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

General Description of EUT	
Product Name:	Speakerbag
Test Model:	SRBDLLCS
Sample ID:	202304-0258-1-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202304-0258-1 The report only show the worst case data.	

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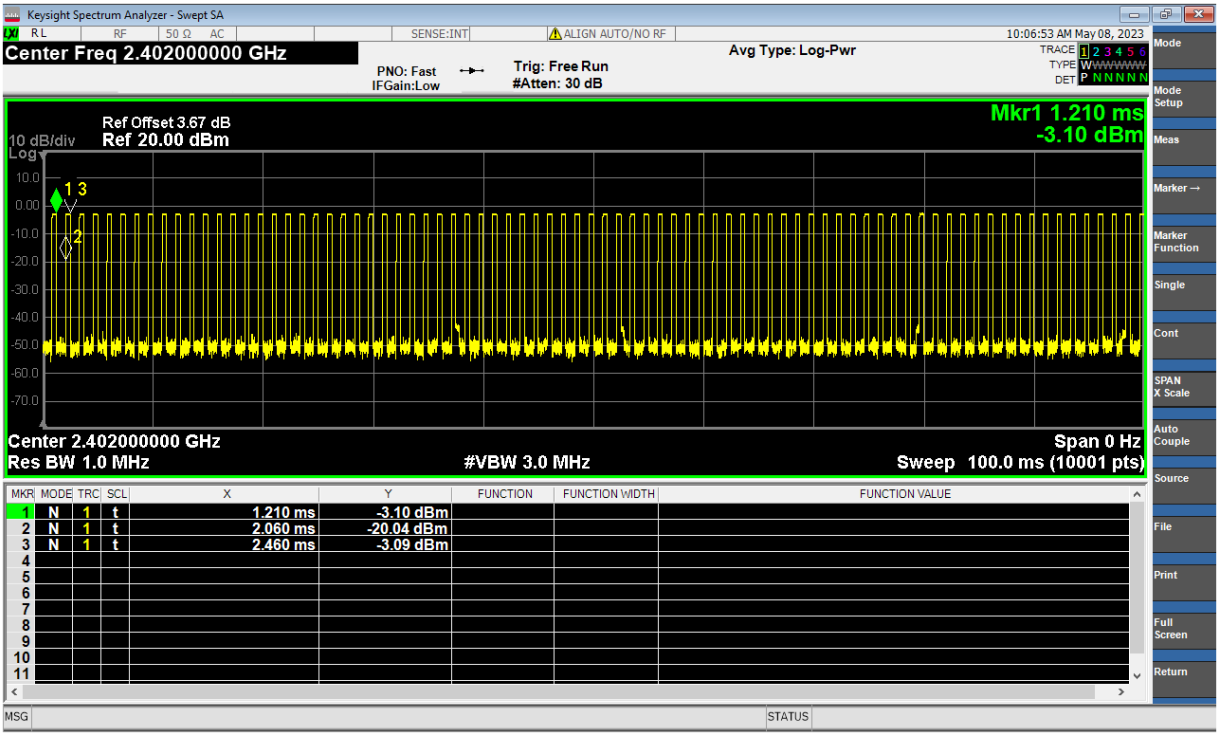
1. Duty Cycle

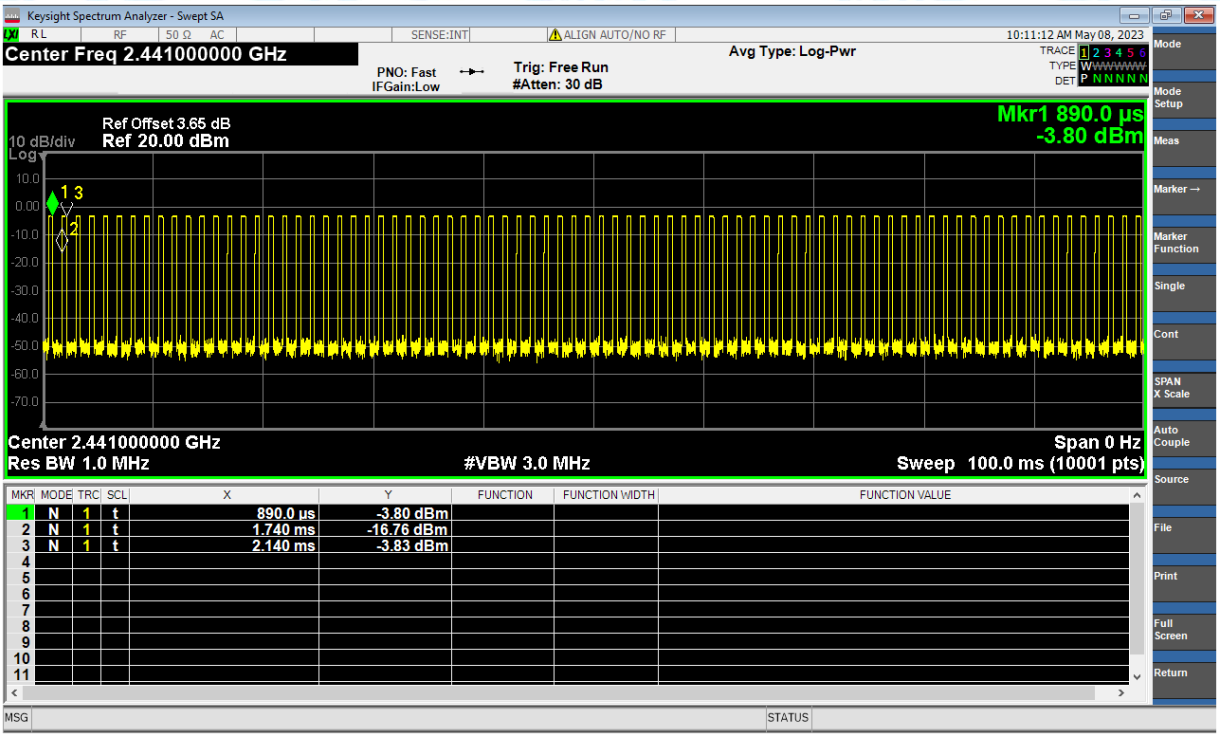
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32	4.95	2.5
NVNT	1-DH1	2441	Ant1	32	4.95	2.5
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2480	Ant1	32.8	4.84	2.44

Test Graphs

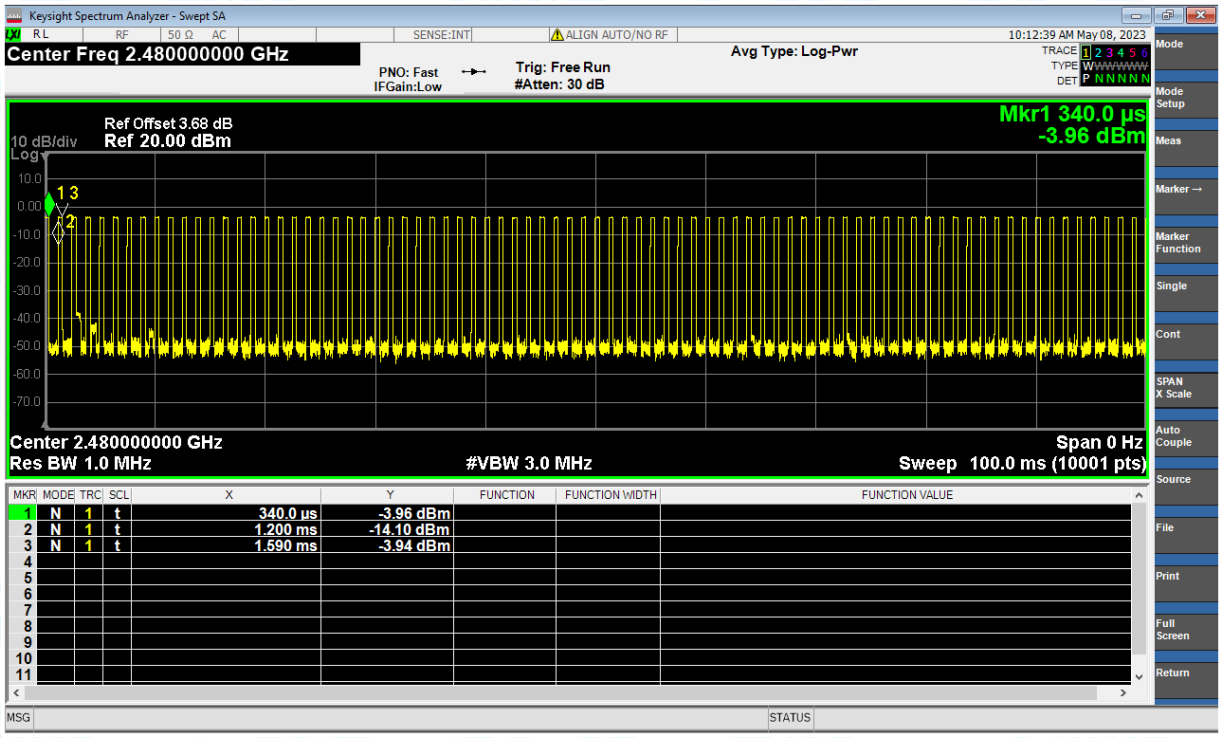
Duty Cycle NVNT 1-DH1 2402MHz Ant1



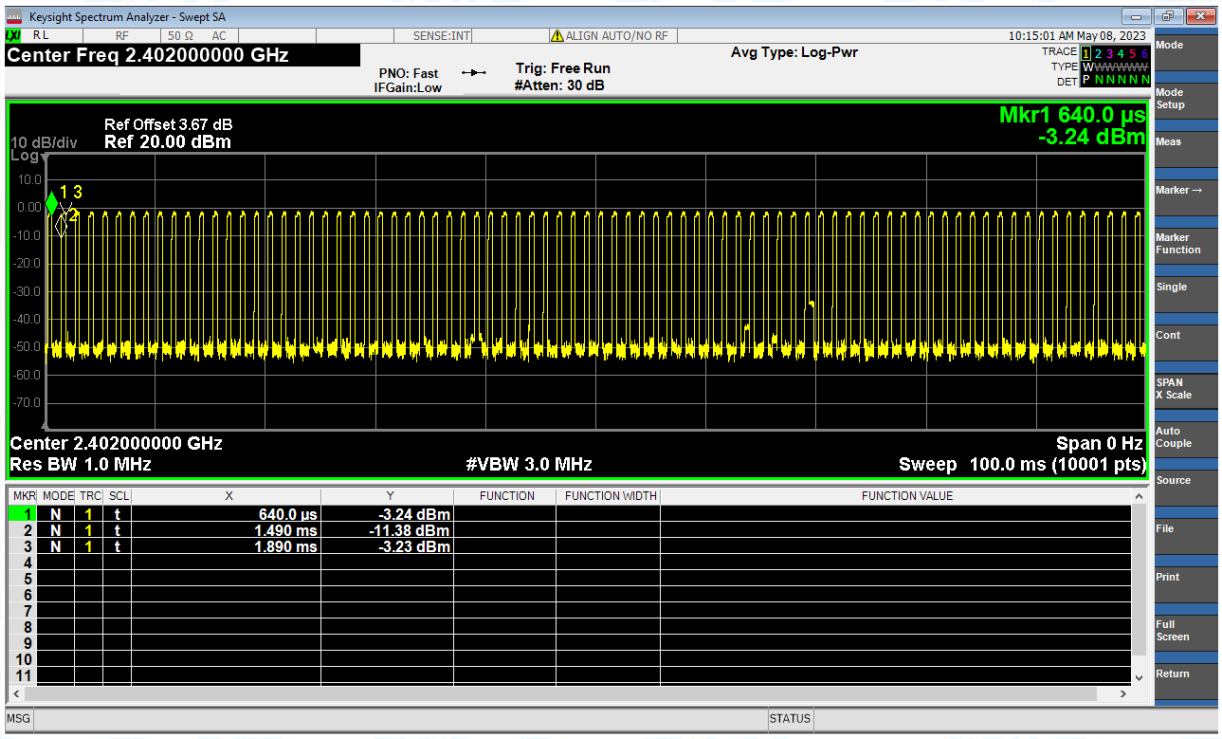
Duty Cycle NVNT 1-DH1 2441MHz Ant1



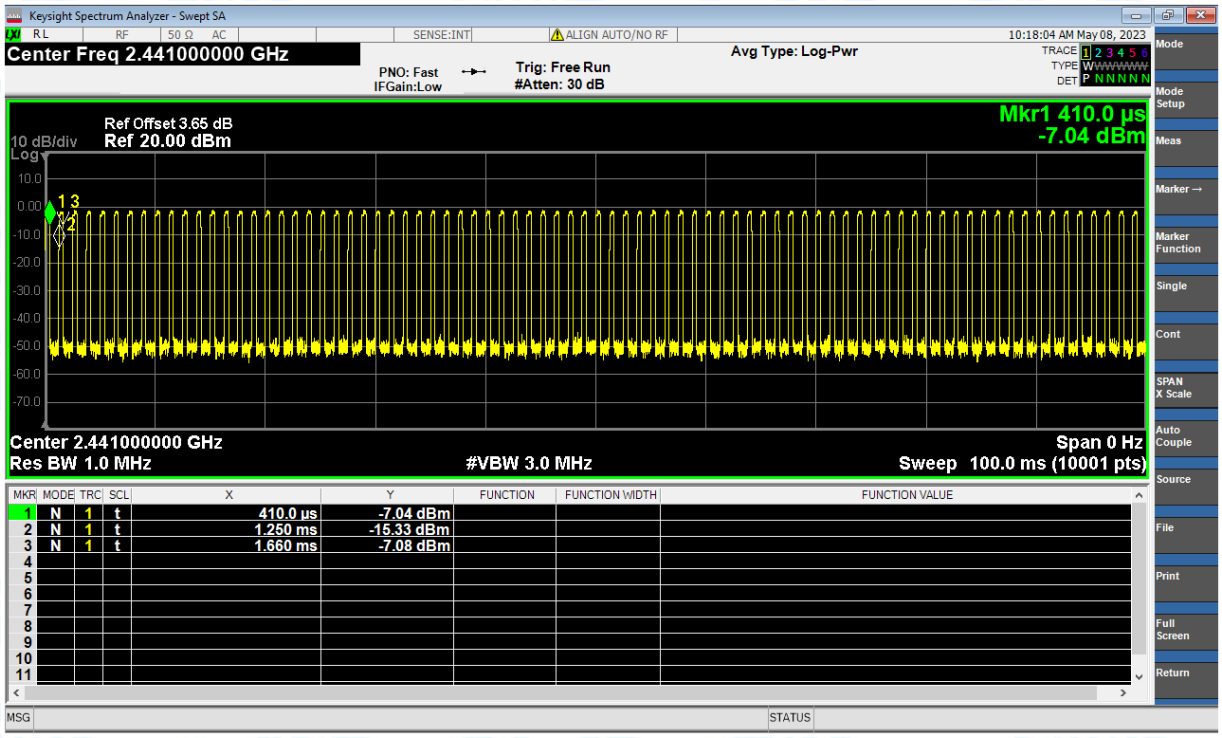
Duty Cycle NVNT 1-DH1 2480MHz Ant1



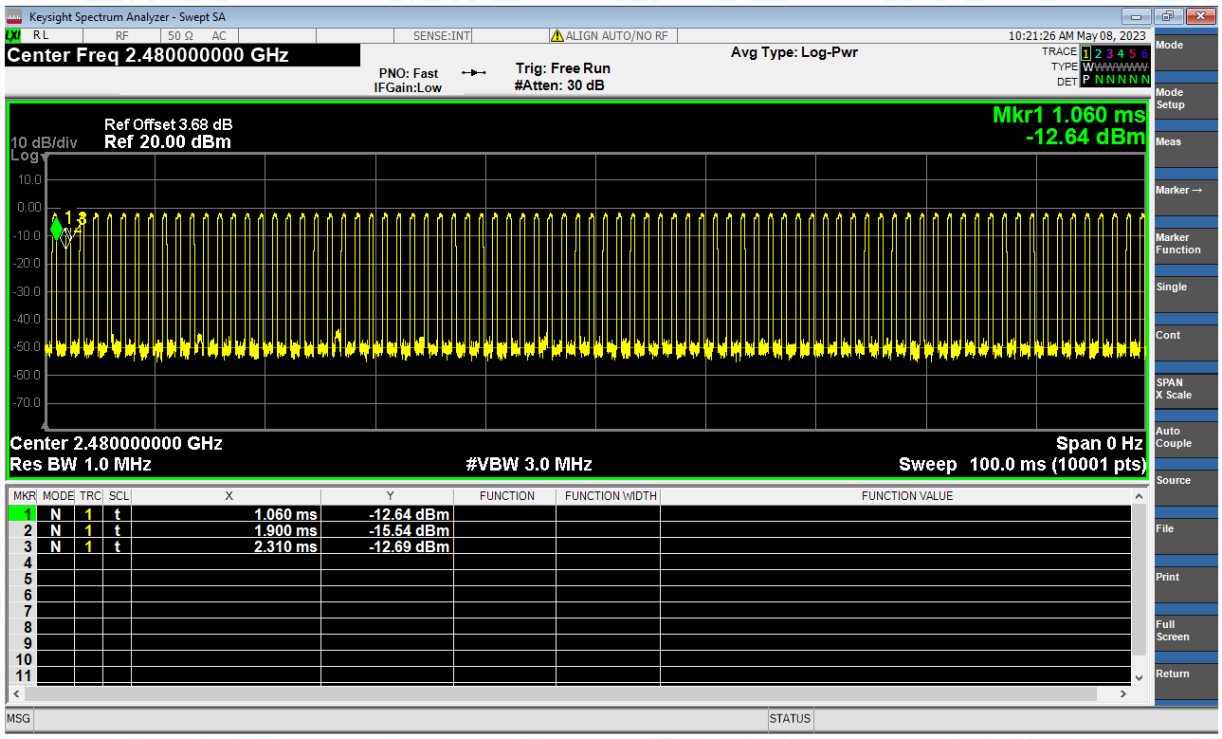
Duty Cycle NVNT 2-DH1 2402MHz Ant1



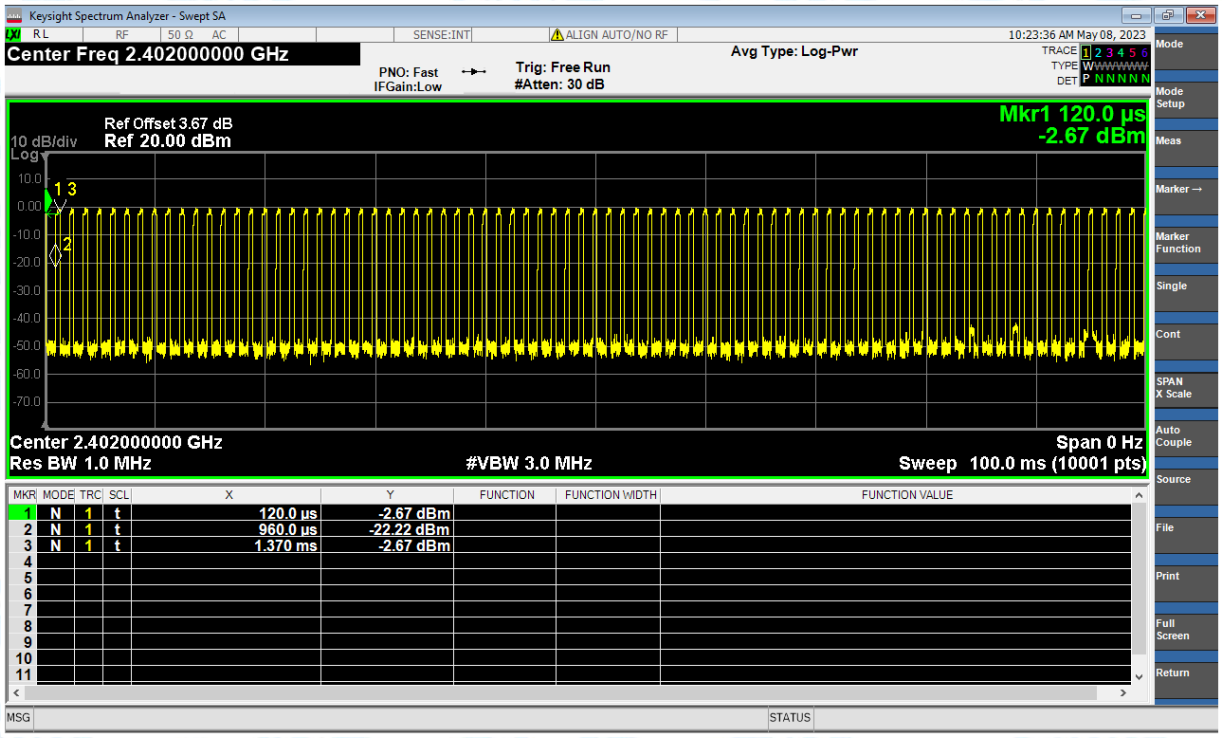
Duty Cycle NVNT 2-DH1 2441MHz Ant1



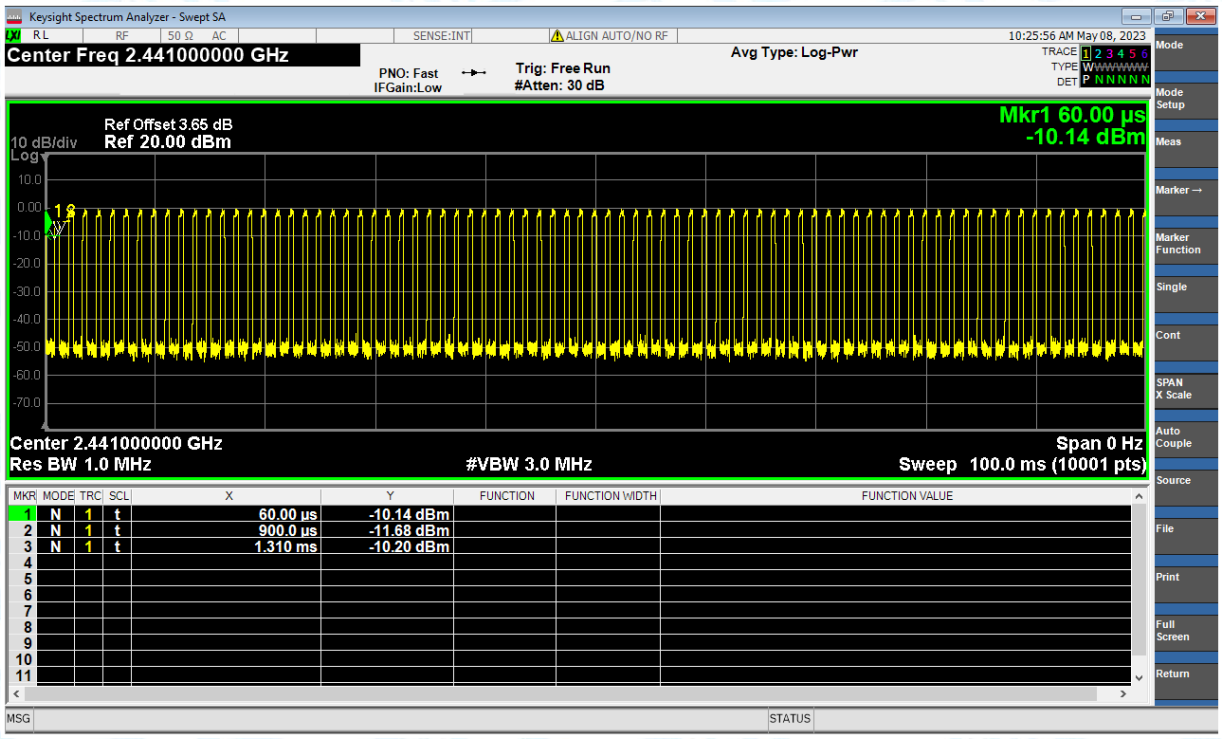
Duty Cycle NVNT 2-DH1 2480MHz Ant1



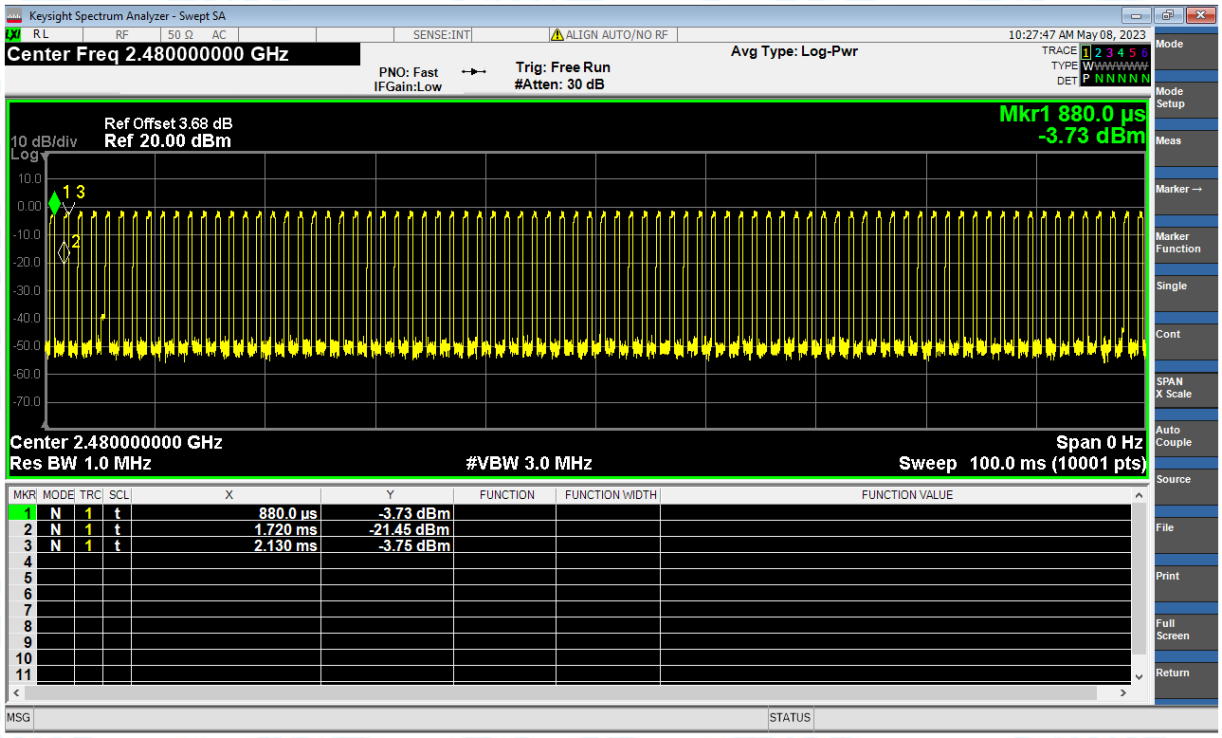
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

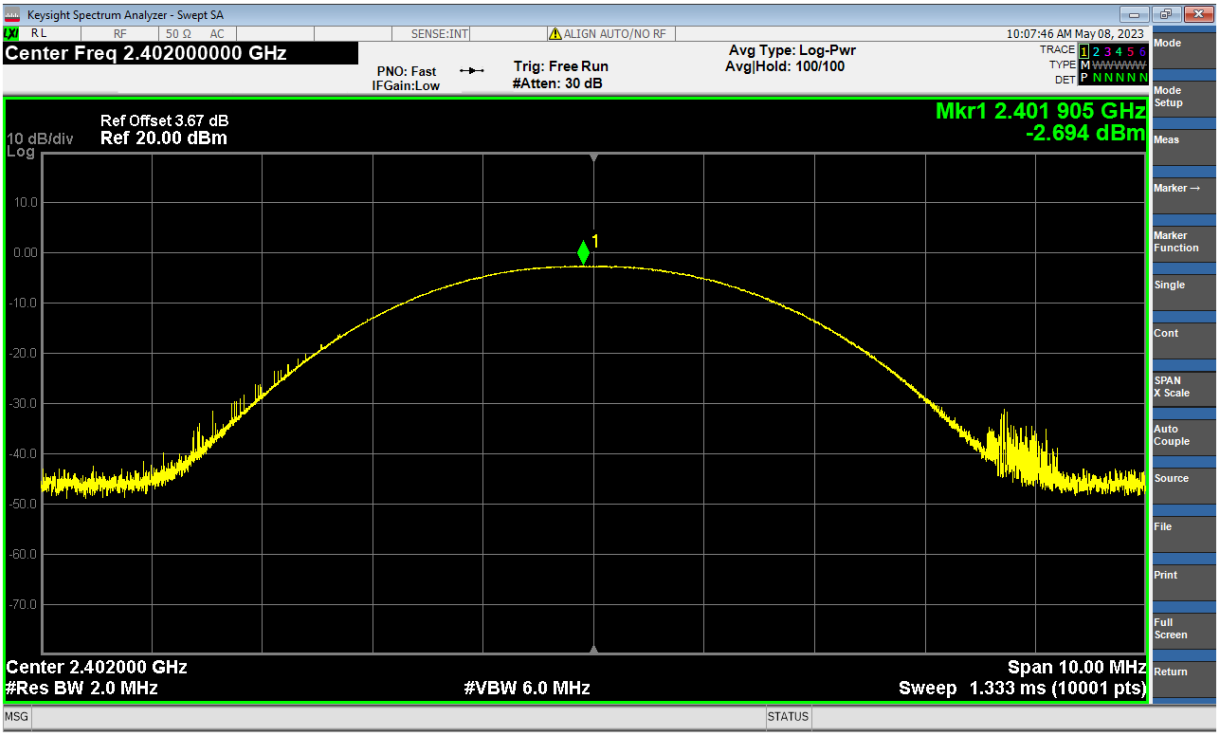


2. Maximum Conducted Output Power

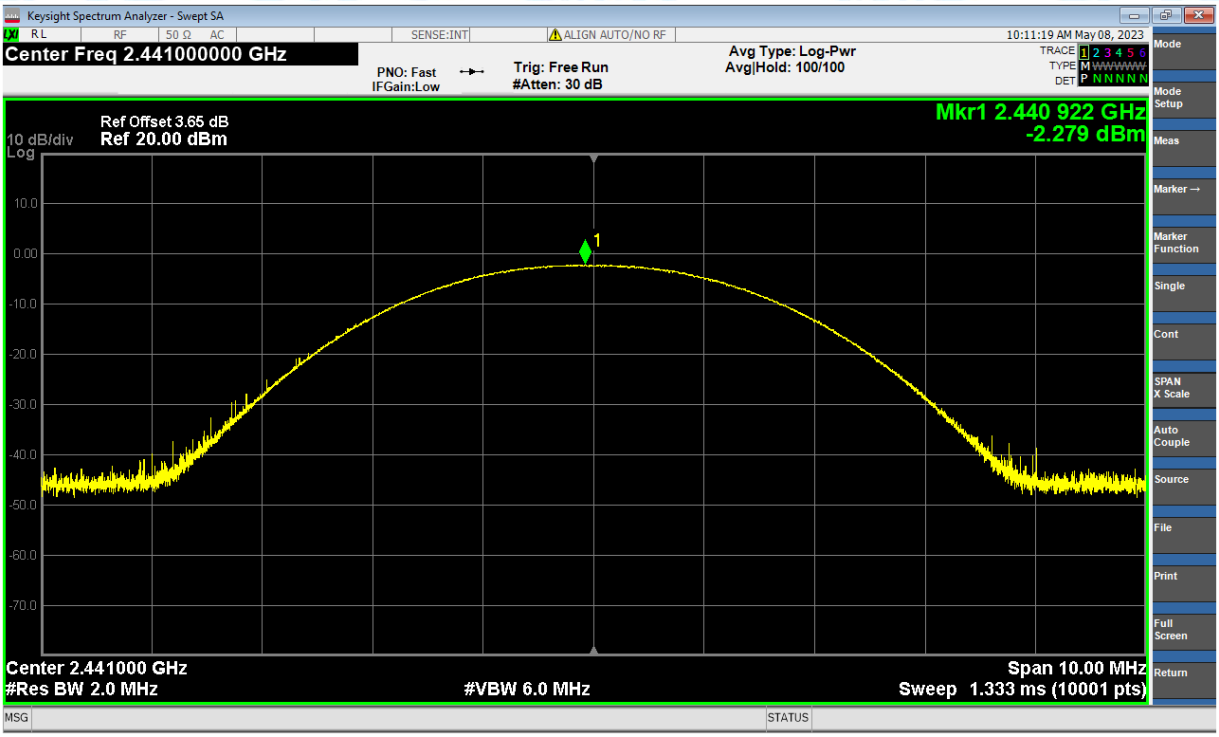
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-2.694	21	Pass
NVNT	1-DH1	2441	Ant1	-2.279	21	Pass
NVNT	1-DH1	2480	Ant1	-3.566	21	Pass
NVNT	2-DH1	2402	Ant1	-0.725	21	Pass
NVNT	2-DH1	2441	Ant1	-0.704	21	Pass
NVNT	2-DH1	2480	Ant1	-1.31	21	Pass
NVNT	3-DH1	2402	Ant1	0.261	21	Pass
NVNT	3-DH1	2441	Ant1	0.015	21	Pass
NVNT	3-DH1	2480	Ant1	-0.829	21	Pass

Test Graphs

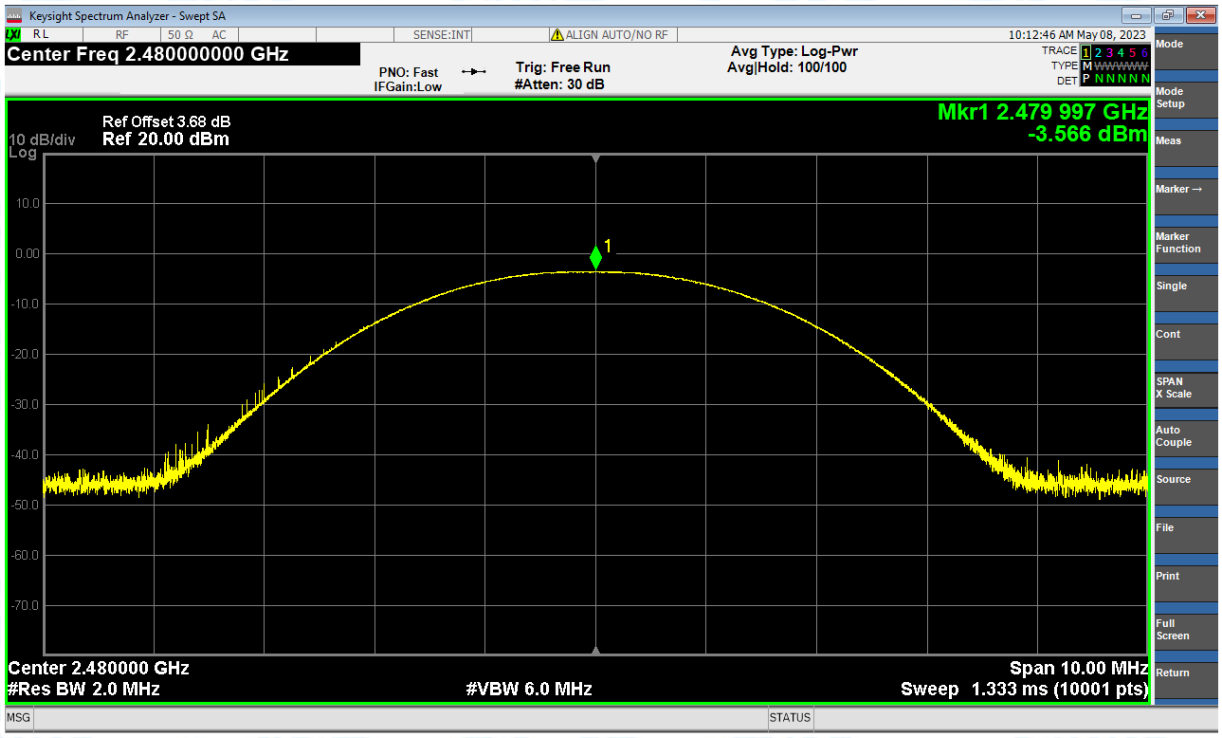
Power NVNT 1-DH1 2402MHz Ant1



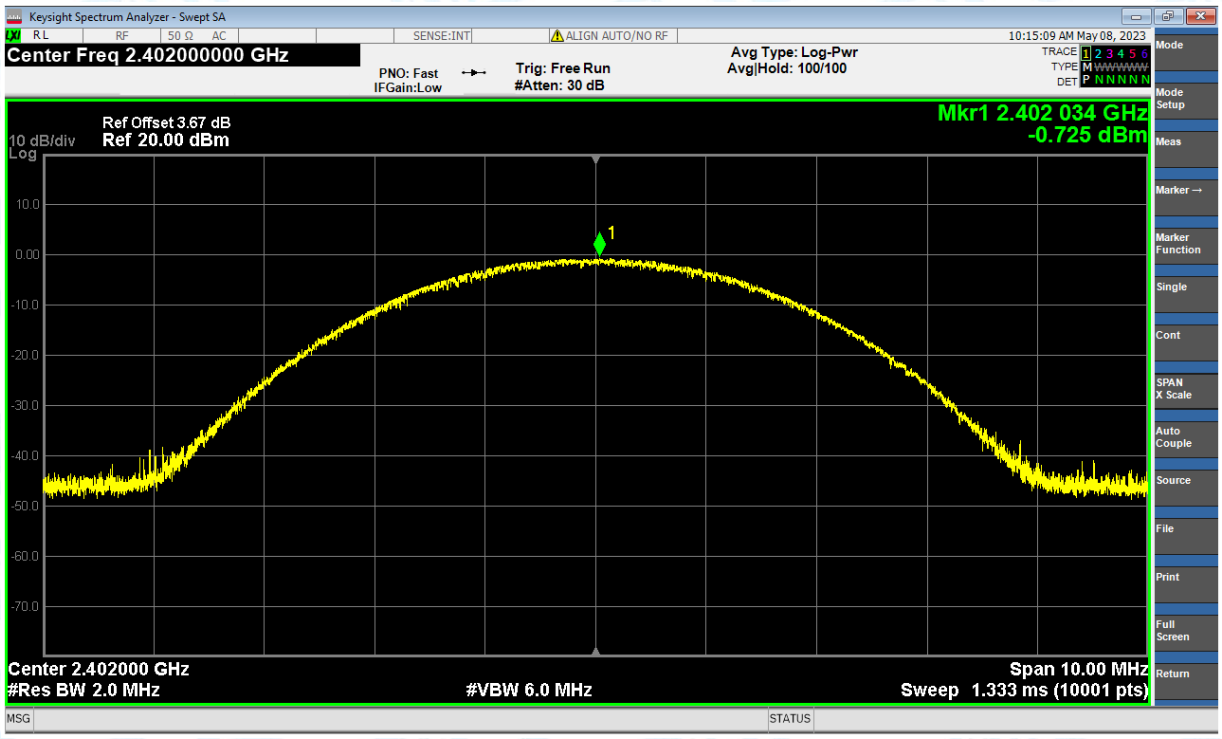
Power NVNT 1-DH1 2441MHz Ant1



Power NVNT 1-DH1 2480MHz Ant1

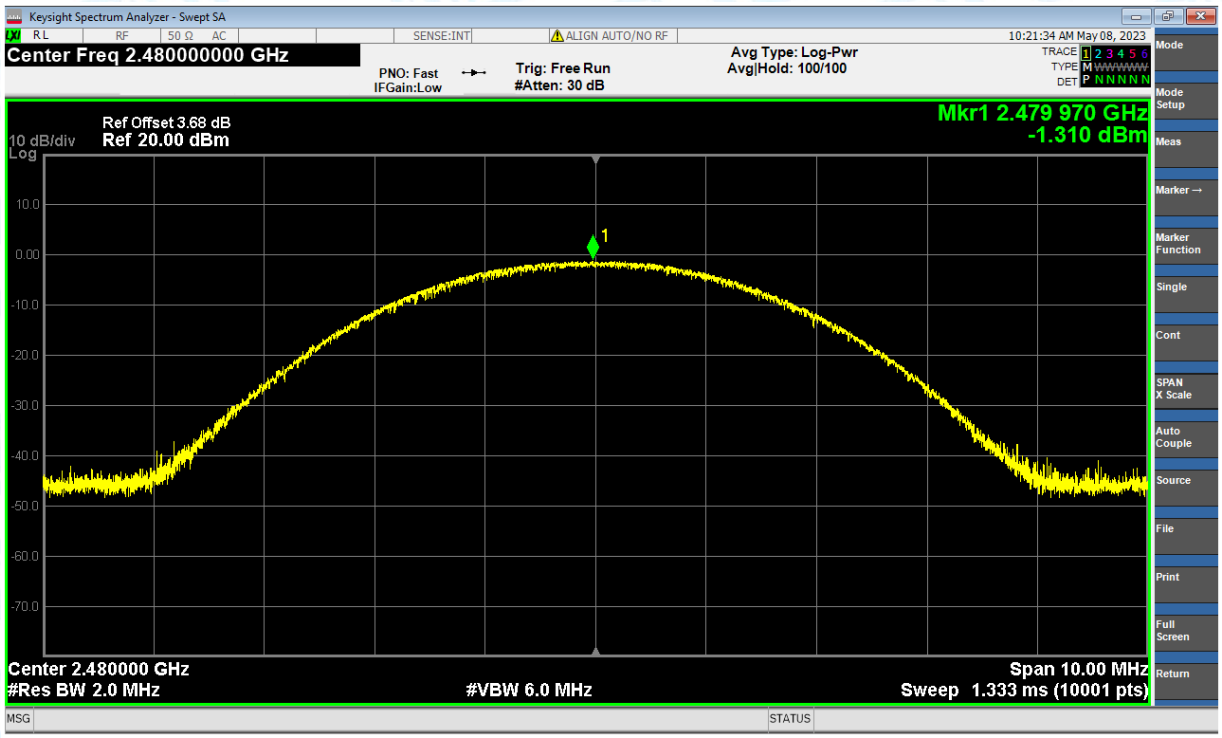


Power NVNT 2-DH1 2402MHz Ant1

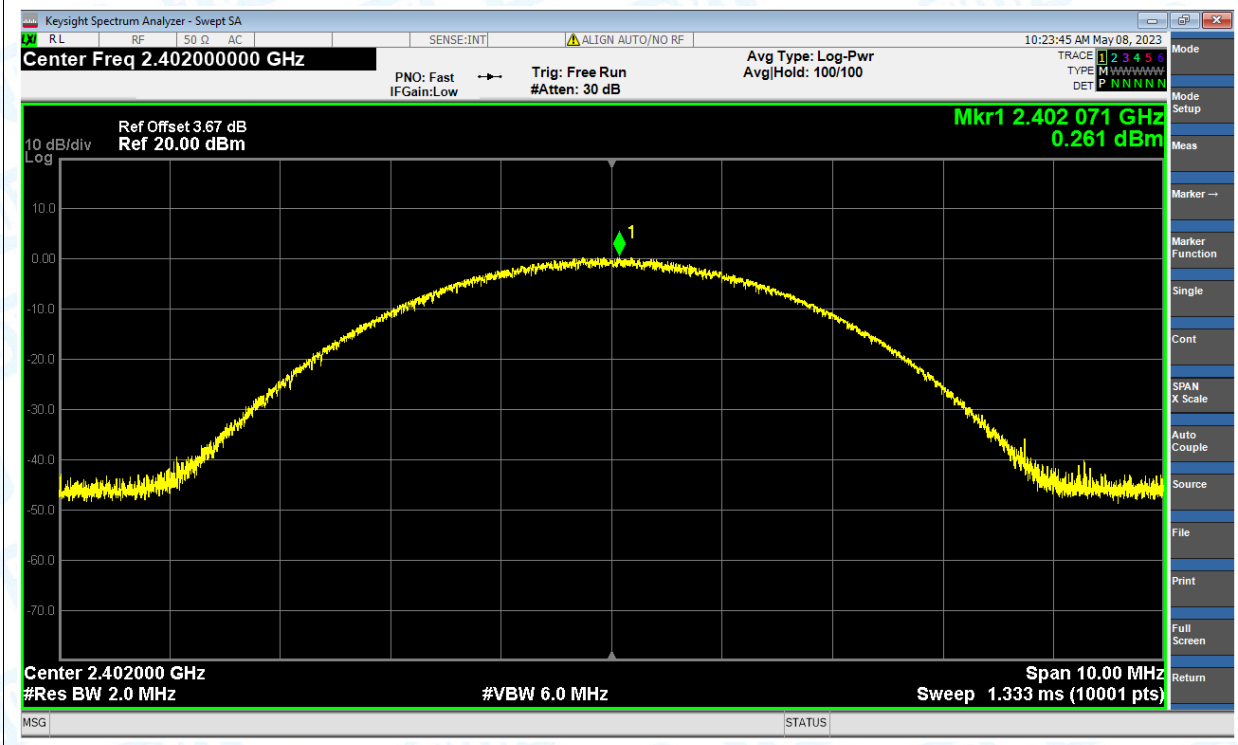


Power NVNT 2-DH1 2441MHz Ant1

Power NVNT 2-DH1 2480MHz Ant1

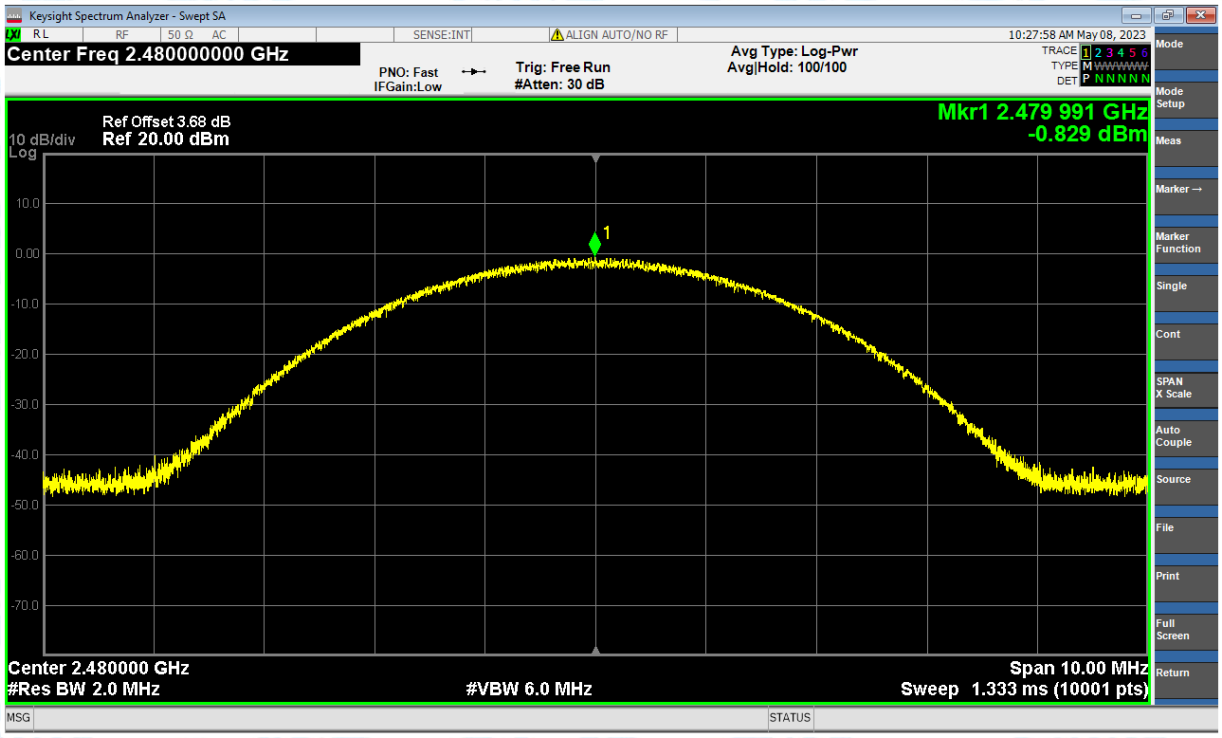


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1

Power NVNT 3-DH1 2480MHz Ant1



3. -20dB Bandwidth

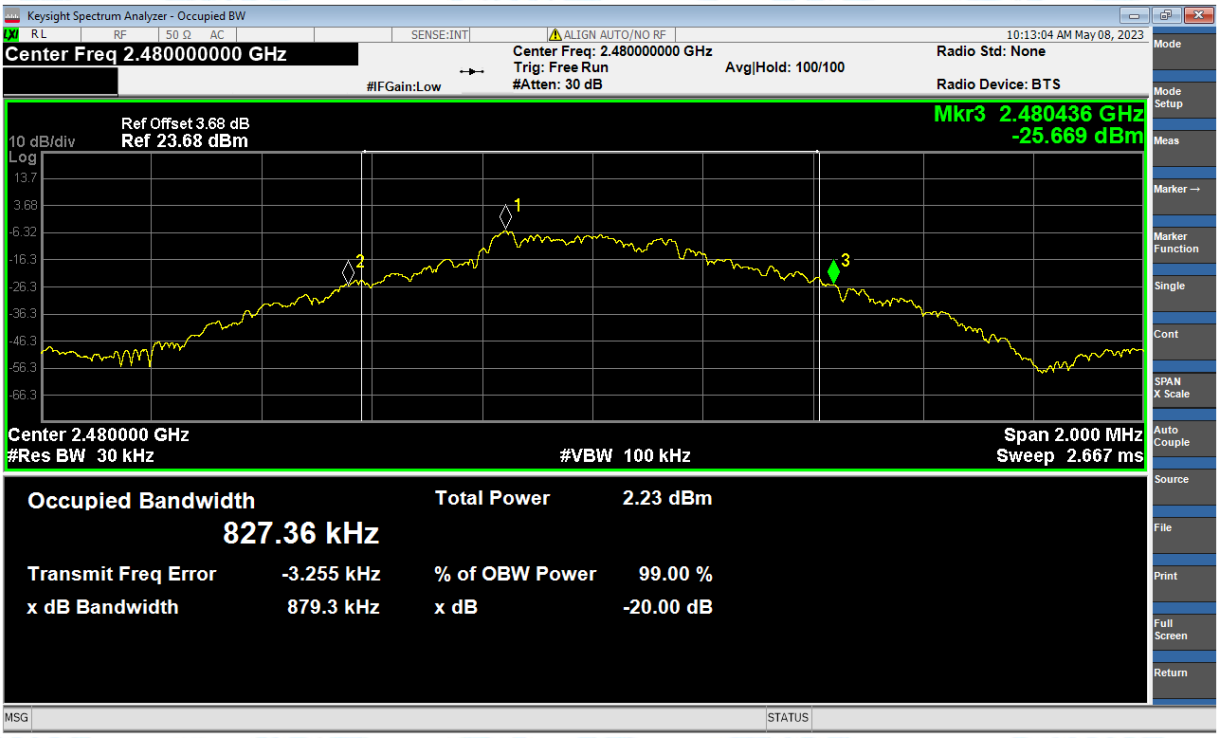
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.88	0	Pass
NVNT	1-DH1	2441	Ant1	0.89	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.27	0	Pass
NVNT	2-DH1	2480	Ant1	1.27	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

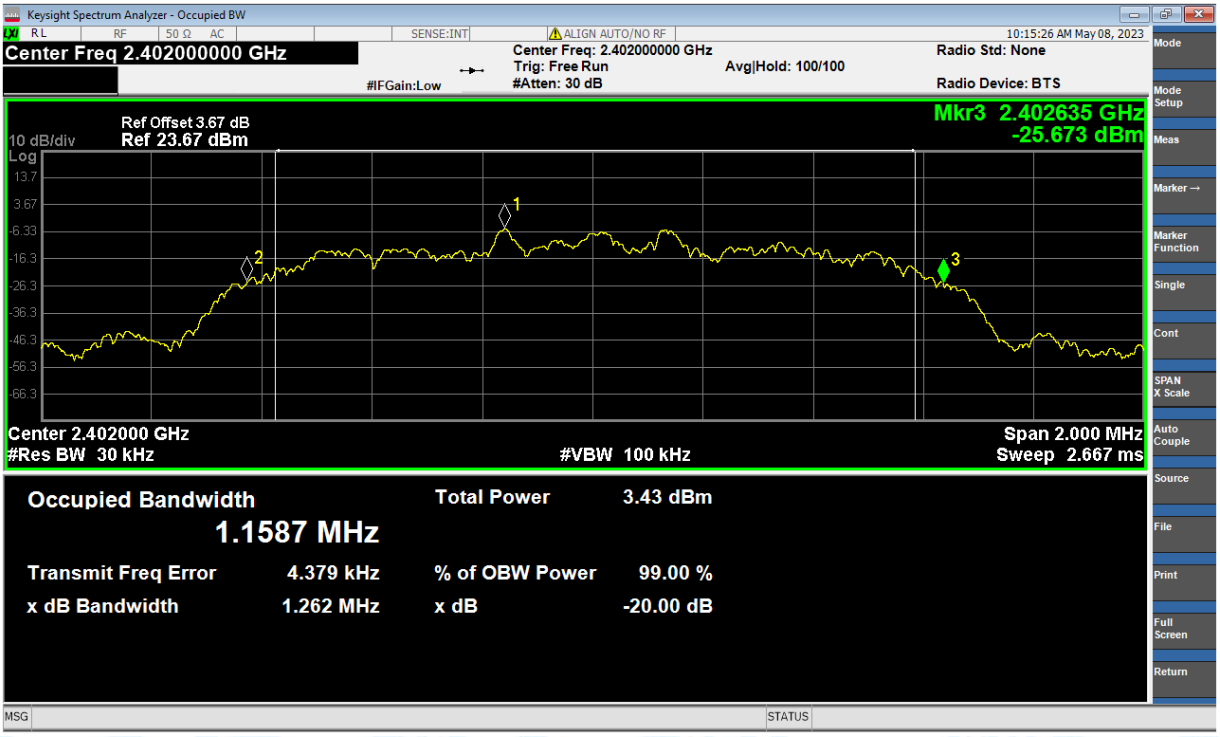
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1

-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

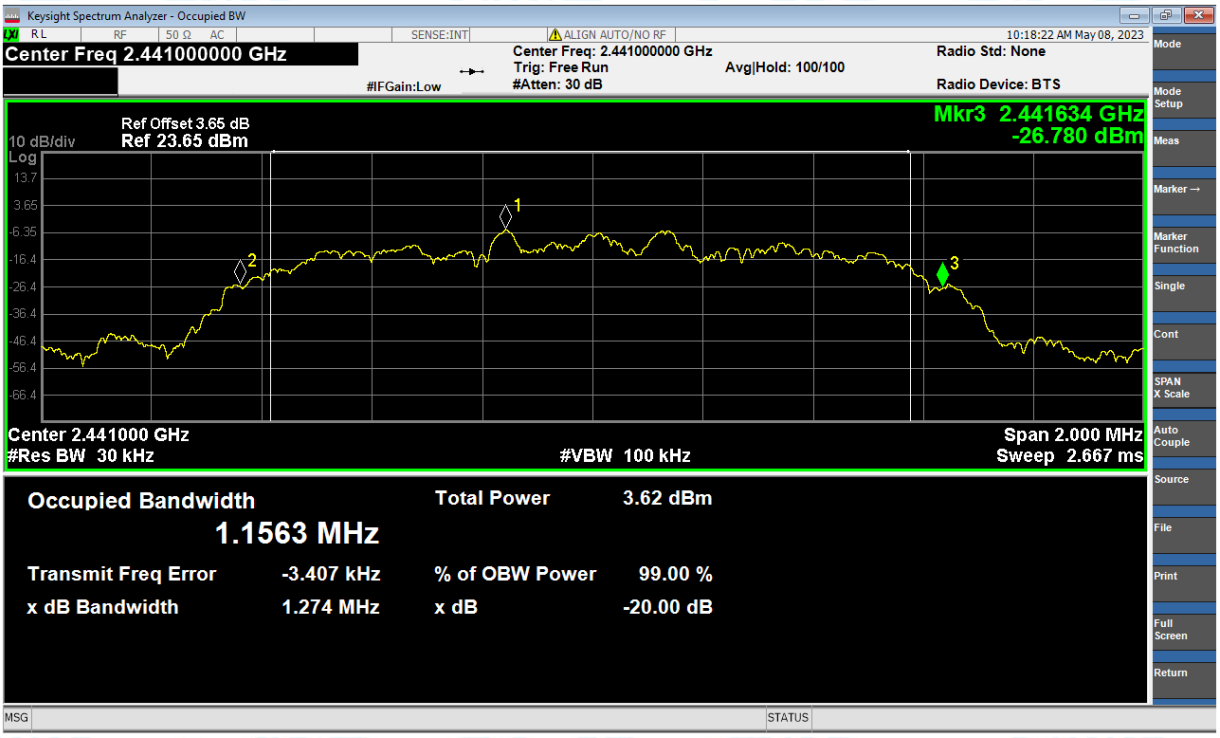
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



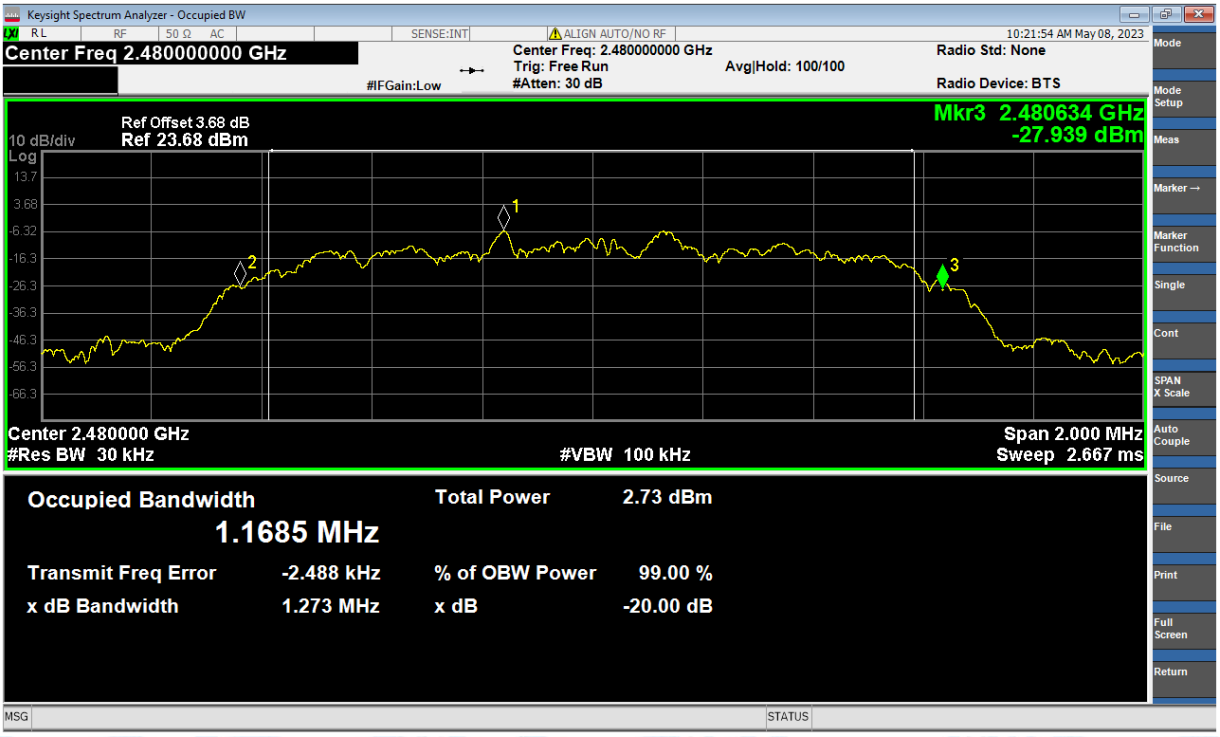
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



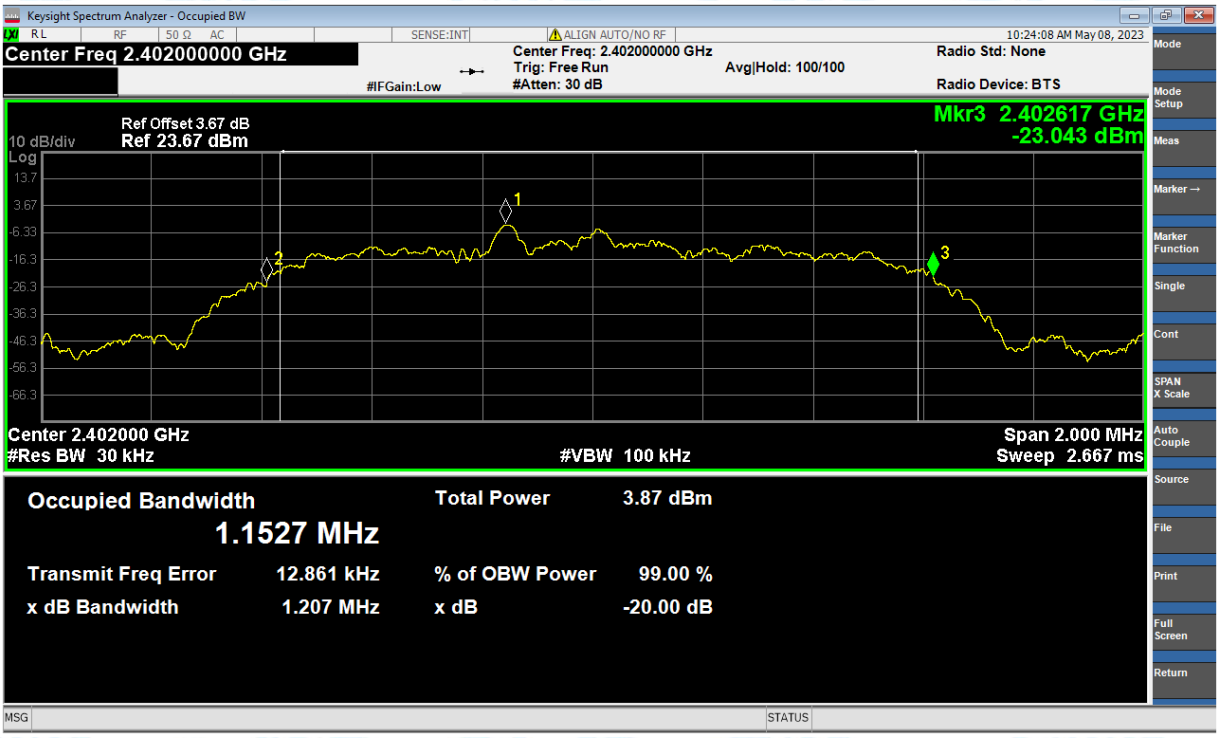
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



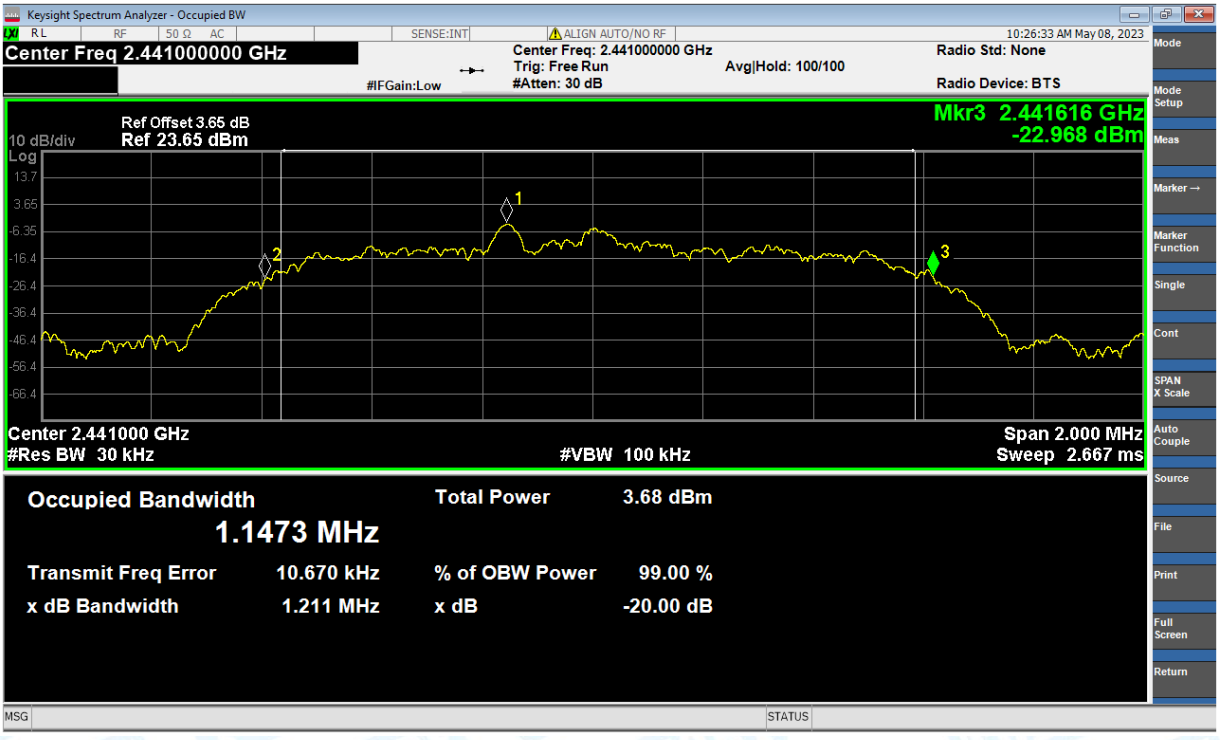
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



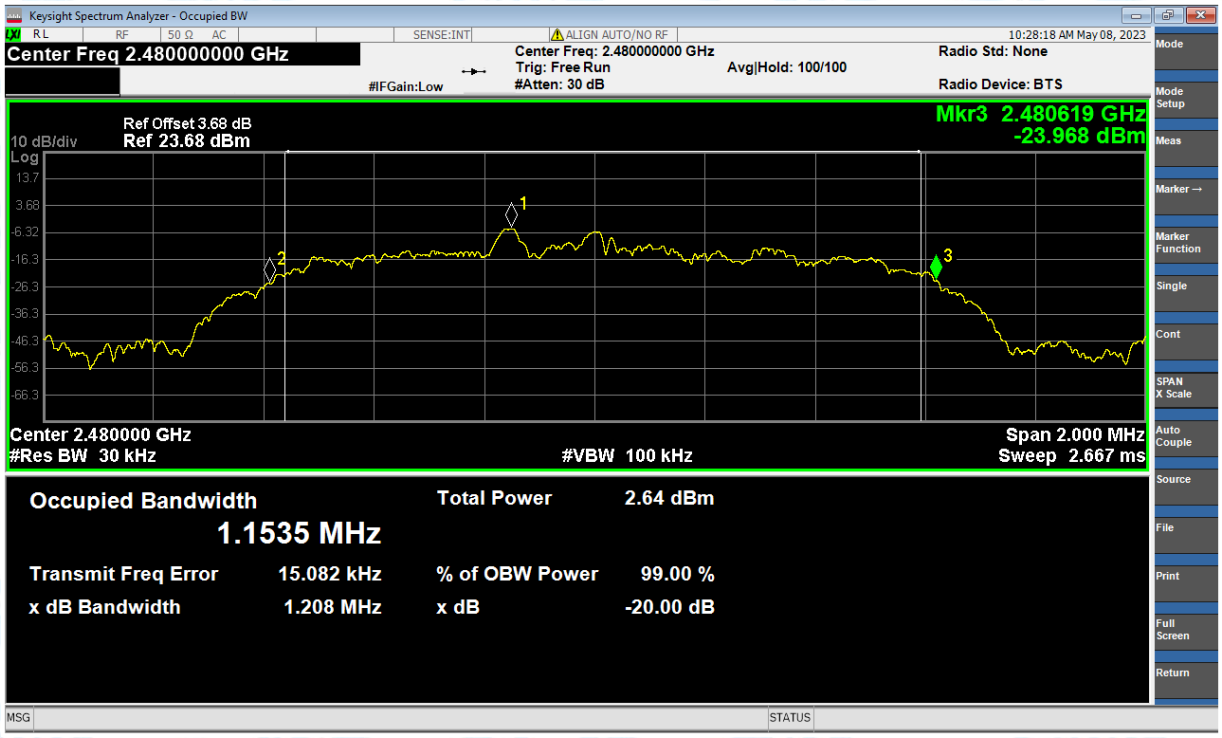
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

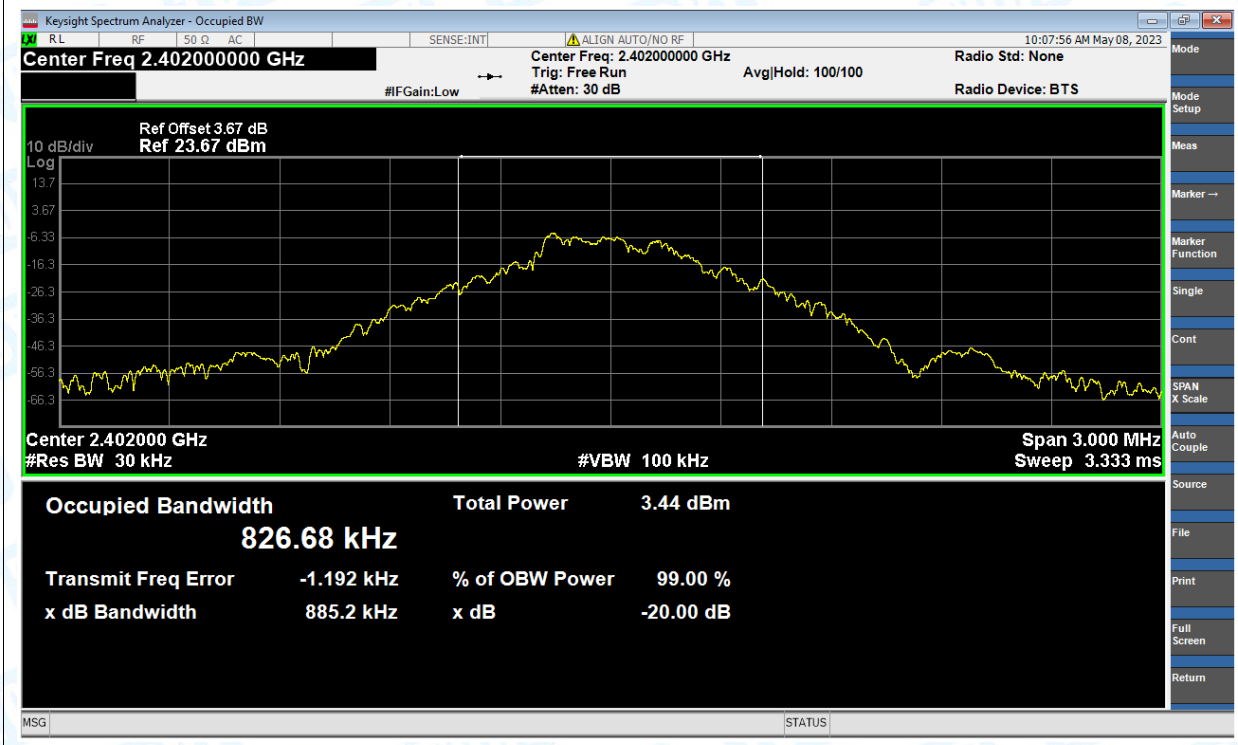


4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.827
NVNT	1-DH1	2441	Ant1	0.816
NVNT	1-DH1	2480	Ant1	0.828
NVNT	2-DH1	2402	Ant1	1.153
NVNT	2-DH1	2441	Ant1	1.144
NVNT	2-DH1	2480	Ant1	1.167
NVNT	3-DH1	2402	Ant1	1.16
NVNT	3-DH1	2441	Ant1	1.145
NVNT	3-DH1	2480	Ant1	1.149

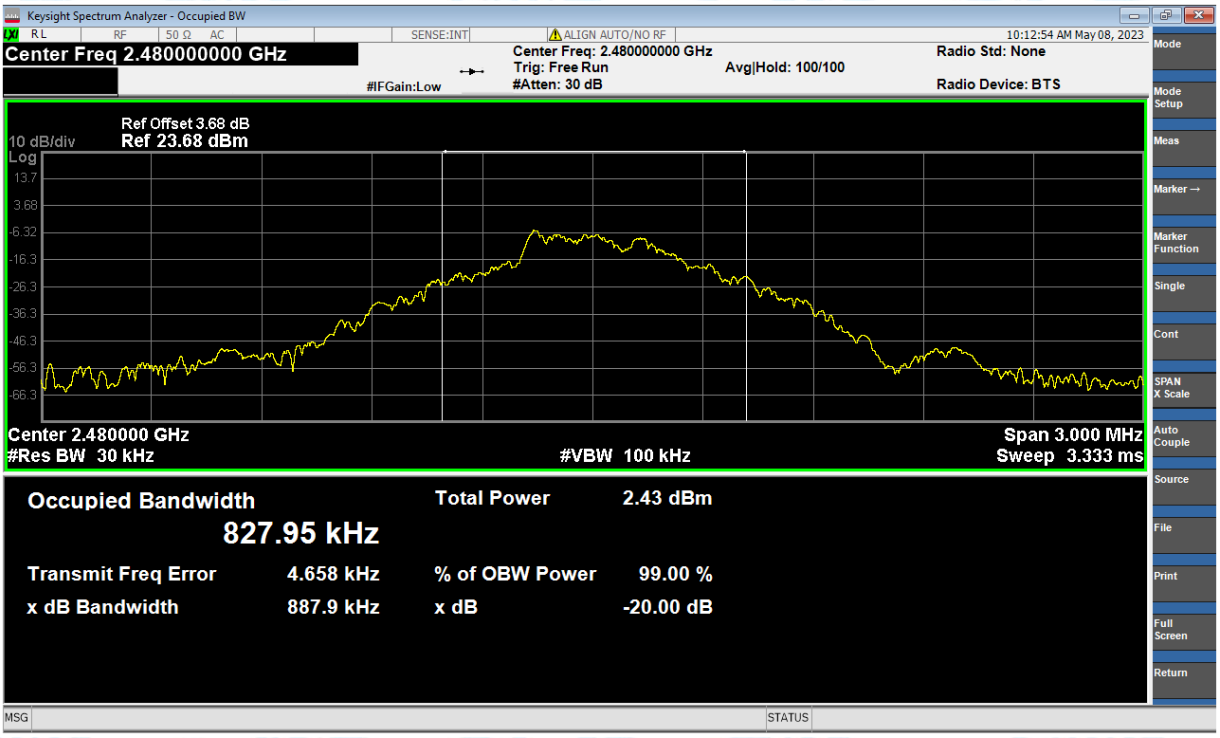
Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1

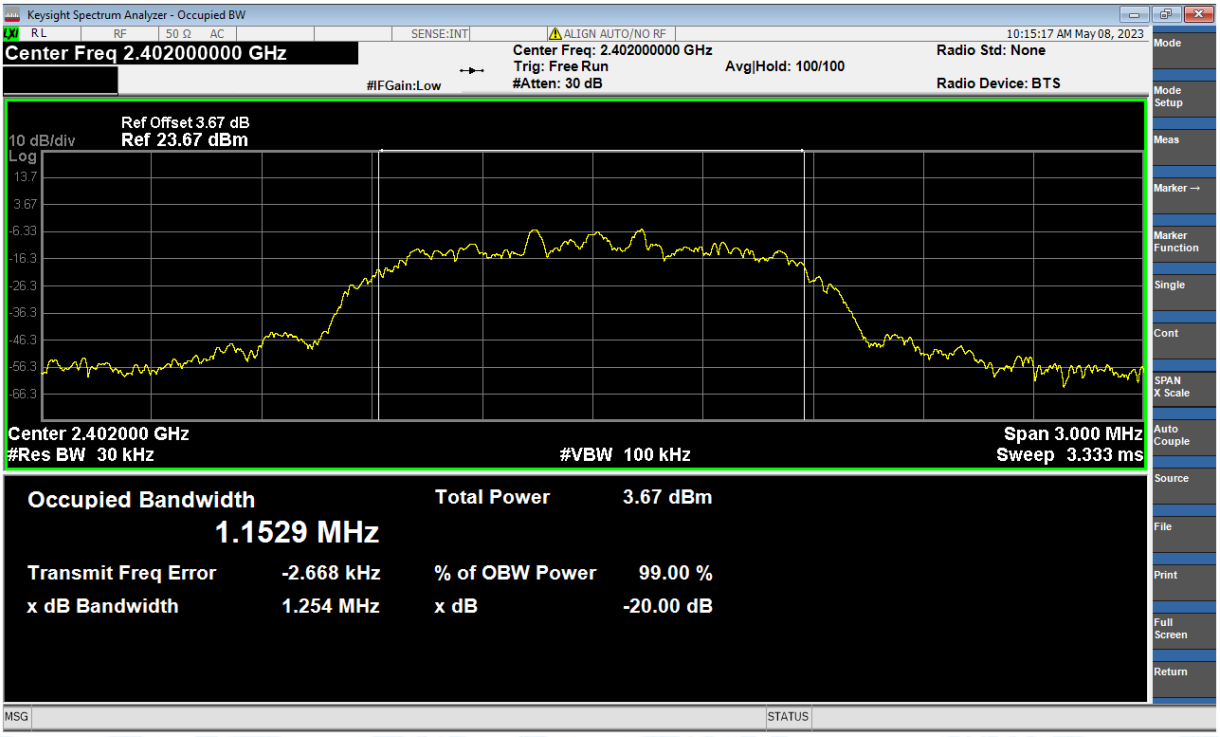


OBW NVNT 1-DH1 2441MHz Ant1

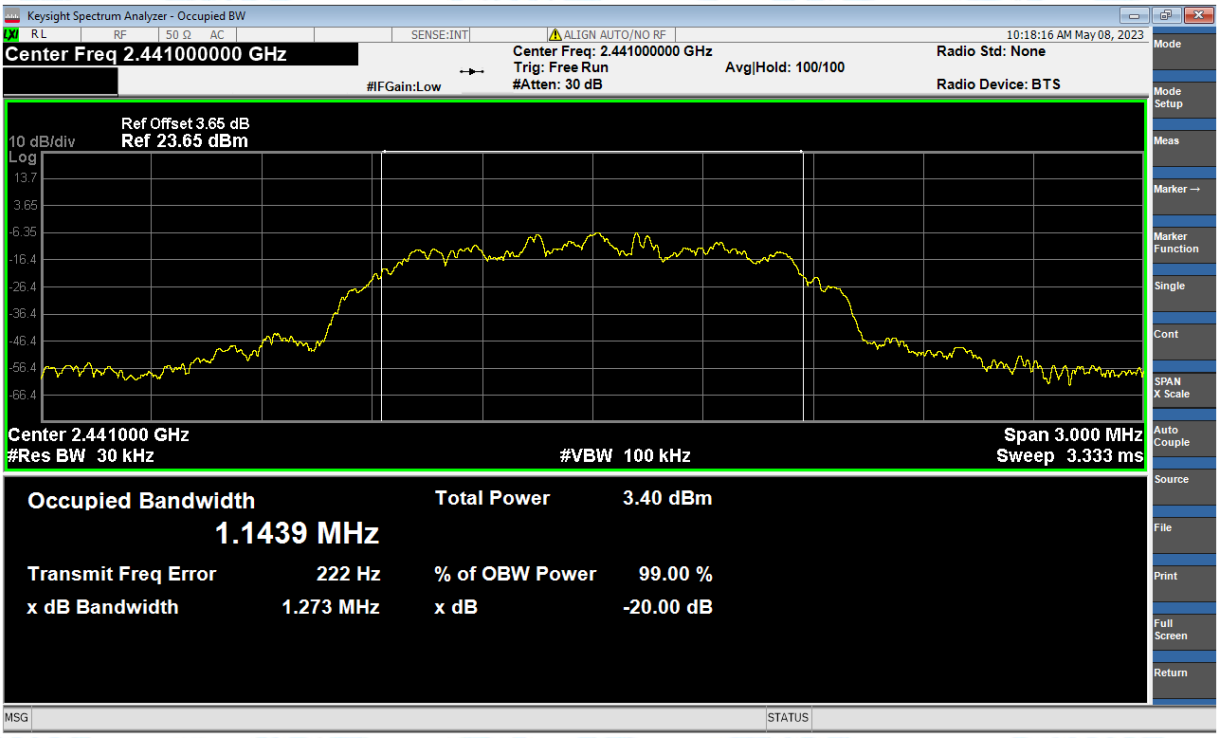
OBW NVNT 1-DH1 2480MHz Ant1



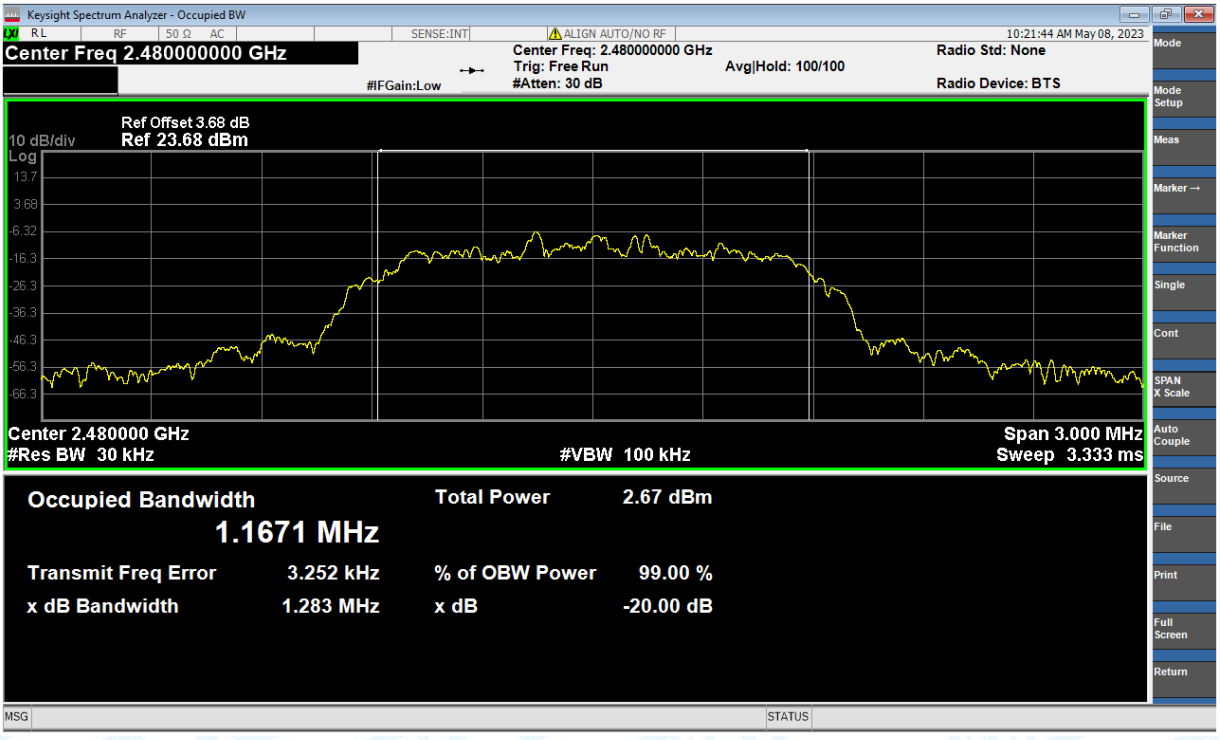
OBW NVNT 2-DH1 2402MHz Ant1



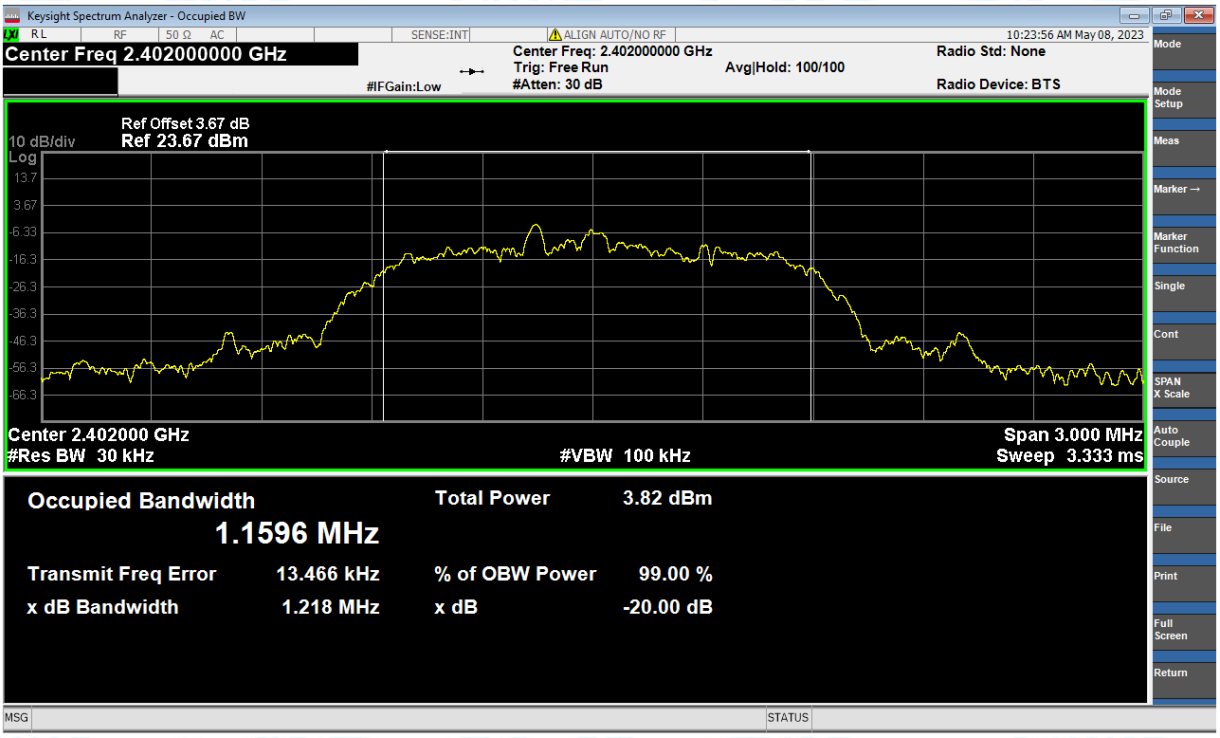
OBW NVNT 2-DH1 2441MHz Ant1



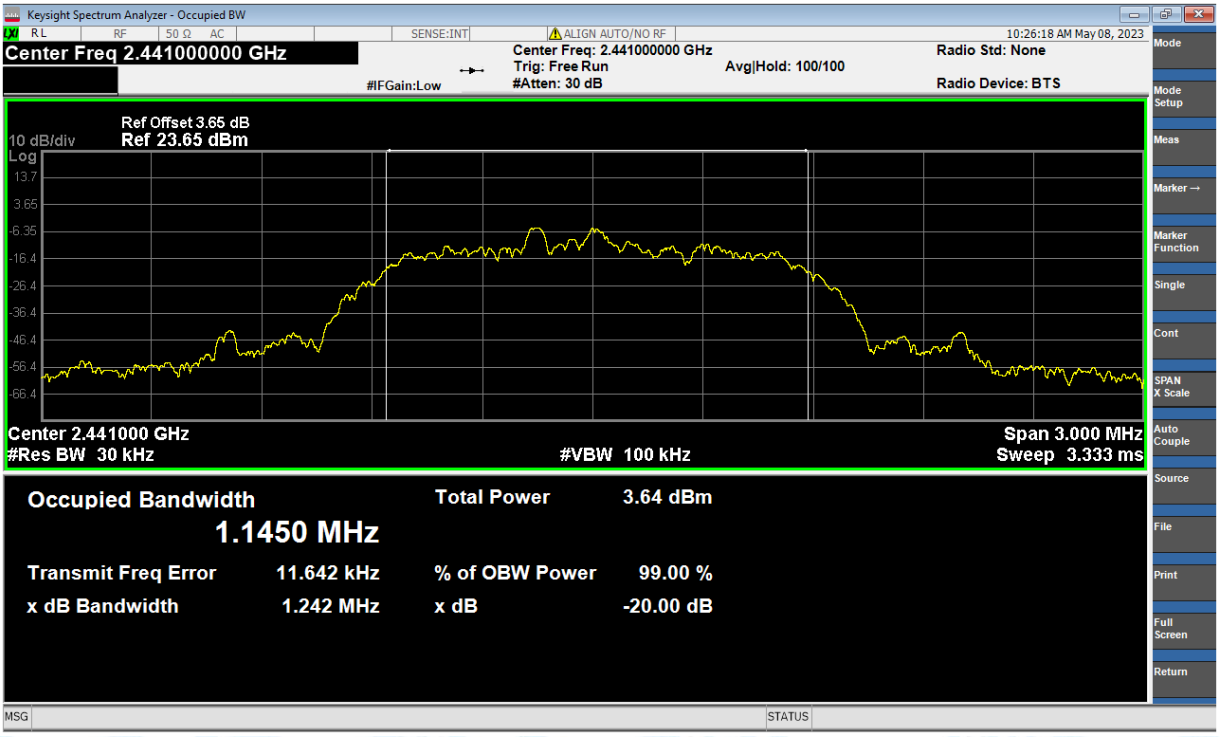
OBW NVNT 2-DH1 2480MHz Ant1



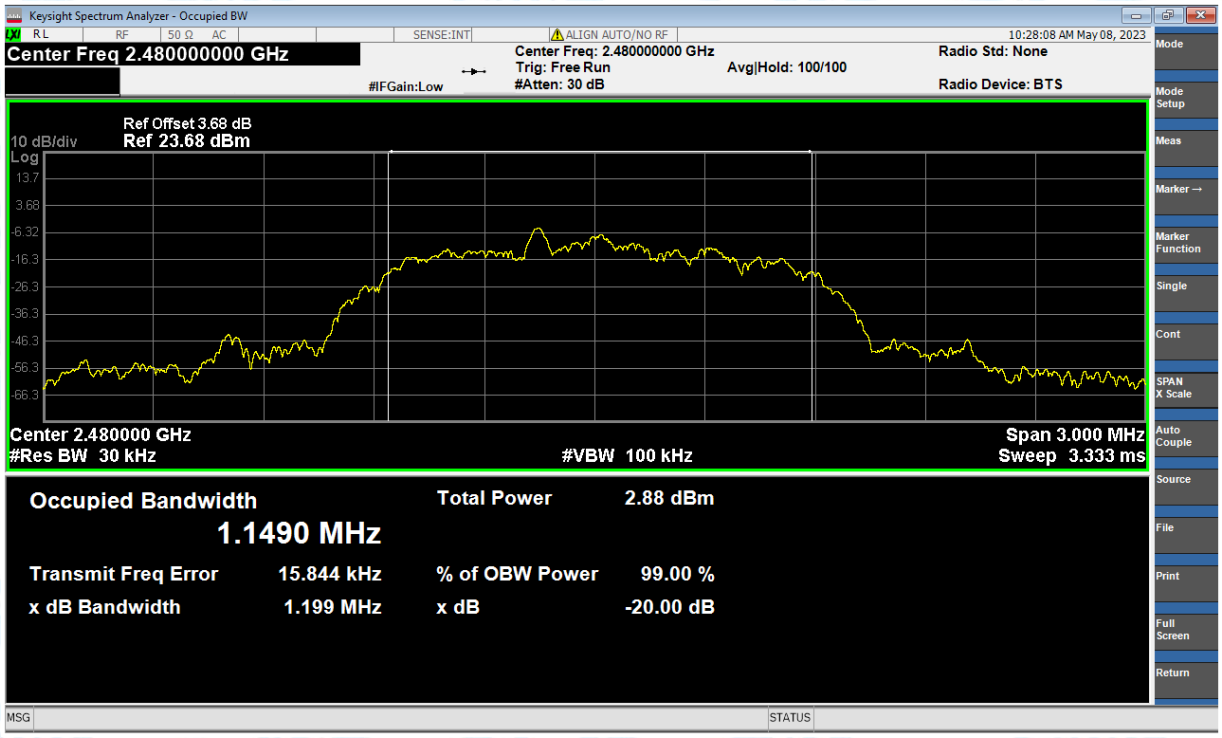
OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



OBW NVNT 3-DH1 2480MHz Ant1

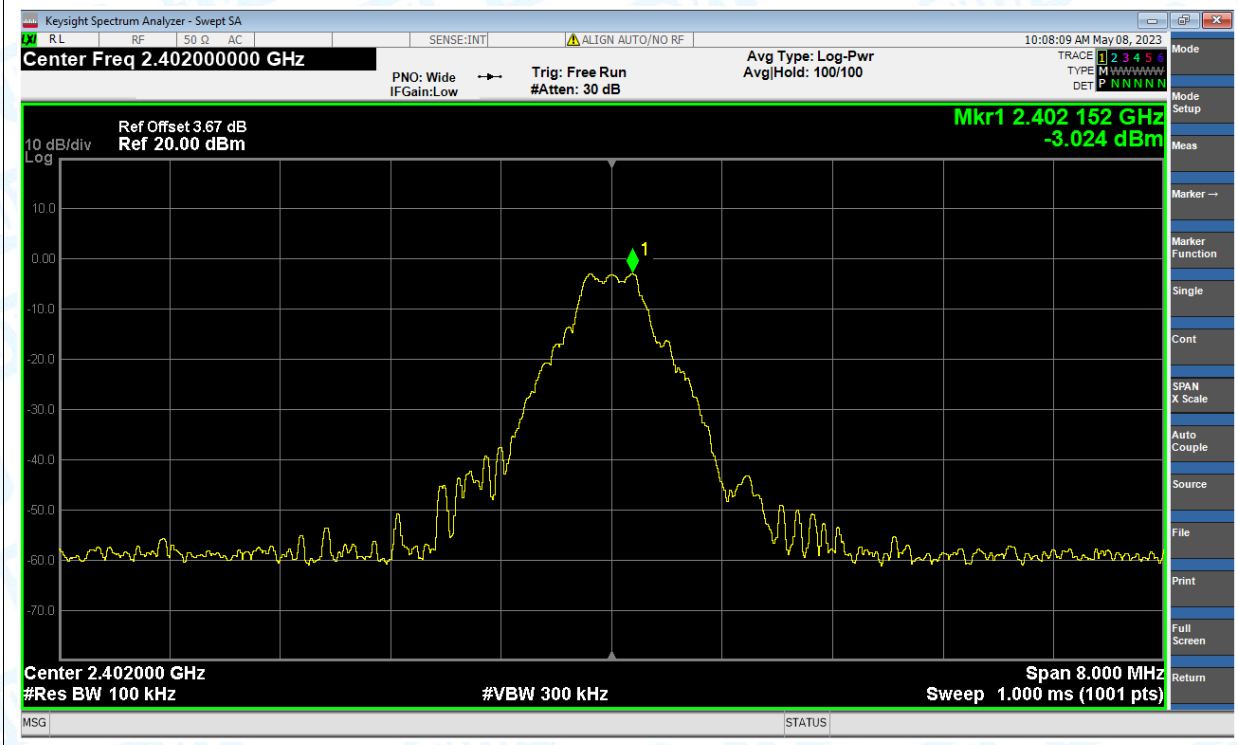


5. Band Edge

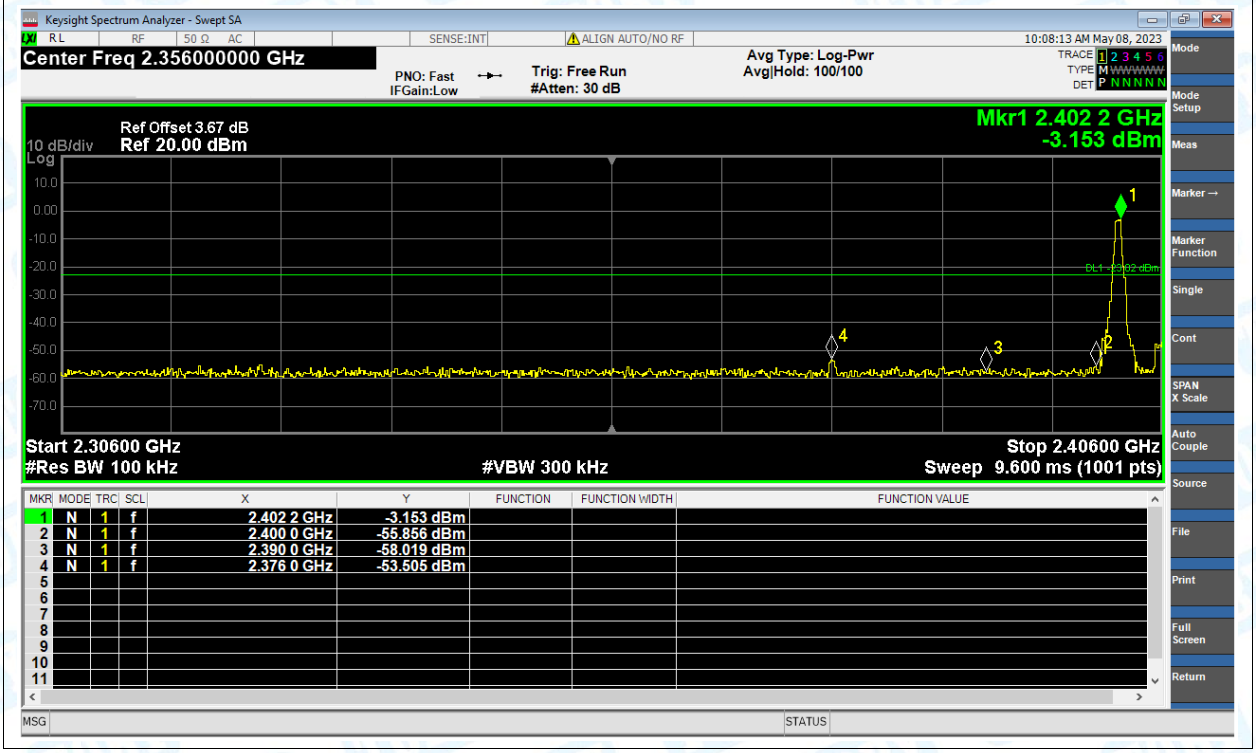
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-50.48	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-51.28	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-49.04	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-50.71	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-51.28	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-50.32	-20	Pass

Test Graphs

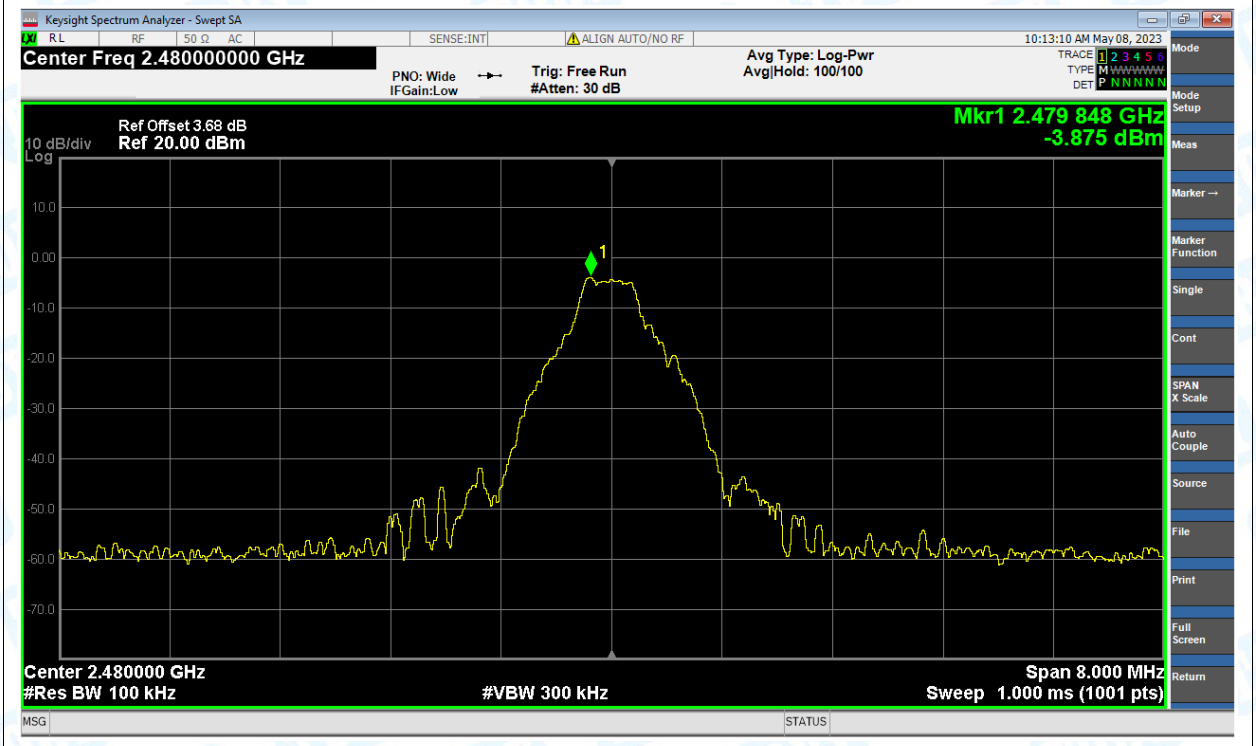
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



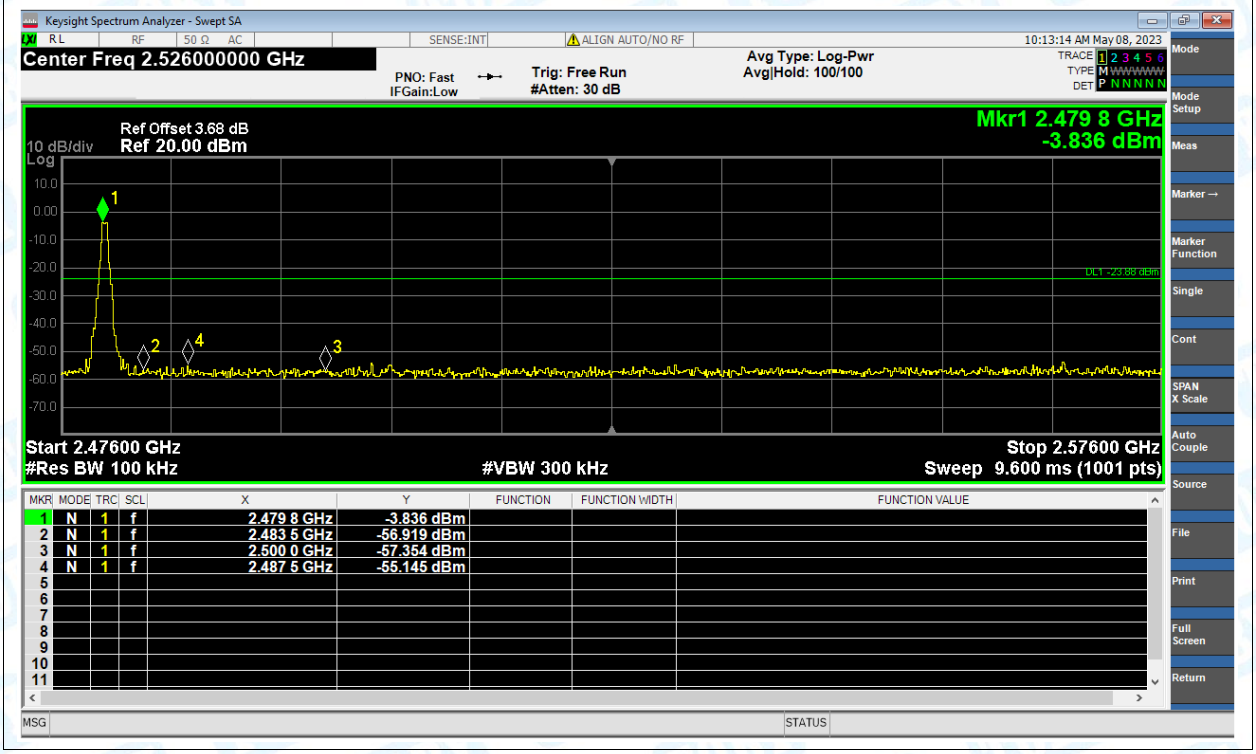
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



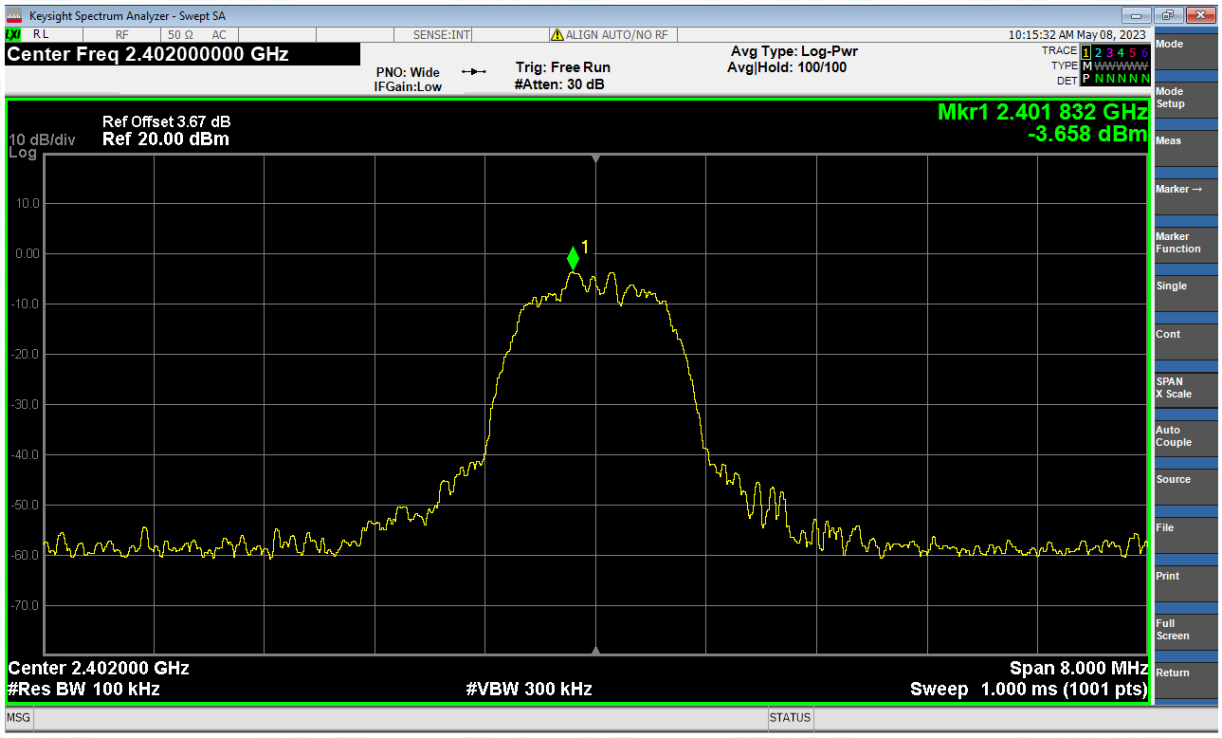
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



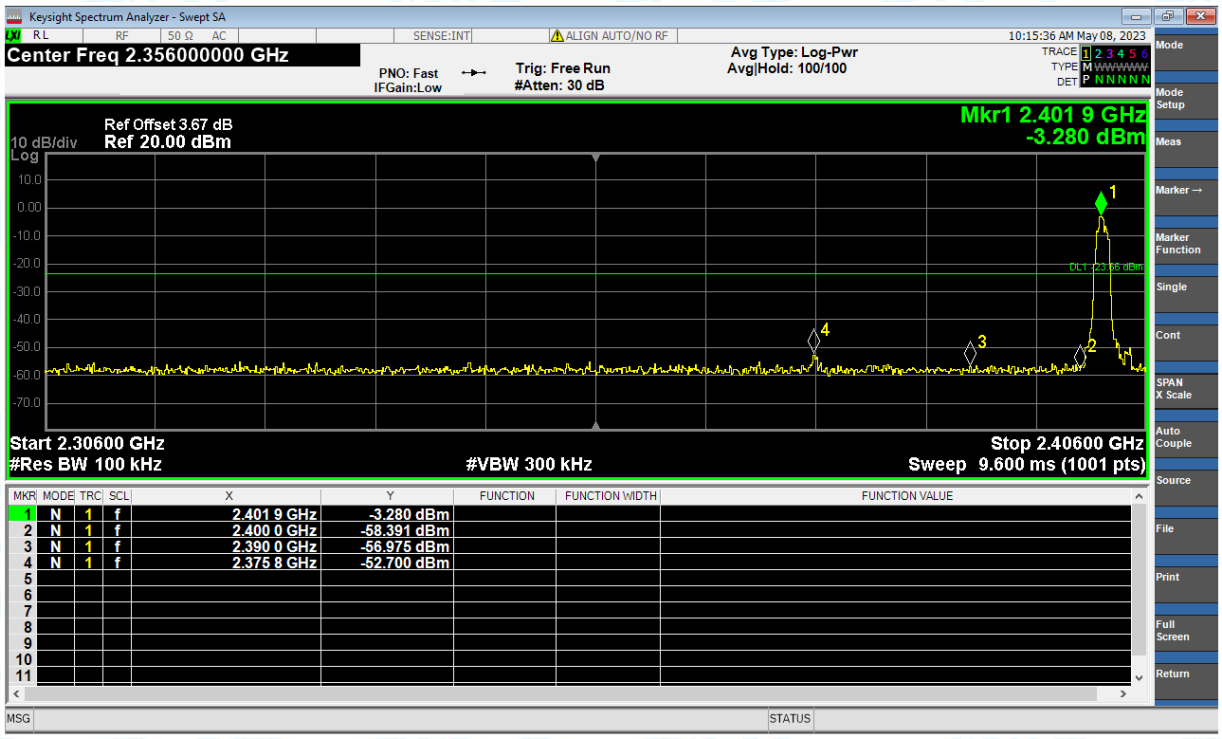
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



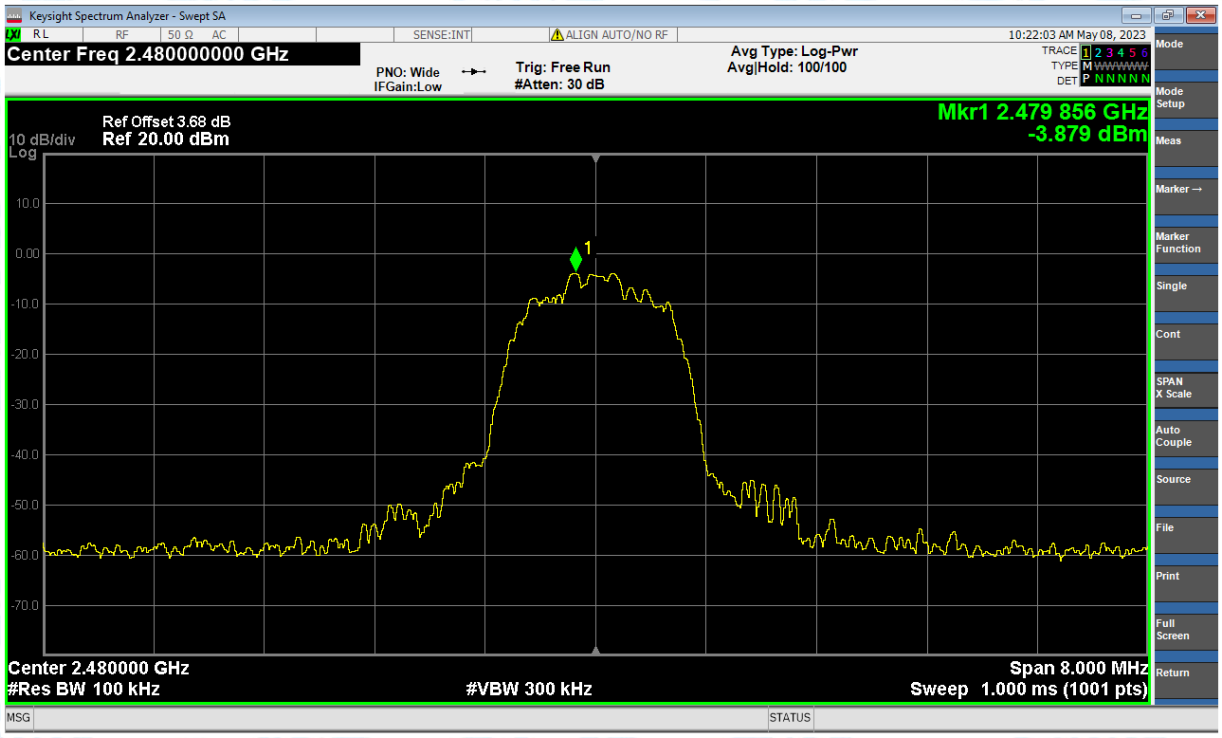
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



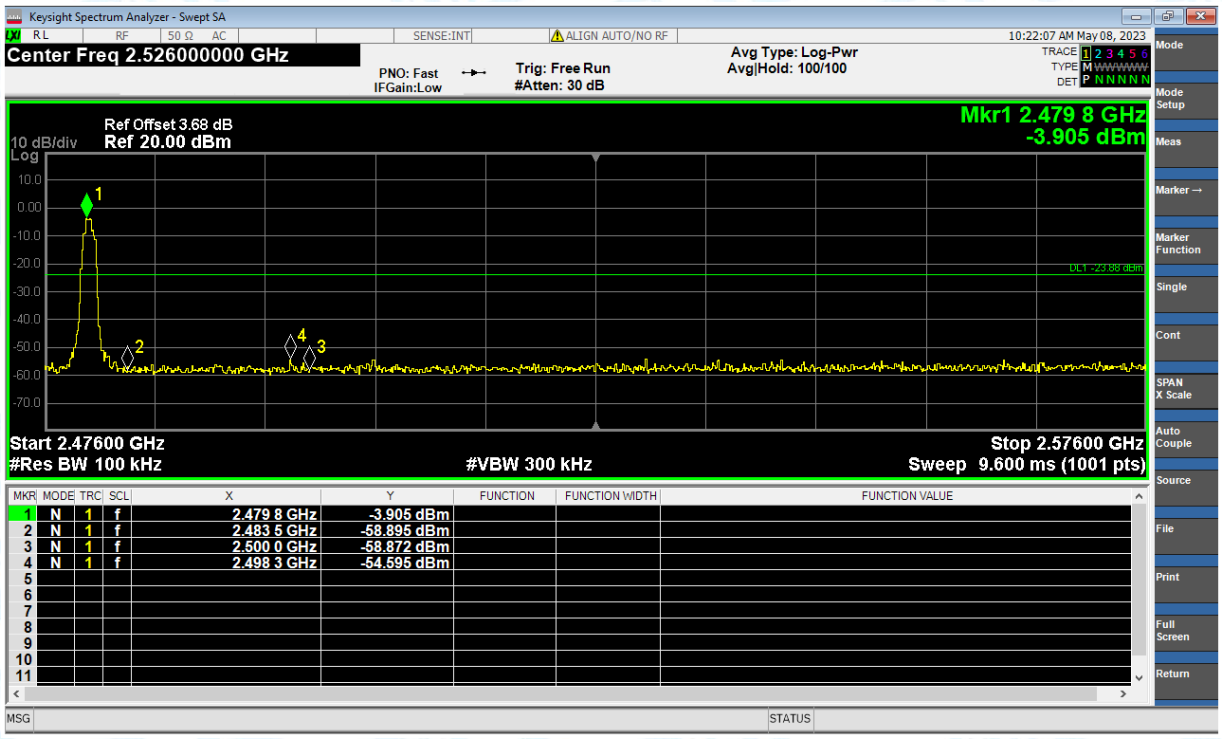
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



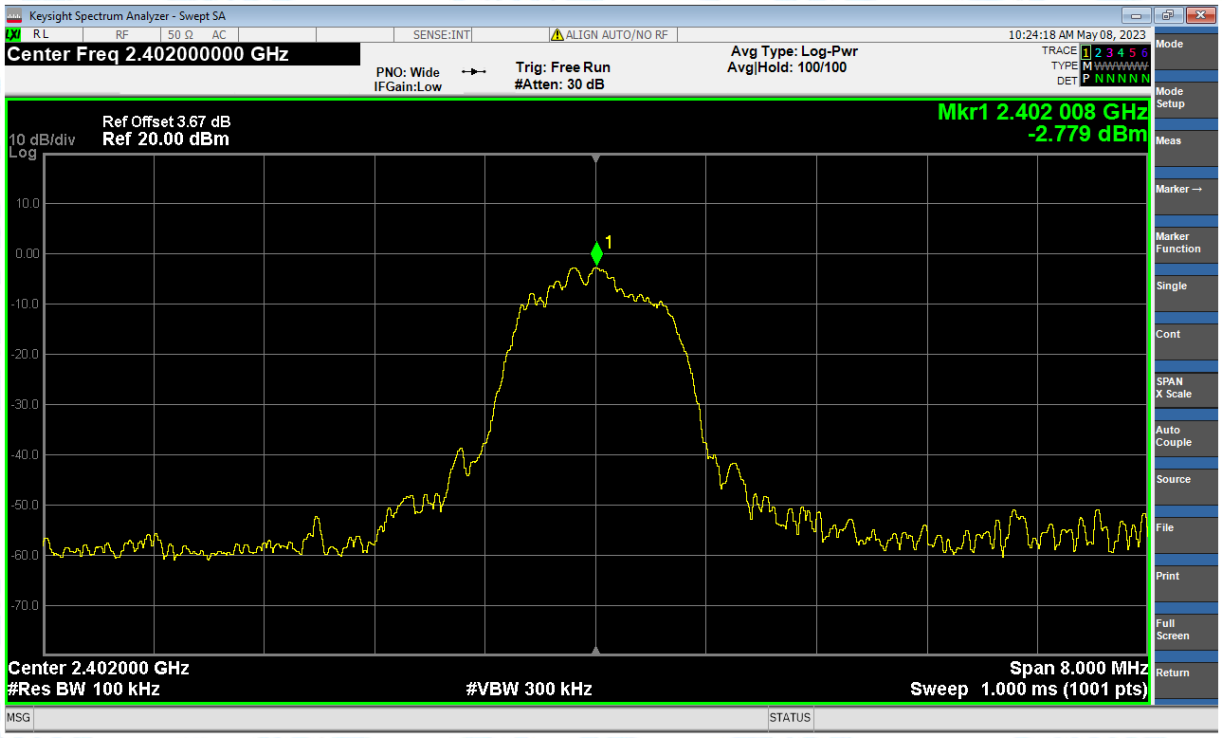
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



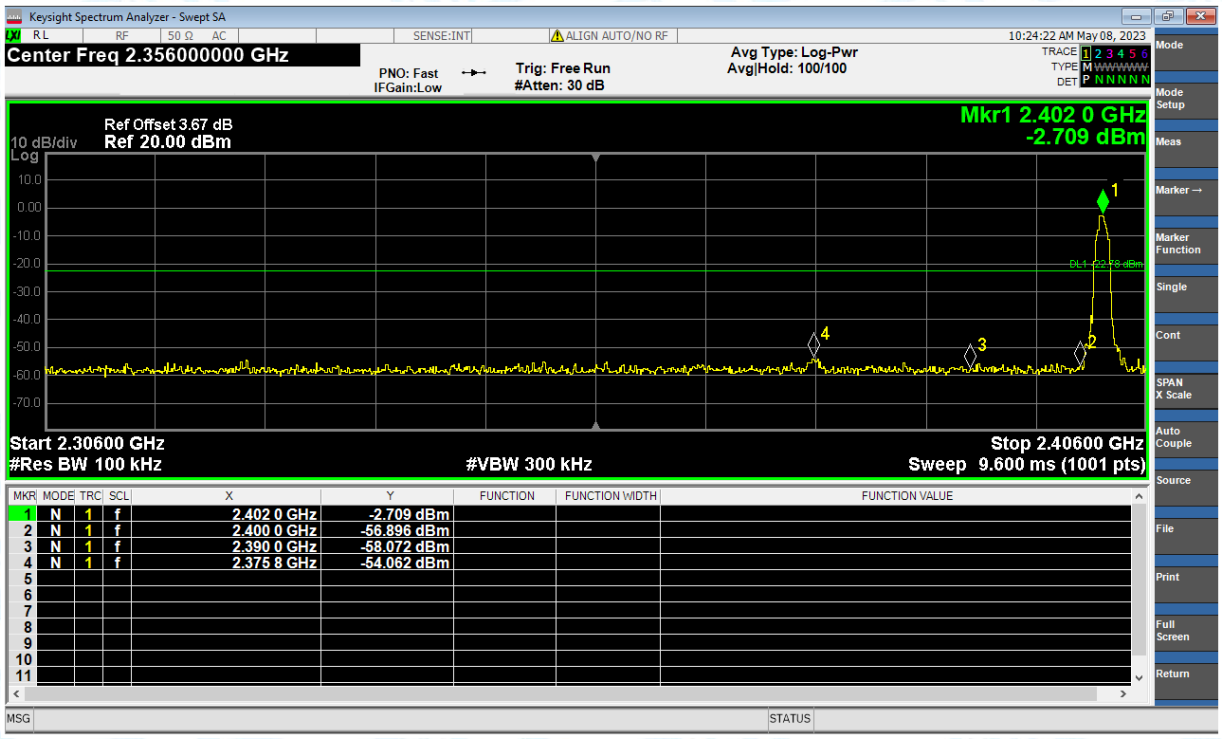
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



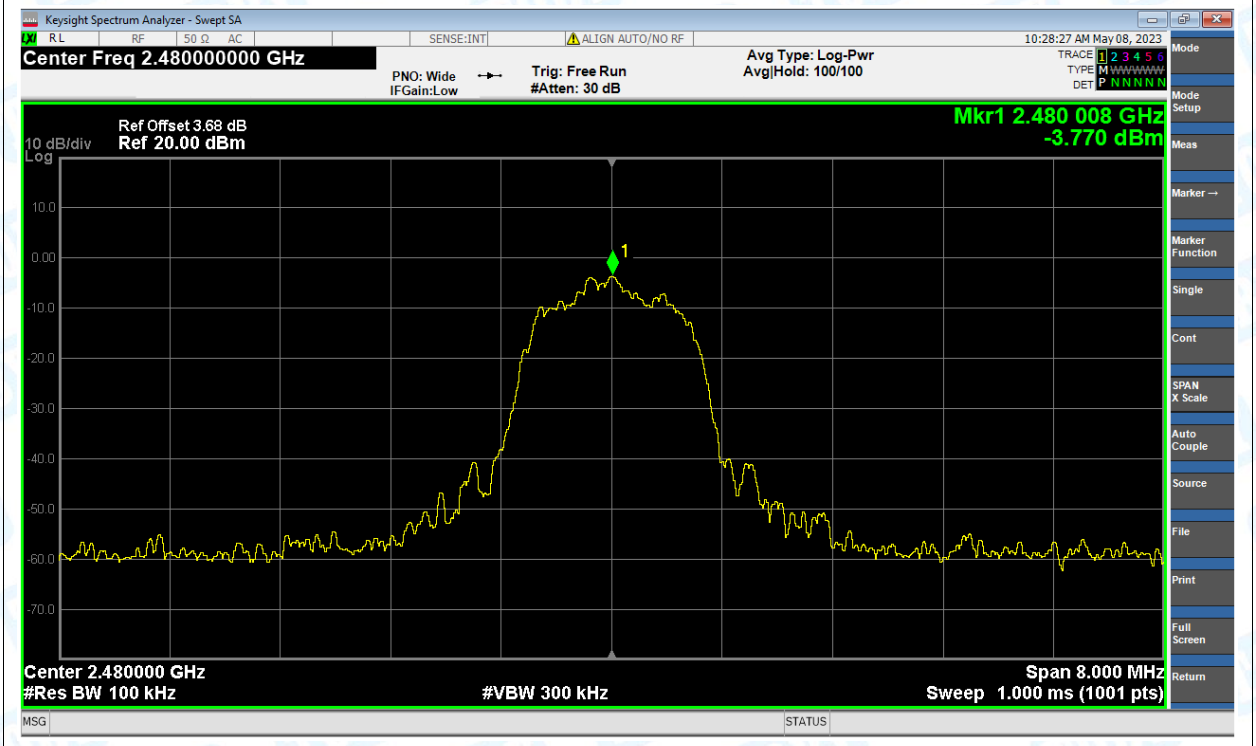
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



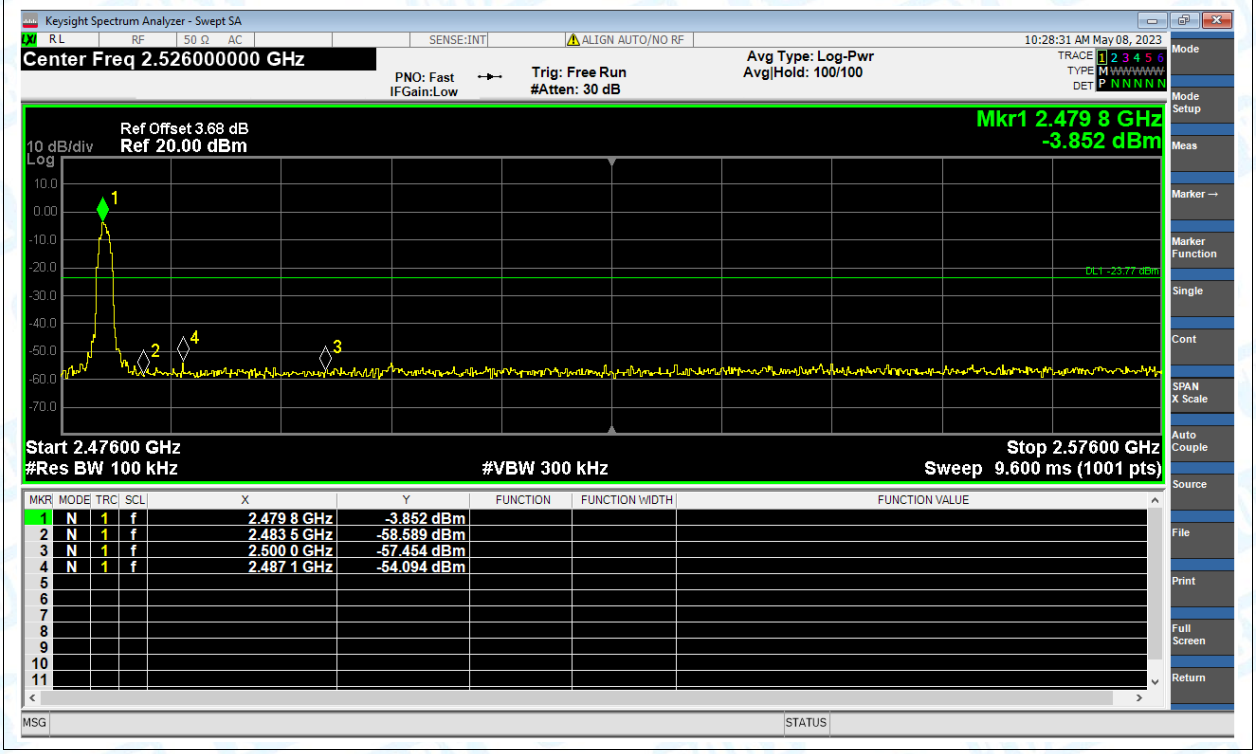
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

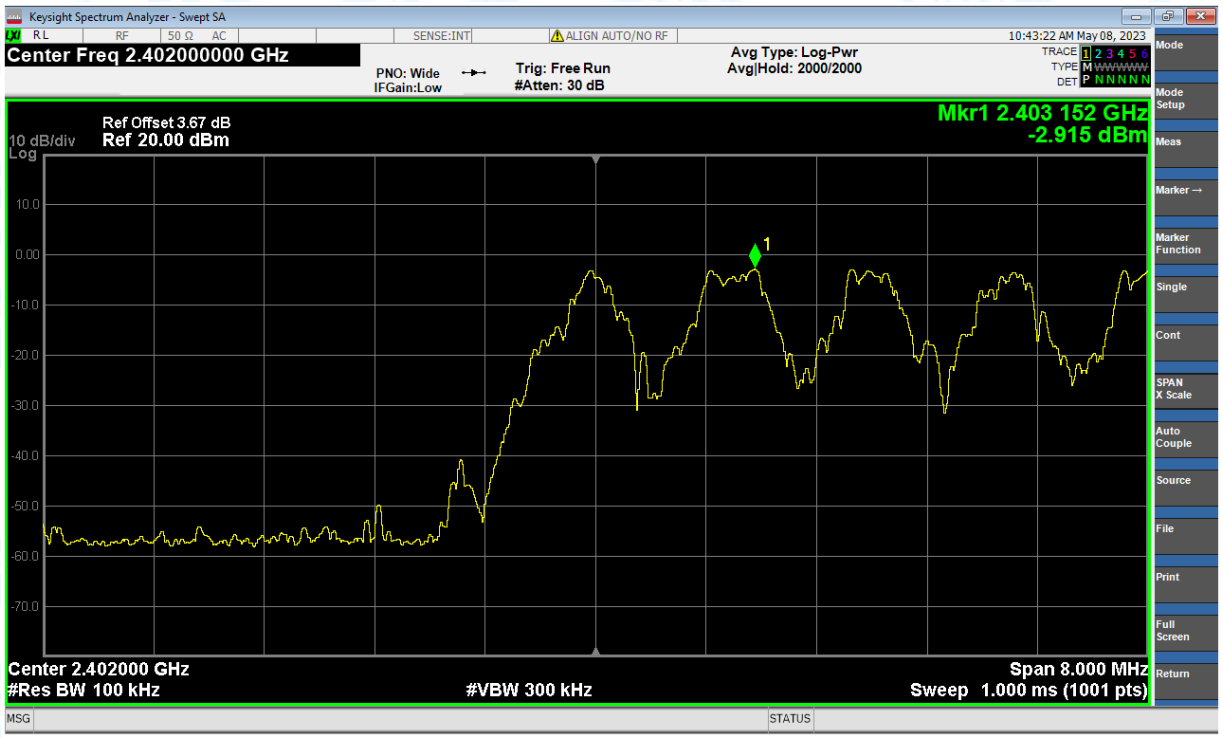


6. Band Edge(Hopping)

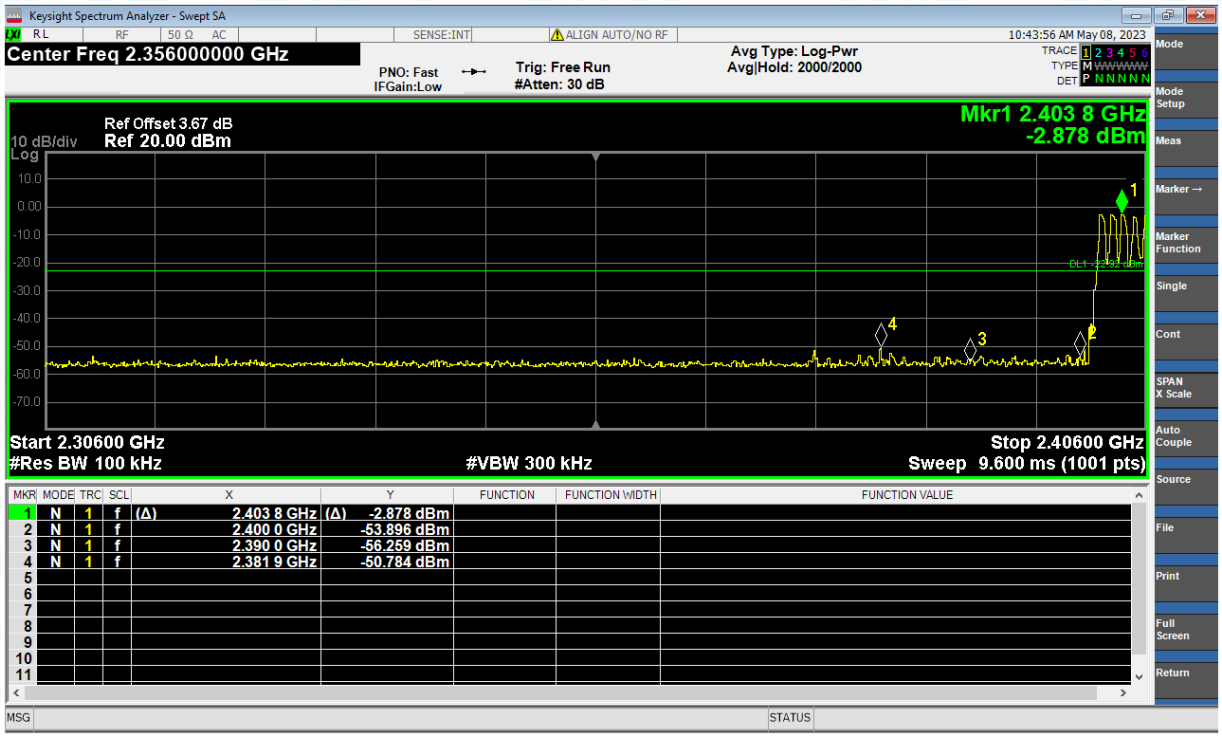
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-47.87	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-50.28	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-49.07	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-49.26	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-48.51	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-50.55	-20	Pass

Test Graphs

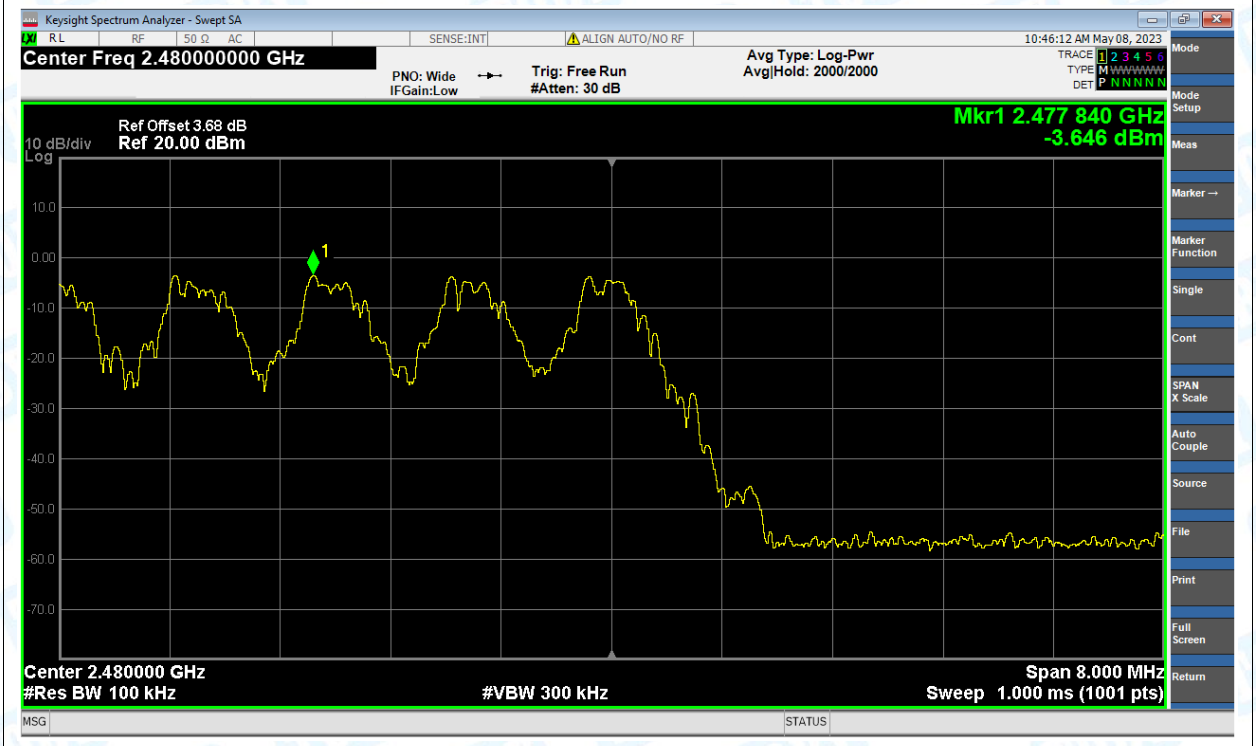
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



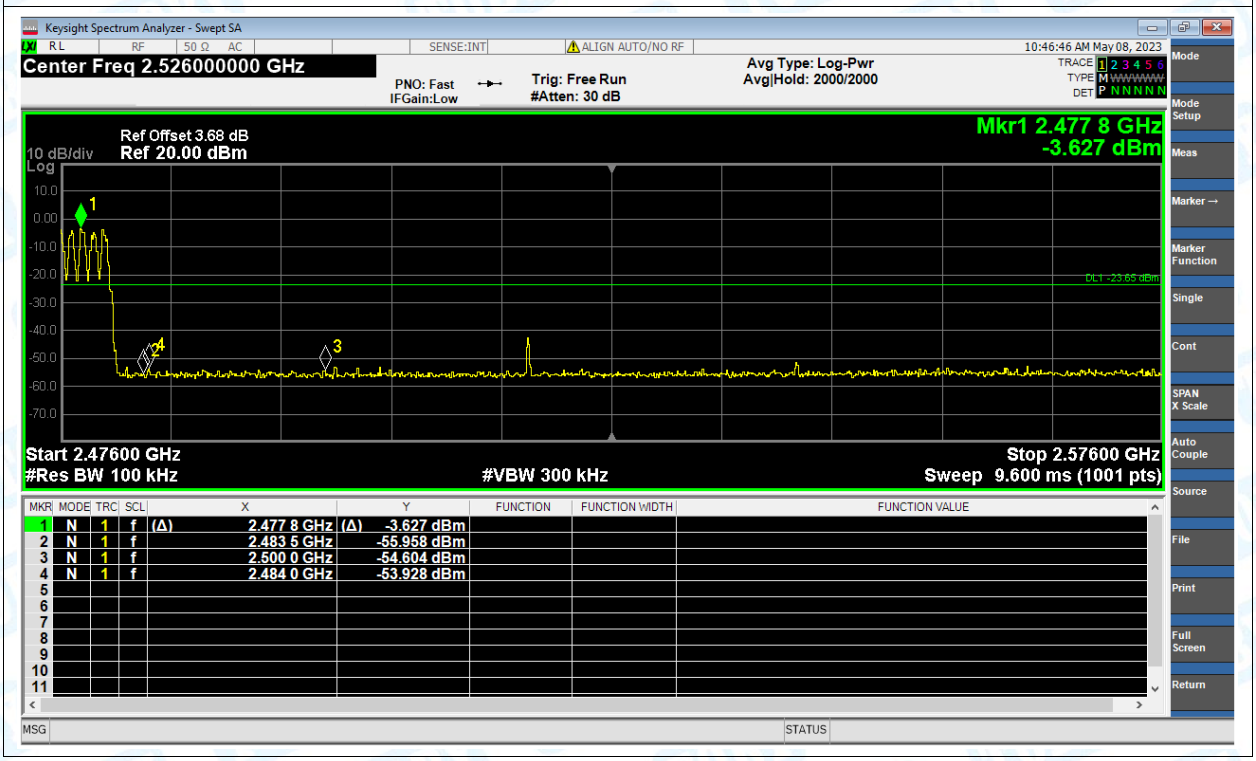
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



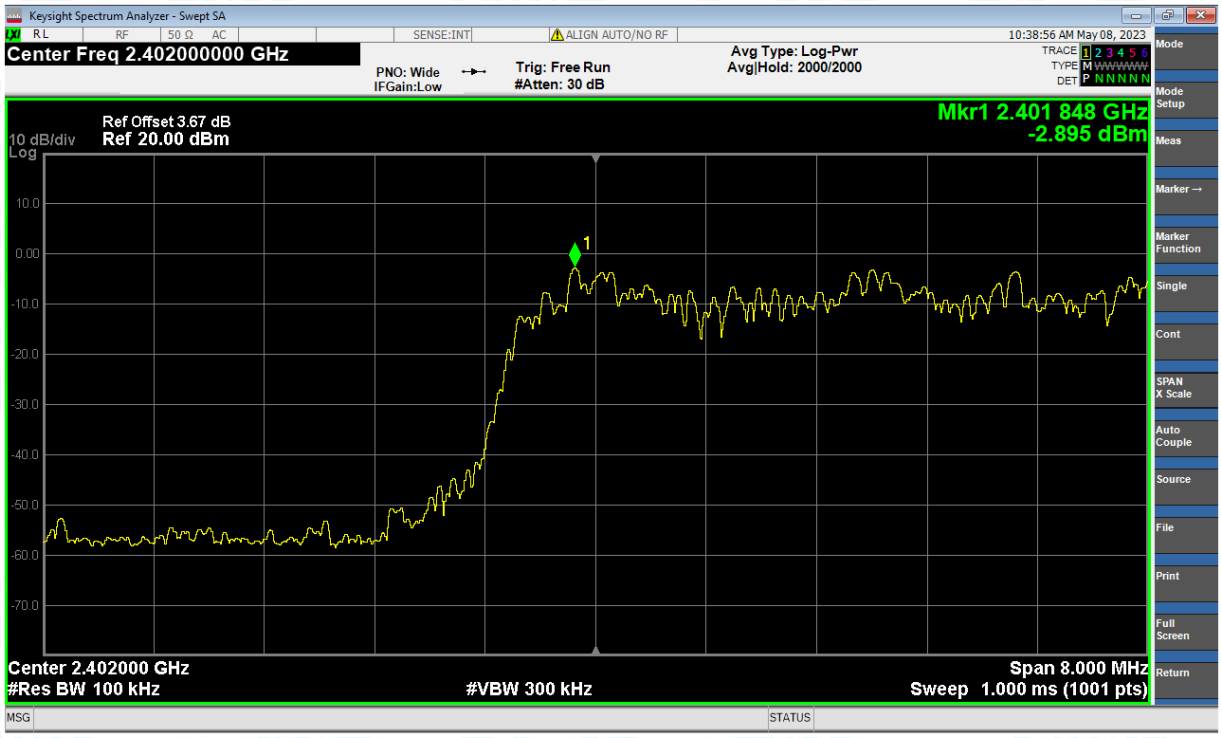
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



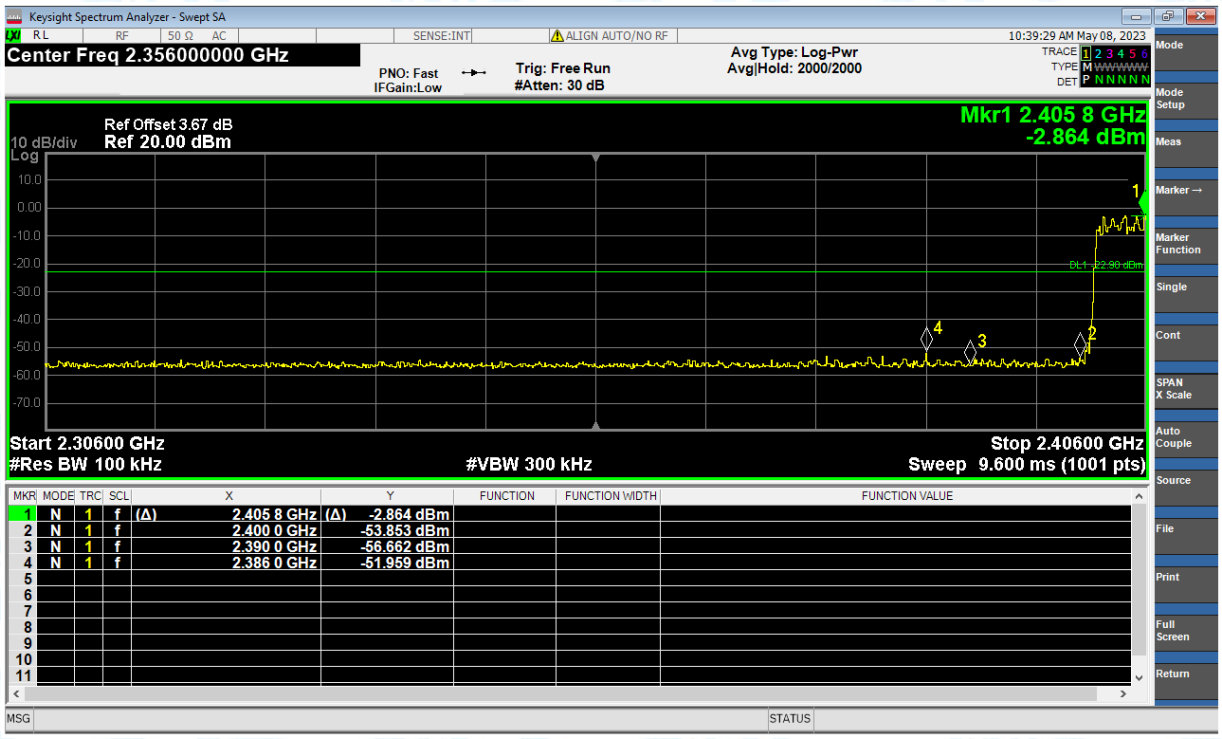
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



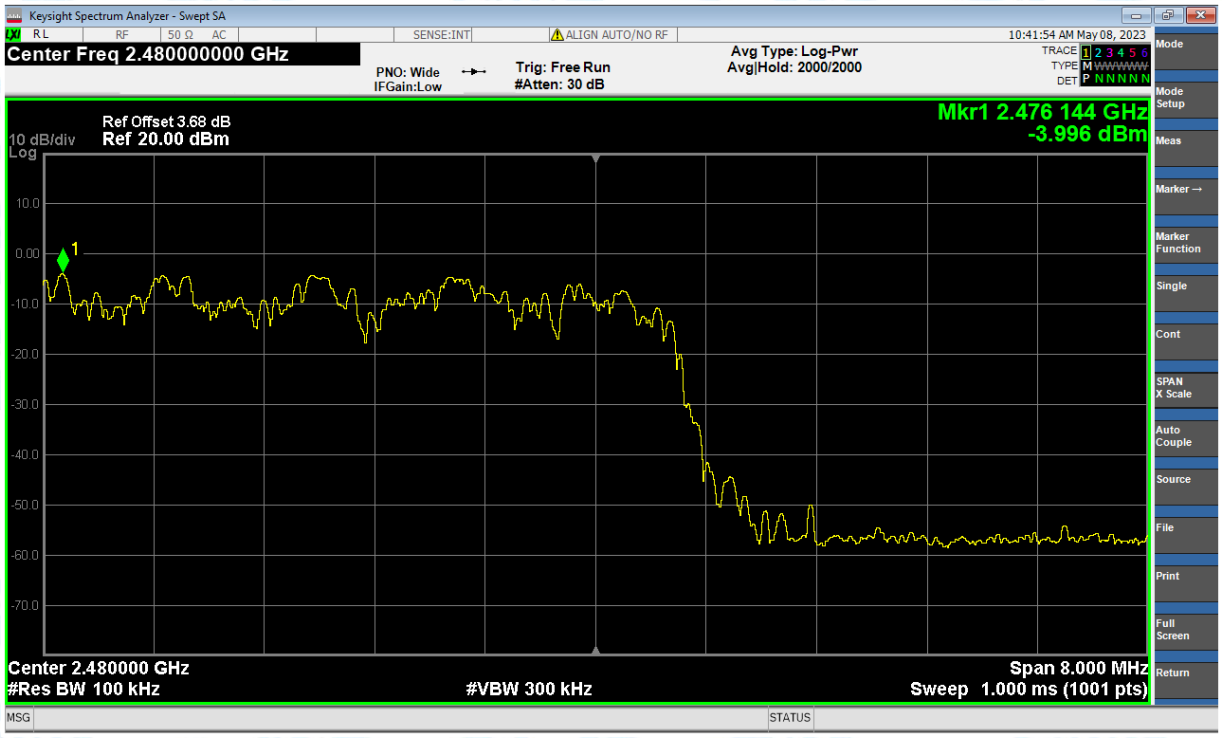
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



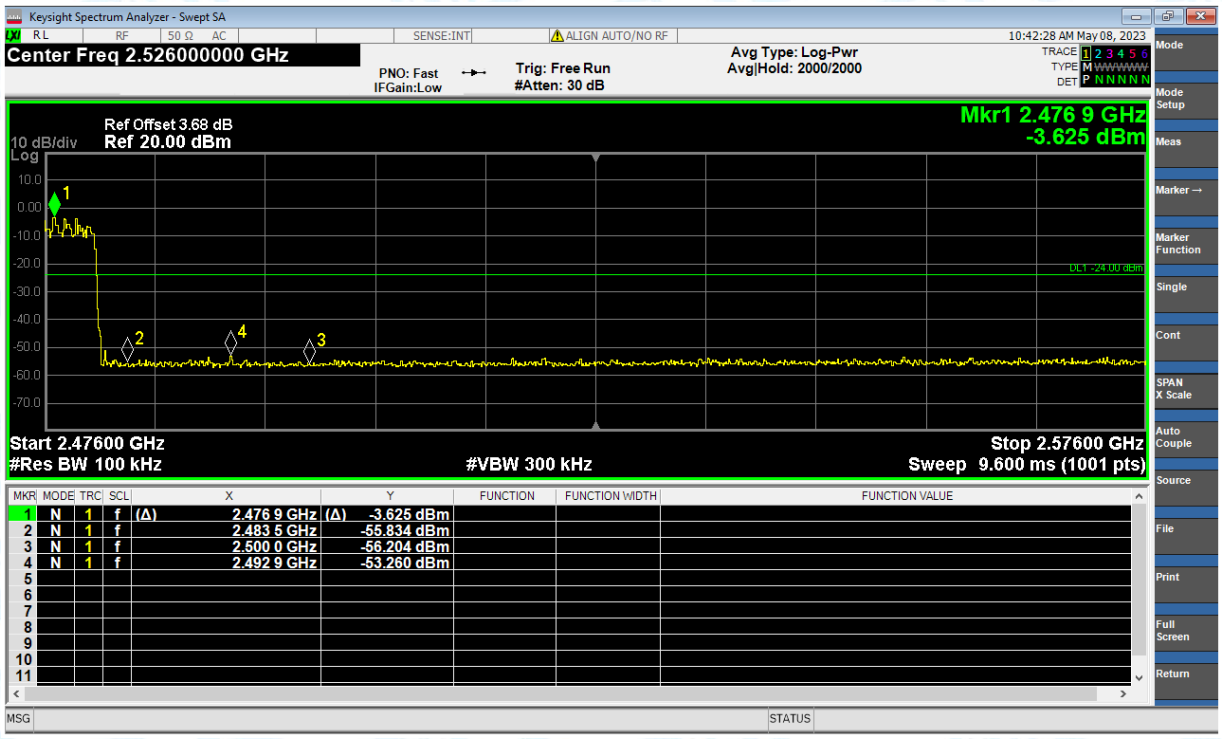
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



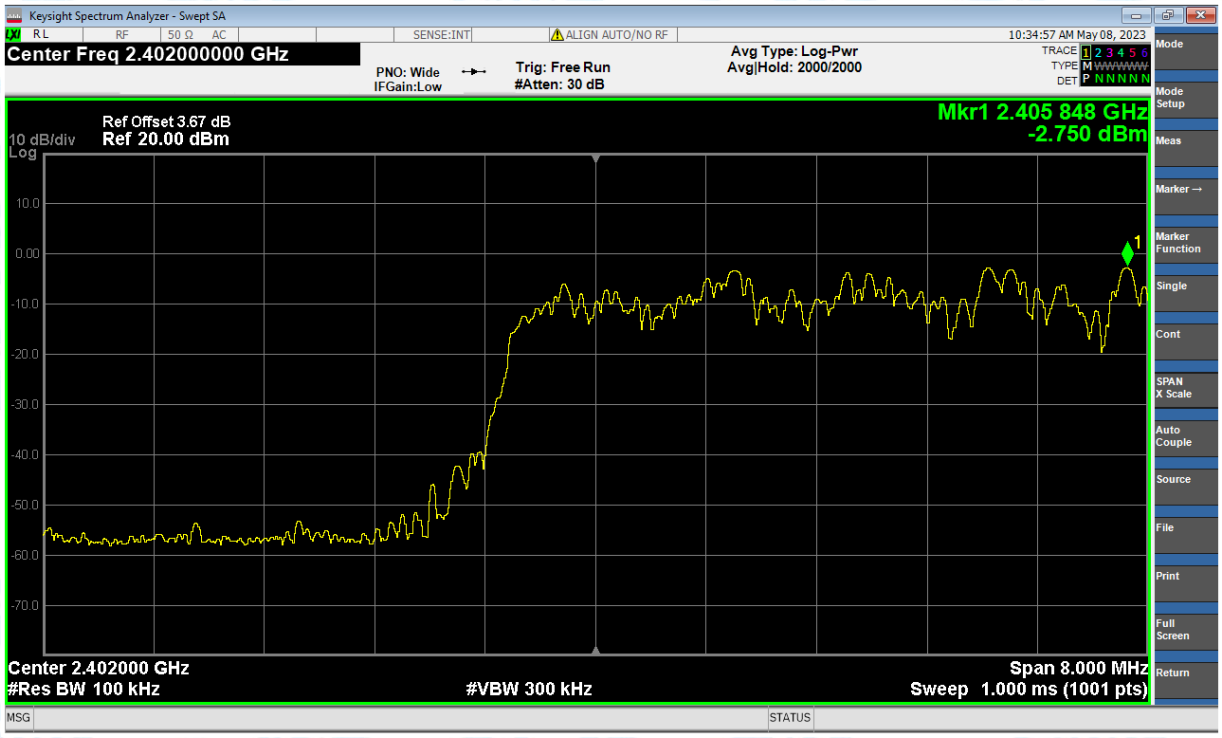
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



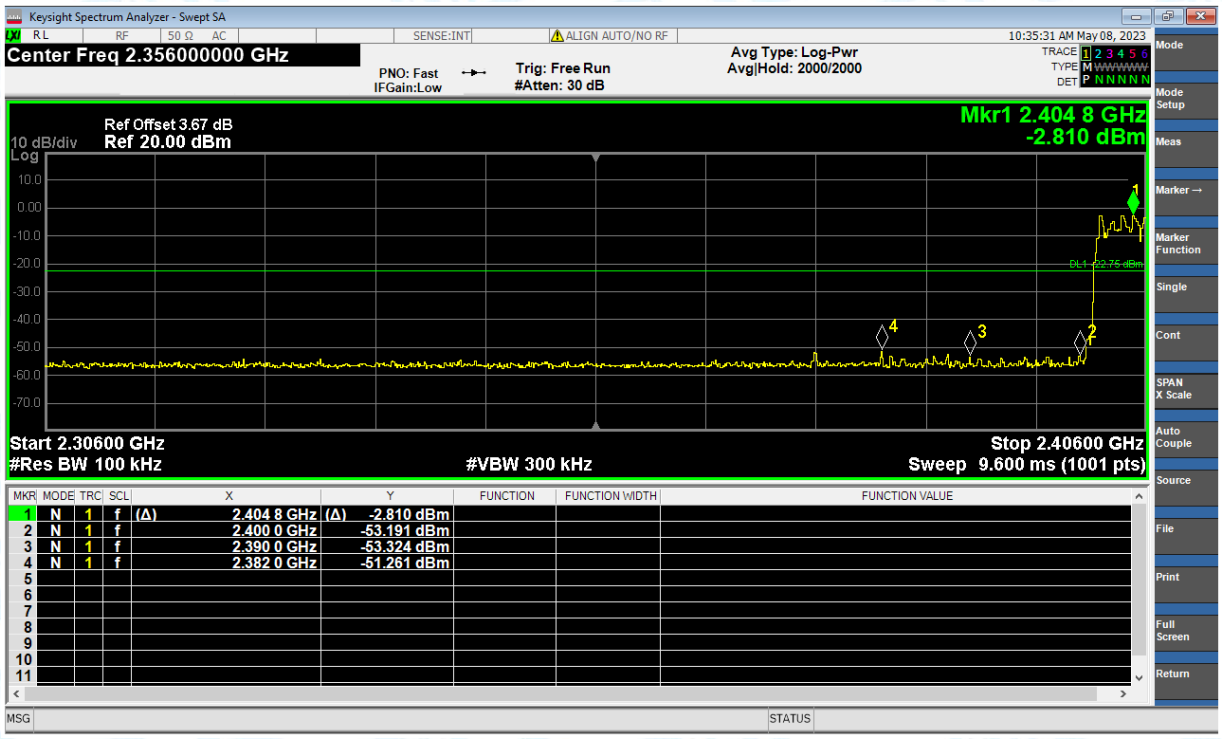
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



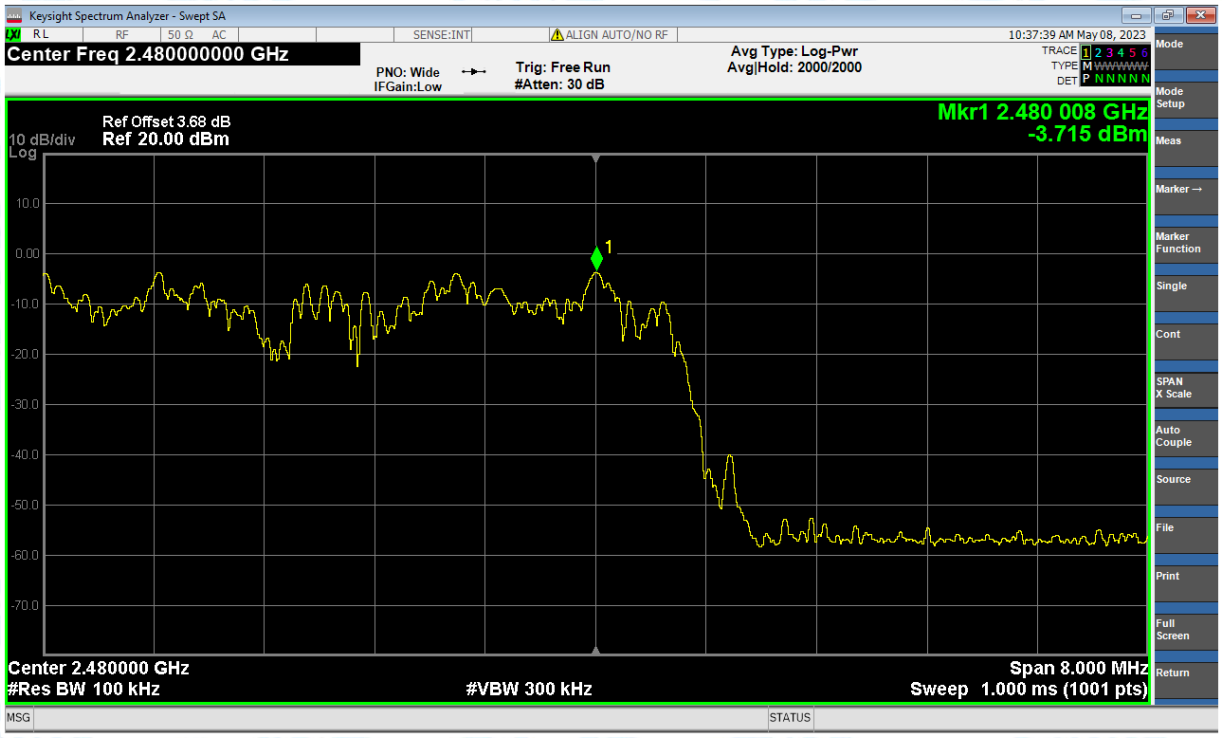
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



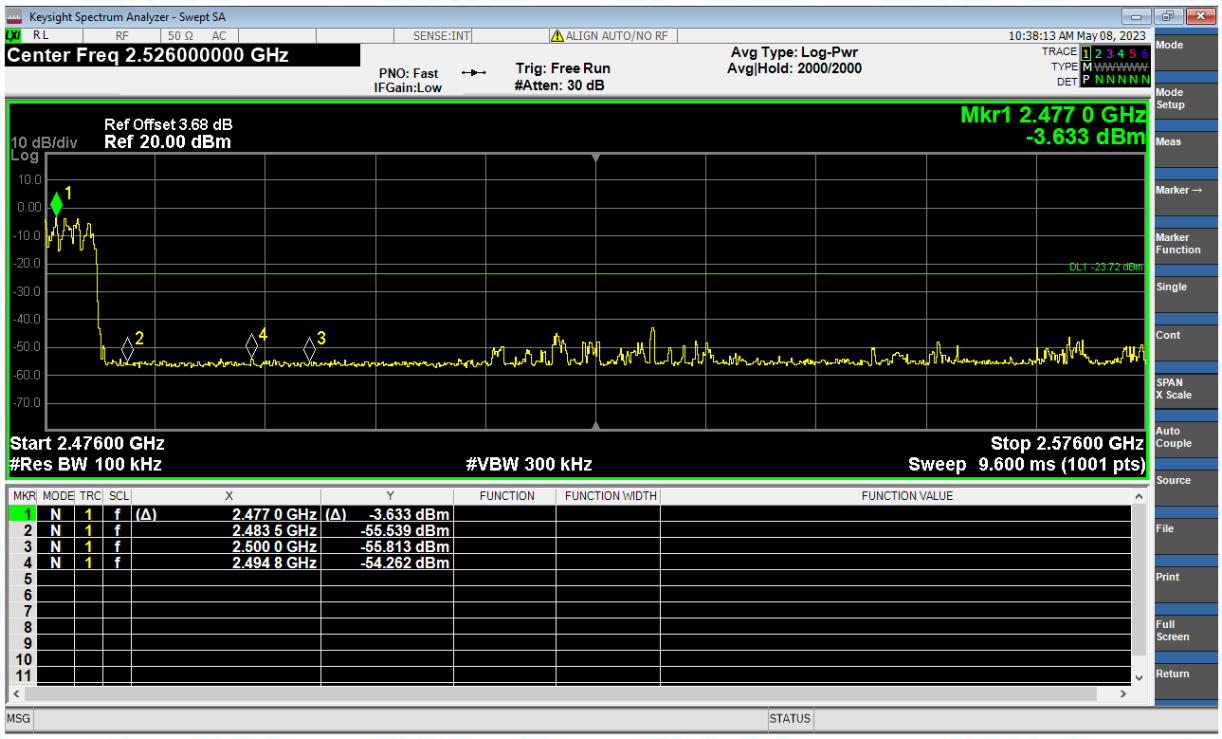
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

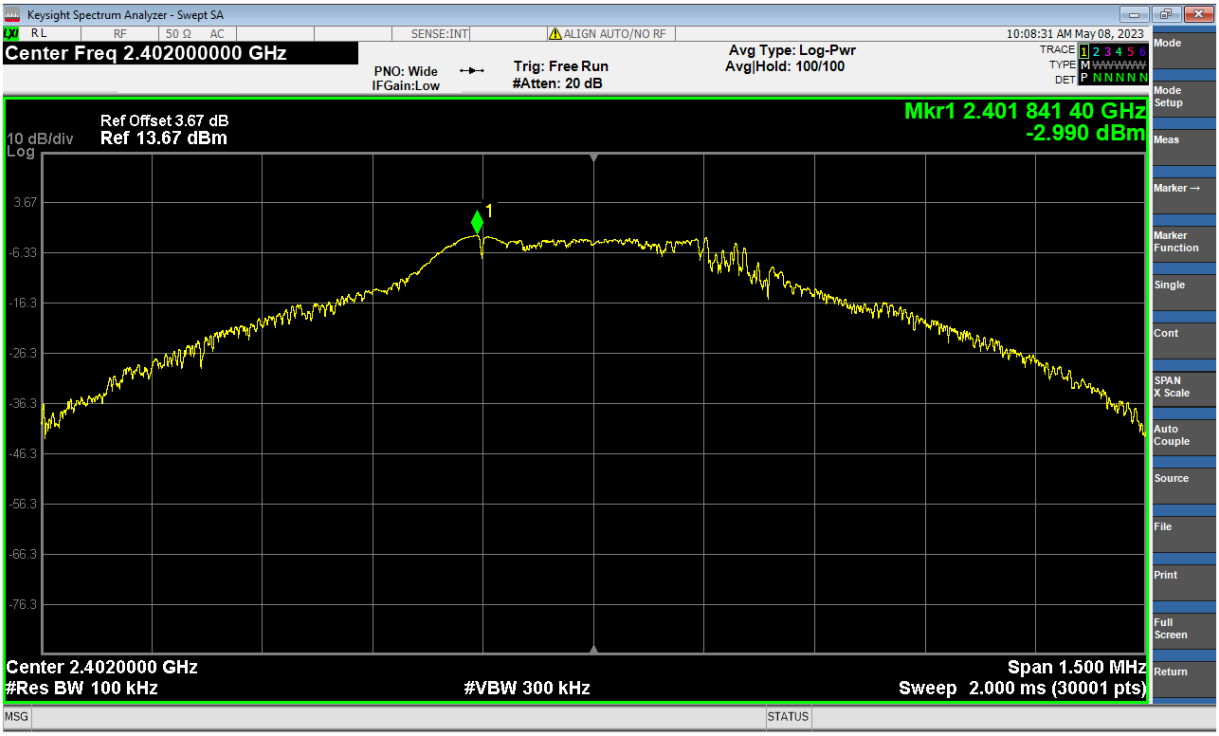


7. Conducted RF Spurious Emission

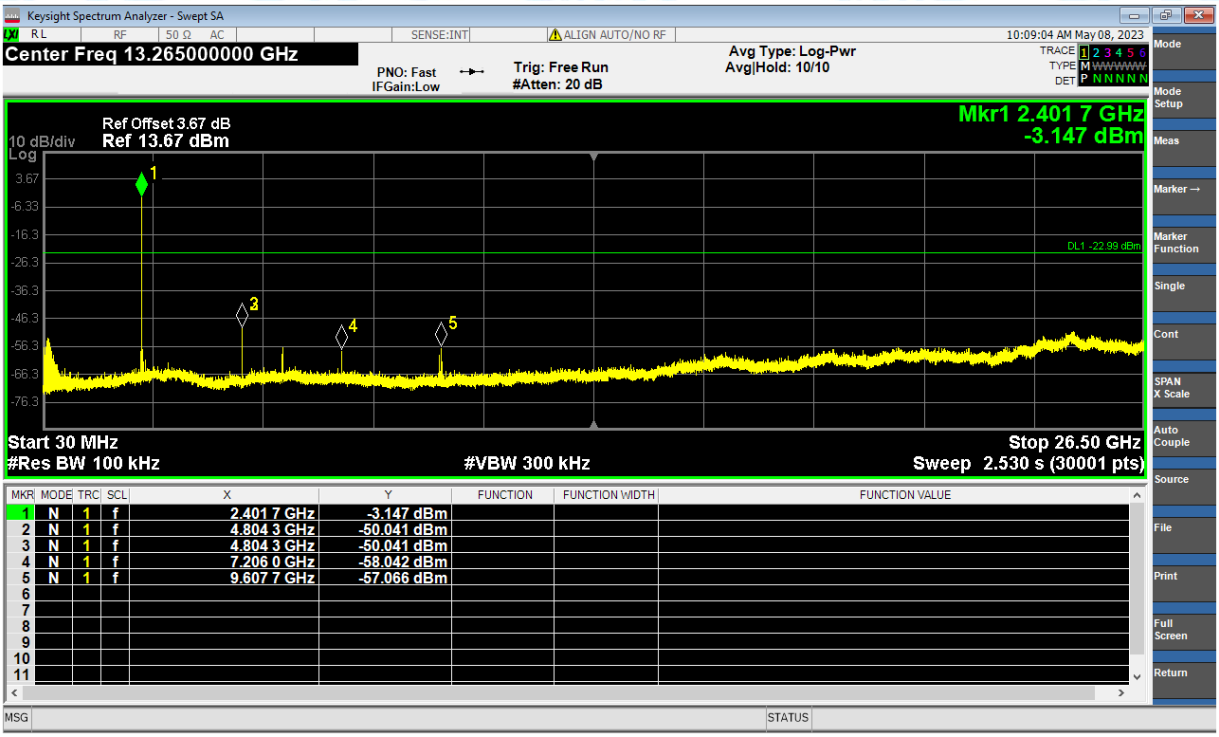
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-47.05	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.97	-20	Pass
NVNT	1-DH1	2480	Ant1	-43.99	-20	Pass
NVNT	2-DH1	2402	Ant1	-46.41	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.97	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.65	-20	Pass
NVNT	3-DH1	2402	Ant1	-47.75	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.29	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.98	-20	Pass

Test Graphs

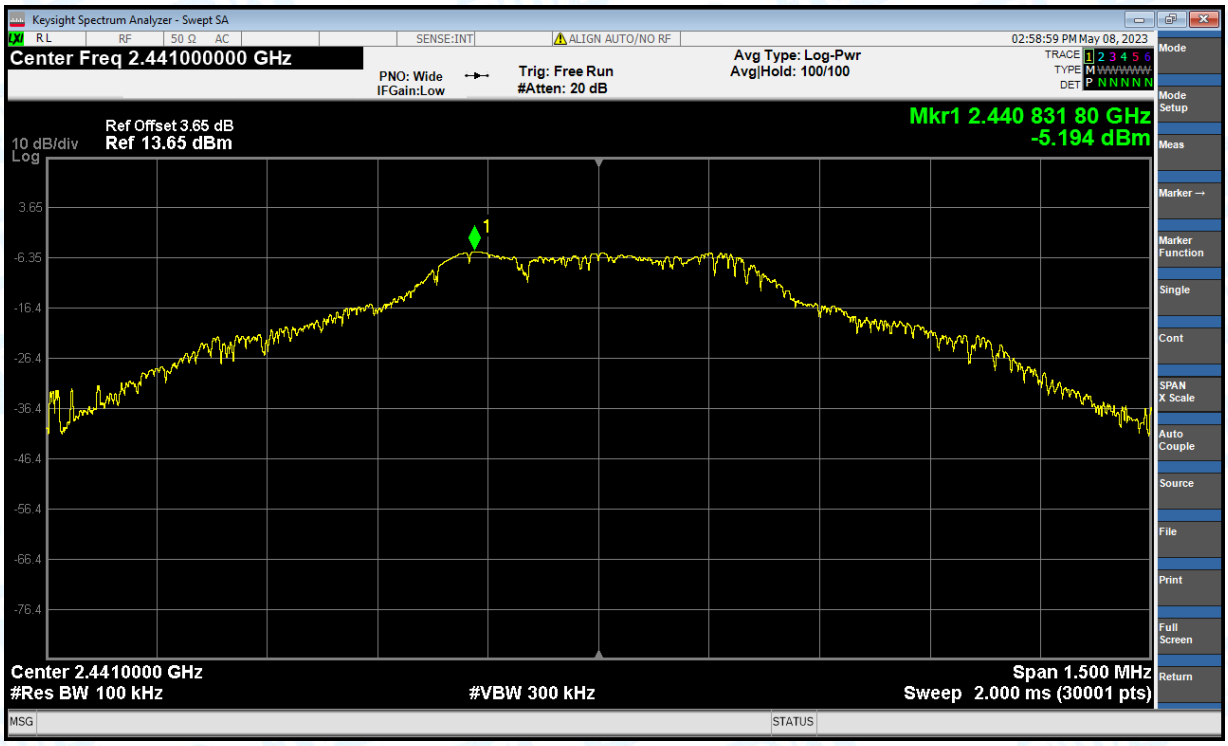
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



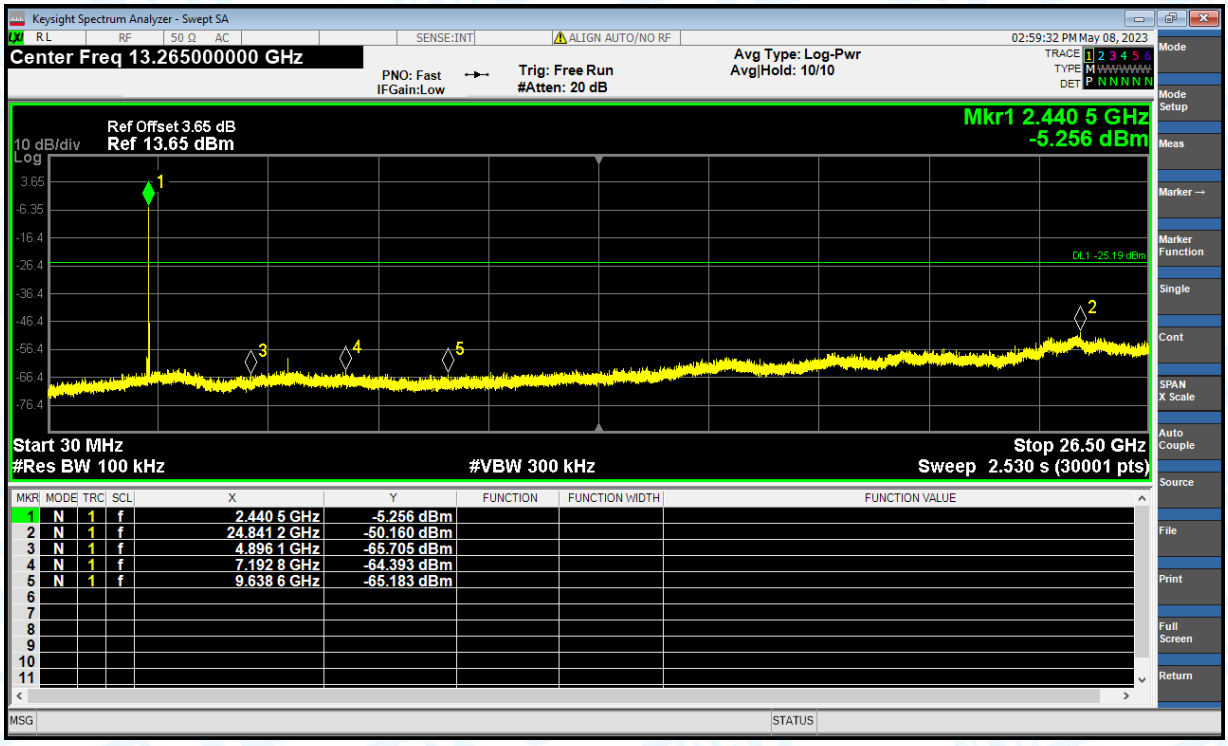
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



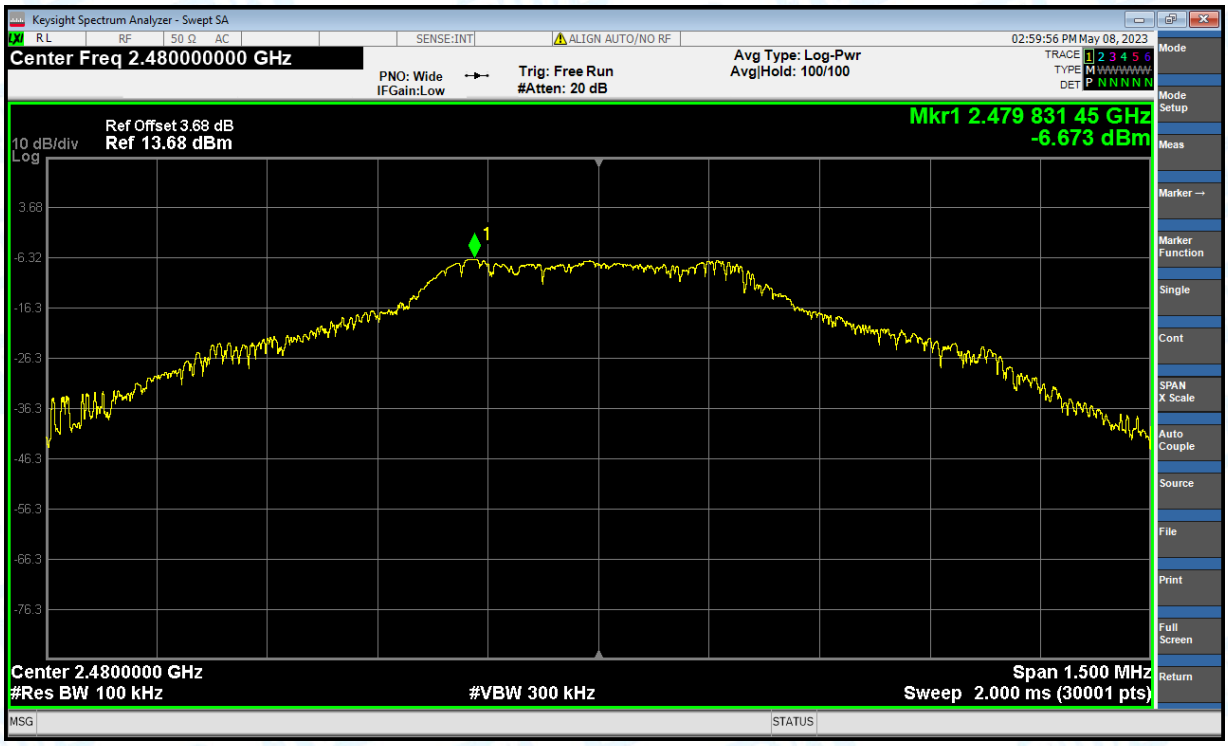
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission

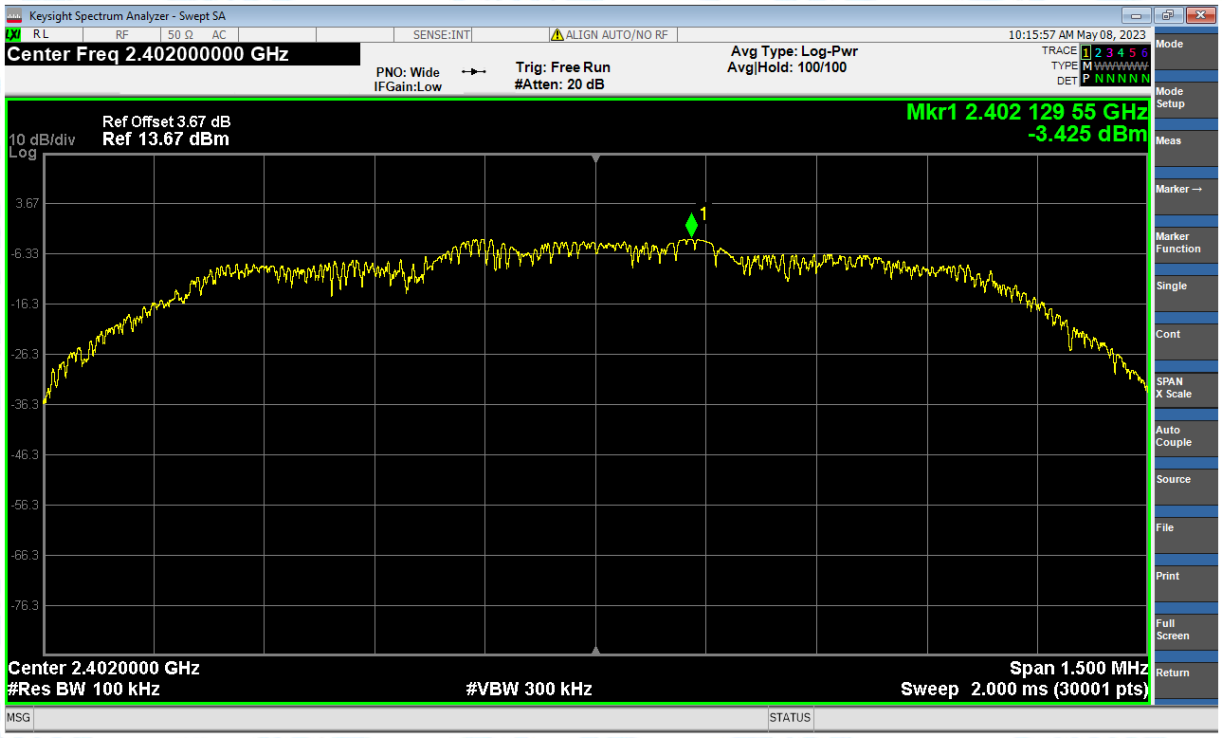


Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref

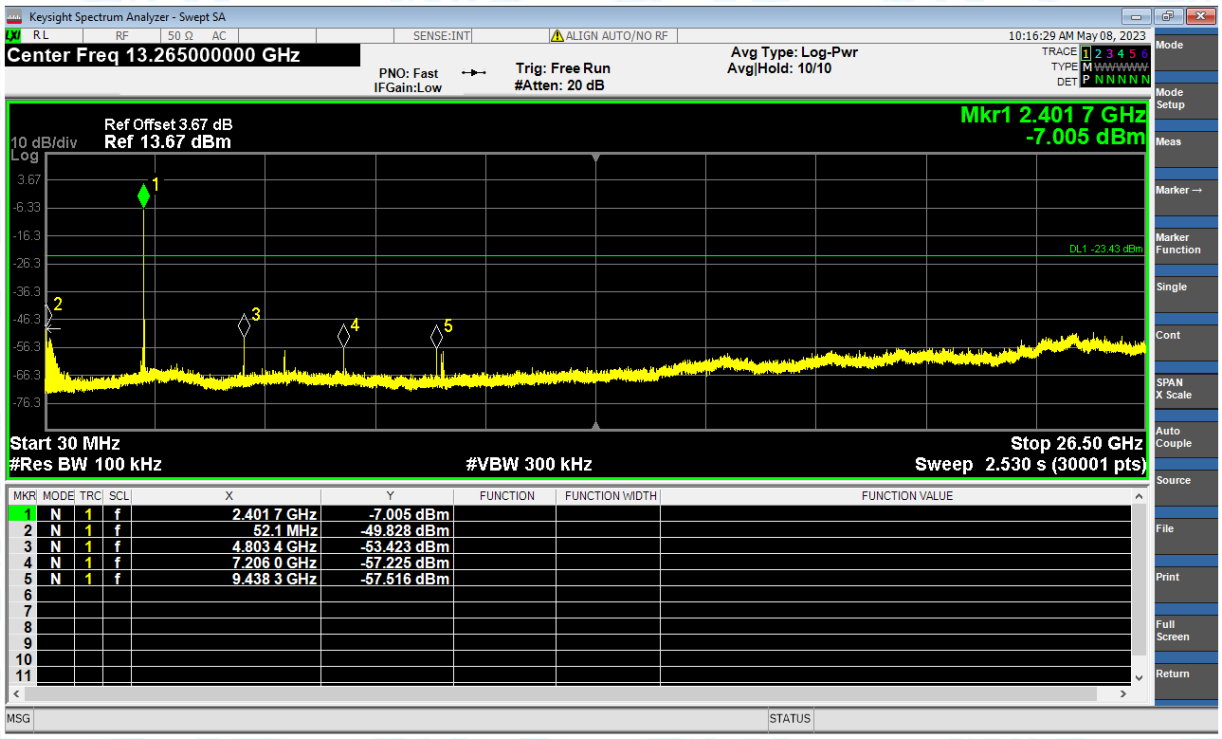


Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission

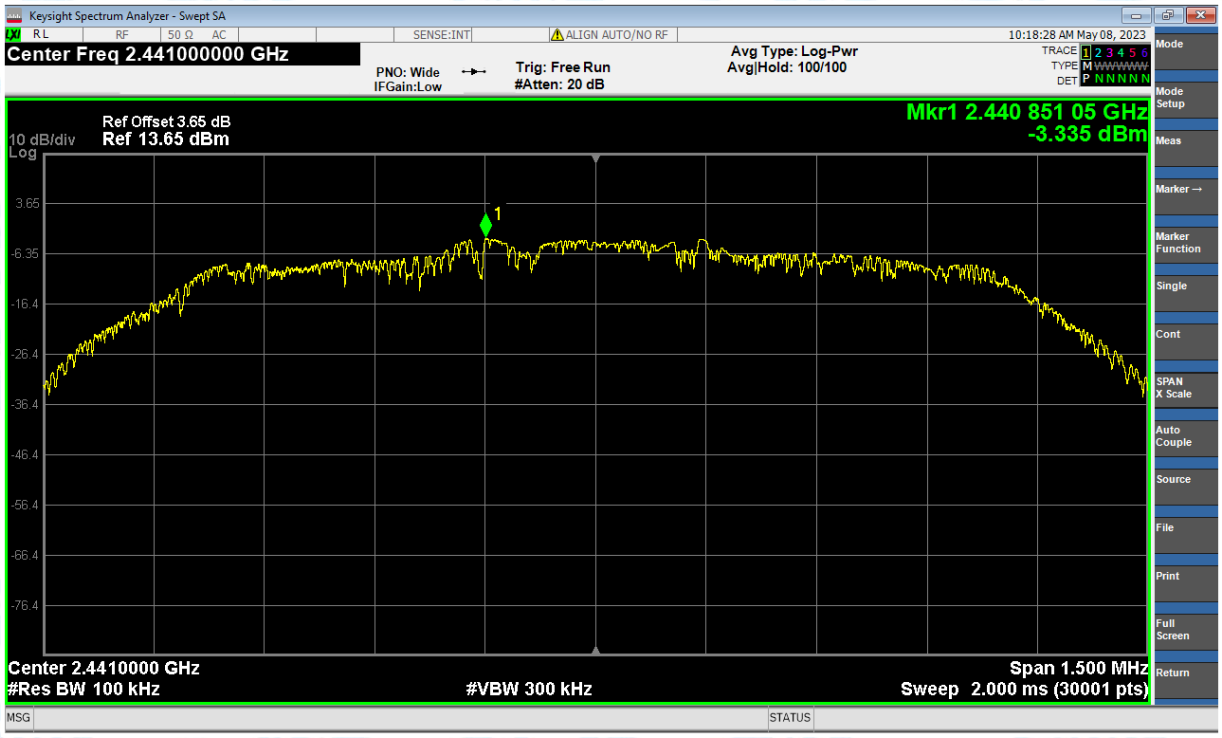
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



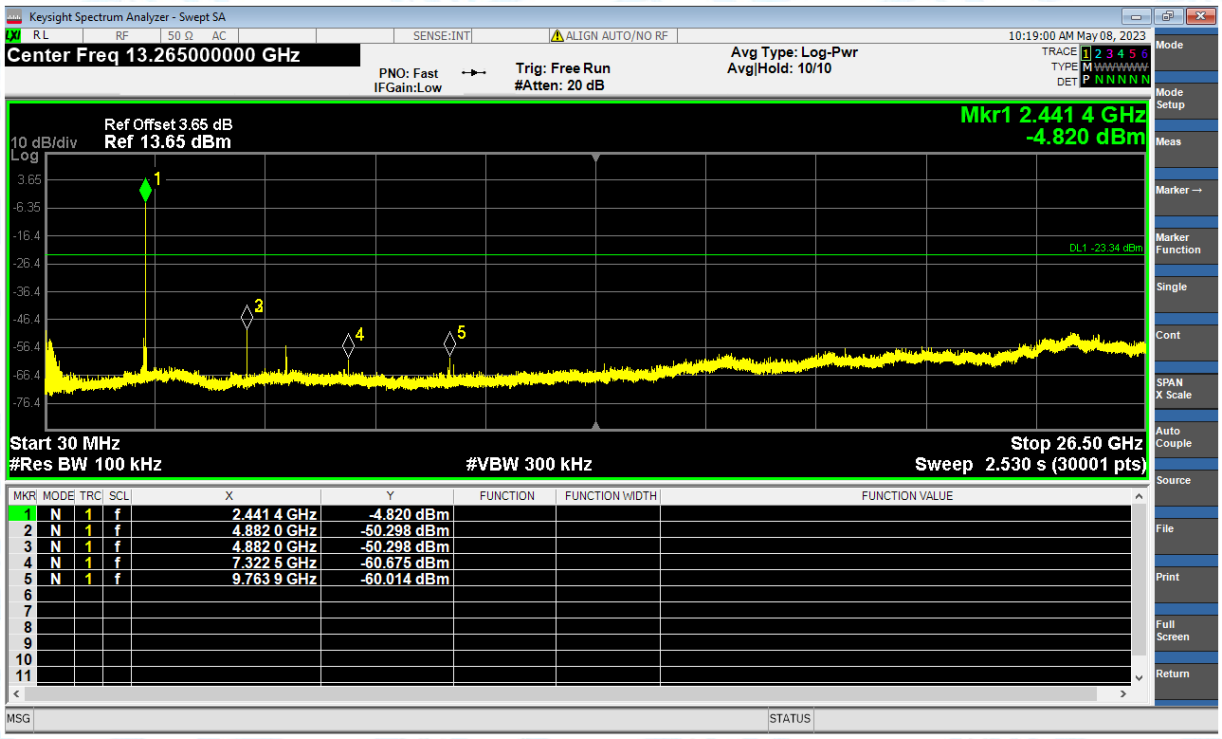
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



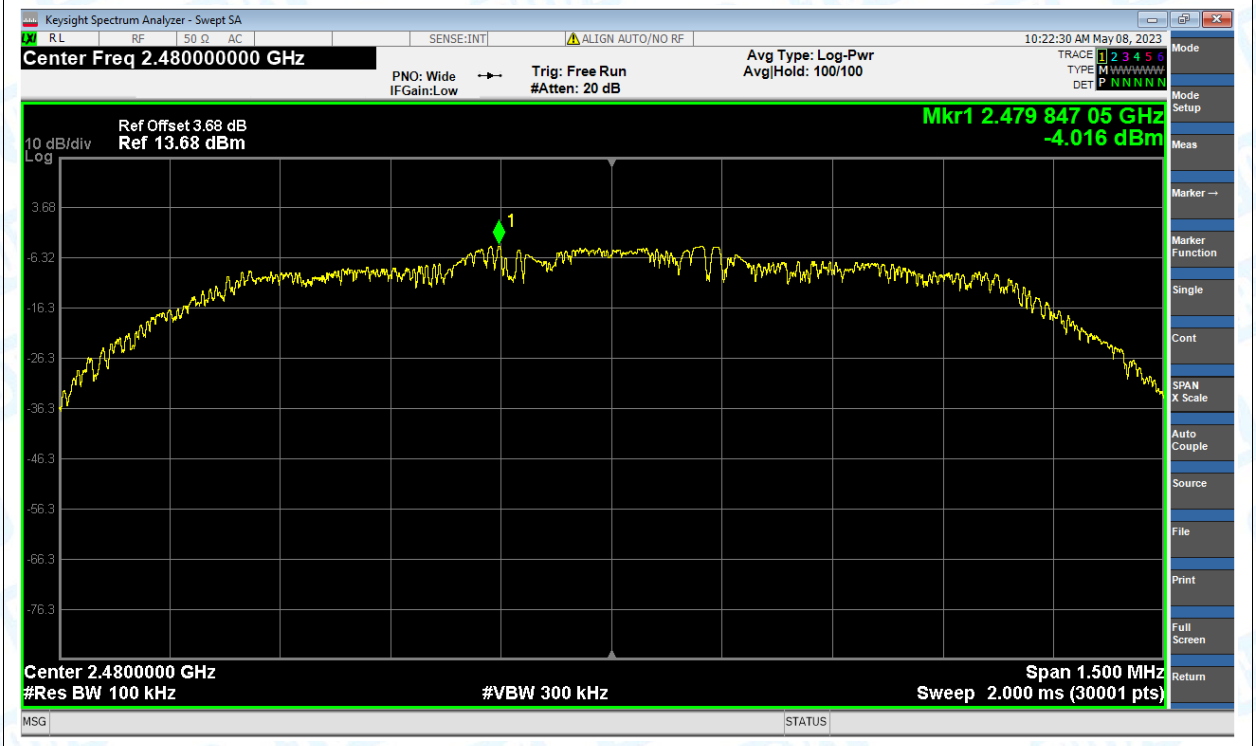
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



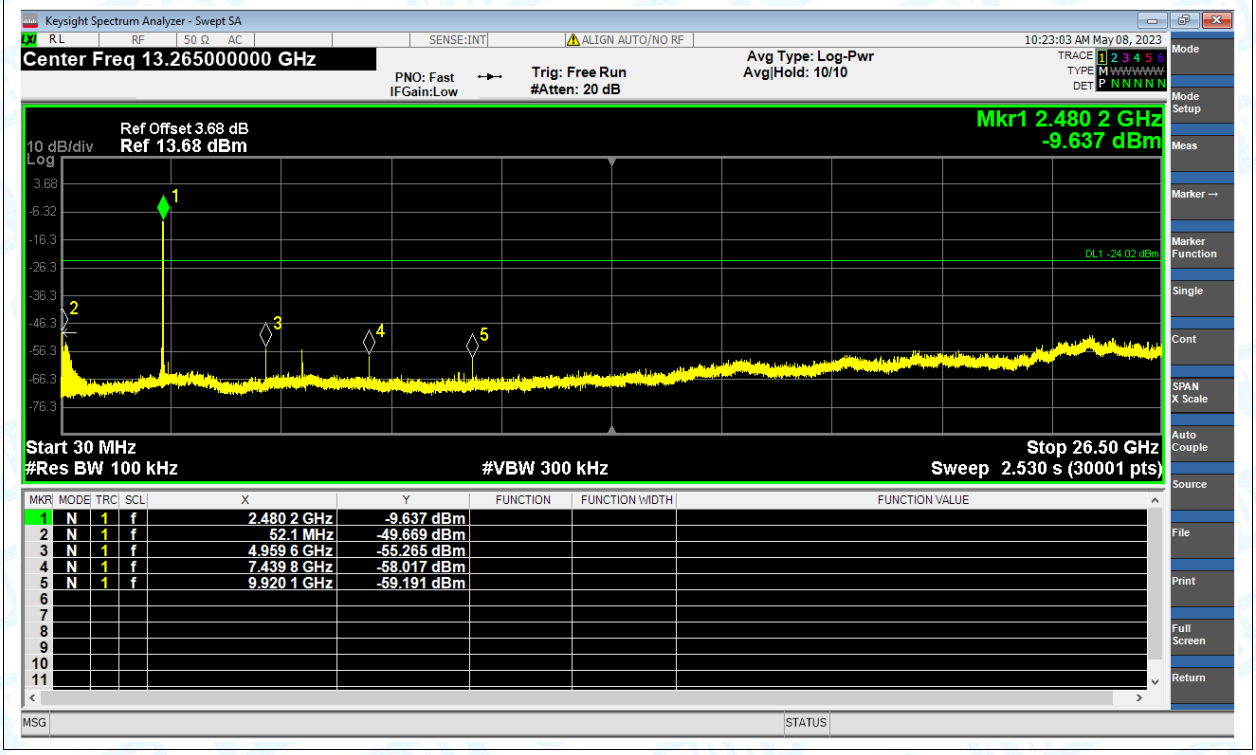
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



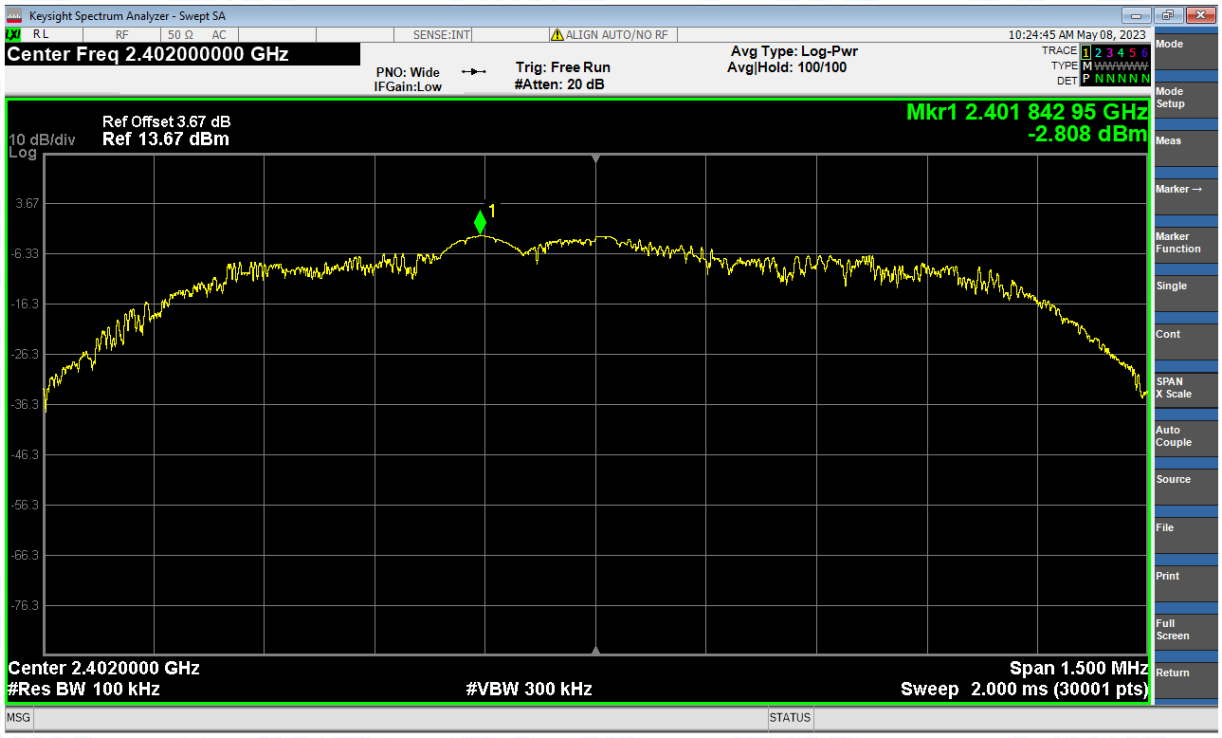
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

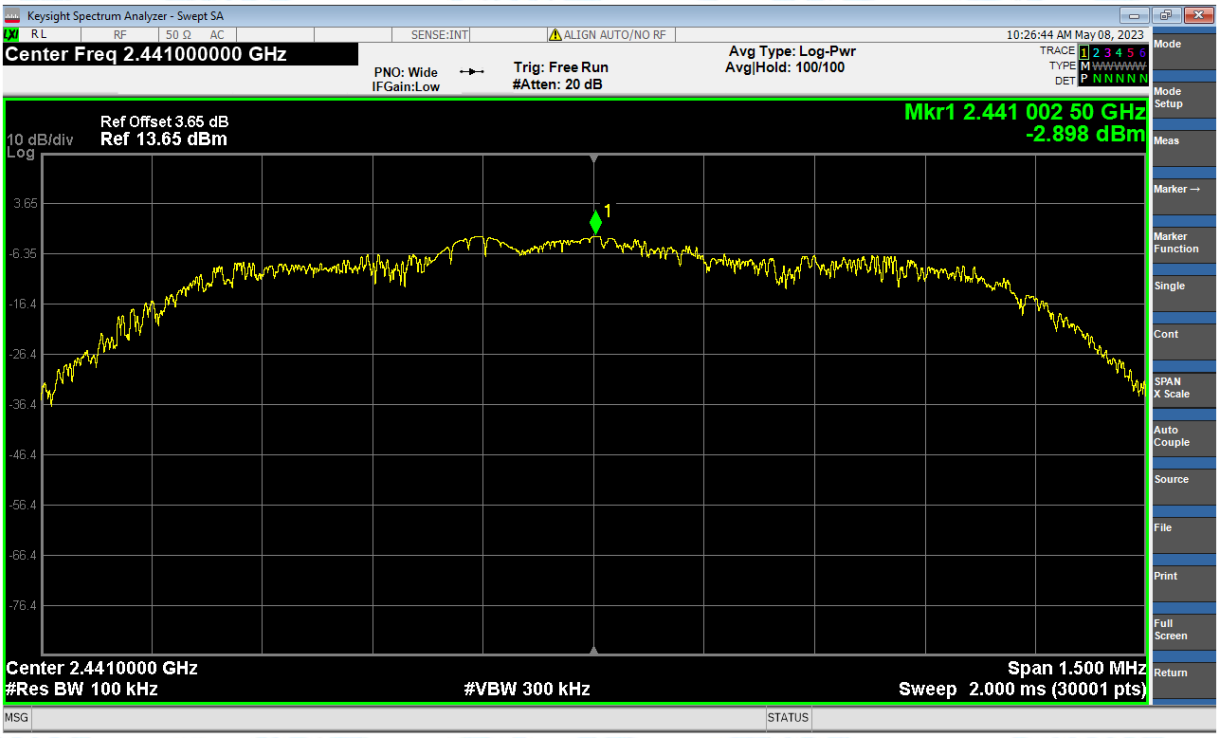


Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref

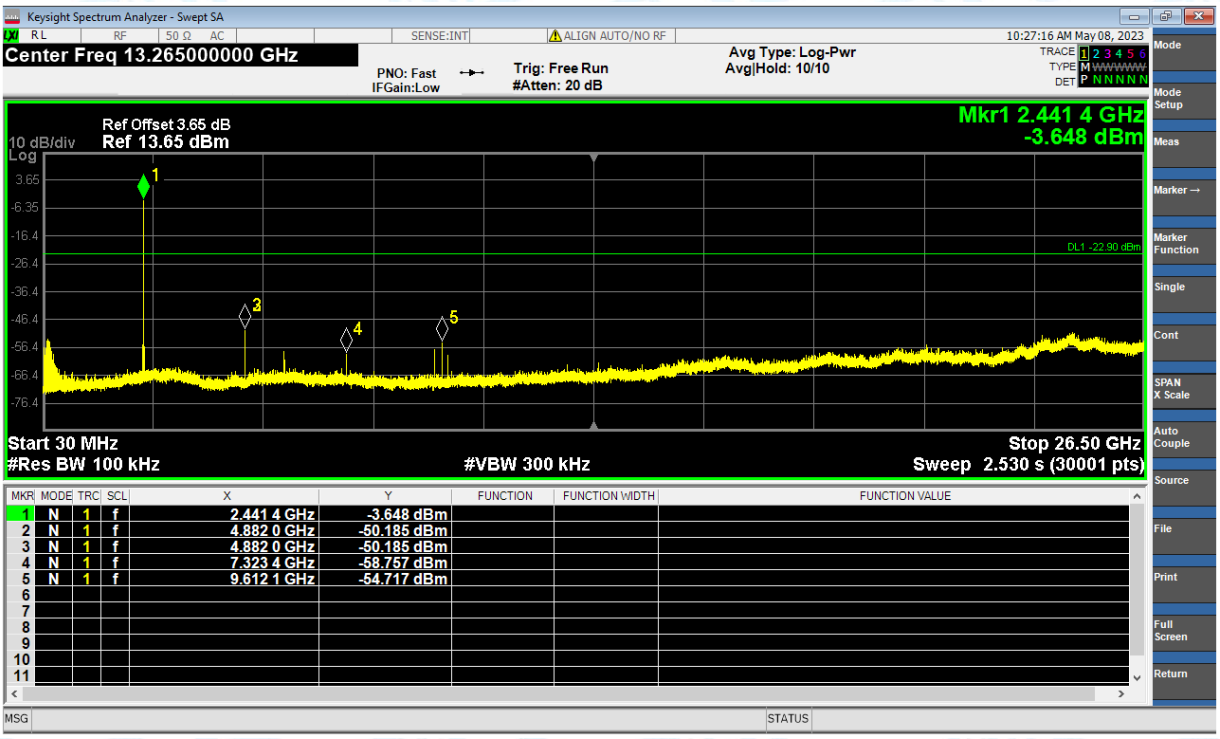


Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission

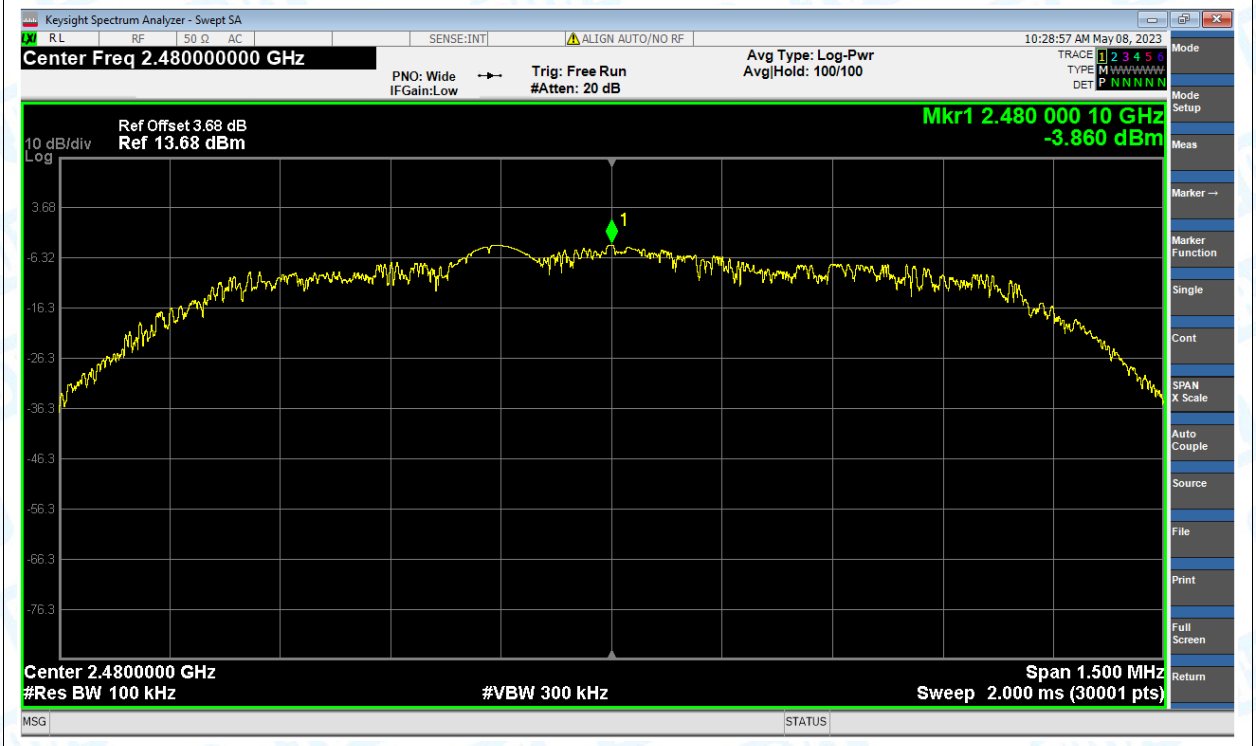
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



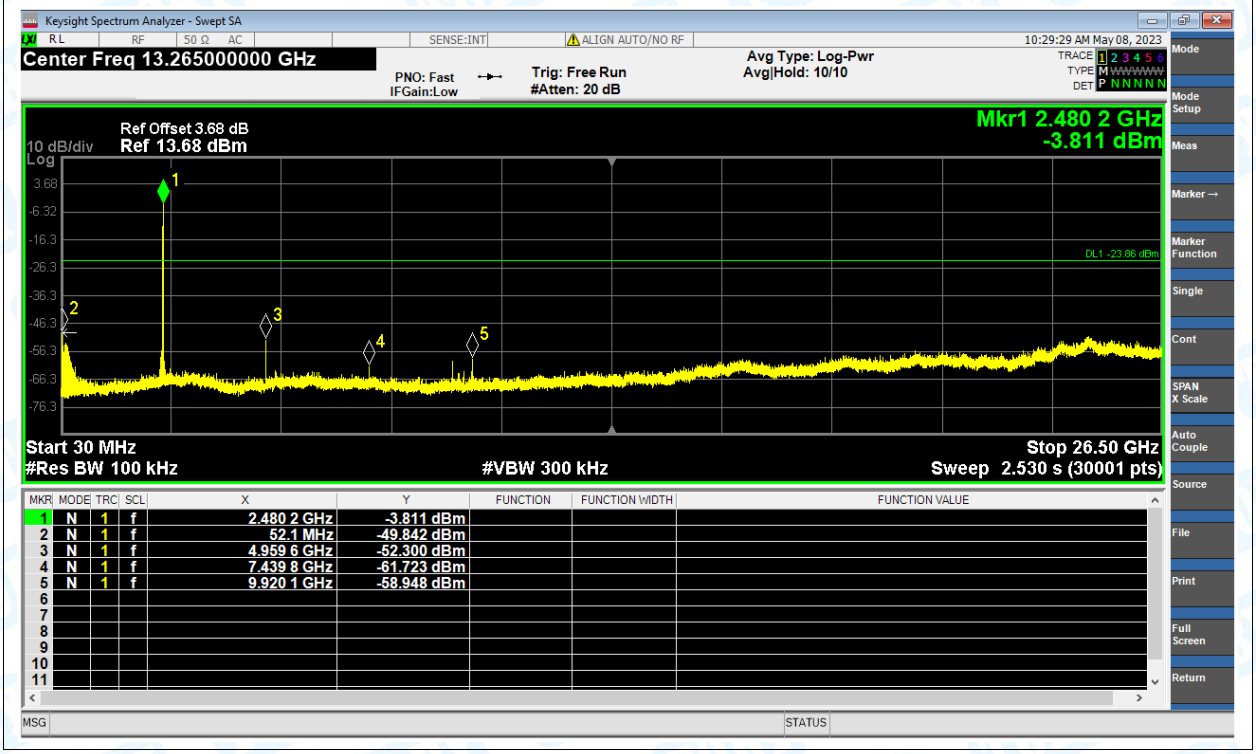
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

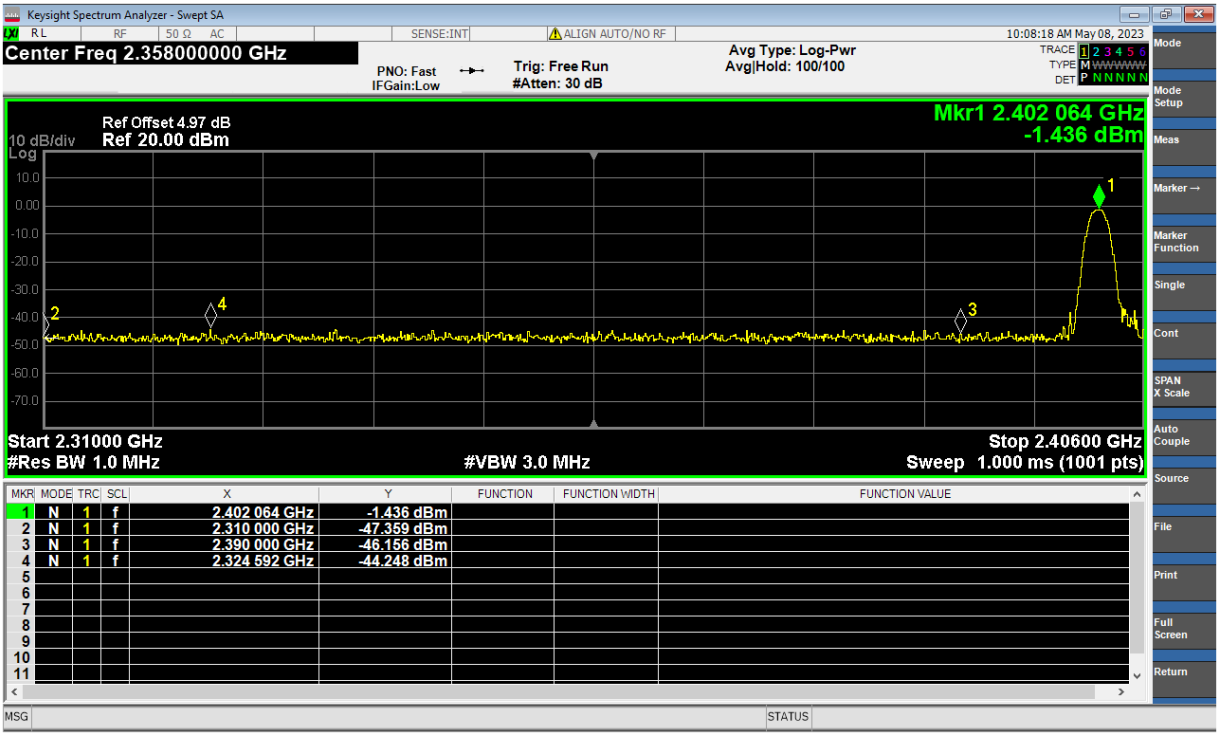


8. Restrict Band

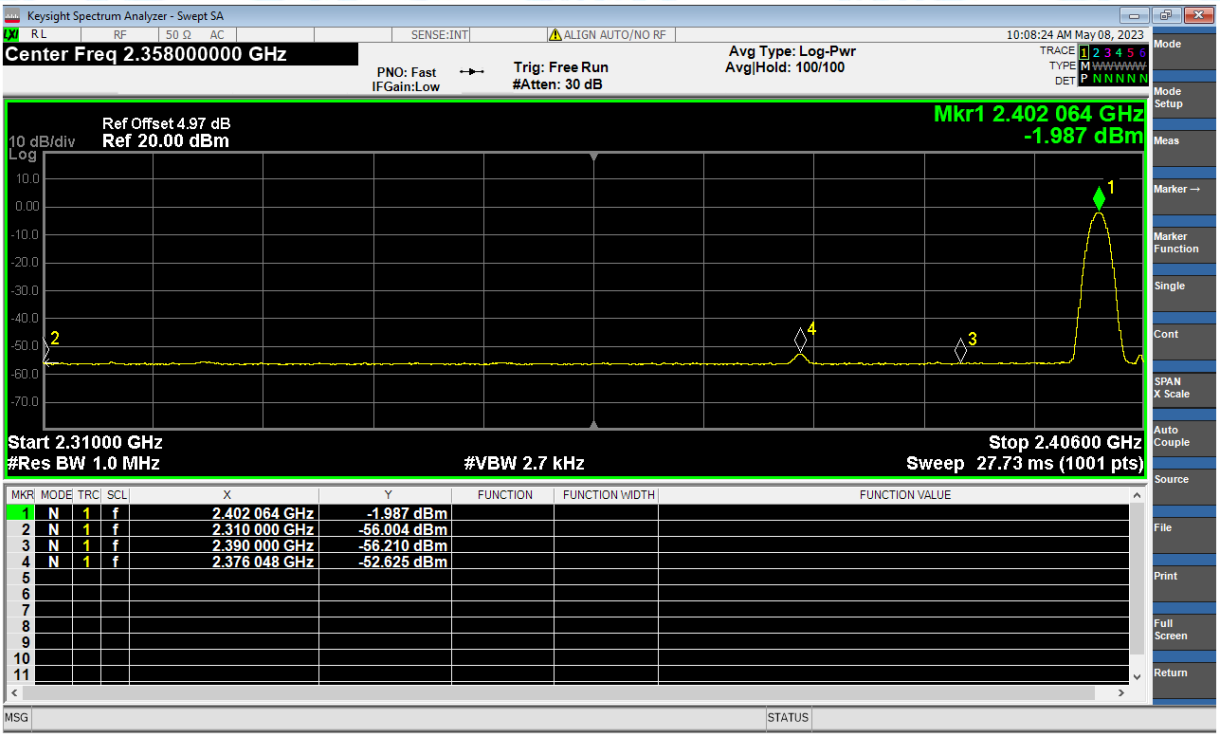
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.36	2	49.9	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56	2	41.26	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2324.592	-44.25	2	53.01	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2376.048	-52.63	2	44.63	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.99	2	51.27	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.19	2	41.07	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.83	2	50.43	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.03	2	41.23	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2492.944	-43.92	2	53.34	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2486.488	-55.49	2	41.77	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.69	2	49.57	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.17	2	41.09	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.31	2	48.95	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.38	2	40.88	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2375.376	-43.52	2	53.74	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2376.144	-53.18	2	44.08	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.31	2	49.95	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.2	2	41.06	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.55	2	50.71	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.86	2	41.4	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-42.03	2	55.23	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2492.224	-55.46	2	41.8	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.35	2	49.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.98	2	41.28	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-46.85	2	50.41	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.09	2	41.17	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2311.728	-44.3	2	52.96	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2375.856	-52.95	2	44.31	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.52	2	50.74	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.24	2	41.02	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.87	2	50.39	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-56	2	41.26	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2493.328	-43.55	2	53.71	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2499.016	-55.4	2	41.86	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.65	2	49.61	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-56.15	2	41.11	Average	54	Pass

Test Graphs

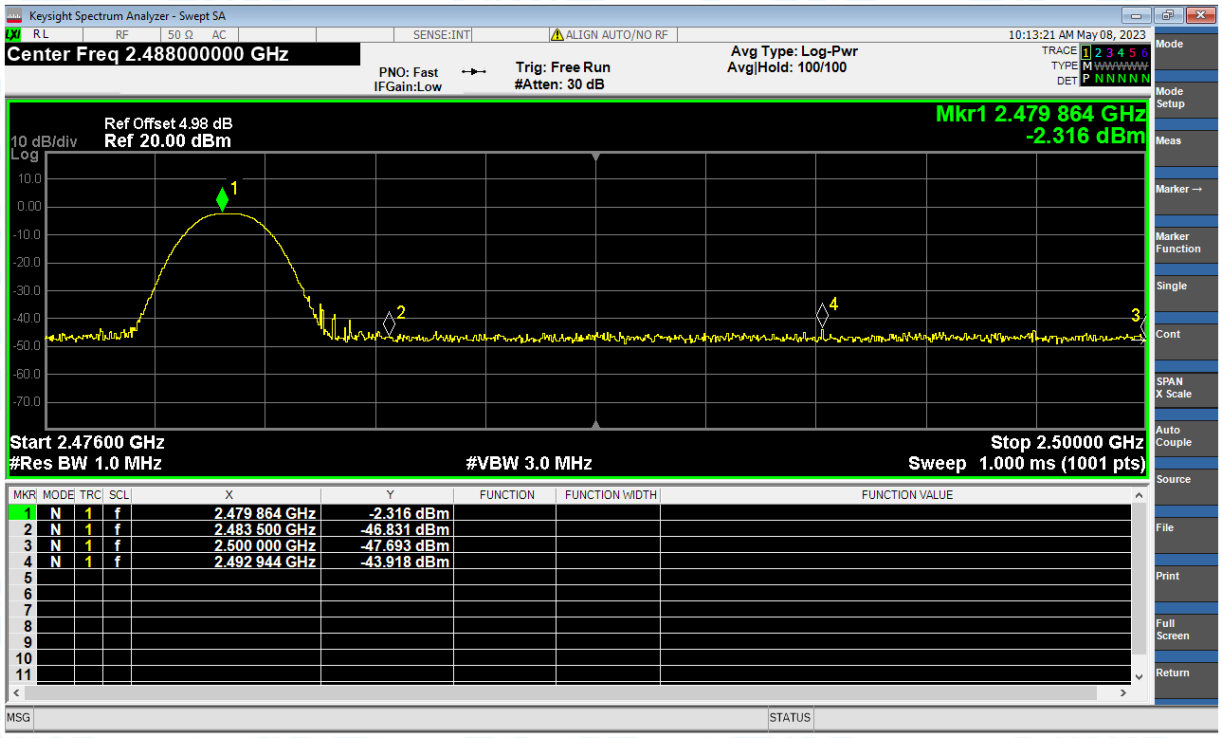
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



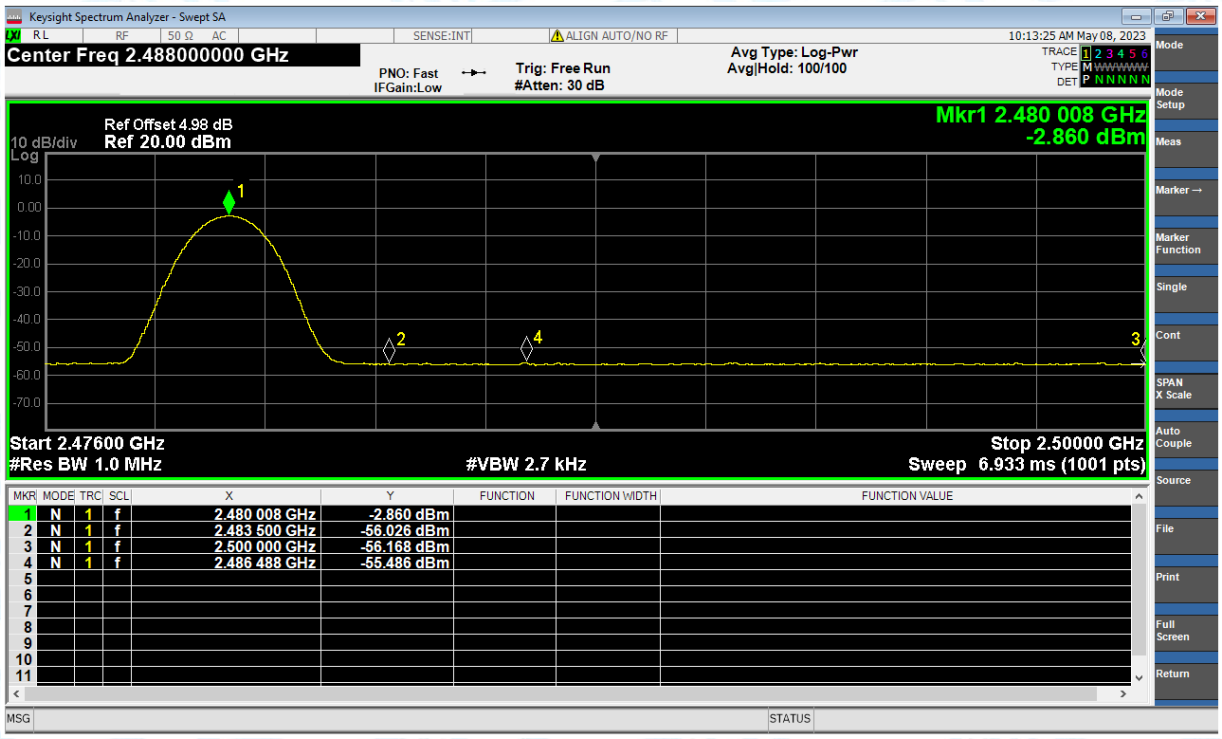
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



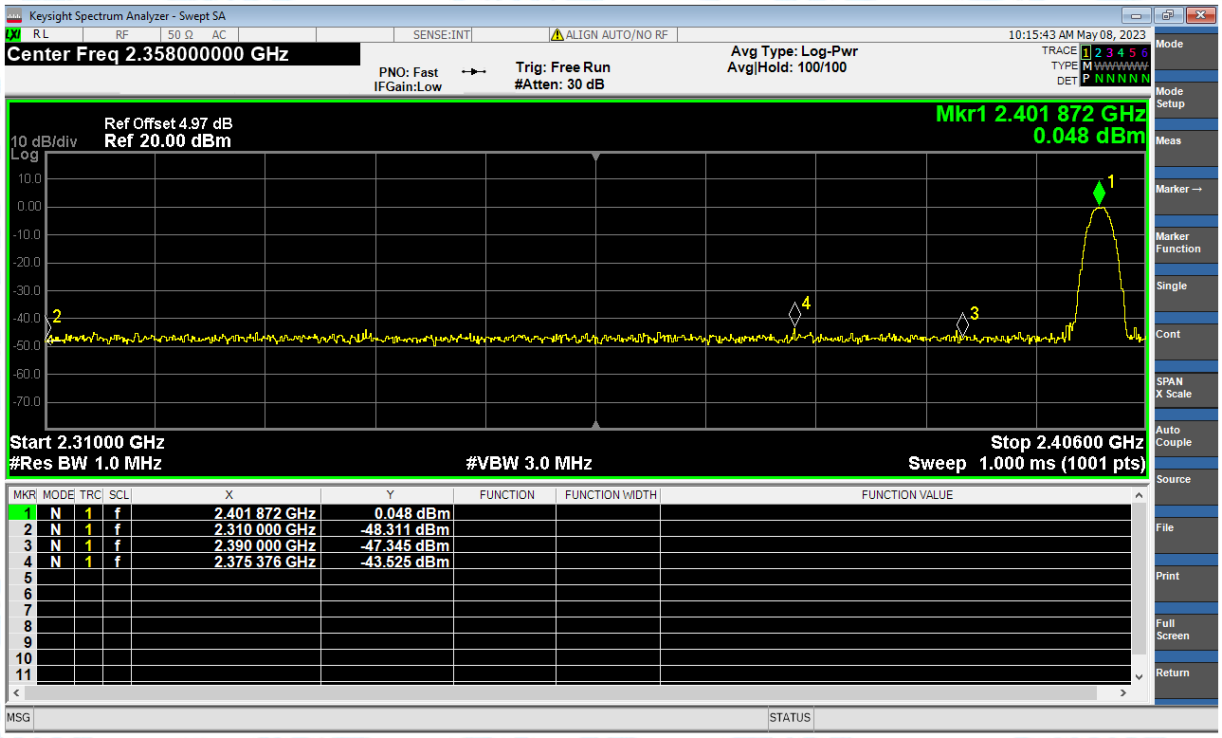
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



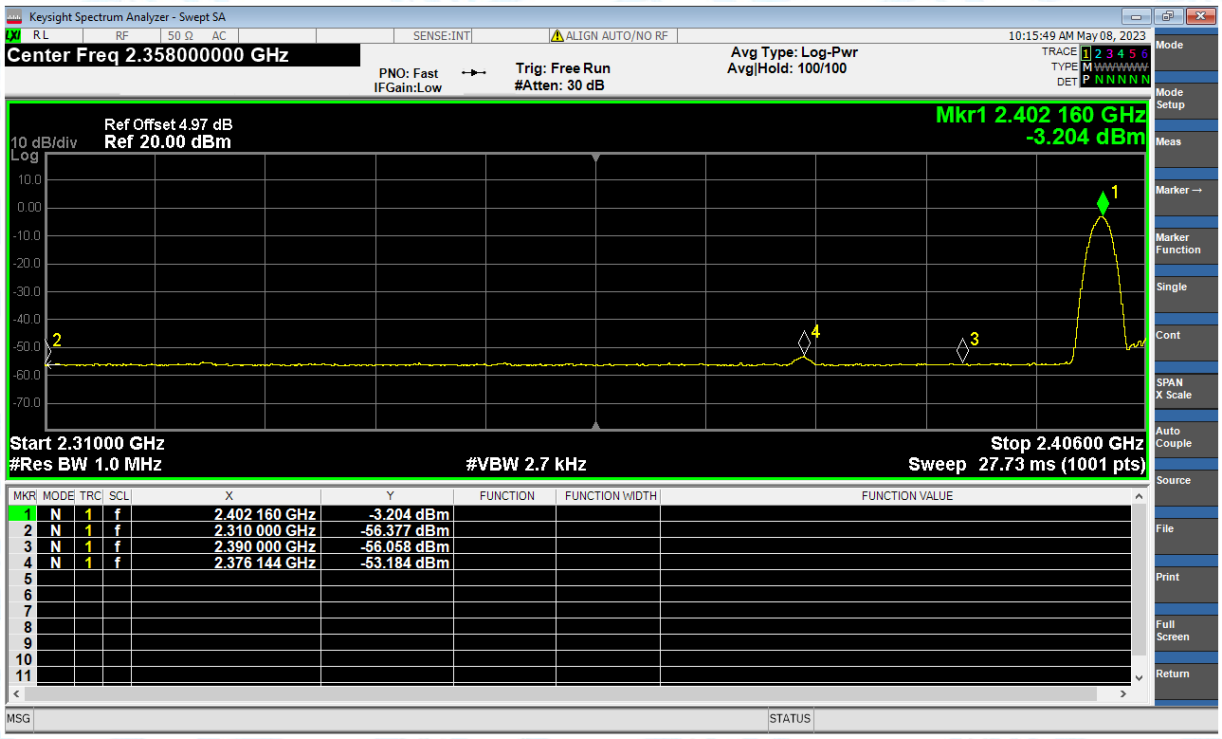
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



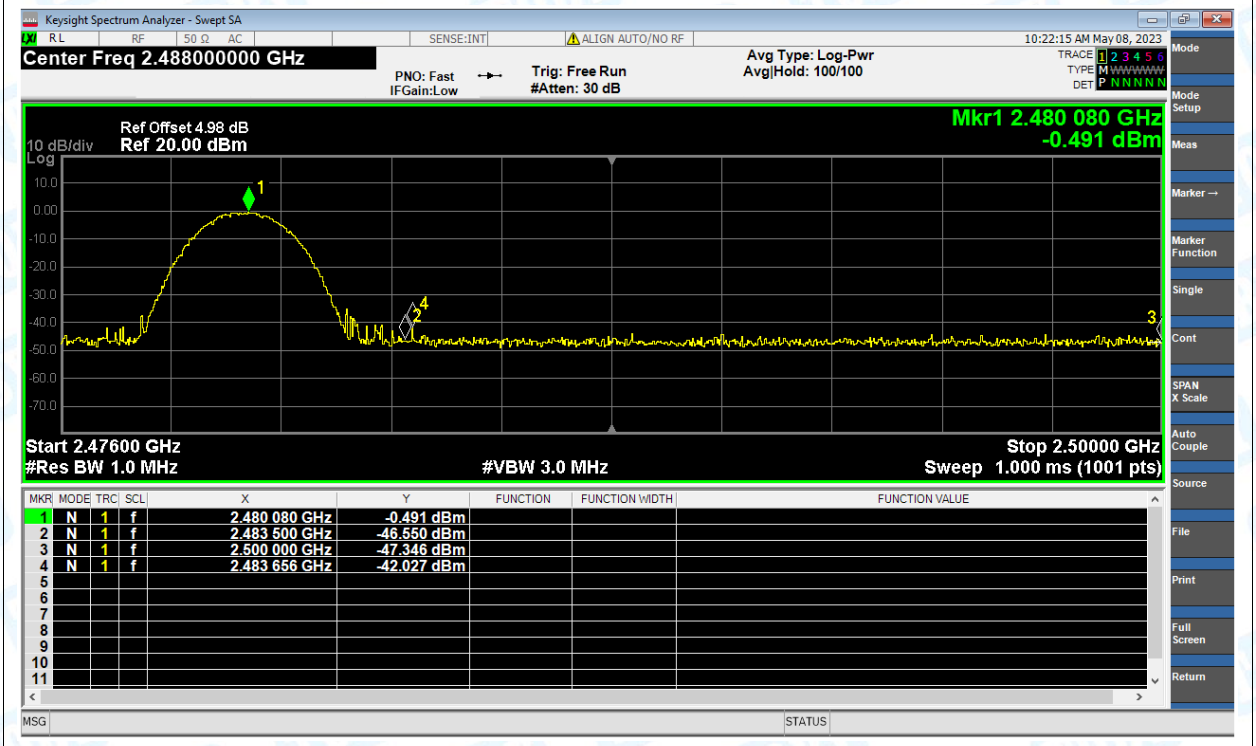
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



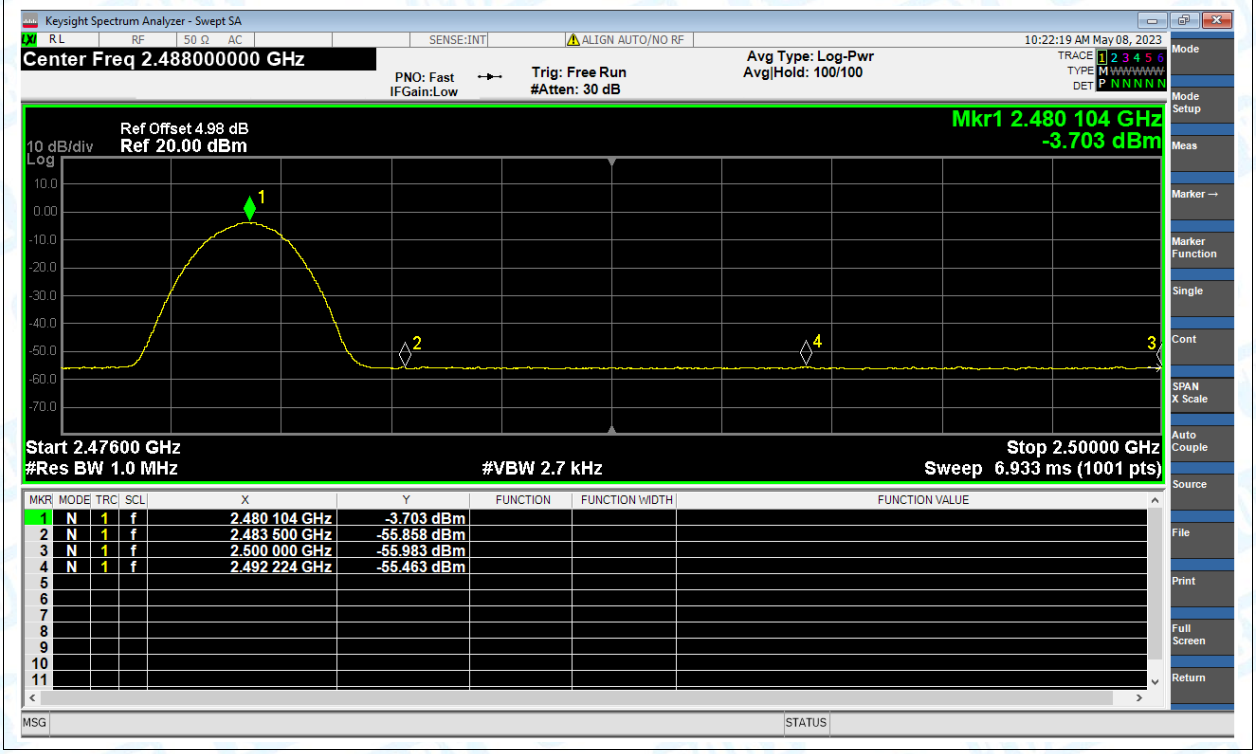
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



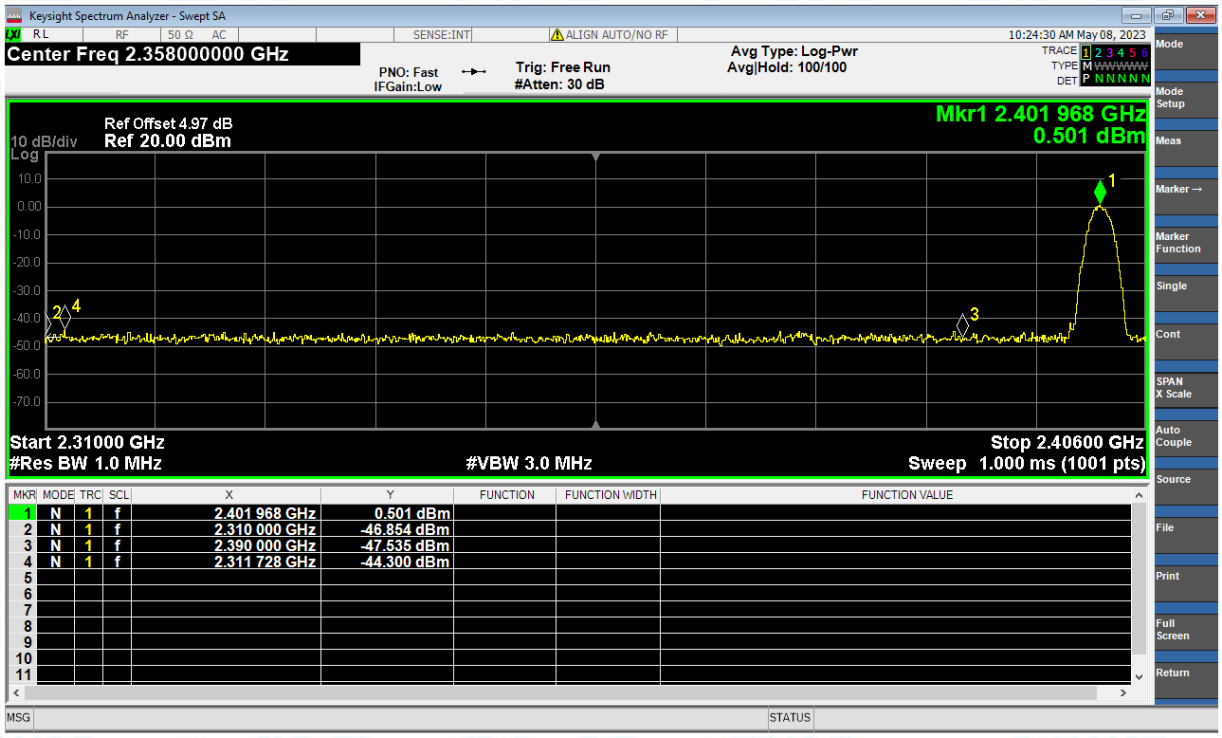
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



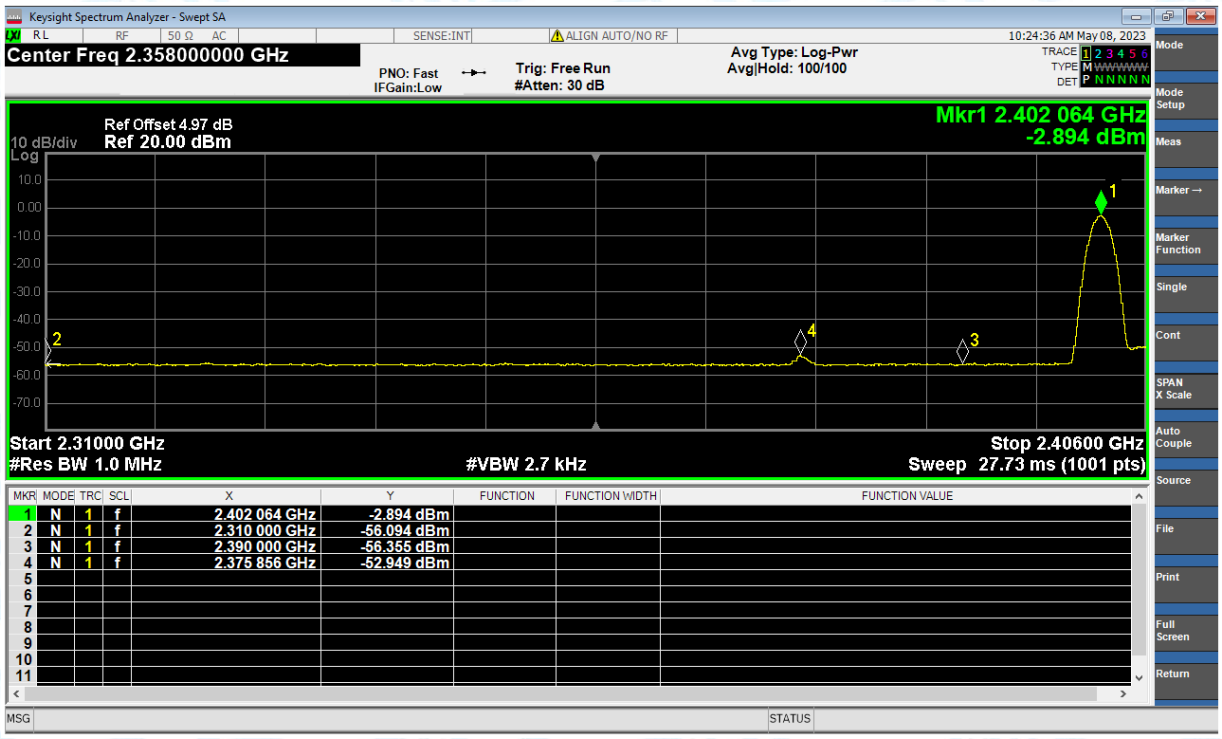
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



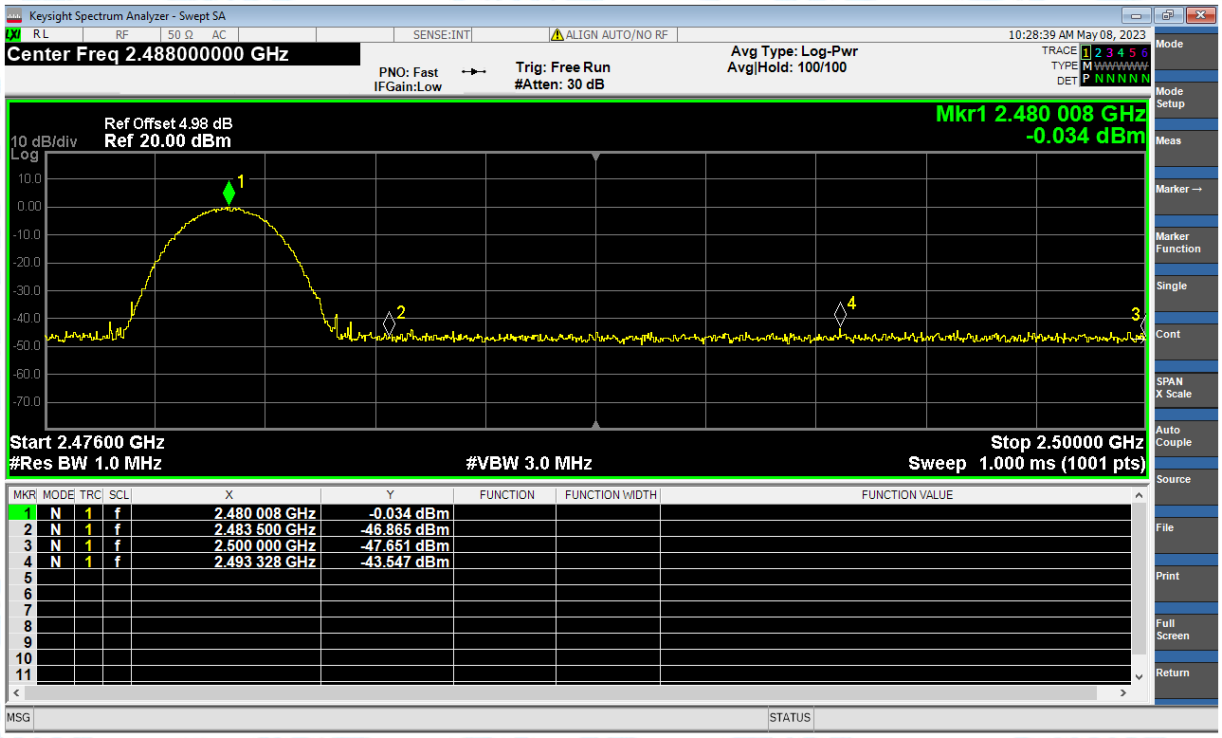
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



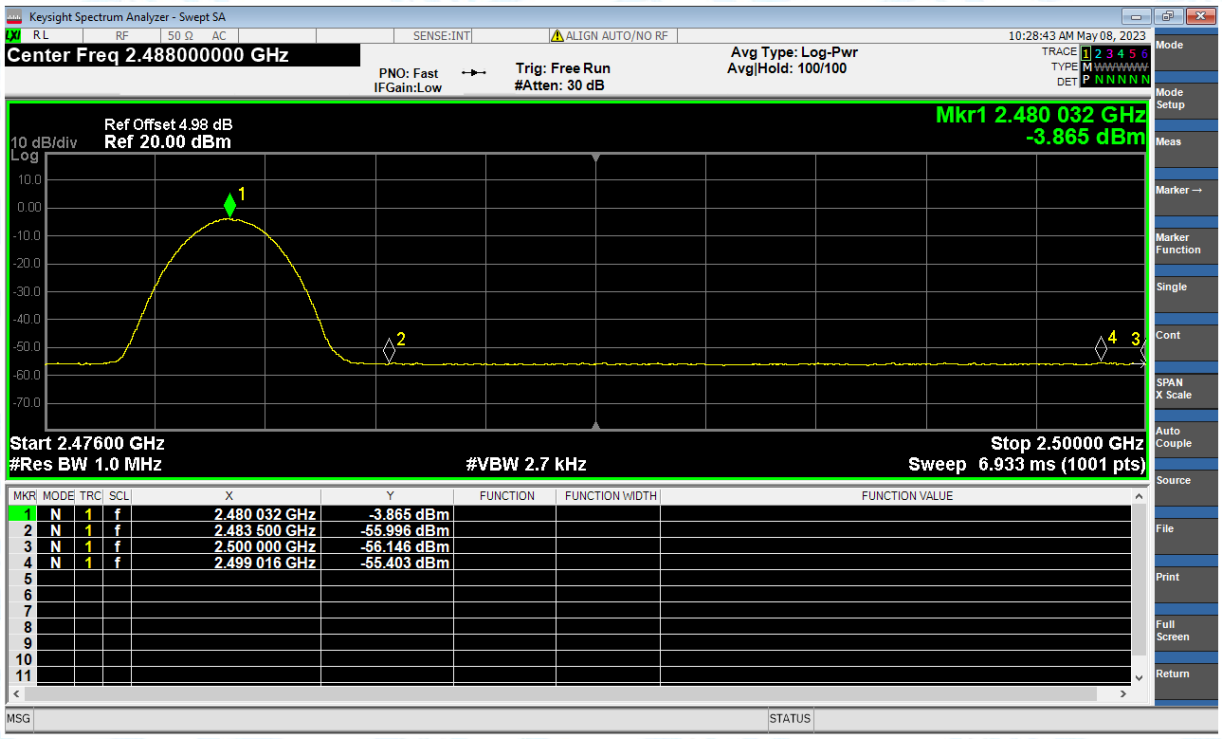
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

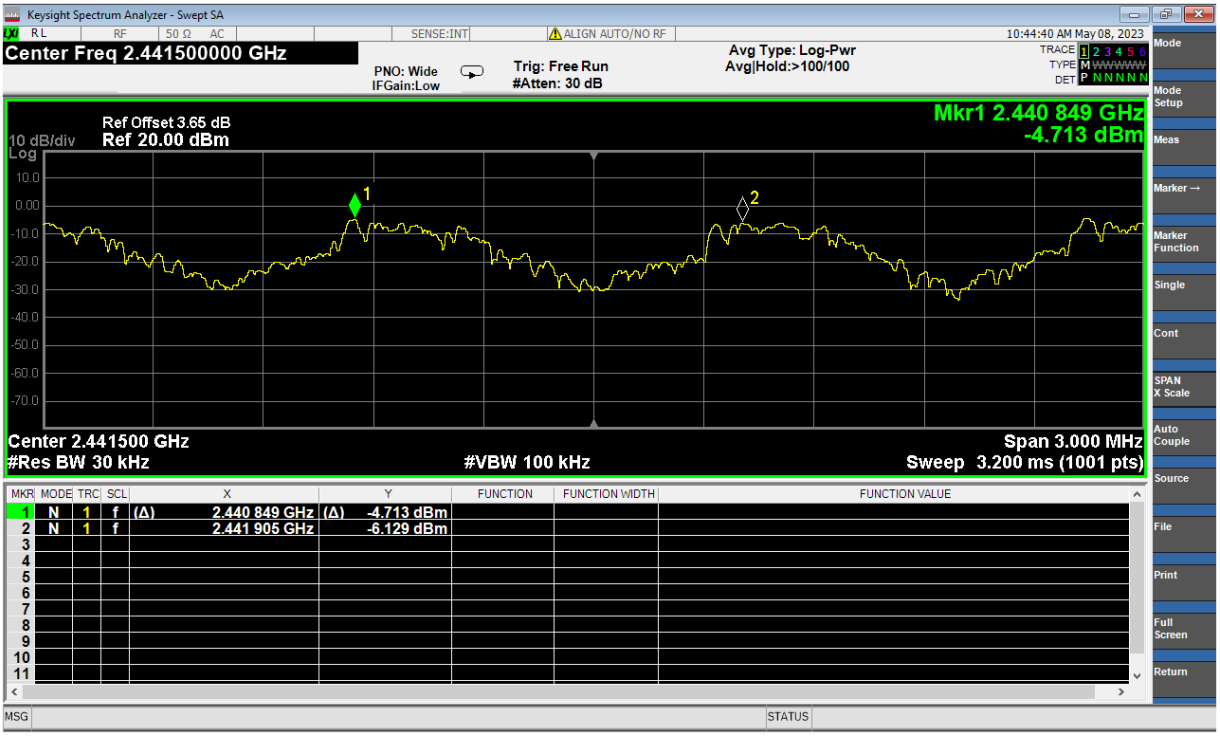


9. Carrier Frequencies Separation

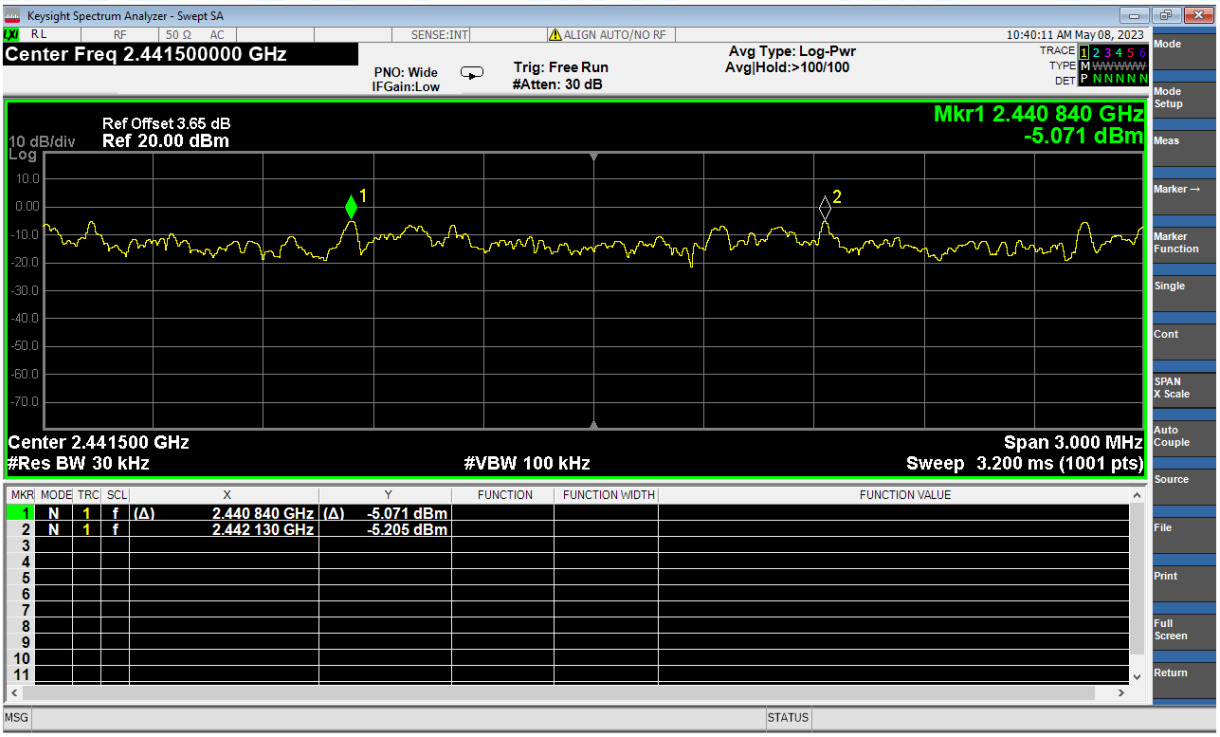
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.849	2441.905	1.056	0.593	Pass
NVNT	2-DH1	Ant1	2440.84	2442.13	1.29	0.847	Pass
NVNT	3-DH1	Ant1	2440.999	2441.842	0.843	0.807	Pass

Test Graphs

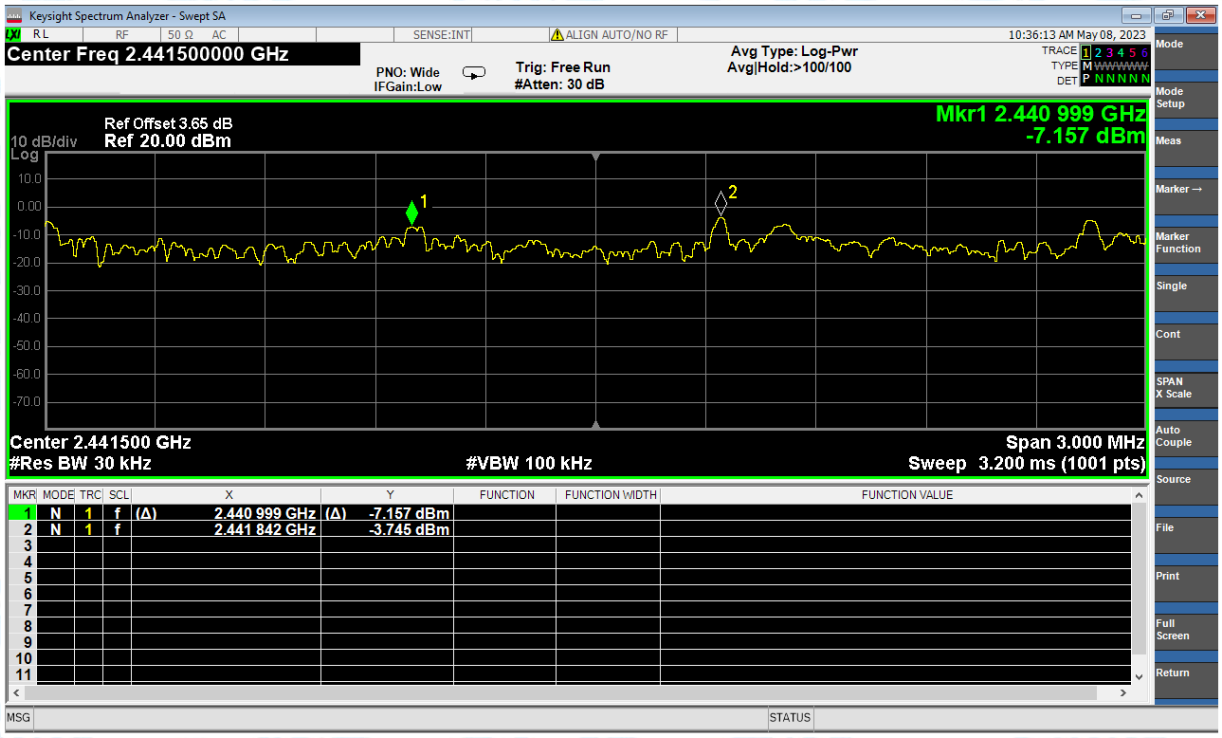
CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

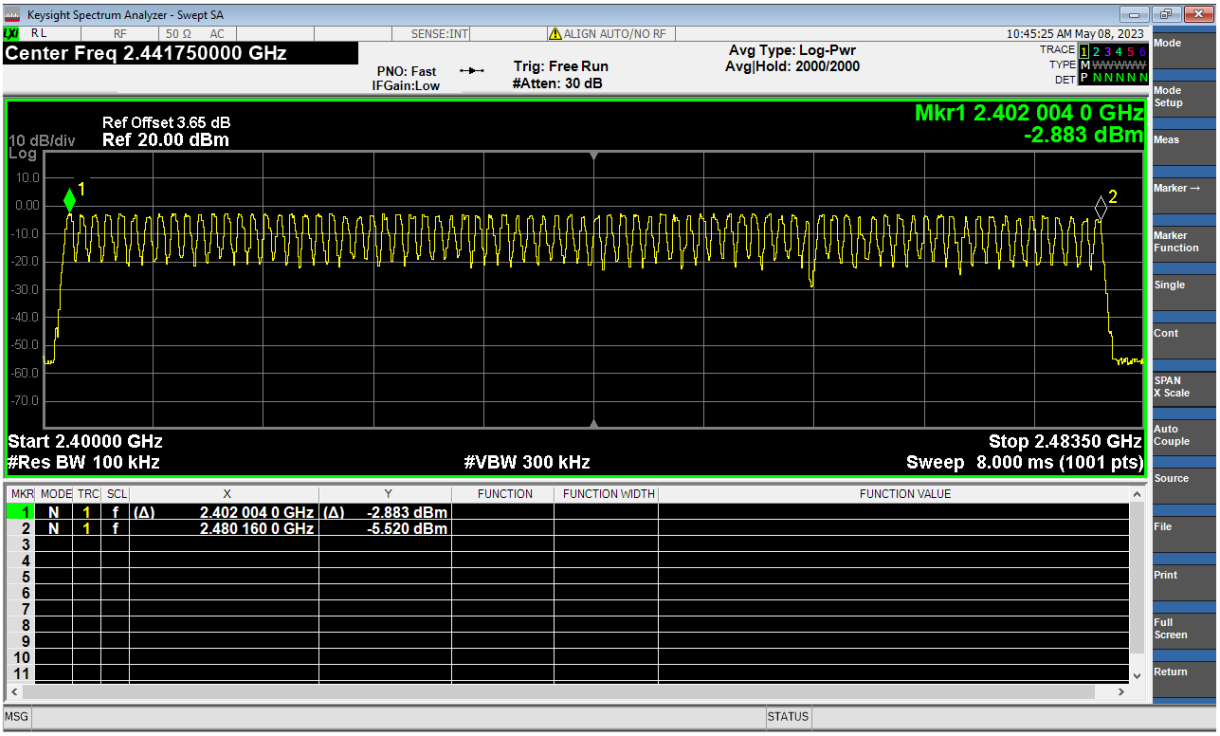


10. Number of Hopping Channel

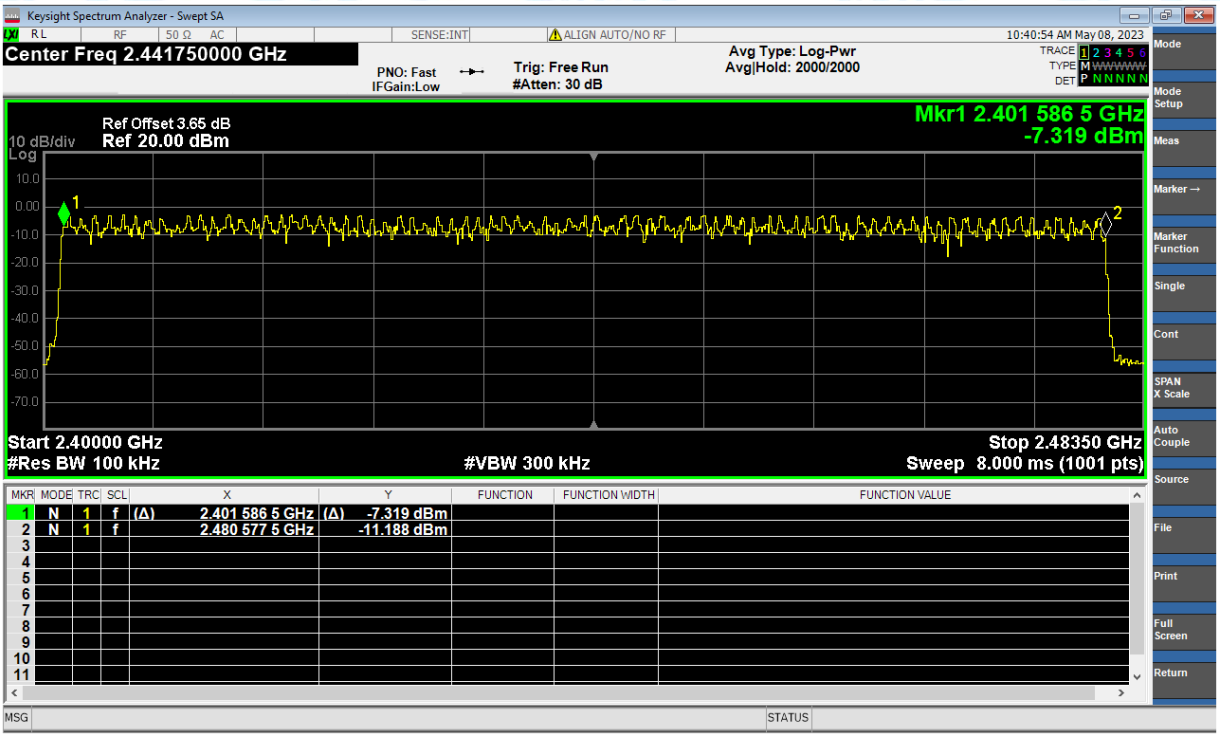
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

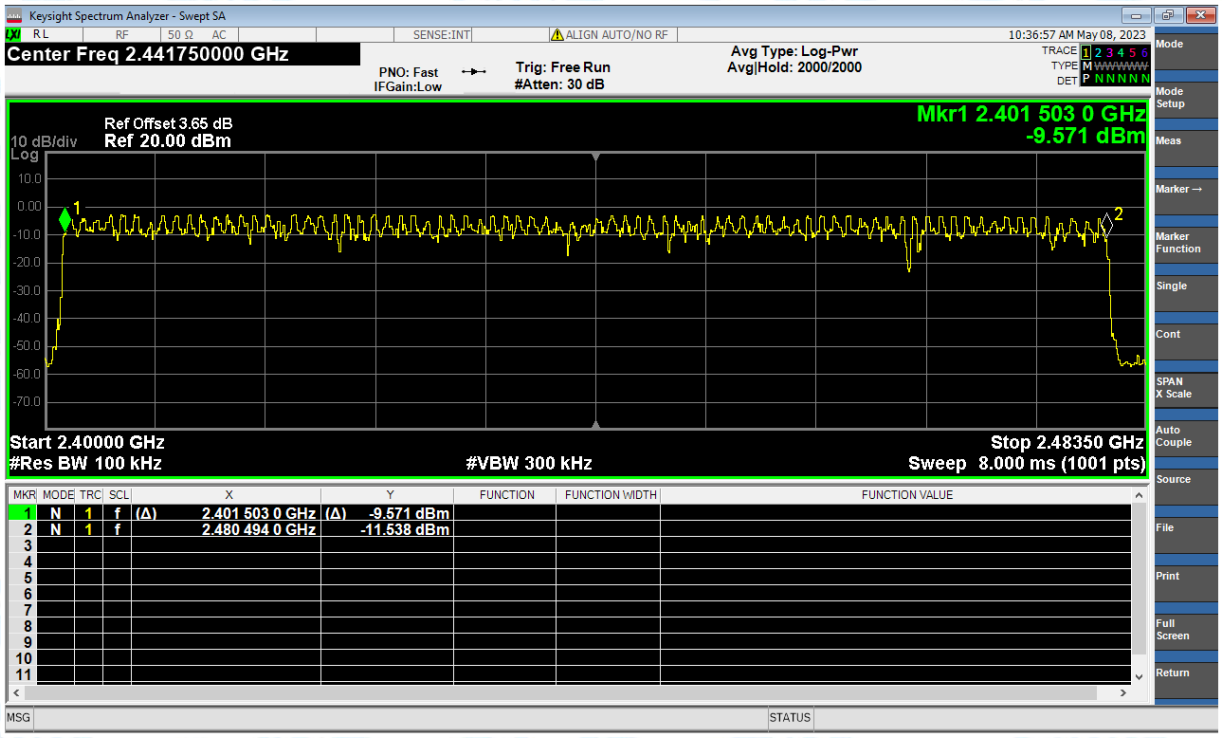
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

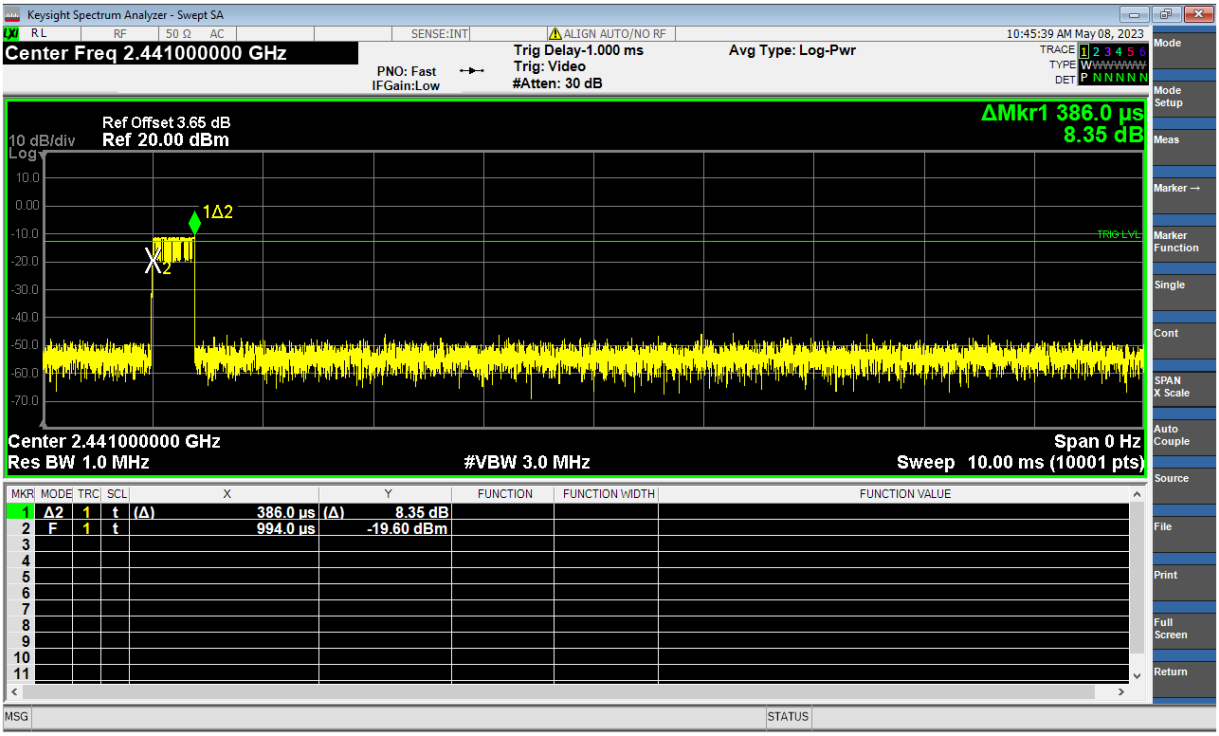


11. Dwell Time

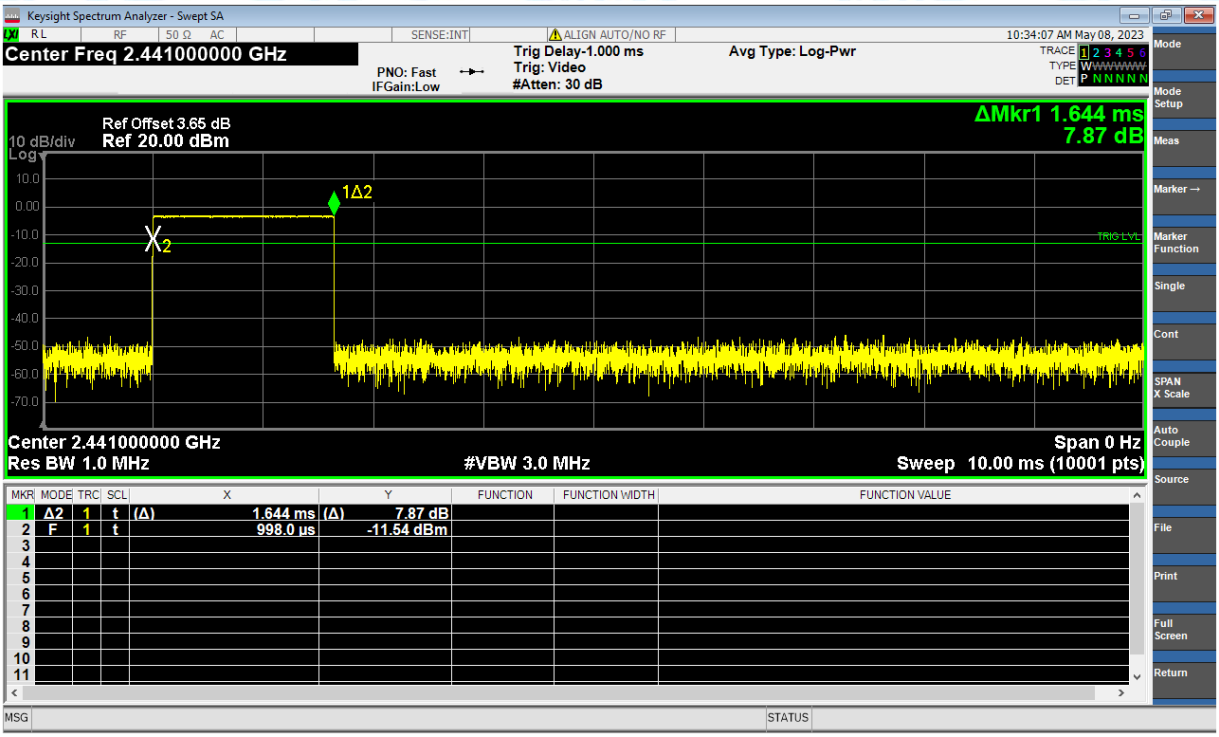
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.893	308.587	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.398	127.36	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.649	263.84	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.894	308.693	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.4	128	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.897	309.013	31600	400	Pass

Test Graphs

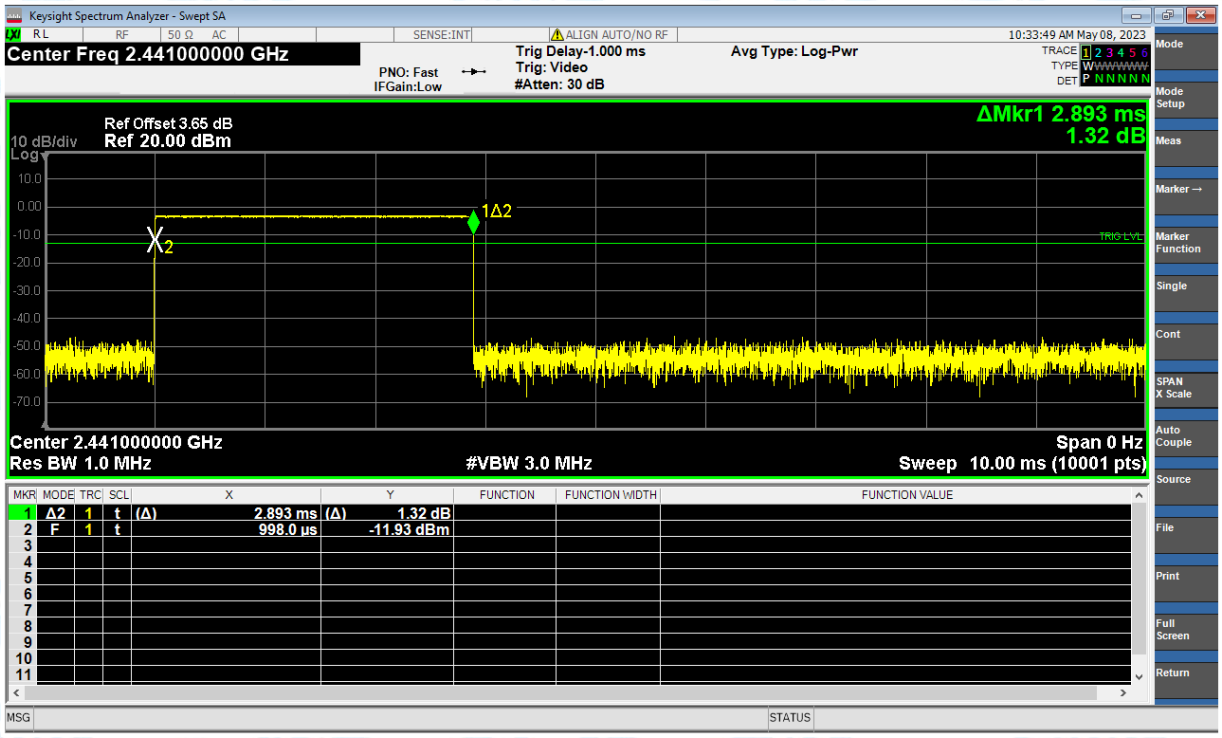
Dwell NVNT 1-DH1 2441MHz Ant1



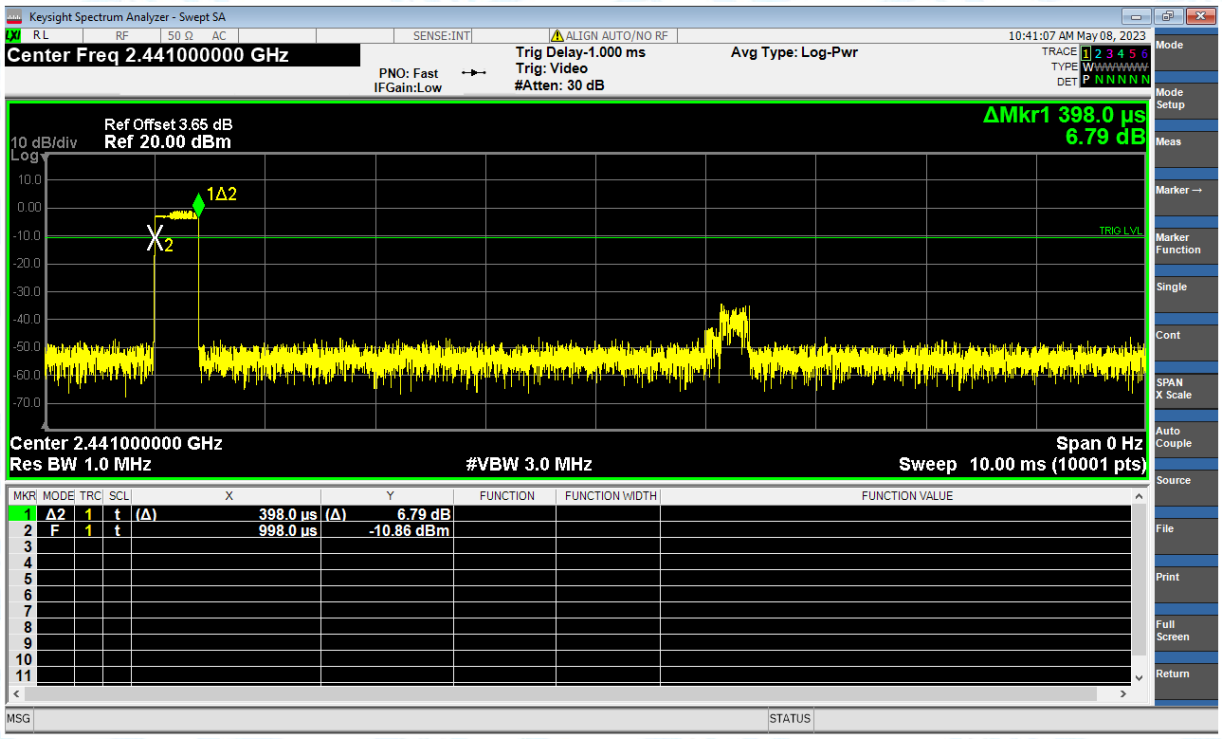
Dwell NVNT 1-DH3 2441MHz Ant1



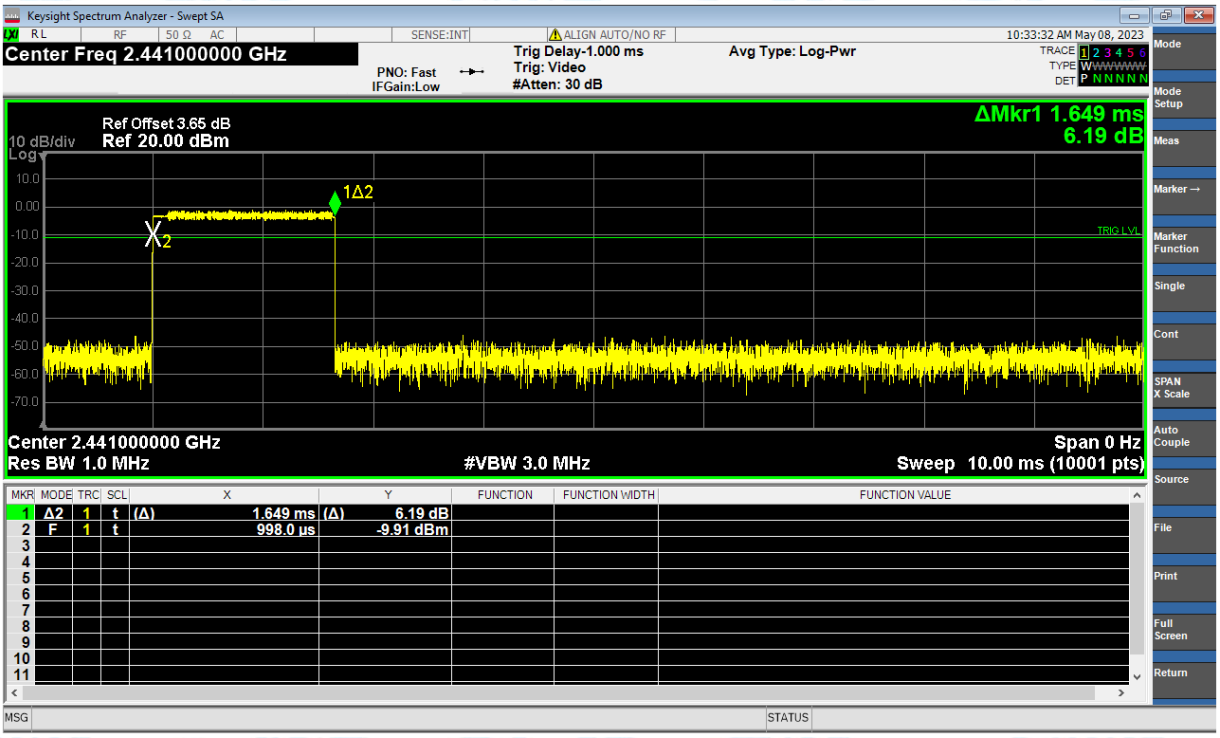
Dwell NVNT 1-DH5 2441MHz Ant1



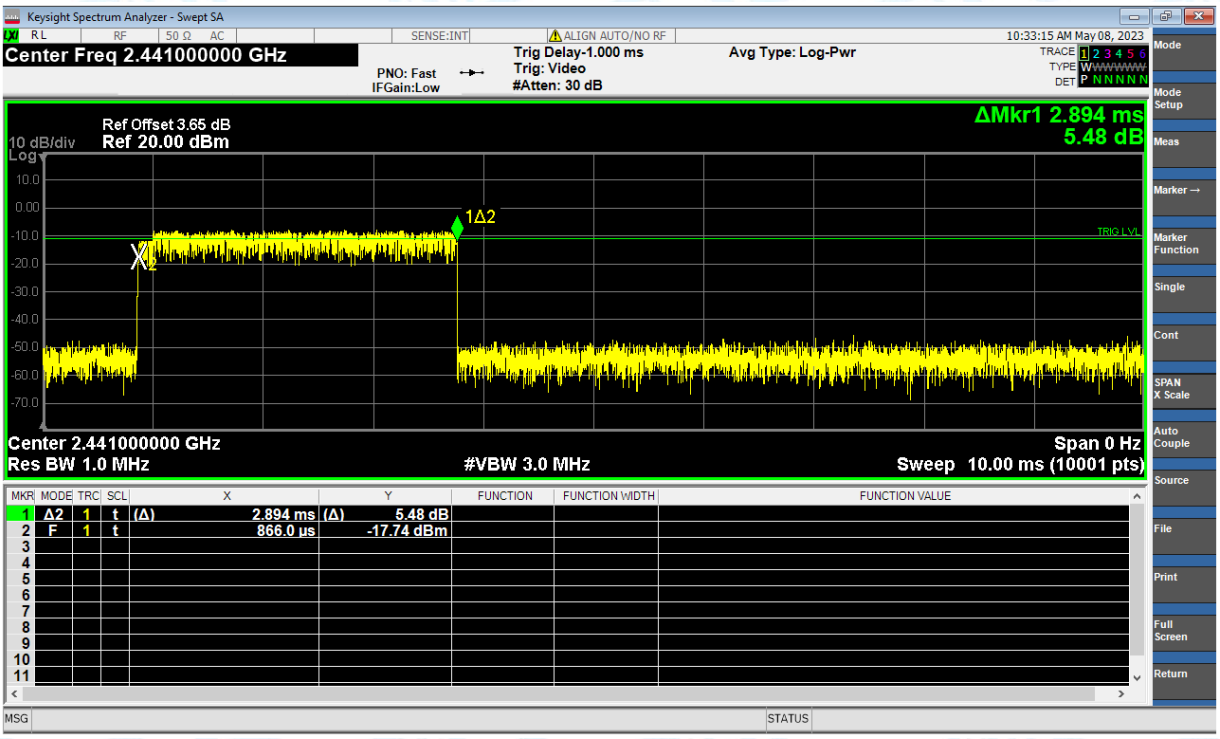
Dwell NVNT 2-DH1 2441MHz Ant1



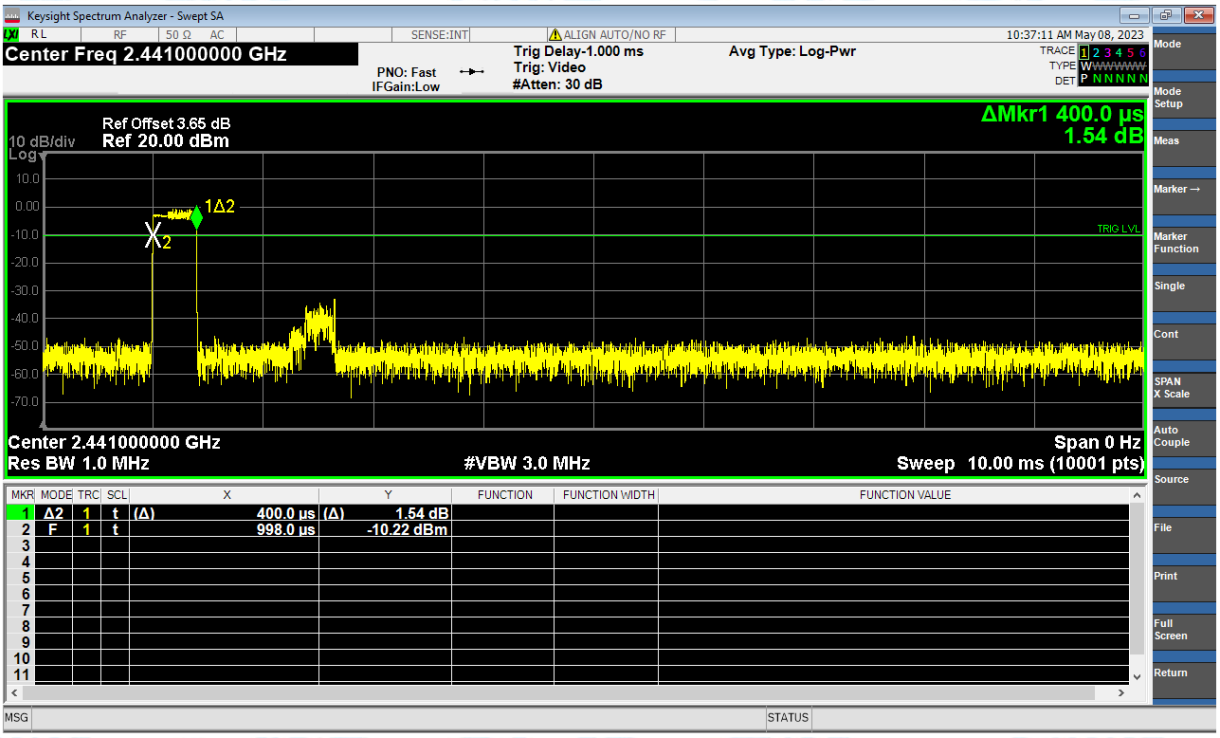
Dwell NVNT 2-DH3 2441MHz Ant1



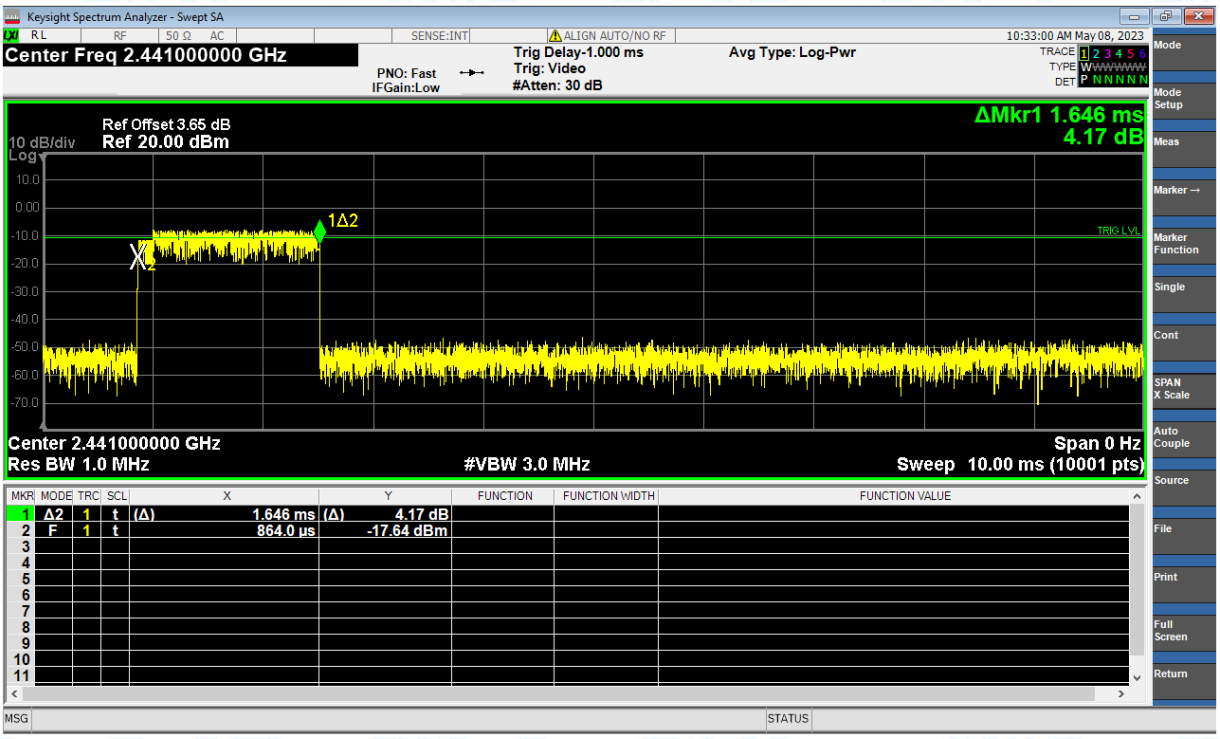
Dwell NVNT 2-DH5 2441MHz Ant1



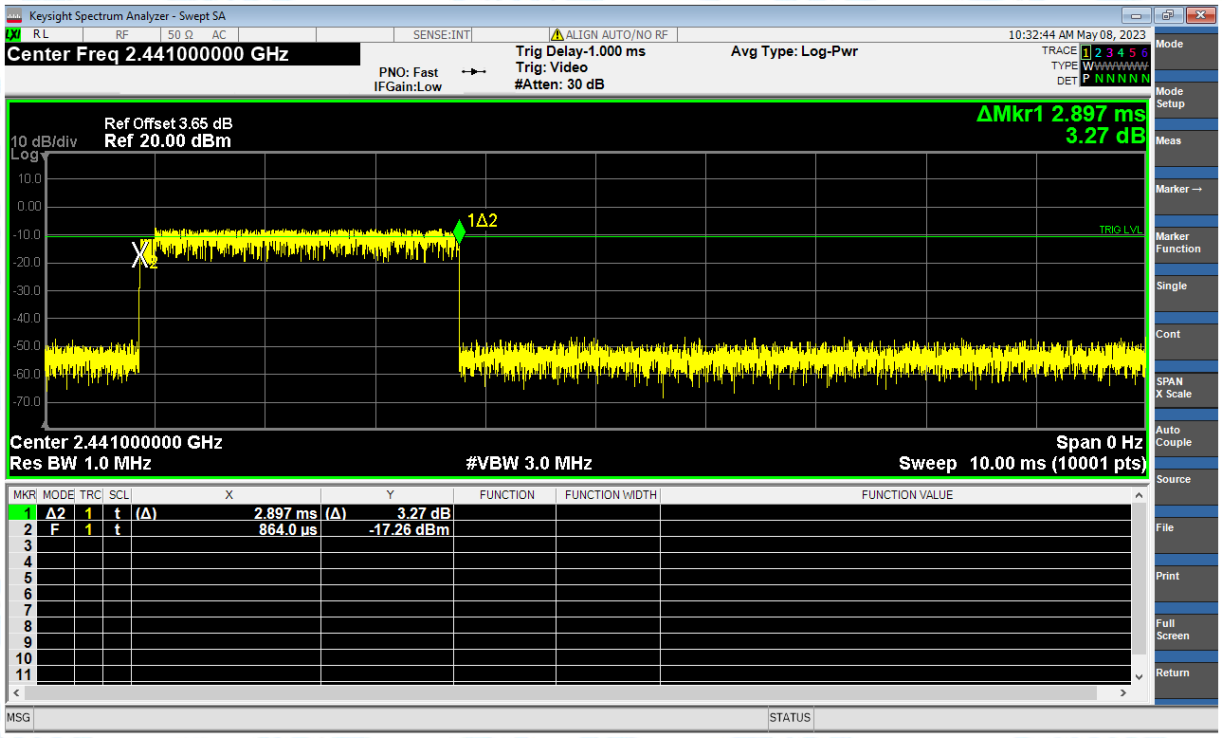
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1



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