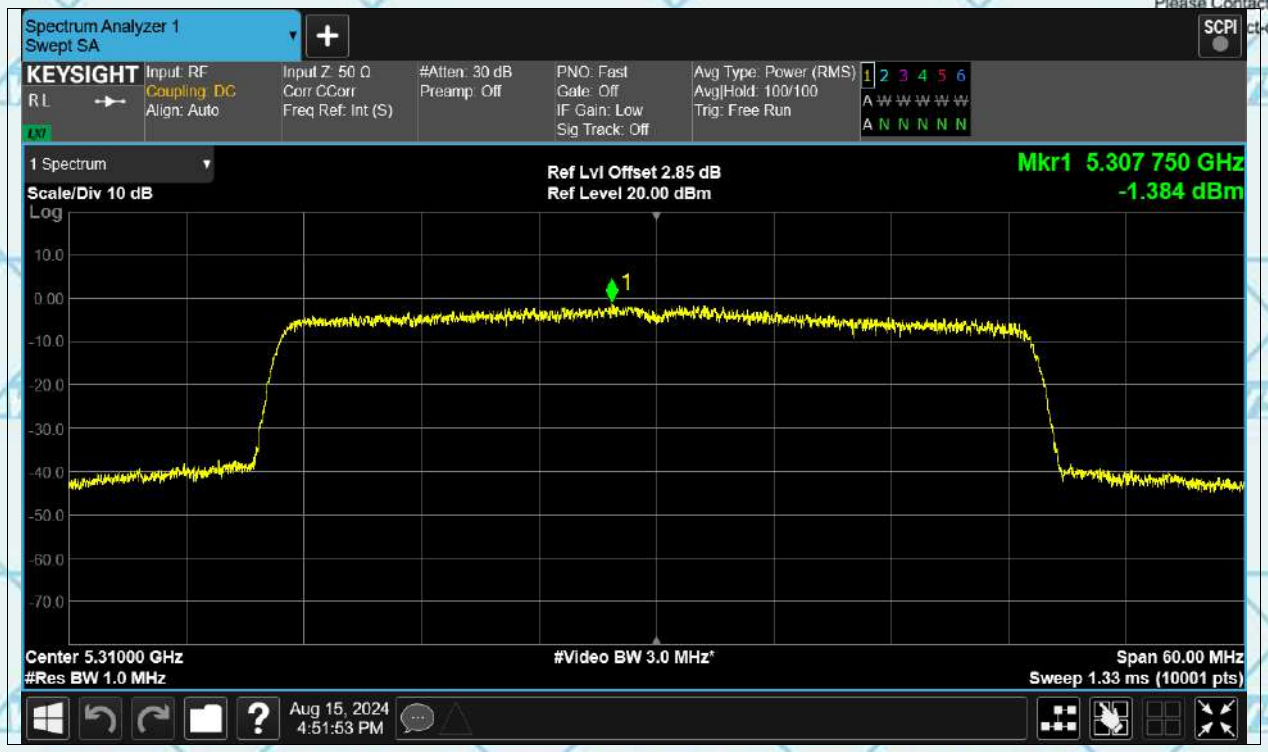
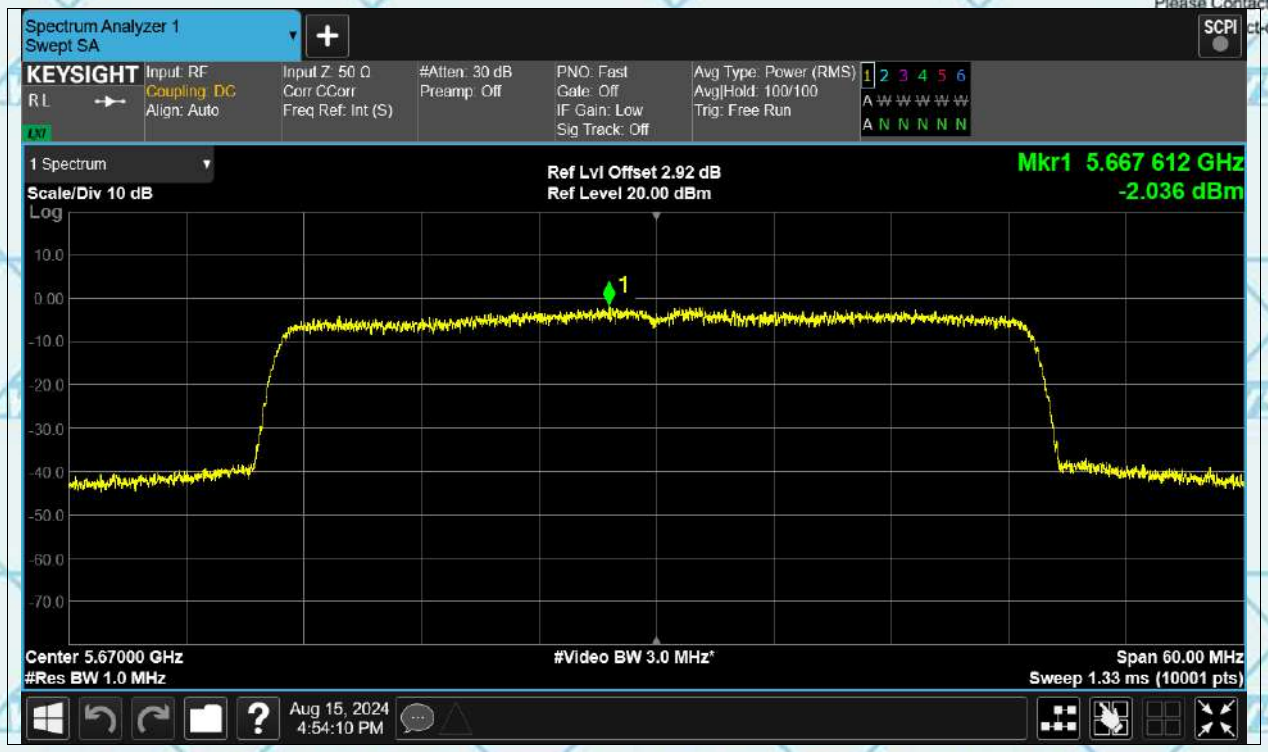
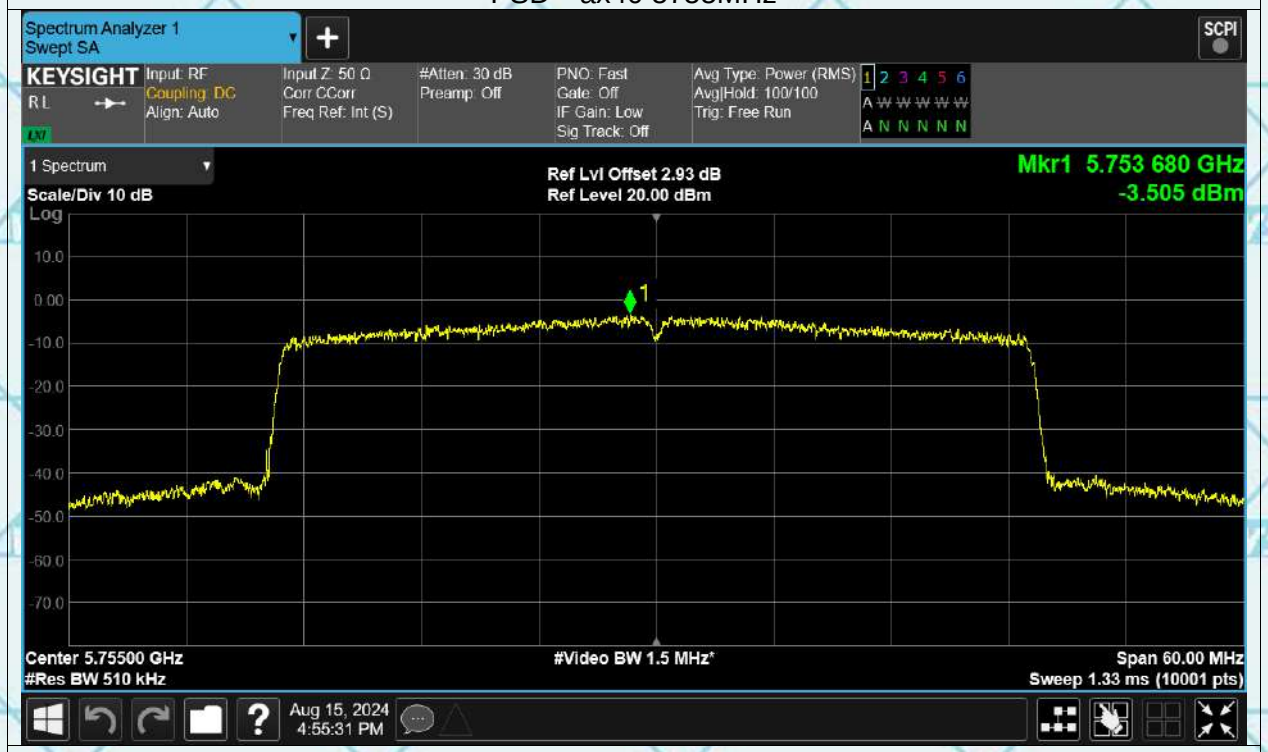


PSD ax40 5510MHz

PSD ax40 5670MHz

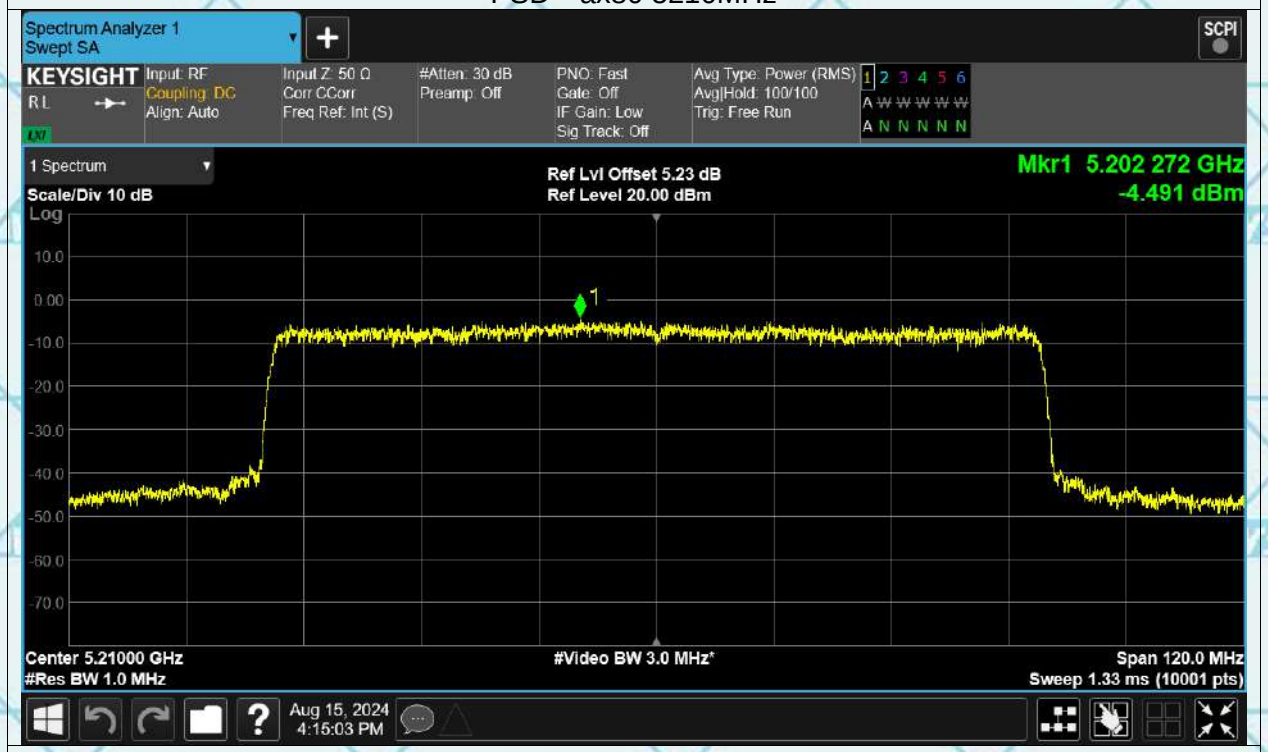


PSD ax40 5755MHz

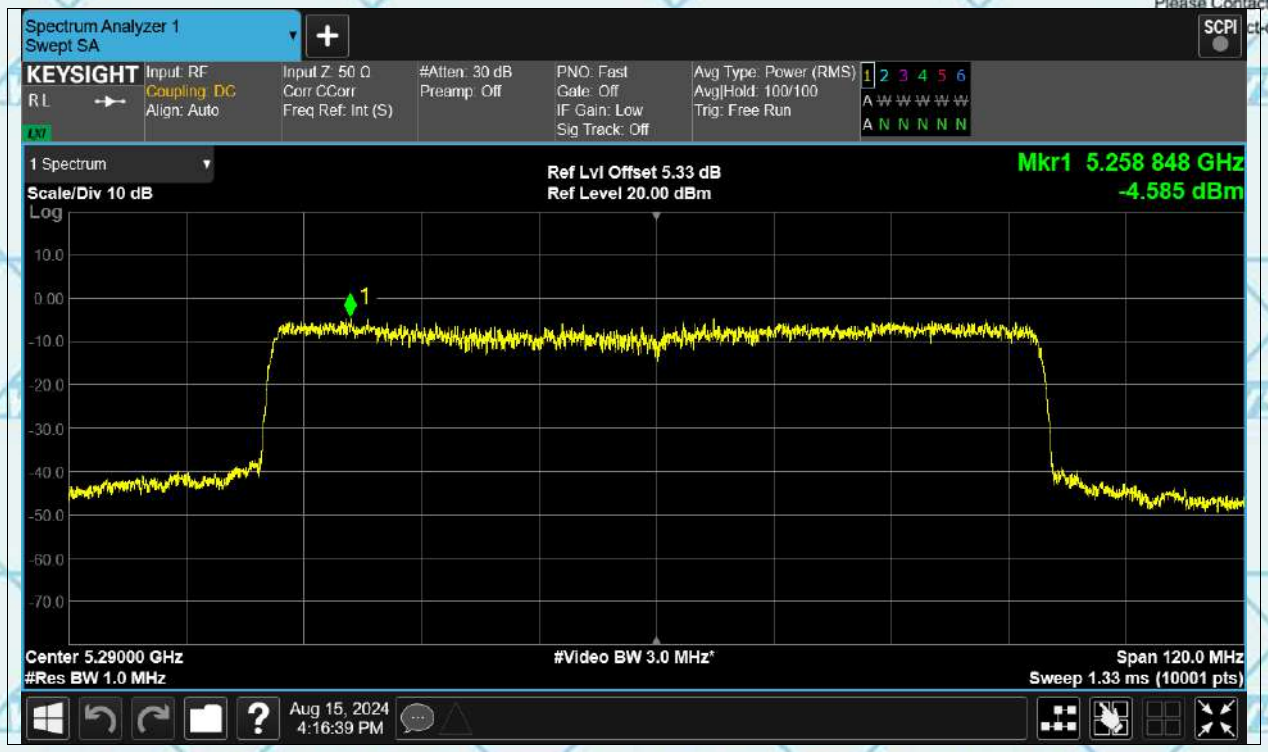


PSD ax40 5795MHz

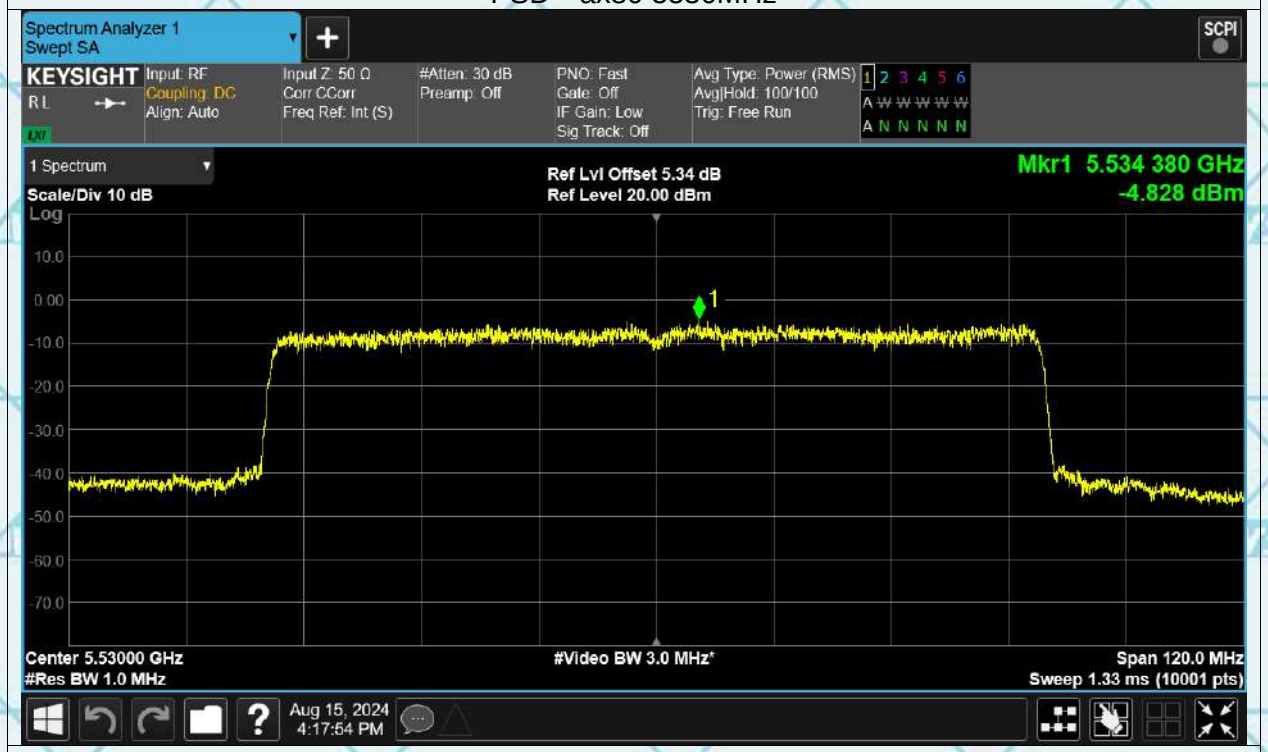
PSD ax80 5210MHz



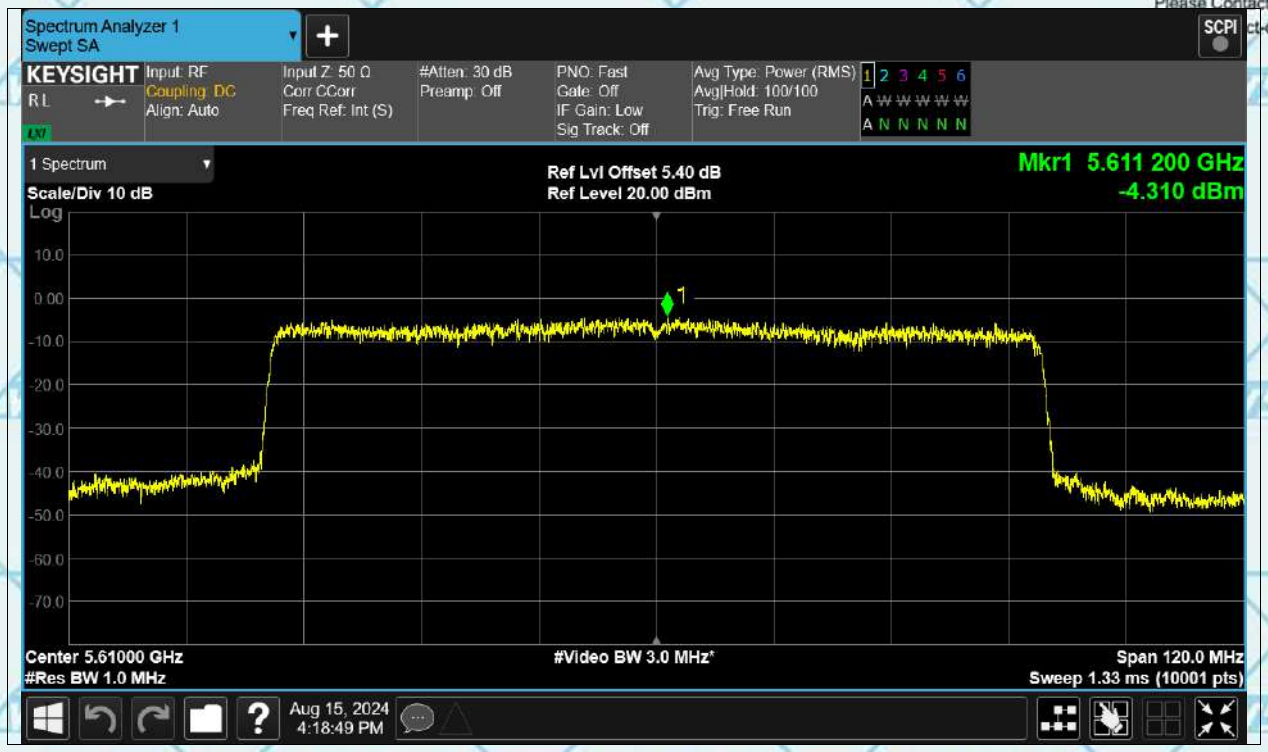
PSD ax80 5290MHz



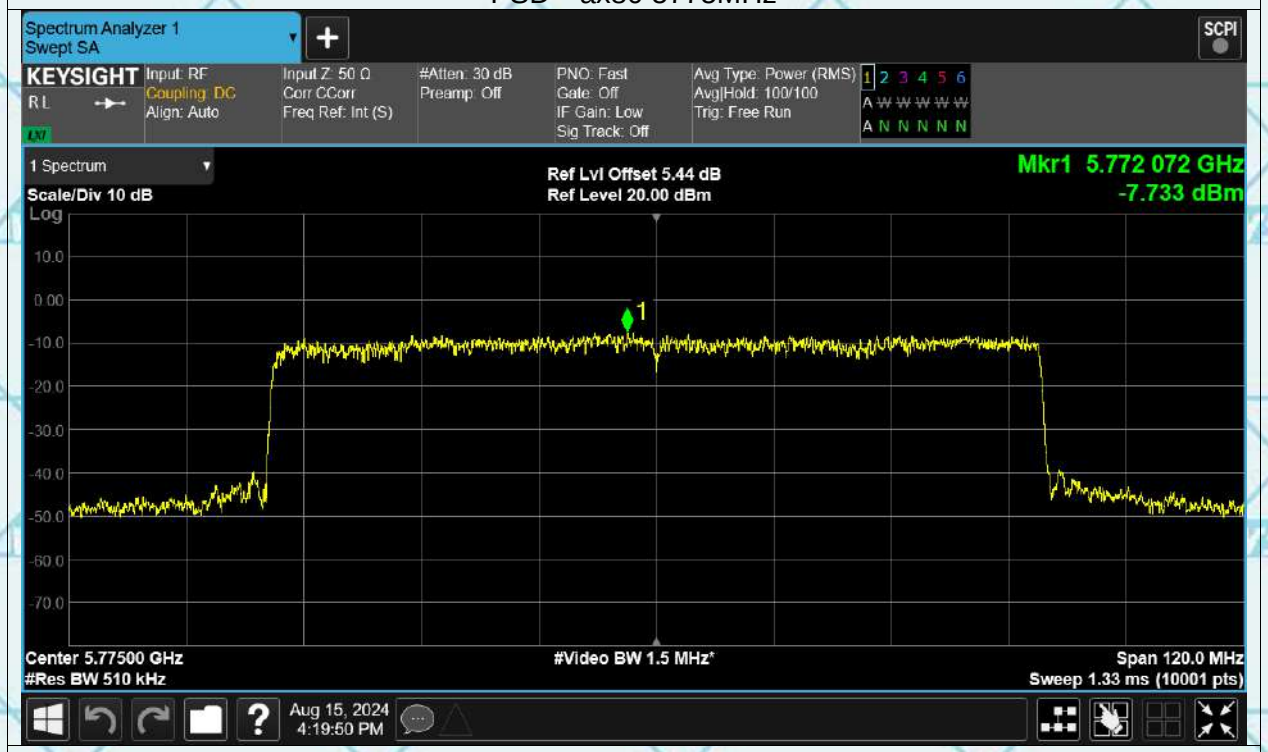
PSD ax80 5530MHz



PSD ax80 5610MHz



PSD ax80 5775MHz



PSD ax160 5250MHz

PSD ax160 5570MHz

7.7 FREQUENCY STABILITY

Product:	EUT-Sample	Test Item:	Frequency Stability
Temperature:	25 ℃	Humidity:	56%RH
Test Voltage:	DC 11.61V	Test Result:	PASS

Mode	Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
a	5180	5179.96	-40000	-7.72	25	Pass
a	5240	5239.98	-20000	-3.82	25	Pass
a	5260	5259.98	-20000	-3.8	25	Pass
a	5320	5320	0	0	25	Pass
a	5500	5500	0	0	25	Pass
a	5700	5699.98	-20000	-3.51	25	Pass
a	5745	5745	0	0	25	Pass
a	5825	5824.96	-40000	-6.87	25	Pass
n20	5180	5179.98	-20000	-3.86	25	Pass
n20	5240	5240.02	20000	3.82	25	Pass
n20	5260	5259.98	-20000	-3.8	25	Pass
n20	5320	5319.96	-40000	-7.52	25	Pass
n20	5500	5499.98	-20000	-3.64	25	Pass
n20	5700	5699.96	-40000	-7.02	25	Pass
n20	5745	5745	0	0	25	Pass
n20	5825	5824.98	-20000	-3.43	25	Pass
n40	5190	5190	0	0	25	Pass
n40	5230	5230	0	0	25	Pass
n40	5270	5270	0	0	25	Pass
n40	5310	5310	0	0	25	Pass
n40	5510	5509.96	-40000	-7.26	25	Pass
n40	5670	5669.96	-40000	-7.05	25	Pass
n40	5755	5755	0	0	25	Pass
n40	5795	5795	0	0	25	Pass
ac20	5180	5180.02	20000	3.86	25	Pass
ac20	5240	5239.98	-20000	-3.82	25	Pass
ac20	5260	5259.98	-20000	-3.8	25	Pass
ac20	5320	5320	0	0	25	Pass
ac20	5500	5499.98	-20000	-3.64	25	Pass
ac20	5700	5699.98	-20000	-3.51	25	Pass
ac20	5745	5745.02	20000	3.48	25	Pass
ac20	5825	5825	0	0	25	Pass
ac40	5190	5190	0	0	25	Pass
ac40	5230	5230	0	0	25	Pass
ac40	5270	5269.96	-40000	-7.59	25	Pass
ac40	5310	5309.96	-40000	-7.53	25	Pass
ac40	5510	5509.96	-40000	-7.26	25	Pass
ac40	5670	5669.96	-40000	-7.05	25	Pass
ac40	5755	5755	0	0	25	Pass
ac40	5795	5794.96	-40000	-6.9	25	Pass
ac80	5210	5209.92	-80000	-15.36	25	Pass
ac80	5290	5290	0	0	25	Pass
ac80	5530	5530	0	0	25	Pass
ac80	5610	5610	0	0	25	Pass
ac80	5775	5775	0	0	25	Pass
ax20	5180	5180	0	0	25	Pass
ax20	5240	5239.96	-40000	-7.63	25	Pass
ax20	5260	5259.98	-20000	-3.8	25	Pass
ax20	5320	5319.98	-20000	-3.76	25	Pass
ax20	5500	5499.96	-40000	-7.27	25	Pass
ax20	5700	5699.96	-40000	-7.02	25	Pass
ax20	5745	5744.98	-20000	-3.48	25	Pass
ax20	5825	5824.96	-40000	-6.87	25	Pass
ax40	5190	5189.96	-40000	-7.71	25	Pass
ax40	5230	5229.96	-40000	-7.65	25	Pass
ax40	5270	5269.96	-40000	-7.59	25	Pass
ax40	5310	5309.96	-40000	-7.53	25	Pass
ax40	5510	5509.96	-40000	-7.26	25	Pass
ax40	5670	5669.96	-40000	-7.05	25	Pass

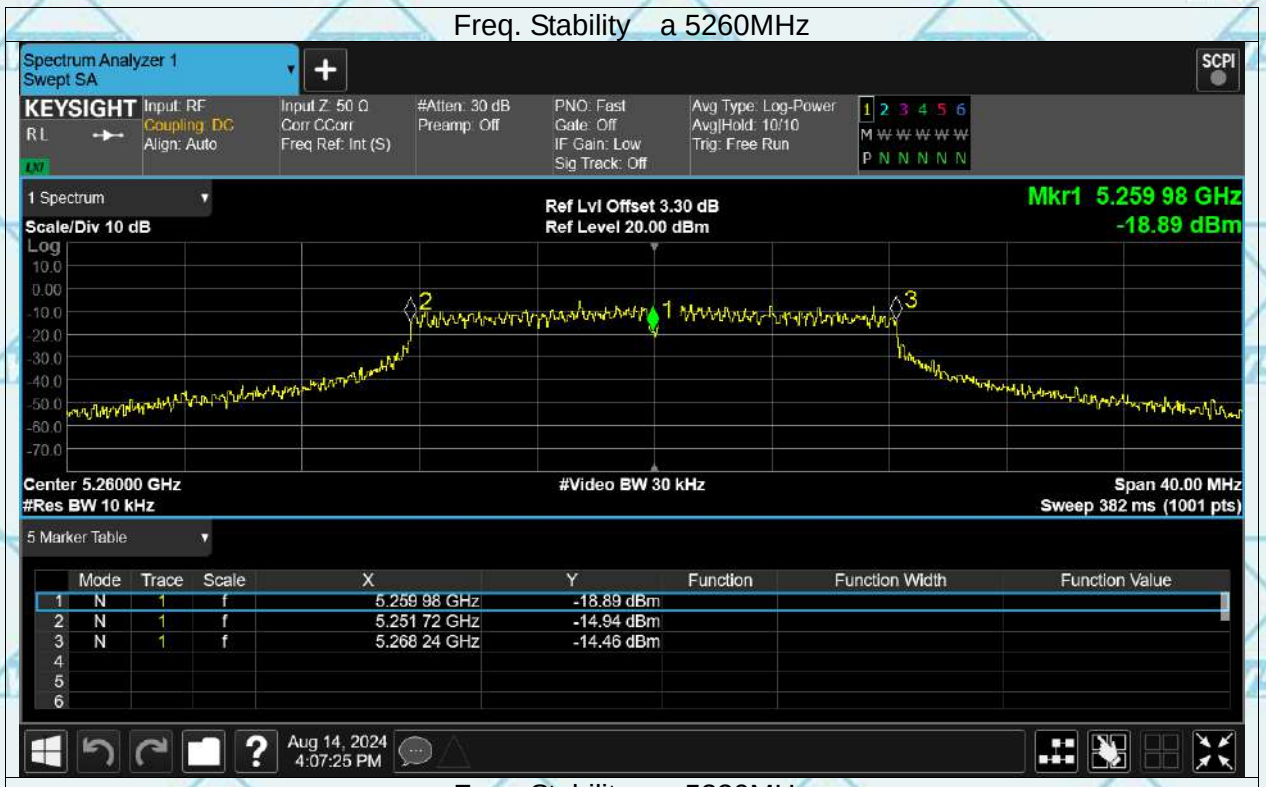
ax40	5755	5754.96	-40000	-6.95	25	Pass
ax40	5795	5794.96	-40000	-6.9	25	Pass
ax80	5210	5210	0	0	25	Pass
ax80	5290	5290	0	0	25	Pass
ax80	5530	5530	0	0	25	Pass
ax80	5610	5610	0	0	25	Pass
ax80	5775	5775	0	0	25	Pass
ax160	5250	5250	0	0	25	Pass
ax160	5570	5570	0	0	25	Pass

Test Graphs

Freq. Stability a 5180MHz

Freq. Stability a 5240MHz

Freq. Stability a 5260MHz

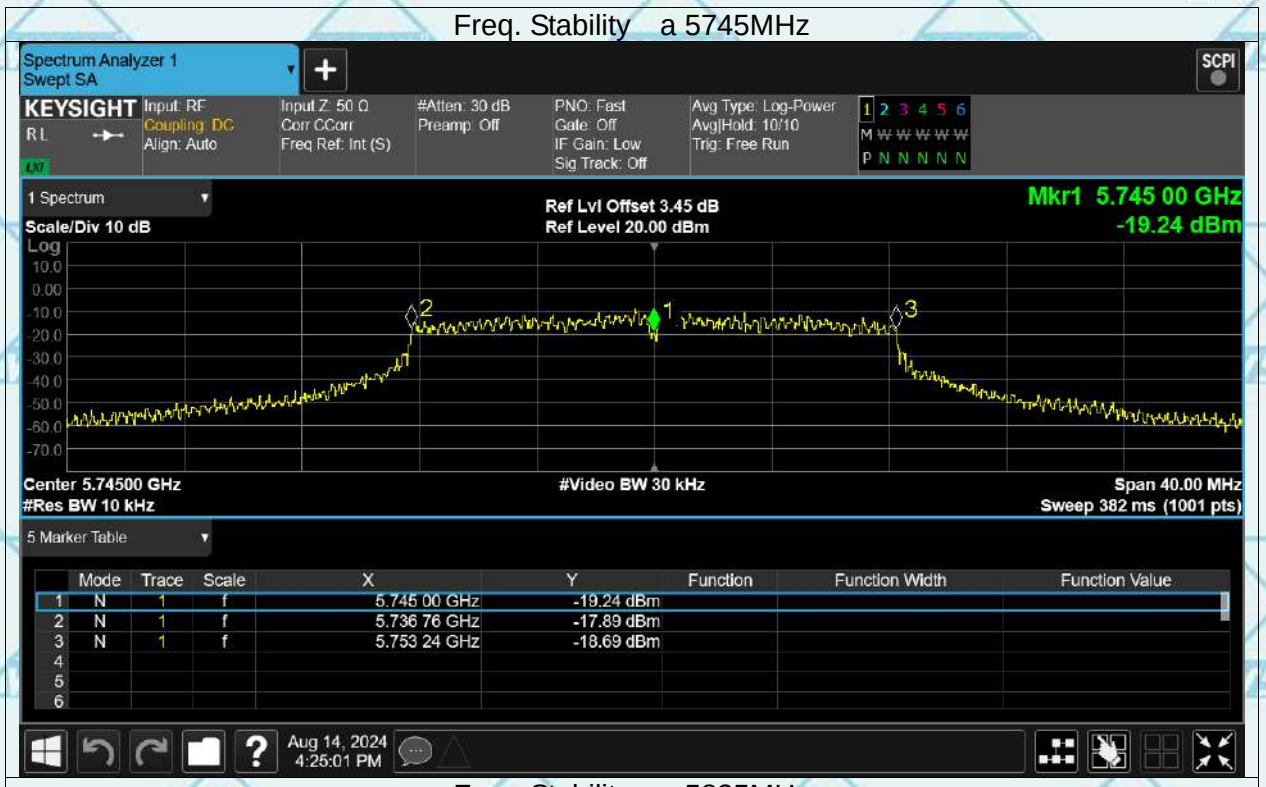


Freq. Stability a 5320MHz

Freq. Stability a 5500MHz

Freq. Stability a 5700MHz

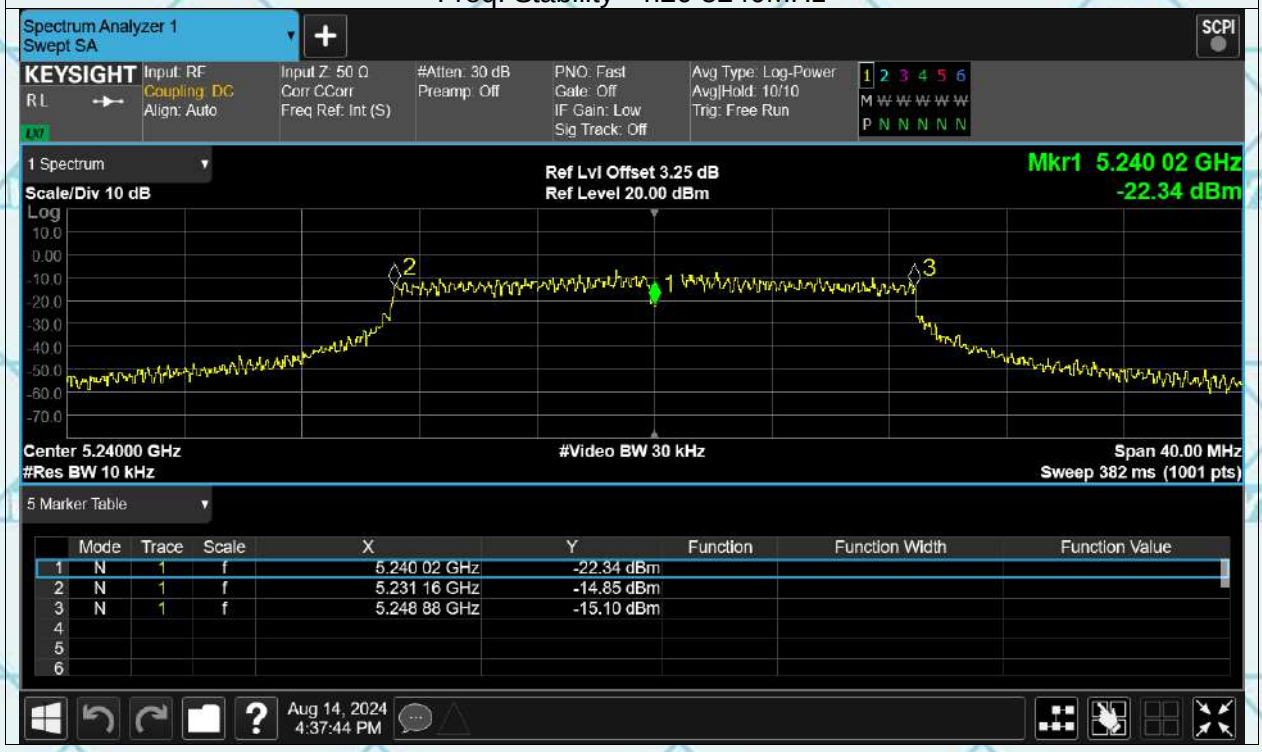
Freq. Stability a 5745MHz



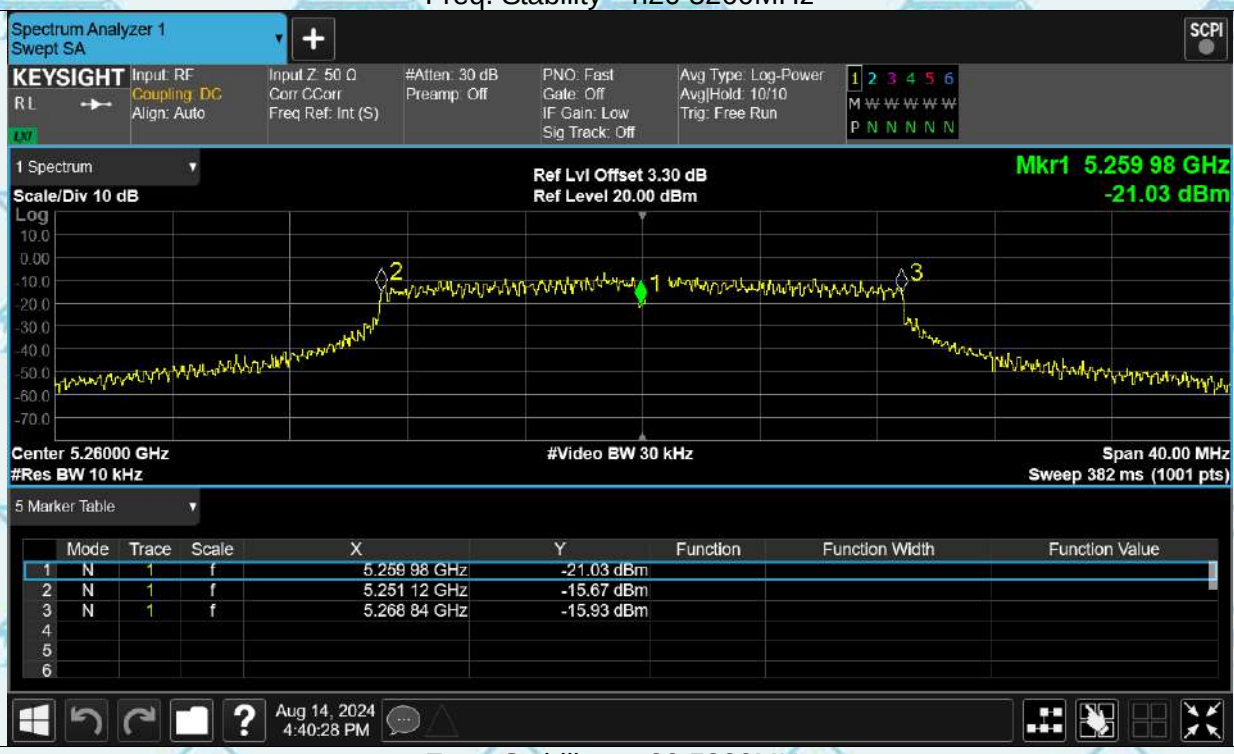
Freq. Stability a 5825MHz

Freq. Stability n20 5180MHz

Freq. Stability n20 5240MHz

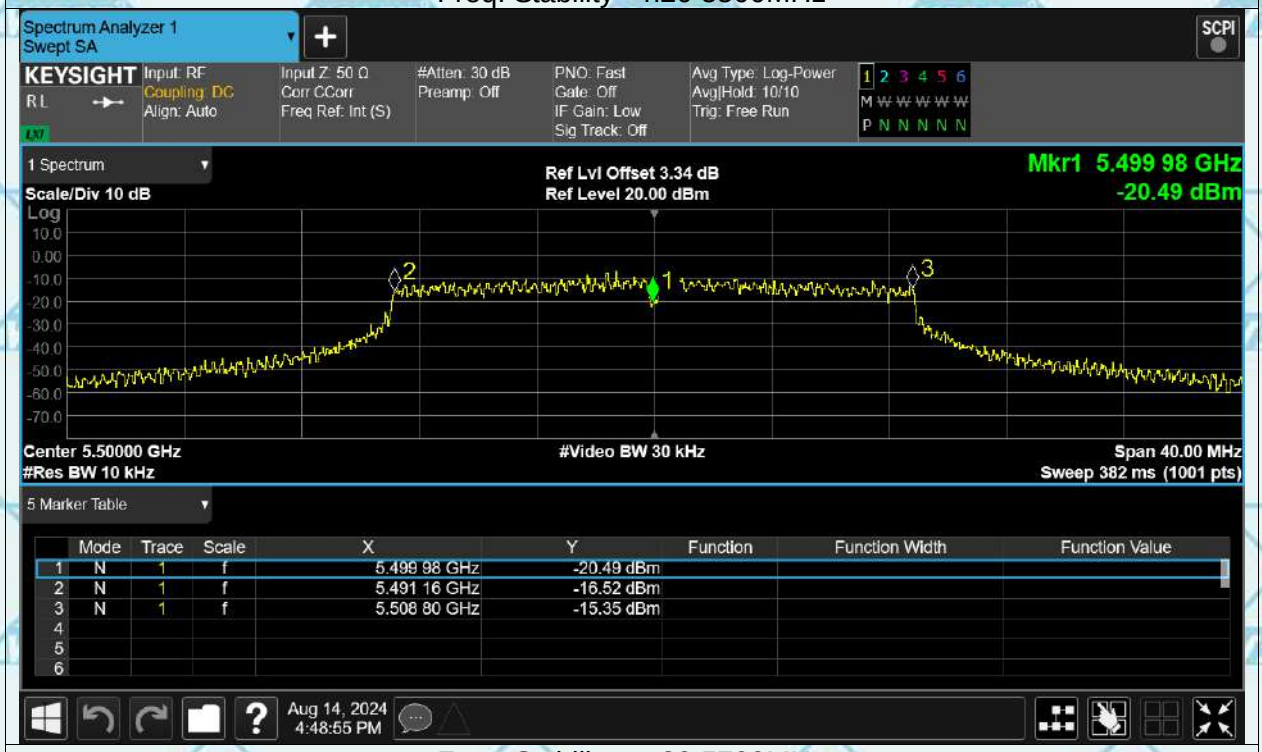


Freq. Stability n20 5260MHz



Freq. Stability n20 5320MHz

Freq. Stability n20 5500MHz



Freq. Stability n20 5700MHz

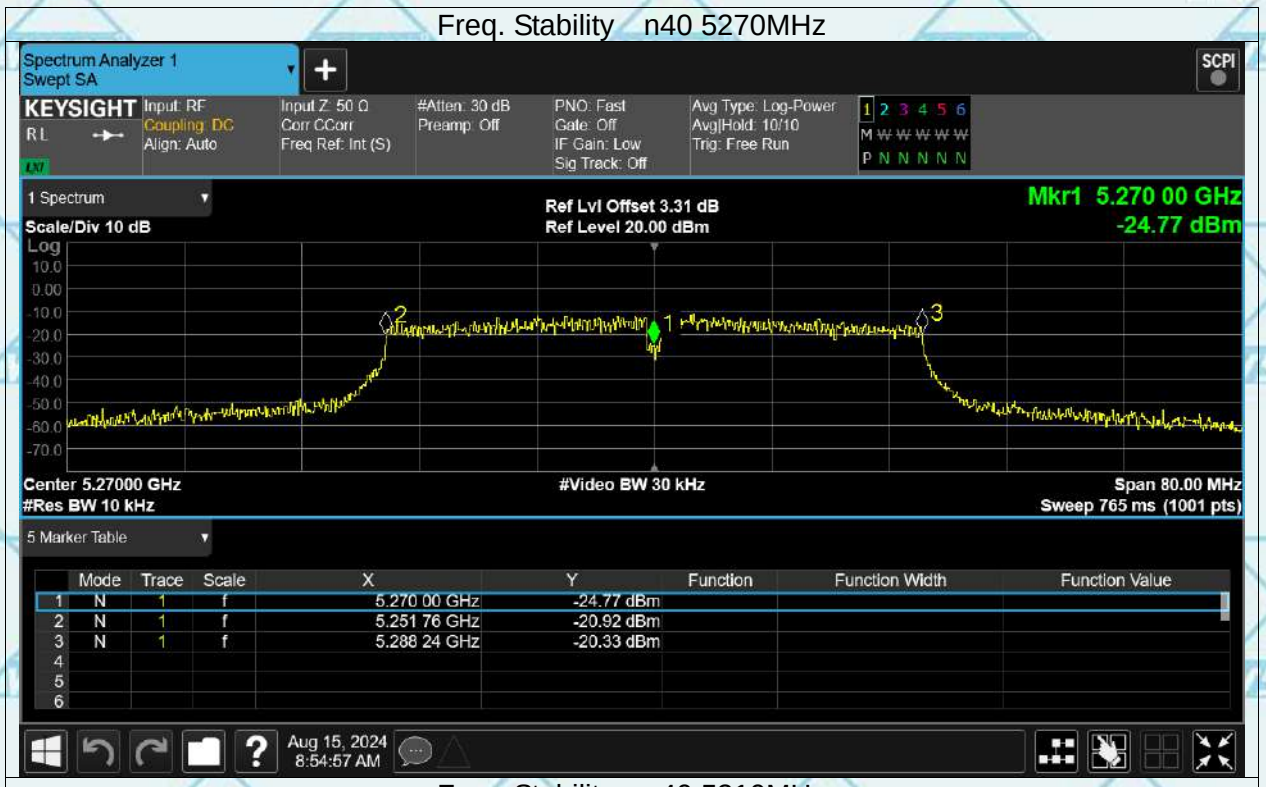
Freq. Stability n20 5745MHz

Freq. Stability n20 5825MHz

Freq. Stability n40 5190MHz

Freq. Stability n40 5230MHz

Freq. Stability n40 5270MHz



Freq. Stability n40 5310MHz

Freq. Stability n40 5510MHz

Freq. Stability n40 5670MHz

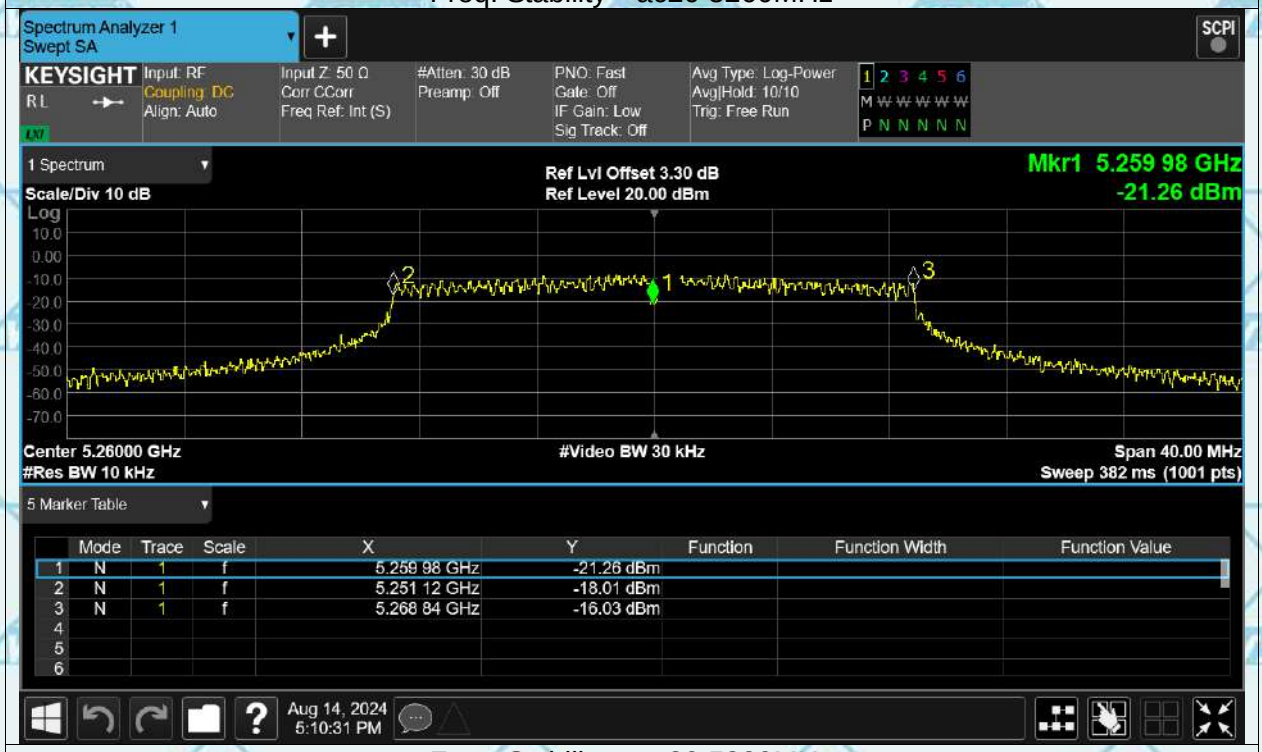
Freq. Stability n40 5755MHz

Freq. Stability n40 5795MHz

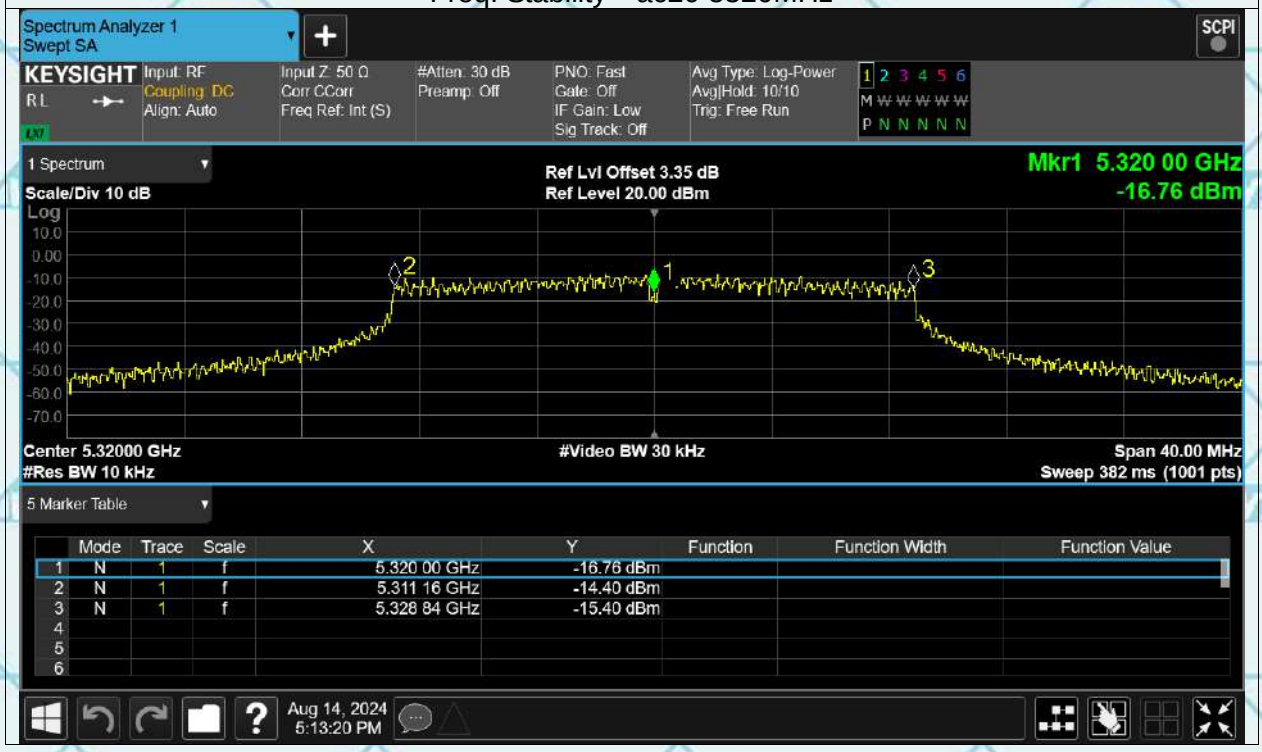
Freq. Stability ac20 5180MHz

Freq. Stability ac20 5240MHz

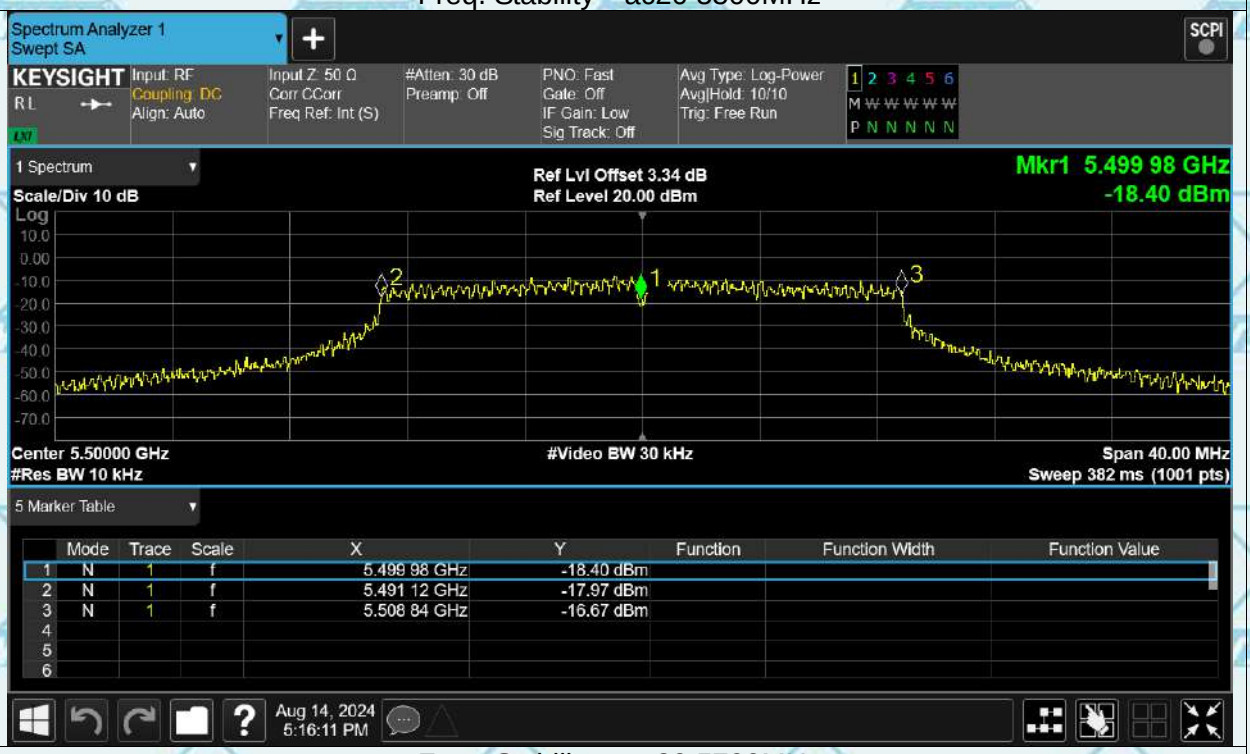
Freq. Stability ac20 5260MHz



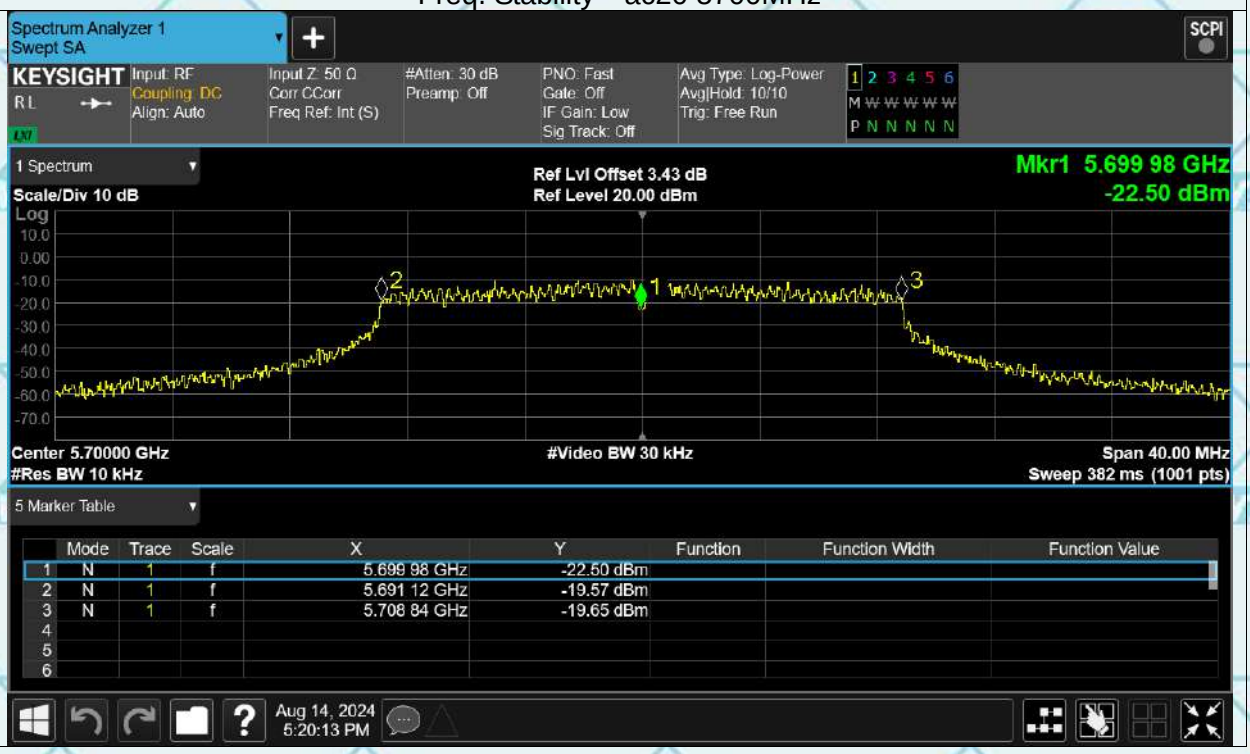
Freq. Stability ac20 5320MHz



Freq. Stability ac20 5500MHz

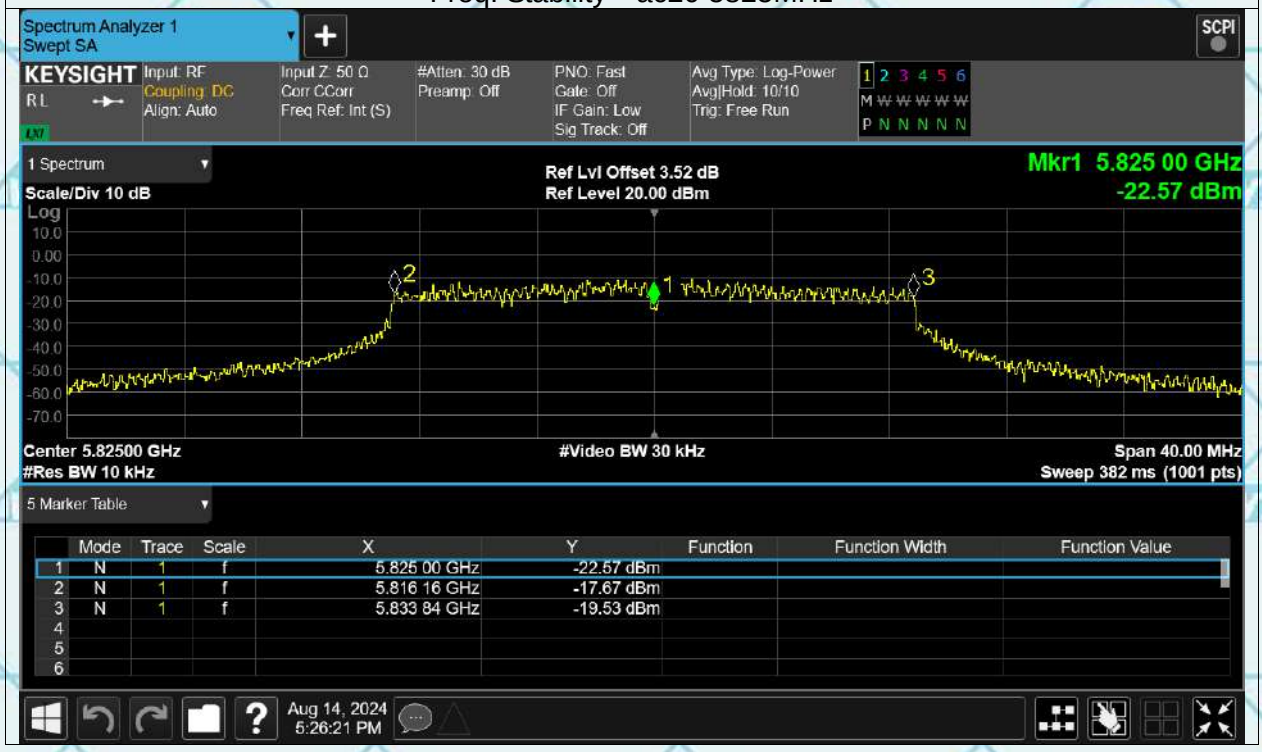


Freq. Stability ac20 5700MHz



Freq. Stability ac20 5745MHz

Freq. Stability ac20 5825MHz



Freq. Stability ac40 5190MHz

Freq. Stability ac40 5230MHz

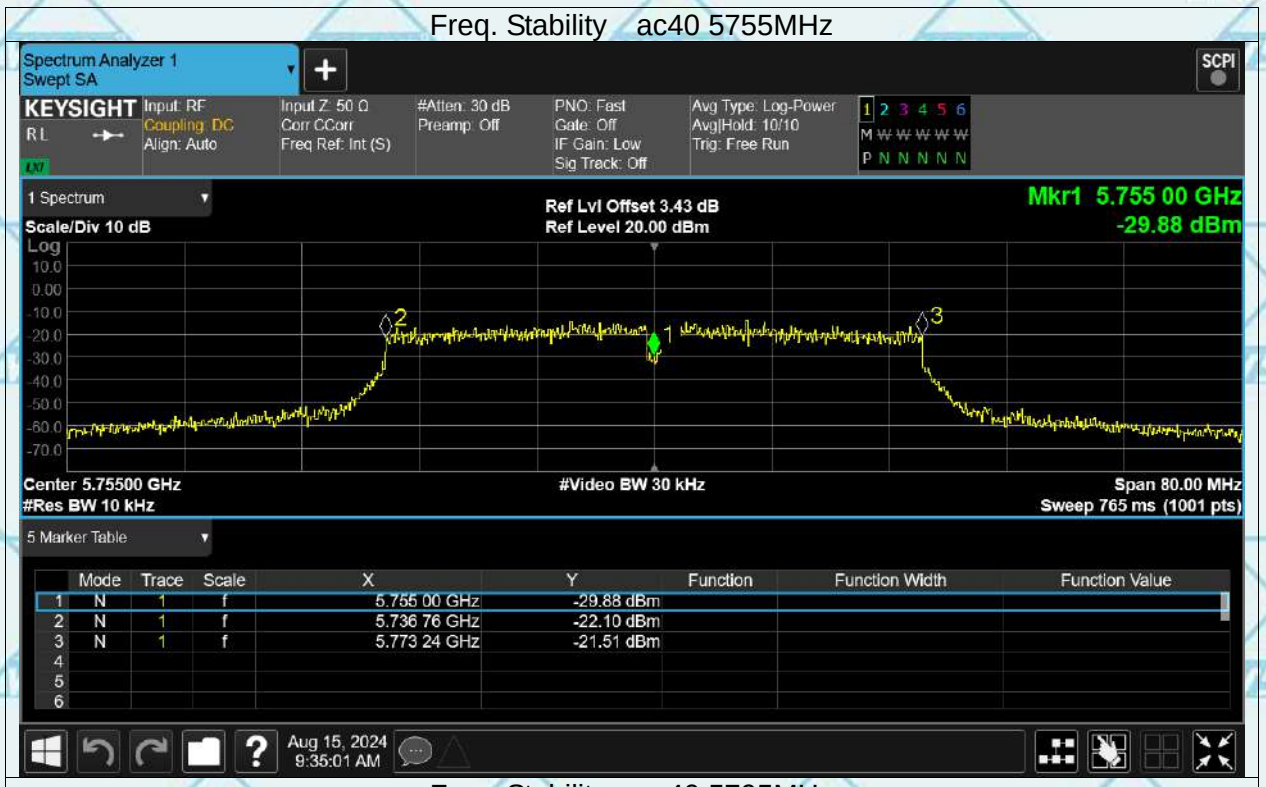
Freq. Stability ac40 5270MHz

Freq. Stability ac40 5310MHz

Freq. Stability ac40 5510MHz

Freq. Stability ac40 5670MHz

Freq. Stability ac40 5755MHz



Freq. Stability ac40 5795MHz

Freq. Stability ac80 5210MHz

Freq. Stability ac80 5290MHz

Freq. Stability ac80 5530MHz

Freq. Stability ac80 5610MHz

Freq. Stability ac80 5775MHz

Freq. Stability ax20 5180MHz

Freq. Stability ax20 5240MHz

Freq. Stability ax20 5260MHz

Freq. Stability ax20 5320MHz

Freq. Stability ax20 5500MHz

Freq. Stability ax20 5700MHz

Freq. Stability ax20 5745MHz

Freq. Stability ax20 5825MHz

Freq. Stability ax40 5190MHz

Freq. Stability ax40 5230MHz

Freq. Stability ax40 5270MHz

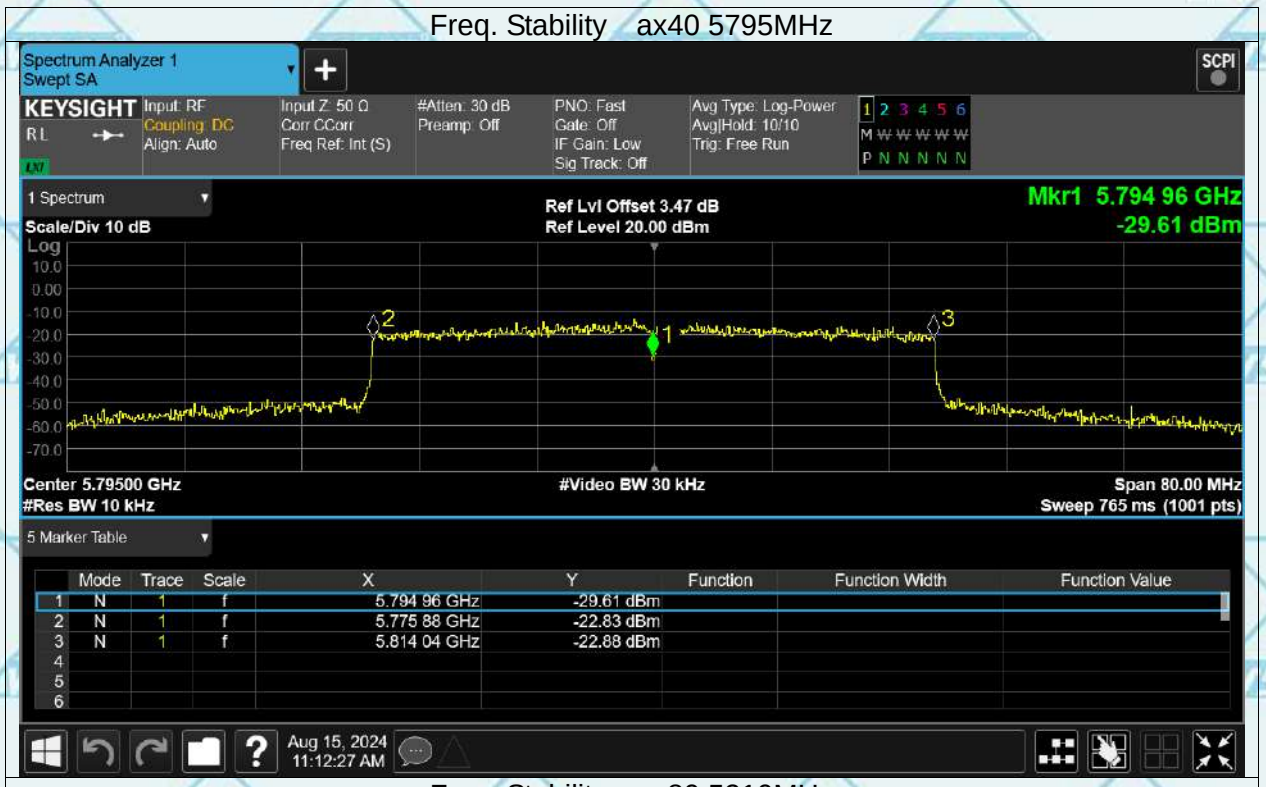
Freq. Stability ax40 5310MHz

Freq. Stability ax40 5510MHz

Freq. Stability ax40 5670MHz

Freq. Stability ax40 5755MHz

Freq. Stability ax40 5795MHz



Freq. Stability ax80 5210MHz

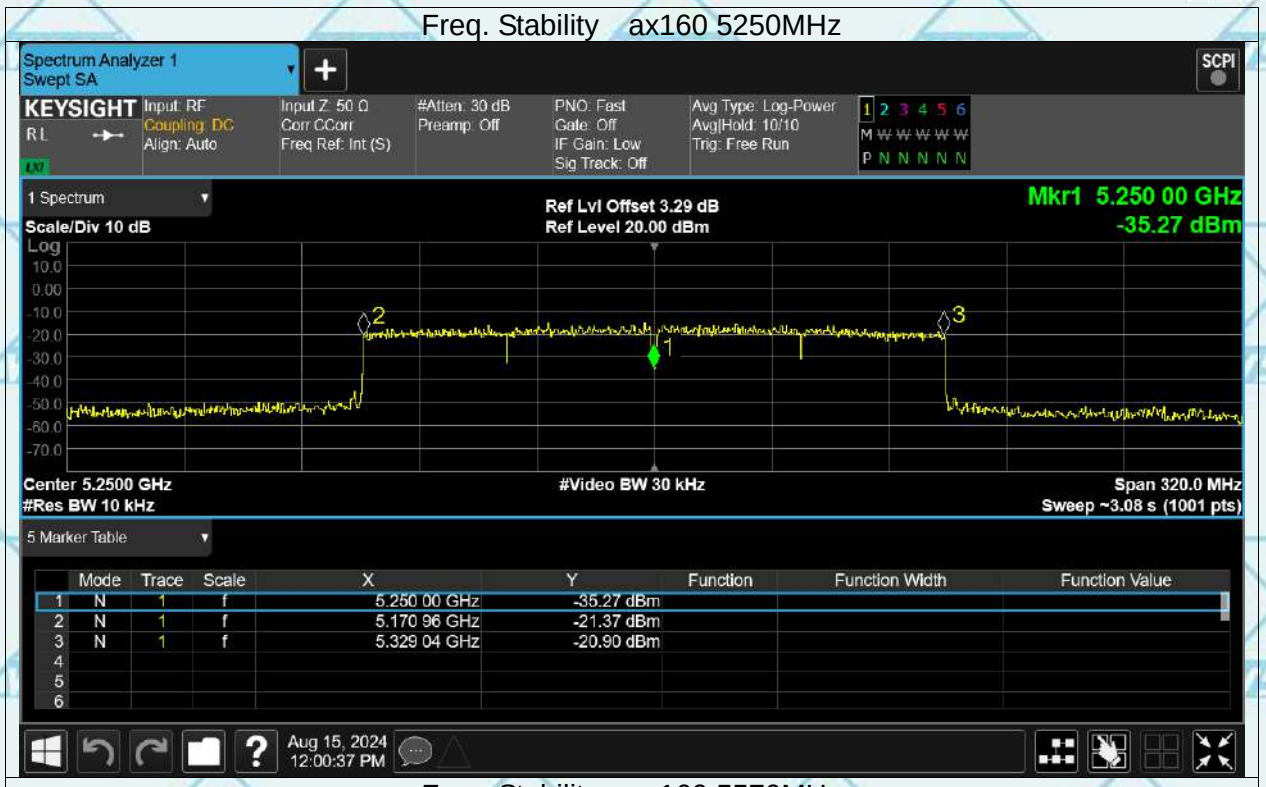
Freq. Stability ax80 5290MHz

Freq. Stability ax80 5530MHz

Freq. Stability ax80 5610MHz

Freq. Stability ax80 5775MHz

Freq. Stability ax160 5250MHz



Freq. Stability ax160 5570MHz

7.8 BAND EDGE EMISSIONS

7.8.1 TEST EQUIPMENT

Please refer to Section 5 this report.

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

7.8.2 TEST SETUP

Same as section 3.4 of this report

7.8.3 CONFIGURATION OF THE EUT

Same as section 3.4of this report

7.8.4 EUT OPERATING CONDITION

Same as section 3.4 of this report.

7.8.5 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.	

7.8.6 TEST RESULT

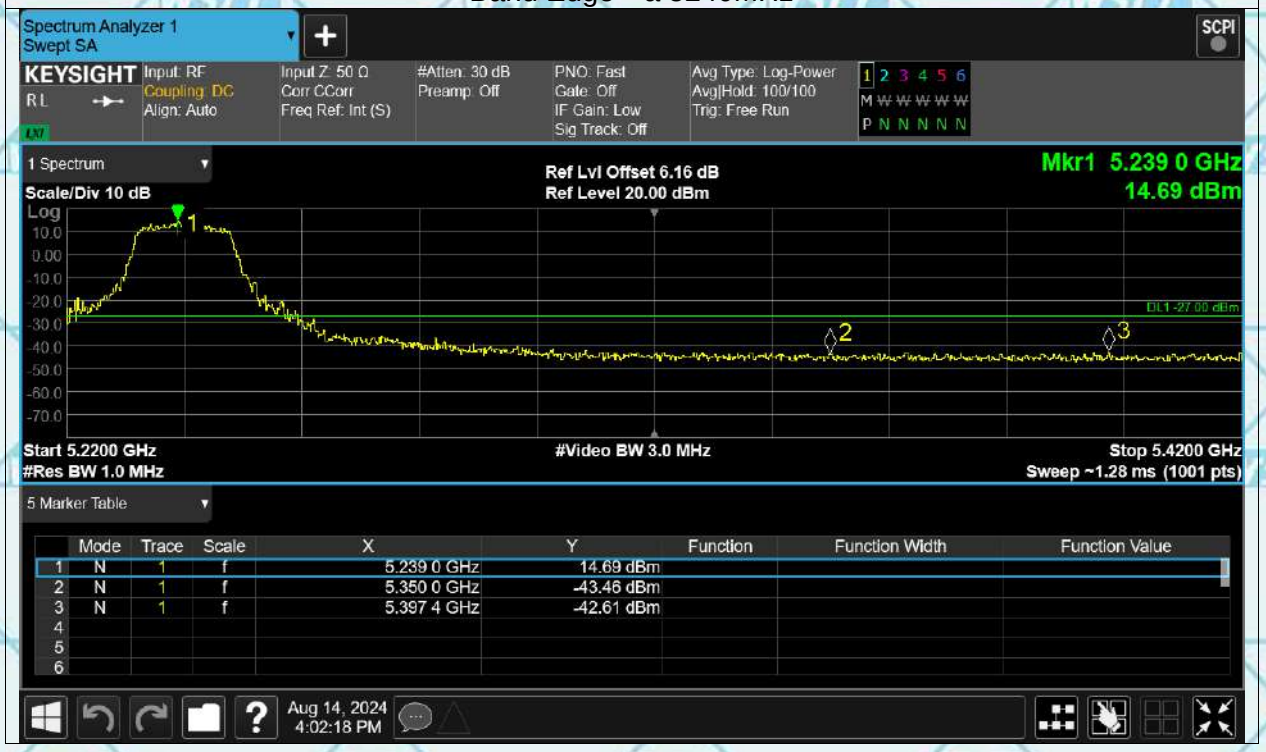
Band Edge and Fundamental Emissions

Product:	EUT-Sample	Test Mode:	20MHzIEEE 802.11a/n/ac/ax
Test Item:	Band Edge and Fundamental Emissions	Temperature:	25 ℃
Test Voltage:	DC 11.61V	Humidity:	56%RH
Test Result:	PASS		

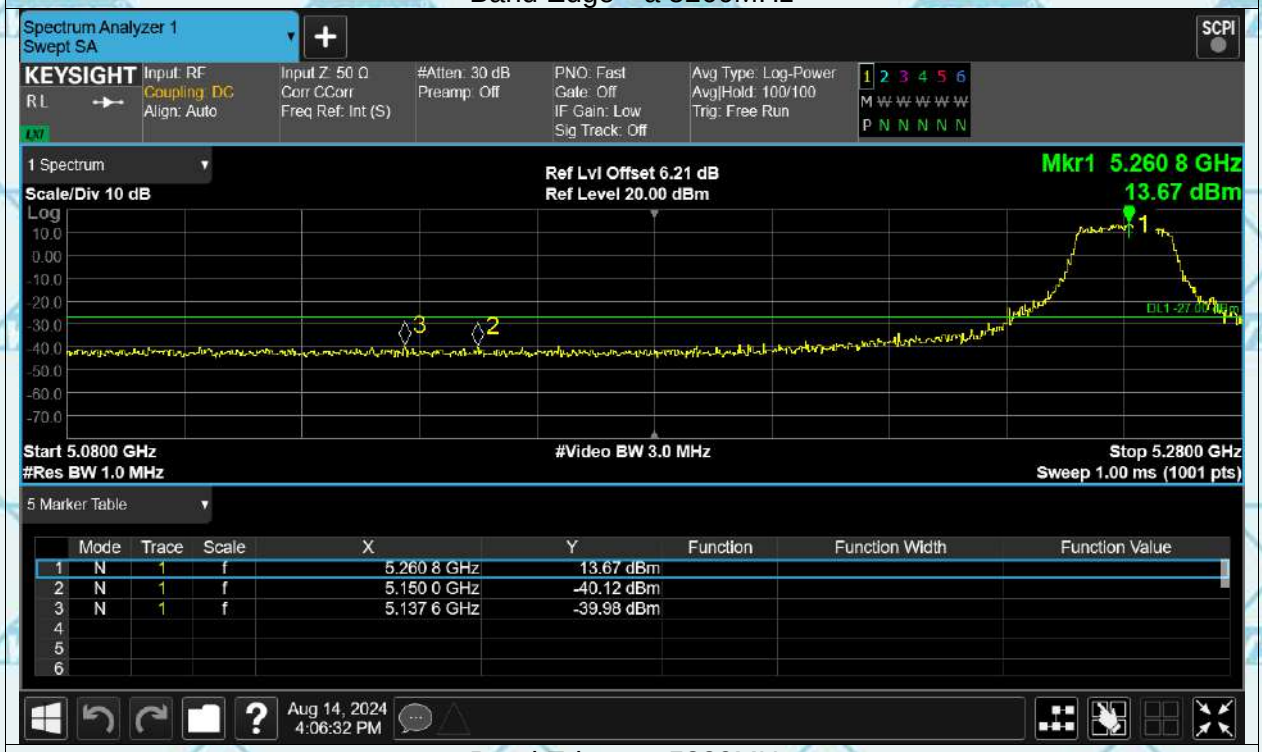
Test Graphs

Band Edge a 5180MHz

Band Edge a 5240MHz

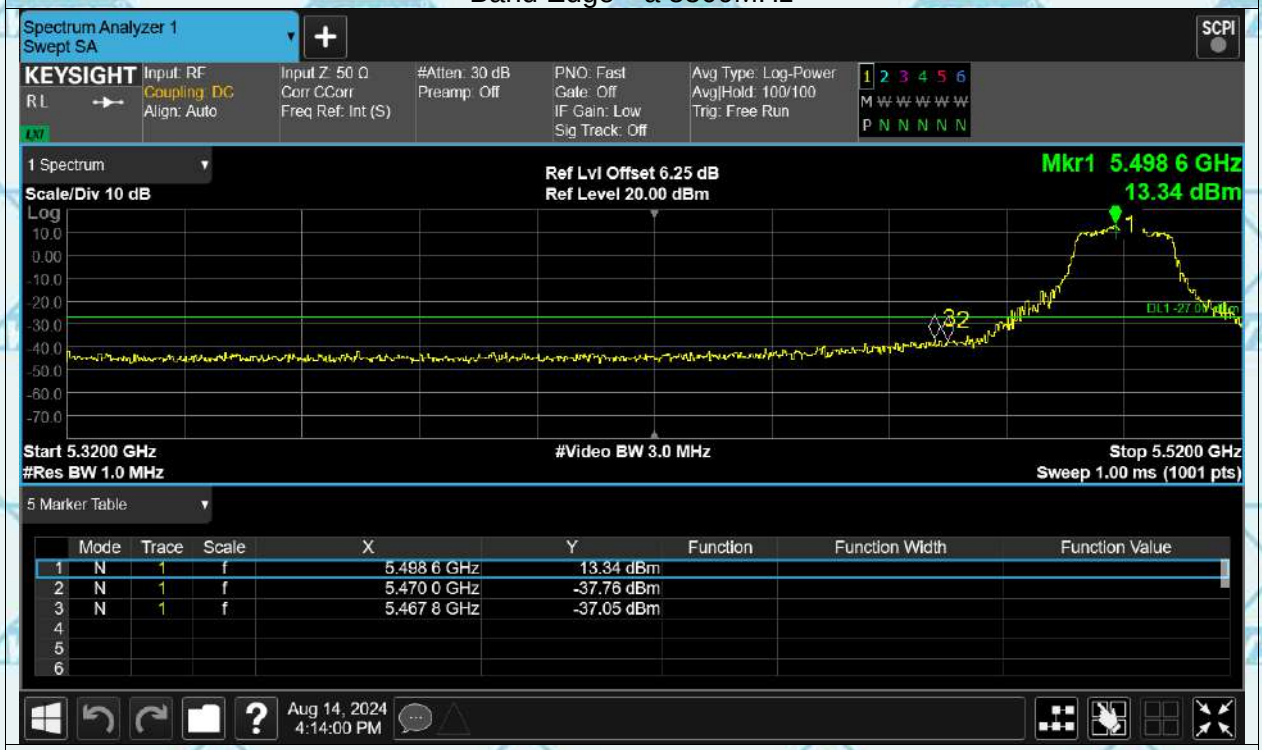


Band Edge a 5260MHz



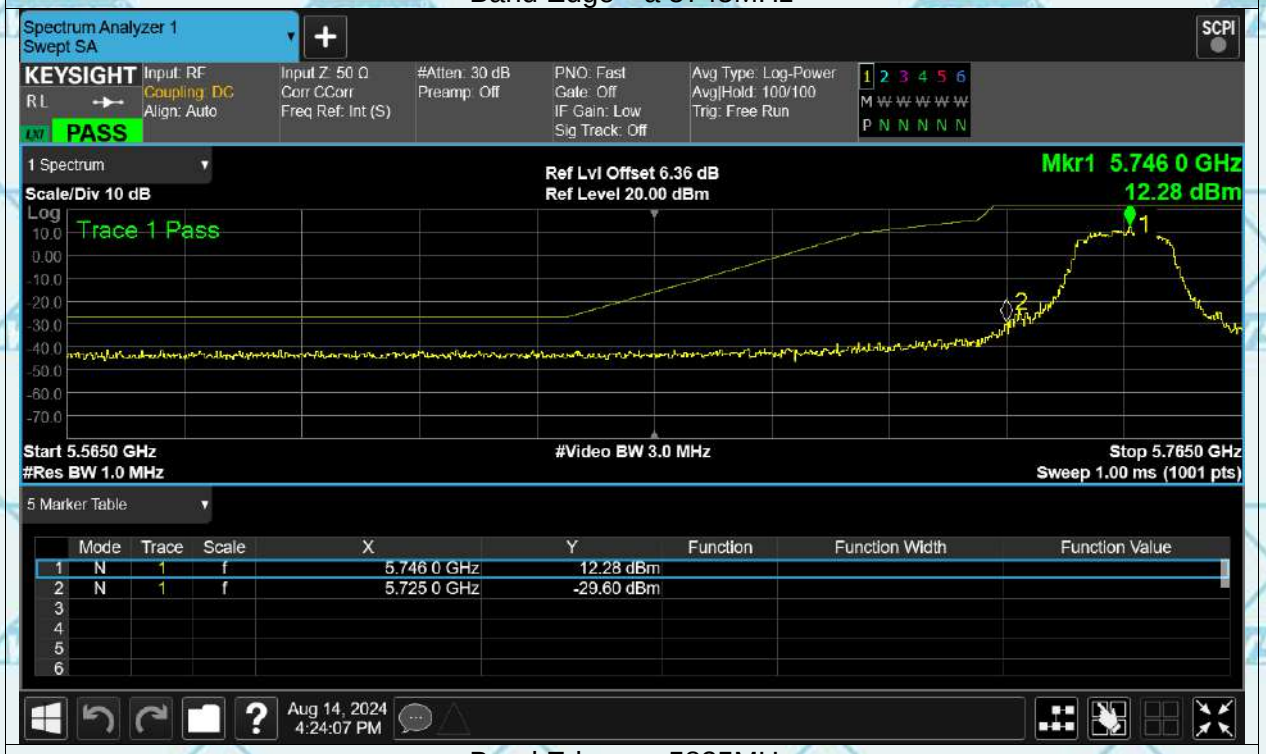
Band Edge a 5320MHz

Band Edge a 5500MHz



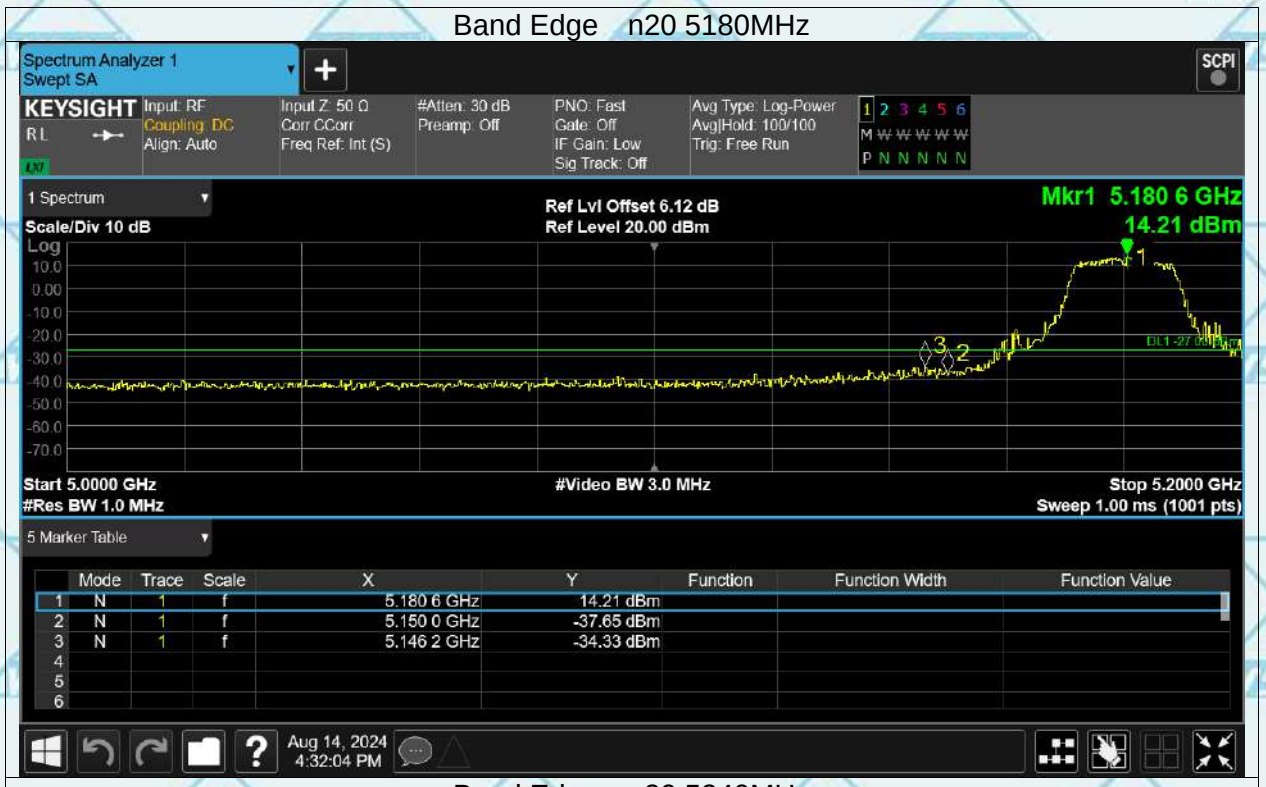
Band Edge a 5700MHz

Band Edge a 5745MHz



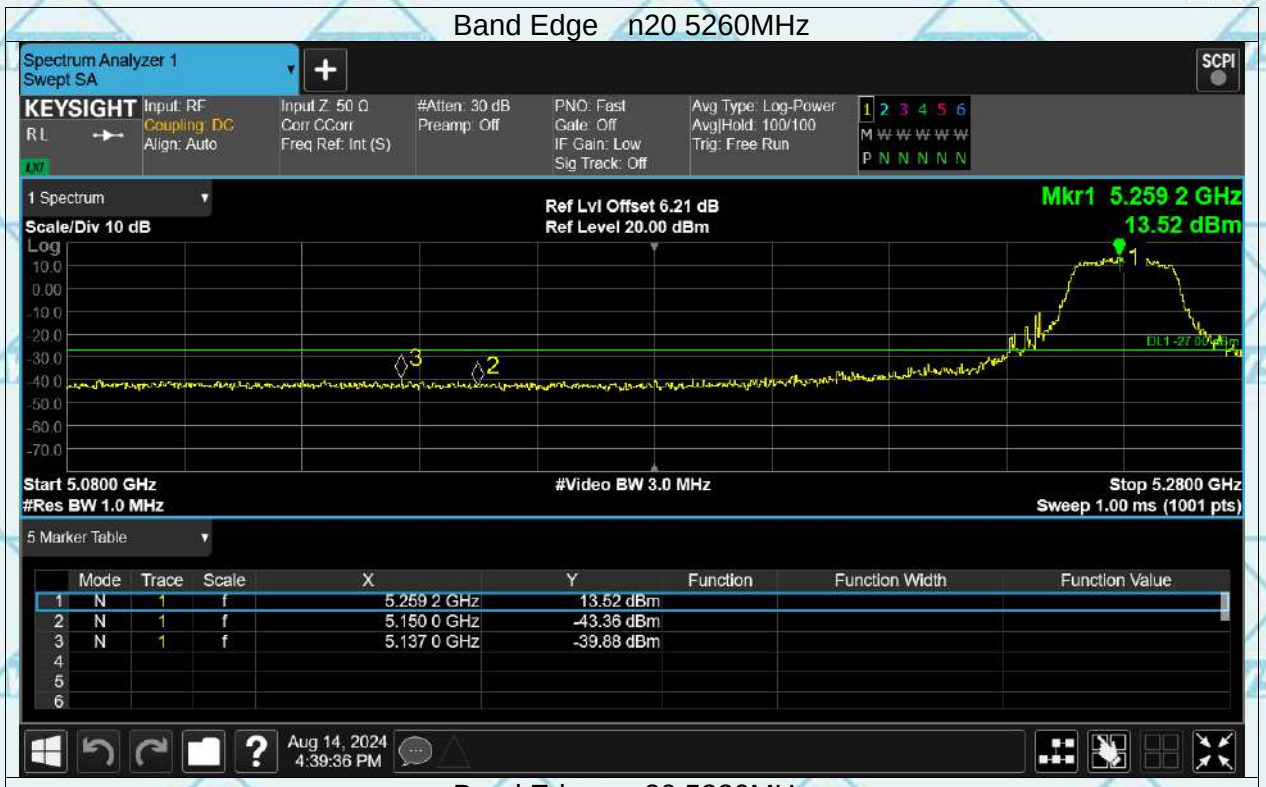
Band Edge a 5825MHz

Band Edge n20 5180MHz



Band Edge n20 5240MHz

Band Edge n20 5260MHz



Band Edge n20 5320MHz