

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	RUGGEDIZED HAND-HELD DEVICE
Test Model:	CHAMELEON 5R V2 DUAL
Sample ID:	202202_0108-01-4
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.85V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202202-0108-142	

Contents

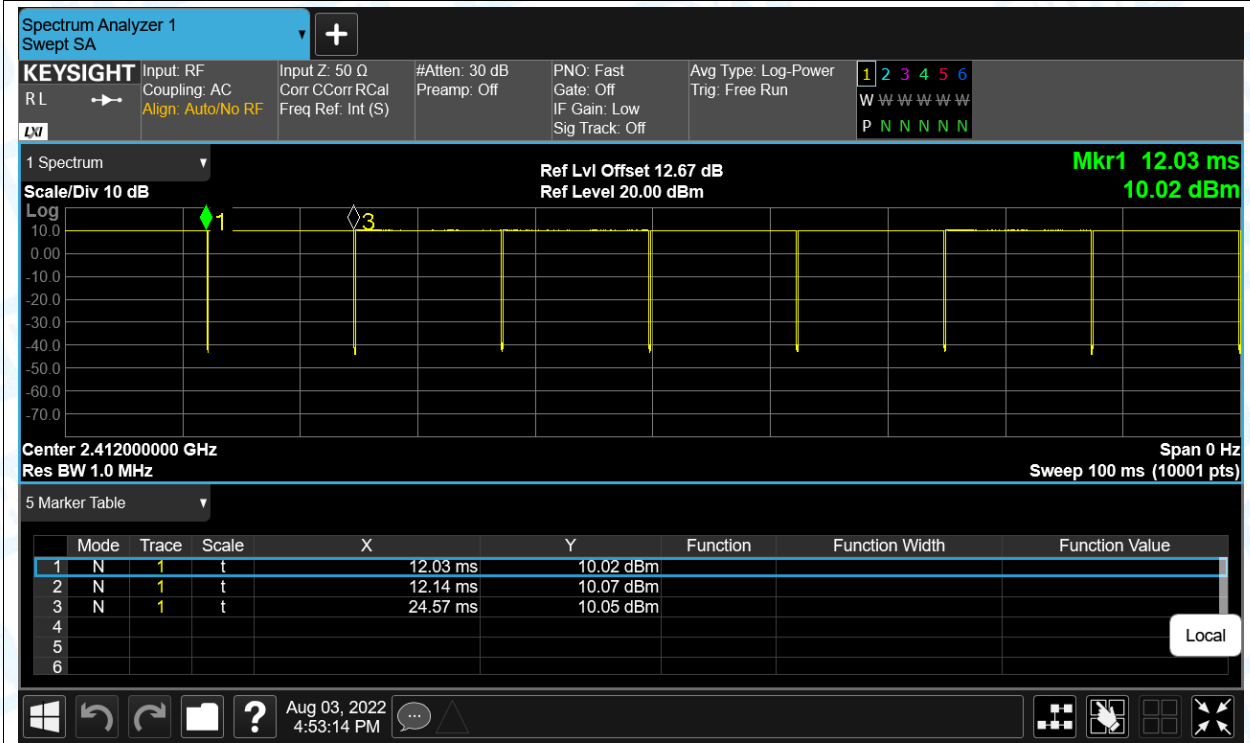
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1. Duty Cycle

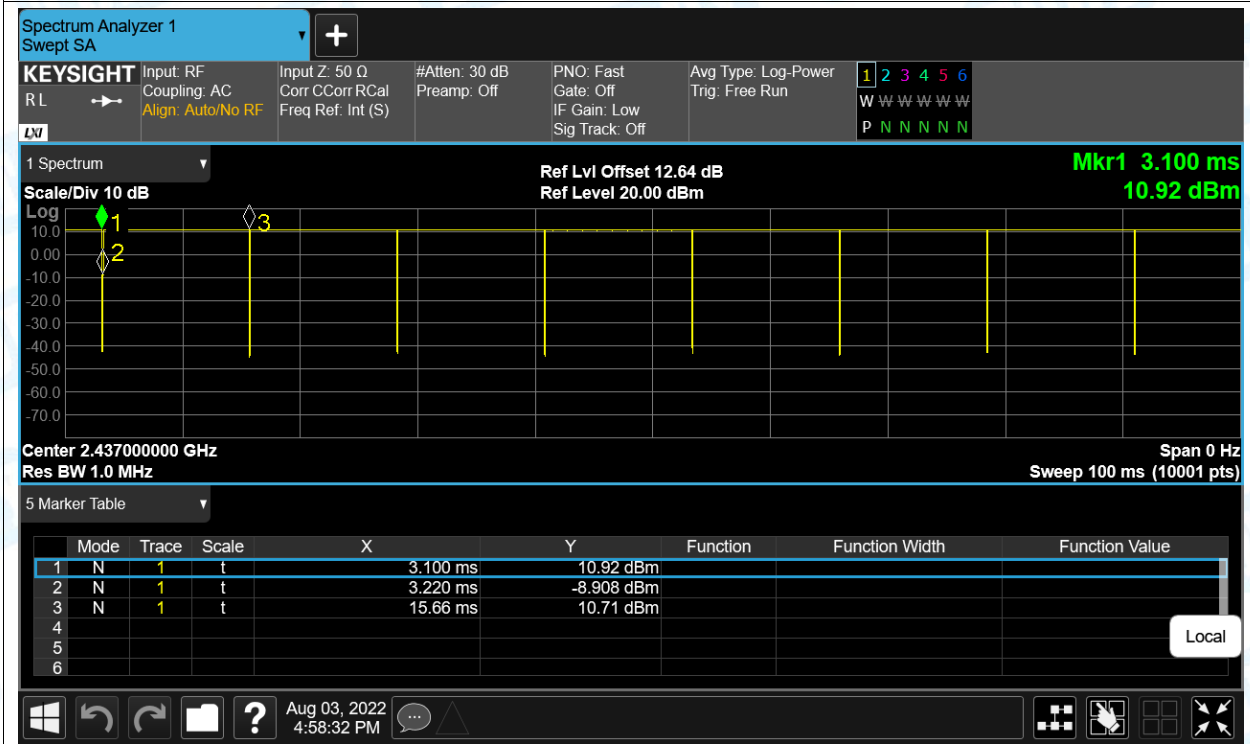
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.27	0.03	0.08
NVNT	b	2437	Ant1	99.24	0.03	0.08
NVNT	b	2462	Ant1	99.29	0.03	0.08
NVNT	g	2412	Ant1	99.03	0.04	0.49
NVNT	g	2437	Ant1	99	0.04	0.49
NVNT	g	2462	Ant1	99.06	0.04	0.48
NVNT	n(HT20)	2412	Ant1	99.02	0.04	0.52
NVNT	n(HT20)	2437	Ant1	98.91	0.05	0.52
NVNT	n(HT20)	2462	Ant1	98.87	0.05	0.52
NVNT	n(HT40)	2422	Ant1	96.6	0.15	1.05
NVNT	n(HT40)	2437	Ant1	96.74	0.14	1.05
NVNT	n(HT40)	2452	Ant1	96.71	0.15	1.04

Test Graphs

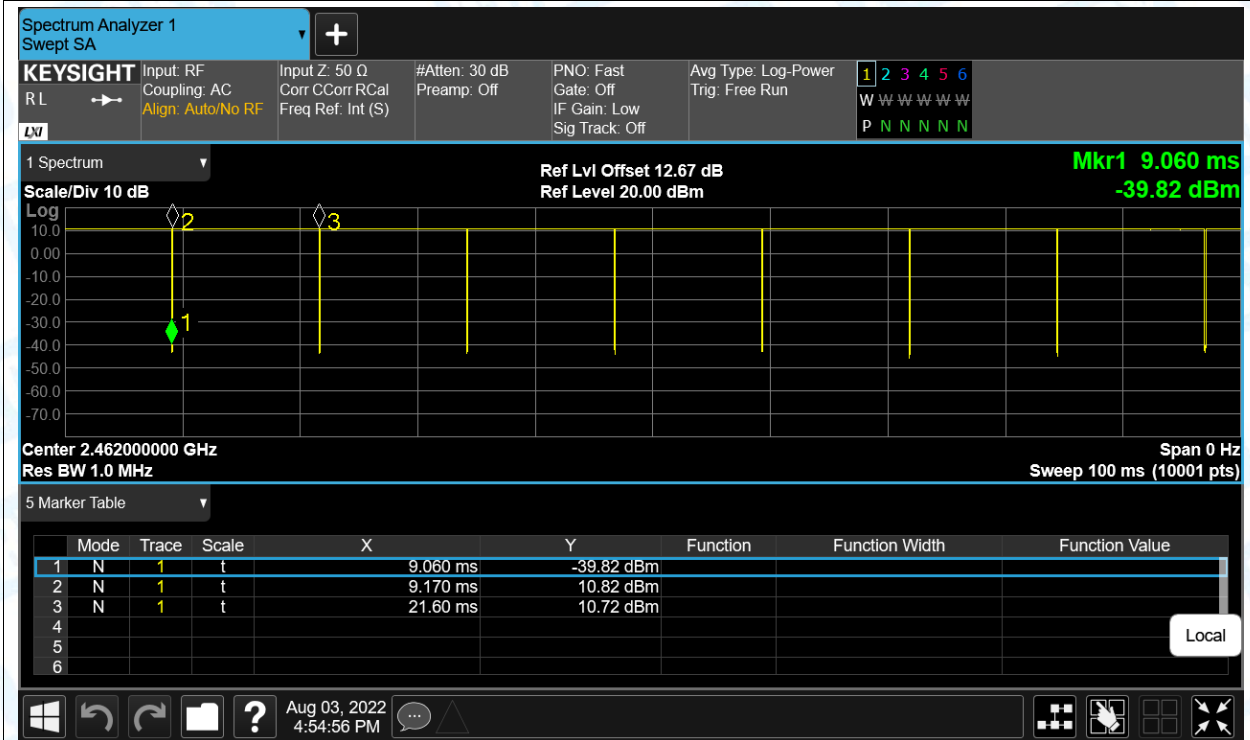
Duty Cycle NVNT b 2412MHz Ant1



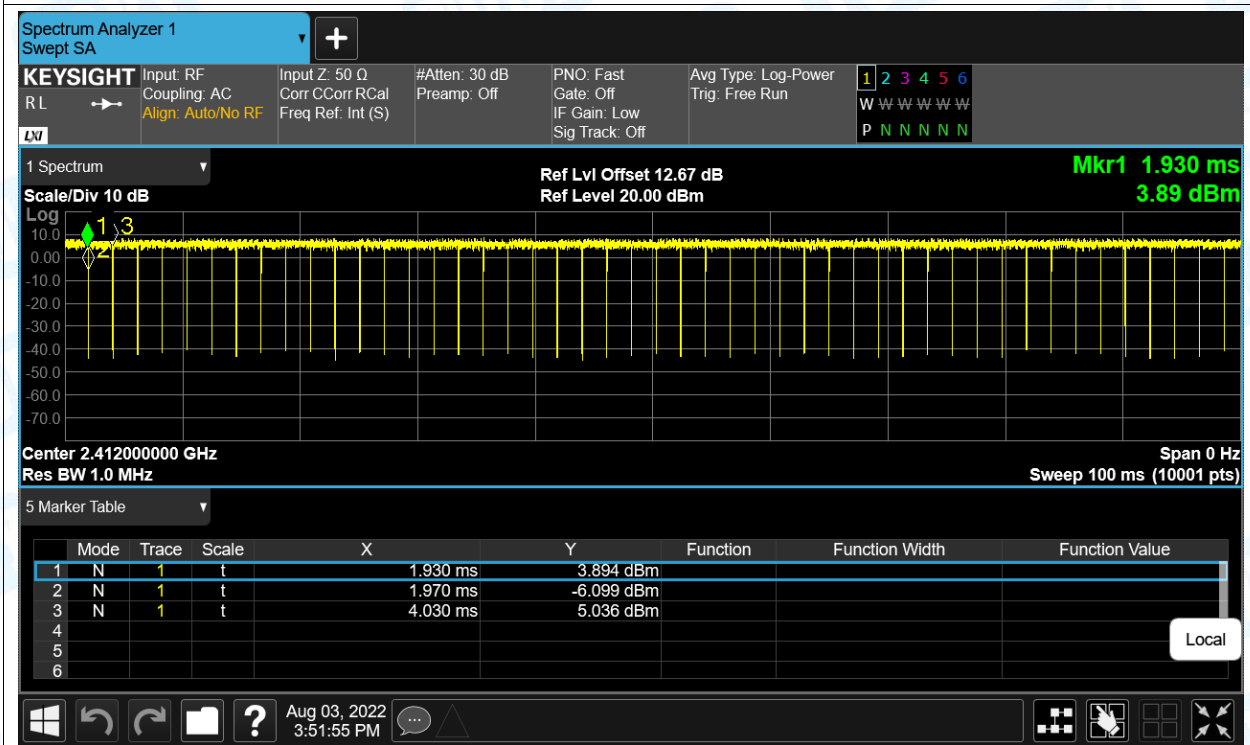
Duty Cycle NVNT b 2437MHz Ant1



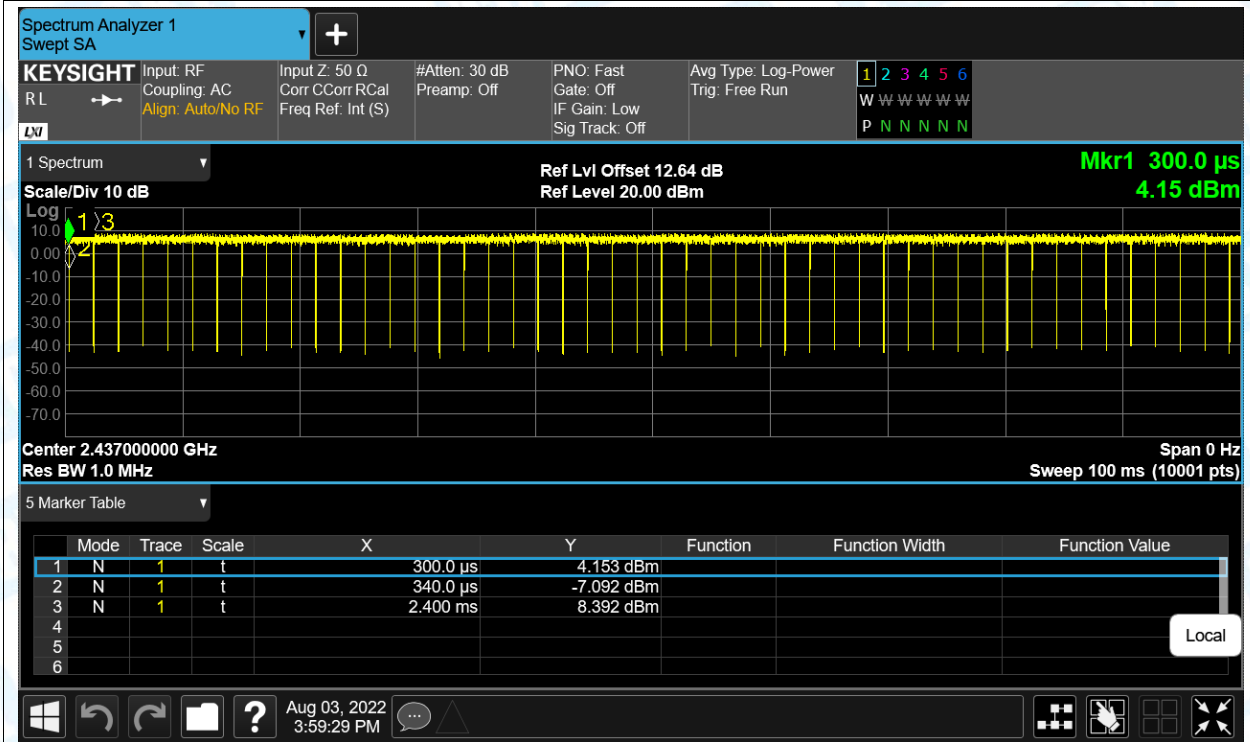
Duty Cycle NVNT b 2462MHz Ant1



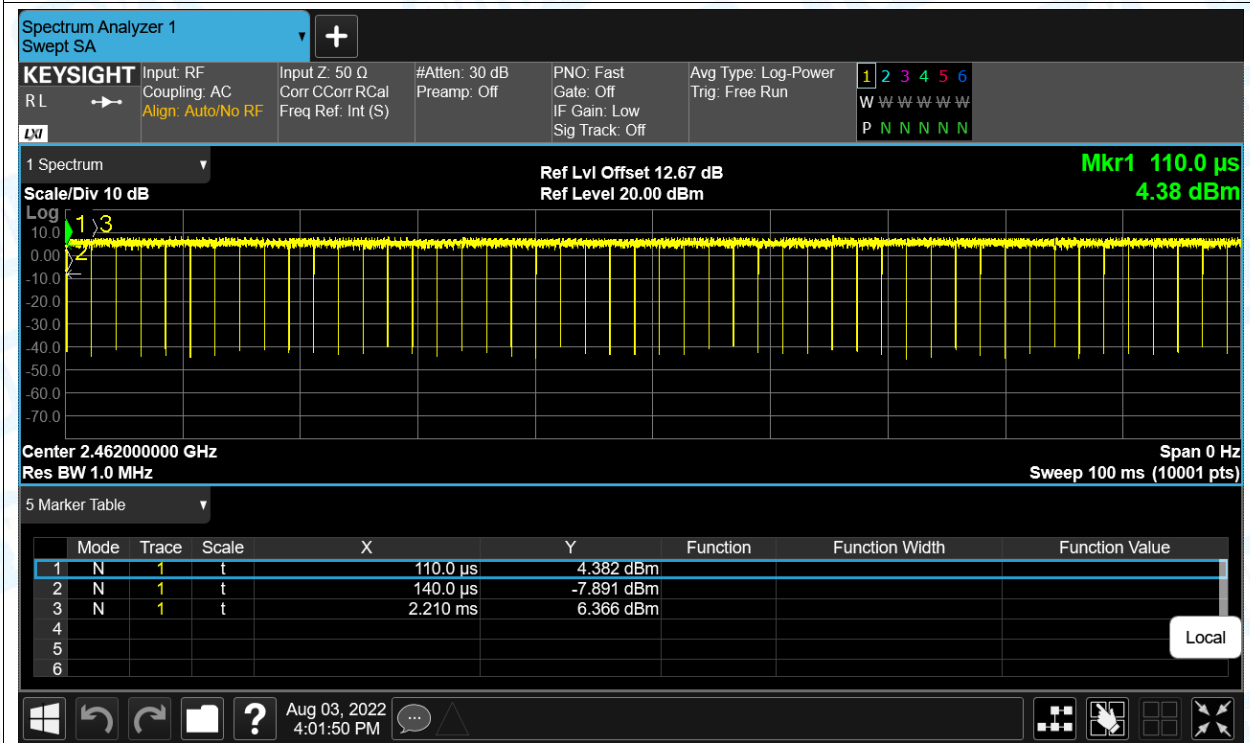
Duty Cycle NVNT g 2412MHz Ant1



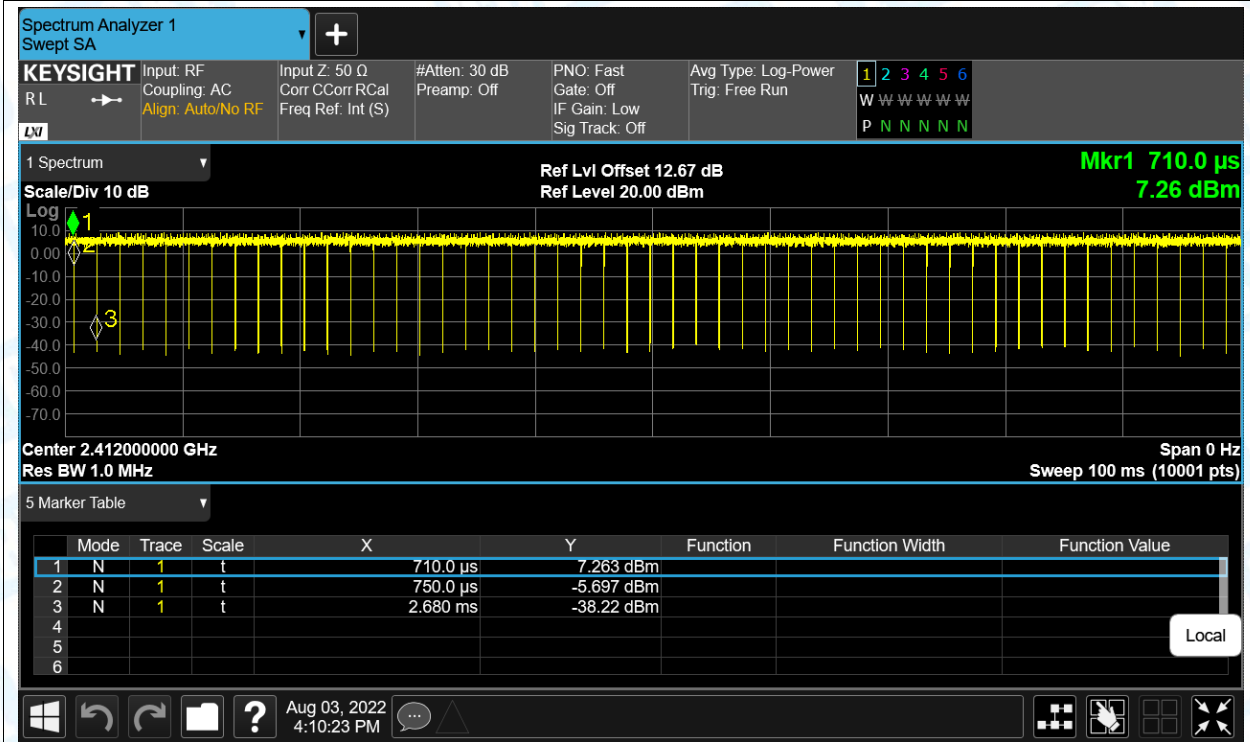
Duty Cycle NVNT g 2437MHz Ant1



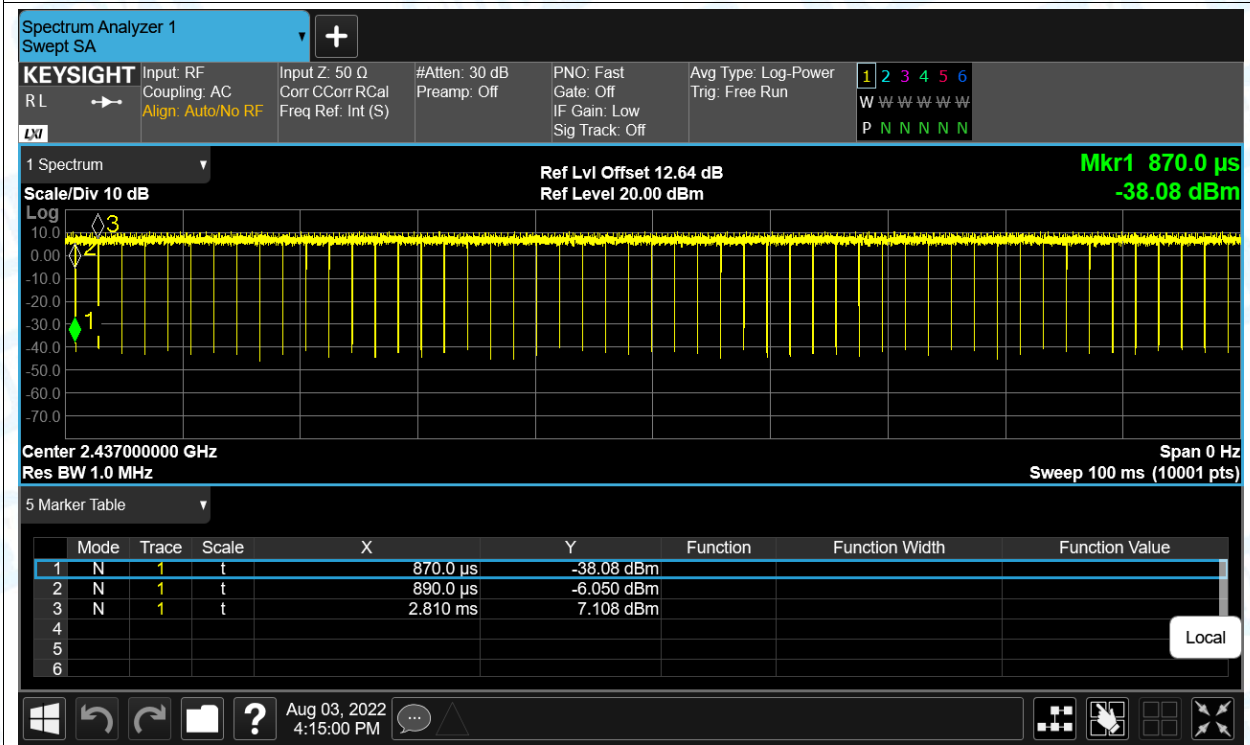
Duty Cycle NVNT g 2462MHz Ant1

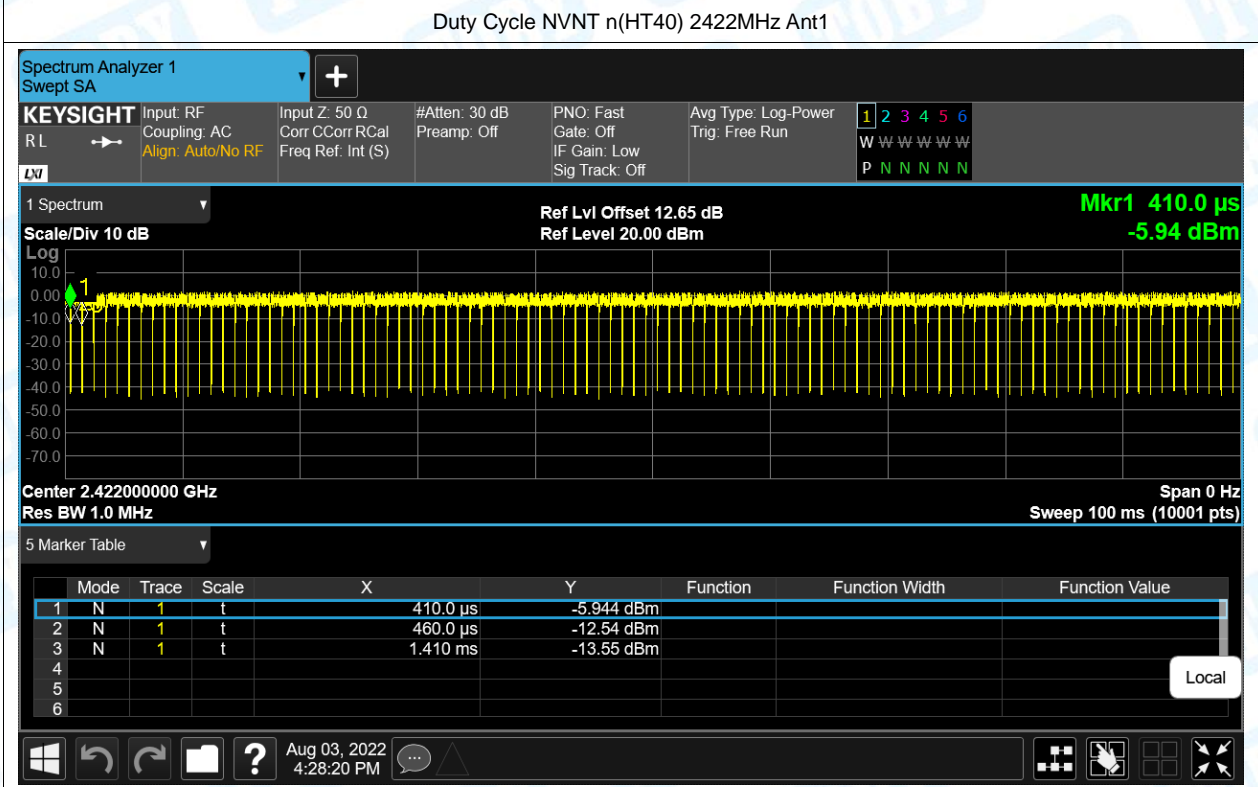
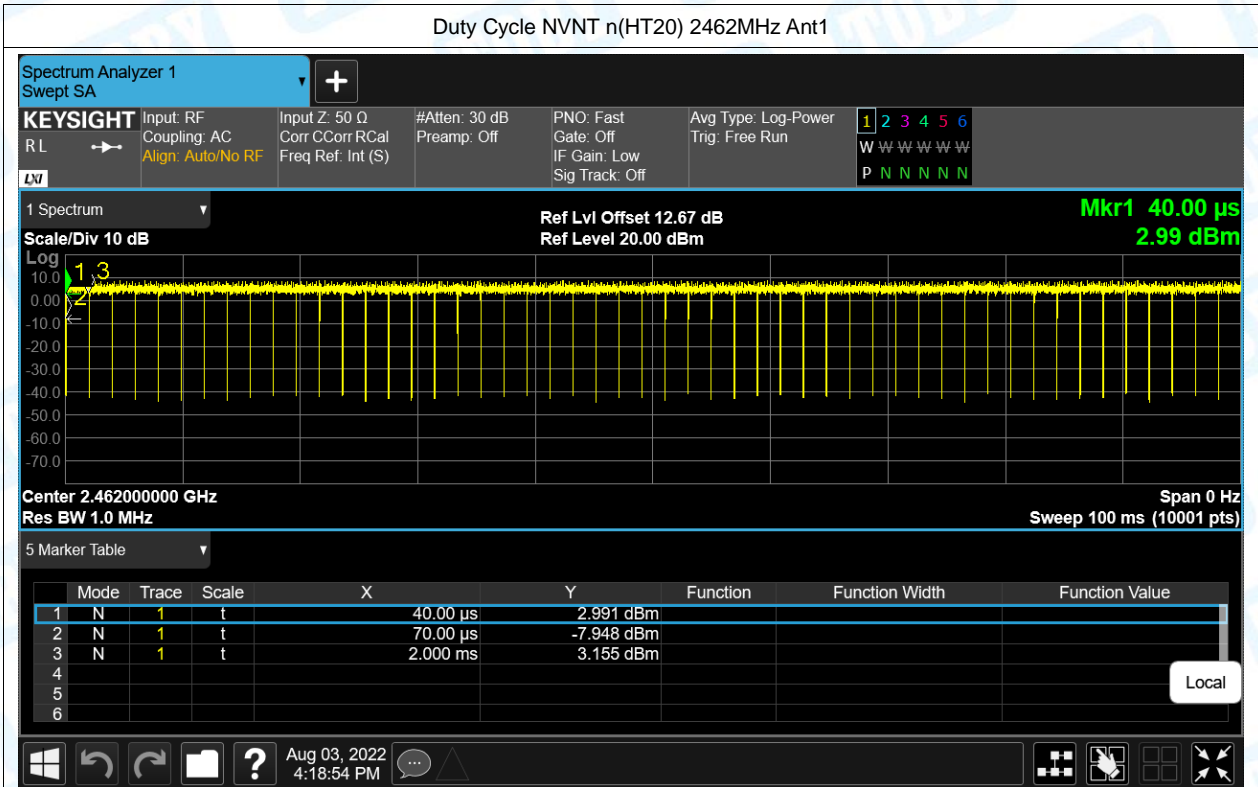


Duty Cycle NVNT n(HT20) 2412MHz Ant1

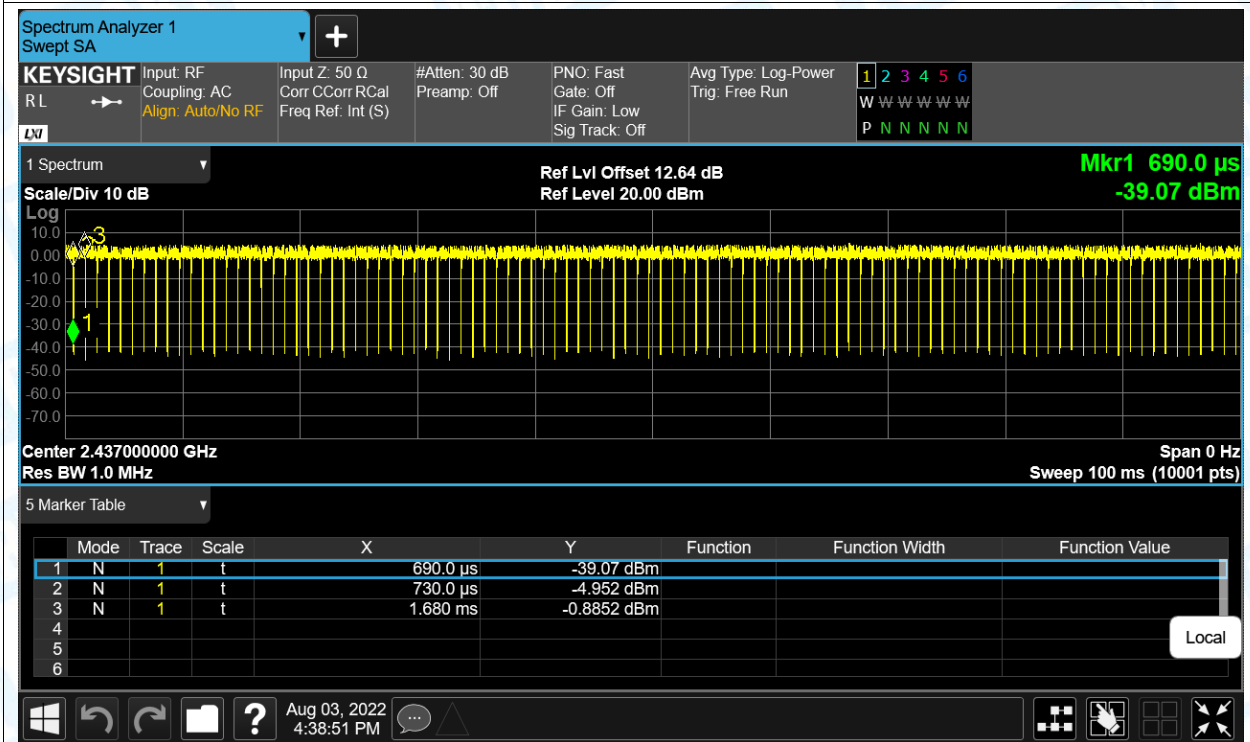


Duty Cycle NVNT n(HT20) 2437MHz Ant1

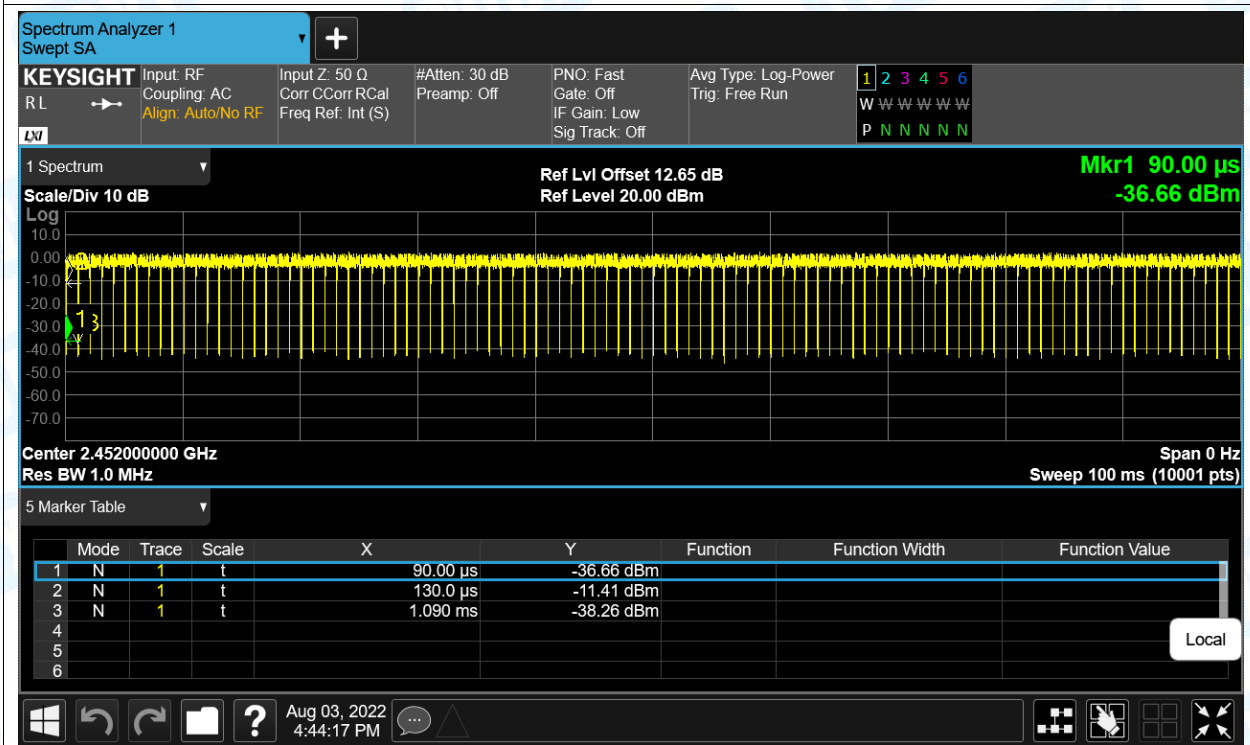




Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

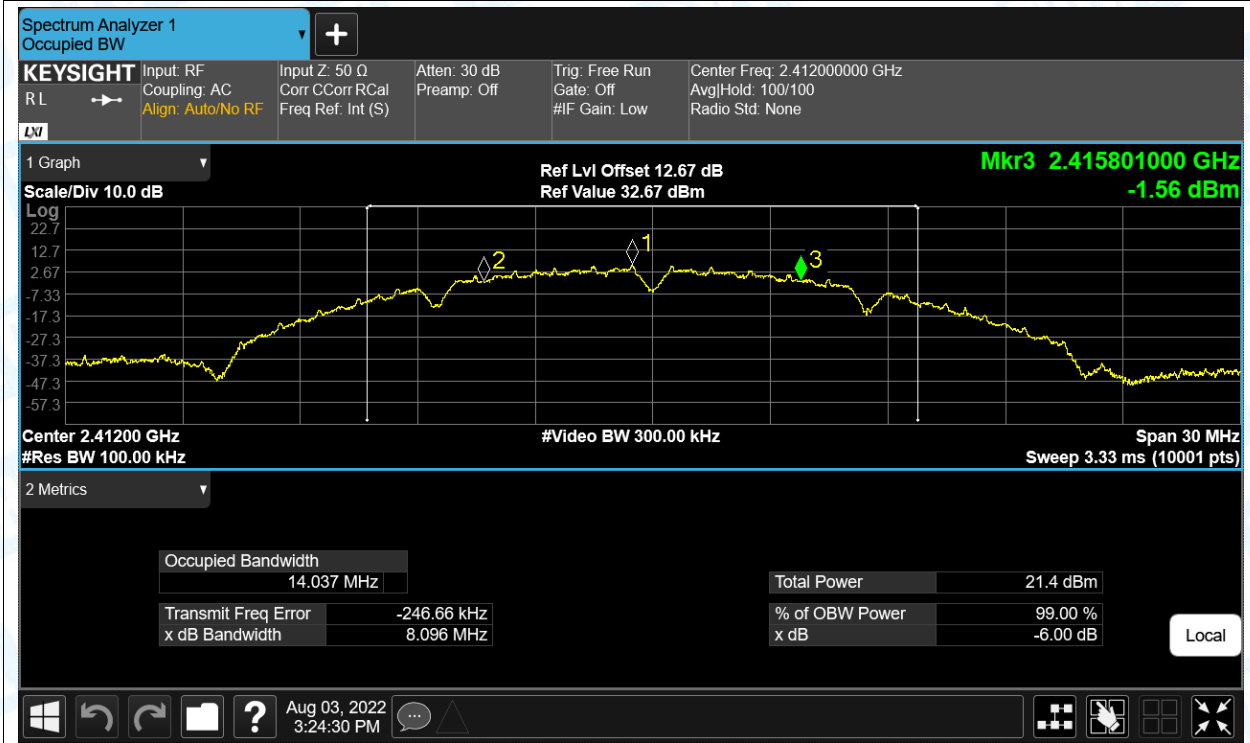
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.745	30	Pass
NVNT	b	2437	Ant1	17.378	30	Pass
NVNT	b	2462	Ant1	17.536	30	Pass
NVNT	g	2412	Ant1	17.451	30	Pass
NVNT	g	2437	Ant1	17.164	30	Pass
NVNT	g	2462	Ant1	16.413	30	Pass
NVNT	n(HT20)	2412	Ant1	17.538	30	Pass
NVNT	n(HT20)	2437	Ant1	17.036	30	Pass
NVNT	n(HT20)	2462	Ant1	17.349	30	Pass
NVNT	n(HT40)	2422	Ant1	17.358	30	Pass
NVNT	n(HT40)	2437	Ant1	16.942	30	Pass
NVNT	n(HT40)	2452	Ant1	16.952	30	Pass

3. -6dB Bandwidth

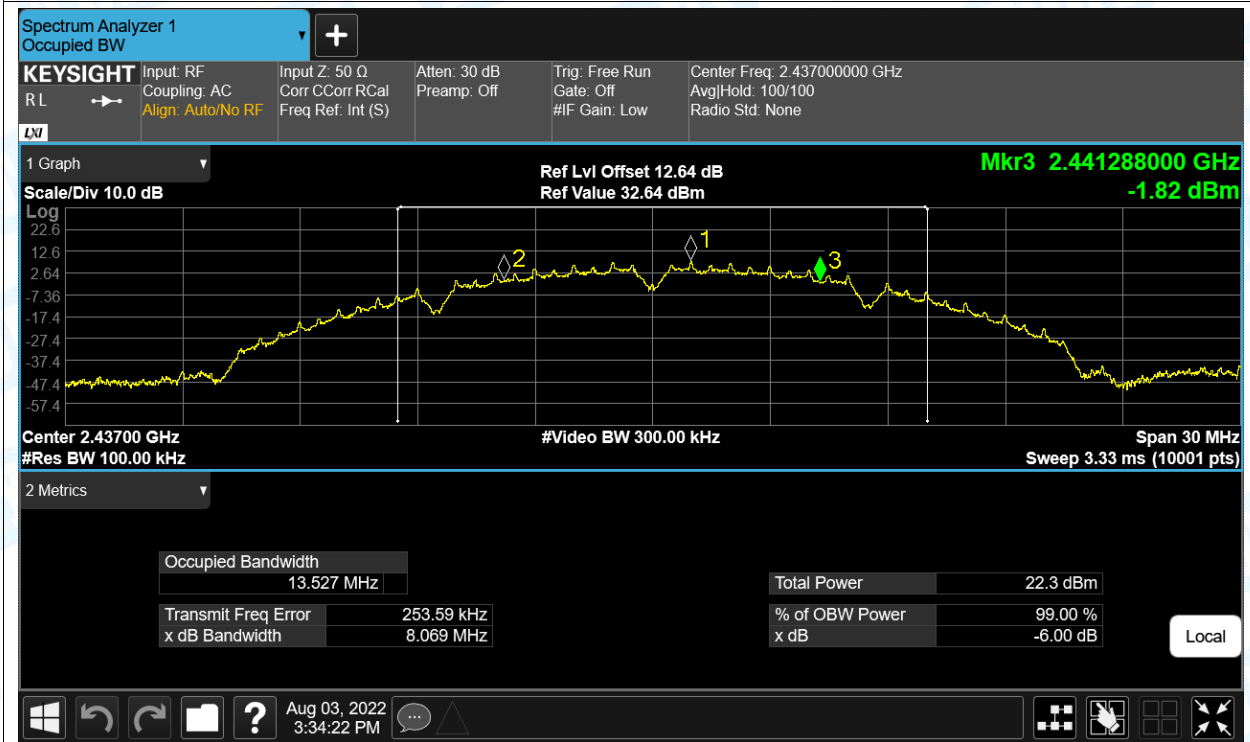
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.1	0.5	Pass
NVNT	b	2437	Ant1	8.07	0.5	Pass
NVNT	b	2462	Ant1	8.09	0.5	Pass
NVNT	g	2412	Ant1	15.7	0.5	Pass
NVNT	g	2437	Ant1	12.66	0.5	Pass
NVNT	g	2462	Ant1	16.33	0.5	Pass
NVNT	n(HT20)	2412	Ant1	16.37	0.5	Pass
NVNT	n(HT20)	2437	Ant1	13.1	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.6	0.5	Pass
NVNT	n(HT40)	2422	Ant1	36.31	0.5	Pass
NVNT	n(HT40)	2437	Ant1	30	0.5	Pass
NVNT	n(HT40)	2452	Ant1	28.86	0.5	Pass

Test Graphs

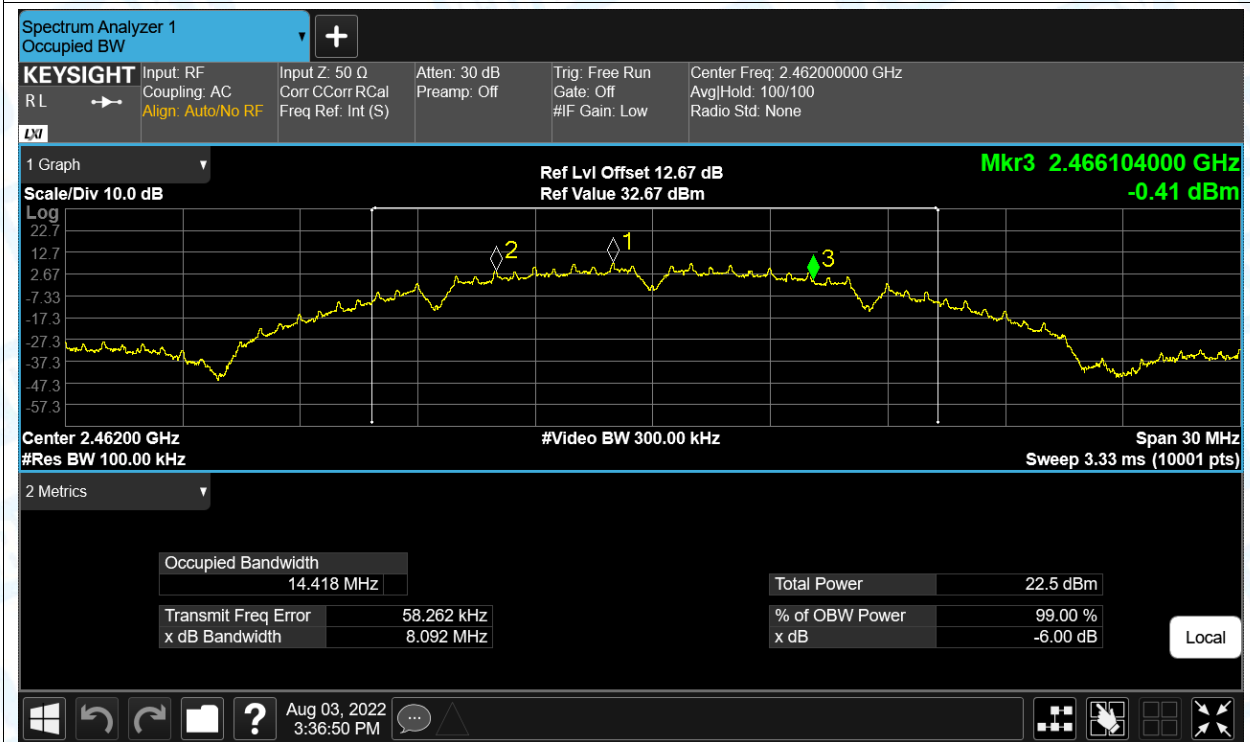
-6dB Bandwidth NVNT b 2412MHz Ant1



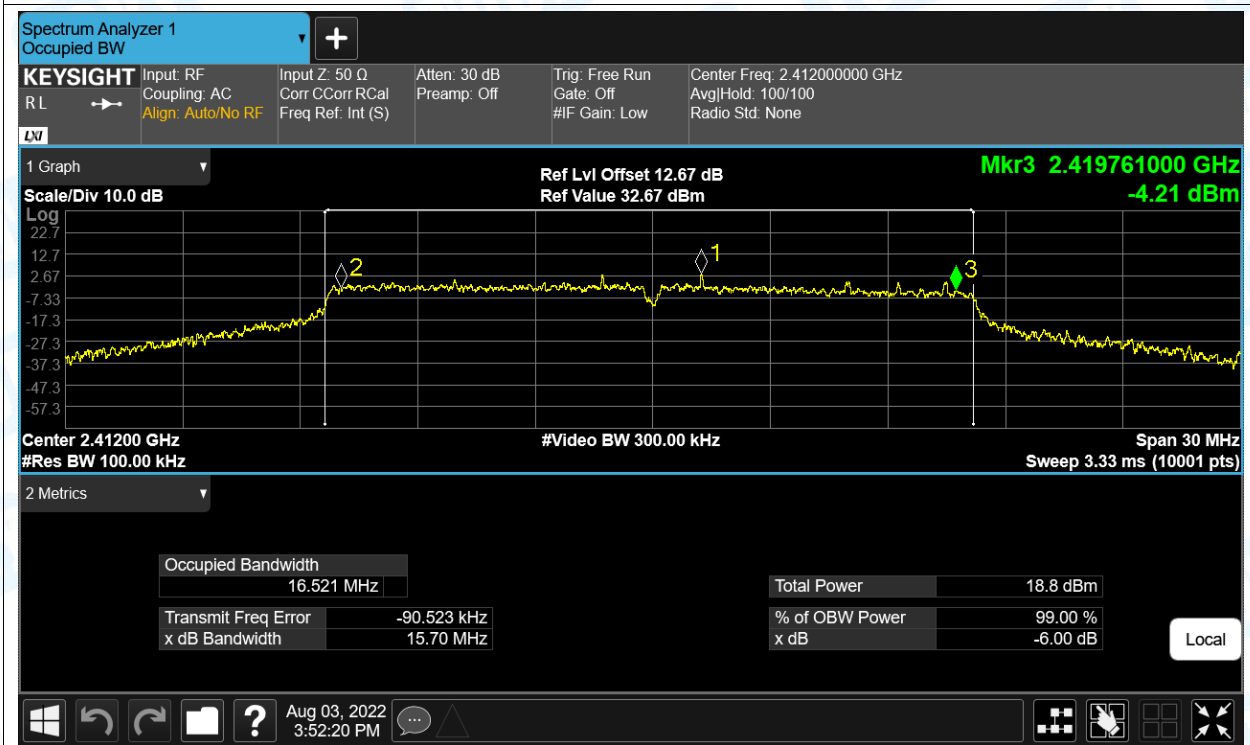
-6dB Bandwidth NVNT b 2437MHz Ant1



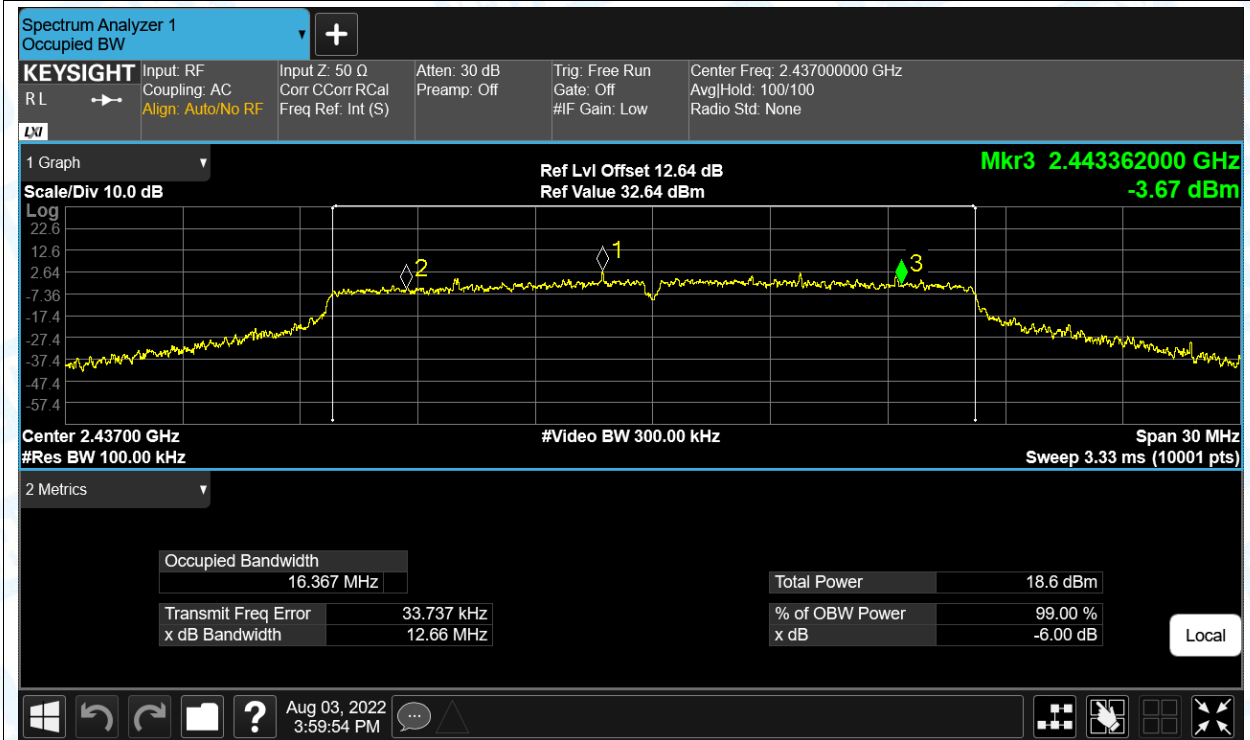
-6dB Bandwidth NVNT b 2462MHz Ant1



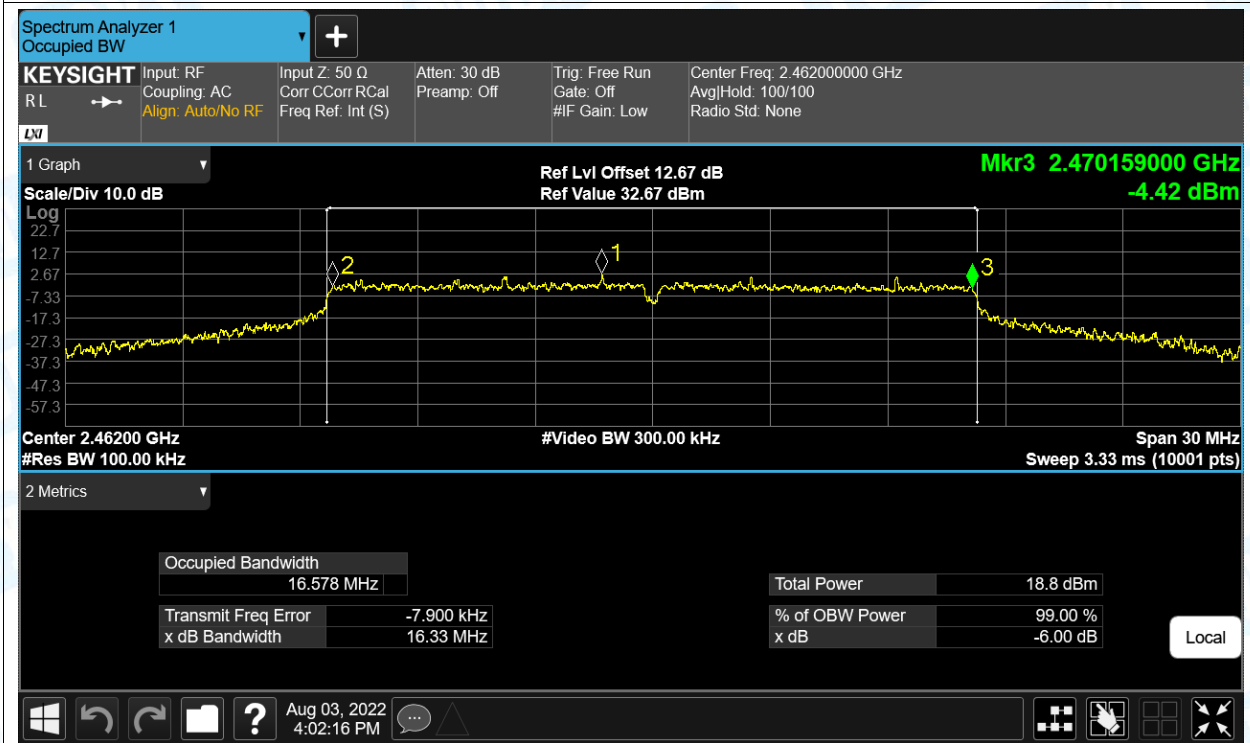
-6dB Bandwidth NVNT g 2412MHz Ant1



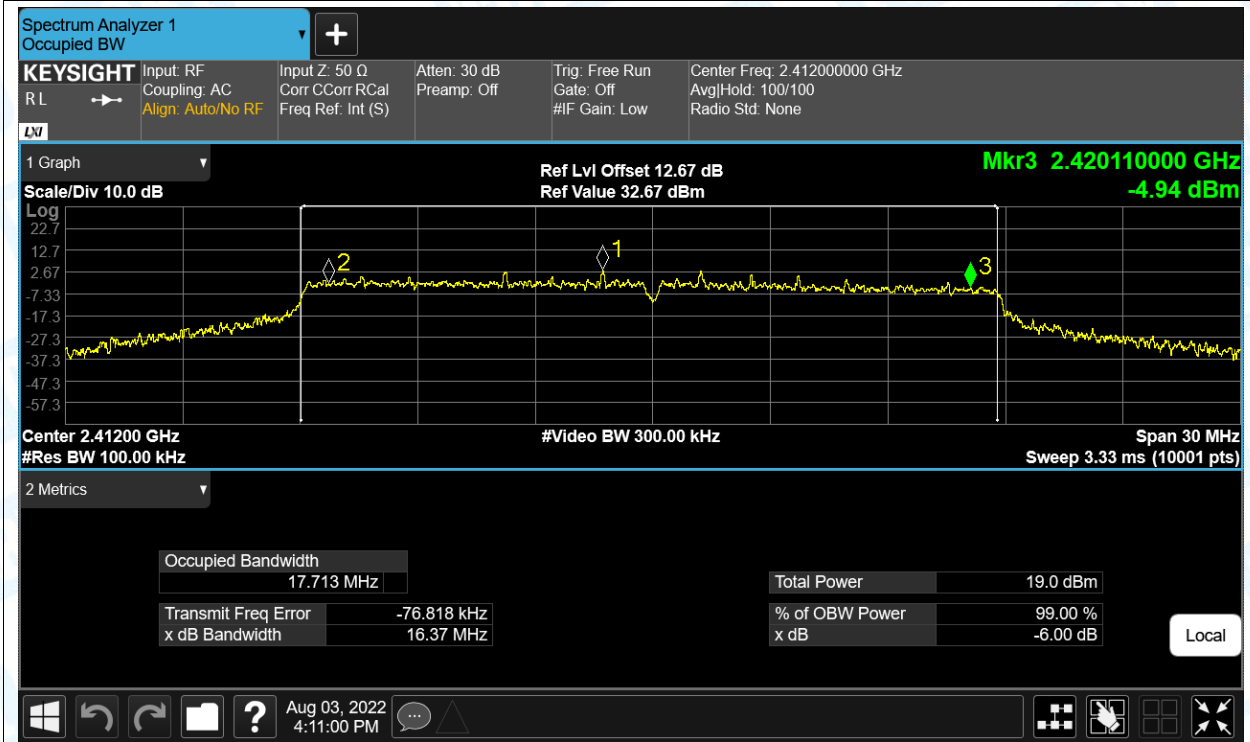
-6dB Bandwidth NVNT g 2437MHz Ant1



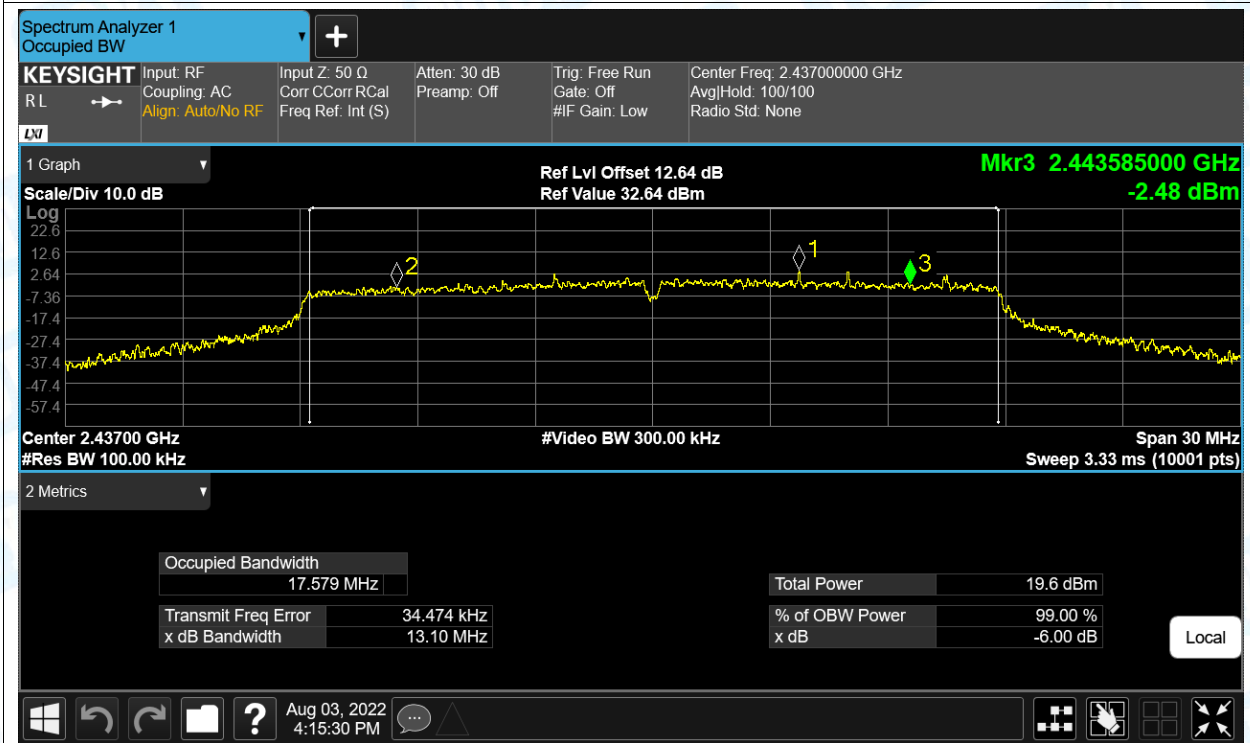
-6dB Bandwidth NVNT g 2462MHz Ant1

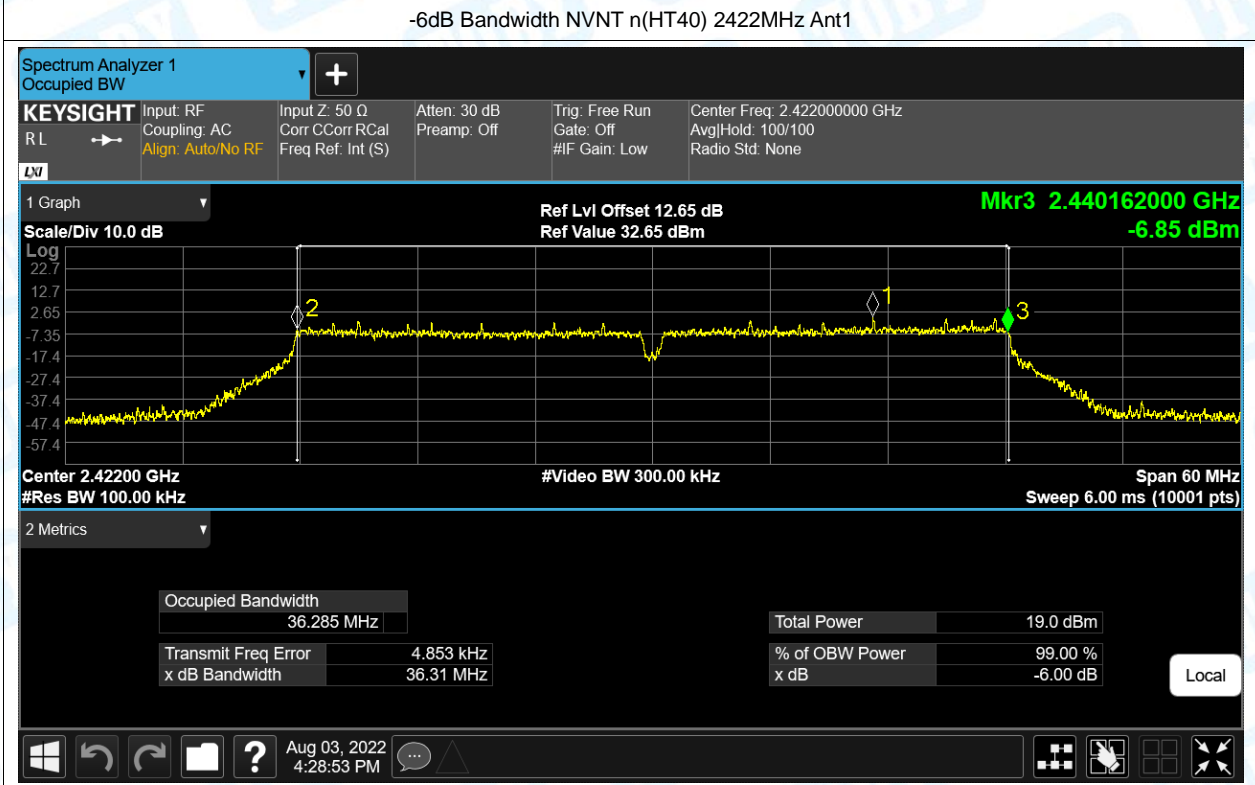
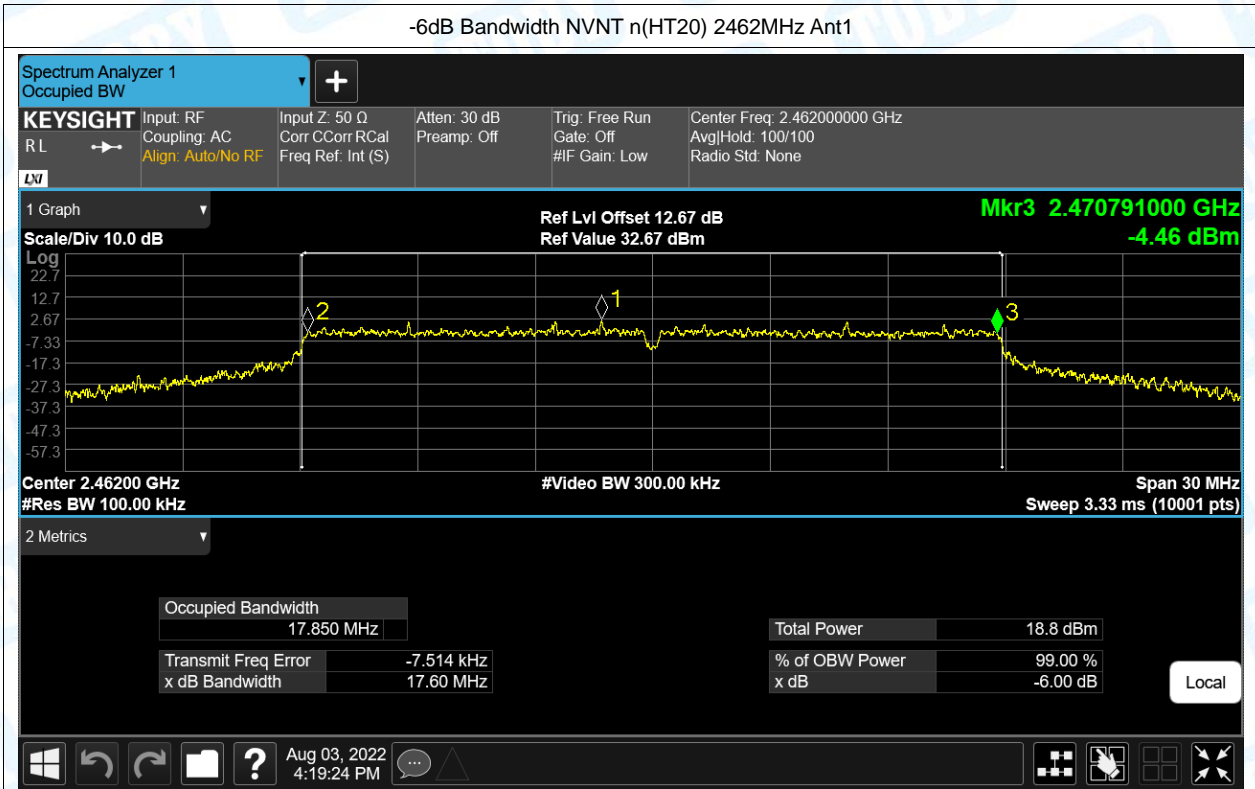


-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1

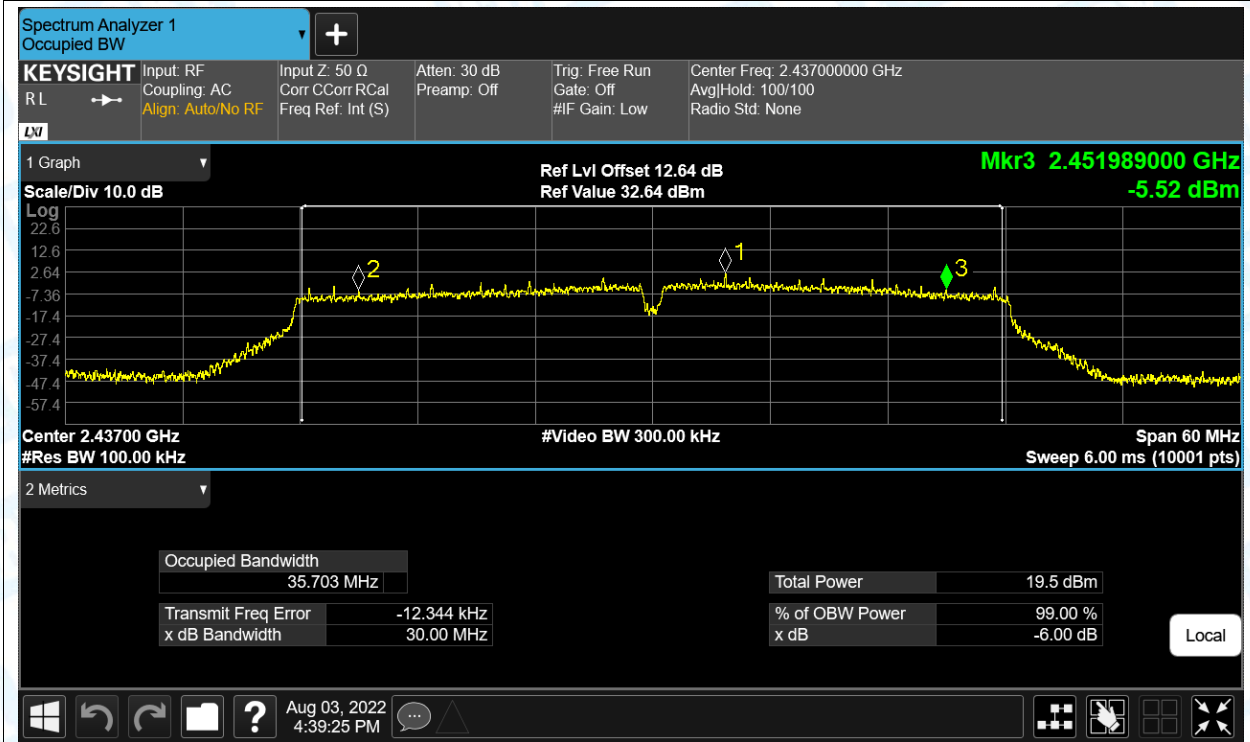


-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1

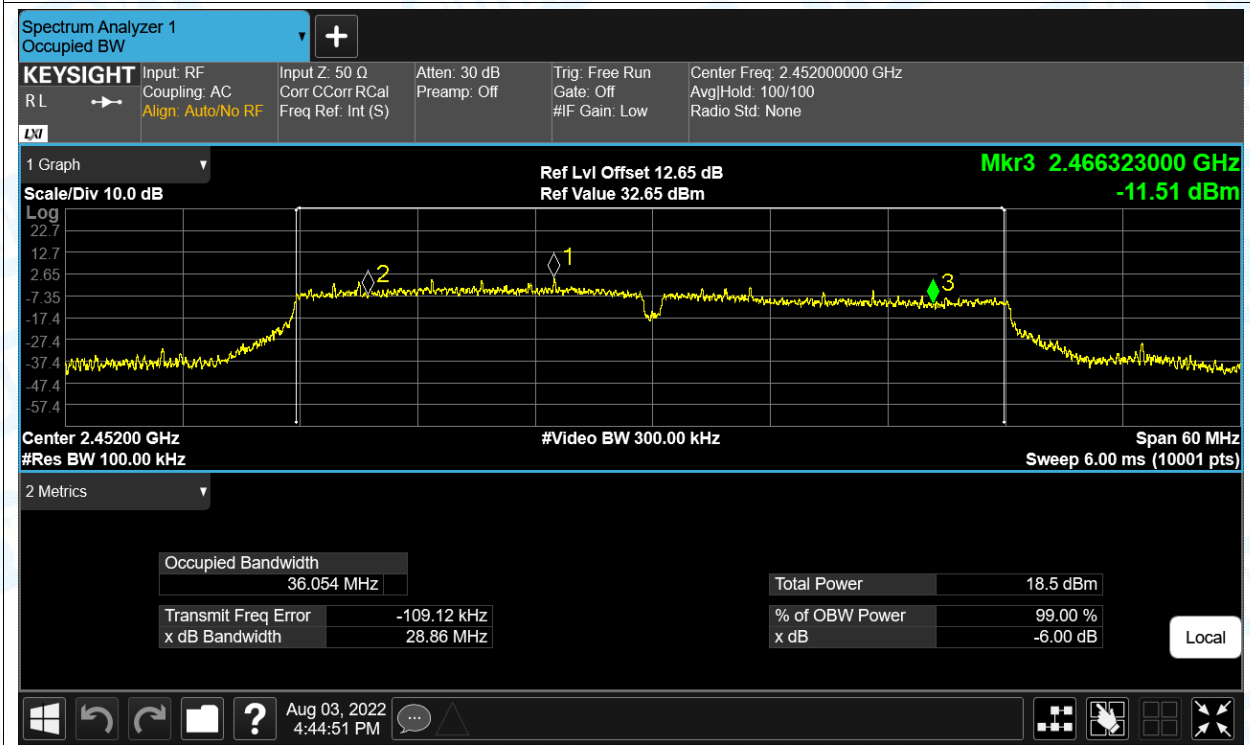




-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1



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

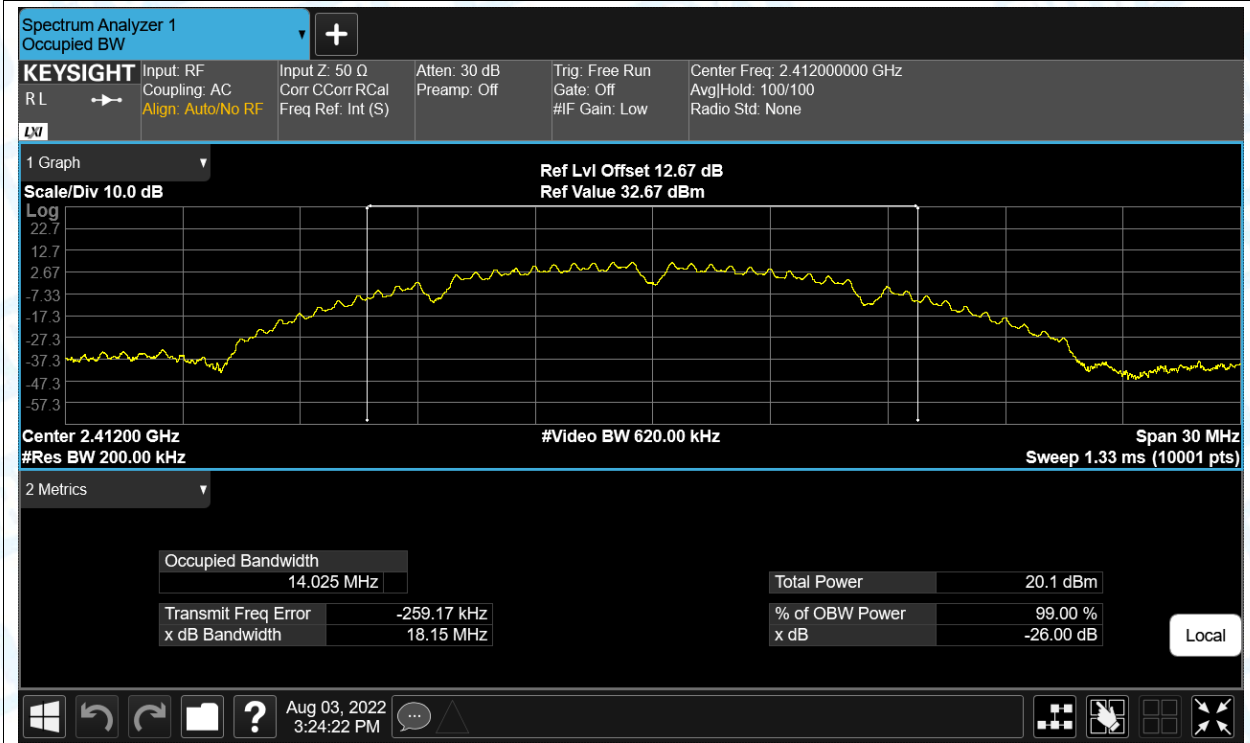


4. Occupied Channel Bandwidth

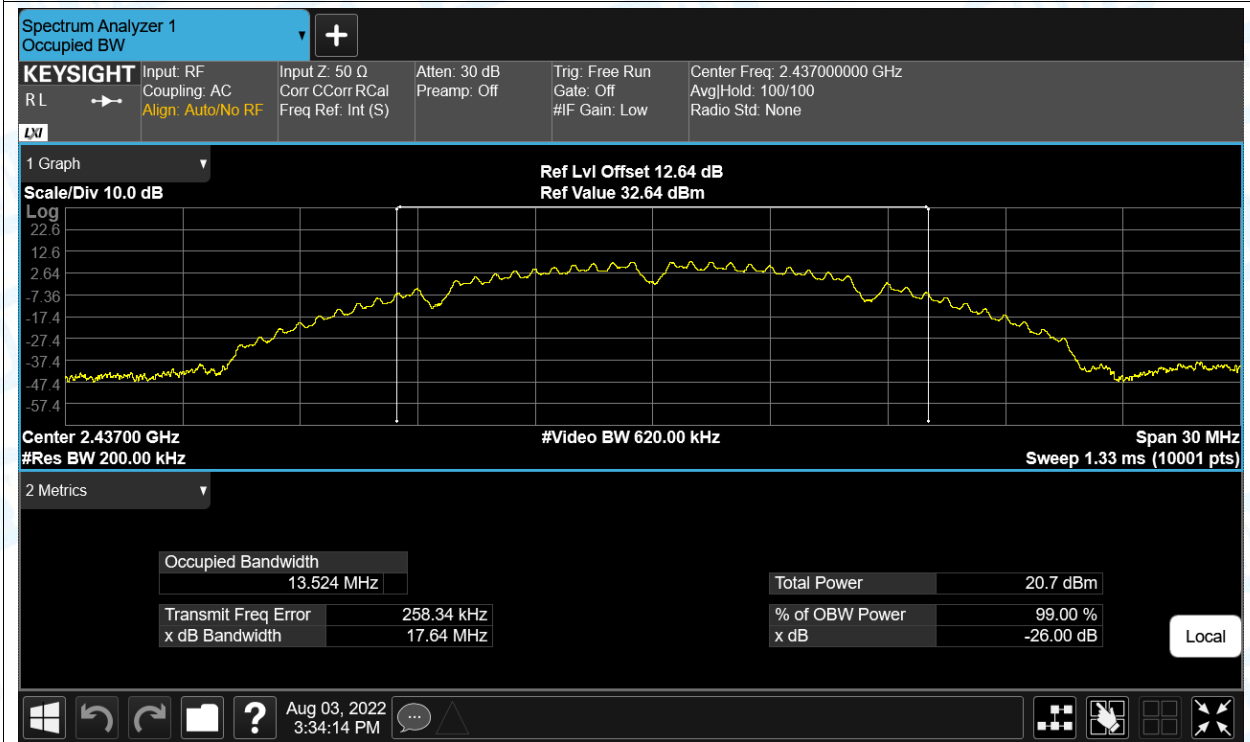
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.025
NVNT	b	2437	Ant1	13.524
NVNT	b	2462	Ant1	14.462
NVNT	g	2412	Ant1	16.647
NVNT	g	2437	Ant1	16.409
NVNT	g	2462	Ant1	16.77
NVNT	n(HT20)	2412	Ant1	17.865
NVNT	n(HT20)	2437	Ant1	17.611
NVNT	n(HT20)	2462	Ant1	17.966
NVNT	n(HT40)	2422	Ant1	36.485
NVNT	n(HT40)	2437	Ant1	35.747
NVNT	n(HT40)	2452	Ant1	36.092

Test Graphs

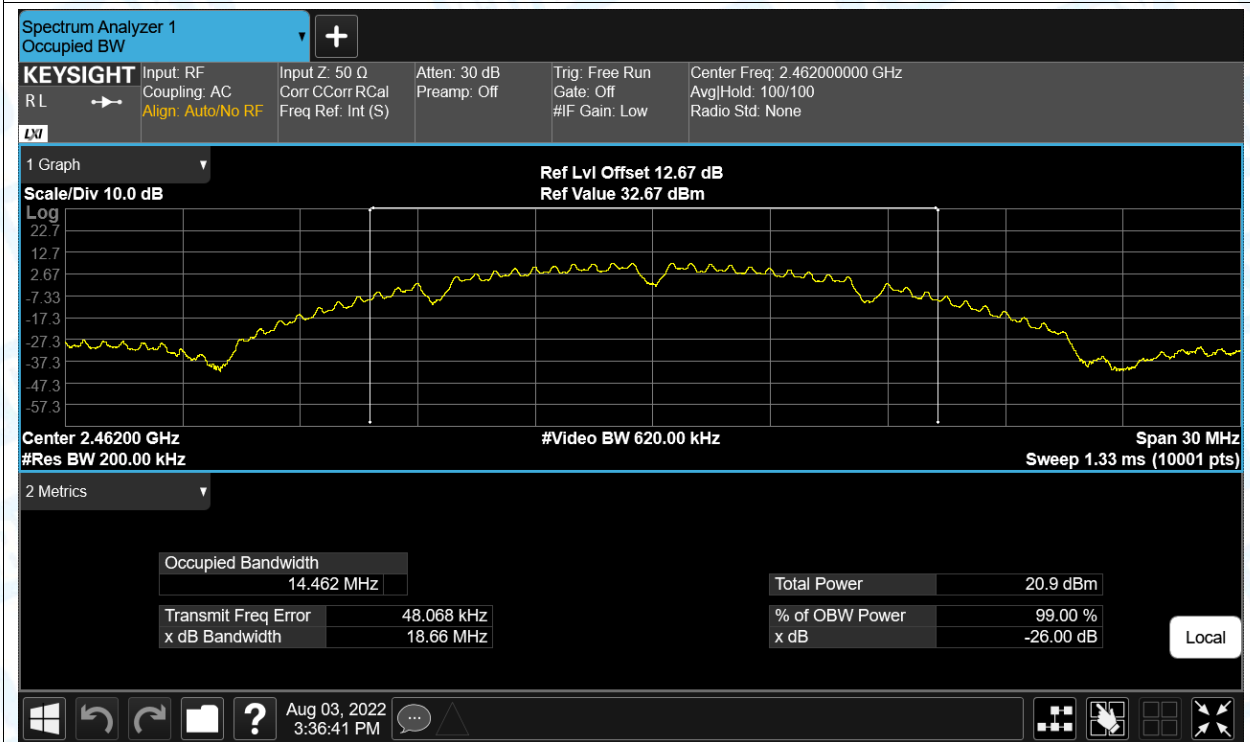
OBW NVNT b 2412MHz Ant1



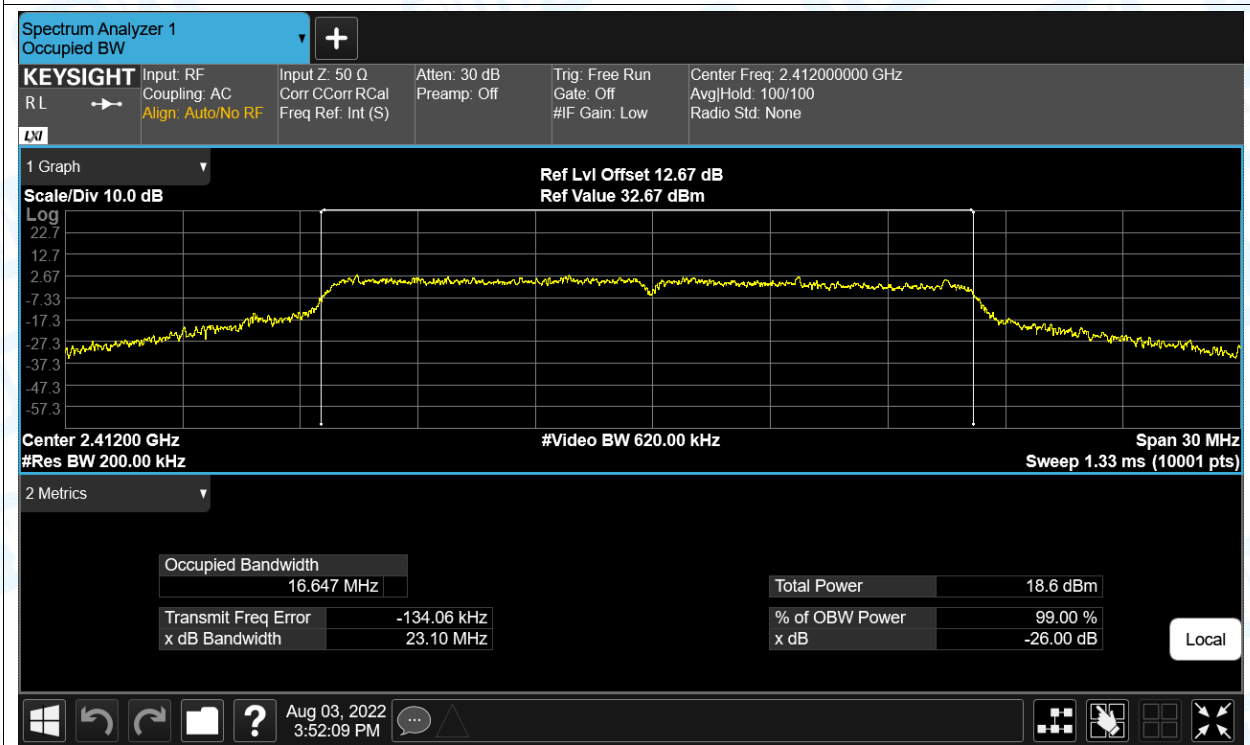
OBW NVNT b 2437MHz Ant1



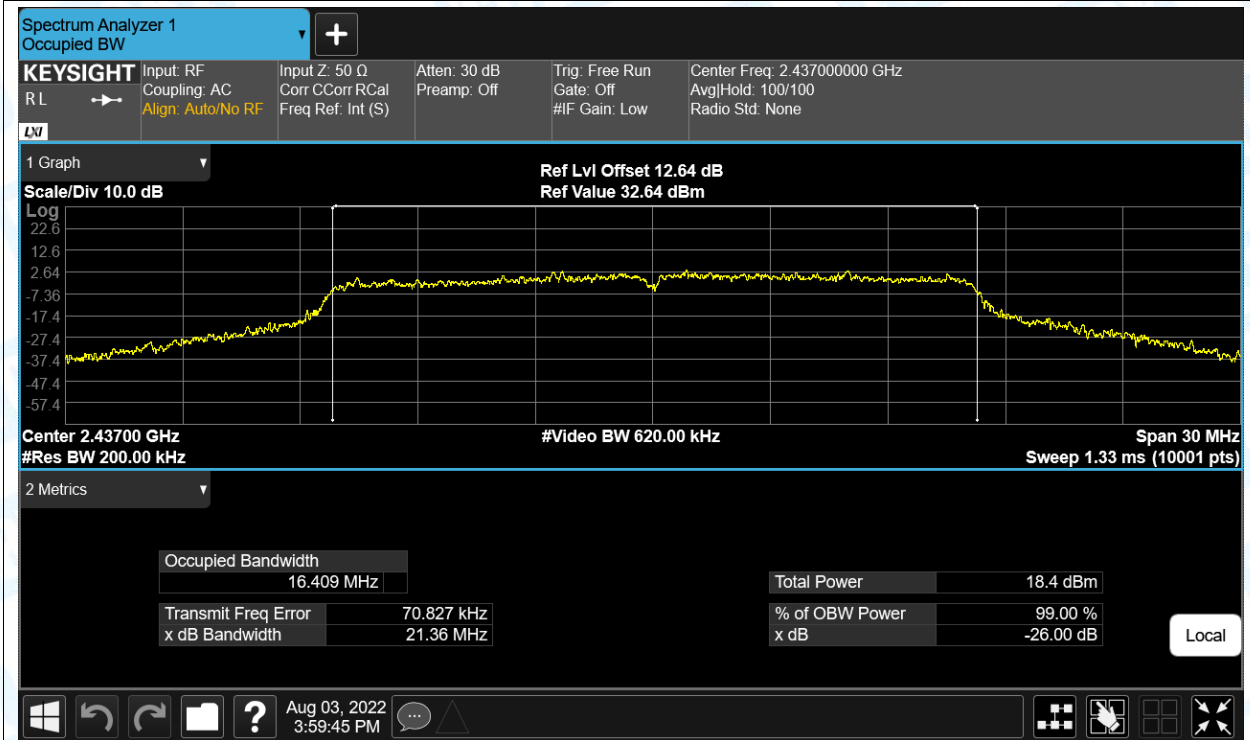
OBW NVNT b 2462MHz Ant1



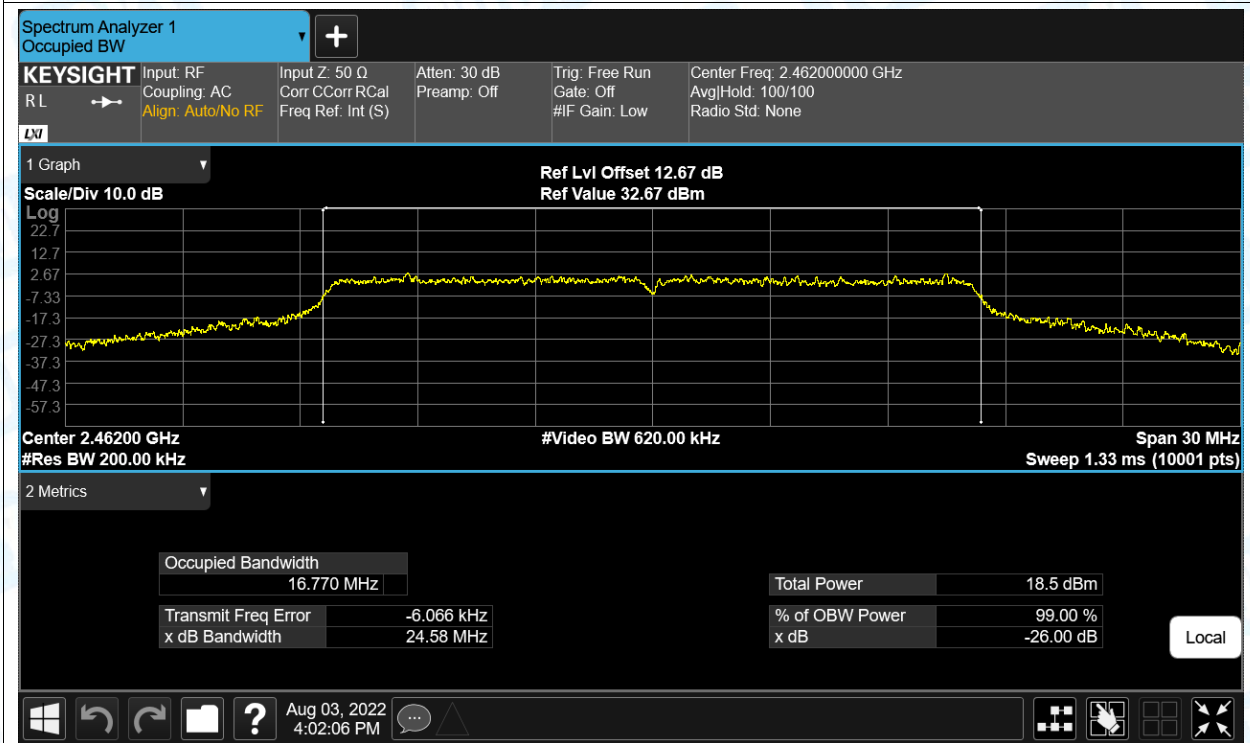
OBW NVNT g 2412MHz Ant1



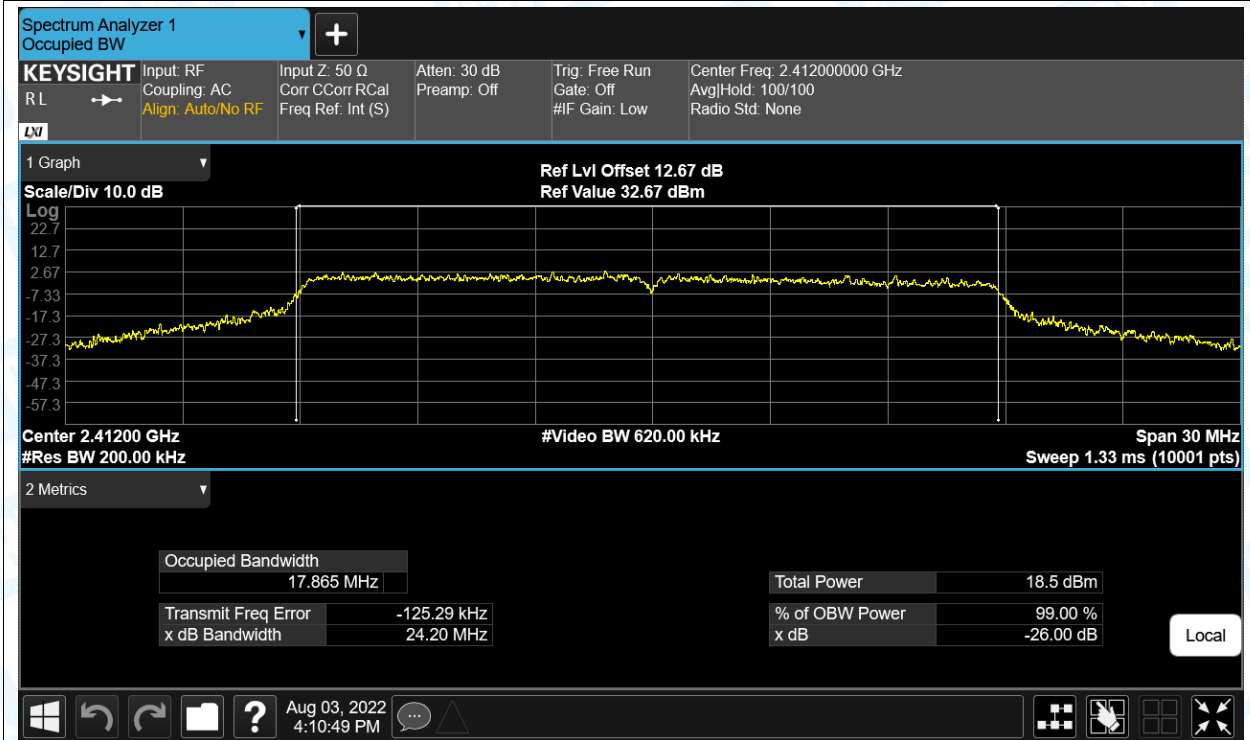
OBW NVNT g 2437MHz Ant1



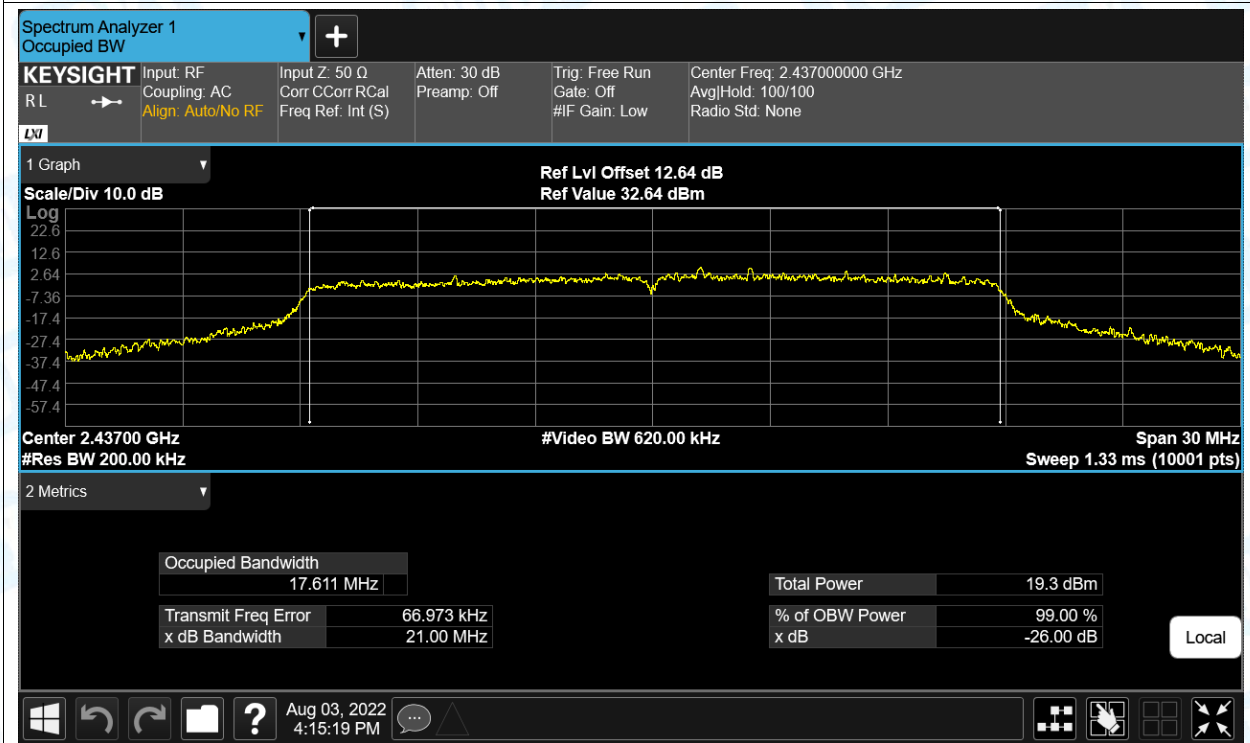
OBW NVNT g 2462MHz Ant1

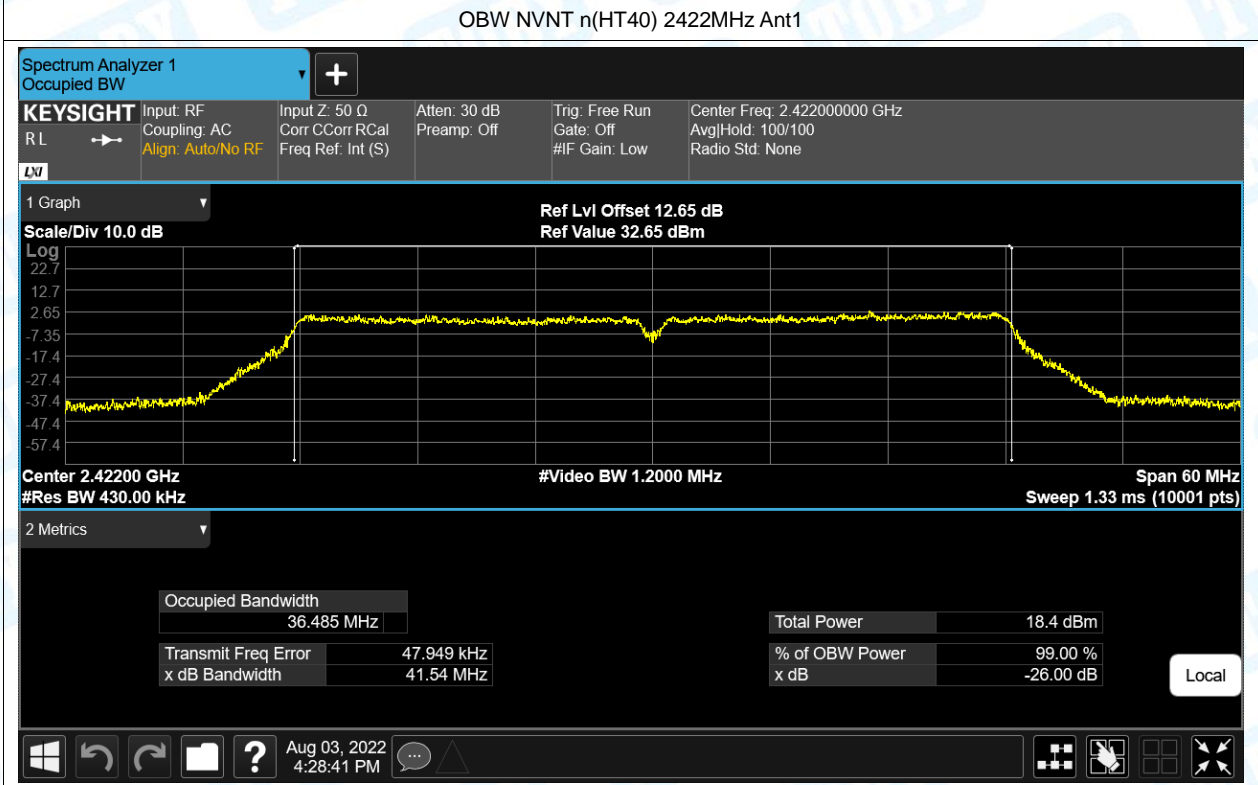
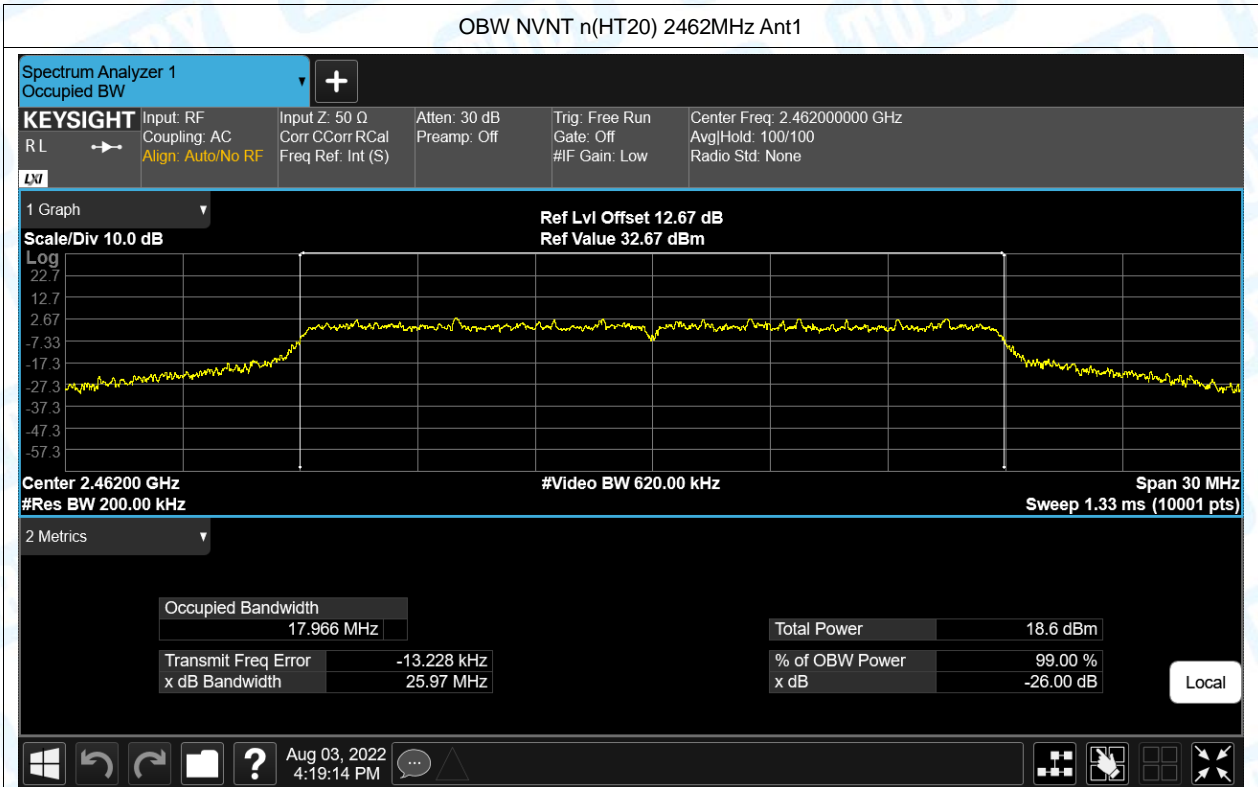


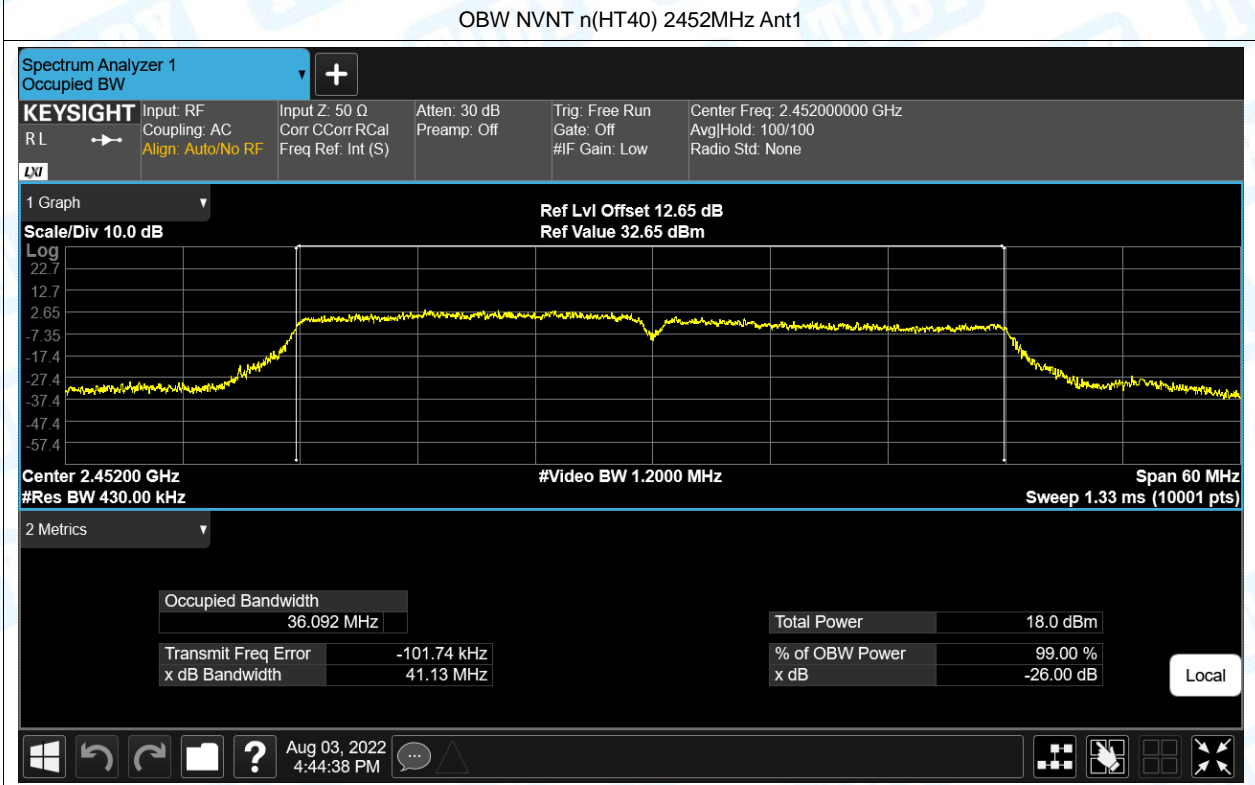
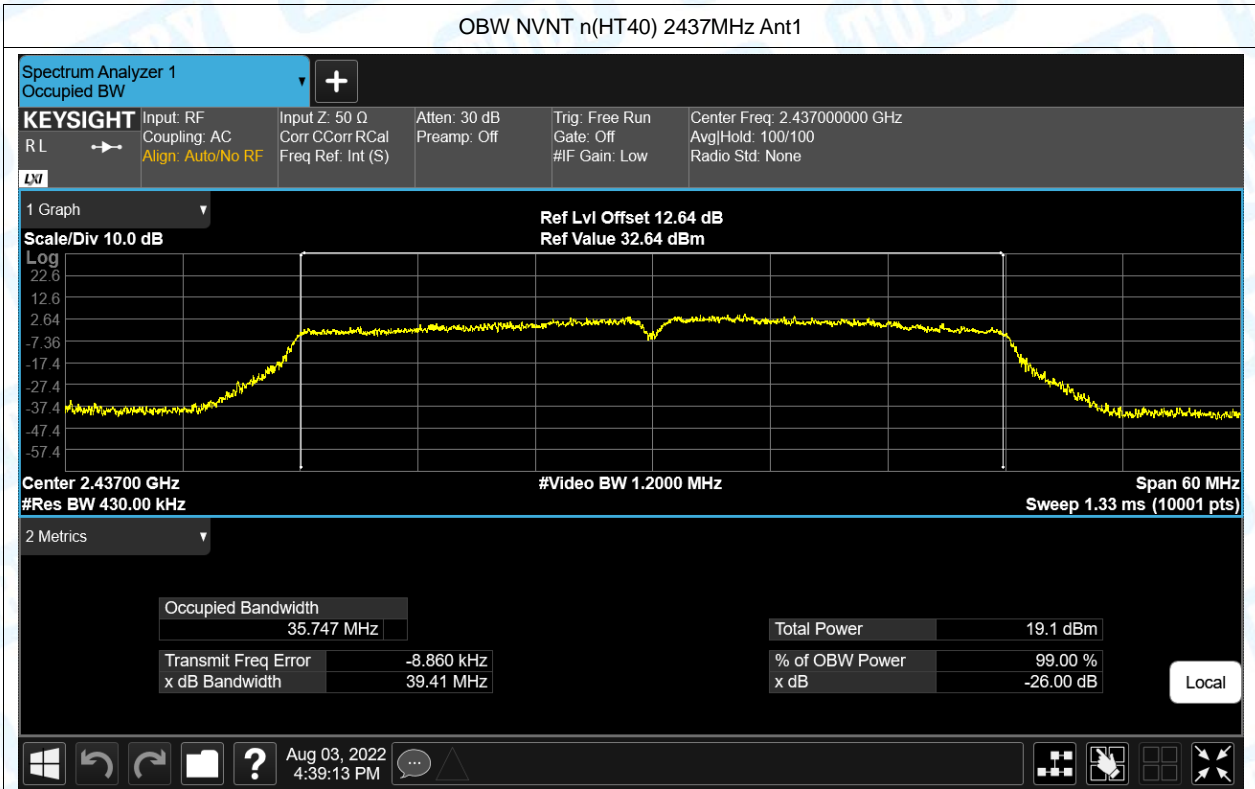
OBW NVNT n(HT20) 2412MHz Ant1



OBW NVNT n(HT20) 2437MHz Ant1





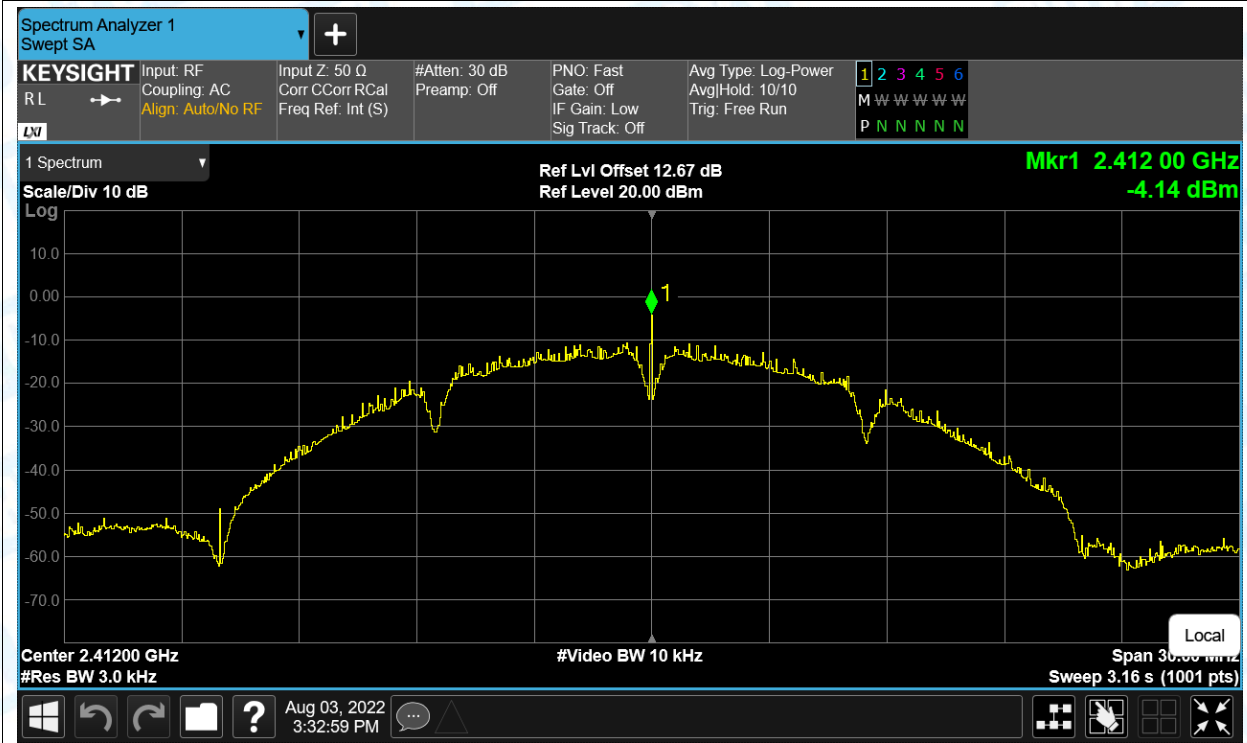


5. Maximum Power Spectral Density Level

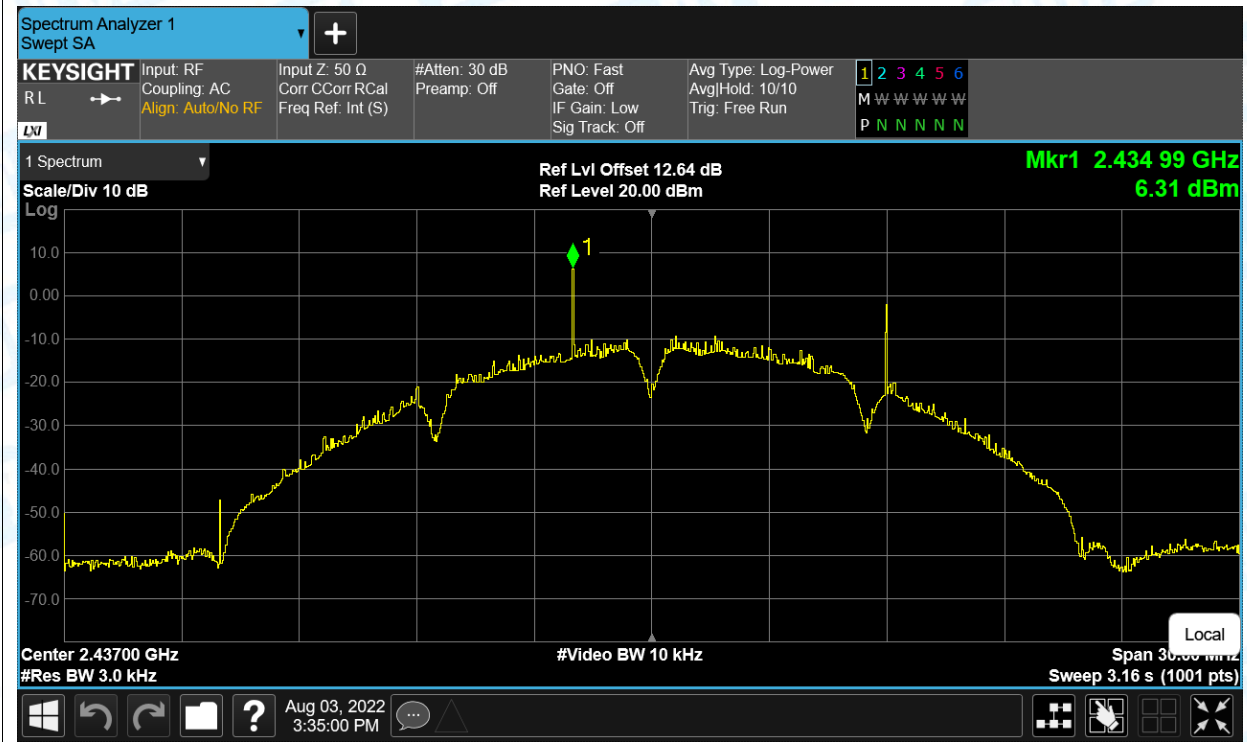
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-4.138	8	Pass
NVNT	b	2437	Ant1	6.309	8	Pass
NVNT	b	2462	Ant1	7.556	8	Pass
NVNT	g	2412	Ant1	-13.208	8	Pass
NVNT	g	2437	Ant1	-13.209	8	Pass
NVNT	g	2462	Ant1	-15.17	8	Pass
NVNT	n(HT20)	2412	Ant1	-13.171	8	Pass
NVNT	n(HT20)	2437	Ant1	-13.123	8	Pass
NVNT	n(HT20)	2462	Ant1	-13.11	8	Pass
NVNT	n(HT40)	2422	Ant1	-15.428	8	Pass
NVNT	n(HT40)	2437	Ant1	-14.419	8	Pass
NVNT	n(HT40)	2452	Ant1	-14.03	8	Pass

Test Graphs

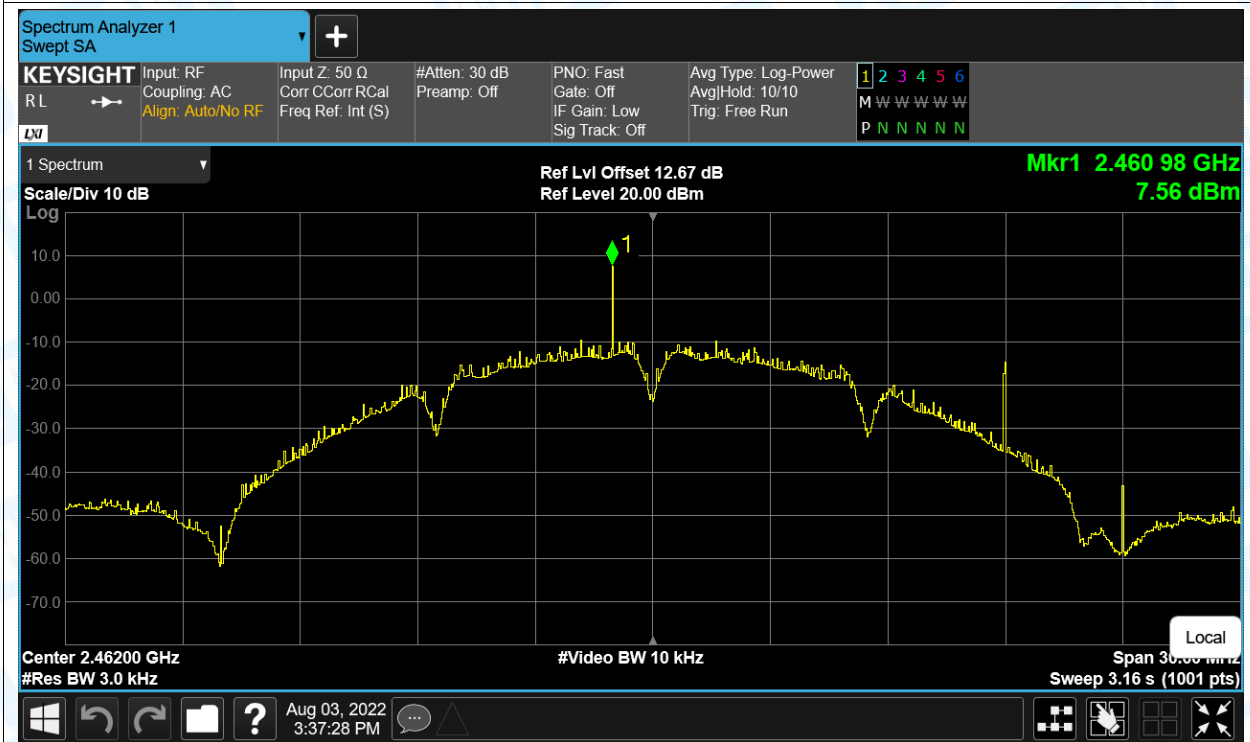
PSD NVNT b 2412MHz Ant1



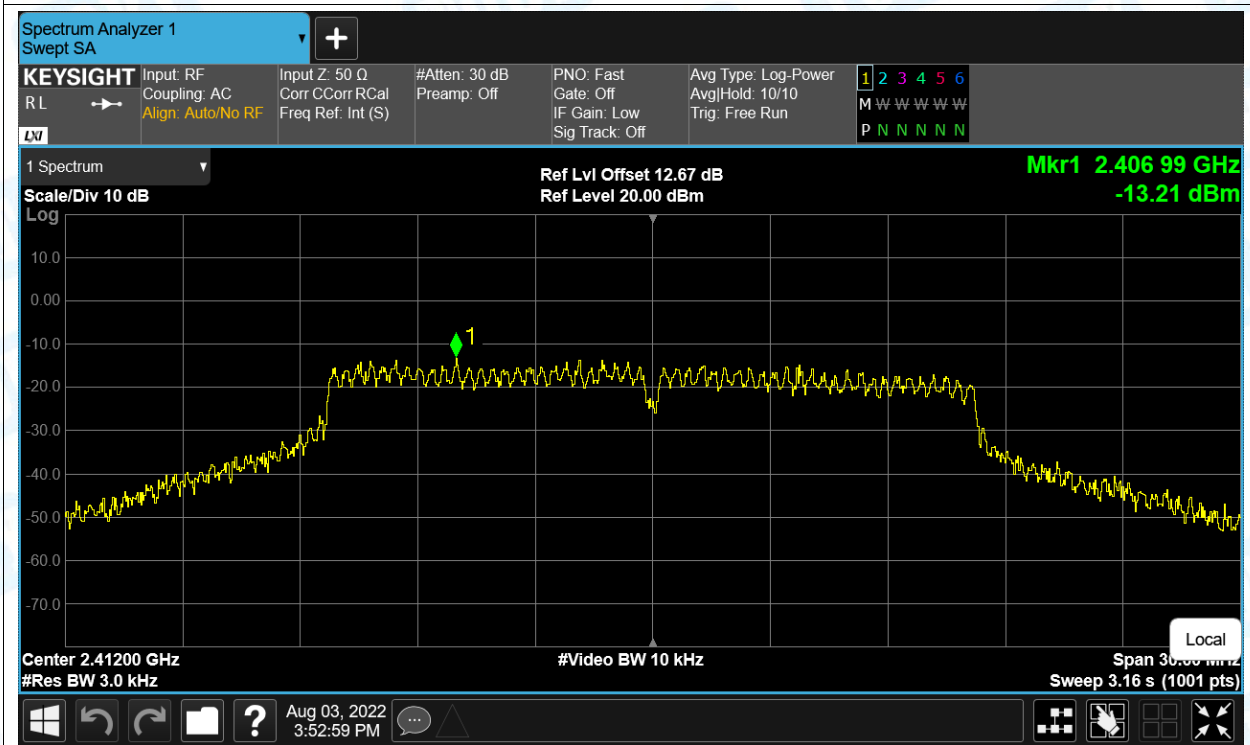
PSD NVNT b 2437MHz Ant1

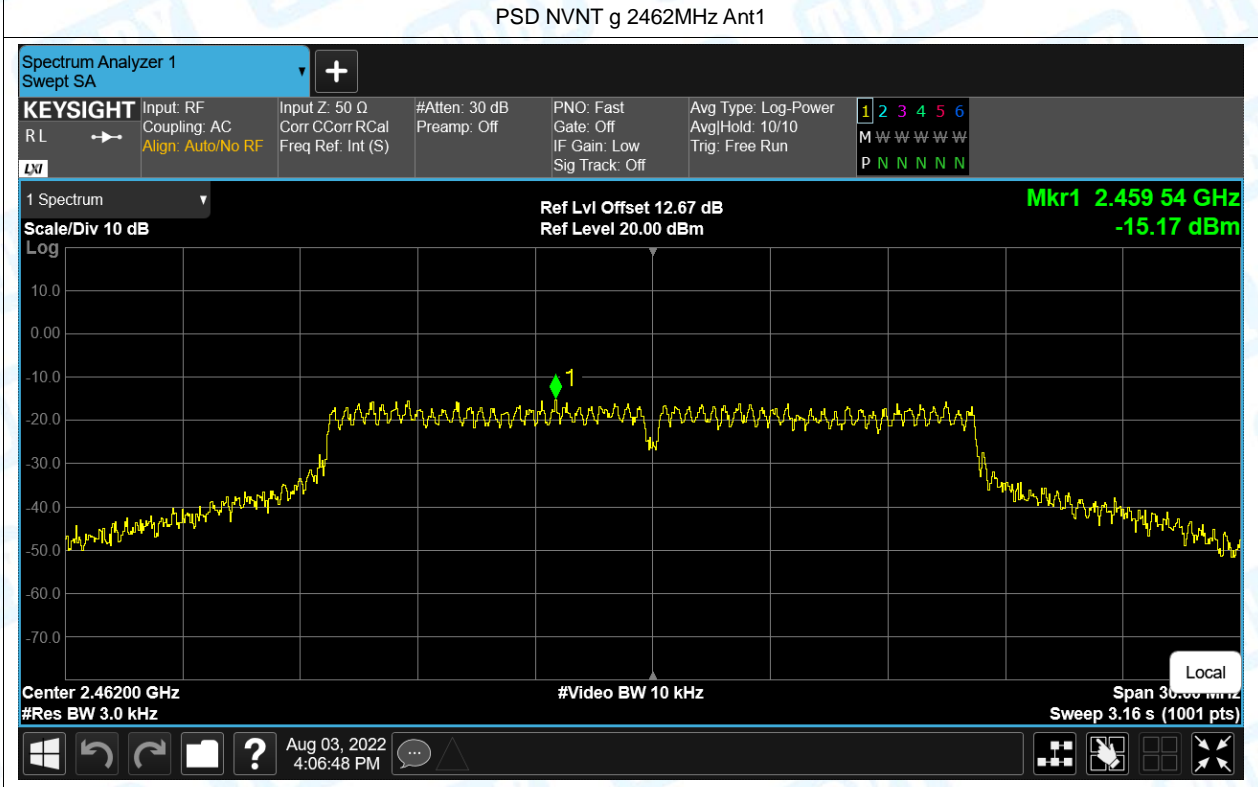
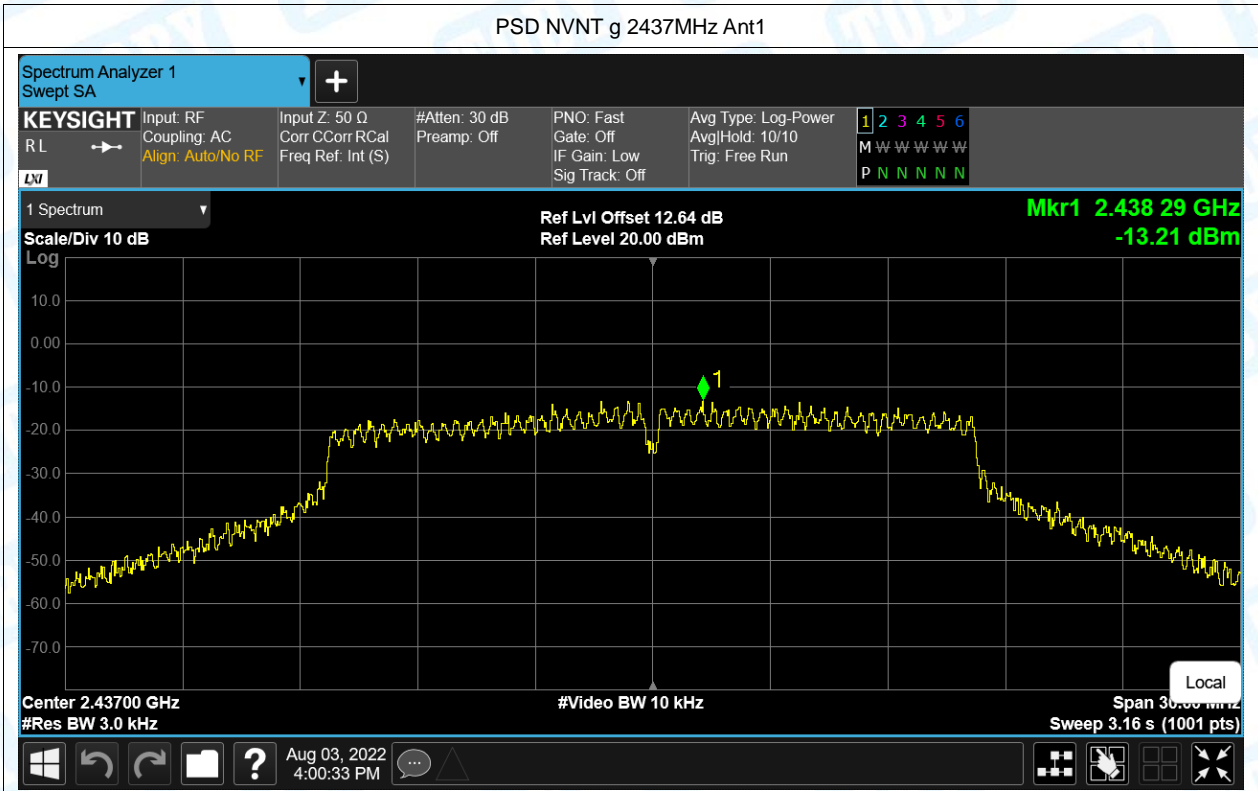


PSD NVNT b 2462MHz Ant1

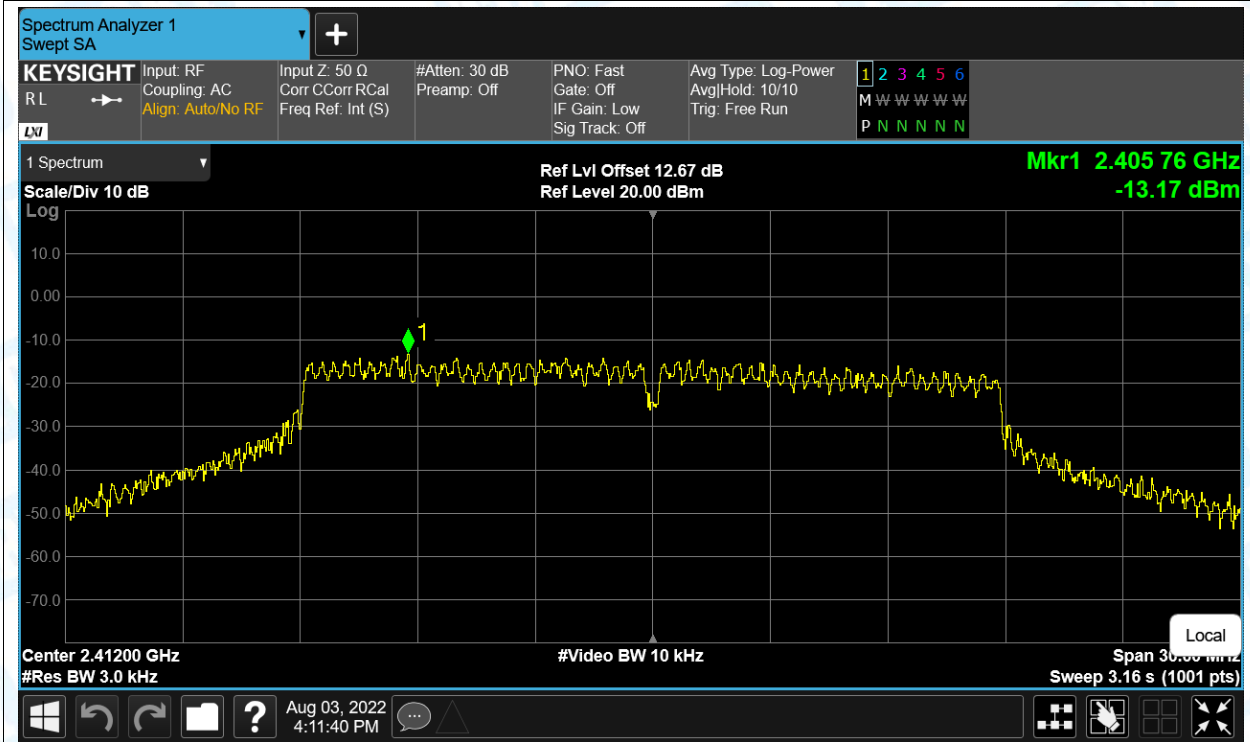


PSD NVNT g 2412MHz Ant1

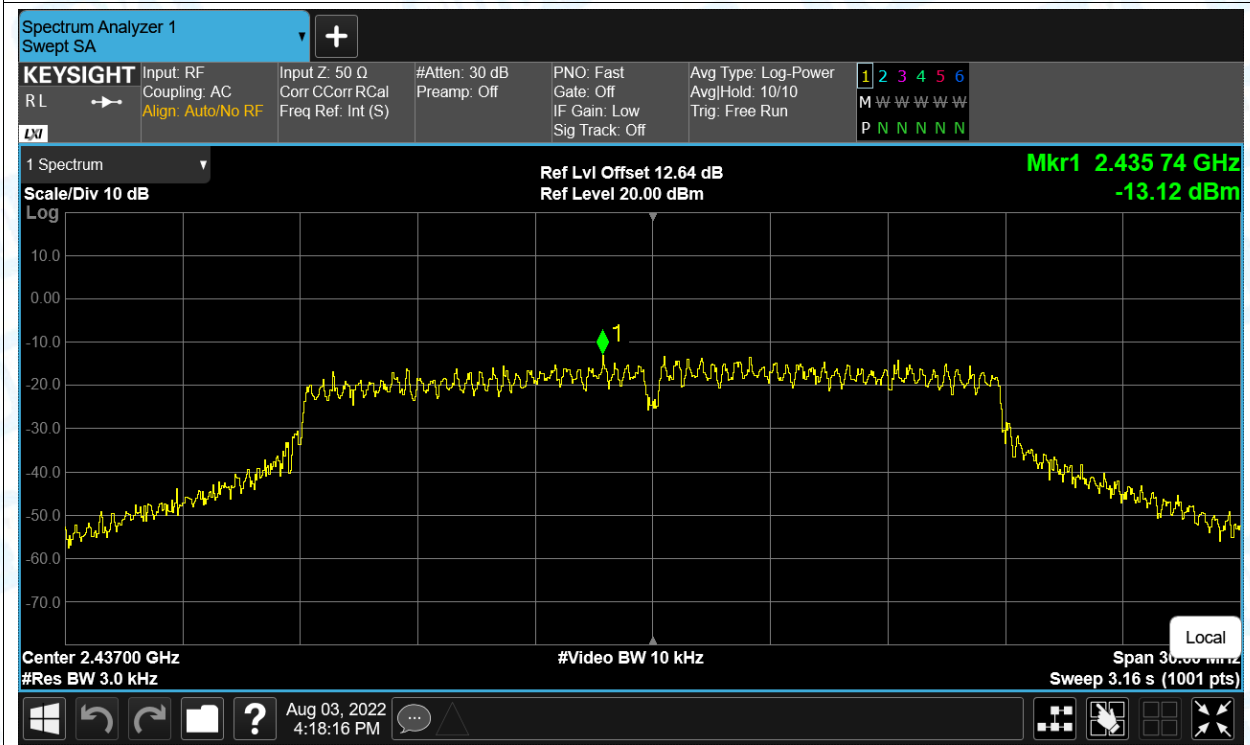


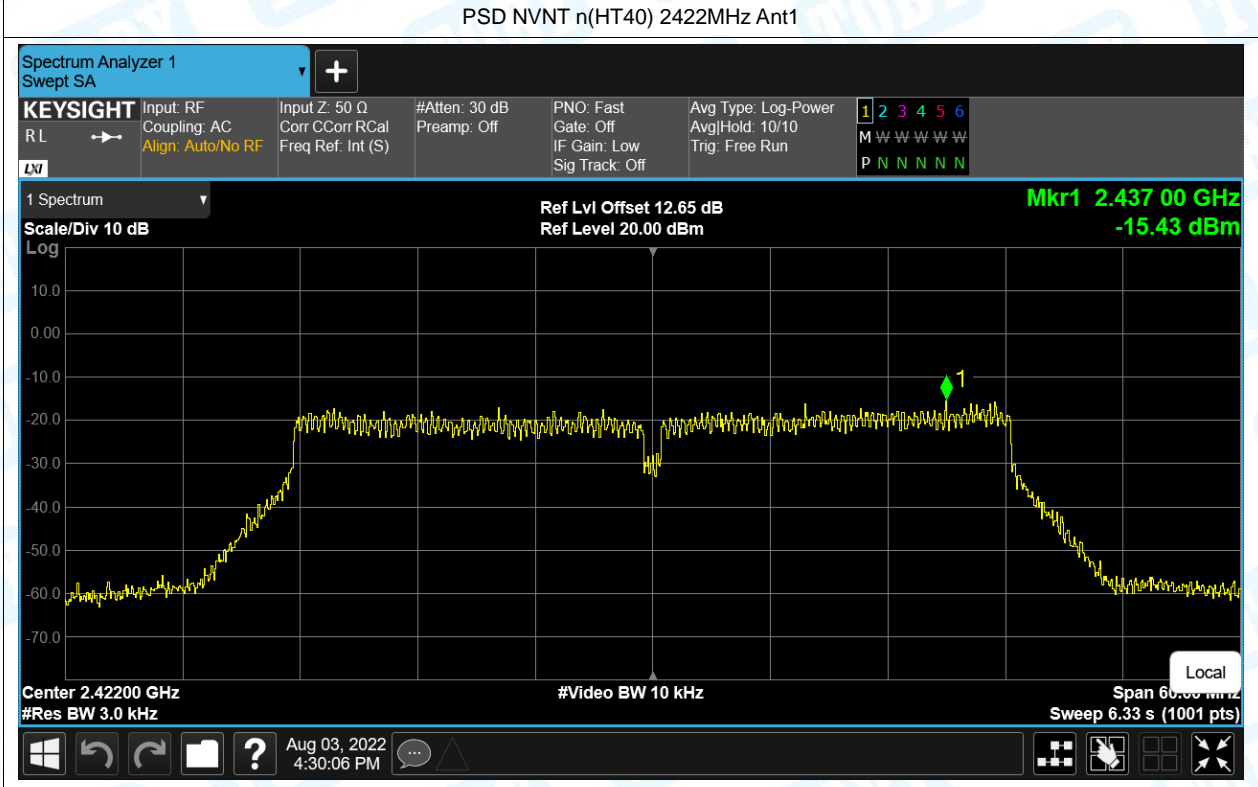
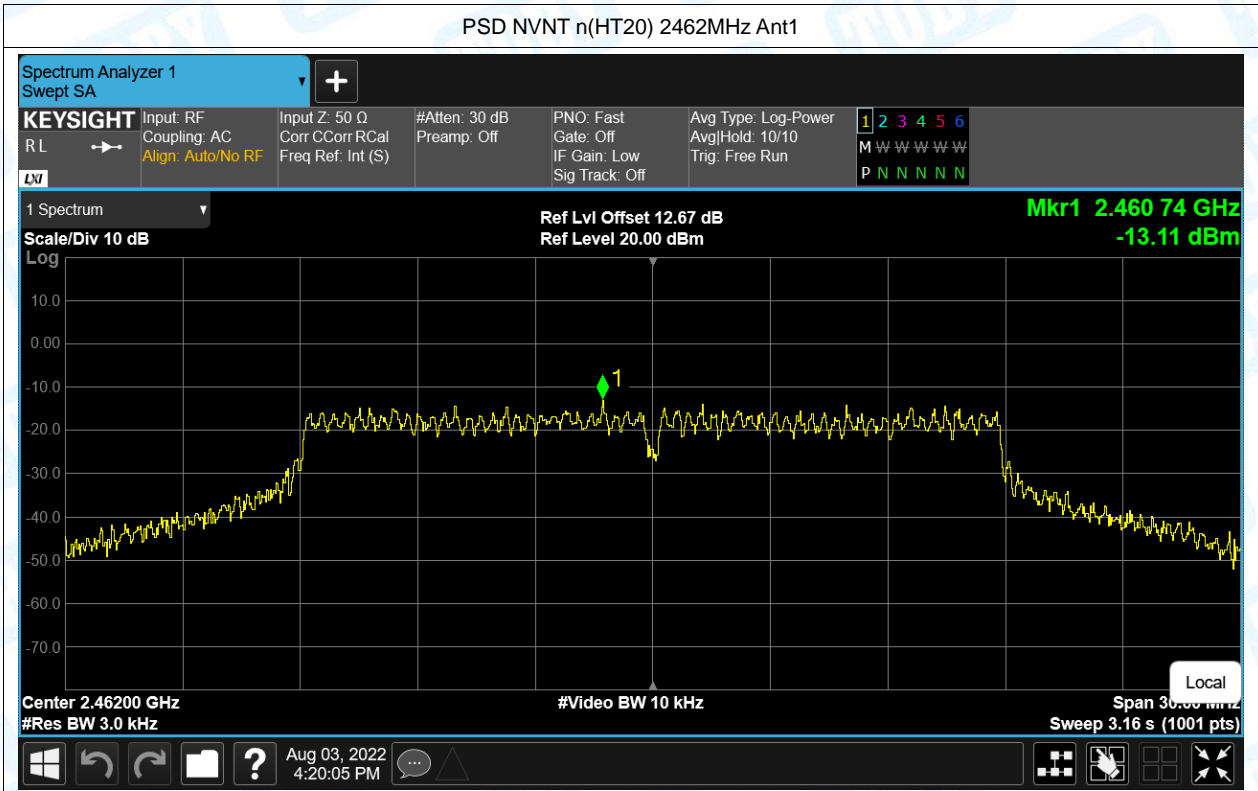


PSD NVNT n(HT20) 2412MHz Ant1

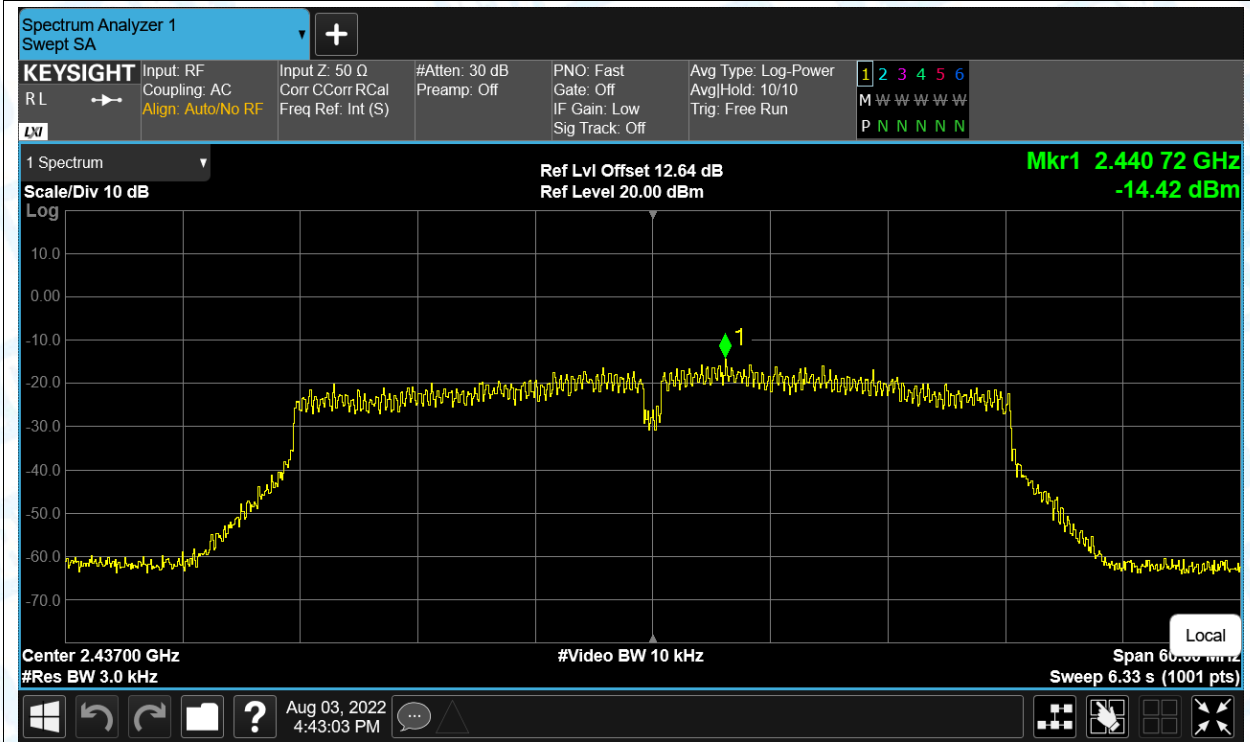


PSD NVNT n(HT20) 2437MHz Ant1

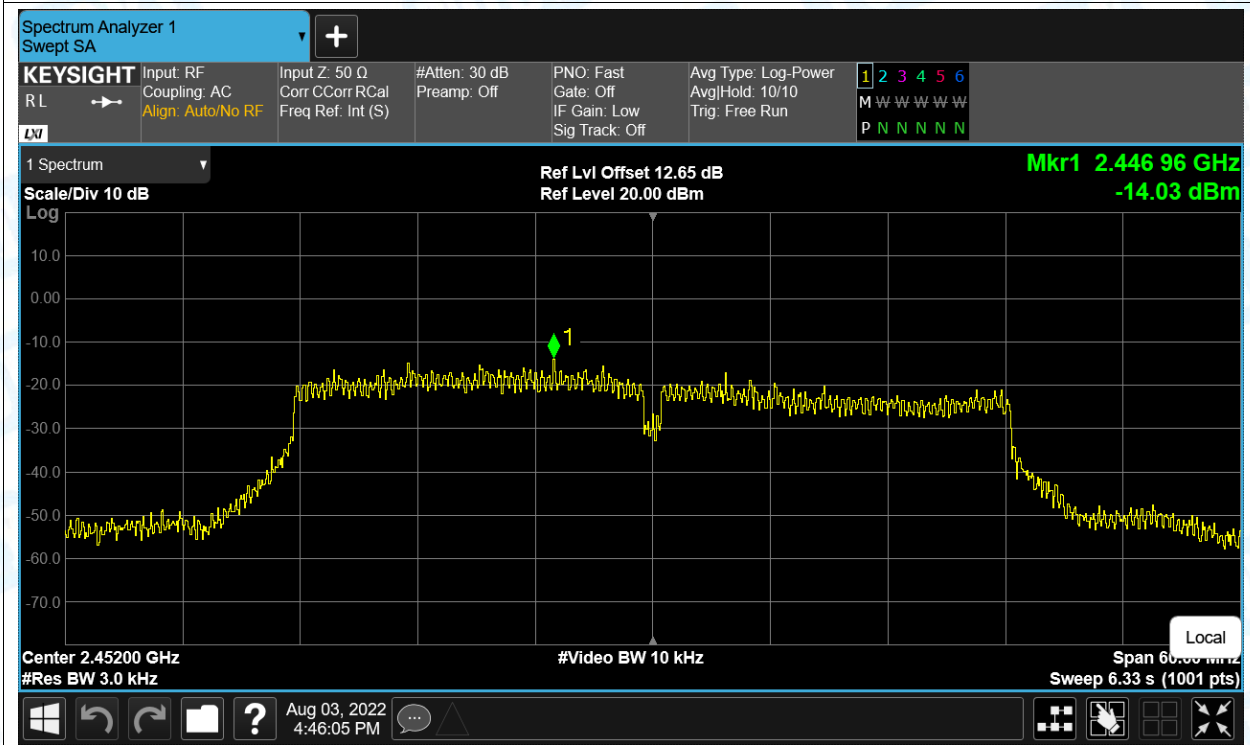




PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1

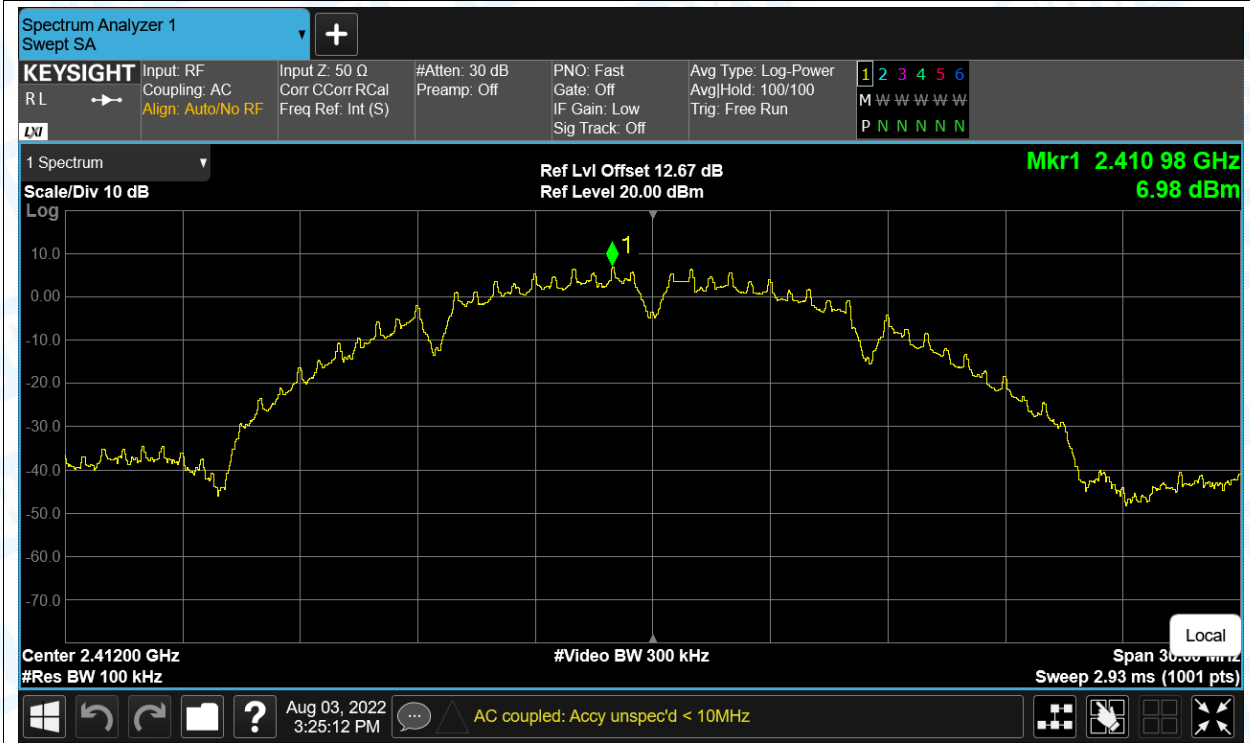


6. Band Edge

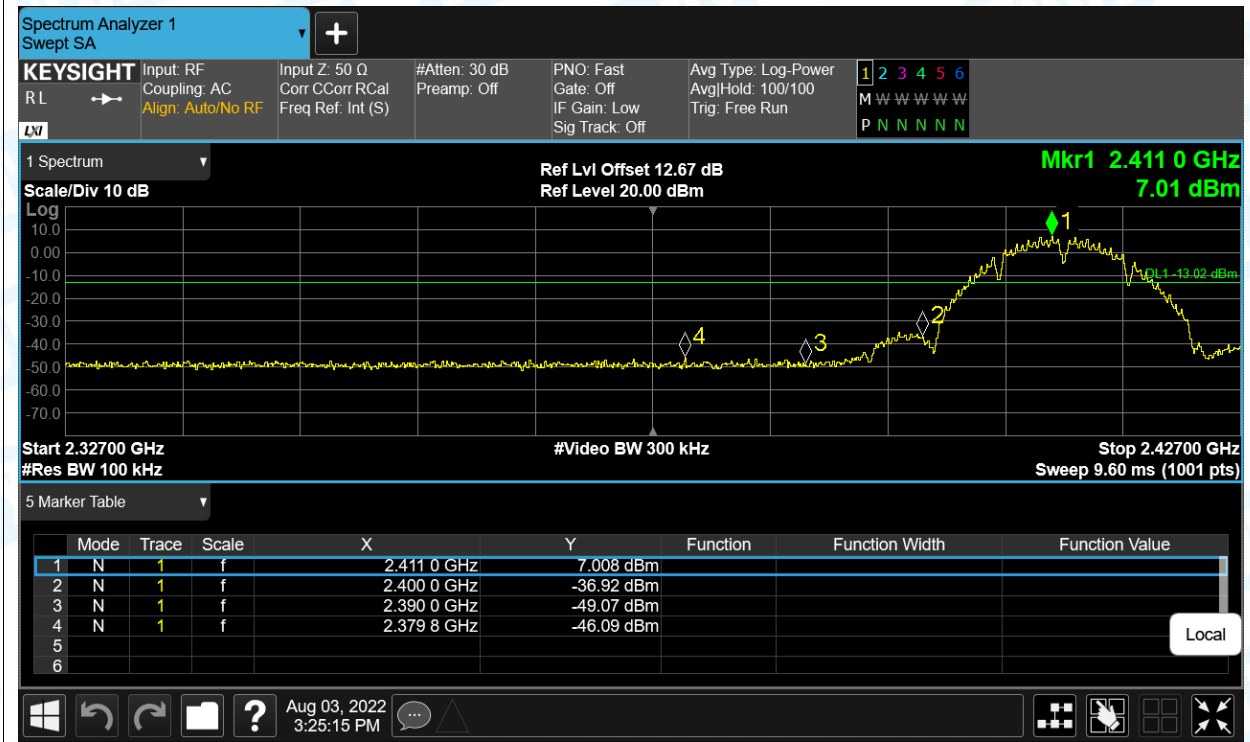
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-53.07	-20	Pass
NVNT	b	2462	Ant1	-52.82	-20	Pass
NVNT	g	2412	Ant1	-47.83	-20	Pass
NVNT	g	2462	Ant1	-47.8	-20	Pass
NVNT	n(HT20)	2412	Ant1	-48.49	-20	Pass
NVNT	n(HT20)	2462	Ant1	-46.56	-20	Pass
NVNT	n(HT40)	2422	Ant1	-45.41	-20	Pass
NVNT	n(HT40)	2452	Ant1	-36.77	-20	Pass

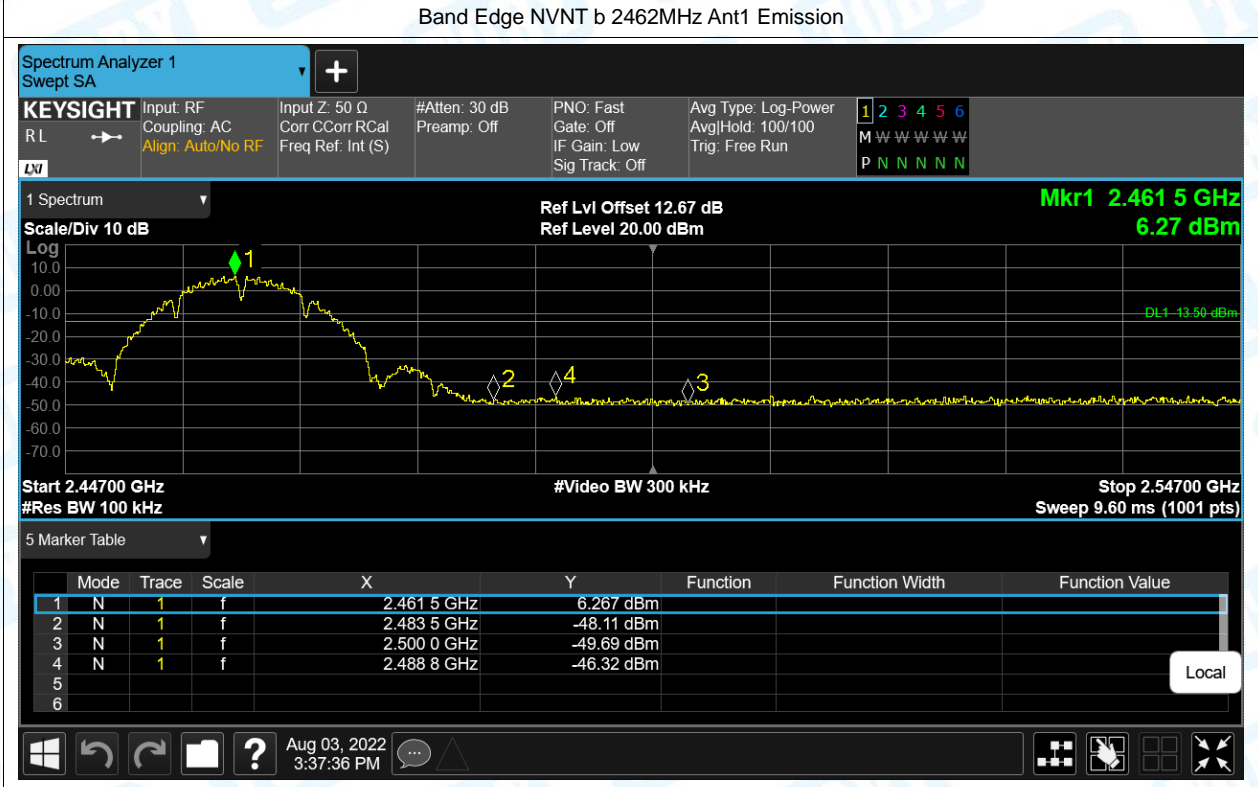
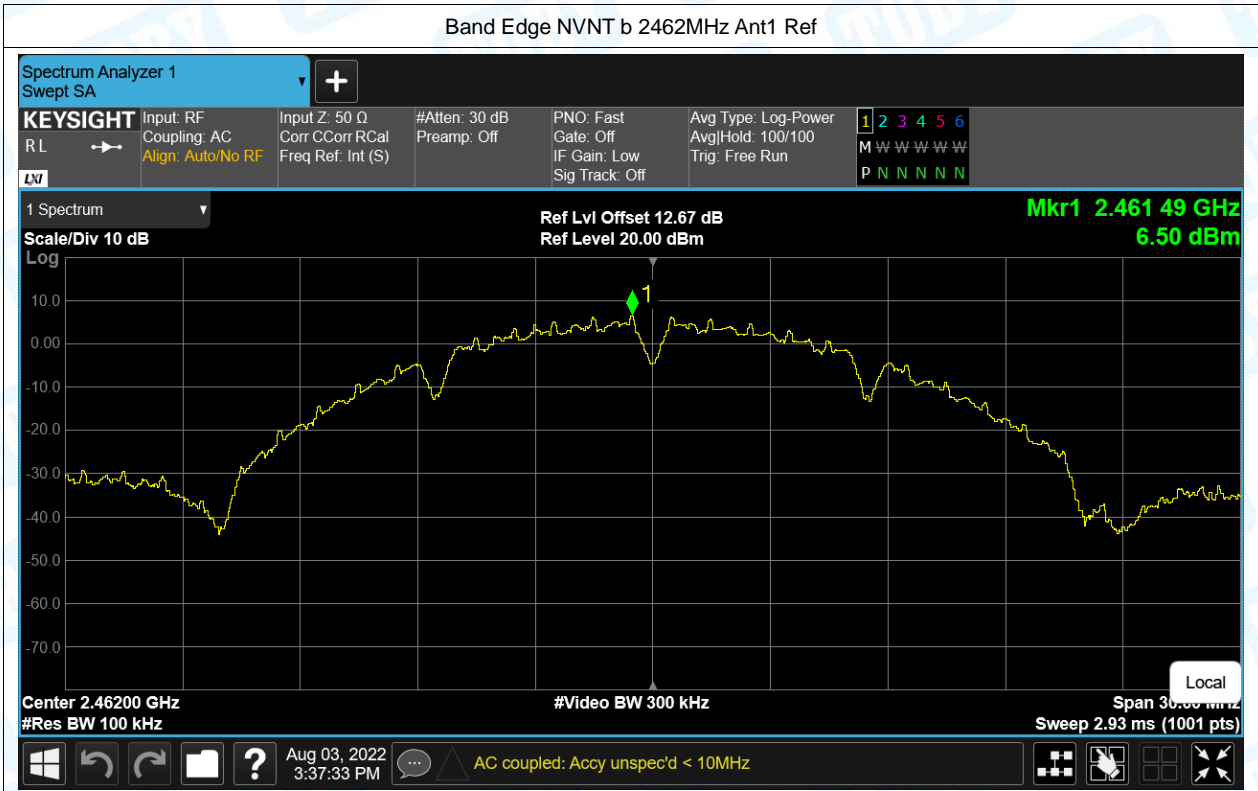
Test Graphs

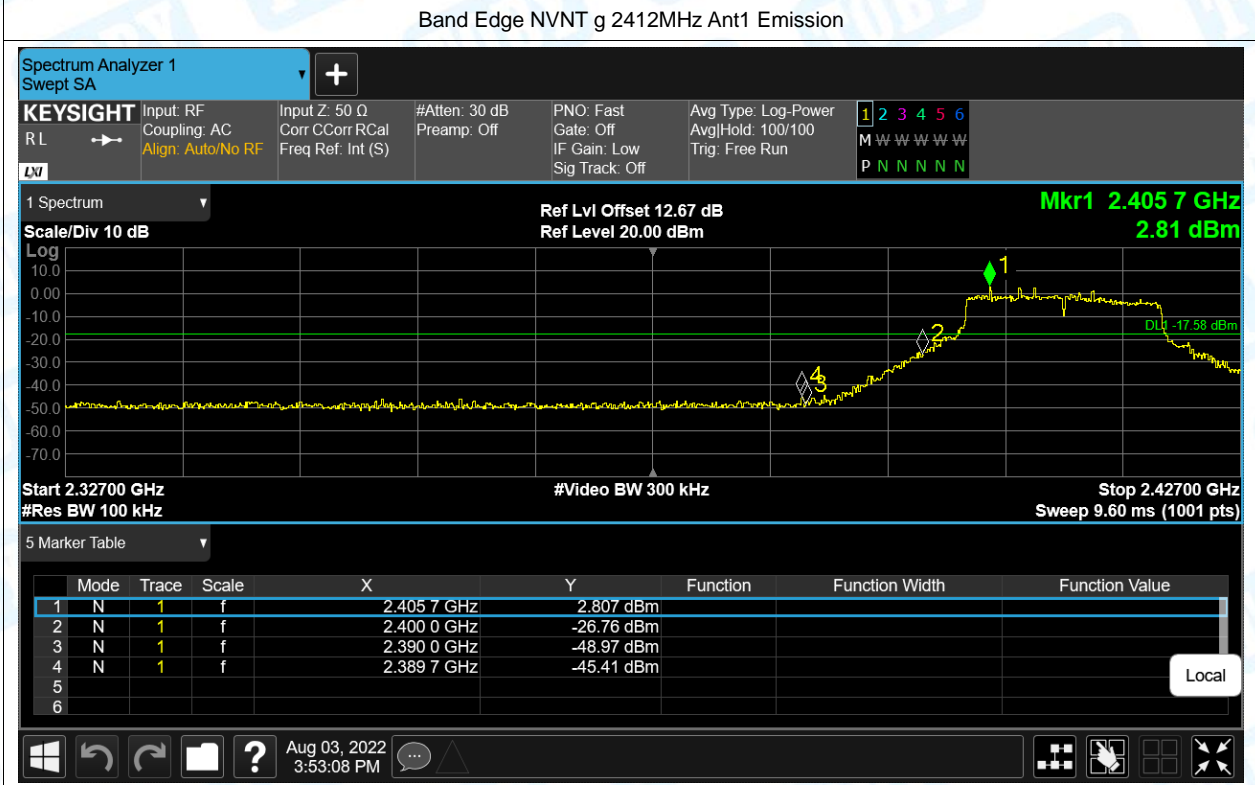
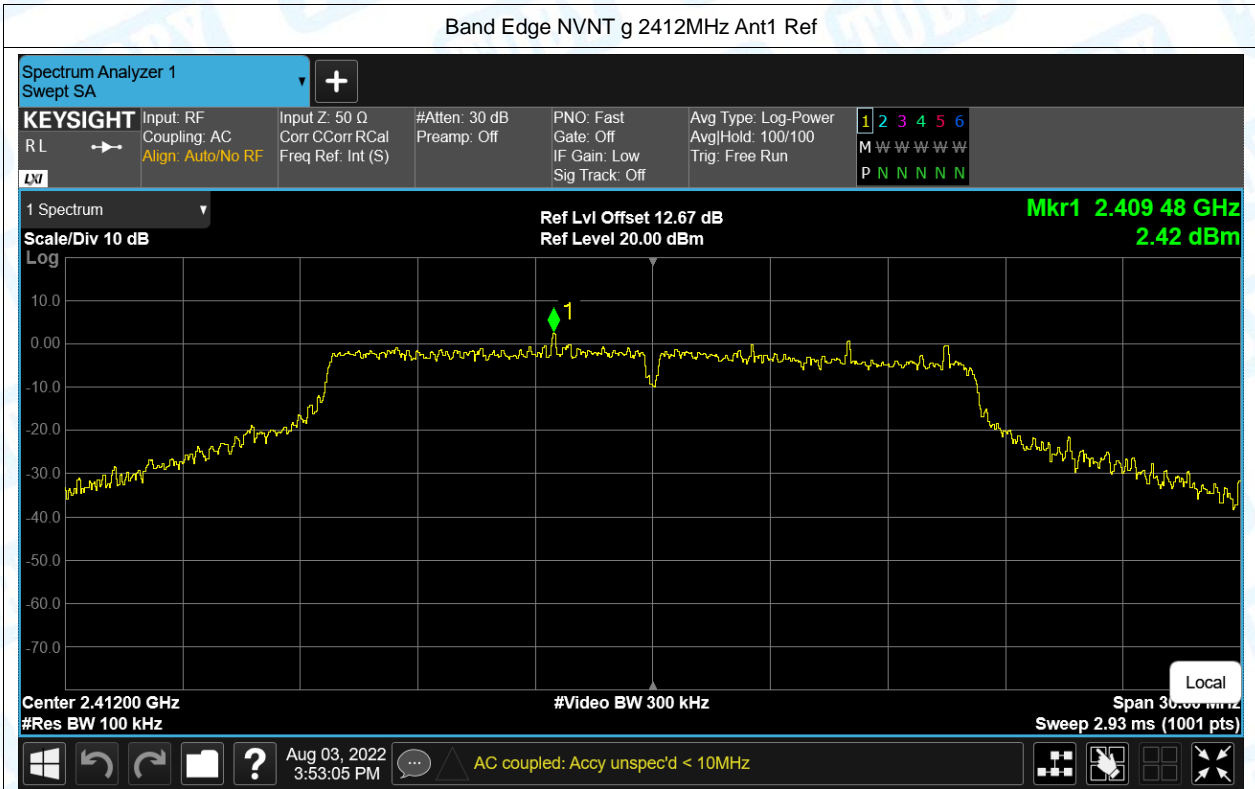
Band Edge NVNT b 2412MHz Ant1 Ref



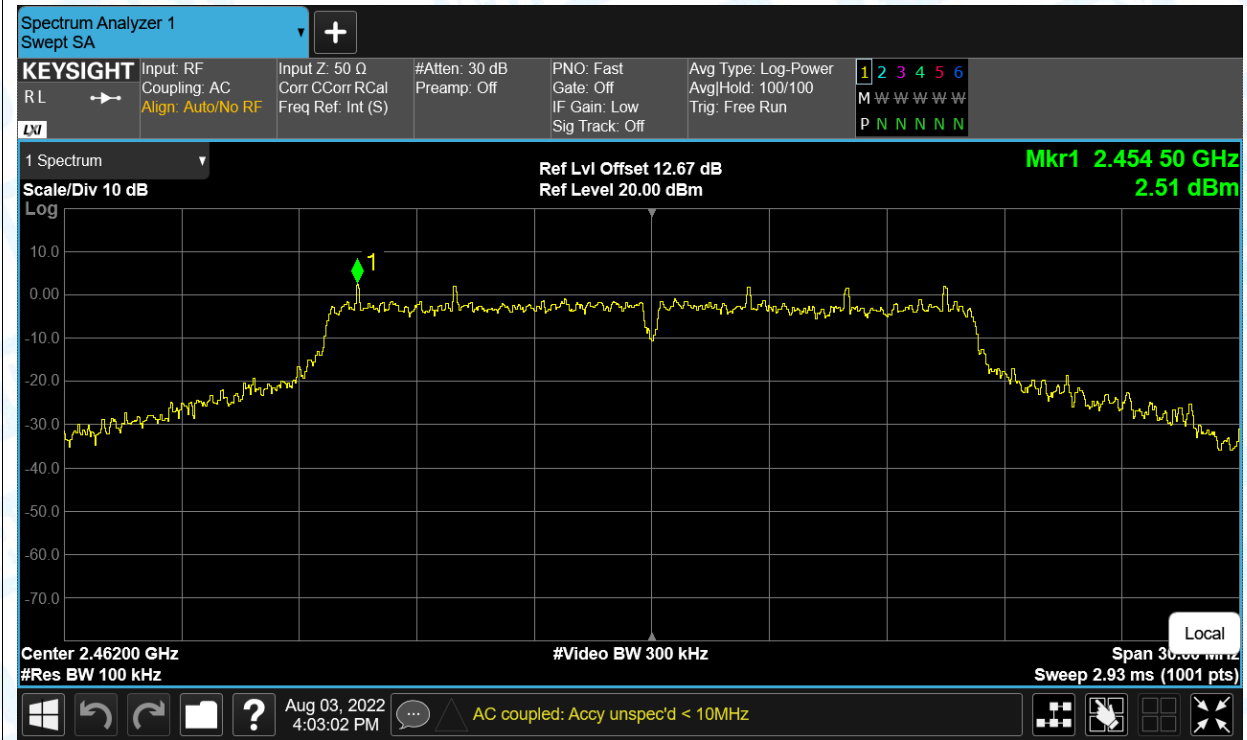
Band Edge NVNT b 2412MHz Ant1 Emission



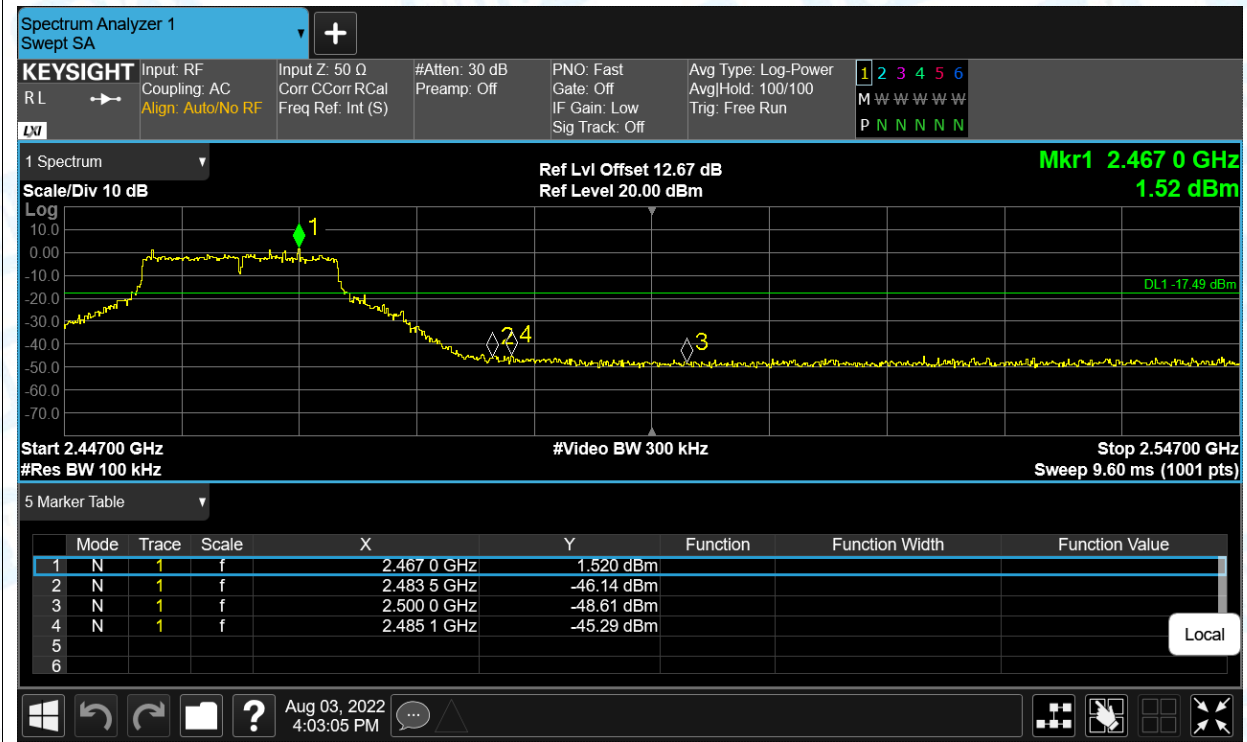


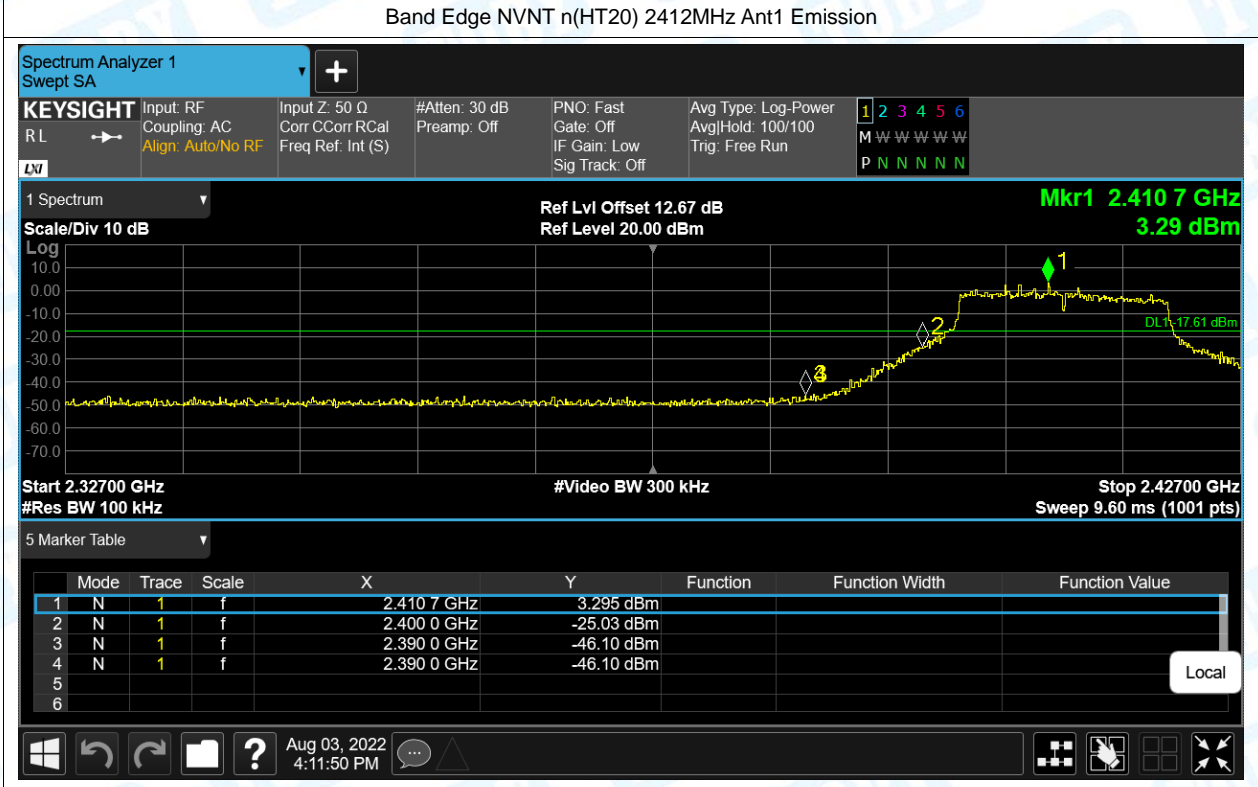
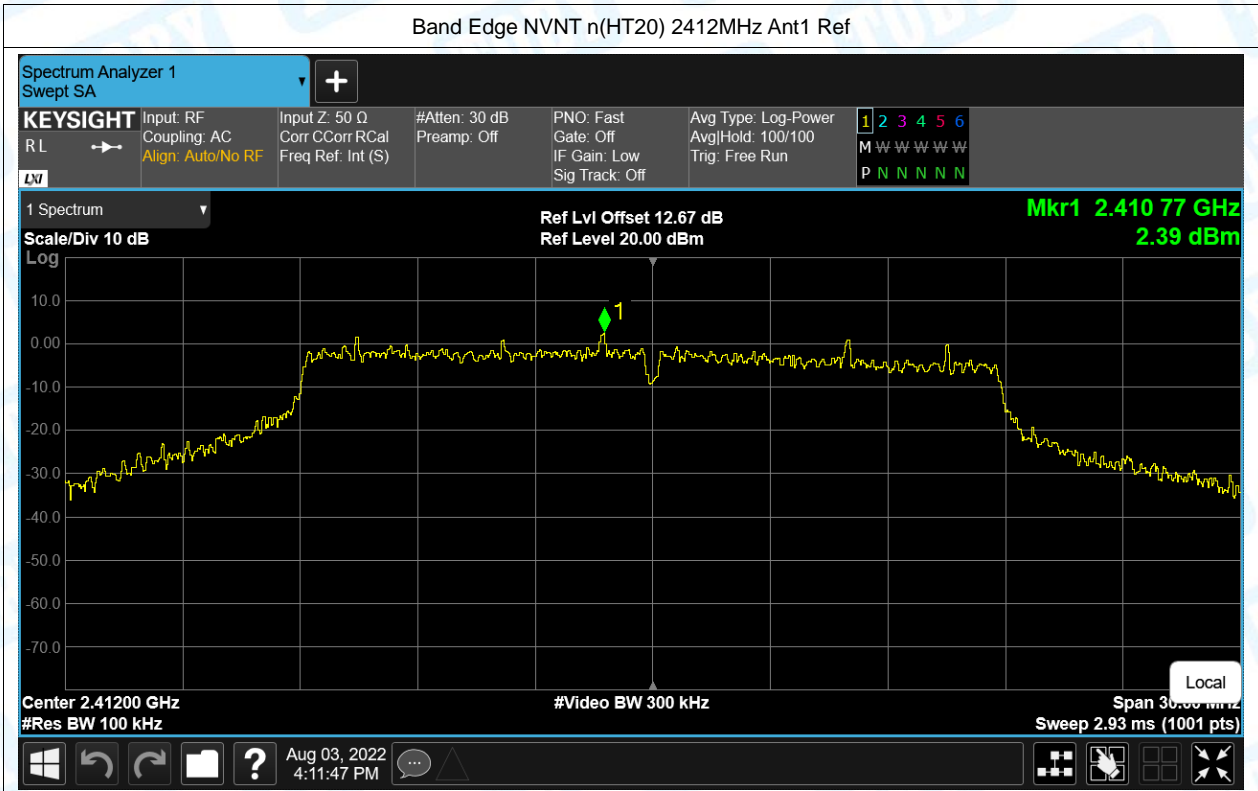


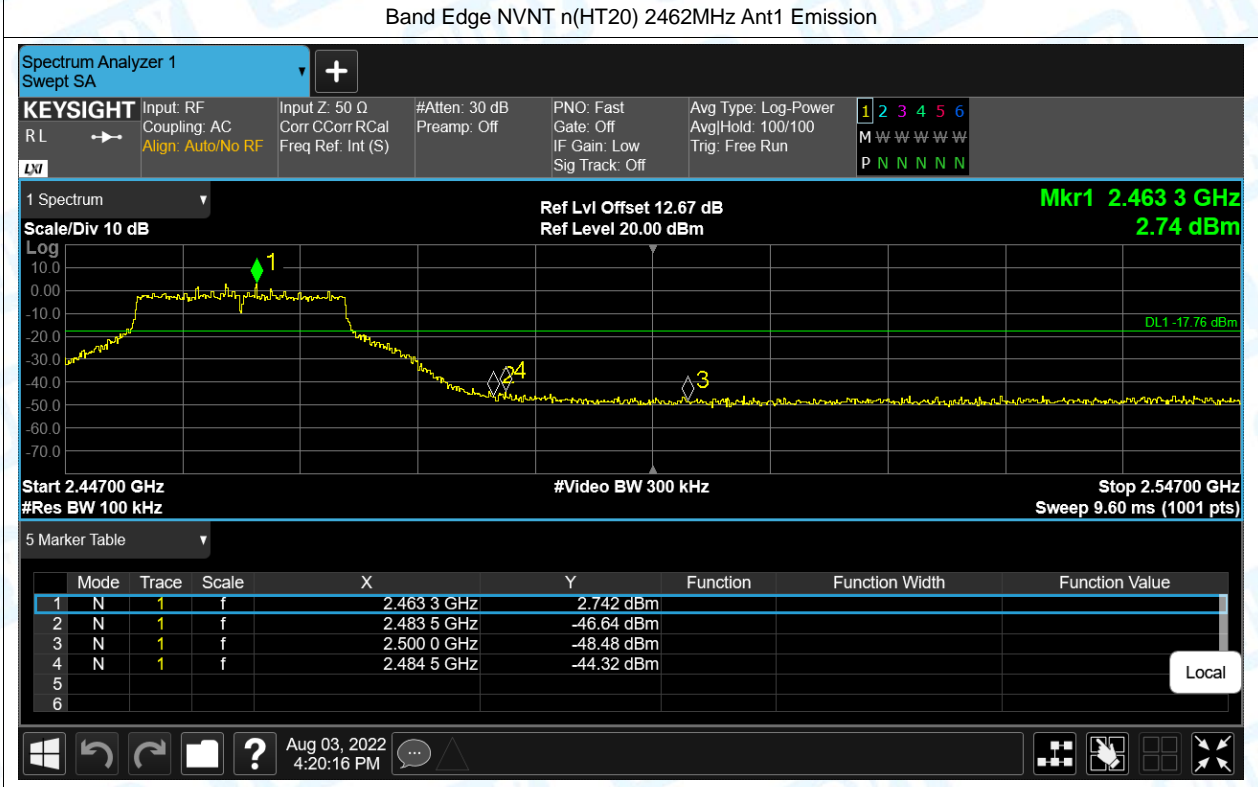
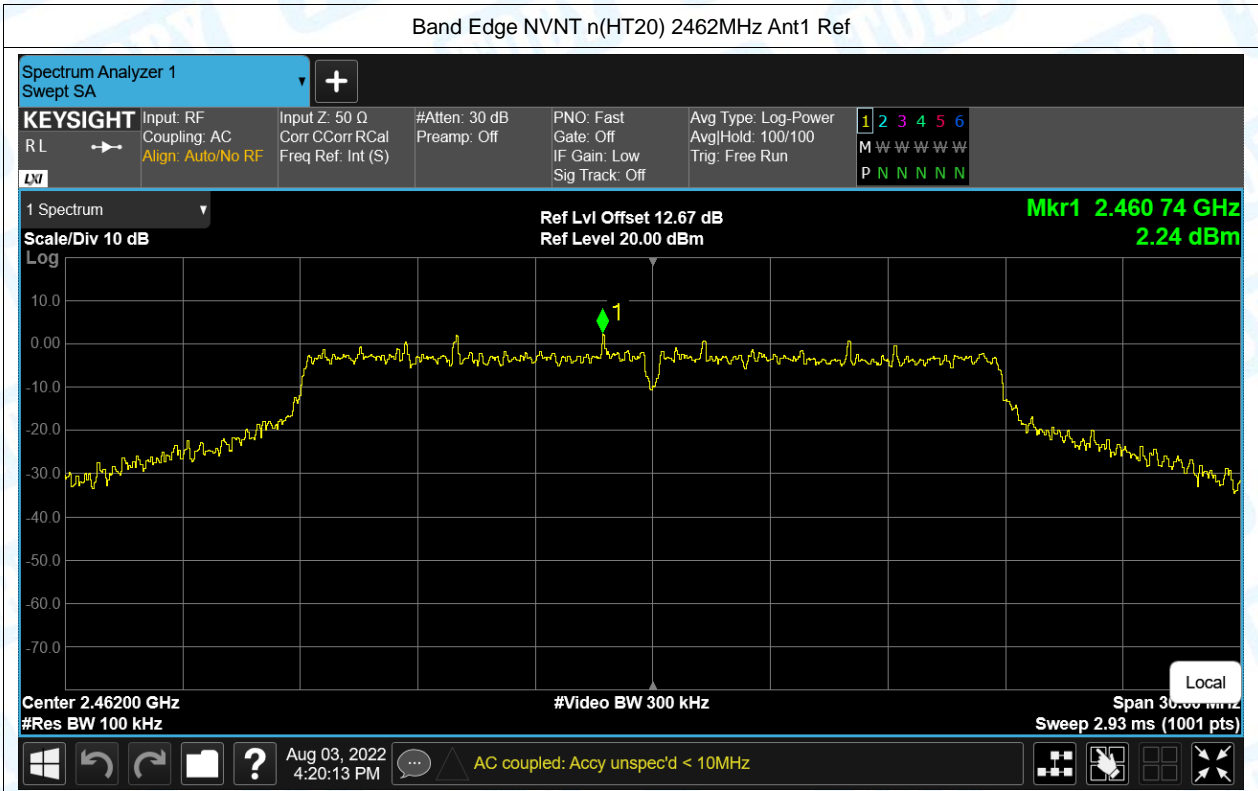
Band Edge NVNT g 2462MHz Ant1 Ref

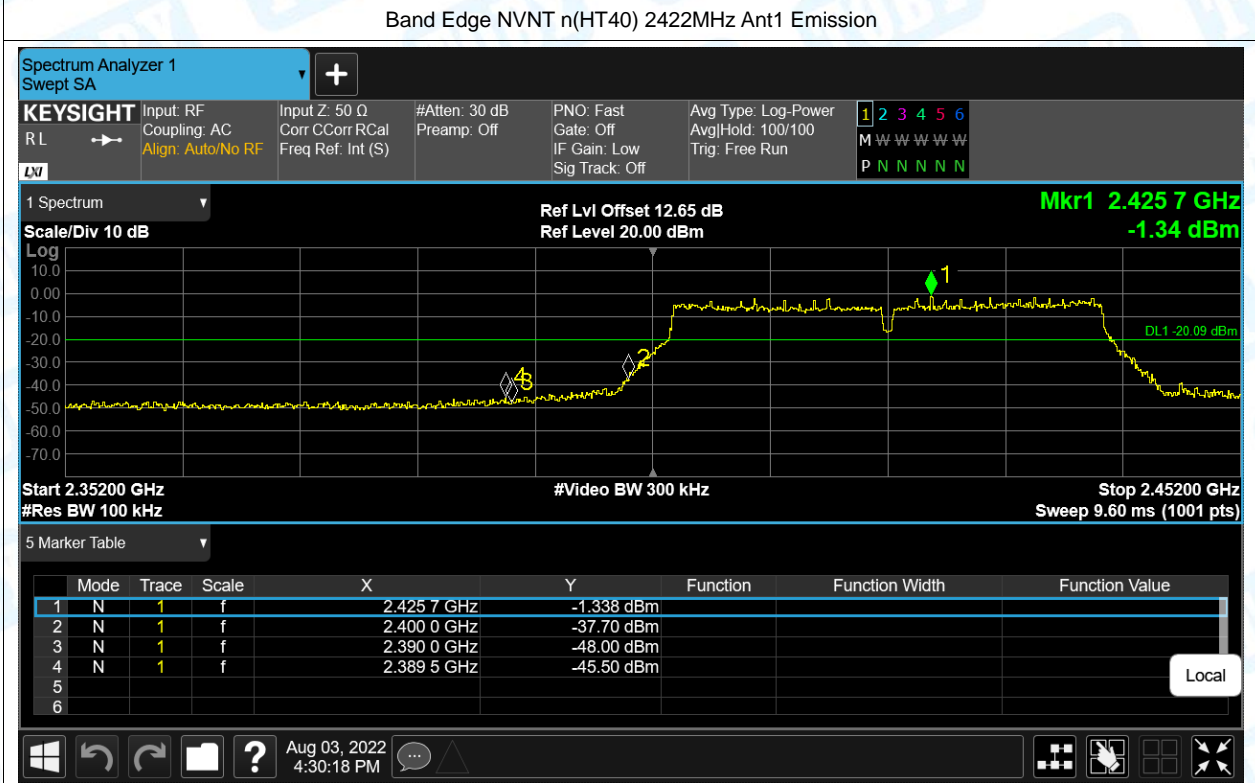
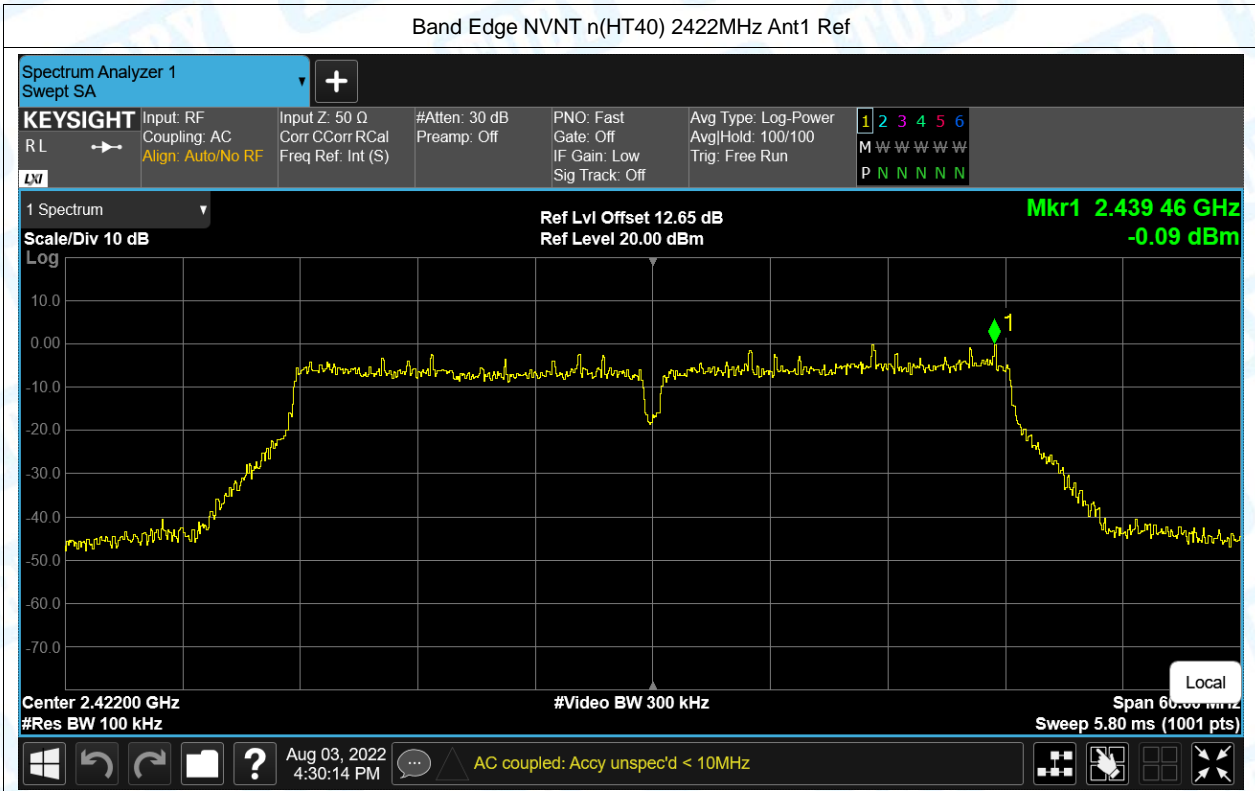


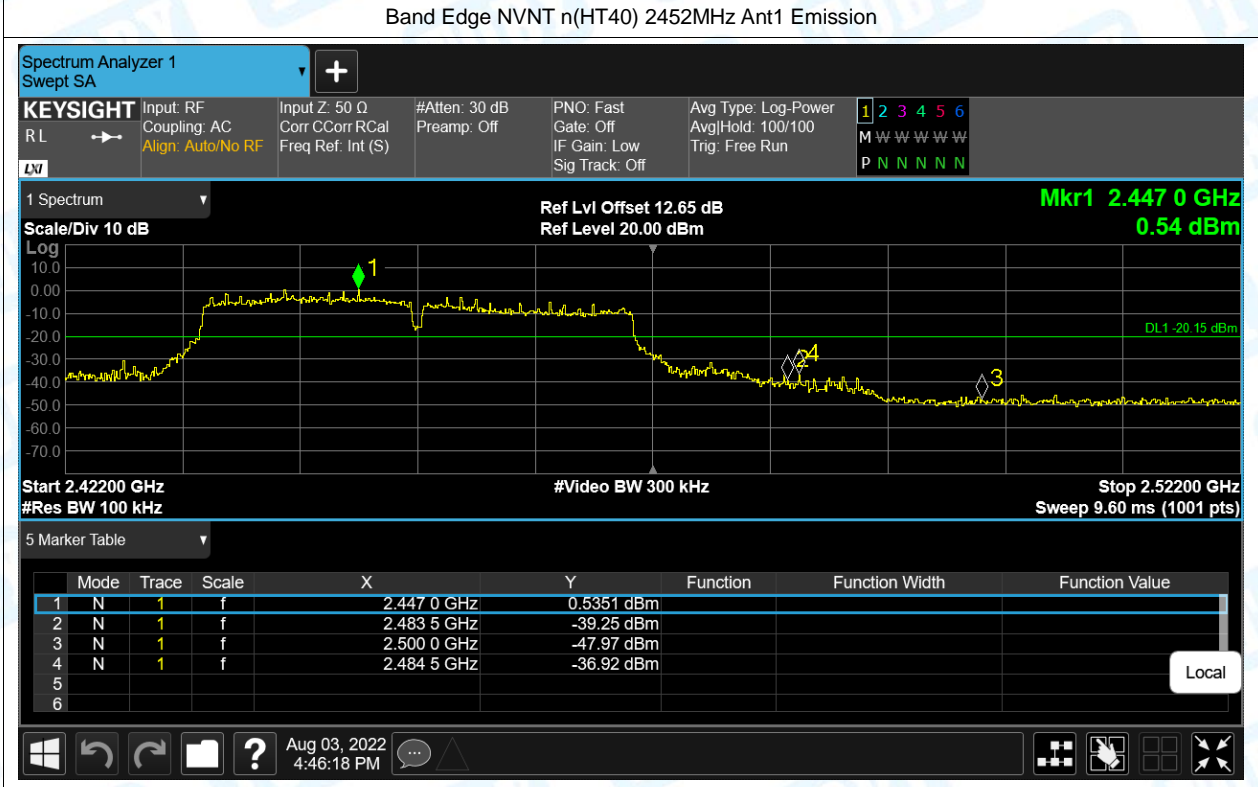
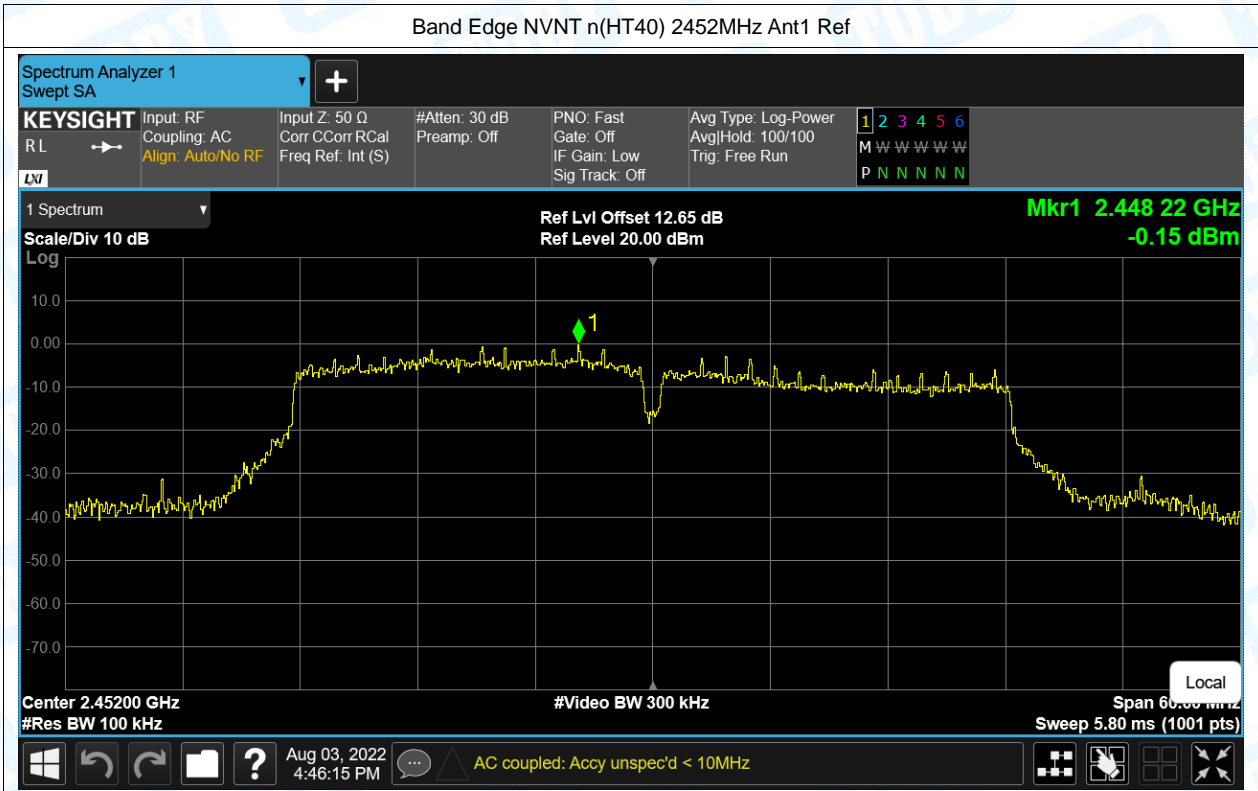
Band Edge NVNT g 2462MHz Ant1 Emission









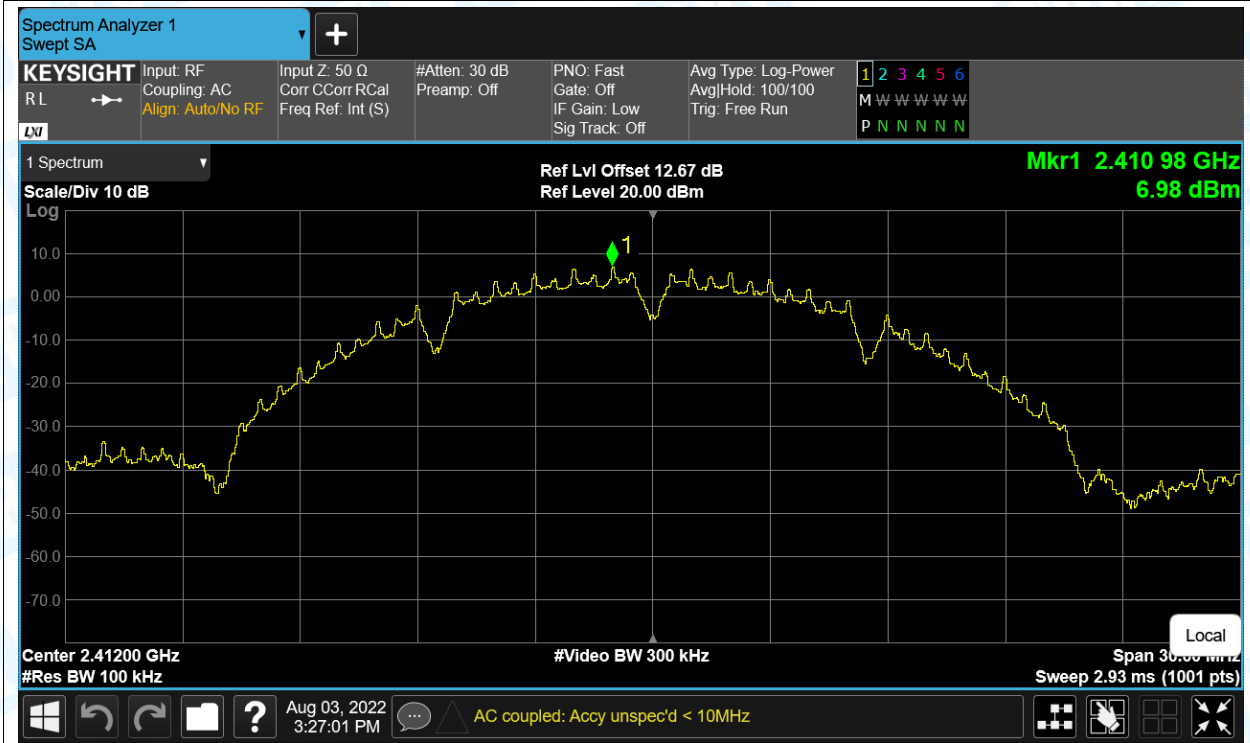


7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-38.64	-20	Pass
NVNT	b	2437	Ant1	-39.59	-20	Pass
NVNT	b	2462	Ant1	-39.38	-20	Pass
NVNT	g	2412	Ant1	-33.98	-20	Pass
NVNT	g	2437	Ant1	-34.73	-20	Pass
NVNT	g	2462	Ant1	-33.7	-20	Pass
NVNT	n(HT20)	2412	Ant1	-34.64	-20	Pass
NVNT	n(HT20)	2437	Ant1	-34.8	-20	Pass
NVNT	n(HT20)	2462	Ant1	-34.54	-20	Pass
NVNT	n(HT40)	2422	Ant1	-31.12	-20	Pass
NVNT	n(HT40)	2437	Ant1	-32.44	-20	Pass
NVNT	n(HT40)	2452	Ant1	-32.55	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission

