

RF Test Data for 2.4G WiFi

(Conducted Measurements)

General Description of EUT	
Product Name:	Wireless camera
Test Model:	T-CL6021LF-W44J
Sample ID:	RW-C-202207-0223-1-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.6V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202207-0223-6	

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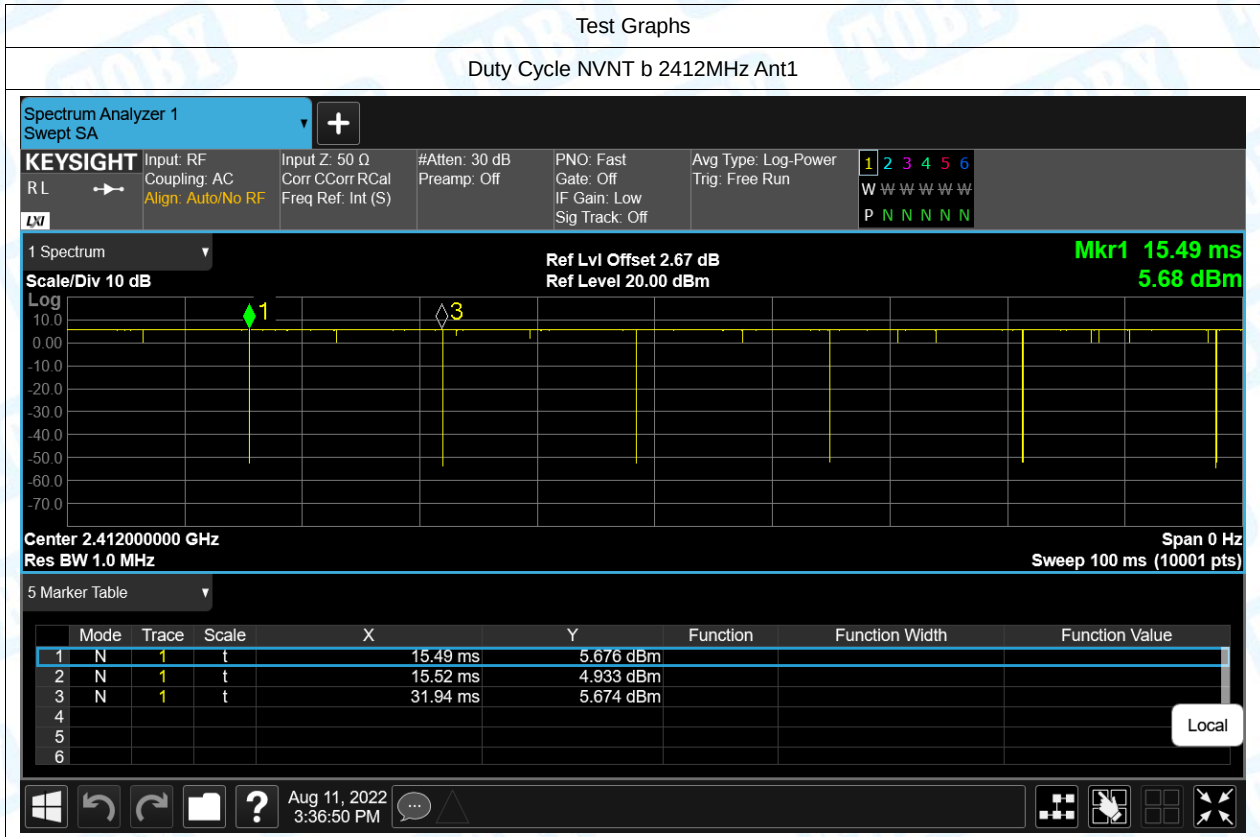
1. Duty Cycle

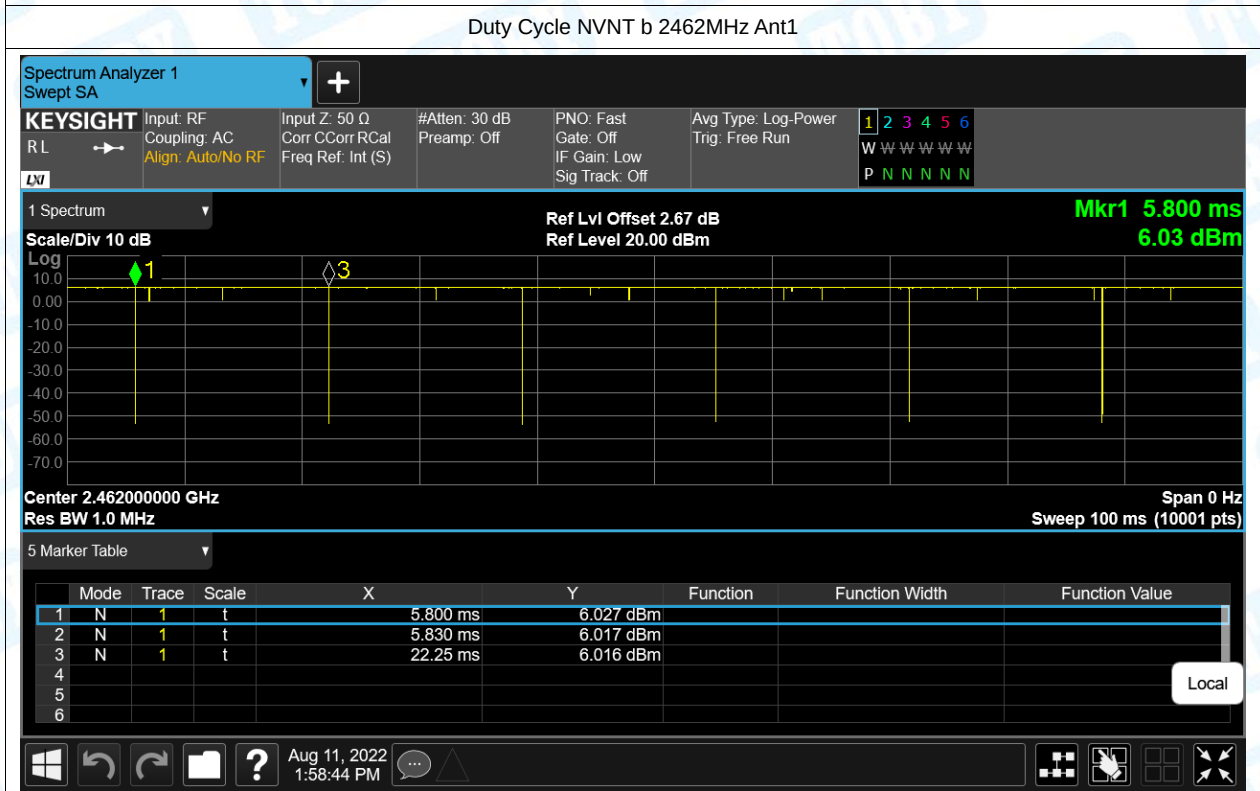
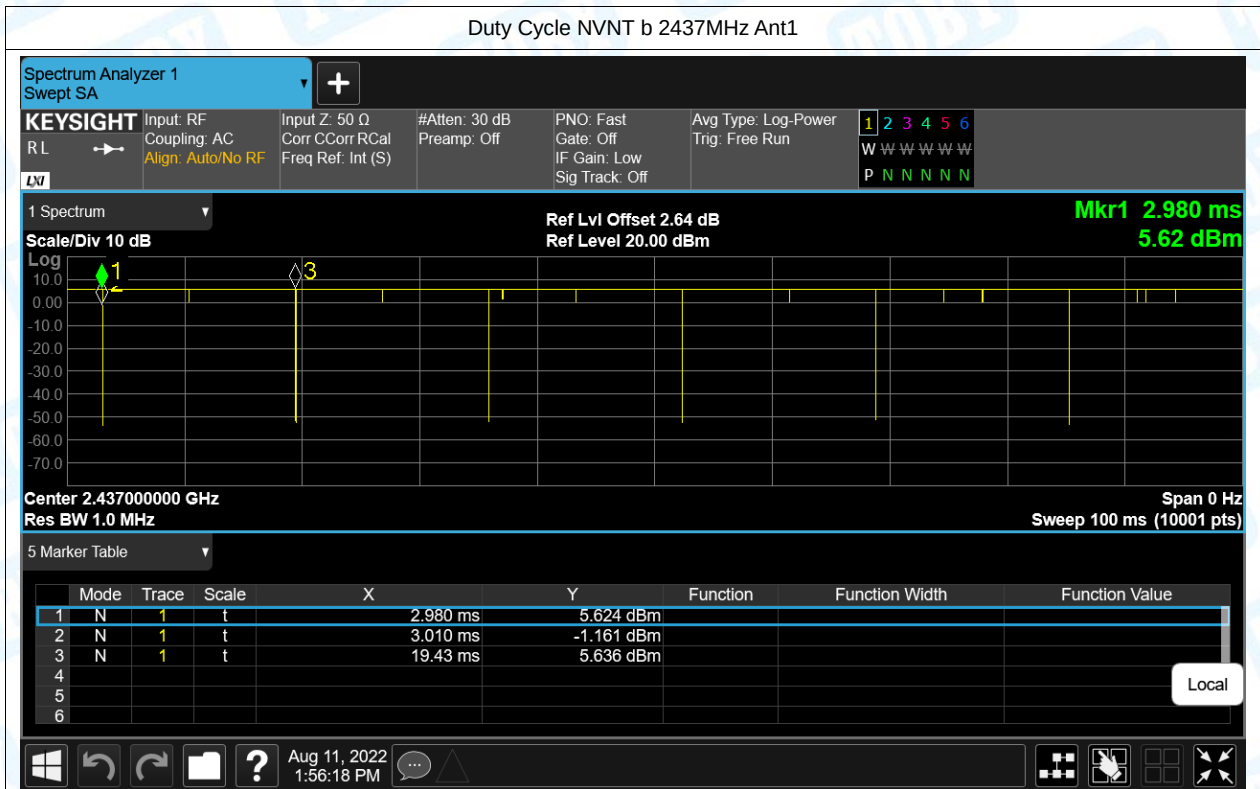
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.82	0.01	0.06
NVNT	b	2437	Ant1	99.82	0.01	0.06
NVNT	b	2462	Ant1	99.82	0.01	0.06
NVNT	g	2412	Ant1	98.9	0.04	0.37
NVNT	g	2437	Ant1	98.6	0.06	0.37
NVNT	g	2462	Ant1	98.9	0.04	0.37
NVNT	n(HT20)	2412	Ant1	98.4	0.07	0.39
NVNT	n(HT20)	2437	Ant1	98.4	0.07	0.4
NVNT	n(HT20)	2462	Ant1	98.4	0.07	0.39

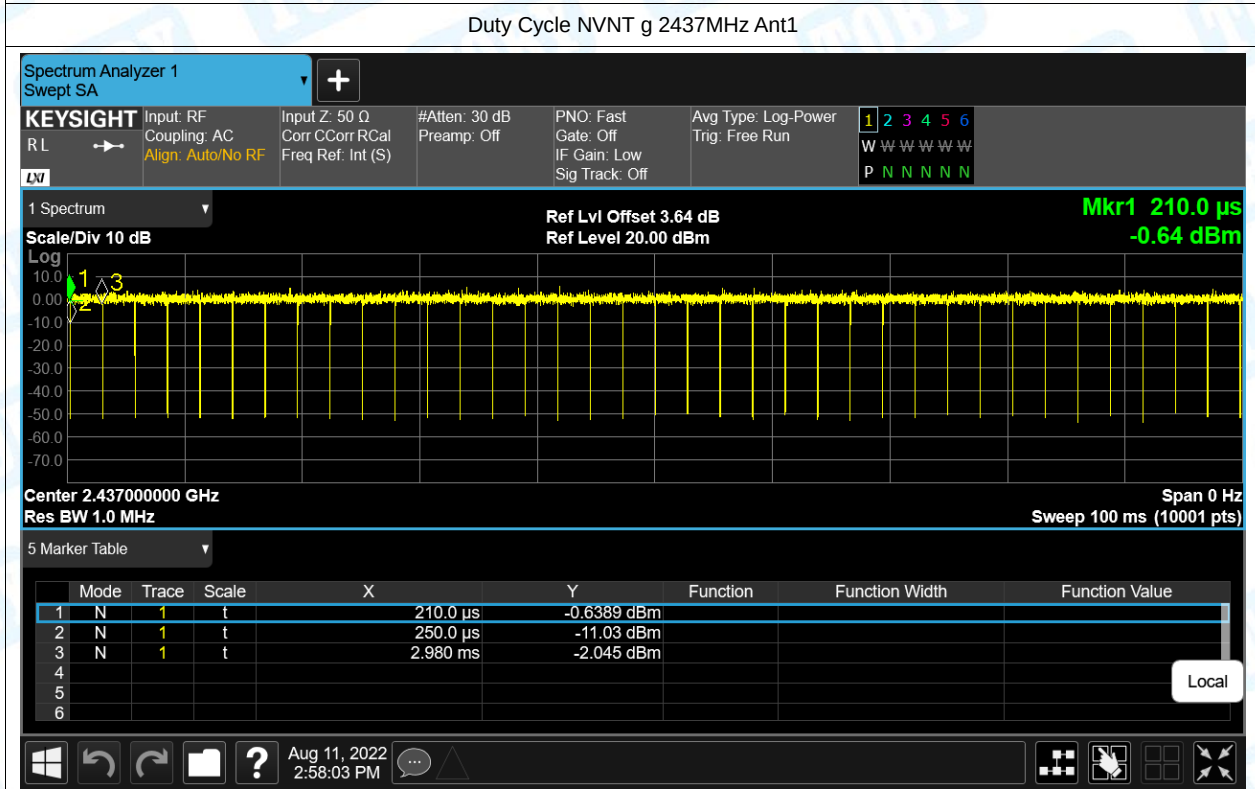
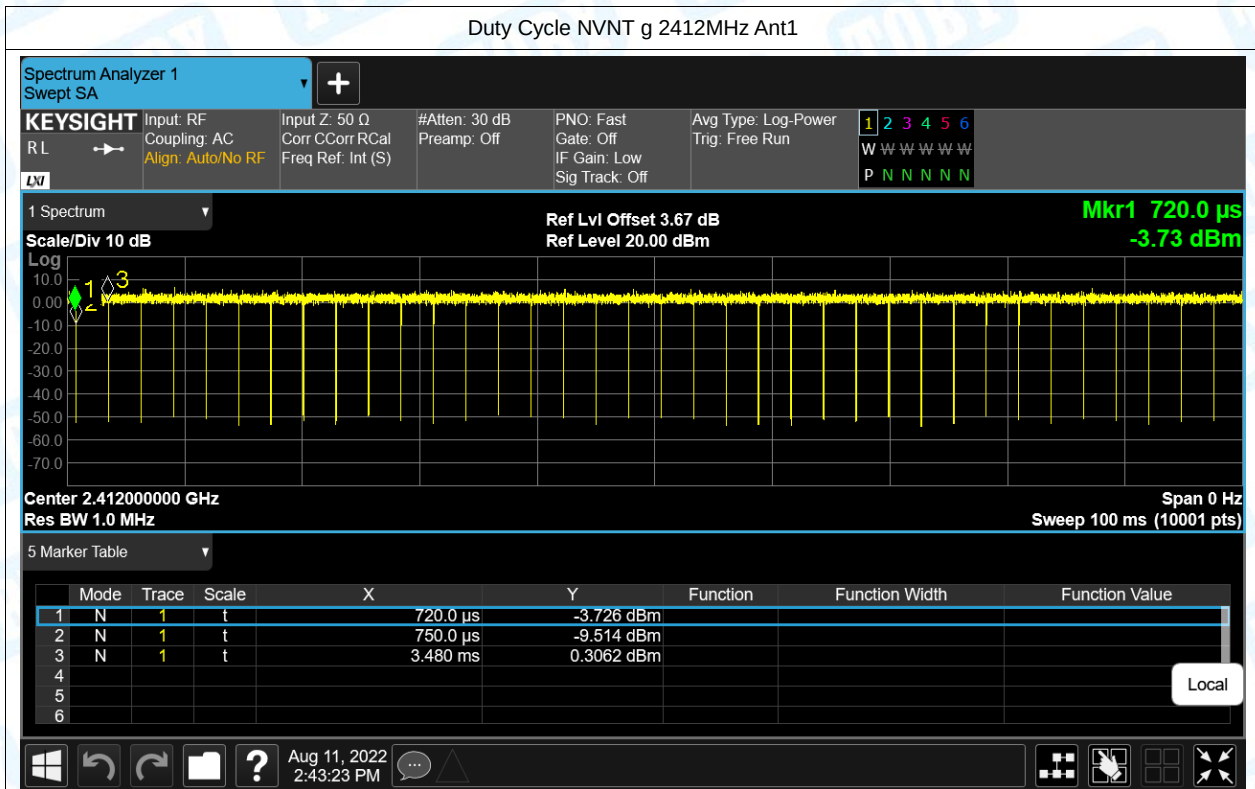
Note: Duty Cycle(%)=ON(ms)/(ON(ms)+OFF(ms))

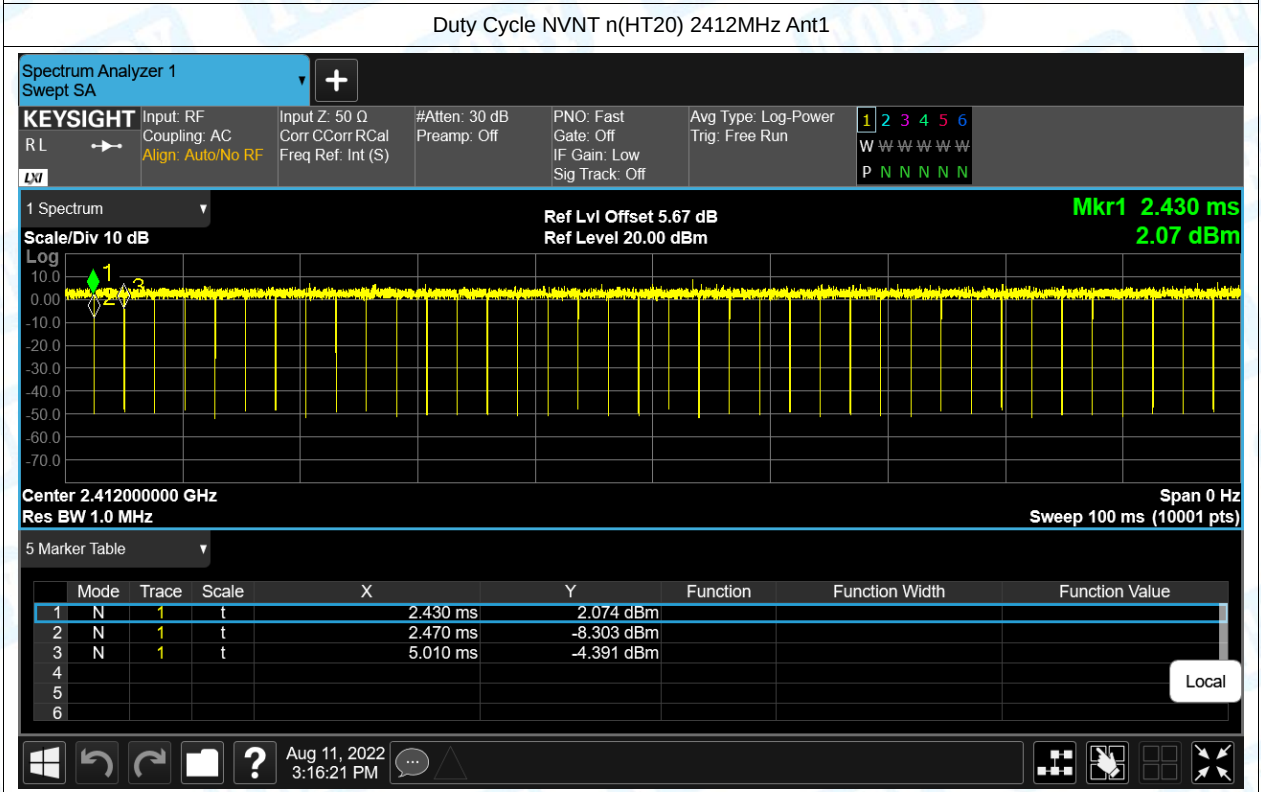
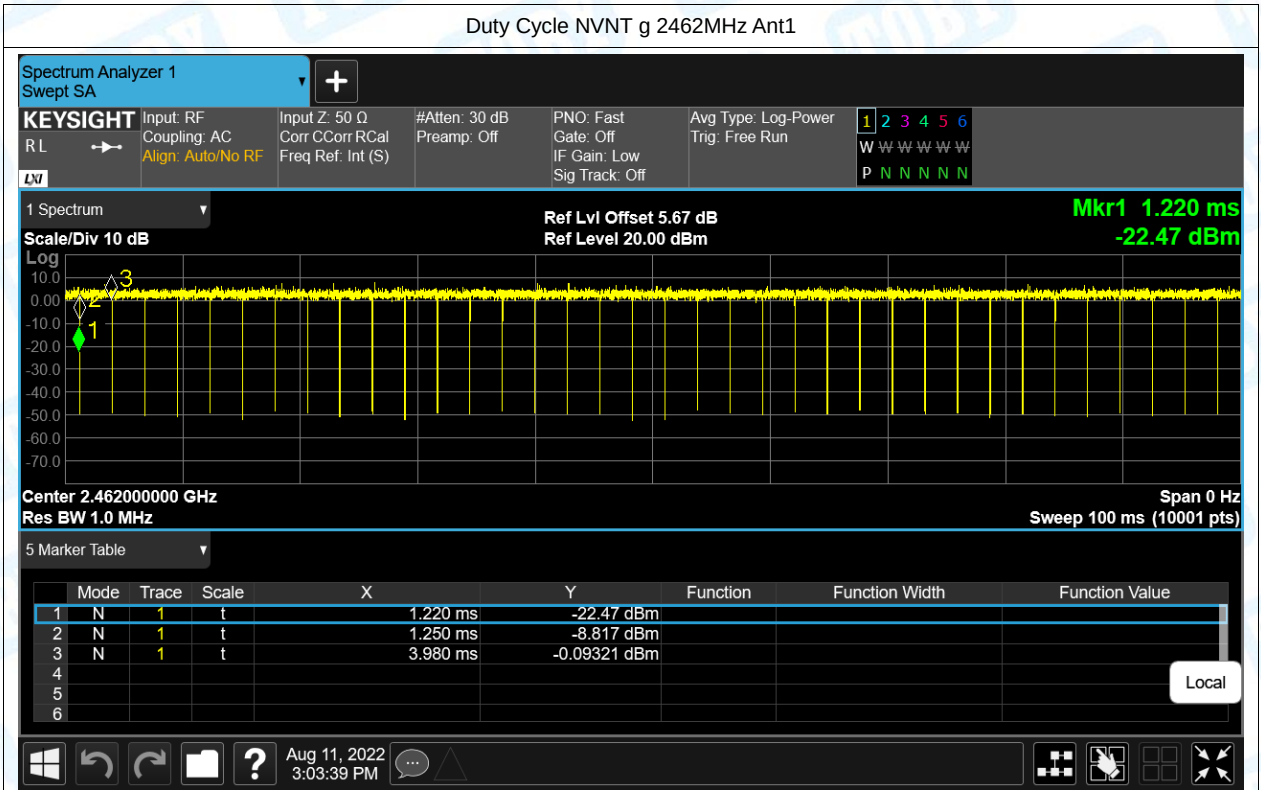
ON(ms)=Maker3-Maker2

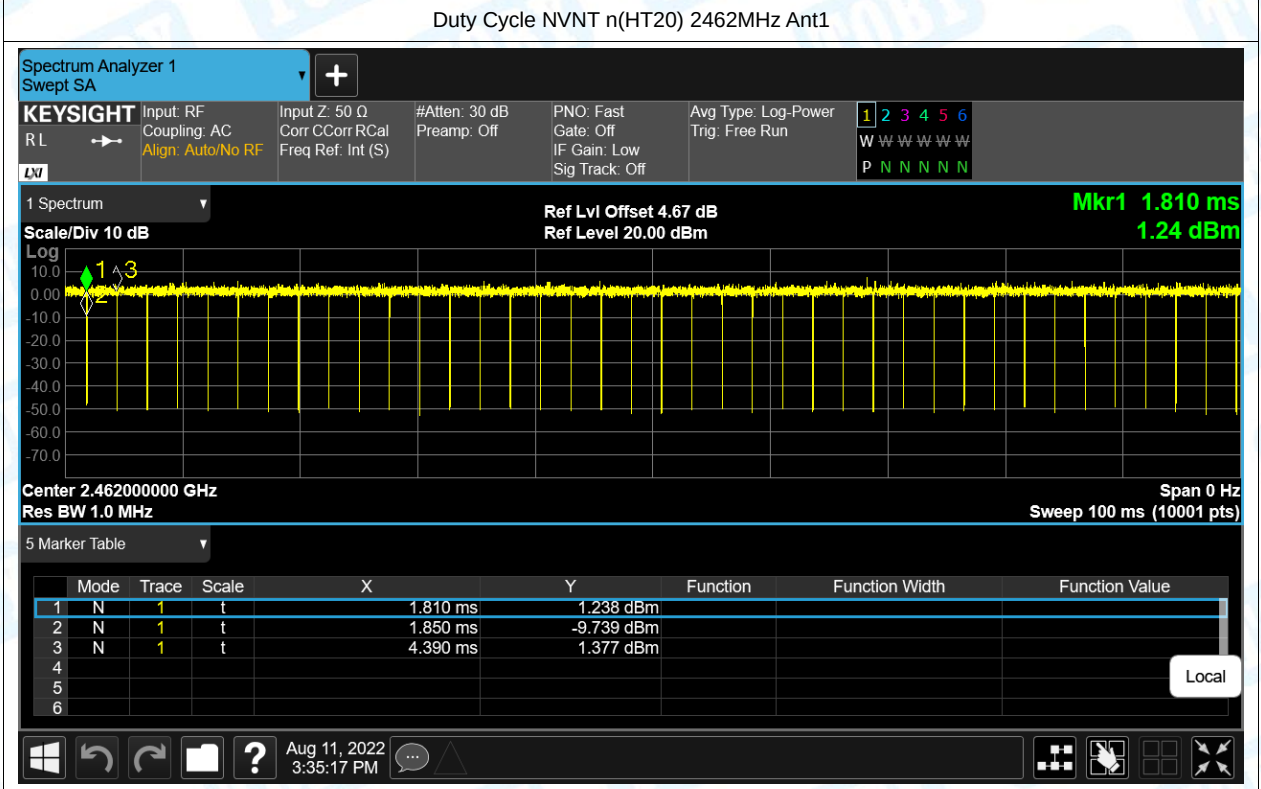
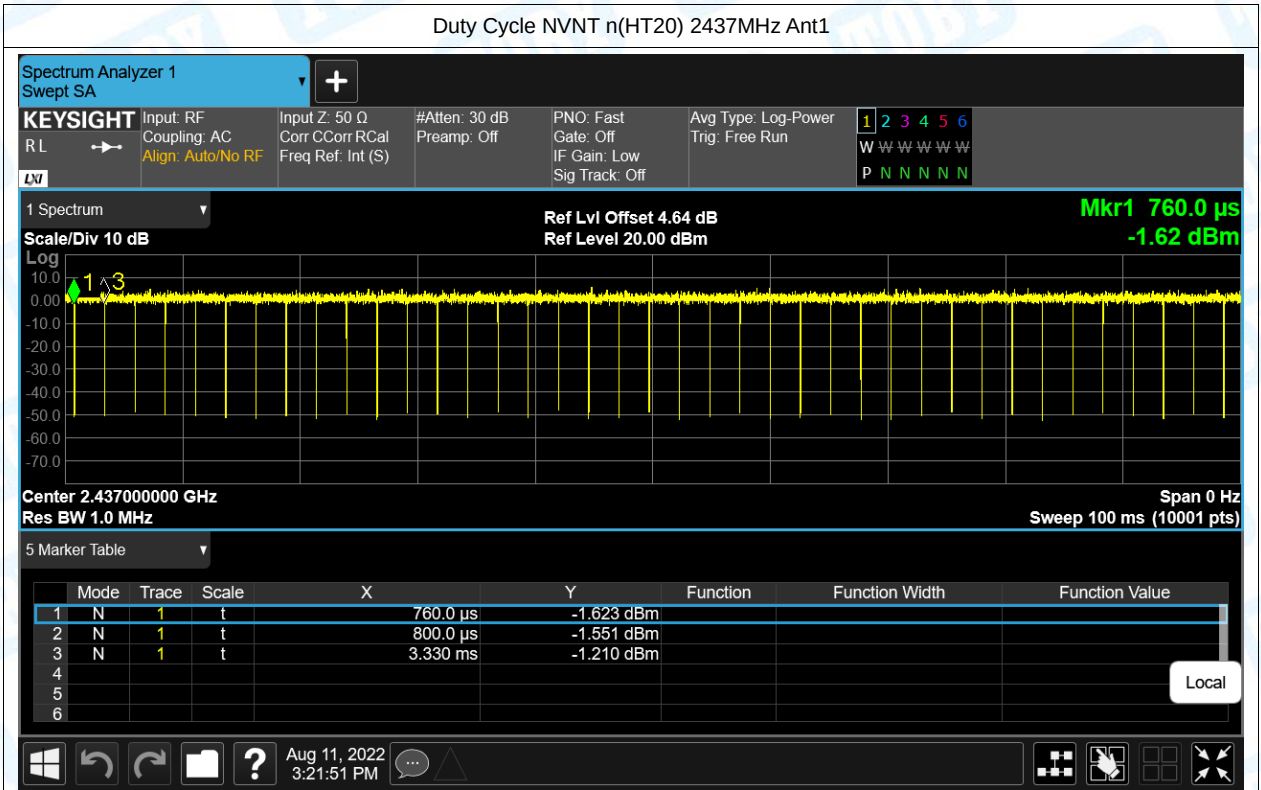
(ON(ms)+OFF(ms))=Maker3-Maker1











2. Maximum Conducted Output Power

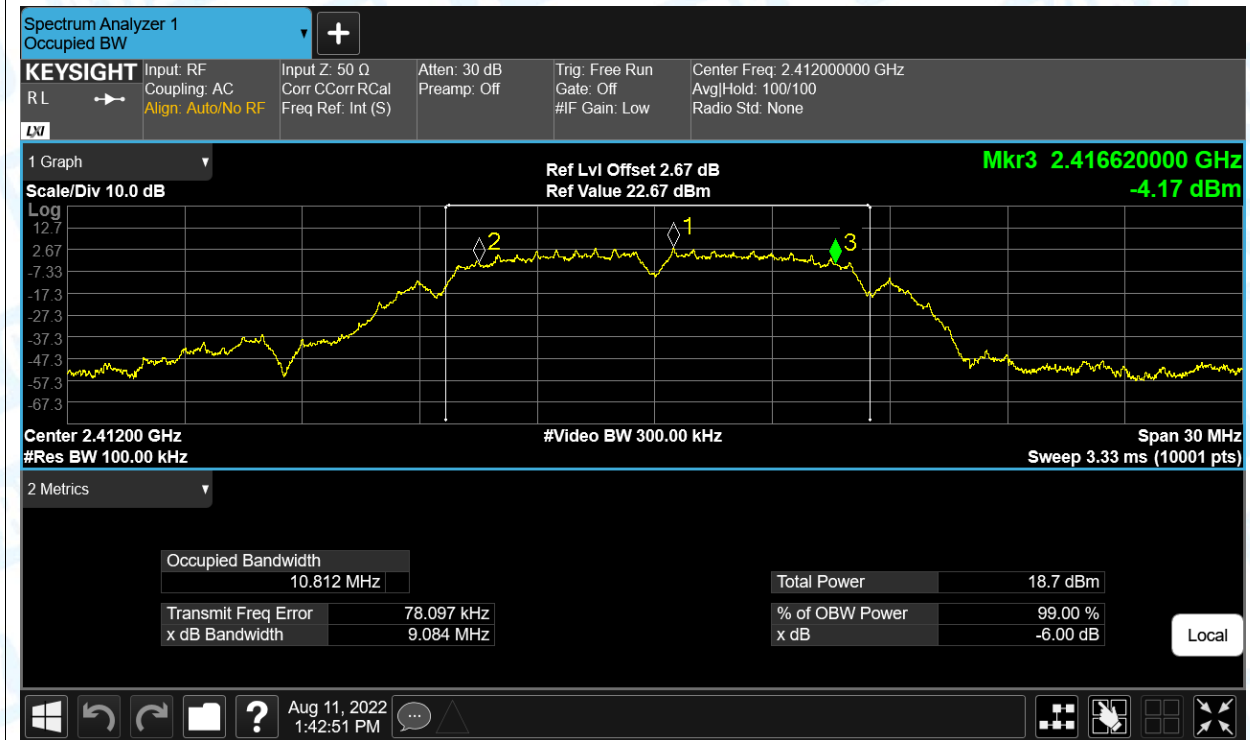
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	13.62	30	Pass
NVNT	b	2437	Ant1	13.35	30	Pass
NVNT	b	2462	Ant1	13.74	30	Pass
NVNT	g	2412	Ant1	14.09	30	Pass
NVNT	g	2437	Ant1	14.78	30	Pass
NVNT	g	2462	Ant1	14.98	30	Pass
NVNT	n(HT20)	2412	Ant1	15.36	30	Pass
NVNT	n(HT20)	2437	Ant1	13.72	30	Pass
NVNT	n(HT20)	2462	Ant1	13.93	30	Pass

3. -6dB Bandwidth

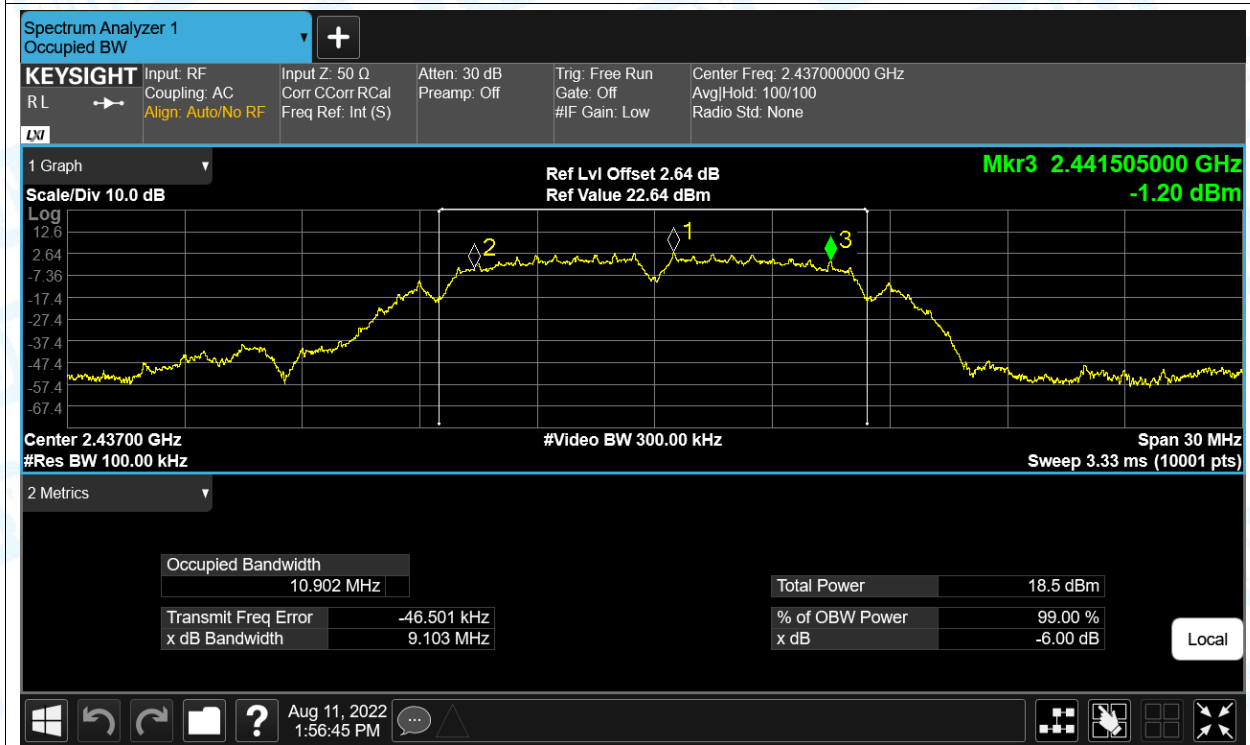
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.08	0.5	Pass
NVNT	b	2437	Ant1	9.1	0.5	Pass
NVNT	b	2462	Ant1	9.07	0.5	Pass
NVNT	g	2412	Ant1	16.37	0.5	Pass
NVNT	g	2437	Ant1	16.37	0.5	Pass
NVNT	g	2462	Ant1	16.36	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.58	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.58	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.62	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



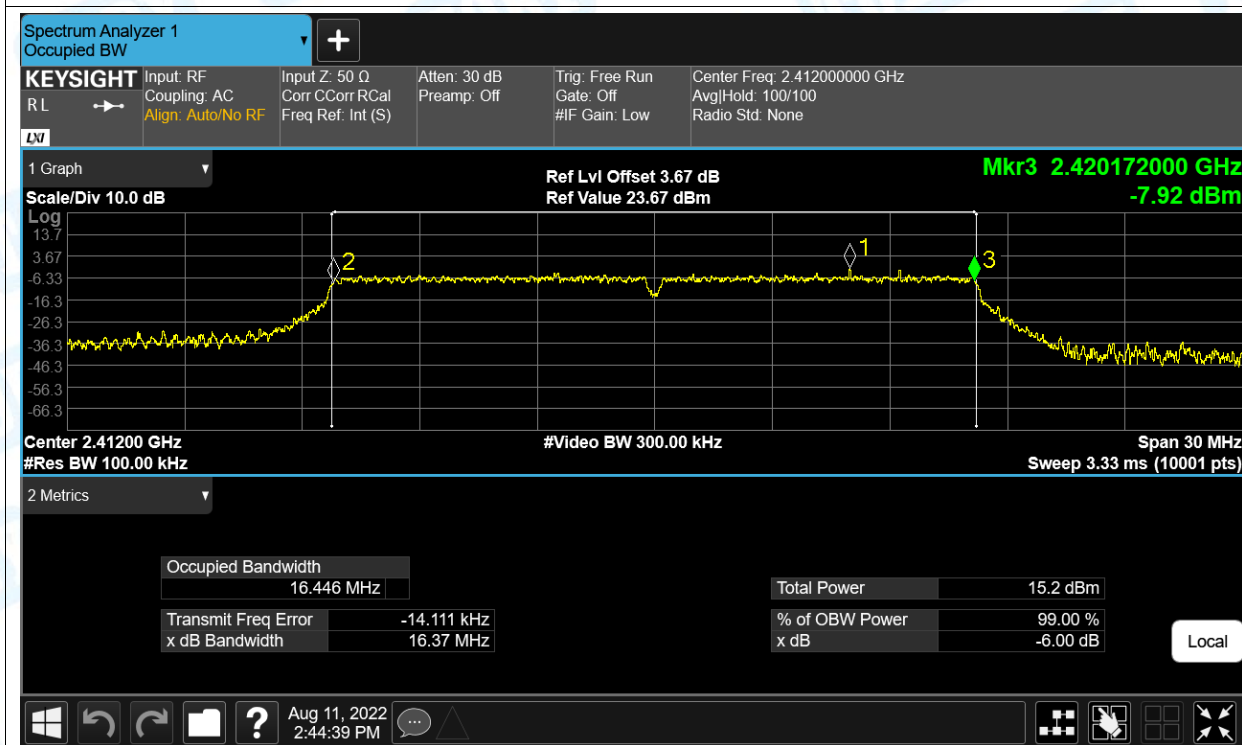
-6dB Bandwidth NVNT b 2437MHz Ant1



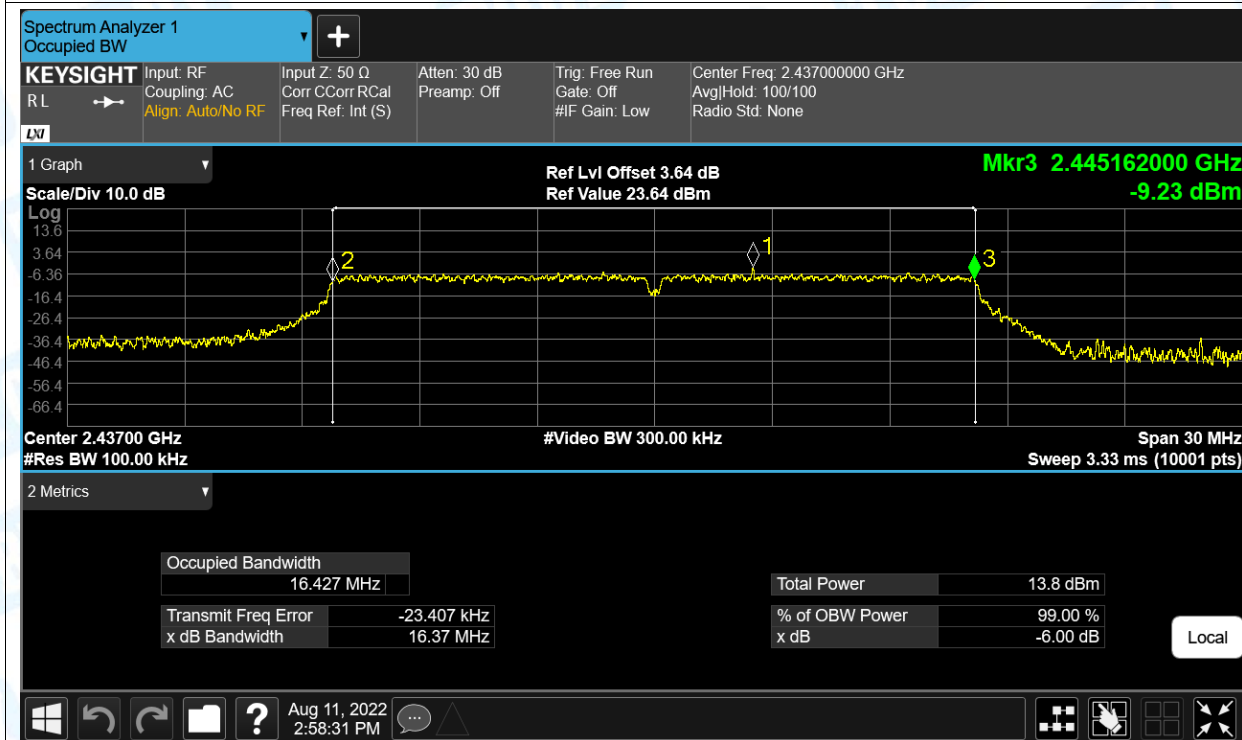
-6dB Bandwidth NVNT b 2462MHz Ant1



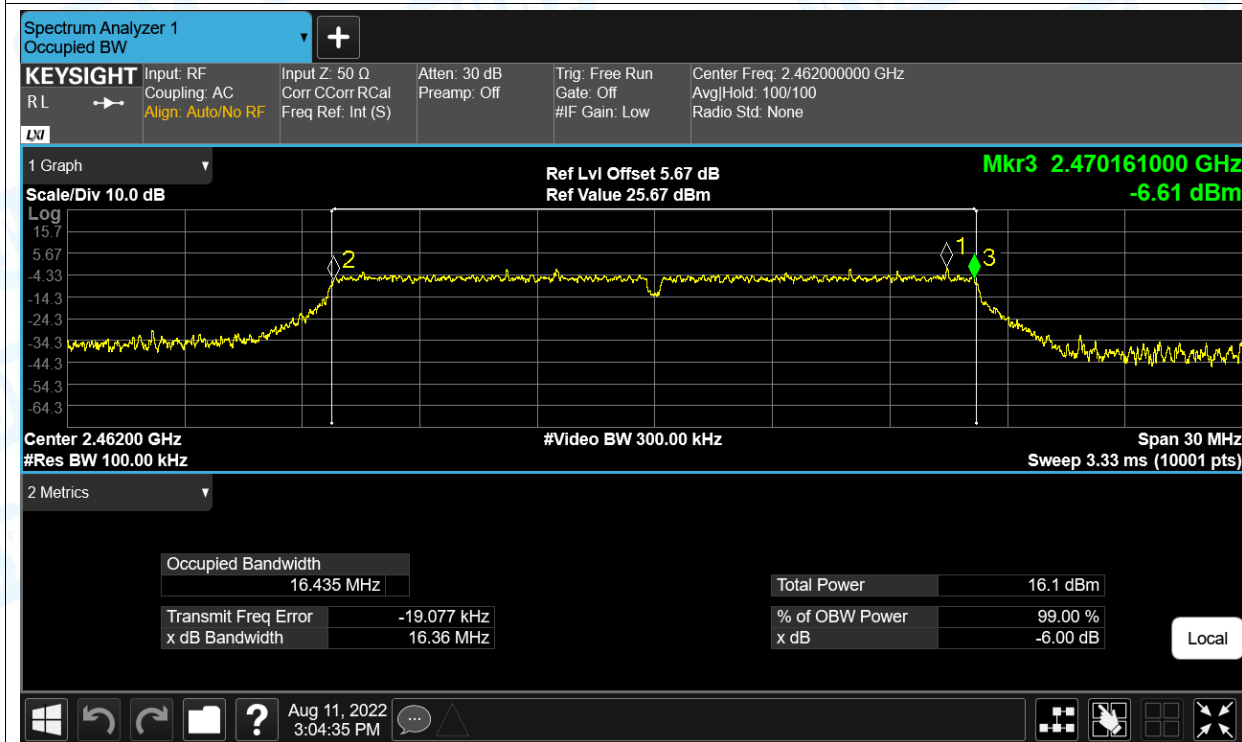
-6dB Bandwidth NVNT g 2412MHz Ant1



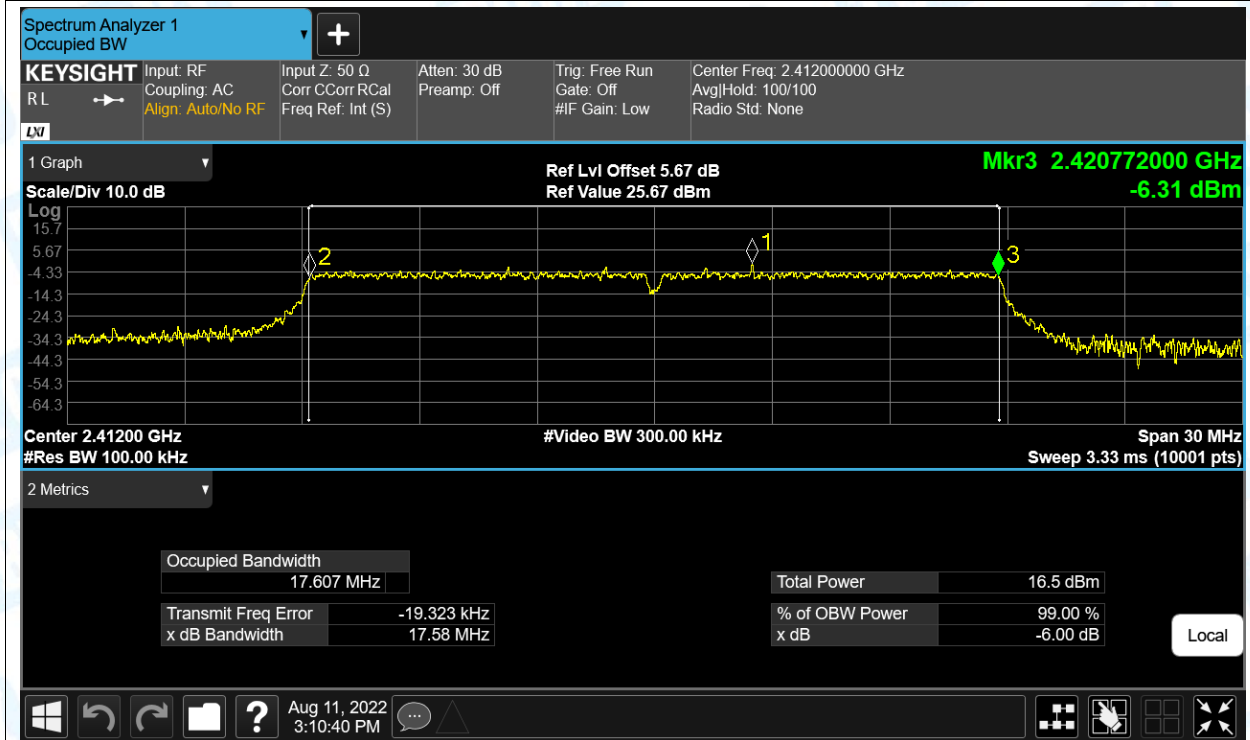
-6dB Bandwidth NVNT g 2437MHz Ant1



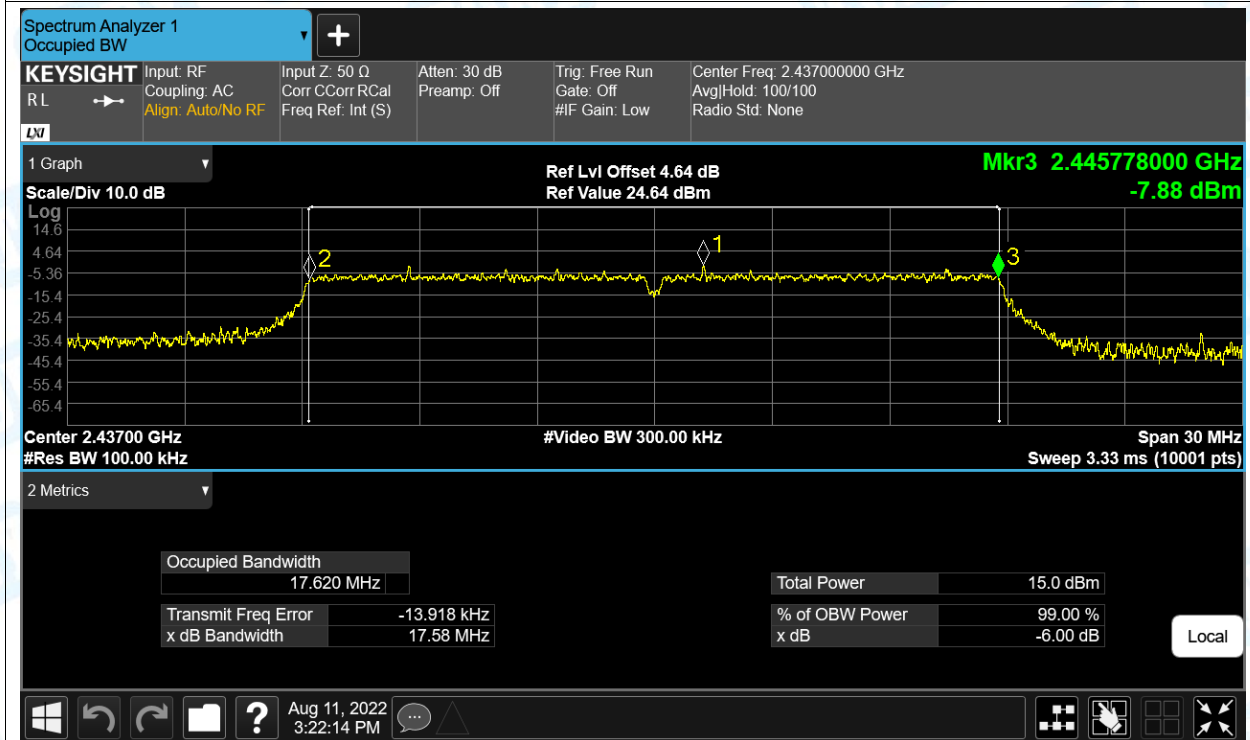
-6dB Bandwidth NVNT g 2462MHz Ant1

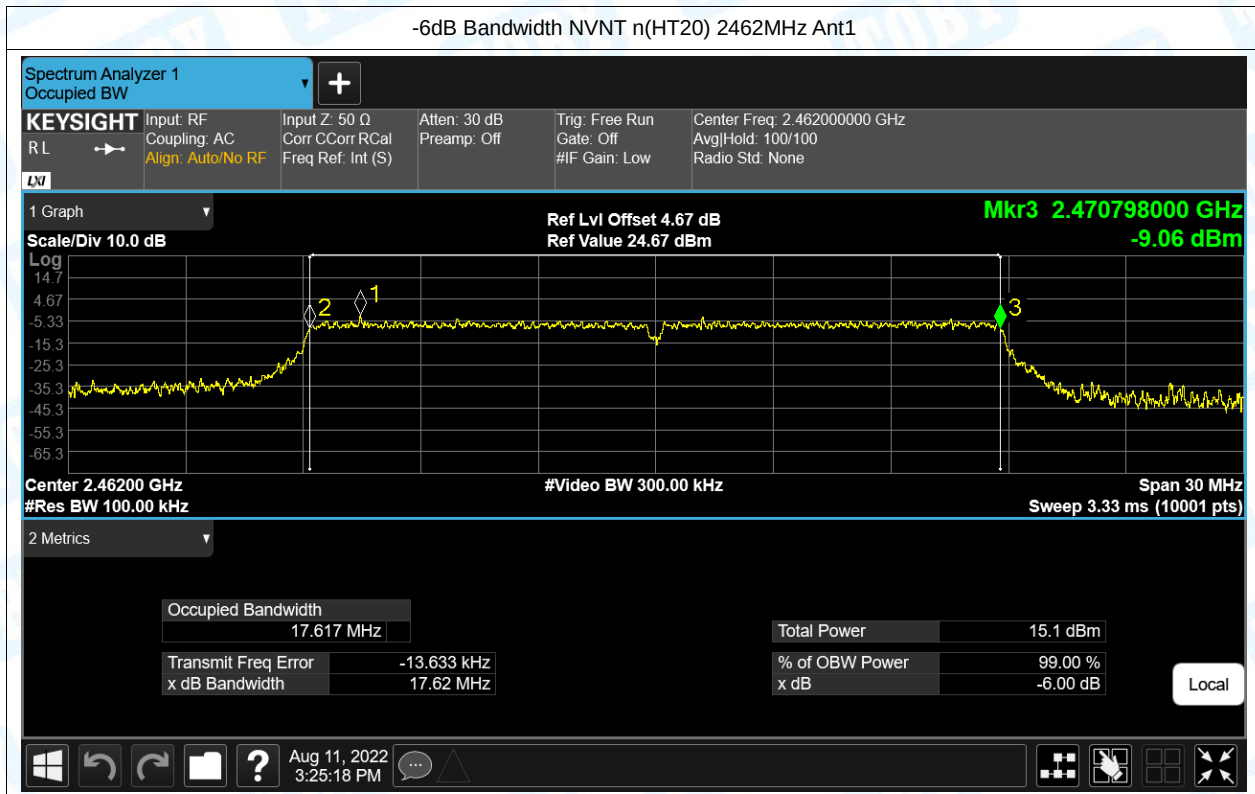


-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



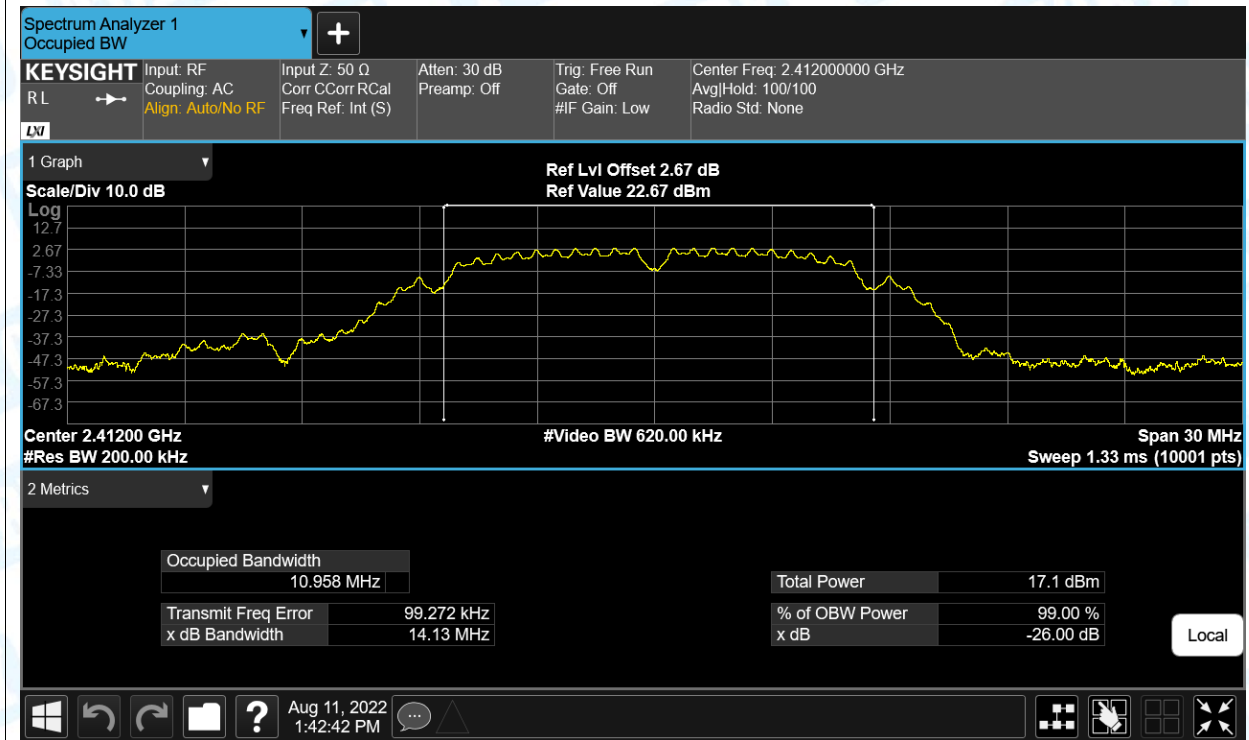


4. Occupied Channel Bandwidth

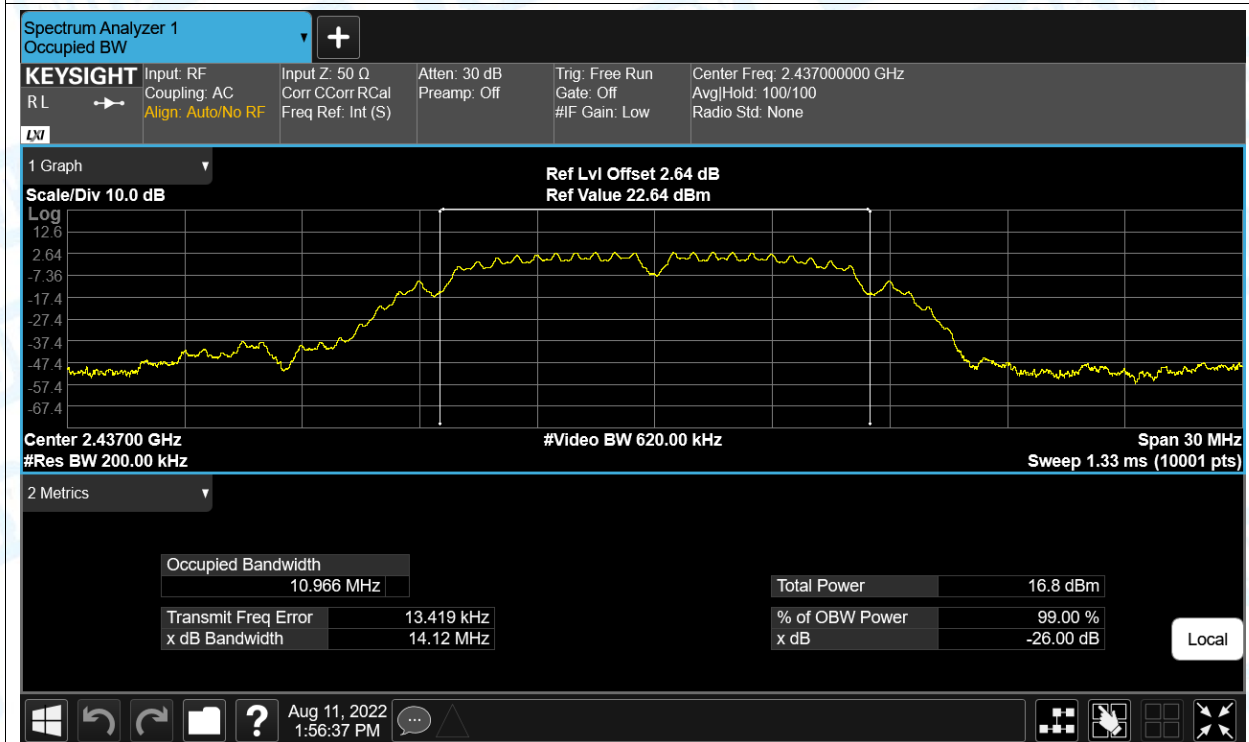
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	10.958
NVNT	b	2437	Ant1	10.966
NVNT	b	2462	Ant1	10.943
NVNT	g	2412	Ant1	16.521
NVNT	g	2437	Ant1	16.539
NVNT	g	2462	Ant1	16.499
NVNT	n(HT20)	2412	Ant1	17.64
NVNT	n(HT20)	2437	Ant1	17.624
NVNT	n(HT20)	2462	Ant1	17.633

Test Graphs

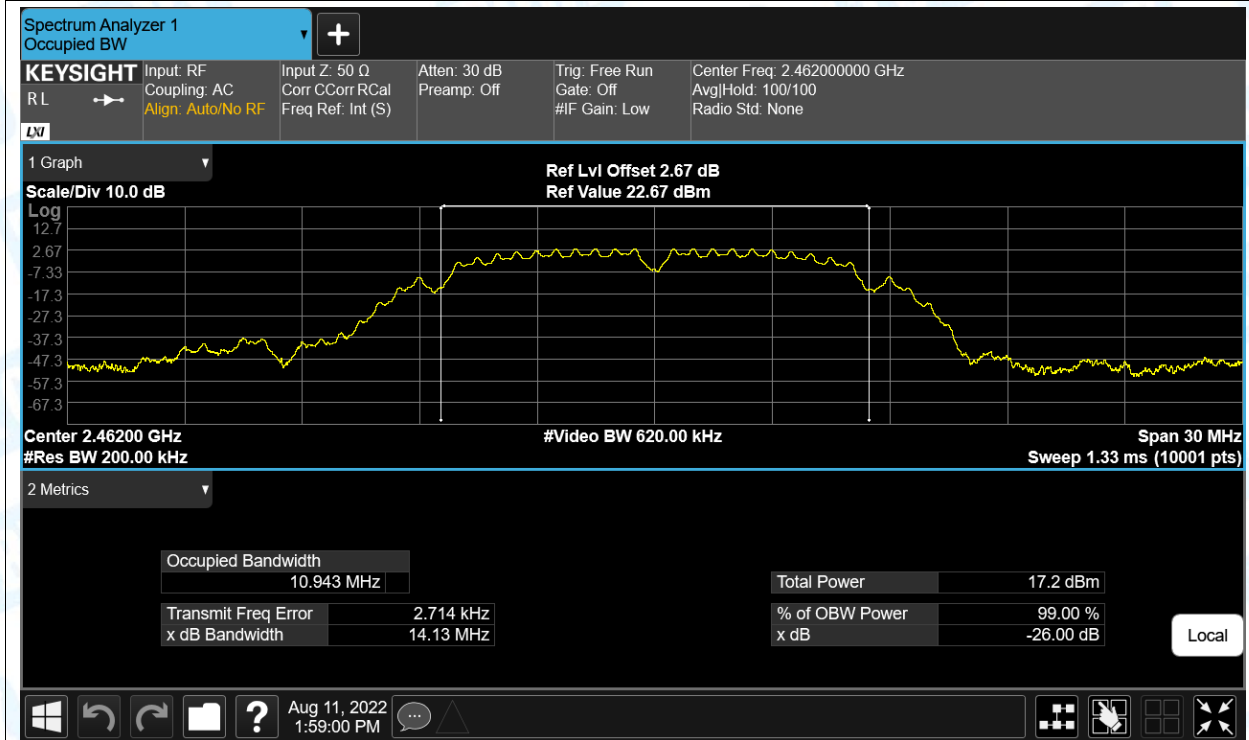
OBW NVNT b 2412MHz Ant1



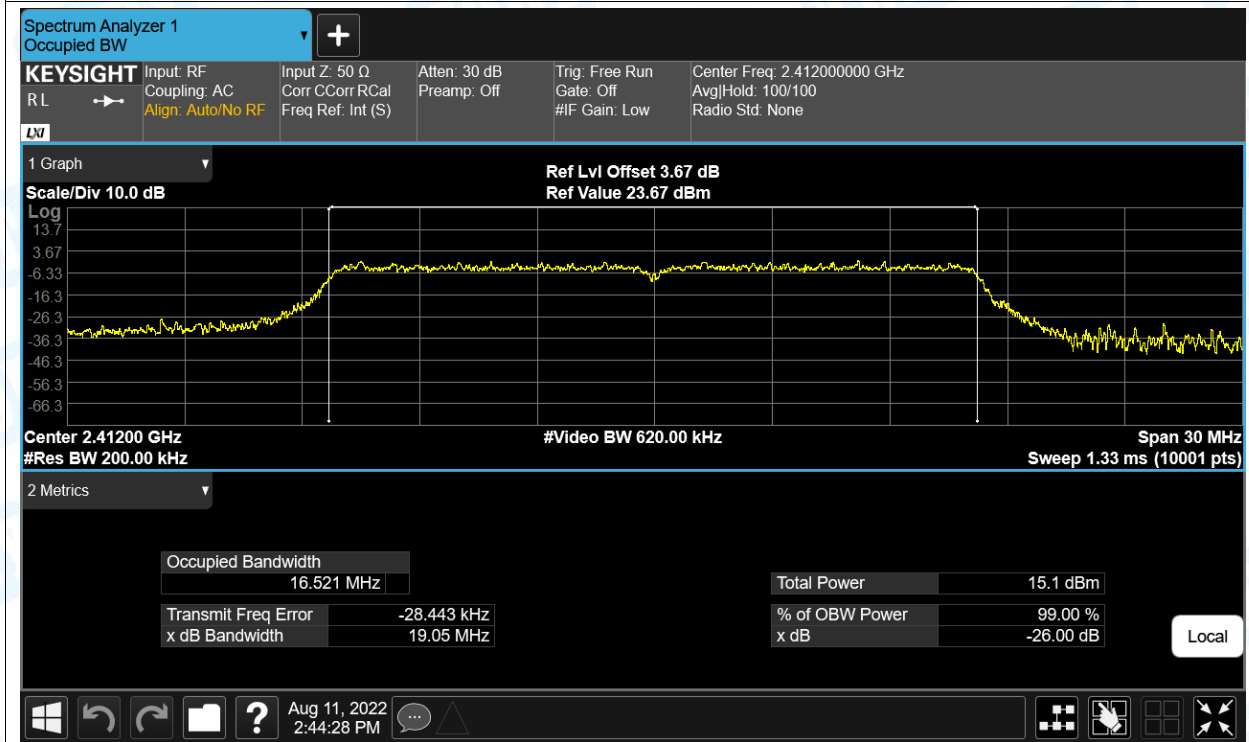
OBW NVNT b 2437MHz Ant1



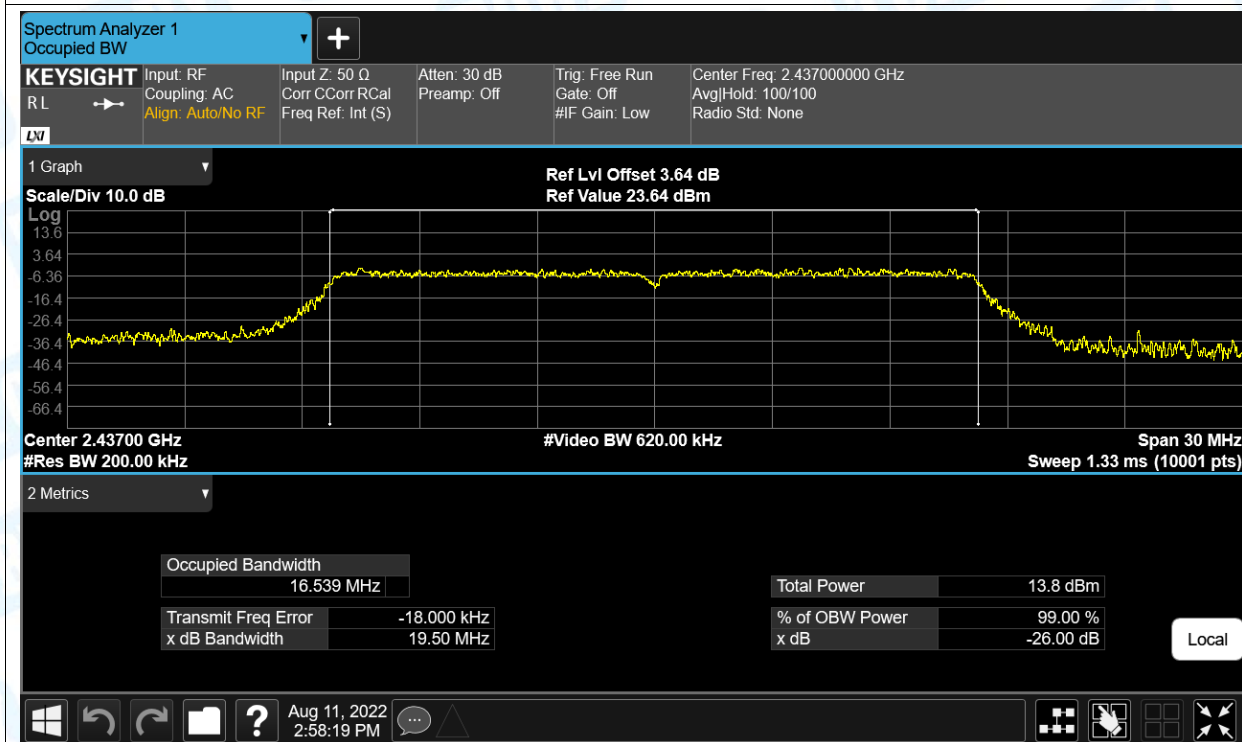
OBW NVNT b 2462MHz Ant1



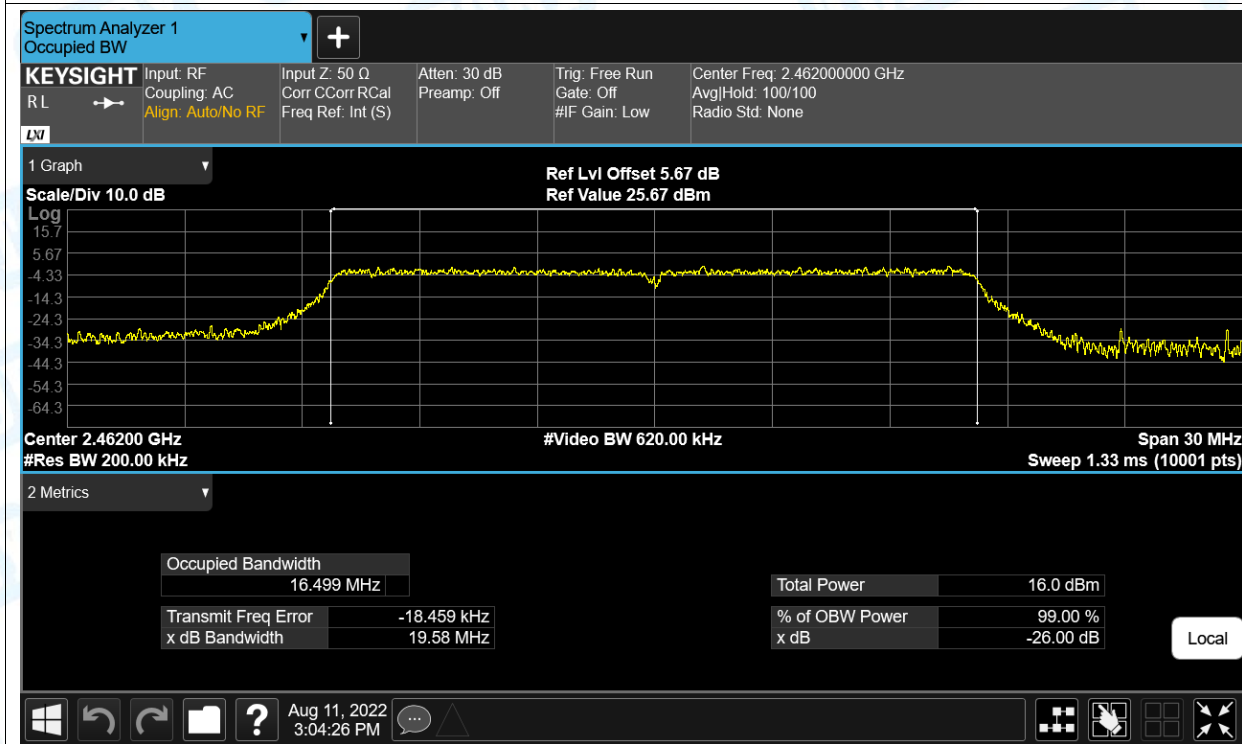
OBW NVNT g 2412MHz Ant1



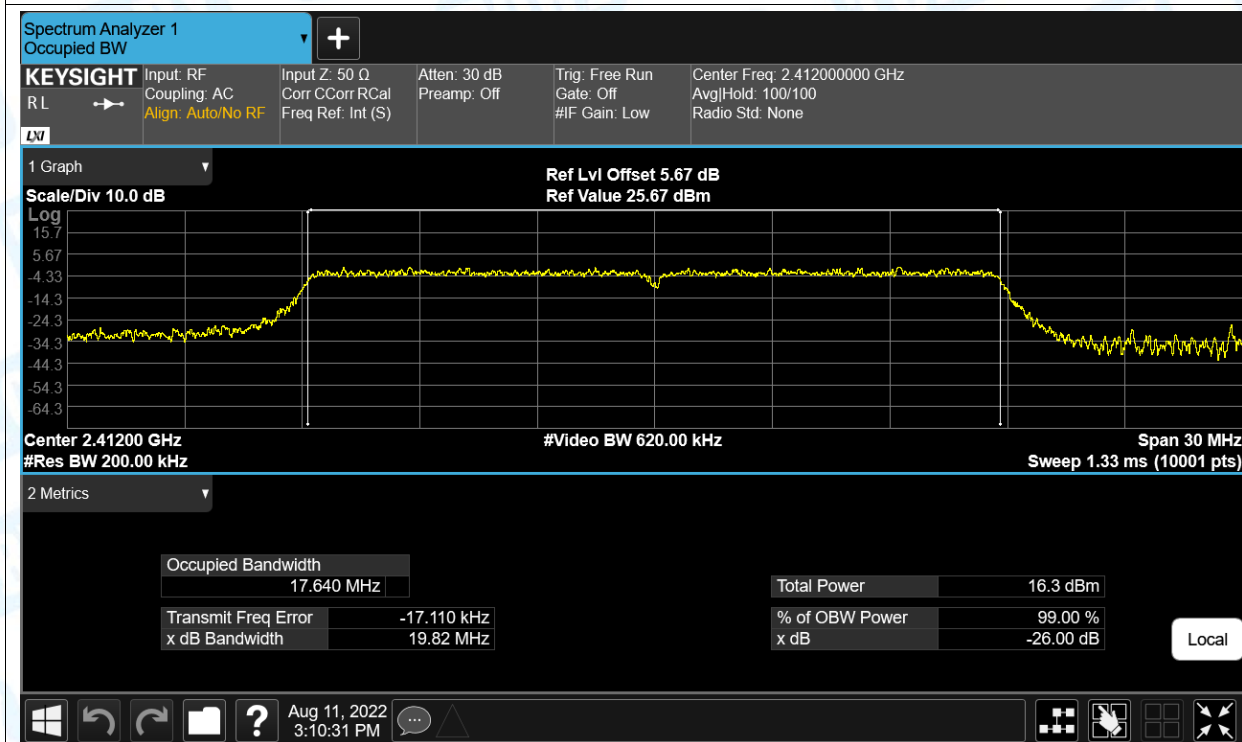
OBW NVNT g 2437MHz Ant1



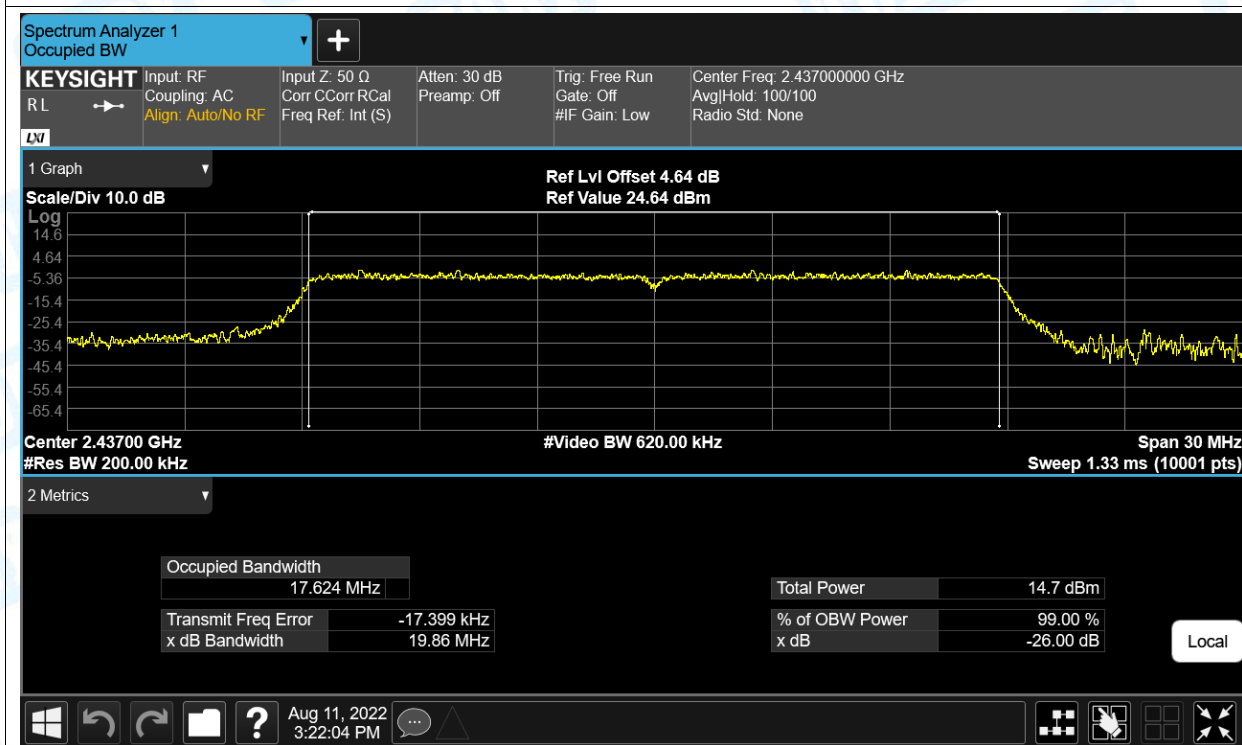
OBW NVNT g 2462MHz Ant1

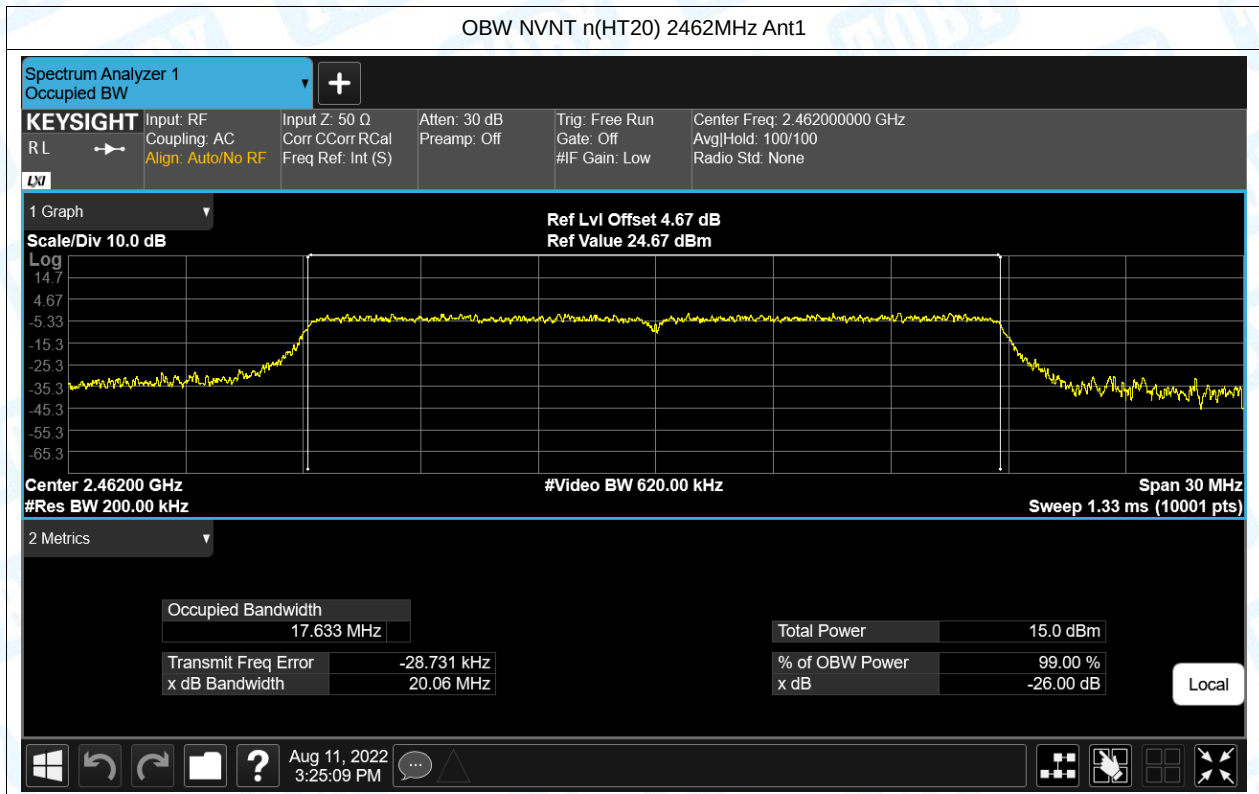


OBW NVNT n(HT20) 2412MHz Ant1



OBW NVNT n(HT20) 2437MHz Ant1



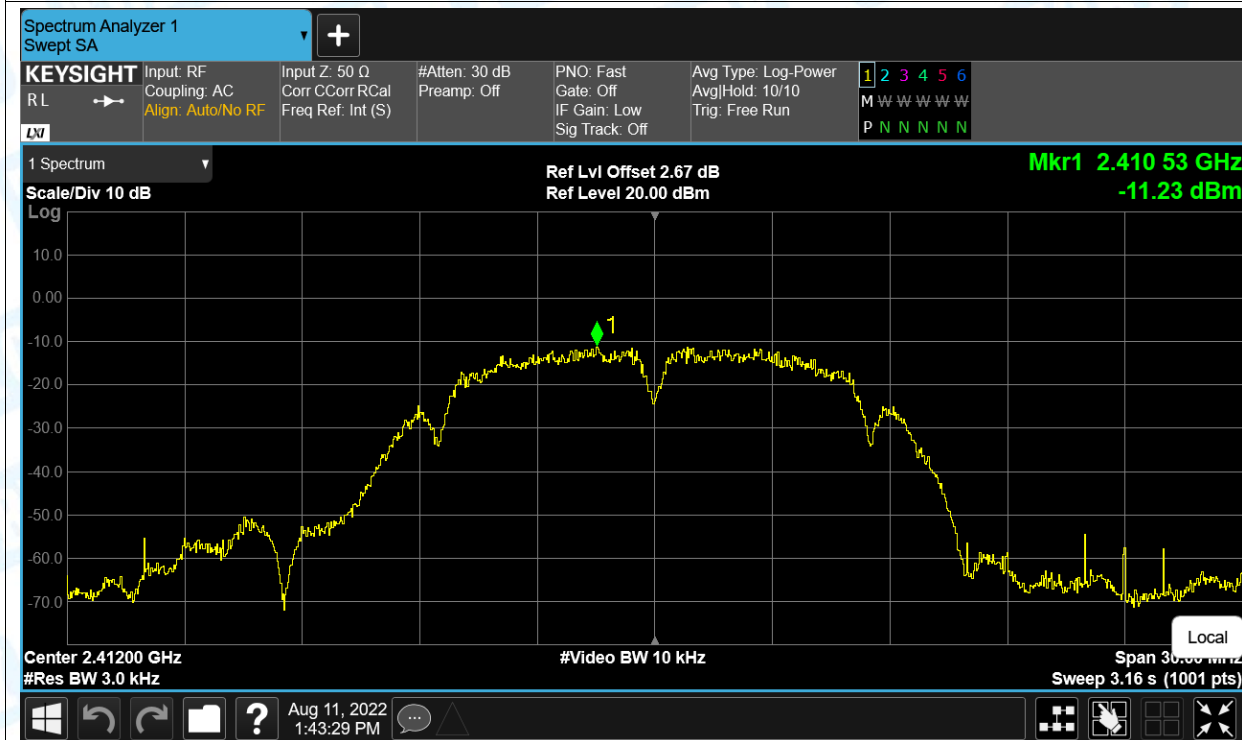


5. Maximum Power Spectral Density Level

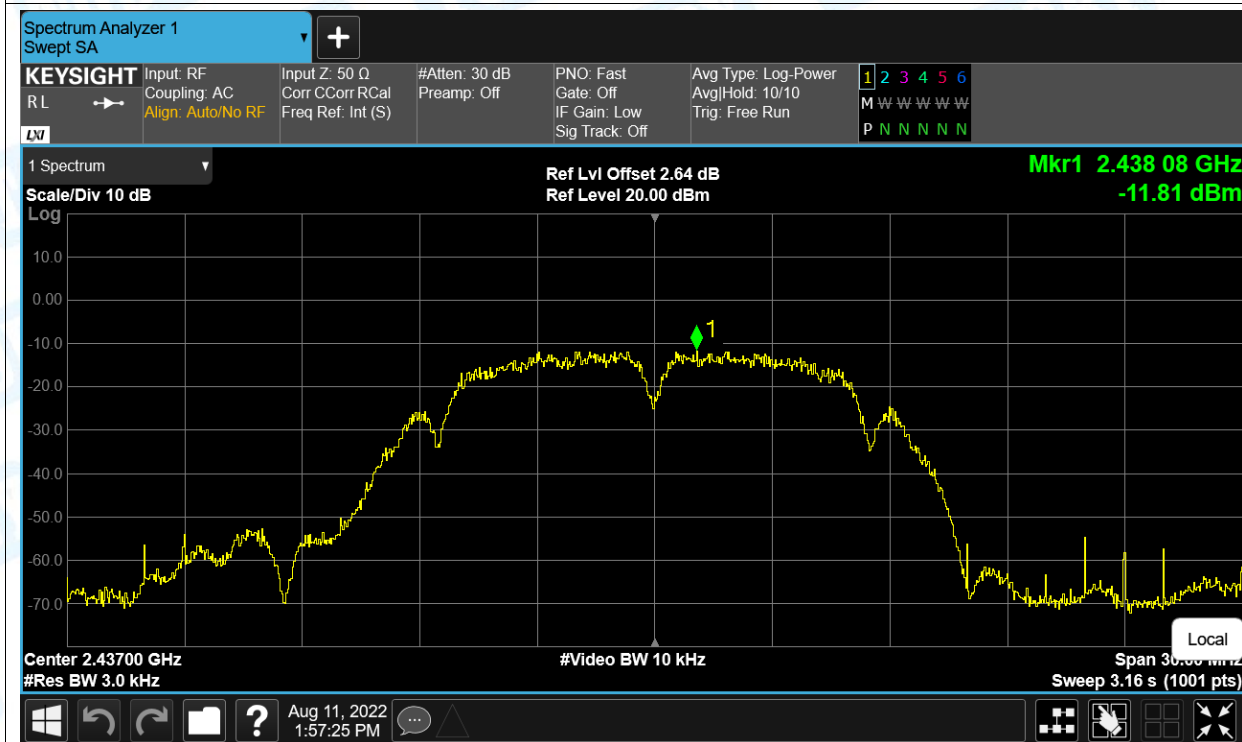
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-11.235	8	Pass
NVNT	b	2437	Ant1	-11.813	8	Pass
NVNT	b	2462	Ant1	-10.824	8	Pass
NVNT	g	2412	Ant1	-15.064	8	Pass
NVNT	g	2437	Ant1	-14.665	8	Pass
NVNT	g	2462	Ant1	-14.674	8	Pass
NVNT	n(HT20)	2412	Ant1	-14.915	8	Pass
NVNT	n(HT20)	2437	Ant1	-16.614	8	Pass
NVNT	n(HT20)	2462	Ant1	-14.998	8	Pass

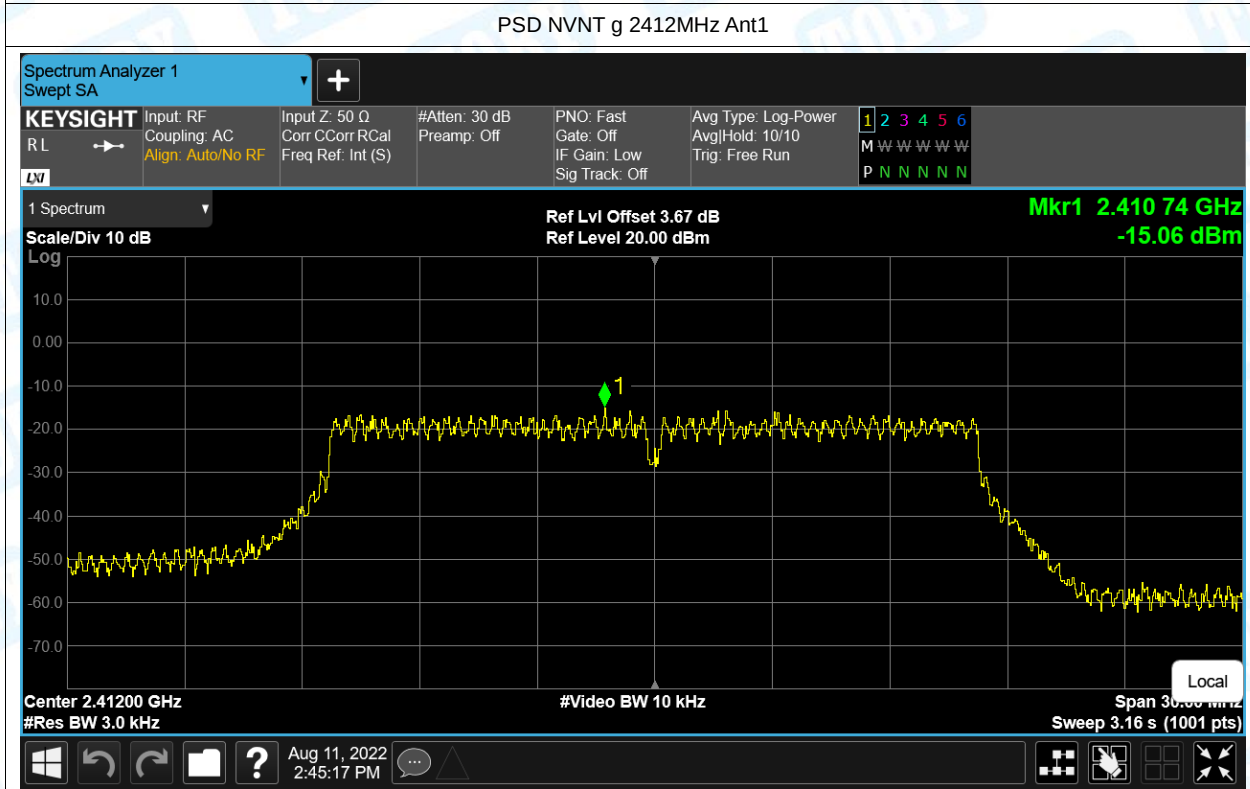
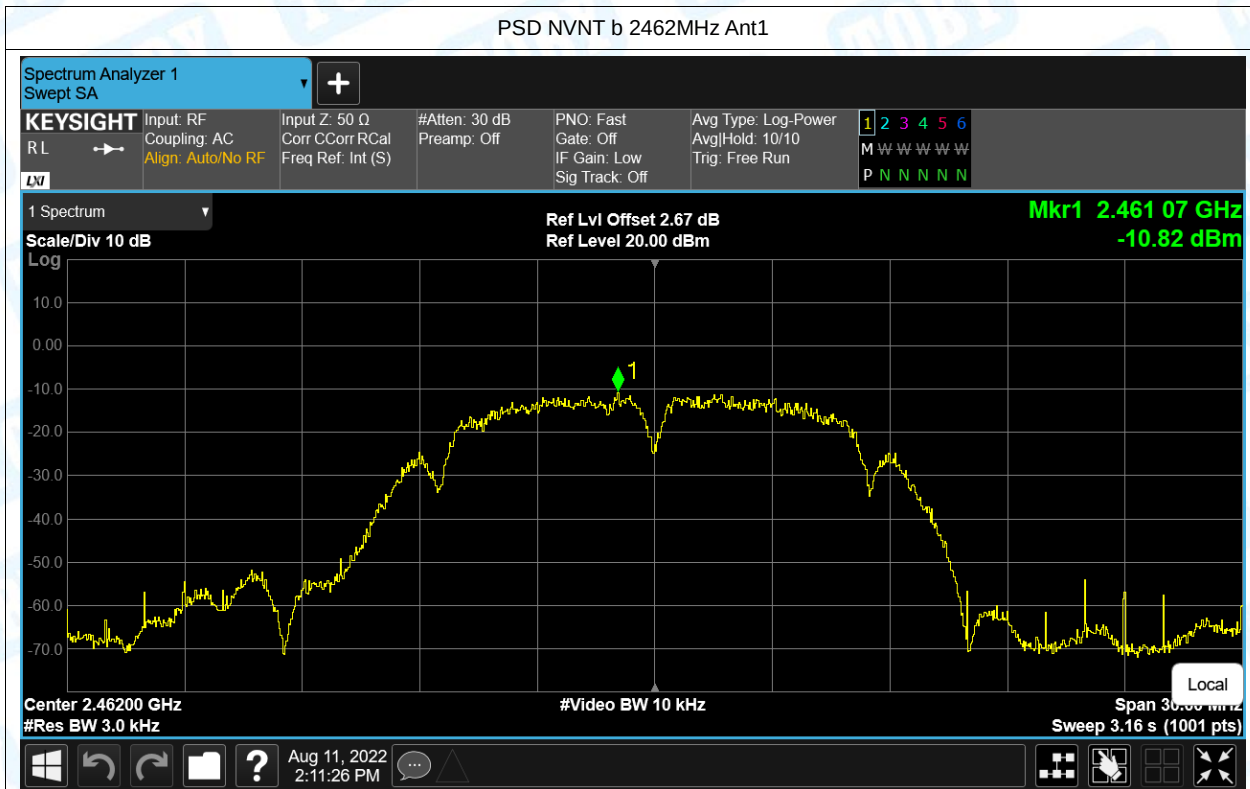
Test Graphs

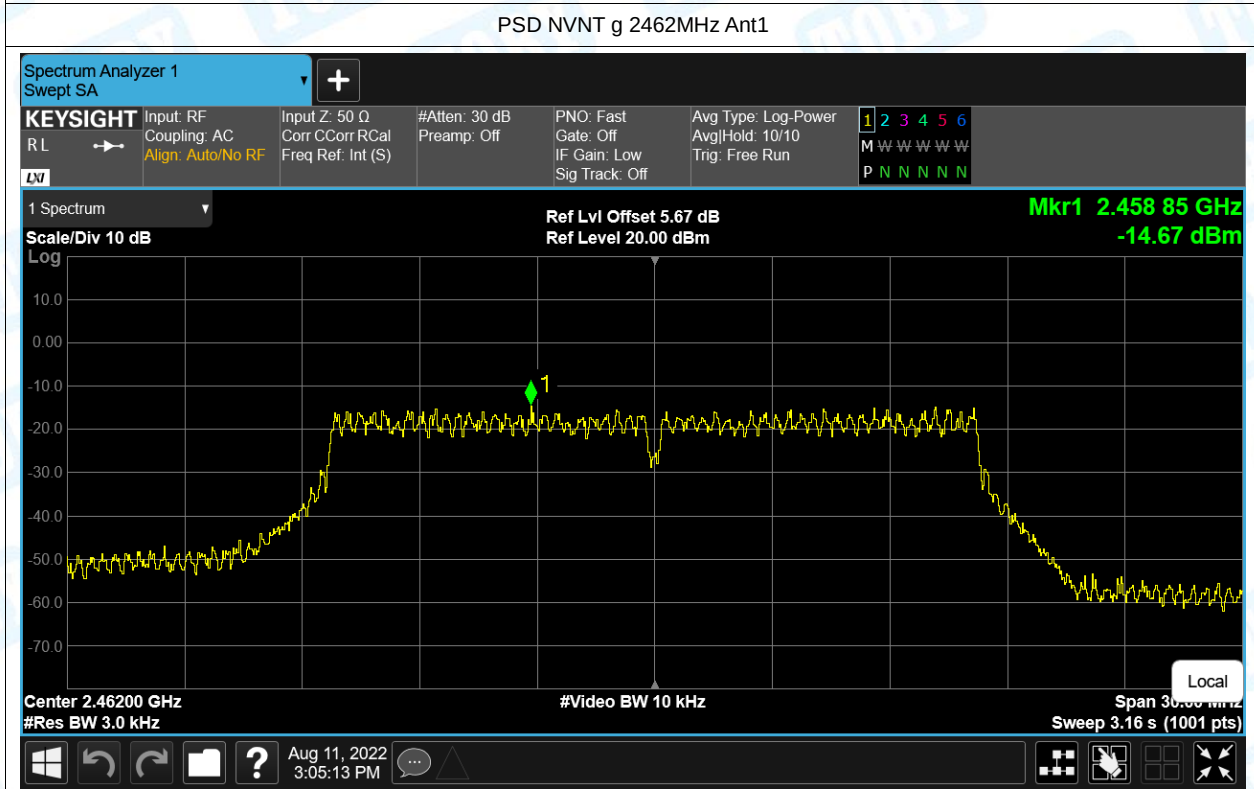
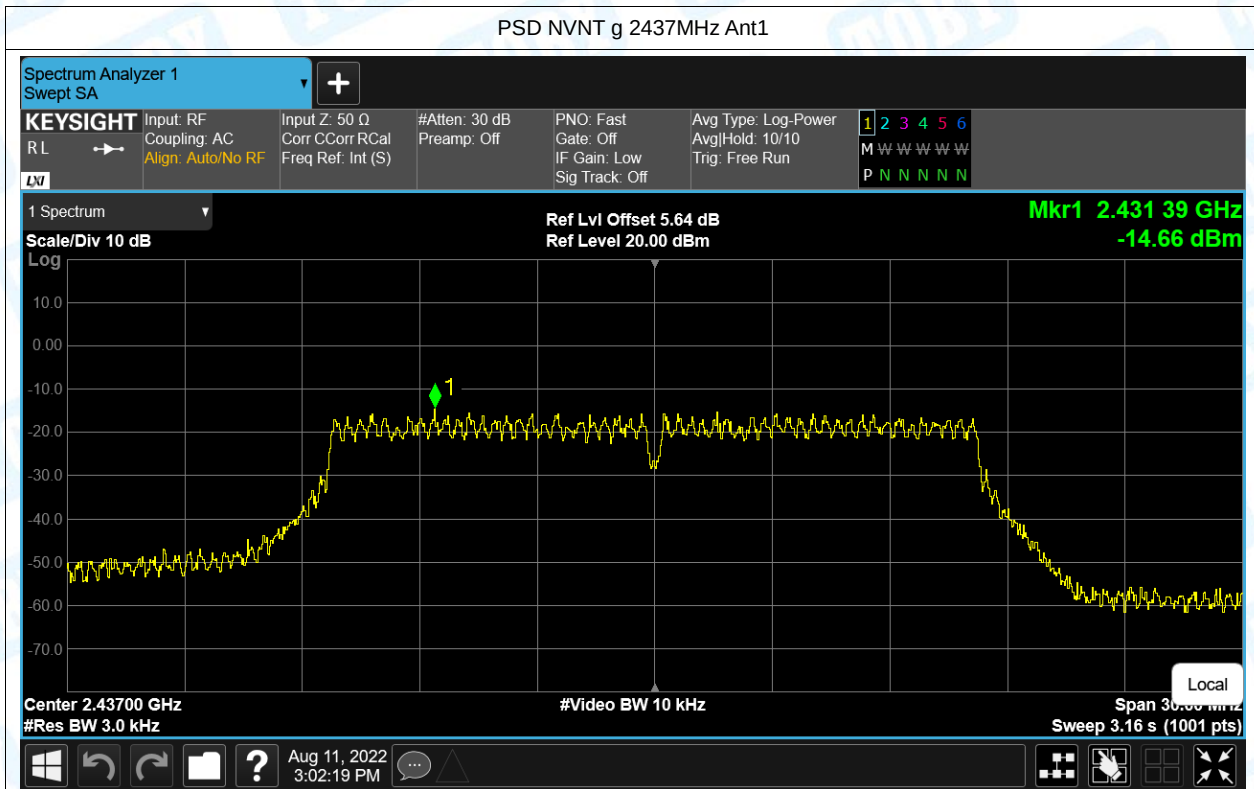
PSD NVNT b 2412MHz Ant1

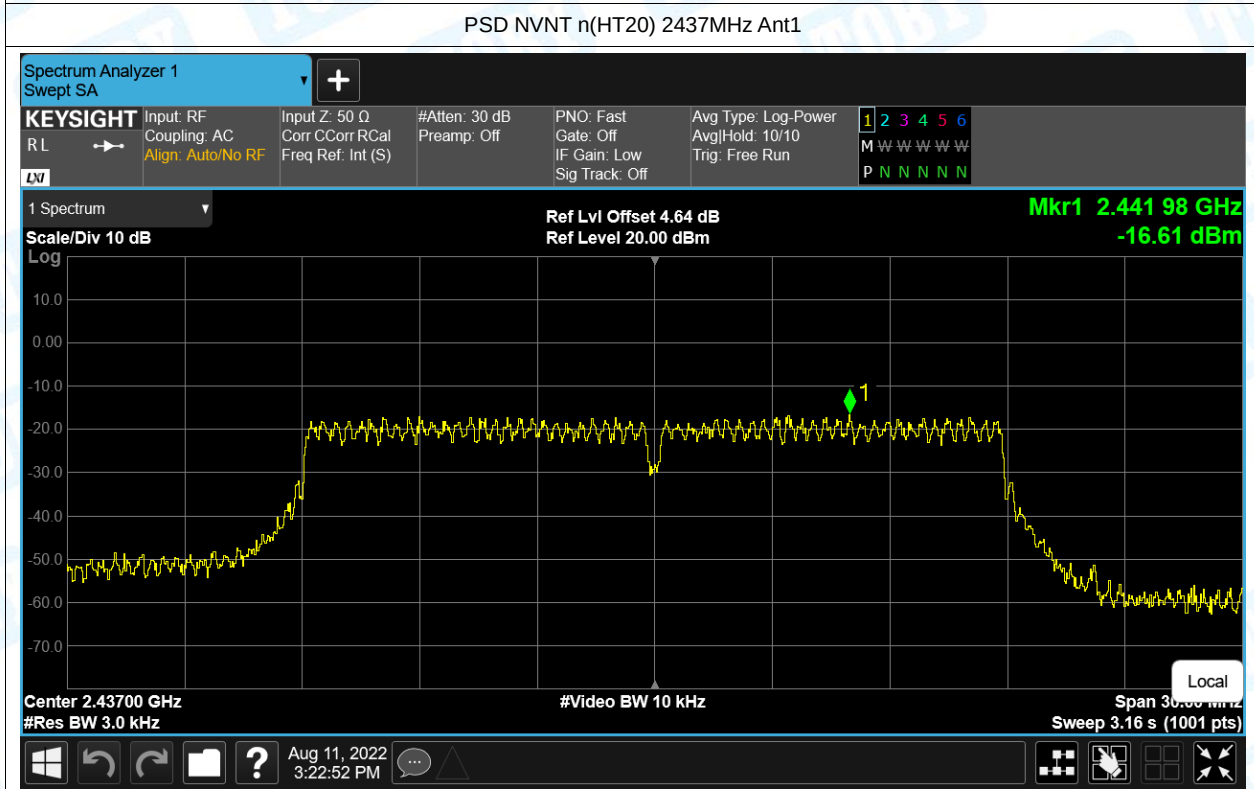
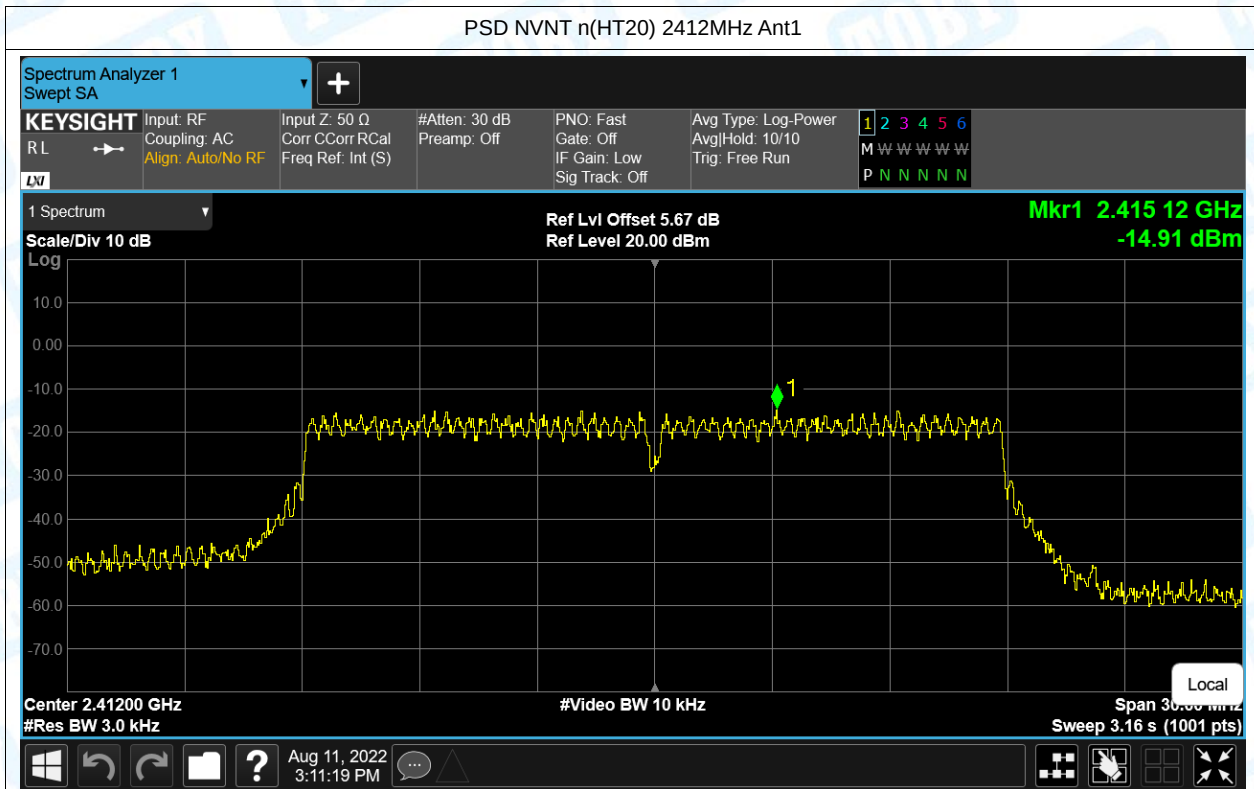


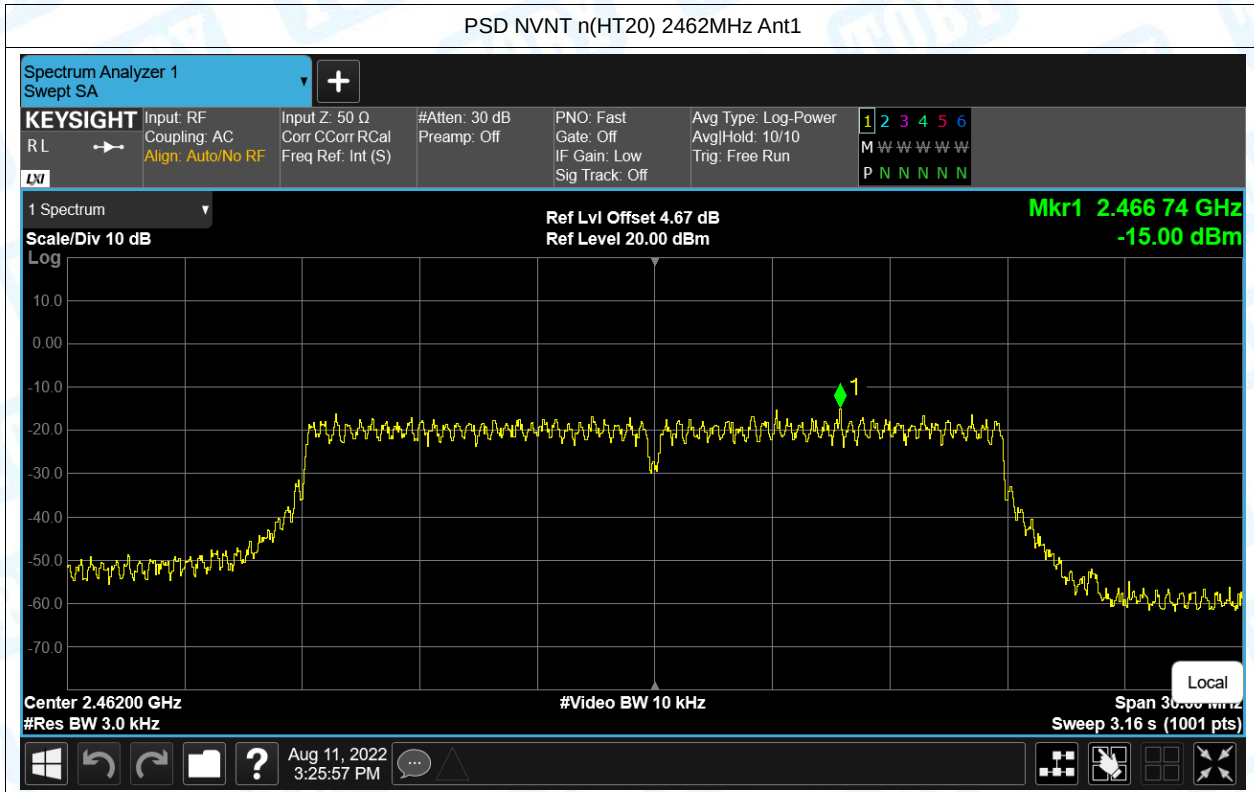
PSD NVNT b 2437MHz Ant1







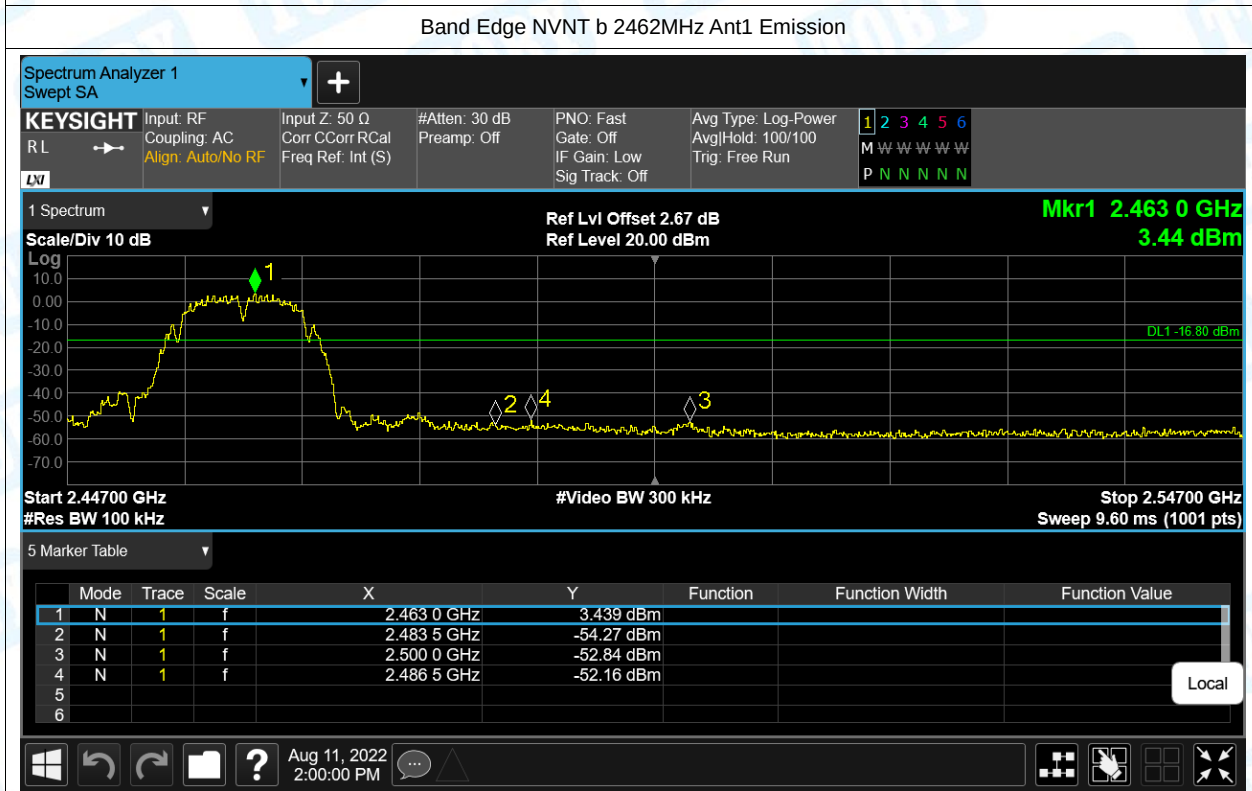
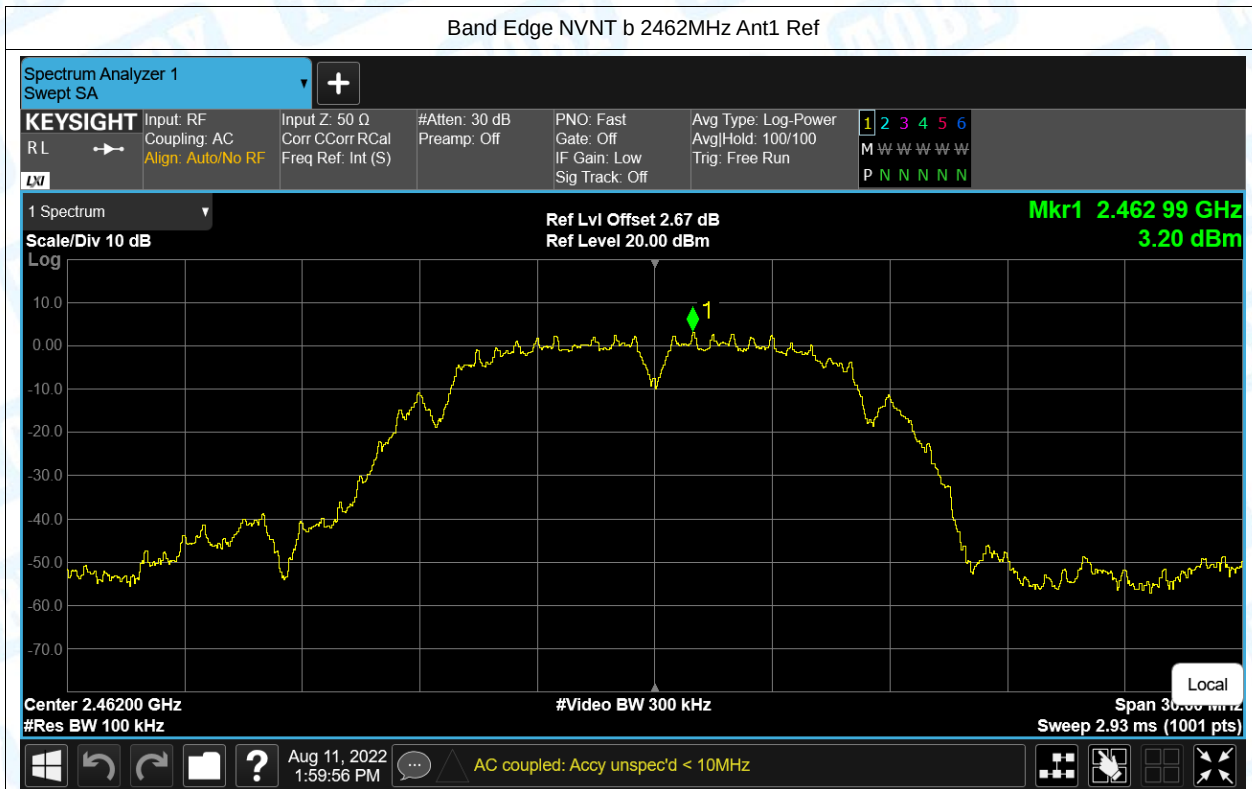


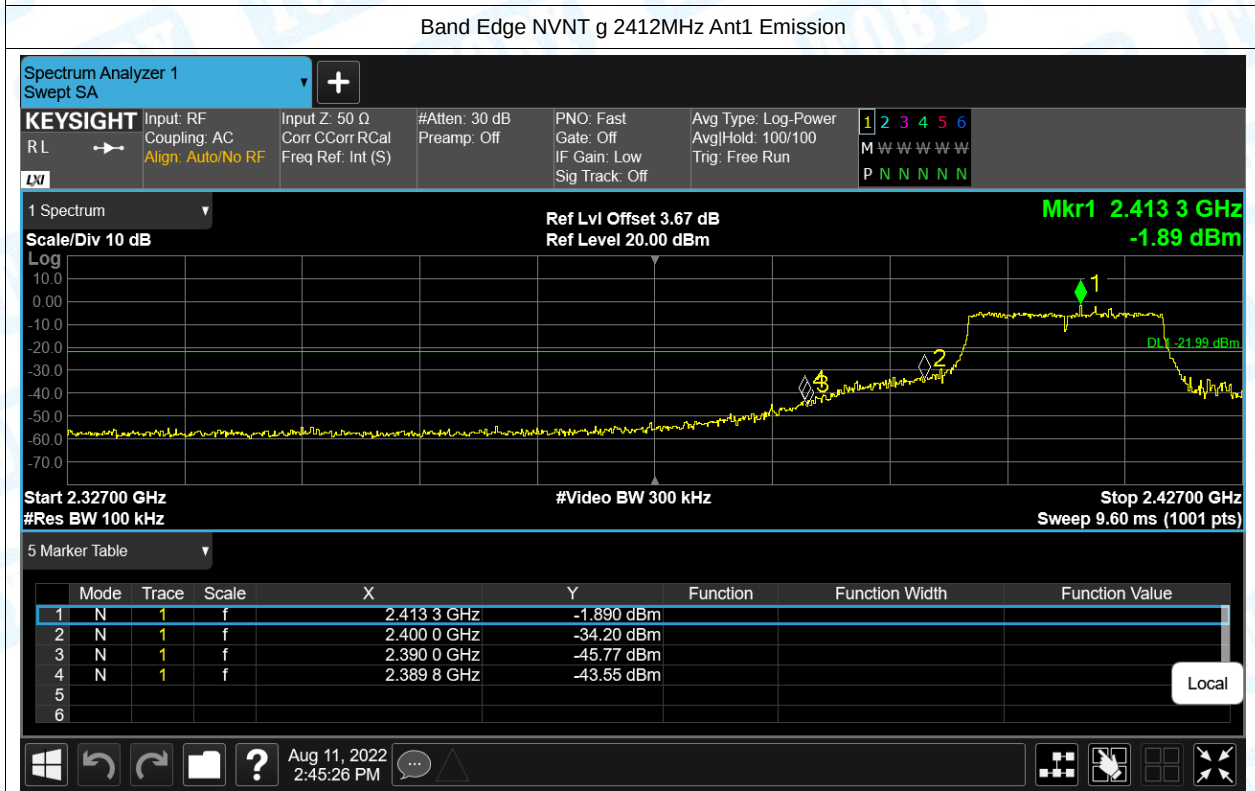
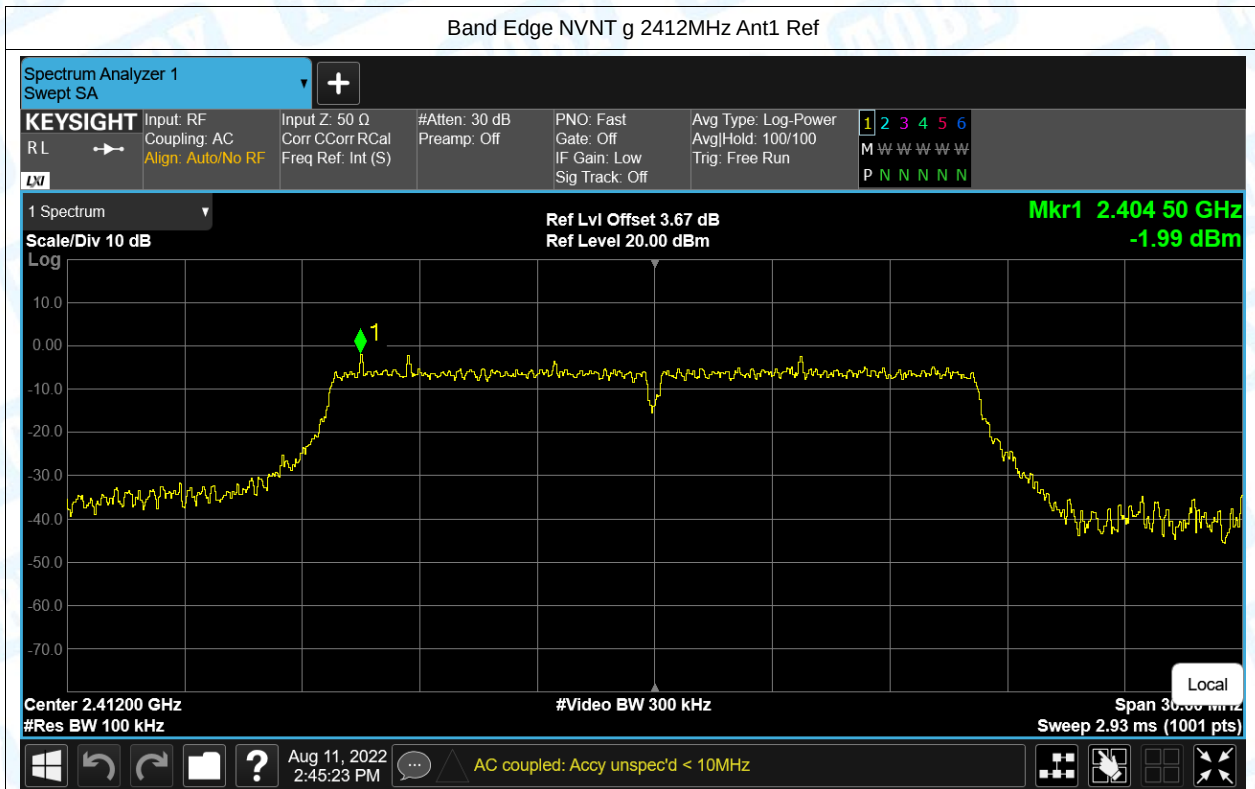


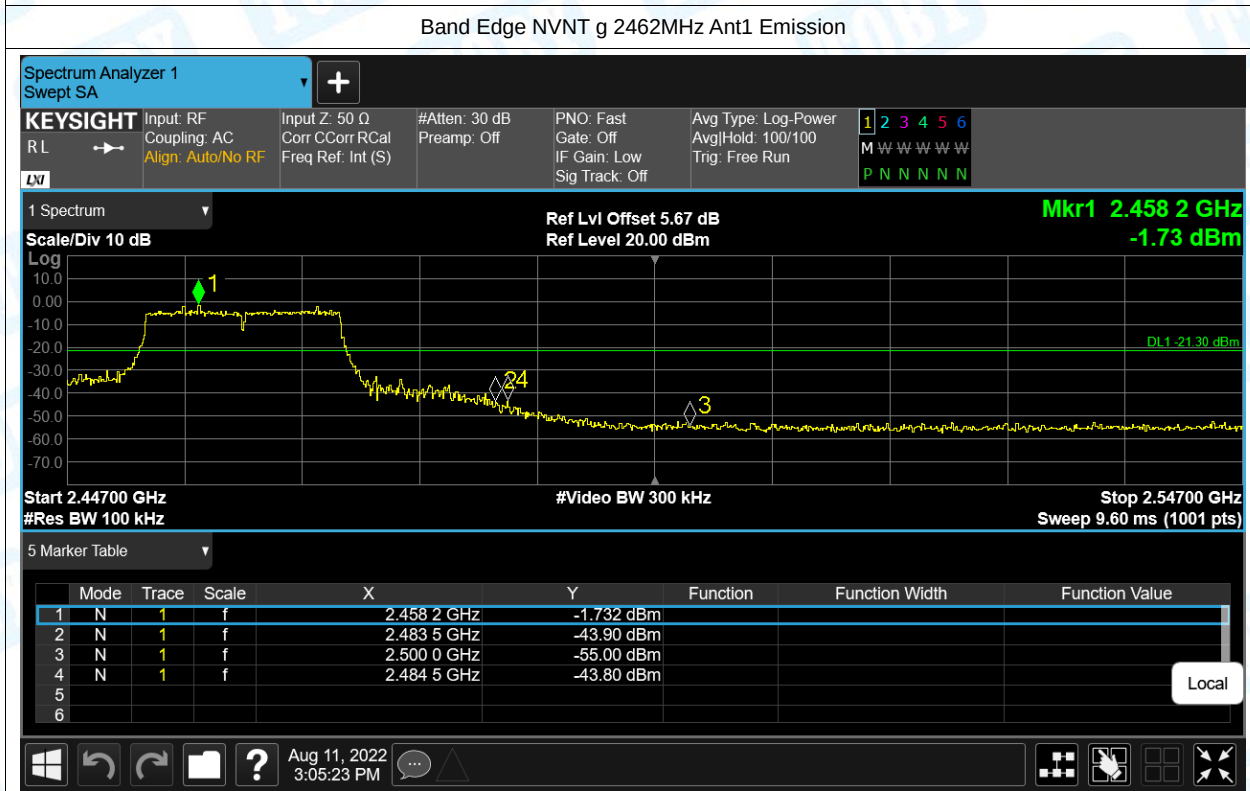
6. Band Edge

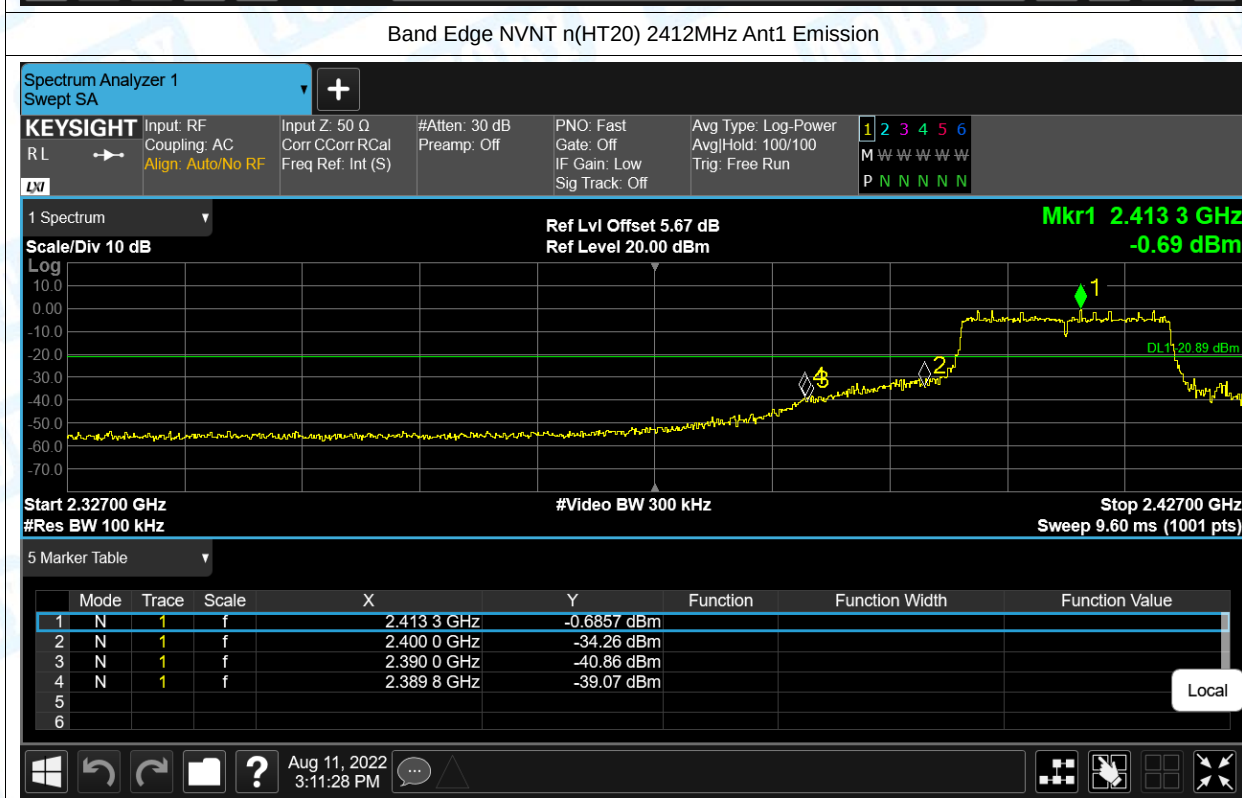
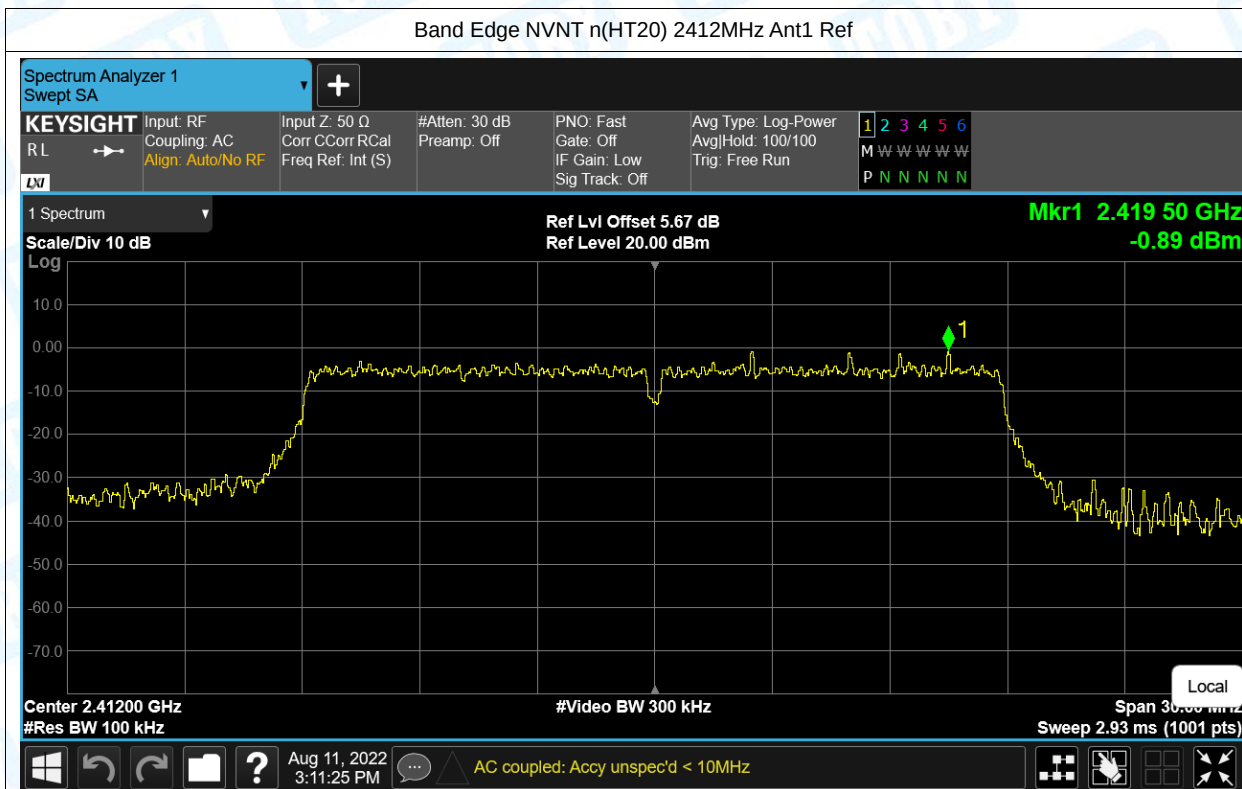
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-56.32	-20	Pass
NVNT	b	2462	Ant1	-55.36	-20	Pass
NVNT	g	2412	Ant1	-41.56	-20	Pass
NVNT	g	2462	Ant1	-42.51	-20	Pass
NVNT	n(HT20)	2412	Ant1	-38.18	-20	Pass
NVNT	n(HT20)	2462	Ant1	-39.26	-20	Pass

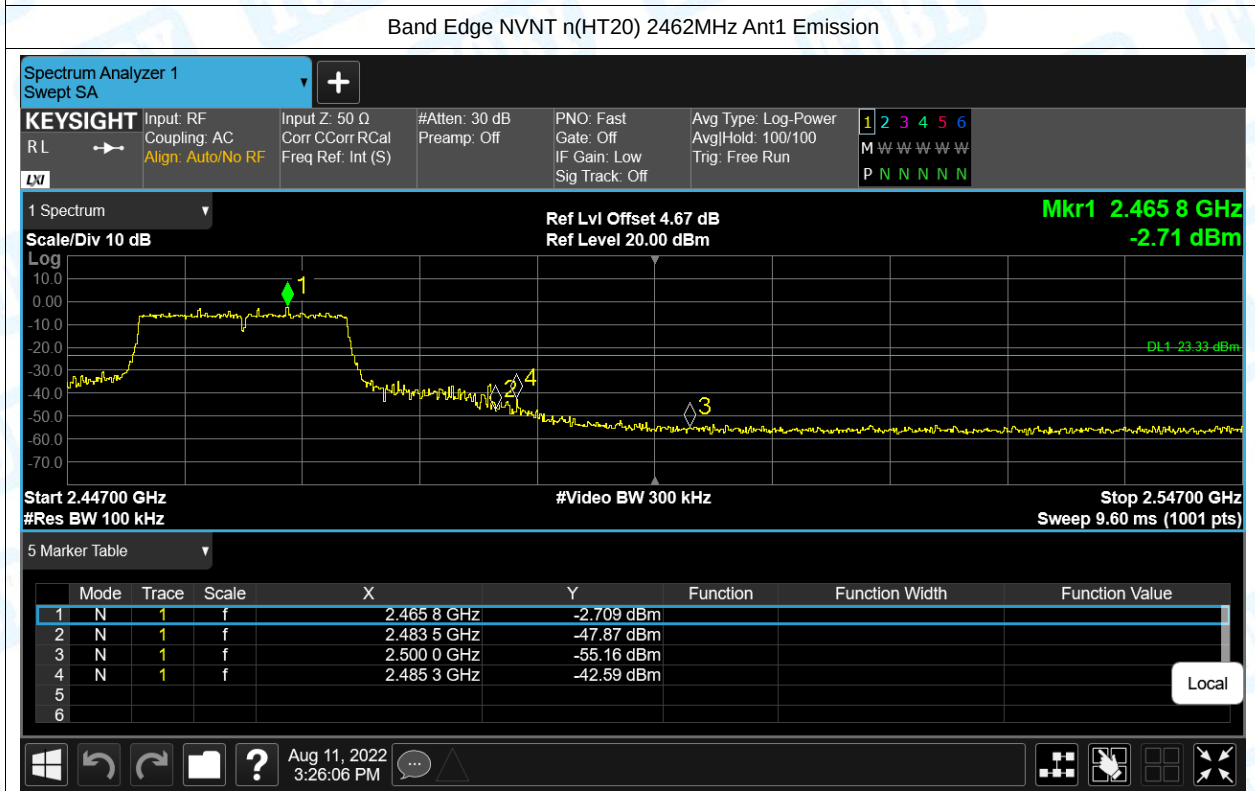
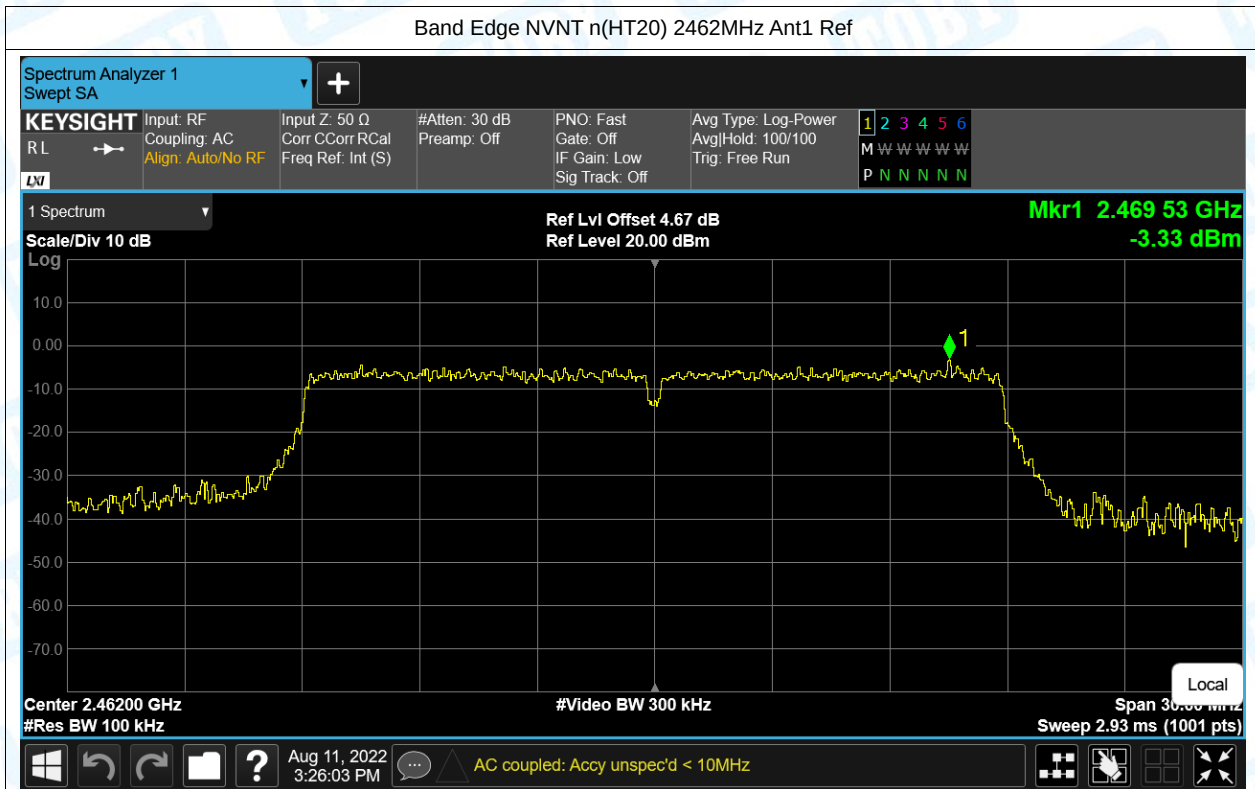












7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-45.52	-20	Pass
NVNT	b	2437	Ant1	-44.65	-20	Pass
NVNT	b	2462	Ant1	-44.76	-20	Pass
NVNT	g	2412	Ant1	-38.04	-20	Pass
NVNT	g	2437	Ant1	-38.02	-20	Pass
NVNT	g	2462	Ant1	-38.24	-20	Pass
NVNT	n(HT20)	2412	Ant1	-38.35	-20	Pass
NVNT	n(HT20)	2437	Ant1	-37.27	-20	Pass
NVNT	n(HT20)	2462	Ant1	-37.36	-20	Pass



Tx. Spurious NVNT b 2412MHz Ant1 Emission

Spectrum Analyzer 1

Swept SA

KEYSIGHT

Input: RF

Input Z: 50 Ω

#Atten: 30 dB

PNO: Fast

Avg Type: Log-Power

1 2 3 4 5 6

RL

Coupling: AC

Corr CCorr RCal

Preamp: Off

Gate: Off

Avg/Hold: 10/10

M W W W W W

Align: Auto/No RF

Freq Ref: Int (S)

IF Gain: Low

Sig Track: Off

Trig: Free Run

P N N N N N

1 Spectrum

Scale/Div 10 dB

Log

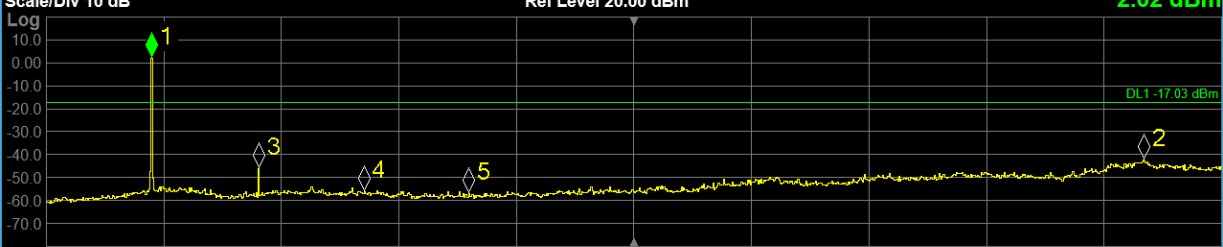
Ref Lvl Offset 2.67 dB

Ref Level 20.00 dBm

Mkr1 2.412 GHz

2.02 dBm

DL1 -17.03 dBm



Start 30 MHz

#Res BW 100 kHz

#Video BW 300 kHz

Stop 26.50 GHz

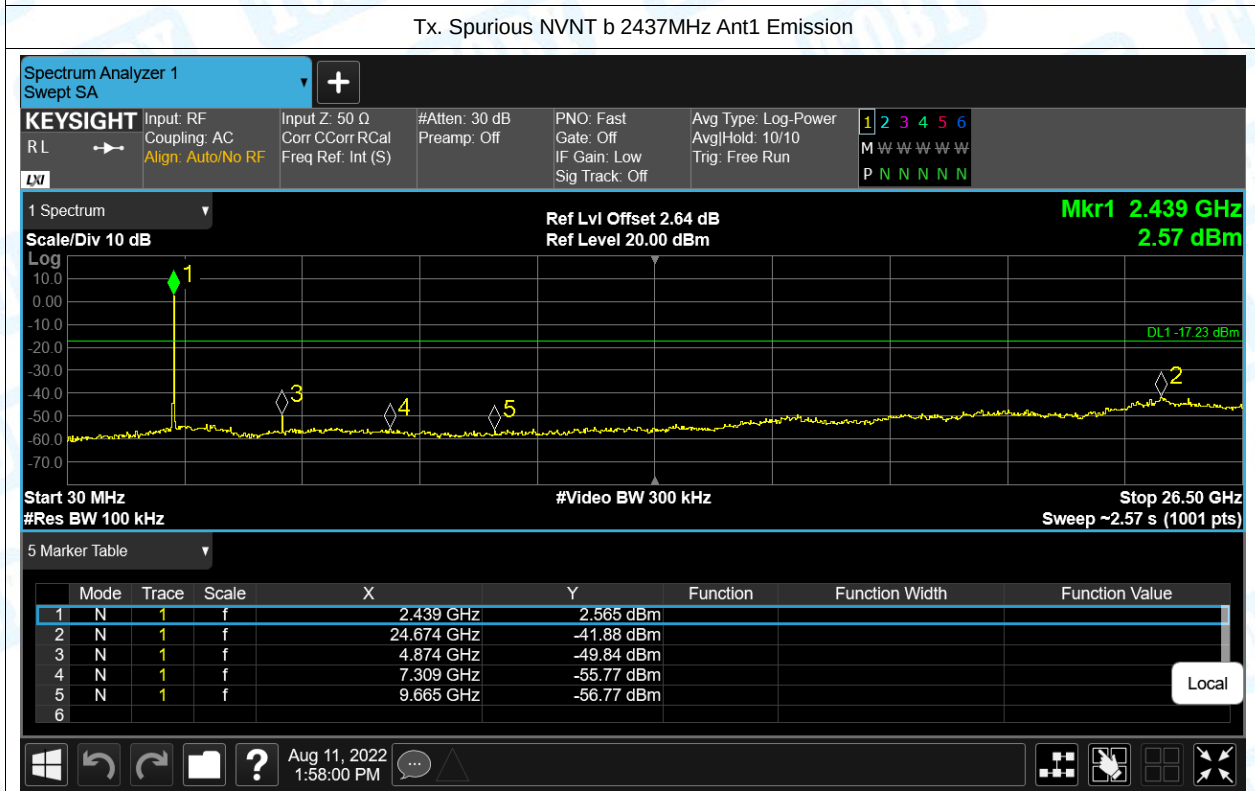
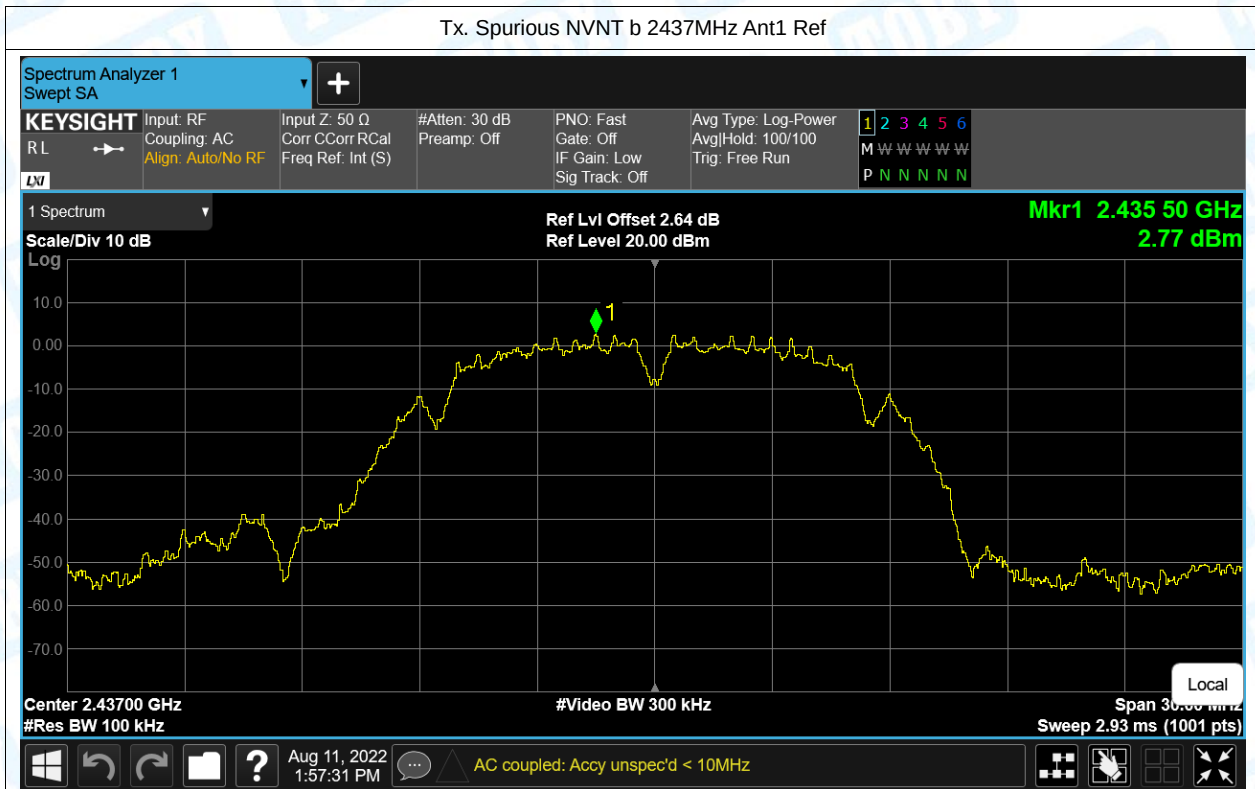
Sweep ~2.57 s (1001 pts)

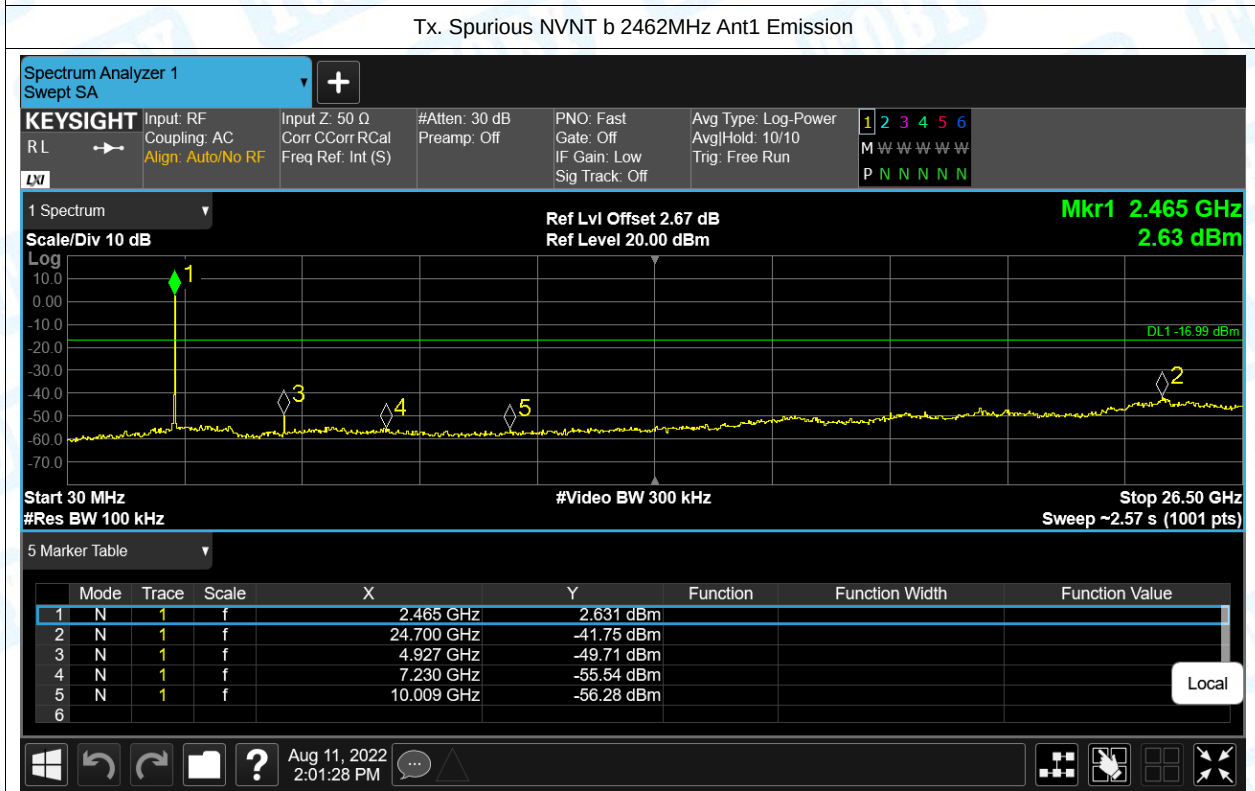
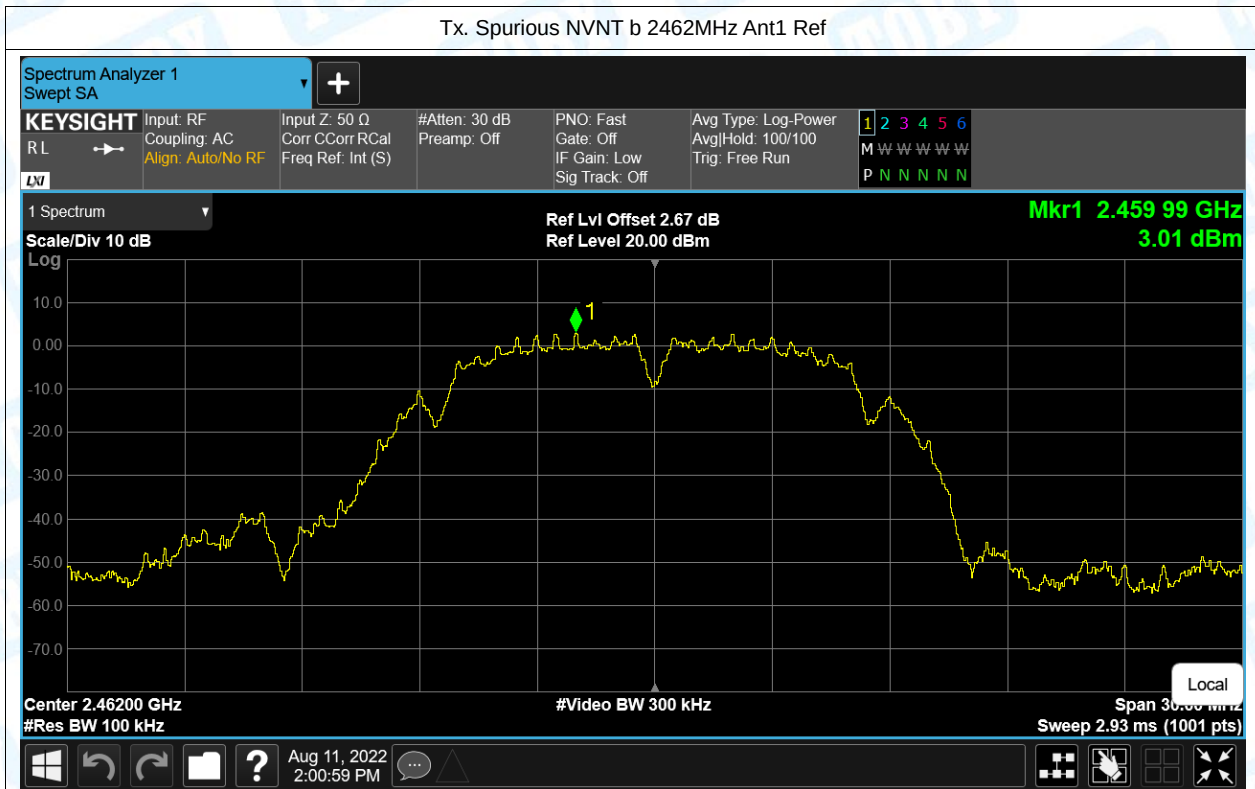
Local

5 Marker Table

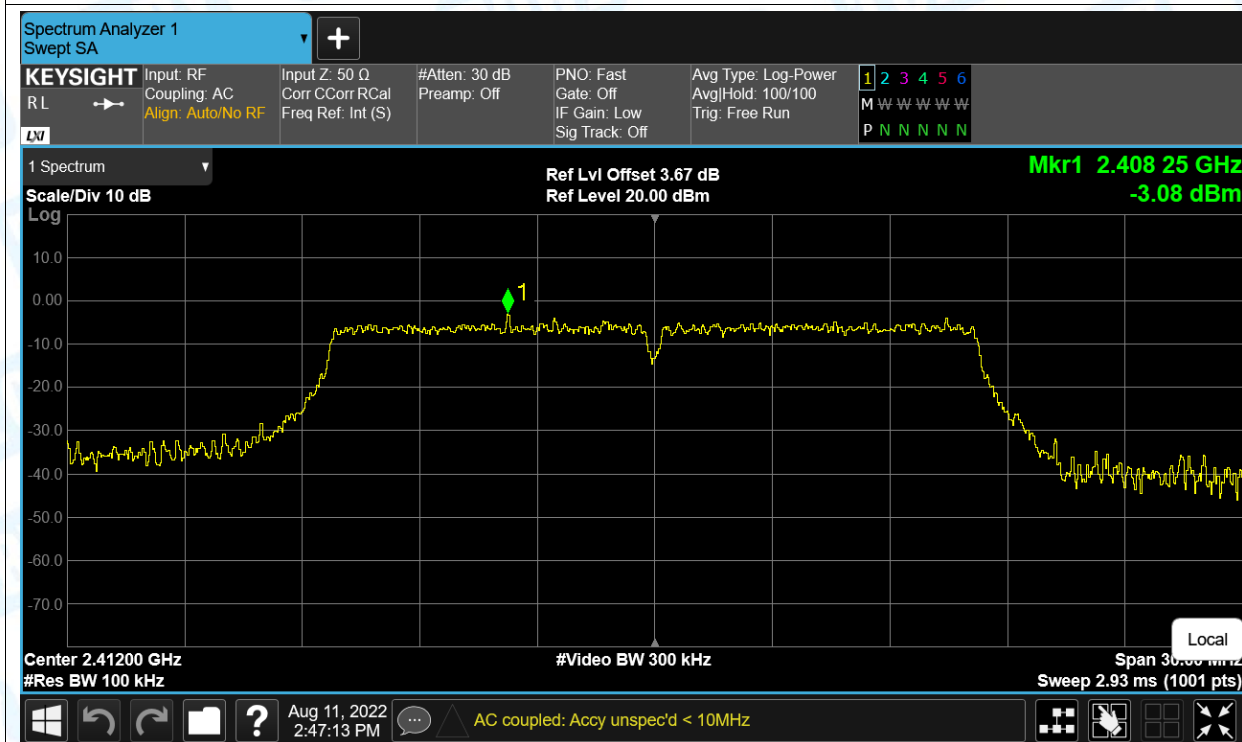
	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.412 GHz	2.015 dBm			
2	N	1	f	24.753 GHz	-42.55 dBm			
3	N	1	f	4.821 GHz	-46.00 dBm			
4	N	1	f	7.203 GHz	-56.23 dBm			
5	N	1	f	9.559 GHz	-56.95 dBm			
6								

Aug 11, 2022 1:45:57 PM

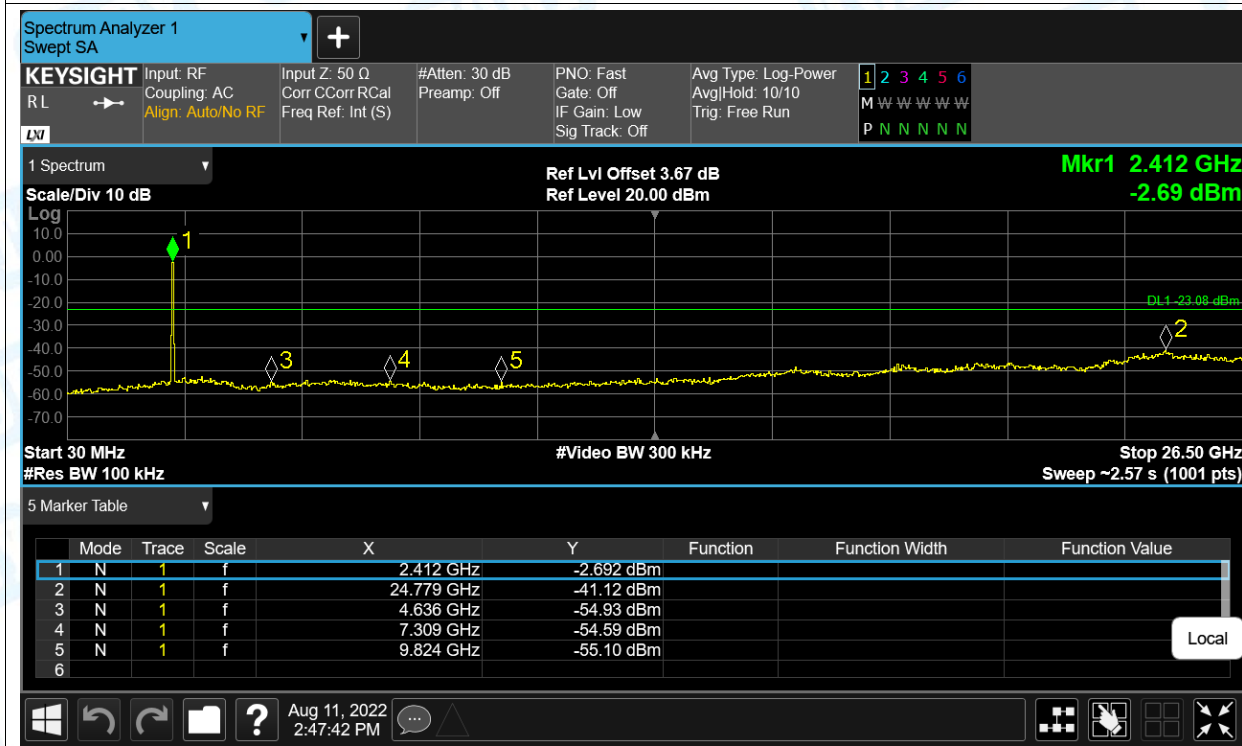


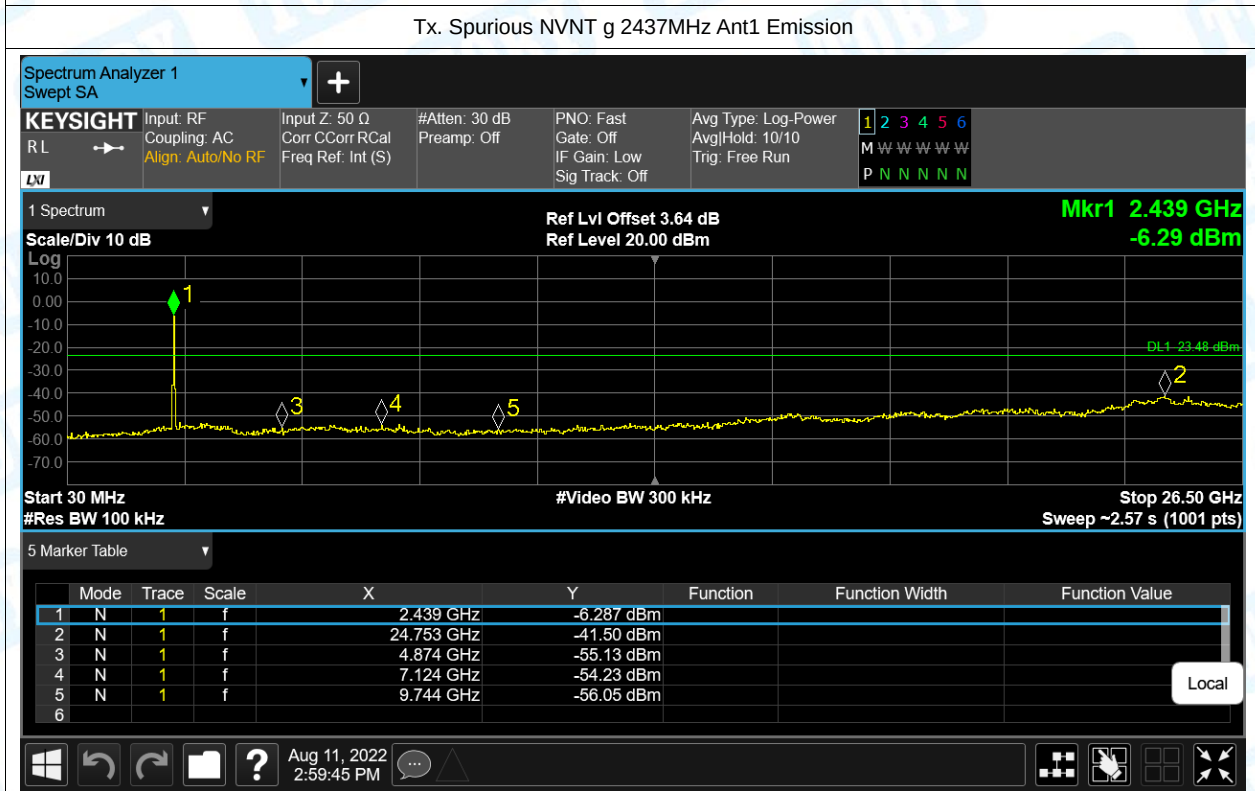
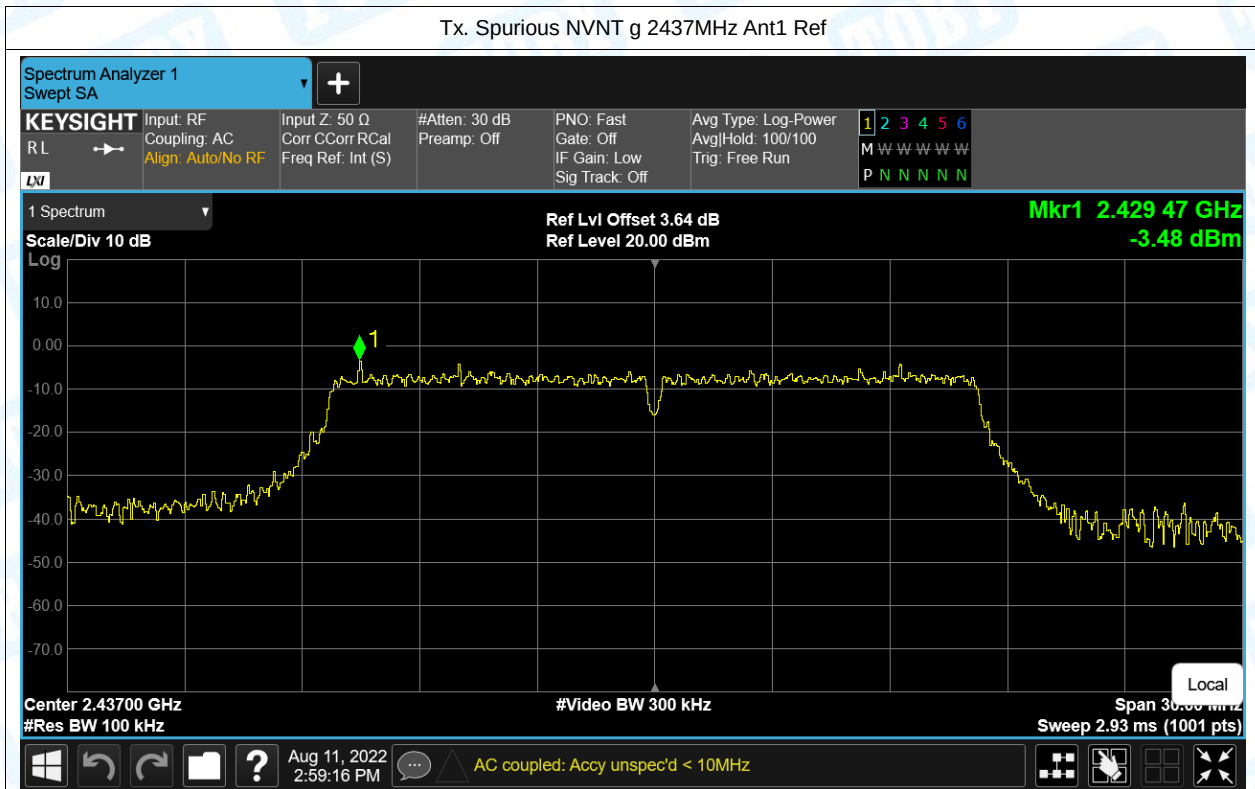


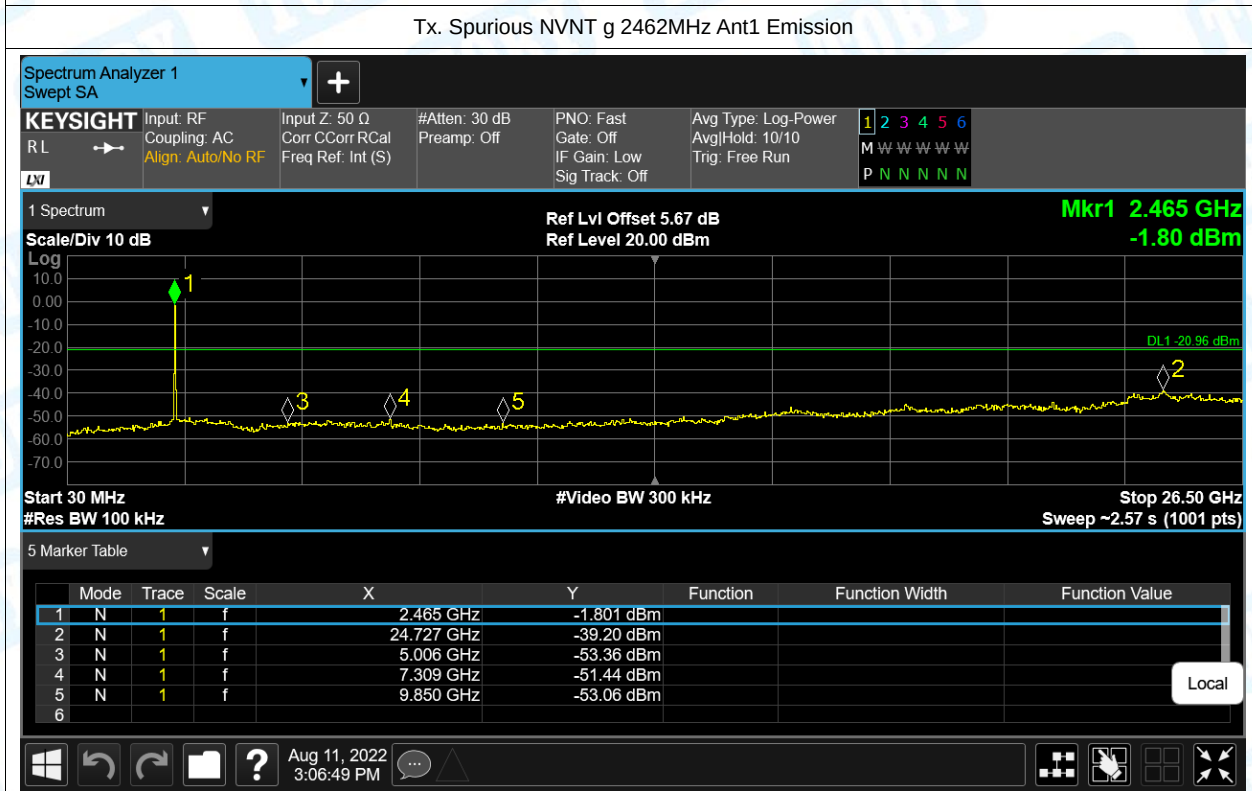
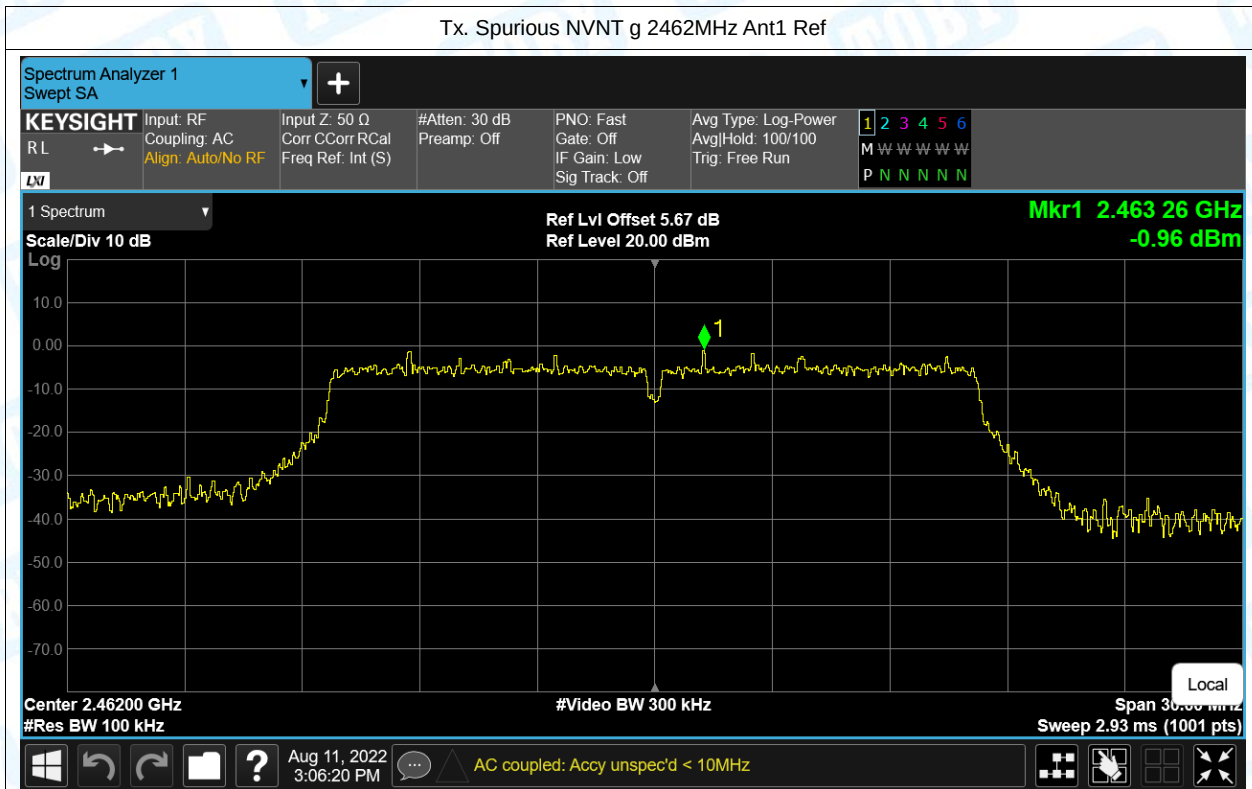
Tx. Spurious NVNT g 2412MHz Ant1 Ref

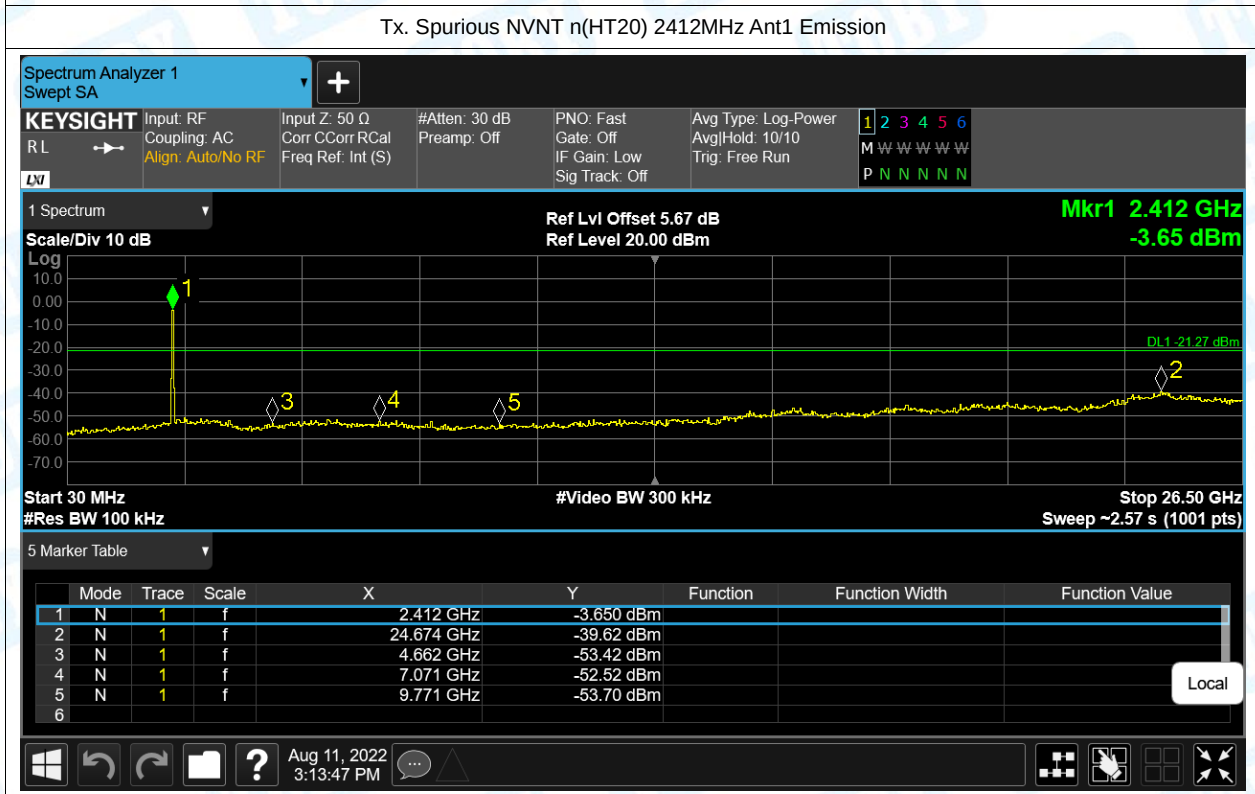
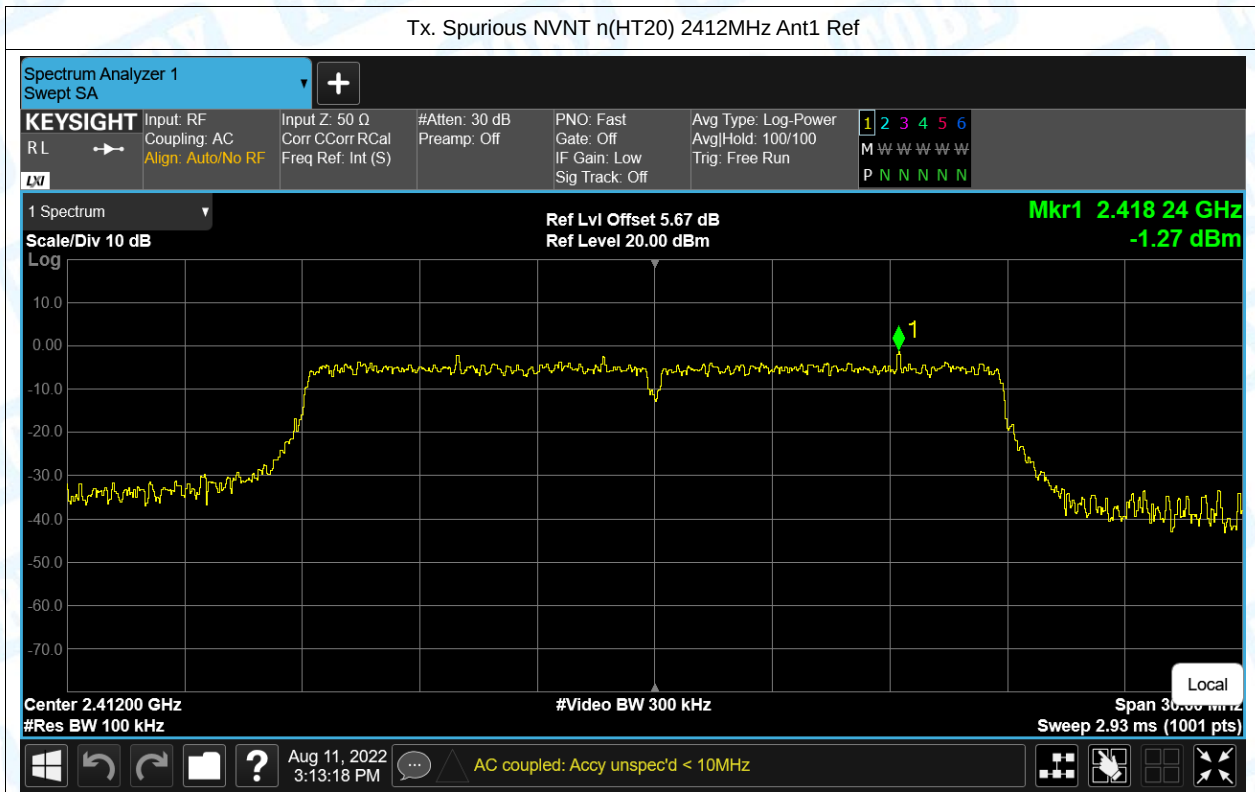


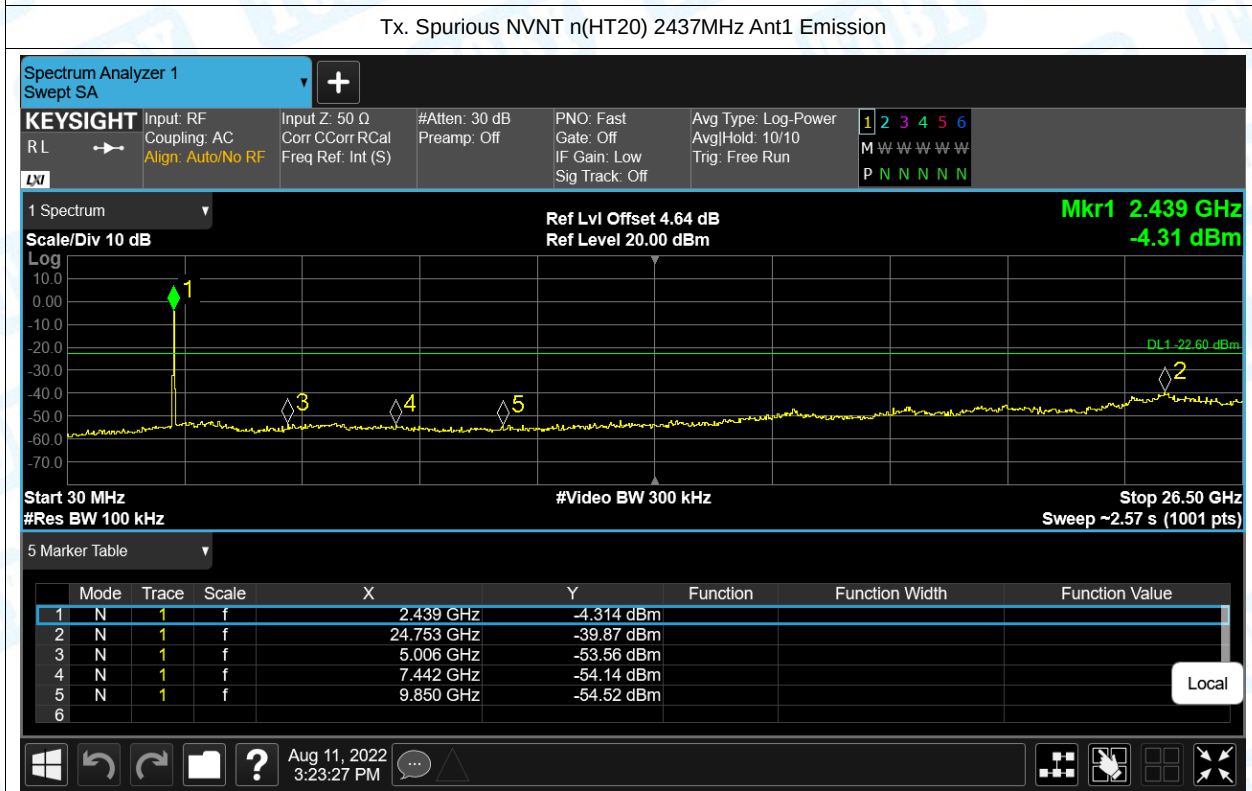
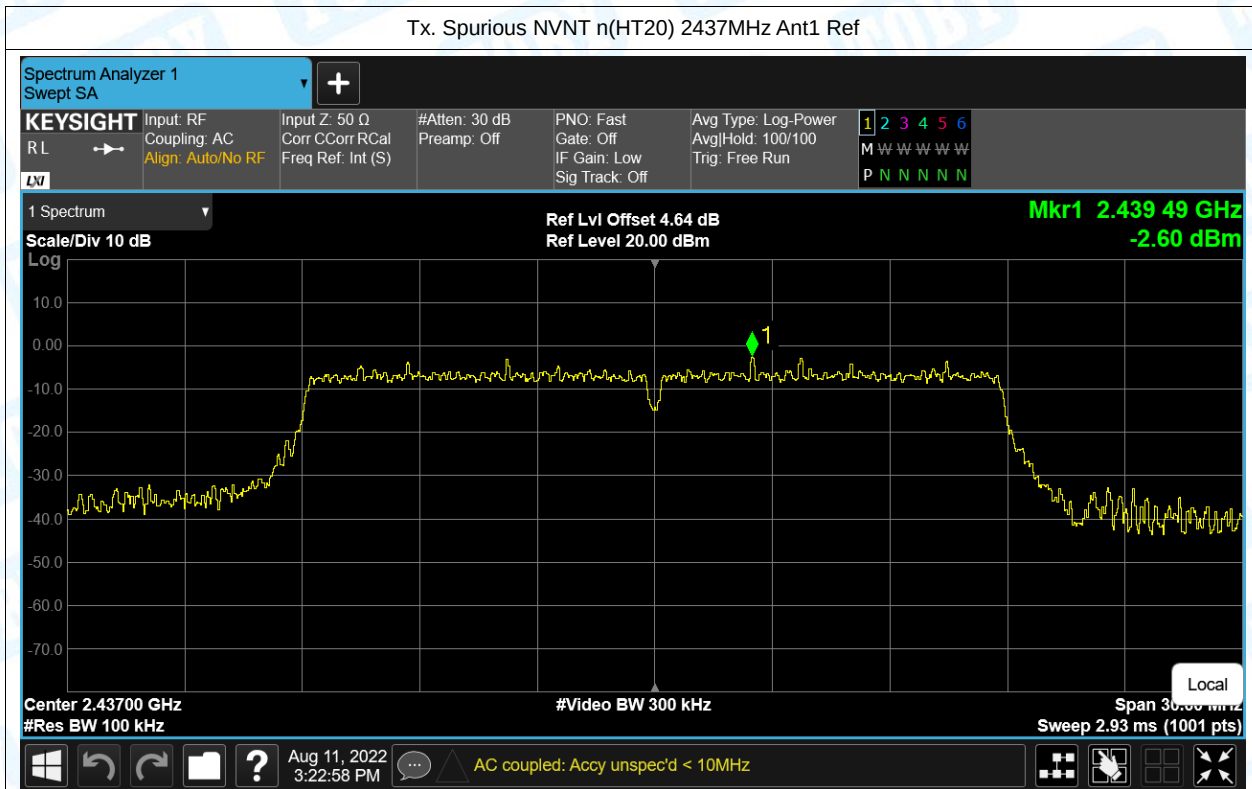
Tx. Spurious NVNT g 2412MHz Ant1 Emission

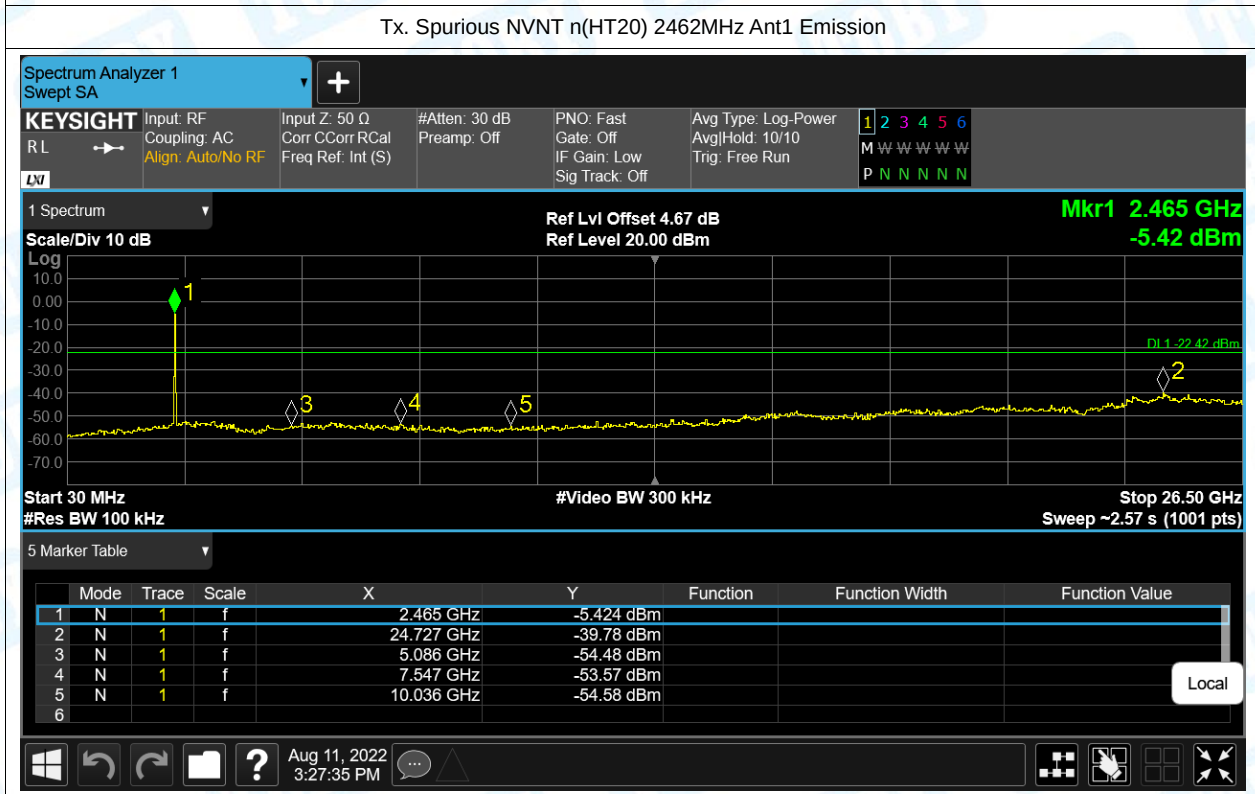
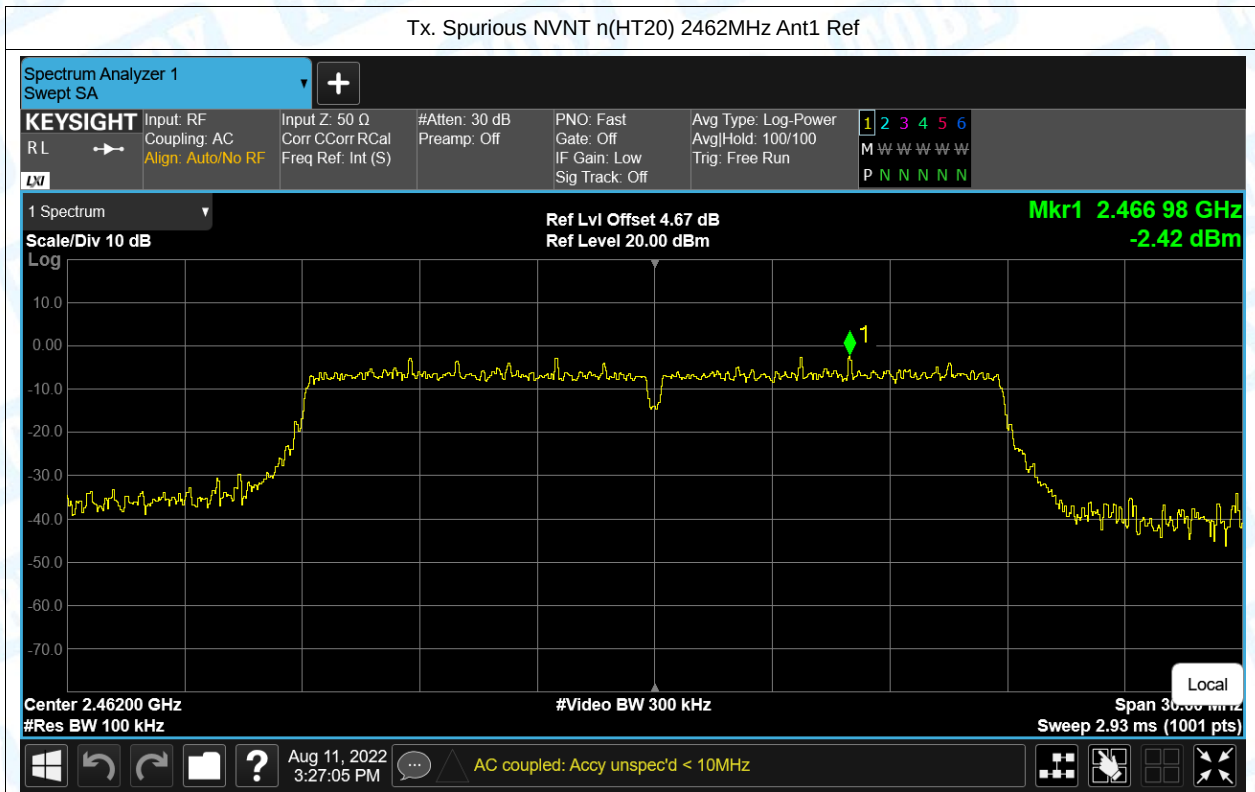






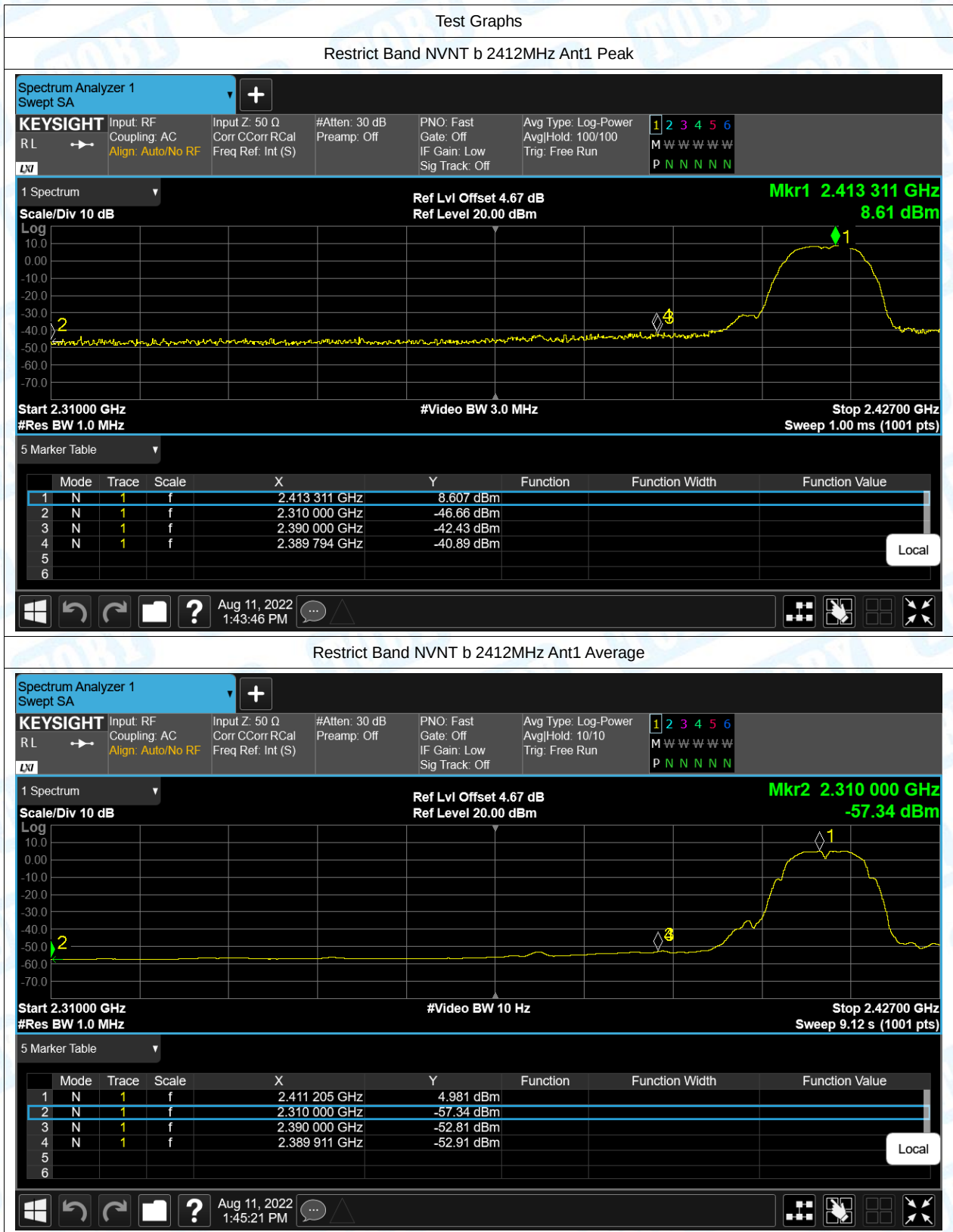




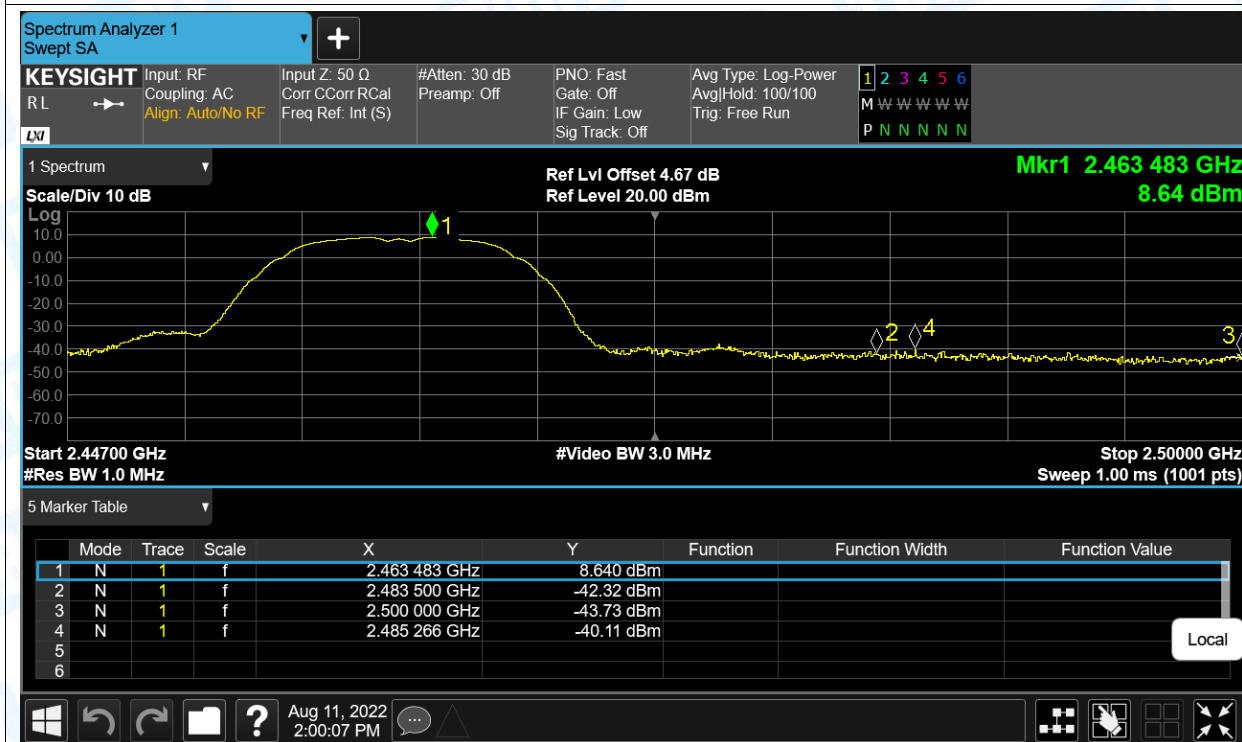


8. Restrict Band

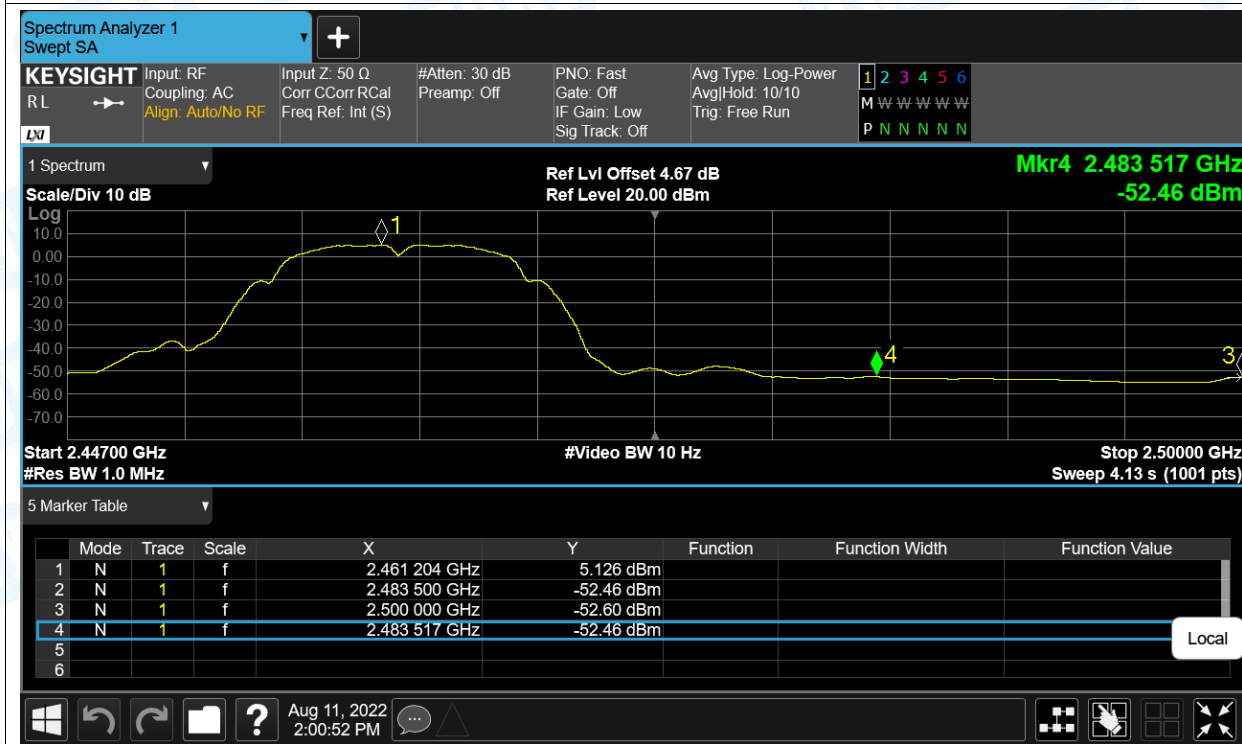
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-46.66	2	50.6	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-57.34	2	39.92	Average	54	Pass
NVNT	b	2412	Ant1	2389.794	-40.89	2	56.37	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-52.91	2	44.35	Average	54	Pass
NVNT	b	2412	Ant1	2390	-42.43	2	54.83	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-52.81	2	44.45	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-42.32	2	54.94	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-52.46	2	44.8	Average	54	Pass
NVNT	b	2462	Ant1	2485.266	-40.11	2	57.15	Peak	74	Pass
NVNT	b	2462	Ant1	2483.517	-52.46	2	44.8	Average	54	Pass
NVNT	b	2462	Ant1	2500	-43.73	2	53.53	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-52.6	2	44.66	Average	54	Pass
NVNT	g	2412	Ant1	2310	-45.49	2	51.77	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-56.57	2	40.69	Average	54	Pass
NVNT	g	2412	Ant1	2389.209	-27.61	2	69.65	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-45.7	2	51.56	Average	54	Pass
NVNT	g	2412	Ant1	2390	-31.31	2	65.95	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-45.48	2	51.78	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-30.65	2	66.61	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-49.39	2	47.87	Average	54	Pass
NVNT	g	2462	Ant1	2483.782	-26.07	2	71.19	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-49.39	2	47.87	Average	54	Pass
NVNT	g	2462	Ant1	2500	-44.47	2	52.79	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-53.52	2	43.74	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-55.27	2	41.99	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-65.74	2	31.52	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2388.39	-27.64	2	69.62	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-44.08	2	53.18	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-28.8	2	68.46	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-43.87	2	53.39	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-27.5	2	69.76	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-50.03	2	47.23	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2485.69	-24.63	2	72.63	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-50.03	2	47.23	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-43.55	2	53.71	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-54.42	2	42.84	Average	54	Pass

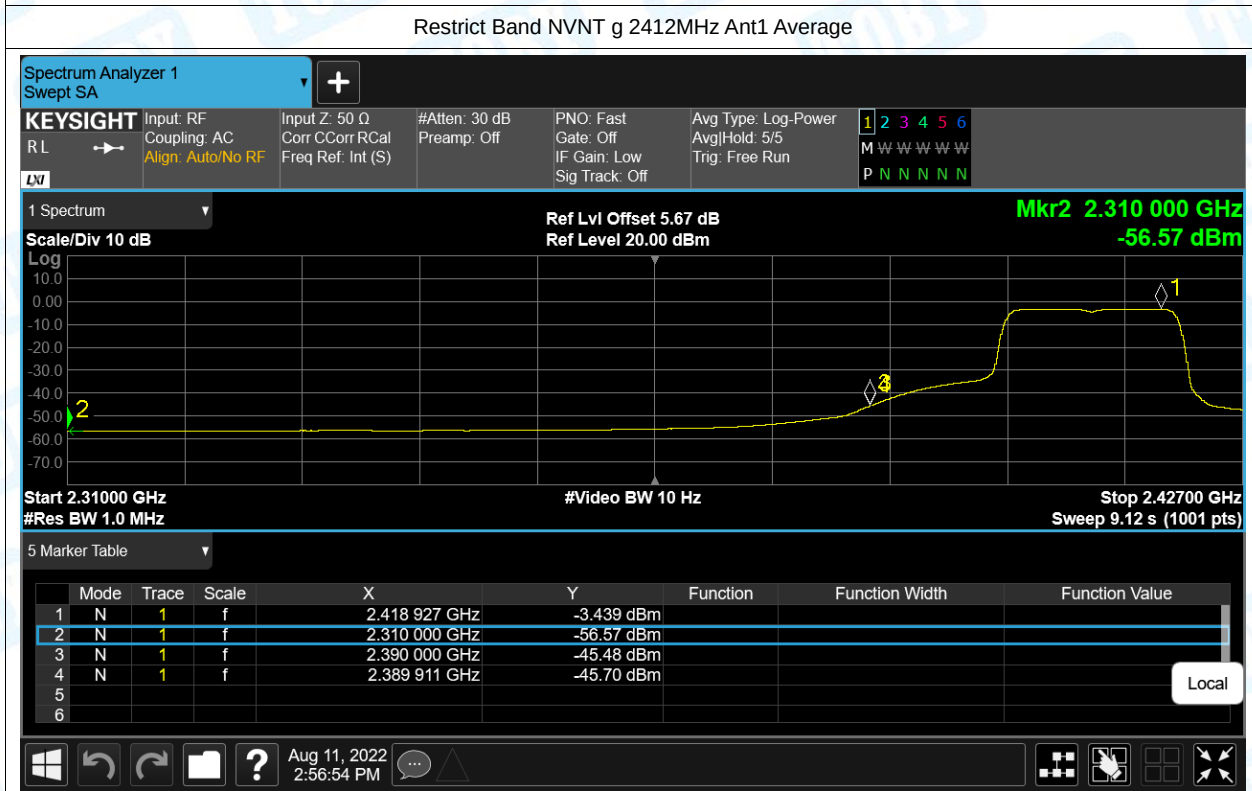
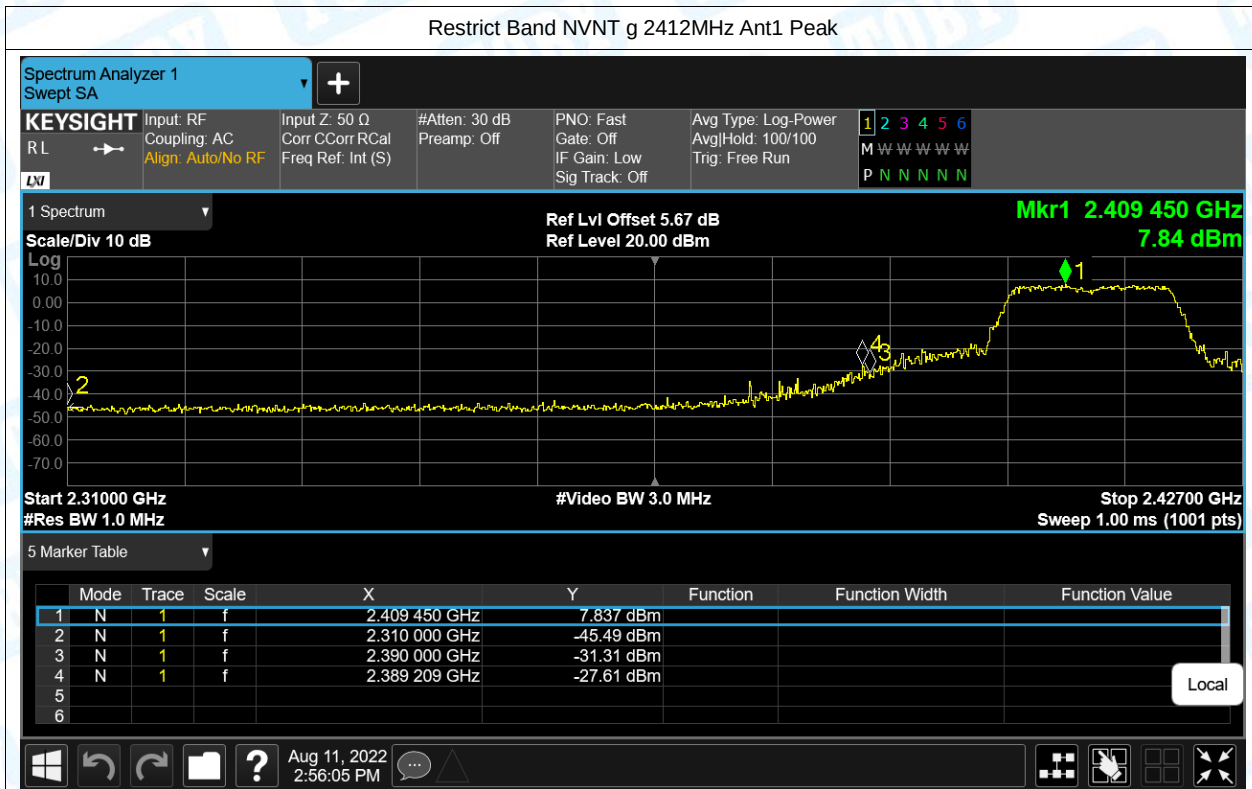


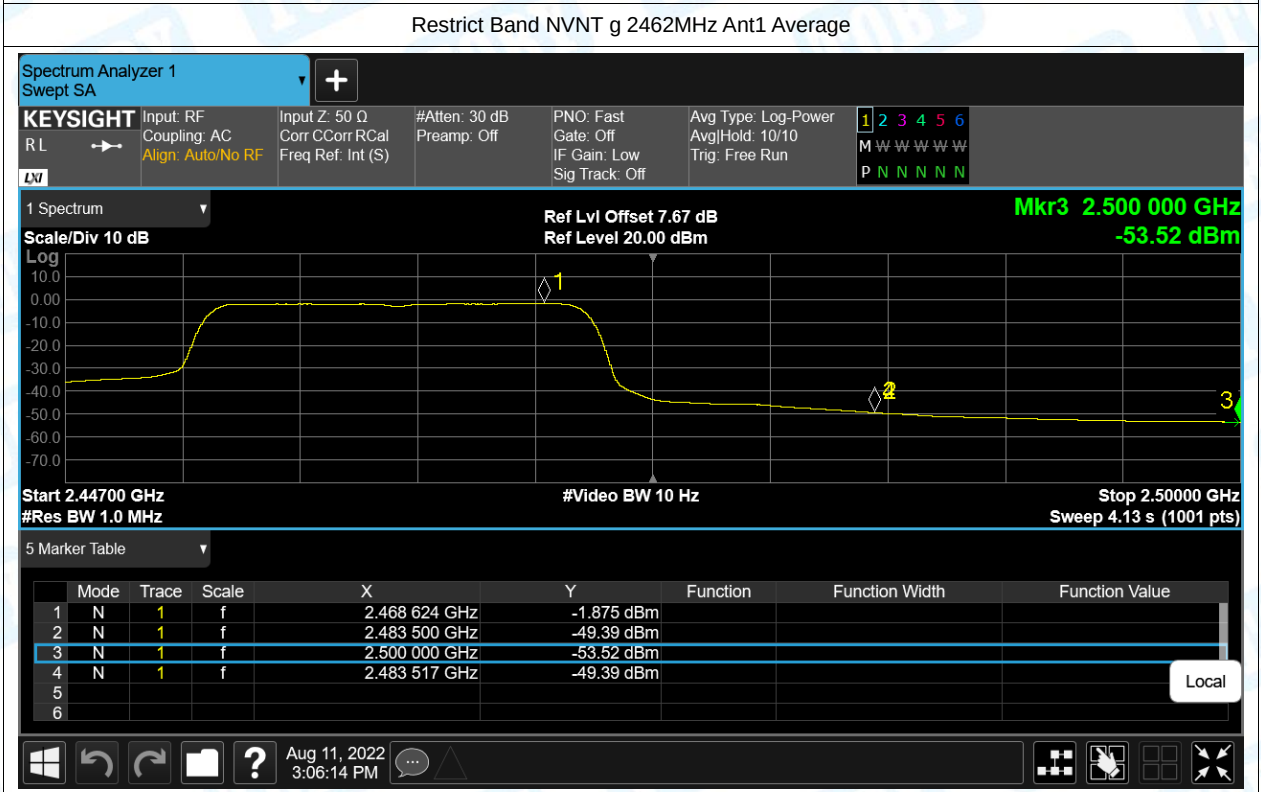
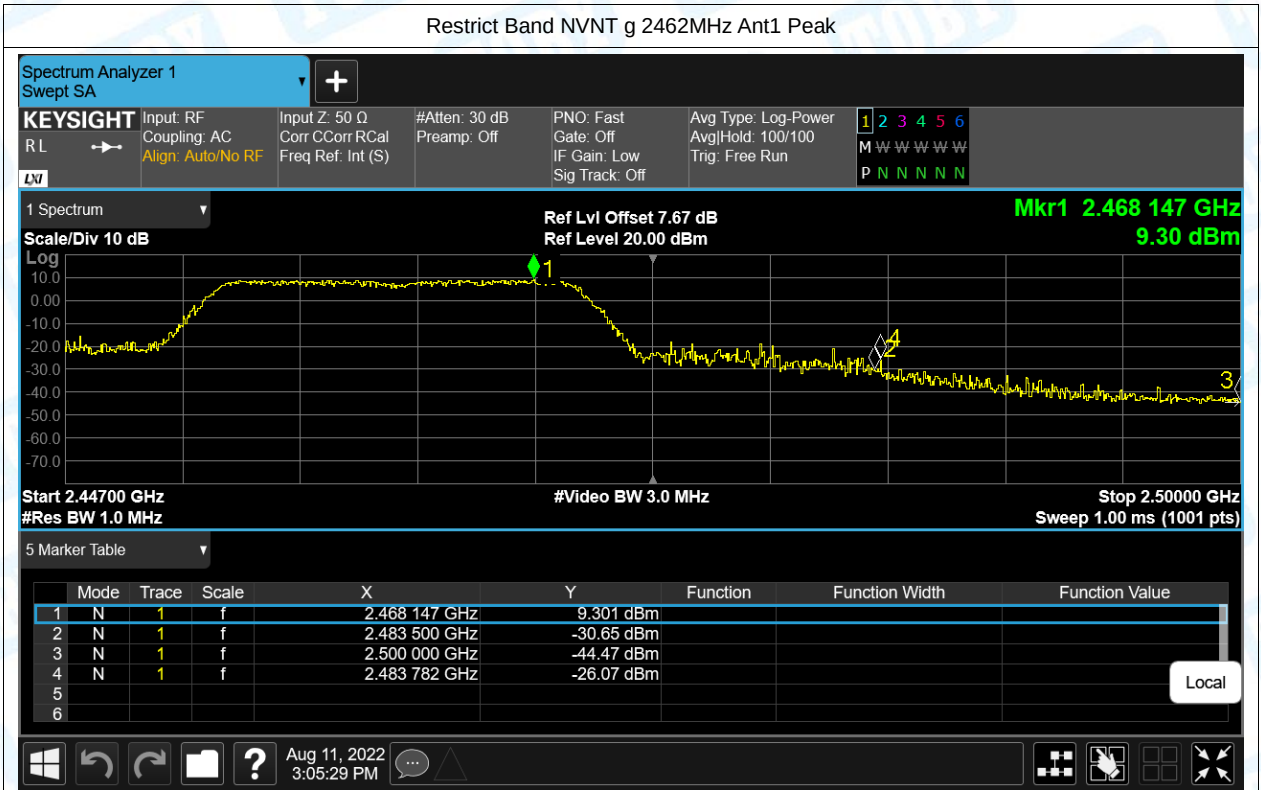
Restrict Band NVNT b 2462MHz Ant1 Peak



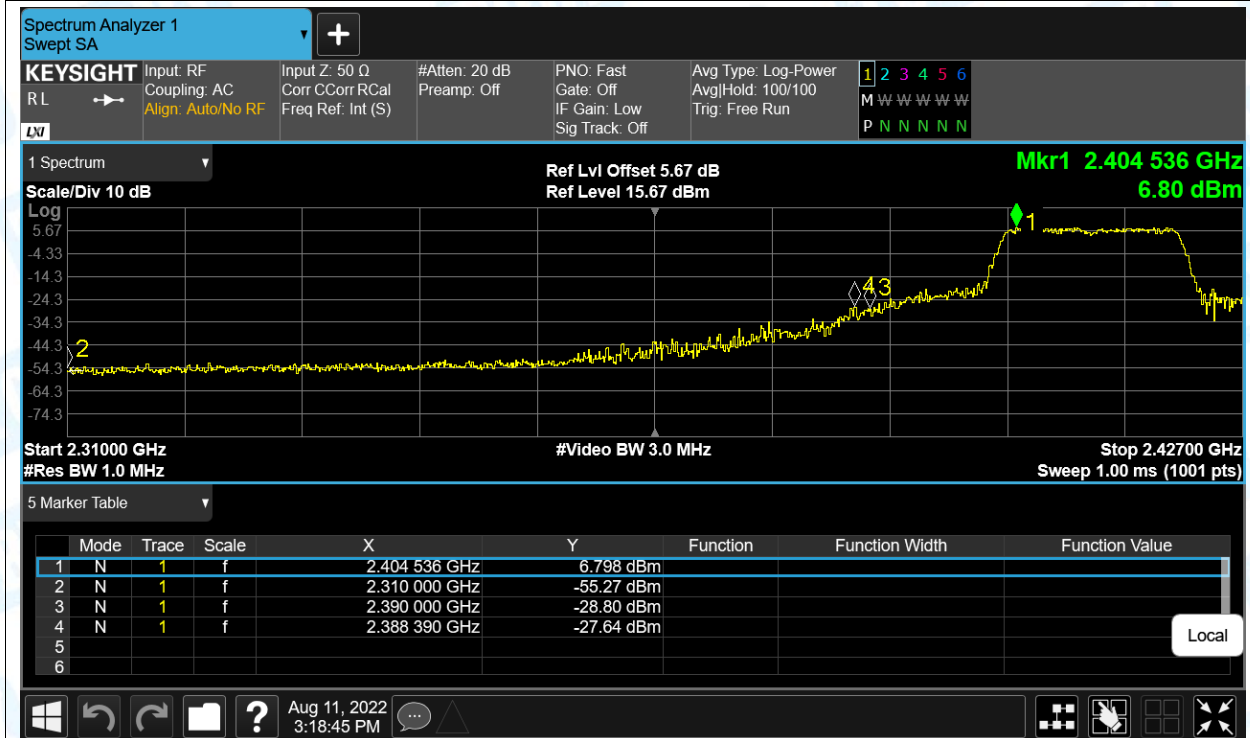
Restrict Band NVNT b 2462MHz Ant1 Average



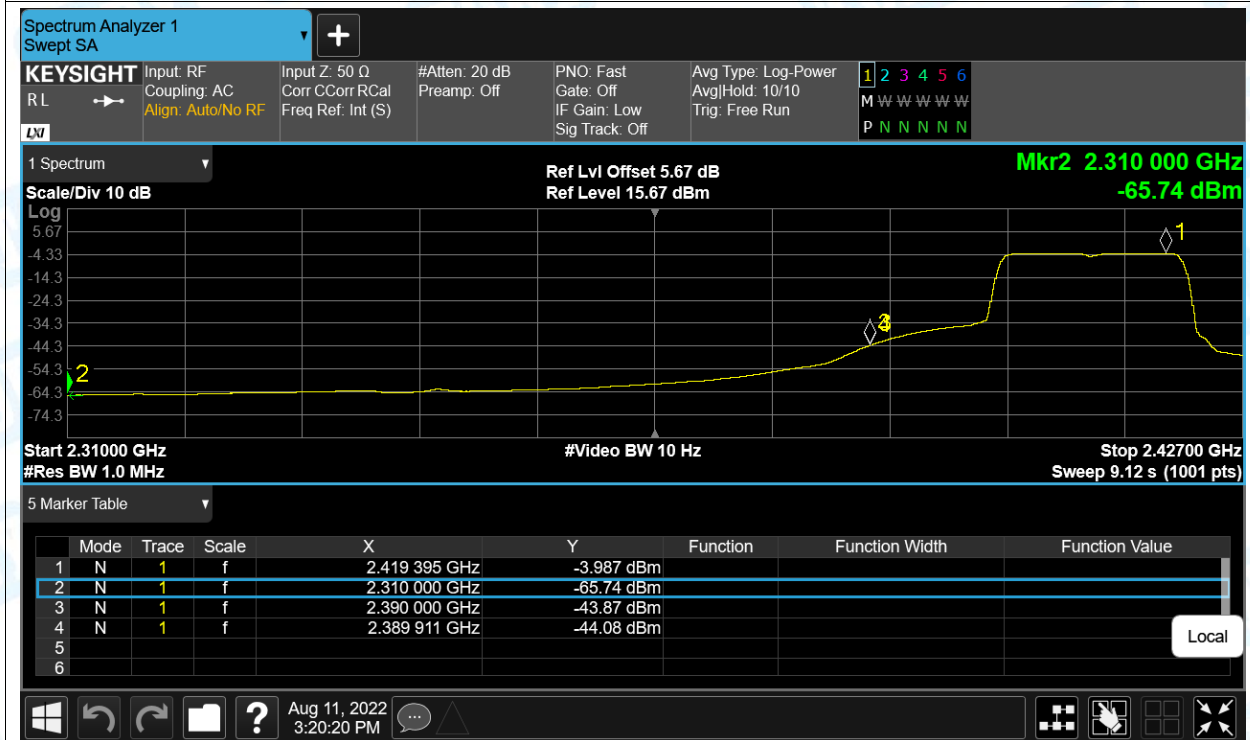


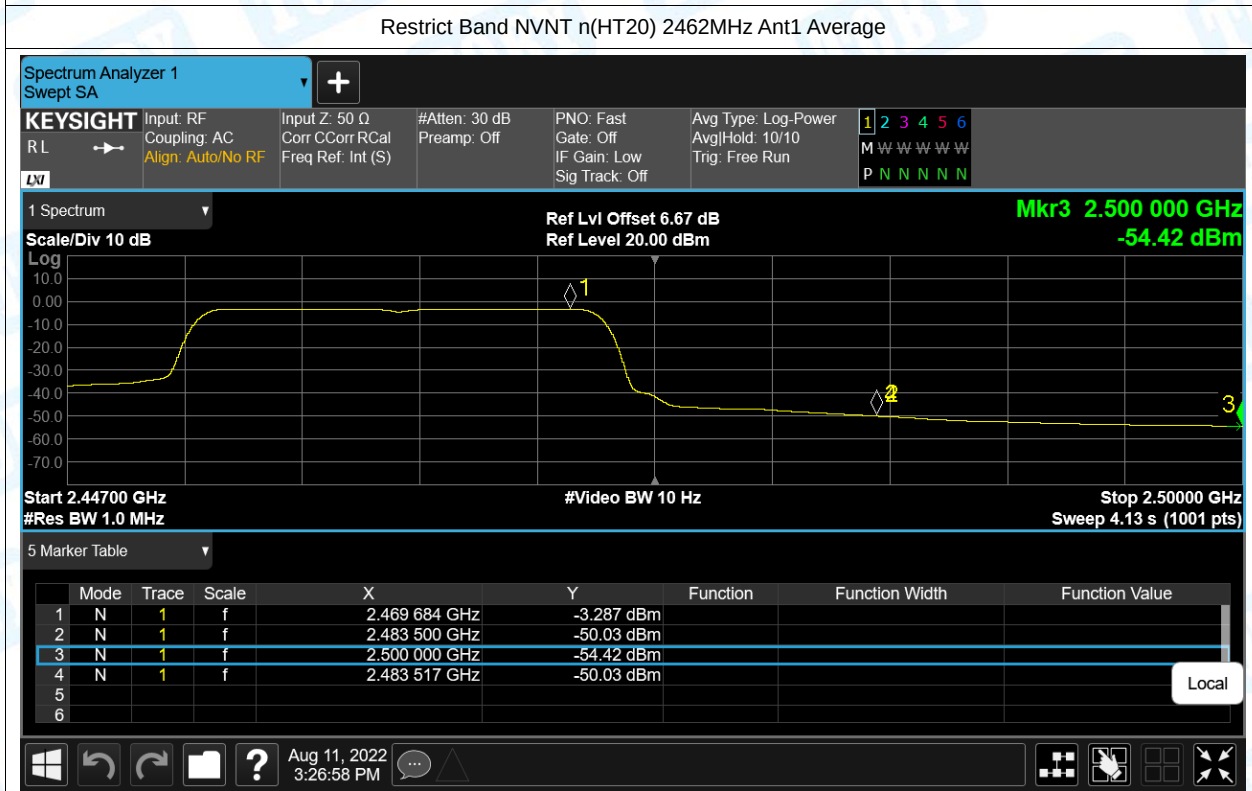
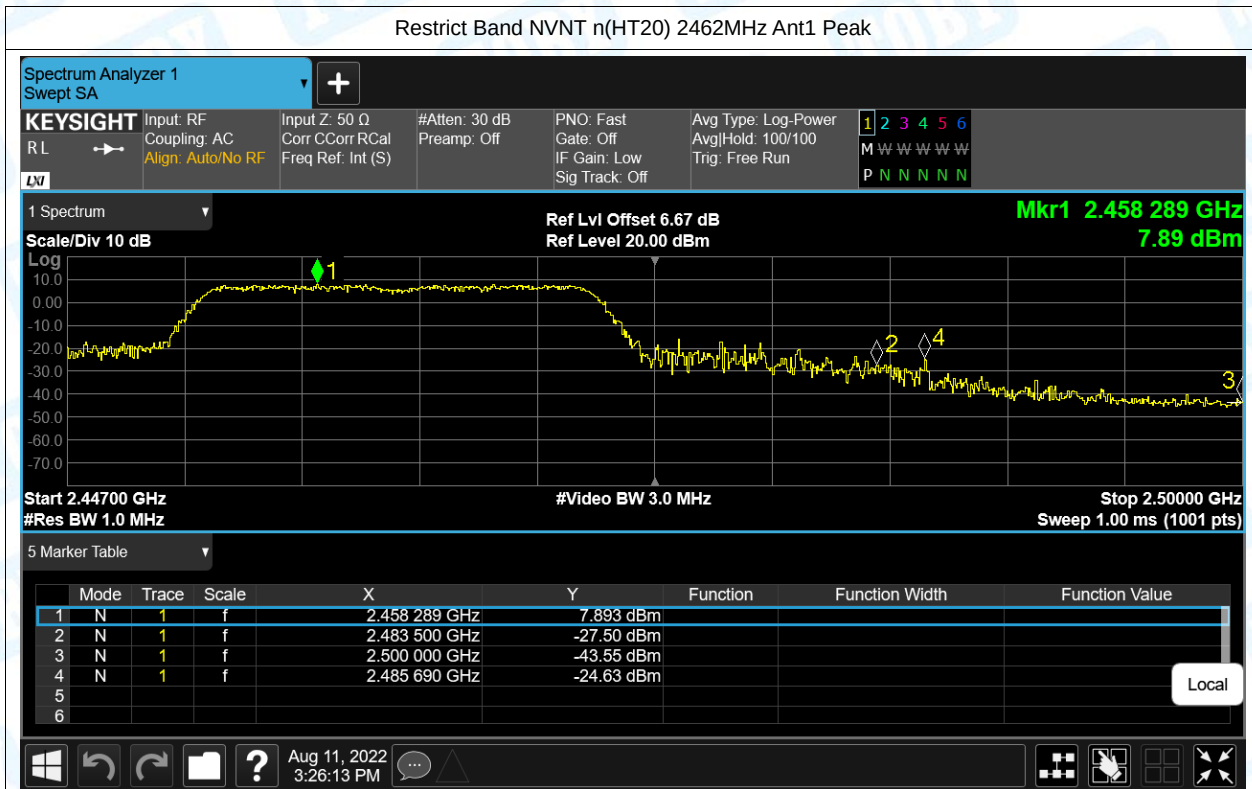


Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2412MHz Ant1 Average





-----END OF REPORT-----