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

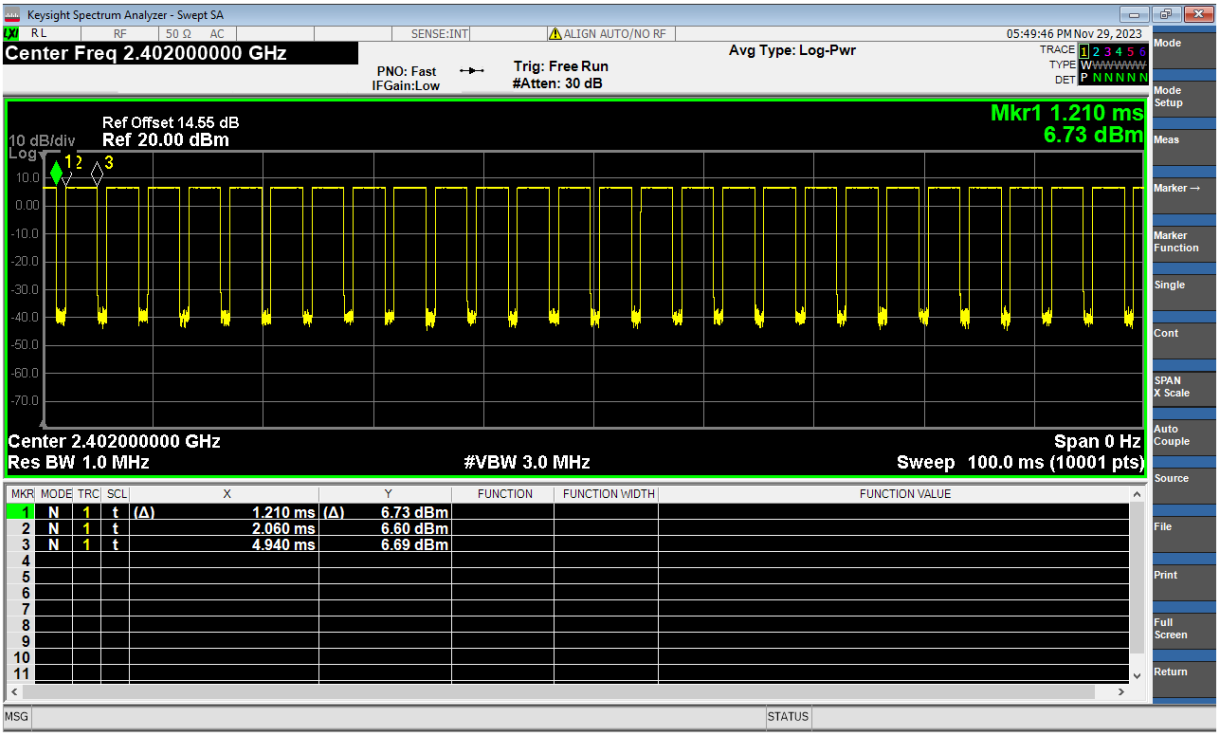
General Description of EUT	
Product Name:	Lixel L2 120 V1
Test Model:	Lixel
Sample ID:	HC-C-202309-0278-01-01-2#
Environmental Conditions	
Temperature:	24℃
Relative Humidity:	50%
Test Voltage:	DC 14.4V
Test Engineer:	Liyingjing
Note: For a more detailed features description, please refer to the report TBR-C-202309-0278-71 The report only show the worst case data.	

Duty Cycle

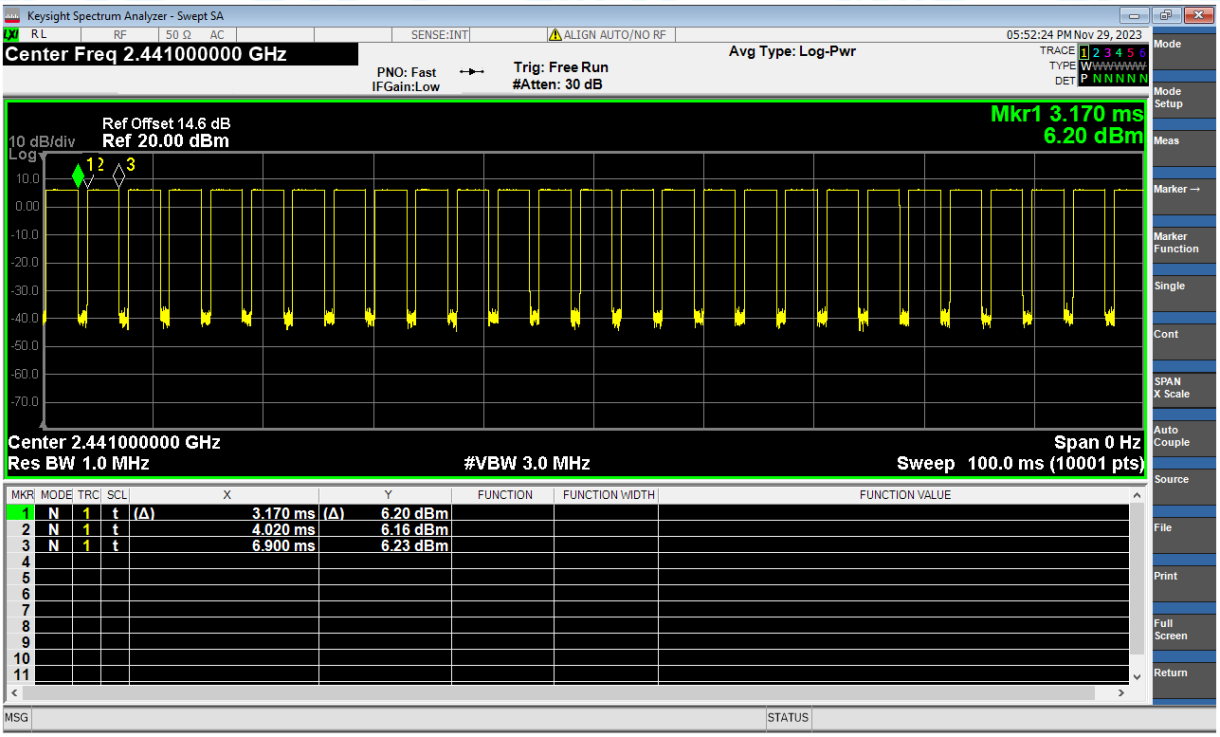
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	77.21	1.12	0.35
NVNT	1-DH1	2441	Ant1	77.21	1.12	0.35
NVNT	1-DH1	2480	Ant1	77.21	1.12	0.35
NVNT	2-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2441	Ant1	31.45	5.02	2.56
NVNT	2-DH1	2480	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2441	Ant1	31.45	5.02	2.56
NVNT	3-DH1	2480	Ant1	31.45	5.02	2.56

Test Graphs

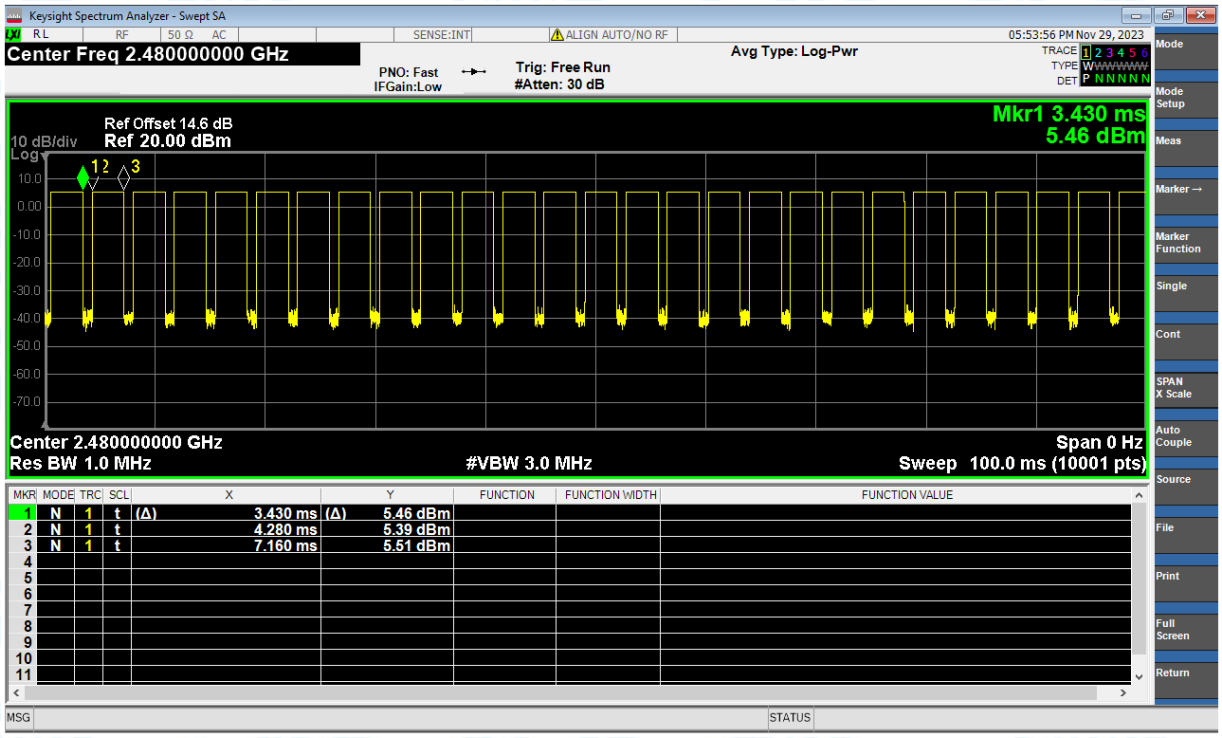
Duty Cycle NVNT 1-DH1 2402MHz Ant1



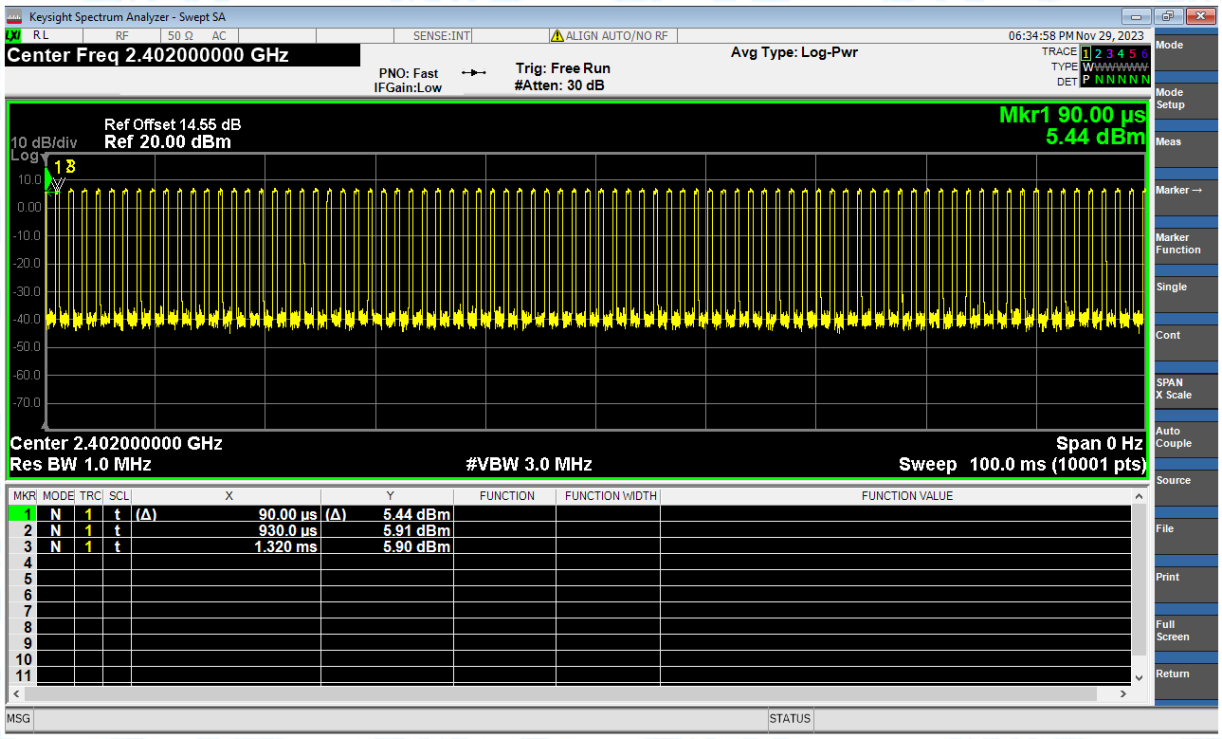
Duty Cycle NVNT 1-DH1 2441MHz Ant1



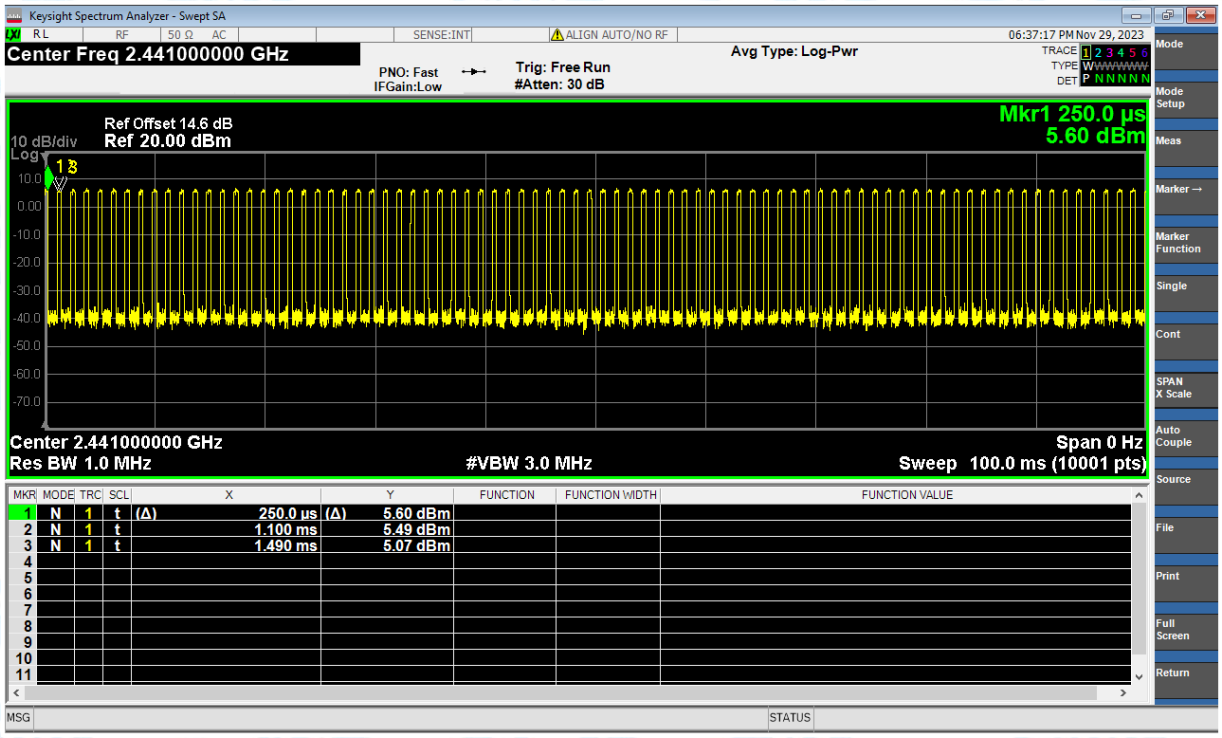
Duty Cycle NVNT 1-DH1 2480MHz Ant1



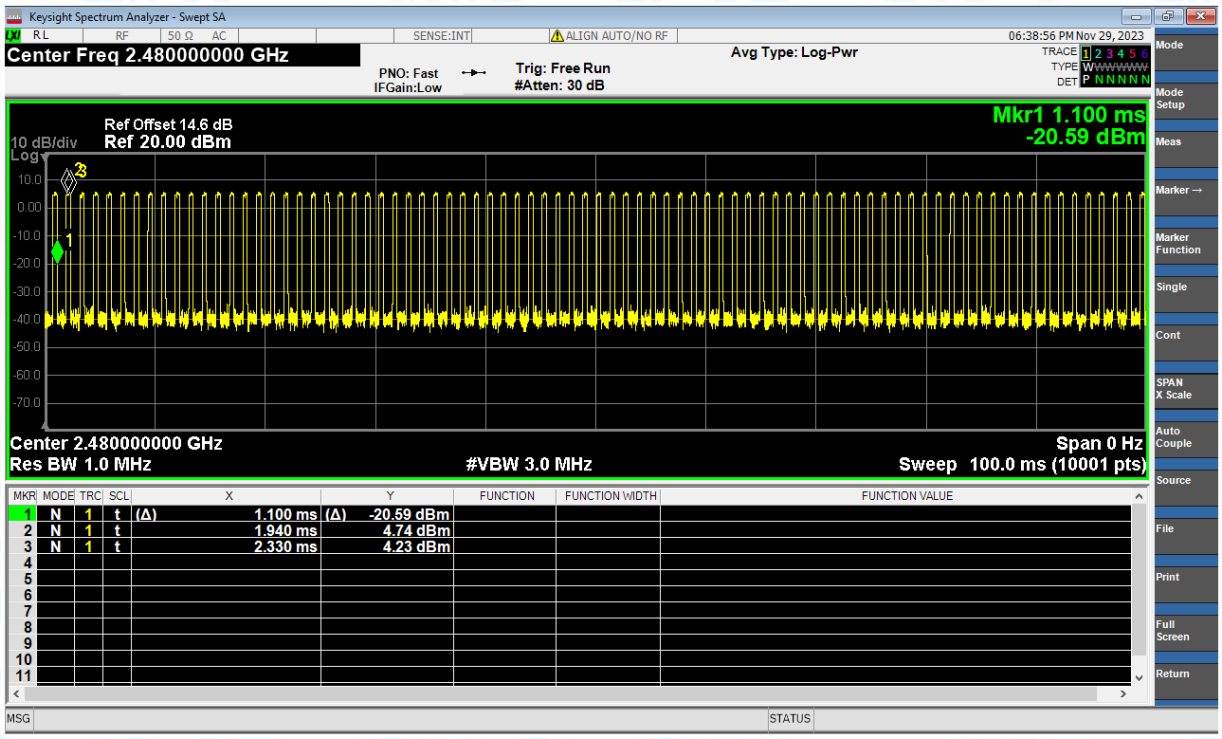
Duty Cycle NVNT 2-DH1 2402MHz Ant1



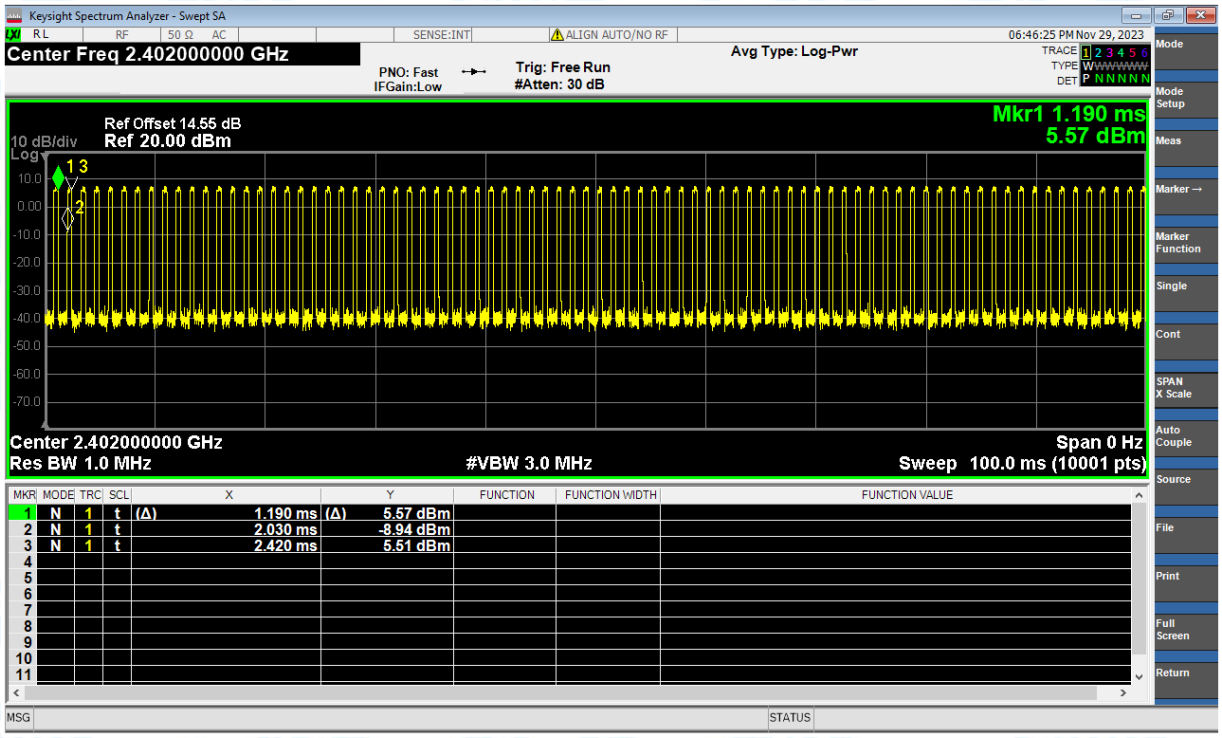
Duty Cycle NVNT 2-DH1 2441MHz Ant1



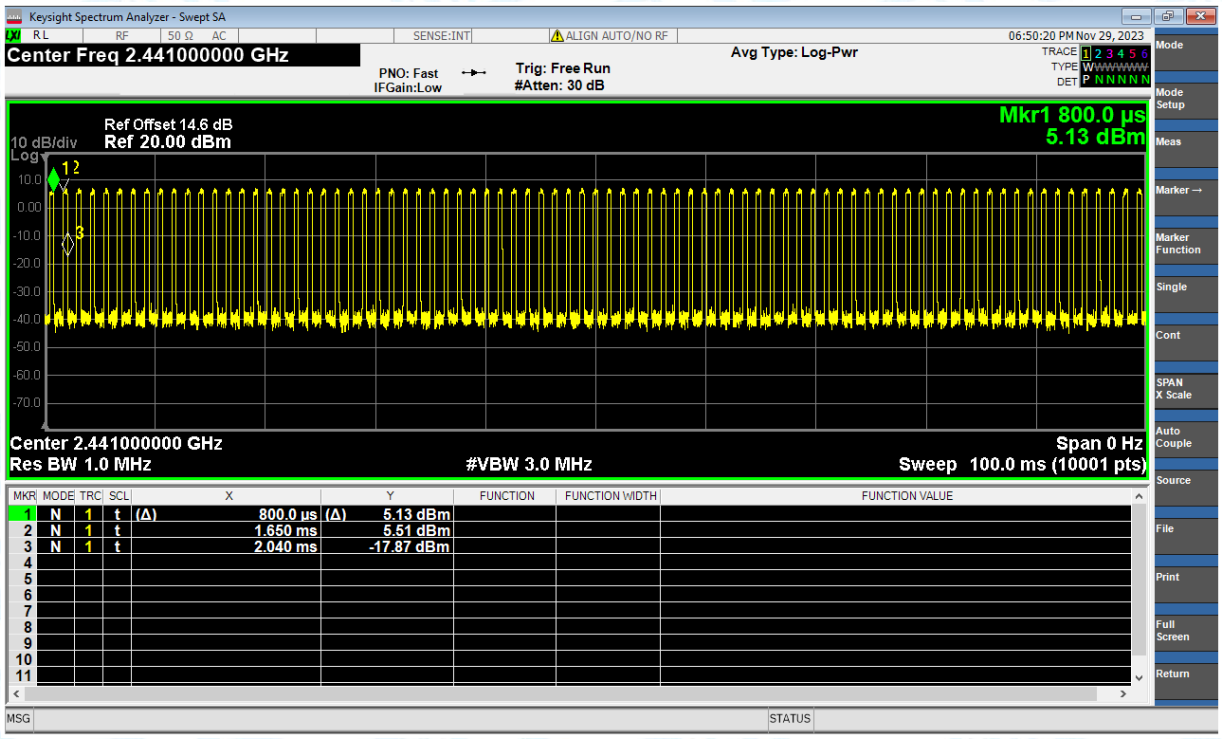
Duty Cycle NVNT 2-DH1 2480MHz Ant1



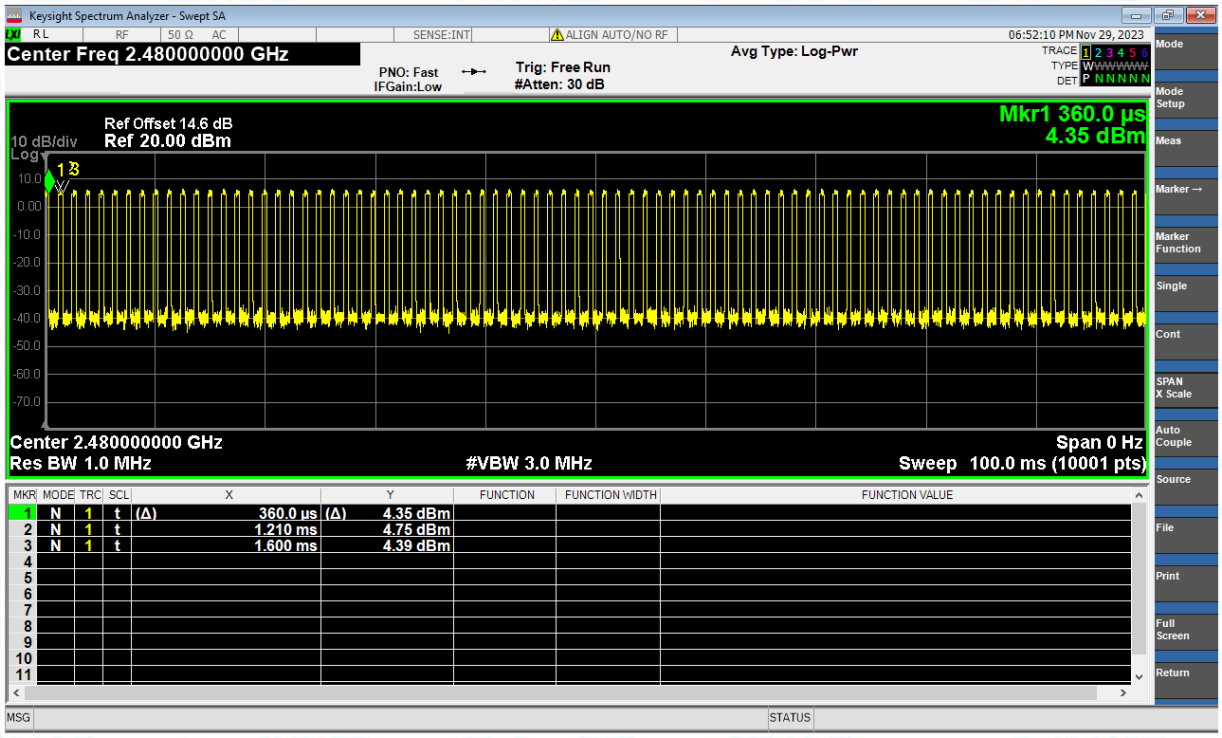
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

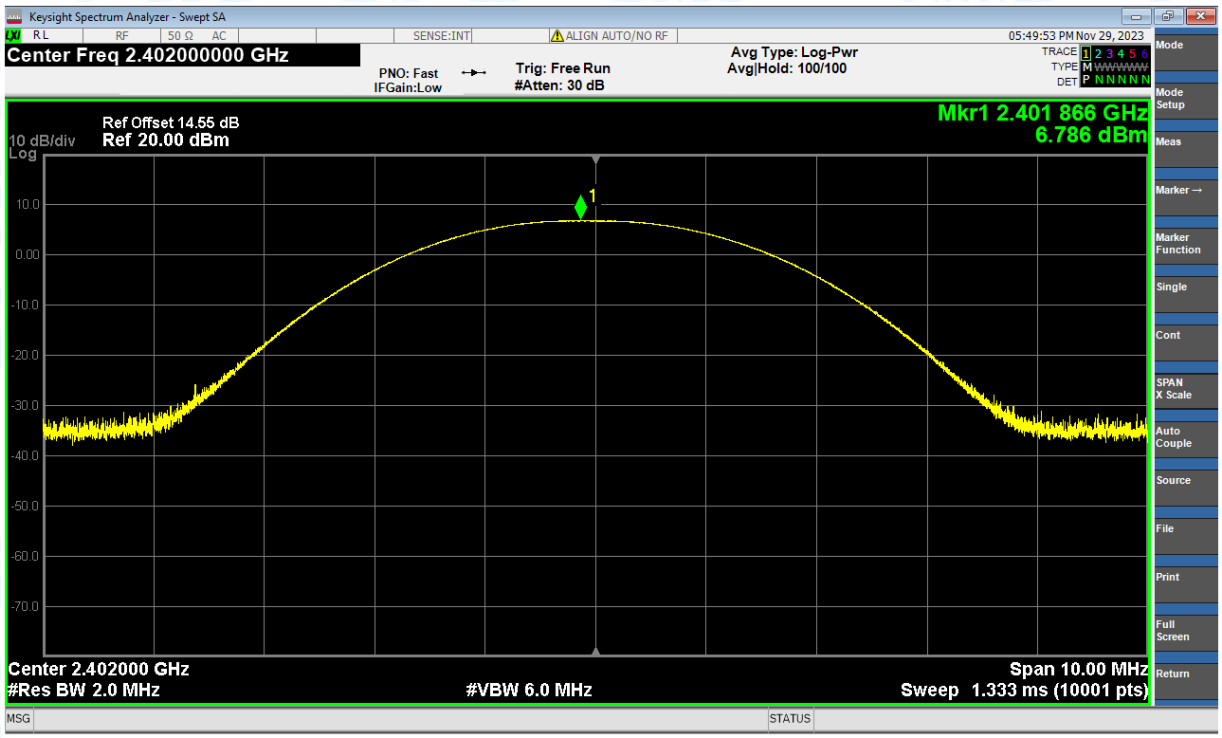


Maximum Conducted Output Power

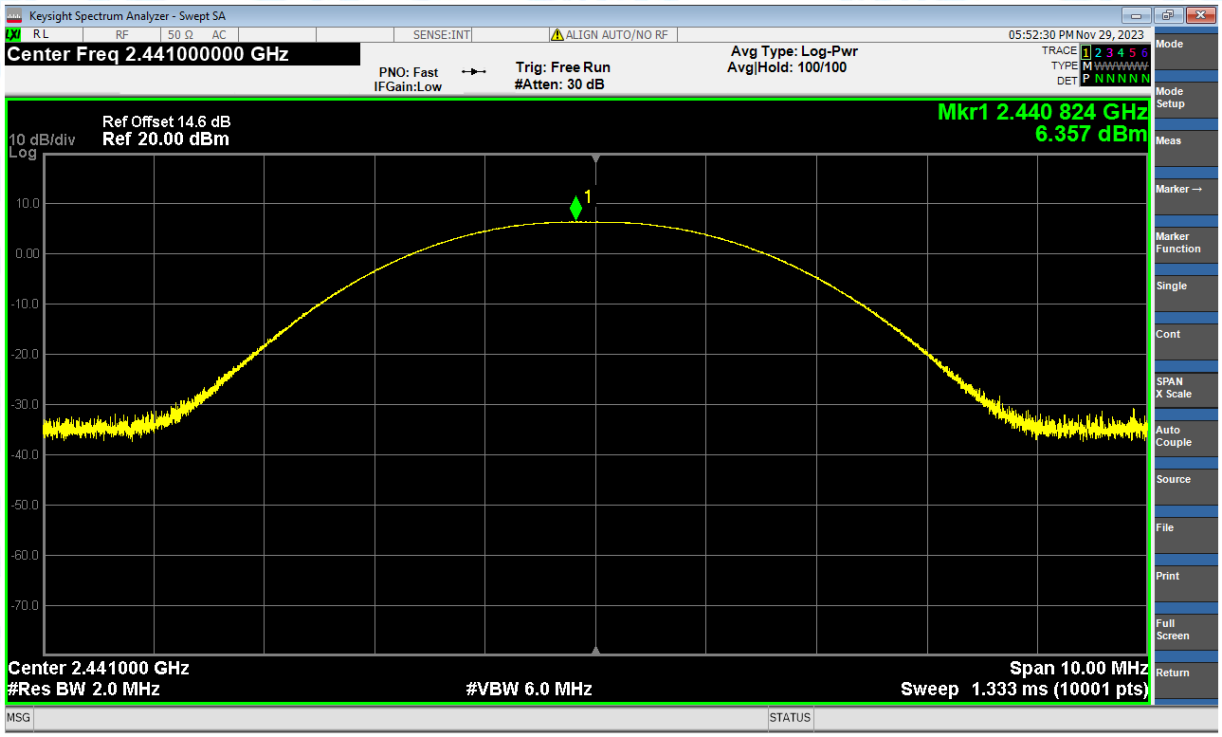
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	6.786	21	Pass
NVNT	1-DH1	2441	Ant1	6.357	21	Pass
NVNT	1-DH1	2480	Ant1	5.604	21	Pass
NVNT	2-DH1	2402	Ant1	7.362	21	Pass
NVNT	2-DH1	2441	Ant1	6.984	21	Pass
NVNT	2-DH1	2480	Ant1	6.188	21	Pass
NVNT	3-DH1	2402	Ant1	7.875	21	Pass
NVNT	3-DH1	2441	Ant1	7.52	21	Pass
NVNT	3-DH1	2480	Ant1	6.807	21	Pass

Test Graphs

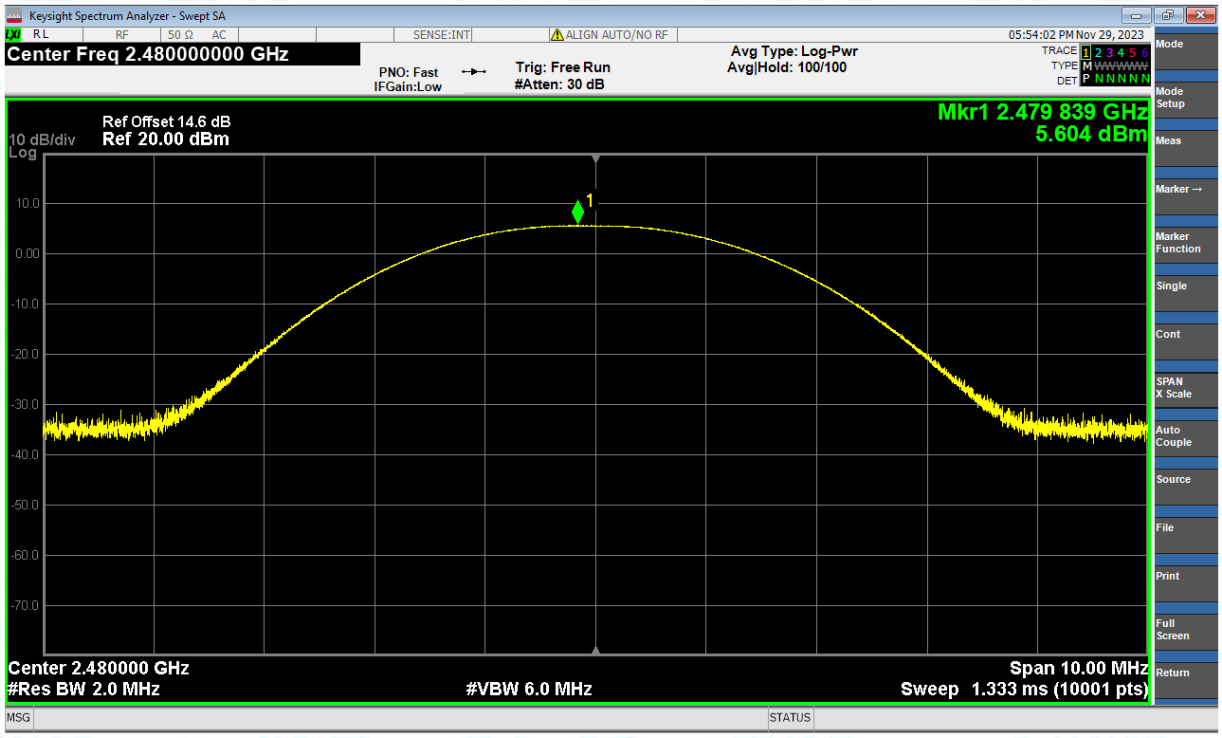
Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1

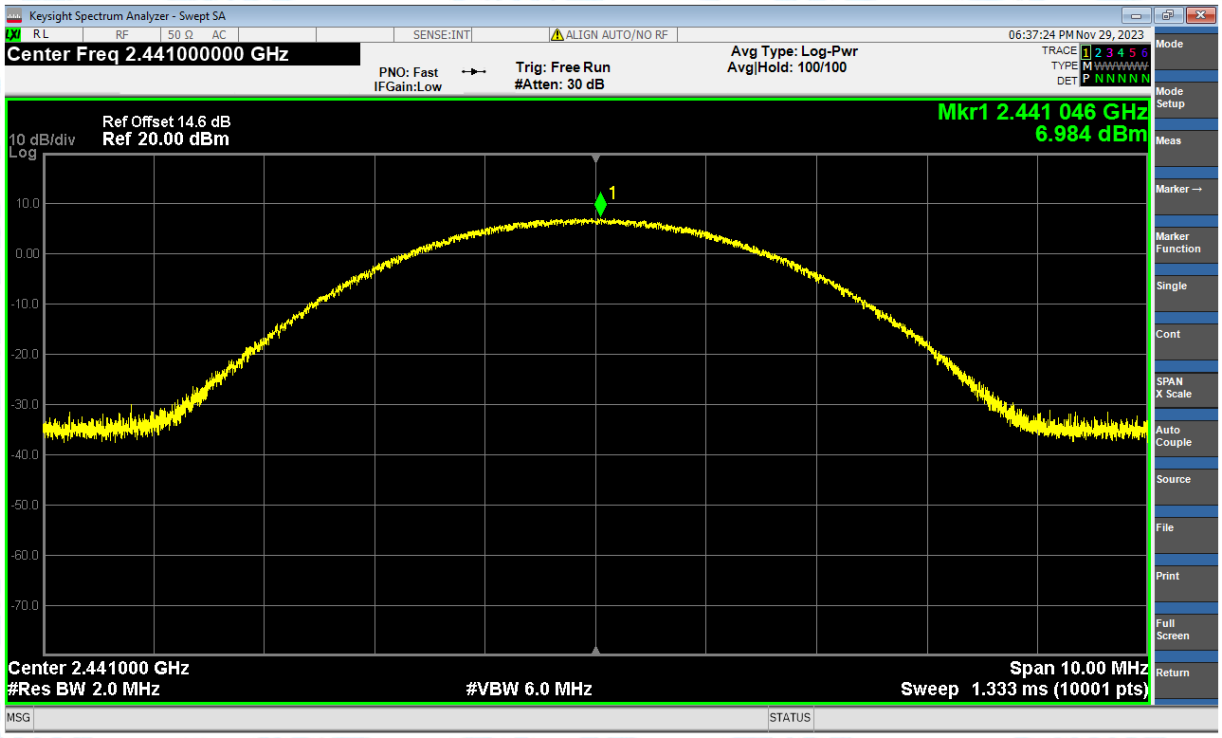


Power NVNT 1-DH1 2480MHz Ant1



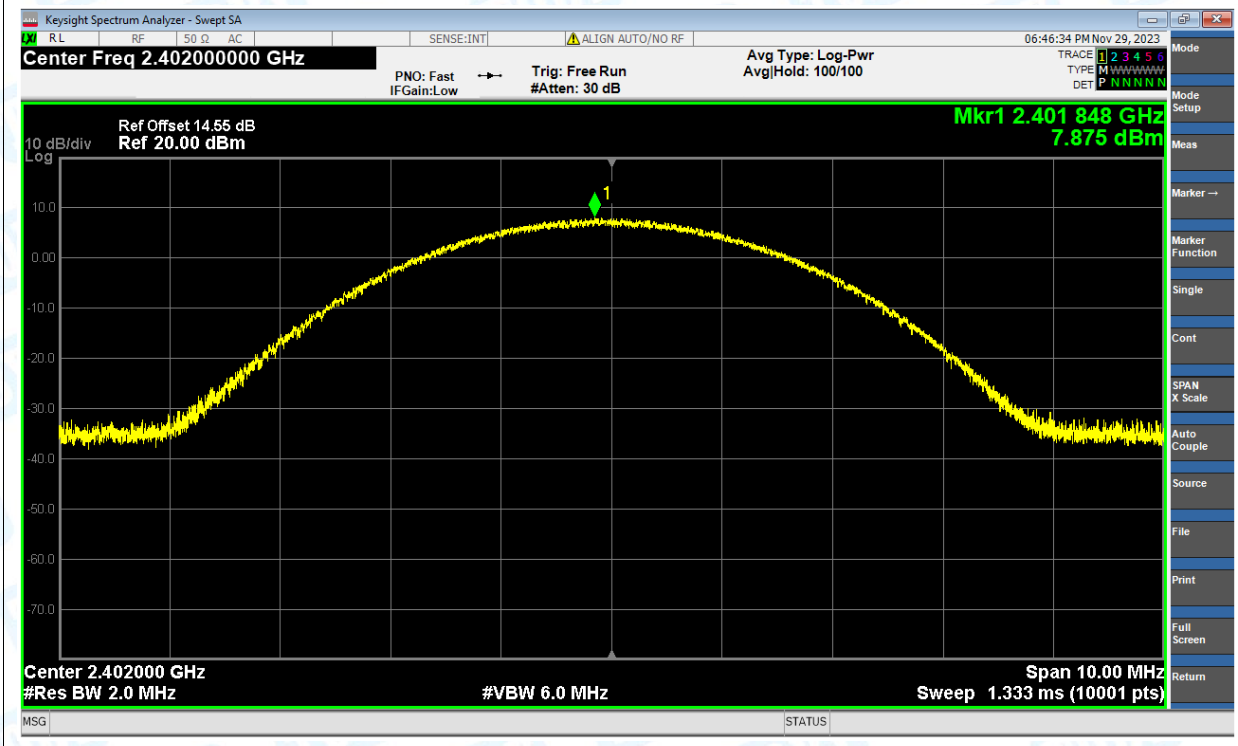
Power NVNT 2-DH1 2402MHz Ant1

Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1

Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1

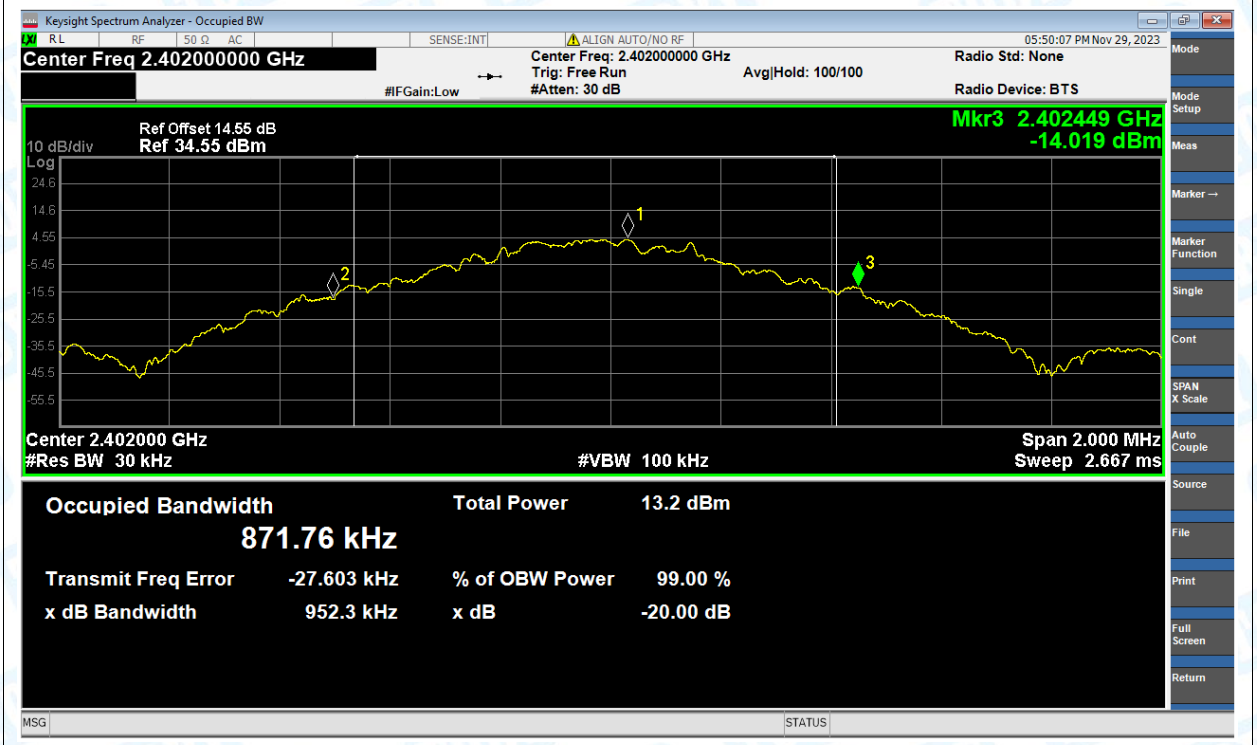
Power NVNT 3-DH1 2480MHz Ant1

-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.95	0	Pass
NVNT	1-DH1	2441	Ant1	0.96	0	Pass
NVNT	1-DH1	2480	Ant1	0.95	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.26	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.22	0	Pass

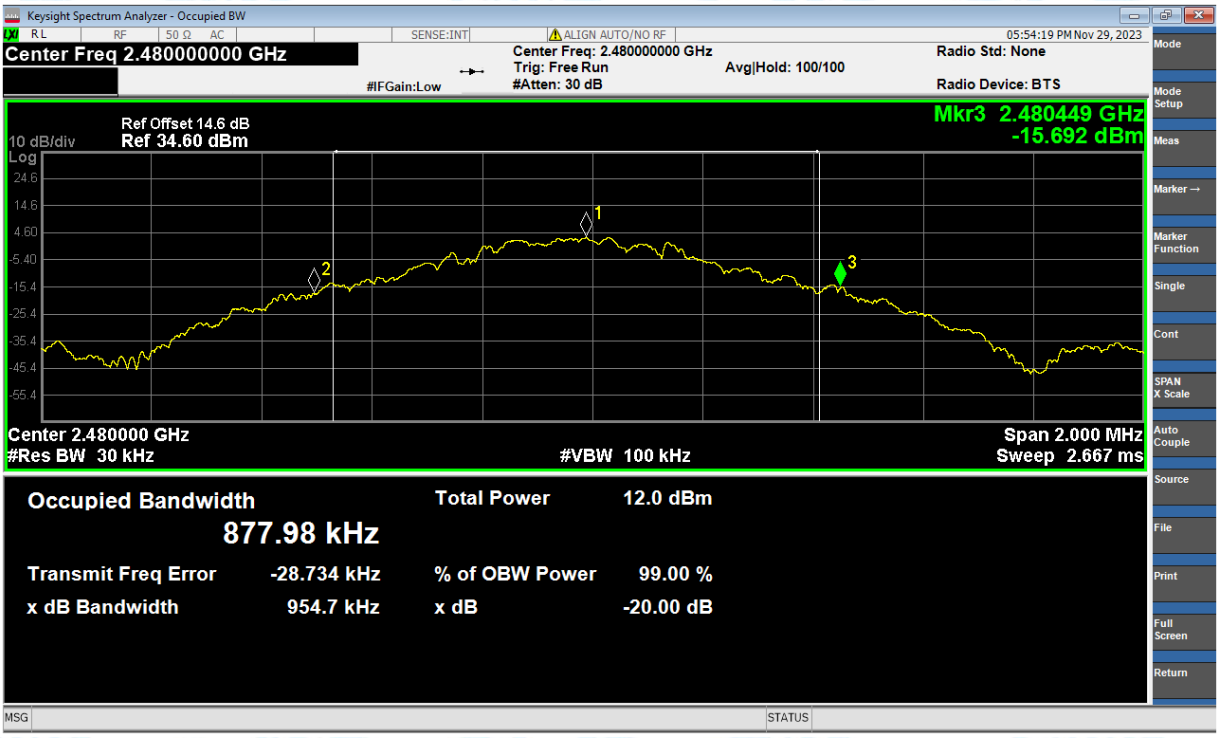
Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1

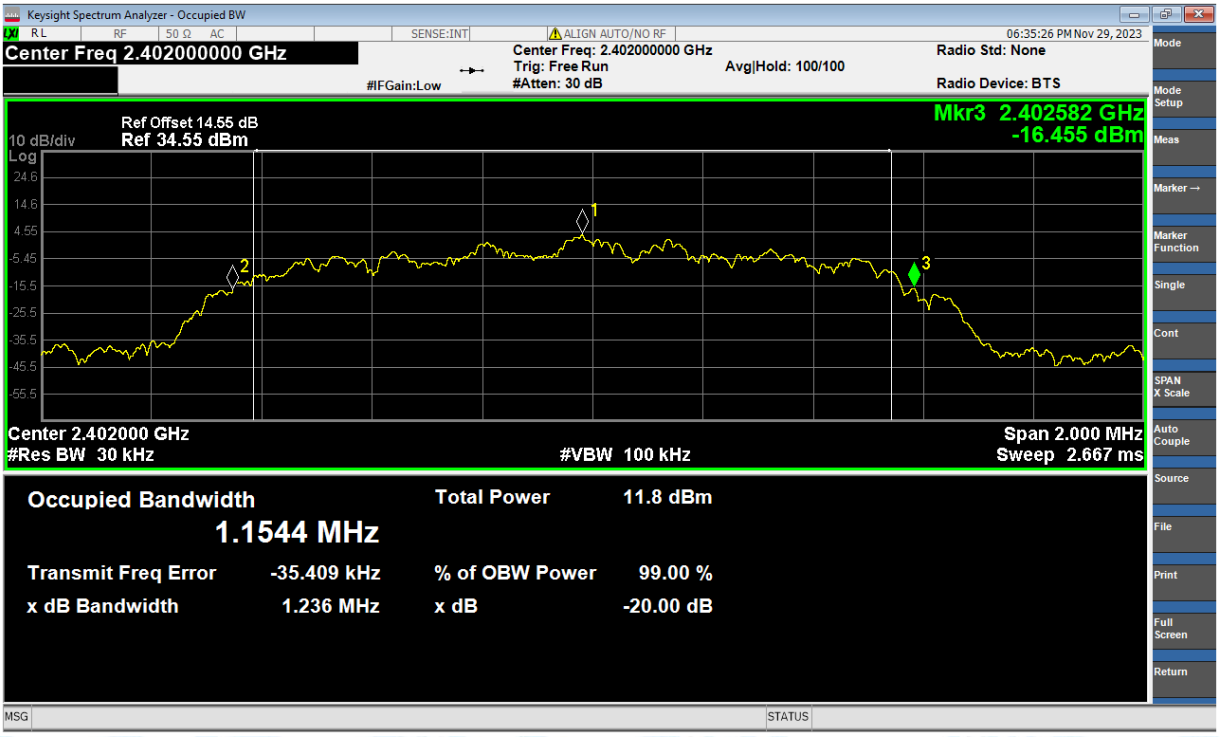


-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

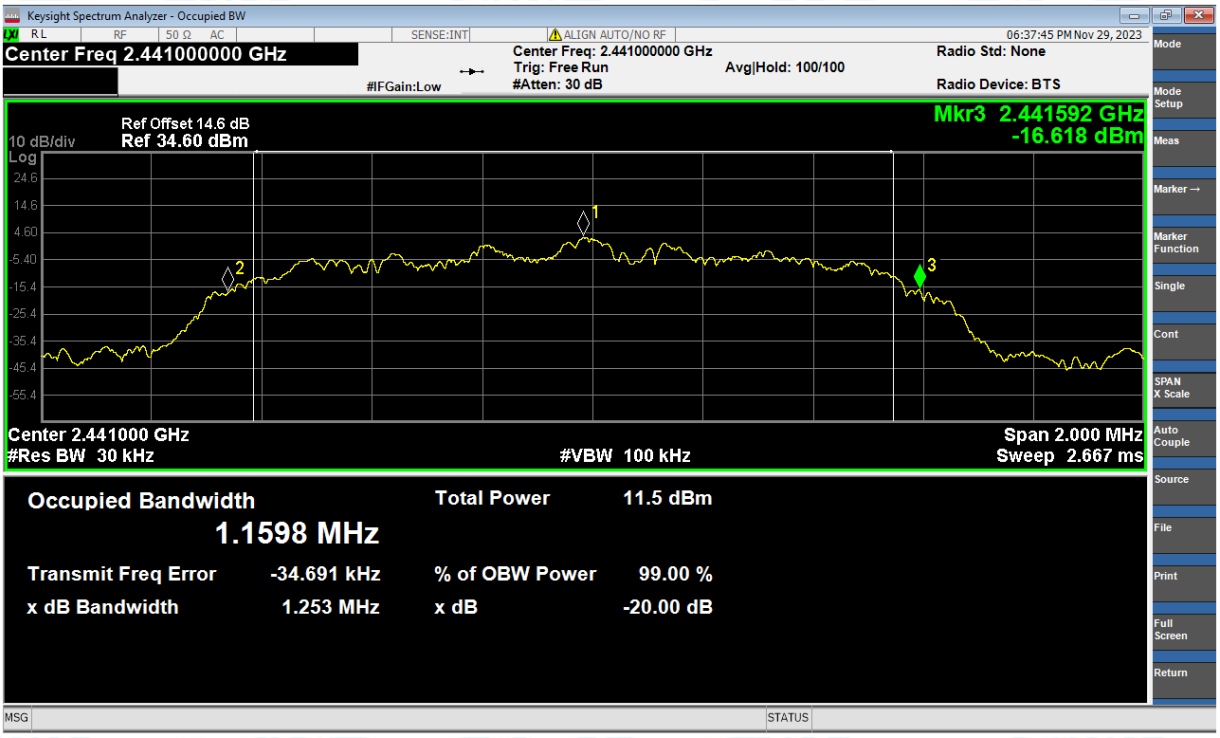
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



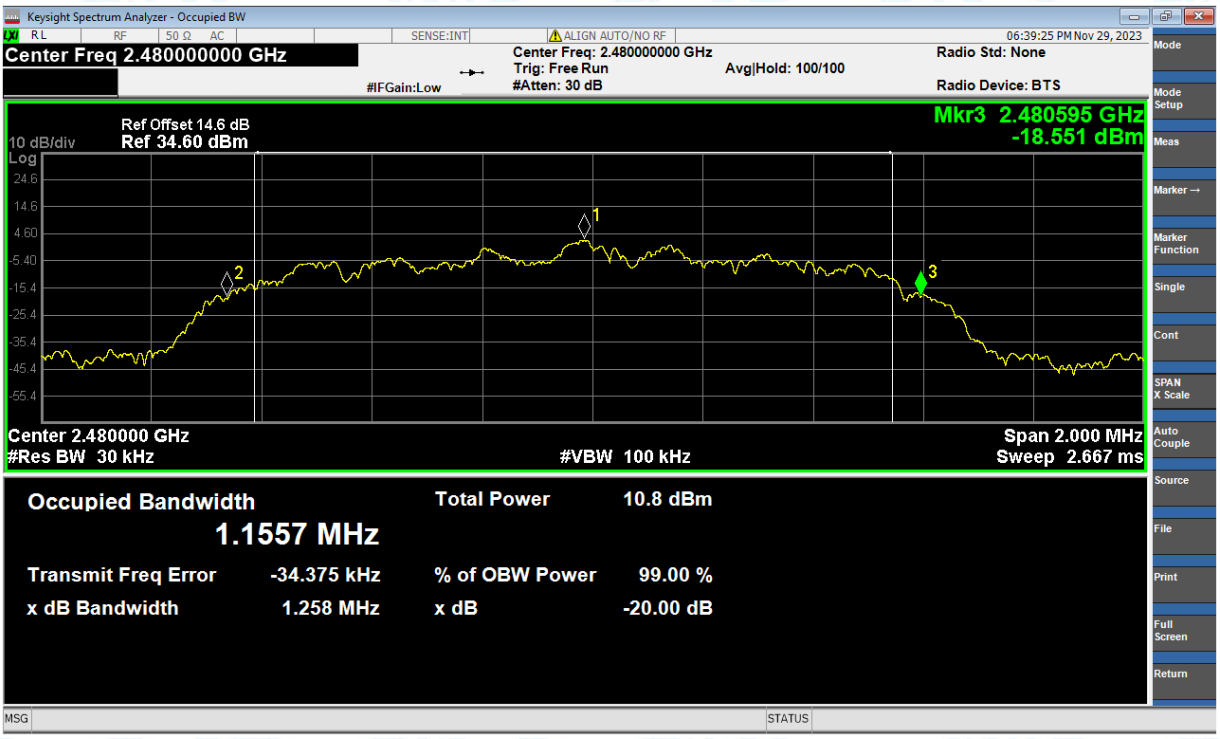
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



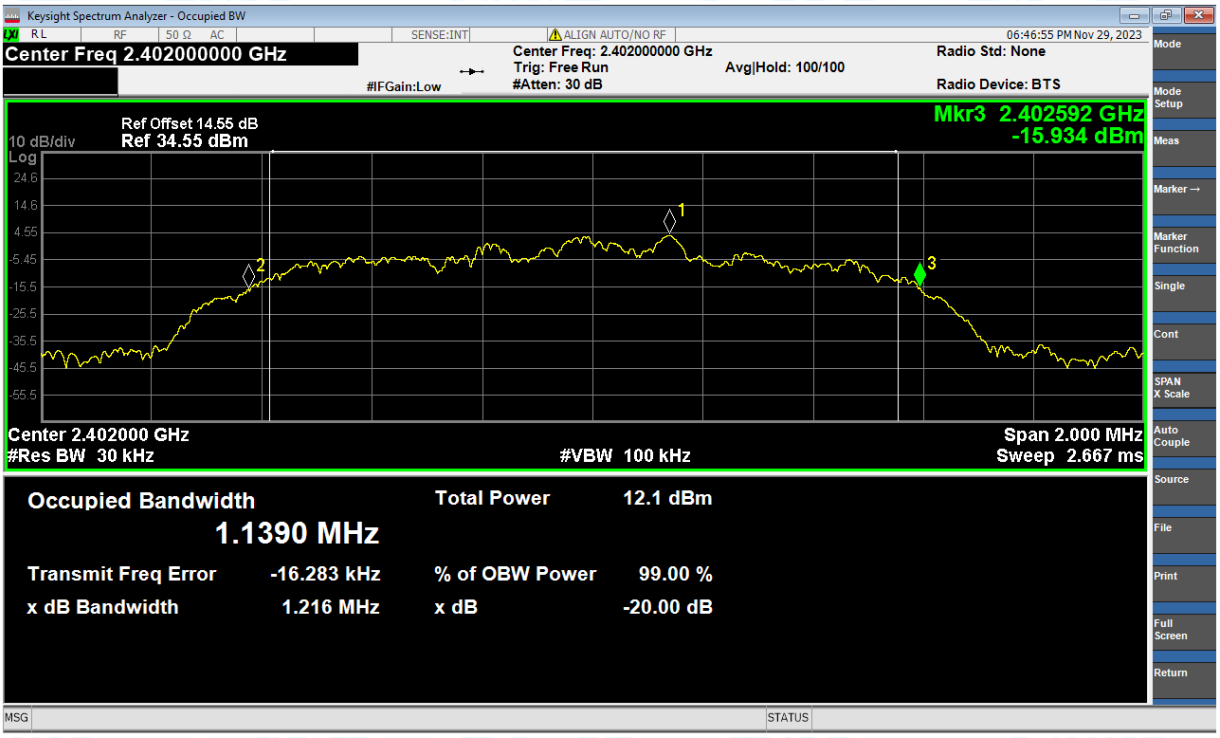
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



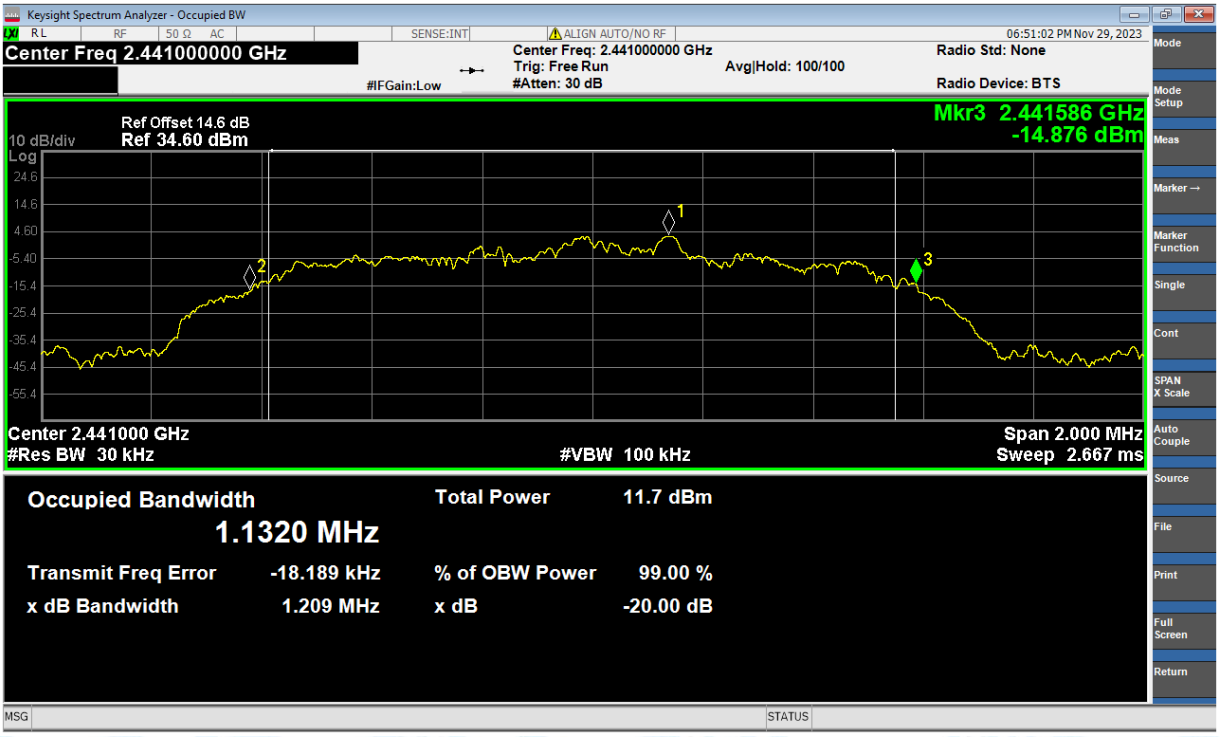
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



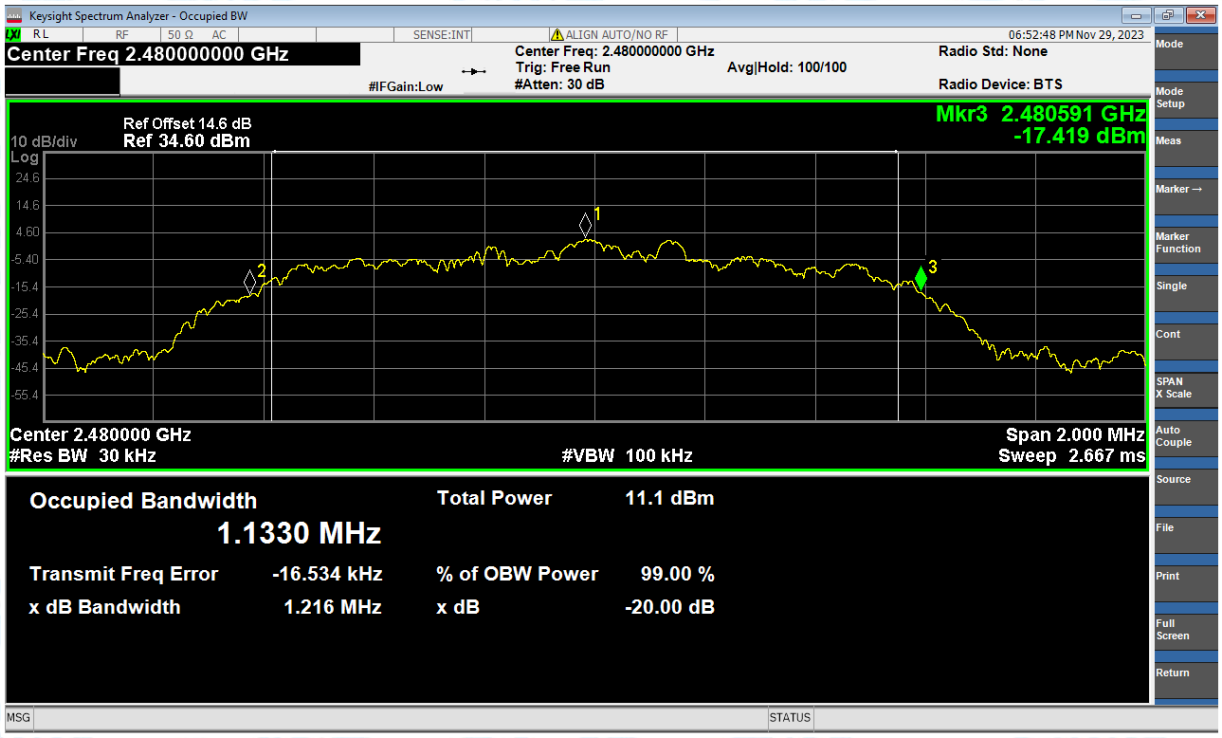
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

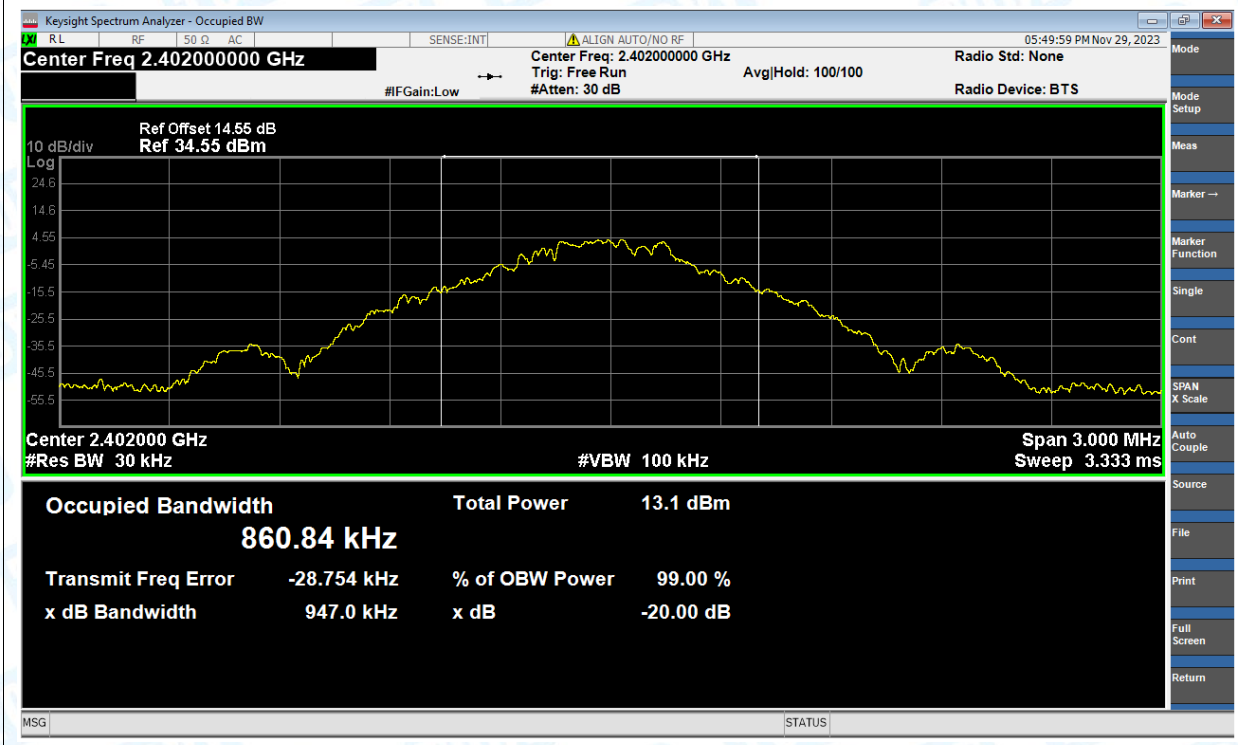


Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.861
NVNT	1-DH1	2441	Ant1	0.877
NVNT	1-DH1	2480	Ant1	0.87
NVNT	2-DH1	2402	Ant1	1.117
NVNT	2-DH1	2441	Ant1	1.167
NVNT	2-DH1	2480	Ant1	1.15
NVNT	3-DH1	2402	Ant1	1.138
NVNT	3-DH1	2441	Ant1	1.148
NVNT	3-DH1	2480	Ant1	1.127

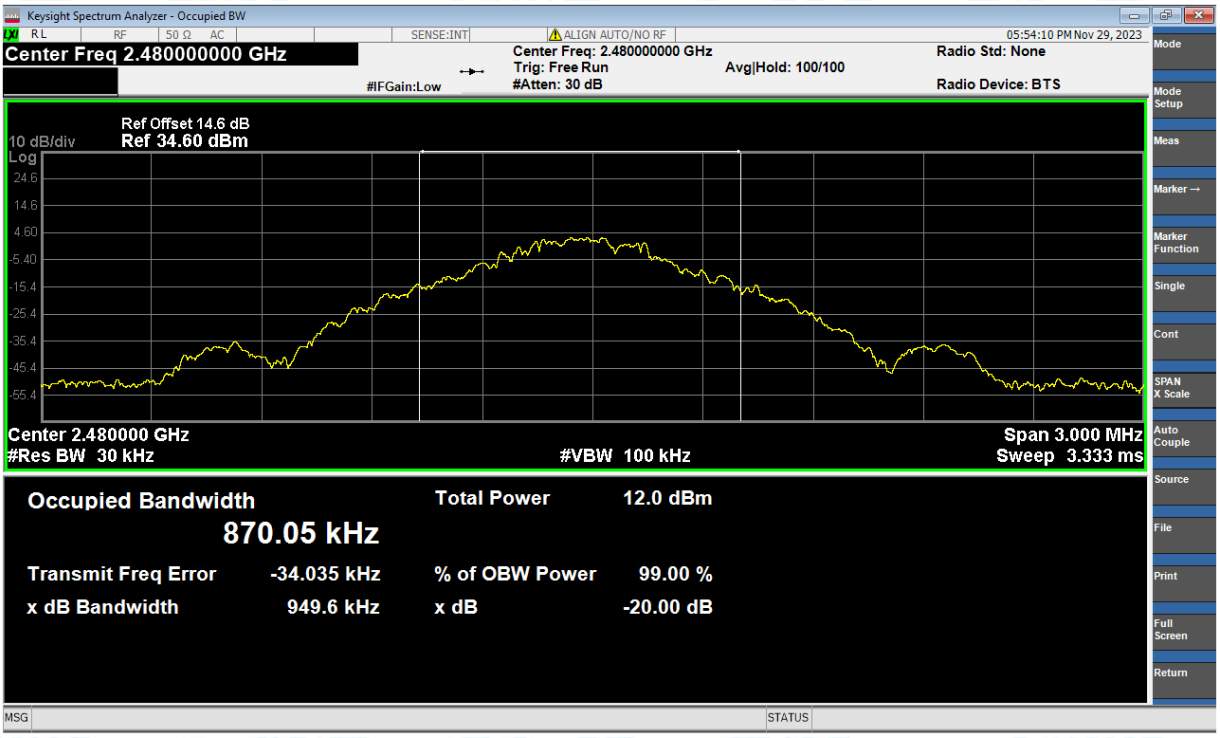
Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1

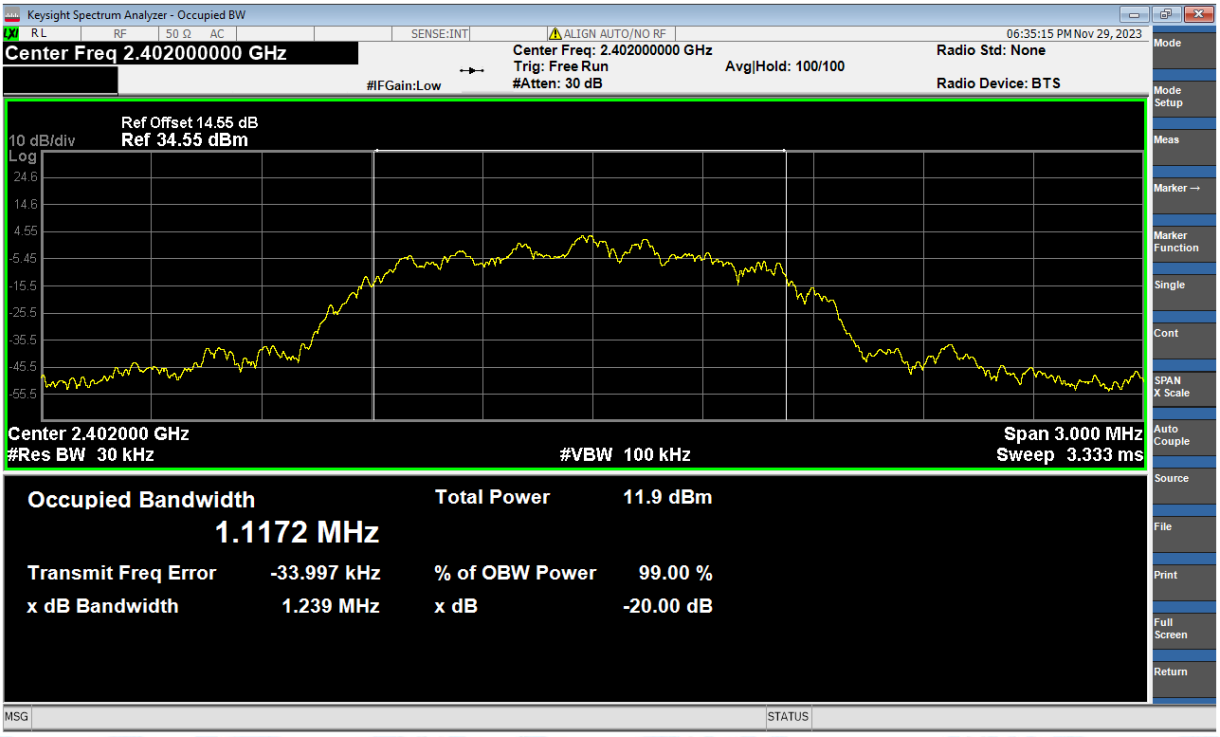


OBW NVNT 1-DH1 2441MHz Ant1

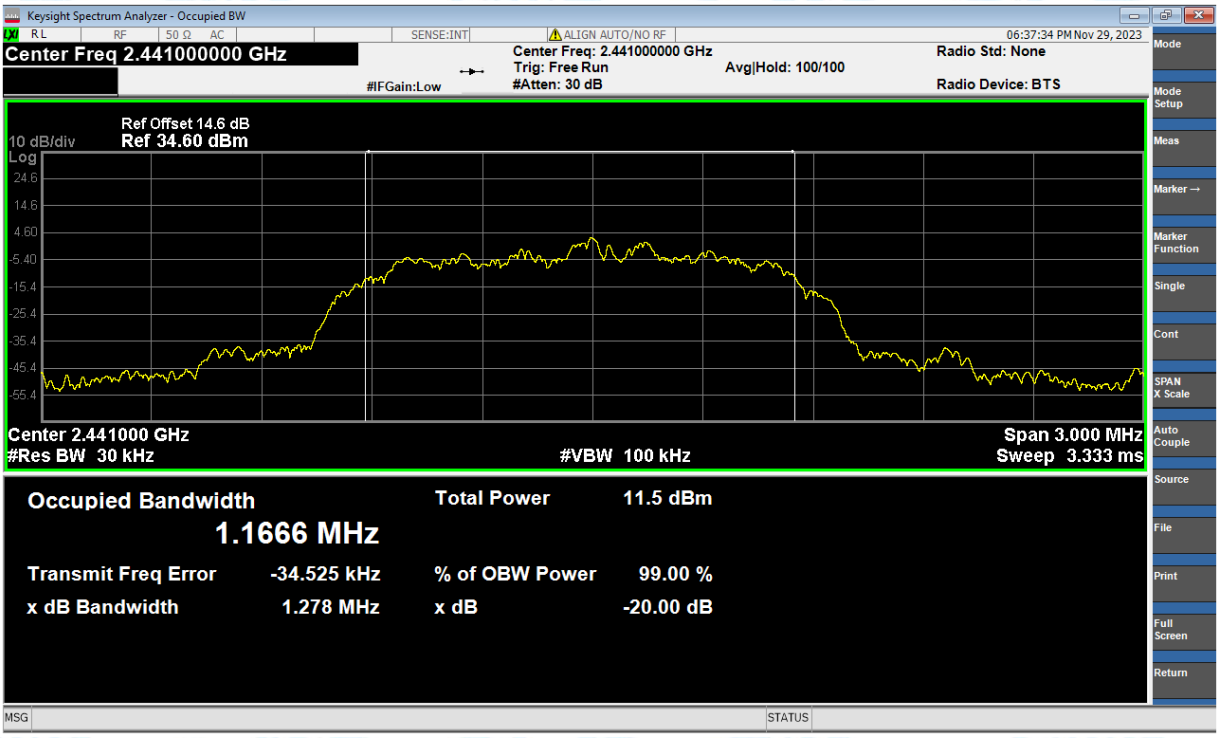
OBW NVNT 1-DH1 2480MHz Ant1



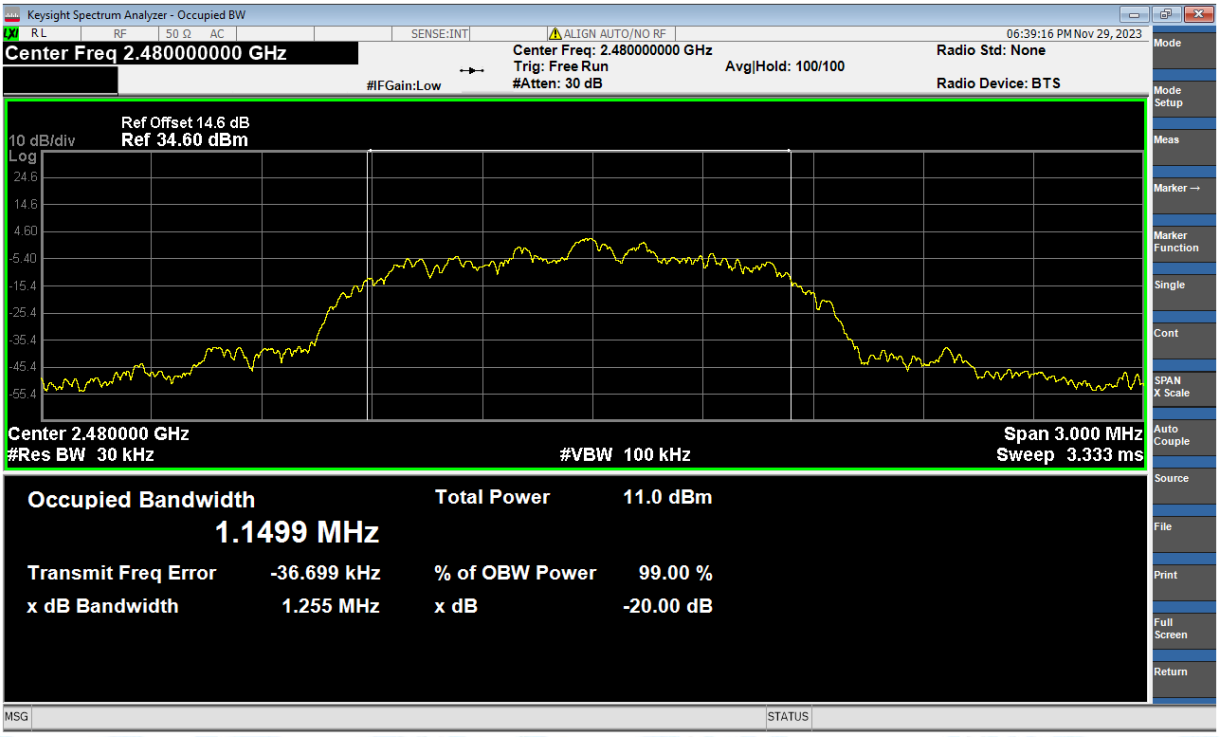
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



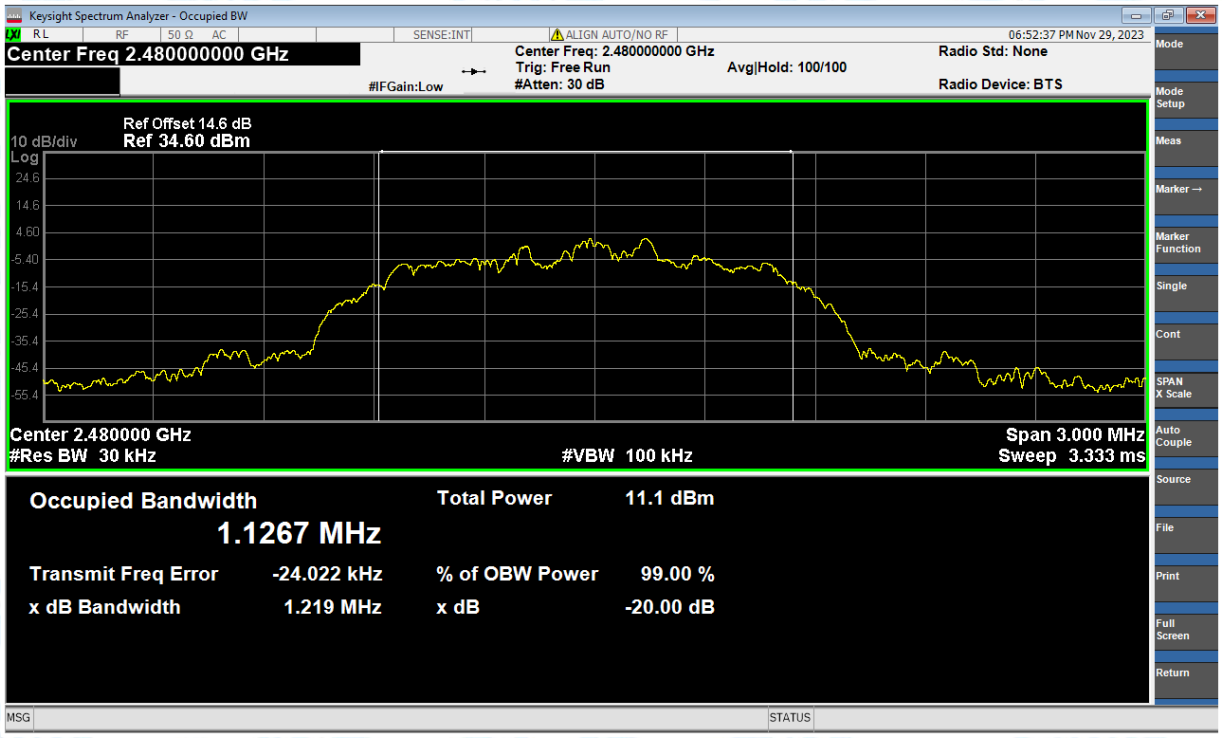
OBW NVNT 2-DH1 2480MHz Ant1



OBW NVNT 3-DH1 2402MHz Ant1

OBW NVNT 3-DH1 2441MHz Ant1

OBW NVNT 3-DH1 2480MHz Ant1

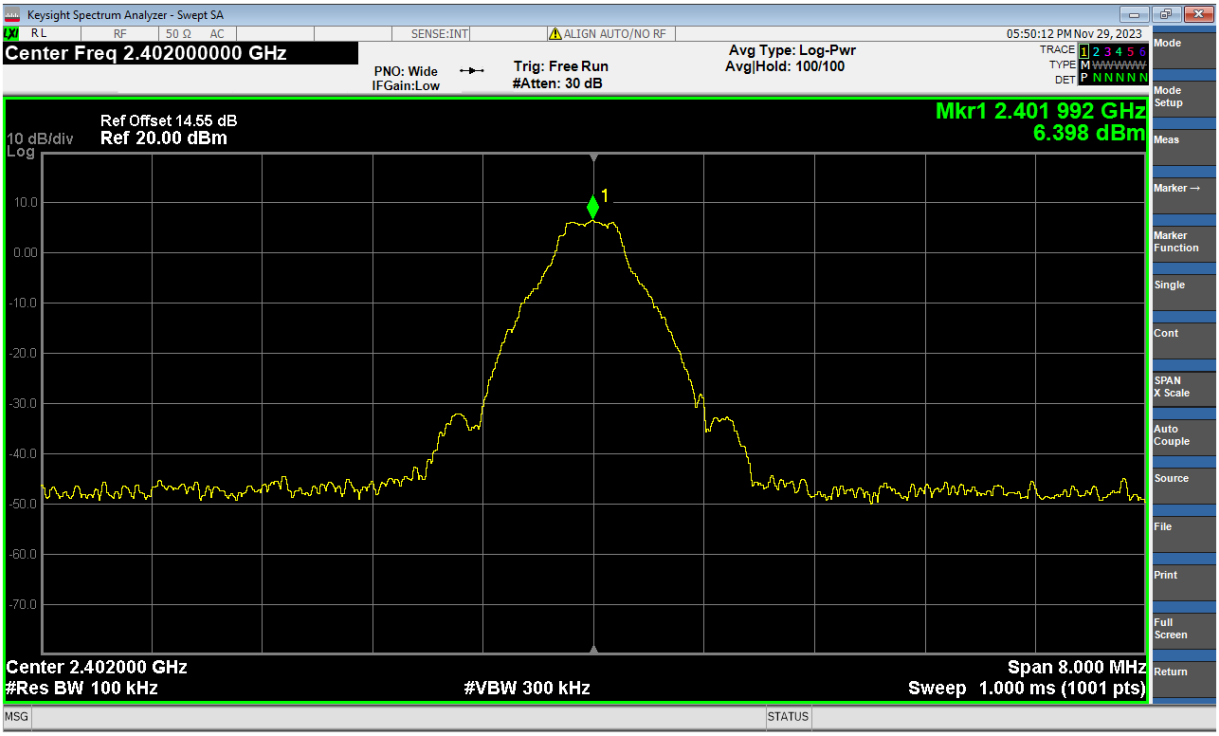


Band Edge

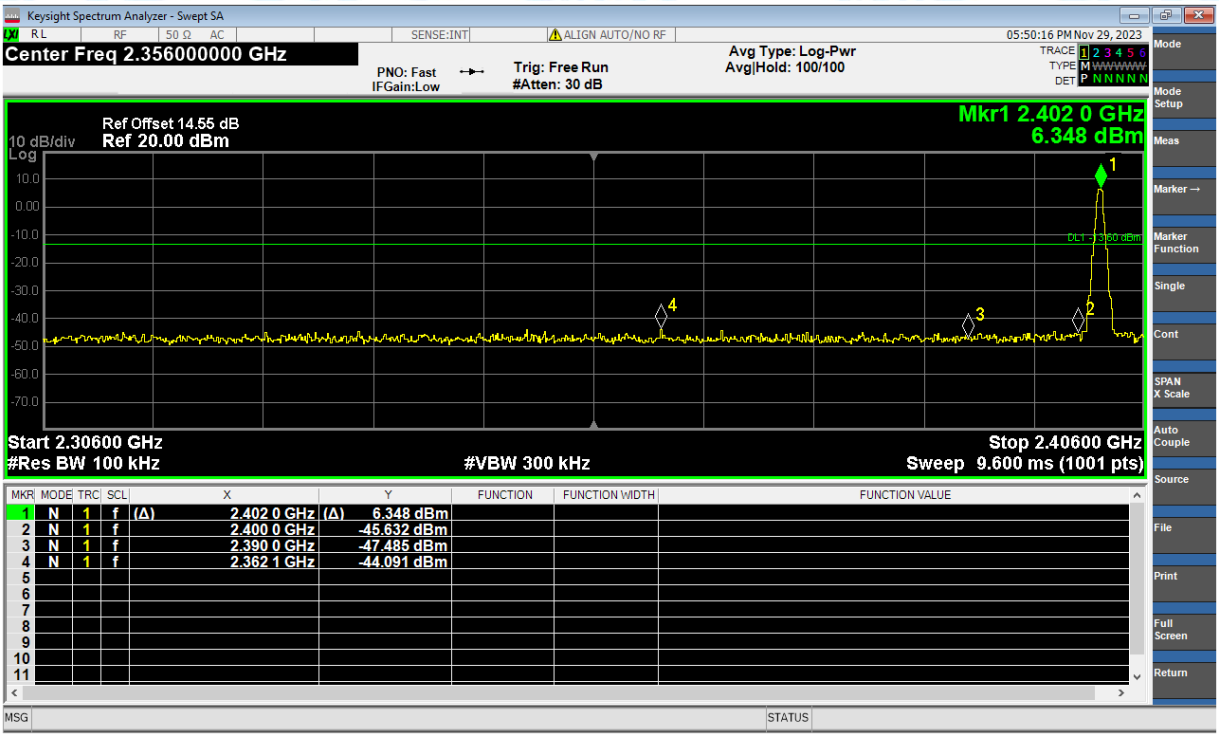
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-50.49	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-49.55	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-49.54	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-48.11	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-50.14	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-48.44	-20	Pass

Test Graphs

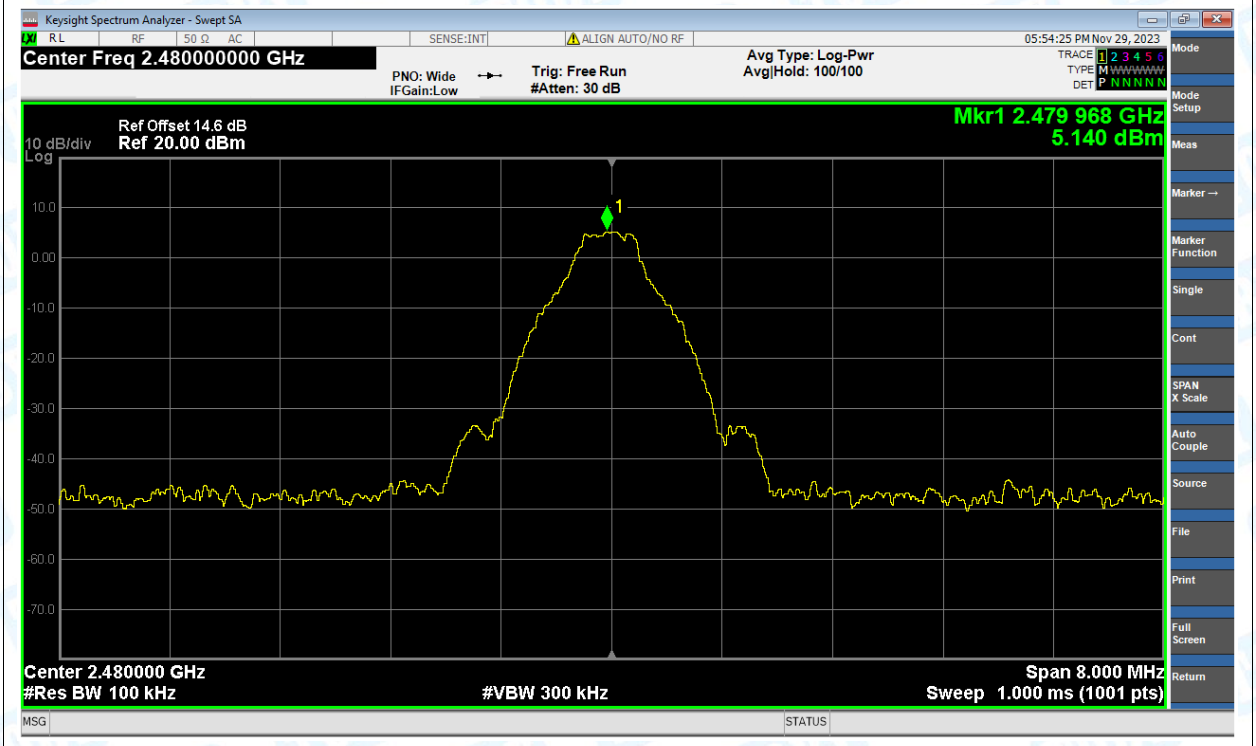
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



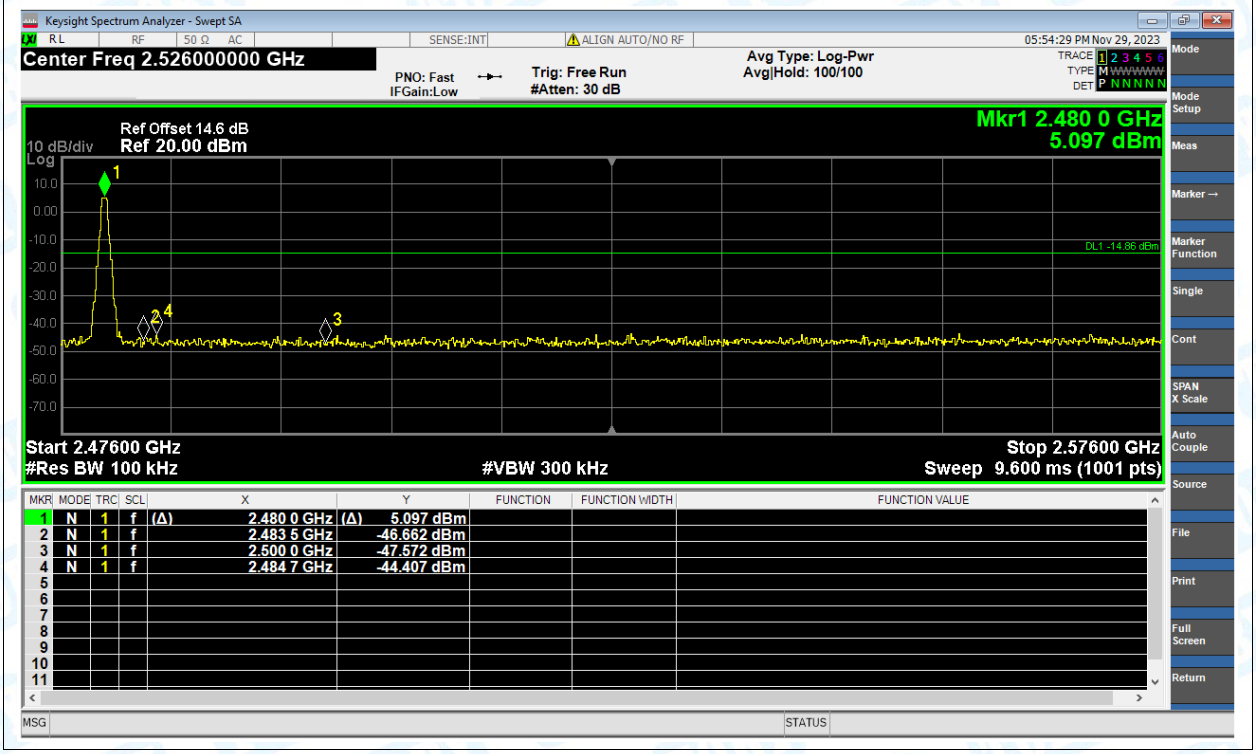
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



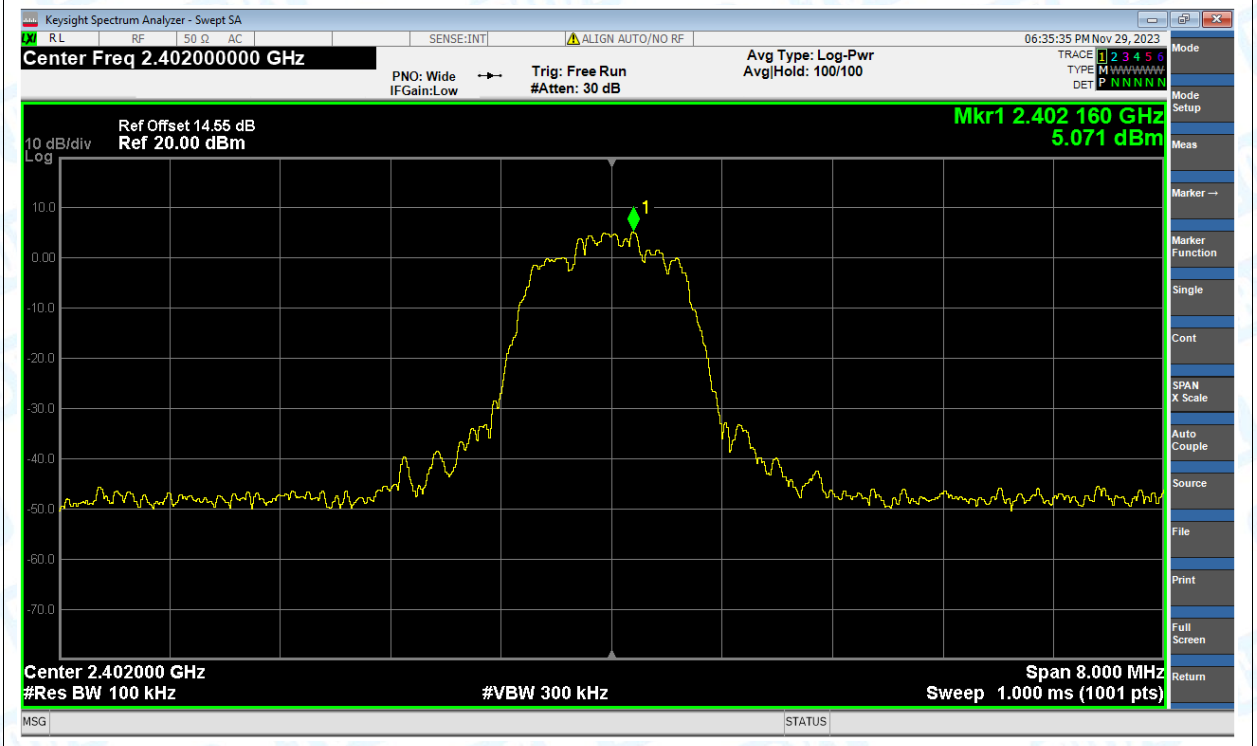
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



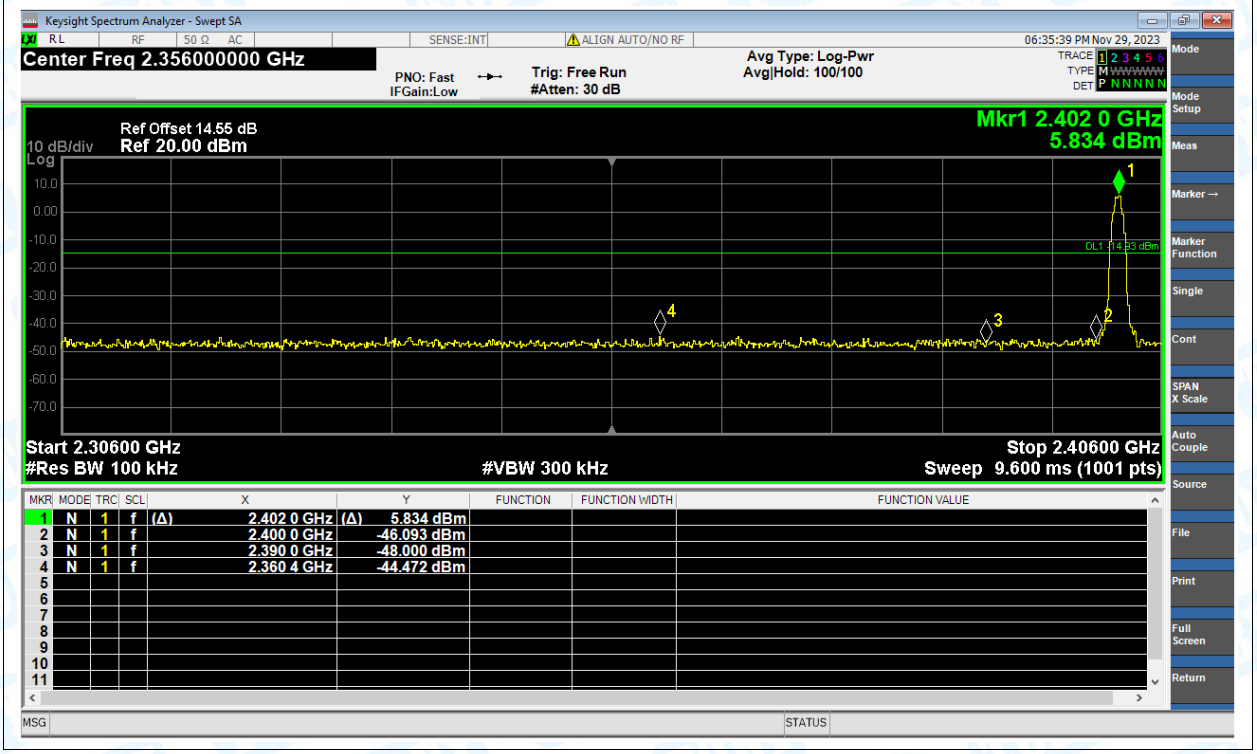
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



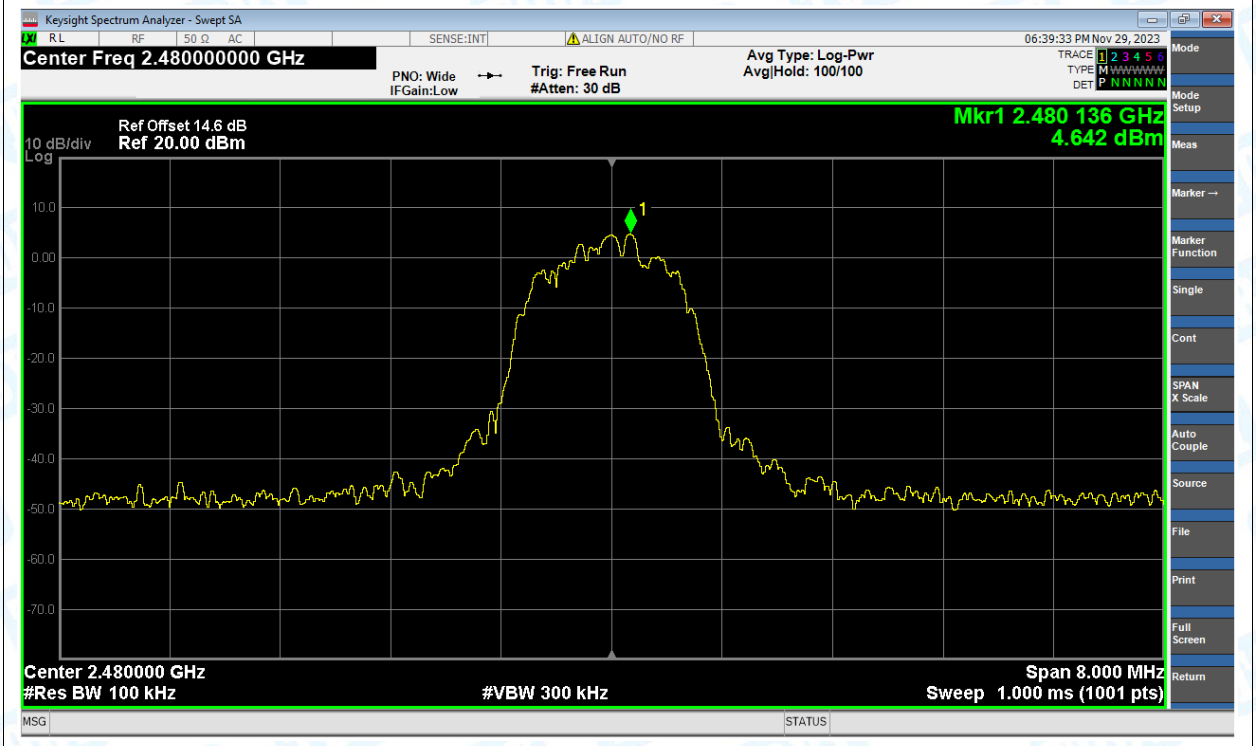
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



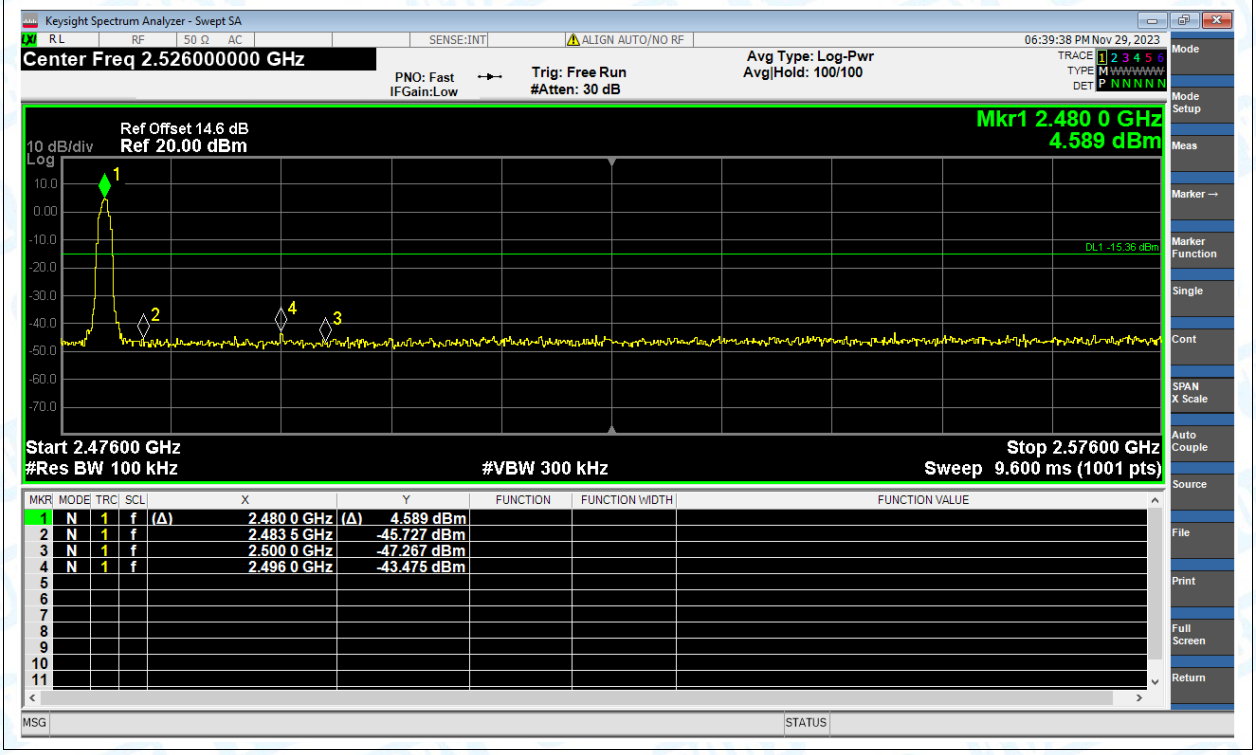
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



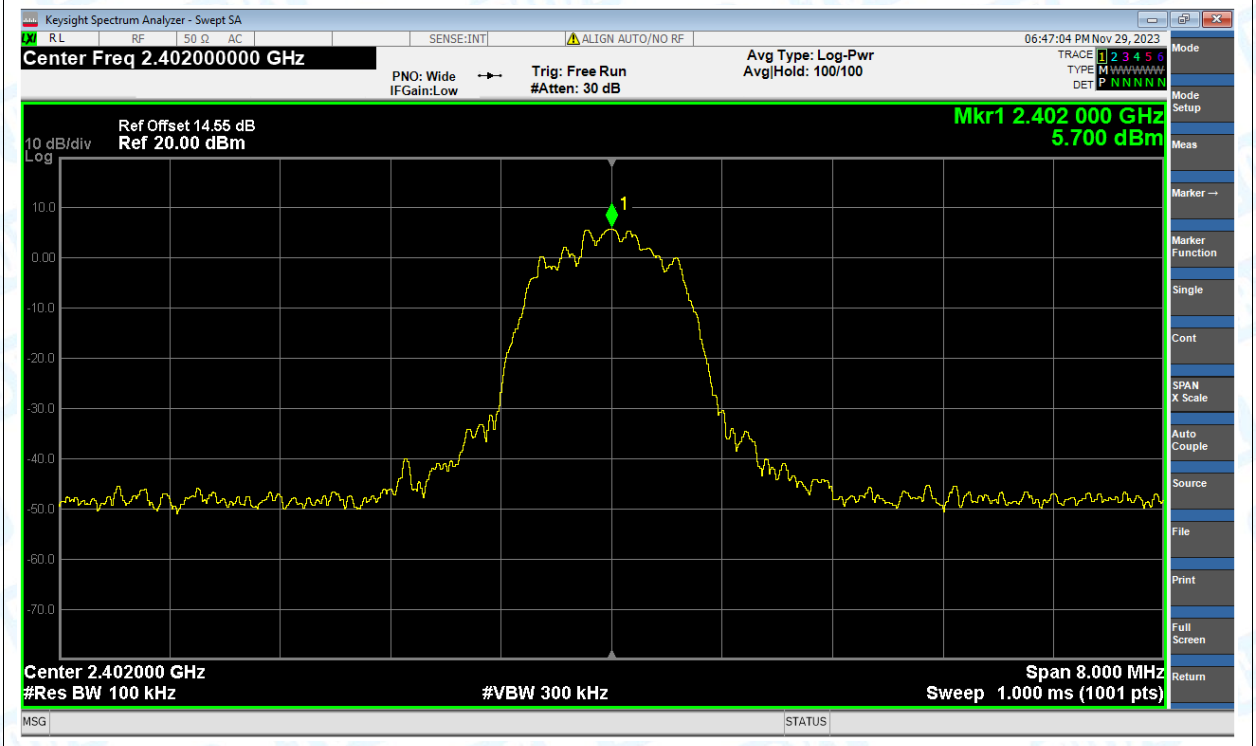
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



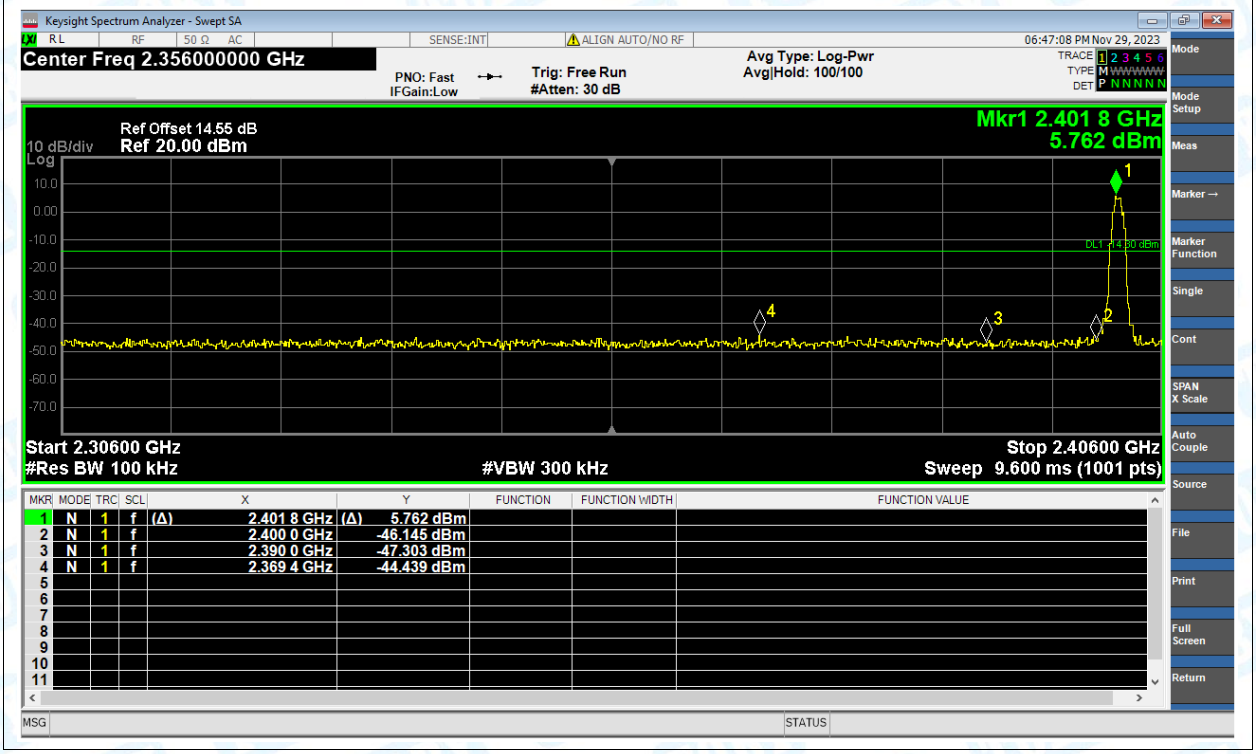
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



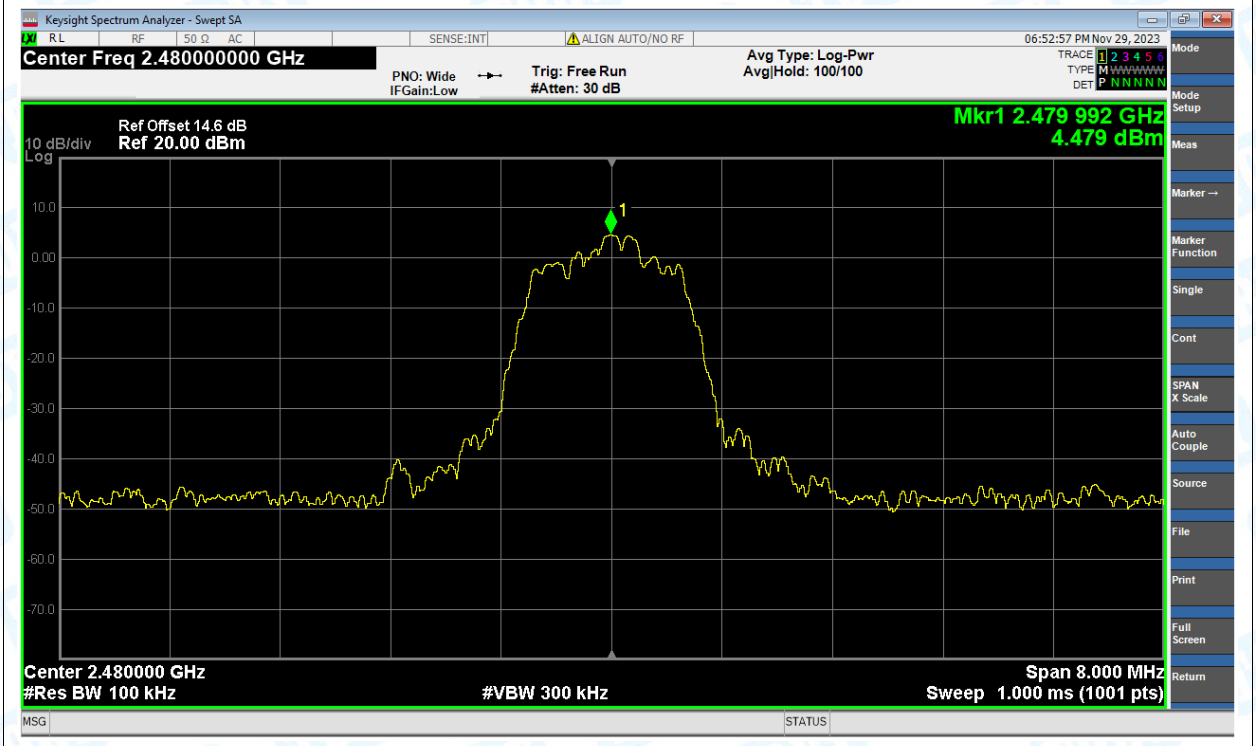
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



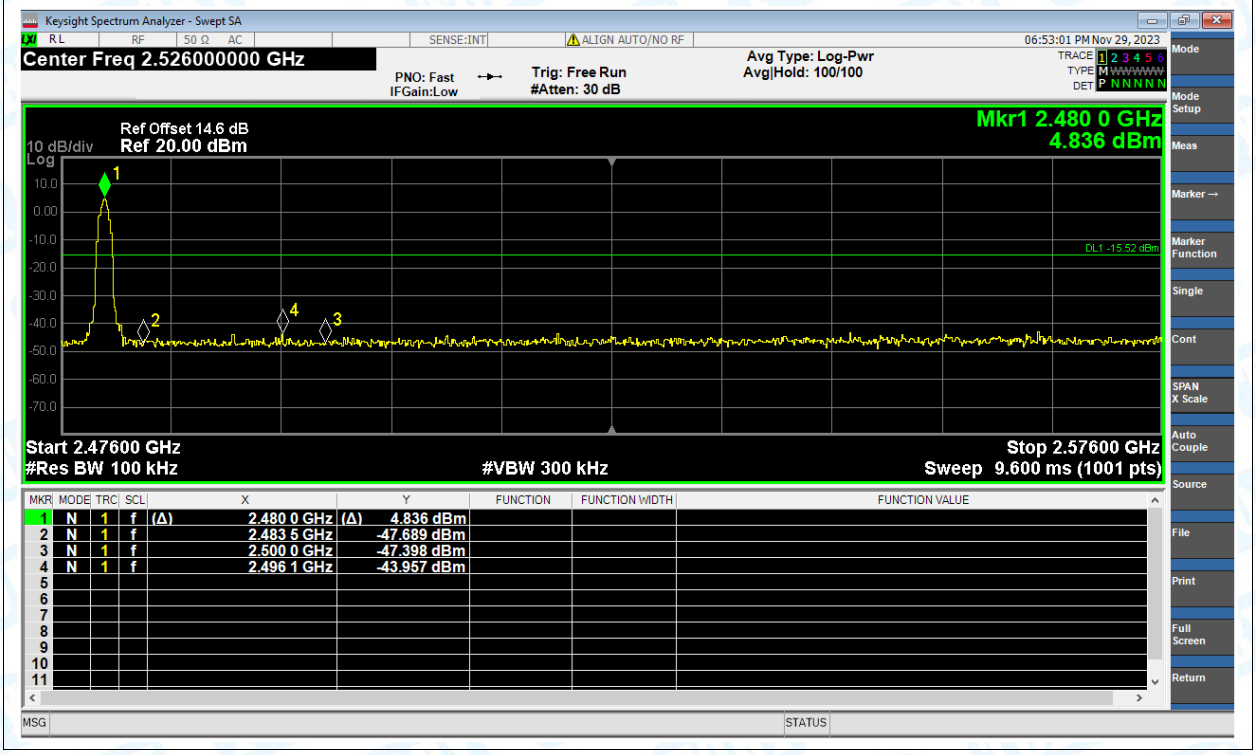
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

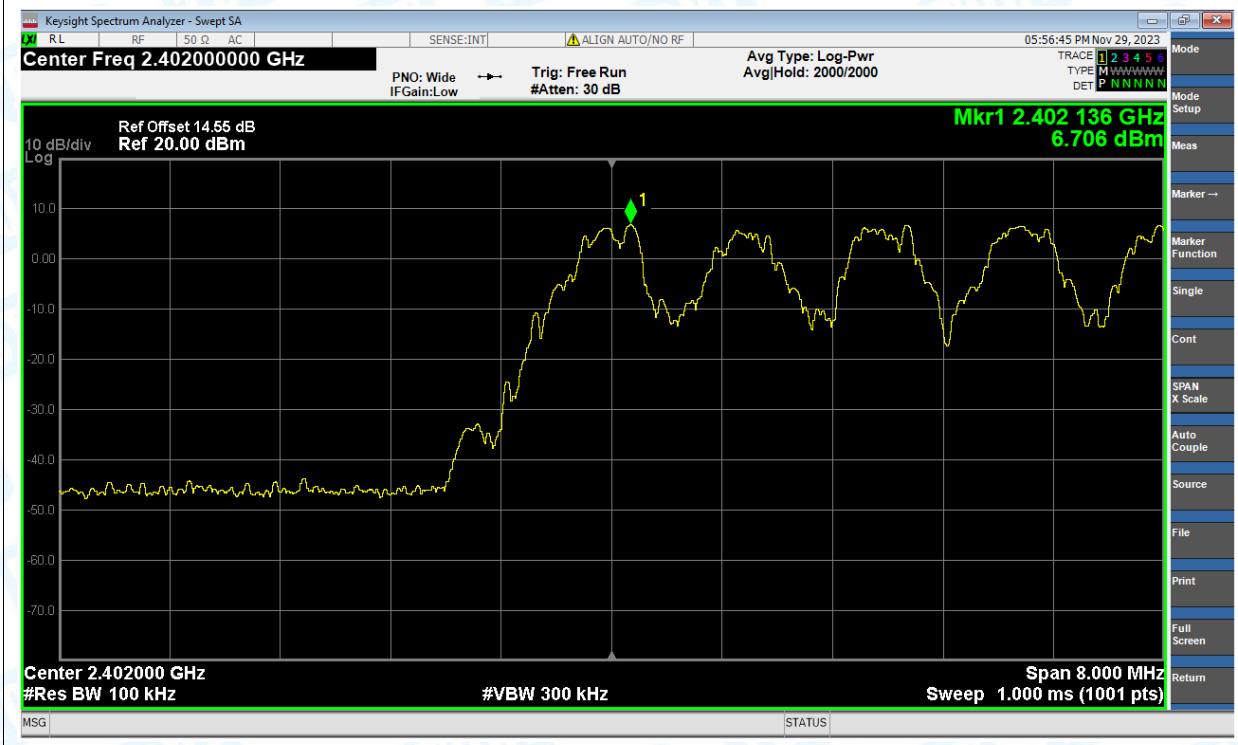


Band Edge(Hopping)

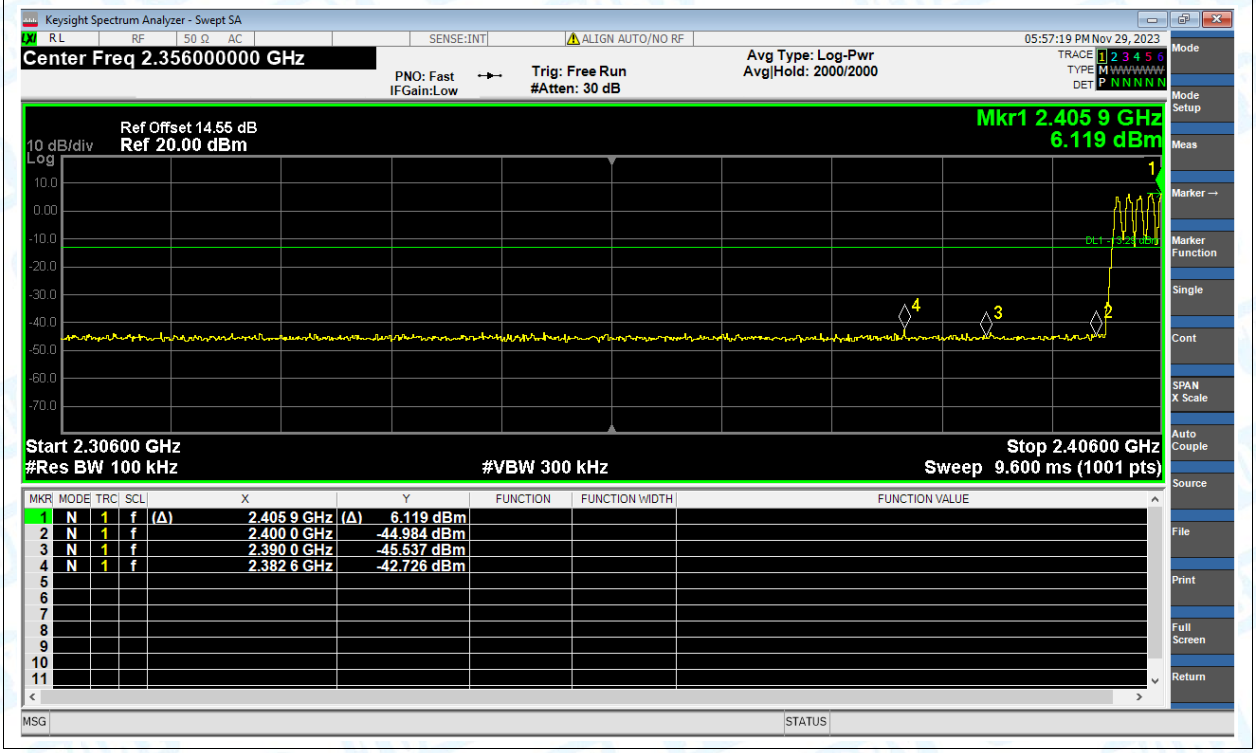
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-49.44	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-48.26	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-48.72	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-47.72	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-49.64	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-47.82	-20	Pass

Test Graphs

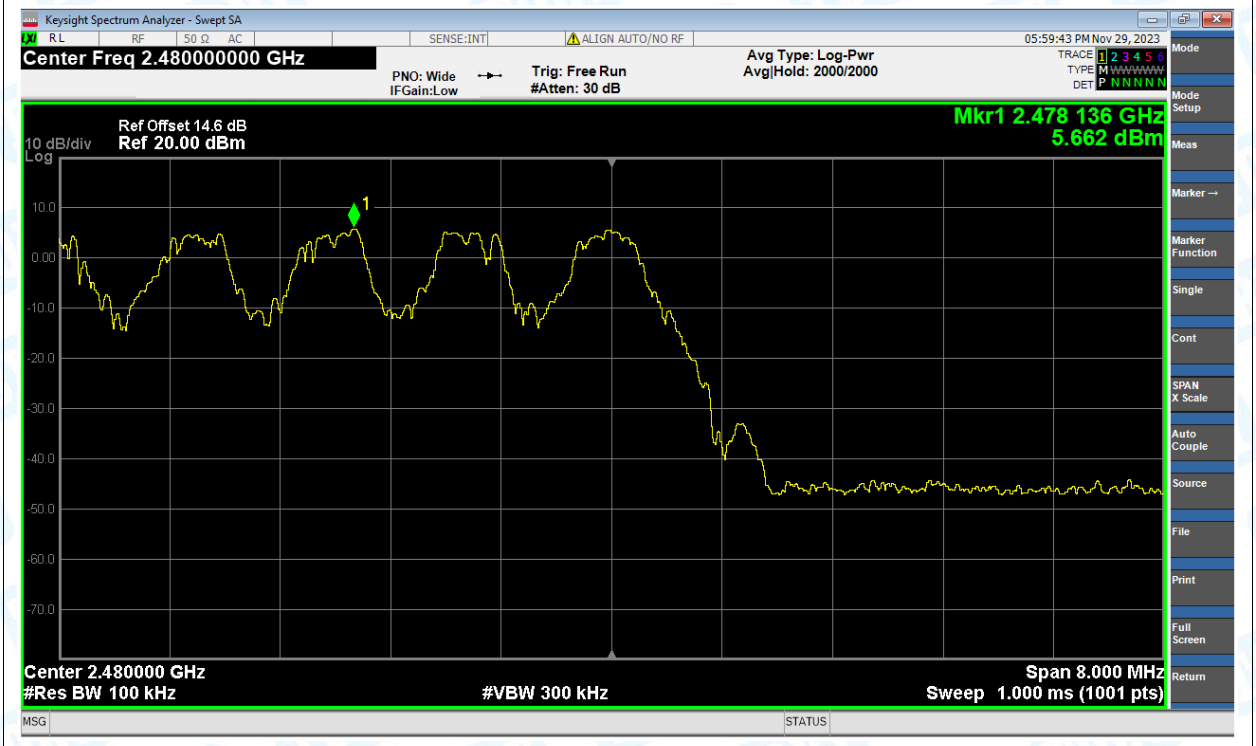
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



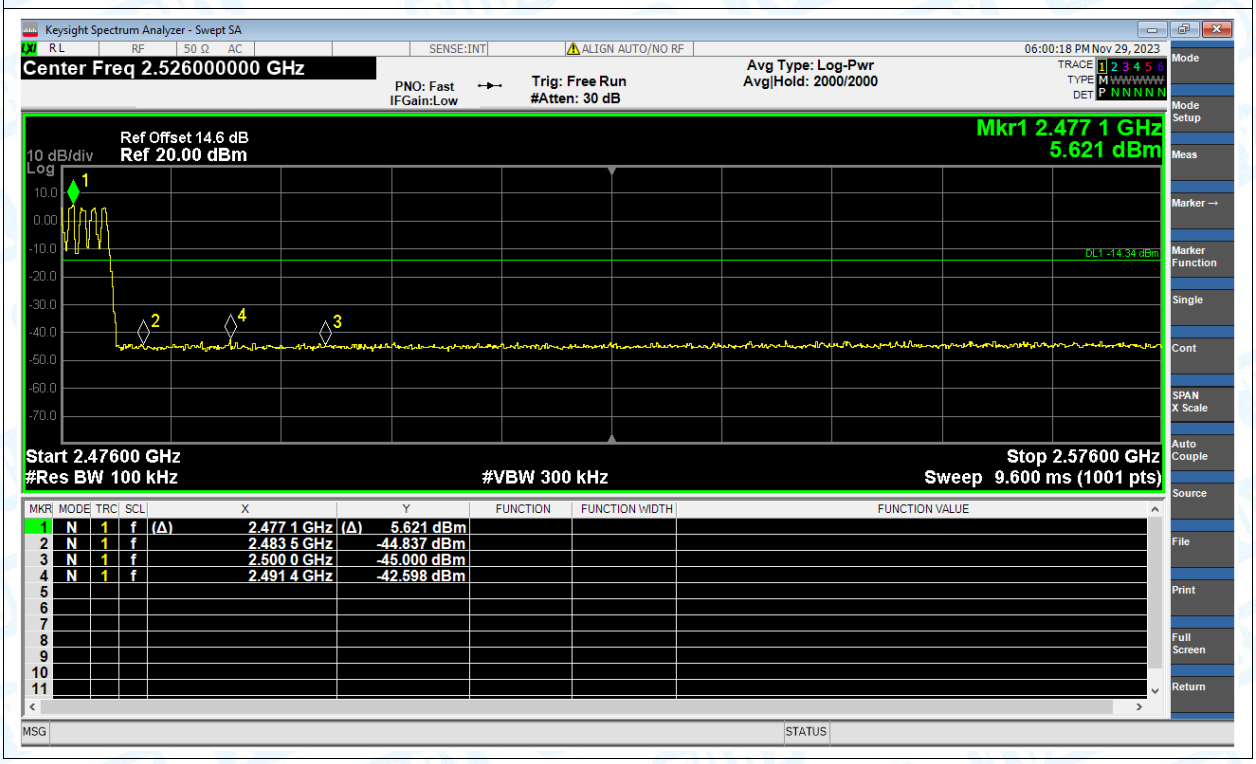
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



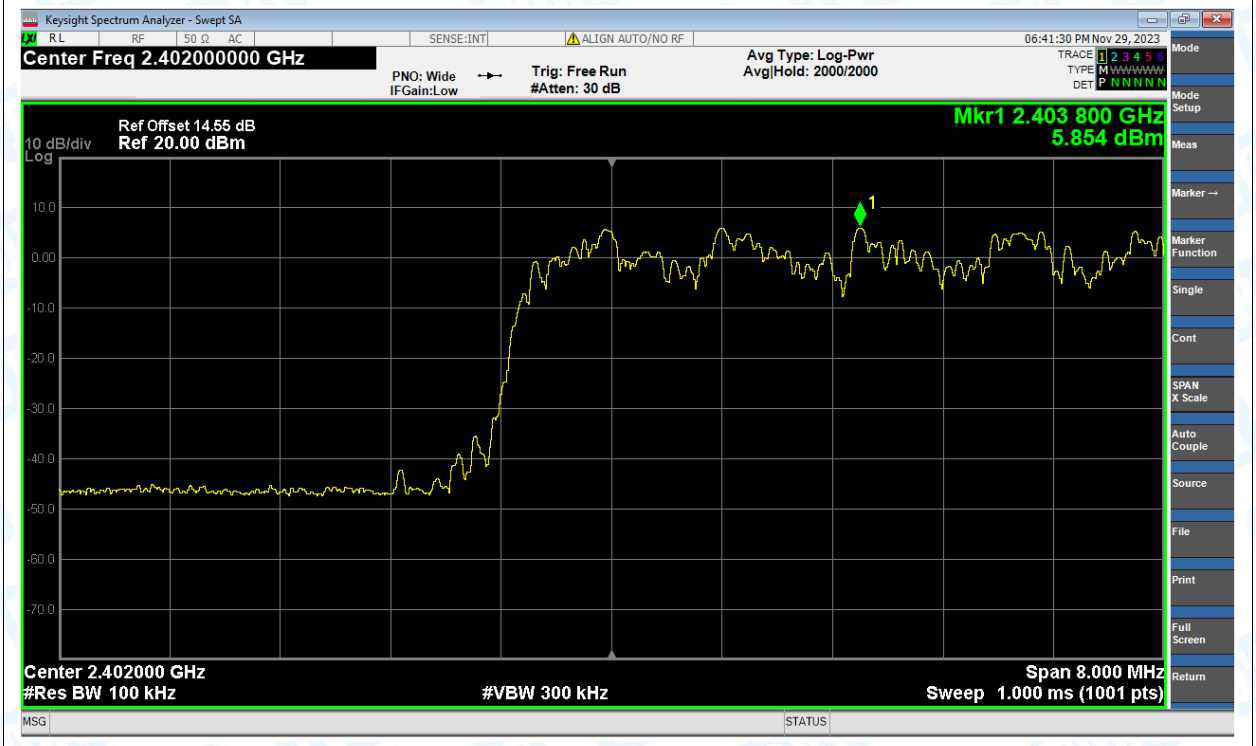
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



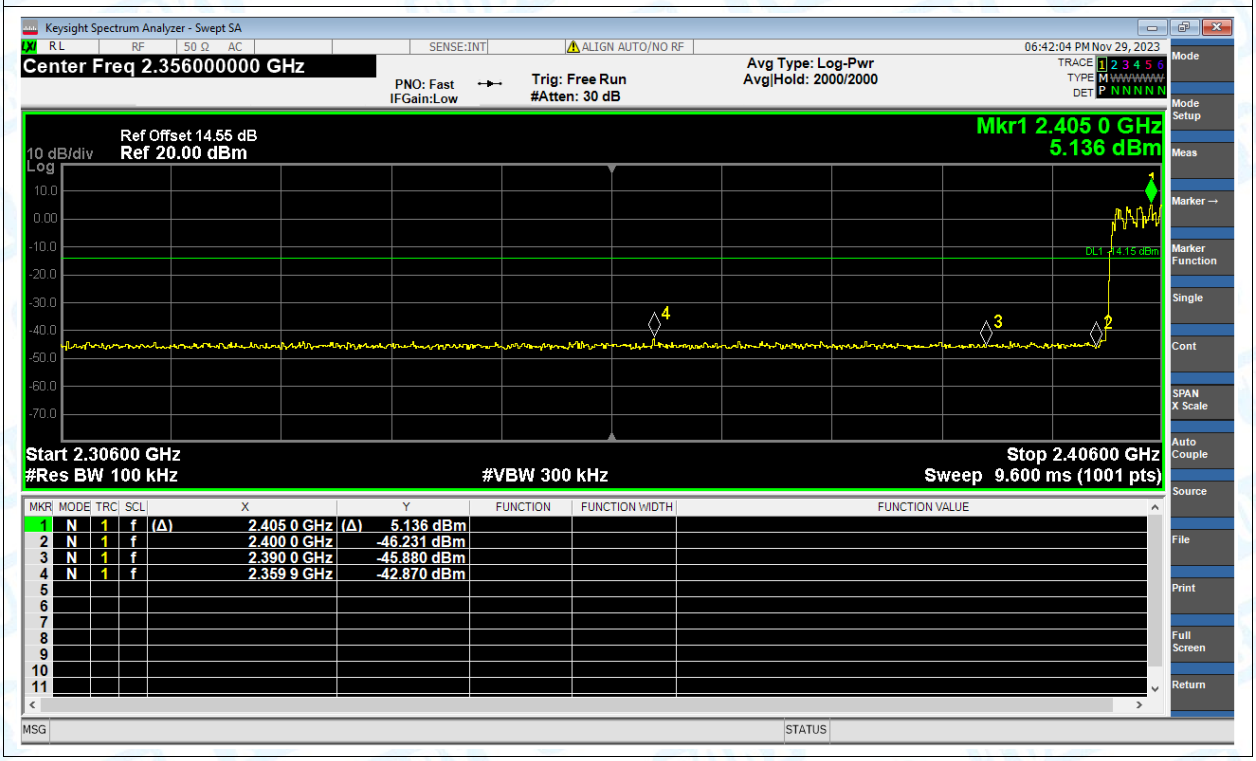
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



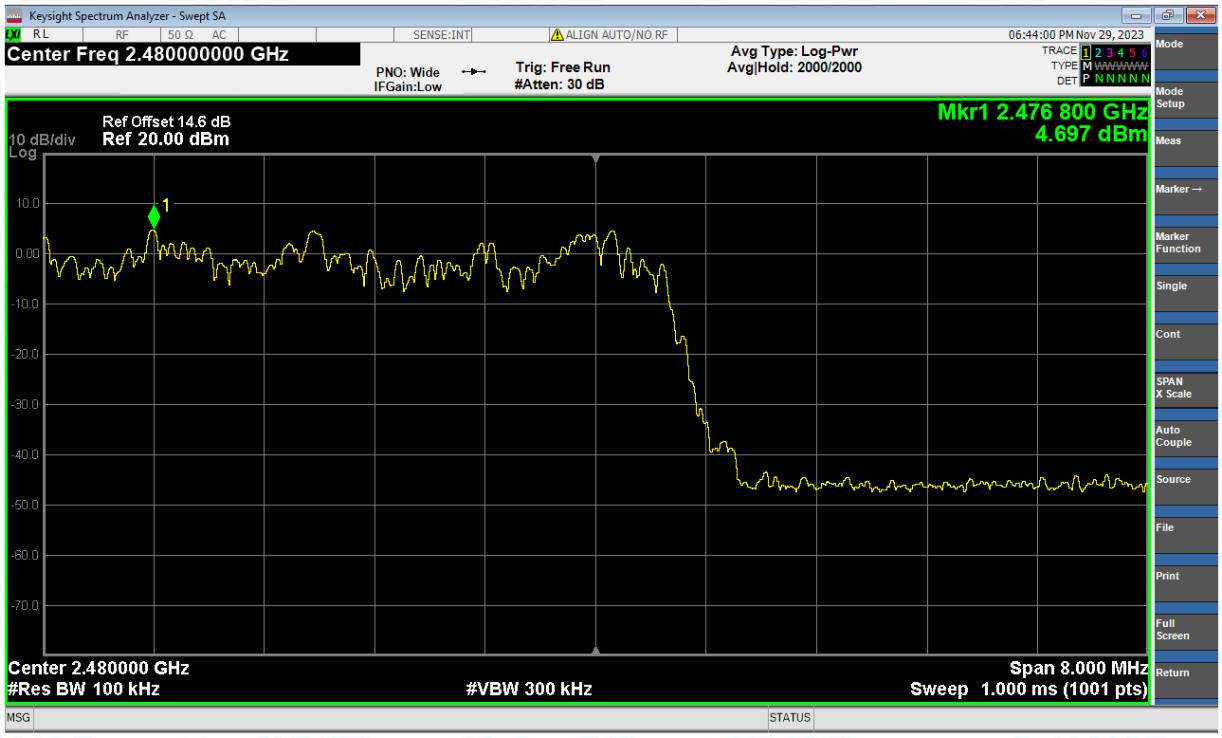
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



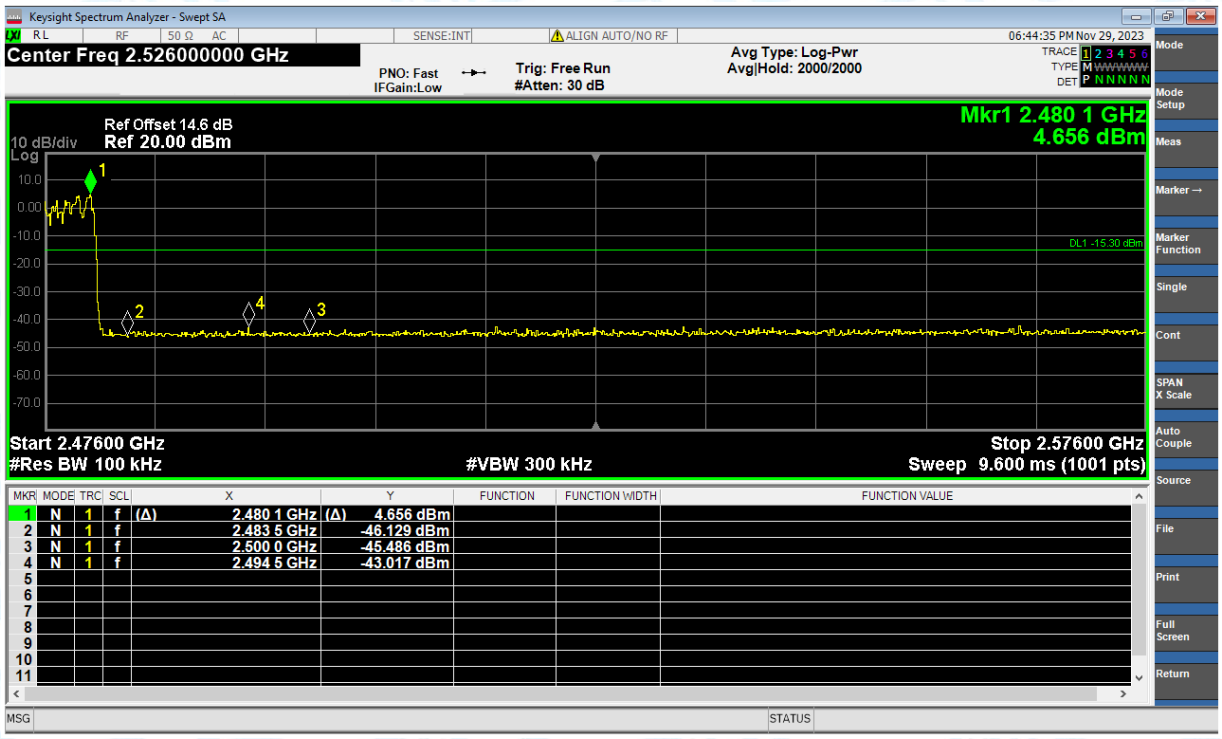
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



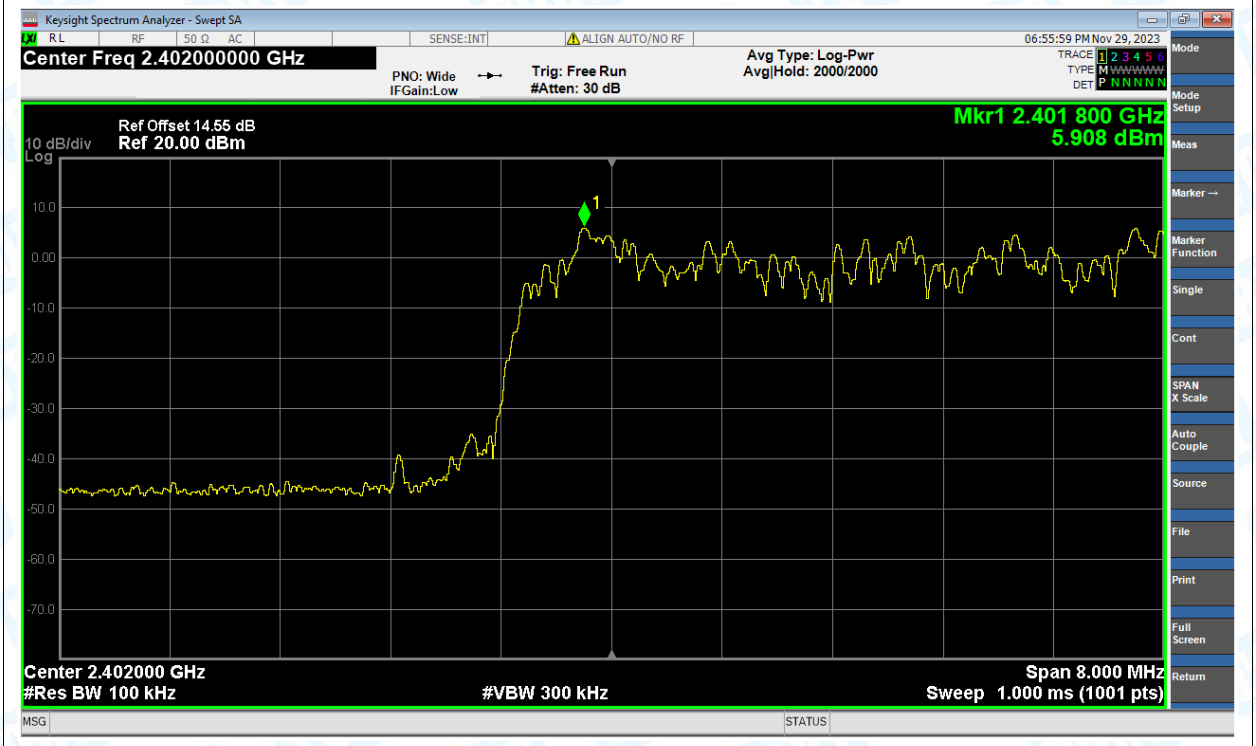
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



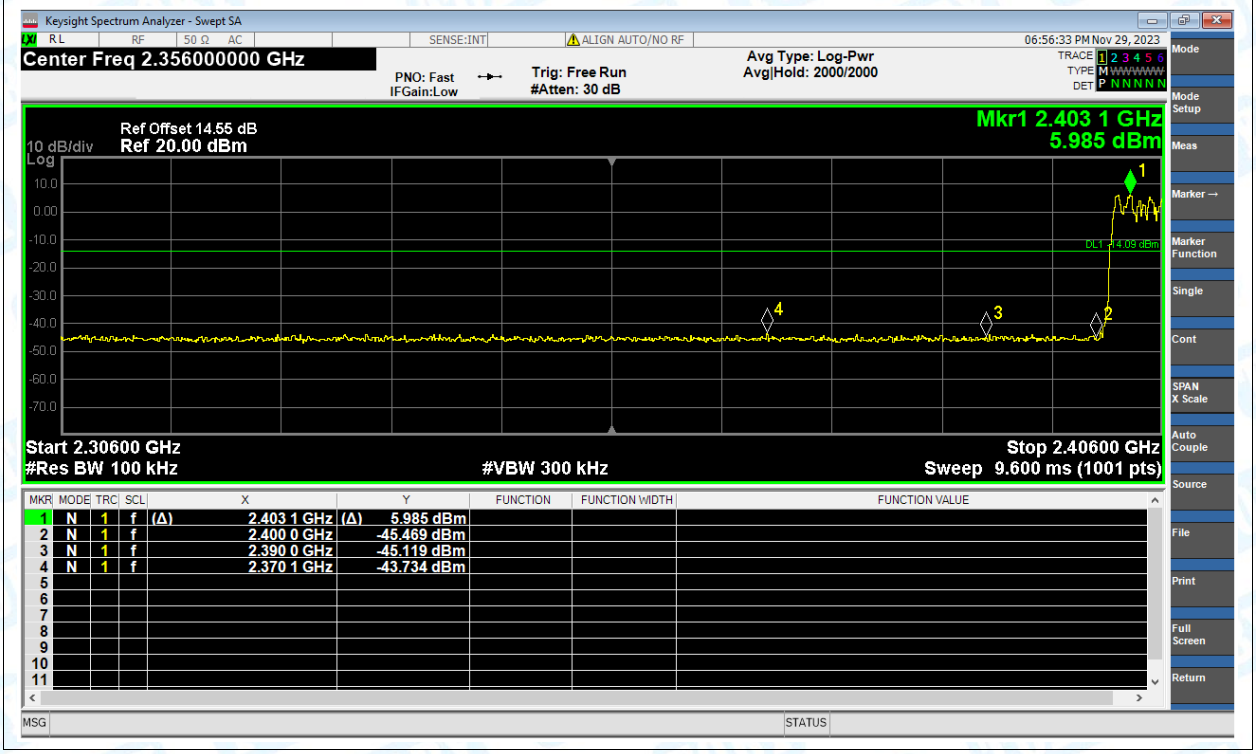
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



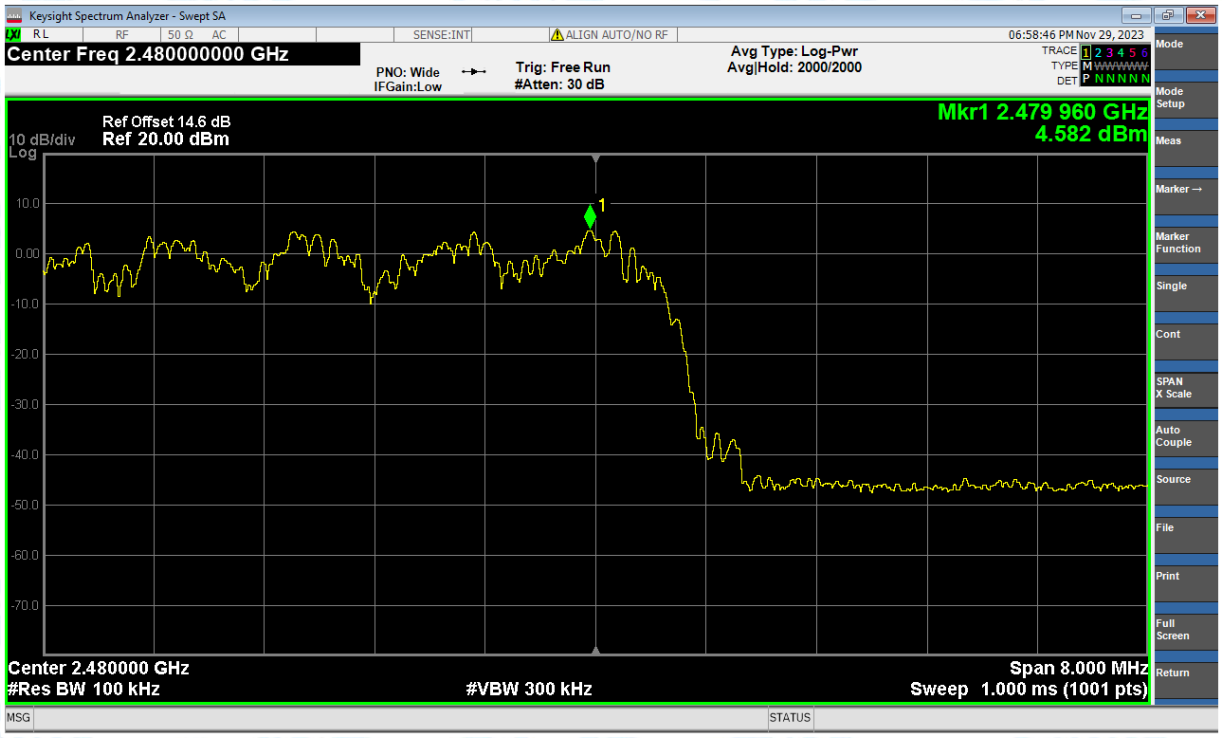
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



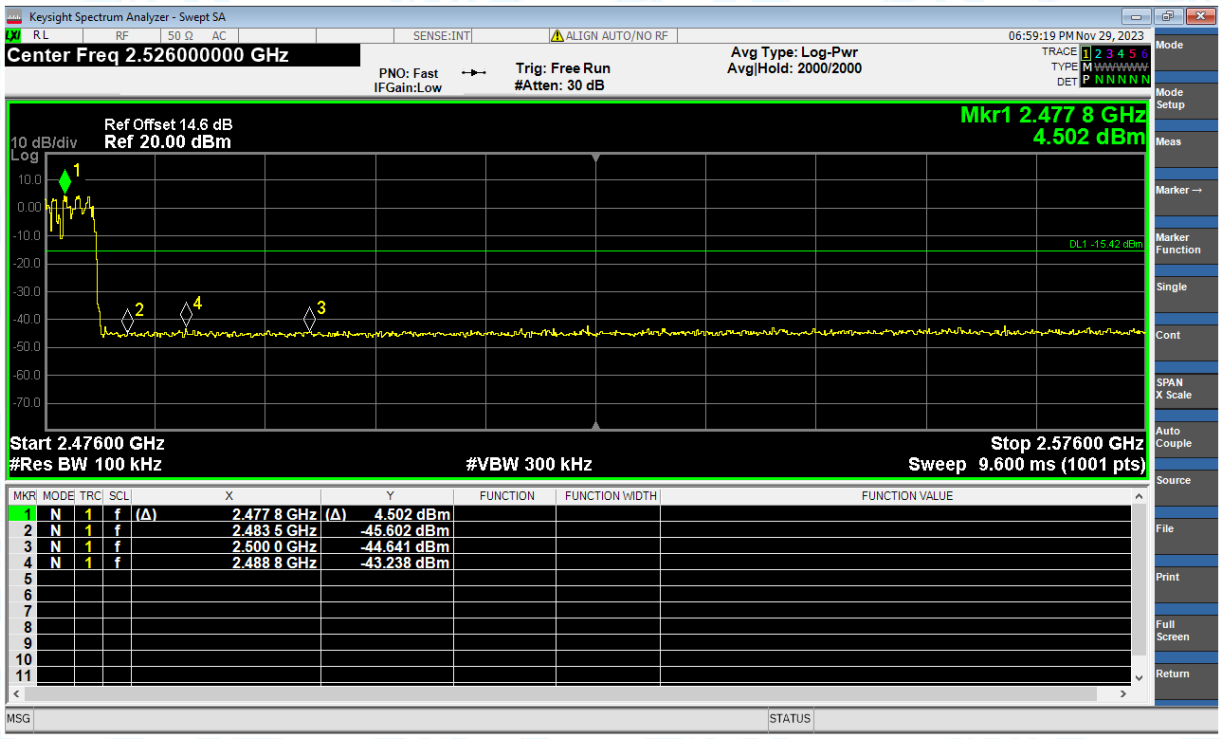
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

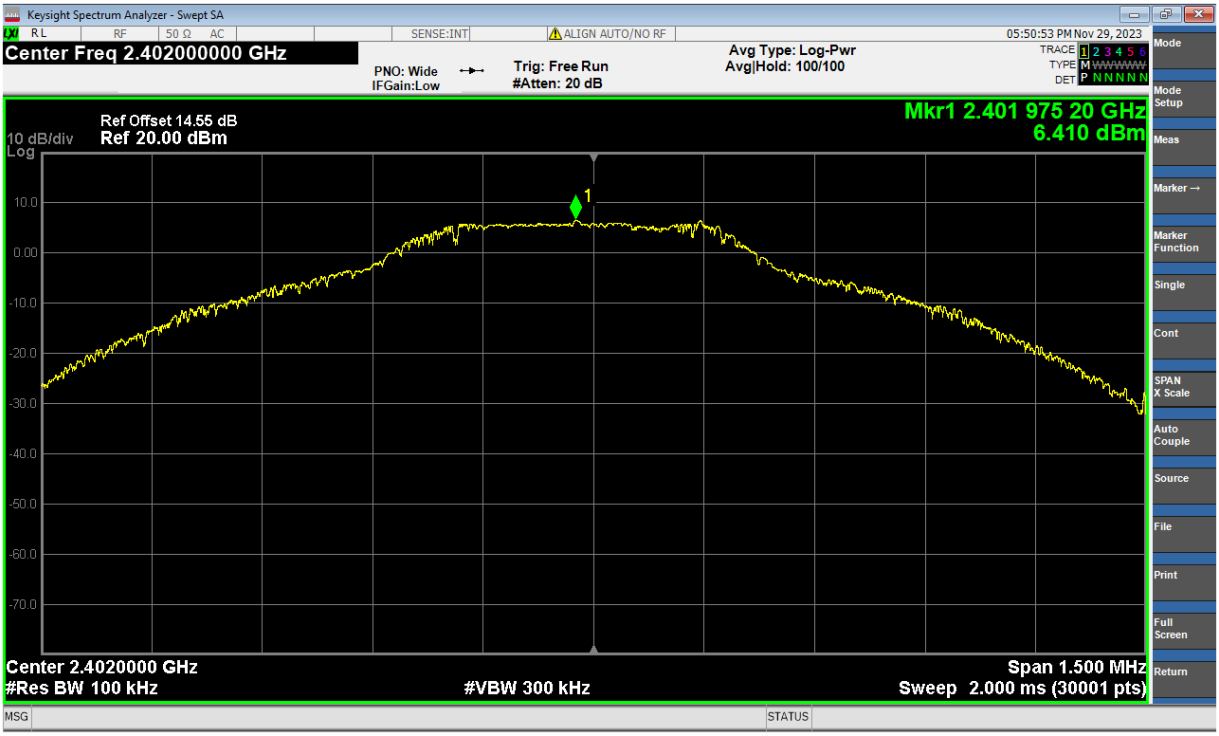


Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-46.16	-20	Pass
NVNT	1-DH1	2441	Ant1	-45.95	-20	Pass
NVNT	1-DH1	2480	Ant1	-45.56	-20	Pass
NVNT	2-DH1	2402	Ant1	-45.55	-20	Pass
NVNT	2-DH1	2441	Ant1	-45.3	-20	Pass
NVNT	2-DH1	2480	Ant1	-44.25	-20	Pass
NVNT	3-DH1	2402	Ant1	-45.61	-20	Pass
NVNT	3-DH1	2441	Ant1	-44.5	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.81	-20	Pass

Test Graphs

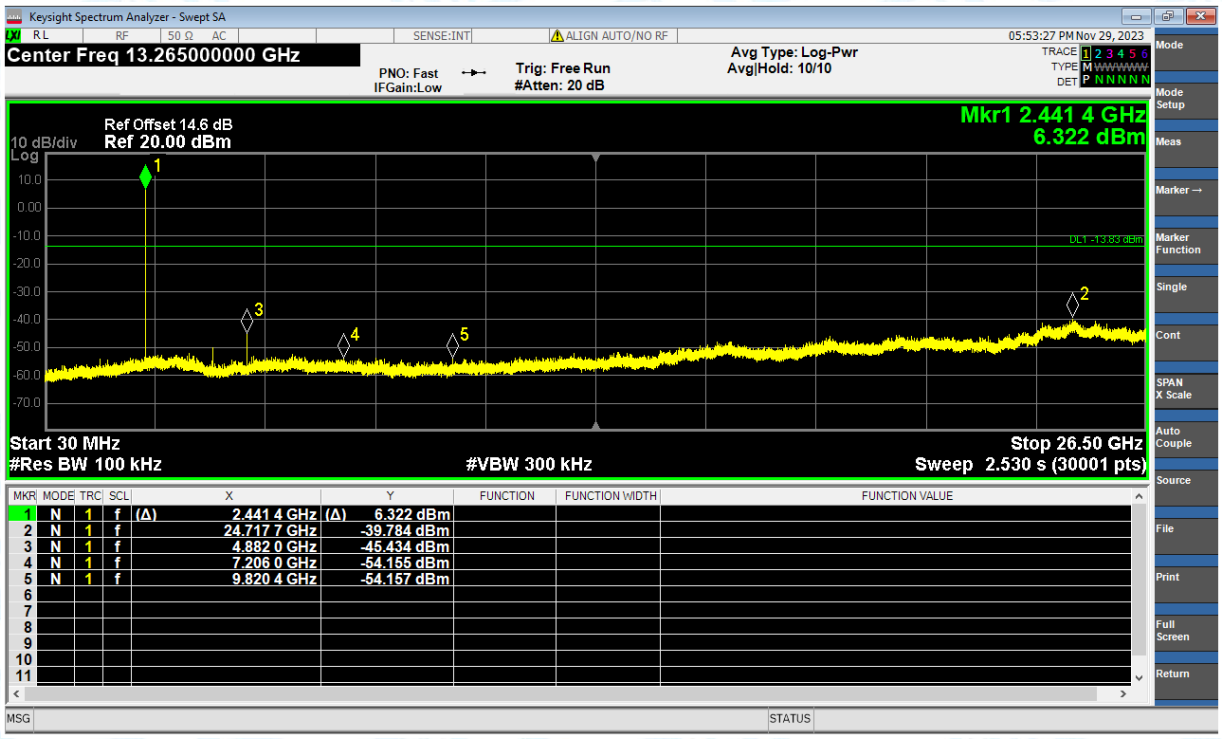
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



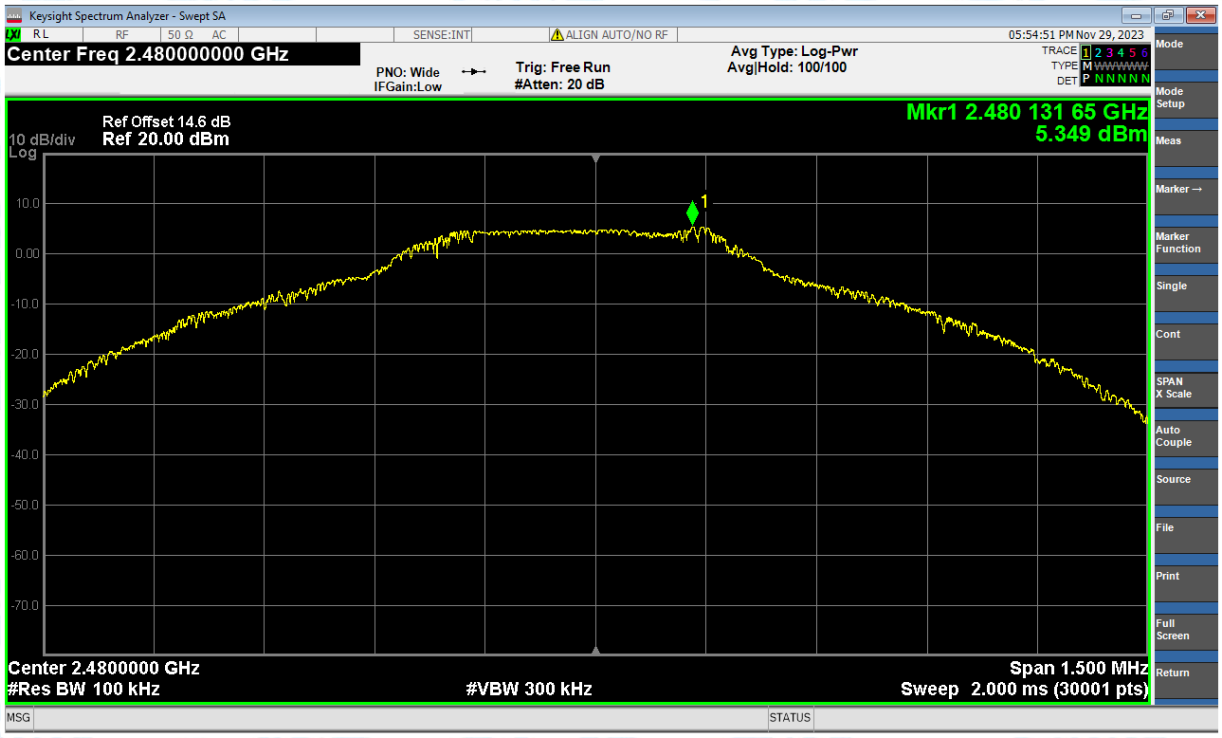
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref

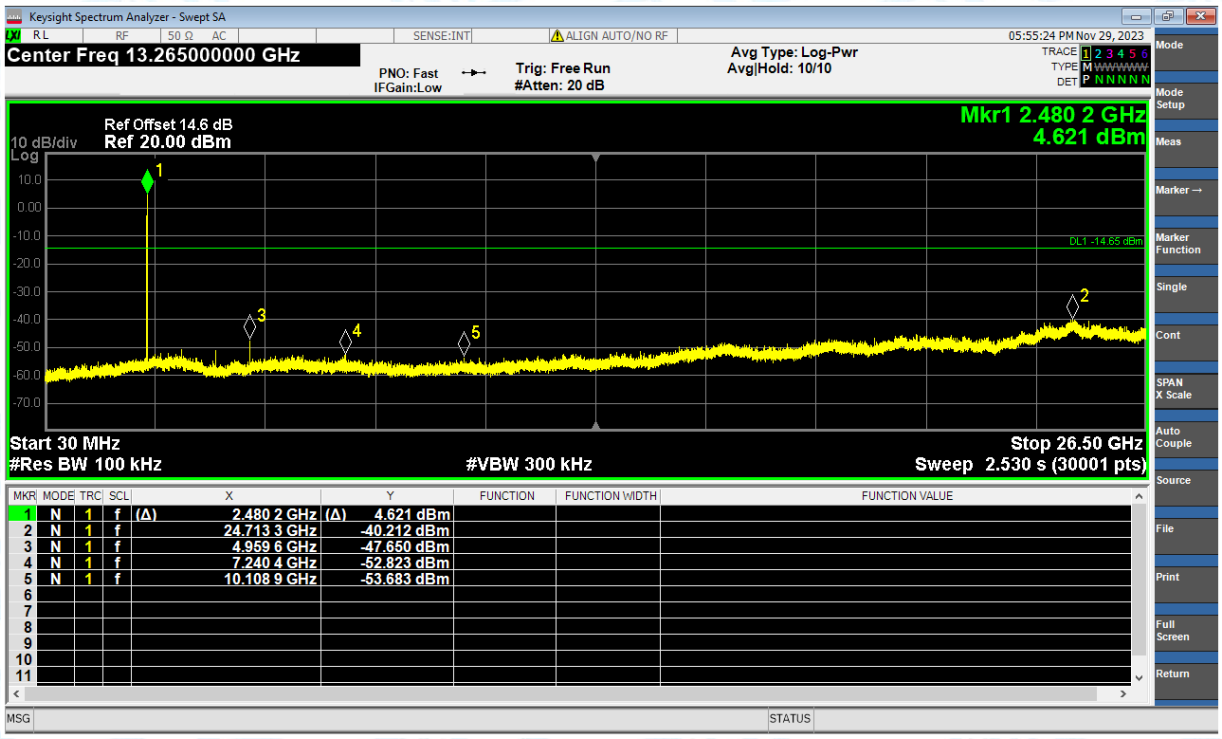
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



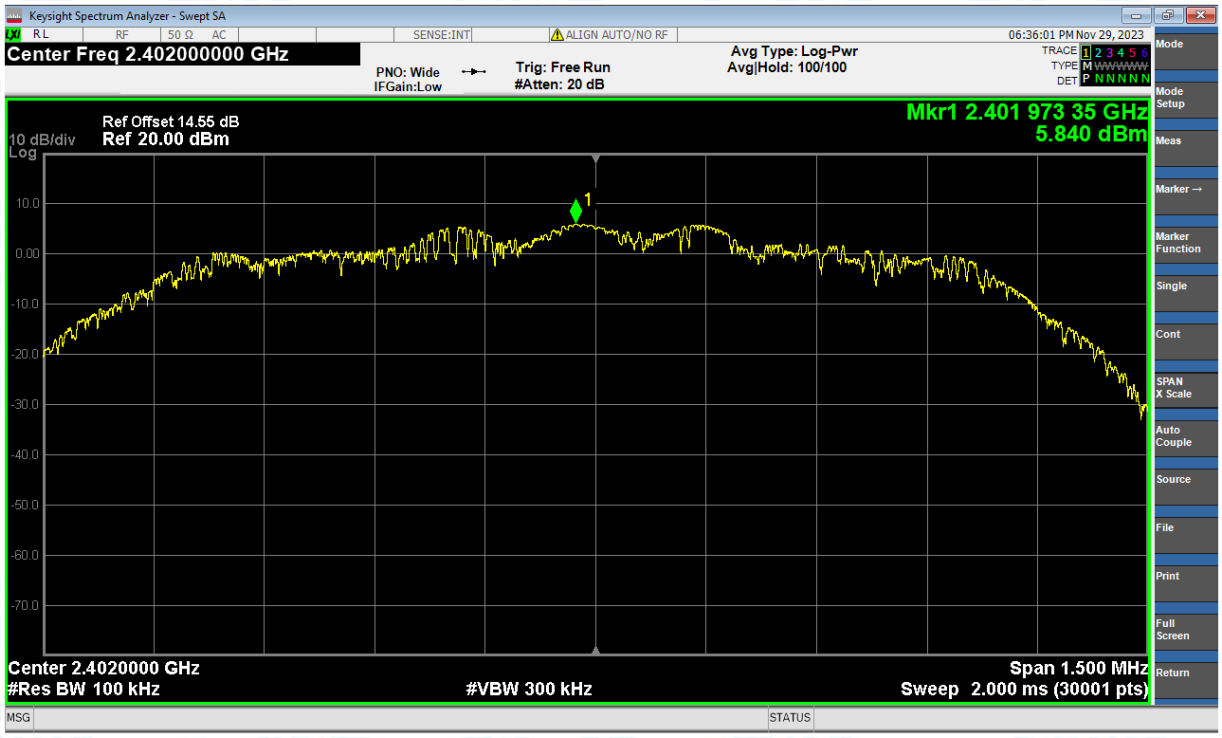
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



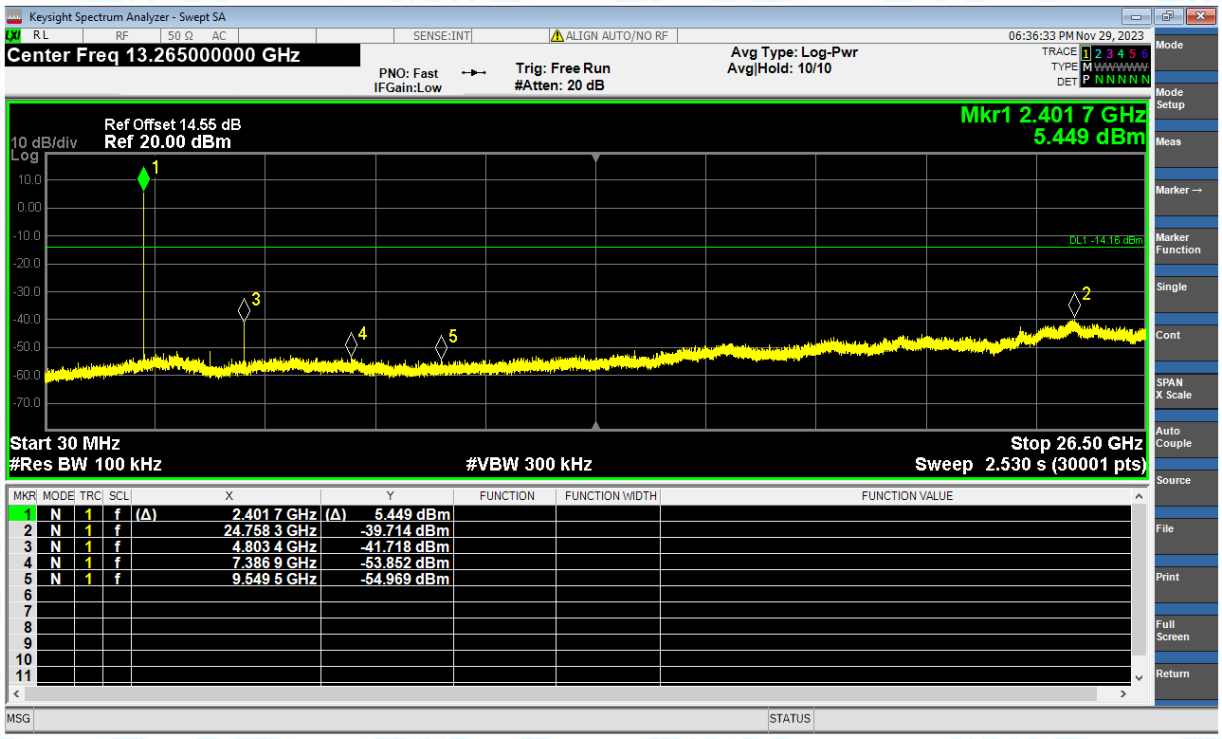
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref

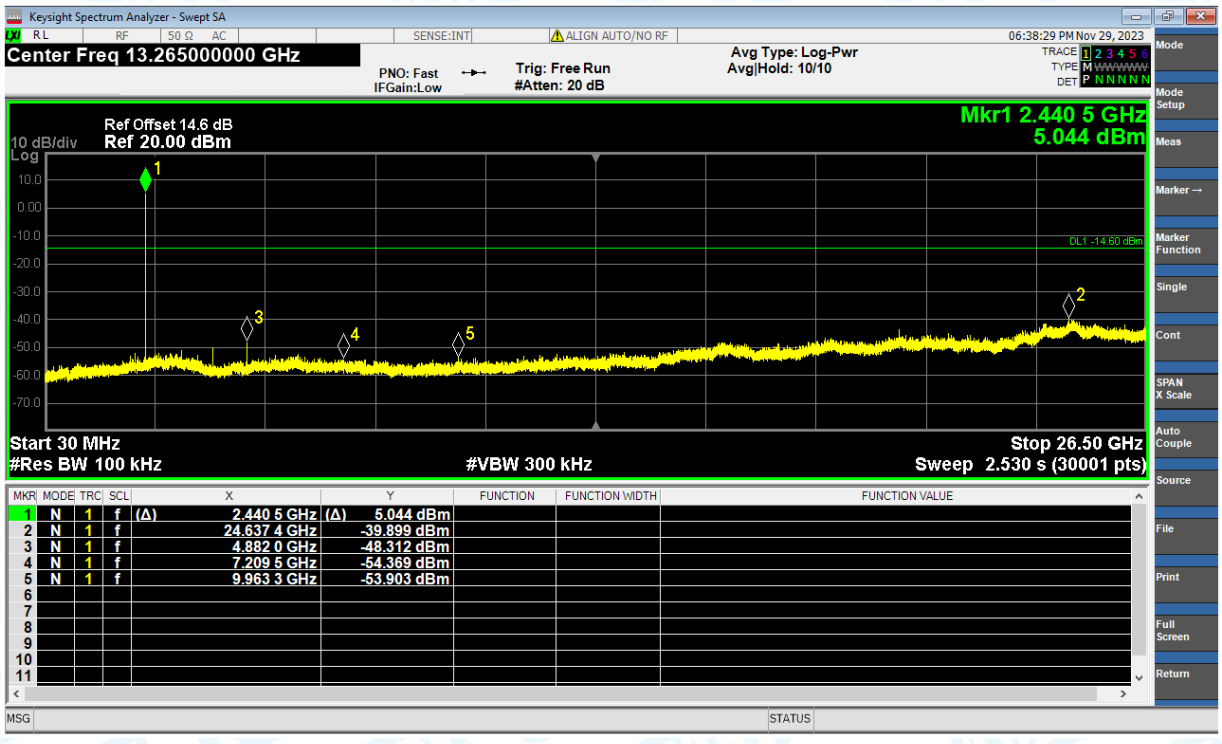


Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission

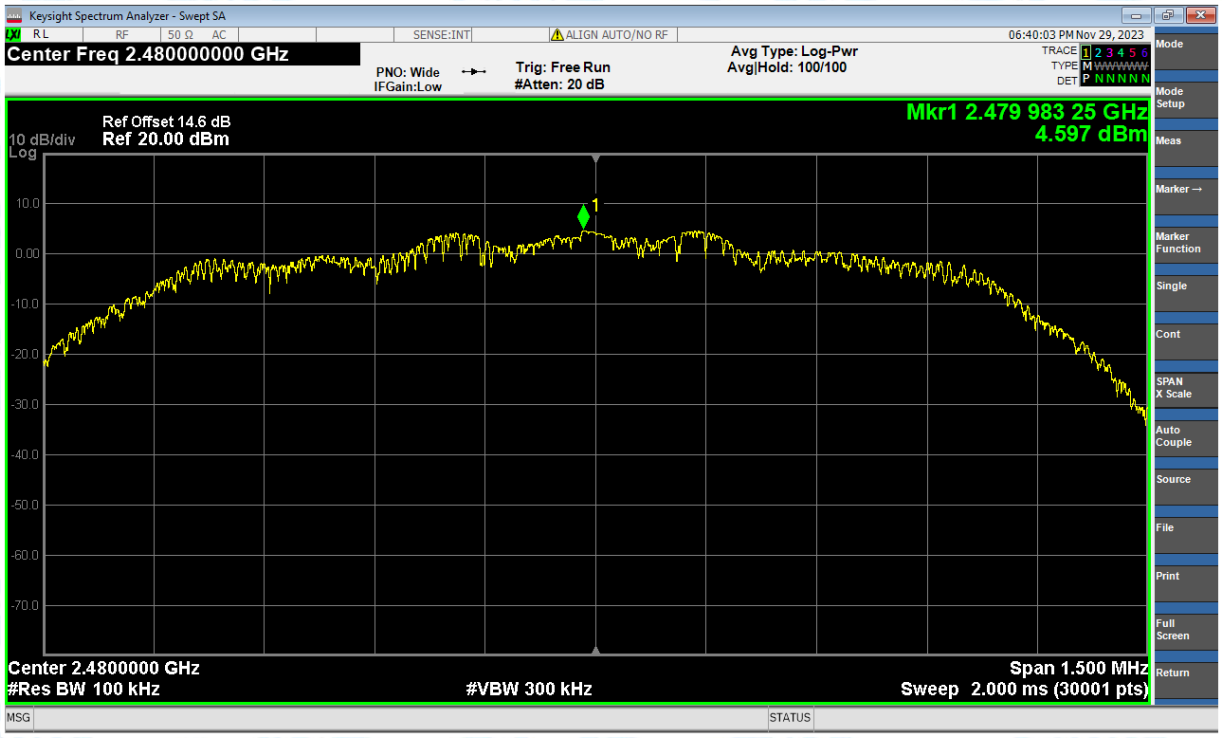


Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref

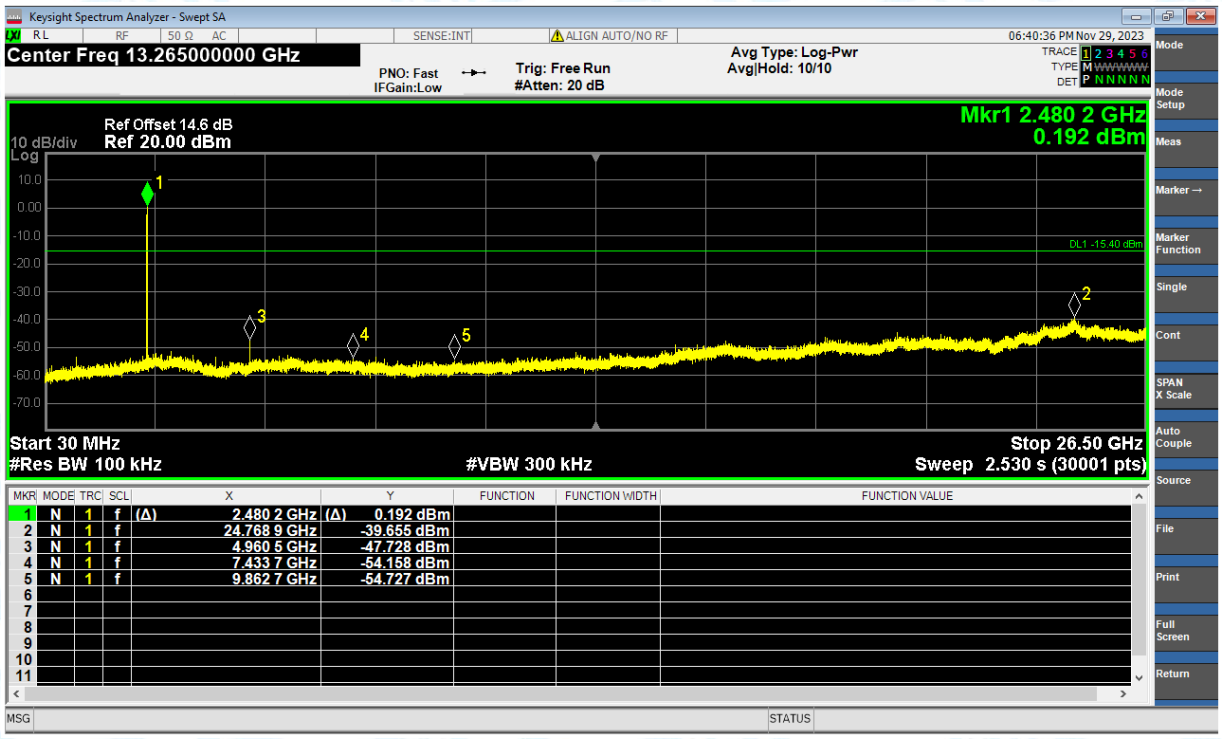
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



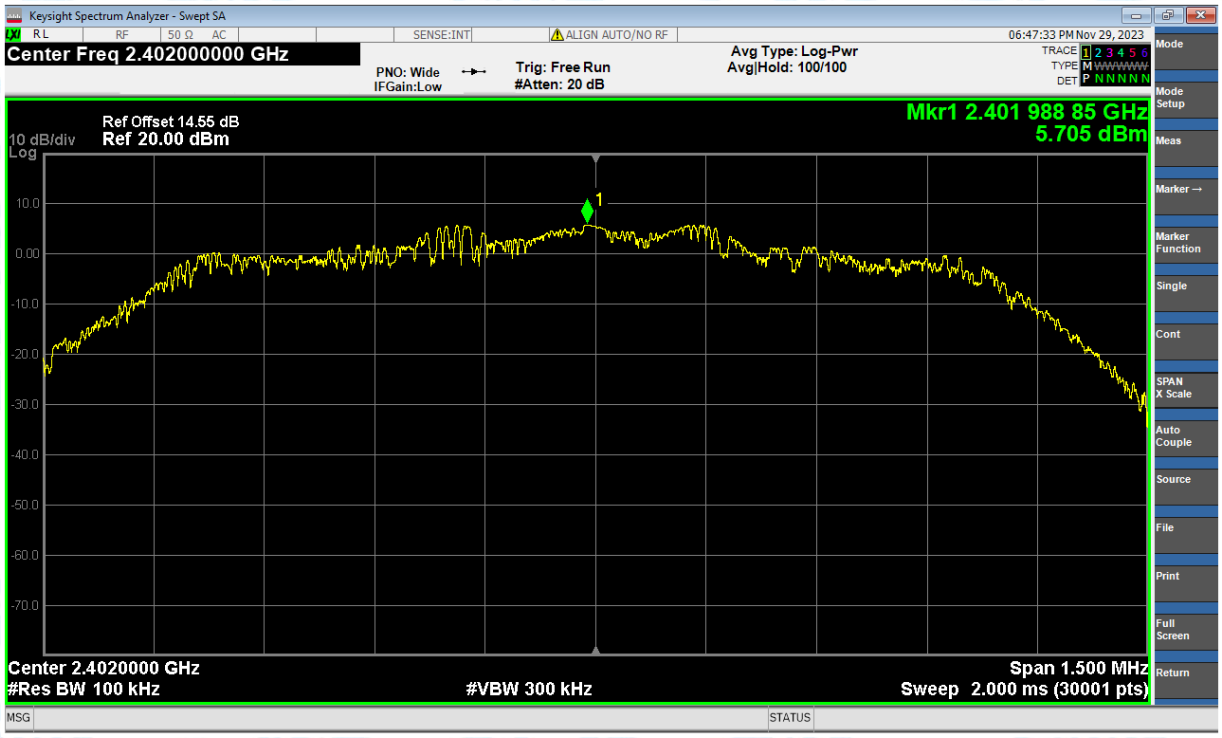
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



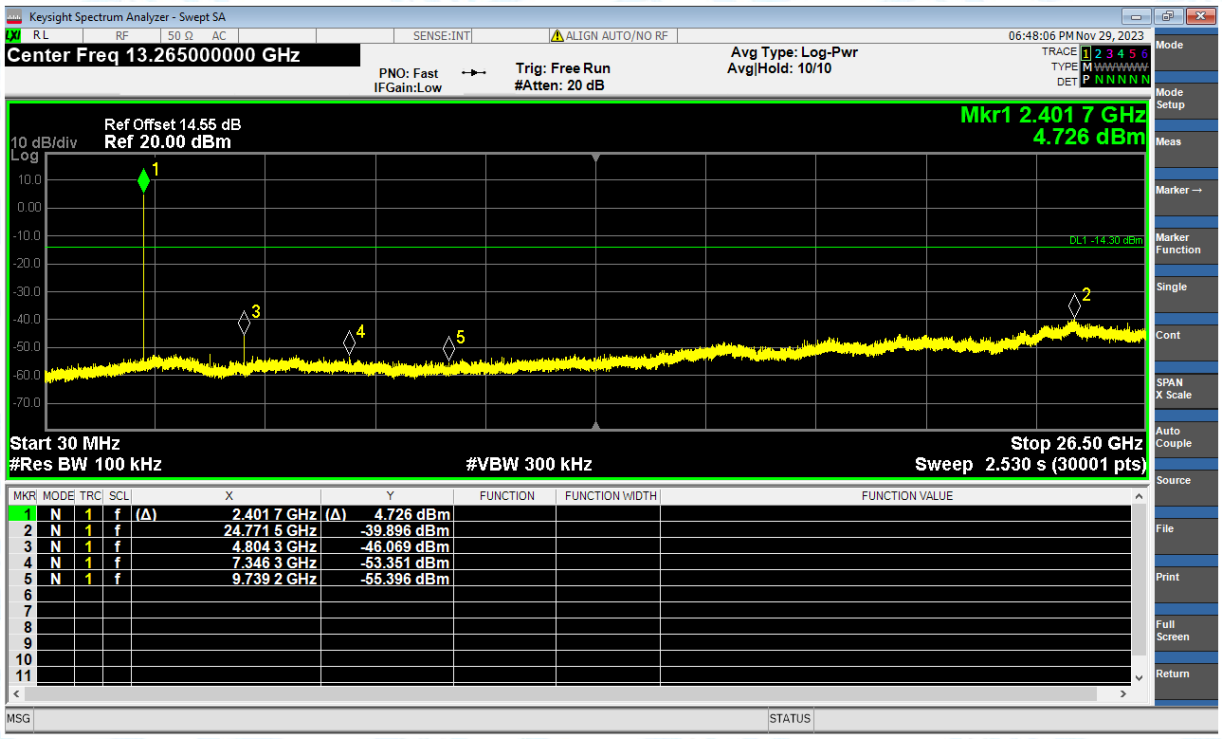
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



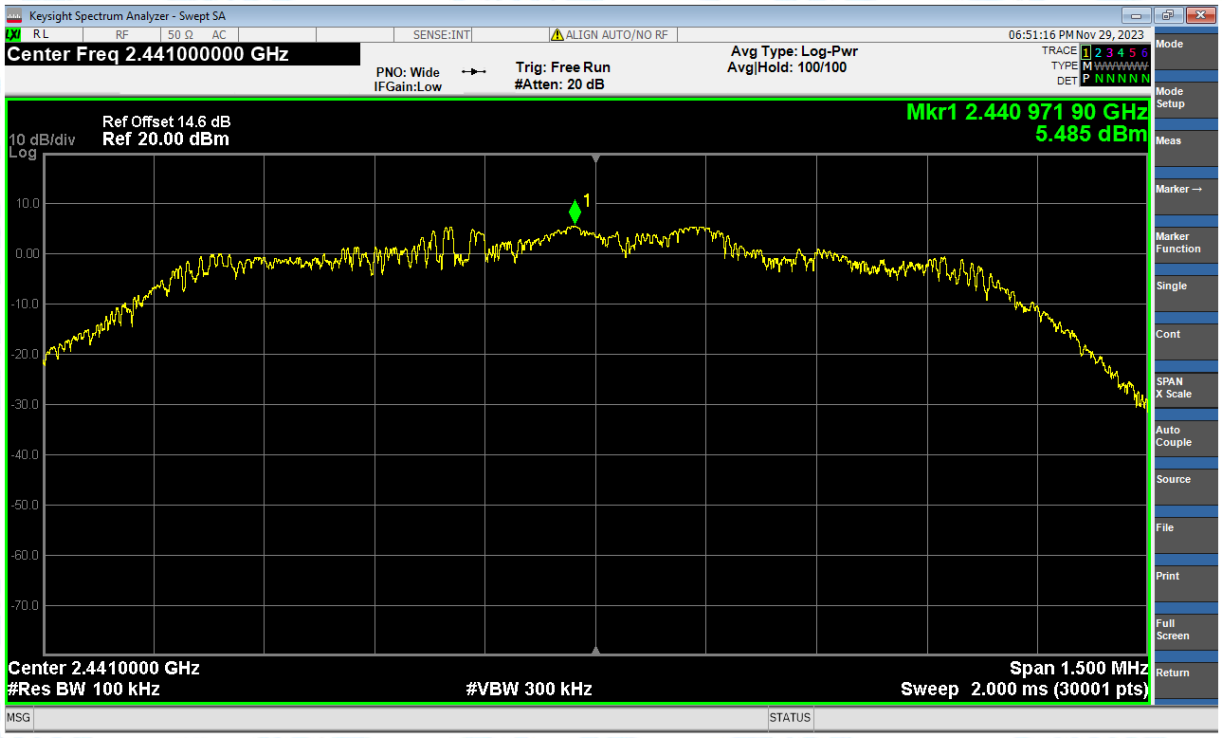
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



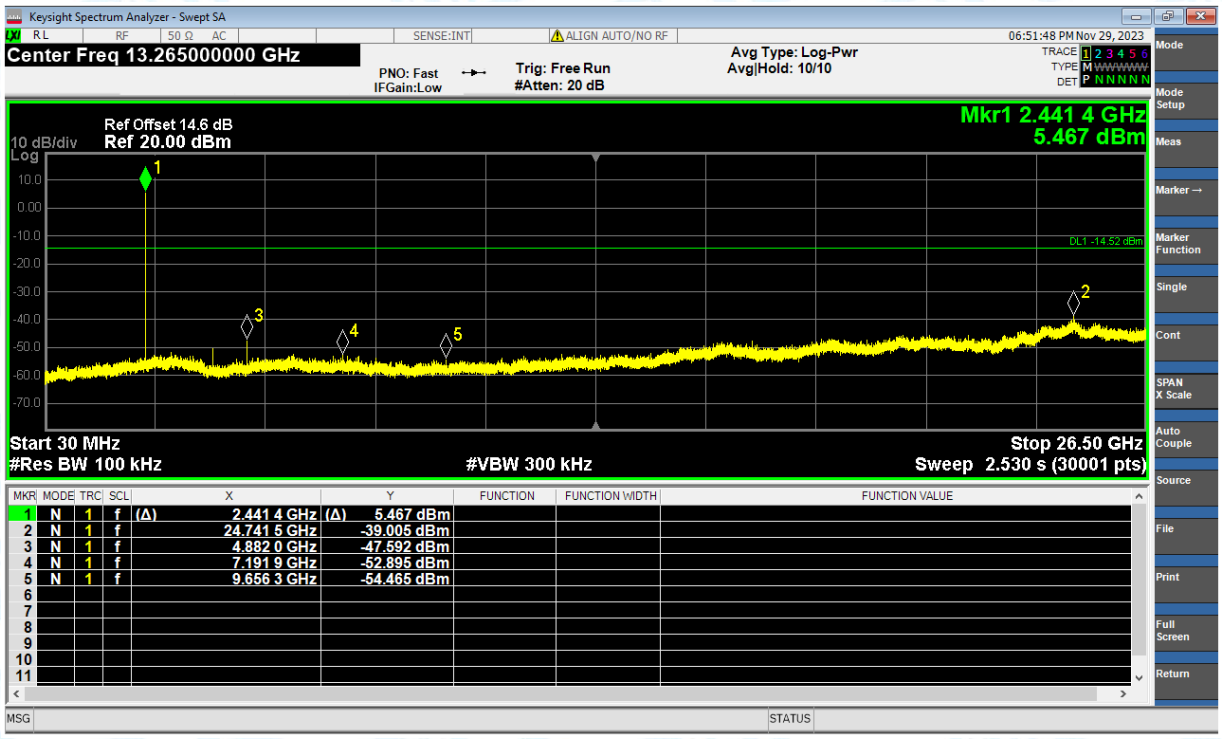
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



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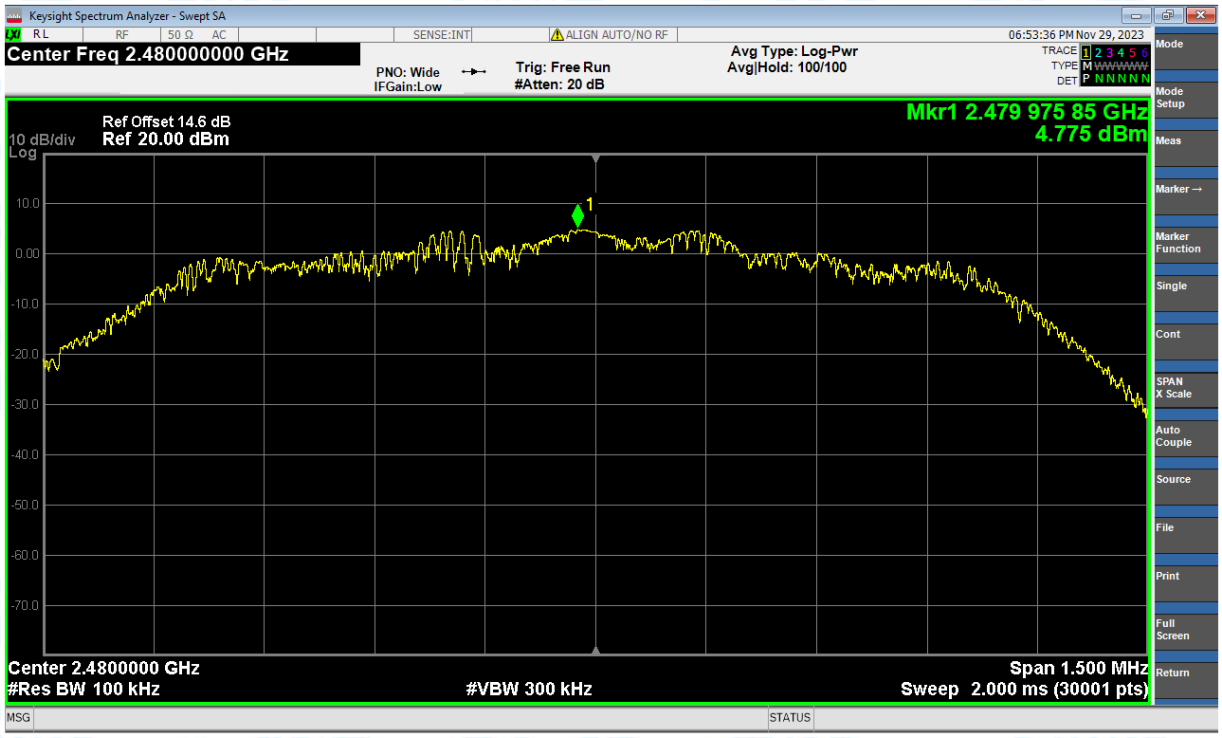
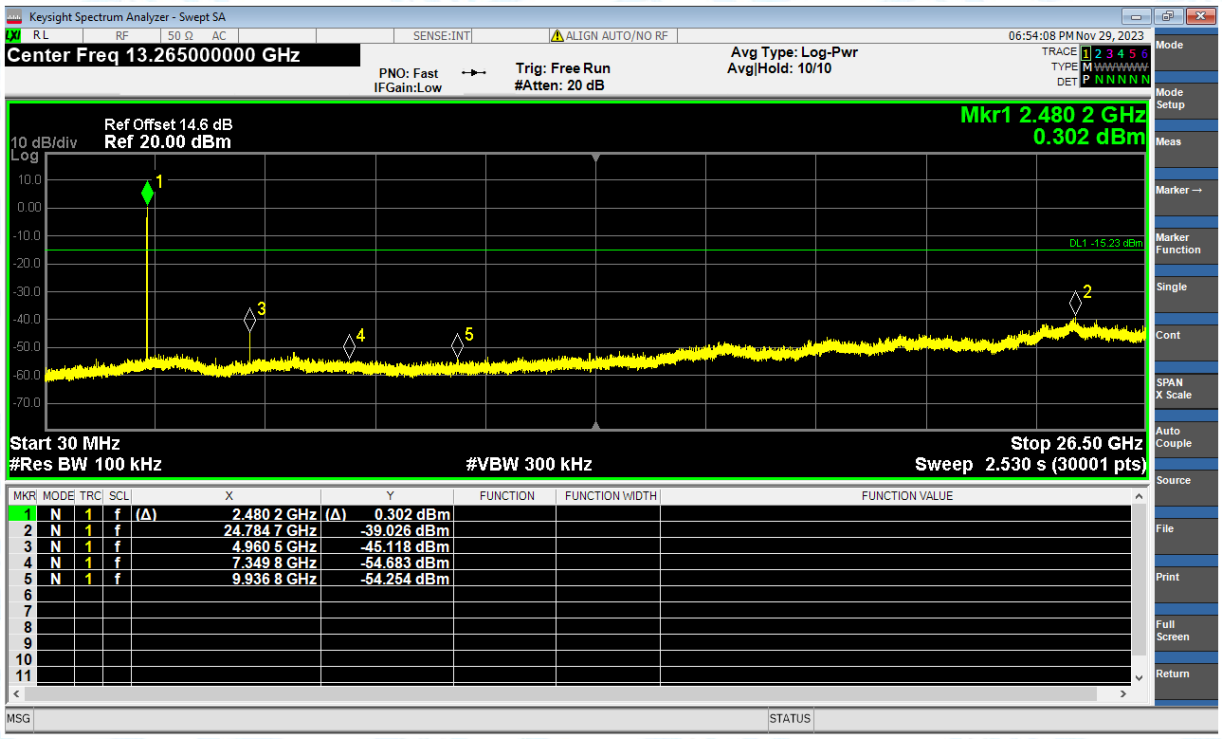


Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

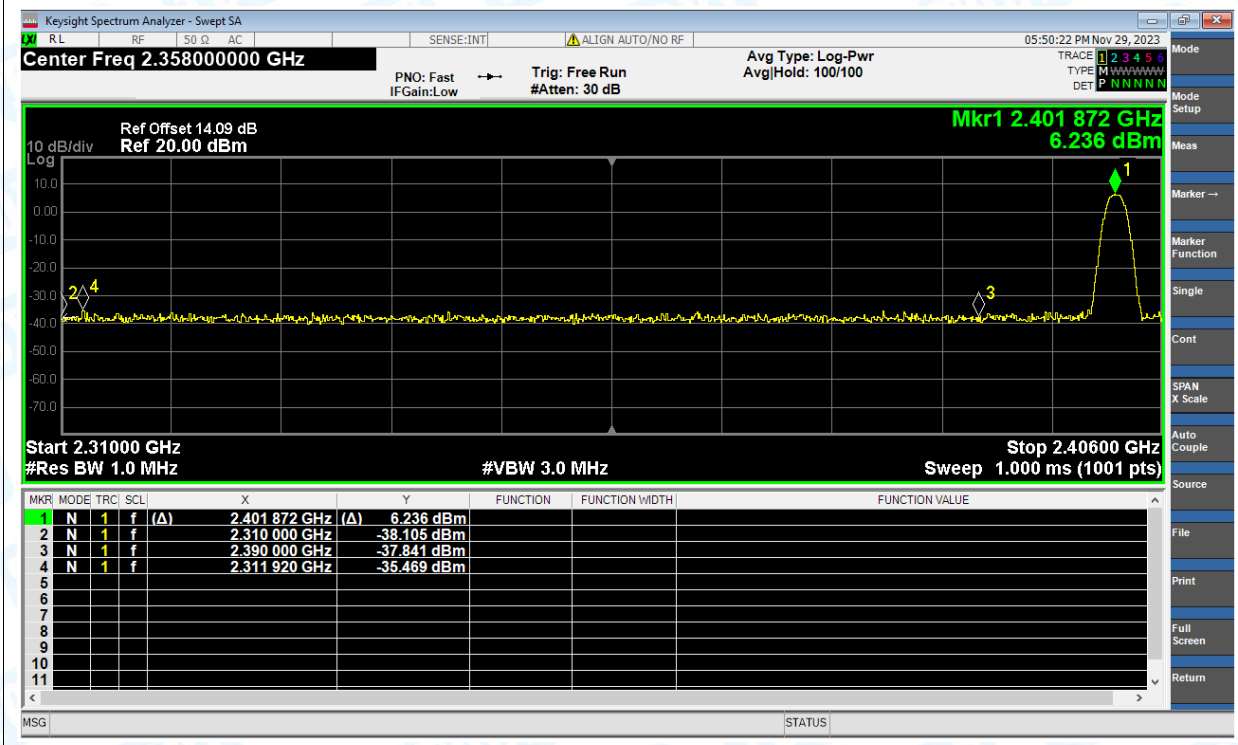


Restrict Band

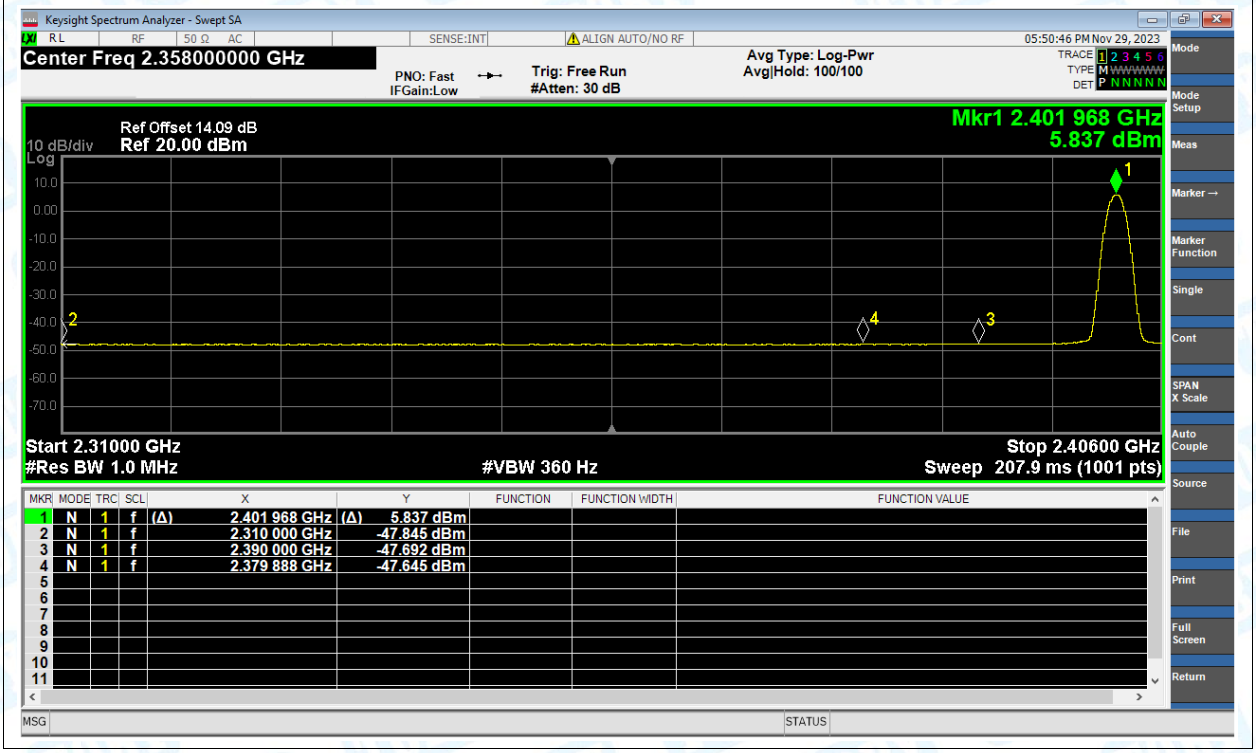
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-38.1	2	59.16	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.84	2	49.42	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2311.92	-35.47	2	61.79	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.888	-47.65	2	49.61	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-39.15	2	58.11	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.63	2	49.63	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-37.73	2	59.53	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.26	2	50	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.888	-34.83	2	62.43	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-47.26	2	50	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-38.47	2	58.79	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.33	2	49.93	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-37.5	2	59.76	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.05	2	50.21	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2347.728	-35.34	2	61.92	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2363.568	-46.66	2	50.6	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-38.67	2	58.59	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.98	2	50.28	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-37.51	2	59.75	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.92	2	50.34	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2495.968	-34.74	2	62.52	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2498.08	-46.57	2	50.69	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-38.29	2	58.97	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.11	2	50.15	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-38.61	2	58.65	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.16	2	50.1	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2352.72	-35.12	2	62.14	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2350.032	-46.6	2	50.66	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-39.44	2	57.82	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.12	2	50.14	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-38.4	2	58.86	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.93	2	50.33	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2491.48	-35.11	2	62.15	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2493.616	-46.48	2	50.78	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-37.41	2	59.85	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.07	2	50.19	Average	54	Pass

Test Graphs

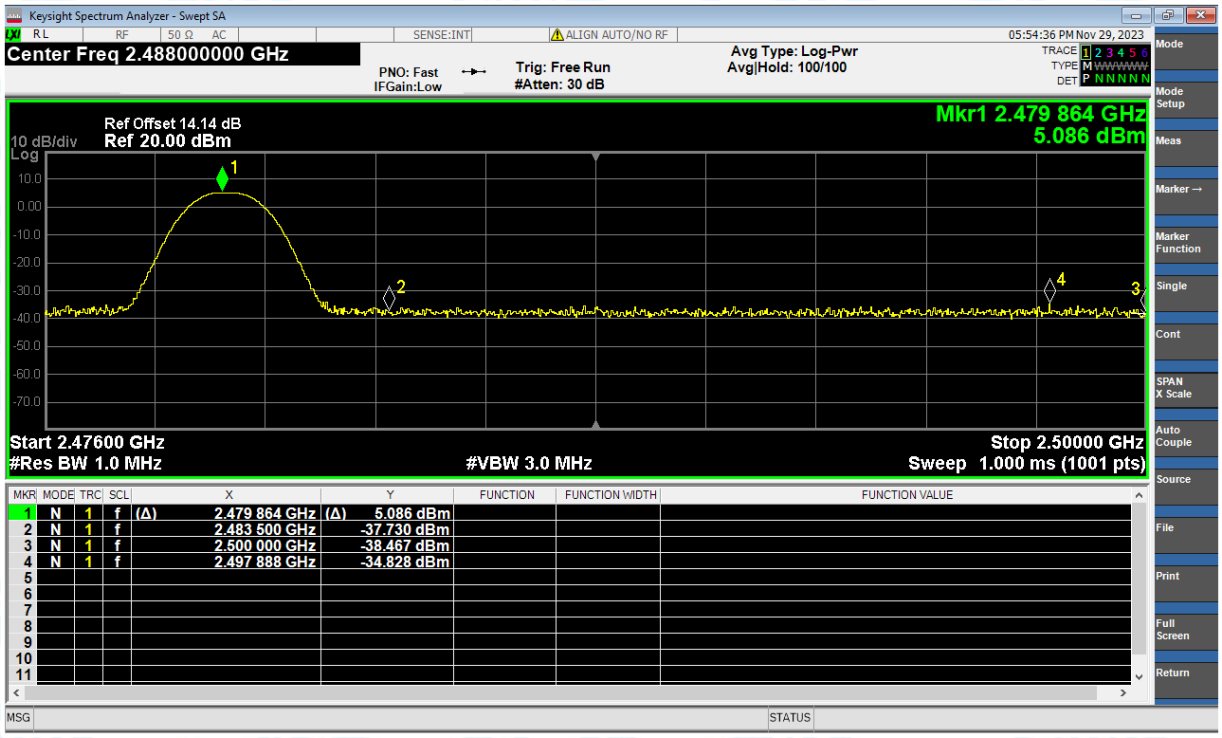
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



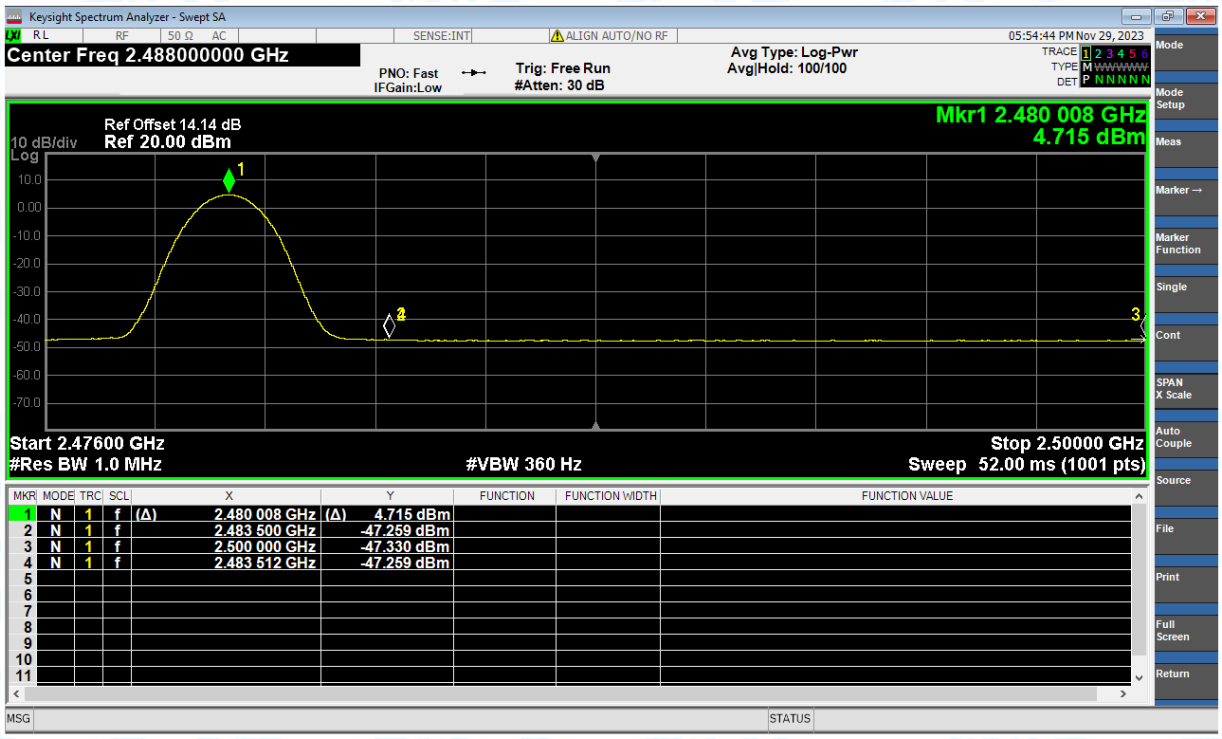
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



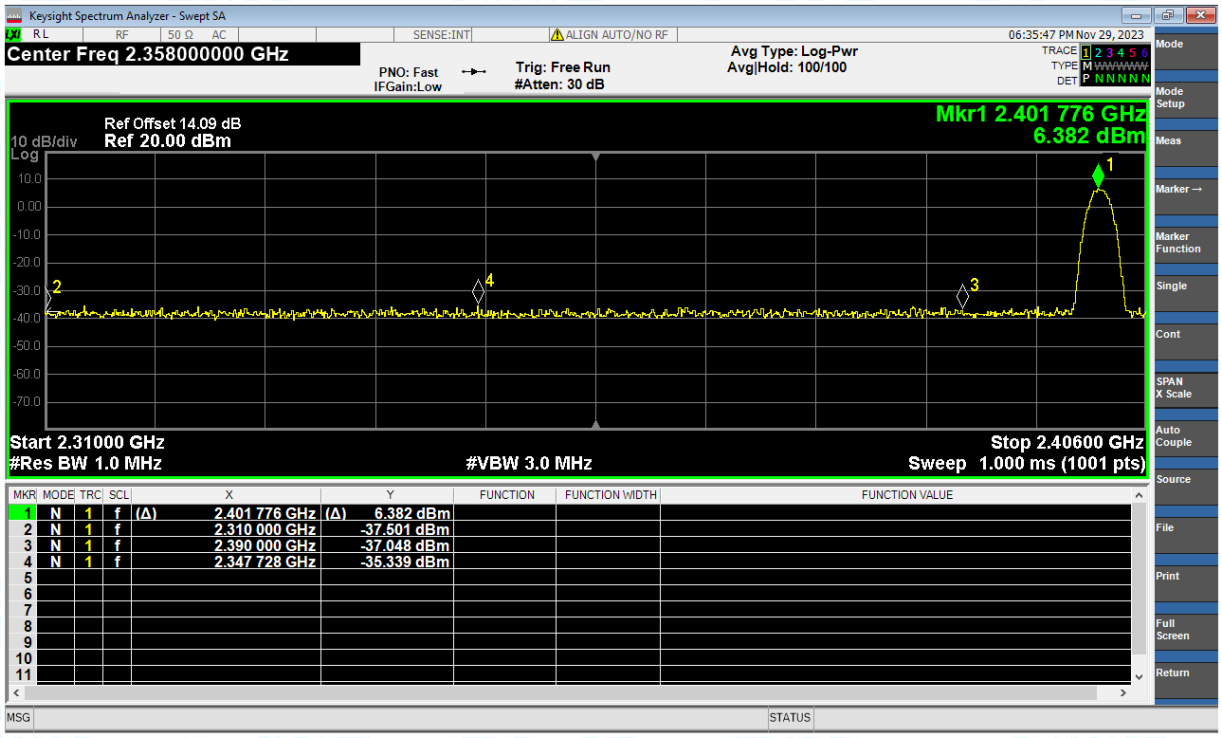
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



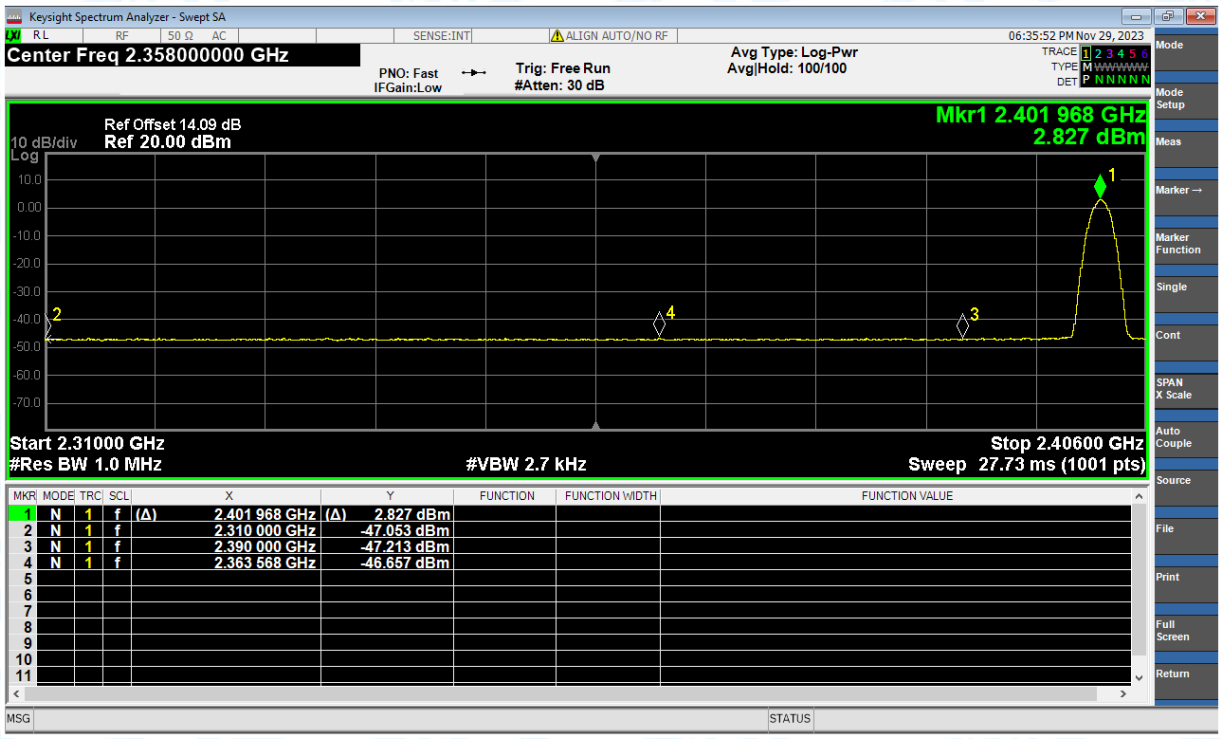
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



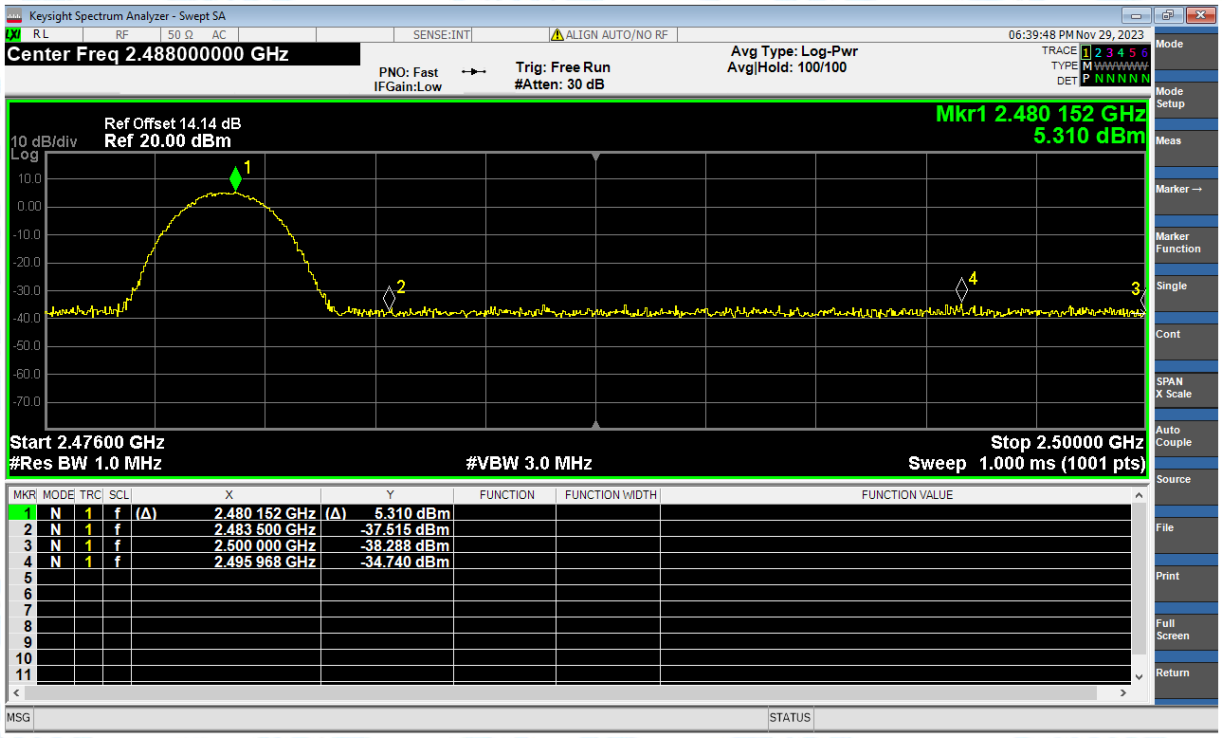
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



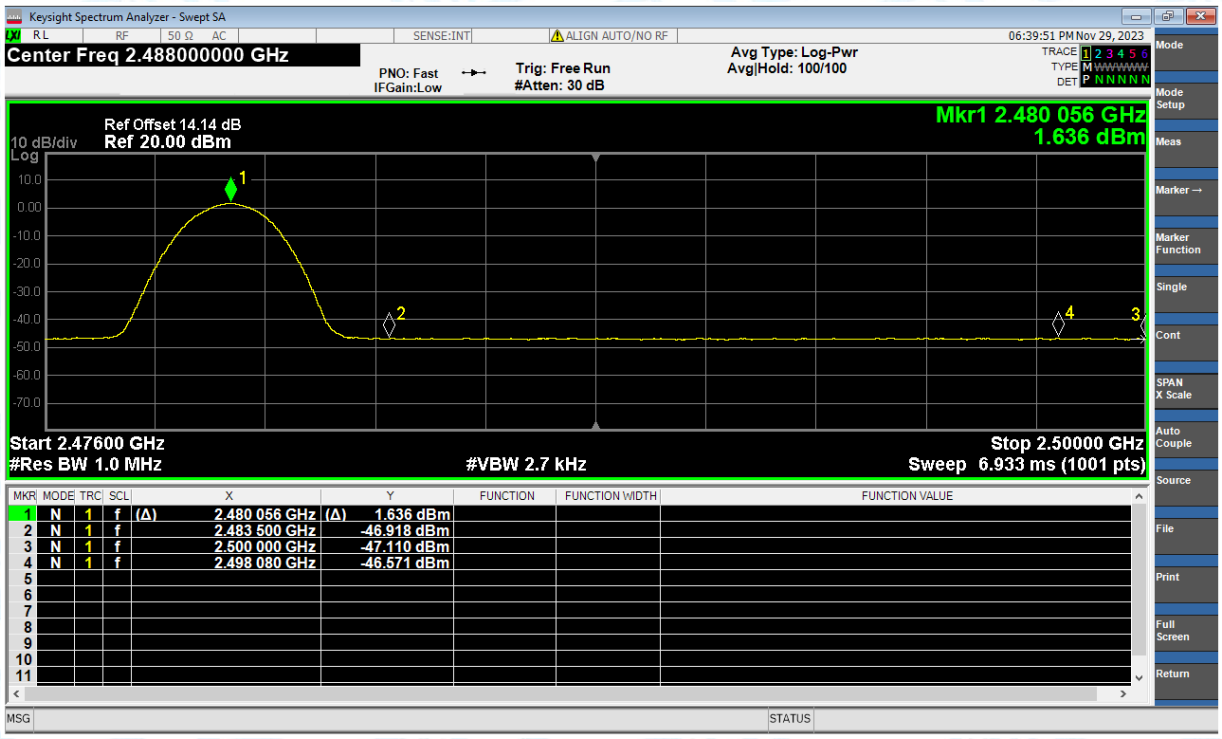
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



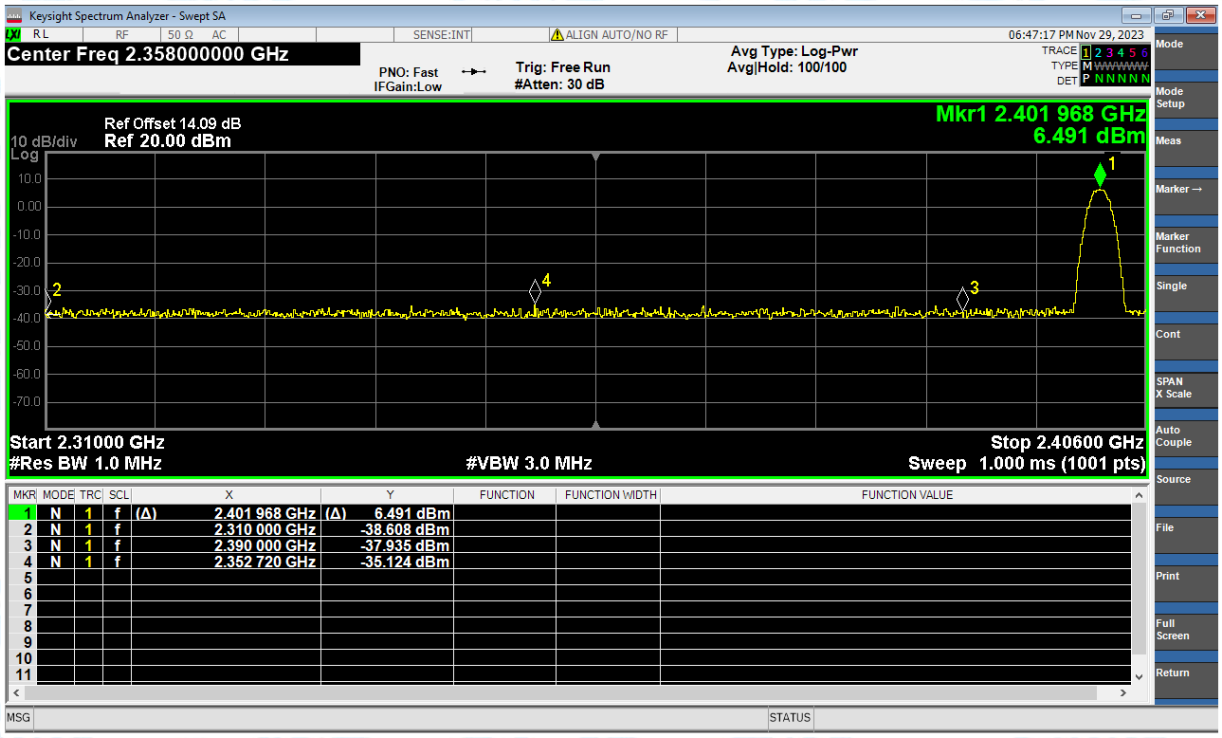
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



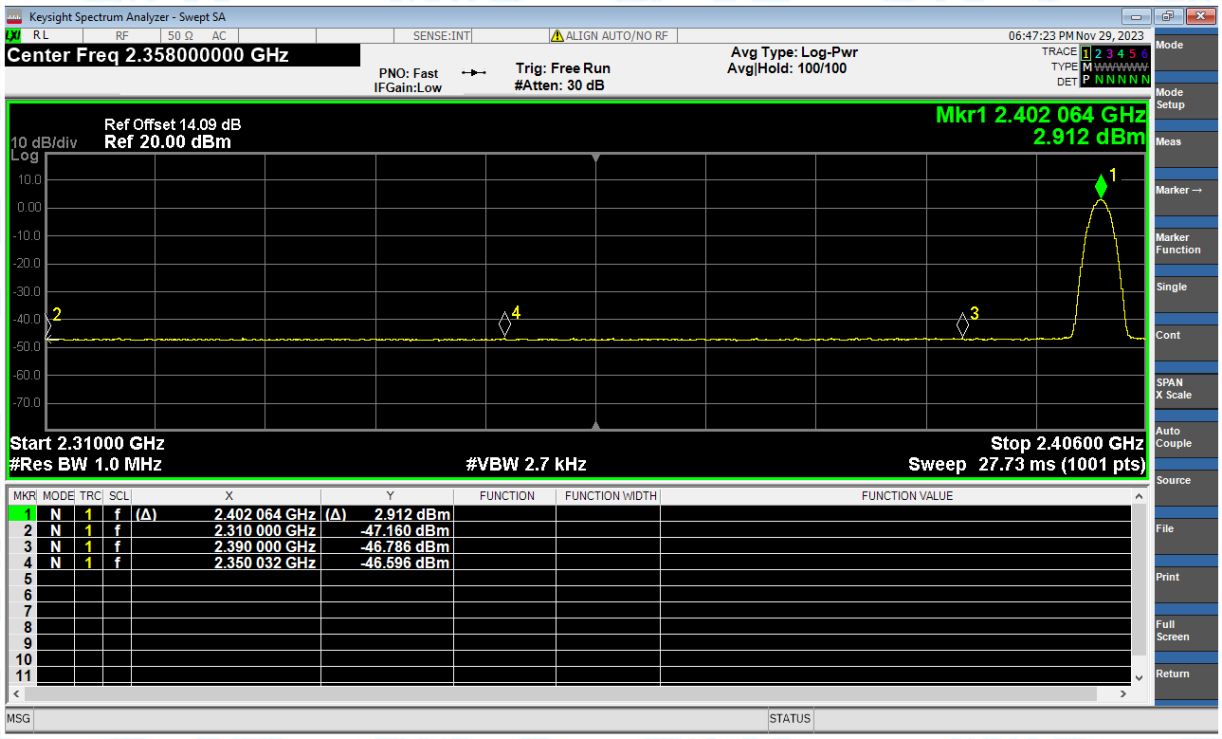
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



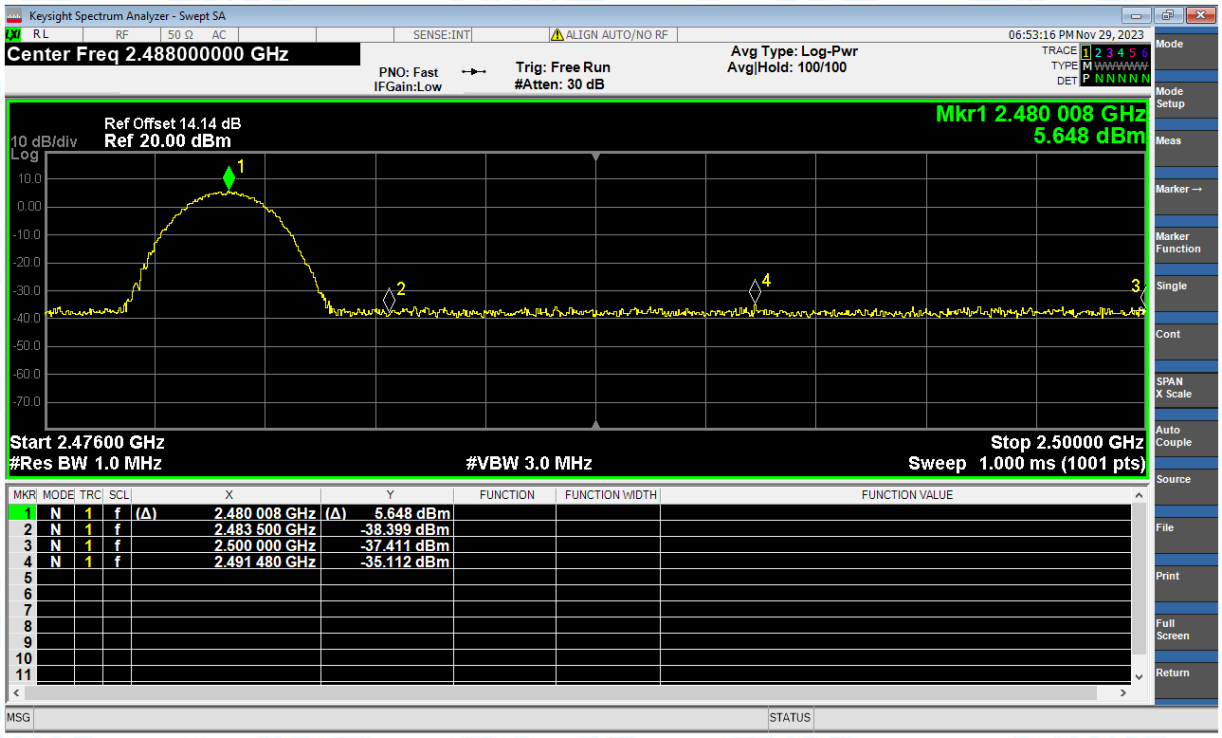
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



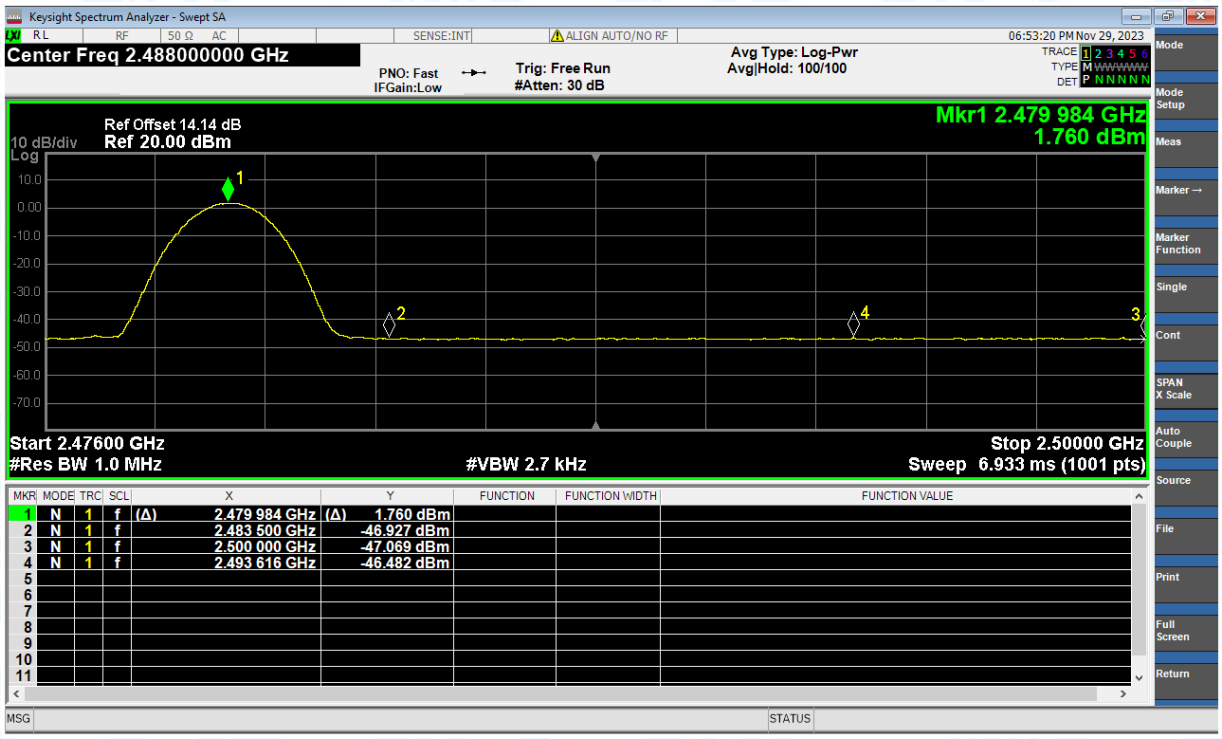
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Average



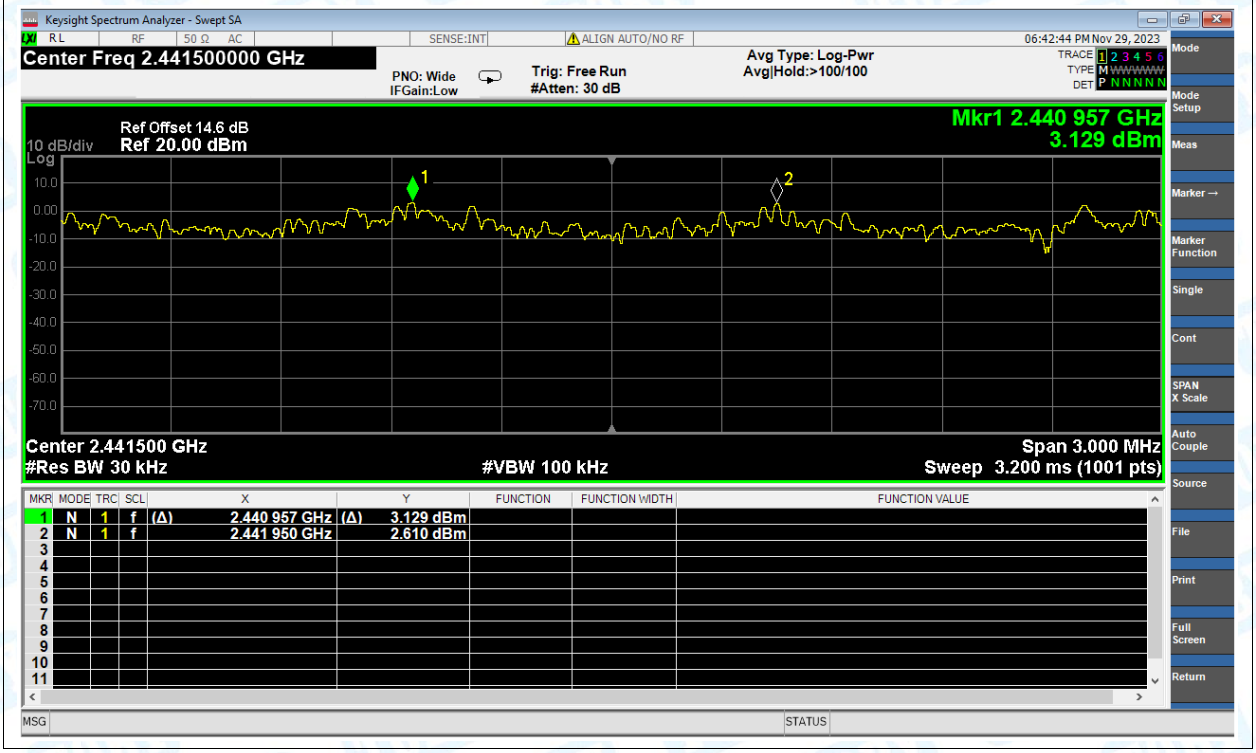
Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.975	2441.98	1.005	0.64	Pass
NVNT	2-DH1	Ant1	2440.957	2441.95	0.993	0.833	Pass
NVNT	3-DH1	Ant1	2440.957	2441.971	1.014	0.807	Pass

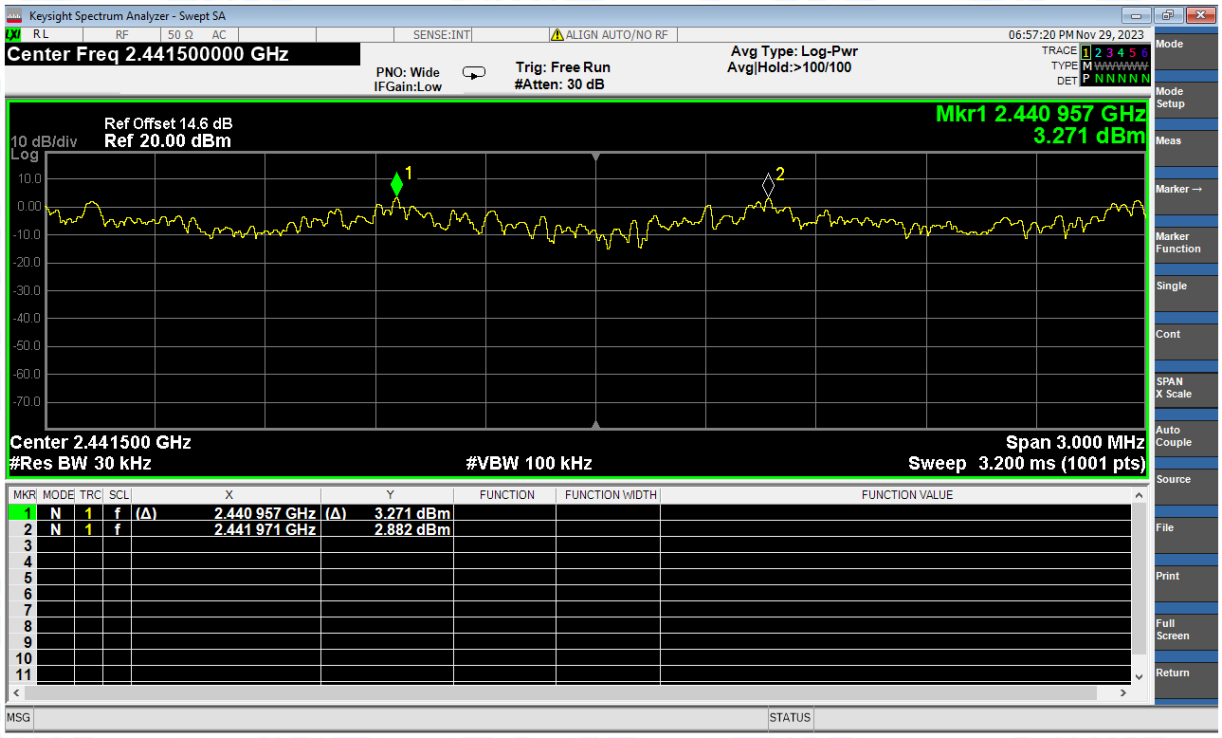
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1

CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

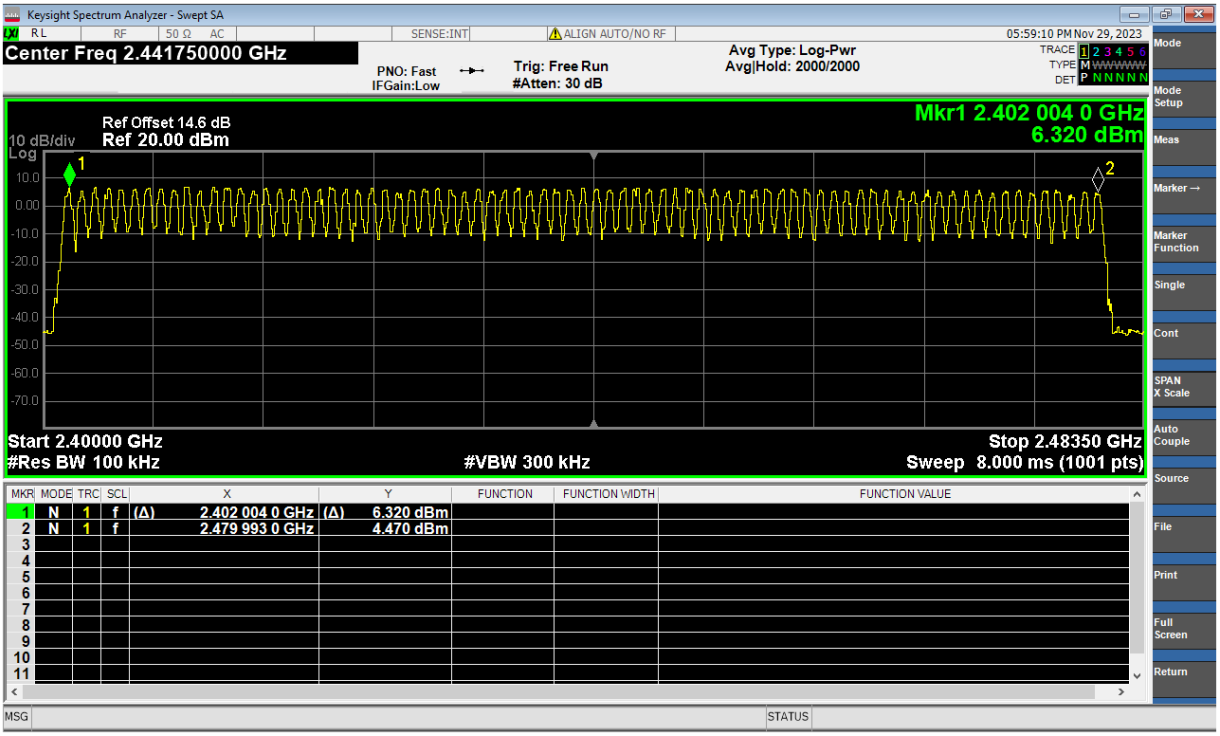


Number of Hopping Channel

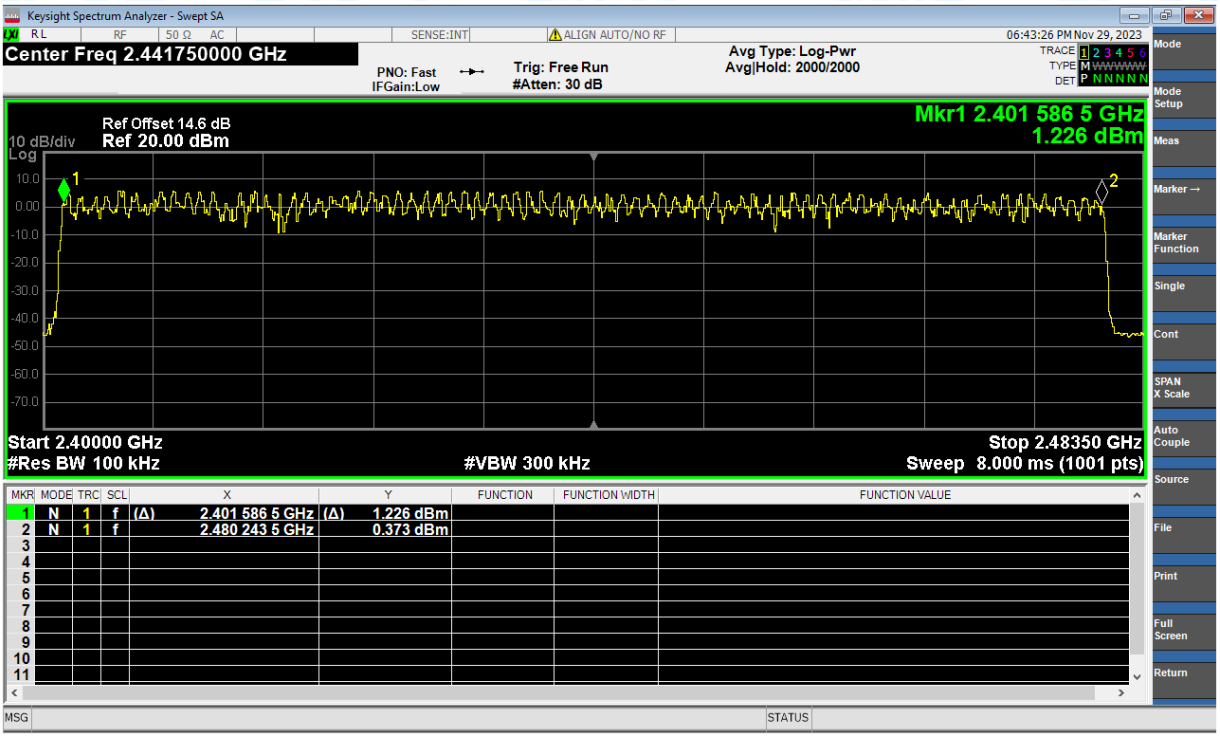
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

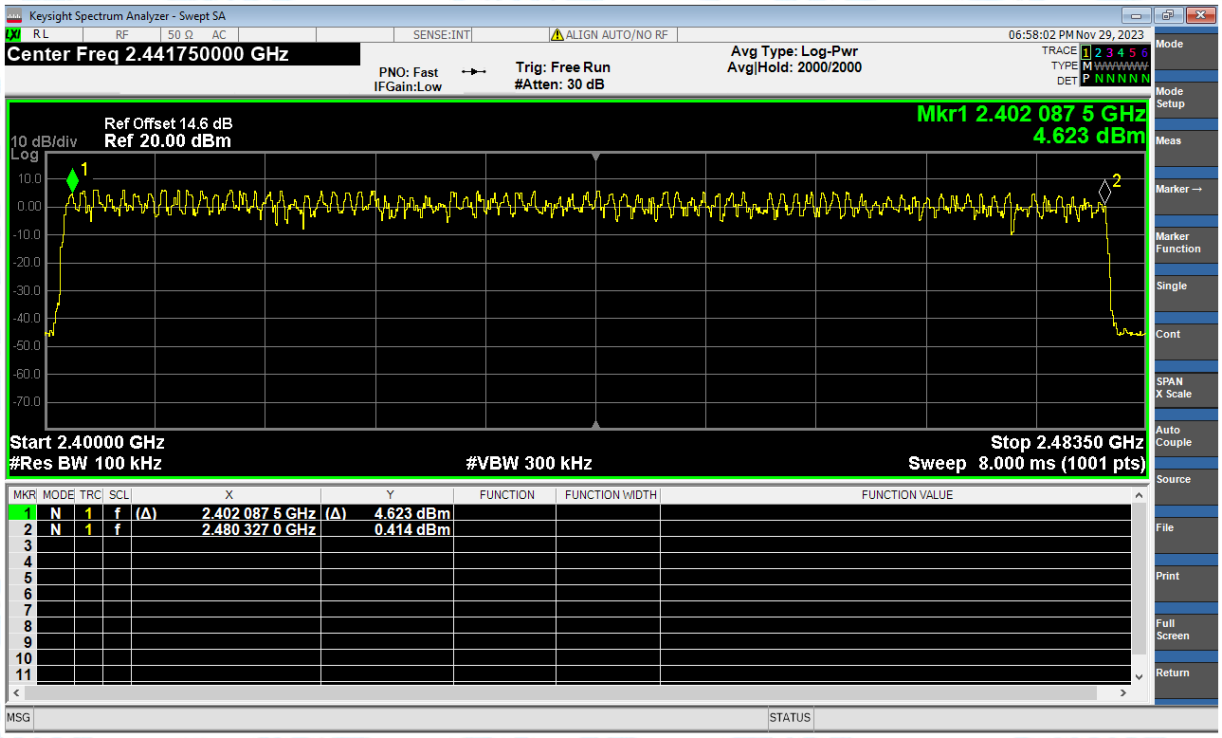
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

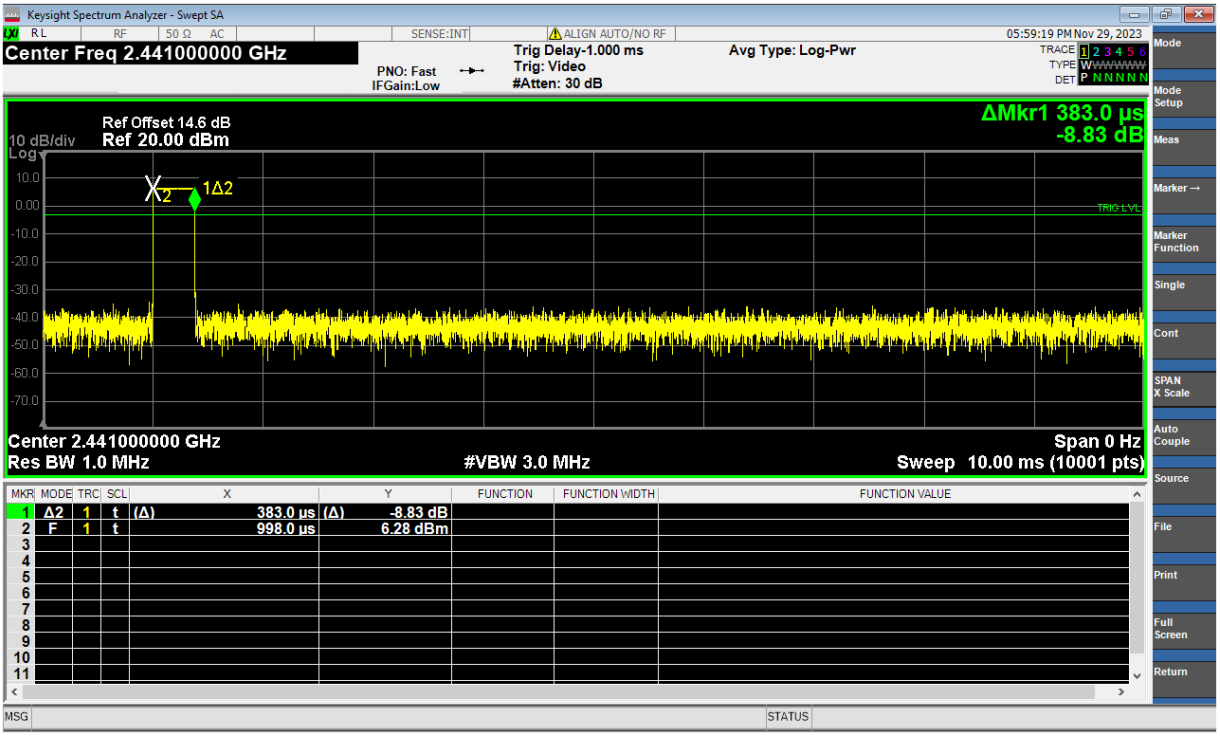


Dwell Time

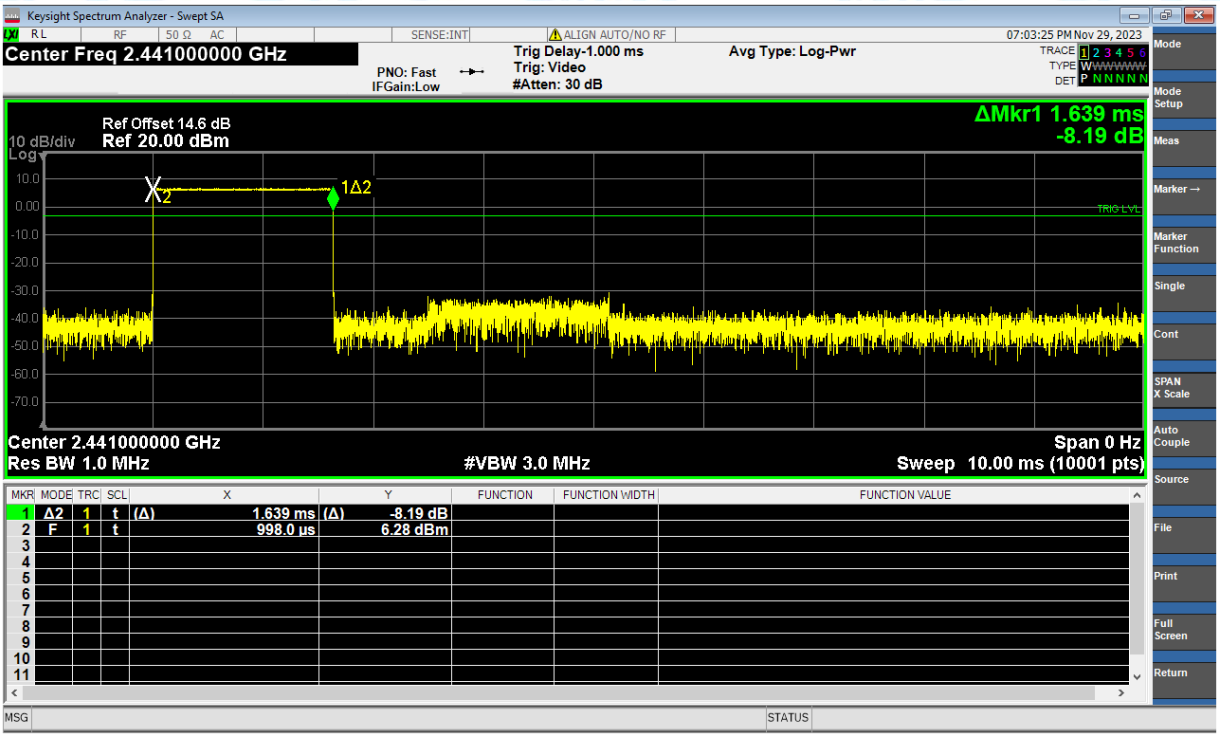
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.891	308.373	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

Test Graphs

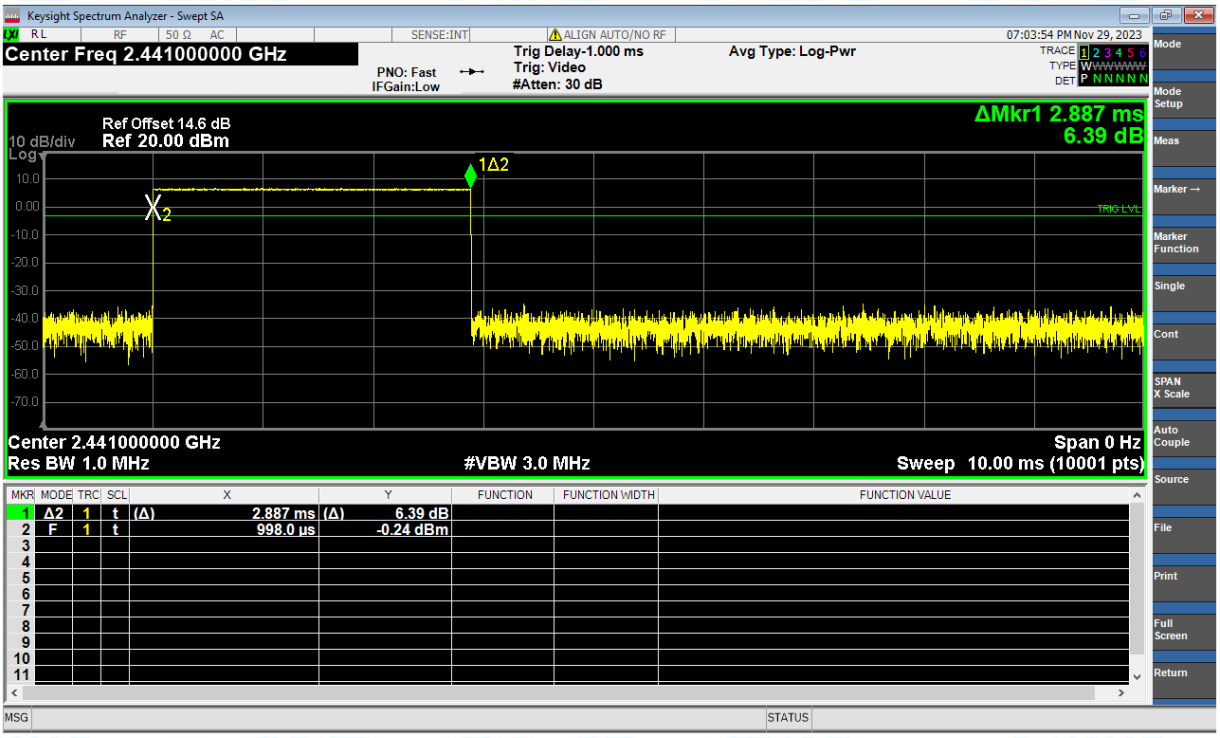
Dwell NVNT 1-DH1 2441MHz Ant1



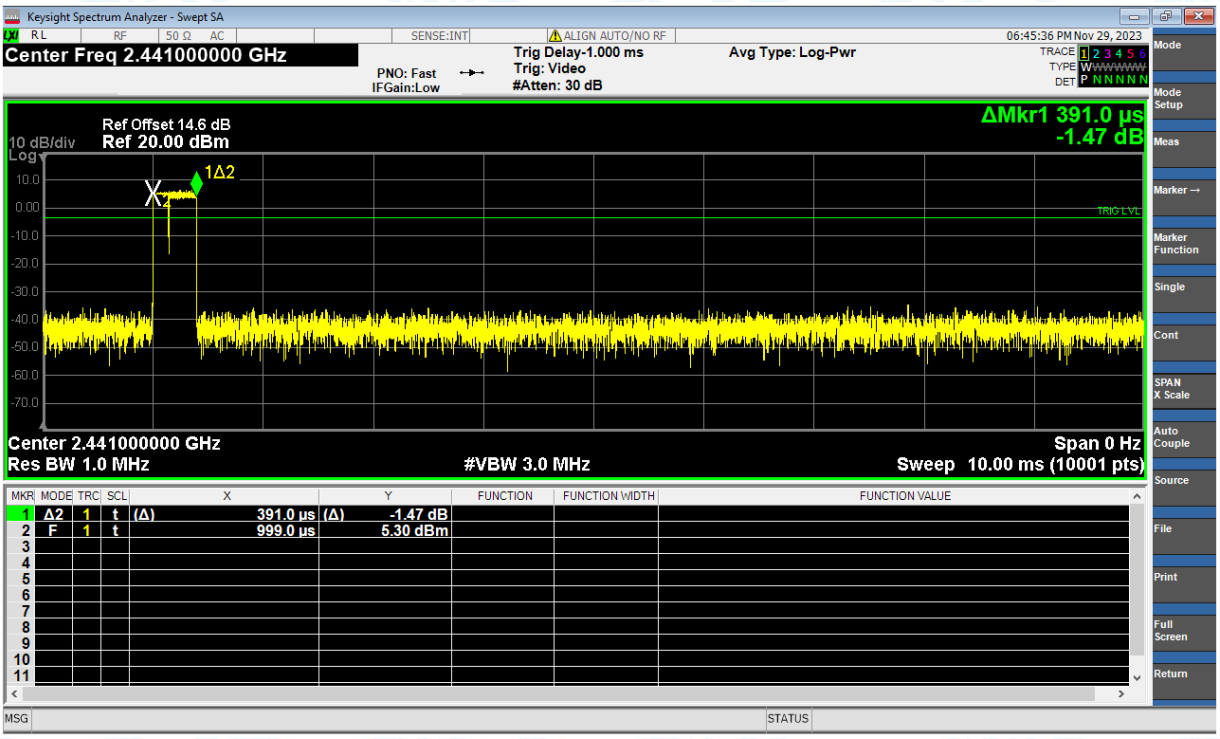
Dwell NVNT 1-DH3 2441MHz Ant1



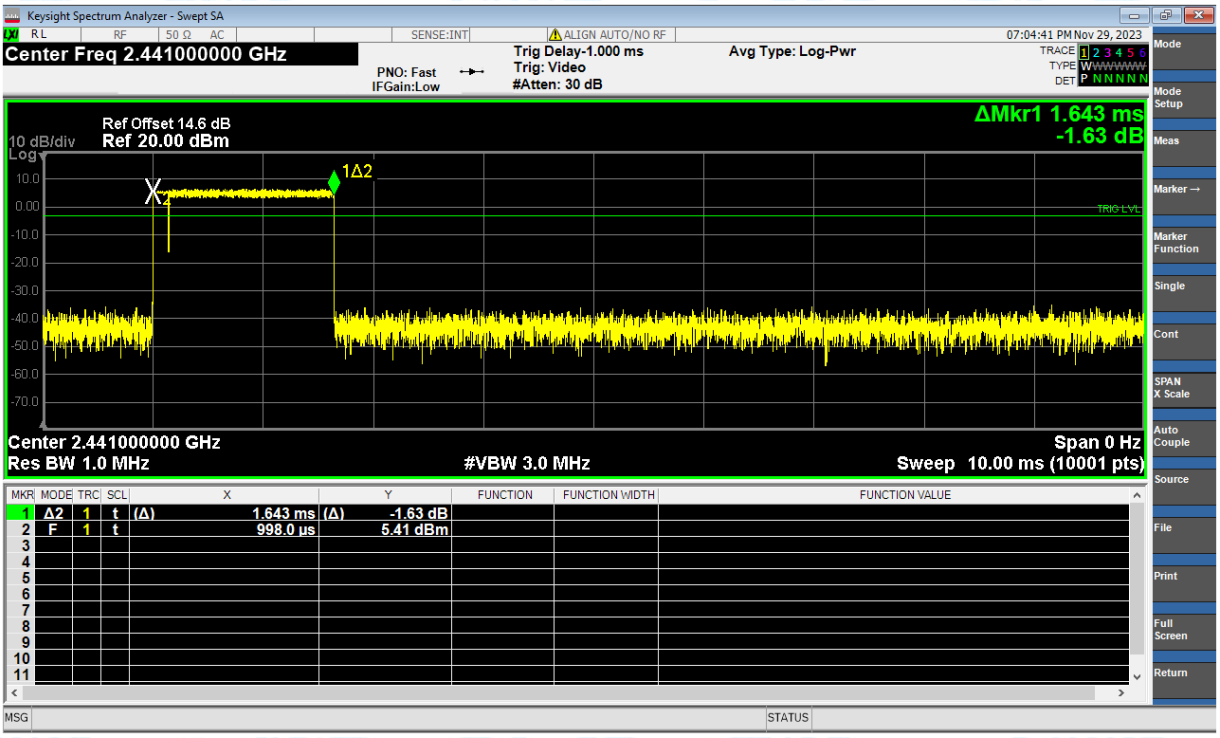
Dwell NVNT 1-DH5 2441MHz Ant1



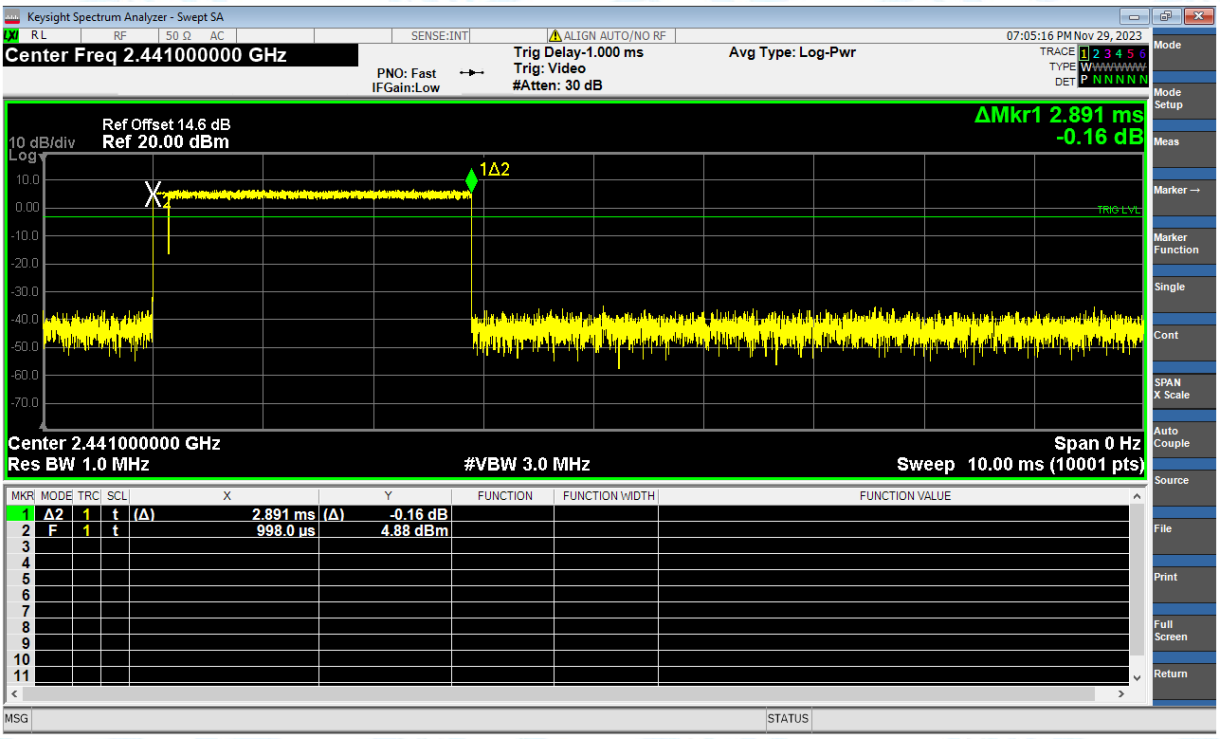
Dwell NVNT 2-DH1 2441MHz Ant1



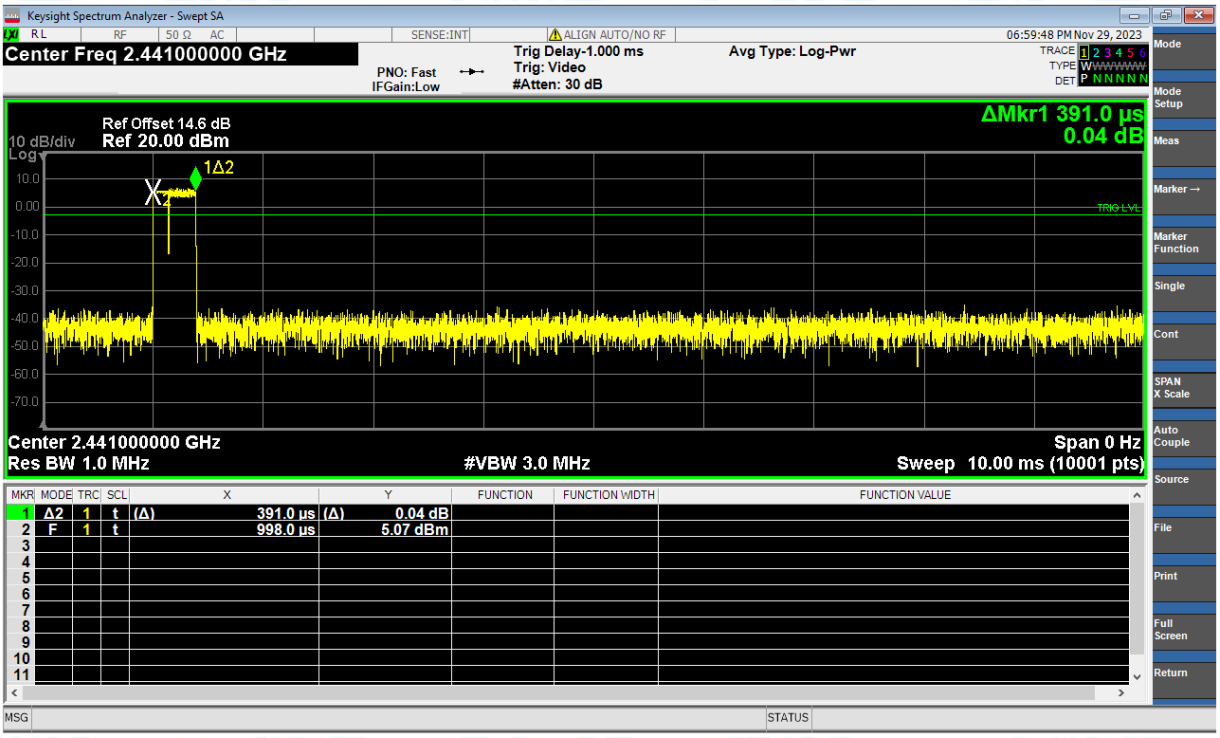
Dwell NVNT 2-DH3 2441MHz Ant1



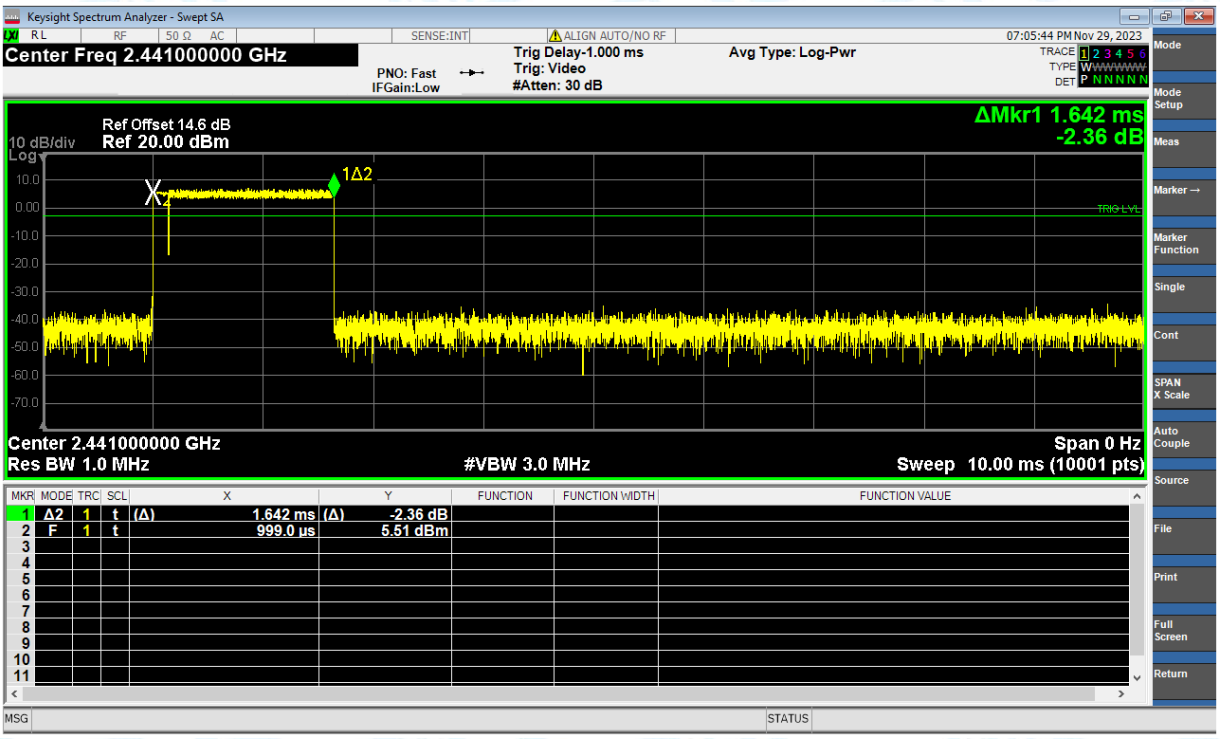
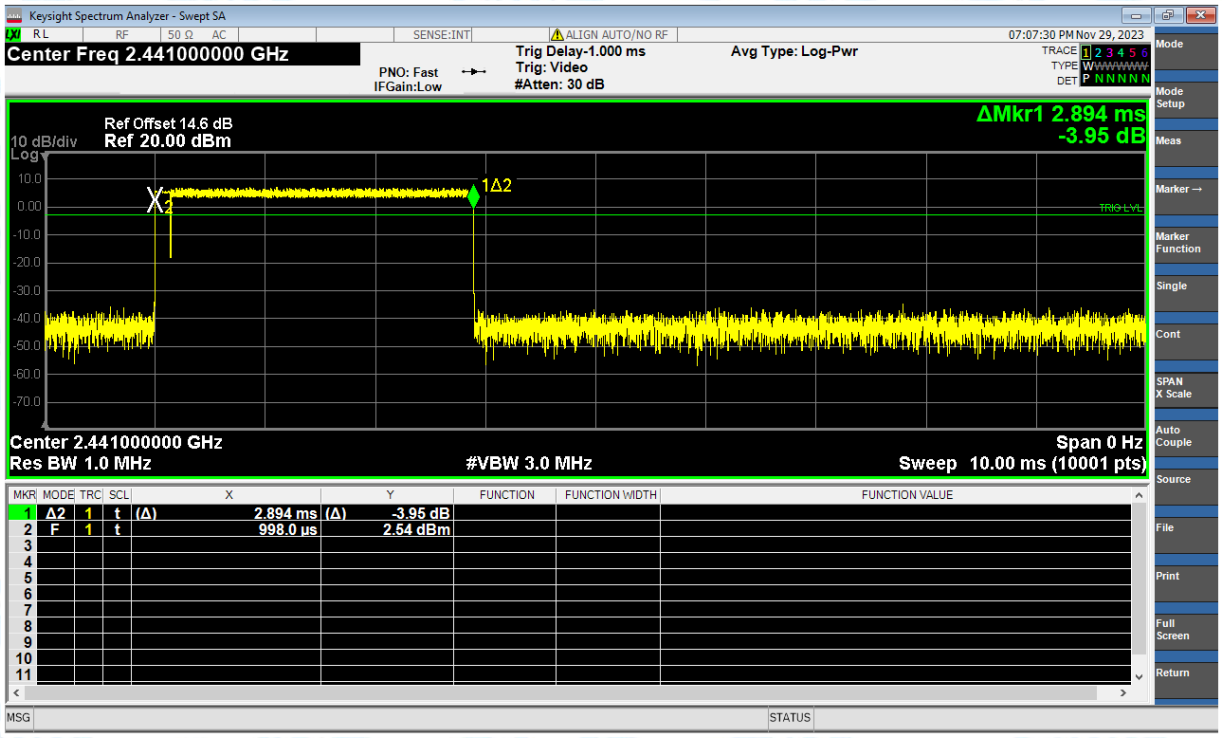
Dwell NVNT 2-DH5 2441MHz Ant1



Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1