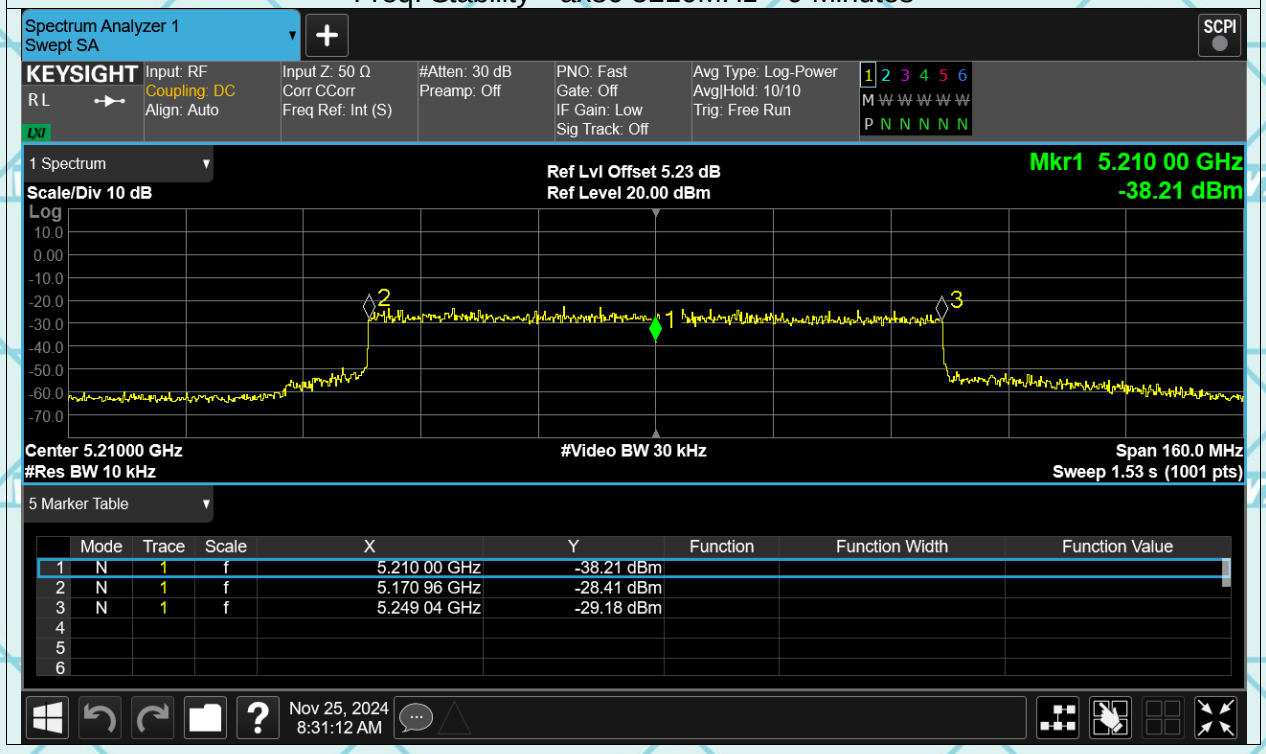
Freq. Stability ax40 5670MHz 0 Minutes

Freq. Stability ax40 5755MHz 0 Minutes

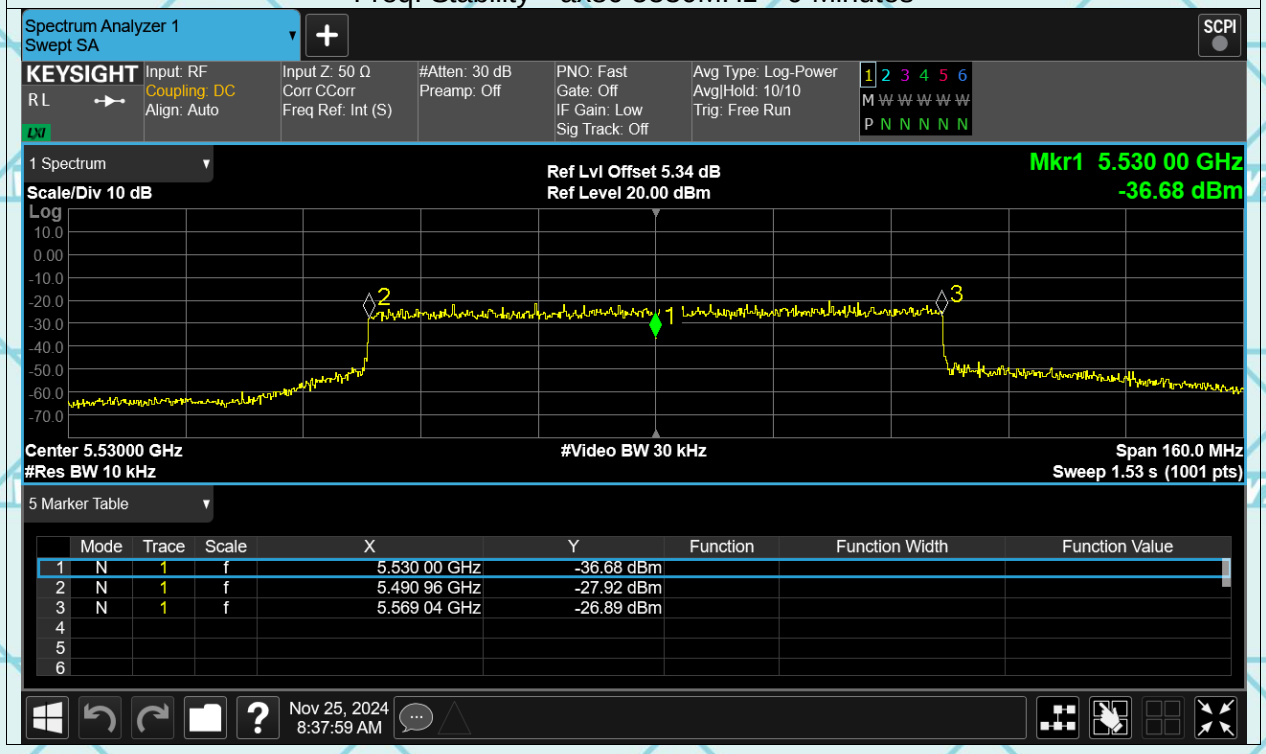
Freq. Stability ax40 5795MHz 0 Minutes

Freq. Stability ax80 5210MHz 0 Minutes



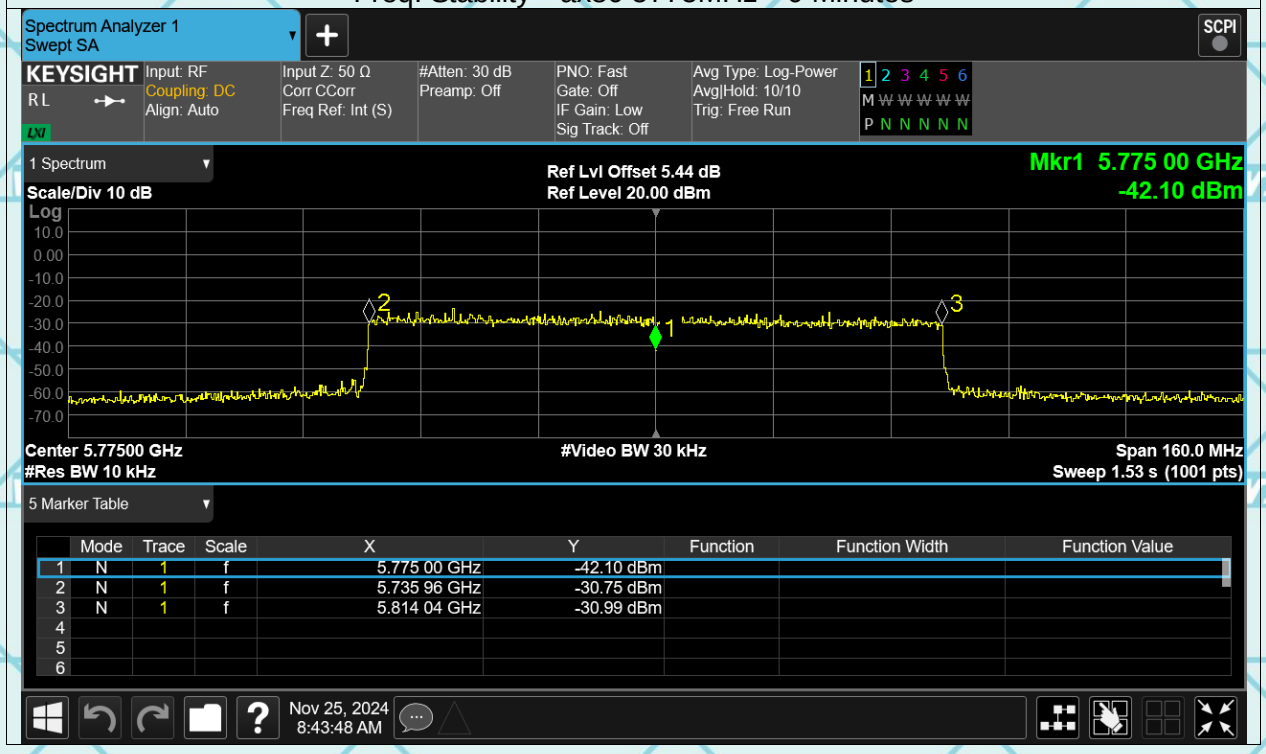
Freq. Stability ax80 5290MHz 0 Minutes

Freq. Stability ax80 5530MHz 0 Minutes



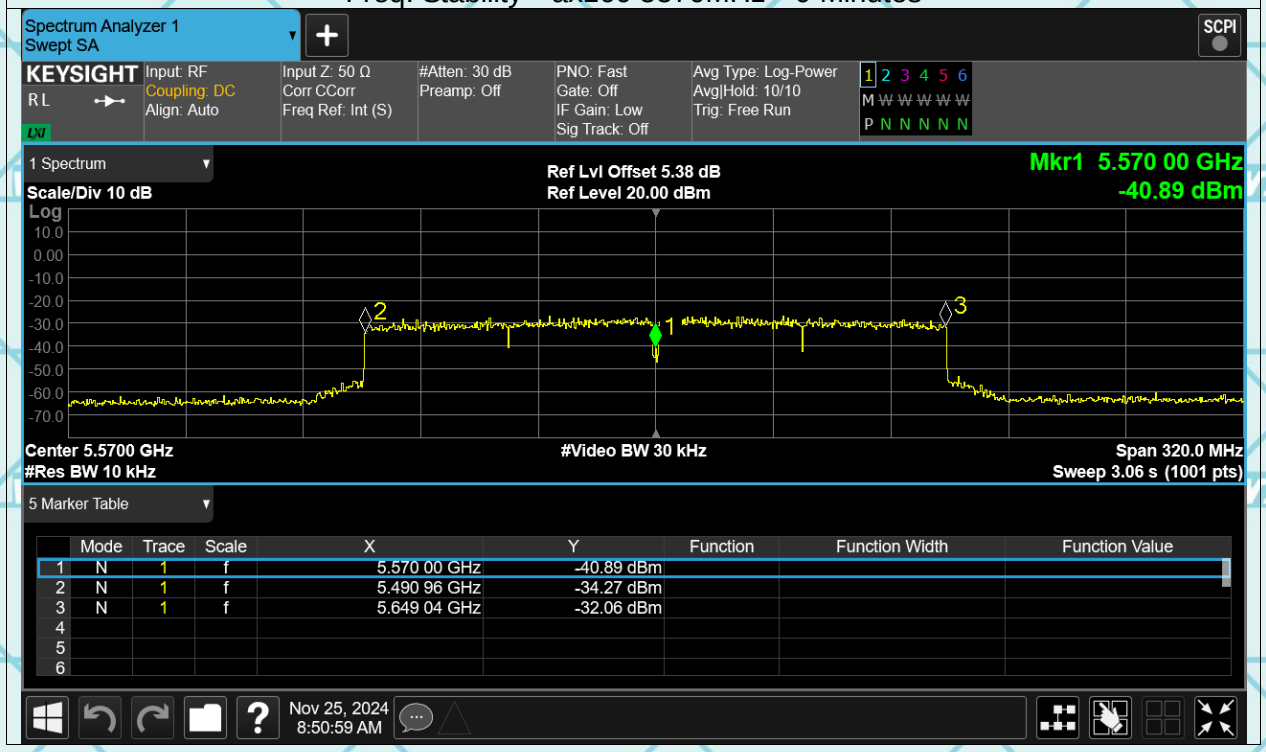
Freq. Stability ax80 5610MHz 0 Minutes

Freq. Stability ax80 5775MHz 0 Minutes



Freq. Stability ax160 5250MHz 0 Minutes

Freq. Stability ax160 5570MHz 0 Minutes



7.9 BAND EDGE EMISSIONS

7.9.1 TEST EQUIPMENT

Please refer to Section 4 this report.

7.9.2 TEST PROCEDURE

Band Edge Emissions Measurement:	
Test Method:	a.)The EUT was tested according to ANSI C63.10. b)The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 1.5 m. All set up is according to ANSI C63.10. c)The frequency spectrum from 9 kHz to 40 GHz was investigated. All readings from 9 kHz to 150 kHz are quasi-peak values with a resolution bandwidth of 200 Hz. All readings from 150 kHz to 30 MHz are quasi-peak values with a resolution bandwidth of 9 KHz. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz , peak values with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters. d)The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. The Receiving antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency. Emissions below 30MHz were measured with a loop antenna while emission above 30MHz were measured using a broadband E-field antenna. e) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "**QP**" in the data table. f)Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 8 and 13 of ANSI C63.10.

Band Edge Emissions Measurement:	
Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: 100 MHz c)RBW/VBW (Emission in restricted band): 1MHz / 3MHz for Peak, 1MHz / 1/T for Average	d)RBW/VBW(Emission in non-restricted band) 1MHz / 3MHz for peak

7.9.3 TEST SETUP

Same as section 3.4 of this report

7.9.4 CONFIGURATION OF THE EUT

Same as section 3.4 of this report

7.9.5 EUT OPERATING CONDITION

Same as section 3.4 of this report.

7.9.6 LIMIT

Spurious Radiated Emission & Band Edge Emissions Measurement:	
Limit:	For transmitters operating in the 5.15-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz. For transmitters operating in the 5.470-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz. For transmitters operating in the 5.725-5.85 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz. In any 100 KHz bandwidth outside the operating frequency band, the radio frequency power that is produced by modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 KHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in section 15.209(a), which lesser attenuation. All other emissions inside restricted bands specified in section 15.205(a) shall not exceed the general radiated emission limits specified in section 15.209(a)
Note: Applies to harmonics/spurious emissions that fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209. 47 CFR § 15.237(c): The emission limits as specified above are based on measurement instrument employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.	

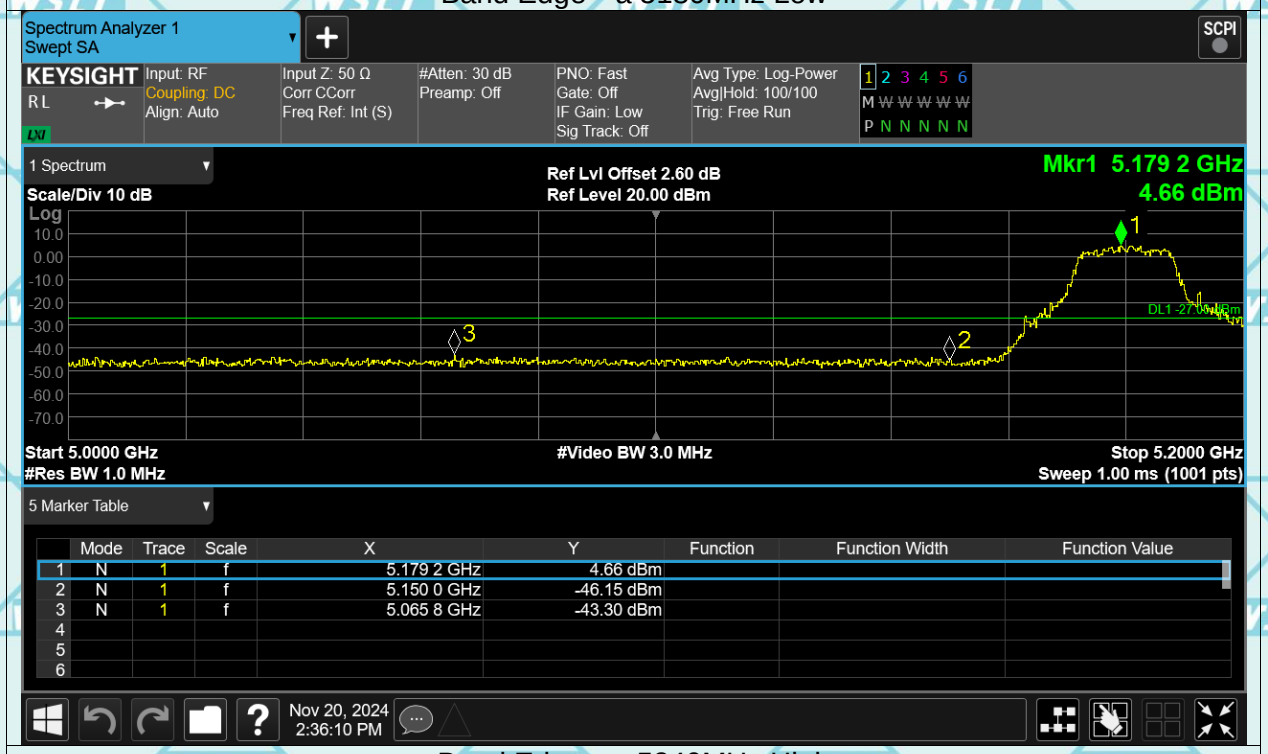
7.9.7 TEST RESULT

Band Edge and Fundamental Emissions

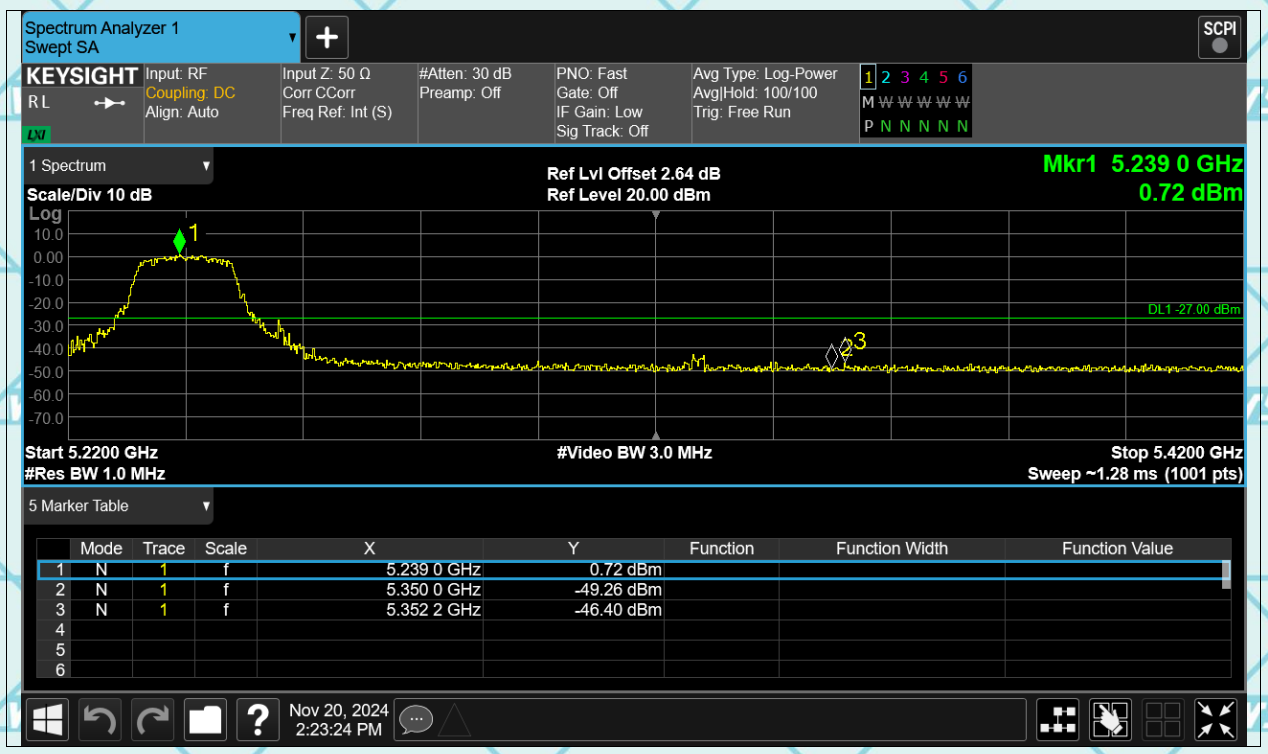
Product:	EUT-Sample	Test Mode:	20MHzIEEE 802.11a/n/ac
Test Item:	Band Edge and Fundamental Emissions	Temperature:	25 ℃
Test Voltage:	DC 3.86V	Humidity:	56%RH
Test Result:	PASS		

Test Graphs

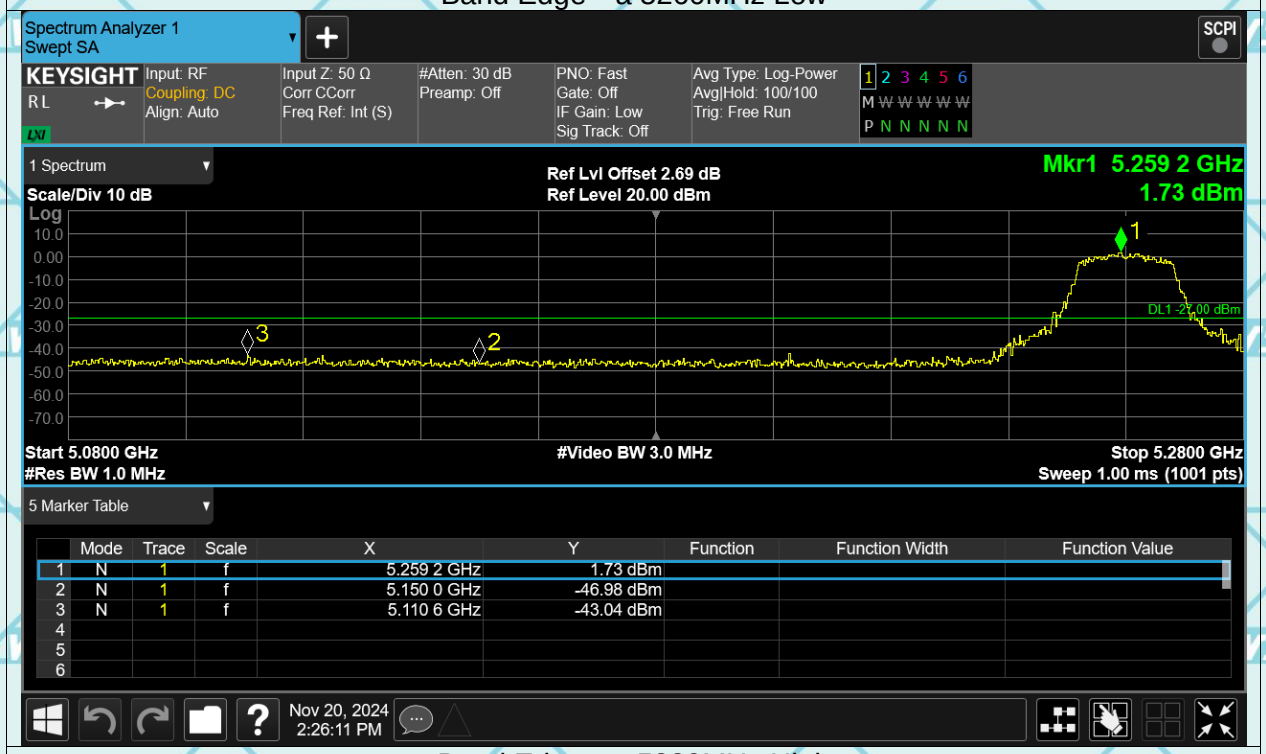
Band Edge a 5180MHz Low



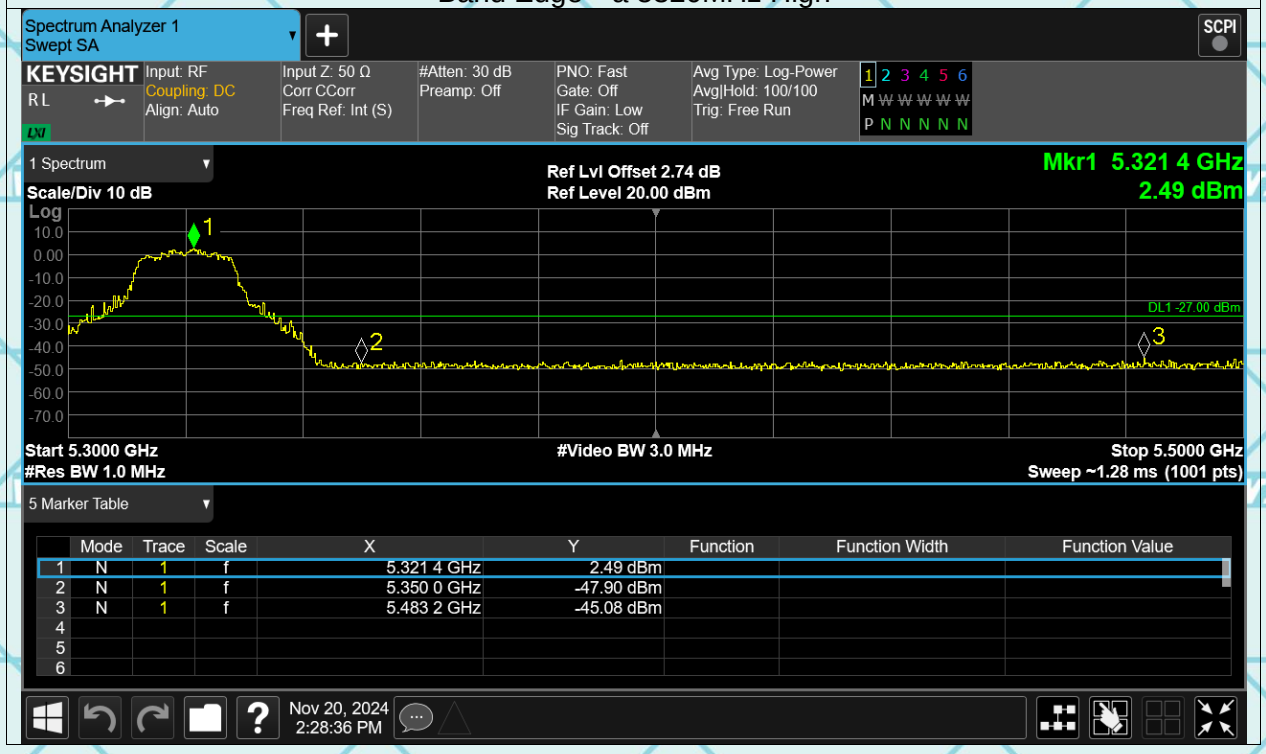
Band Edge a 5240MHz High


Spectrum Analyzer 1
Swept SA
SCPI
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
Preamp: Off
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 2.64 dB
Ref Level 20.00 dBm
Mkr1 5.239 0 GHz
0.72 dBm
DL1 -27.00 dBm
Start 5.2200 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz
Stop 5.4200 GHz
Sweep ~1.28 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 5.239 0 GHz 0.72 dBm
2 N 1 f 5.350 0 GHz -49.26 dBm
3 N 1 f 5.352 2 GHz -46.40 dBm
Nov 20, 2024
2:23:24 PM

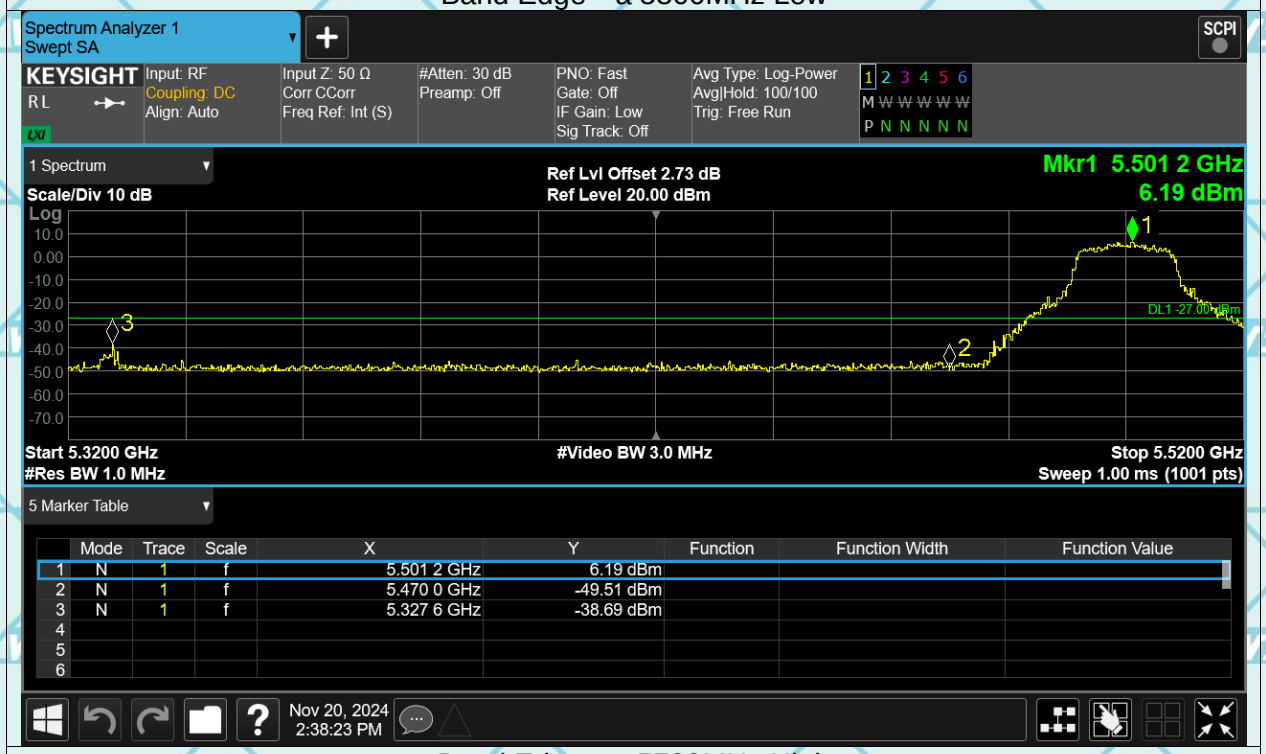
Band Edge a 5260MHz Low



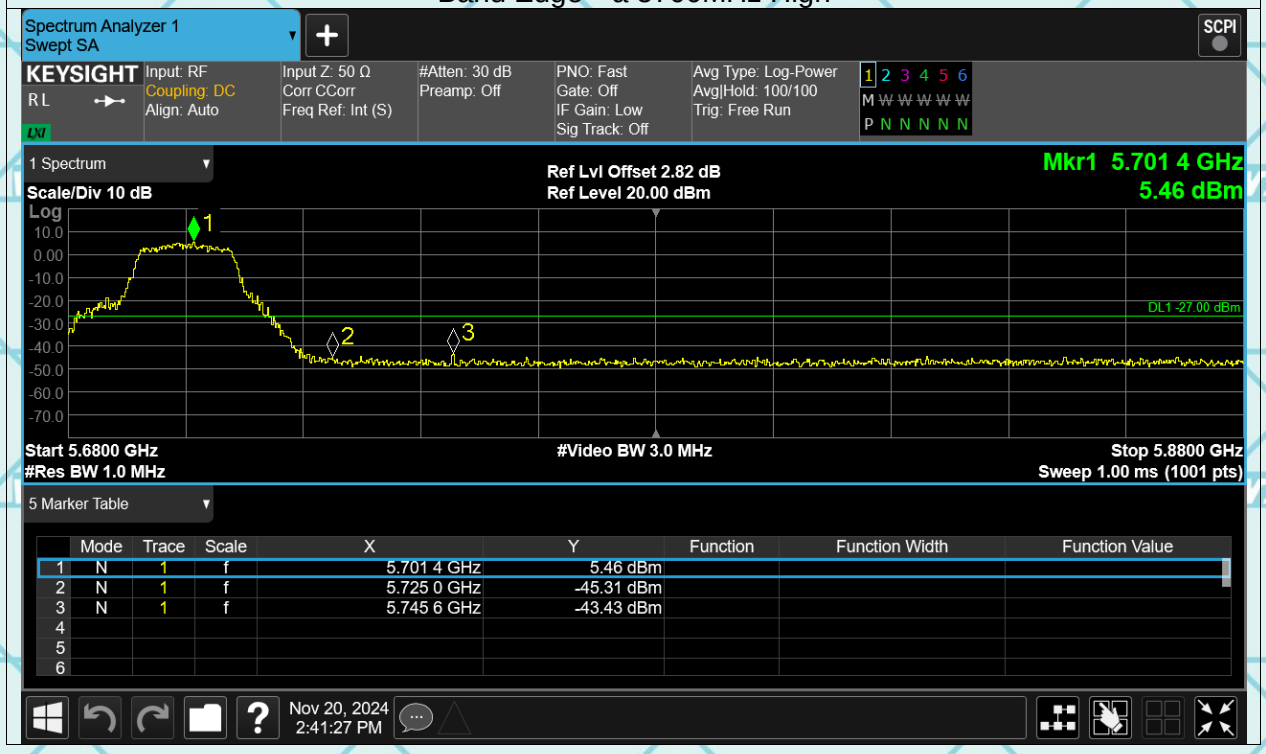
Band Edge a 5320MHz High



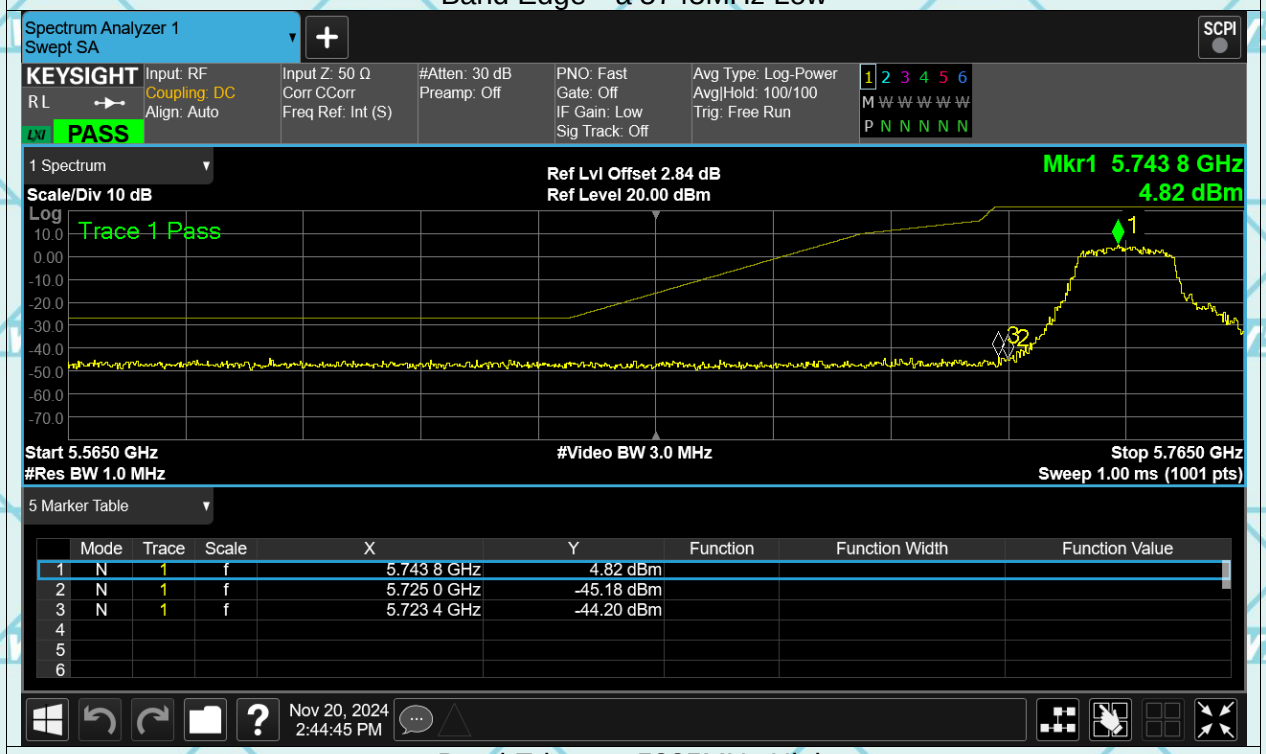
Band Edge a 5500MHz Low



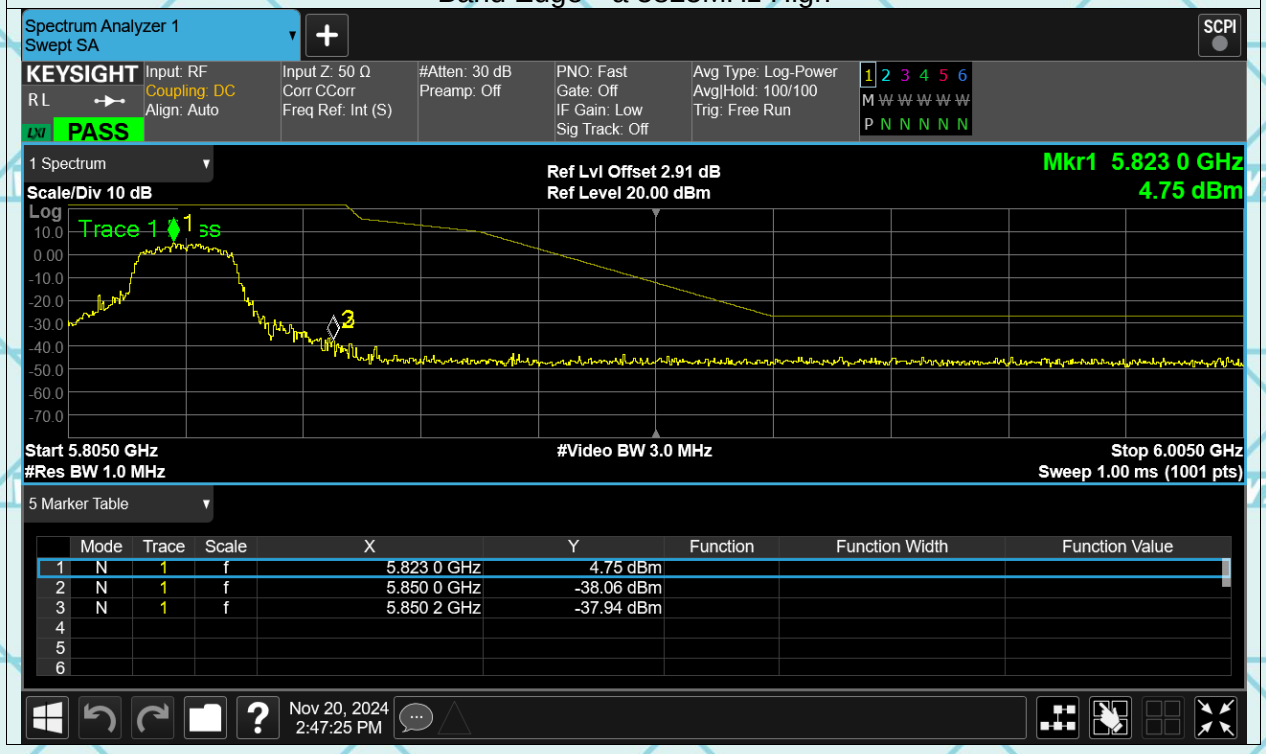
Band Edge a 5700MHz High



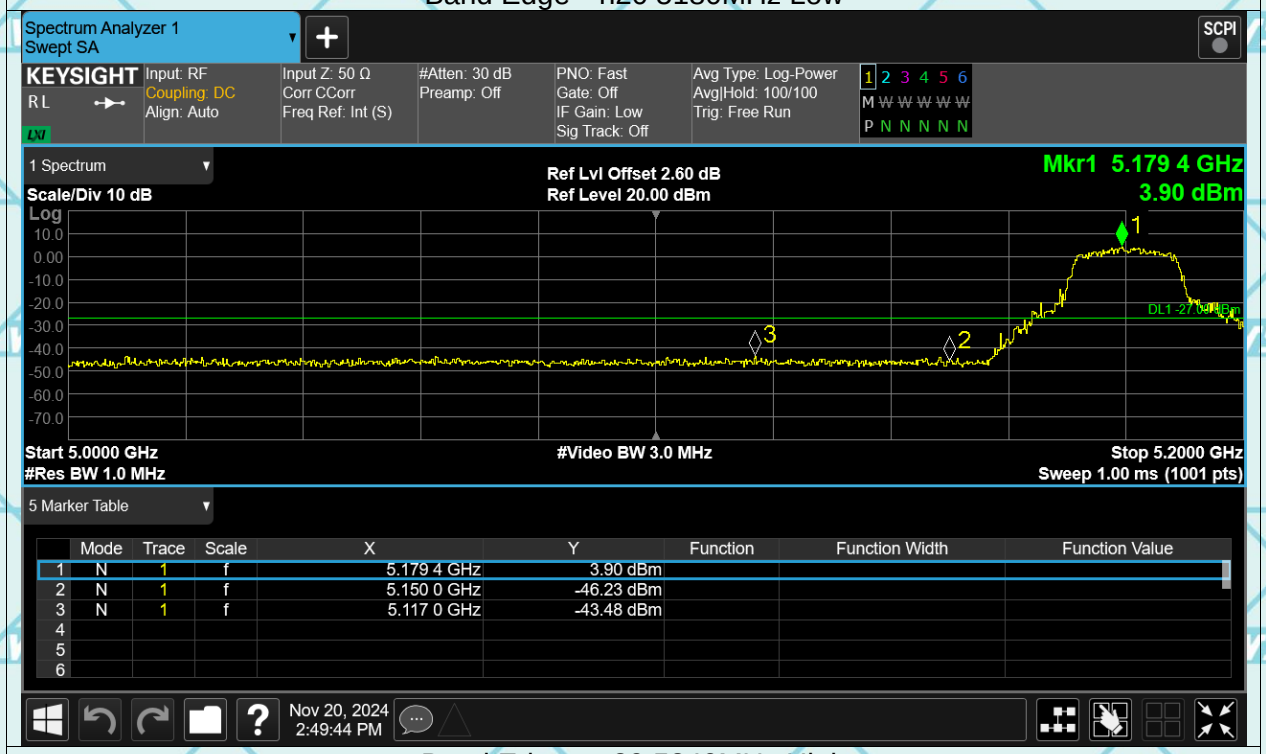
Band Edge a 5745MHz Low



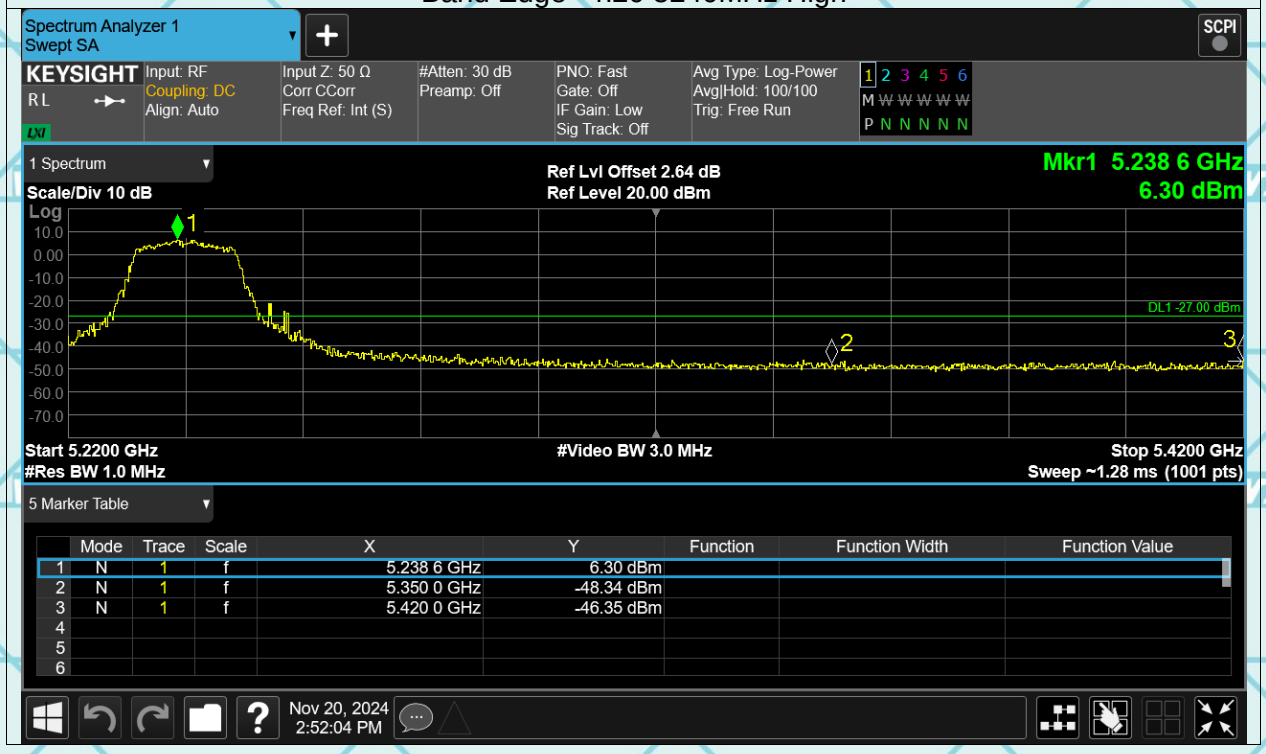
Band Edge a 5825MHz High



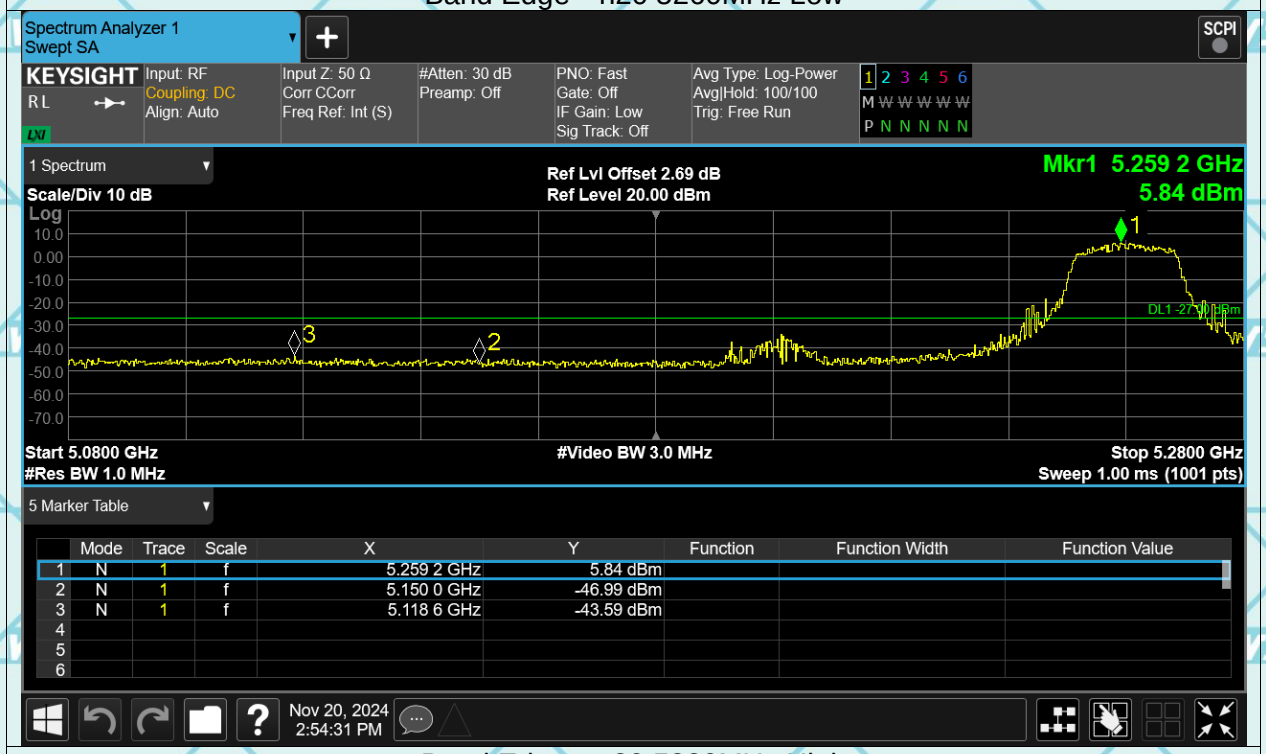
Band Edge n20 5180MHz Low



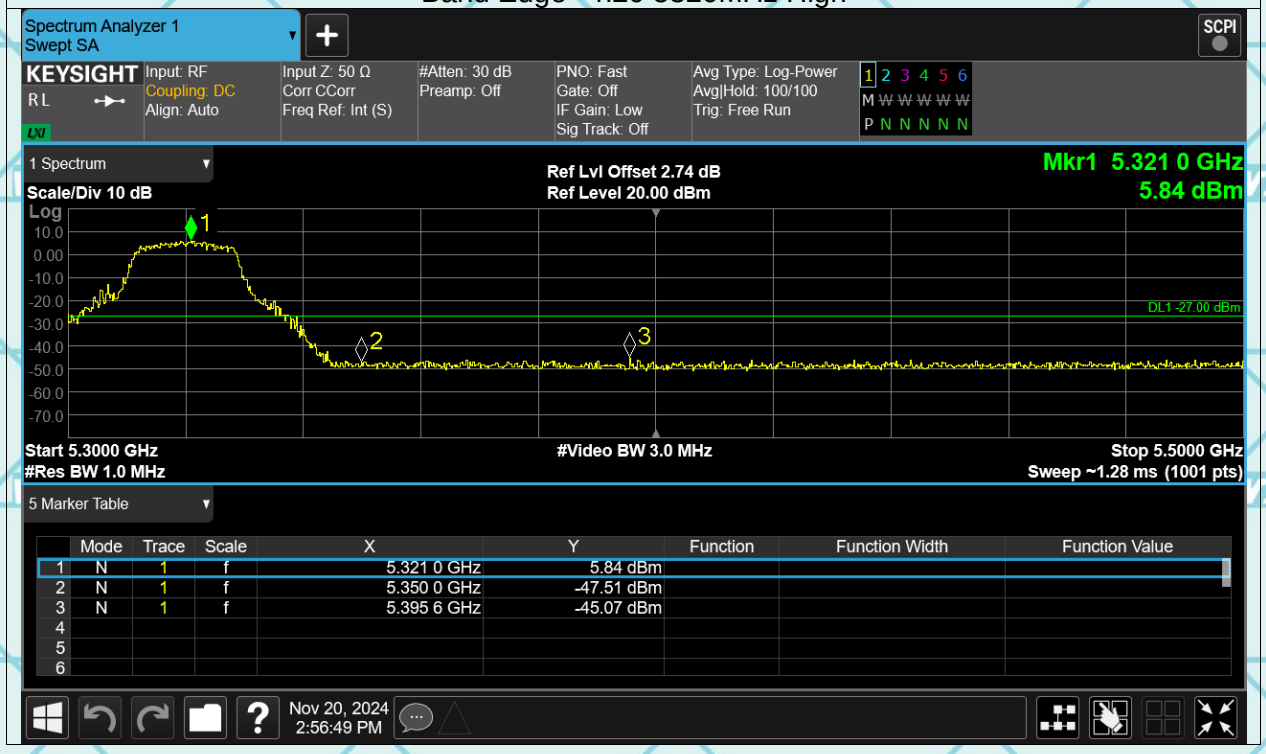
Band Edge n20 5240MHz High



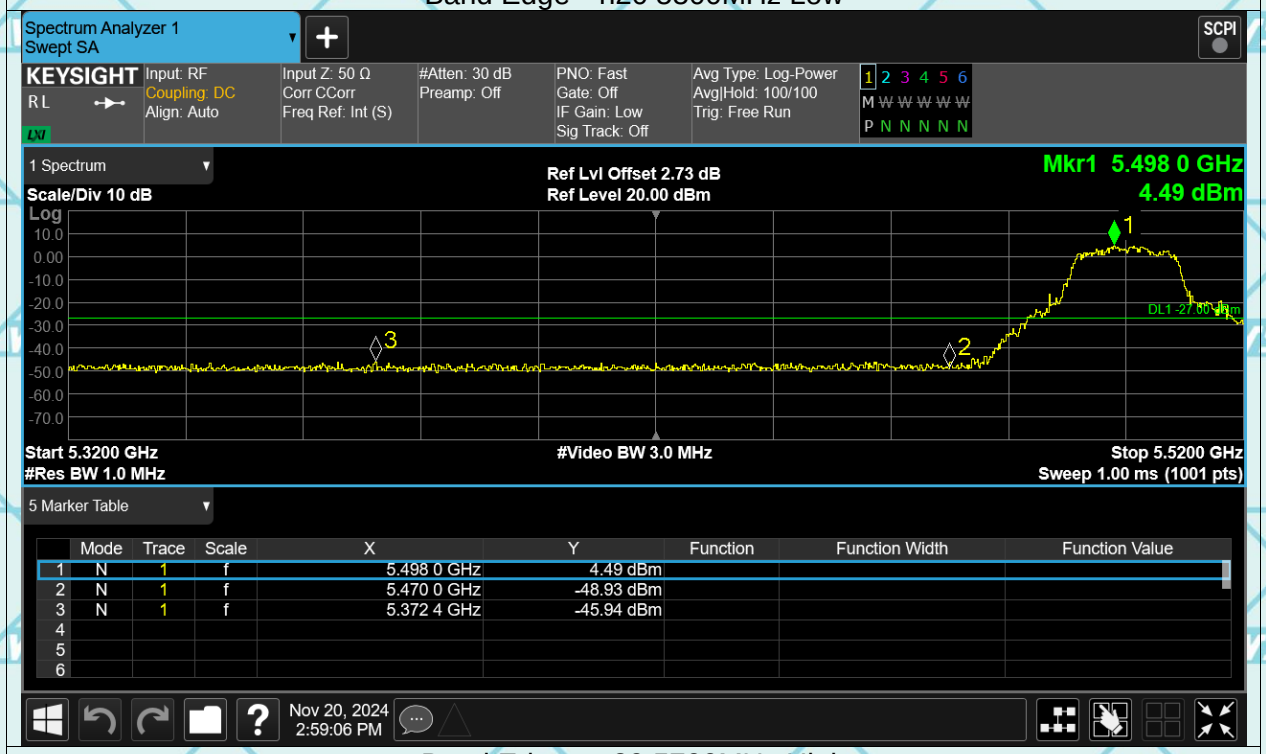
Band Edge n20 5260MHz Low



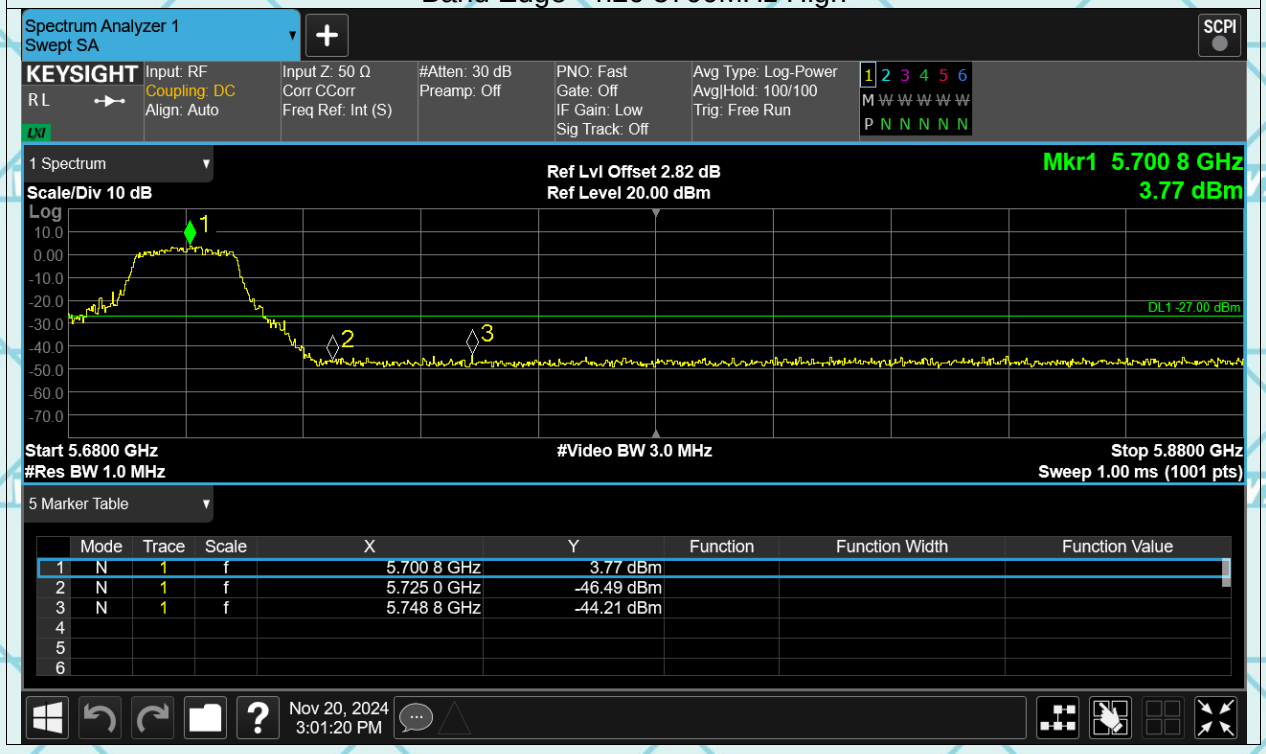
Band Edge n20 5320MHz High



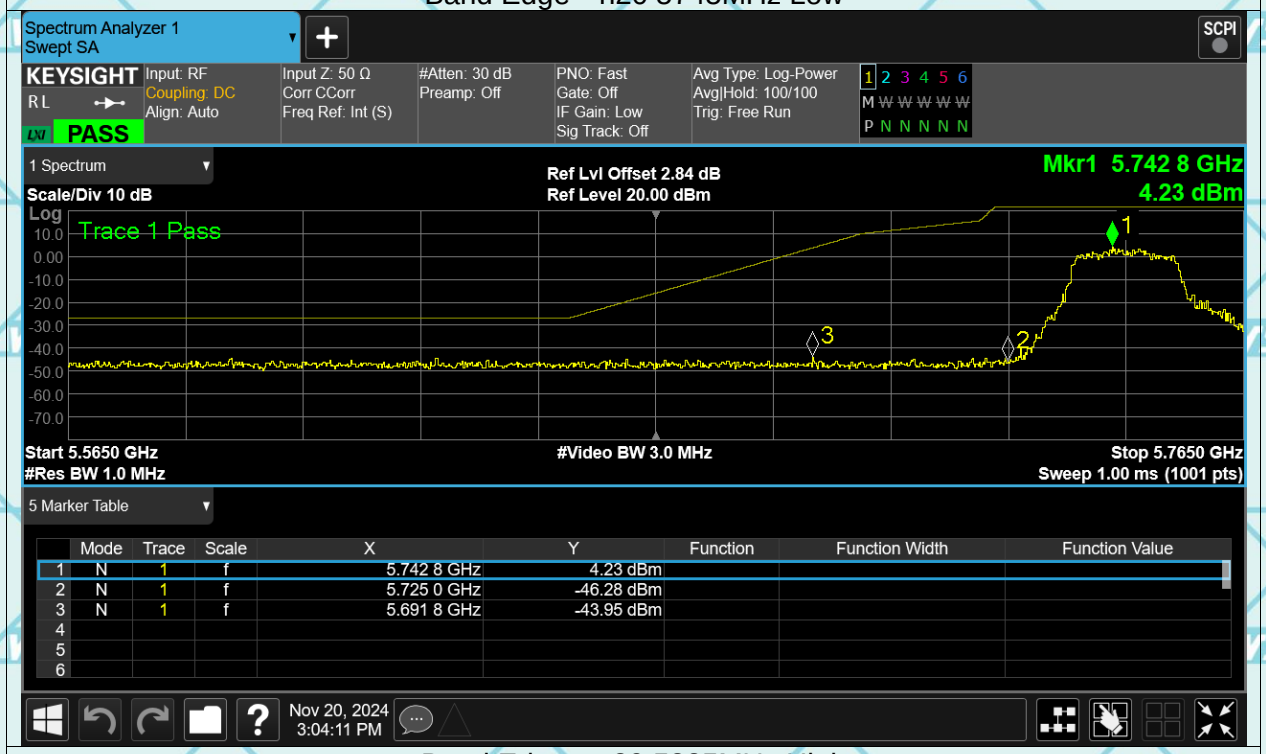
Band Edge n20 5500MHz Low



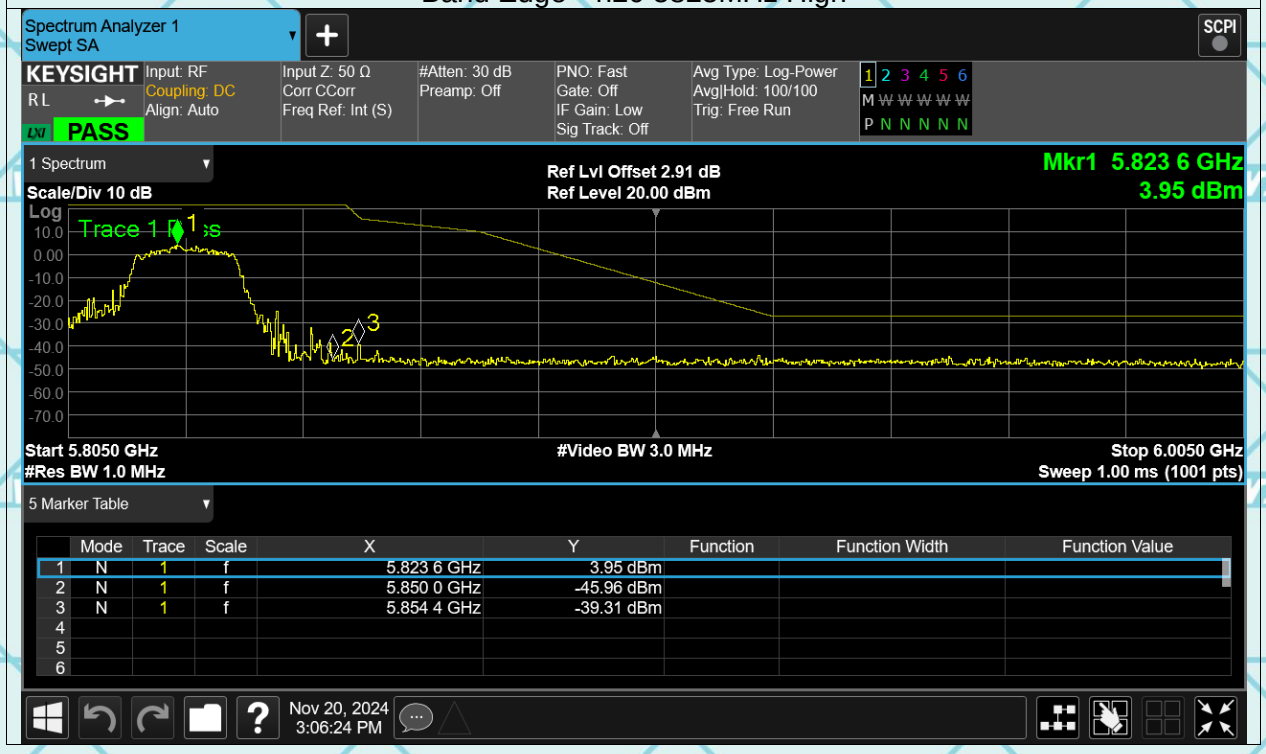
Band Edge n20 5700MHz High



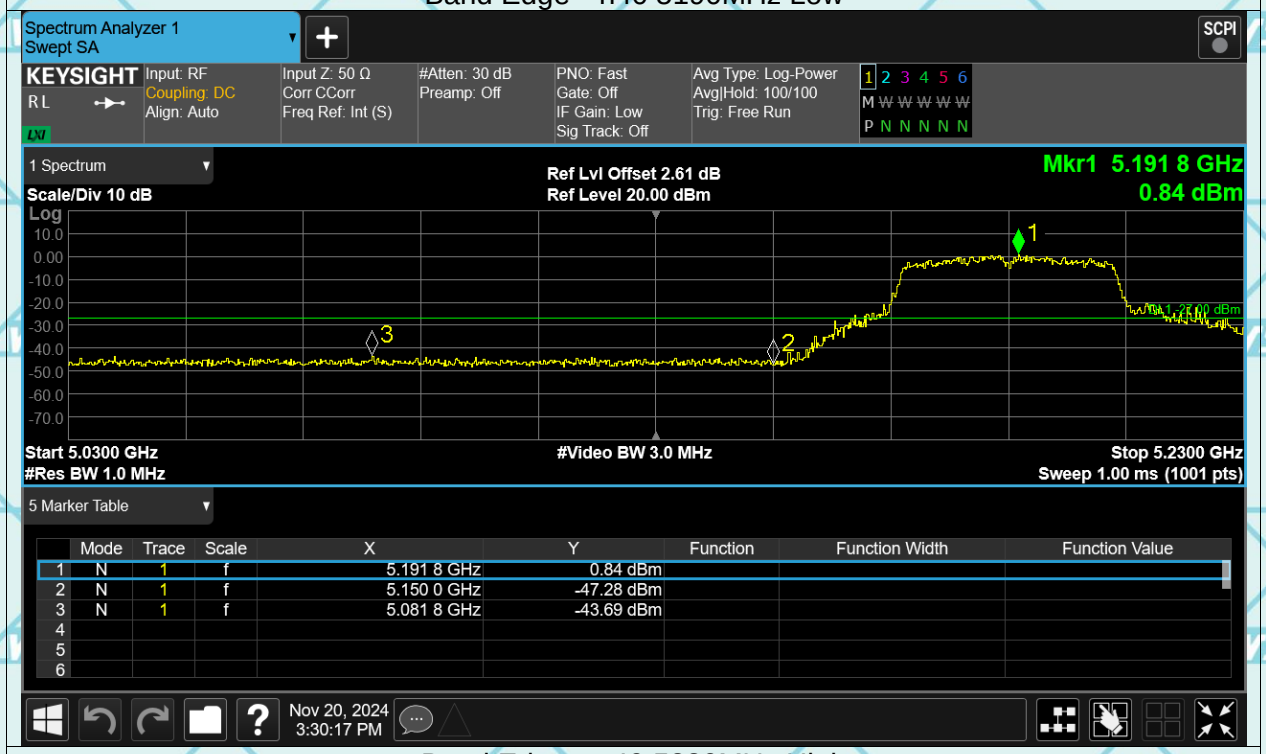
Band Edge n20 5745MHz Low



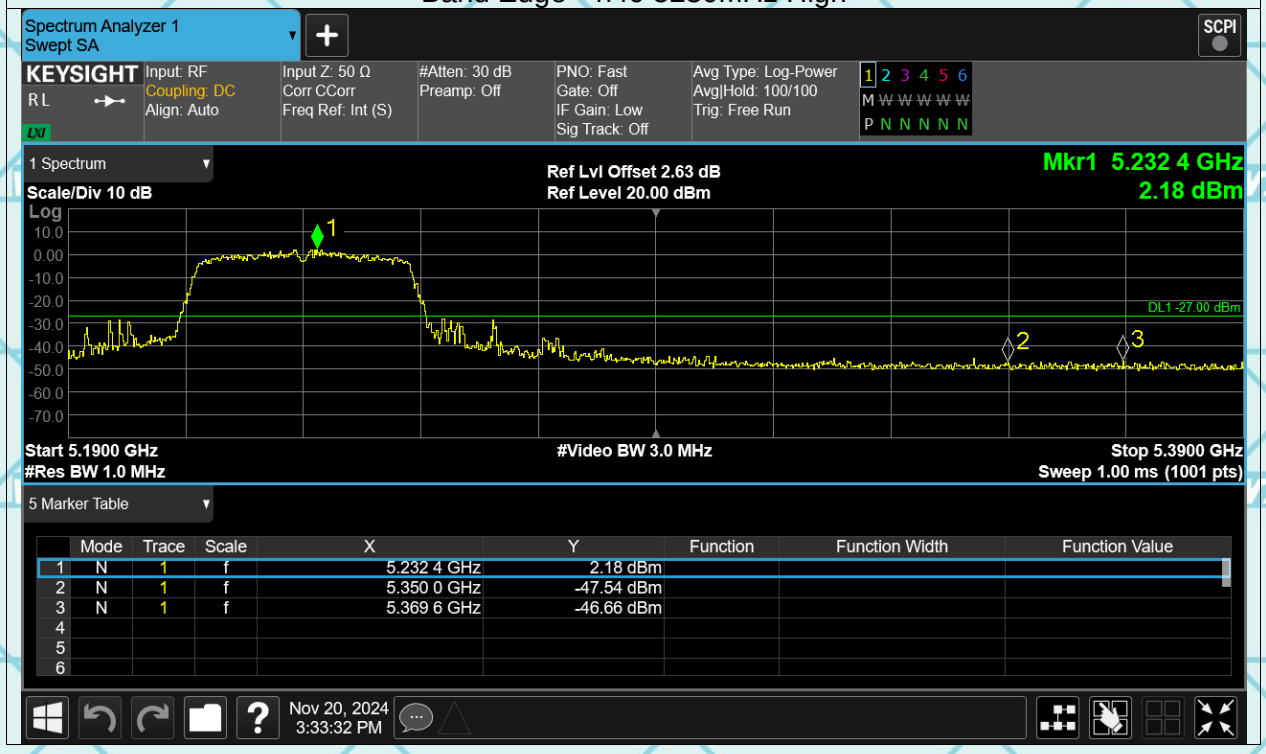
Band Edge n20 5825MHz High



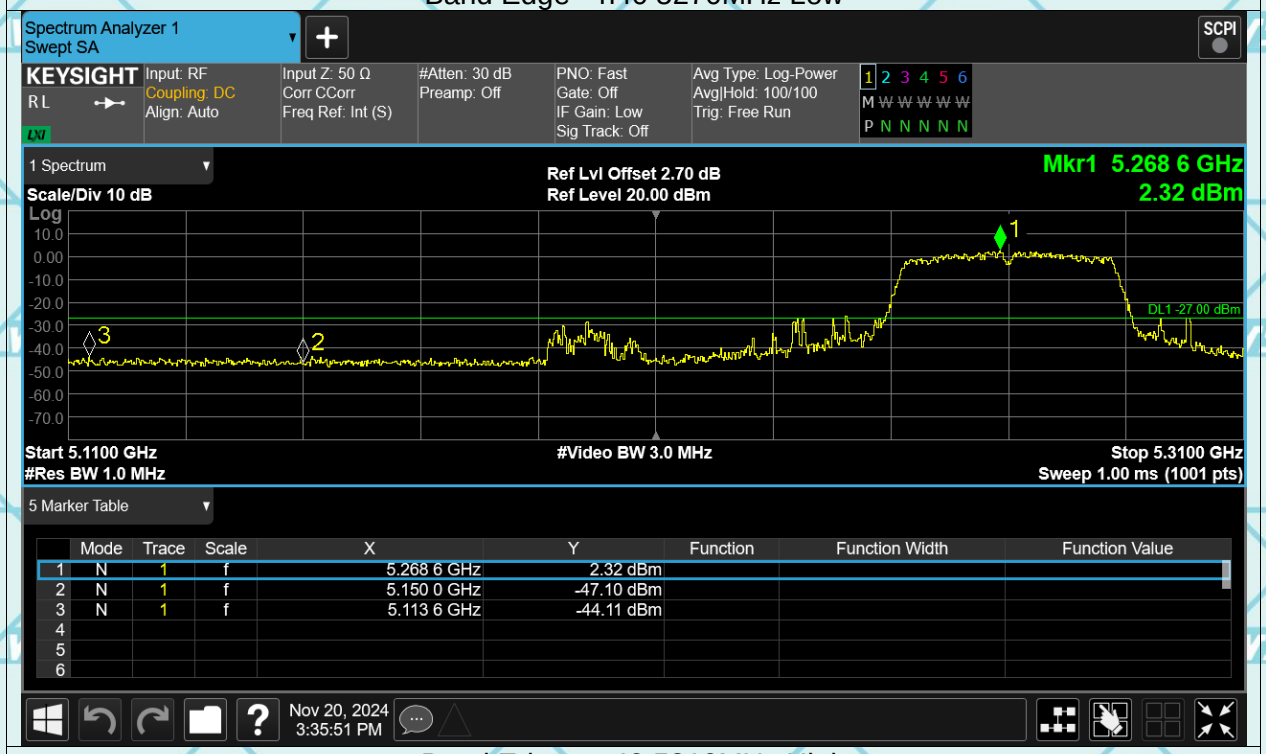
Band Edge n40 5190MHz Low



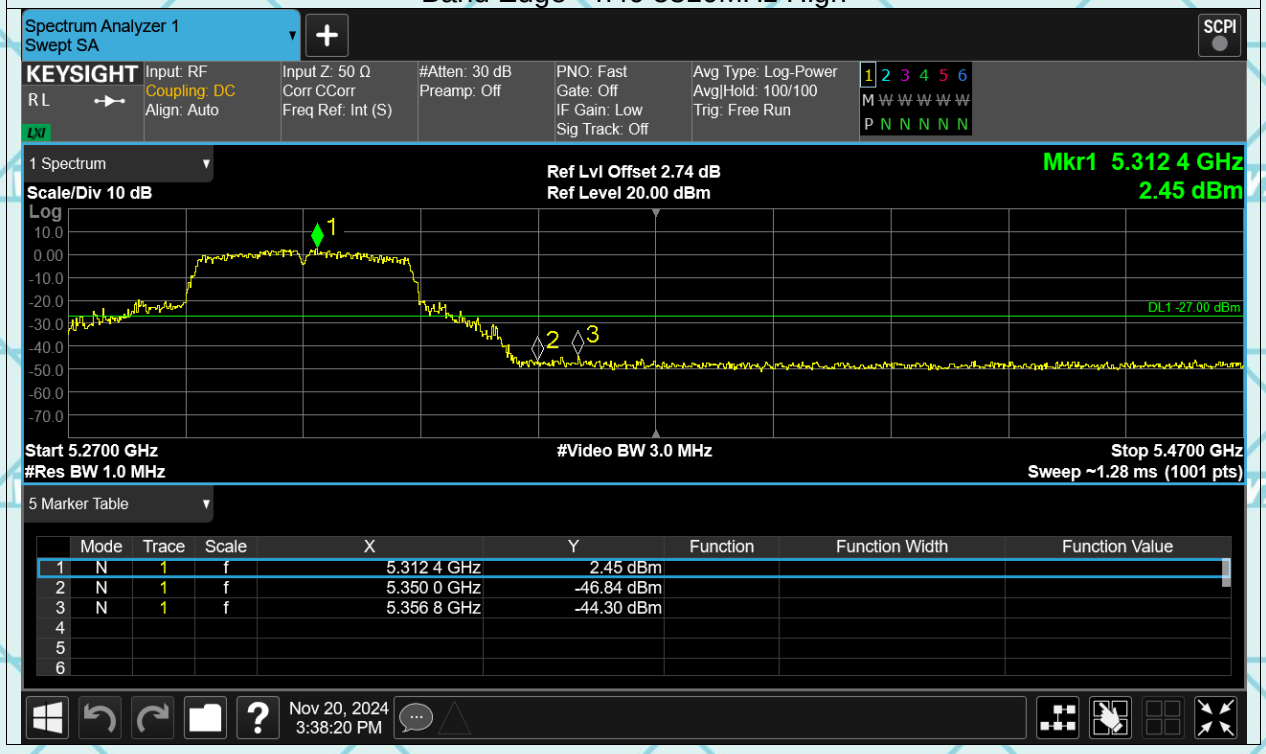
Band Edge n40 5230MHz High



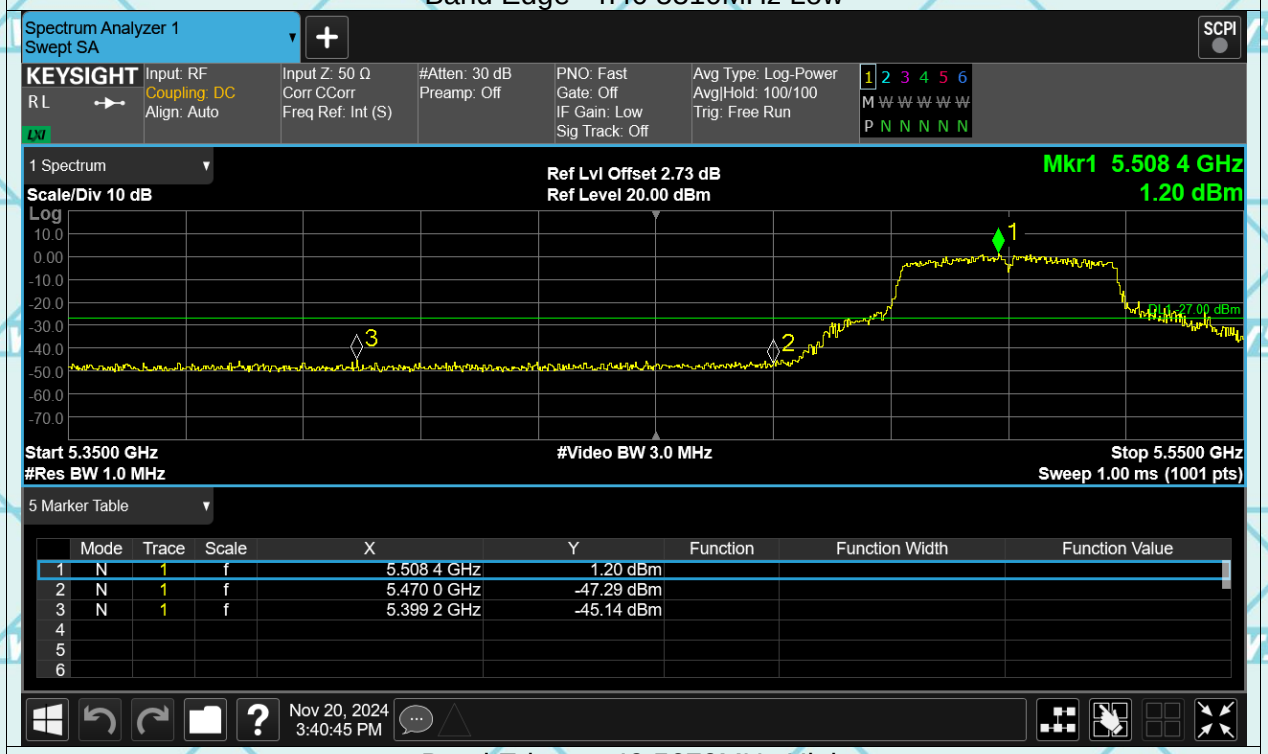
Band Edge n40 5270MHz Low



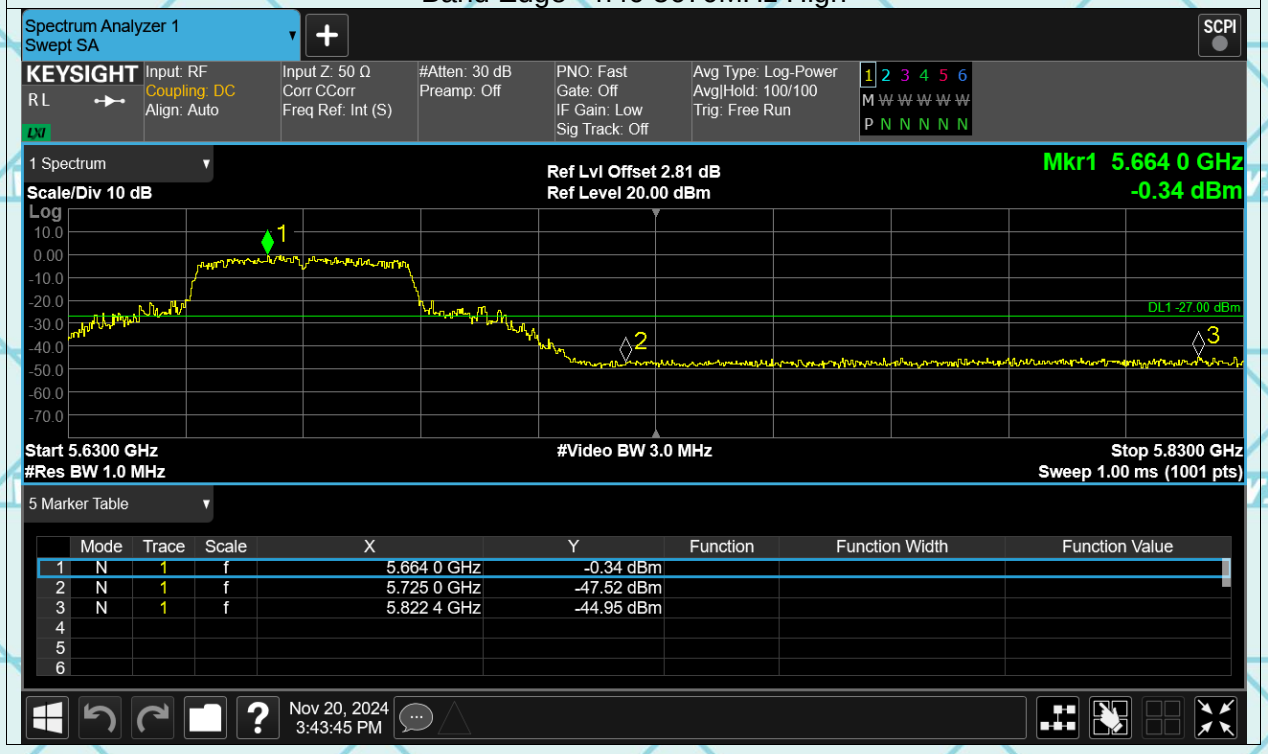
Band Edge n40 5310MHz High



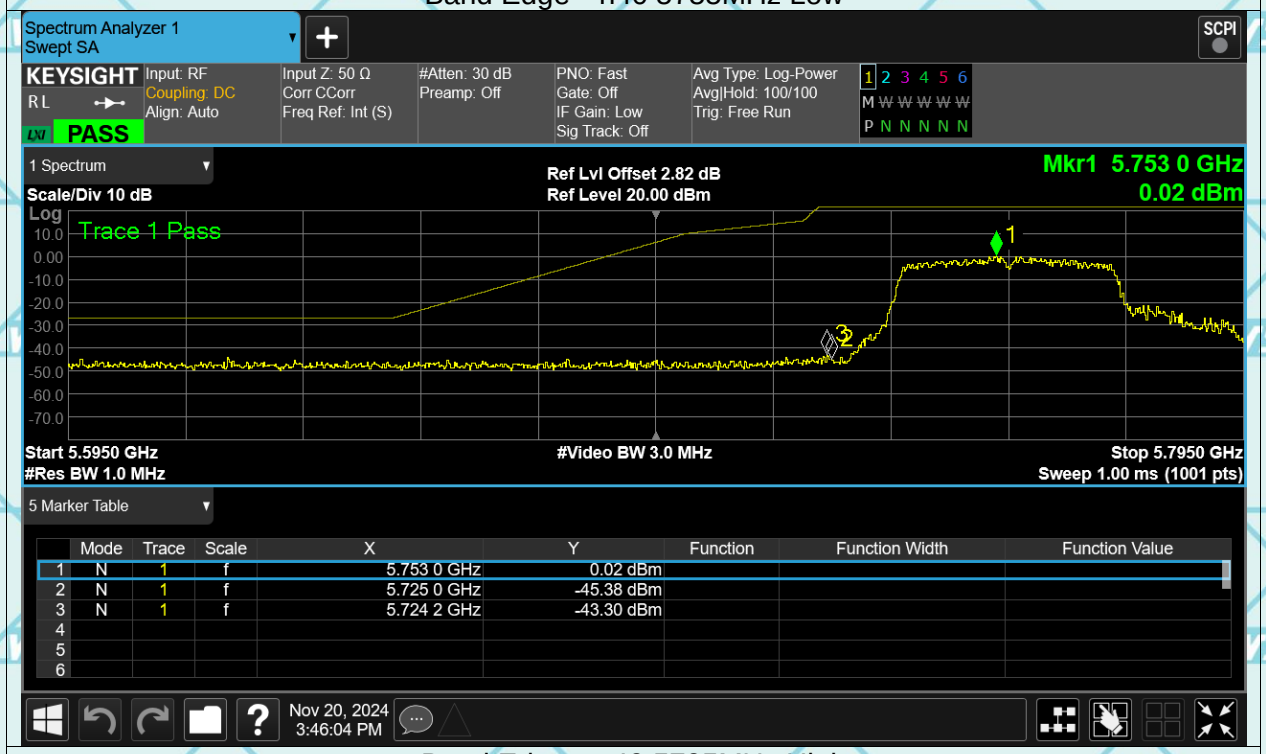
Band Edge n40 5510MHz Low



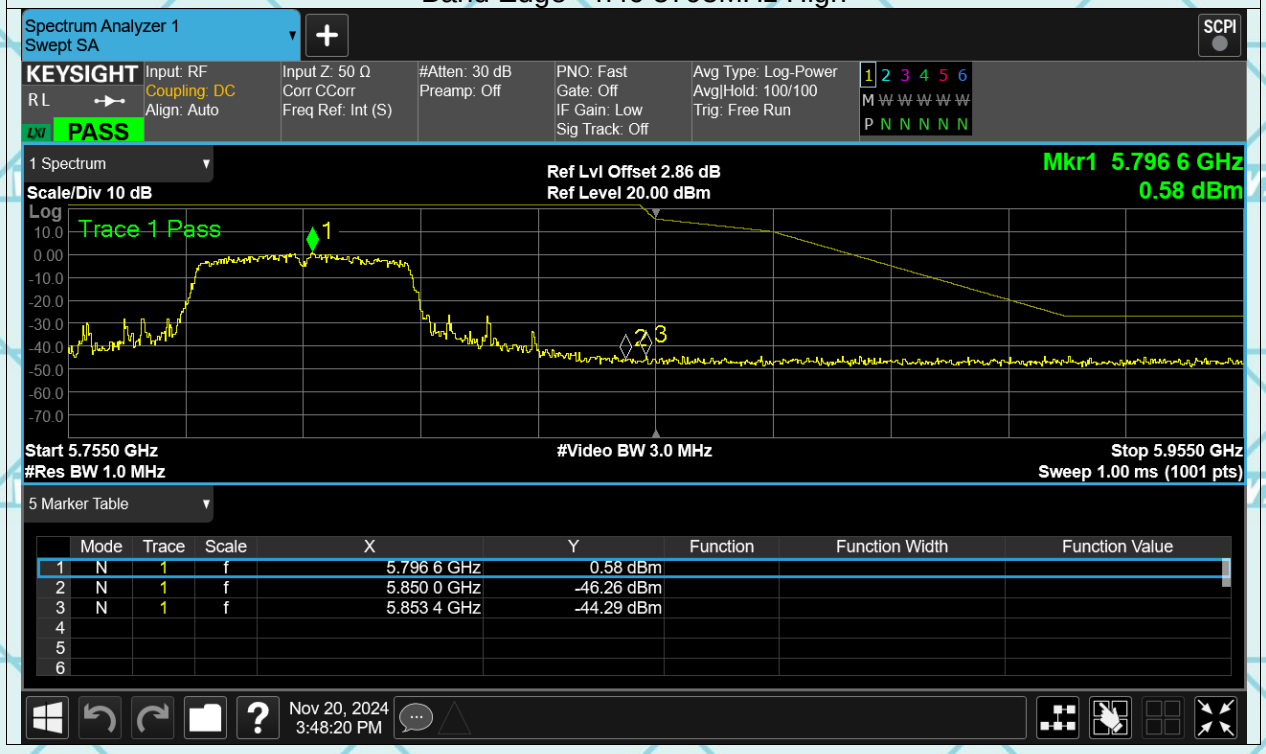
Band Edge n40 5670MHz High



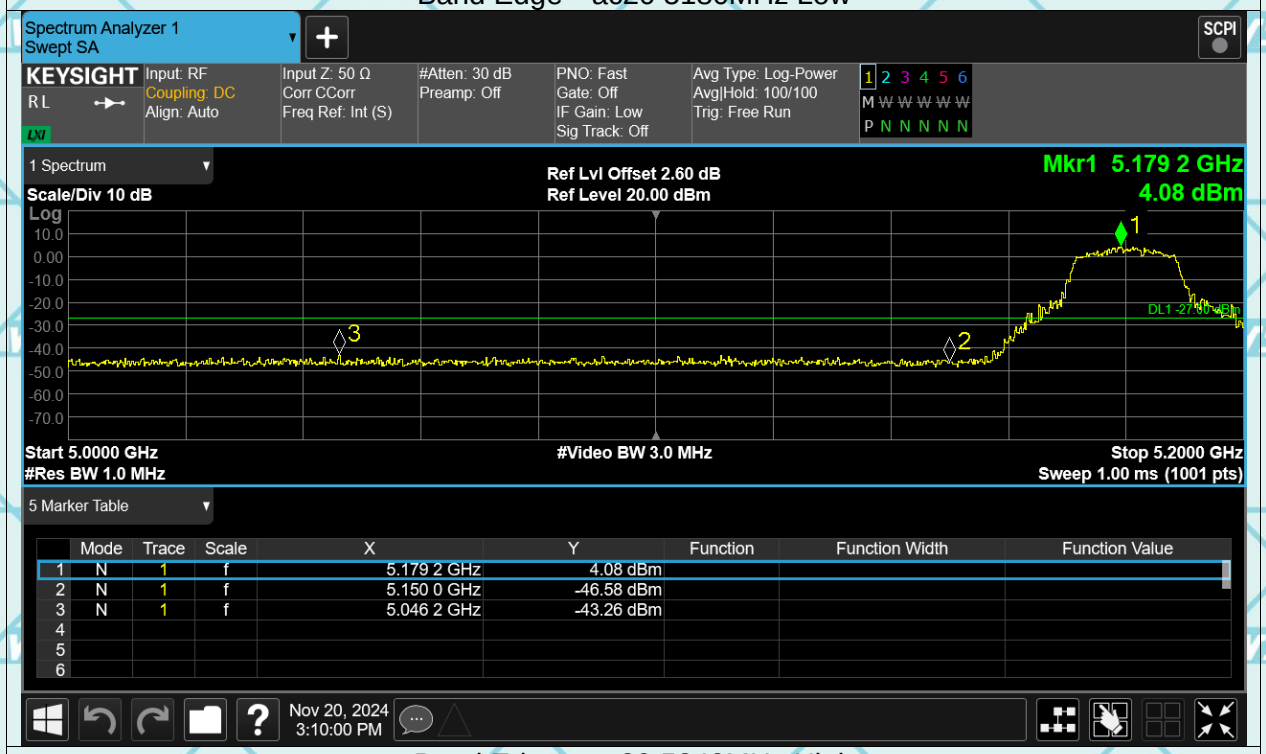
Band Edge n40 5755MHz Low



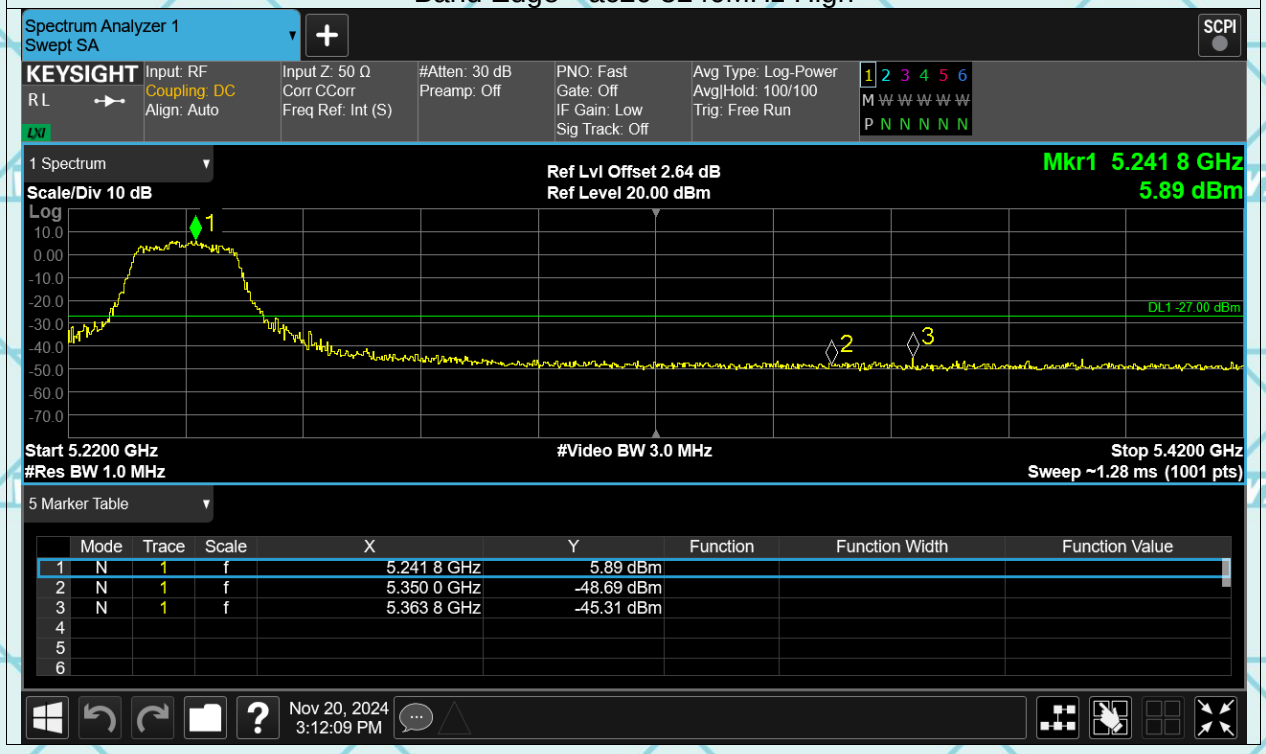
Band Edge n40 5795MHz High



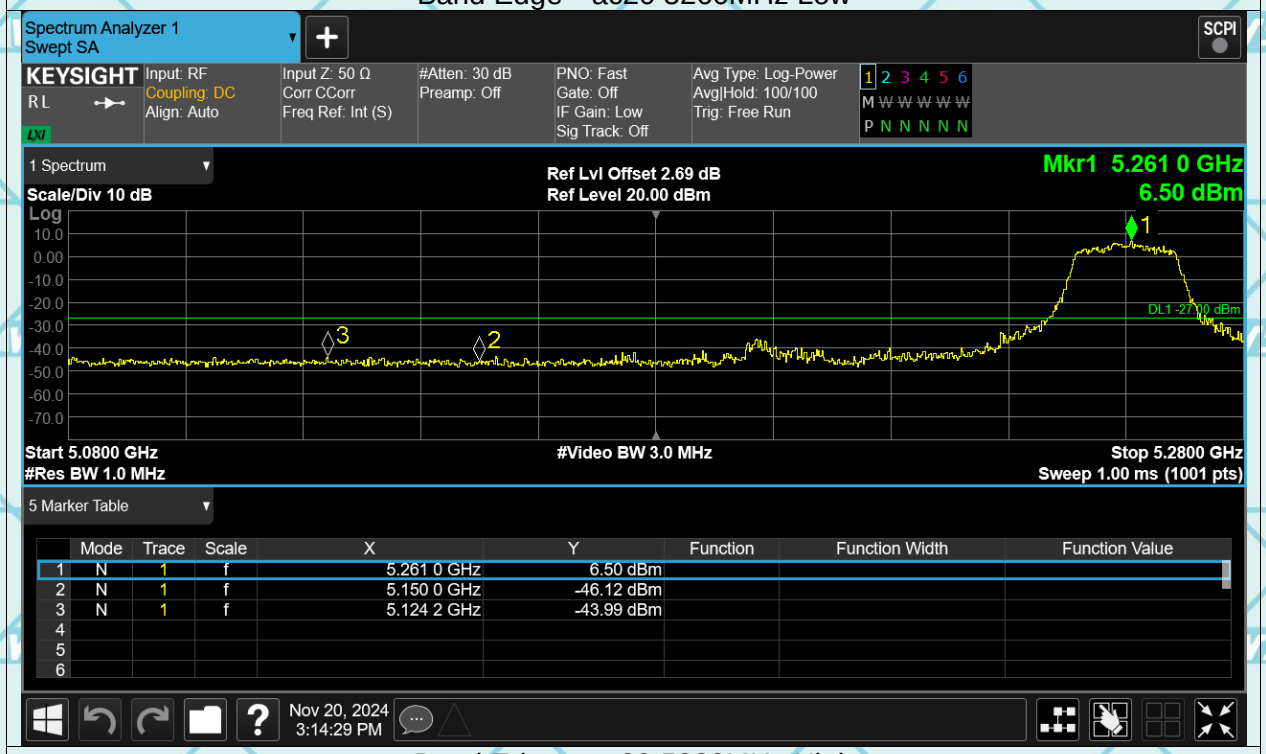
Band Edge ac20 5180MHz Low



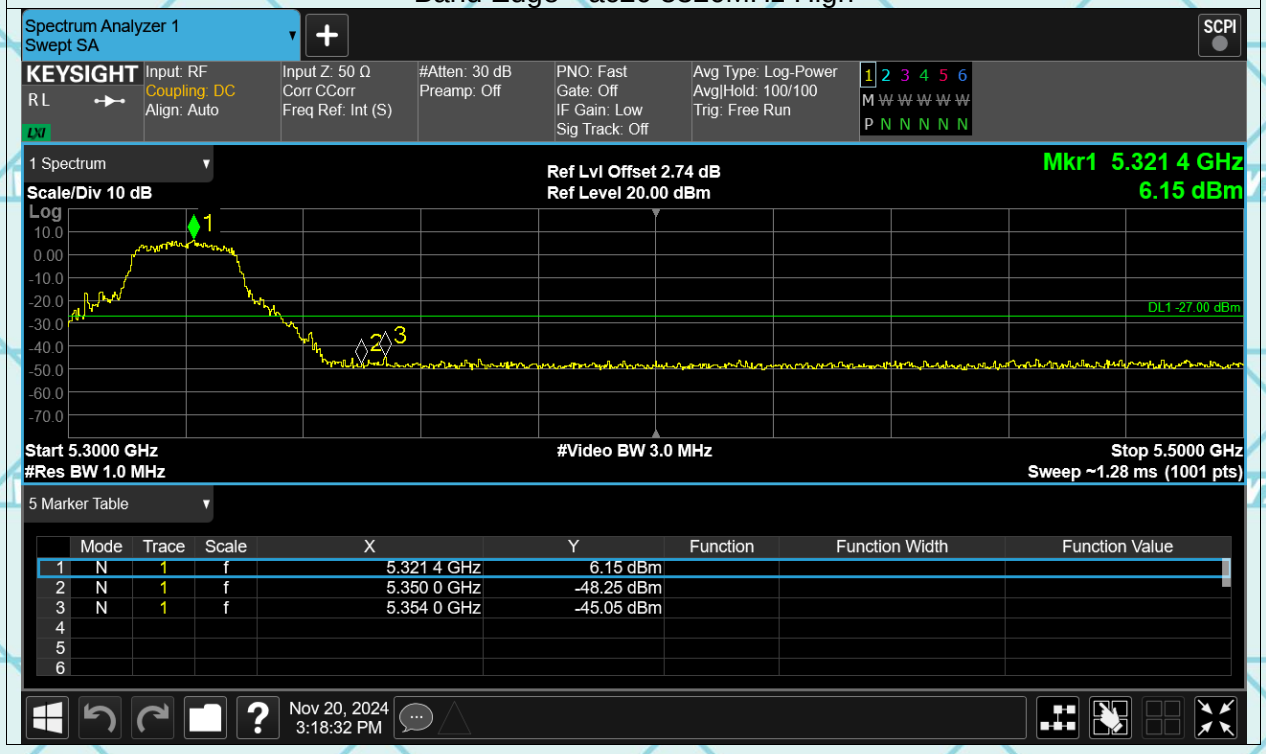
Band Edge ac20 5240MHz High



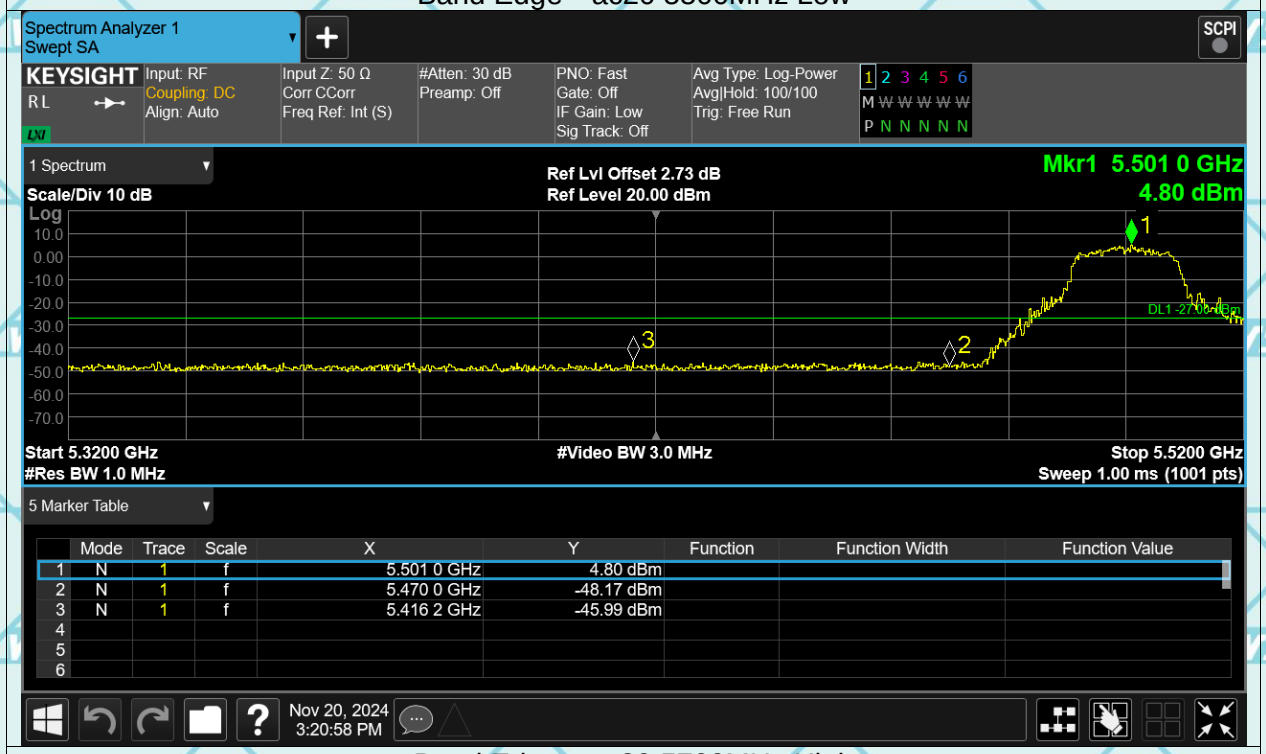
Band Edge ac20 5260MHz Low



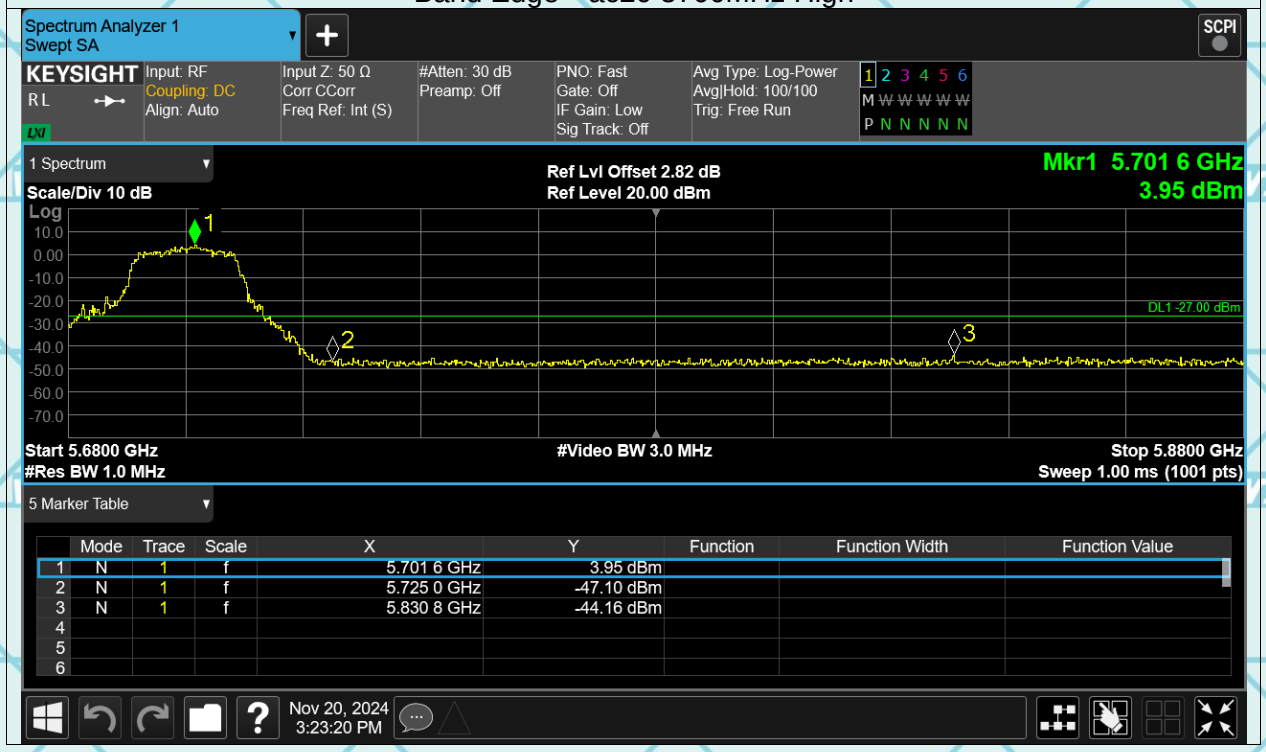
Band Edge ac20 5320MHz High



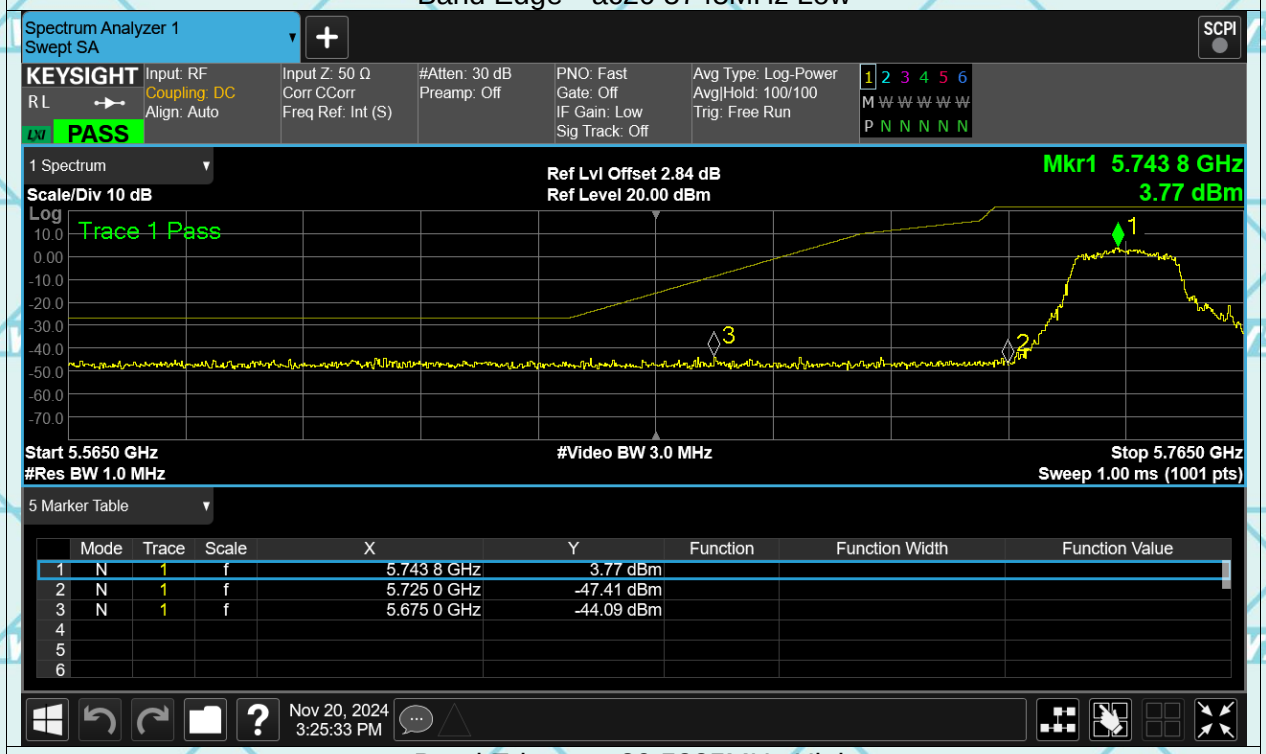
Band Edge ac20 5500MHz Low



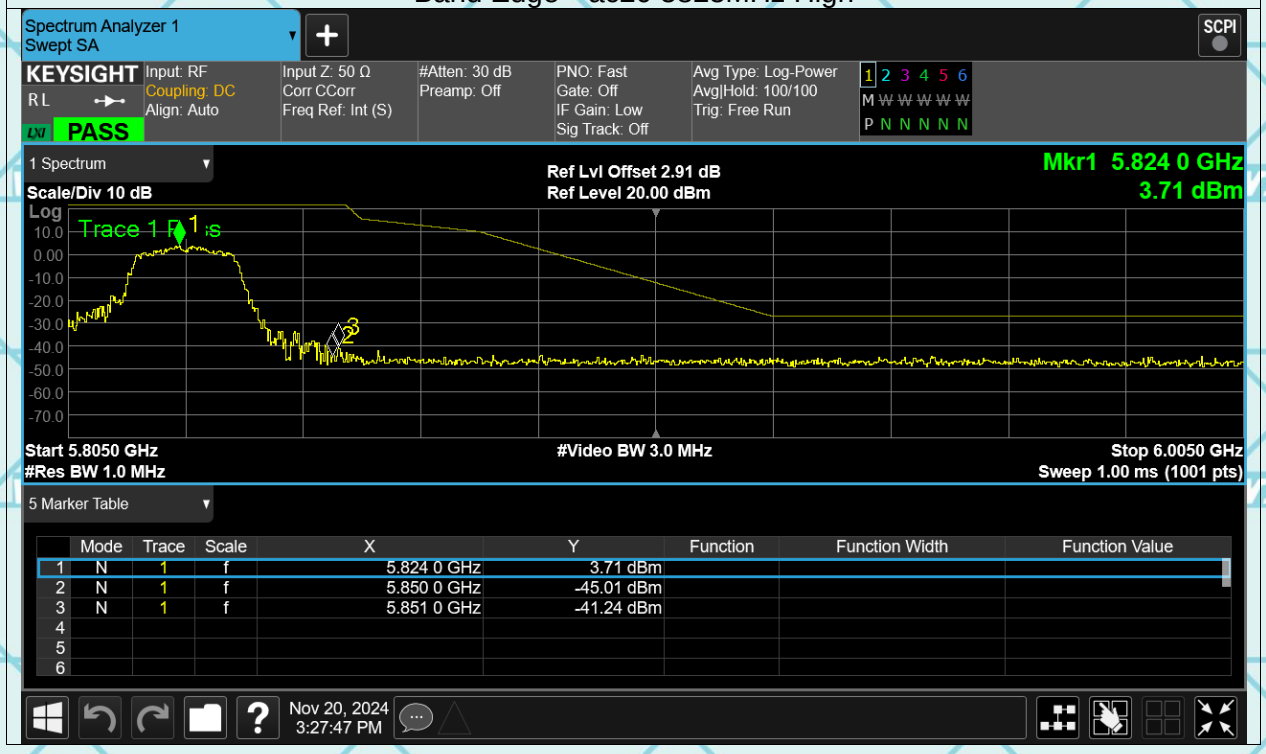
Band Edge ac20 5700MHz High



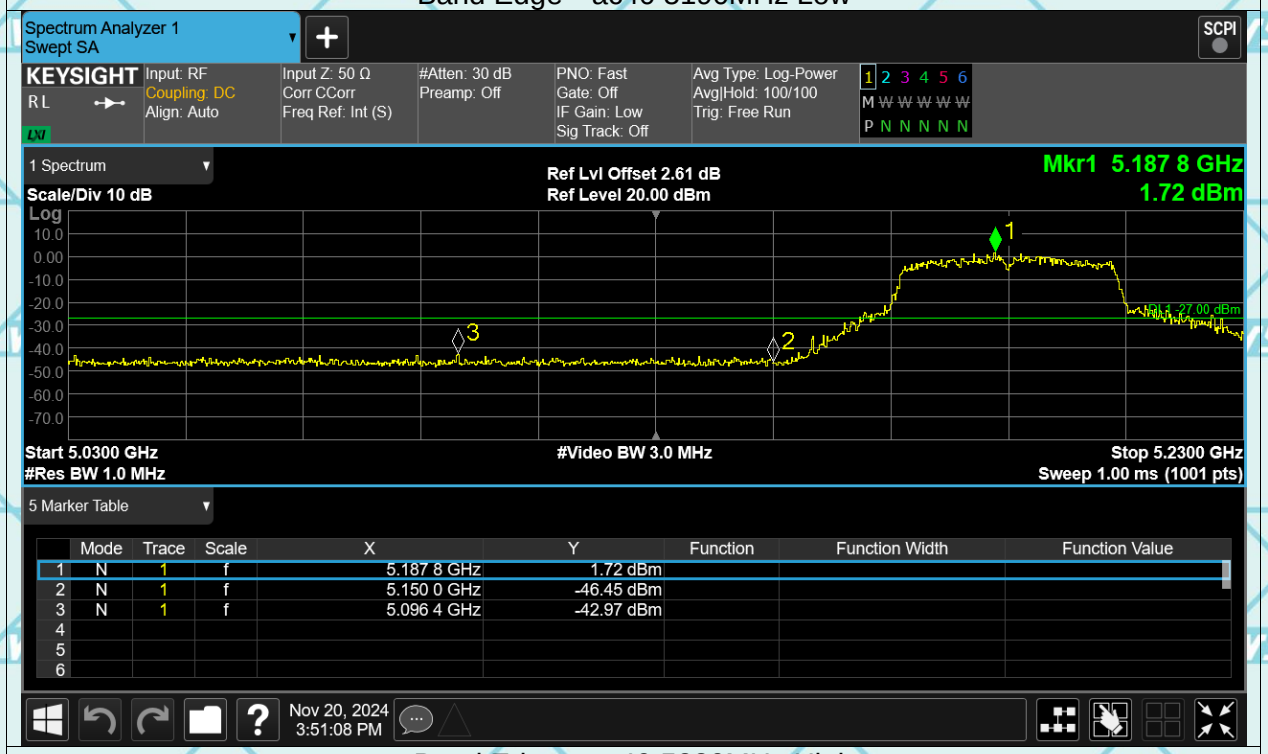
Band Edge ac20 5745MHz Low



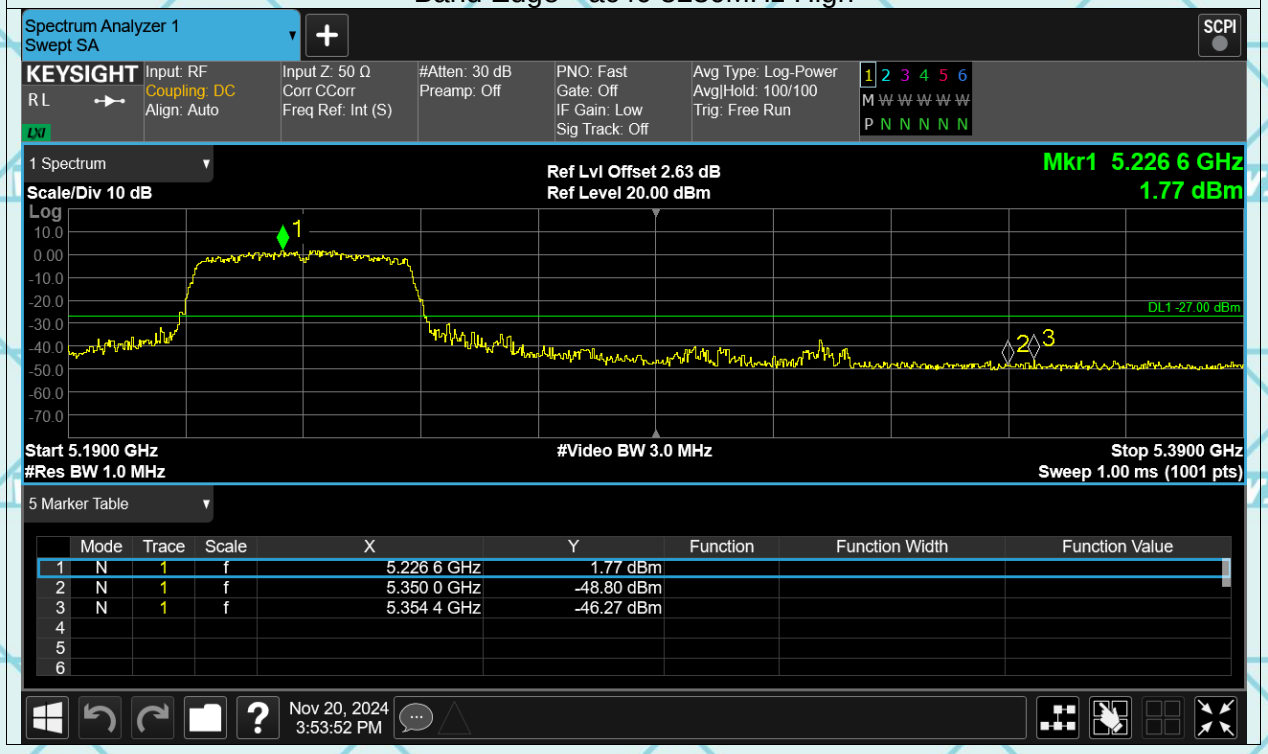
Band Edge ac20 5825MHz High



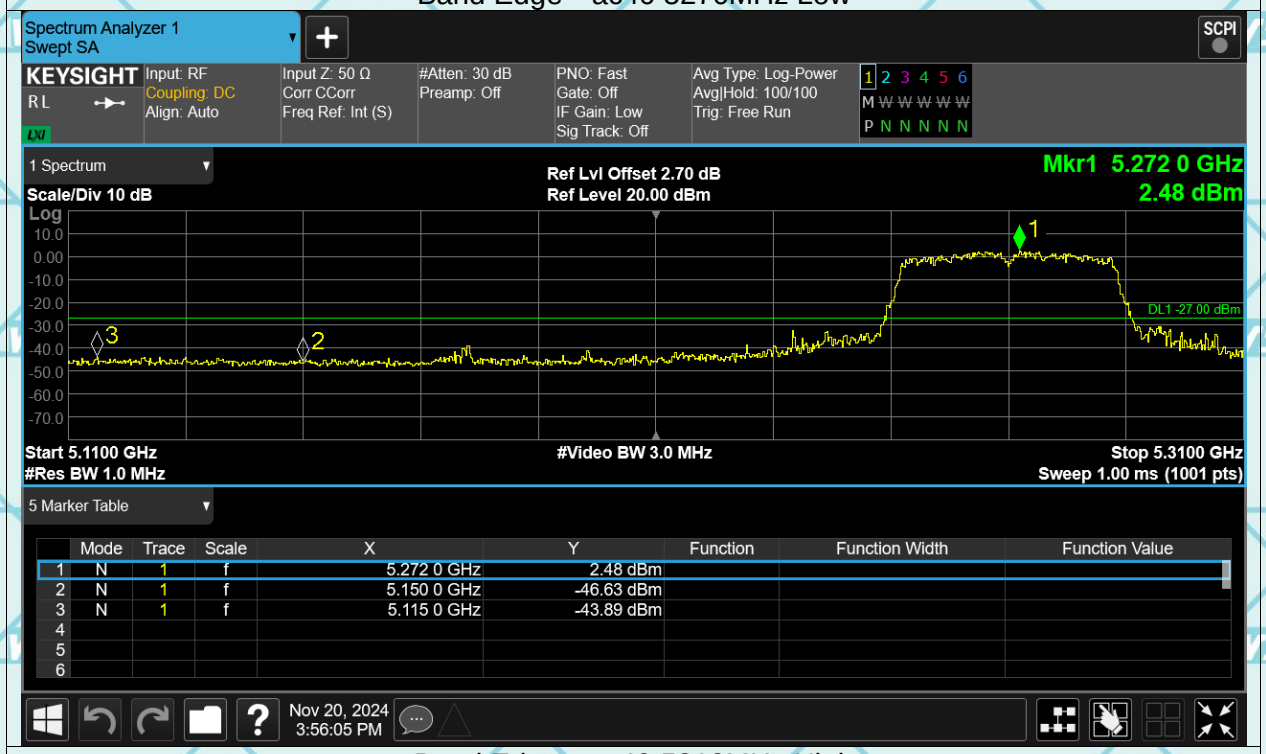
Band Edge ac40 5190MHz Low



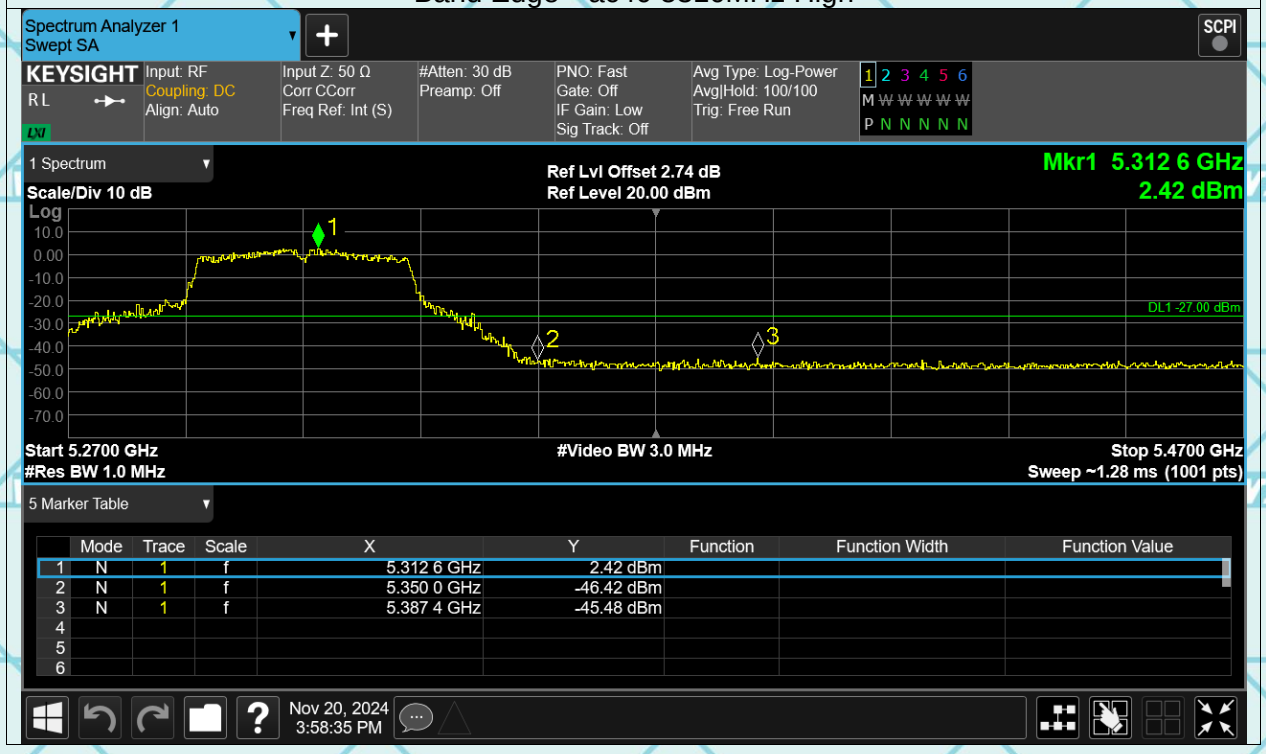
Band Edge ac40 5230MHz High



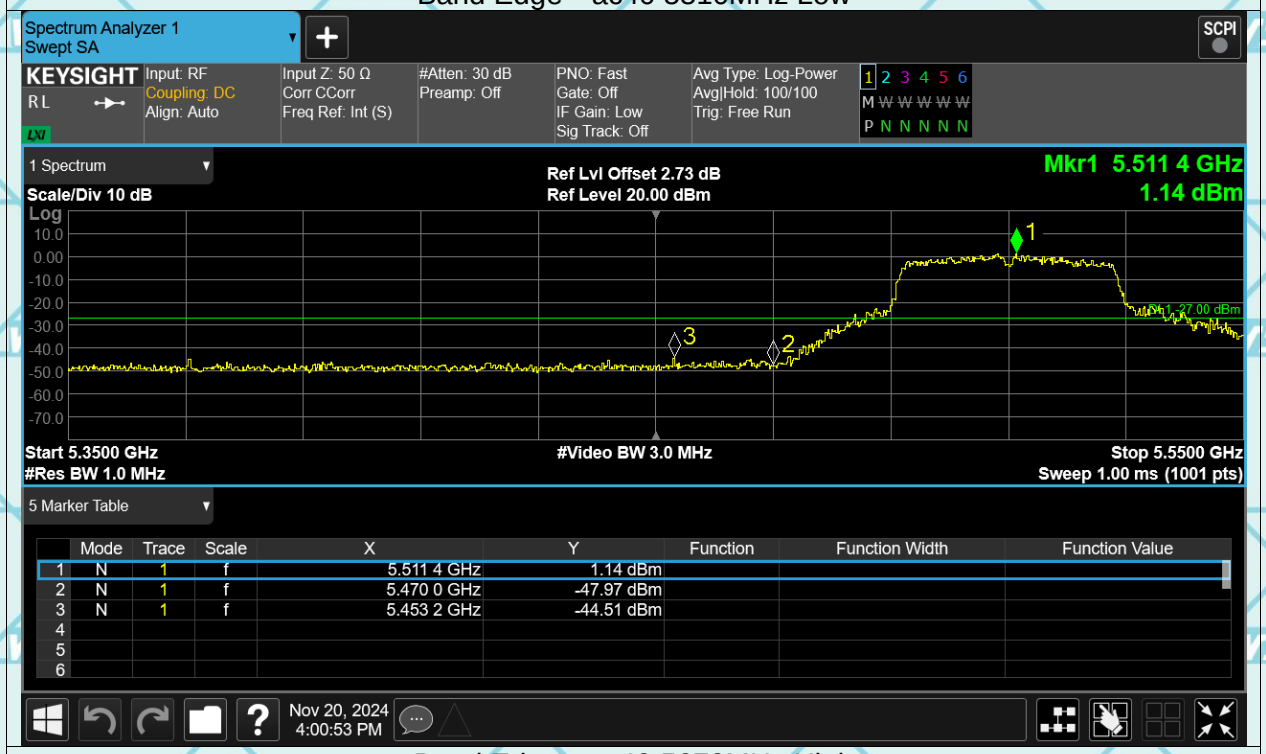
Band Edge ac40 5270MHz Low



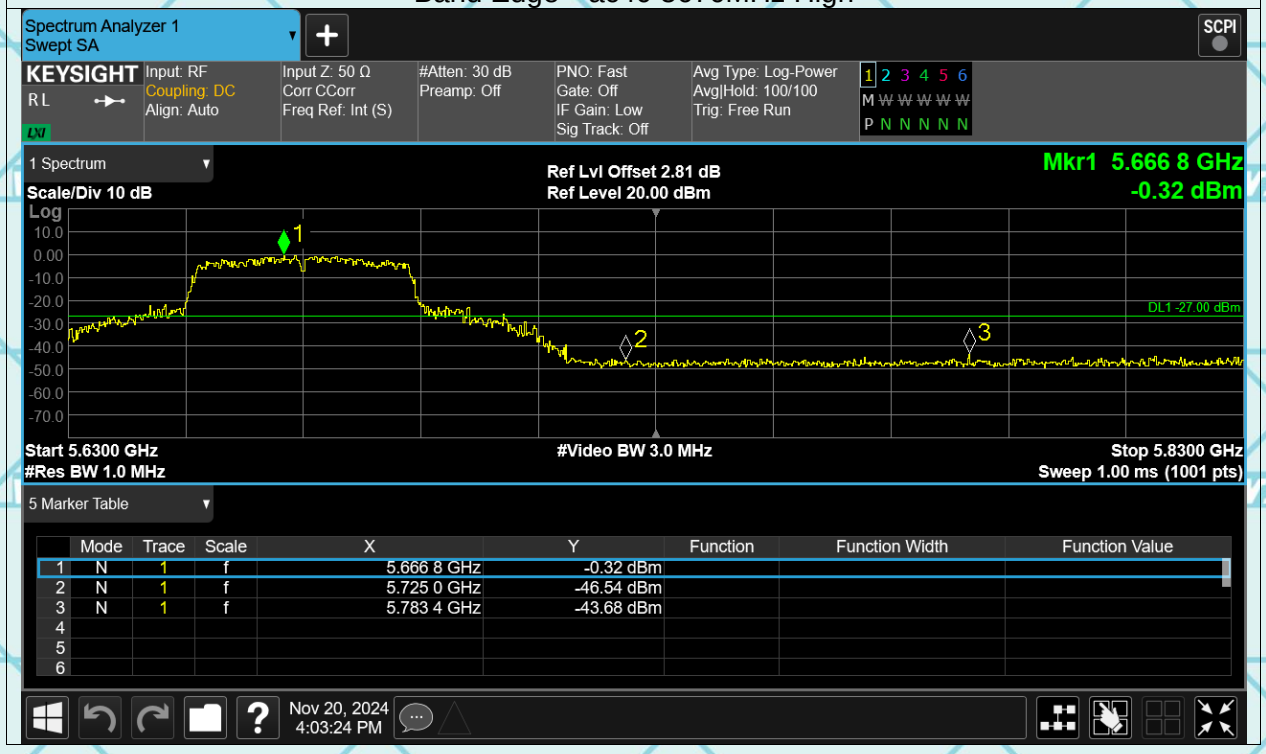
Band Edge ac40 5310MHz High



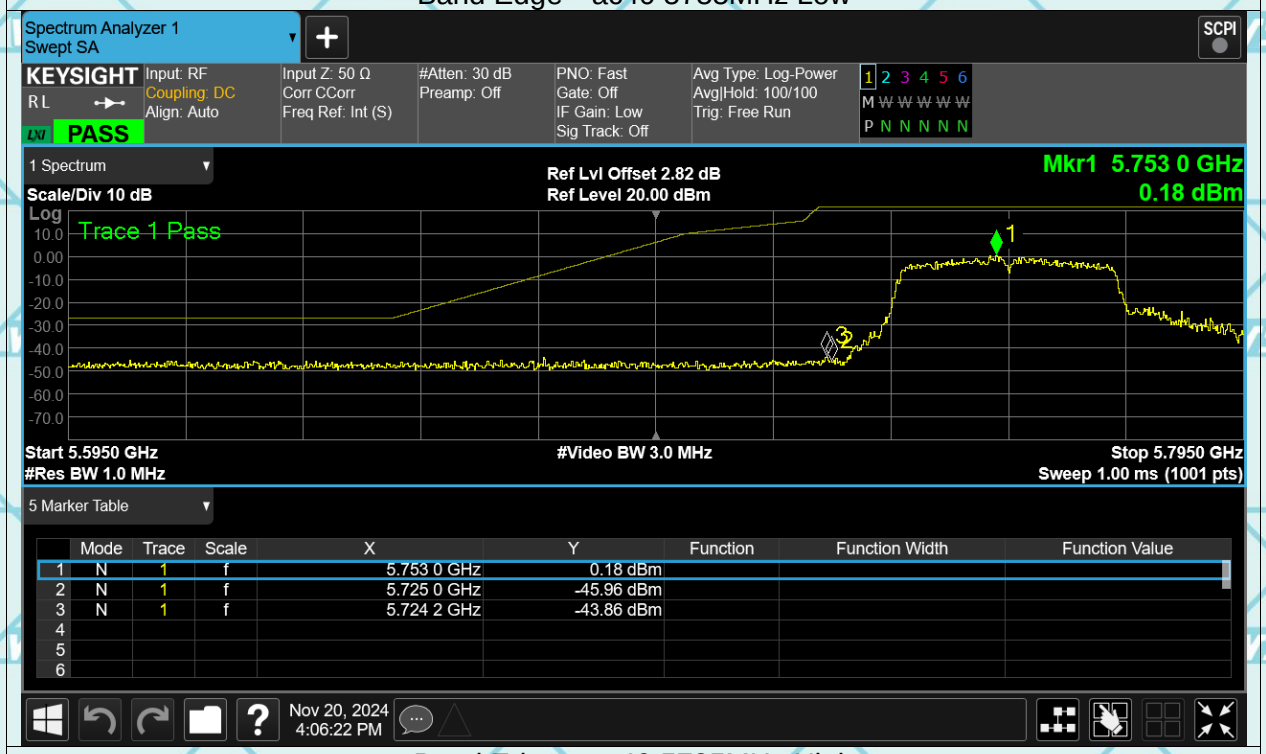
Band Edge ac40 5510MHz Low



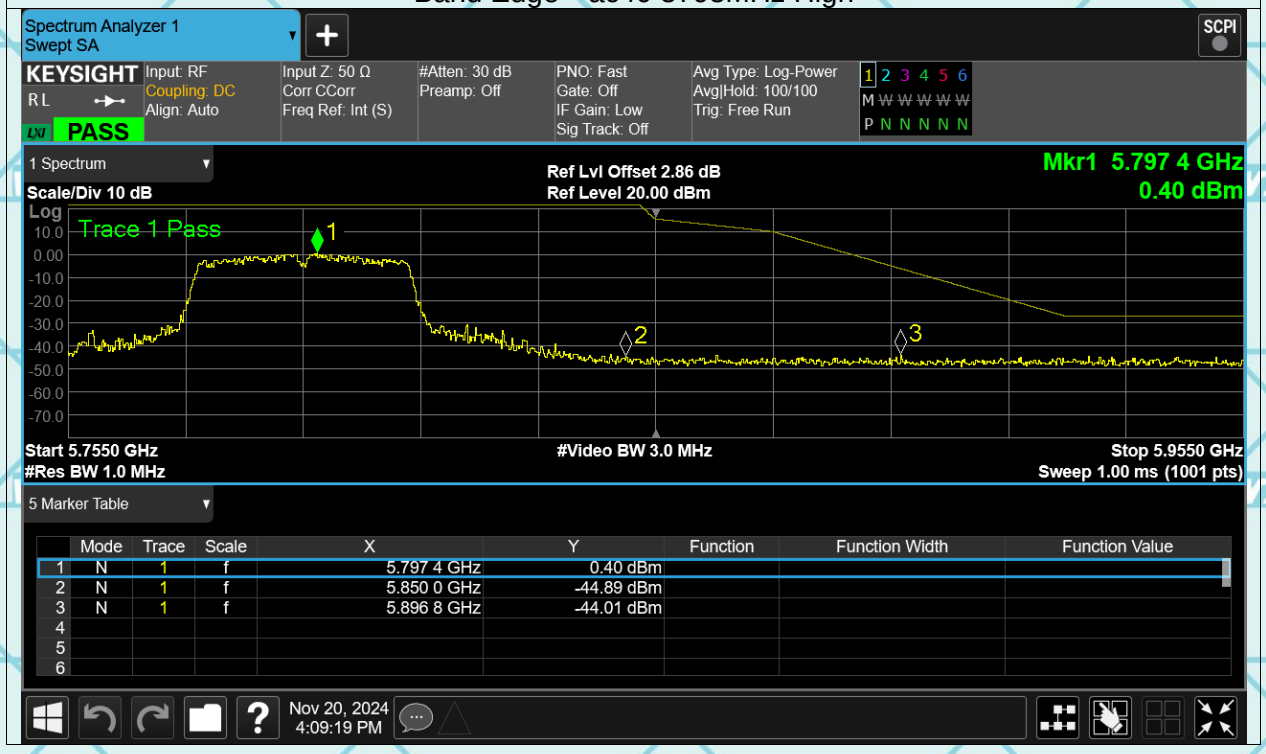
Band Edge ac40 5670MHz High



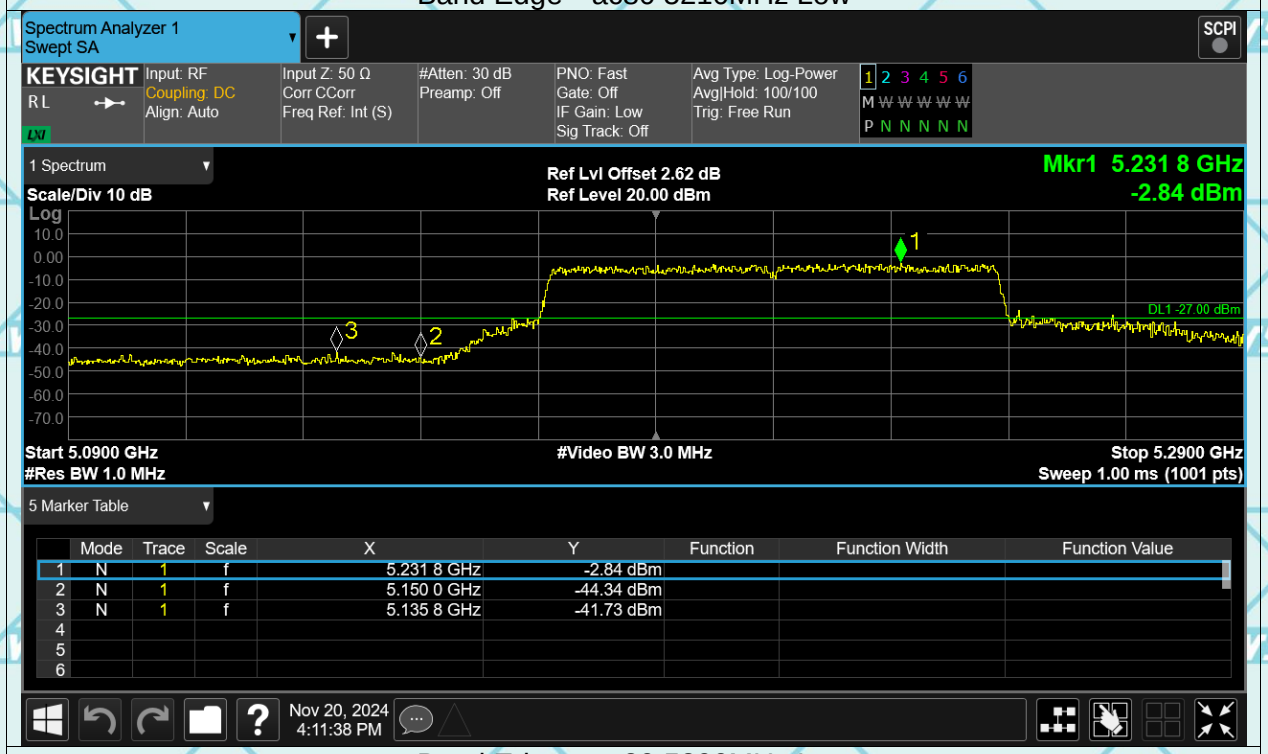
Band Edge ac40 5755MHz Low



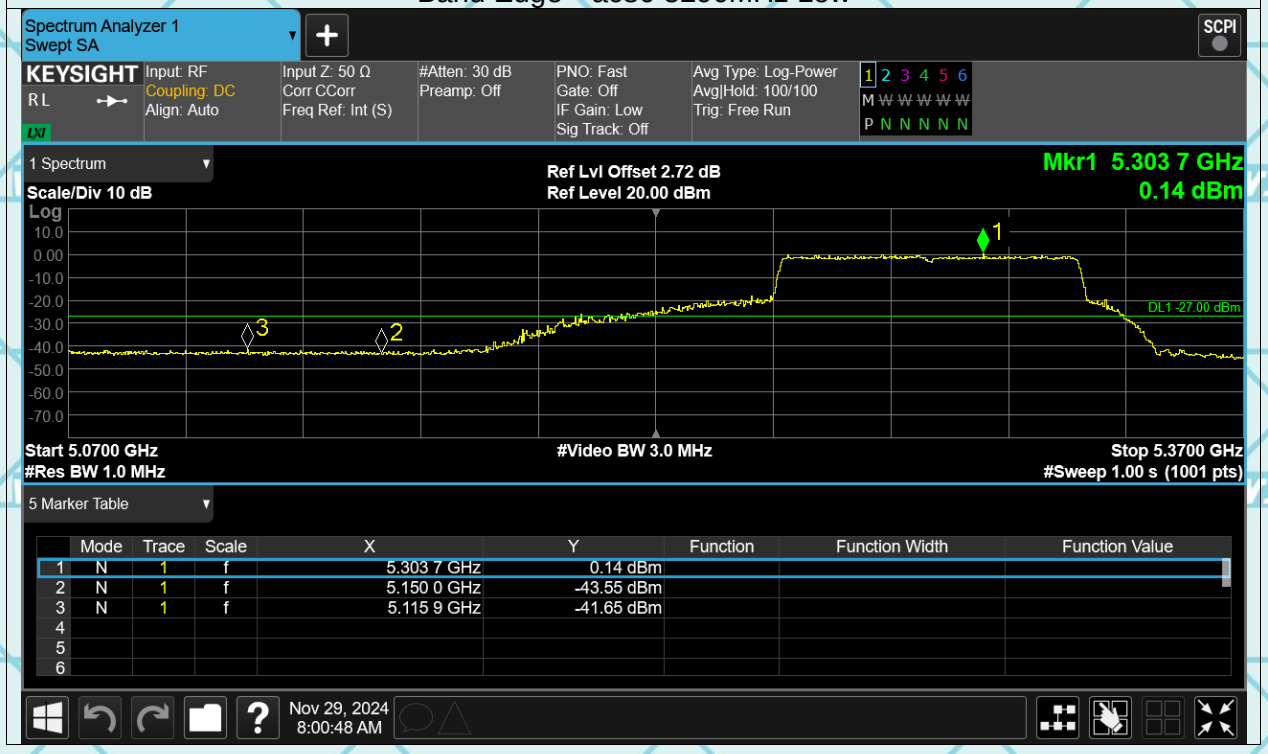
Band Edge ac40 5795MHz High



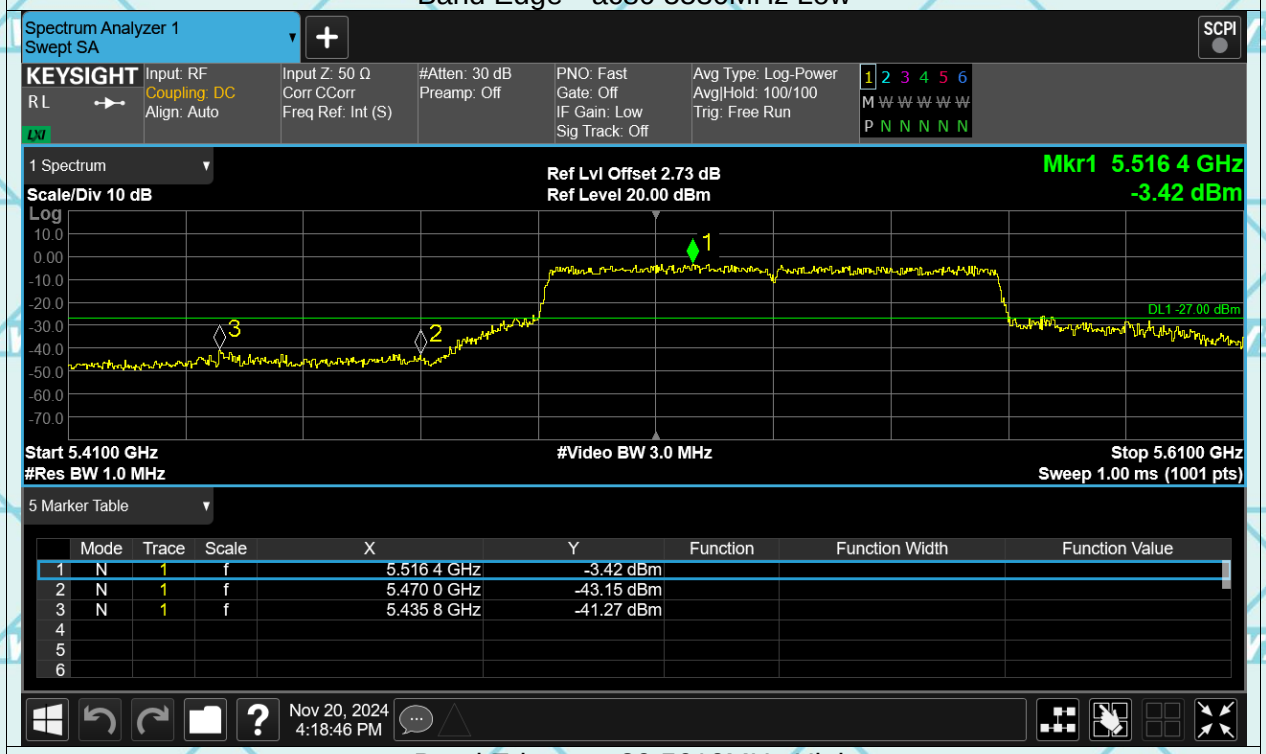
Band Edge ac80 5210MHz Low



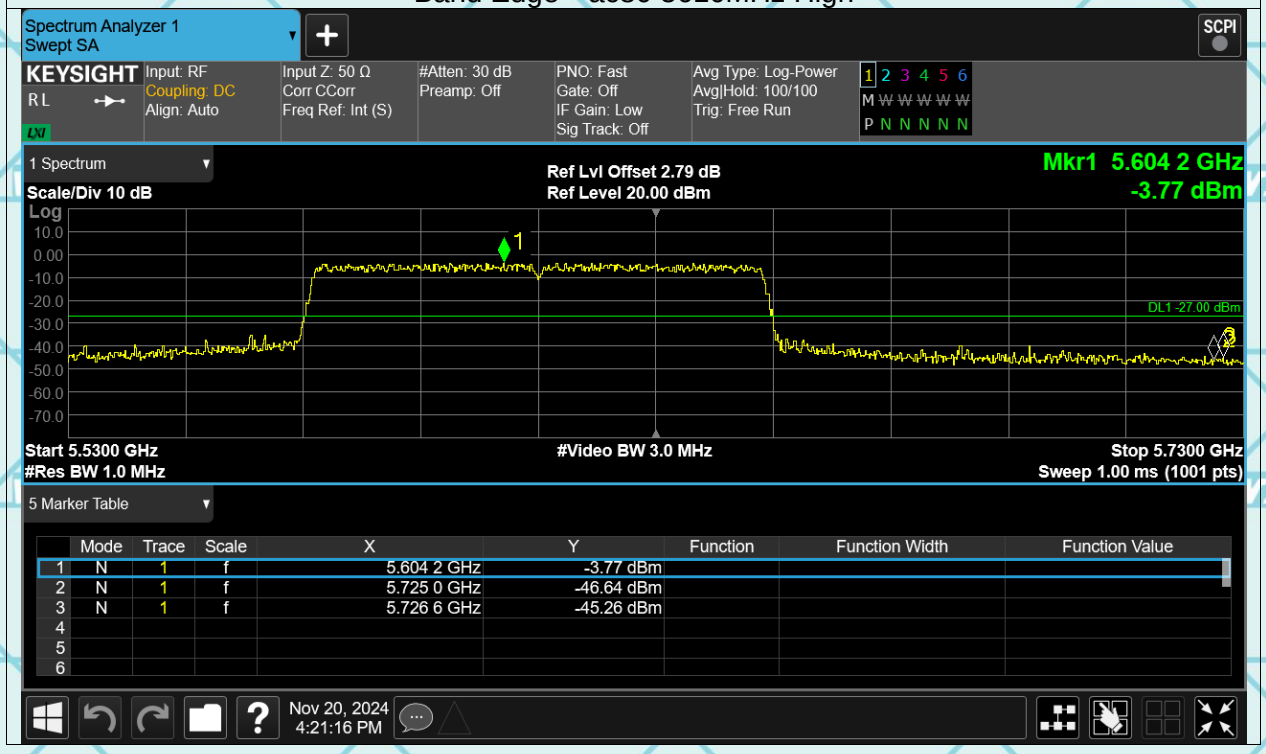
Band Edge ac80 5290MHz Low



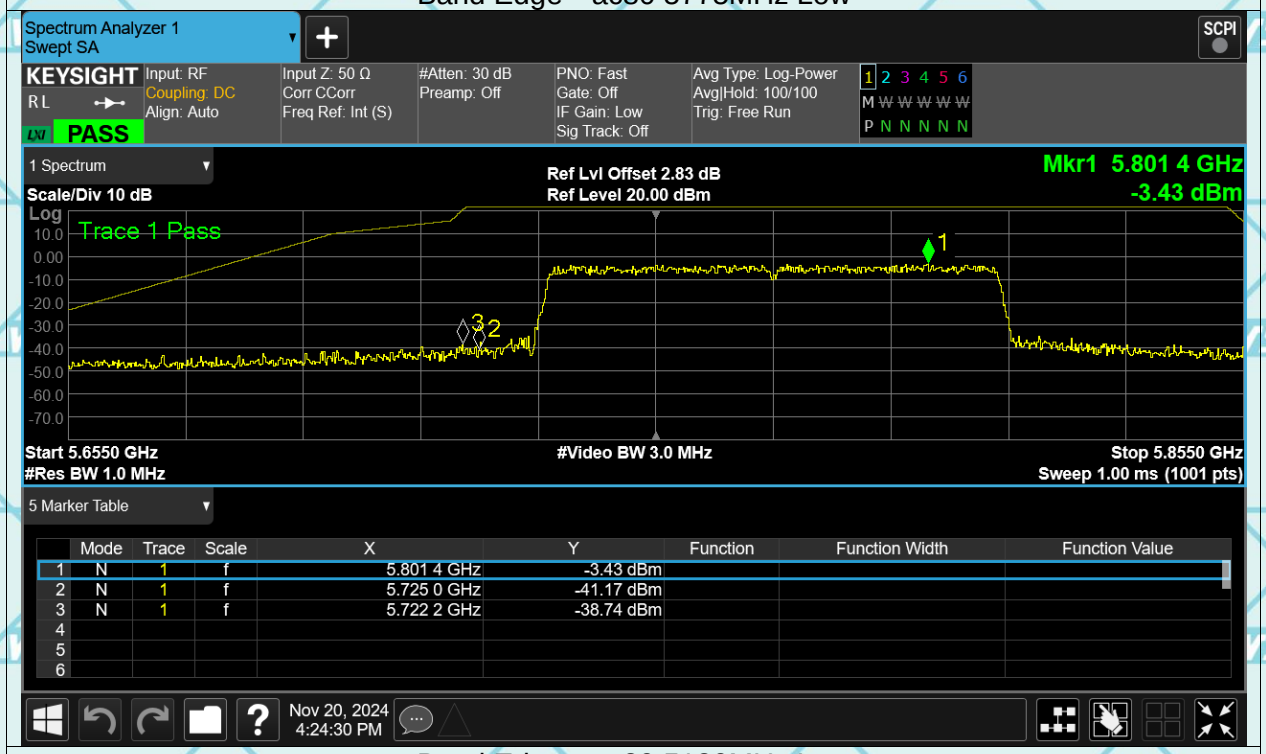
Band Edge ac80 5530MHz Low



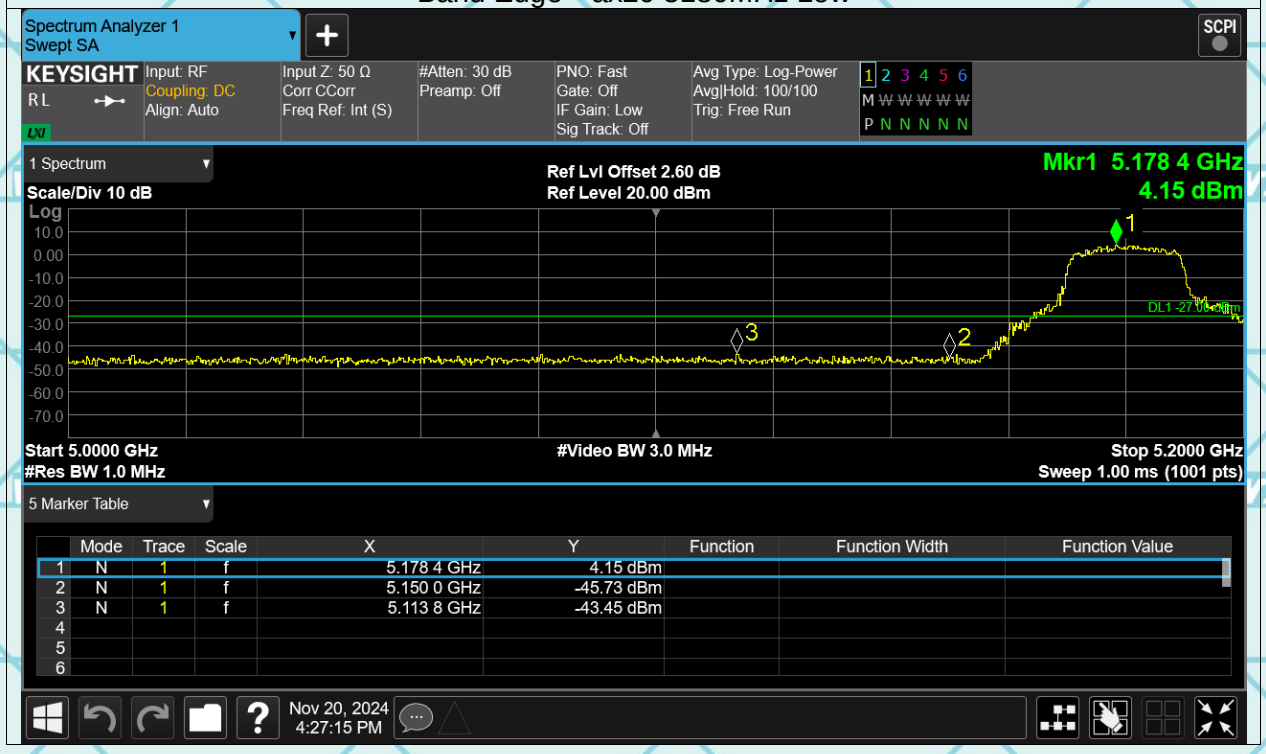
Band Edge ac80 5610MHz High



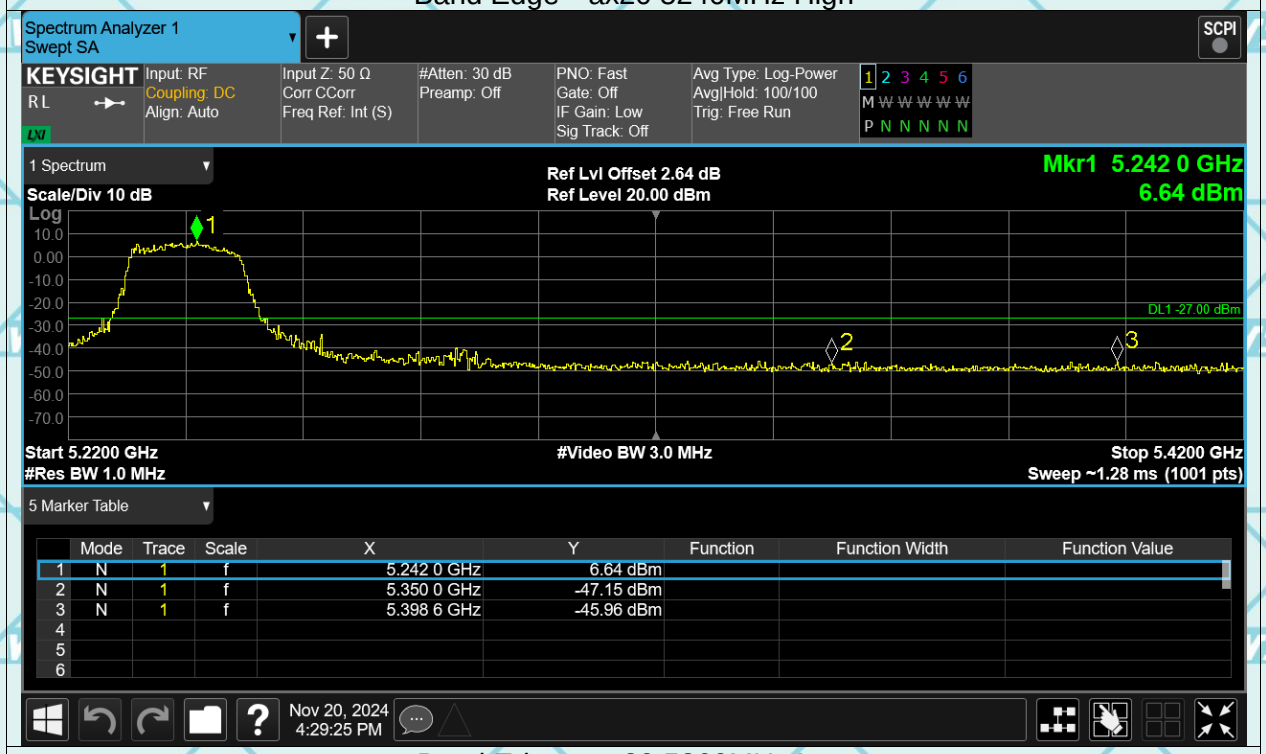
Band Edge ac80 5775MHz Low



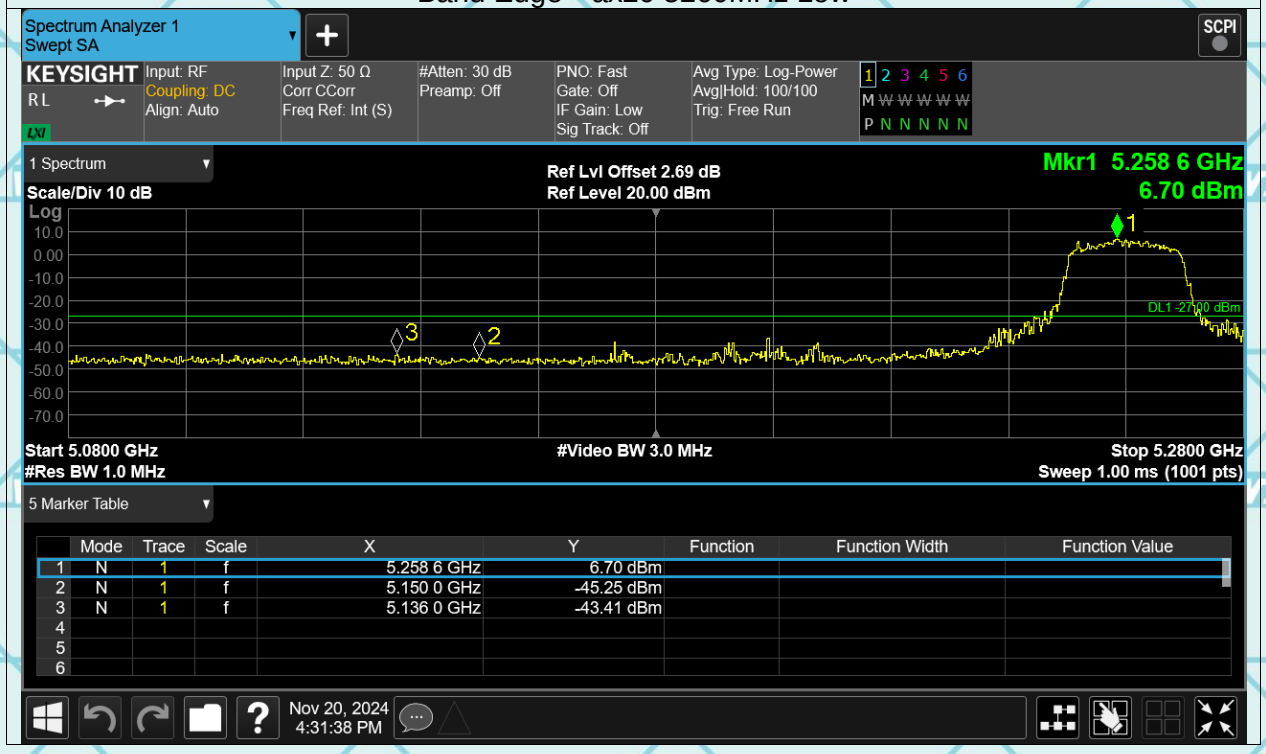
Band Edge ax20 5180MHz Low



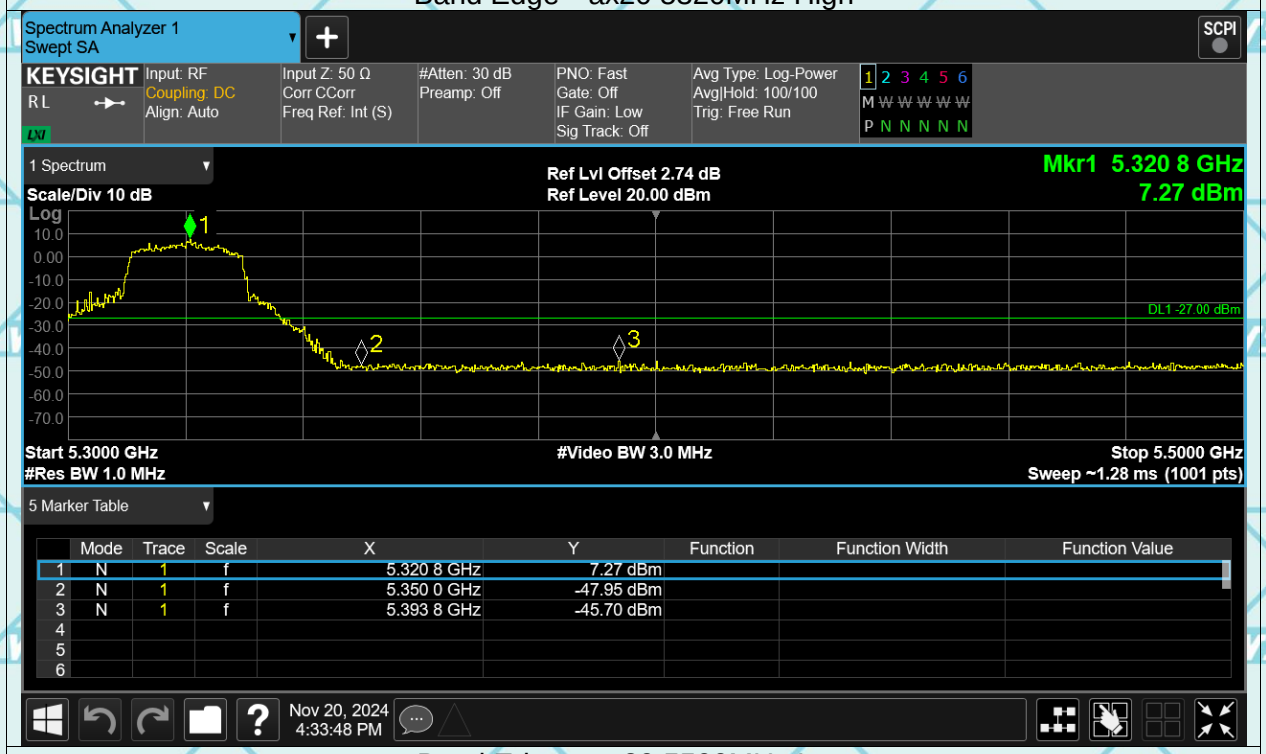
Band Edge ax20 5240MHz High



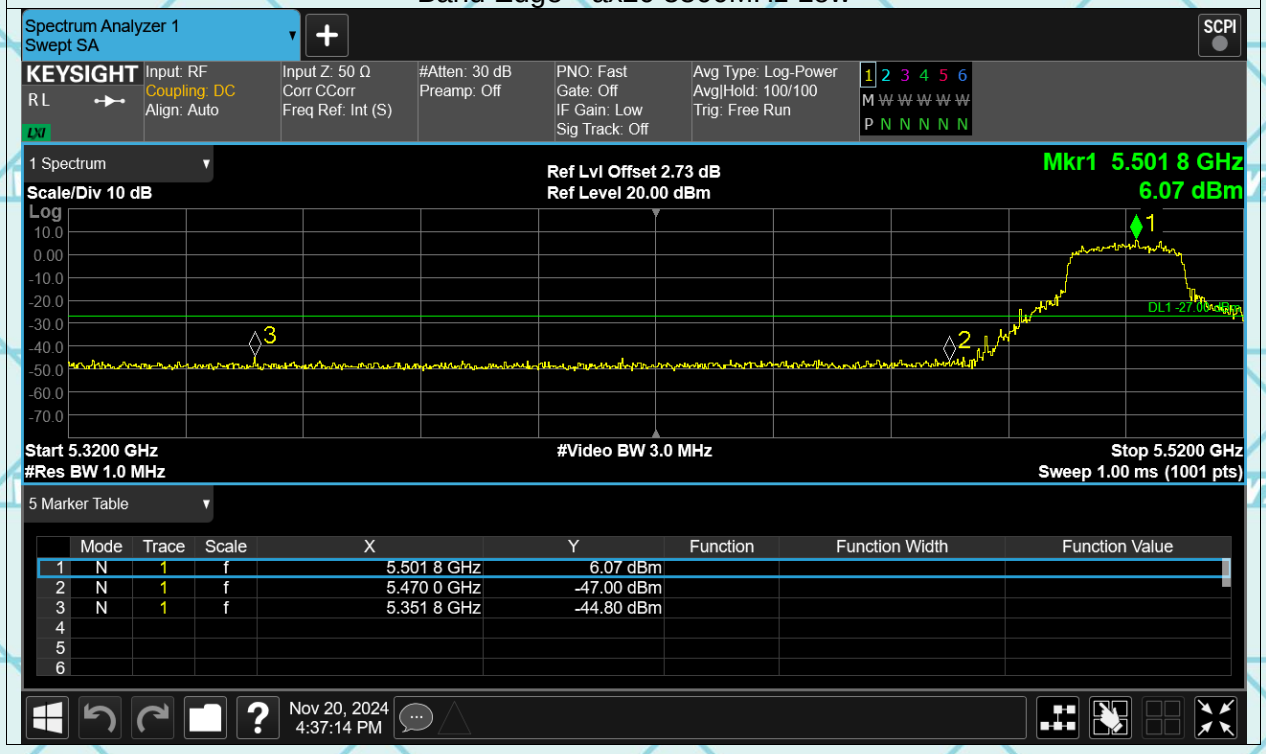
Band Edge ax20 5260MHz Low



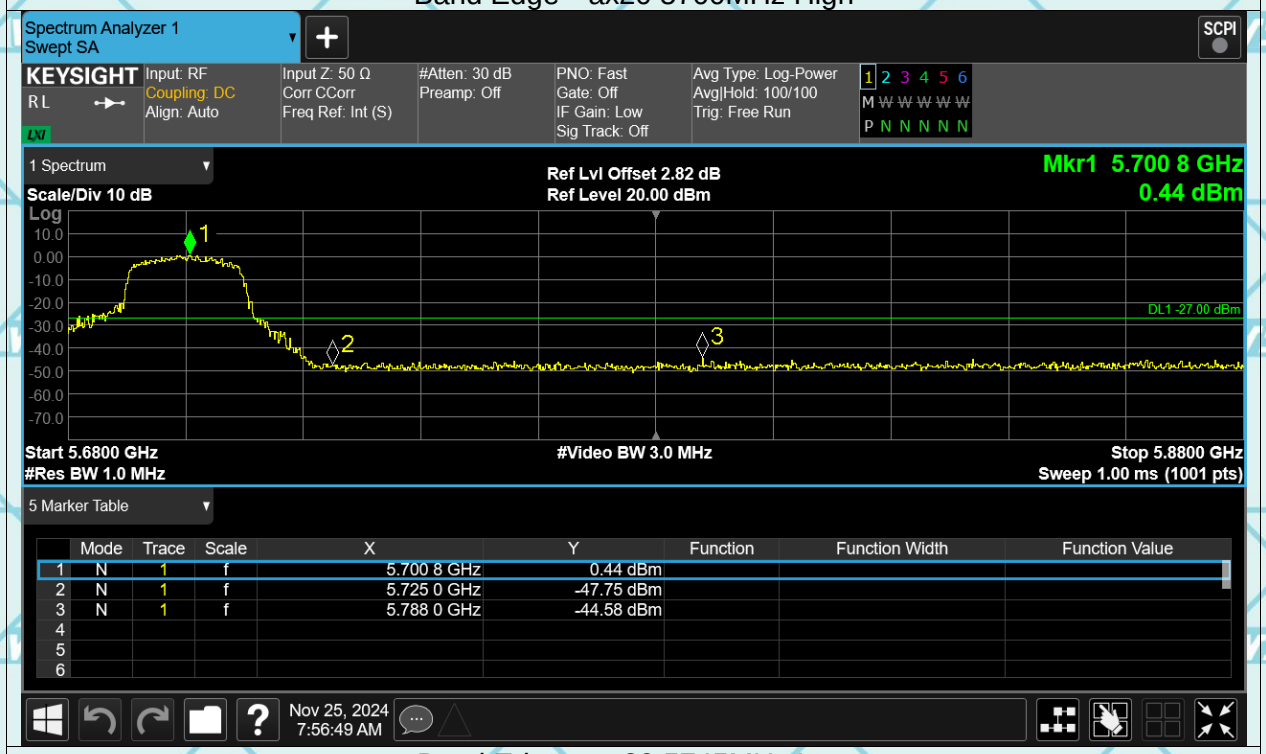
Band Edge ax20 5320MHz High



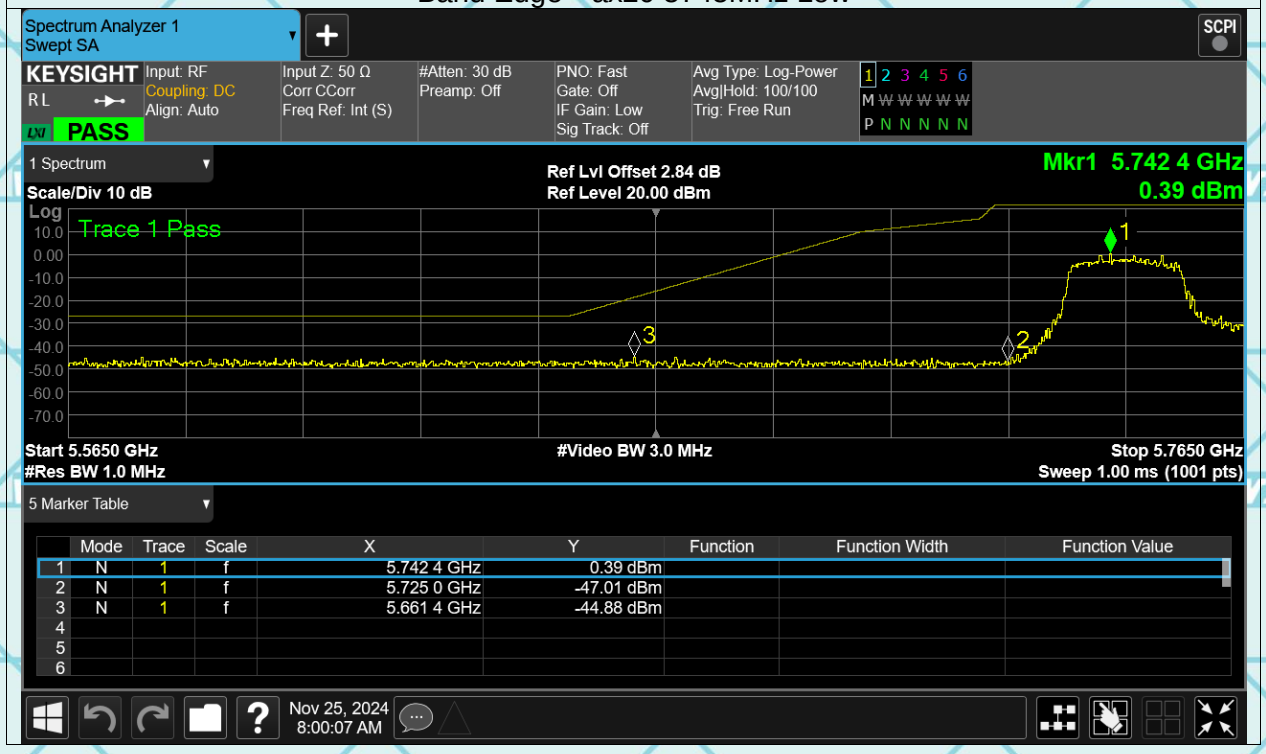
Band Edge ax20 5500MHz Low



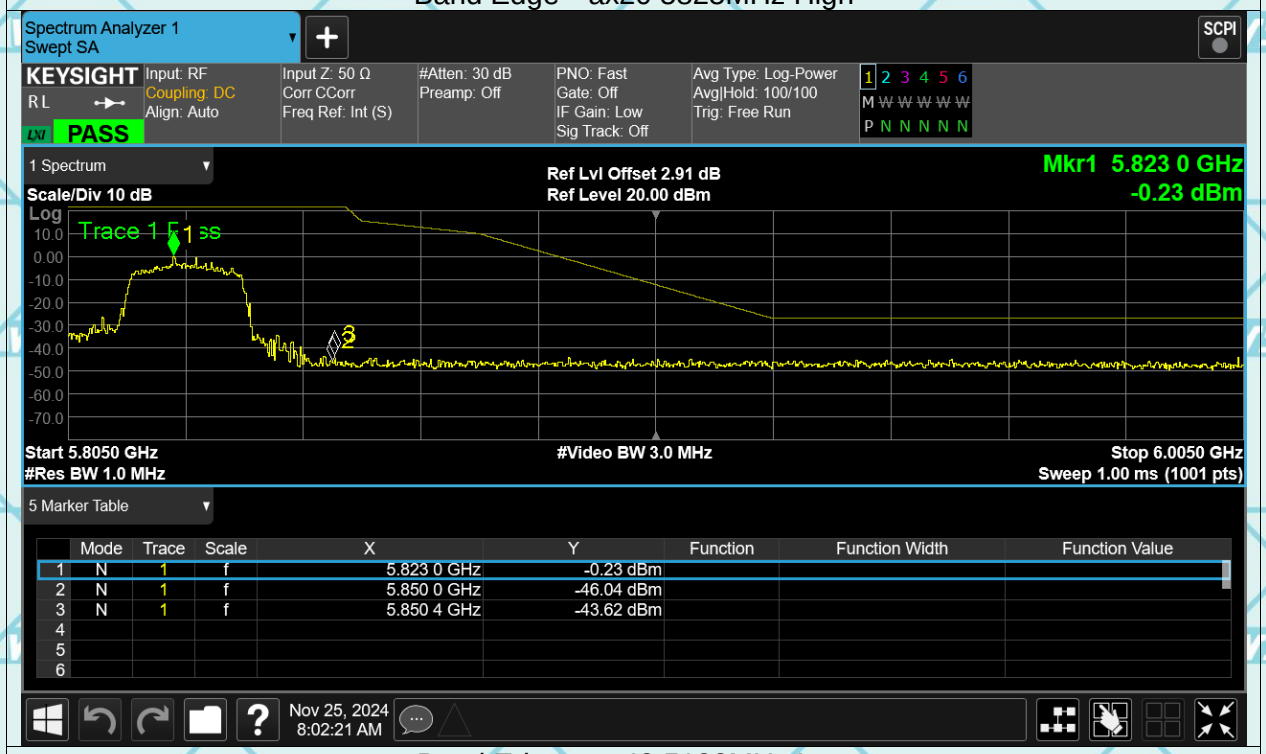
Band Edge ax20 5700MHz High



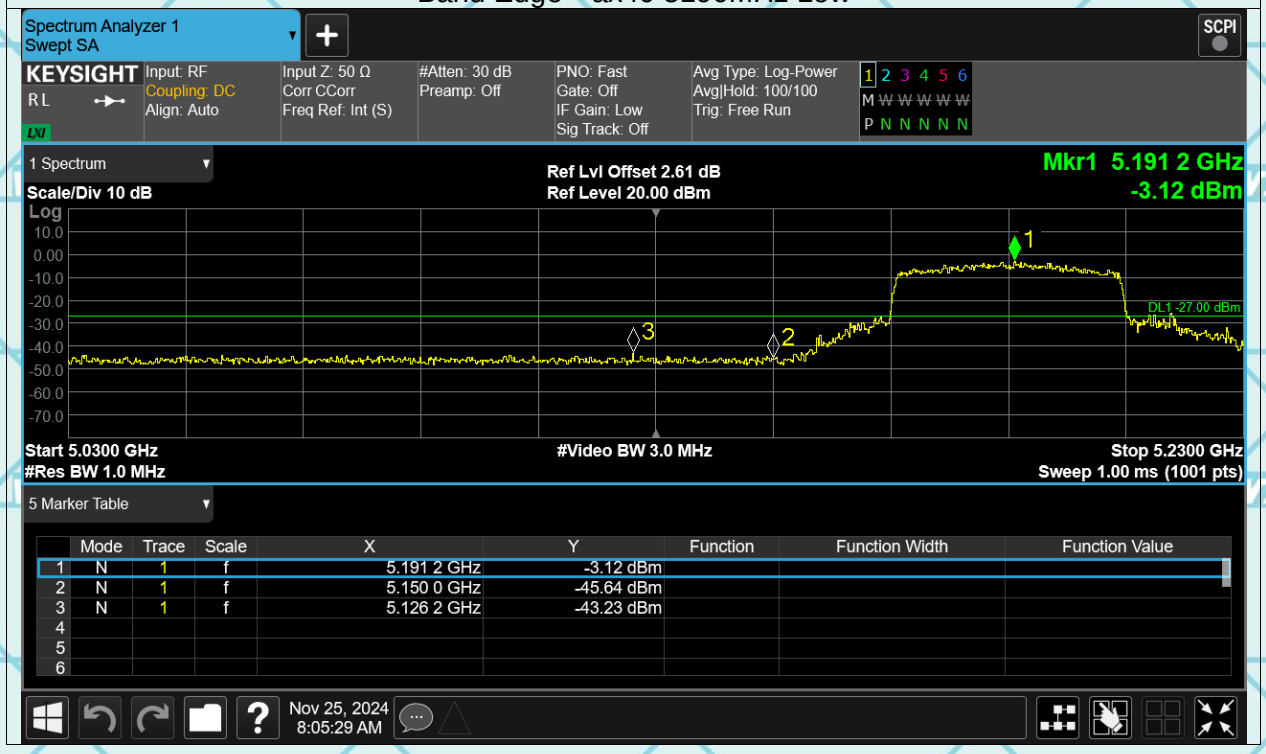
Band Edge ax20 5745MHz Low



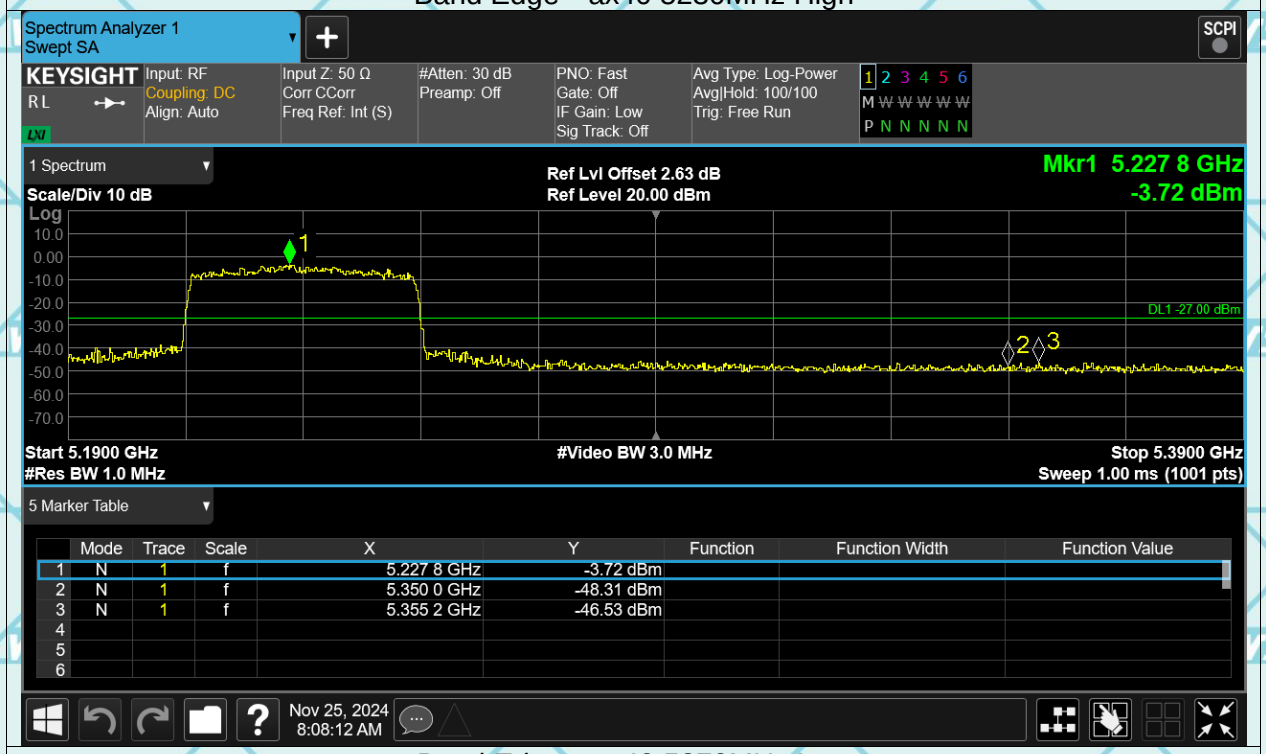
Band Edge ax20 5825MHz High



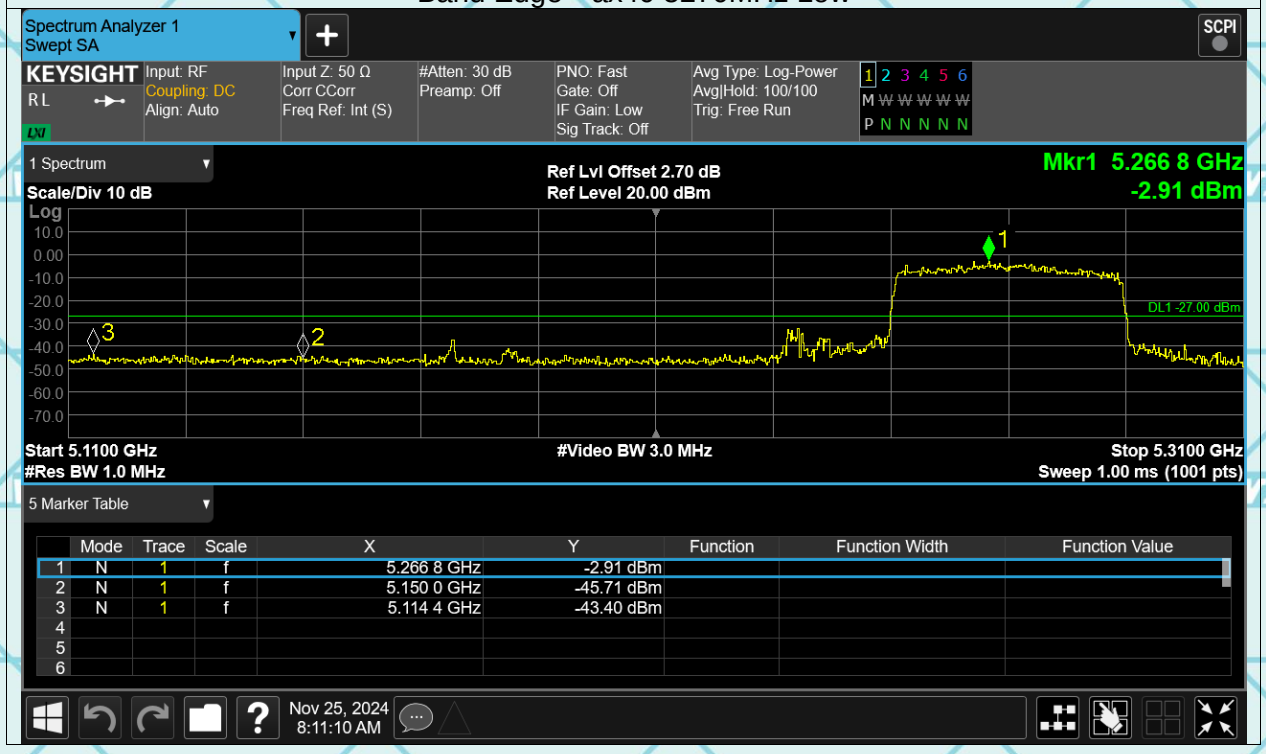
Band Edge ax40 5190MHz Low



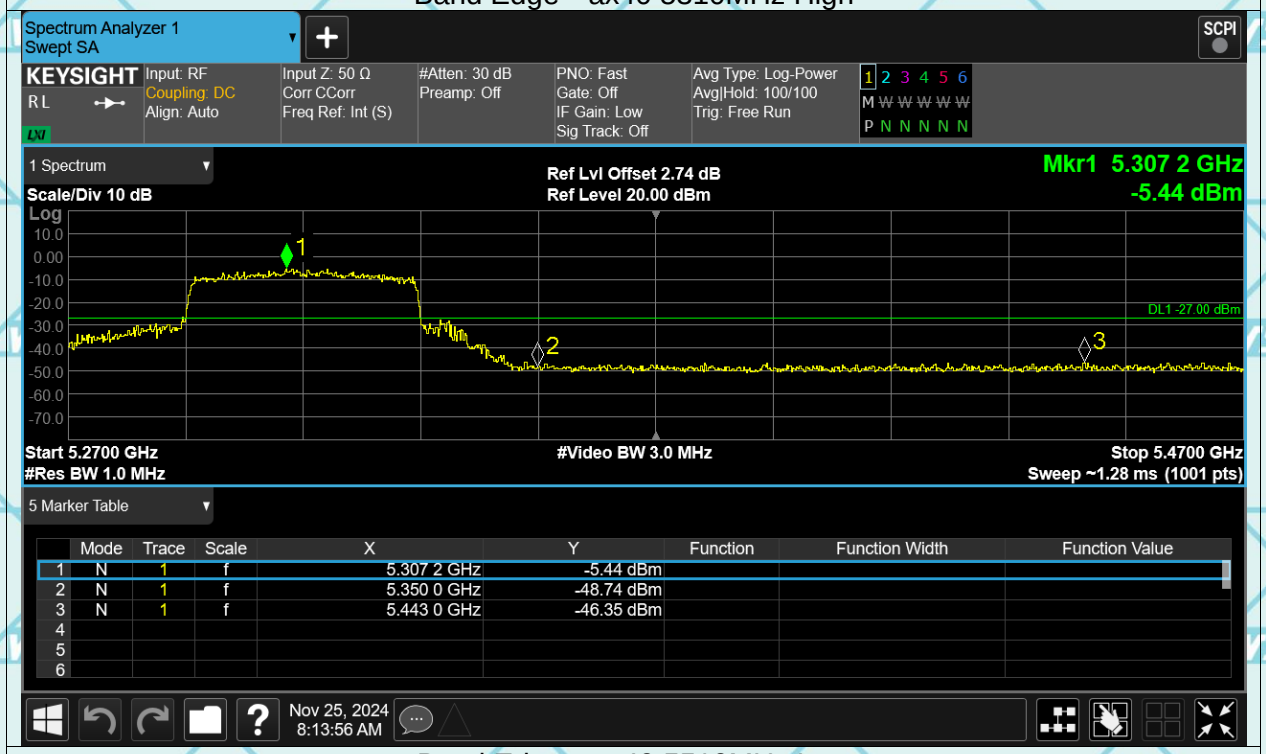
Band Edge ax40 5230MHz High



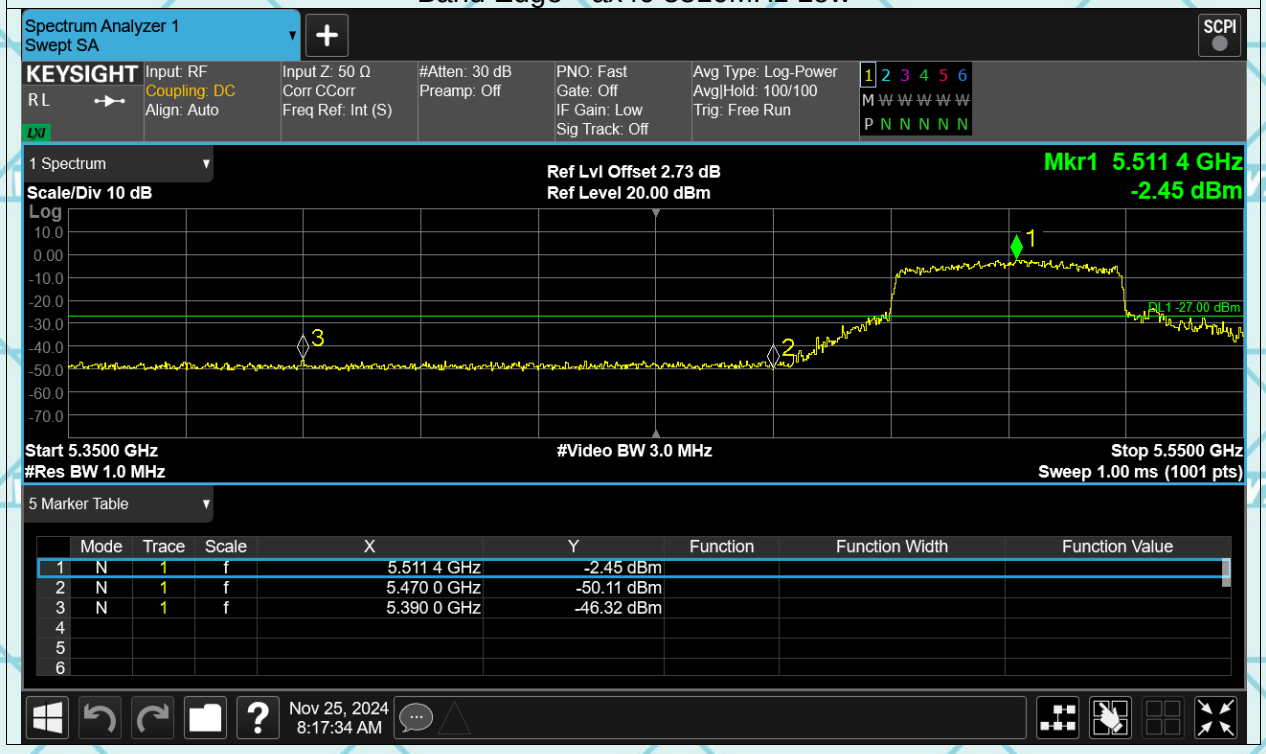
Band Edge ax40 5270MHz Low



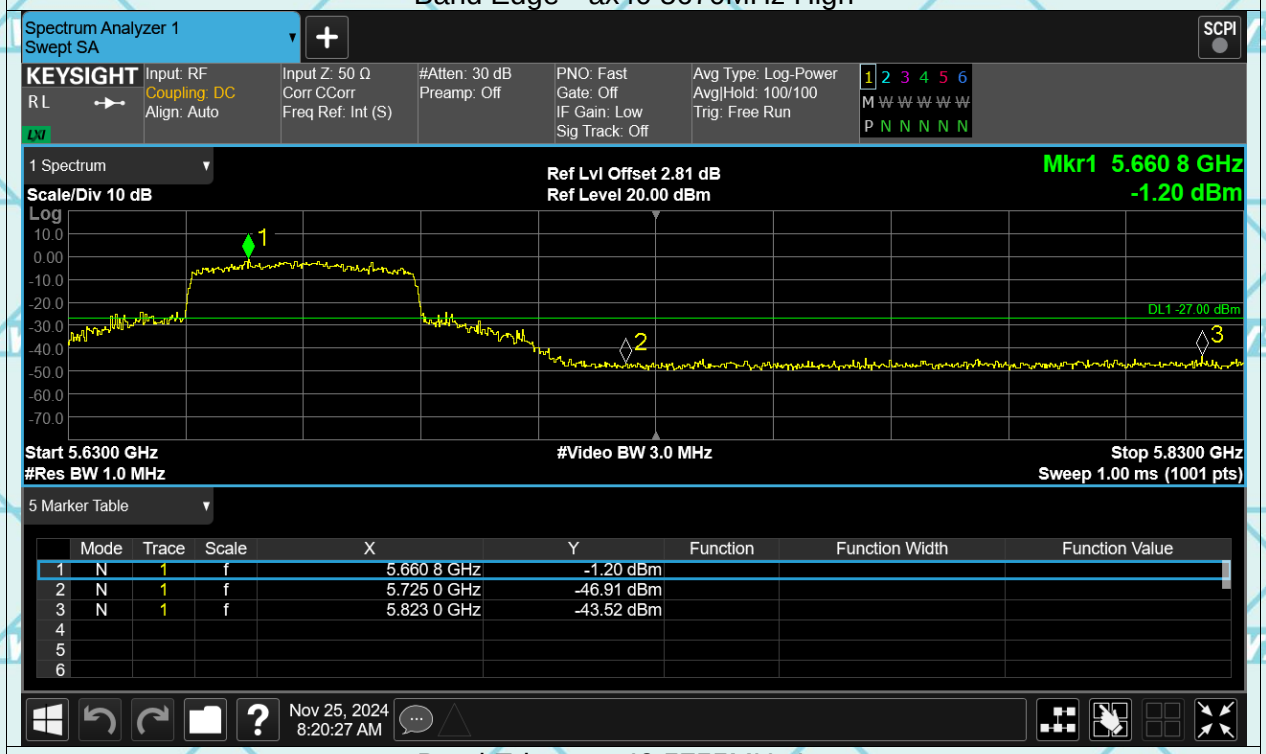
Band Edge ax40 5310MHz High



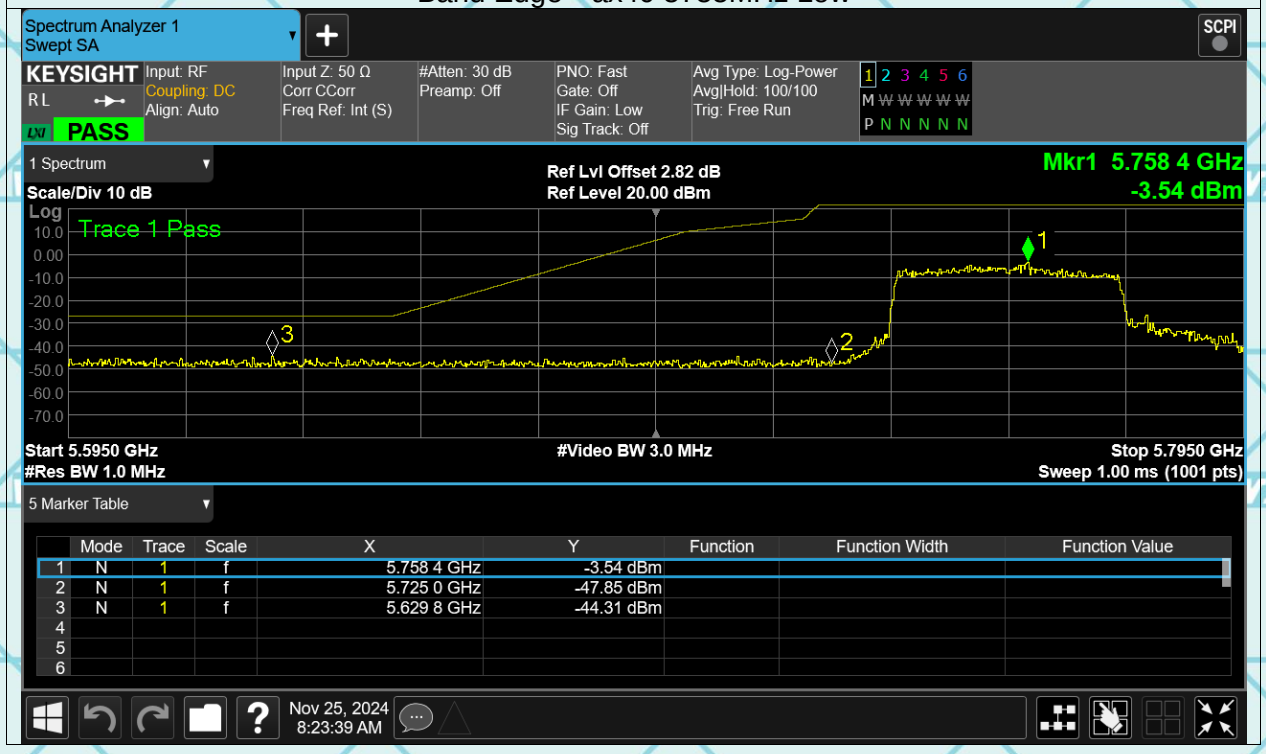
Band Edge ax40 5510MHz Low



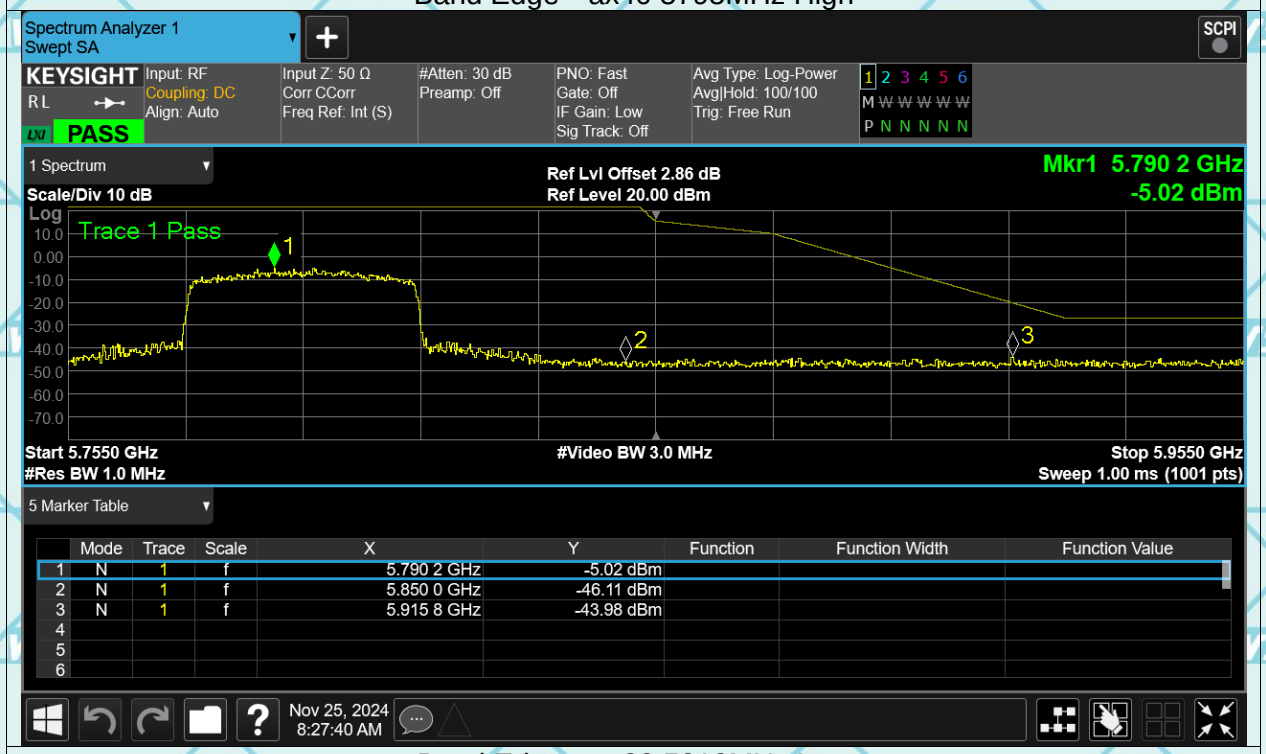
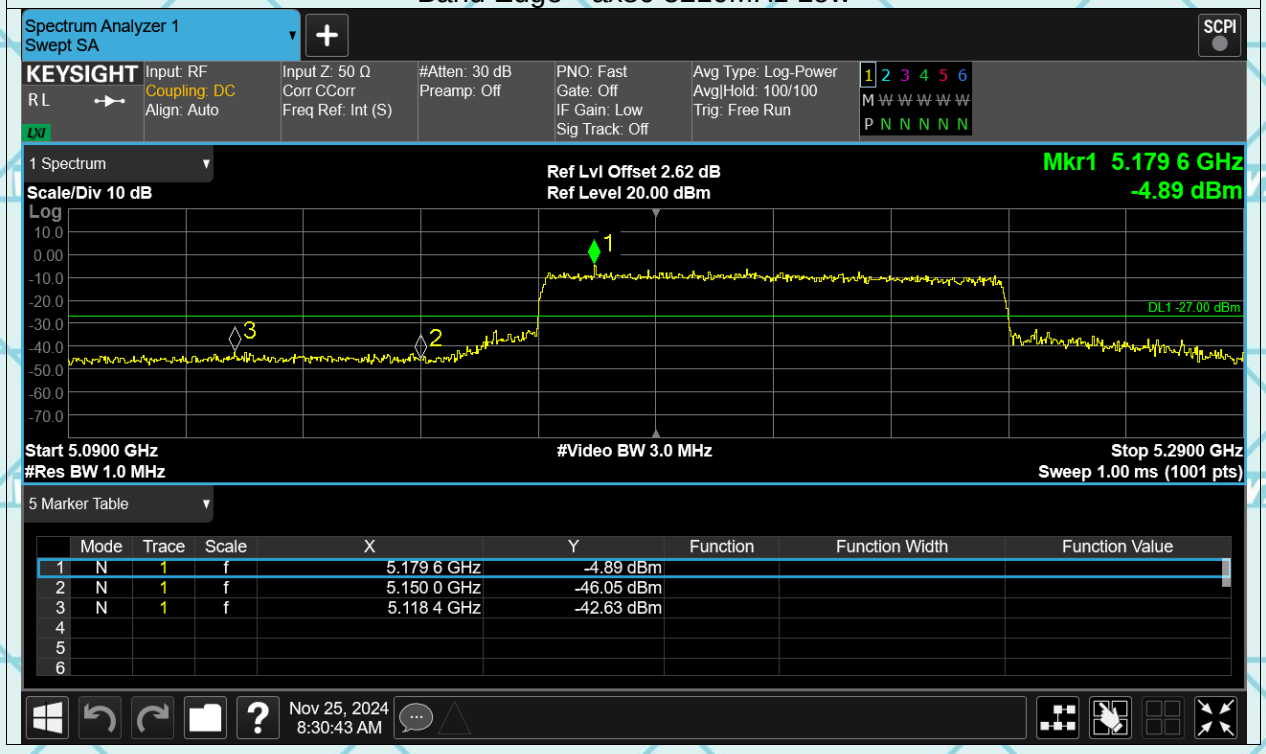
Band Edge ax40 5670MHz High



Band Edge ax40 5755MHz Low



Band Edge ax40 5795MHz High



Band Edge ax80 5210MHz Low