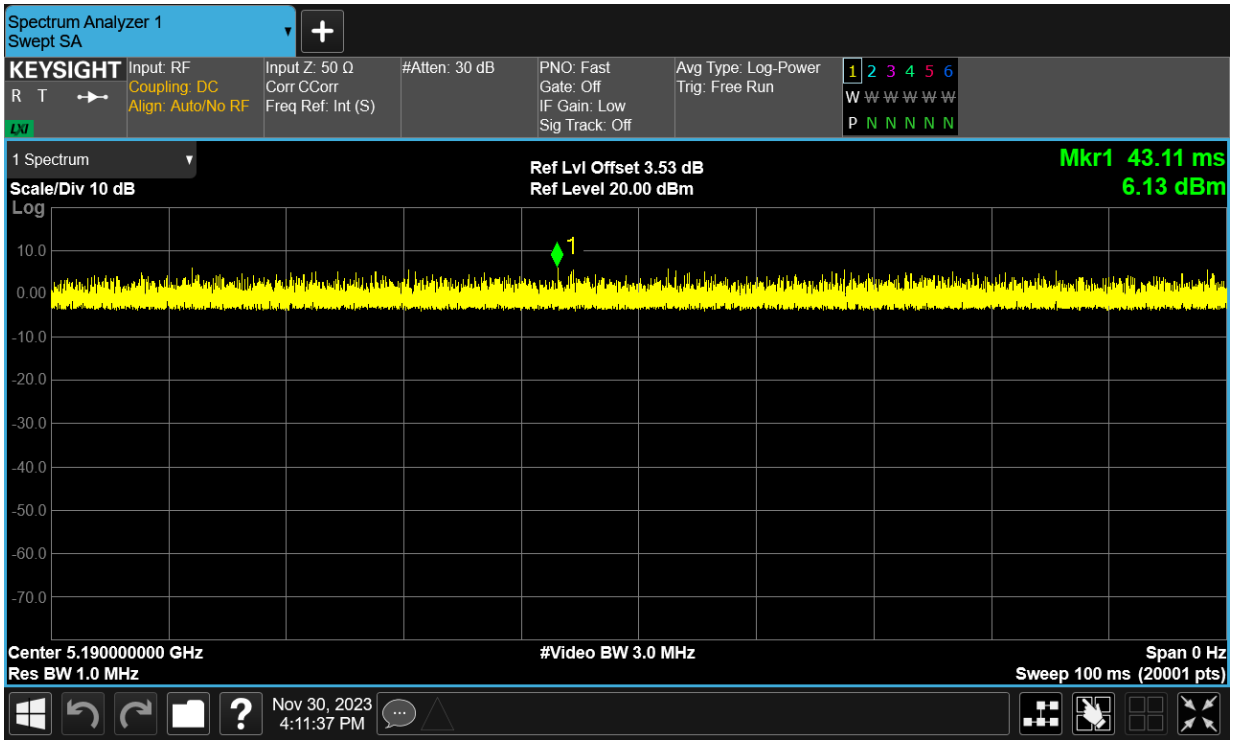
Duty Cycle NVNT n20 5200MHz Ant14



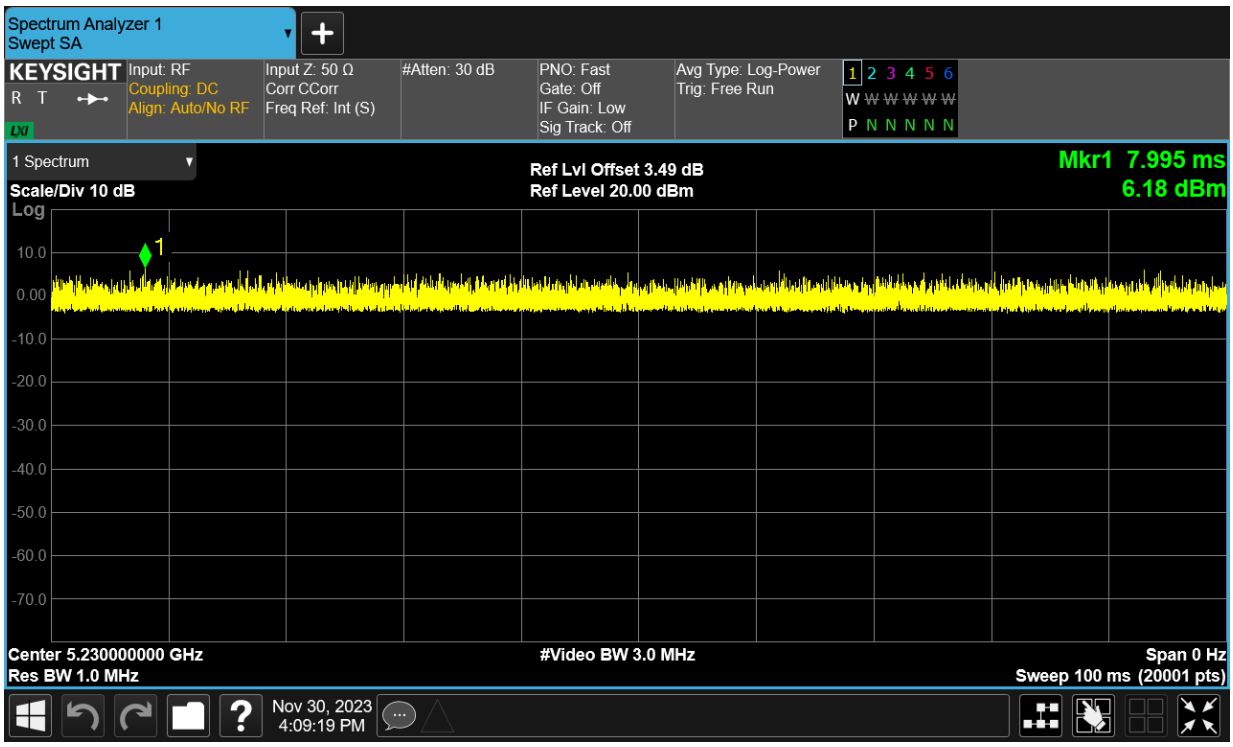
Duty Cycle NVNT n20 5240MHz Ant14



Duty Cycle NVNT n40 5190MHz Ant14



Duty Cycle NVNT n40 5230MHz Ant14



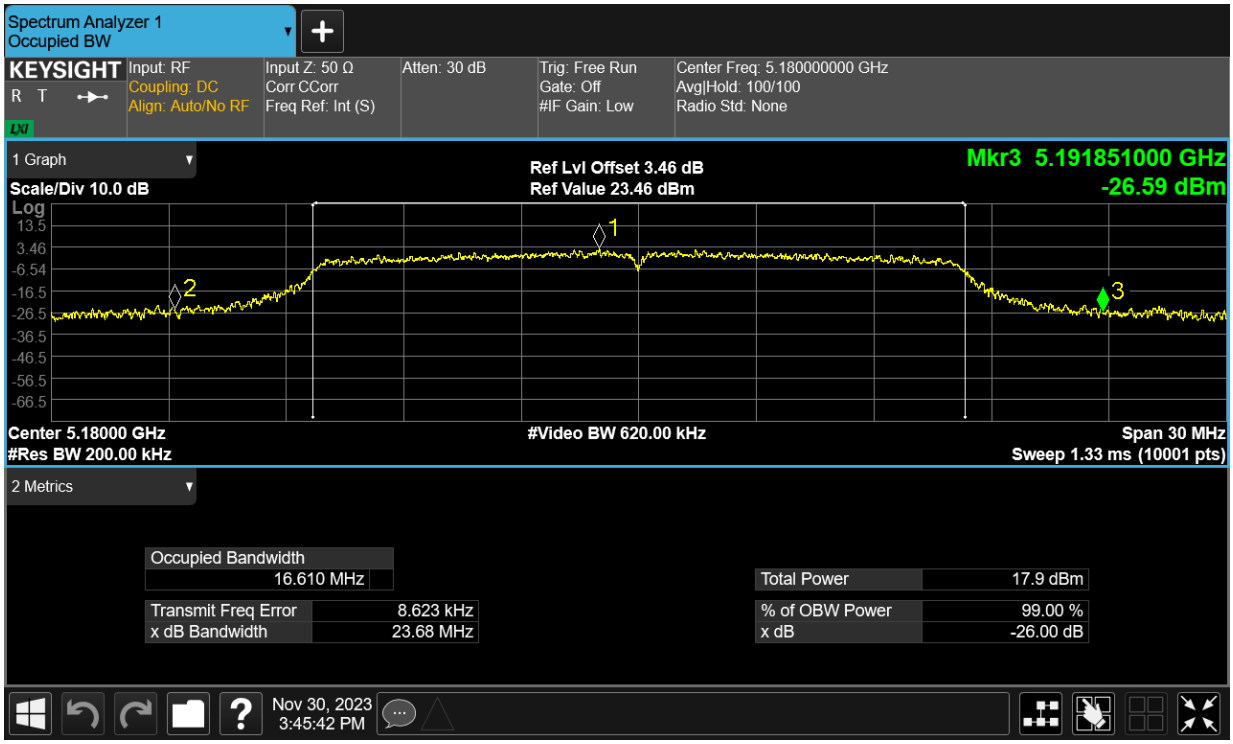
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant14	13.26	0	13.26	24	Pass
NVNT	a	5200	Ant14	13.51	0	13.51	24	Pass
NVNT	a	5240	Ant14	13.76	0	13.76	24	Pass
NVNT	ac20	5180	Ant14	13.38	0	13.38	24	Pass
NVNT	ac20	5200	Ant14	13.23	0	13.23	24	Pass
NVNT	ac20	5240	Ant14	13.41	0	13.41	24	Pass
NVNT	ac40	5190	Ant14	11.47	0	11.47	24	Pass
NVNT	ac40	5230	Ant14	11.12	0	11.12	24	Pass
NVNT	ac80	5210	Ant14	11.75	0	11.75	24	Pass
NVNT	n20	5180	Ant14	13.6	0	13.6	24	Pass
NVNT	n20	5200	Ant14	13.33	0	13.33	24	Pass
NVNT	n20	5240	Ant14	13.5	0	13.5	24	Pass
NVNT	n40	5190	Ant14	13.21	0	13.21	24	Pass
NVNT	n40	5230	Ant14	13.36	0	13.36	24	Pass

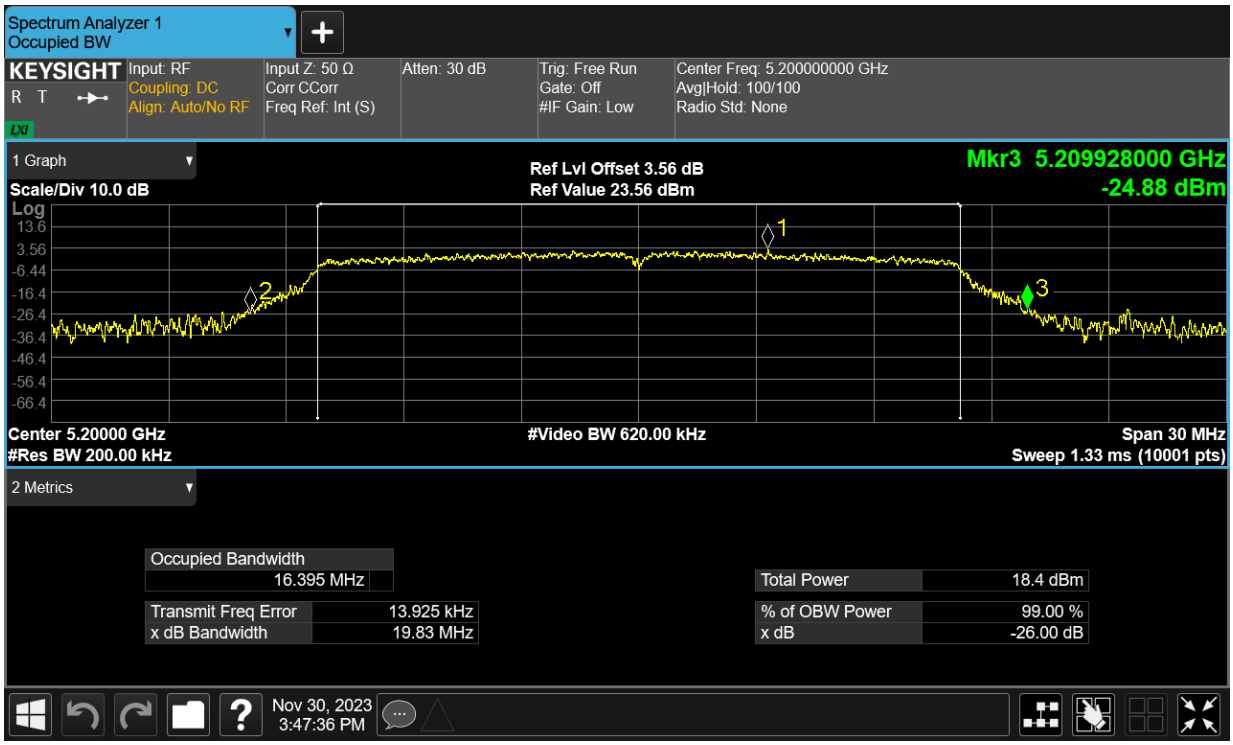
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant14	23.684
NVNT	a	5200	Ant14	19.829
NVNT	a	5240	Ant14	19.564
NVNT	ac20	5180	Ant14	24.663
NVNT	ac20	5200	Ant14	20.109
NVNT	ac20	5240	Ant14	20.202
NVNT	ac40	5190	Ant14	39.376
NVNT	ac40	5230	Ant14	39.474
NVNT	ac80	5210	Ant14	78.777
NVNT	n20	5180	Ant14	24.314
NVNT	n20	5200	Ant14	20.07
NVNT	n20	5240	Ant14	20.136
NVNT	n40	5190	Ant14	39.877
NVNT	n40	5230	Ant14	39.252

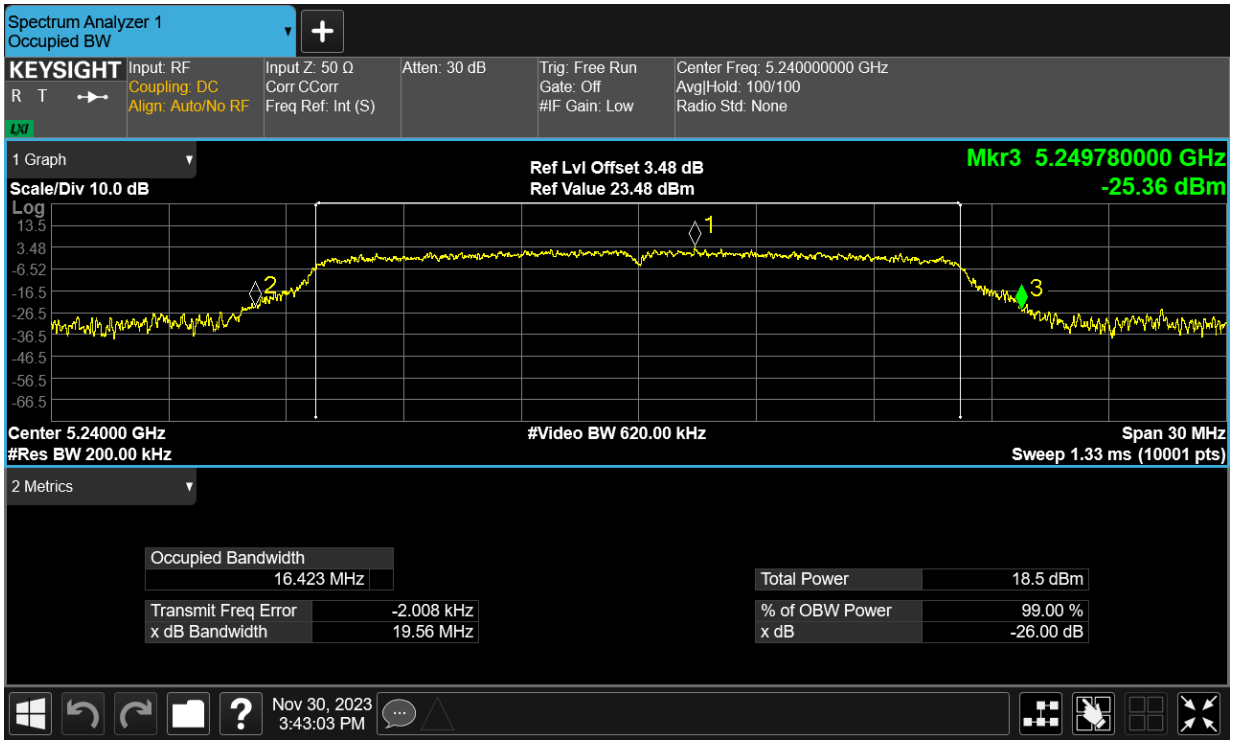
Test Graphs
-26dB Bandwidth NVNT a 5180MHz Ant14



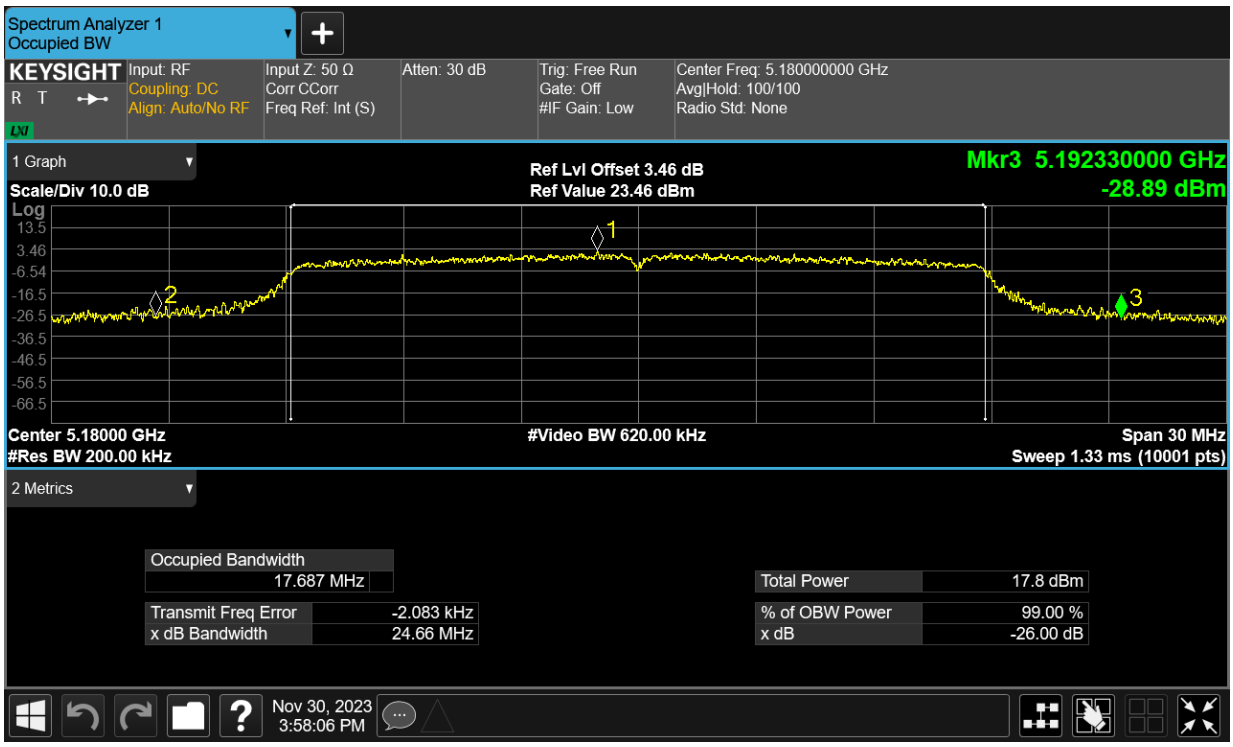
-26dB Bandwidth NVNT a 5200MHz Ant14



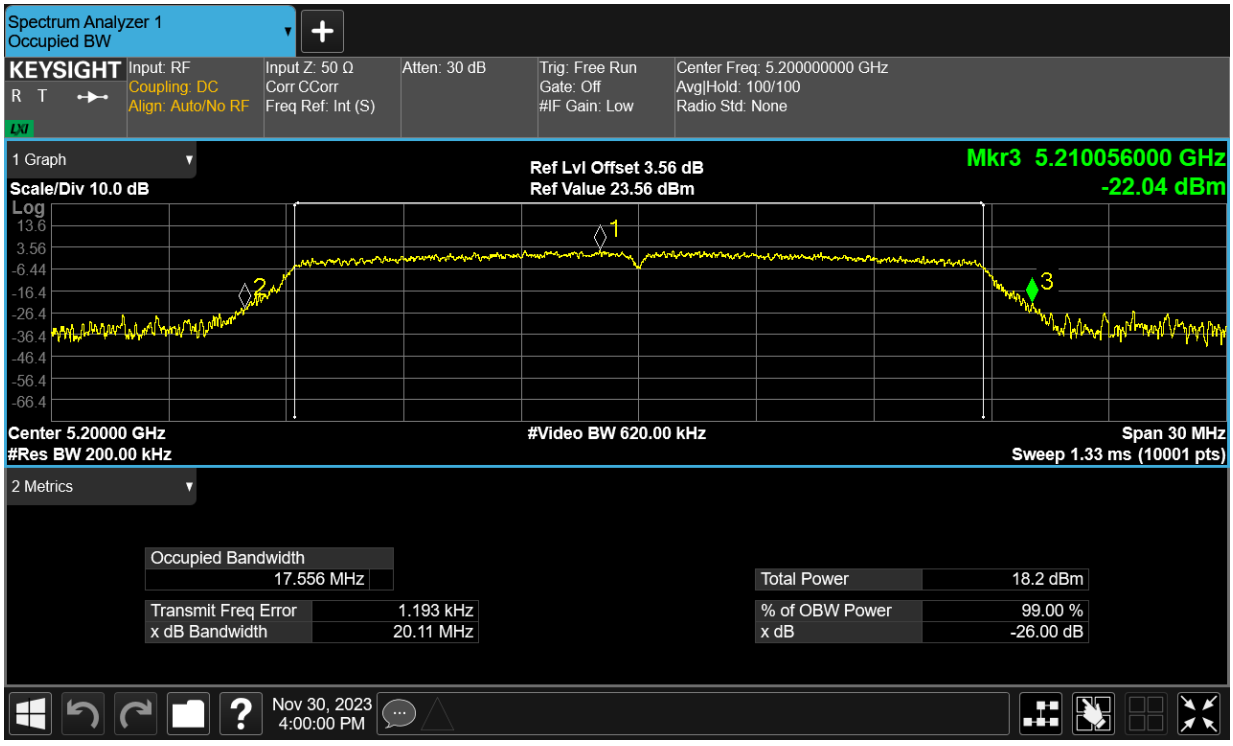
-26dB Bandwidth NVNT a 5240MHz Ant14



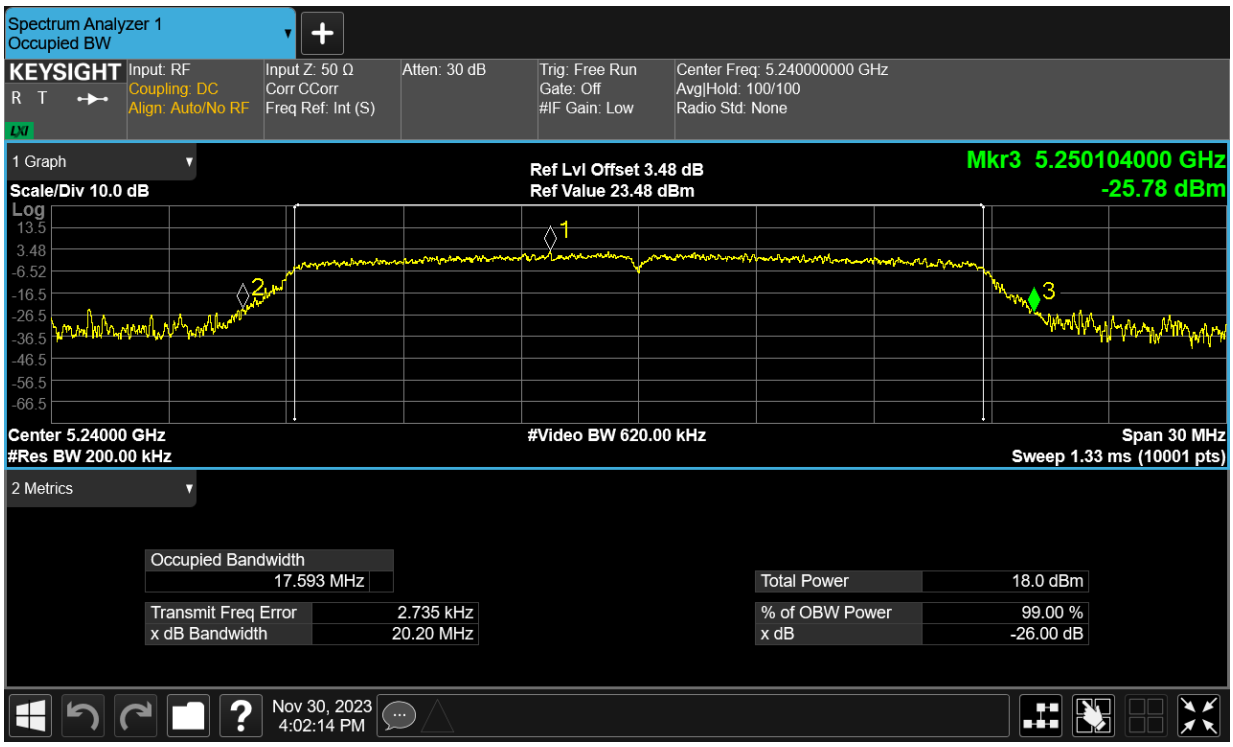
-26dB Bandwidth NVNT ac20 5180MHz Ant14



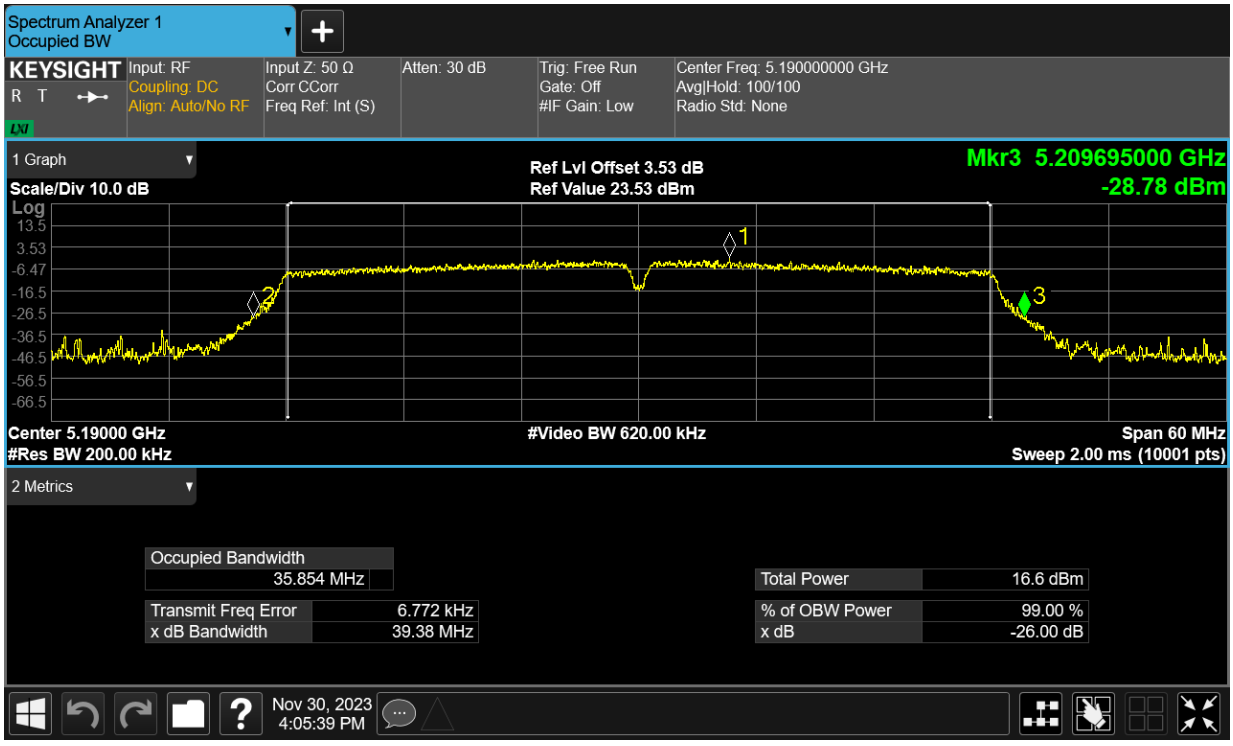
-26dB Bandwidth NVNT ac20 5200MHz Ant14



-26dB Bandwidth NVNT ac20 5240MHz Ant14

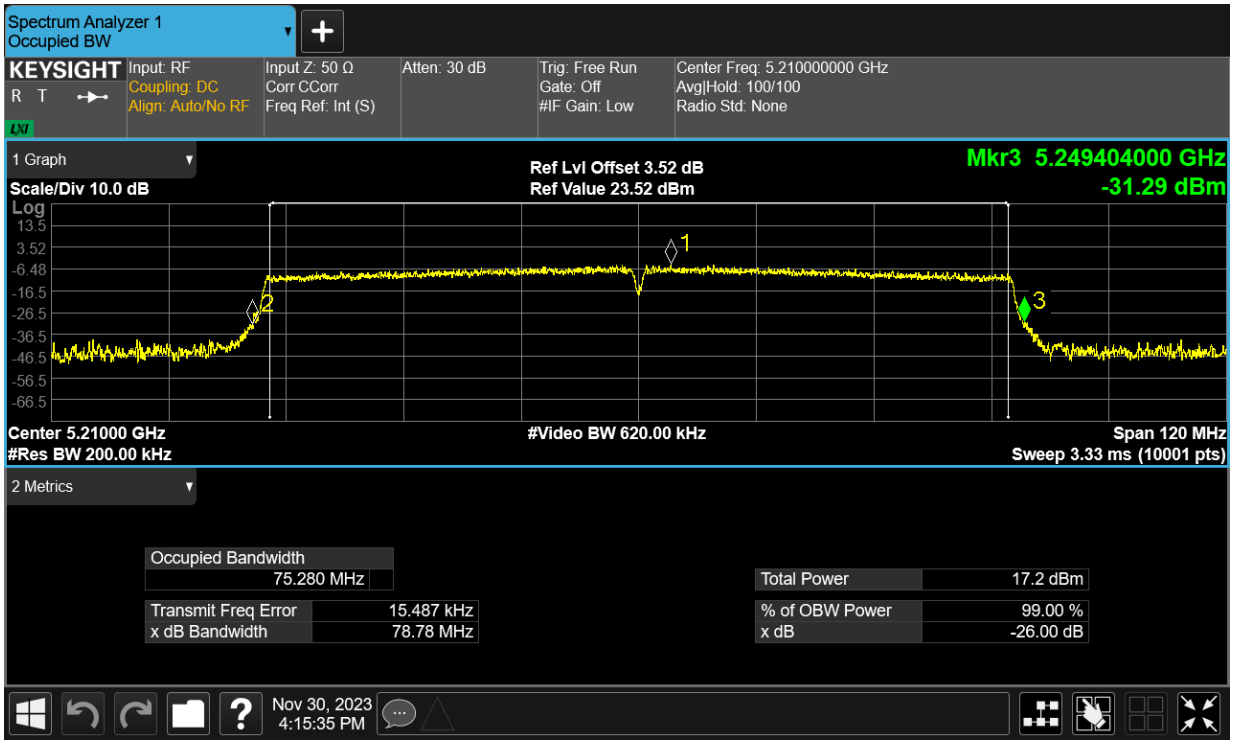


-26dB Bandwidth NVNT ac40 5190MHz Ant14

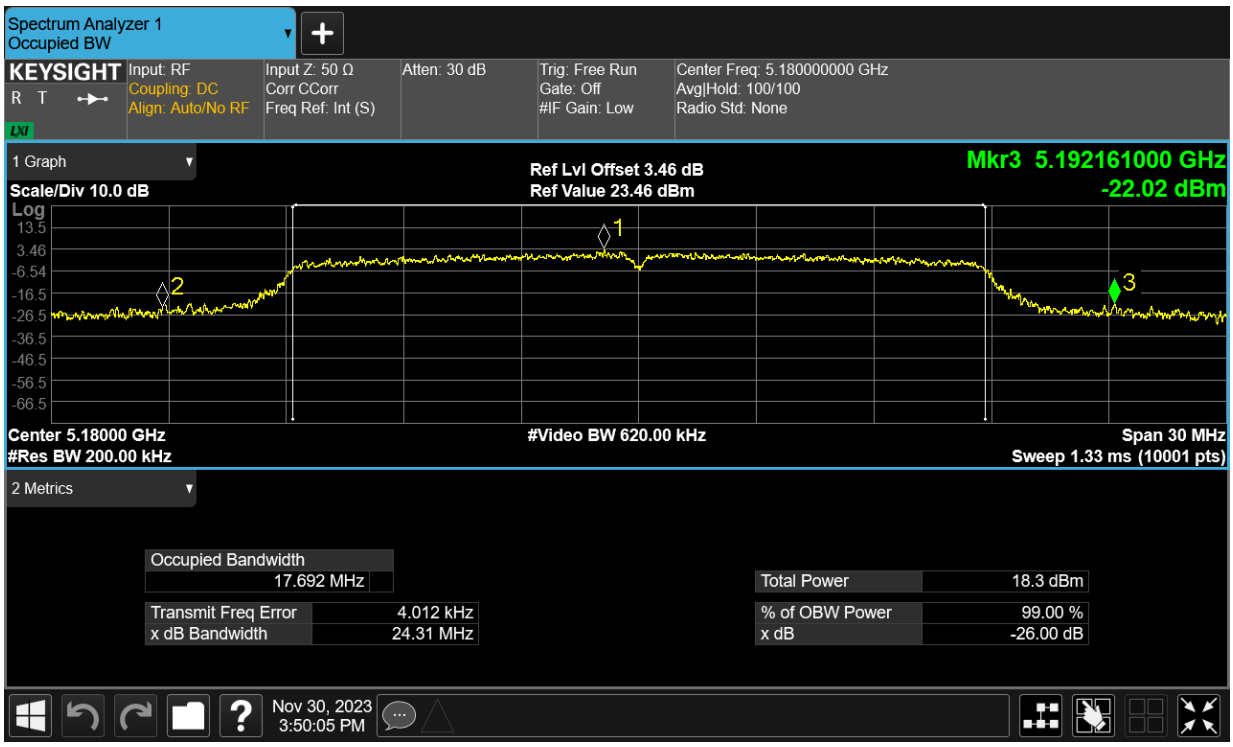


-26dB Bandwidth NVNT ac40 5230MHz Ant14

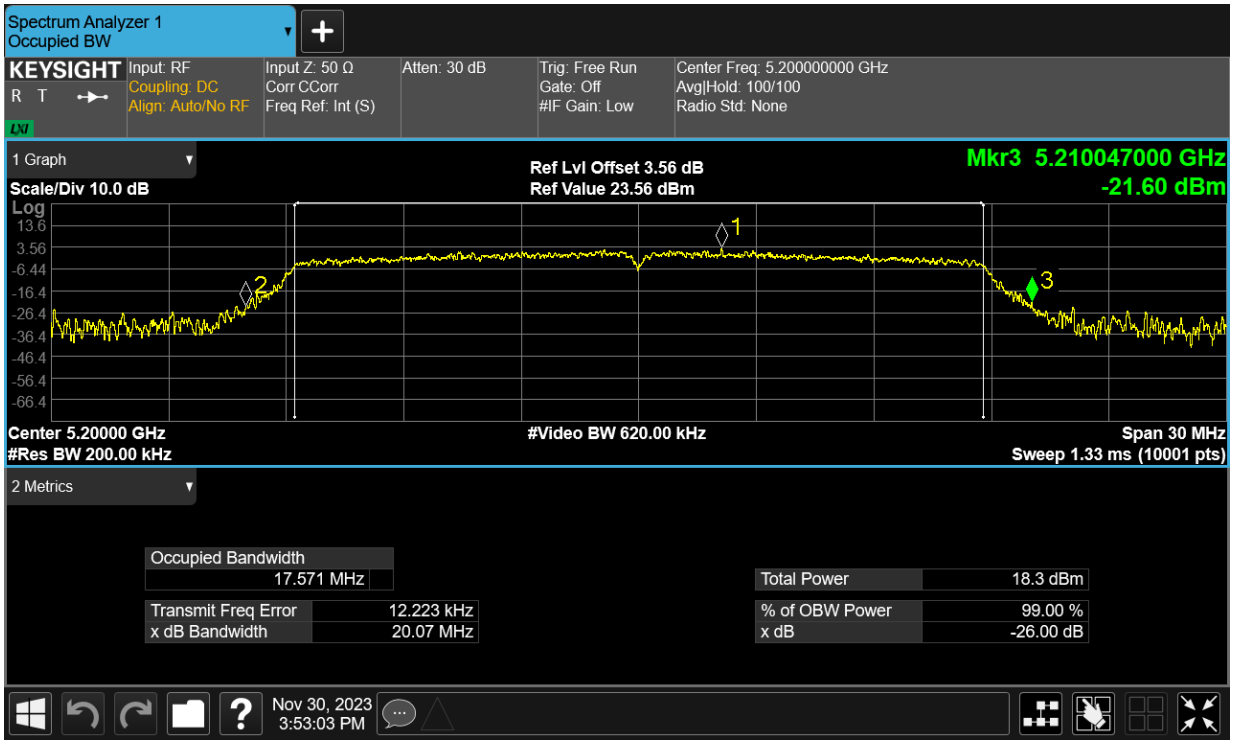
-26dB Bandwidth NVNT ac80 5210MHz Ant14



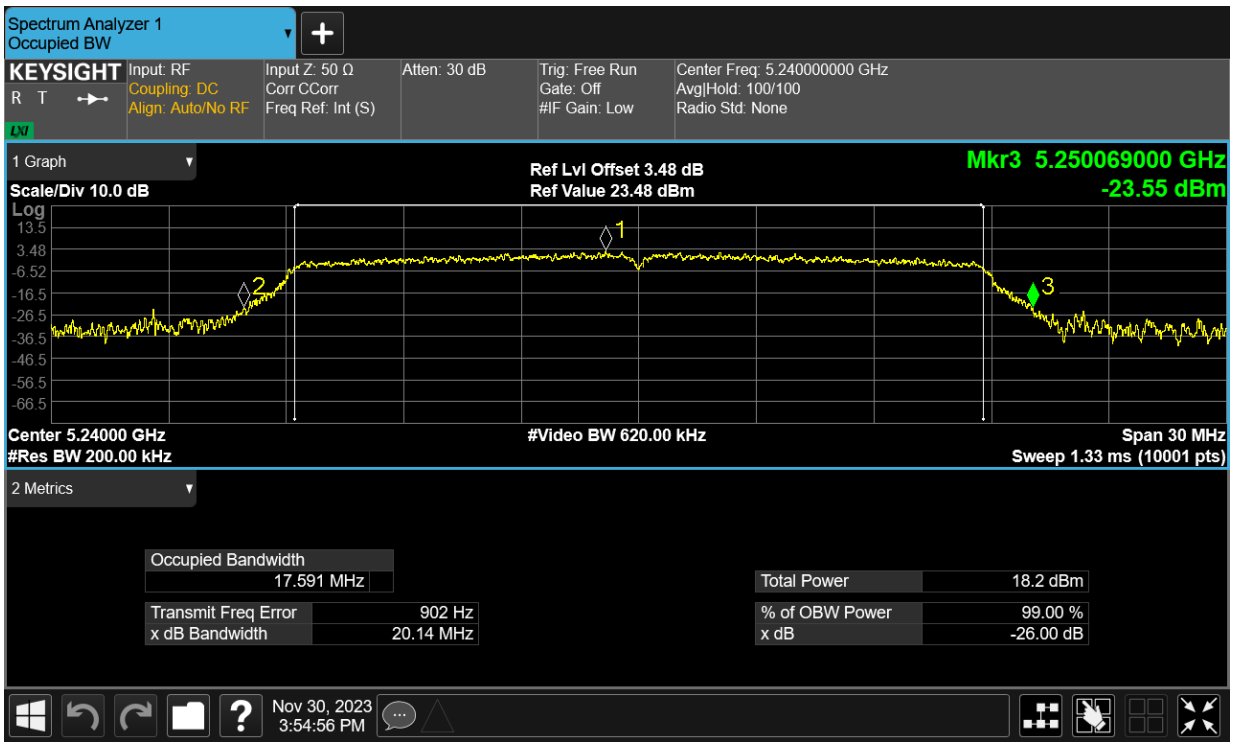
-26dB Bandwidth NVNT n20 5180MHz Ant14



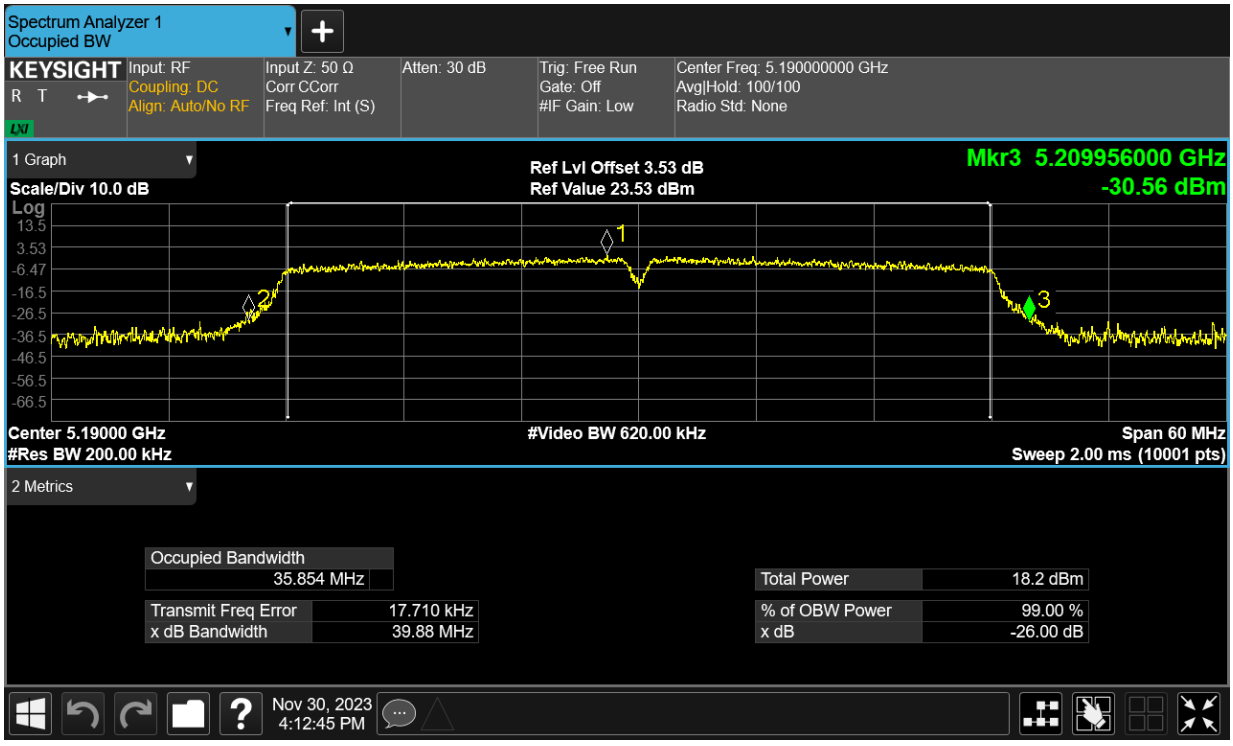
-26dB Bandwidth NVNT n20 5200MHz Ant14



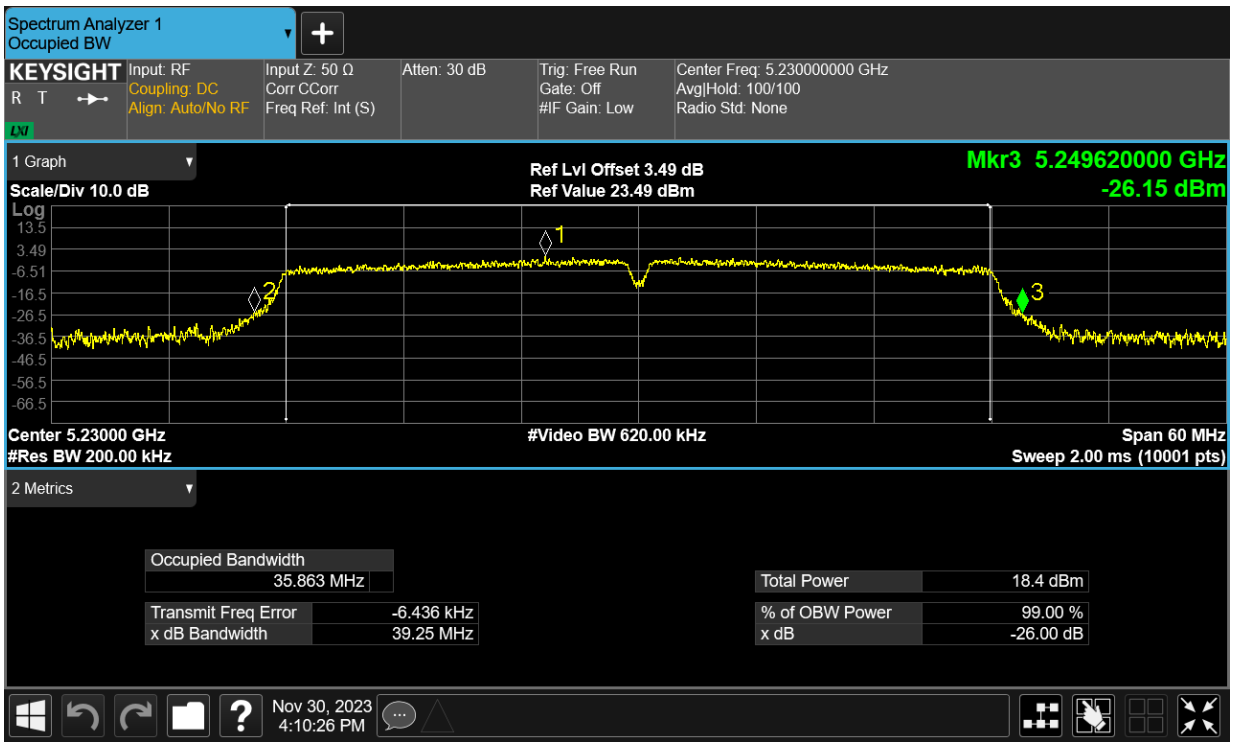
-26dB Bandwidth NVNT n20 5240MHz Ant14



-26dB Bandwidth NVNT n40 5190MHz Ant14



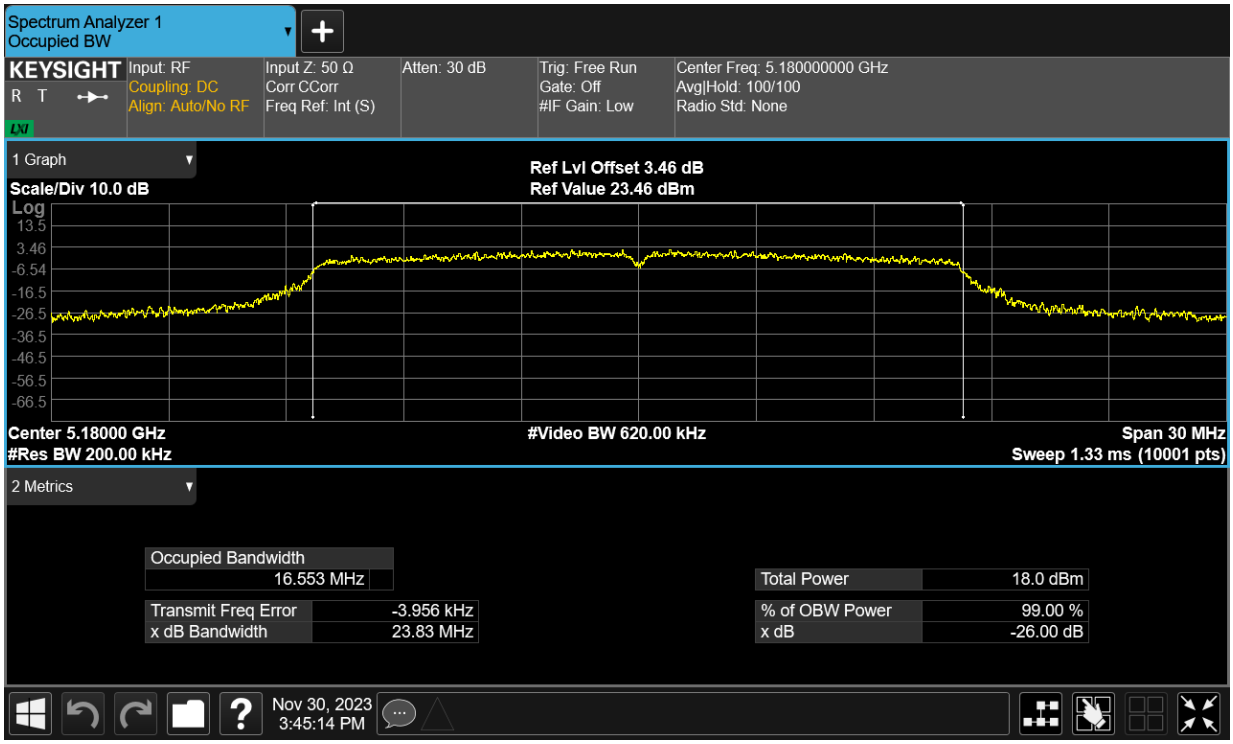
-26dB Bandwidth NVNT n40 5230MHz Ant14



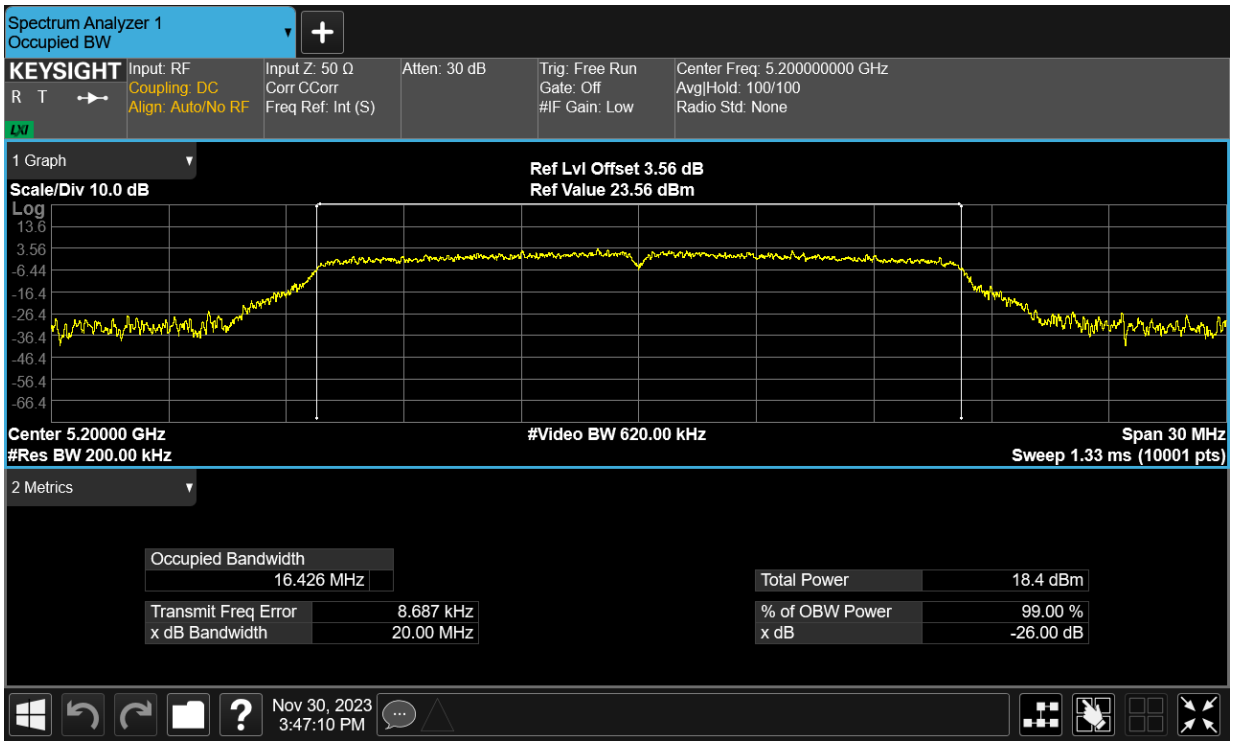
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant14	16.553
NVNT	a	5200	Ant14	16.426
NVNT	a	5240	Ant14	16.439
NVNT	ac20	5180	Ant14	17.634
NVNT	ac20	5200	Ant14	17.567
NVNT	ac20	5240	Ant14	17.572
NVNT	ac40	5190	Ant14	35.973
NVNT	ac40	5230	Ant14	35.965
NVNT	ac80	5210	Ant14	75.152
NVNT	n20	5180	Ant14	17.661
NVNT	n20	5200	Ant14	17.573
NVNT	n20	5240	Ant14	17.575
NVNT	n40	5190	Ant14	35.961
NVNT	n40	5230	Ant14	35.984

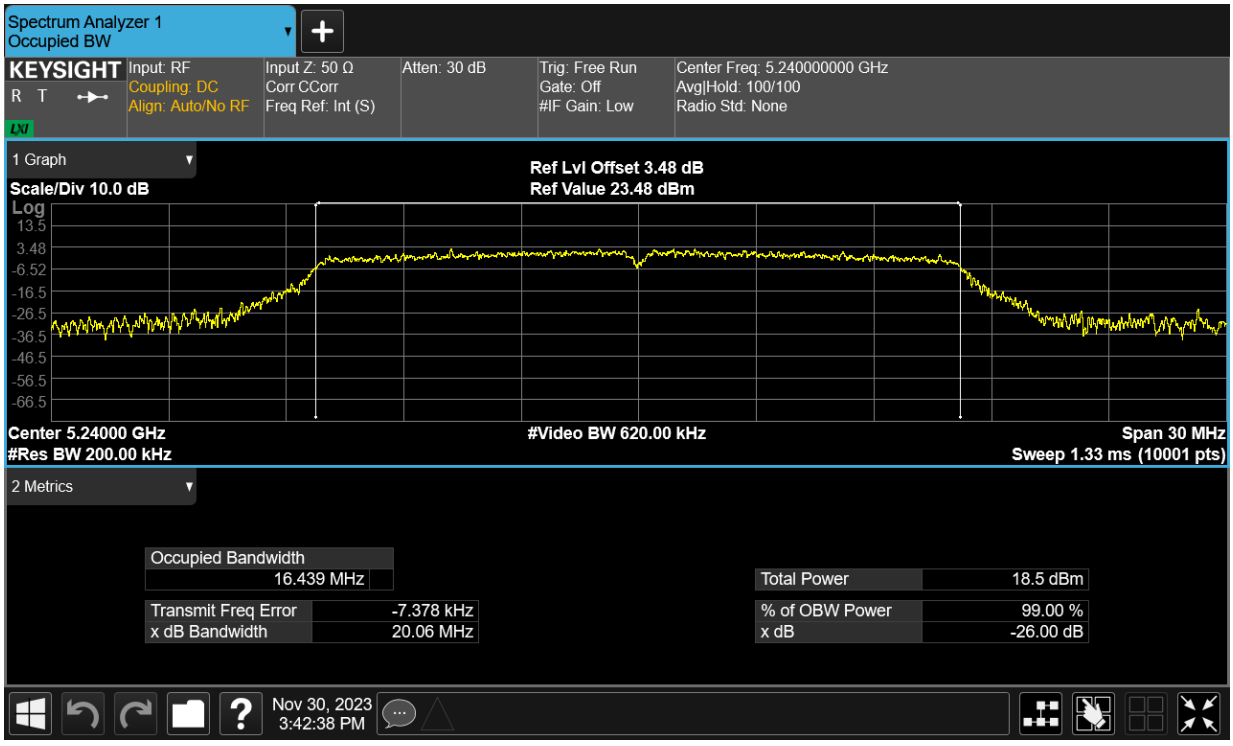
Test Graphs
OBW NVNT a 5180MHz Ant14



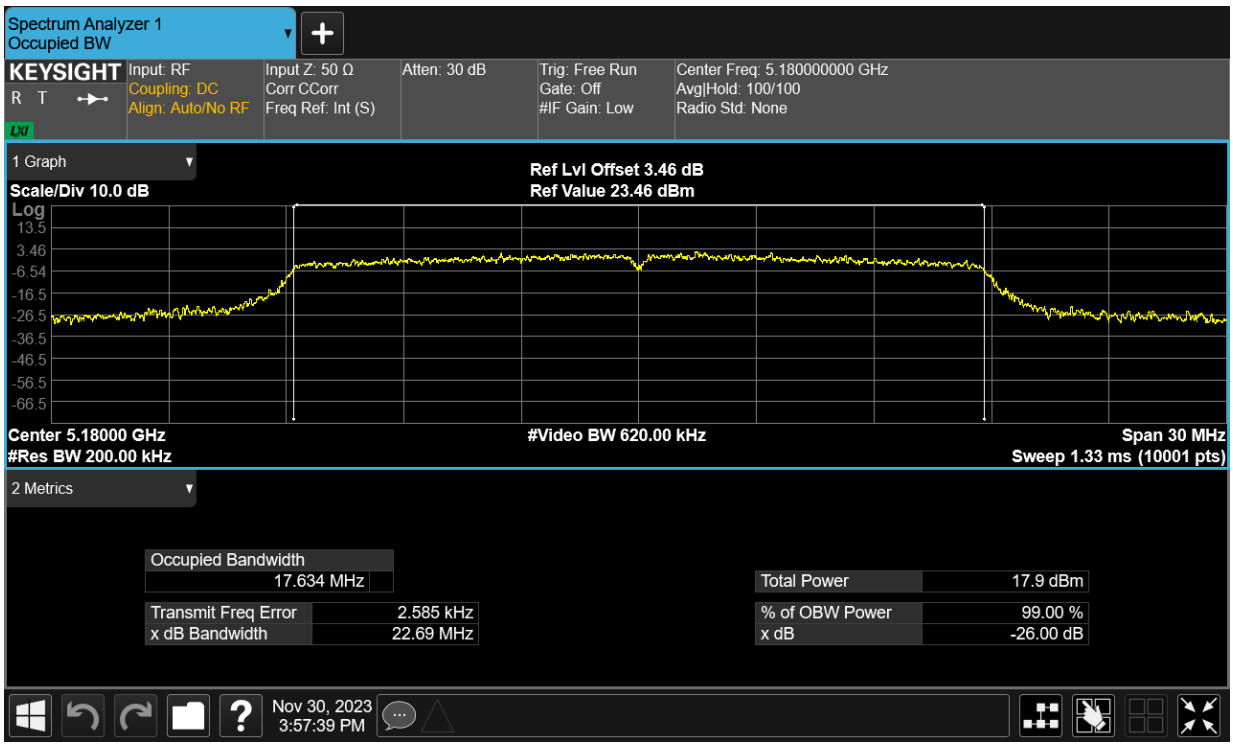
OBW NVNT a 5200MHz Ant14



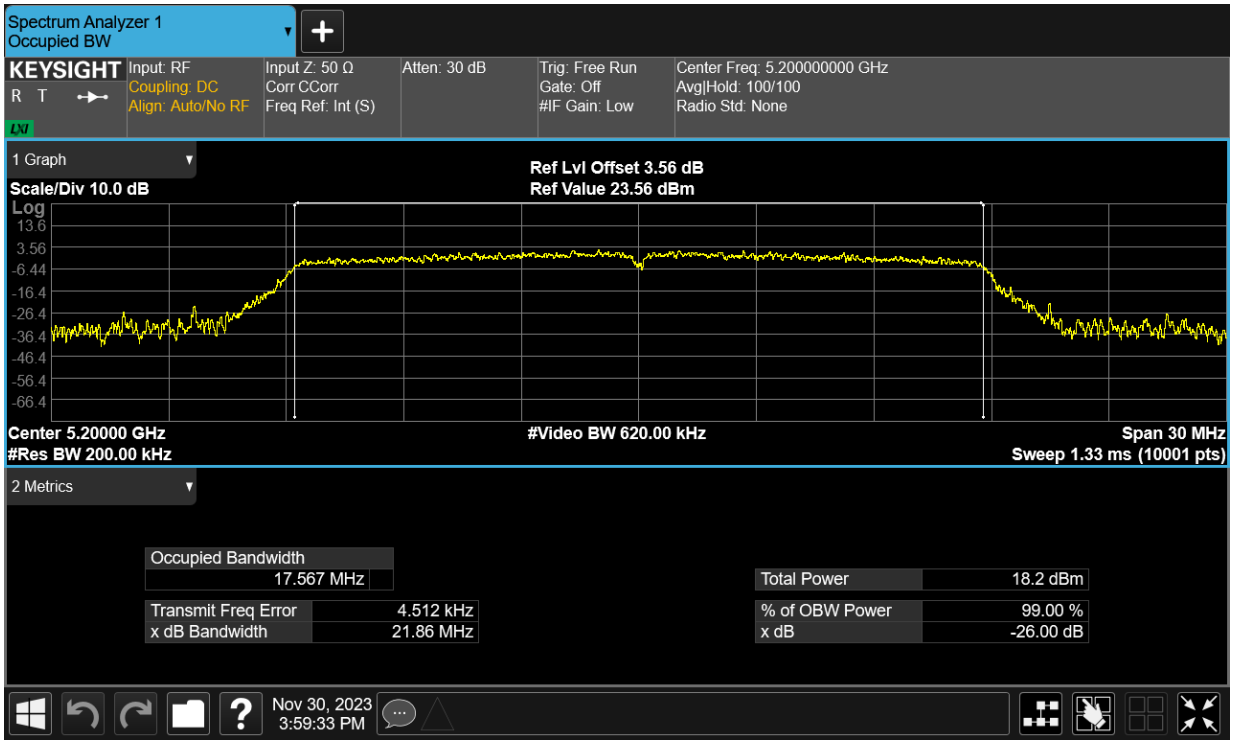
OBW NVNT a 5240MHz Ant14



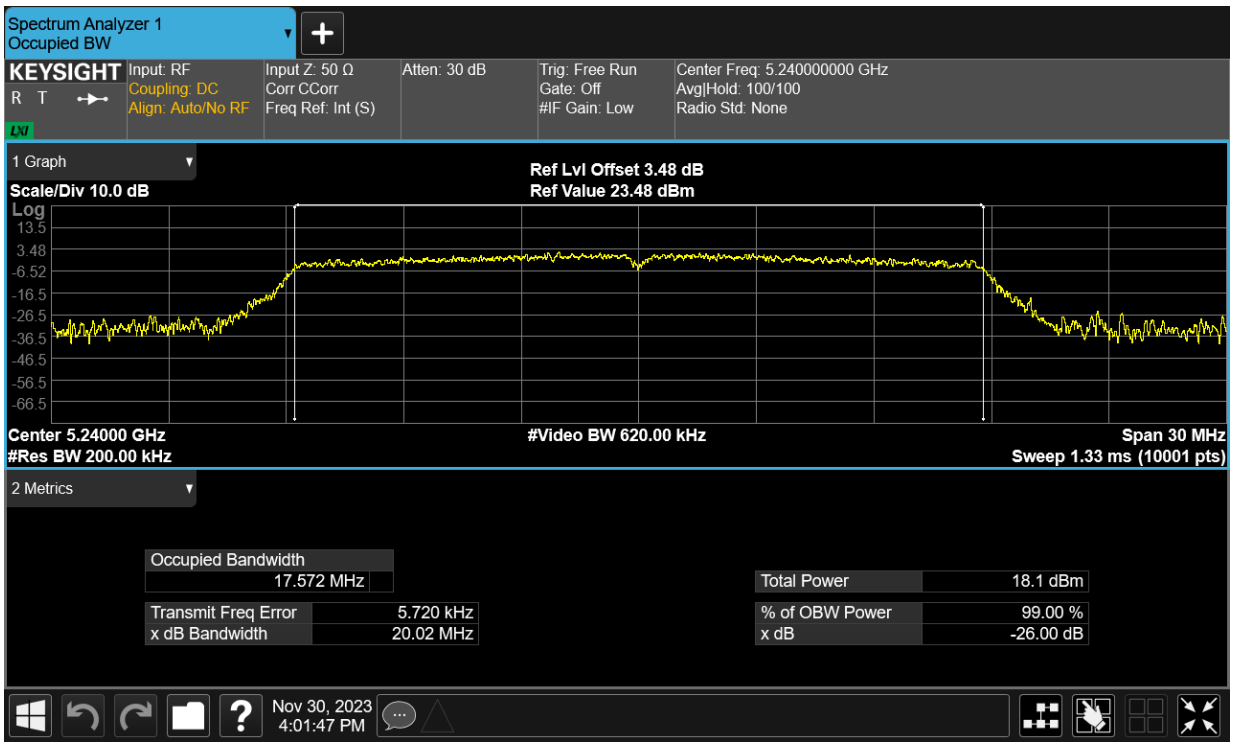
OBW NVNT ac20 5180MHz Ant14



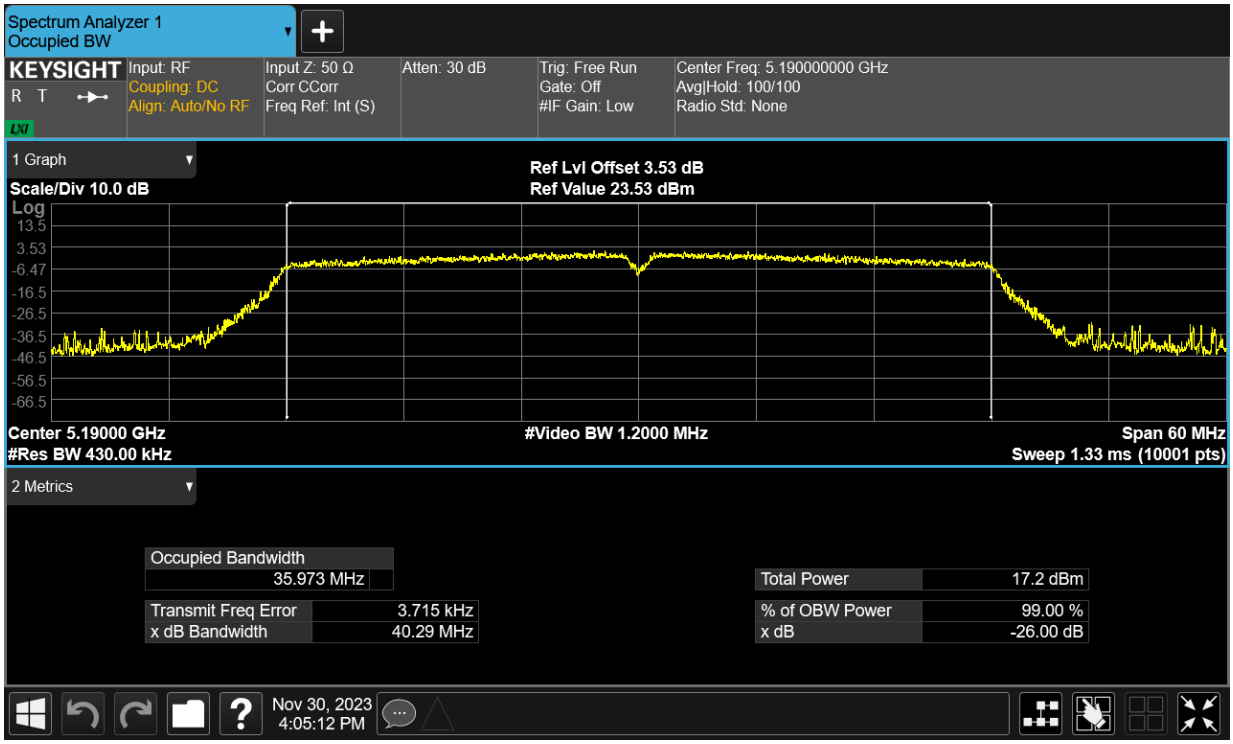
OBW NVNT ac20 5200MHz Ant14



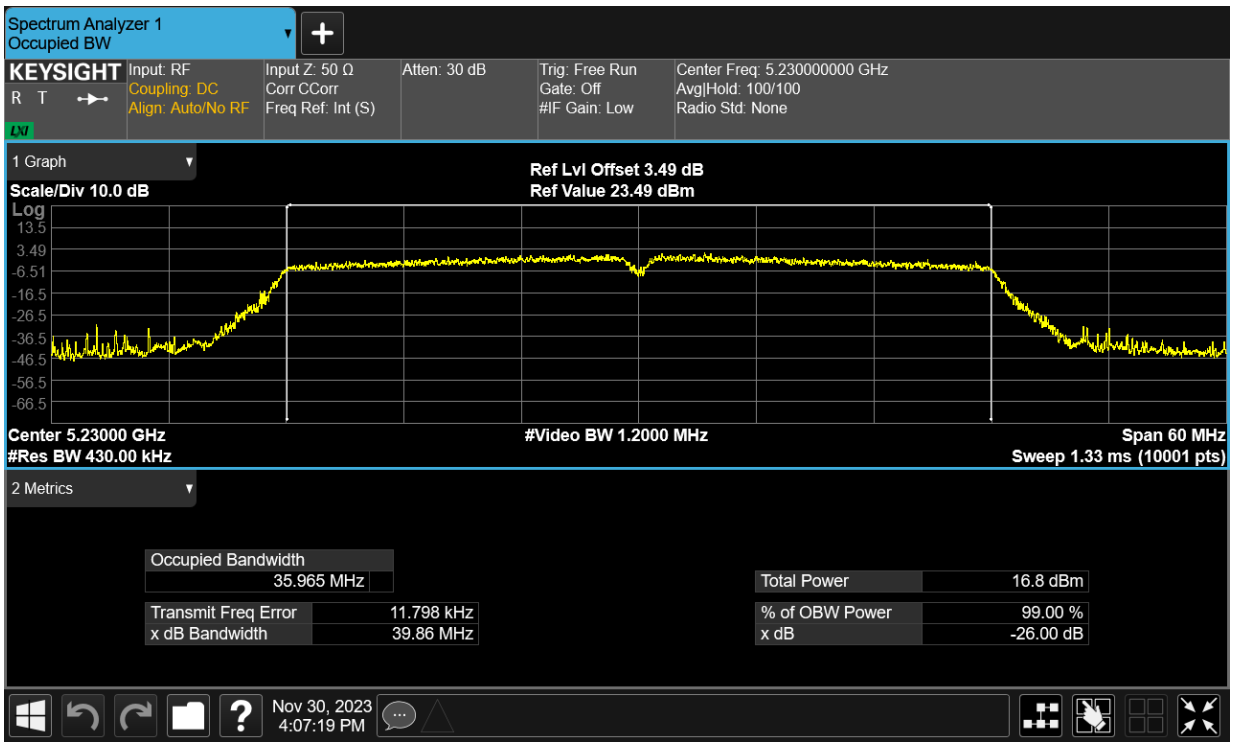
OBW NVNT ac20 5240MHz Ant14



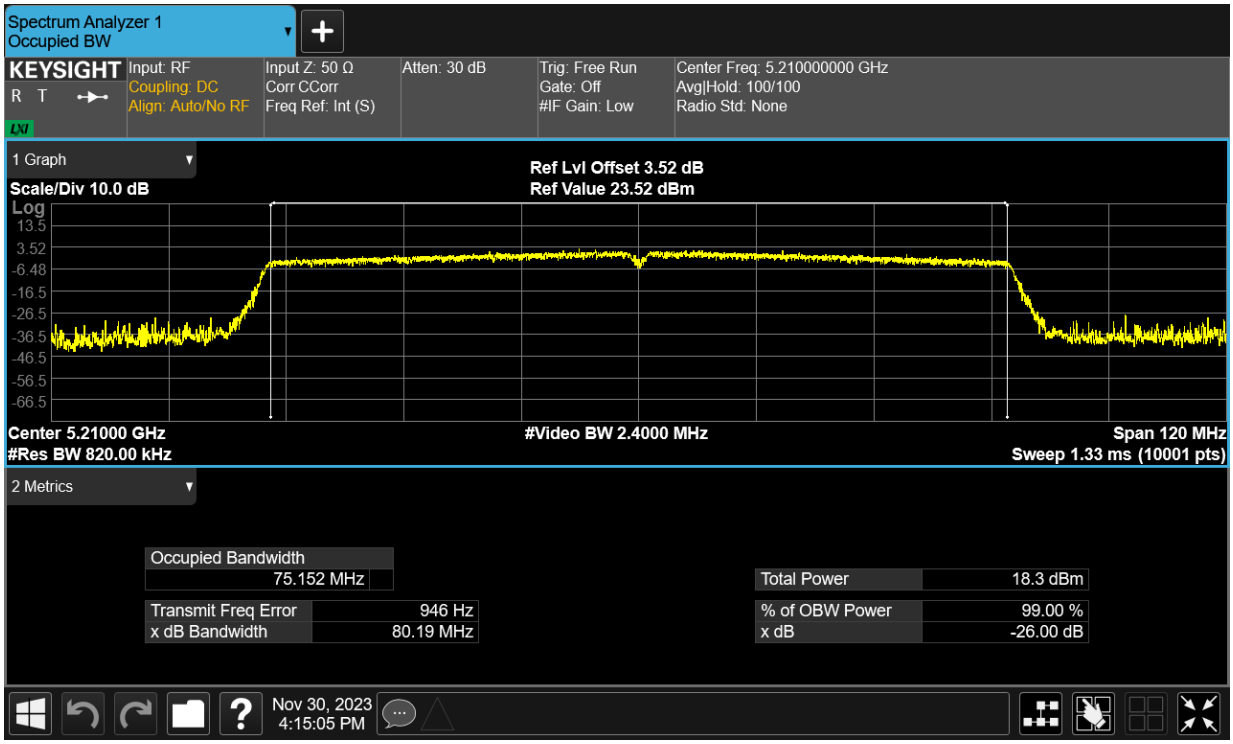
OBW NVNT ac40 5190MHz Ant14



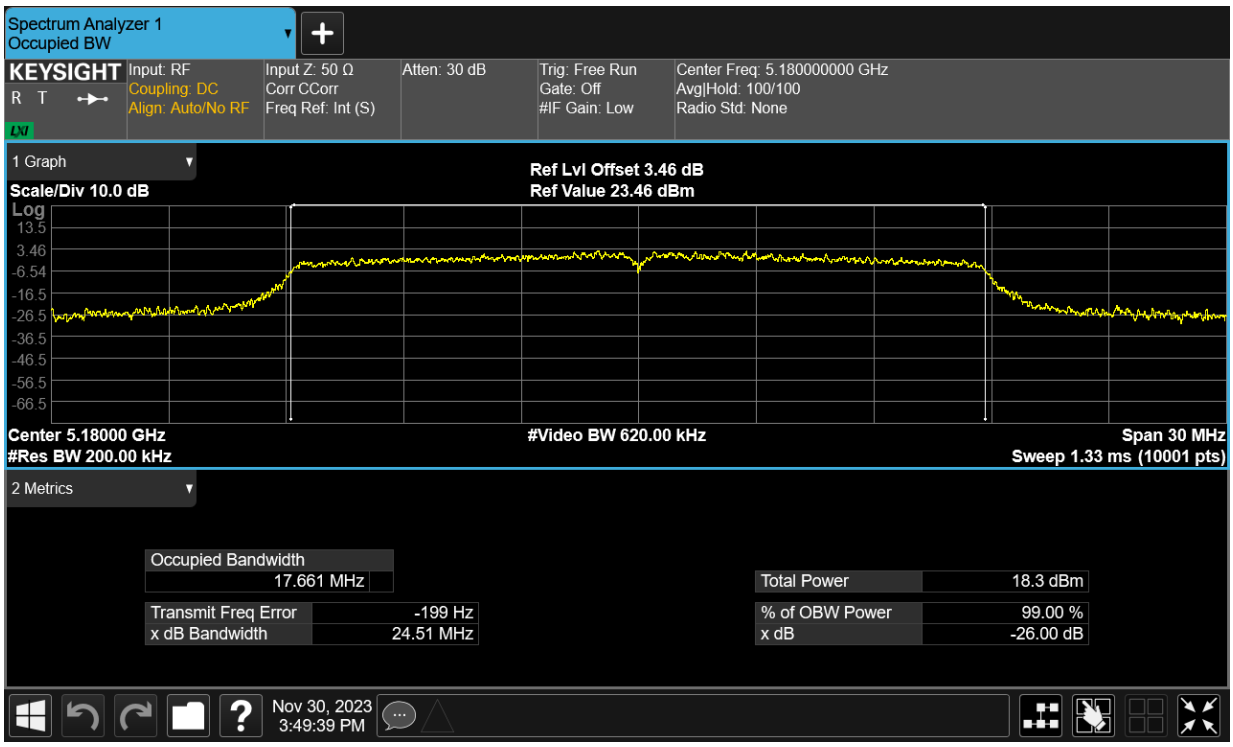
OBW NVNT ac40 5230MHz Ant14



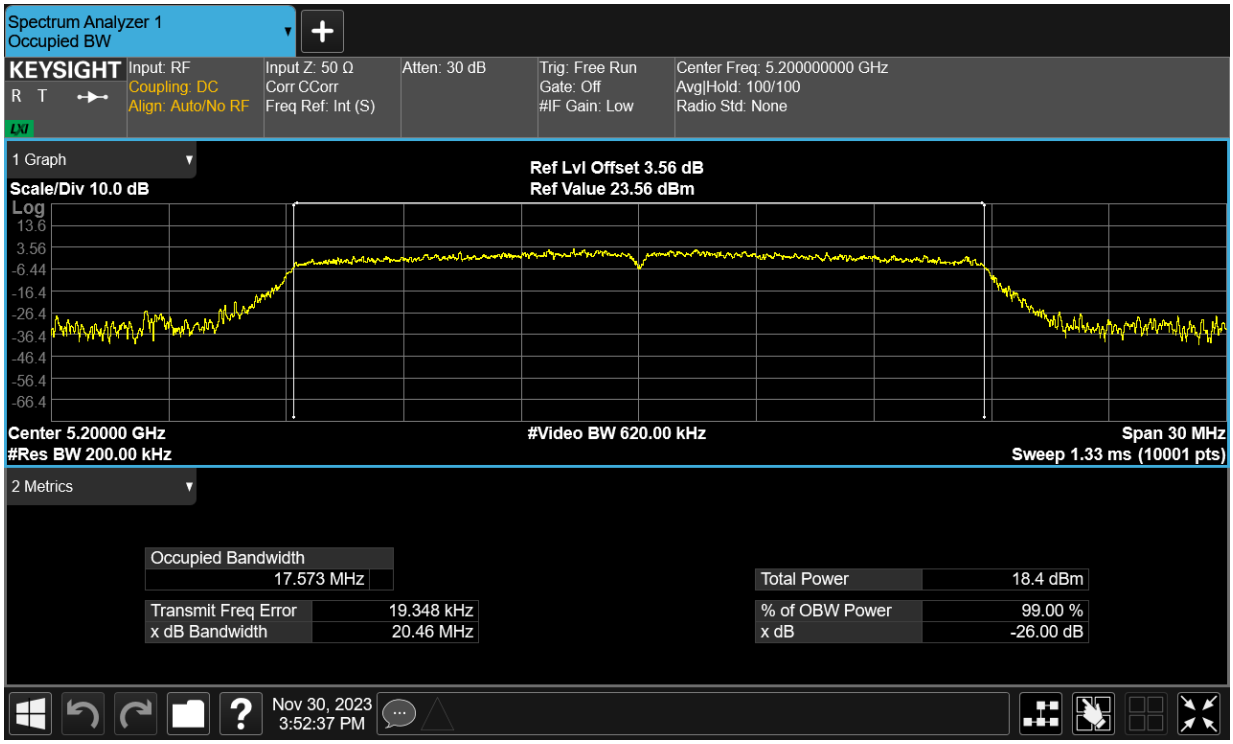
OBW NVNT ac80 5210MHz Ant14



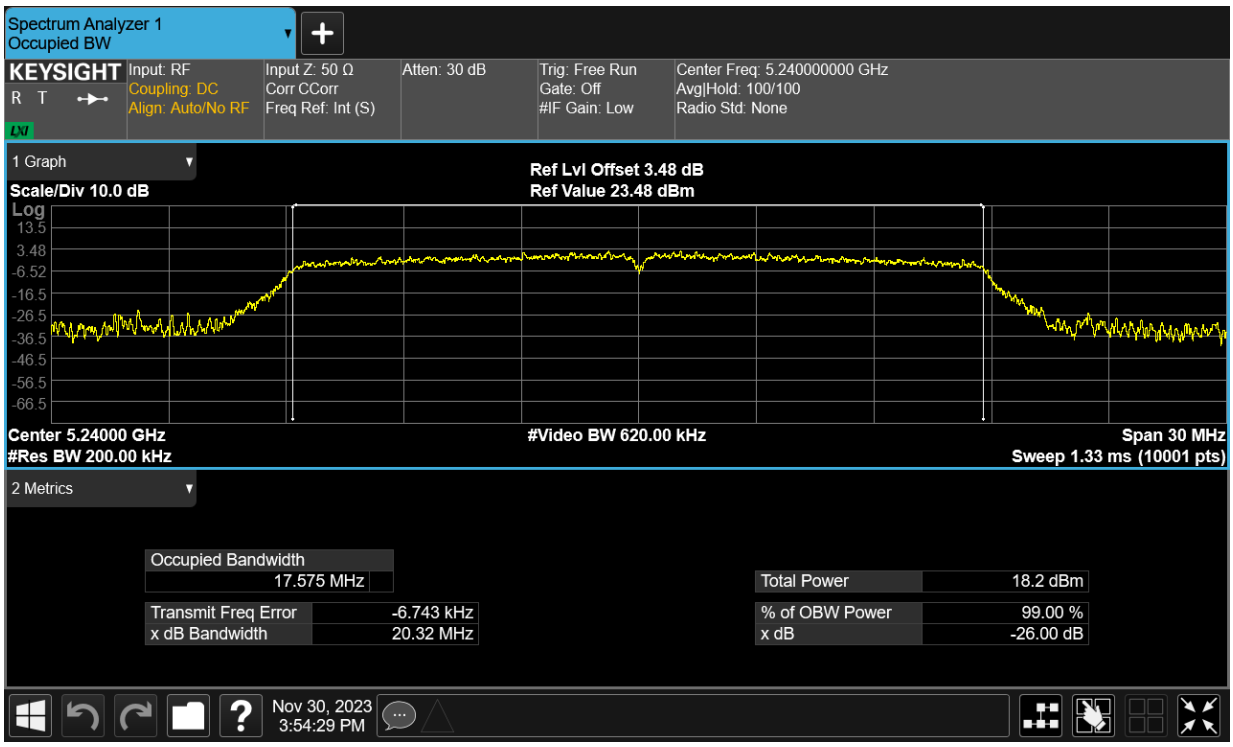
OBW NVNT n20 5180MHz Ant14



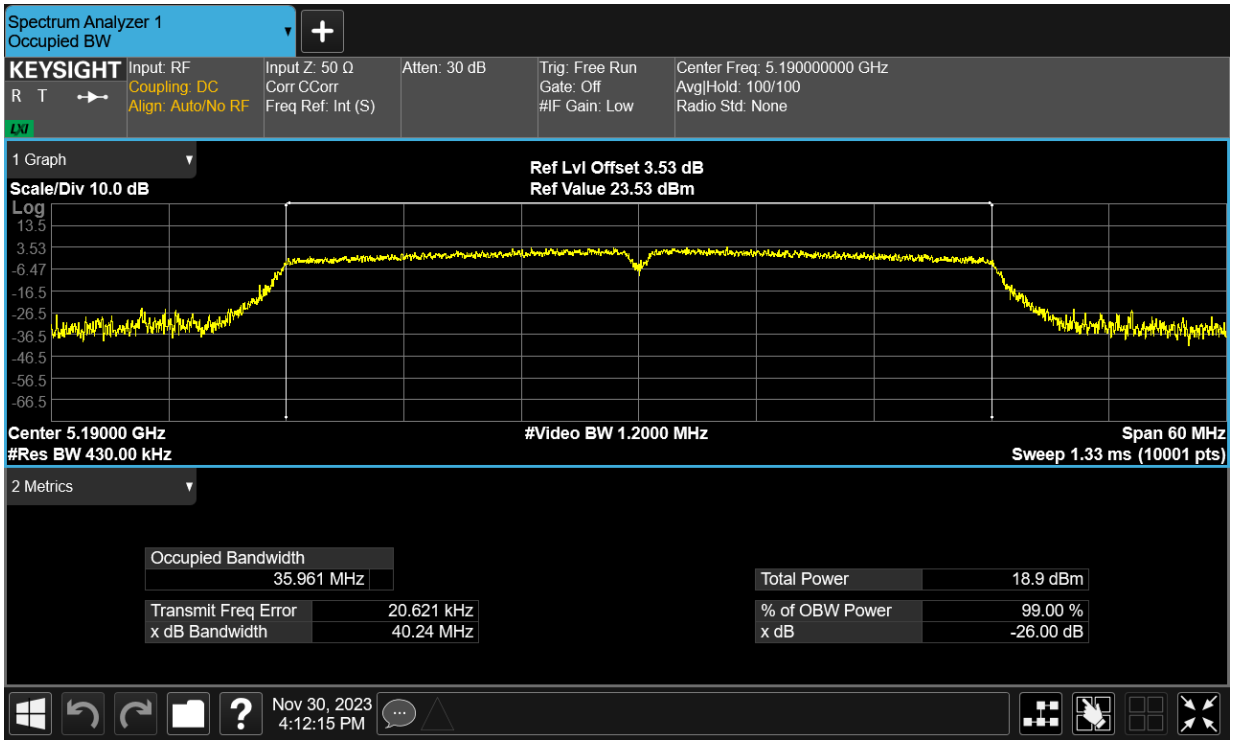
OBW NVNT n20 5200MHz Ant14



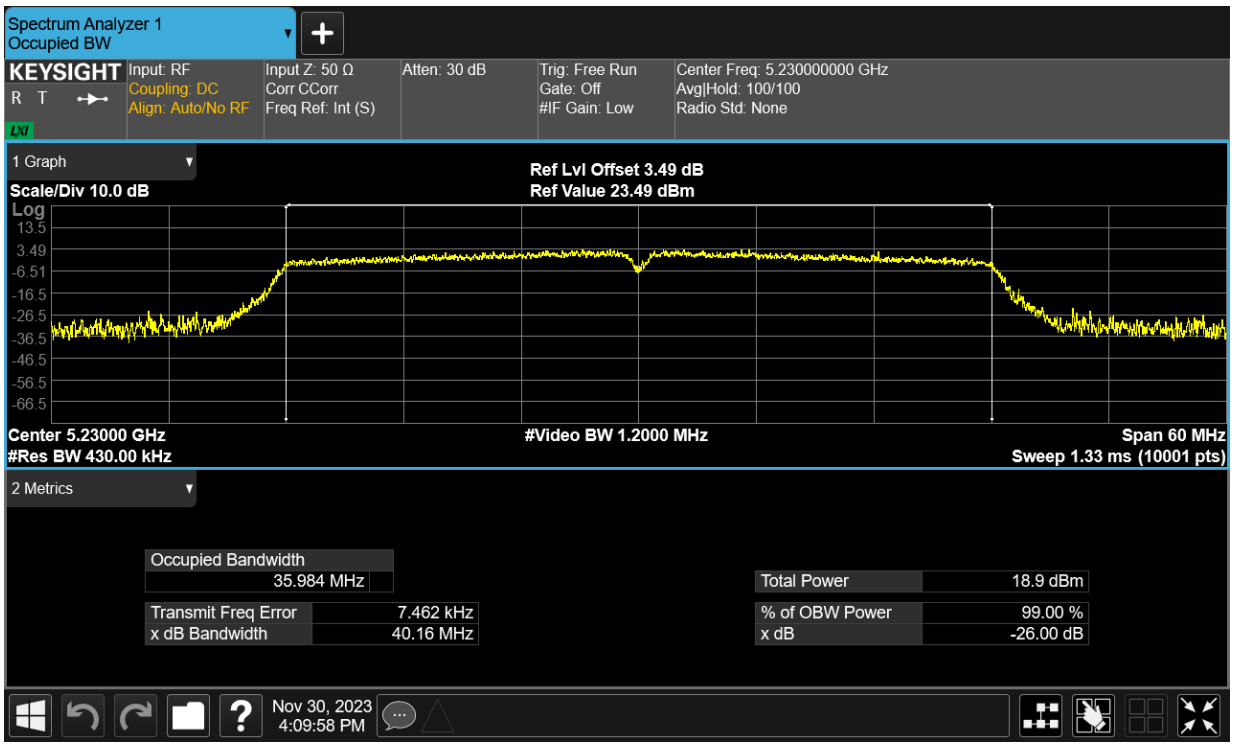
OBW NVNT n20 5240MHz Ant14



OBW NVNT n40 5190MHz Ant14



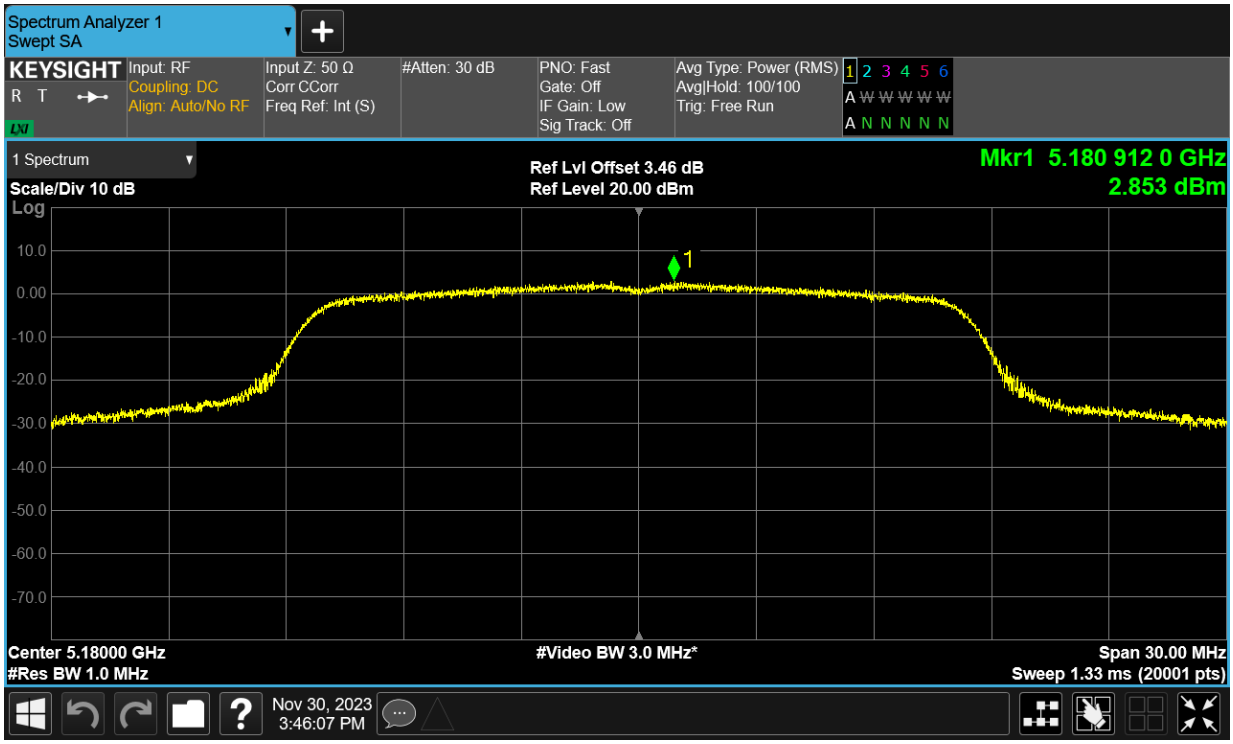
OBW NVNT n40 5230MHz Ant14



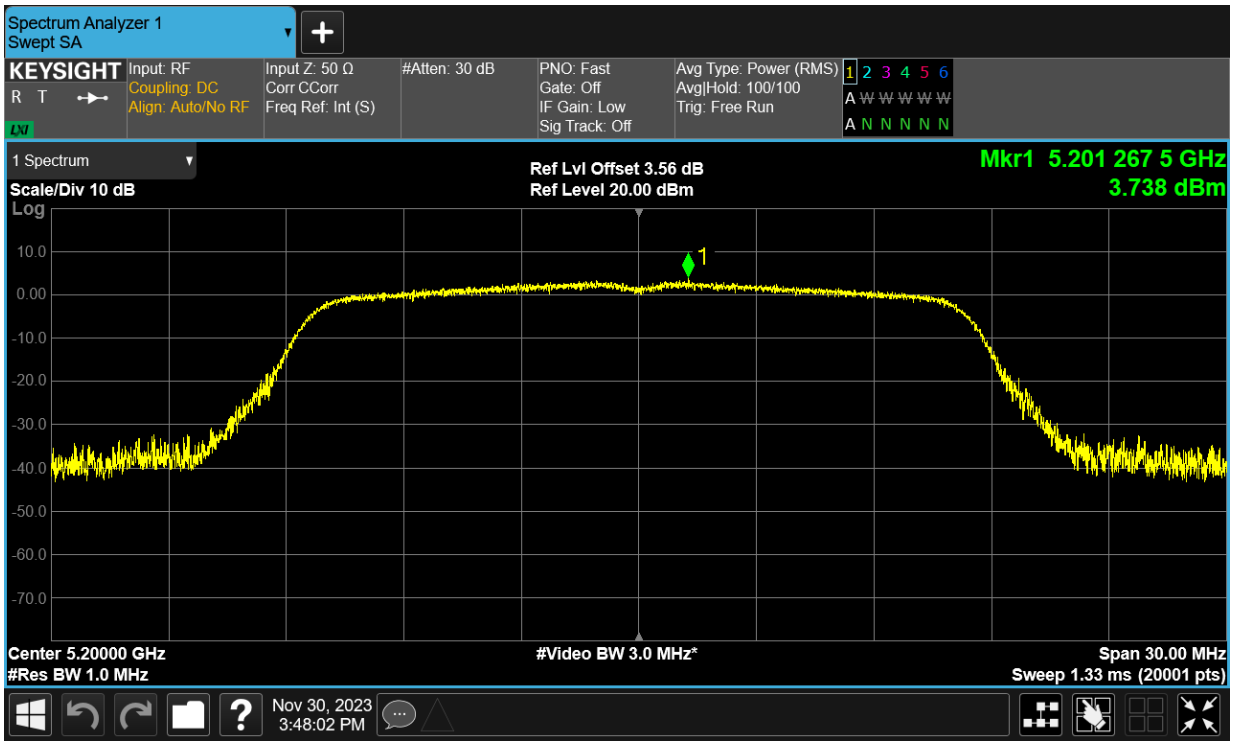
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant14	2.853	11	Pass
NVNT	a	5200	Ant14	3.738	11	Pass
NVNT	a	5240	Ant14	3.253	11	Pass
NVNT	ac20	5180	Ant14	2.624	11	Pass
NVNT	ac20	5200	Ant14	2.916	11	Pass
NVNT	ac20	5240	Ant14	2.807	11	Pass
NVNT	ac40	5190	Ant14	-0.906	11	Pass
NVNT	ac40	5230	Ant14	-1.672	11	Pass
NVNT	ac80	5210	Ant14	-4.102	11	Pass
NVNT	n20	5180	Ant14	3.01	11	Pass
NVNT	n20	5200	Ant14	2.959	11	Pass
NVNT	n20	5240	Ant14	2.973	11	Pass
NVNT	n40	5190	Ant14	0.338	11	Pass
NVNT	n40	5230	Ant14	0.671	11	Pass

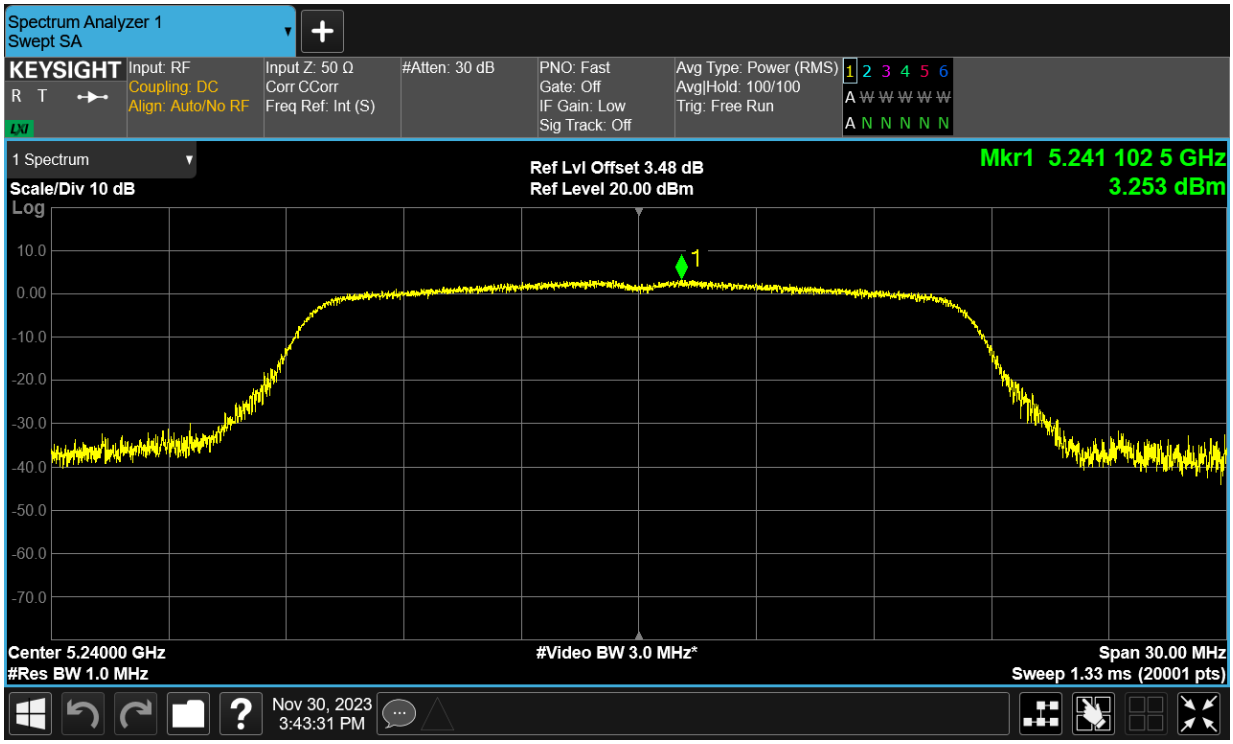
Test Graphs
PSD NVNT a 5180MHz Ant14



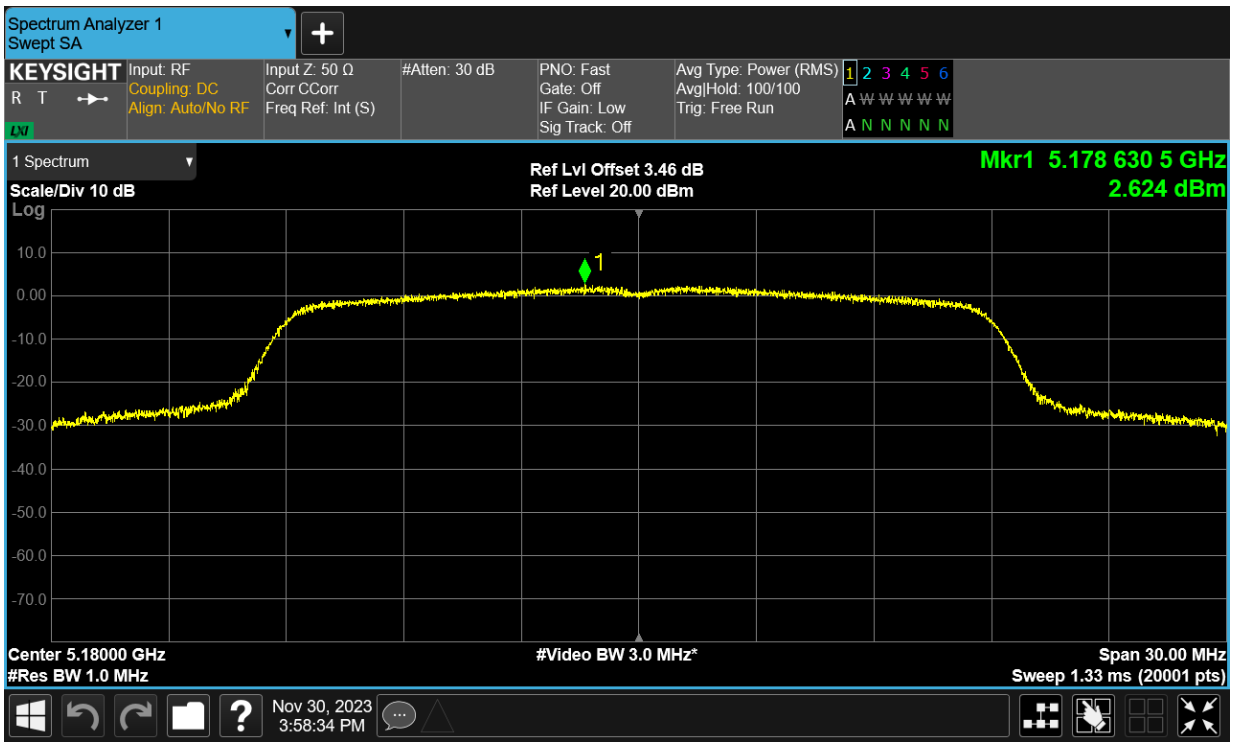
PSD NVNT a 5200MHz Ant14



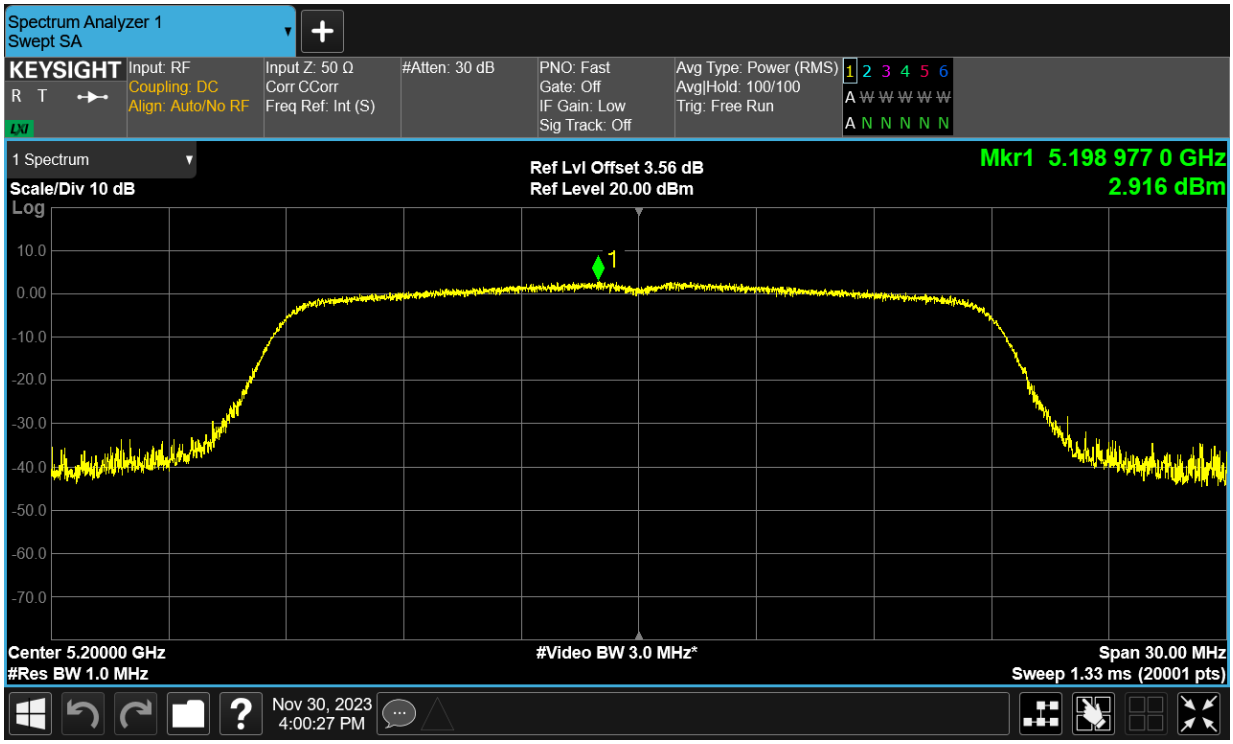
PSD NVNT a 5240MHz Ant14



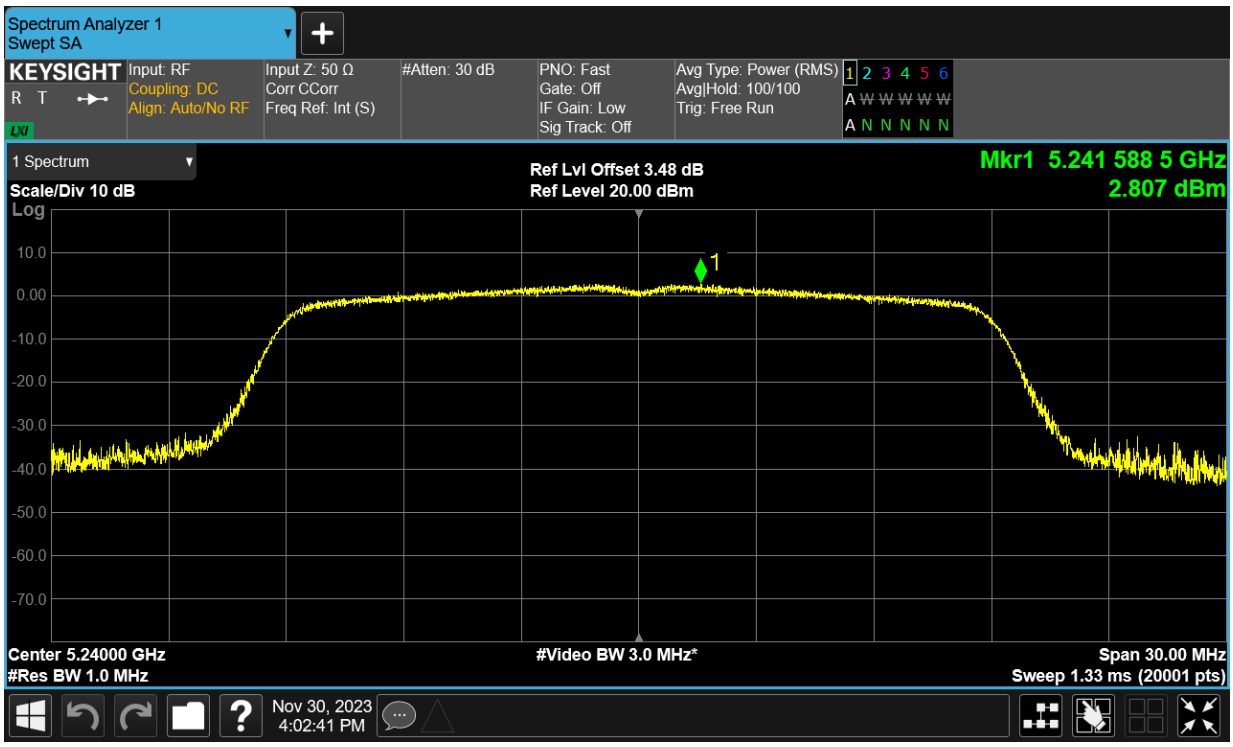
PSD NVNT ac20 5180MHz Ant14



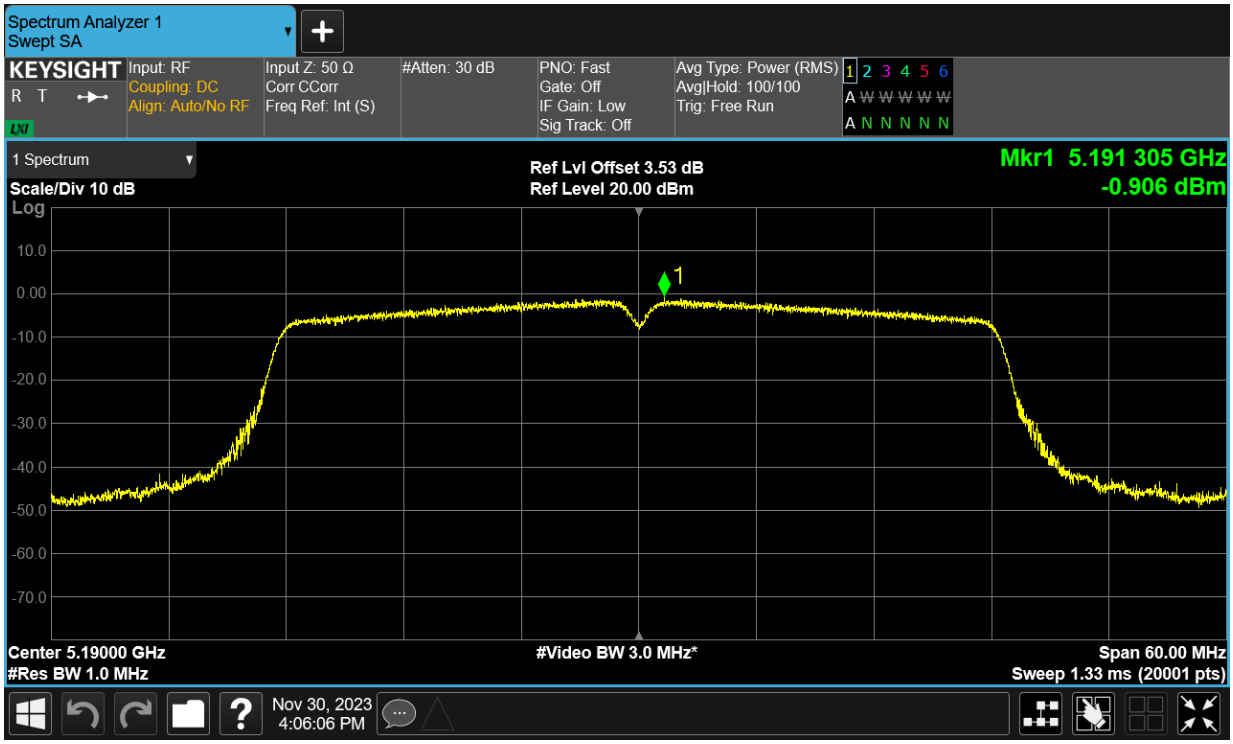
PSD NVNT ac20 5200MHz Ant14



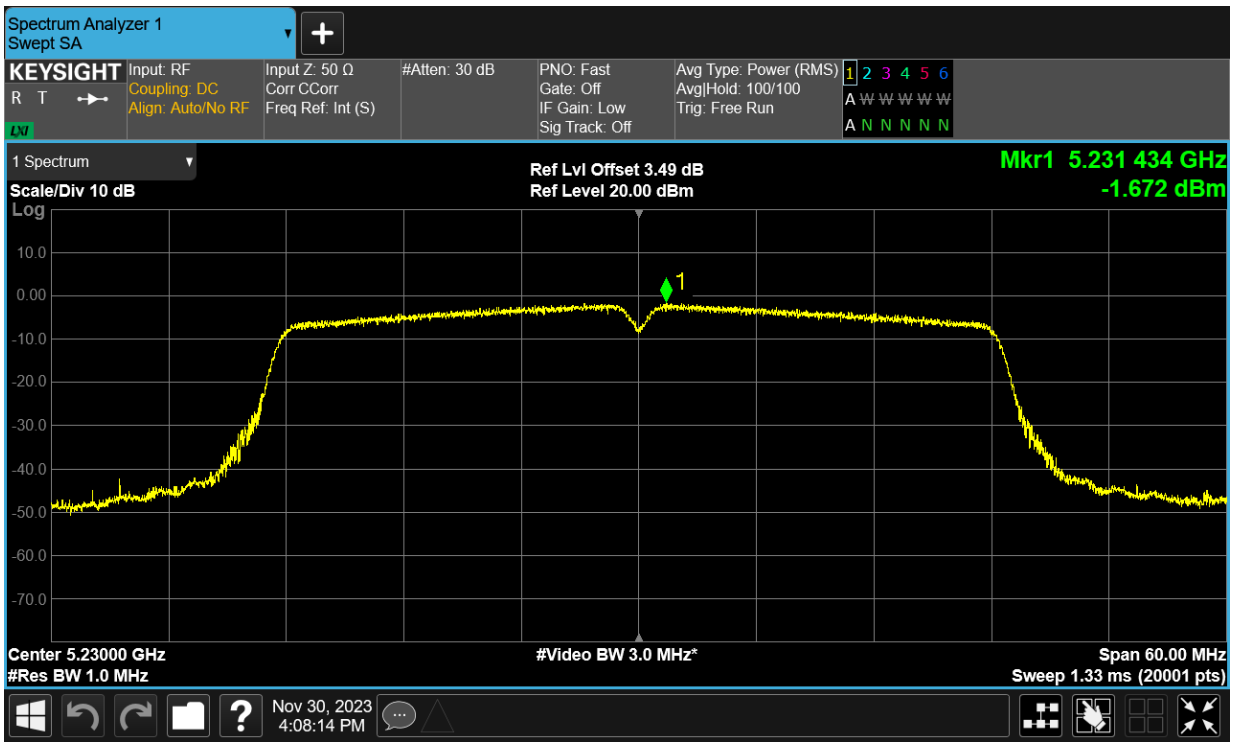
PSD NVNT ac20 5240MHz Ant14



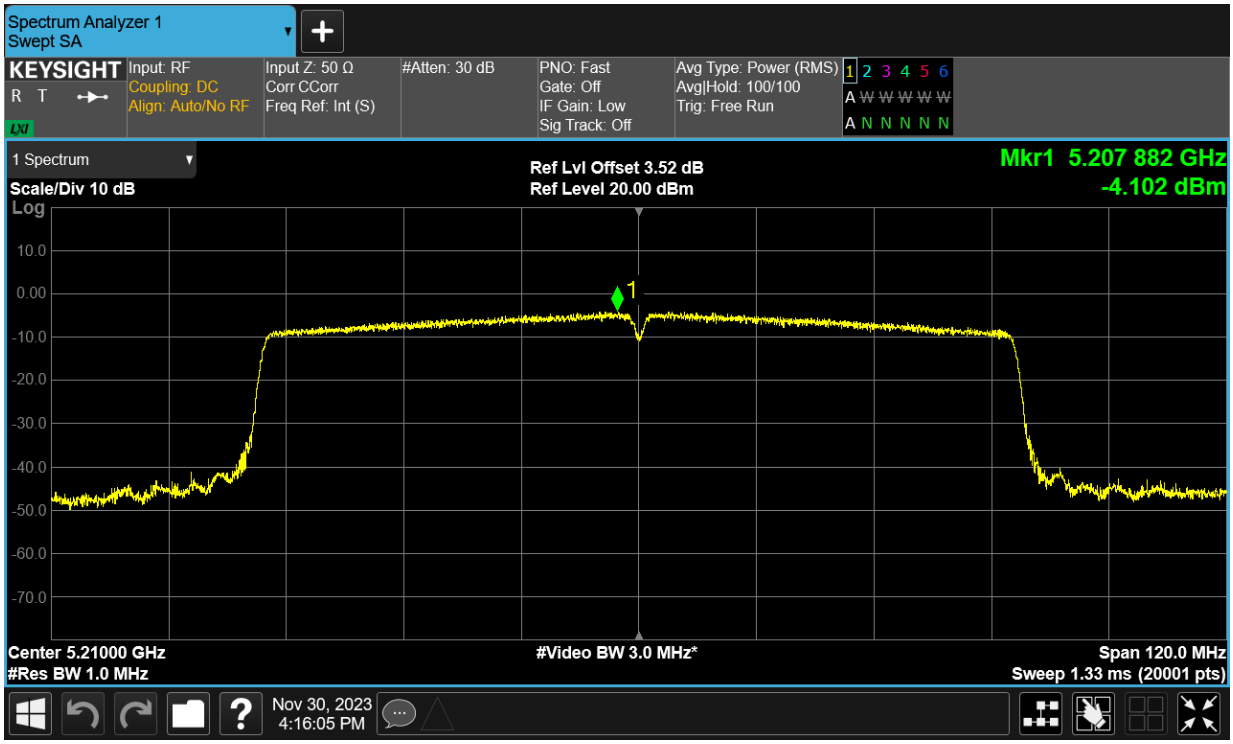
PSD NVNT ac40 5190MHz Ant14



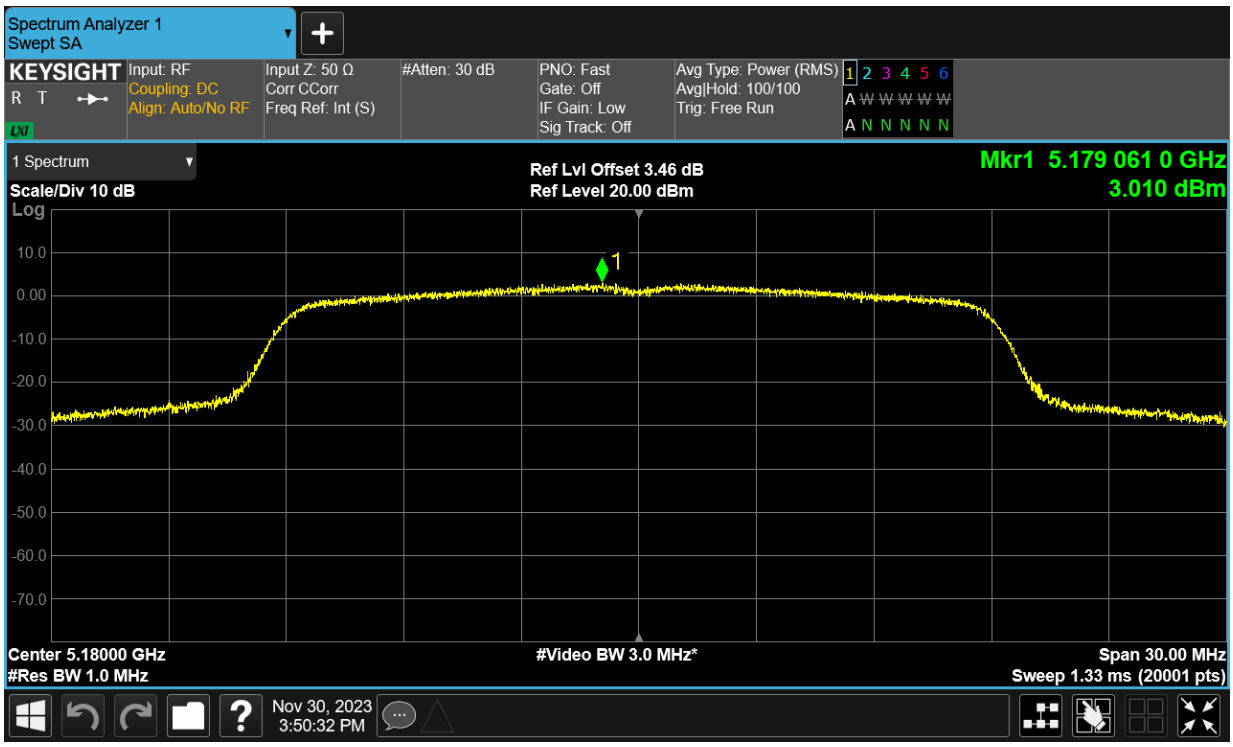
PSD NVNT ac40 5230MHz Ant14



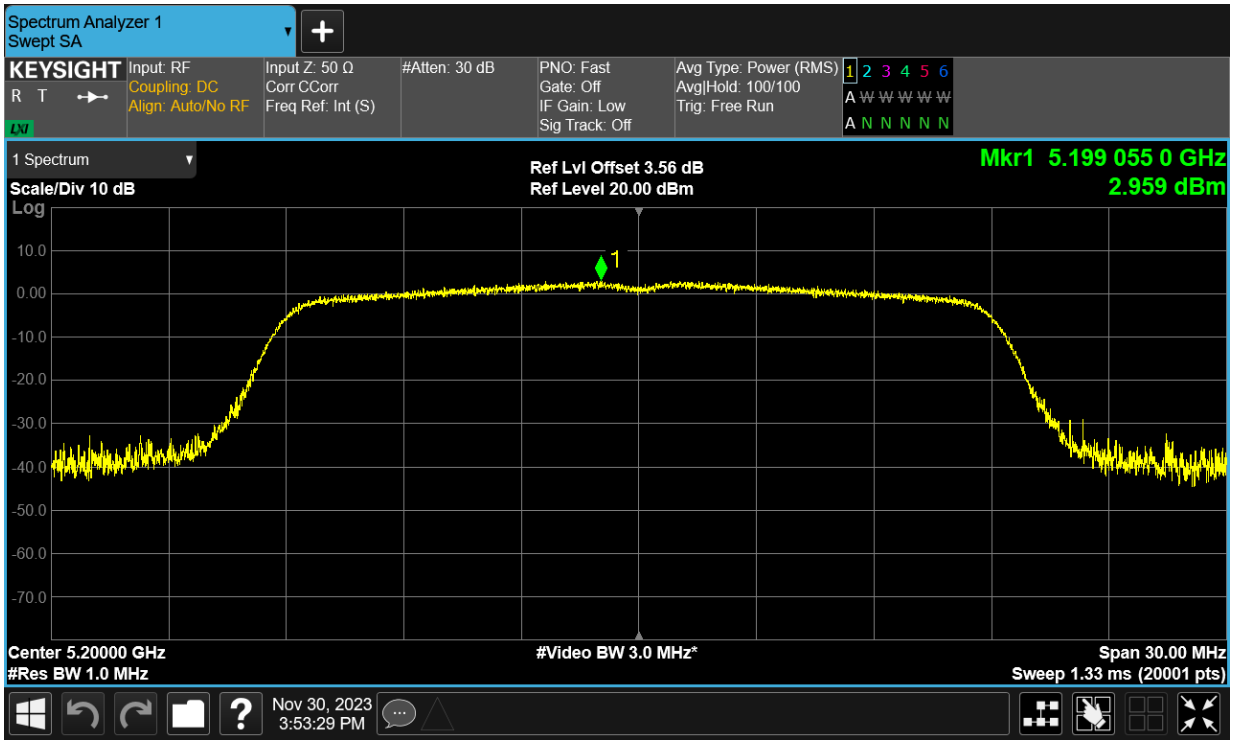
PSD NVNT ac80 5210MHz Ant14



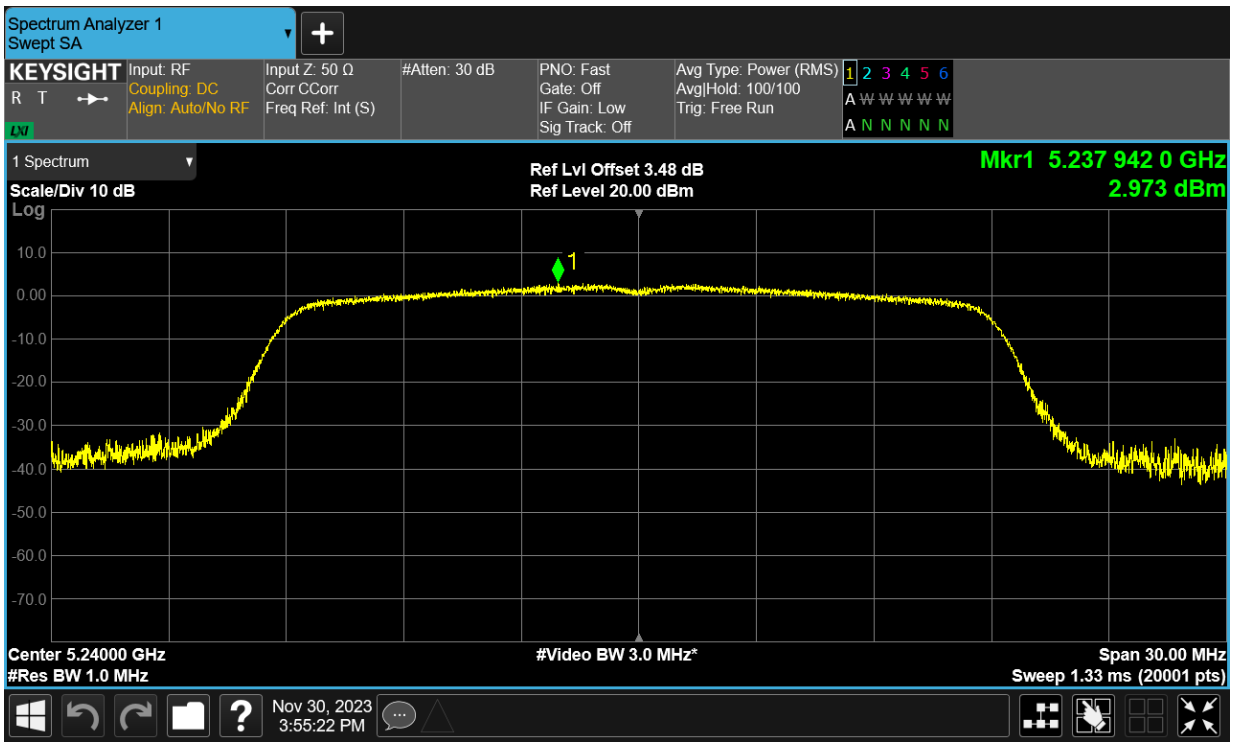
PSD NVNT n20 5180MHz Ant14



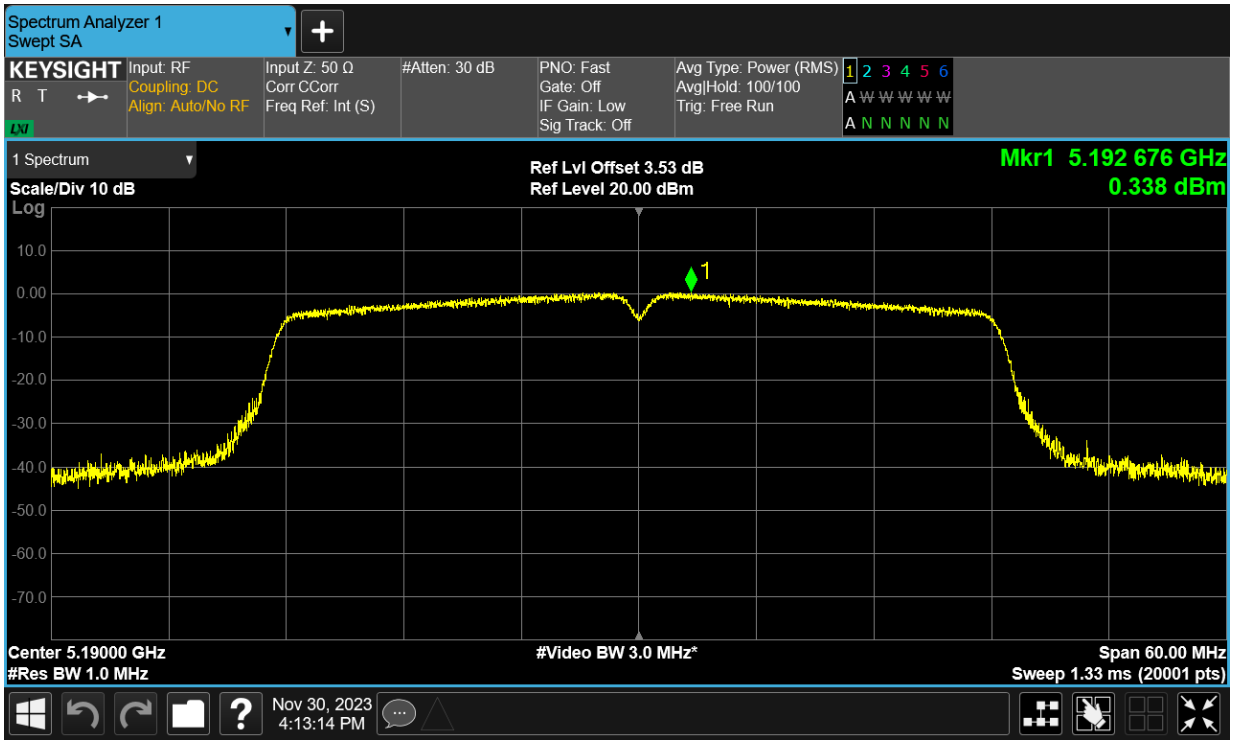
PSD NVNT n20 5200MHz Ant14



PSD NVNT n20 5240MHz Ant14



PSD NVNT n40 5190MHz Ant14



PSD NVNT n40 5230MHz Ant14