

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Action Camera
Test Model:	iA800
Sample ID:	RW-C-202208-0171-1-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Liu Ji Ming
Note: For a more detailed features description, please refer to the report TBR-C-202208-0171-3	

Contents

1. Duty Cycle.....	3
2. Maximum Conducted Output Power	10
3. -6dB Bandwidth	11
4. Occupied Channel Bandwidth	18
5. Maximum Power Spectral Density Level.....	25
6. Band Edge	32
7. Conducted RF Spurious Emission	41
8. Restrict Band	54

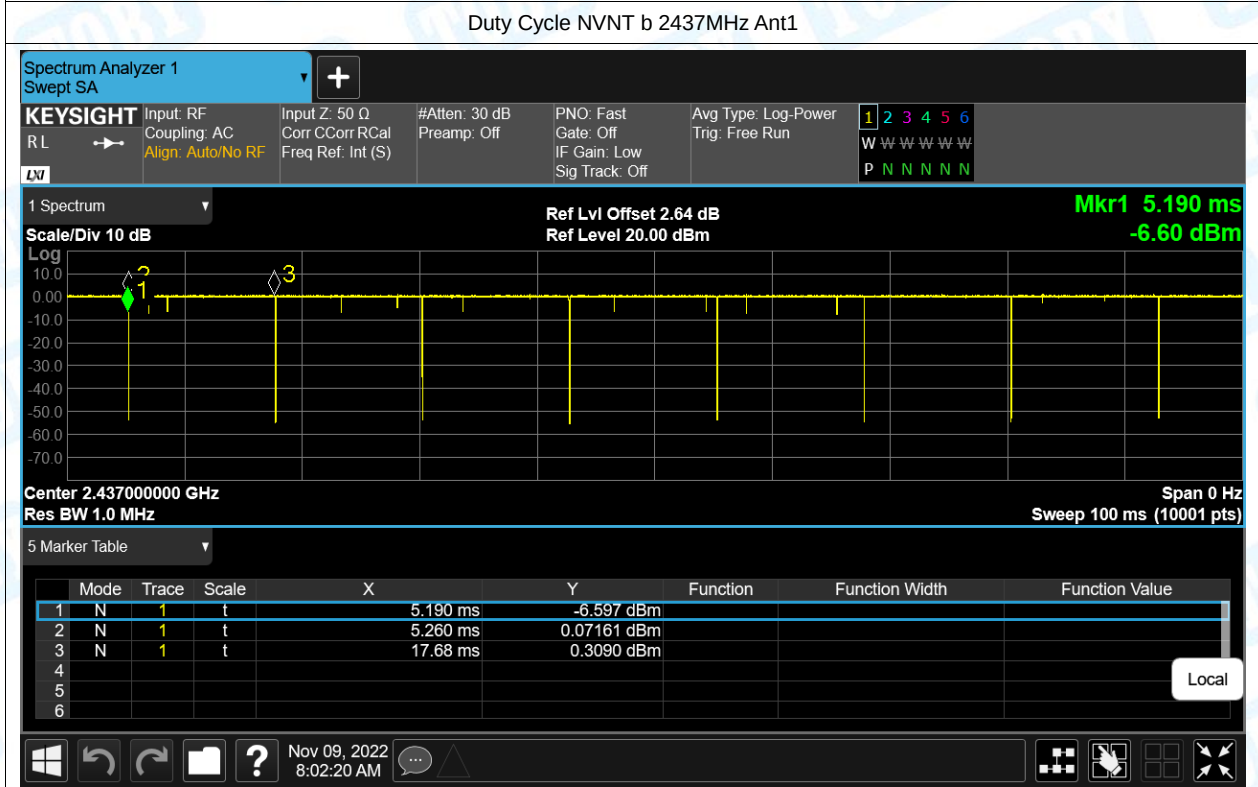
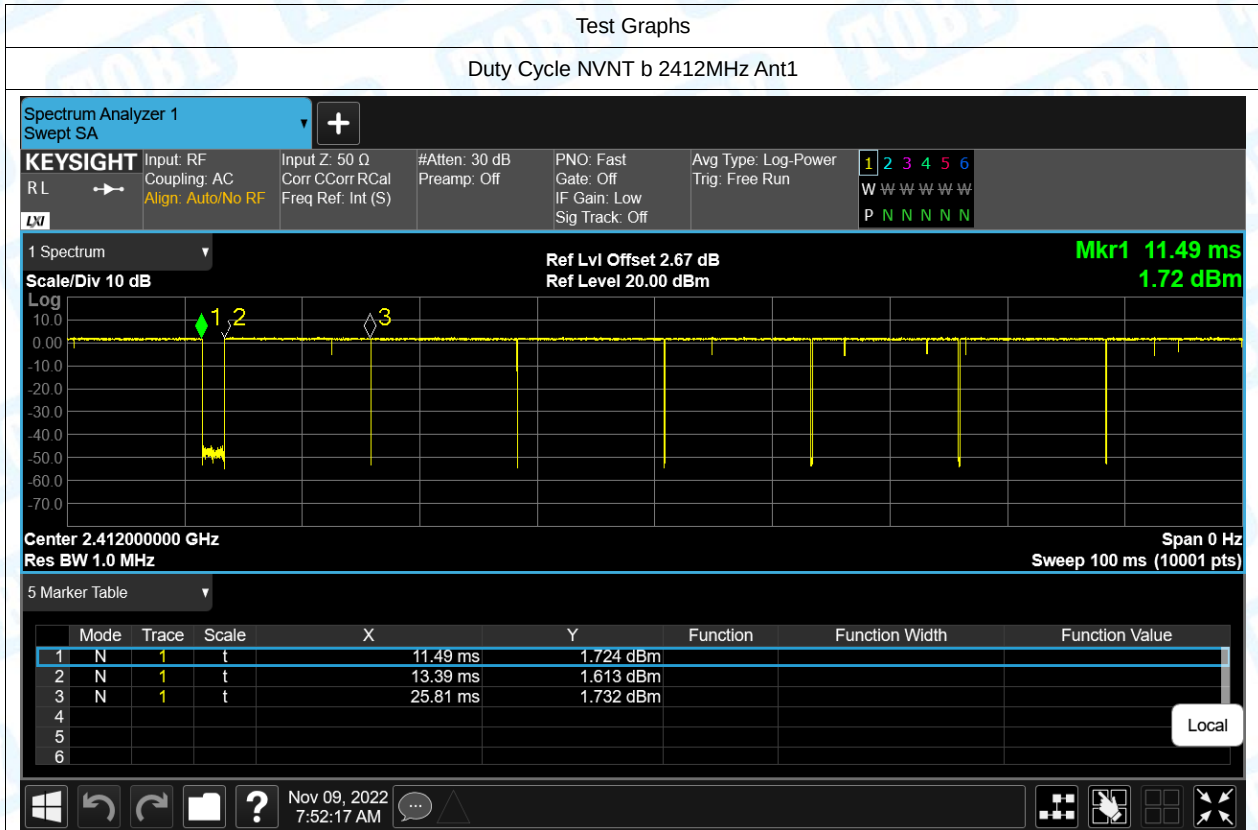
1. Duty Cycle

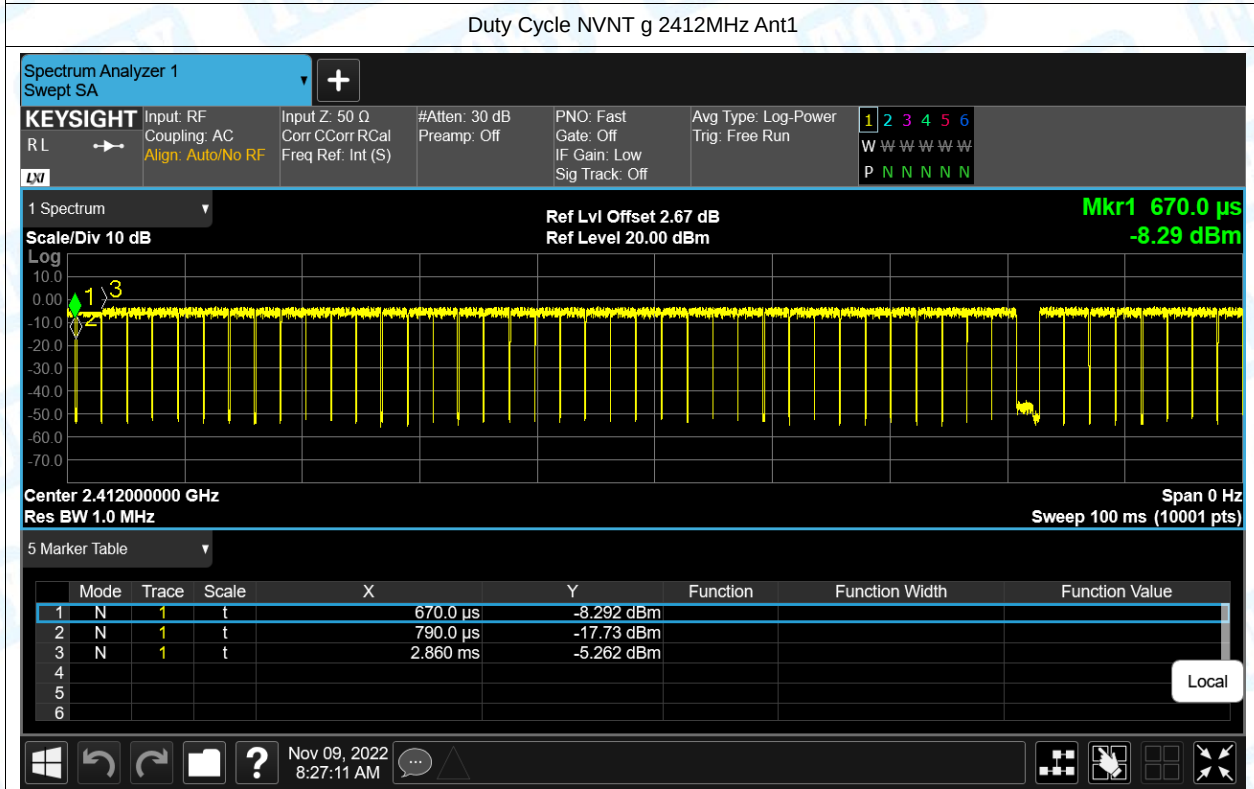
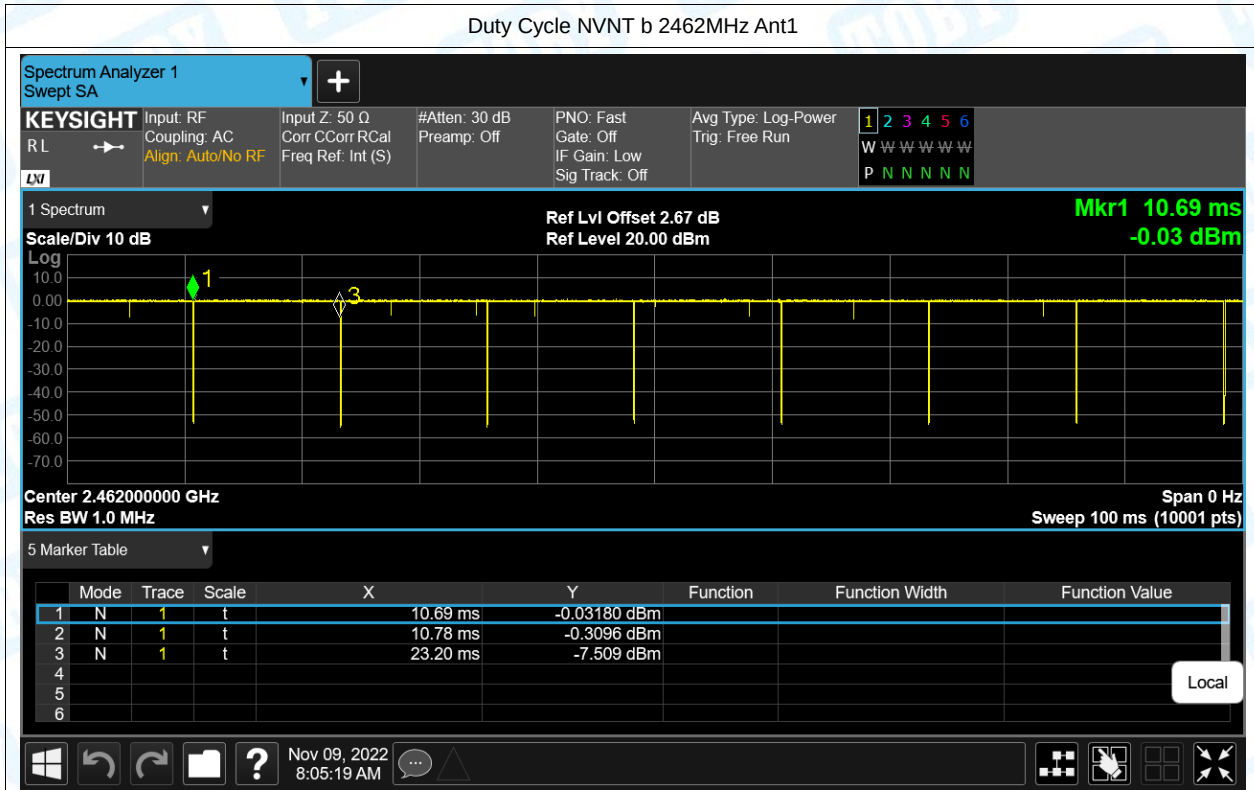
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	86.73	0.62	0.08
NVNT	b	2437	Ant1	99.44	0.02	0.08
NVNT	b	2462	Ant1	99.28	0.03	0.08
NVNT	g	2412	Ant1	94.52	0.24	0.48
NVNT	g	2437	Ant1	98.57	0.06	0.48
NVNT	g	2462	Ant1	95.37	0.21	0.49
NVNT	n(HT20)	2412	Ant1	96.28	0.16	0.48
NVNT	n(HT20)	2437	Ant1	97.17	0.12	0.49
NVNT	n(HT20)	2462	Ant1	97.17	0.12	0.49
NVNT	n(HT40)	2422	Ant1	93.24	0.3	0.48
NVNT	n(HT40)	2437	Ant1	92.79	0.32	0.49
NVNT	n(HT40)	2452	Ant1	98.57	0.06	0.48

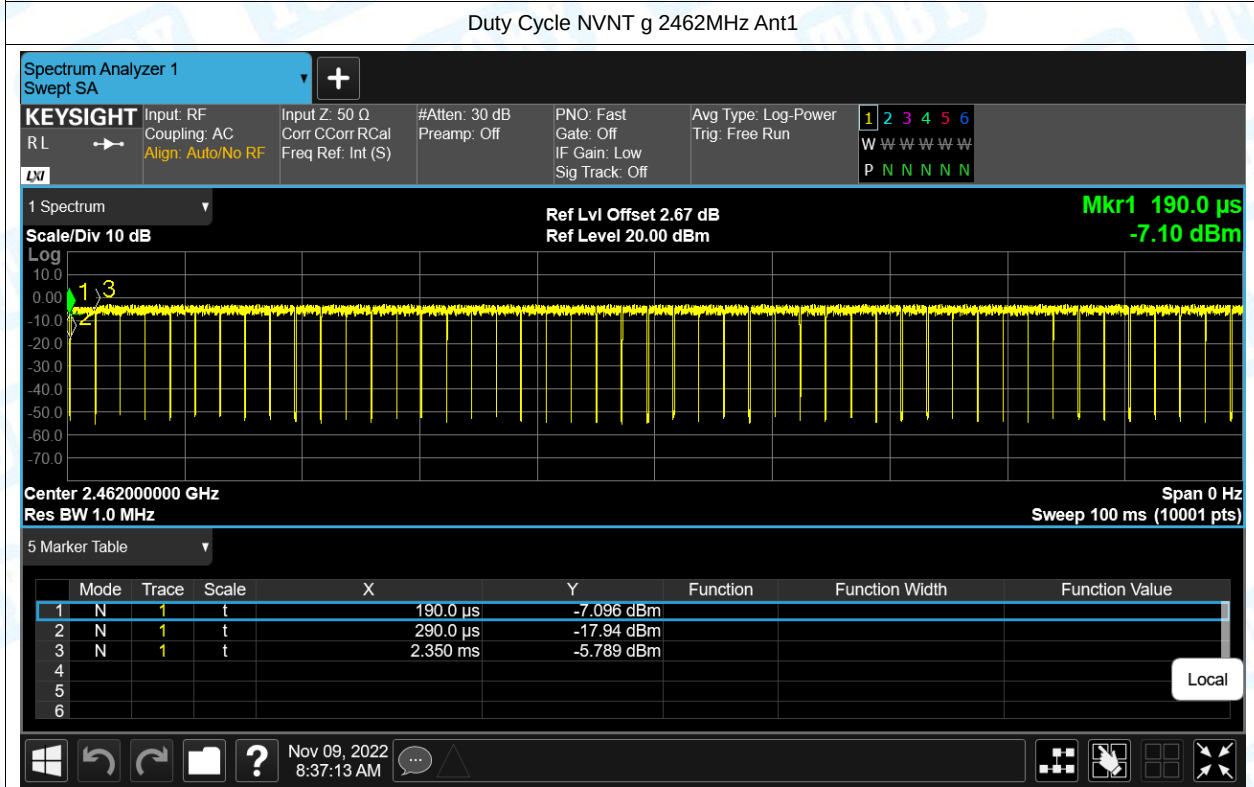
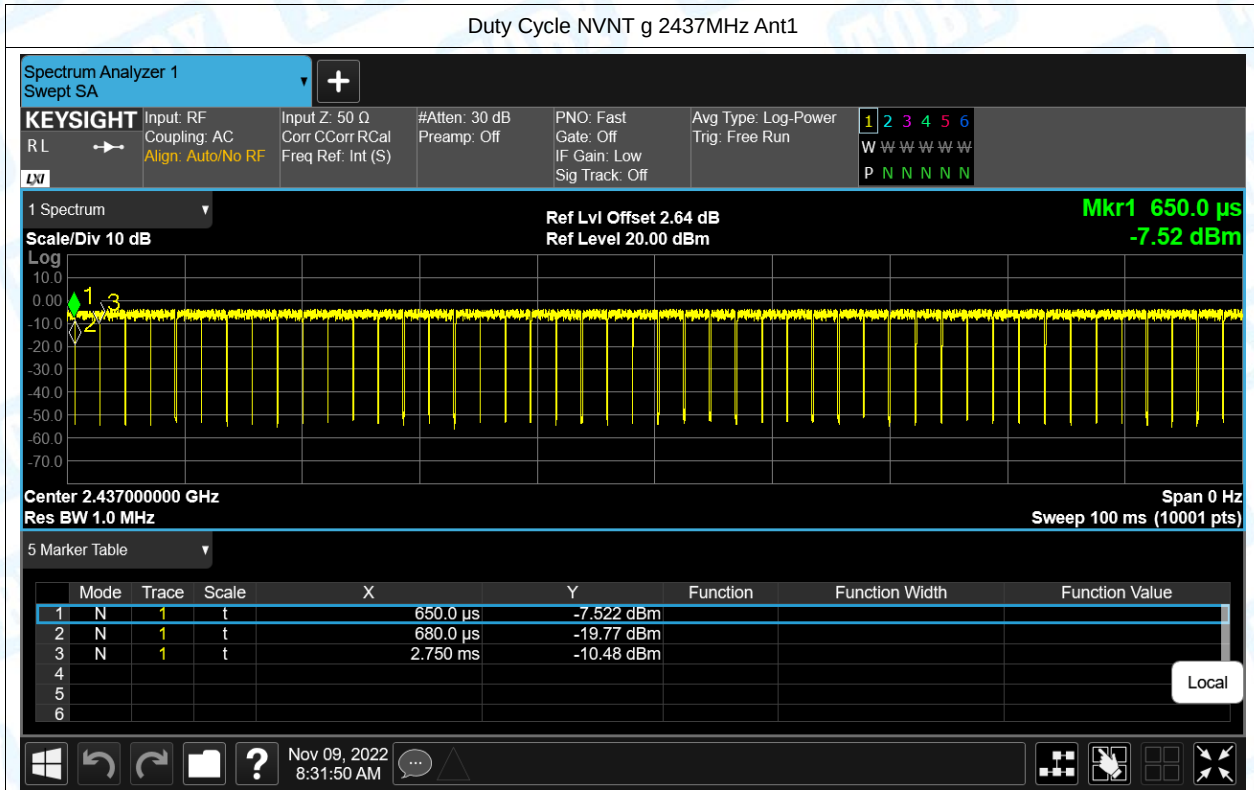
Note: Duty Cycle(%)=ON(ms)/(ON(ms)+OFF(ms))

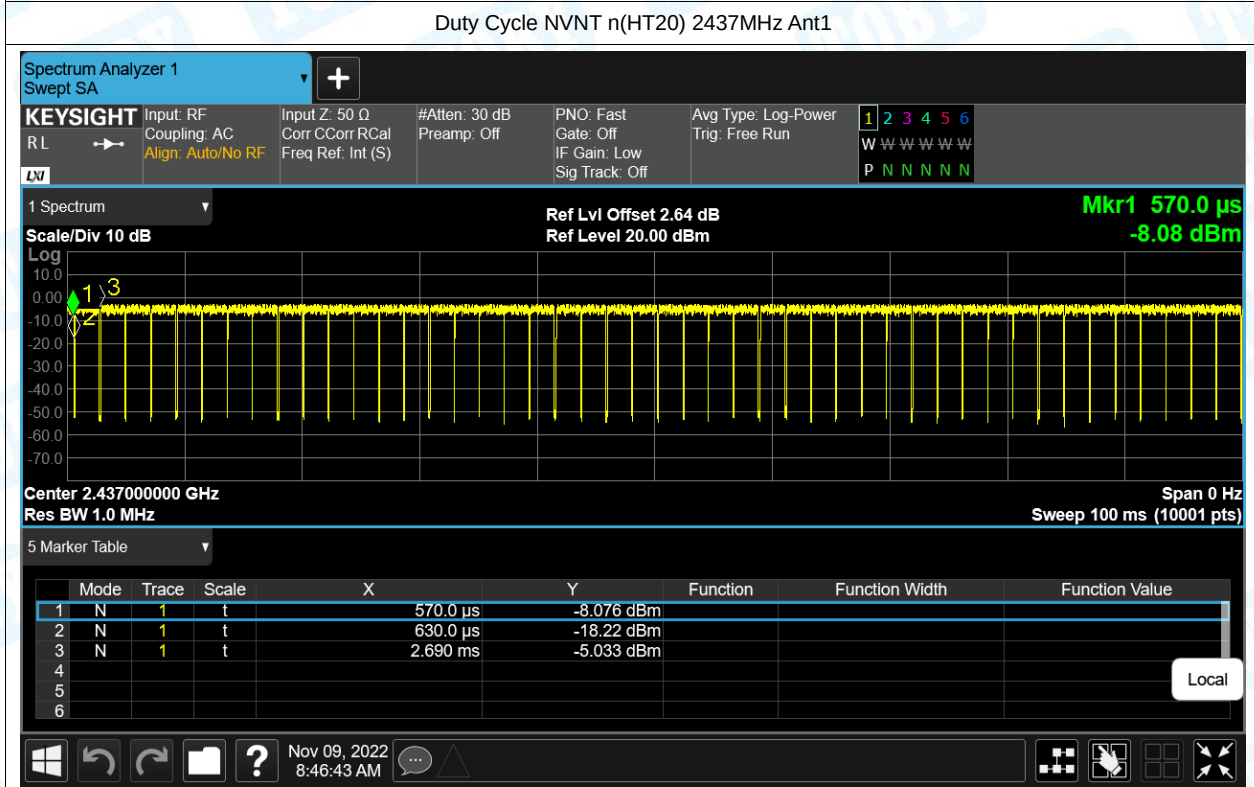
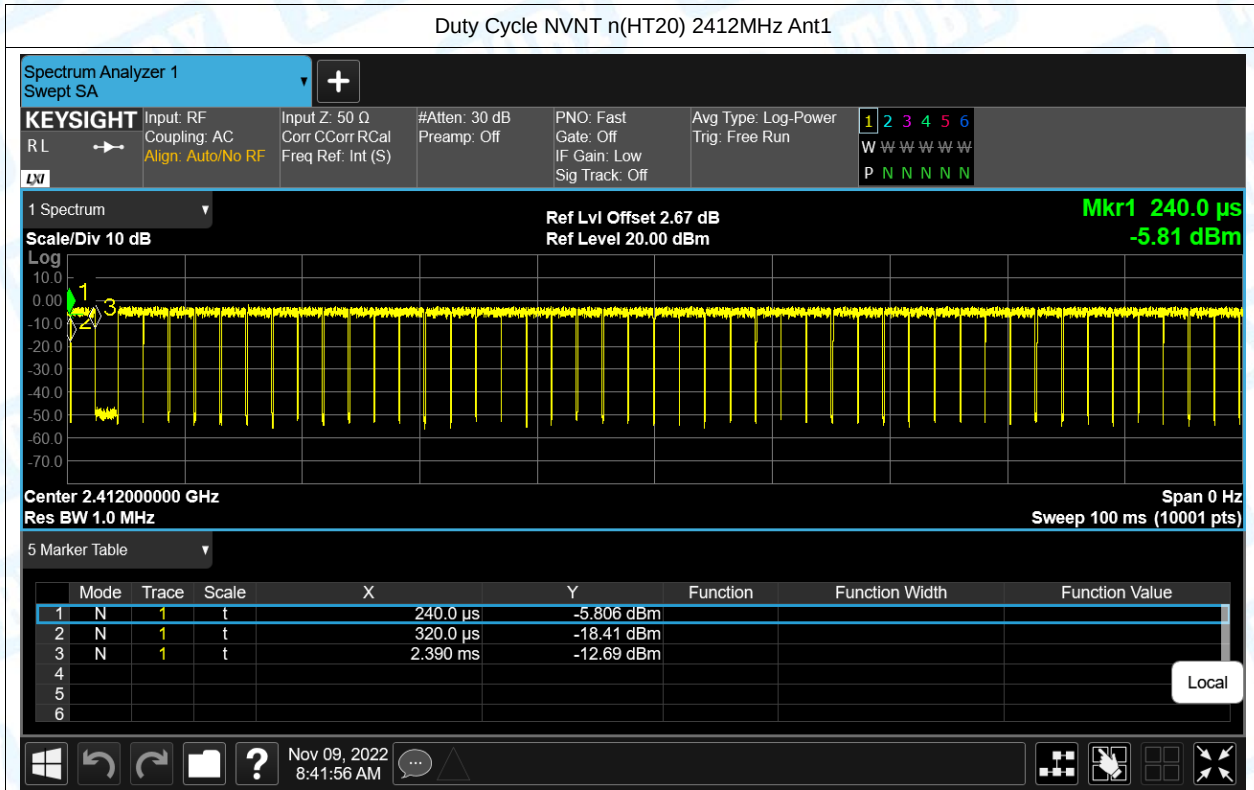
ON(ms)=Maker3-Maker2

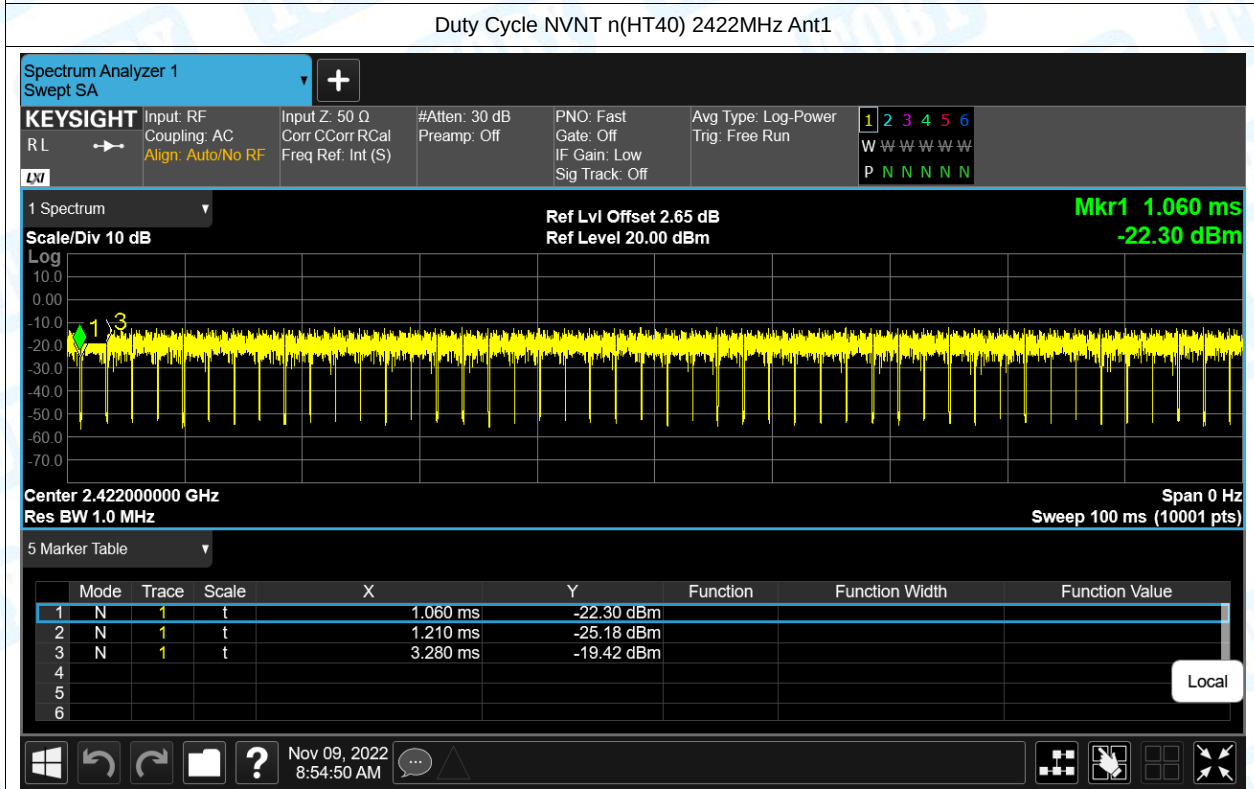
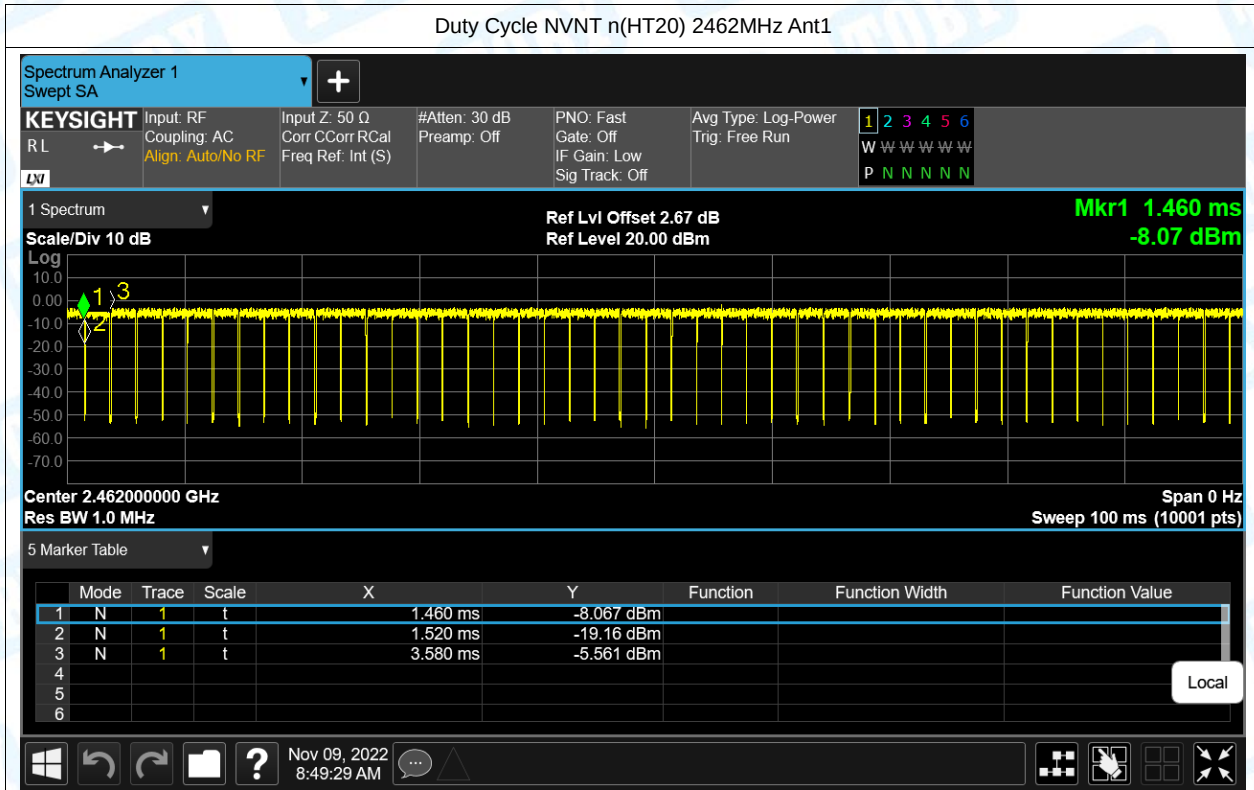
(ON(ms)+OFF(ms))=Maker3-Maker1

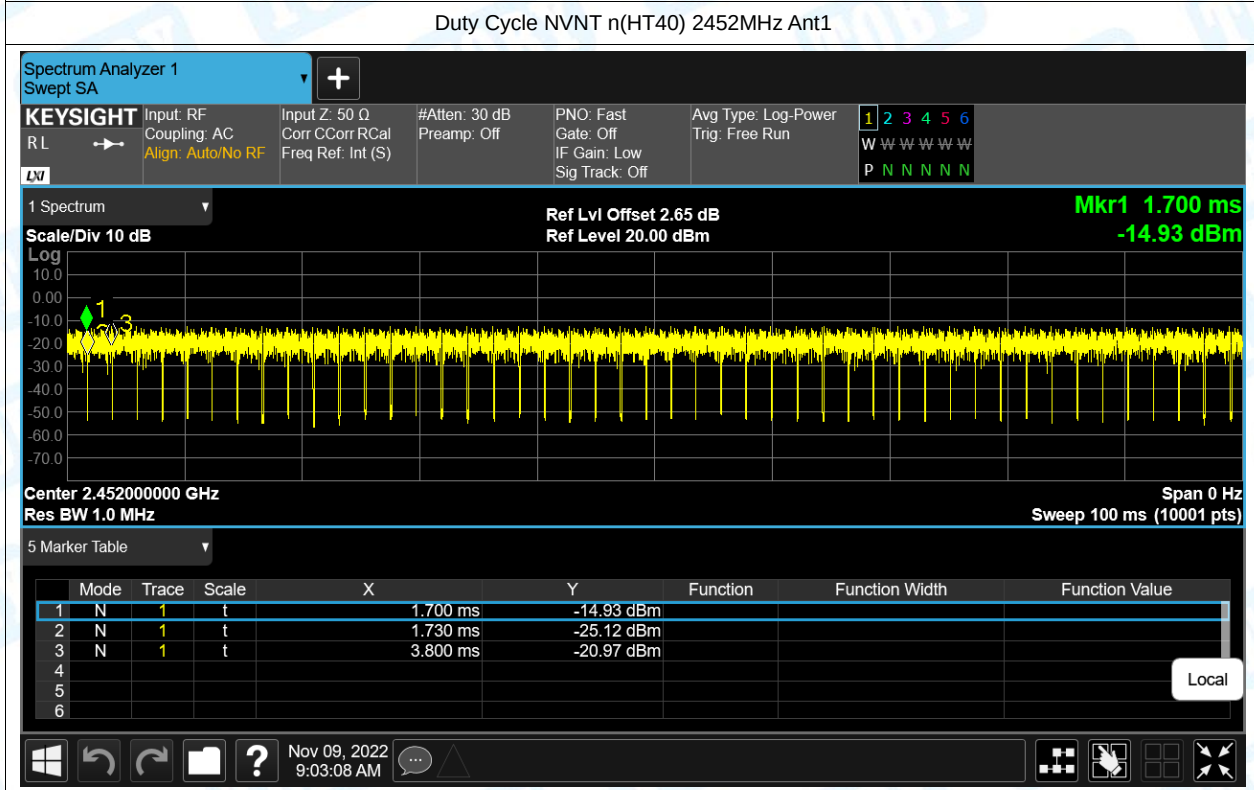
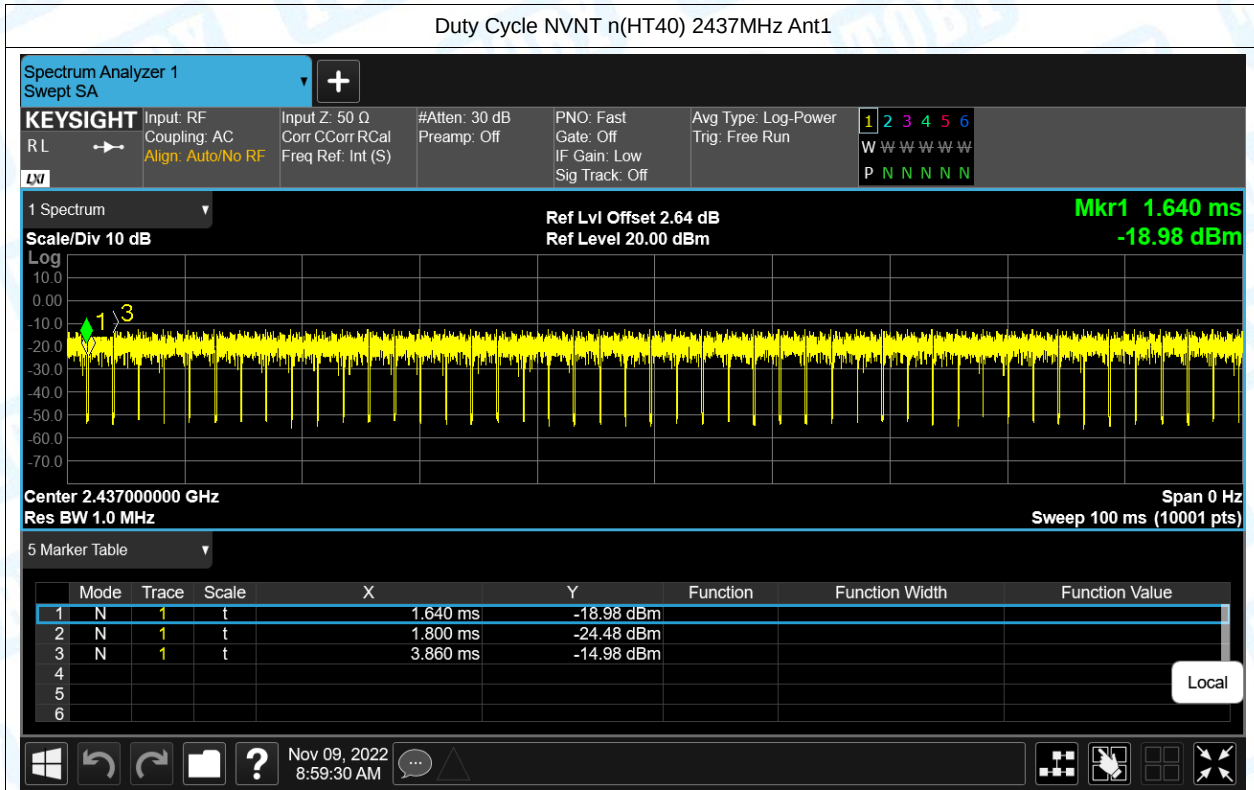












2. Maximum Conducted Output Power

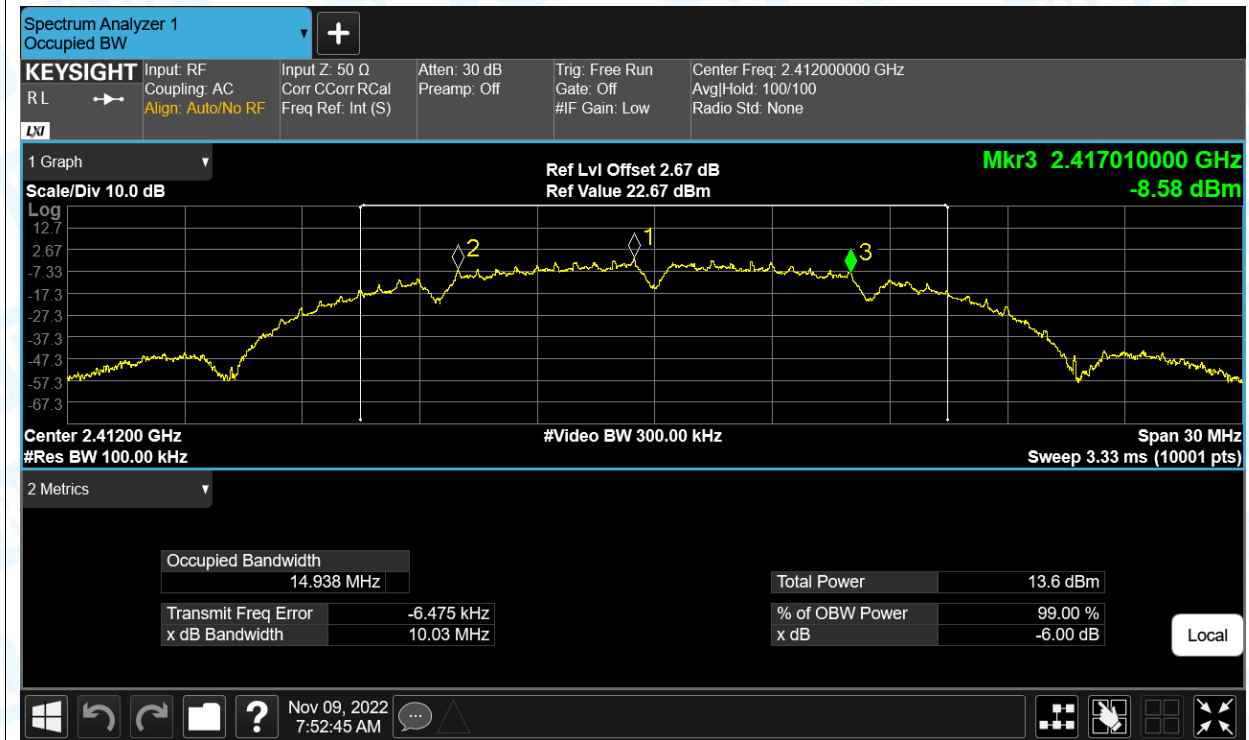
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	7.37	30	Pass
NVNT	b	2437	Ant1	7.19	30	Pass
NVNT	b	2462	Ant1	7.18	30	Pass
NVNT	g	2412	Ant1	6.55	30	Pass
NVNT	g	2437	Ant1	7.16	30	Pass
NVNT	g	2462	Ant1	6.85	30	Pass
NVNT	n(HT20)	2412	Ant1	7.08	30	Pass
NVNT	n(HT20)	2437	Ant1	7.02	30	Pass
NVNT	n(HT20)	2462	Ant1	6.99	30	Pass
NVNT	n(HT40)	2422	Ant1	7.39	30	Pass
NVNT	n(HT40)	2437	Ant1	7.29	30	Pass
NVNT	n(HT40)	2452	Ant1	7.09	30	Pass

3. -6dB Bandwidth

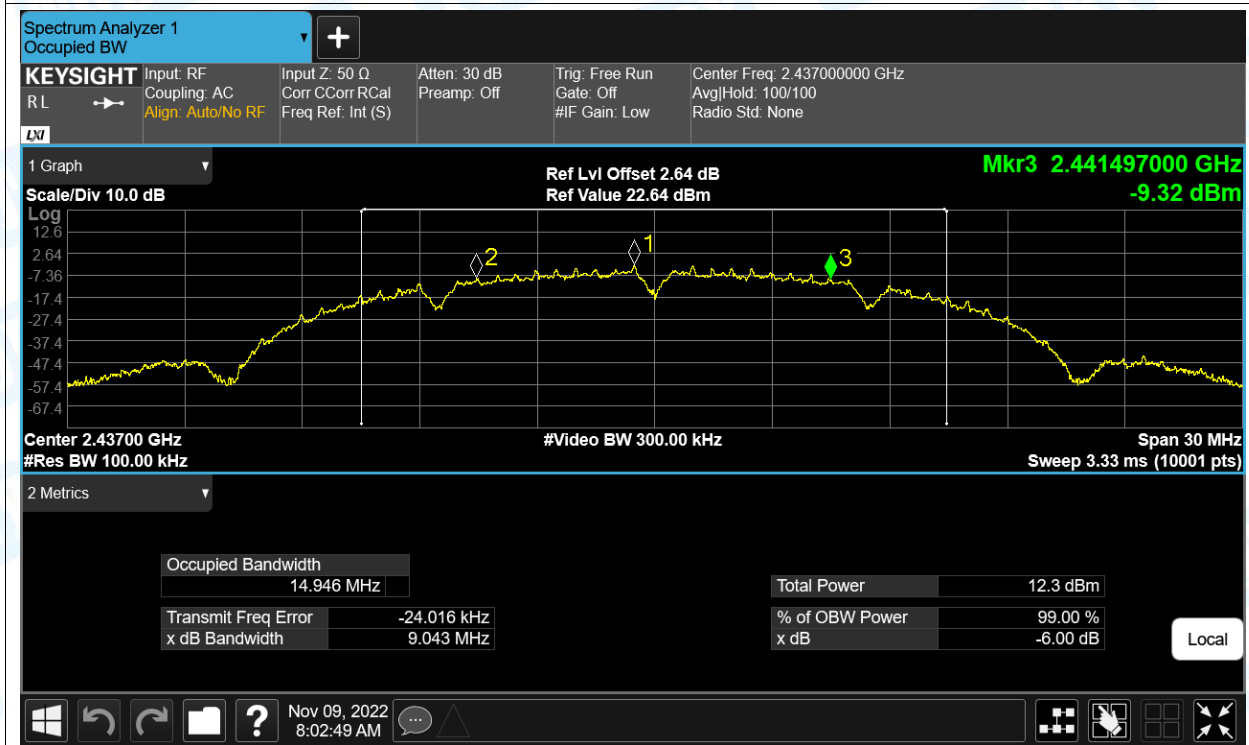
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.03	0.5	Pass
NVNT	b	2437	Ant1	9.04	0.5	Pass
NVNT	b	2462	Ant1	9.57	0.5	Pass
NVNT	g	2412	Ant1	16.36	0.5	Pass
NVNT	g	2437	Ant1	16.35	0.5	Pass
NVNT	g	2462	Ant1	16.33	0.5	Pass
NVNT	n(HT20)	2412	Ant1	16.33	0.5	Pass
NVNT	n(HT20)	2437	Ant1	16.34	0.5	Pass
NVNT	n(HT20)	2462	Ant1	16.34	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.02	0.5	Pass
NVNT	n(HT40)	2437	Ant1	36.04	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.41	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



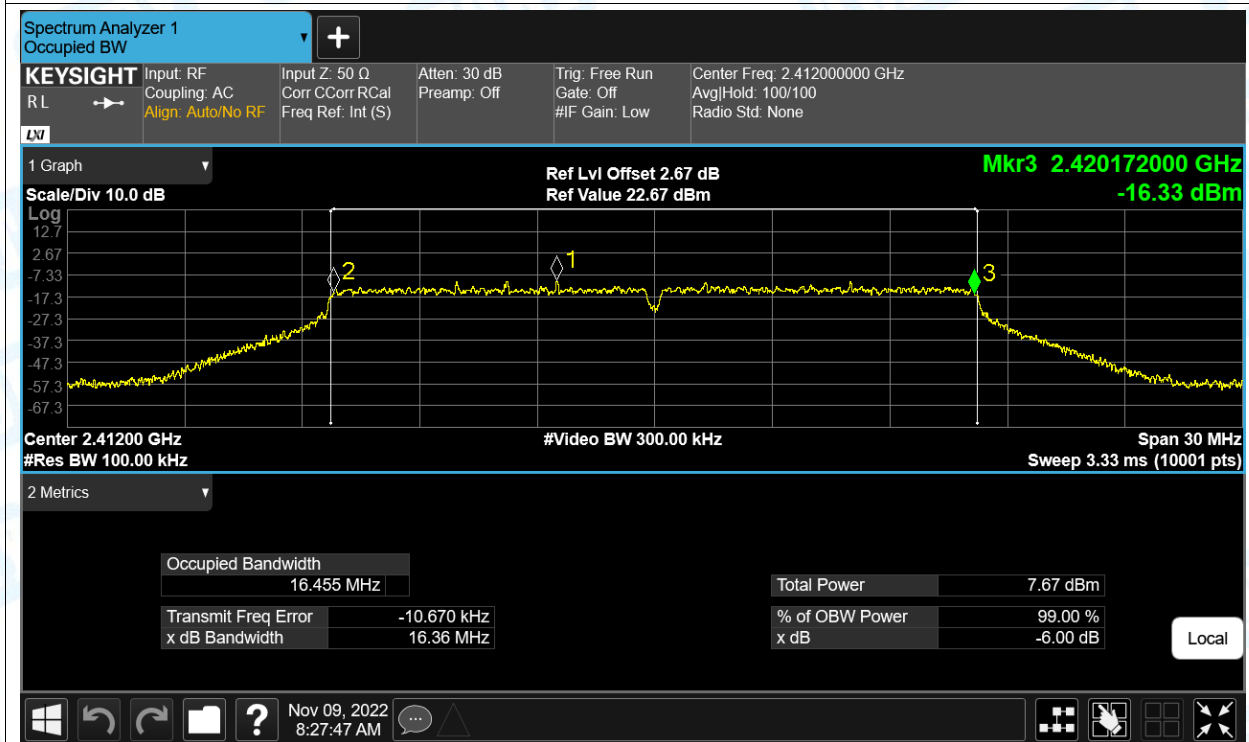
-6dB Bandwidth NVNT b 2437MHz Ant1

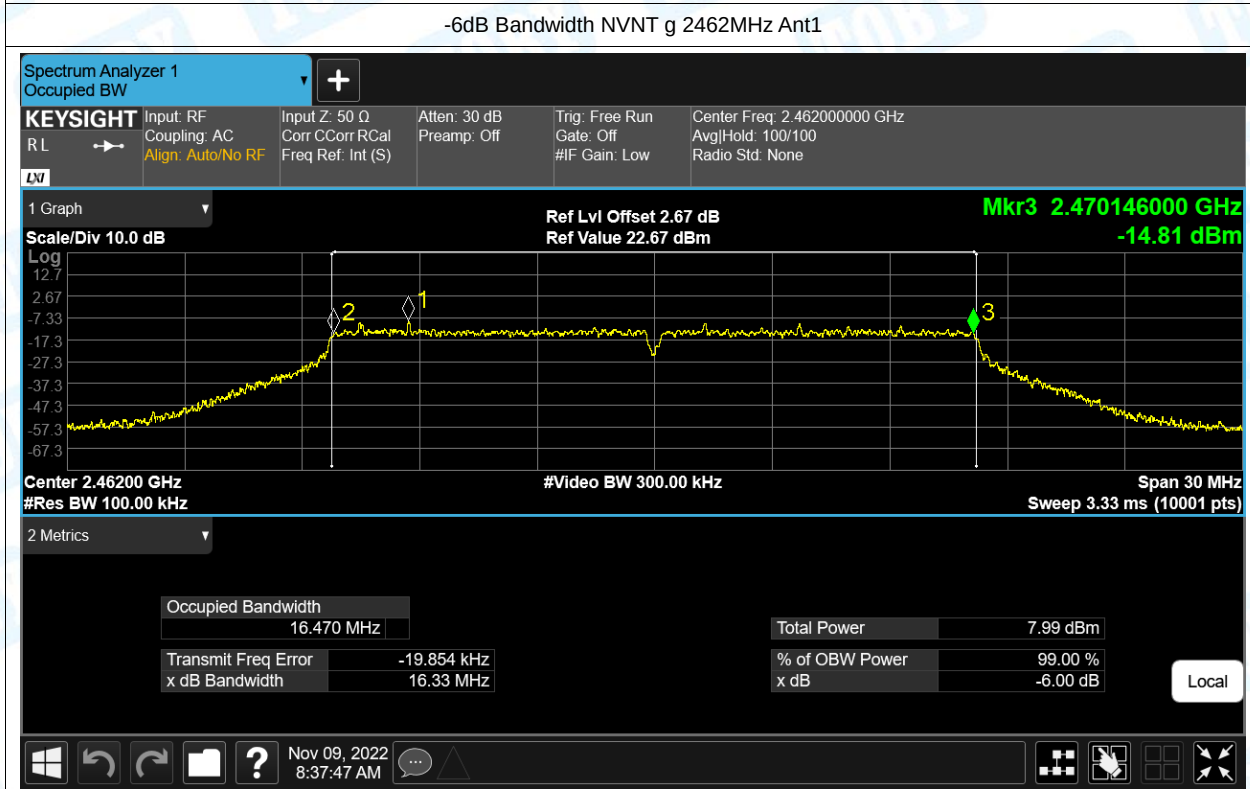
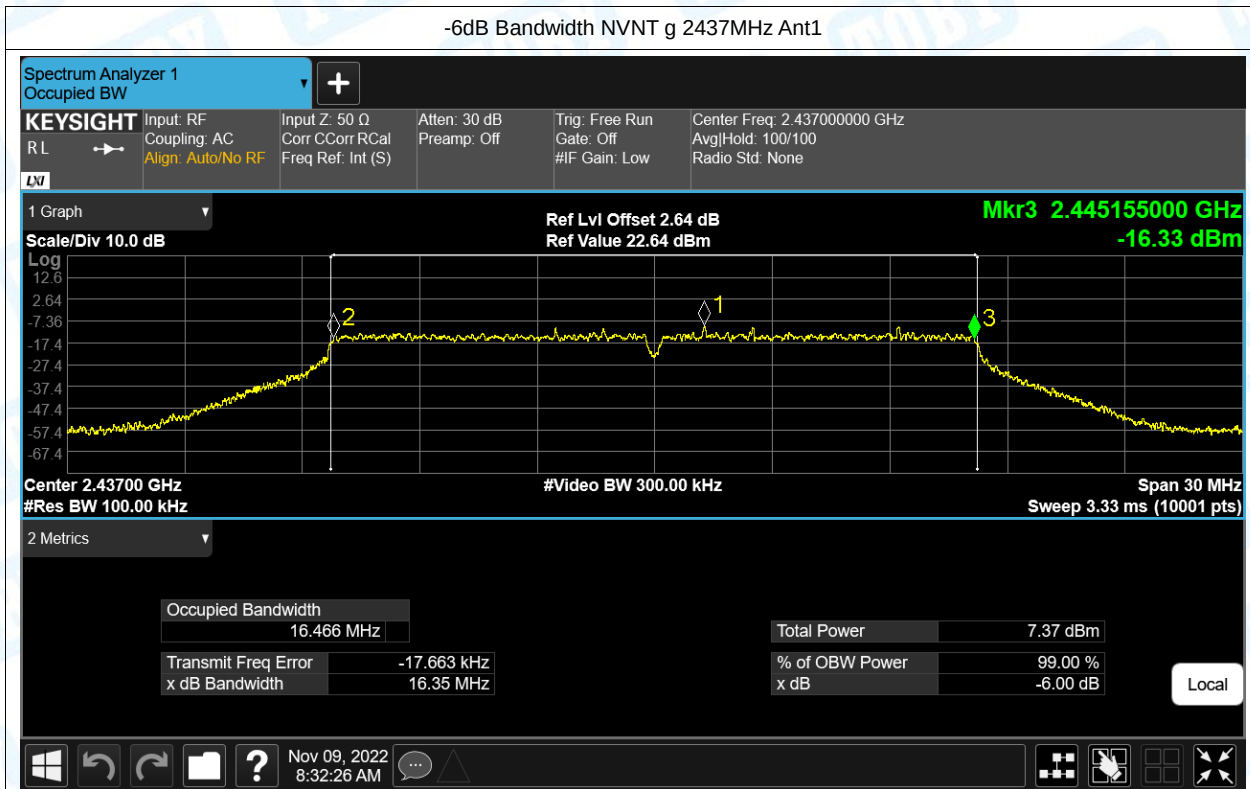


-6dB Bandwidth NVNT b 2462MHz Ant1

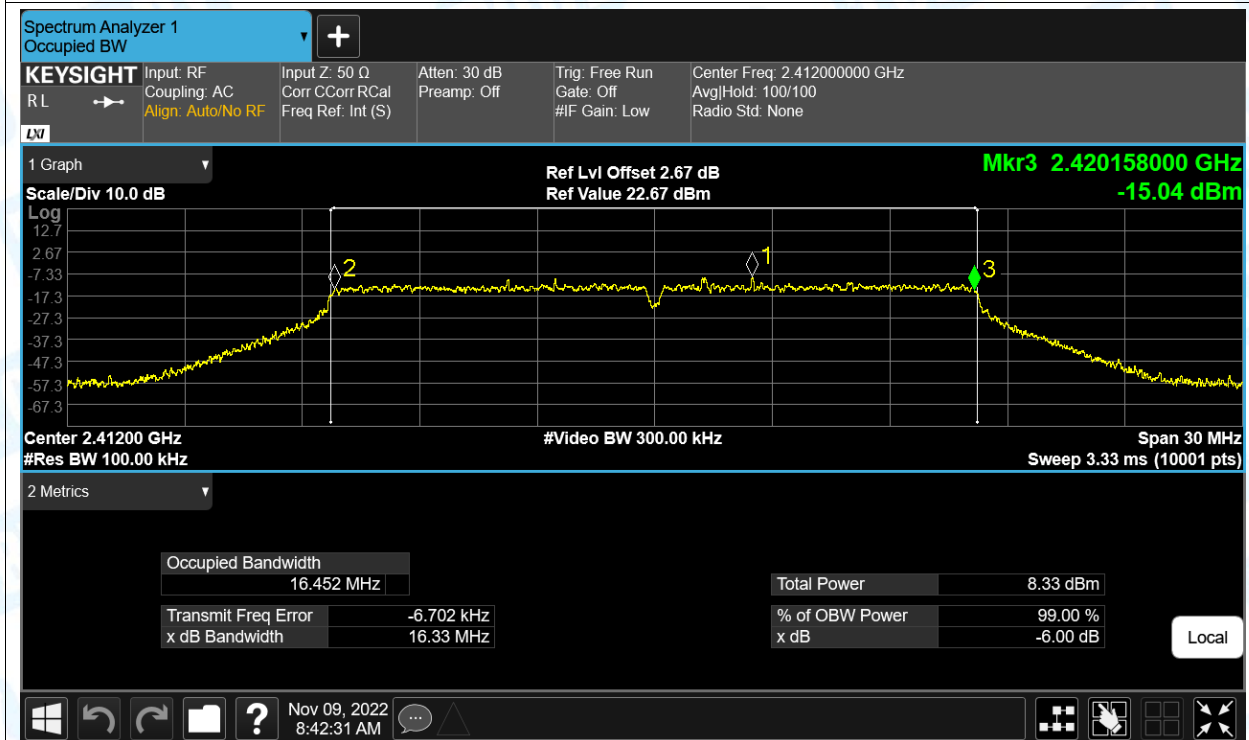


-6dB Bandwidth NVNT g 2412MHz Ant1

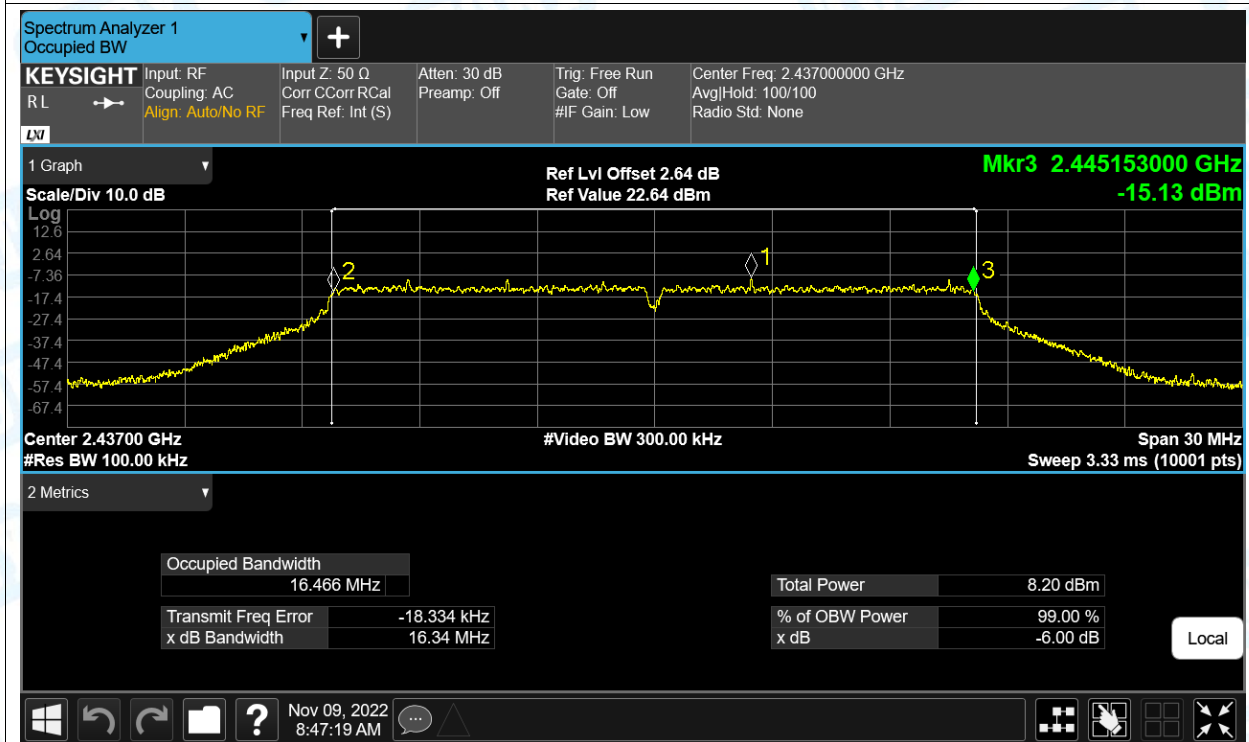




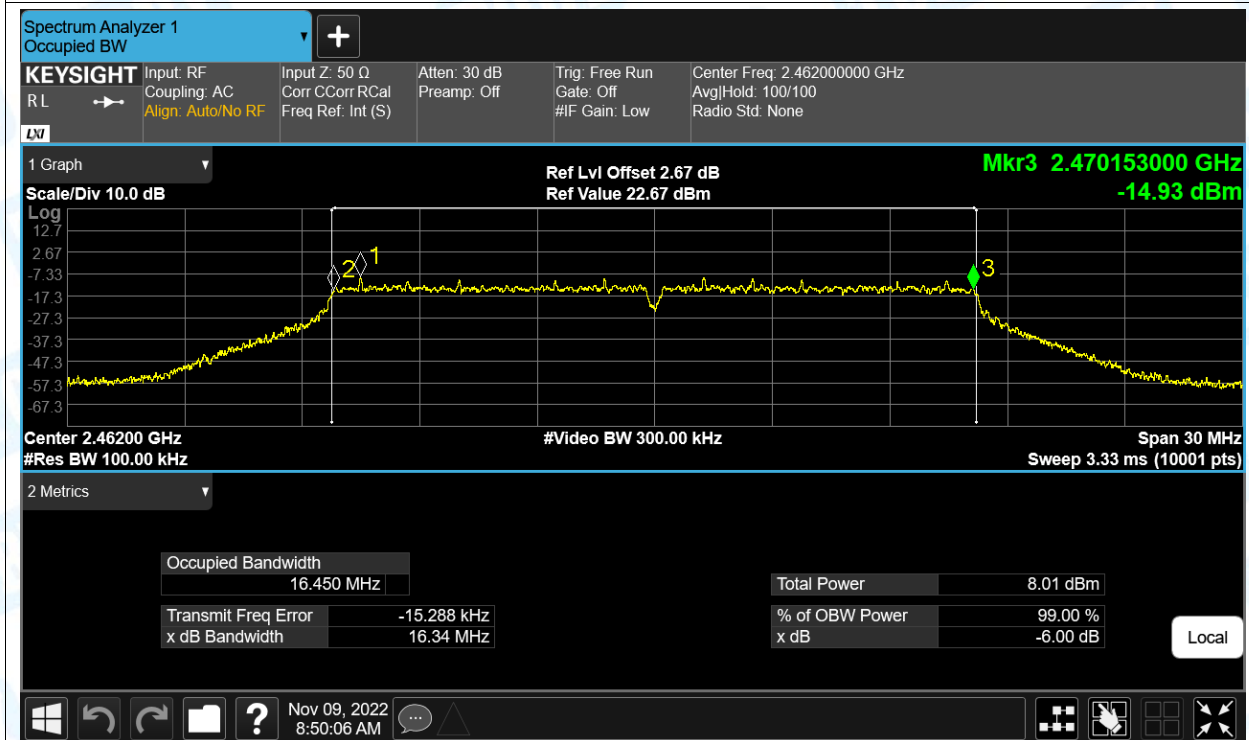
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



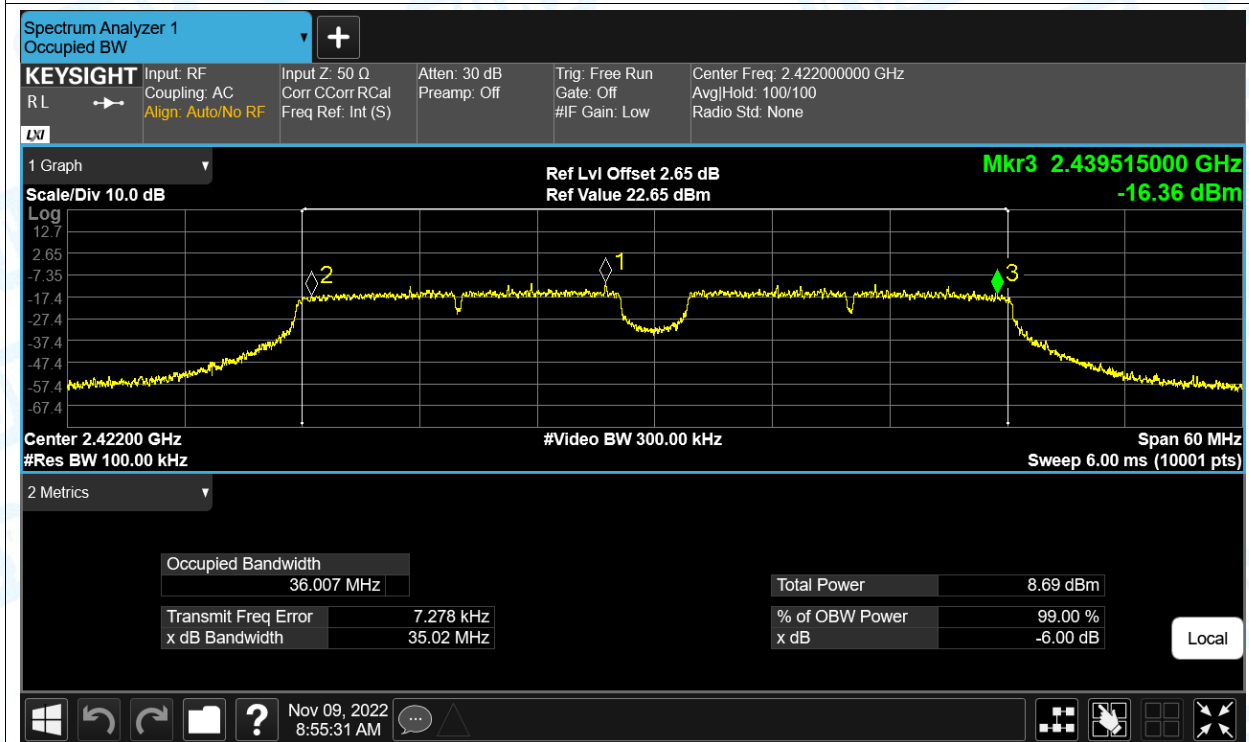
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



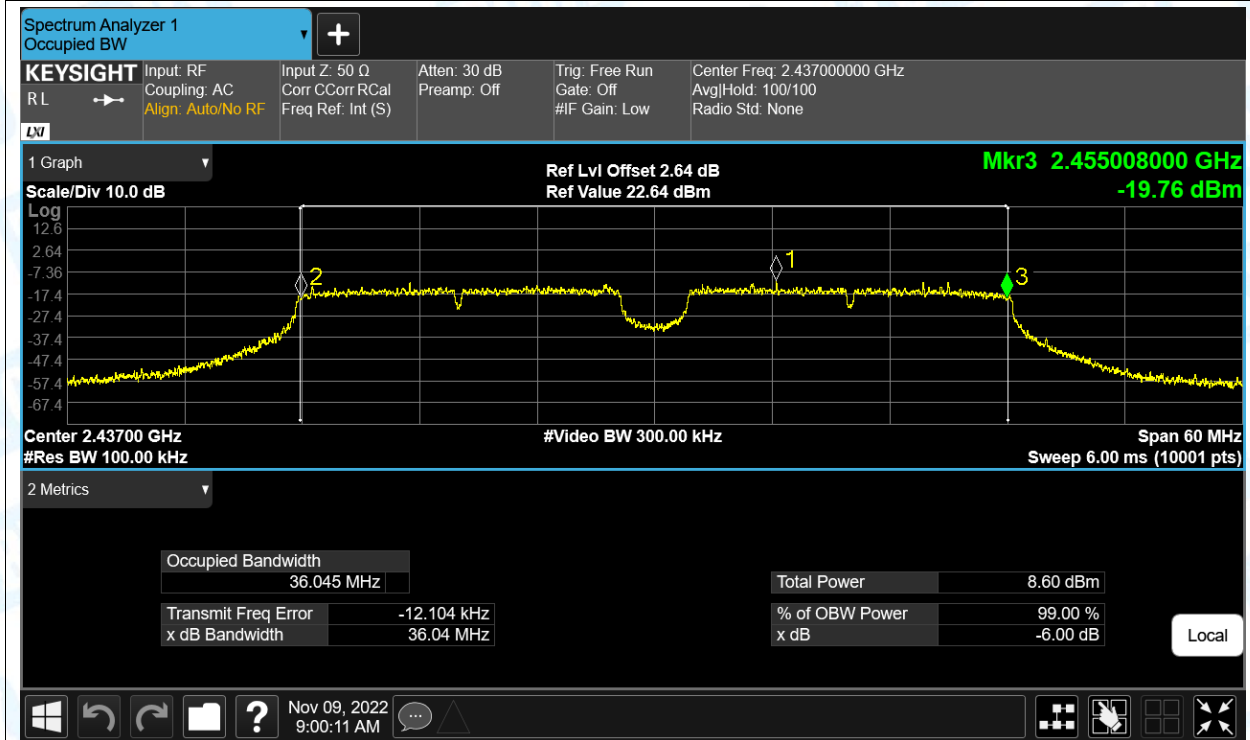
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



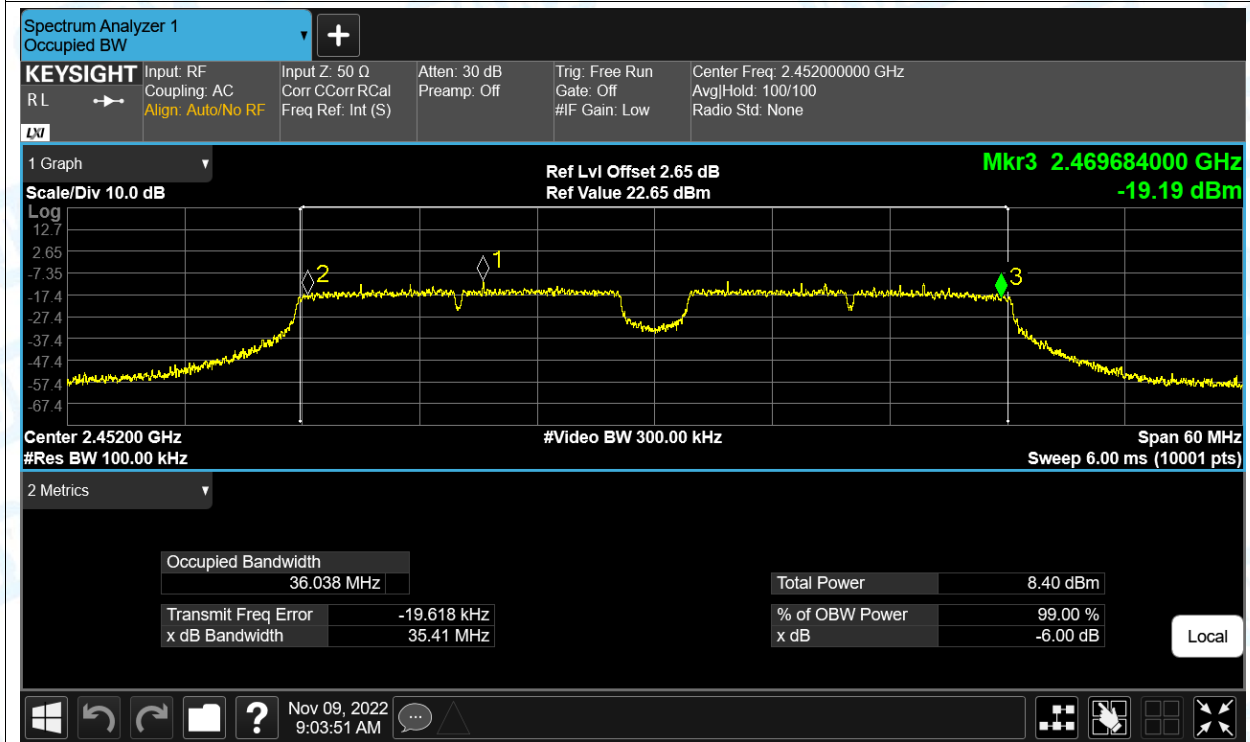
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1

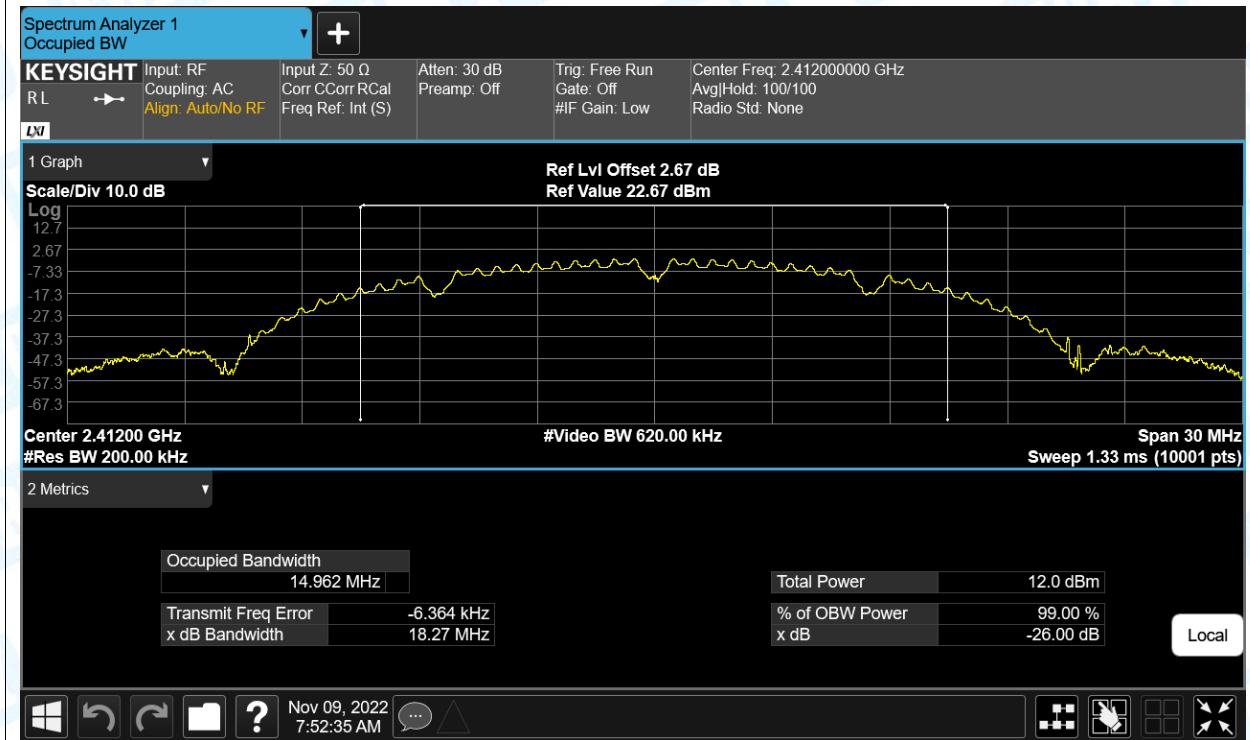


4. Occupied Channel Bandwidth

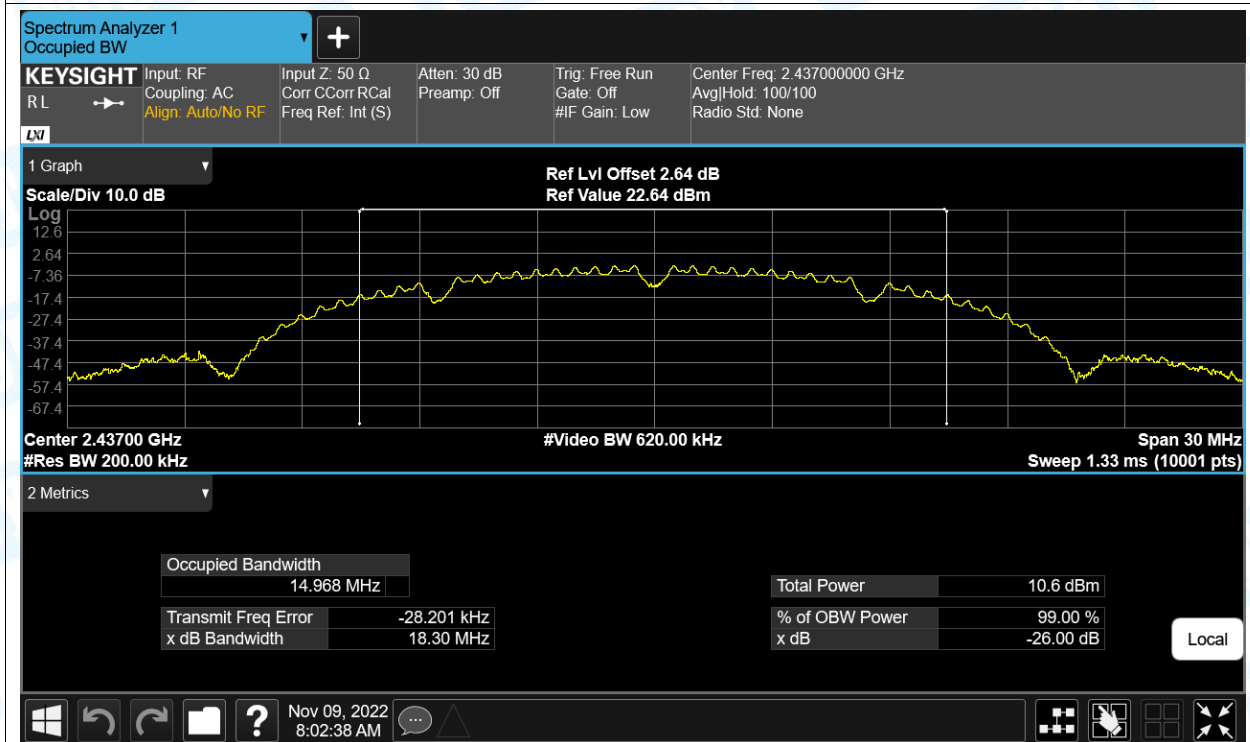
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.962
NVNT	b	2437	Ant1	14.968
NVNT	b	2462	Ant1	14.956
NVNT	g	2412	Ant1	16.609
NVNT	g	2437	Ant1	16.605
NVNT	g	2462	Ant1	16.586
NVNT	n(HT20)	2412	Ant1	16.601
NVNT	n(HT20)	2437	Ant1	16.589
NVNT	n(HT20)	2462	Ant1	16.595
NVNT	n(HT40)	2422	Ant1	36.177
NVNT	n(HT40)	2437	Ant1	36.267
NVNT	n(HT40)	2452	Ant1	36.154

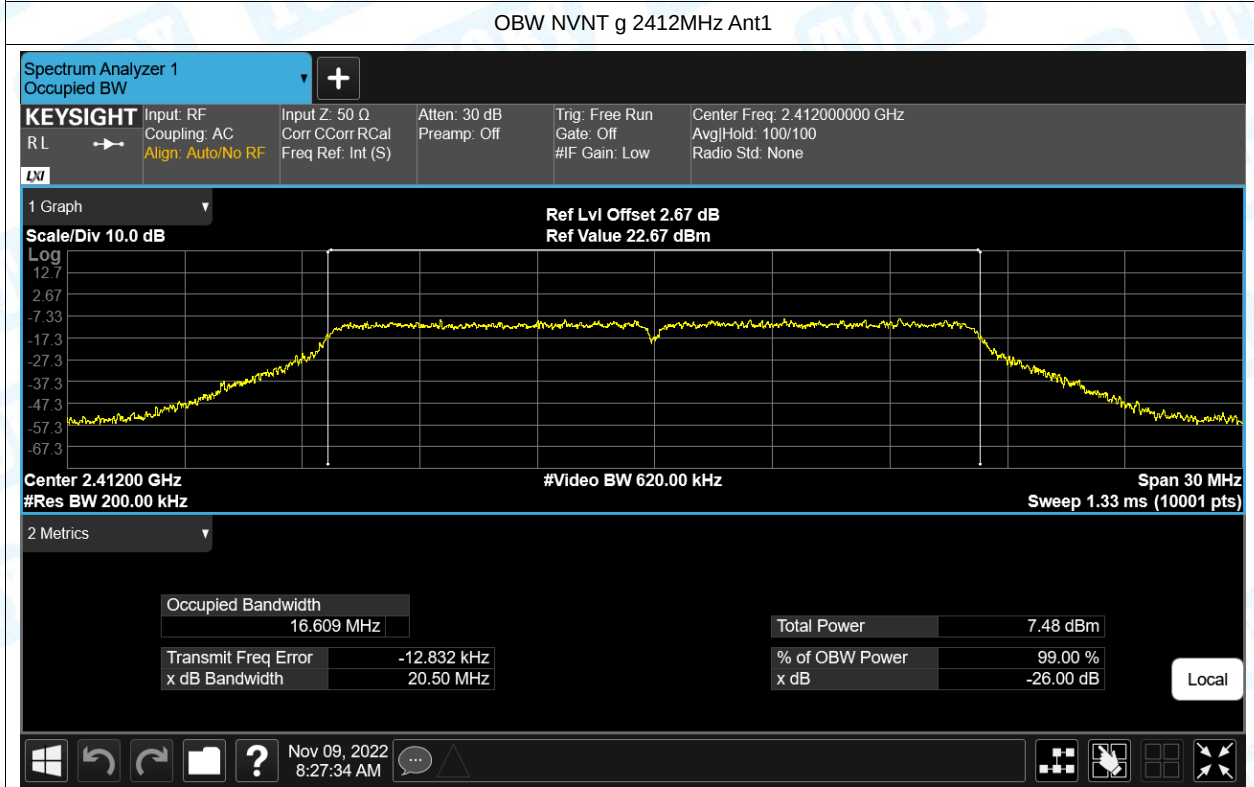
Test Graphs

OBW NVNT b 2412MHz Ant1

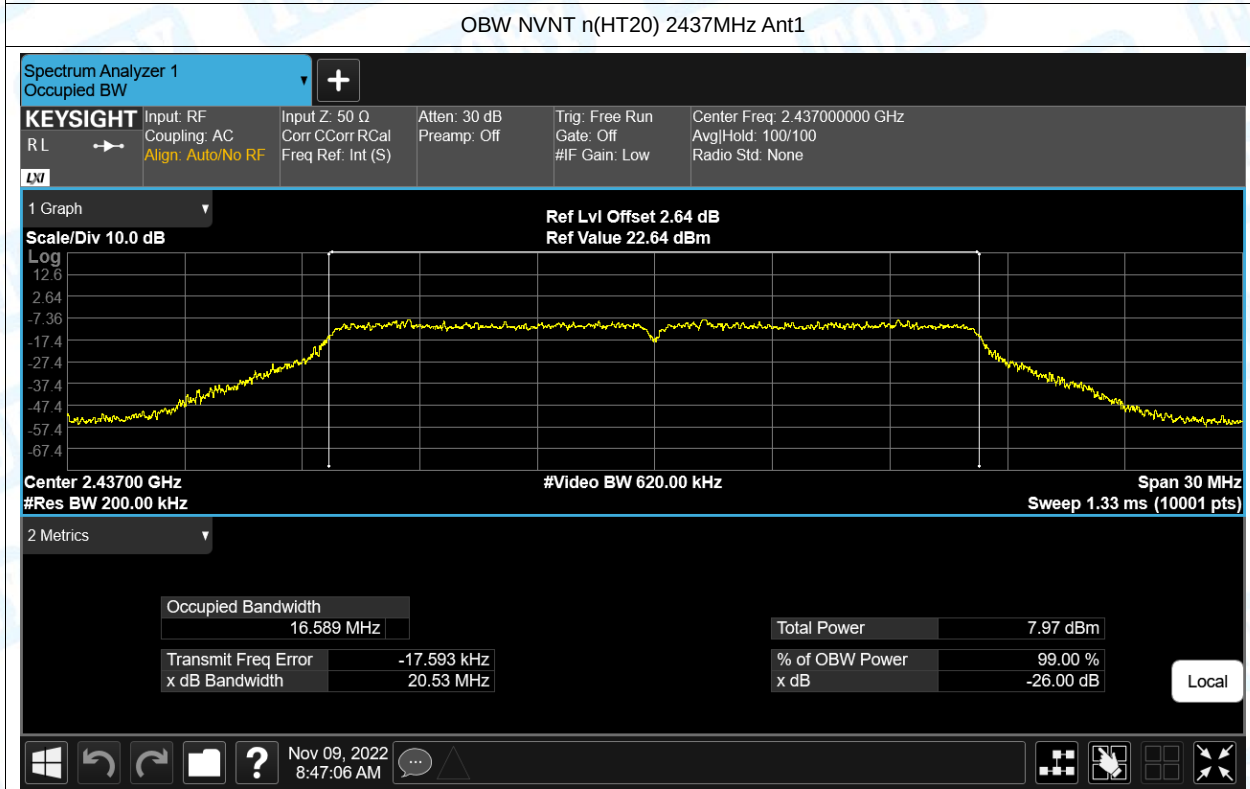
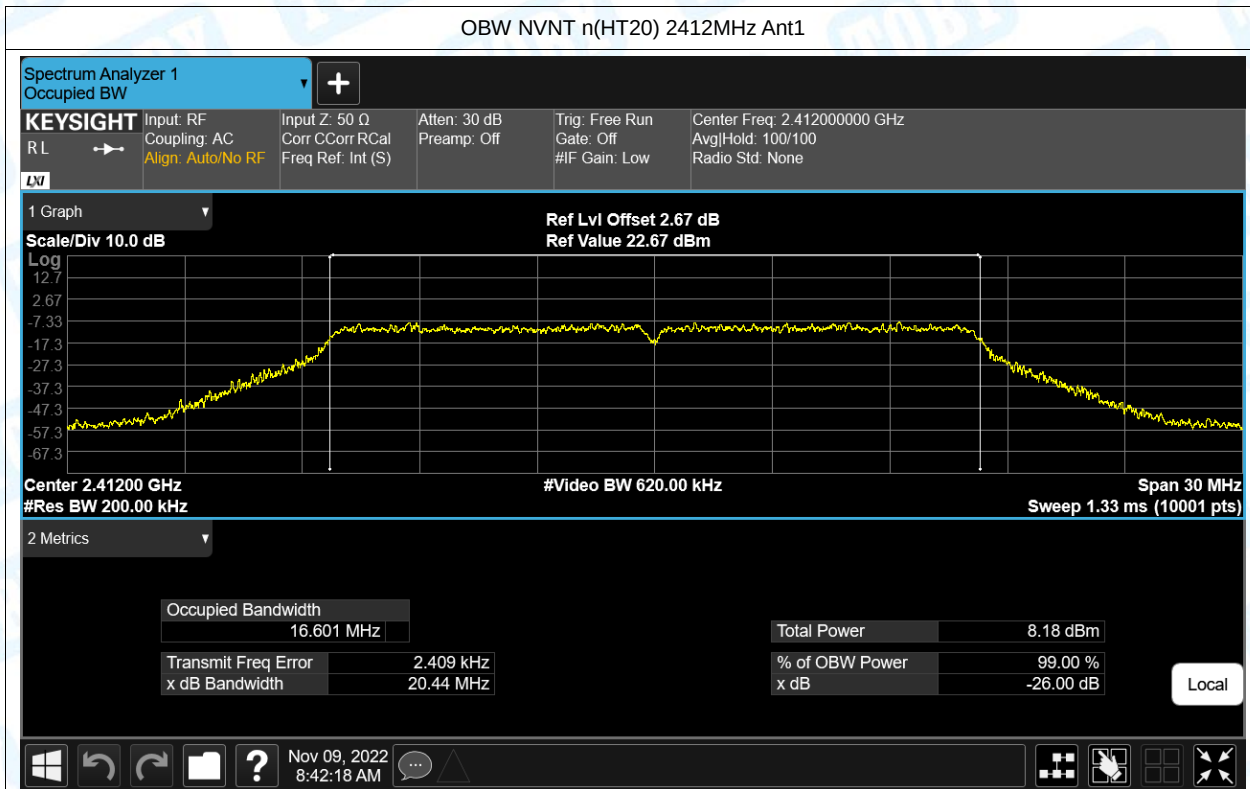


OBW NVNT b 2437MHz Ant1

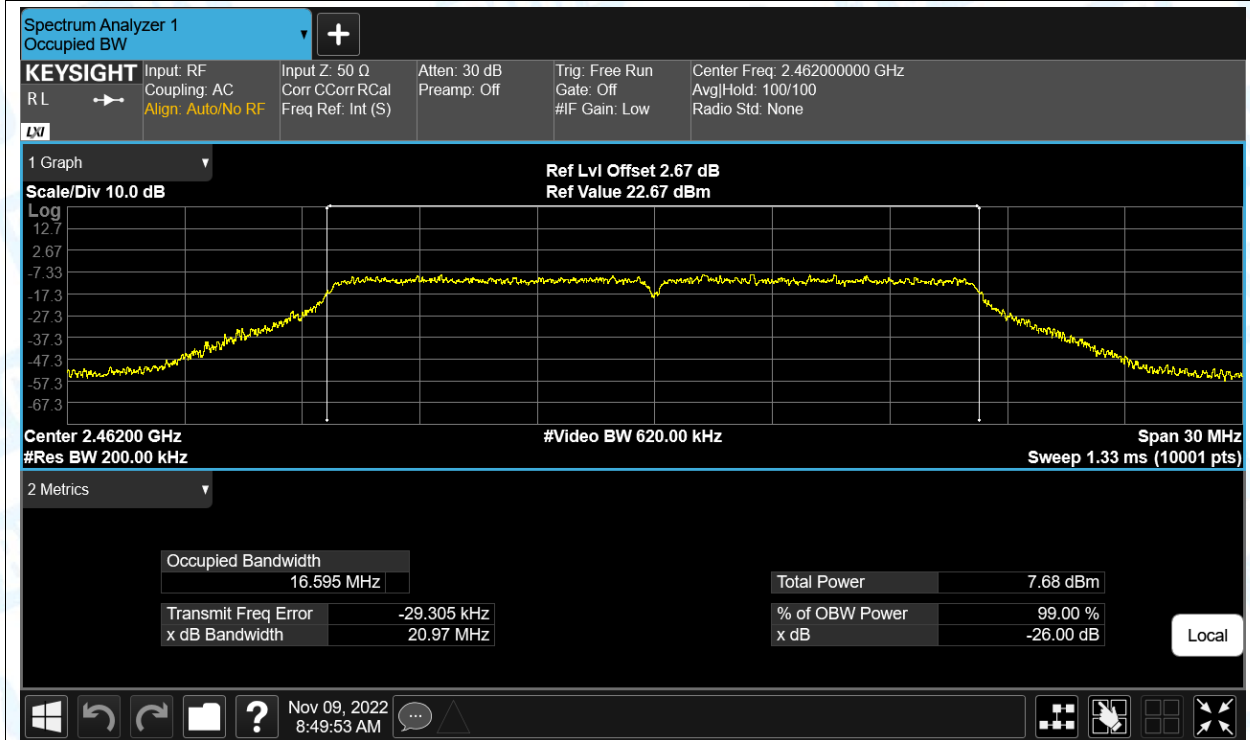




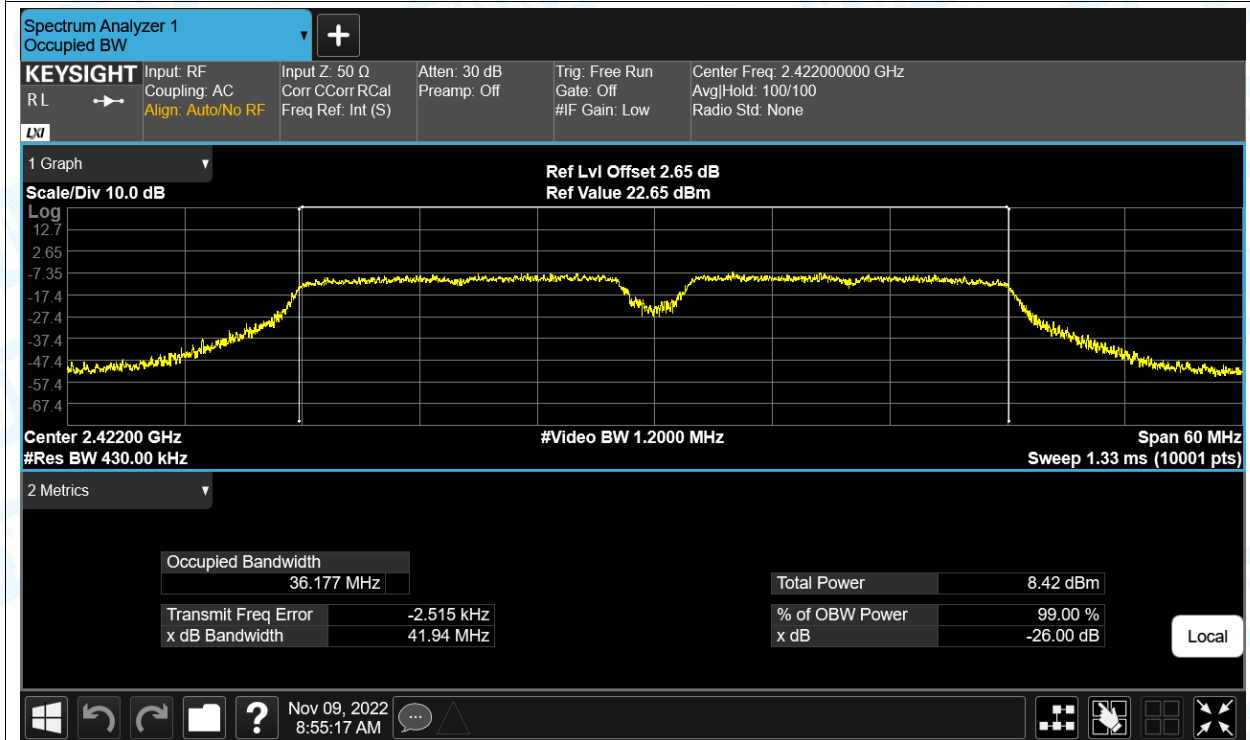




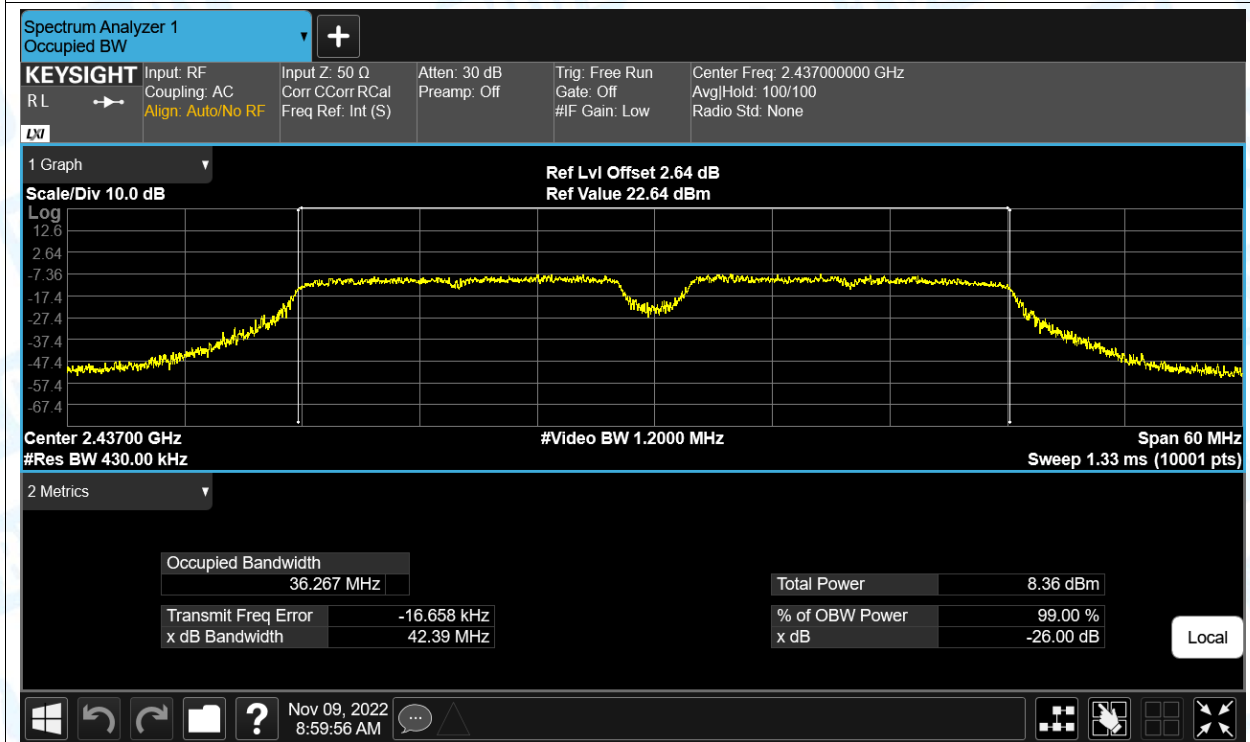
OBW NVNT n(HT20) 2462MHz Ant1



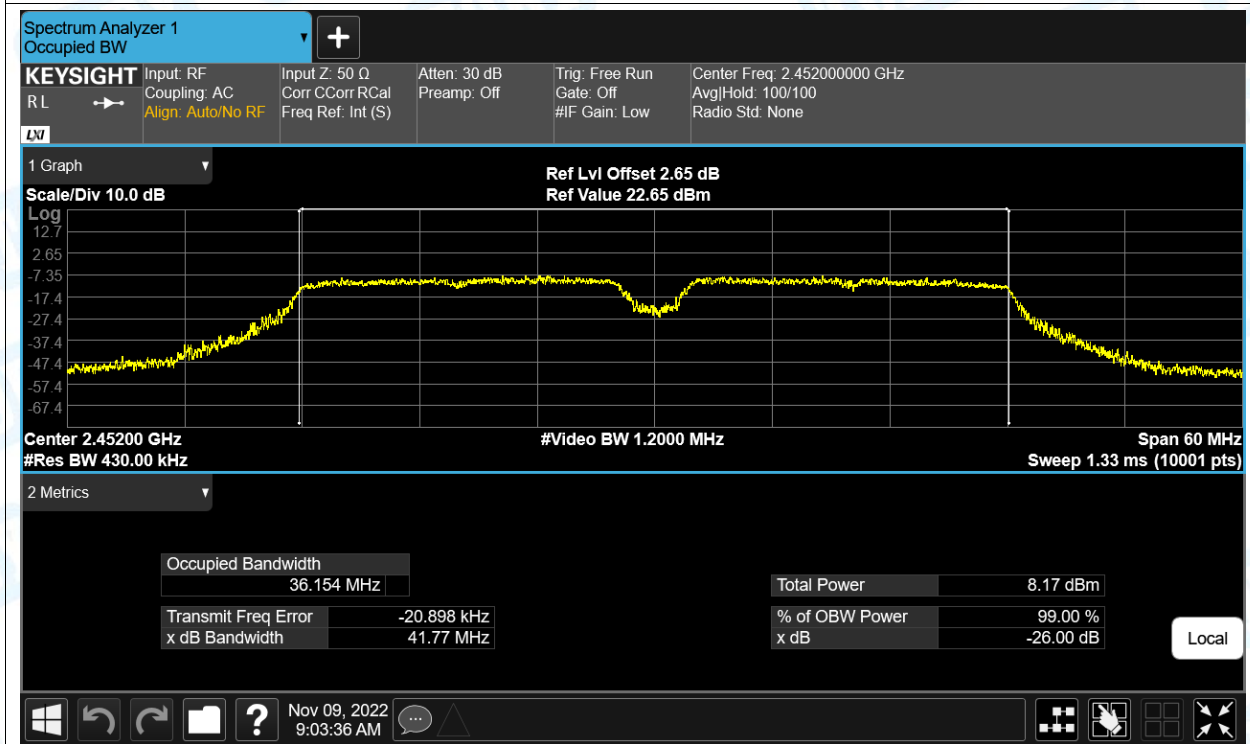
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

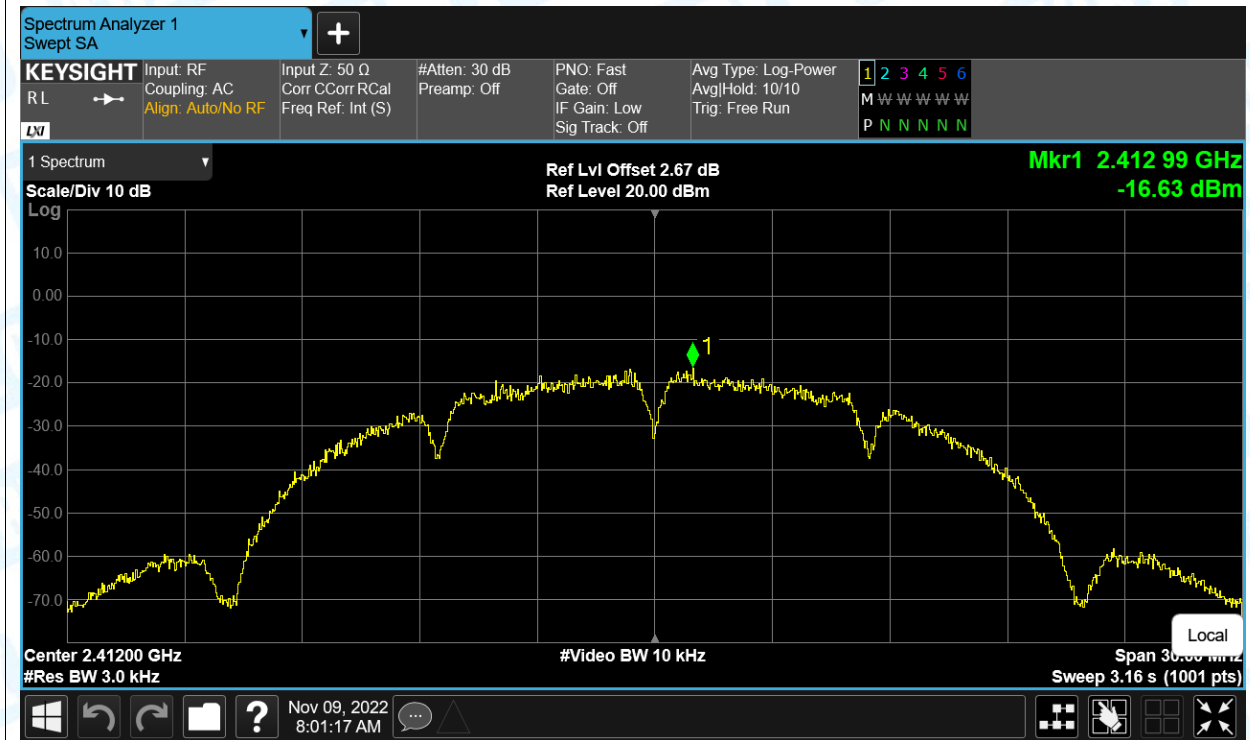


5. Maximum Power Spectral Density Level

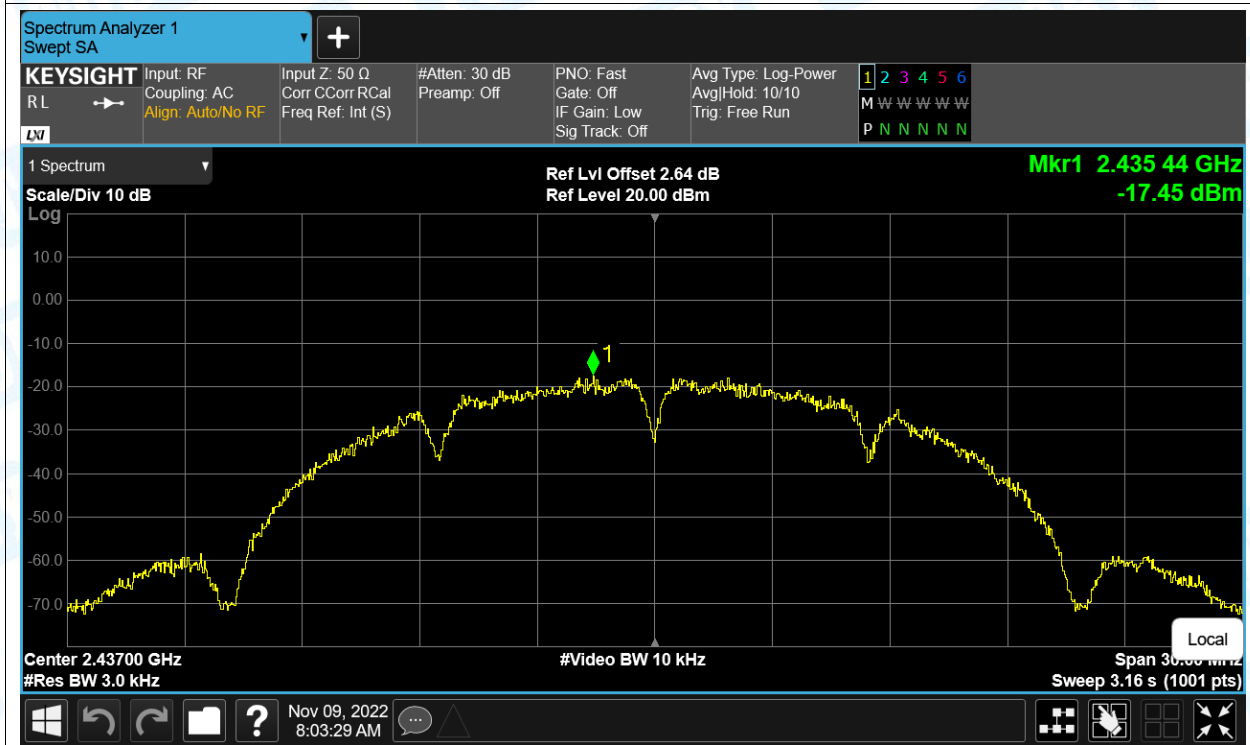
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-16.629	8	Pass
NVNT	b	2437	Ant1	-17.448	8	Pass
NVNT	b	2462	Ant1	-17.586	8	Pass
NVNT	g	2412	Ant1	-23.026	8	Pass
NVNT	g	2437	Ant1	-23.061	8	Pass
NVNT	g	2462	Ant1	-22.615	8	Pass
NVNT	n(HT20)	2412	Ant1	-21.738	8	Pass
NVNT	n(HT20)	2437	Ant1	-22.071	8	Pass
NVNT	n(HT20)	2462	Ant1	-21.504	8	Pass
NVNT	n(HT40)	2422	Ant1	-23.832	8	Pass
NVNT	n(HT40)	2437	Ant1	-25.033	8	Pass
NVNT	n(HT40)	2452	Ant1	-24.039	8	Pass

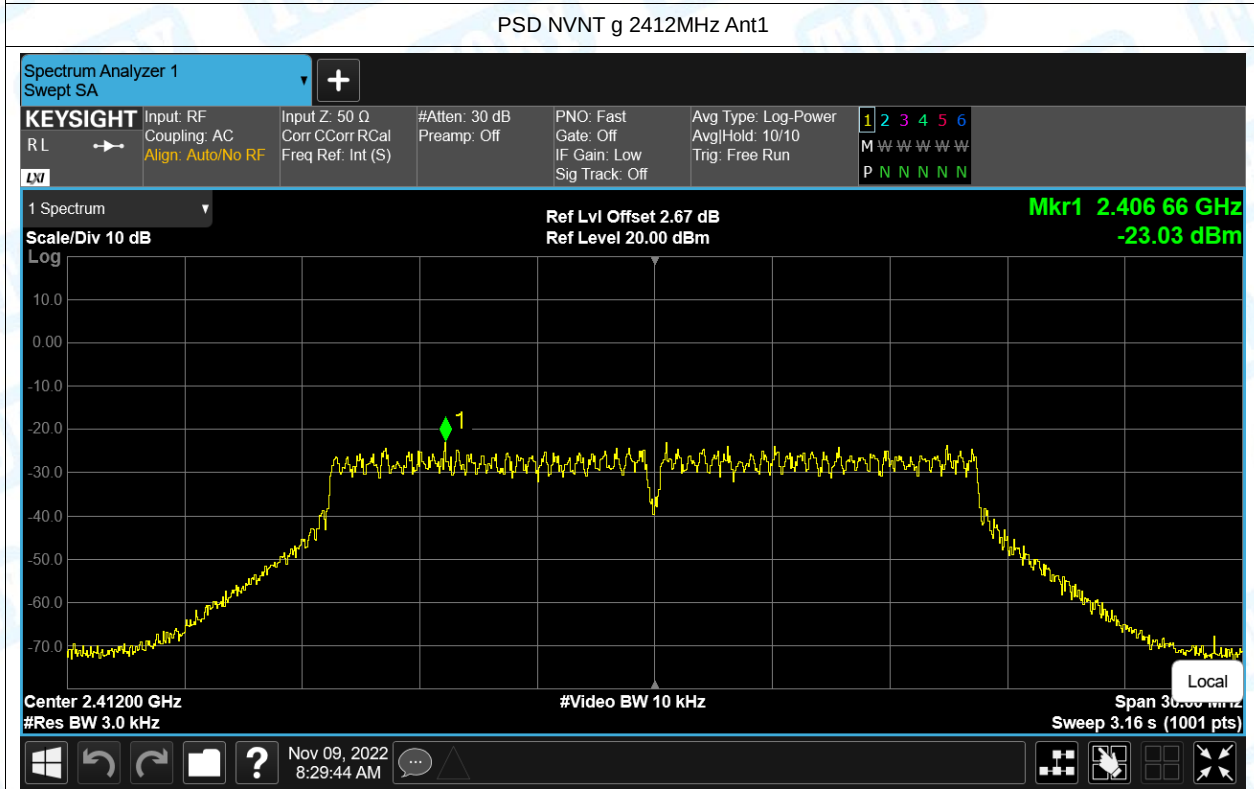
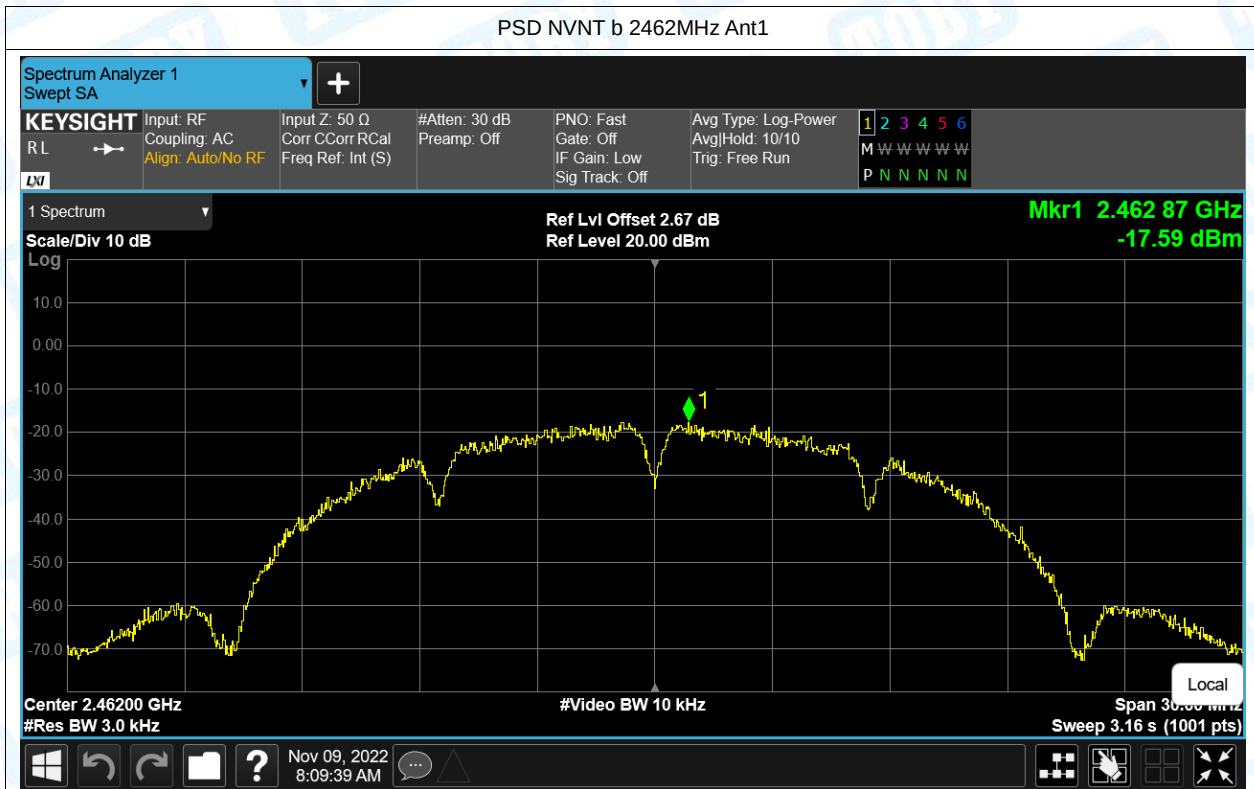
Test Graphs

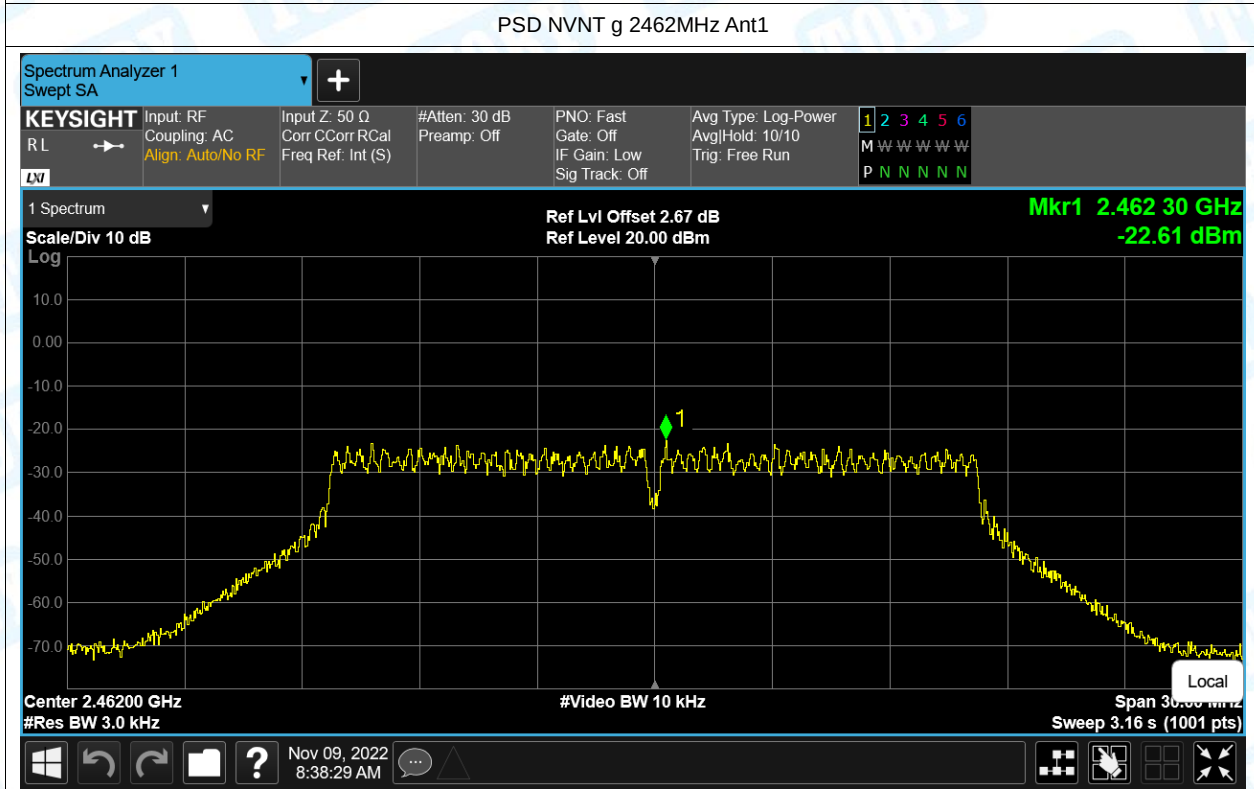
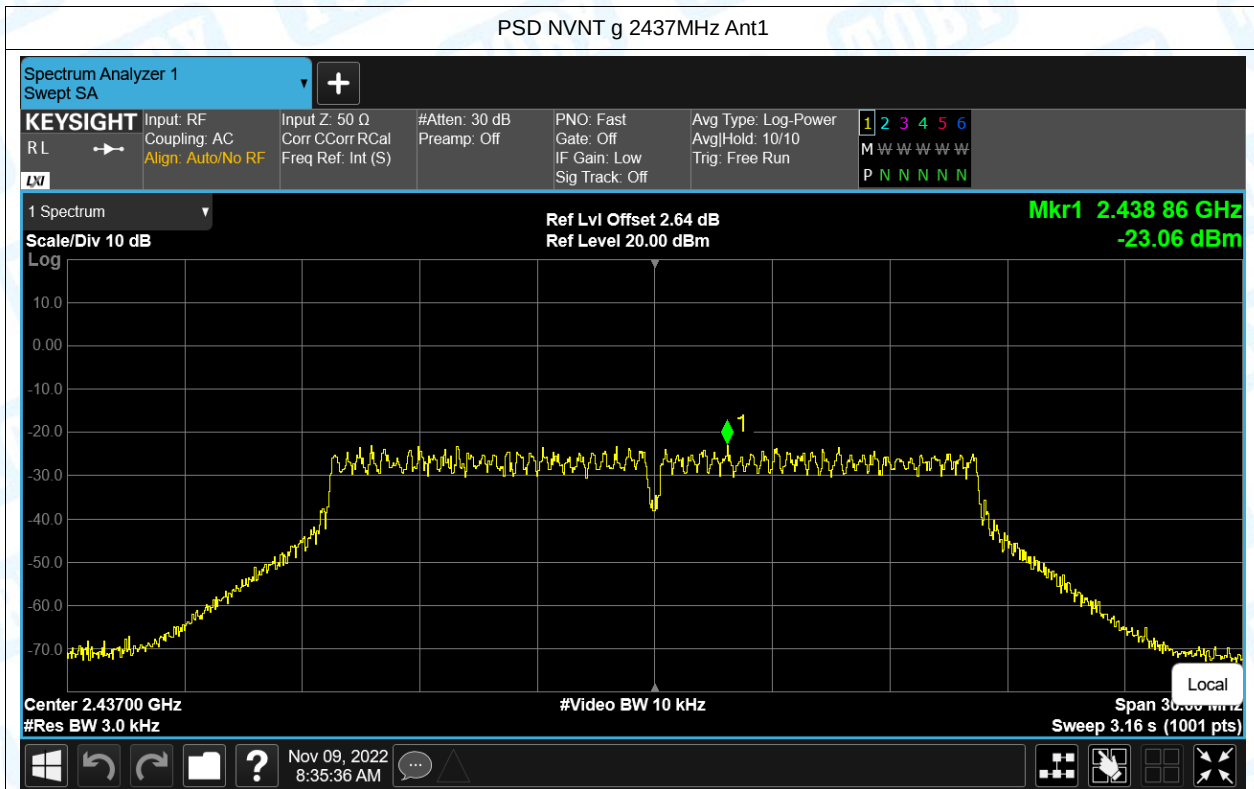
PSD NVNT b 2412MHz Ant1

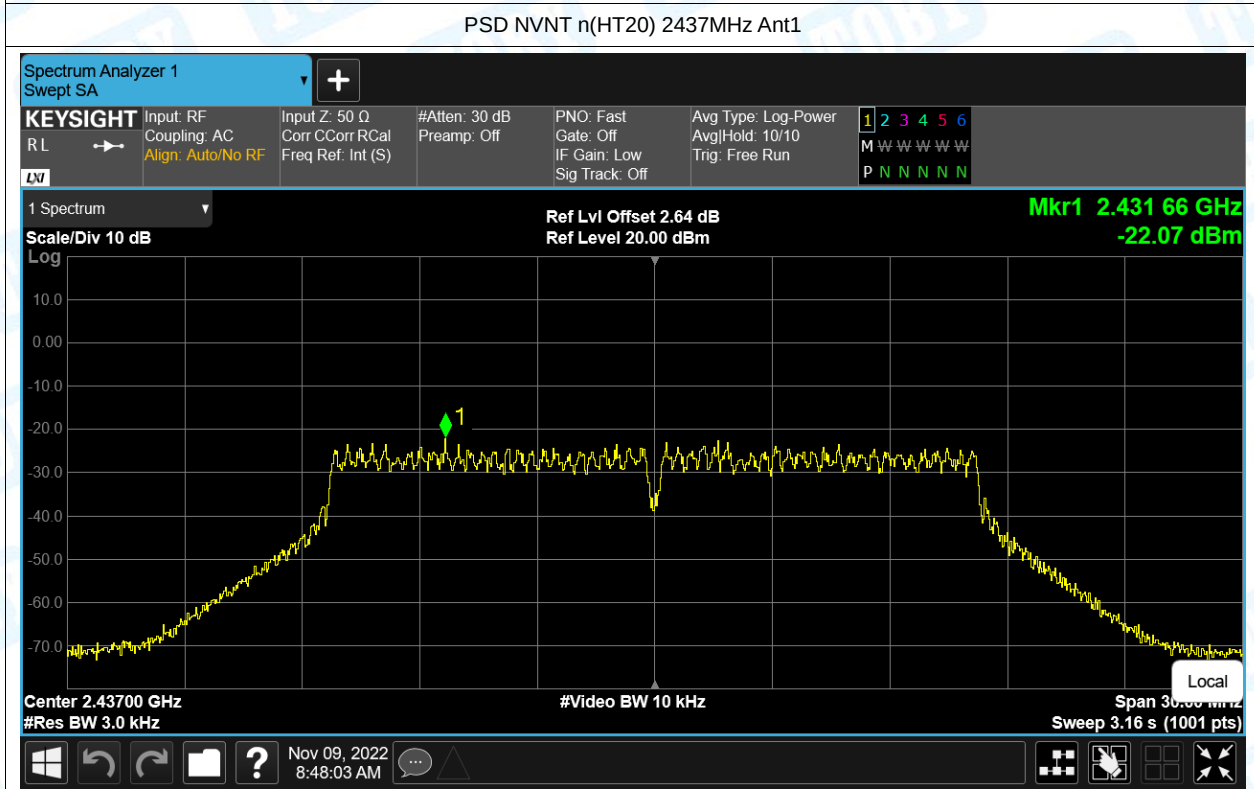
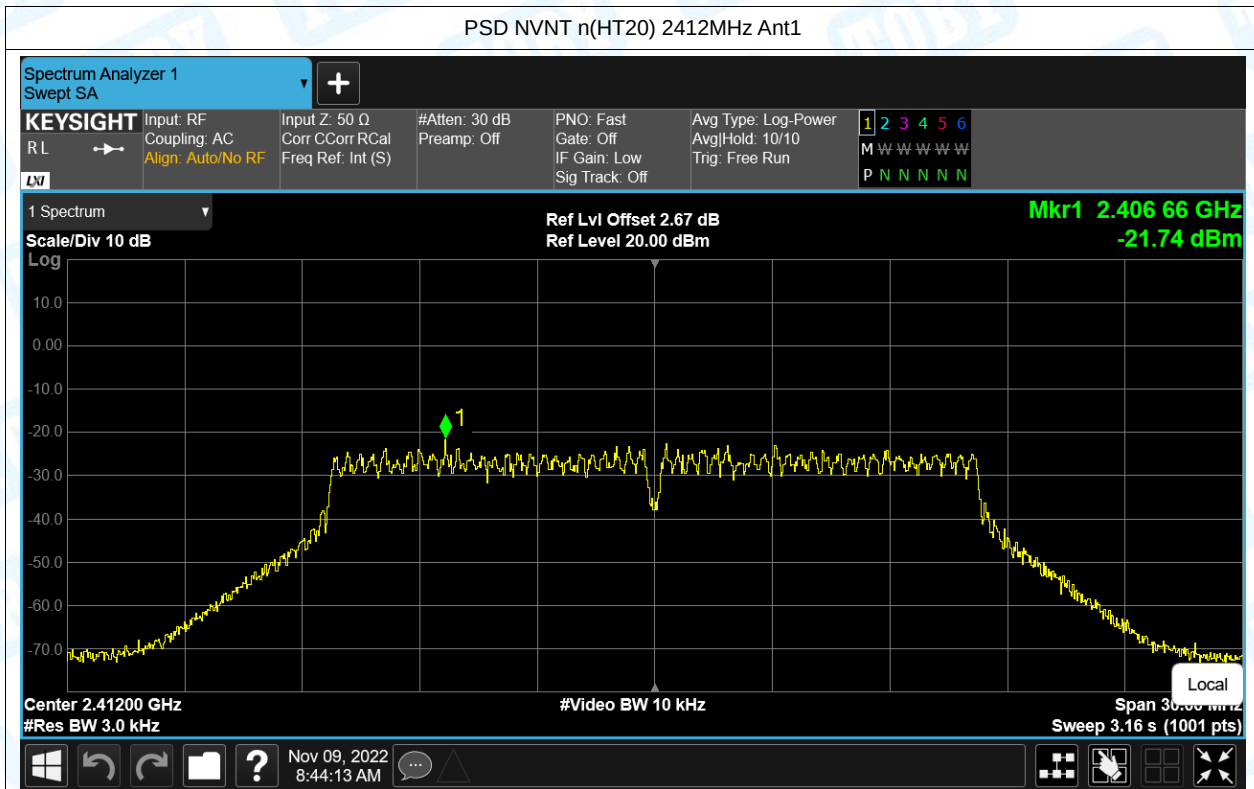


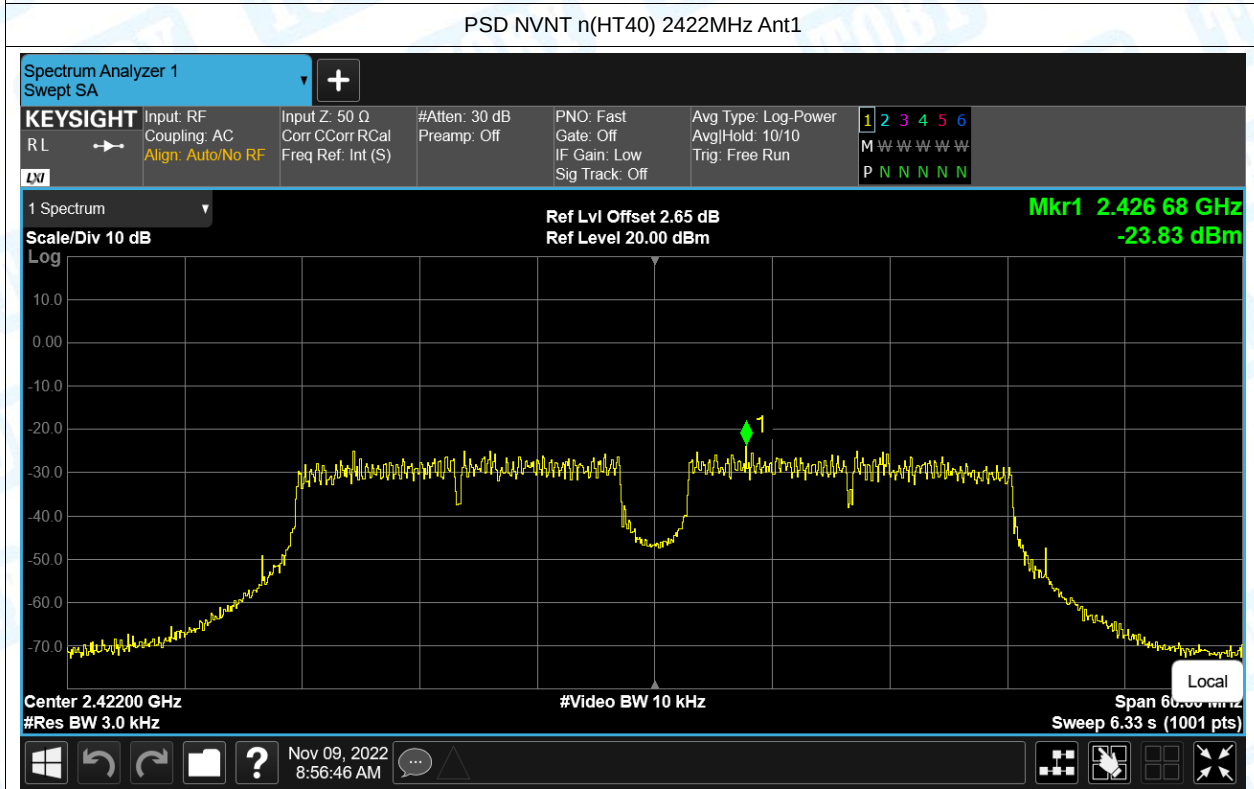
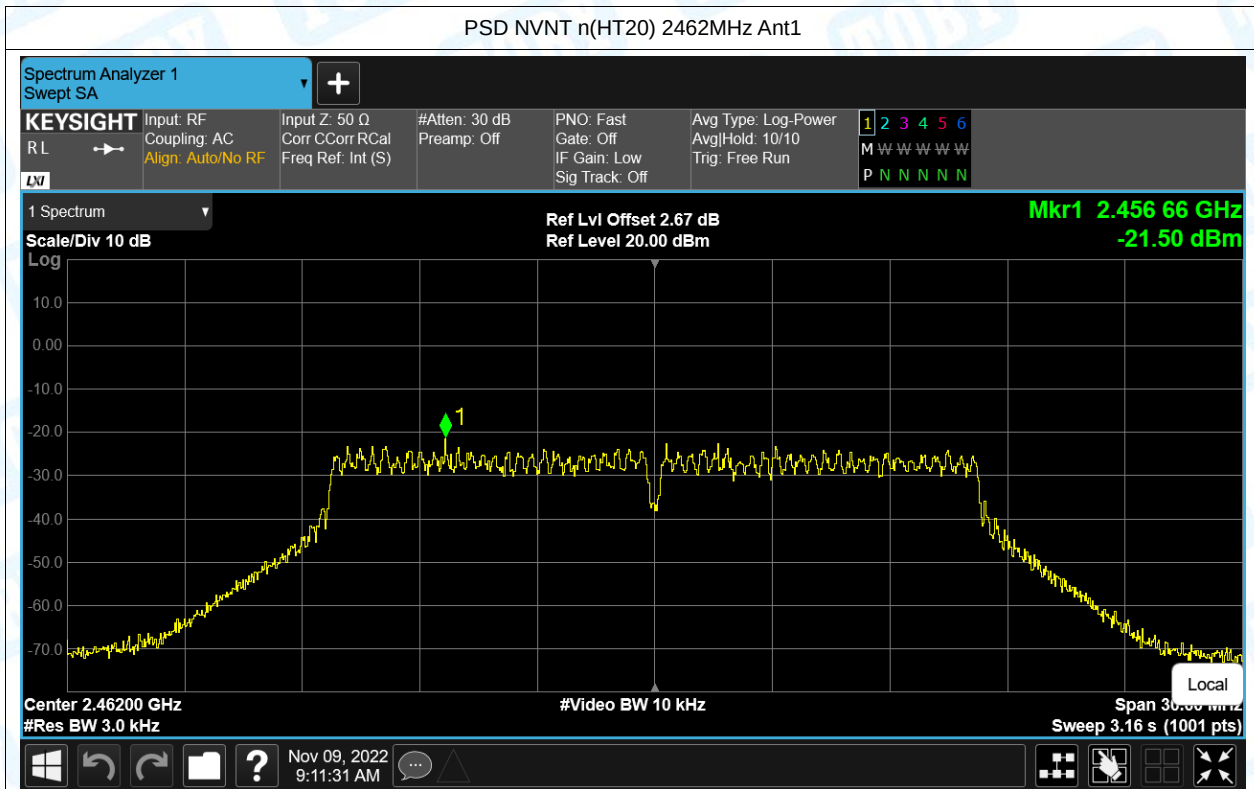
PSD NVNT b 2437MHz Ant1

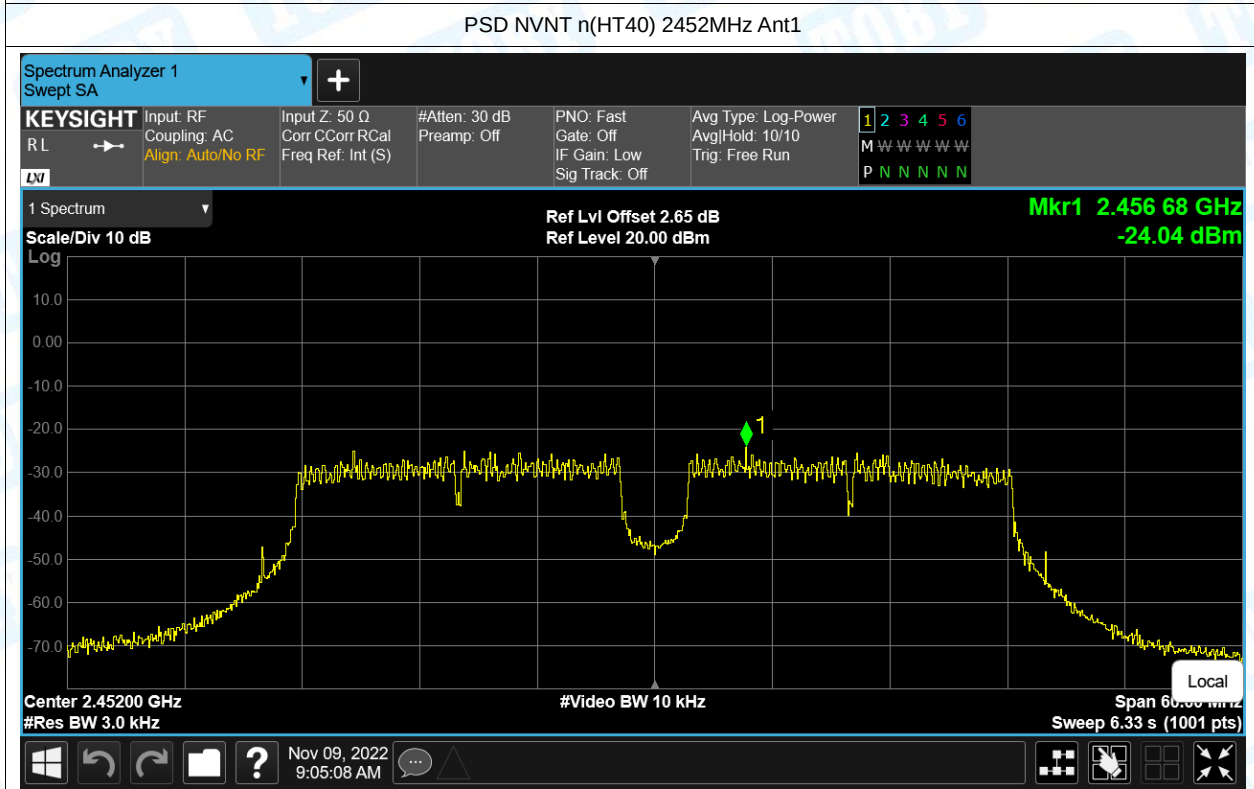
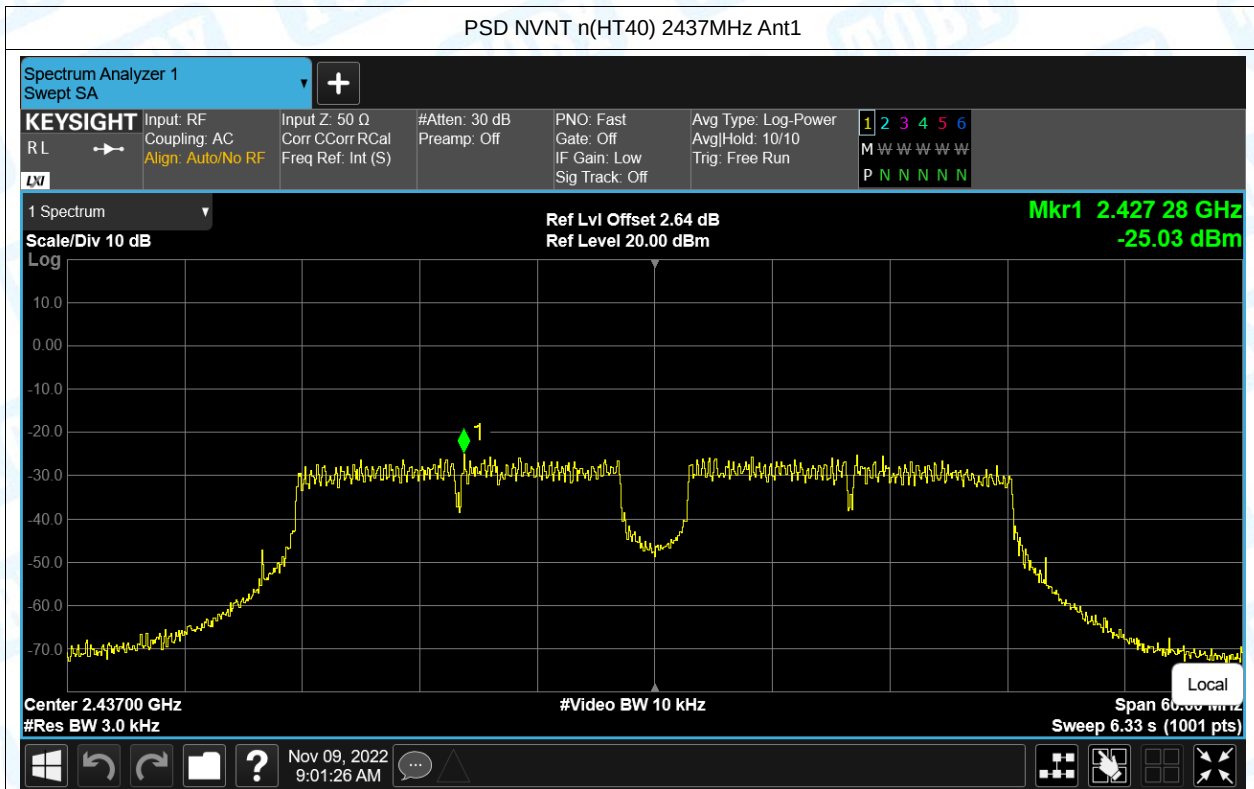












6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-51.92	-20	Pass
NVNT	b	2462	Ant1	-52.26	-20	Pass
NVNT	g	2412	Ant1	-46.07	-20	Pass
NVNT	g	2462	Ant1	-46.14	-20	Pass
NVNT	n(HT20)	2412	Ant1	-47.05	-20	Pass
NVNT	n(HT20)	2462	Ant1	-47.69	-20	Pass
NVNT	n(HT40)	2422	Ant1	-43.65	-20	Pass
NVNT	n(HT40)	2452	Ant1	-43.29	-20	Pass

