

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

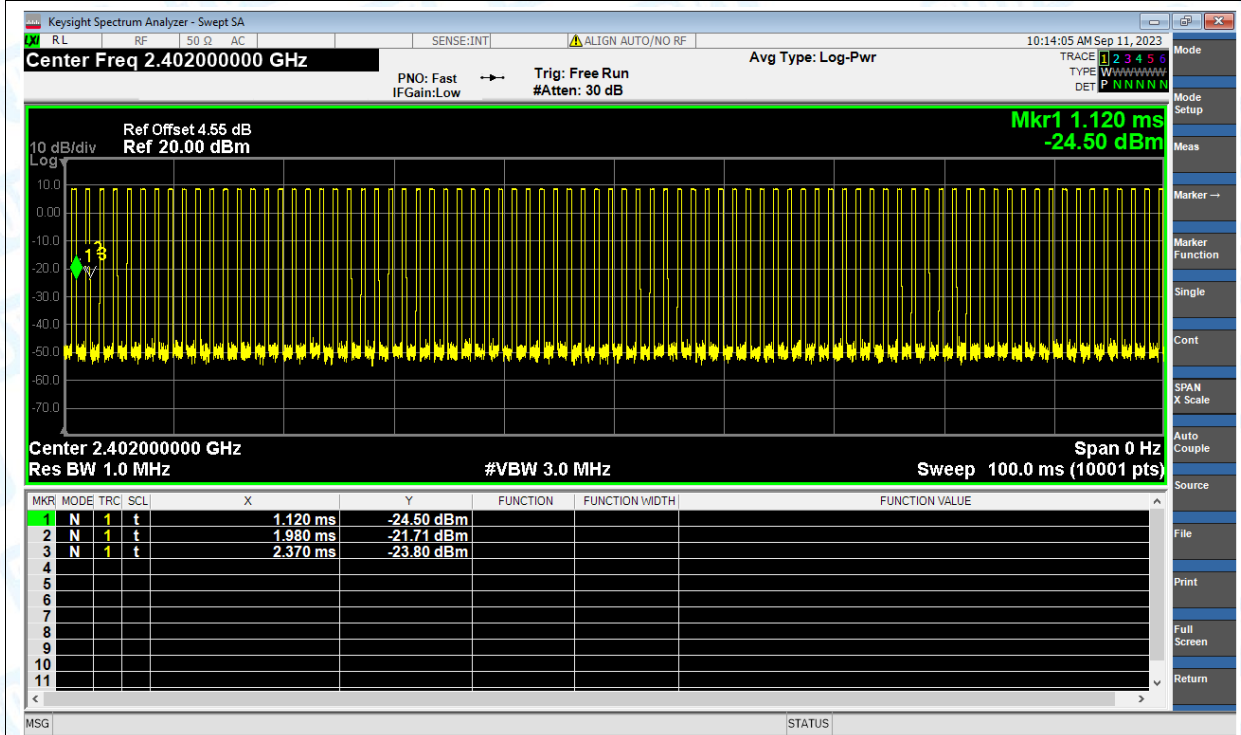
General Description of EUT	
Product Name:	Wi-Fi Combination Smoke and Carbon Monoxide Alarm
Test Model:	SC07-WX
Sample ID:	HC-C-202308-0143-01-1-2#
Environmental Conditions	
Temperature:	24°C
Relative Humidity:	50%
Test Voltage:	DC 3V
Test Engineer:	Zhangchenxi
Note: For a more detailed features description, please refer to the report TBR-C-202308-0143-71 The report only show the worst case data.	

Duty Cycle

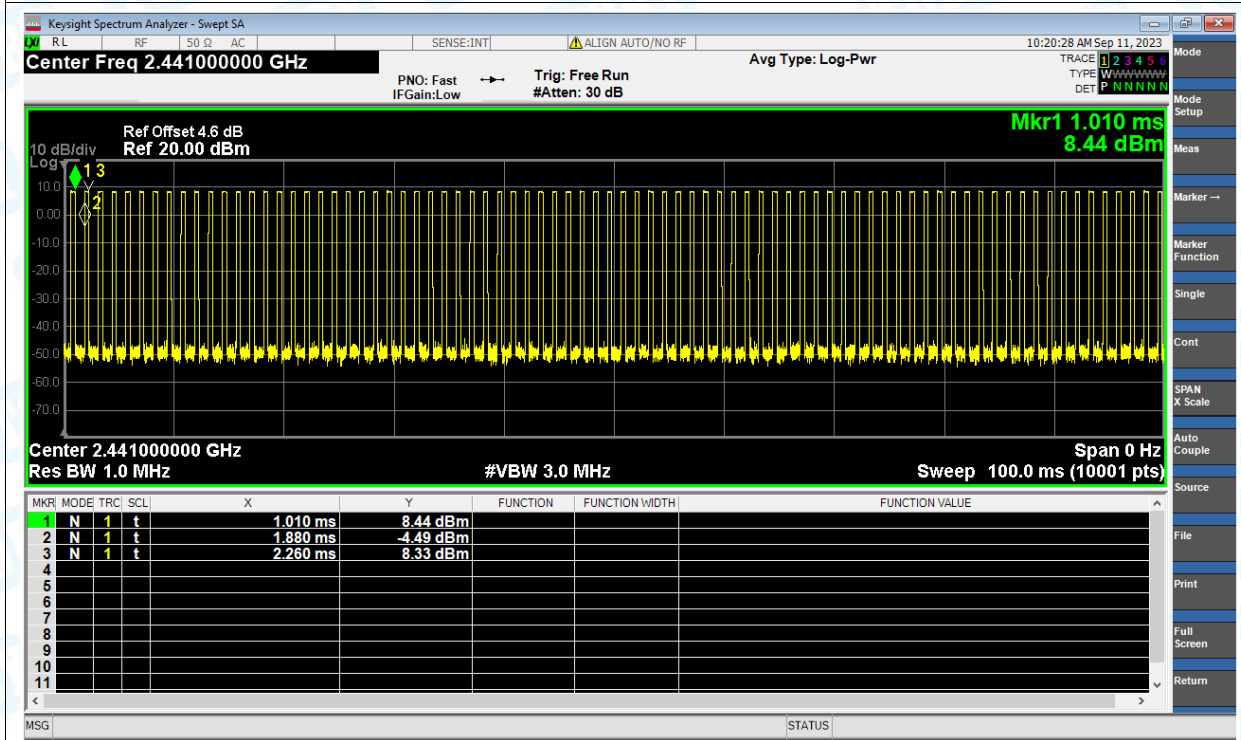
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

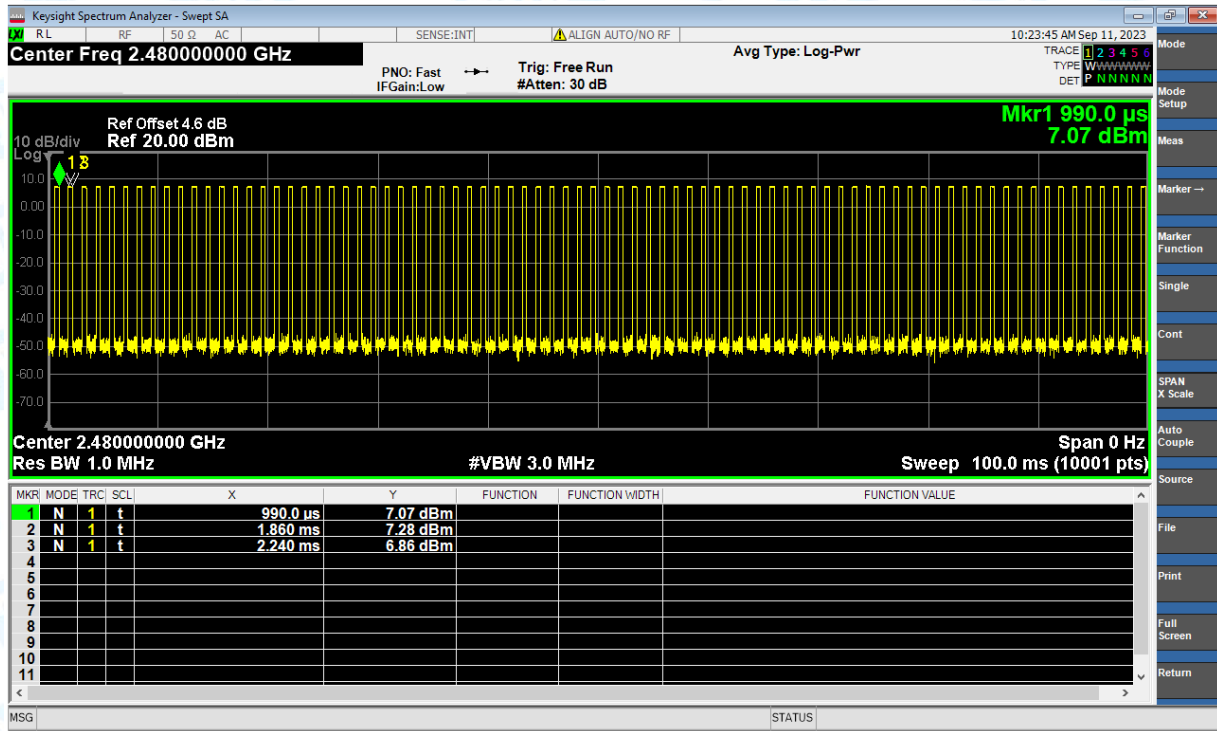
Duty Cycle NVNT 1-DH1 2402MHz Ant1



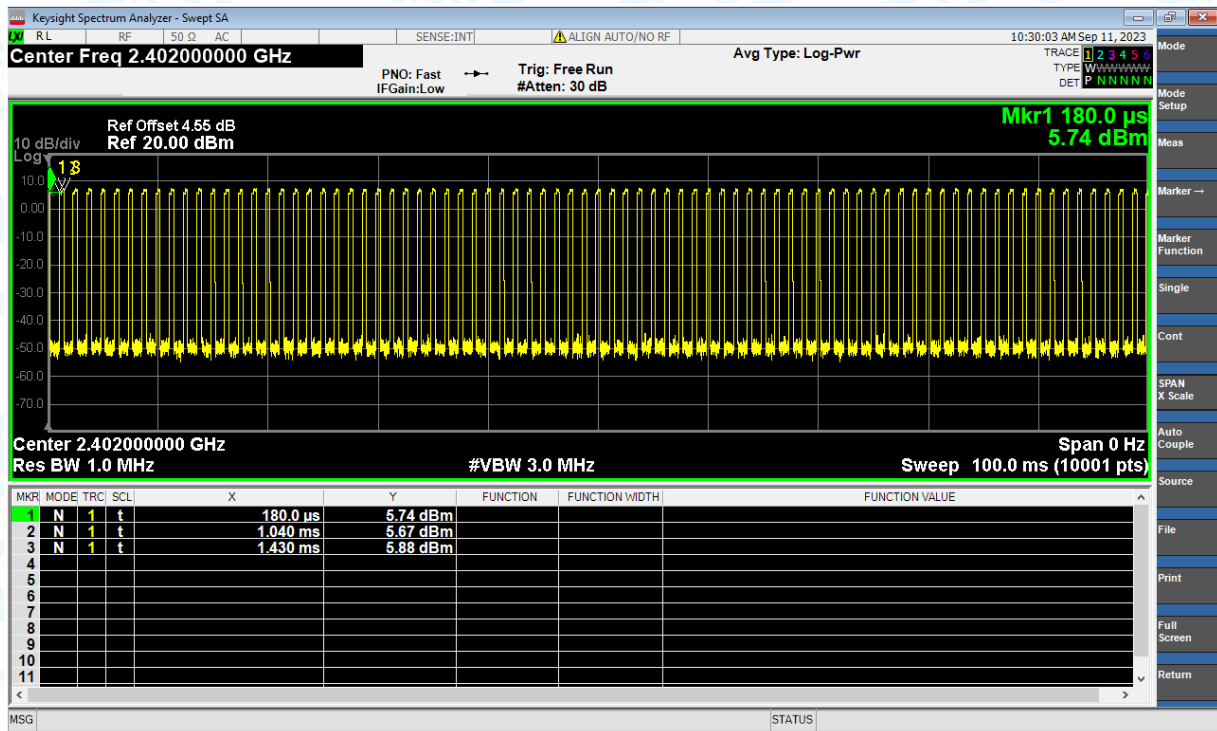
Duty Cycle NVNT 1-DH1 2441MHz Ant1



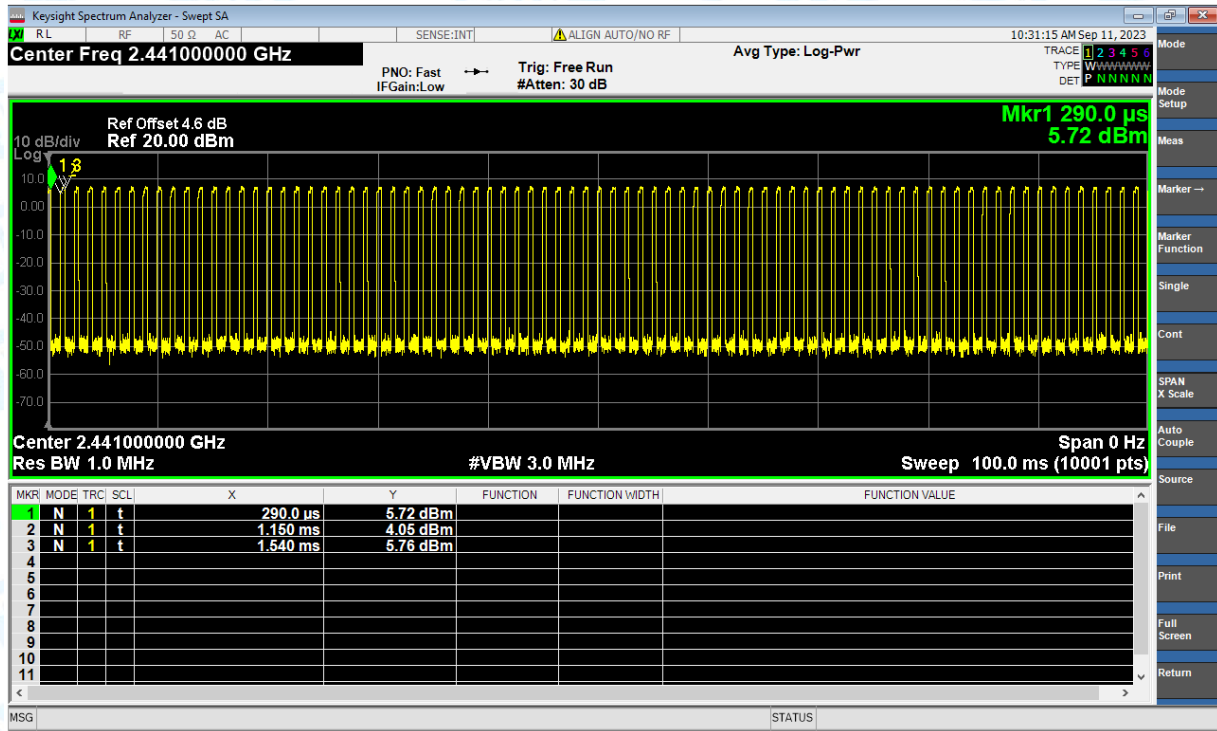
Duty Cycle NVNT 1-DH1 2480MHz Ant1



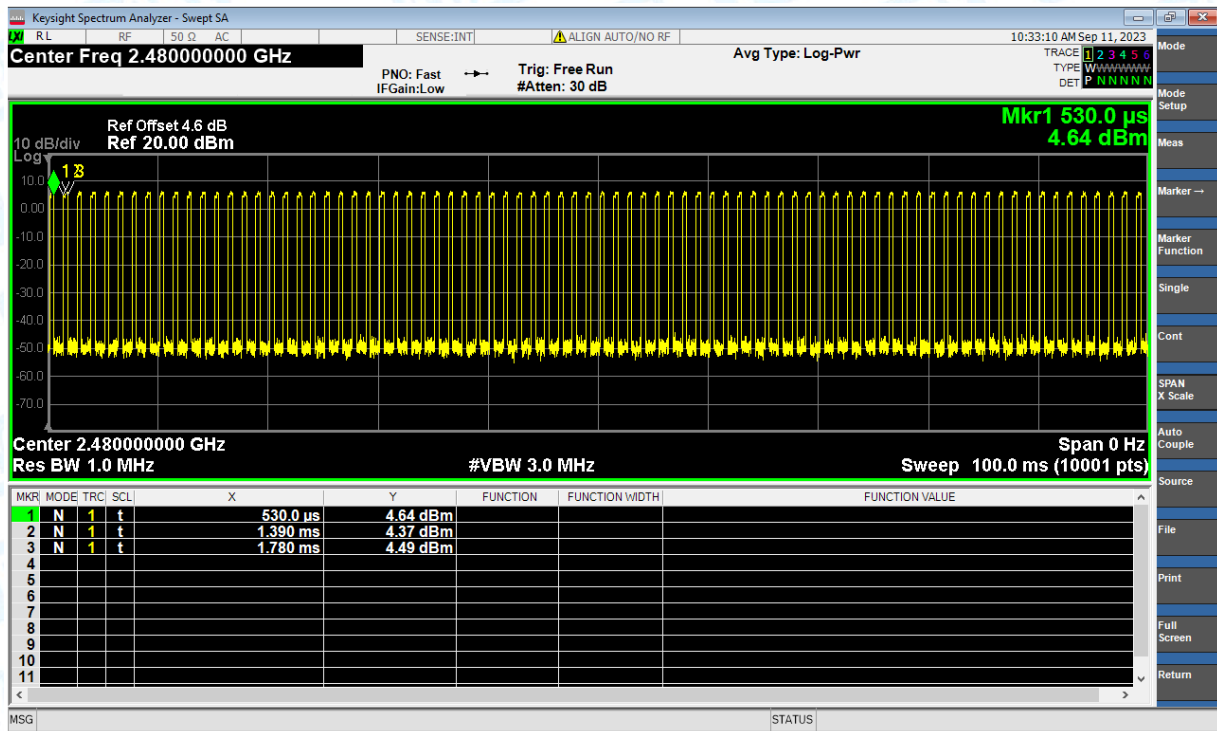
Duty Cycle NVNT 2-DH1 2402MHz Ant1



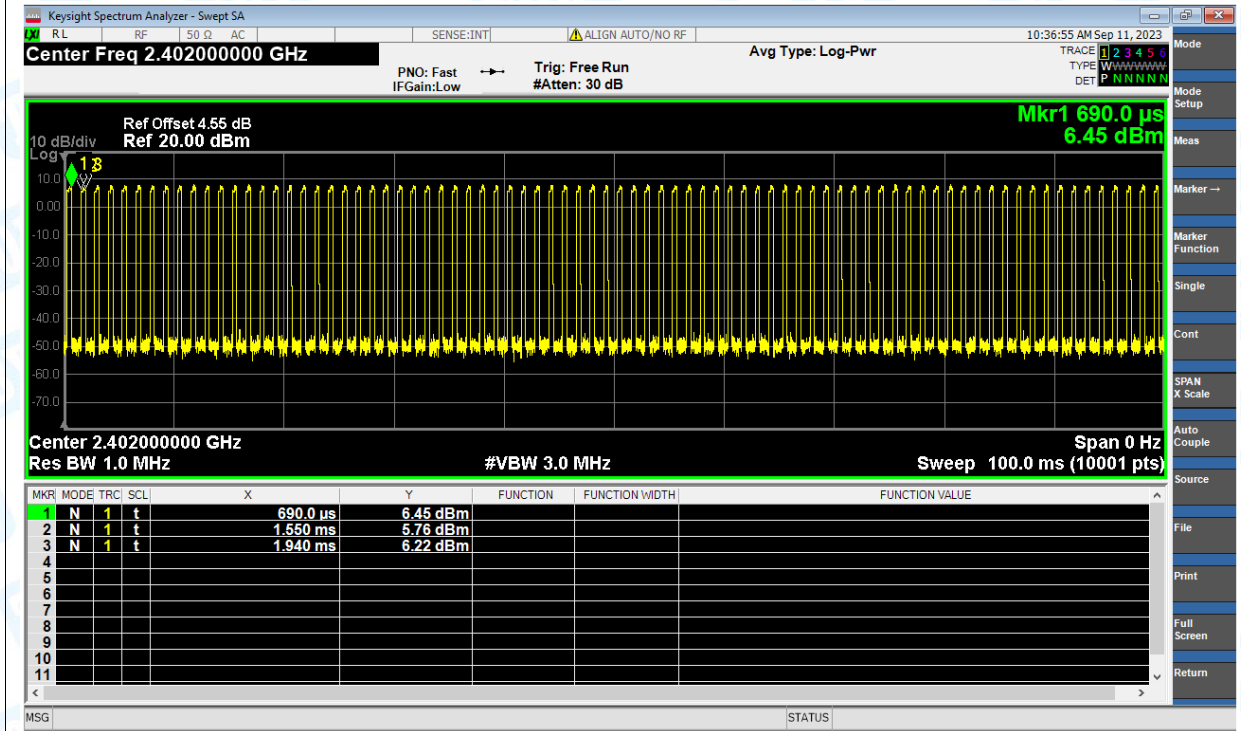
Duty Cycle NVNT 2-DH1 2441MHz Ant1



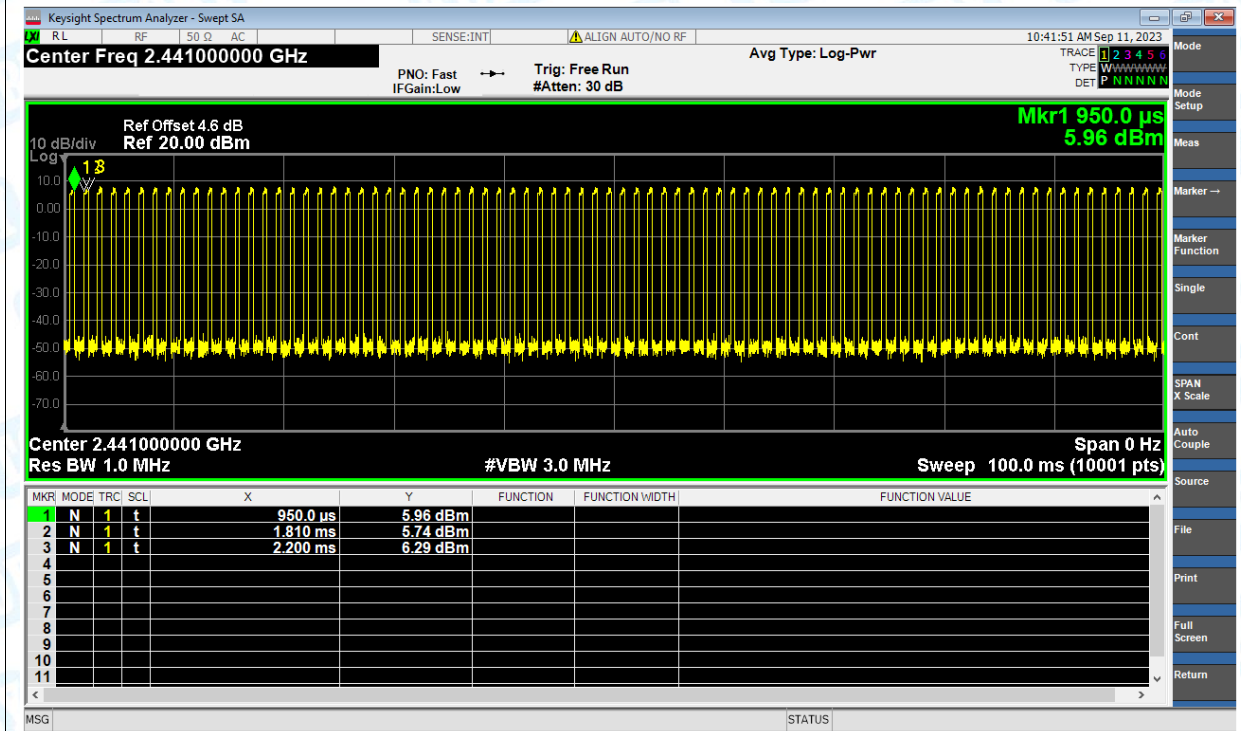
Duty Cycle NVNT 2-DH1 2480MHz Ant1

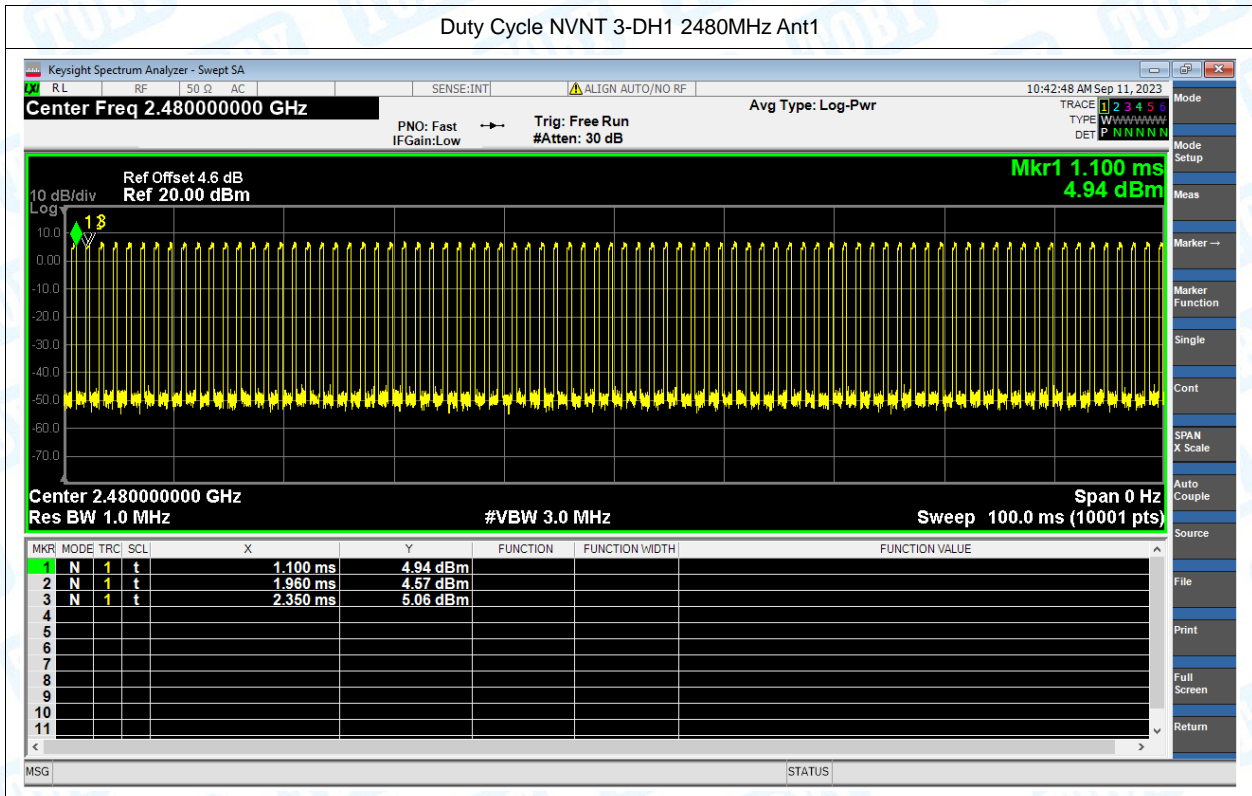


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



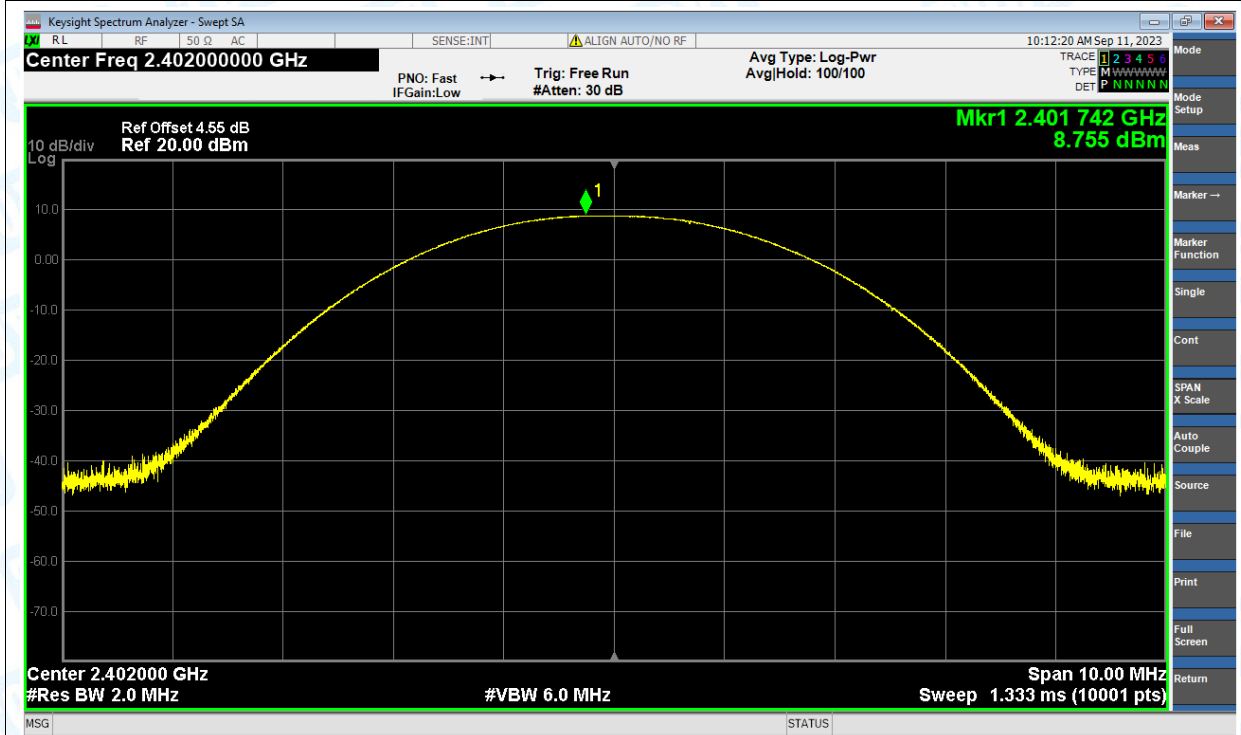


Maximum Conducted Output Power

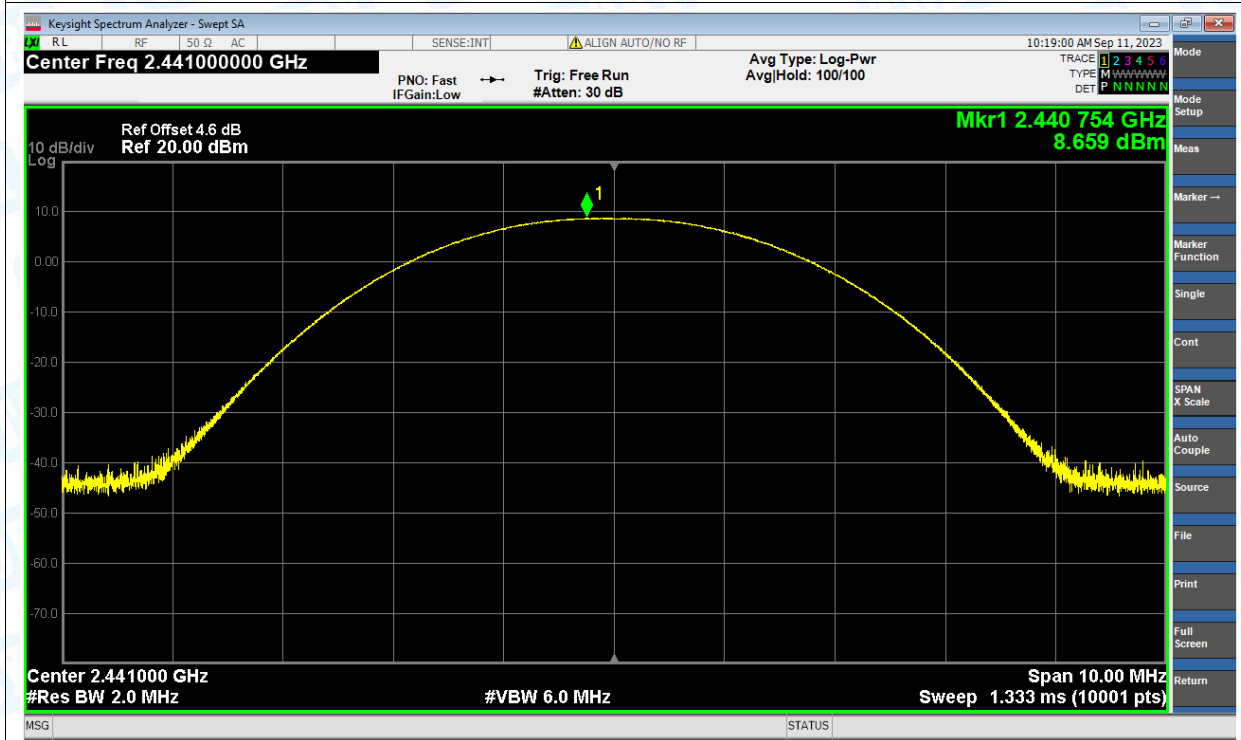
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	8.755	21	Pass
NVNT	1-DH1	2441	Ant1	8.659	21	Pass
NVNT	1-DH1	2480	Ant1	7.484	21	Pass
NVNT	2-DH1	2402	Ant1	8.038	21	Pass
NVNT	2-DH1	2441	Ant1	7.945	21	Pass
NVNT	2-DH1	2480	Ant1	6.948	21	Pass
NVNT	3-DH1	2402	Ant1	8.475	21	Pass
NVNT	3-DH1	2441	Ant1	8.351	21	Pass
NVNT	3-DH1	2480	Ant1	7.327	21	Pass

Test Graphs

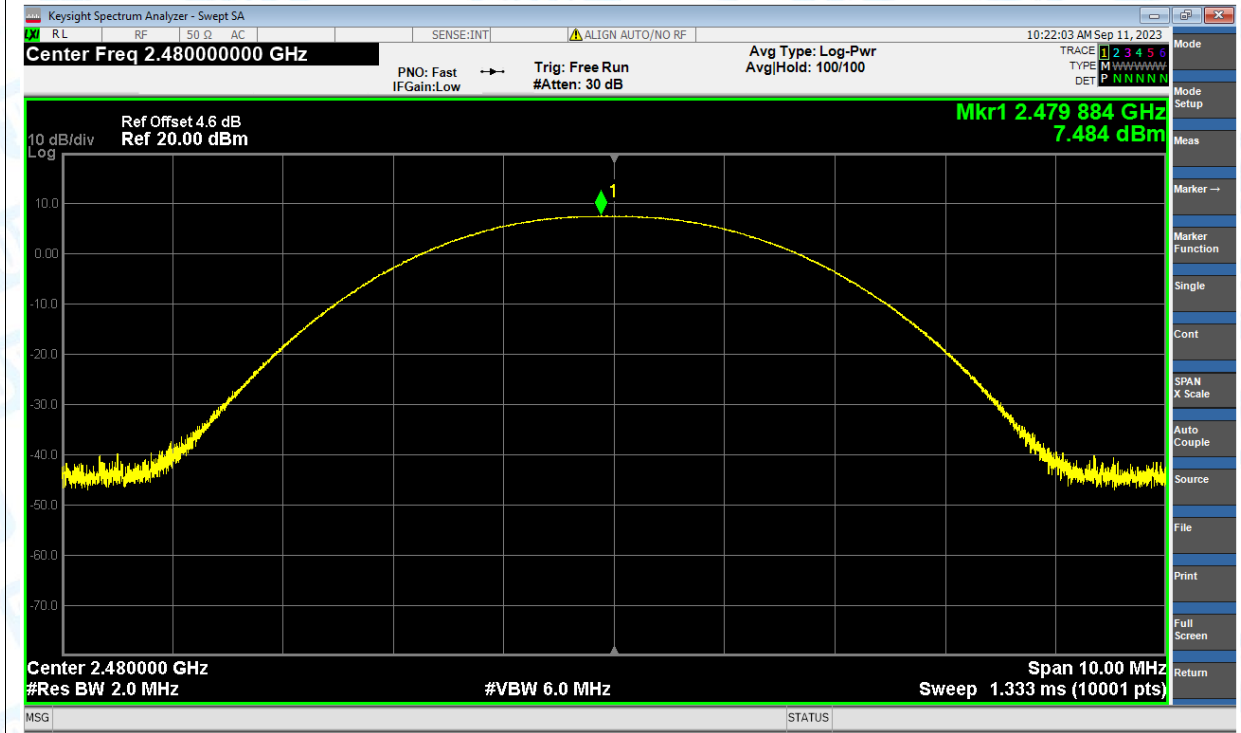
Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1



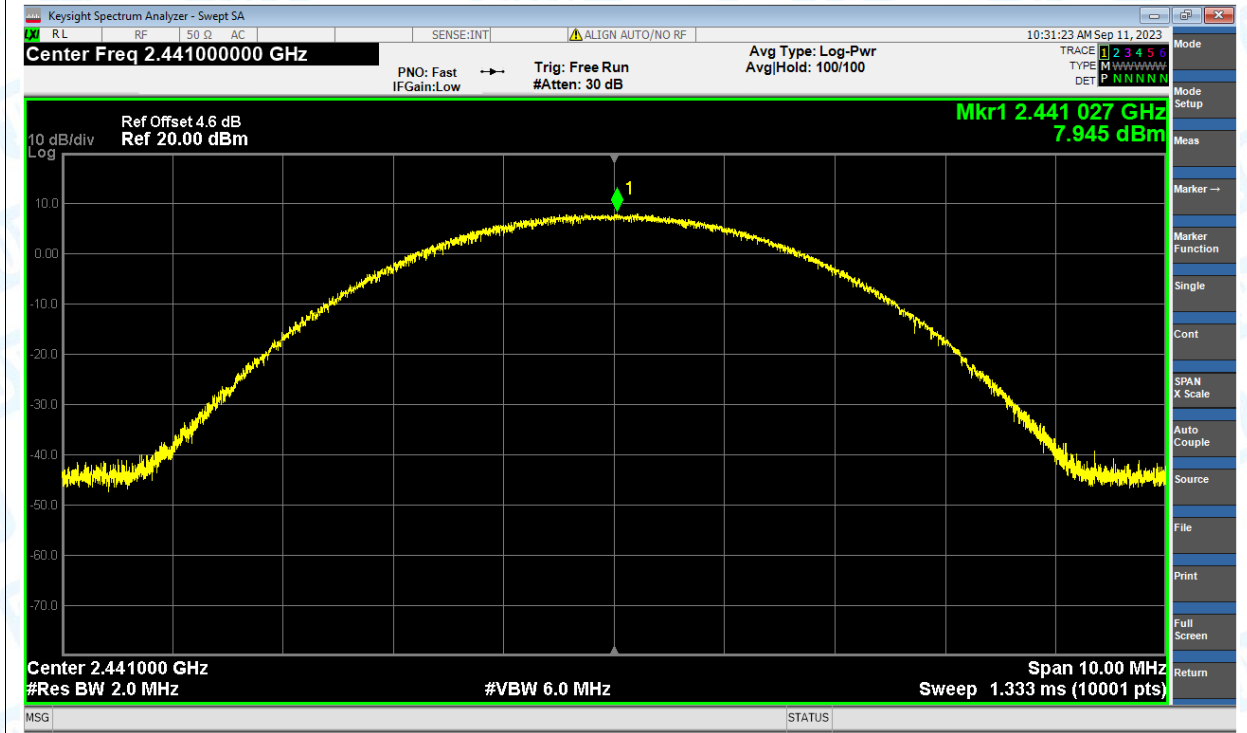
Power NVNT 1-DH1 2480MHz Ant1



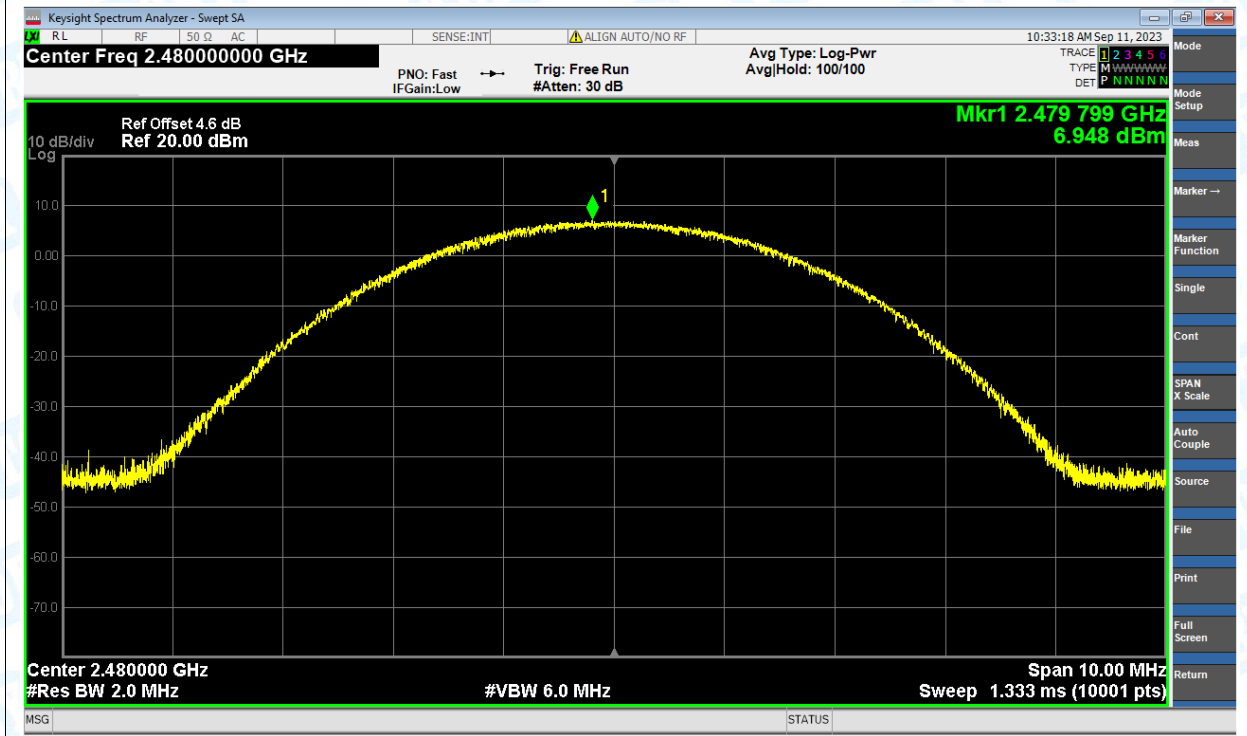
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



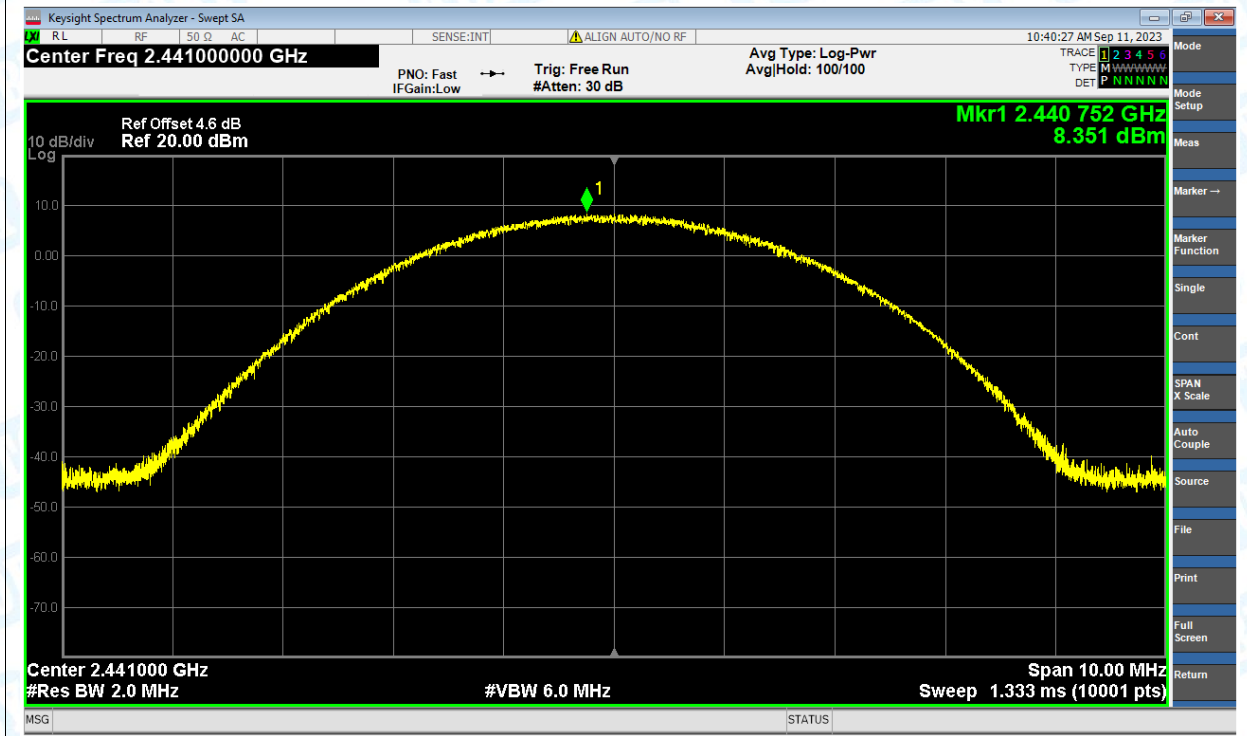
Power NVNT 2-DH1 2480MHz Ant1

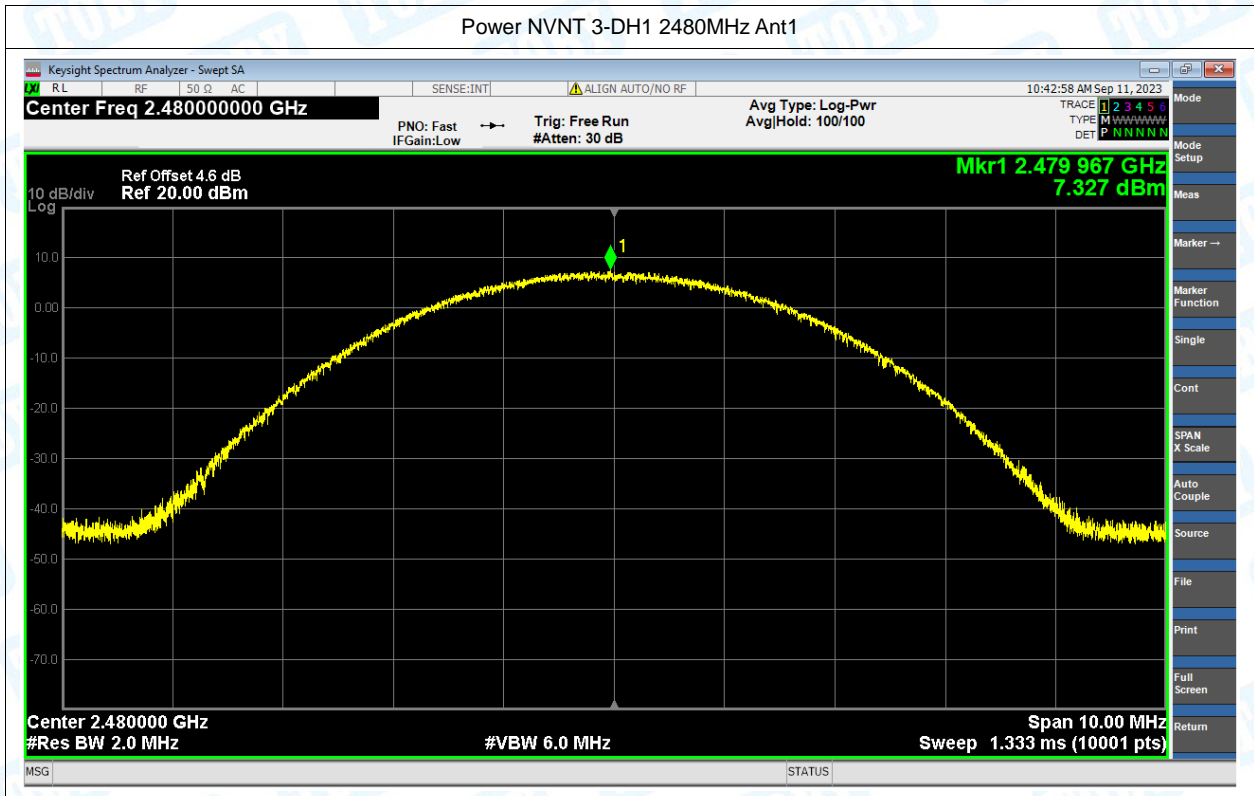


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



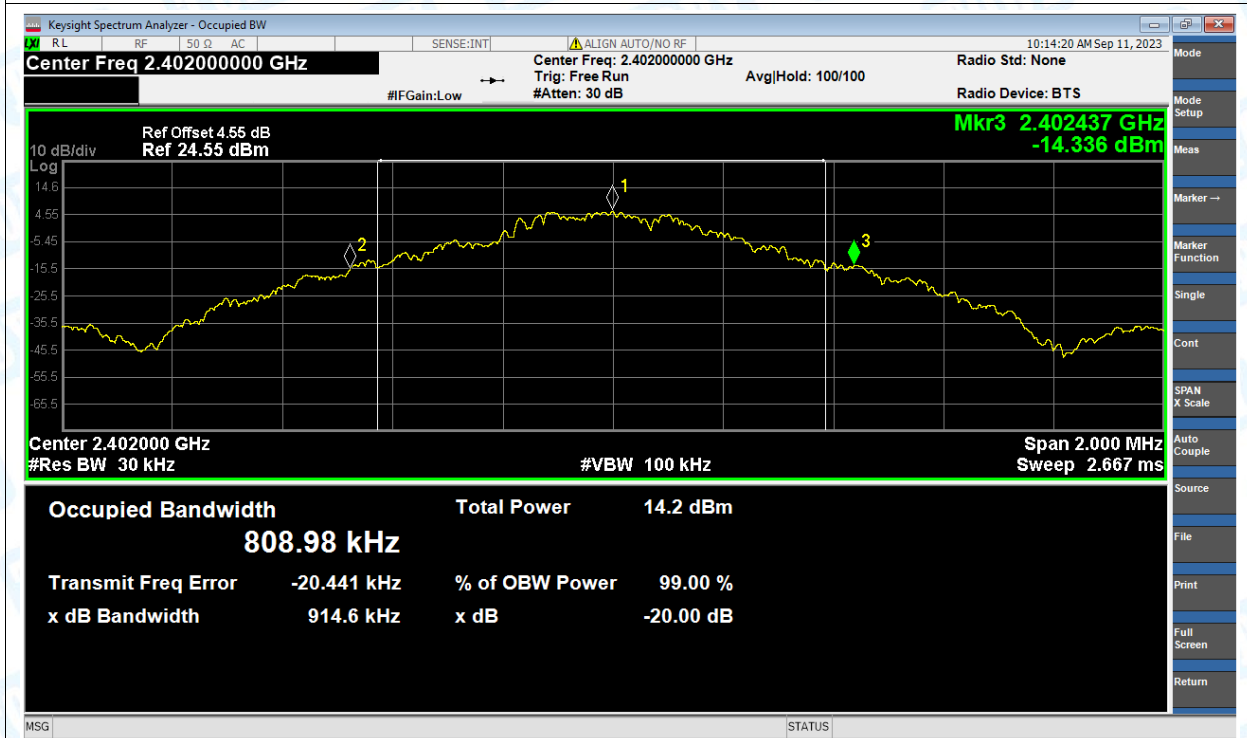


-20dB Bandwidth

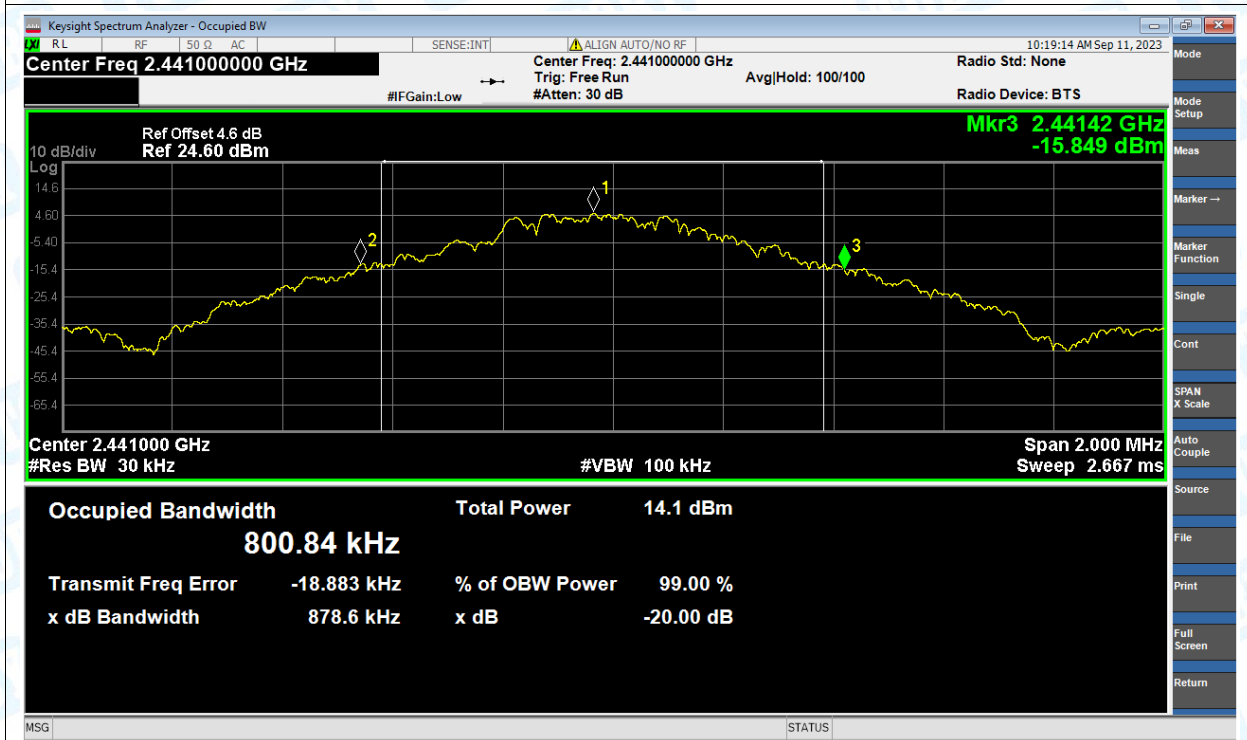
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.91	0	Pass
NVNT	1-DH1	2441	Ant1	0.88	0	Pass
NVNT	1-DH1	2480	Ant1	0.93	0	Pass
NVNT	2-DH1	2402	Ant1	1.3	0	Pass
NVNT	2-DH1	2441	Ant1	1.26	0	Pass
NVNT	2-DH1	2480	Ant1	1.29	0	Pass
NVNT	3-DH1	2402	Ant1	1.27	0	Pass
NVNT	3-DH1	2441	Ant1	1.27	0	Pass
NVNT	3-DH1	2480	Ant1	1.26	0	Pass

Test Graphs

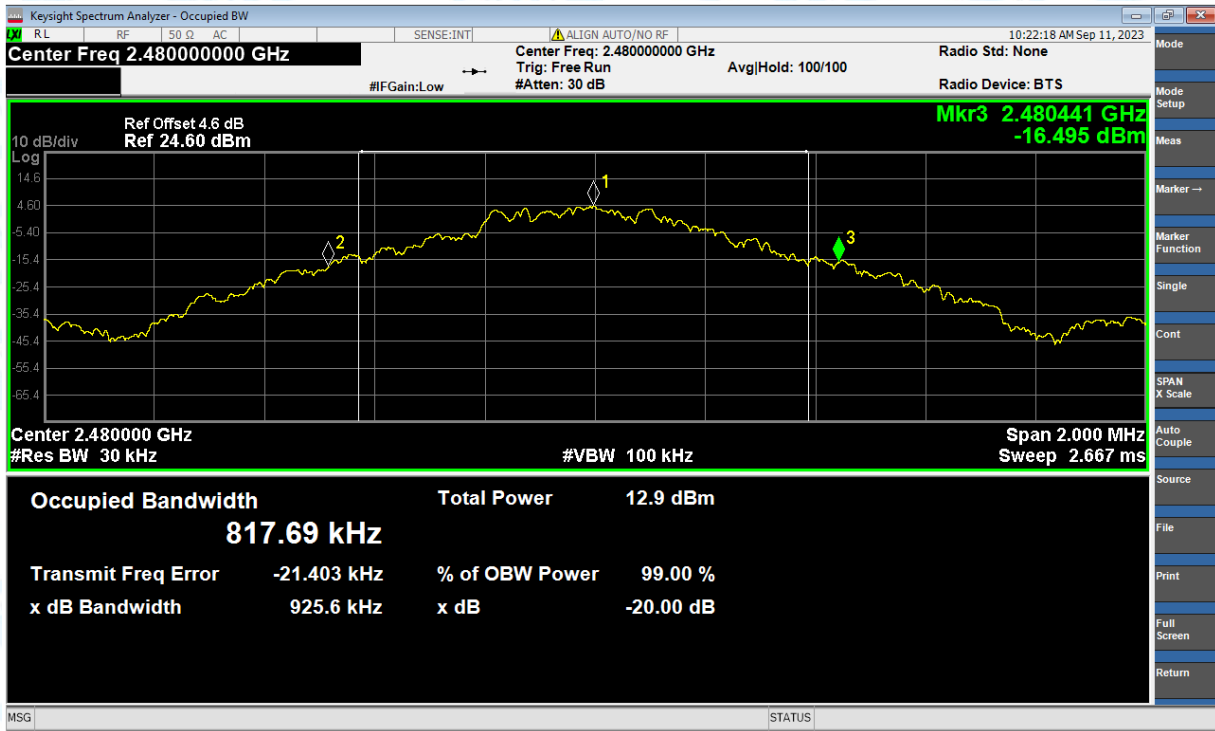
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



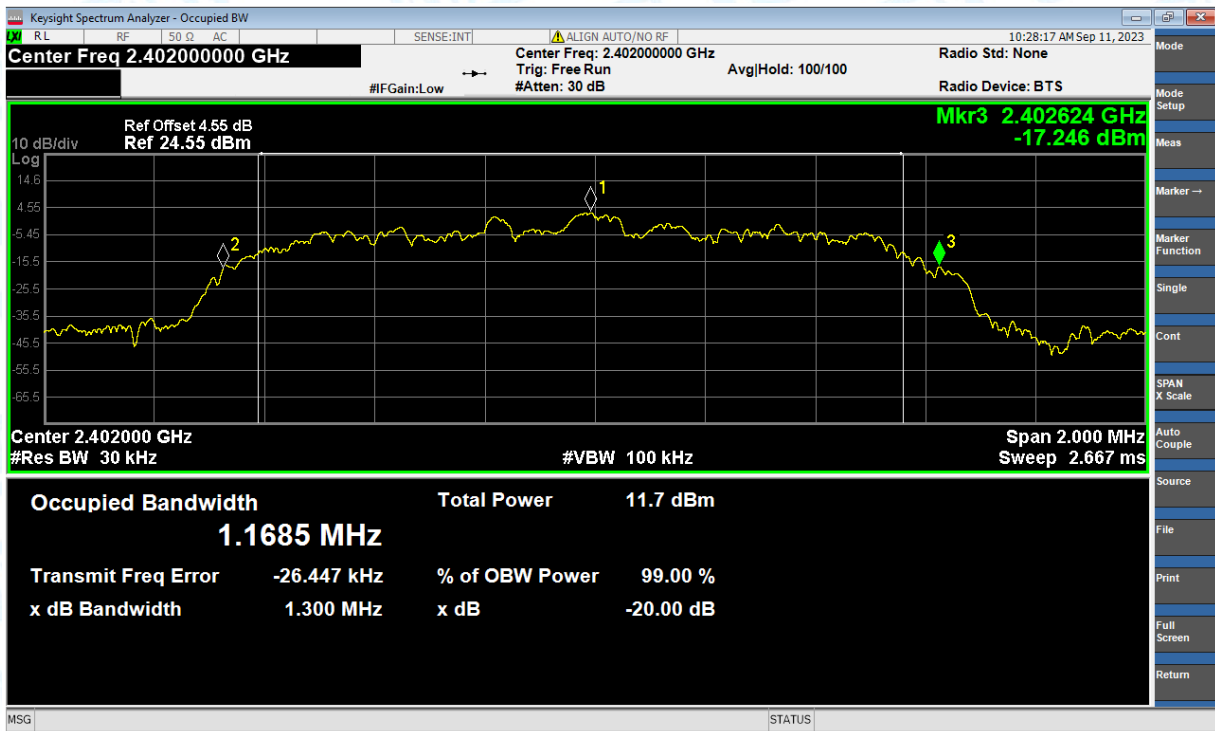
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



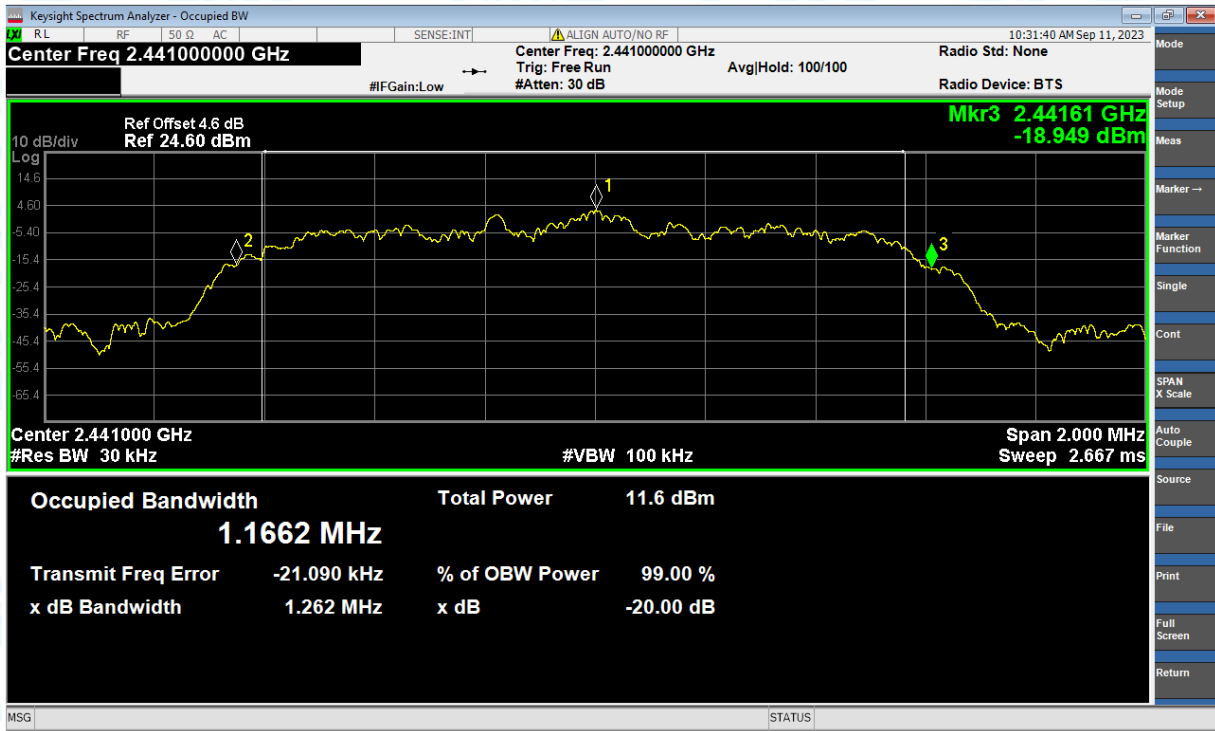
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



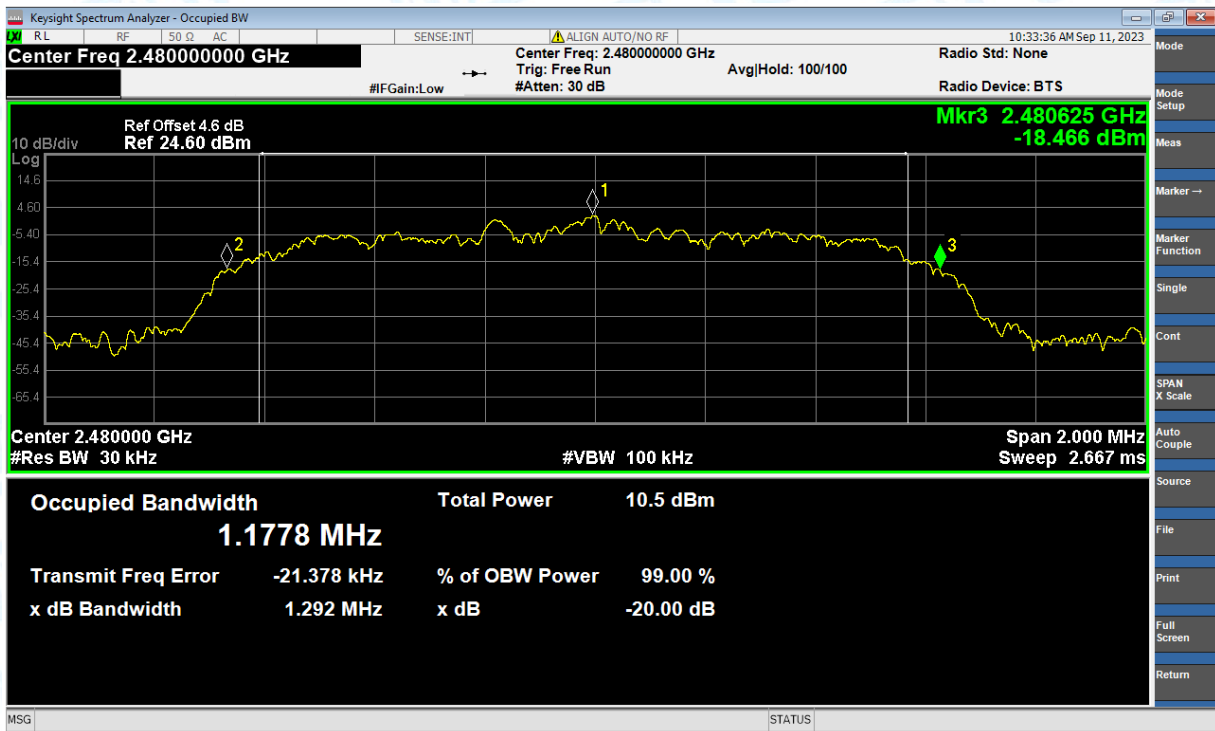
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



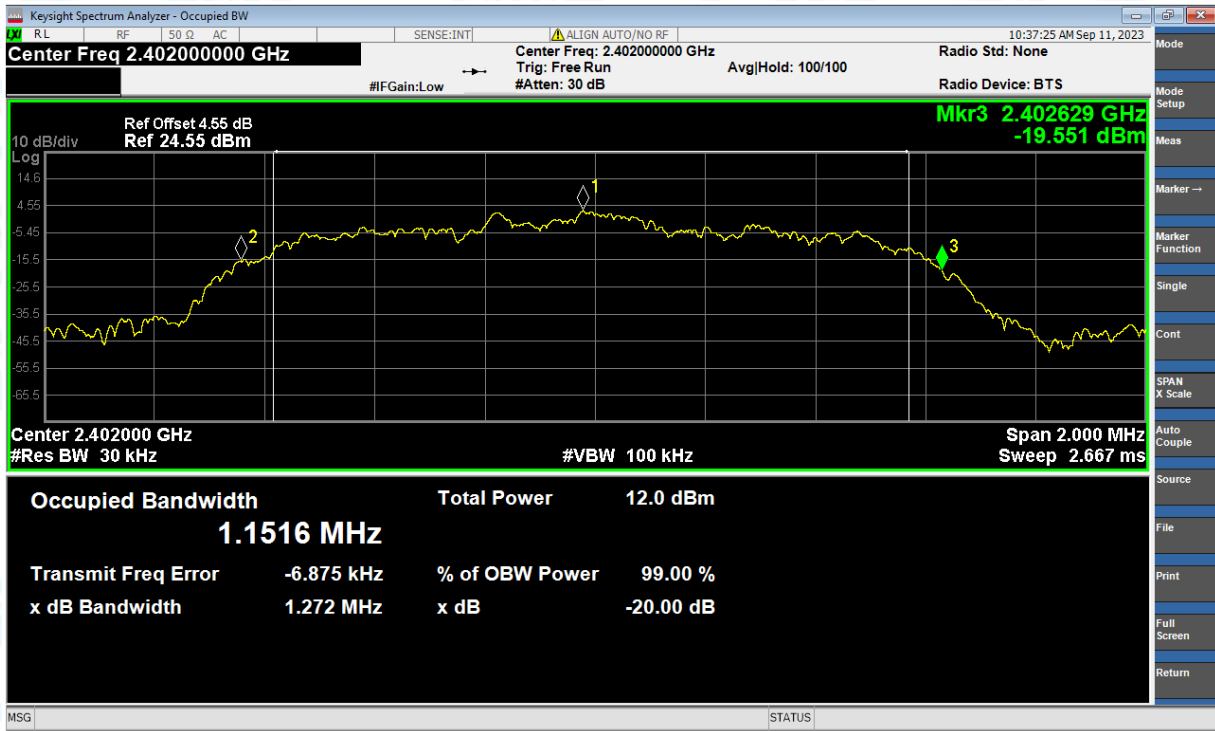
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



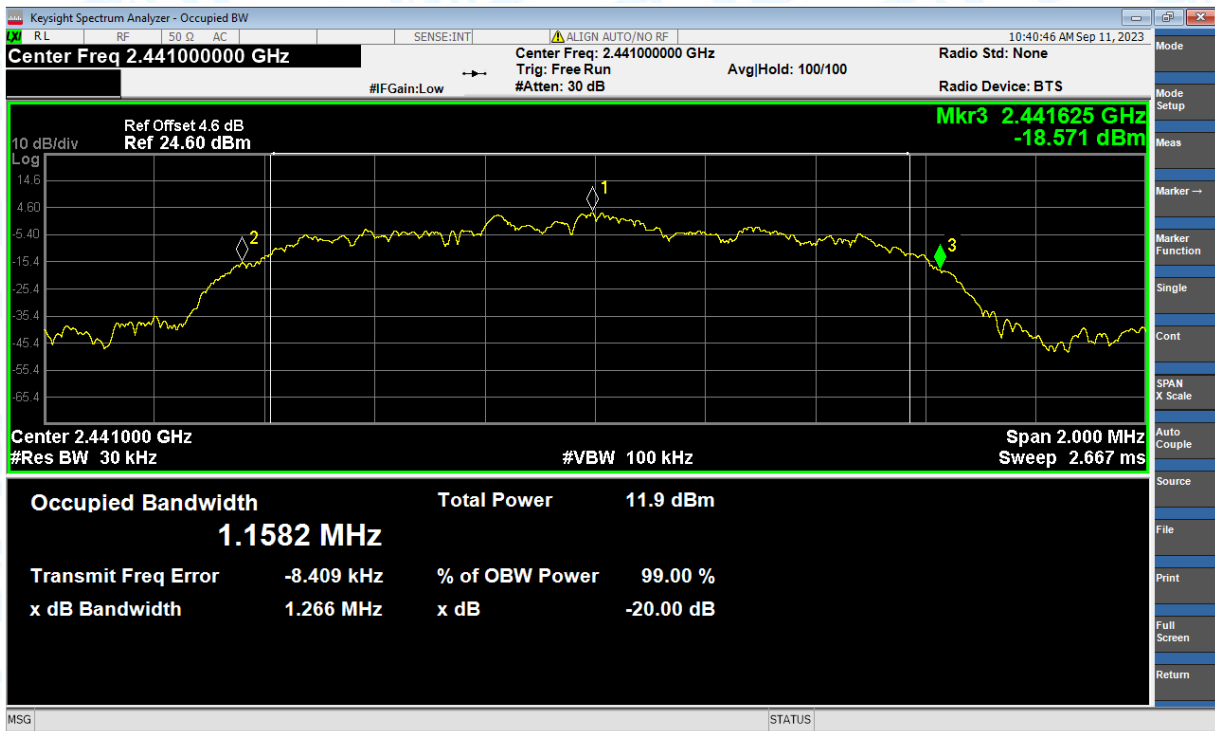
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

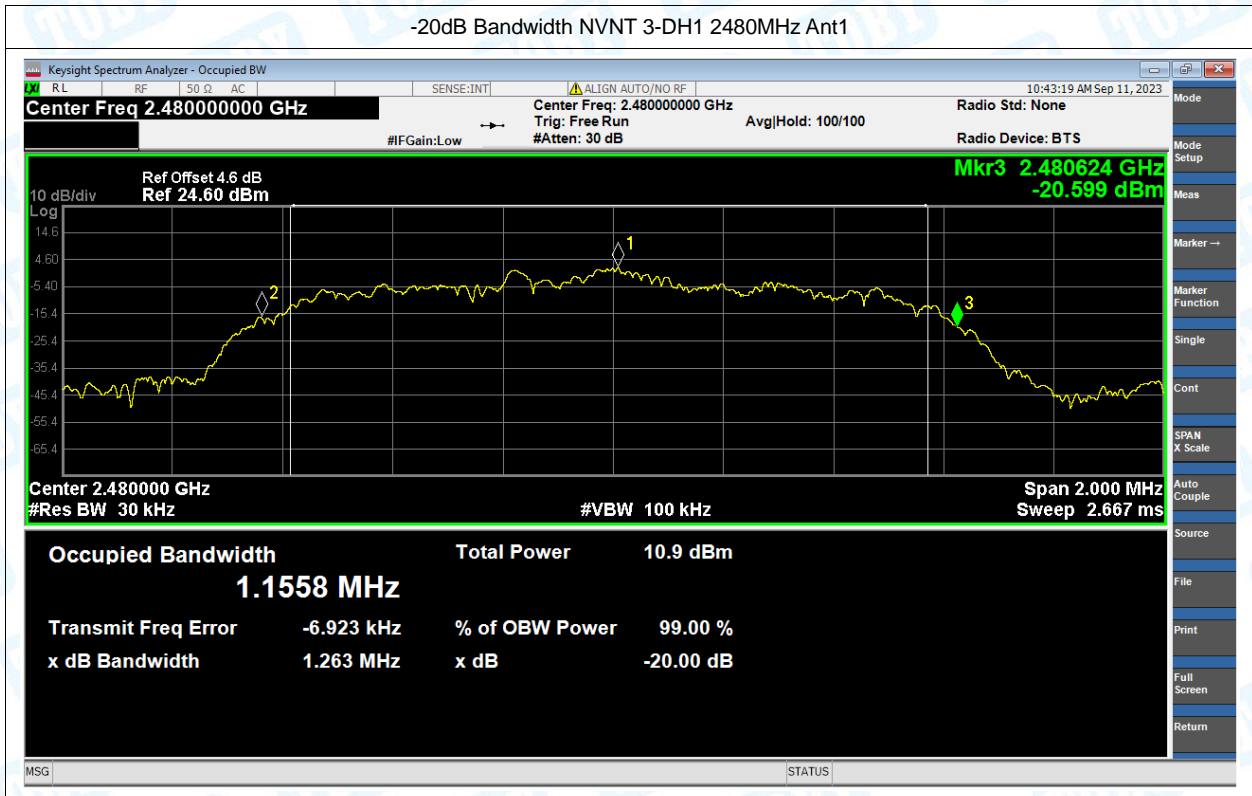


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



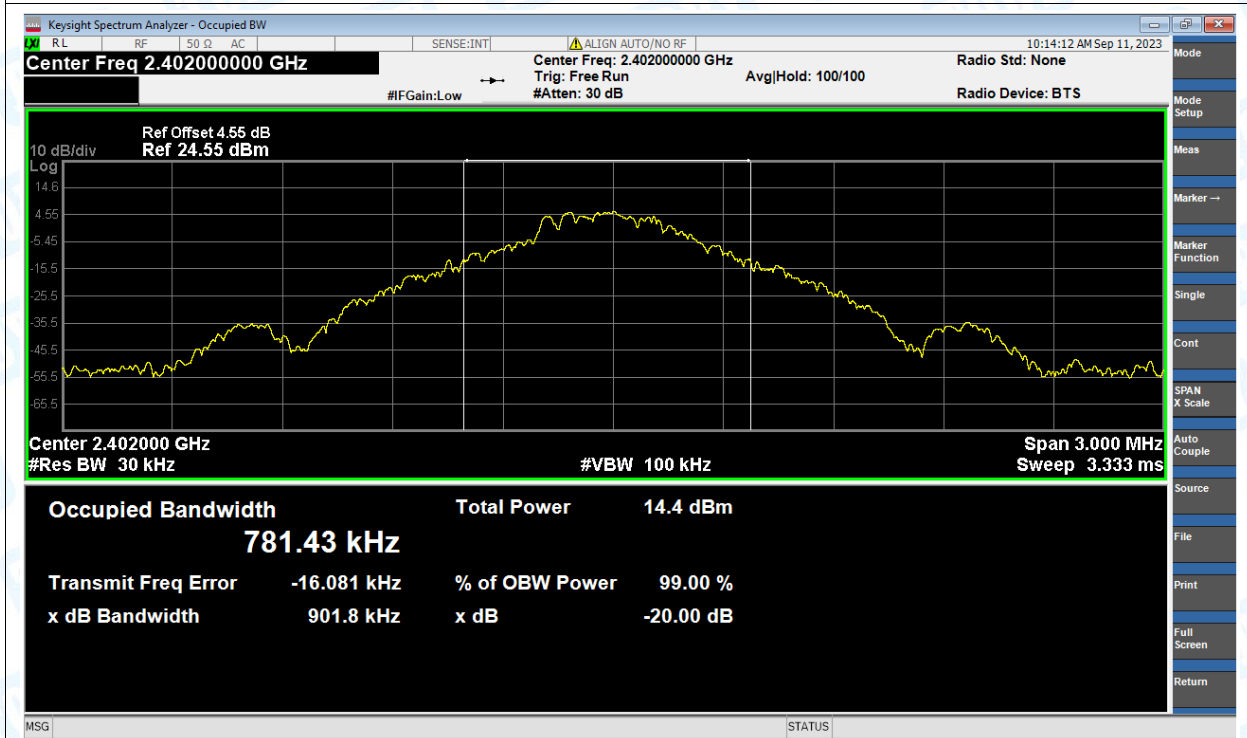


Occupied Channel Bandwidth

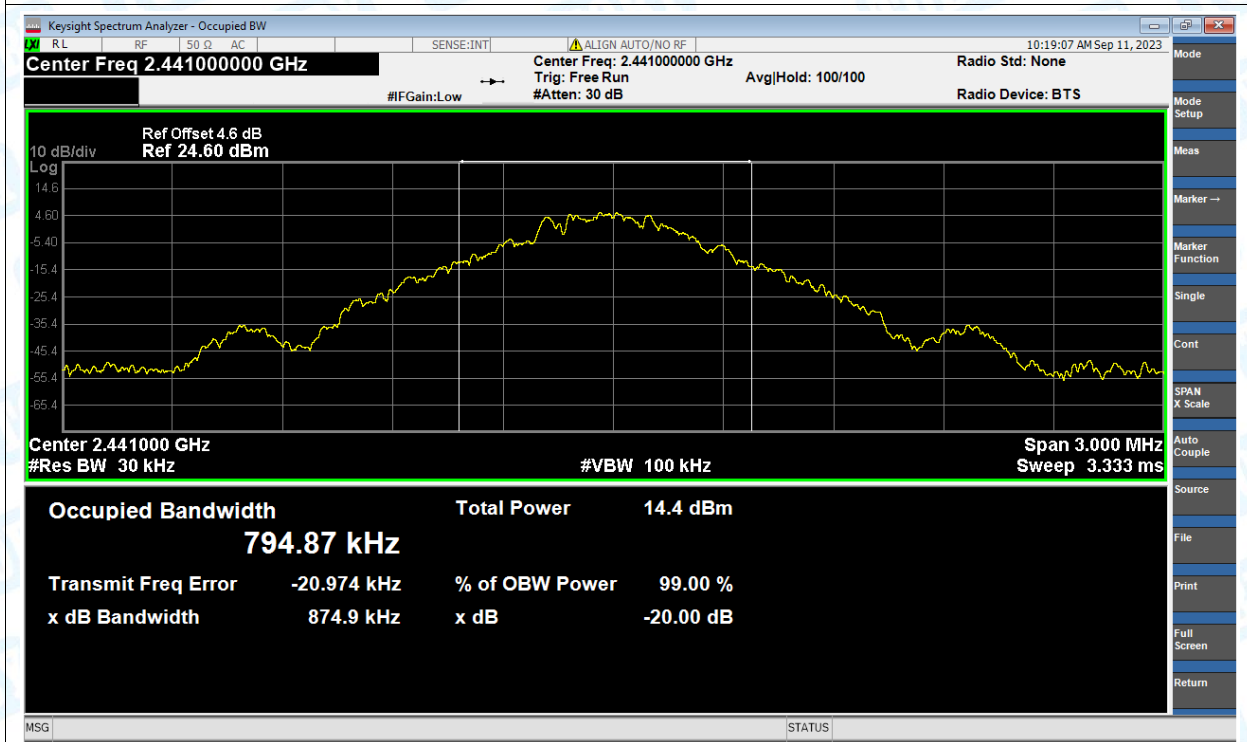
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.781
NVNT	1-DH1	2441	Ant1	0.795
NVNT	1-DH1	2480	Ant1	0.799
NVNT	2-DH1	2402	Ant1	1.171
NVNT	2-DH1	2441	Ant1	1.177
NVNT	2-DH1	2480	Ant1	1.174
NVNT	3-DH1	2402	Ant1	1.164
NVNT	3-DH1	2441	Ant1	1.163
NVNT	3-DH1	2480	Ant1	1.152

Test Graphs

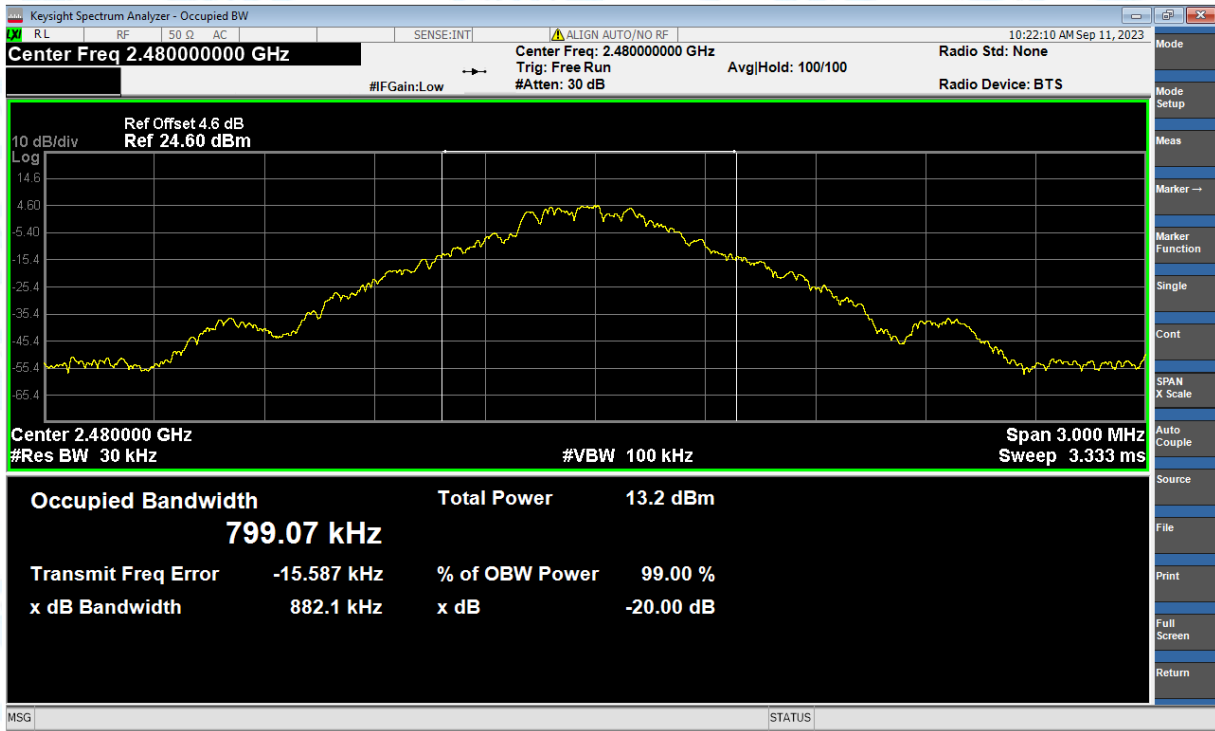
OBW NVNT 1-DH1 2402MHz Ant1



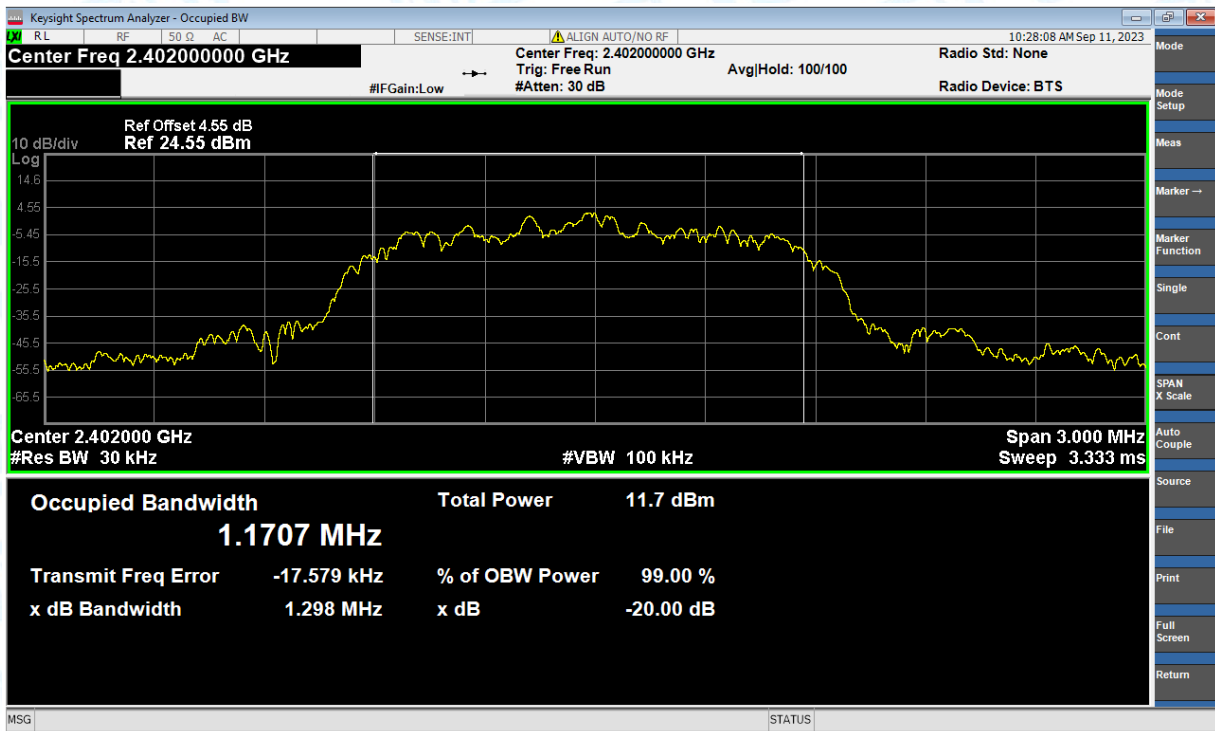
OBW NVNT 1-DH1 2441MHz Ant1



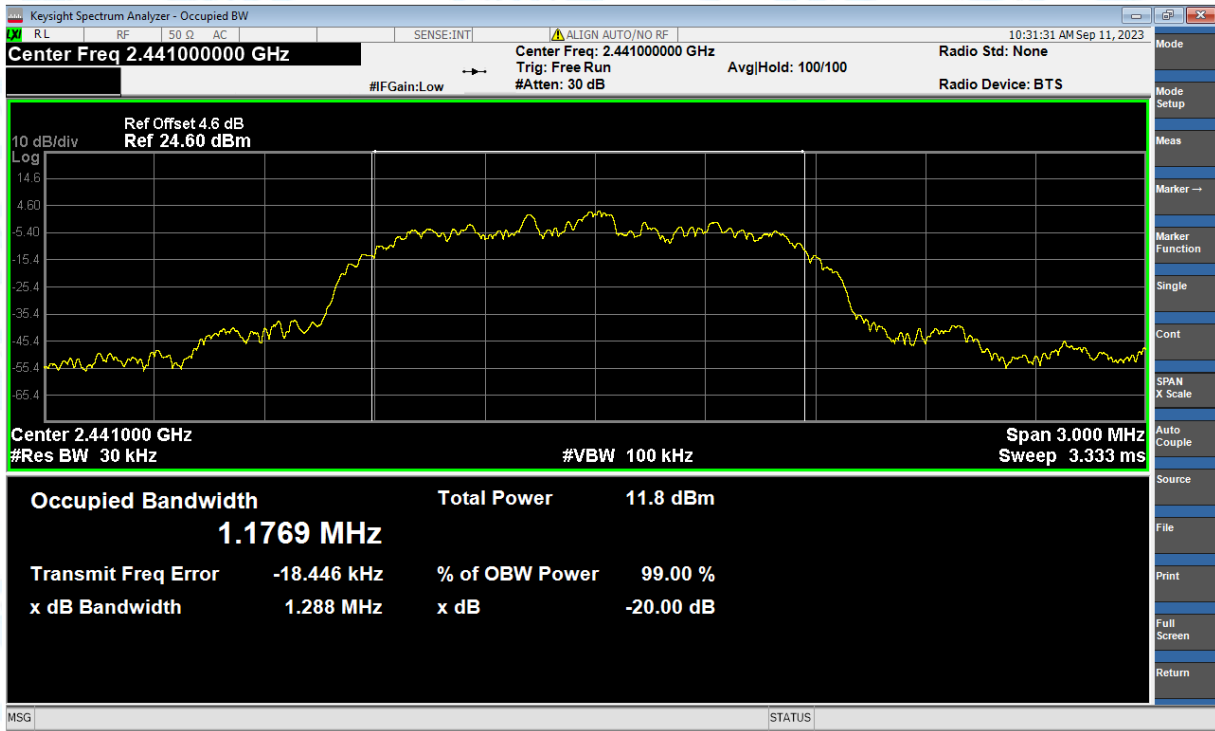
OBW NVNT 1-DH1 2480MHz Ant1



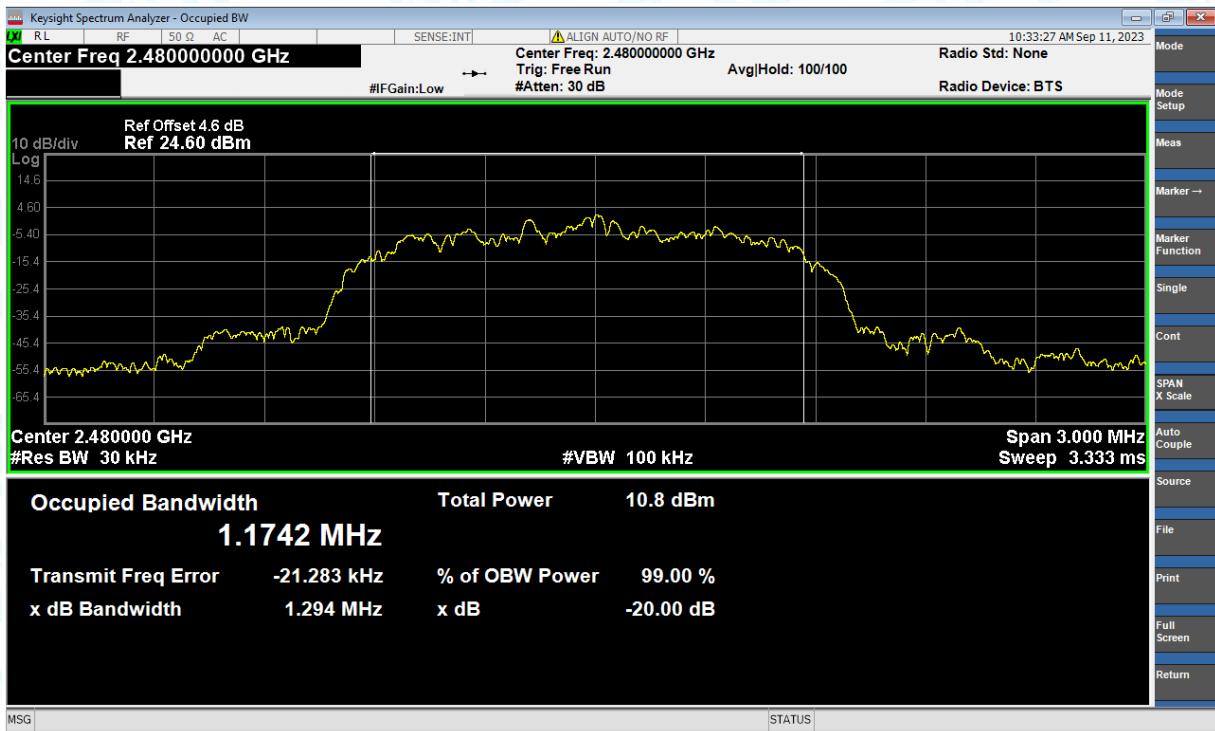
OBW NVNT 2-DH1 2402MHz Ant1



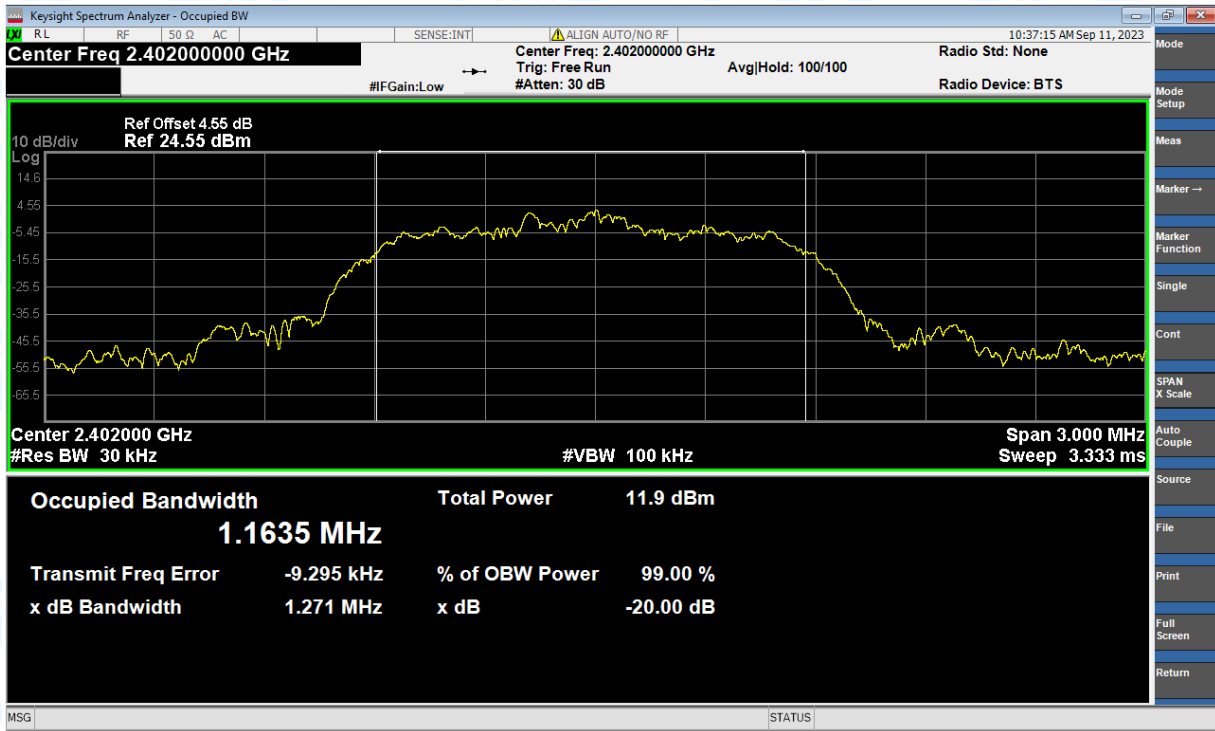
OBW NVNT 2-DH1 2441MHz Ant1



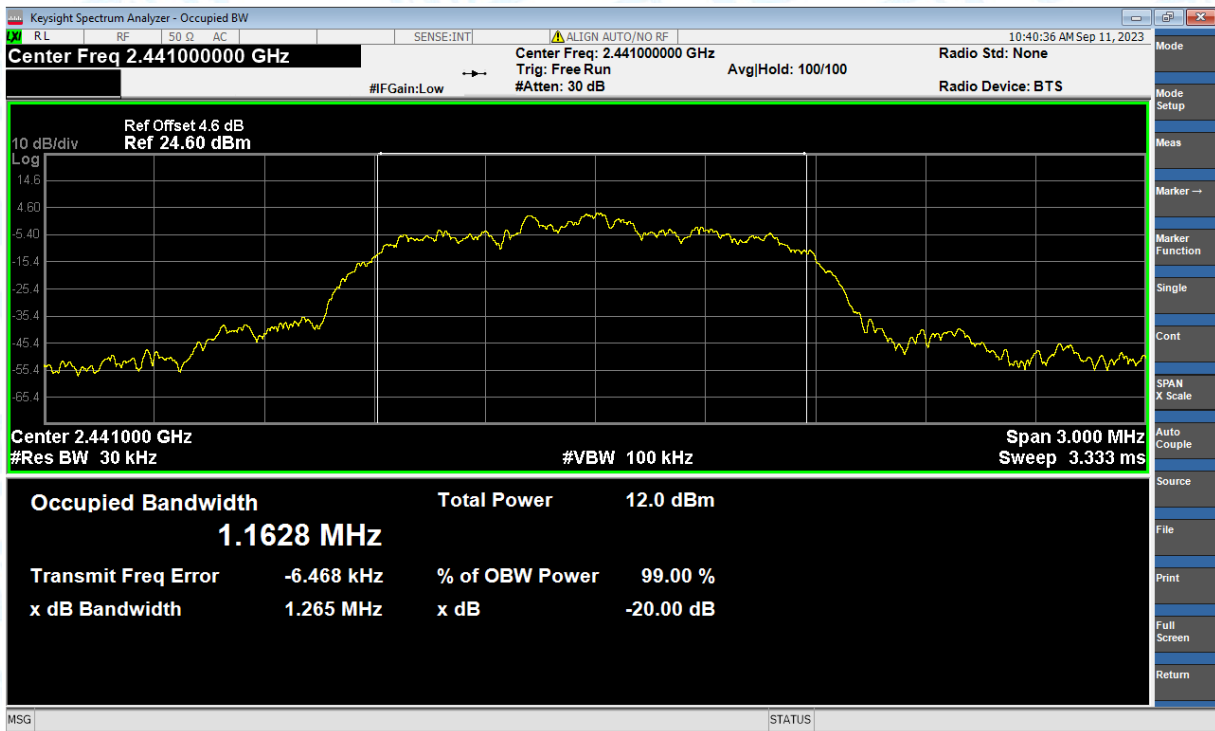
OBW NVNT 2-DH1 2480MHz Ant1

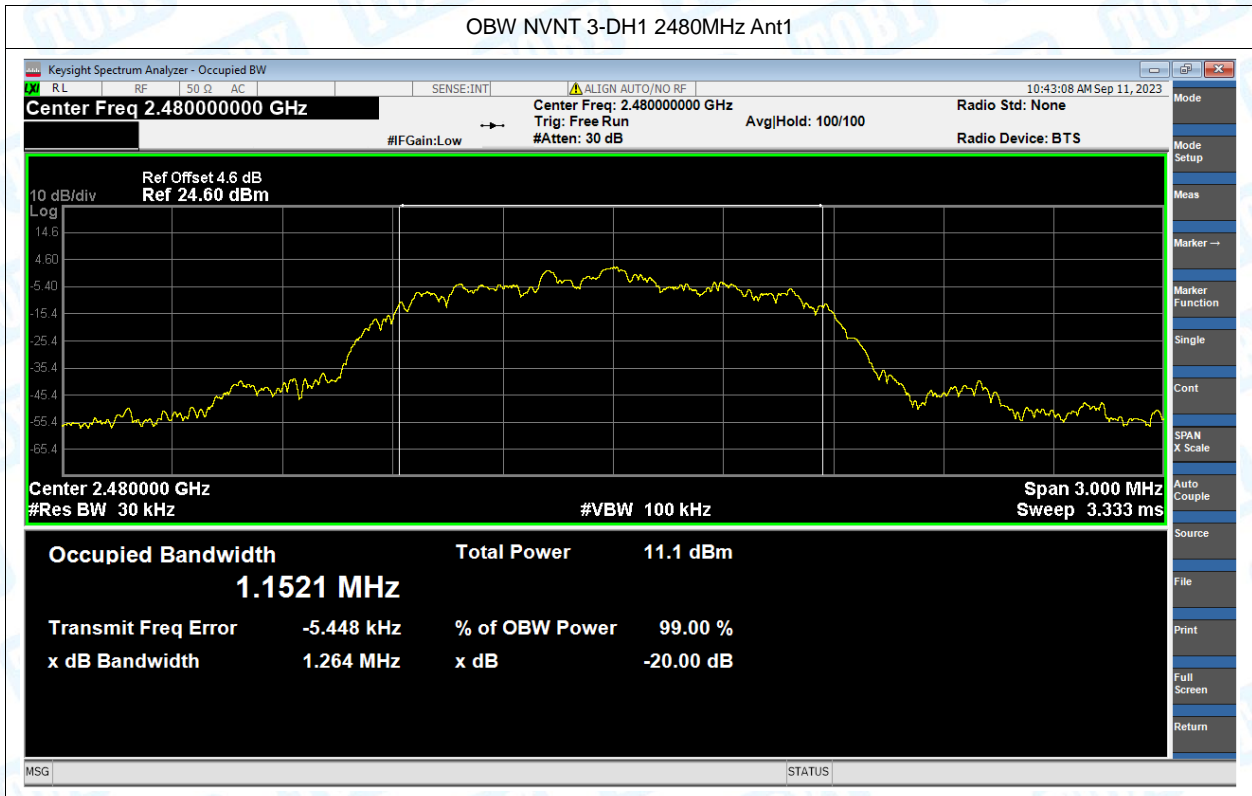


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



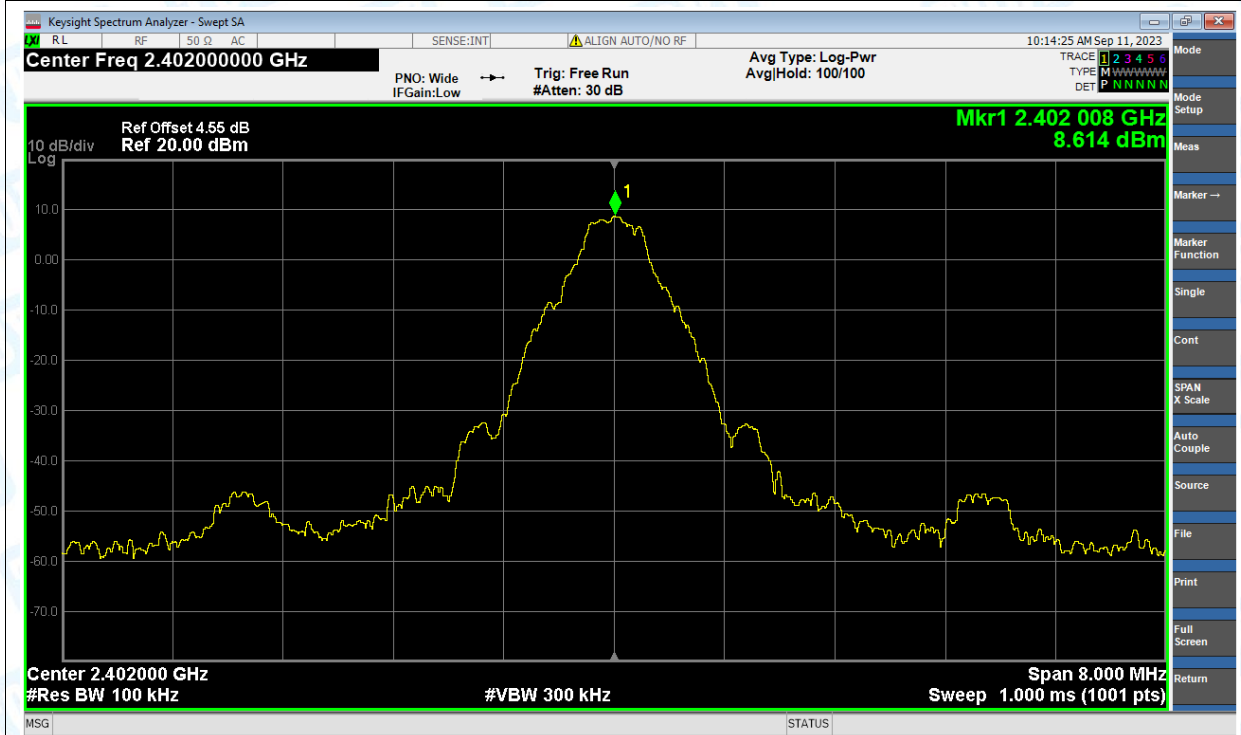


Band Edge

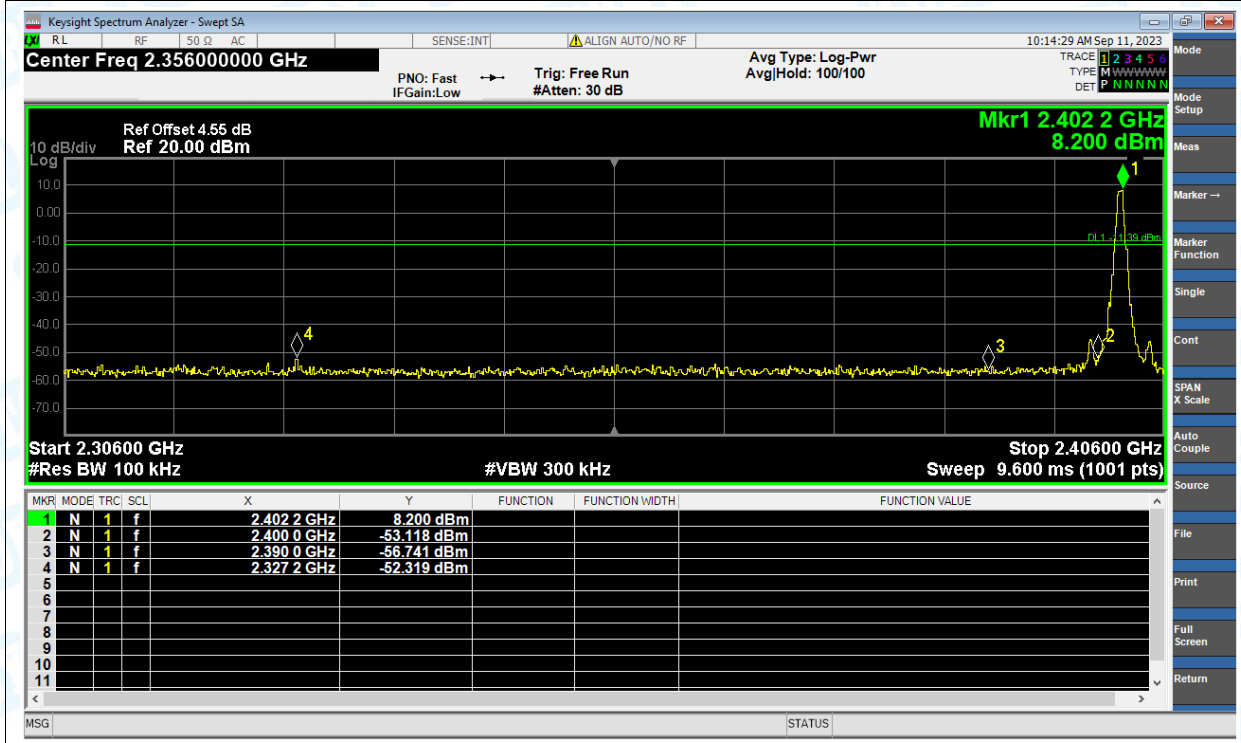
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-60.93	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-61.29	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-58.69	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-58.5	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-59.42	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-57.99	-20	Pass

Test Graphs

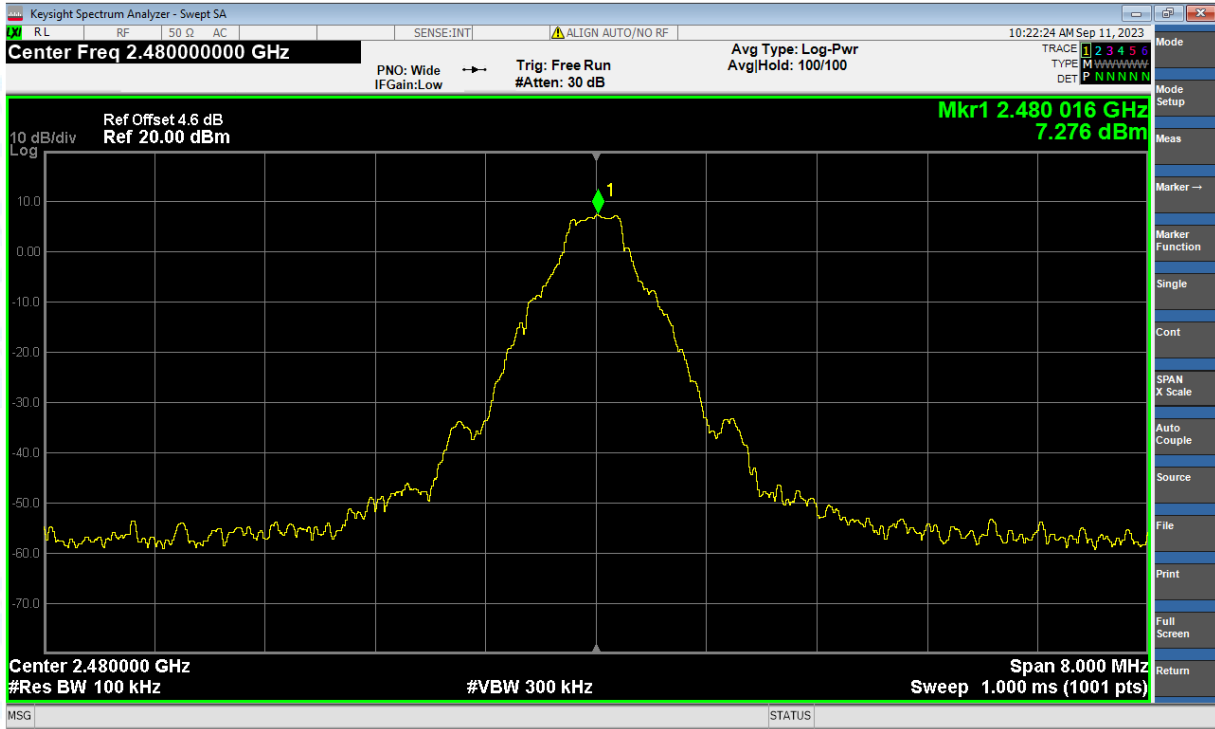
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



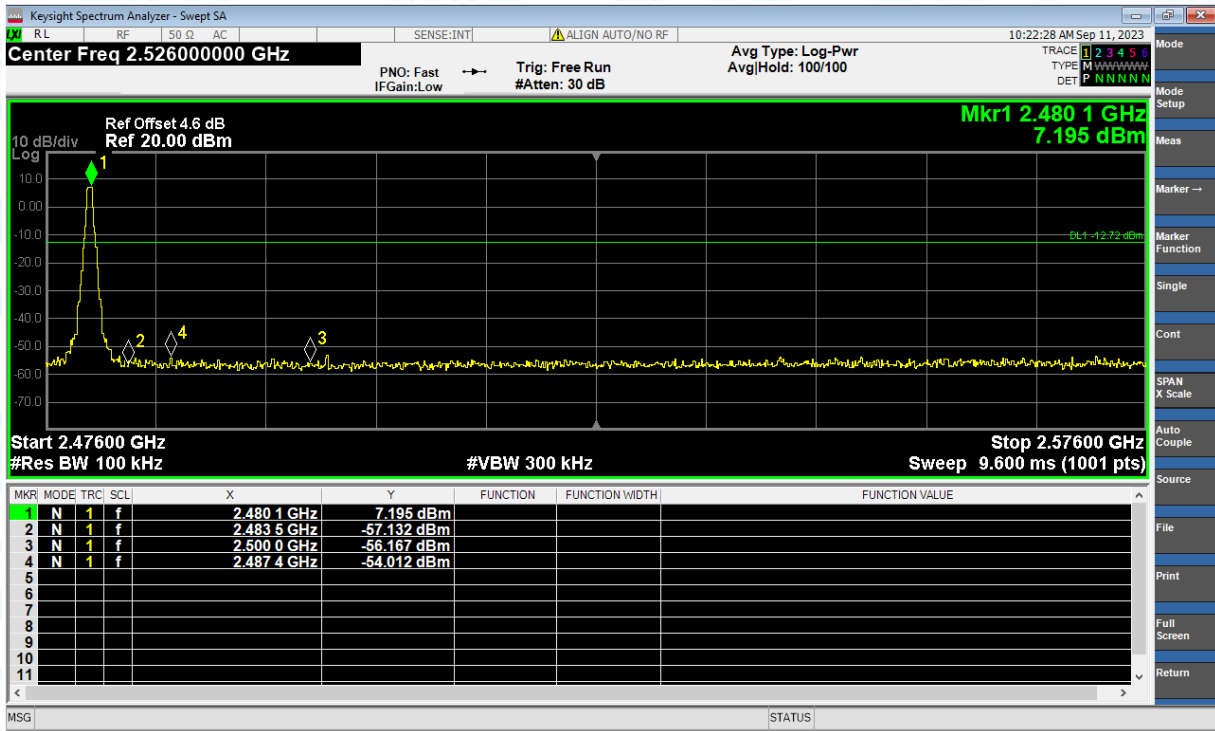
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

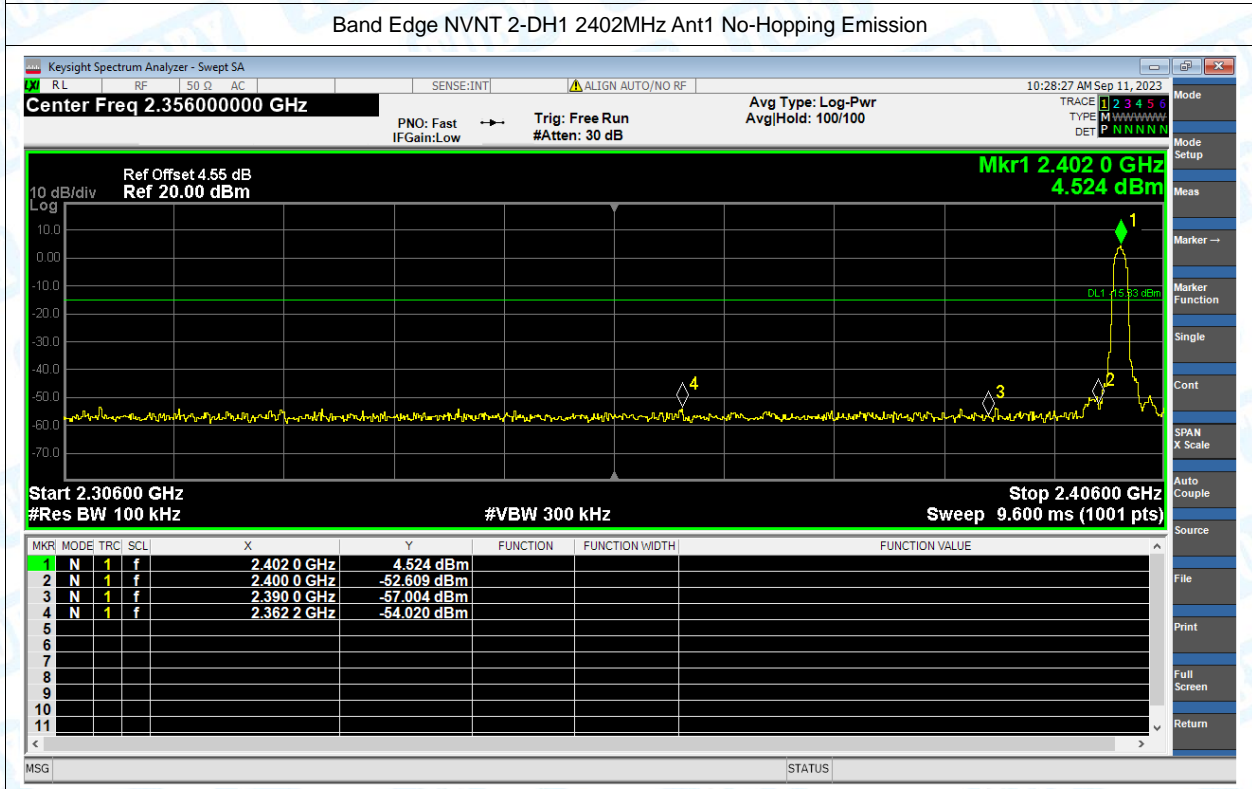
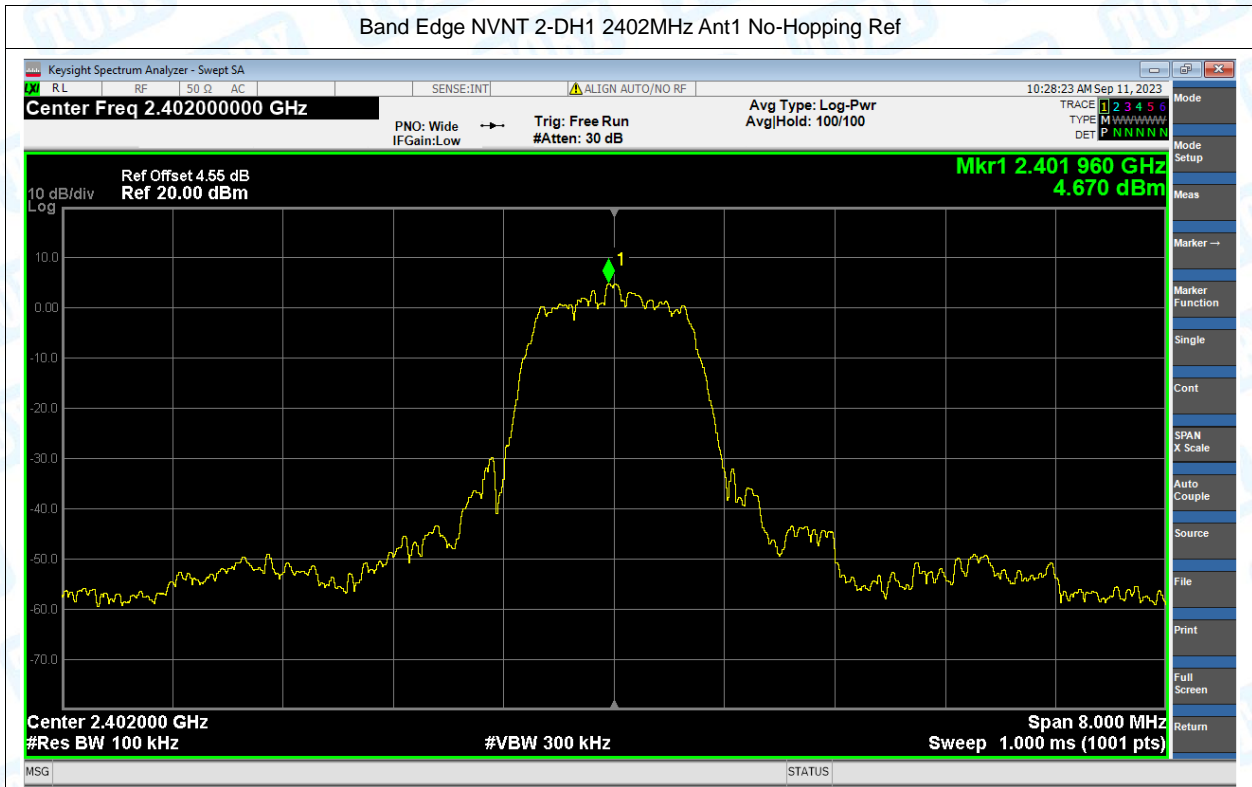


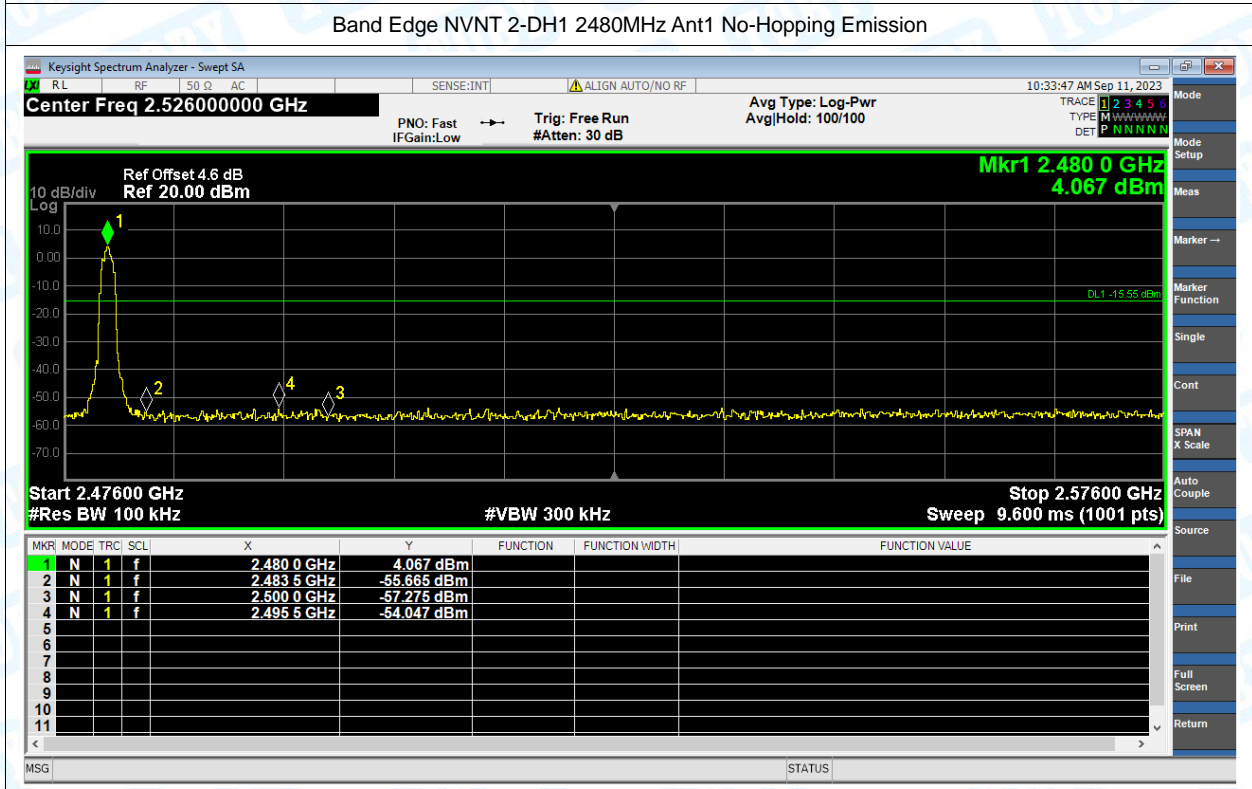
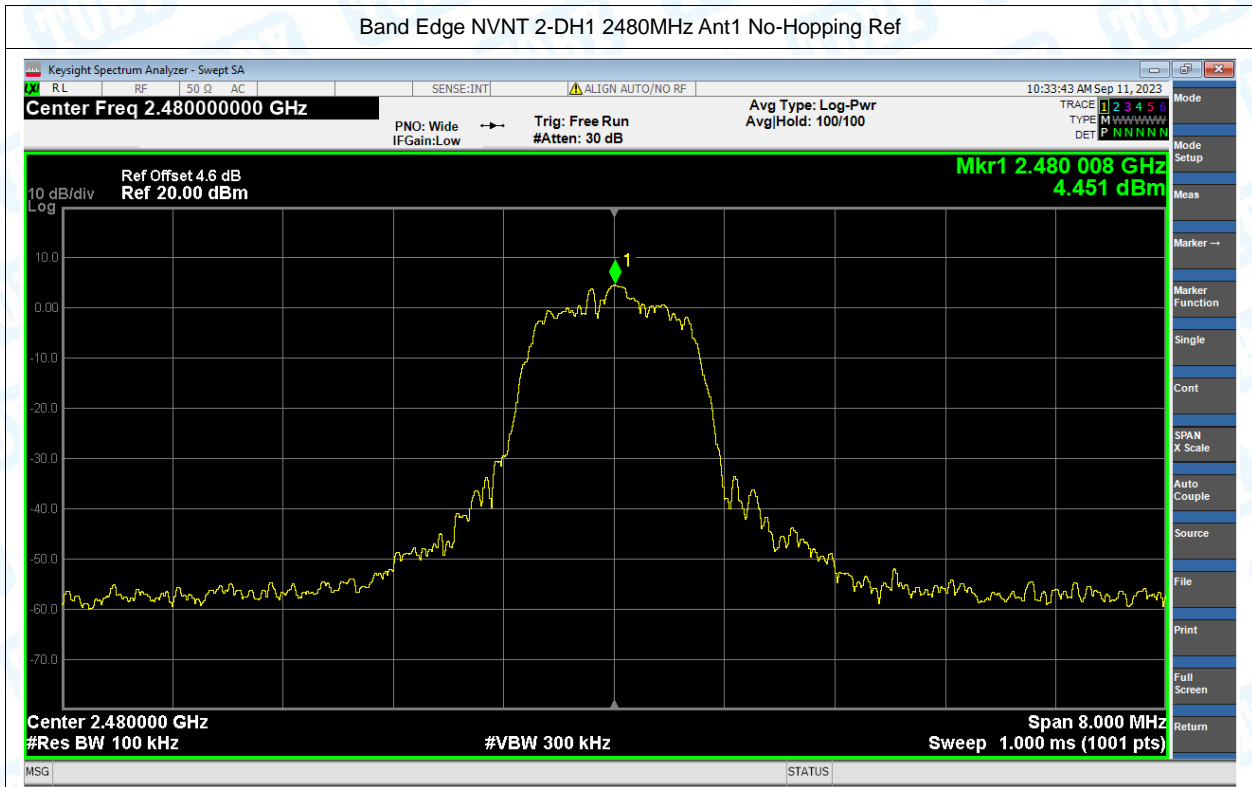
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

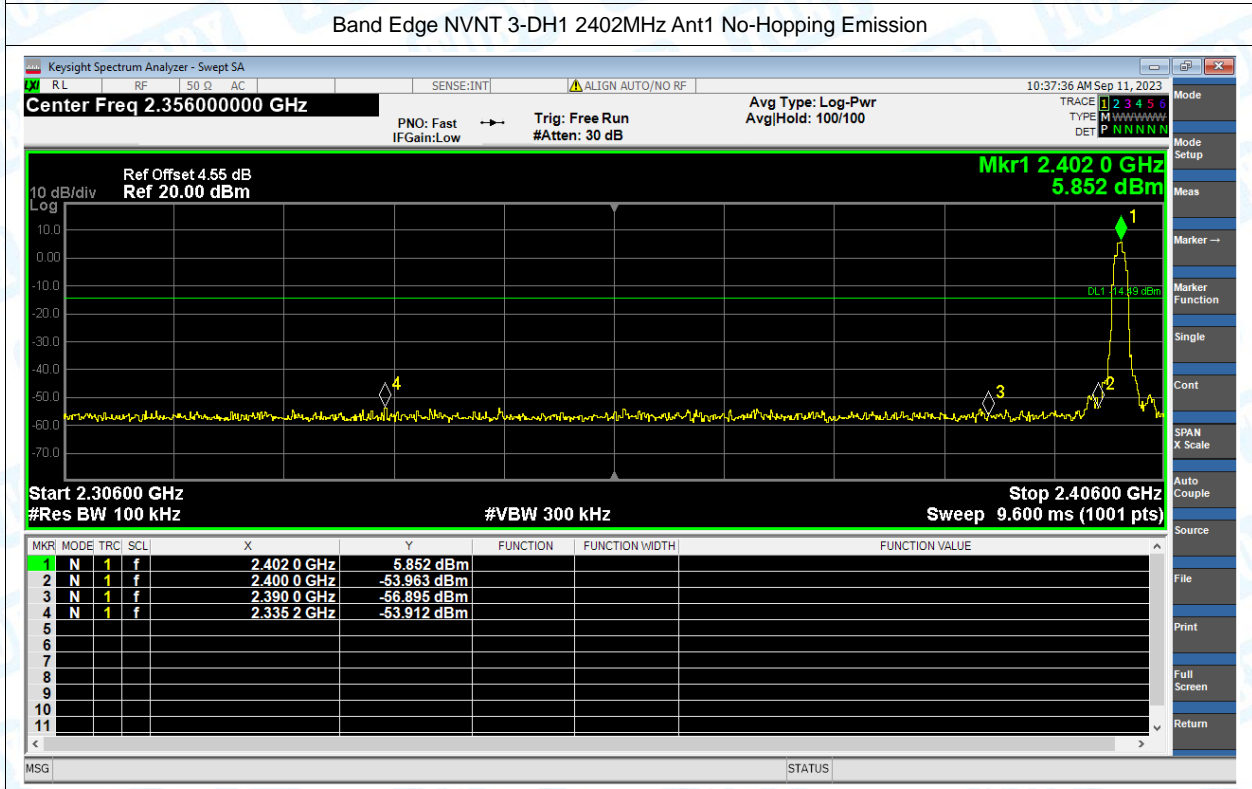


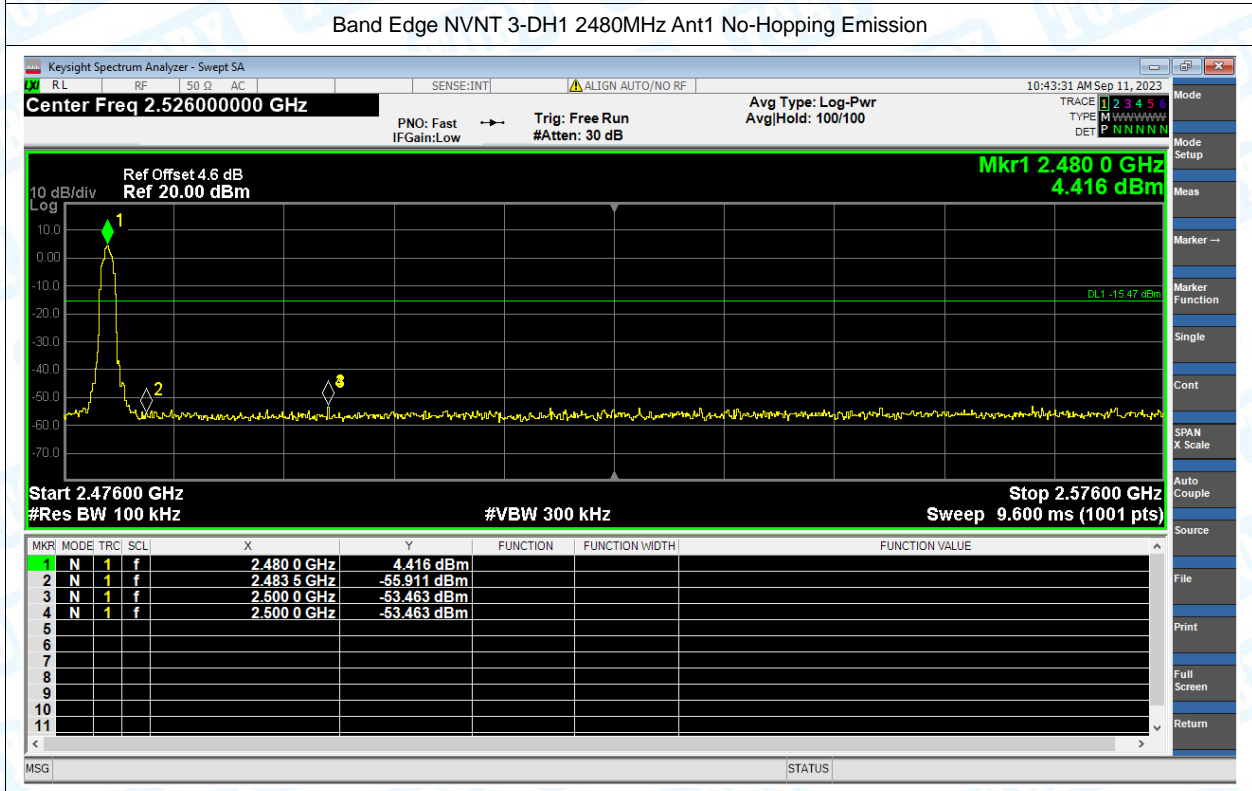
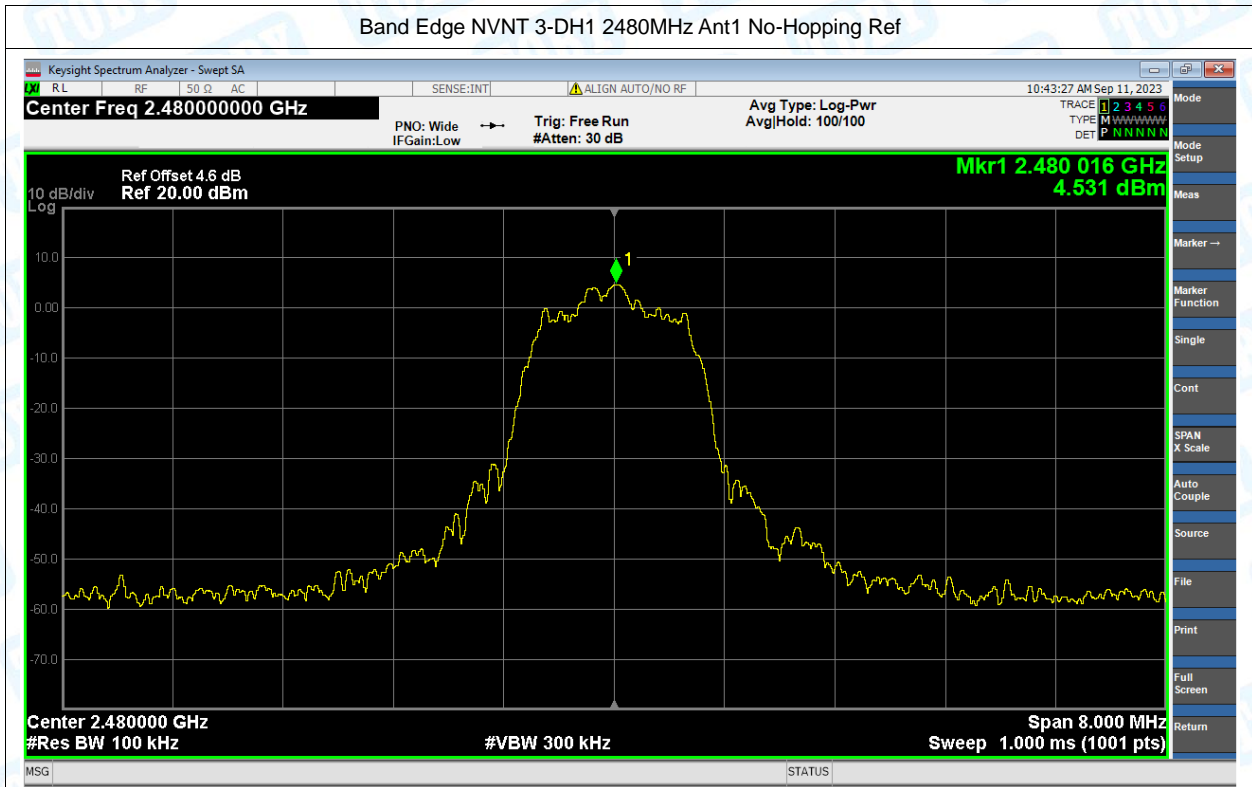
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission









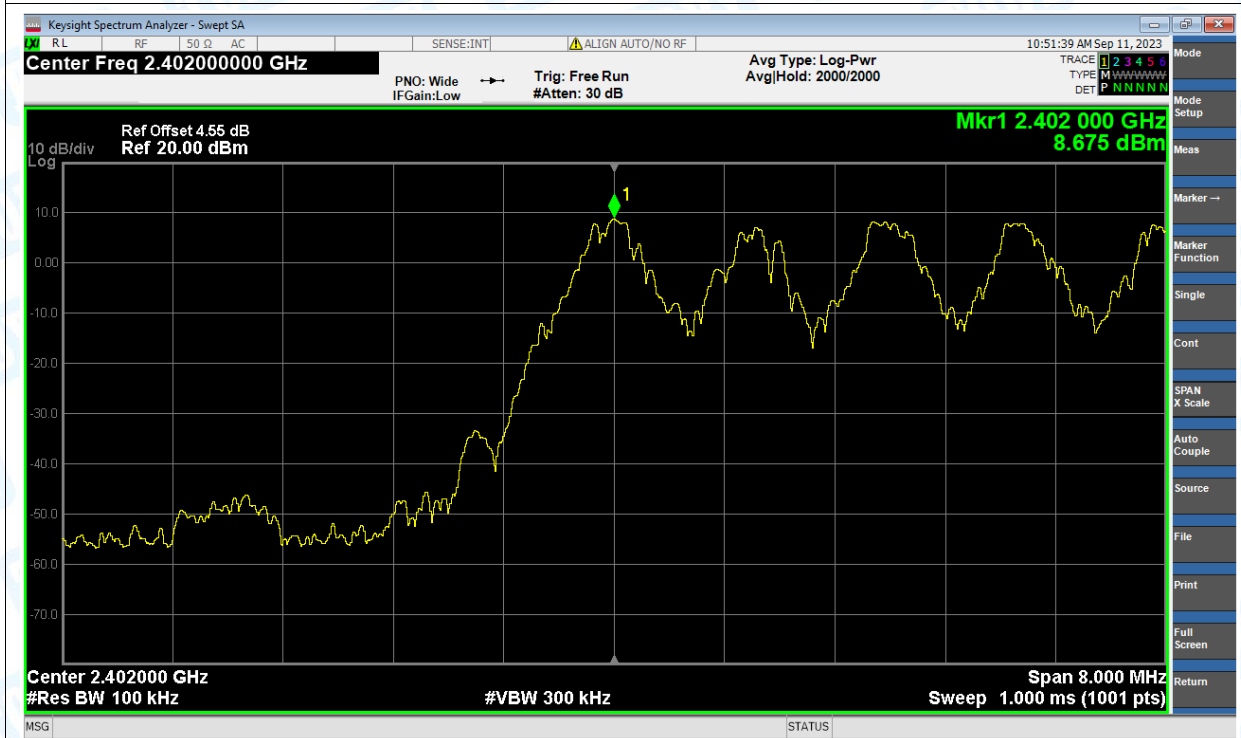


Band Edge(Hopping)

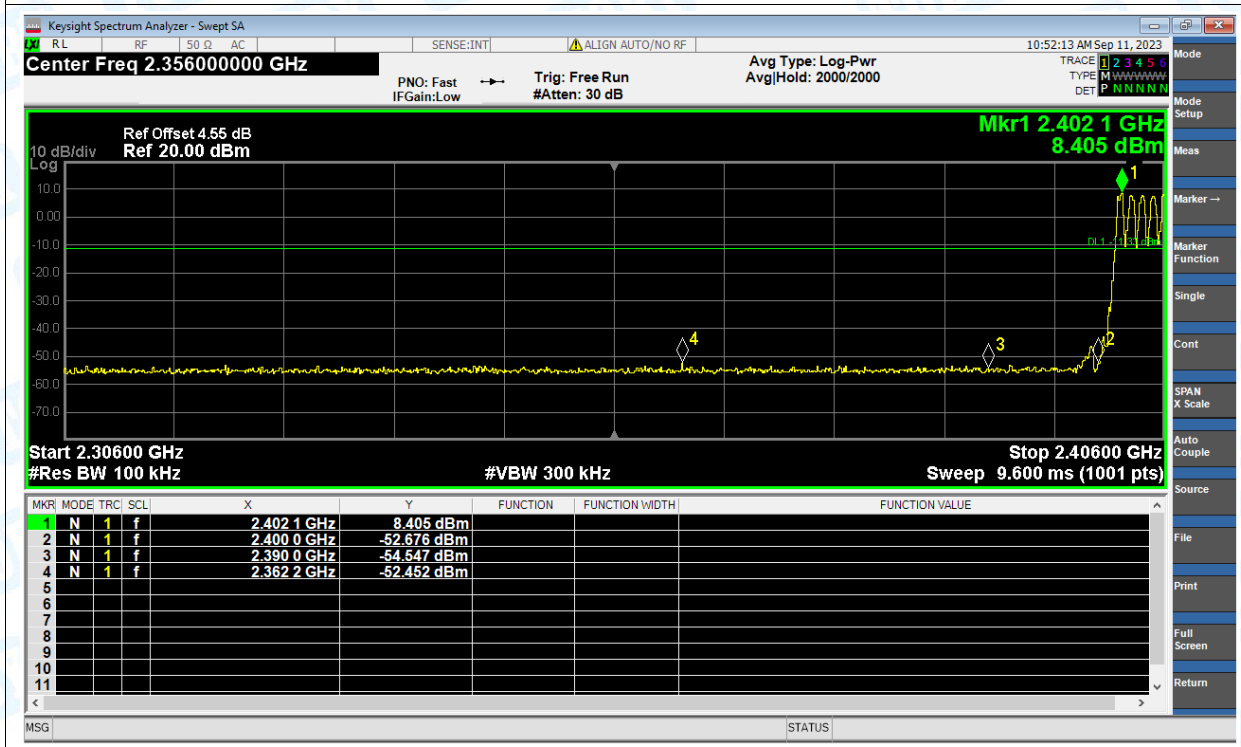
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-61.13	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-61.01	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-59.01	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-57.61	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-59.08	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-57.55	-20	Pass

Test Graphs

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



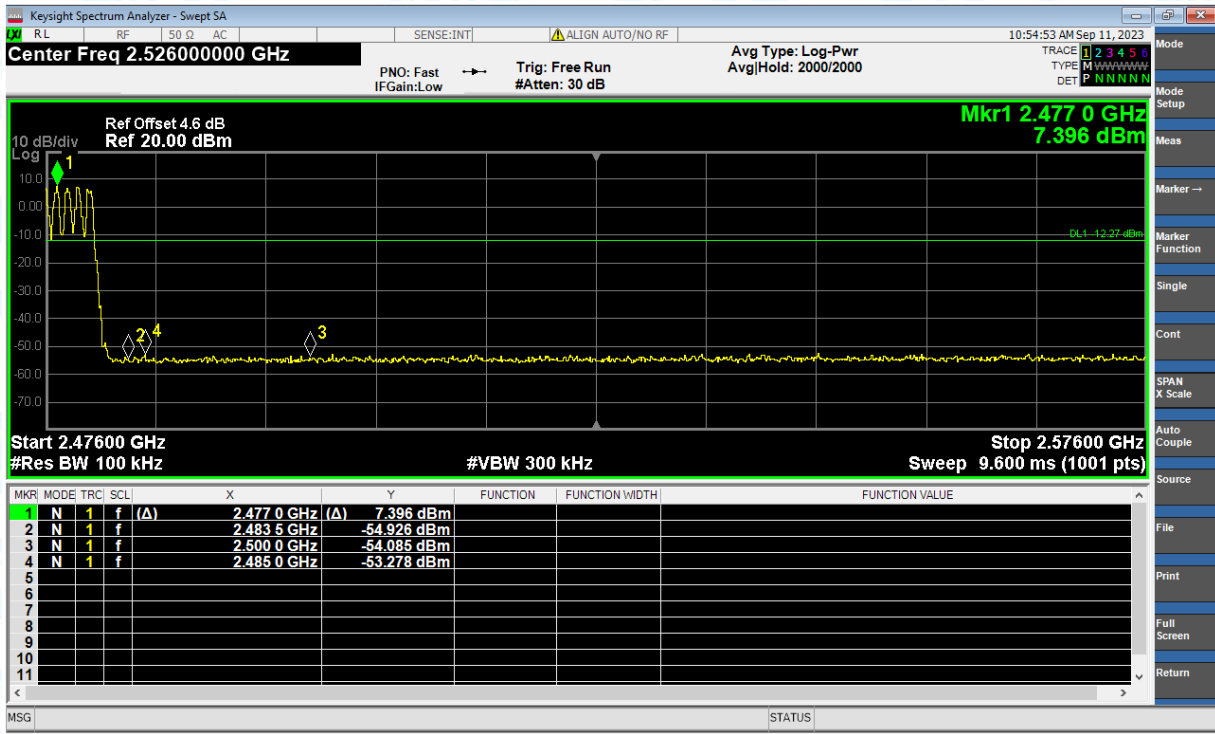
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



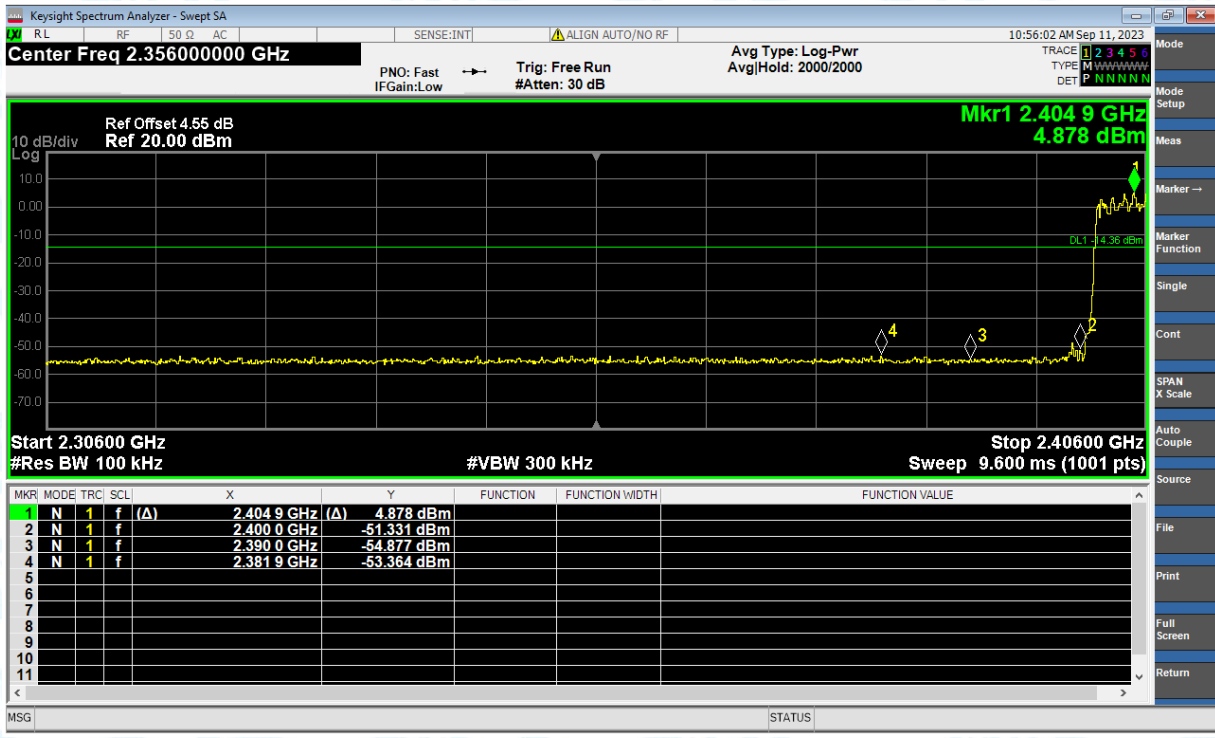
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



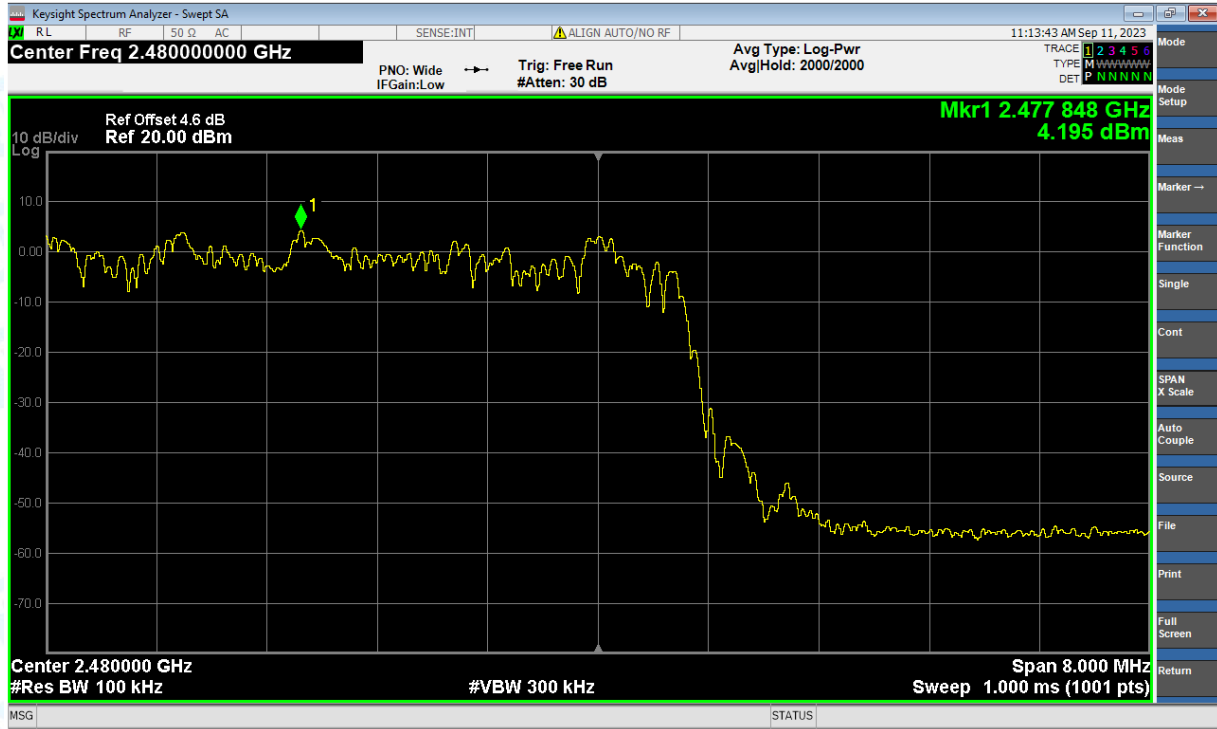
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



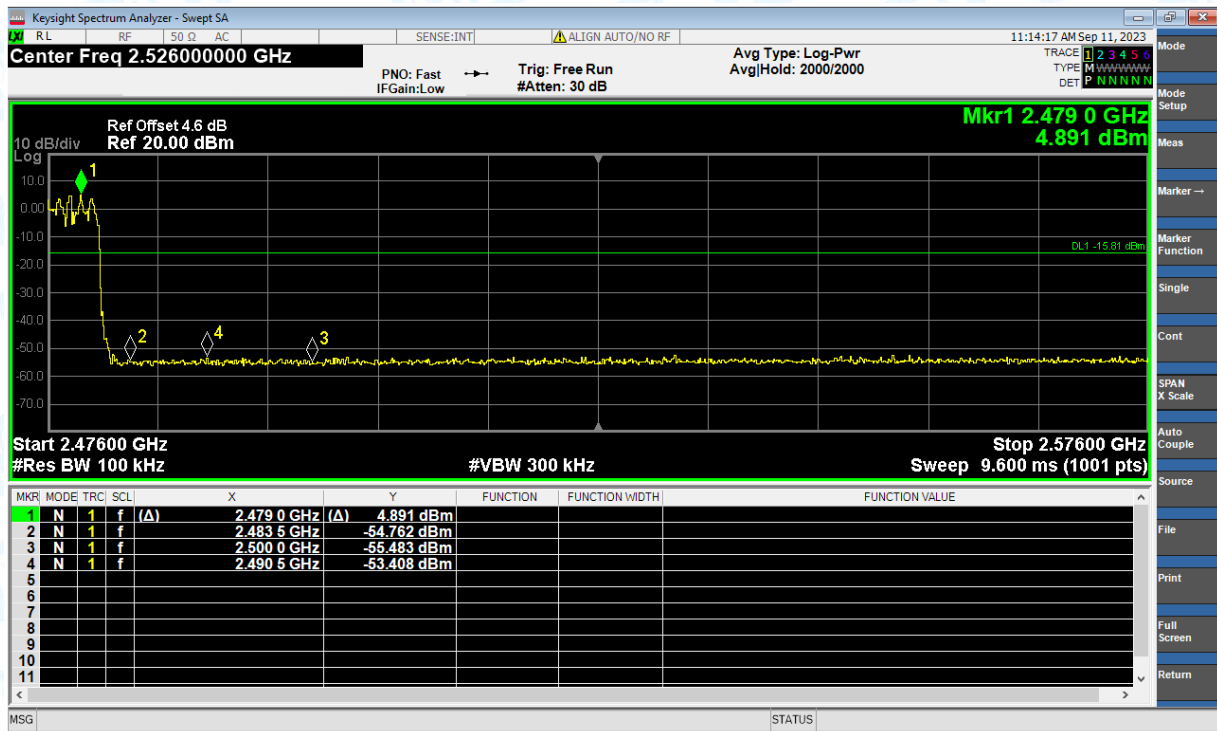
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



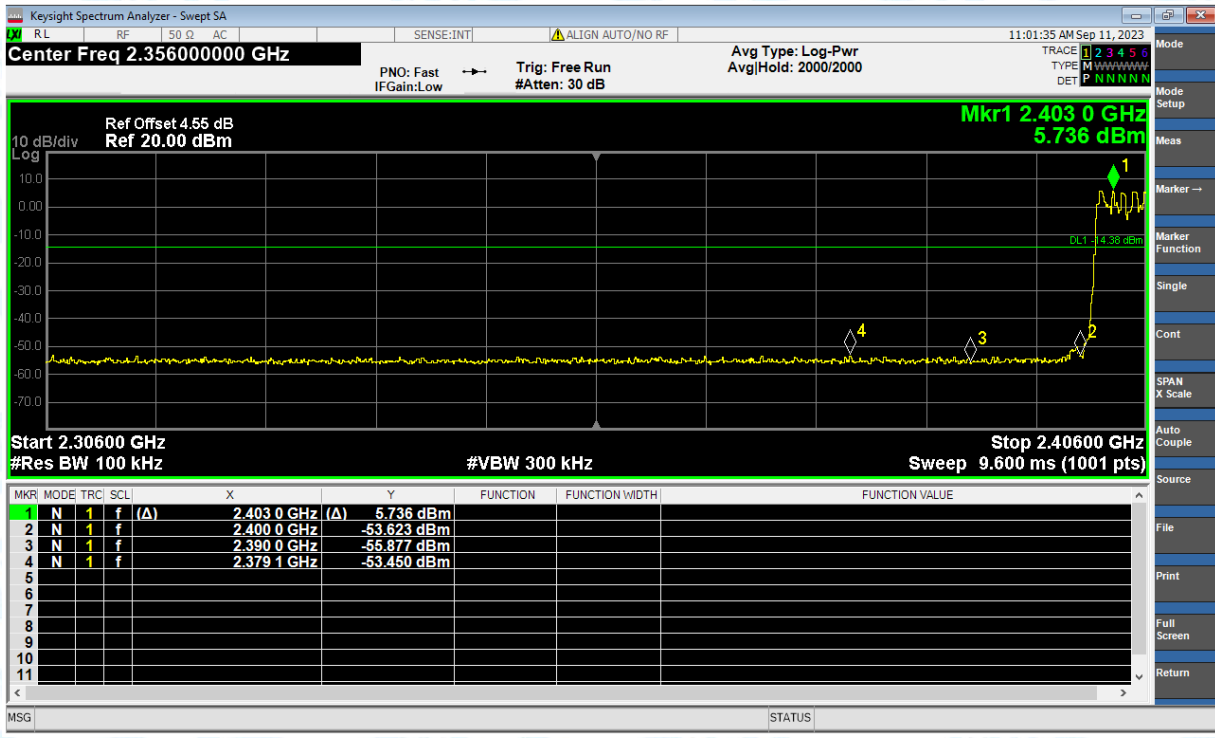
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



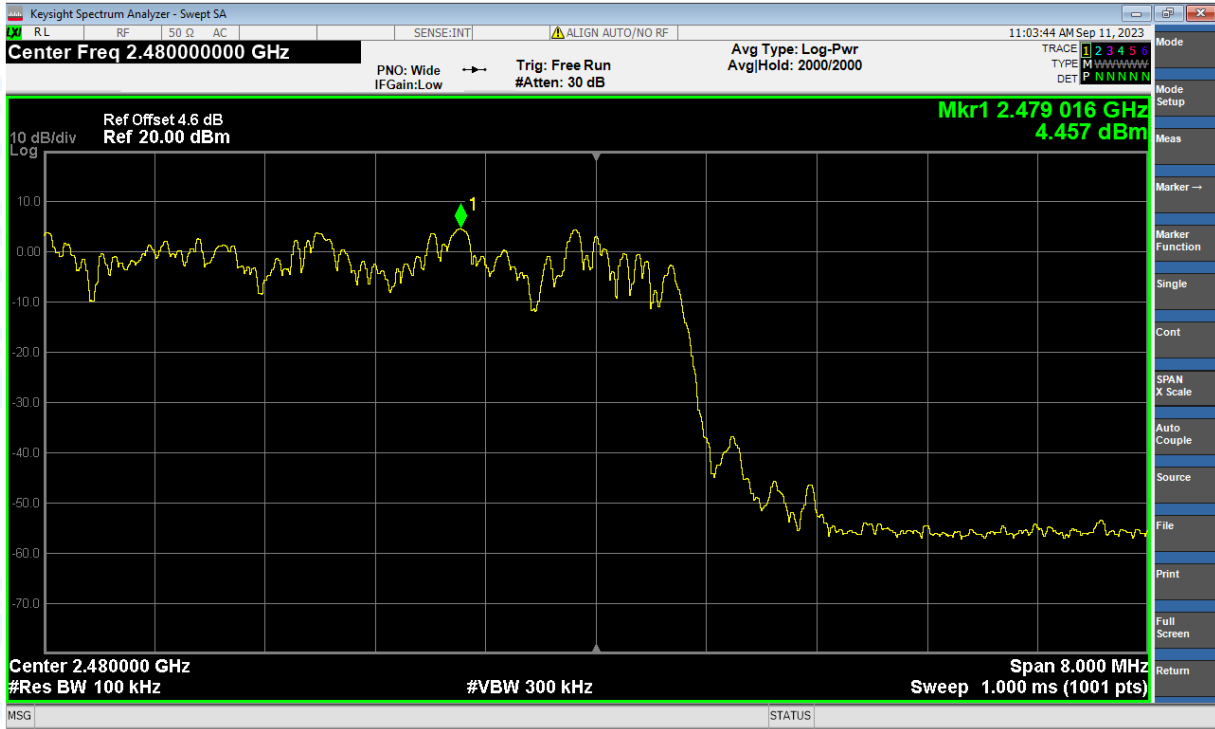
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



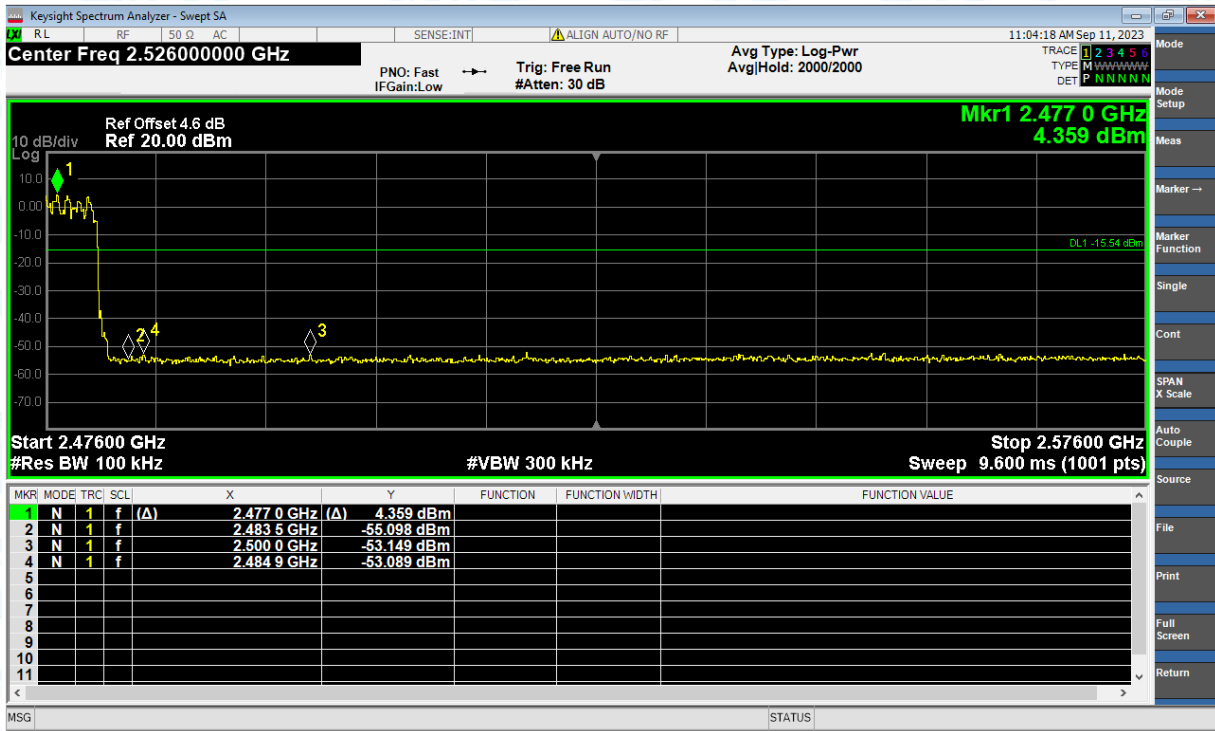
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

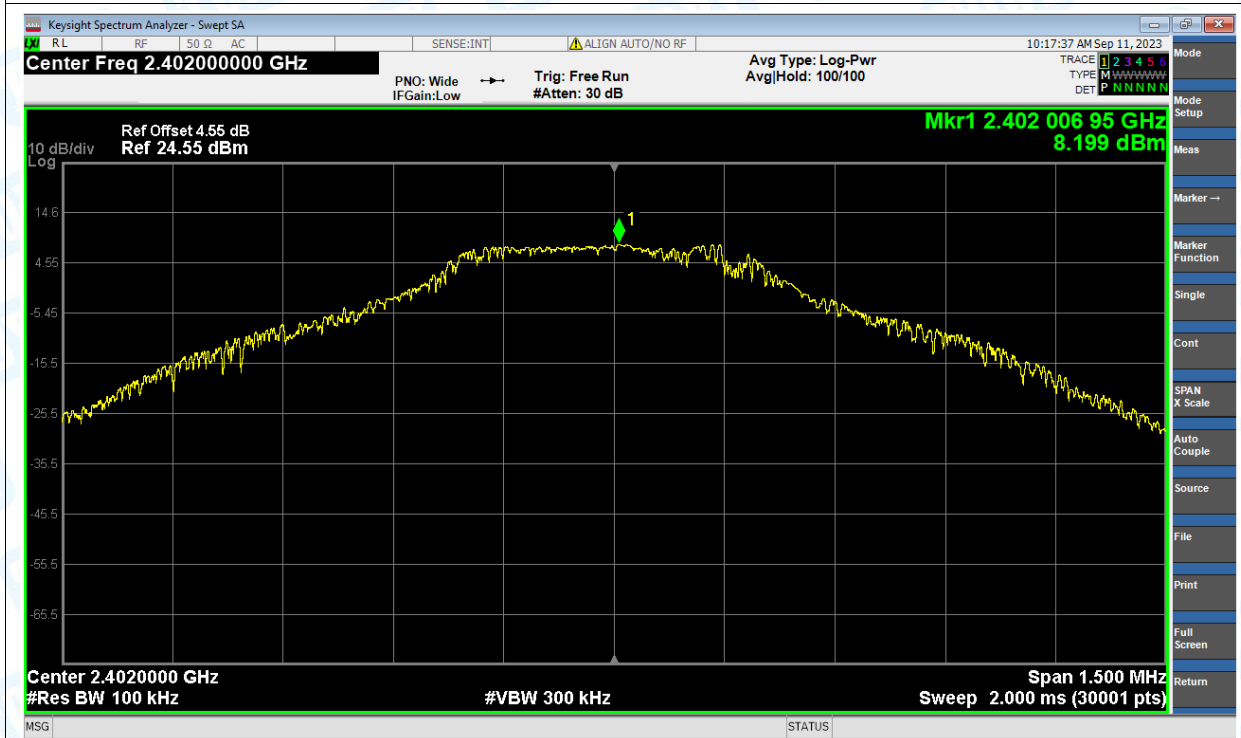


Conducted RF Spurious Emission

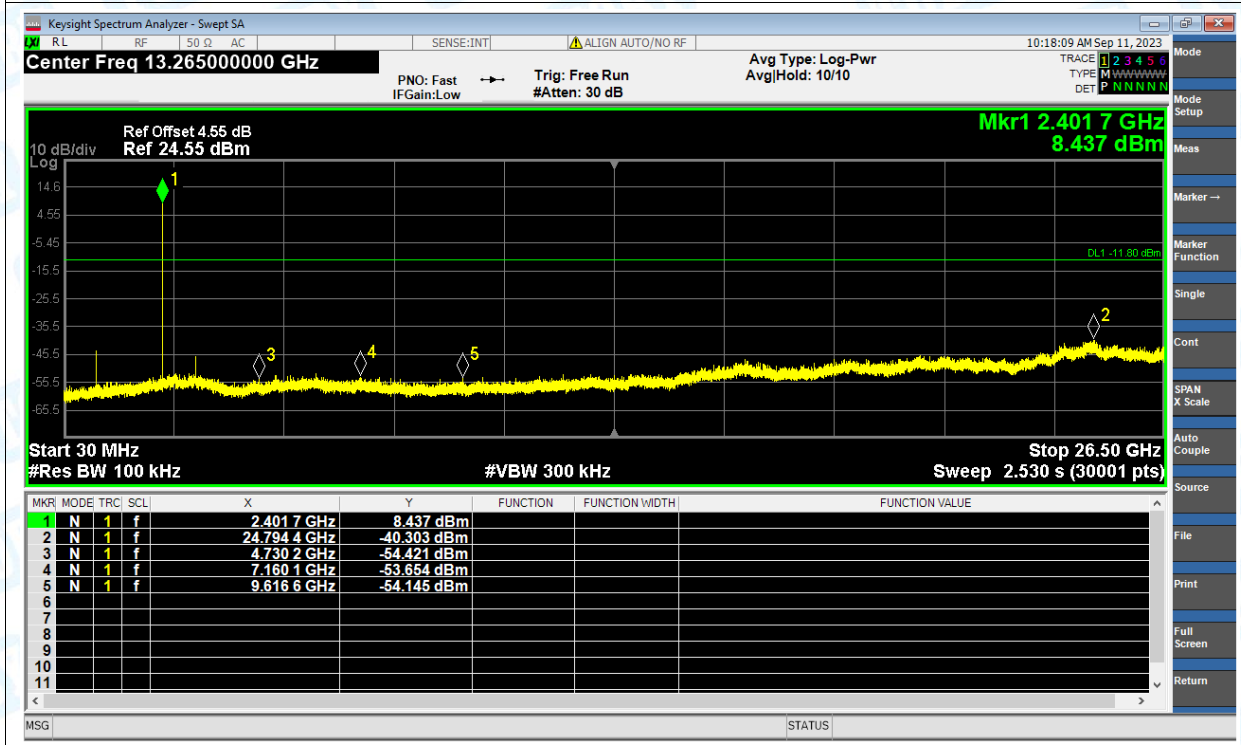
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-48.5	-20	Pass
NVNT	1-DH1	2441	Ant1	-48.63	-20	Pass
NVNT	1-DH1	2480	Ant1	-46.35	-20	Pass
NVNT	2-DH1	2402	Ant1	-45.84	-20	Pass
NVNT	2-DH1	2441	Ant1	-45.35	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.26	-20	Pass
NVNT	3-DH1	2402	Ant1	-45.67	-20	Pass
NVNT	3-DH1	2441	Ant1	-45.43	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.88	-20	Pass

Test Graphs

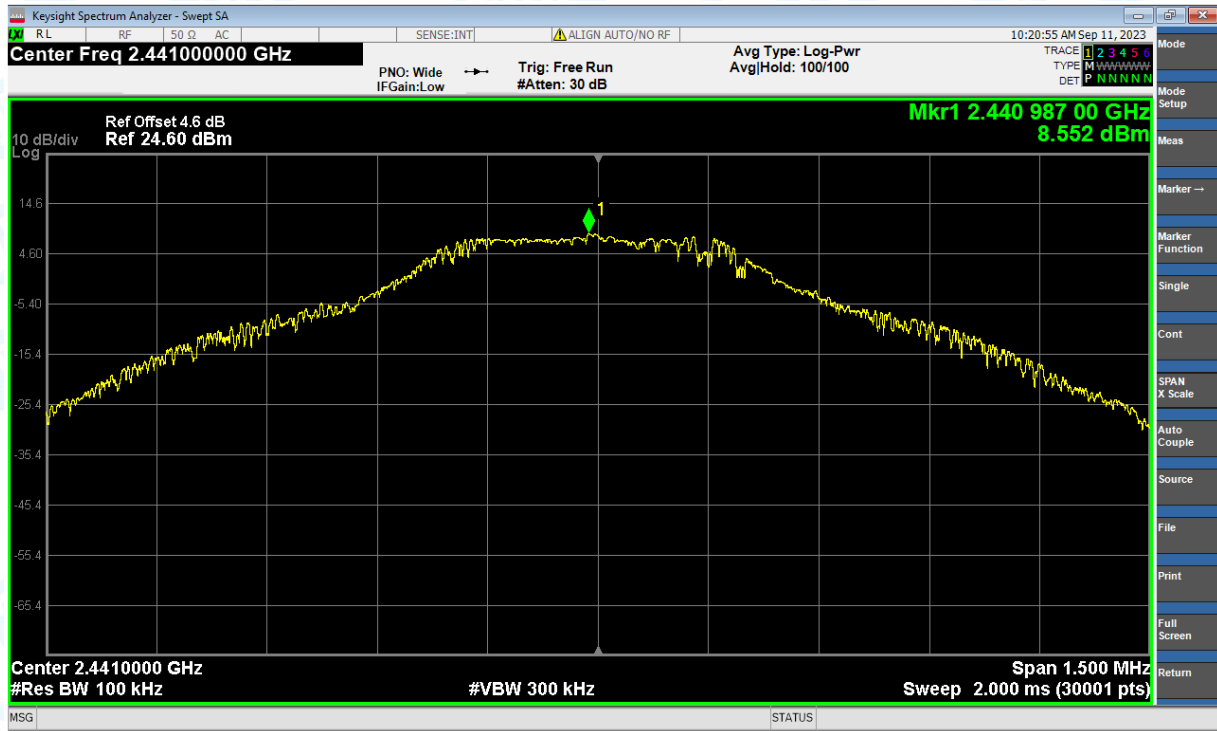
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



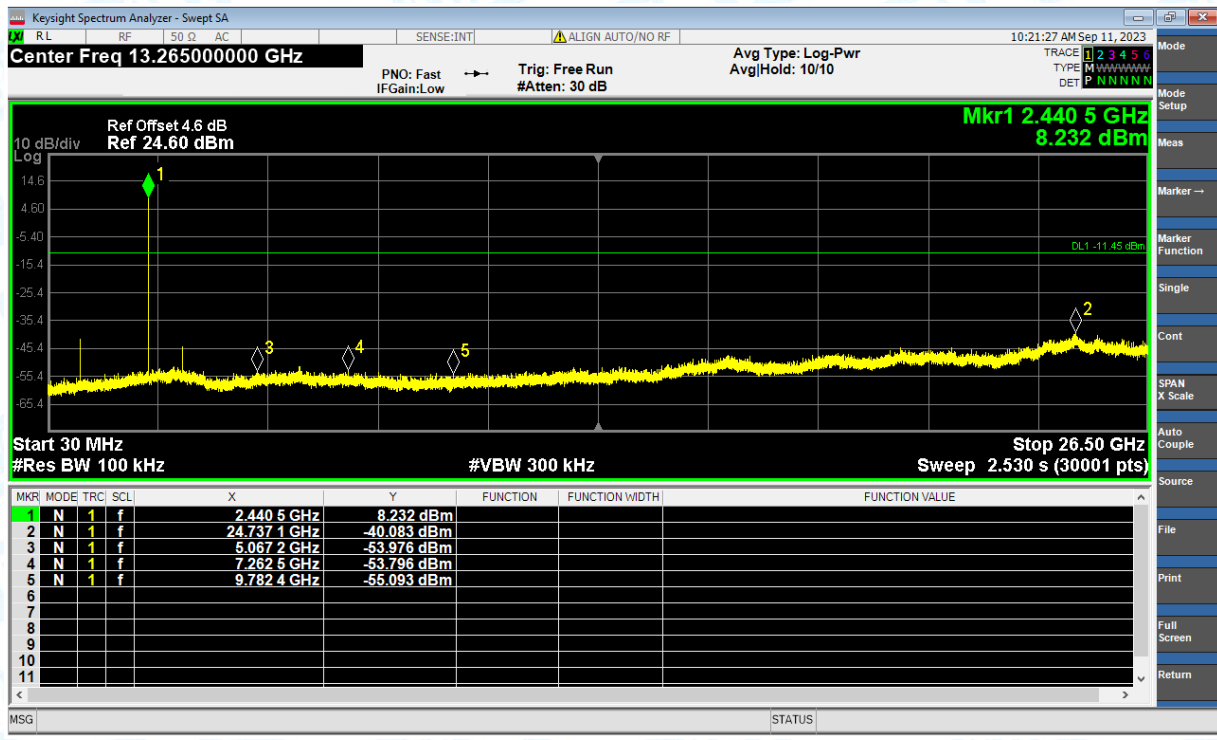
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



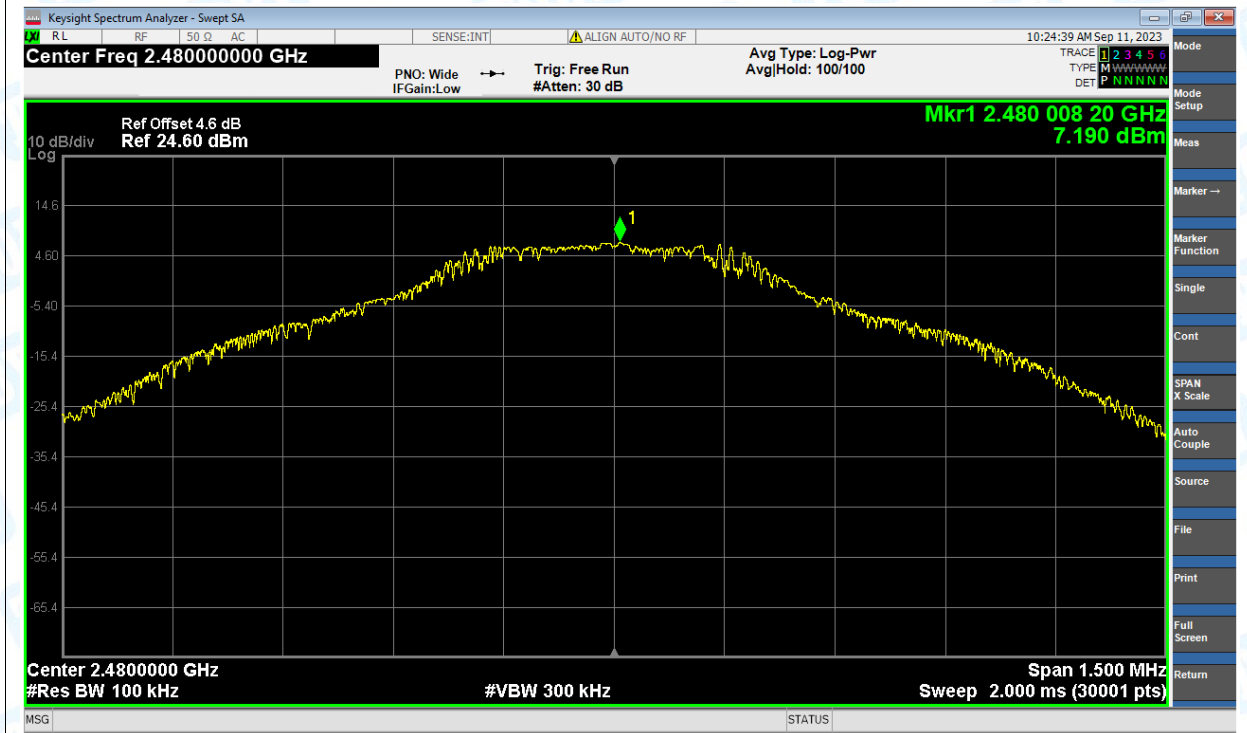
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



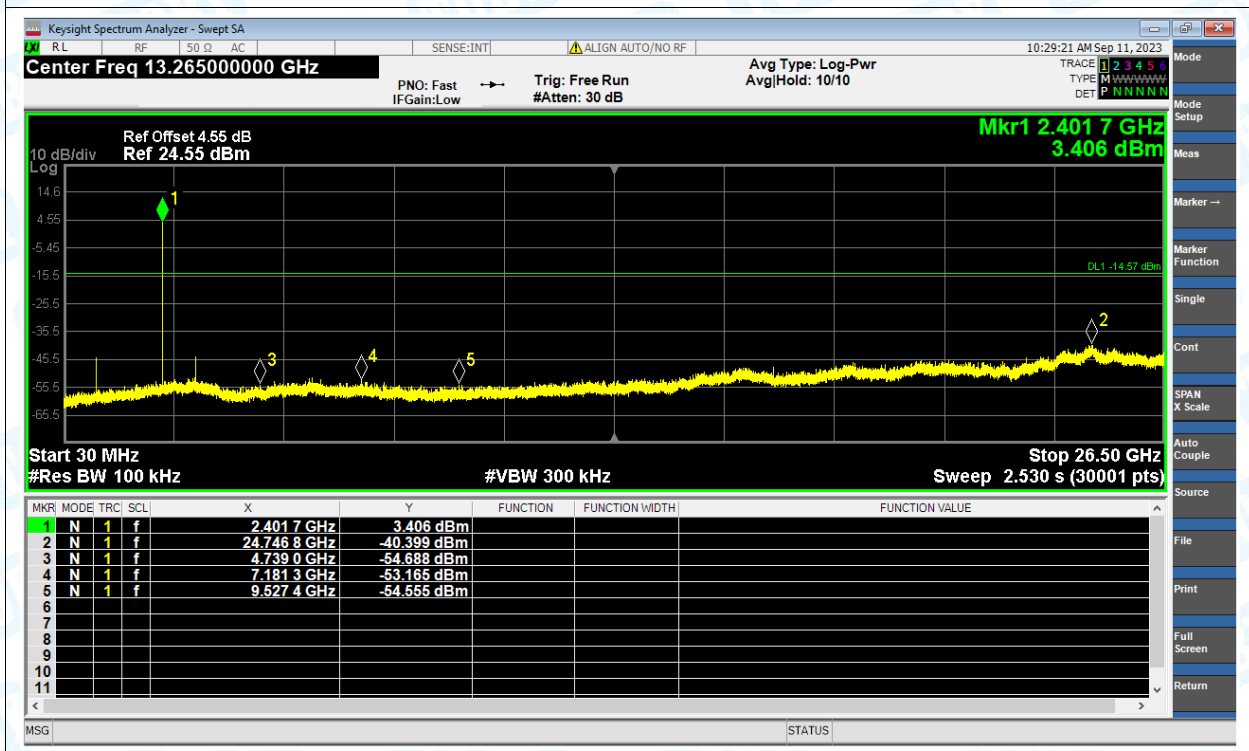
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



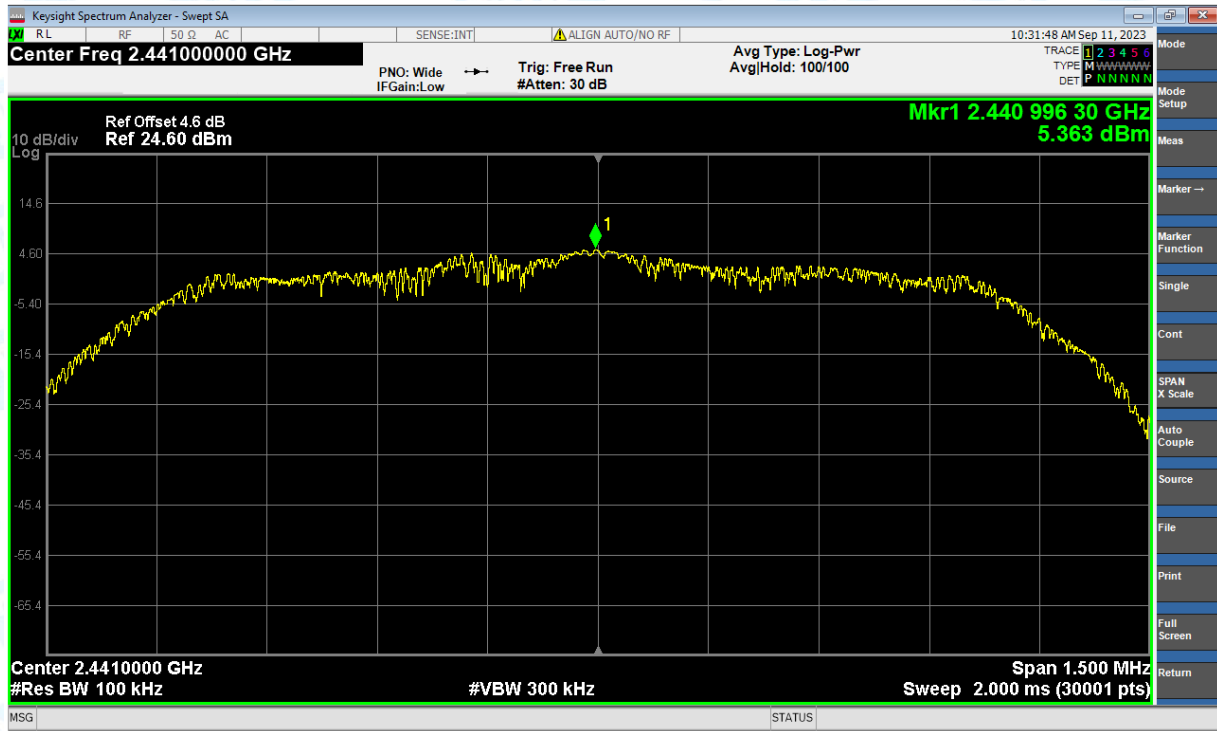
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



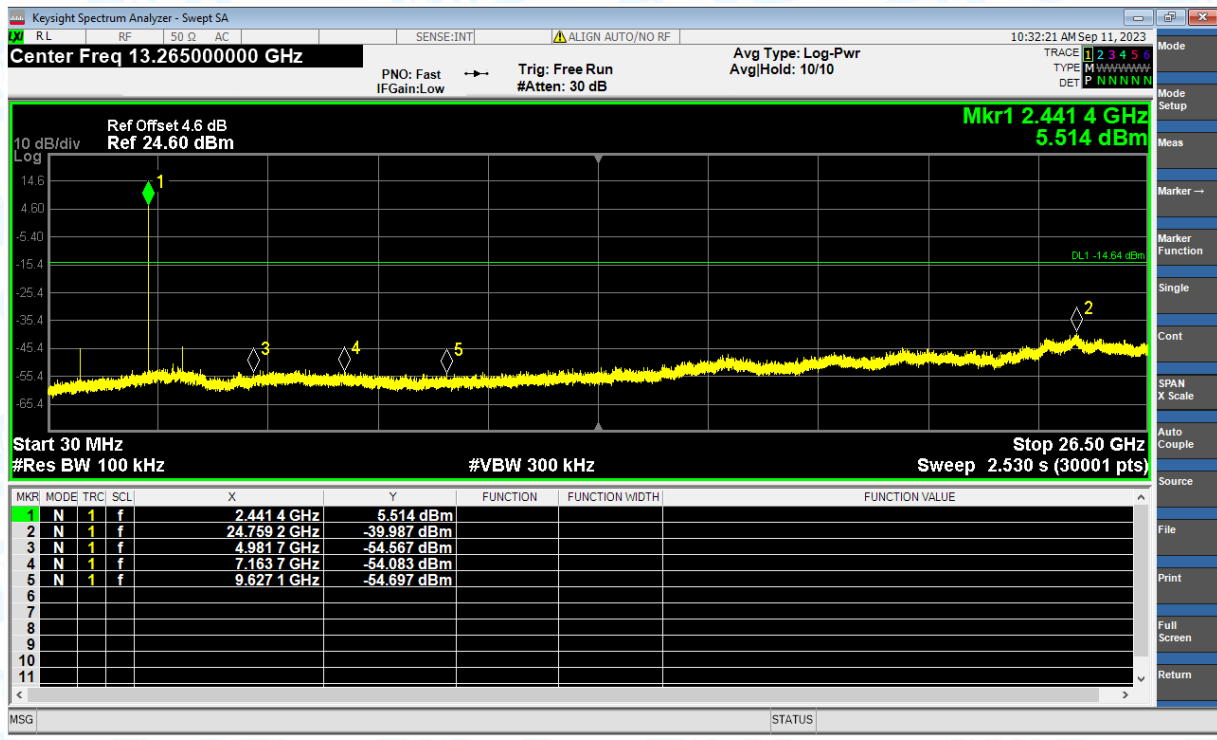
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



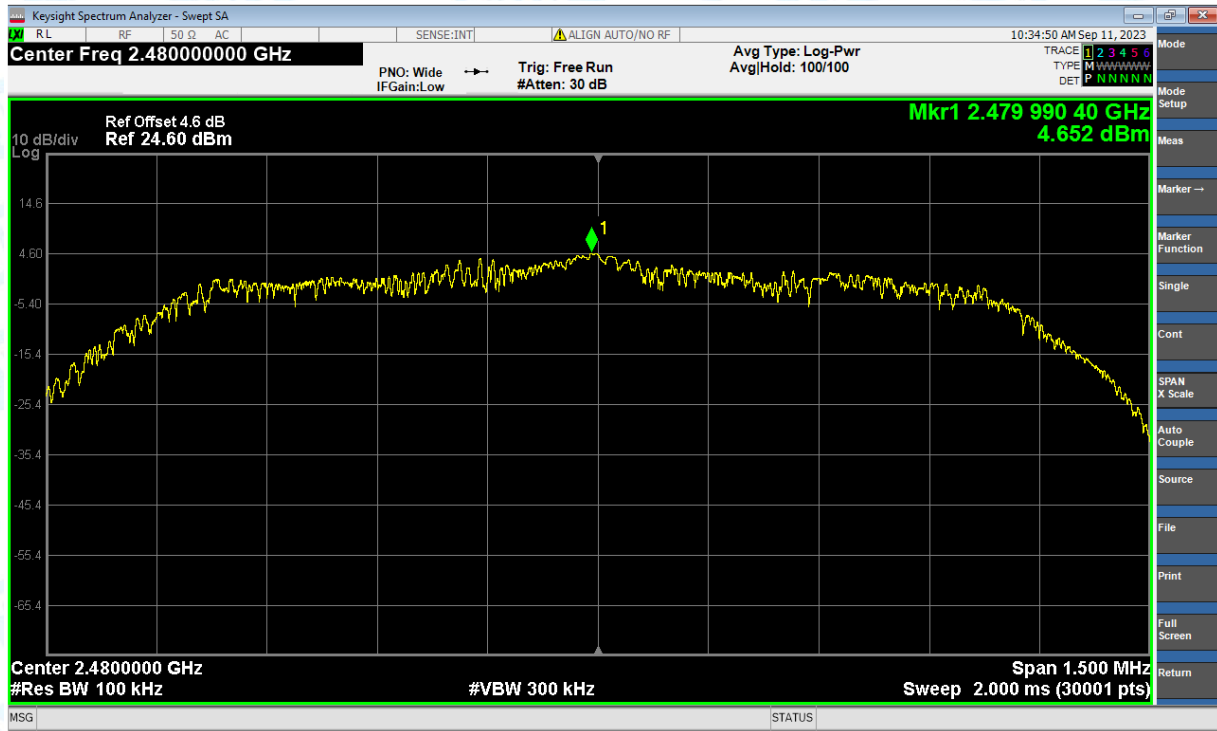
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



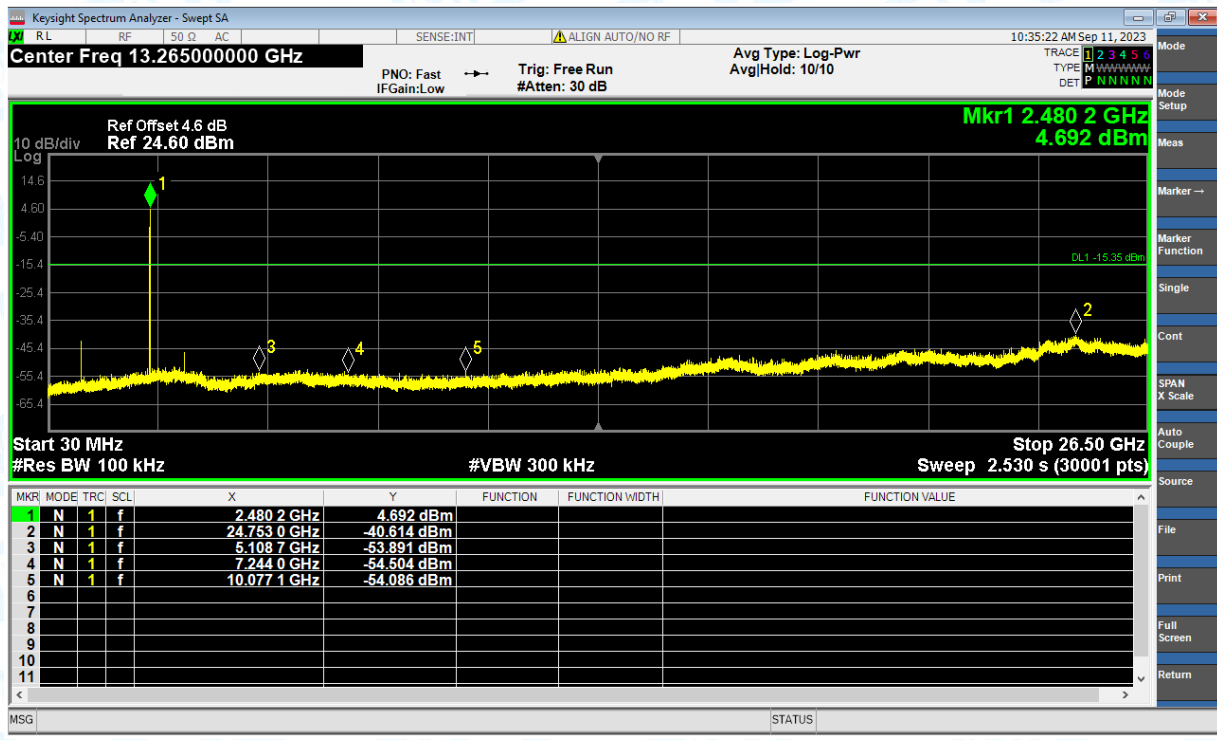
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



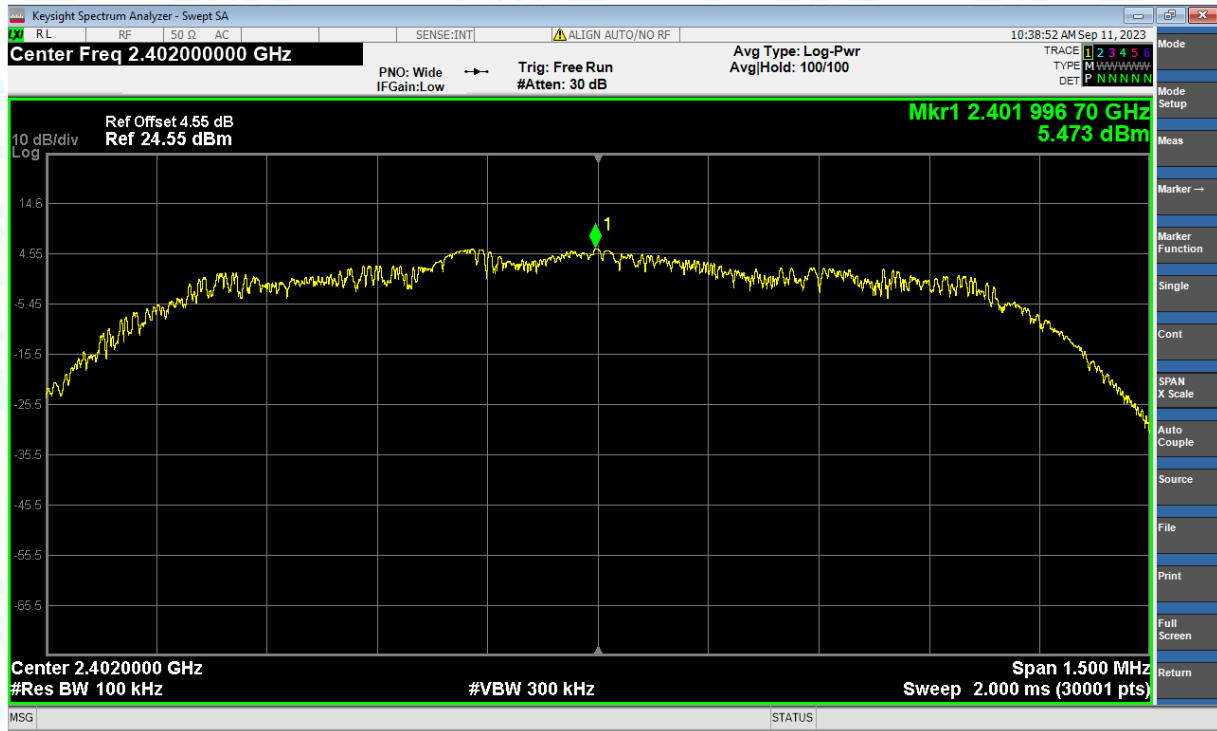
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



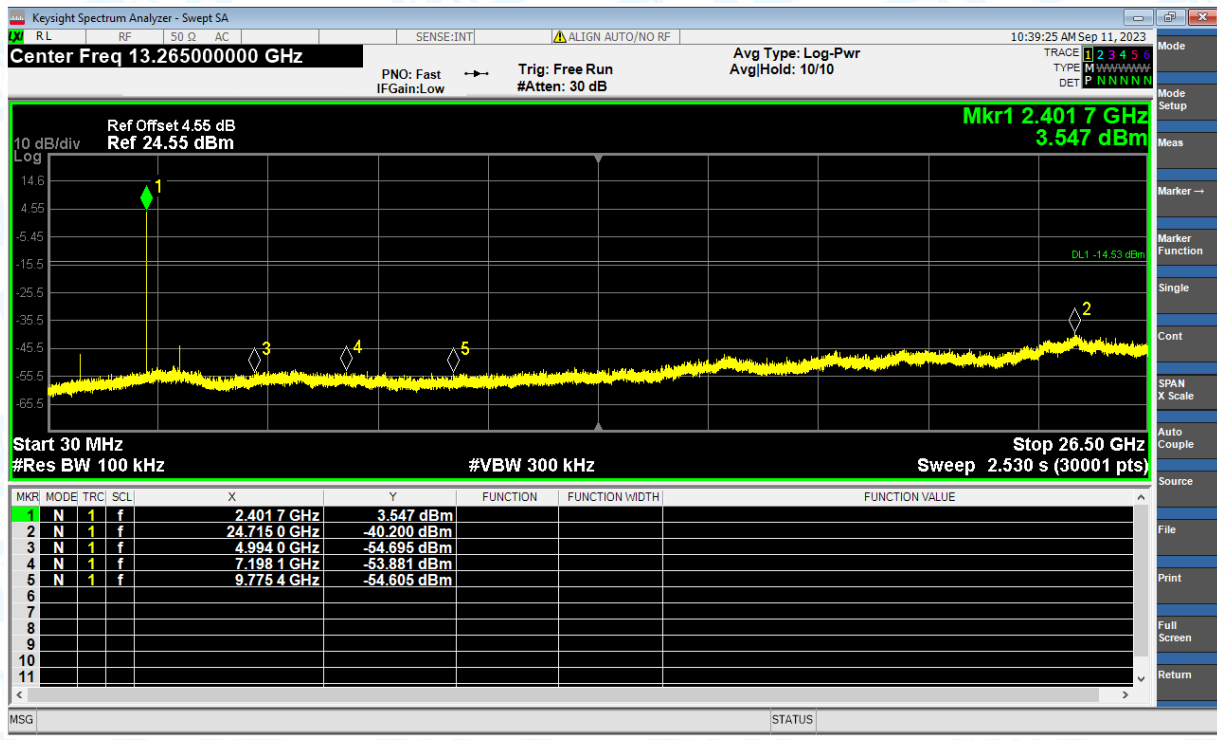
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



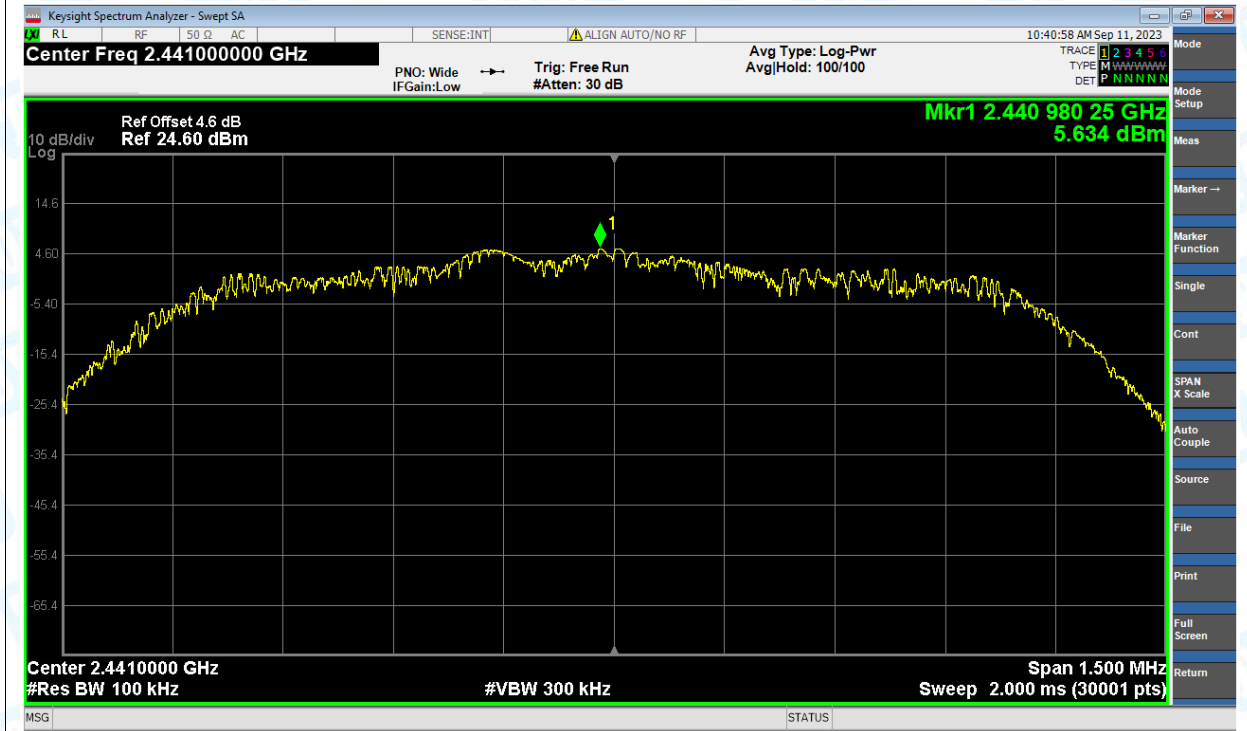
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



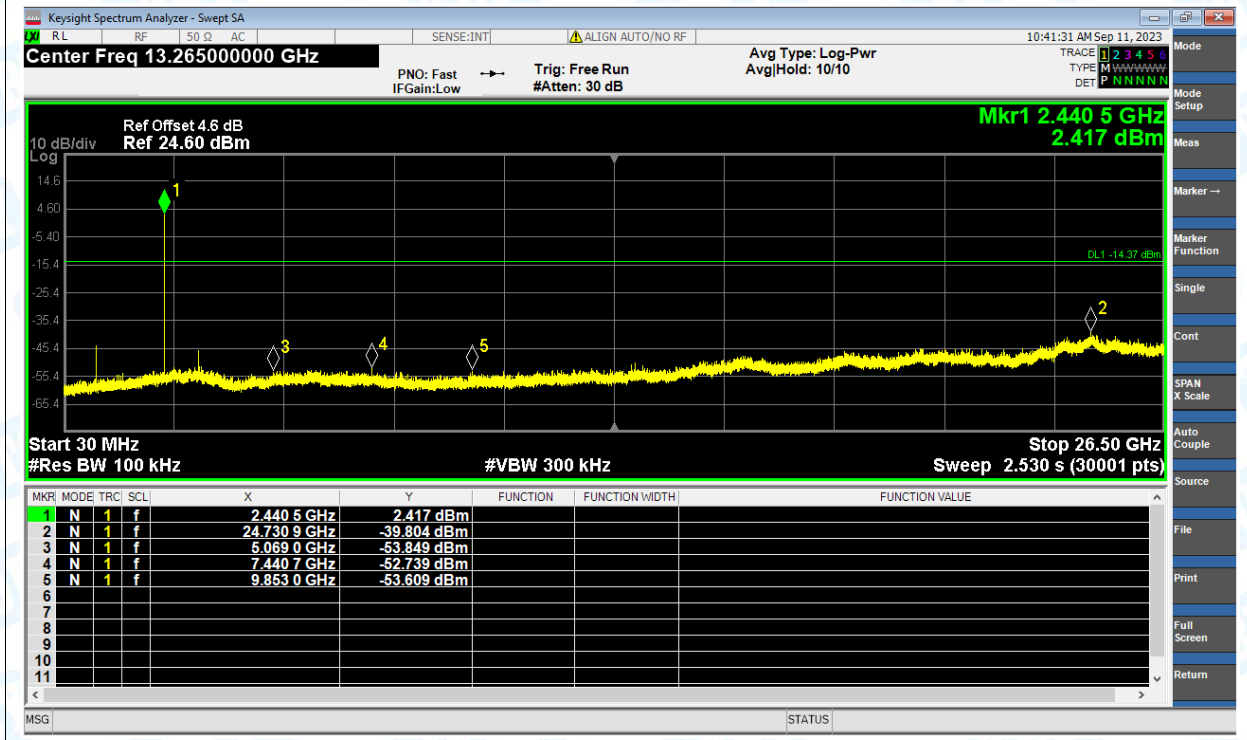
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



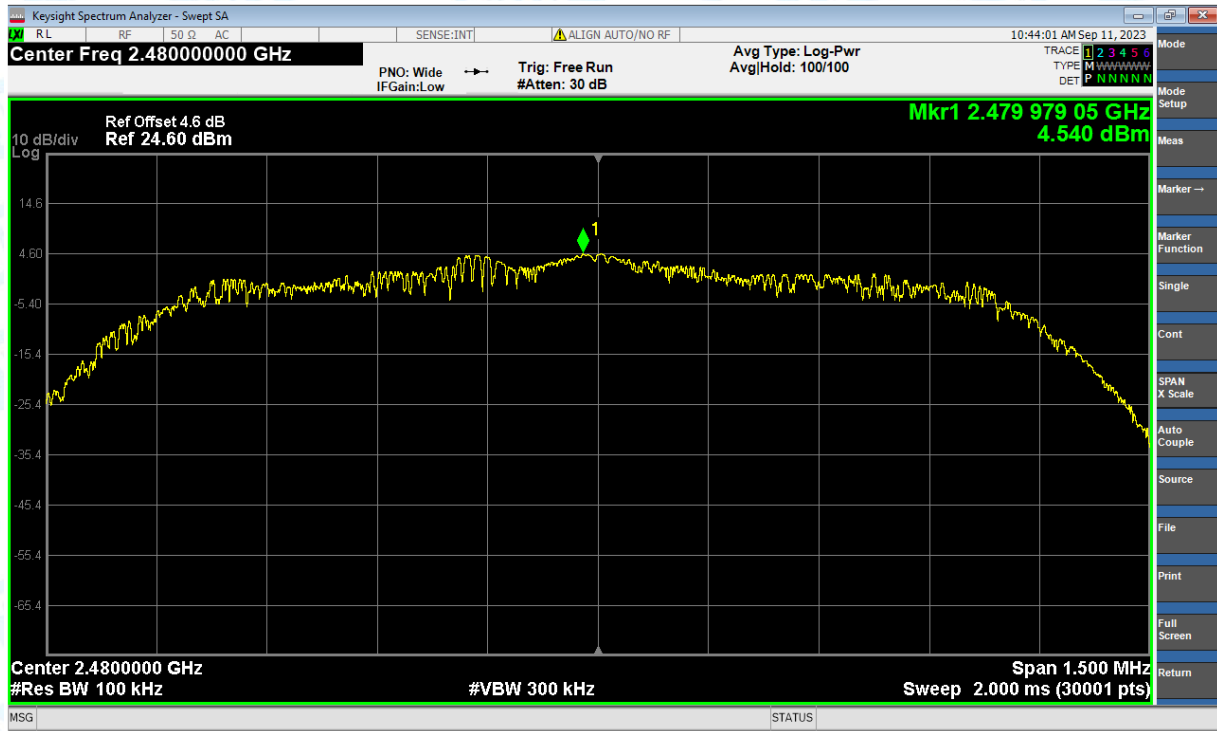
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



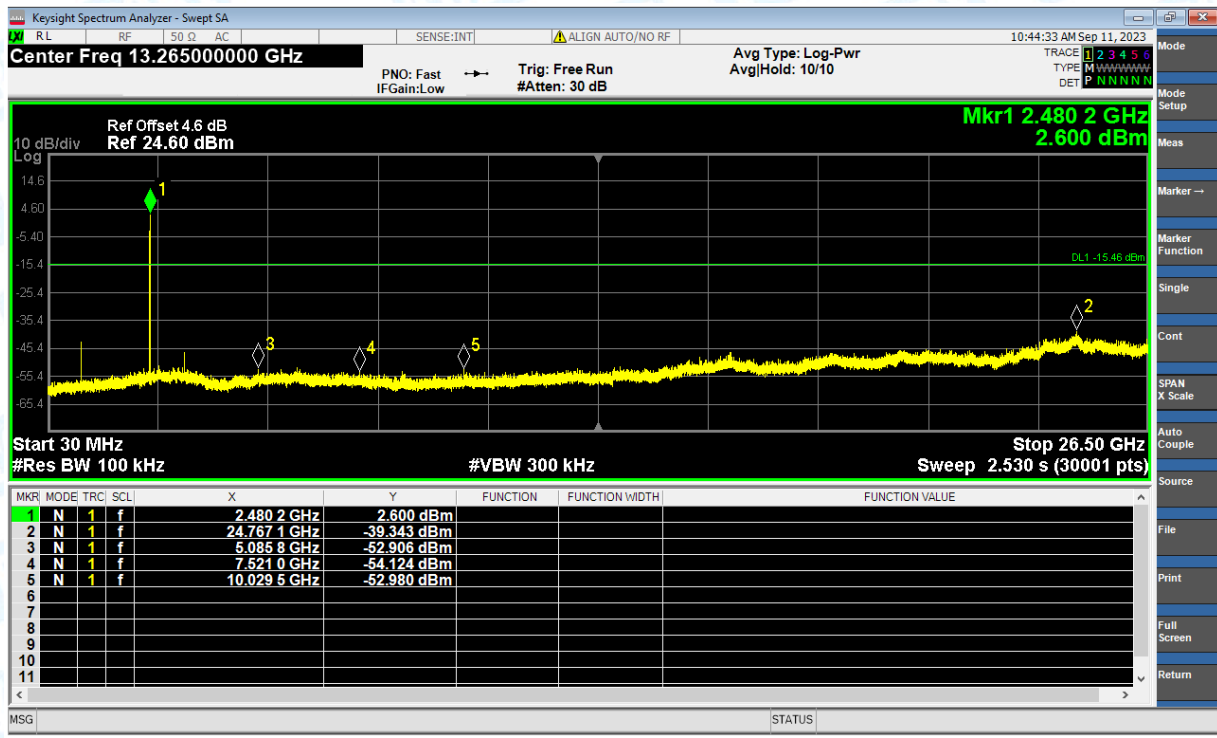
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

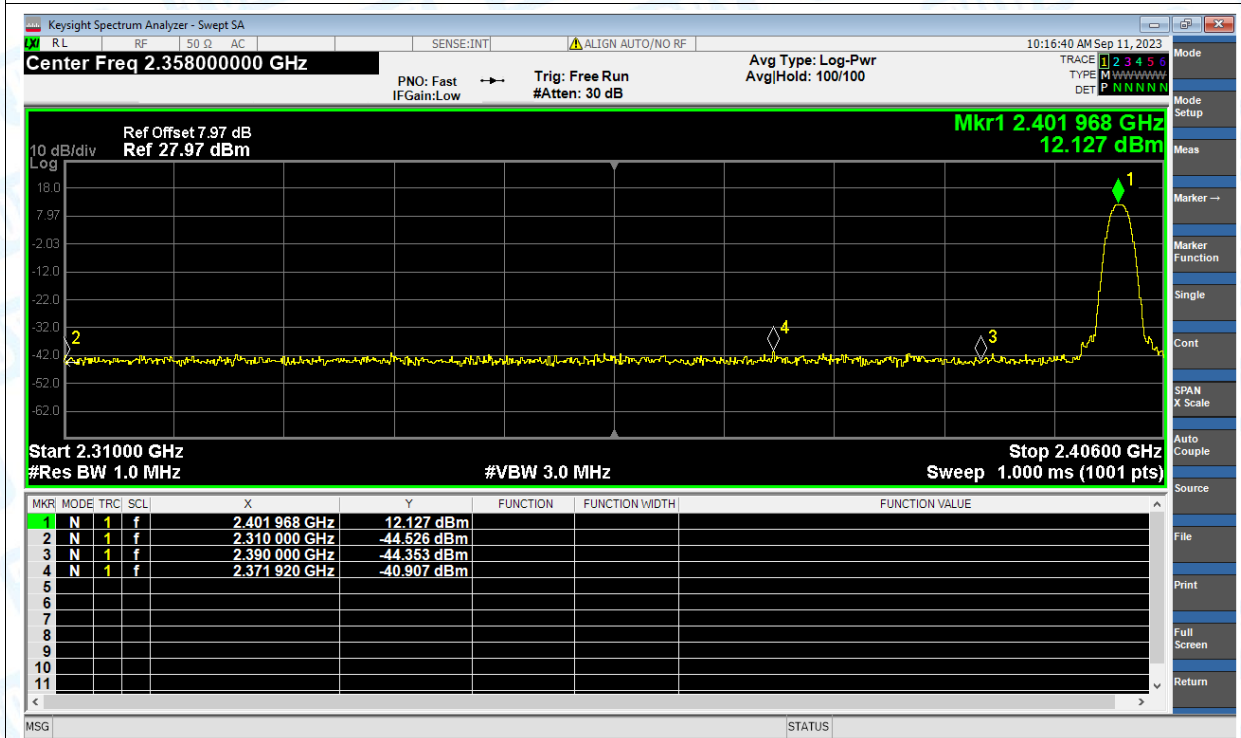


Restrict Band

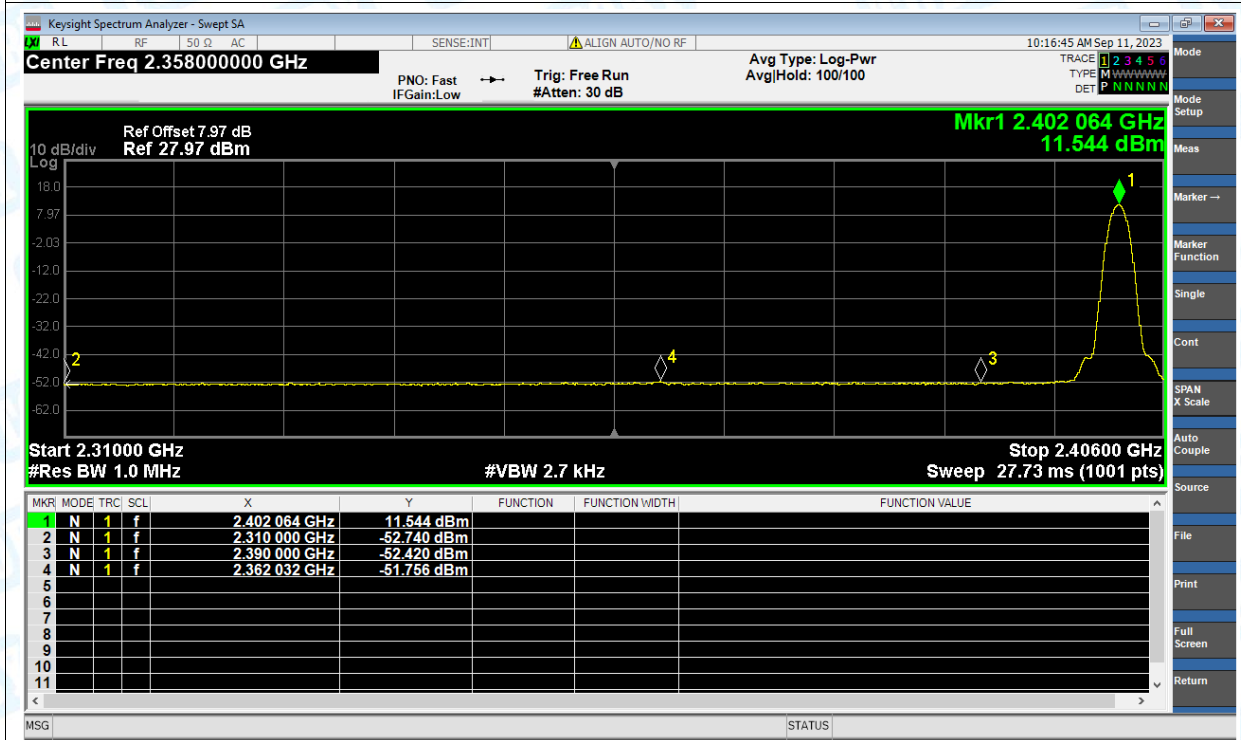
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-44.53	3.42	54.15	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-52.74	3.42	45.94	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2371.92	-40.91	3.42	57.77	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2362.032	-51.76	3.42	46.92	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-44.46	3.42	54.22	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-52.17	3.42	46.51	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-42.12	3.42	56.56	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-51.62	3.42	47.06	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2486.224	-41.02	3.42	57.66	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.656	-51.38	3.42	47.3	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-43.99	3.42	54.69	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-52.71	3.42	45.97	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-44.56	3.42	54.12	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-52.95	3.42	45.73	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2343.984	-40.93	3.42	57.75	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2377.2	-52.12	3.42	46.56	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-43.86	3.42	54.82	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-52.91	3.42	45.77	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-43.25	3.42	55.43	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-52.06	3.42	46.62	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2494.336	-40.09	3.42	58.59	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.704	-51.58	3.42	47.1	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-44.73	3.42	53.95	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-53.07	3.42	45.61	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-44.25	3.42	54.43	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-52.88	3.42	45.8	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2331.984	-40.45	3.42	58.23	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2370.192	-52.23	3.42	46.45	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-44.82	3.42	53.86	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-52.81	3.42	45.87	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-43.64	3.42	55.04	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-52.24	3.42	46.44	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2485.096	-39.56	3.42	59.12	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.944	-51.88	3.42	46.8	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-44.34	3.42	54.34	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-52.82	3.42	45.86	Average	54	Pass

Test Graphs

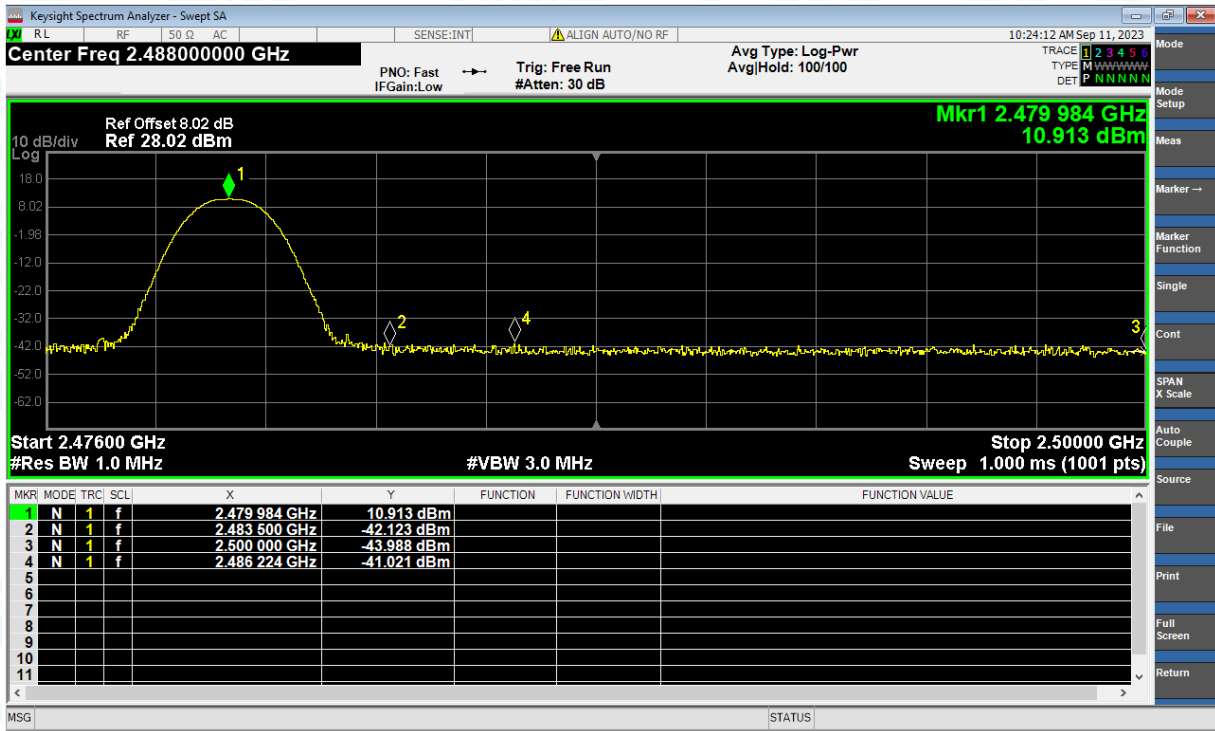
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



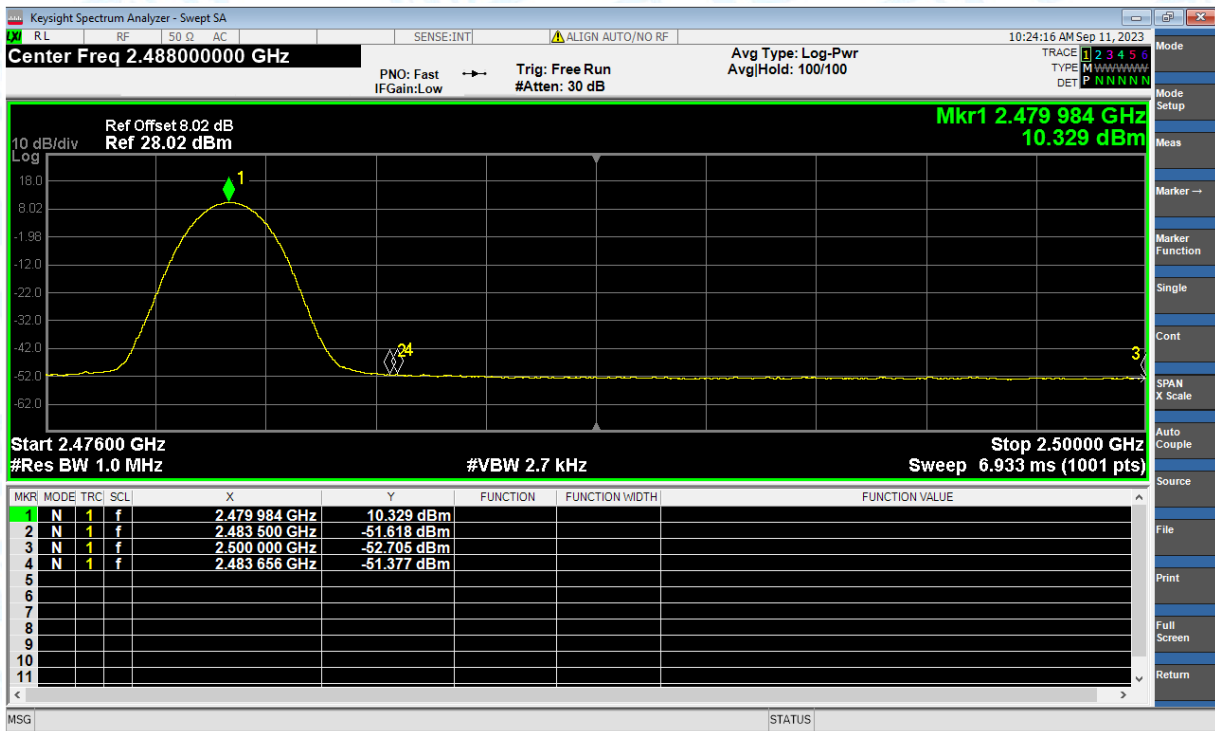
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



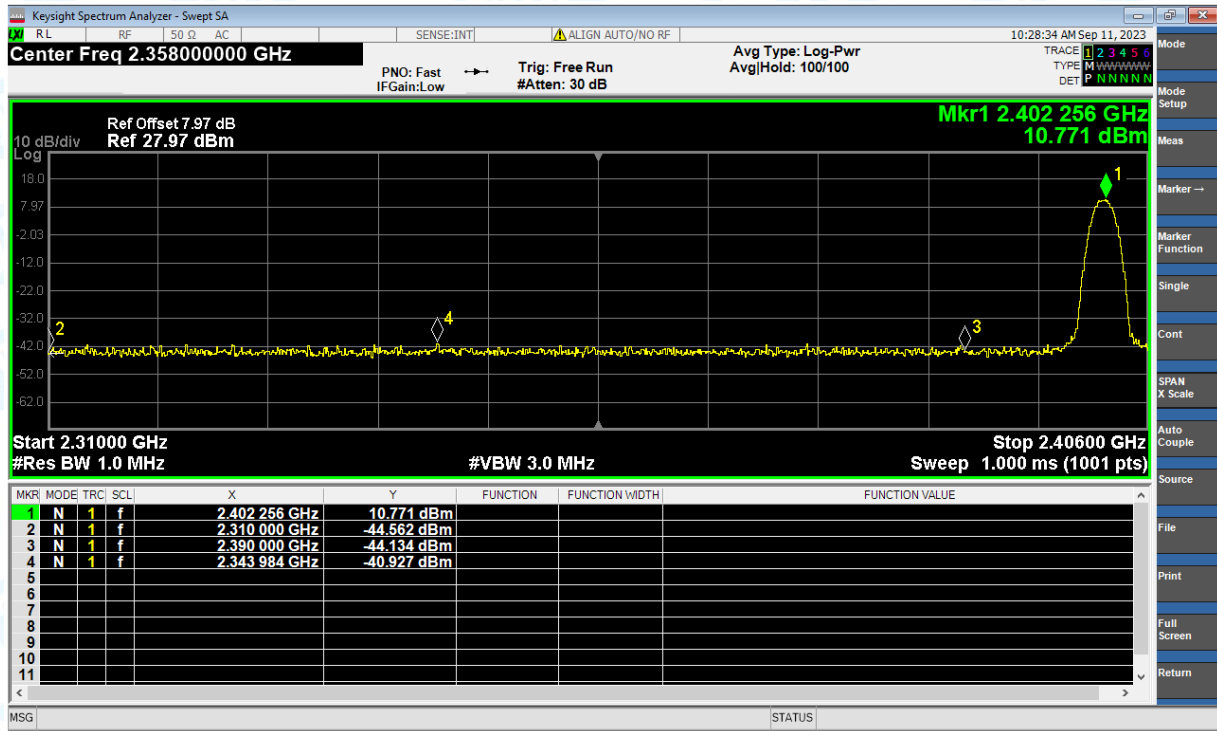
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



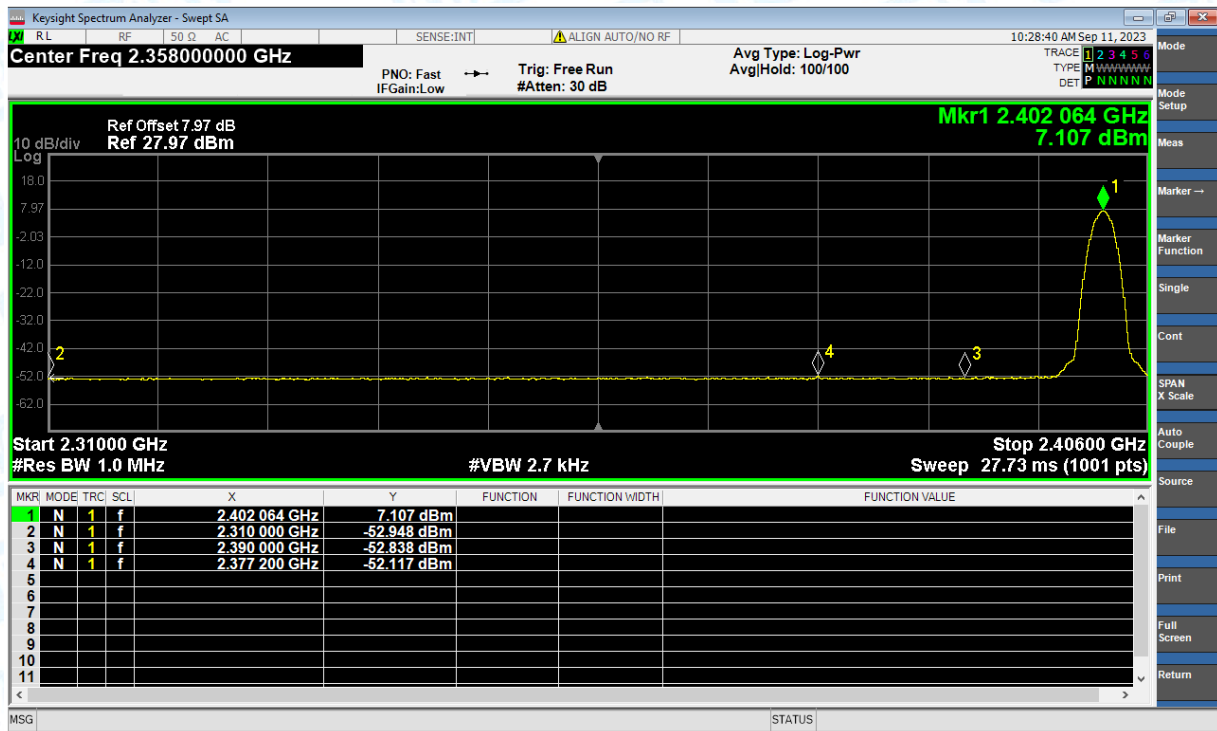
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



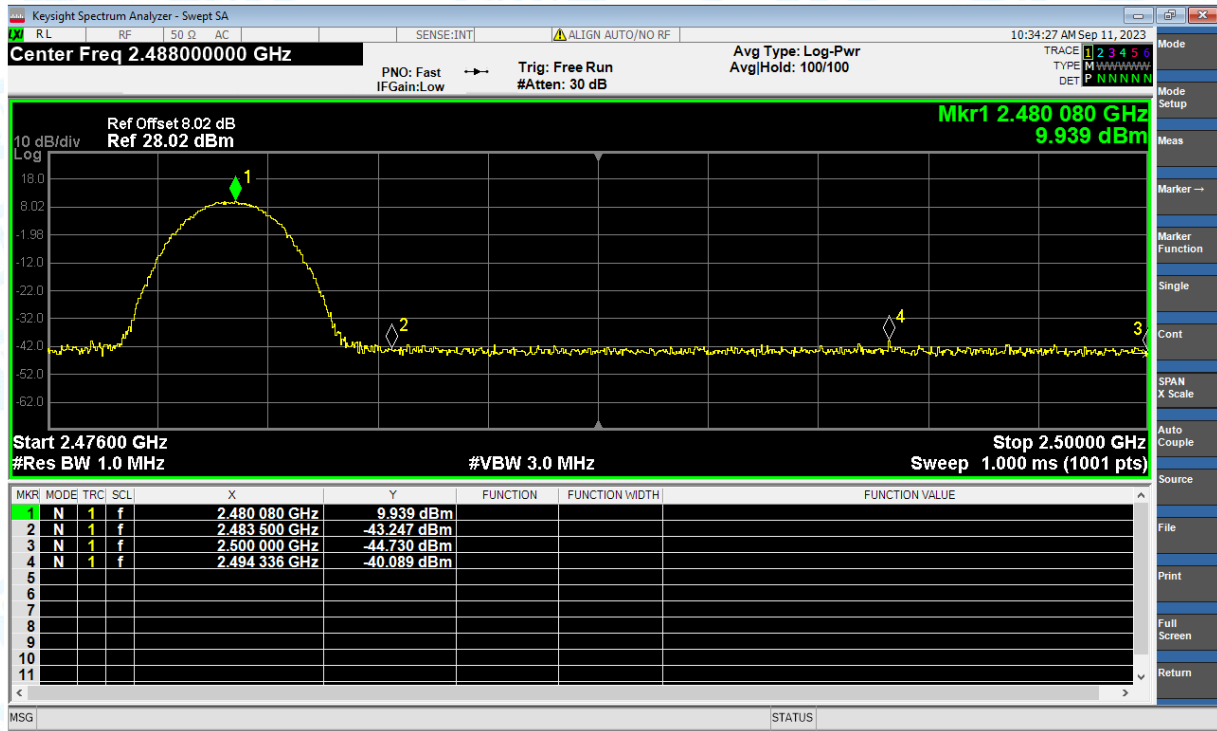
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



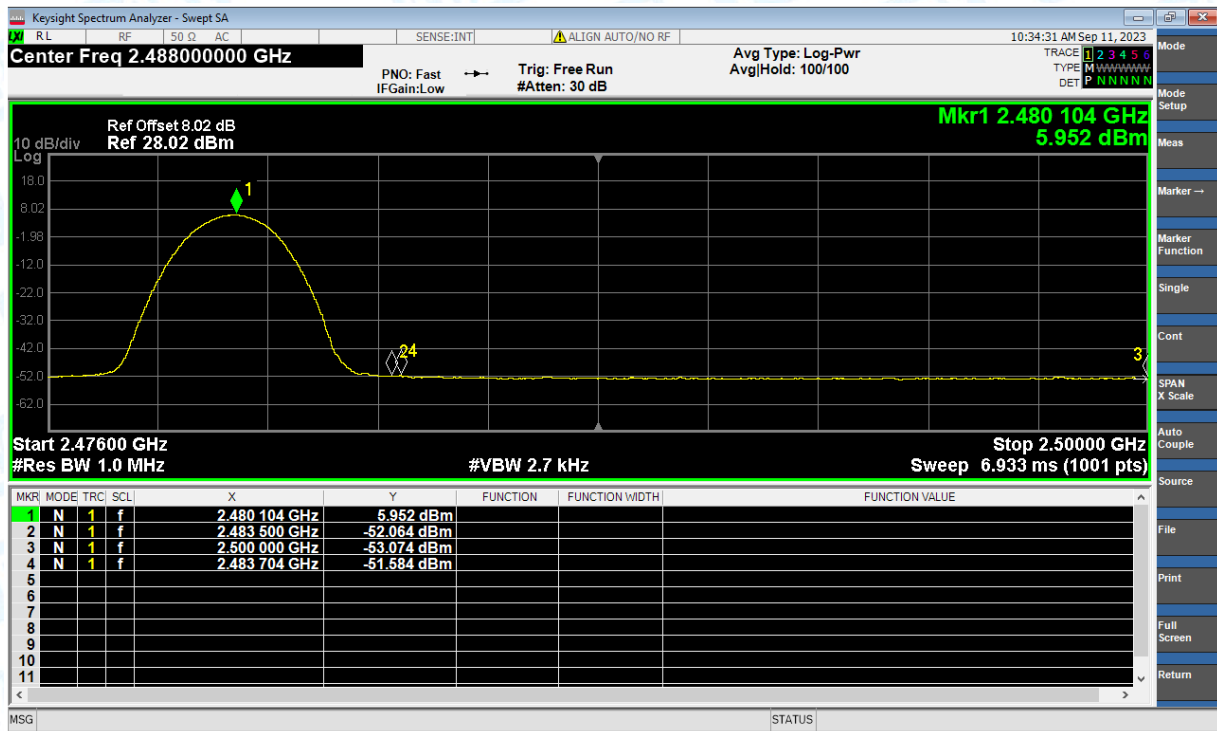
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



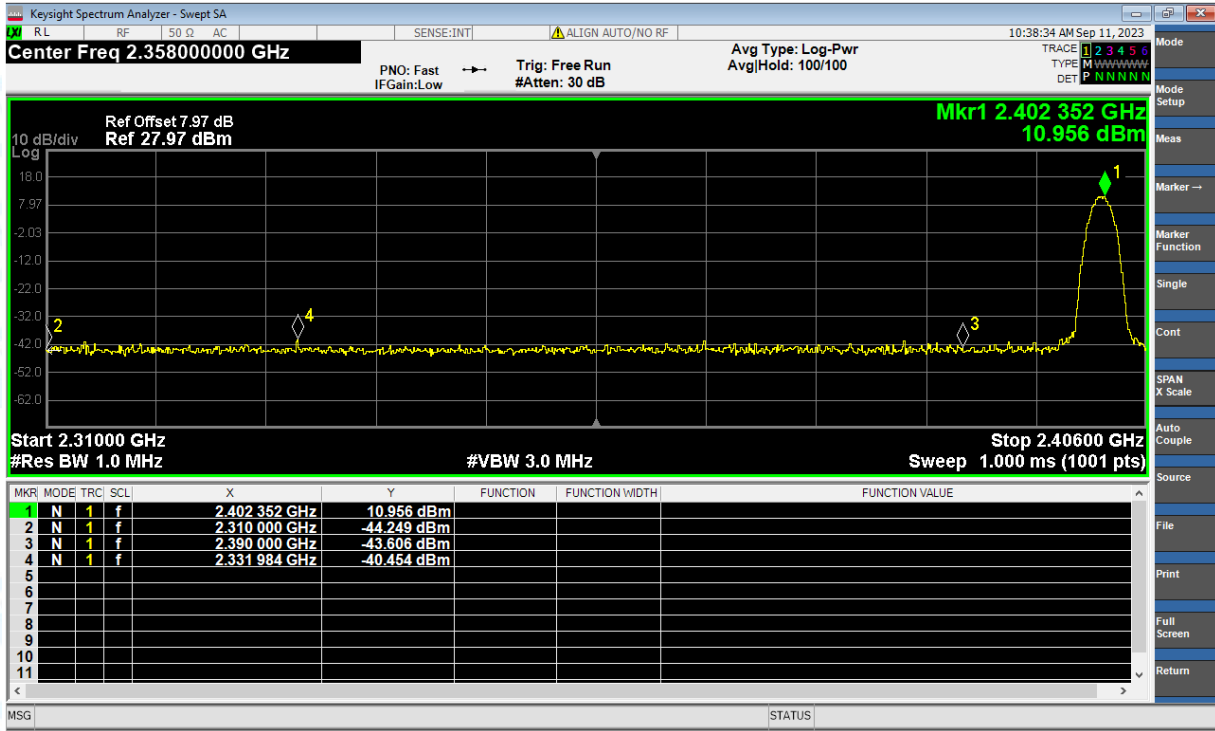
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



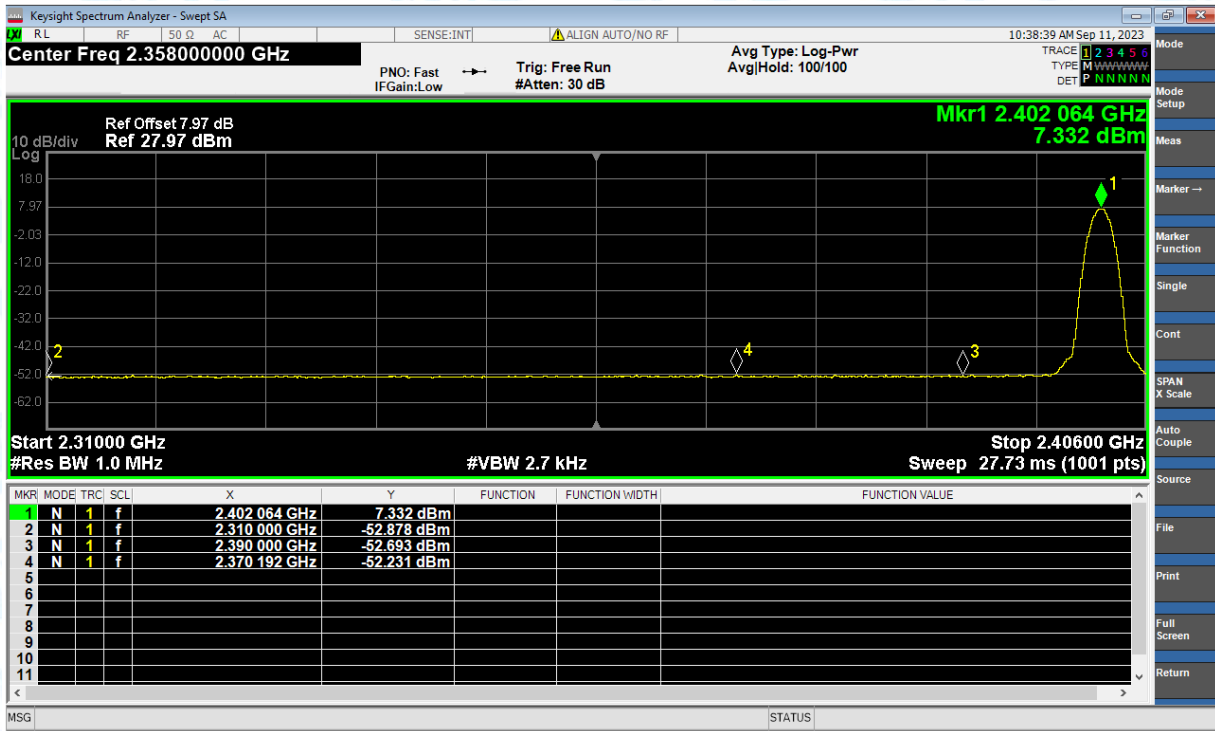
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



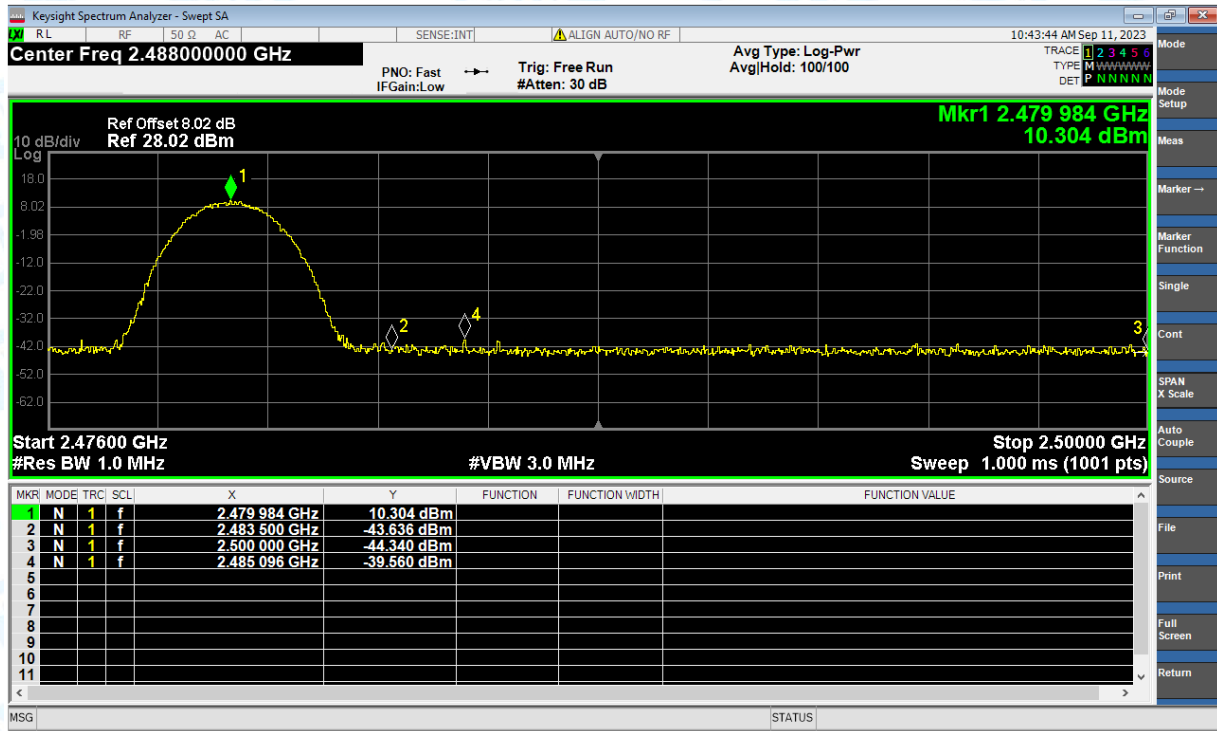
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



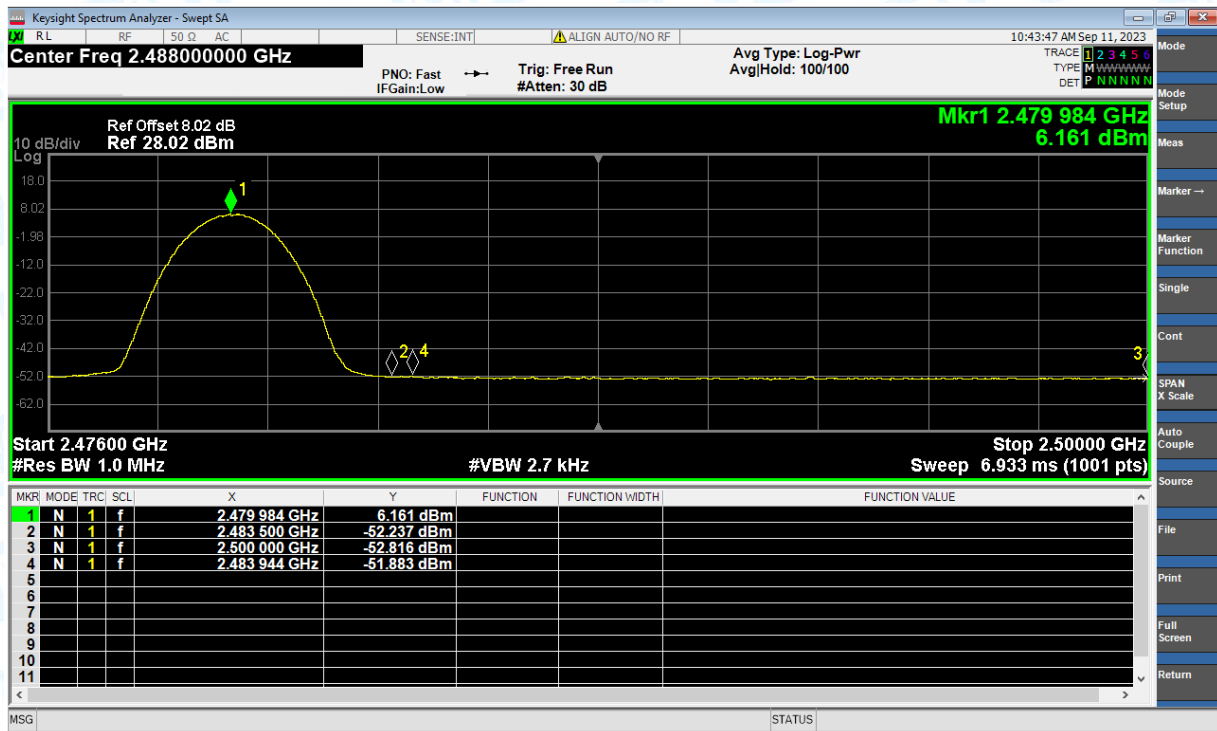
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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



Carrier Frequencies Separation

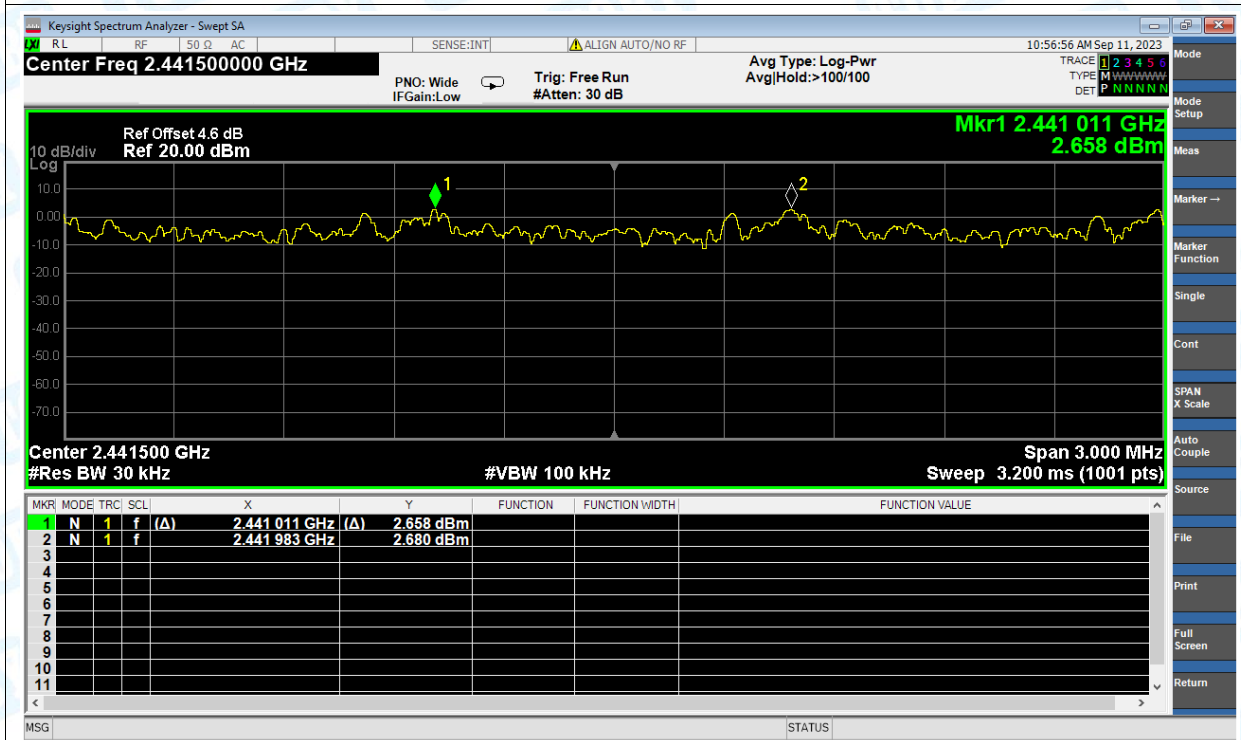
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.972	2442.019	1.047	0.587	Pass
NVNT	2-DH1	Ant1	2441.011	2441.983	0.972	0.84	Pass
NVNT	3-DH1	Ant1	2440.822	2441.992	1.17	0.847	Pass

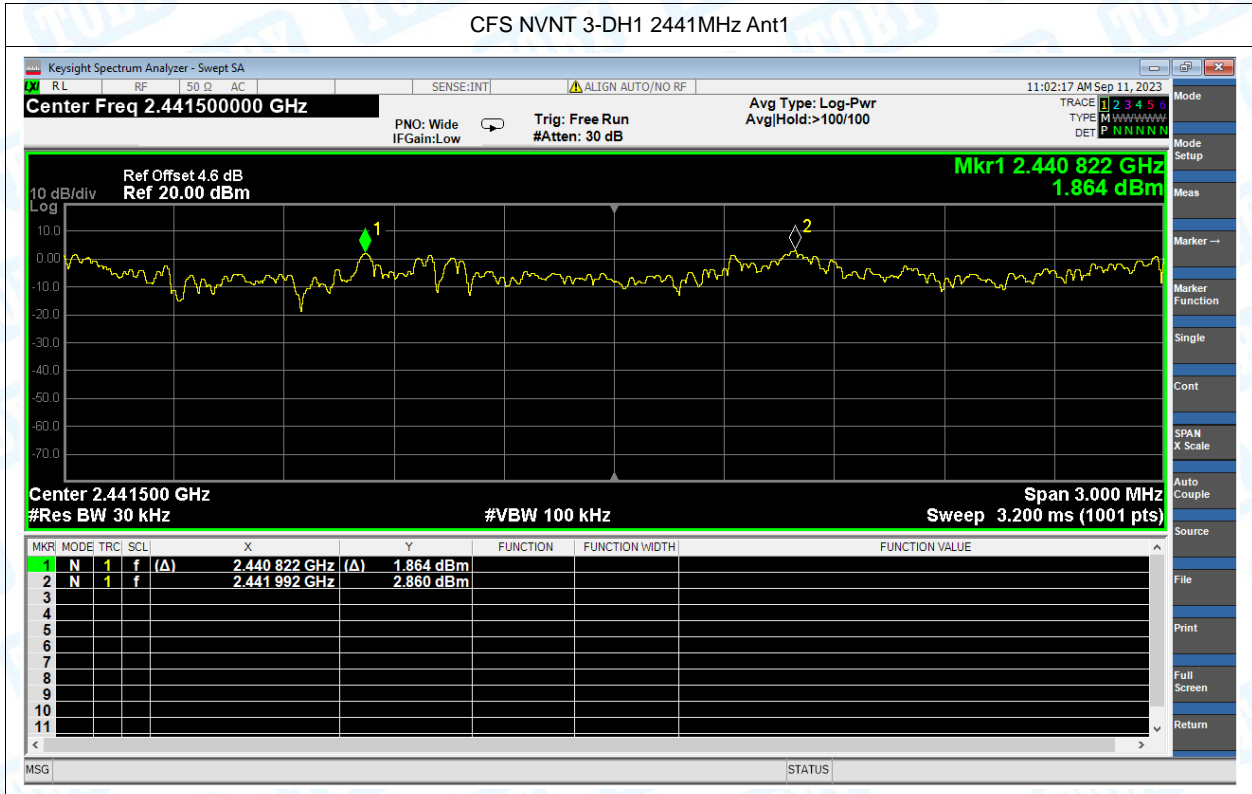
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



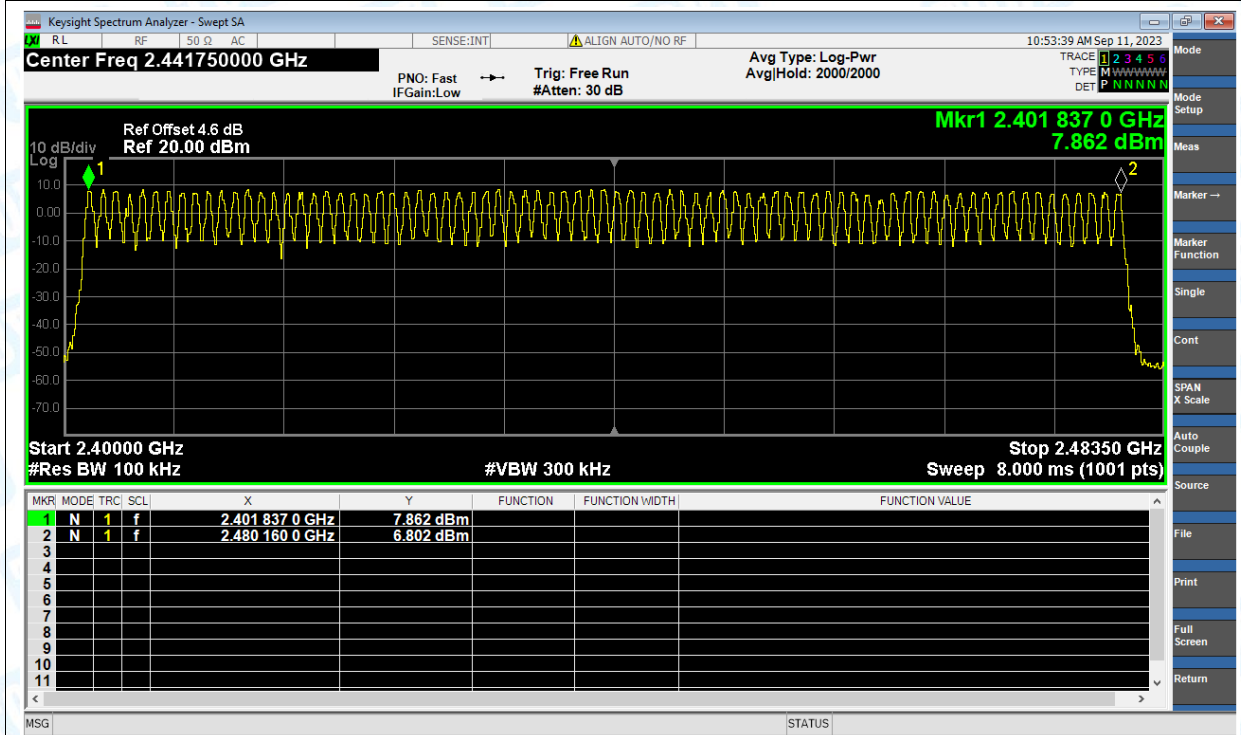


Number of Hopping Channel

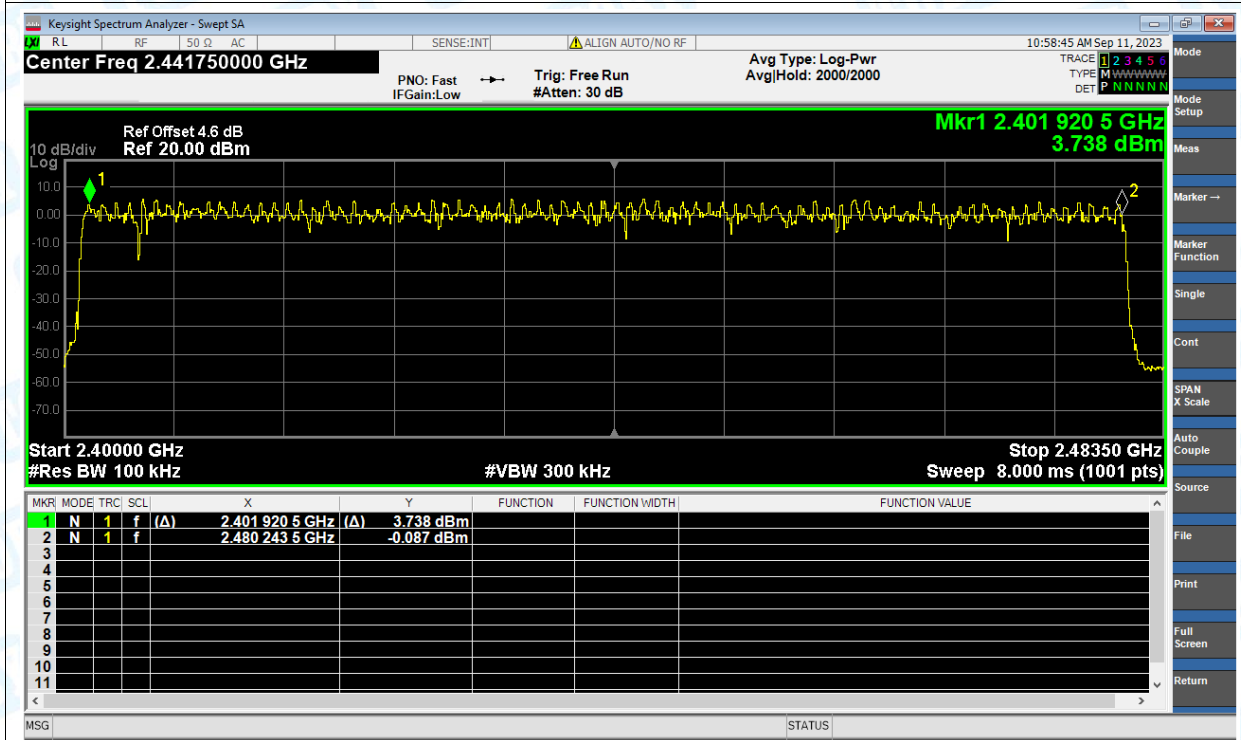
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

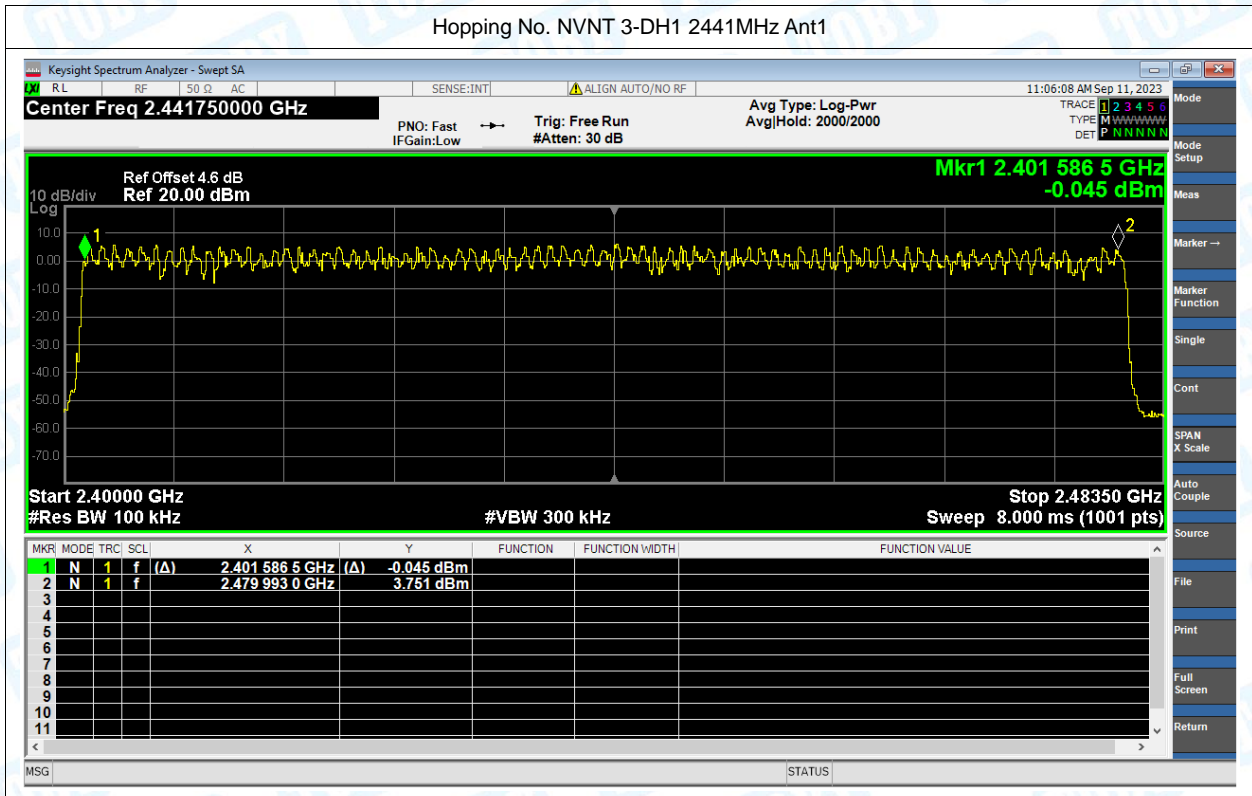
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



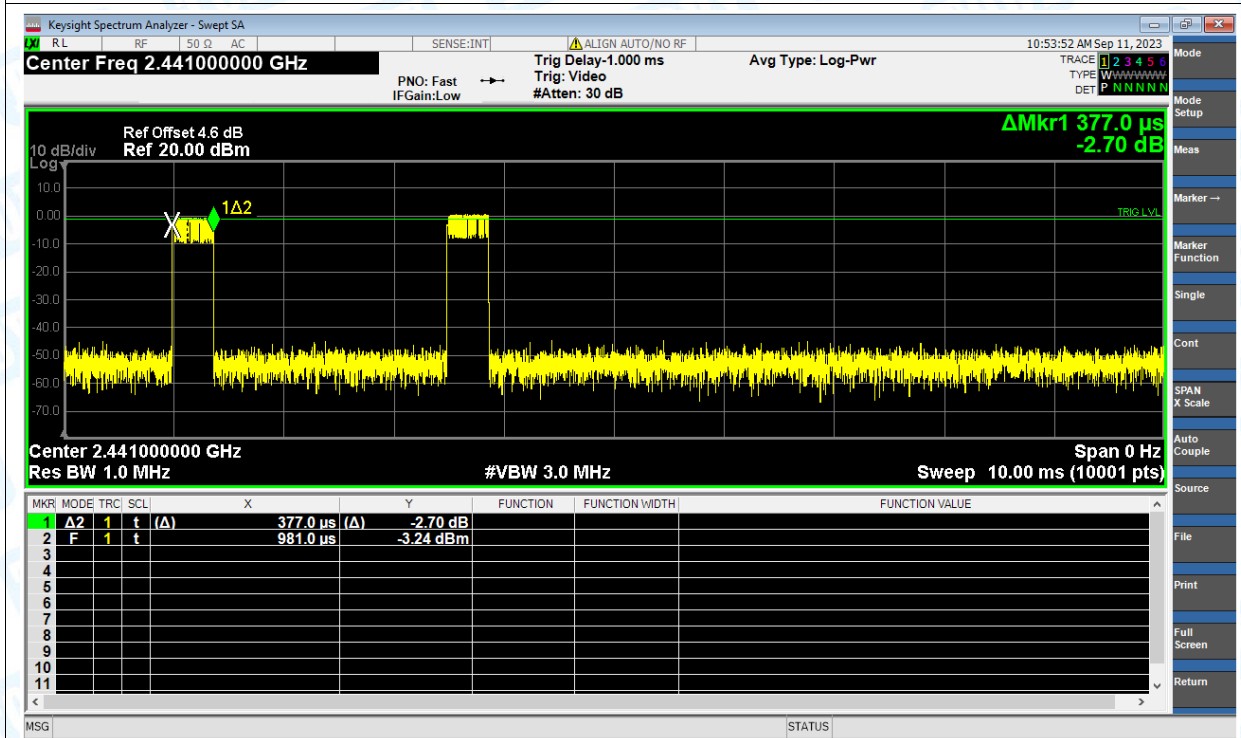


Dwell Time

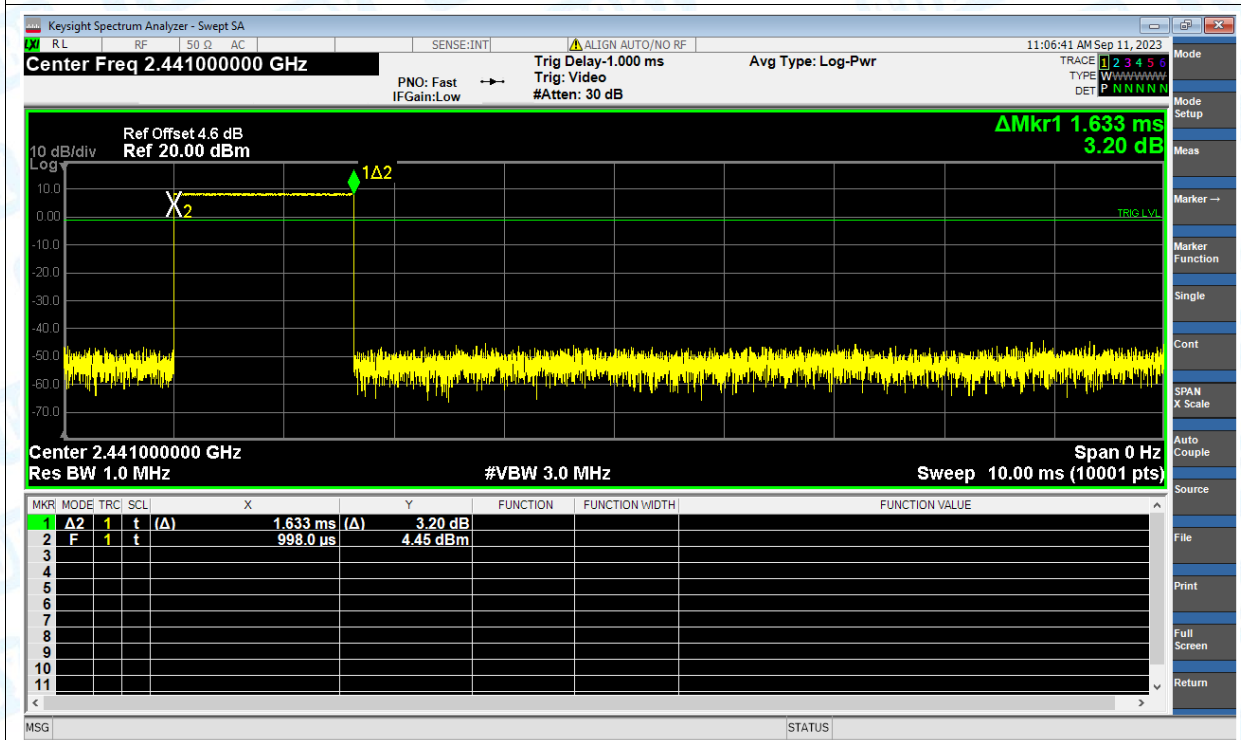
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.377	120.64	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.881	307.307	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.389	124.48	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.889	308.16	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.388	124.16	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.89	308.267	31600	400	Pass

Test Graphs

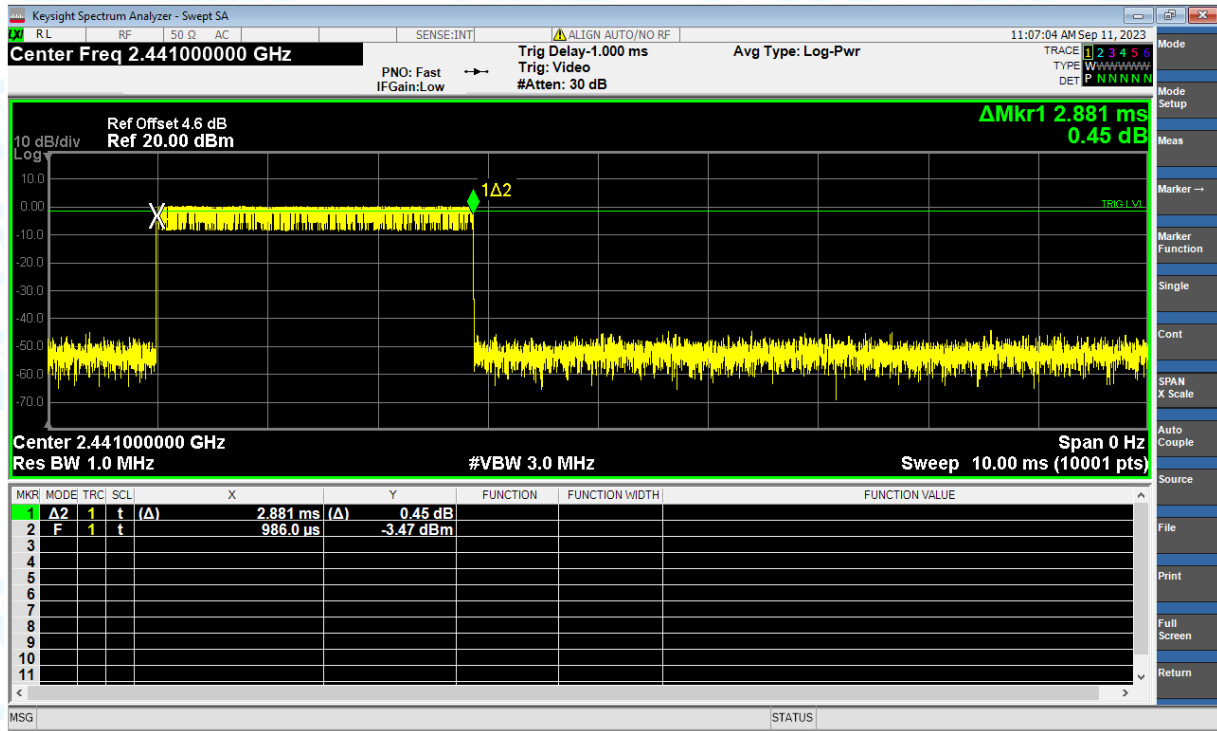
Dwell NVNT 1-DH1 2441MHz Ant1



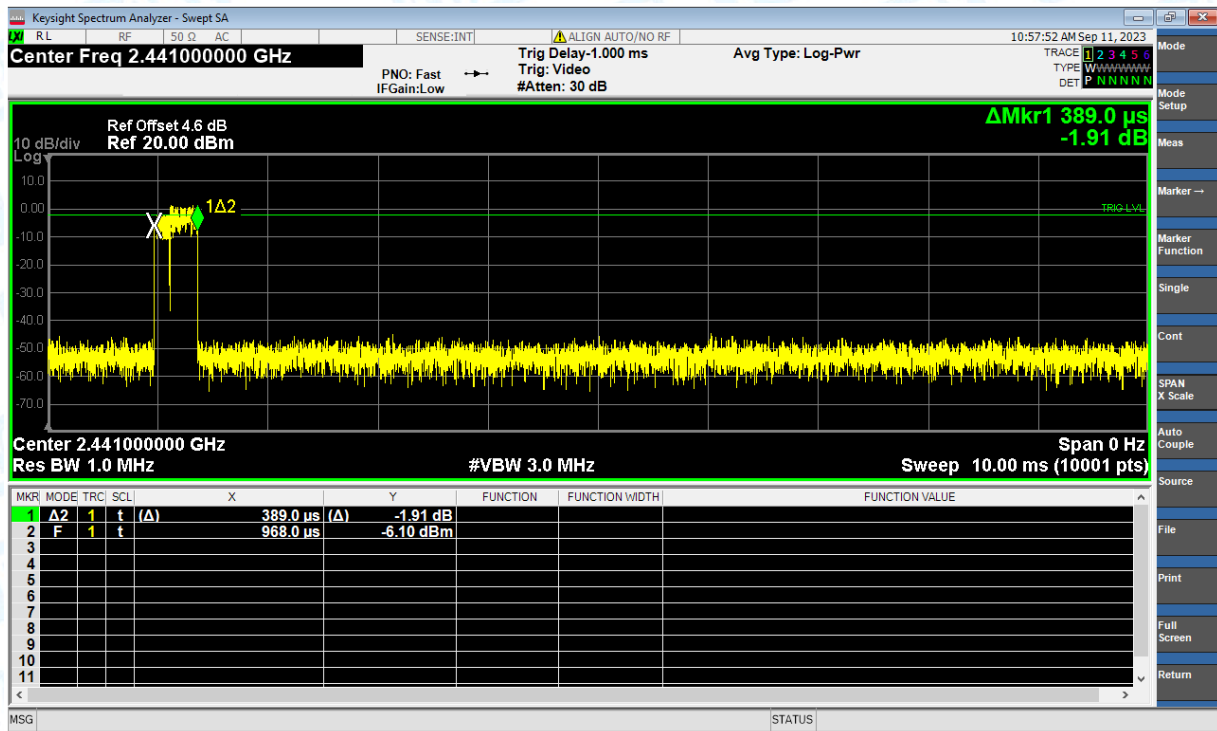
Dwell NVNT 1-DH3 2441MHz Ant1



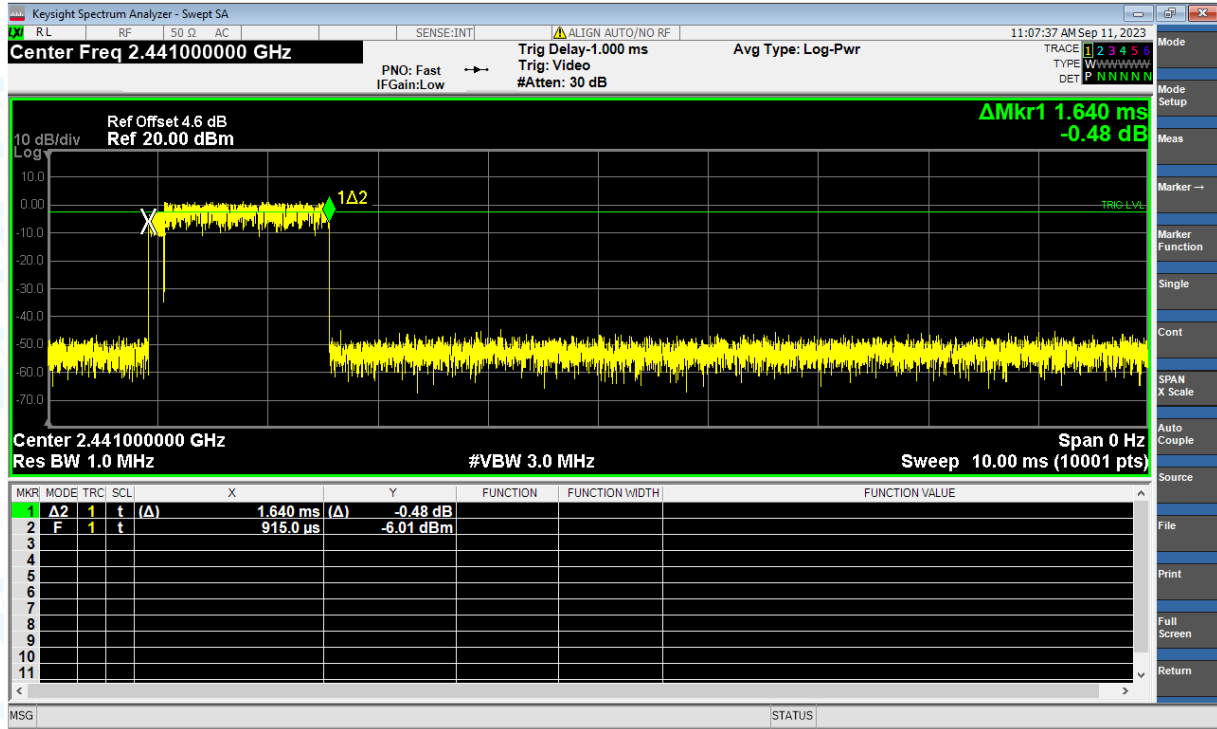
Dwell NVNT 1-DH5 2441MHz Ant1



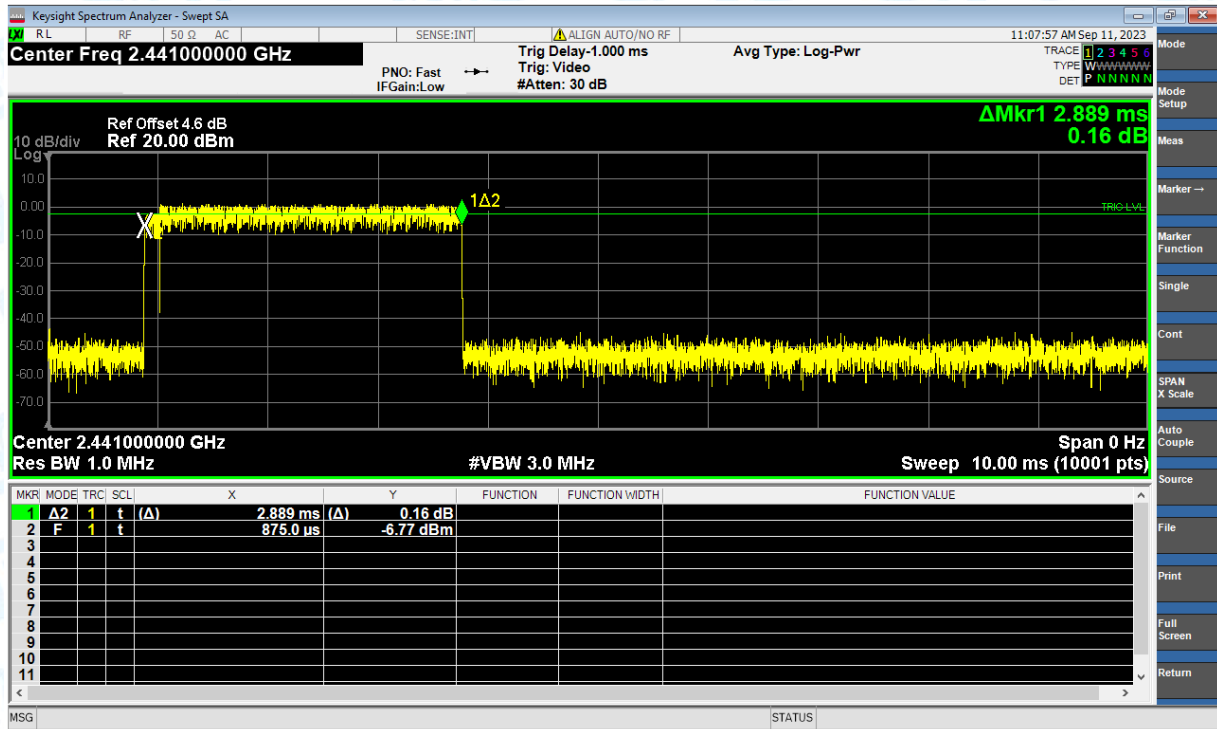
Dwell NVNT 2-DH1 2441MHz Ant1



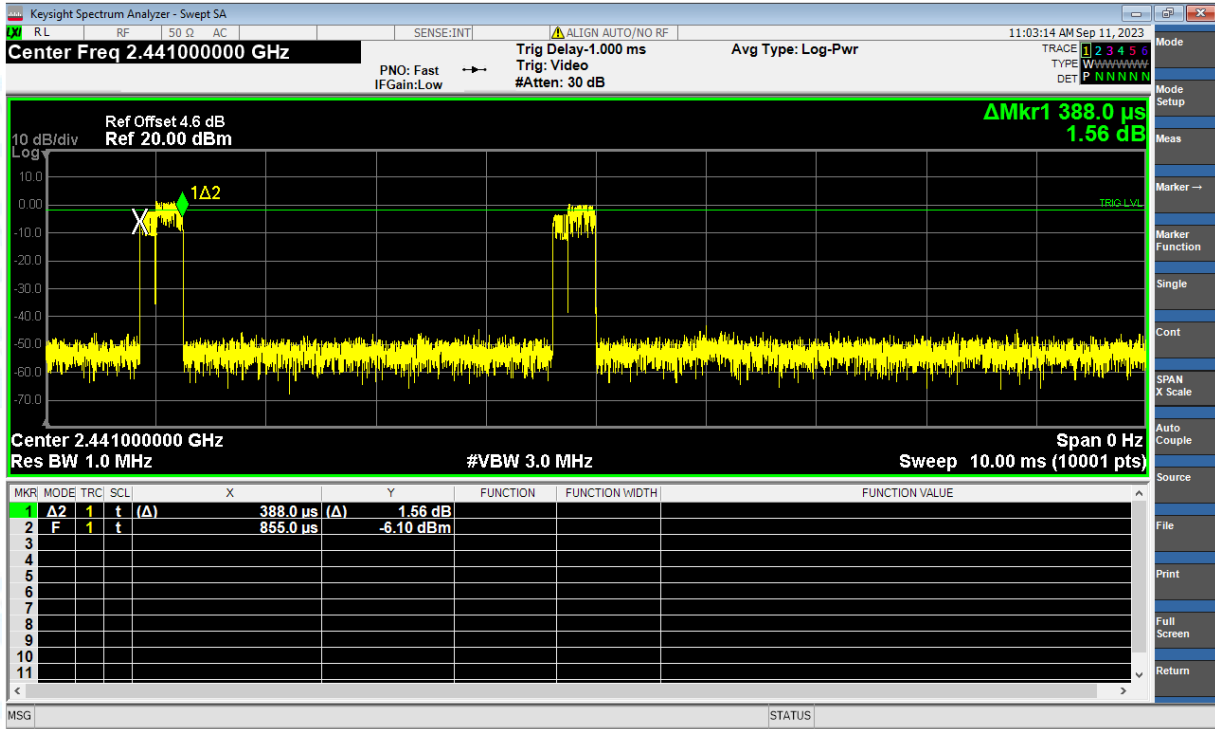
Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1

