

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

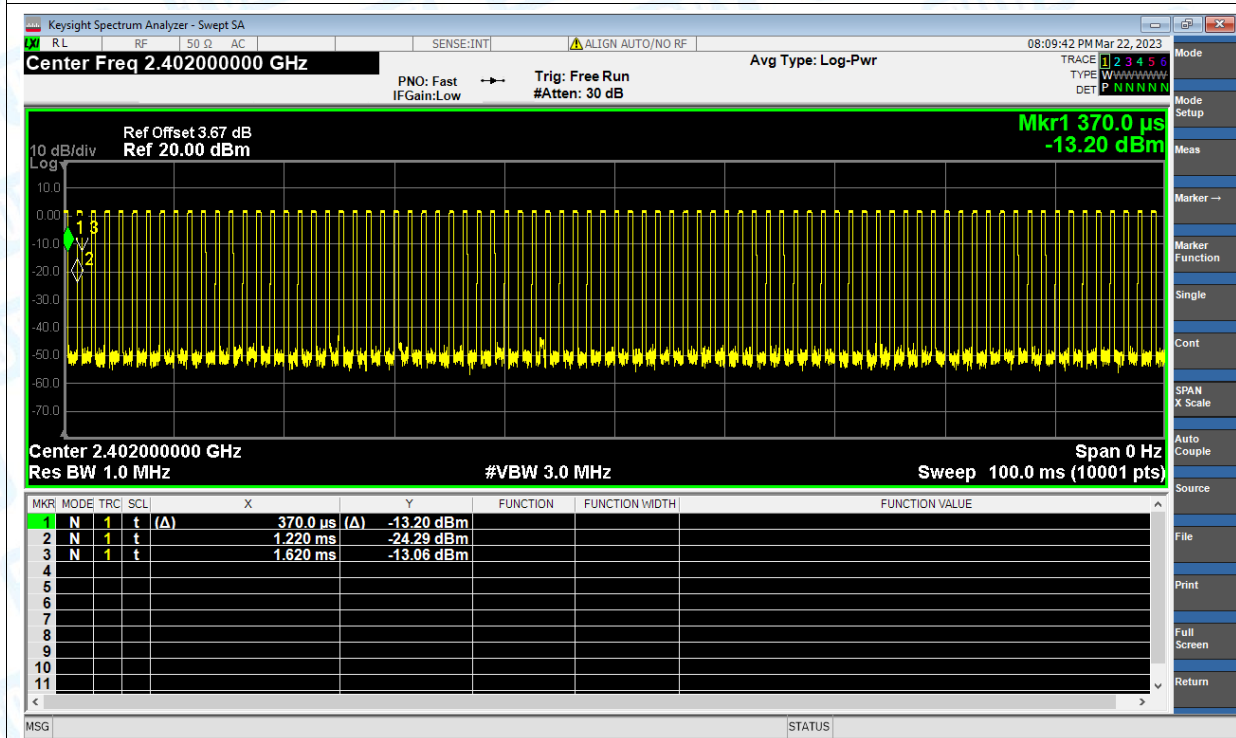
General Description of EUT	
Product Name:	Wireless Earbuds
Test Model:	G17
Sample ID:	202301-0087-8-2#
Environmental Conditions	
Temperature:	24℃
Relative Humidity:	50%
Test Voltage:	DC 3.7V
Test Engineer:	LiuJiming
Note: For a more detailed features description, please refer to the report TBR-C-202301-0087-14. The report only show the worst case data.	

Duty Cycle

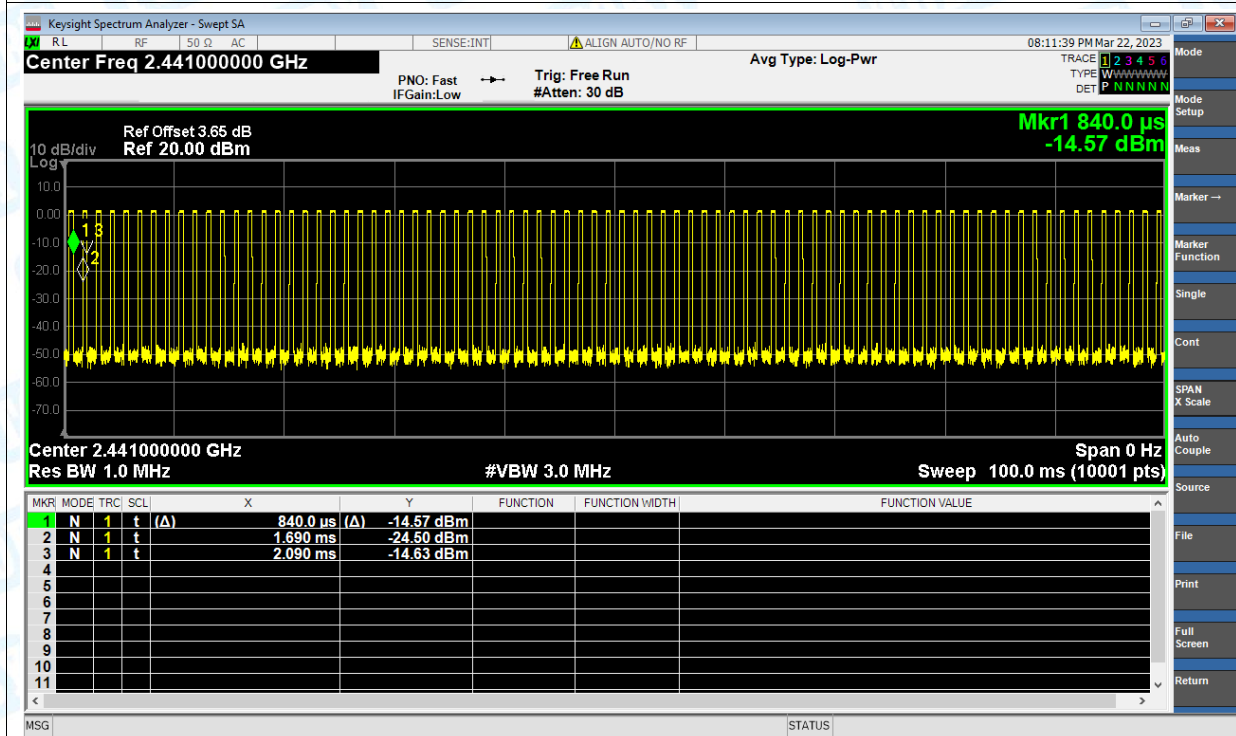
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32	4.95	2.5
NVNT	1-DH1	2441	Ant1	32	4.95	2.5
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1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

Test Graphs

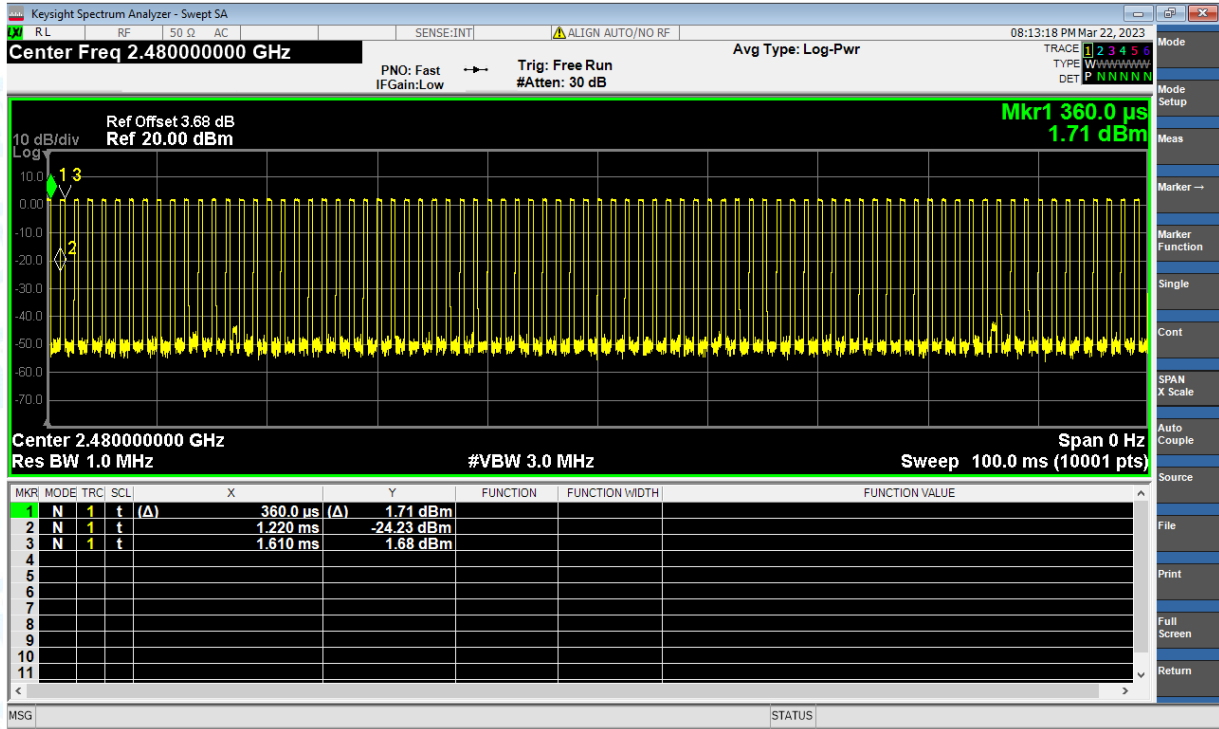
Duty Cycle NVNT 1-DH1 2402MHz Ant1



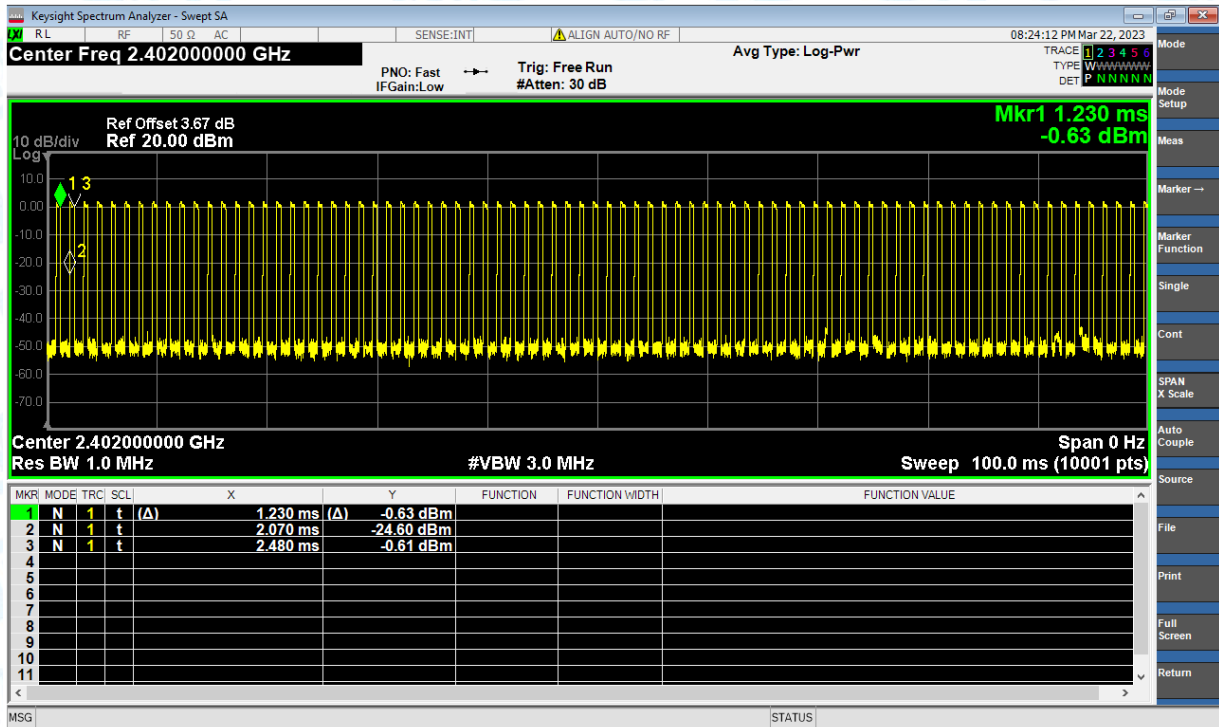
Duty Cycle NVNT 1-DH1 2441MHz Ant1



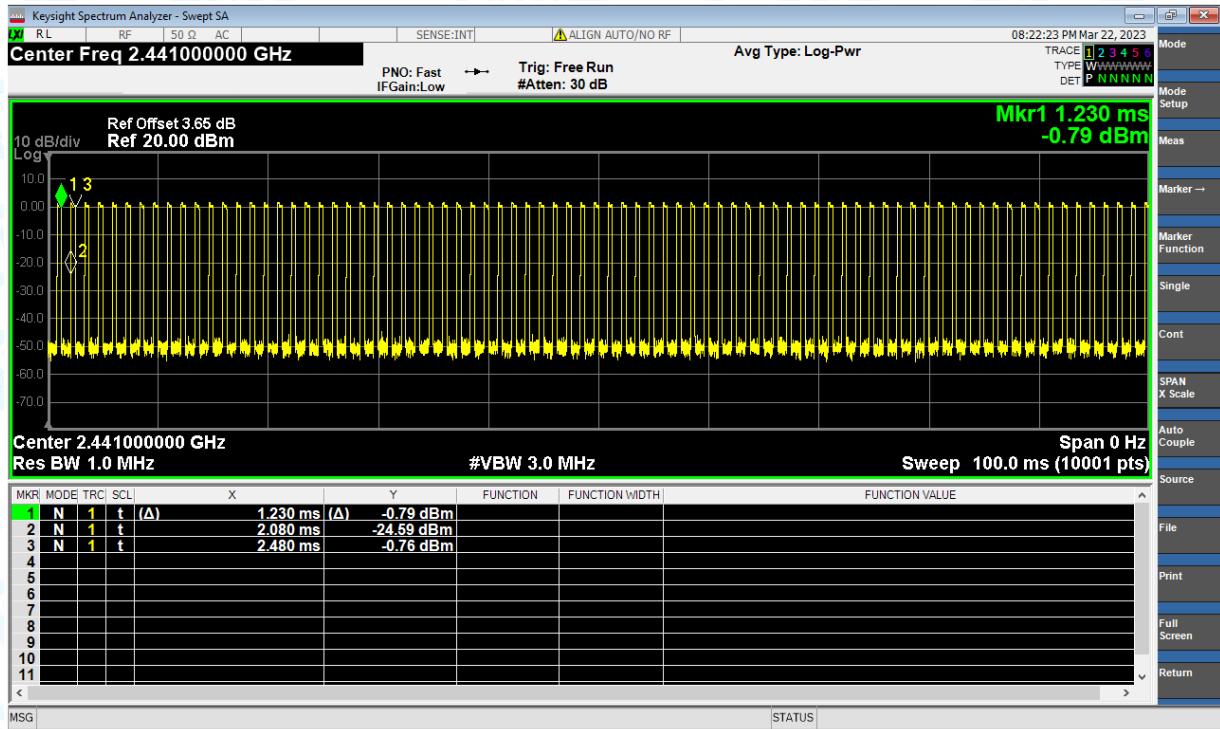
Duty Cycle NVNT 1-DH1 2480MHz Ant1



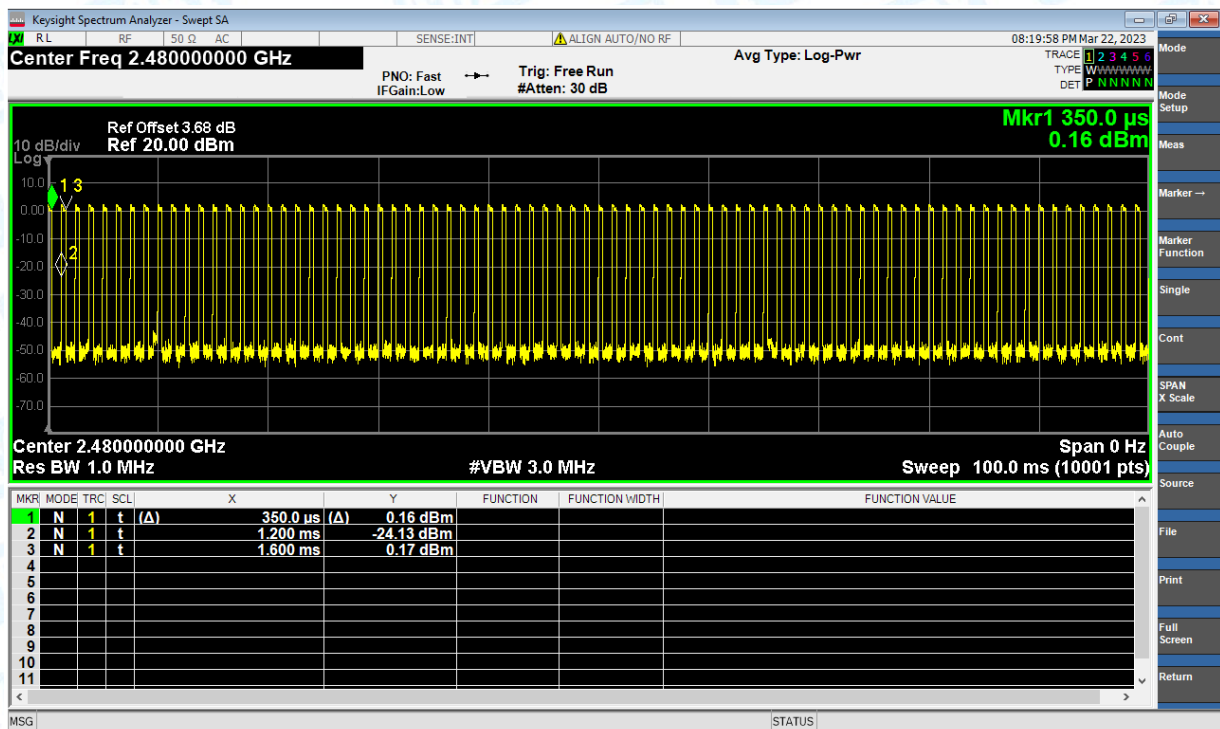
Duty Cycle NVNT 2-DH1 2402MHz Ant1



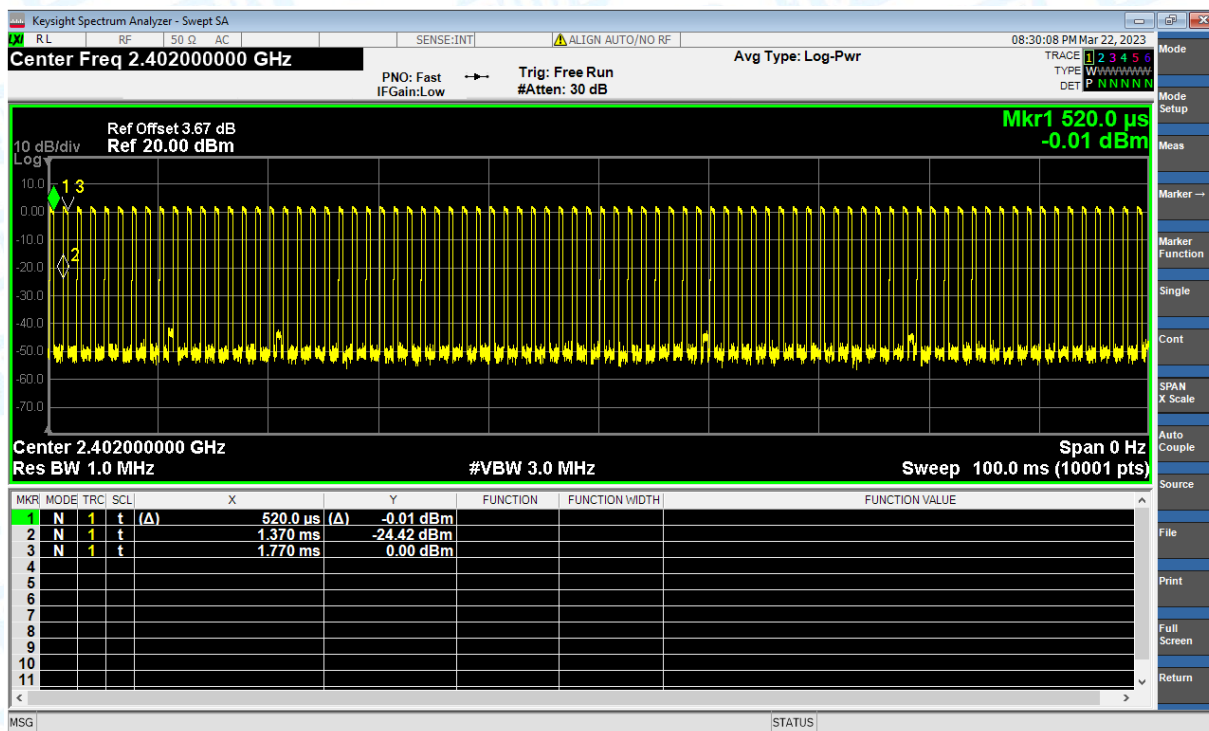
Duty Cycle NVNT 2-DH1 2441MHz Ant1



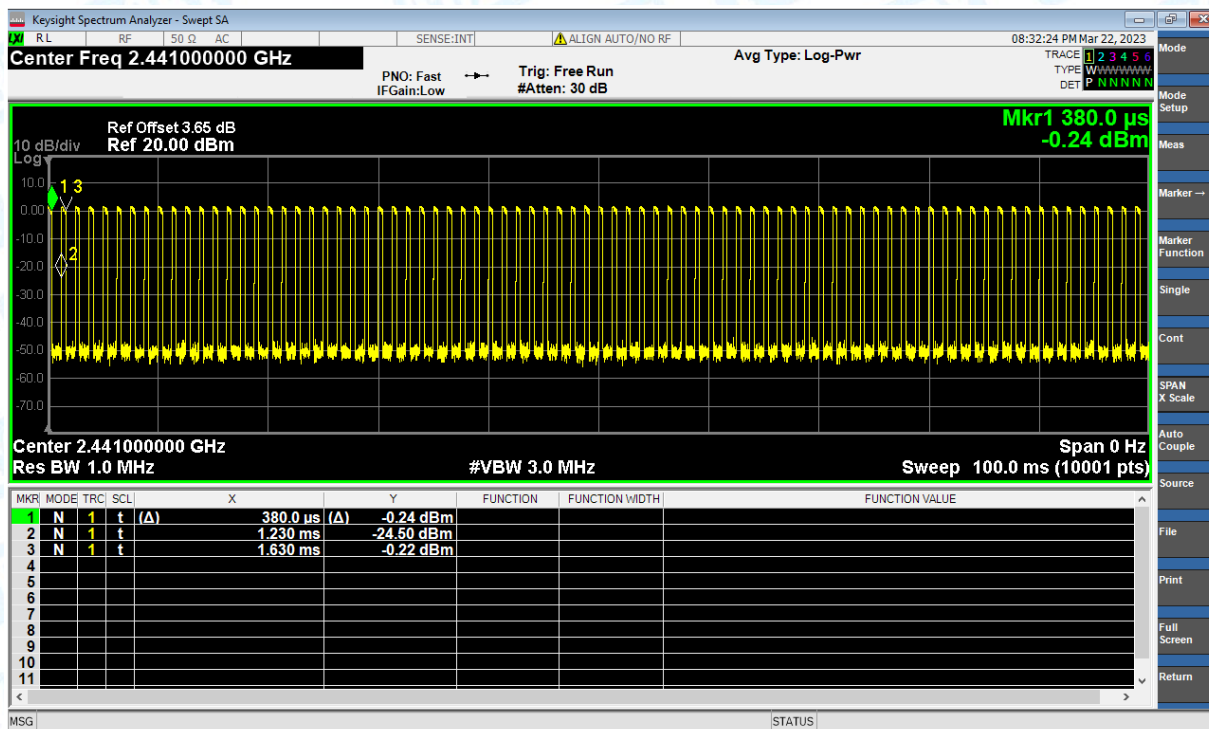
Duty Cycle NVNT 2-DH1 2480MHz Ant1

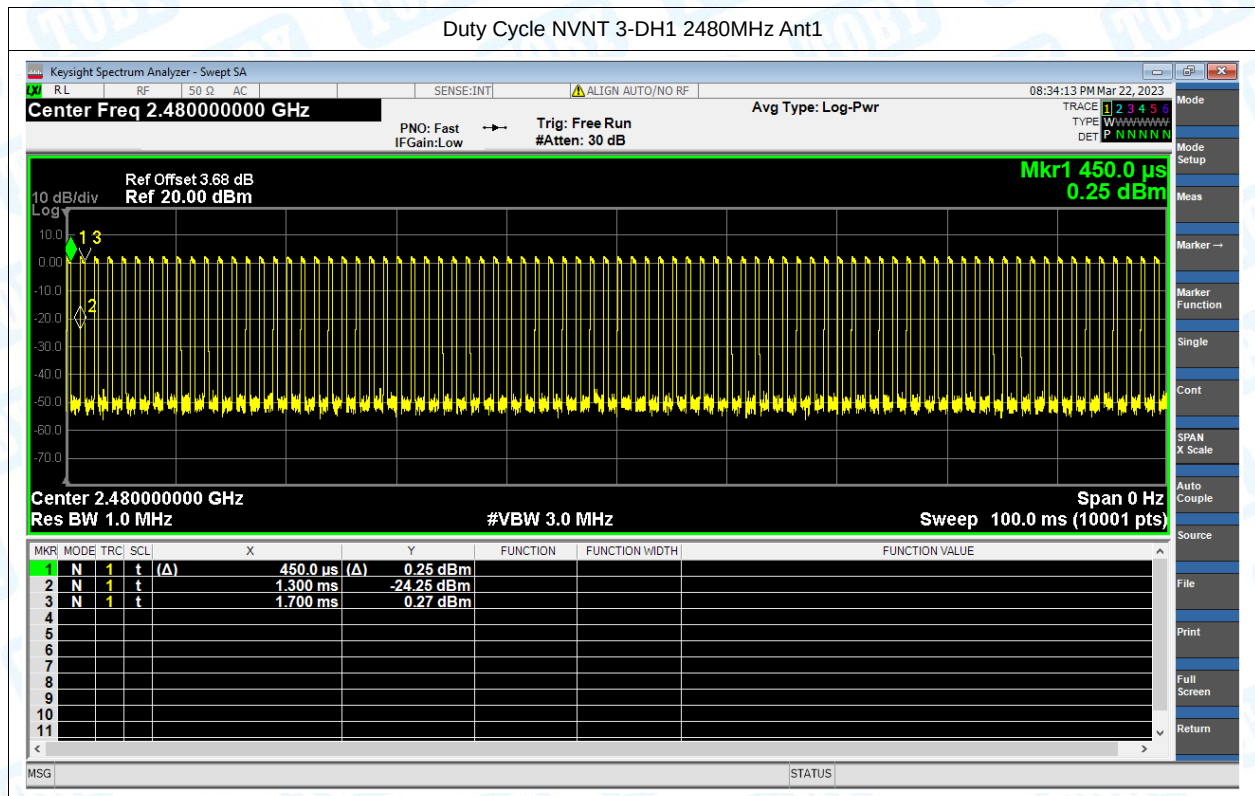


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



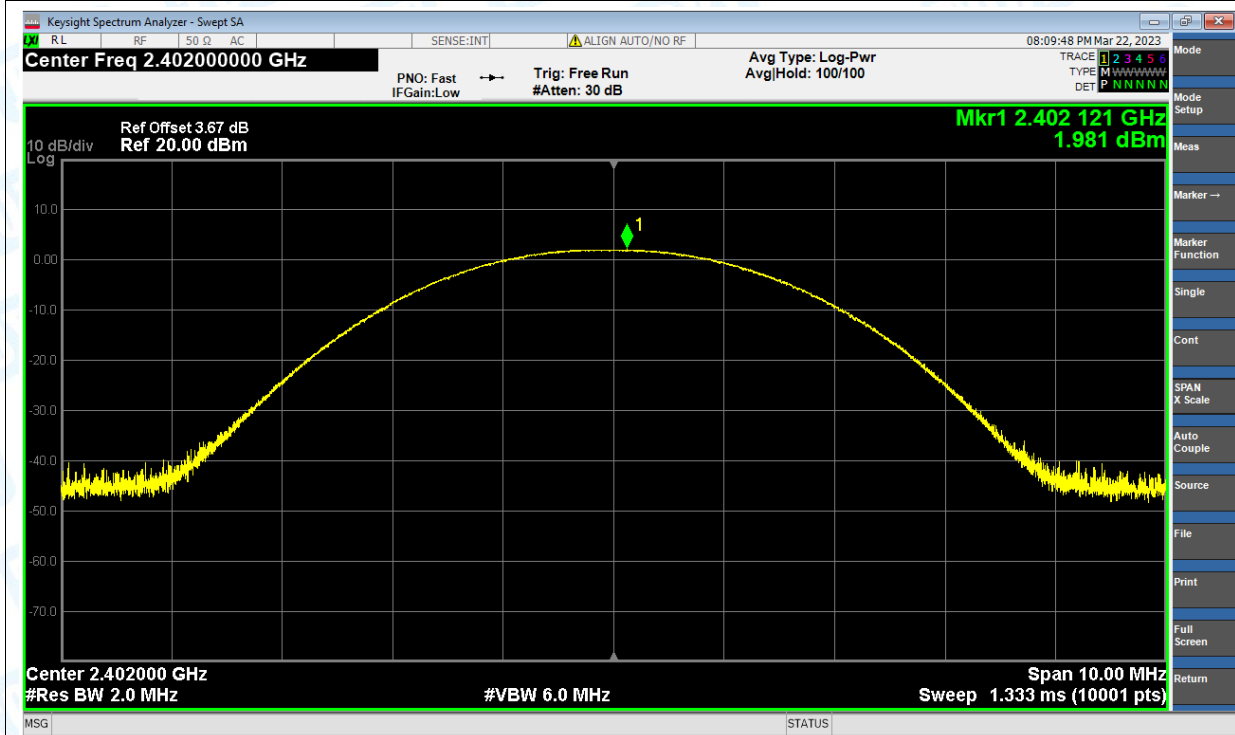


Maximum Conducted Output Power

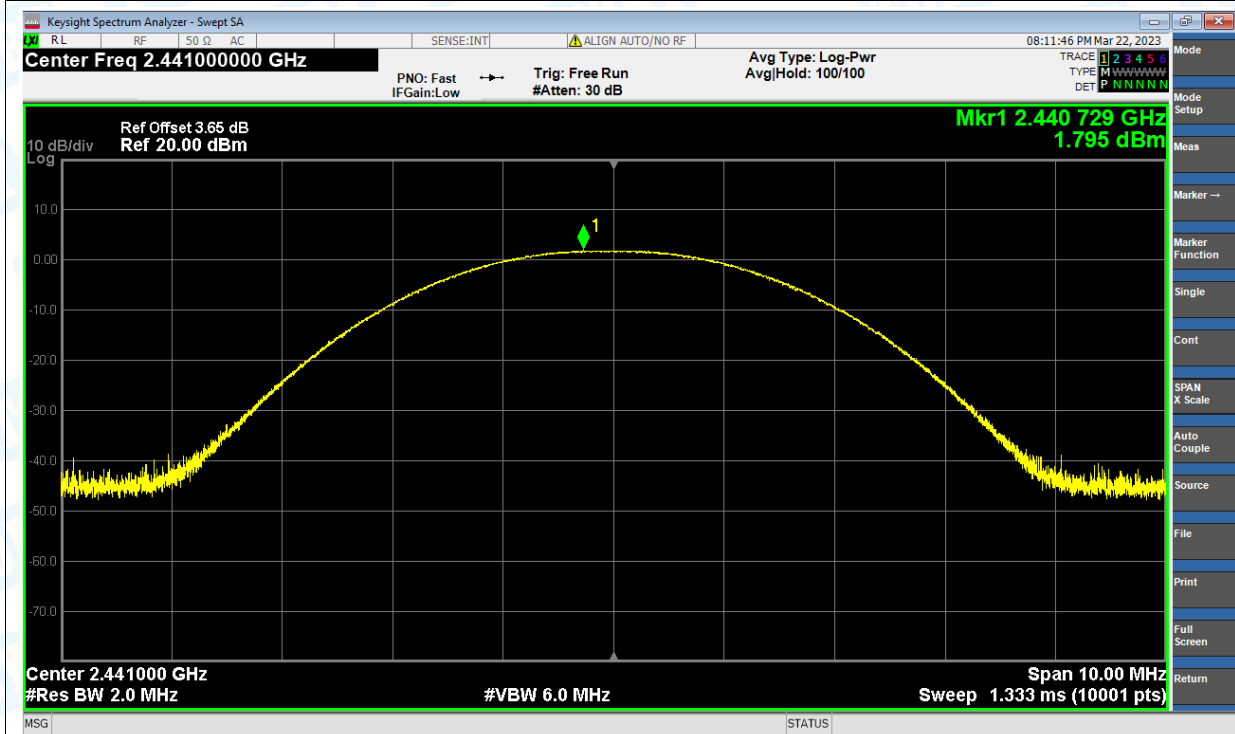
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.981	21	Pass
NVNT	1-DH1	2441	Ant1	1.795	21	Pass
NVNT	1-DH1	2480	Ant1	2.302	21	Pass
NVNT	2-DH1	2402	Ant1	1.996	21	Pass
NVNT	2-DH1	2441	Ant1	1.888	21	Pass
NVNT	2-DH1	2480	Ant1	2.348	21	Pass
NVNT	3-DH1	2402	Ant1	2.032	21	Pass
NVNT	3-DH1	2441	Ant1	1.873	21	Pass
NVNT	3-DH1	2480	Ant1	2.333	21	Pass

Test Graphs

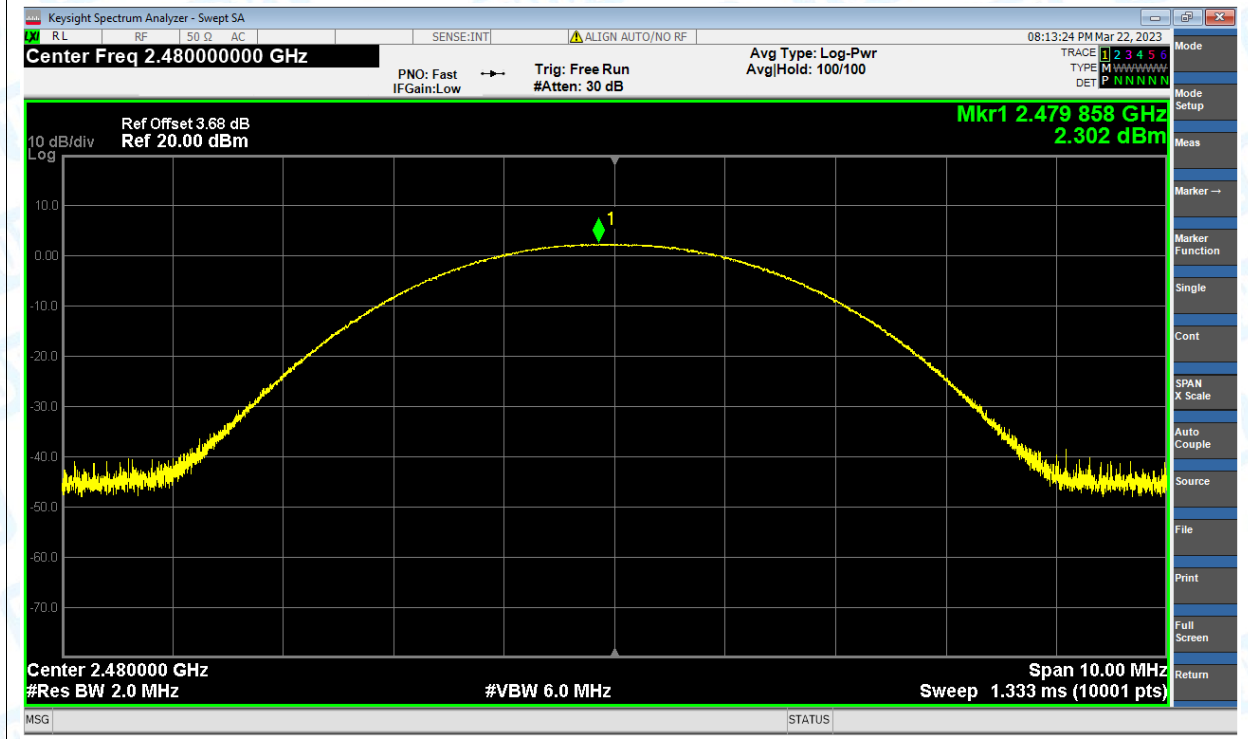
Power NVNT 1-DH1 2402MHz Ant1



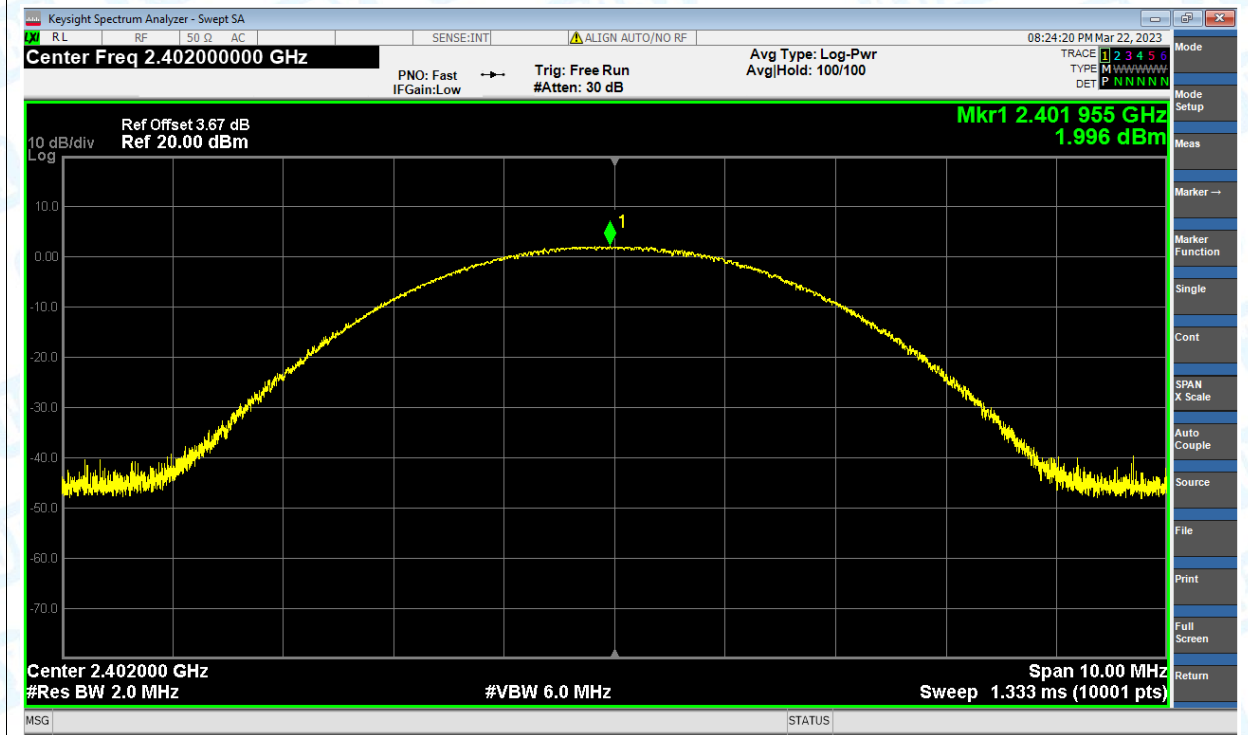
Power NVNT 1-DH1 2441MHz Ant1



Power NVNT 1-DH1 2480MHz Ant1



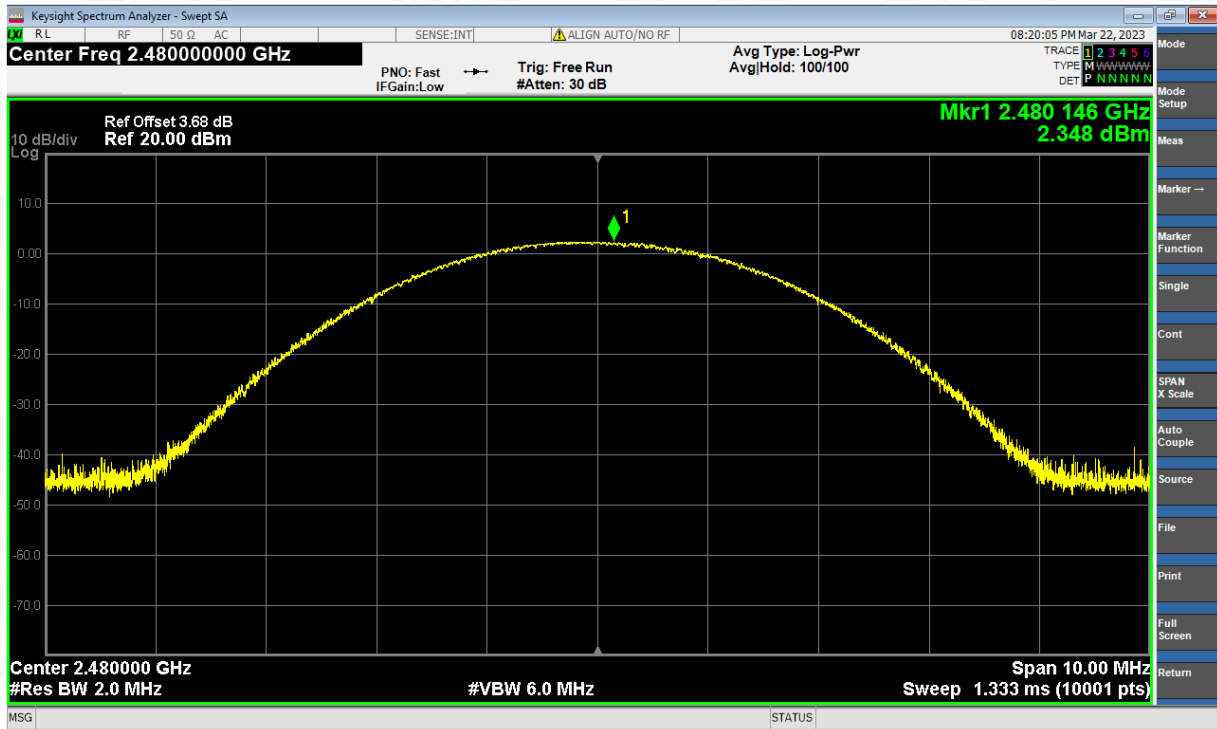
Power NVNT 2-DH1 2402MHz Ant1



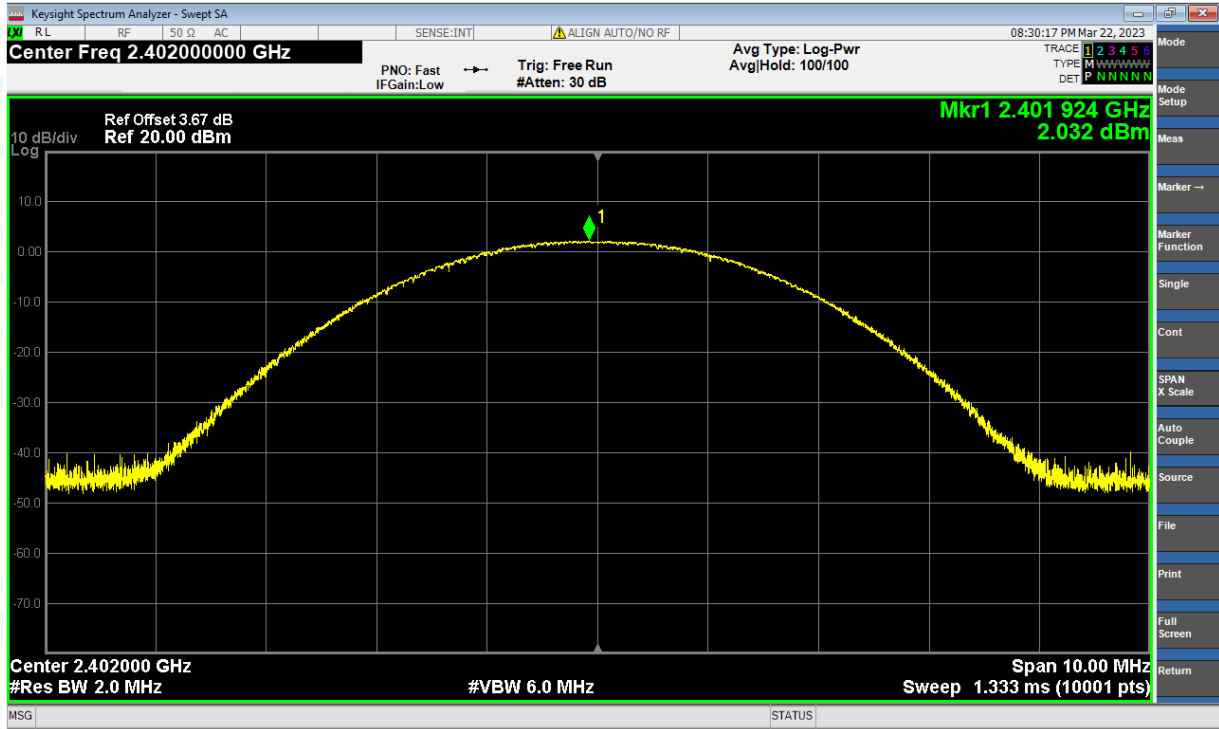
Power NVNT 2-DH1 2441MHz Ant1



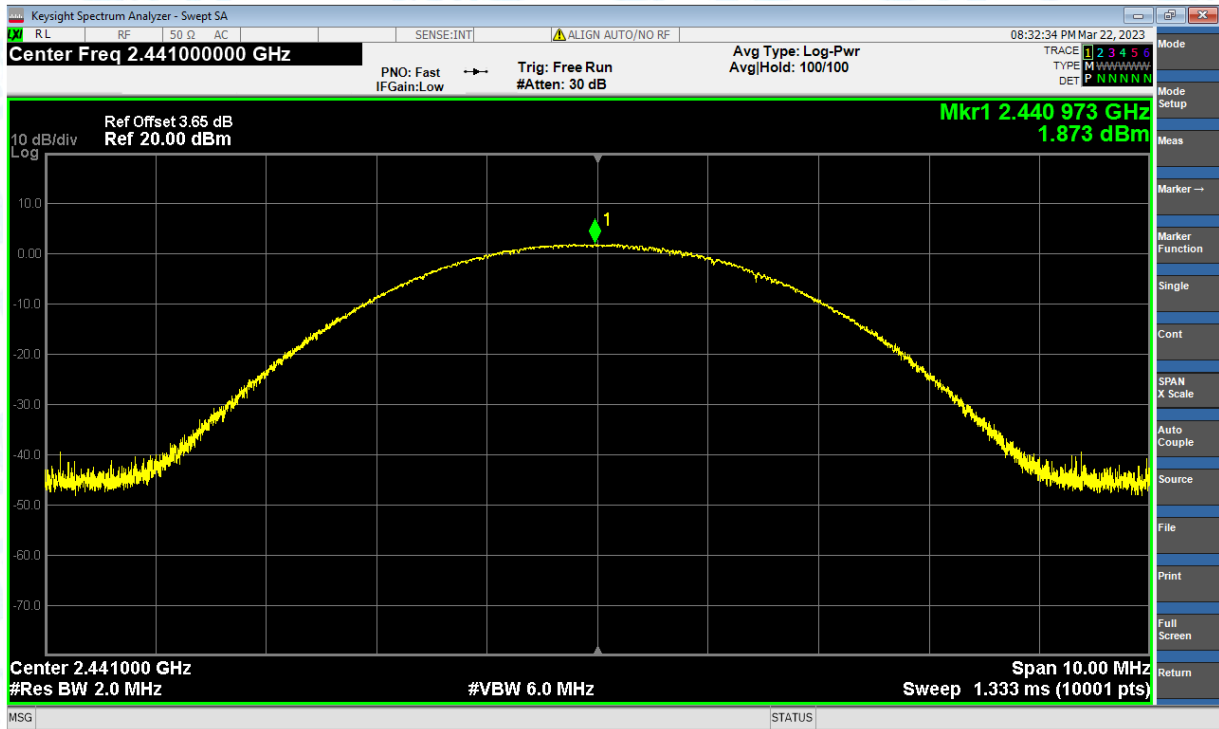
Power NVNT 2-DH1 2480MHz Ant1

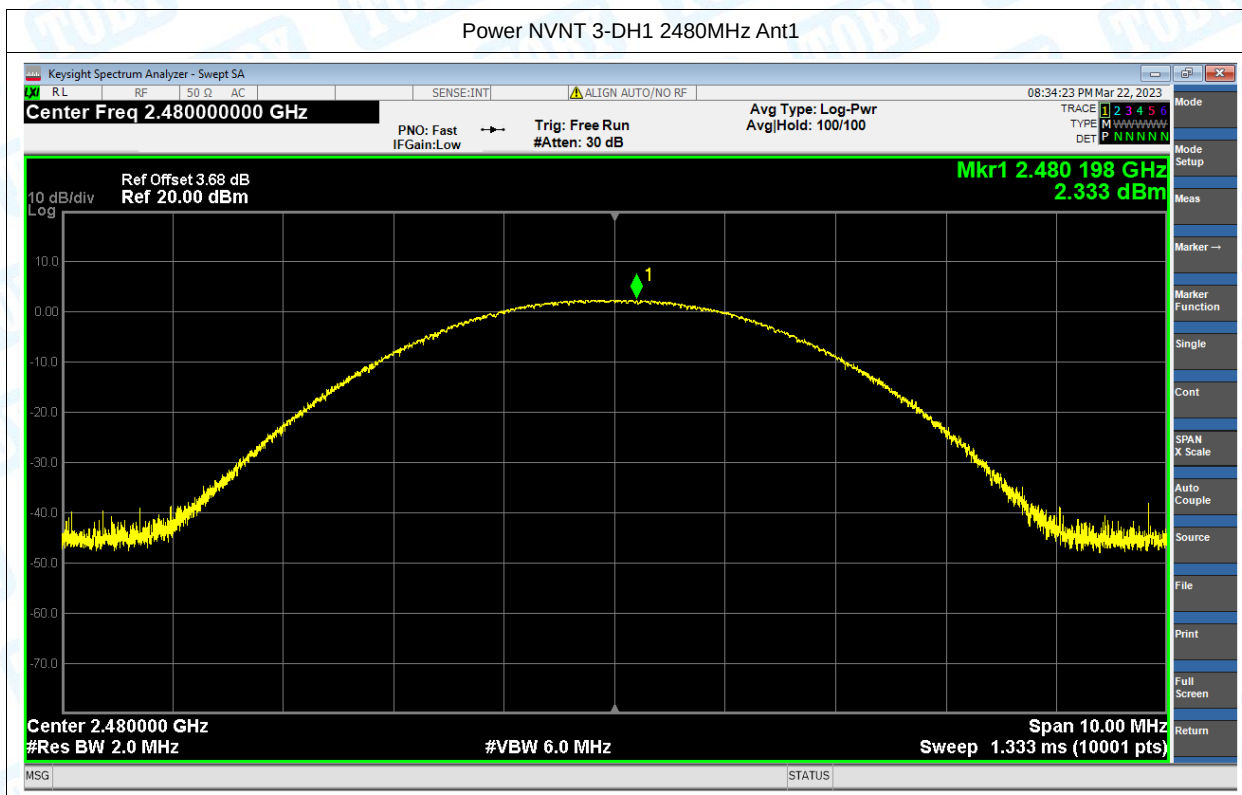


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



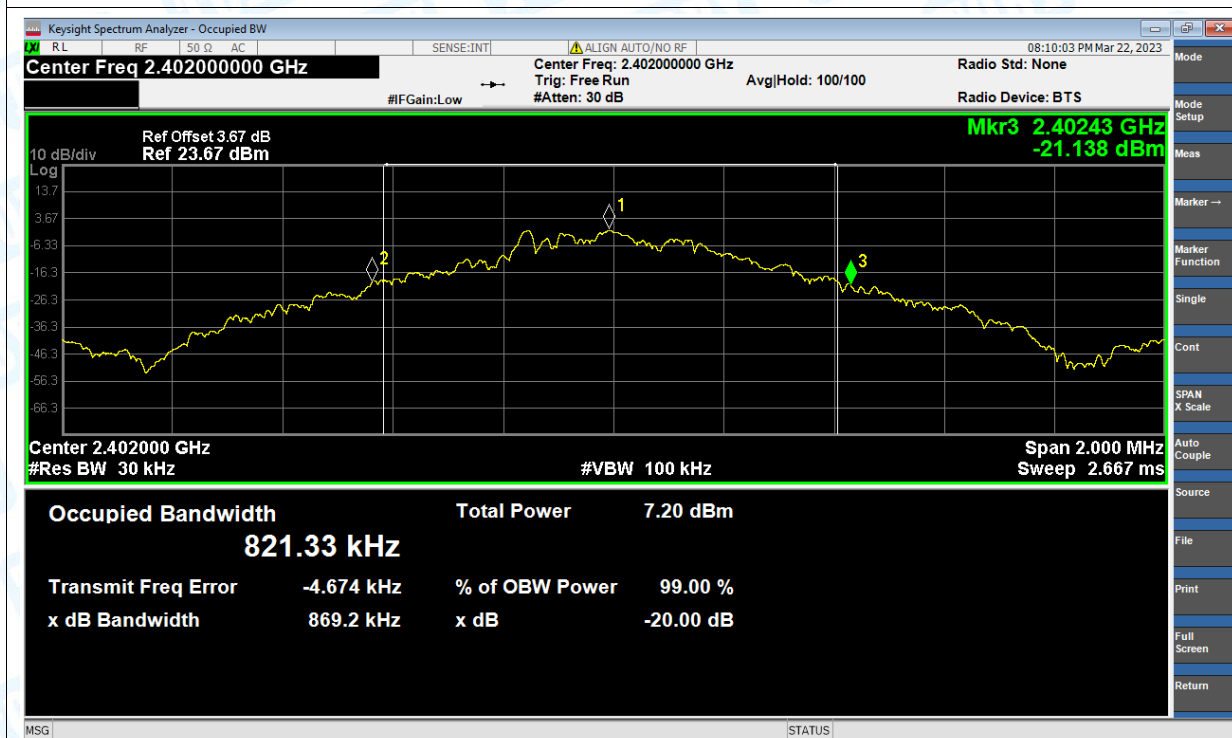


-20dB Bandwidth

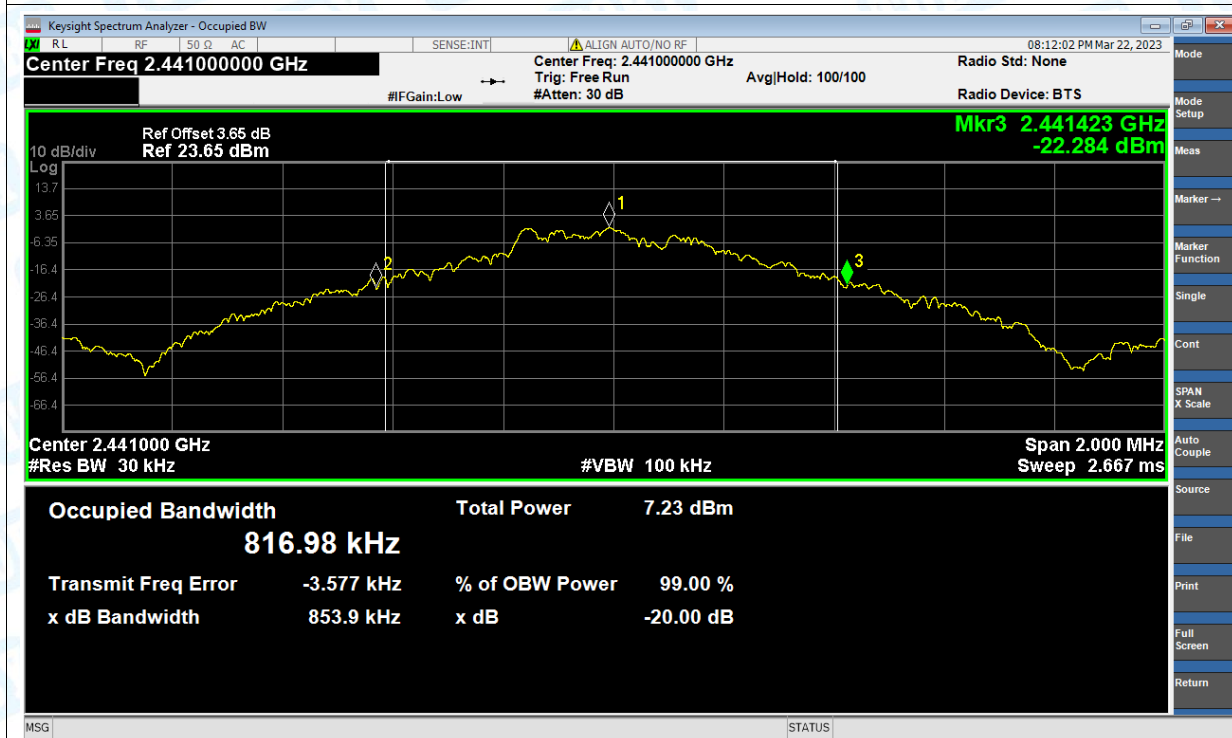
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.85	0	Pass
NVNT	1-DH1	2480	Ant1	0.87	0	Pass
NVNT	2-DH1	2402	Ant1	1.2	0	Pass
NVNT	2-DH1	2441	Ant1	1.22	0	Pass
NVNT	2-DH1	2480	Ant1	1.21	0	Pass
NVNT	3-DH1	2402	Ant1	1.2	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.19	0	Pass

Test Graphs

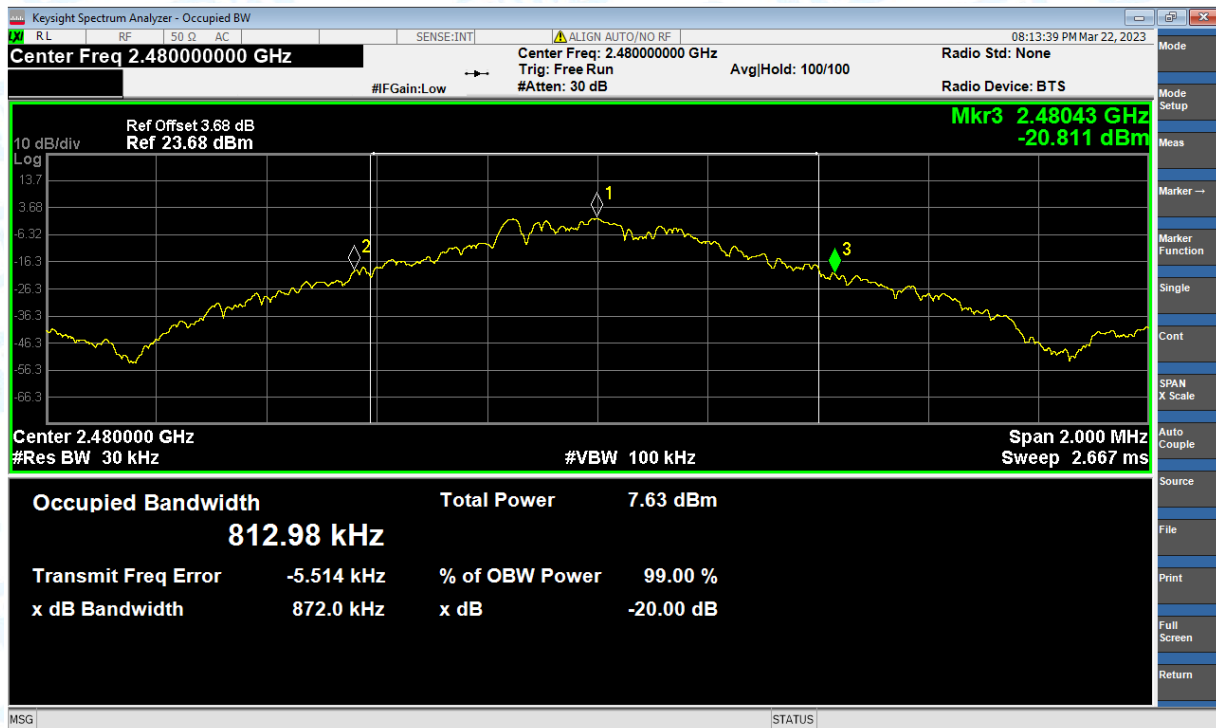
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



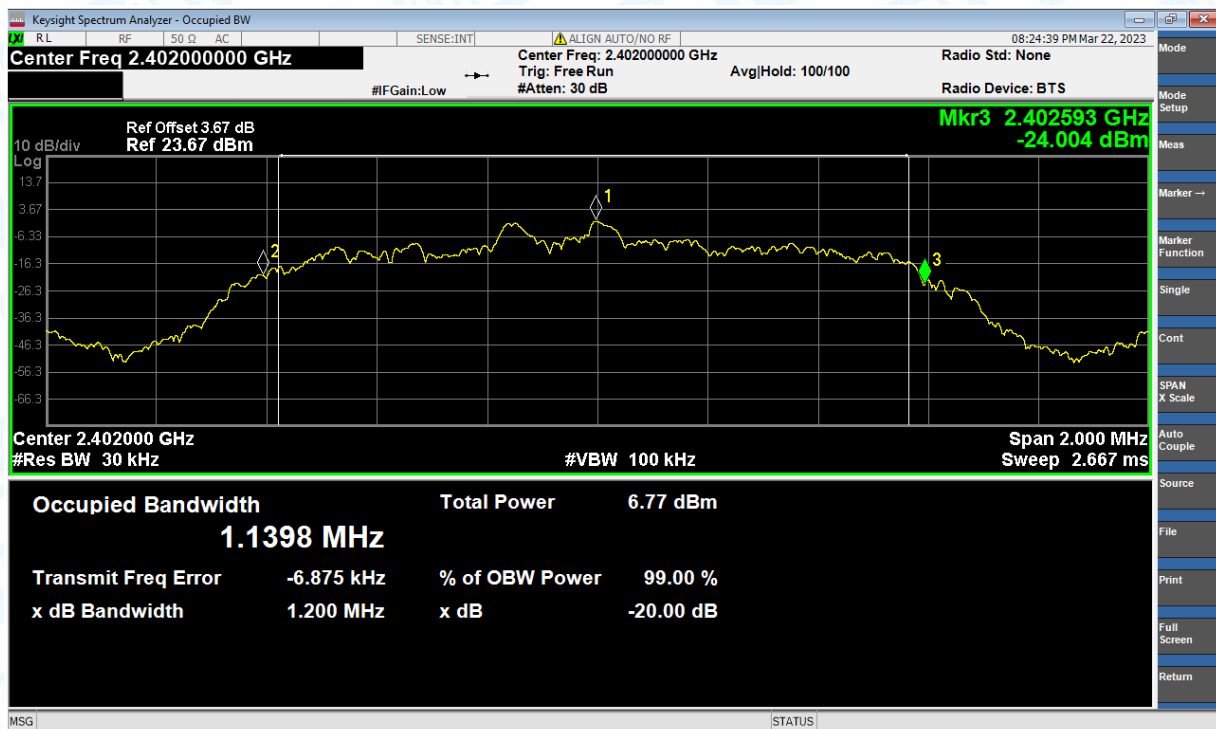
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



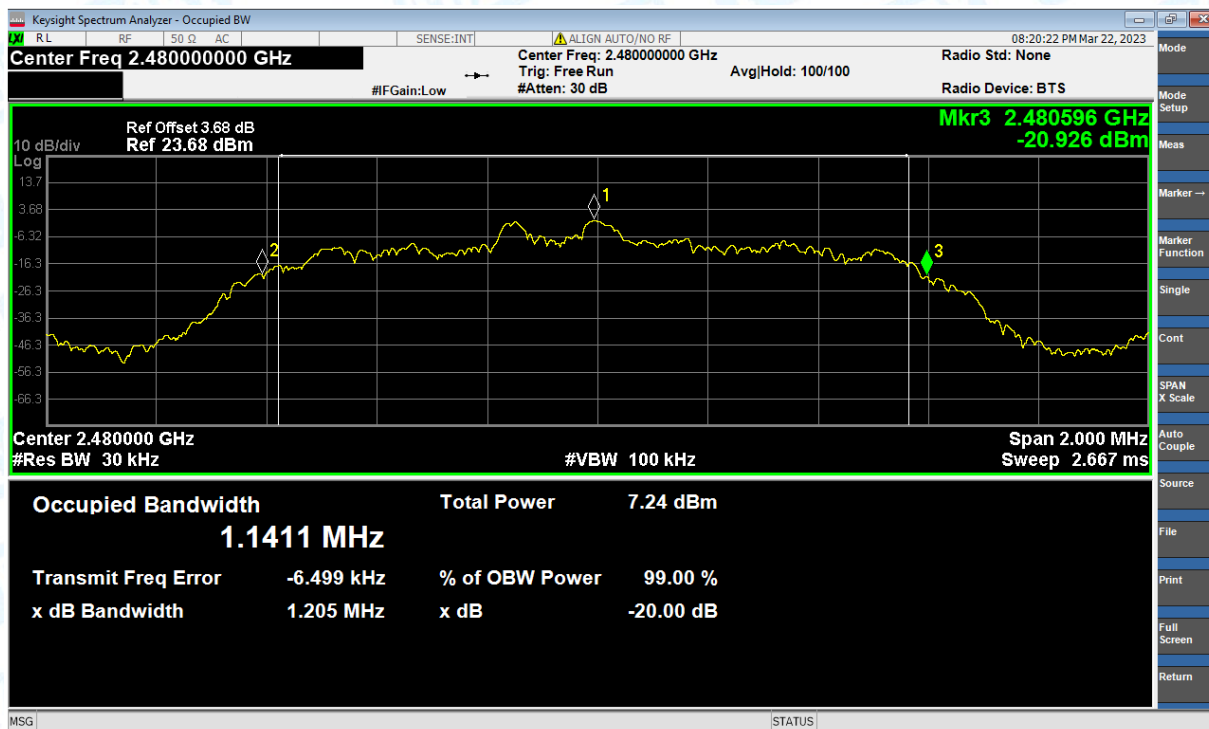
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



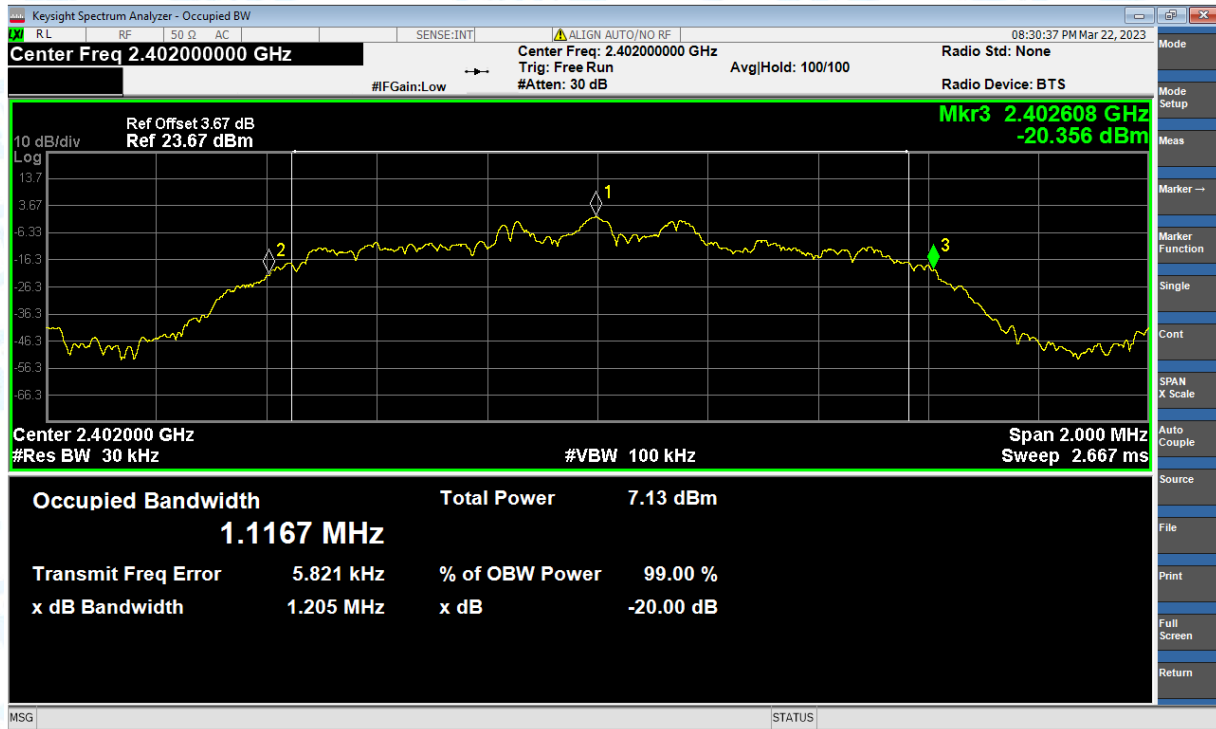
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



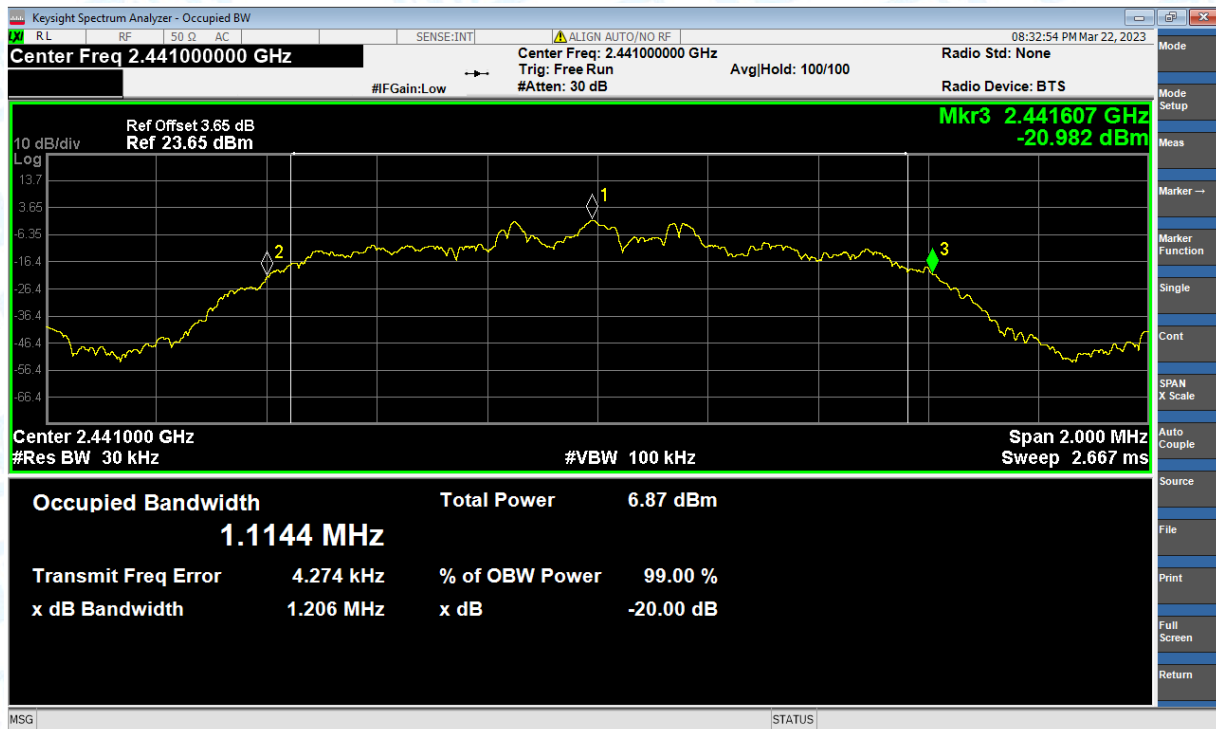
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

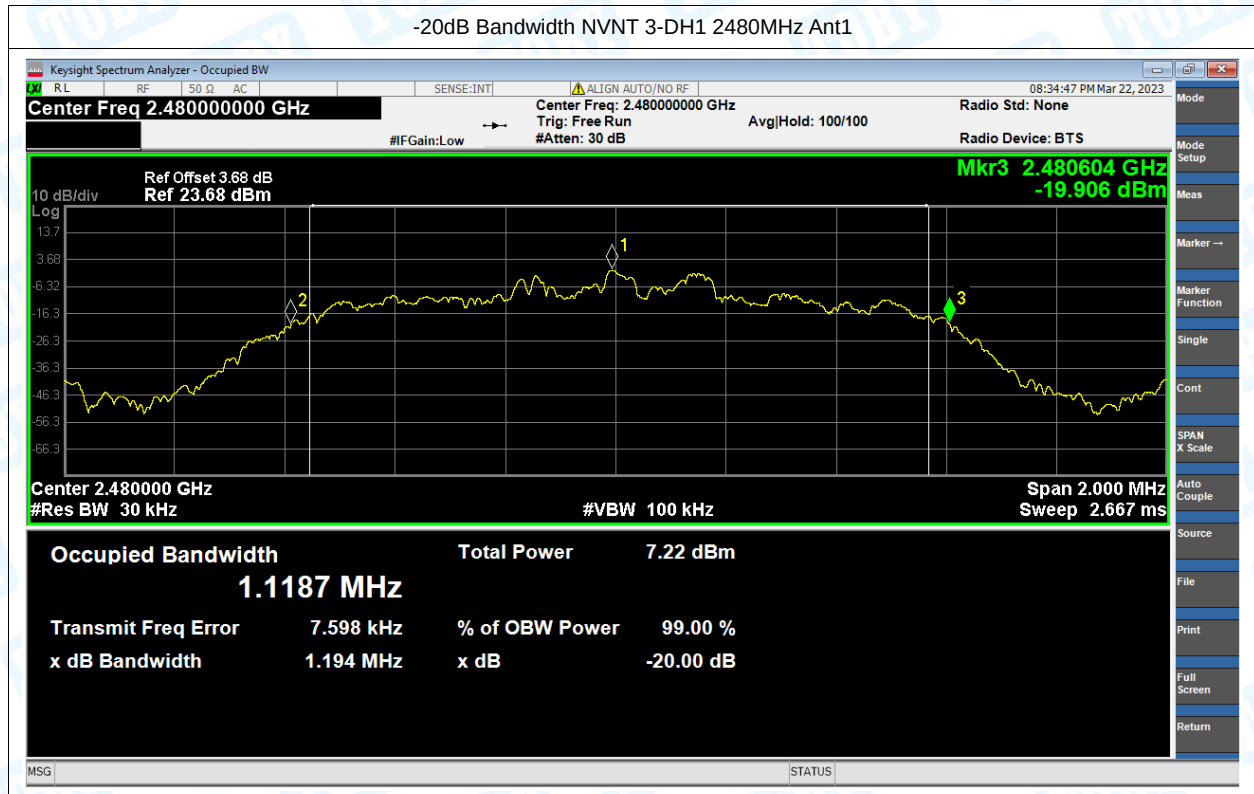


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



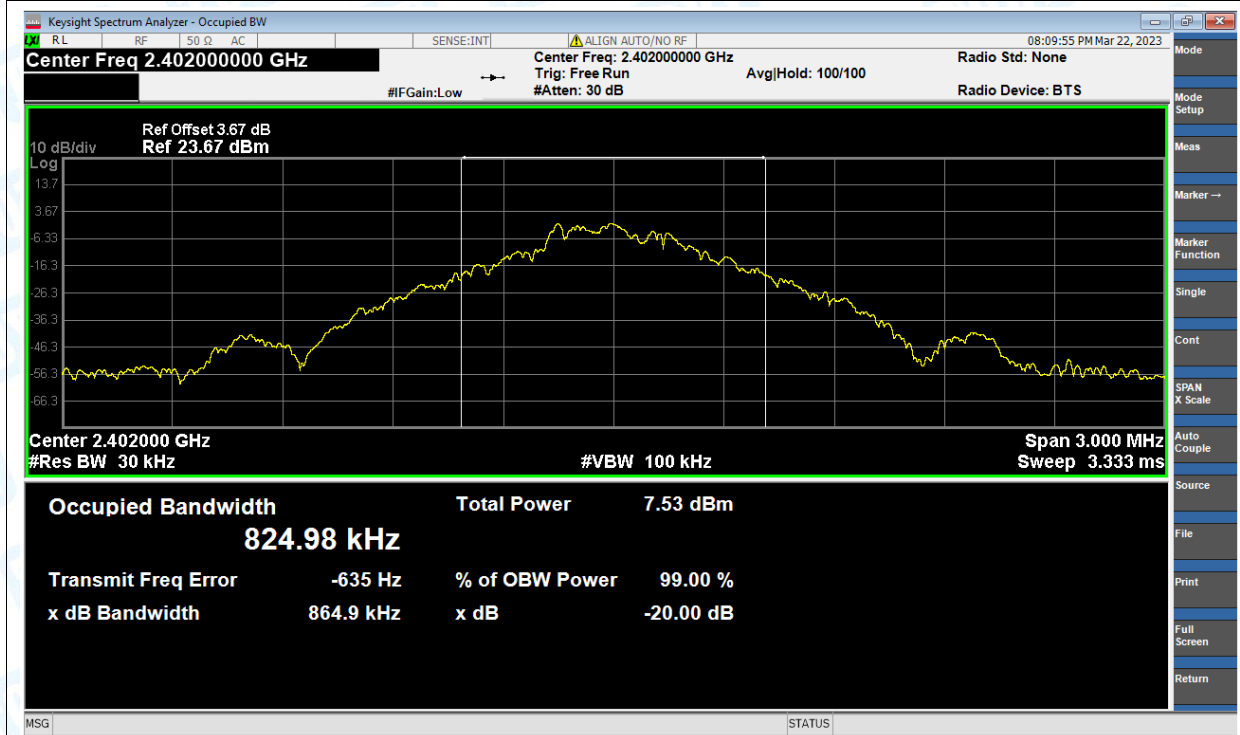


Occupied Channel Bandwidth

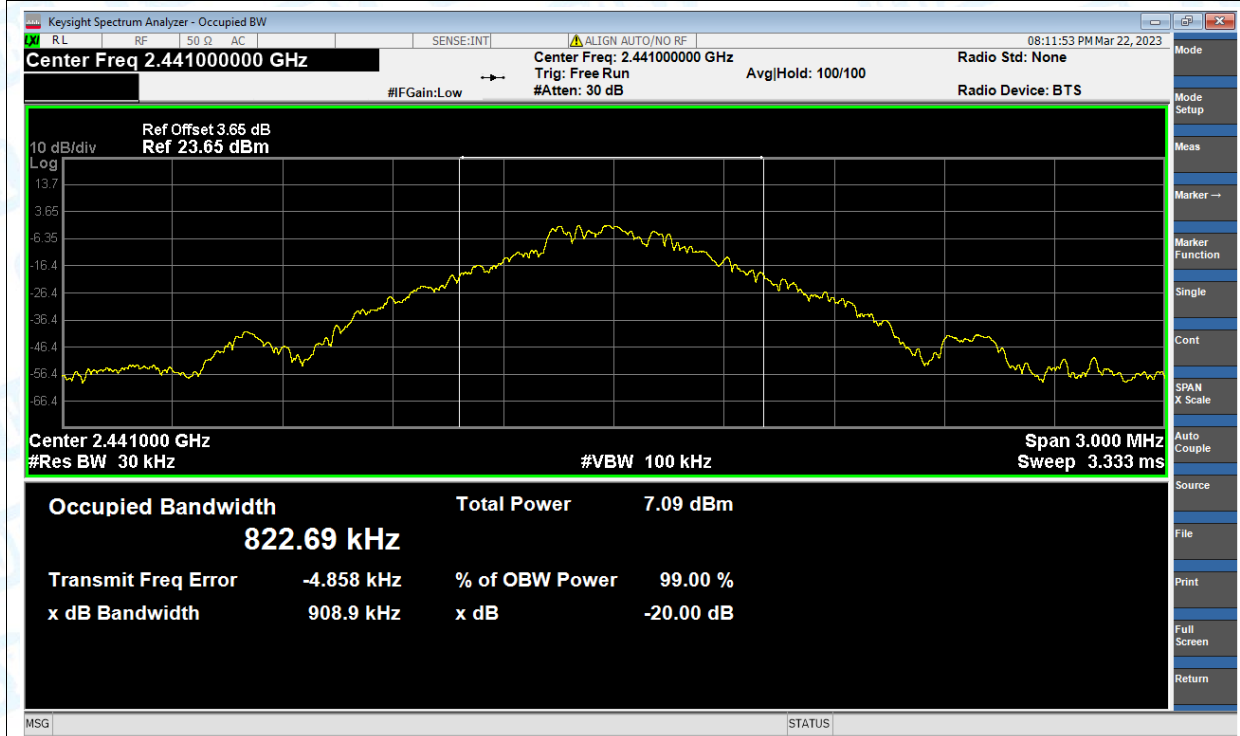
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.825
NVNT	1-DH1	2441	Ant1	0.823
NVNT	1-DH1	2480	Ant1	0.81
NVNT	2-DH1	2402	Ant1	1.137
NVNT	2-DH1	2441	Ant1	1.13
NVNT	2-DH1	2480	Ant1	1.143
NVNT	3-DH1	2402	Ant1	1.103
NVNT	3-DH1	2441	Ant1	1.121
NVNT	3-DH1	2480	Ant1	1.106

Test Graphs

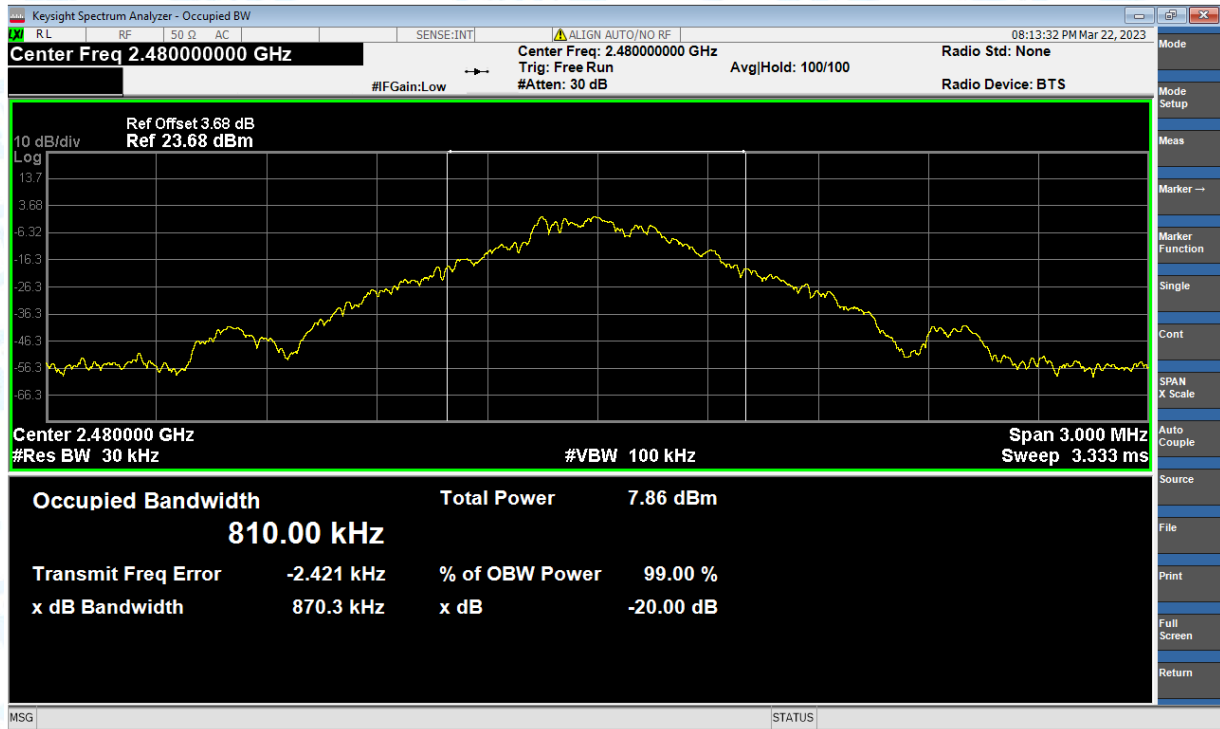
OBW NVNT 1-DH1 2402MHz Ant1



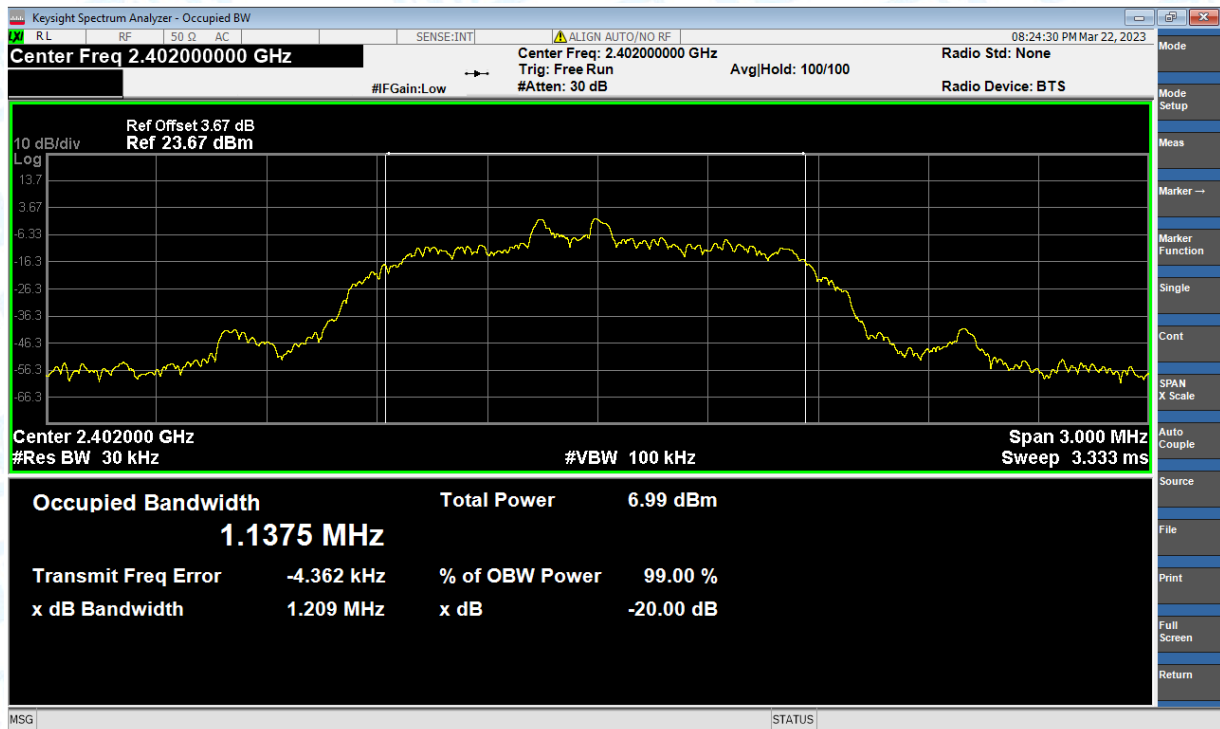
OBW NVNT 1-DH1 2441MHz Ant1



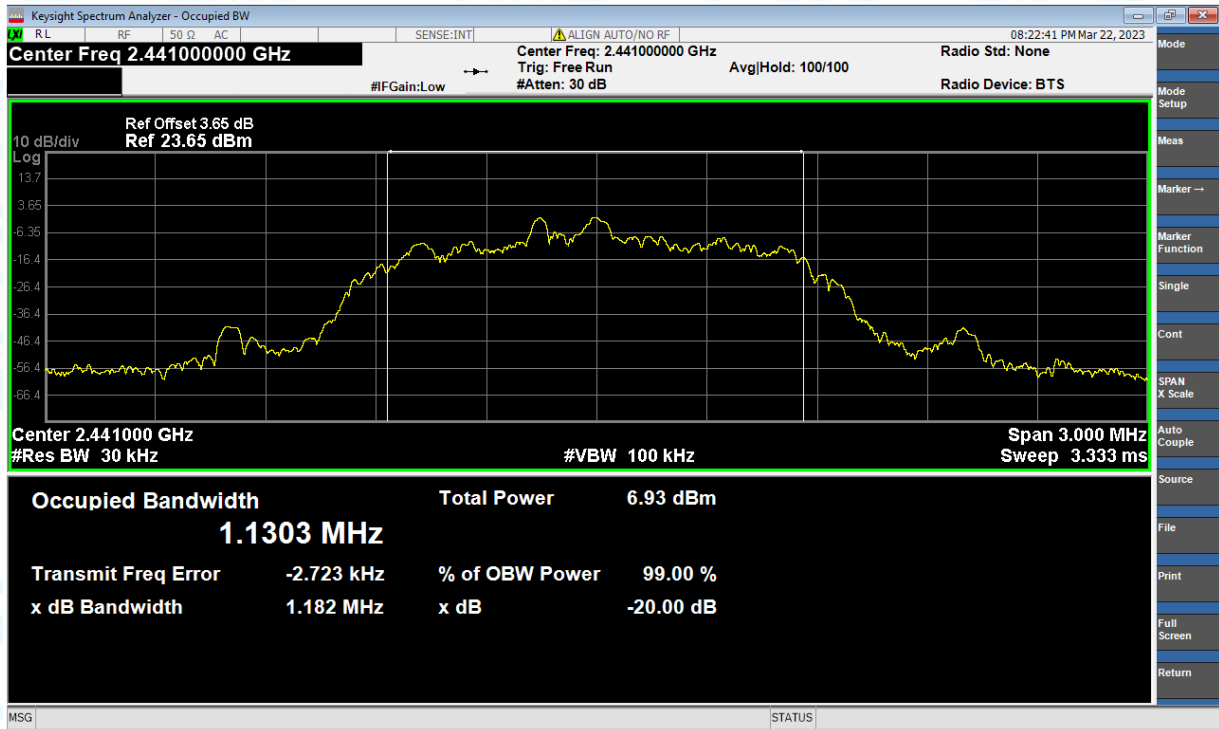
OBW NVNT 1-DH1 2480MHz Ant1



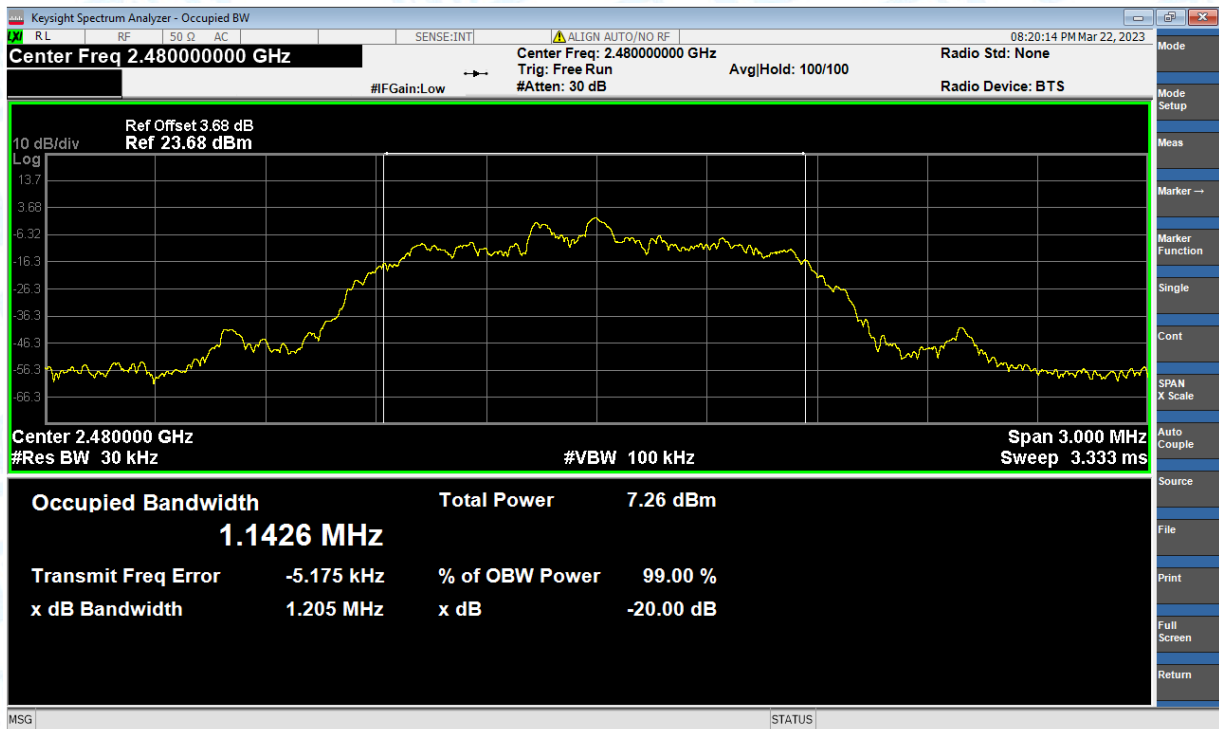
OBW NVNT 2-DH1 2402MHz Ant1



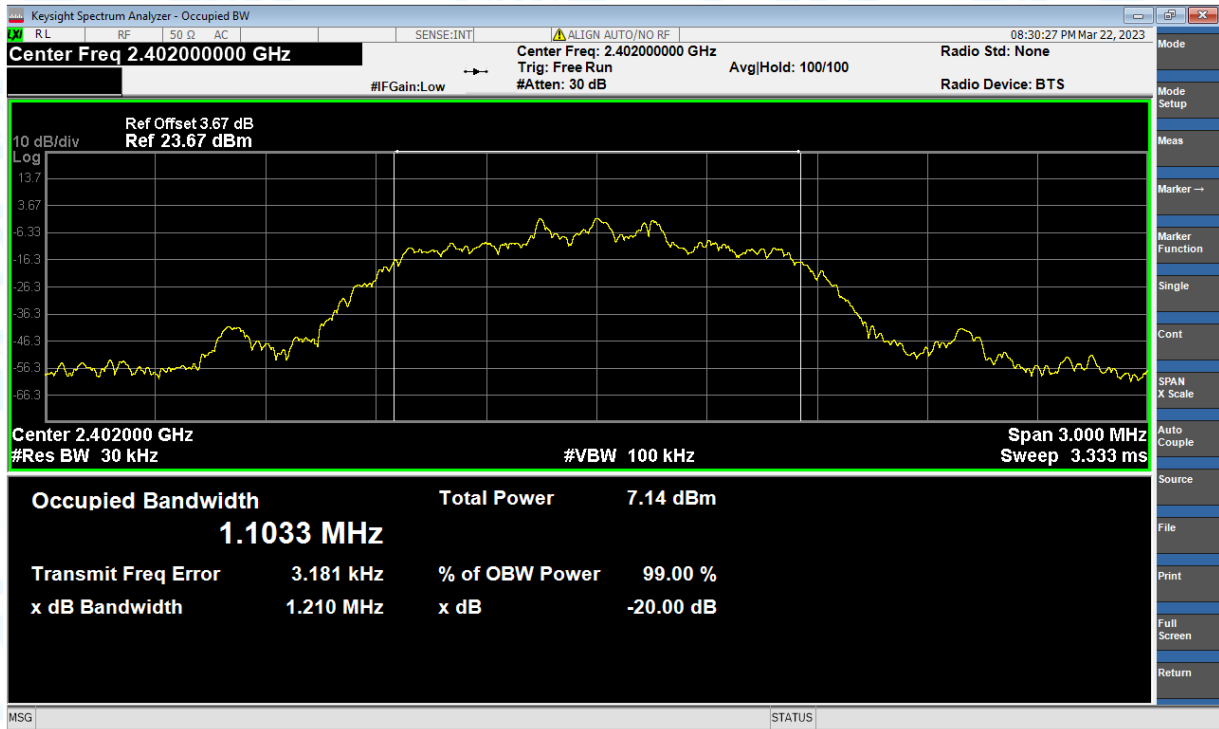
OBW NVNT 2-DH1 2441MHz Ant1



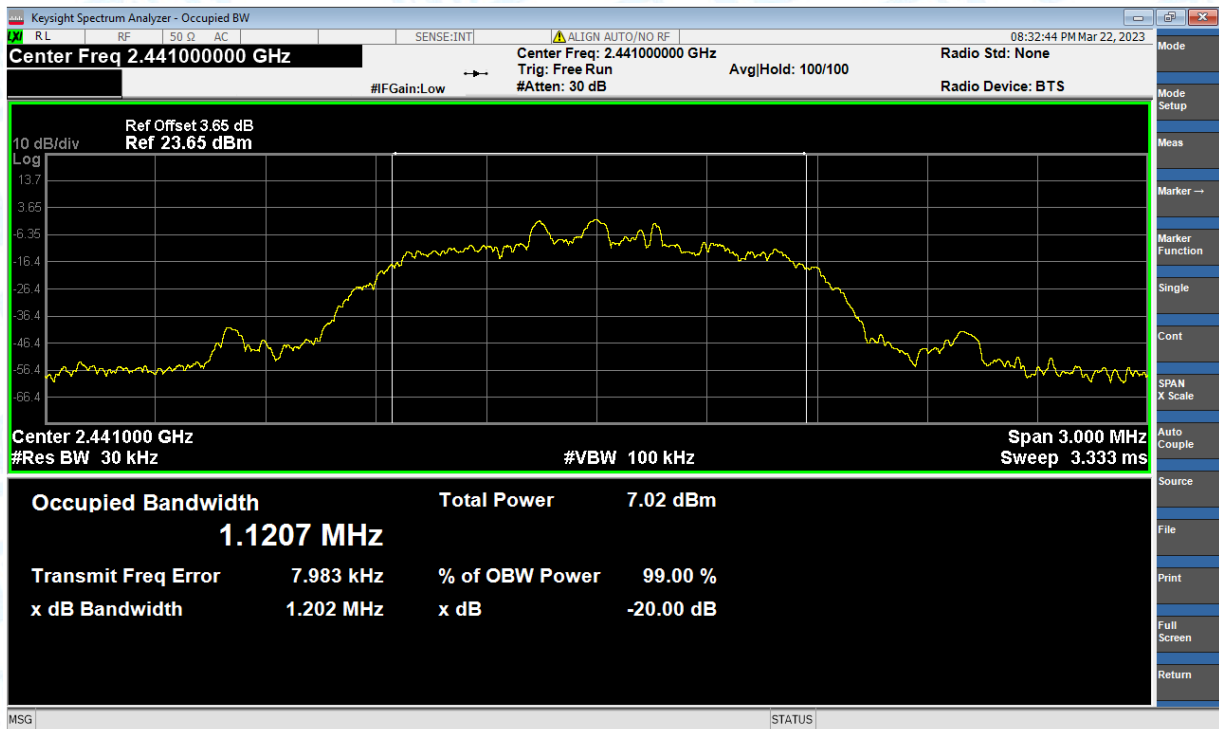
OBW NVNT 2-DH1 2480MHz Ant1

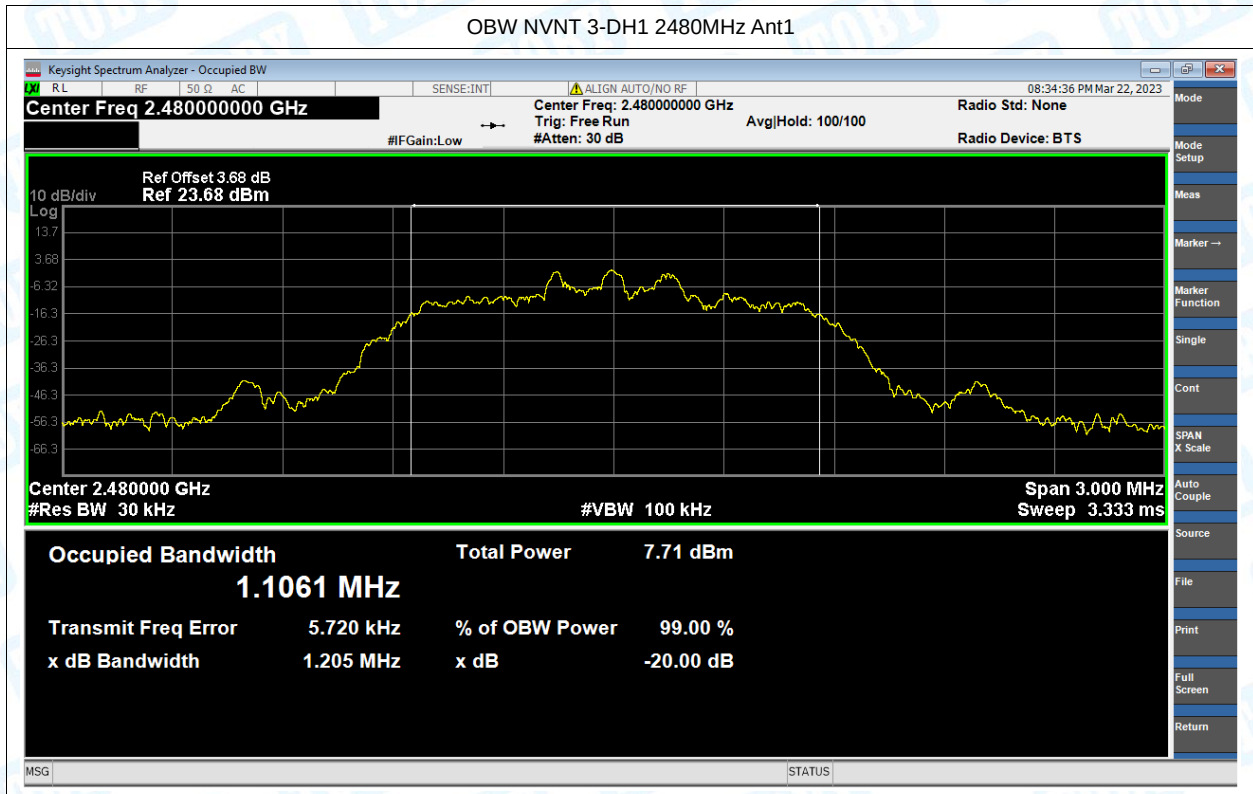


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



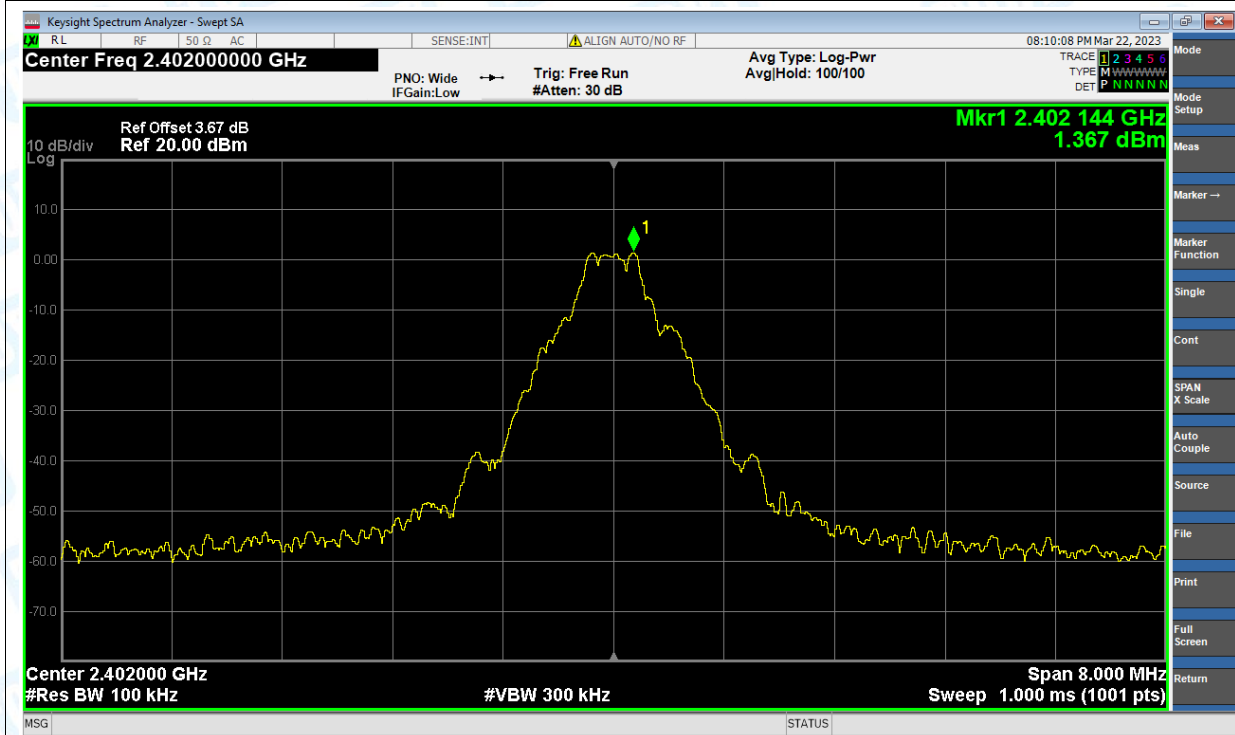


Band Edge

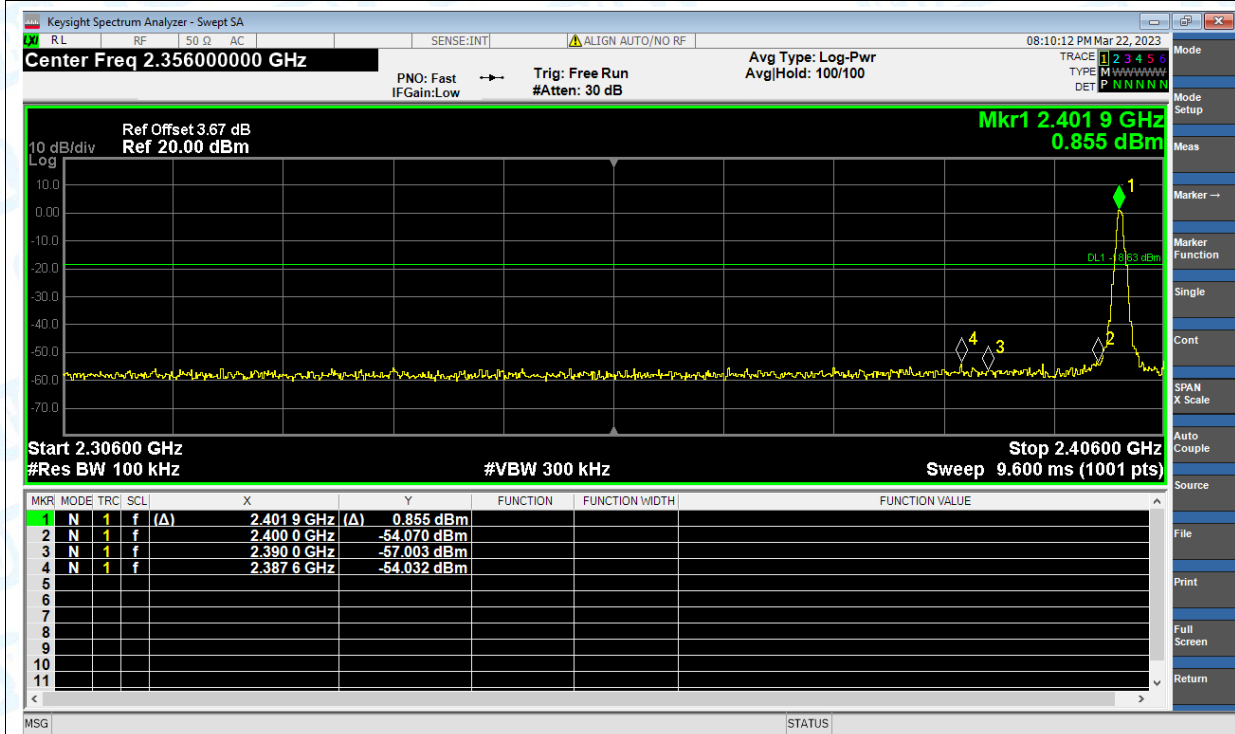
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-55.4	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-56.5	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.02	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-56.62	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-56.33	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-55.62	-20	Pass

Test Graphs

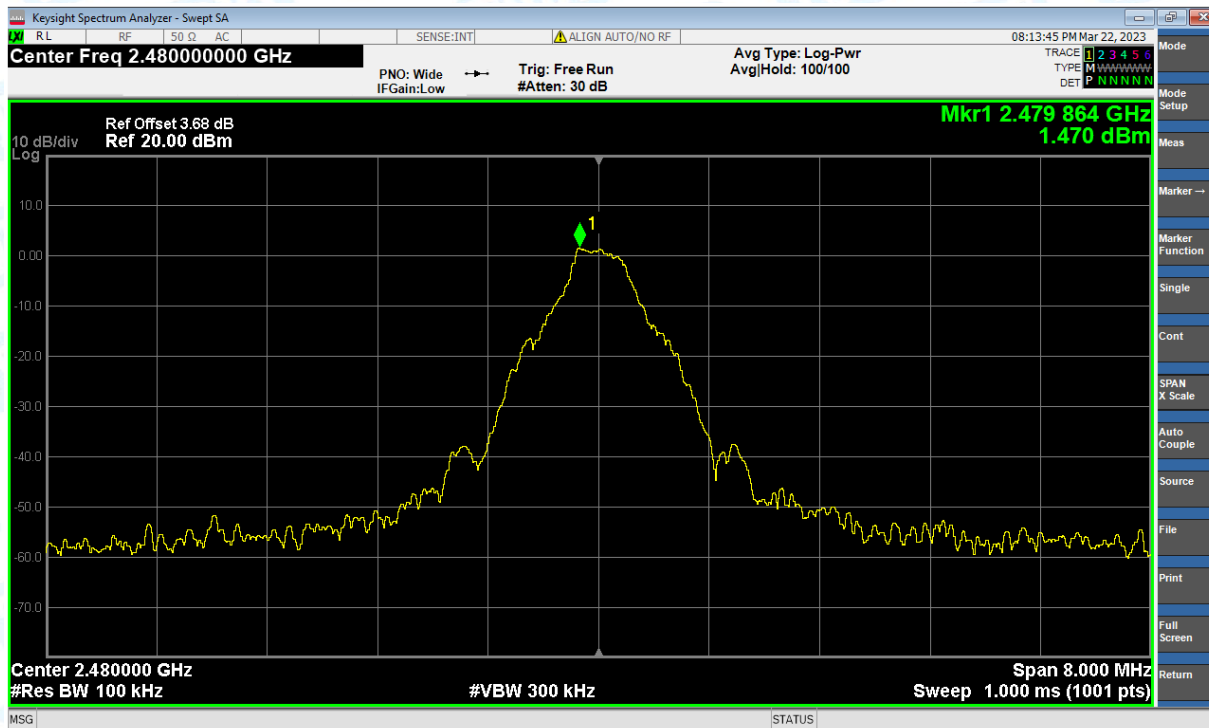
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



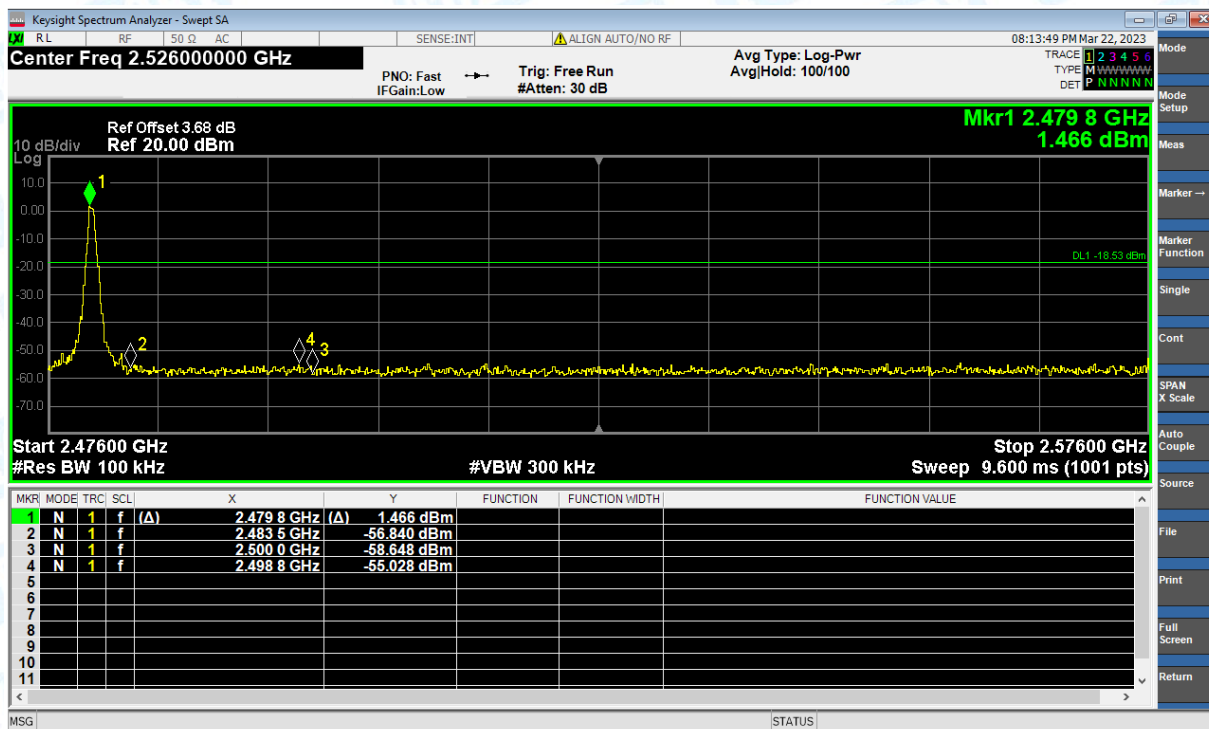
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



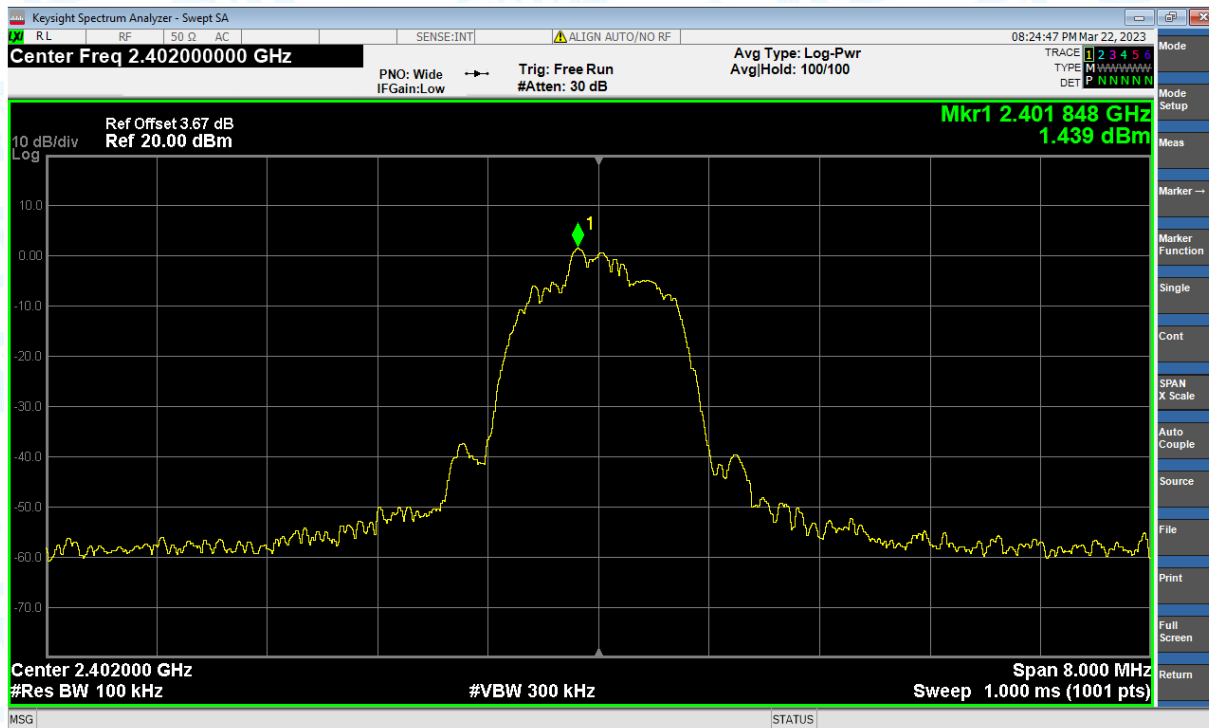
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



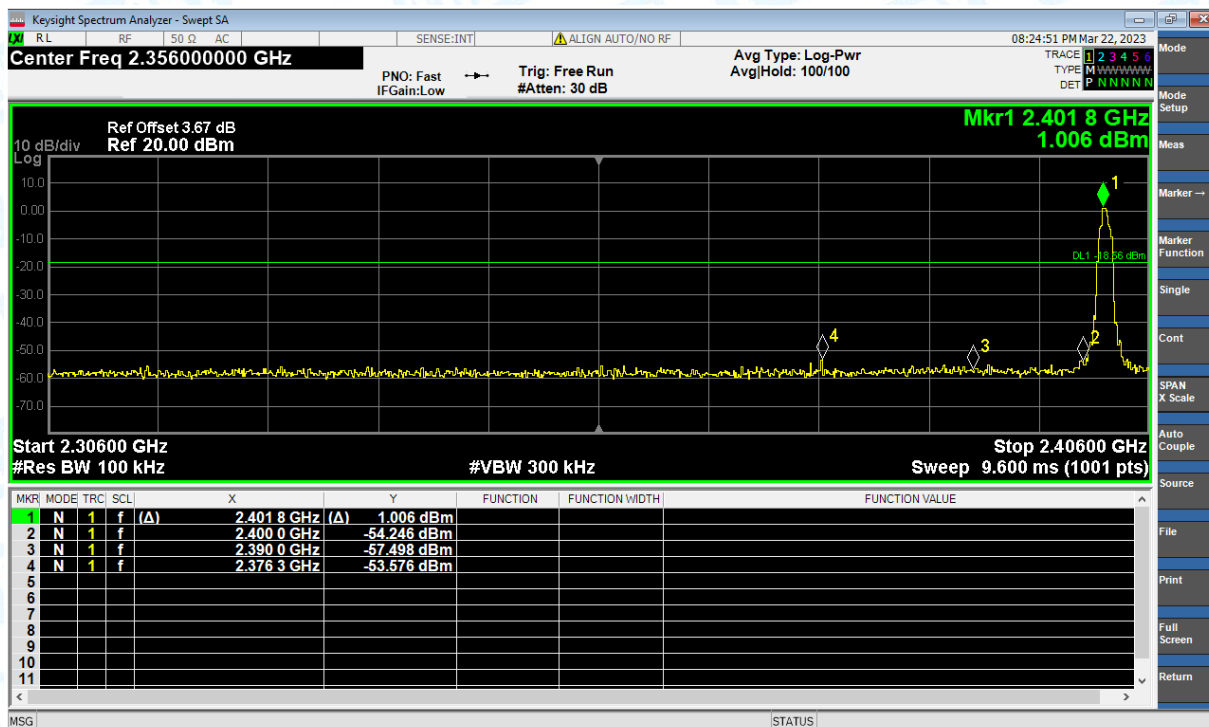
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



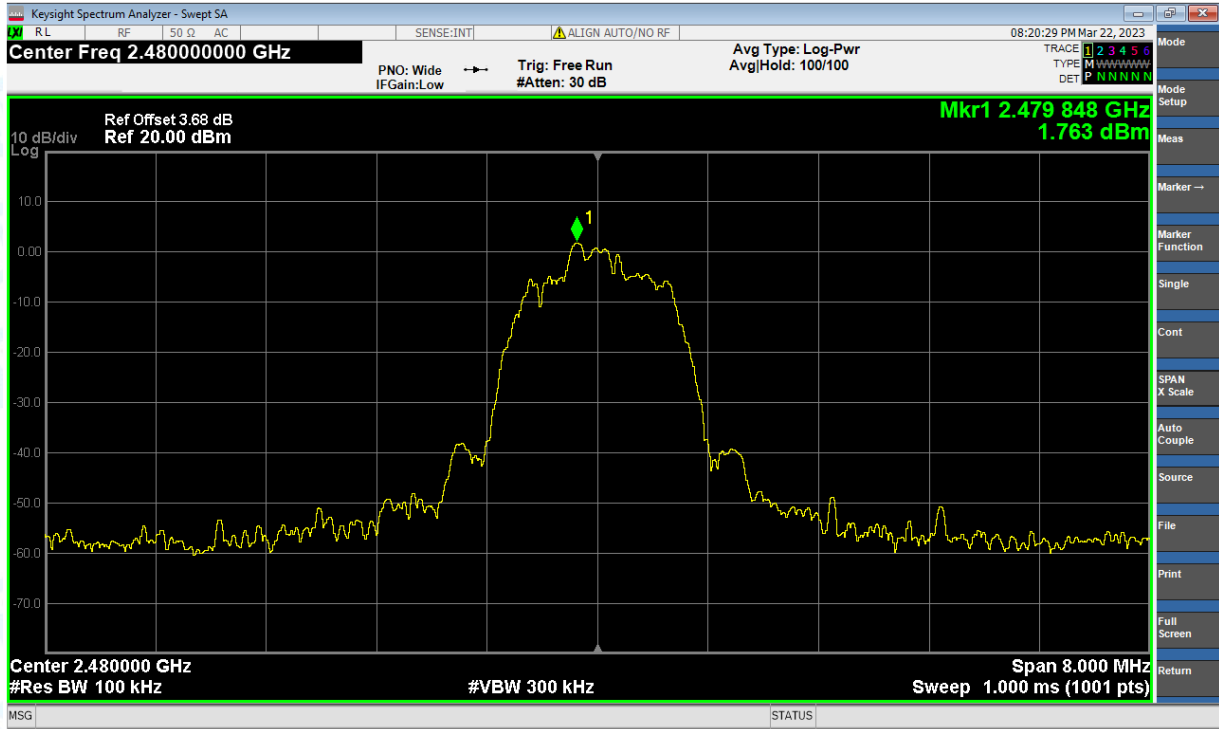
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



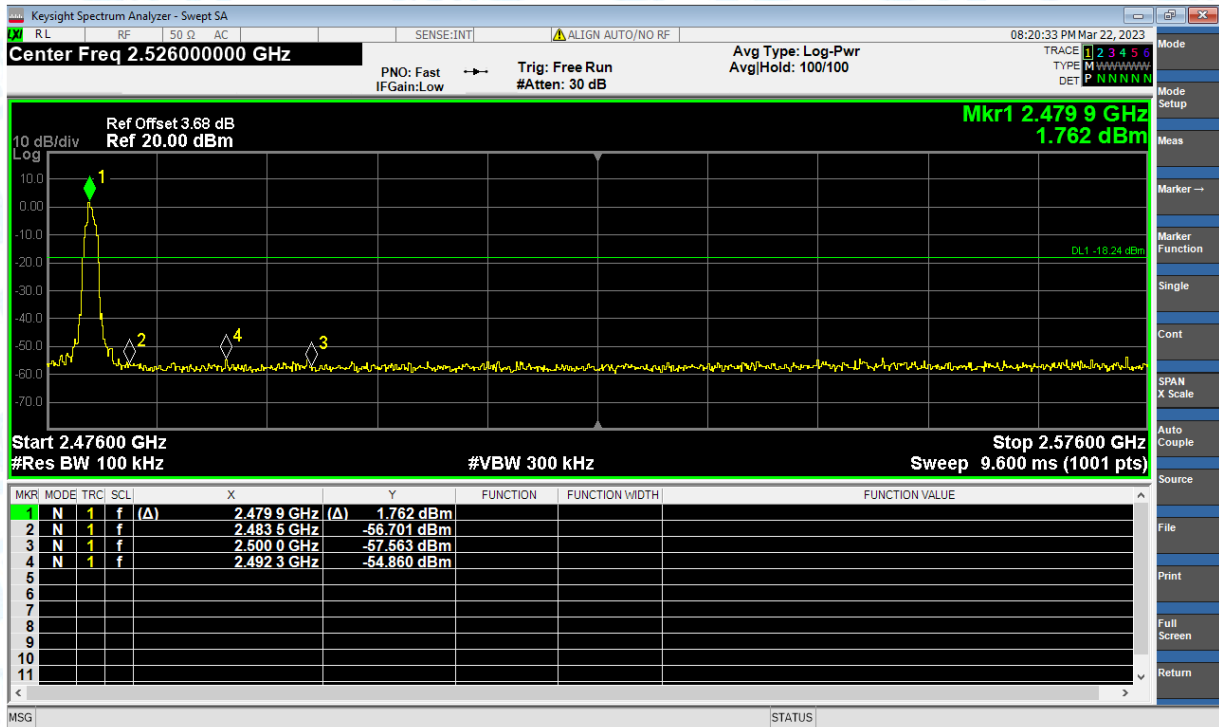
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



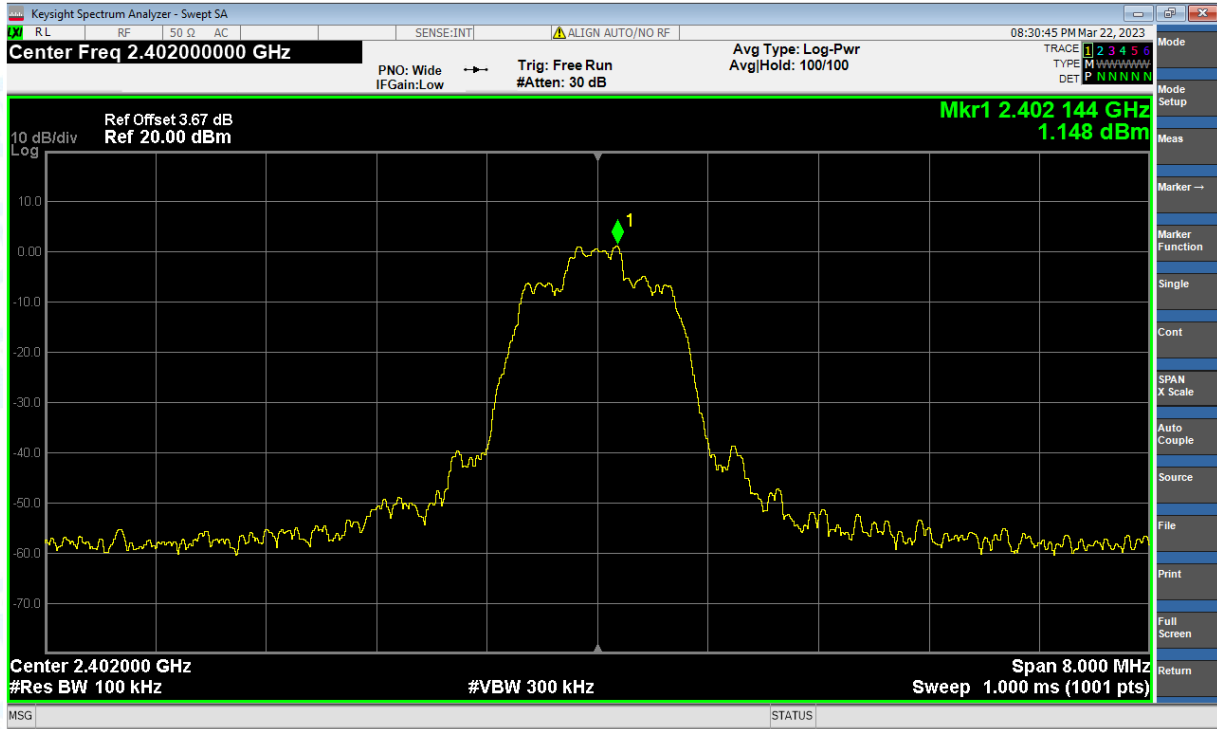
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



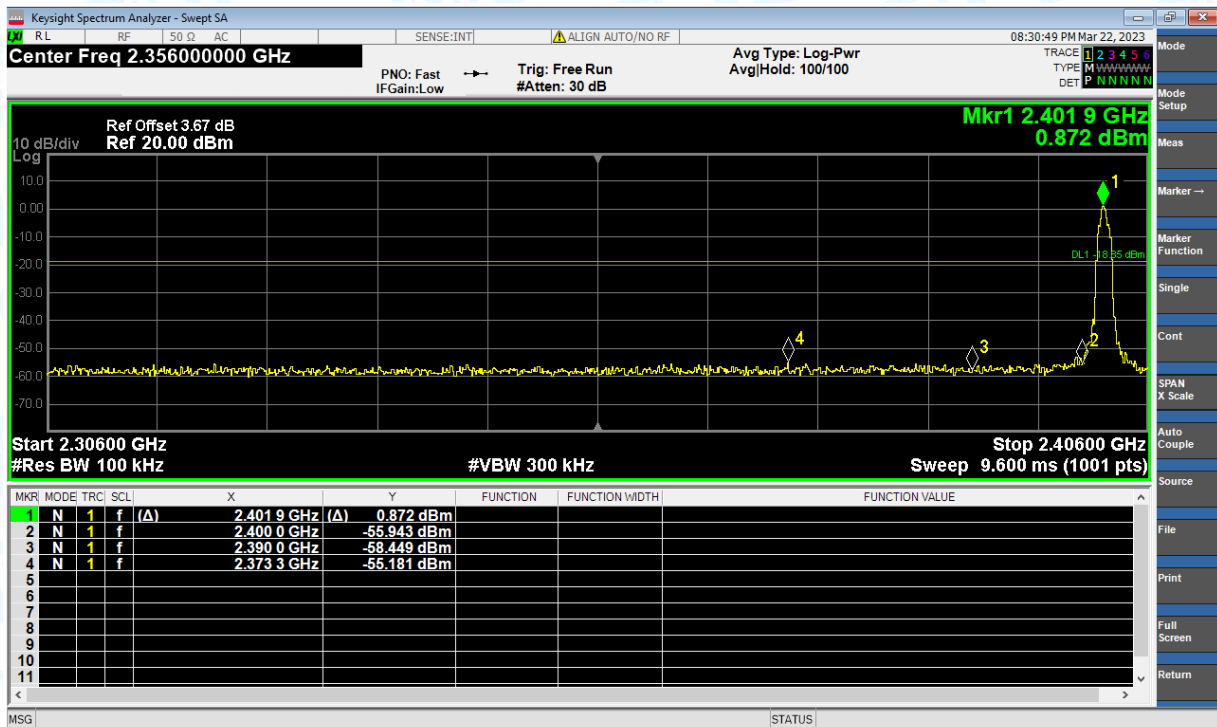
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



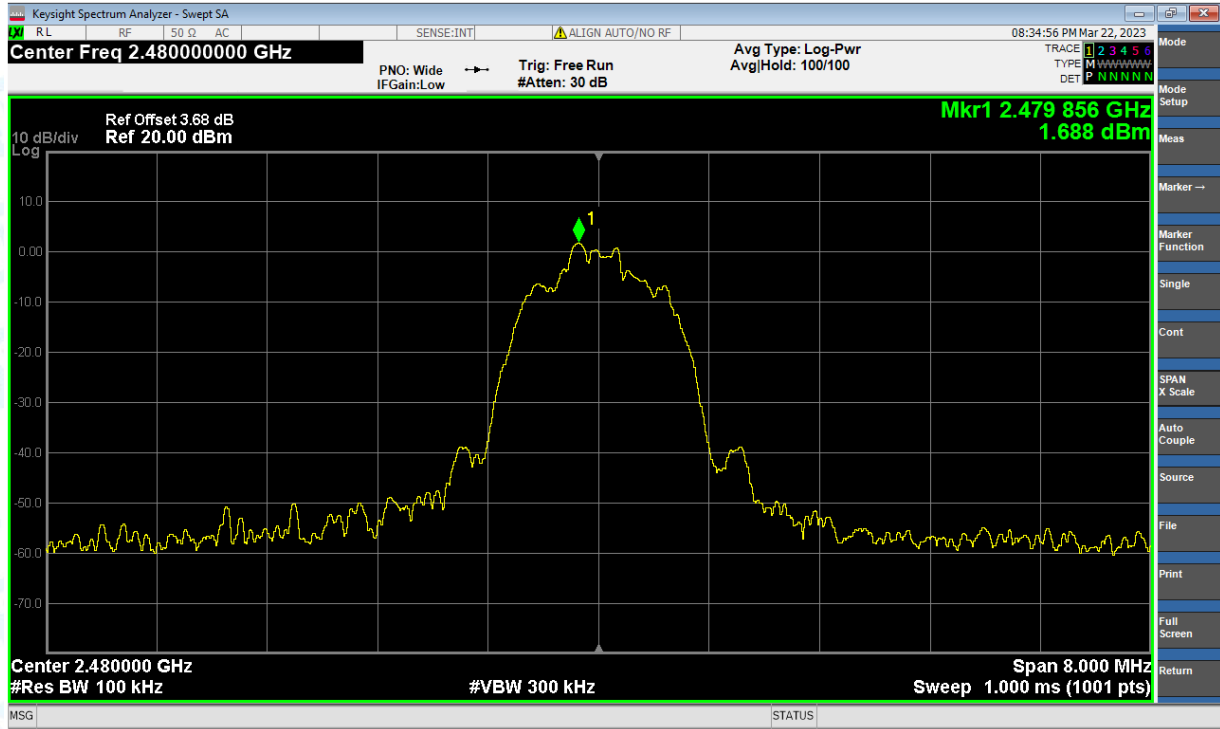
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



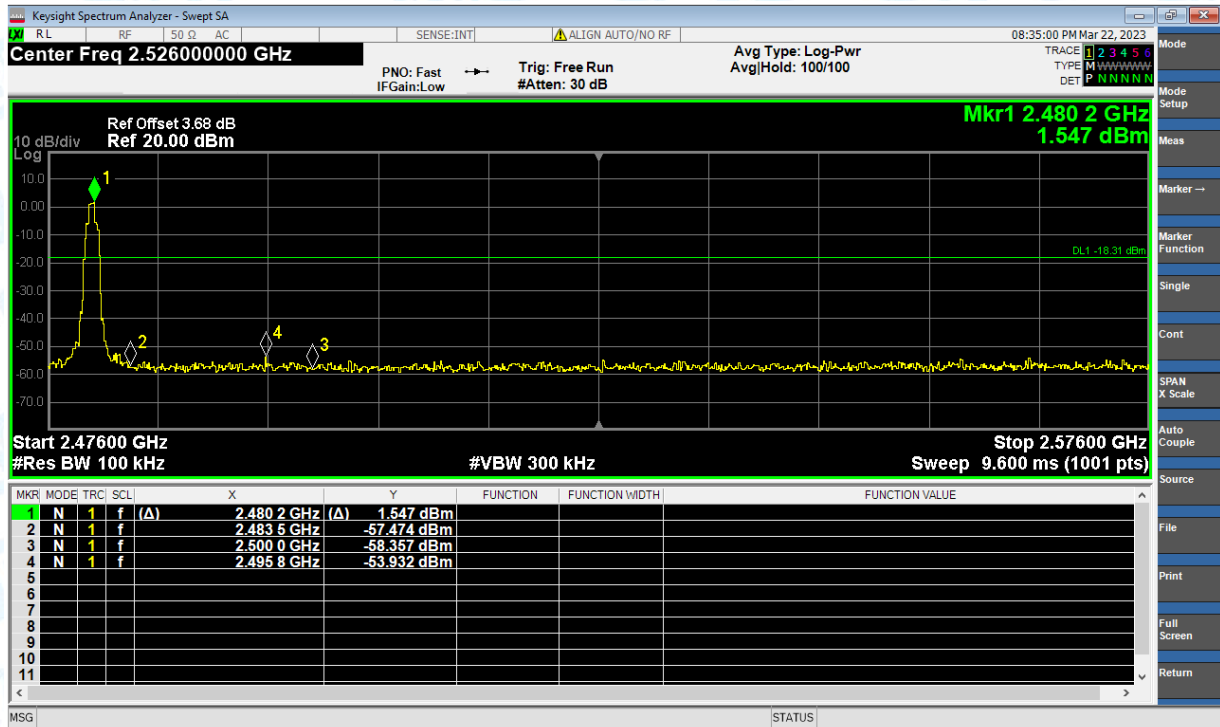
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



Band Edge(Hopping)

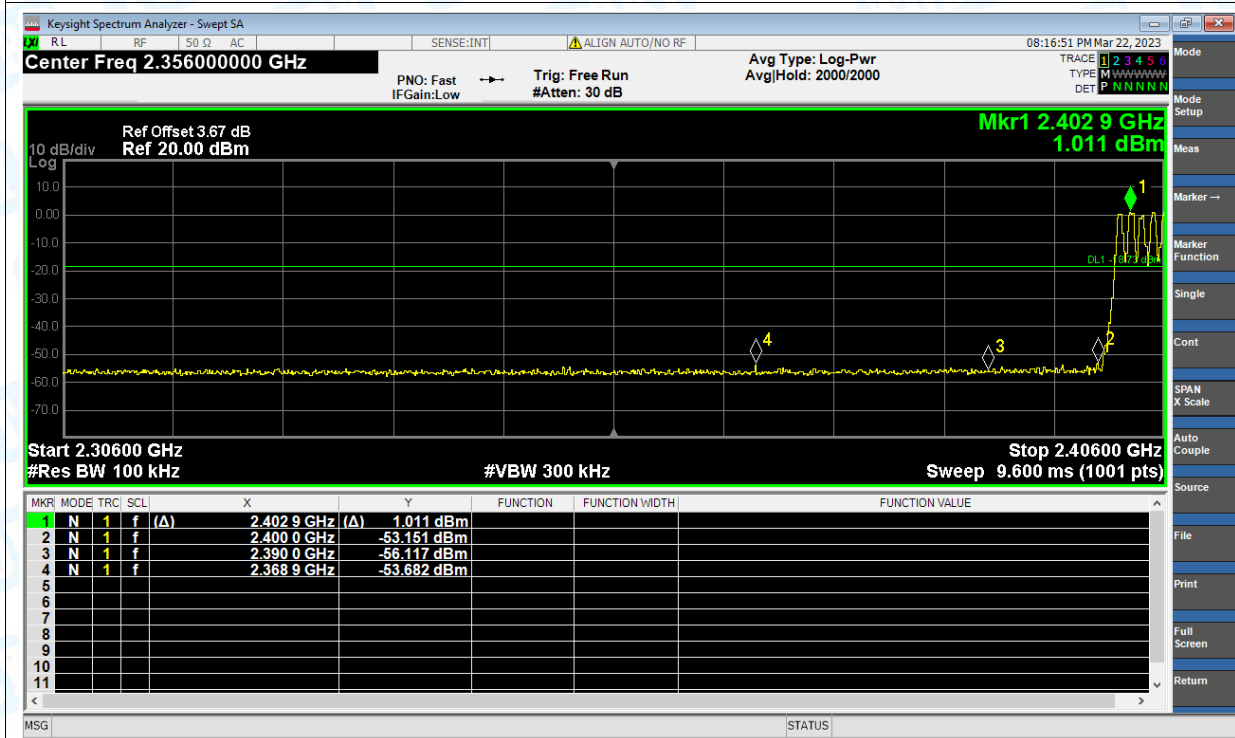
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.95	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-55.61	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-55.87	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.8	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-54.63	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-56.04	-20	Pass

Test Graphs

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



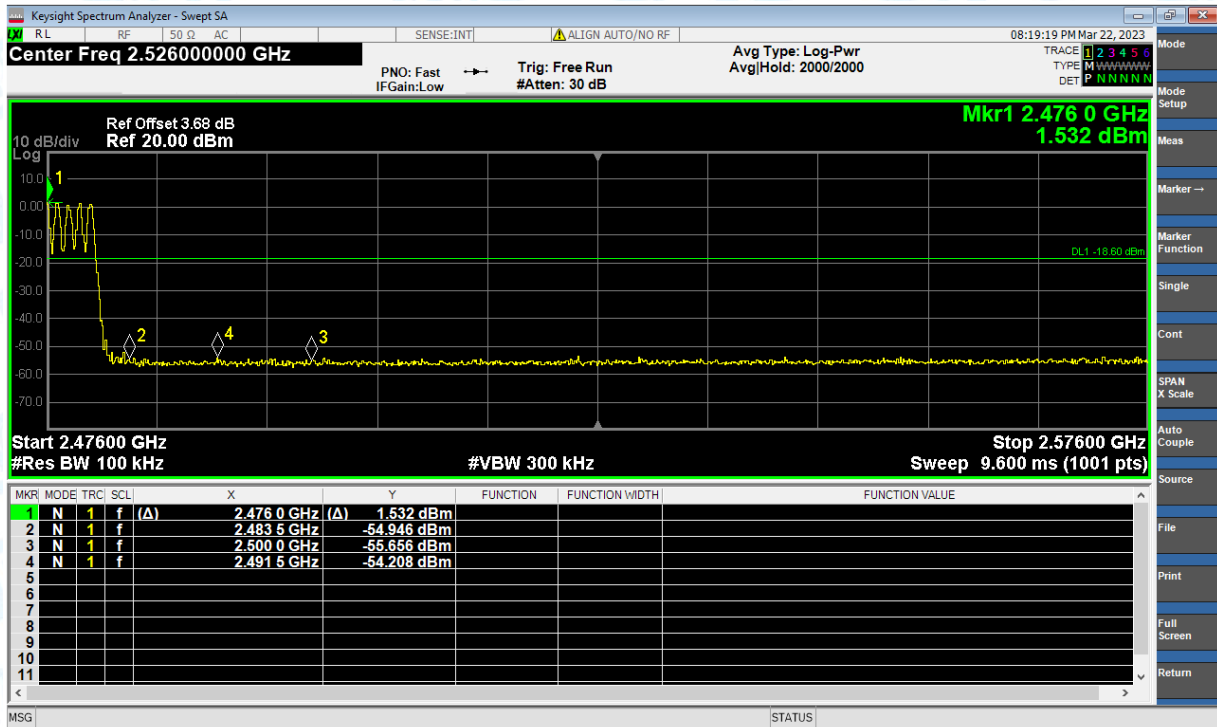
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



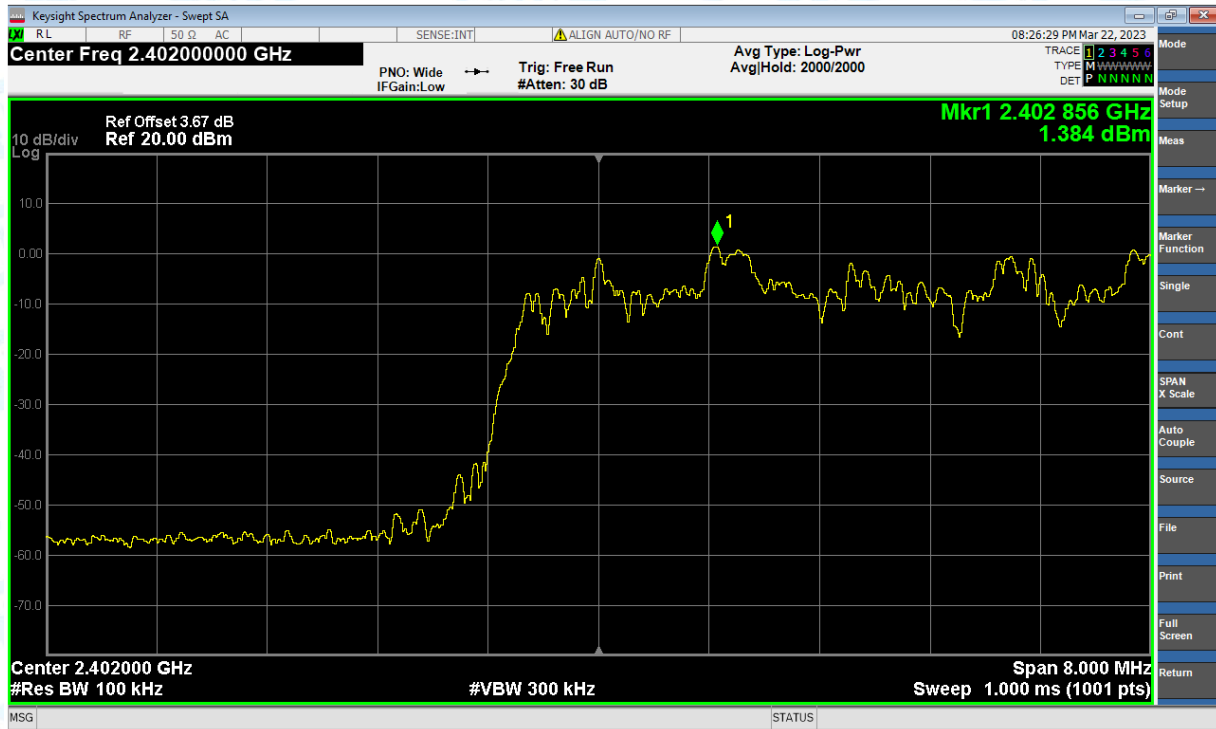
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



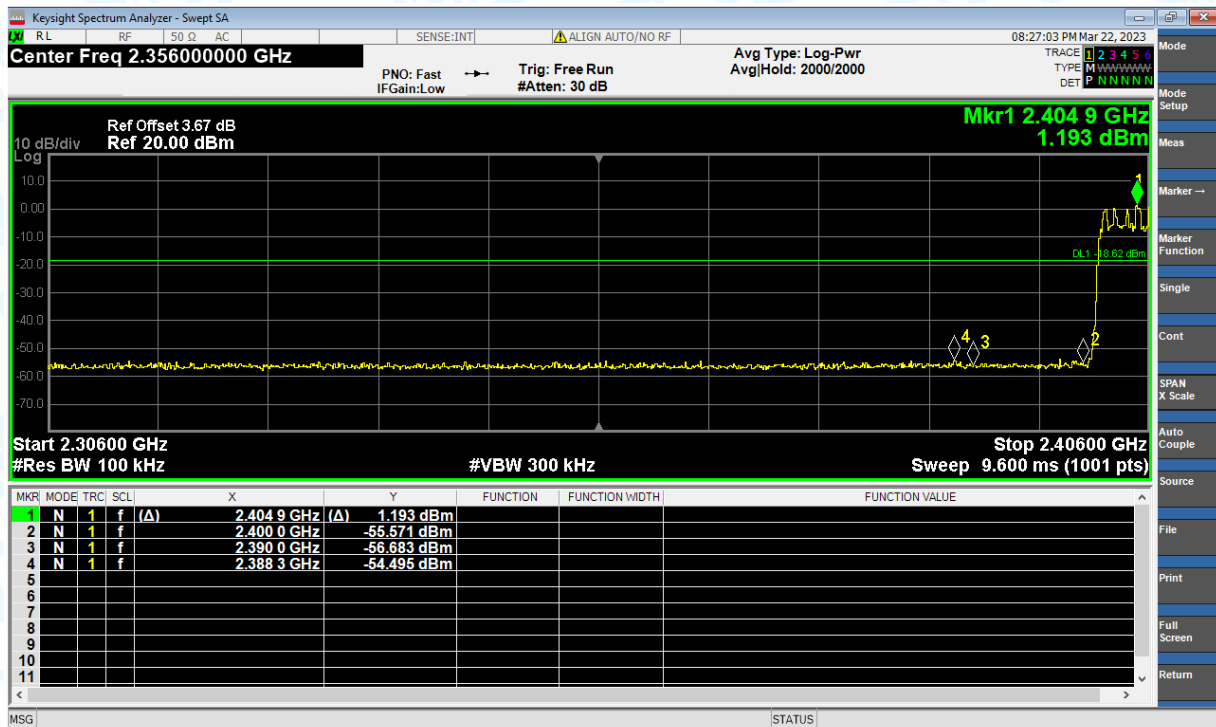
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



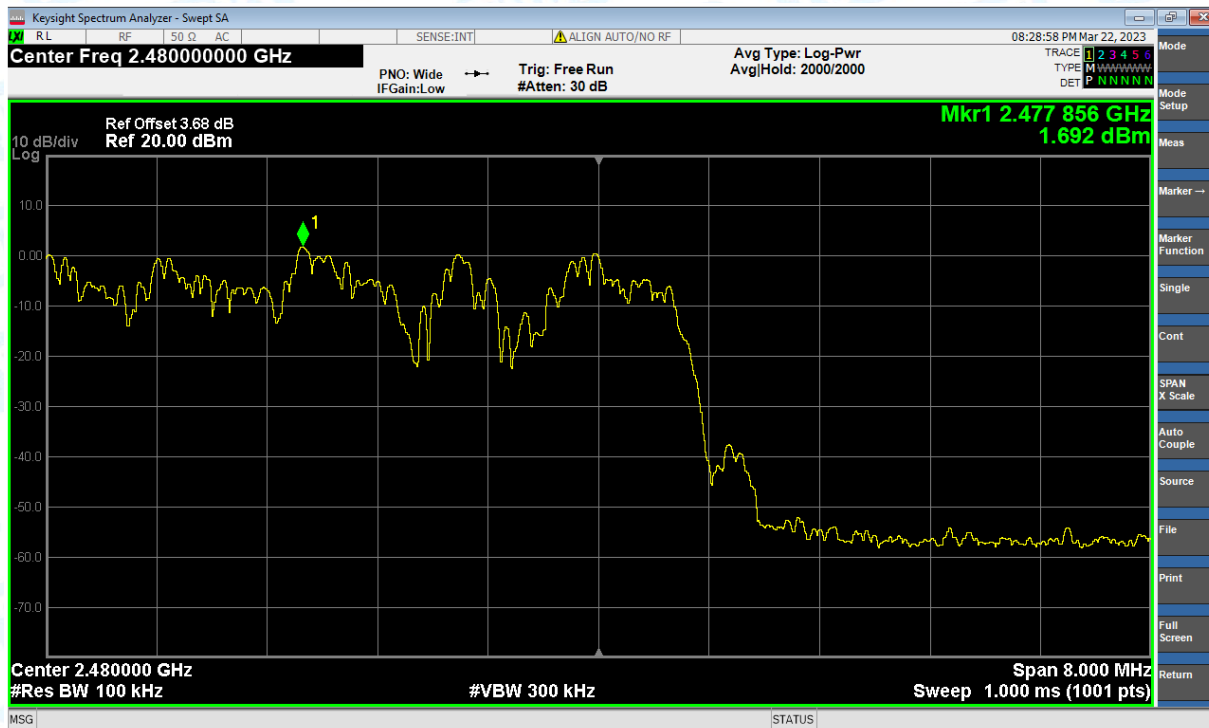
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



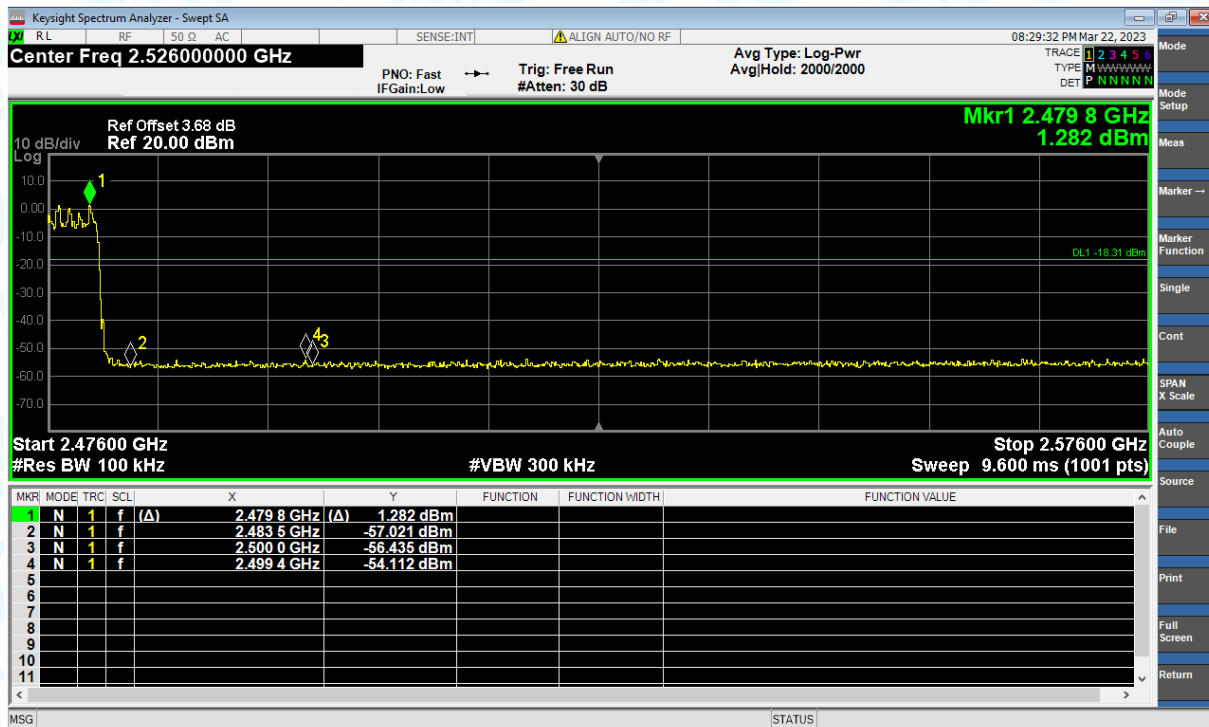
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



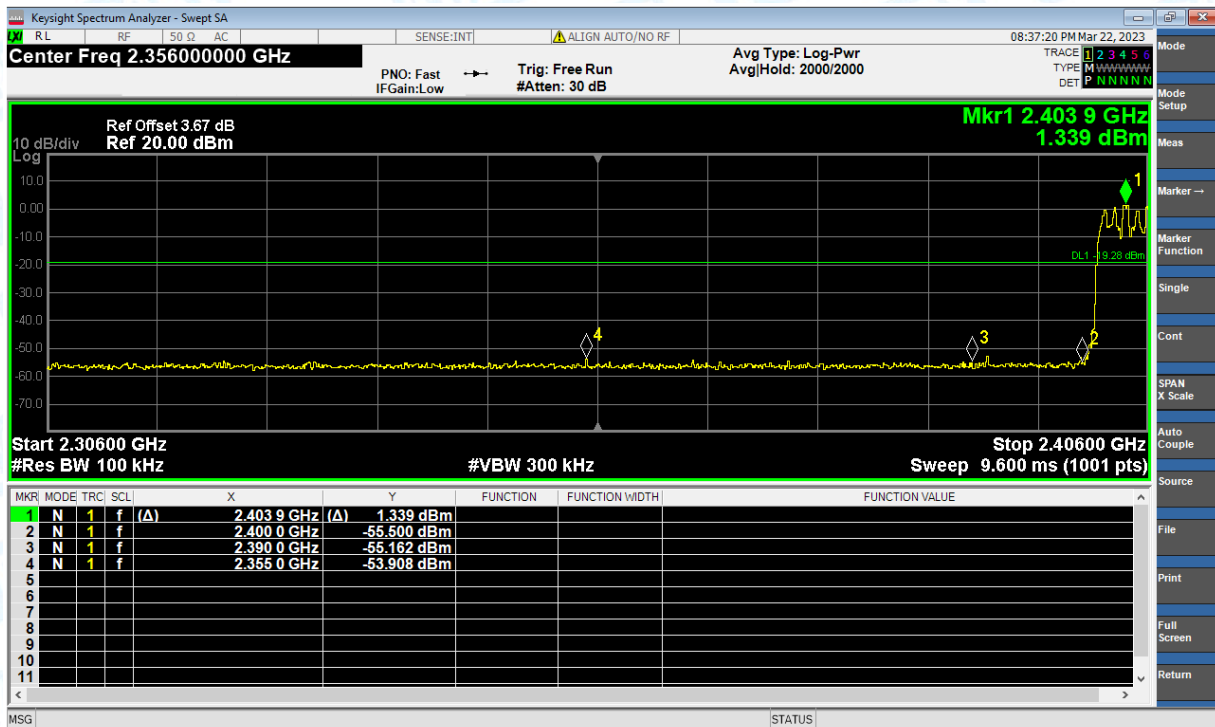
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



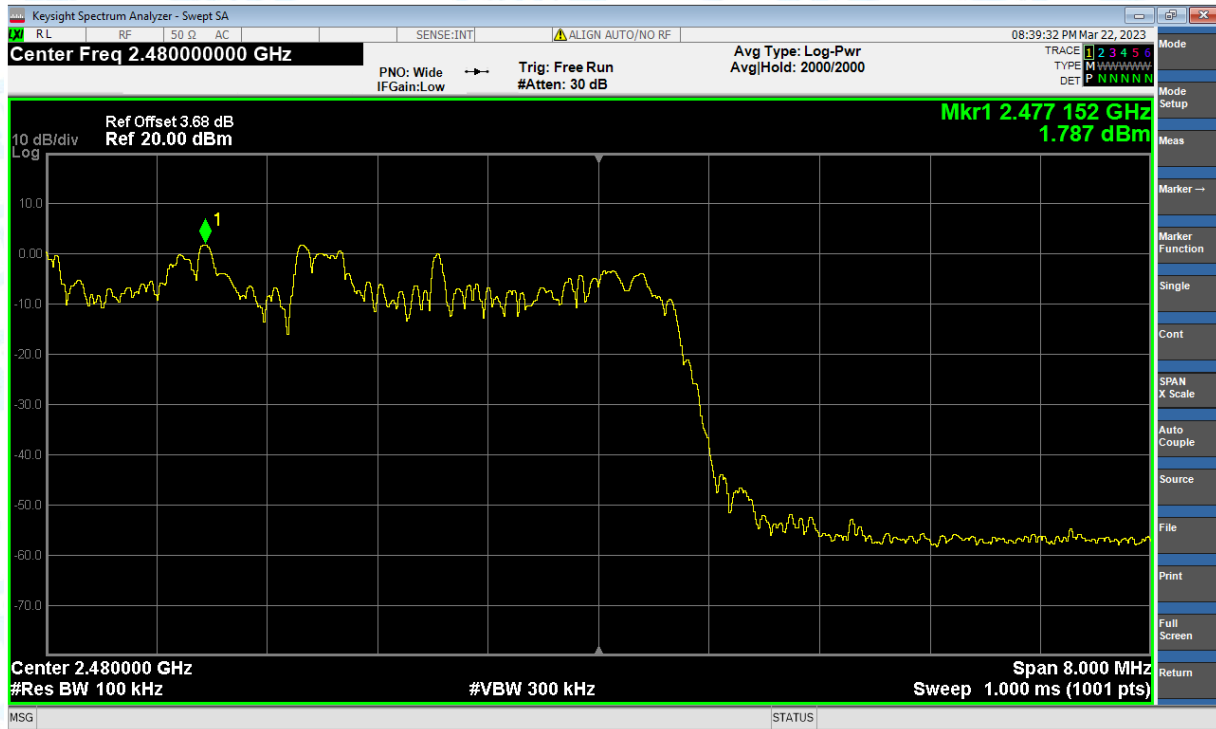
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



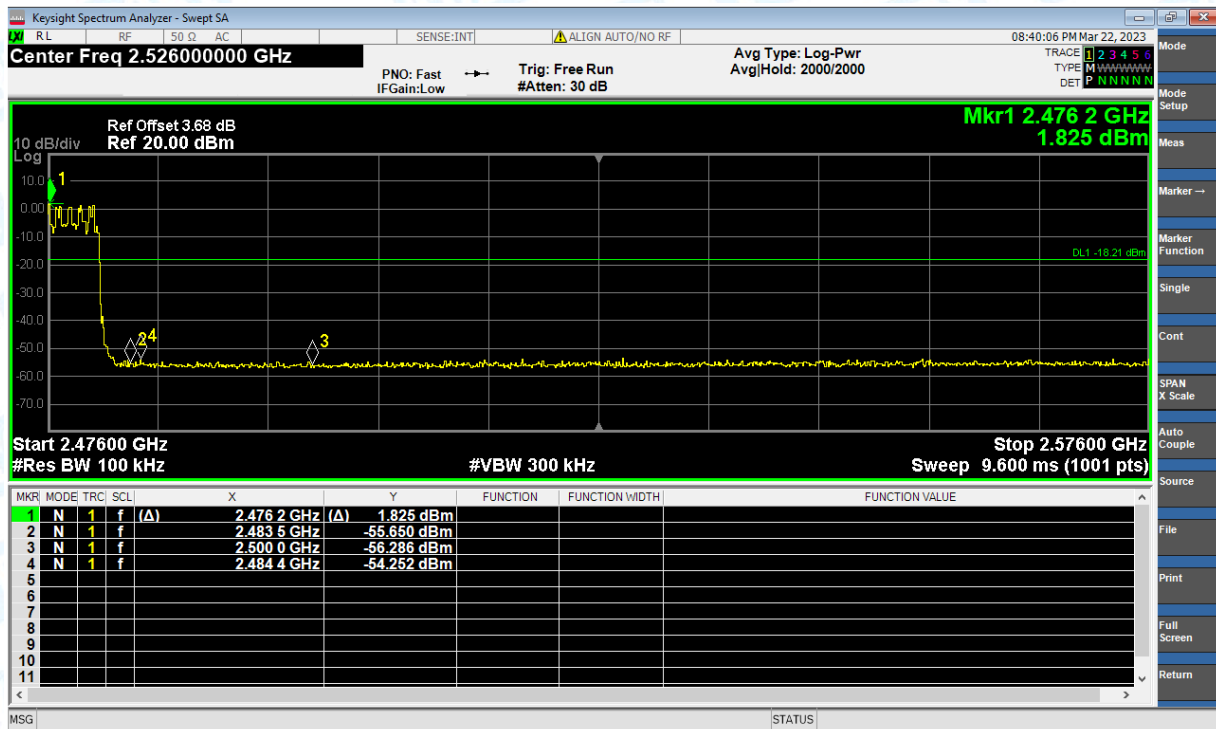
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

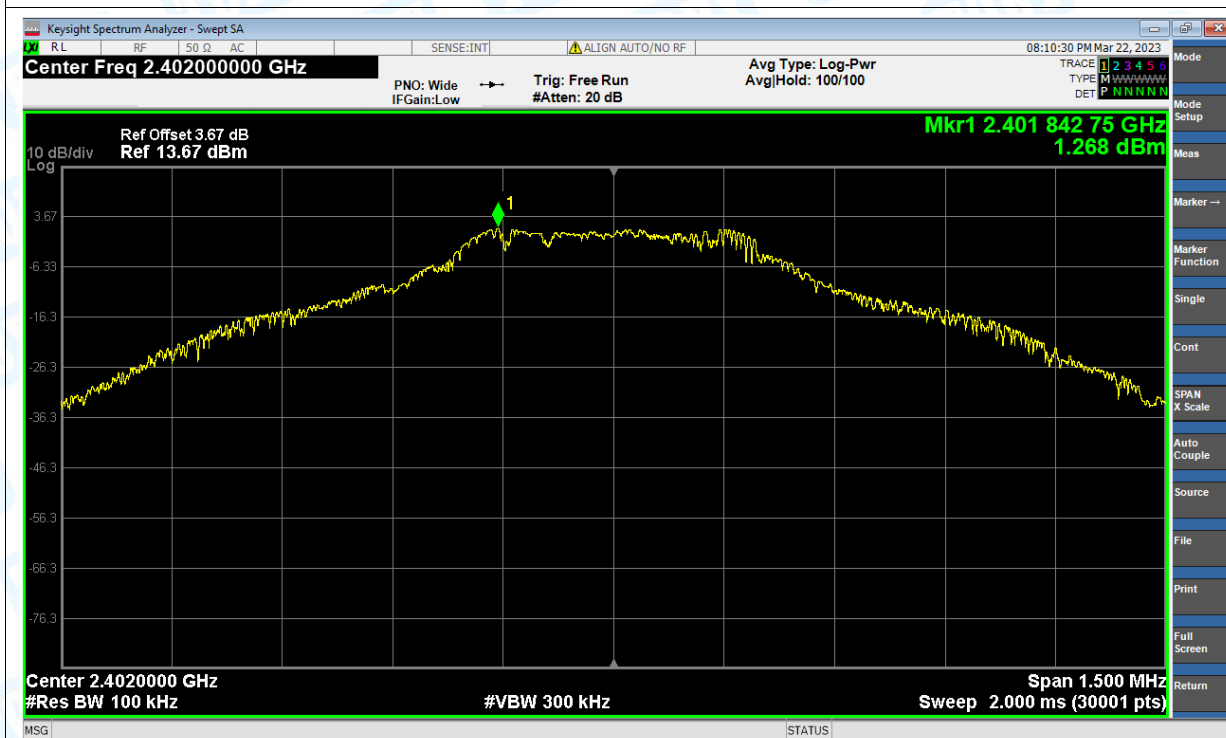


Conducted RF Spurious Emission

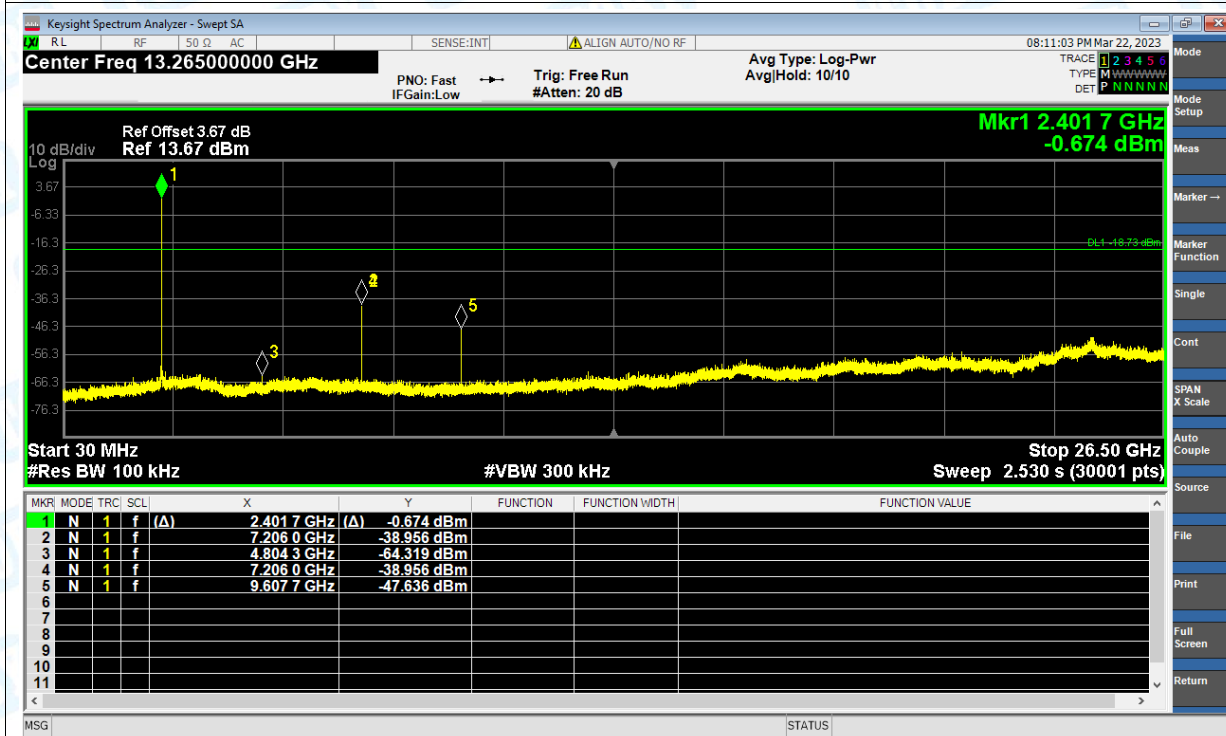
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-40.23	-20	Pass
NVNT	1-DH1	2441	Ant1	-39.64	-20	Pass
NVNT	1-DH1	2480	Ant1	-42.5	-20	Pass
NVNT	2-DH1	2402	Ant1	-41.93	-20	Pass
NVNT	2-DH1	2441	Ant1	-43.07	-20	Pass
NVNT	2-DH1	2480	Ant1	-42.46	-20	Pass
NVNT	3-DH1	2402	Ant1	-39.12	-20	Pass
NVNT	3-DH1	2441	Ant1	-42.32	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.03	-20	Pass

Test Graphs

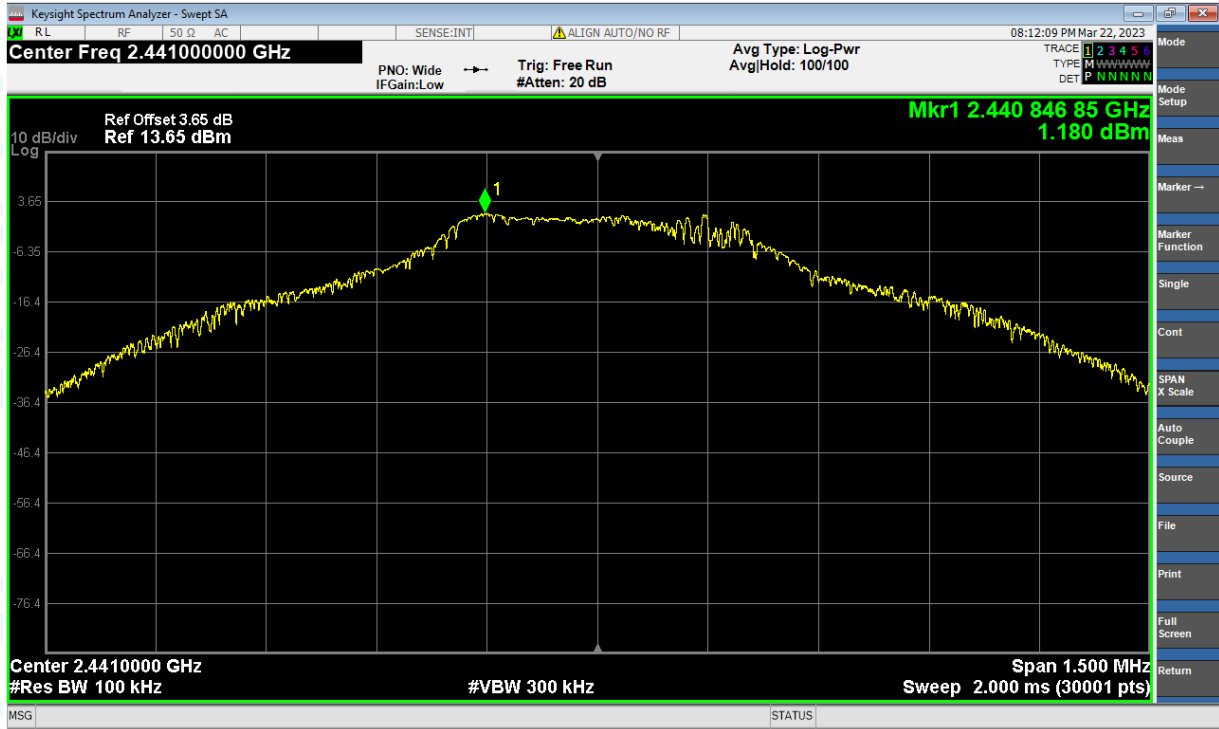
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



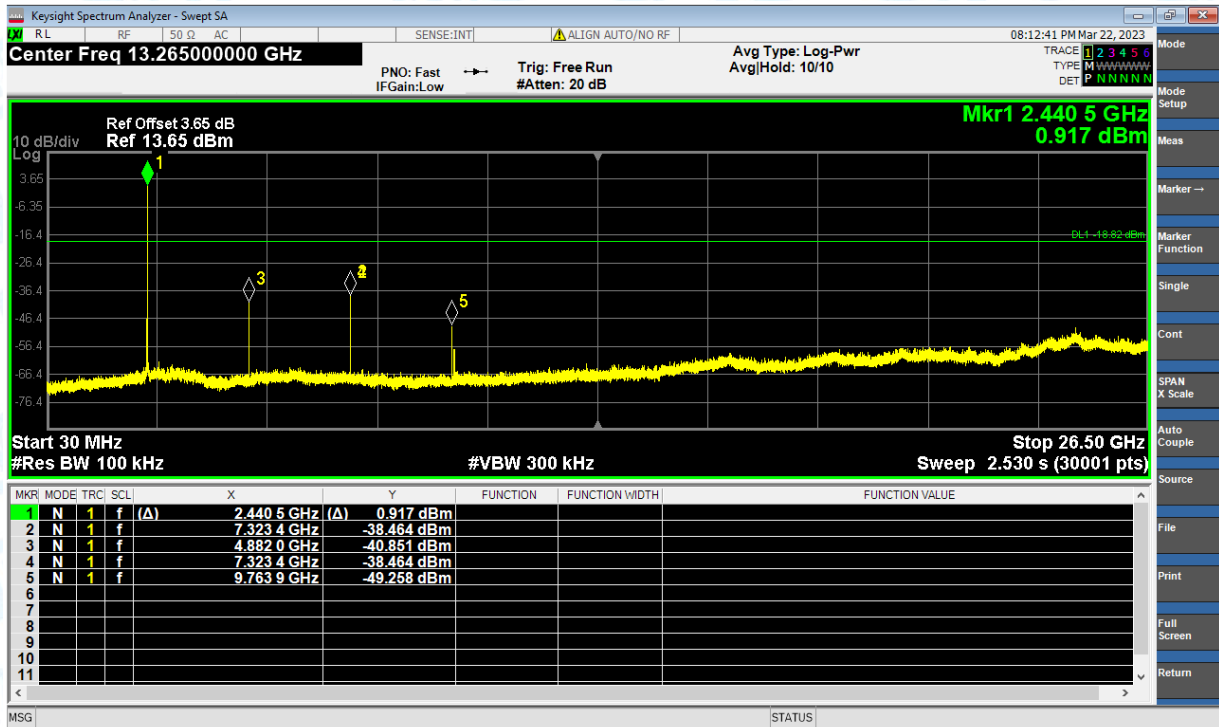
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



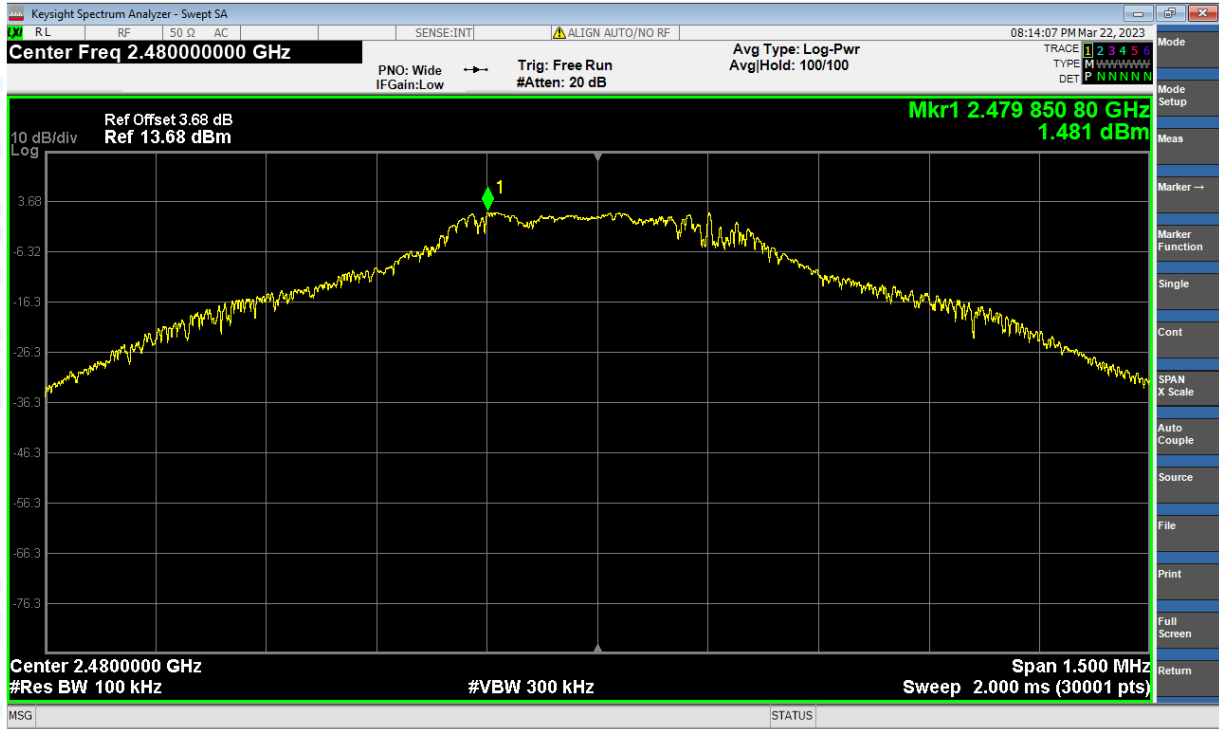
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



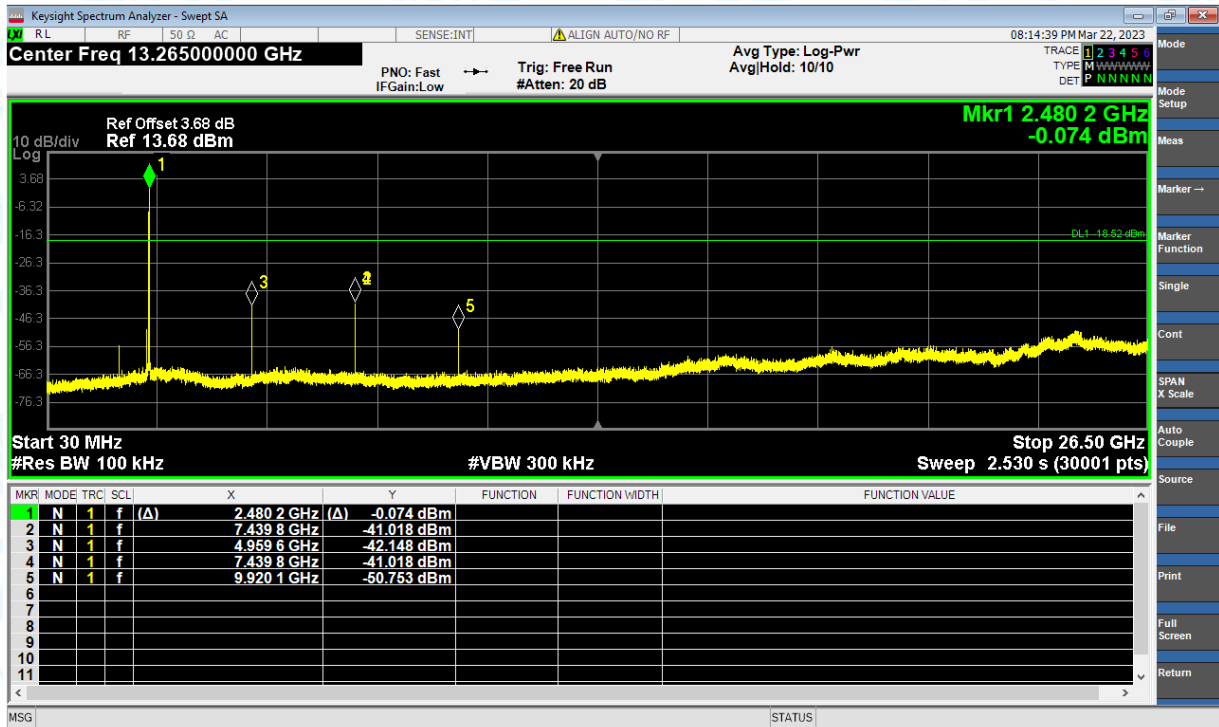
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



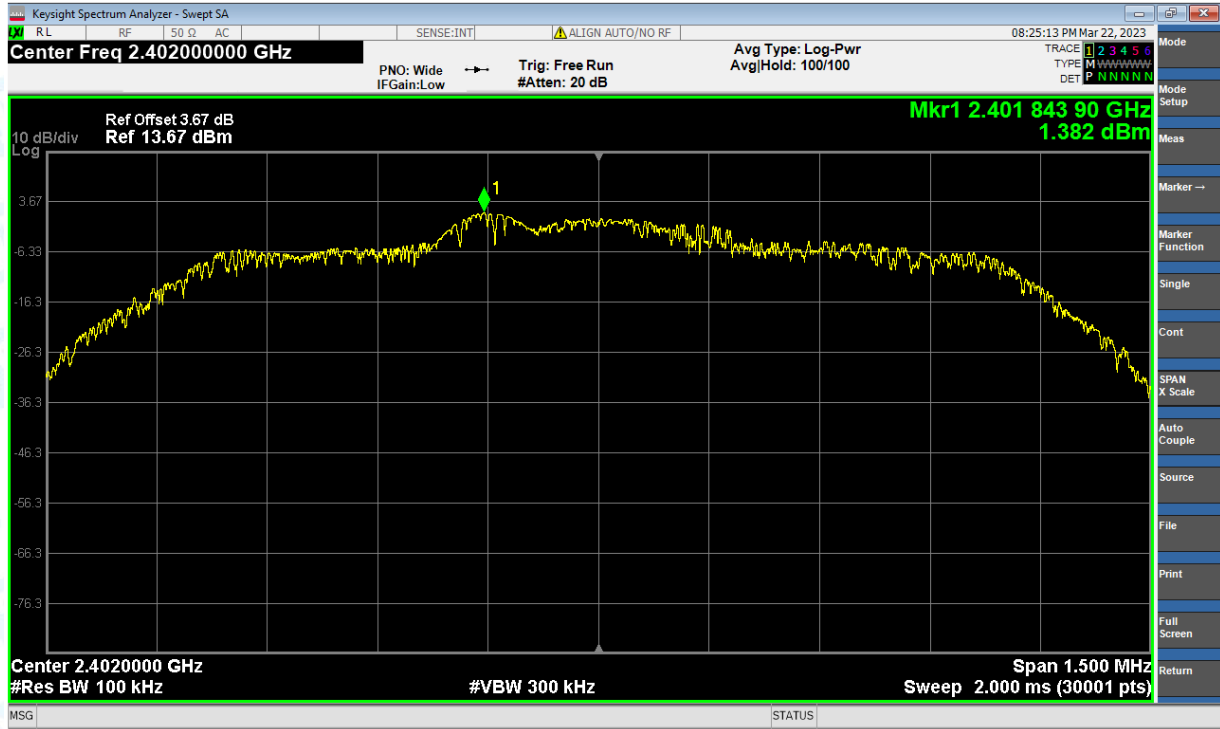
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



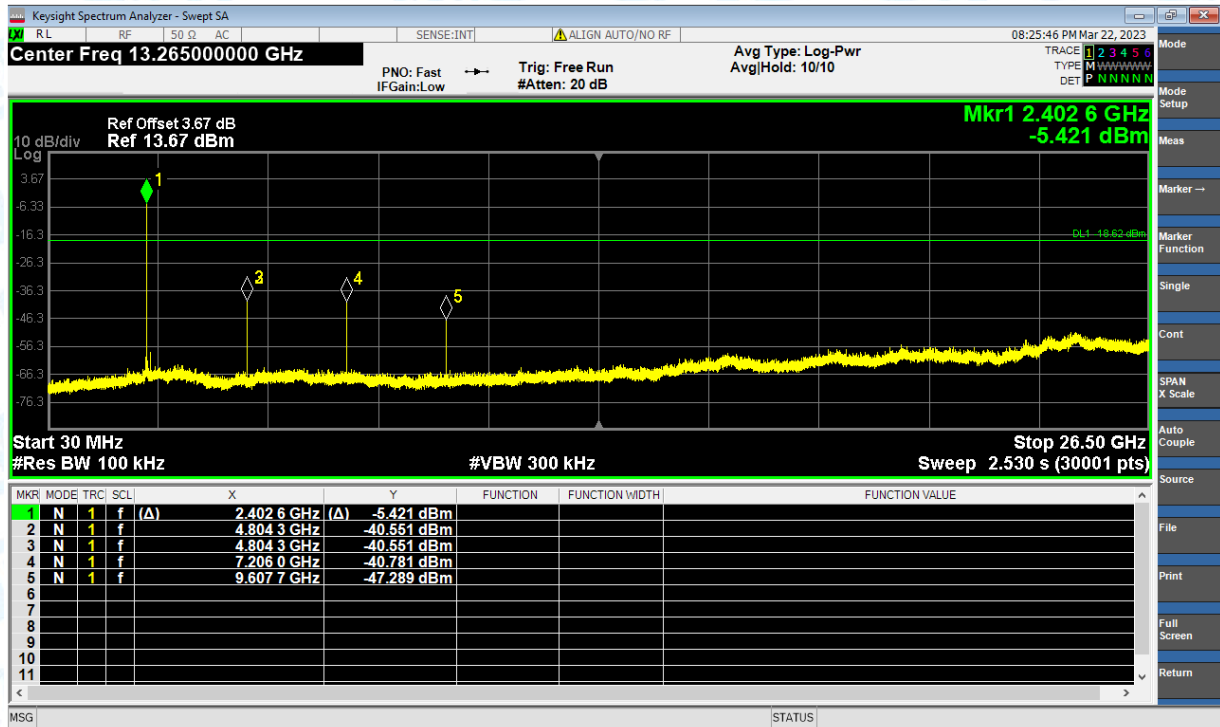
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



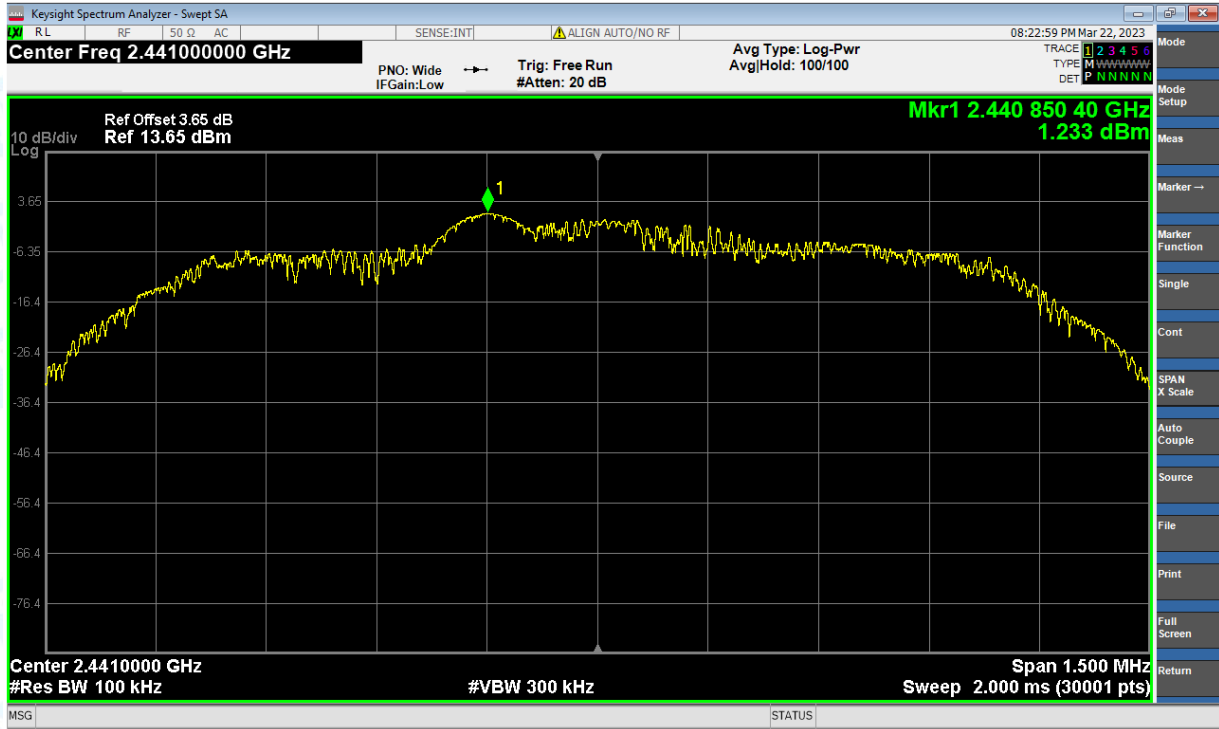
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



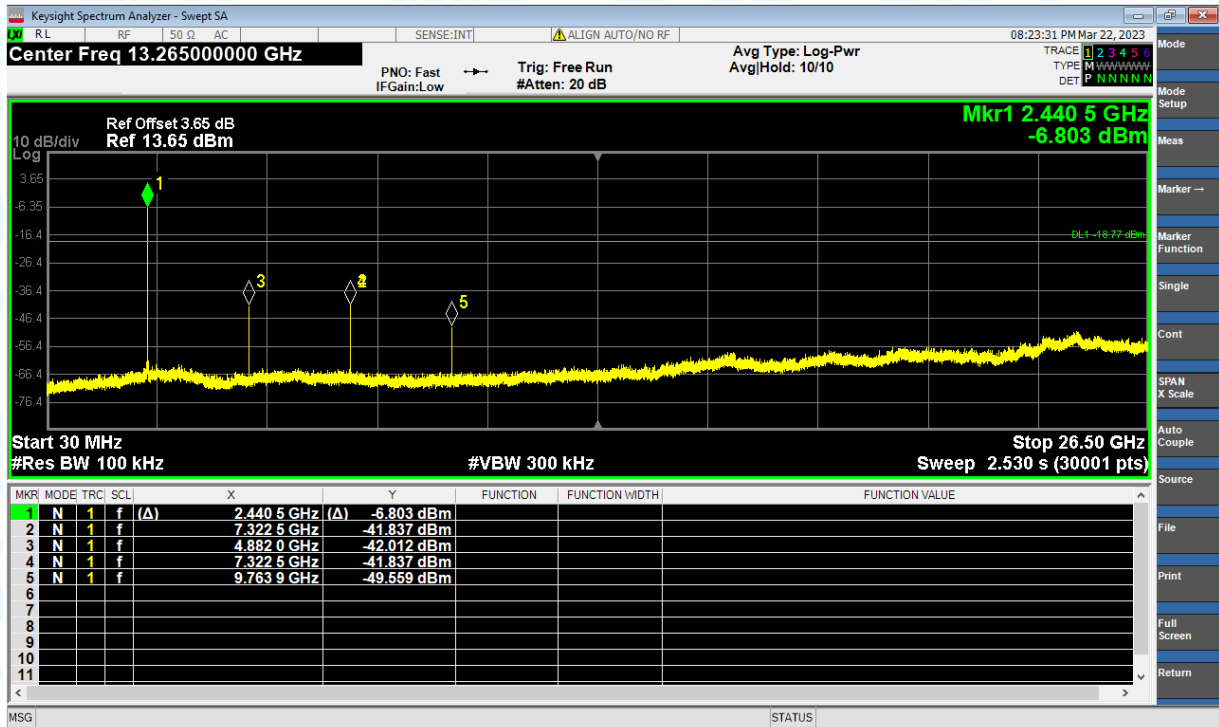
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



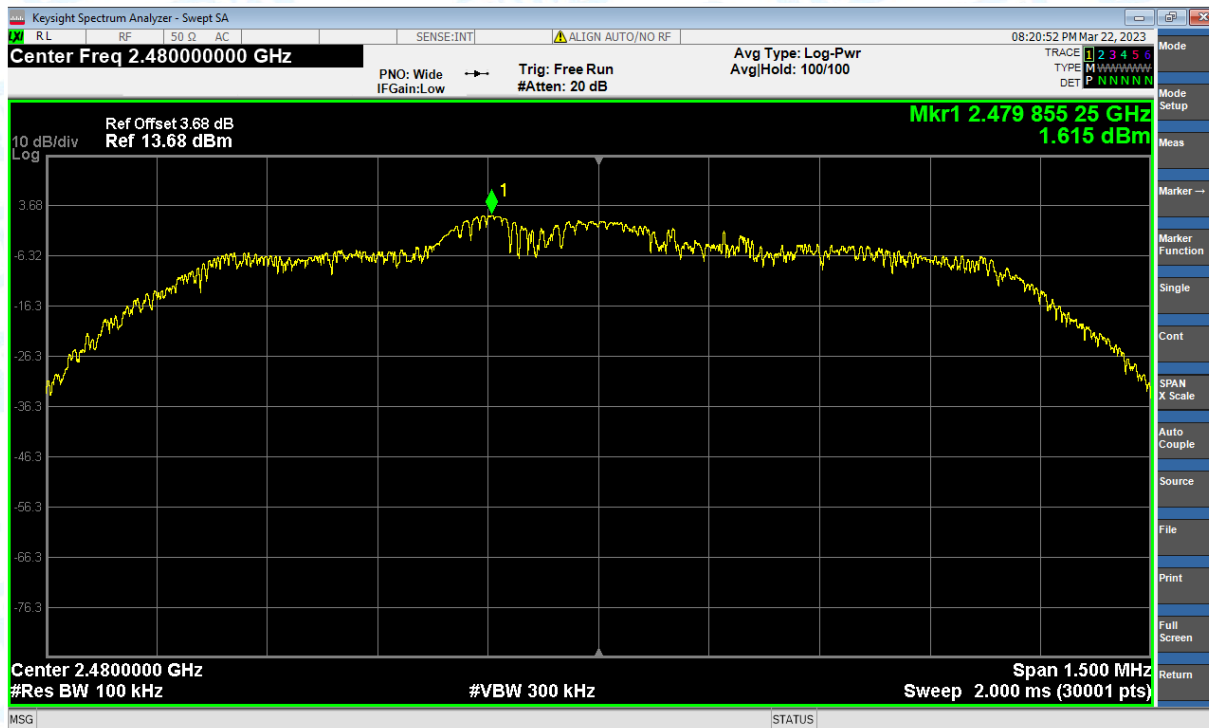
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



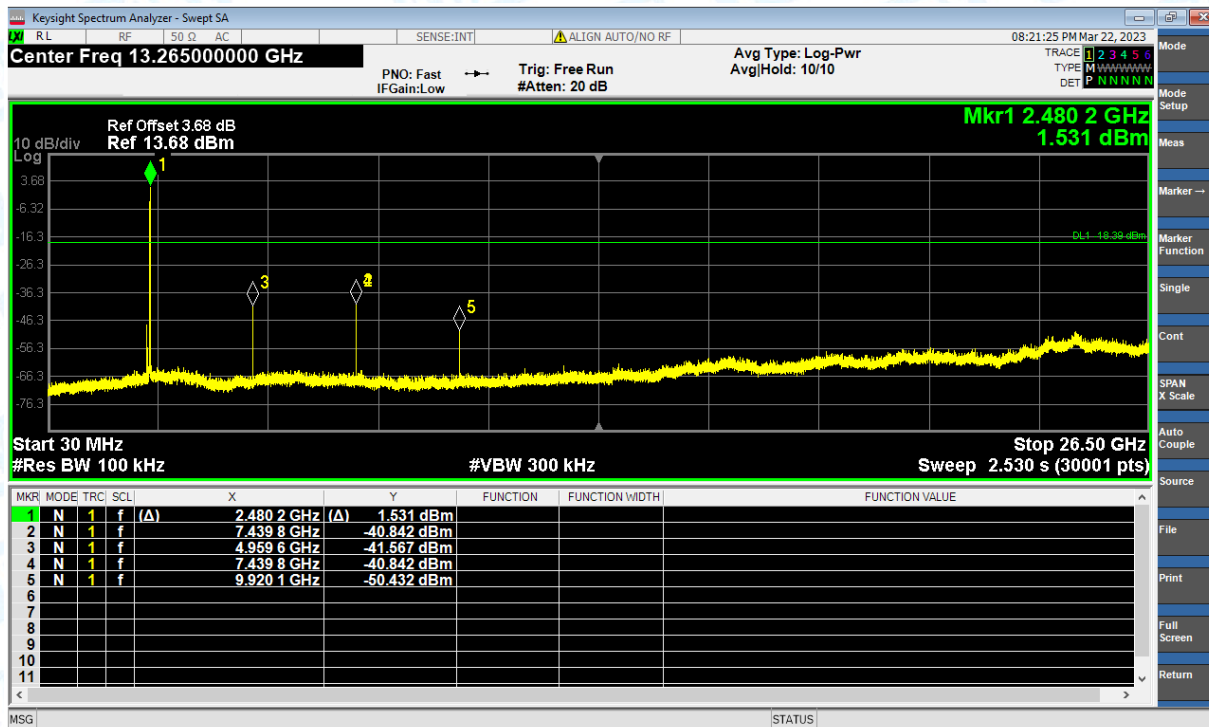
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



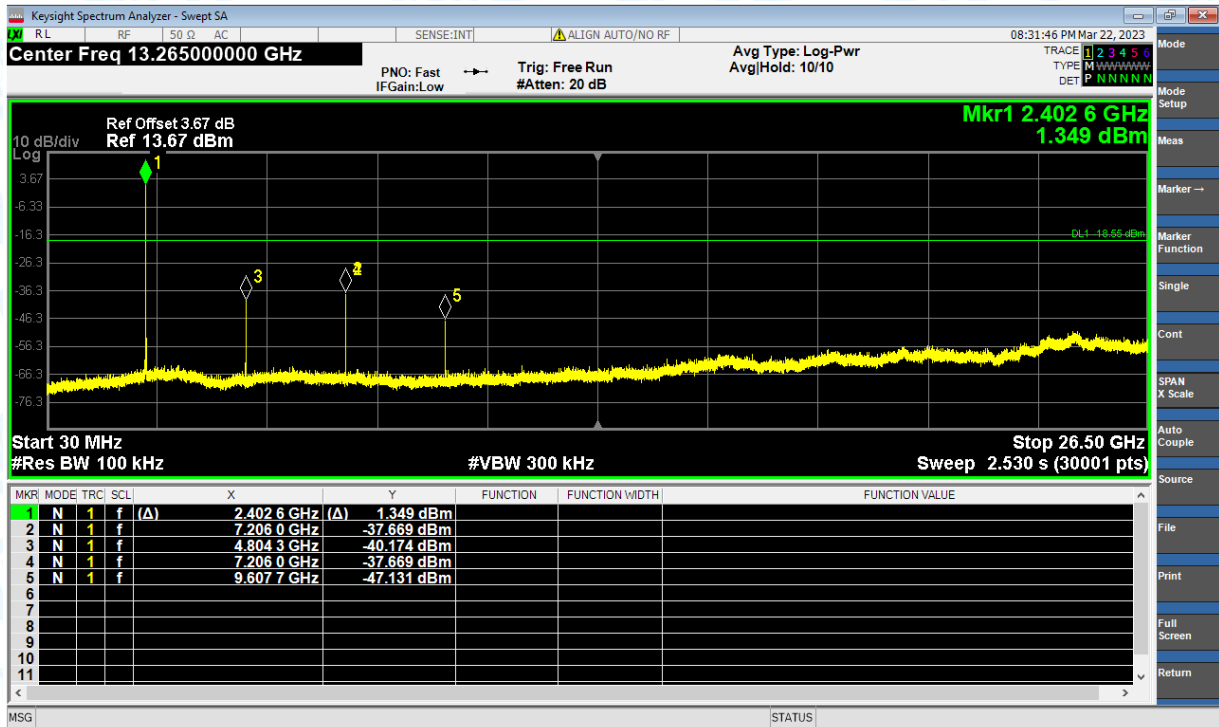
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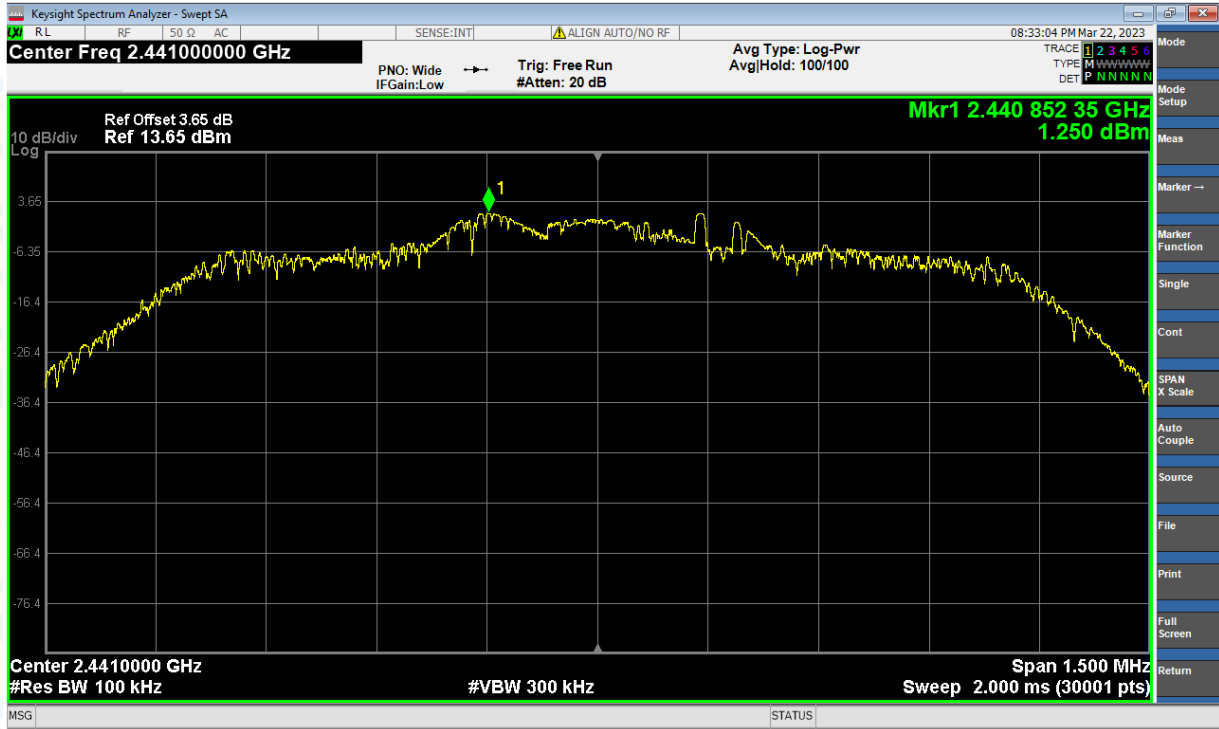
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



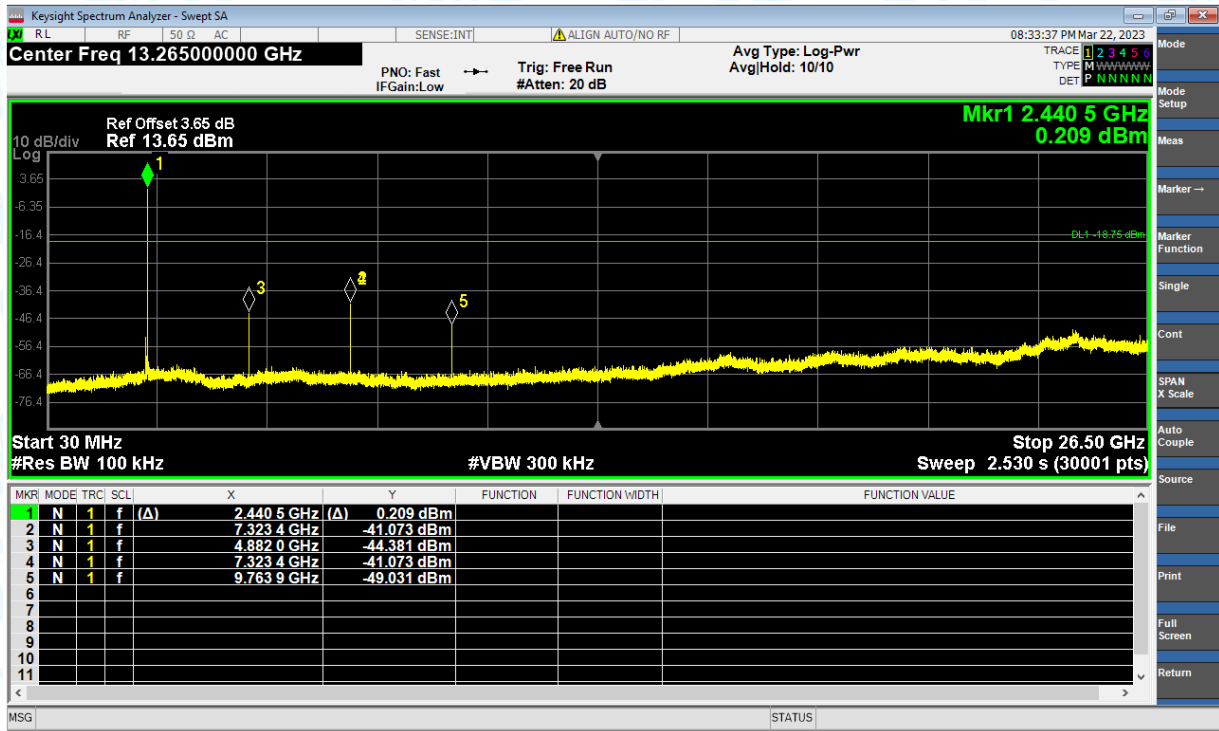
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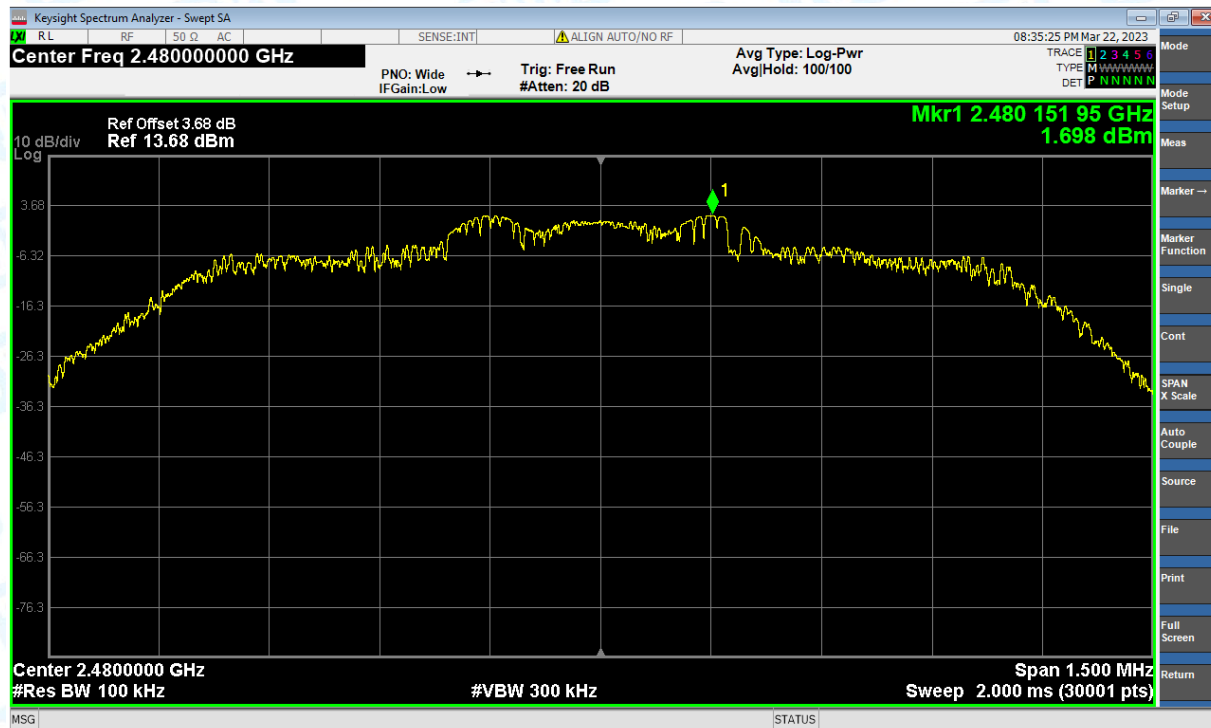
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



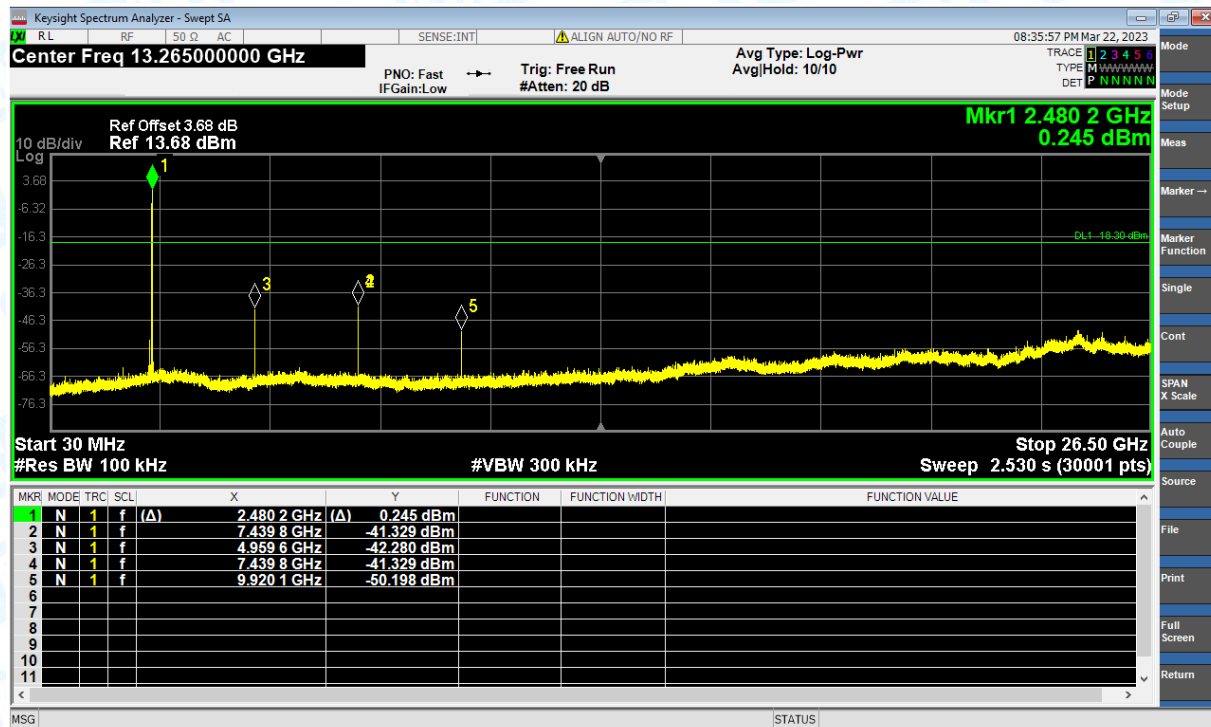
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

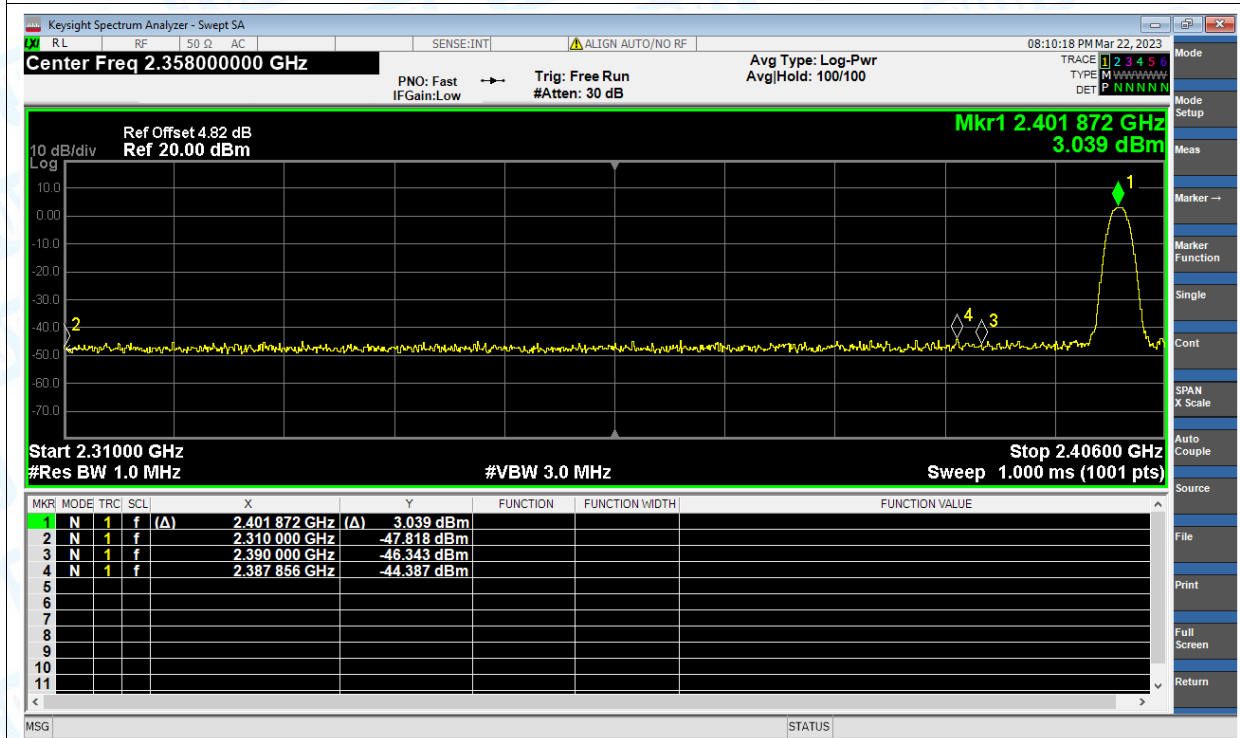


Restrict Band

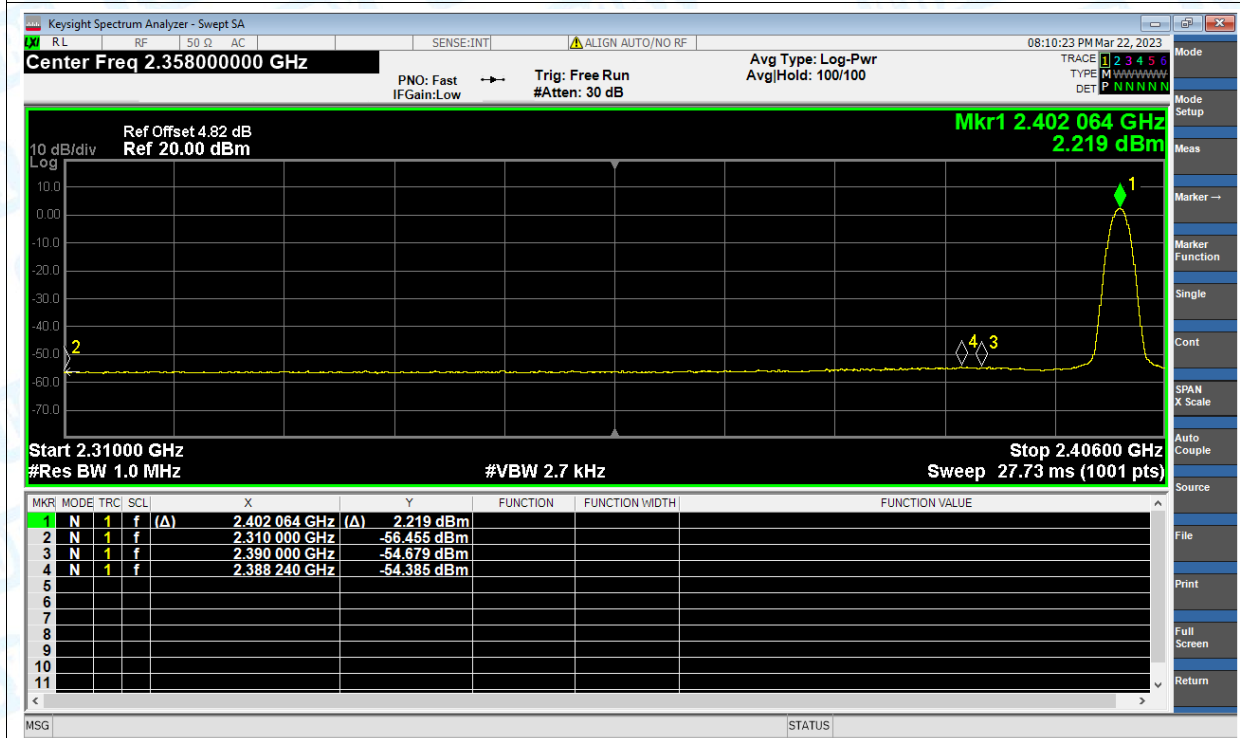
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.82	2	49.44	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.46	2	40.8	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2387.856	-44.39	2	52.87	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2388.24	-54.38	2	42.88	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.76	2	49.5	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.87	2	42.39	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.72	2	51.54	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.91	2	43.35	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2490.52	-43.65	2	53.61	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-53.76	2	43.5	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.47	2	49.79	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.58	2	41.68	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.71	2	49.55	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.33	2	40.93	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2350.128	-43.91	2	53.35	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2389.488	-54.63	2	42.63	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.6	2	50.66	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.24	2	42.02	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.44	2	52.82	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.13	2	43.13	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.4	-43.08	2	54.18	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.536	-54.07	2	43.19	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.7	2	50.56	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.44	2	41.82	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.79	2	48.47	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.37	2	40.89	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2352.048	-44.62	2	52.64	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2387.952	-54.71	2	42.55	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.43	2	50.83	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-54.97	2	42.29	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.04	2	51.22	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.6	2	42.66	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.776	-42.58	2	54.68	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.656	-54.44	2	42.82	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.06	2	50.2	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.14	2	42.12	Average	54	Pass

Test Graphs

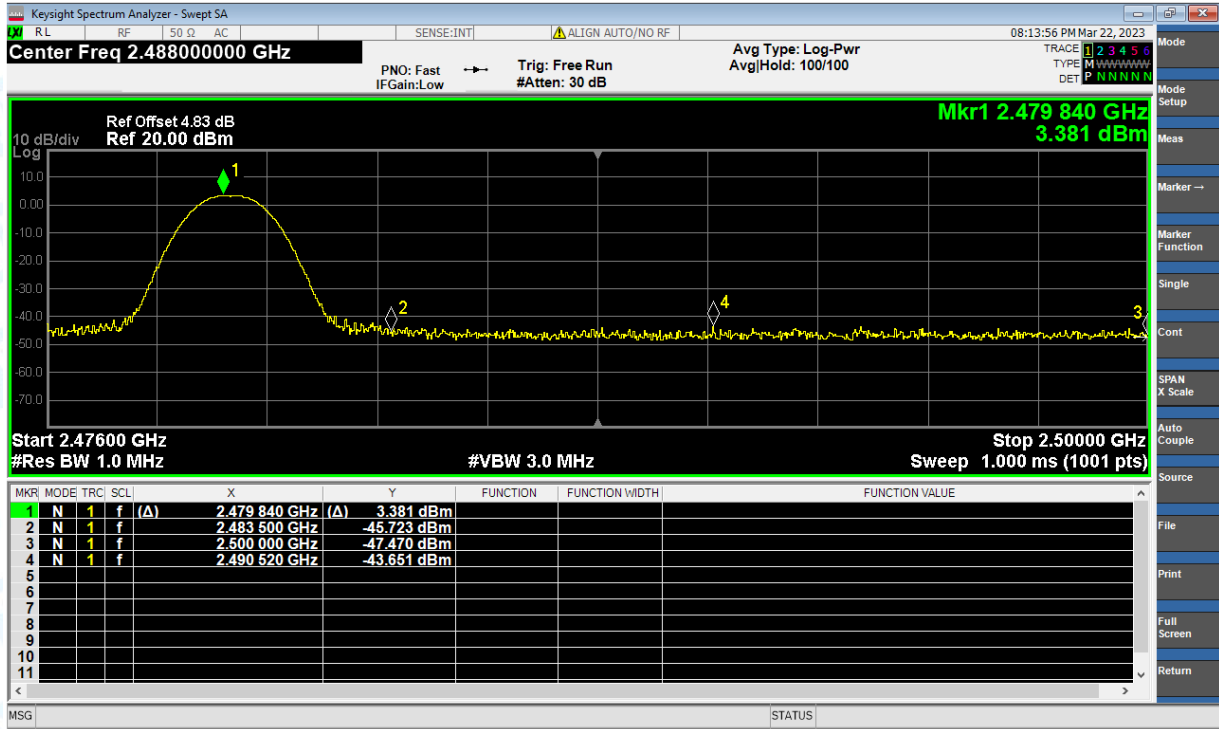
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



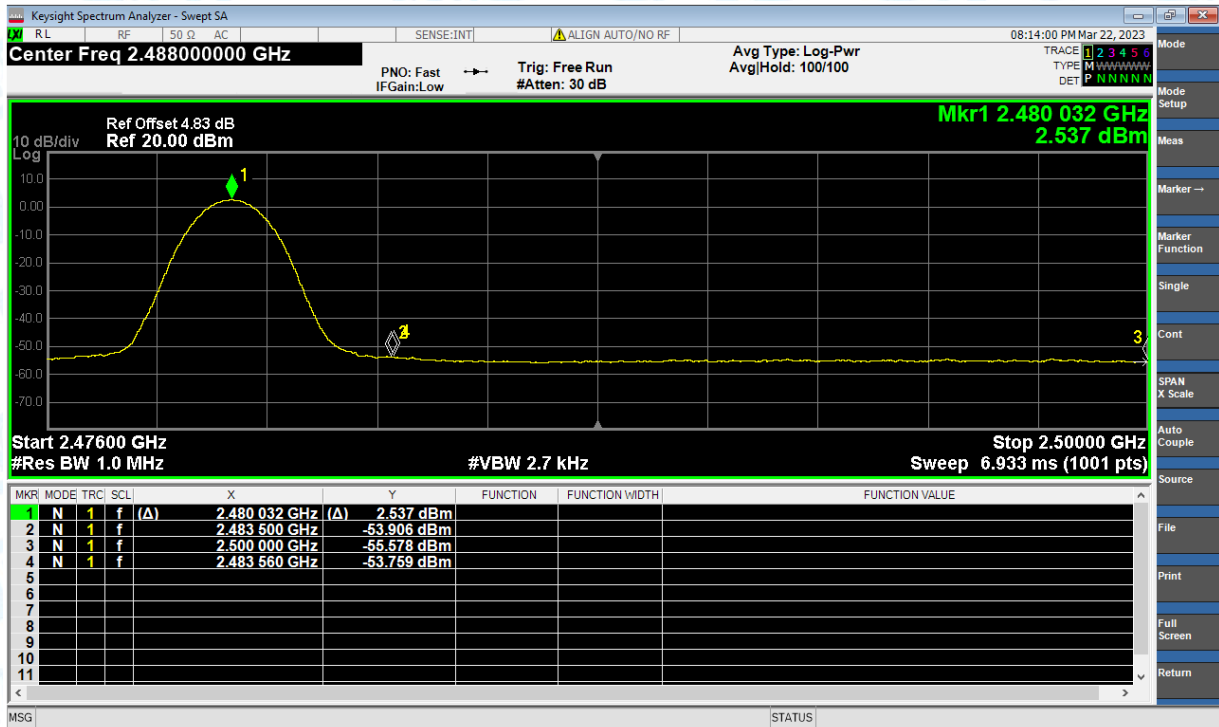
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



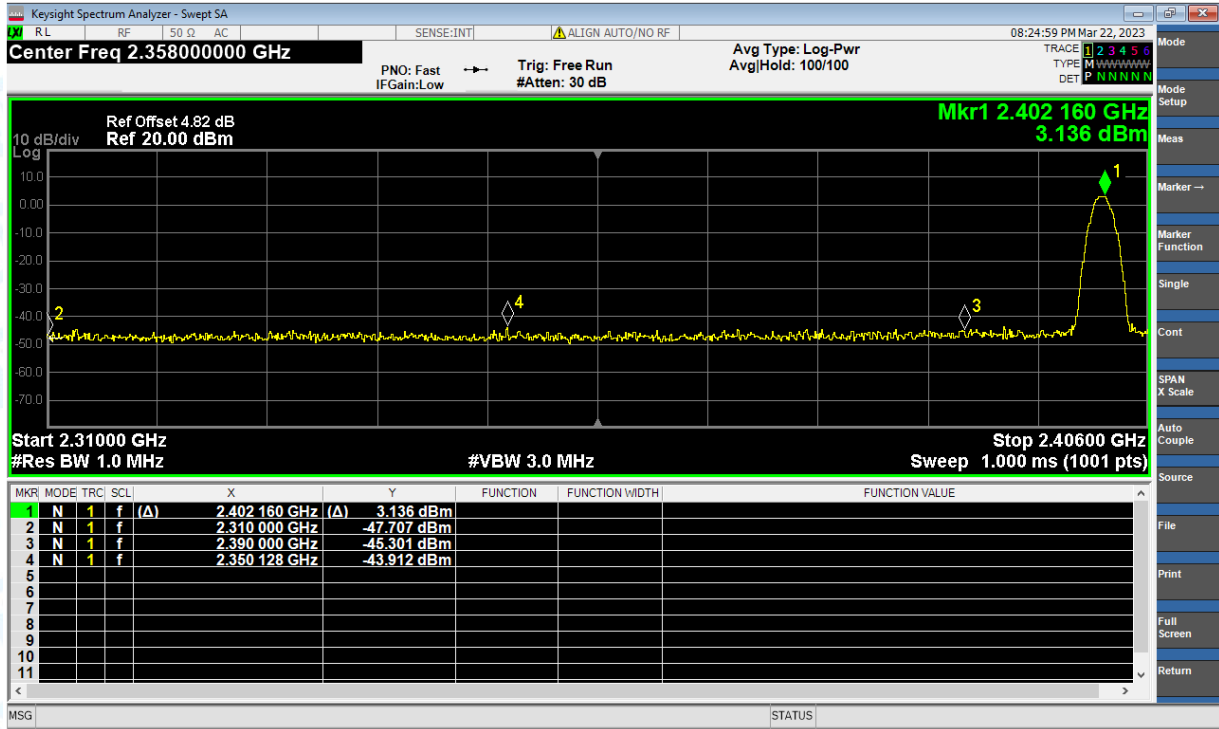
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



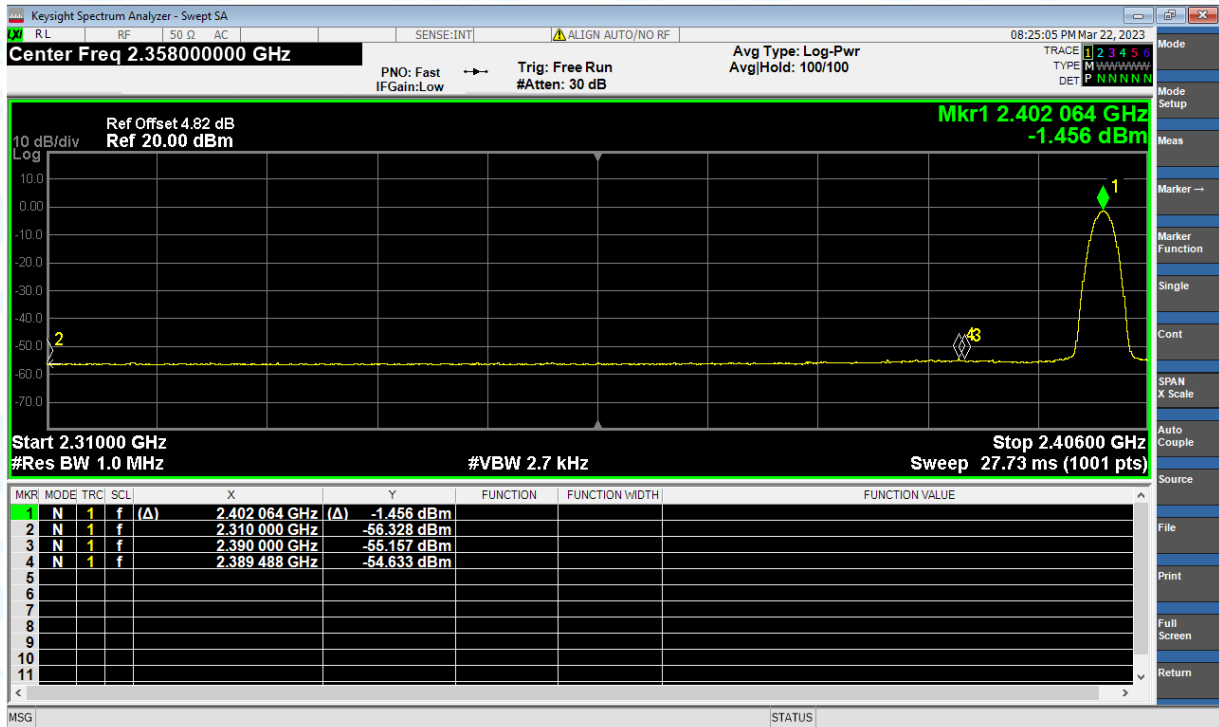
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



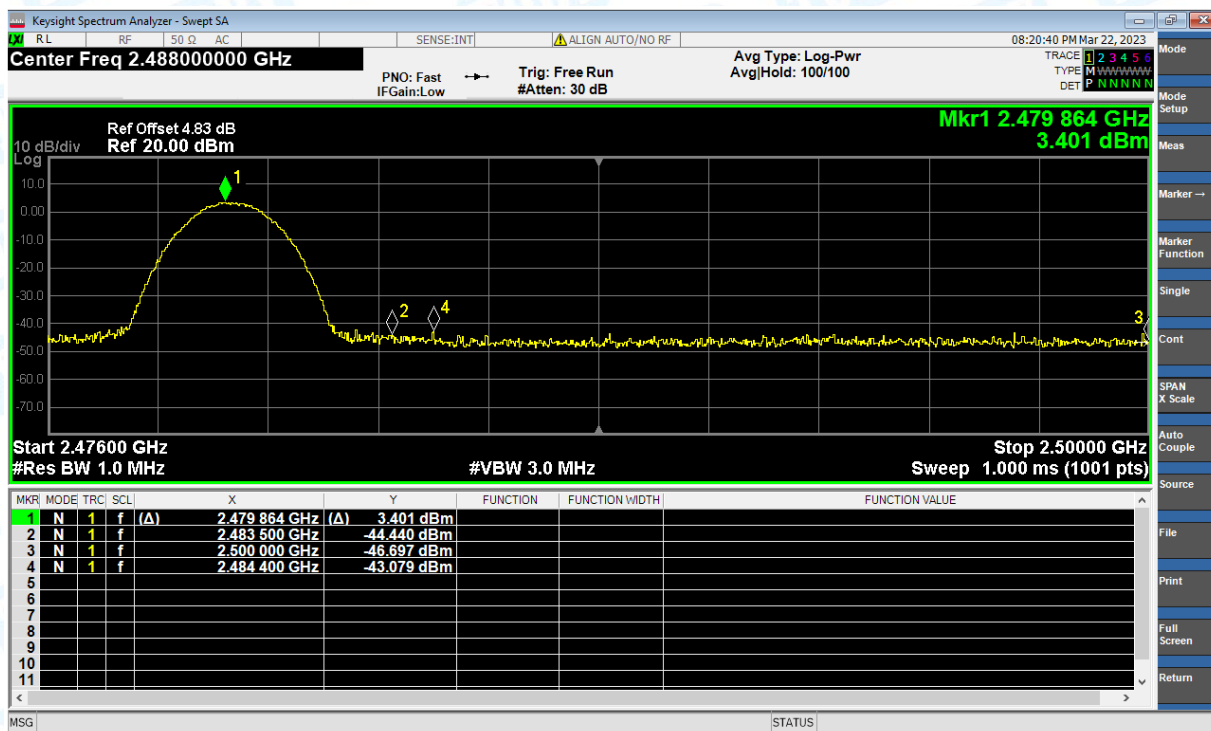
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



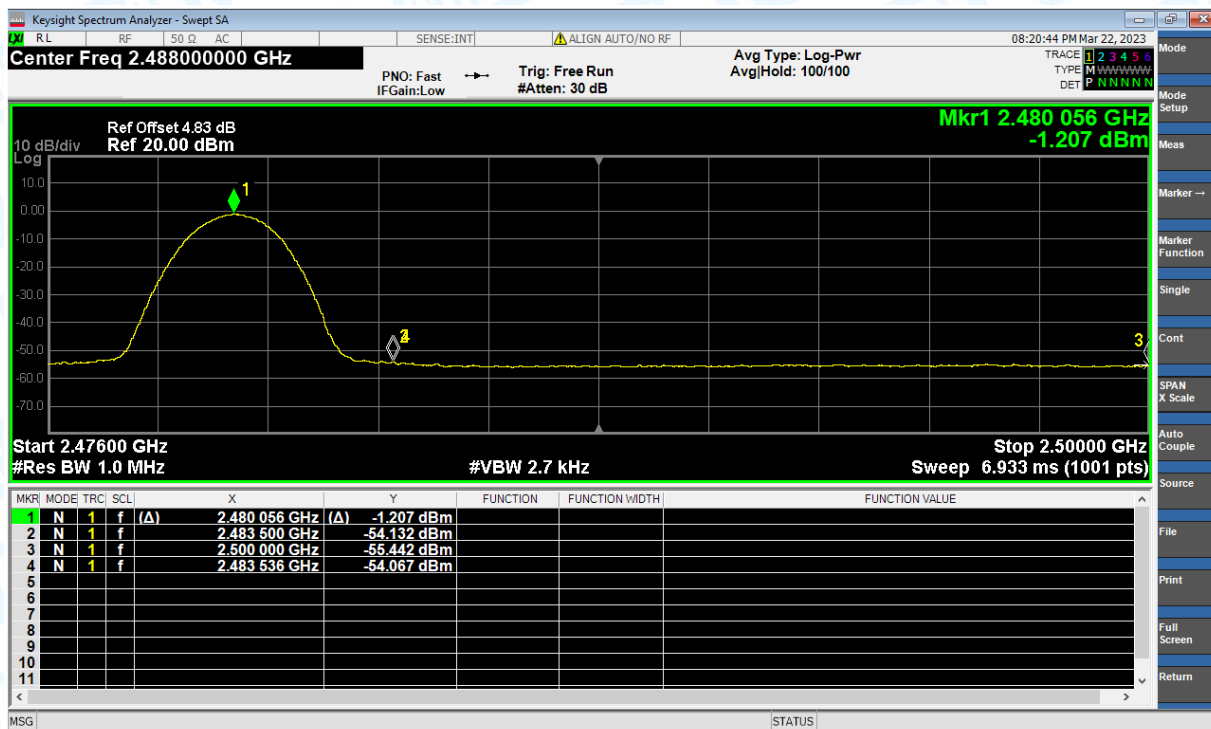
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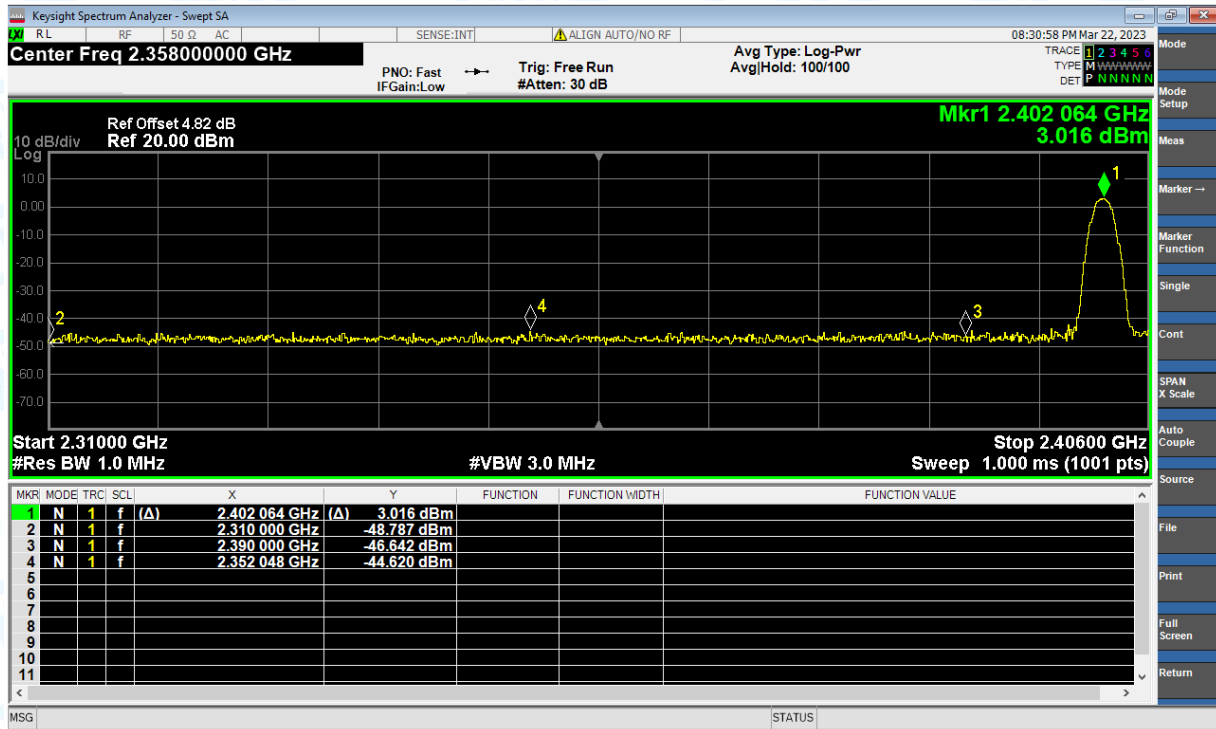
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



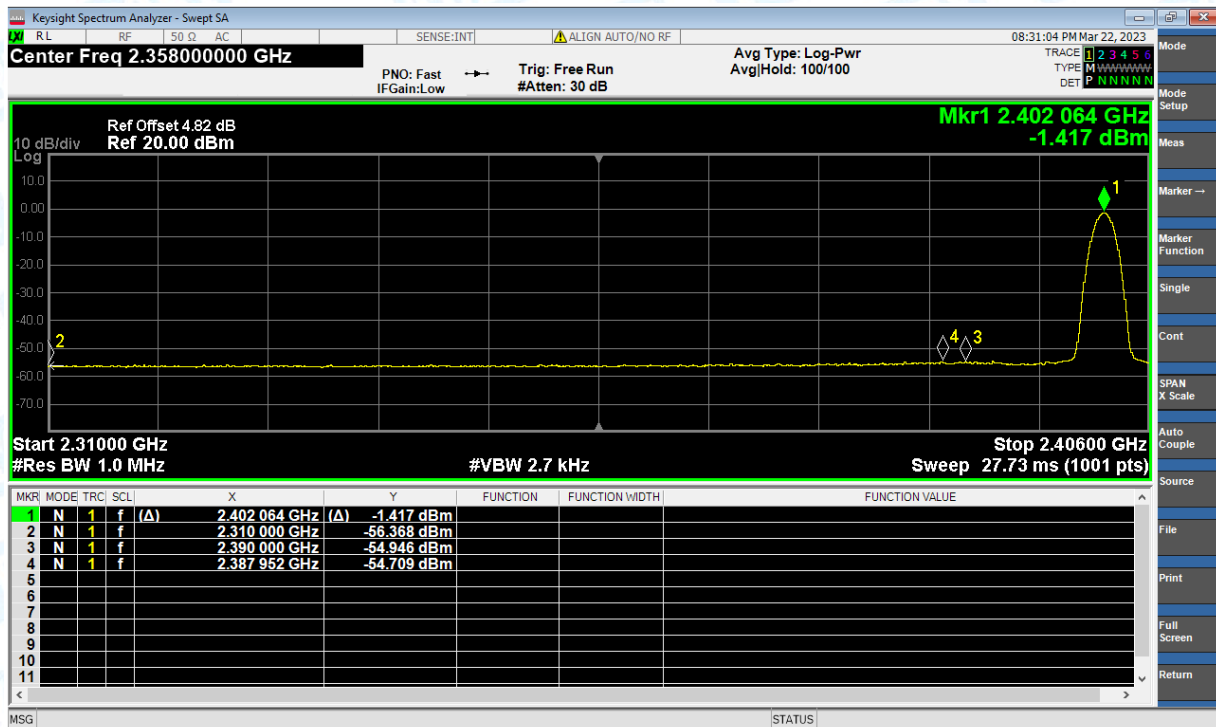
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



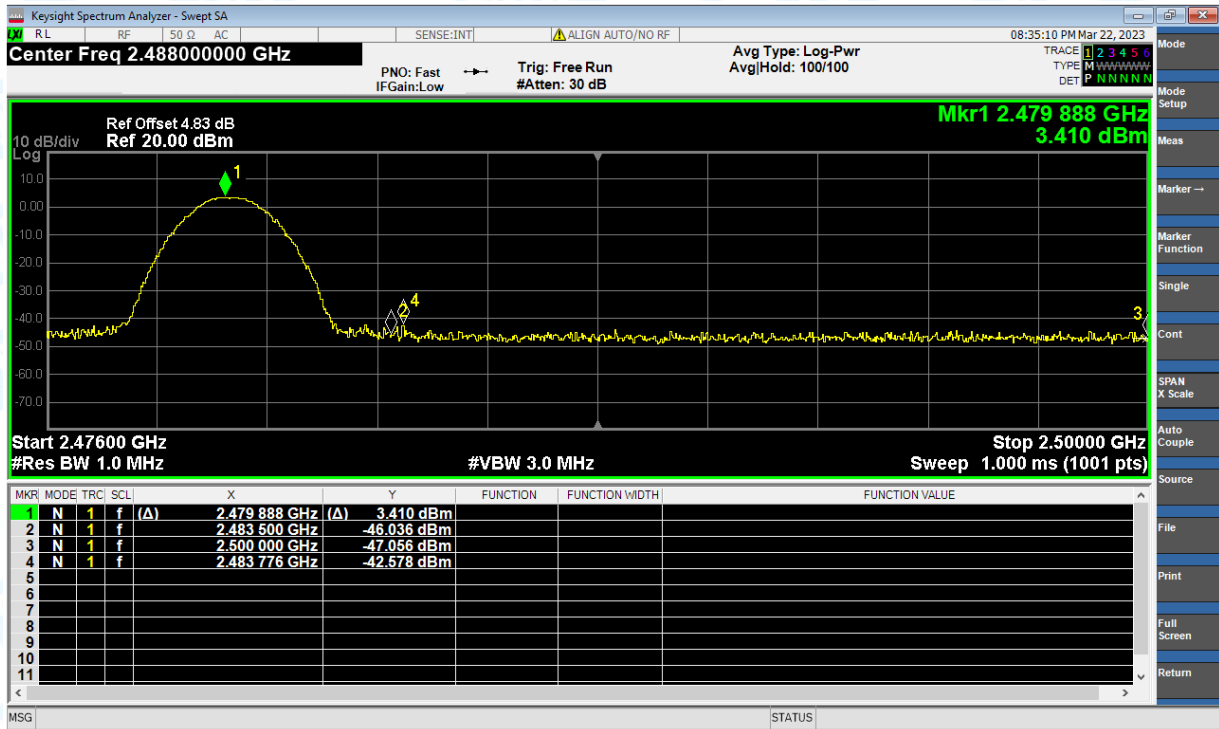
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



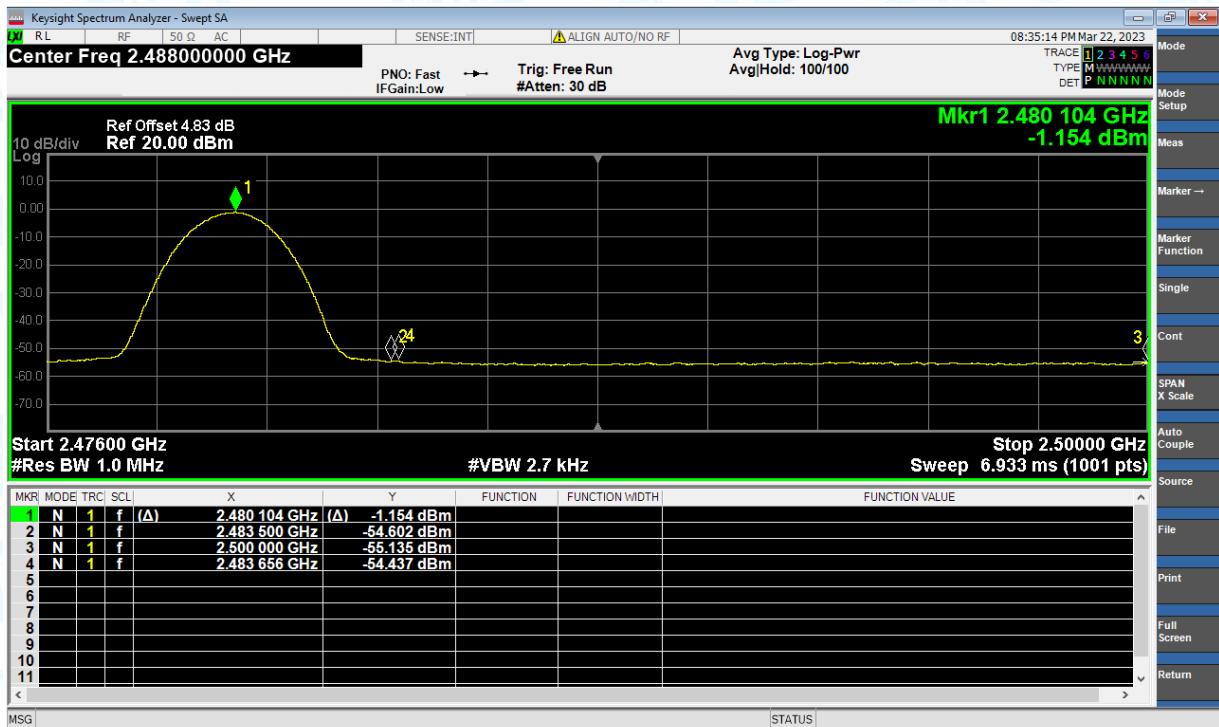
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

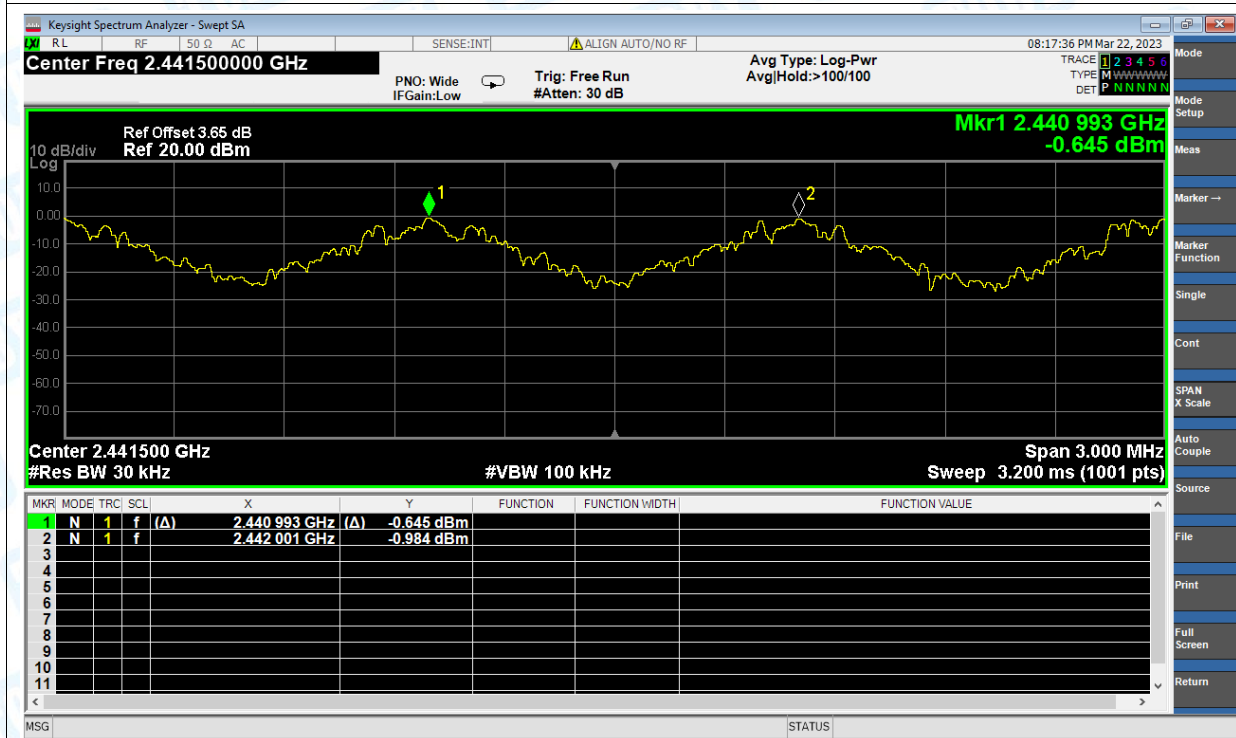


Carrier Frequencies Separation

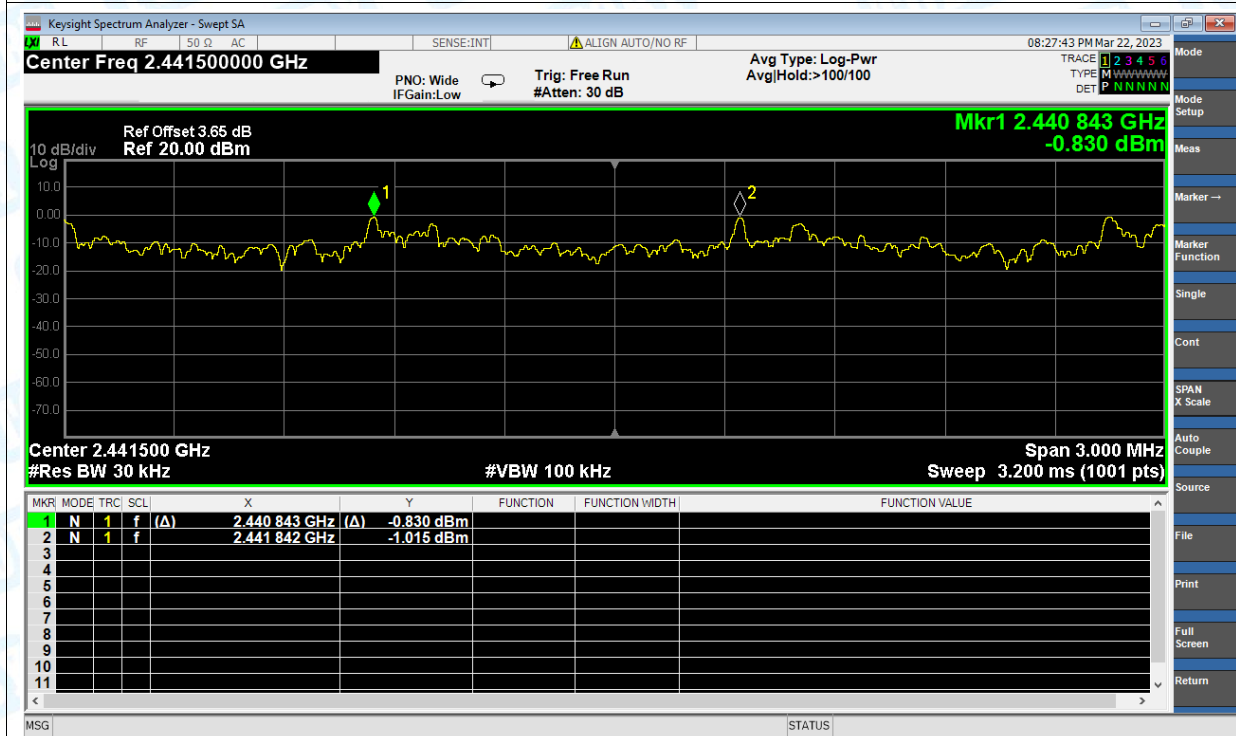
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.993	2442.001	1.008	0.567	Pass
NVNT	2-DH1	Ant1	2440.843	2441.842	0.999	0.813	Pass
NVNT	3-DH1	Ant1	2440.855	2441.998	1.143	0.807	Pass

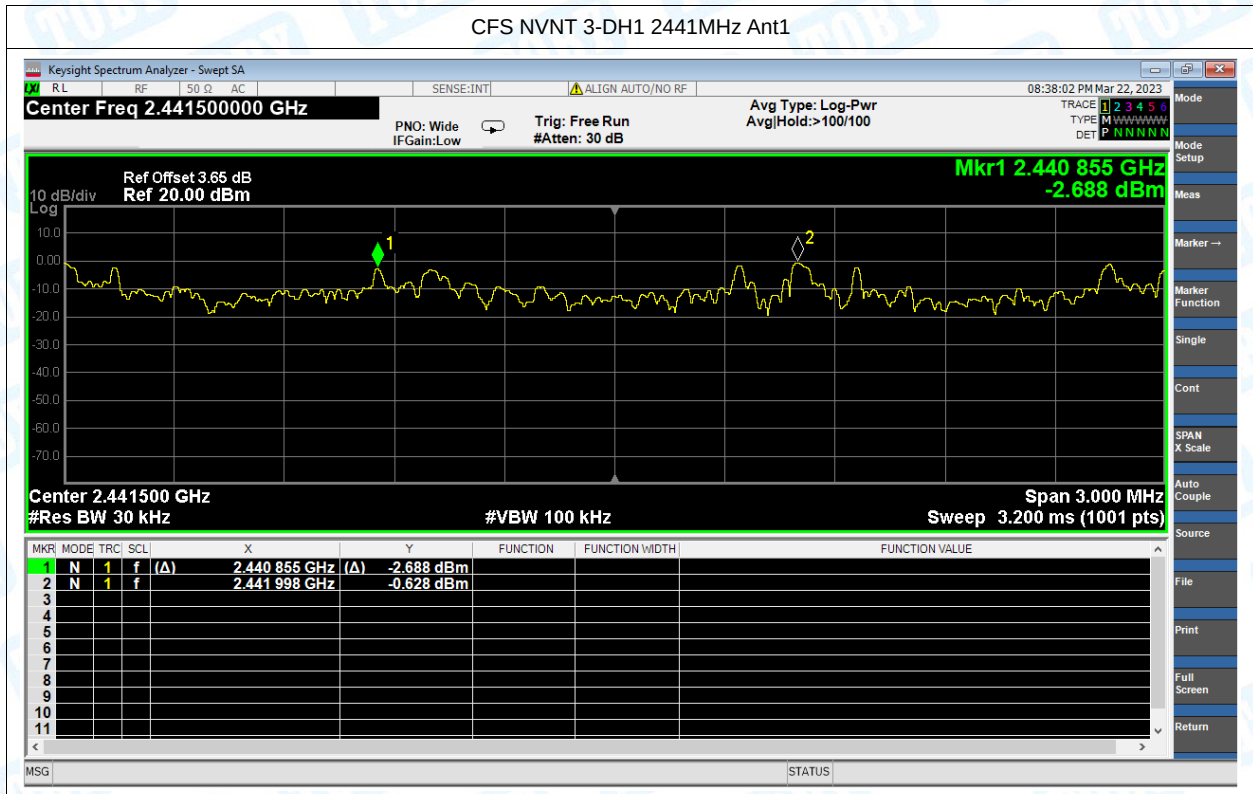
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



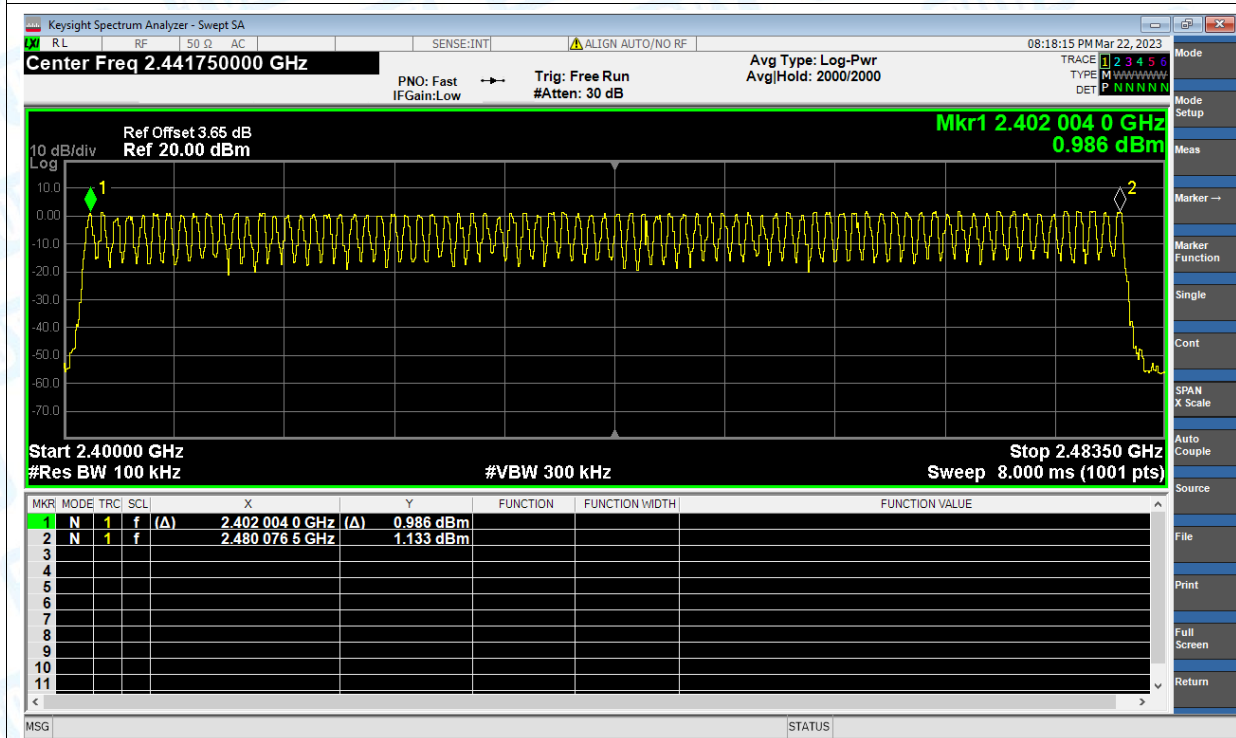


Number of Hopping Channel

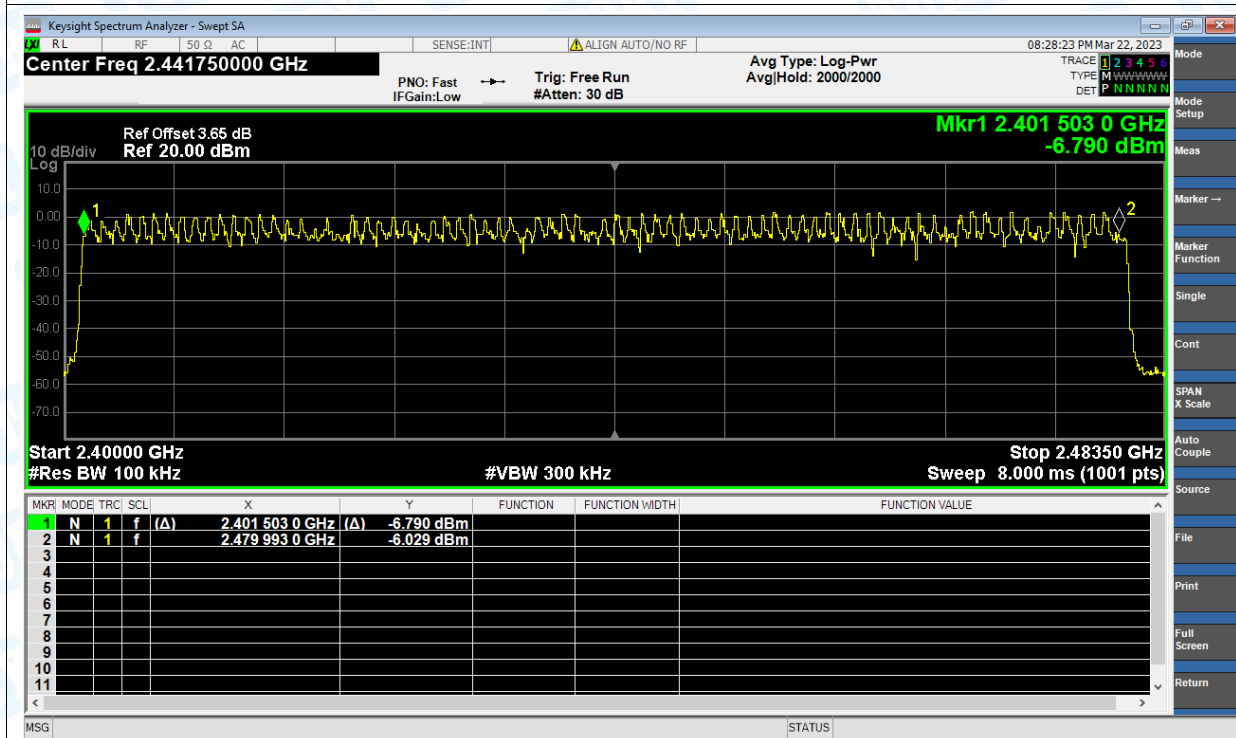
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

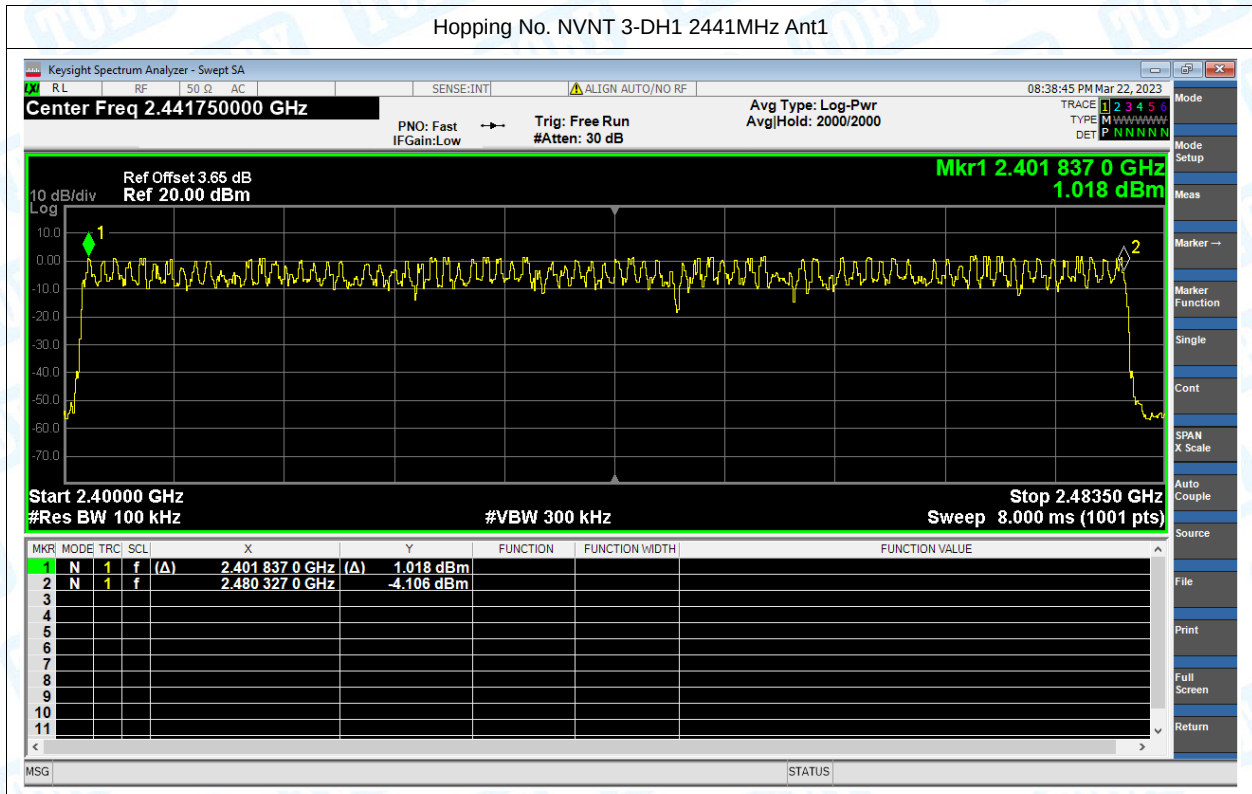
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



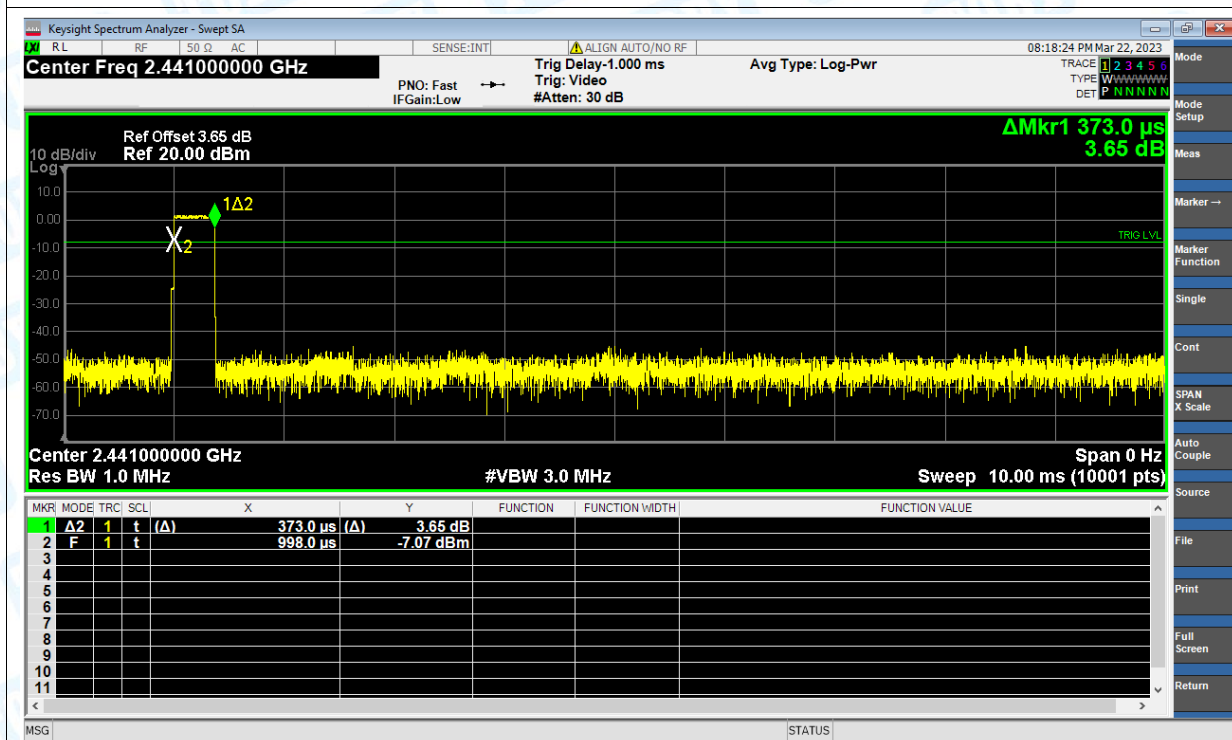


Dwell Time

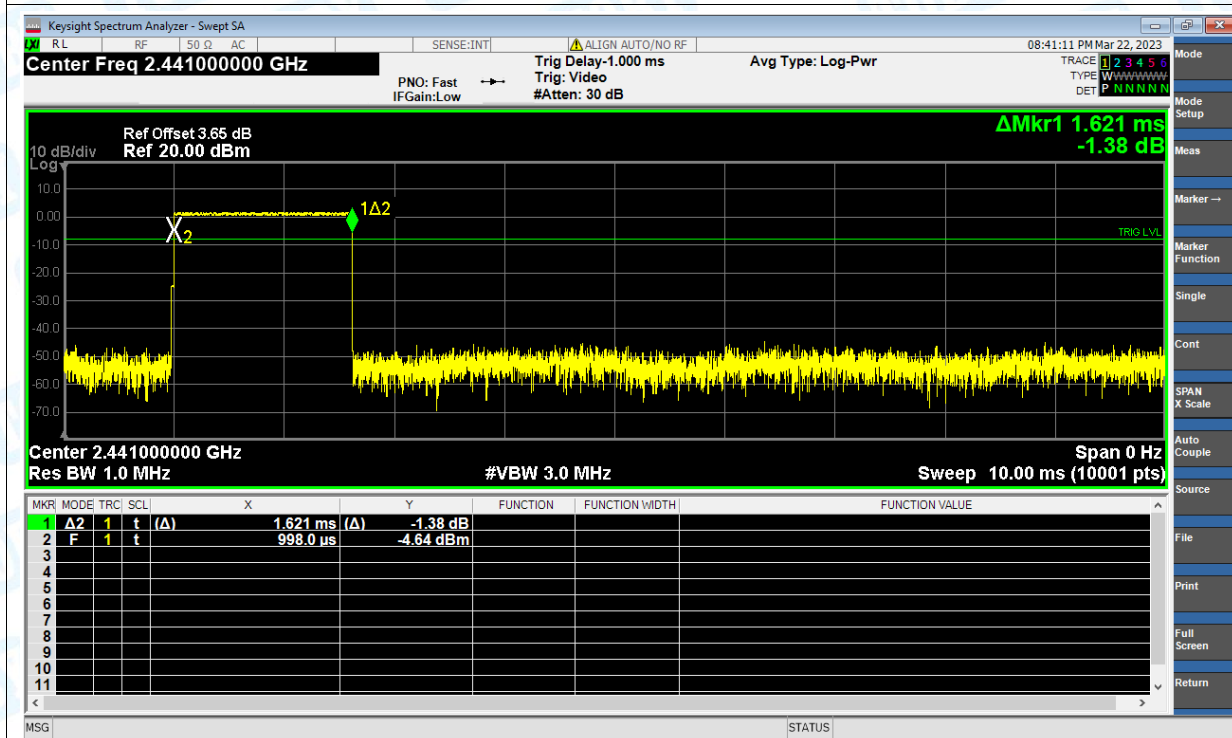
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.373	119.36	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.621	259.36	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.867	305.813	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.38	121.6	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.631	260.96	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.379	121.28	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.63	260.8	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.881	307.307	31600	400	Pass

Test Graphs

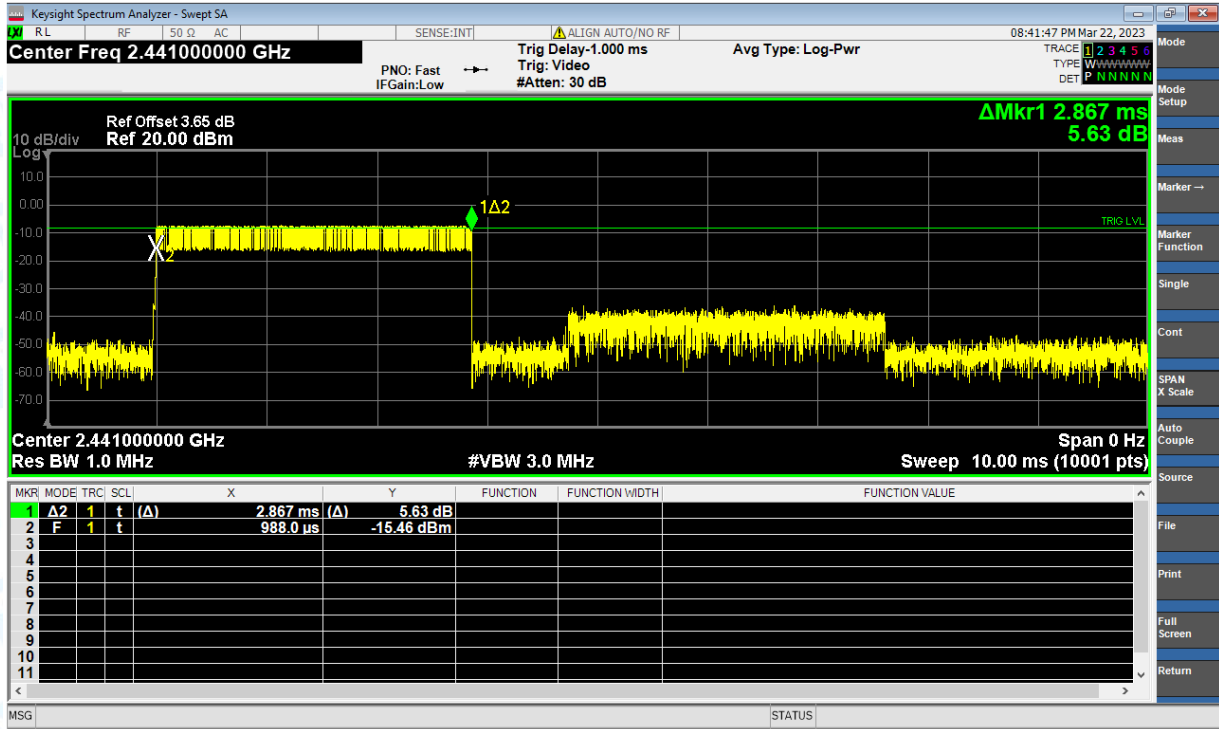
Dwell NVNT 1-DH1 2441MHz Ant1



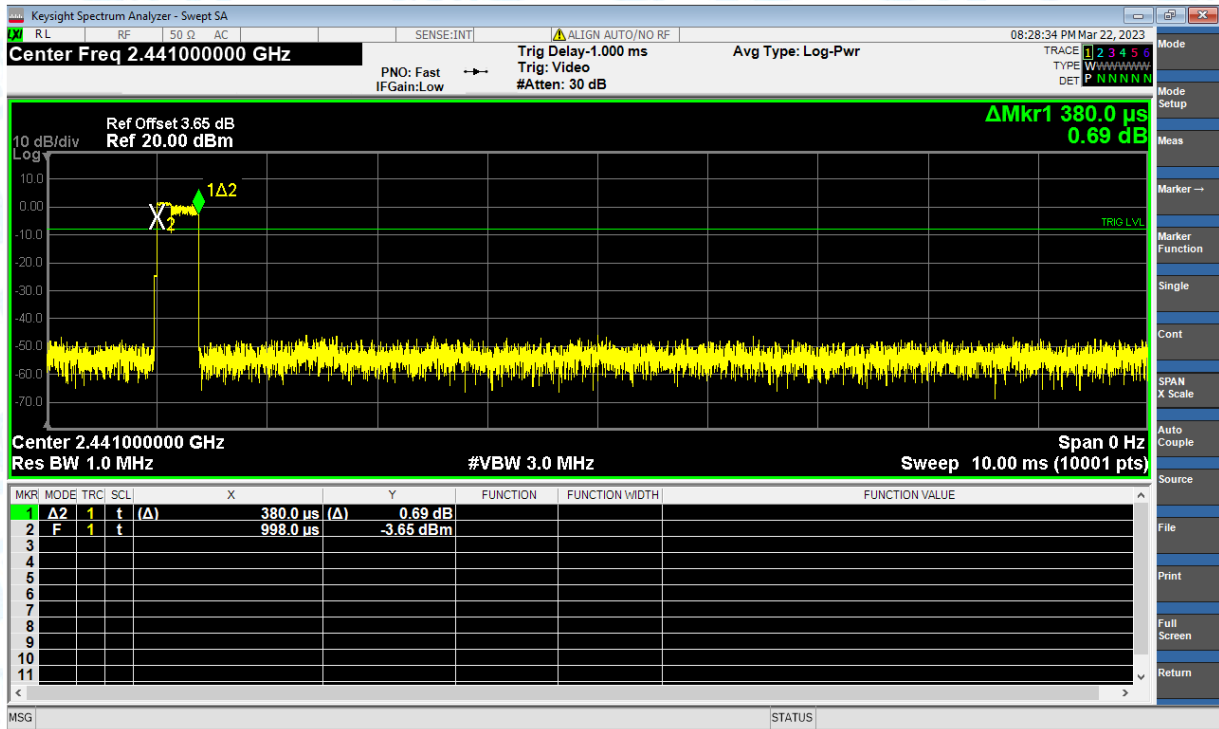
Dwell NVNT 1-DH3 2441MHz Ant1



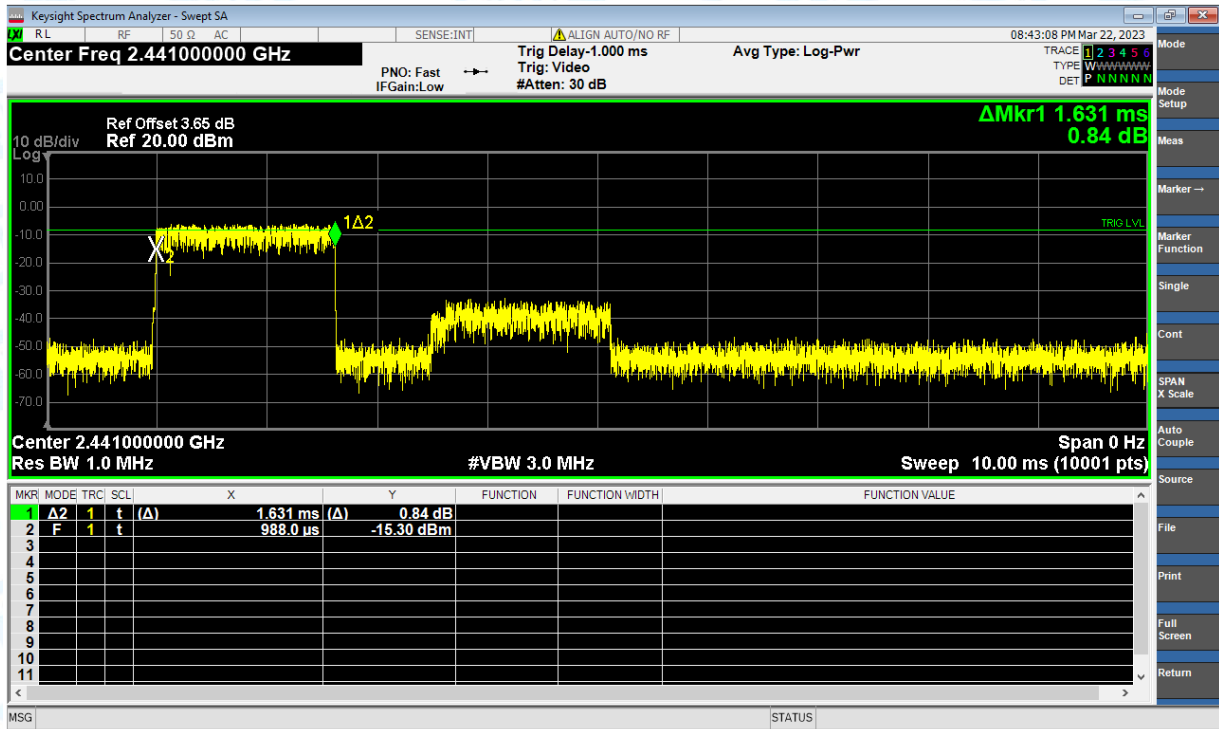
Dwell NVNT 1-DH5 2441MHz Ant1



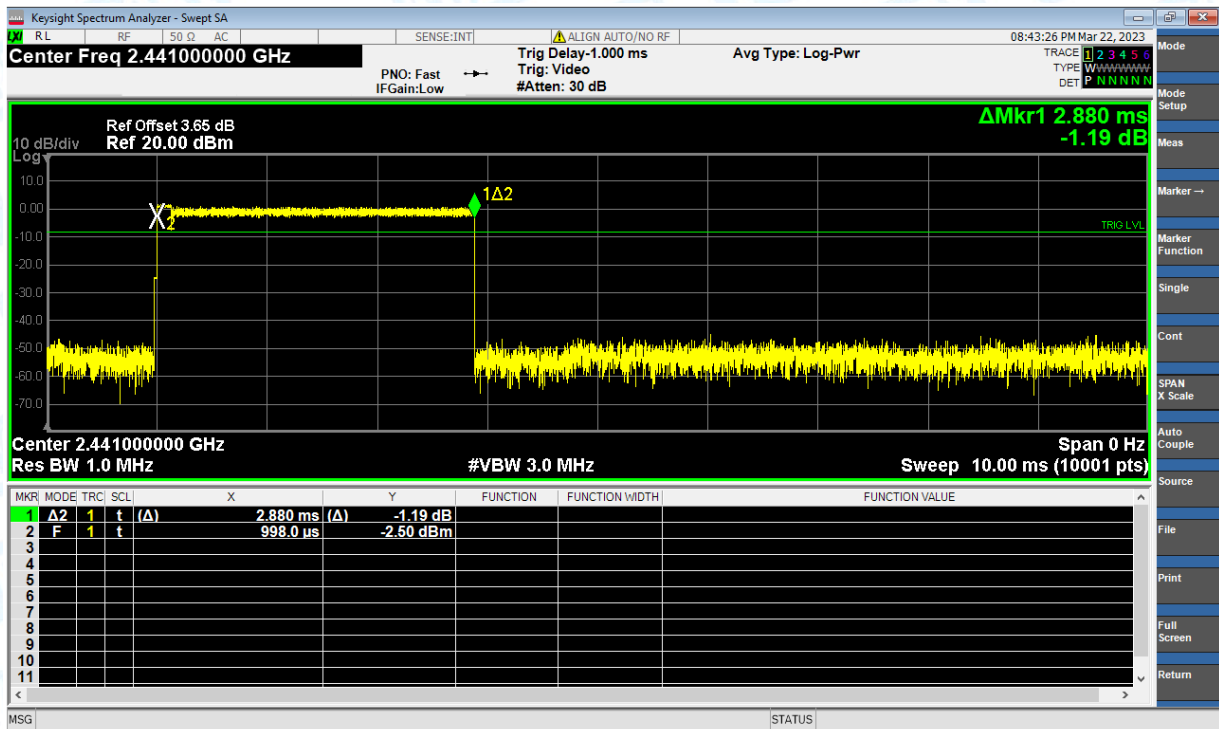
Dwell NVNT 2-DH1 2441MHz Ant1



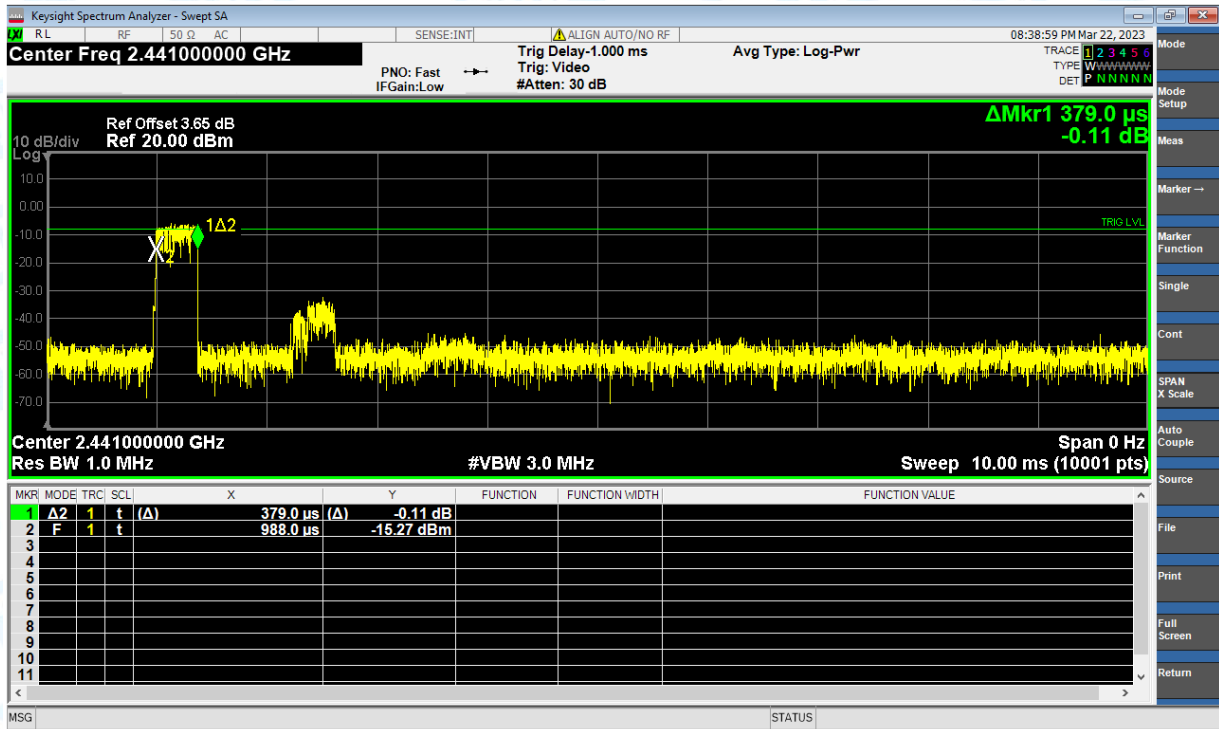
Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1

