

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	SAMRT WATCH
Test Model:	G106
Sample ID:	HC-C-202404-0123-01-01
Environmental Conditions	
Temperature:	23℃
Relative Humidity:	46%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202404-0123-51 The report only show the worst case data.	

Contents

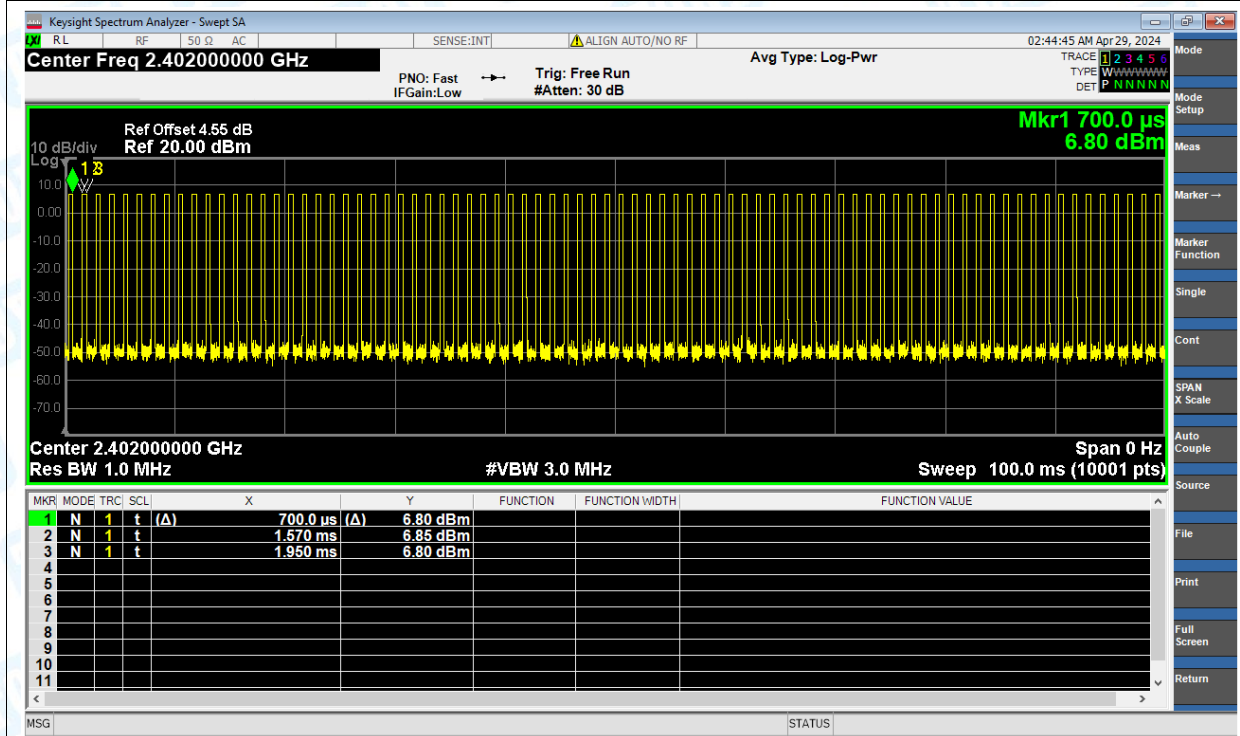
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1. Duty Cycle

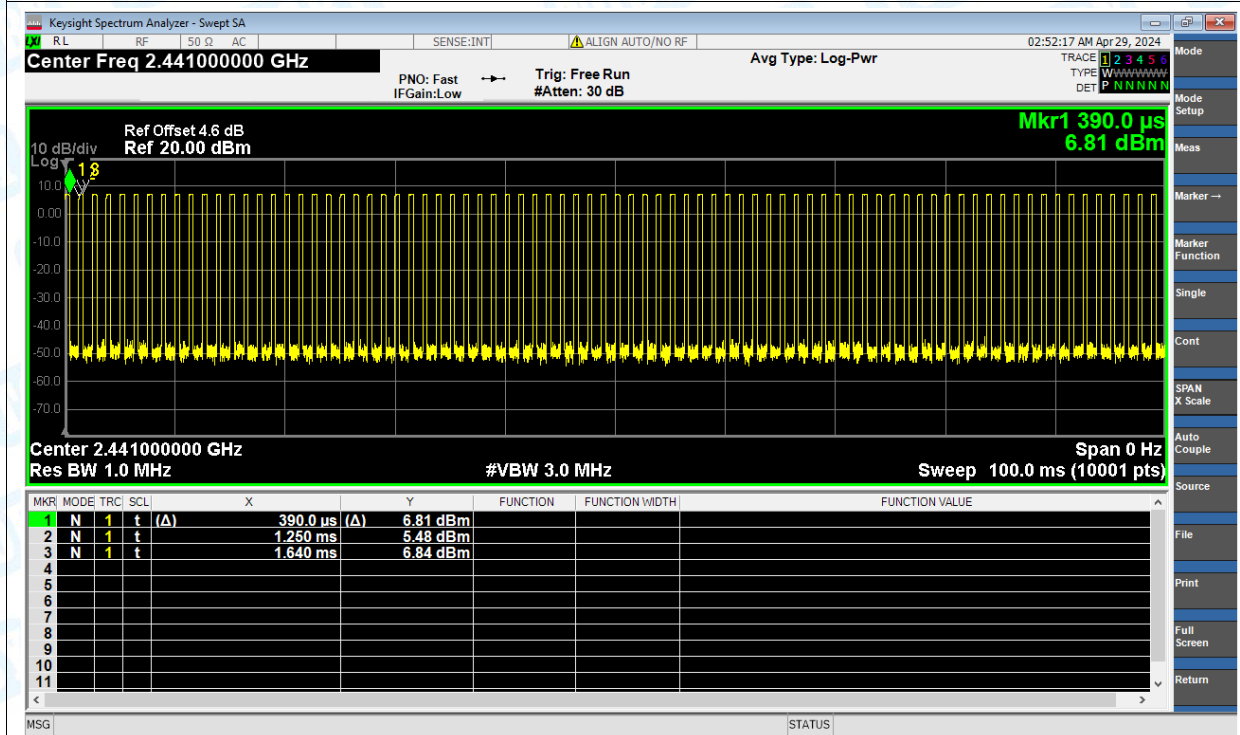
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1	2402	Ant1	32	4.95	2.5
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	32	4.95	2.5

Test Graphs

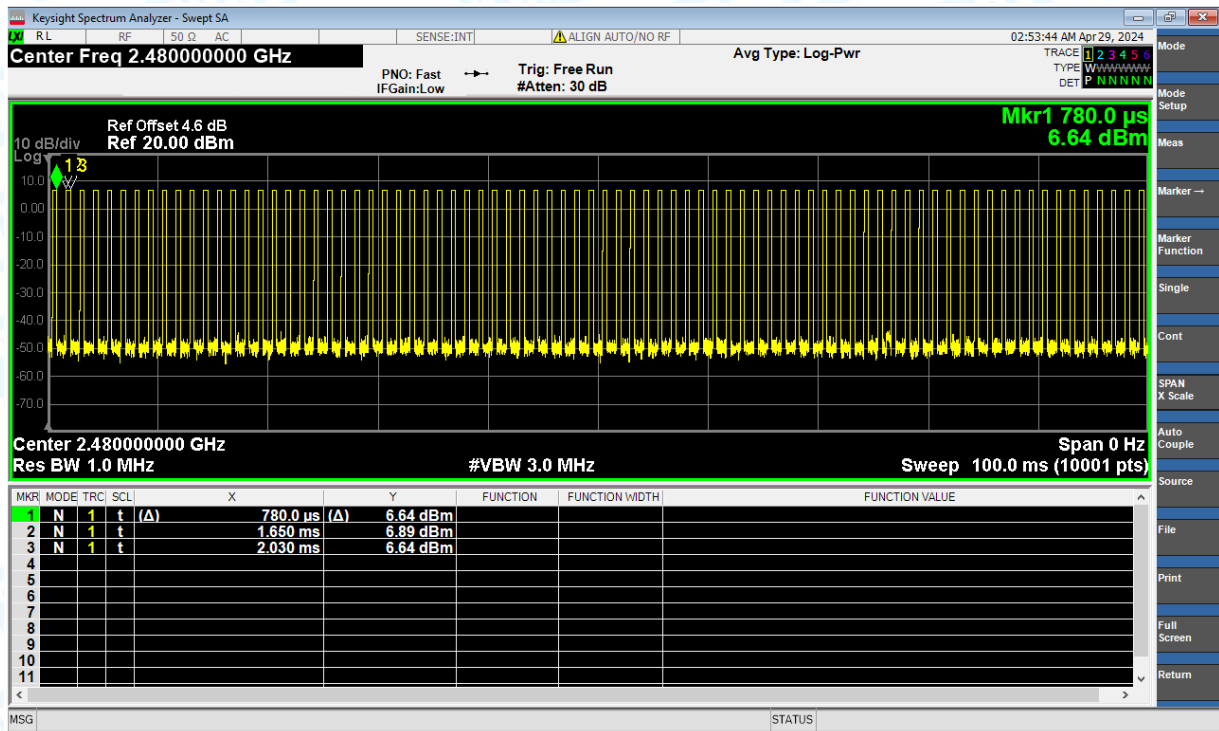
Duty Cycle NVNT 1-DH1 2402MHz Ant1



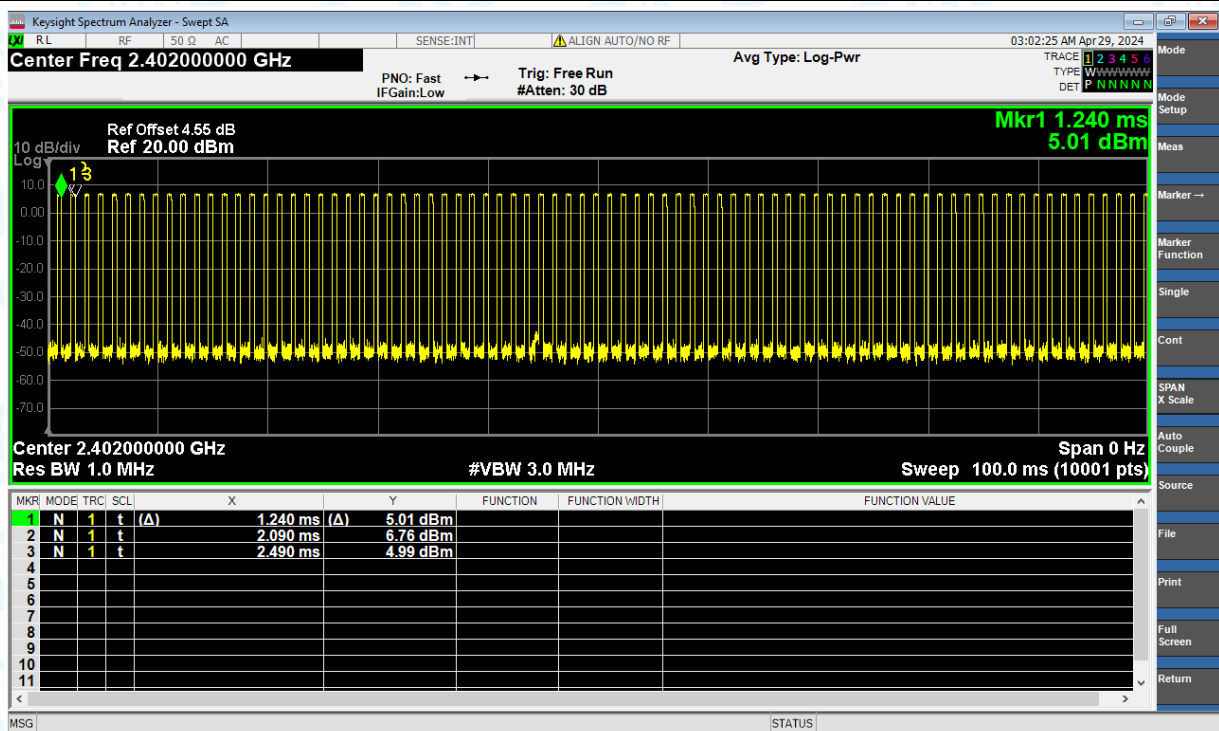
Duty Cycle NVNT 1-DH1 2441MHz Ant1



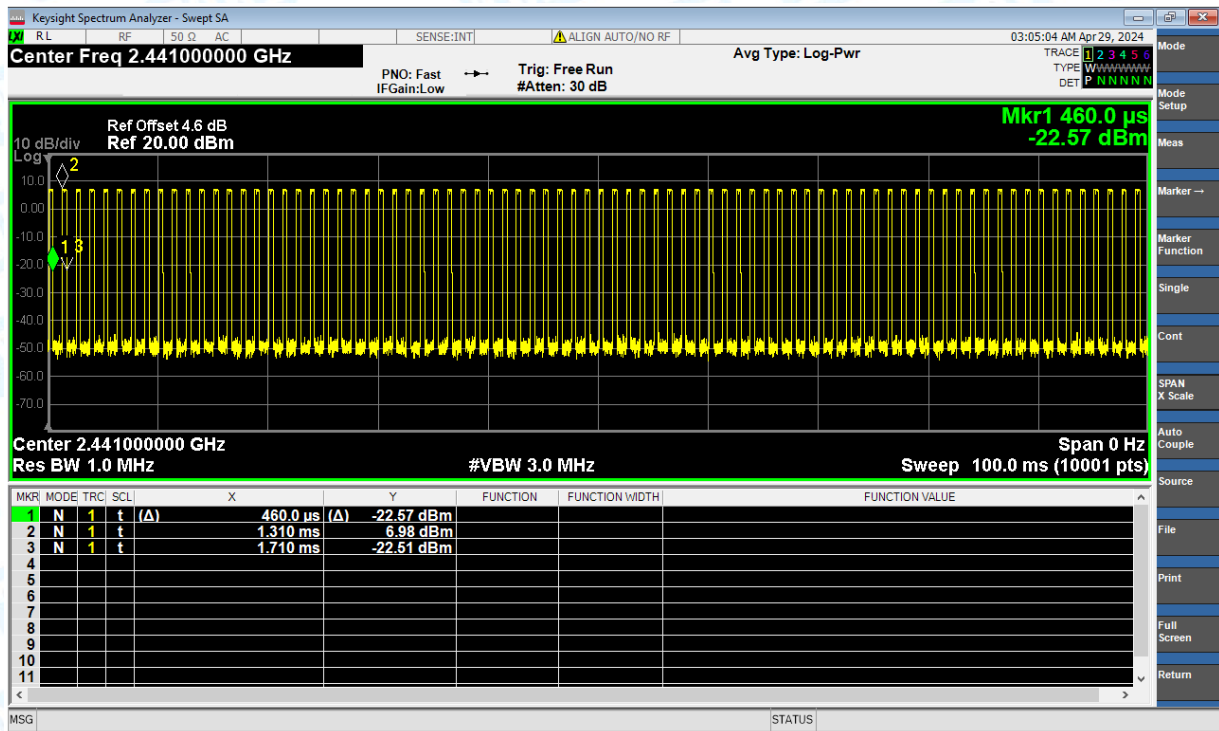
Duty Cycle NVNT 1-DH1 2480MHz Ant1



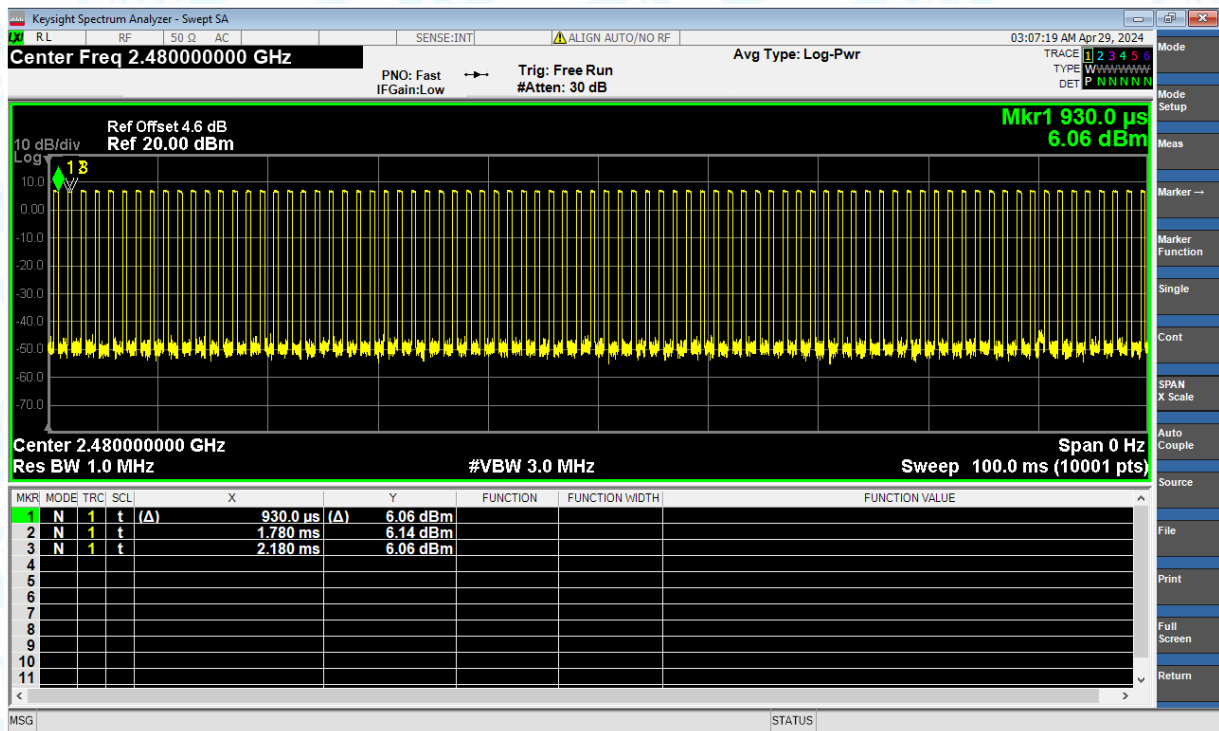
Duty Cycle NVNT 2-DH1 2402MHz Ant1



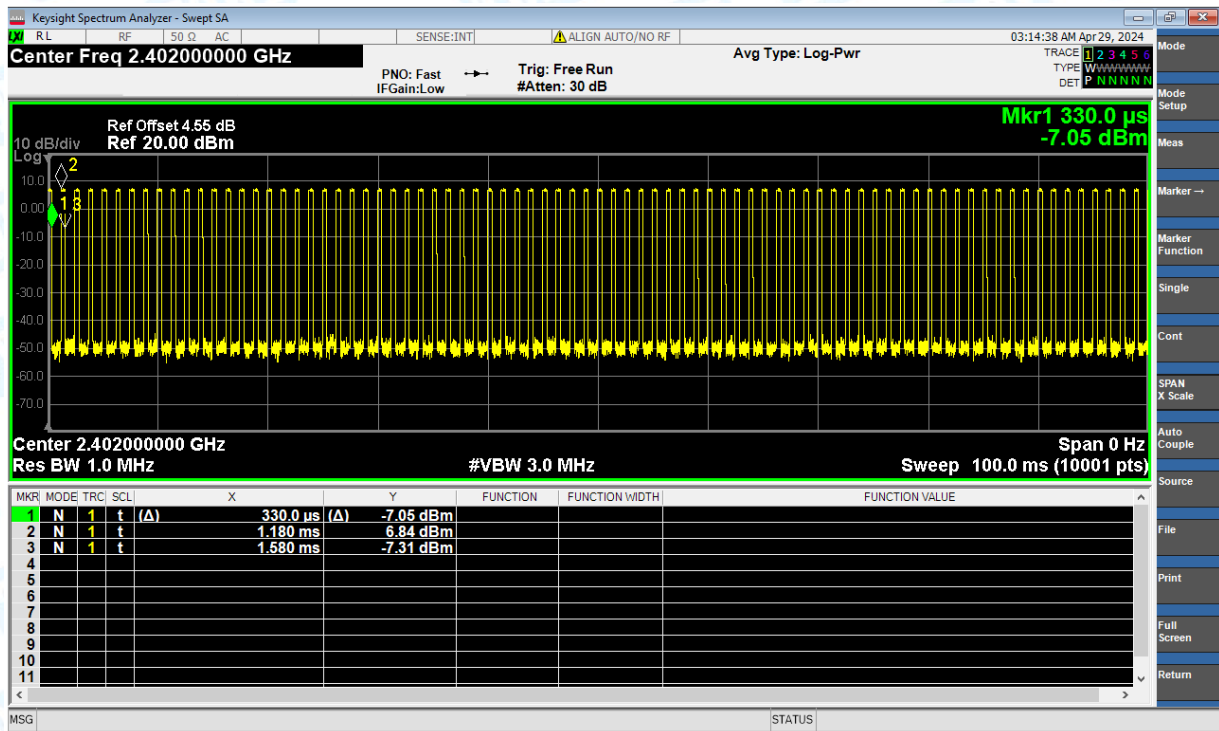
Duty Cycle NVNT 2-DH1 2441MHz Ant1



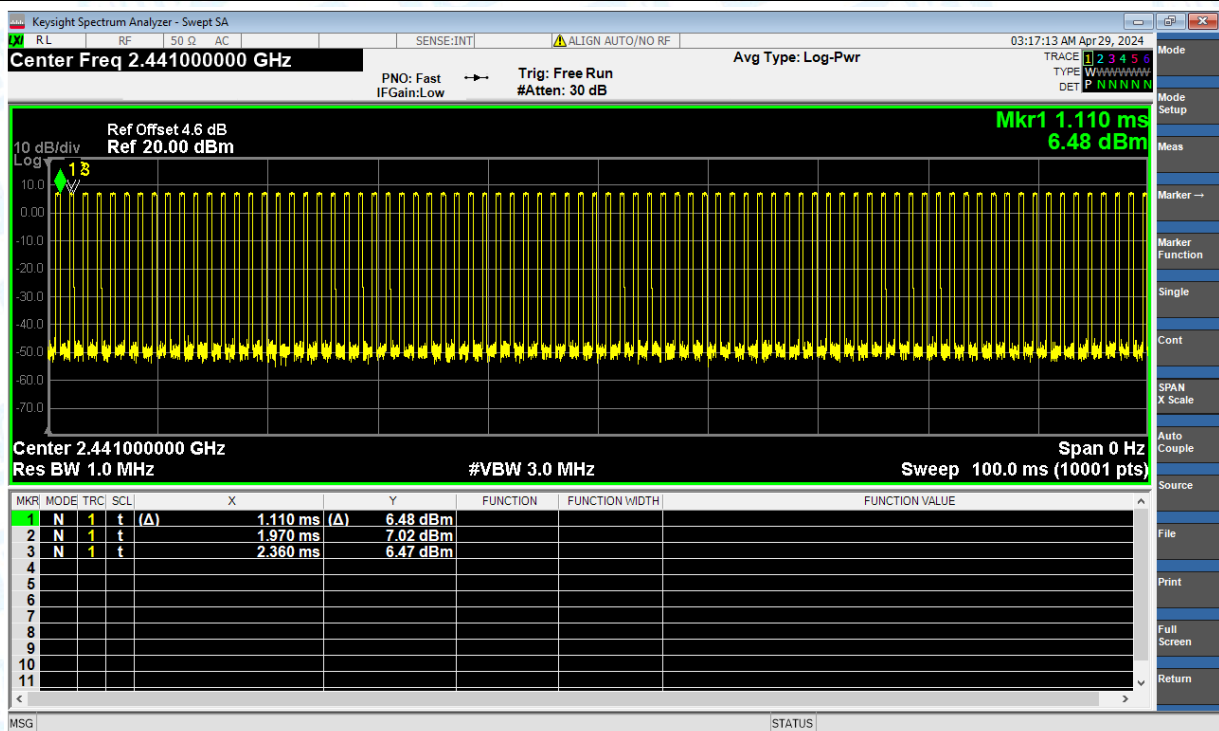
Duty Cycle NVNT 2-DH1 2480MHz Ant1

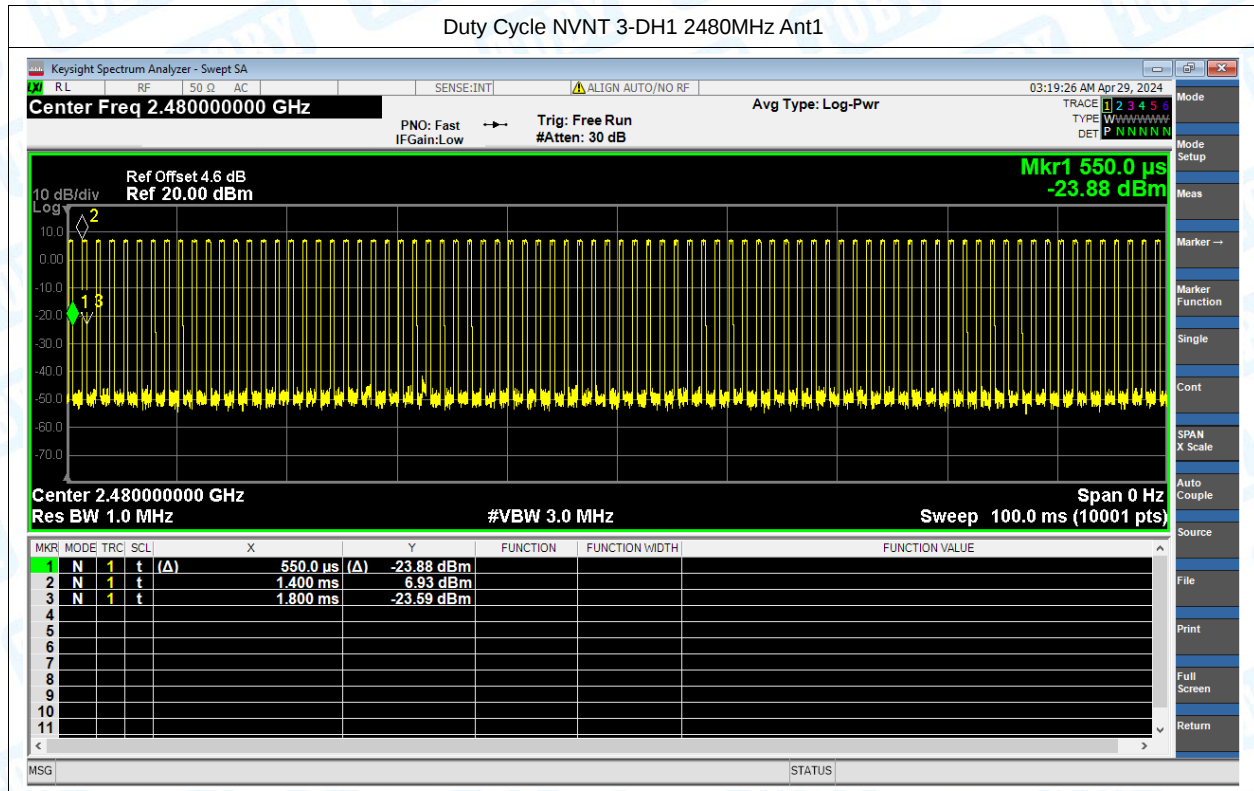


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



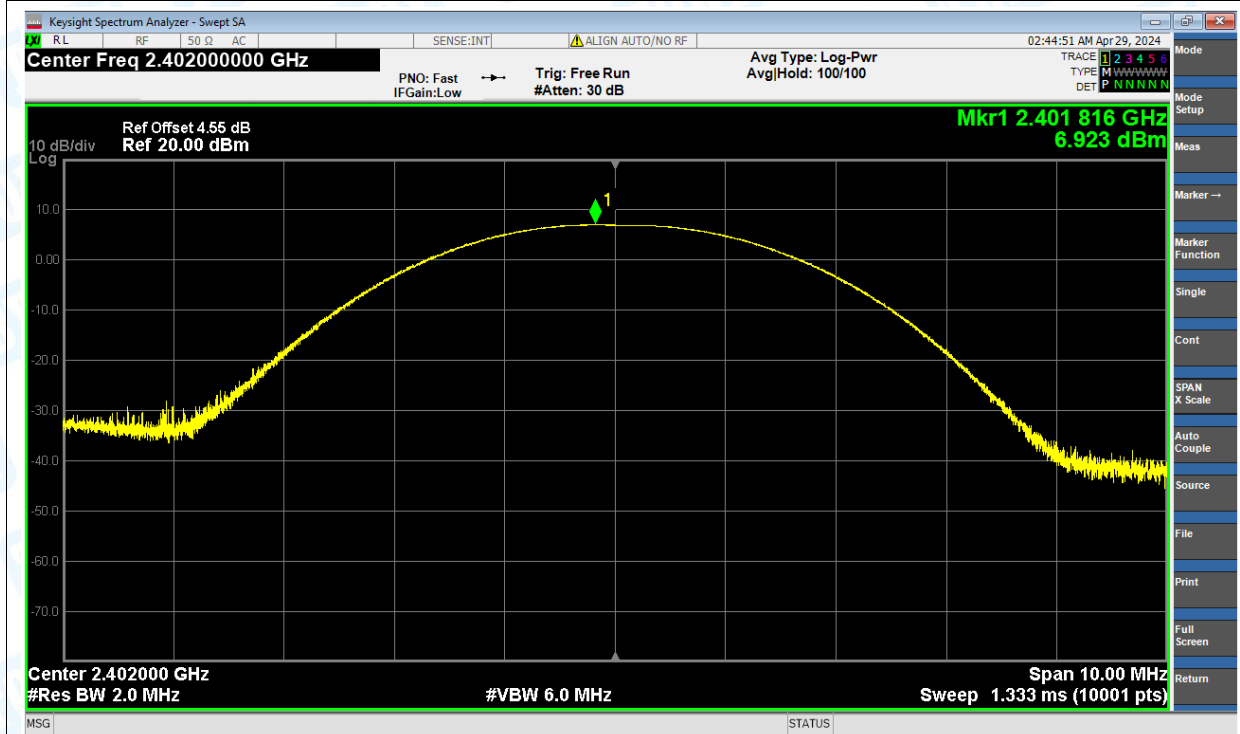


2. Maximum Conducted Output Power

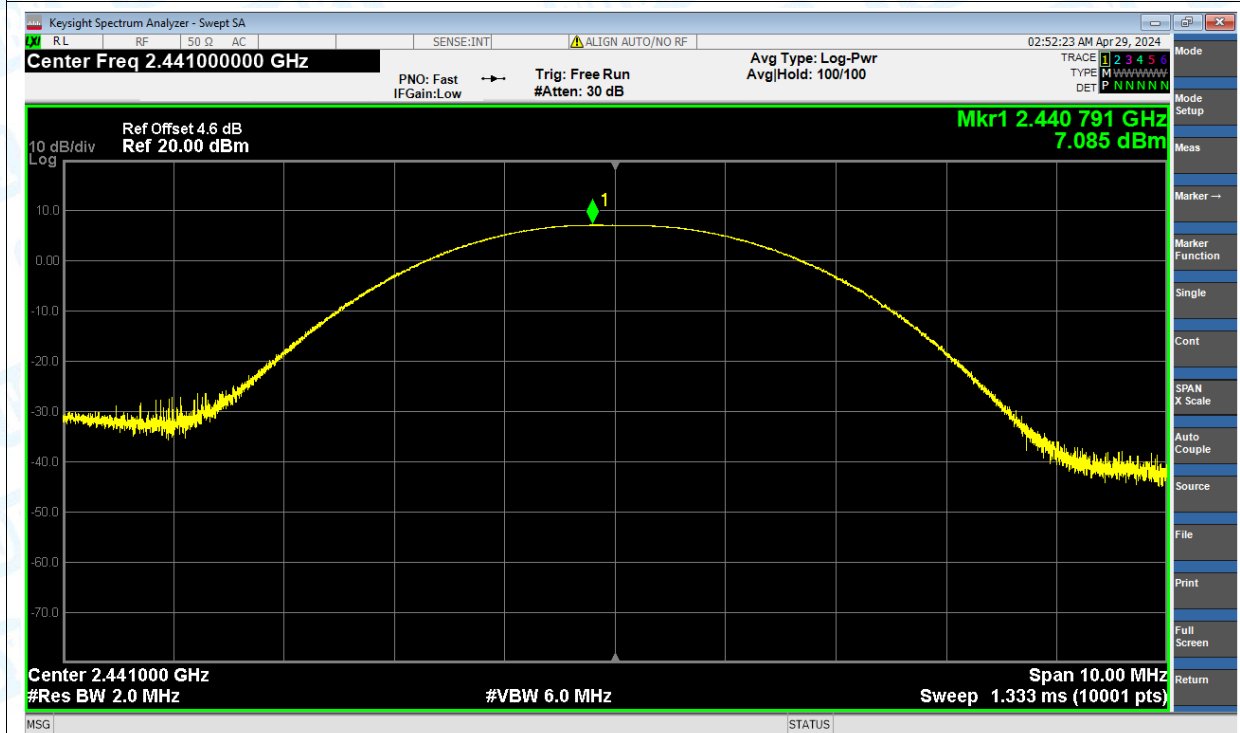
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	6.923	21	Pass
NVNT	1-DH1	2441	Ant1	7.085	21	Pass
NVNT	1-DH1	2480	Ant1	6.959	21	Pass
NVNT	1-DH3	2441	Ant1	7.082	21	Pass
NVNT	1-DH5	2441	Ant1	7.059	21	Pass
NVNT	2-DH1	2402	Ant1	7.319	21	Pass
NVNT	2-DH1	2441	Ant1	7.395	21	Pass
NVNT	2-DH1	2480	Ant1	7.306	21	Pass
NVNT	2-DH3	2441	Ant1	7.443	21	Pass
NVNT	2-DH5	2441	Ant1	7.433	21	Pass
NVNT	3-DH1	2402	Ant1	7.578	21	Pass
NVNT	3-DH1	2441	Ant1	7.562	21	Pass
NVNT	3-DH1	2480	Ant1	7.467	21	Pass
NVNT	3-DH3	2441	Ant1	7.578	21	Pass
NVNT	3-DH5	2441	Ant1	7.581	21	Pass

Test Graphs

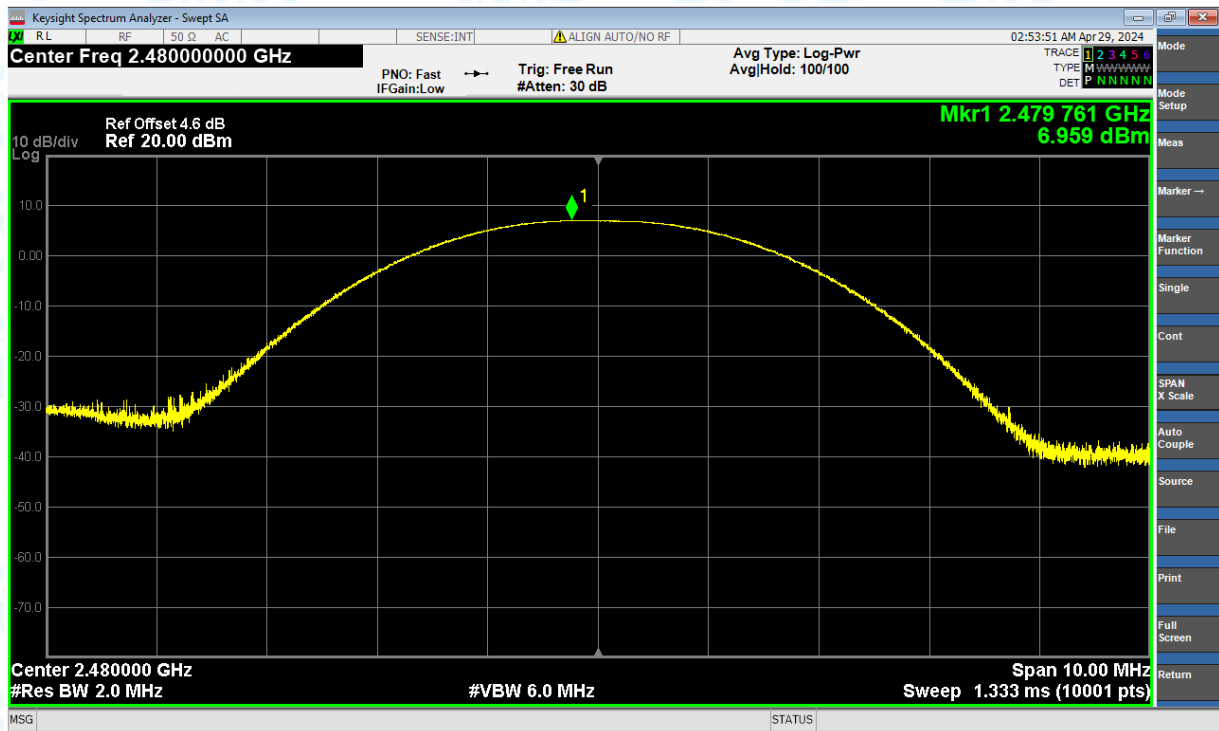
Power NVNT 1-DH1 2402MHz Ant1



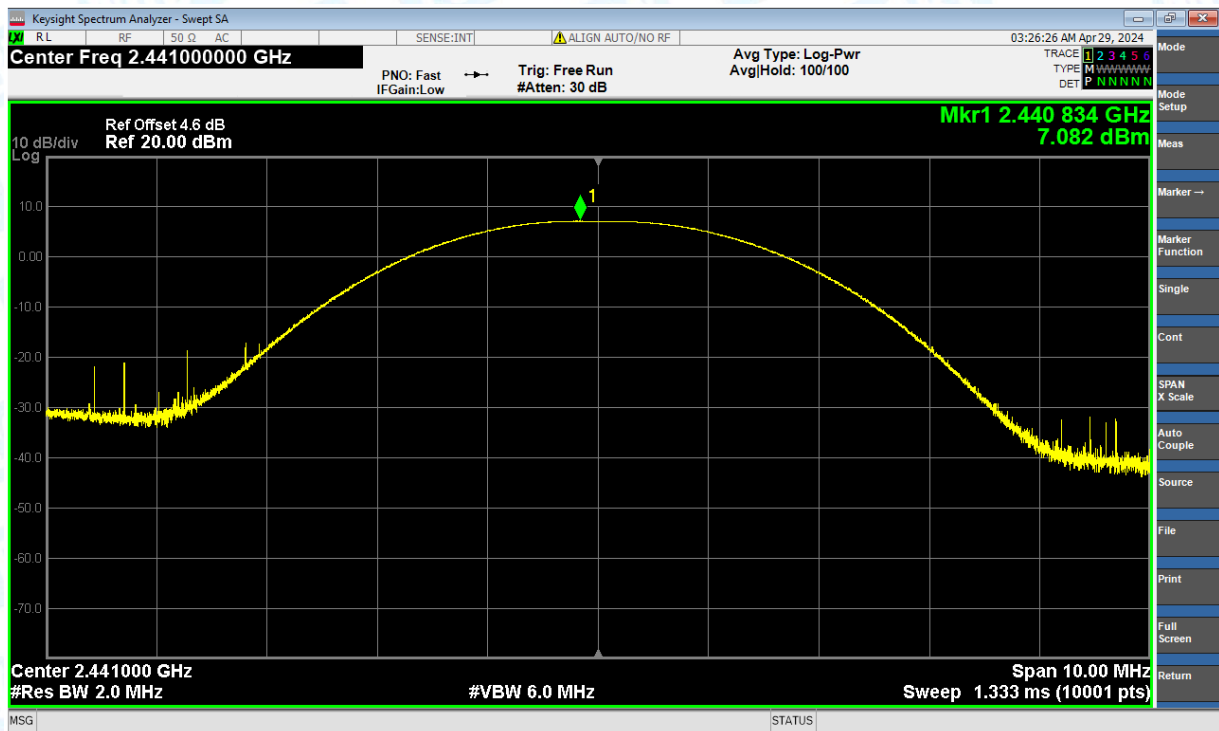
Power NVNT 1-DH1 2441MHz Ant1



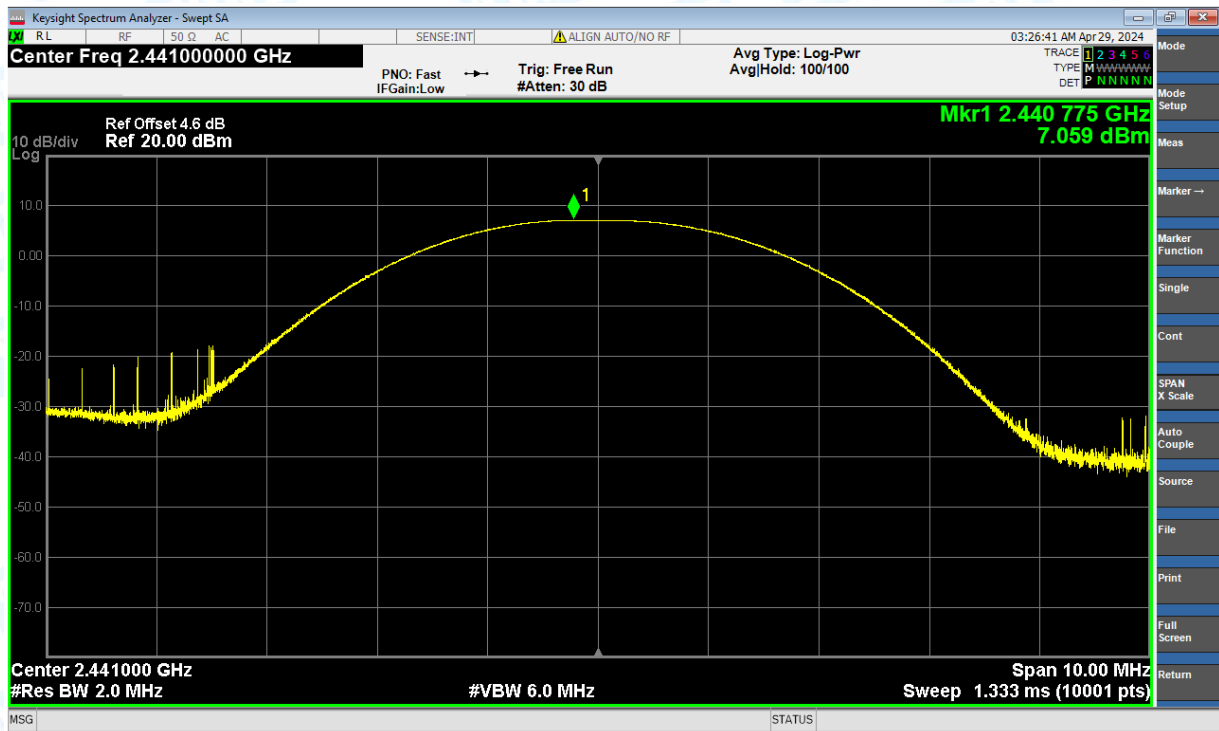
Power NVNT 1-DH1 2480MHz Ant1



Power NVNT 1-DH3 2441MHz Ant1



Power NVNT 1-DH5 2441MHz Ant1



Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



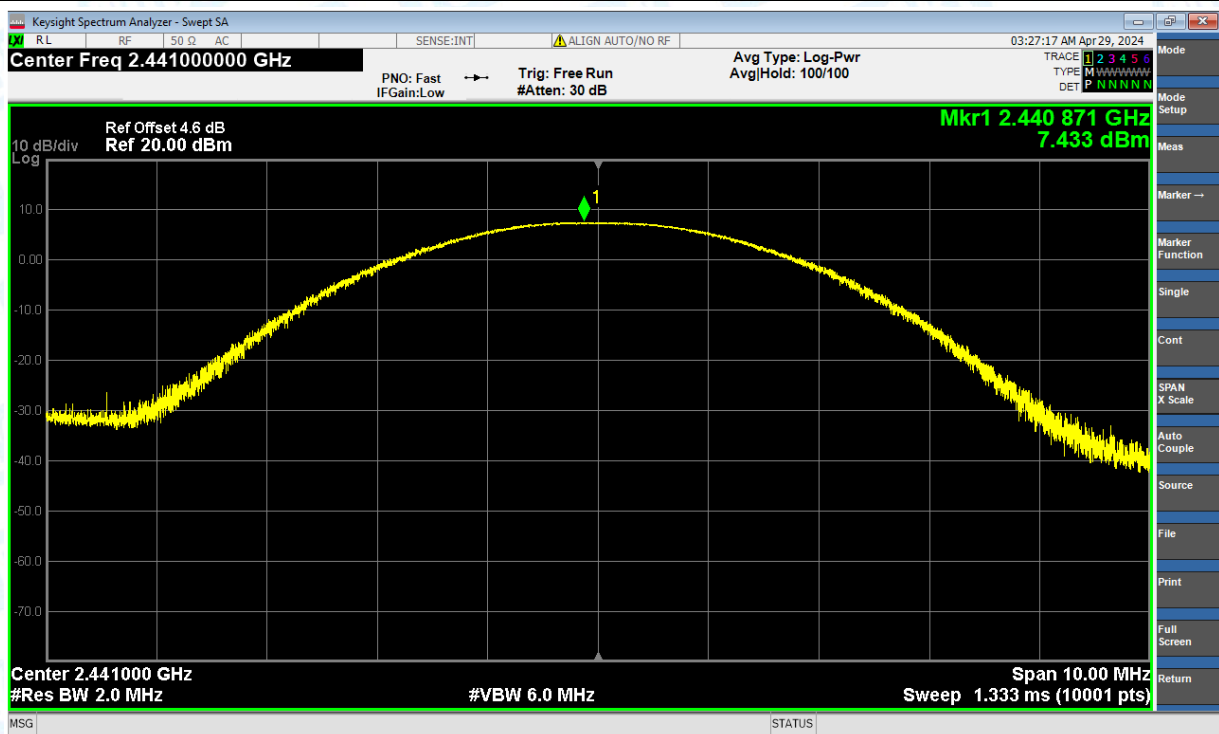
Power NVNT 2-DH1 2480MHz Ant1



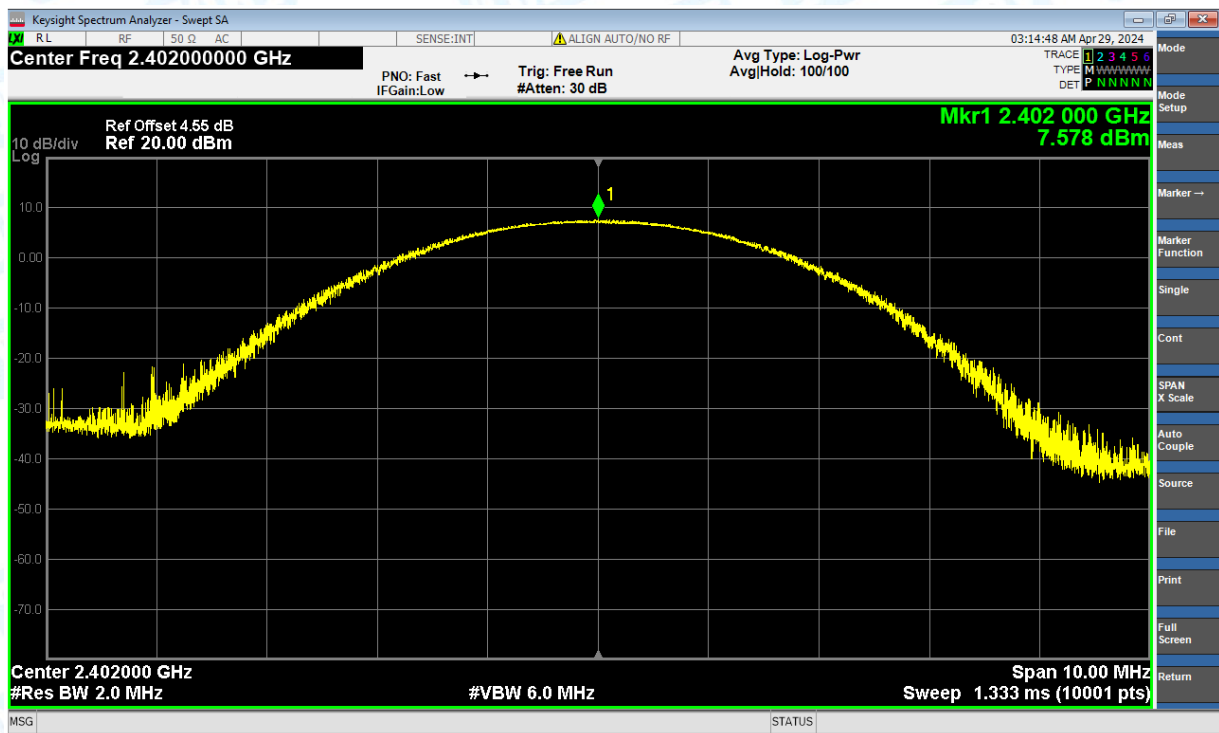
Power NVNT 2-DH3 2441MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1



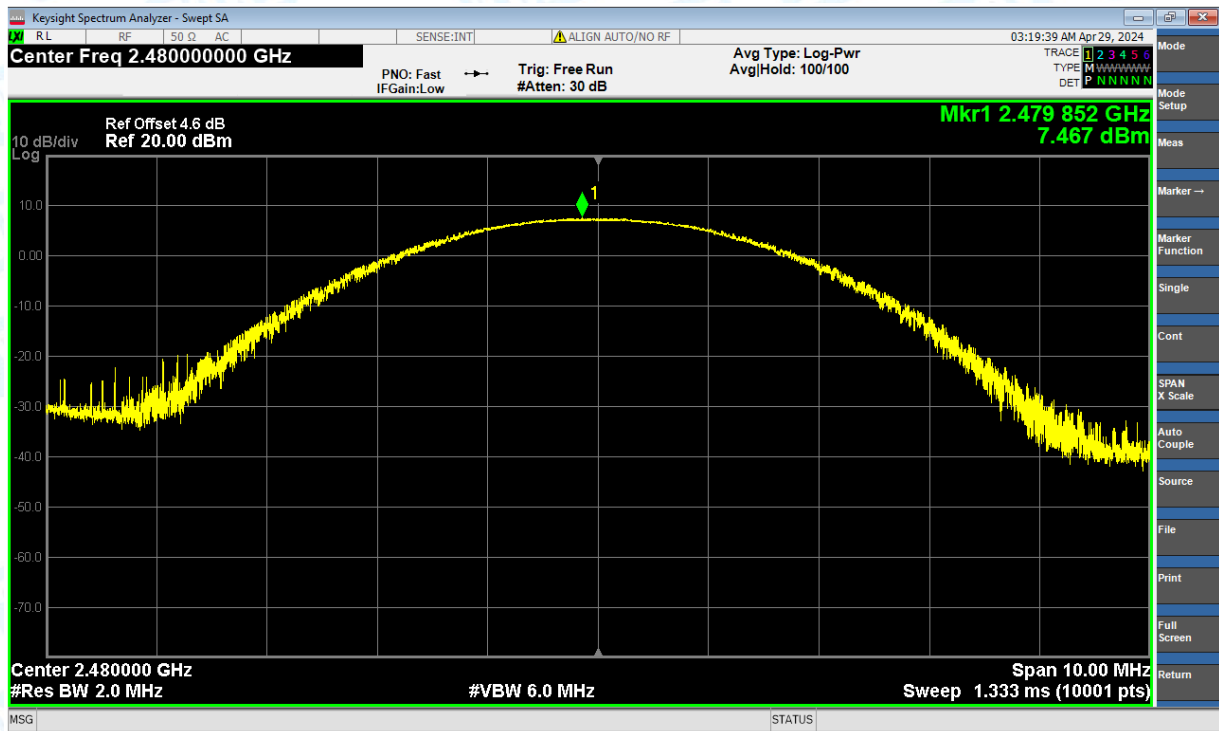
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



Power NVNT 3-DH1 2480MHz Ant1



Power NVNT 3-DH3 2441MHz Ant1



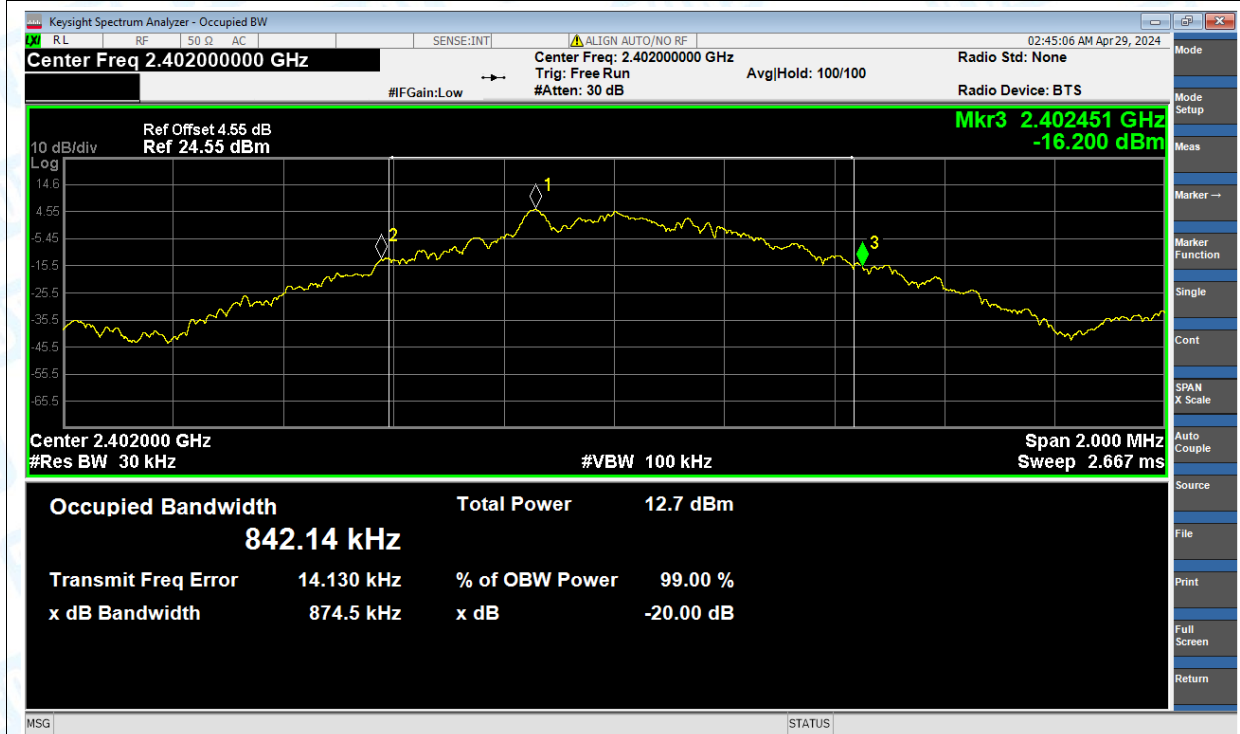


3. -20dB Bandwidth

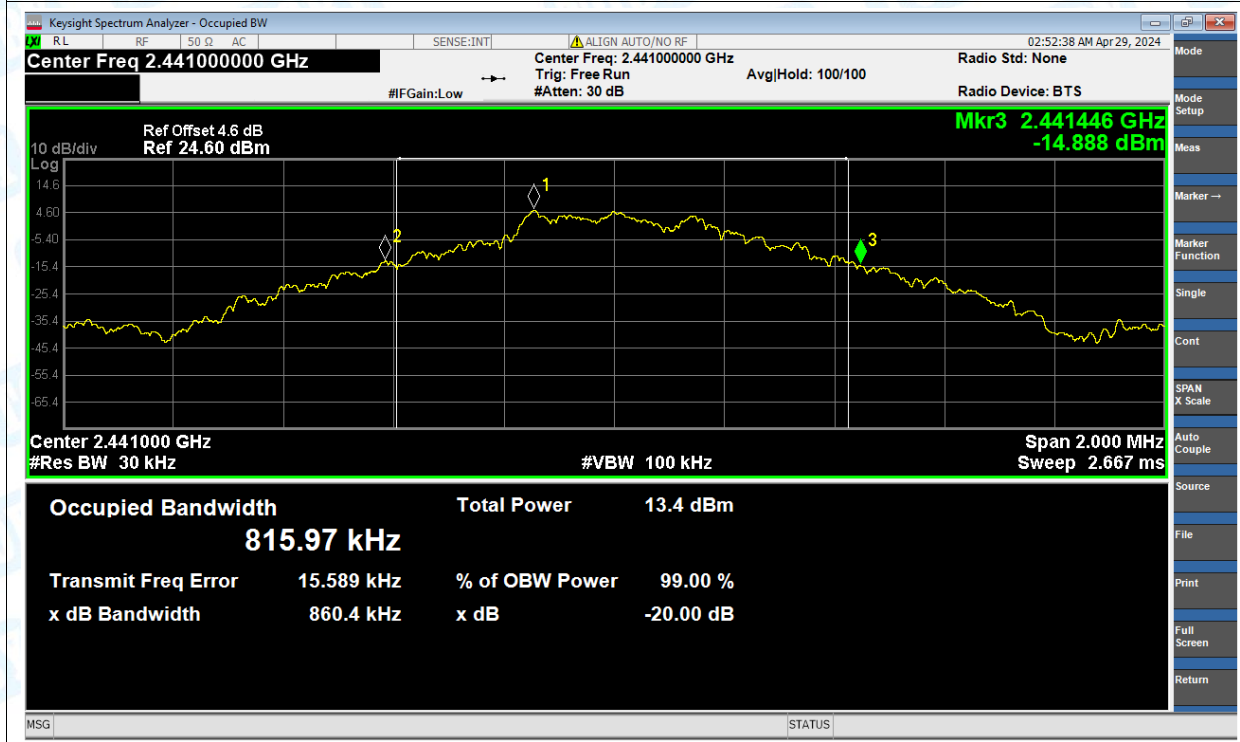
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.24	0	Pass
NVNT	2-DH1	2480	Ant1	1.28	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.25	0	Pass

Test Graphs

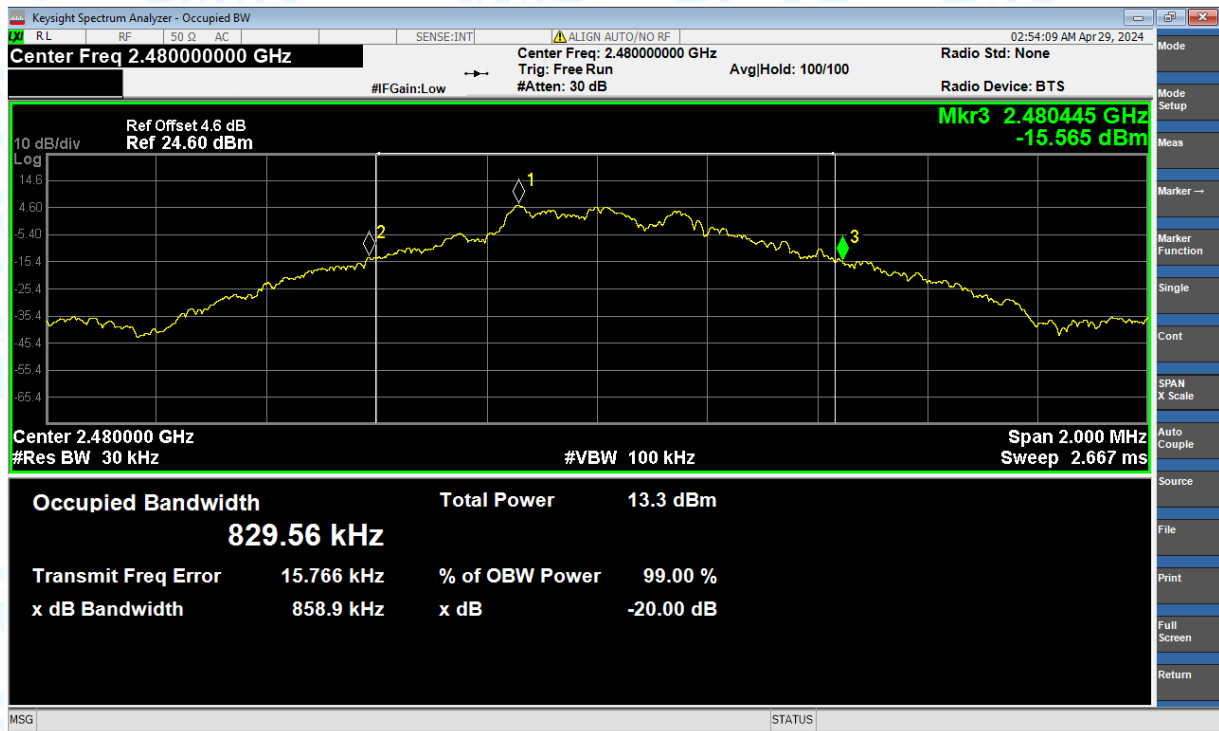
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



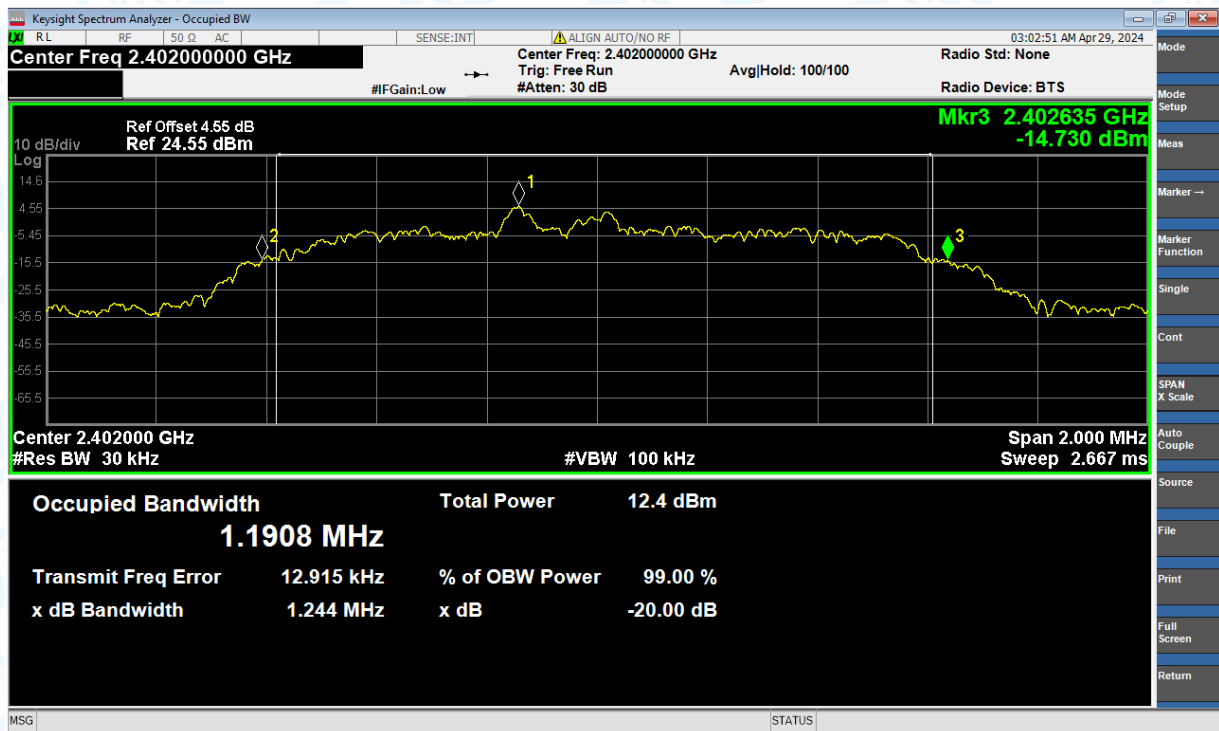
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



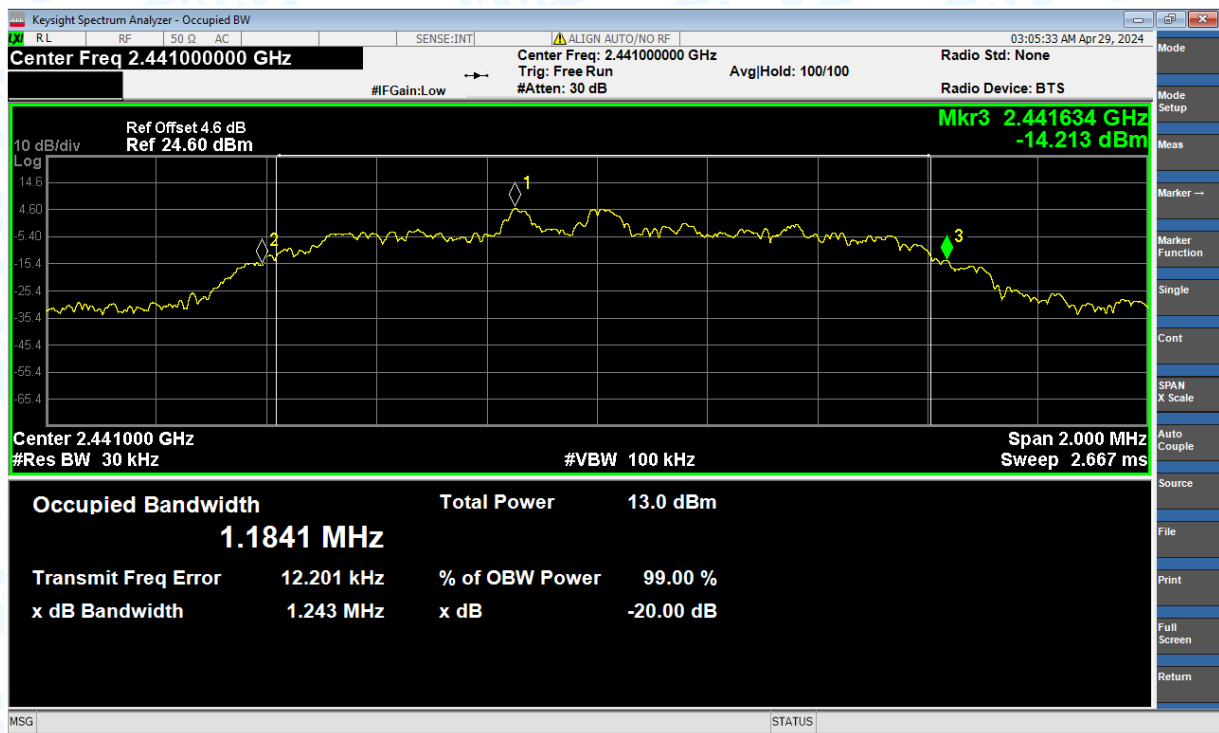
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



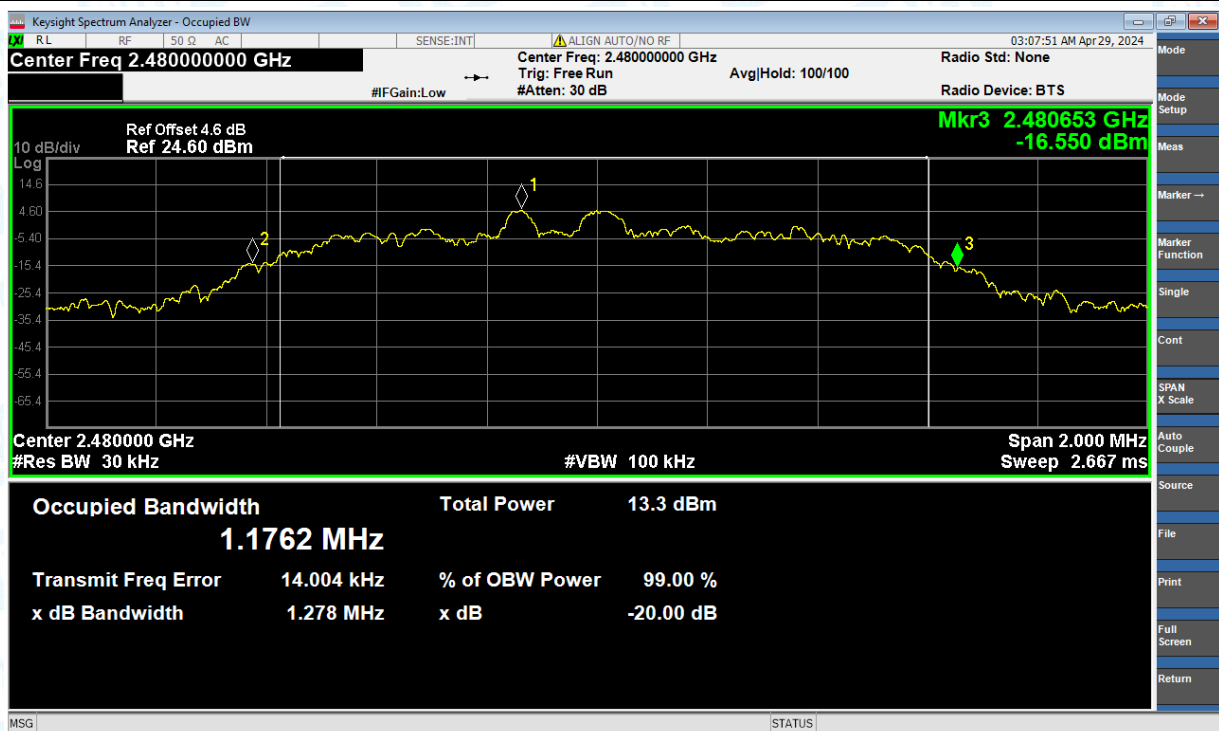
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



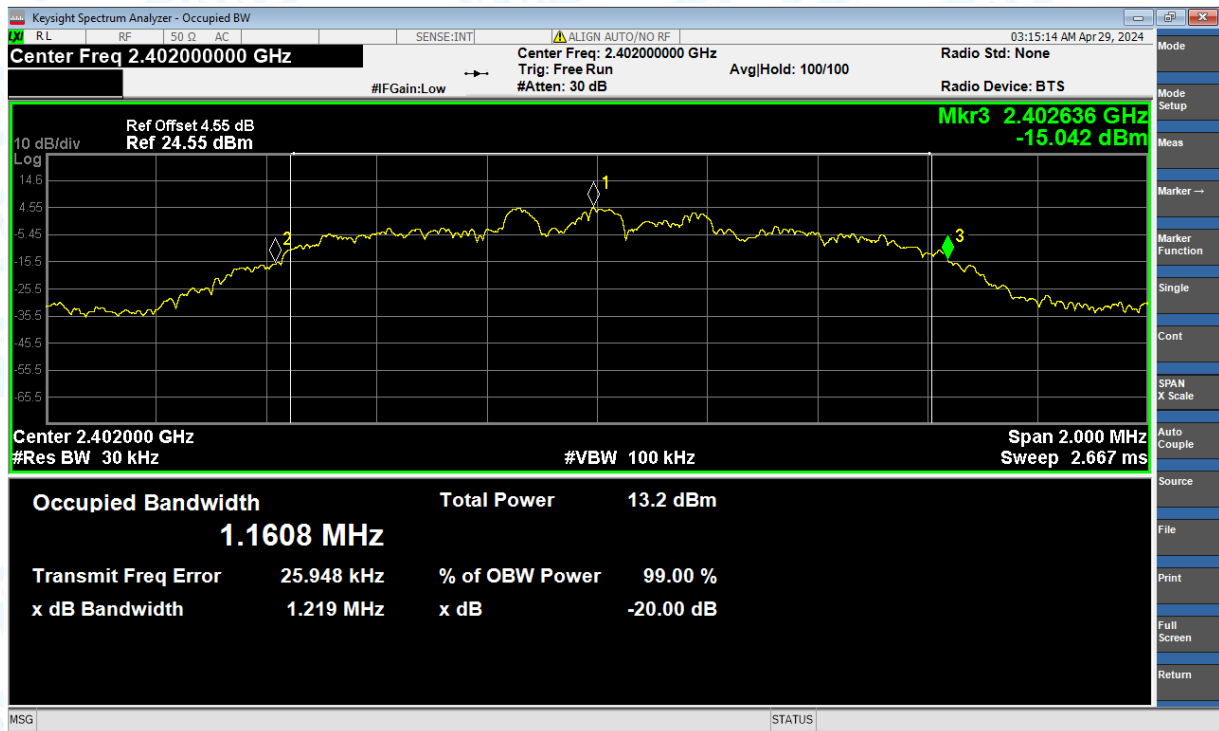
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



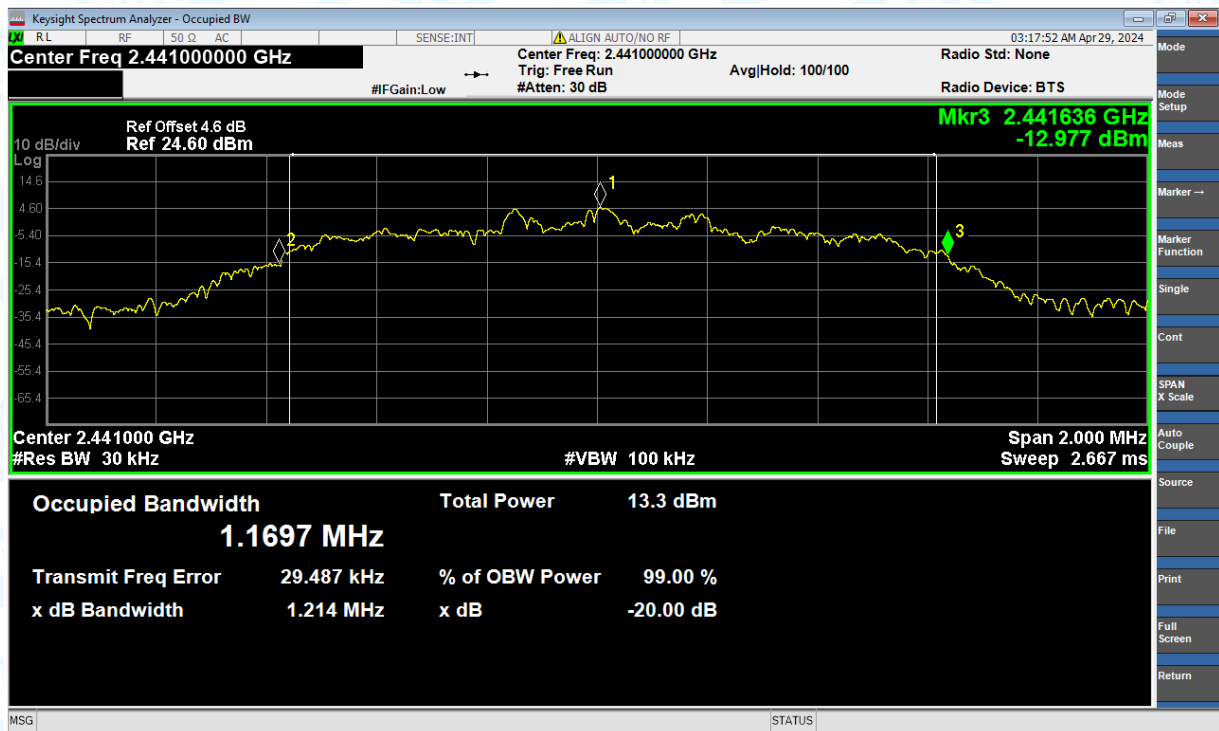
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

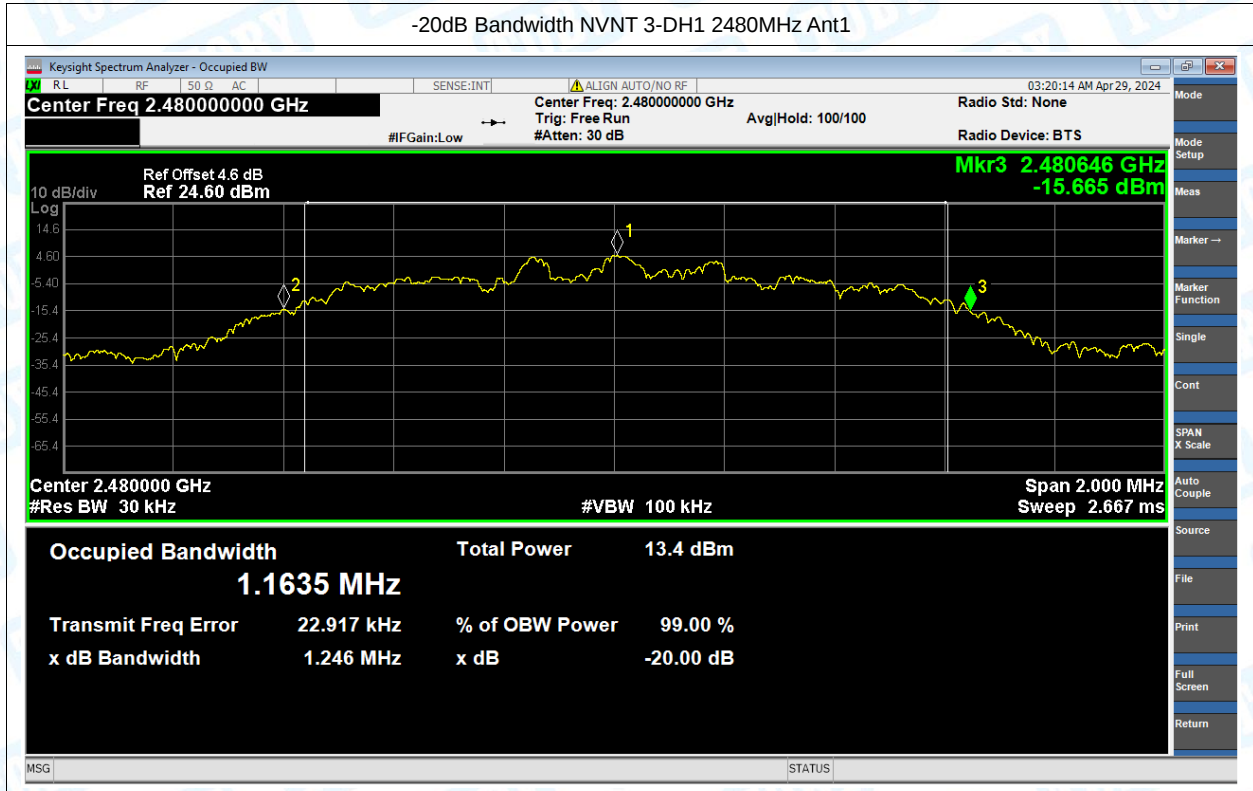


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



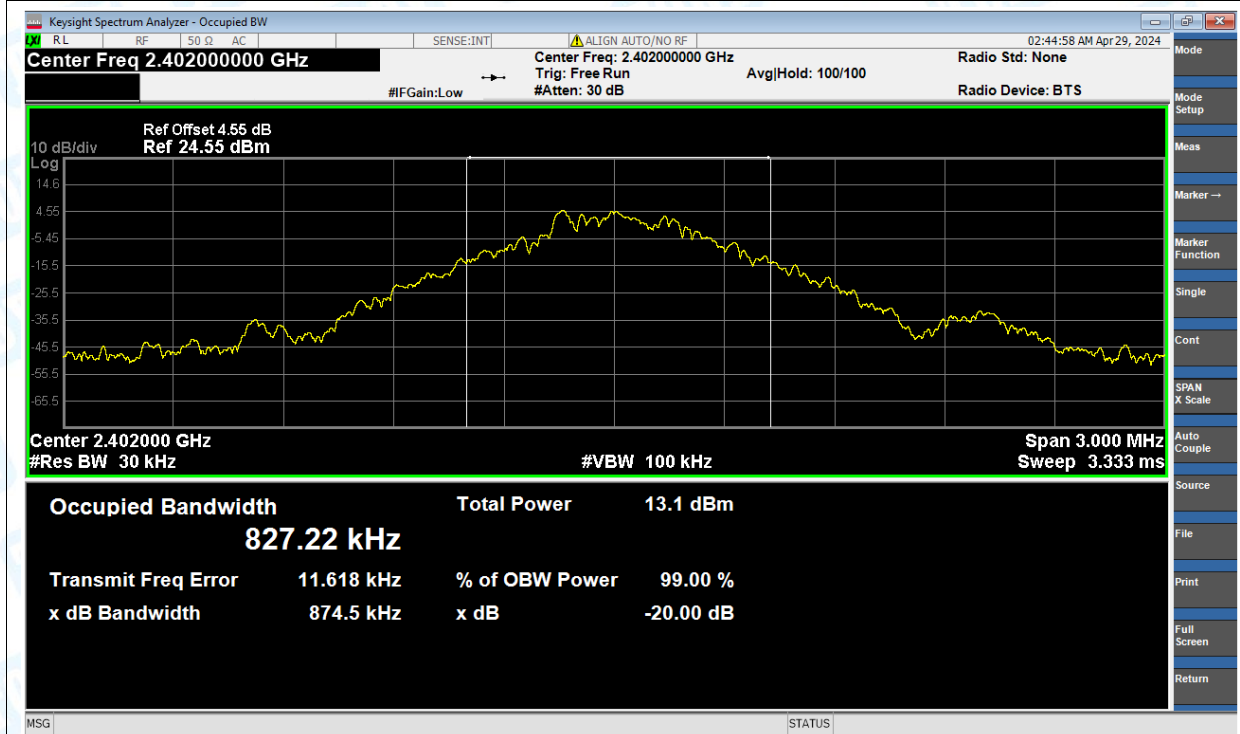


4. Occupied Channel Bandwidth

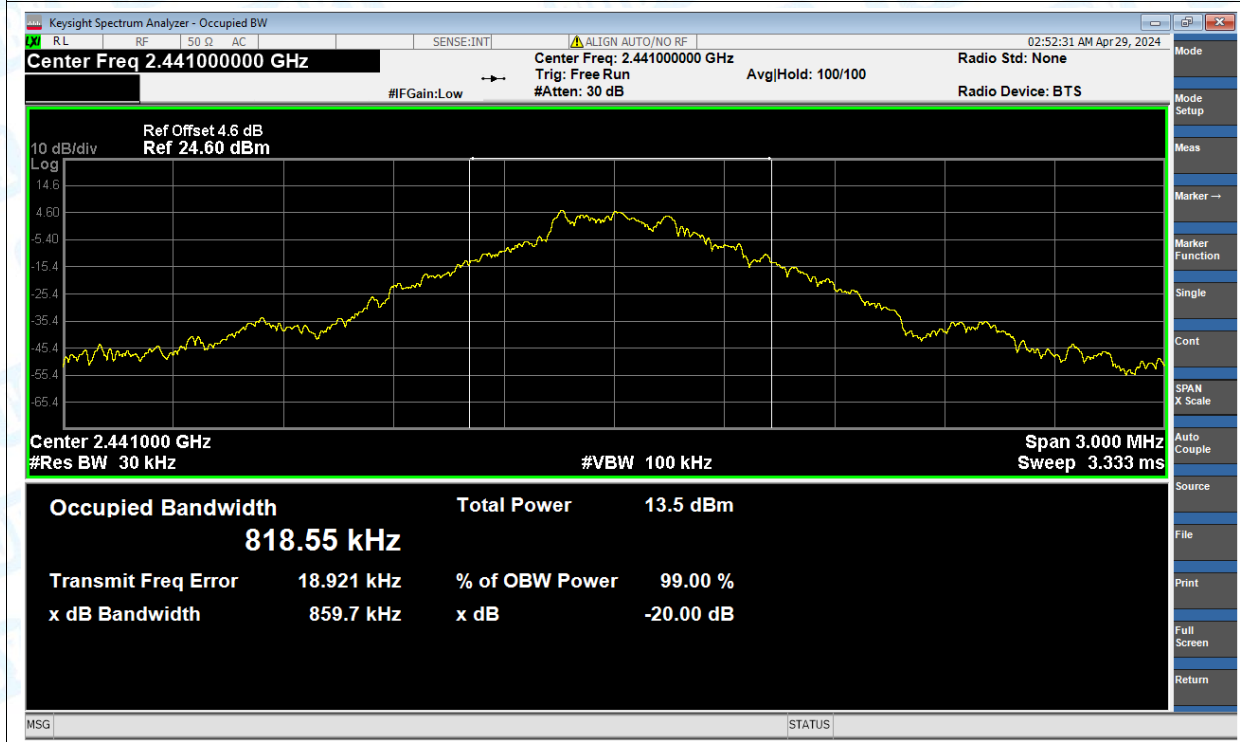
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.827
NVNT	1-DH1	2441	Ant1	0.819
NVNT	1-DH1	2480	Ant1	0.825
NVNT	2-DH1	2402	Ant1	1.171
NVNT	2-DH1	2441	Ant1	1.218
NVNT	2-DH1	2480	Ant1	1.207
NVNT	3-DH1	2402	Ant1	1.171
NVNT	3-DH1	2441	Ant1	1.195
NVNT	3-DH1	2480	Ant1	1.199

Test Graphs

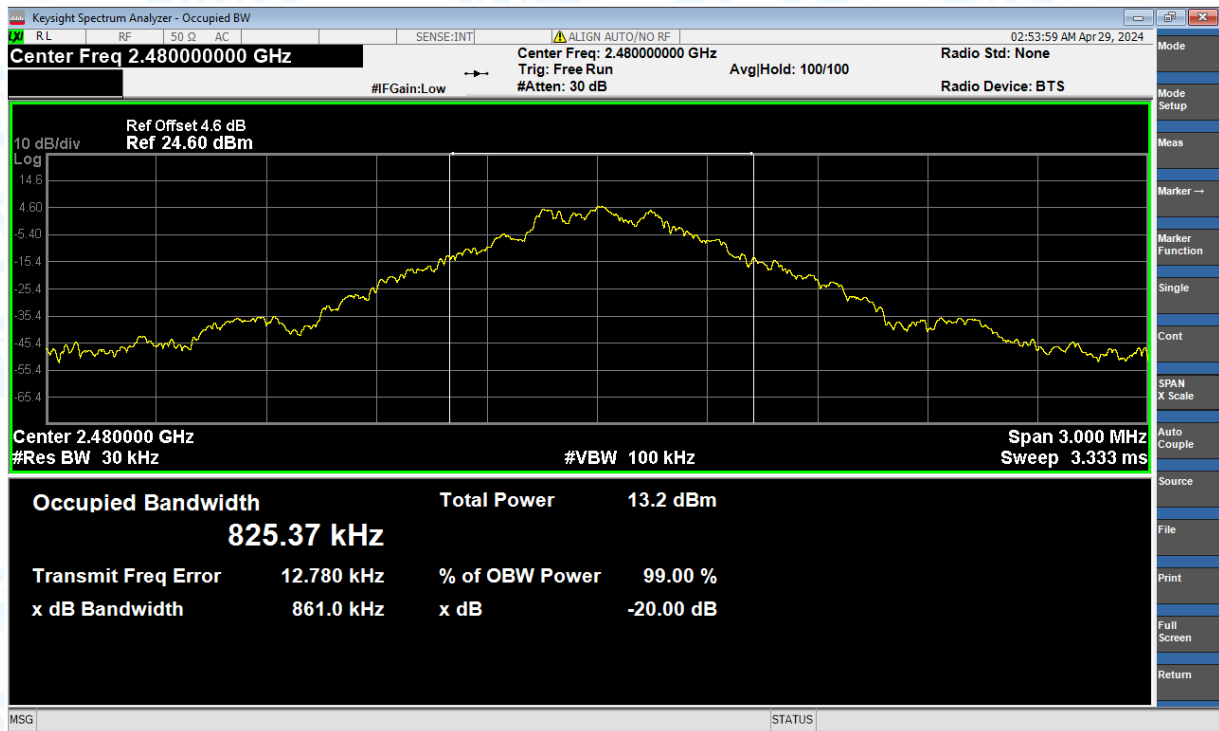
OBW NVNT 1-DH1 2402MHz Ant1



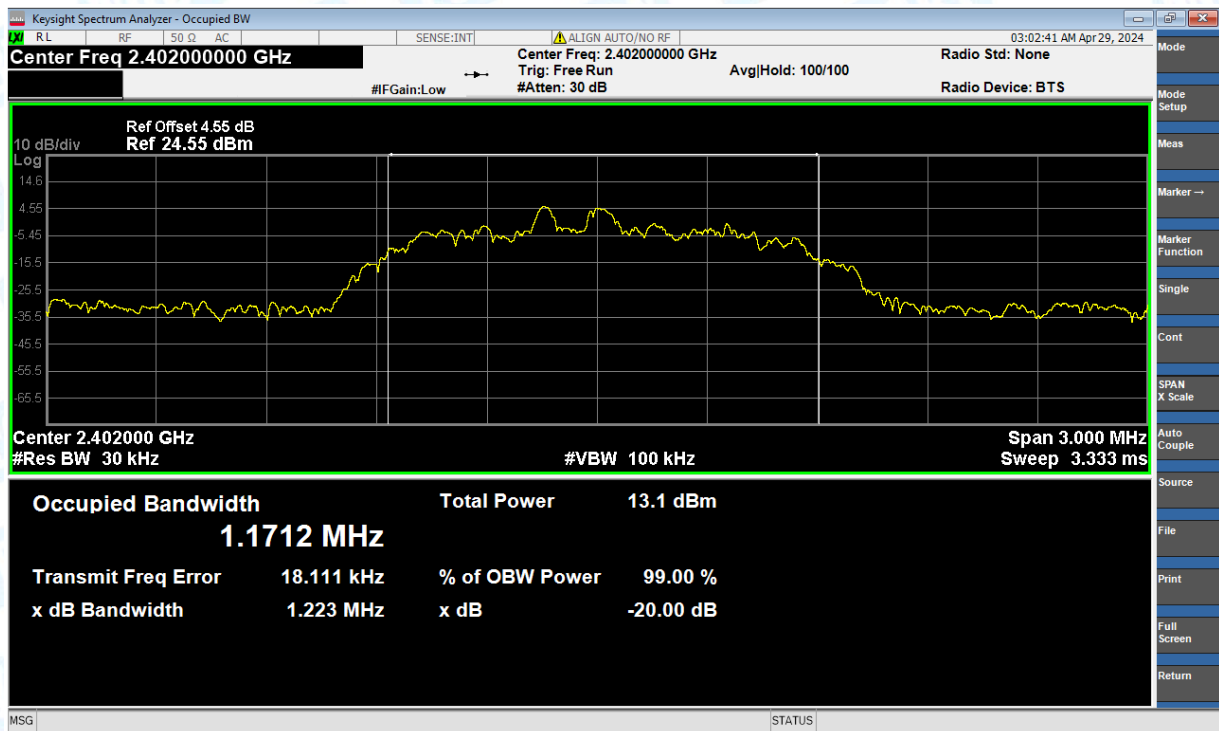
OBW NVNT 1-DH1 2441MHz Ant1



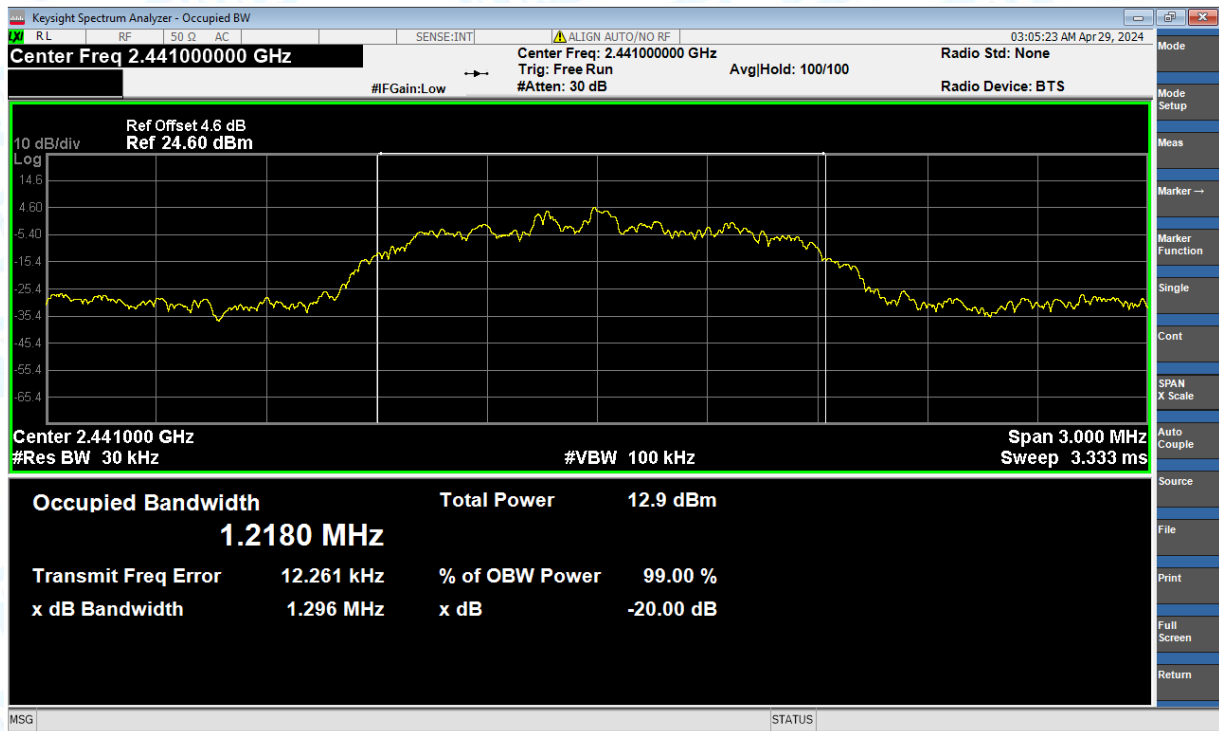
OBW NVNT 1-DH1 2480MHz Ant1



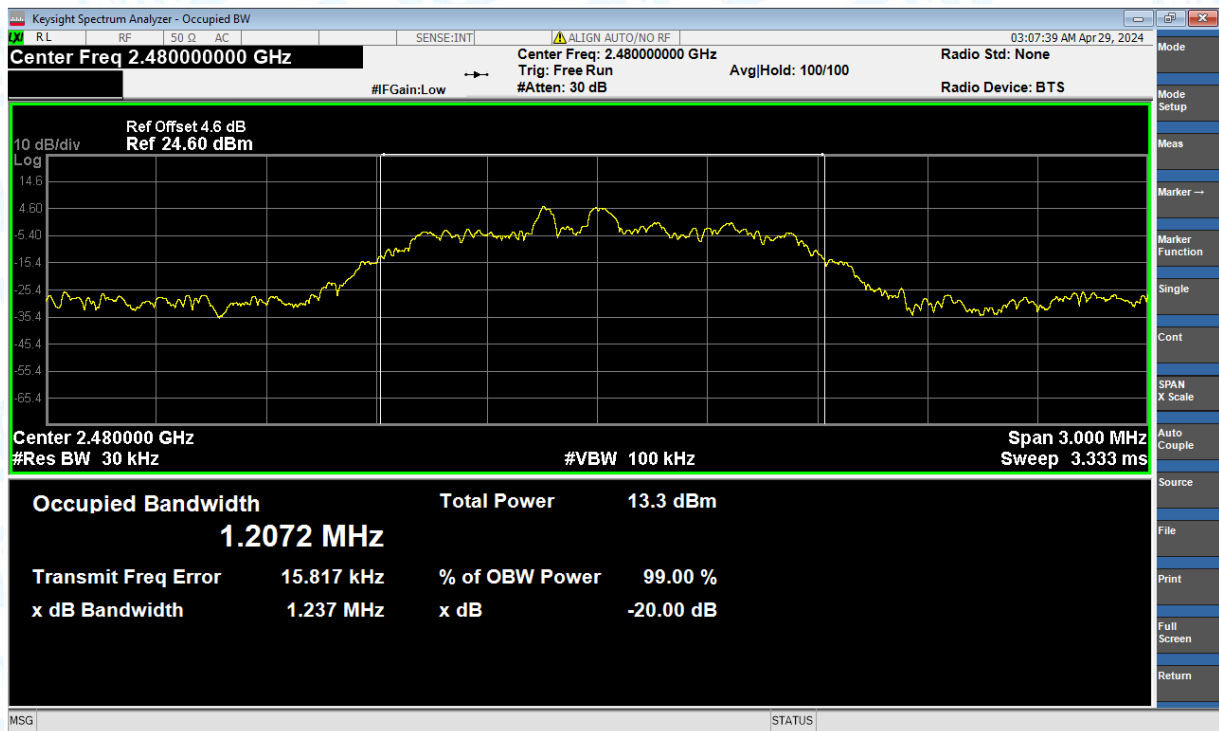
OBW NVNT 2-DH1 2402MHz Ant1



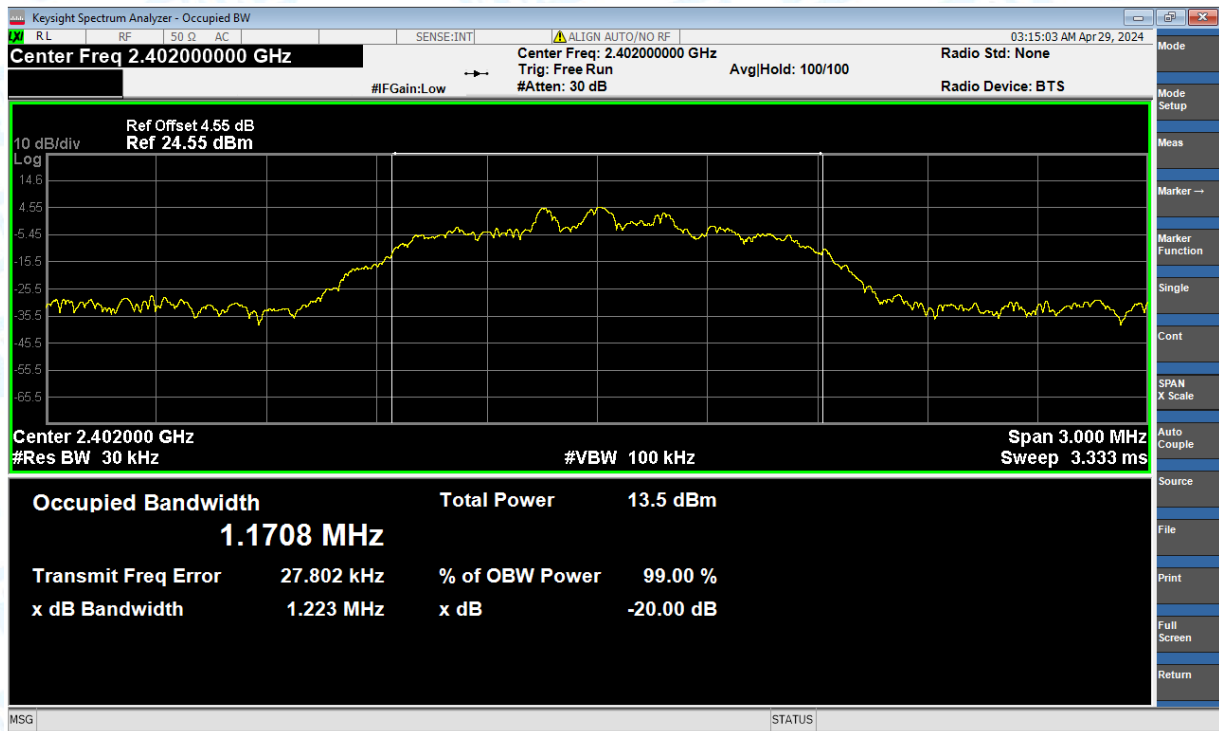
OBW NVNT 2-DH1 2441MHz Ant1



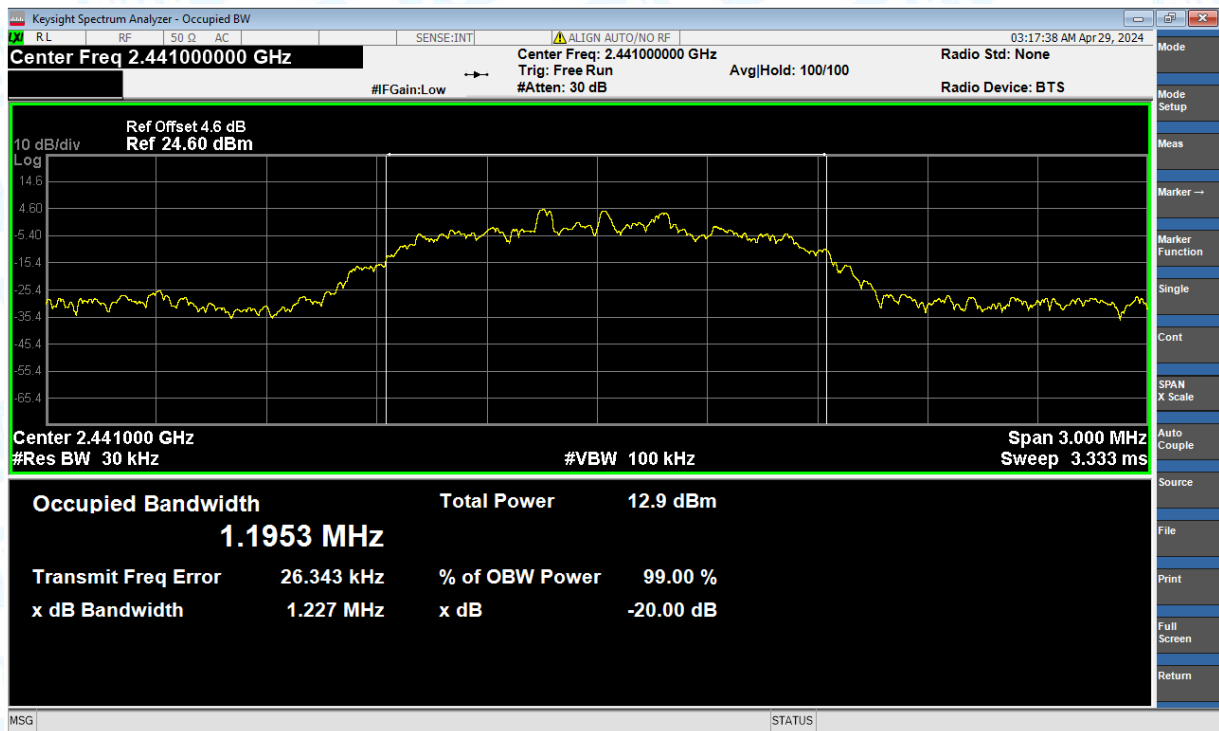
OBW NVNT 2-DH1 2480MHz Ant1

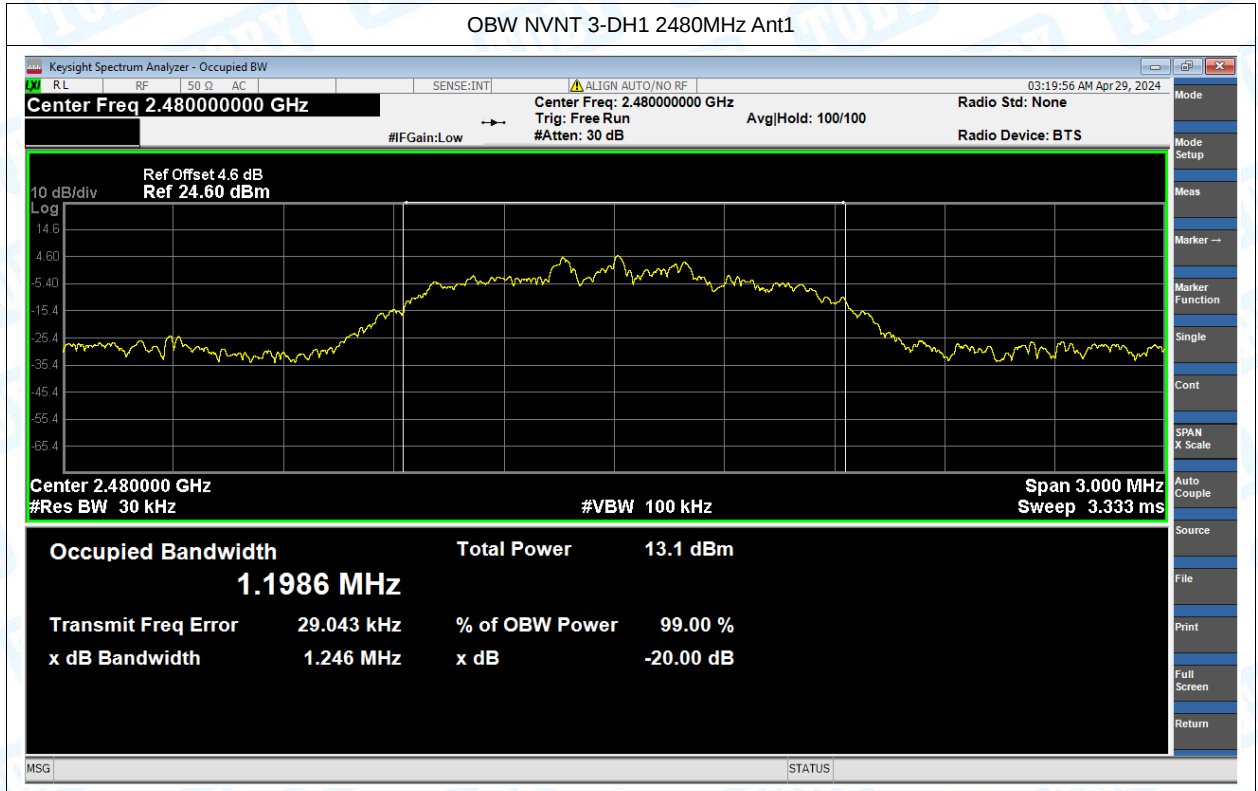


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



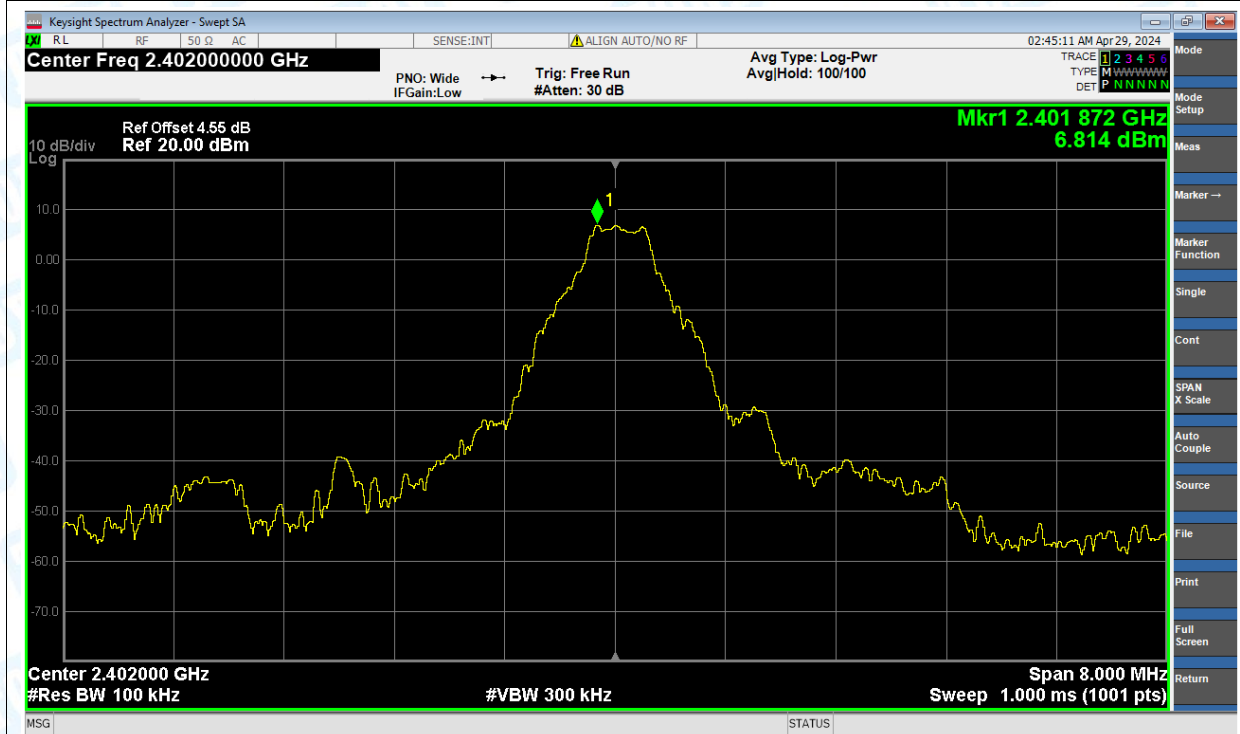


5. Band Edge

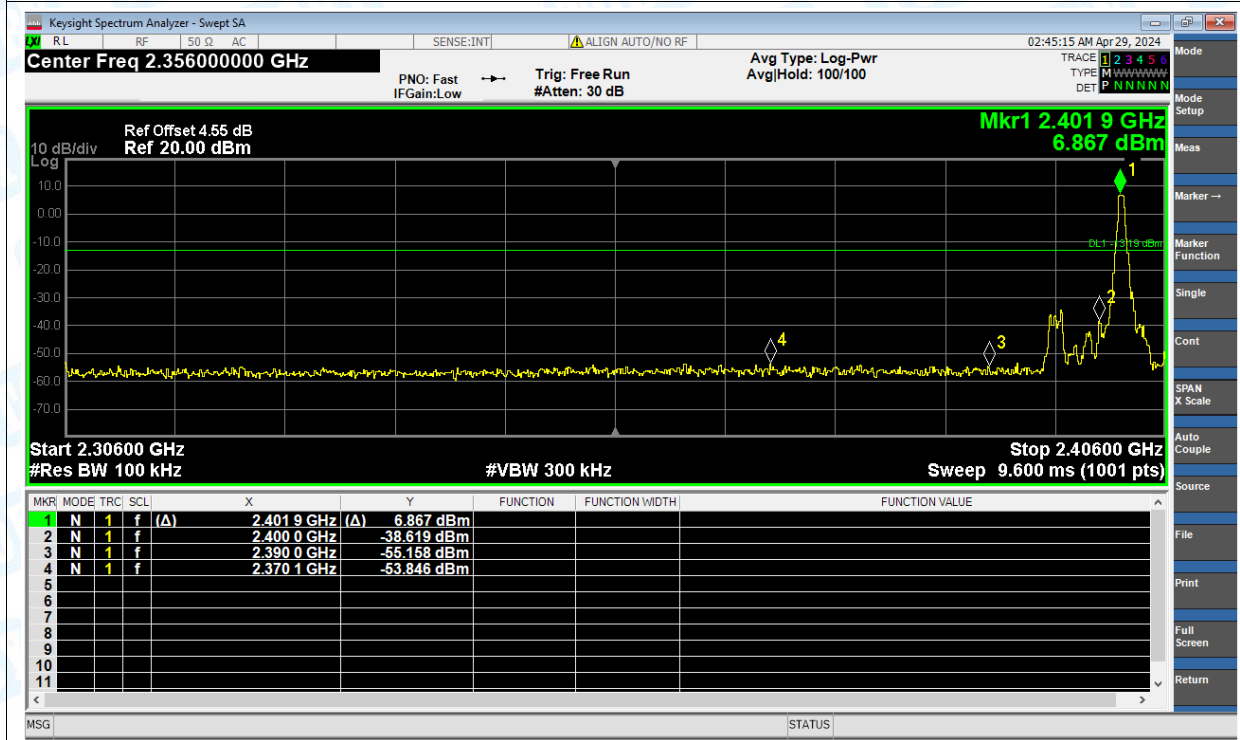
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-60.66	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-50.95	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-59.65	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.87	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.9	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-52.3	-20	Pass

Test Graphs

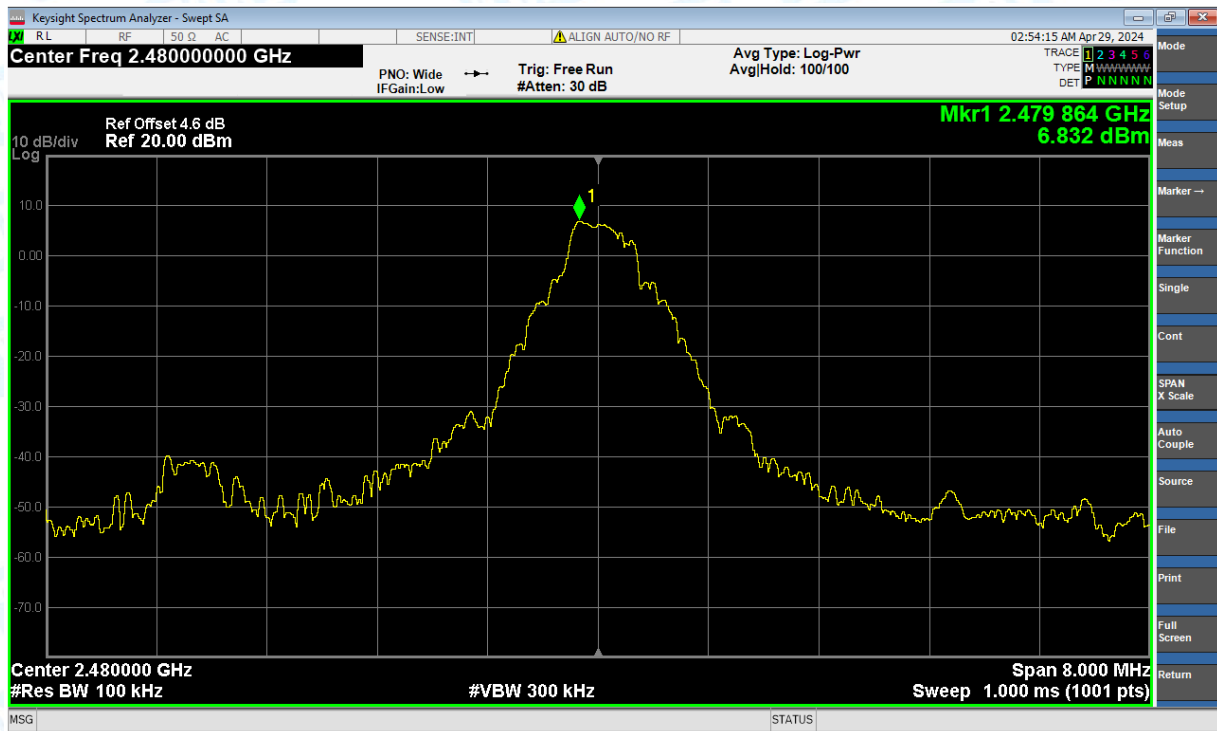
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



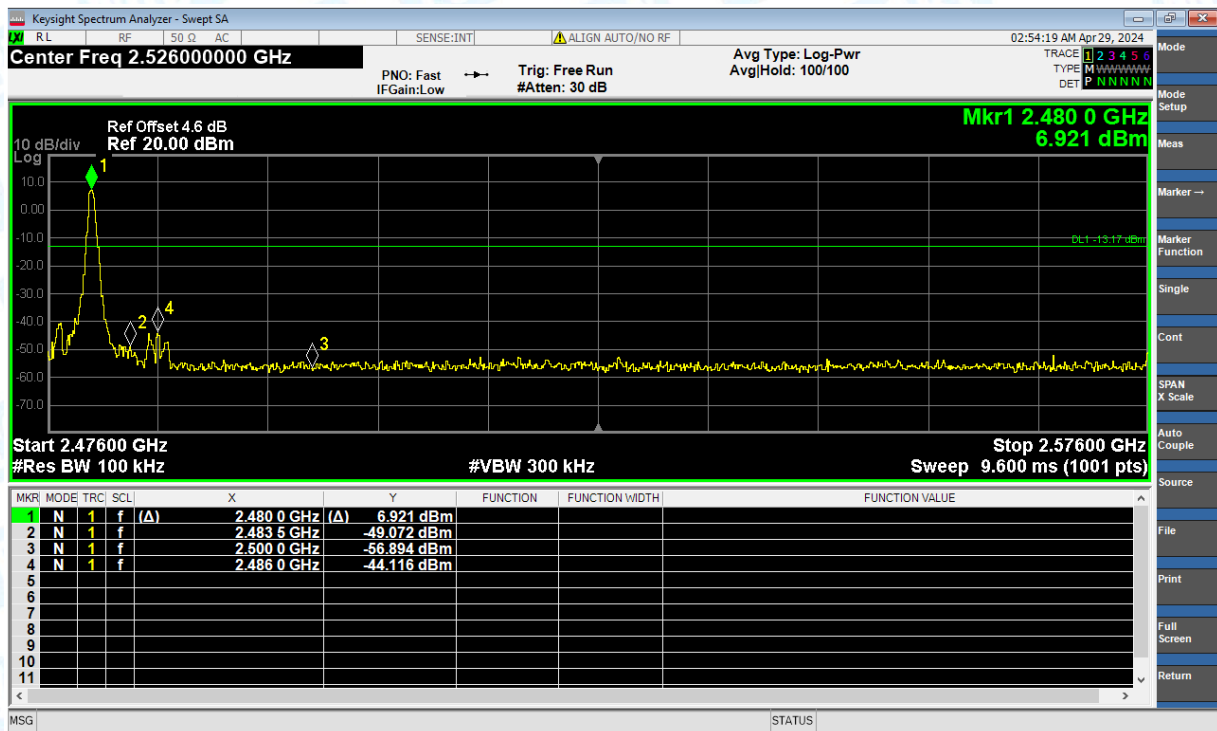
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



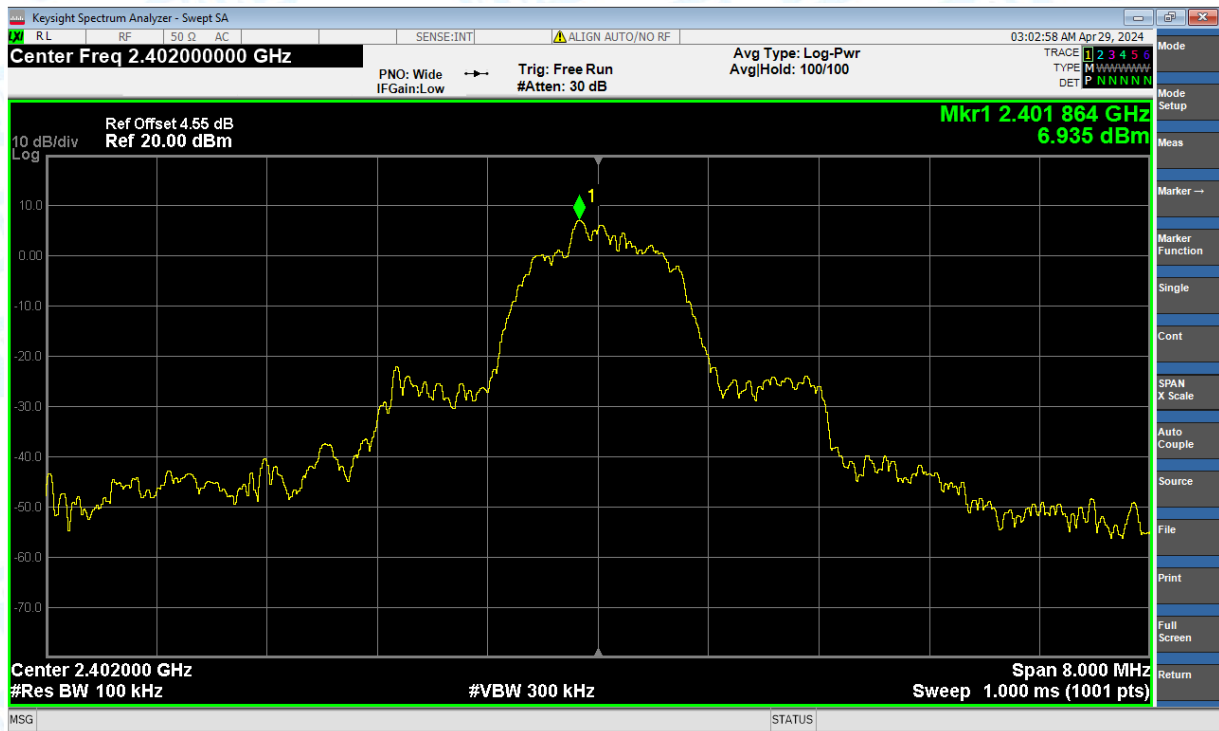
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



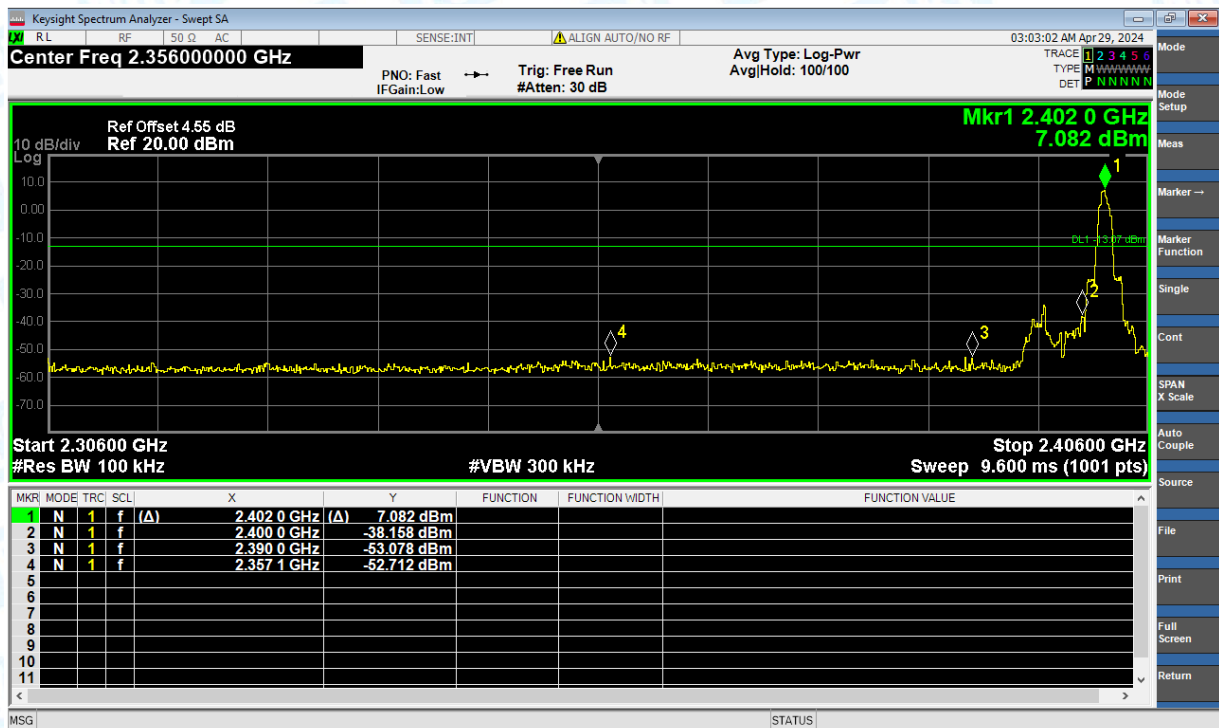
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



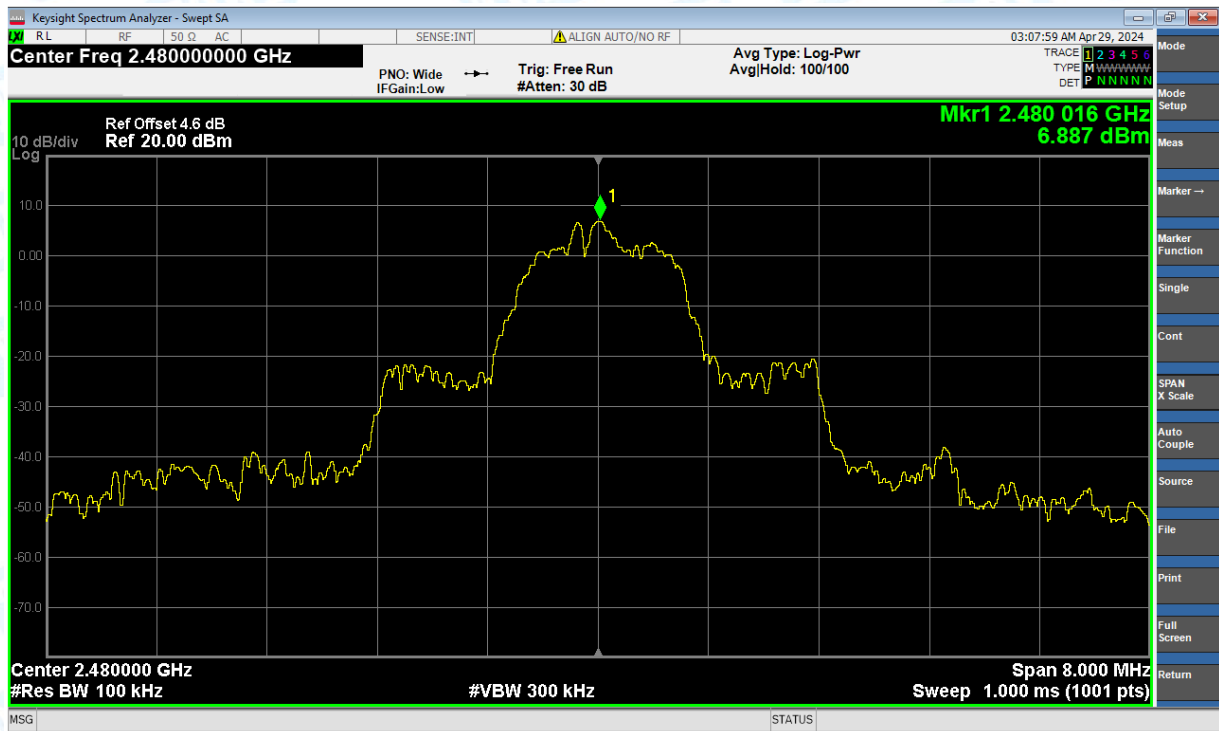
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



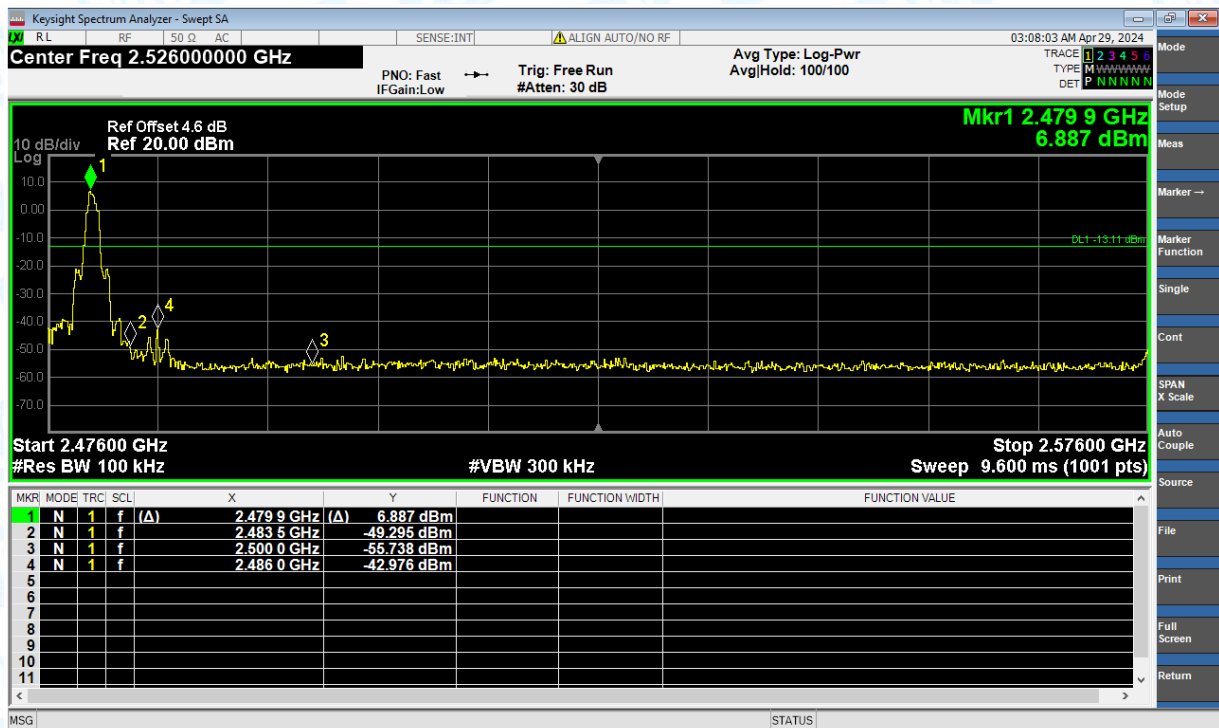
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



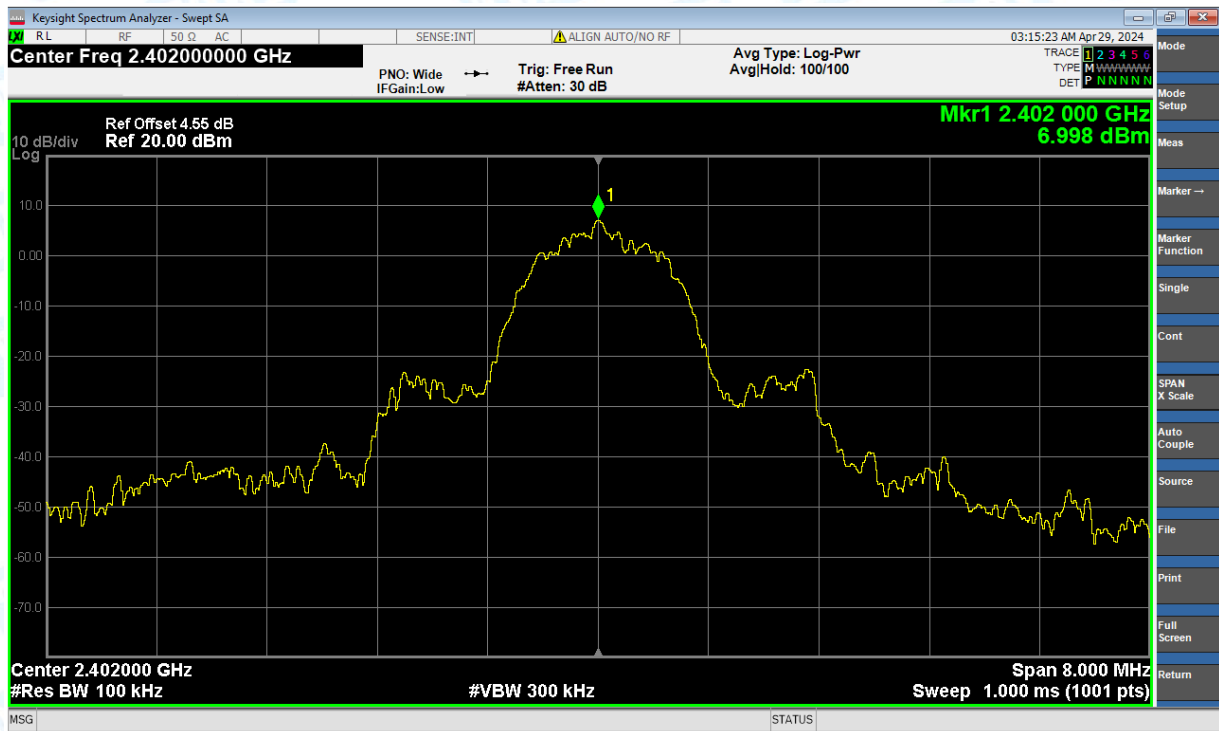
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



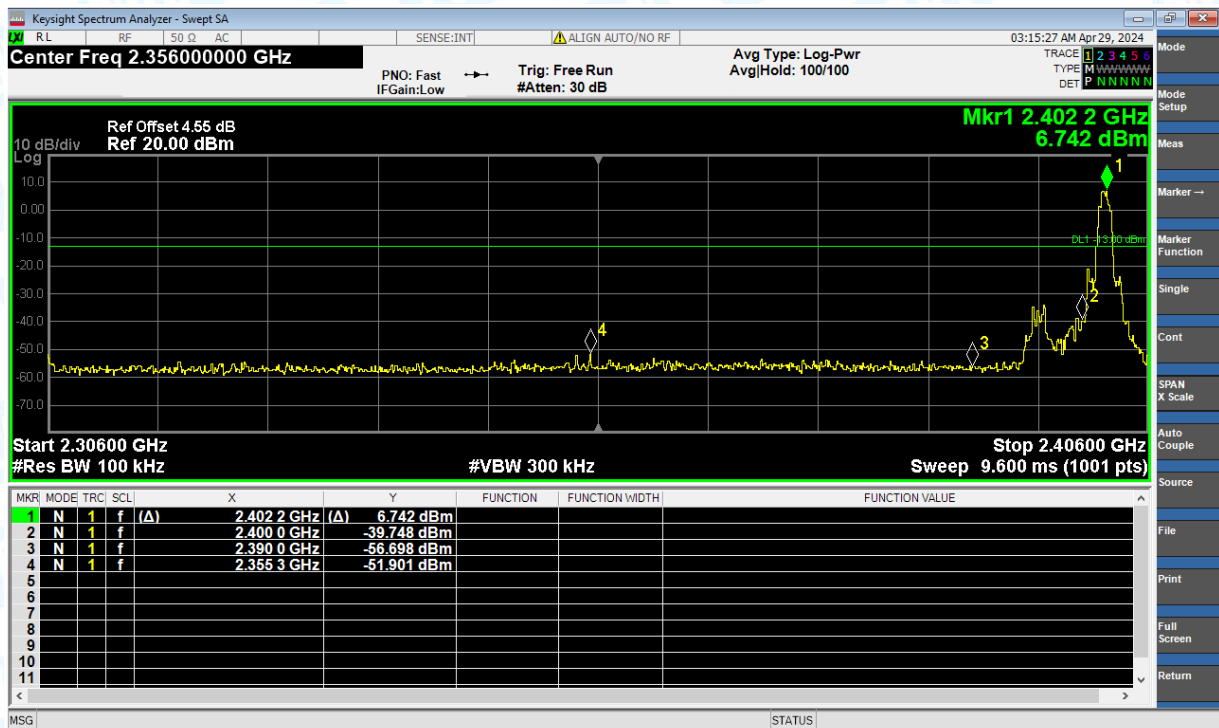
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



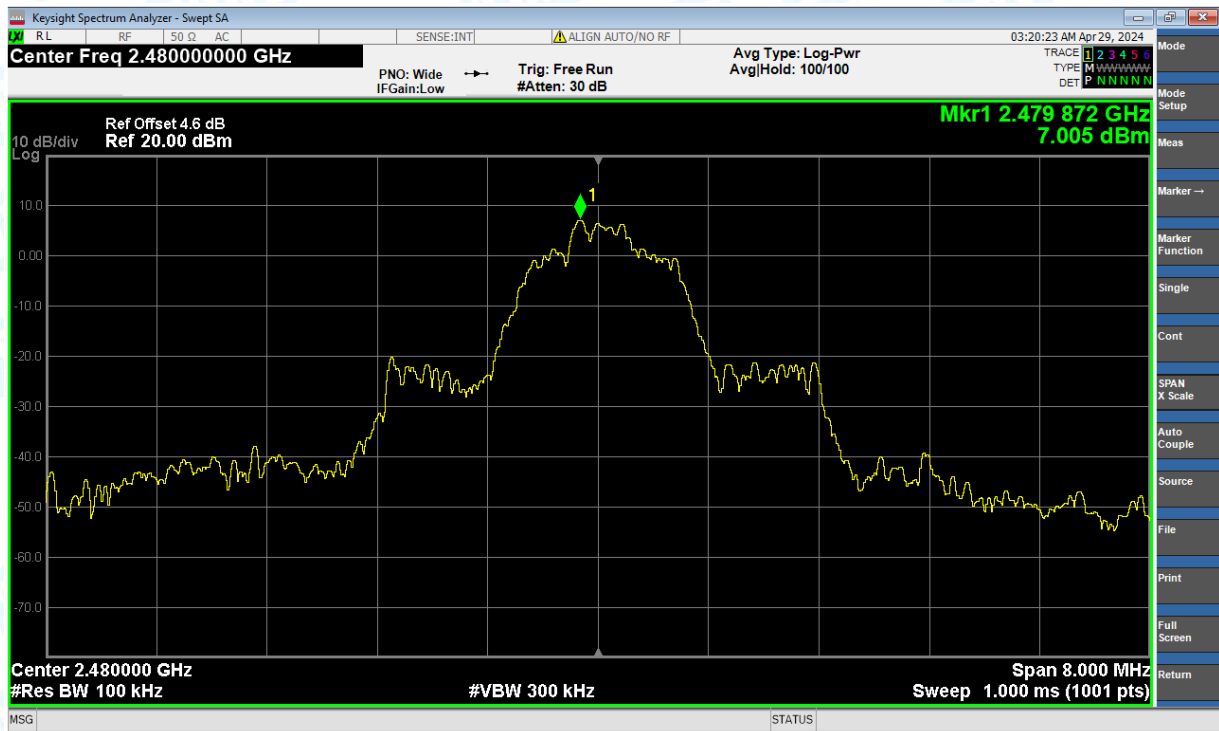
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



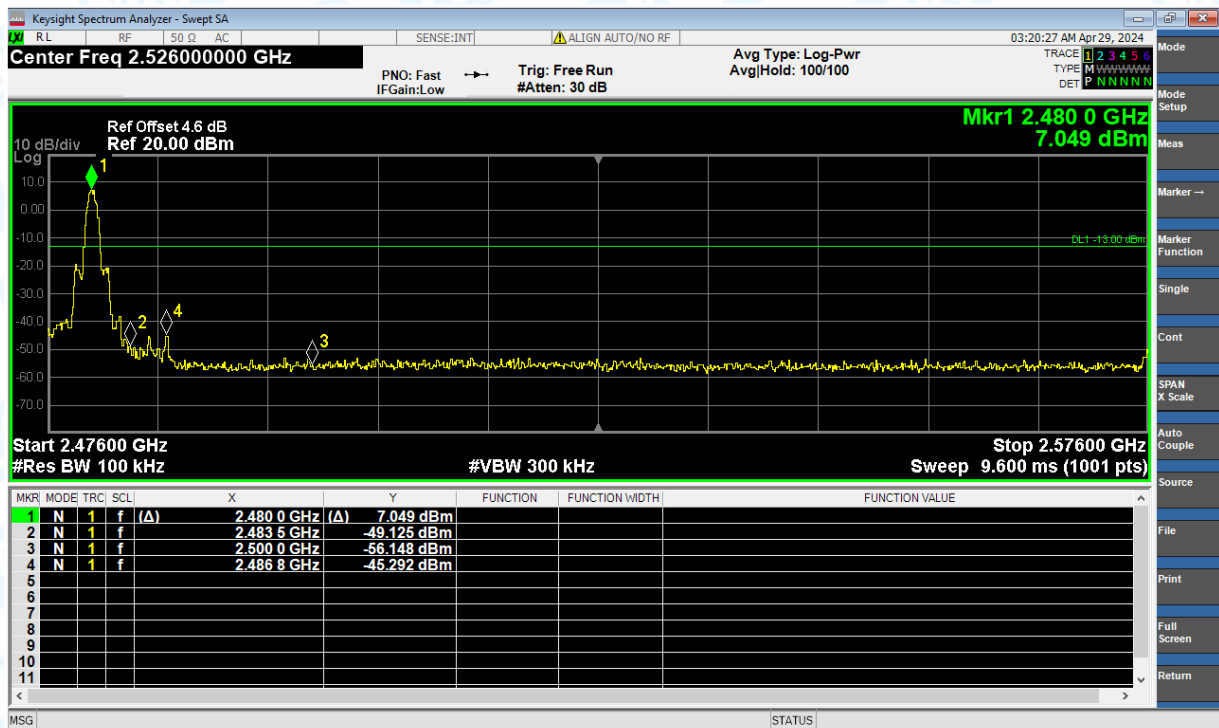
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

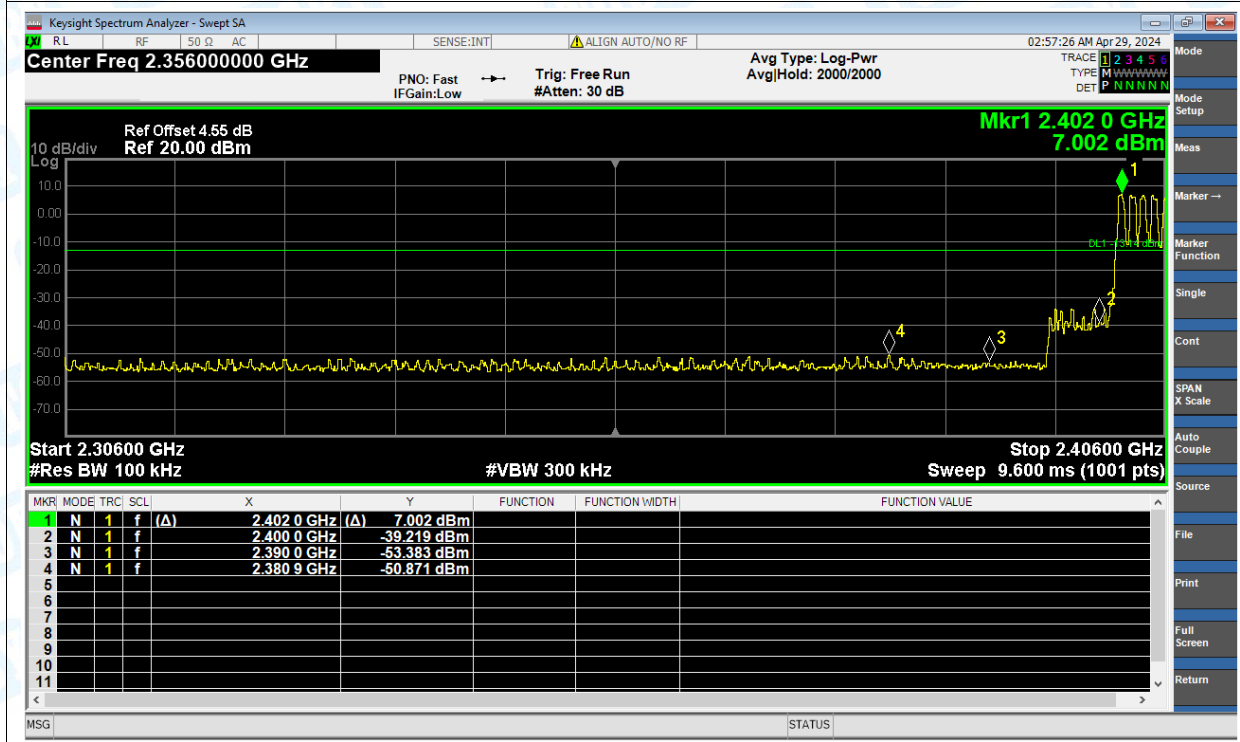
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.73	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.02	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-58.01	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-53.85	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-58.23	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-51.92	-20	Pass

Test Graphs

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



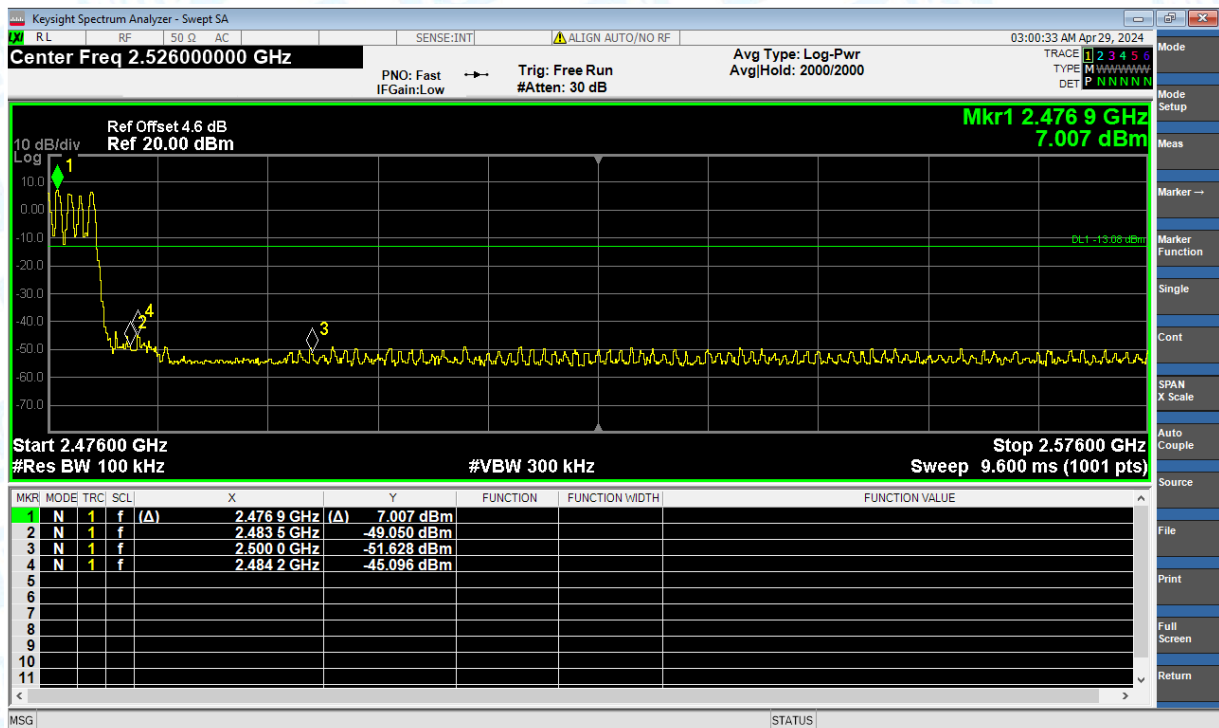
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



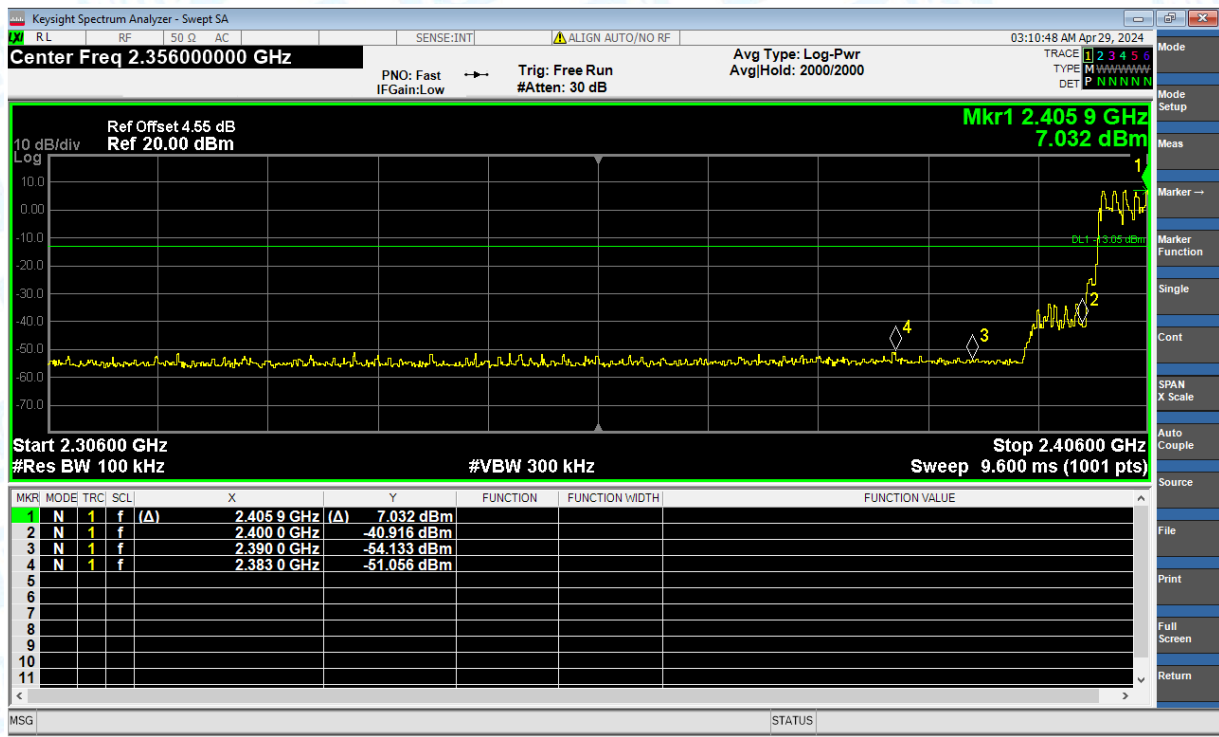
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



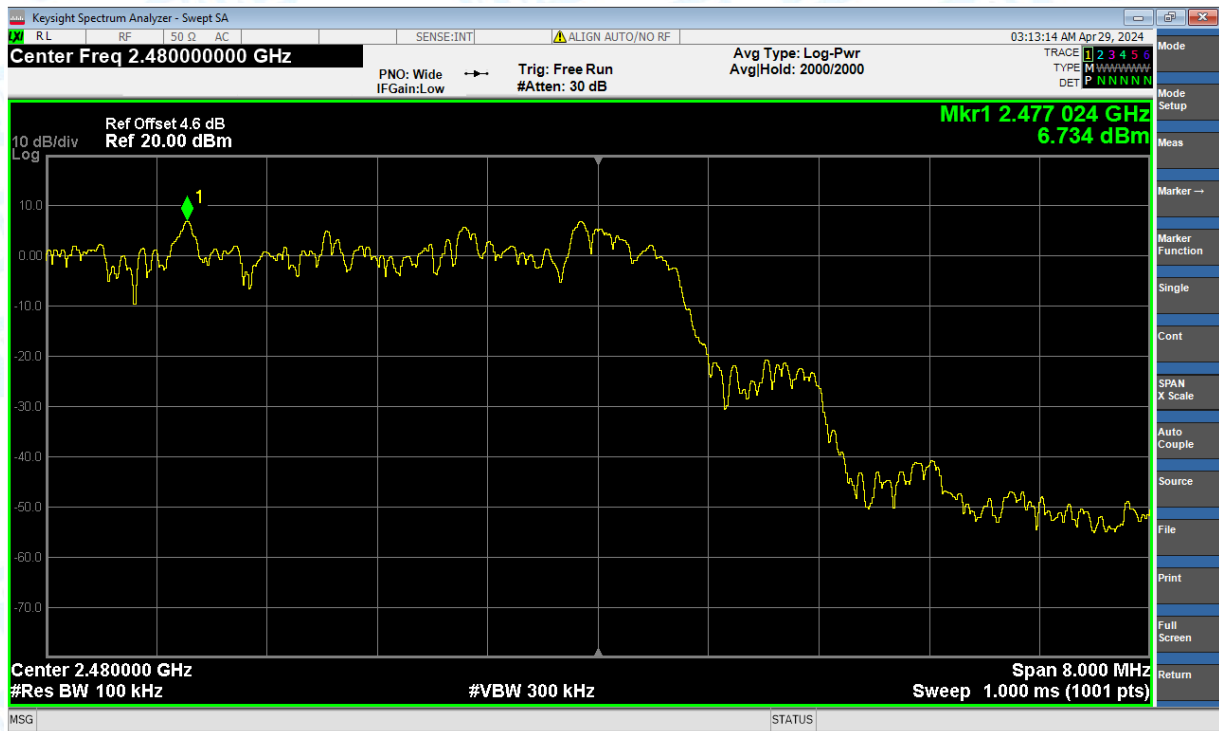
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



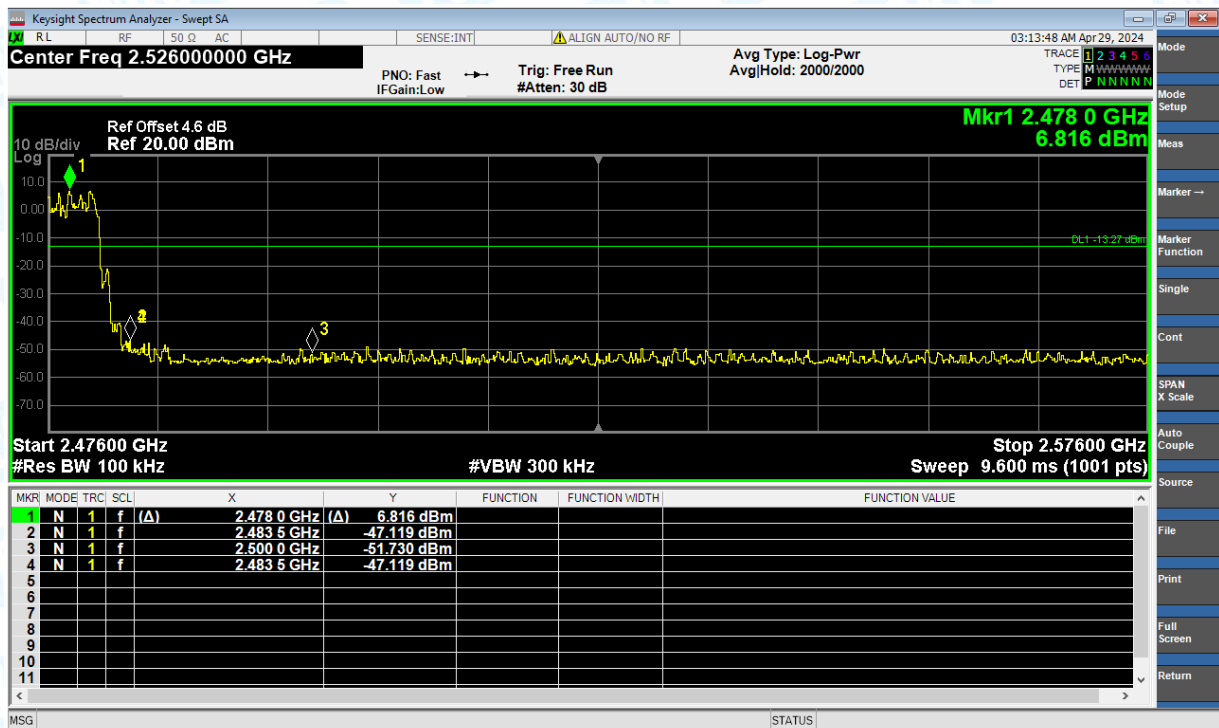
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



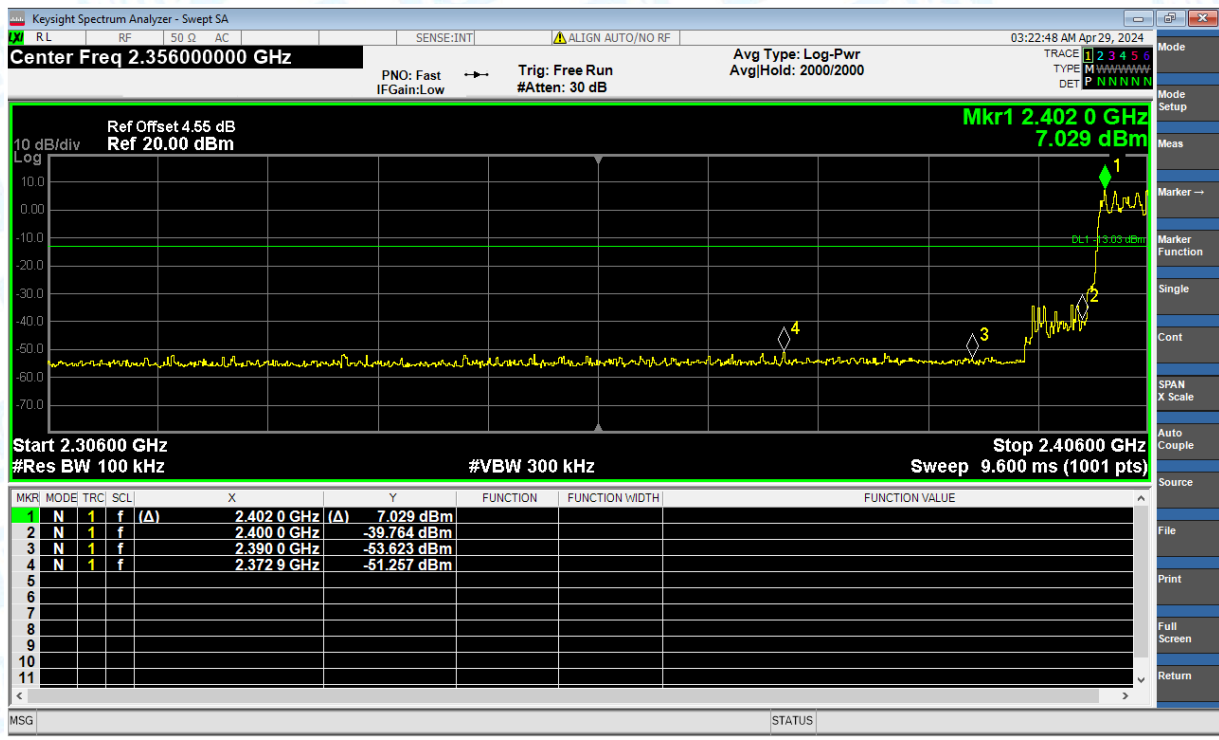
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



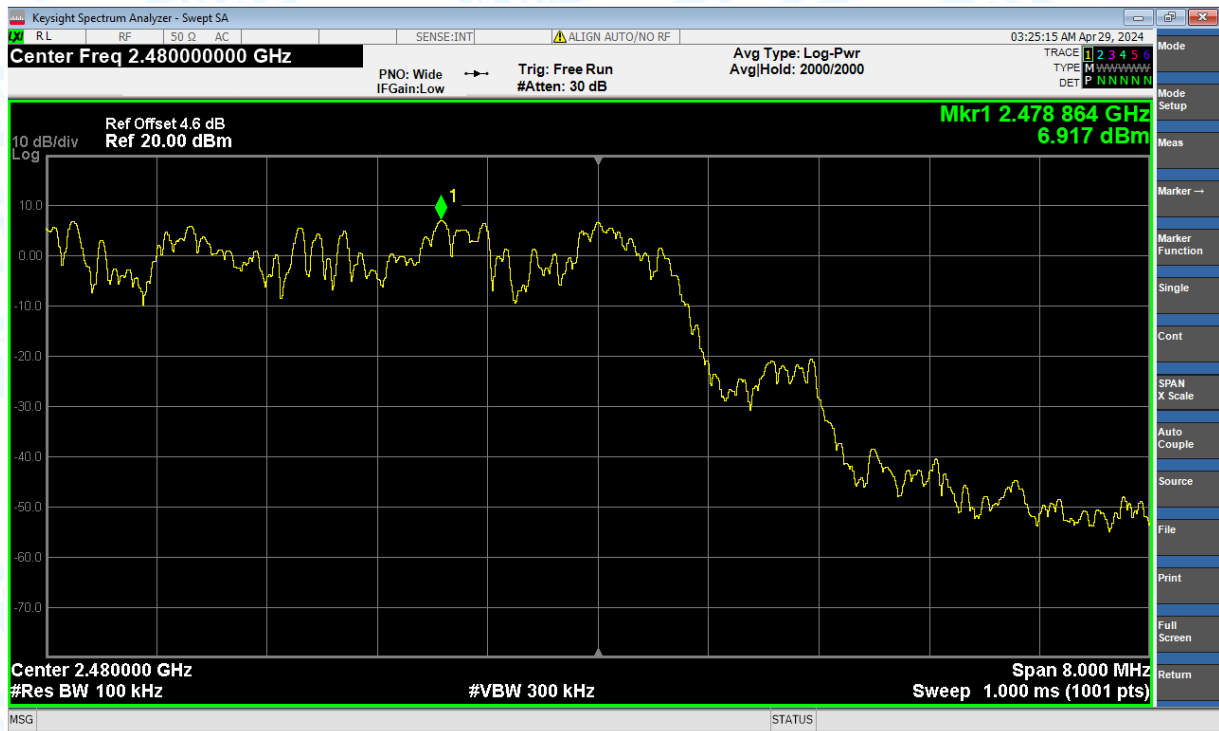
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



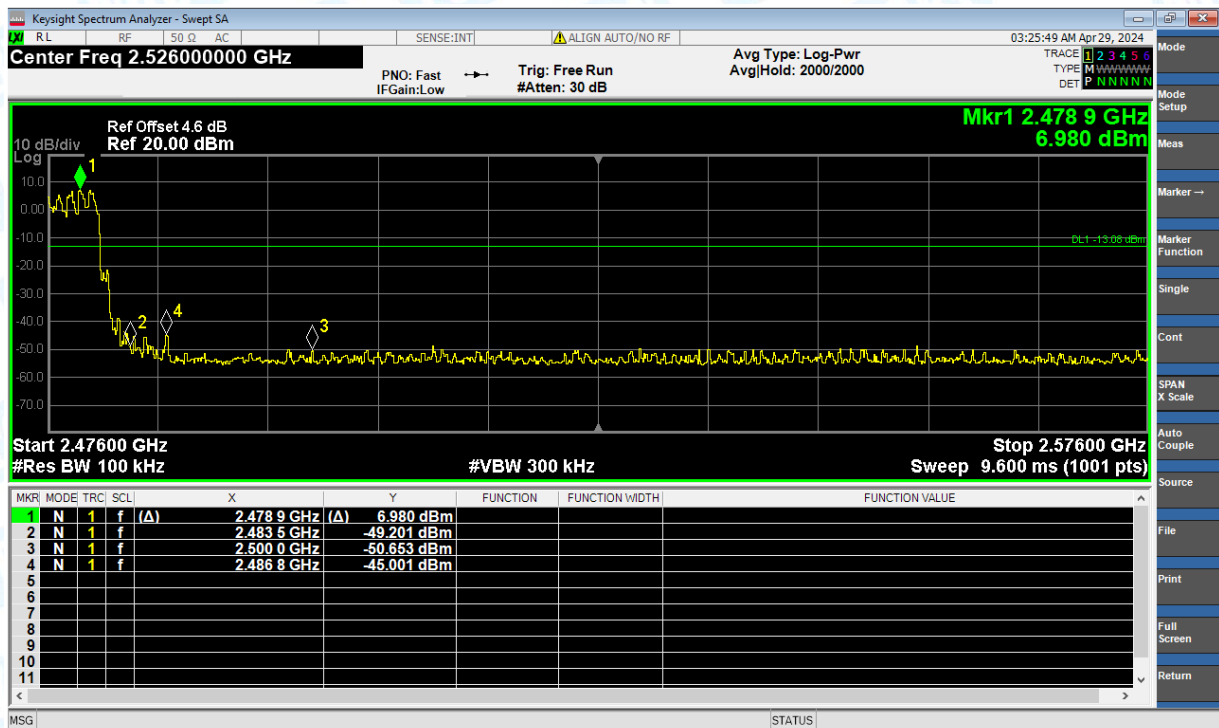
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

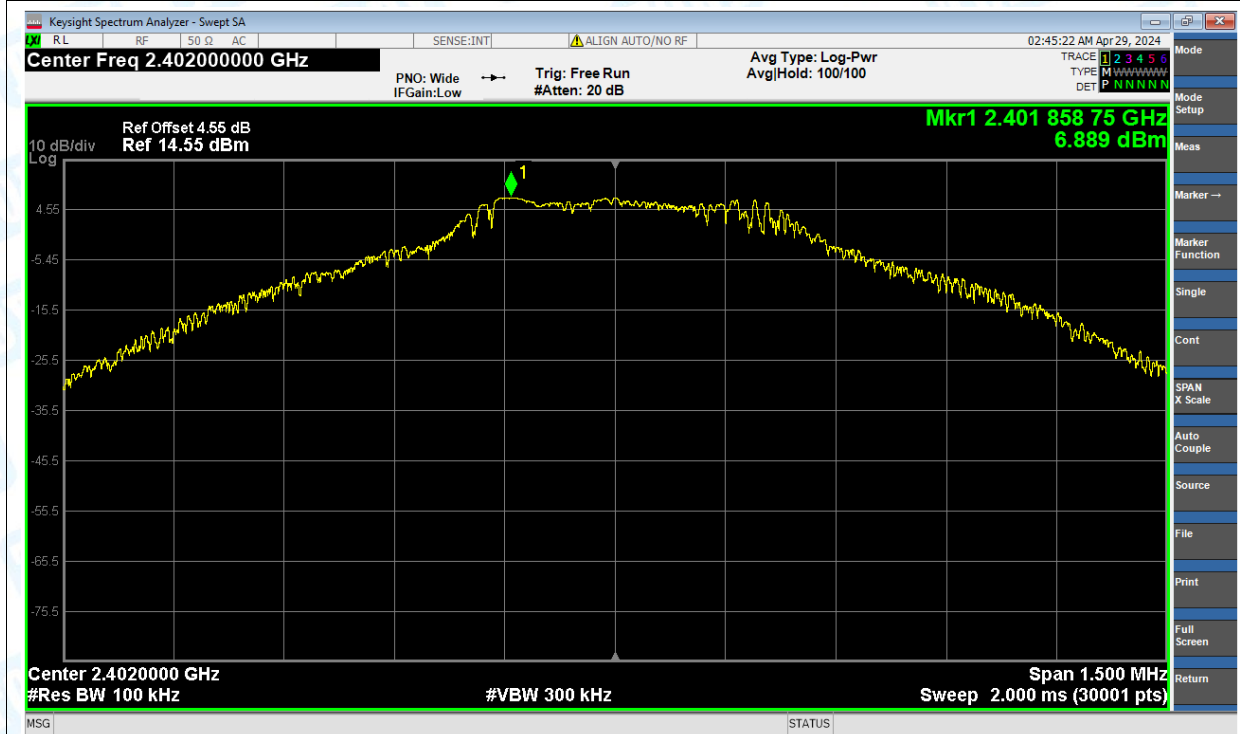


7. Conducted RF Spurious Emission

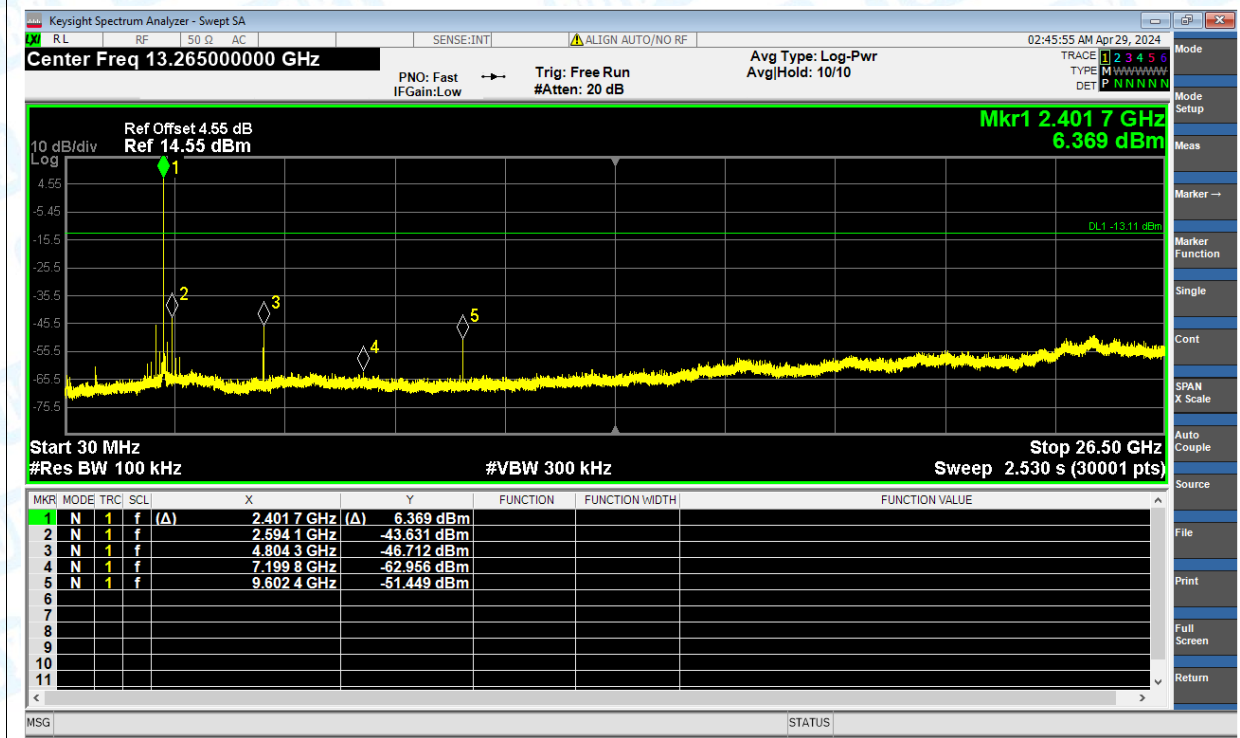
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-50.52	-20	Pass
NVNT	1-DH1	2441	Ant1	-50.15	-20	Pass
NVNT	1-DH1	2480	Ant1	-49.45	-20	Pass
NVNT	2-DH1	2402	Ant1	-49.15	-20	Pass
NVNT	2-DH1	2441	Ant1	-49.54	-20	Pass
NVNT	2-DH1	2480	Ant1	-49.57	-20	Pass
NVNT	3-DH1	2402	Ant1	-52.35	-20	Pass
NVNT	3-DH1	2441	Ant1	-53.35	-20	Pass
NVNT	3-DH1	2480	Ant1	-51.7	-20	Pass

Test Graphs

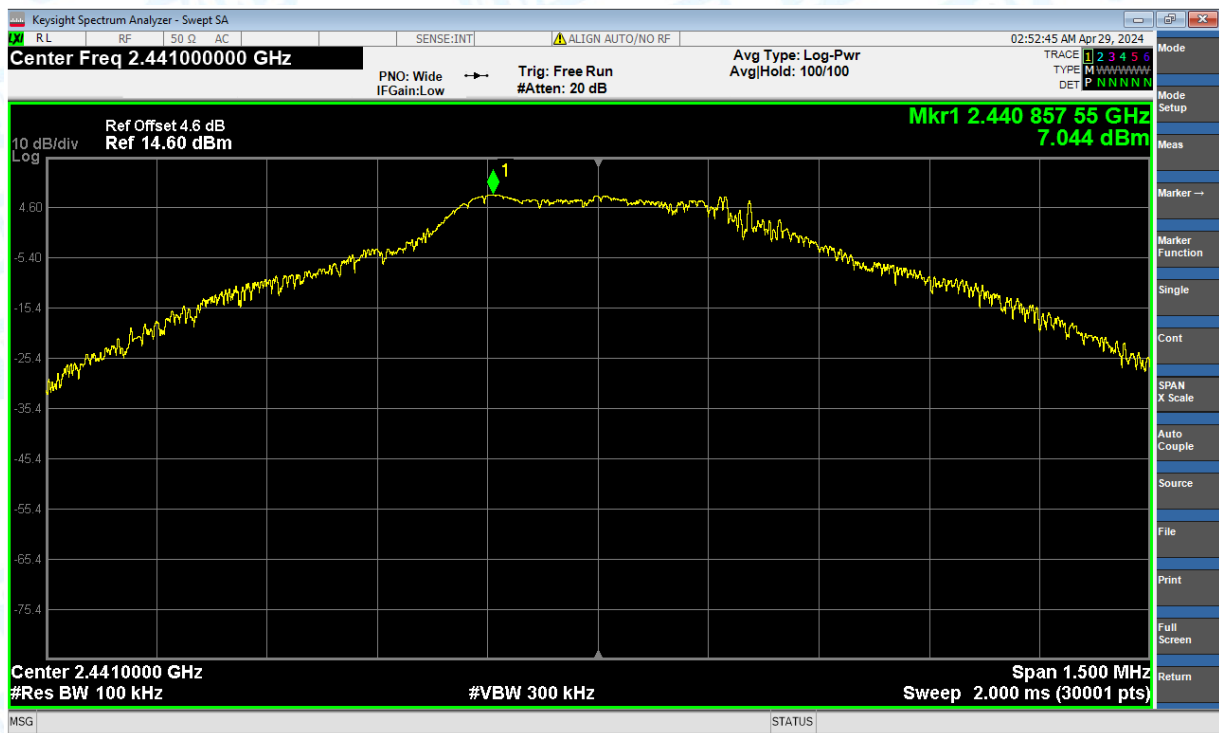
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



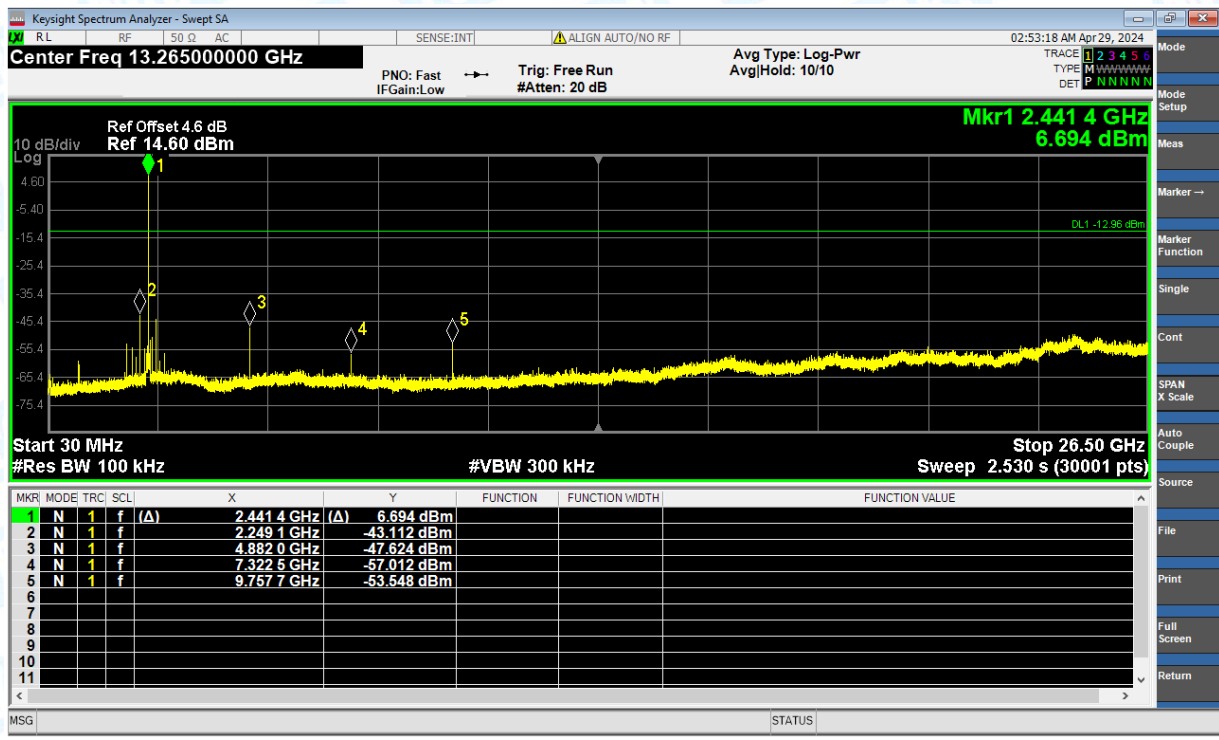
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



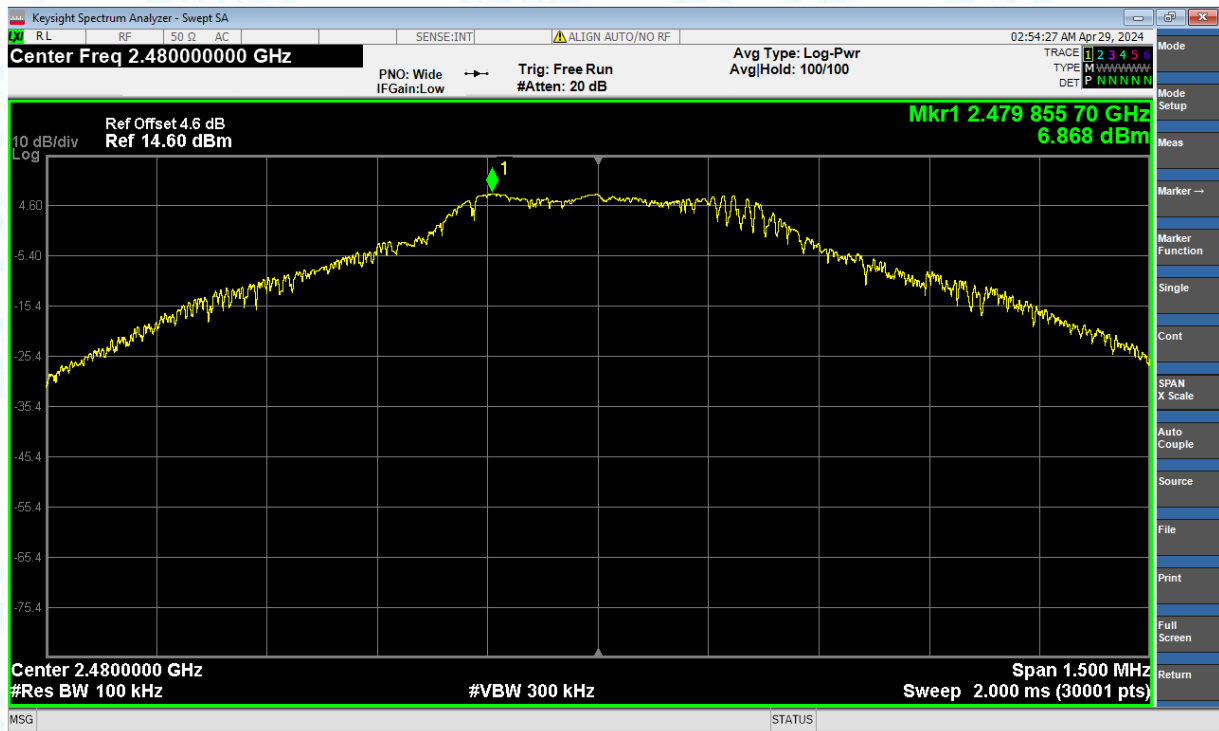
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



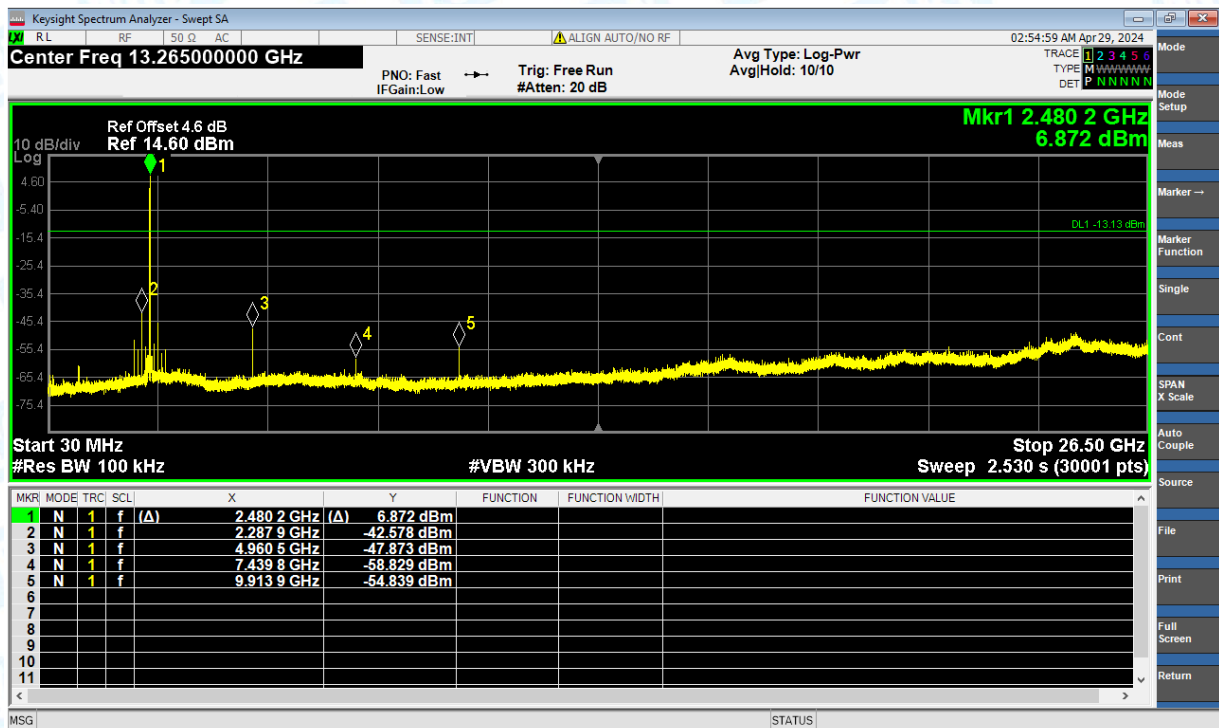
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



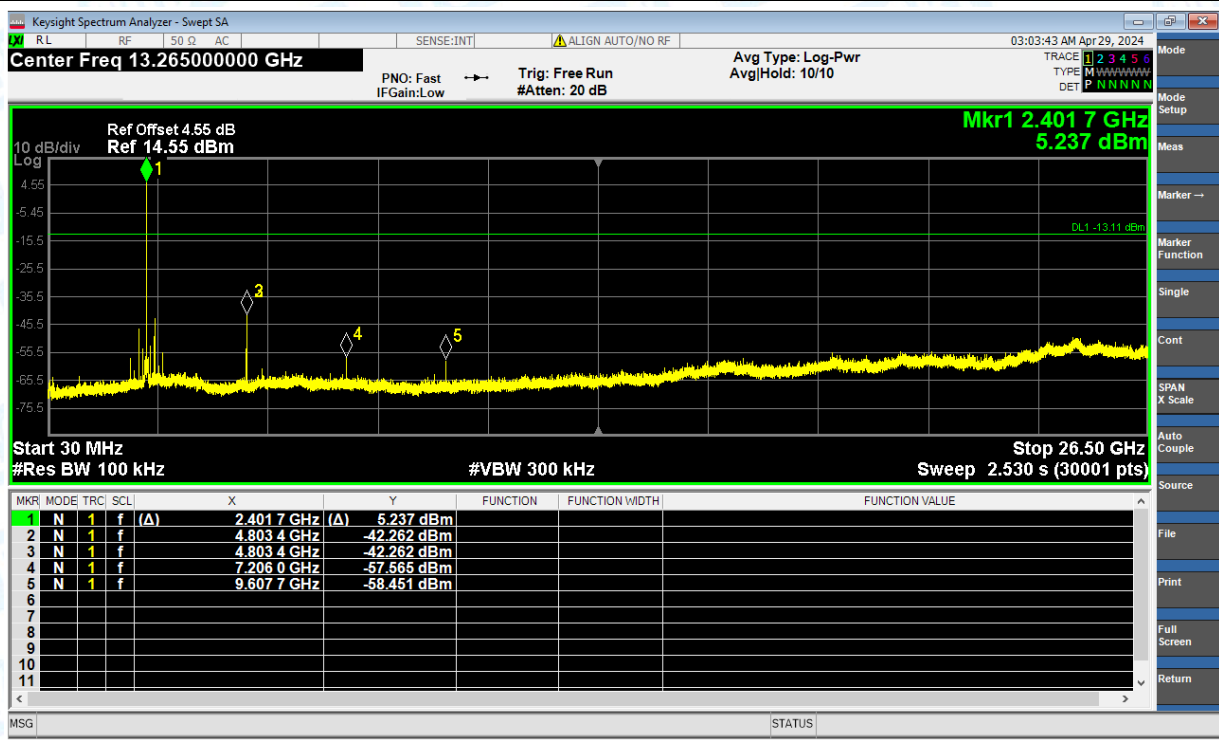
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



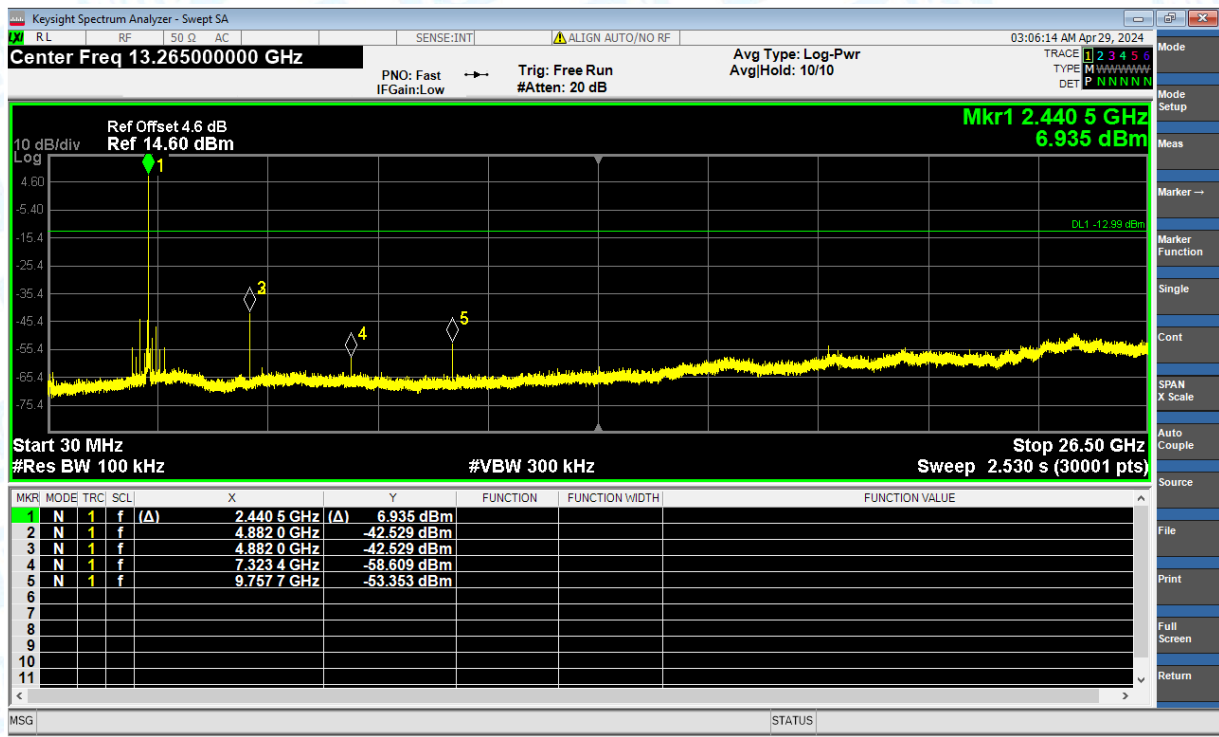
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission

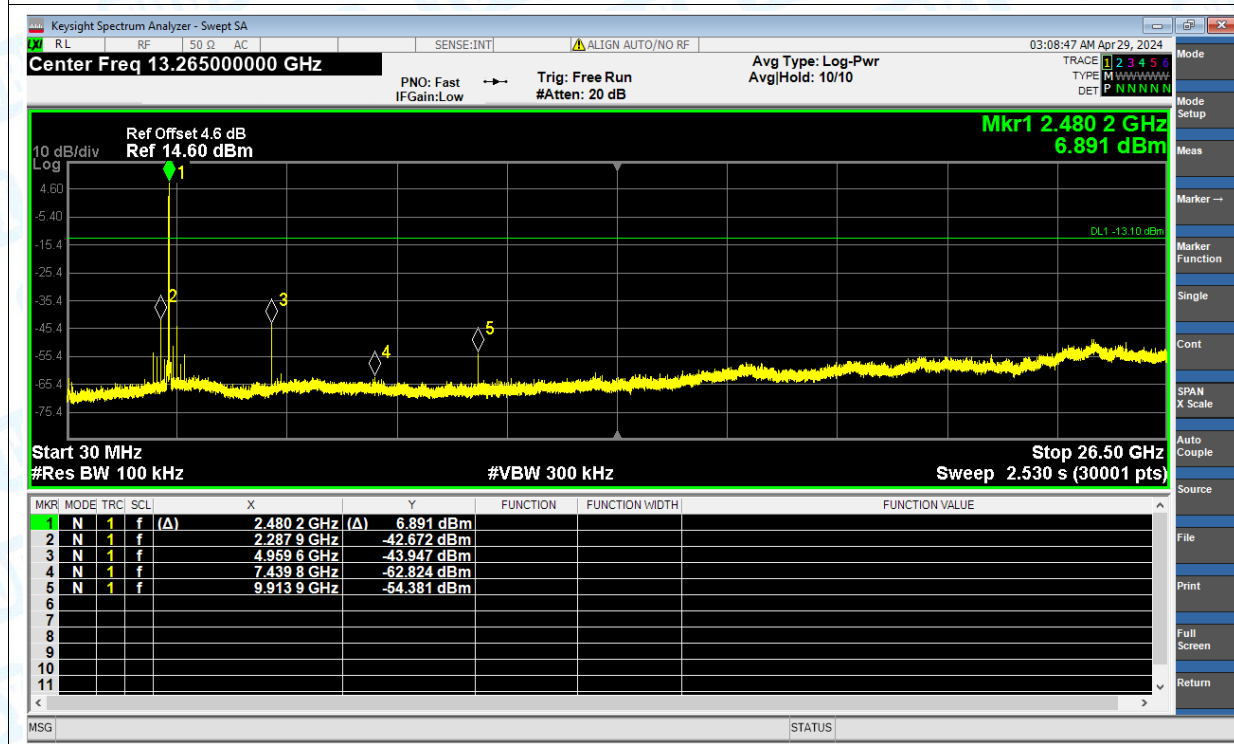
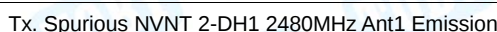


Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission

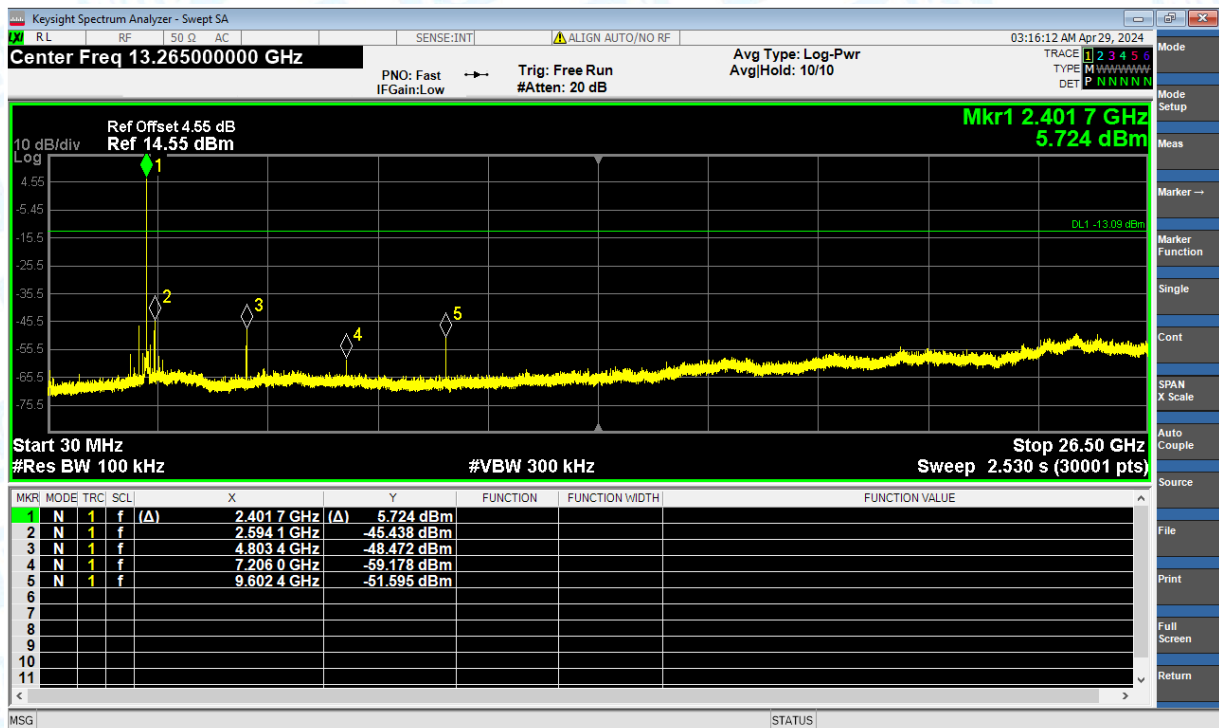




Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



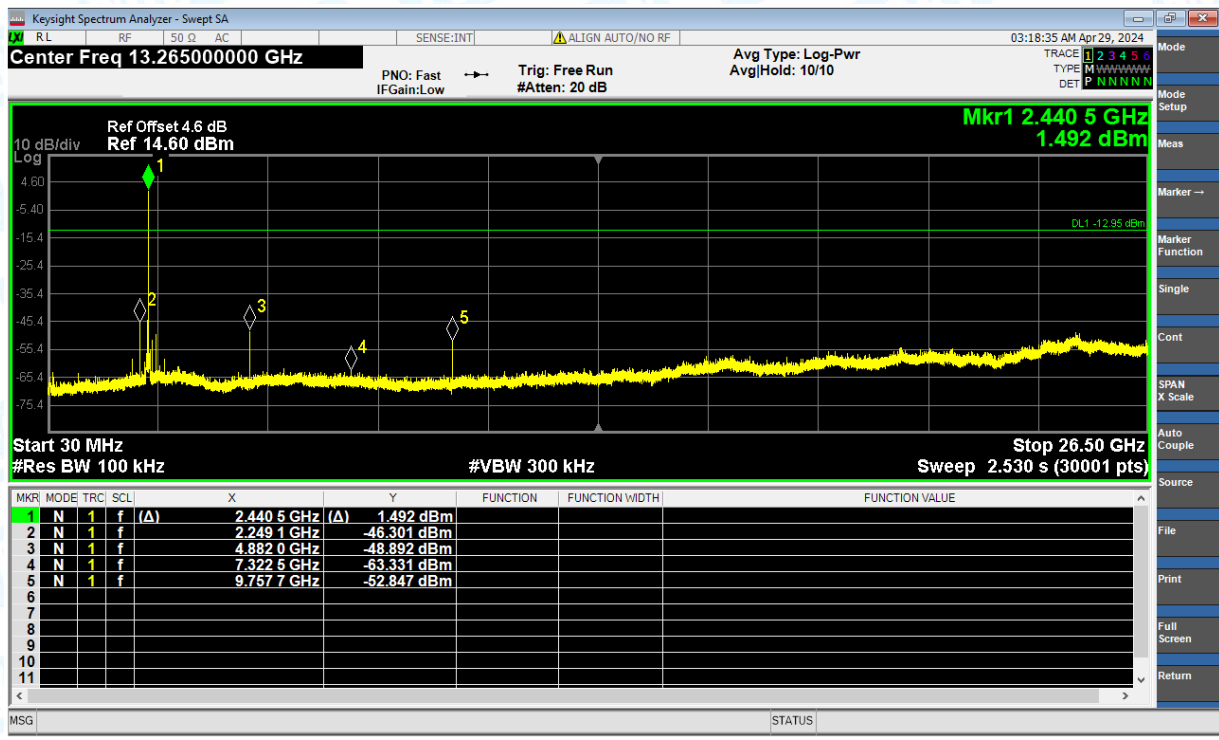
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Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



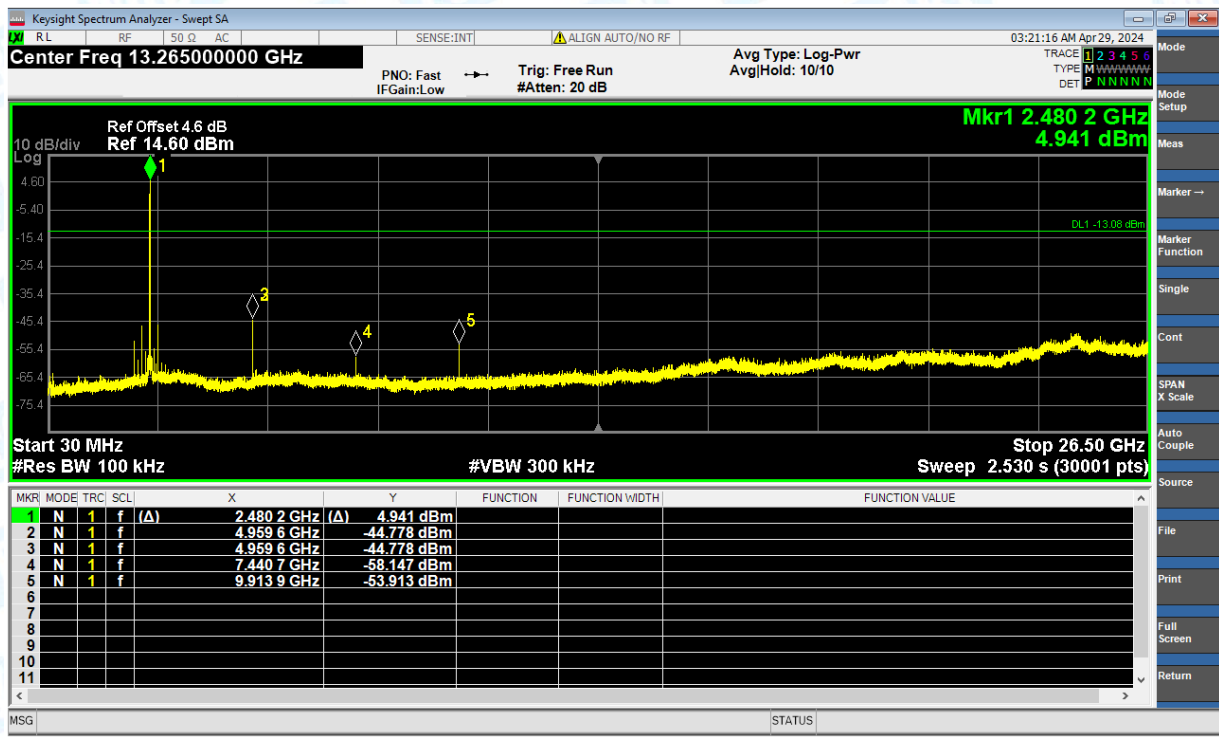
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

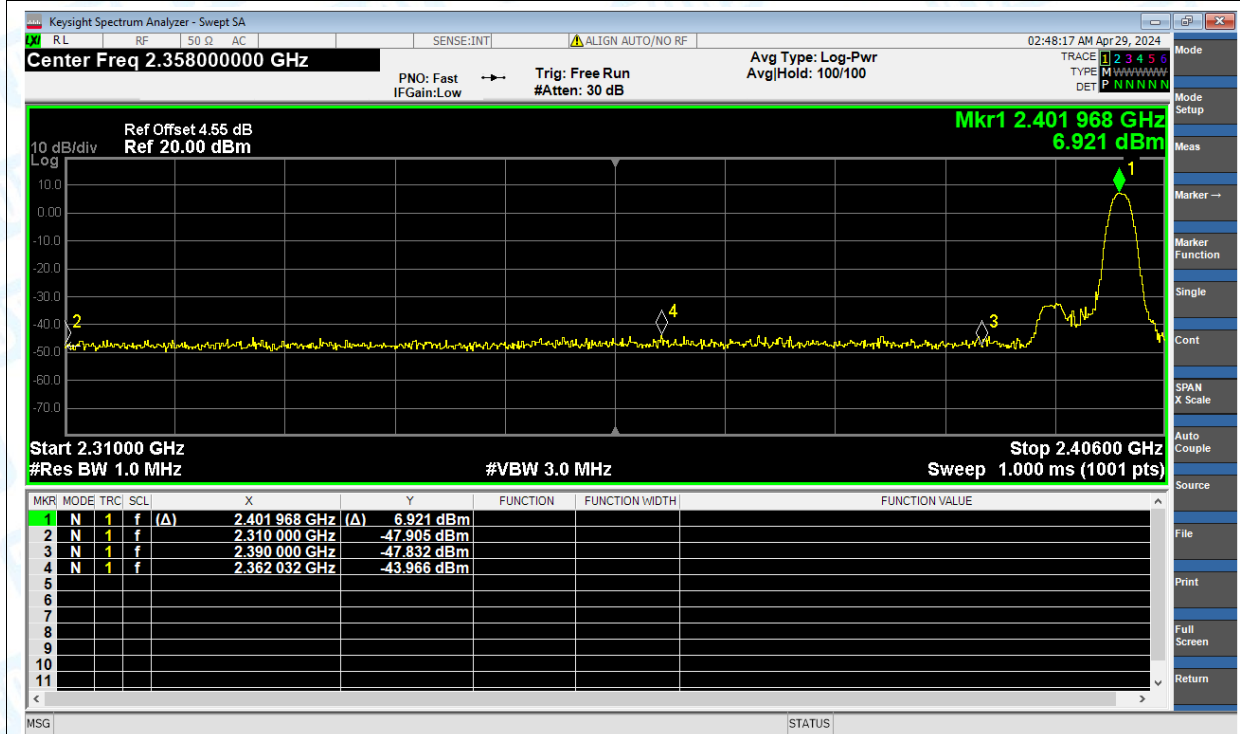


8. Restrict Band

Condition	Mode	Frequency (MHz)	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	No-Hopping	2310	-47.91	2	-	49.35	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2310	-55.83	2	5.17	46.6	Average	54	Pass
NVNT	1-DH1	2402	No-Hopping	2362.032	-43.97	2	-	53.29	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2354.64	-54.26	2	5.17	48.17	Average	54	Pass
NVNT	1-DH1	2402	No-Hopping	2390	-47.83	2	-	49.43	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2390	-55.28	2	5.17	47.15	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2483.5	-42.61	2	-	54.65	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2483.5	-51.52	2	5.17	50.91	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2486.176	-39.15	2	-	58.11	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2485.48	-49.45	2	5.17	52.98	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2500	-46.54	2	-	50.72	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2500	-54.82	2	5.17	47.61	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2310	-48.06	2	-	49.2	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2310	-55.65	2	4.95	46.56	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2389.488	-41.31	2	-	55.95	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2388.816	-54.08	2	4.95	48.13	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2390	-47.01	2	-	50.25	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2390	-54.96	2	4.95	47.25	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2483.5	-38.75	2	-	58.51	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2483.5	-51.25	2	4.95	50.96	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2485.288	-35.24	2	-	62.02	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2485.144	-50.06	2	4.95	52.15	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2500	-46.1	2	-	51.16	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2500	-54.7	2	4.95	47.51	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2310	-47.4	2	-	49.86	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2310	-55.83	2	4.95	46.38	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2354.256	-43.85	2	-	53.41	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2354.064	-54.11	2	4.95	48.1	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2390	-45.05	2	-	52.21	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2390	-55.18	2	4.95	47.03	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2483.5	-39.98	2	-	57.28	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2483.5	-51.32	2	4.95	50.89	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2483.608	-35.96	2	-	61.3	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2485.264	-51.01	2	4.95	51.2	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2500	-47.84	2	-	49.42	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2500	-55.07	2	4.95	47.14	Average	54	Pass

Test Graphs

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



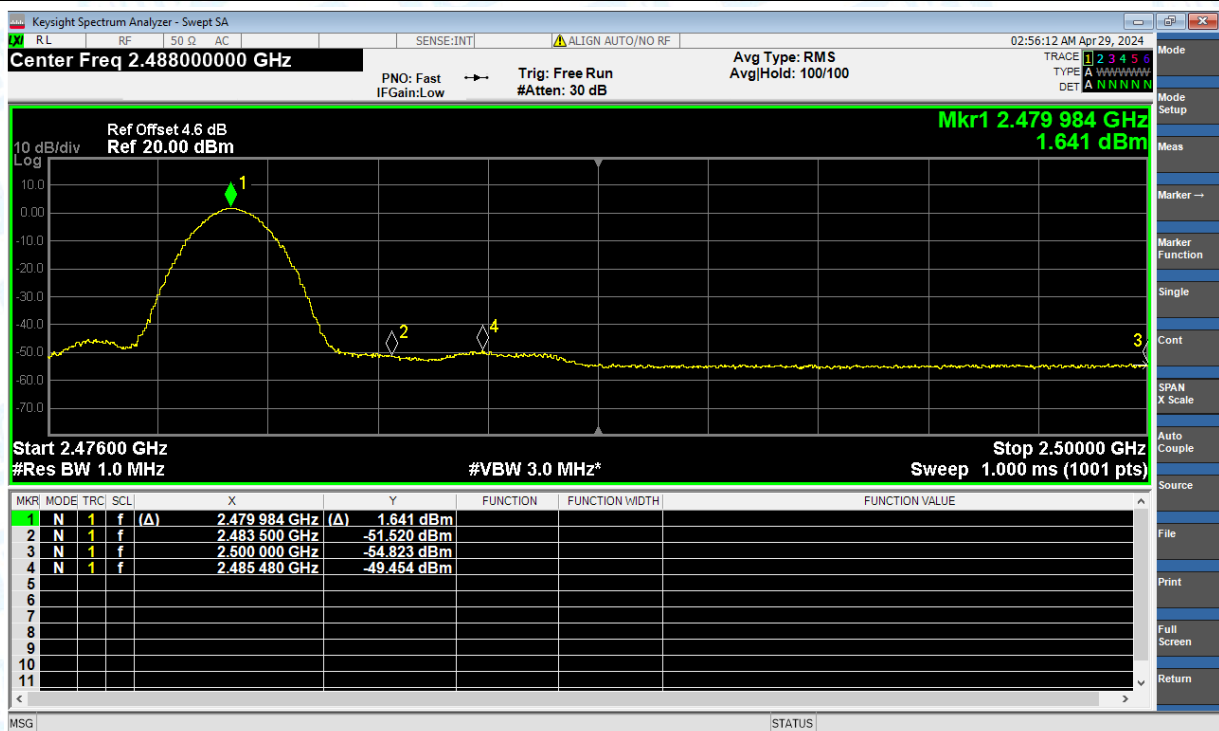
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



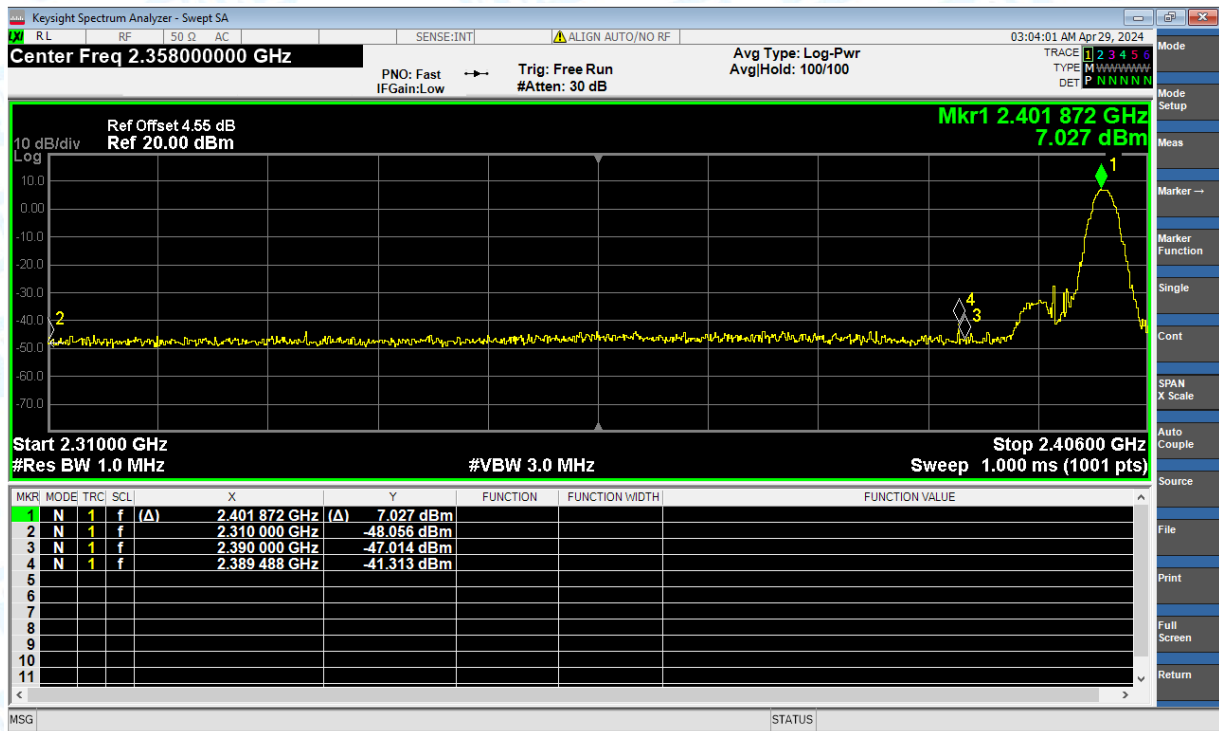
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



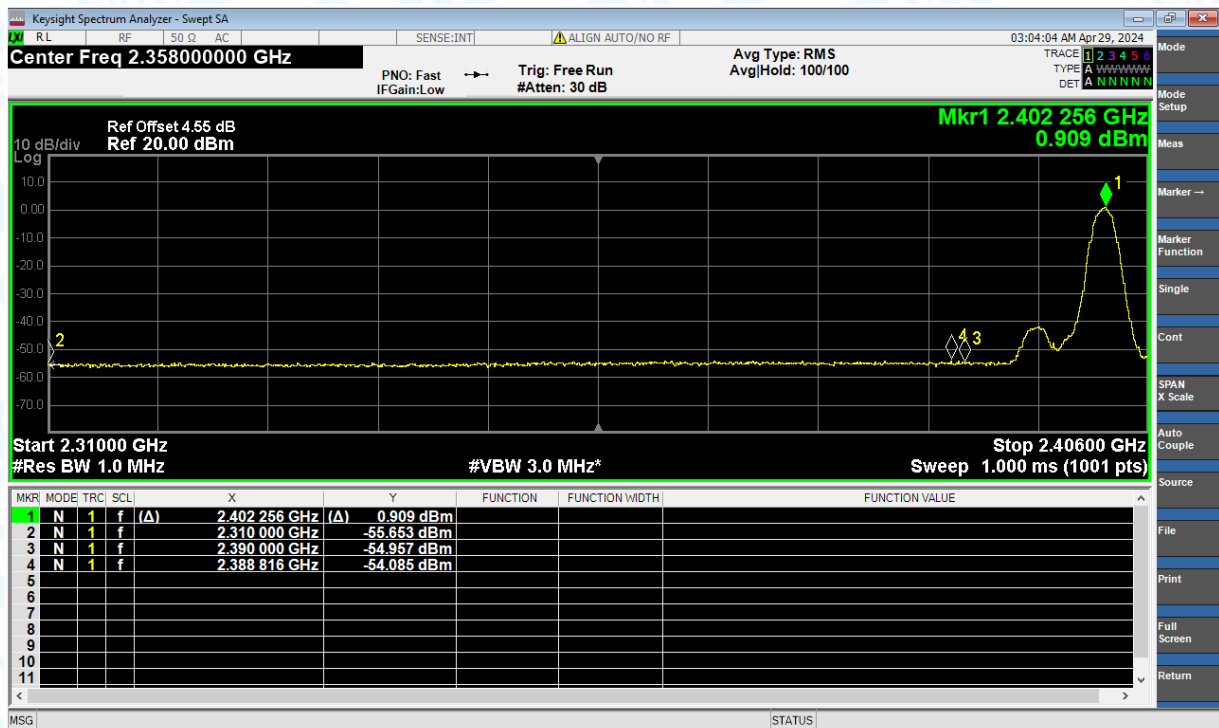
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



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



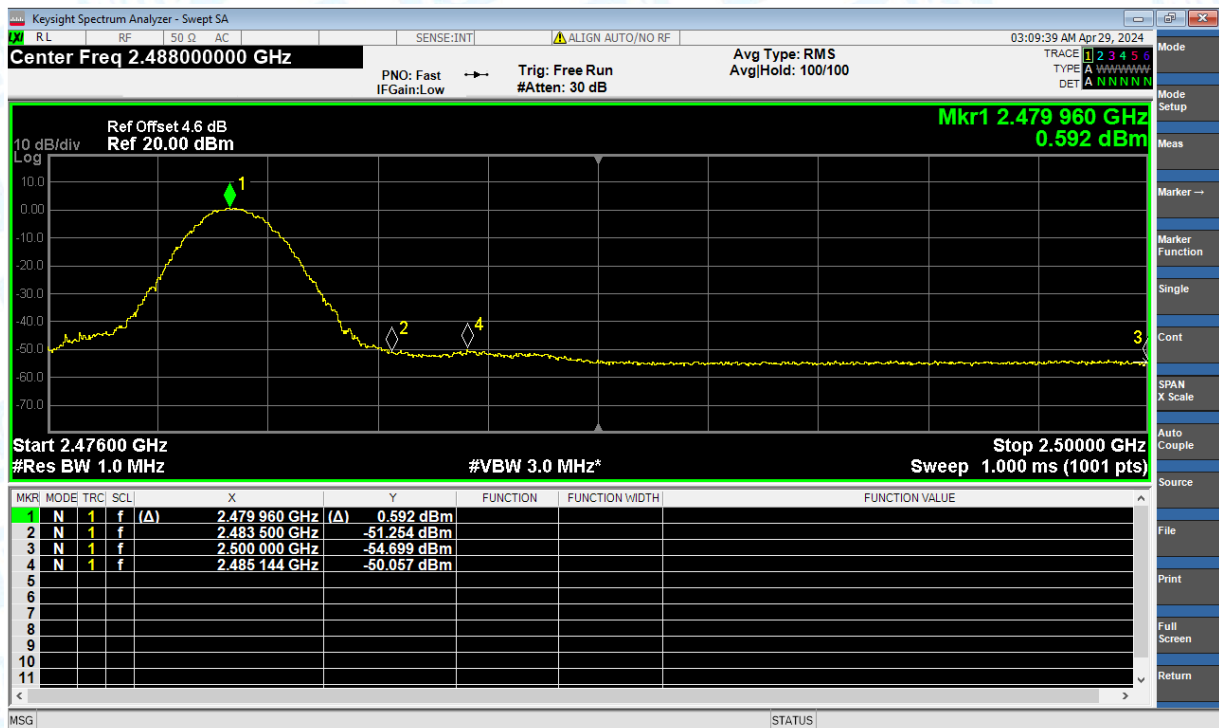
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



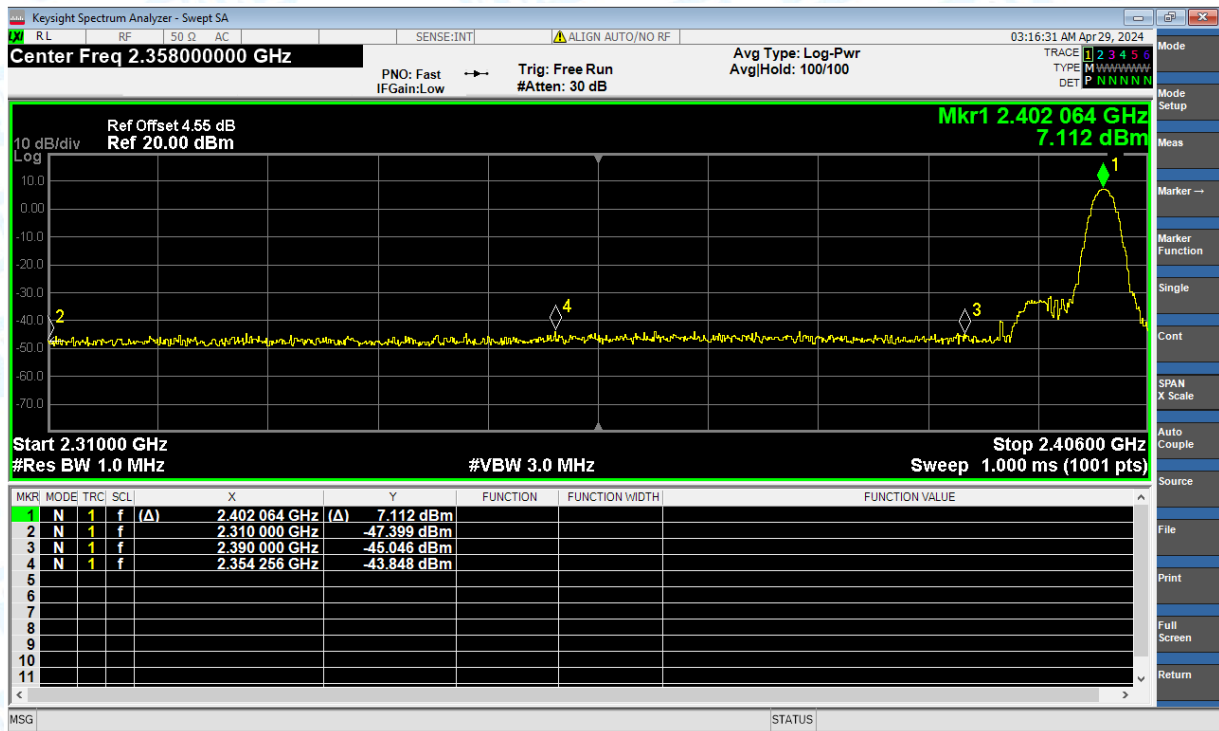
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



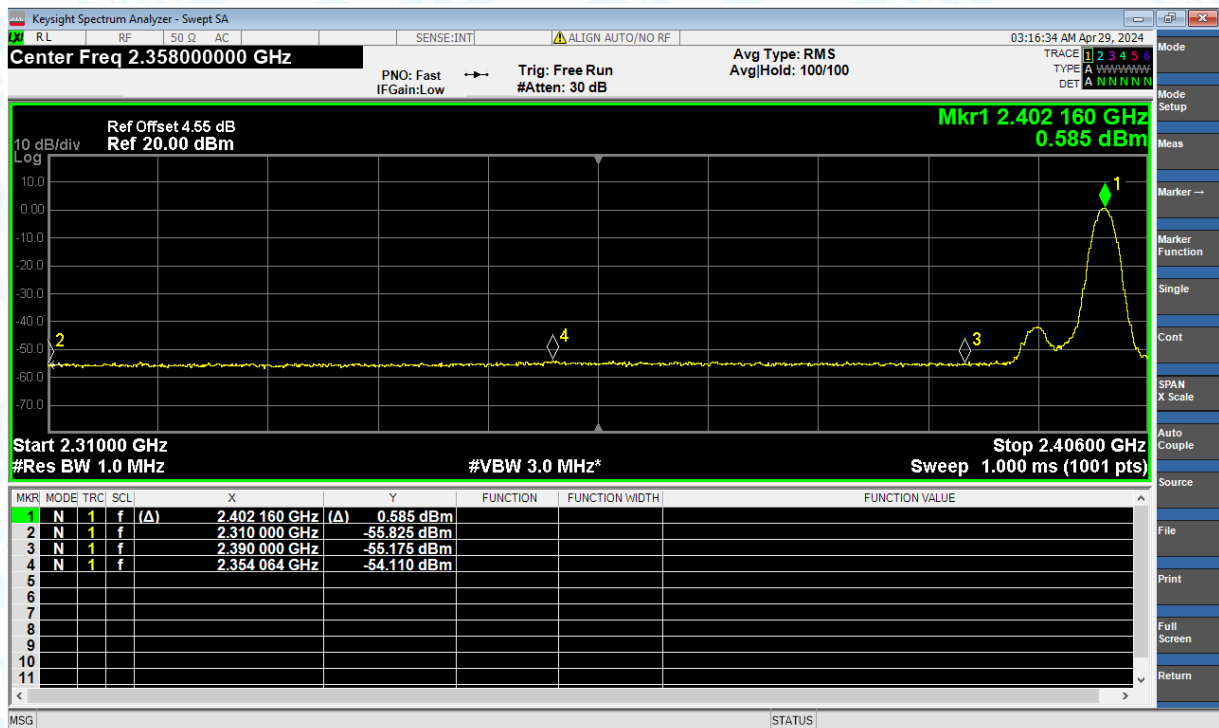
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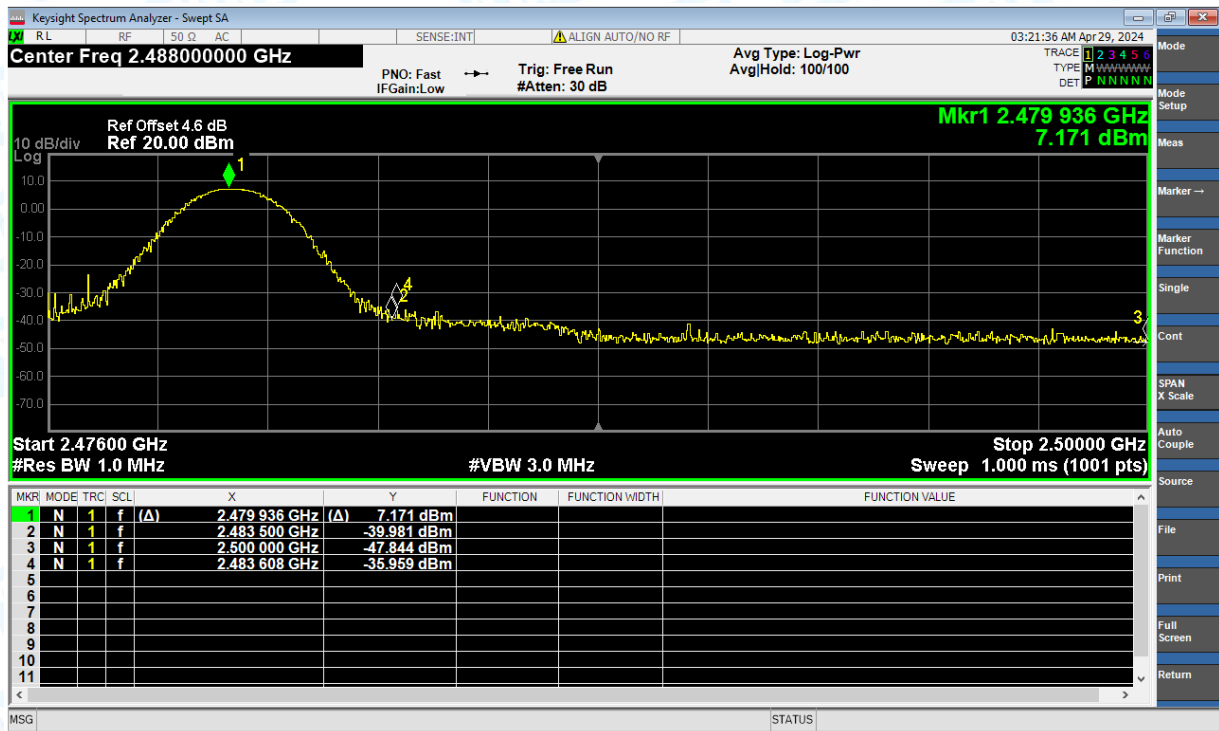
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



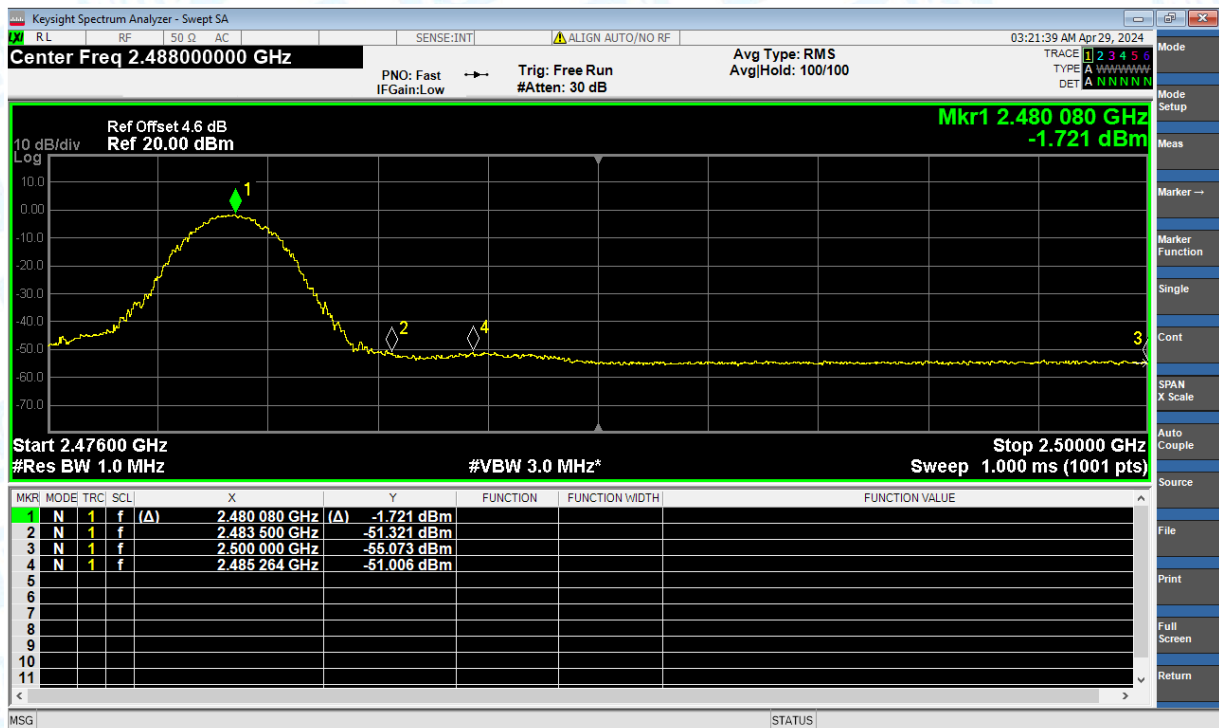
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

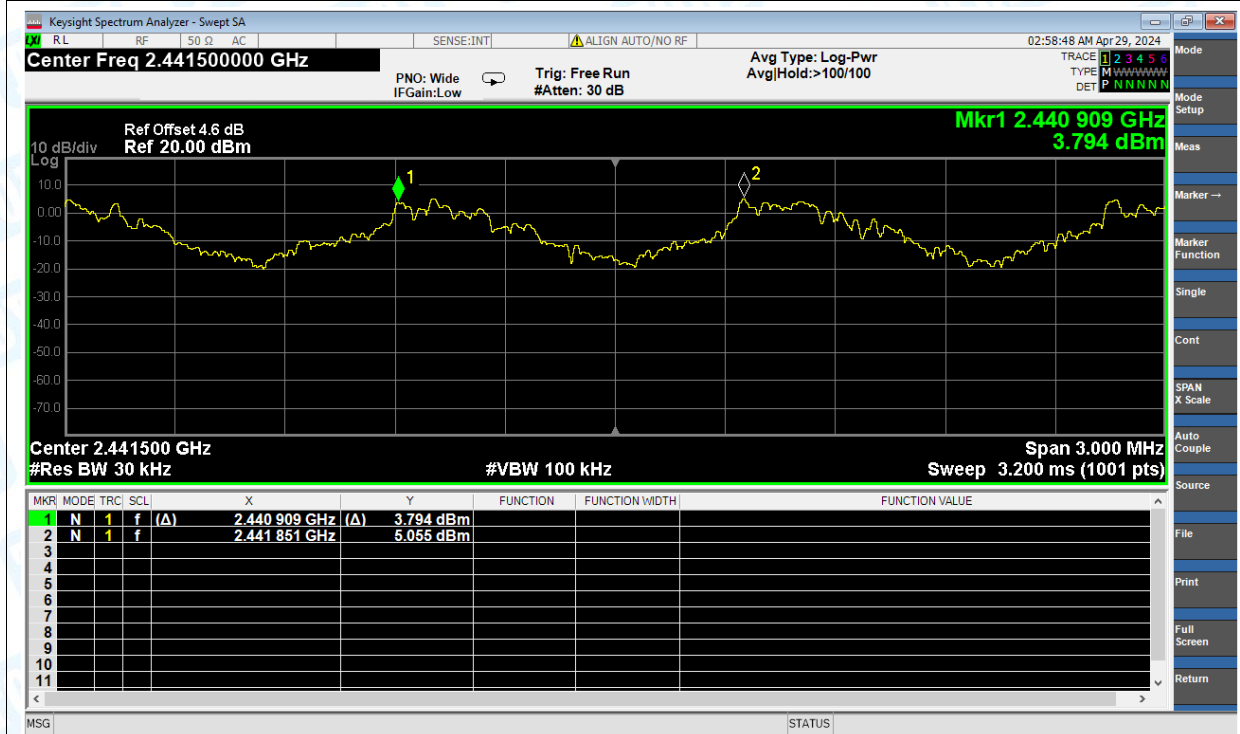


9. Carrier Frequencies Separation

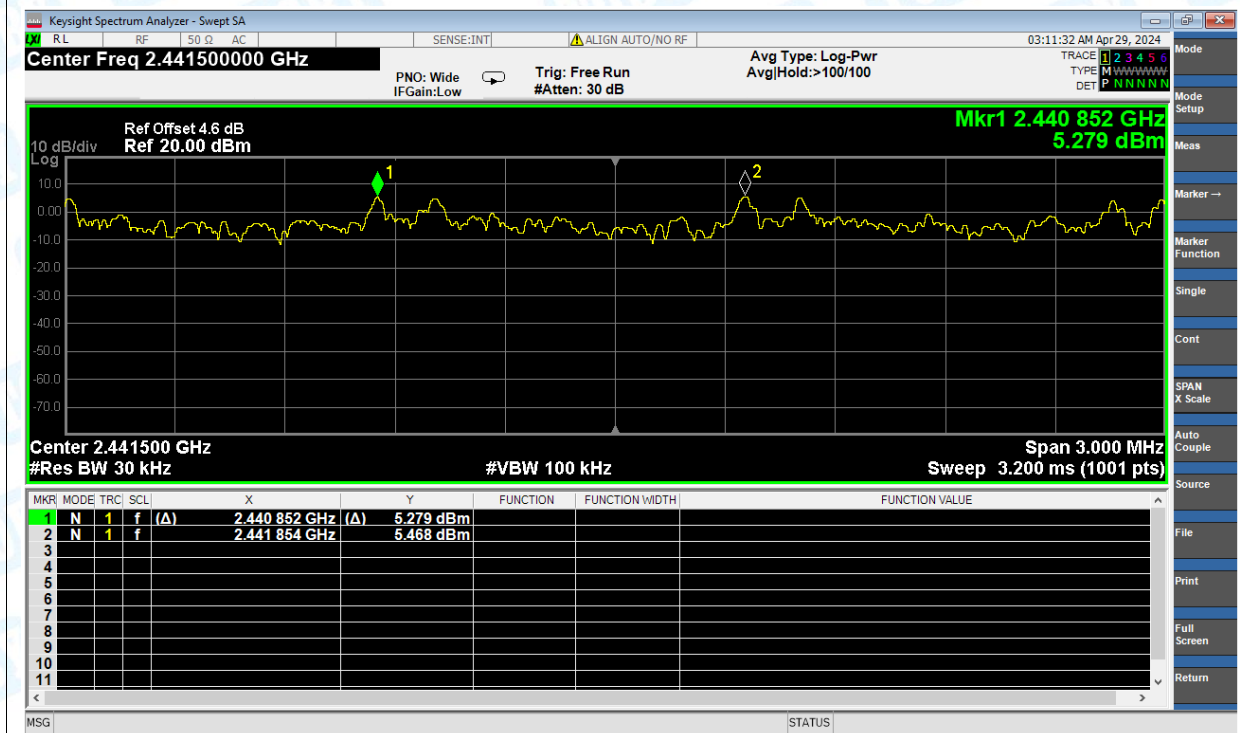
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.909	2441.851	0.942	0.573	Pass
NVNT	2-DH1	Ant1	2440.852	2441.854	1.002	0.827	Pass
NVNT	3-DH1	Ant1	2441.014	2442.016	1.002	0.807	Pass

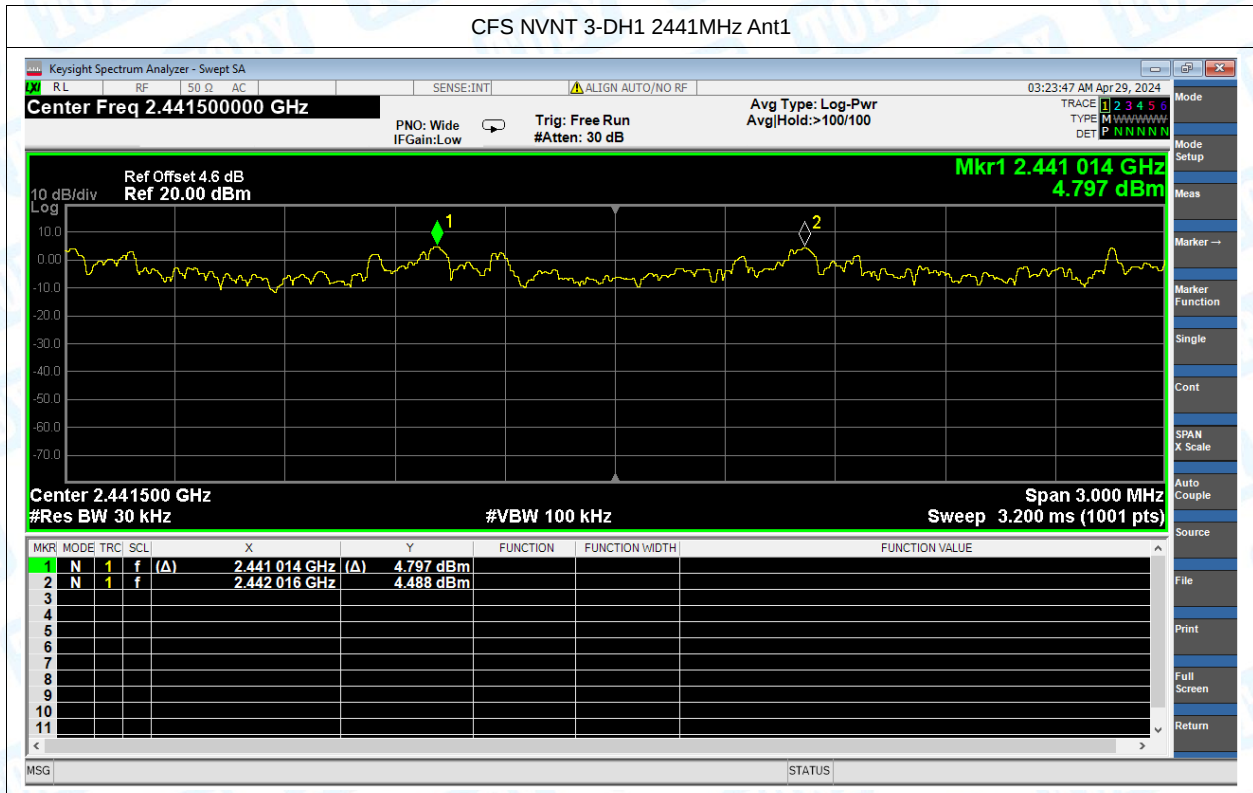
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



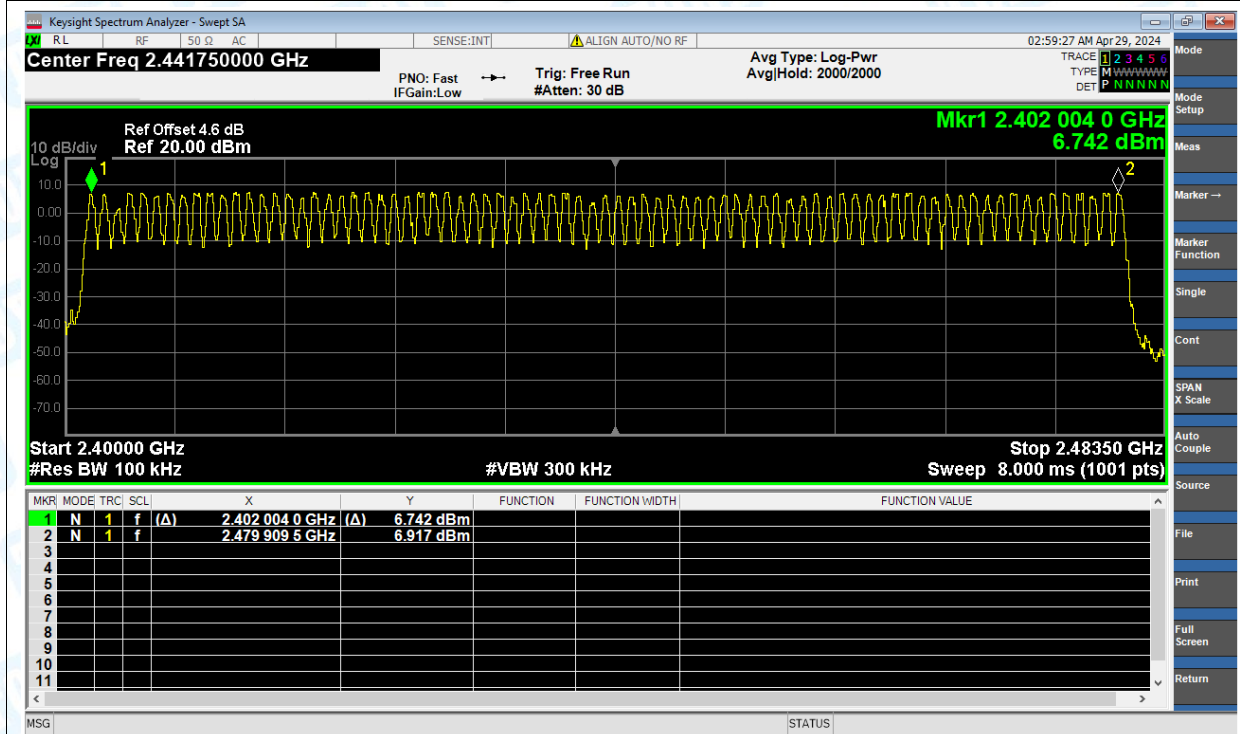


10. Number of Hopping Channel

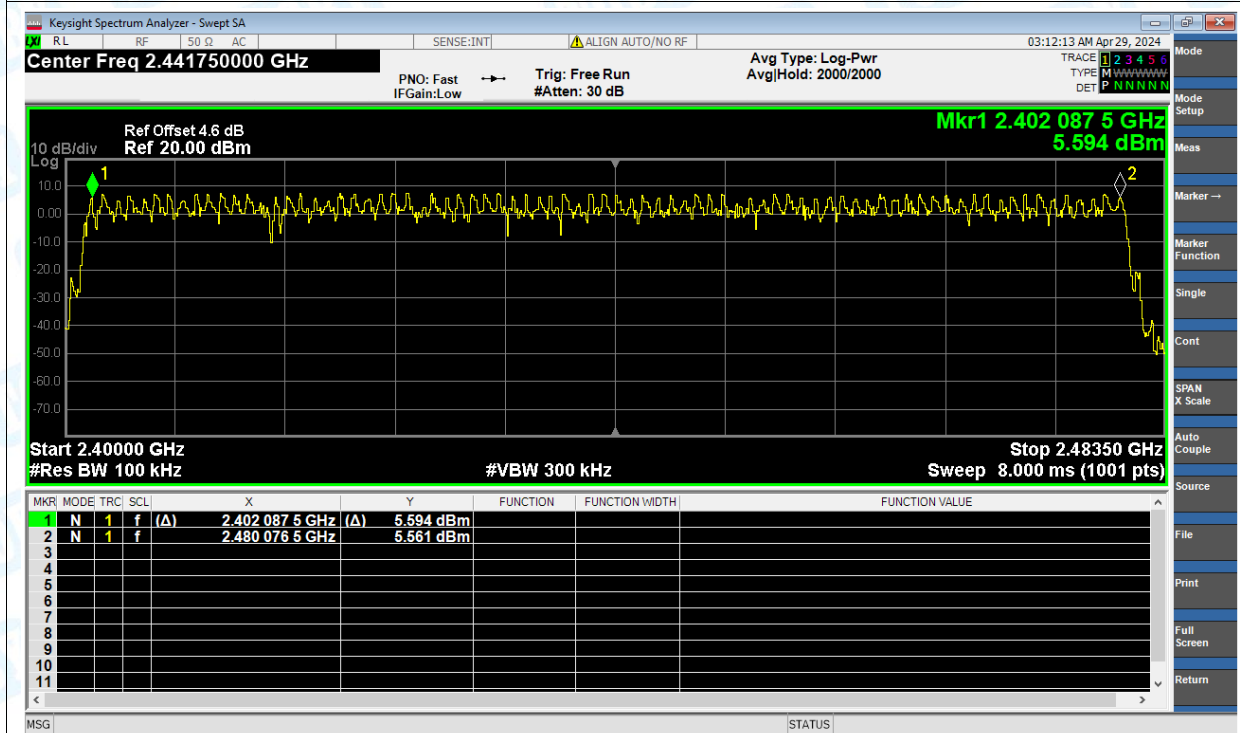
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

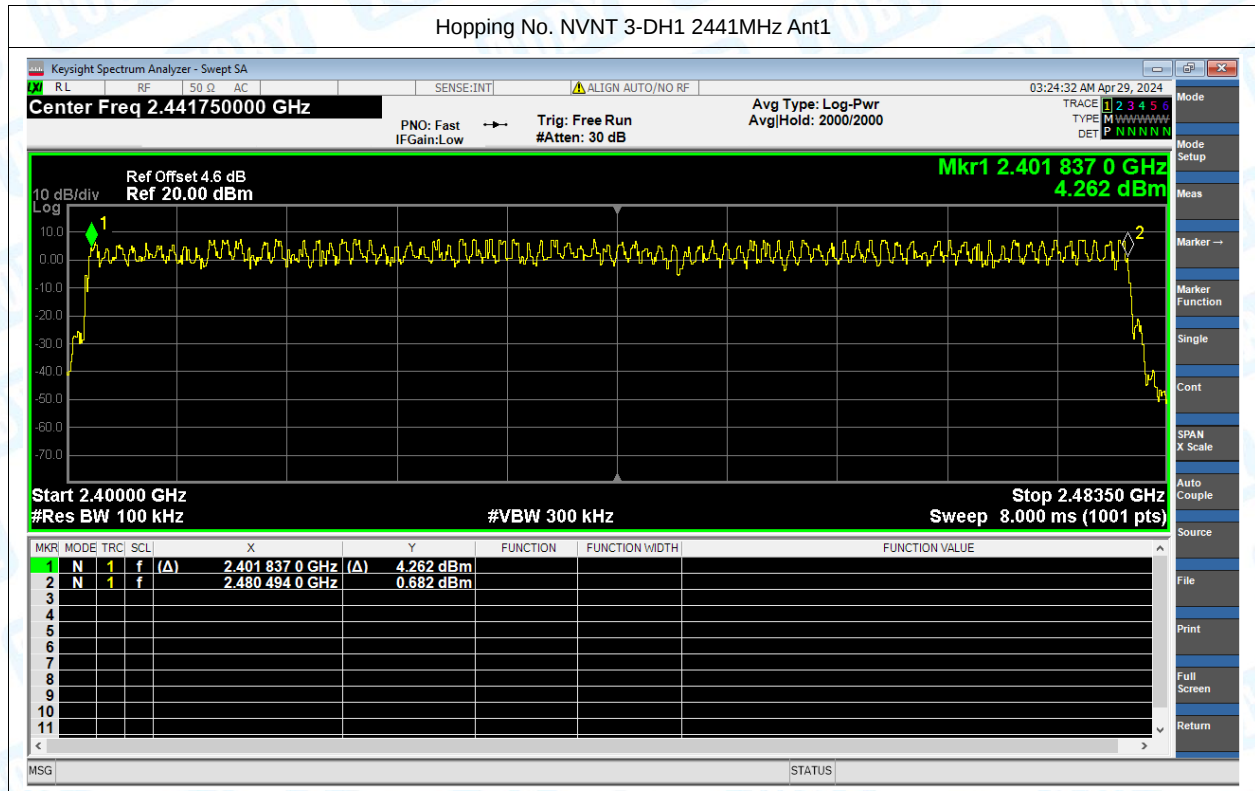
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



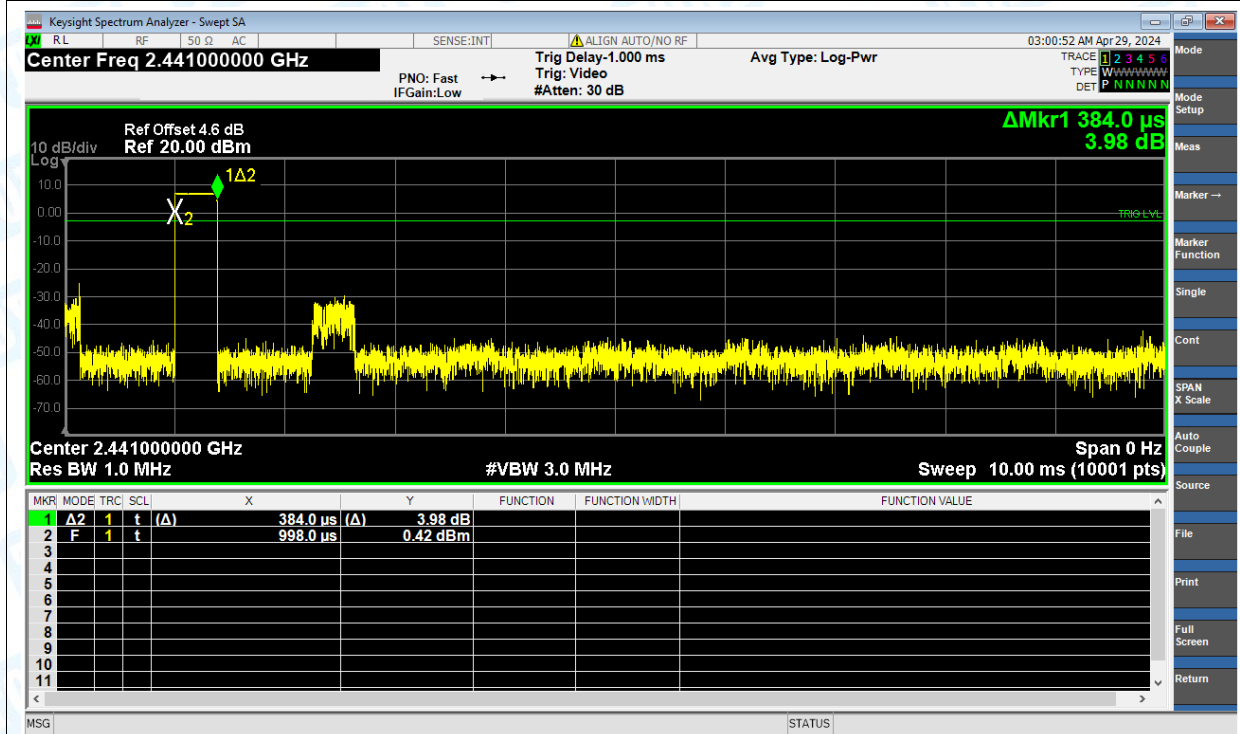


11. Dwell Time

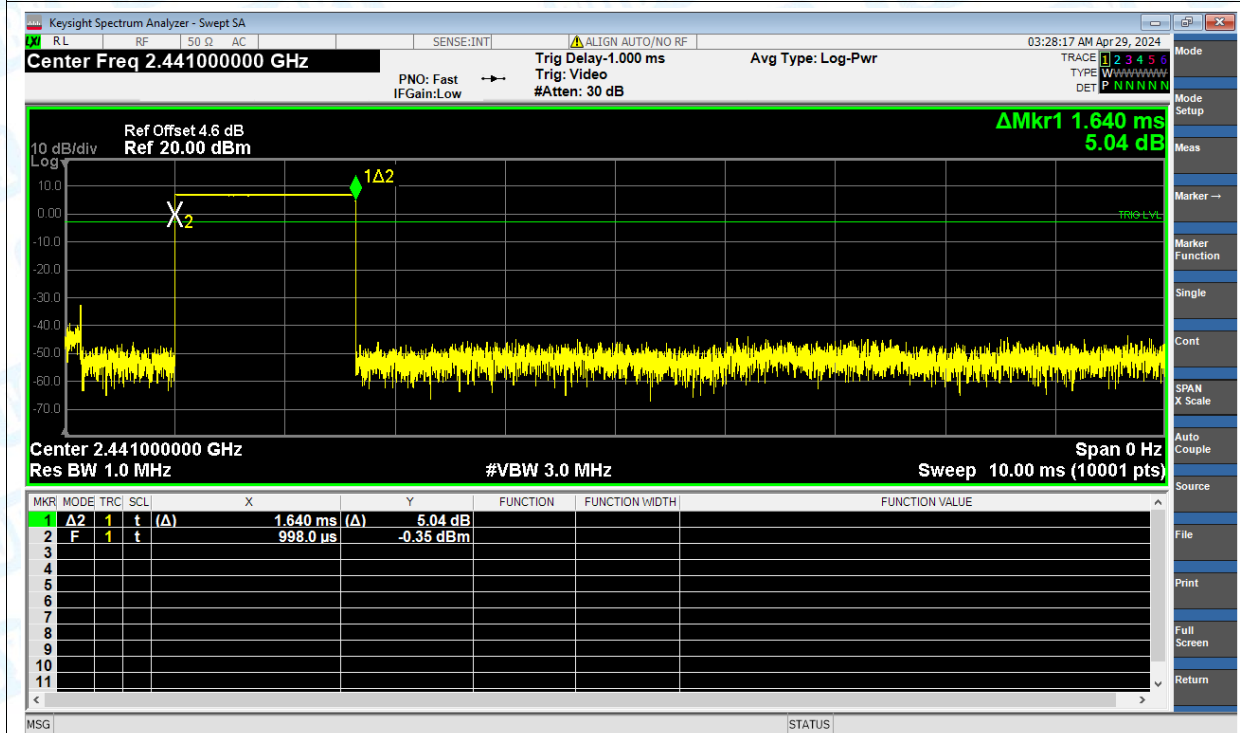
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.384	122.88	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.393	125.76	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.893	308.587	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.895	308.8	31600	400	Pass

Test Graphs

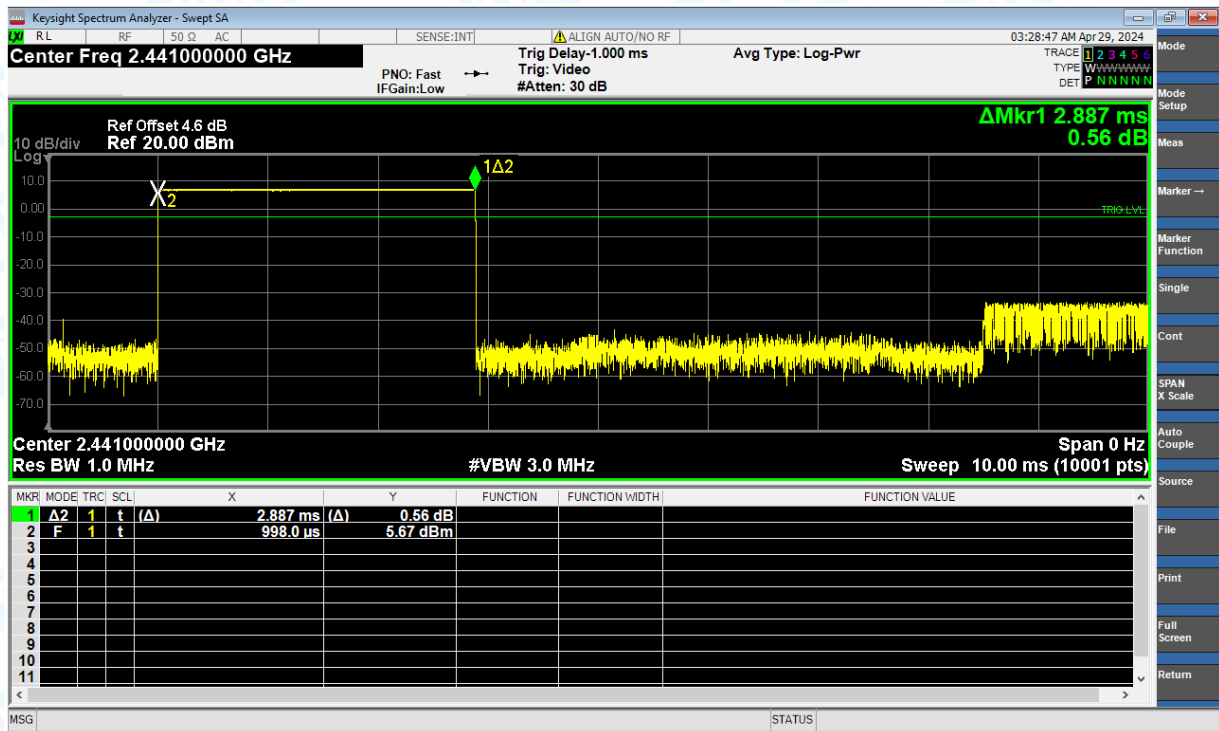
Dwell NVNT 1-DH1 2441MHz Ant1



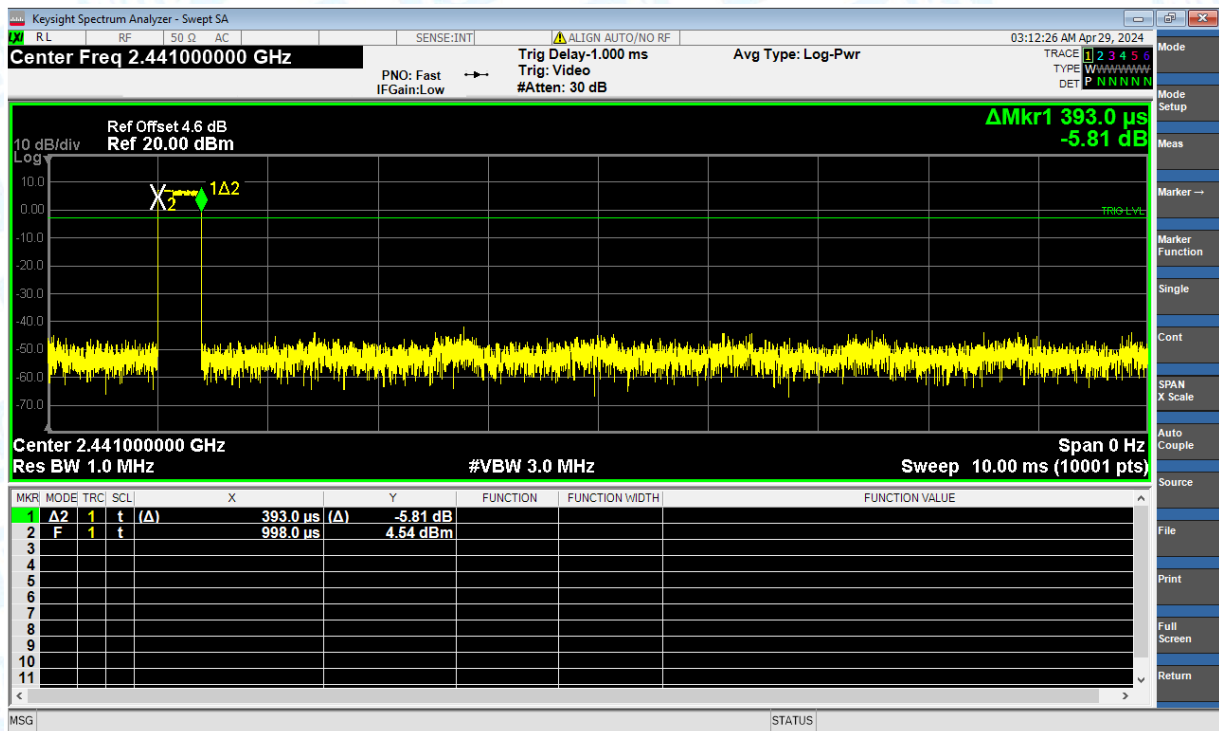
Dwell NVNT 1-DH3 2441MHz Ant1



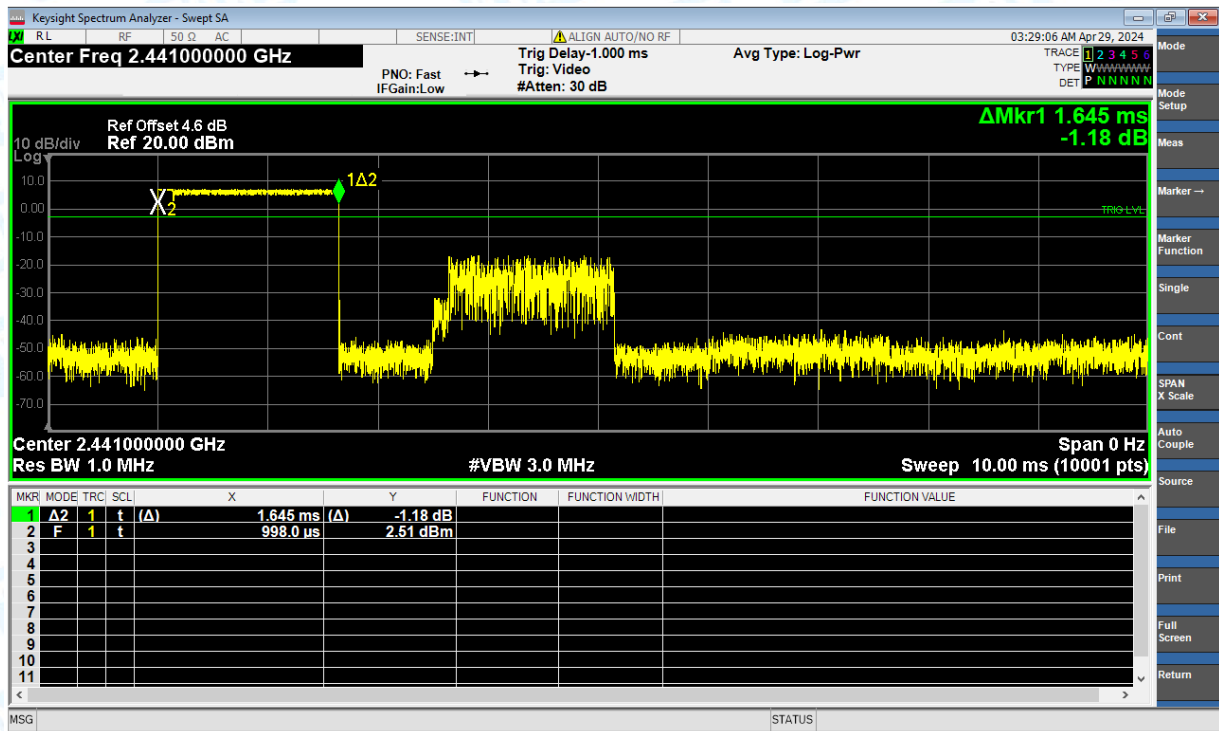
Dwell NVNT 1-DH5 2441MHz Ant1



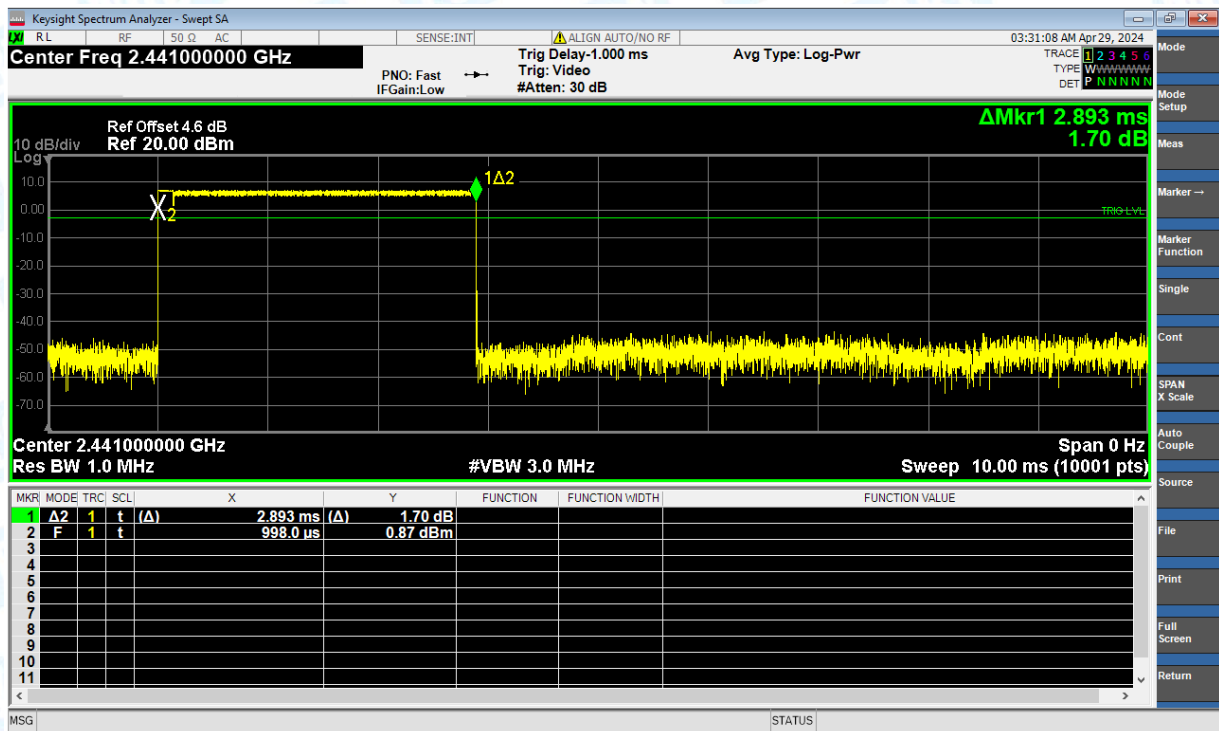
Dwell NVNT 2-DH1 2441MHz Ant1



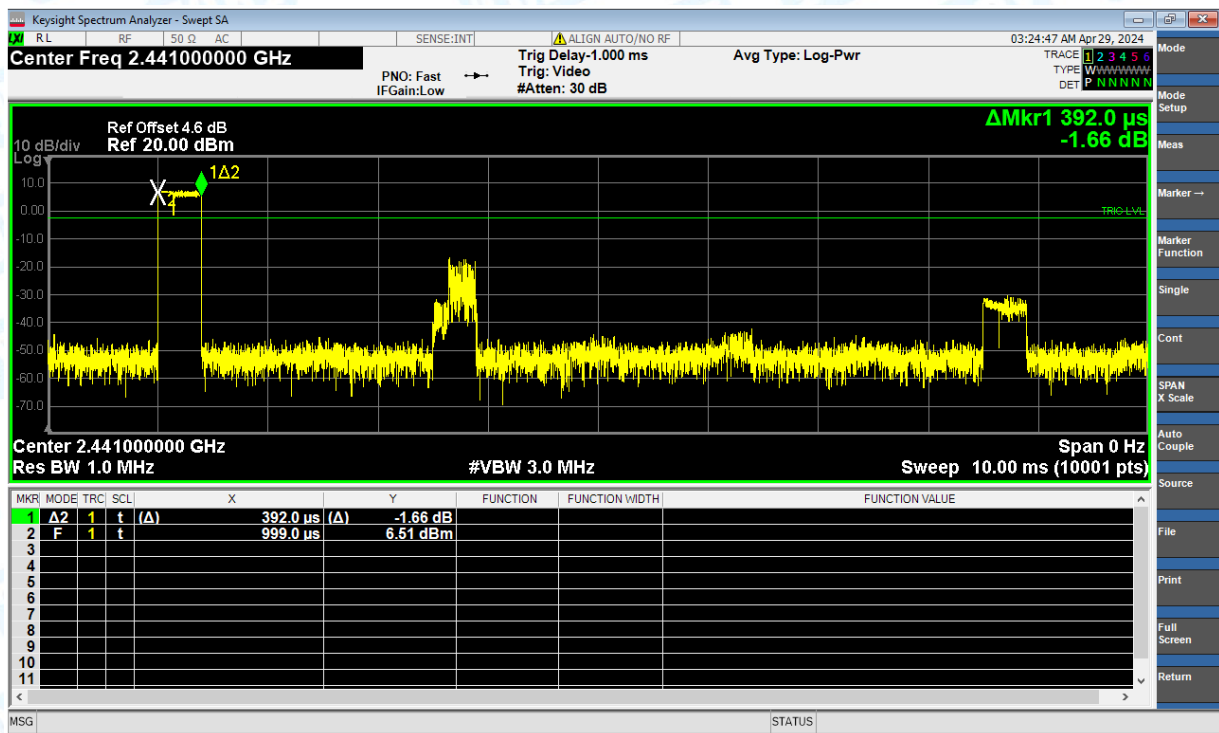
Dwell NVNT 2-DH3 2441MHz Ant1



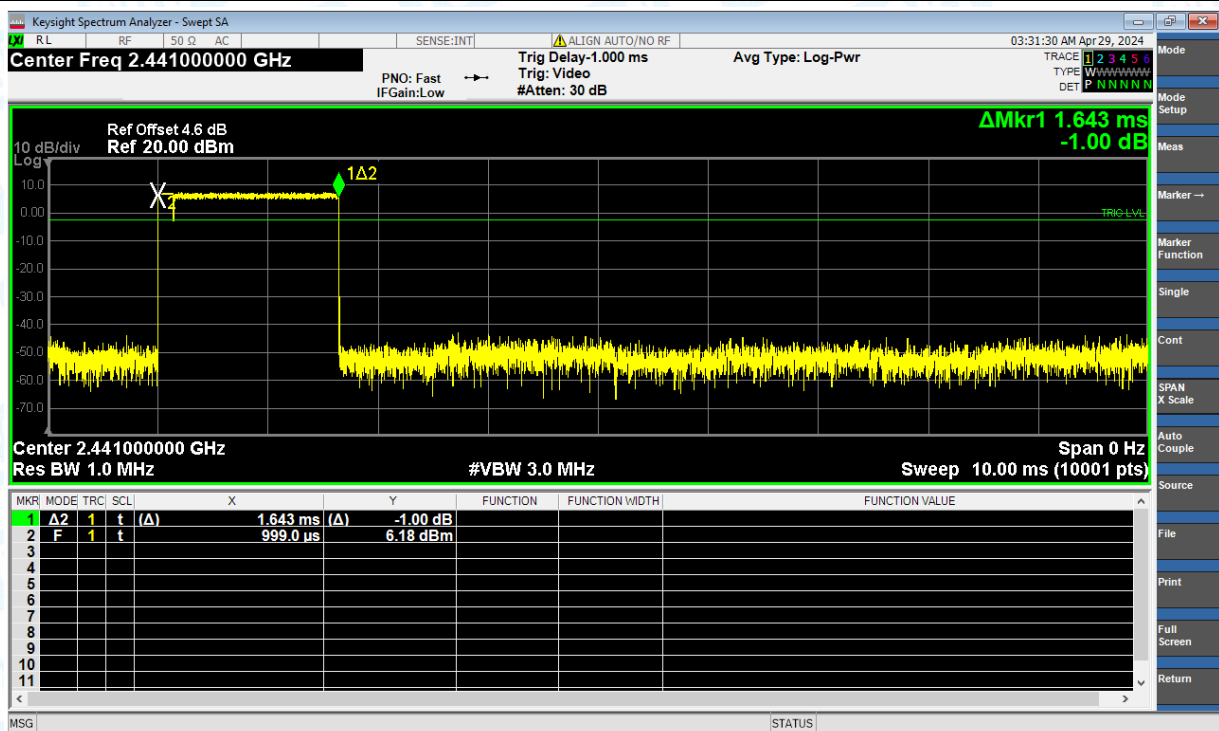
Dwell NVNT 2-DH5 2441MHz Ant1

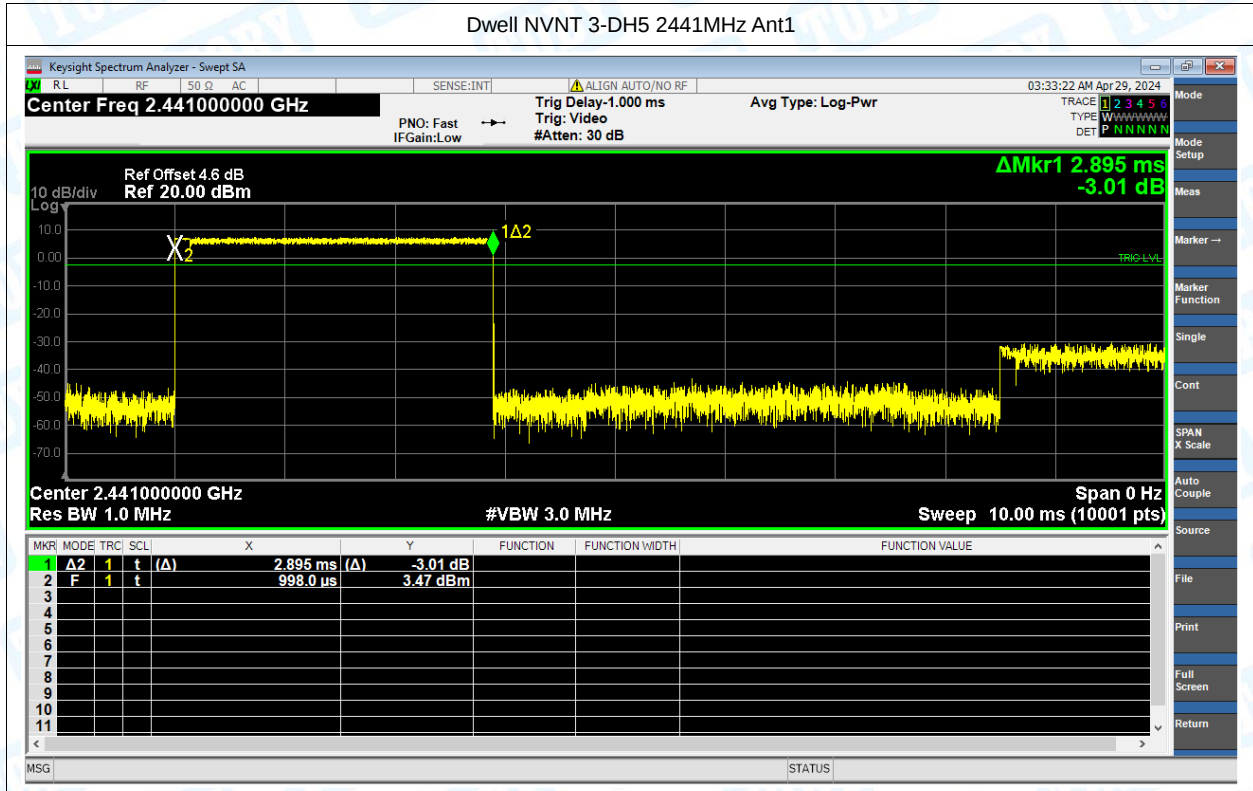


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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