

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

General Description of EUT	
Product Name:	Bluetooth Earphone
Test Model:	F2
Sample ID:	202203-0716_01-02
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202203-0176-5	

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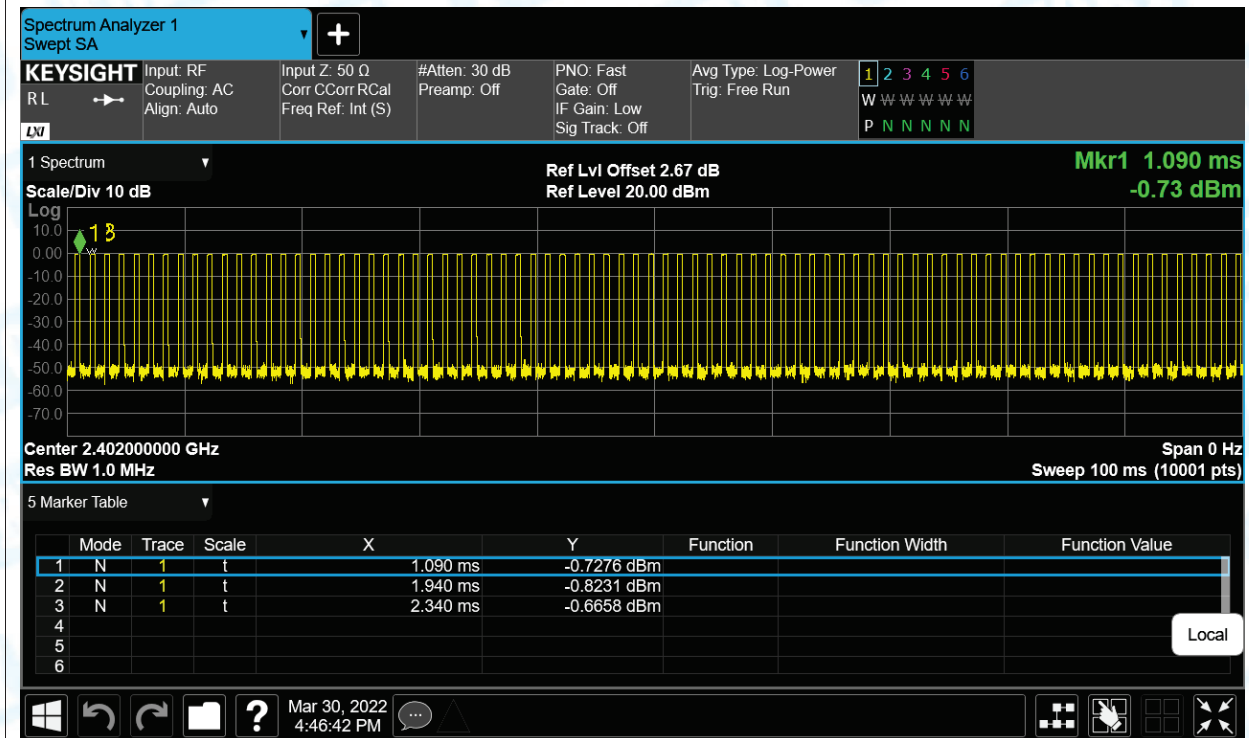
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1.Duty Cycle

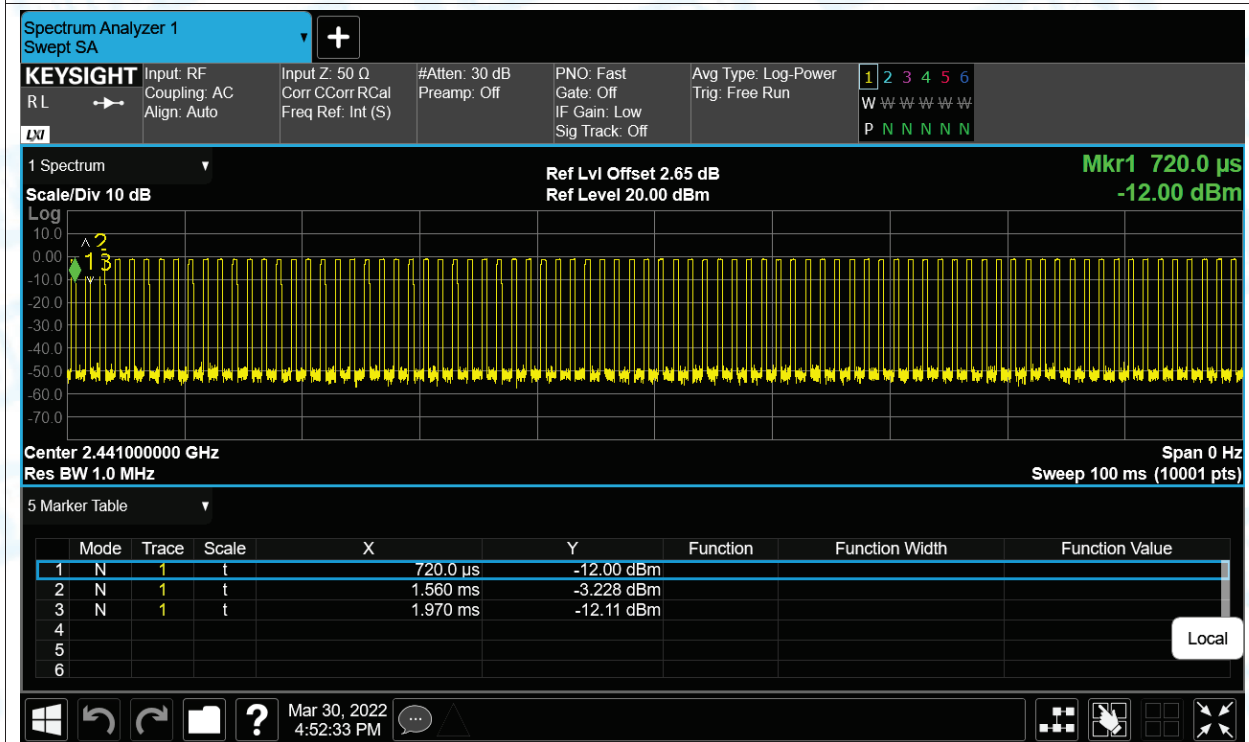
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.5
NVNT	1-DH1	2441	Ant1	33.6	4.74	2.44
NVNT	1-DH1	2480	Ant1	32.8	4.84	2.5
NVNT	2-DH1	2402	Ant1	34.41	4.63	2.38
NVNT	2-DH1	2441	Ant1	34.4	4.63	2.38
NVNT	2-DH1	2480	Ant1	33.61	4.74	2.44

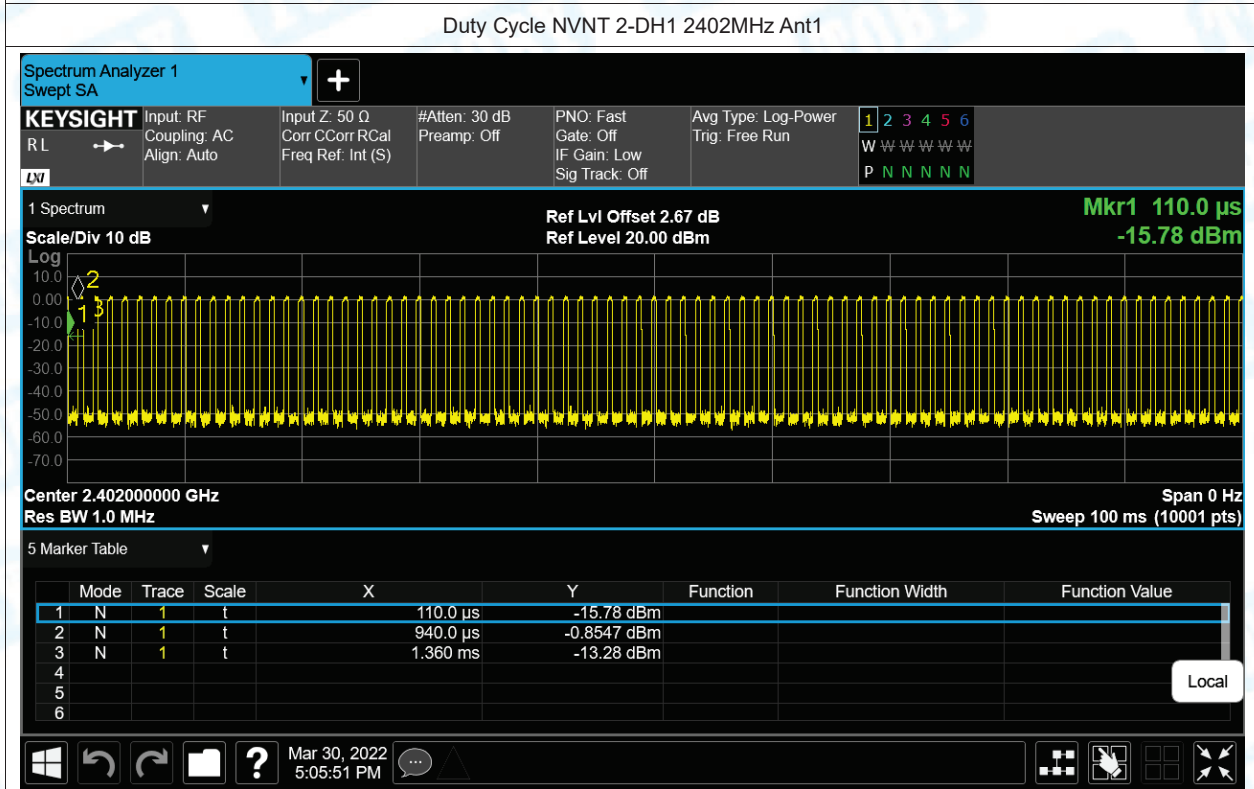
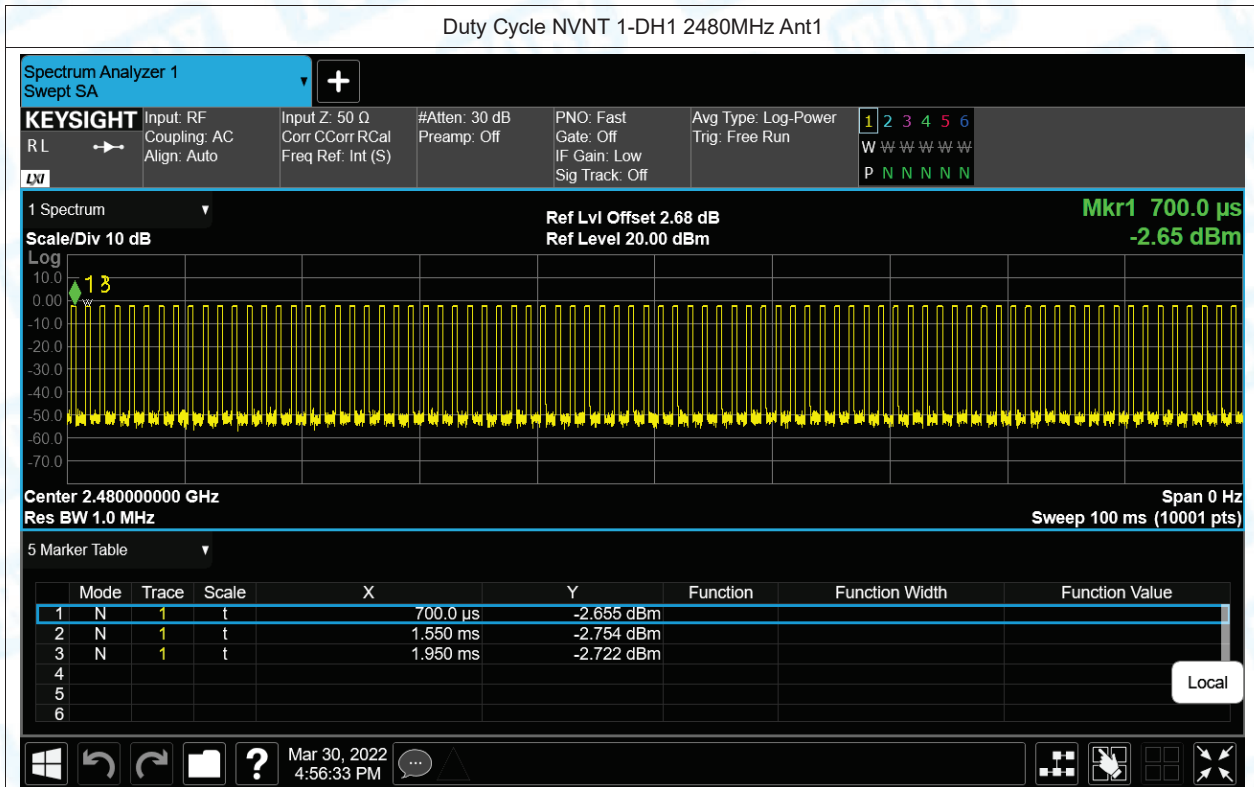
Test Graphs

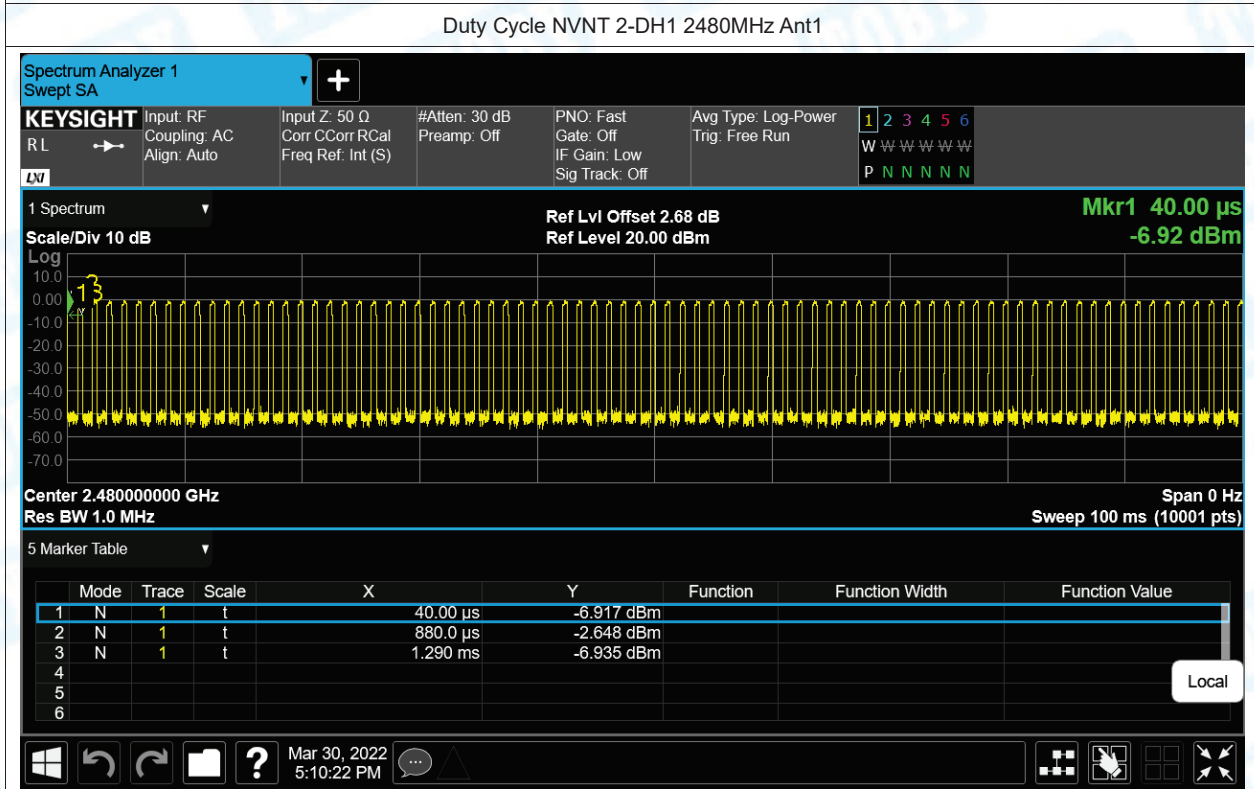
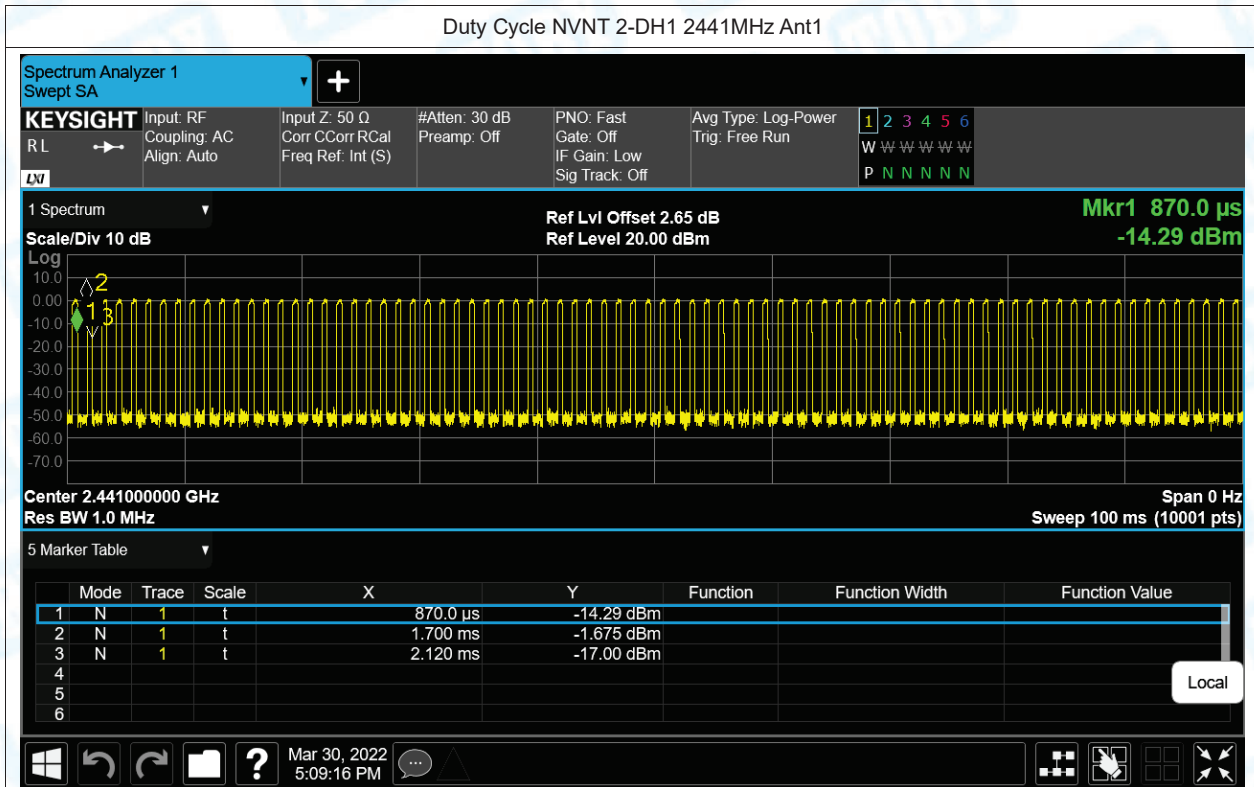
Duty Cycle NVNT 1-DH1 2402MHz Ant1



Duty Cycle NVNT 1-DH1 2441MHz Ant1





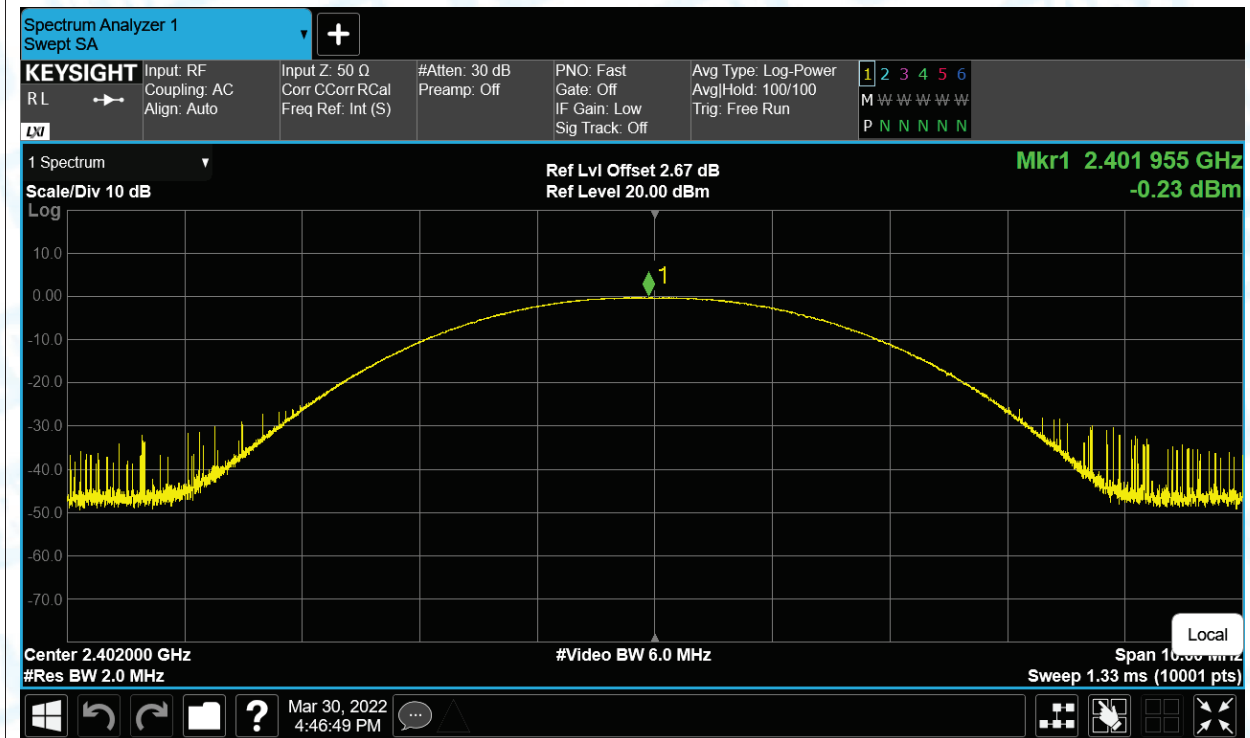


2.Maximum Conducted Output Power

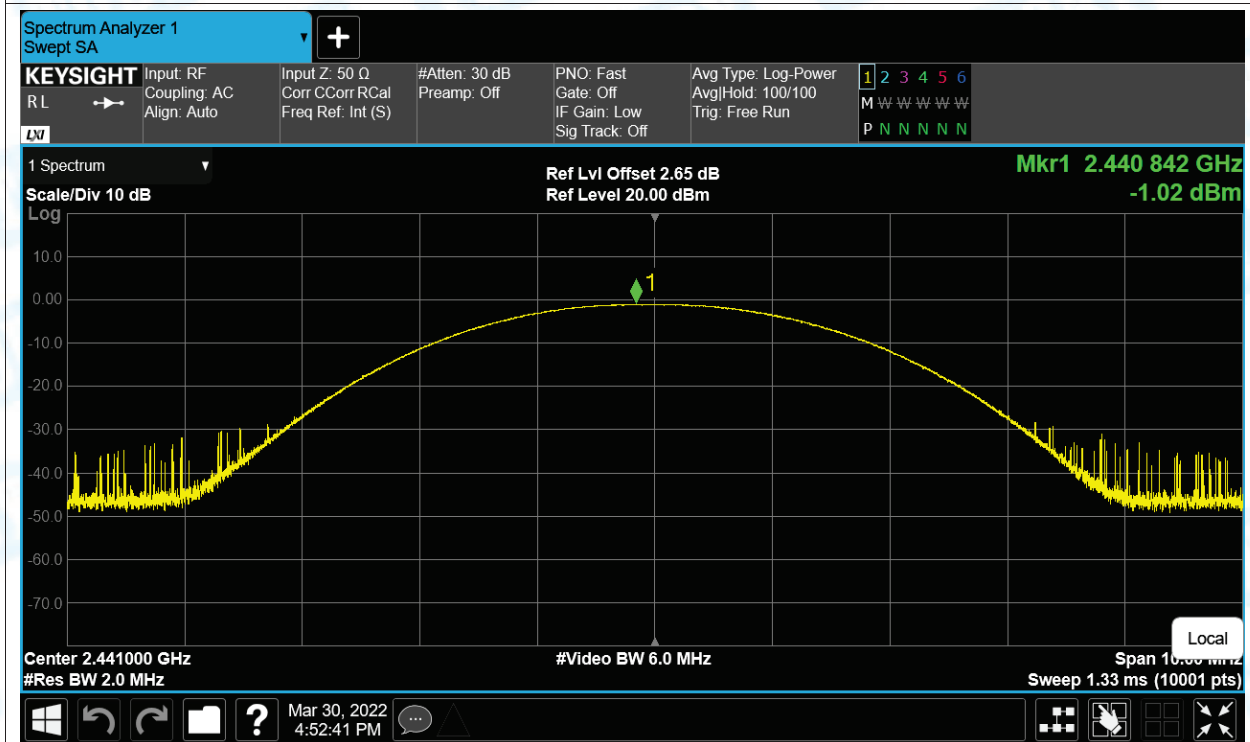
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-0.23	21	Pass
NVNT	1-DH1	2441	Ant1	-1.02	21	Pass
NVNT	1-DH1	2480	Ant1	-2.20	21	Pass
NVNT	2-DH1	2402	Ant1	1.89	21	Pass
NVNT	2-DH1	2441	Ant1	1.07	21	Pass
NVNT	2-DH1	2480	Ant1	-0.11	21	Pass

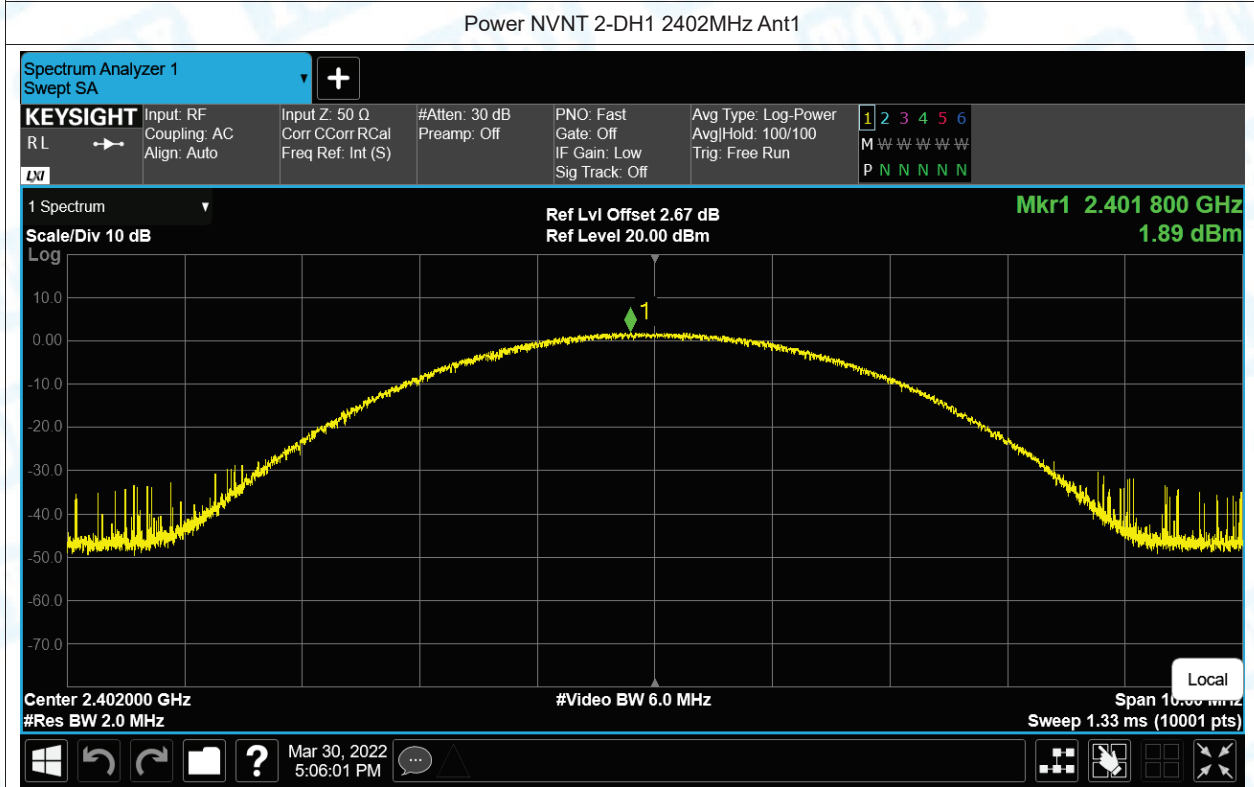
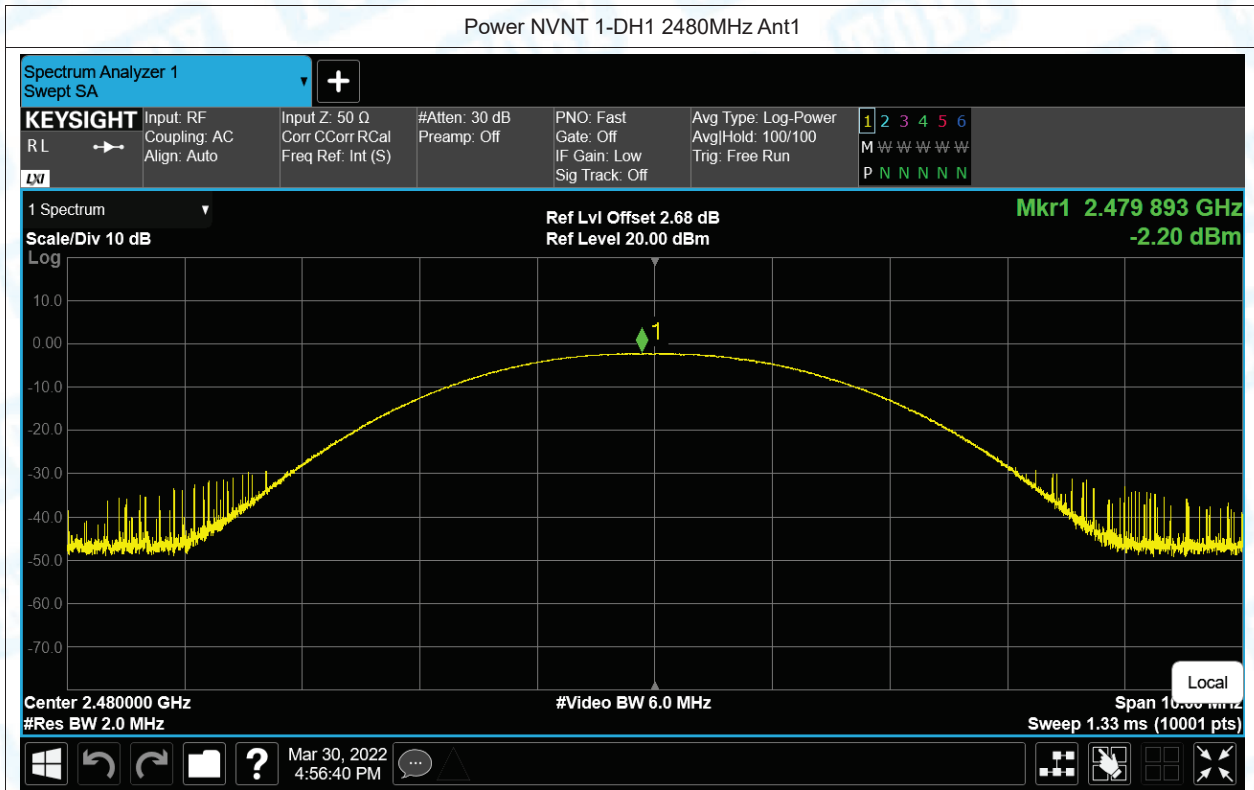
Test Graphs

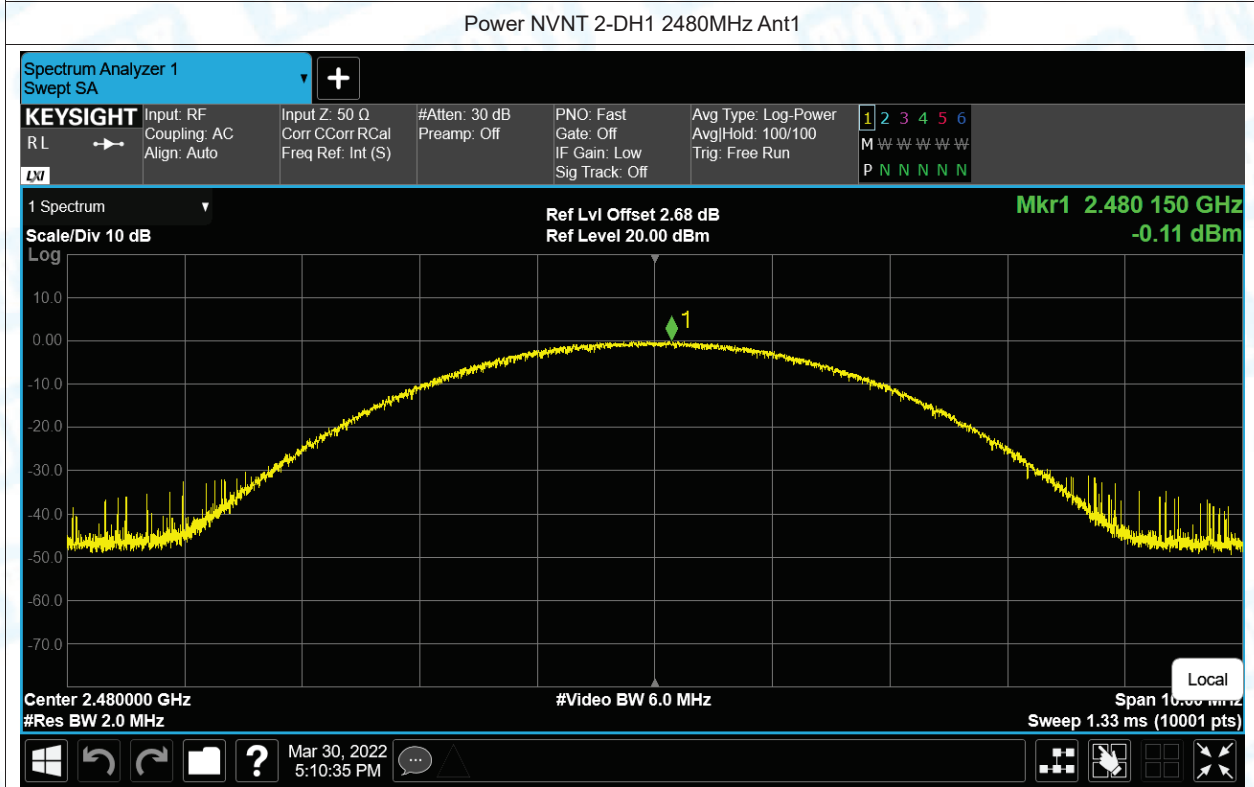
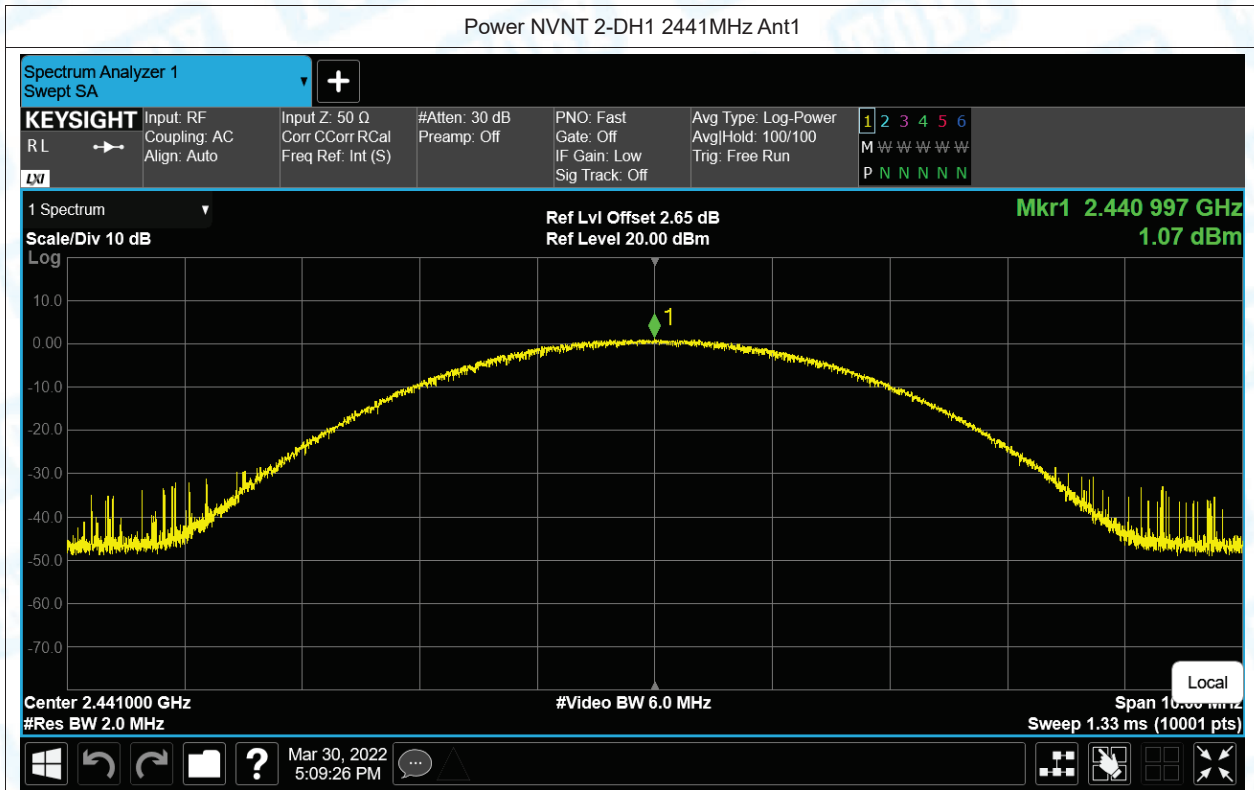
Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1





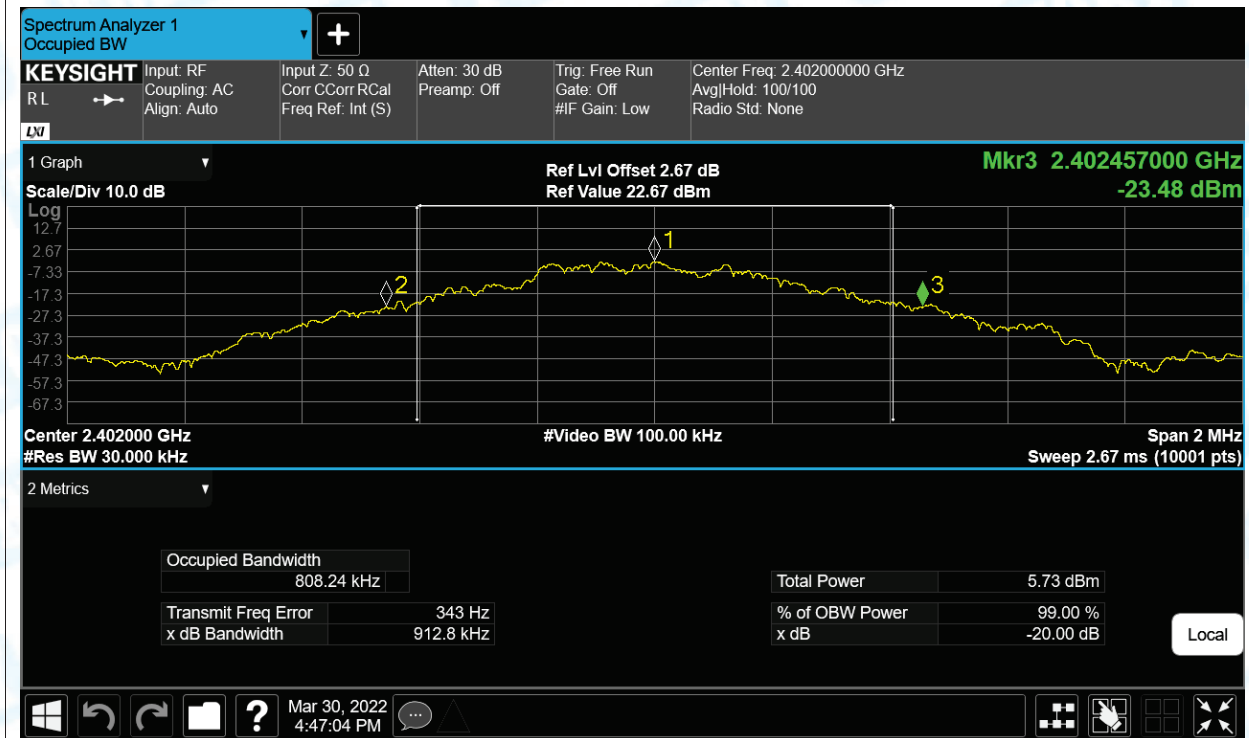


3.-20dB Bandwidth

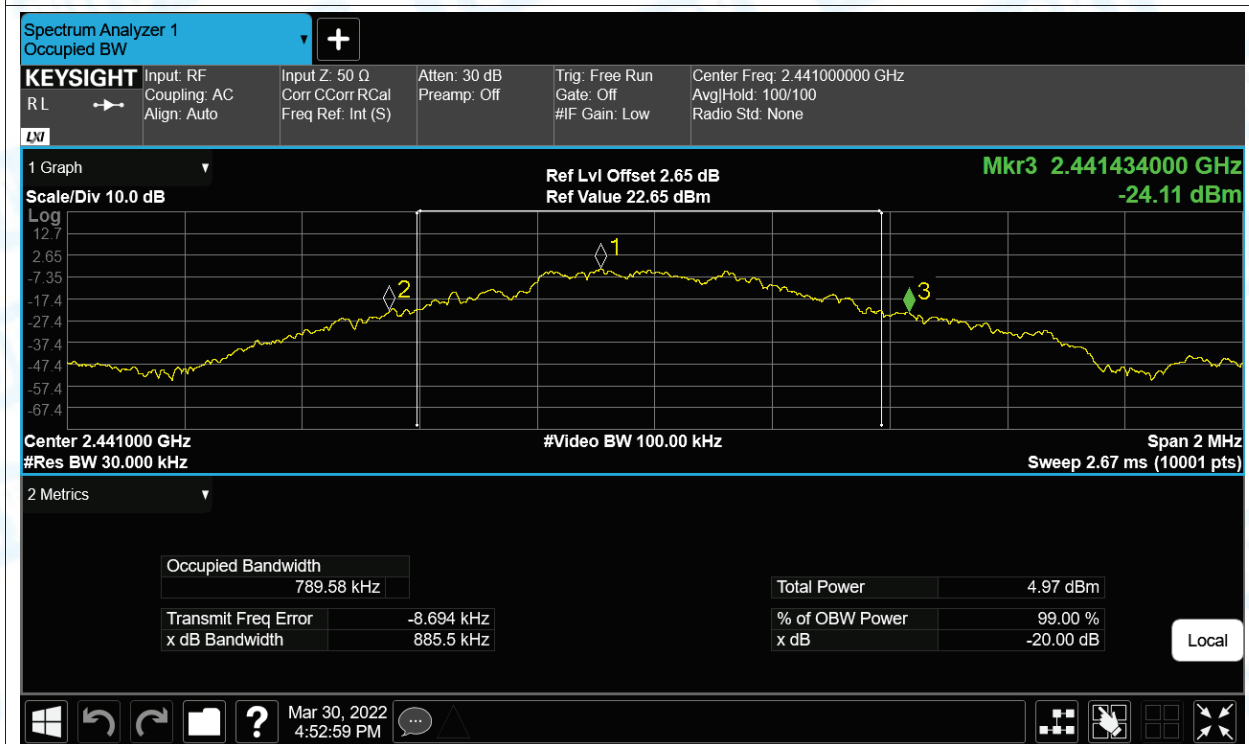
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.91	0	Pass
NVNT	1-DH1	2441	Ant1	0.89	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.25	0	Pass
NVNT	2-DH1	2441	Ant1	1.28	0	Pass
NVNT	2-DH1	2480	Ant1	1.28	0	Pass

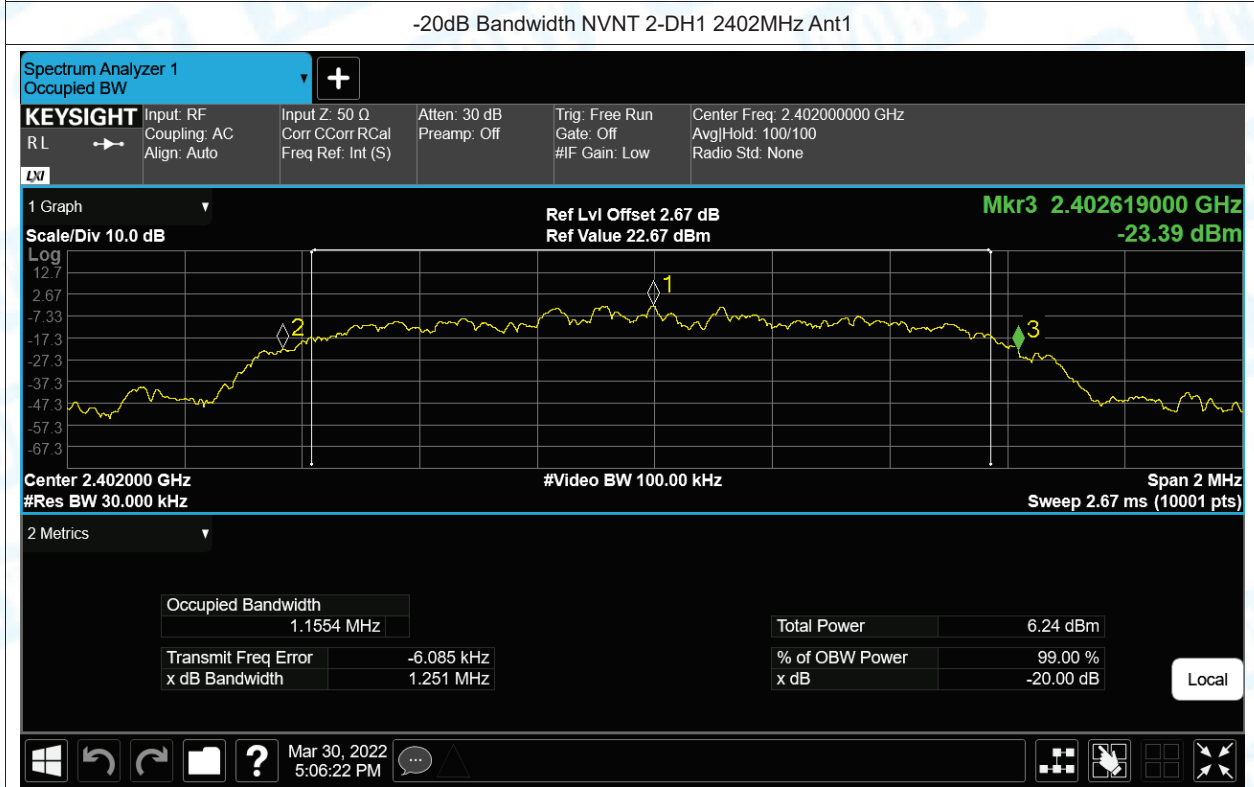
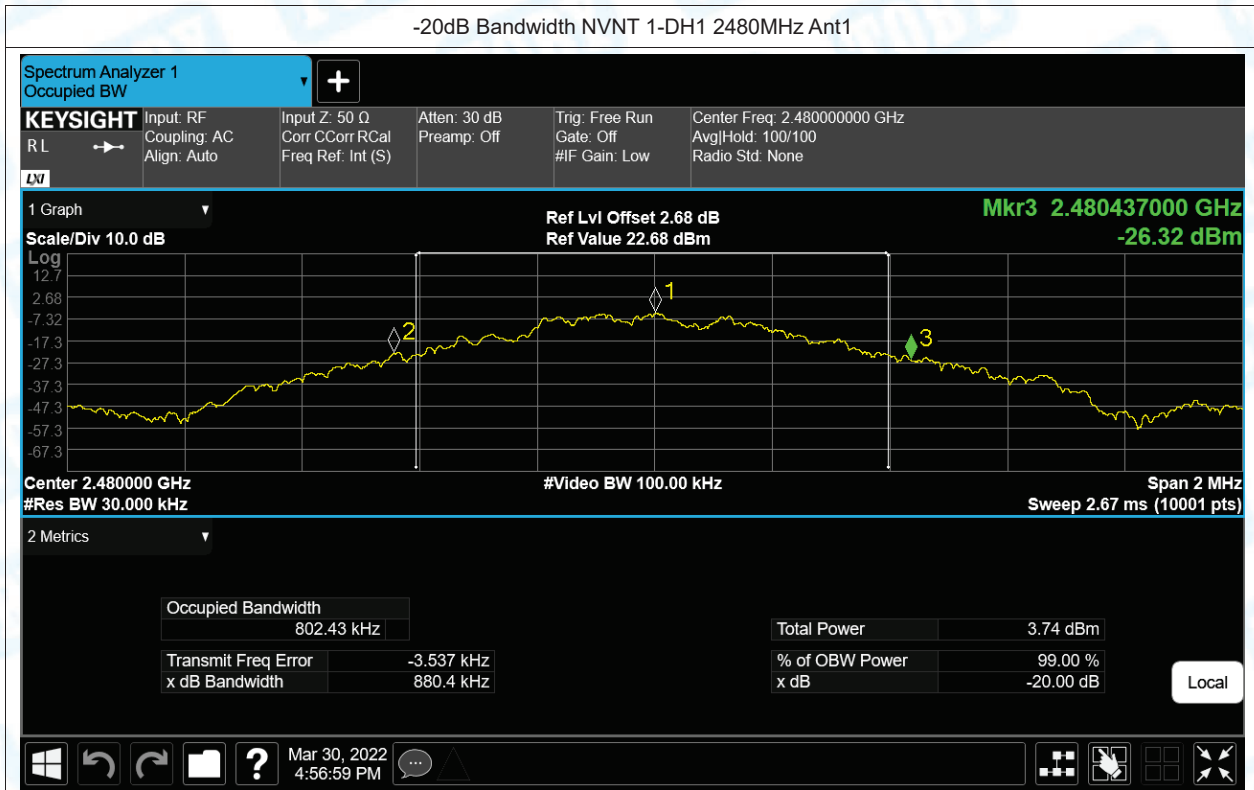
Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1

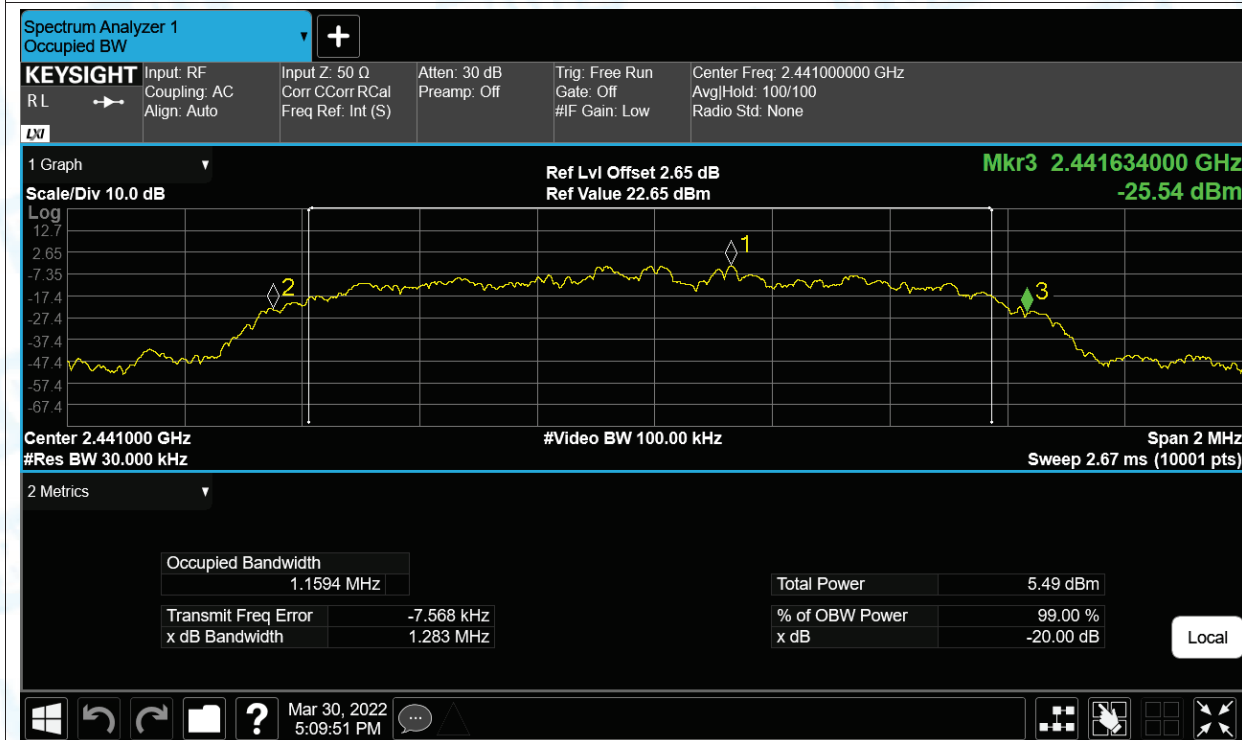


-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

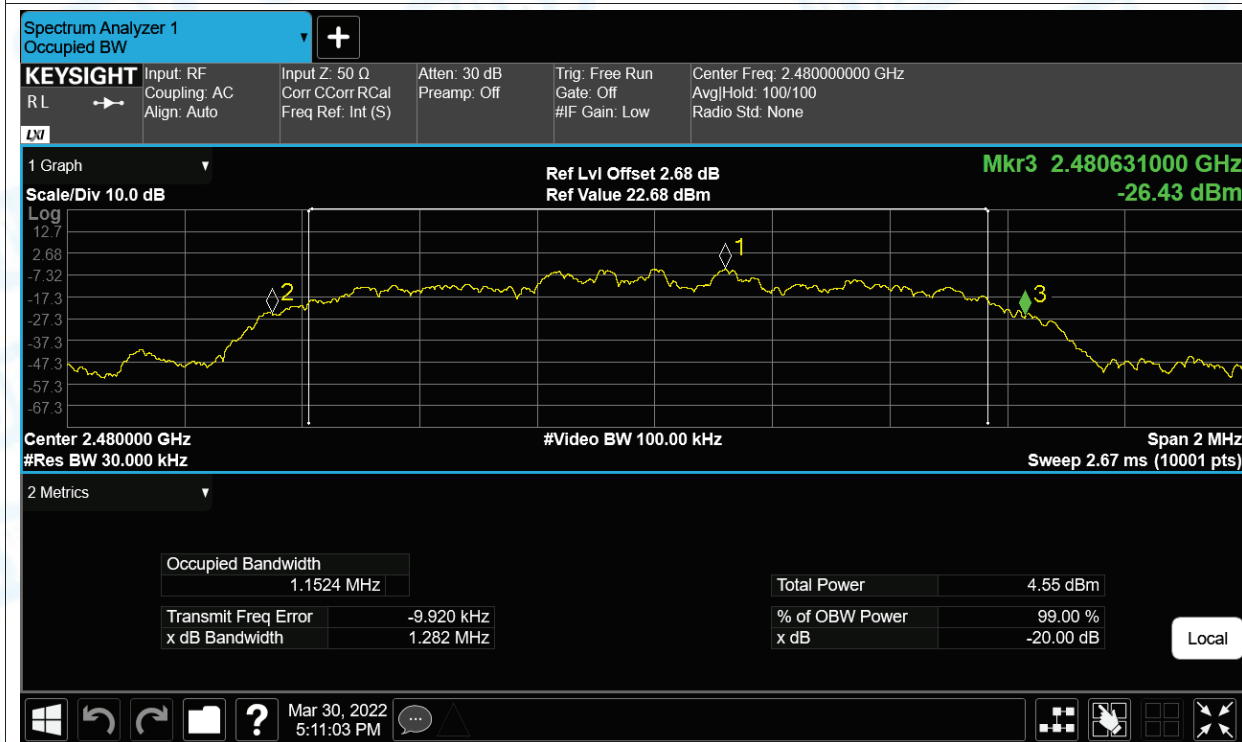




-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

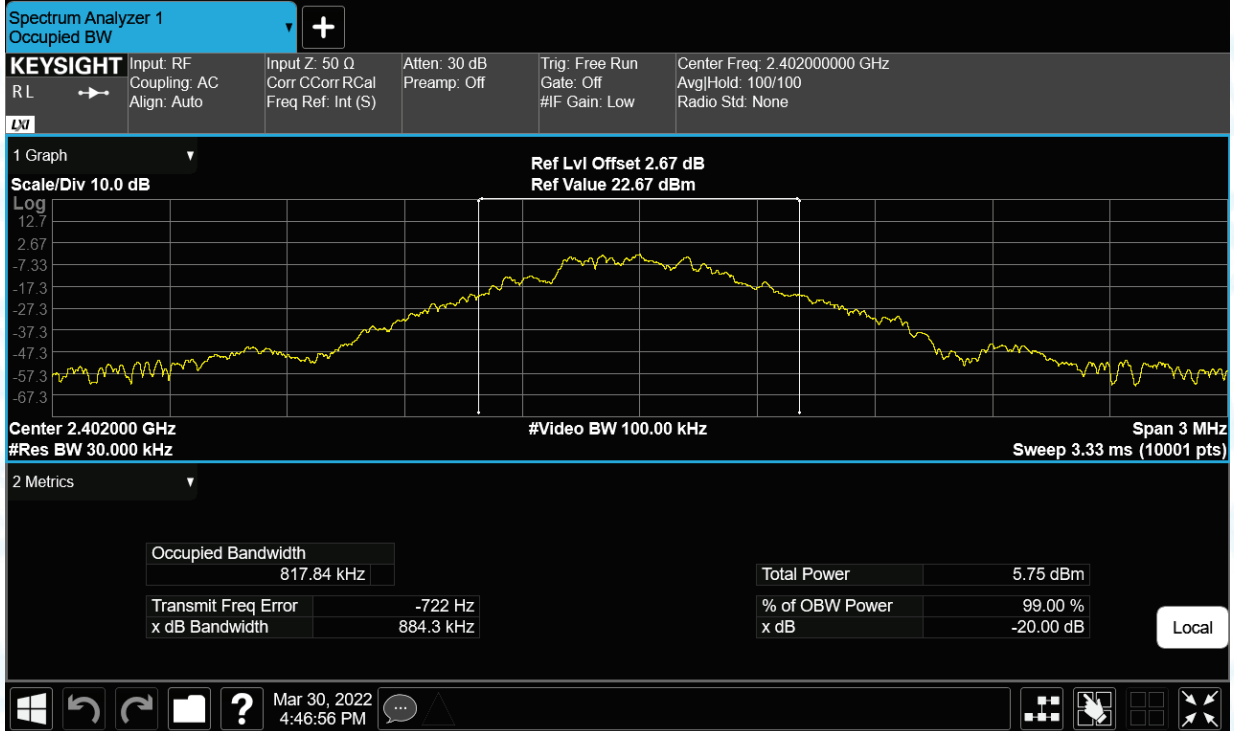


4.Occupied Channel Bandwidth

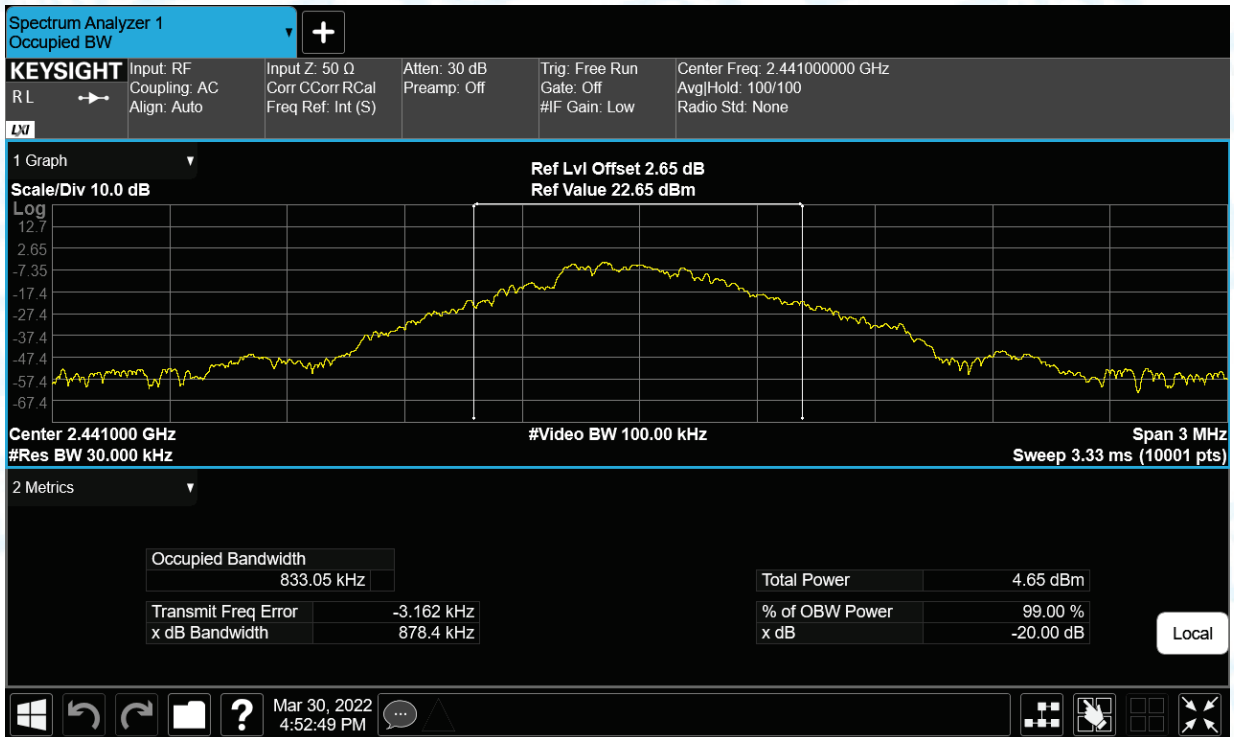
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.818
NVNT	1-DH1	2441	Ant1	0.833
NVNT	1-DH1	2480	Ant1	0.83
NVNT	2-DH1	2402	Ant1	1.154
NVNT	2-DH1	2441	Ant1	1.161
NVNT	2-DH1	2480	Ant1	1.154

Test Graphs

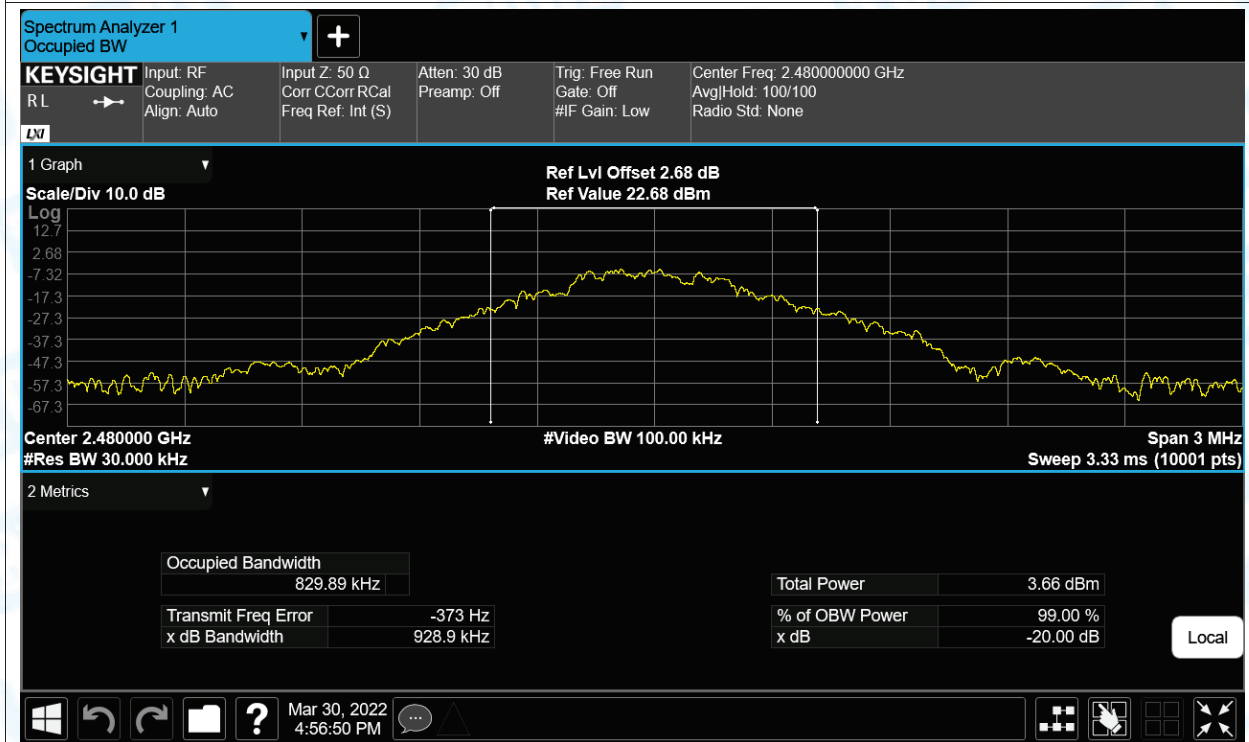
OBW NVNT 1-DH1 2402MHz Ant1



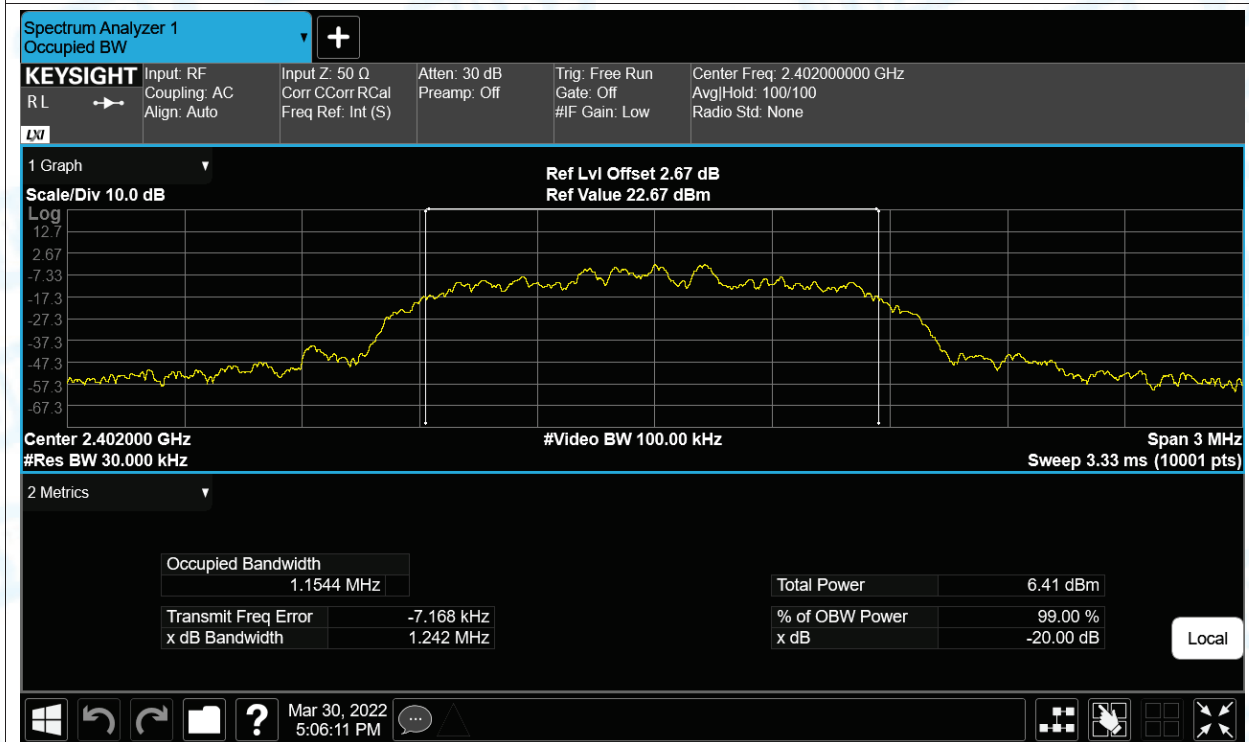
OBW NVNT 1-DH1 2441MHz Ant1

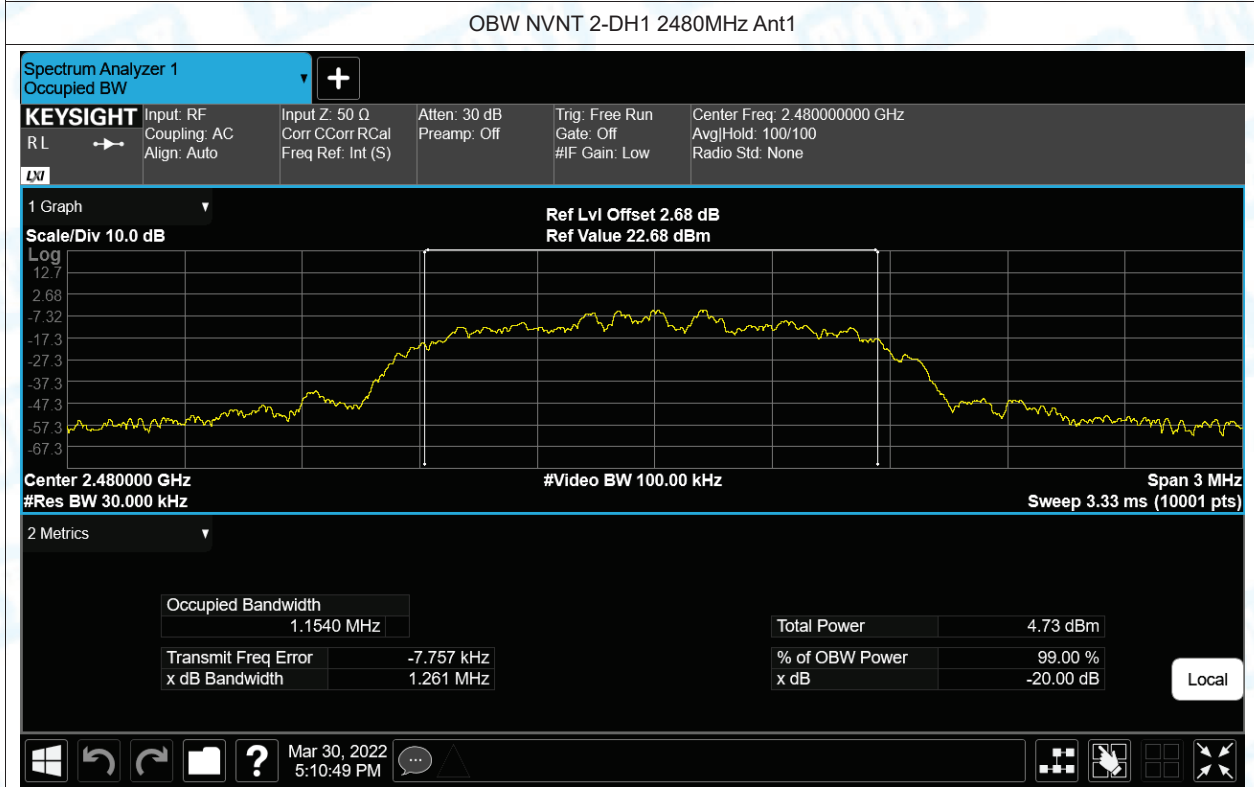
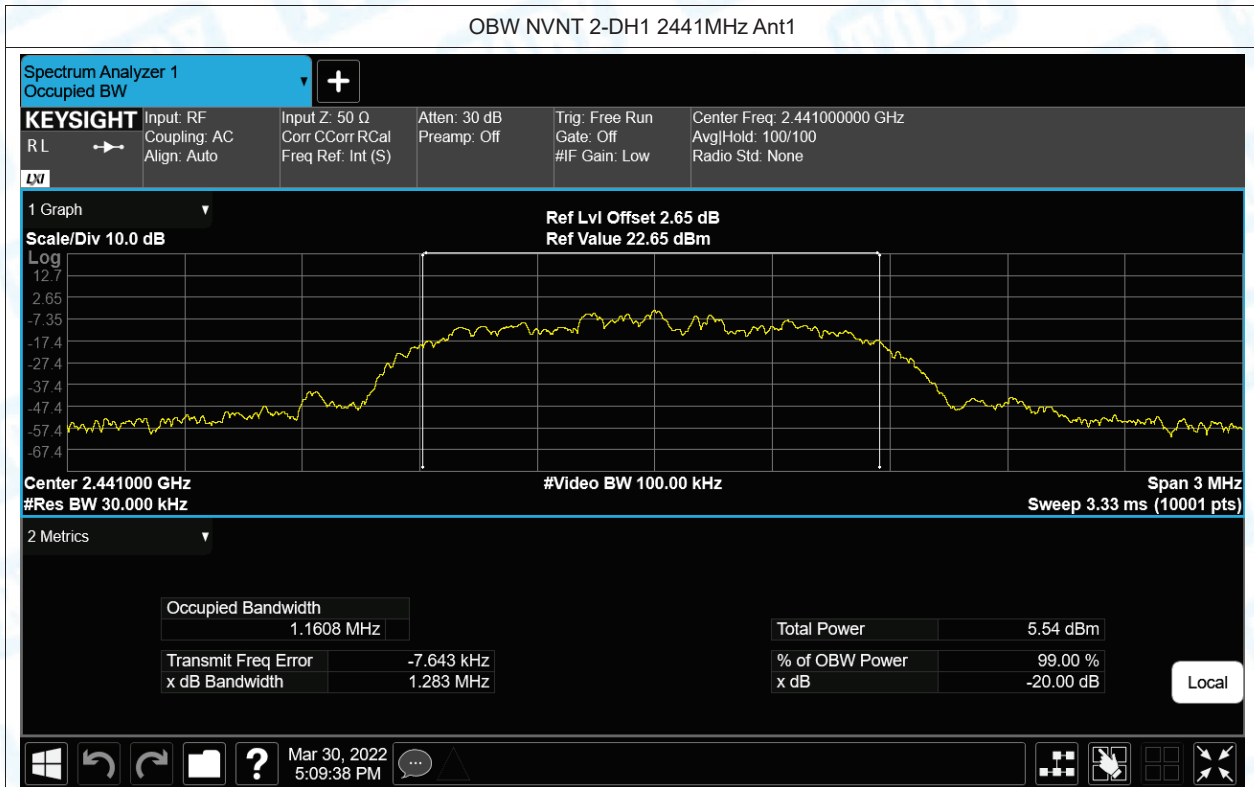


OBW NVNT 1-DH1 2480MHz Ant1



OBW NVNT 2-DH1 2402MHz Ant1



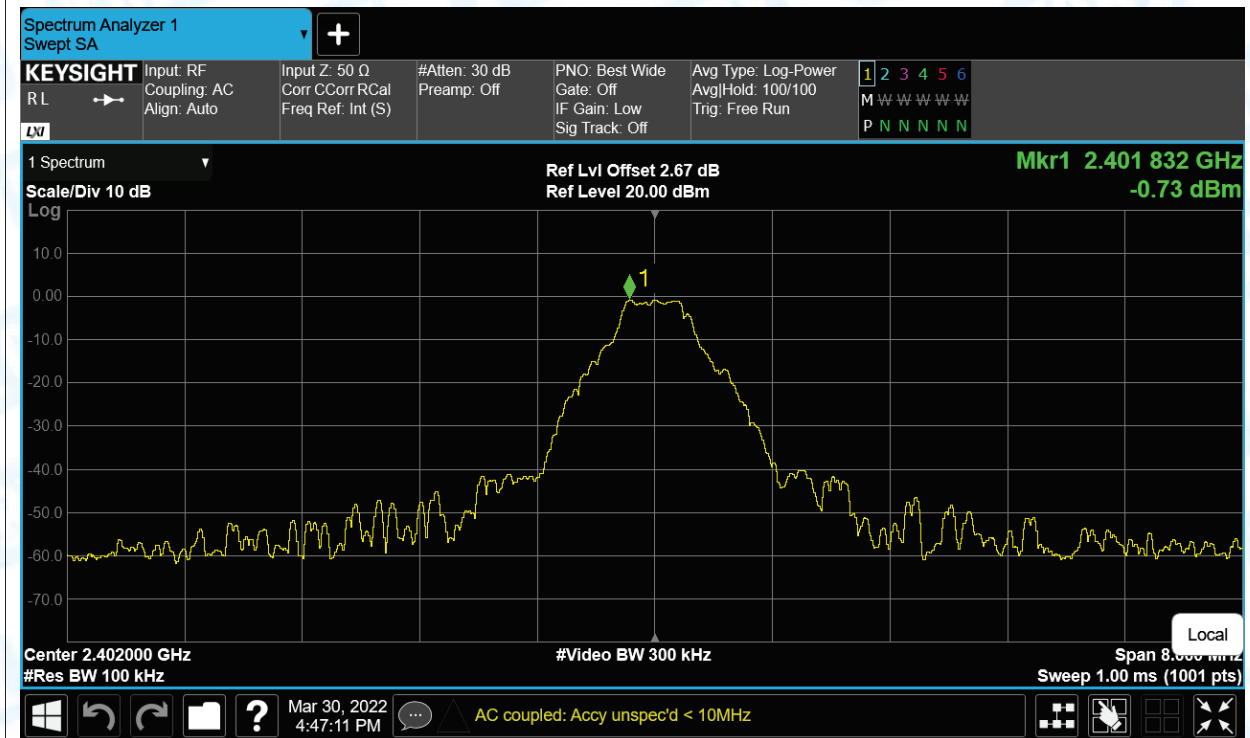


5.Band Edge

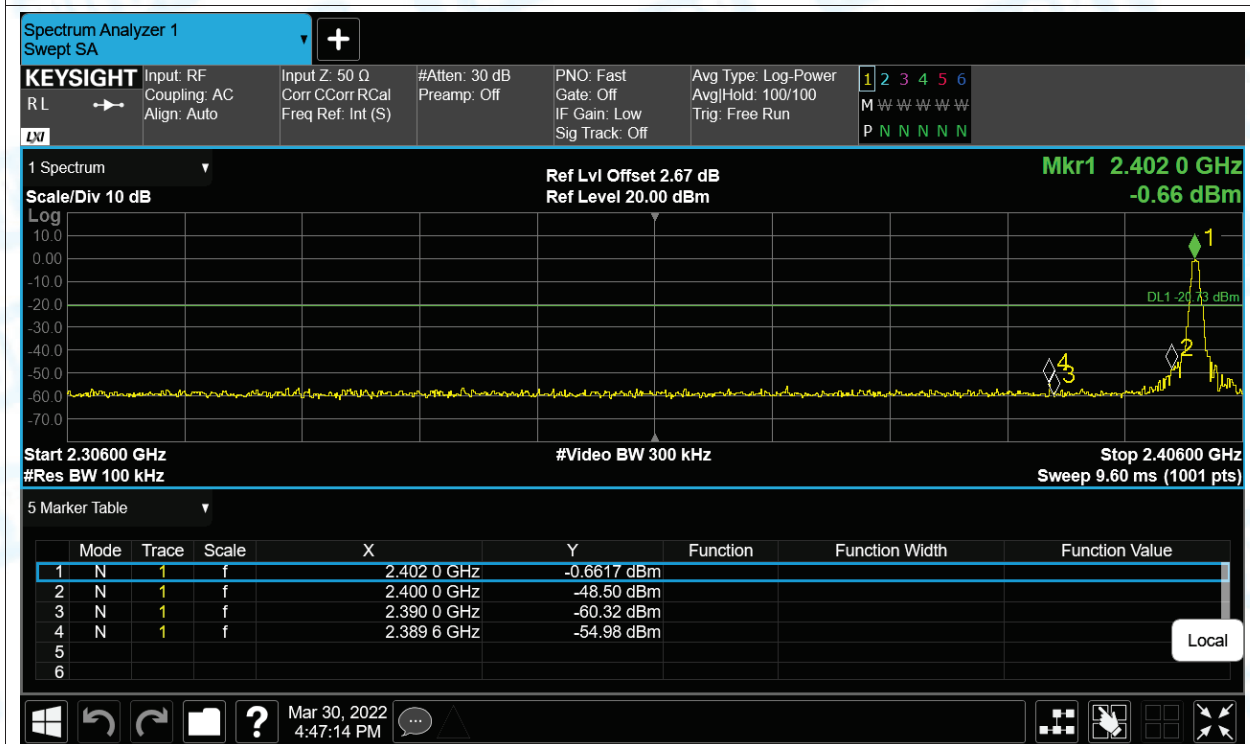
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.25	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.19	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.23	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-53.29	-20	Pass

Test Graphs

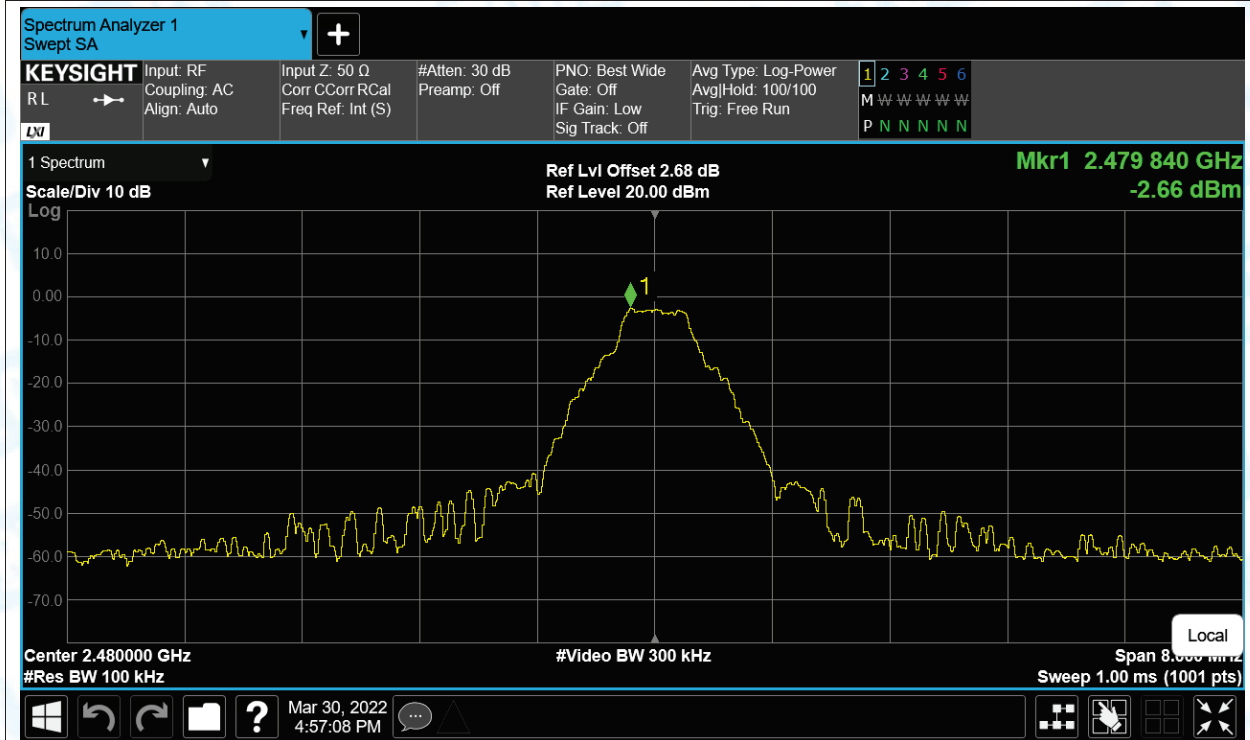
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



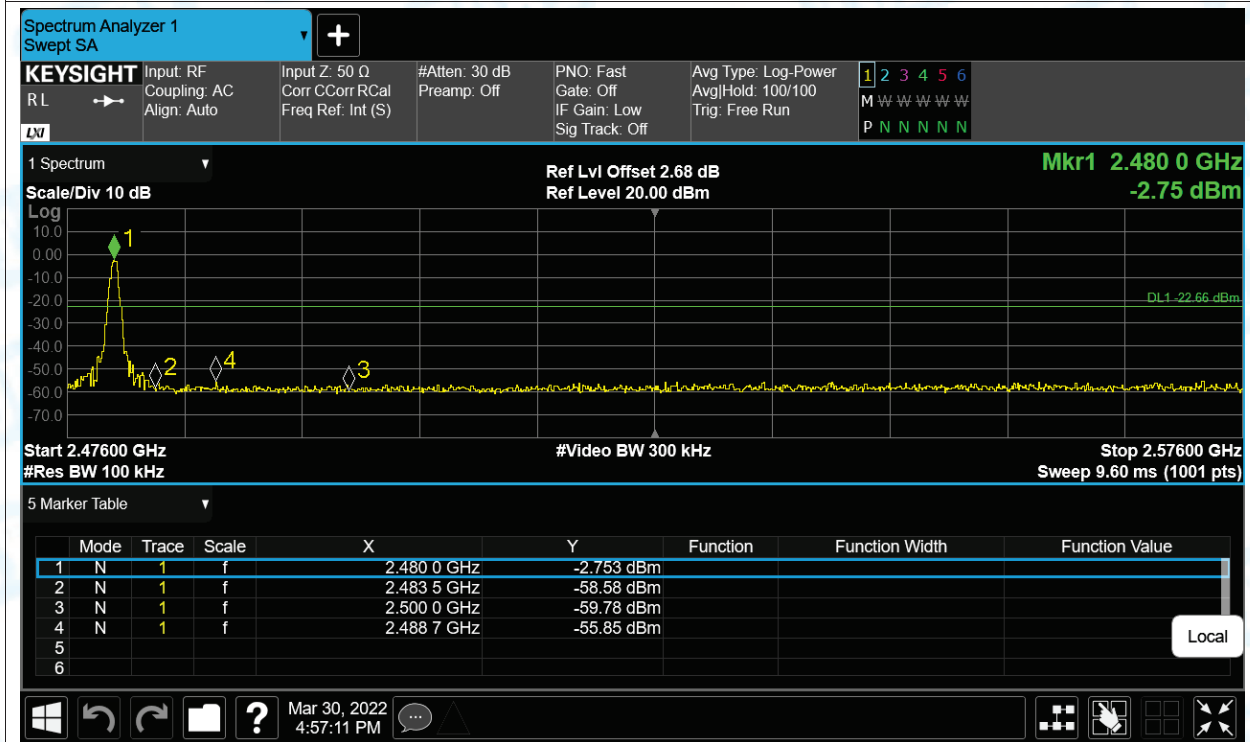
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



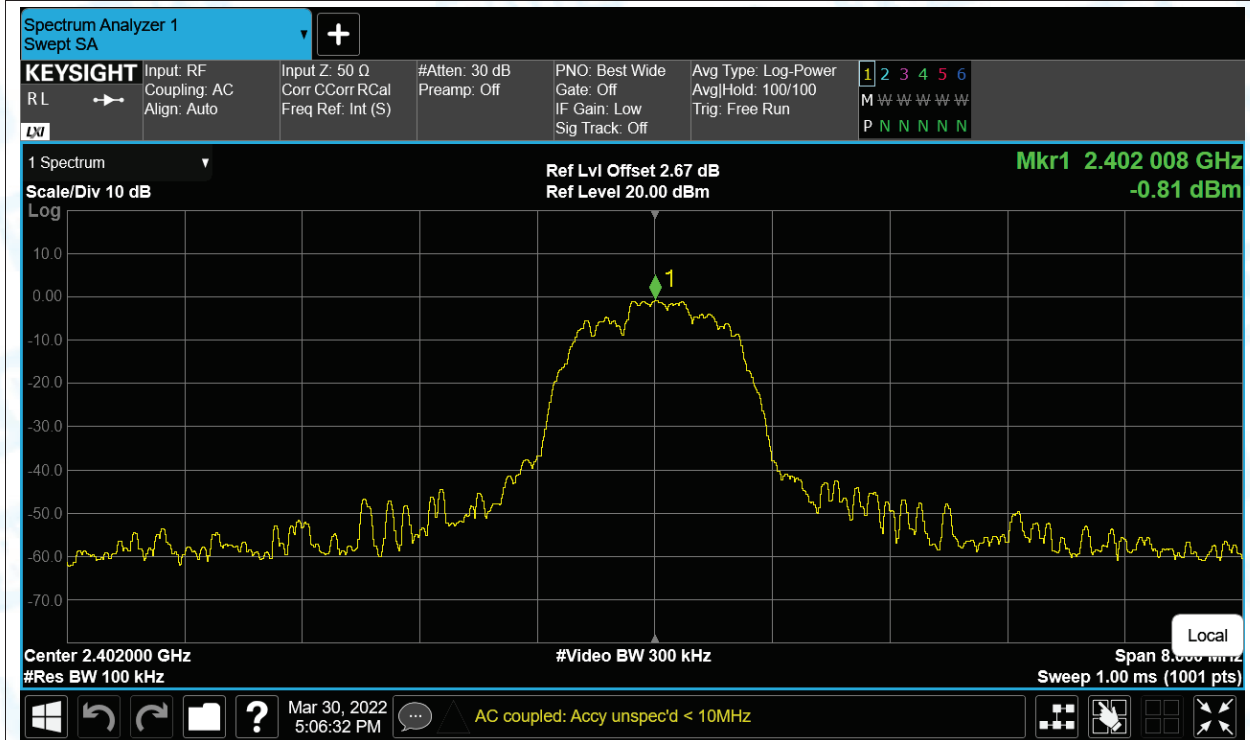
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



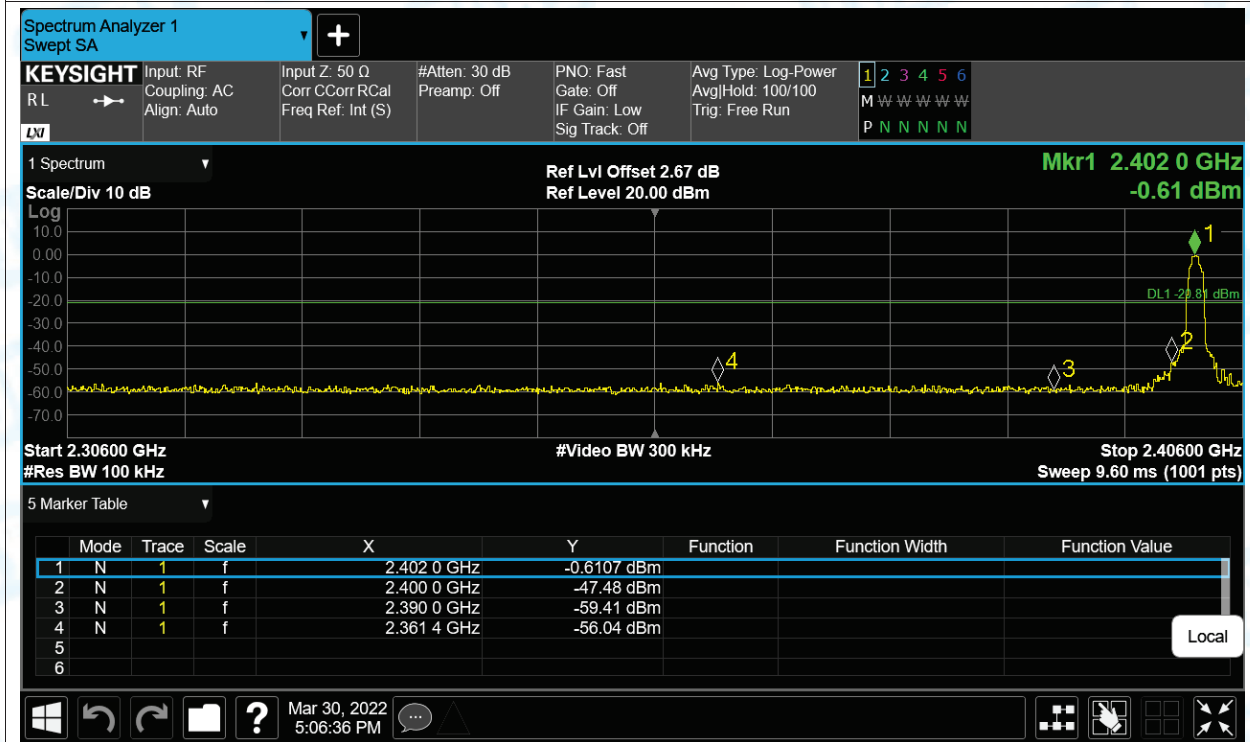
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



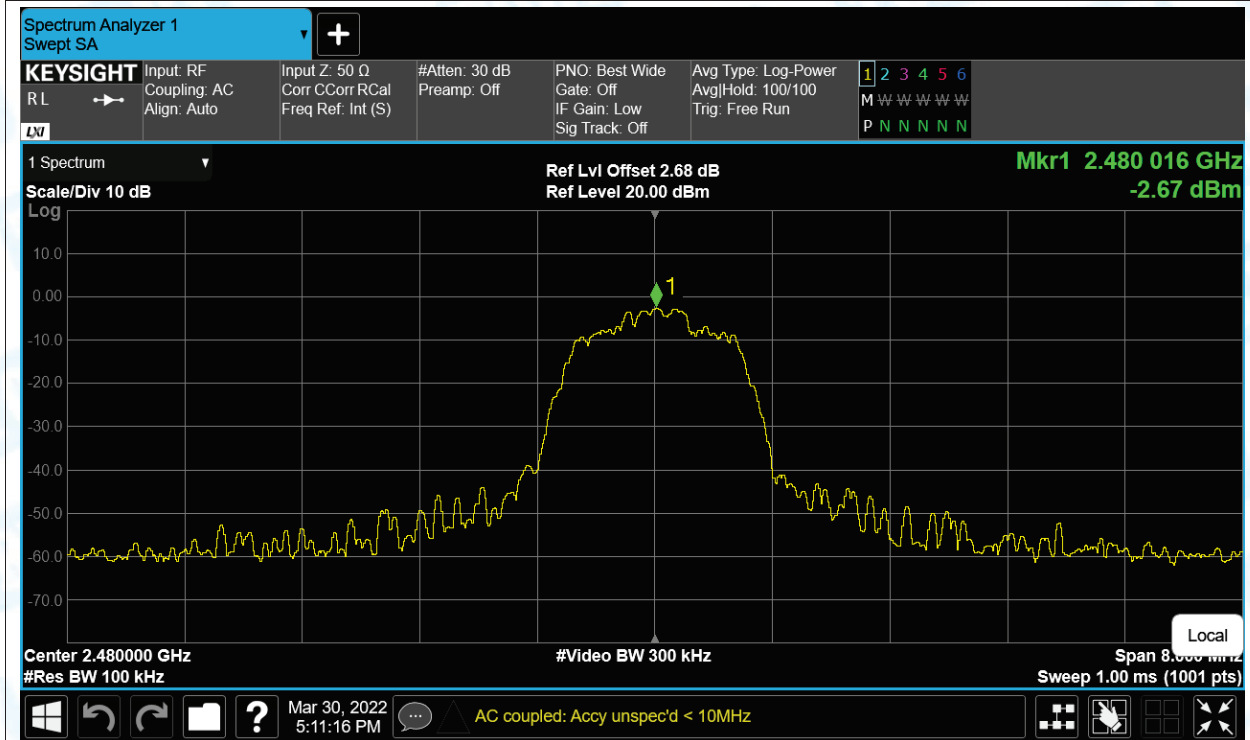
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



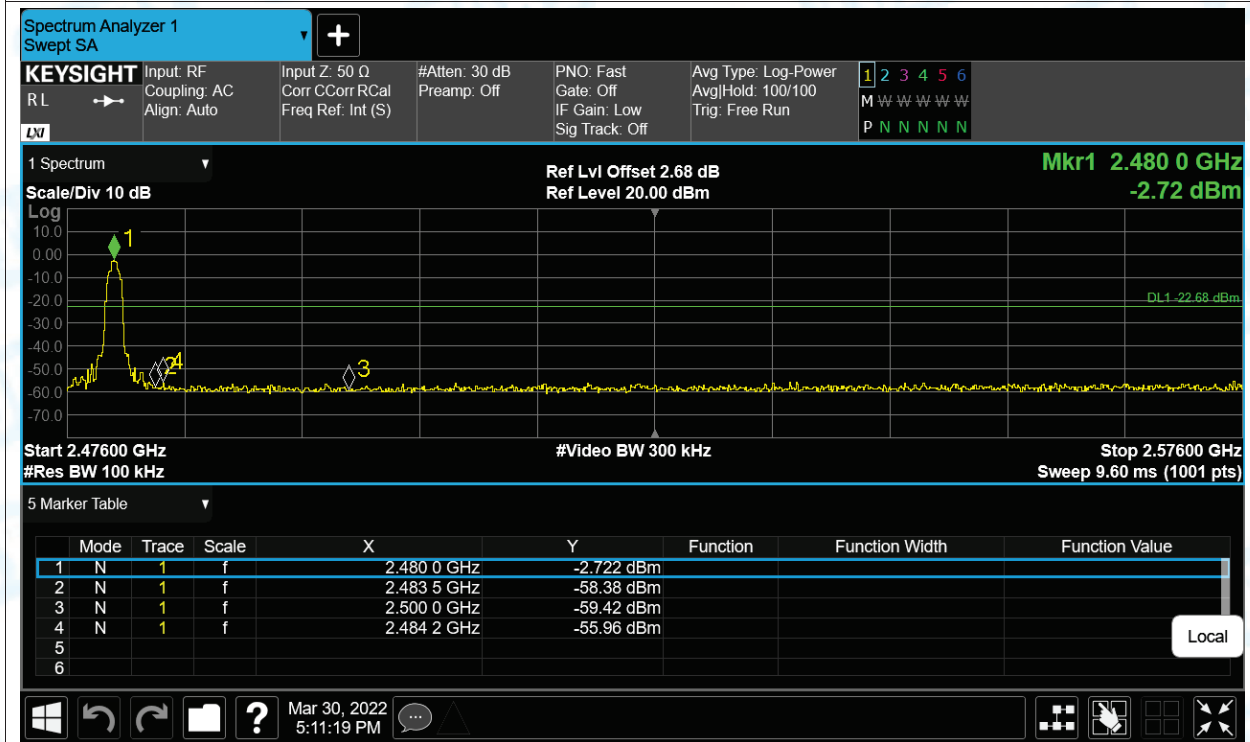
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

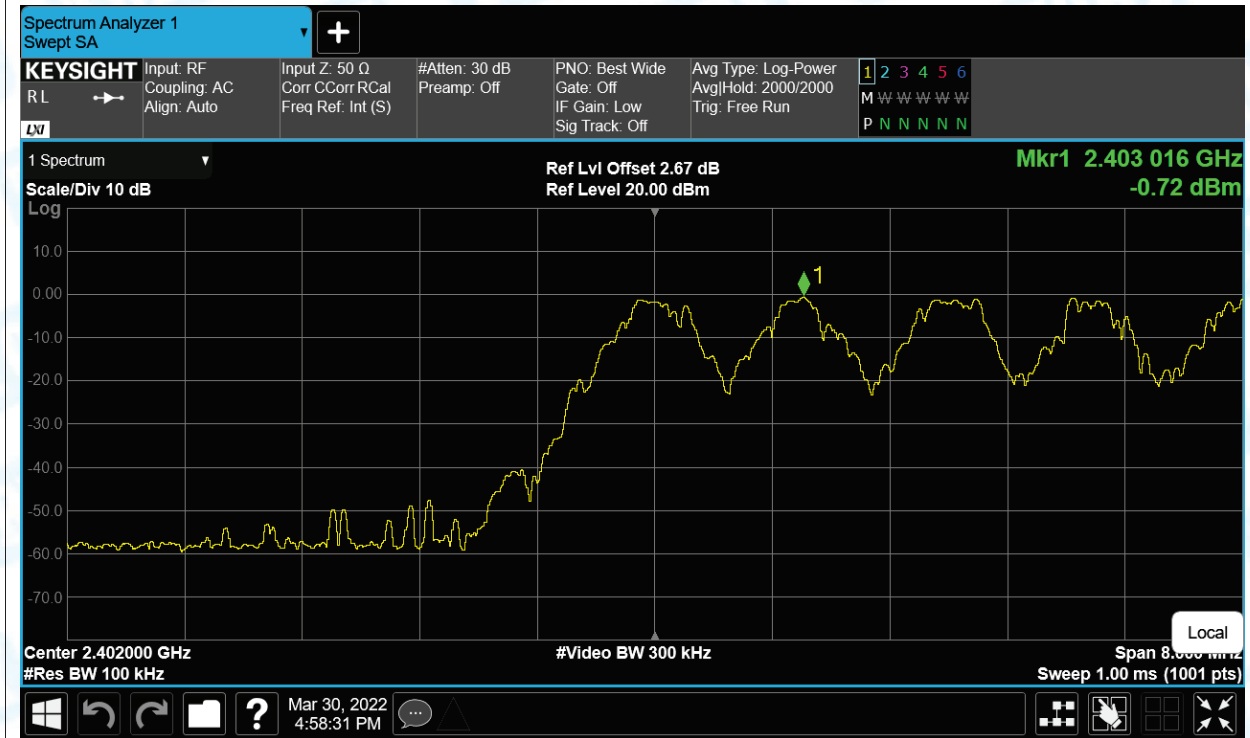


6.Band Edge(Hopping)

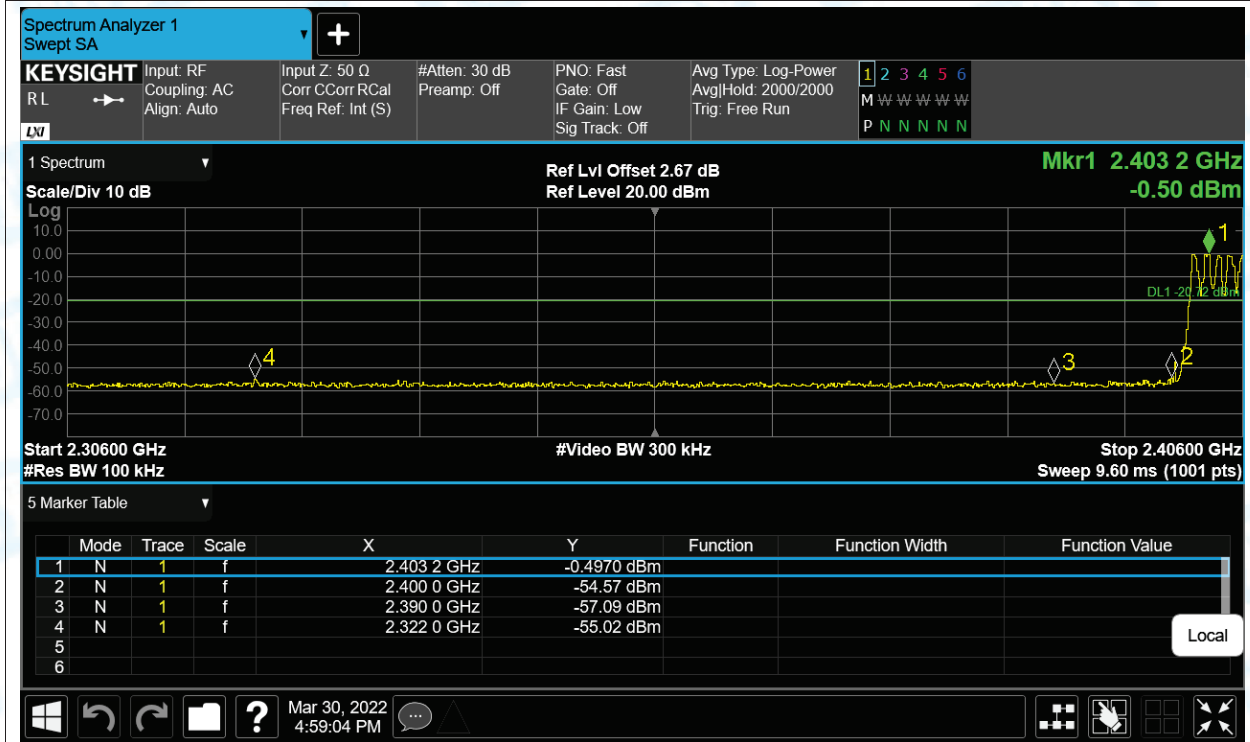
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.3	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.83	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.46	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.13	-20	Pass

Test Graphs

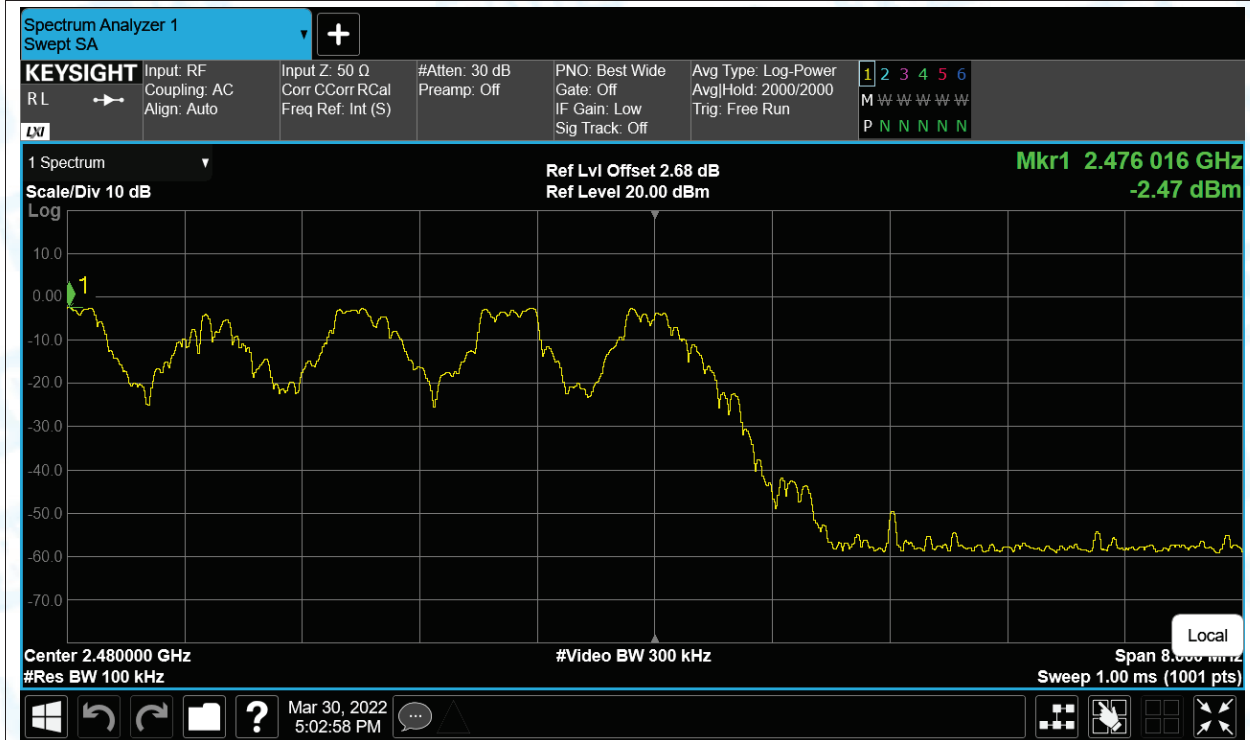
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



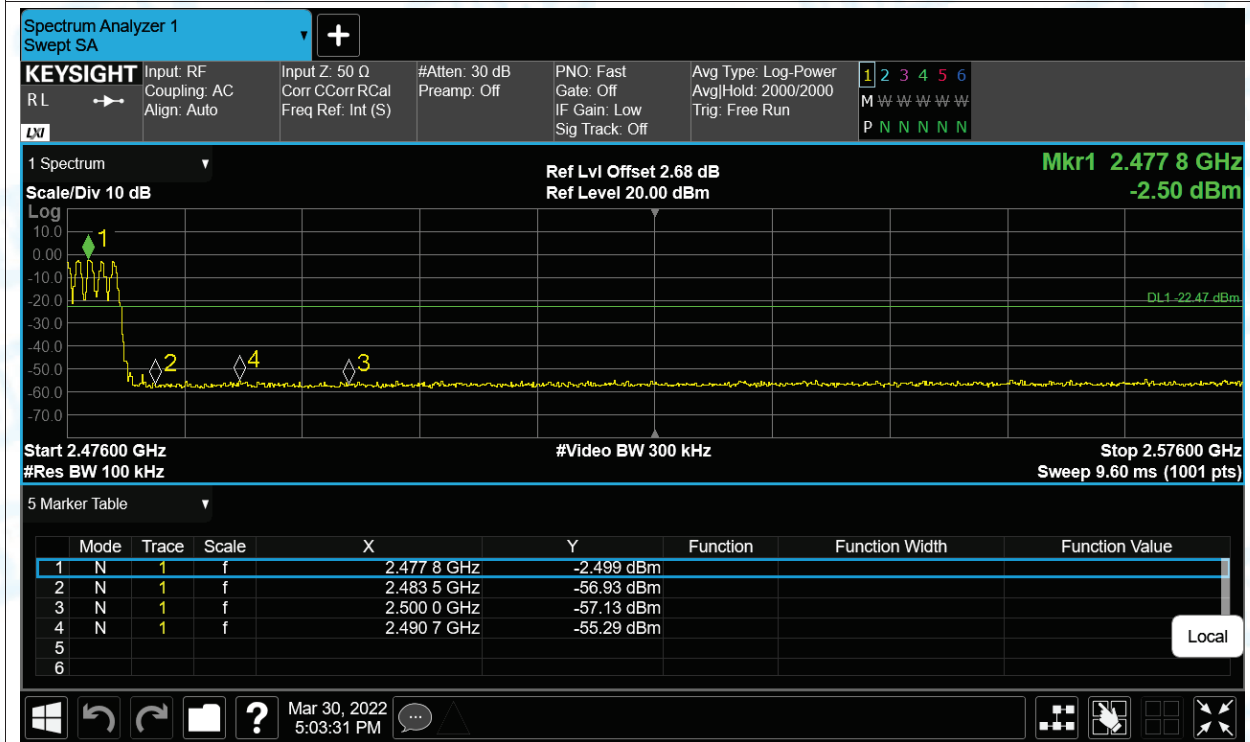
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

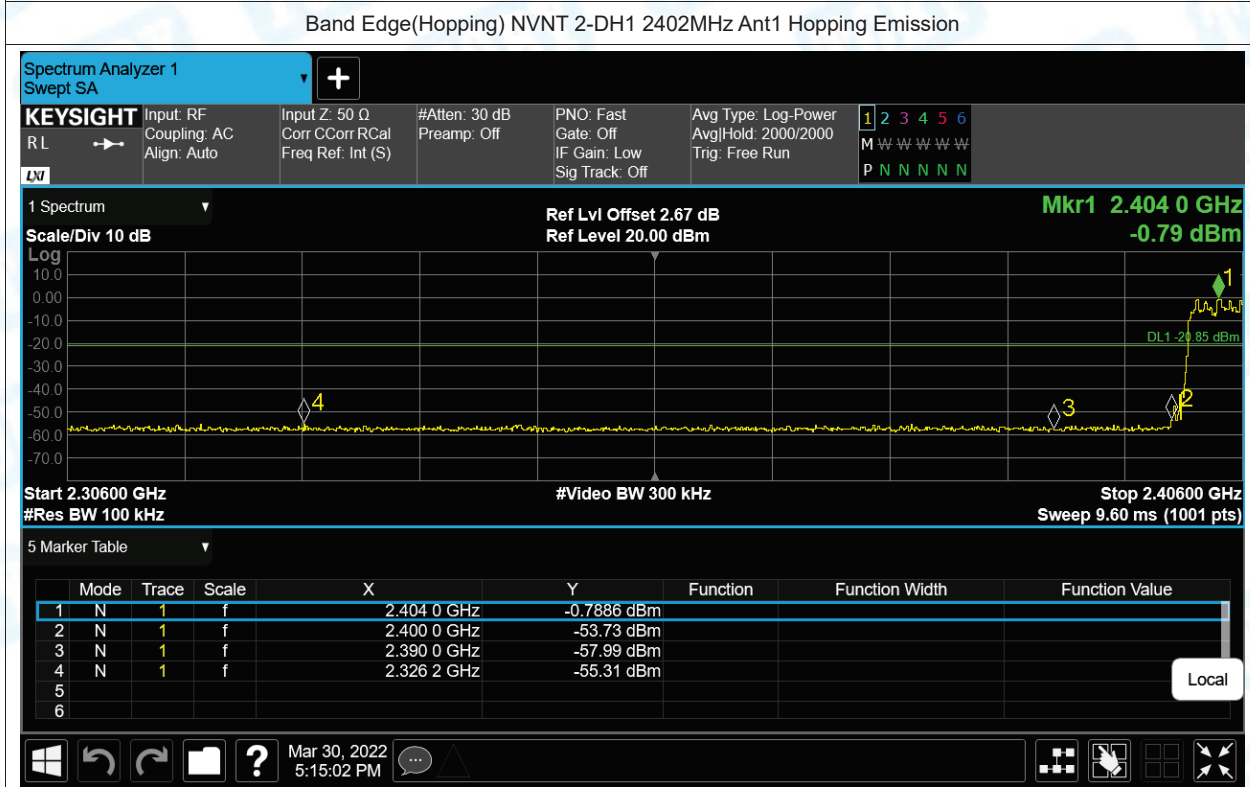
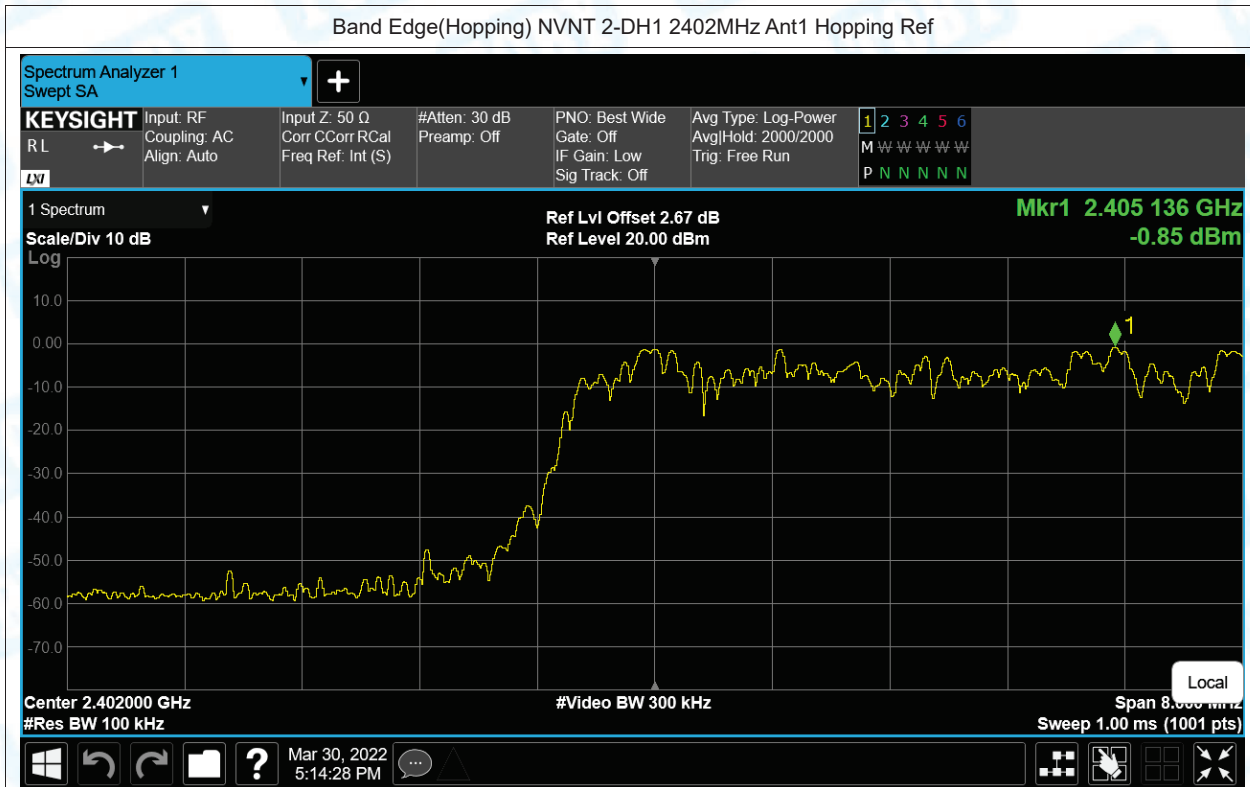


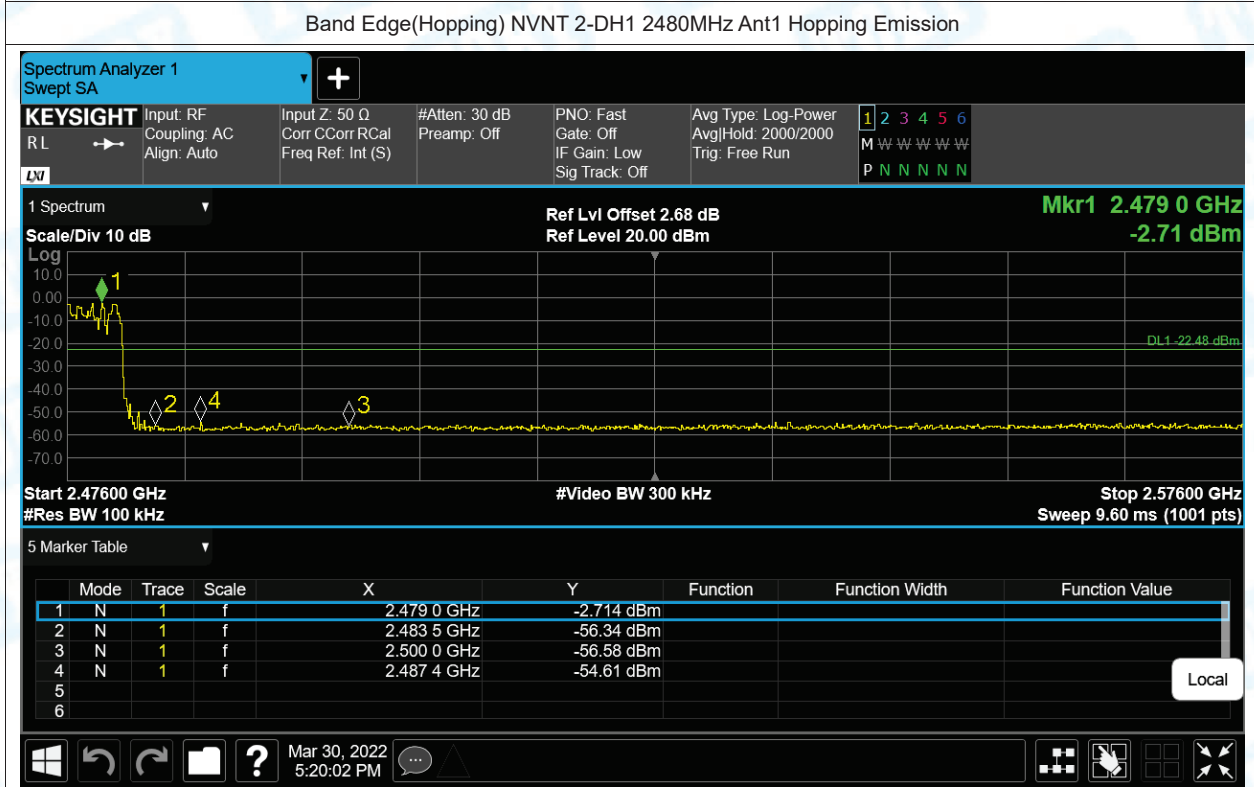
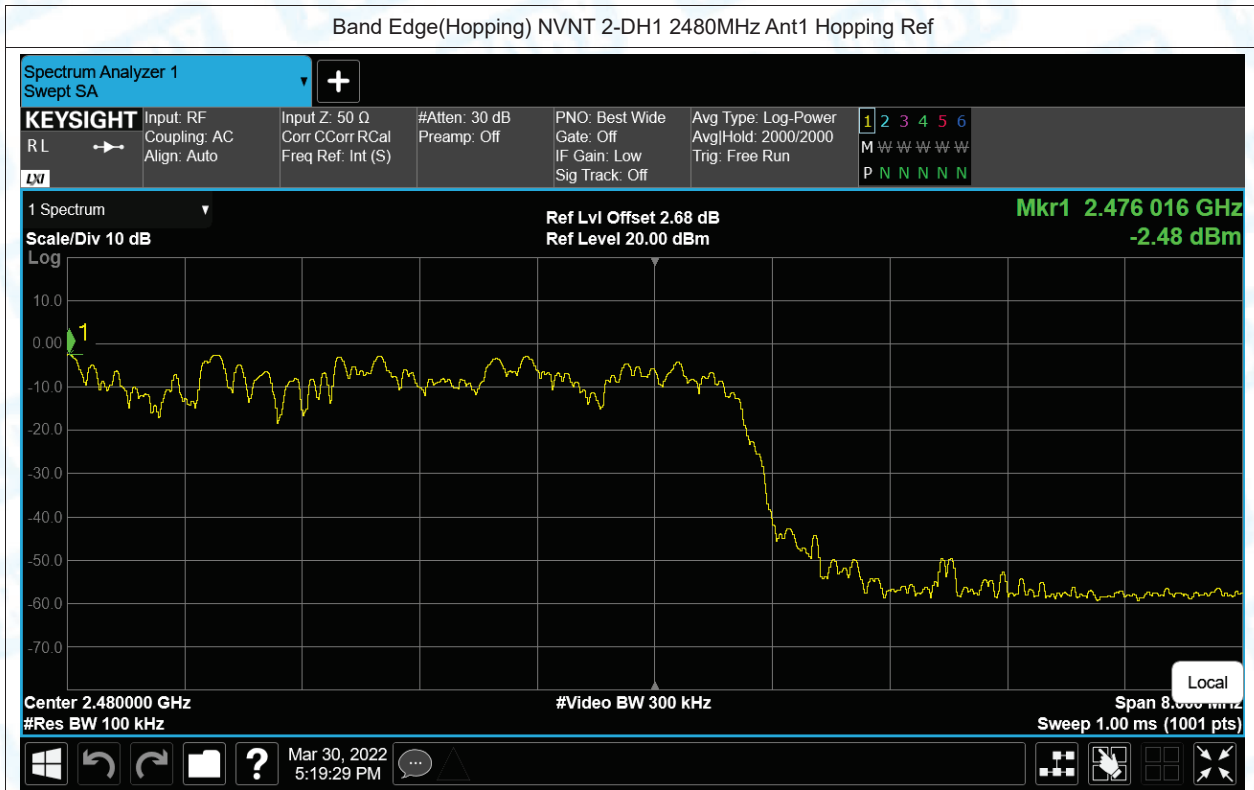
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission





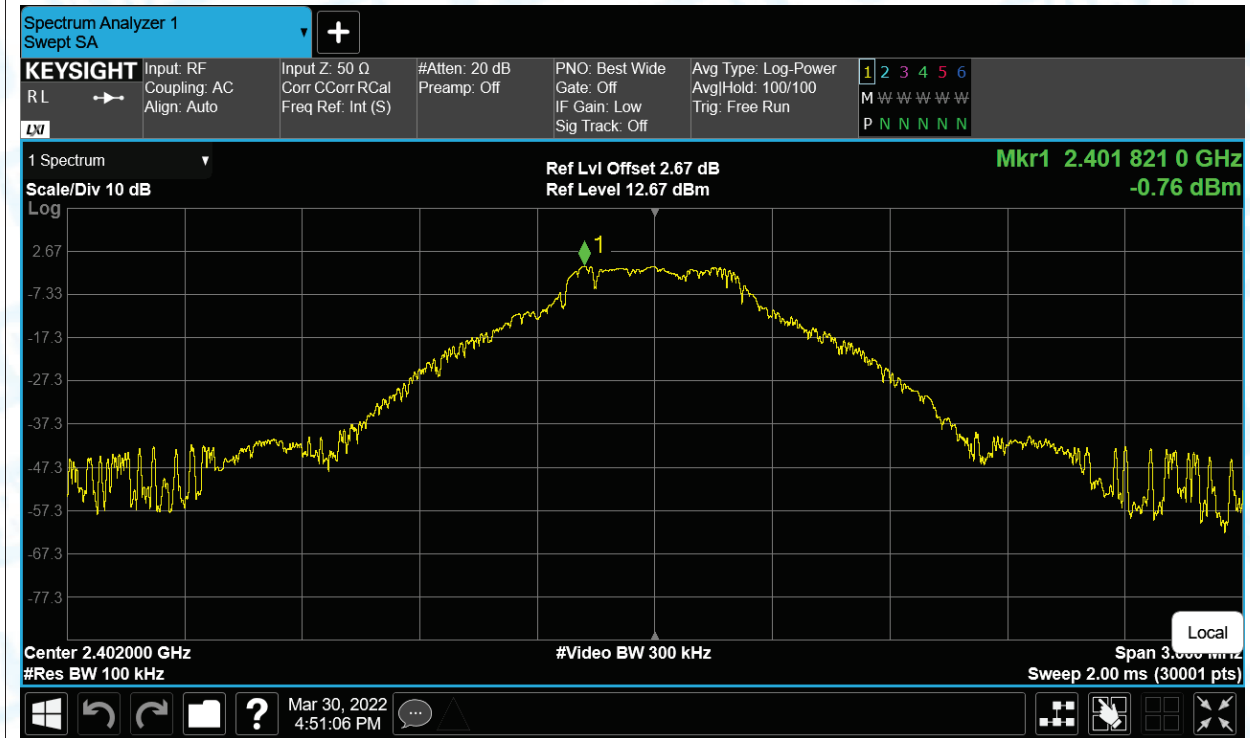


7. Conducted RF Spurious Emission

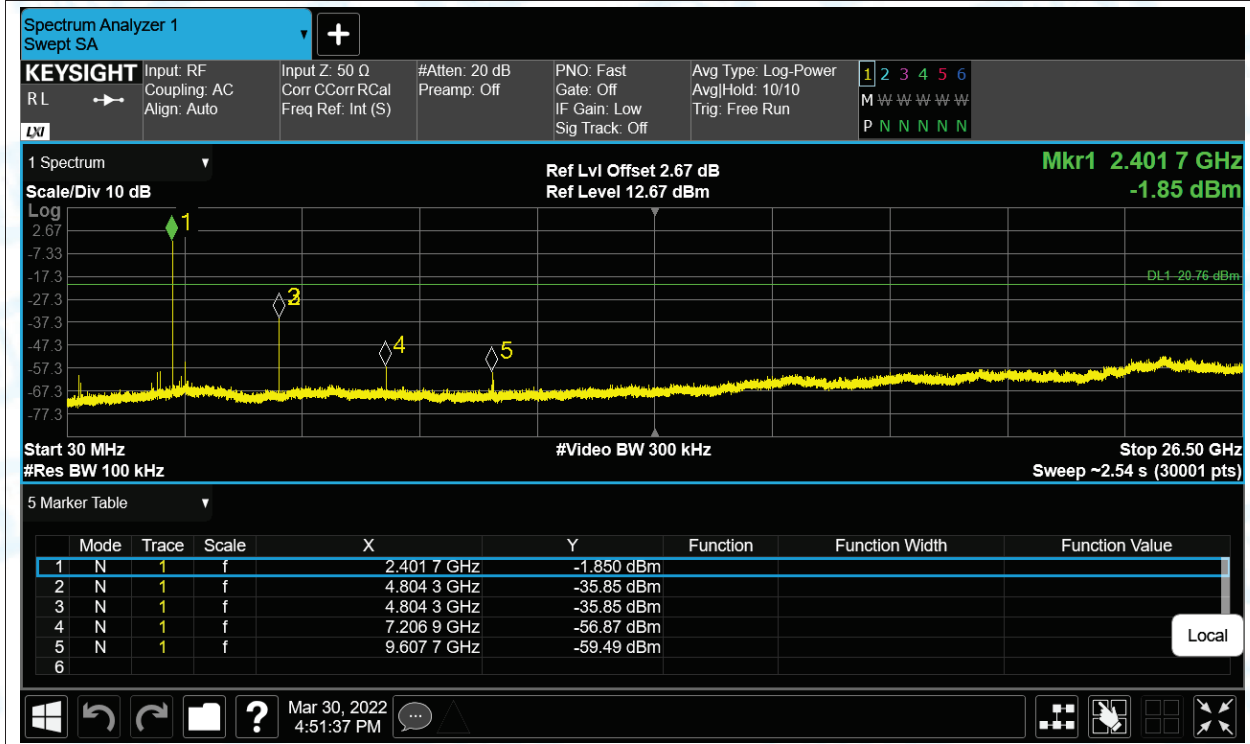
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-35.09	-20	Pass
NVNT	1-DH1	2441	Ant1	-36.86	-20	Pass
NVNT	1-DH1	2480	Ant1	-42.8	-20	Pass
NVNT	2-DH1	2402	Ant1	-34.89	-20	Pass
NVNT	2-DH1	2441	Ant1	-37.23	-20	Pass
NVNT	2-DH1	2480	Ant1	-37.87	-20	Pass

Test Graphs

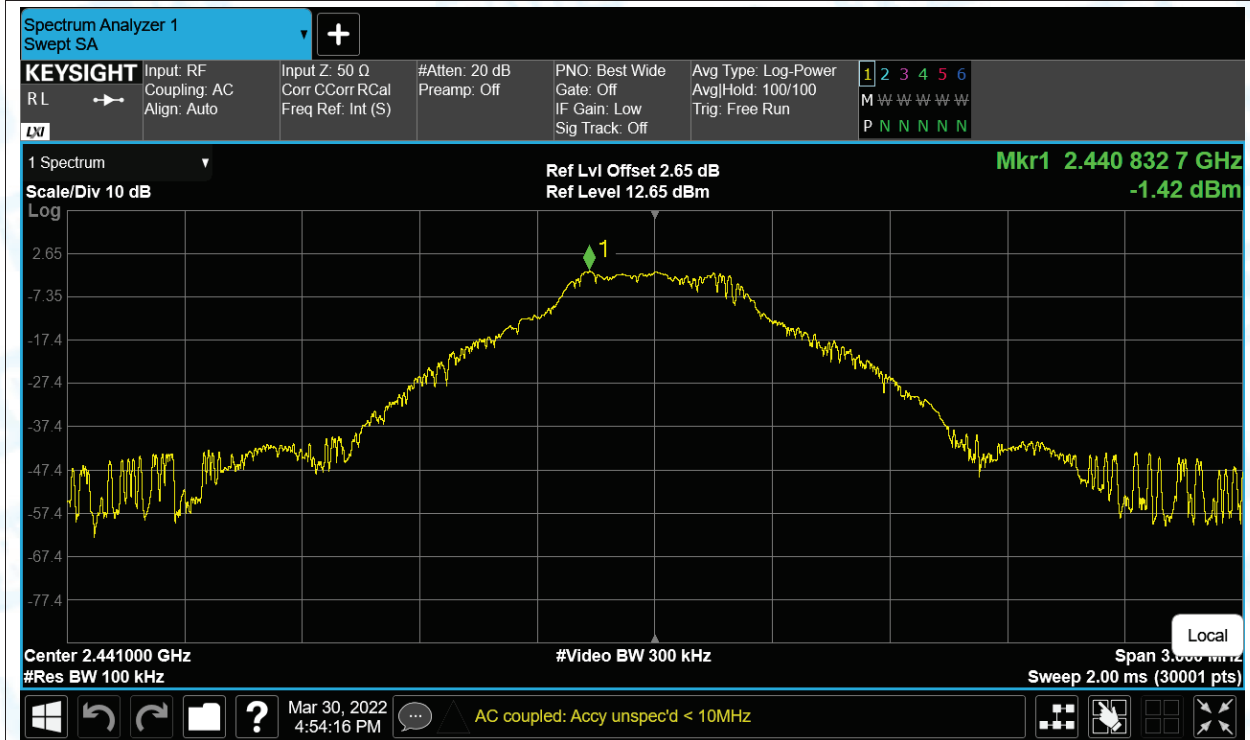
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



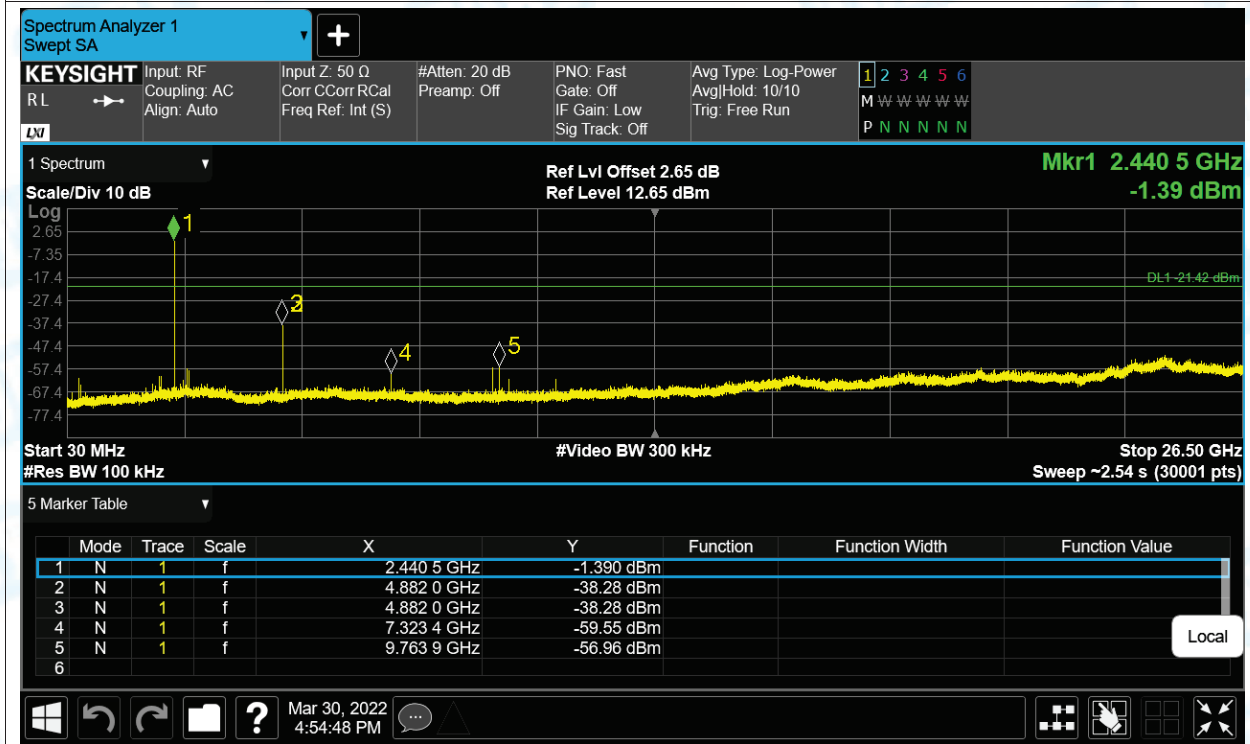
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



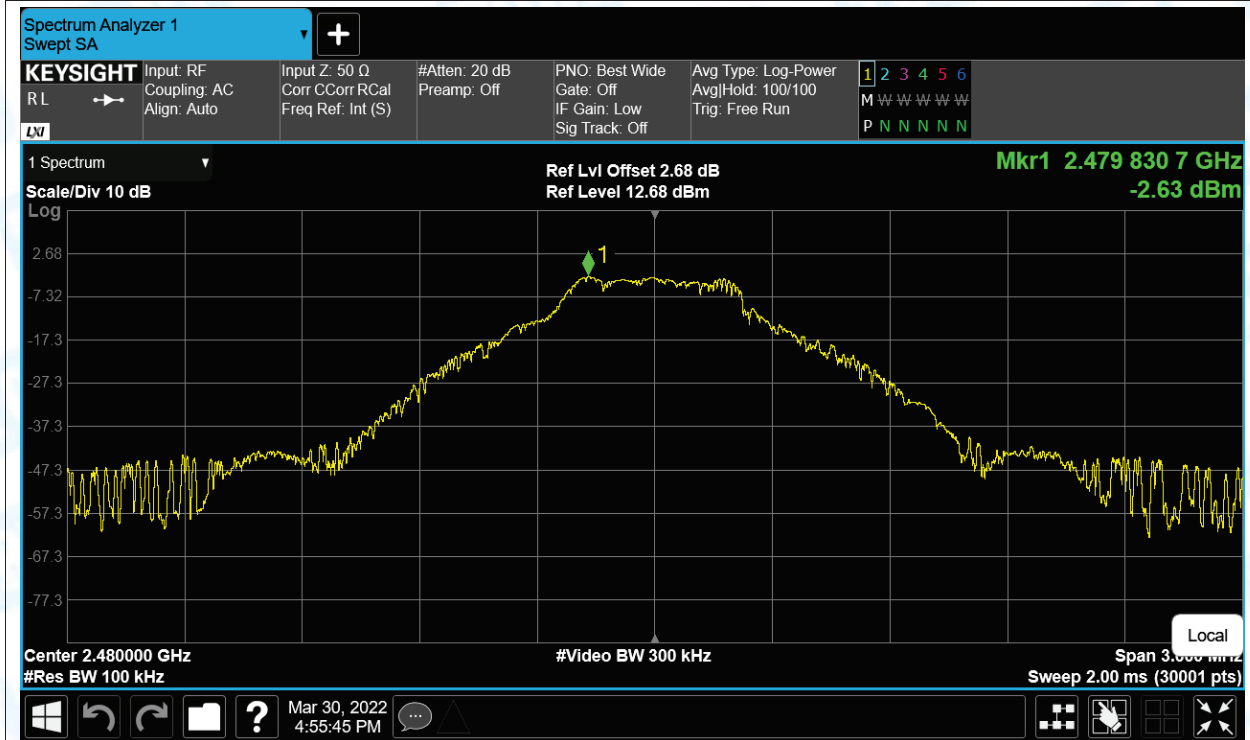
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



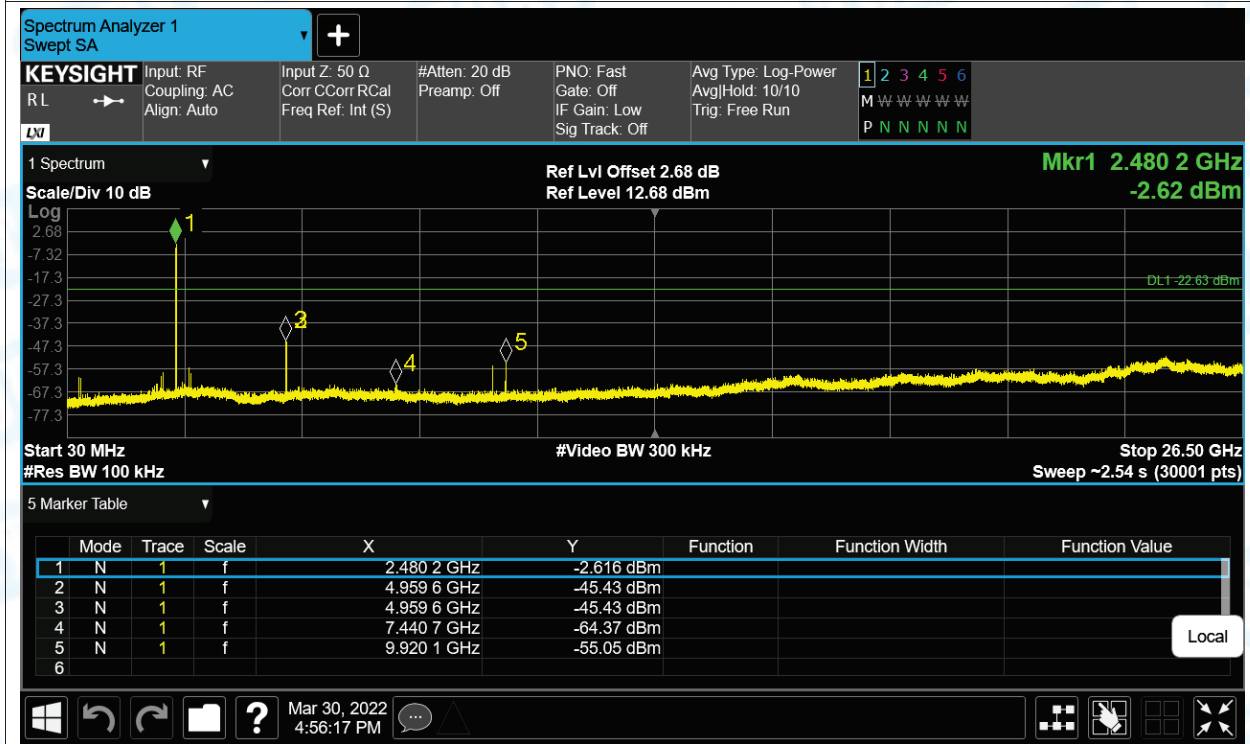
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



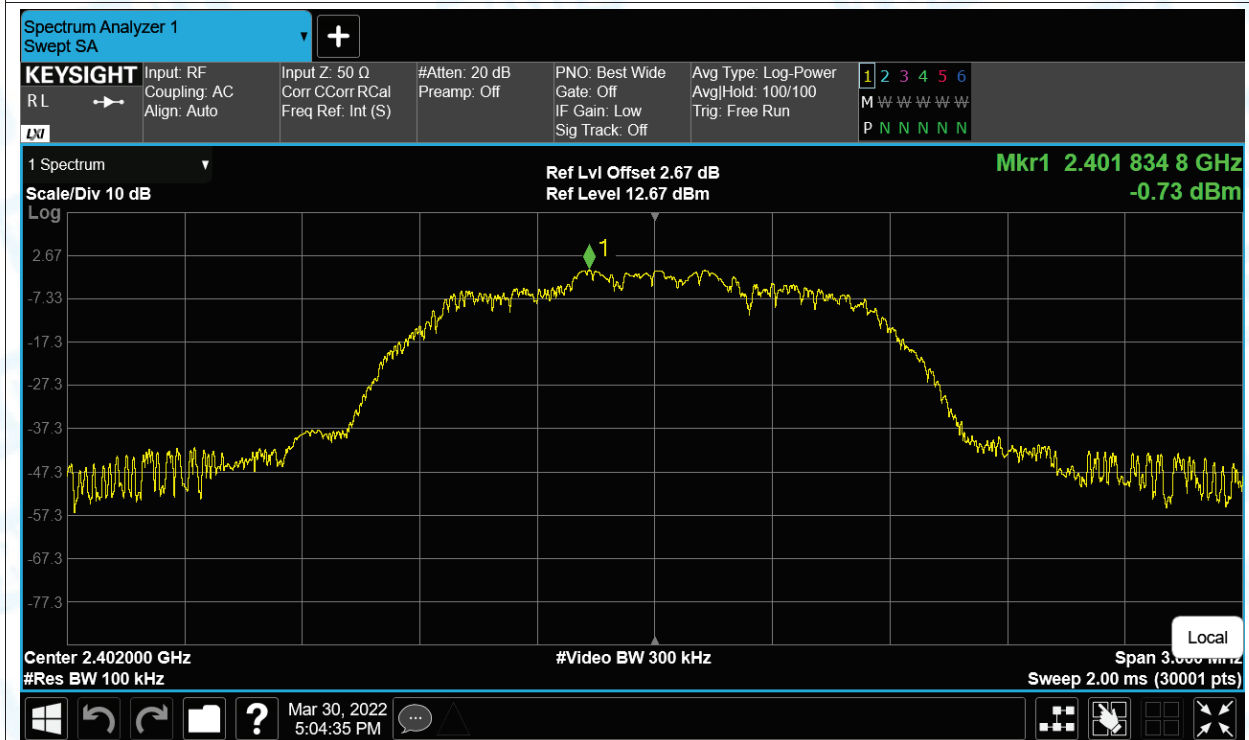
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



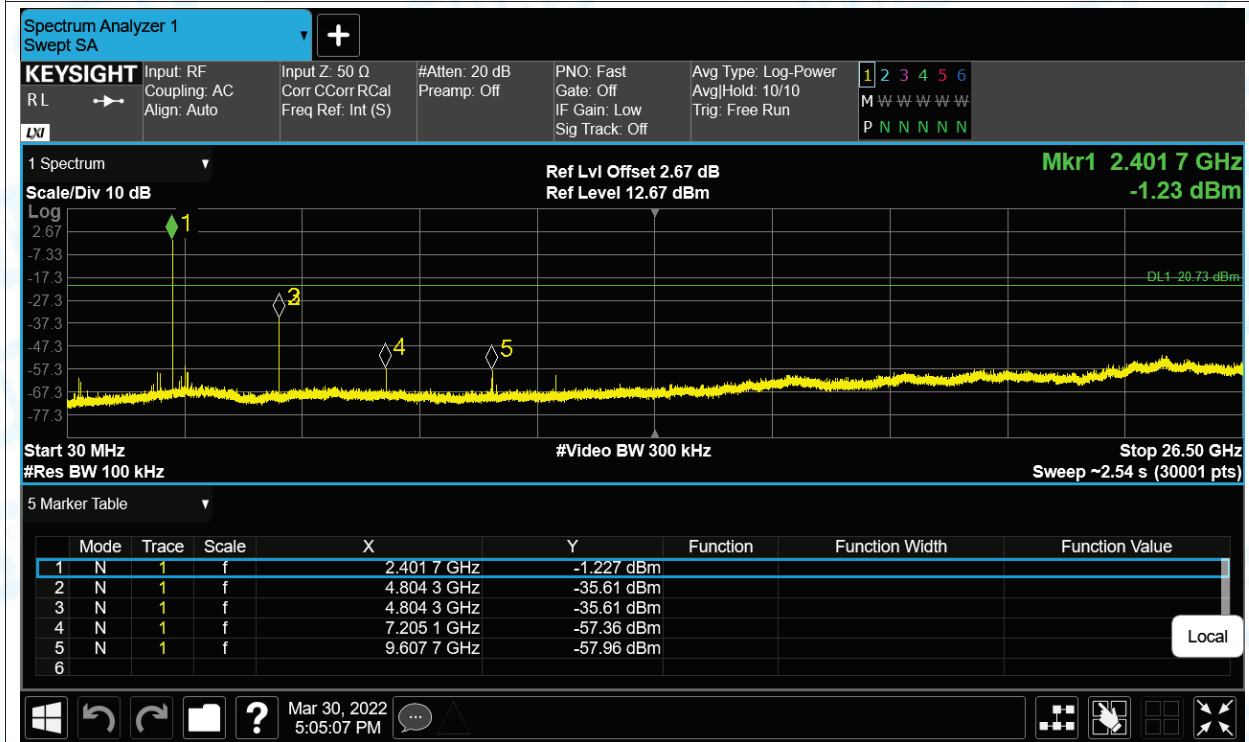
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



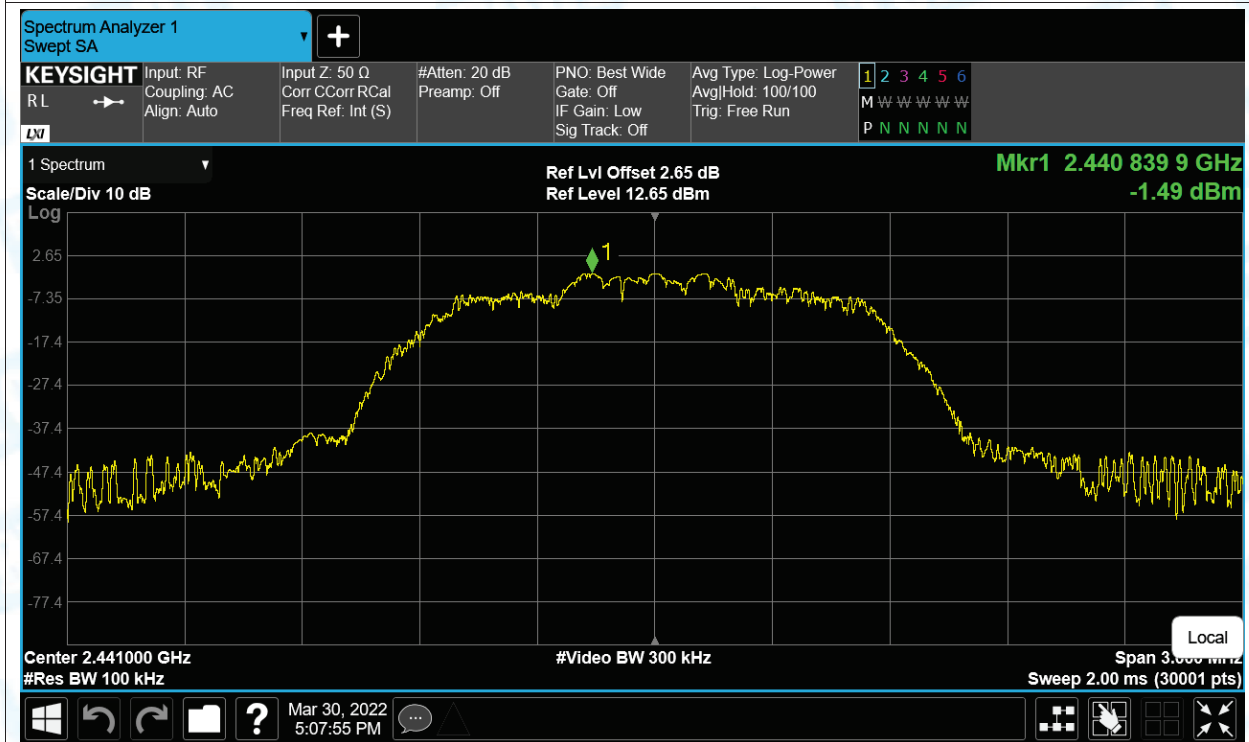
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



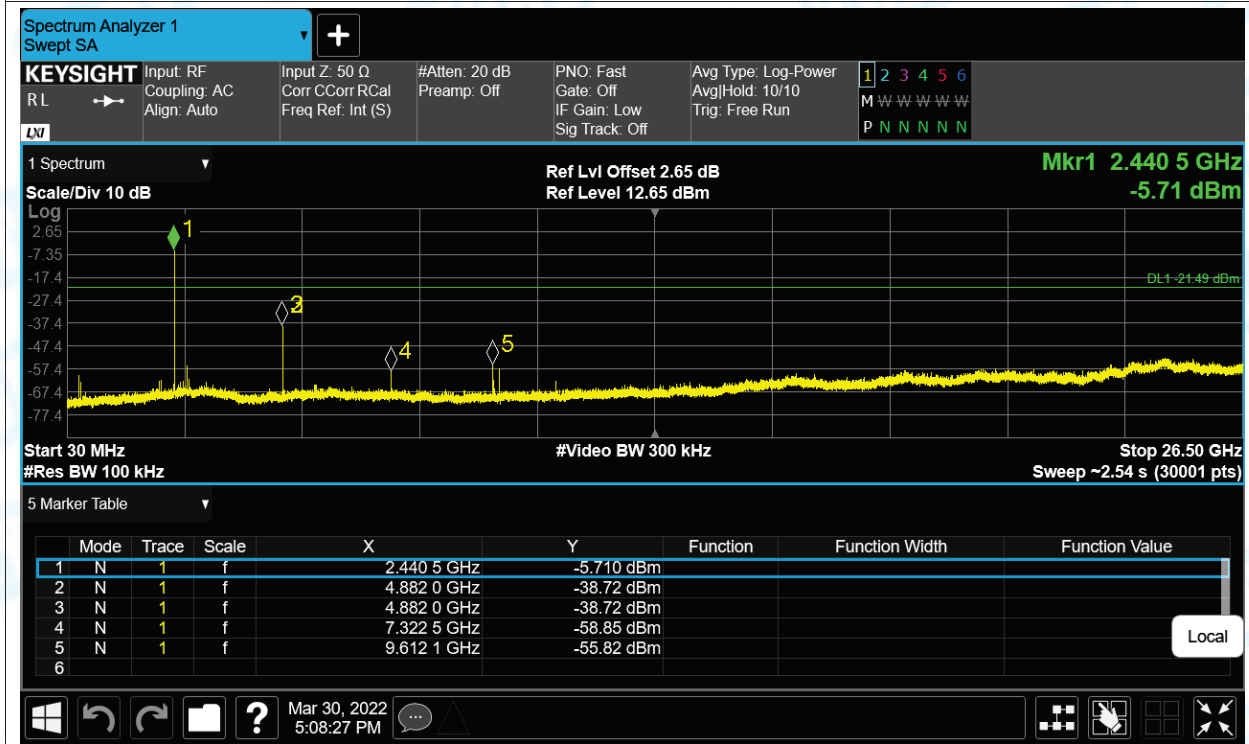
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



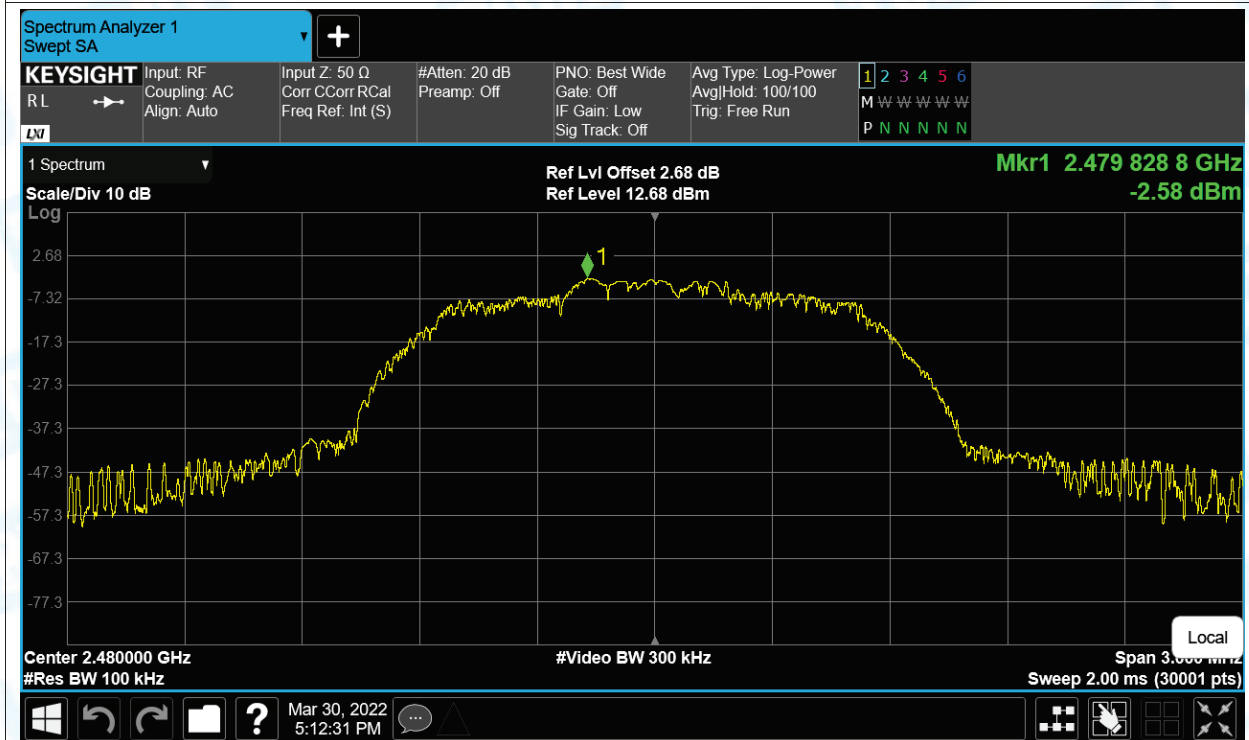
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



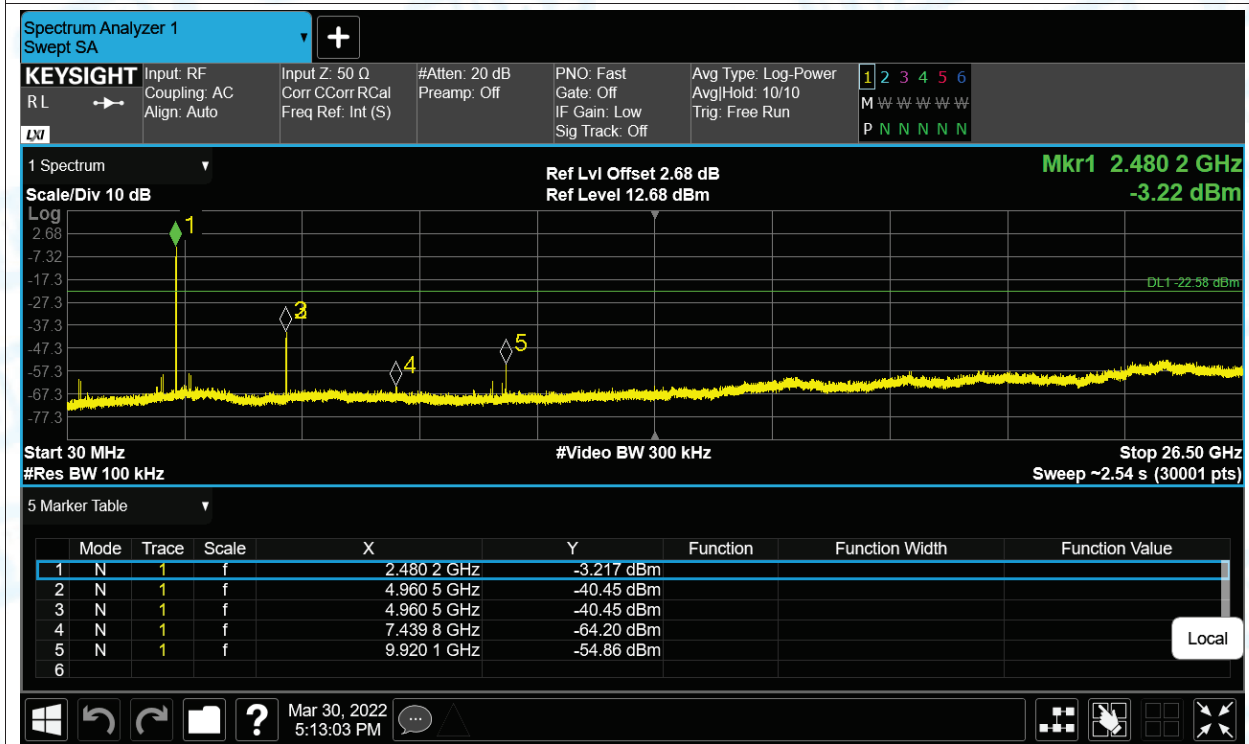
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

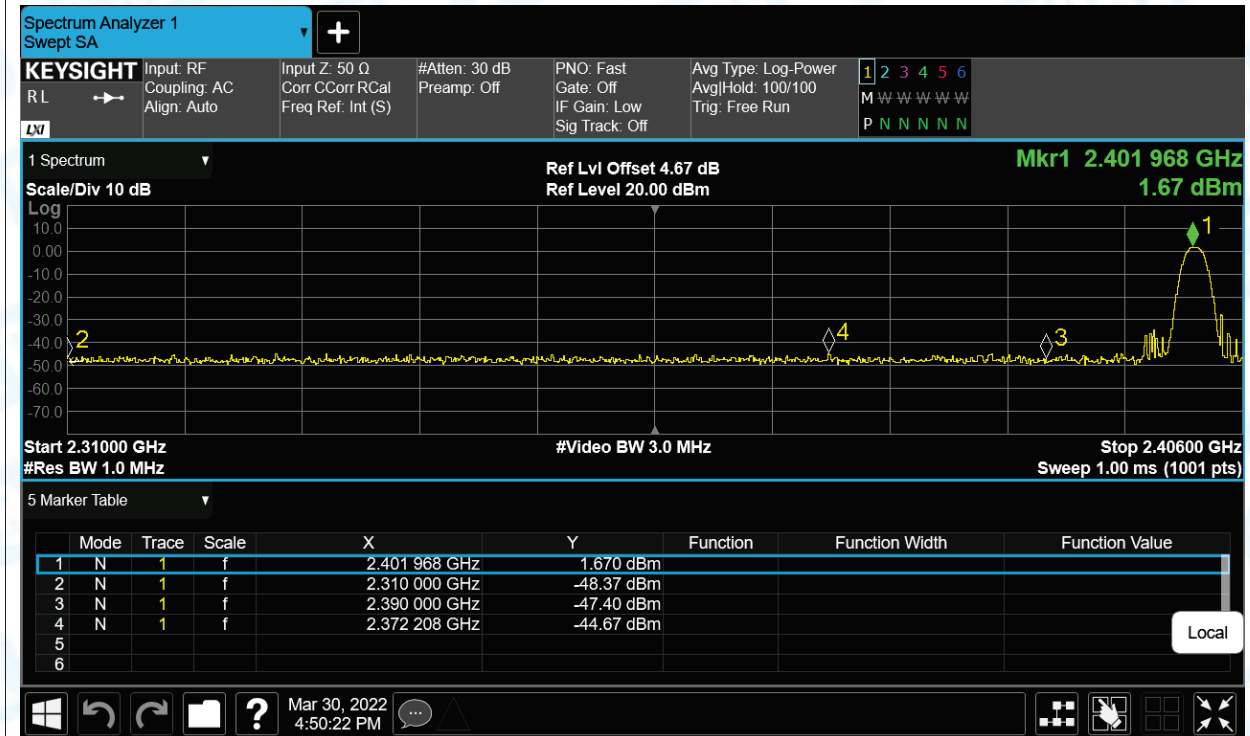


8.Restrict Band

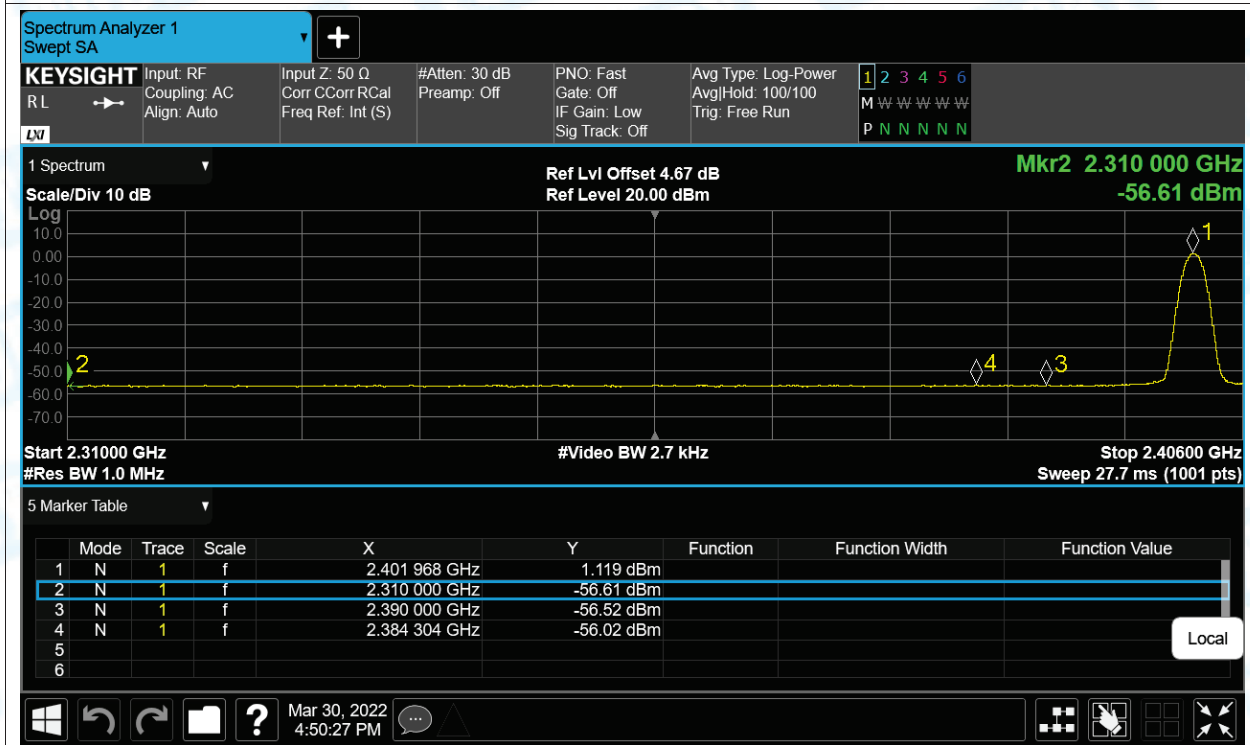
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.37	2	48.89	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.61	2	40.65	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2372.208	-44.67	2	52.59	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2384.304	-56.02	2	41.24	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.74	2	48.52	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.13	2	41.13	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.22	2	50.04	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.87	2	41.39	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.68	-37.45	2	59.81	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.664	-55.49	2	41.77	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.46	2	51.8	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.49	2	40.77	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.01	2	49.25	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.72	2	40.54	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2347.728	-44.17	2	53.09	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2385.744	-56.1	2	41.16	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-45.74	2	51.52	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.54	2	40.72	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.14	2	51.12	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.58	2	41.68	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-38.85	2	58.41	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.704	-55.48	2	41.78	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.93	2	50.33	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.95	2	41.31	Average	54	Pass

Test Graphs

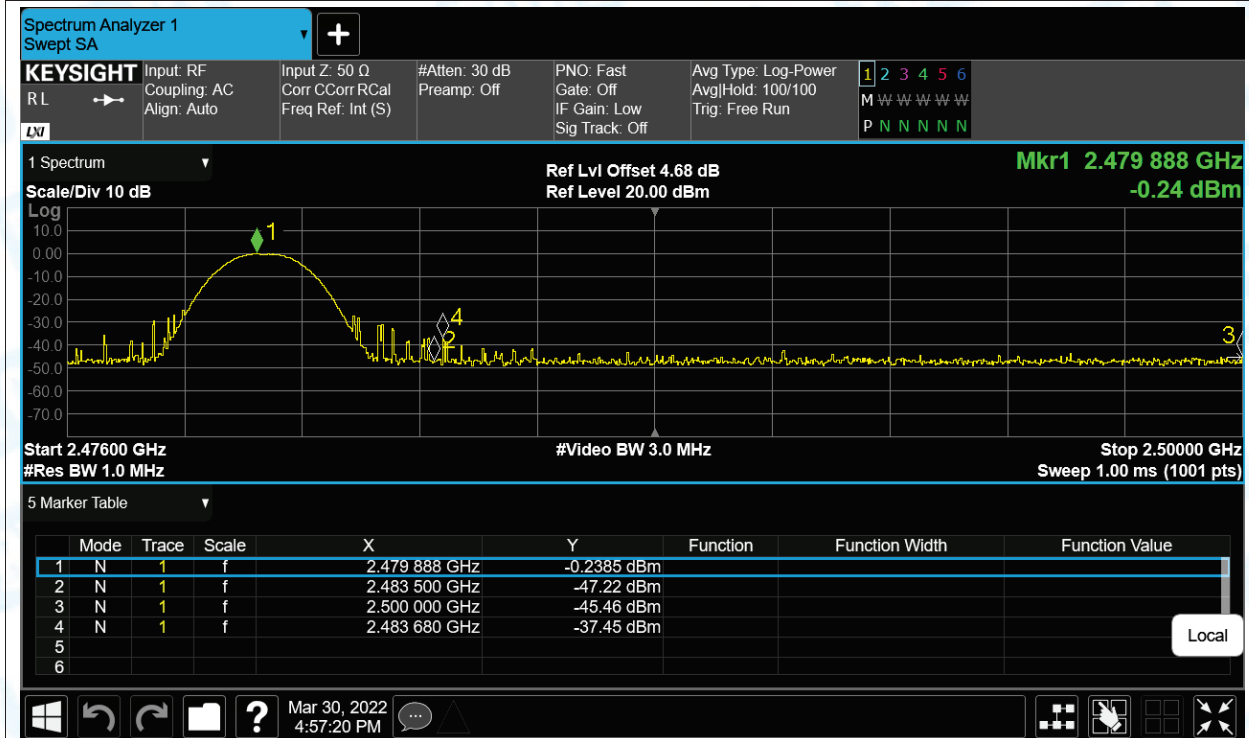
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



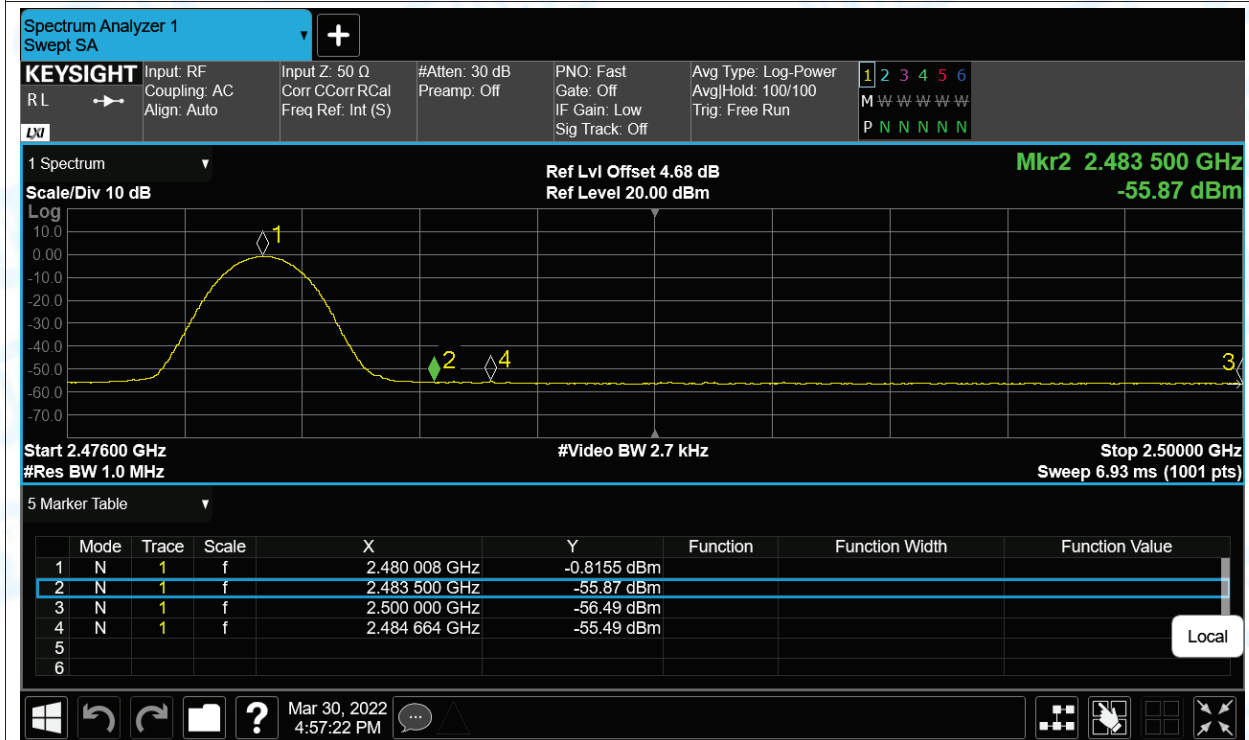
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



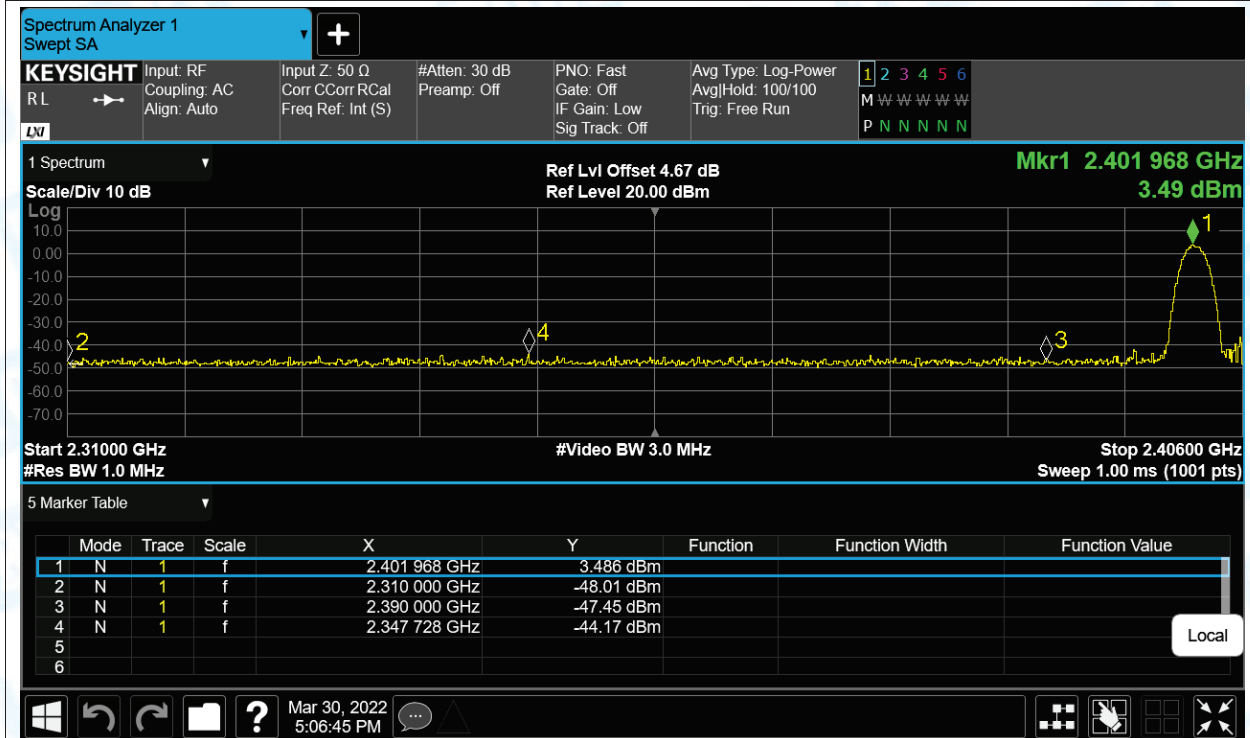
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



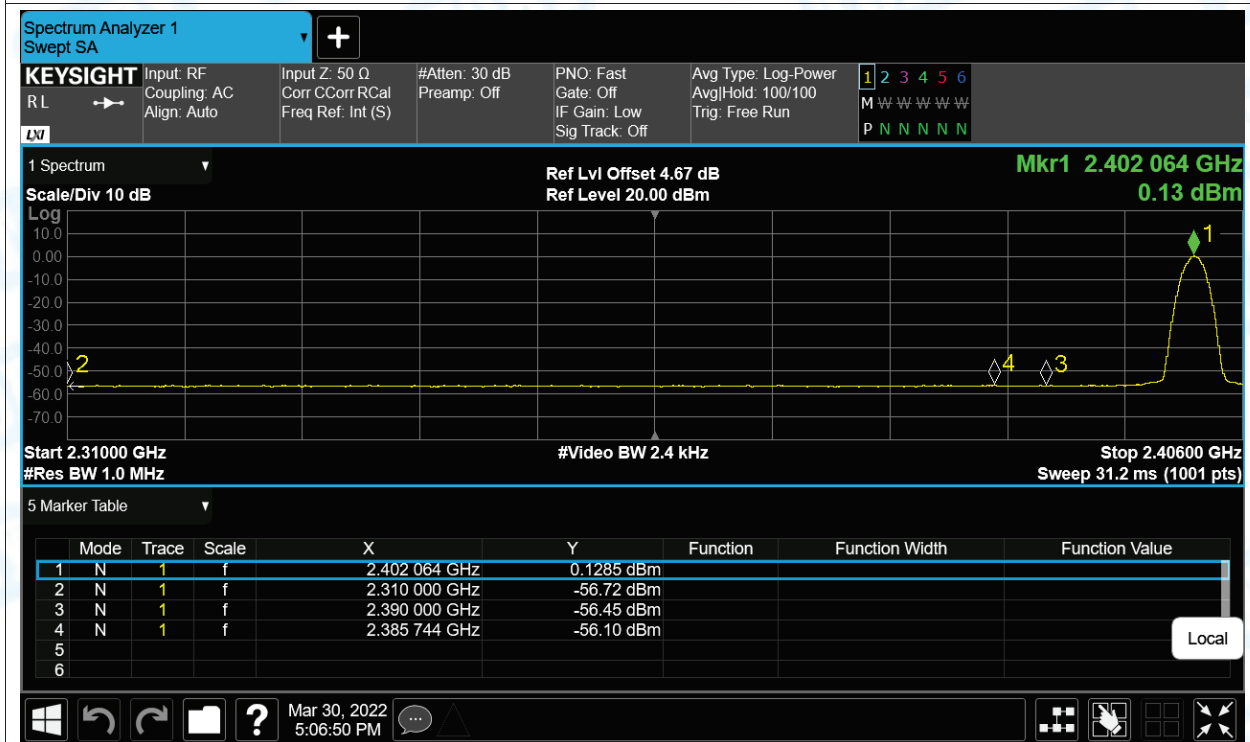
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average

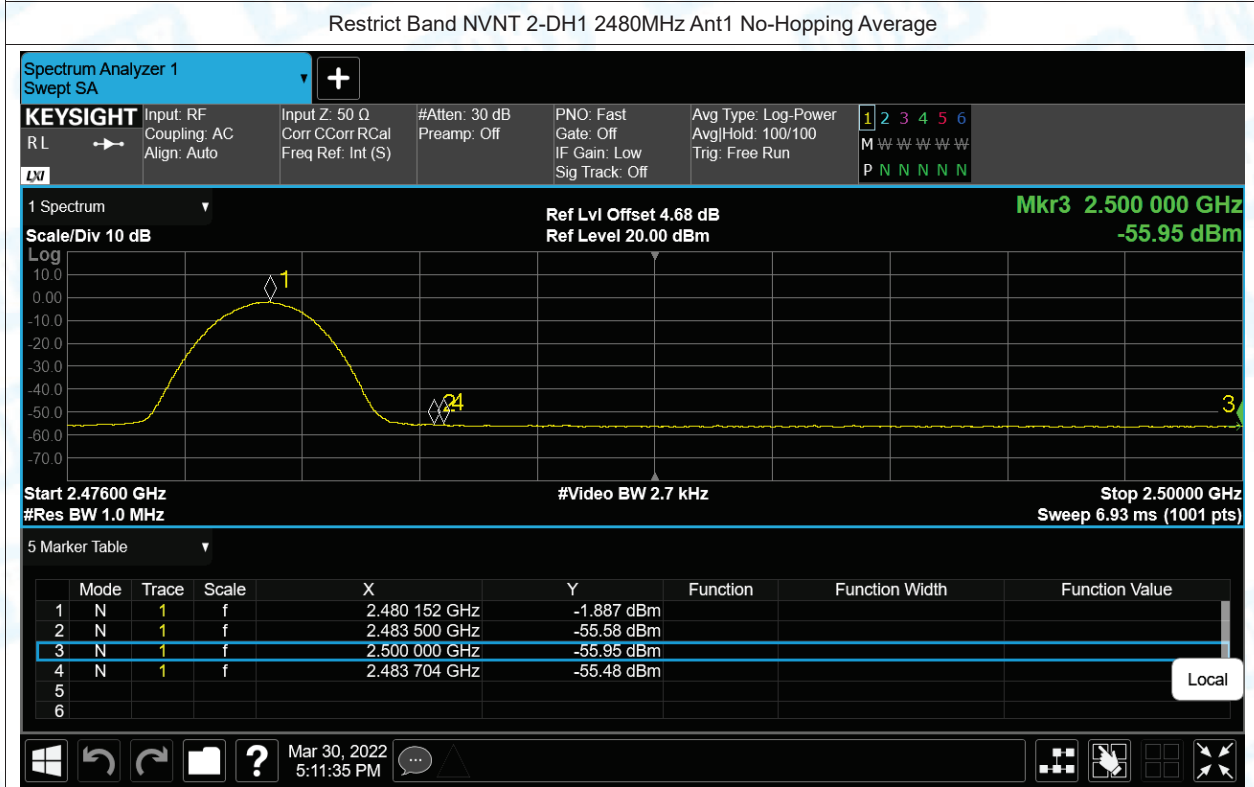
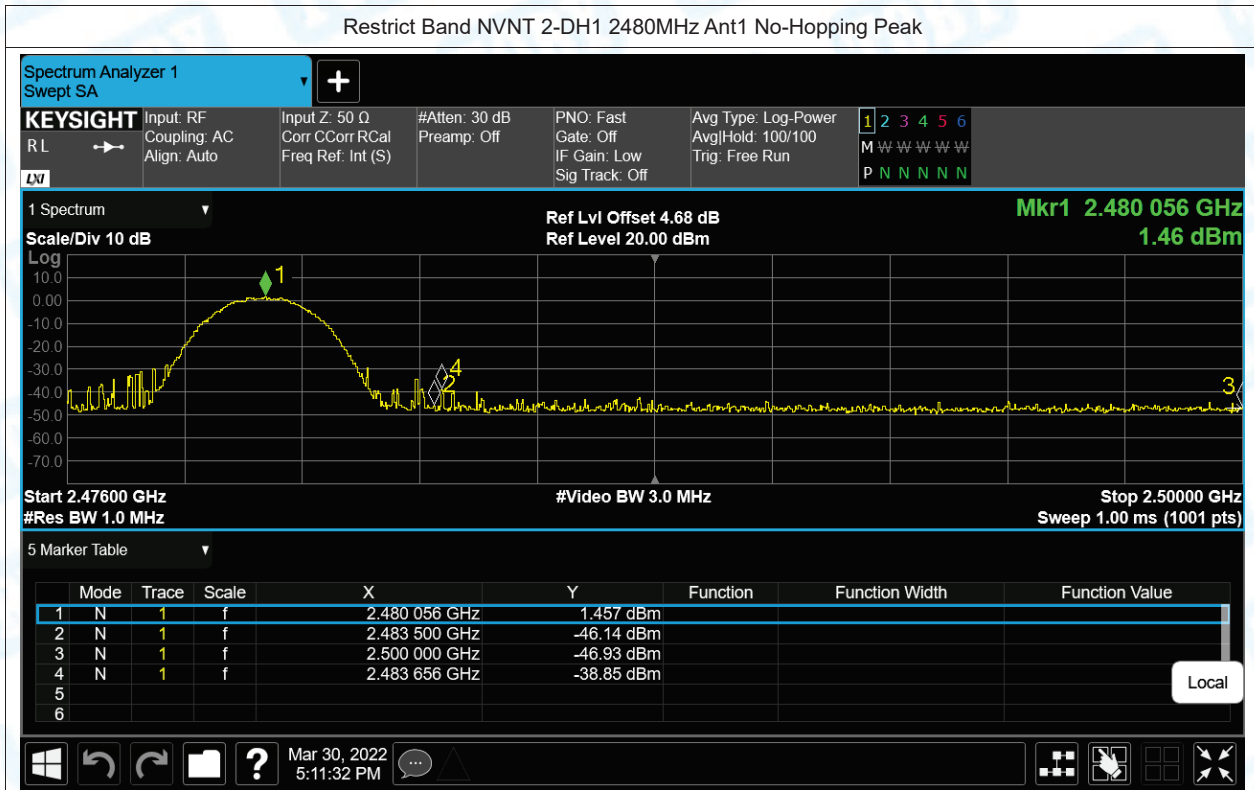


Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



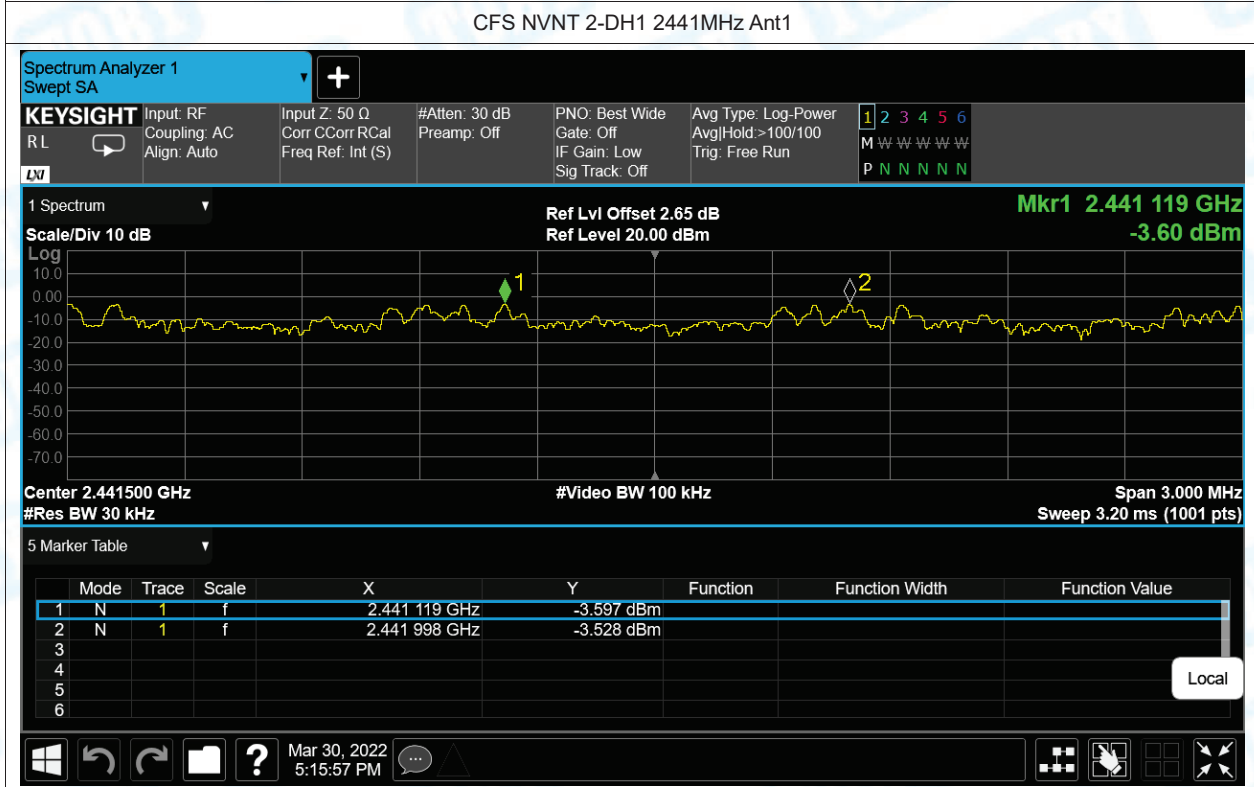
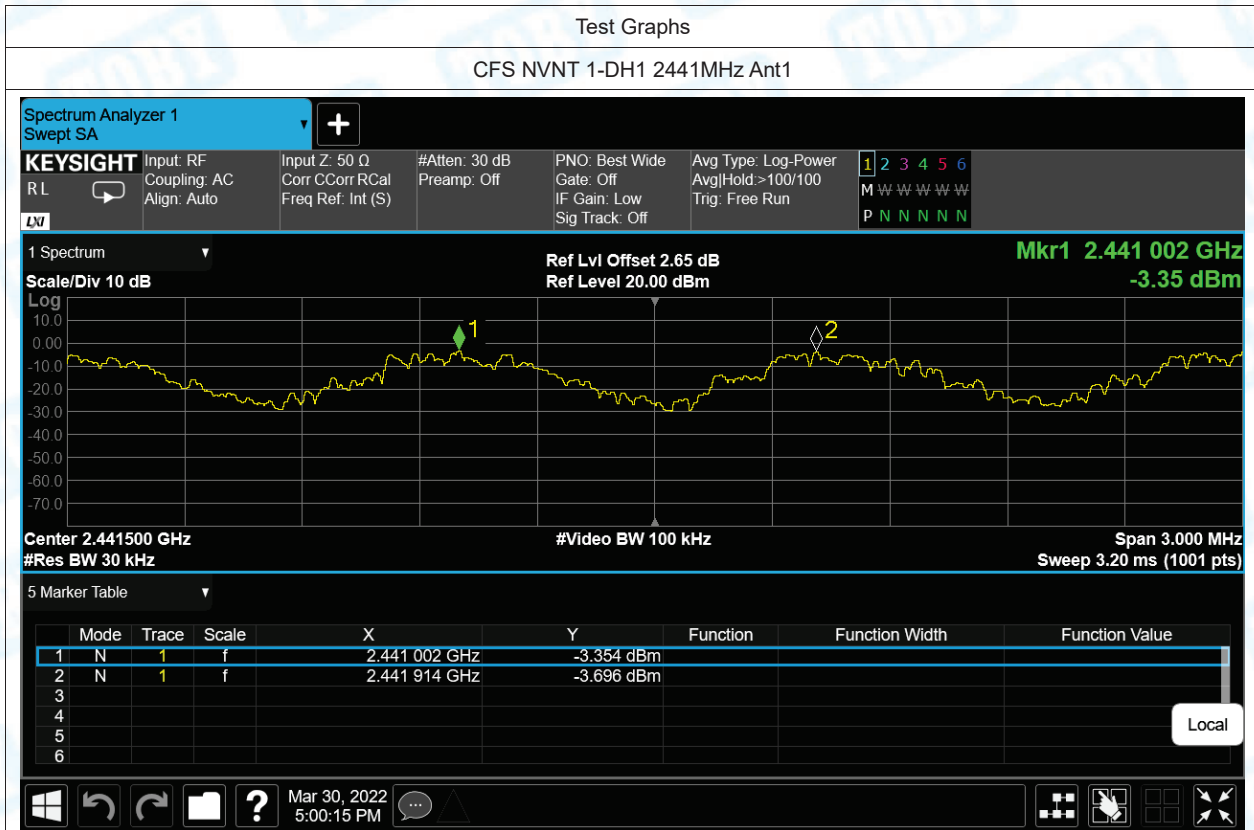
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average





9.Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.002	2441.914	0.912	0.593	Pass
NVNT	2-DH1	Ant1	2441.119	2441.998	0.879	0.853	Pass

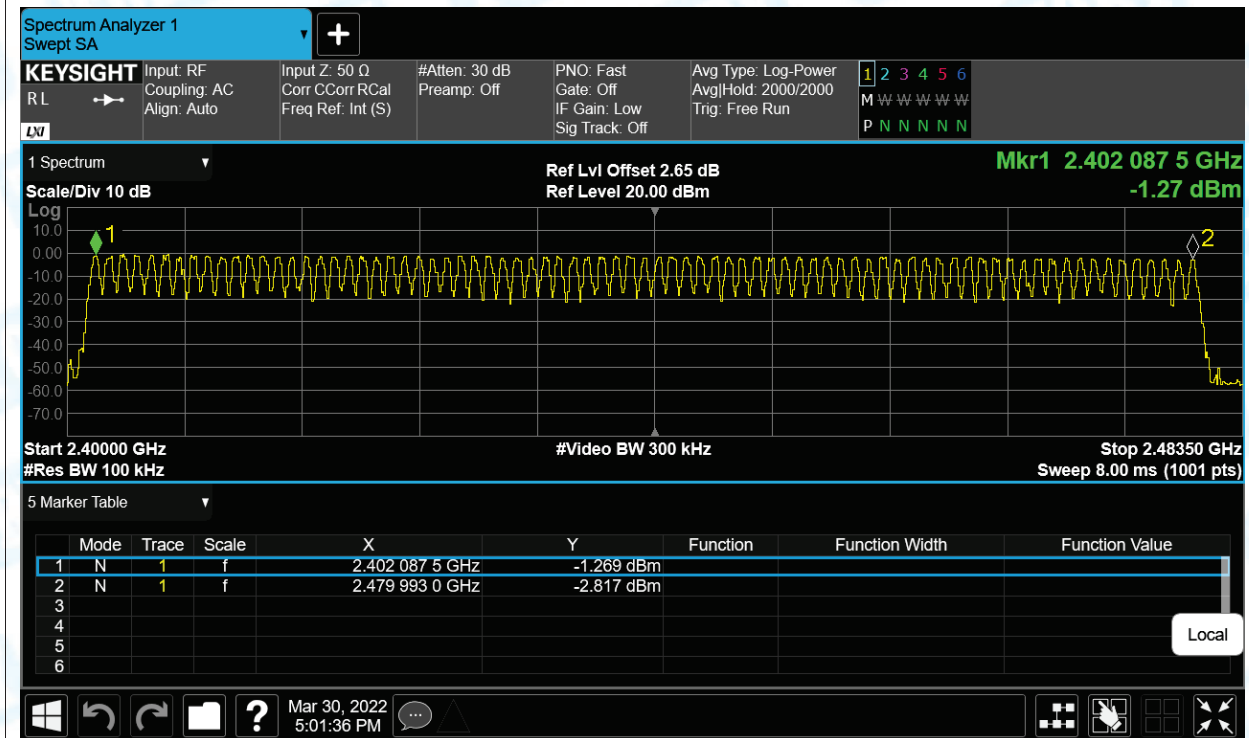


10.Number of Hopping Channel

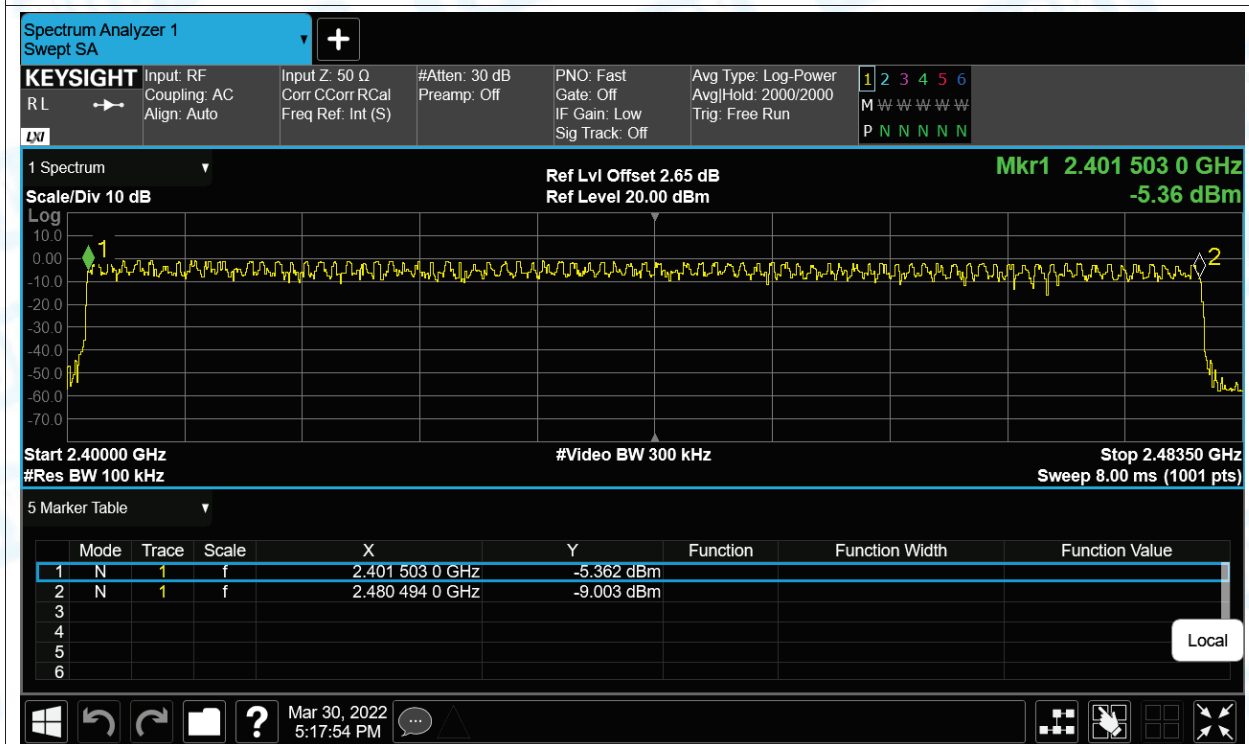
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1

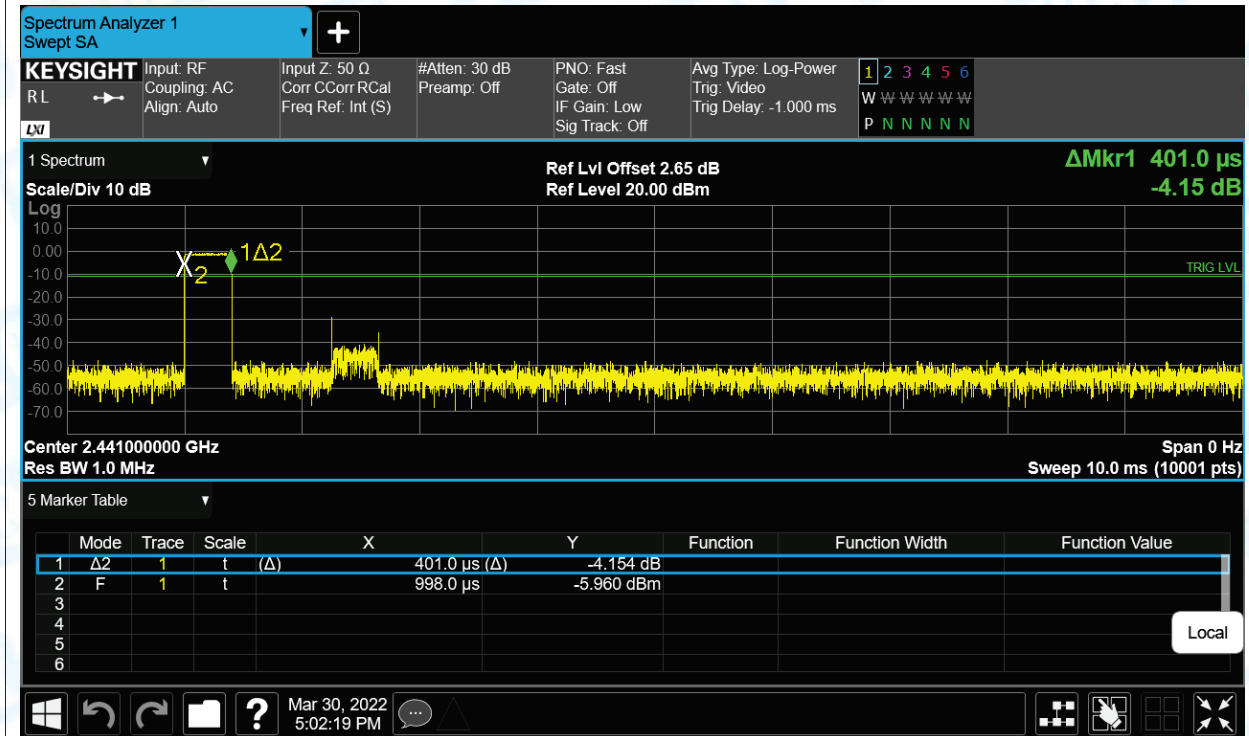


11.Dwell Time

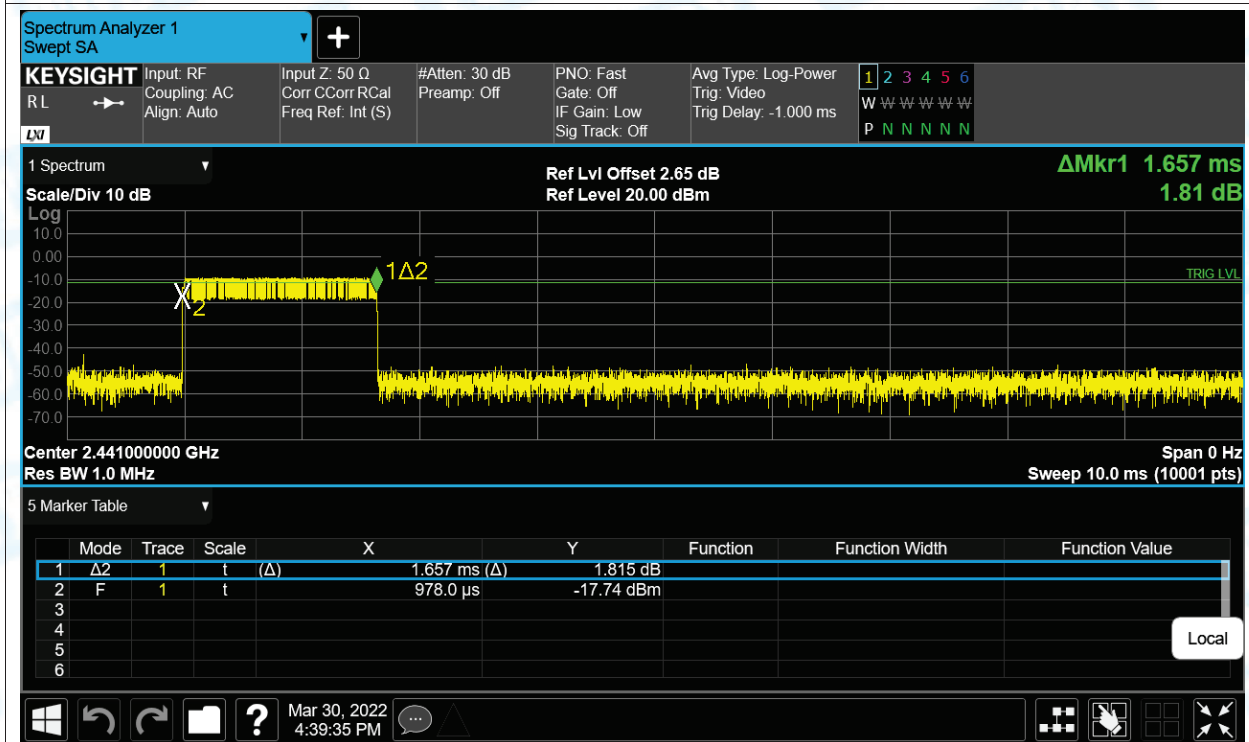
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.401	128.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.657	265.12	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.903	309.653	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.409	130.88	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.662	265.92	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass

Test Graphs

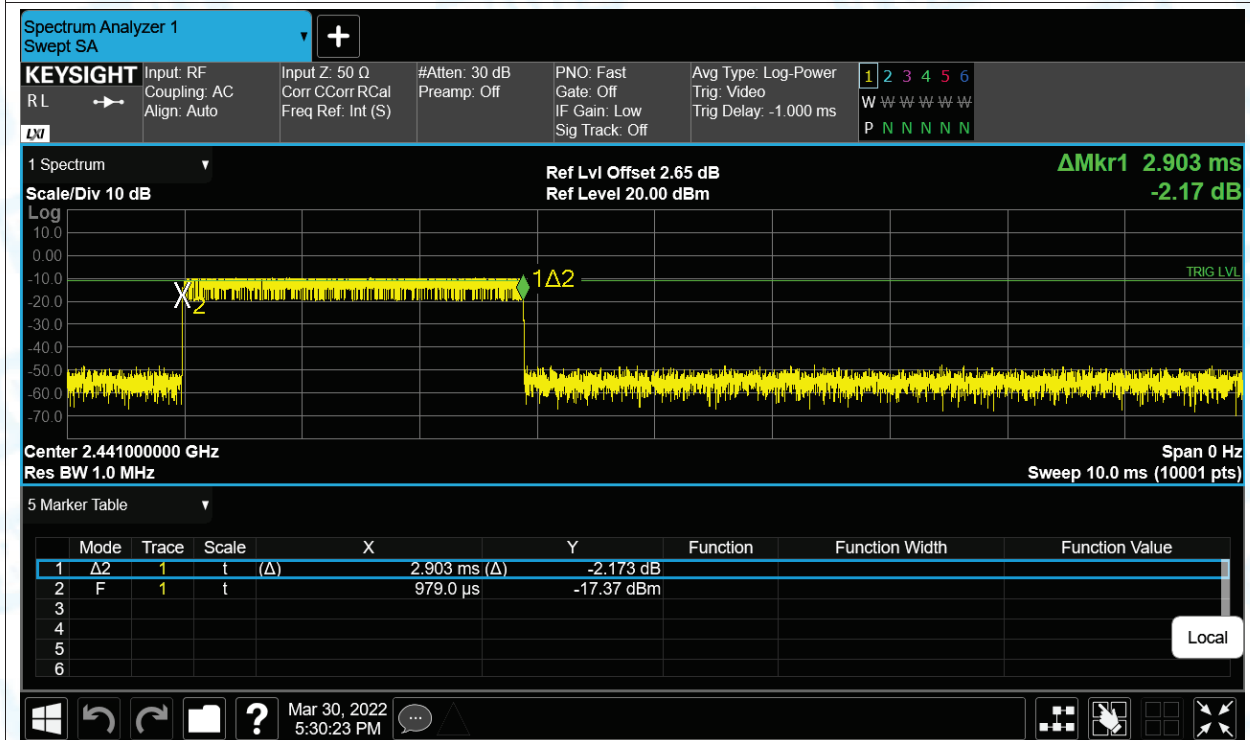
Dwell NVNT 1-DH1 2441MHz Ant1



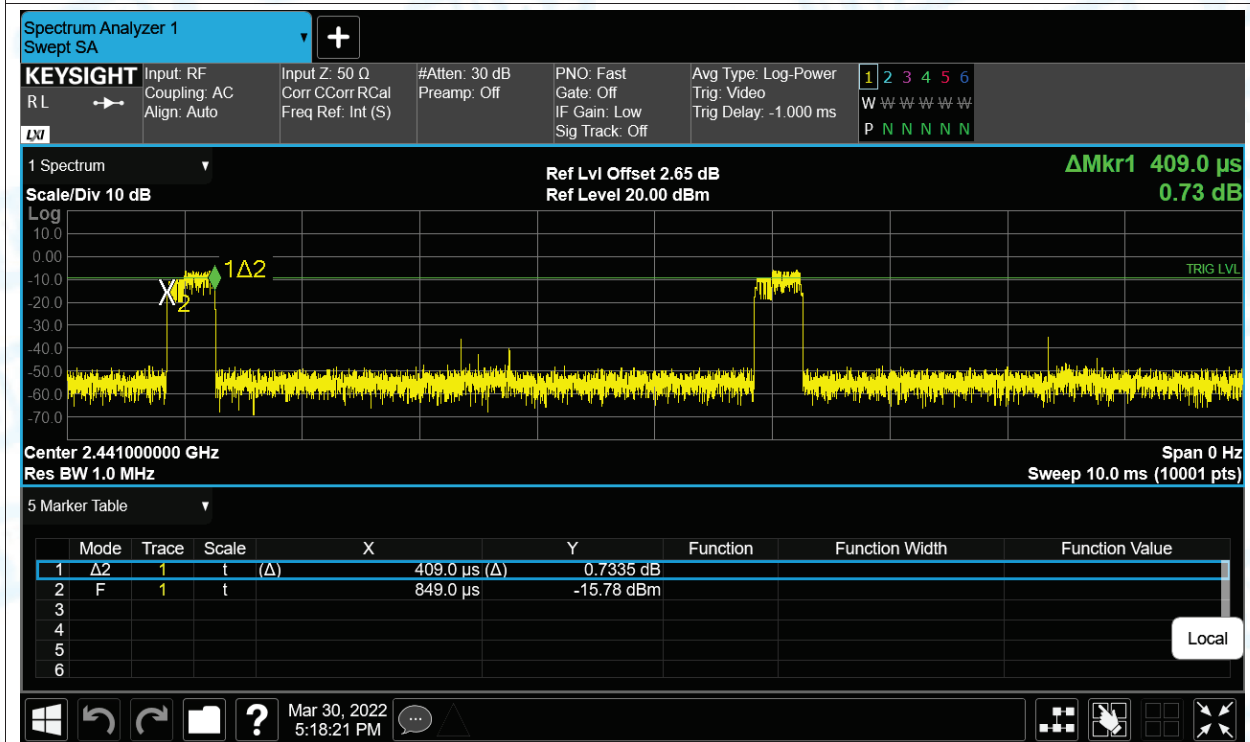
Dwell NVNT 1-DH3 2441MHz Ant1

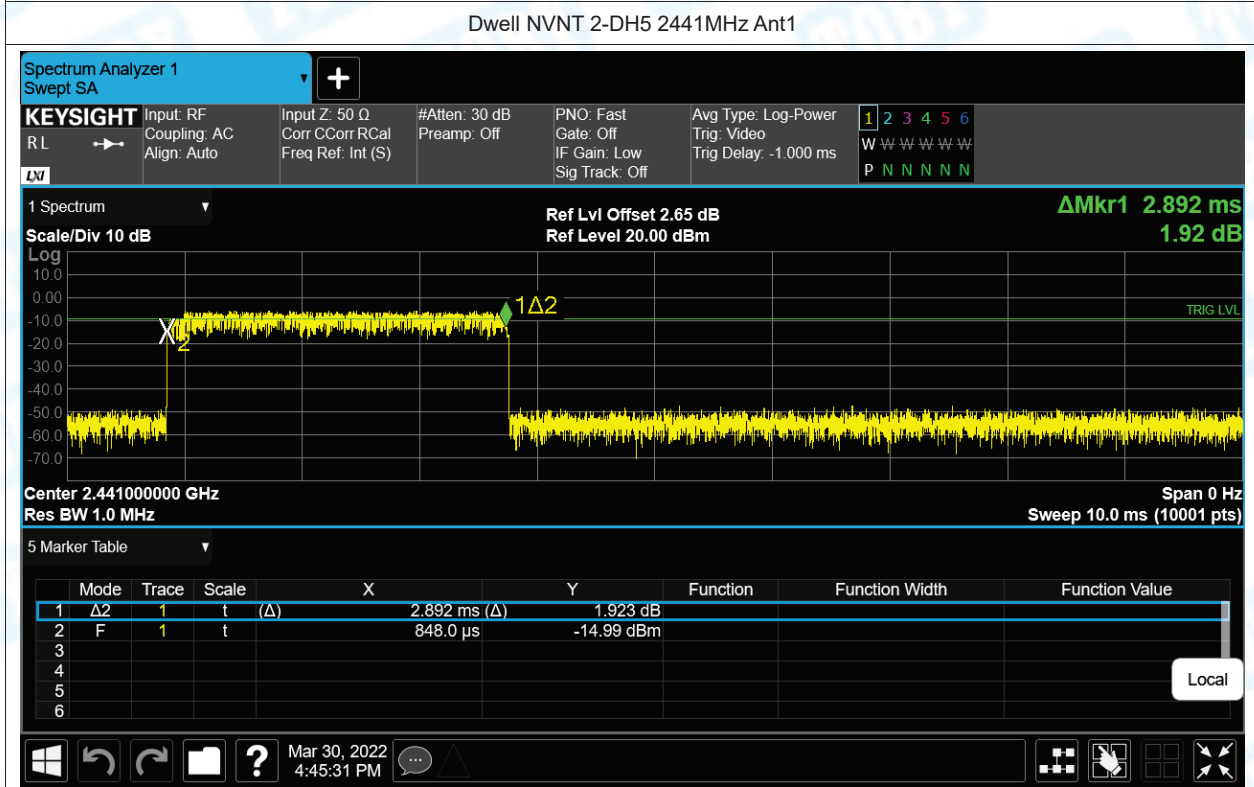
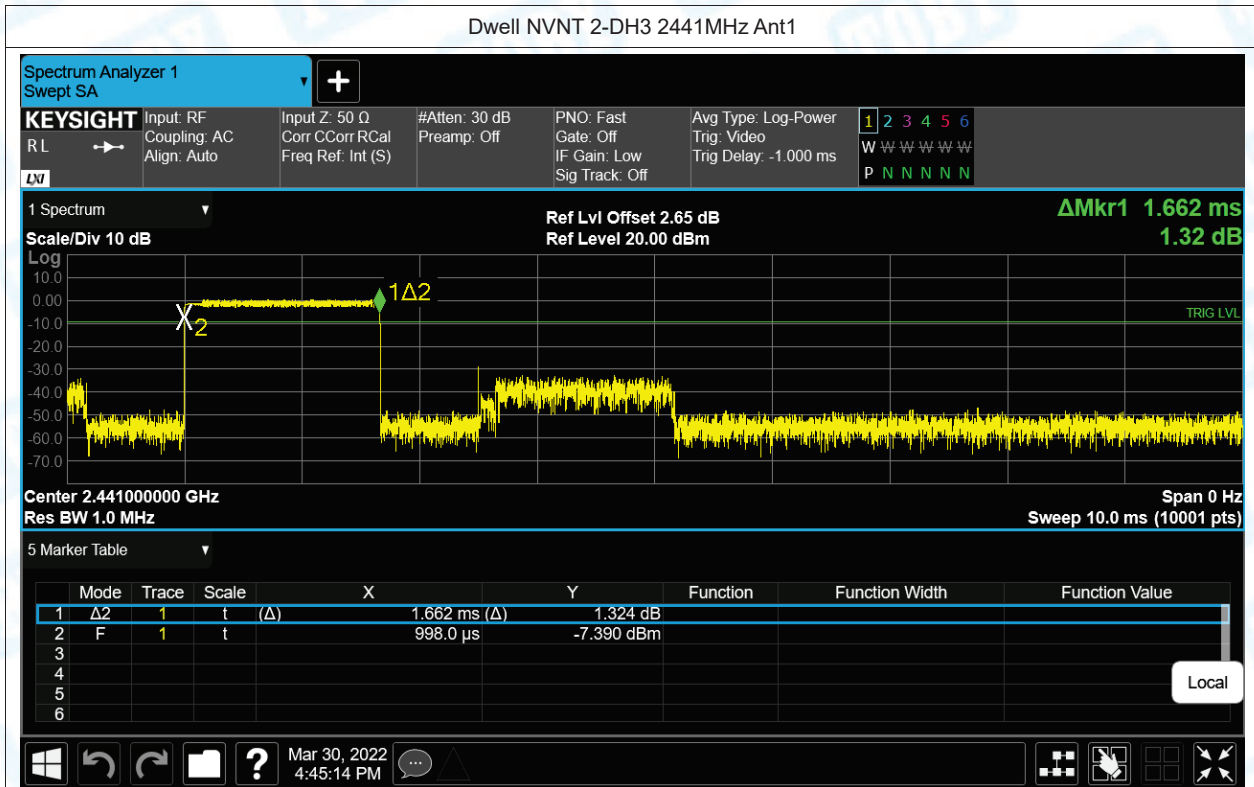


Dwell NVNT 1-DH5 2441MHz Ant1



Dwell NVNT 2-DH1 2441MHz Ant1





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