

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

General Description of EUT	
Product Name:	MINISO DISNEY 100 CELEBRATION COLLECTION TWS EARPHONES
Test Model:	YB058
Sample ID:	202305-0272-9-#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-202305-0272-12 The report only show the worst case data.	

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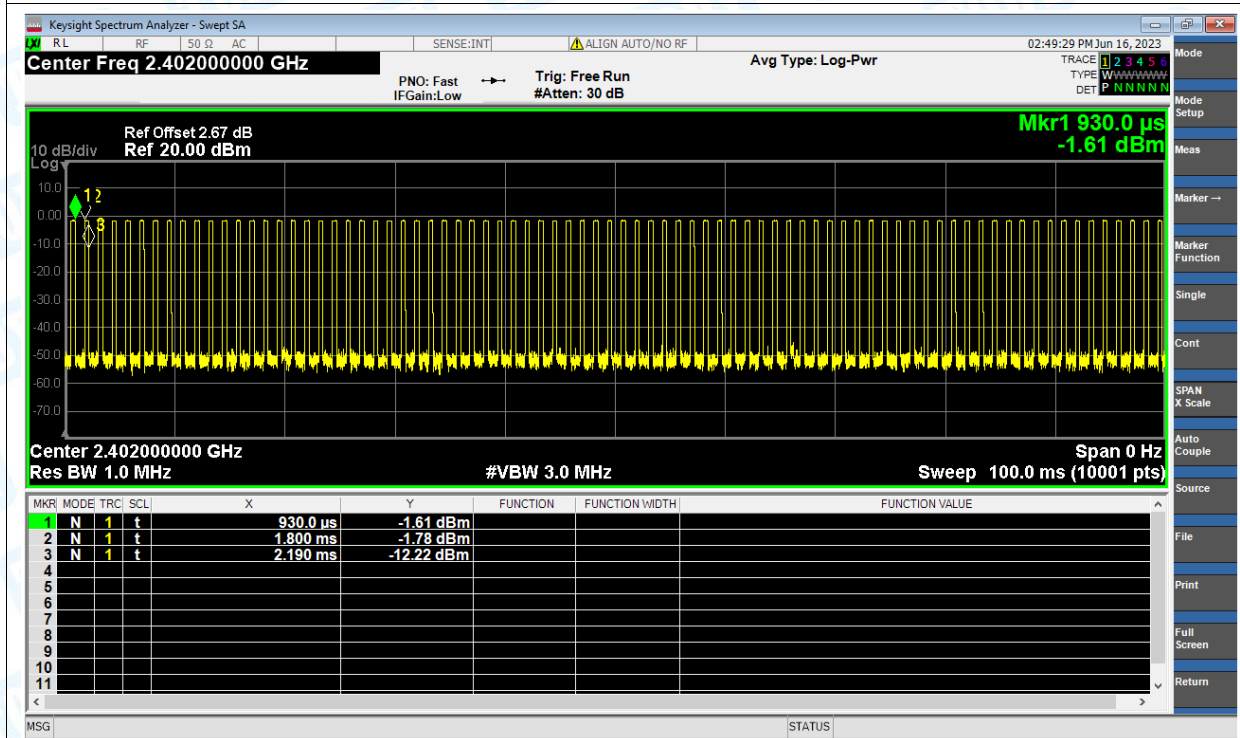
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1. Duty Cycle

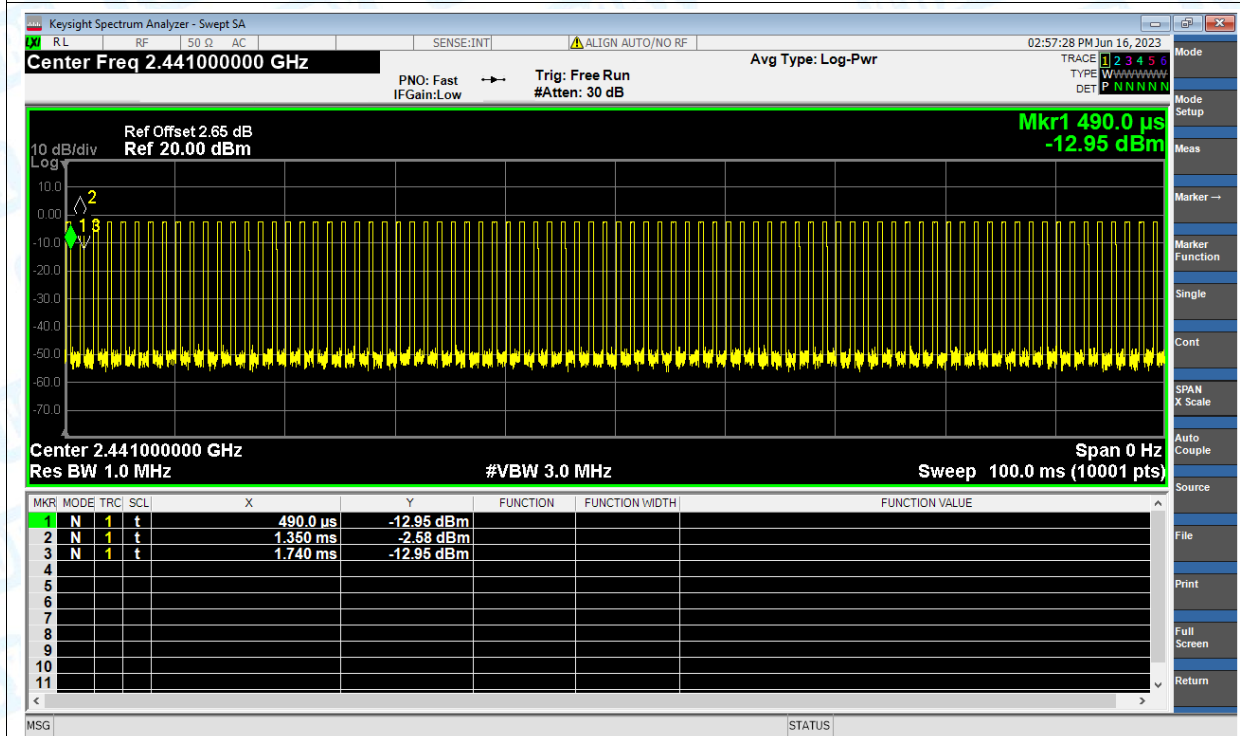
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.95	5.09	2.56
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

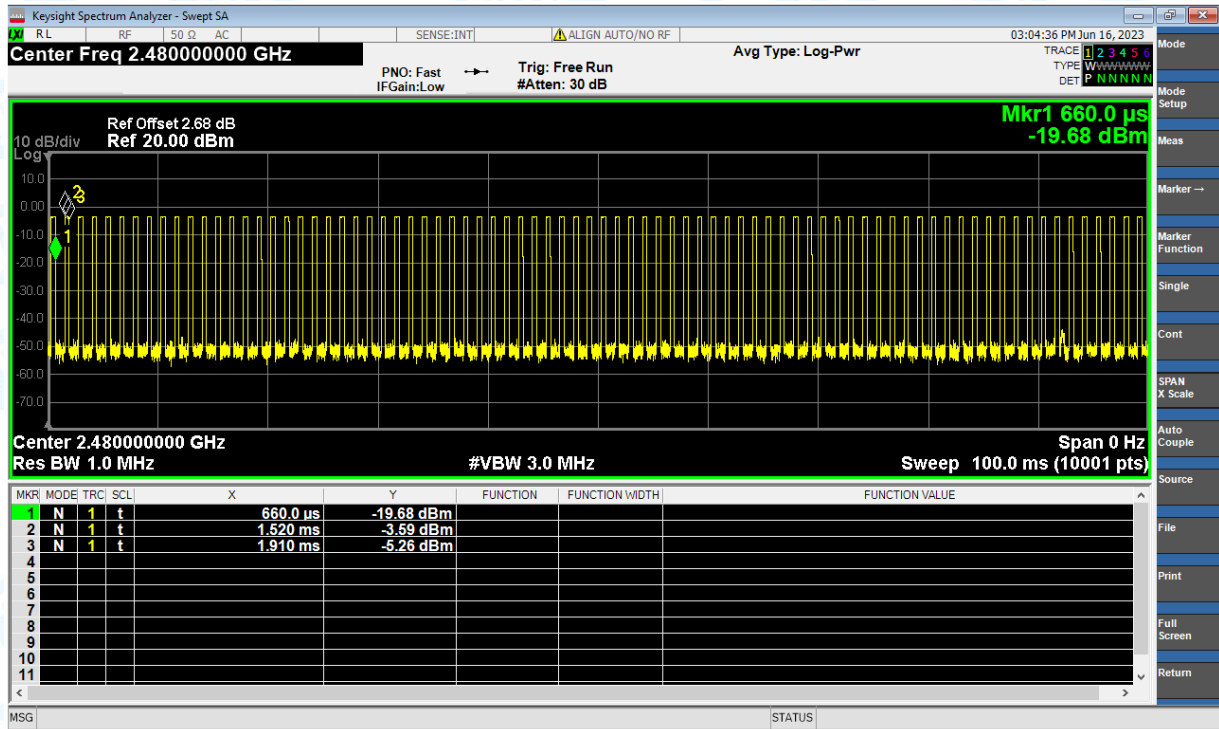
Duty Cycle NVNT 1-DH1 2402MHz Ant1



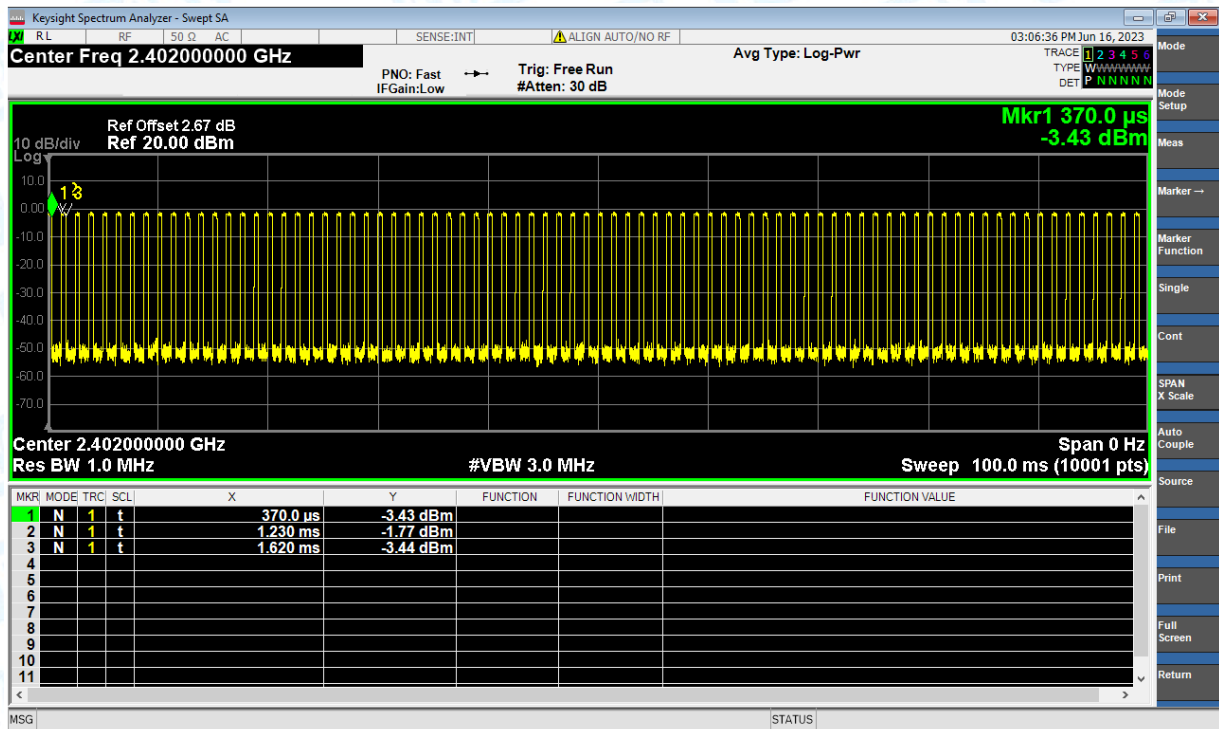
Duty Cycle NVNT 1-DH1 2441MHz Ant1



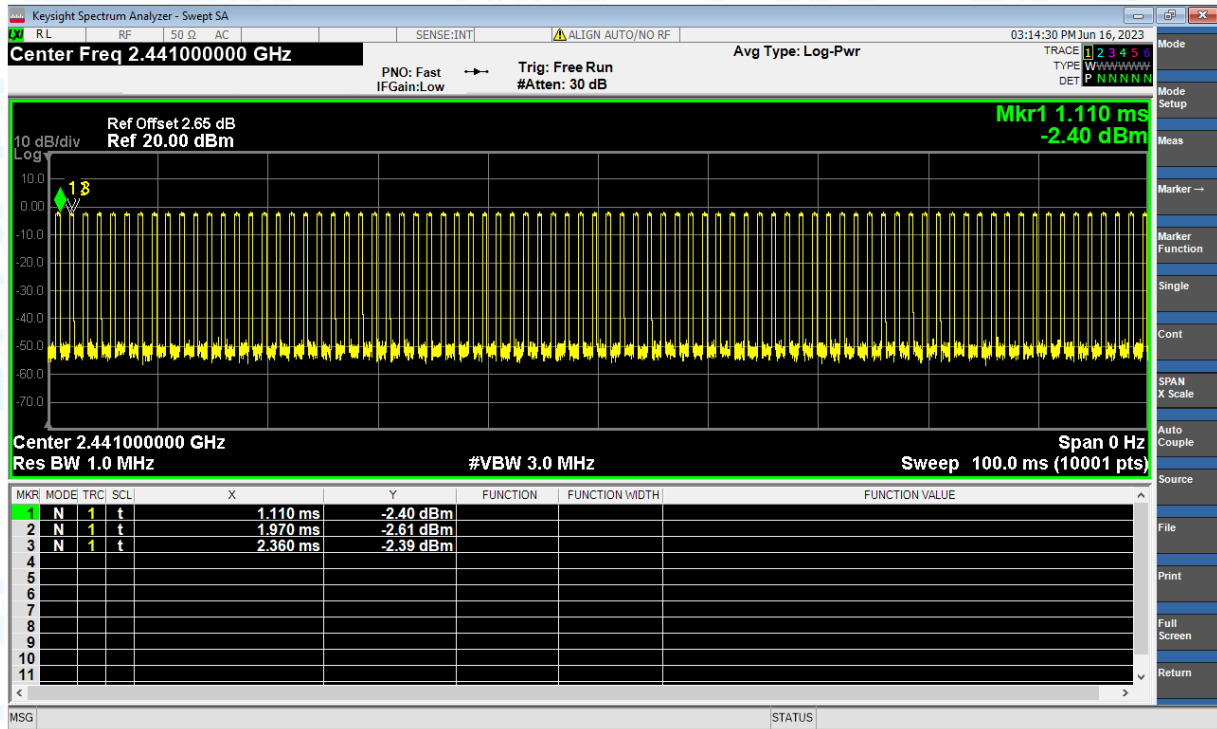
Duty Cycle NVNT 1-DH1 2480MHz Ant1



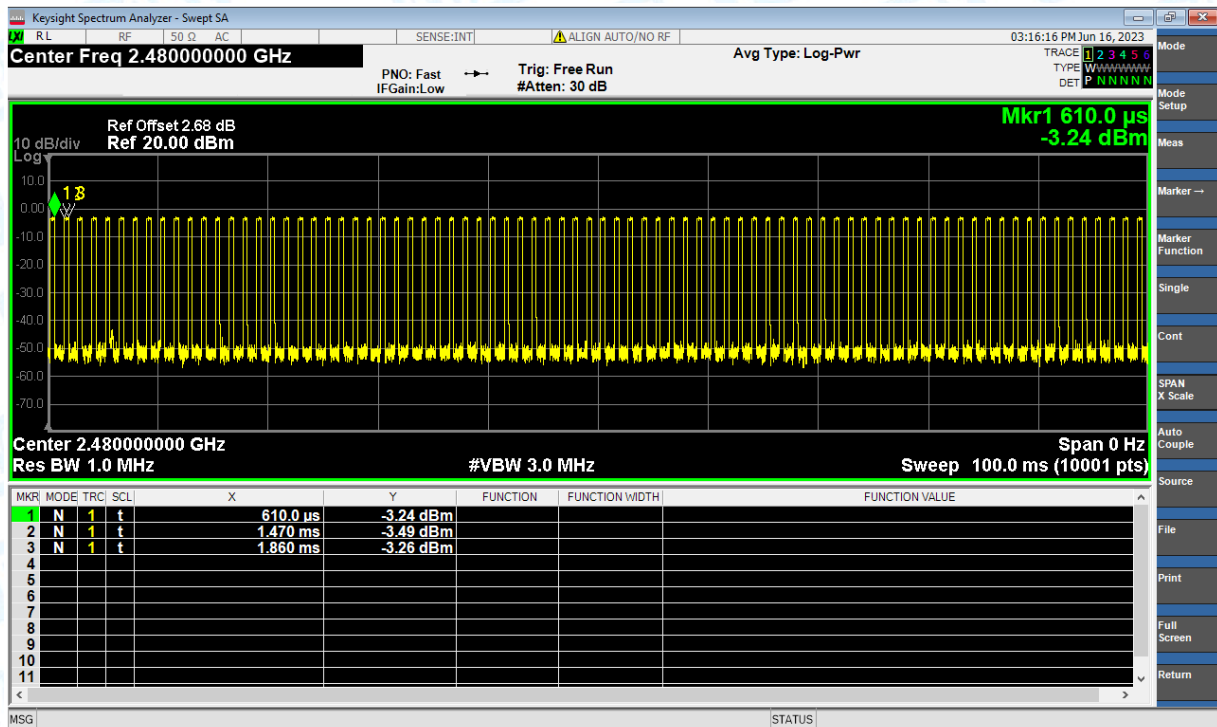
Duty Cycle NVNT 2-DH1 2402MHz Ant1



Duty Cycle NVNT 2-DH1 2441MHz Ant1



Duty Cycle NVNT 2-DH1 2480MHz Ant1



2. Maximum Conducted Output Power

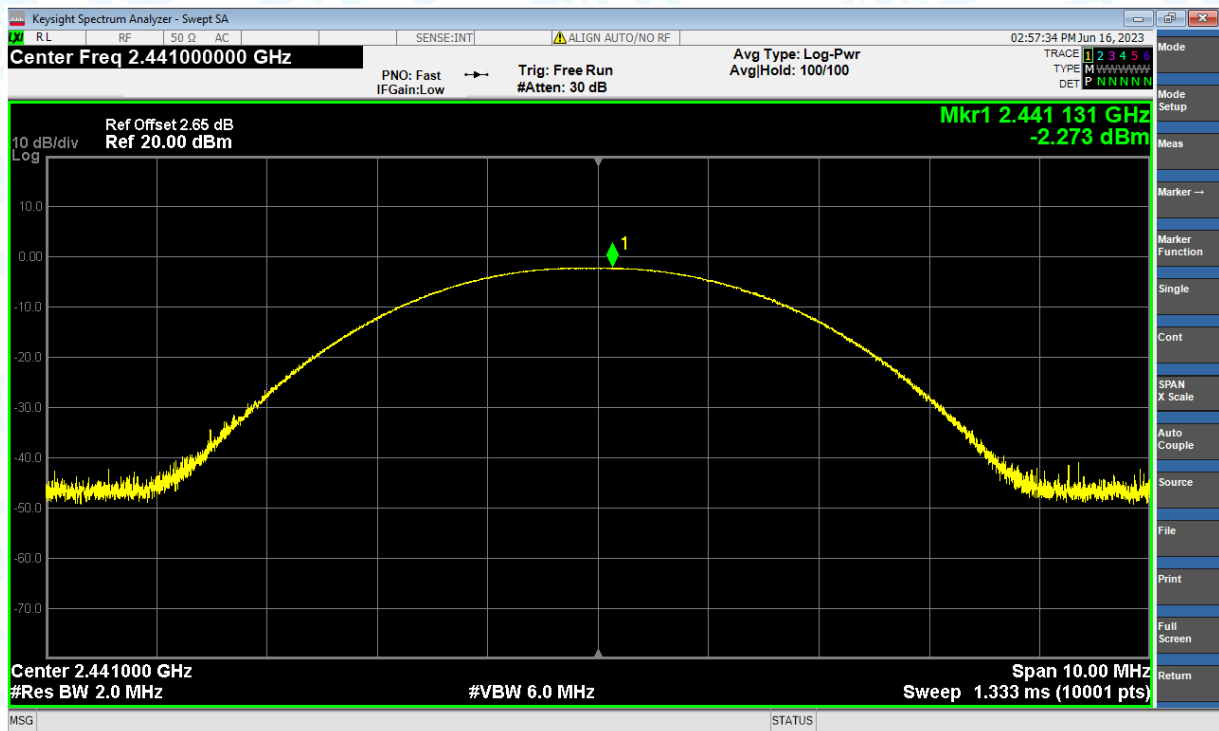
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-1.528	21	Pass
NVNT	1-DH1	2441	Ant1	-2.273	21	Pass
NVNT	1-DH1	2480	Ant1	-3.291	21	Pass
NVNT	2-DH1	2402	Ant1	-0.691	21	Pass
NVNT	2-DH1	2441	Ant1	-1.413	21	Pass
NVNT	2-DH1	2480	Ant1	-2.316	21	Pass

Test Graphs

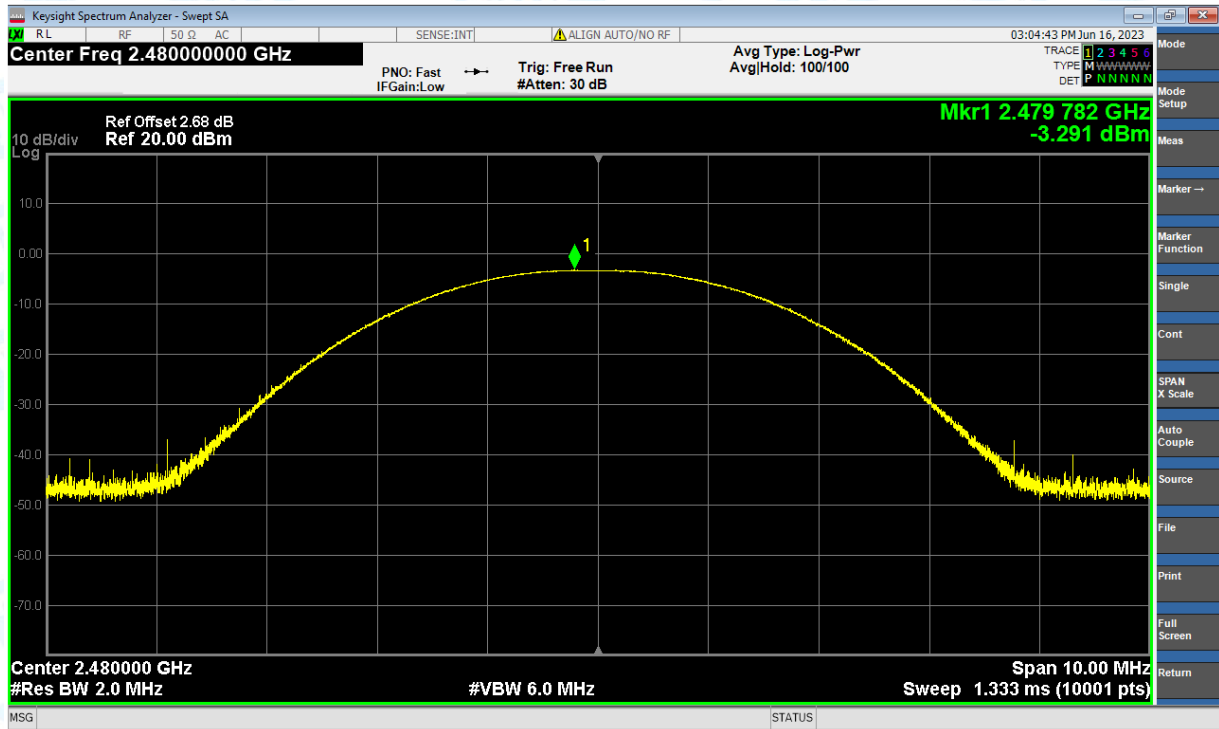
Power NVNT 1-DH1 2402MHz Ant1



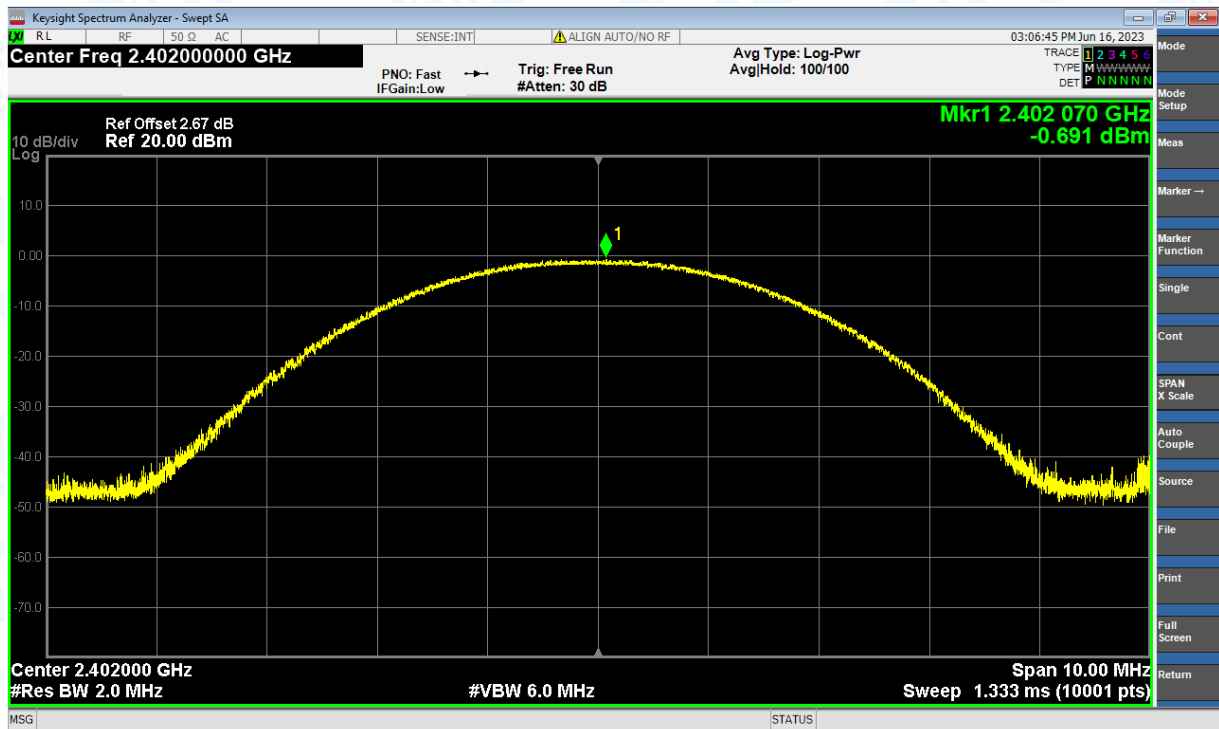
Power NVNT 1-DH1 2441MHz Ant1



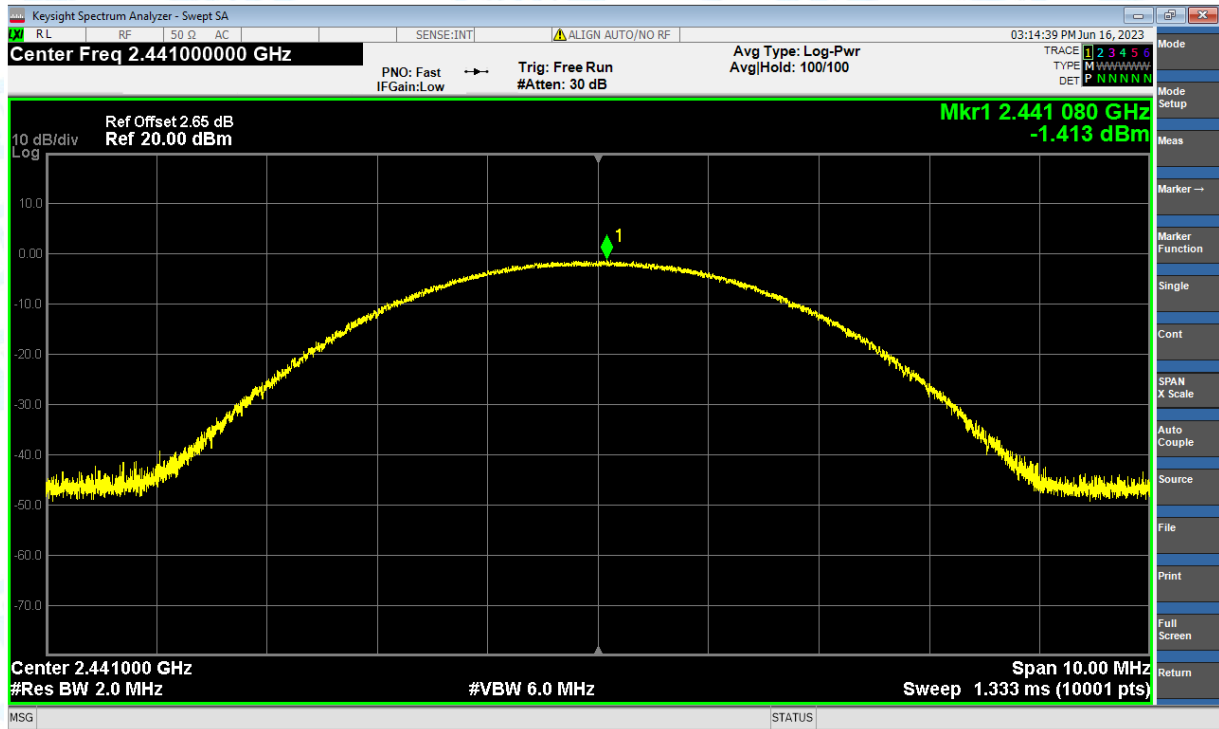
Power NVNT 1-DH1 2480MHz Ant1



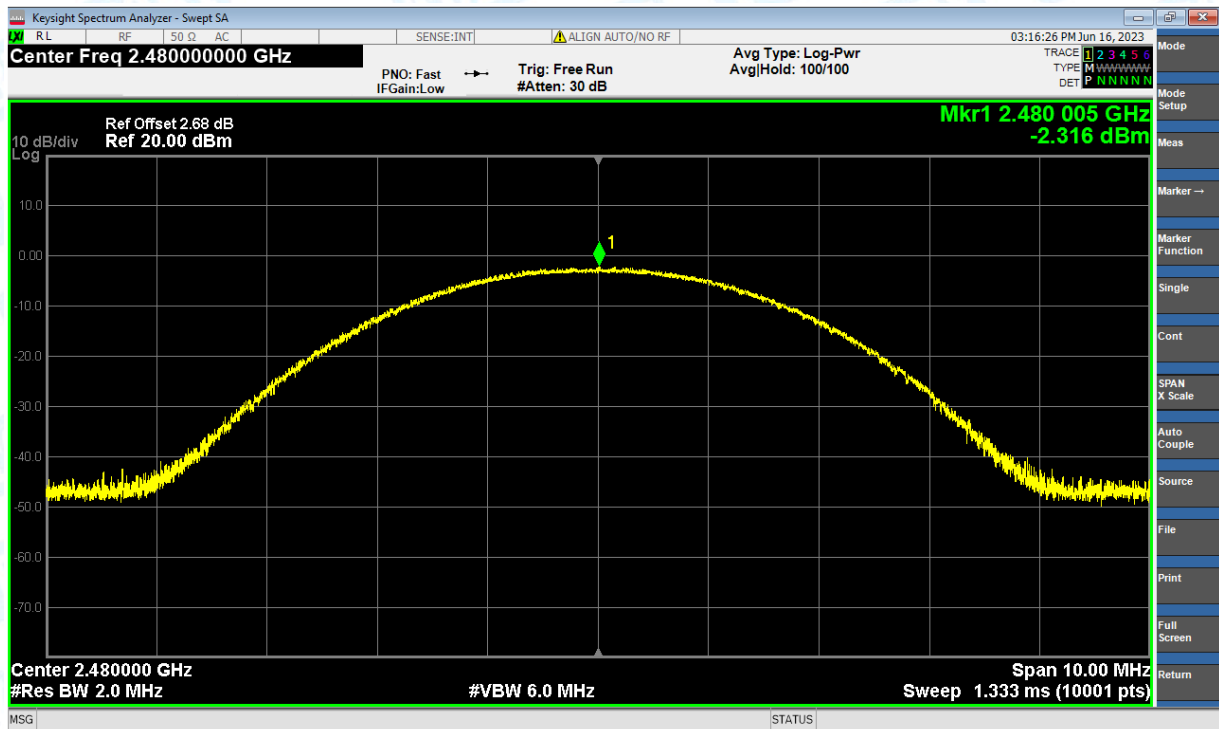
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1

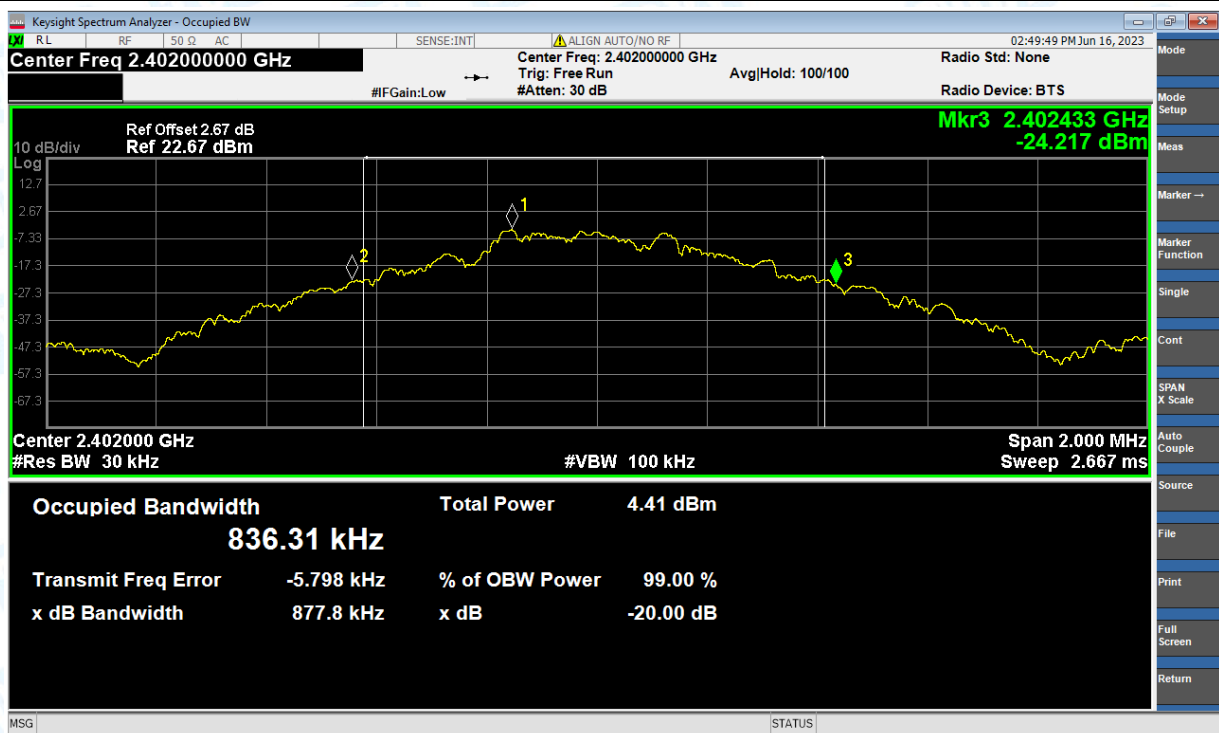


3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.88	----	Pass
NVNT	1-DH1	2441	Ant1	0.88	----	Pass
NVNT	1-DH1	2480	Ant1	0.88	----	Pass
NVNT	2-DH1	2402	Ant1	1.24	----	Pass
NVNT	2-DH1	2441	Ant1	1.23	----	Pass
NVNT	2-DH1	2480	Ant1	1.25	----	Pass

Test Graphs

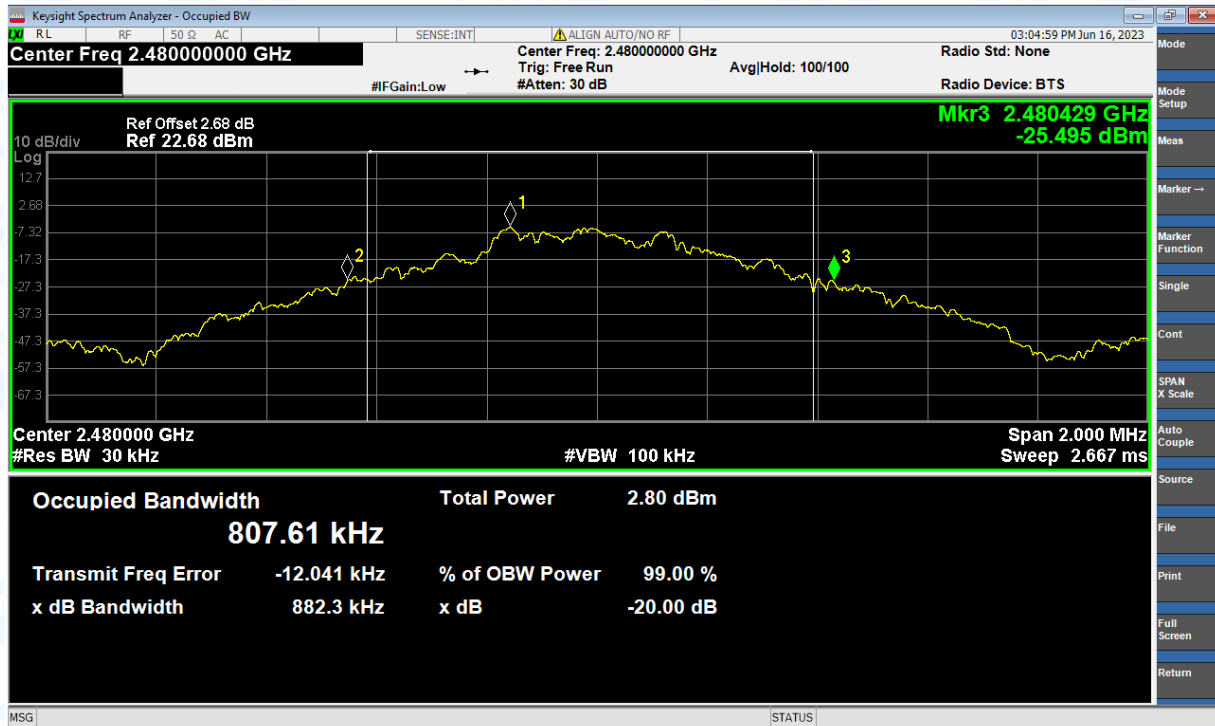
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



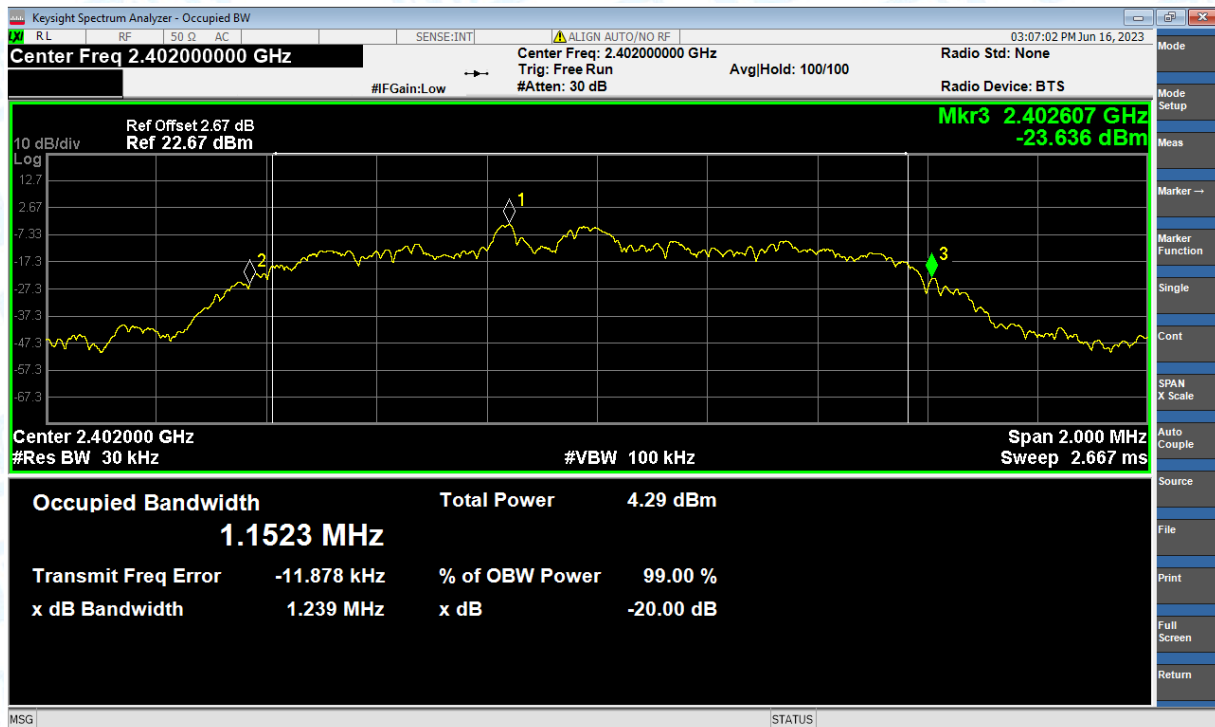
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



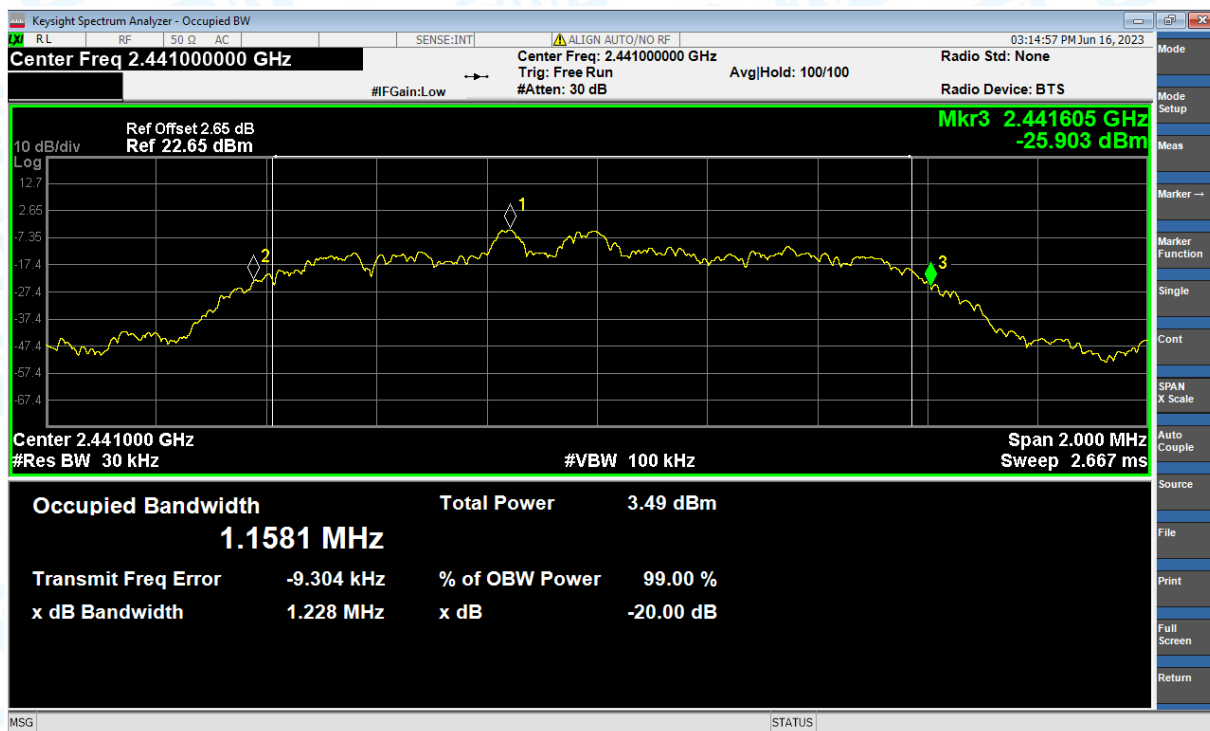
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



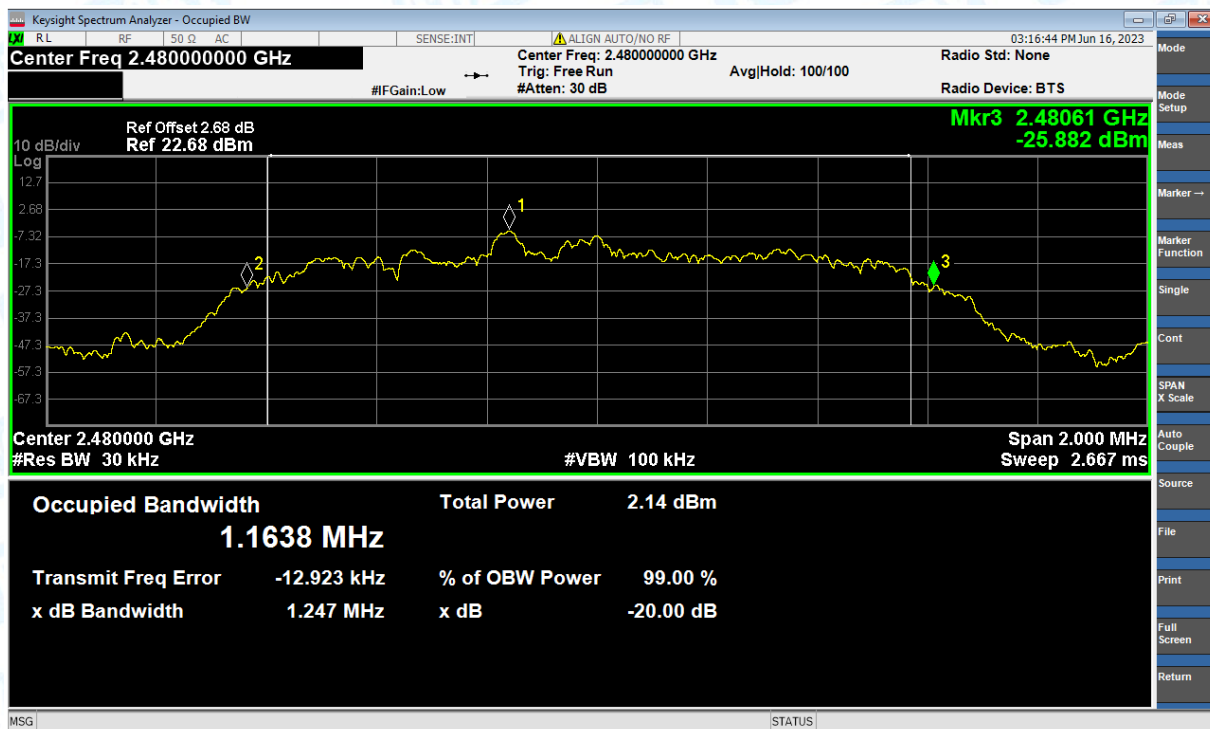
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

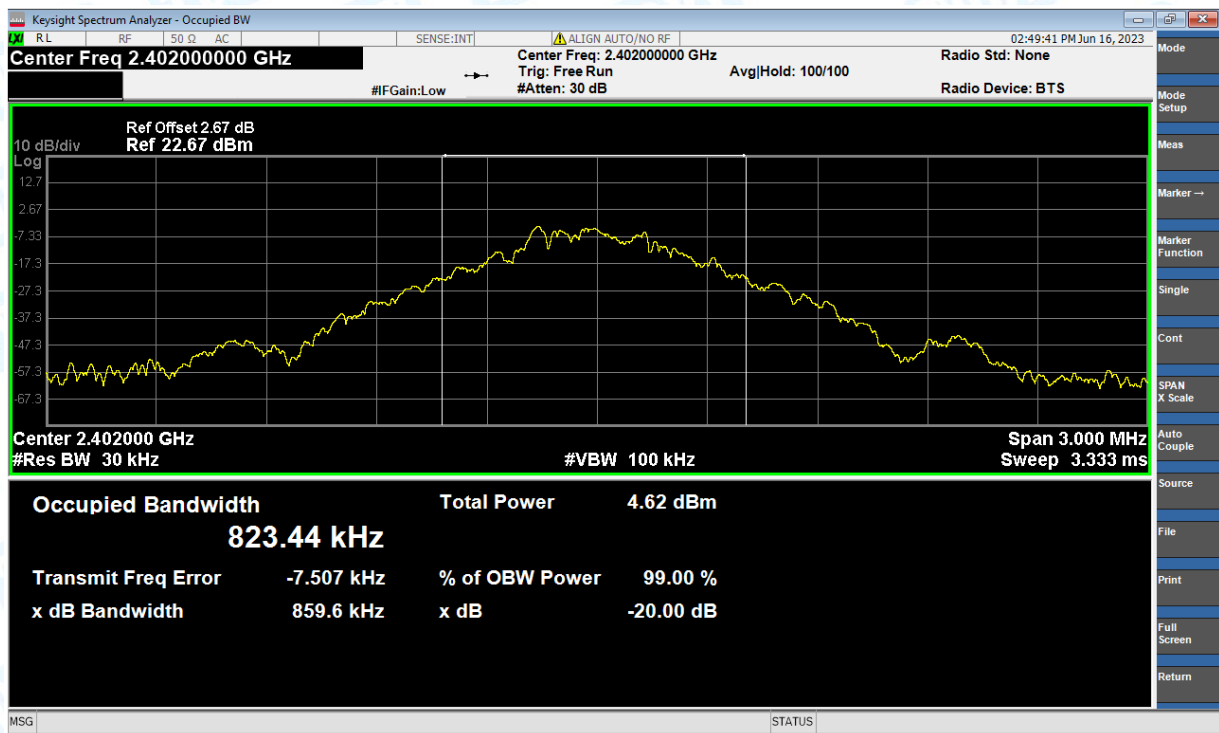


4. Occupied Channel Bandwidth

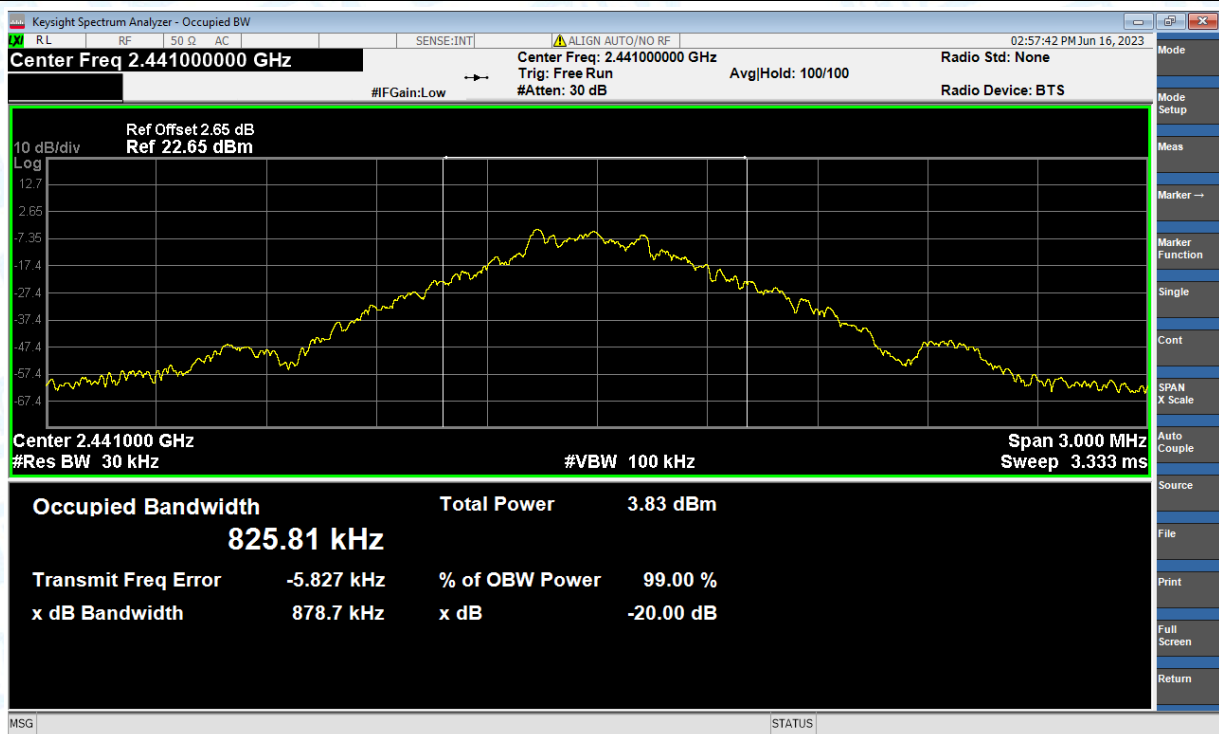
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.823
NVNT	1-DH1	2441	Ant1	0.826
NVNT	1-DH1	2480	Ant1	0.810
NVNT	2-DH1	2402	Ant1	1.157
NVNT	2-DH1	2441	Ant1	1.156
NVNT	2-DH1	2480	Ant1	1.154

Test Graphs

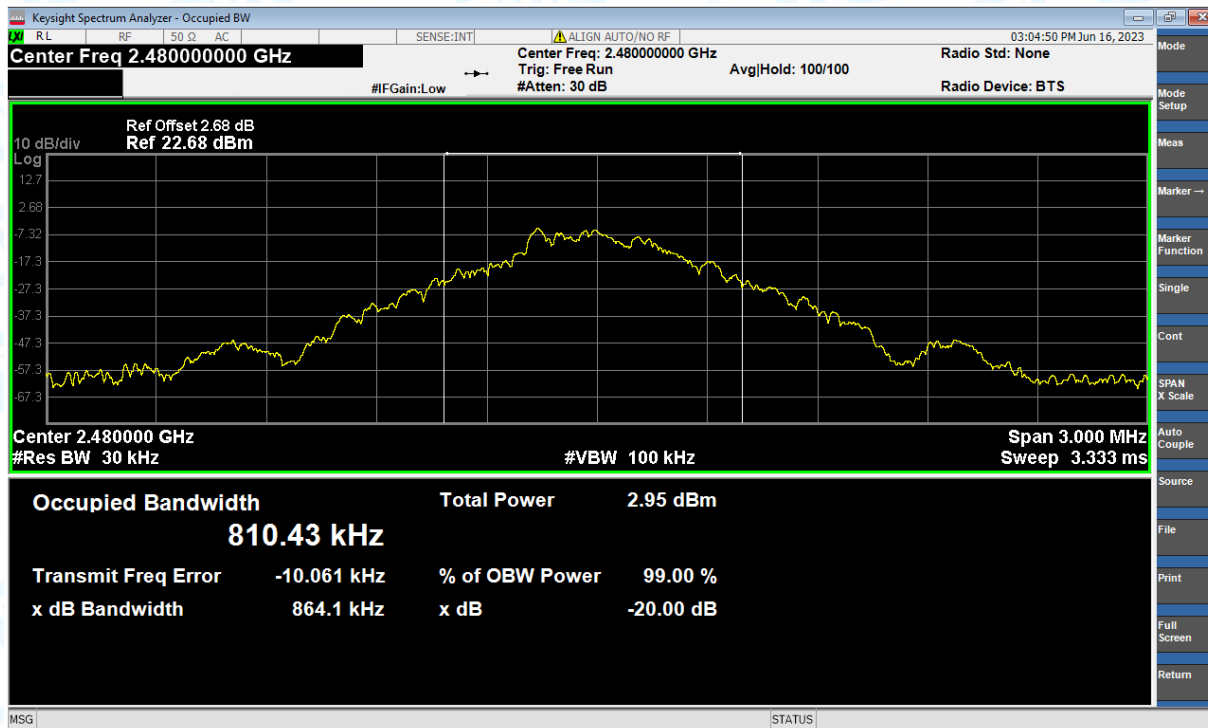
OBW NVNT 1-DH1 2402MHz Ant1



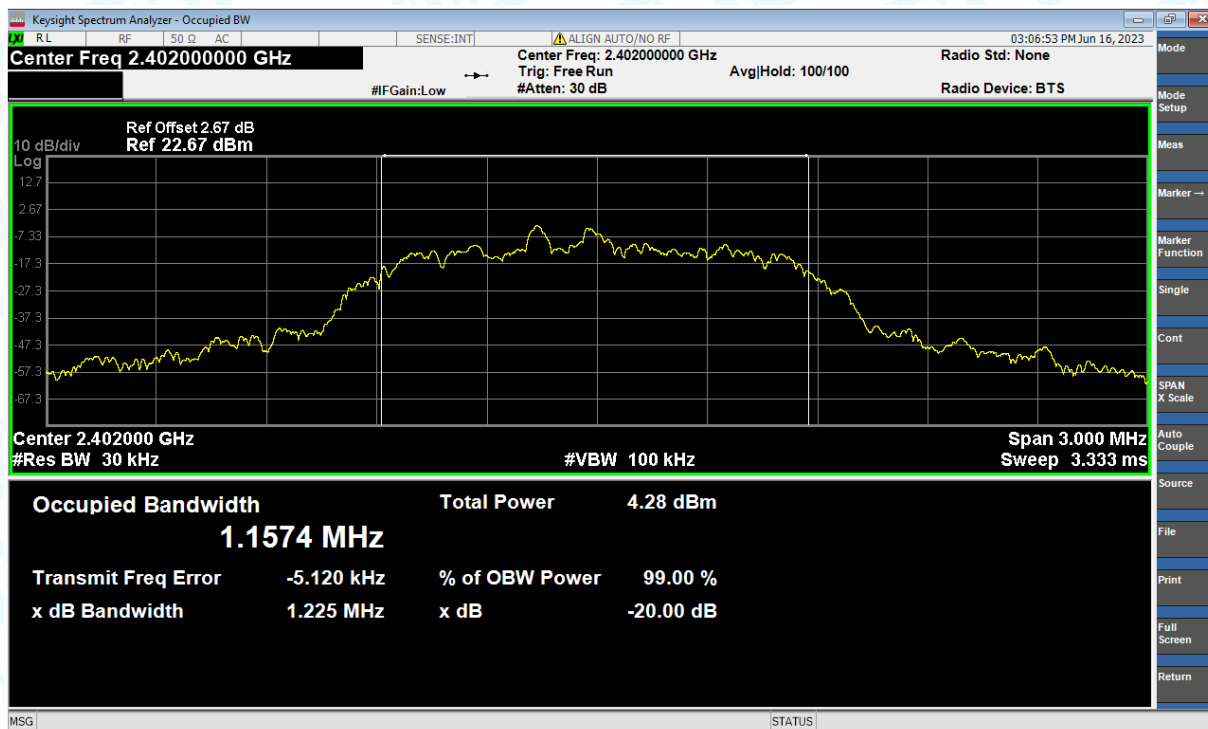
OBW NVNT 1-DH1 2441MHz Ant1



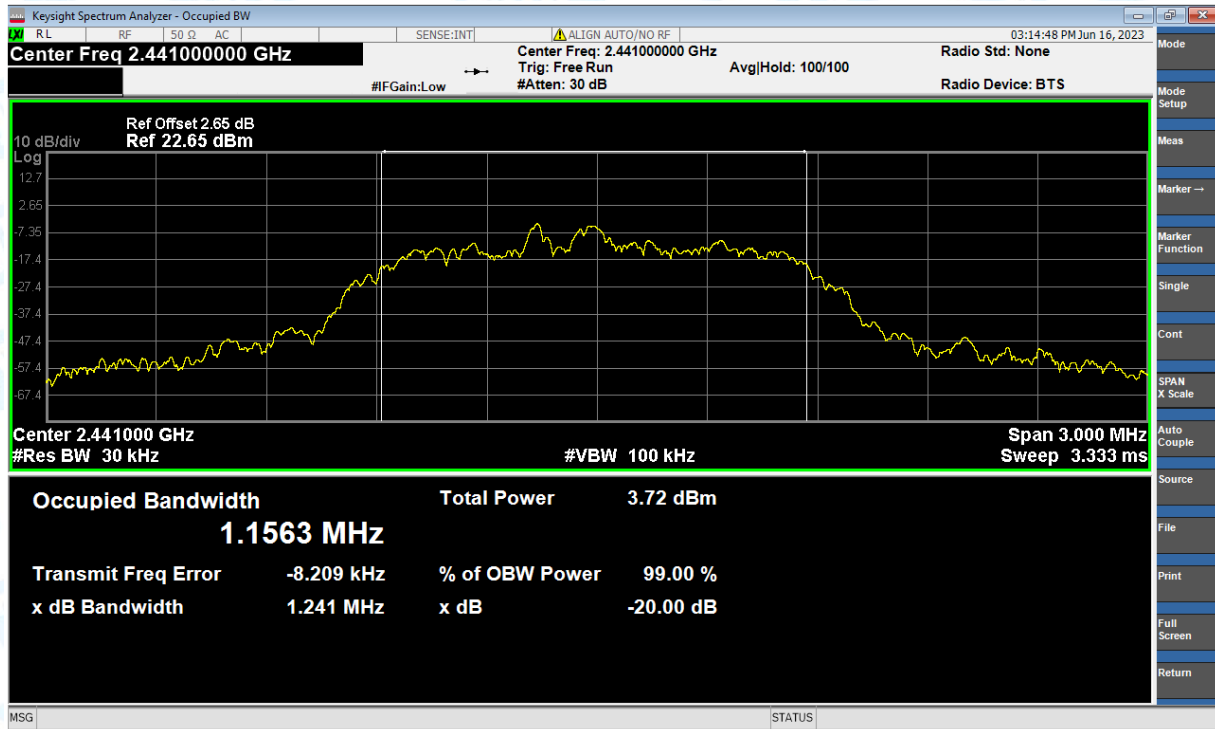
OBW NVNT 1-DH1 2480MHz Ant1



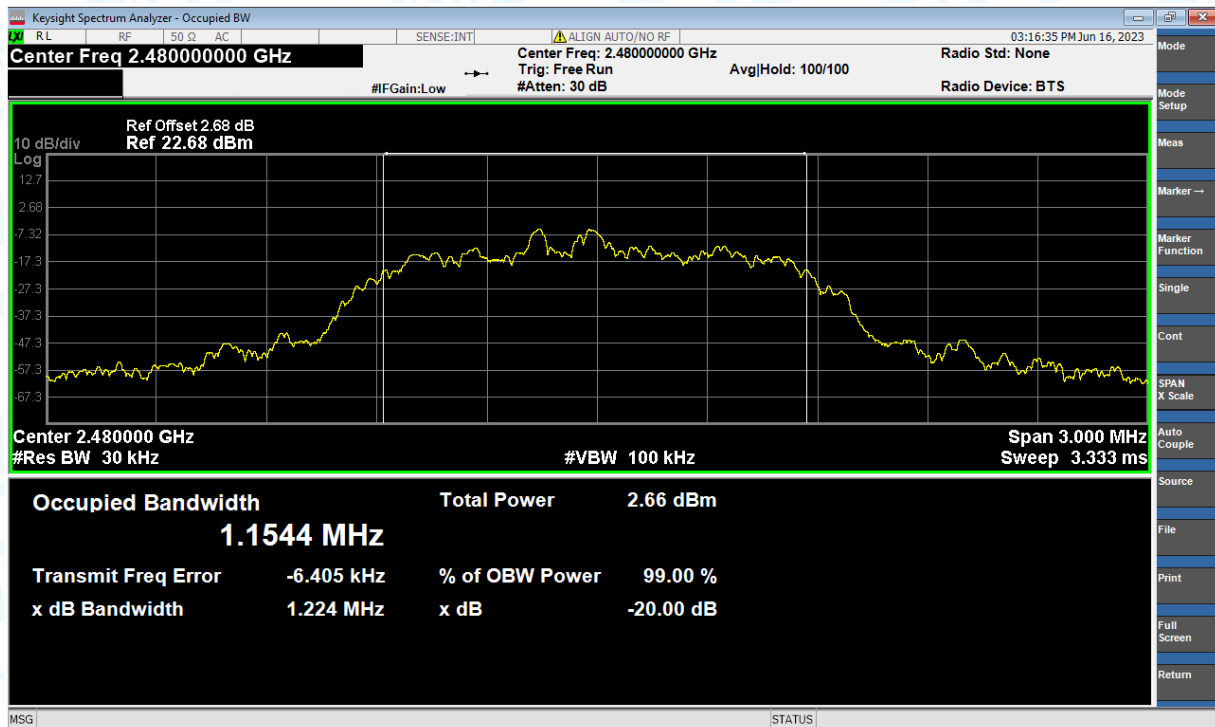
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



OBW NVNT 2-DH1 2480MHz Ant1

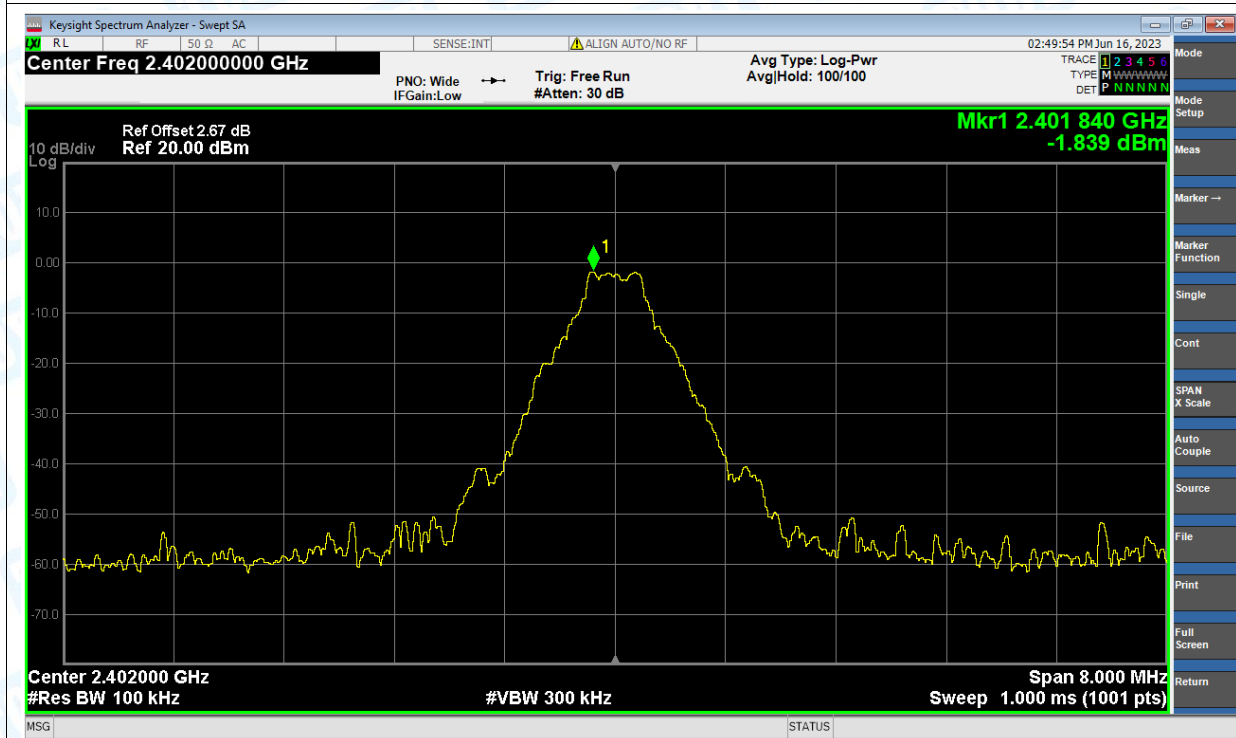


5. Band Edge

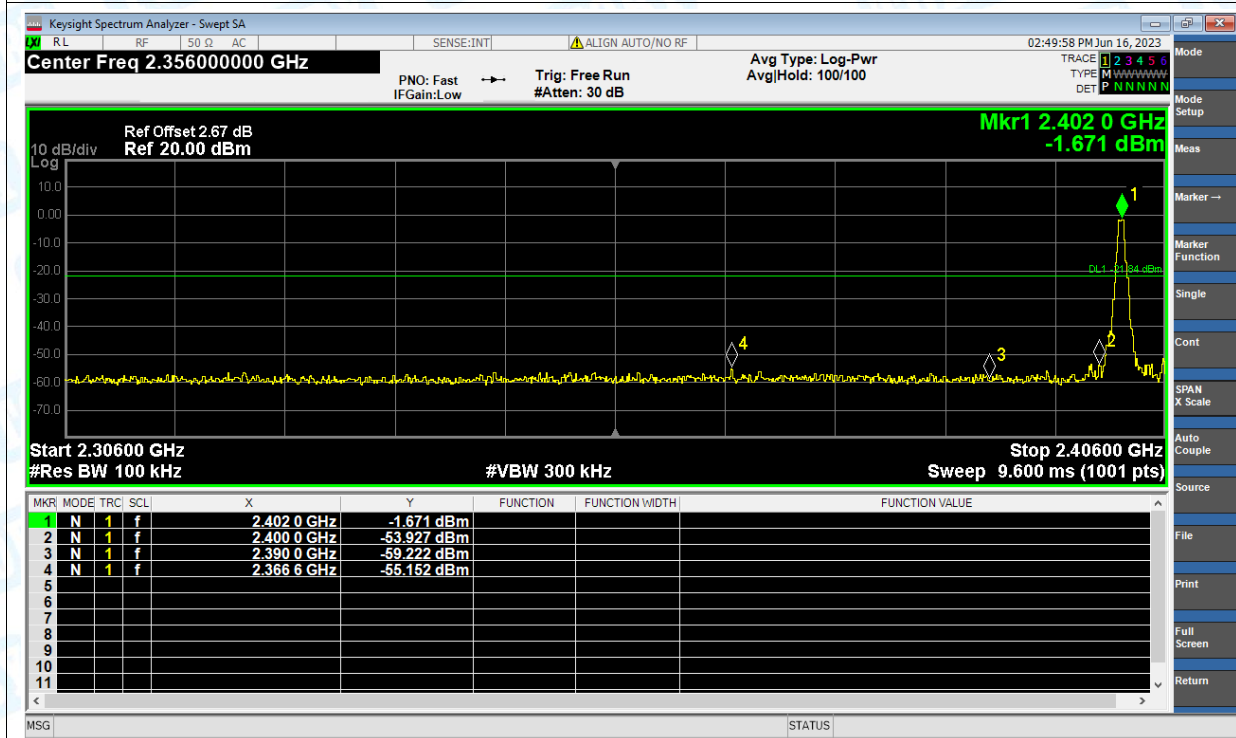
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.31	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.26	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-52.17	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-51.70	-20	Pass

Test Graphs

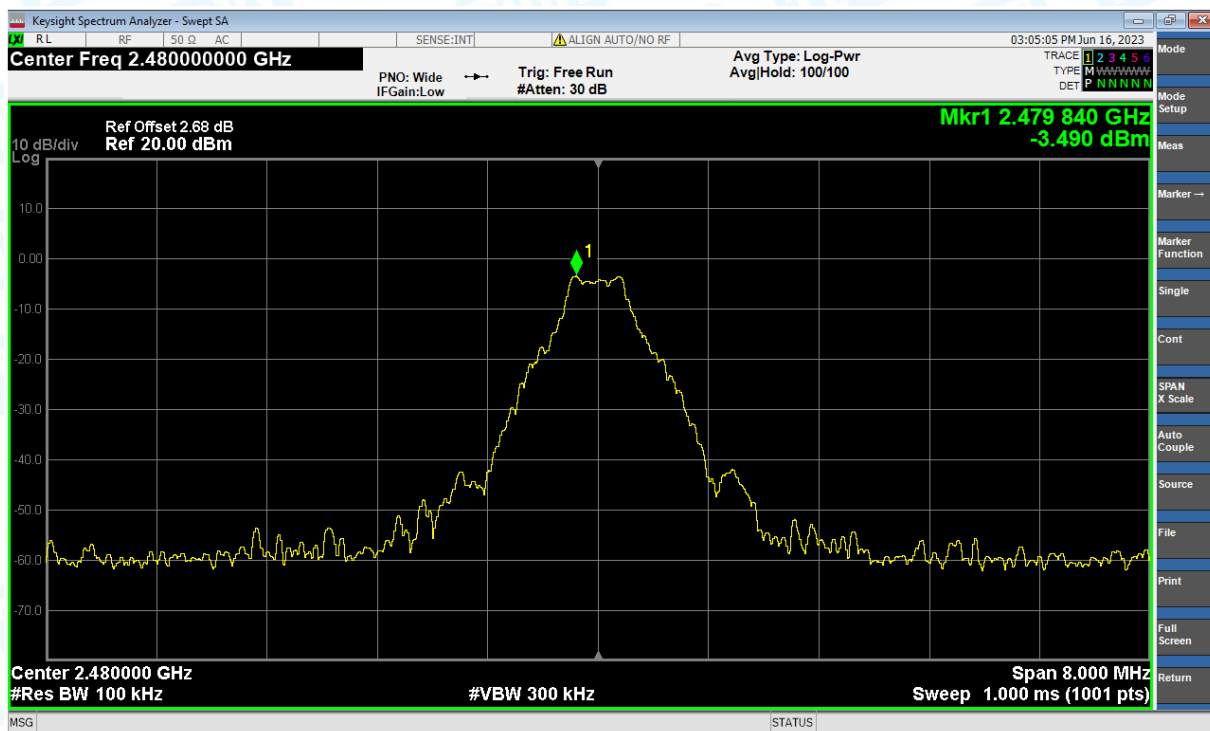
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



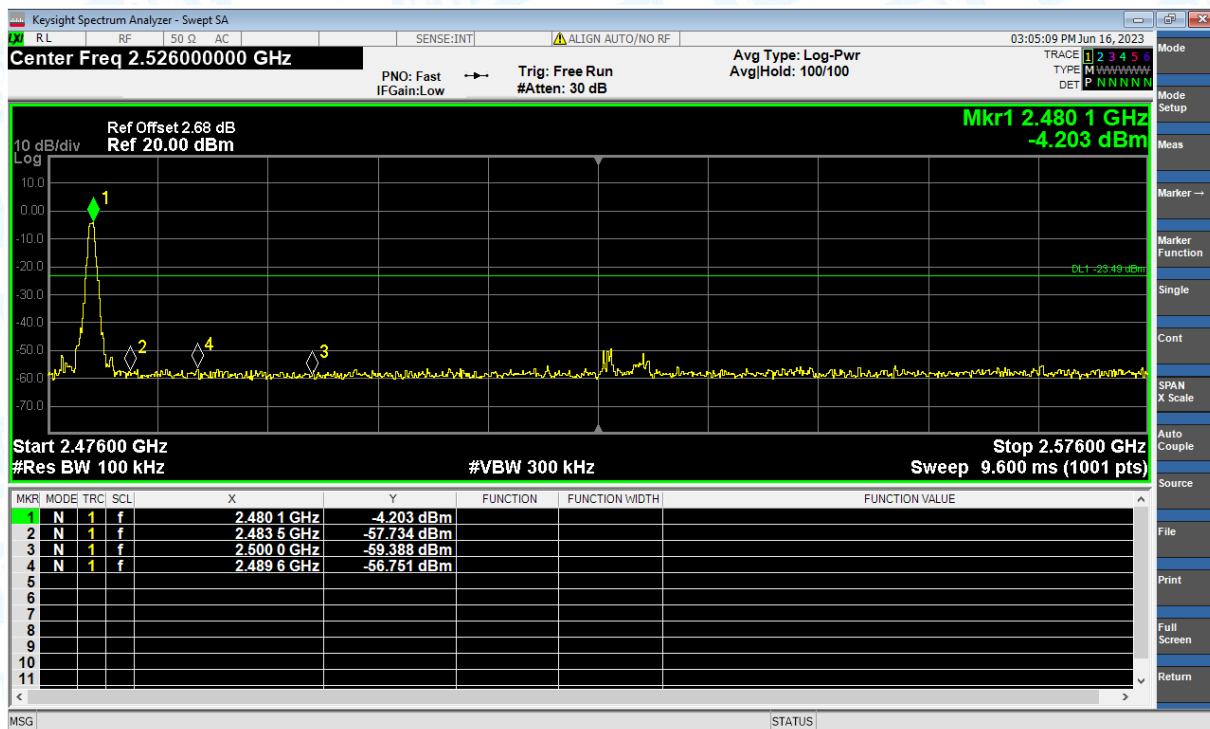
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



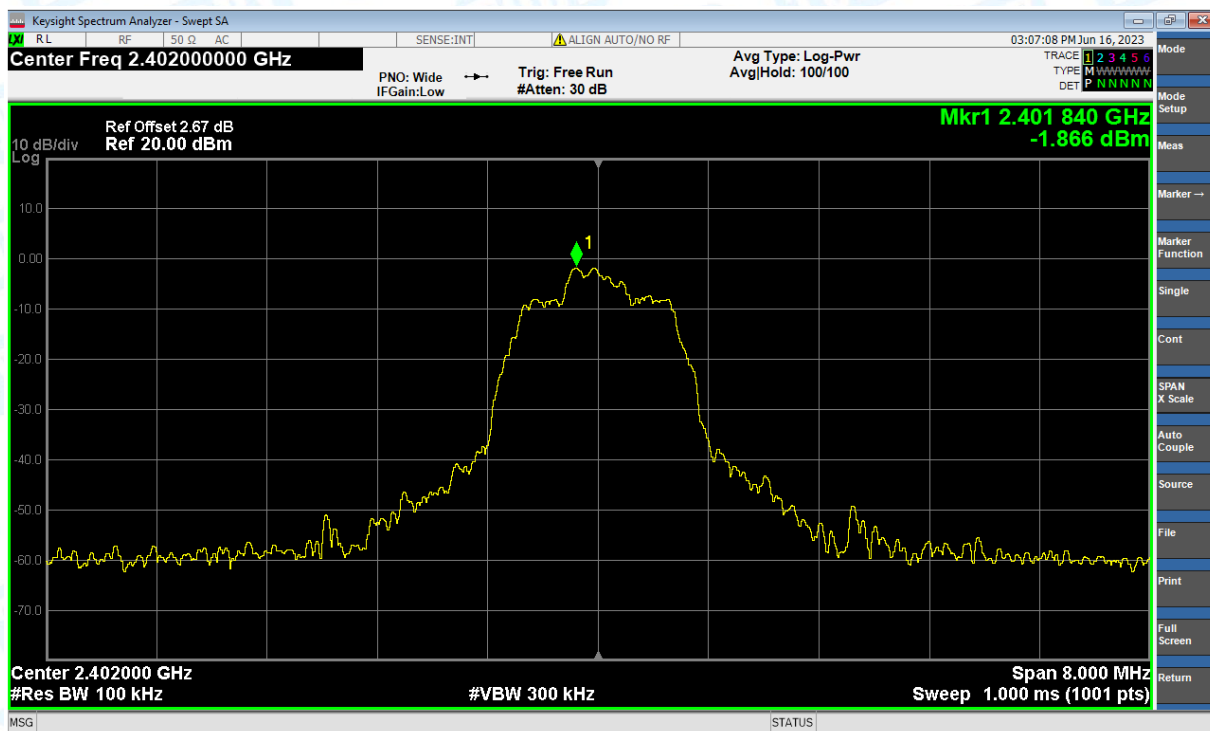
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



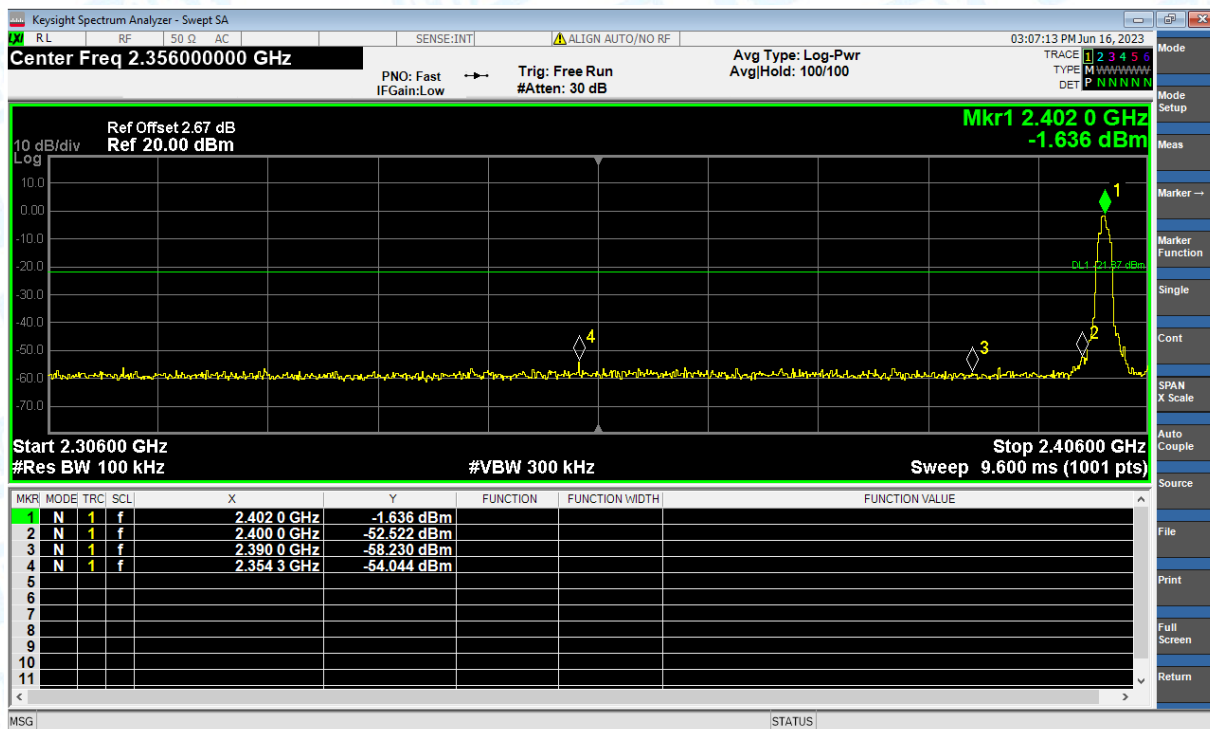
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



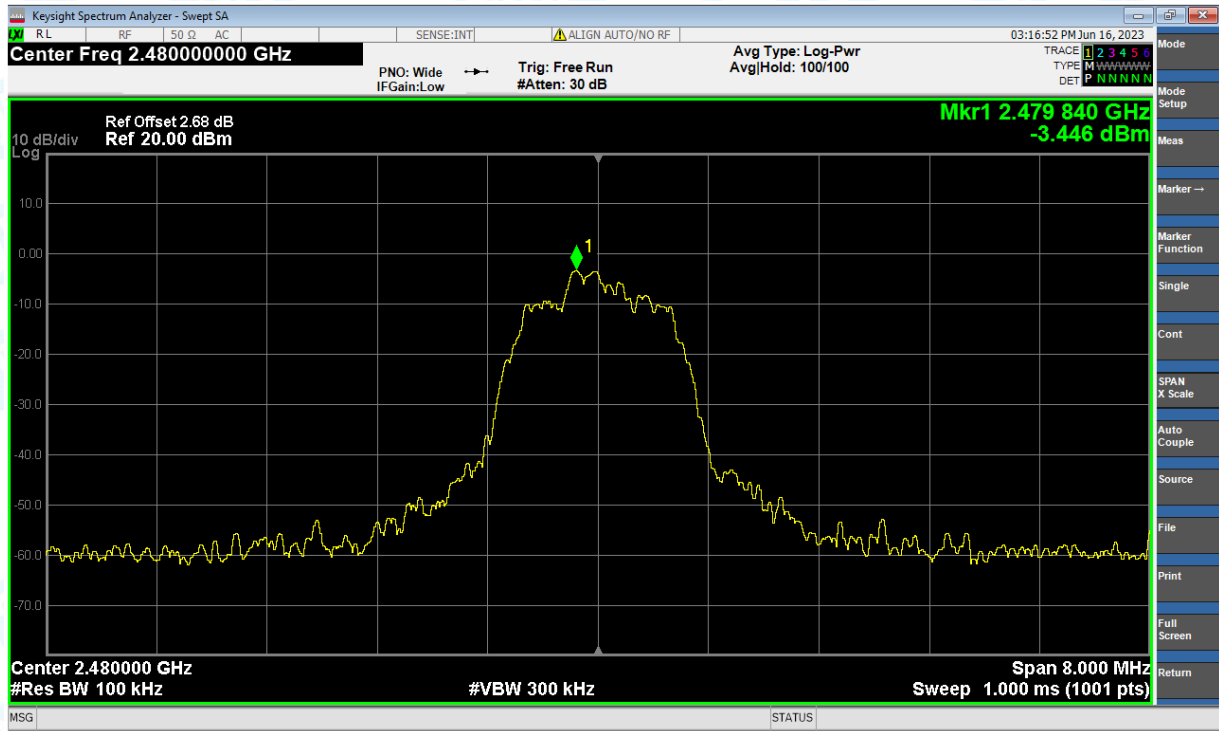
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



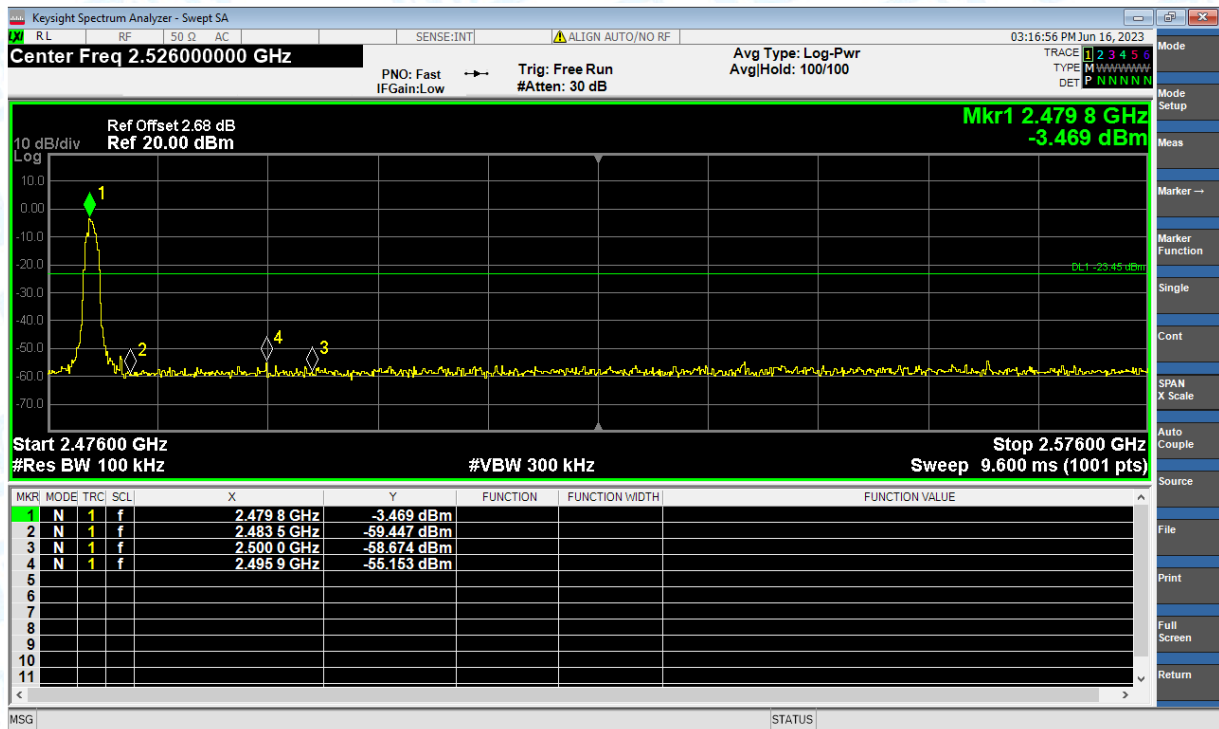
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



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

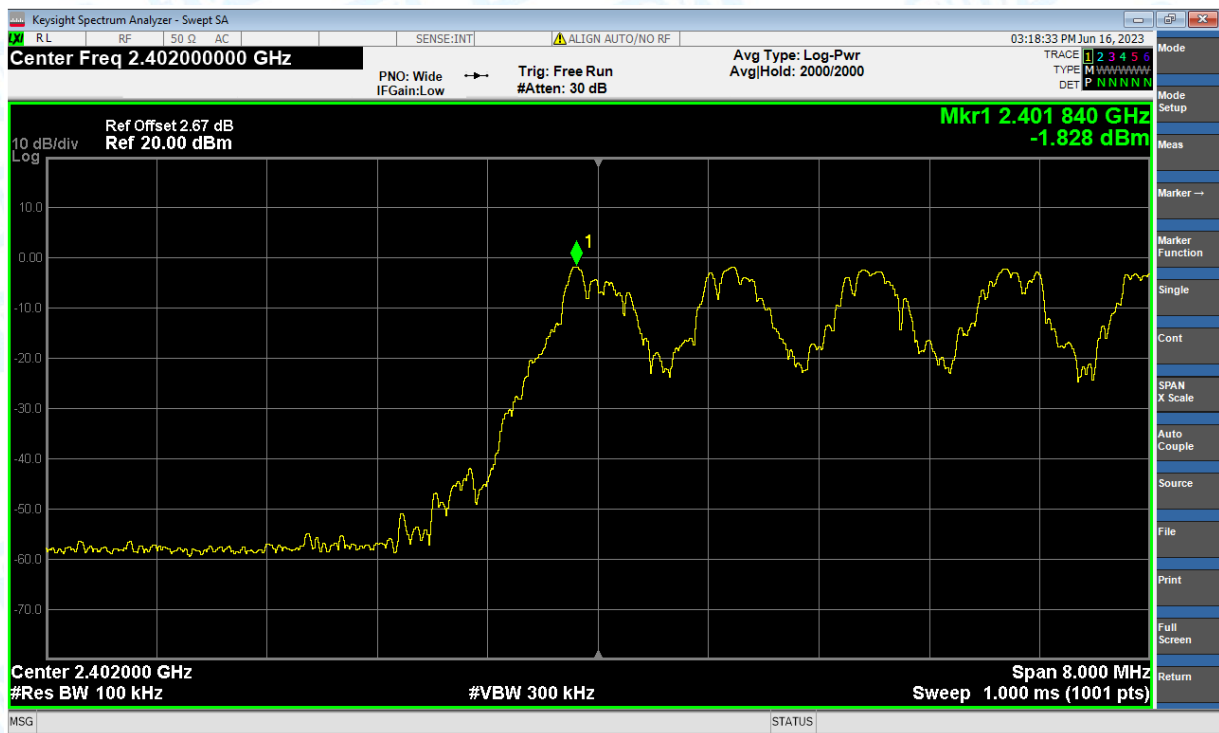


6. Band Edge(Hopping)

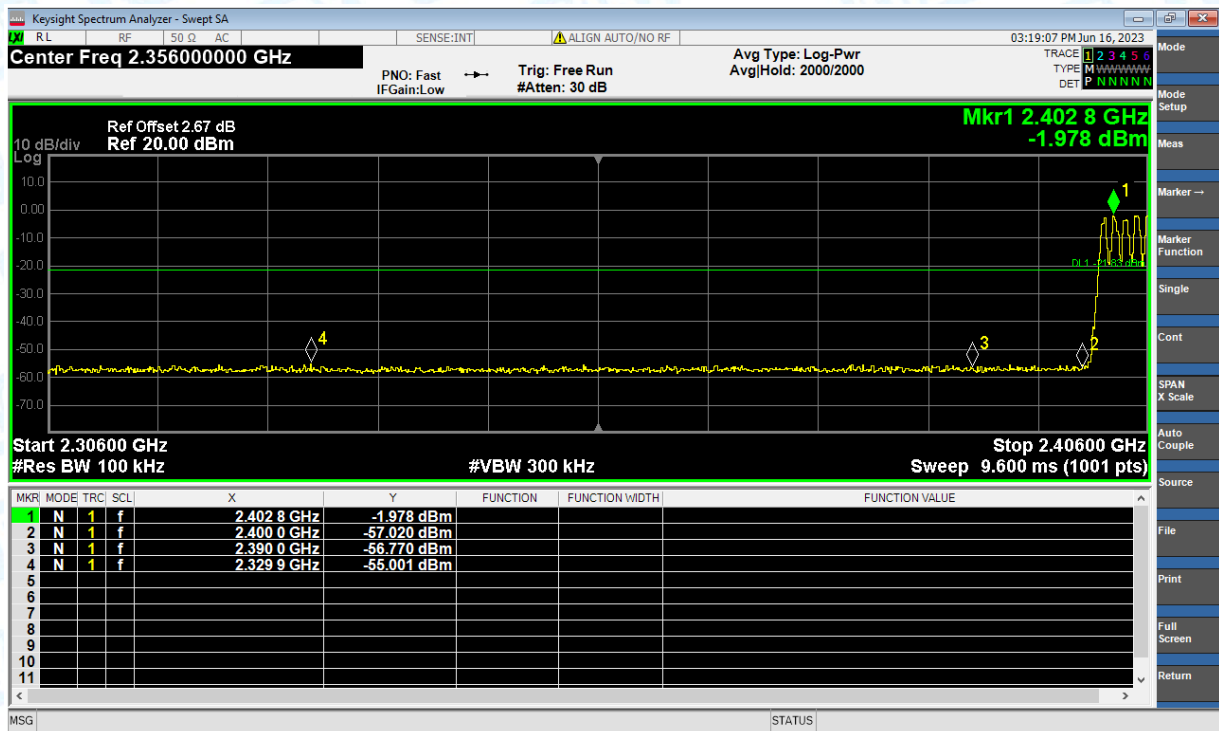
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.17	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-50.58	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-52.73	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-51.65	-20	Pass

Test Graphs

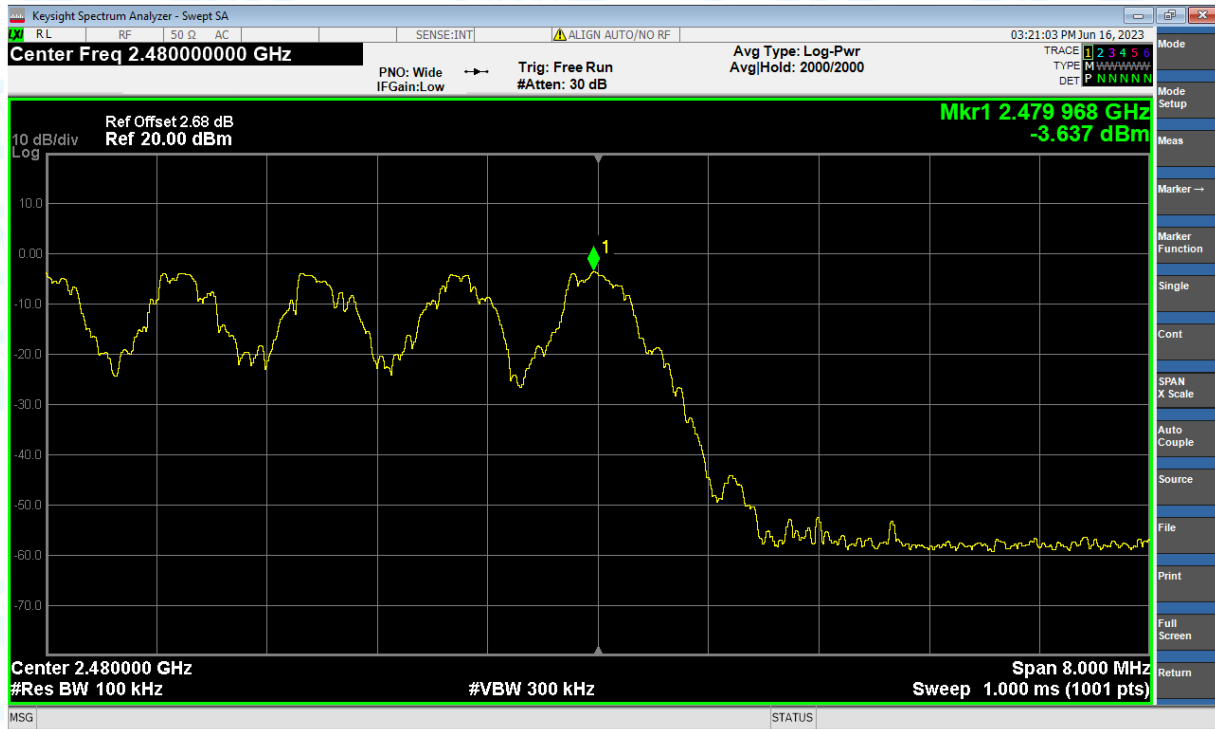
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



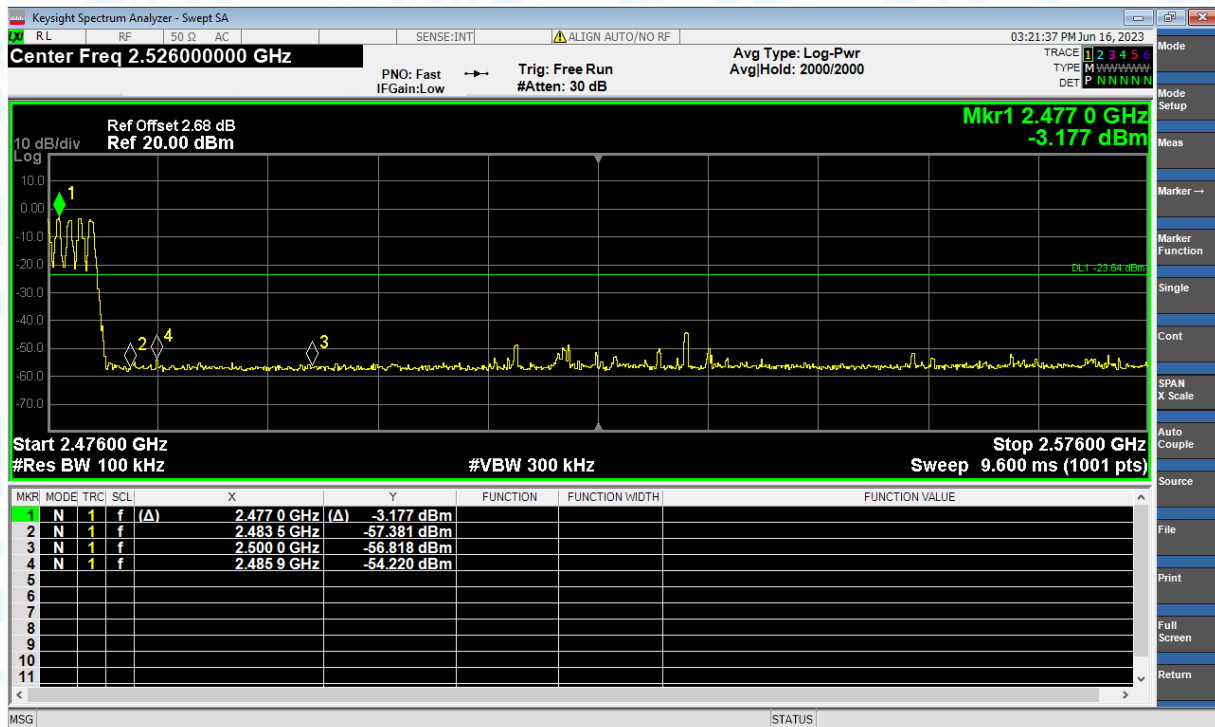
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



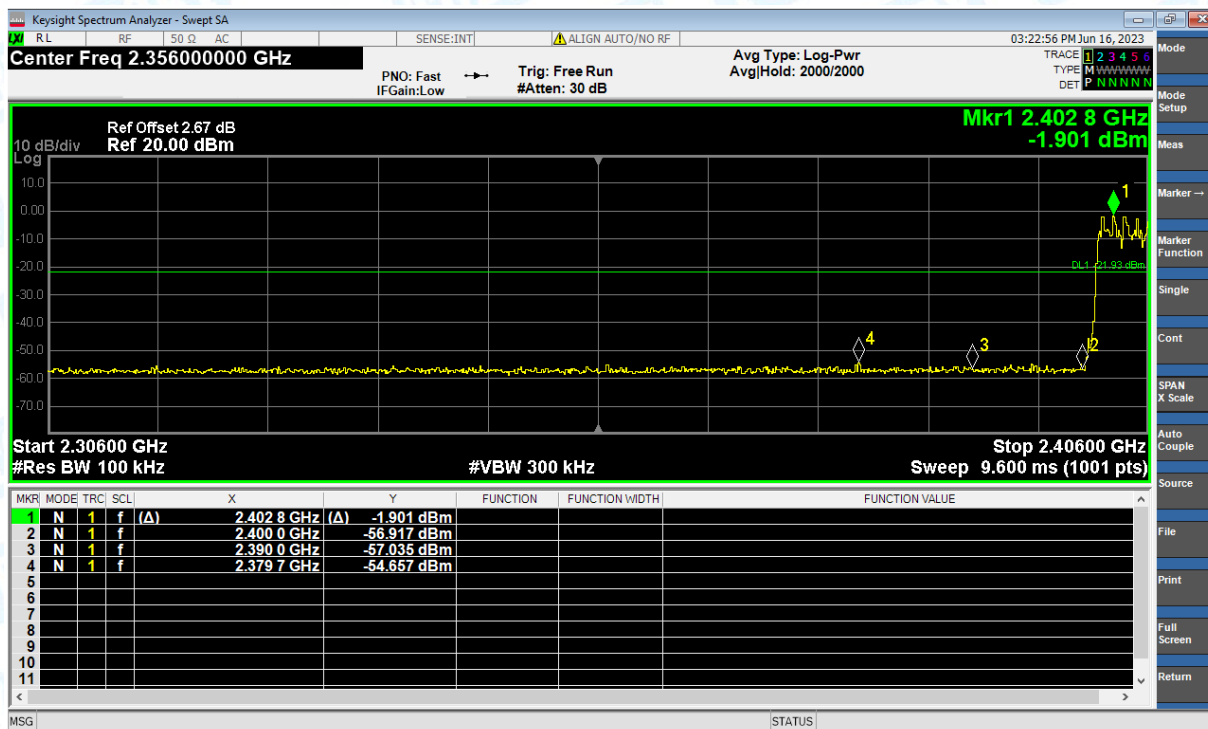
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



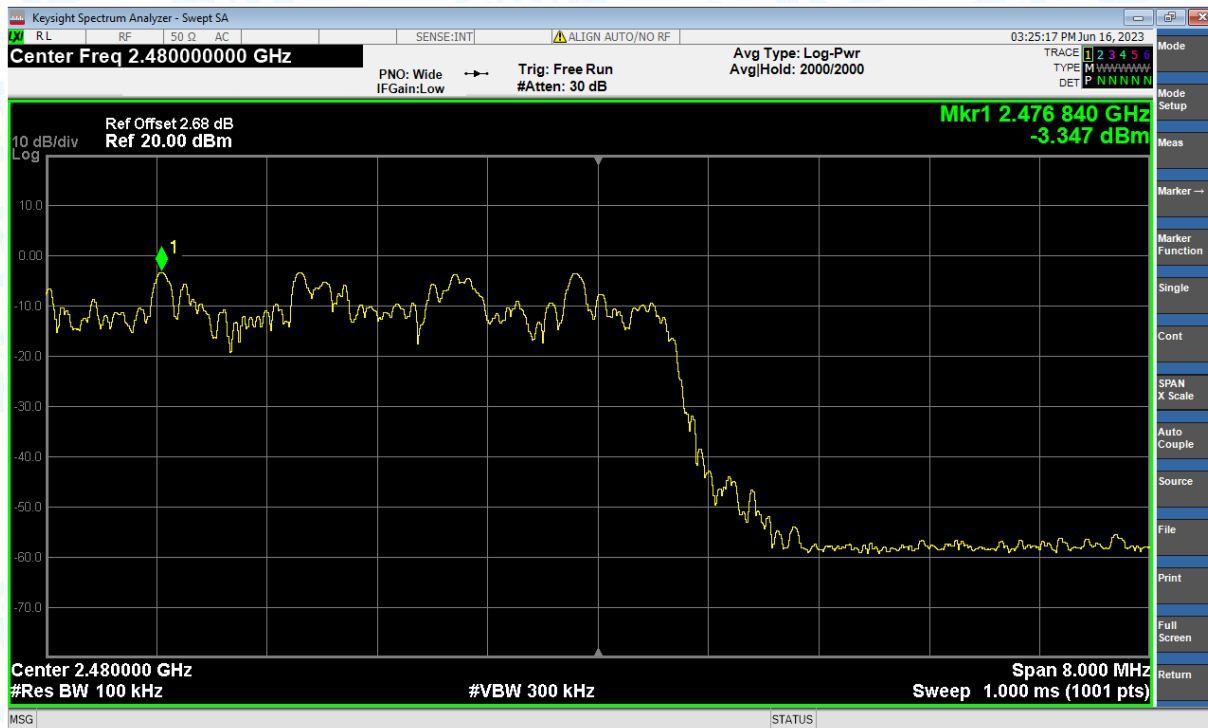
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



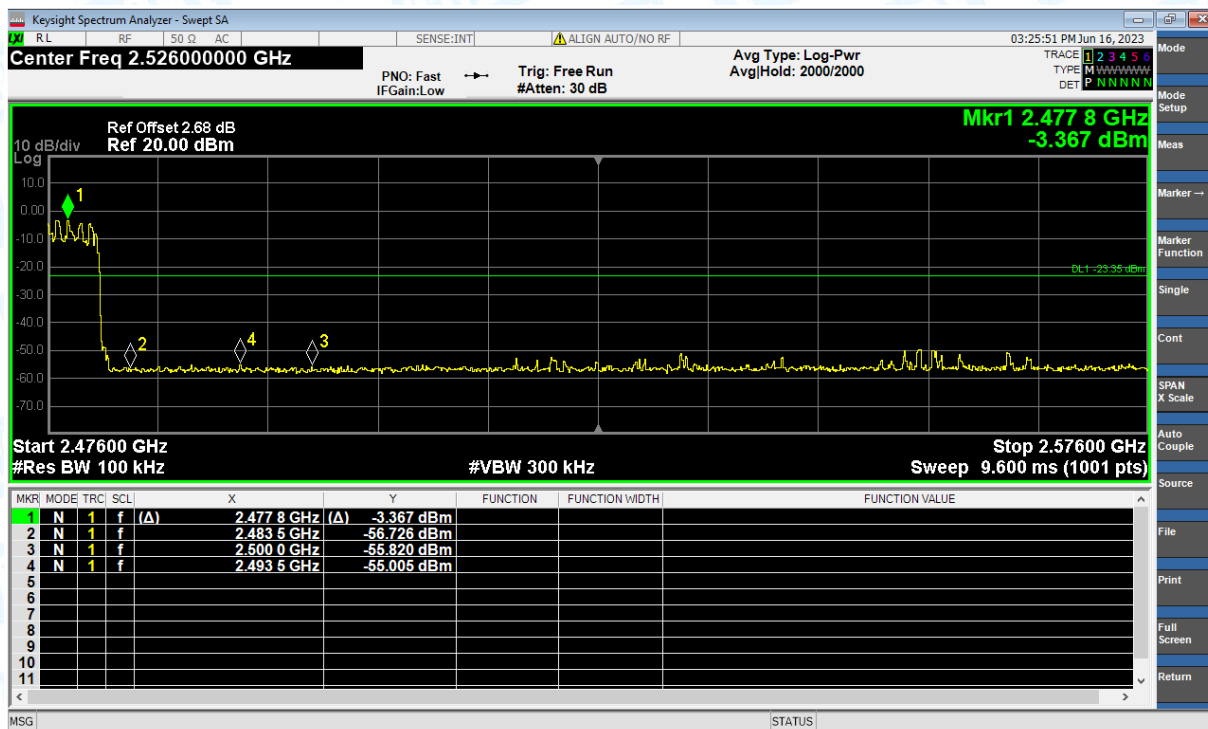
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



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

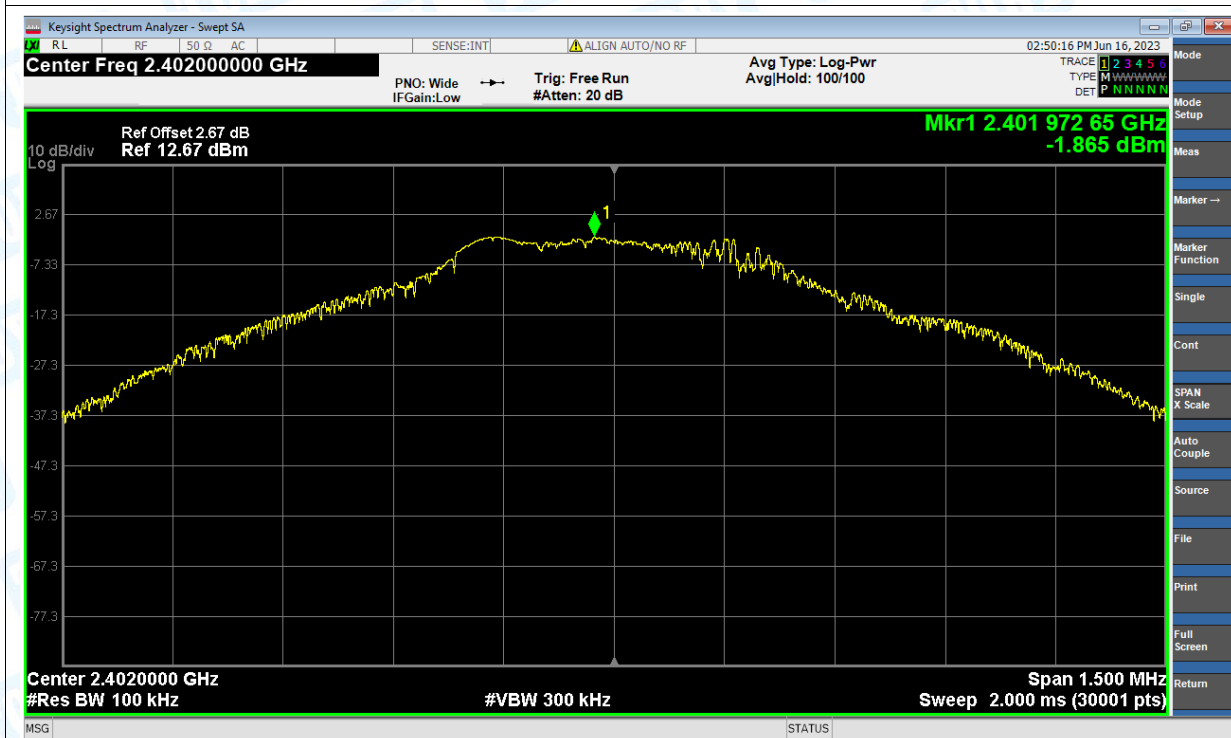


7. Conducted RF Spurious Emission

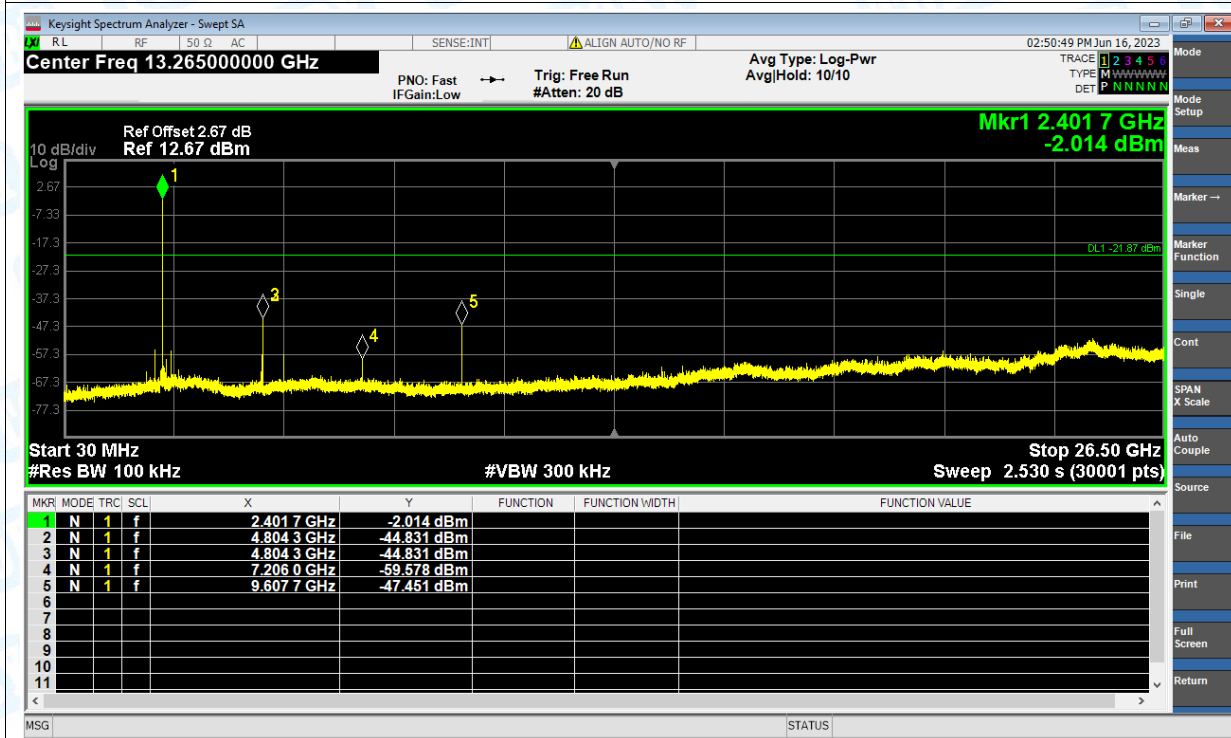
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-42.97	-20	Pass
NVNT	1-DH1	2441	Ant1	-41.00	-20	Pass
NVNT	1-DH1	2480	Ant1	-40.00	-20	Pass
NVNT	2-DH1	2402	Ant1	-42.87	-20	Pass
NVNT	2-DH1	2441	Ant1	-41.23	-20	Pass
NVNT	2-DH1	2480	Ant1	-40.16	-20	Pass

Test Graphs

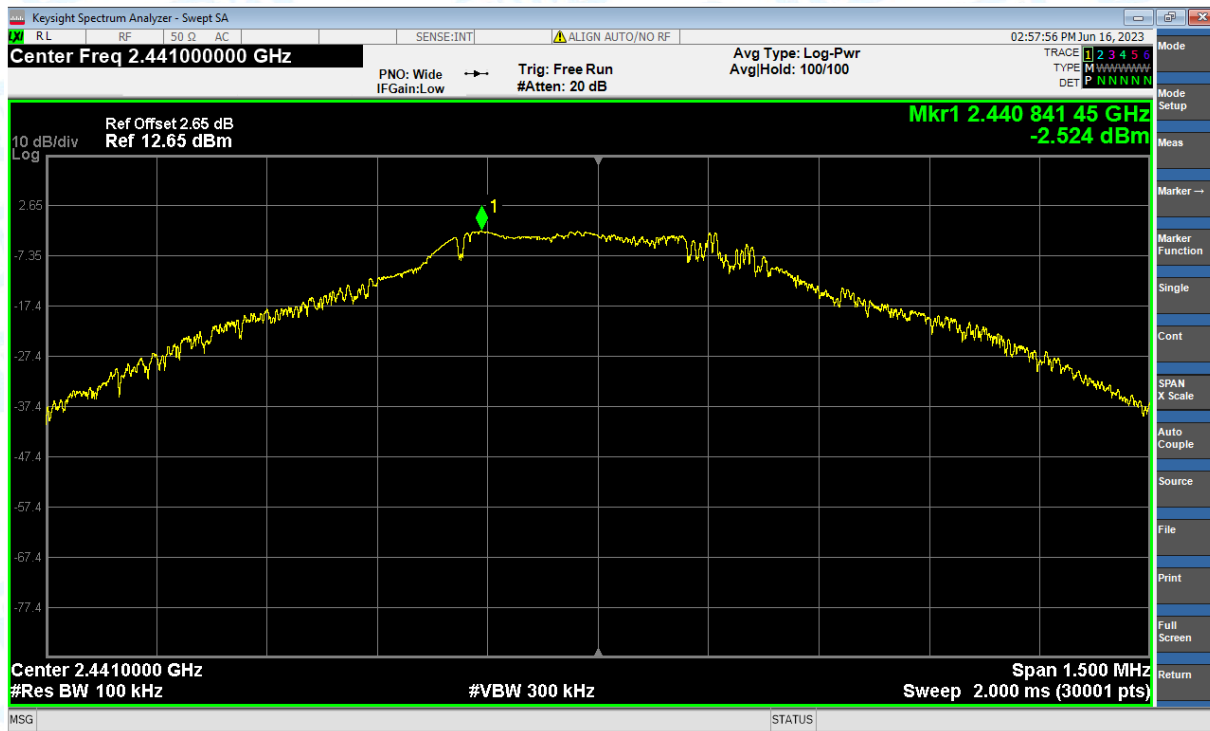
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



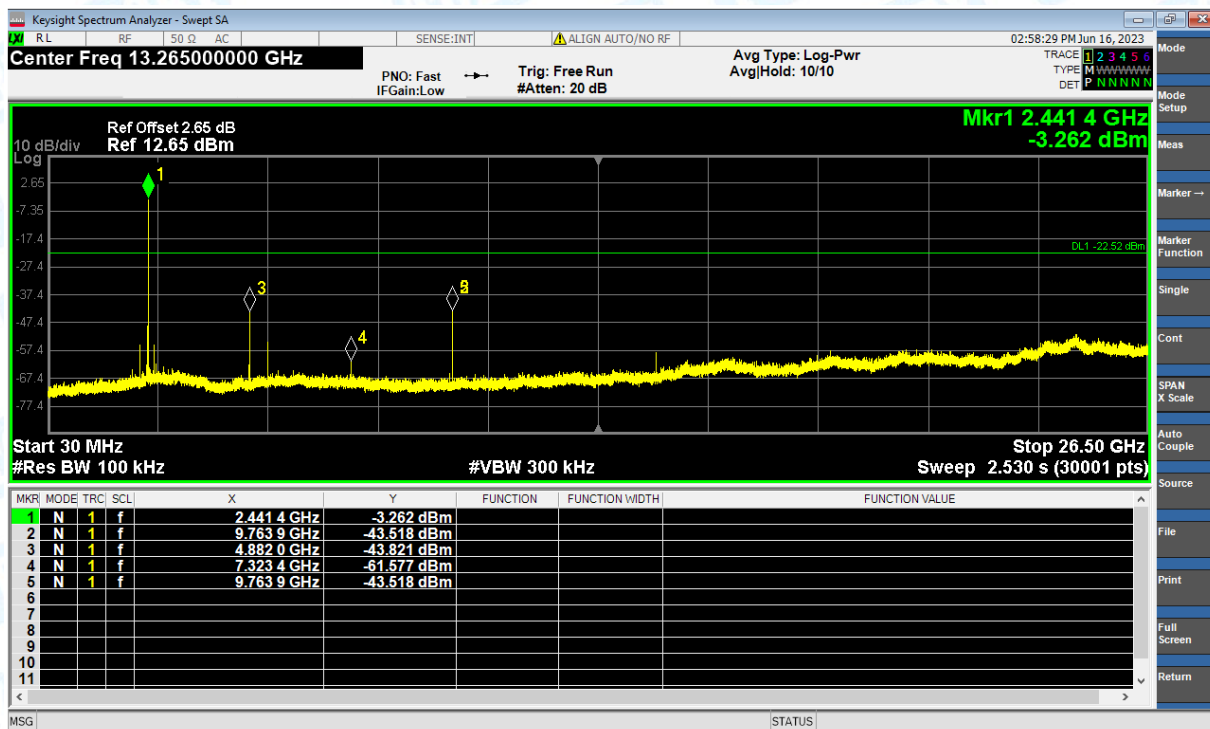
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



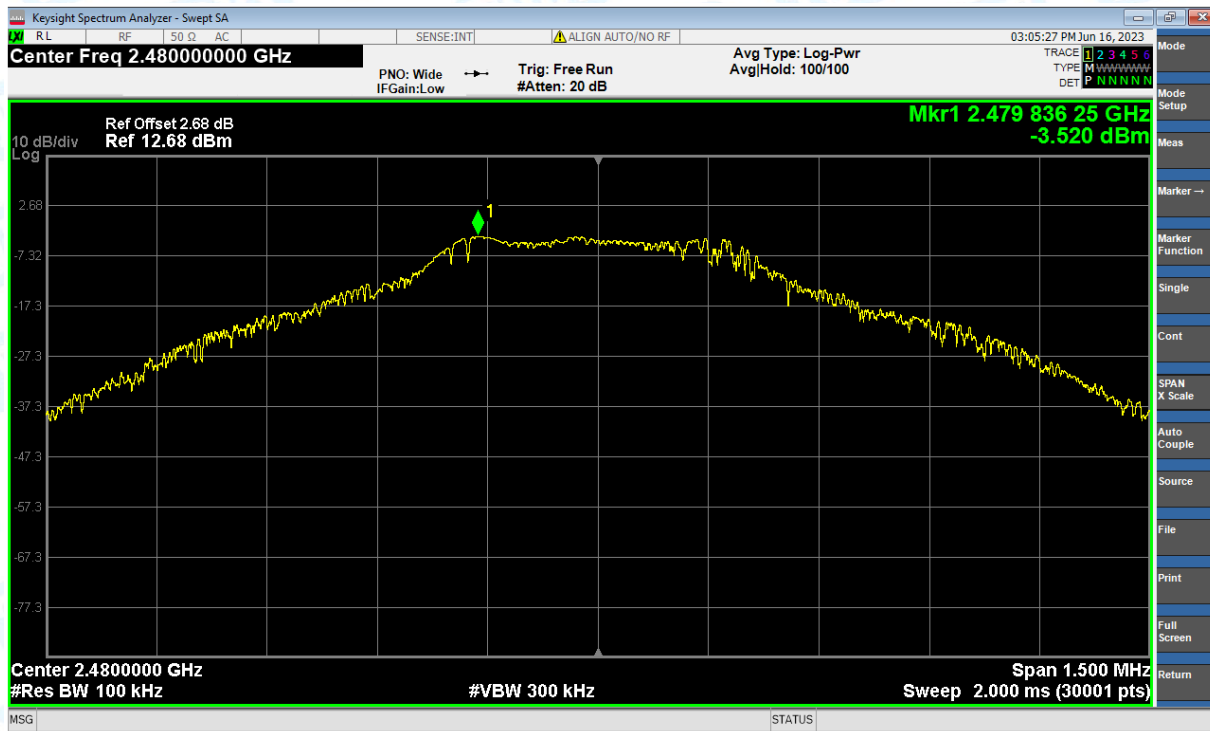
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



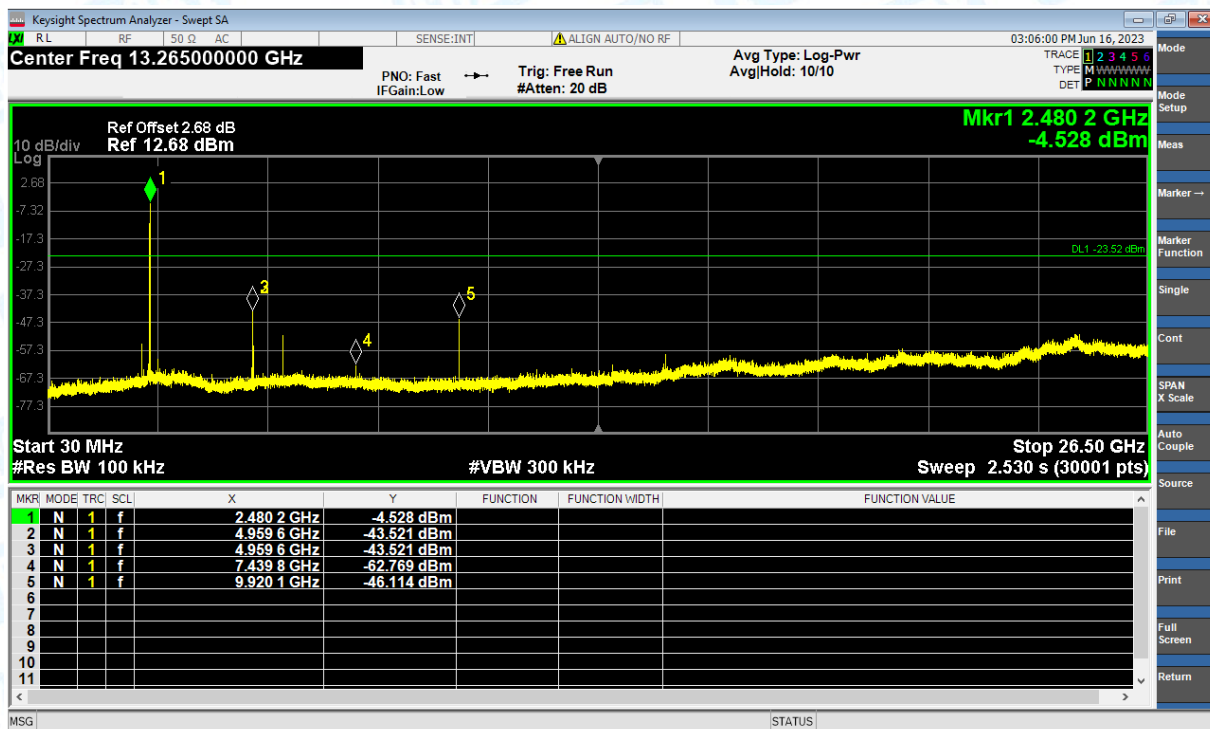
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



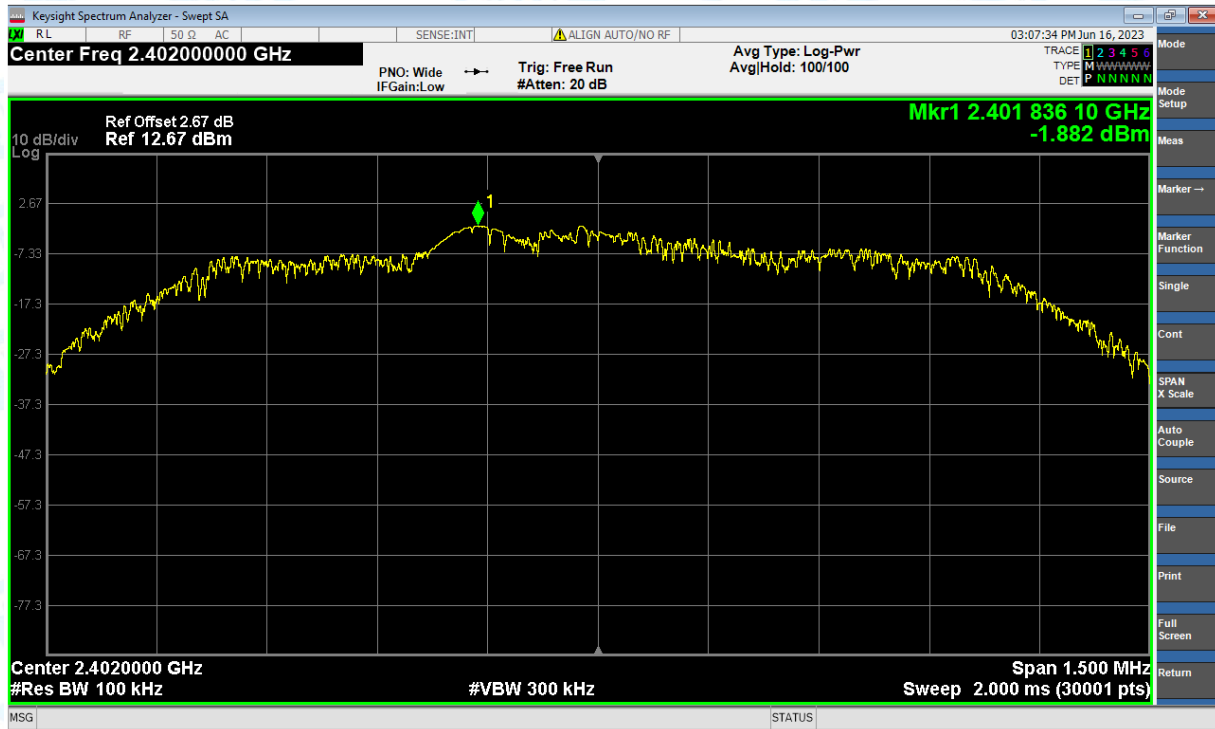
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



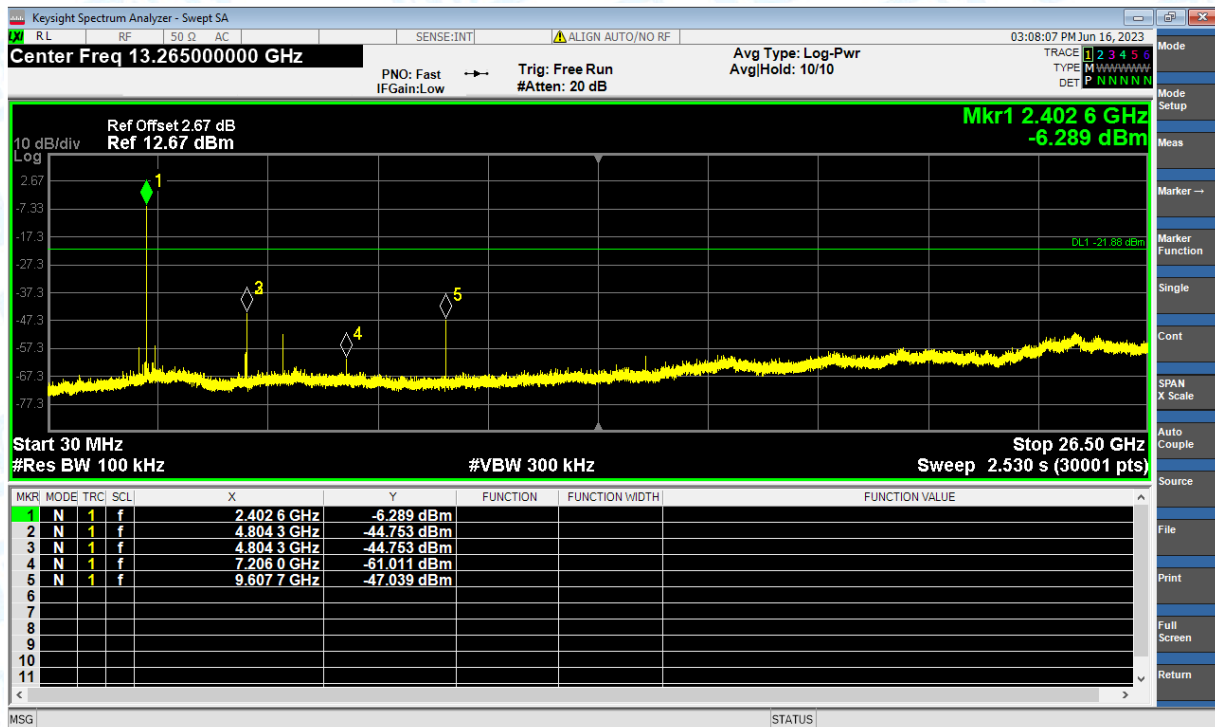
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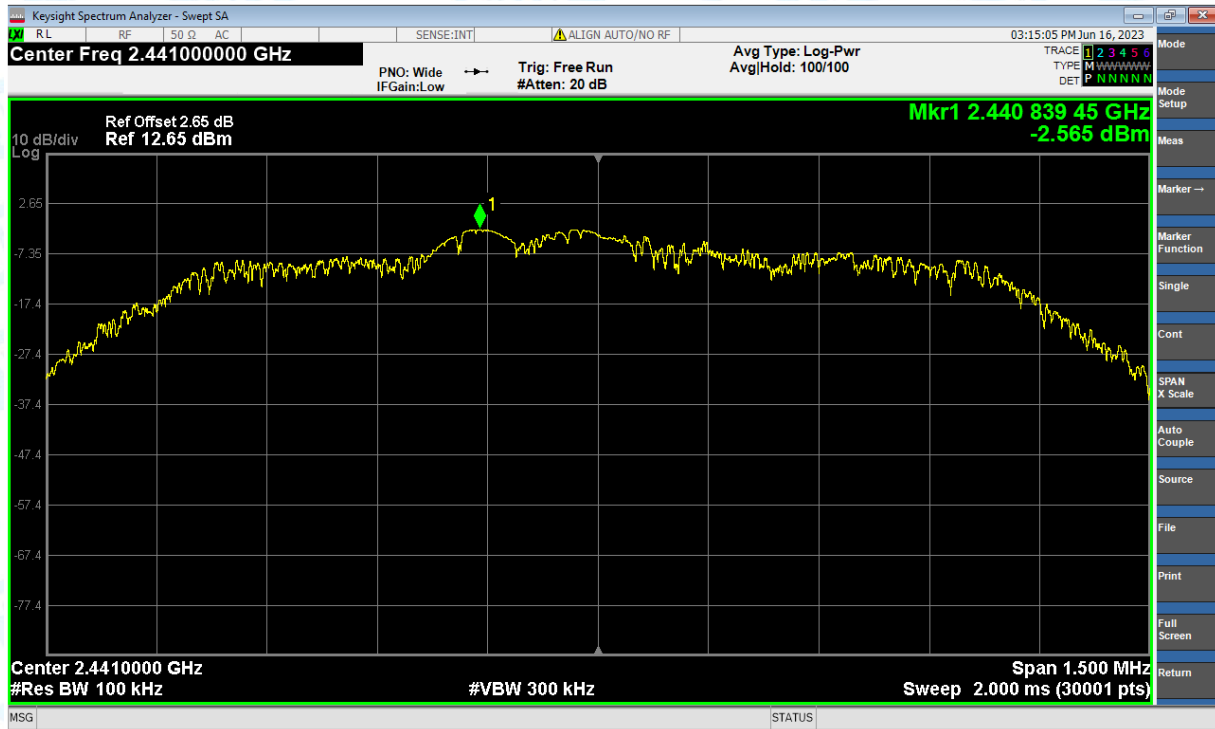
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



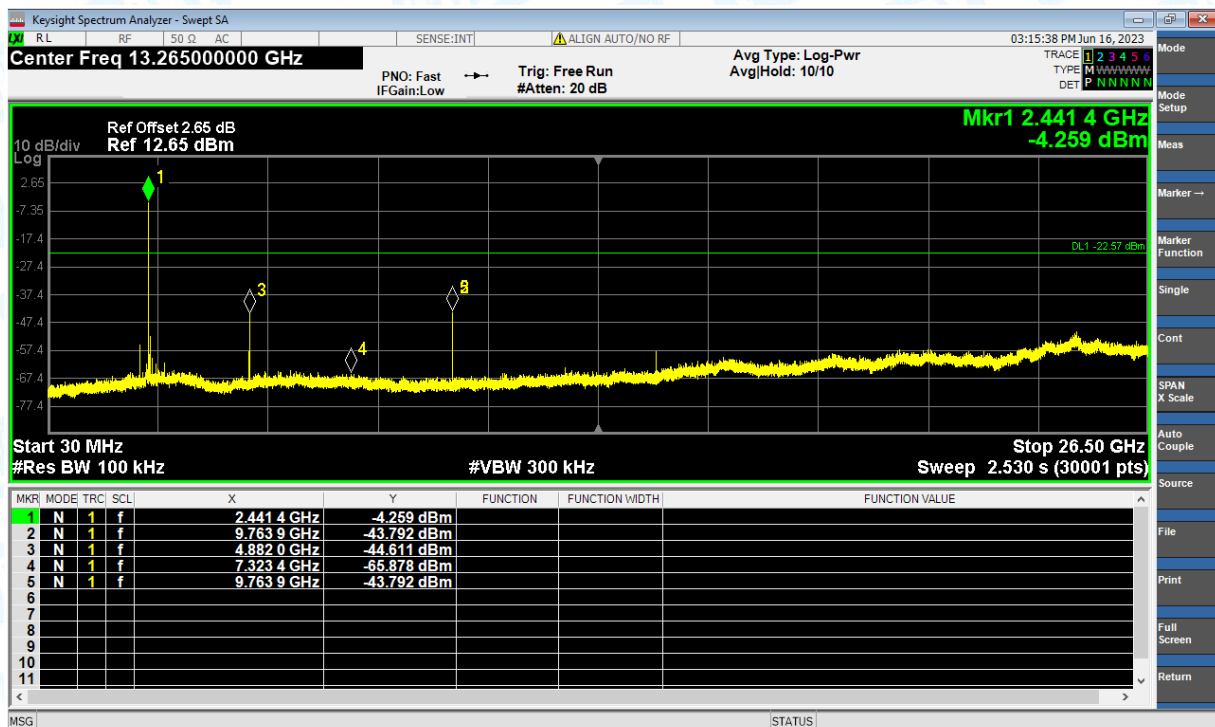
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



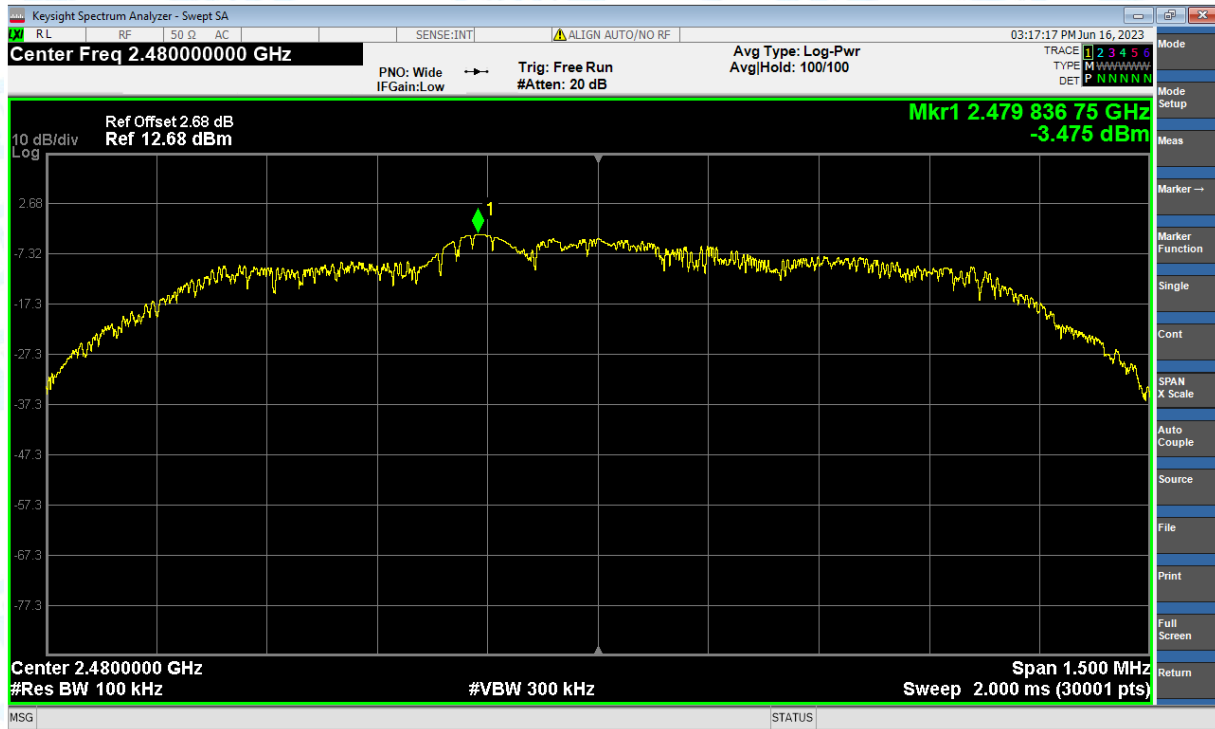
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



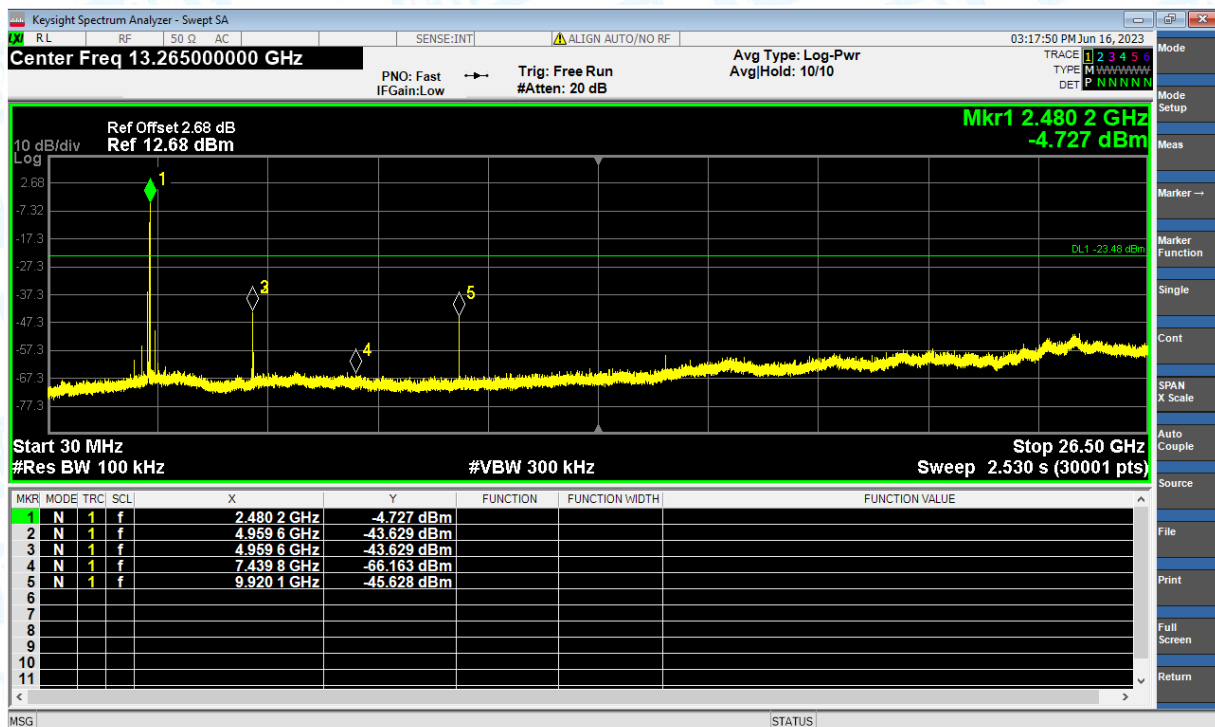
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

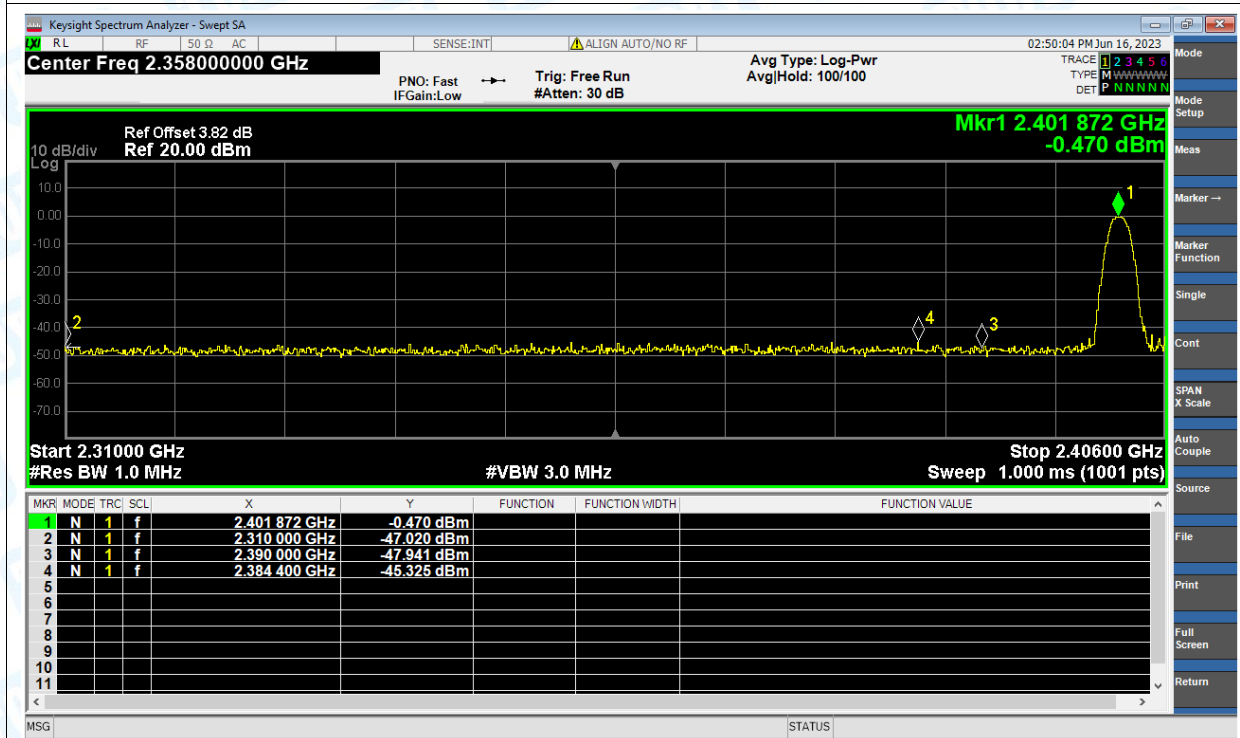


8. Restrict Band

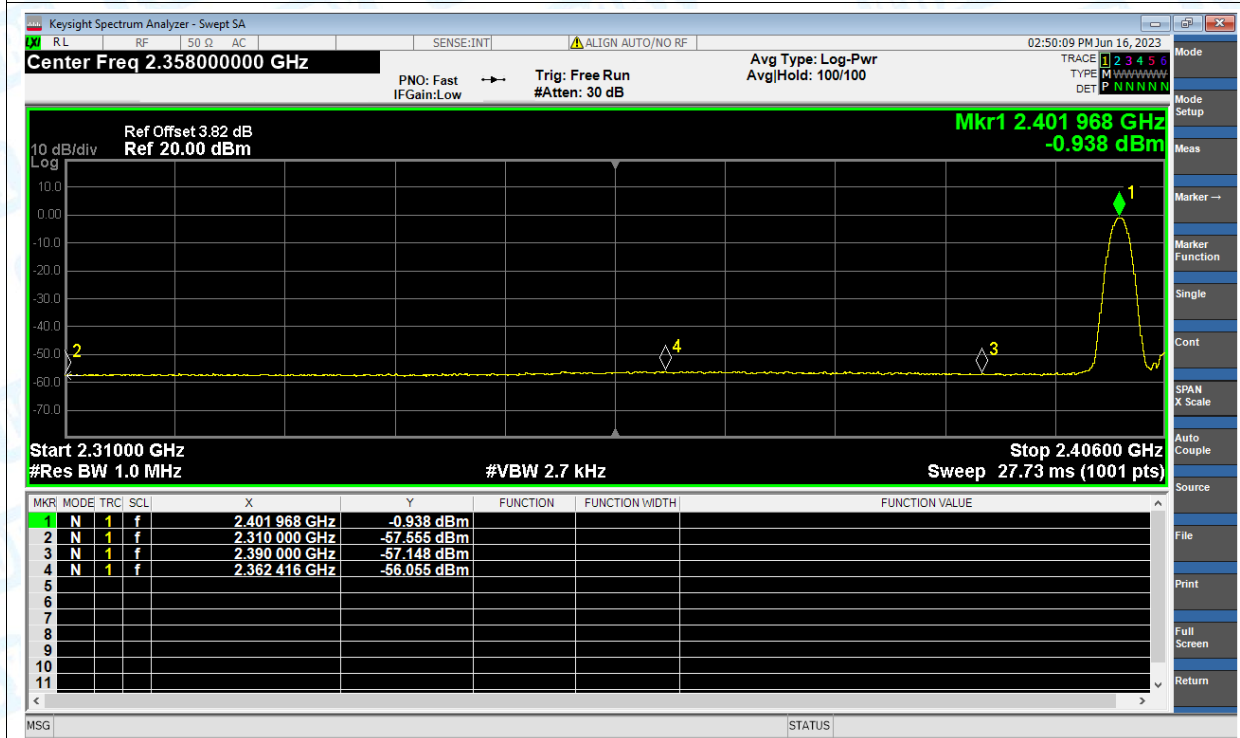
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.02	2	50.24	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-57.56	2	39.7	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2384.4	-45.33	2	51.93	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2362.416	-56.05	2	41.21	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.5	2	48.76	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.95	2	40.31	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.49	2	50.77	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.7	2	40.56	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.872	-43.28	2	53.98	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.184	-56.43	2	40.83	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-49.38	2	47.88	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.95	2	40.31	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.55	2	48.71	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-57.47	2	39.79	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2325.552	-45.25	2	52.01	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2360.304	-55.96	2	41.3	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.44	2	48.82	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-57.04	2	40.22	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.26	2	50	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-56.93	2	40.33	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2497.984	-44.89	2	52.37	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2498.608	-56.61	2	40.65	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.84	2	48.42	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-57.1	2	40.16	Average	54	Pass

Test Graphs

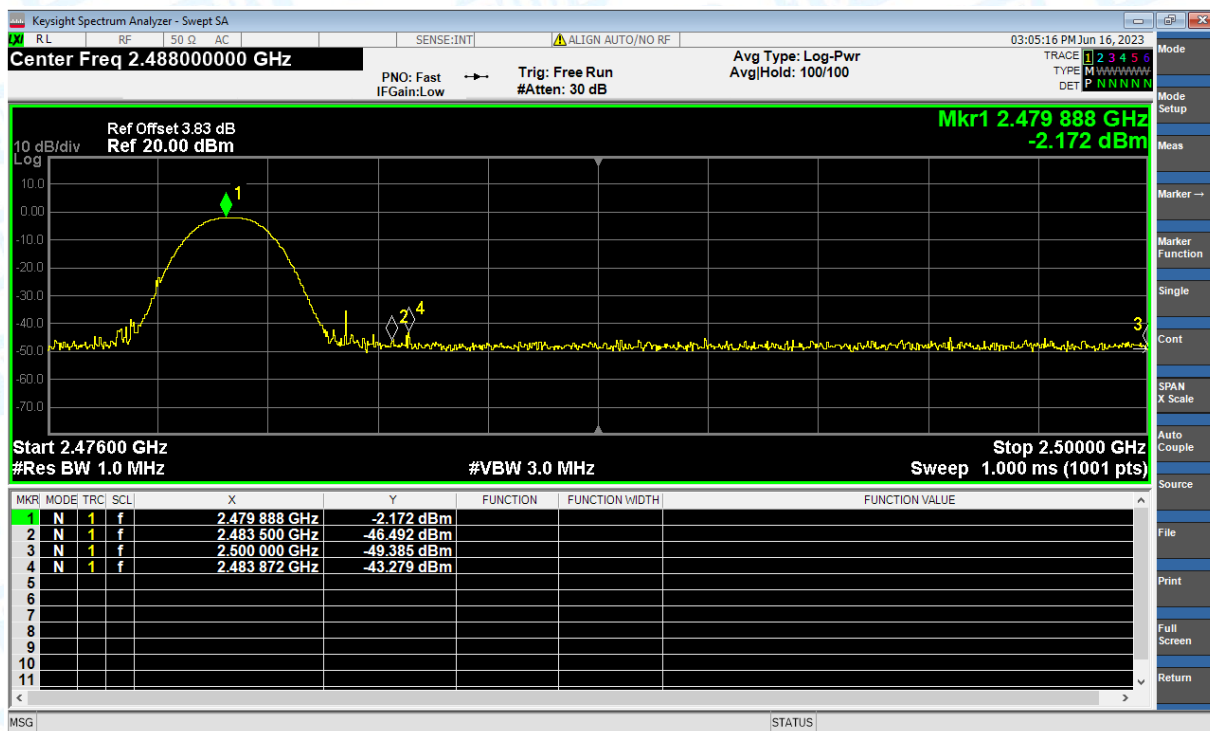
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



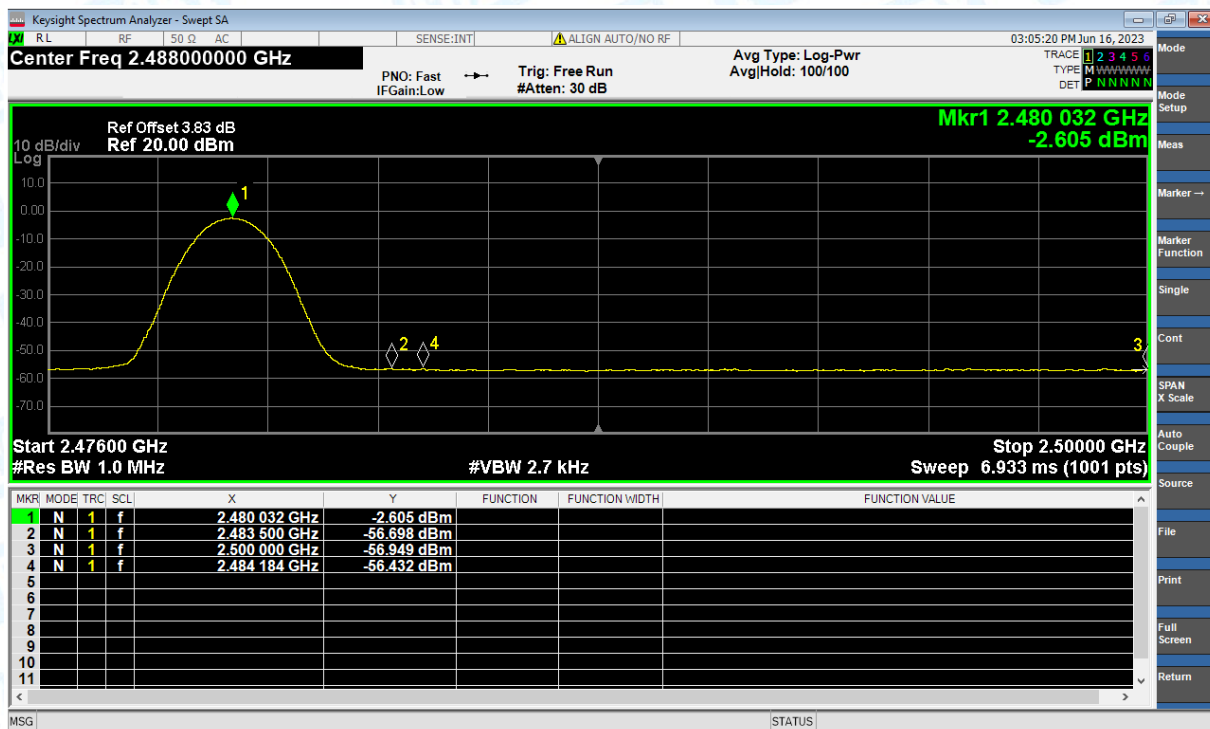
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



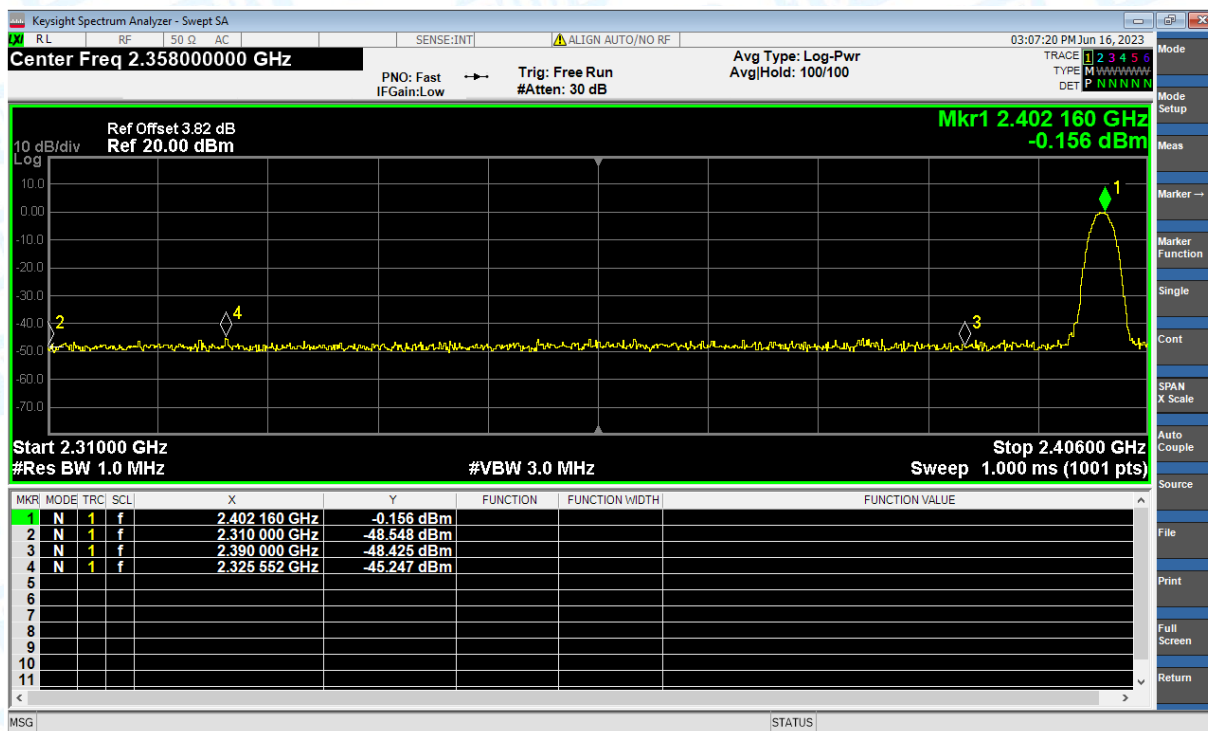
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



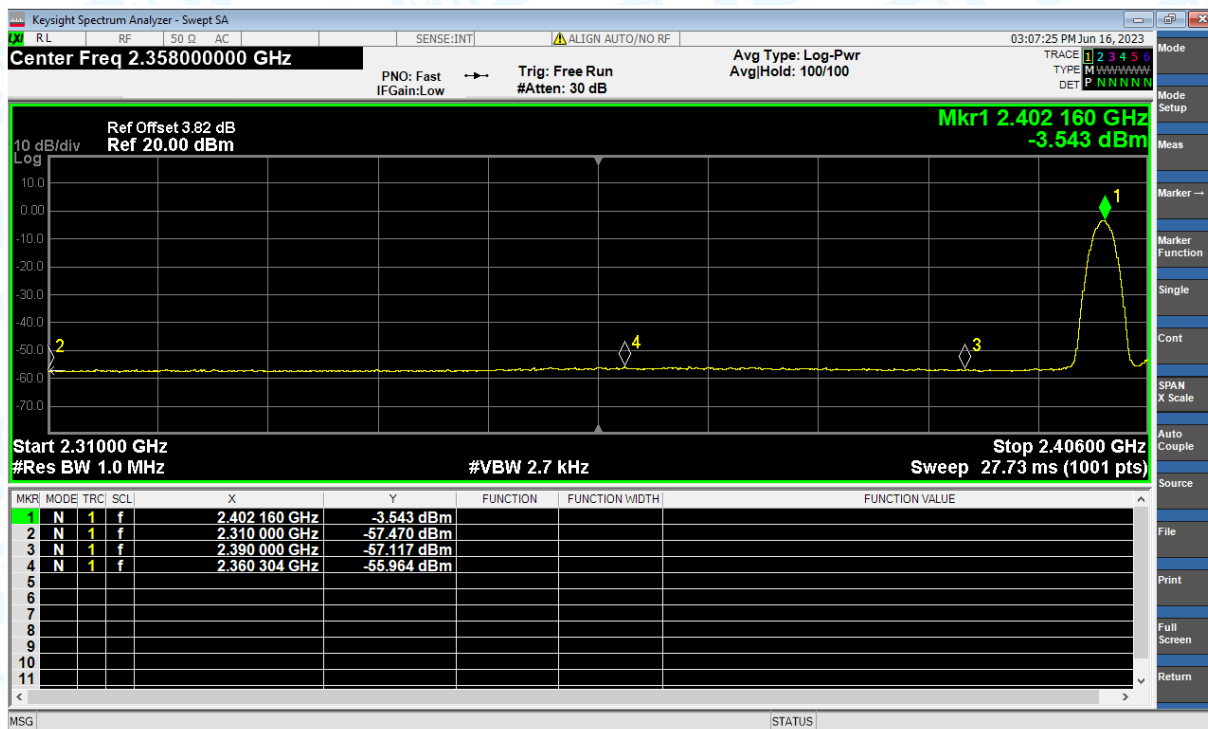
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



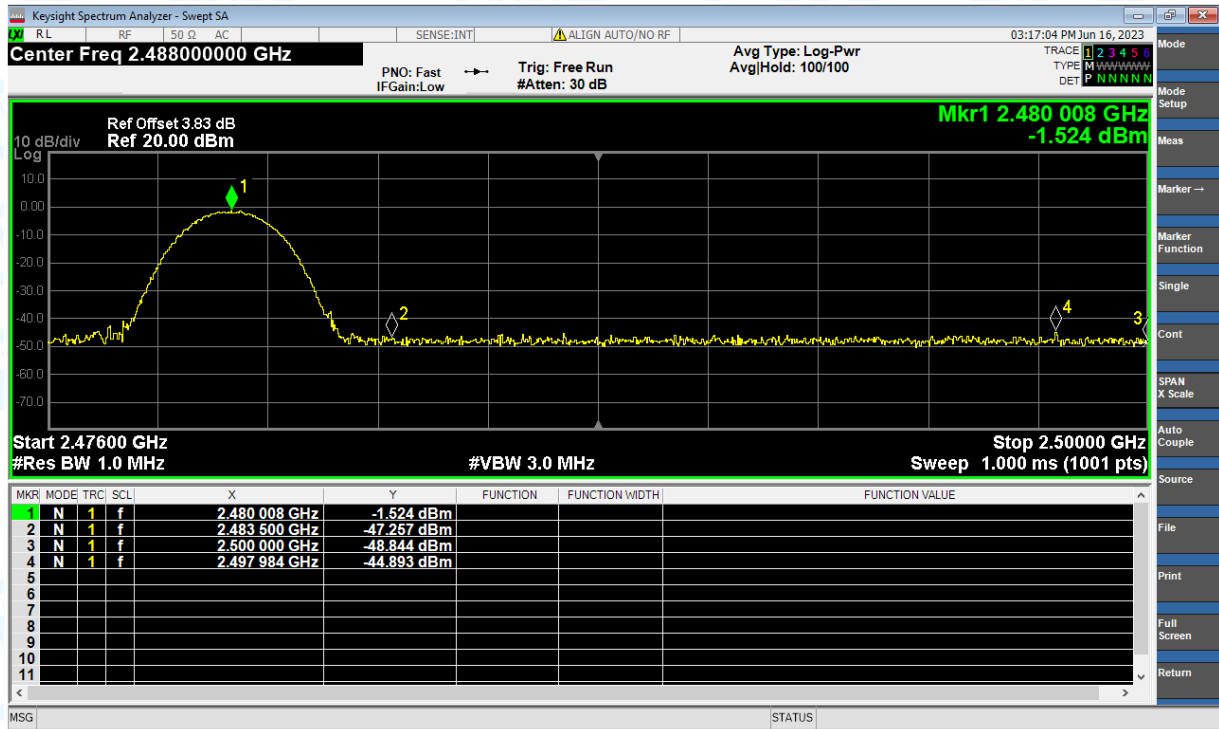
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



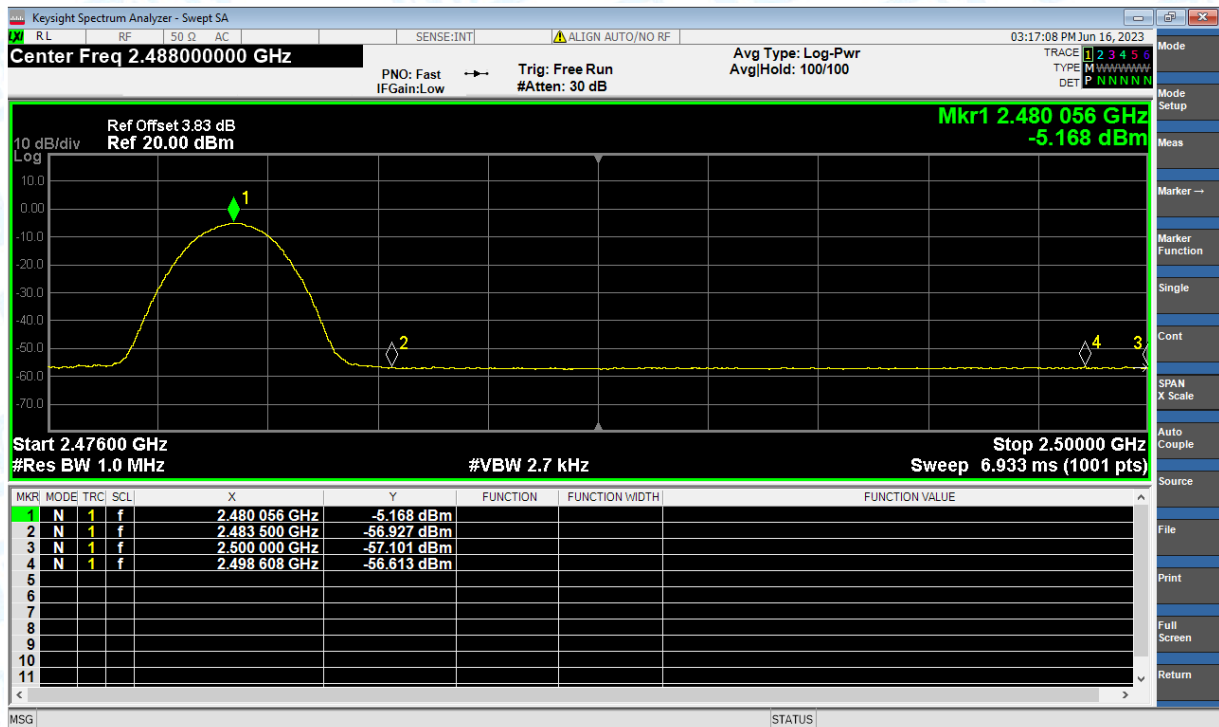
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



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



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



9. Carrier Frequencies Separation

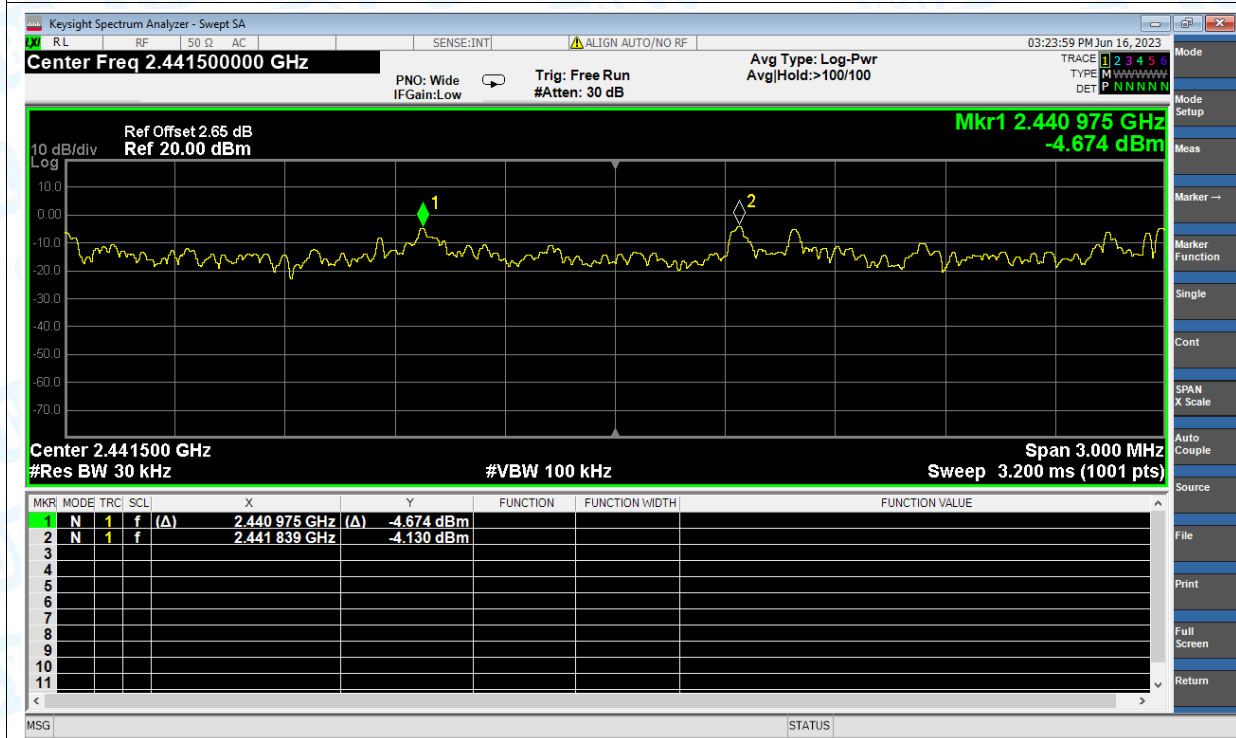
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.831	2442.025	1.194	0.587	Pass
NVNT	2-DH1	Ant1	2440.975	2441.839	0.864	0.833	Pass

Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1

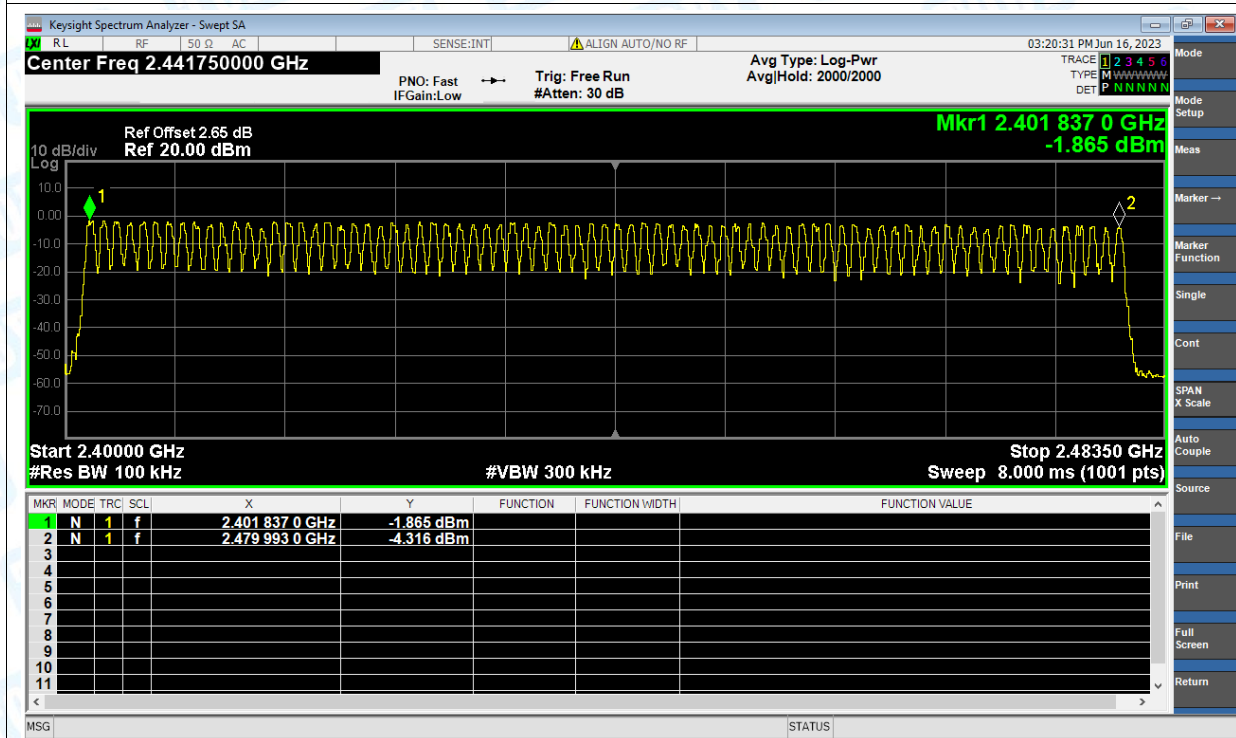


10. Number of Hopping Channel

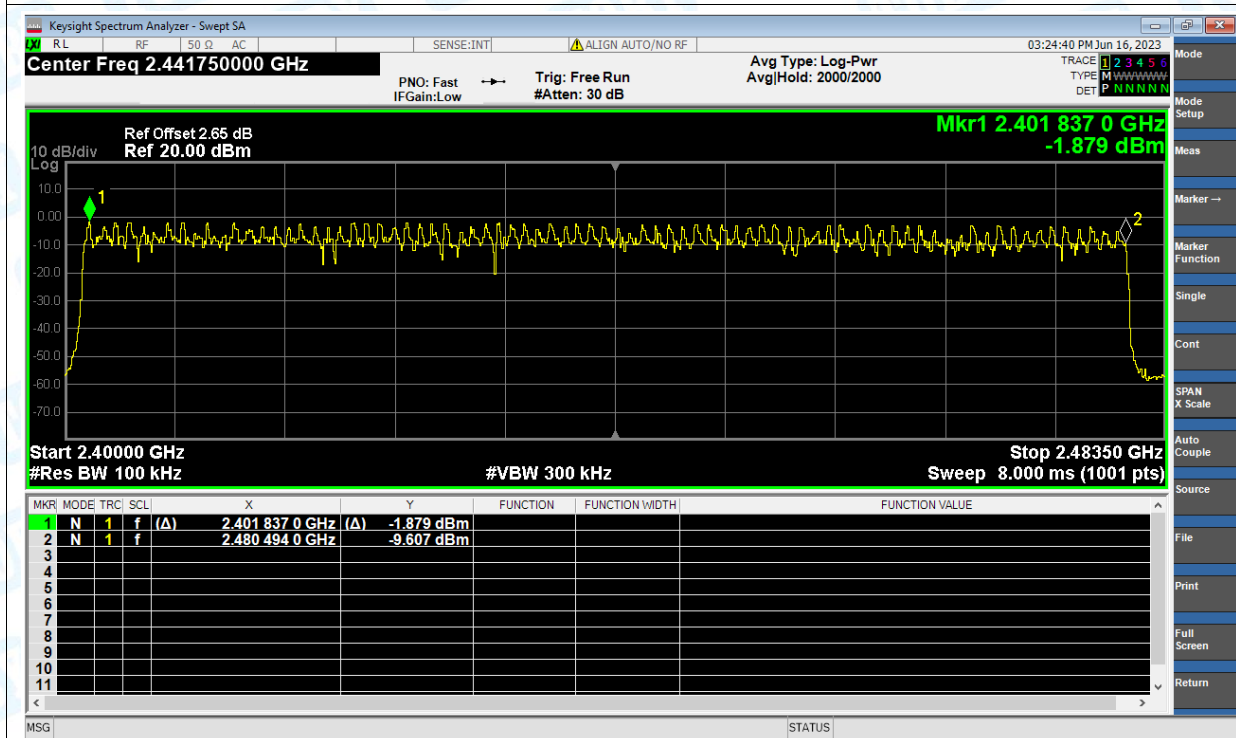
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1

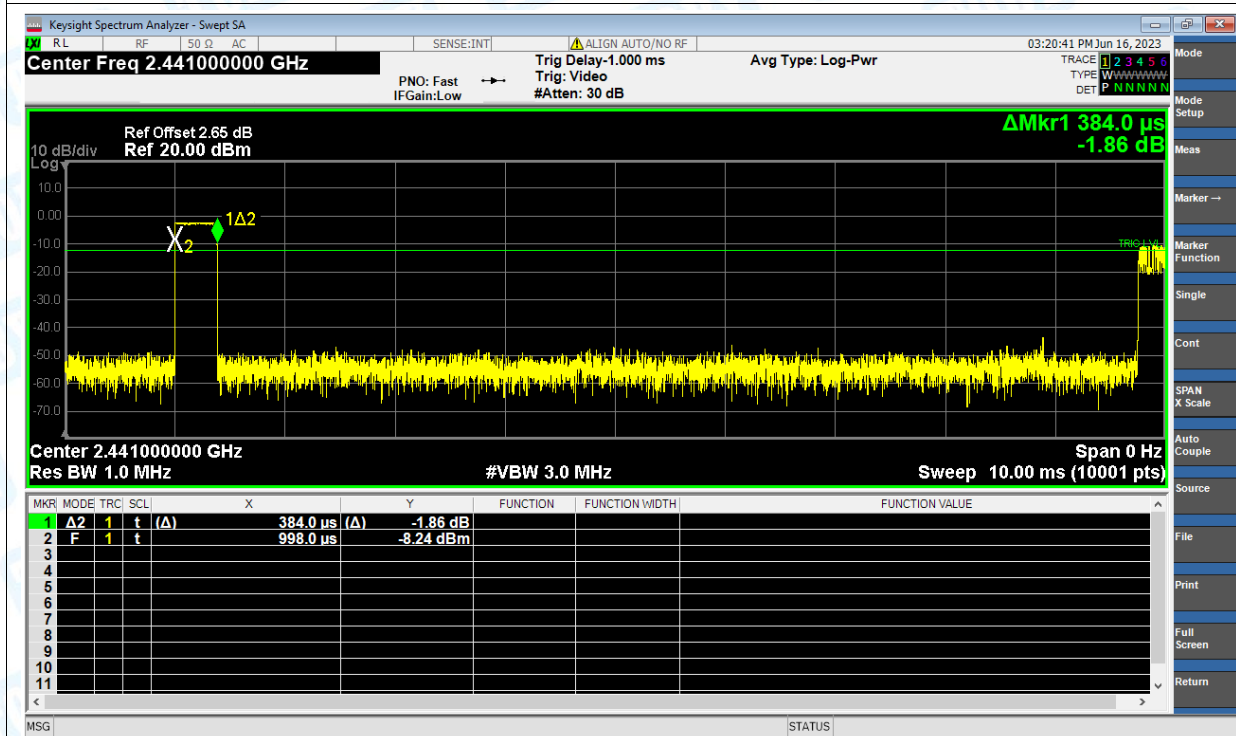


11. Dwell Time

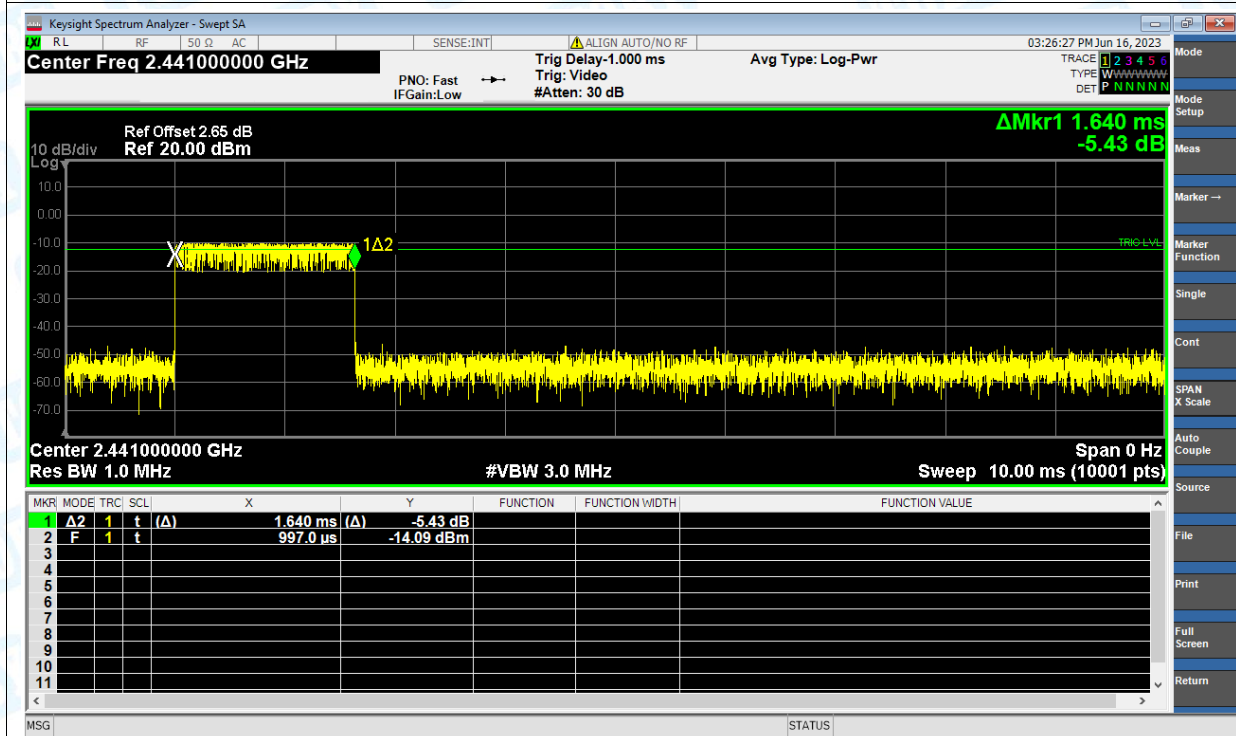
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.384	122.88	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass

Test Graphs

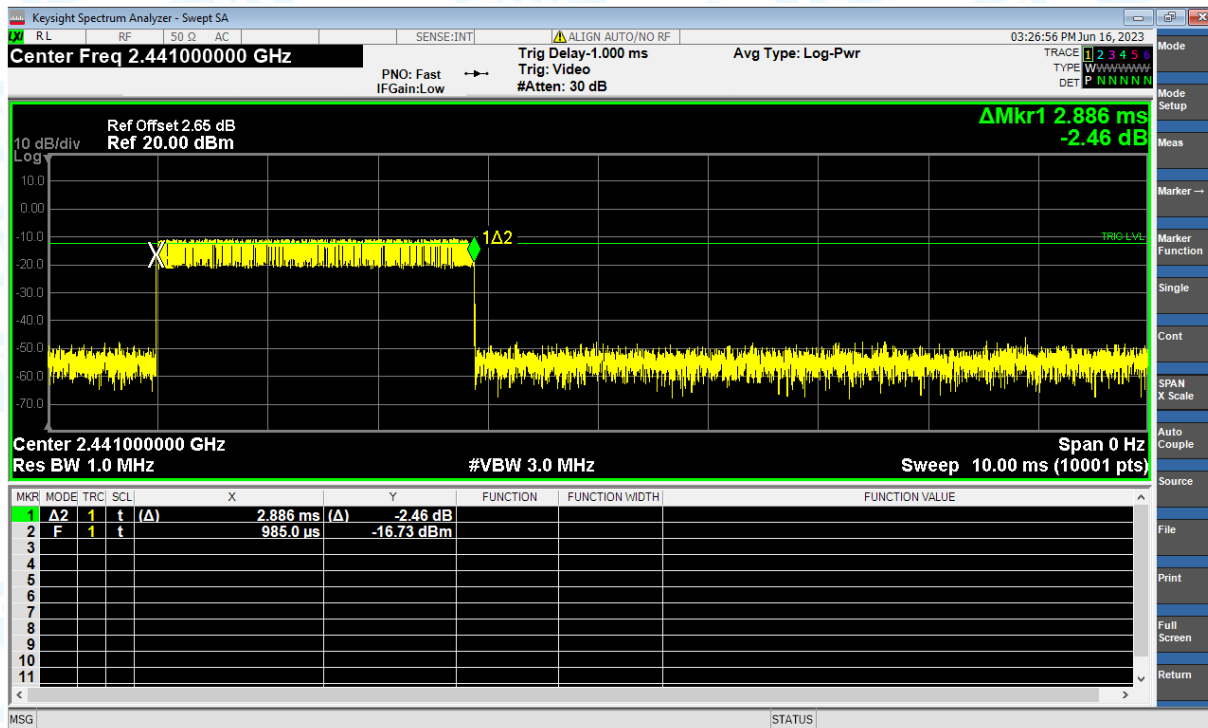
Dwell NVNT 1-DH1 2441MHz Ant1



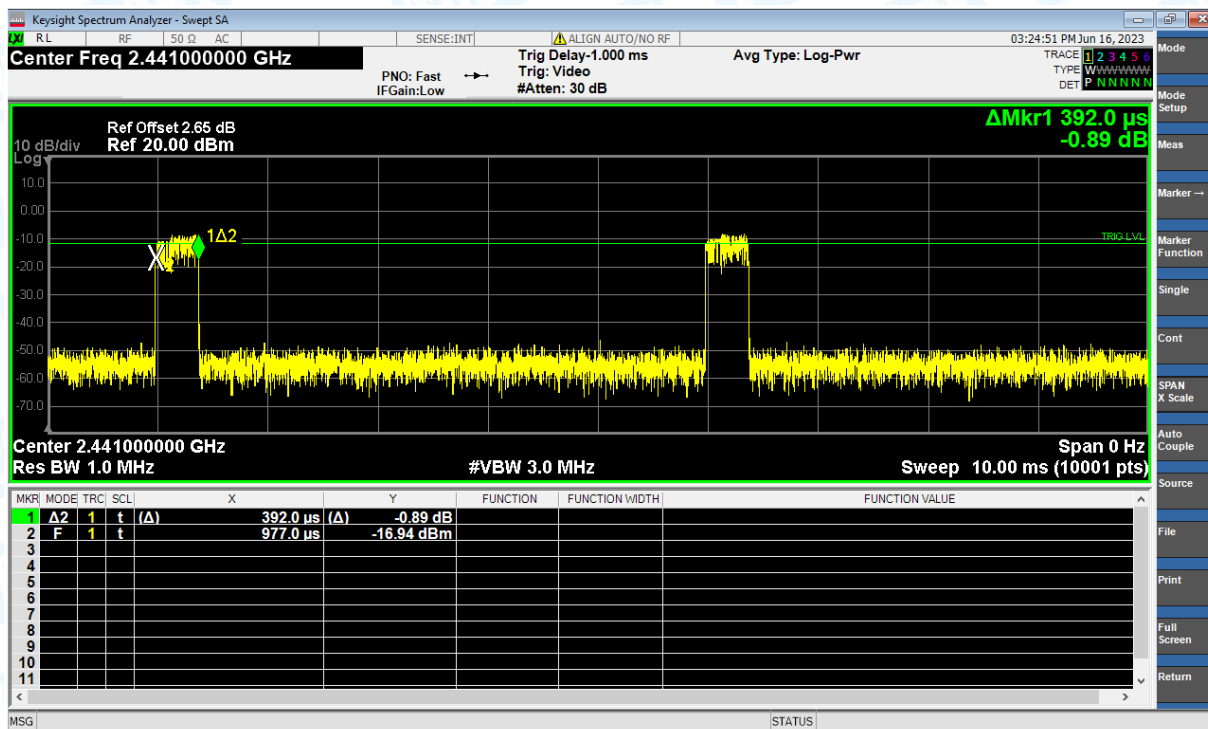
Dwell NVNT 1-DH3 2441MHz Ant1



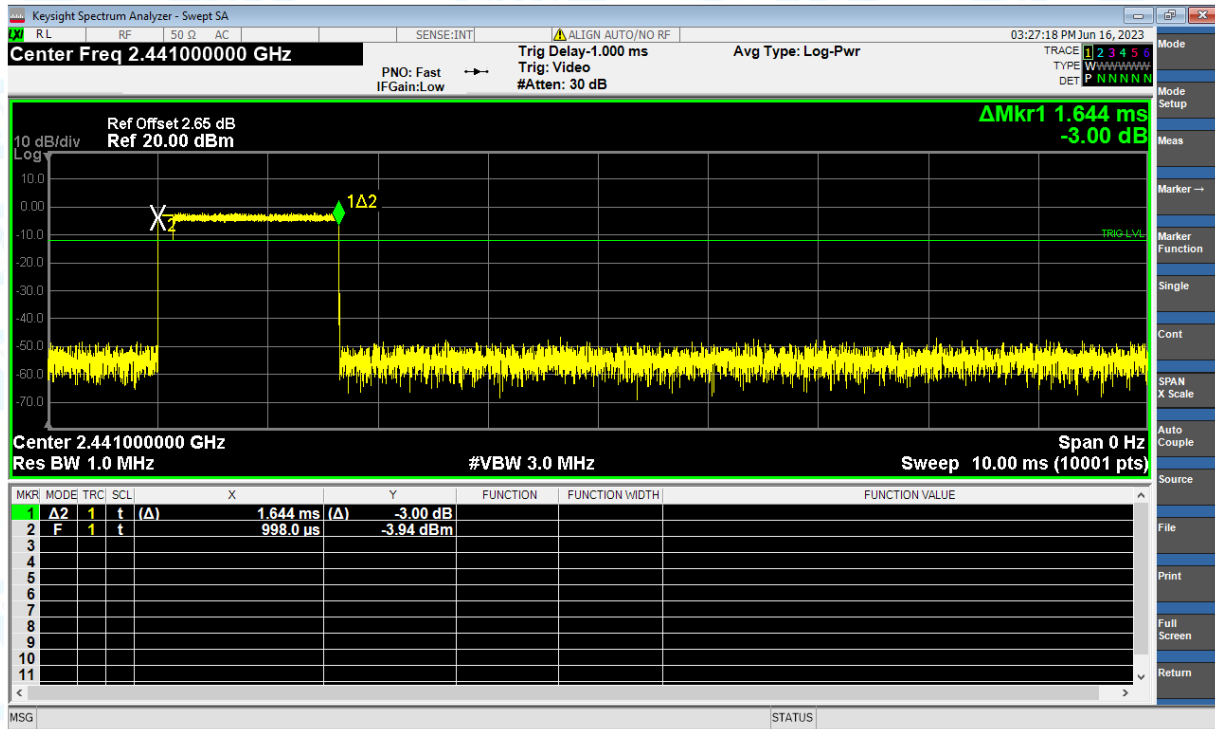
Dwell NVNT 1-DH5 2441MHz Ant1



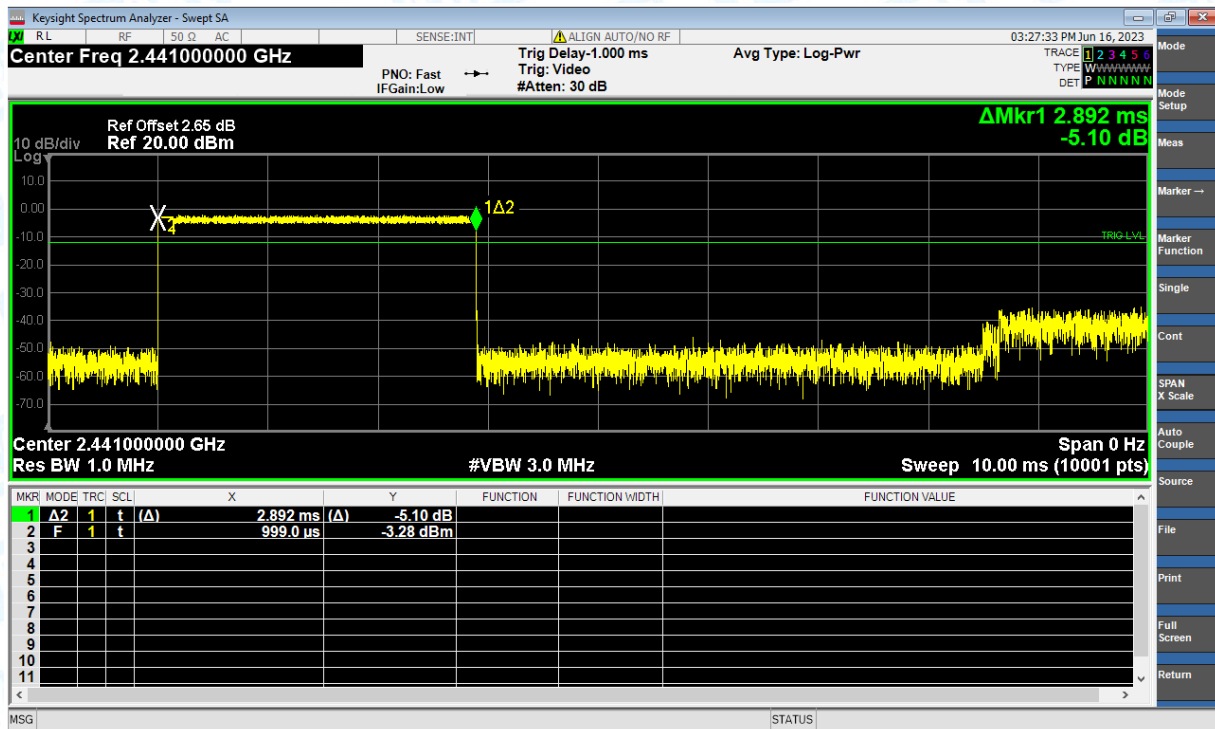
Dwell NVNT 2-DH1 2441MHz Ant1



Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



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