

RF Test Data for Bluetooth(BDR+EDR) (Conducted Measurements)

General Description of EUT	
Product Name:	2.0 Channel Outdoor Soundbar
Test Model:	ELF S2
Sample ID:	202208-0194-01-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	AC 120V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202208-0194-6.	

Contents

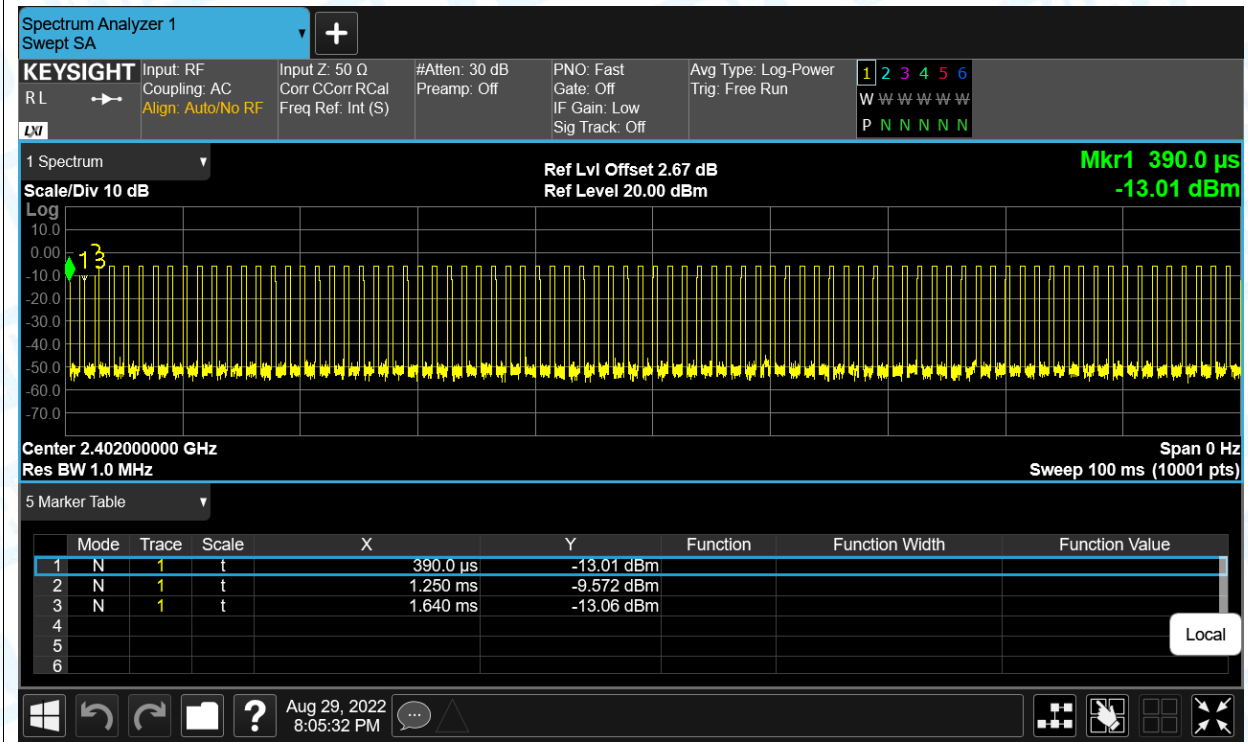
1. Duty Cycle.....	3
2. Maximum Conducted Output Power.....	7
3. -20dB Bandwidth.....	11
4. Occupied Channel Bandwidth.....	15
5. Band Edge.....	19
6. Band Edge(Hopping).....	24
7. Conducted RF Spurious Emission.....	29
8. Restrict Band.....	36
9. Carrier Frequencies Separation.....	41
10. Number of Hopping Channel.....	43
11. Dwell Time.....	45

1. Duty Cycle

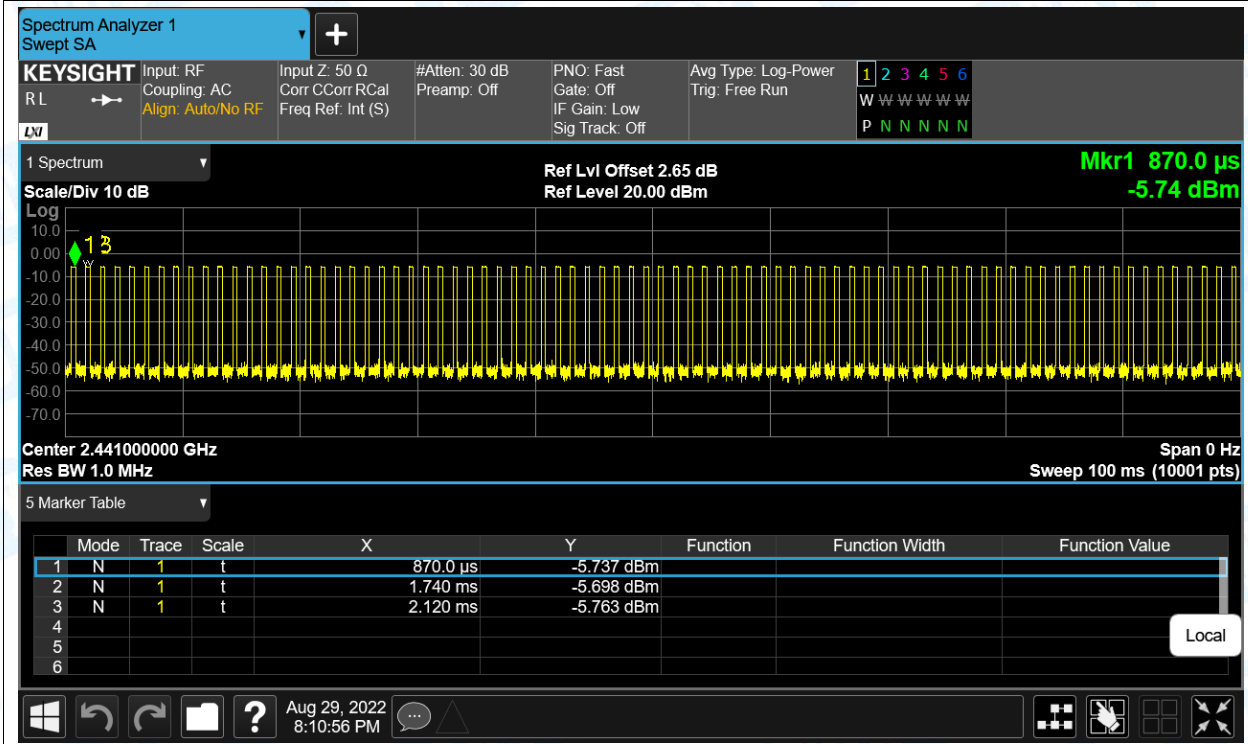
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

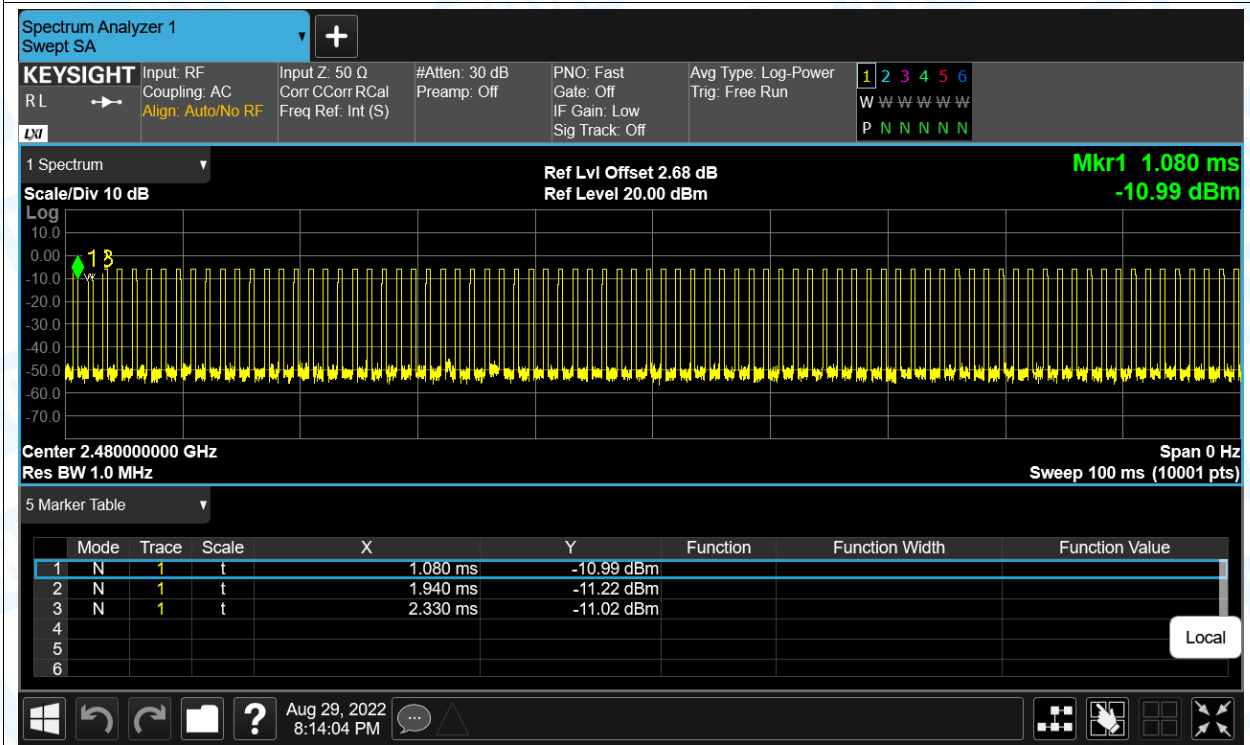
Duty Cycle NVNT 1-DH1 2402MHz Ant1



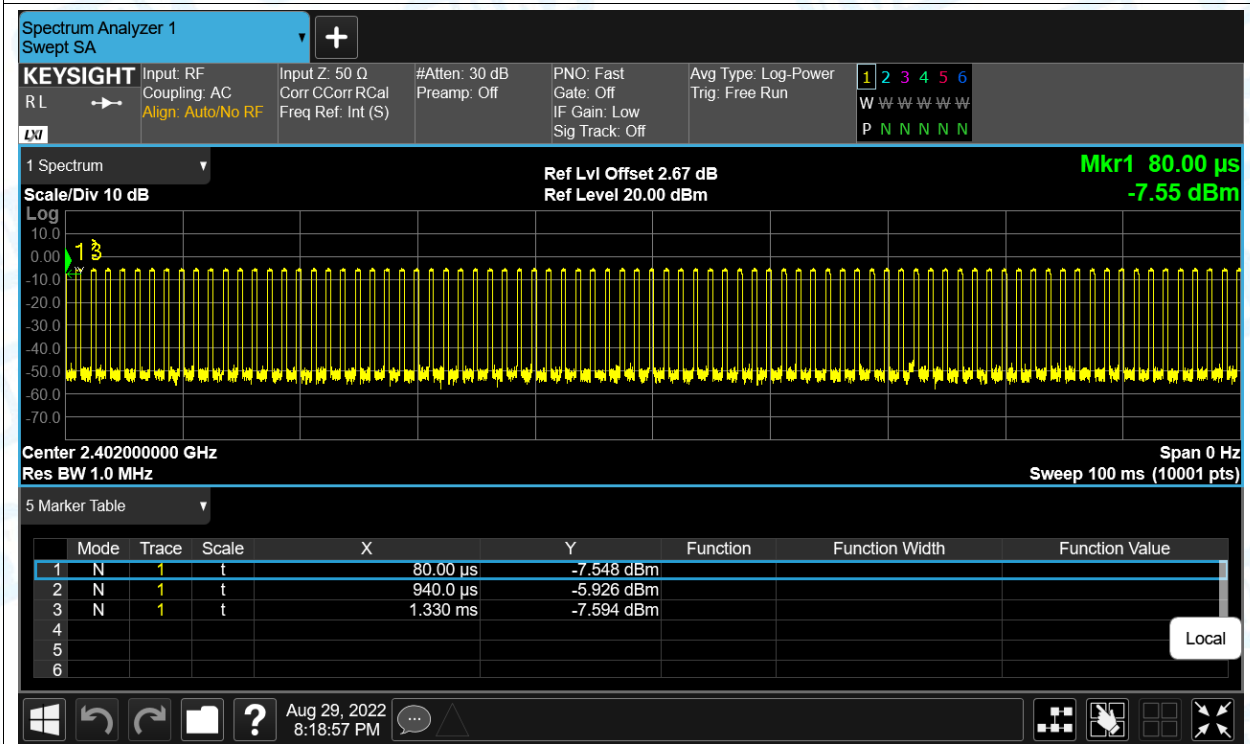
Duty Cycle NVNT 1-DH1 2441MHz Ant1



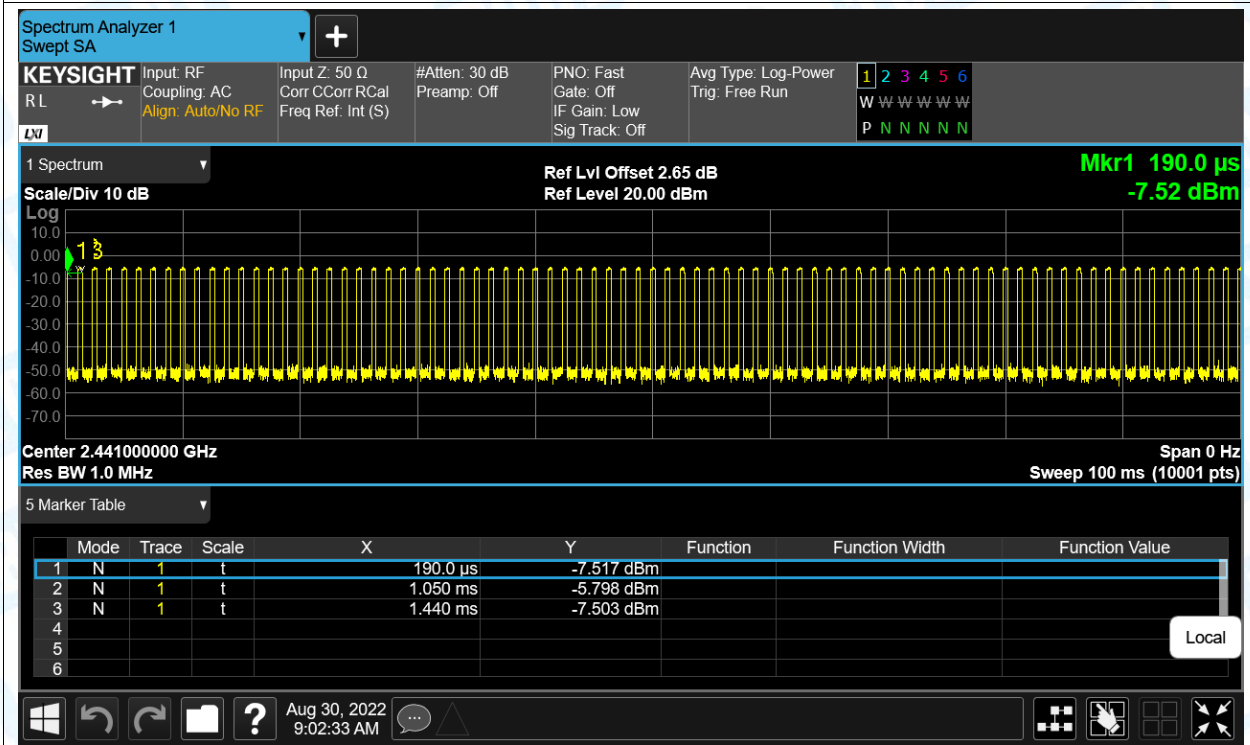
Duty Cycle NVNT 1-DH1 2480MHz Ant1



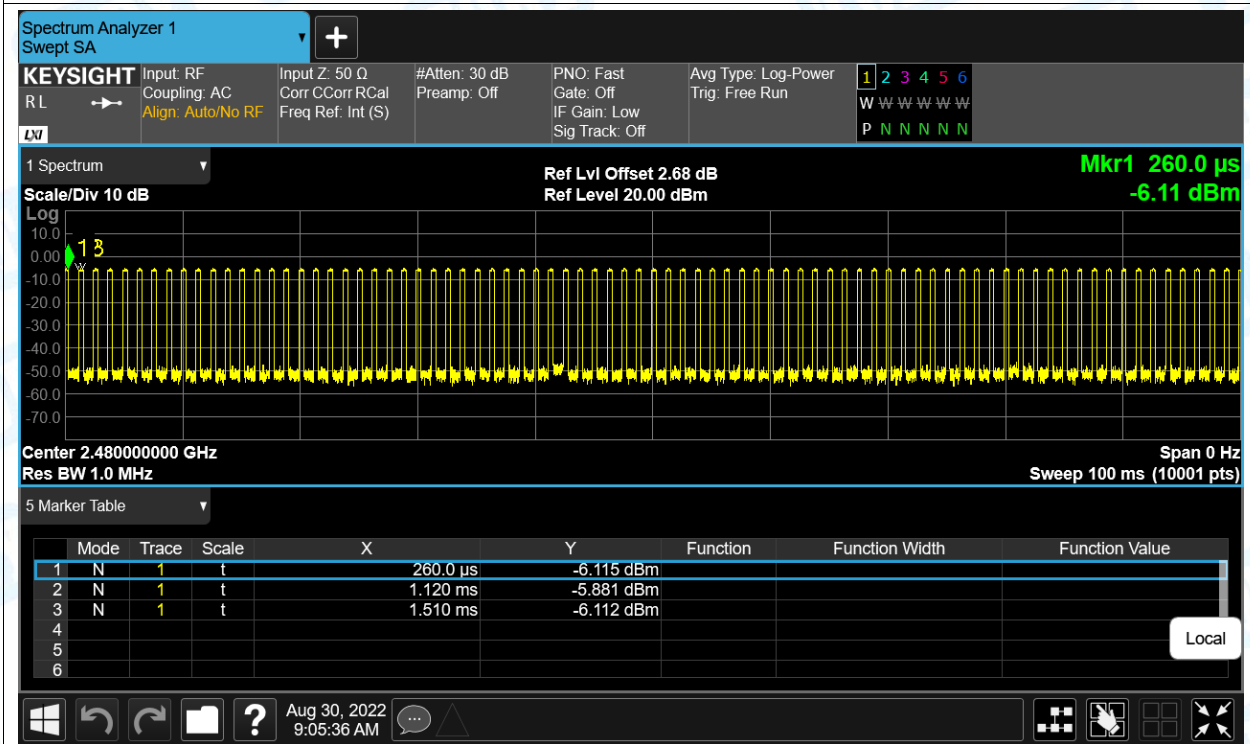
Duty Cycle NVNT 2-DH1 2402MHz Ant1



Duty Cycle NVNT 2-DH1 2441MHz Ant1

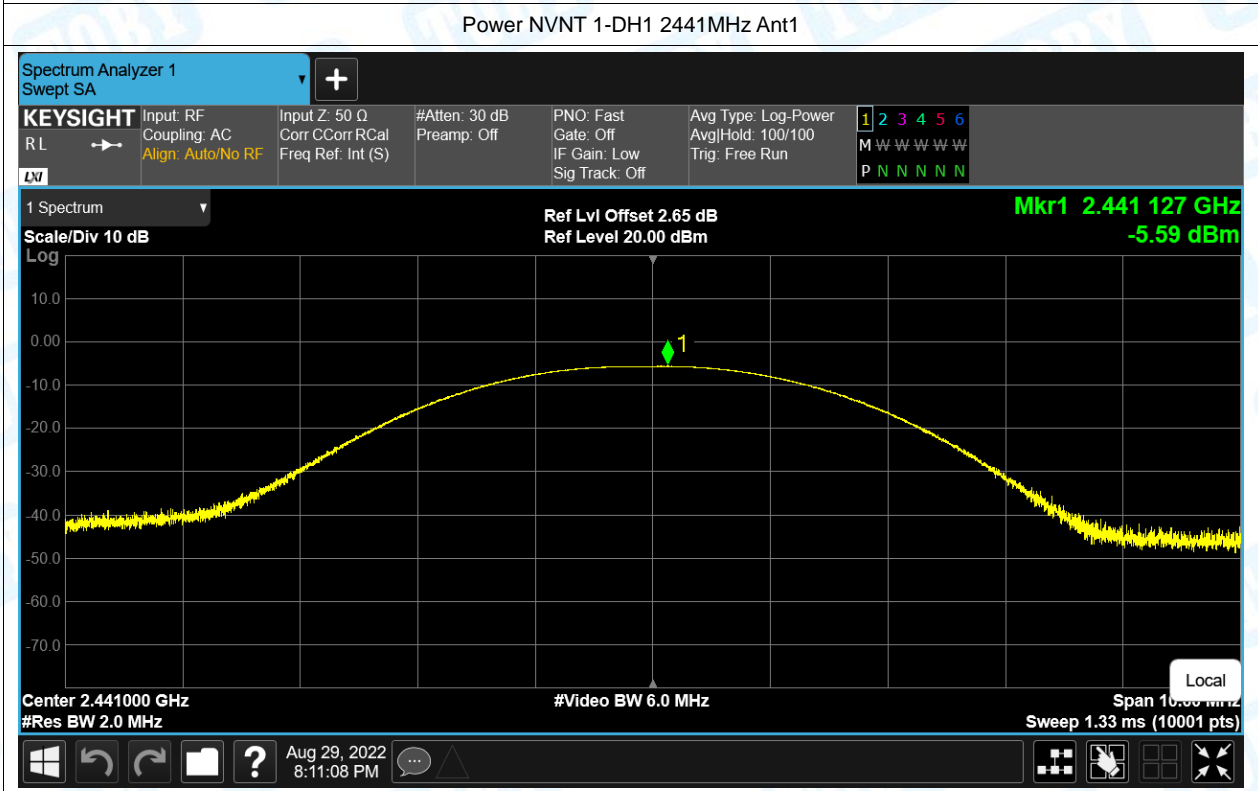
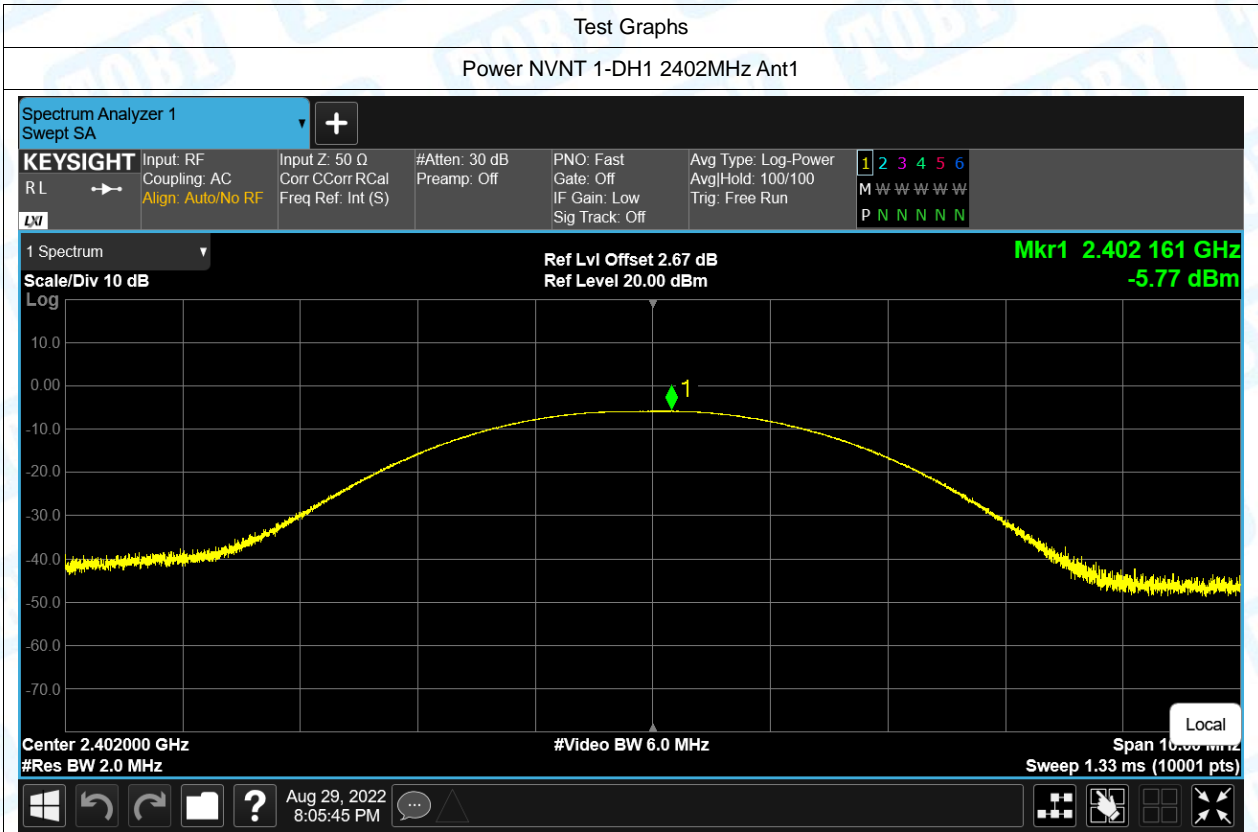


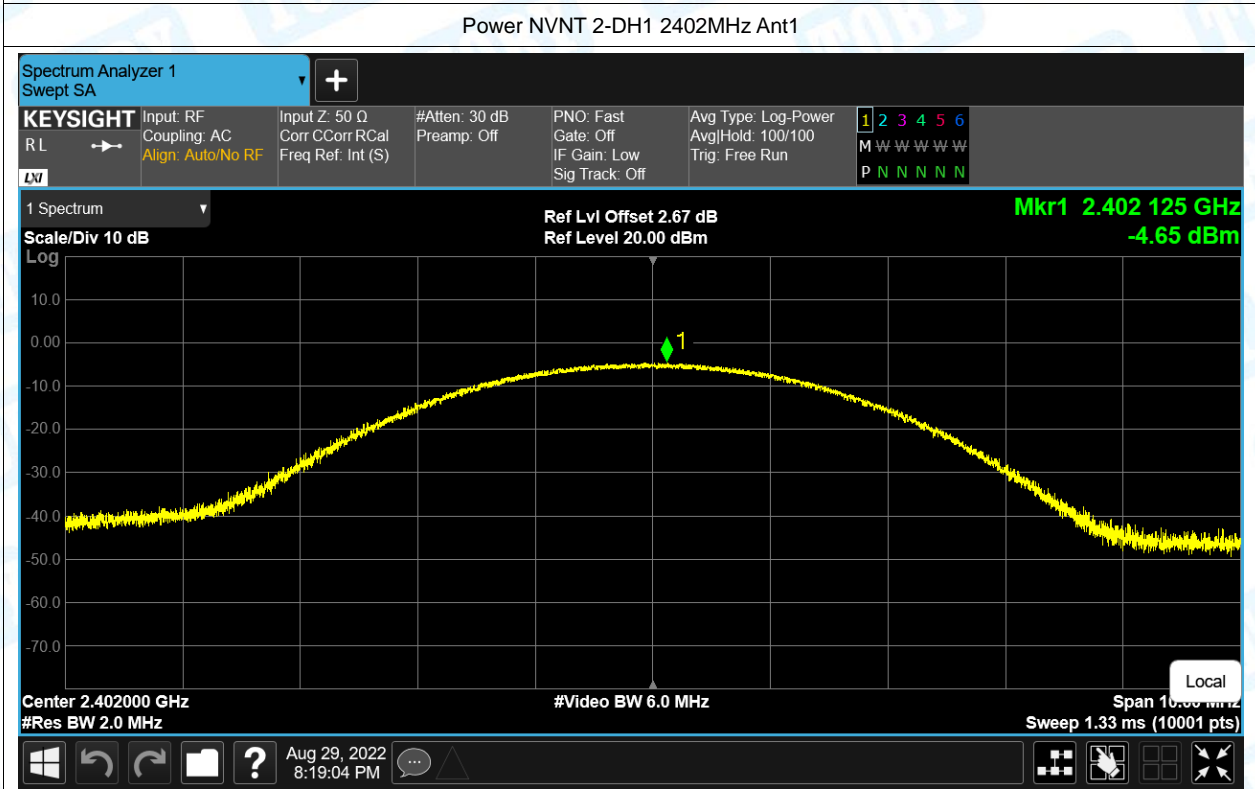
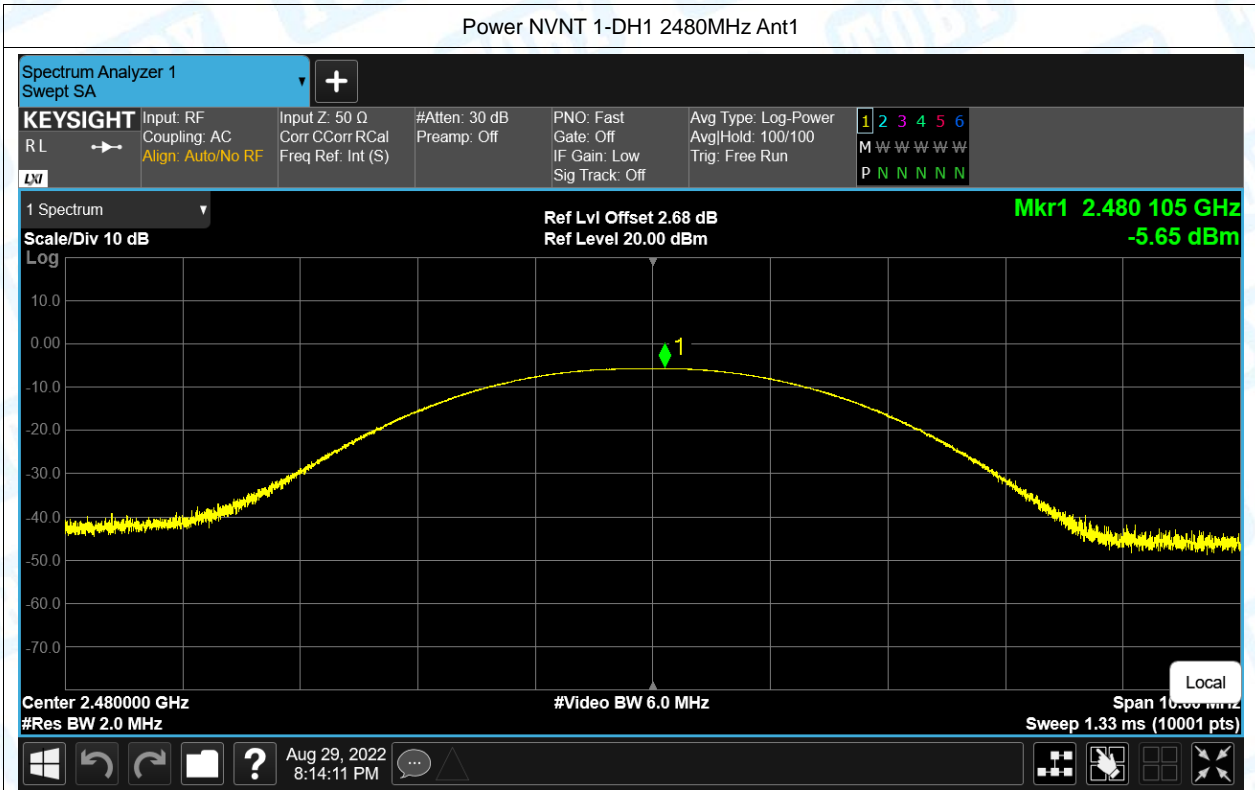
Duty Cycle NVNT 2-DH1 2480MHz Ant1

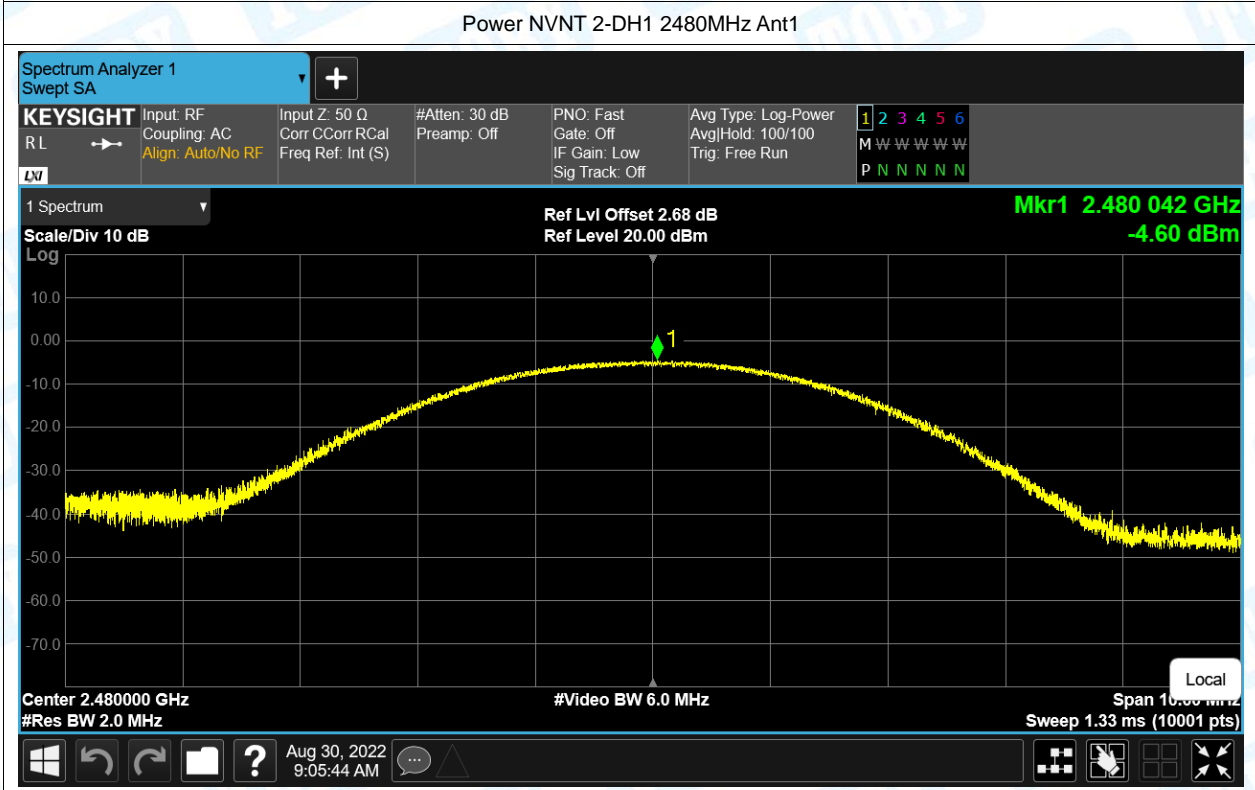


2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-5.773	21	Pass
NVNT	1-DH1	2441	Ant1	-5.595	21	Pass
NVNT	1-DH1	2480	Ant1	-5.649	21	Pass
NVNT	2-DH1	2402	Ant1	-4.651	21	Pass
NVNT	2-DH1	2441	Ant1	-4.484	21	Pass
NVNT	2-DH1	2480	Ant1	-4.595	21	Pass





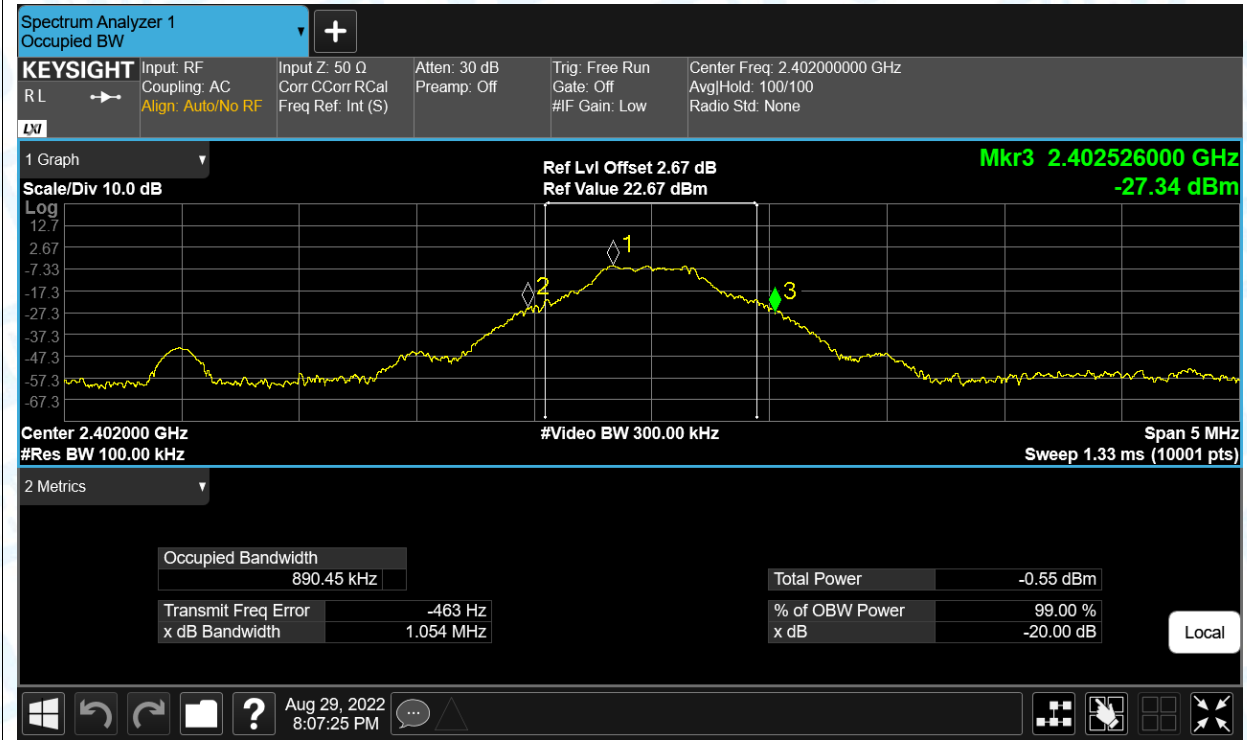


3. -20dB Bandwidth

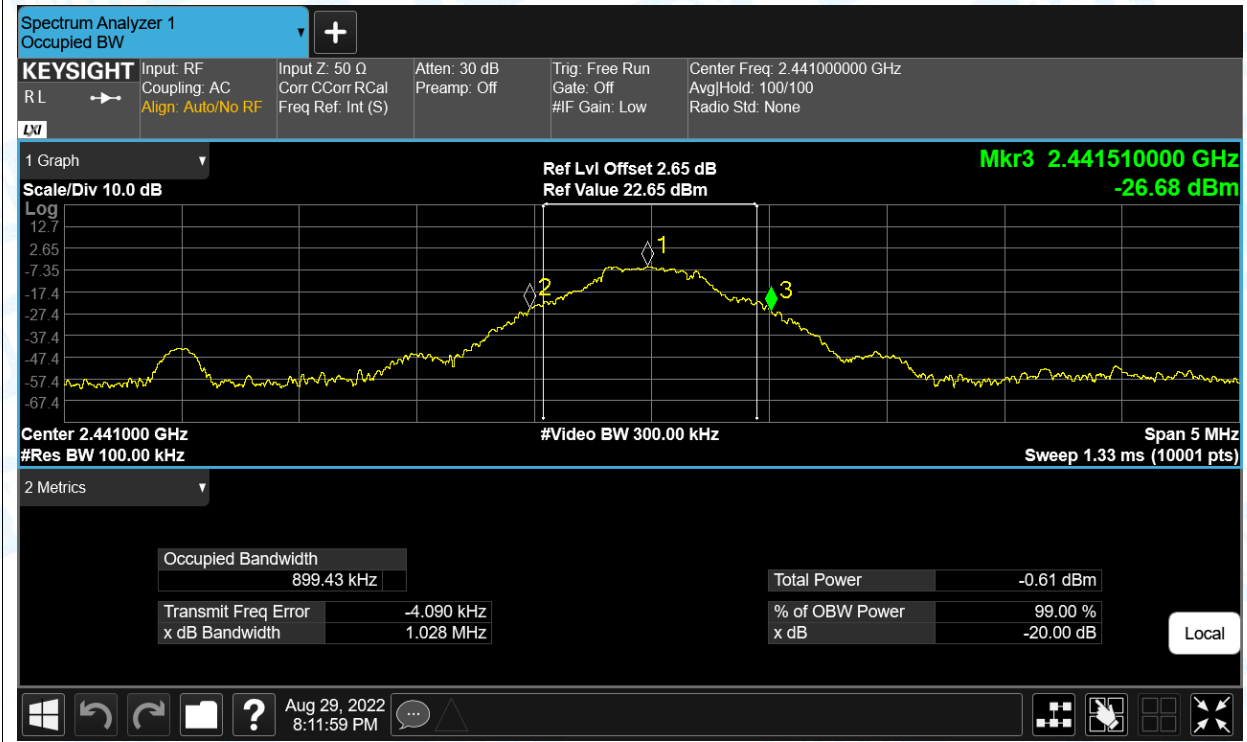
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	1.05	0	Pass
NVNT	1-DH1	2441	Ant1	1.03	0	Pass
NVNT	1-DH1	2480	Ant1	1.05	0	Pass
NVNT	2-DH1	2402	Ant1	1.33	0	Pass
NVNT	2-DH1	2441	Ant1	1.35	0	Pass
NVNT	2-DH1	2480	Ant1	1.34	0	Pass

Test Graphs

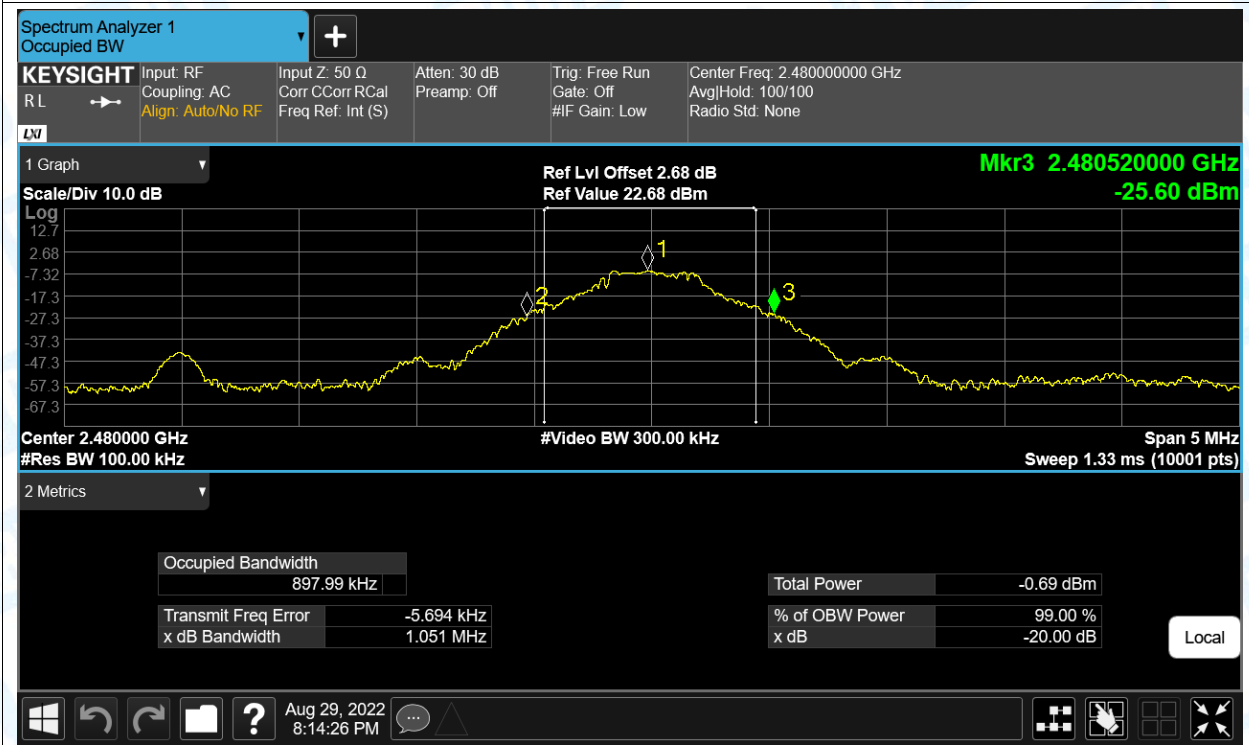
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



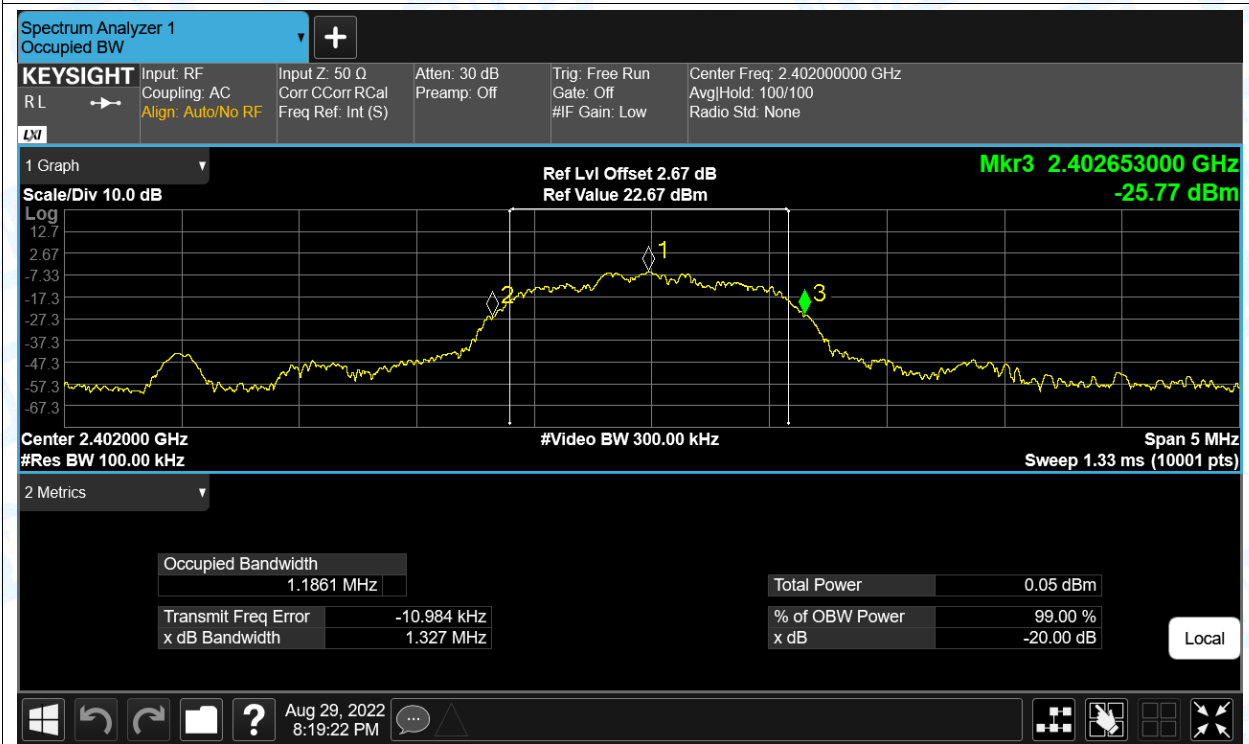
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



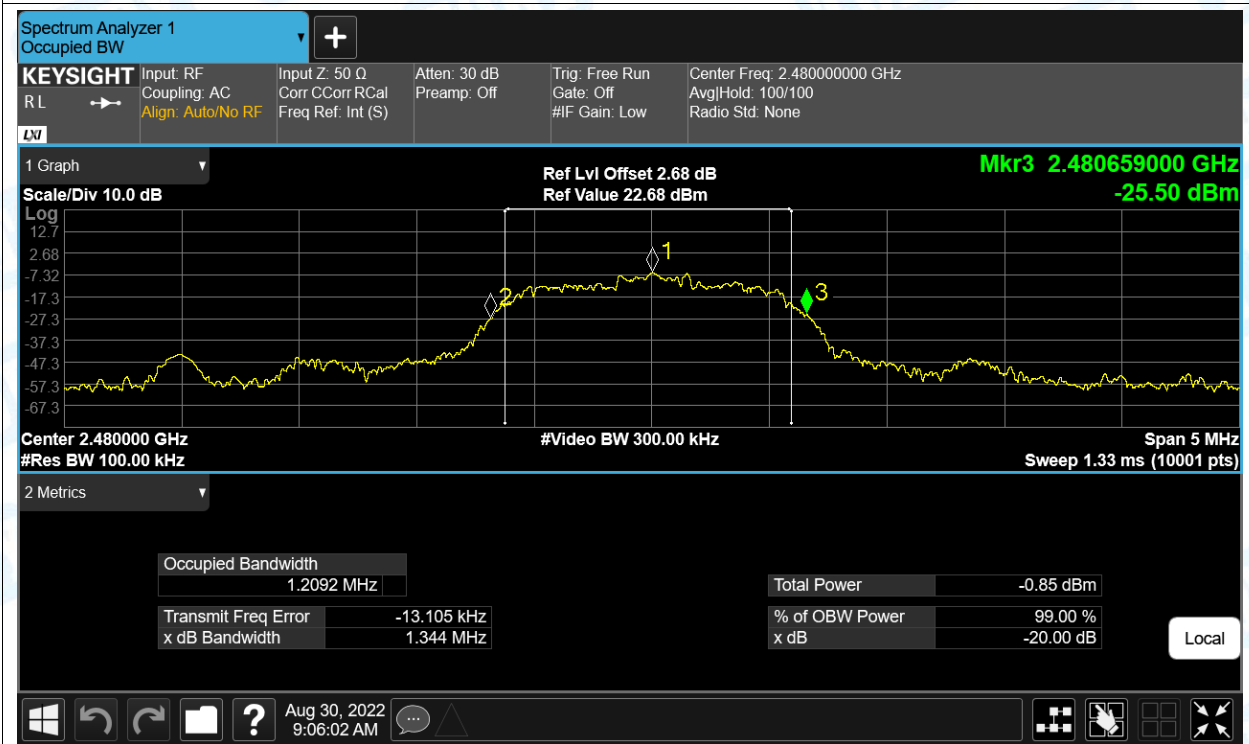
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1

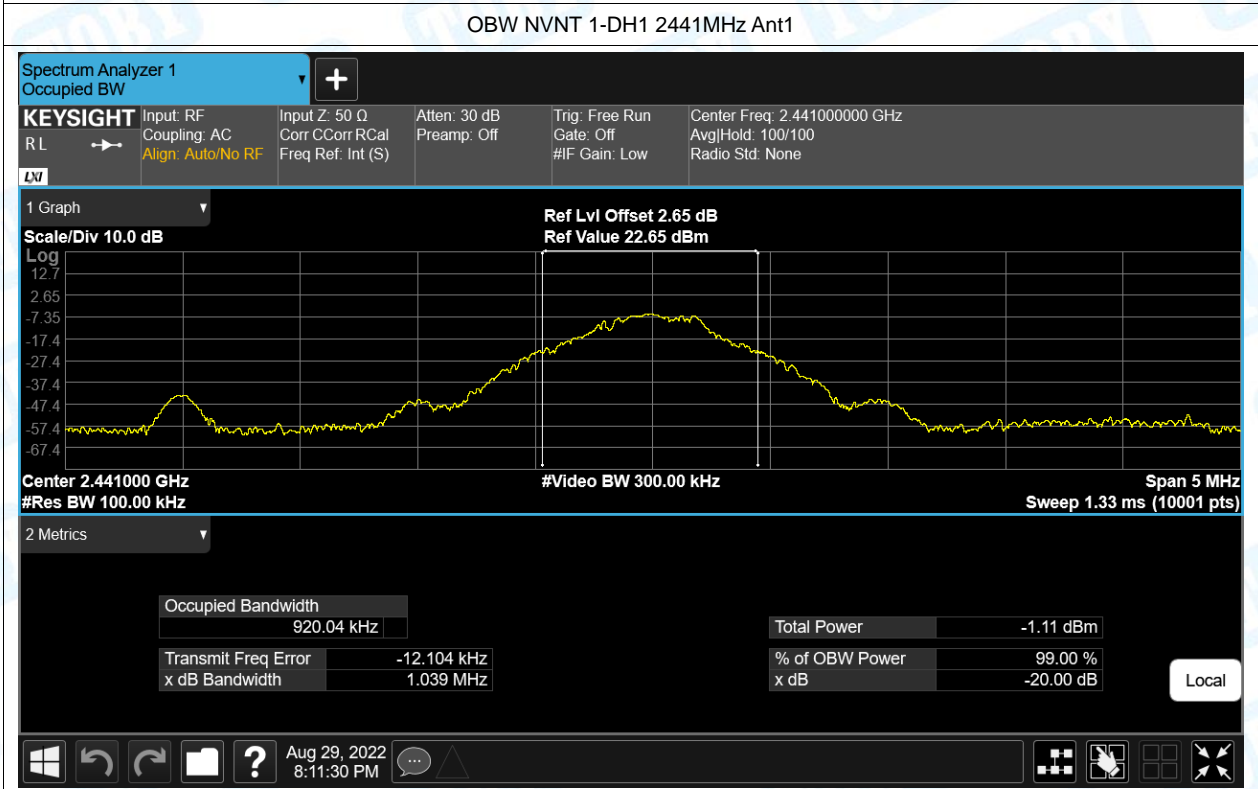
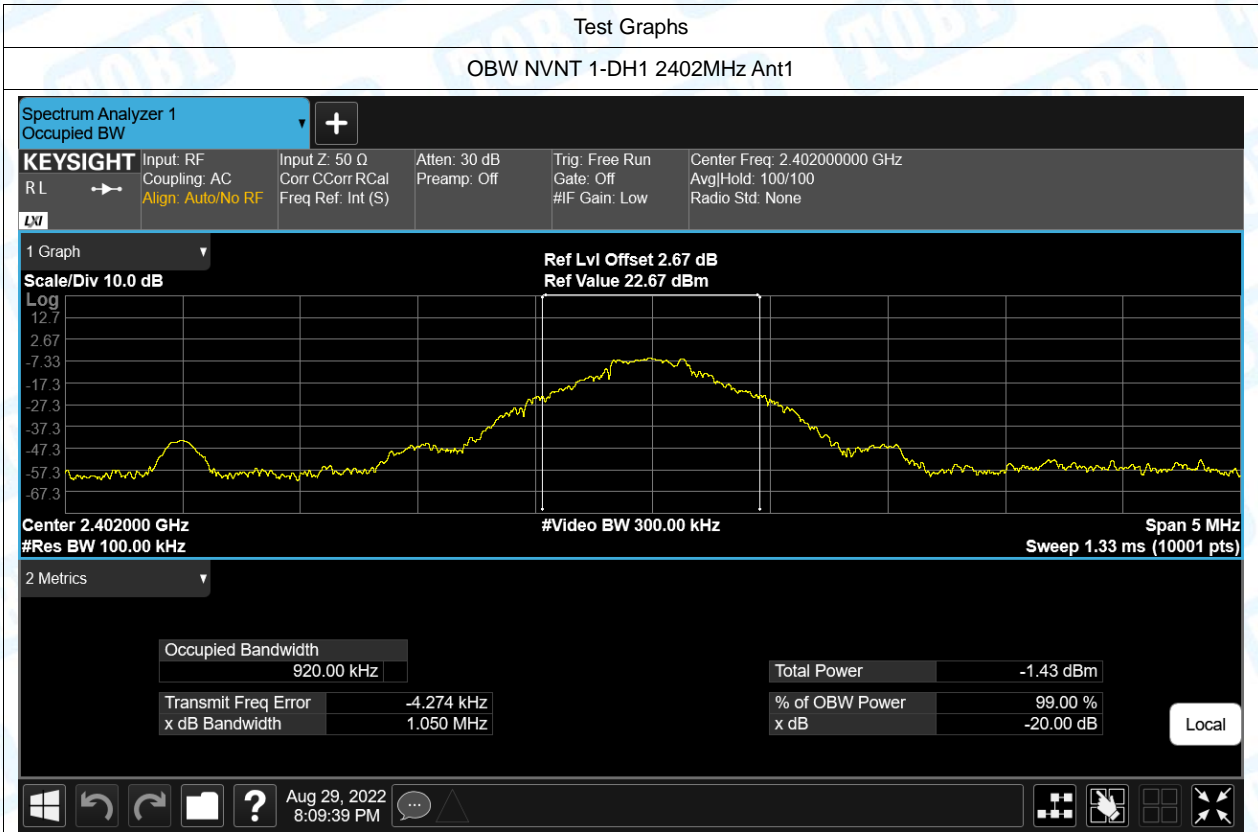


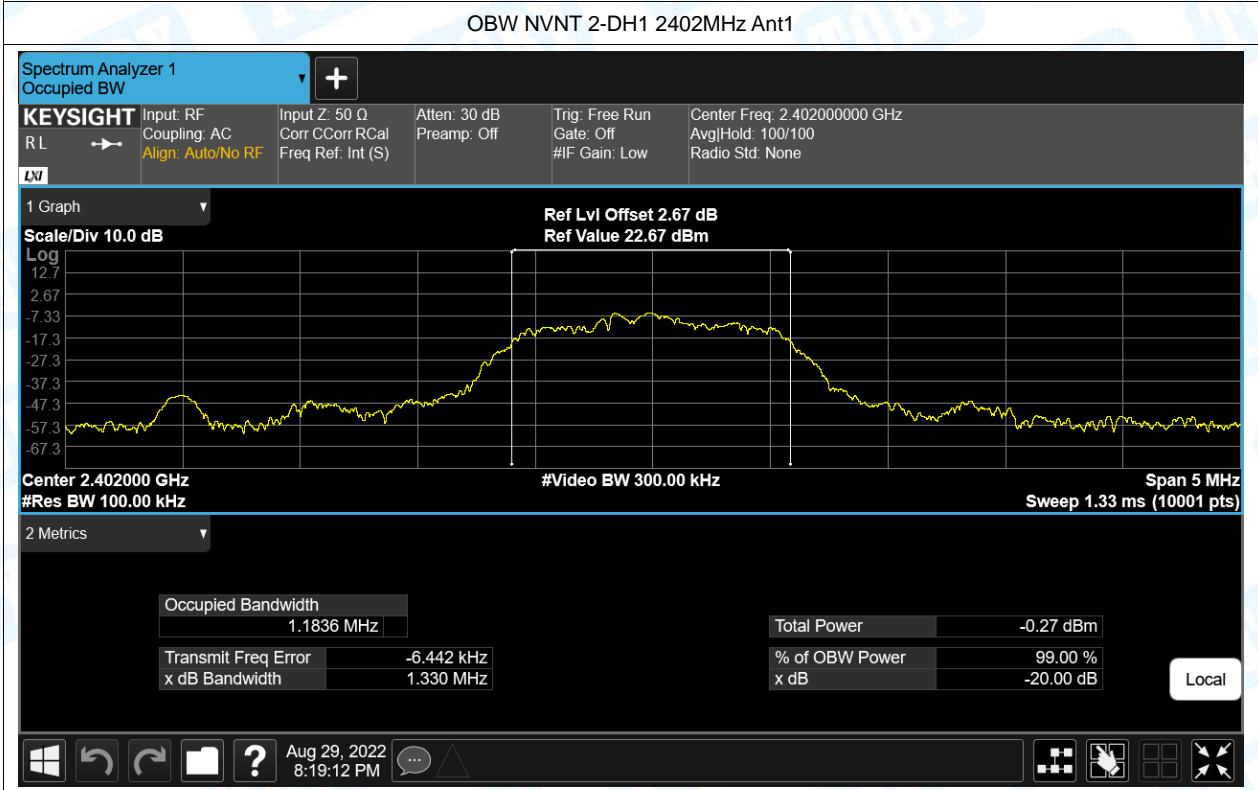
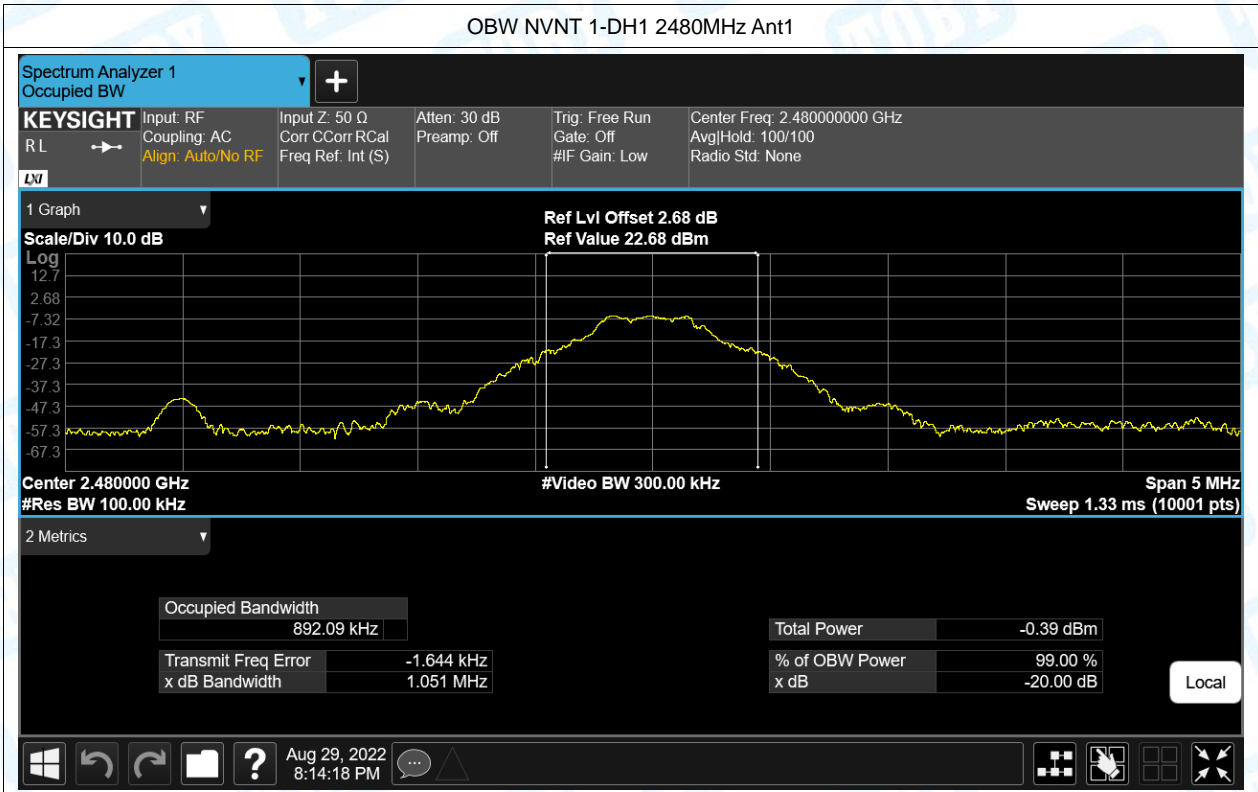
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

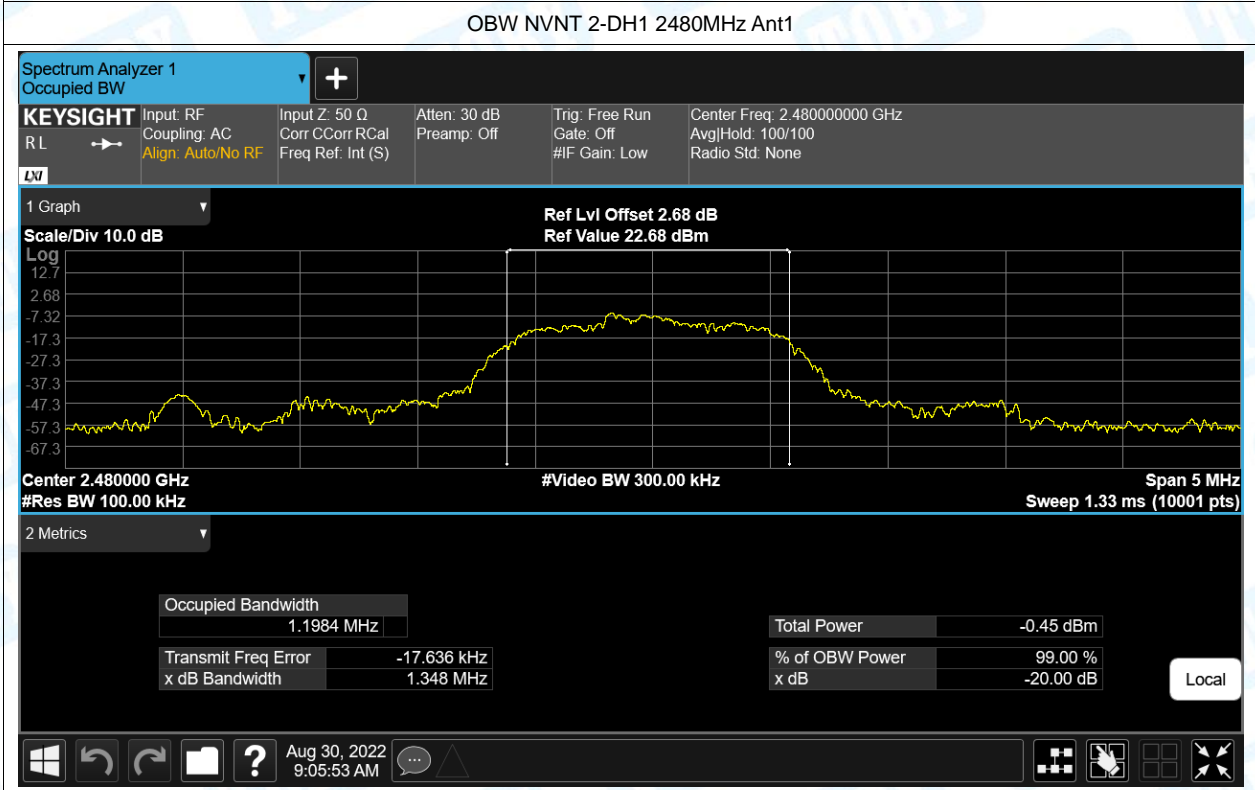
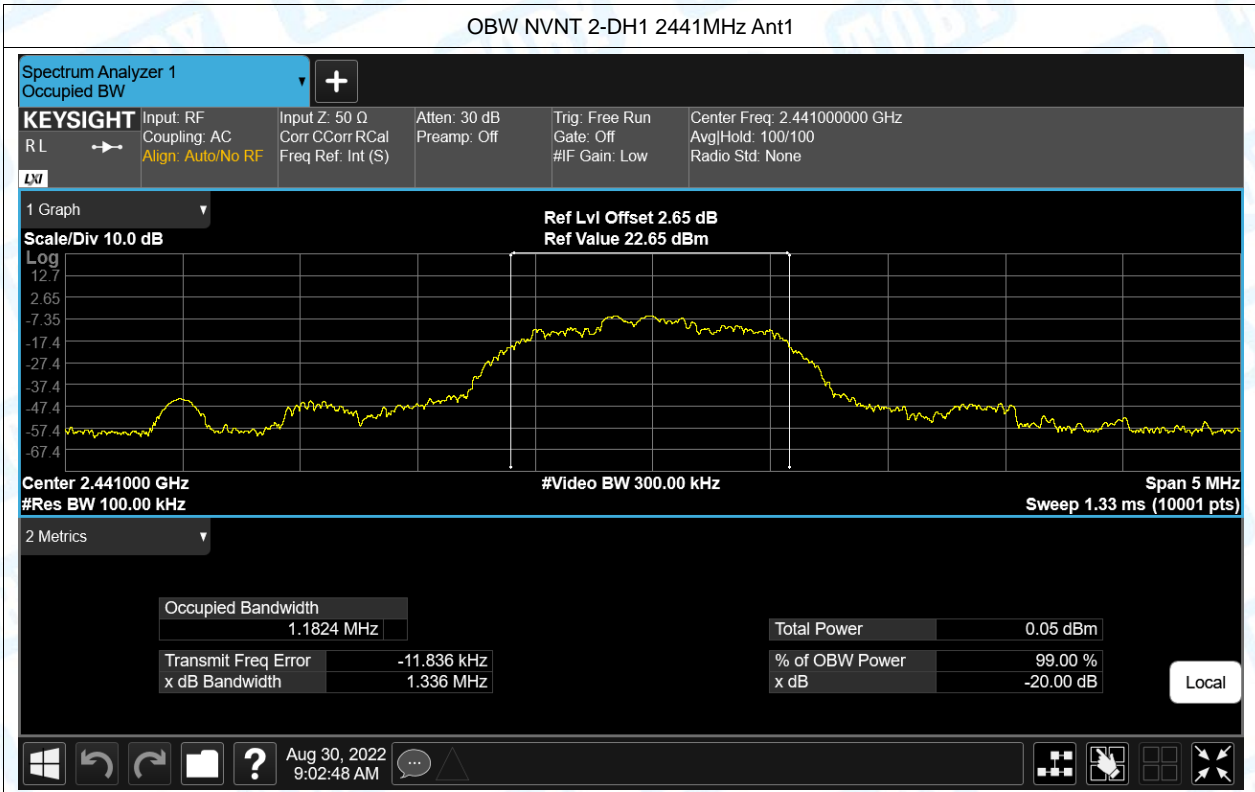


4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.92
NVNT	1-DH1	2441	Ant1	0.92
NVNT	1-DH1	2480	Ant1	0.892
NVNT	2-DH1	2402	Ant1	1.184
NVNT	2-DH1	2441	Ant1	1.182
NVNT	2-DH1	2480	Ant1	1.198





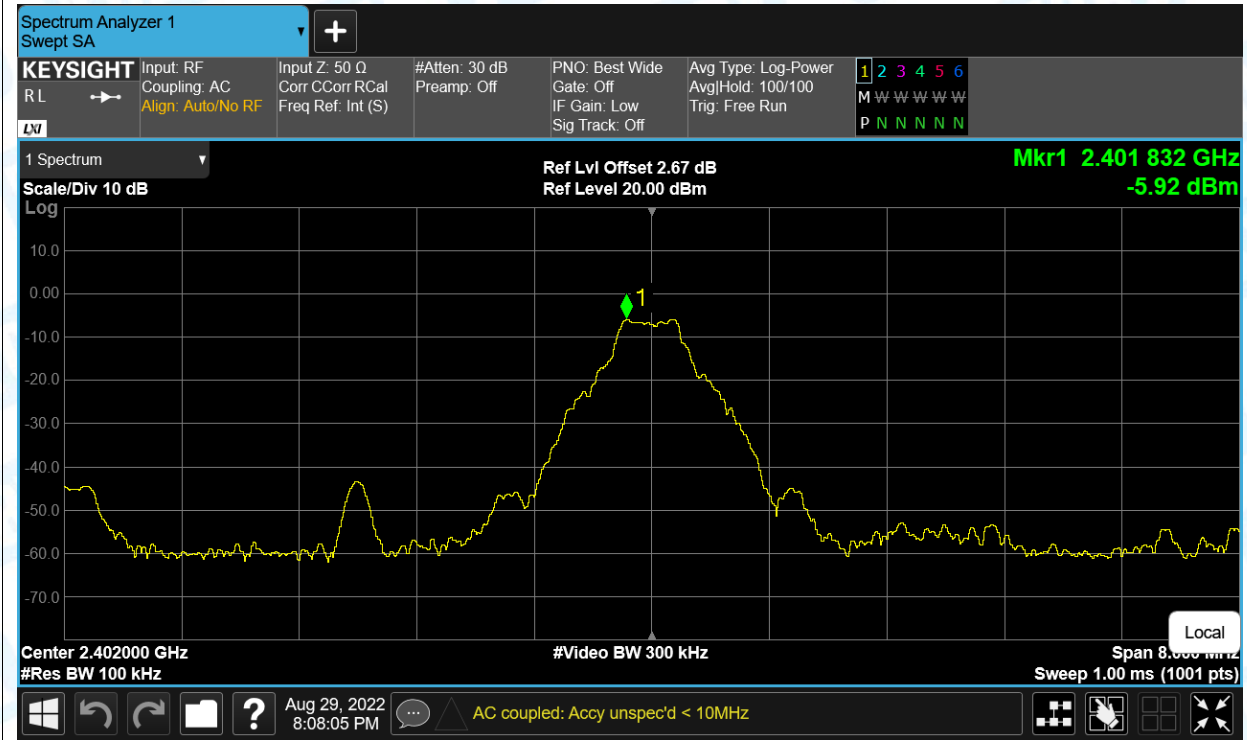


5. Band Edge

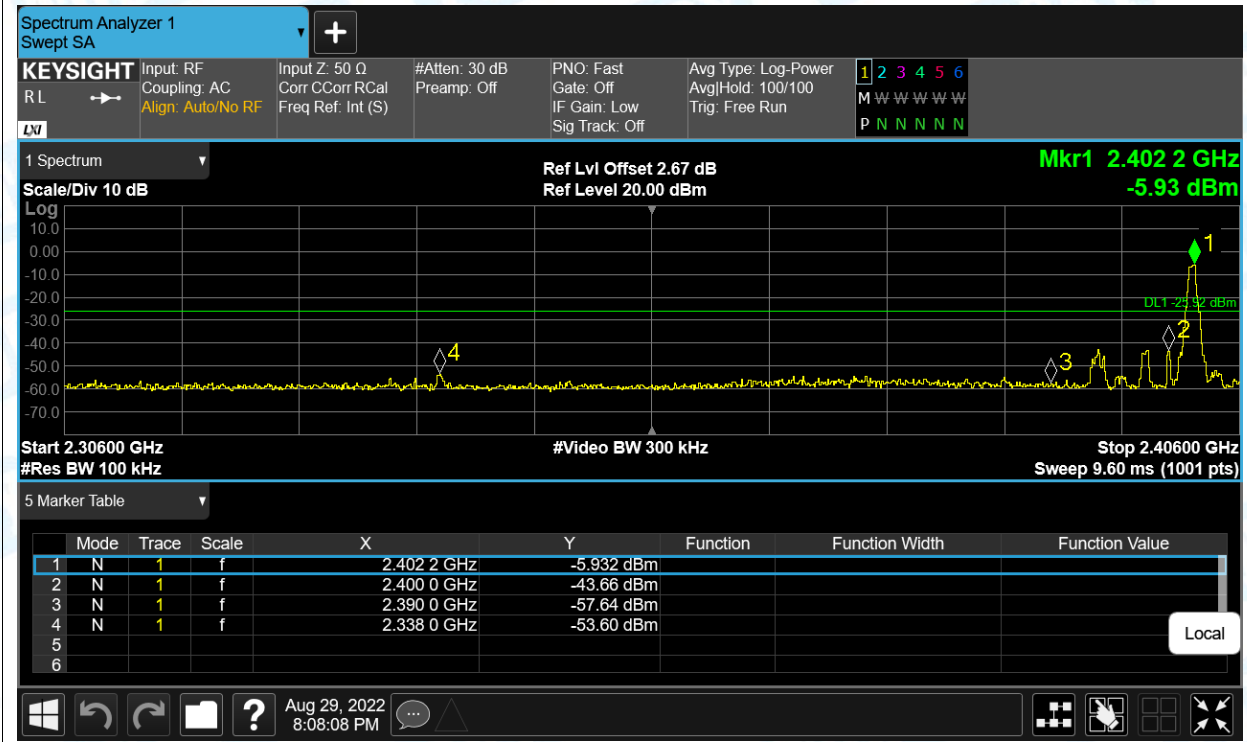
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-47.69	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-46.97	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-47.45	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-48.75	-20	Pass

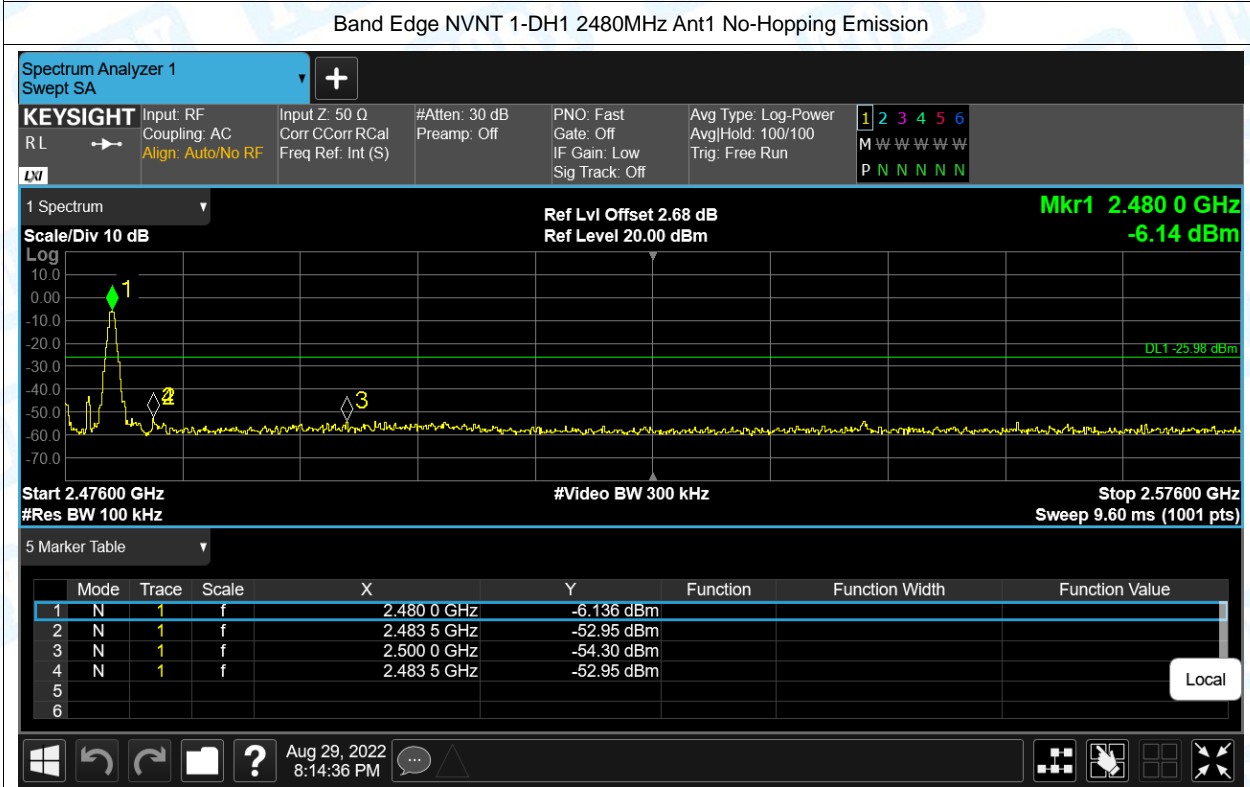
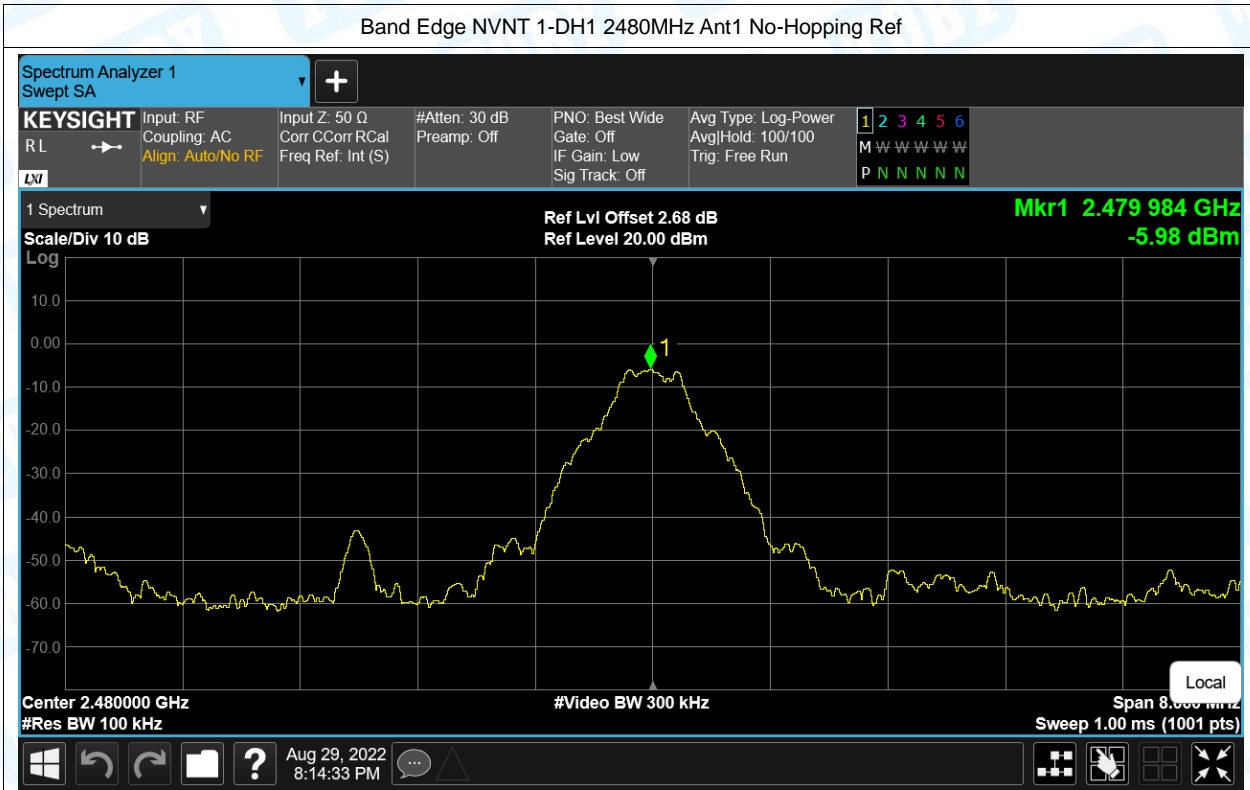
Test Graphs

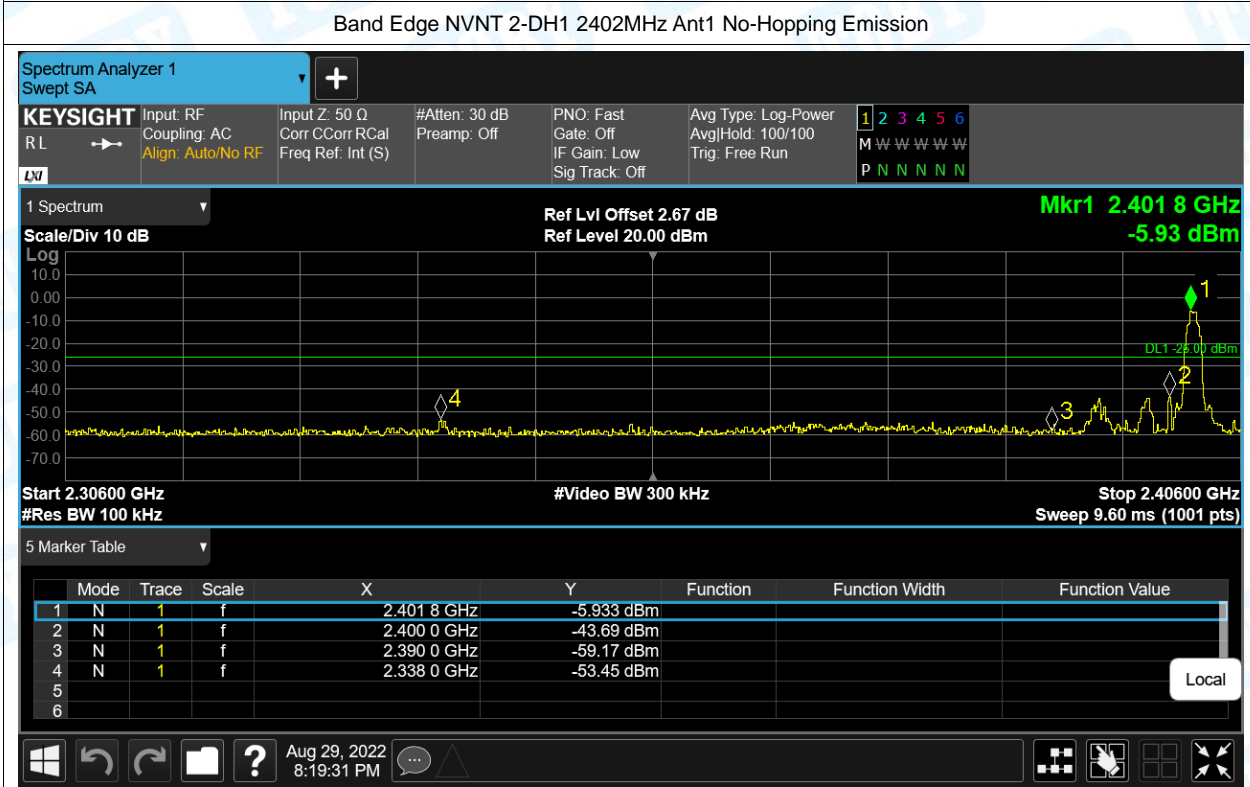
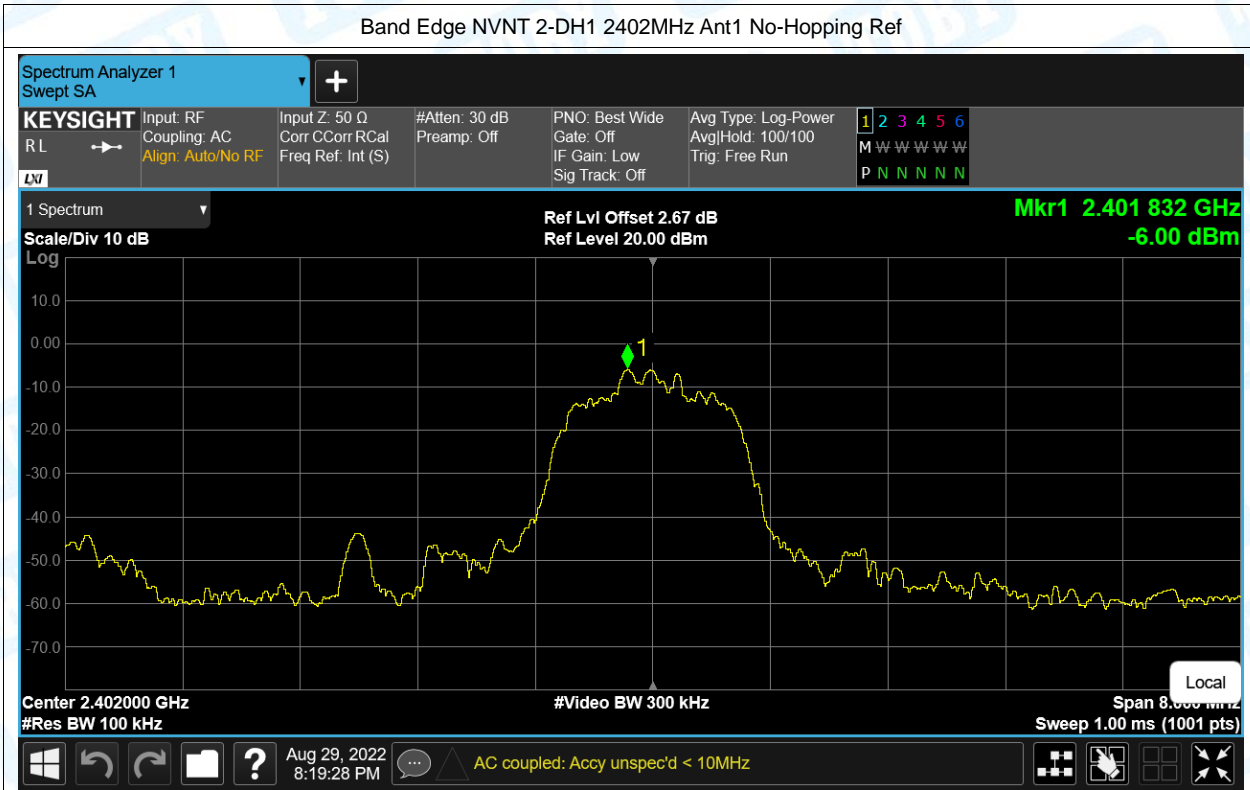
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

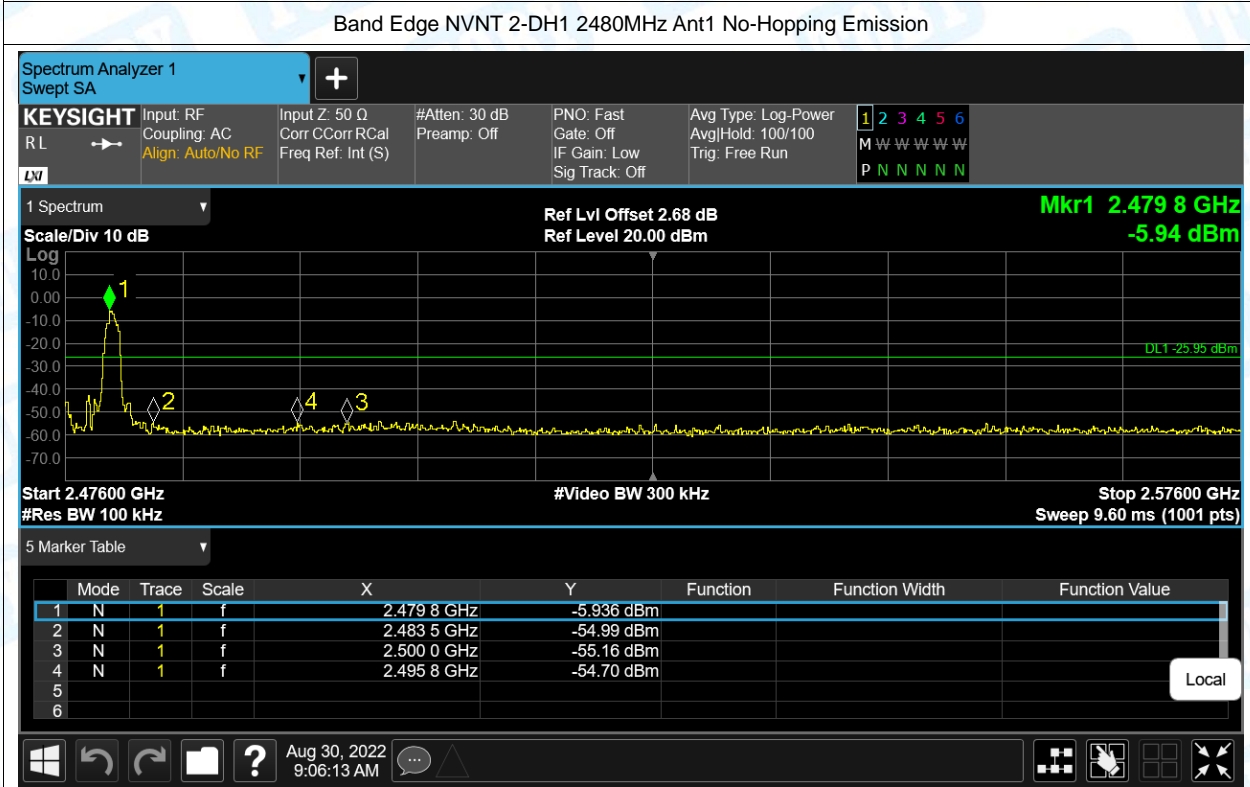
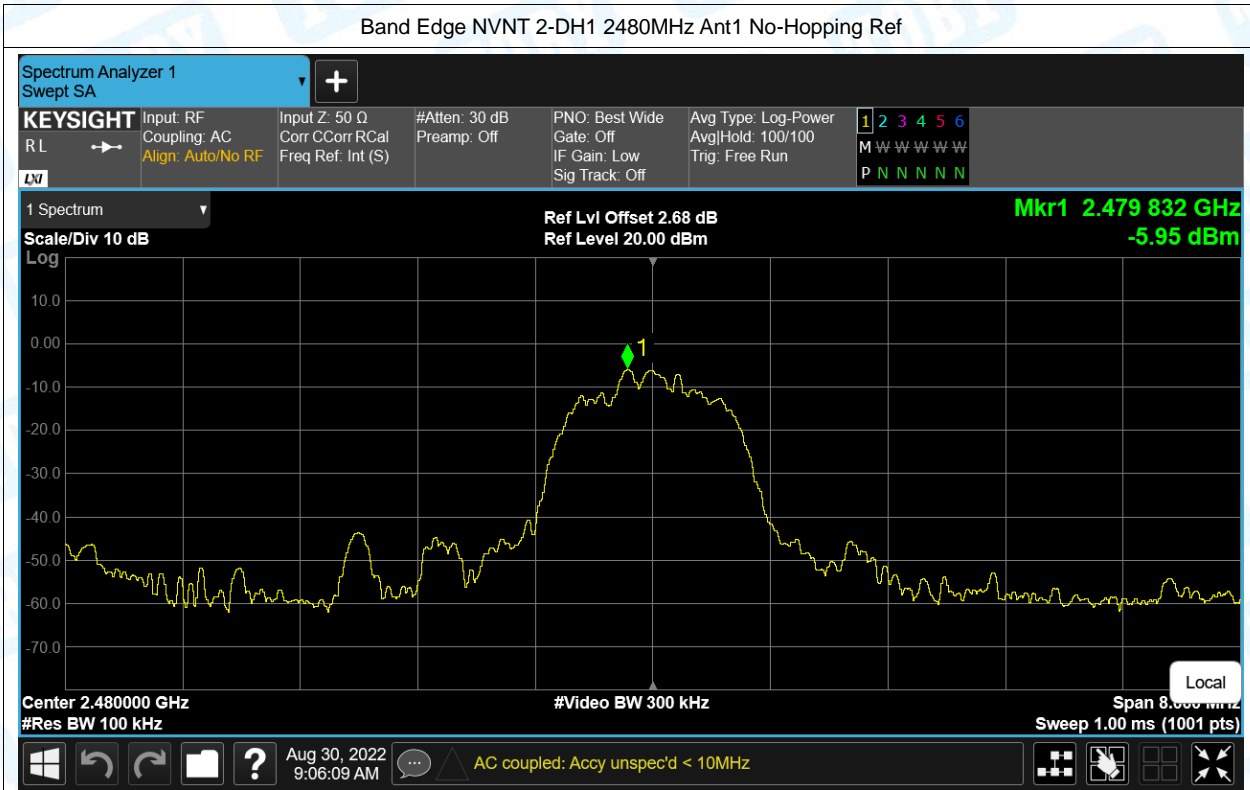


Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission







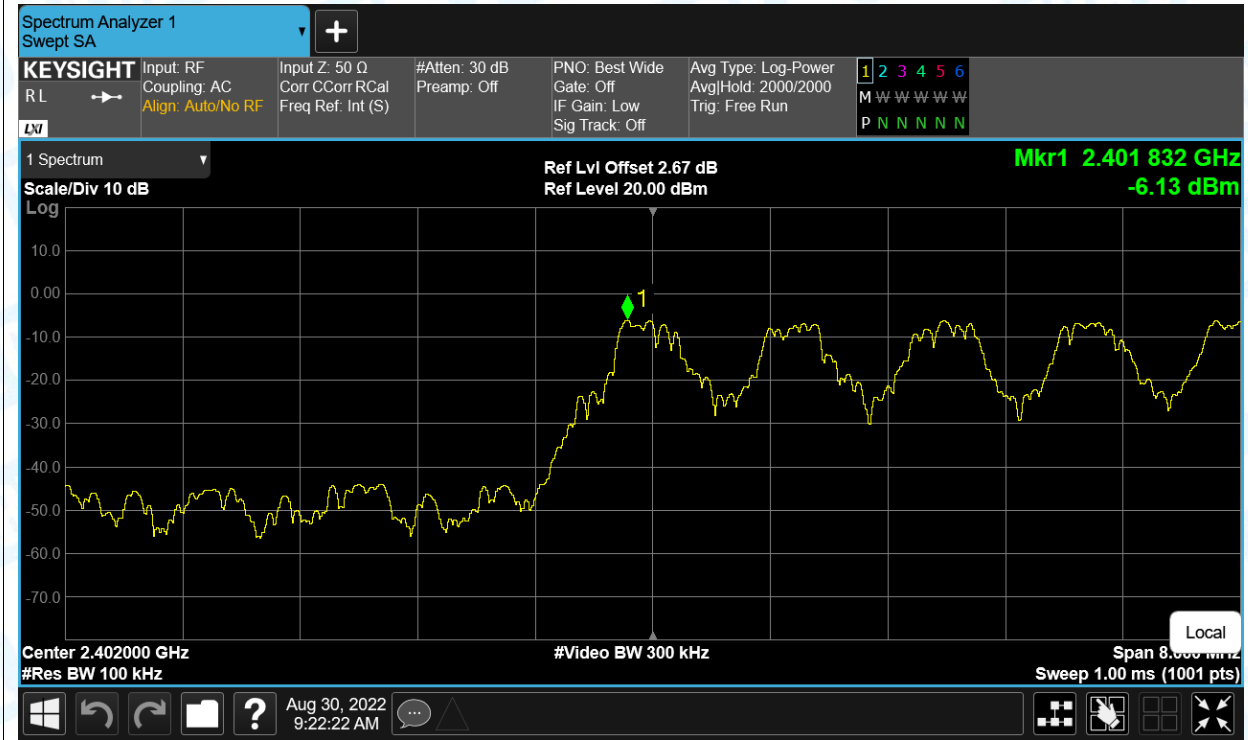


6. Band Edge(Hopping)

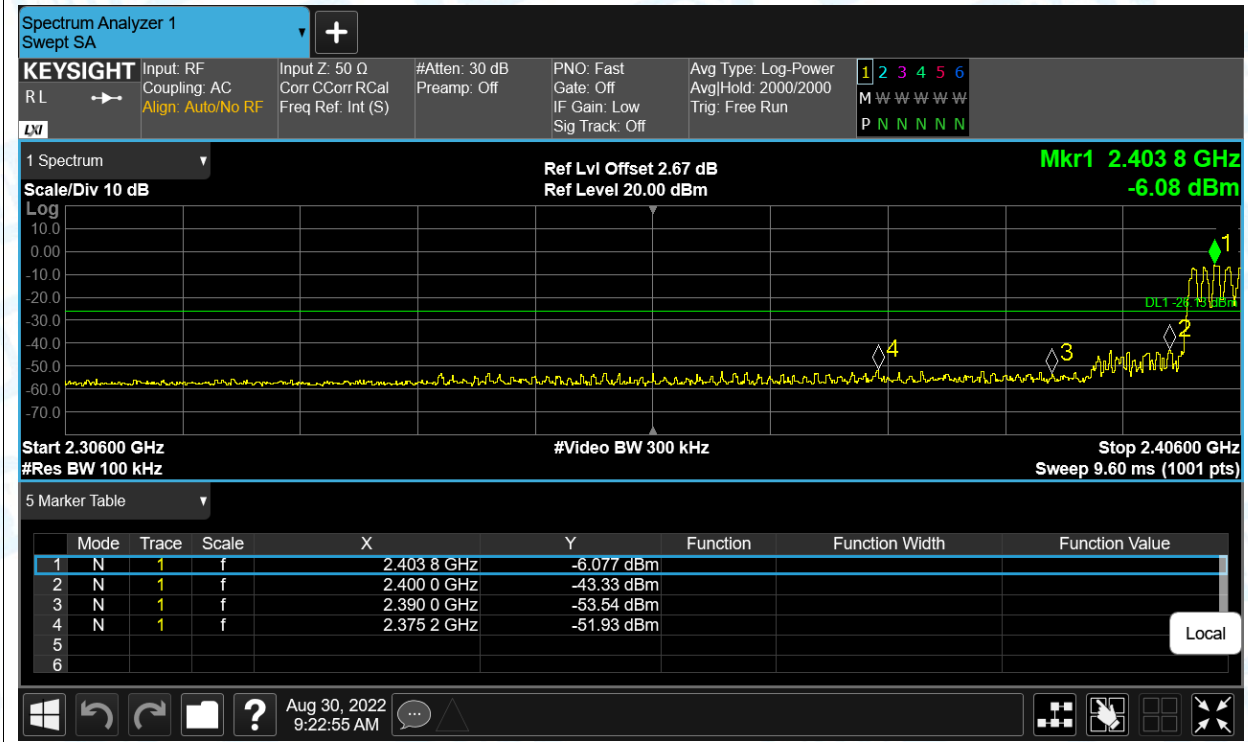
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-45.8	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-47.41	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-46.51	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-47.54	-20	Pass

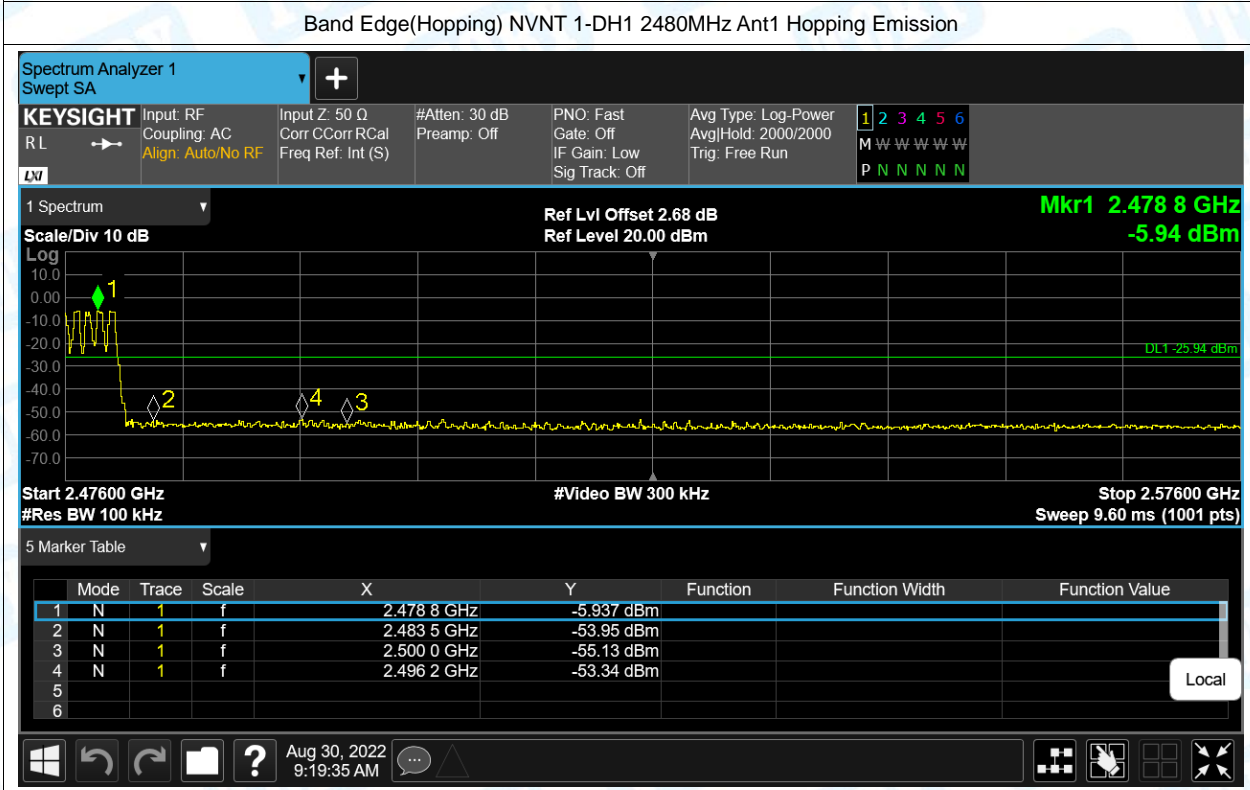
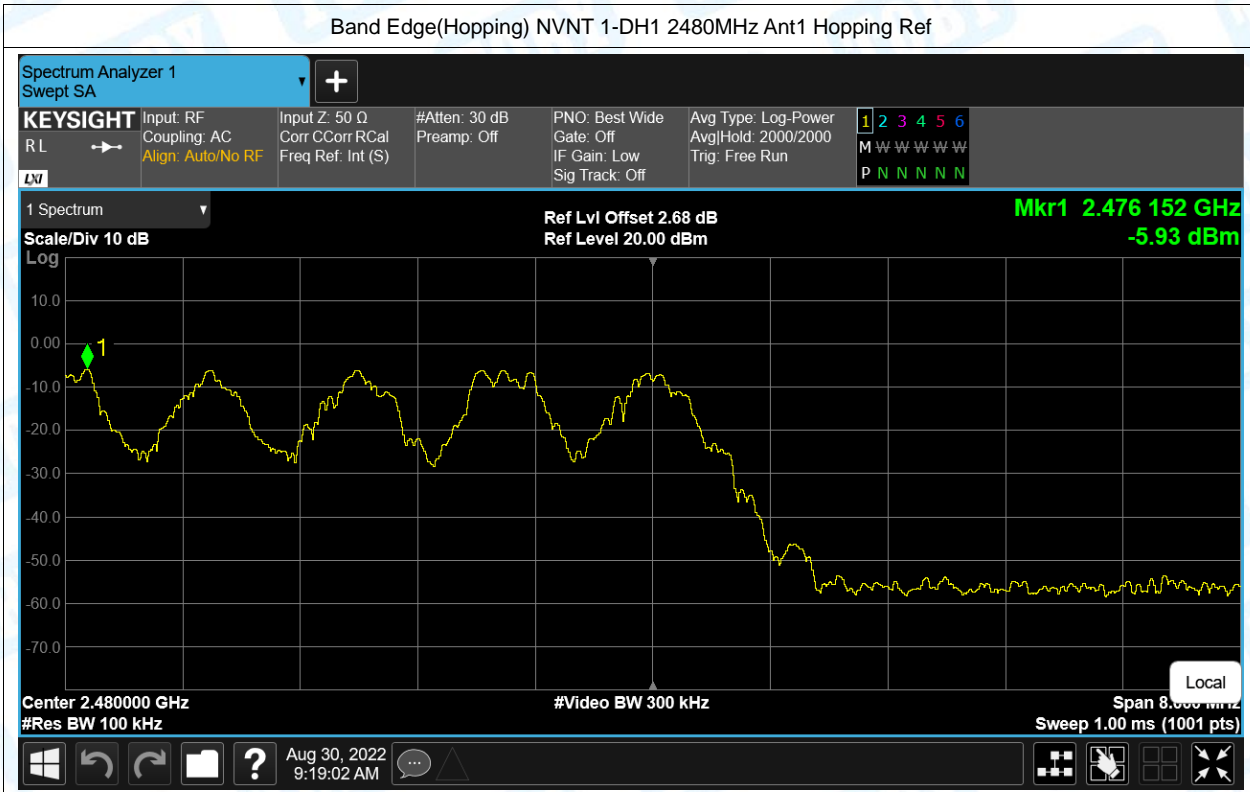
Test Graphs

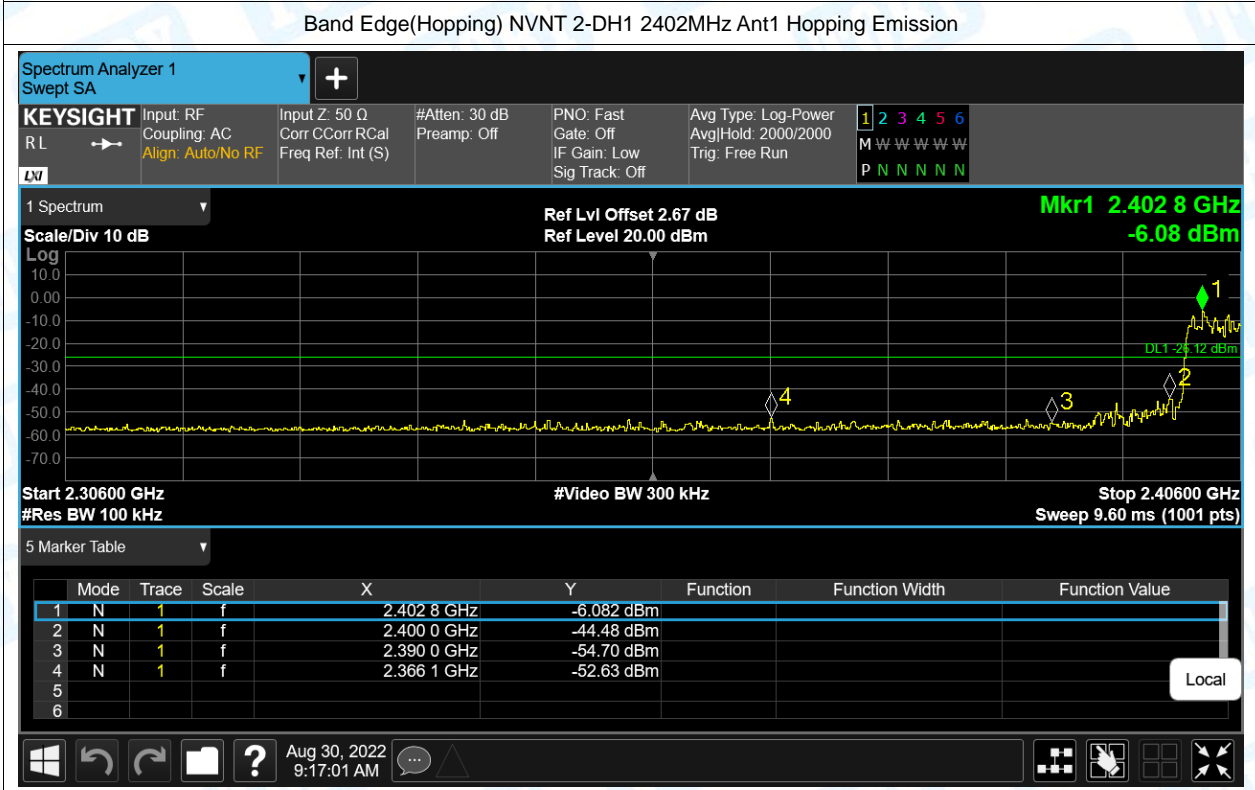
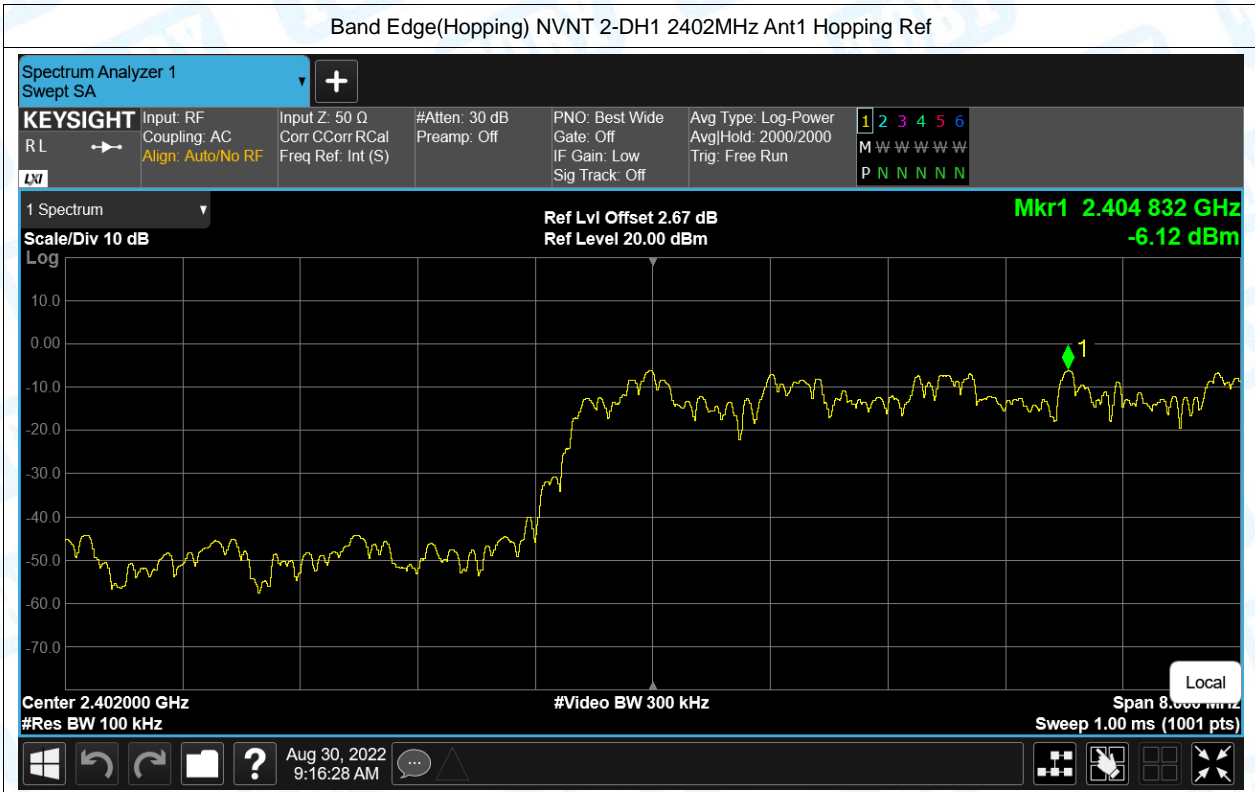
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

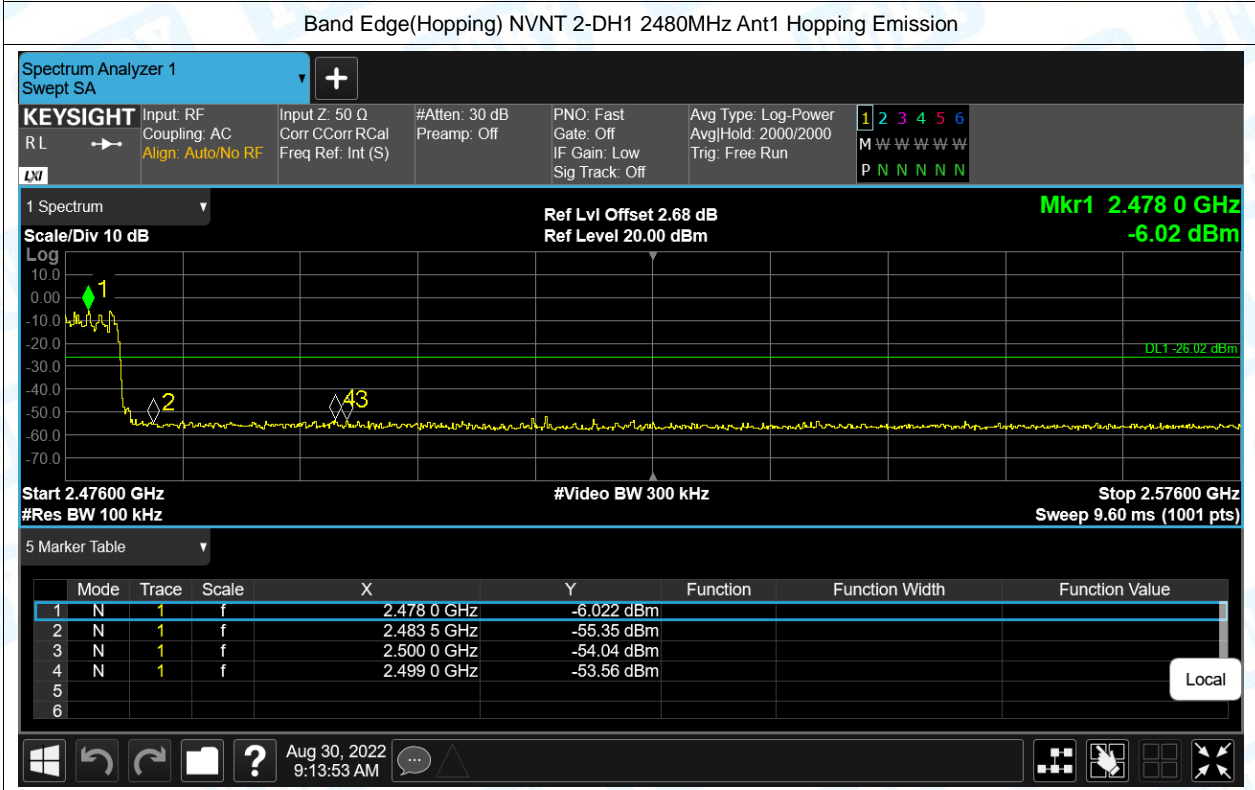
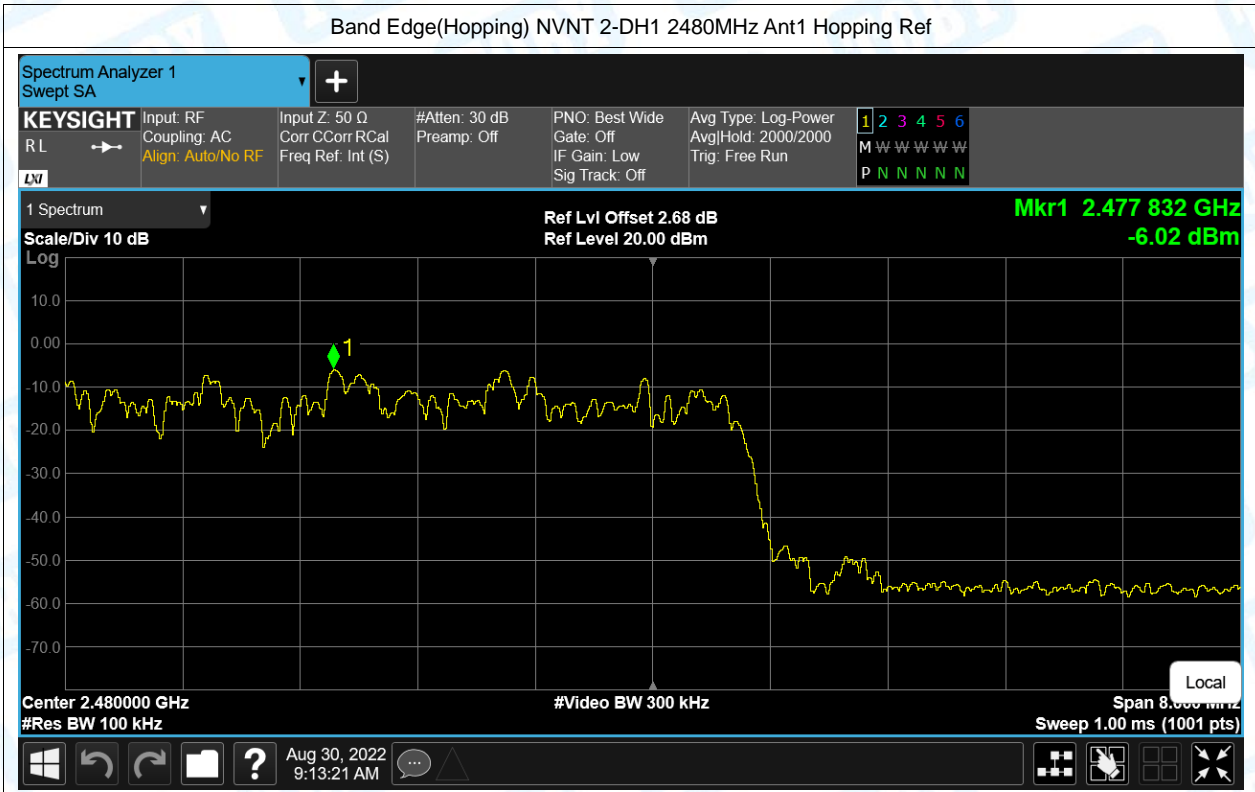


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission







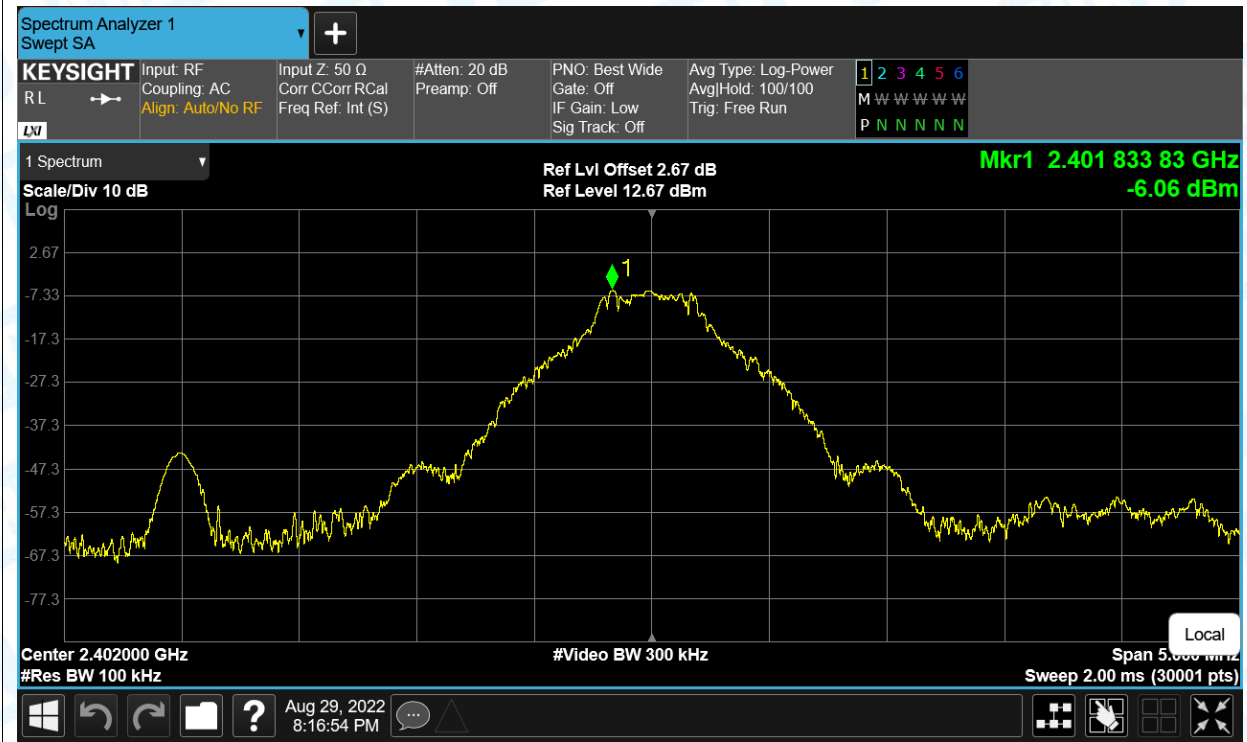


7. Conducted RF Spurious Emission

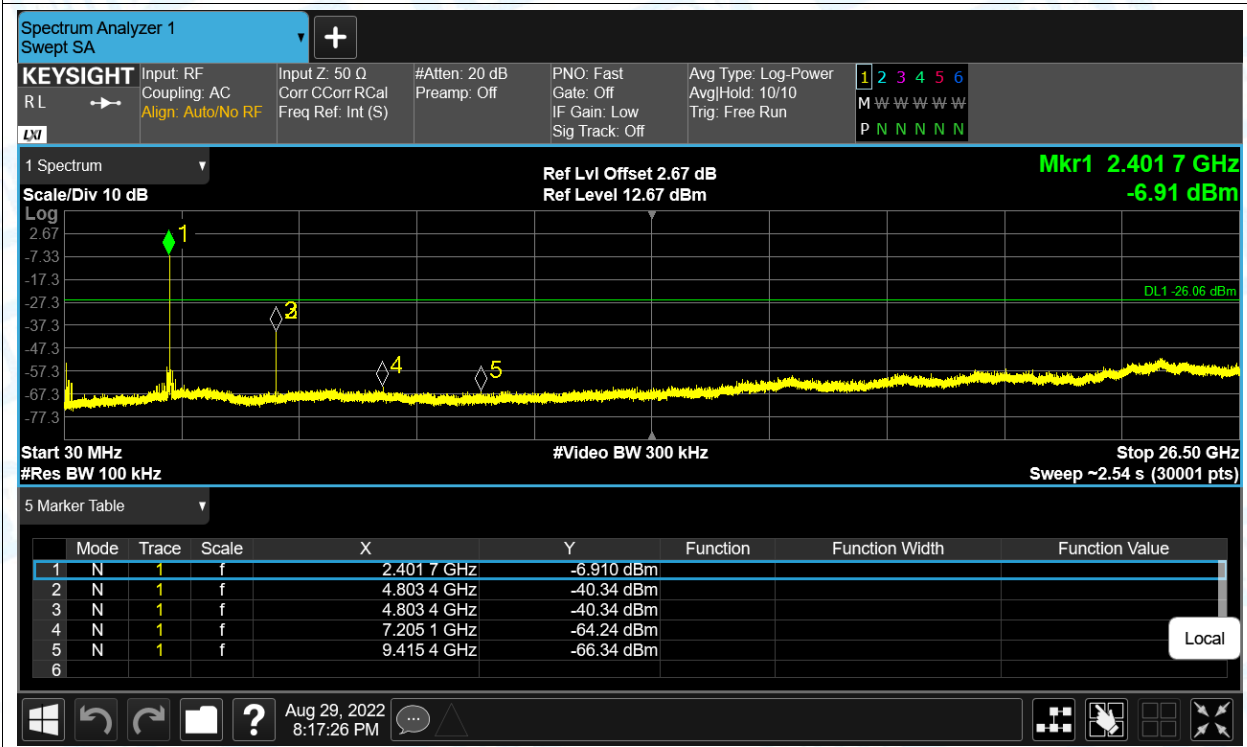
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-34.28	-20	Pass
NVNT	1-DH1	2441	Ant1	-37.04	-20	Pass
NVNT	1-DH1	2480	Ant1	-35.45	-20	Pass
NVNT	2-DH1	2402	Ant1	-40.21	-20	Pass
NVNT	2-DH1	2441	Ant1	-33.5	-20	Pass
NVNT	2-DH1	2480	Ant1	-42.28	-20	Pass

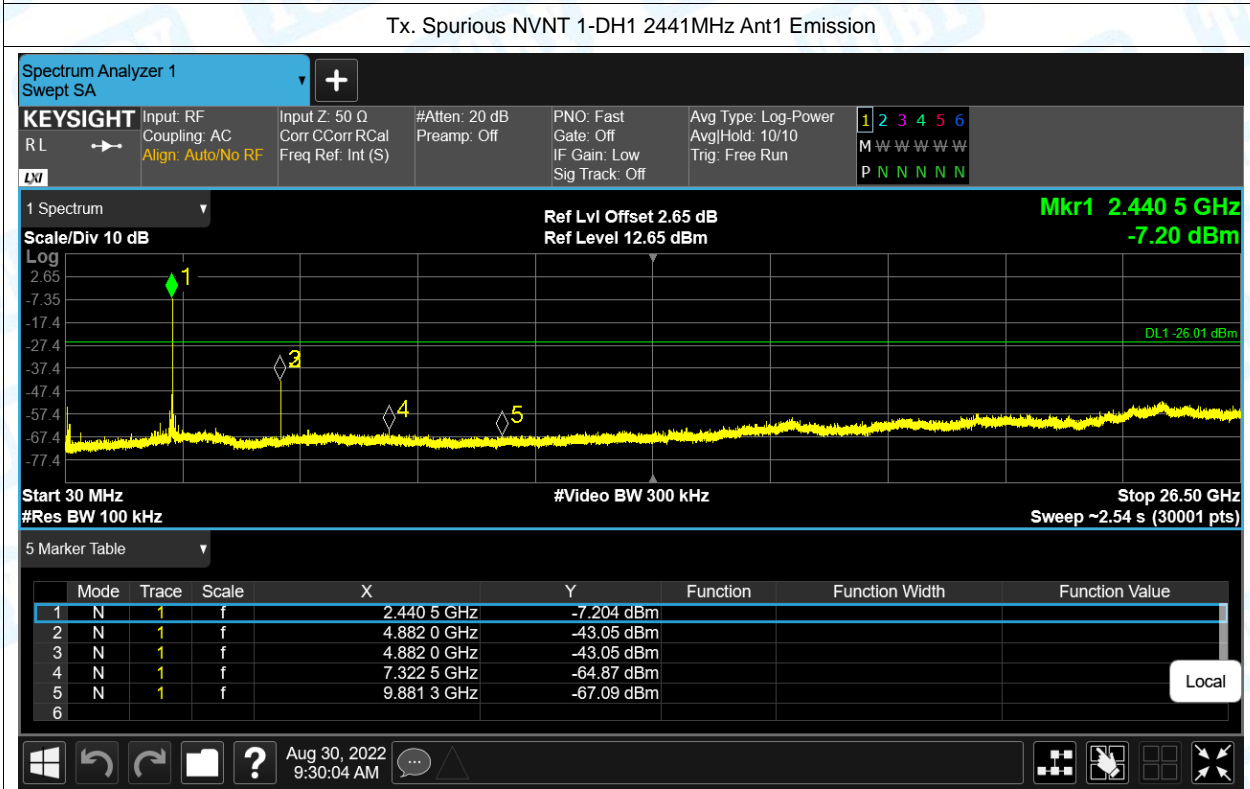
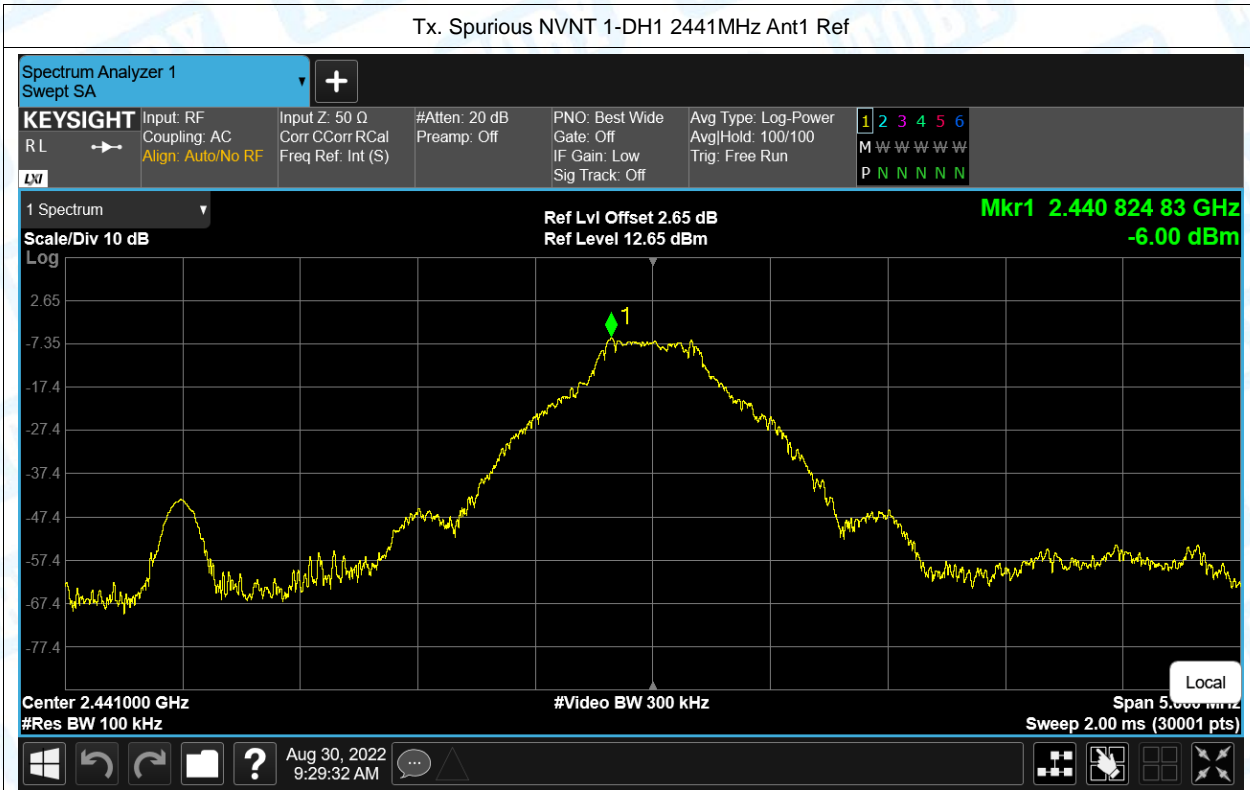
Test Graphs

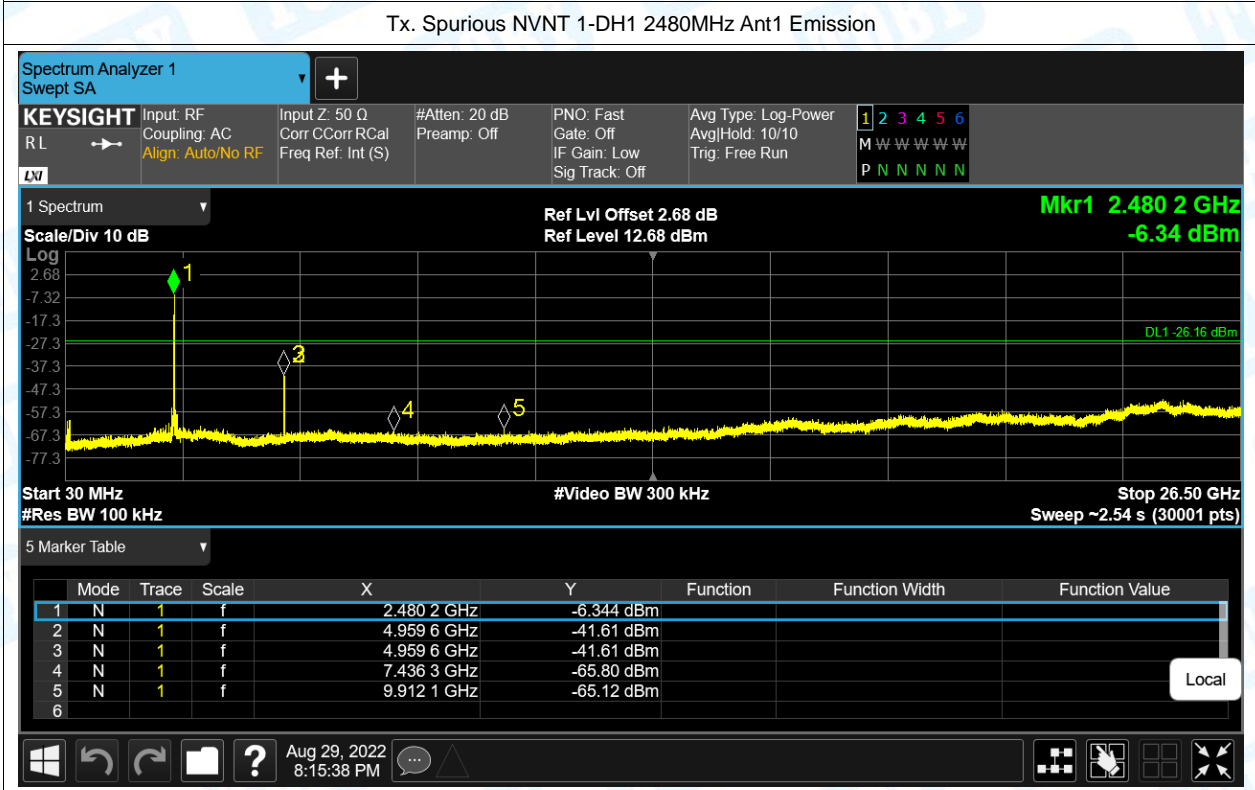
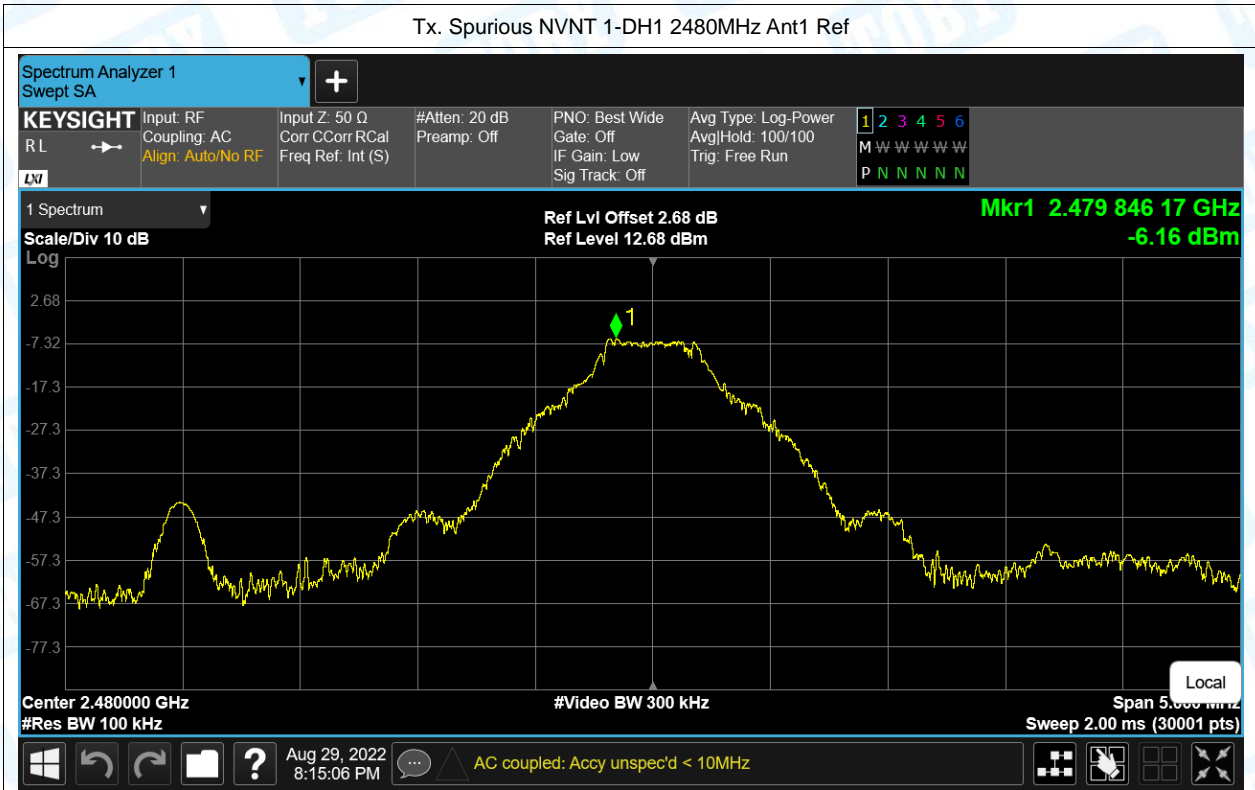
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref

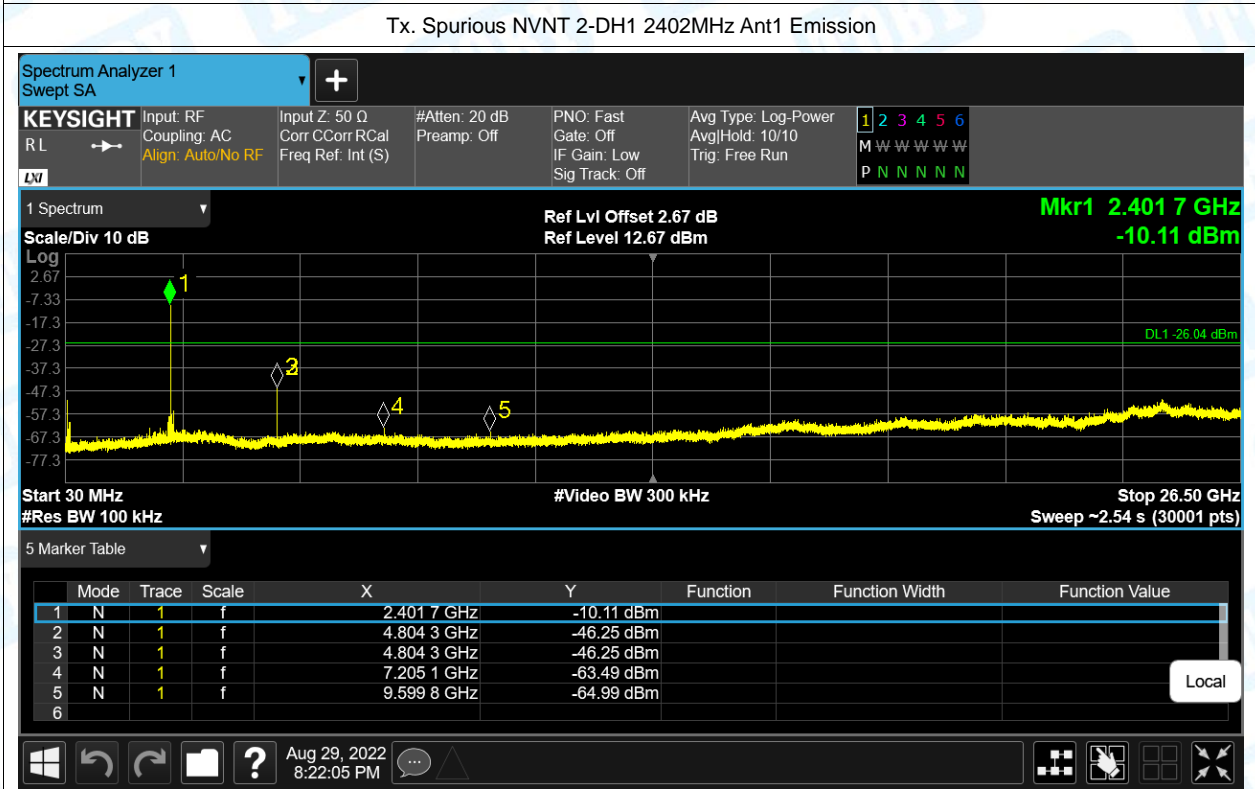
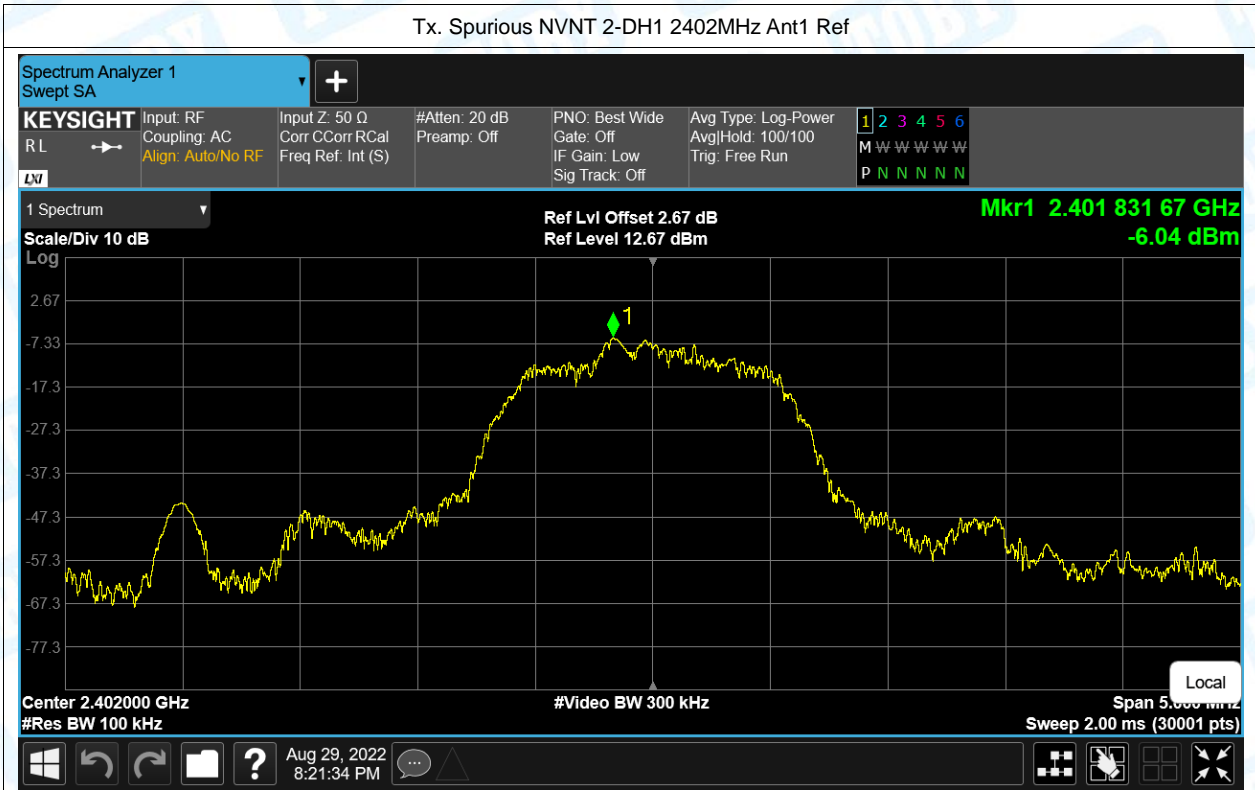


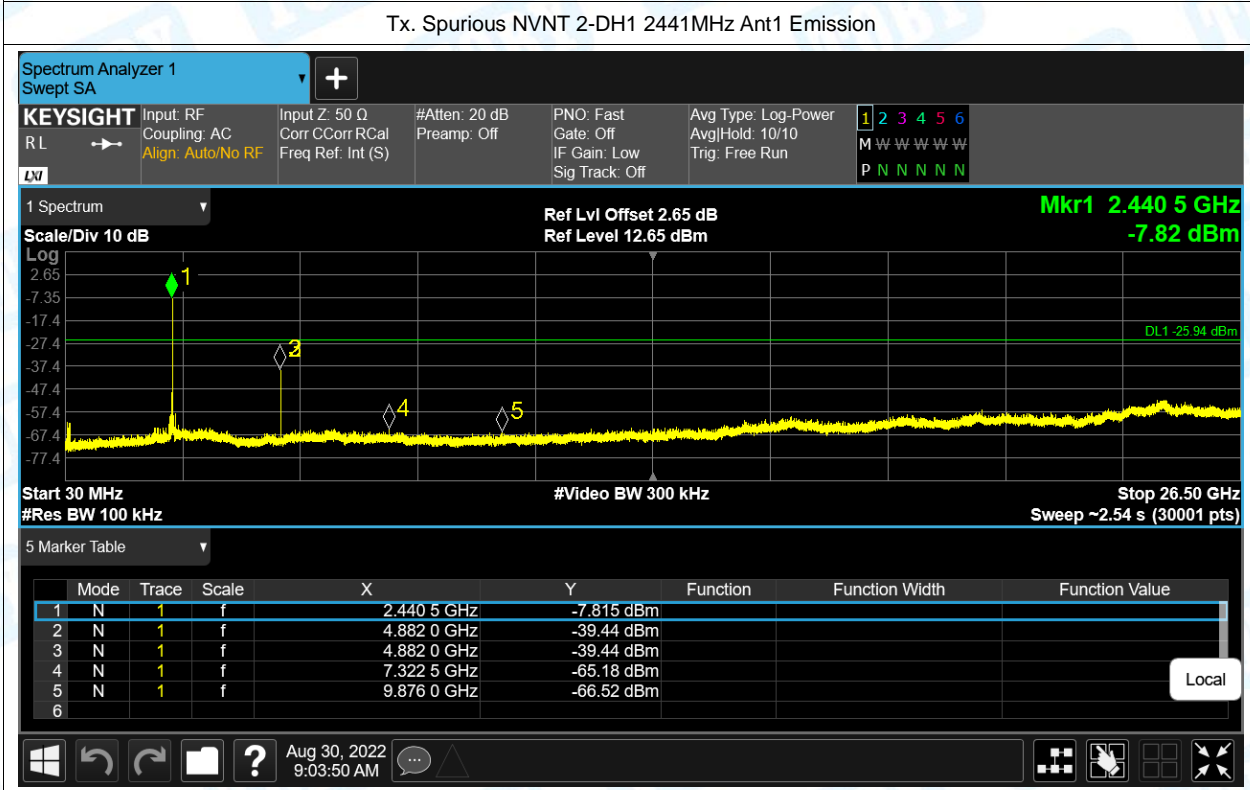
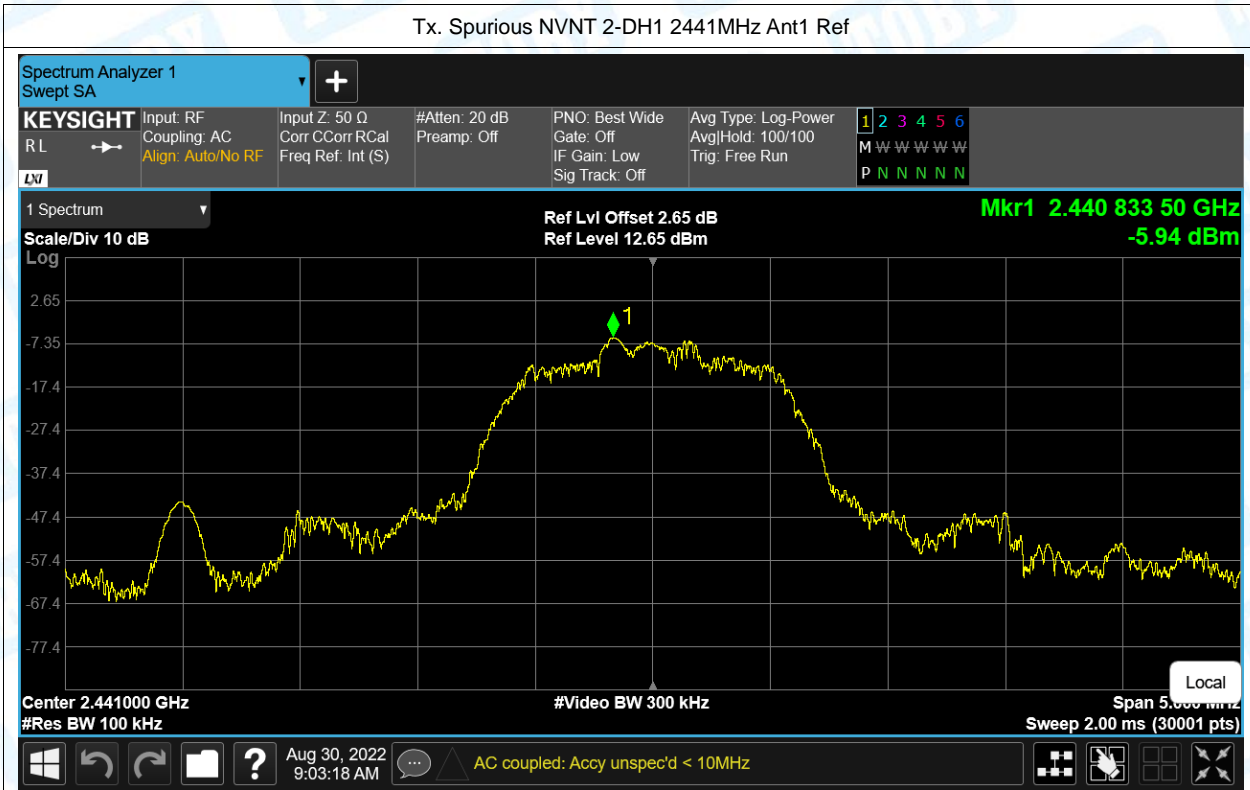
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

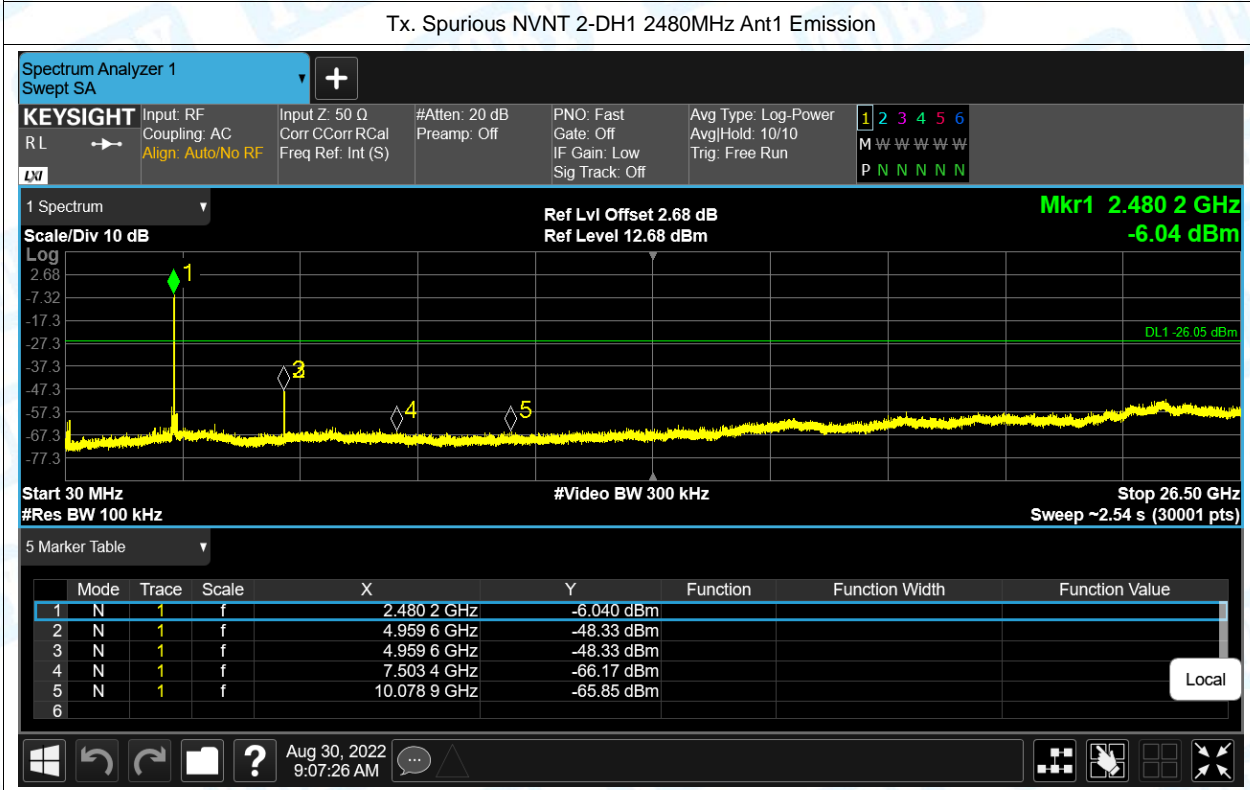
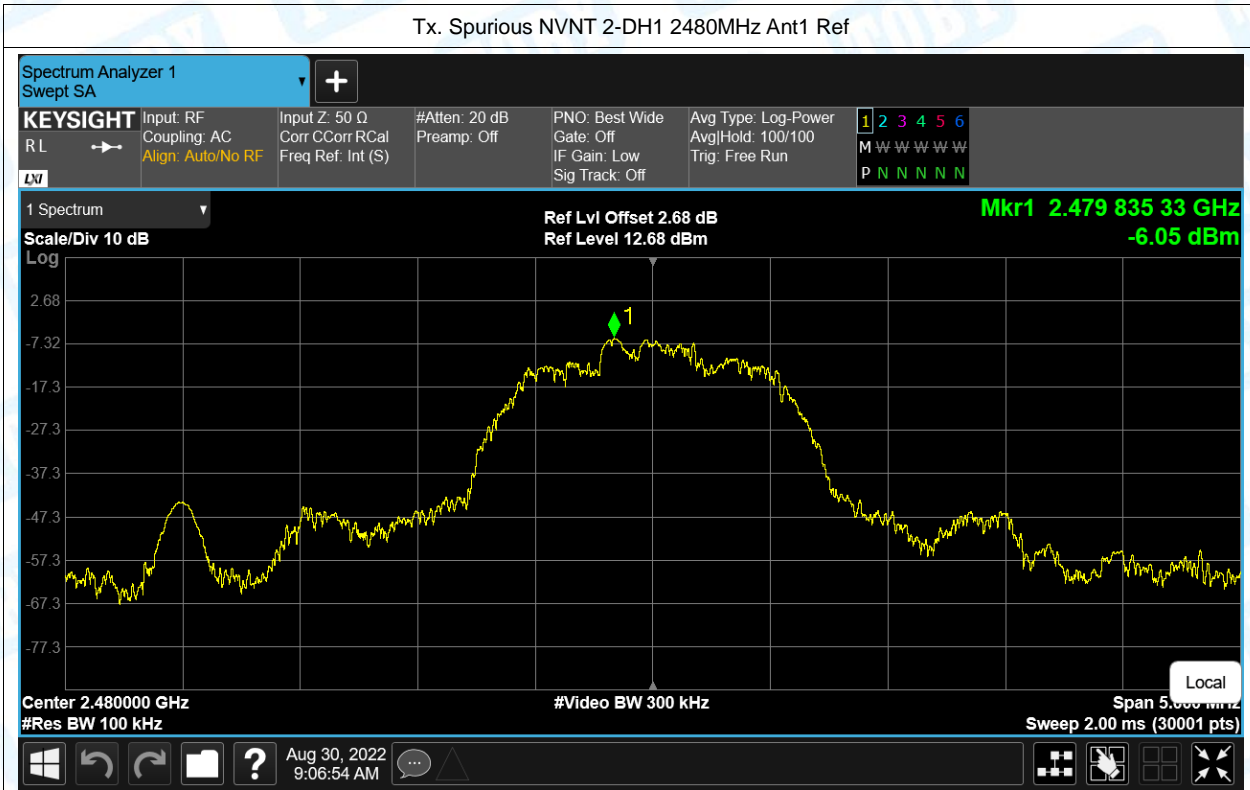










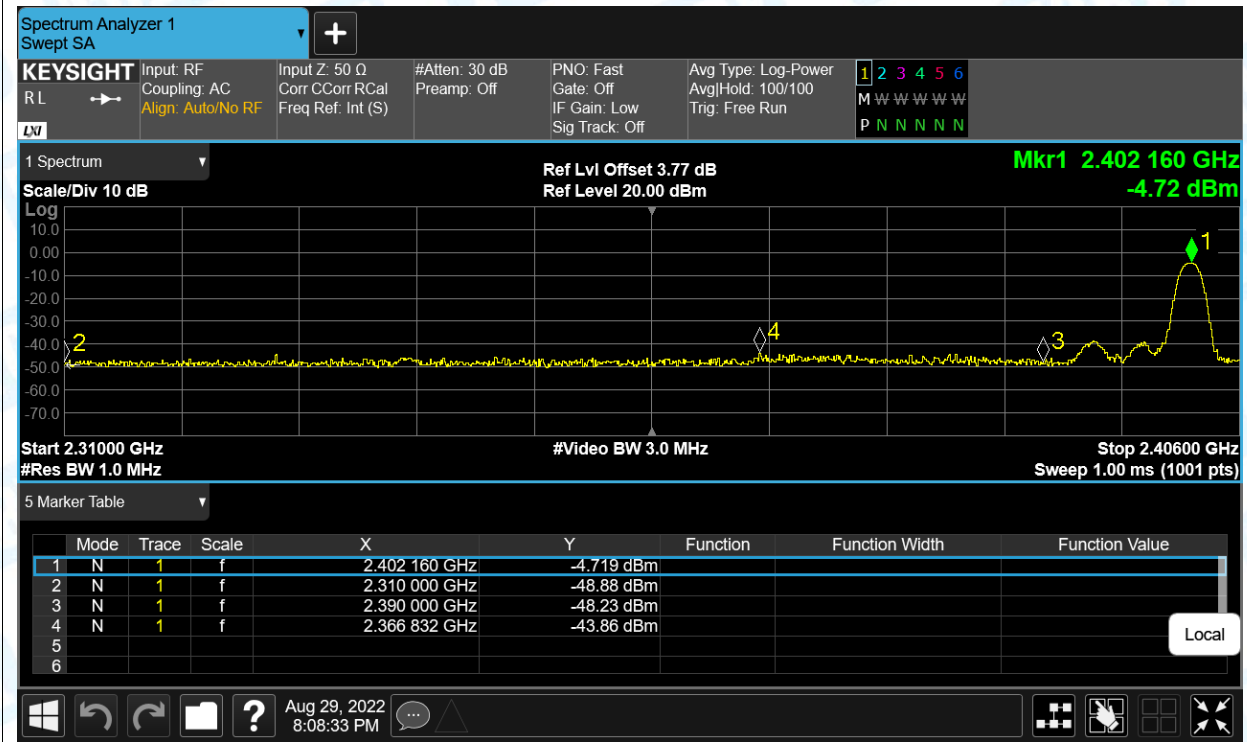


8. Restrict Band

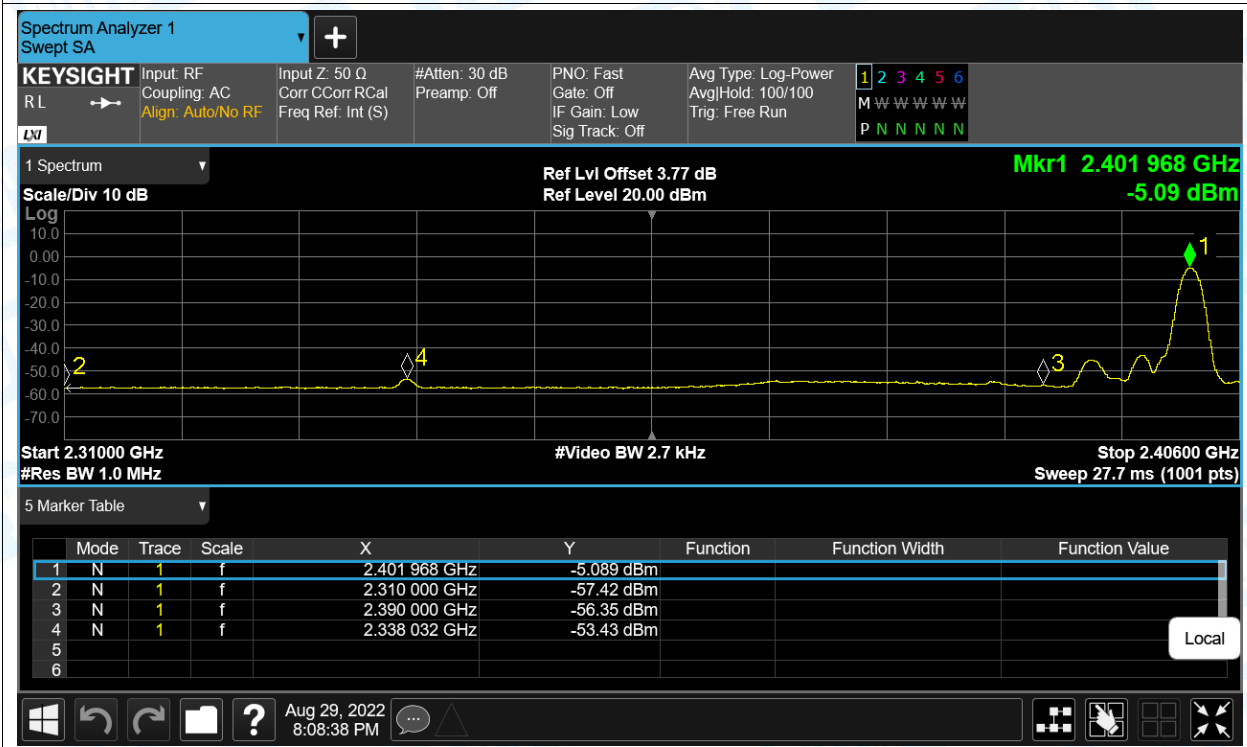
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.88	2	48.38	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-57.42	2	39.84	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2366.832	-43.86	2	53.4	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2338.032	-53.43	2	43.83	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.7	2	48.56	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.34	2	40.92	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.28	2	50.98	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.51	2	42.75	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.736	-43.78	2	53.48	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.8	-53.62	2	43.64	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.62	2	51.64	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-54.94	2	42.32	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.21	2	49.05	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-57.53	2	39.73	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2369.904	-43.08	2	54.18	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2368.56	-54.08	2	43.18	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.84	2	49.42	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.56	2	40.7	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.99	2	50.27	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.95	2	42.31	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.256	-43.13	2	54.13	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.728	-54.44	2	42.82	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.49	2	49.77	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.93	2	42.33	Average	54	Pass

Test Graphs

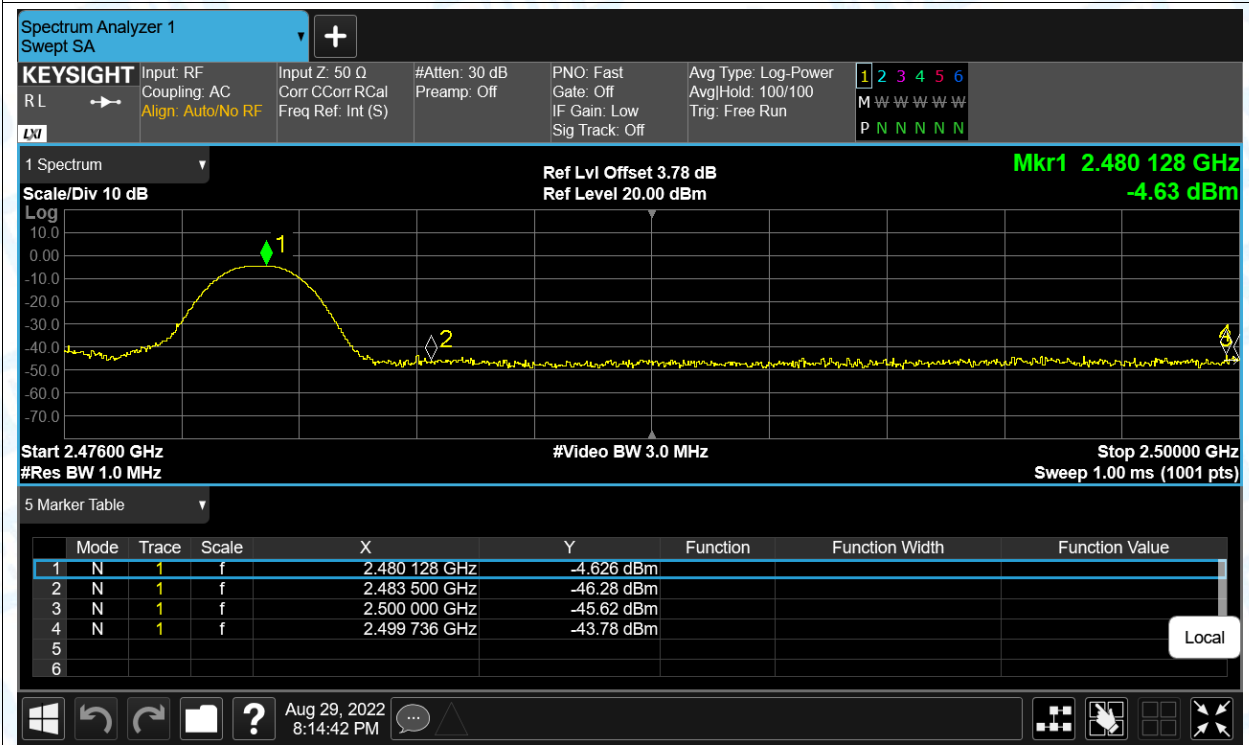
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



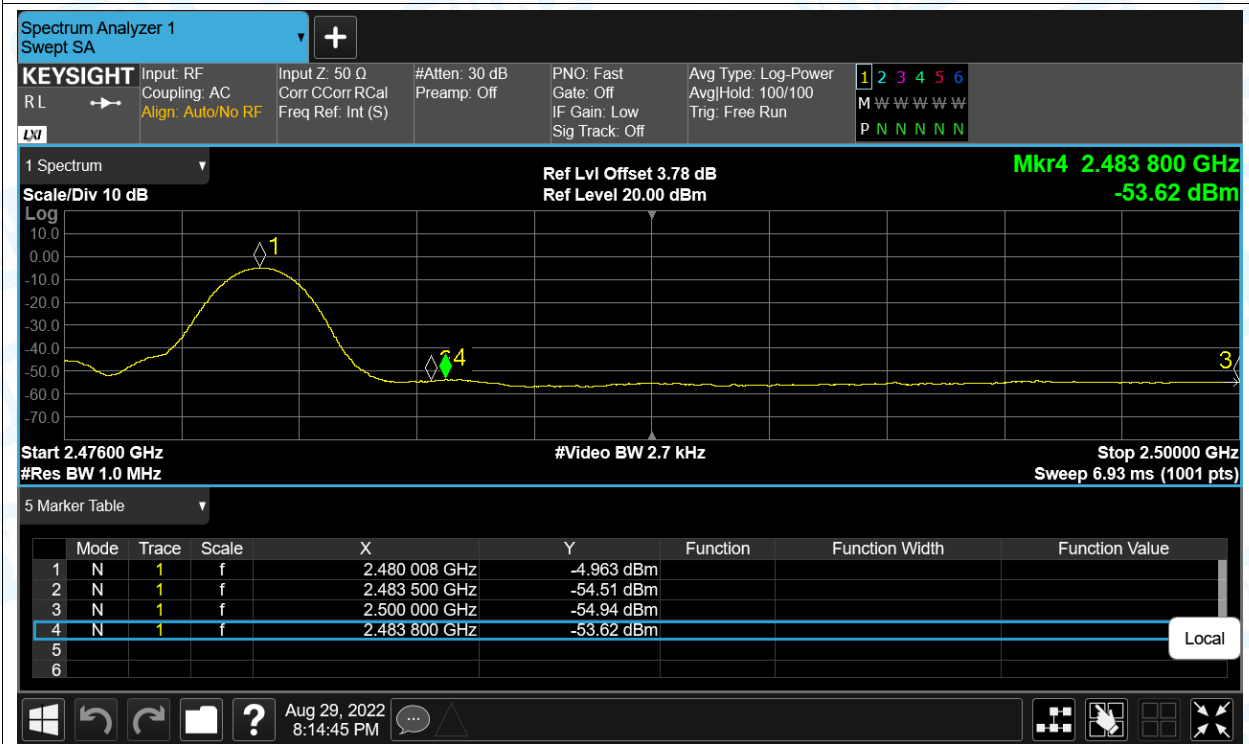
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



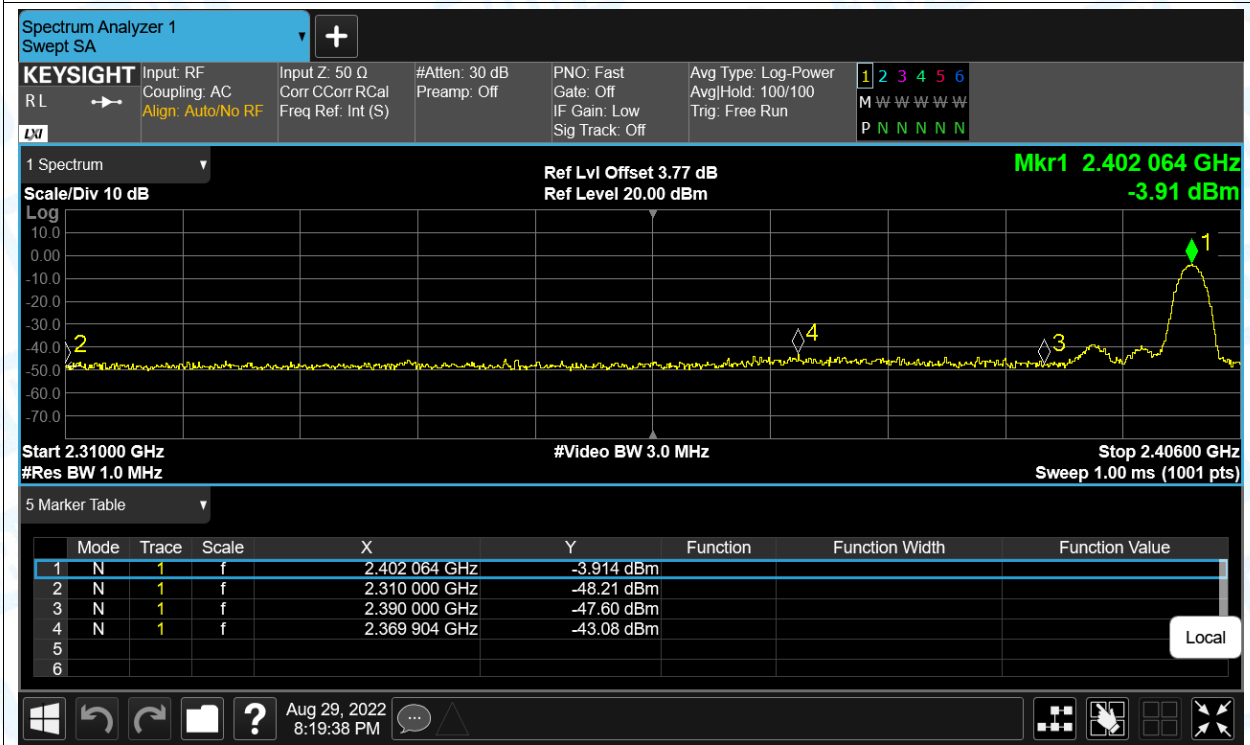
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



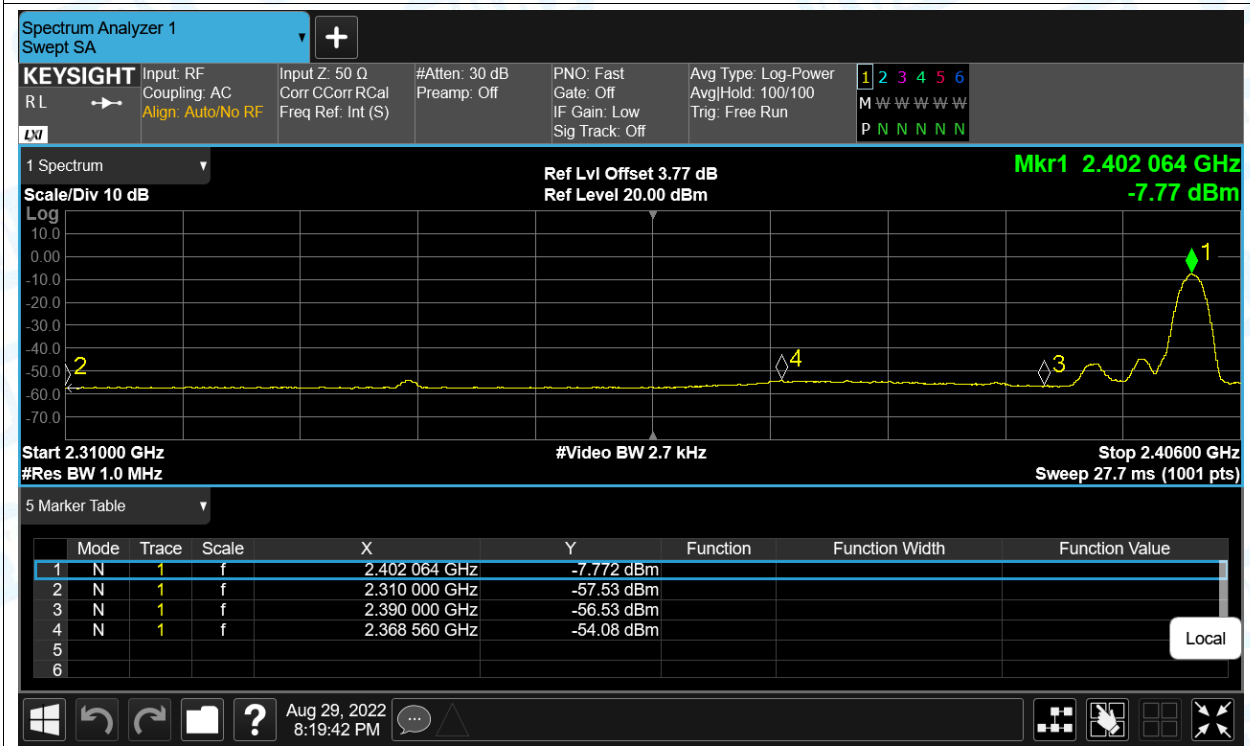
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



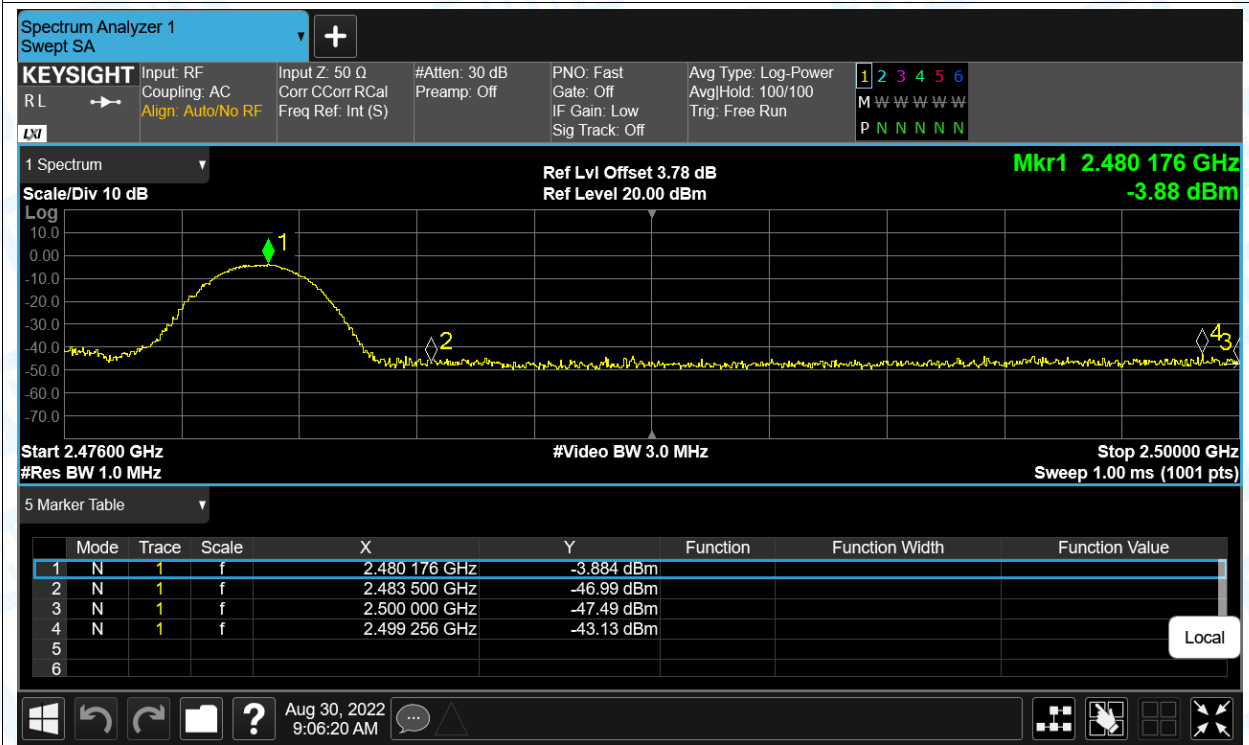
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



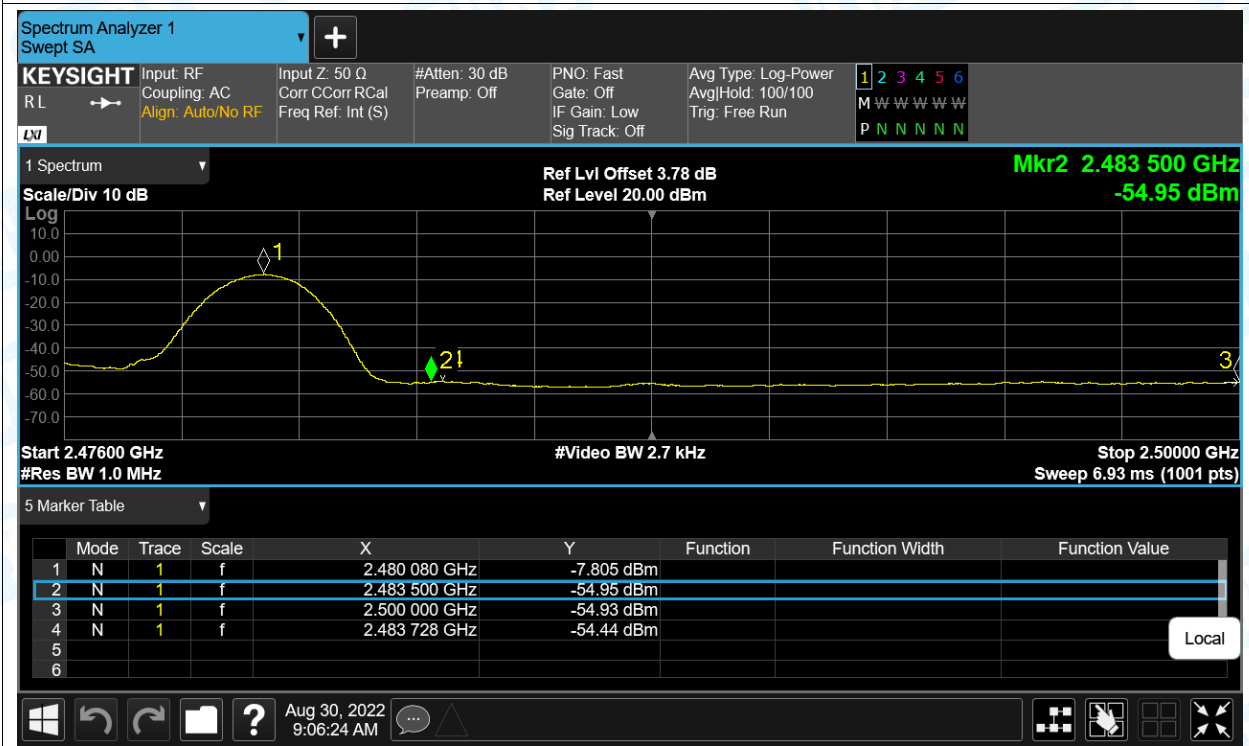
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak

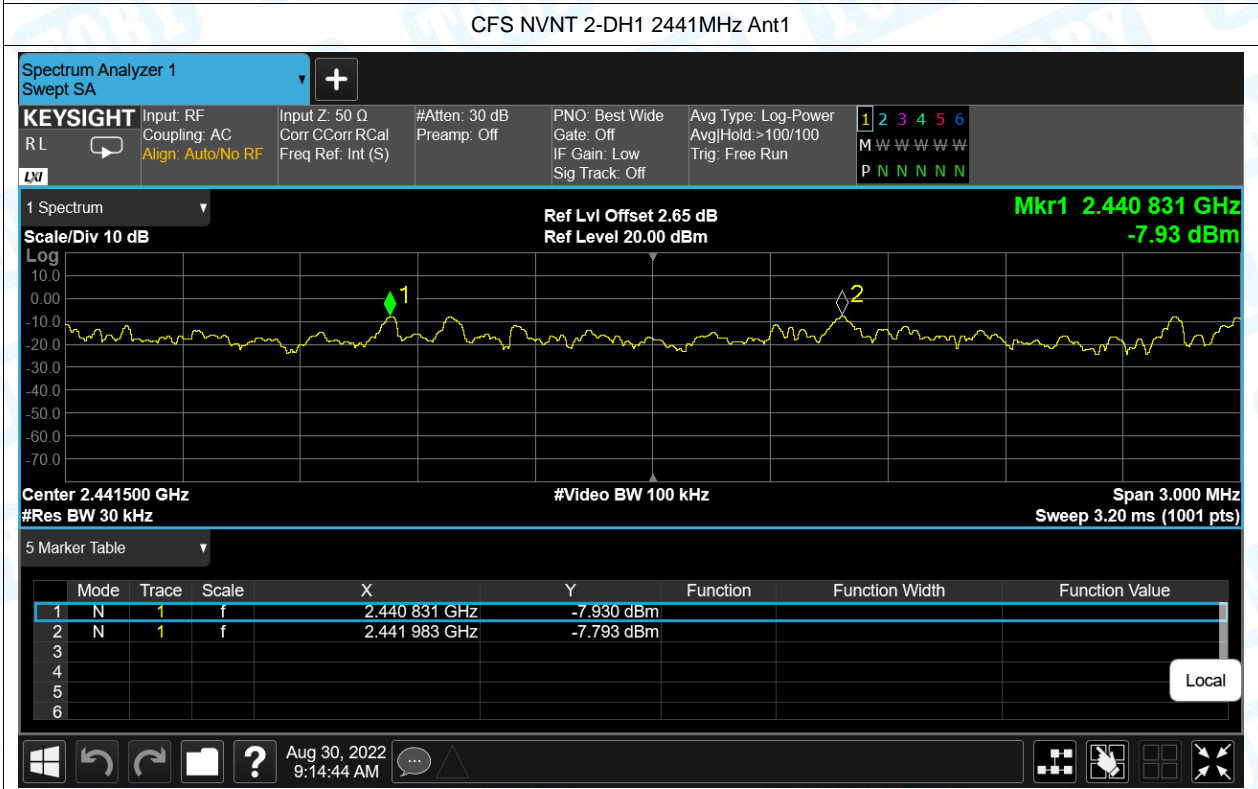
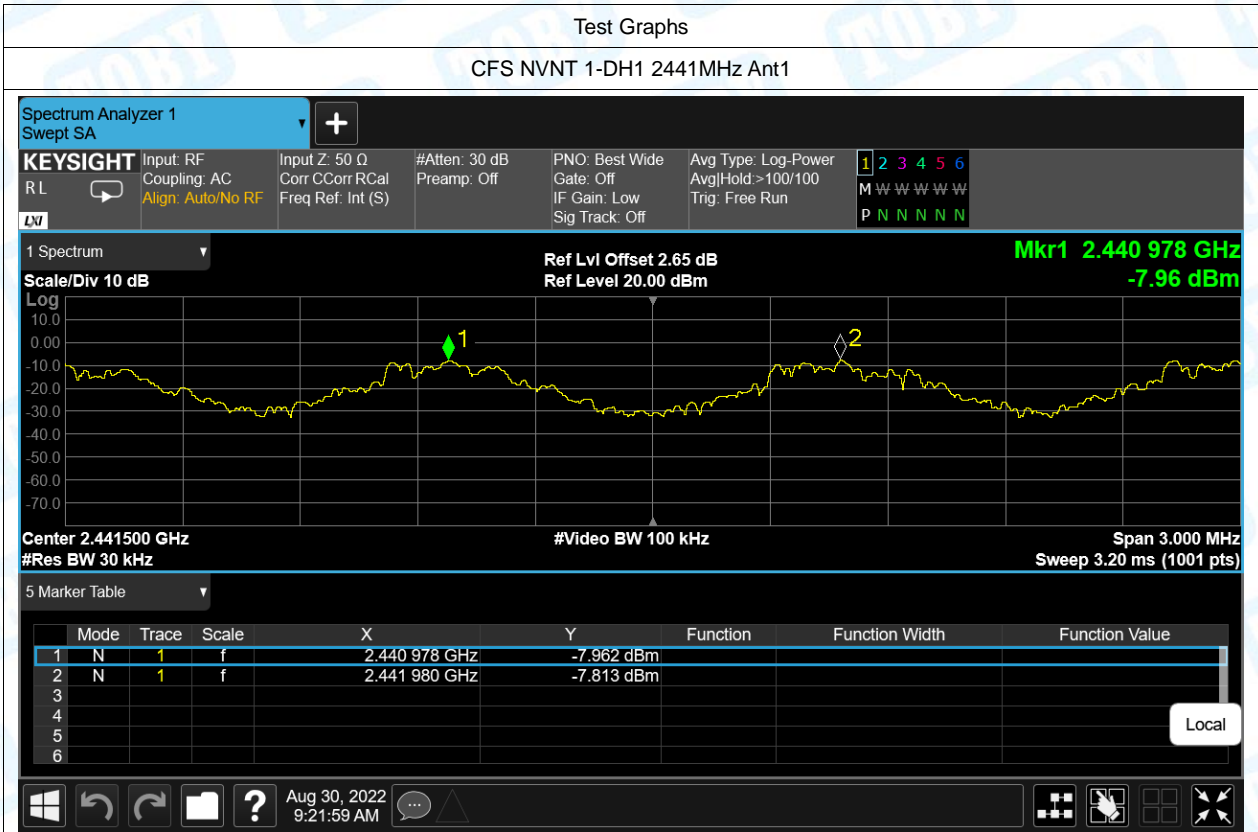


Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



9. Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.978	2441.98	1.002	0.025	Pass
NVNT	2-DH1	Ant1	2440.831	2441.983	1.152	0.9	Pass

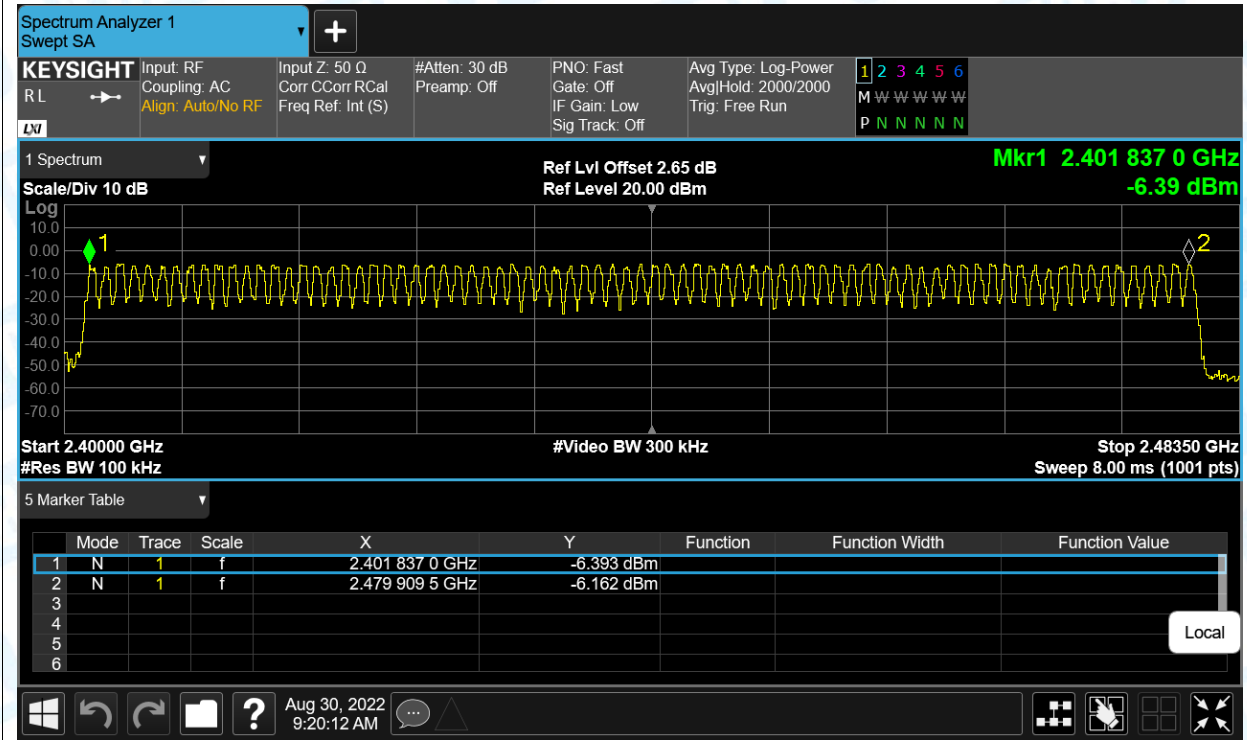


10. Number of Hopping Channel

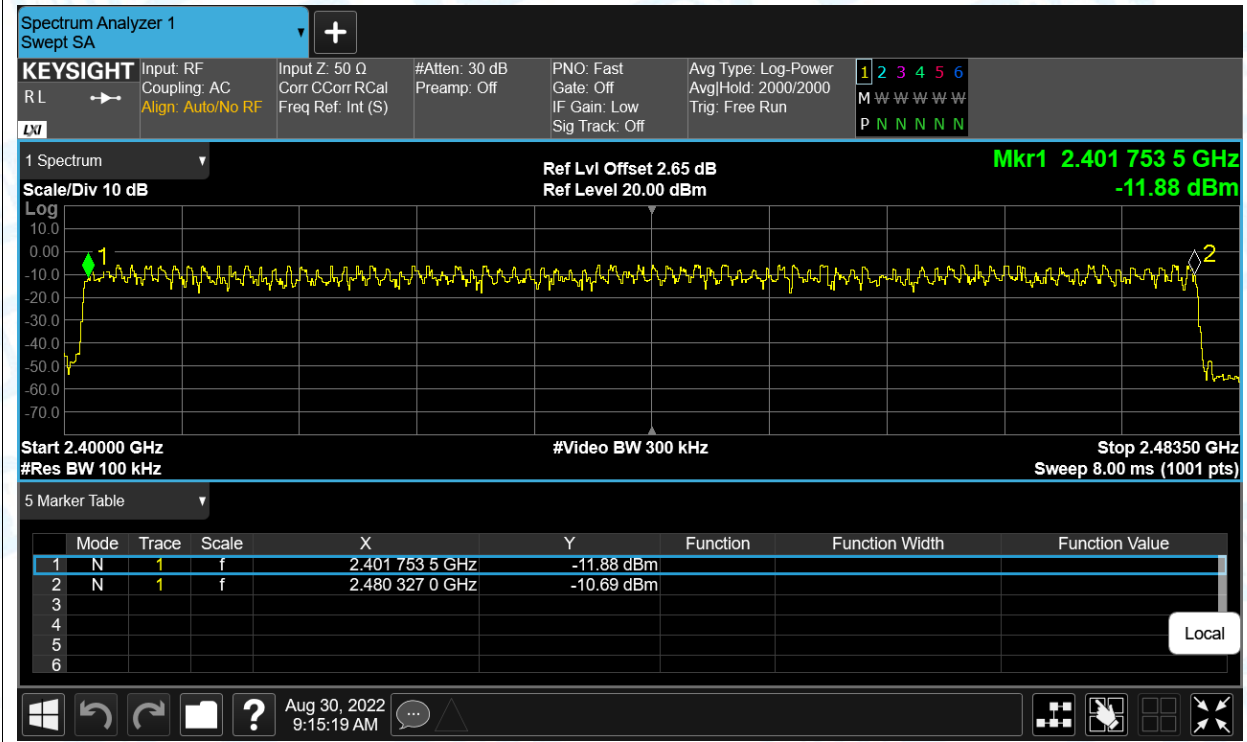
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1

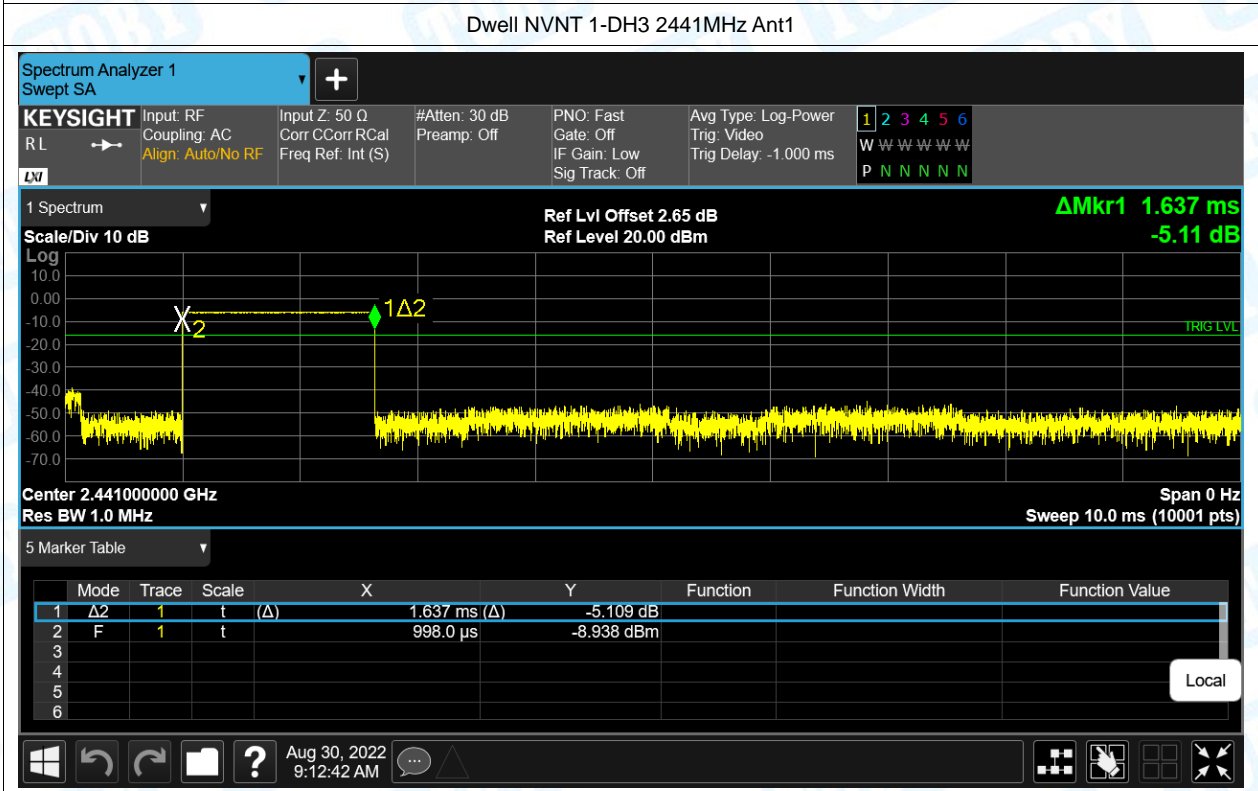
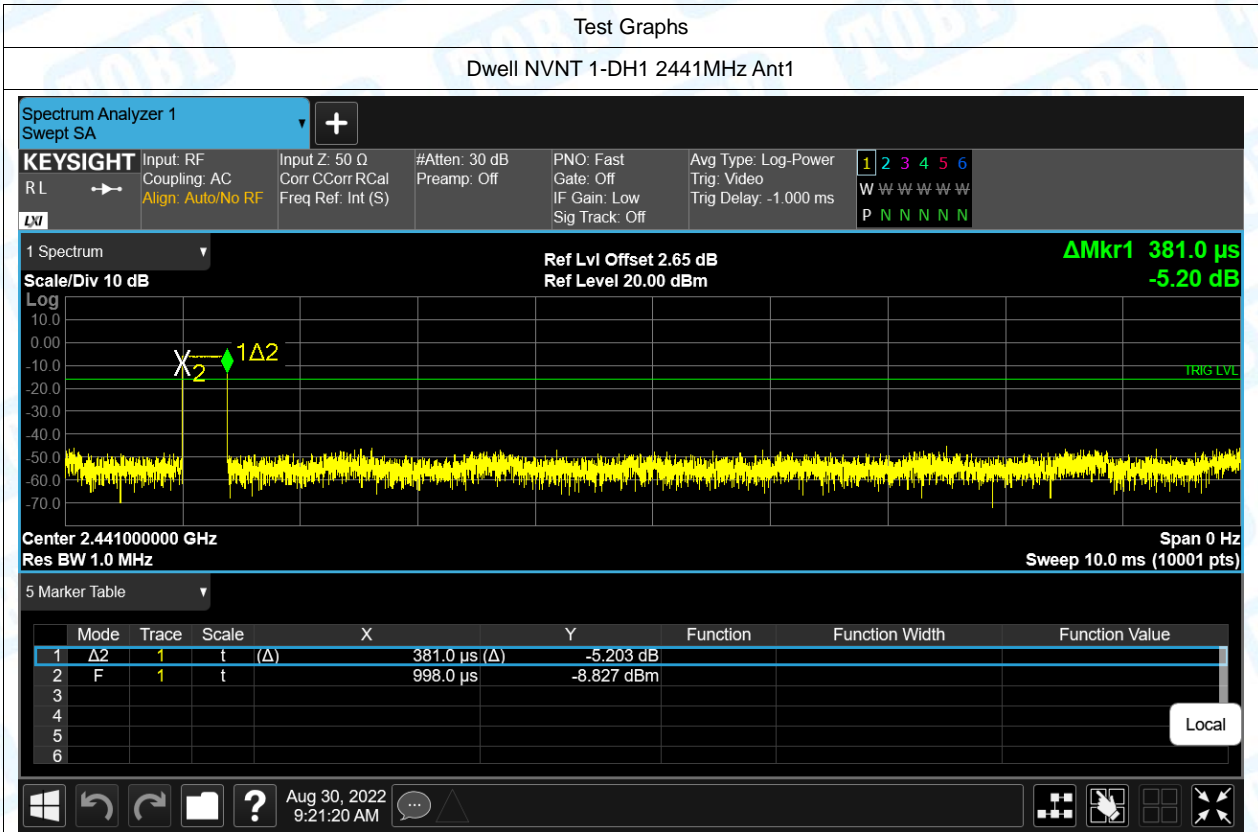


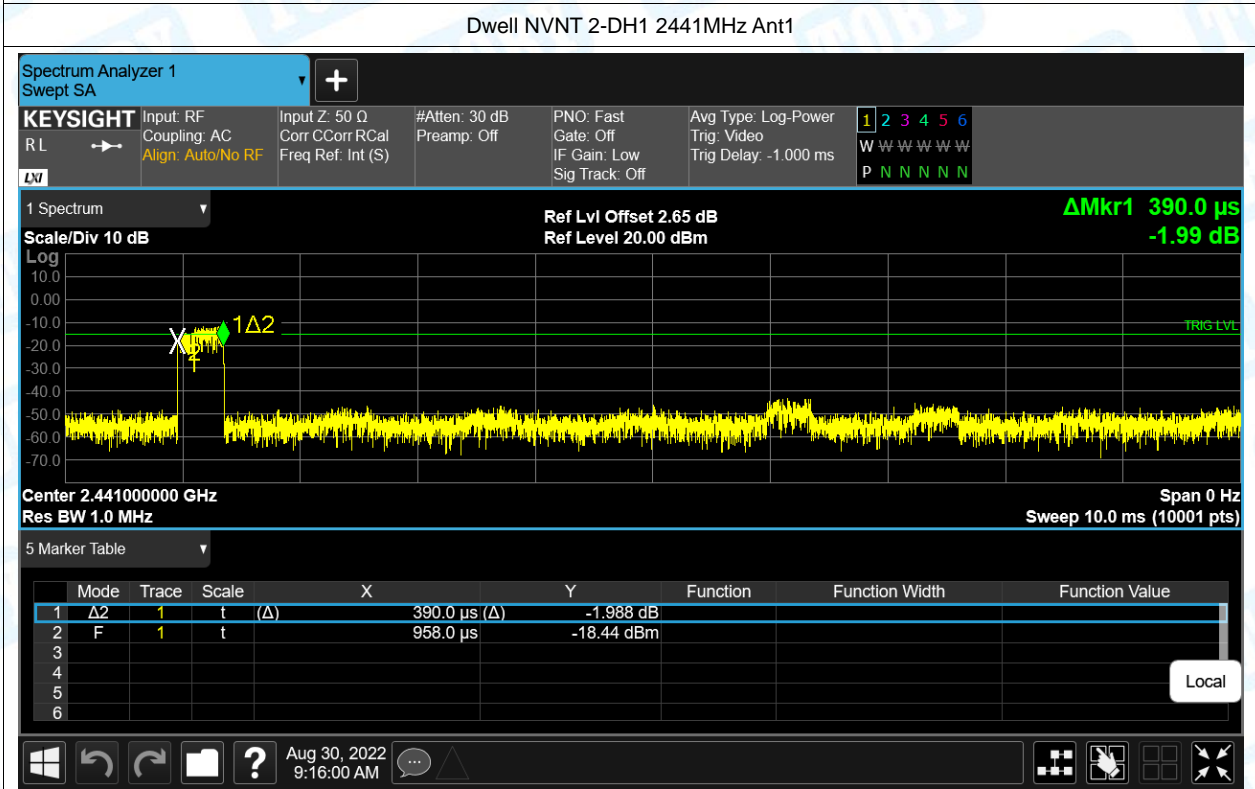
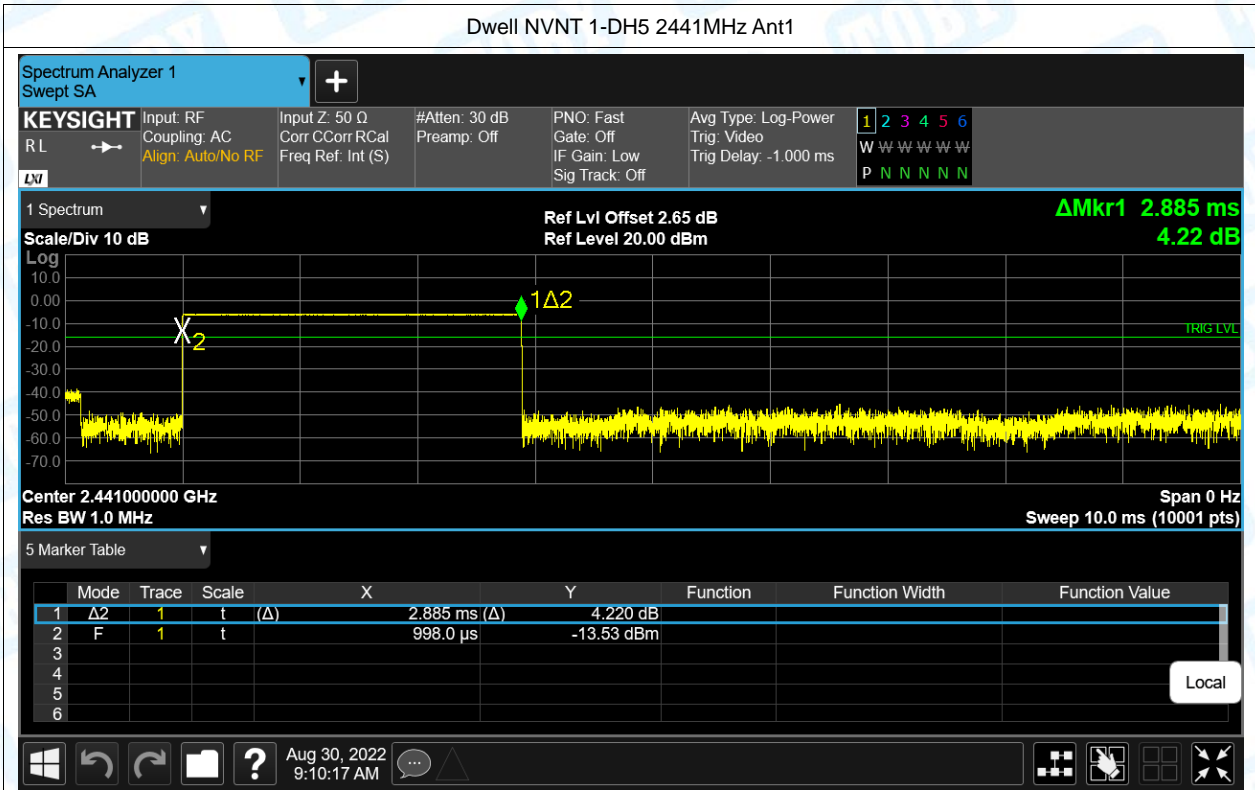
Hopping No. NVNT 2-DH1 2441MHz Ant1

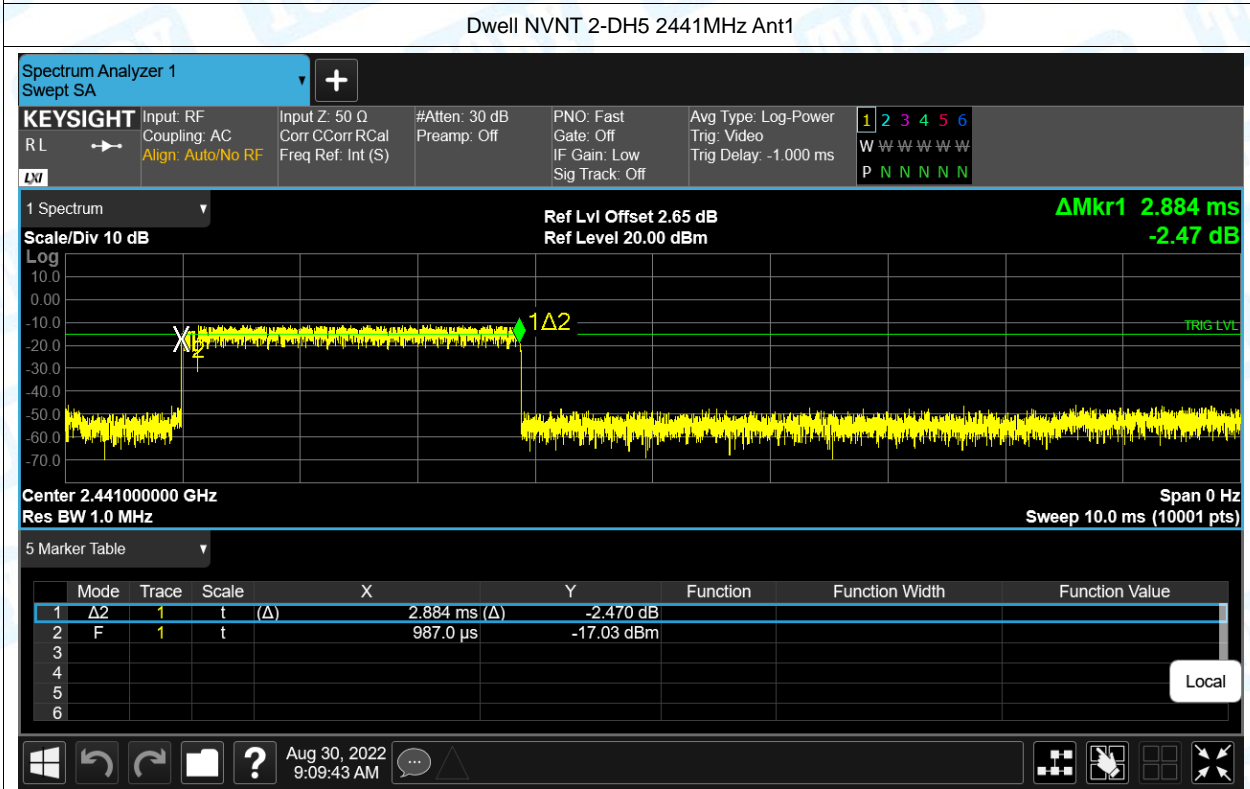
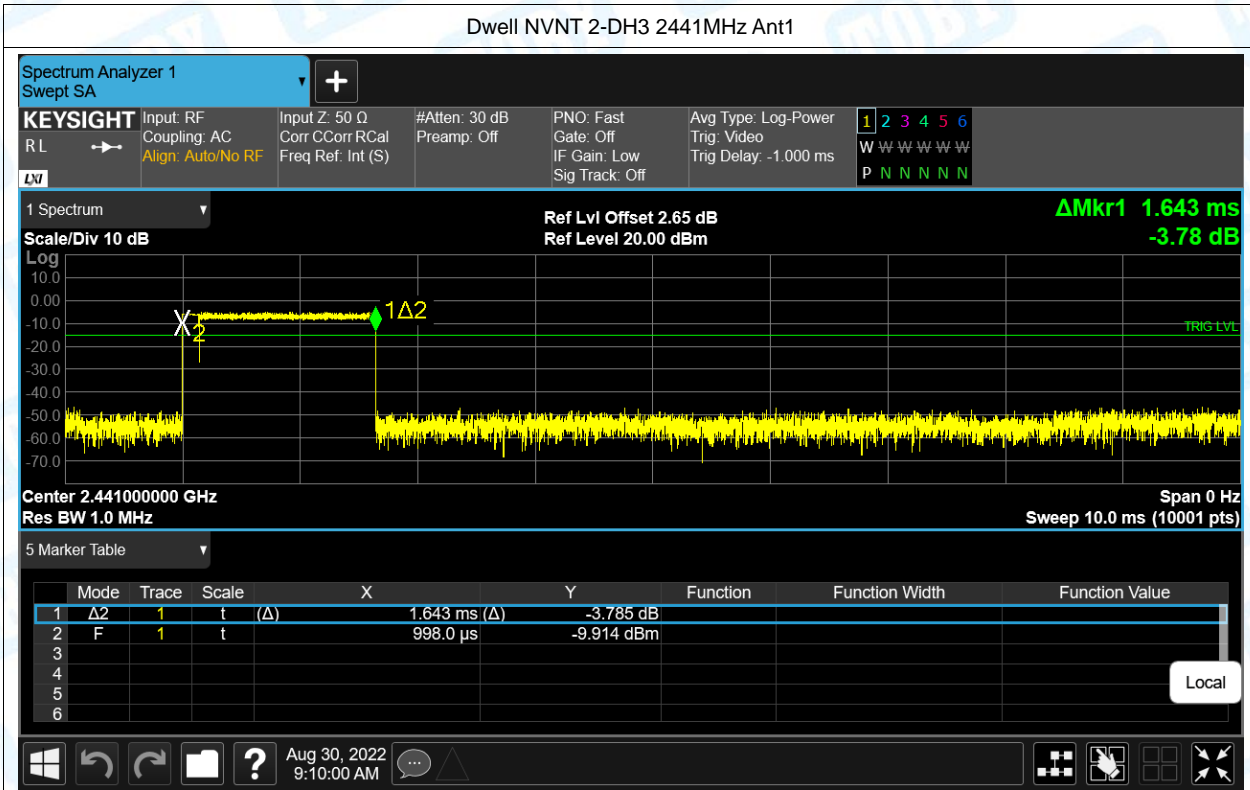


11. Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.381	121.92	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.885	307.733	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.39	124.8	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.884	307.627	31600	400	Pass







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