

# RF Test Data for 2.4G WiFi (Conducted Measurements)

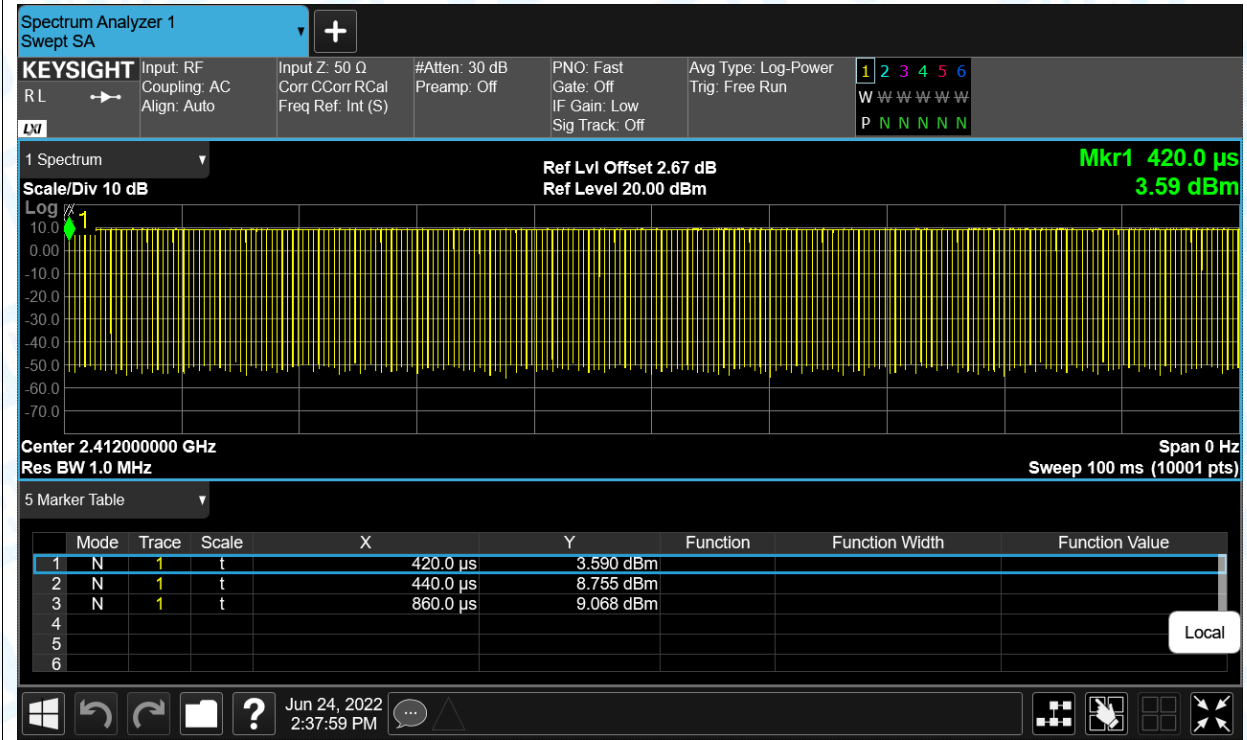
General Description of EUT	
Product Name:	Smart PTZ Battery Camera
Test Model:	CQ1
Sample ID:	202204-0397-11-2#
Environmental Conditions	
Temperature:	24°C
Relative Humidity:	50%
Test Voltage:	DC3.7V
Test Engineer:	Liufeng
Note: For a more detailed features description, please refer to the report TBR-C-202204-0397-17.	

## Duty Cycle

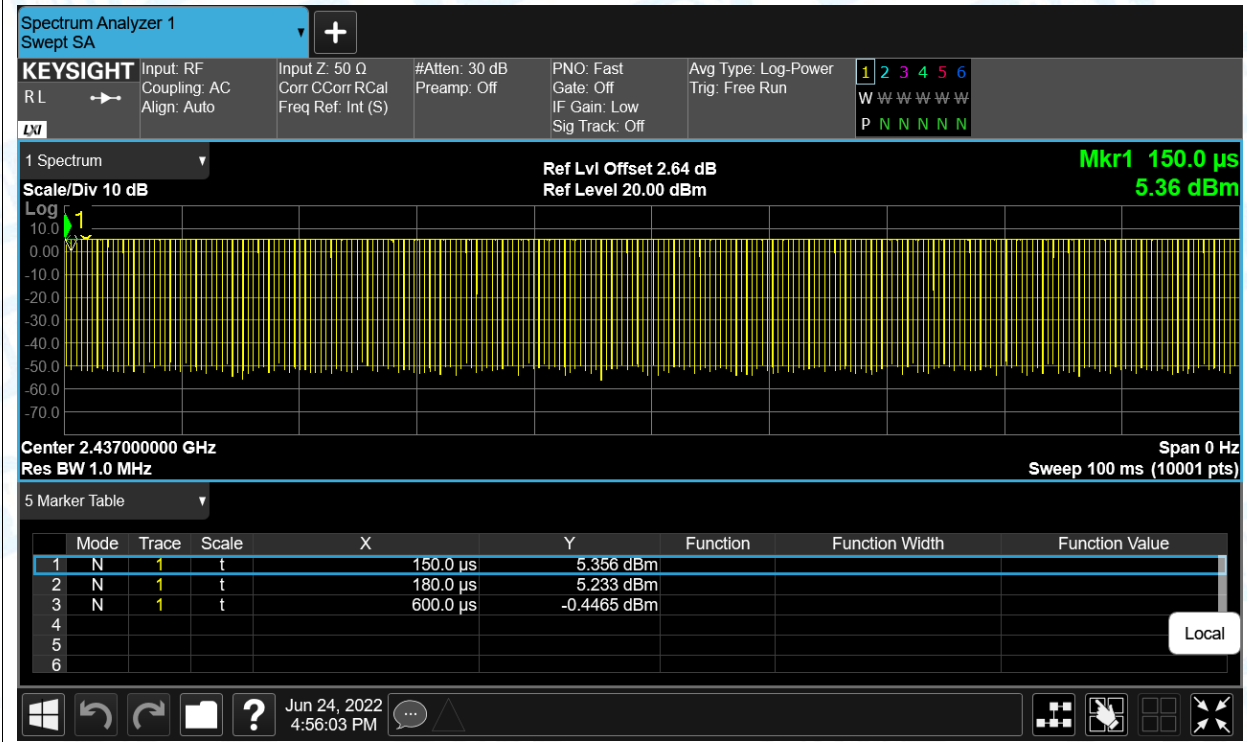
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	96.94	0.13	2.38
NVNT	b	2437	Ant1	96.91	0.14	2.38
NVNT	b	2462	Ant1	96.9	0.14	2.38
NVNT	g	2412	Ant1	100	0	0
NVNT	g	2437	Ant1	100	0	0
NVNT	g	2462	Ant1	100	0	0
NVNT	n(HT20)	2412	Ant1	100	0	0
NVNT	n(HT20)	2437	Ant1	100	0	0
NVNT	n(HT20)	2462	Ant1	100	0	0

Test Graphs

Duty Cycle NVNT b 2412MHz Ant1

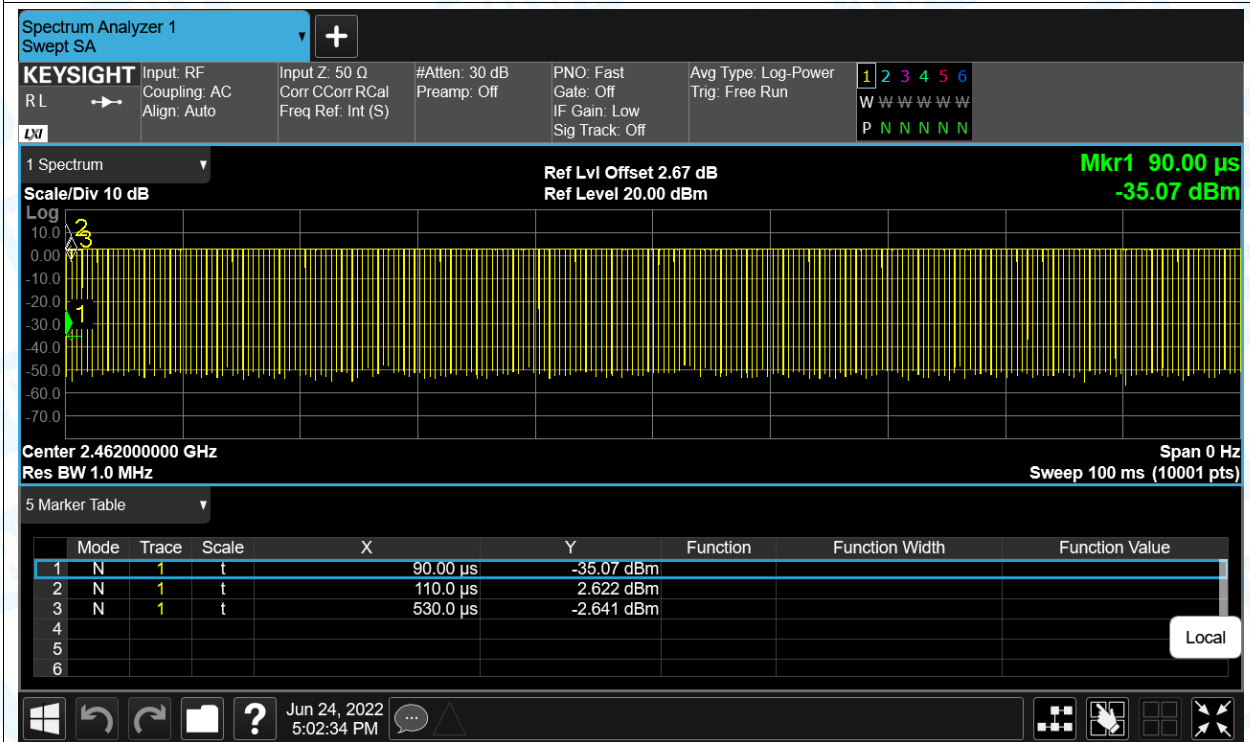


Duty Cycle NVNT b 2437MHz Ant1

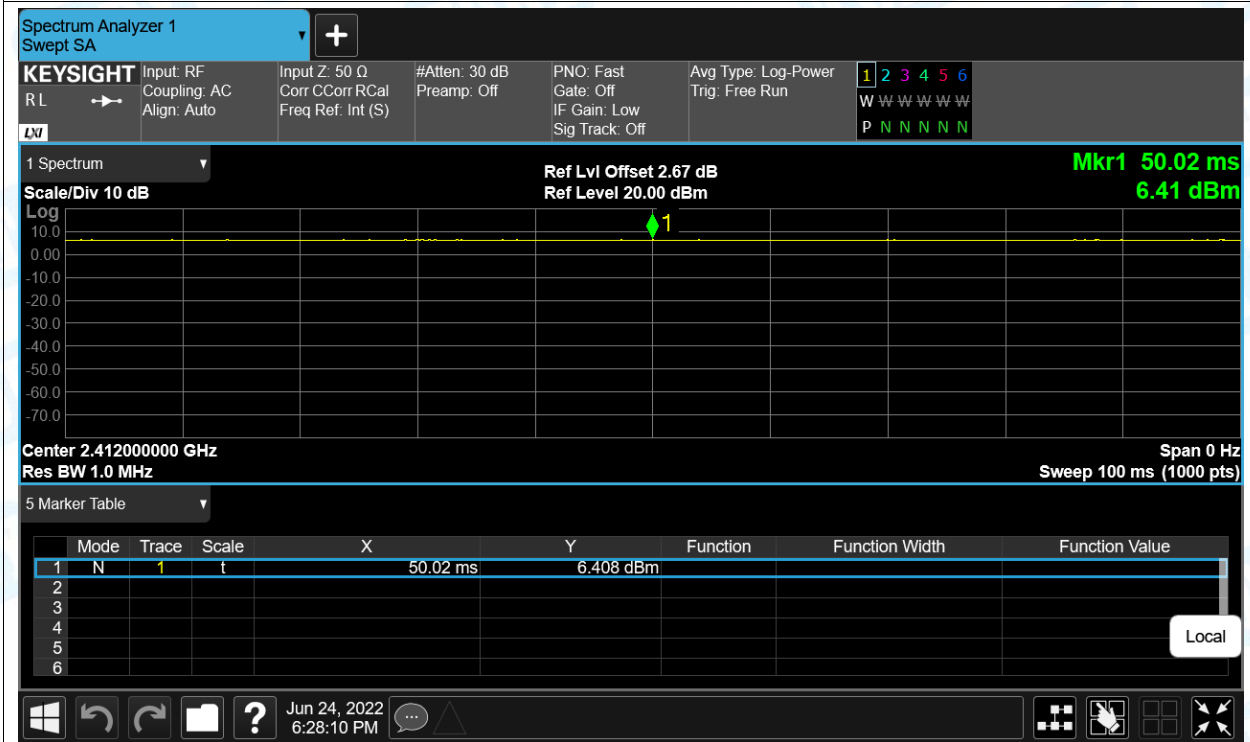




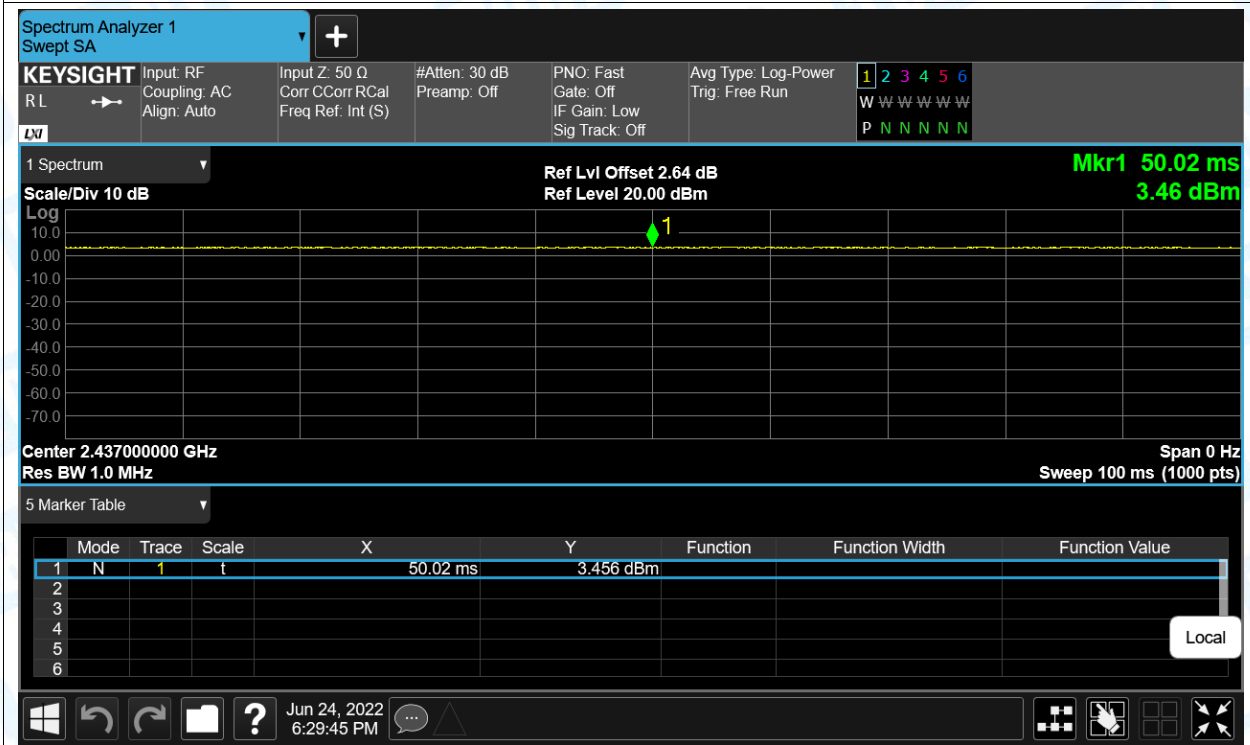
### Duty Cycle NVNT b 2462MHz Ant1



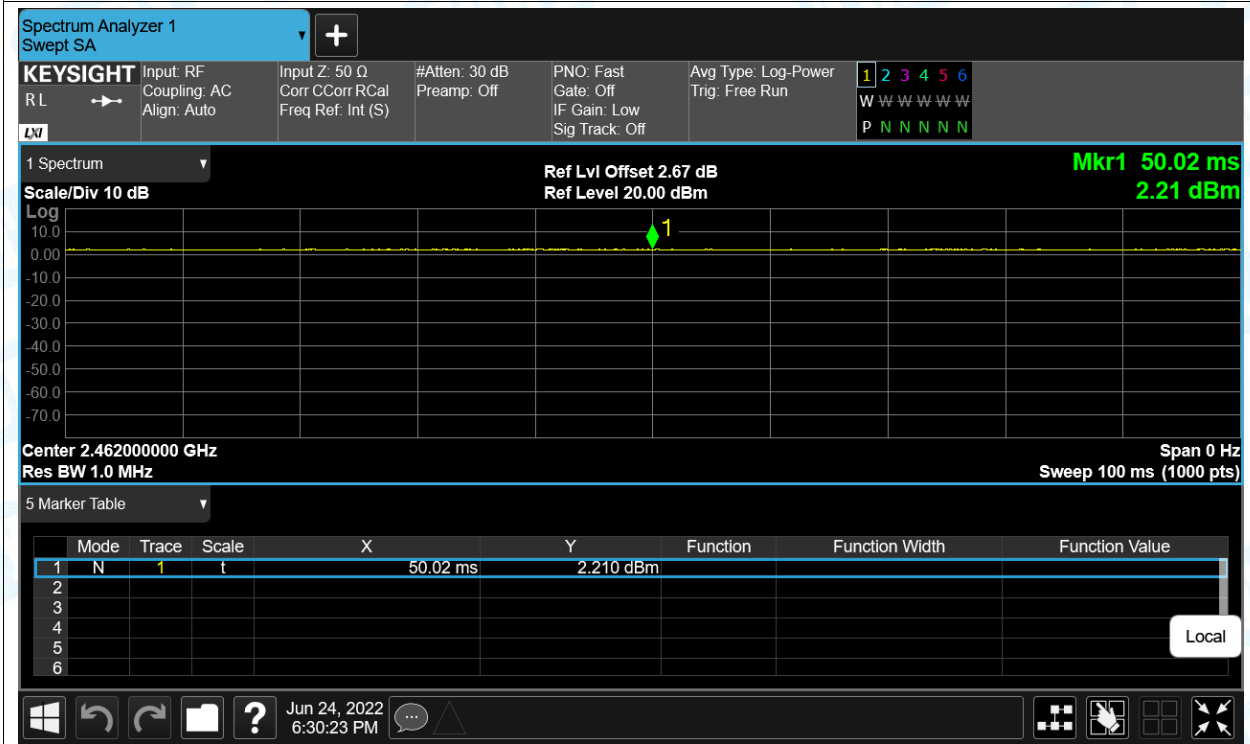
### Duty Cycle NVNT g 2412MHz Ant1



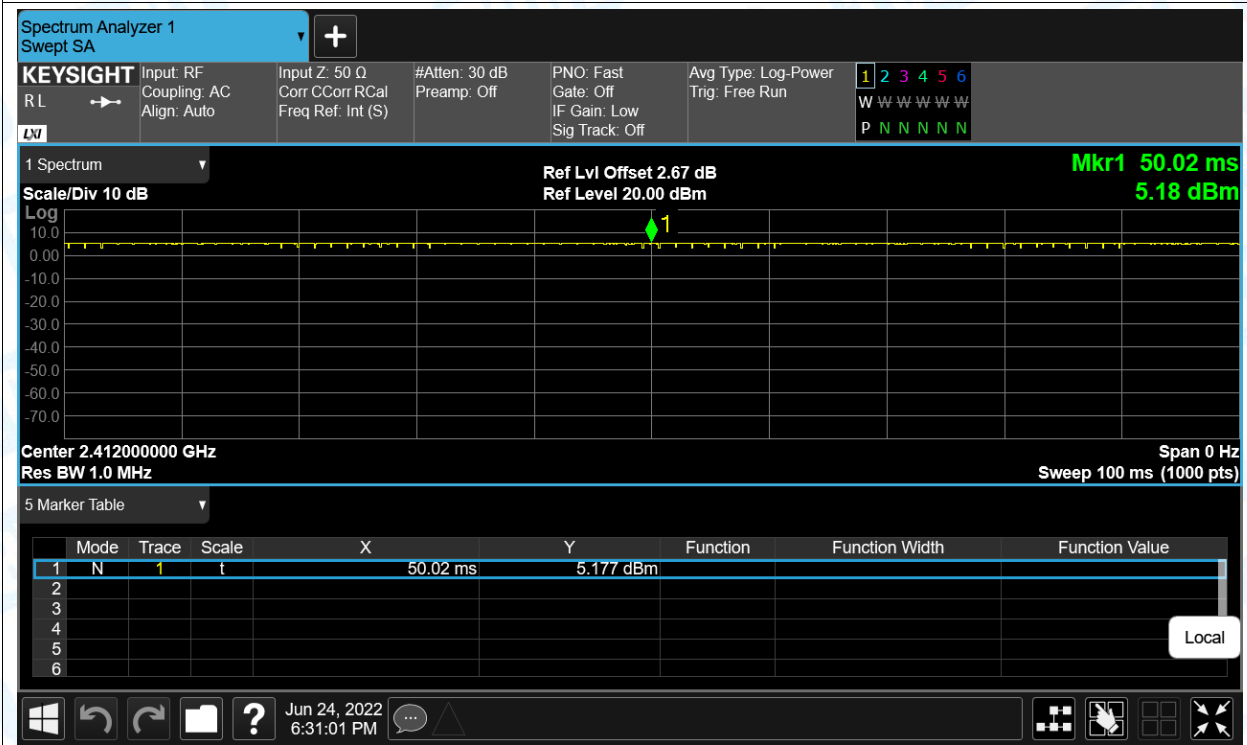
### Duty Cycle NVNT g 2437MHz Ant1



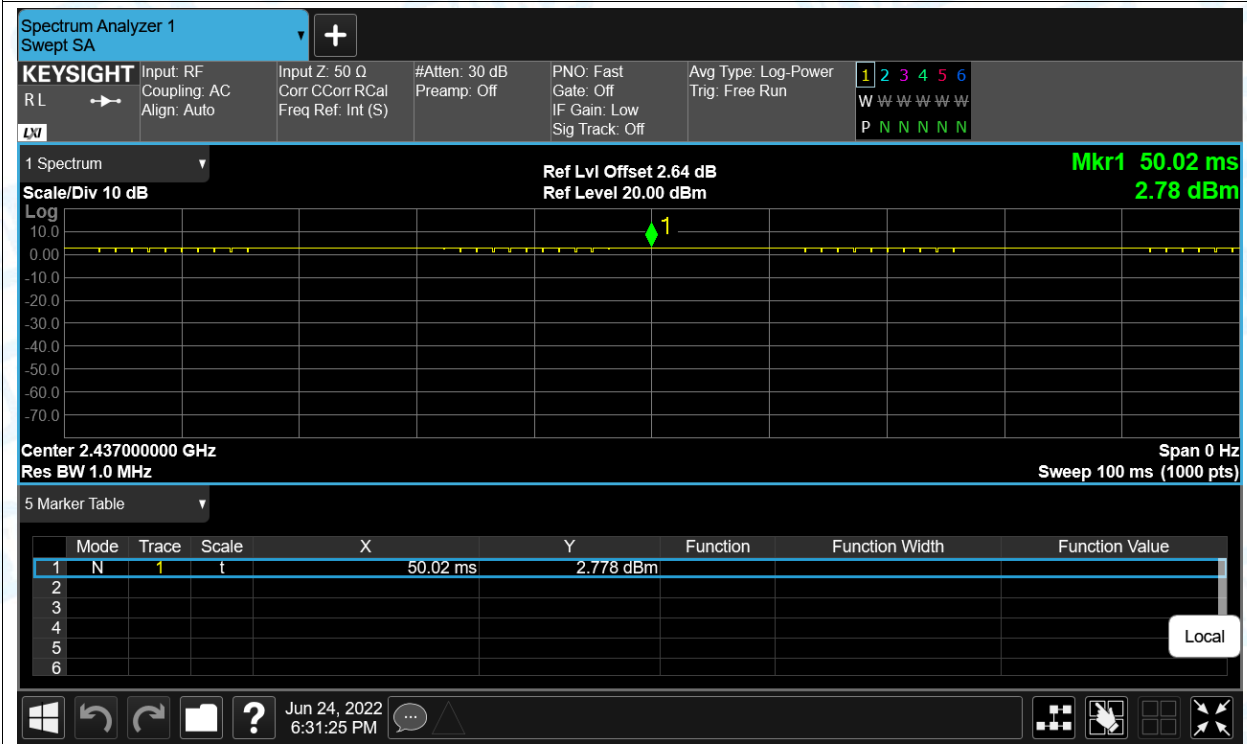
### Duty Cycle NVNT g 2462MHz Ant1



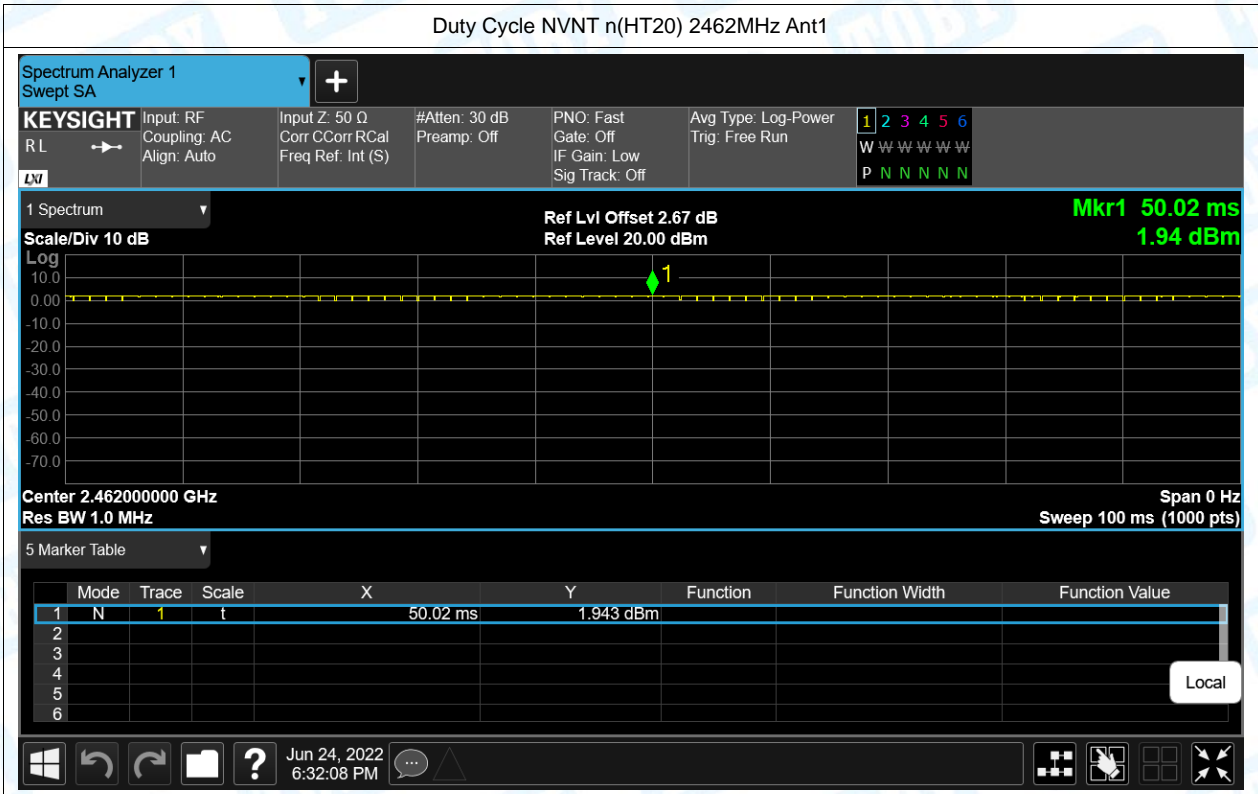
### Duty Cycle NVNT n(HT20) 2412MHz Ant1



### Duty Cycle NVNT n(HT20) 2437MHz Ant1







## Maximum Conducted Output Power

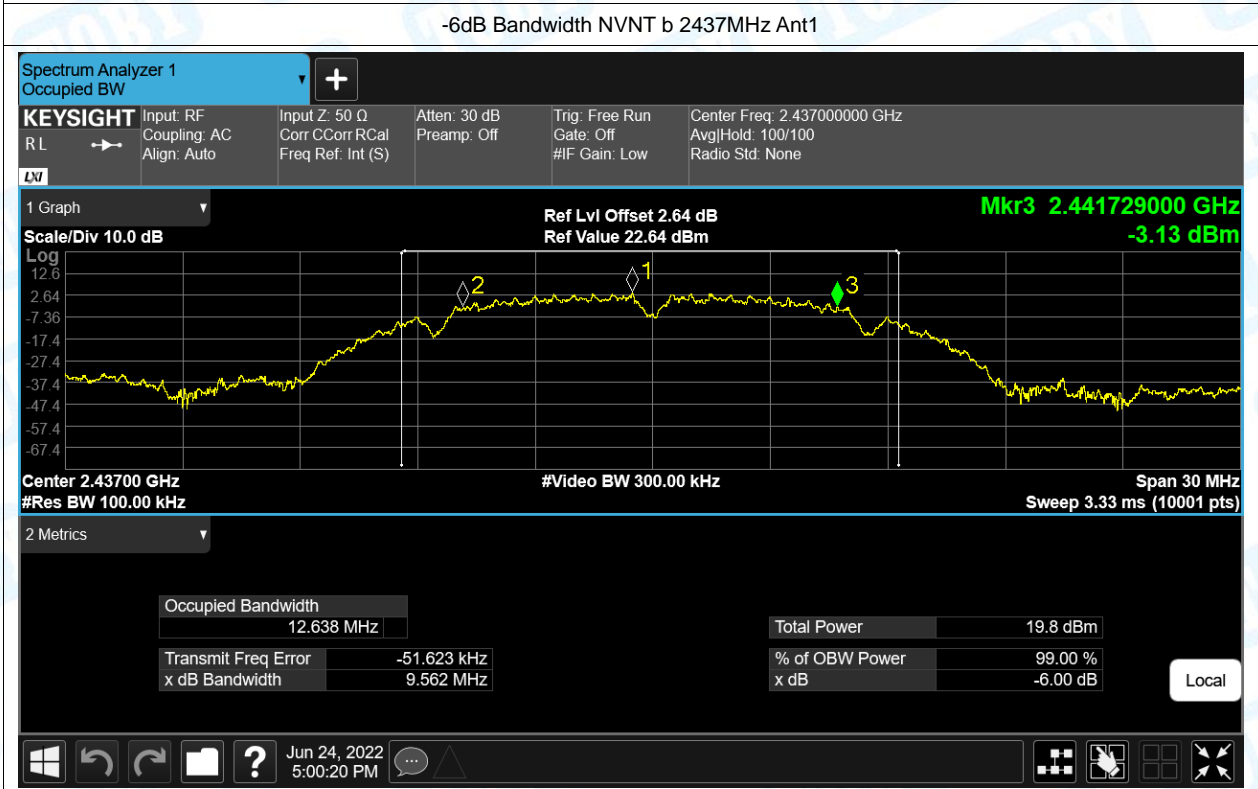
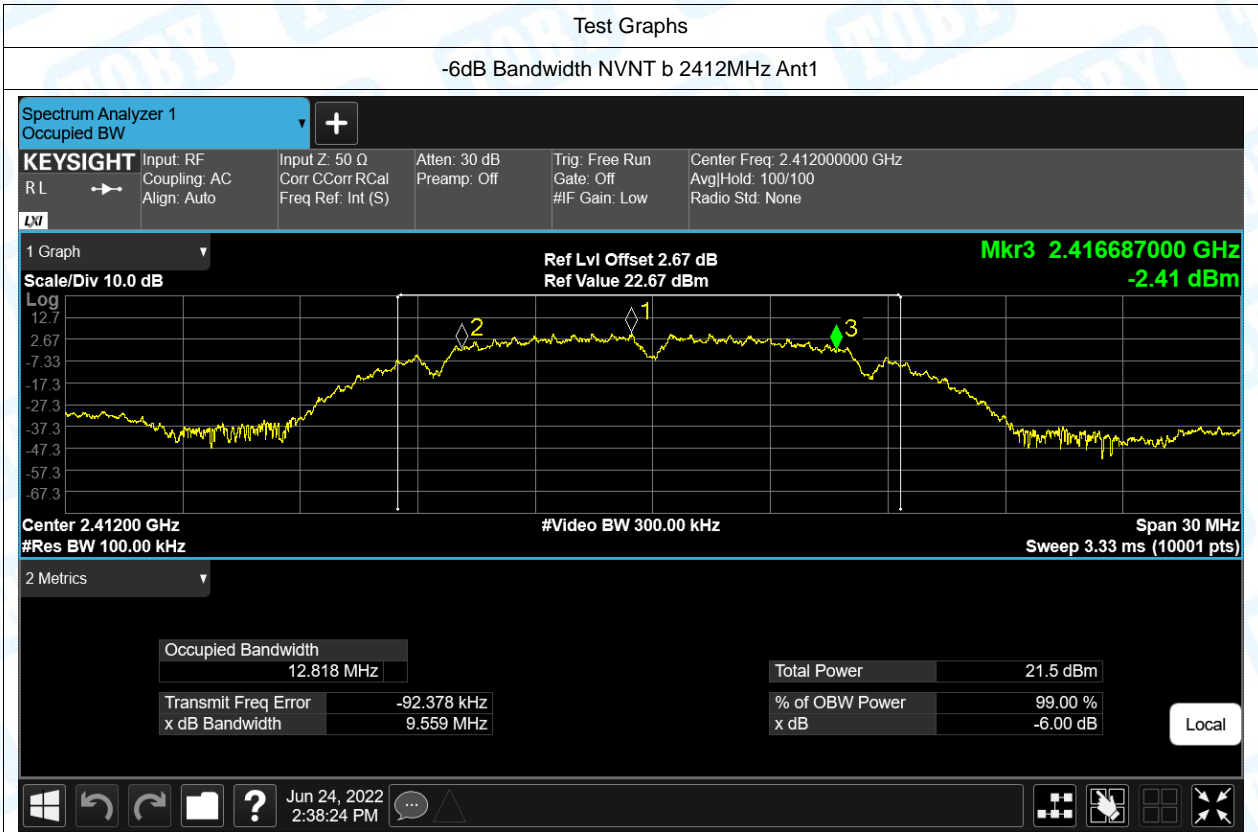
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.826	30	Pass
NVNT	b	2437	Ant1	15.515	30	Pass
NVNT	b	2462	Ant1	14.881	30	Pass
NVNT	g	2412	Ant1	14.524	30	Pass
NVNT	g	2437	Ant1	14.308	30	Pass
NVNT	g	2462	Ant1	14.188	30	Pass
NVNT	n(HT20)	2412	Ant1	14.887	30	Pass
NVNT	n(HT20)	2437	Ant1	14.406	30	Pass
NVNT	n(HT20)	2462	Ant1	13.348	30	Pass

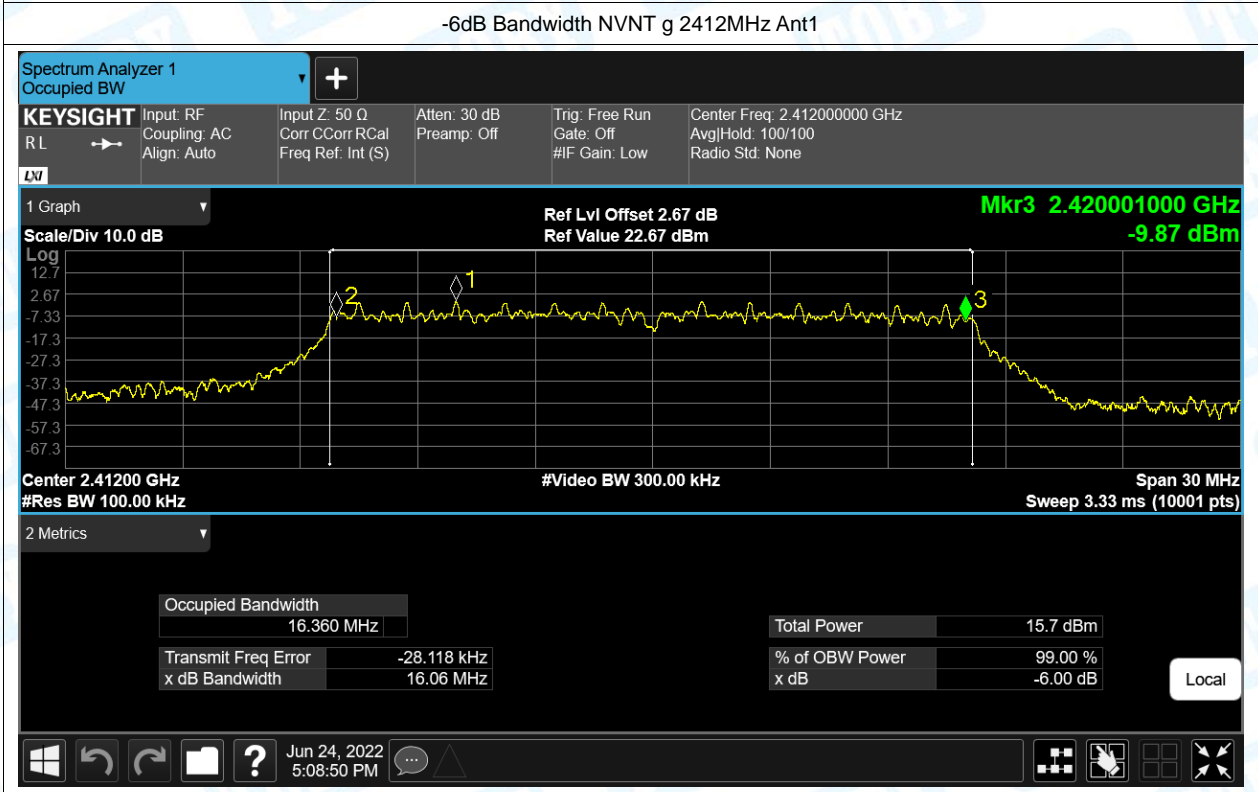
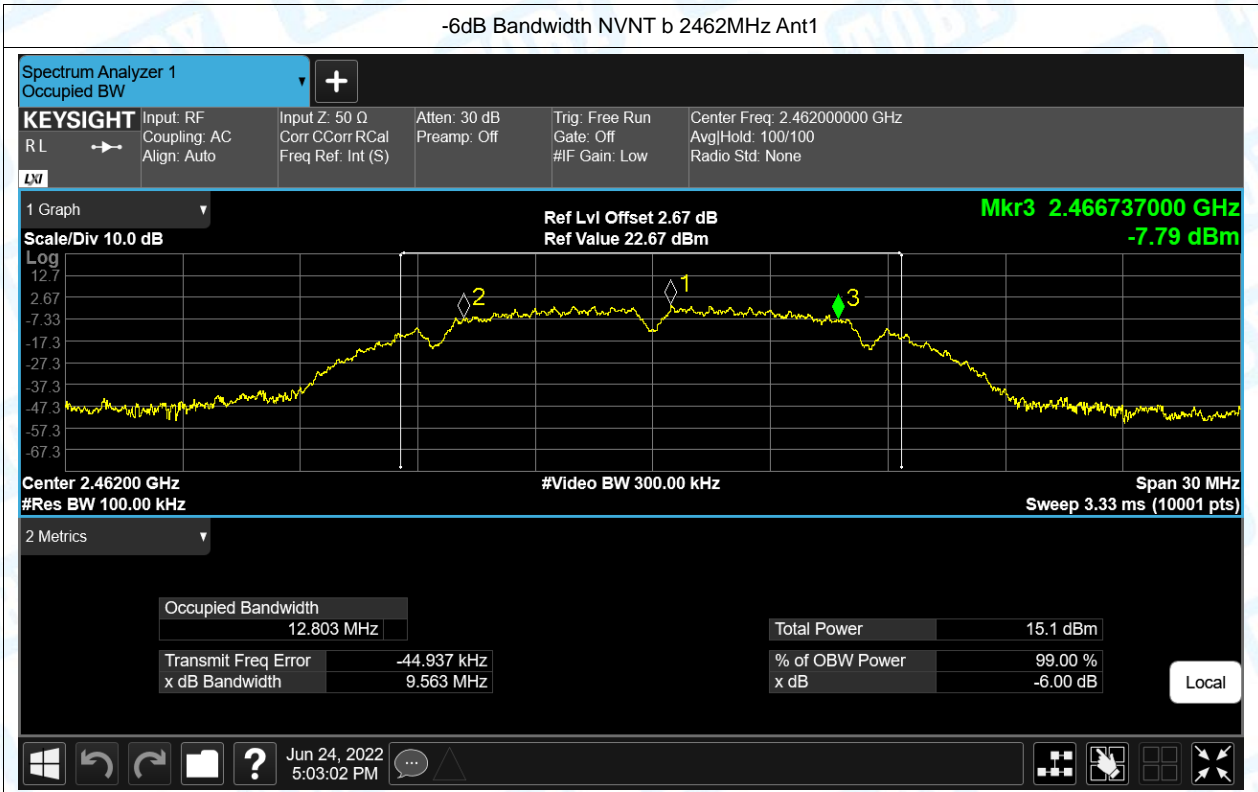


**-6dB Bandwidth**

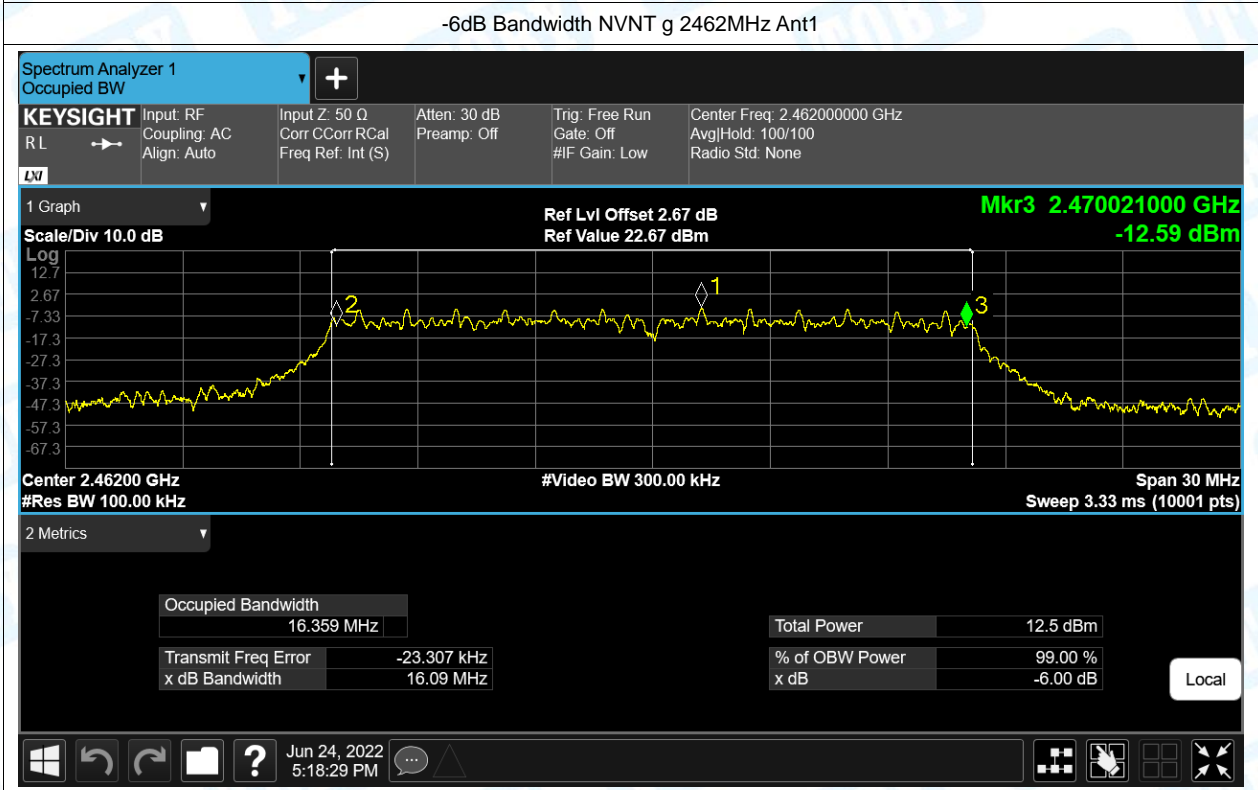
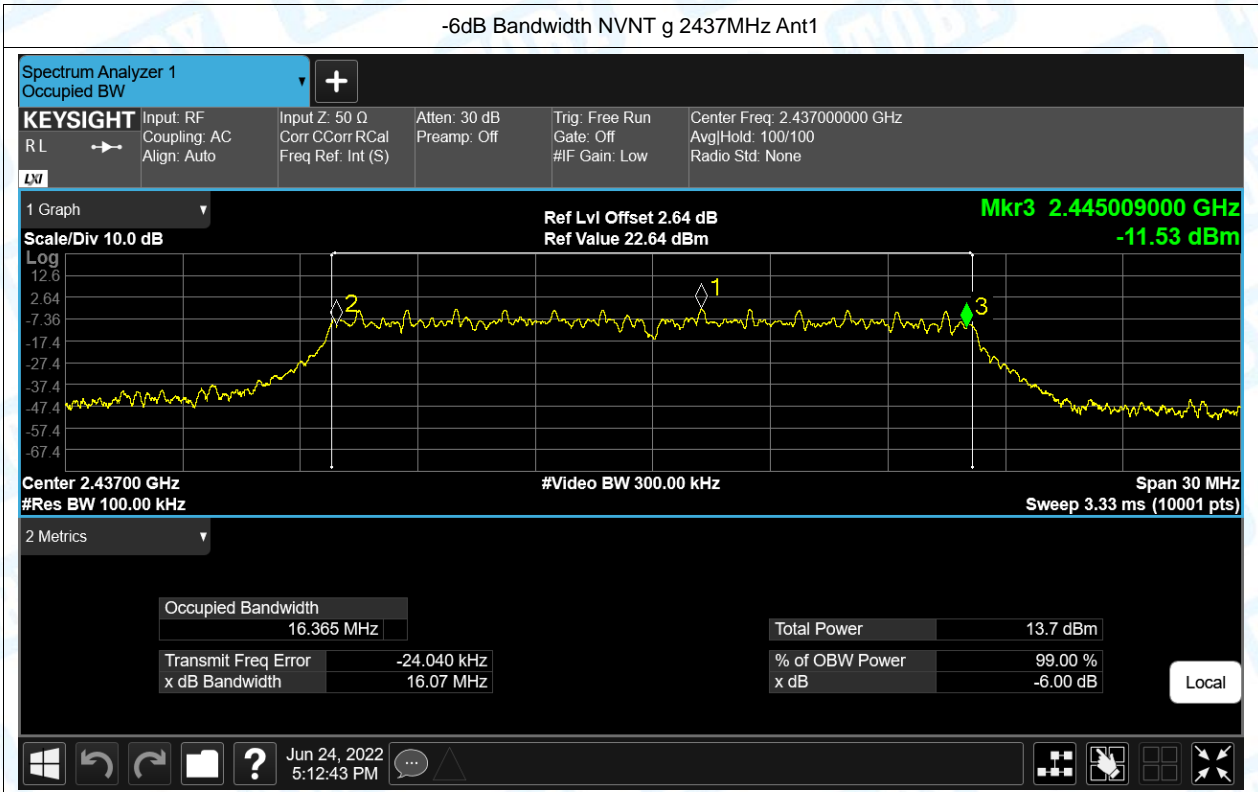
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.56	0.5	Pass
NVNT	b	2437	Ant1	9.56	0.5	Pass
NVNT	b	2462	Ant1	9.56	0.5	Pass
NVNT	g	2412	Ant1	16.06	0.5	Pass
NVNT	g	2437	Ant1	16.07	0.5	Pass
NVNT	g	2462	Ant1	16.09	0.5	Pass
NVNT	n(HT20)	2412	Ant1	15.55	0.5	Pass
NVNT	n(HT20)	2437	Ant1	15.97	0.5	Pass
NVNT	n(HT20)	2462	Ant1	16.08	0.5	Pass

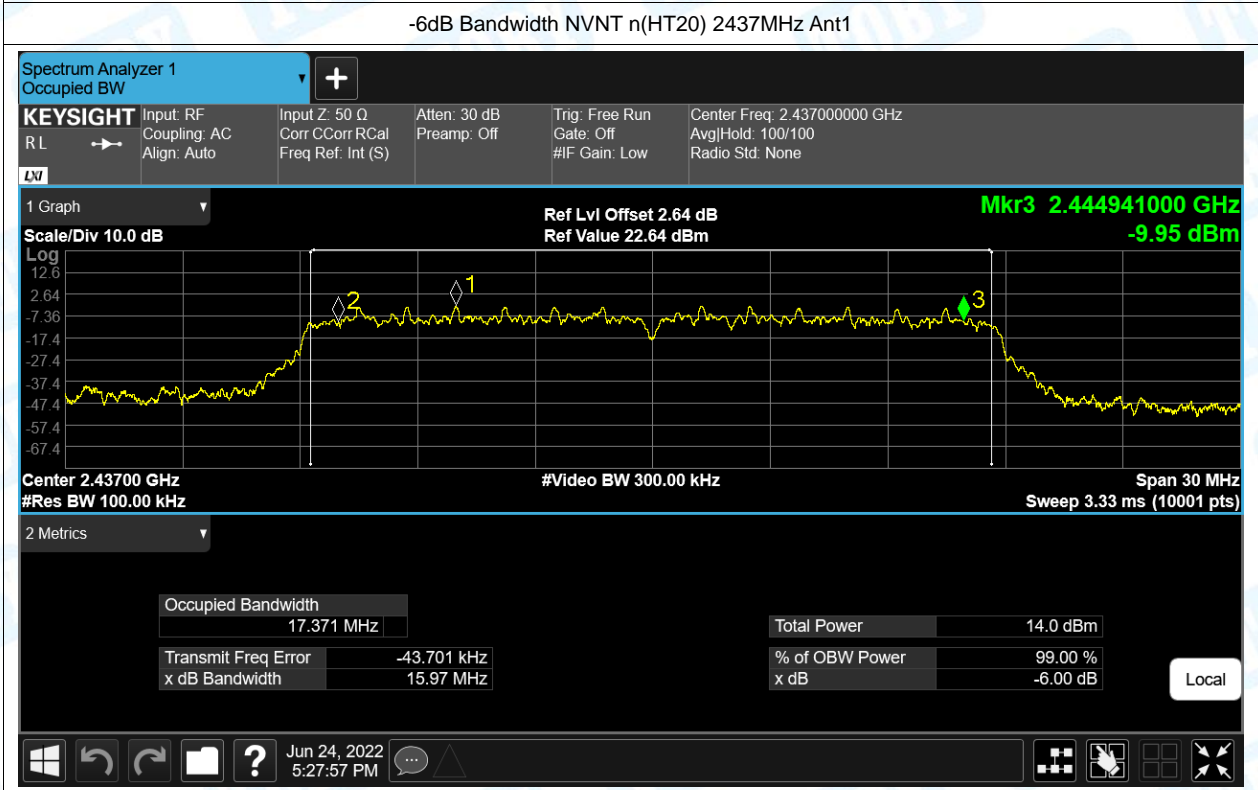
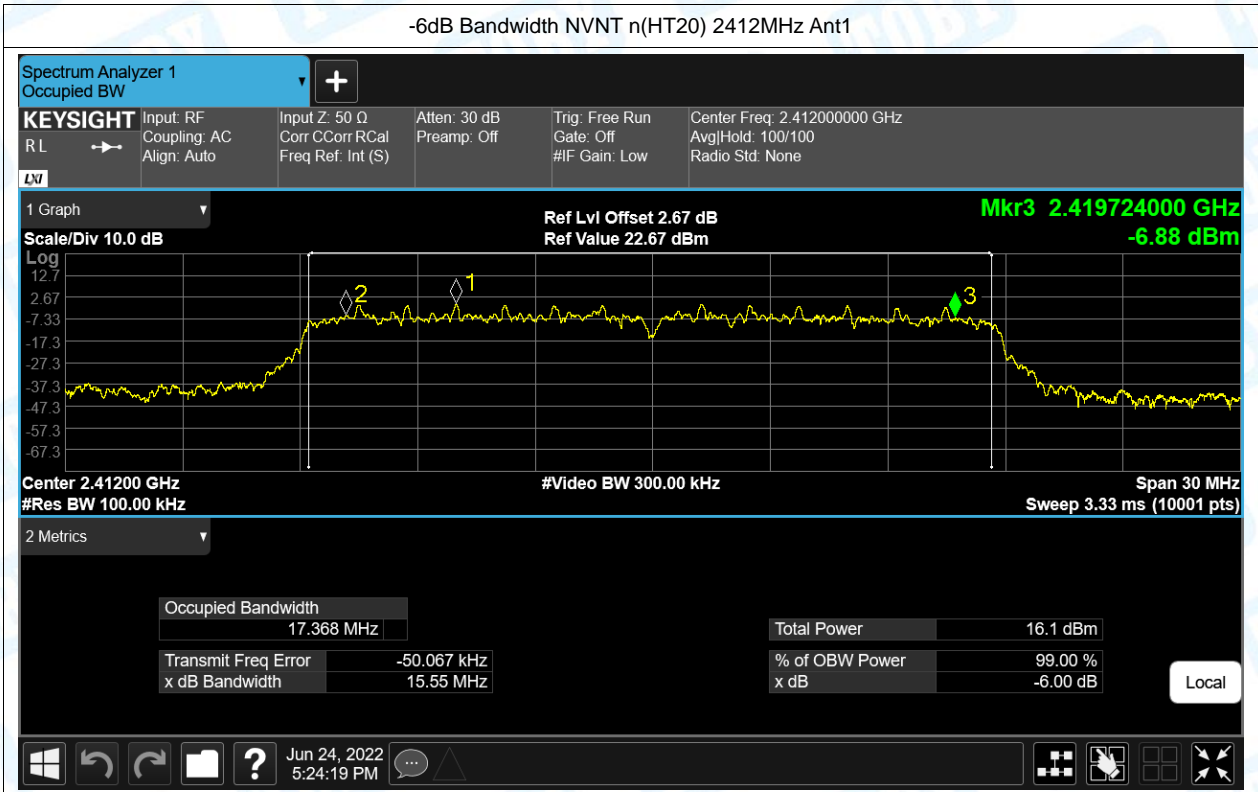




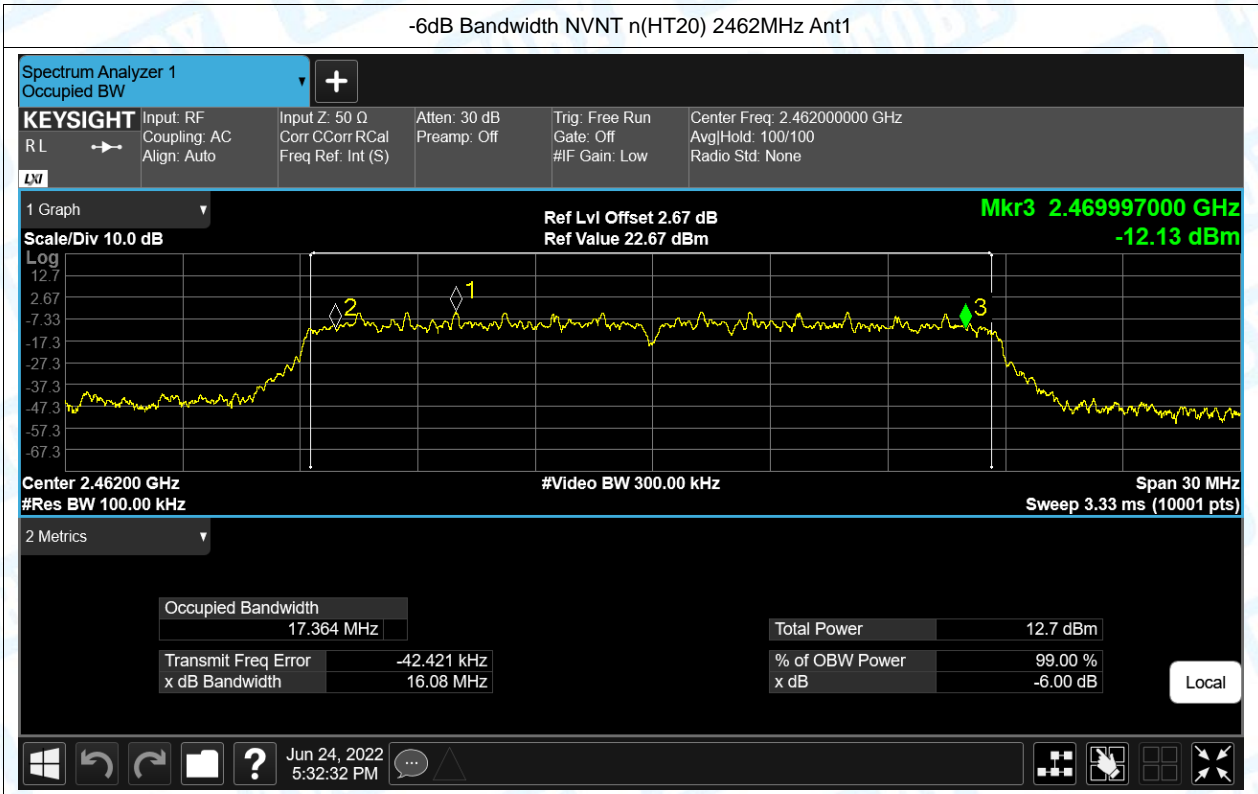












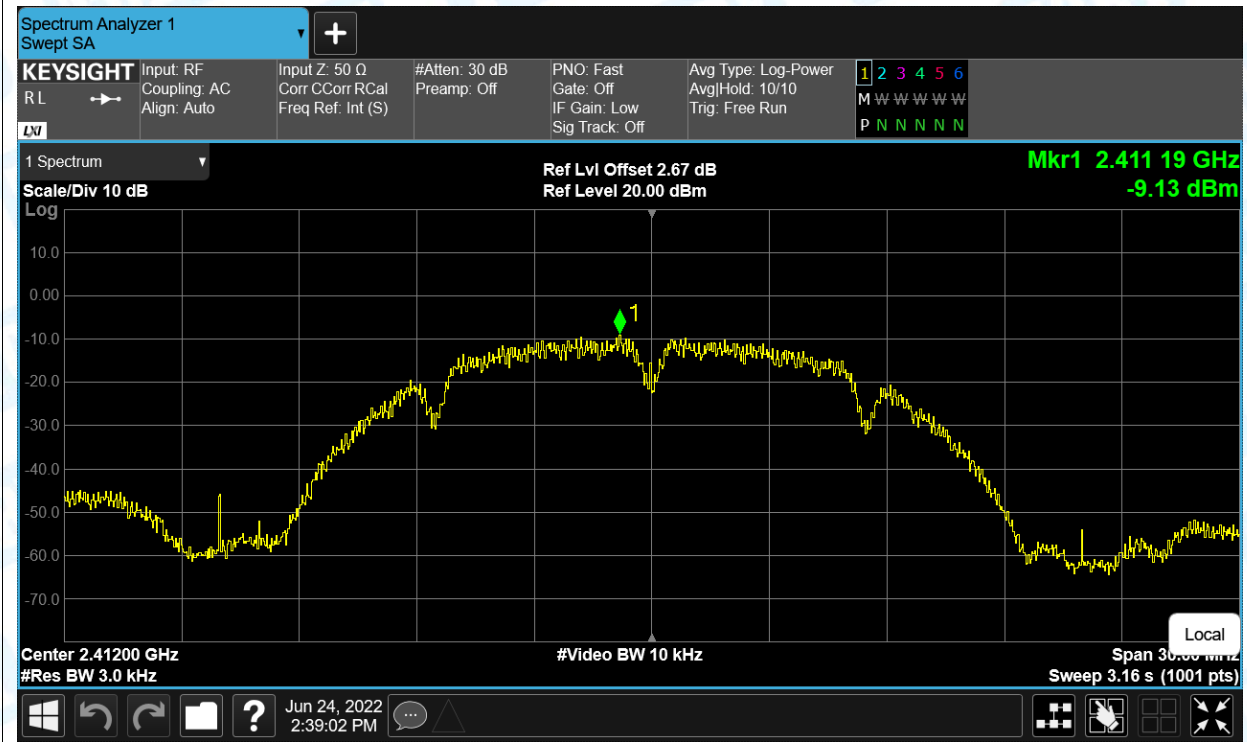
## Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-9.132	8	Pass
NVNT	b	2437	Ant1	-11.005	8	Pass
NVNT	b	2462	Ant1	-10.913	8	Pass
NVNT	g	2412	Ant1	-12.955	8	Pass
NVNT	g	2437	Ant1	-13.947	8	Pass
NVNT	g	2462	Ant1	-13.721	8	Pass
NVNT	n(HT20)	2412	Ant1	-12.871	8	Pass
NVNT	n(HT20)	2437	Ant1	-13.178	8	Pass
NVNT	n(HT20)	2462	Ant1	-14.336	8	Pass

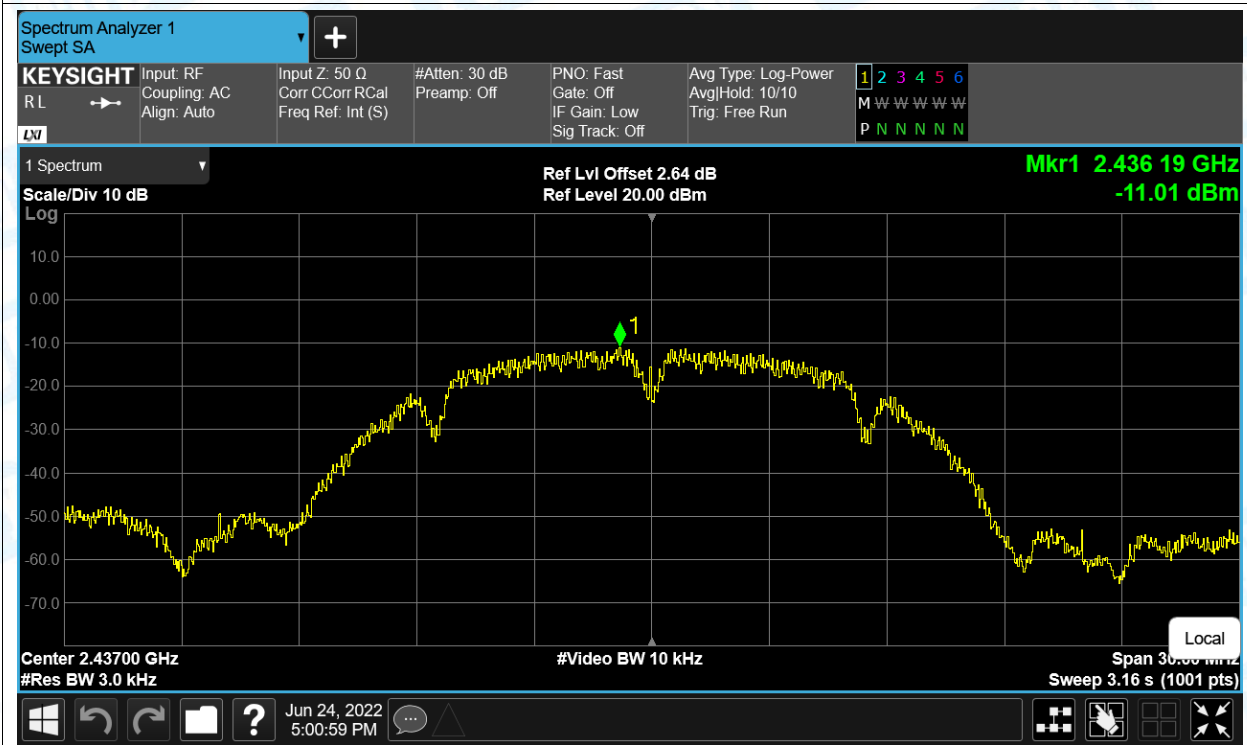


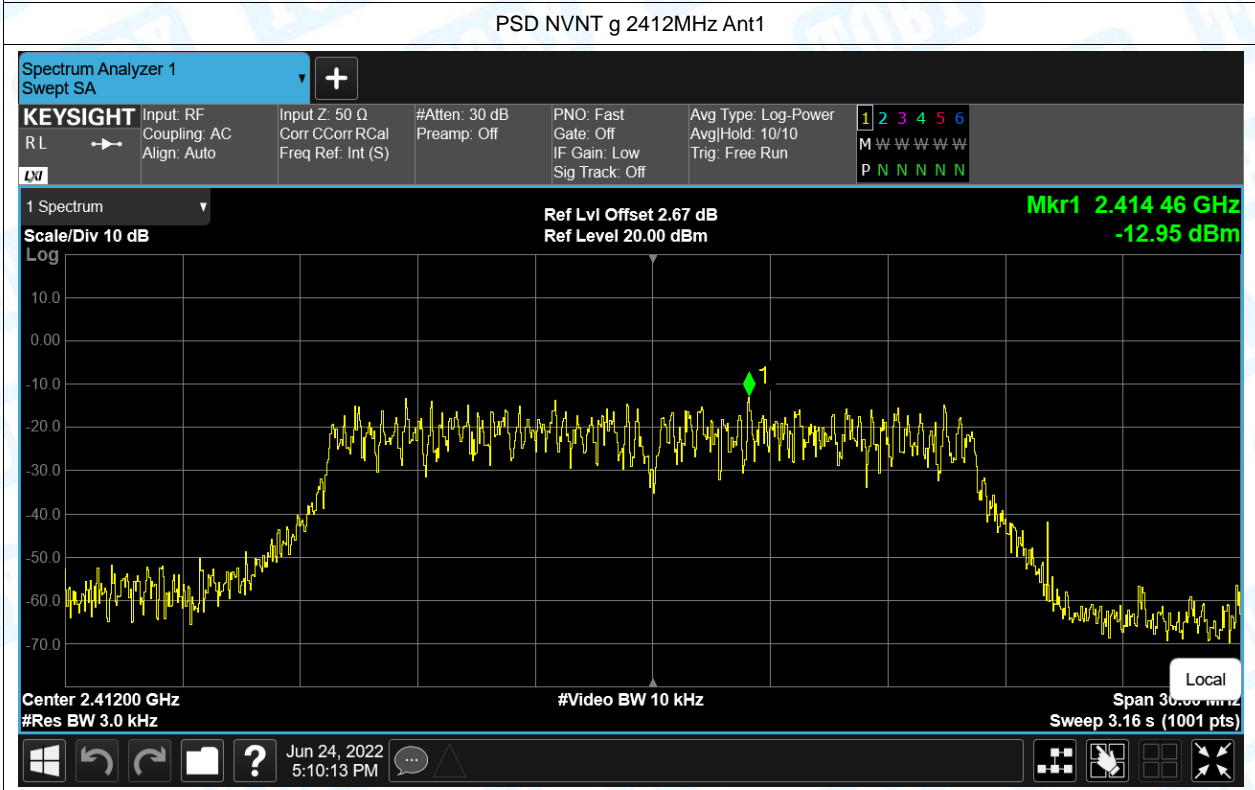
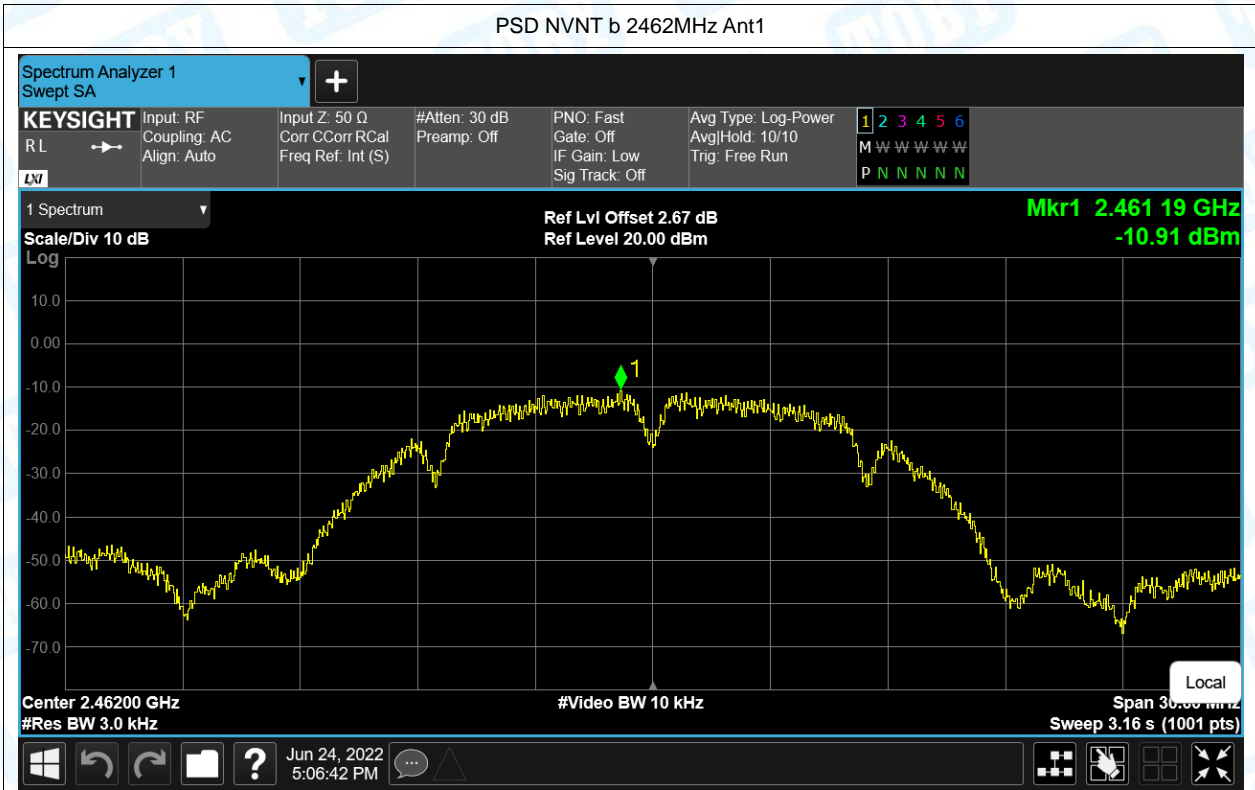
Test Graphs

PSD NVNT b 2412MHz Ant1

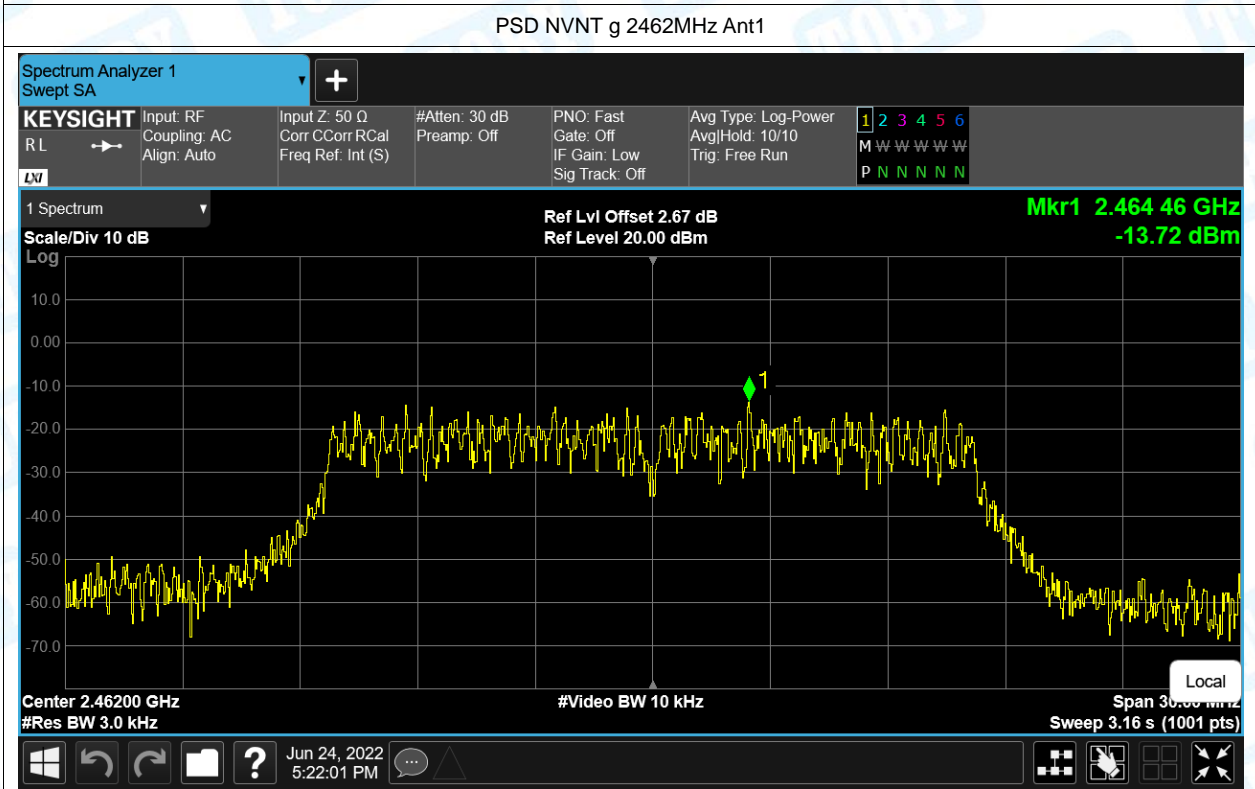


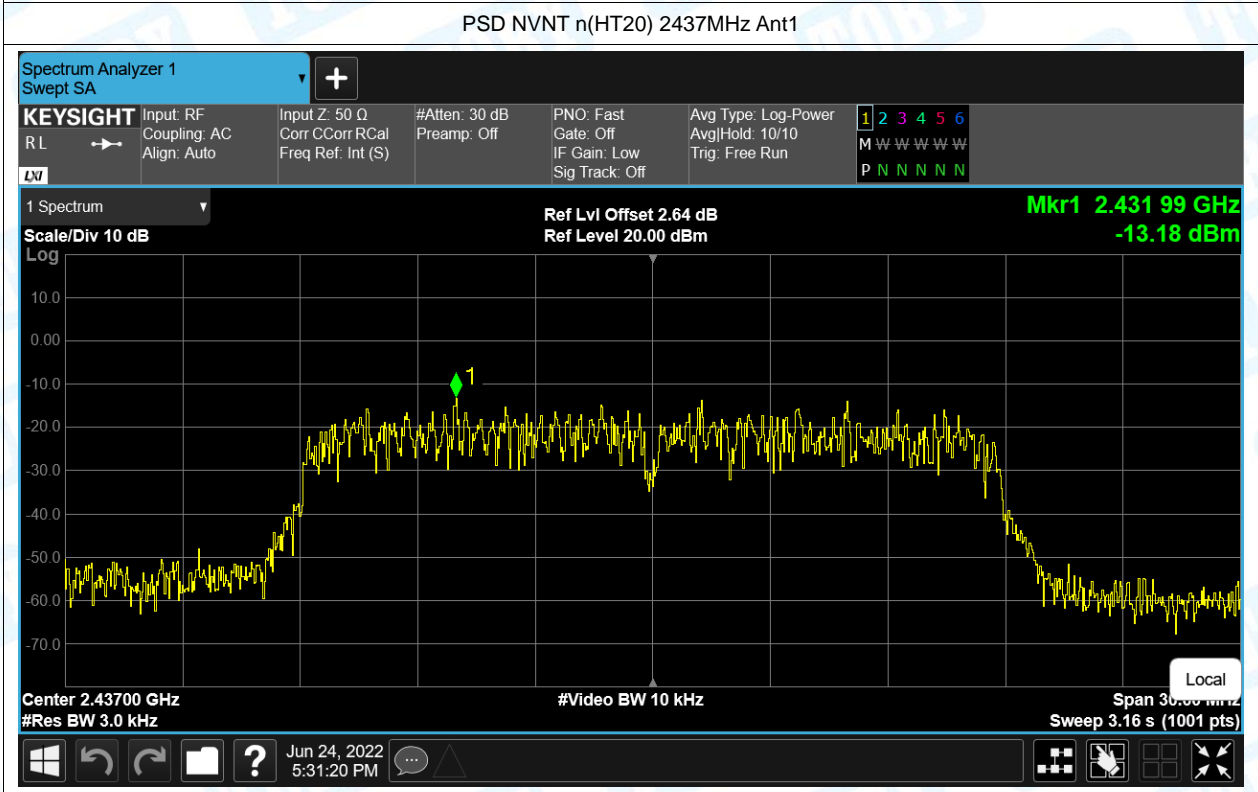
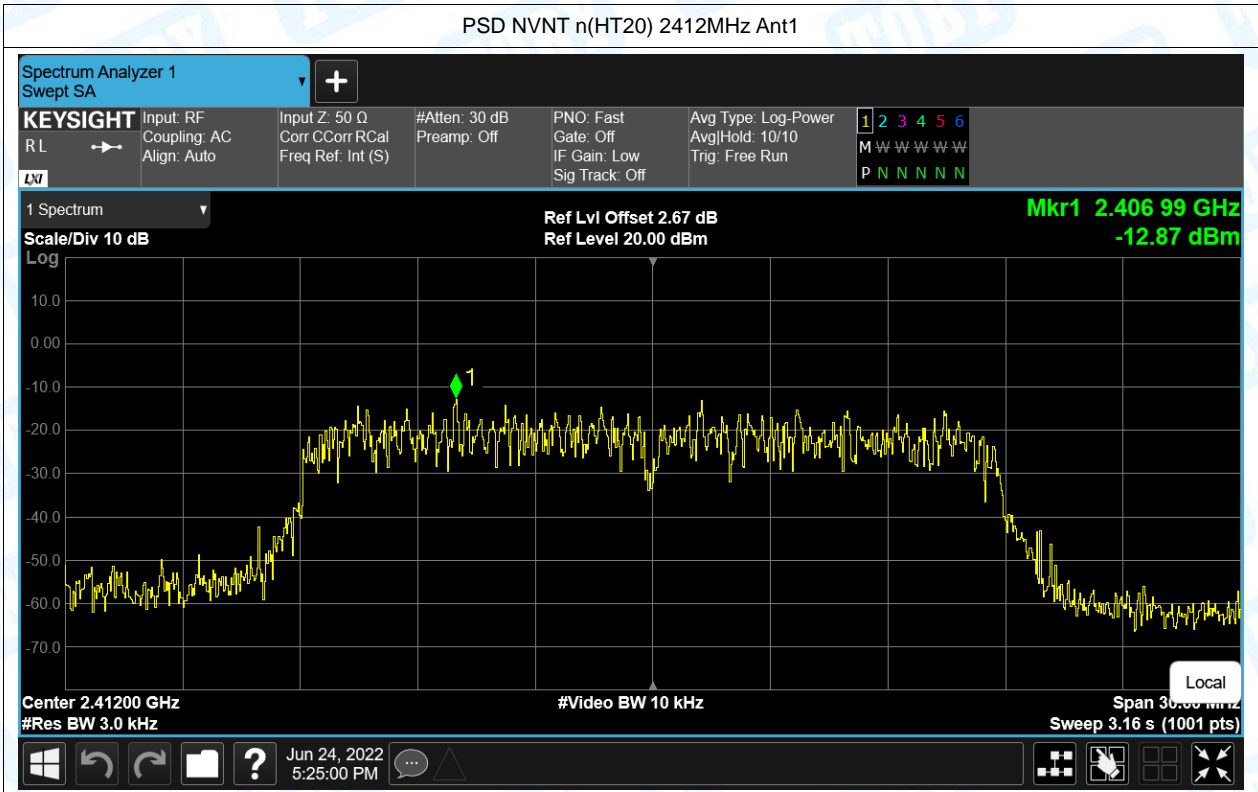
PSD NVNT b 2437MHz Ant1



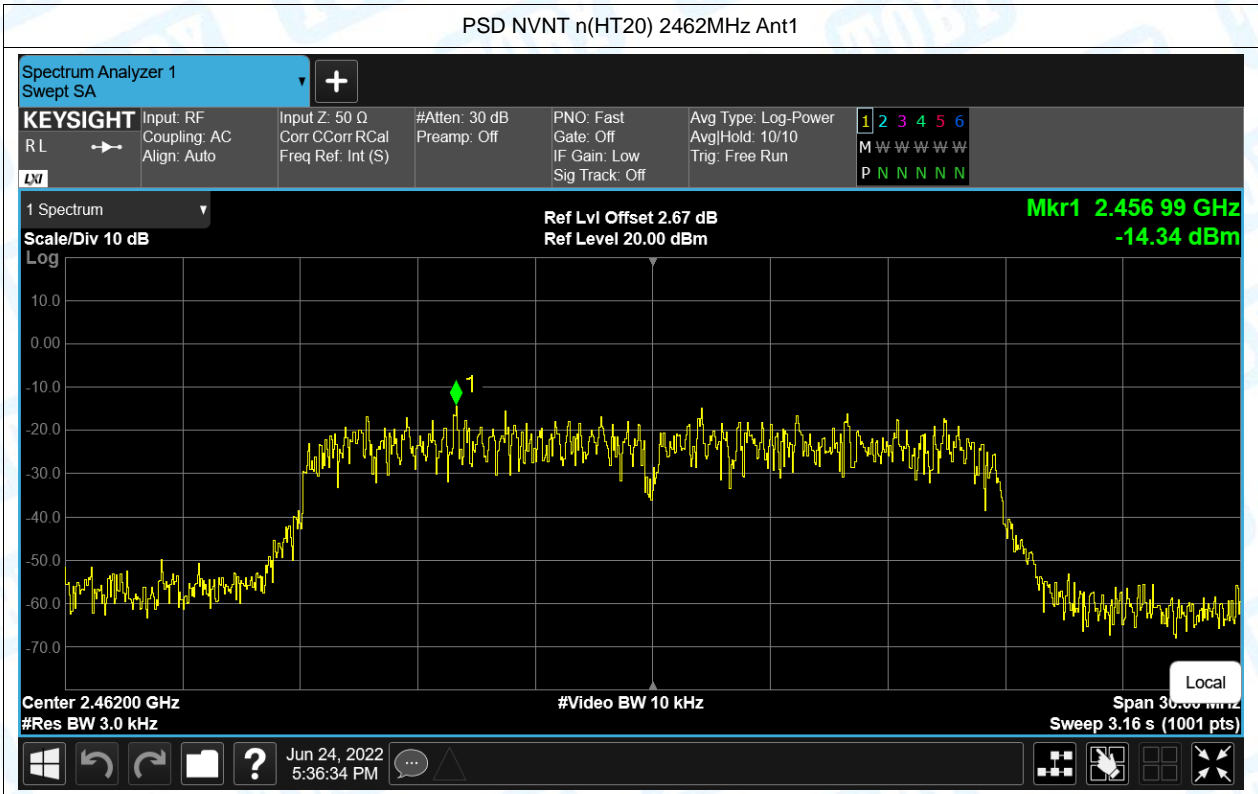












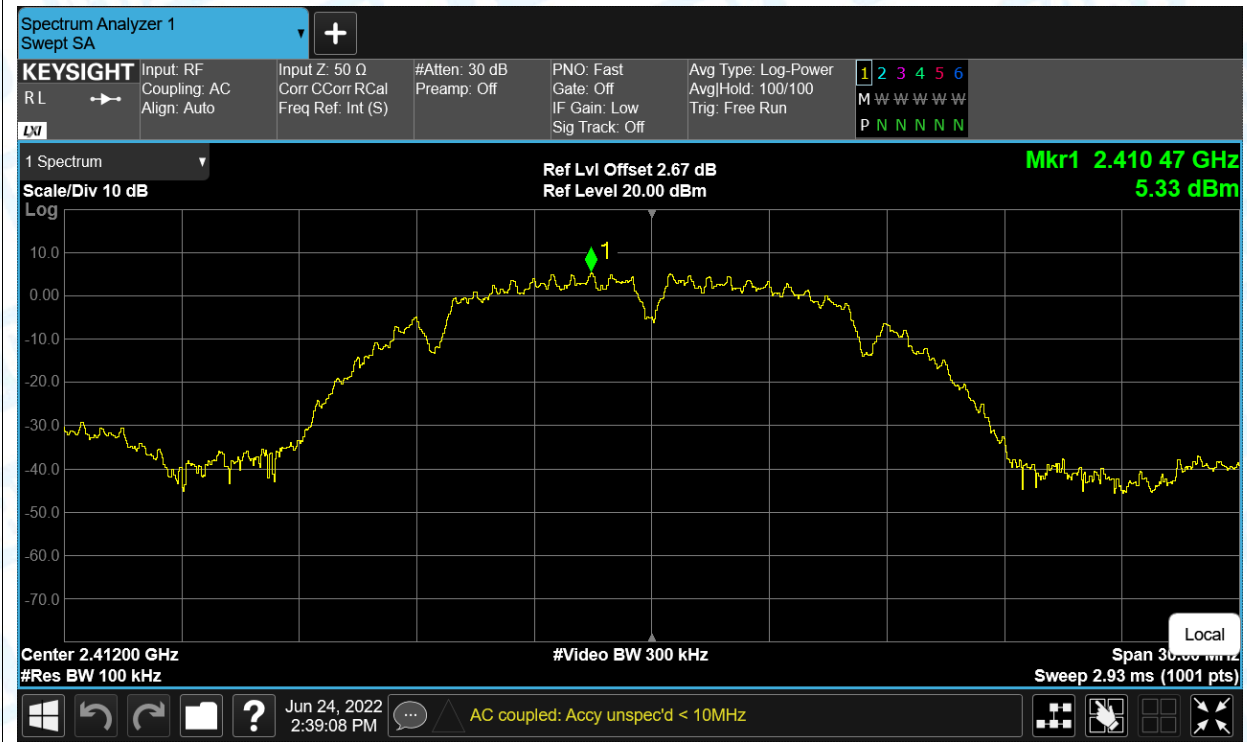
## Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.83	-20	Pass
NVNT	b	2462	Ant1	-52.24	-20	Pass
NVNT	g	2412	Ant1	-46.29	-20	Pass
NVNT	g	2462	Ant1	-49.07	-20	Pass
NVNT	n(HT20)	2412	Ant1	-46.24	-20	Pass
NVNT	n(HT20)	2462	Ant1	-46.64	-20	Pass

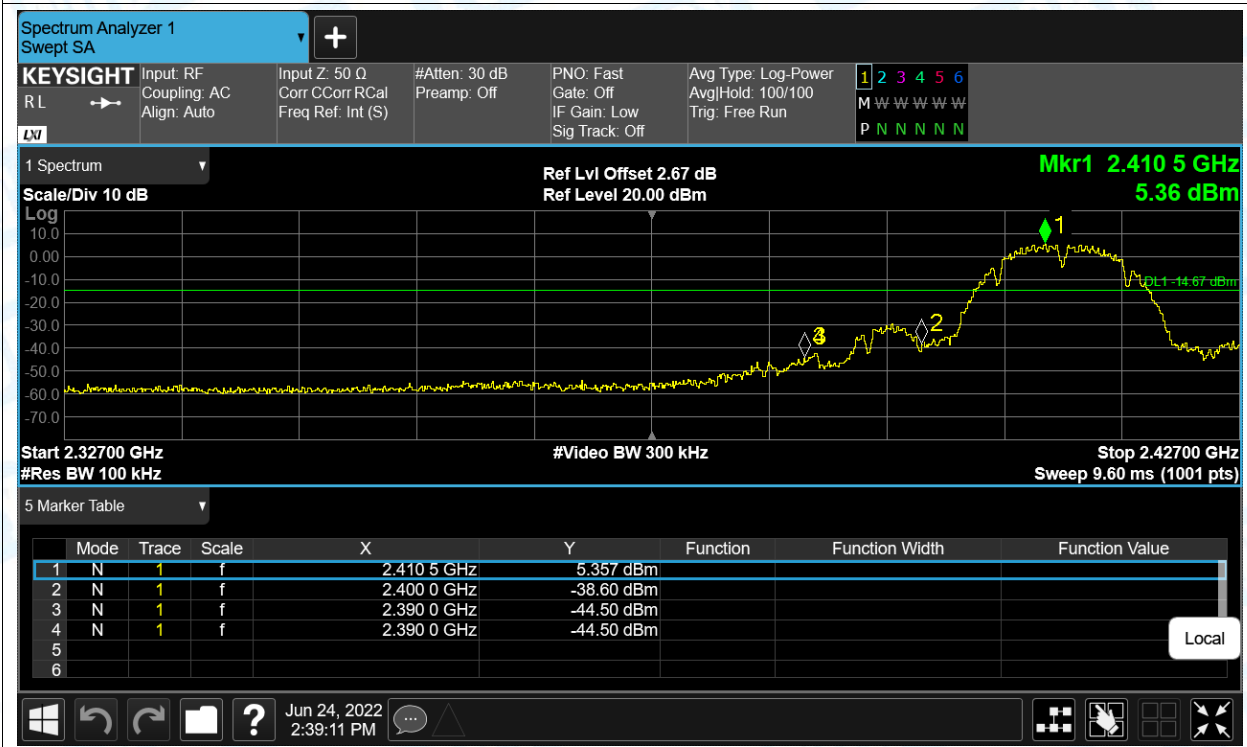


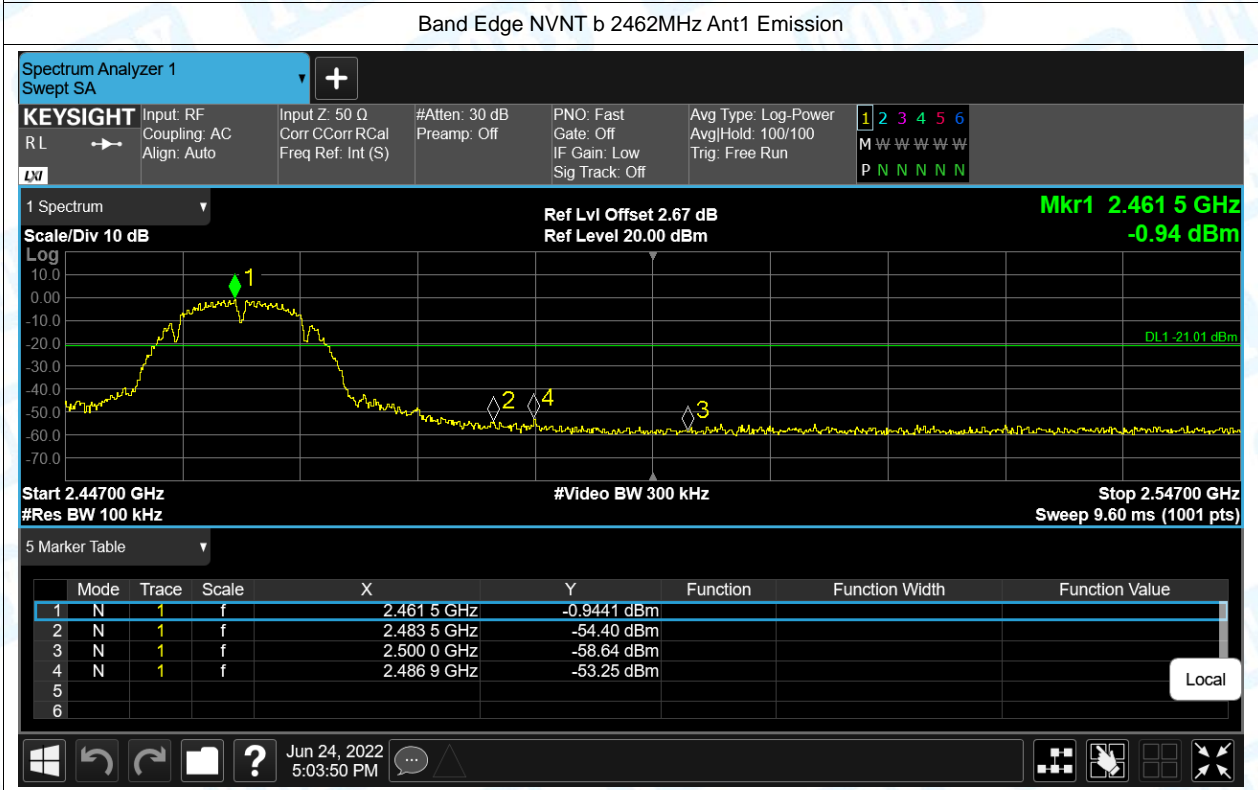
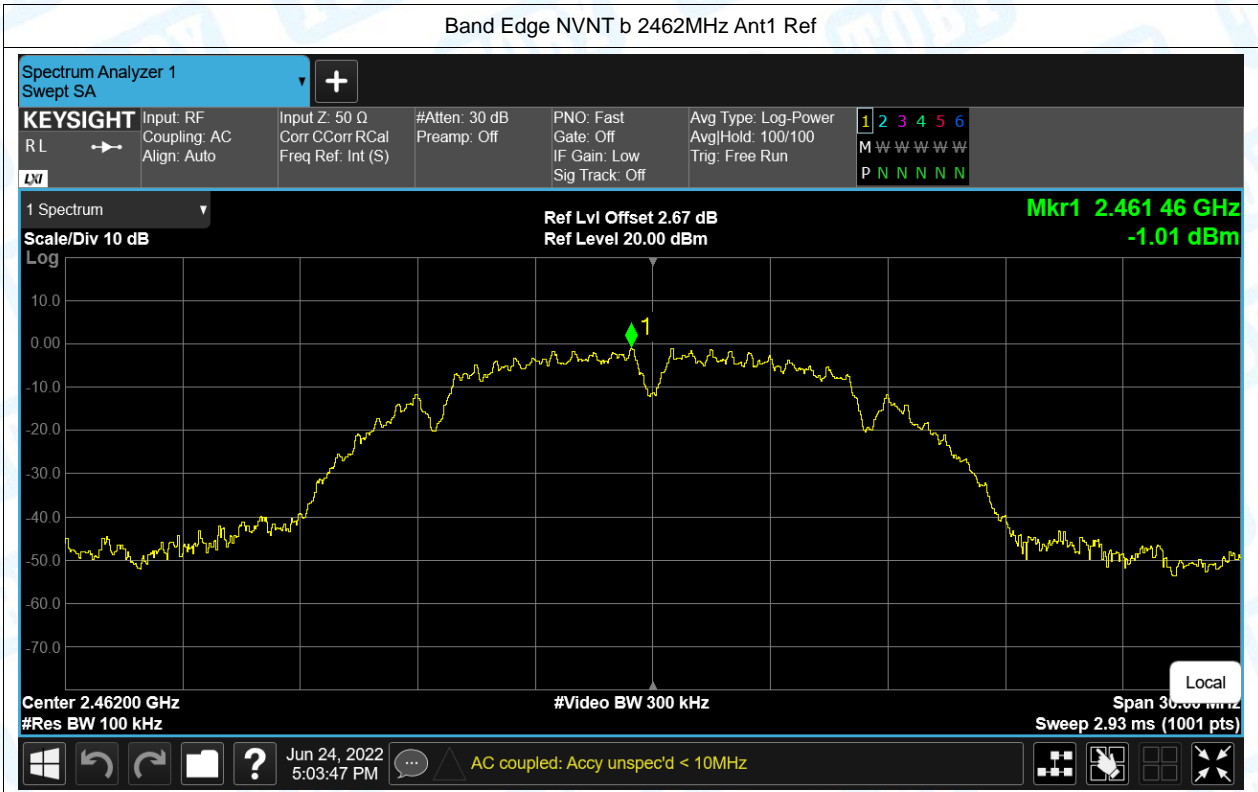
Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



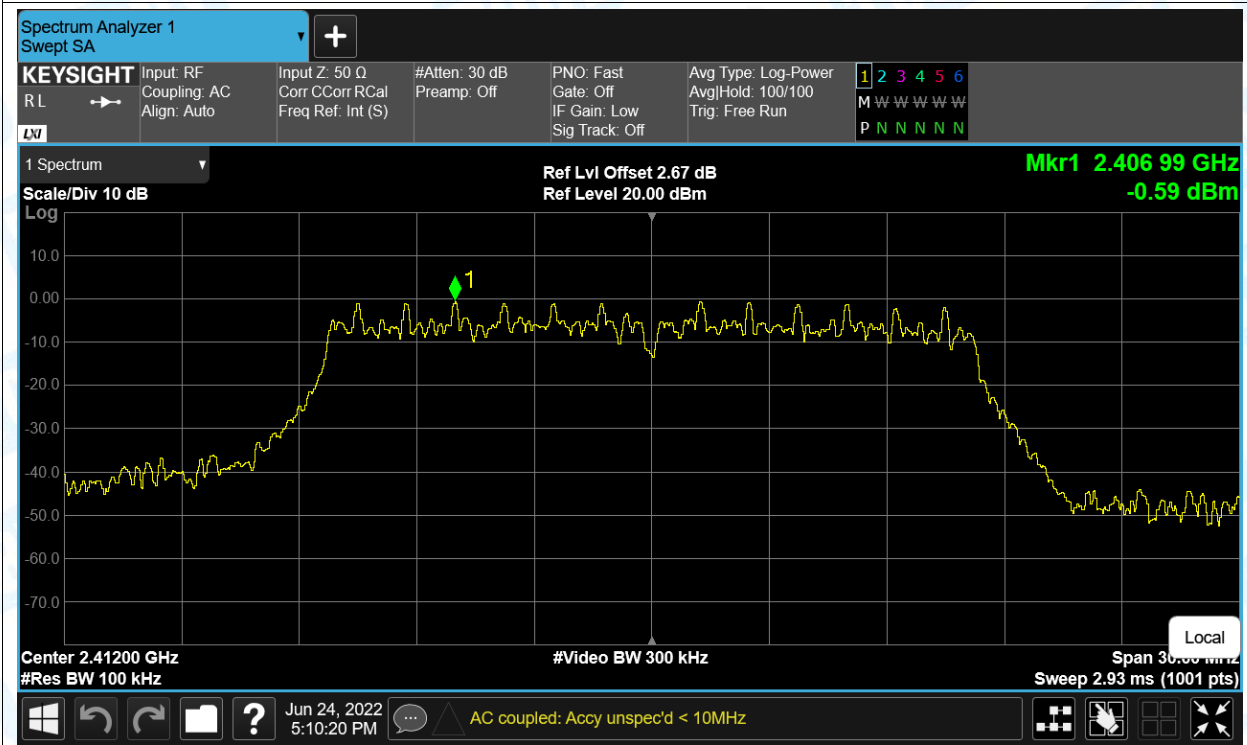
Band Edge NVNT b 2412MHz Ant1 Emission



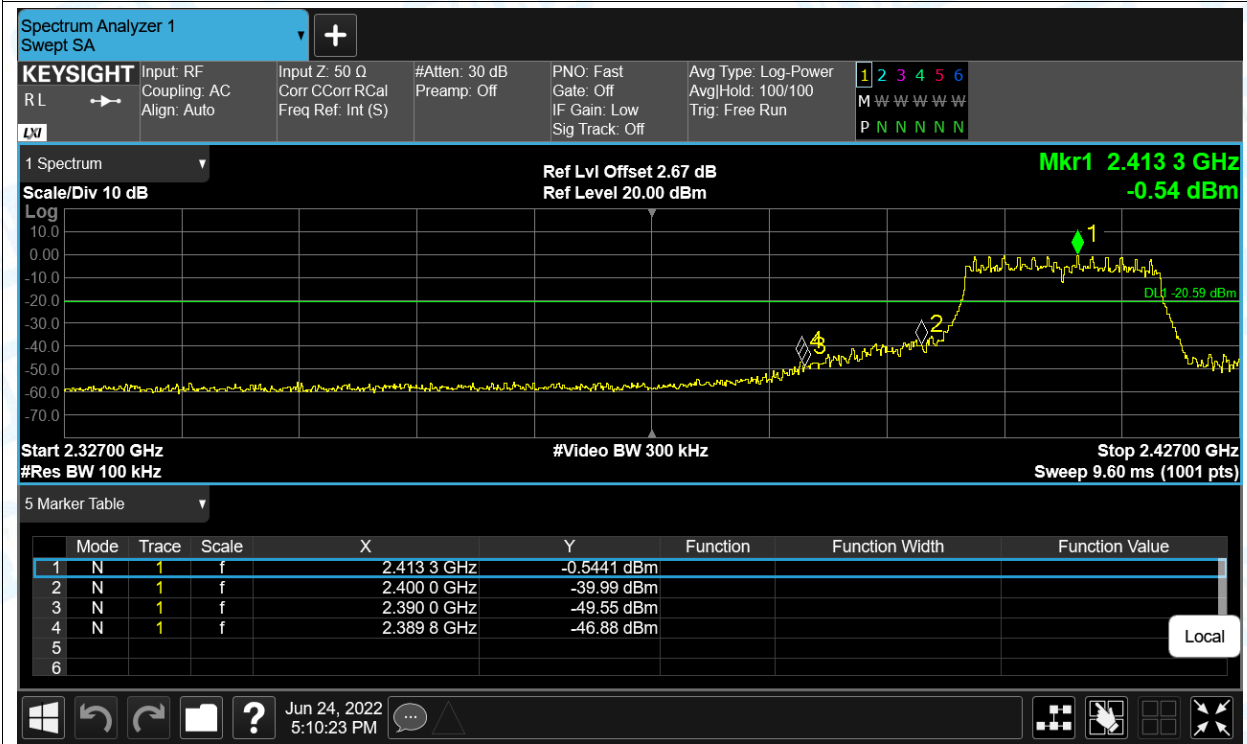


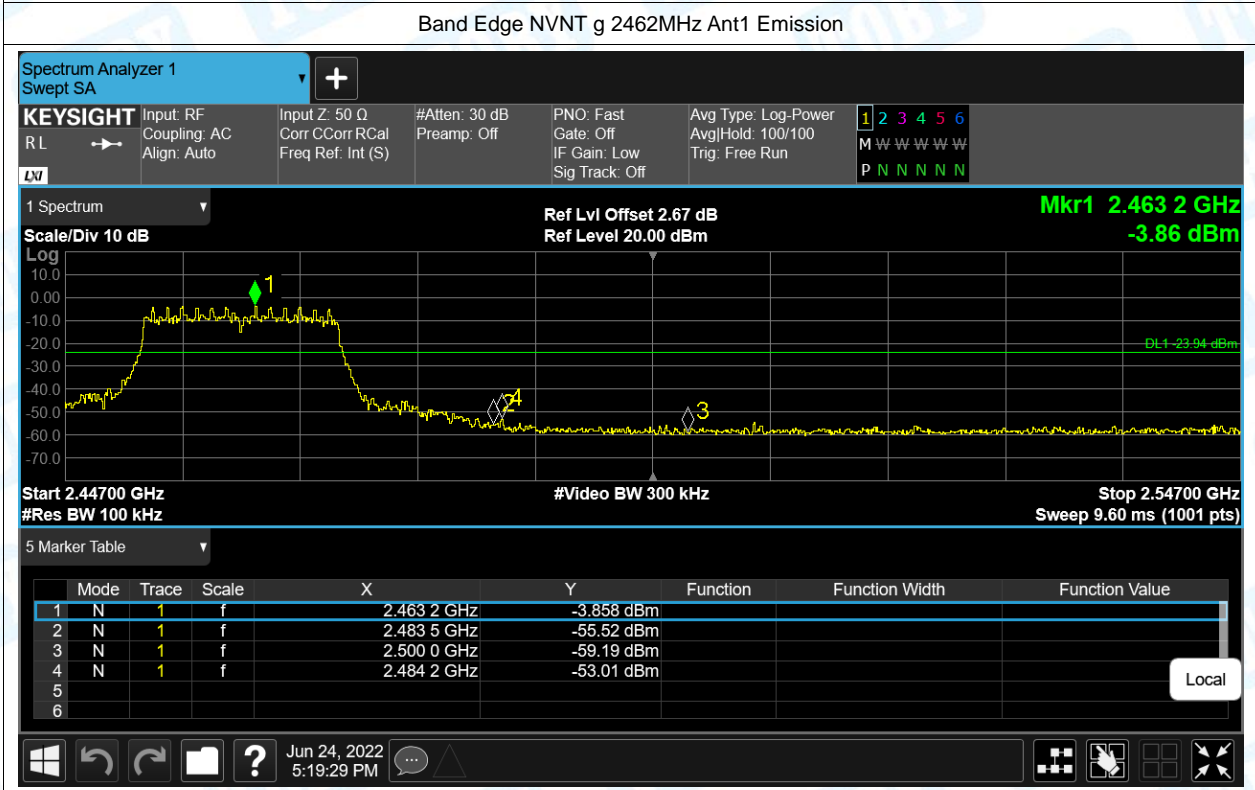
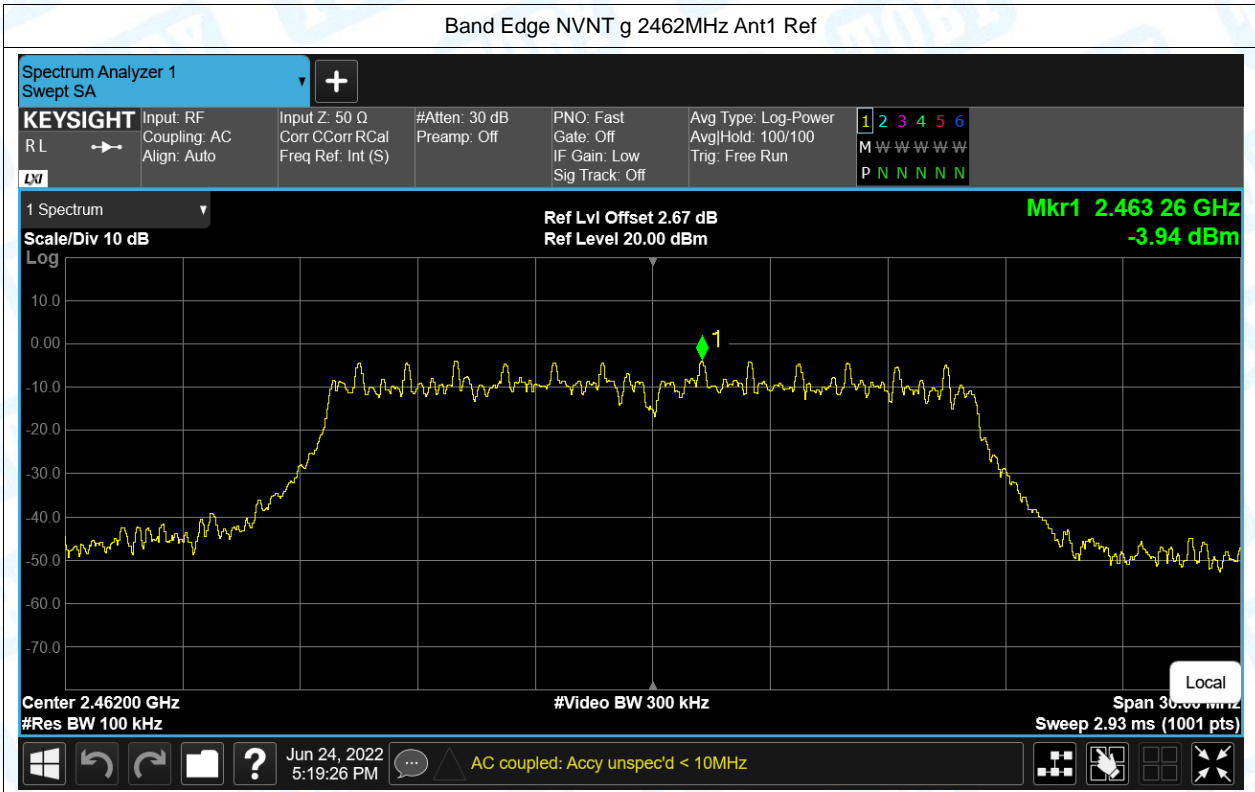


Band Edge NVNT g 2412MHz Ant1 Ref

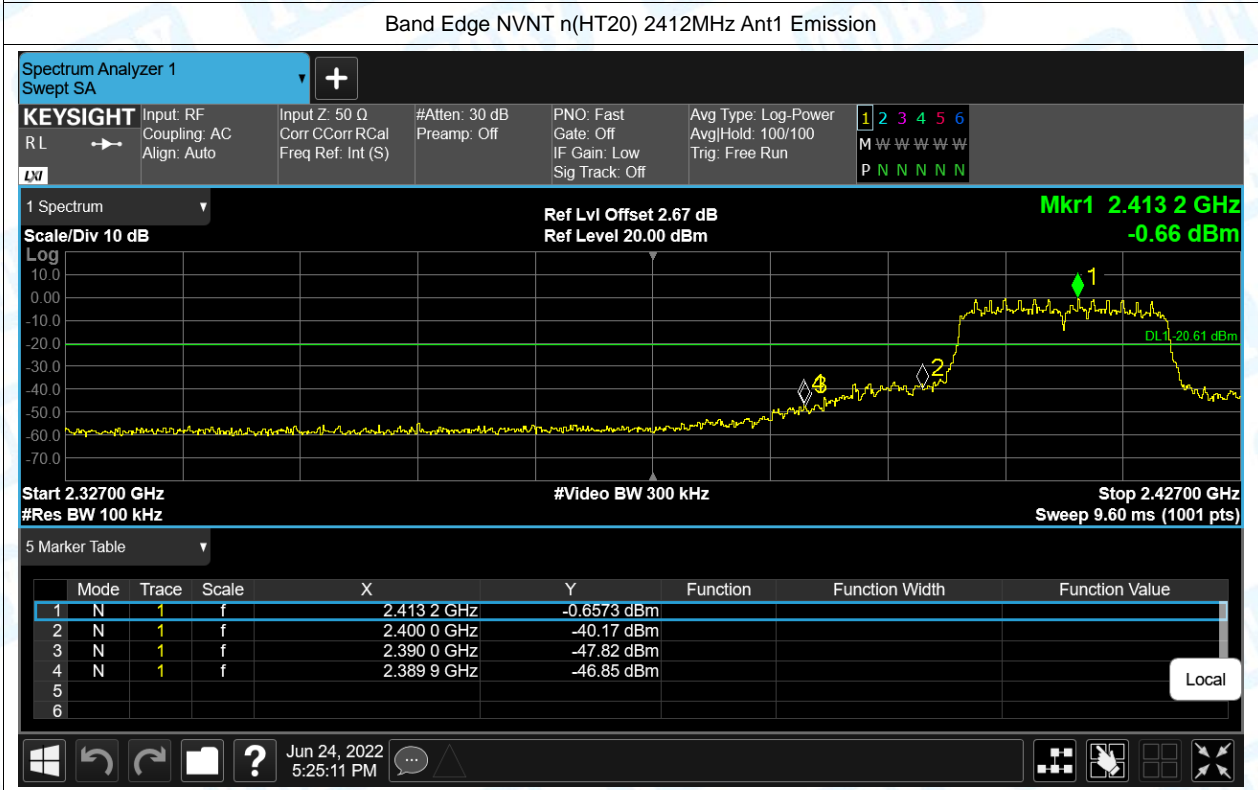
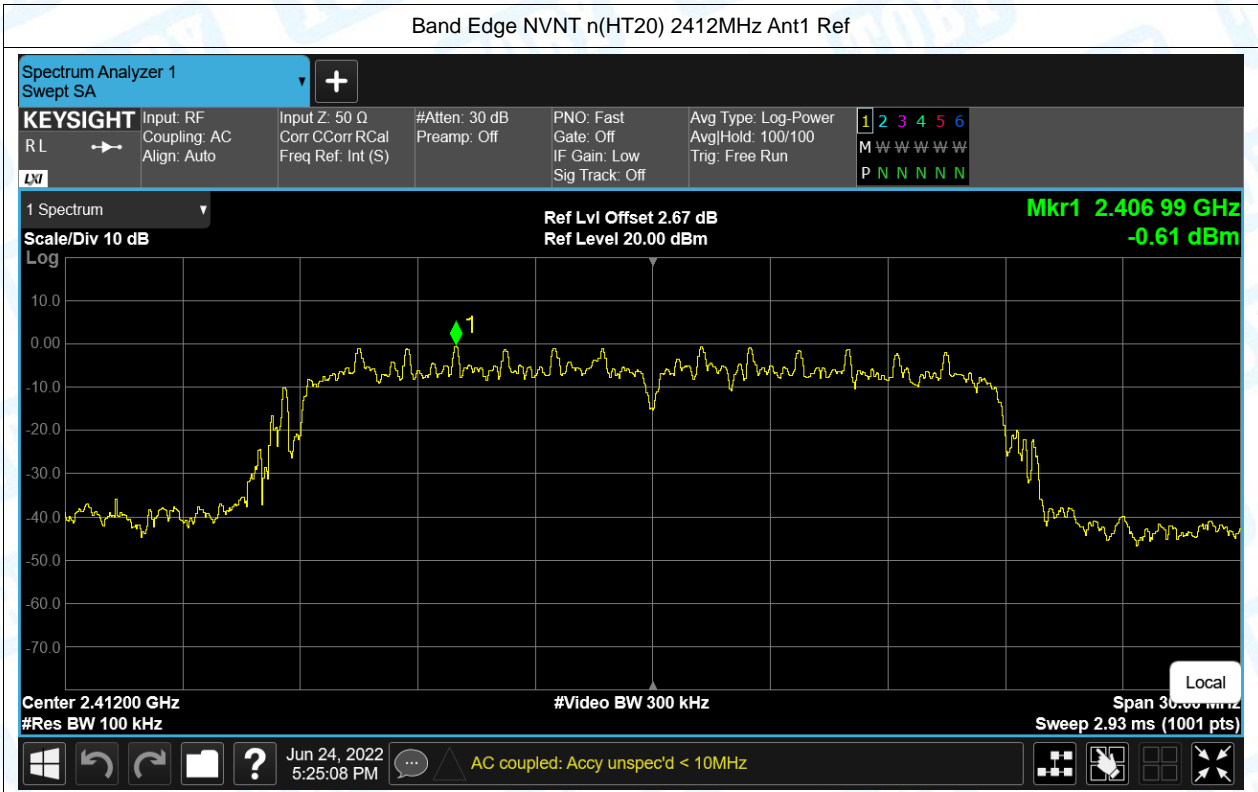


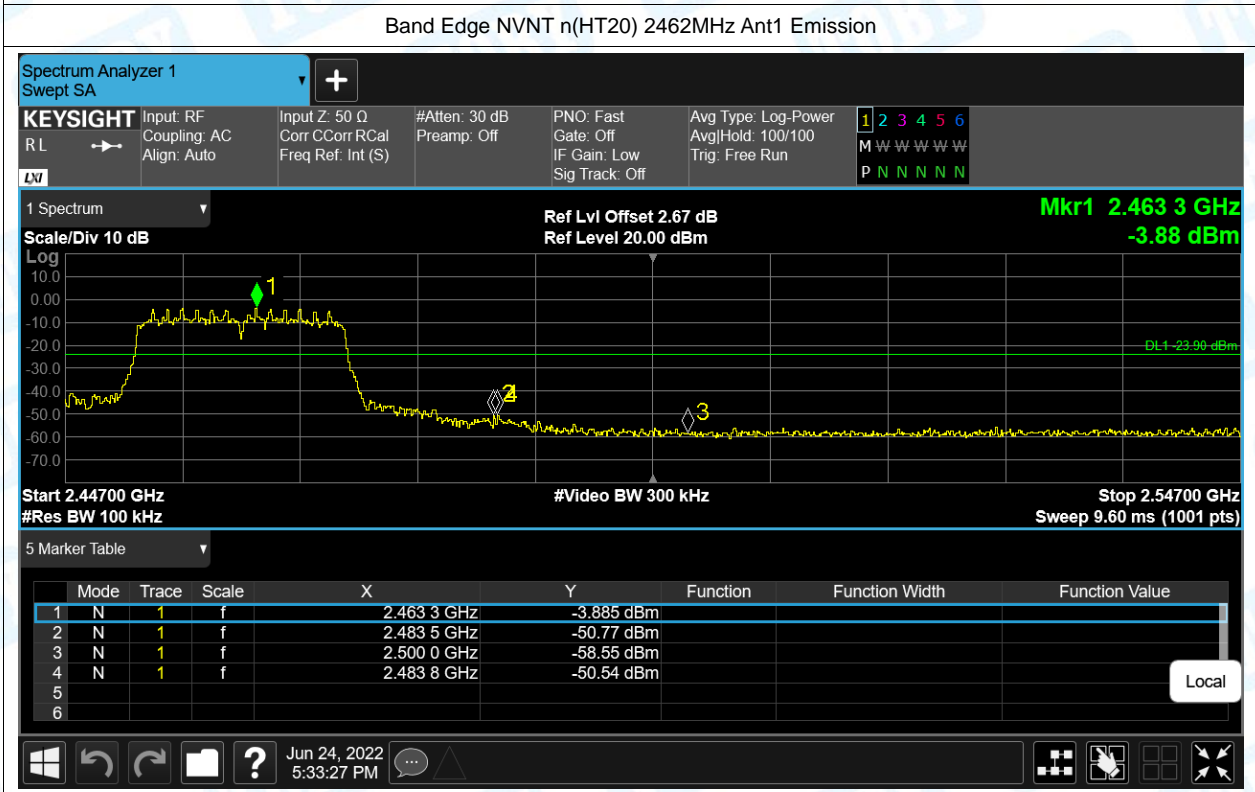
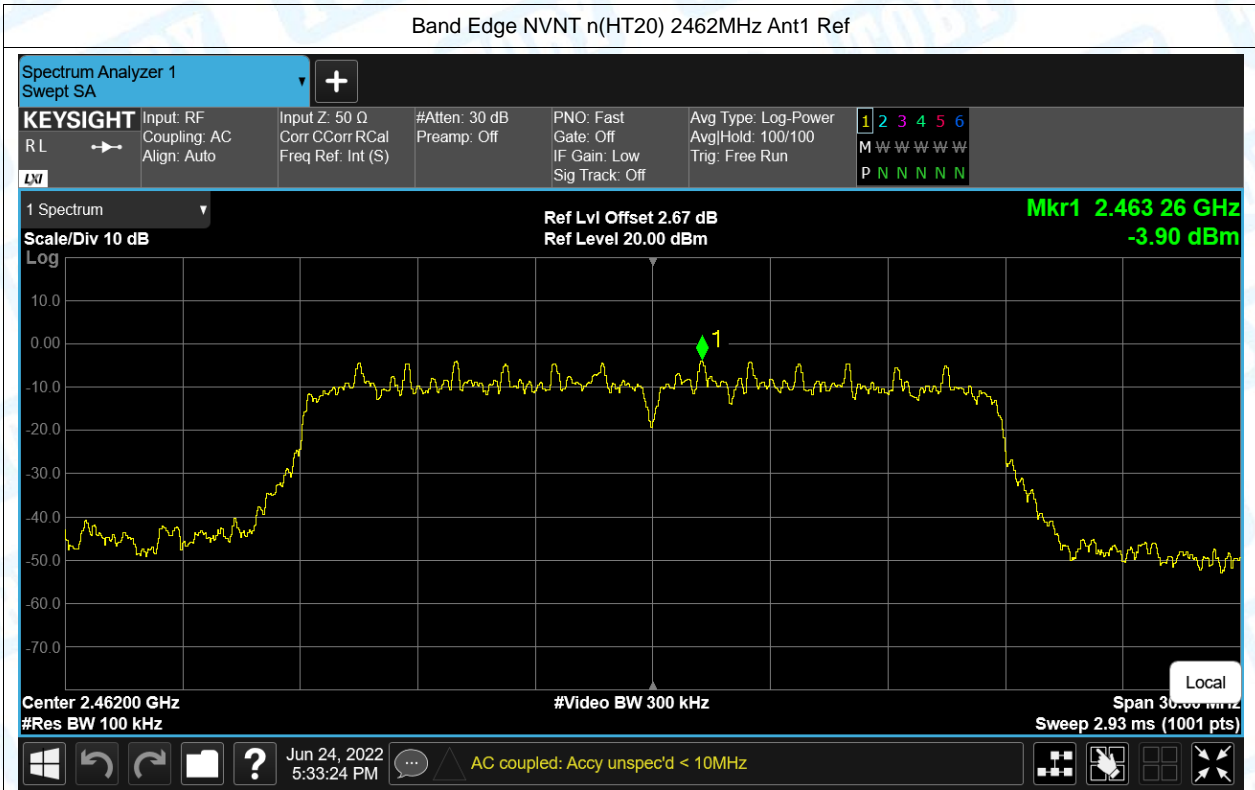
Band Edge NVNT g 2412MHz Ant1 Emission











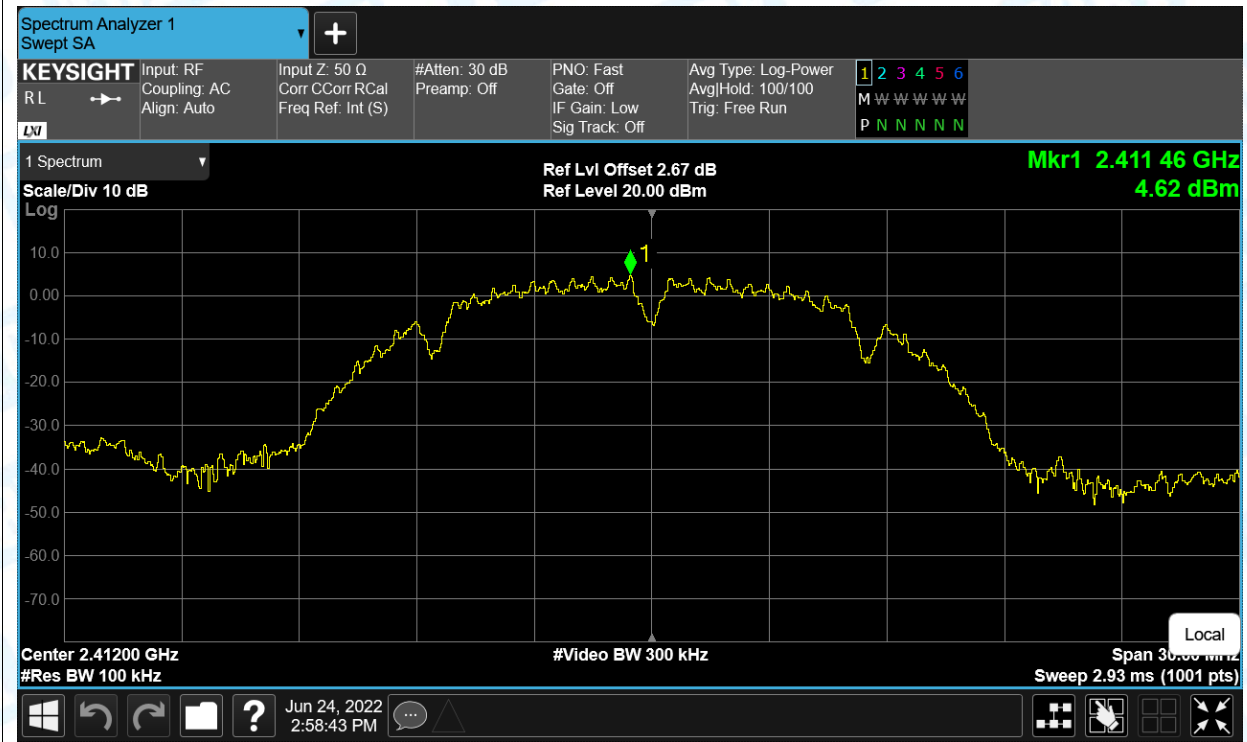


## Conducted RF Spurious Emission

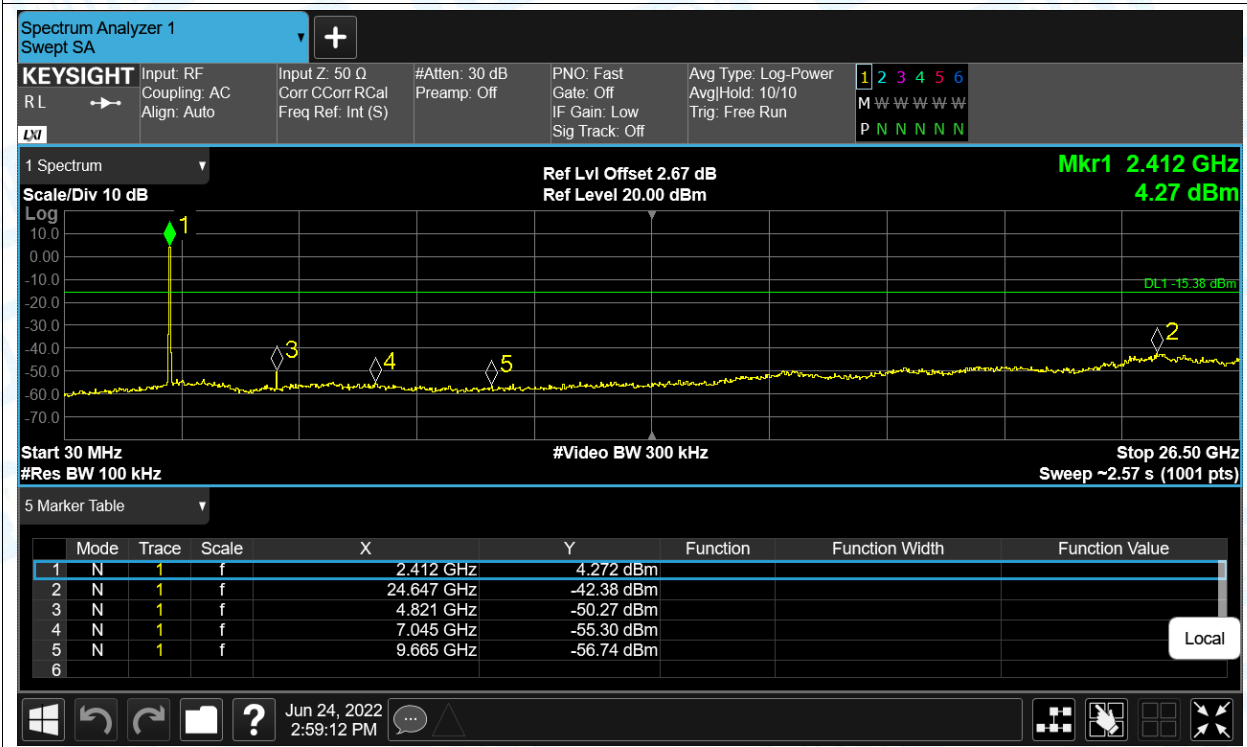
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47	-20	Pass
NVNT	b	2437	Ant1	-45.42	-20	Pass
NVNT	b	2462	Ant1	-40.27	-20	Pass
NVNT	g	2412	Ant1	-41.31	-20	Pass
NVNT	g	2437	Ant1	-39.34	-20	Pass
NVNT	g	2462	Ant1	-38.2	-20	Pass
NVNT	n(HT20)	2412	Ant1	-41.65	-20	Pass
NVNT	n(HT20)	2437	Ant1	-39.88	-20	Pass
NVNT	n(HT20)	2462	Ant1	-38.23	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

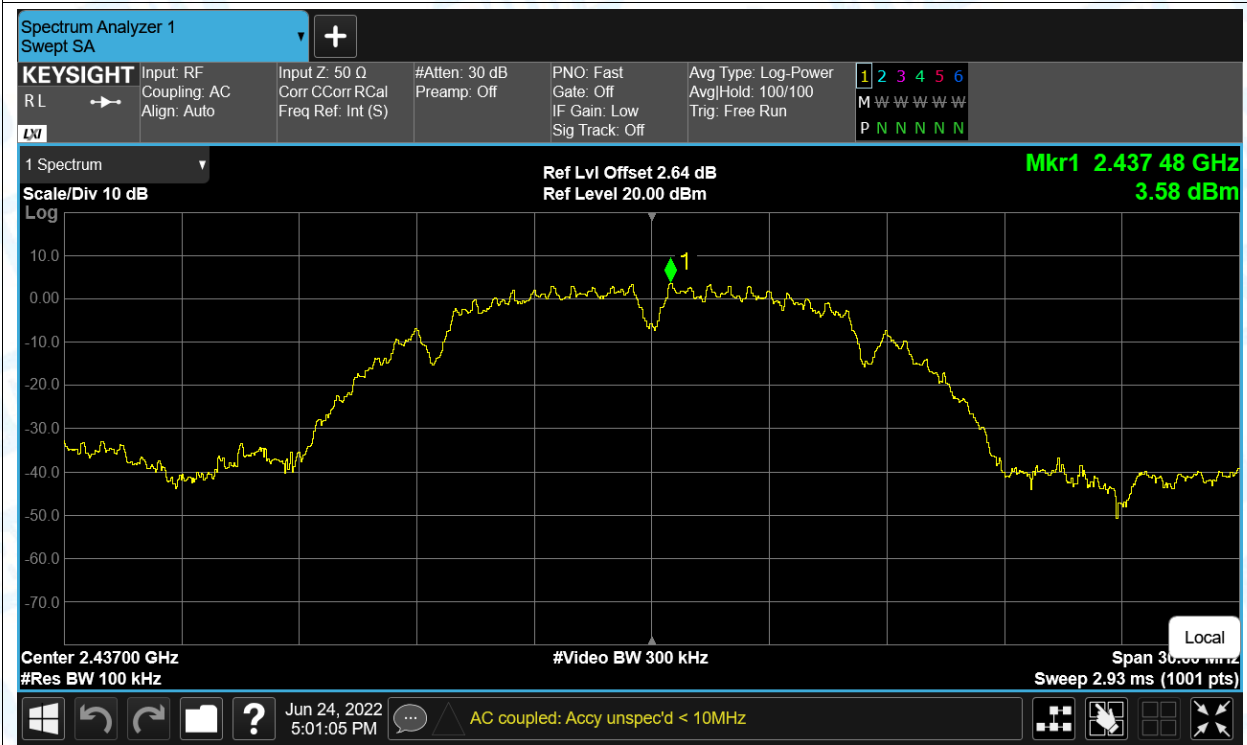


Tx. Spurious NVNT b 2412MHz Ant1 Emission

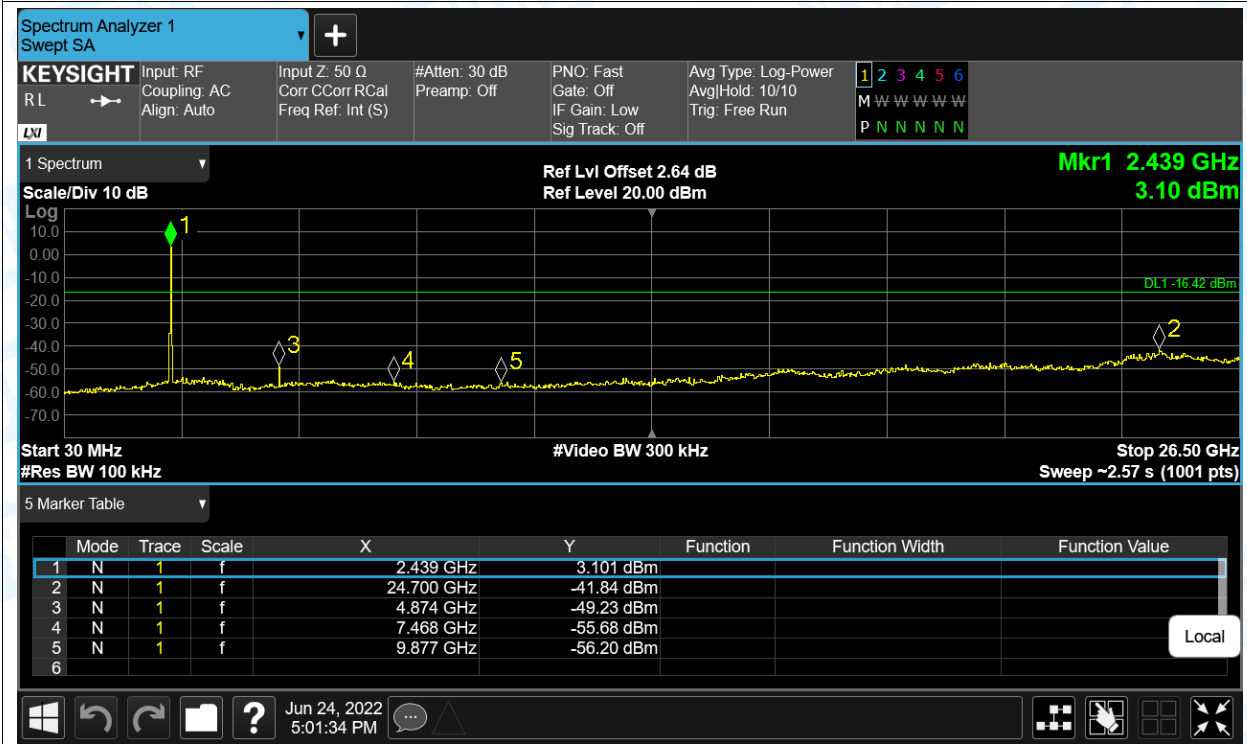


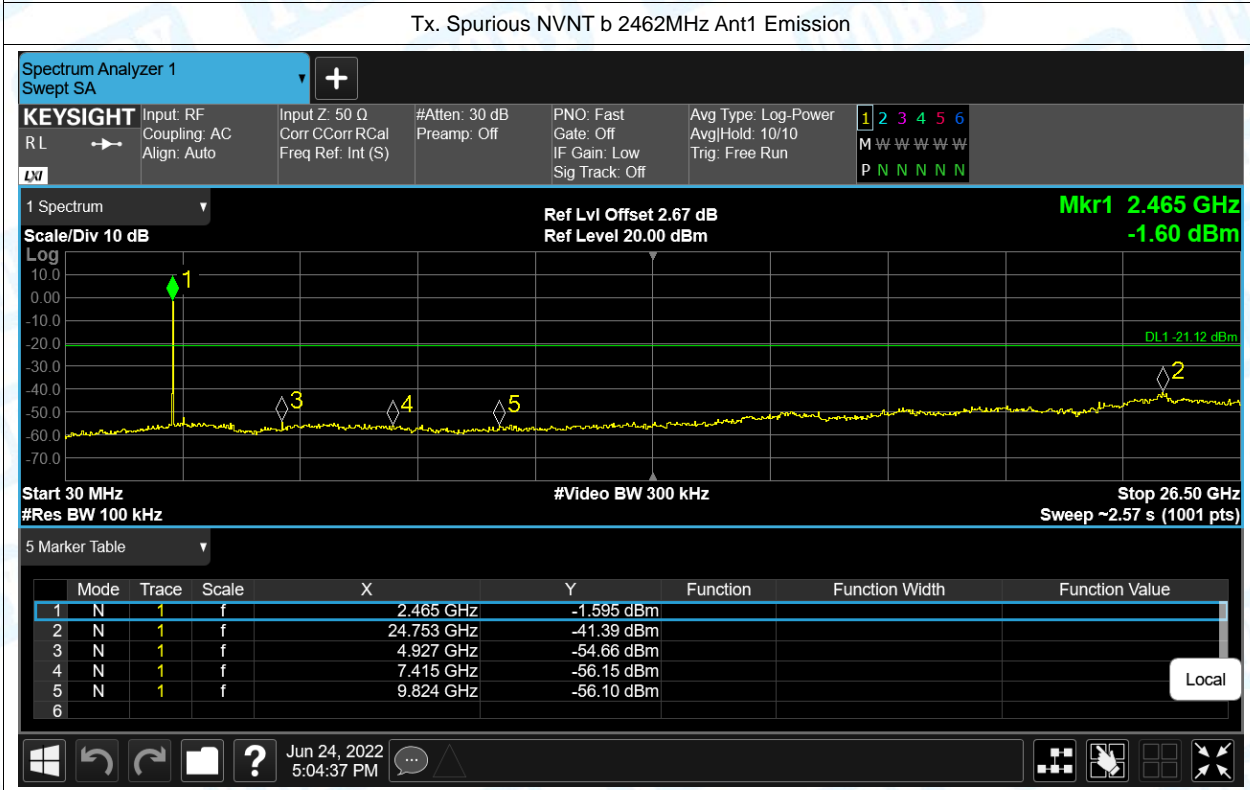
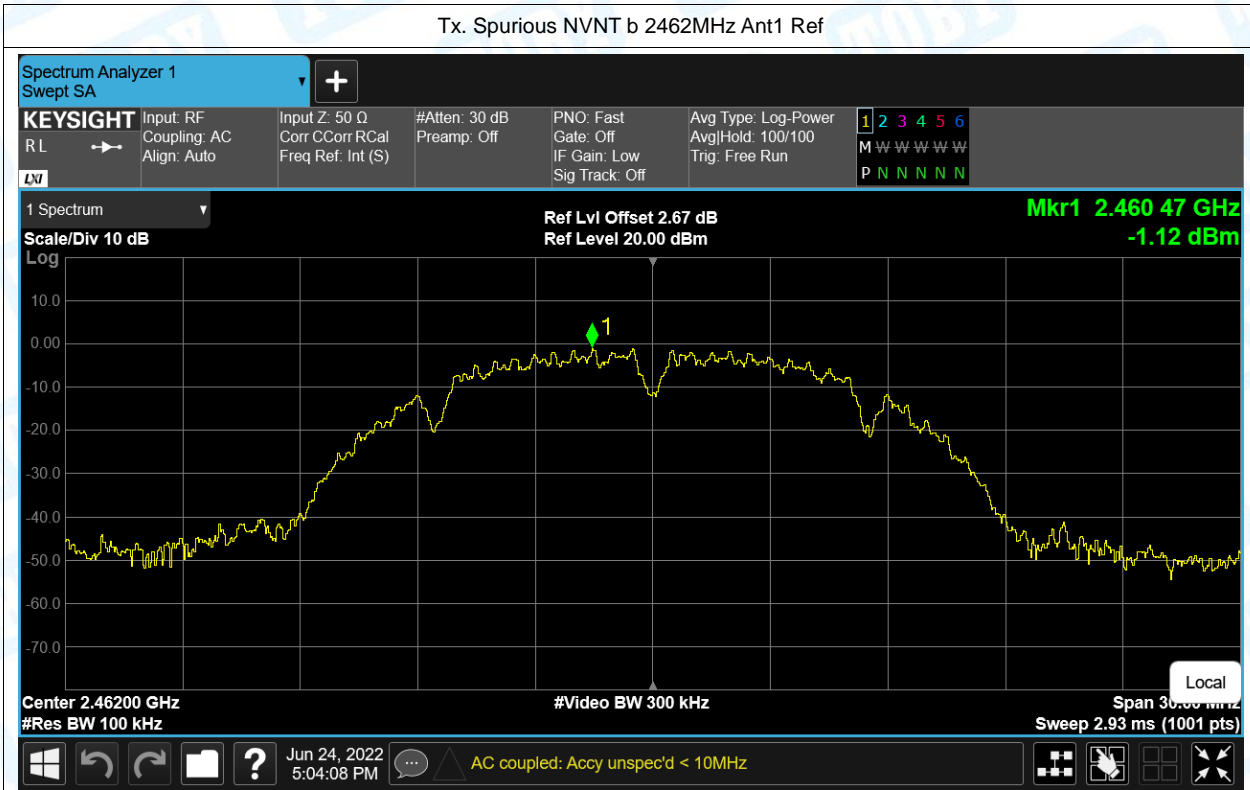


### Tx. Spurious NVNT b 2437MHz Ant1 Ref

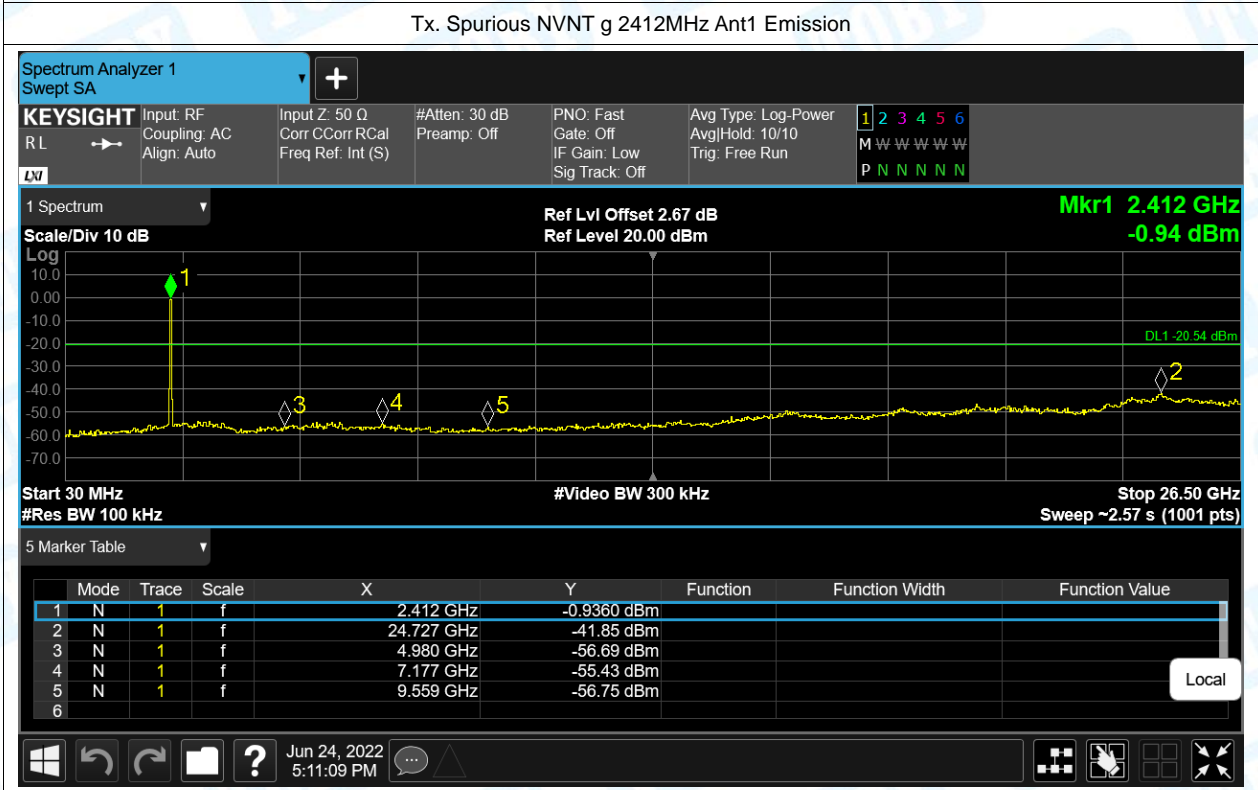
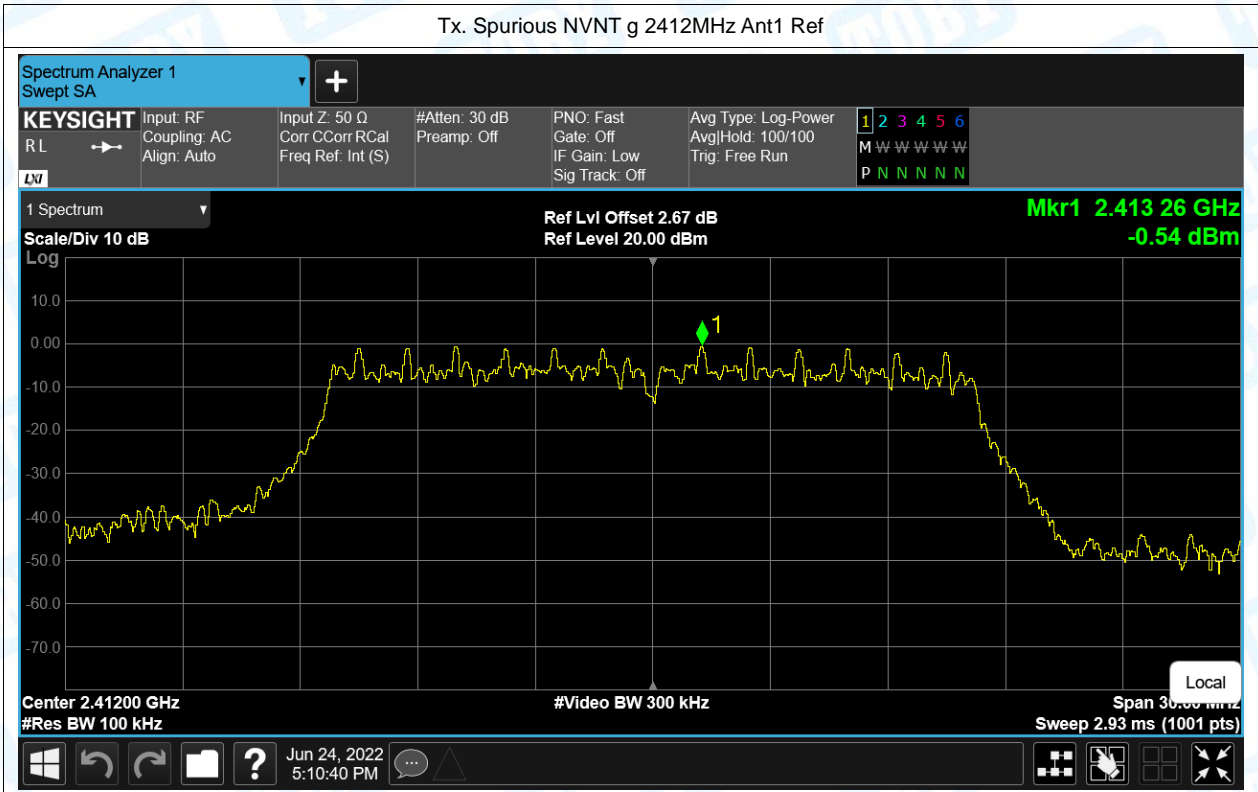


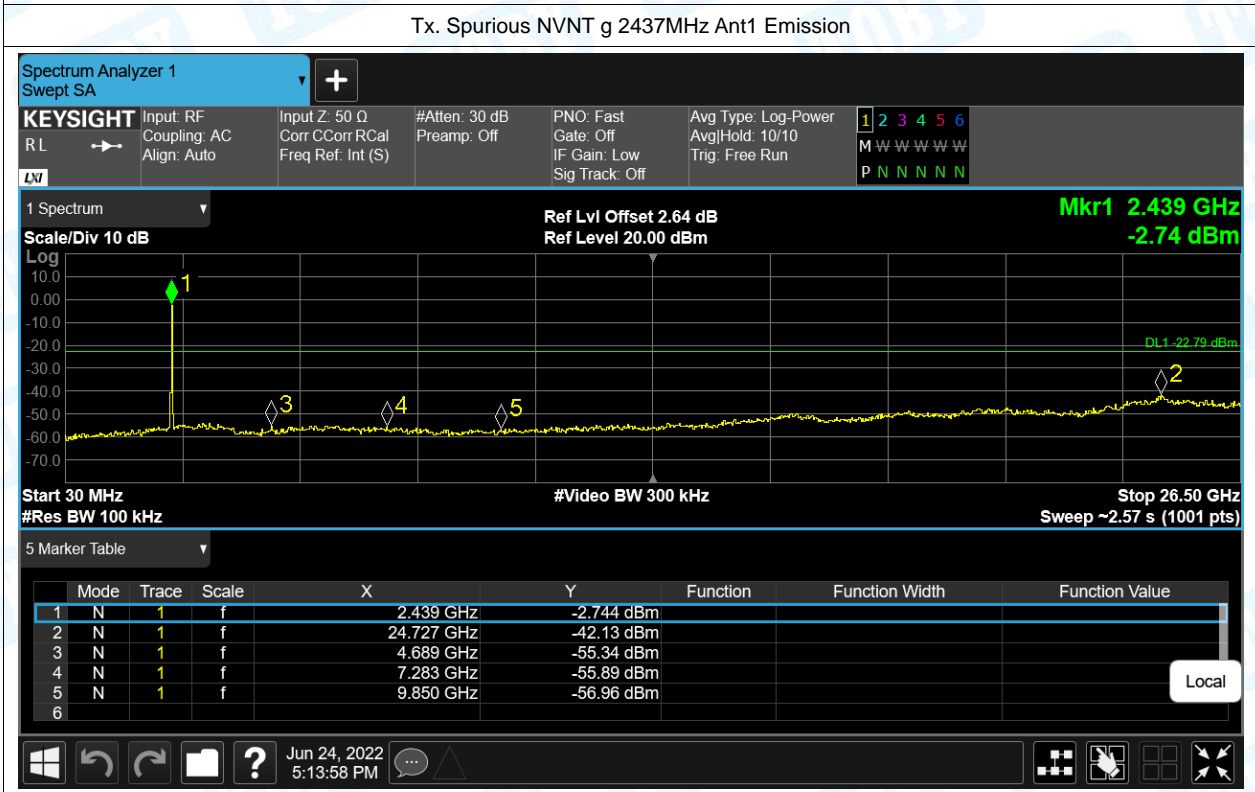
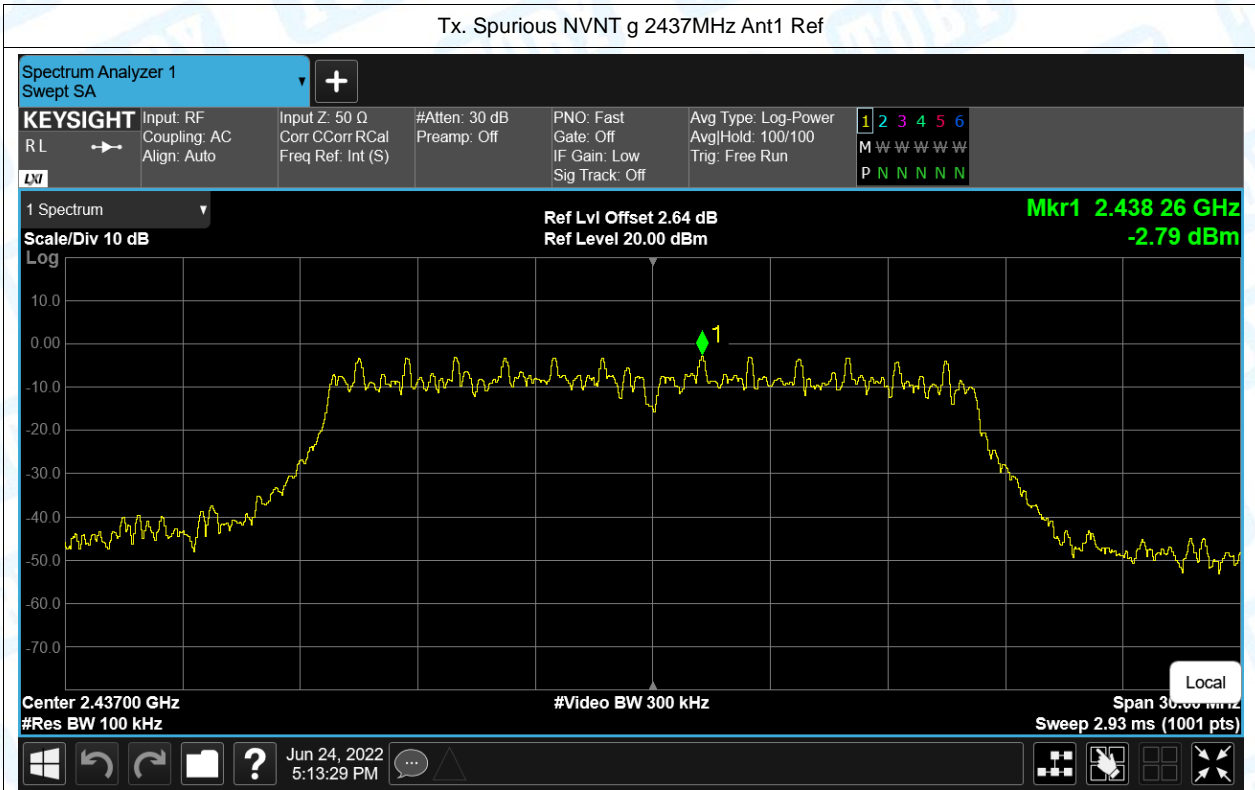
### Tx. Spurious NVNT b 2437MHz Ant1 Emission





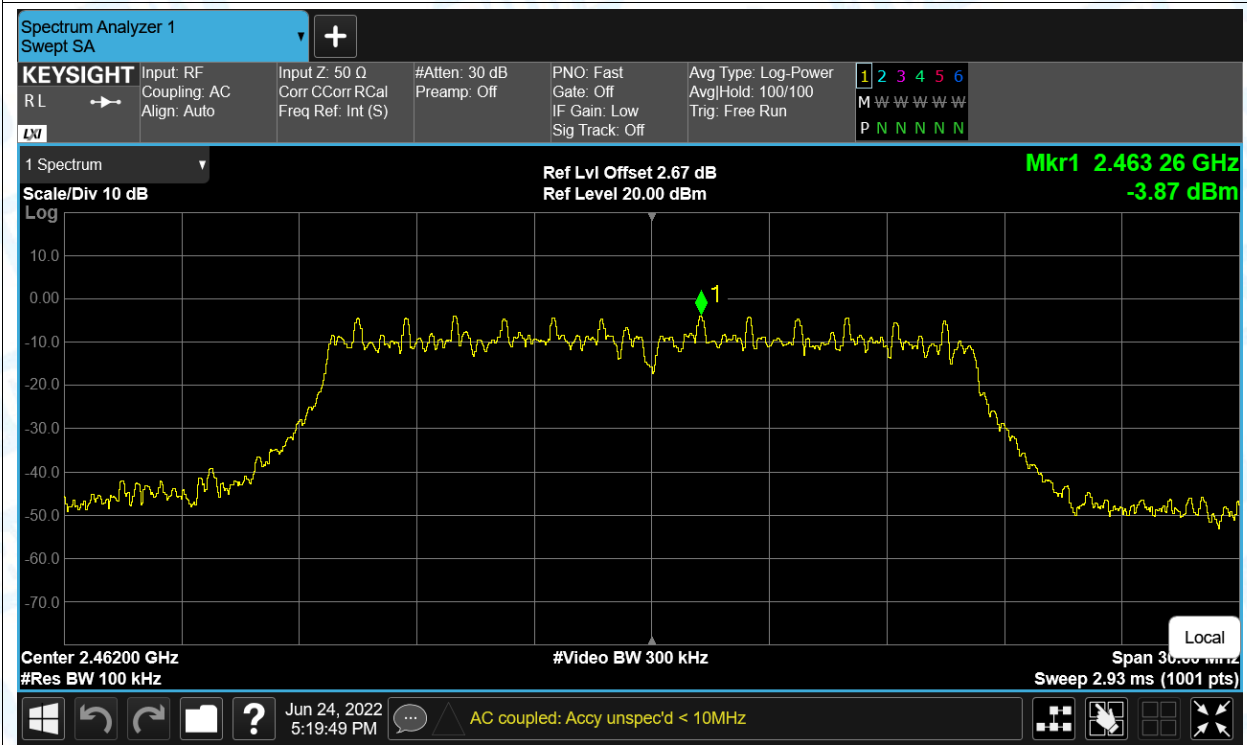




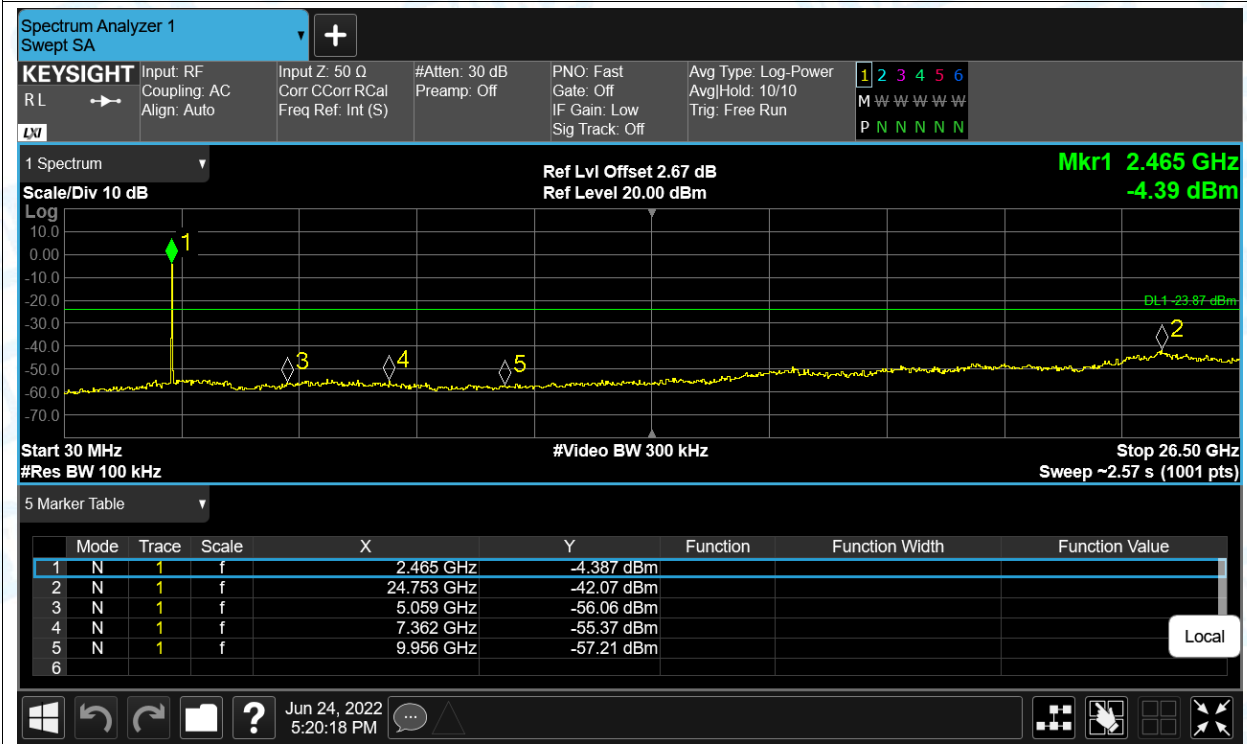


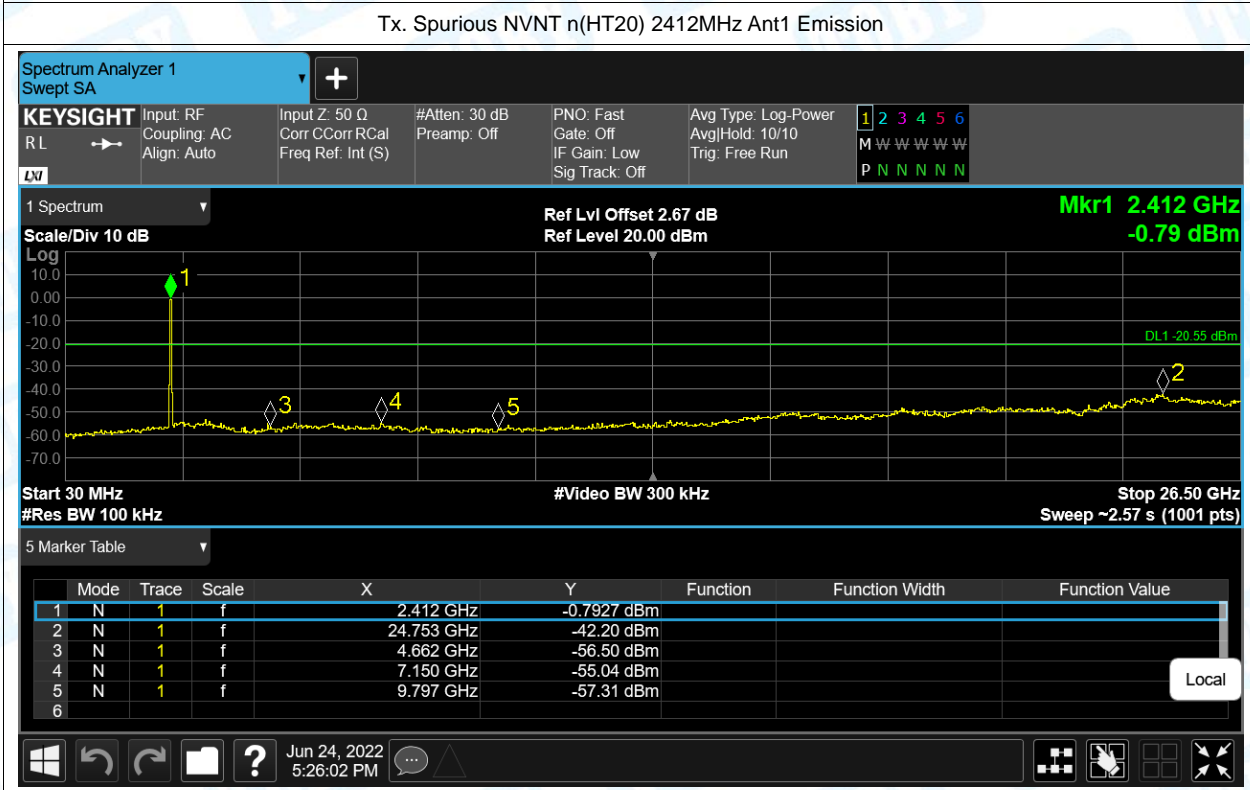
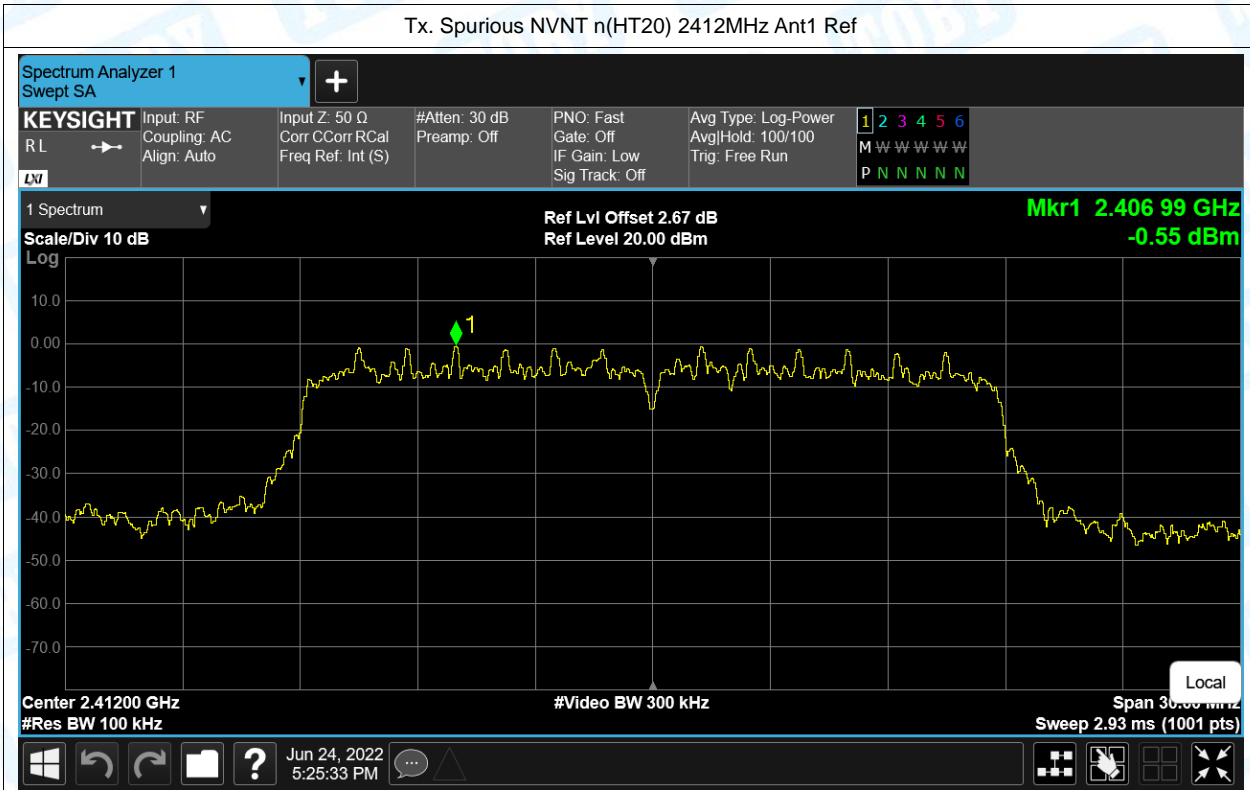


Tx. Spurious NVNT g 2462MHz Ant1 Ref



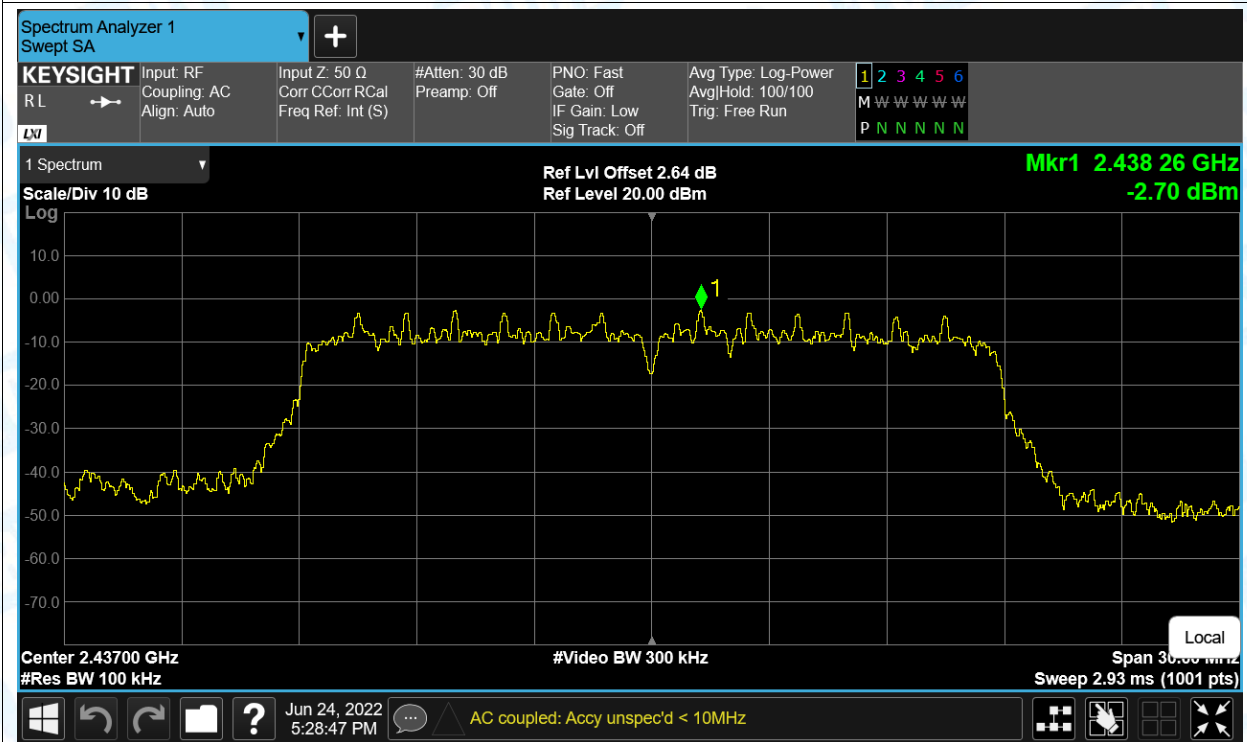
Tx. Spurious NVNT g 2462MHz Ant1 Emission



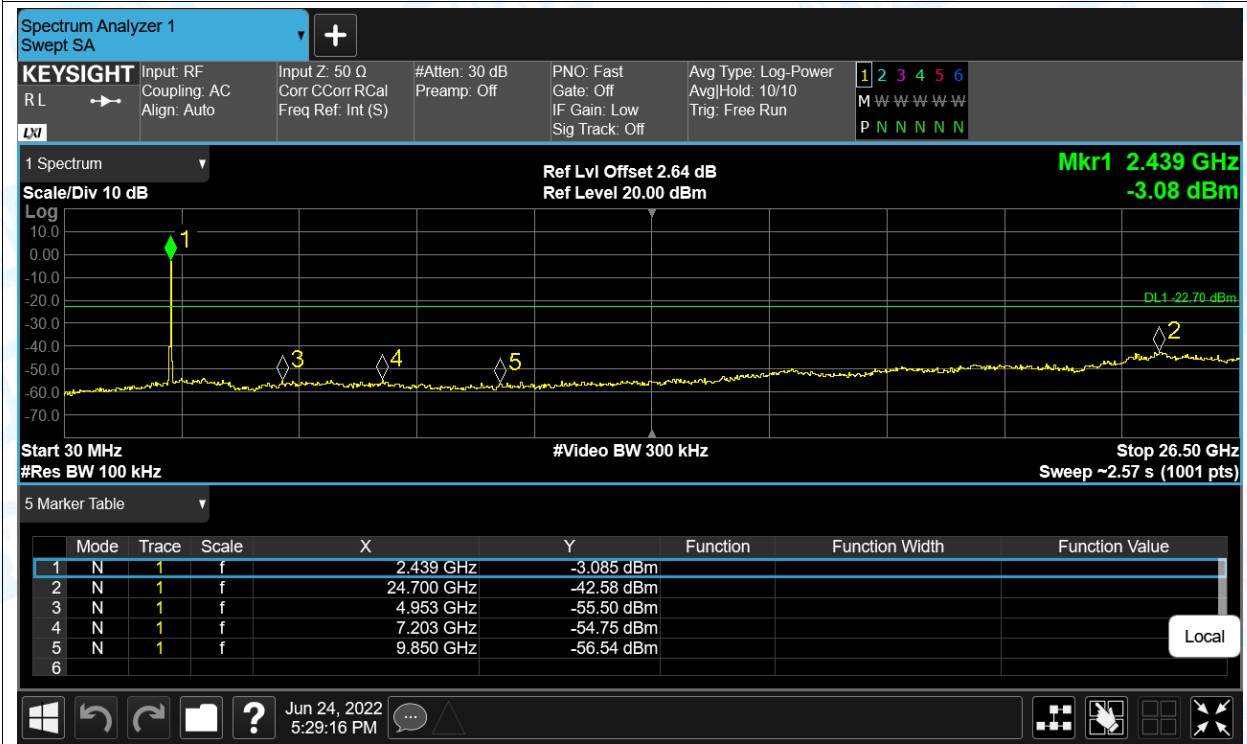


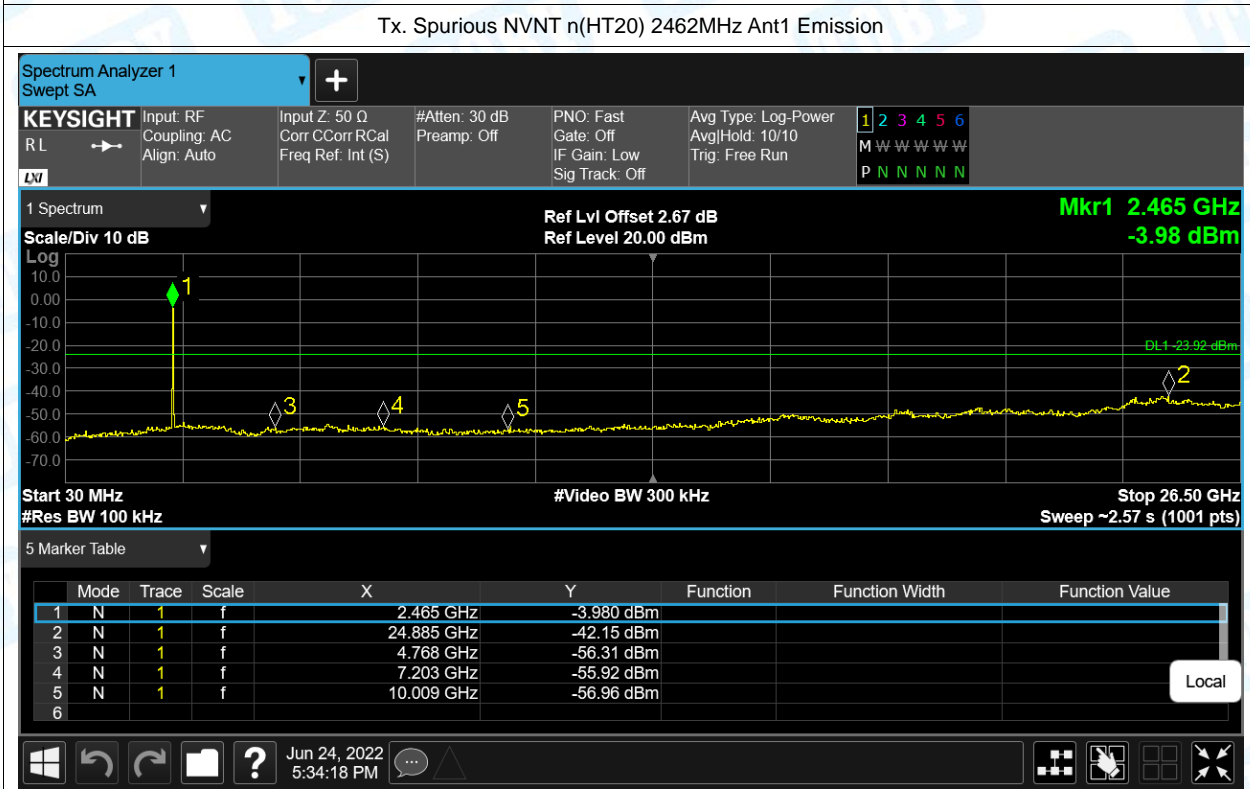
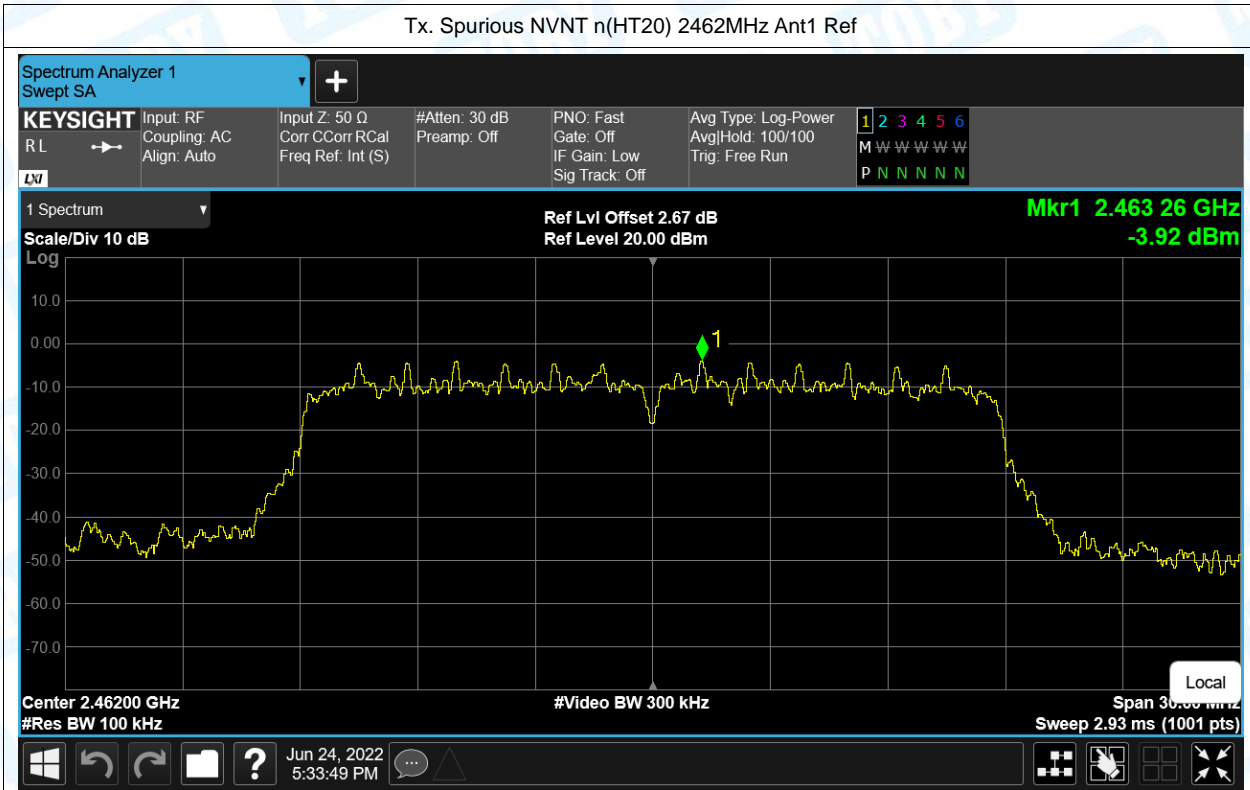


Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission





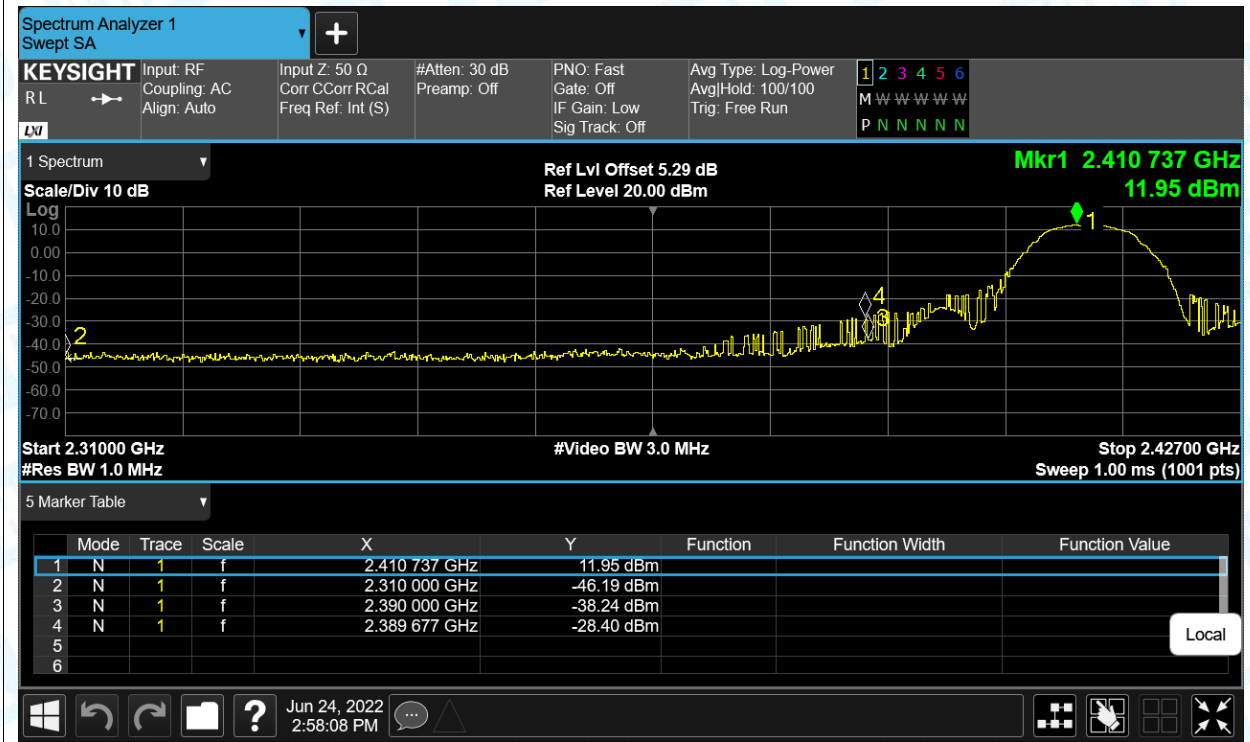


## Restrict Band

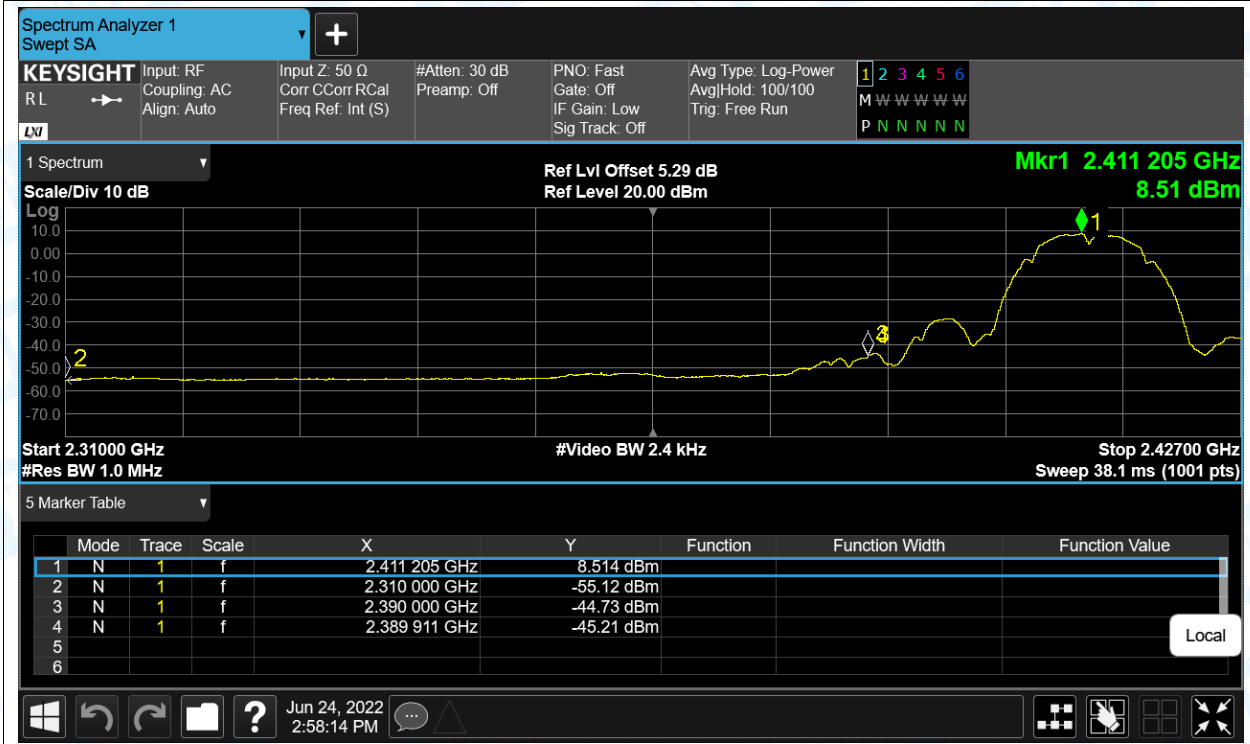
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-46.19	2.62	51.69	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-55.12	2.62	42.76	Average	54	Pass
NVNT	b	2412	Ant1	2389.677	-28.4	2.62	69.48	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-45.21	2.62	52.67	Average	54	Pass
NVNT	b	2412	Ant1	2390	-38.24	2.62	59.64	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-44.73	2.62	53.15	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-45.22	2.62	52.66	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-53.1	2.62	44.78	Average	54	Pass
NVNT	b	2462	Ant1	2484.63	-38.28	2.62	59.6	Peak	74	Pass
NVNT	b	2462	Ant1	2484.206	-52.62	2.62	45.26	Average	54	Pass
NVNT	b	2462	Ant1	2500	-45.84	2.62	52.04	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-55.2	2.62	42.68	Average	54	Pass
NVNT	g	2412	Ant1	2310	-45.5	2.62	52.38	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-53.98	2.62	43.9	Average	54	Pass
NVNT	g	2412	Ant1	2389.911	-31.99	2.62	65.89	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-45.7	2.62	52.18	Average	54	Pass
NVNT	g	2412	Ant1	2390	-32.04	2.62	65.84	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-45.38	2.62	52.5	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-43.56	2.62	54.32	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-51.24	2.62	46.64	Average	54	Pass
NVNT	g	2462	Ant1	2483.888	-42.53	2.62	55.35	Peak	74	Pass
NVNT	g	2462	Ant1	2483.57	-51	2.62	46.88	Average	54	Pass
NVNT	g	2462	Ant1	2500	-46.8	2.62	51.08	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-54.02	2.62	43.86	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-46.6	2.62	51.28	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-54.41	2.62	43.47	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2389.092	-29.35	2.62	68.53	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.677	-45.33	2.62	52.55	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-30.17	2.62	67.71	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-45.91	2.62	51.97	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-40.37	2.62	57.51	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-51.72	2.62	46.16	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2484.259	-33.28	2.62	64.6	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.57	-51.08	2.62	46.8	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-44.95	2.62	52.93	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-53.46	2.62	44.42	Average	54	Pass

### Test Graphs

#### Restrict Band NVNT b 2412MHz Ant1 Peak

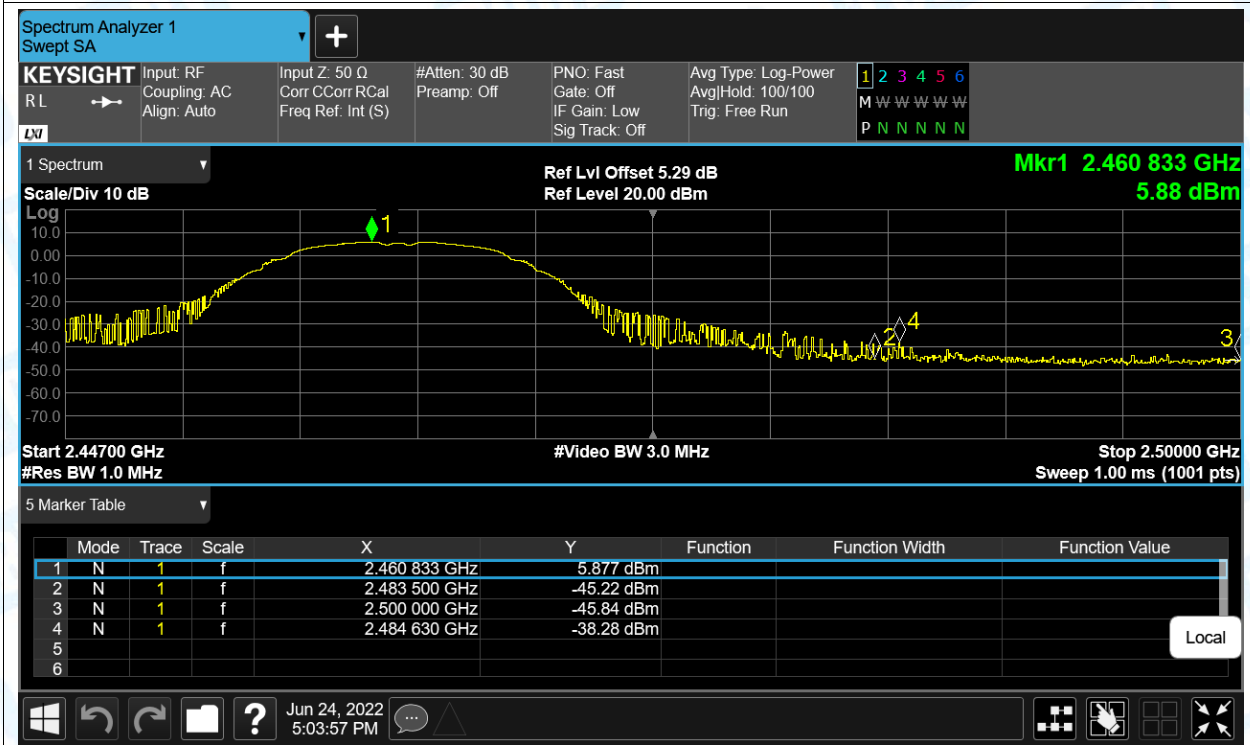


#### Restrict Band NVNT b 2412MHz Ant1 Average

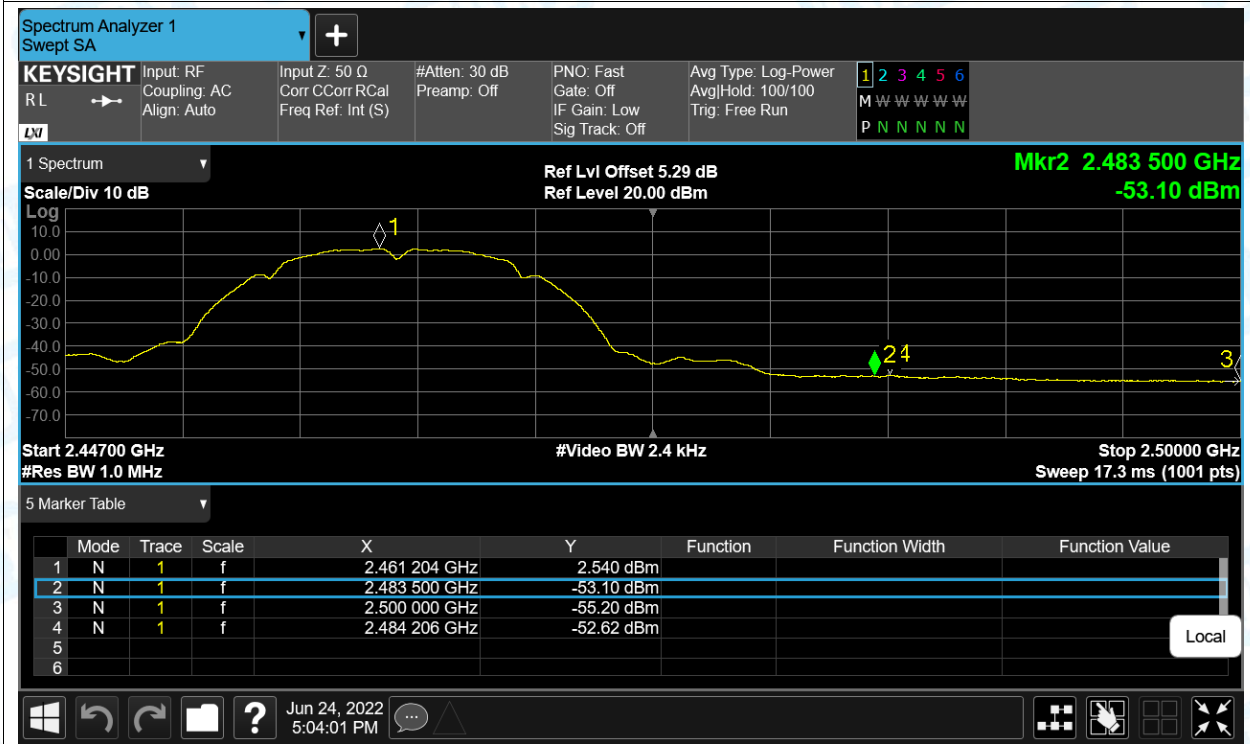




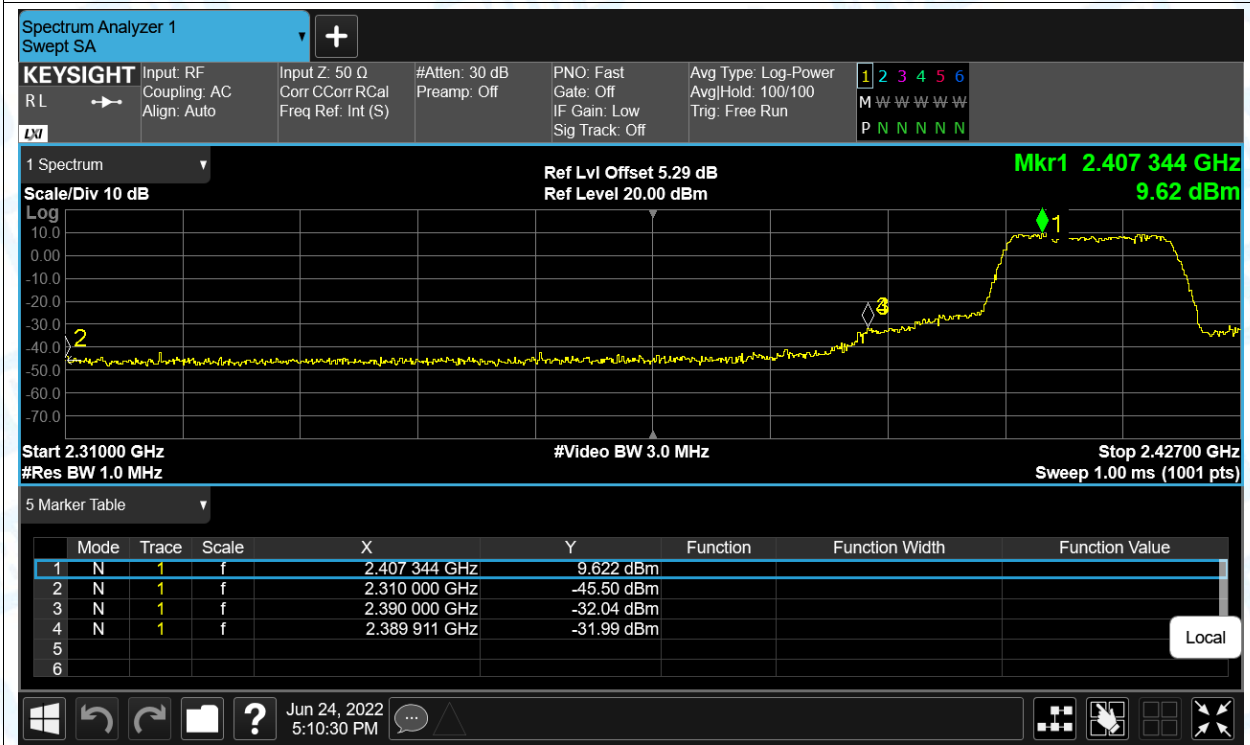
### Restrict Band NVNT b 2462MHz Ant1 Peak



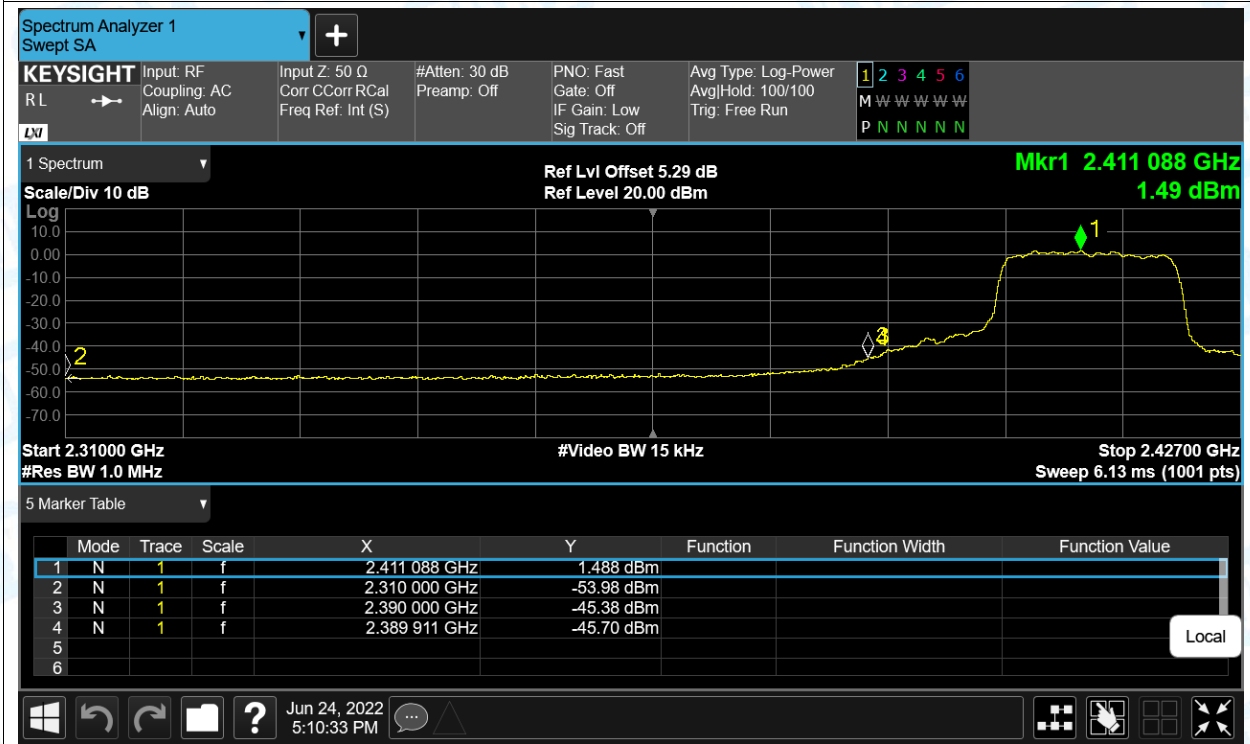
### Restrict Band NVNT b 2462MHz Ant1 Average



### Restrict Band NVNT g 2412MHz Ant1 Peak

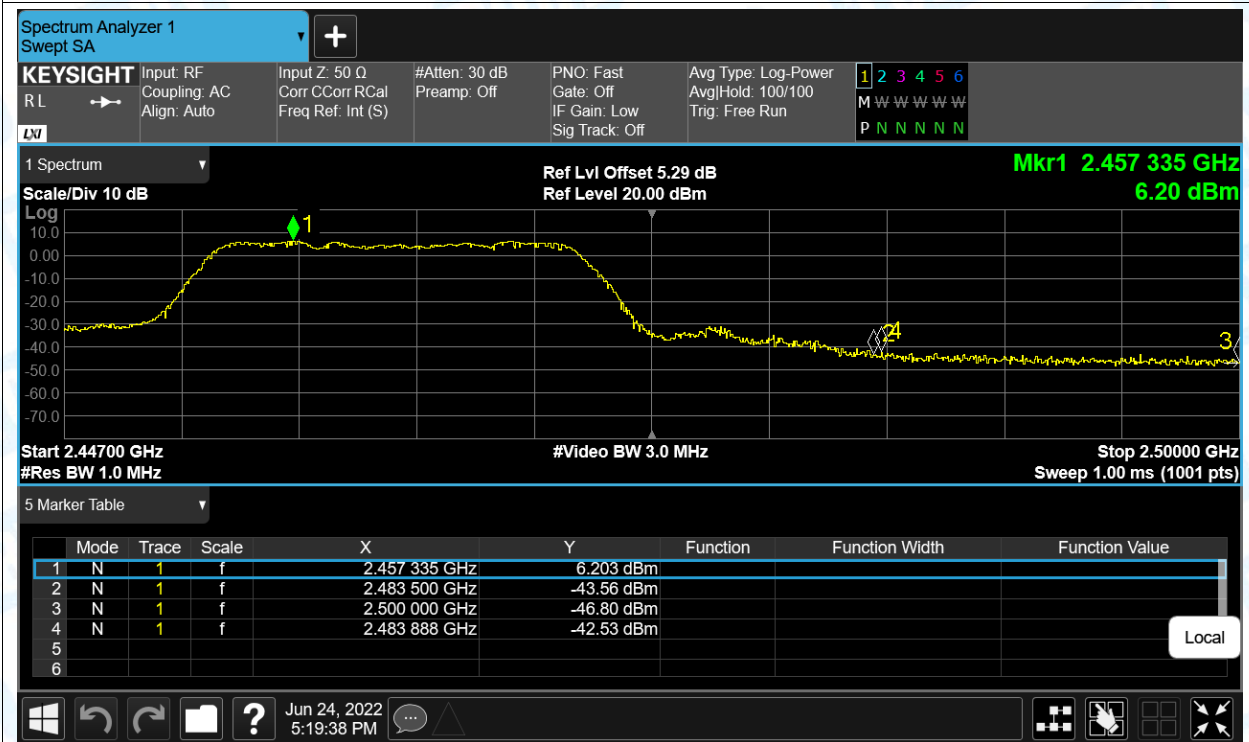


### Restrict Band NVNT g 2412MHz Ant1 Average

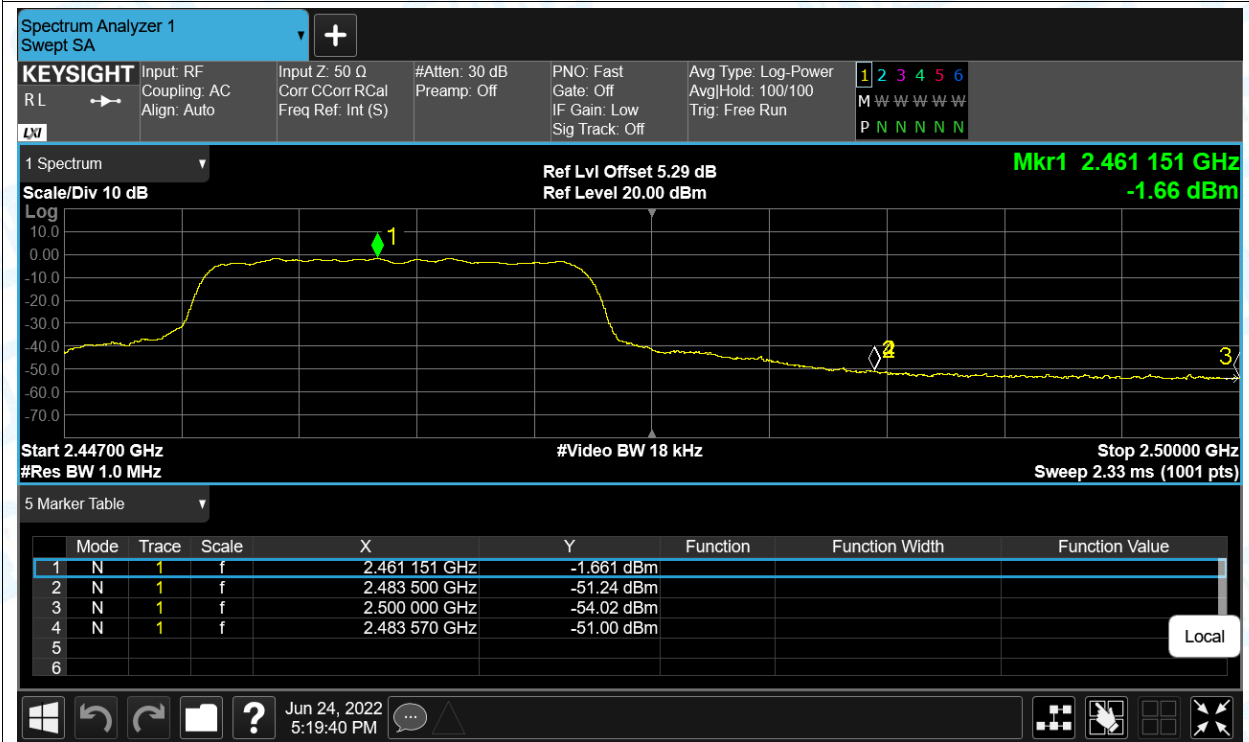




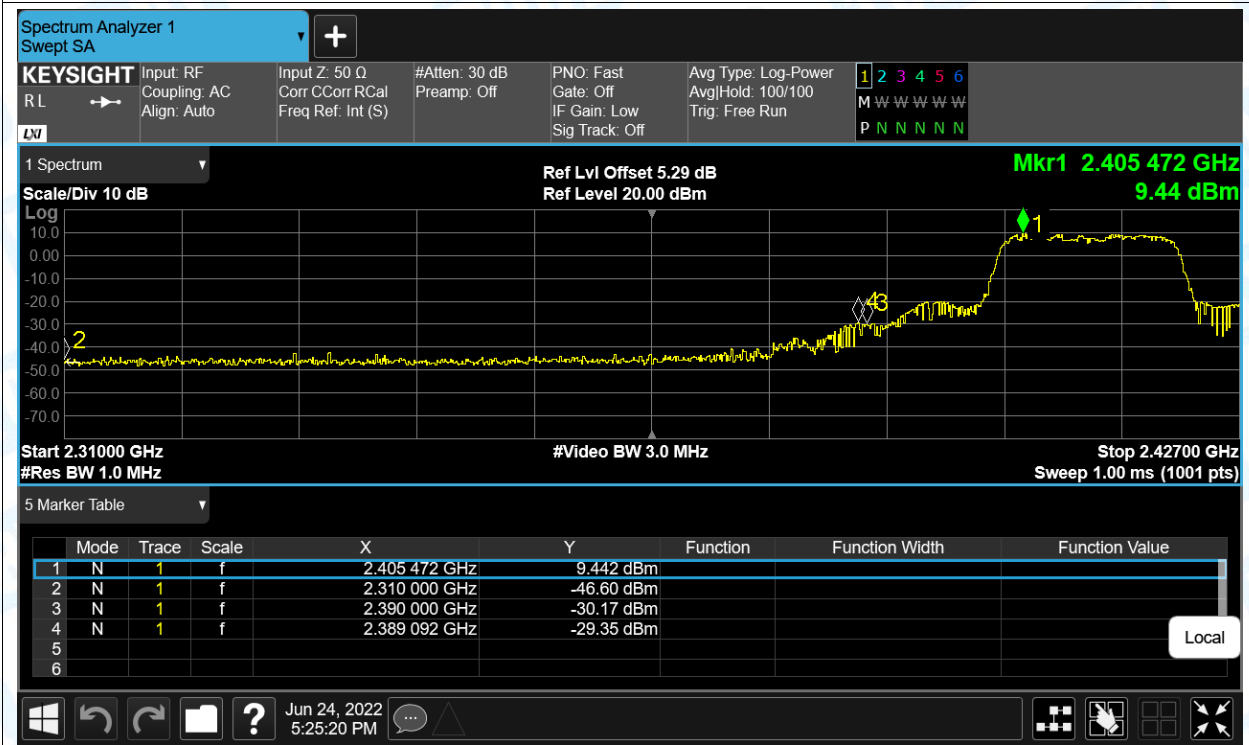
Restrict Band NVNT g 2462MHz Ant1 Peak



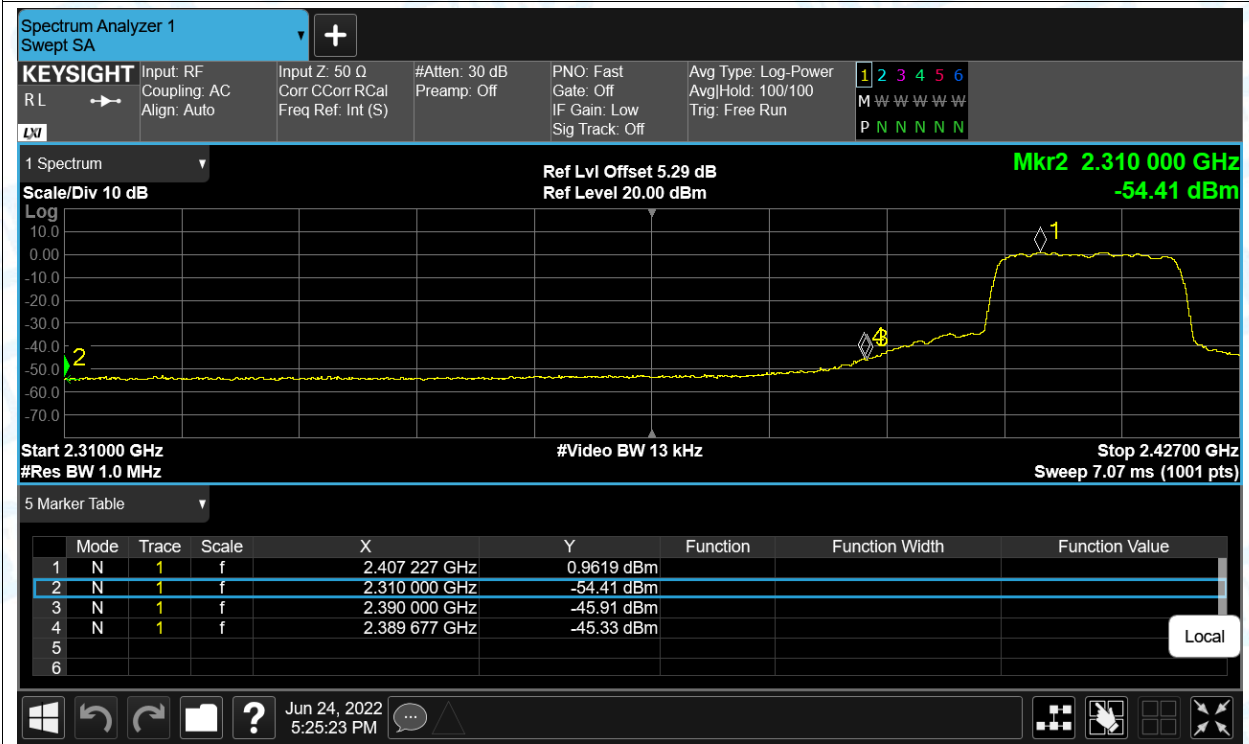
Restrict Band NVNT g 2462MHz Ant1 Average



### Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak

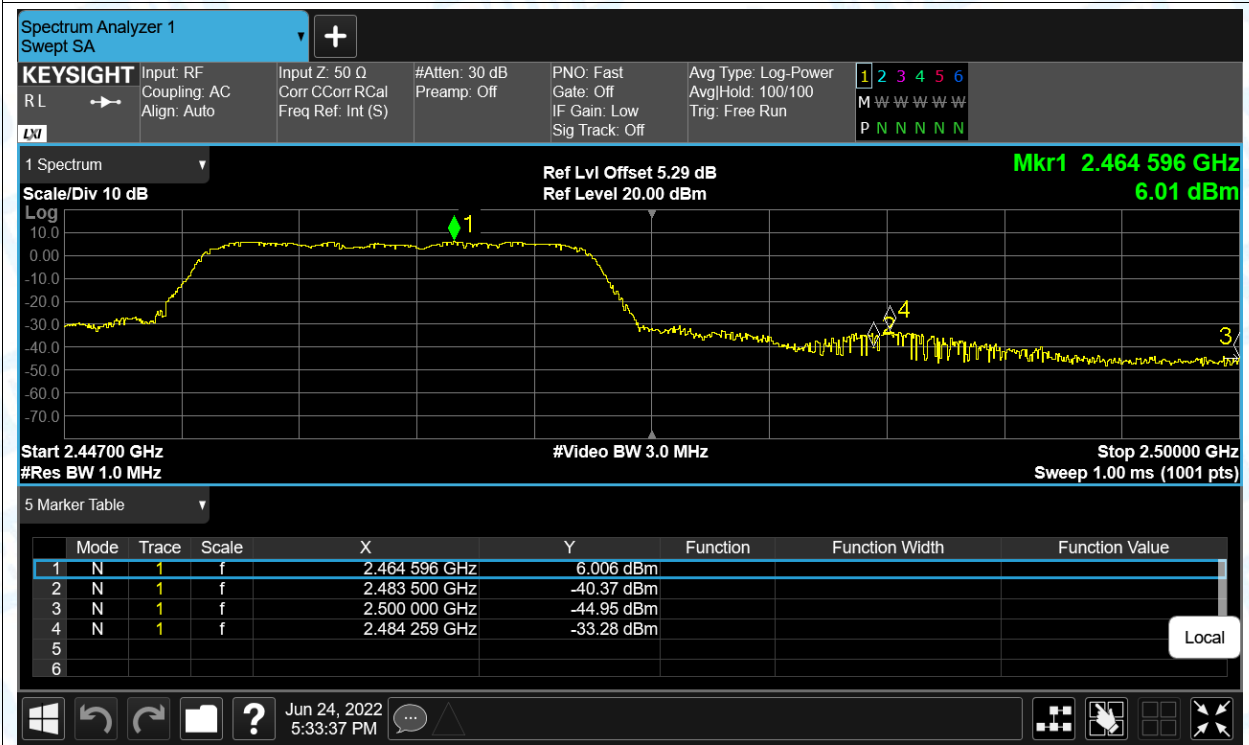


### Restrict Band NVNT n(HT20) 2412MHz Ant1 Average





Restrict Band NVNT n(HT20) 2462MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2462MHz Ant1 Average

