

RF Test Data for 2.4G WiFi (Conducted Measurements)

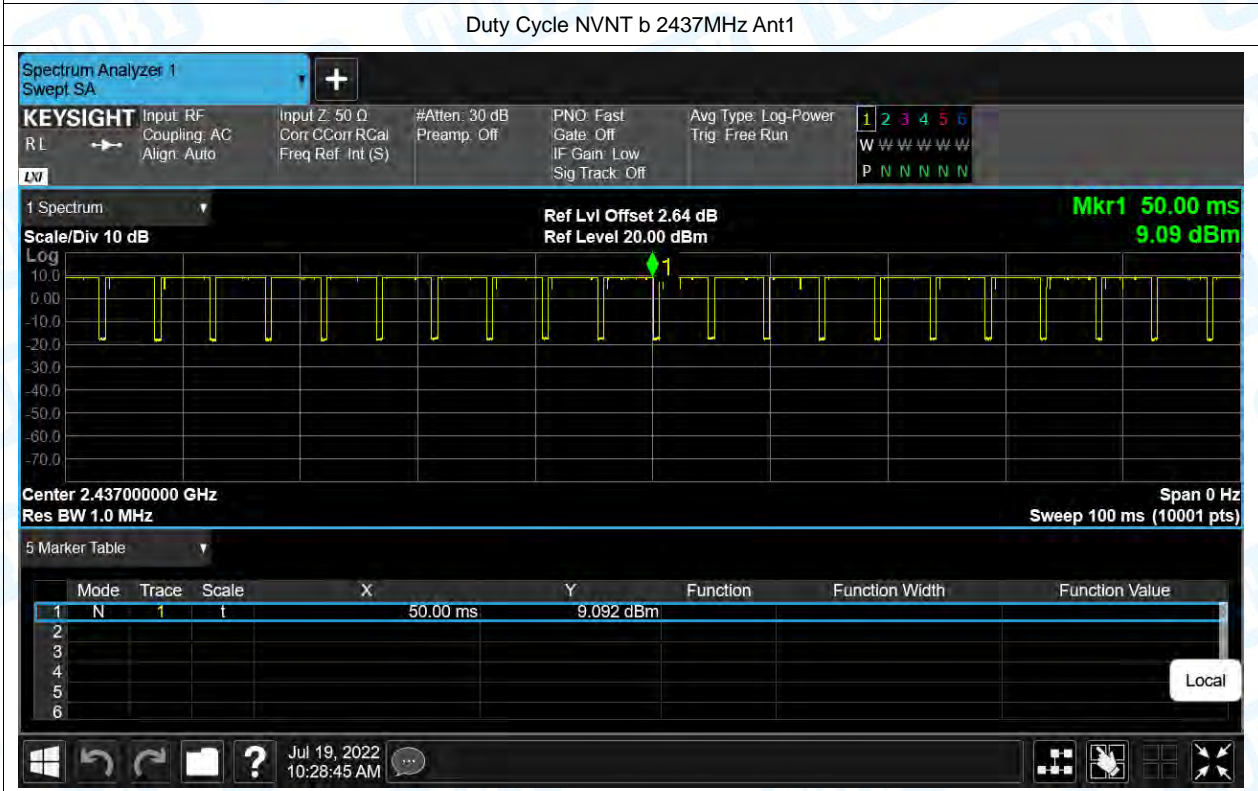
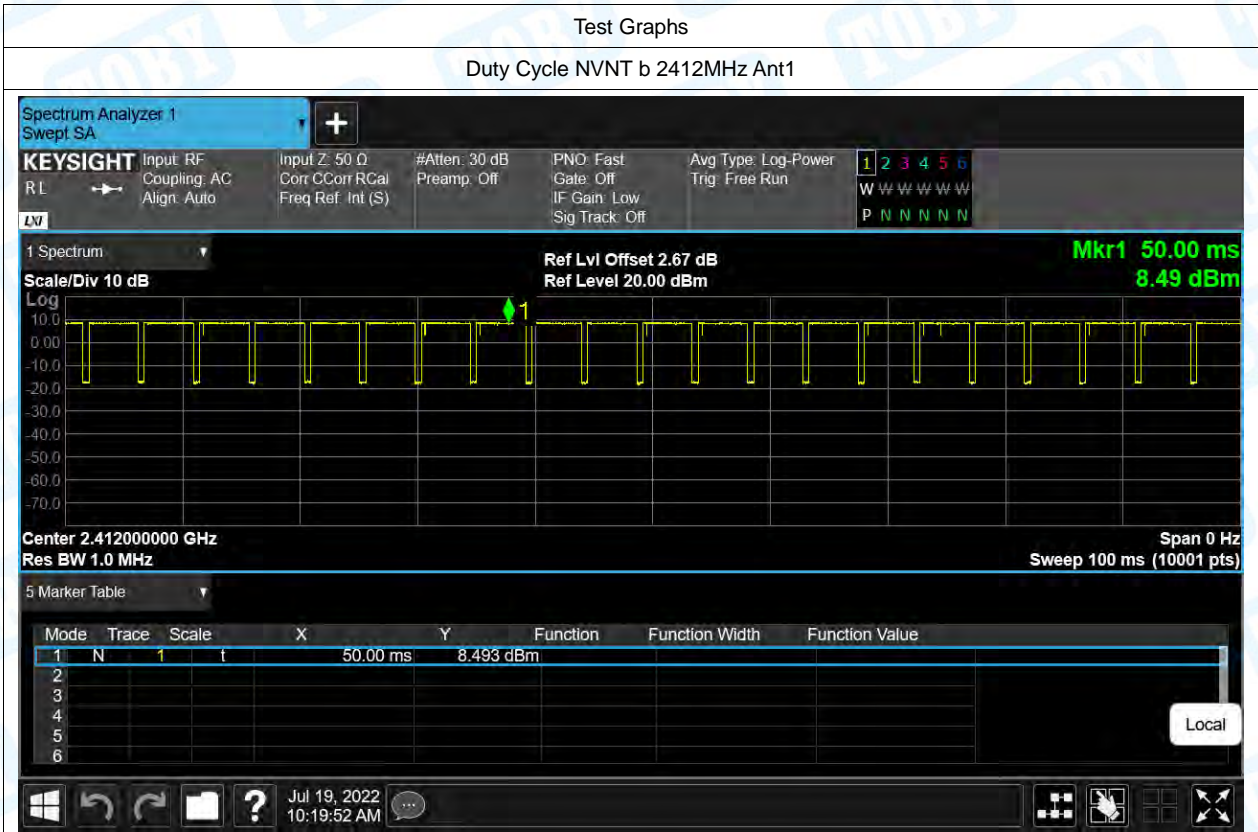
General Description of EUT	
Product Name:	Water Leak Detector
Test Model:	WP71
Sample ID:	202204-0206_01-02
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202204-0206-2	

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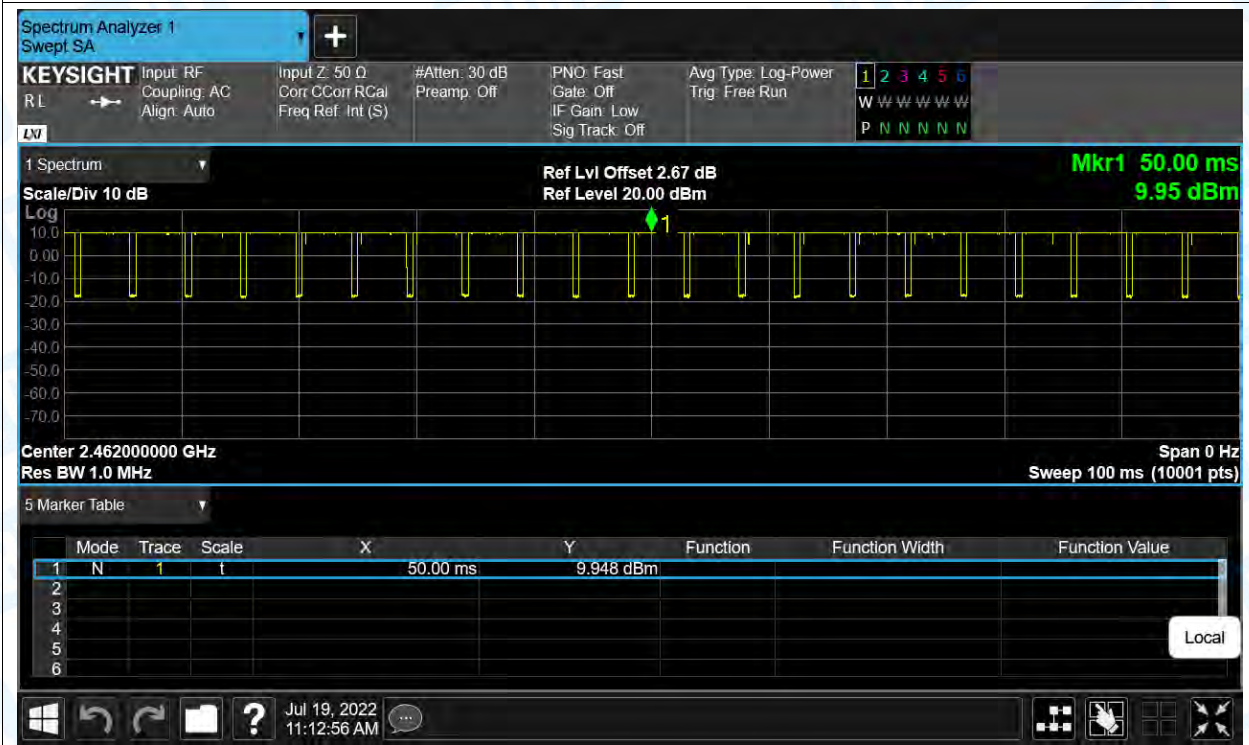
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1. Duty Cycle

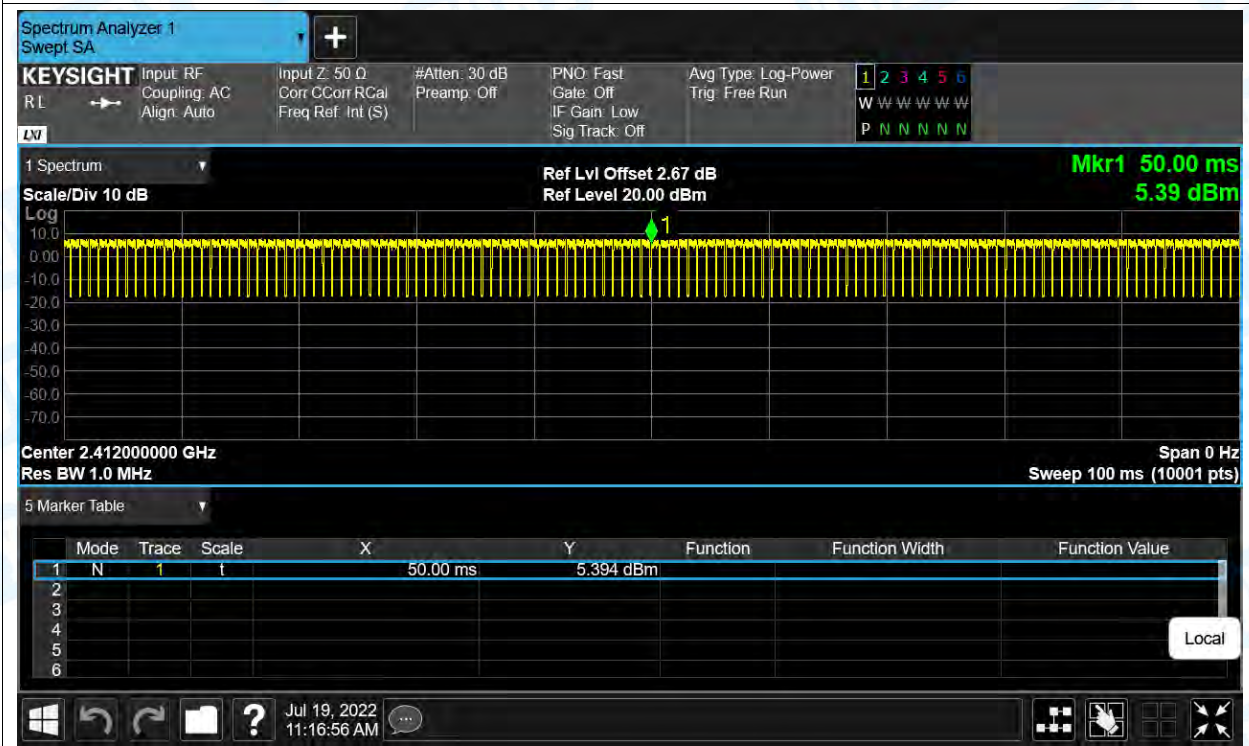
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	100	0	0
NVNT	b	2437	Ant1	100	0	0
NVNT	b	2462	Ant1	100	0	0
NVNT	g	2412	Ant1	100	0	0
NVNT	g	2437	Ant1	100	0	0
NVNT	g	2462	Ant1	100	0	0
NVNT	n(HT20)	2412	Ant1	100	0	0
NVNT	n(HT20)	2437	Ant1	100	0	0
NVNT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



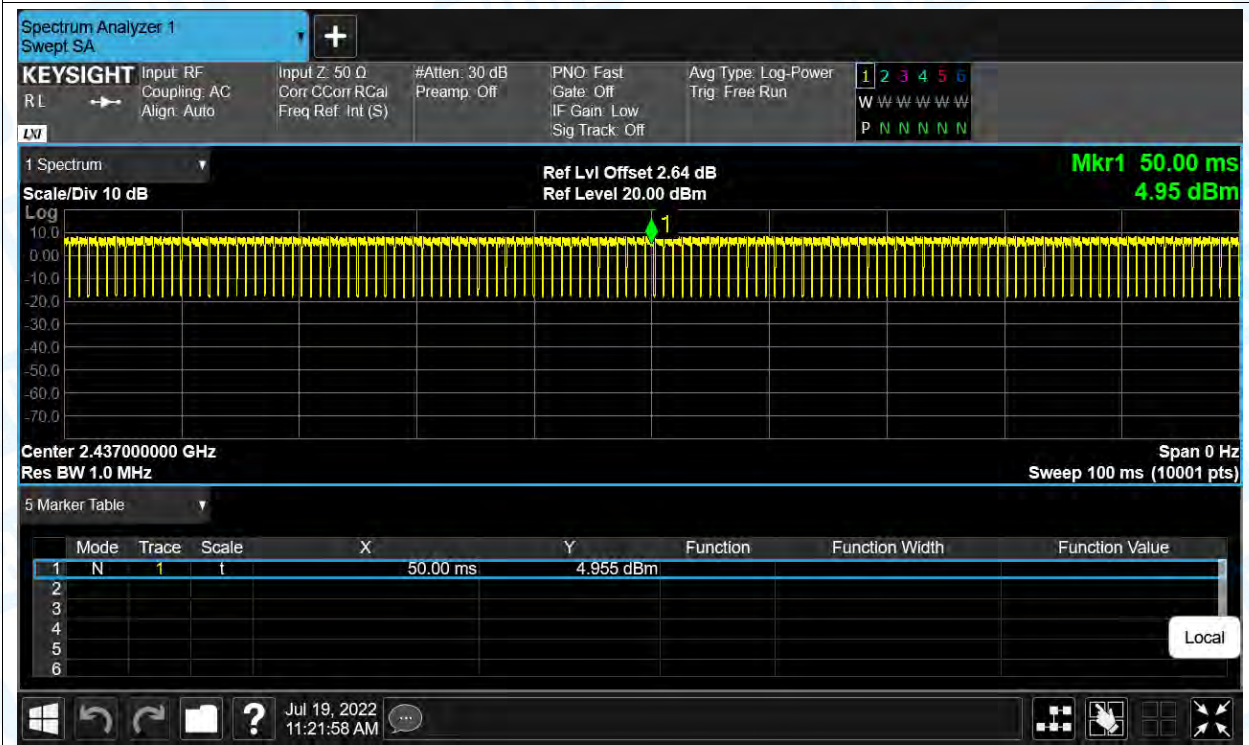
Duty Cycle NVNT b 2462MHz Ant1



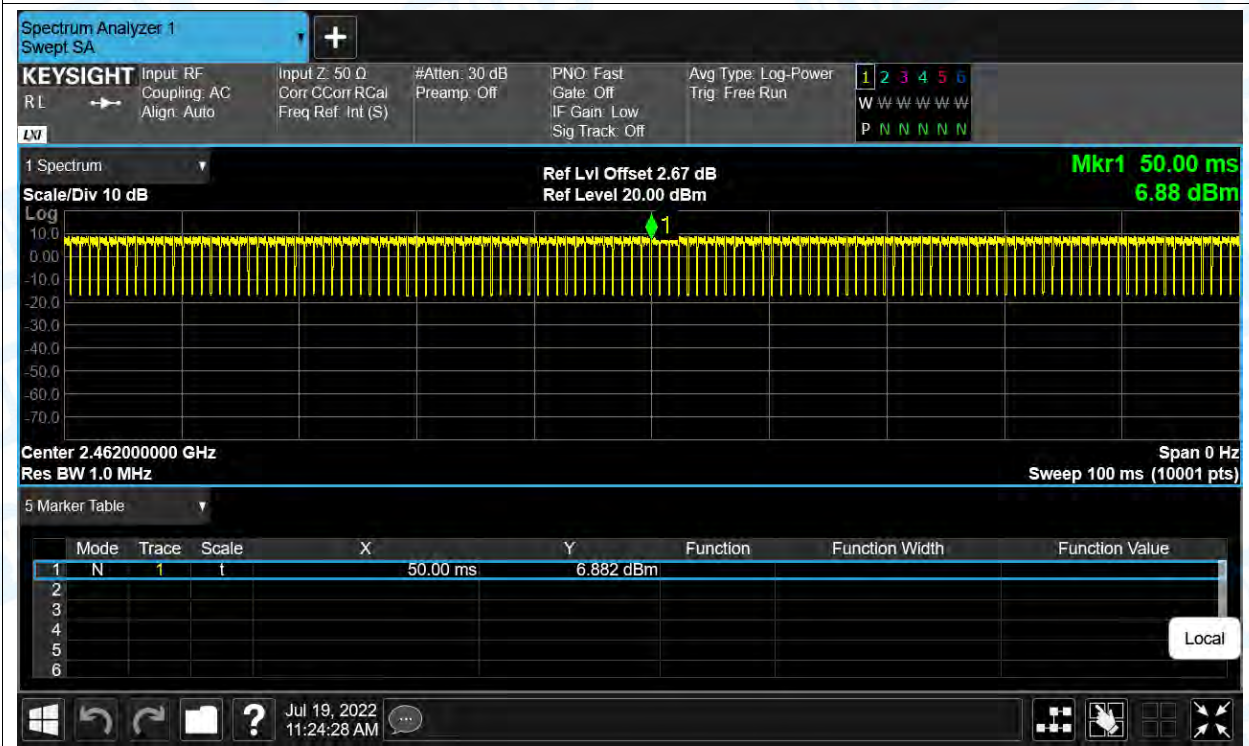
Duty Cycle NVNT g 2412MHz Ant1



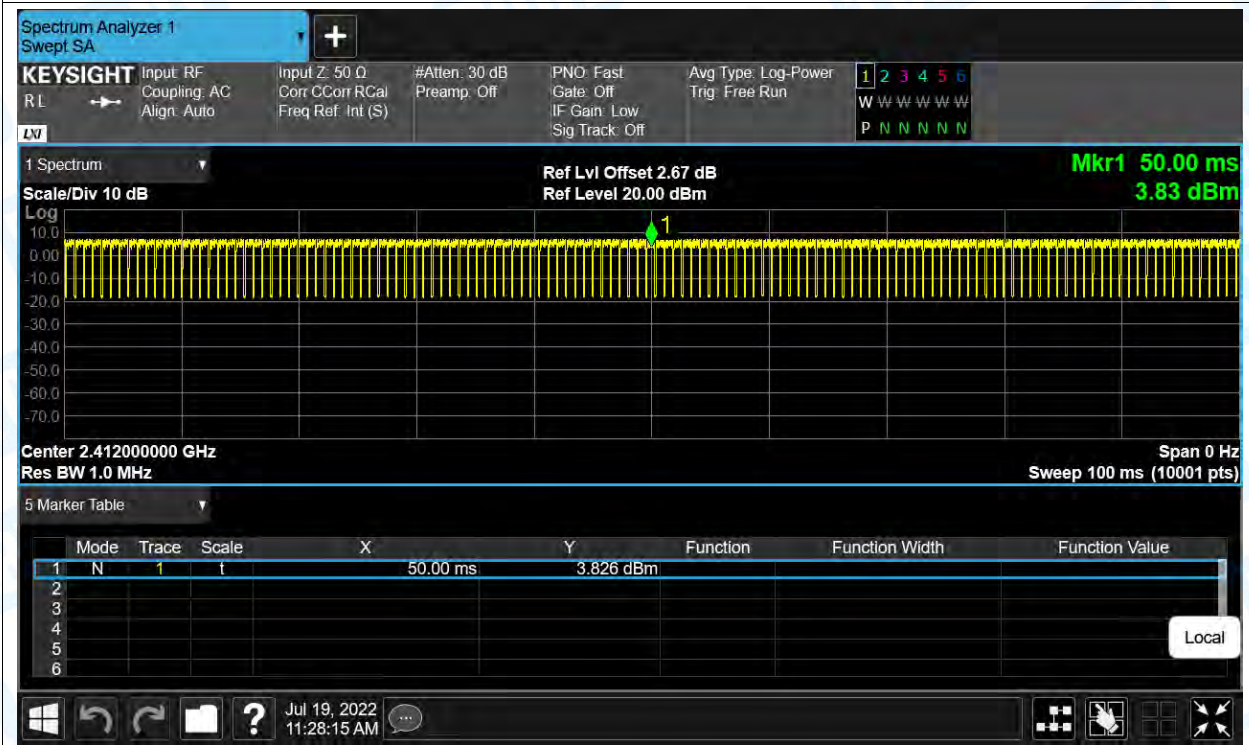
Duty Cycle NVNT g 2437MHz Ant1



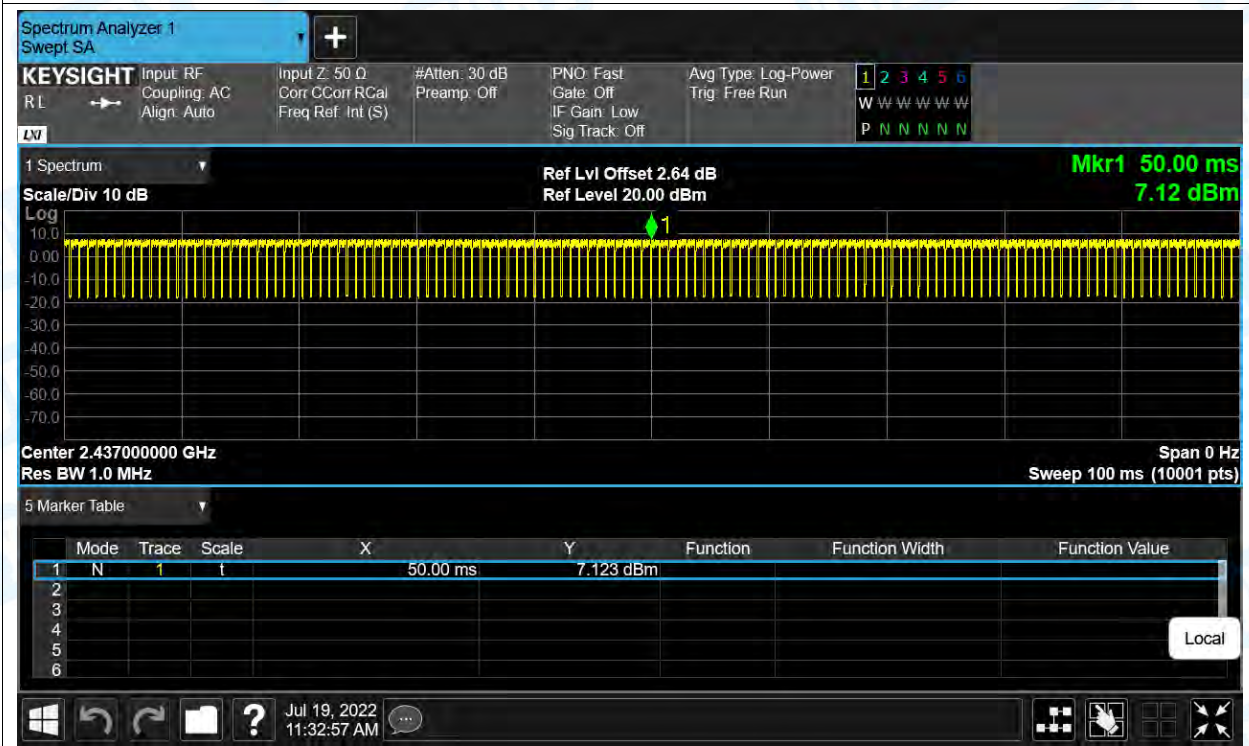
Duty Cycle NVNT g 2462MHz Ant1

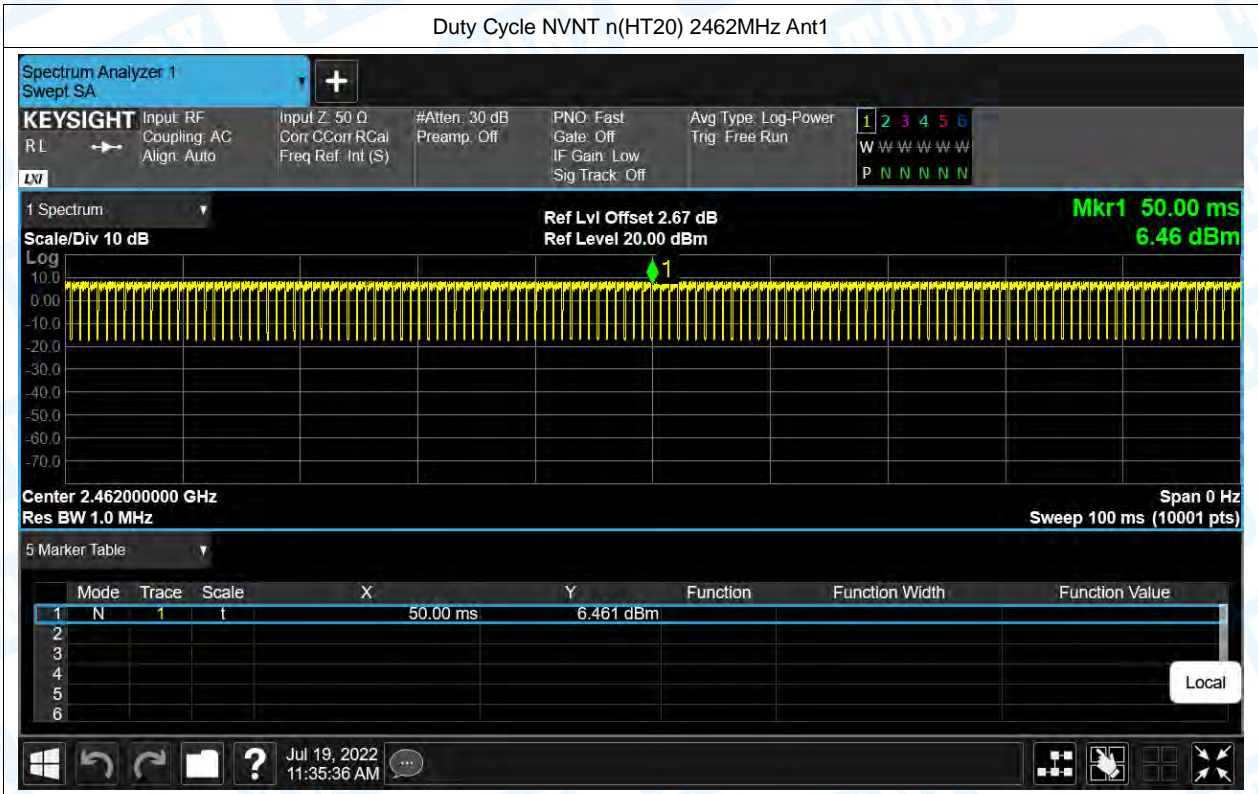


Duty Cycle NVNT n(HT20) 2412MHz Ant1



Duty Cycle NVNT n(HT20) 2437MHz Ant1





2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.208	0	15.208	30	Pass
NVNT	b	2437	Ant1	15.575	0	15.575	30	Pass
NVNT	b	2462	Ant1	16.339	0	16.339	30	Pass
NVNT	g	2412	Ant1	17.439	0	17.439	30	Pass
NVNT	g	2437	Ant1	17.911	0	17.911	30	Pass
NVNT	g	2462	Ant1	18.591	0	18.591	30	Pass
NVNT	n(HT20)	2412	Ant1	17.325	0	17.325	30	Pass
NVNT	n(HT20)	2437	Ant1	17.832	0	17.832	30	Pass
NVNT	n(HT20)	2462	Ant1	18.483	0	18.483	30	Pass

3. -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.08	0.5	Pass
NVNT	b	2437	Ant1	8.57	0.5	Pass
NVNT	b	2462	Ant1	8	0.5	Pass
NVNT	g	2412	Ant1	15.77	0.5	Pass
NVNT	g	2437	Ant1	15.69	0.5	Pass
NVNT	g	2462	Ant1	15.69	0.5	Pass
NVNT	n(HT20)	2412	Ant1	16.54	0.5	Pass
NVNT	n(HT20)	2437	Ant1	15.79	0.5	Pass
NVNT	n(HT20)	2462	Ant1	15.78	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



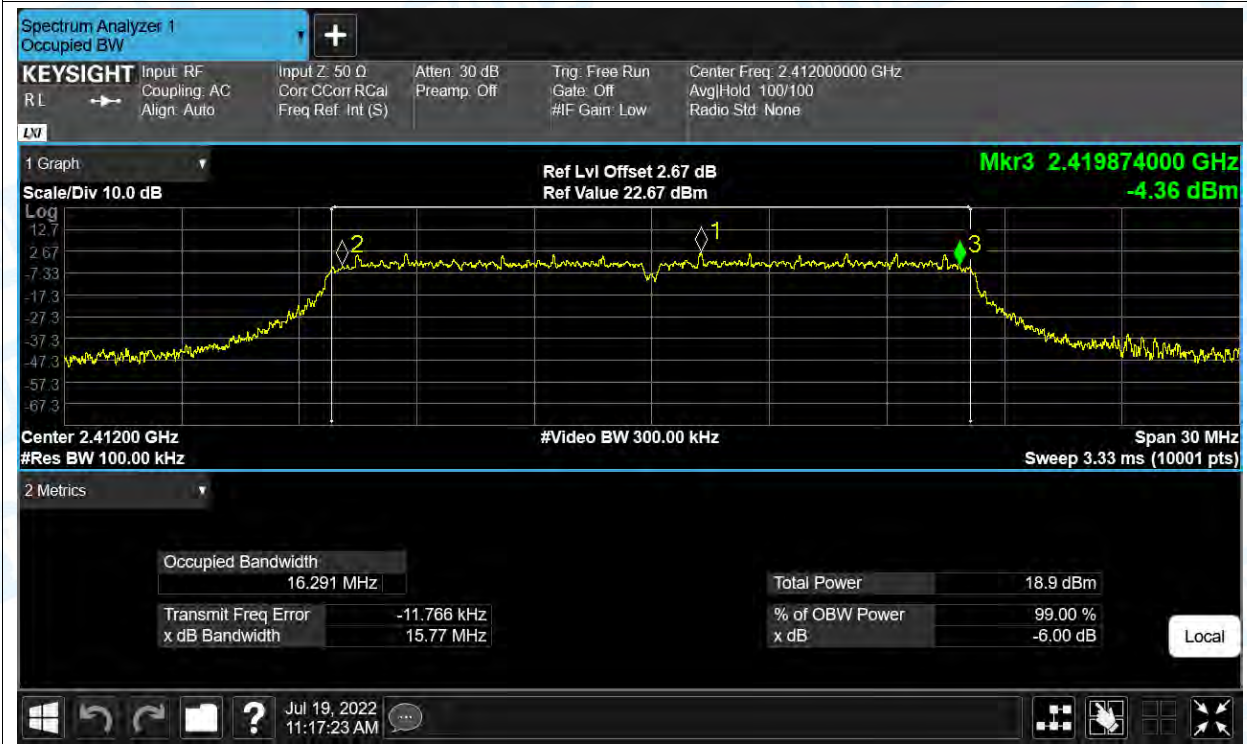
-6dB Bandwidth NVNT b 2437MHz Ant1



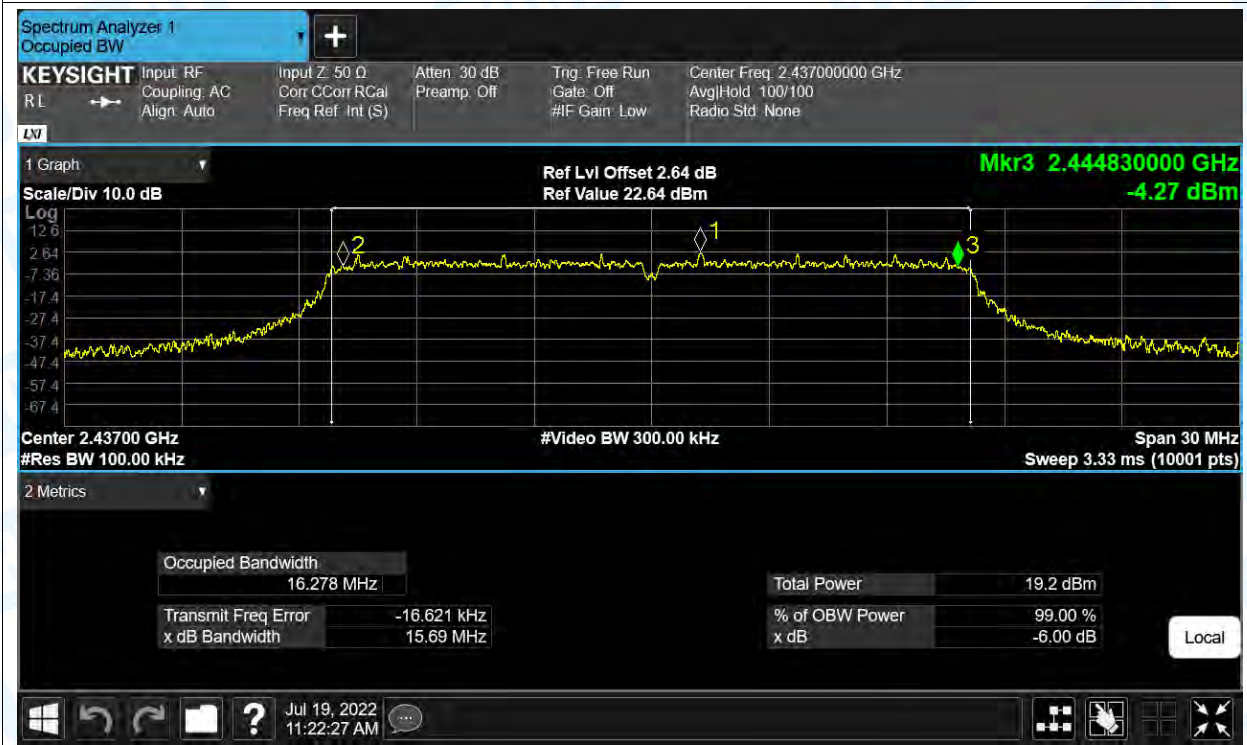
-6dB Bandwidth NVNT b 2462MHz Ant1



-6dB Bandwidth NVNT g 2412MHz Ant1



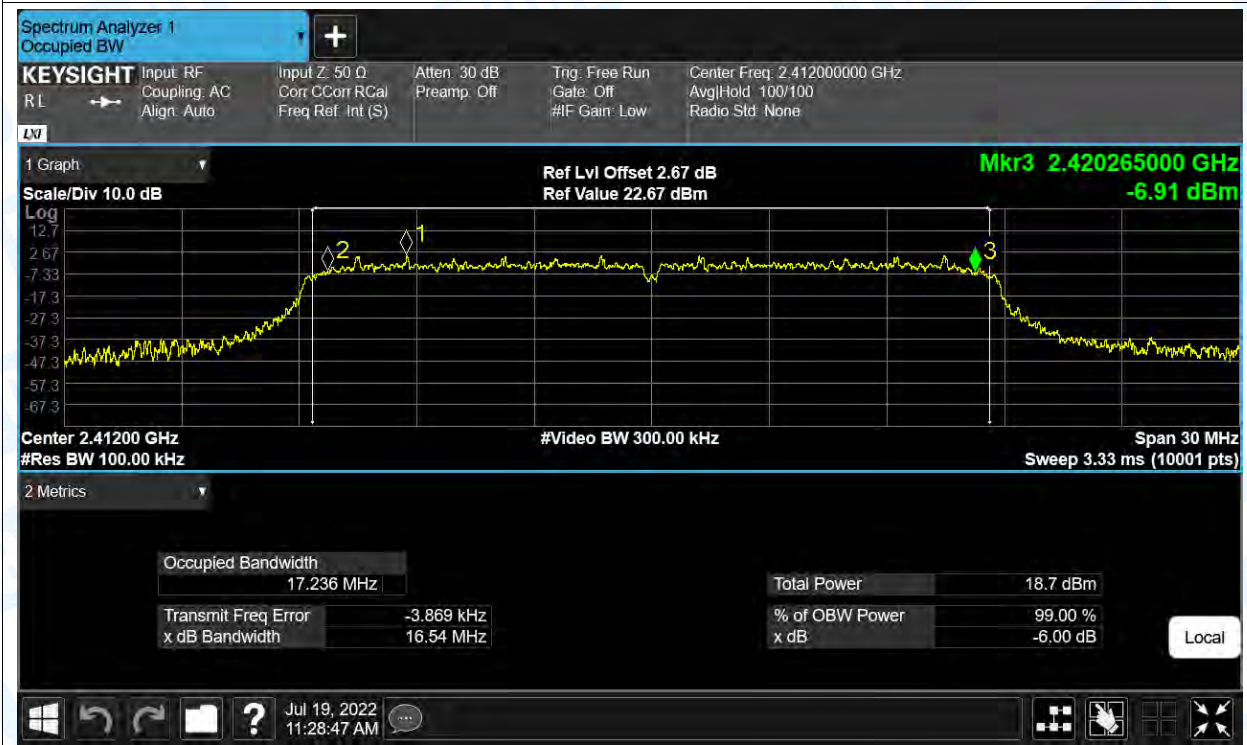
-6dB Bandwidth NVNT g 2437MHz Ant1



-6dB Bandwidth NVNT g 2462MHz Ant1

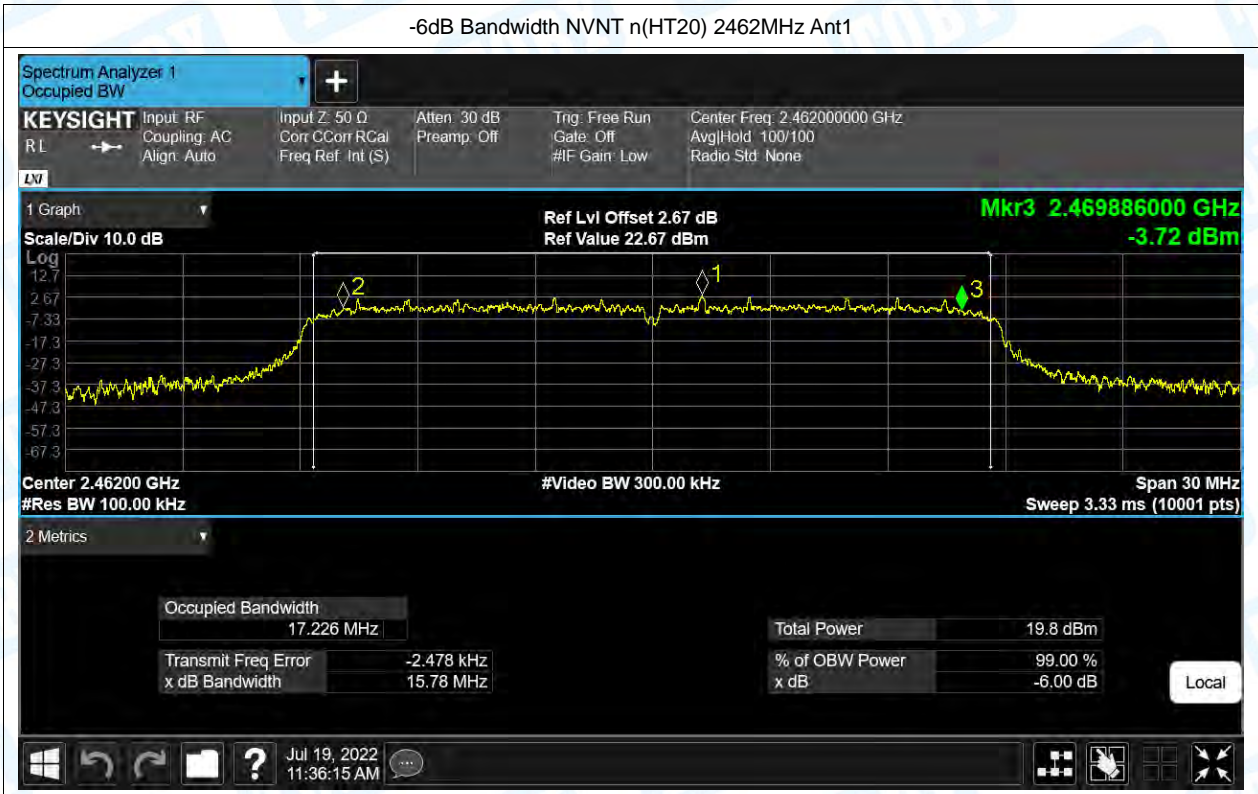


-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



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





4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	10.558
NVNT	b	2437	Ant1	10.641
NVNT	b	2462	Ant1	10.671
NVNT	g	2412	Ant1	16.301
NVNT	g	2437	Ant1	16.298
NVNT	g	2462	Ant1	16.296
NVNT	n(HT20)	2412	Ant1	17.221
NVNT	n(HT20)	2437	Ant1	17.209
NVNT	n(HT20)	2462	Ant1	17.193

Test Graphs

OBW NVNT b 2412MHz Ant1



OBW NVNT b 2437MHz Ant1



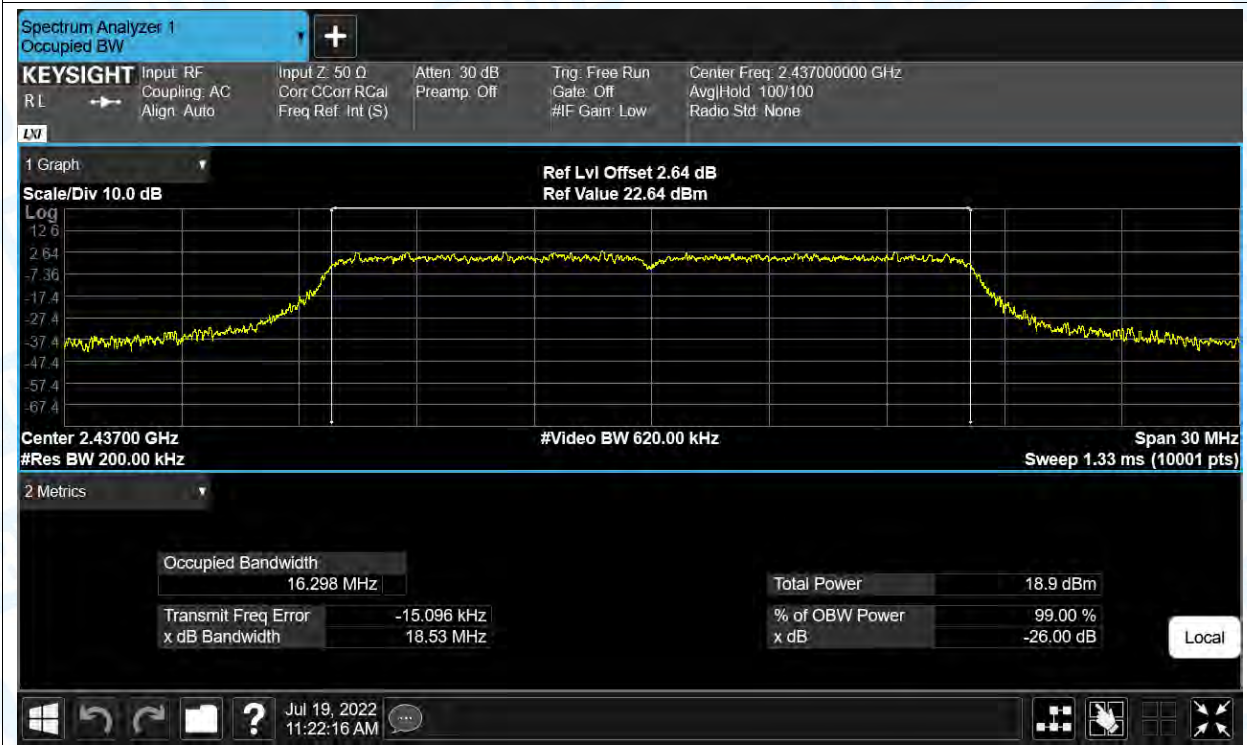
OBW NVNT b 2462MHz Ant1



OBW NVNT g 2412MHz Ant1



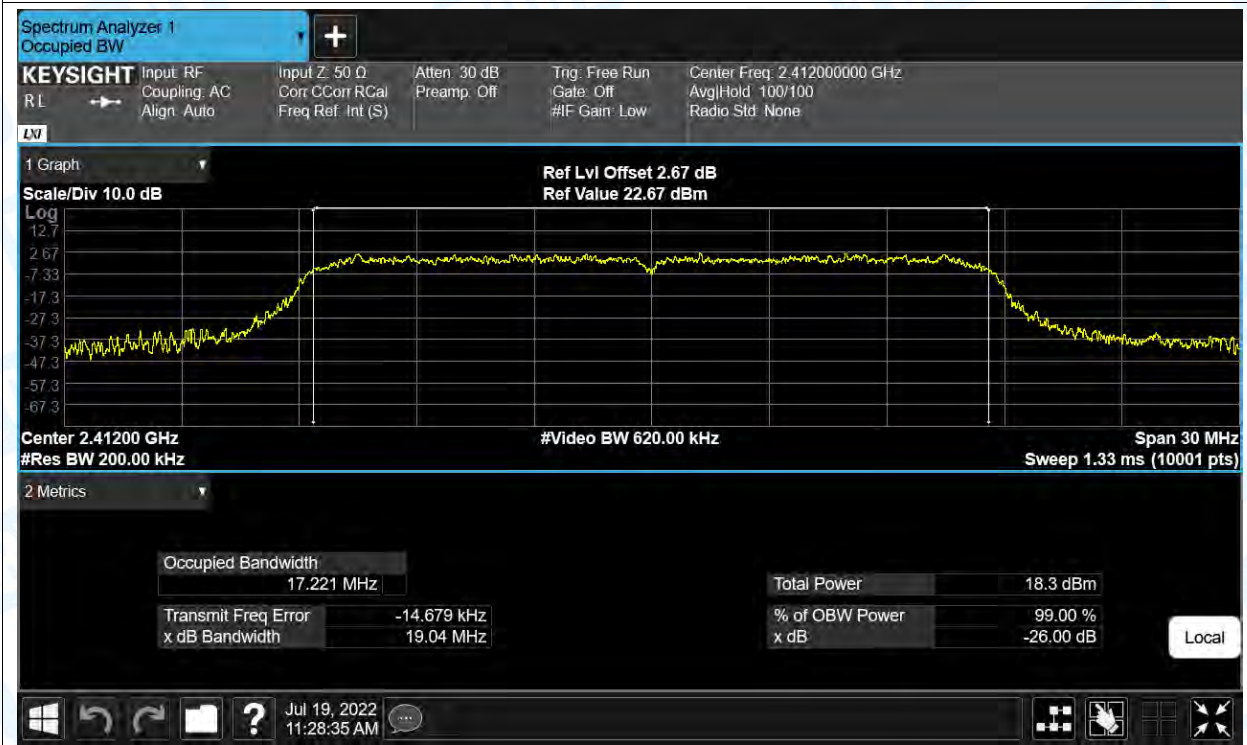
OBW NVNT g 2437MHz Ant1



OBW NVNT g 2462MHz Ant1

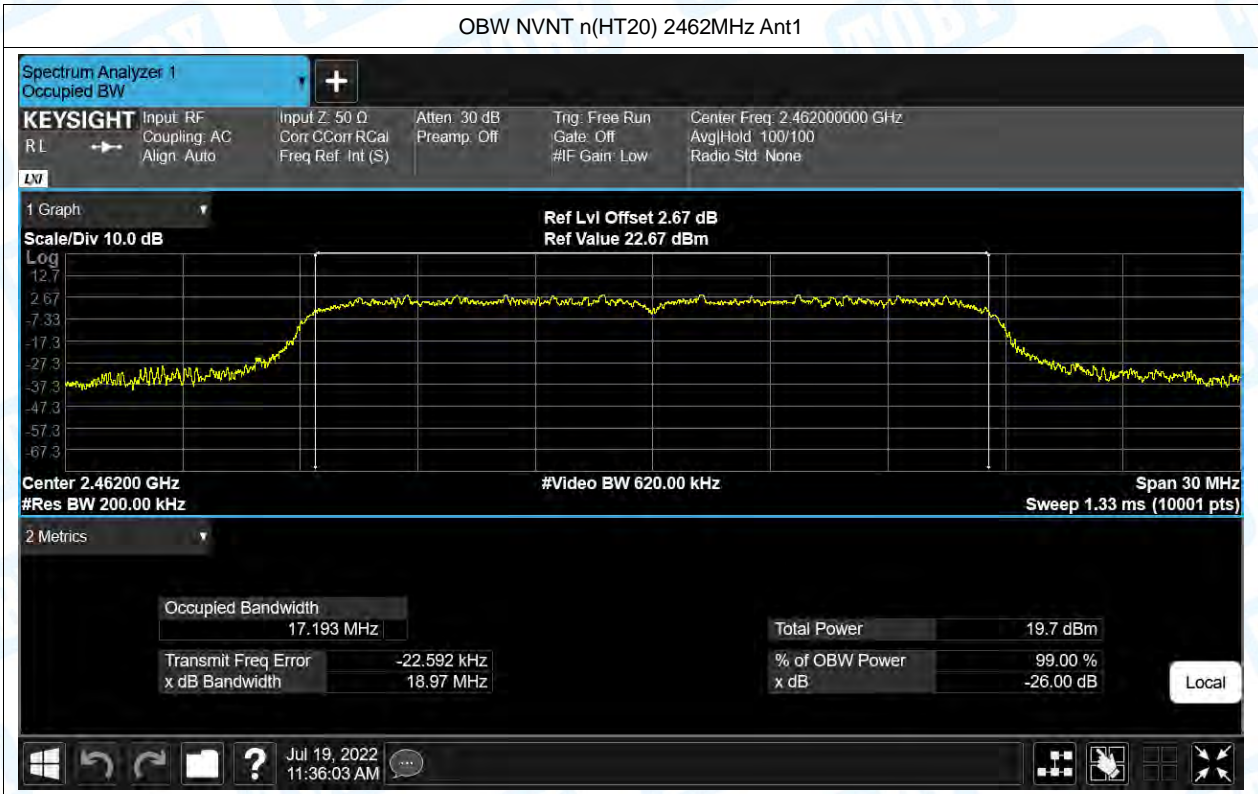


OBW NVNT n(HT20) 2412MHz Ant1



OBW NVNT n(HT20) 2437MHz Ant1





5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-9.343	8	Pass
NVNT	b	2437	Ant1	-9.033	8	Pass
NVNT	b	2462	Ant1	-8.508	8	Pass
NVNT	g	2412	Ant1	-13.057	8	Pass
NVNT	g	2437	Ant1	-11.129	8	Pass
NVNT	g	2462	Ant1	-10.603	8	Pass
NVNT	n(HT20)	2412	Ant1	-11.857	8	Pass
NVNT	n(HT20)	2437	Ant1	-11.481	8	Pass
NVNT	n(HT20)	2462	Ant1	-10.653	8	Pass

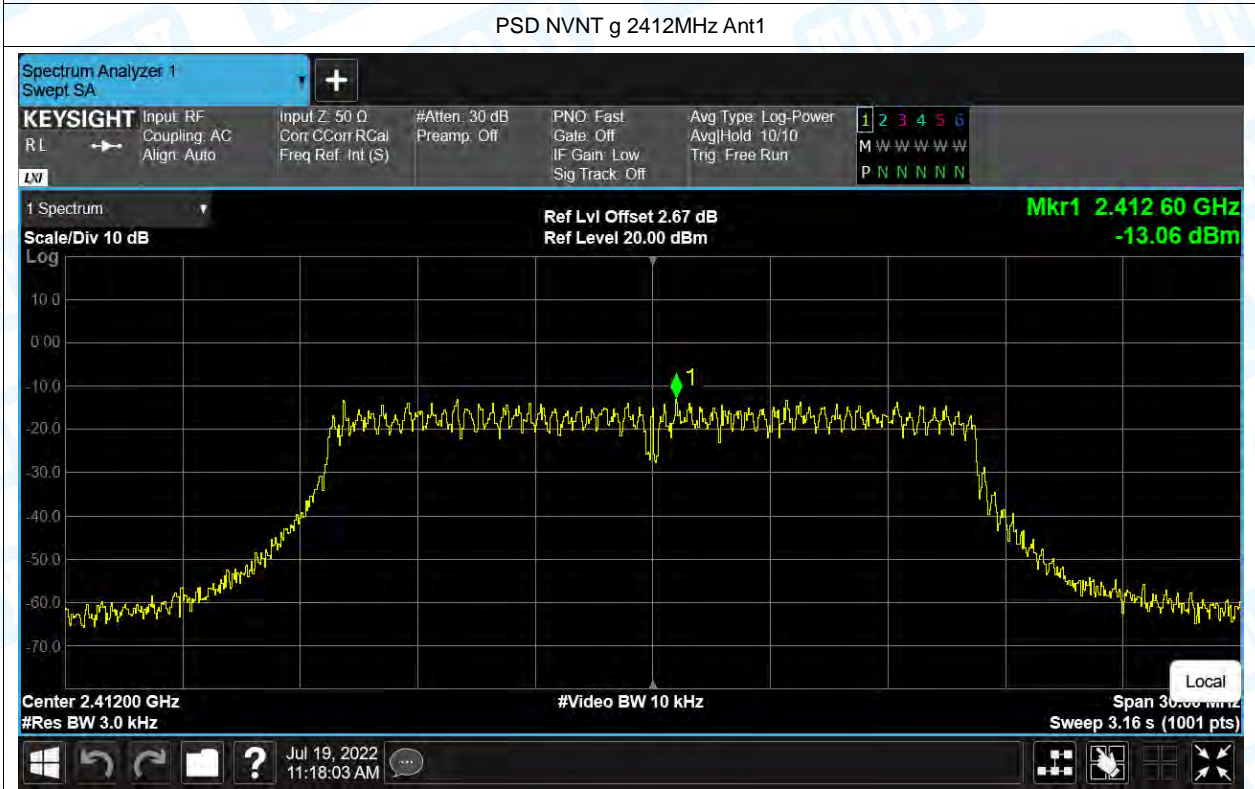
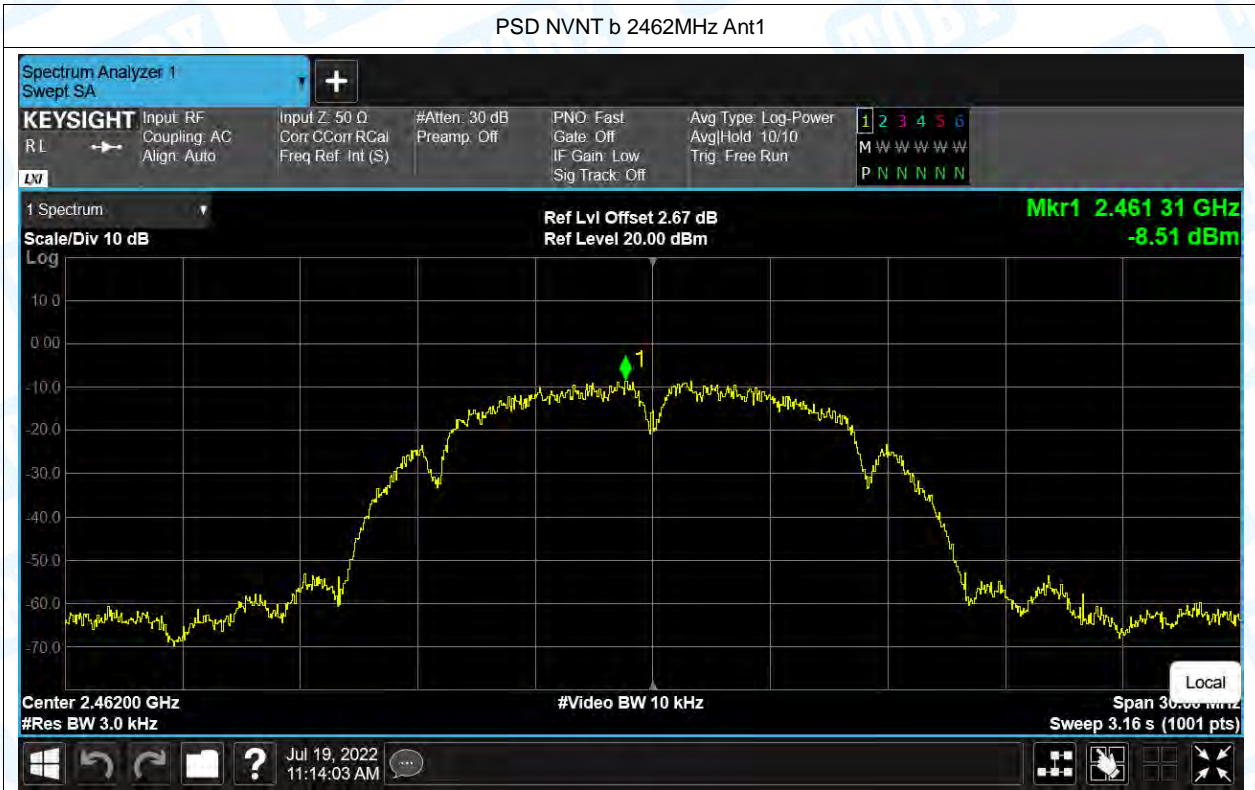
Test Graphs

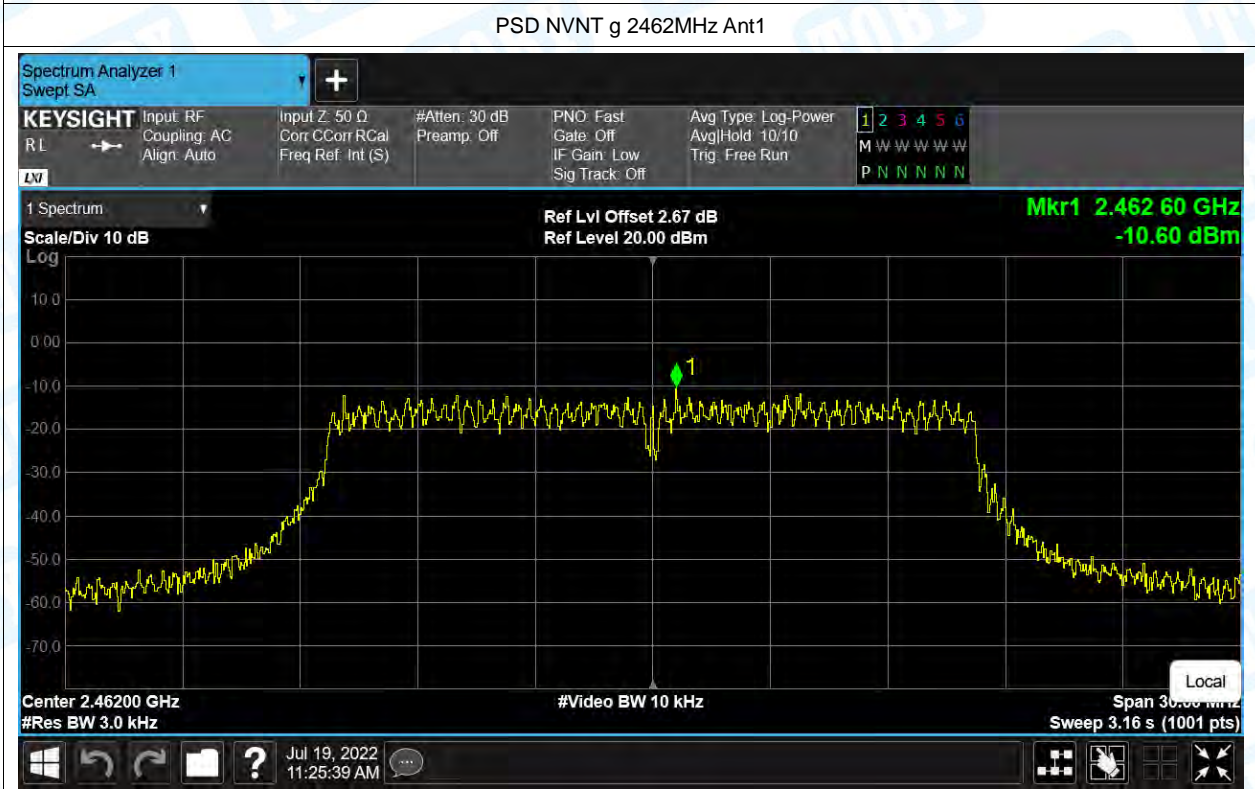
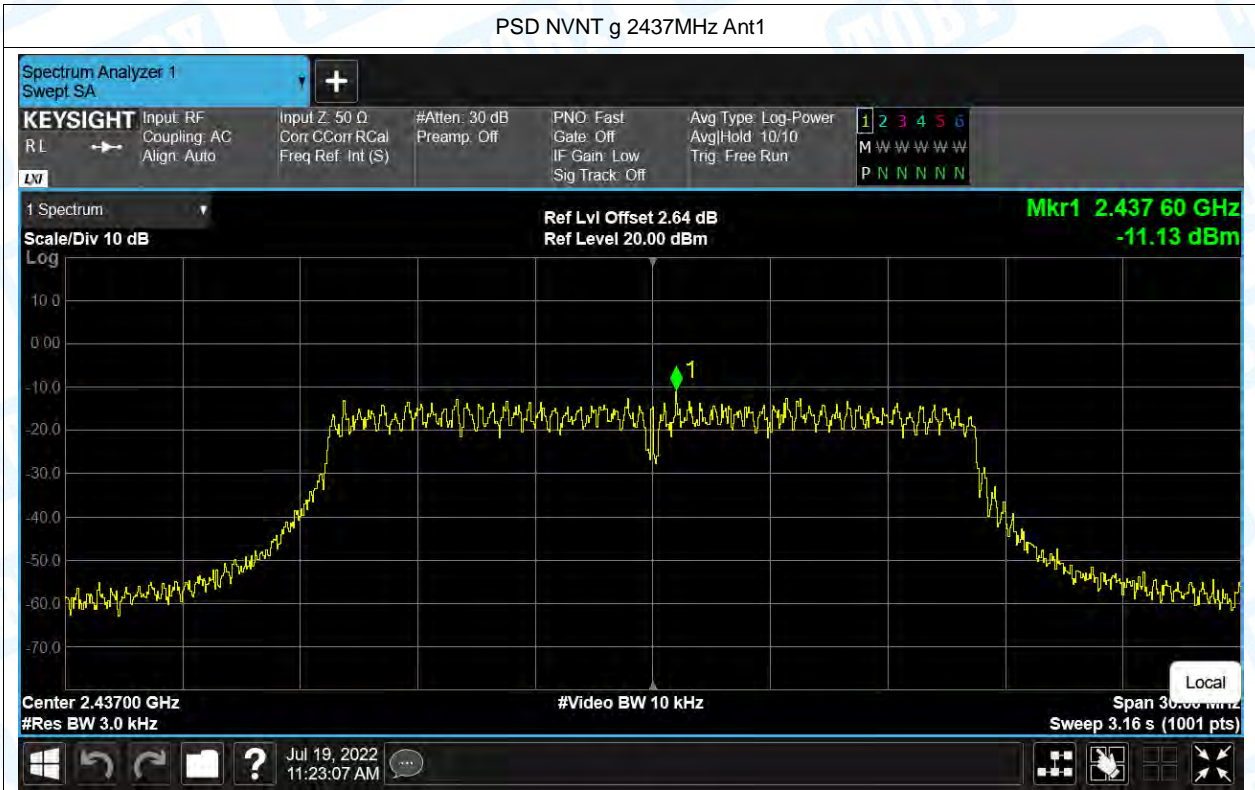
PSD NVNT b 2412MHz Ant1

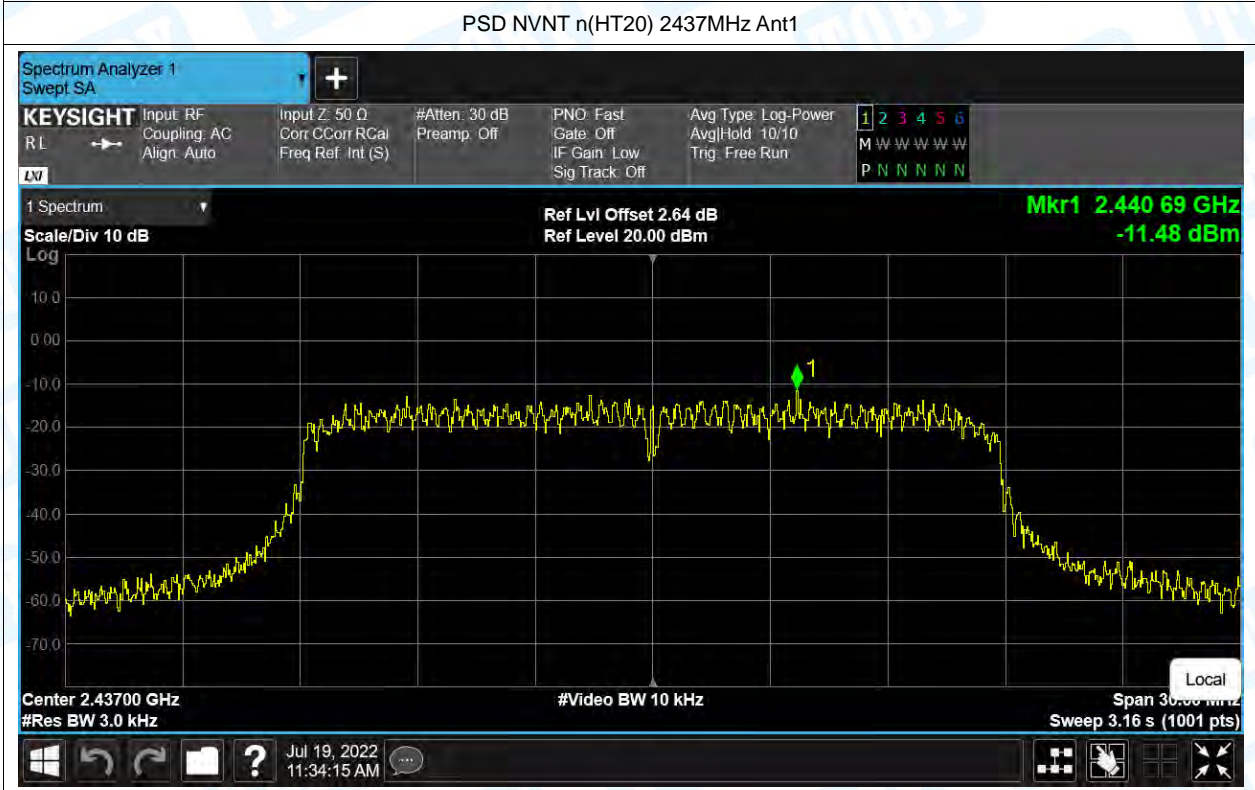
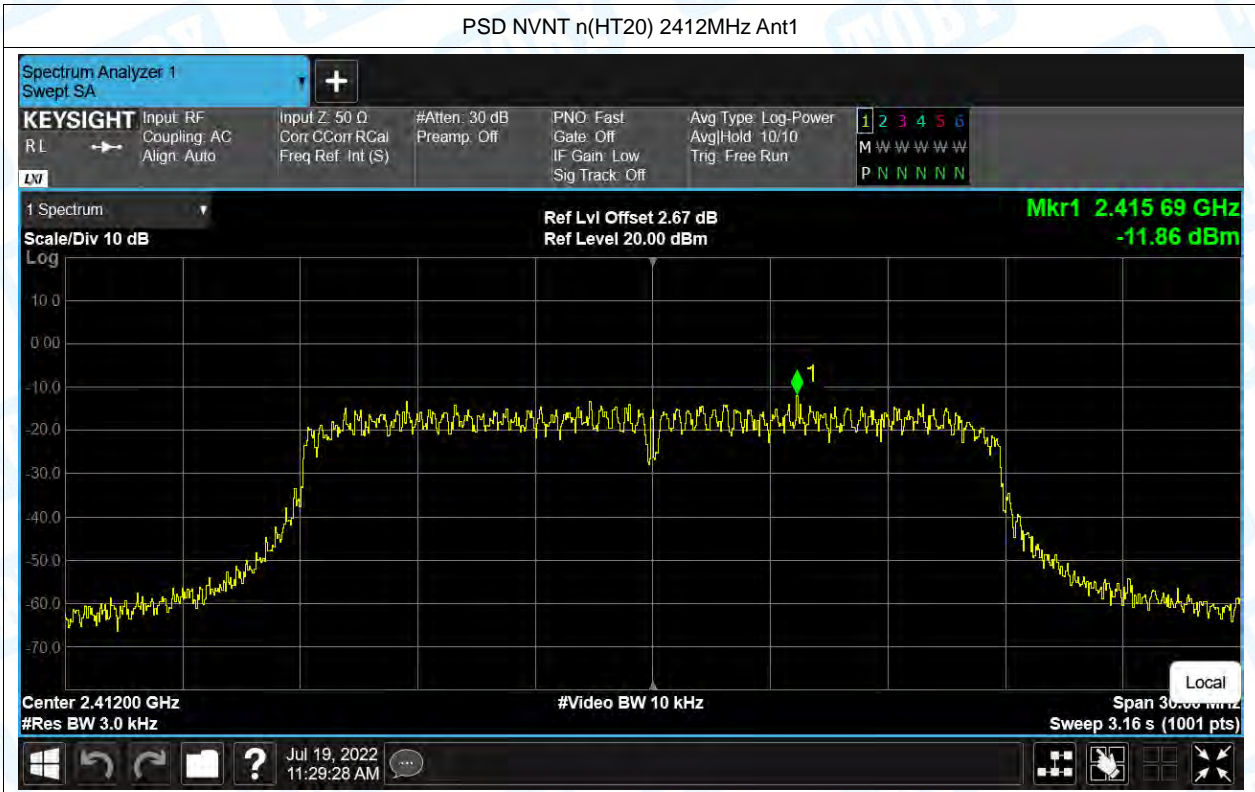


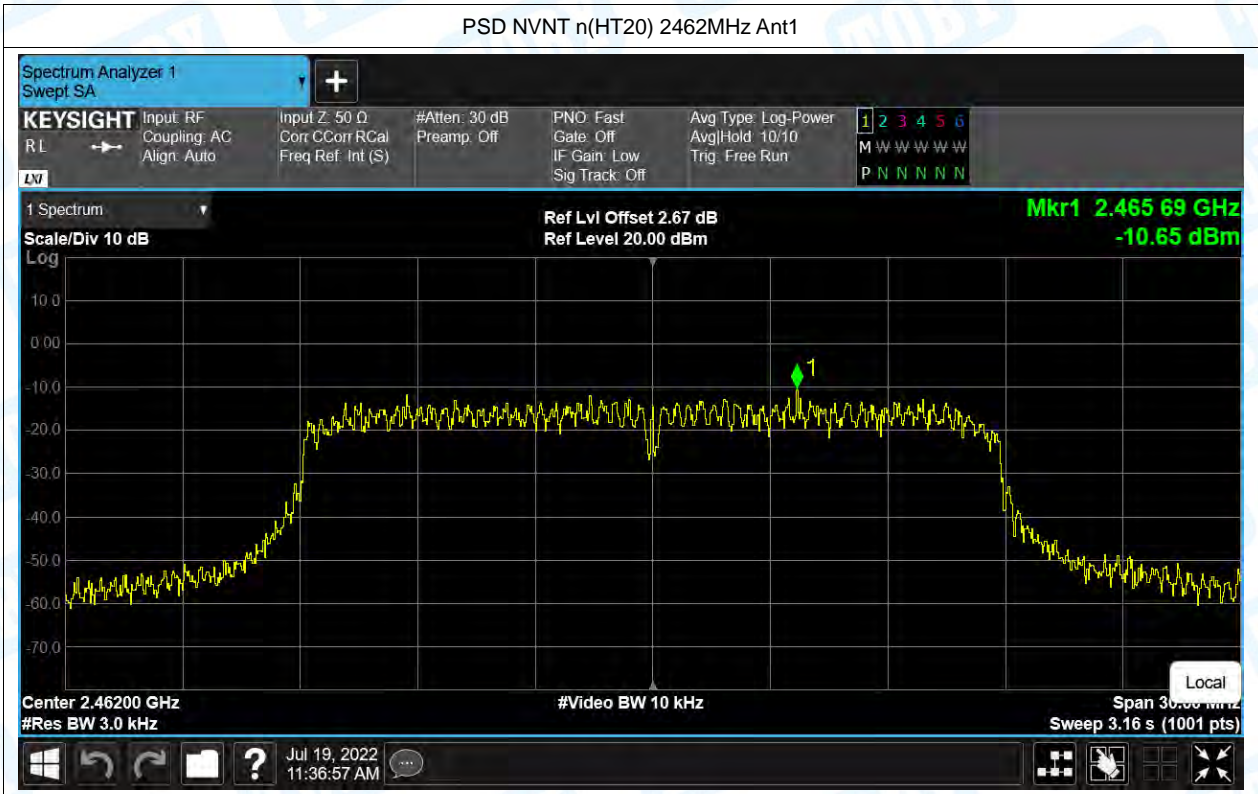
PSD NVNT b 2437MHz Ant1











6. Band Edge

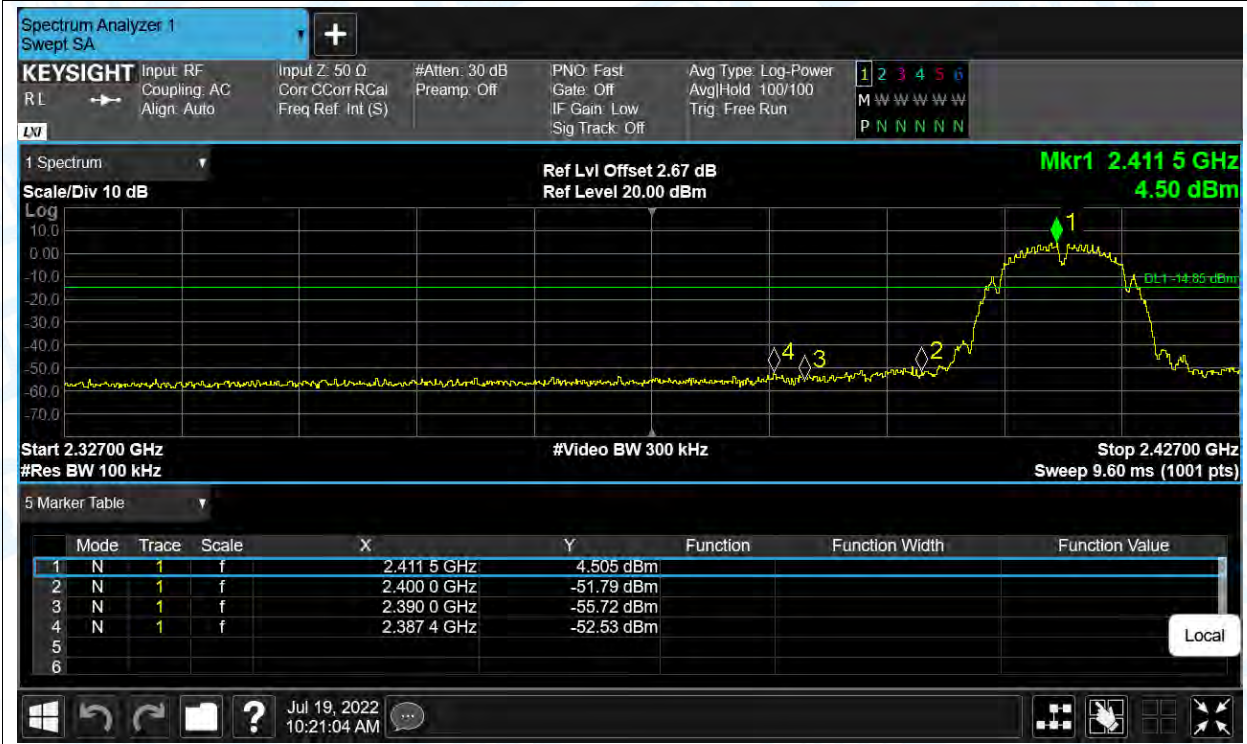
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-57.68	-20	Pass
NVNT	b	2462	Ant1	-57.75	-20	Pass
NVNT	g	2412	Ant1	-49.44	-20	Pass
NVNT	g	2462	Ant1	-51.02	-20	Pass
NVNT	n(HT20)	2412	Ant1	-50.2	-20	Pass
NVNT	n(HT20)	2462	Ant1	-48.06	-20	Pass

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



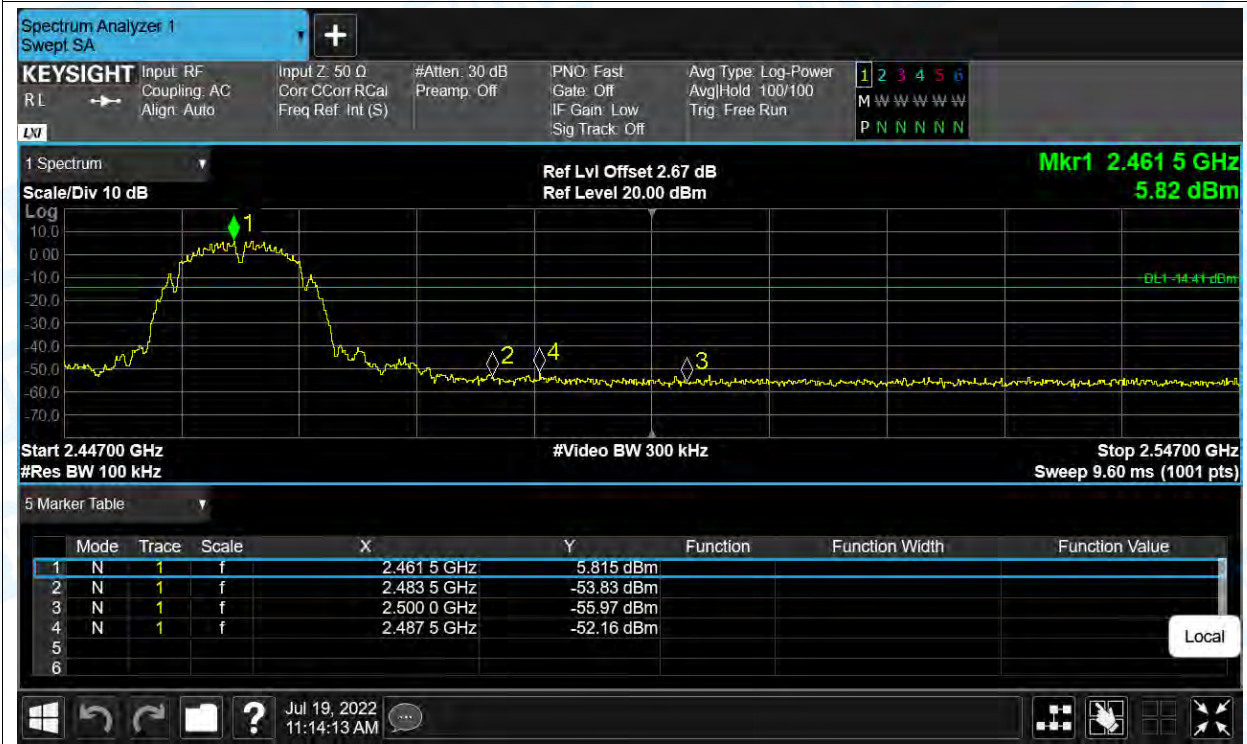
Band Edge NVNT b 2412MHz Ant1 Emission

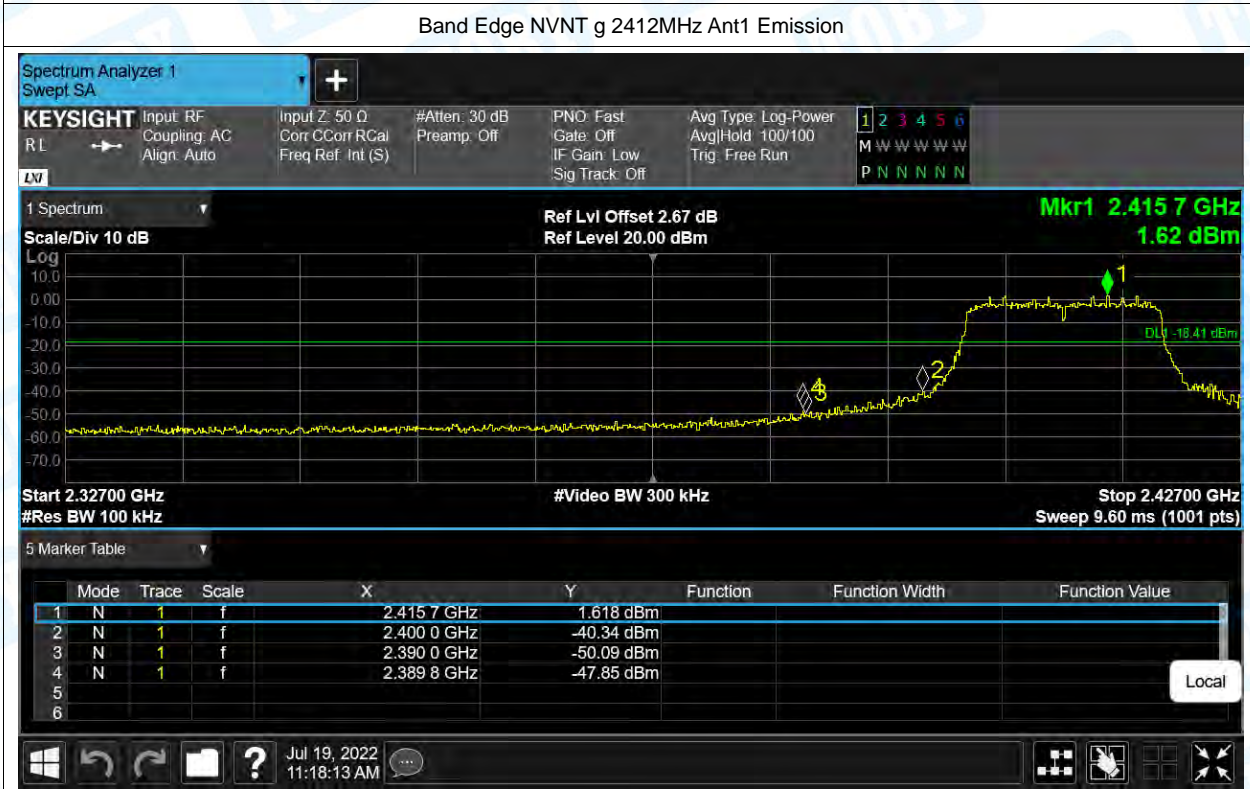


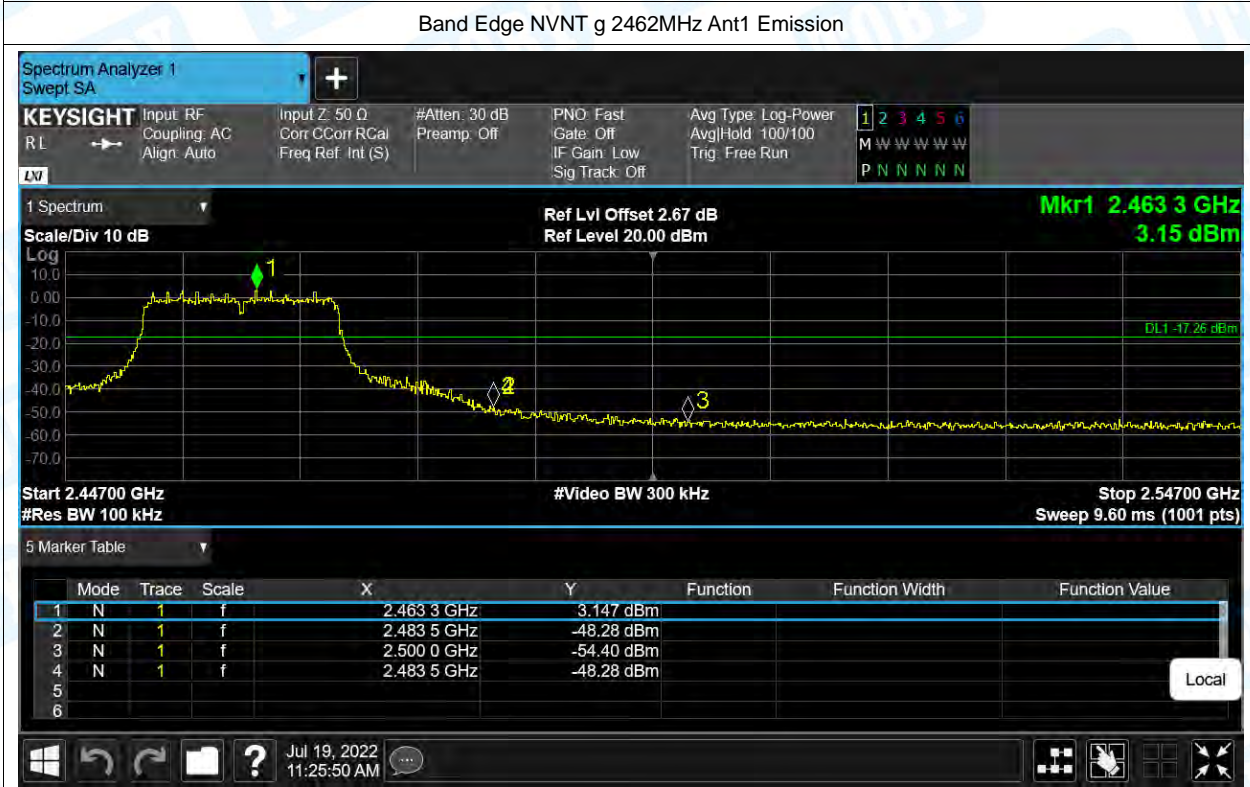
Band Edge NVNT b 2462MHz Ant1 Ref

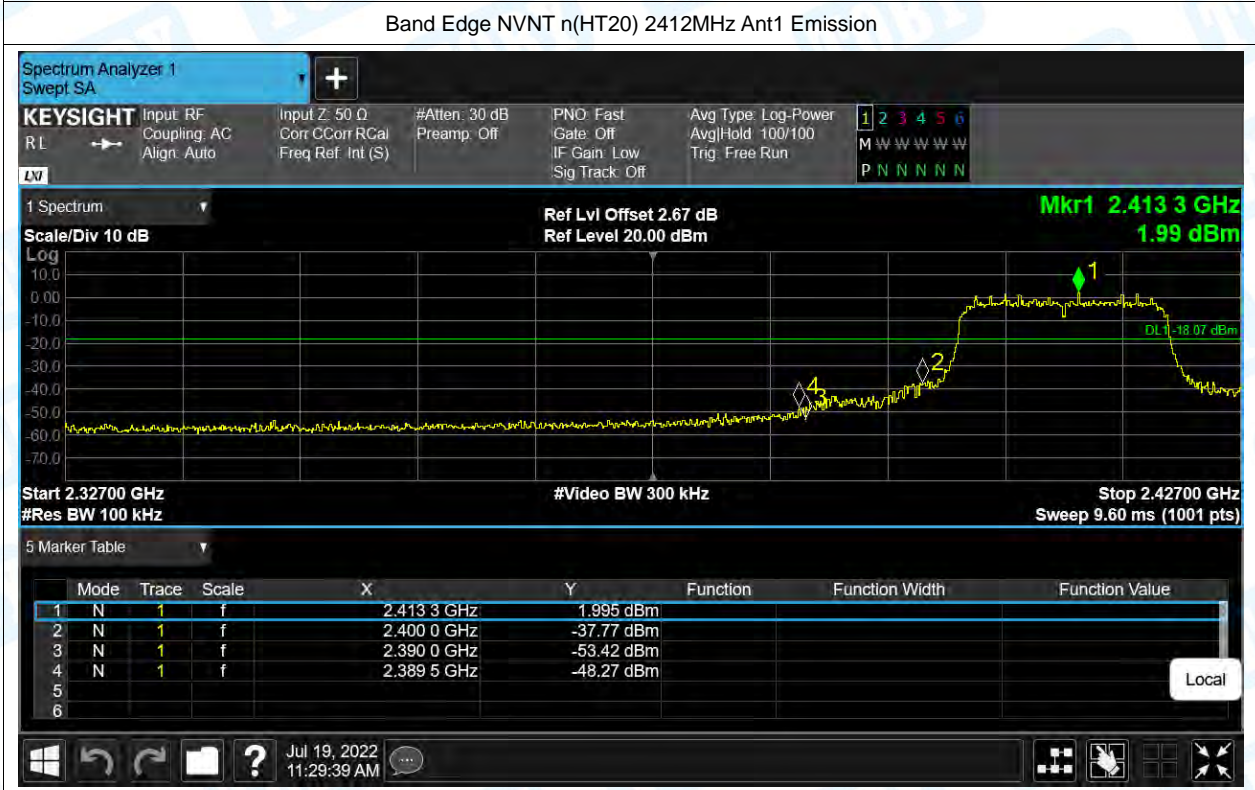
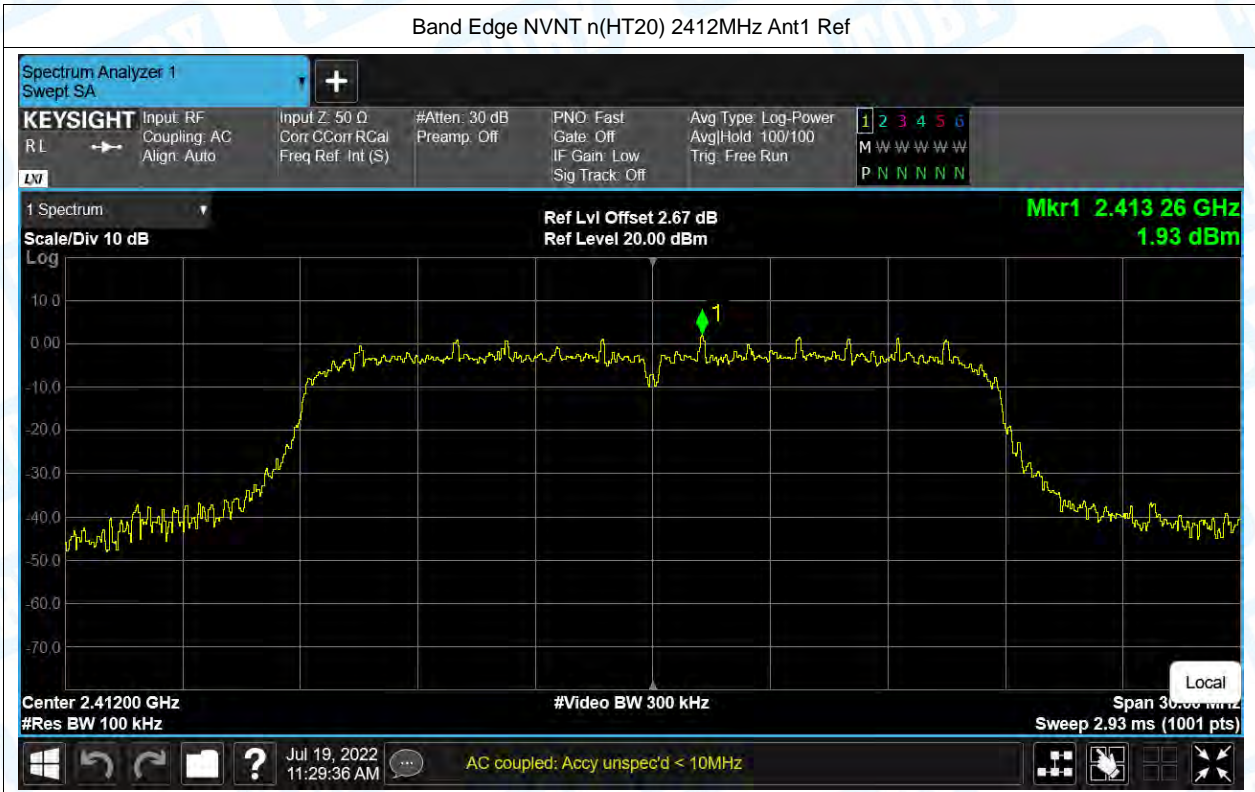


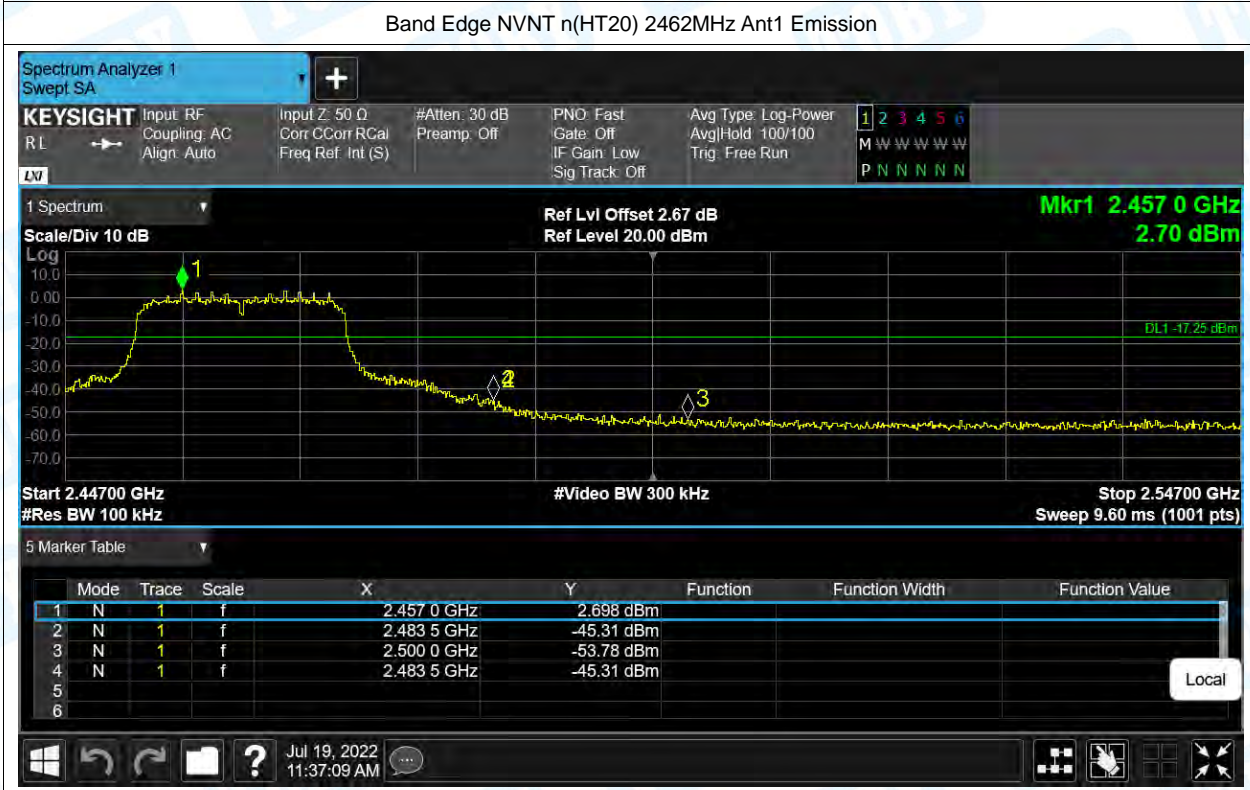
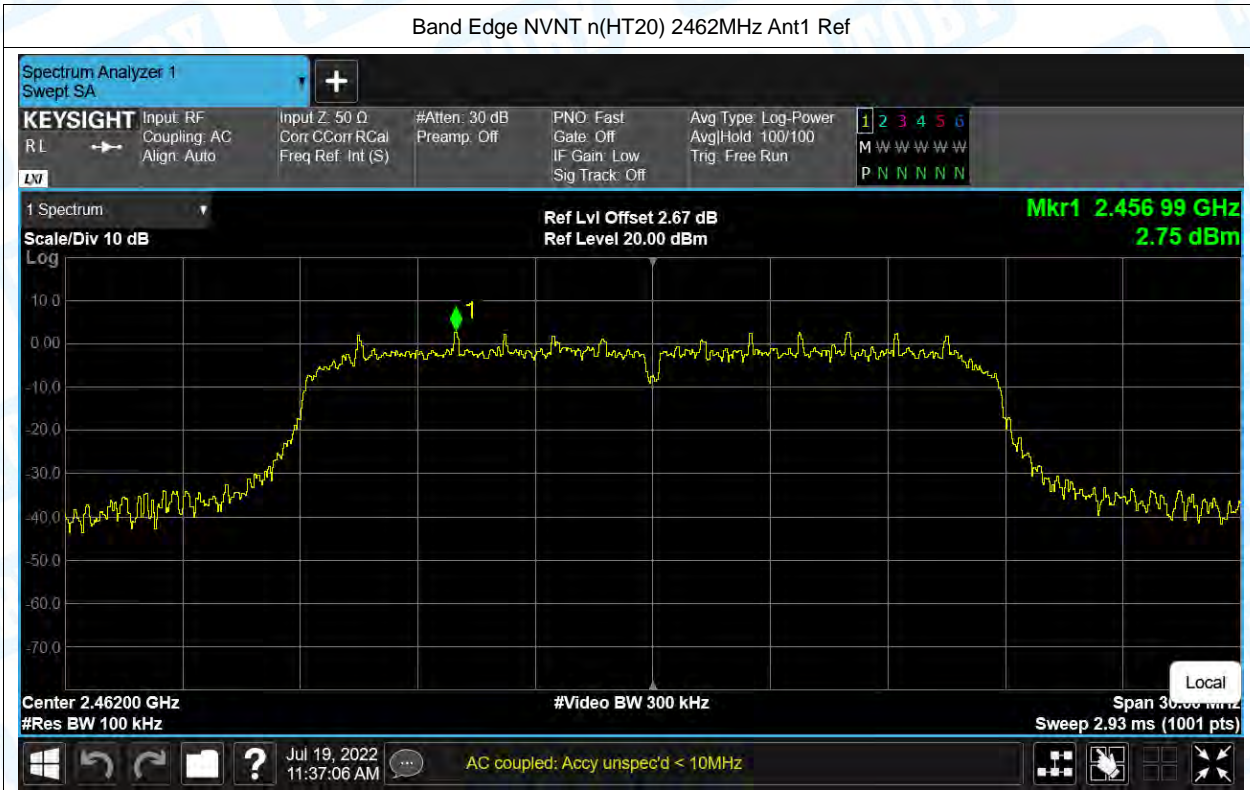
Band Edge NVNT b 2462MHz Ant1 Emission











7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-46.23	-20	Pass
NVNT	b	2437	Ant1	-47.4	-20	Pass
NVNT	b	2462	Ant1	-48.76	-20	Pass
NVNT	g	2412	Ant1	-43.8	-20	Pass
NVNT	g	2437	Ant1	-43.08	-20	Pass
NVNT	g	2462	Ant1	-44.79	-20	Pass
NVNT	n(HT20)	2412	Ant1	-42.47	-20	Pass
NVNT	n(HT20)	2437	Ant1	-43.72	-20	Pass
NVNT	n(HT20)	2462	Ant1	-44.59	-20	Pass

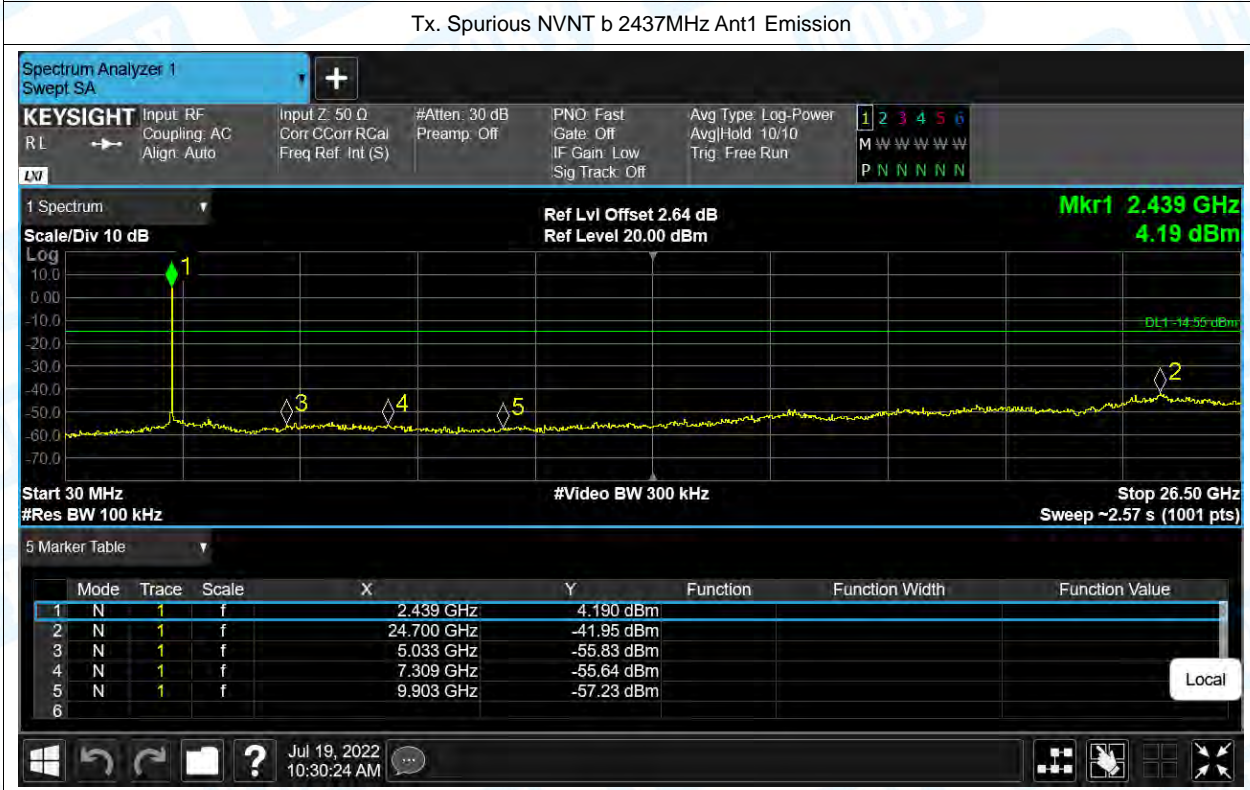
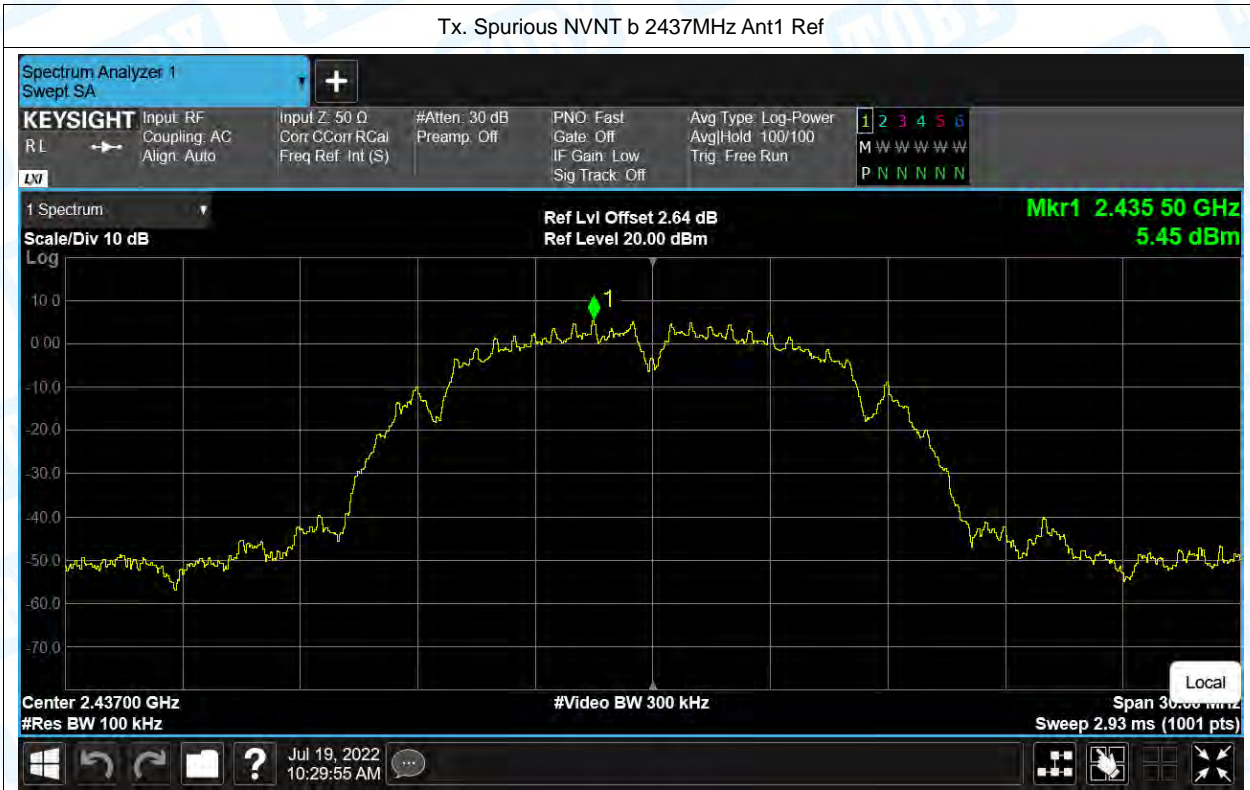
Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission

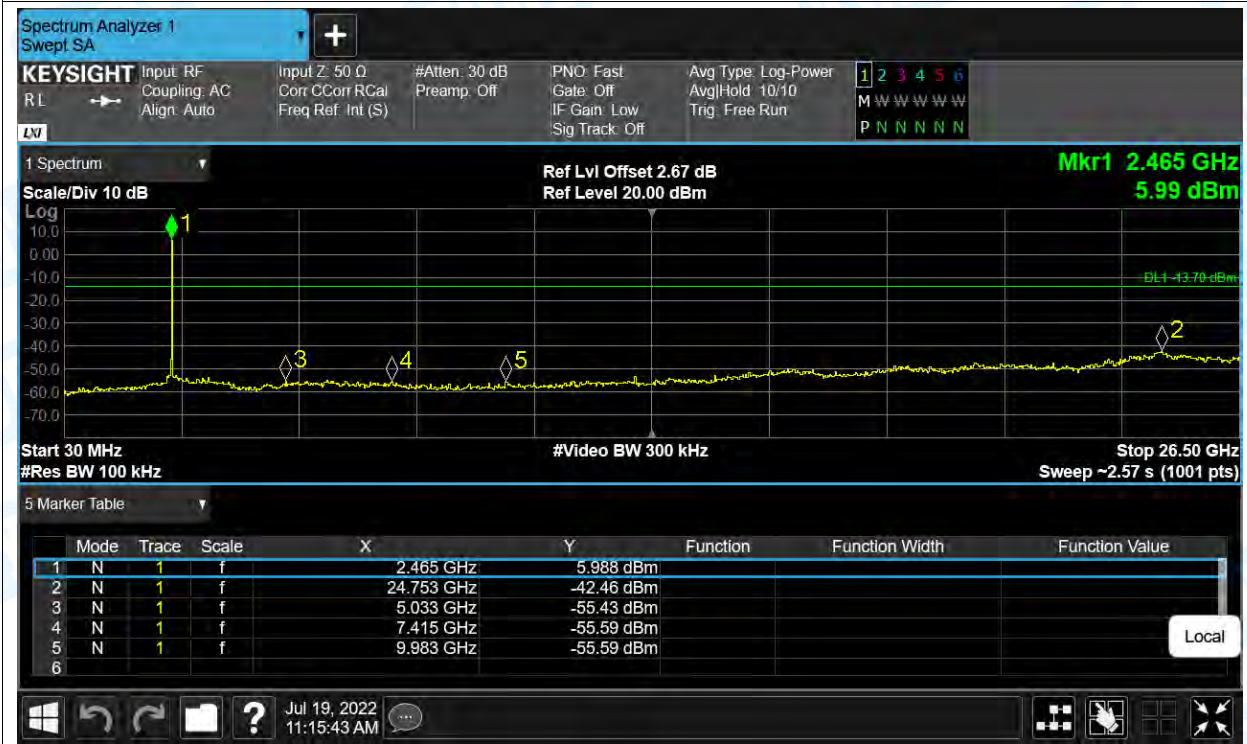




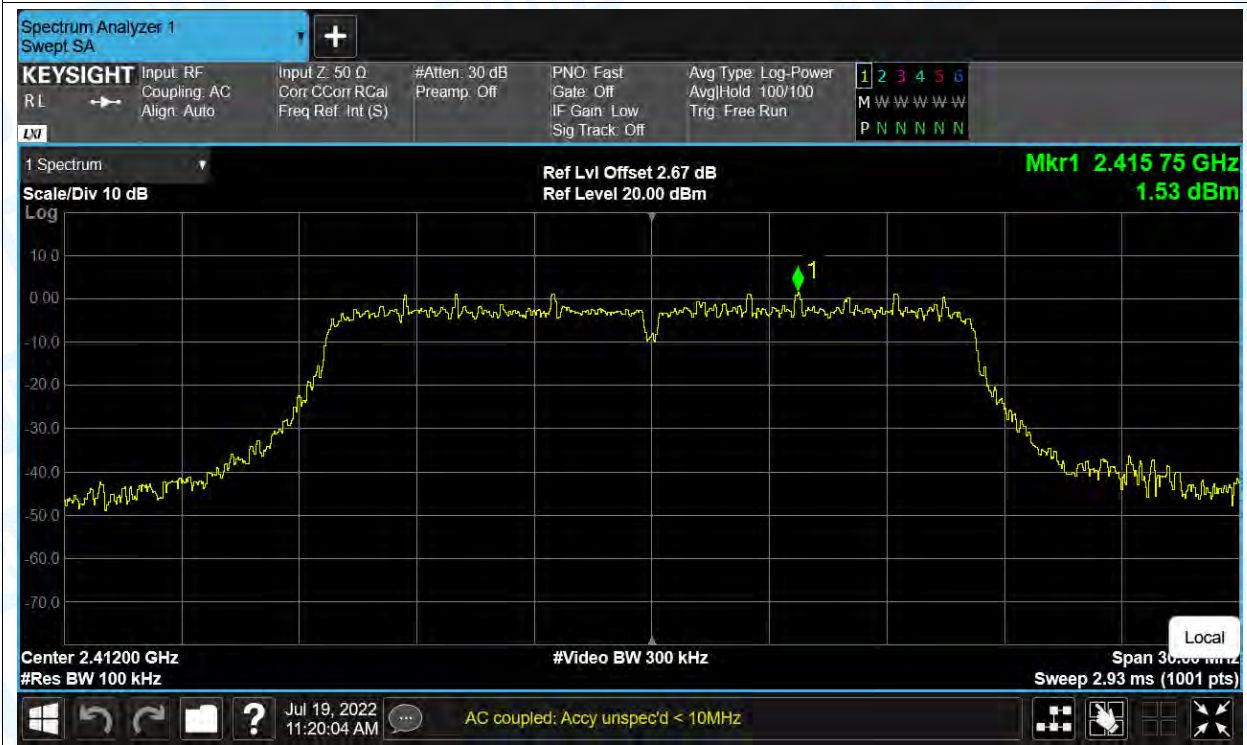
Tx. Spurious NVNT b 2462MHz Ant1 Ref



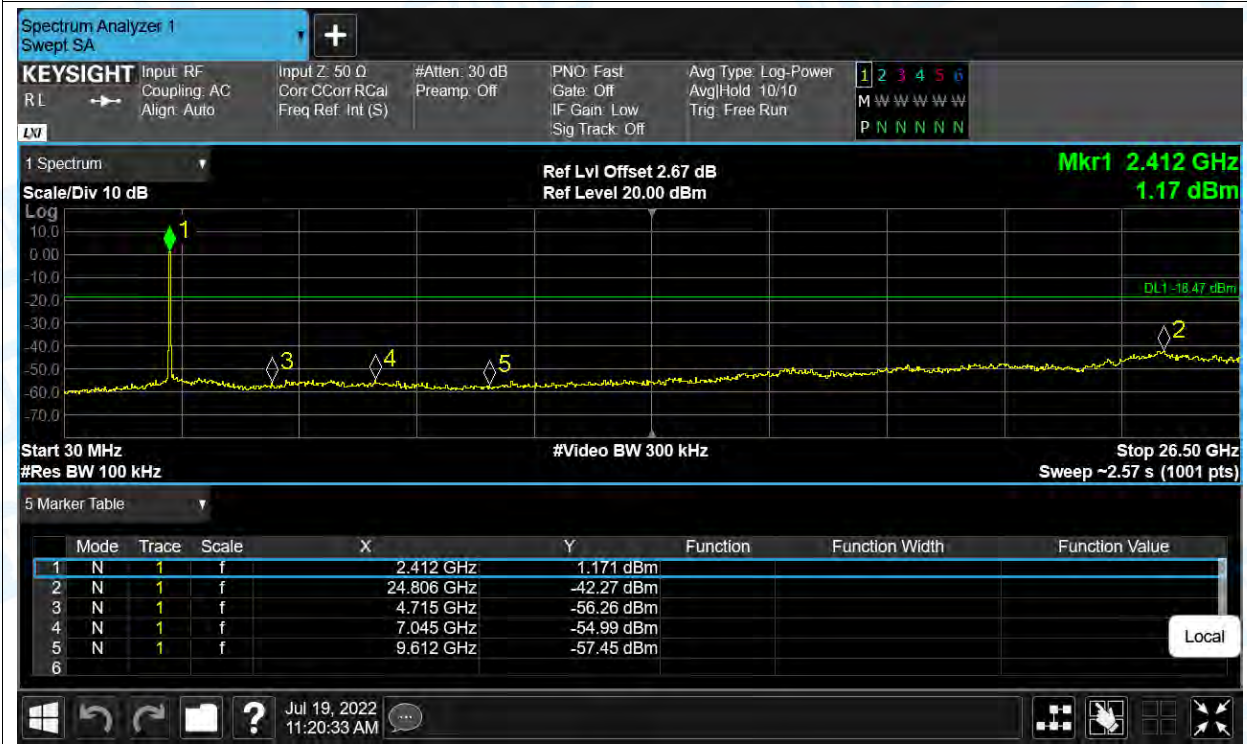
Tx. Spurious NVNT b 2462MHz Ant1 Emission



Tx. Spurious NVNT g 2412MHz Ant1 Ref



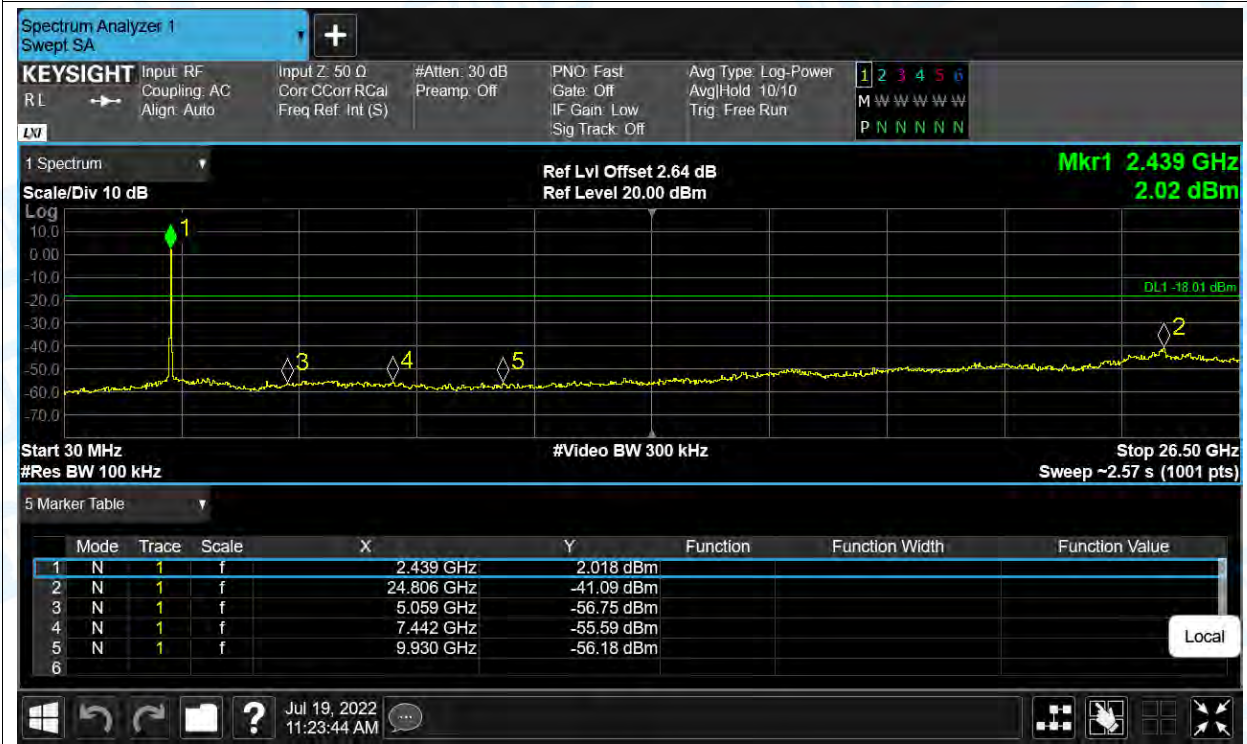
Tx. Spurious NVNT g 2412MHz Ant1 Emission



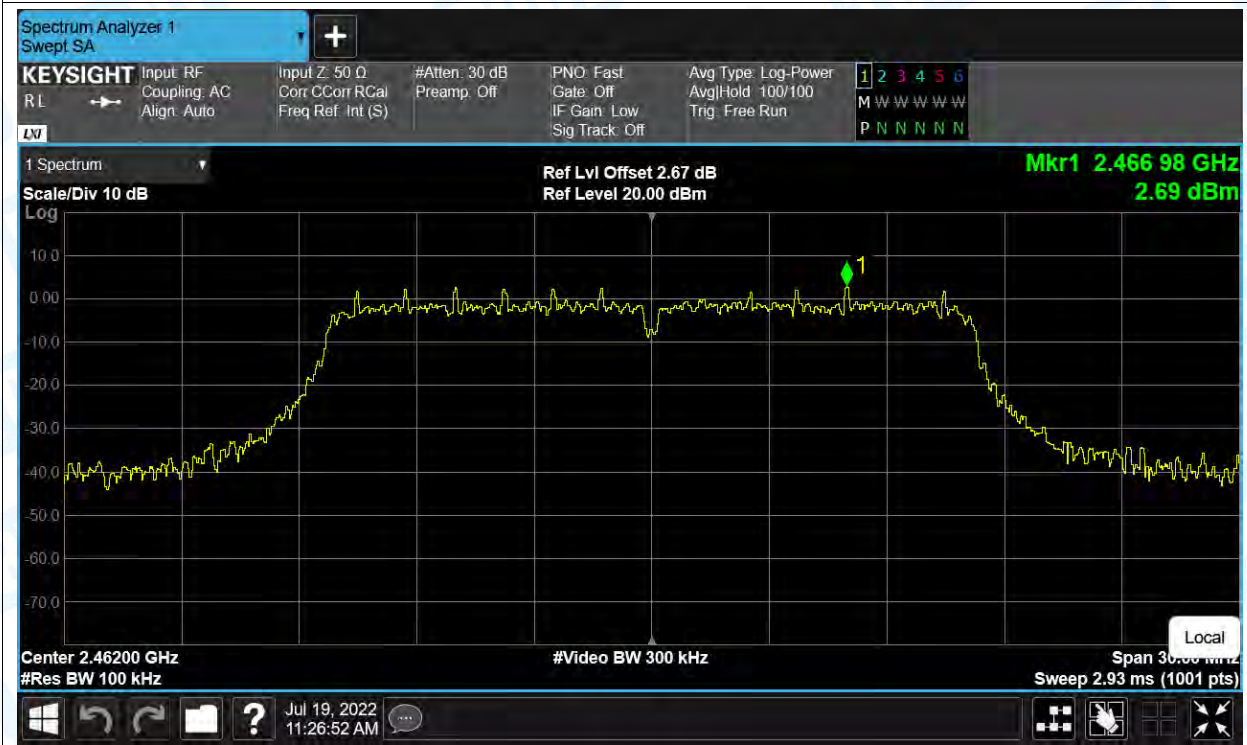
Tx. Spurious NVNT g 2437MHz Ant1 Ref



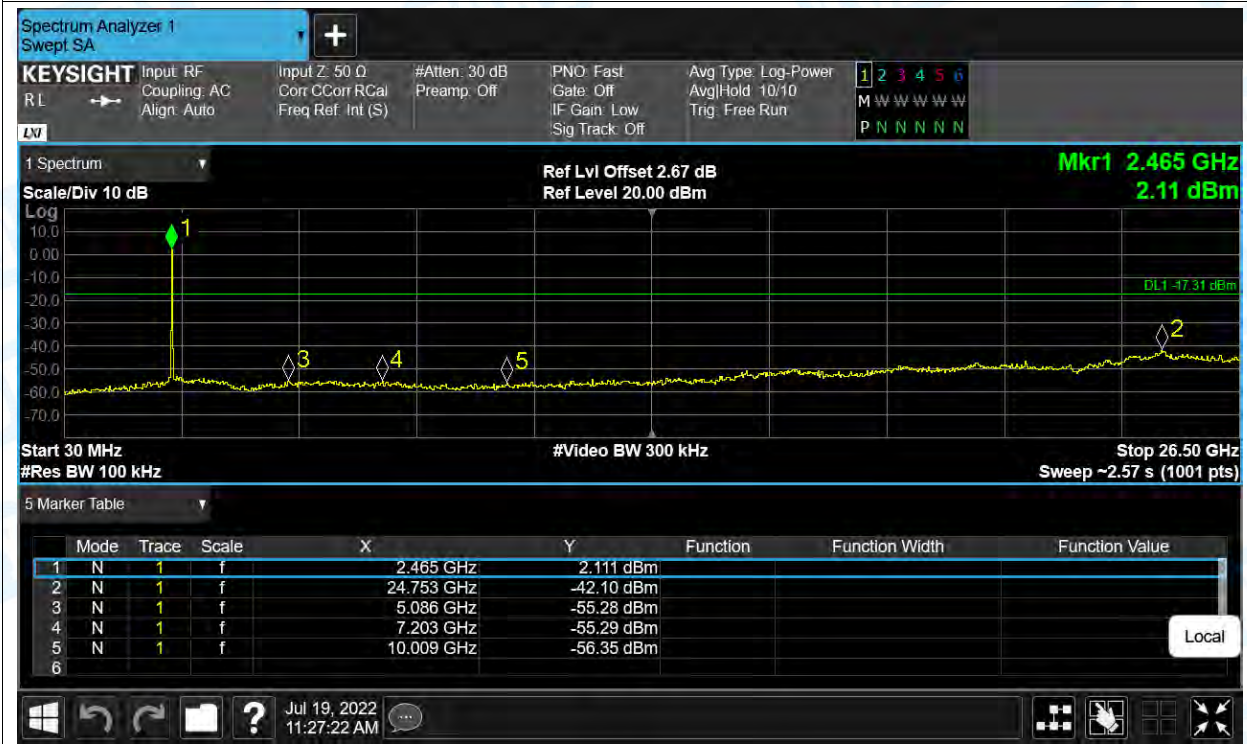
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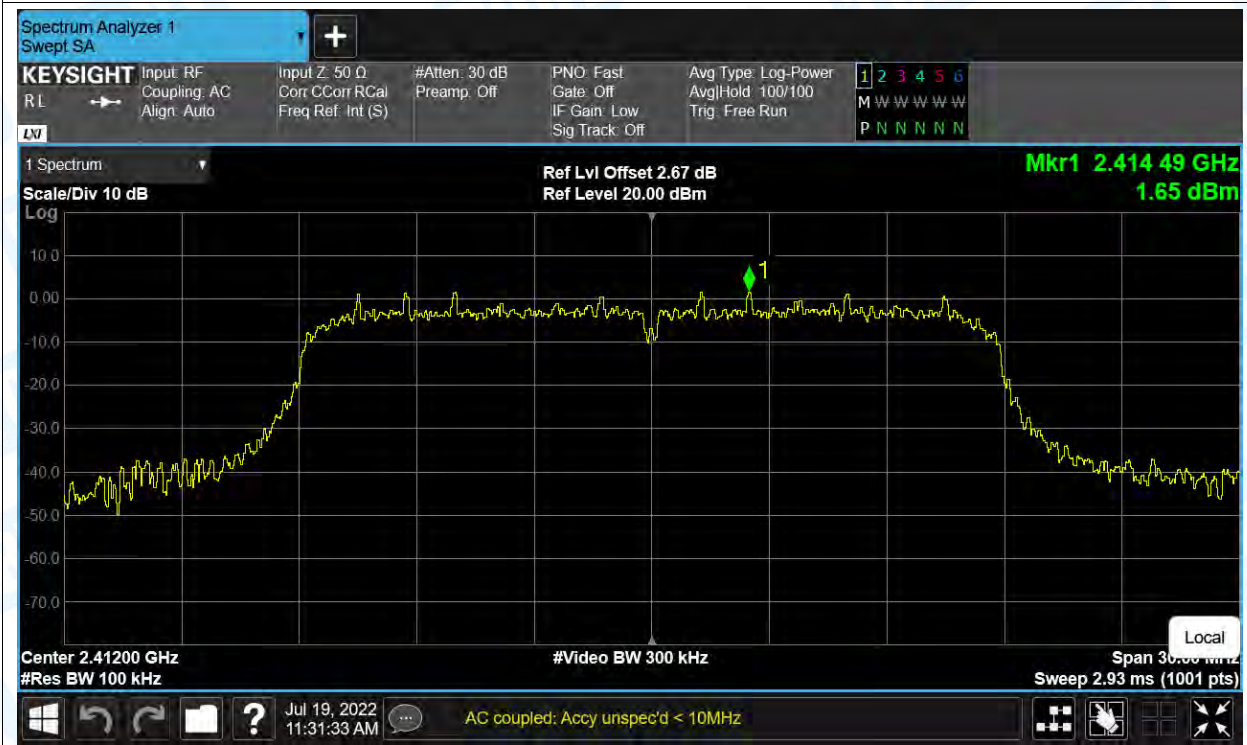
Tx. Spurious NVNT g 2462MHz Ant1 Ref



Tx. Spurious NVNT g 2462MHz Ant1 Emission

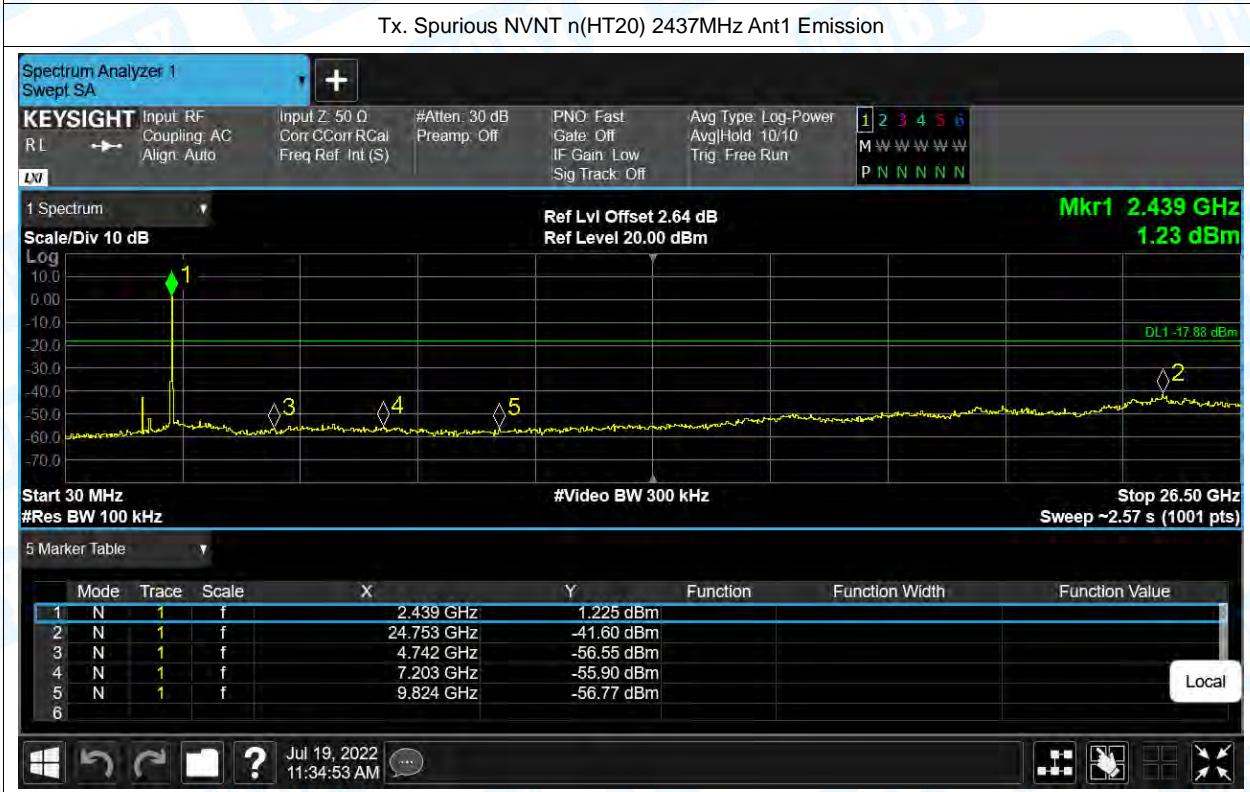
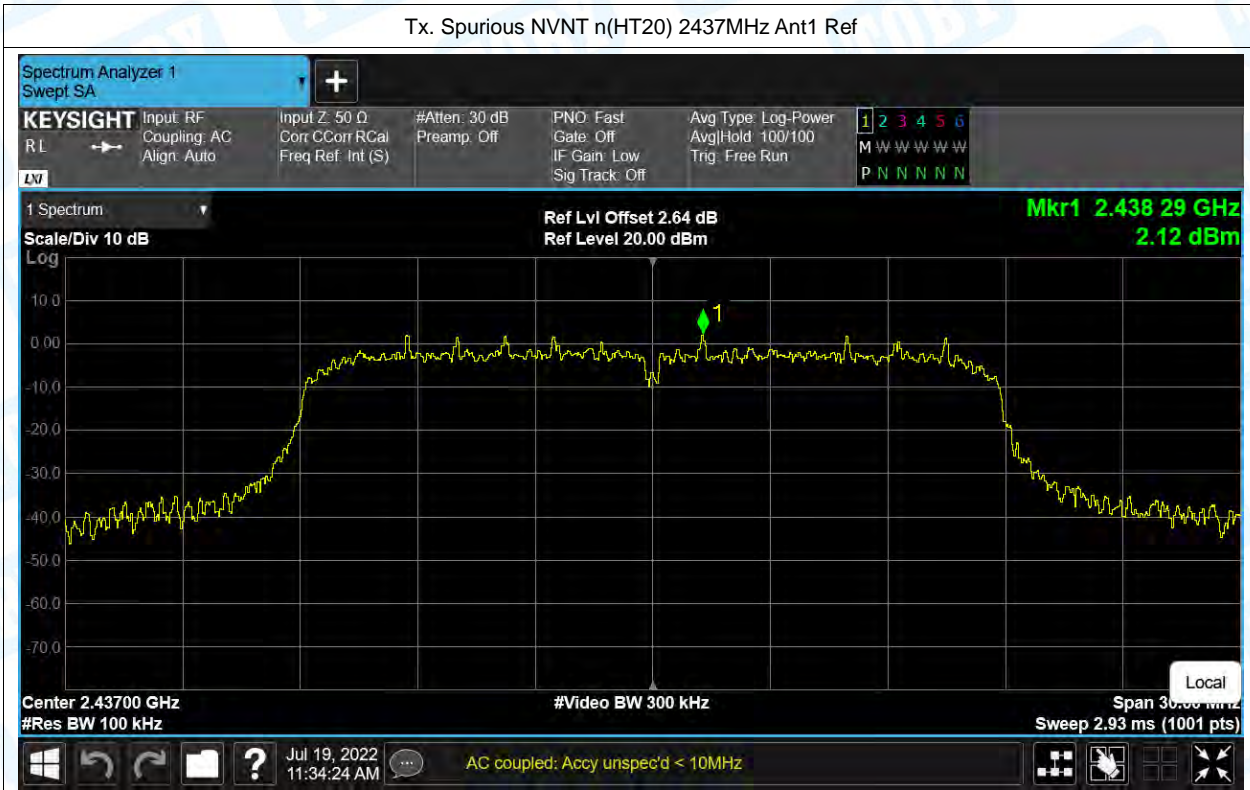


Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref

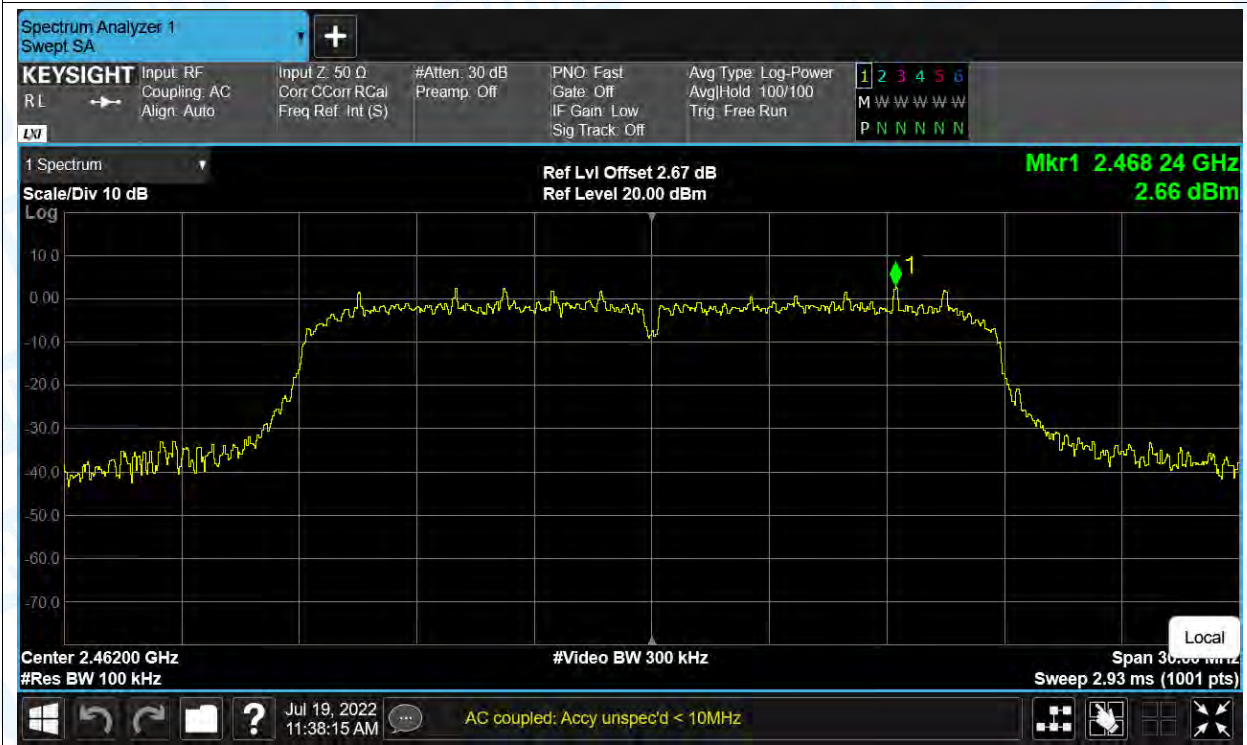


Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission

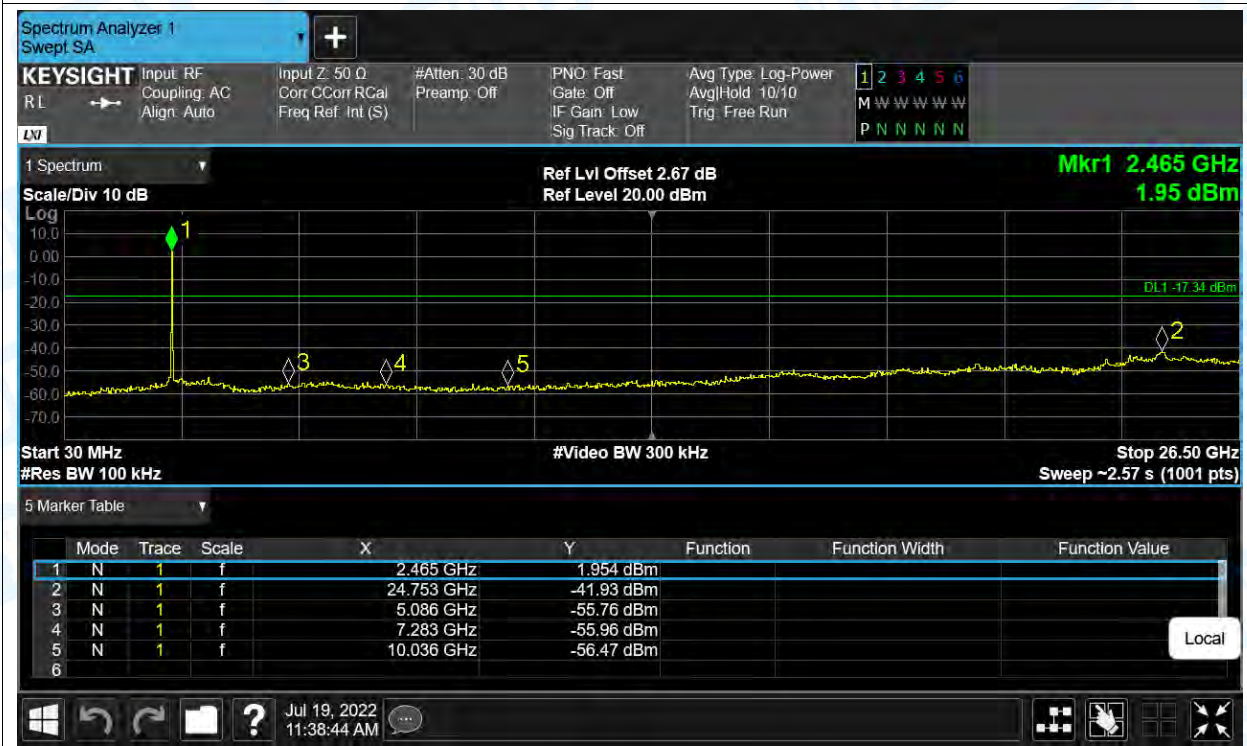




Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref



Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission

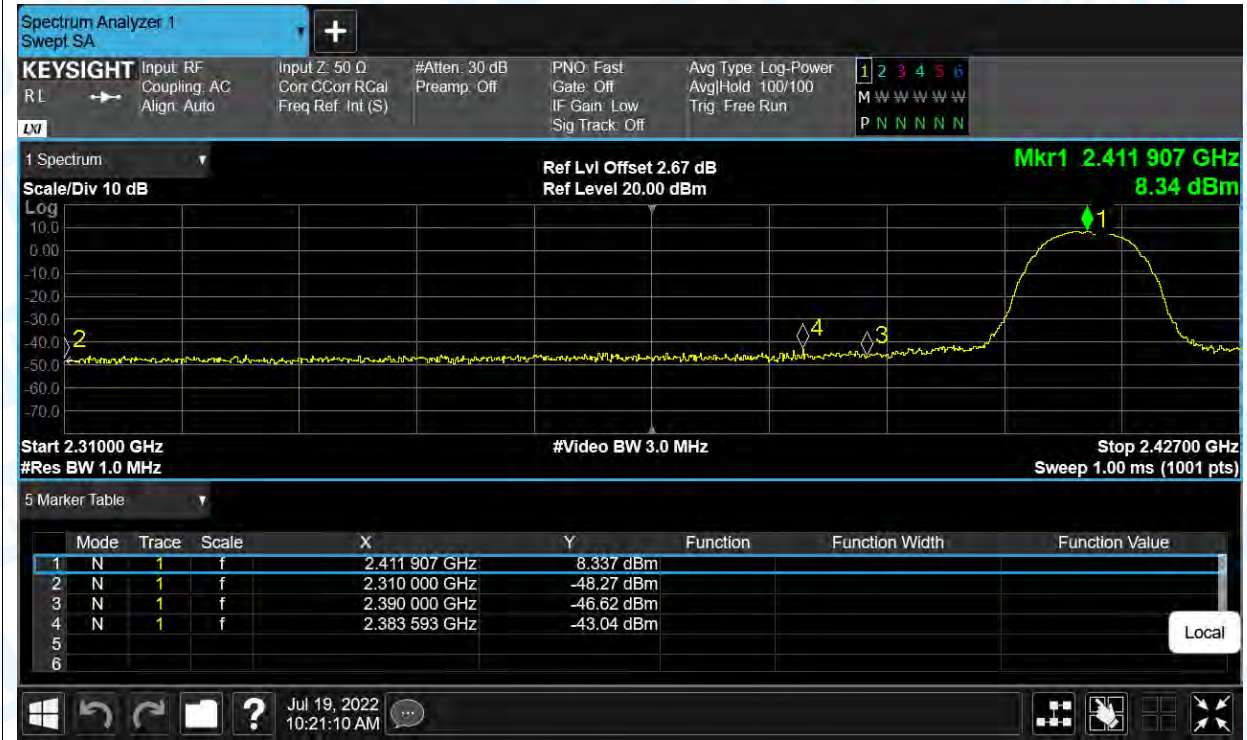


8. Restrict Band

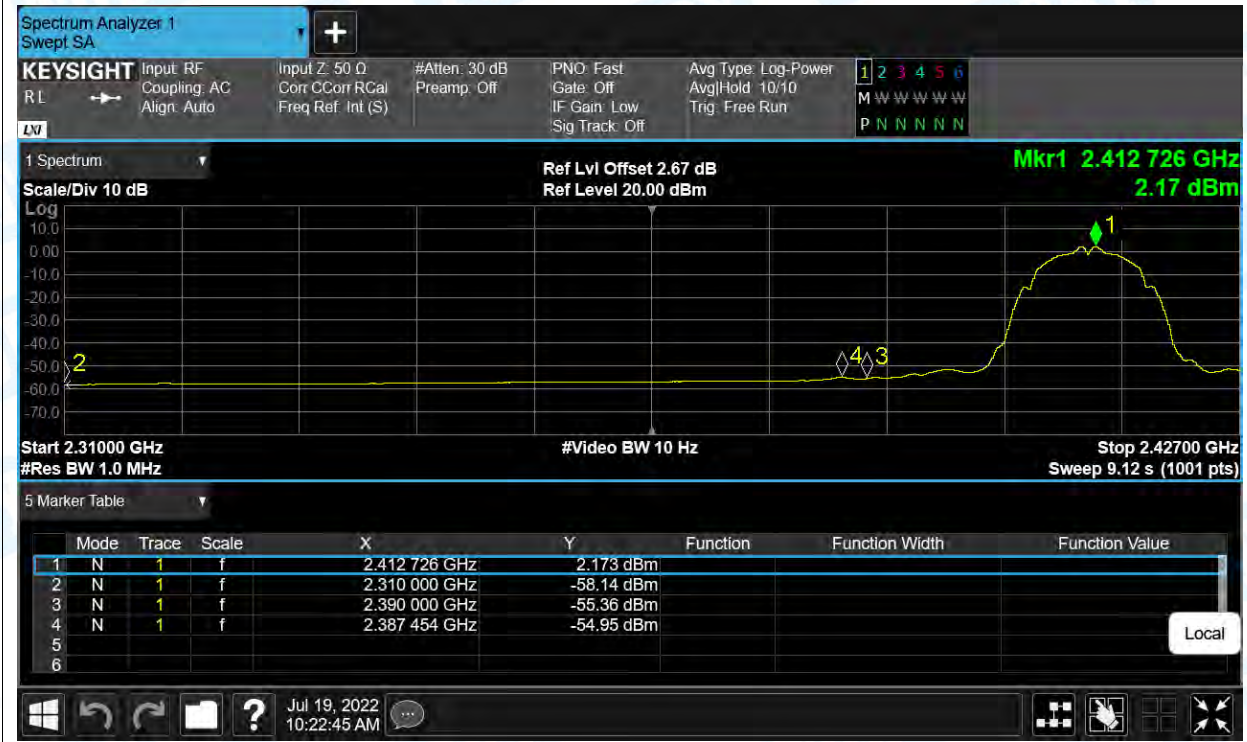
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-48.27	2	48.99	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-58.14	2	39.12	Average	54	Pass
NVNT	b	2412	Ant1	2383.593	-43.04	2	54.22	Peak	74	Pass
NVNT	b	2412	Ant1	2387.454	-54.95	2	42.31	Average	54	Pass
NVNT	b	2412	Ant1	2390	-46.62	2	50.64	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-55.36	2	41.9	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-44.42	2	52.84	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-54.8	2	42.46	Average	54	Pass
NVNT	b	2462	Ant1	2498.993	-42.81	2	54.45	Peak	74	Pass
NVNT	b	2462	Ant1	2483.517	-54.8	2	42.46	Average	54	Pass
NVNT	b	2462	Ant1	2500	-45.97	2	51.29	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-56.17	2	41.09	Average	54	Pass
NVNT	g	2412	Ant1	2310	-48.27	2	48.99	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-58.11	2	39.15	Average	54	Pass
NVNT	g	2412	Ant1	2389.56	-33.72	2	63.54	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-53.19	2	44.07	Average	54	Pass
NVNT	g	2412	Ant1	2390	-39.64	2	57.62	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-53.15	2	44.11	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-38.87	2	58.39	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-51.32	2	45.94	Average	54	Pass
NVNT	g	2462	Ant1	2483.57	-34	2	63.26	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-51.32	2	45.94	Average	54	Pass
NVNT	g	2462	Ant1	2500	-42.18	2	55.08	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-55.52	2	41.74	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-46.79	2	50.47	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-58.12	2	39.14	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2385.348	-36.22	2	61.04	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-53.2	2	44.06	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-39.36	2	57.9	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-53.13	2	44.13	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-32.33	2	64.93	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-51.01	2	46.25	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.941	-31.93	2	65.33	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-51.01	2	46.25	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-42.75	2	54.51	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-55.56	2	41.7	Average	54	Pass

Test Graphs

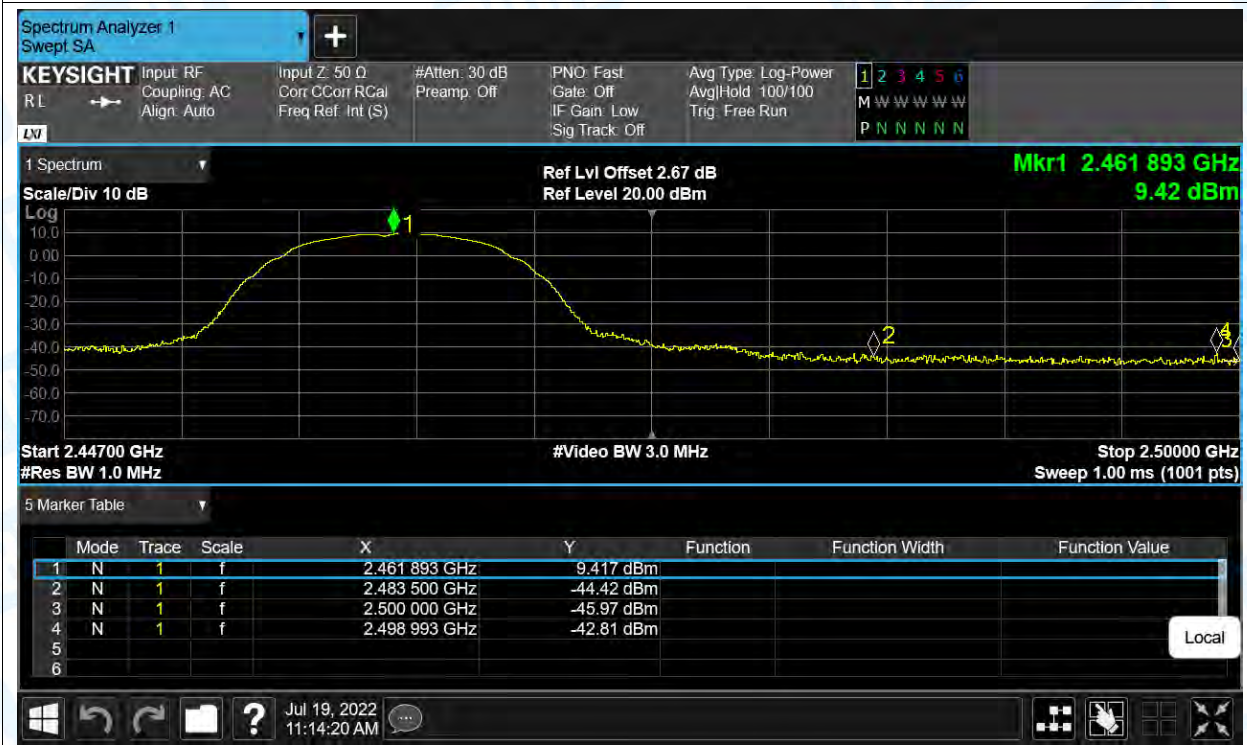
Restrict Band NVNT b 2412MHz Ant1 Peak



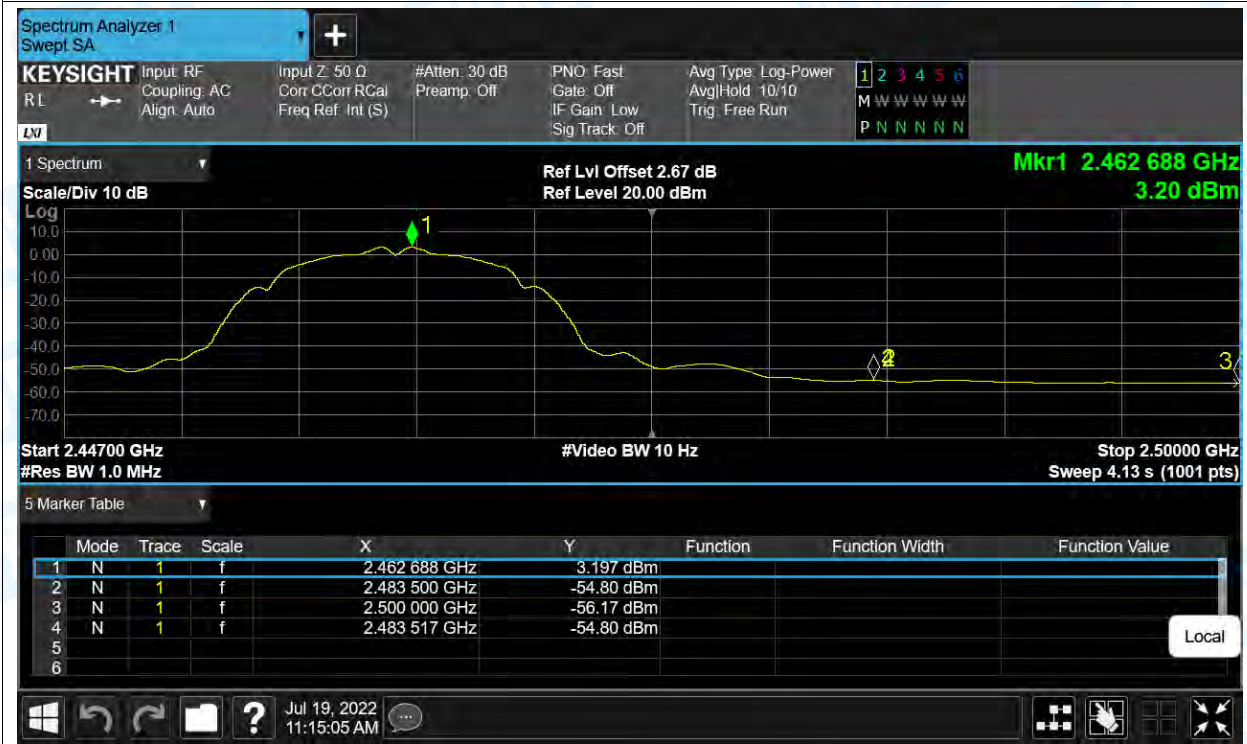
Restrict Band NVNT b 2412MHz Ant1 Average



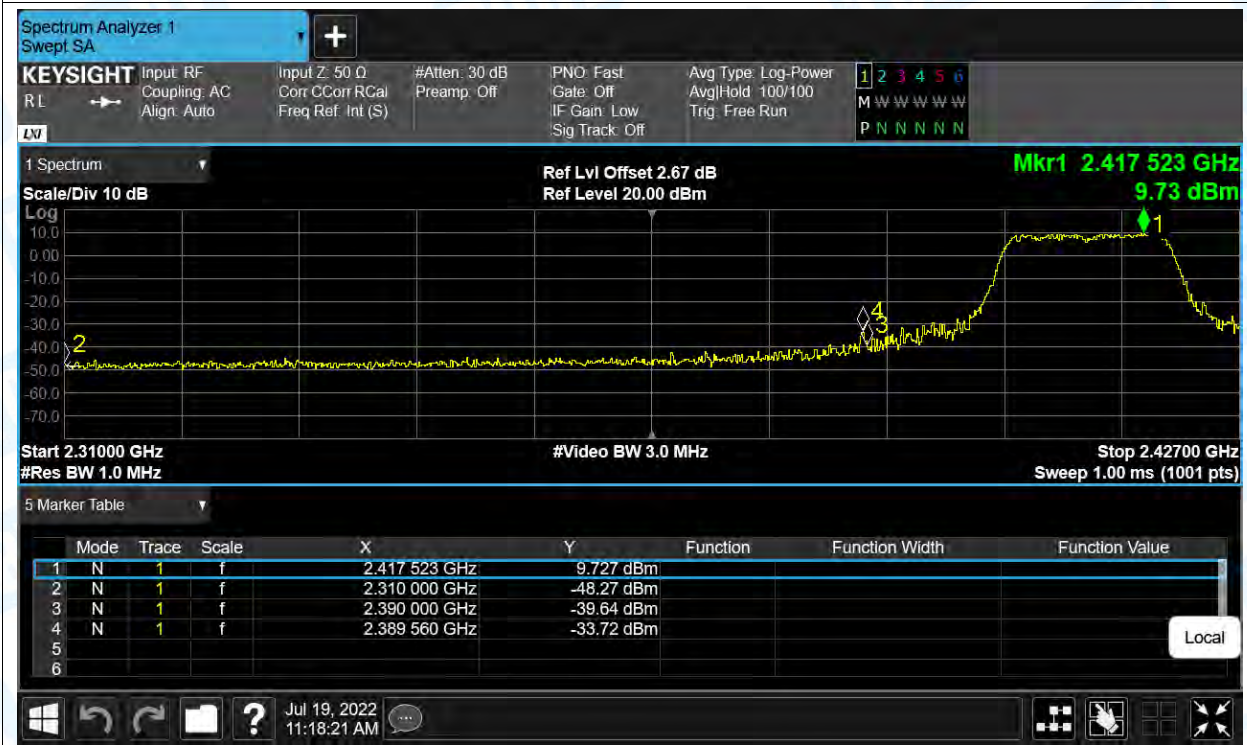
Restrict Band NVNT b 2462MHz Ant1 Peak



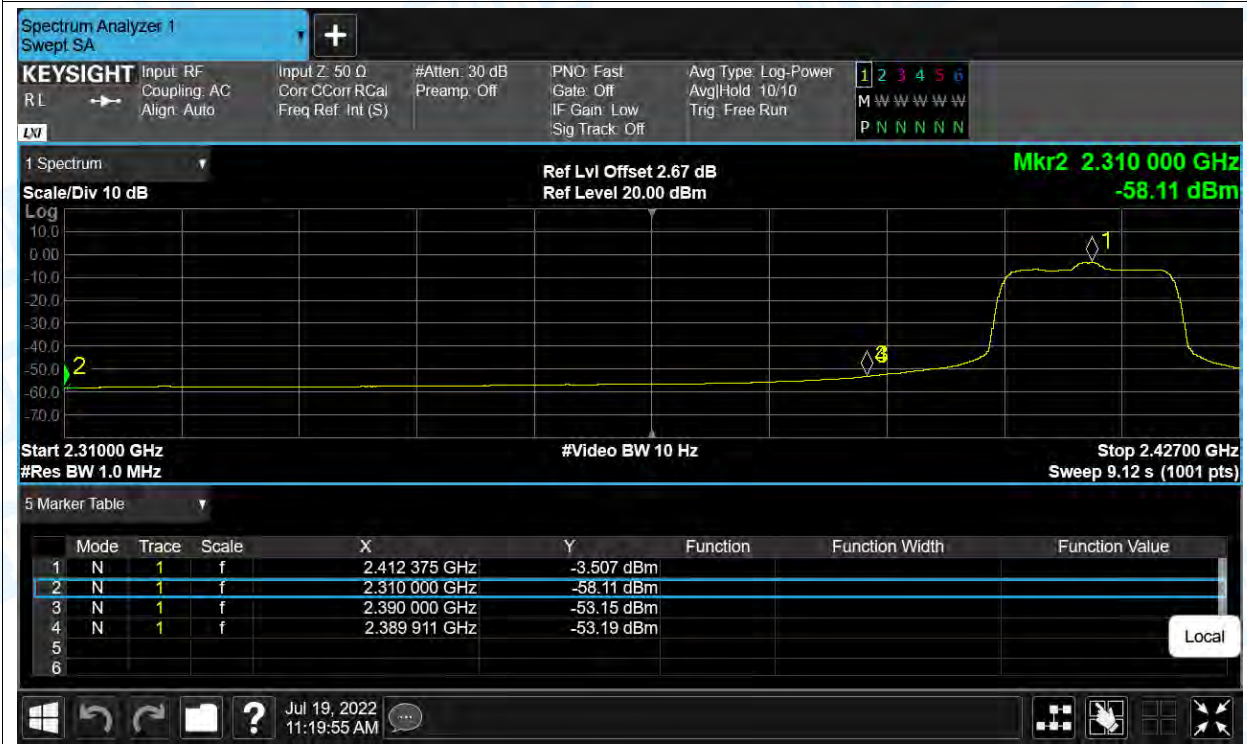
Restrict Band NVNT b 2462MHz Ant1 Average



Restrict Band NVNT g 2412MHz Ant1 Peak



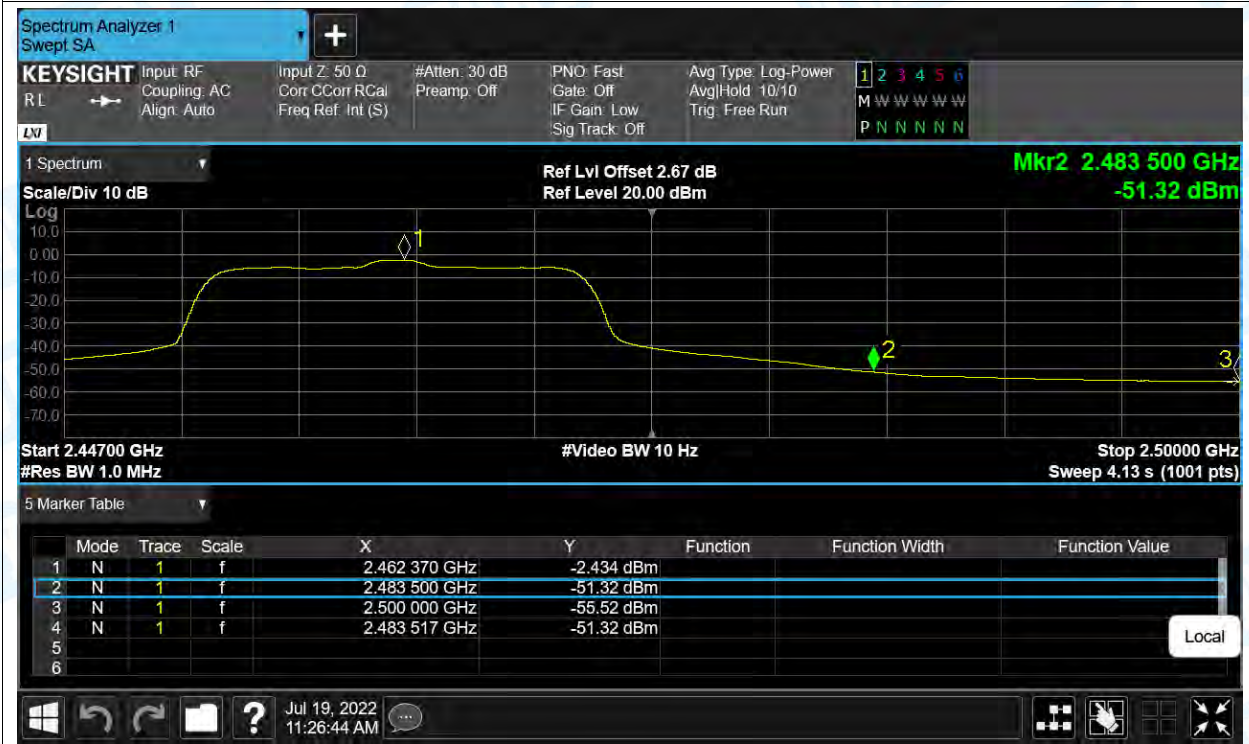
Restrict Band NVNT g 2412MHz Ant1 Average



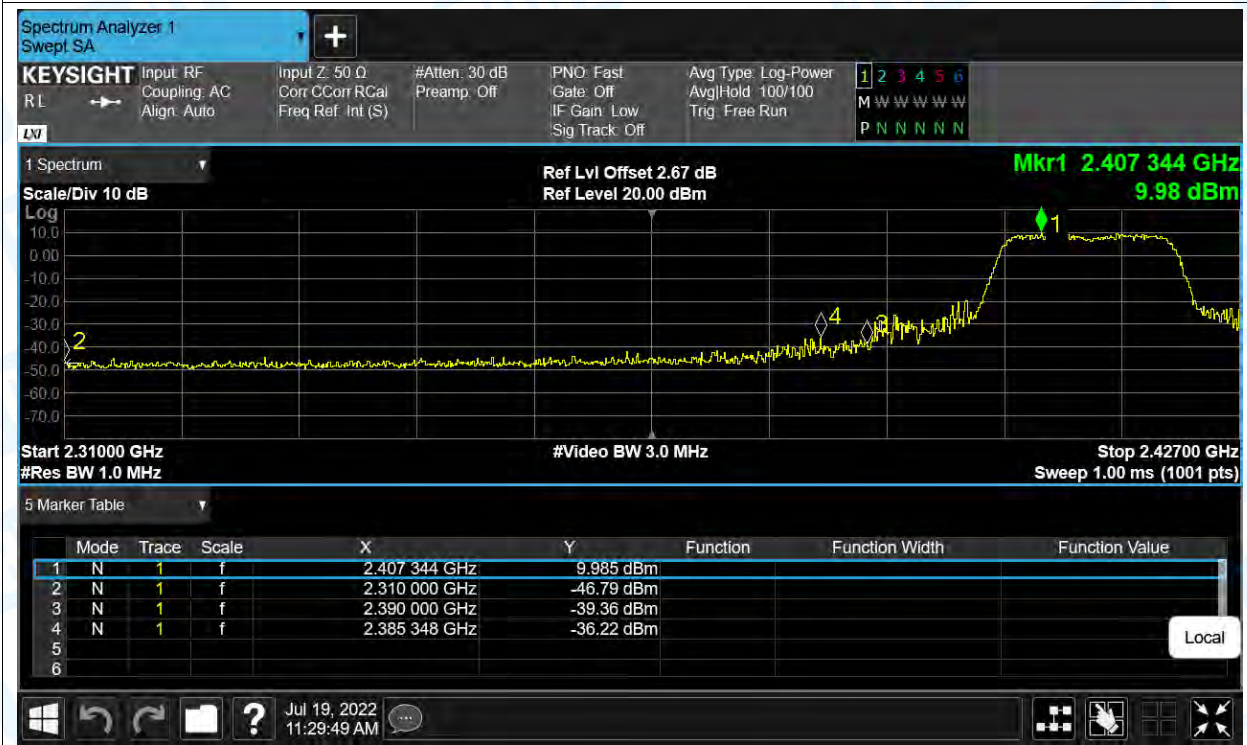
Restrict Band NVNT g 2462MHz Ant1 Peak



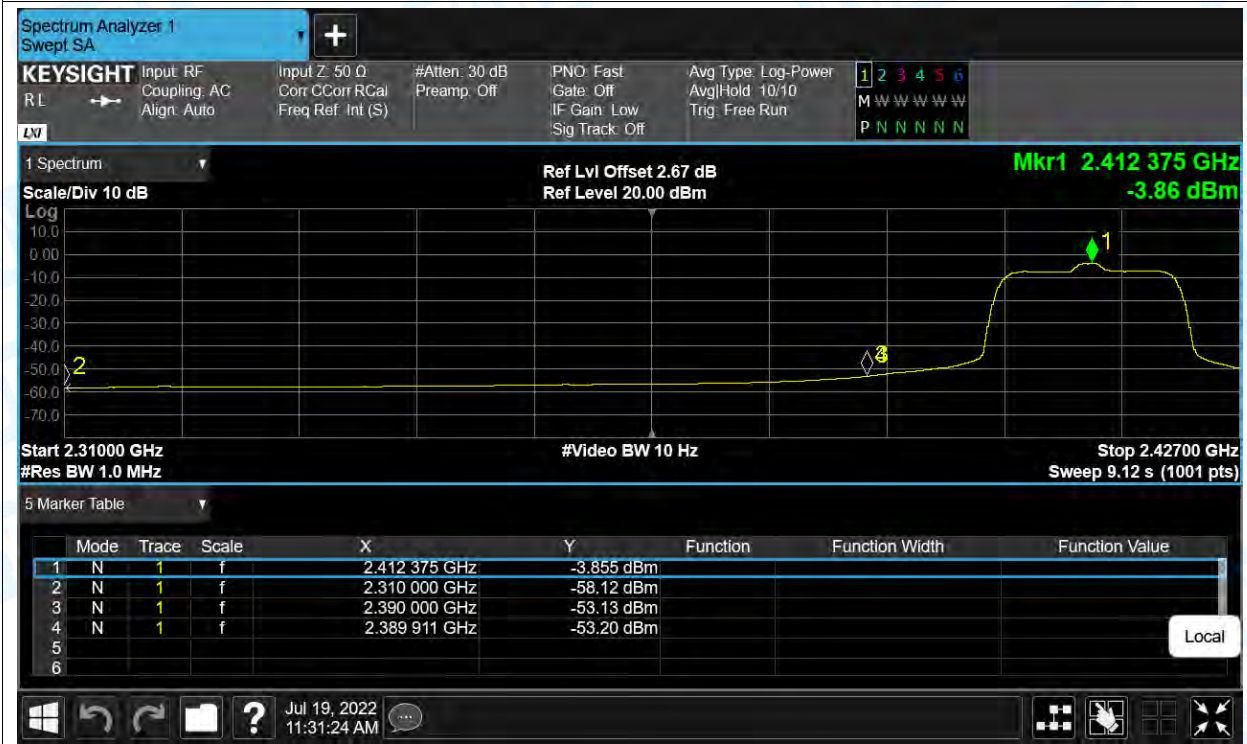
Restrict Band NVNT g 2462MHz Ant1 Average



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

