

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

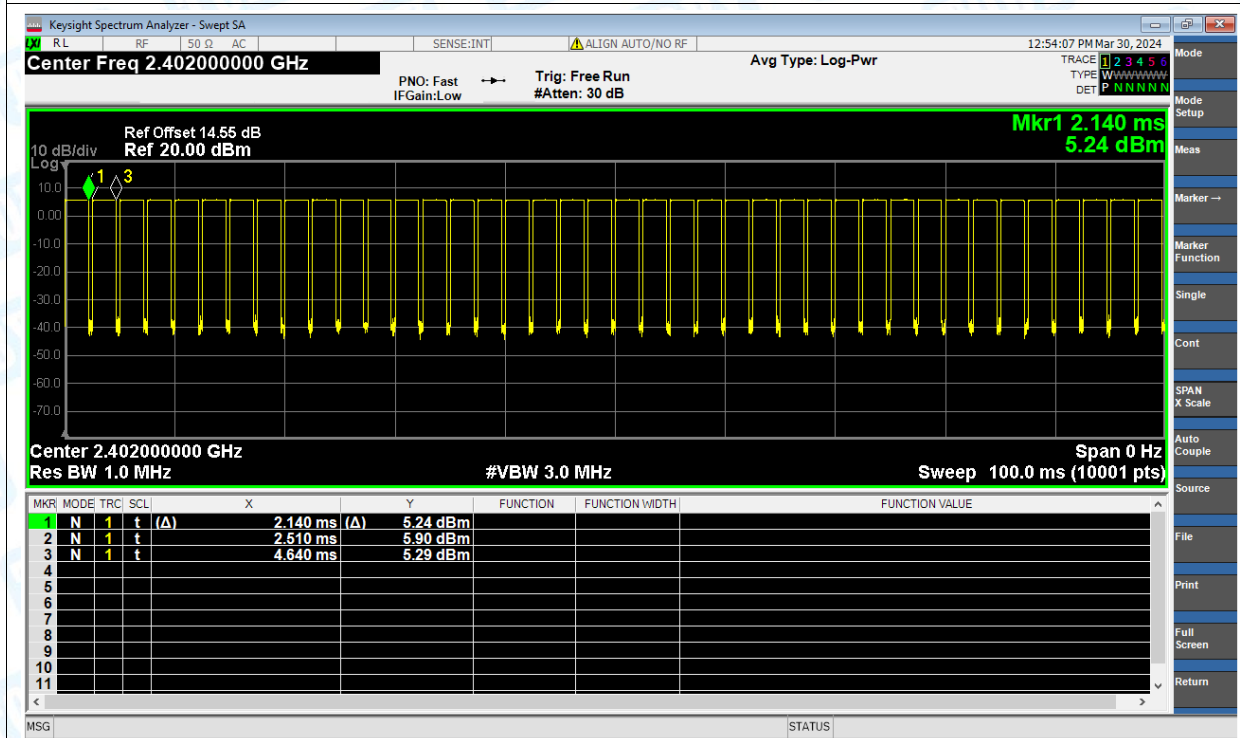
General Description of EUT	
Product Name:	MiNI Printer Manual
Test Model:	G01
Sample ID:	HC-C-202403-0160-03-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 3.7V
Test Engineer:	Mike Yan
Note: For a more detailed features description, please refer to the report TBR-C-202403-0160-4 The report only show the worst case data.	

1. Duty Cycle

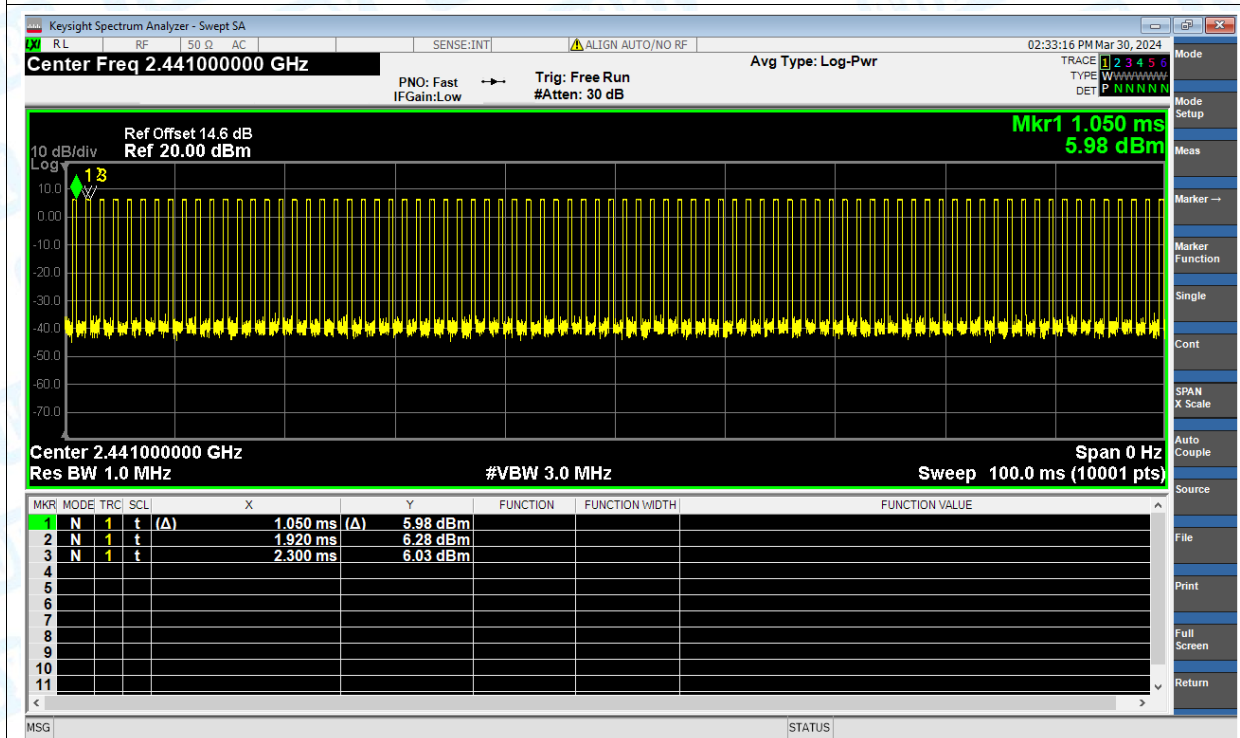
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	85.2	0.7	0.47
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

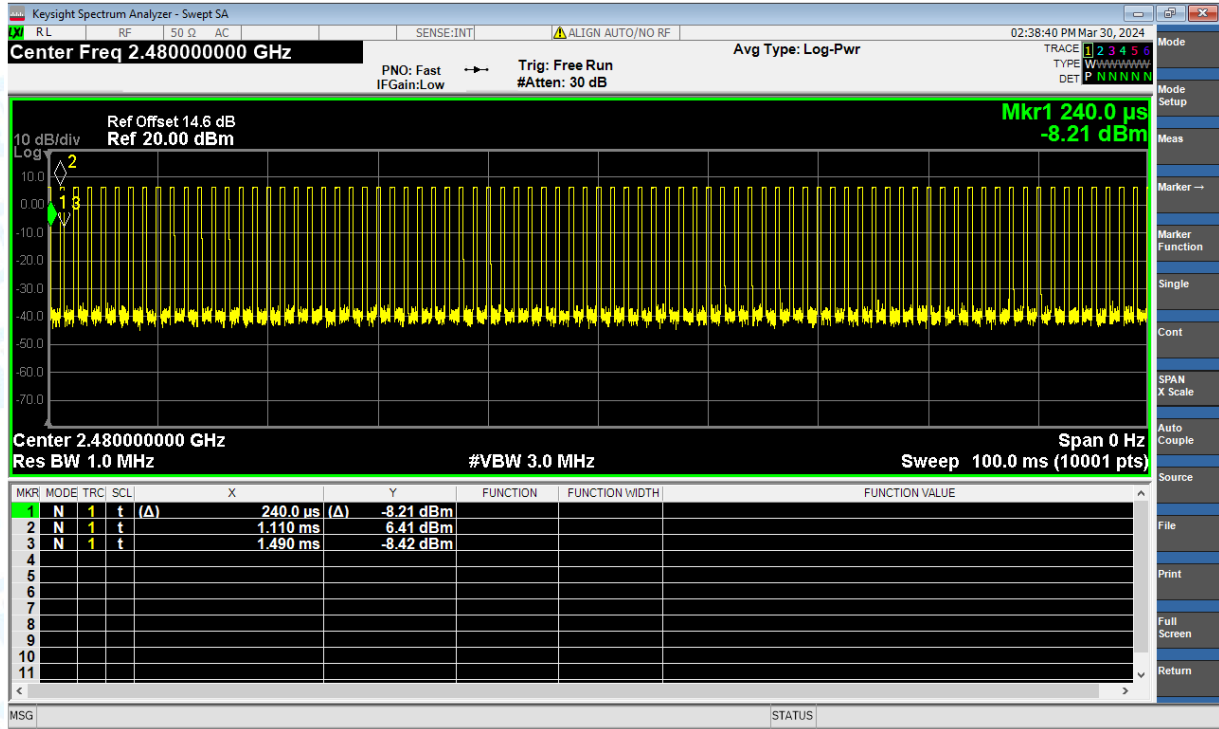
Duty Cycle NVNT 1-DH1 2402MHz Ant1



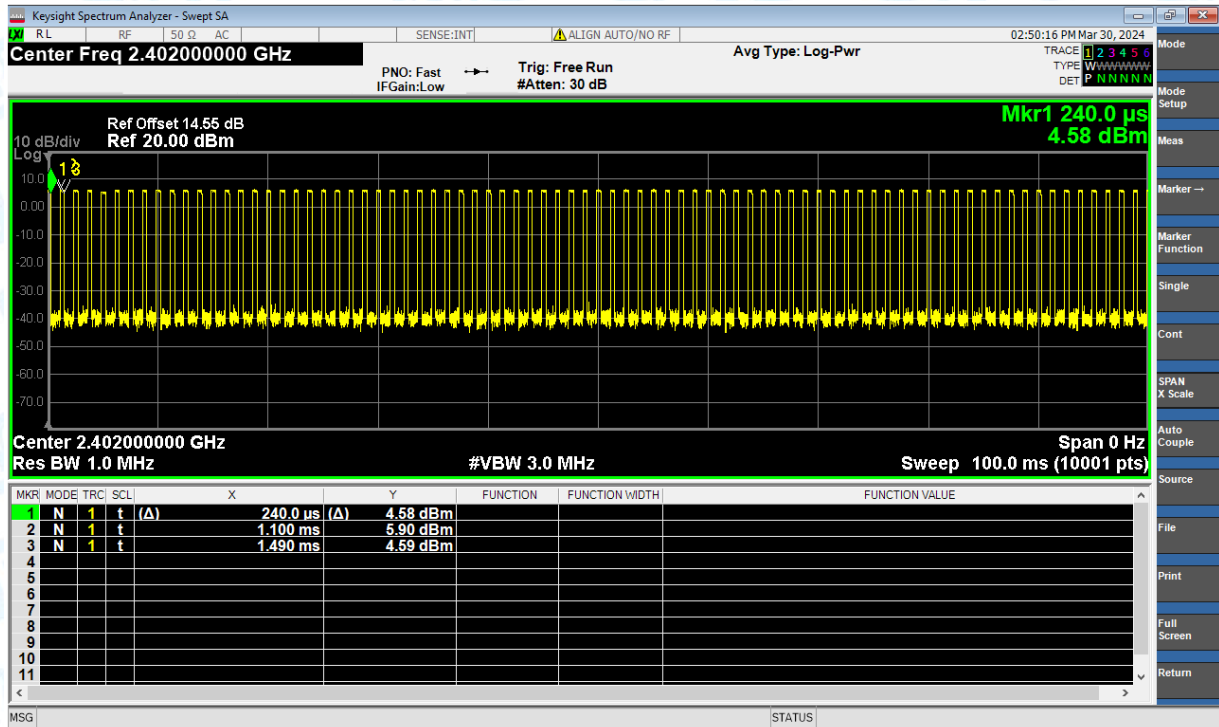
Duty Cycle NVNT 1-DH1 2441MHz Ant1



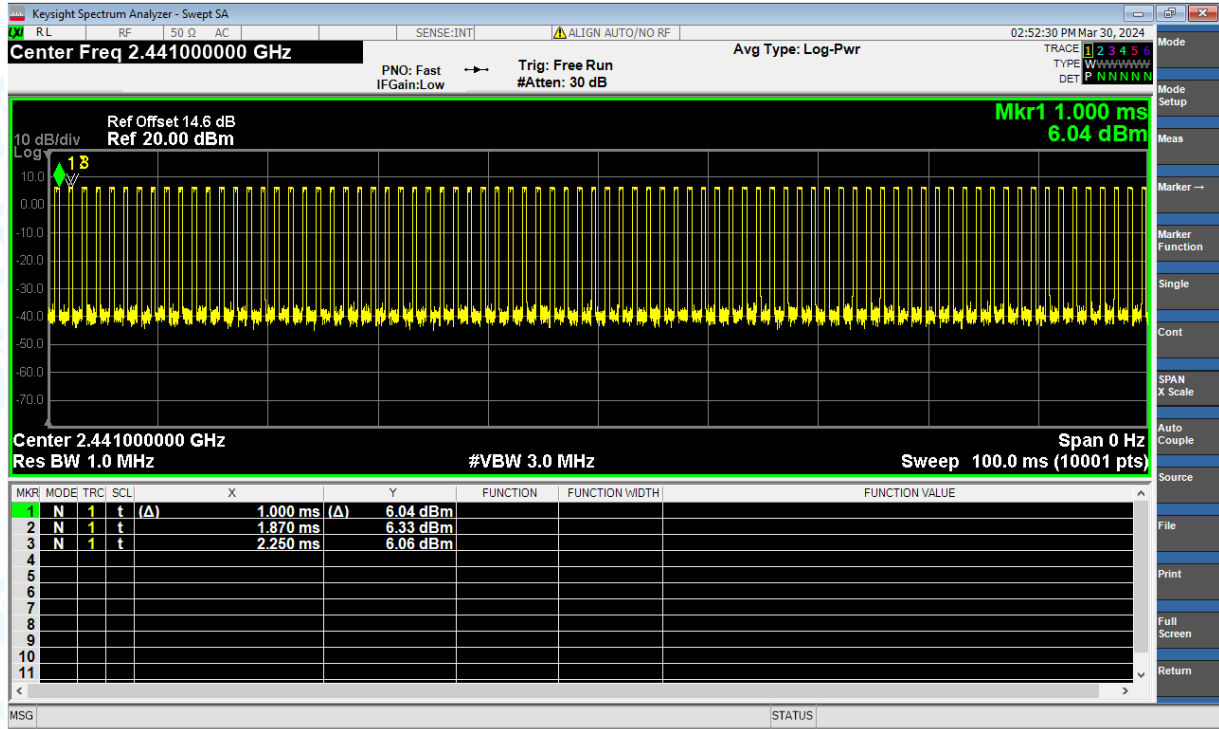
Duty Cycle NVNT 1-DH1 2480MHz Ant1



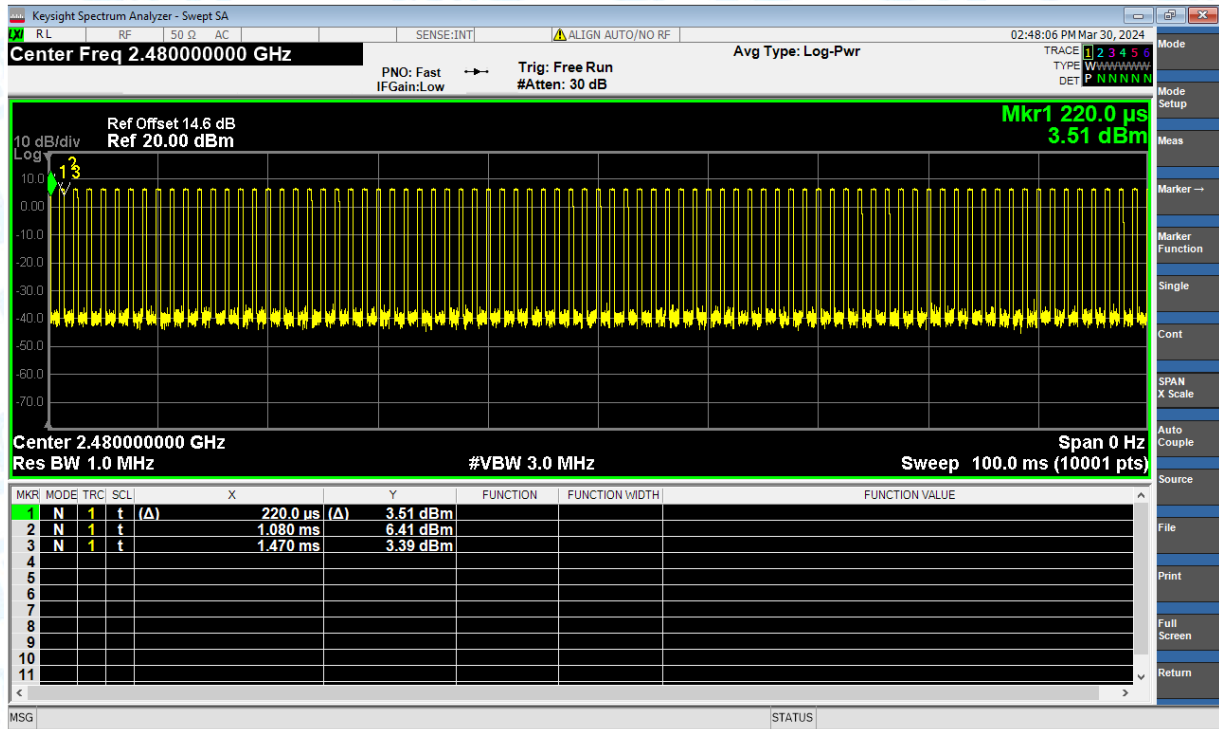
Duty Cycle NVNT 2-DH1 2402MHz Ant1



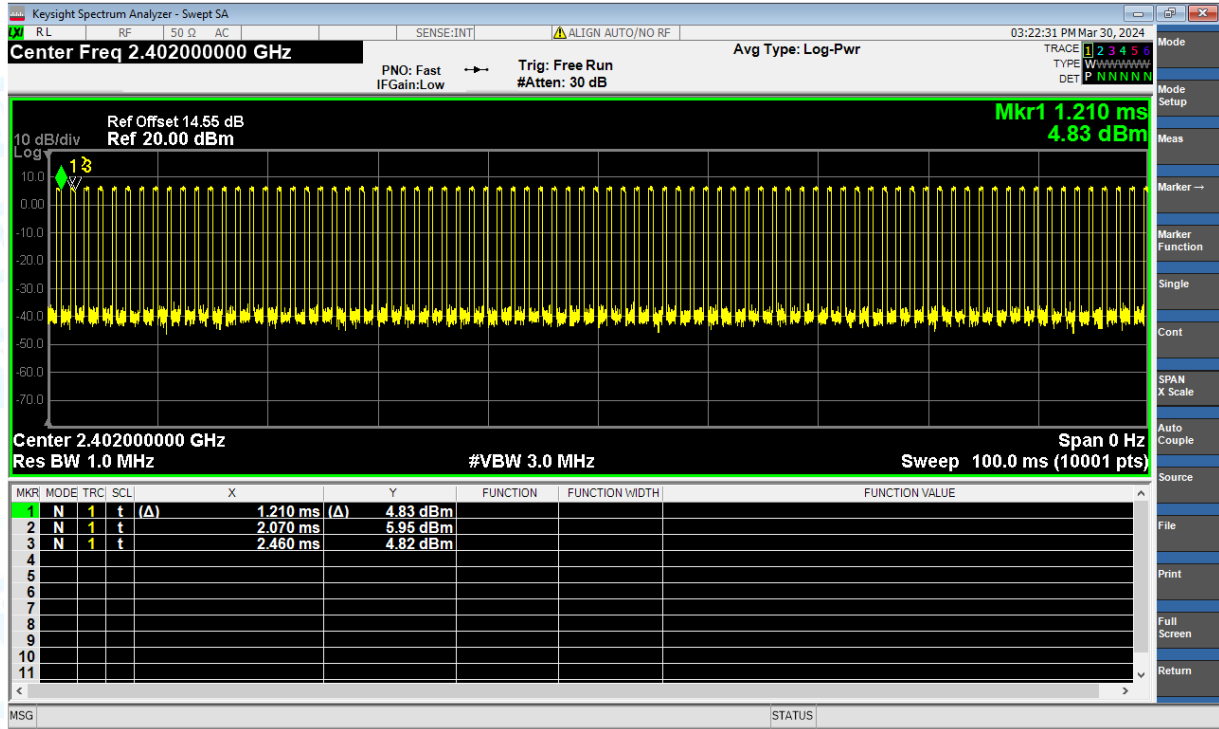
Duty Cycle NVNT 2-DH1 2441MHz Ant1



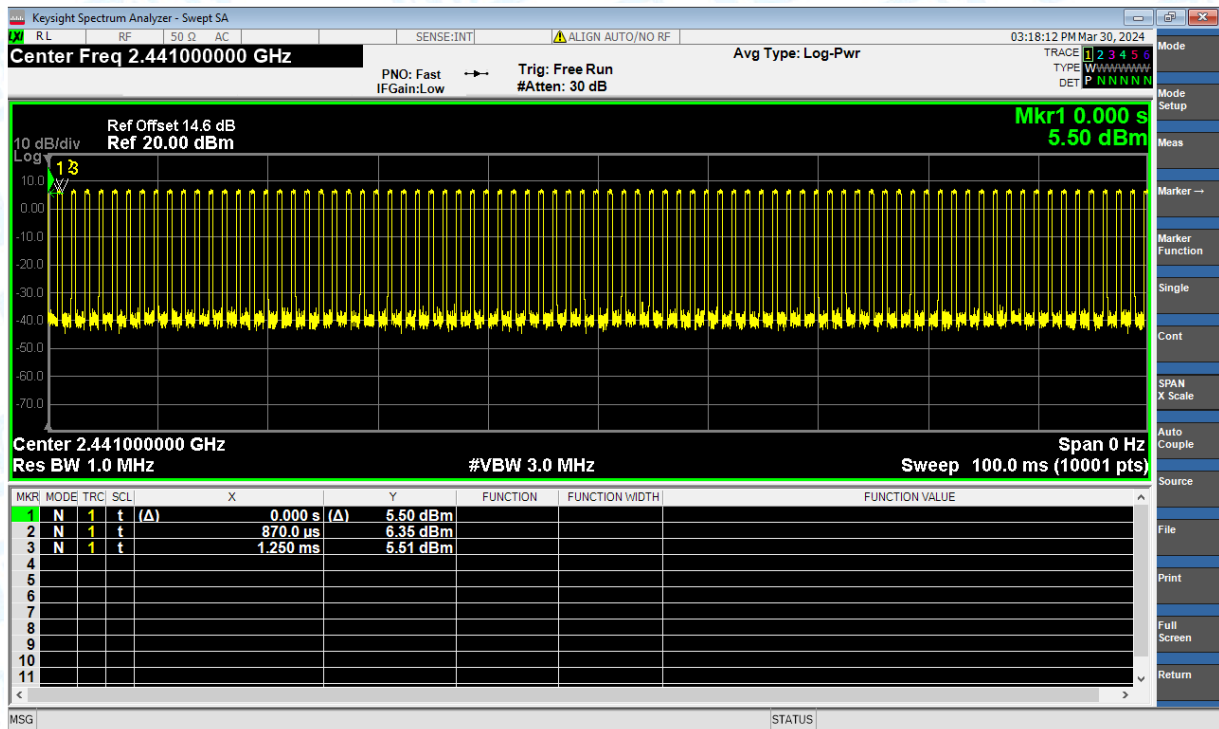
Duty Cycle NVNT 2-DH1 2480MHz Ant1

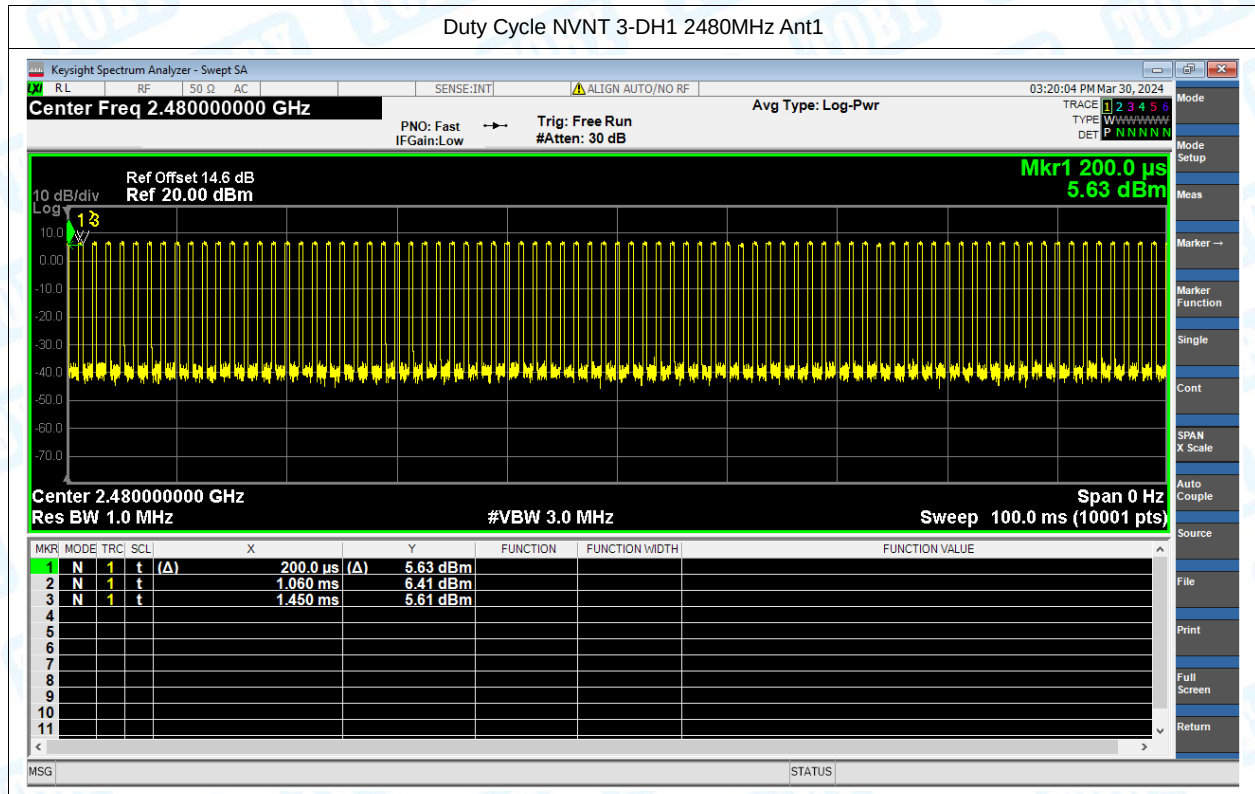


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



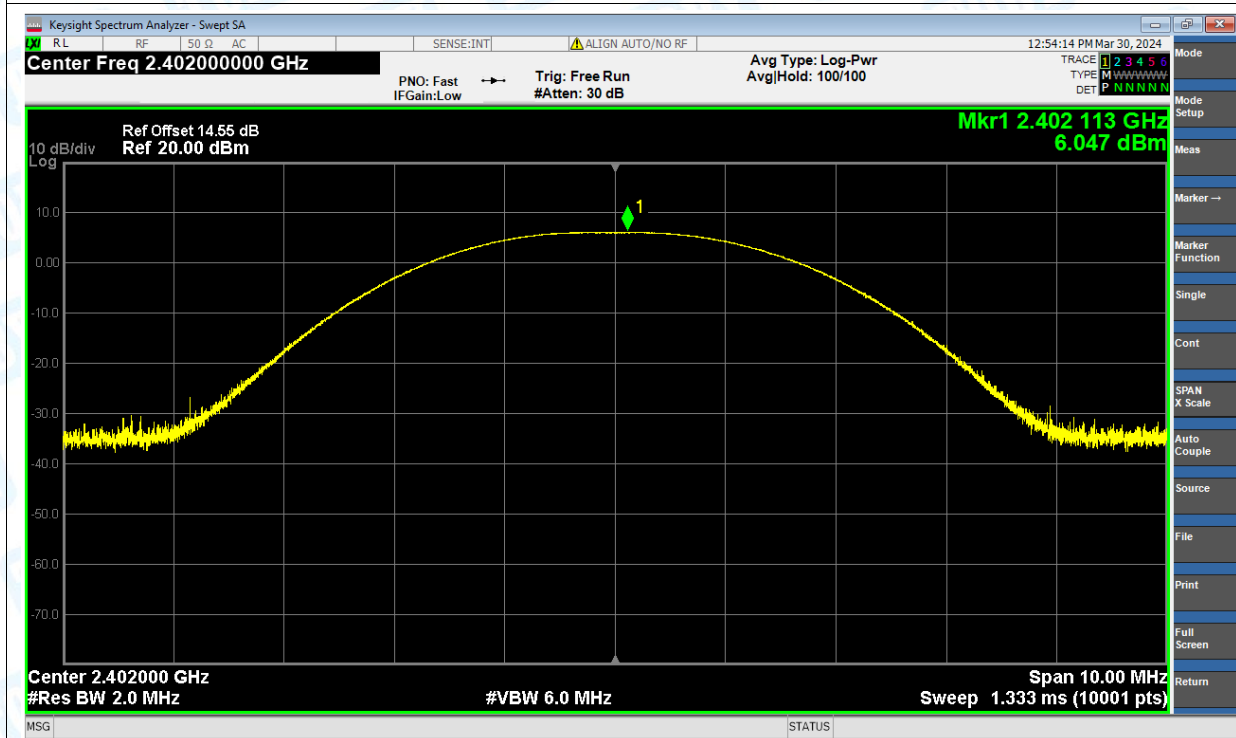


2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	6.047	21	Pass
NVNT	1-DH1	2441	Ant1	6.432	21	Pass
NVNT	1-DH1	2480	Ant1	6.536	21	Pass
NVNT	2-DH1	2402	Ant1	6.735	21	Pass
NVNT	2-DH1	2441	Ant1	6.951	21	Pass
NVNT	2-DH1	2480	Ant1	7.026	21	Pass
NVNT	3-DH1	2402	Ant1	7.209	21	Pass
NVNT	3-DH1	2441	Ant1	7.384	21	Pass
NVNT	3-DH1	2480	Ant1	7.351	21	Pass

Test Graphs

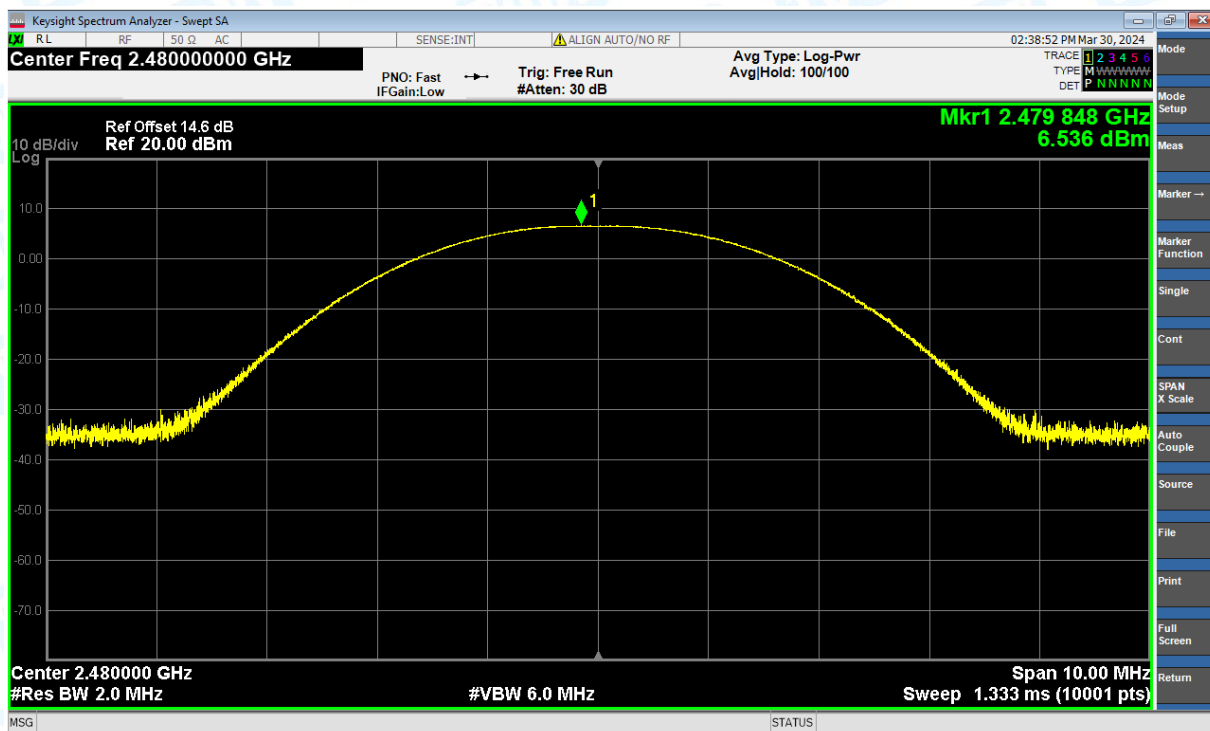
Power NVNT 1-DH1 2402MHz Ant1



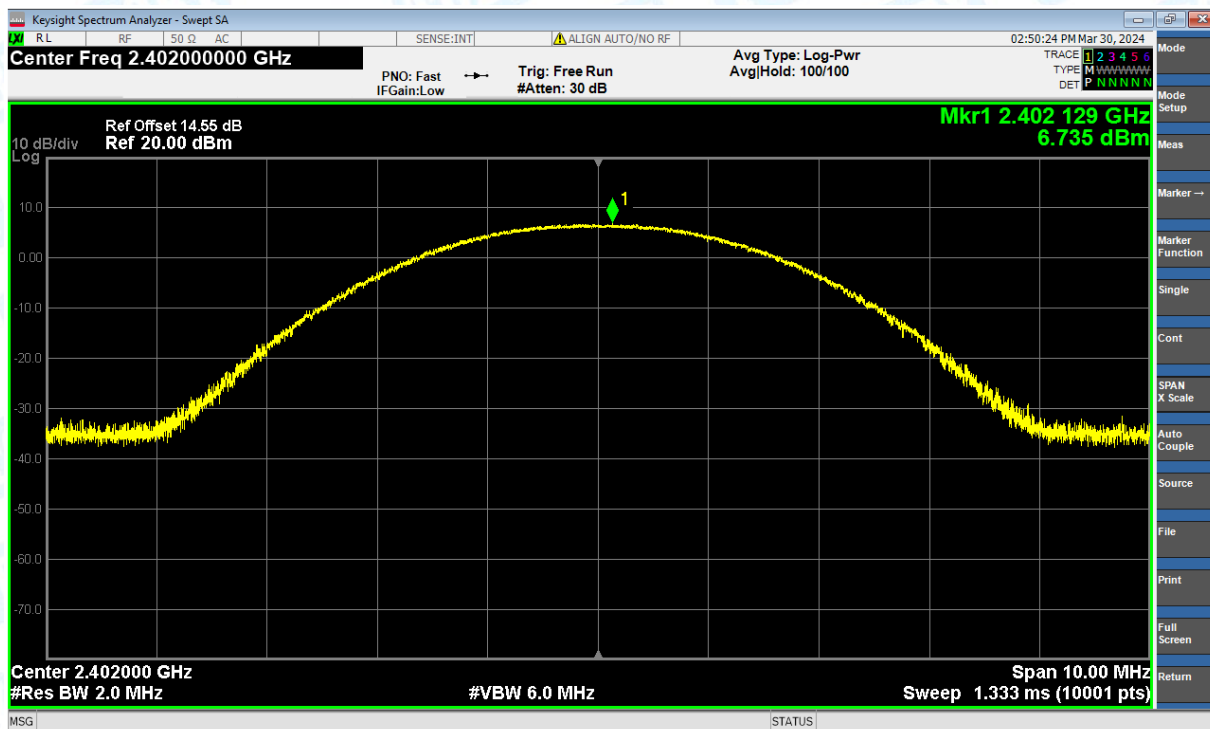
Power NVNT 1-DH1 2441MHz Ant1



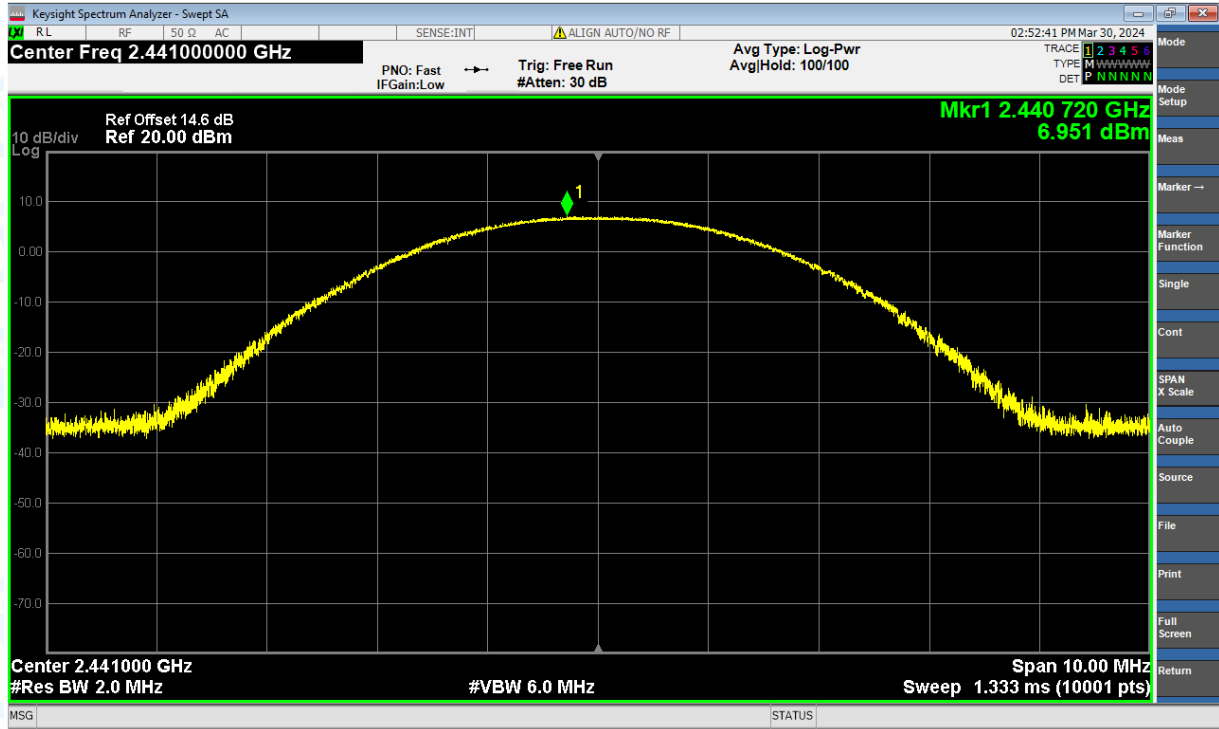
Power NVNT 1-DH1 2480MHz Ant1



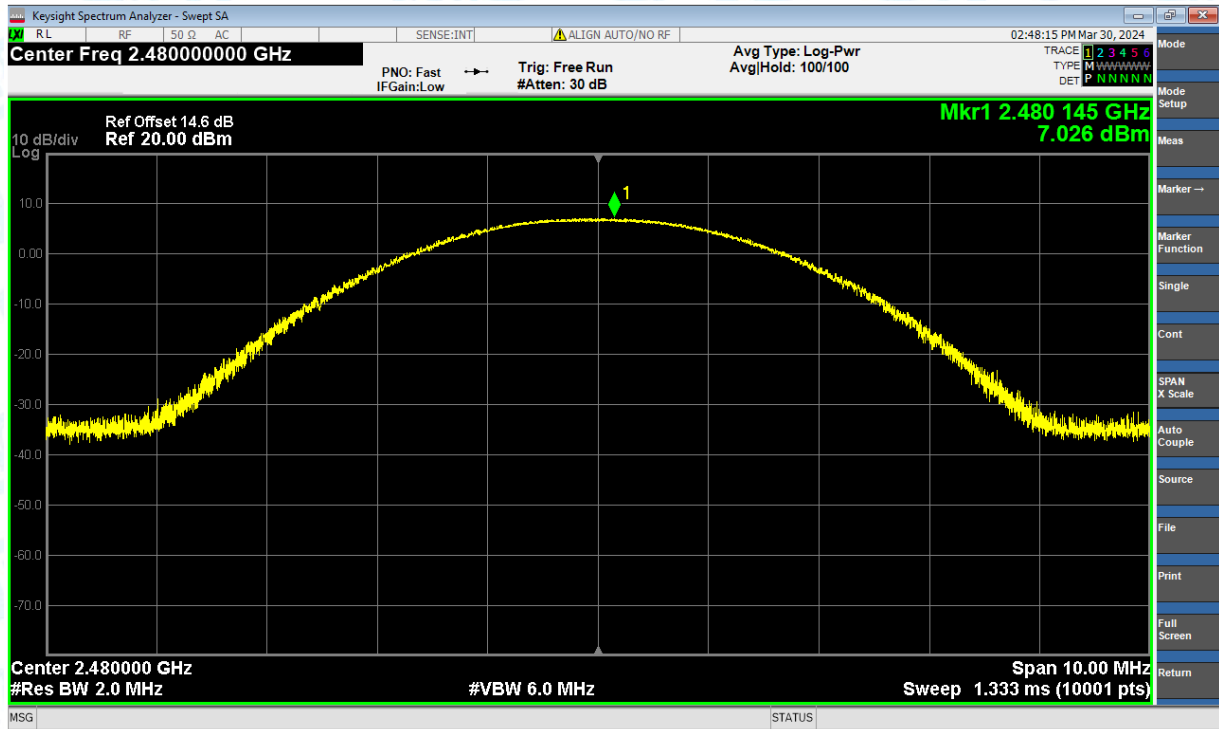
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



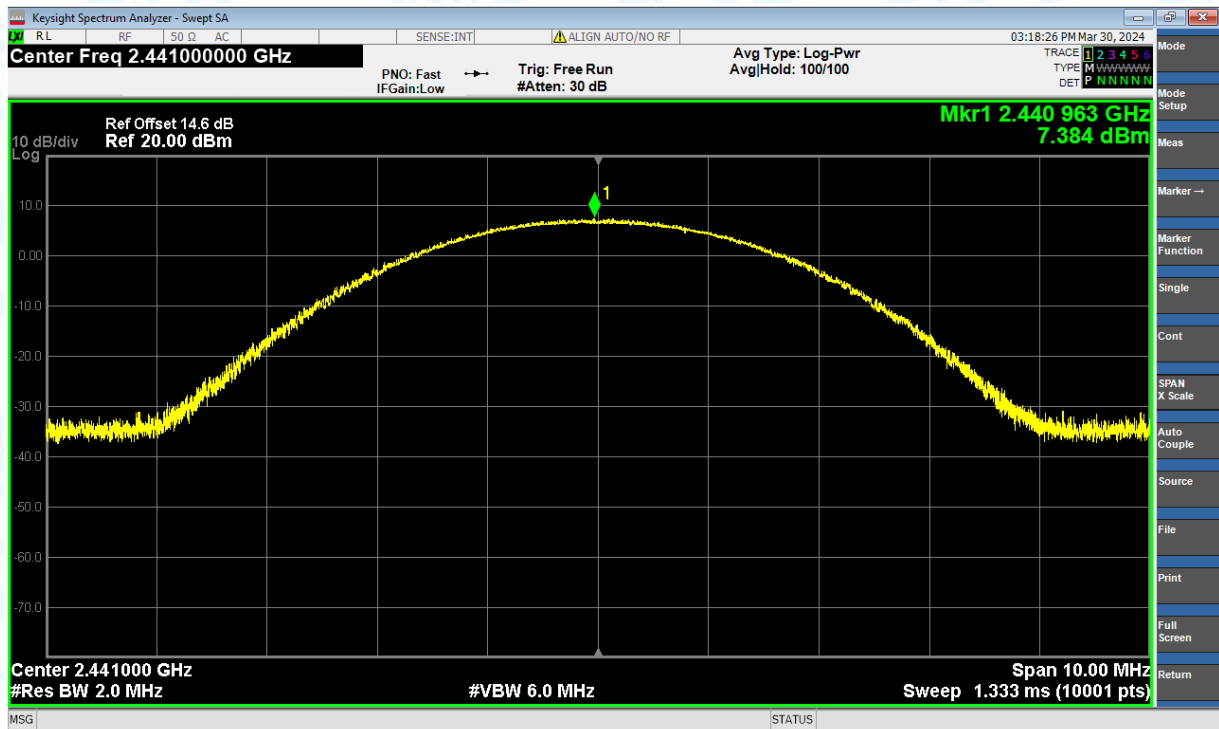
Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



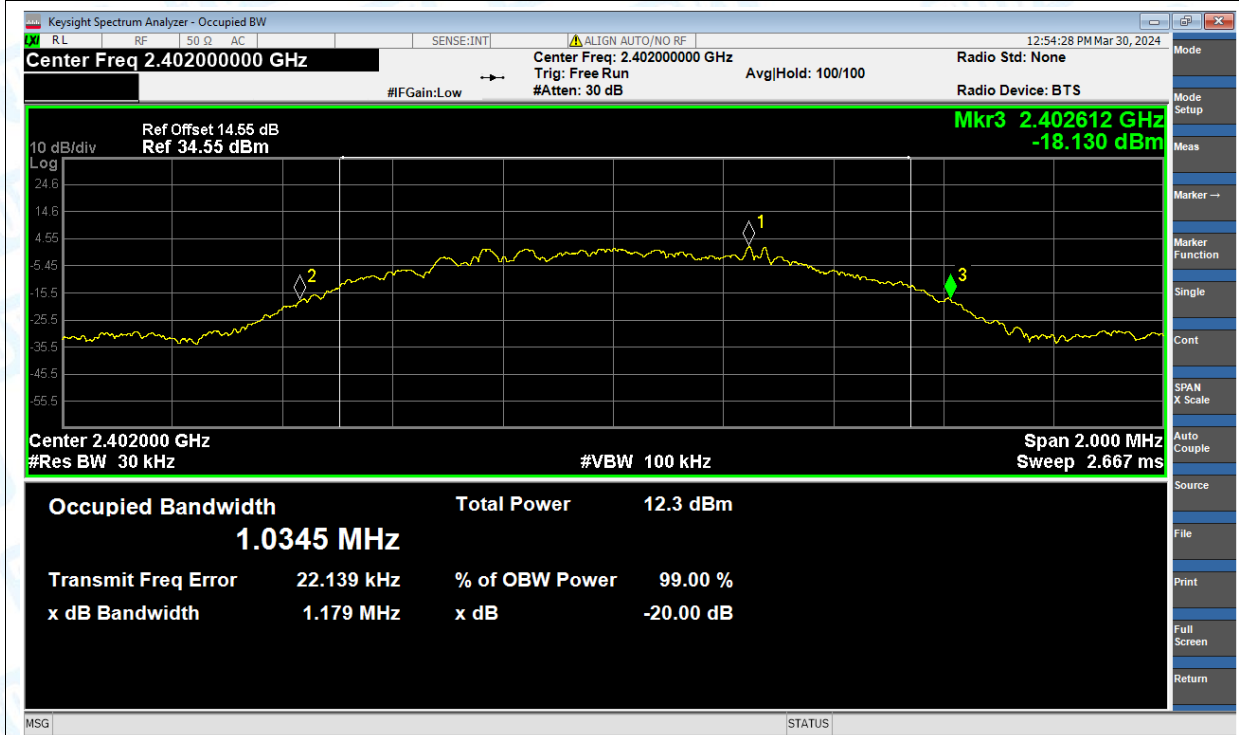


3. -20dB Bandwidth

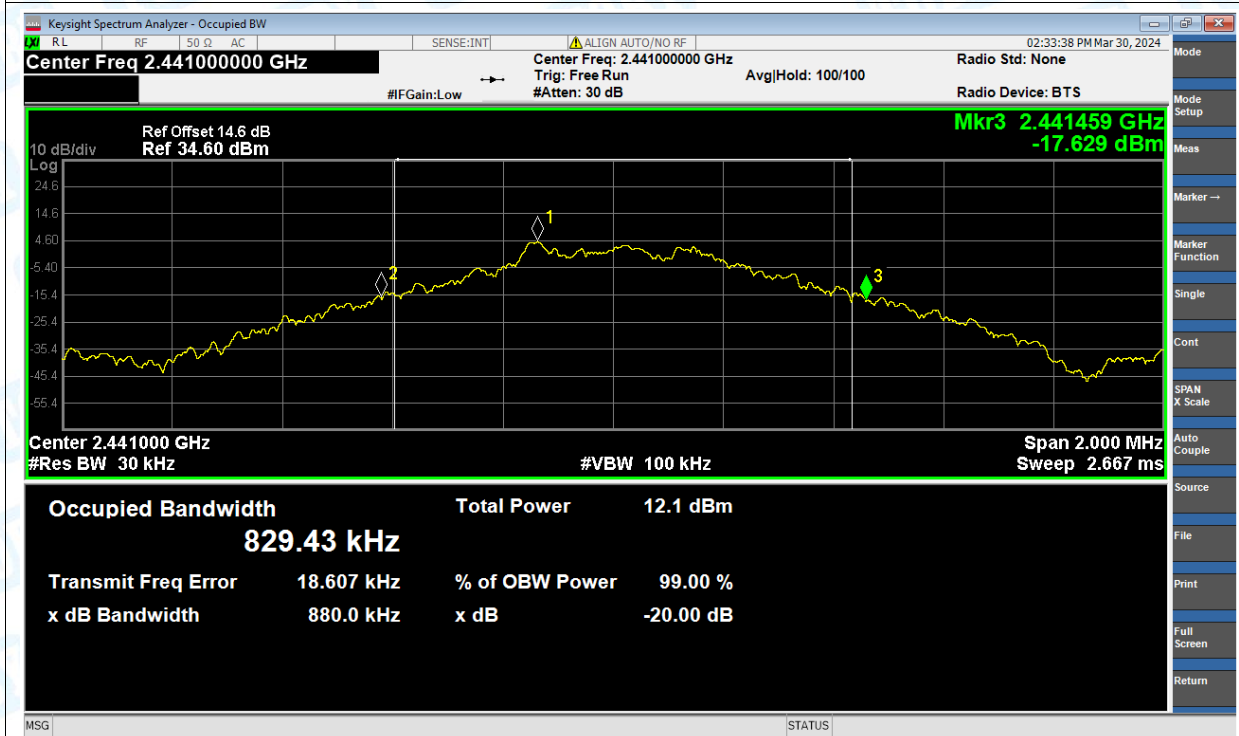
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	1.18	----	Pass
NVNT	1-DH1	2441	Ant1	0.88	----	Pass
NVNT	1-DH1	2480	Ant1	0.85	----	Pass
NVNT	2-DH1	2402	Ant1	1.23	----	Pass
NVNT	2-DH1	2441	Ant1	1.25	----	Pass
NVNT	2-DH1	2480	Ant1	1.26	----	Pass
NVNT	3-DH1	2402	Ant1	1.20	----	Pass
NVNT	3-DH1	2441	Ant1	1.22	----	Pass
NVNT	3-DH1	2480	Ant1	1.21	----	Pass

Test Graphs

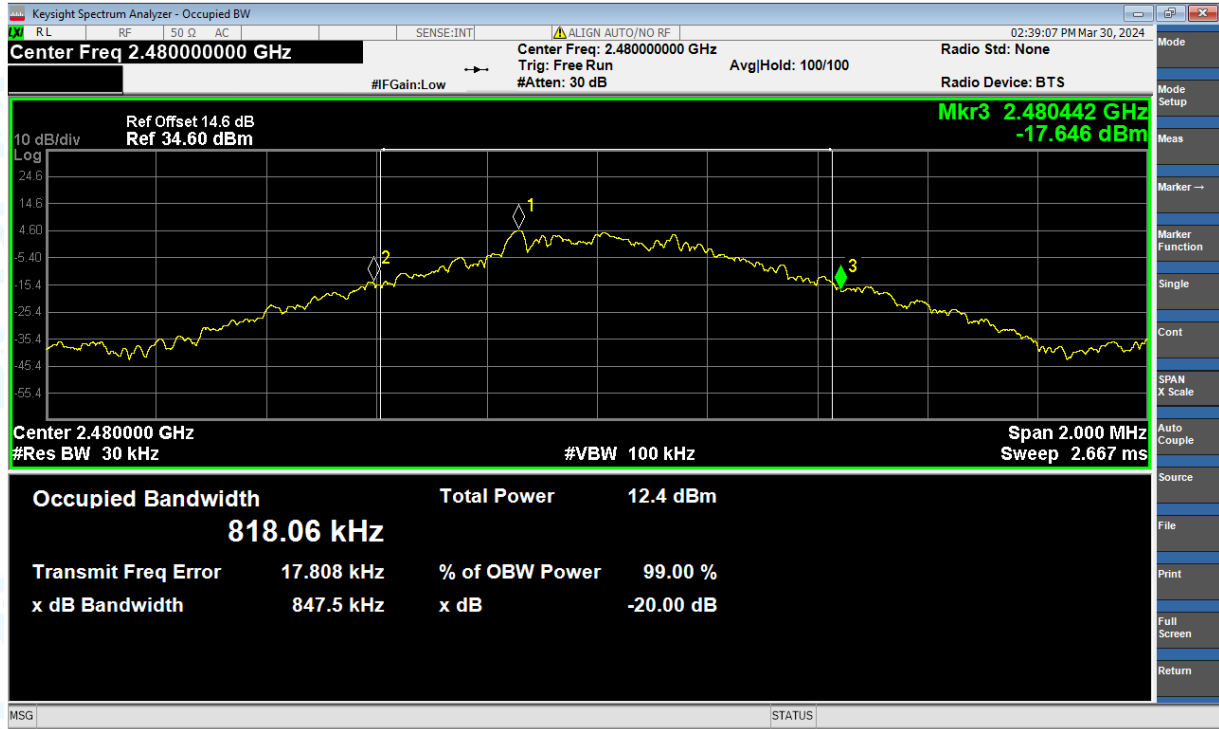
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



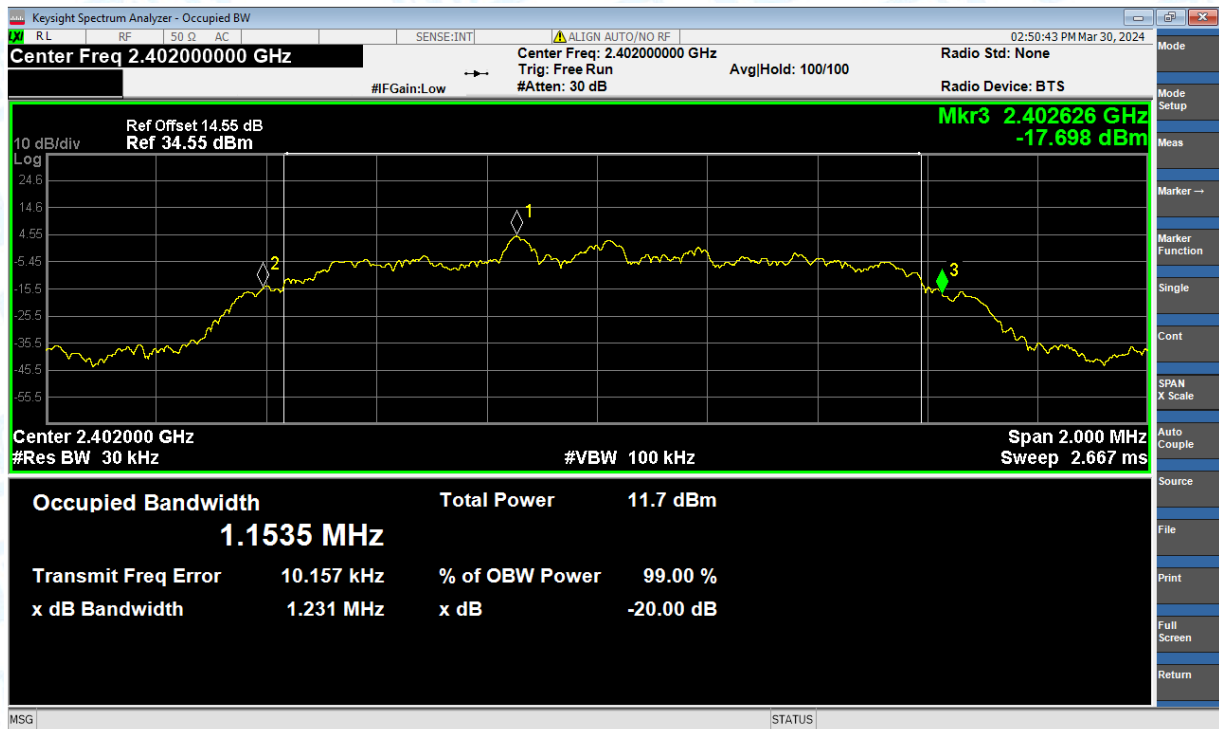
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



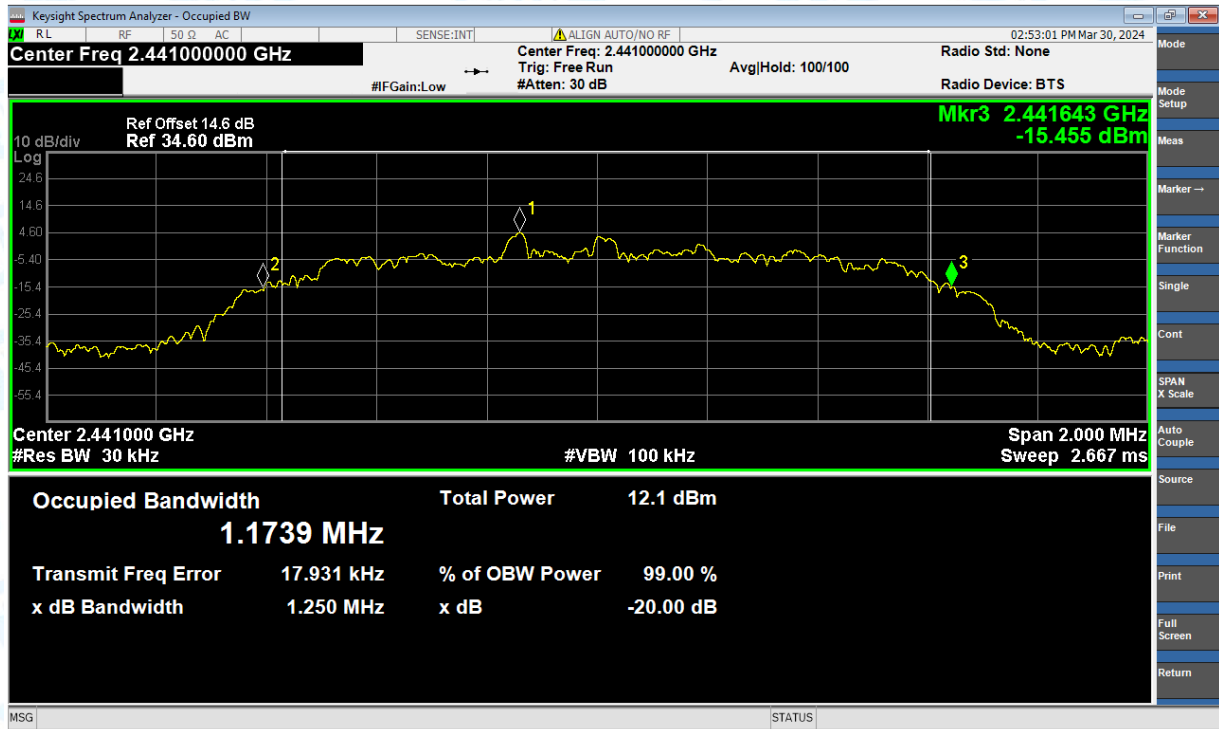
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



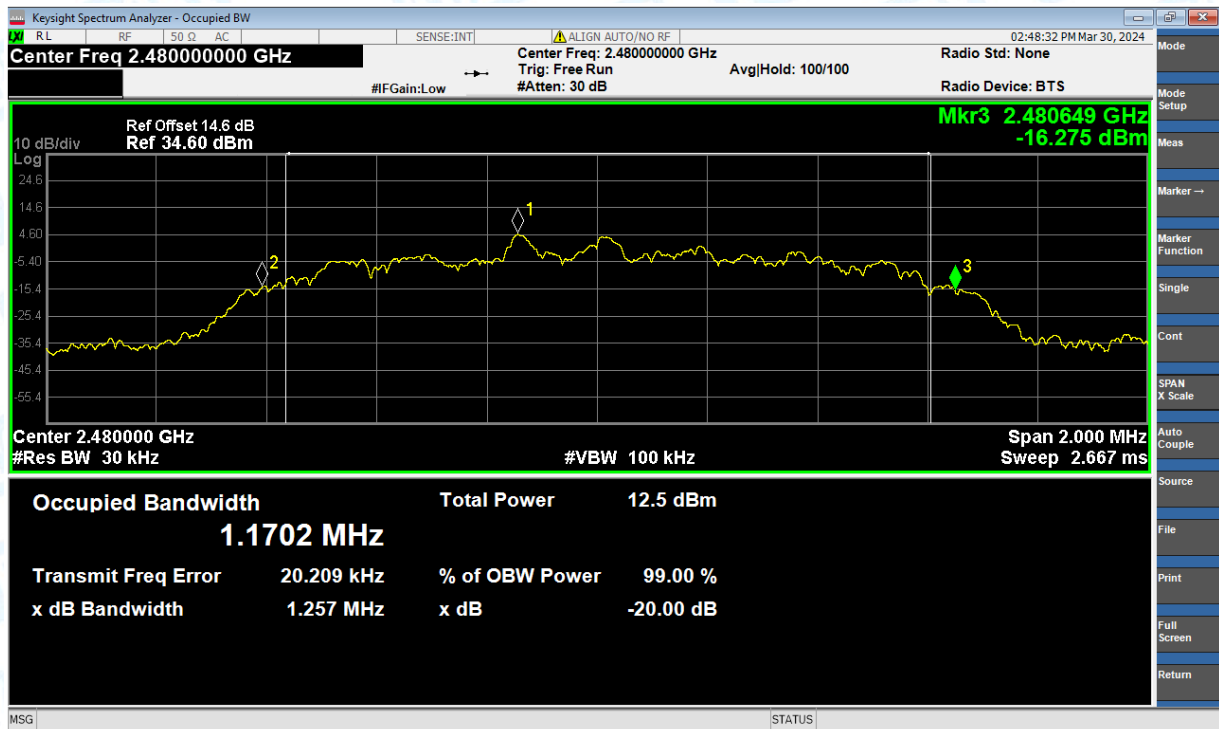
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



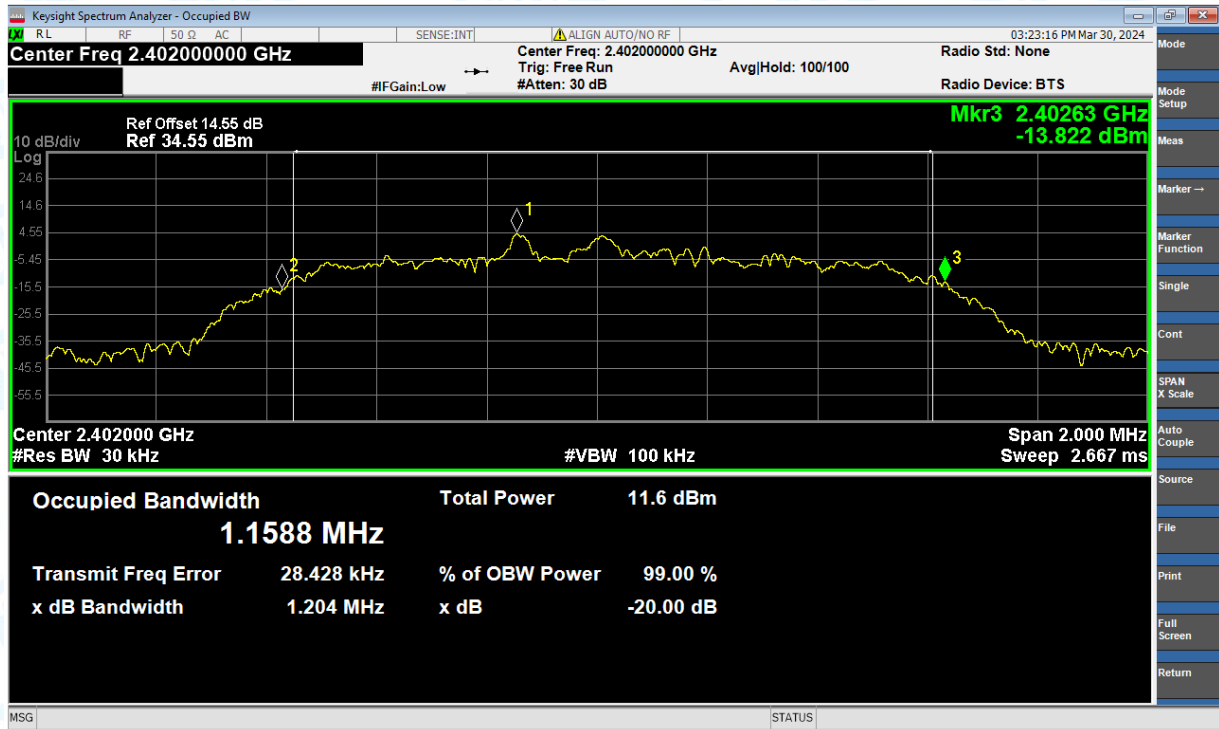
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



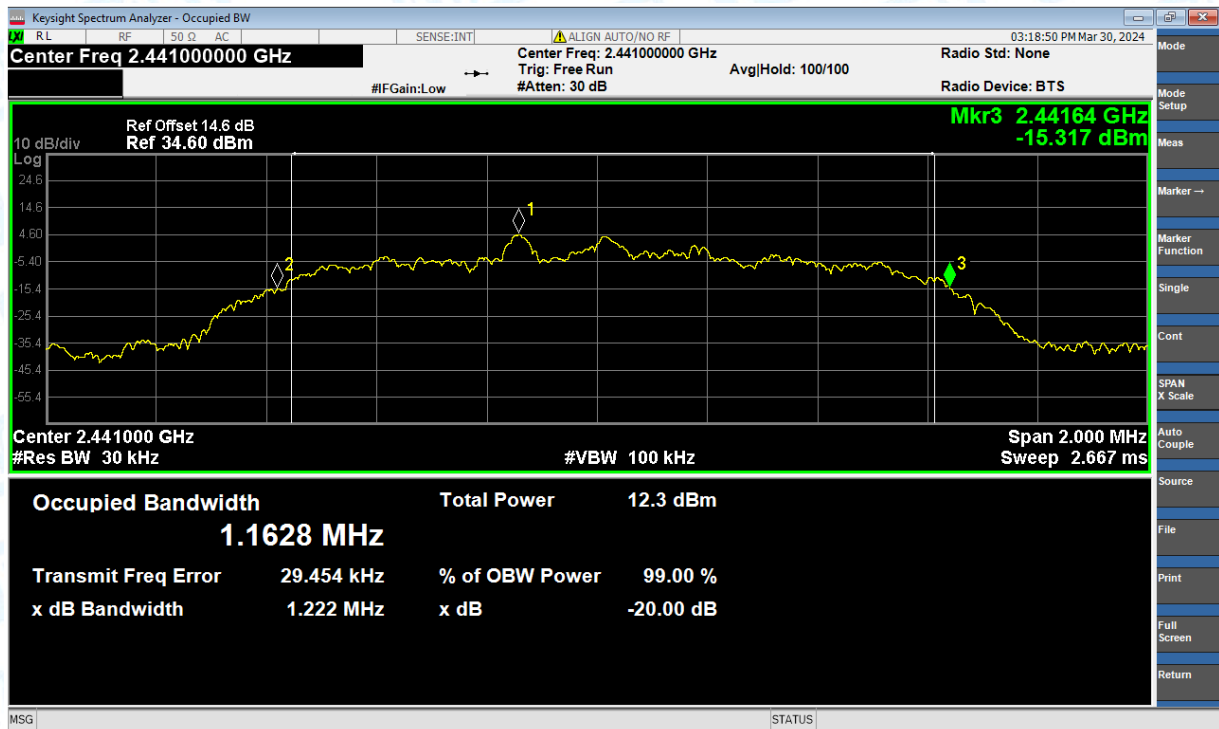
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

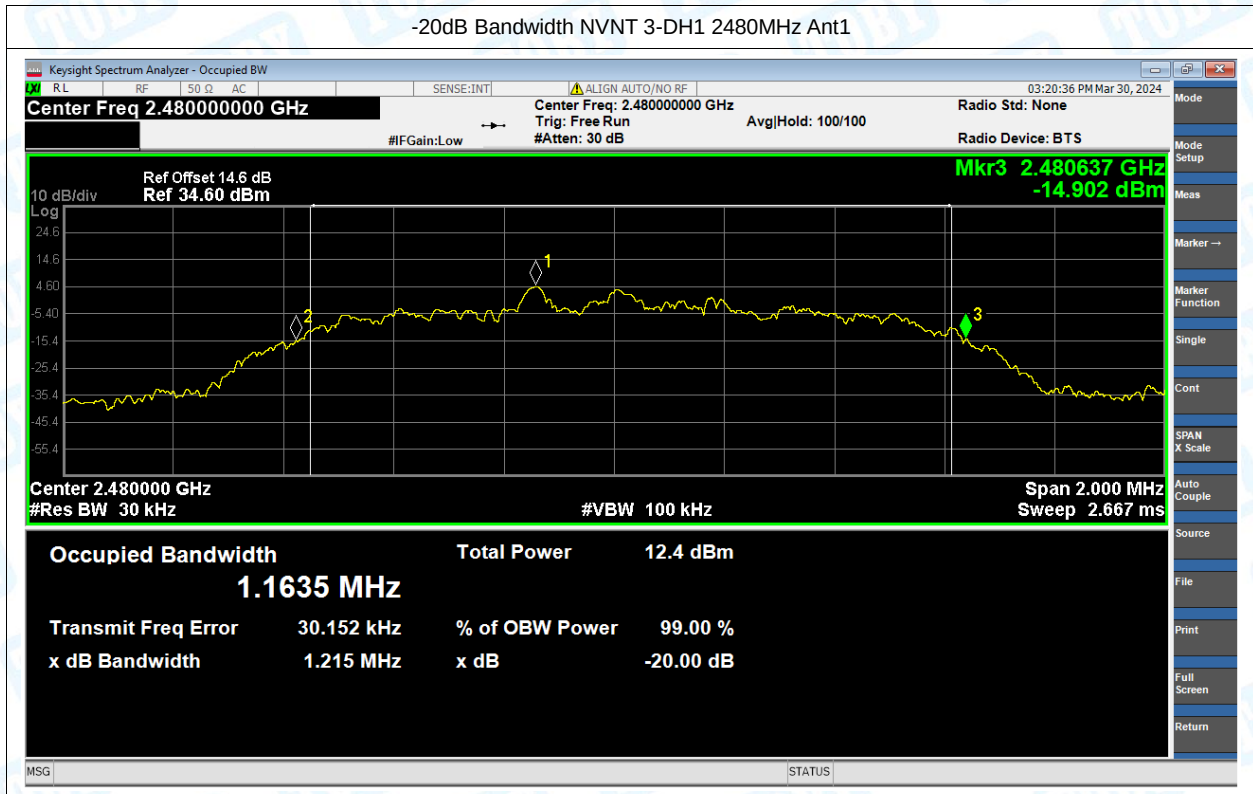


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



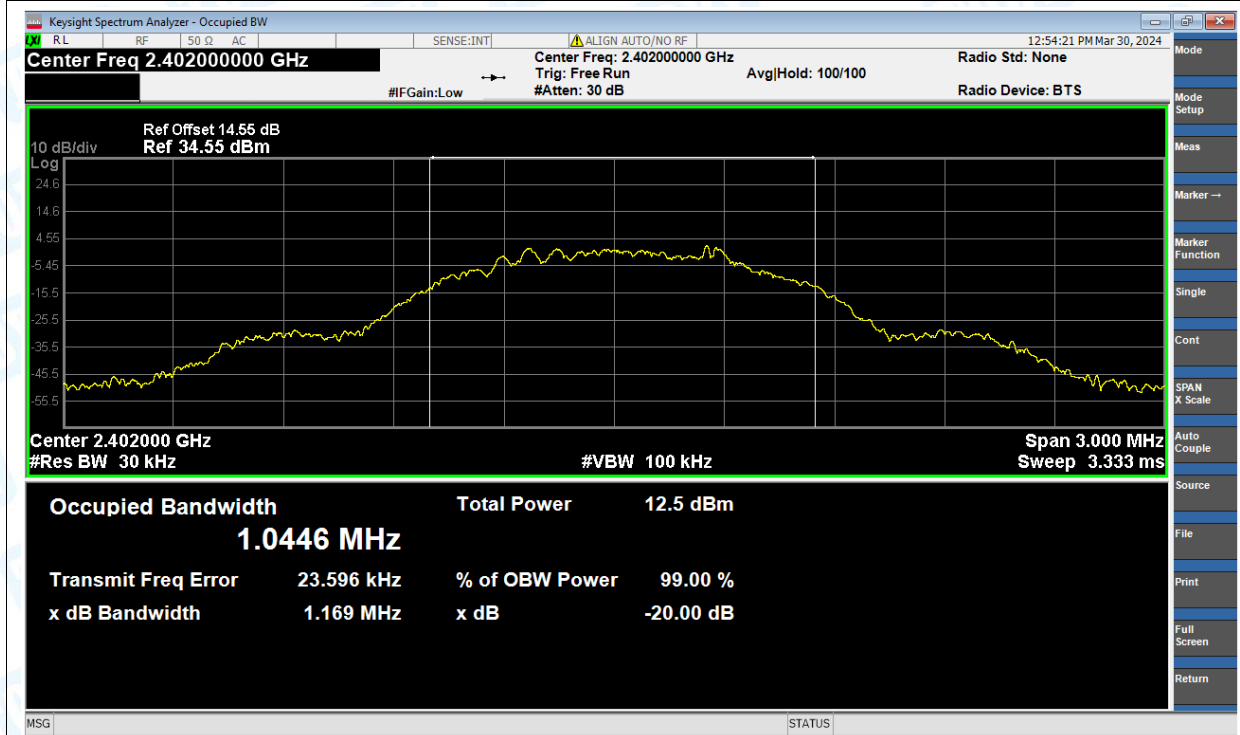


4. Occupied Channel Bandwidth

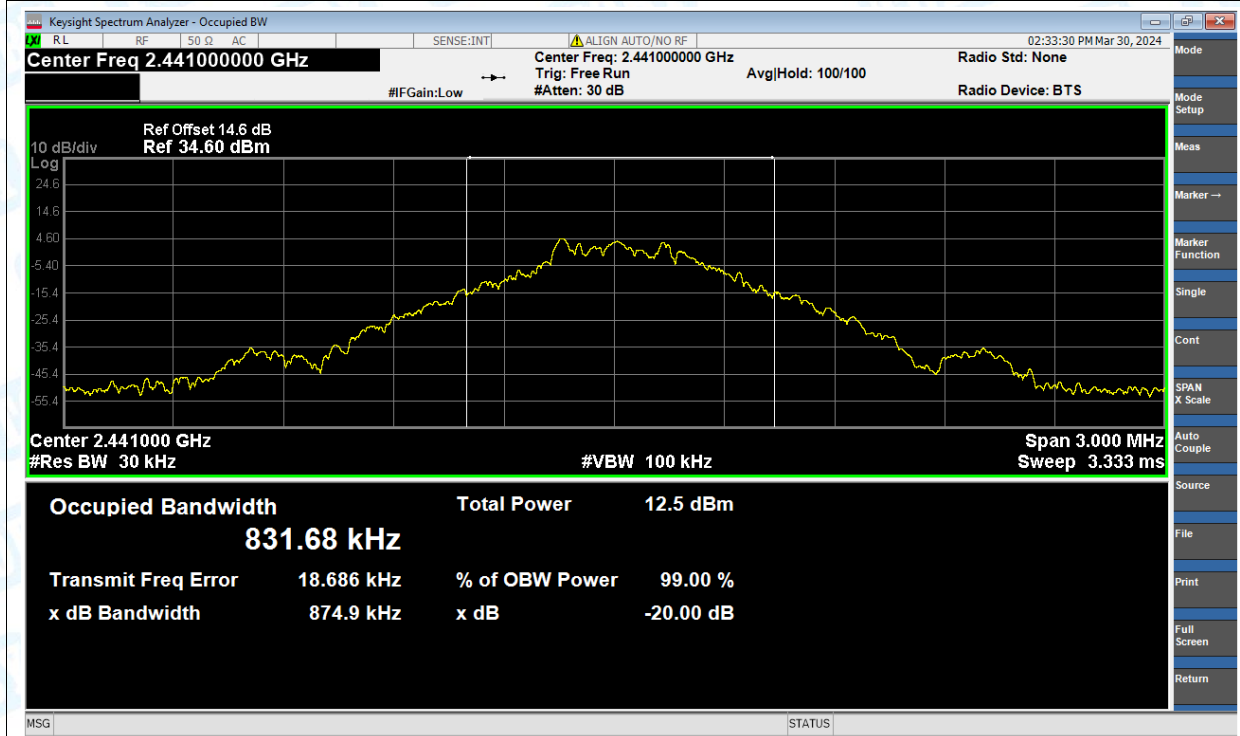
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	1.045
NVNT	1-DH1	2441	Ant1	0.832
NVNT	1-DH1	2480	Ant1	0.826
NVNT	2-DH1	2402	Ant1	1.174
NVNT	2-DH1	2441	Ant1	1.169
NVNT	2-DH1	2480	Ant1	1.175
NVNT	3-DH1	2402	Ant1	1.165
NVNT	3-DH1	2441	Ant1	1.156
NVNT	3-DH1	2480	Ant1	1.151

Test Graphs

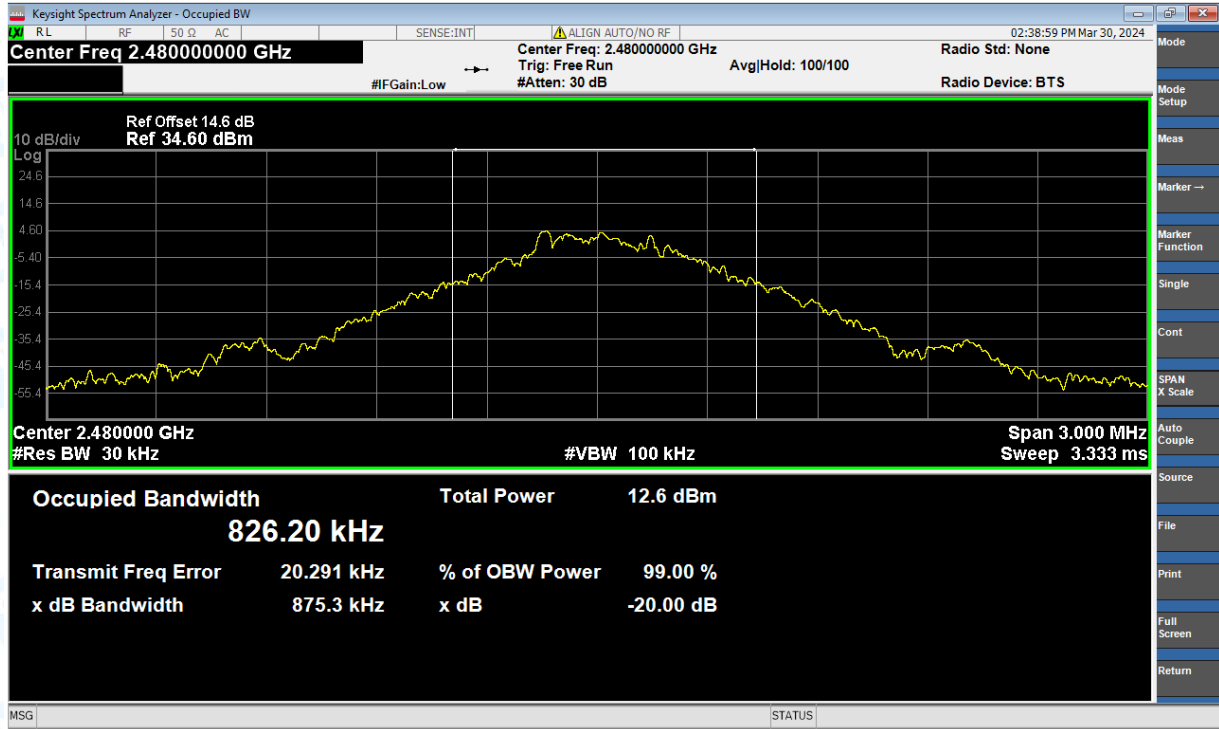
OBW NVNT 1-DH1 2402MHz Ant1



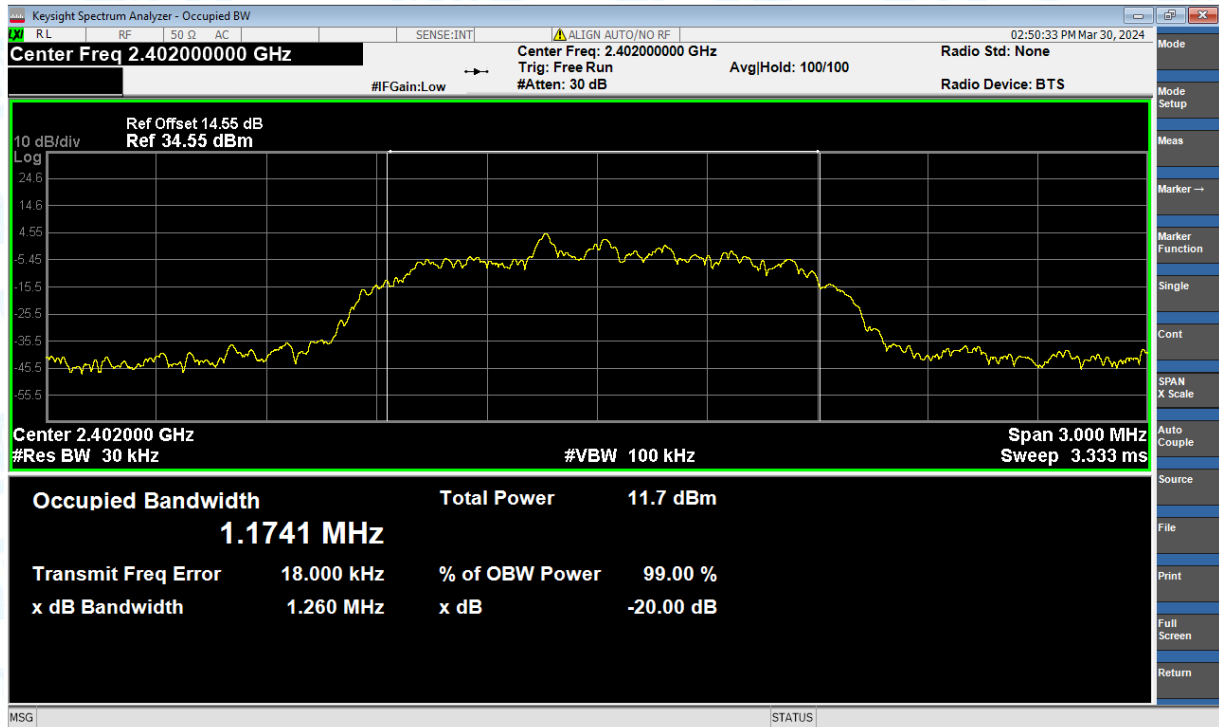
OBW NVNT 1-DH1 2441MHz Ant1



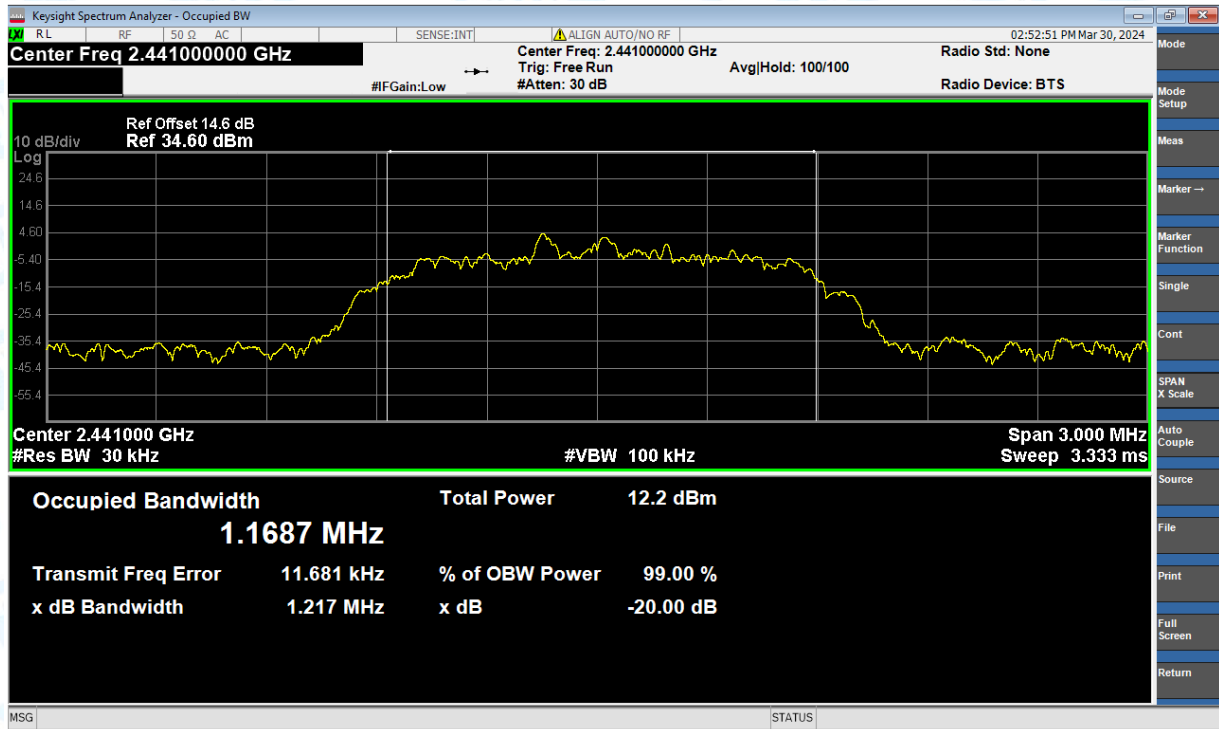
OBW NVNT 1-DH1 2480MHz Ant1



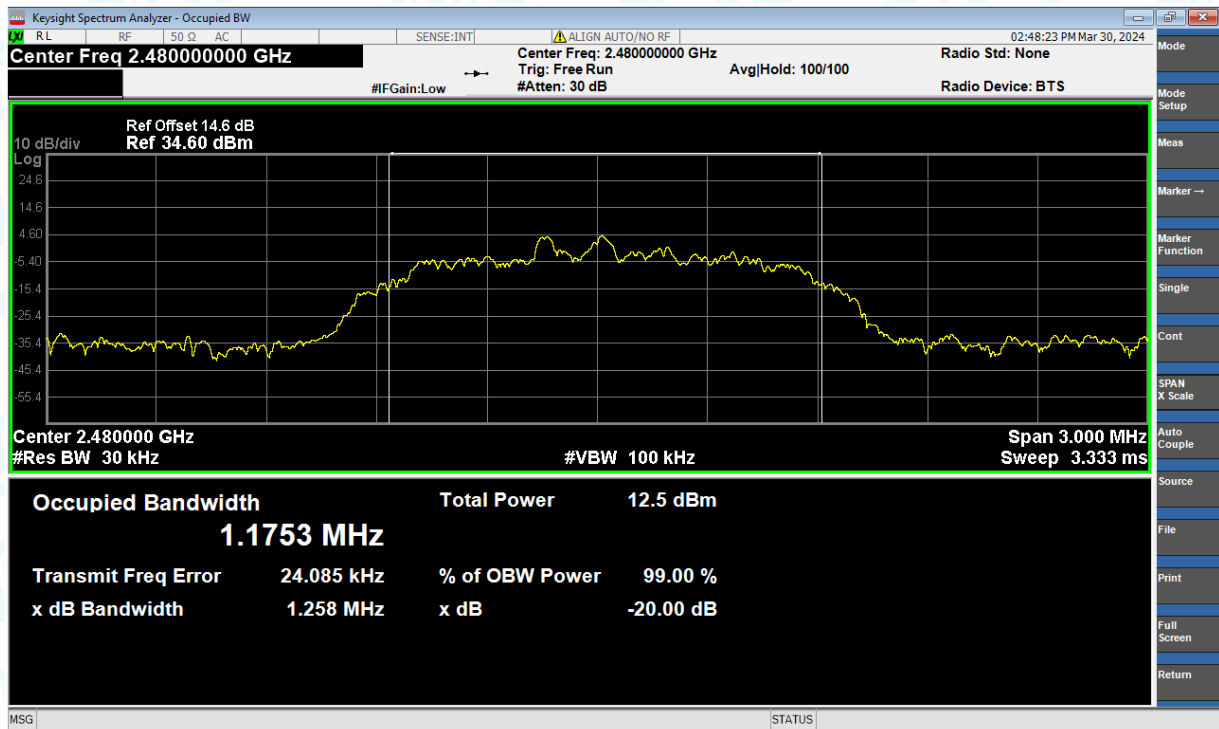
OBW NVNT 2-DH1 2402MHz Ant1



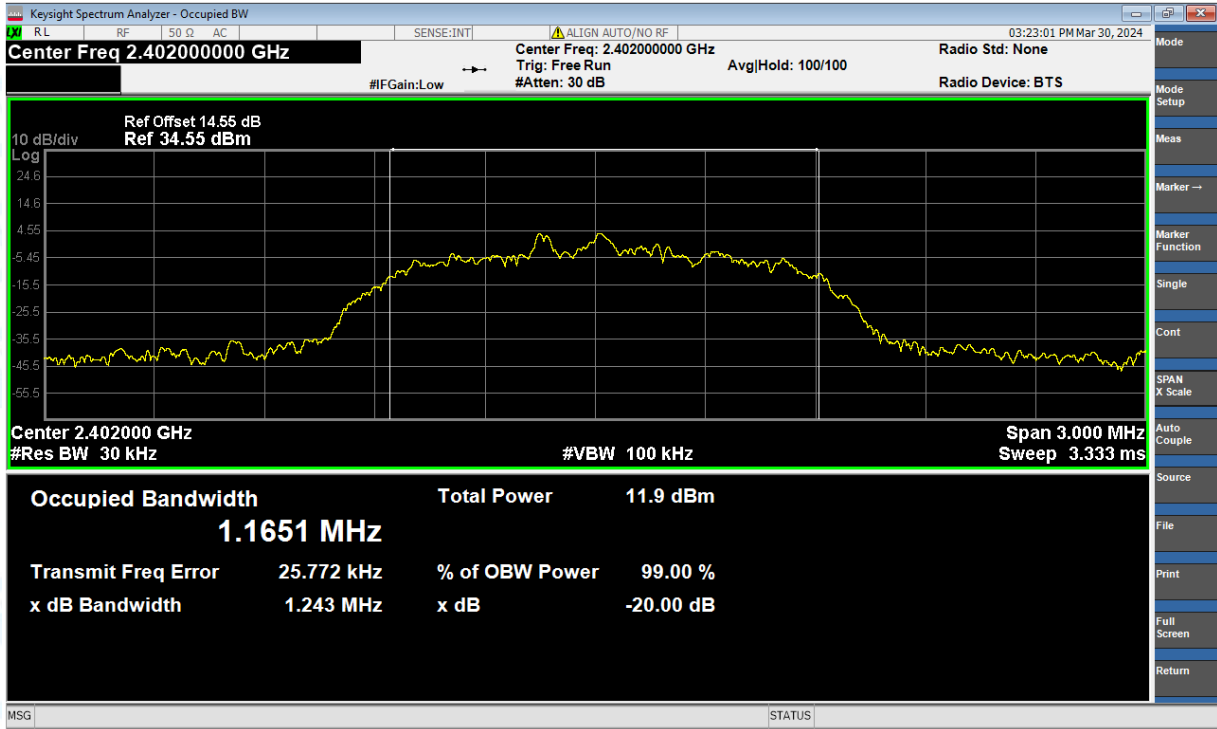
OBW NVNT 2-DH1 2441MHz Ant1



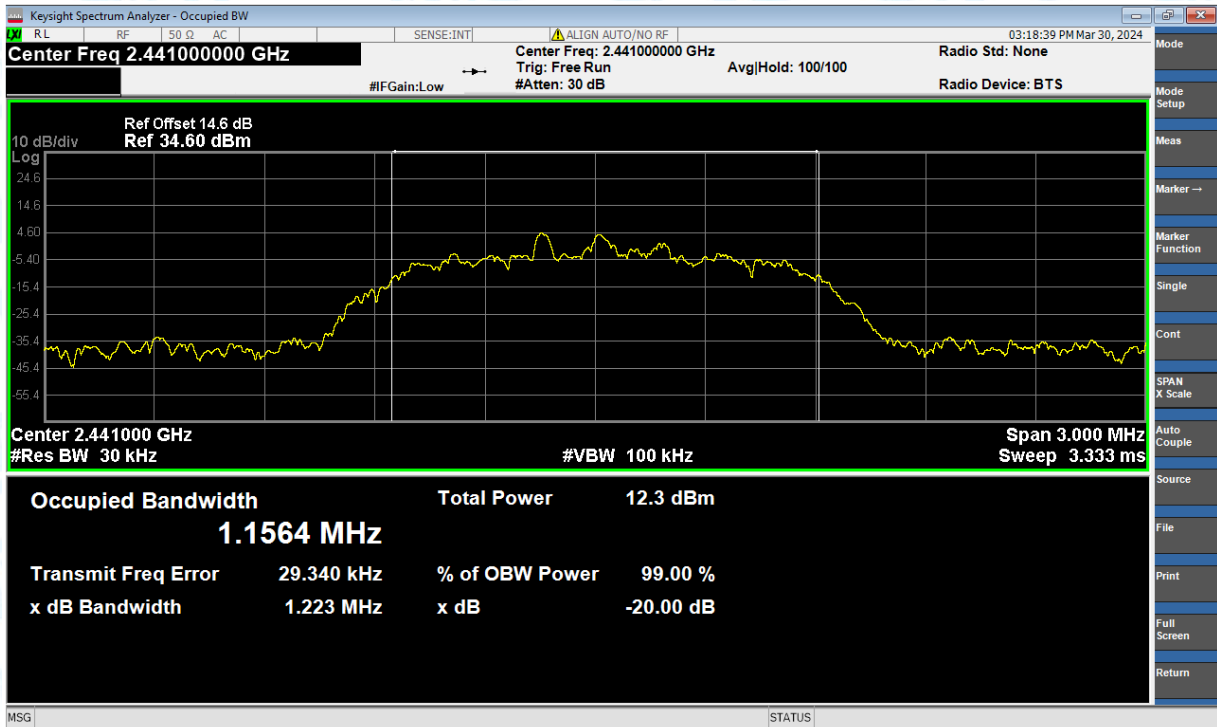
OBW NVNT 2-DH1 2480MHz Ant1

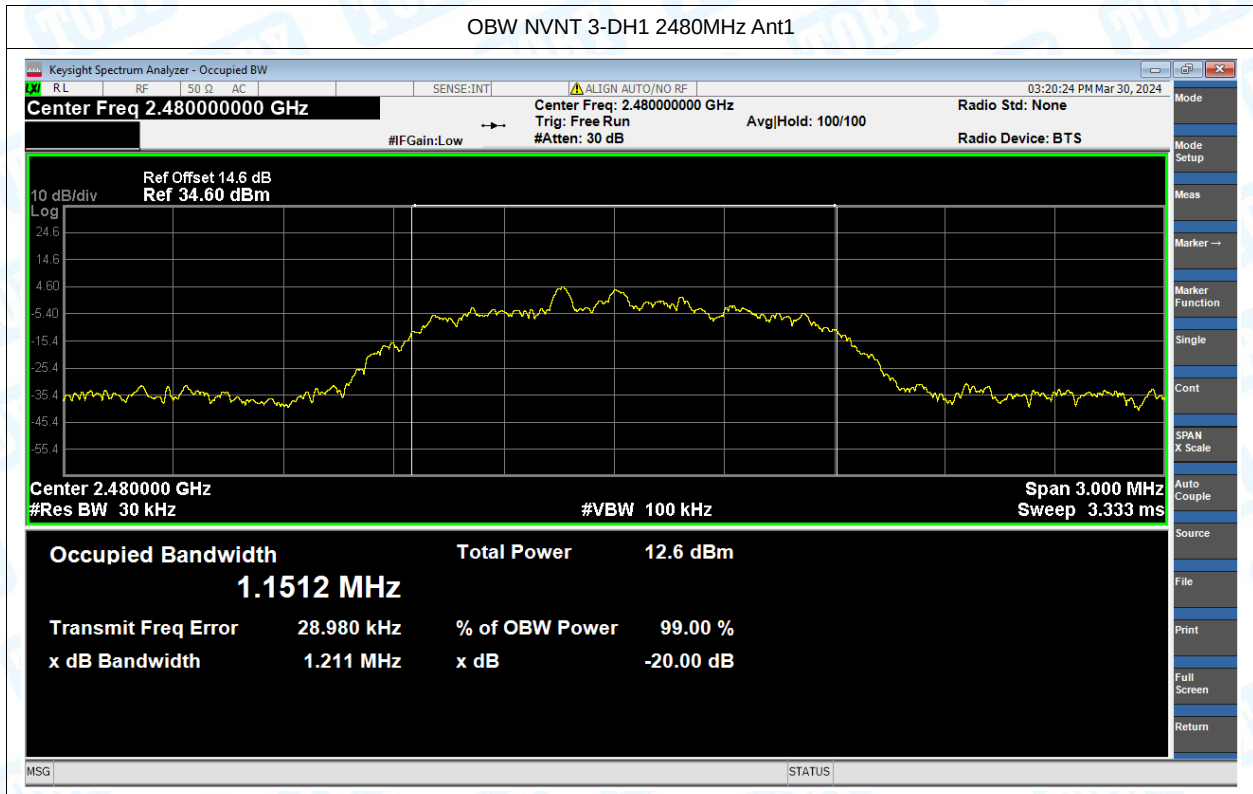


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



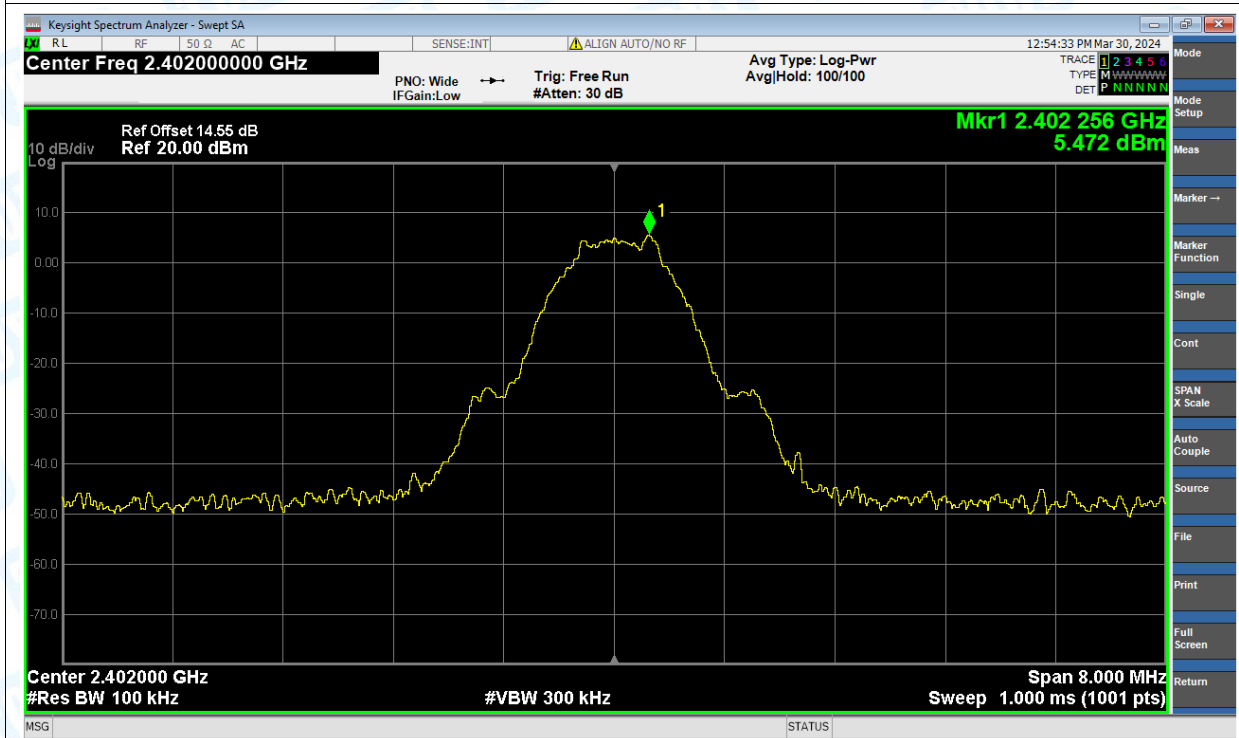


5. Band Edge

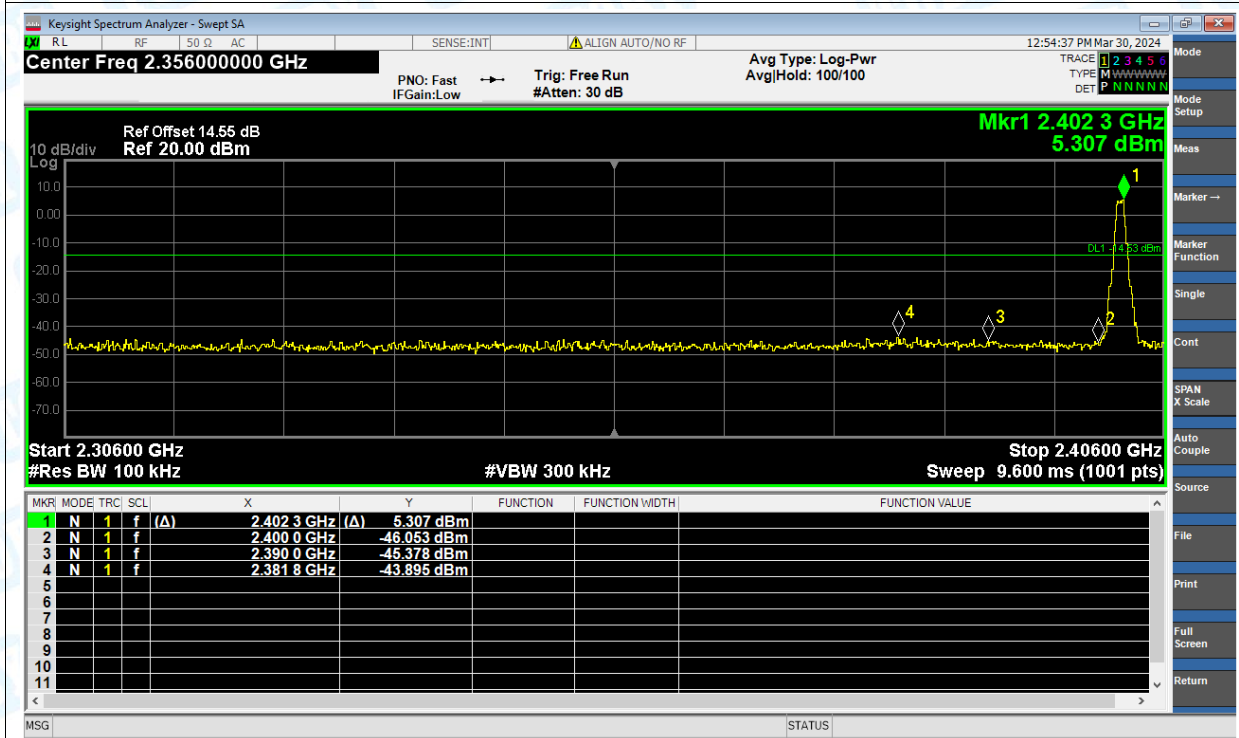
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-49.36	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-50.19	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-49.81	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.80	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-49.71	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-50.46	-20	Pass

Test Graphs

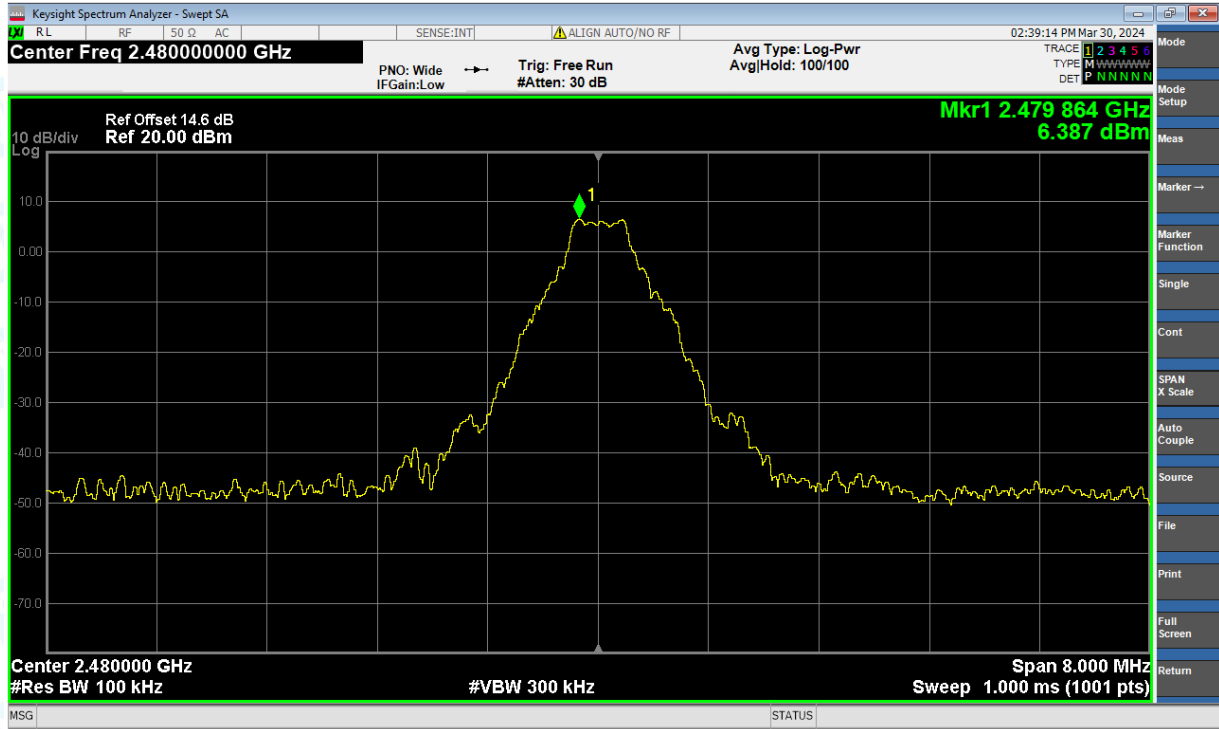
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



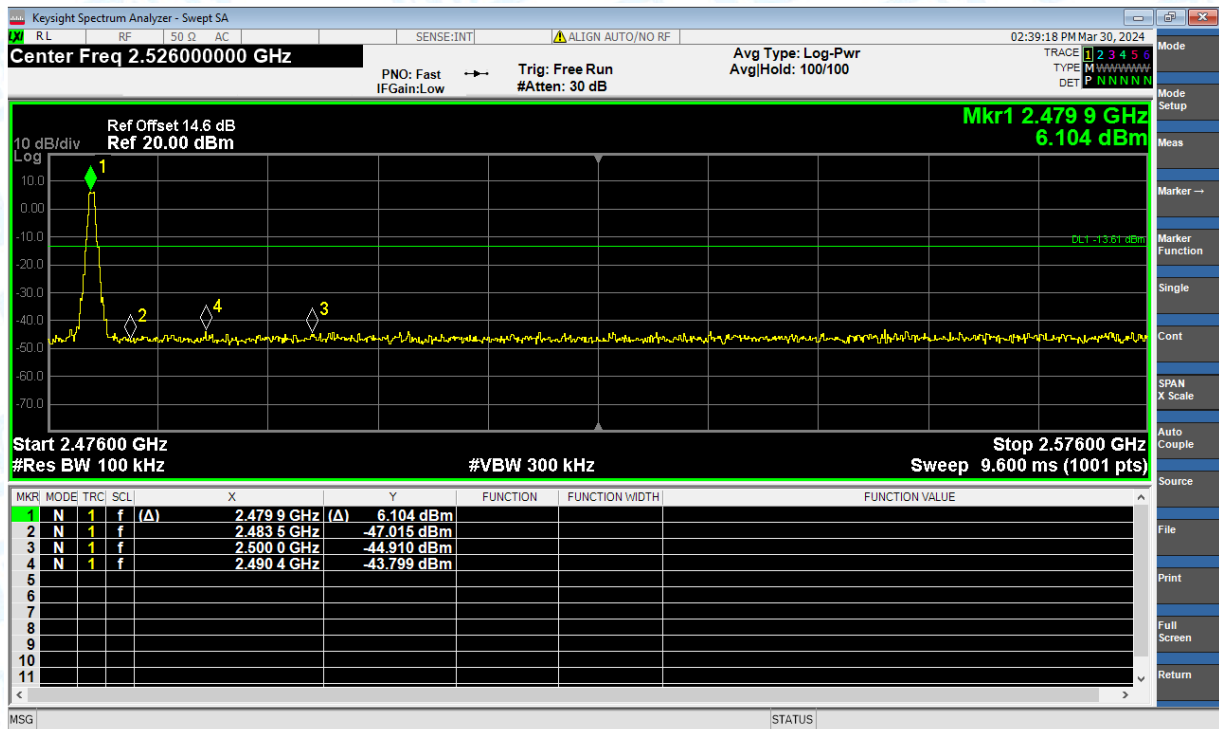
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



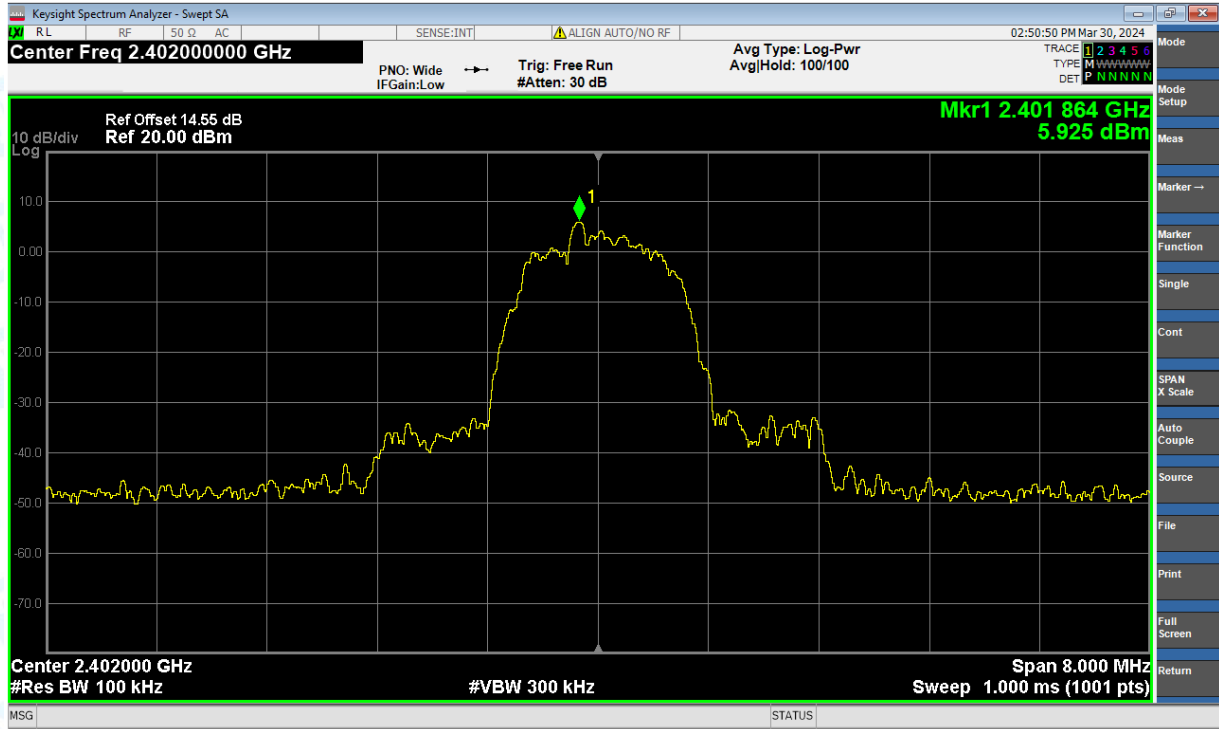
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



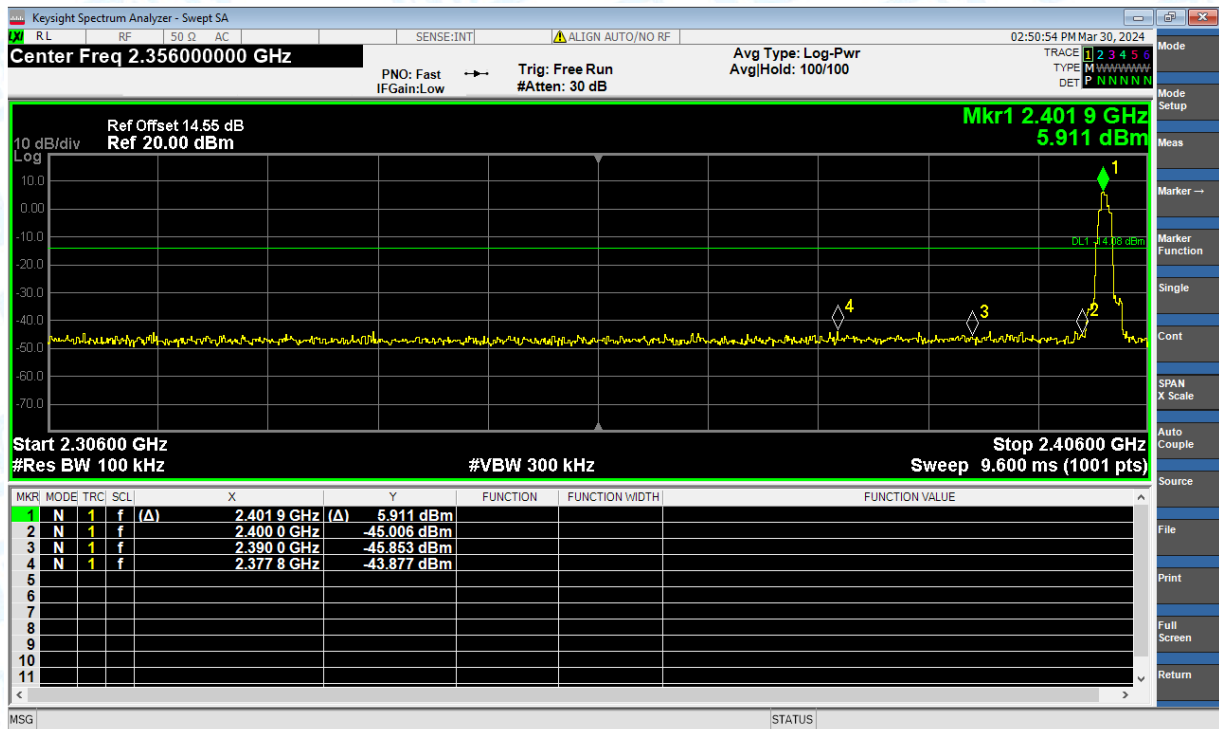
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



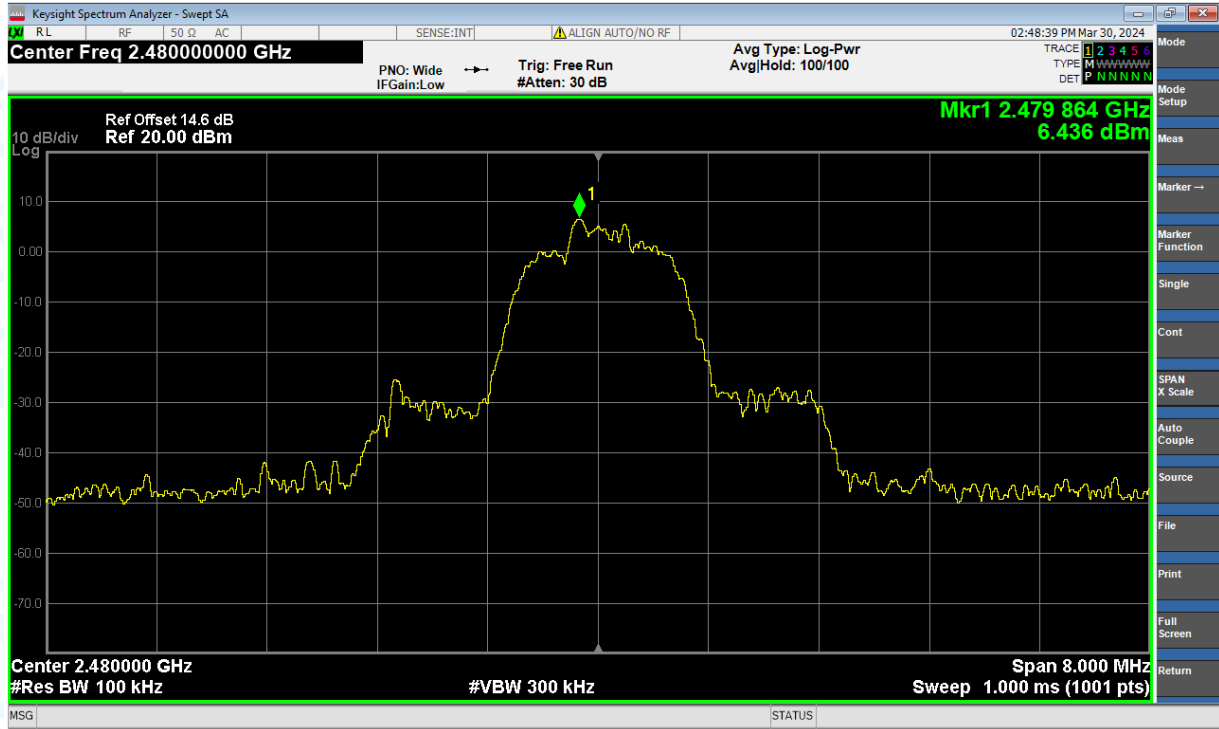
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



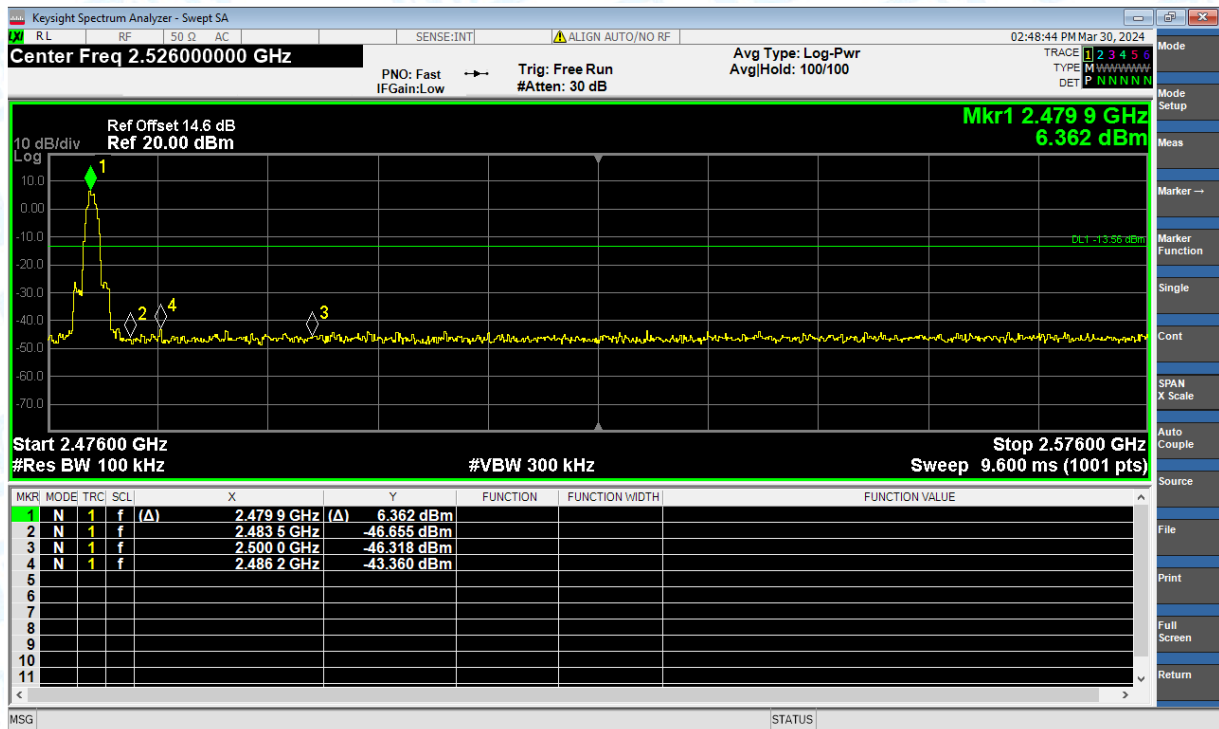
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



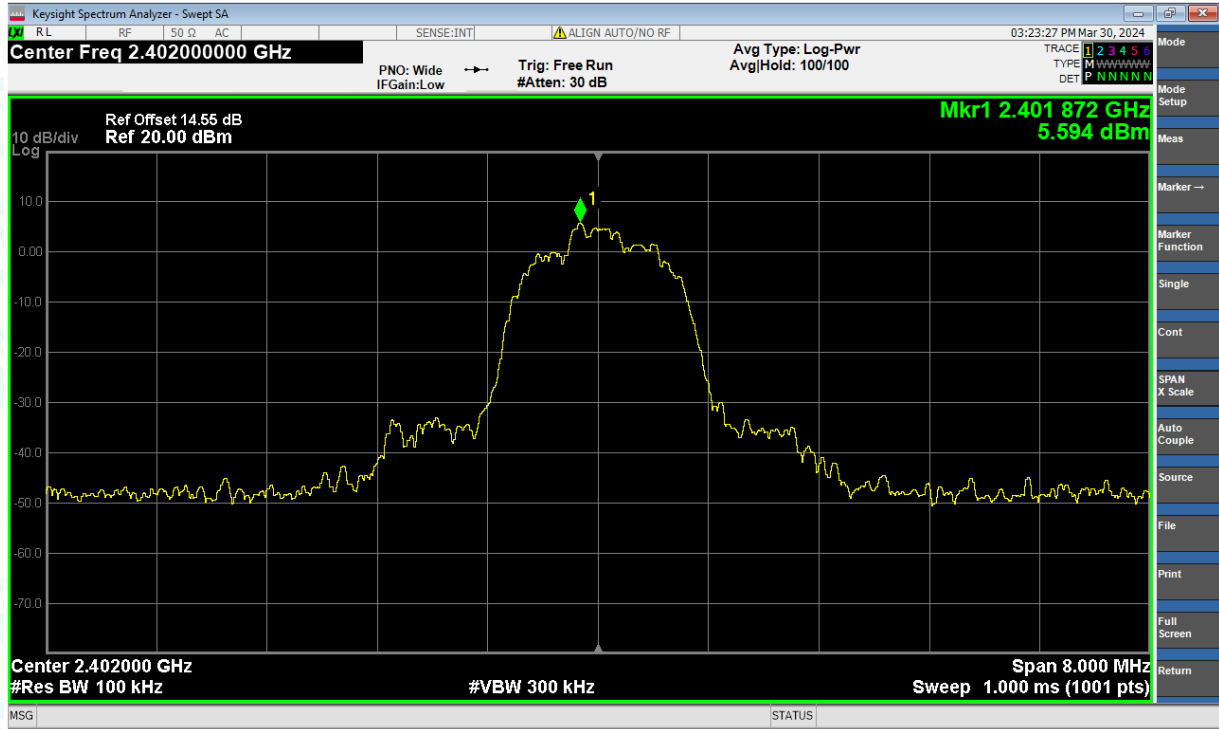
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



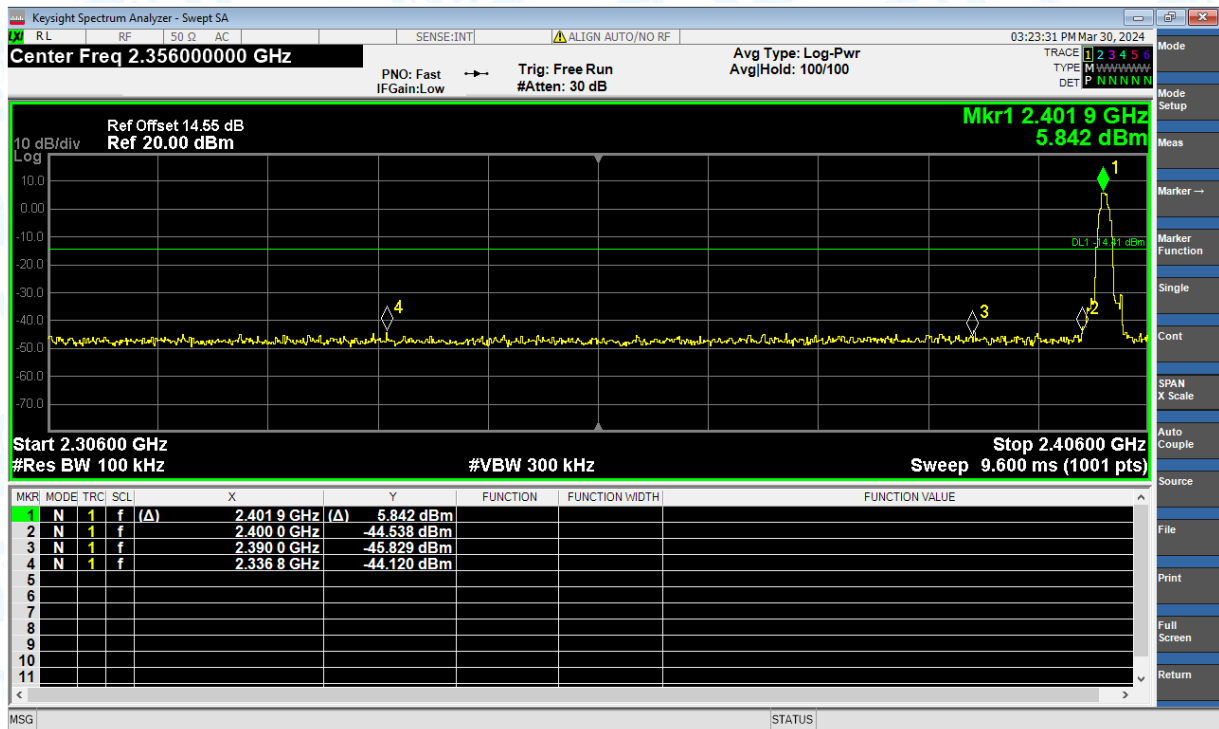
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



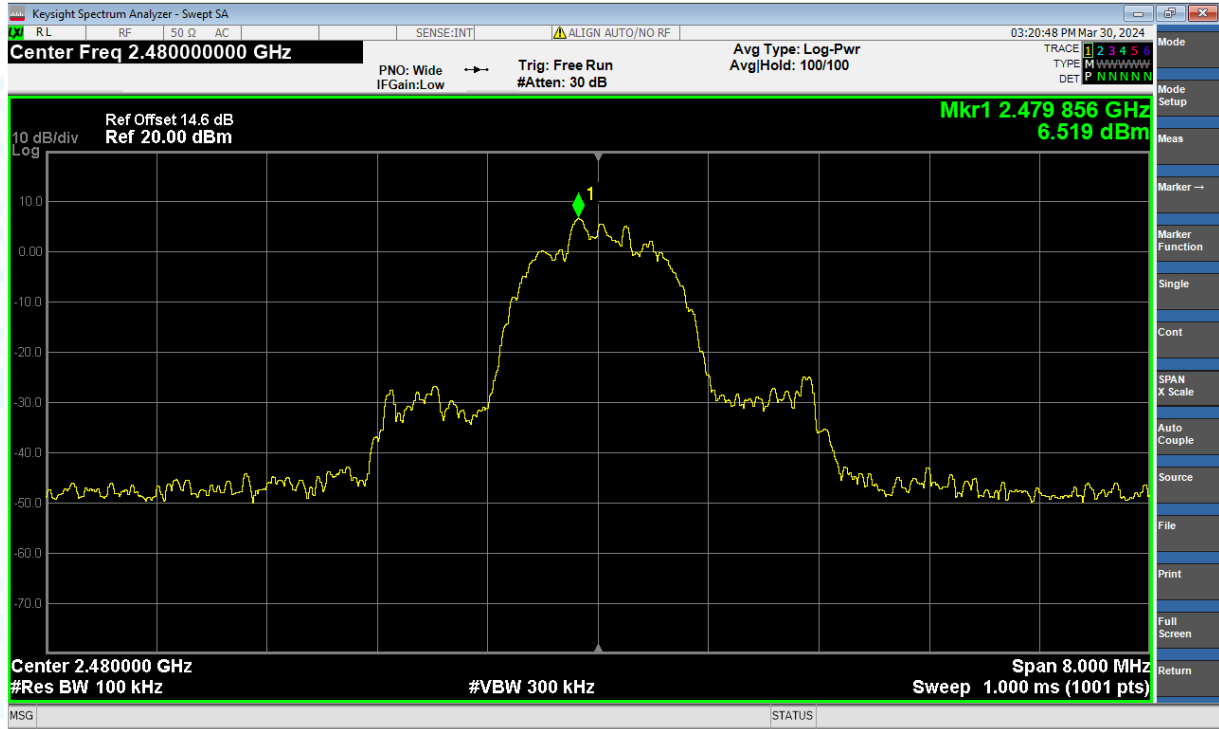
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



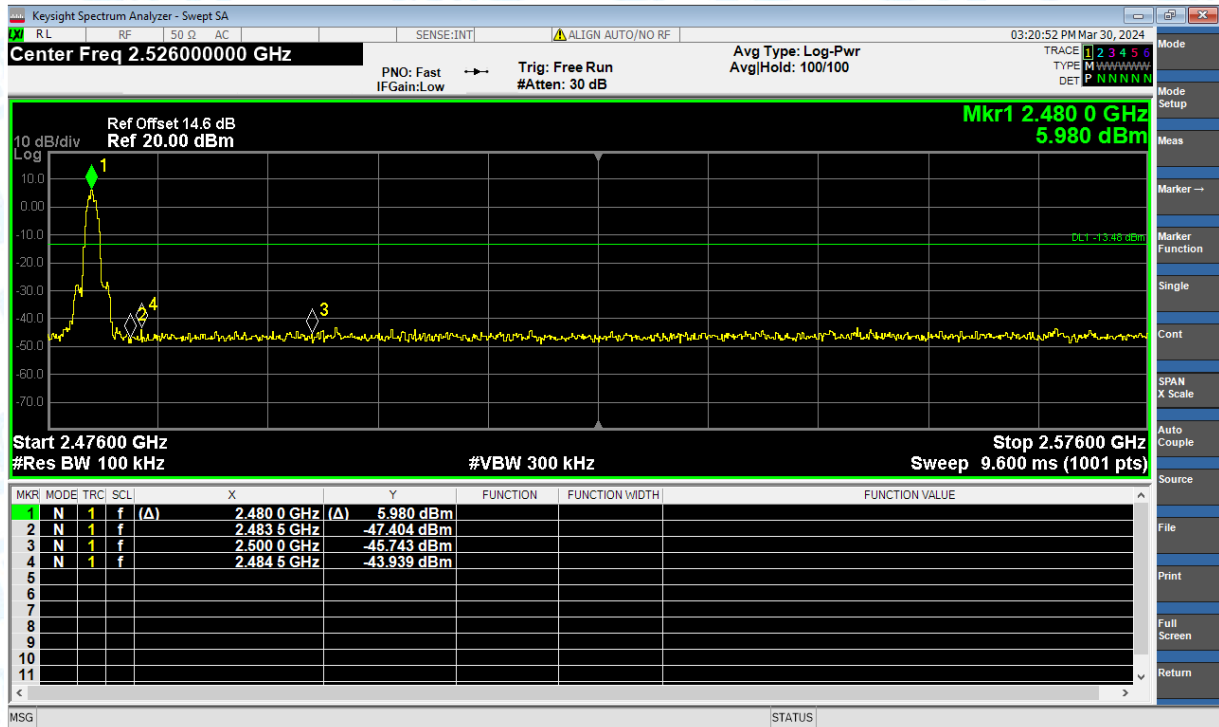
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

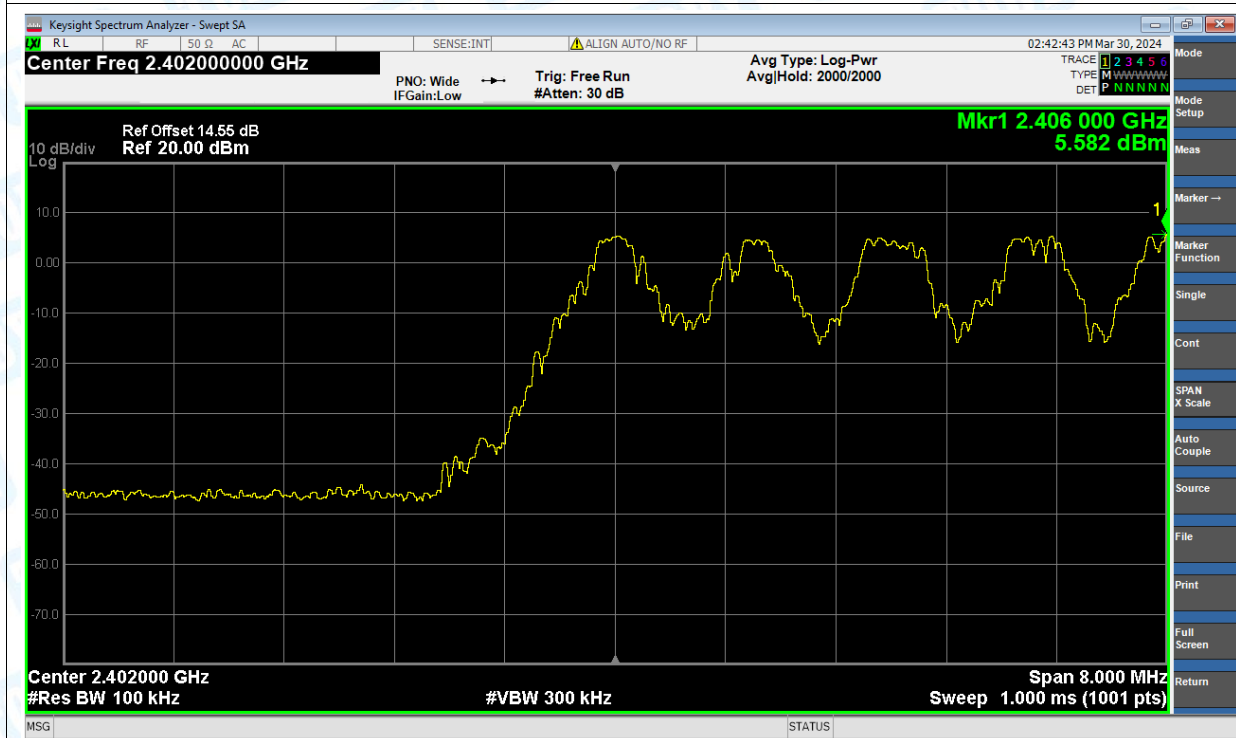


6. Band Edge(Hopping)

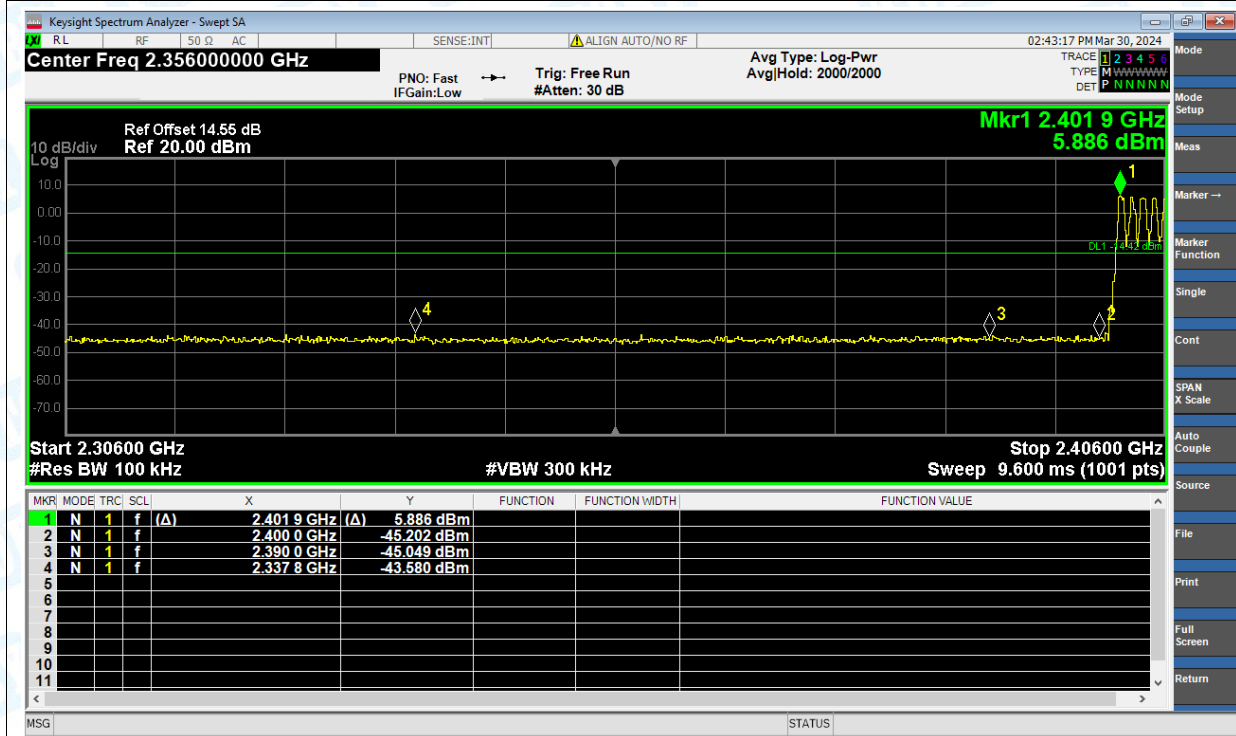
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-49.16	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-49.33	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-49.29	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-49.17	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-48.39	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-48.45	-20	Pass

Test Graphs

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



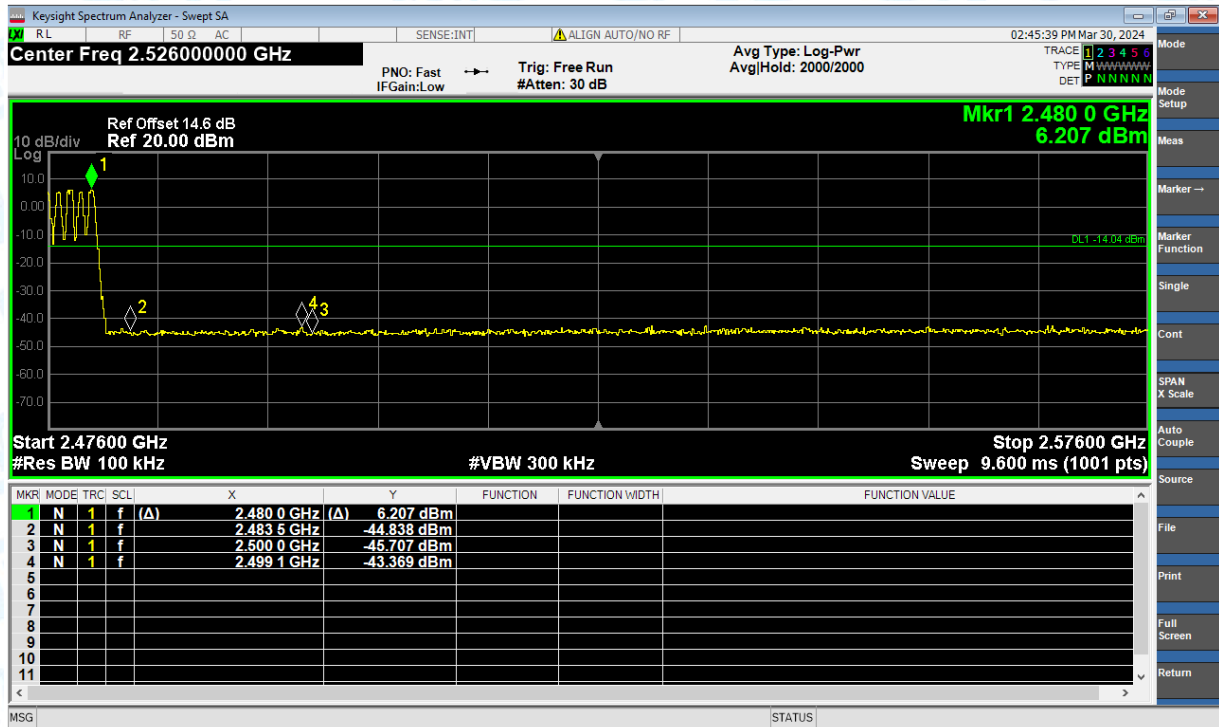
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



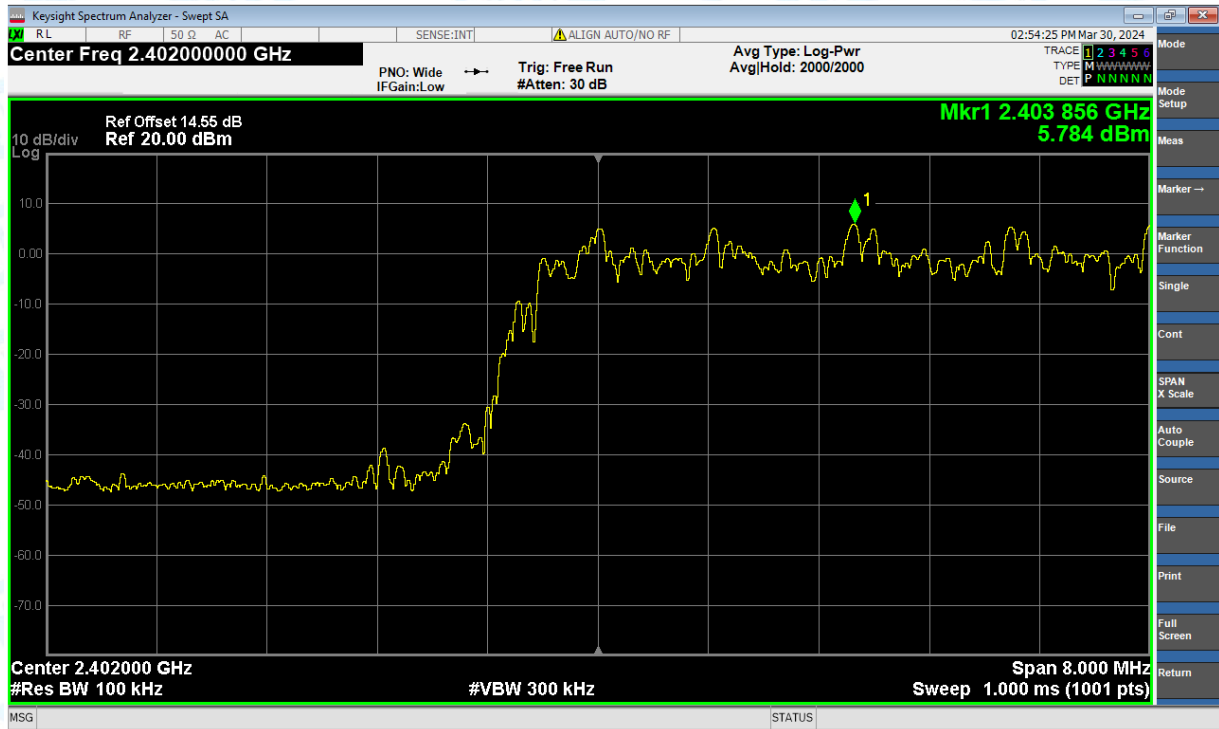
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



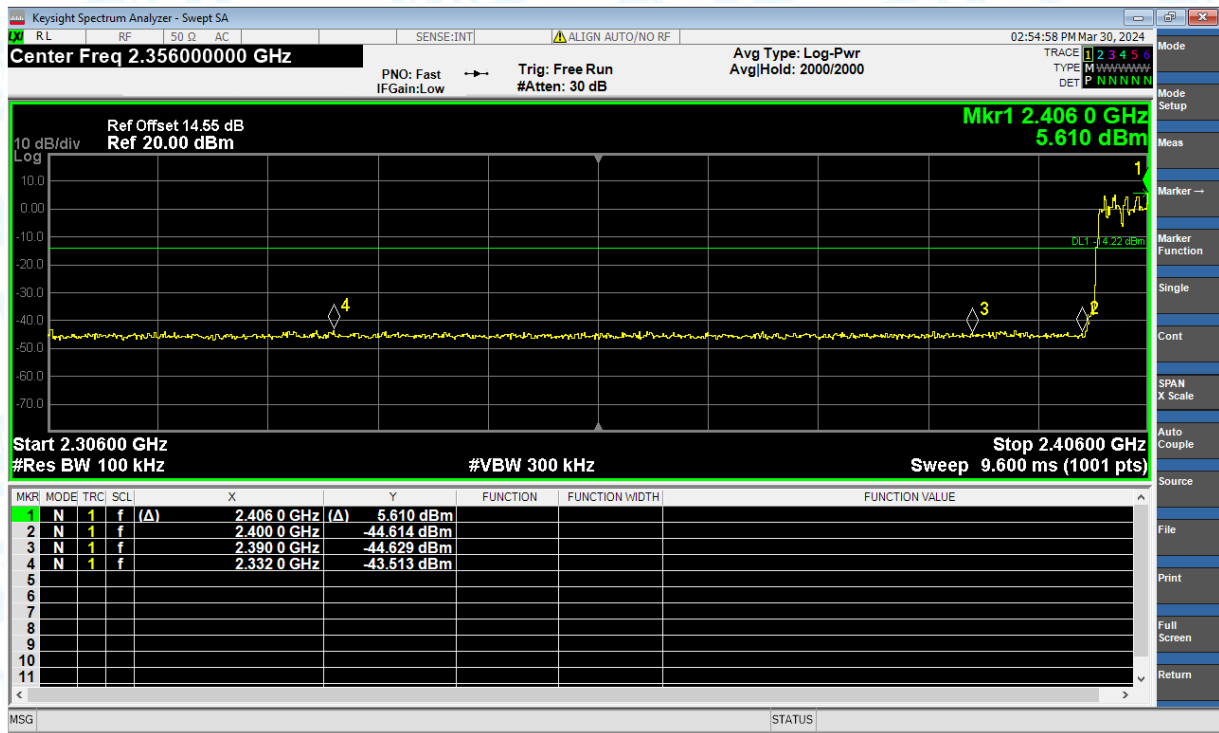
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



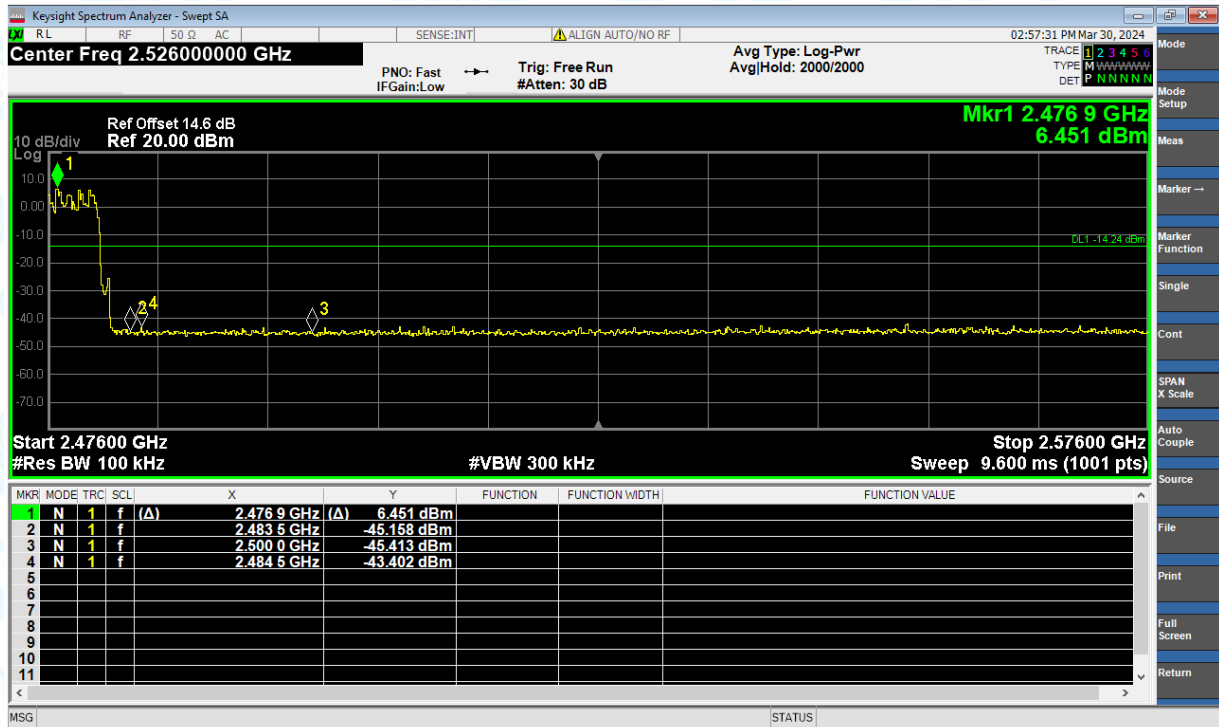
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



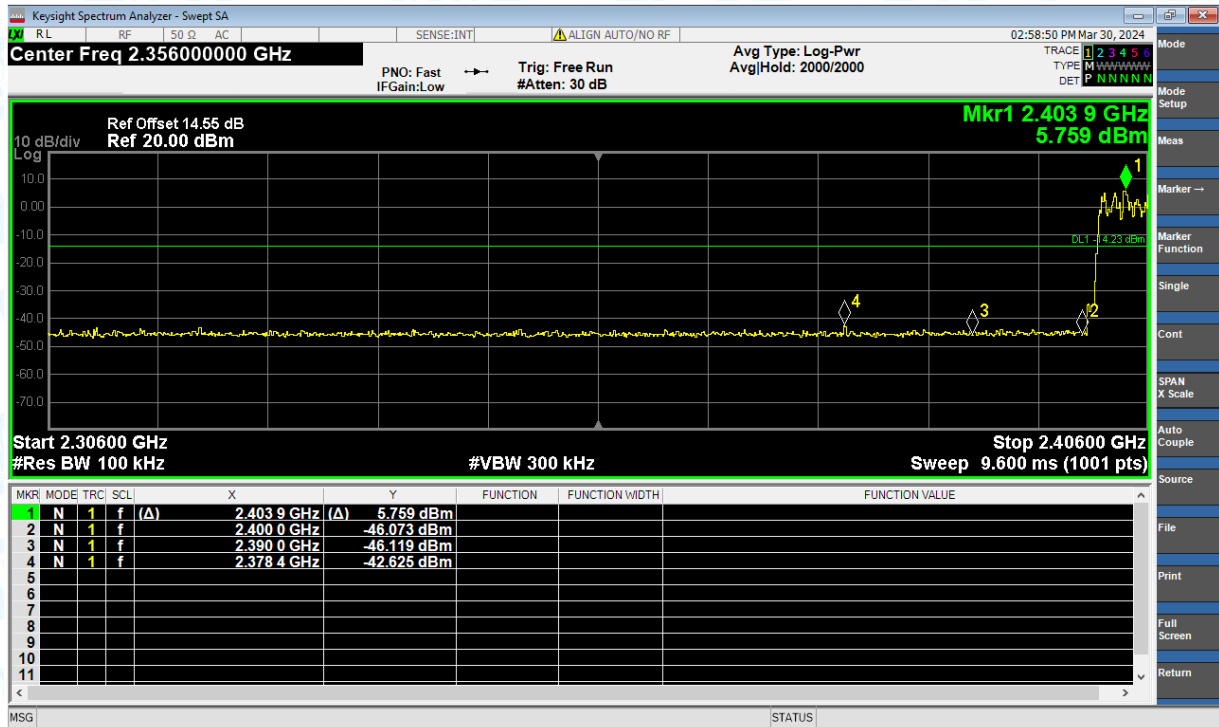
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



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



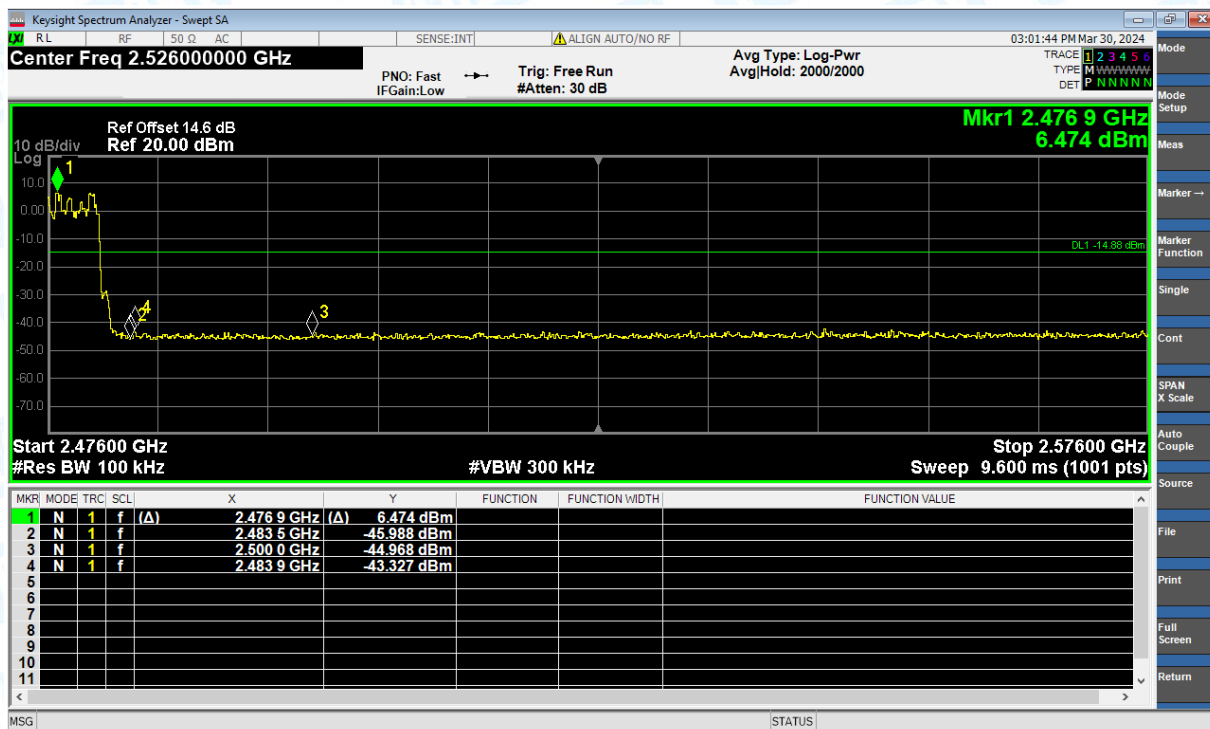
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

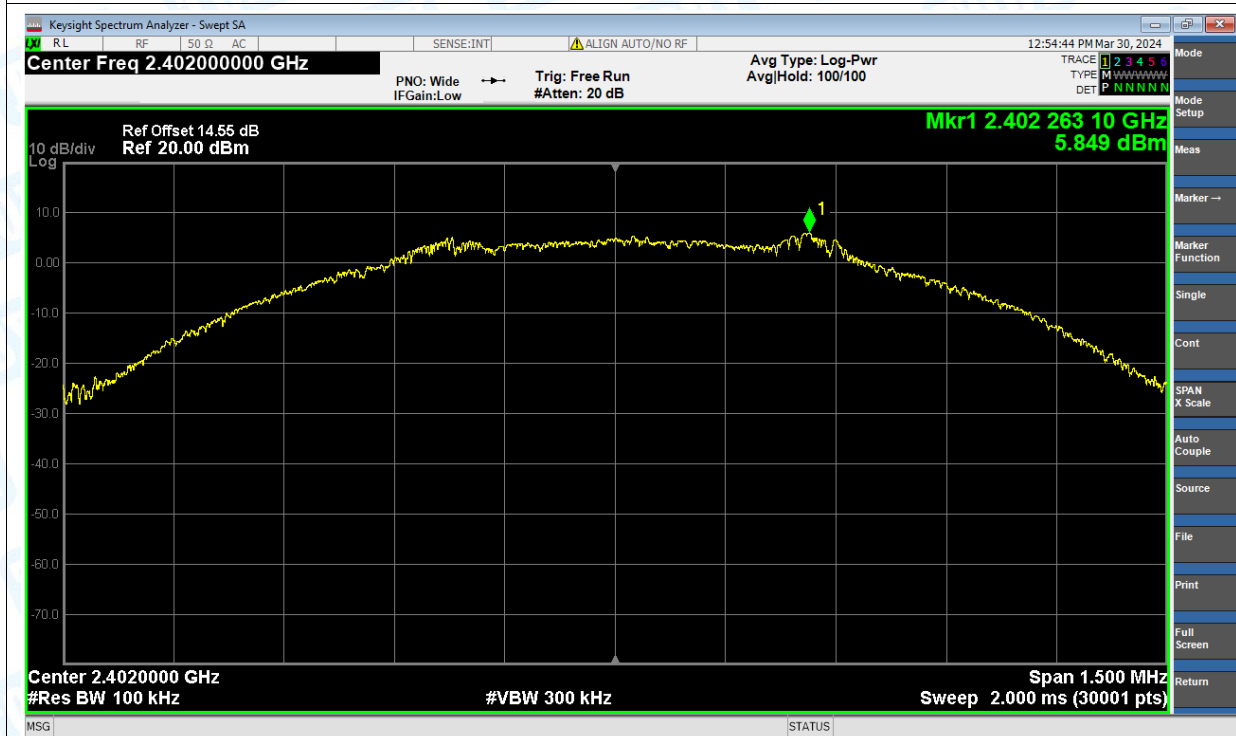


7. Conducted RF Spurious Emission

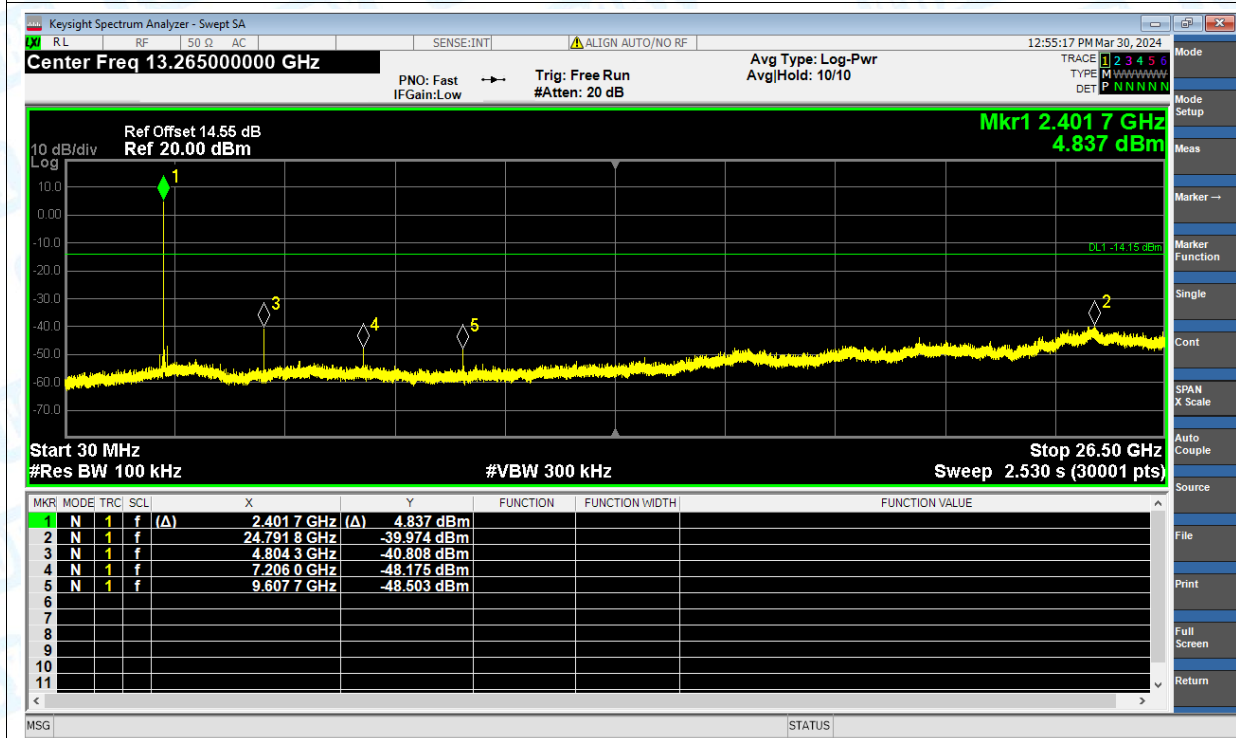
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-45.82	-20	Pass
NVNT	1-DH1	2441	Ant1	-46.07	-20	Pass
NVNT	1-DH1	2480	Ant1	-46.83	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.80	-20	Pass
NVNT	2-DH1	2441	Ant1	-45.11	-20	Pass
NVNT	2-DH1	2480	Ant1	-44.75	-20	Pass
NVNT	3-DH1	2402	Ant1	-45.94	-20	Pass
NVNT	3-DH1	2441	Ant1	-45.06	-20	Pass
NVNT	3-DH1	2480	Ant1	-46.04	-20	Pass

Test Graphs

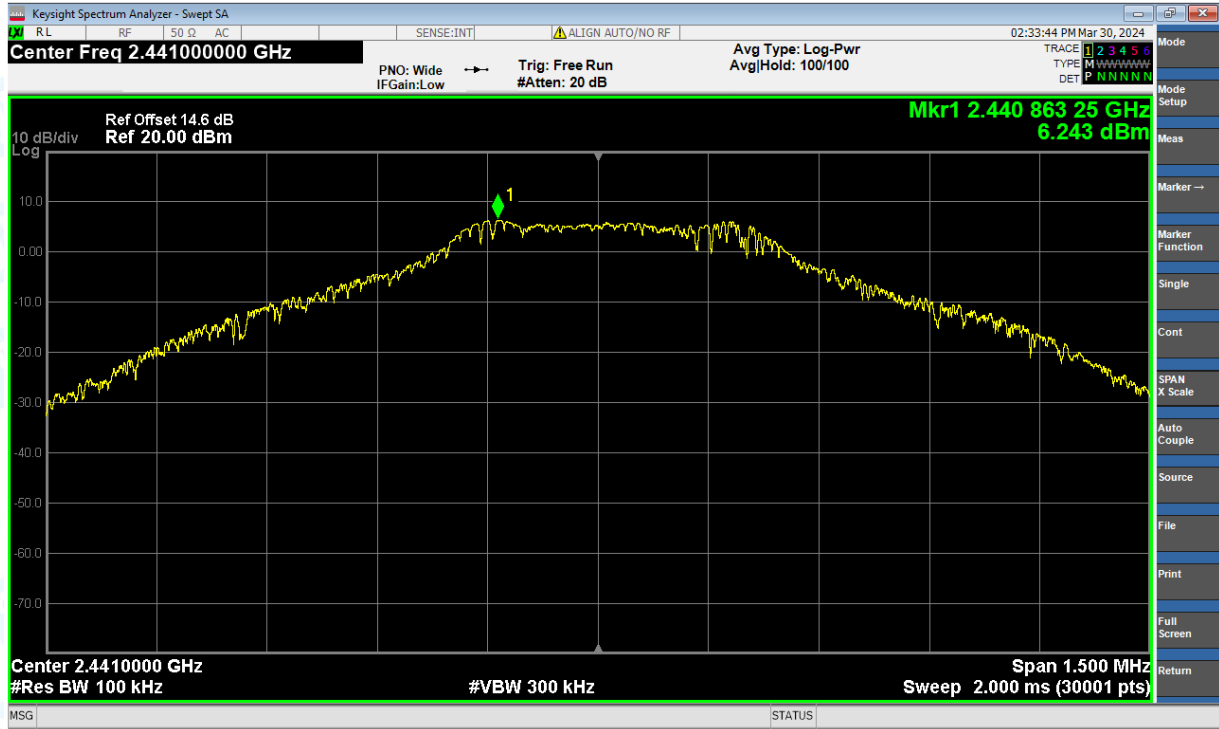
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



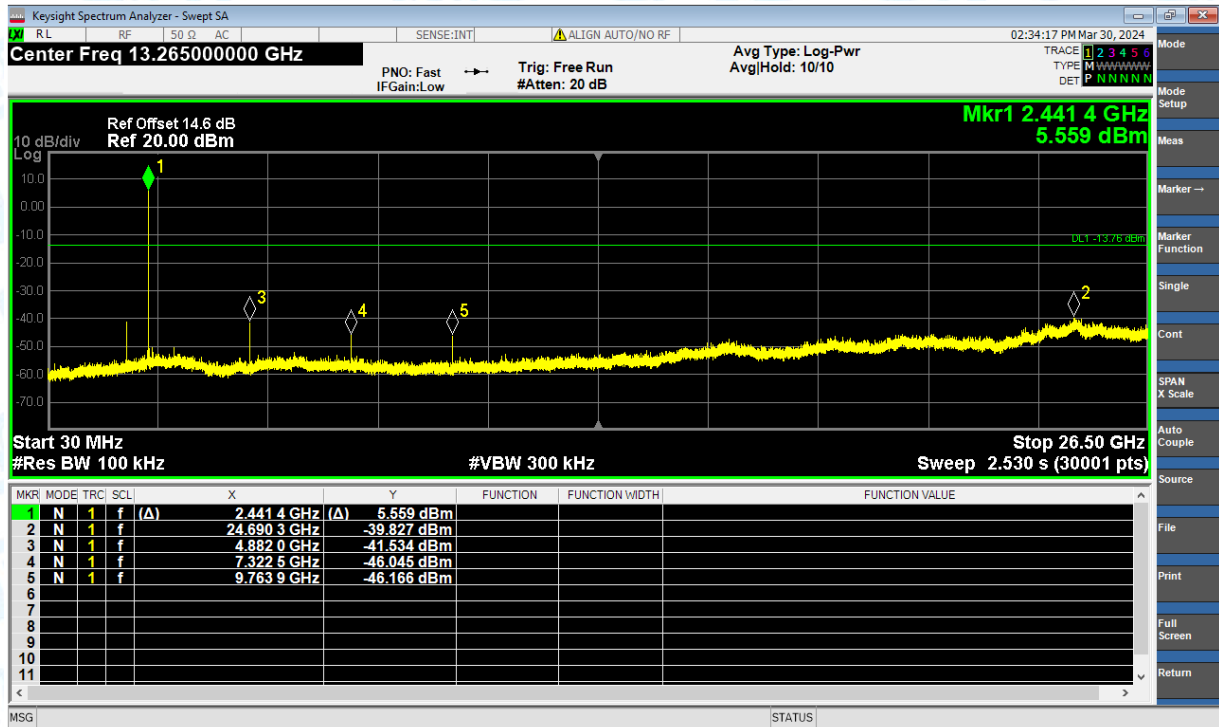
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



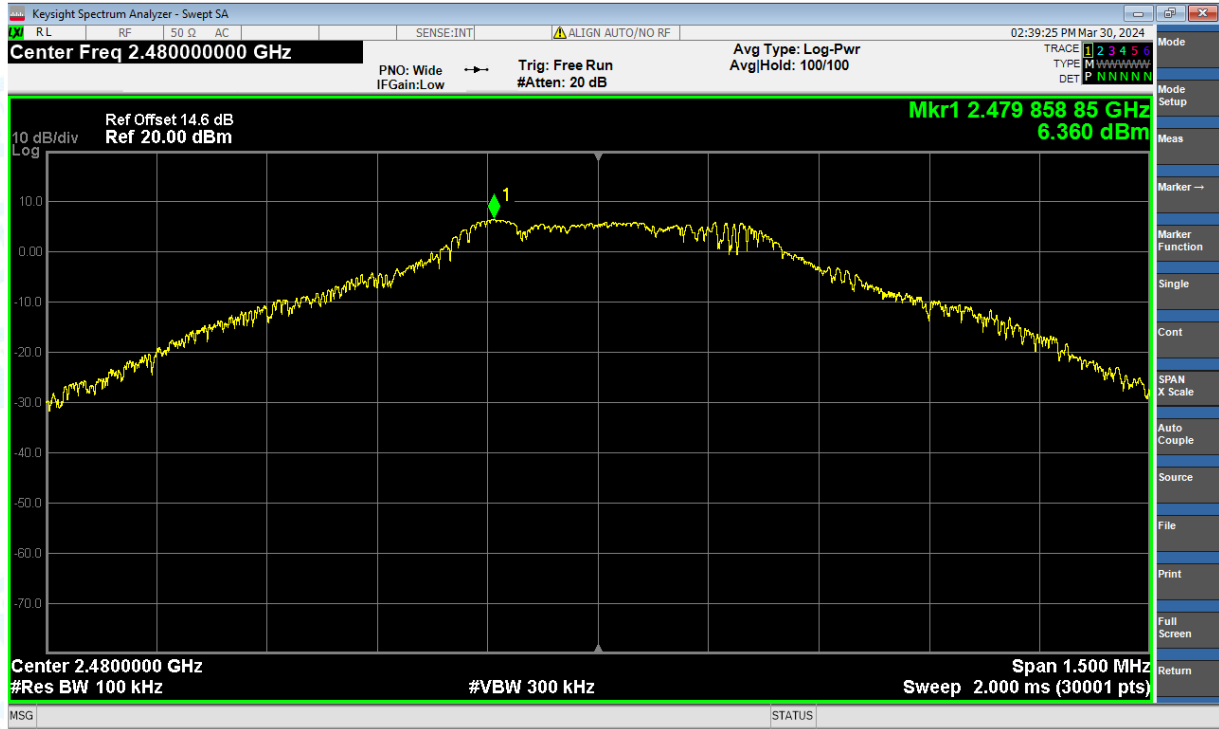
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



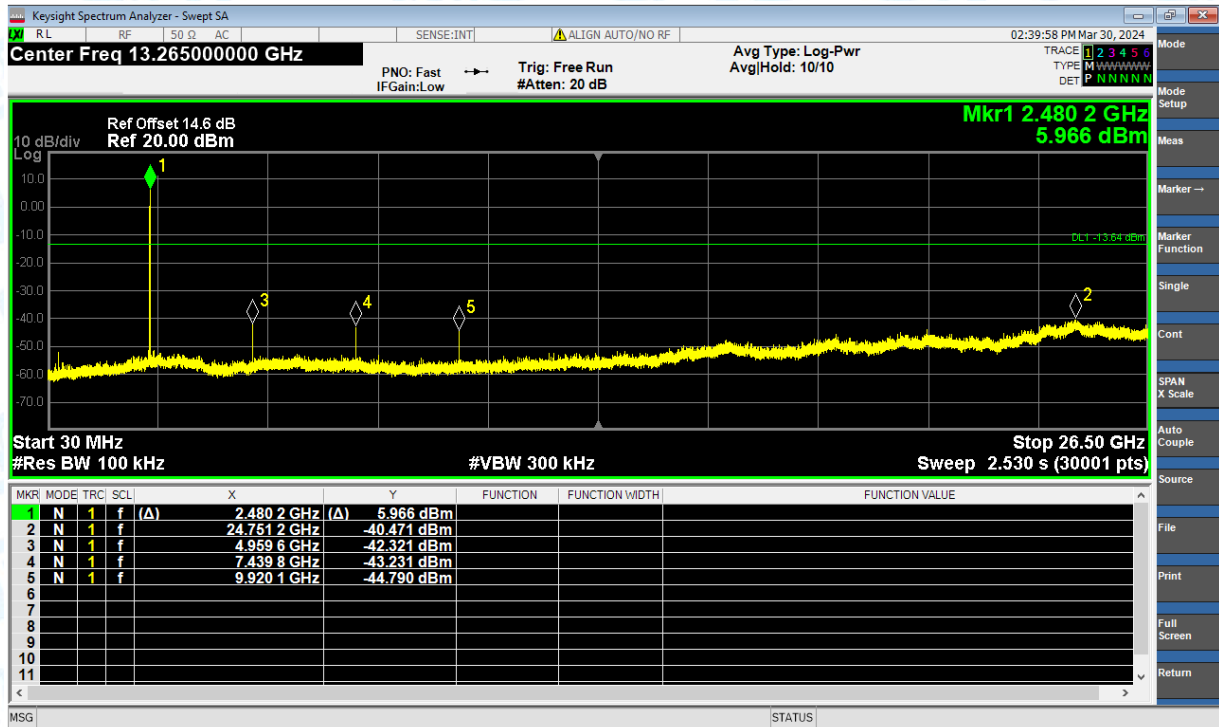
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



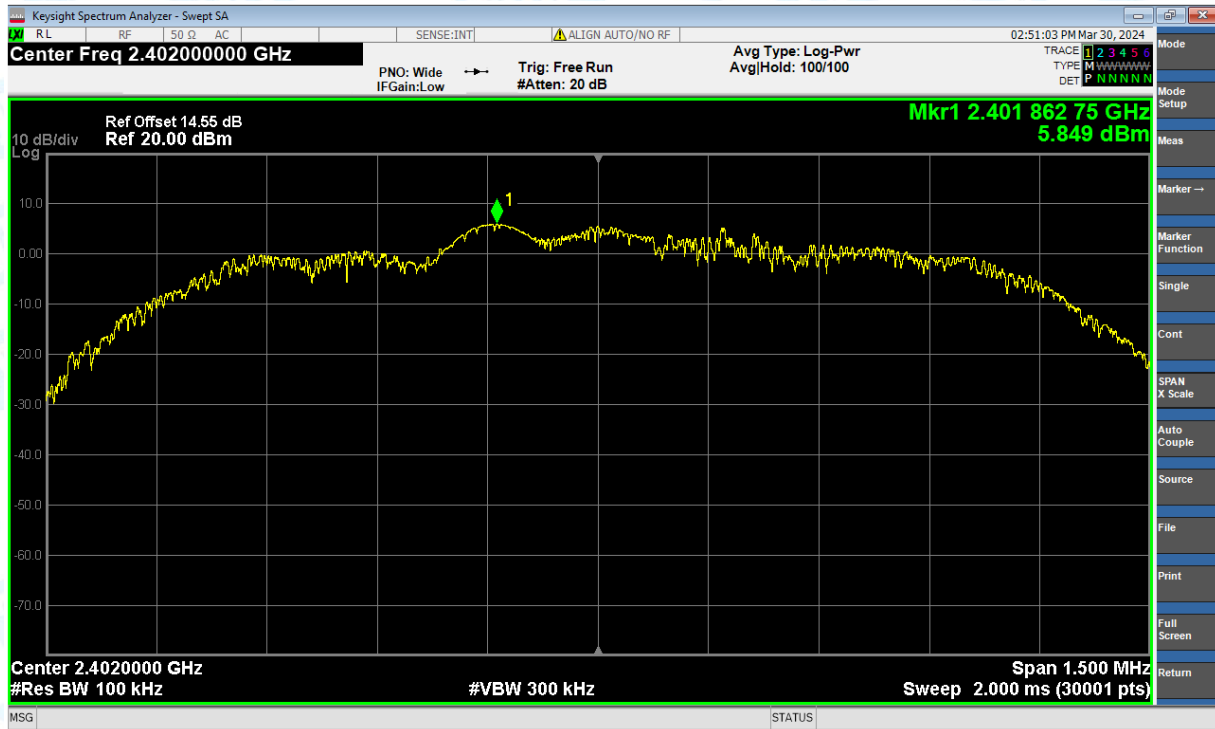
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



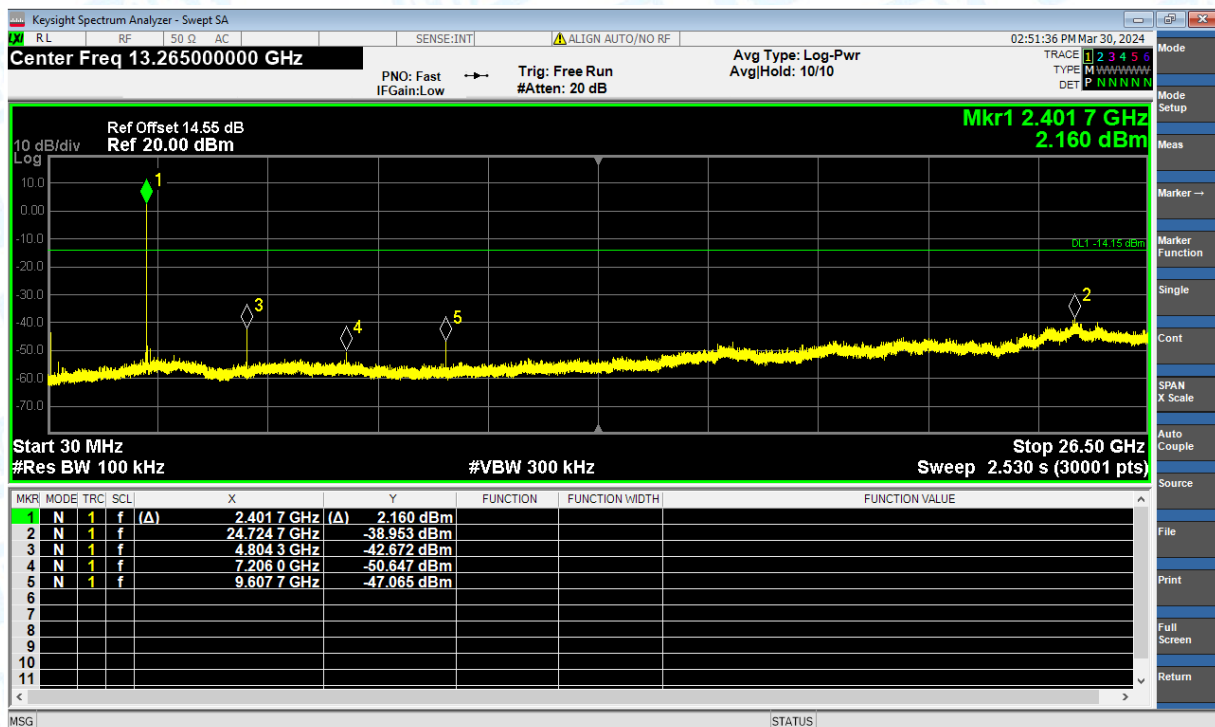
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



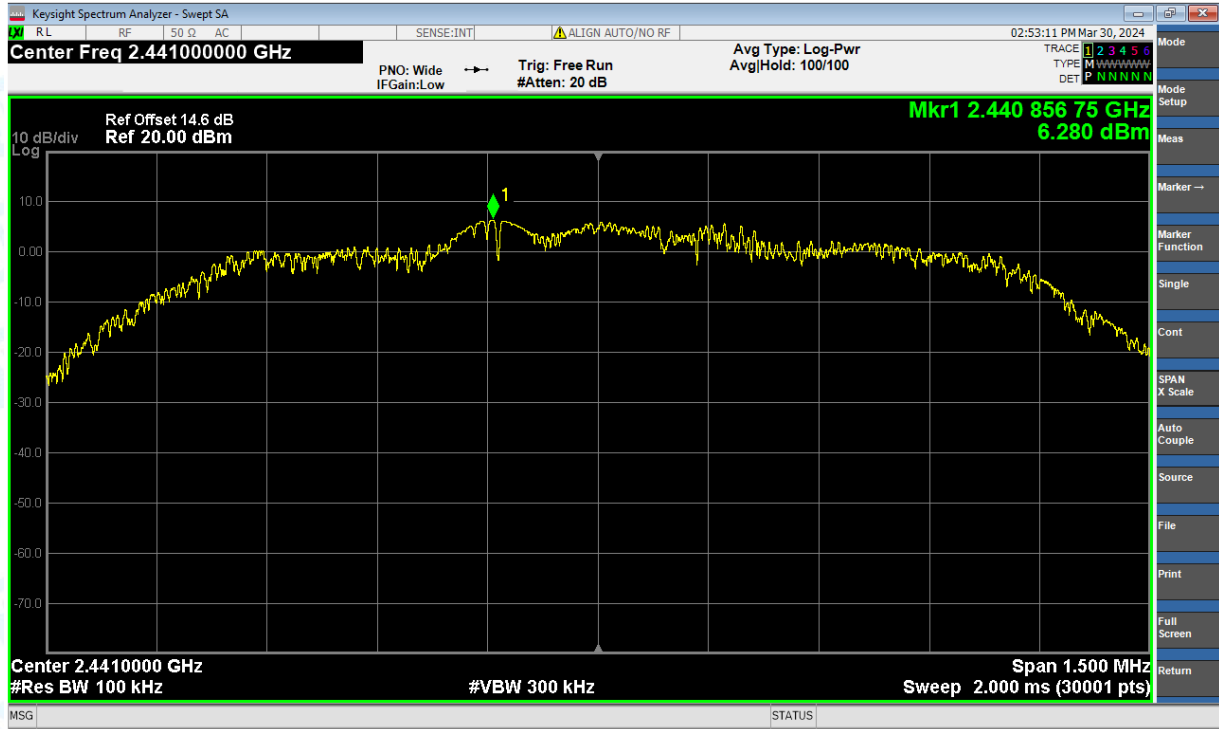
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



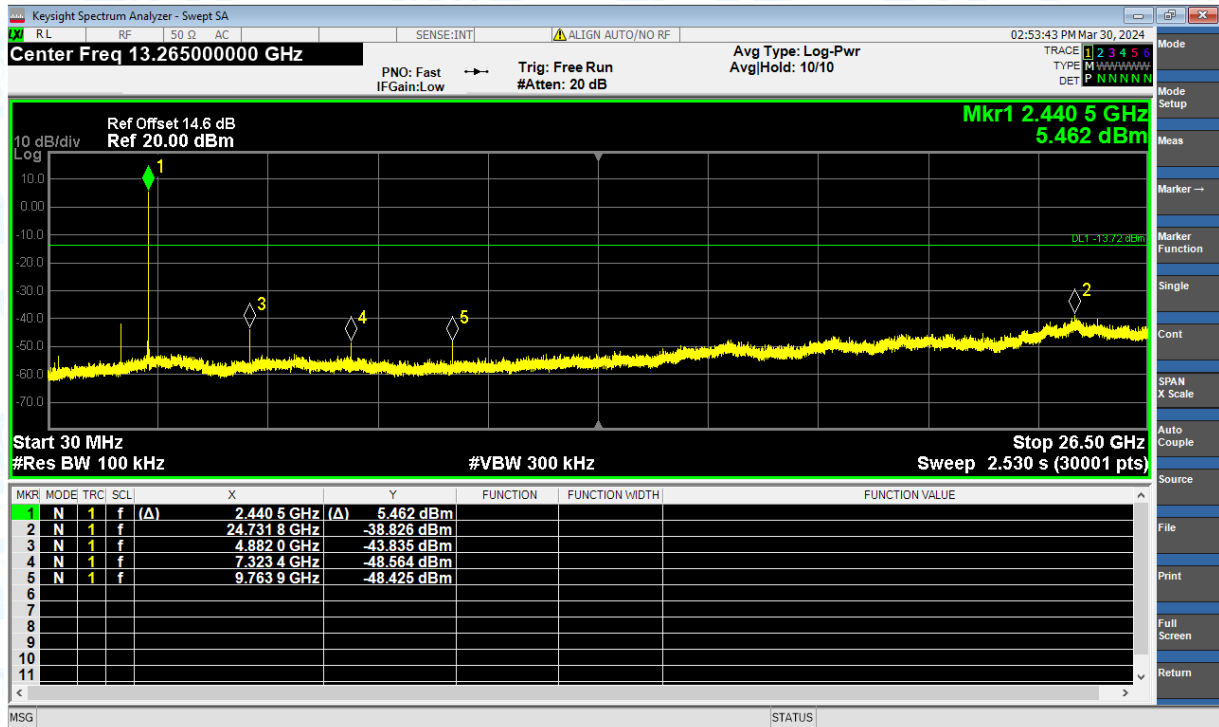
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



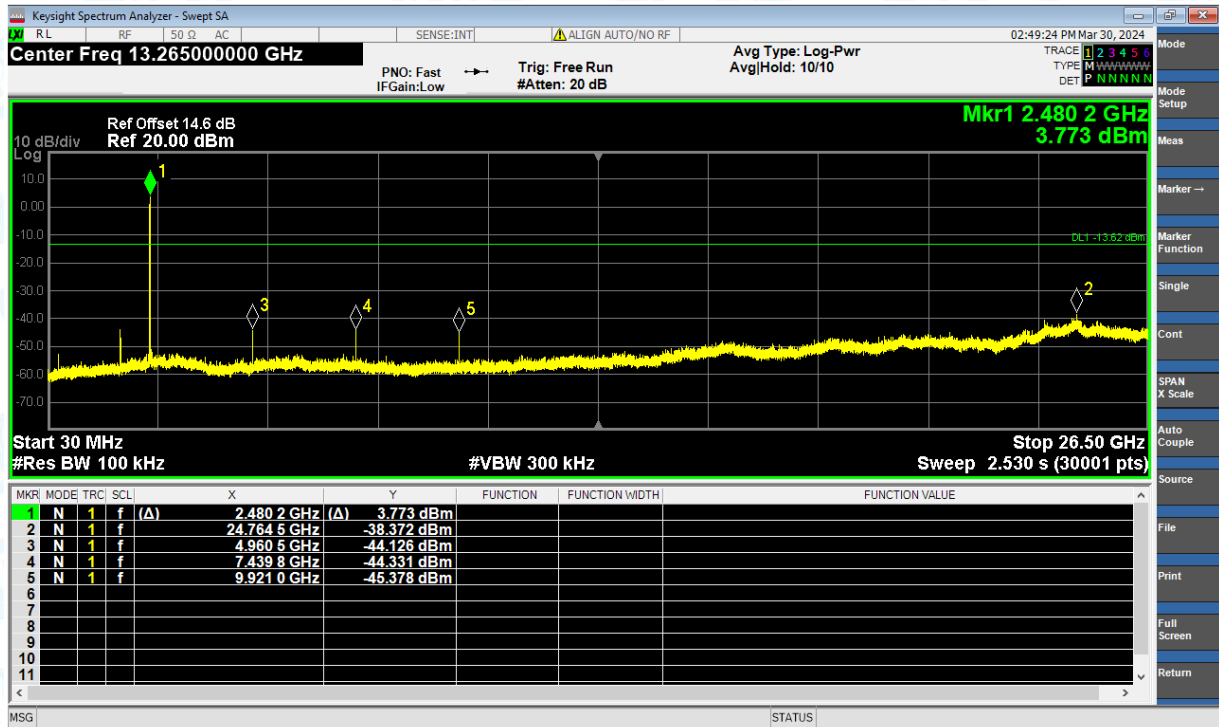
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



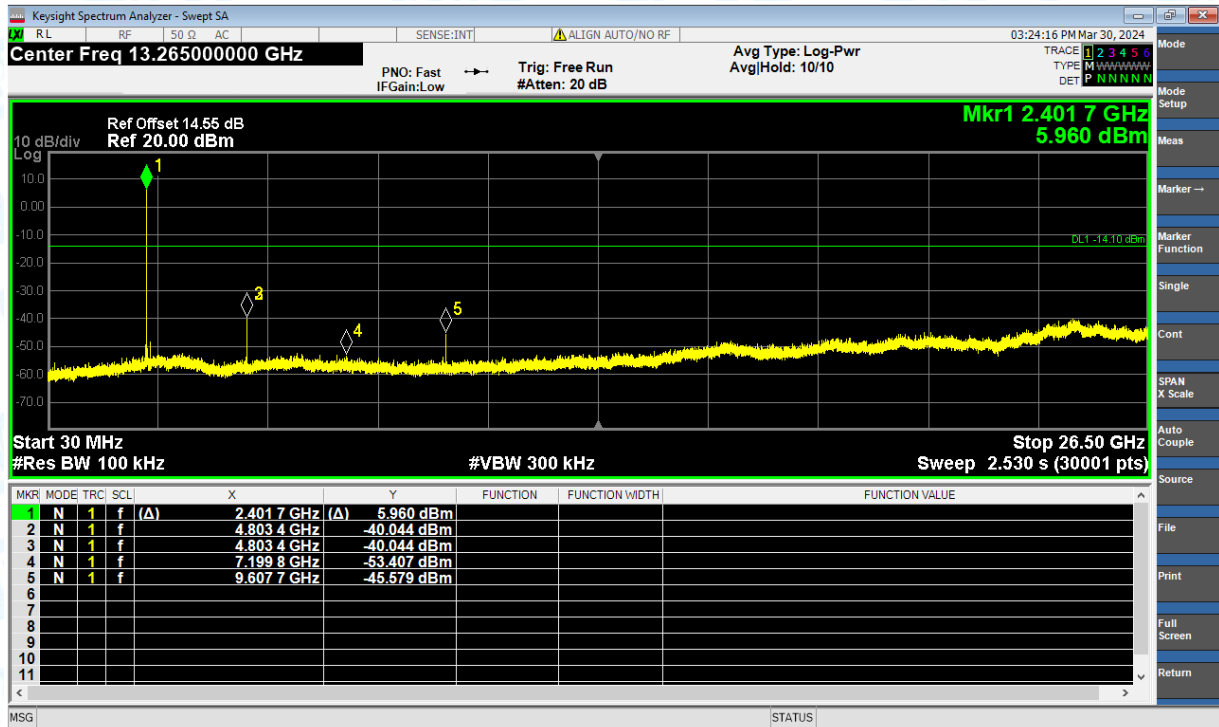
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



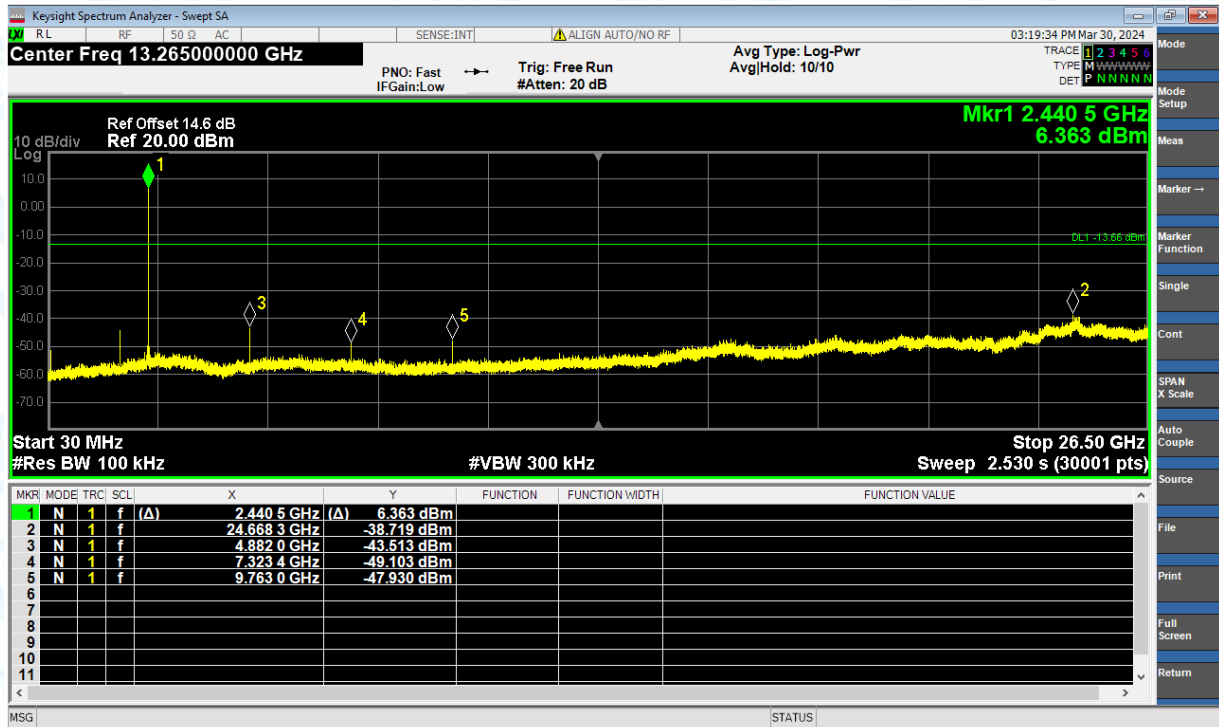
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



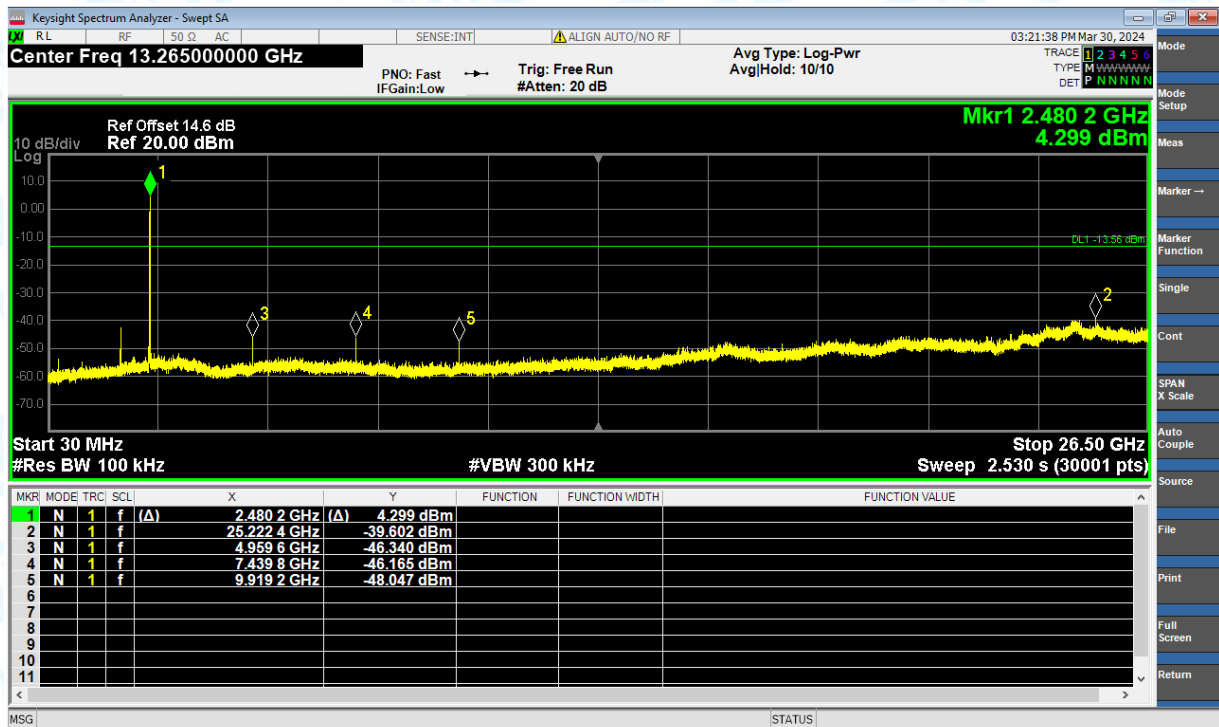
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

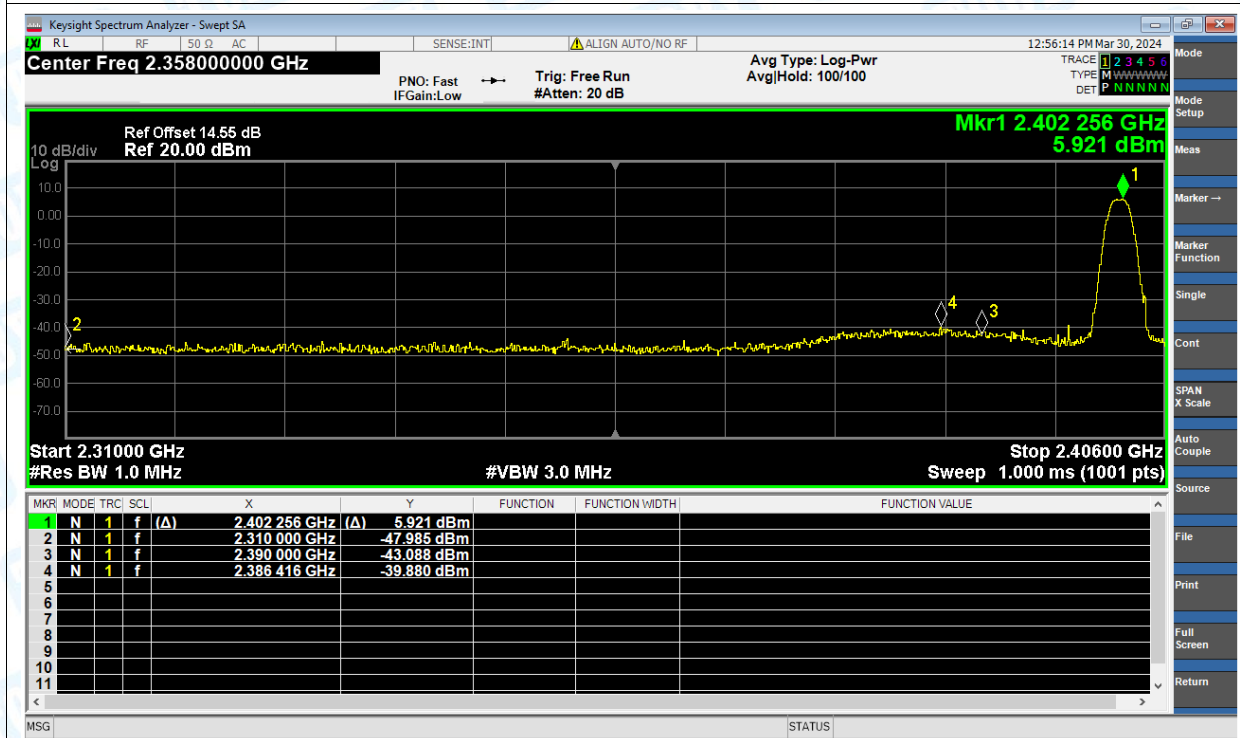


8. Restrict Band

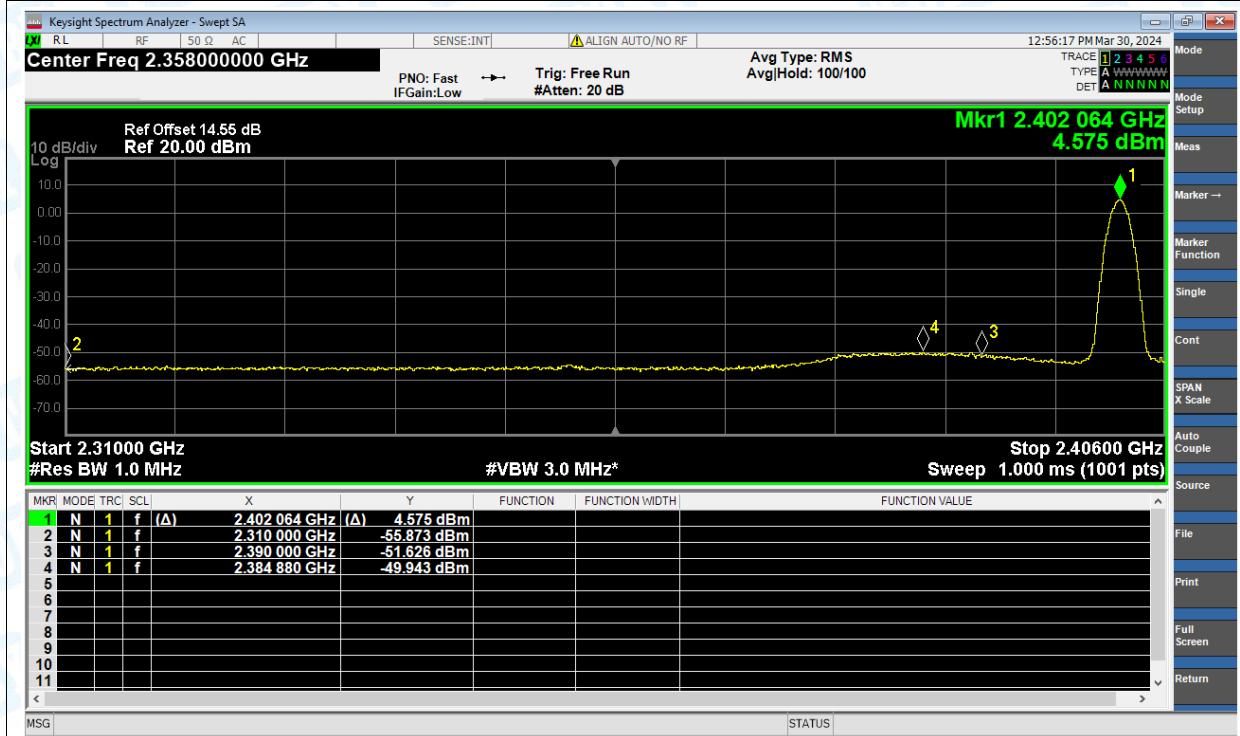
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.99	2	-	49.27	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.87	2	0.7	42.09	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2386.416	-39.88	2	-	57.38	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2384.88	-49.94	2	0.7	48.02	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-43.09	2	-	54.17	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-51.63	2	0.7	46.33	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.74	2	-	51.52	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.36	2	5.17	49.07	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-39.29	2	-	57.97	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2489.176	-52.36	2	5.17	50.07	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.02	2	-	52.24	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-52.93	2	5.17	49.5	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.75	2	-	49.51	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.55	2	5.06	46.77	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2384.496	-40.61	2	-	56.65	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2383.152	-52.43	2	5.06	49.89	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-43.7	2	-	53.56	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-53.74	2	5.06	48.58	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.43	2	-	52.83	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.85	2	5.06	48.47	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2496.808	-37.69	2	-	59.57	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2498.056	-51.88	2	5.06	50.44	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-42.27	2	-	54.99	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-52.56	2	5.06	49.76	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-46.94	2	-	50.32	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.01	2	5.06	46.31	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2381.232	-40.11	2	-	57.15	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2382.96	-52.01	2	5.06	50.31	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-44.11	2	-	53.15	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-53.47	2	5.06	48.85	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-44.39	2	-	52.87	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-53.24	2	5.06	49.08	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2498.8	-37.98	2	-	59.28	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2494.672	-50.98	2	5.06	51.34	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-41.26	2	-	56	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-54.08	2	5.06	48.24	Average	54	Pass

Test Graphs

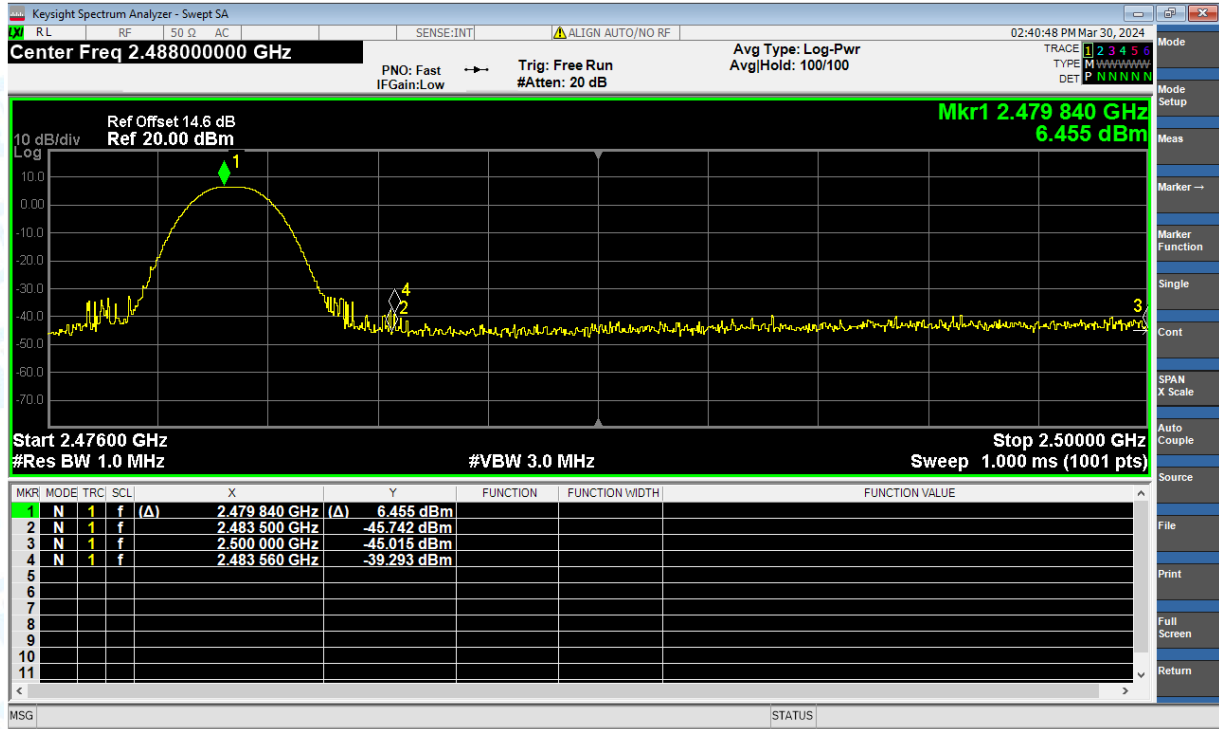
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



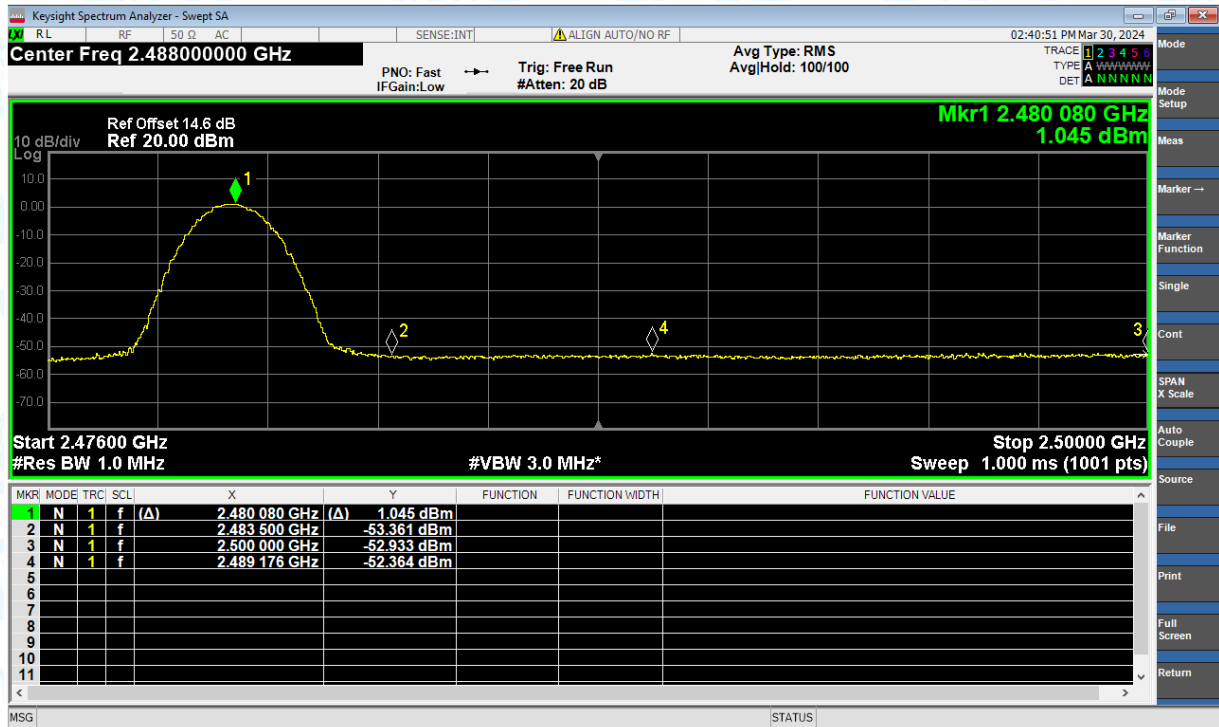
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



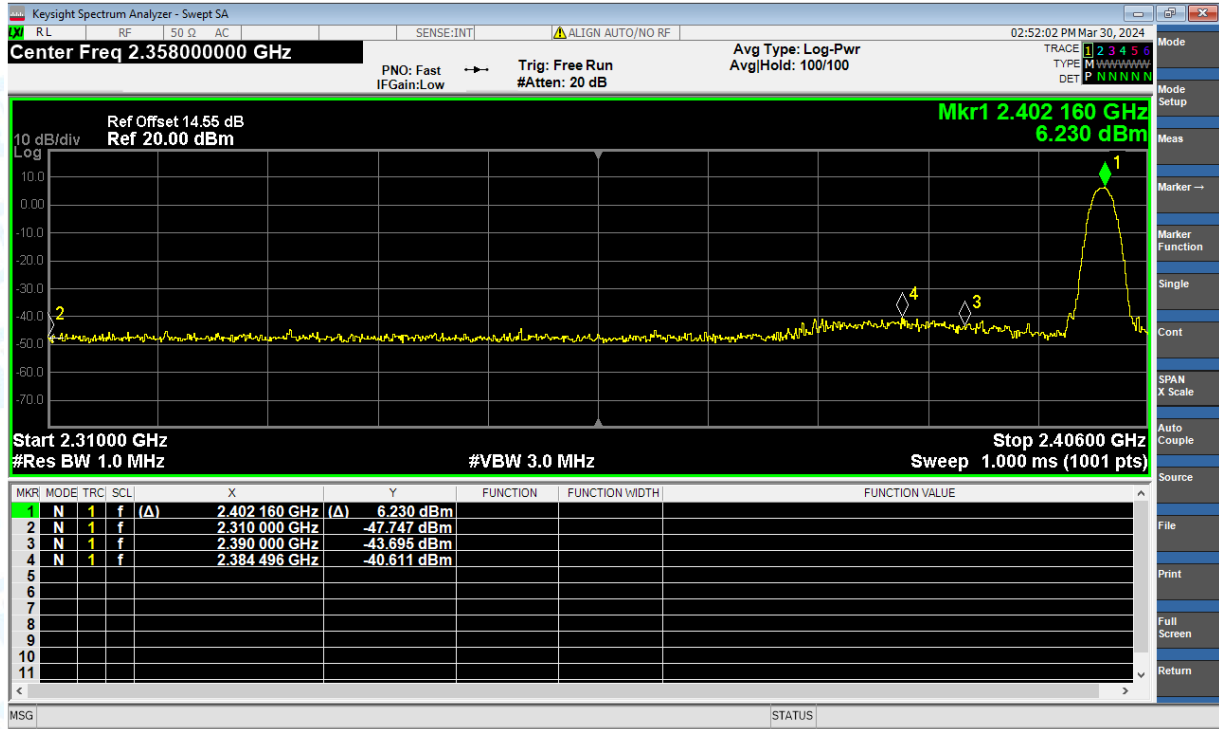
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



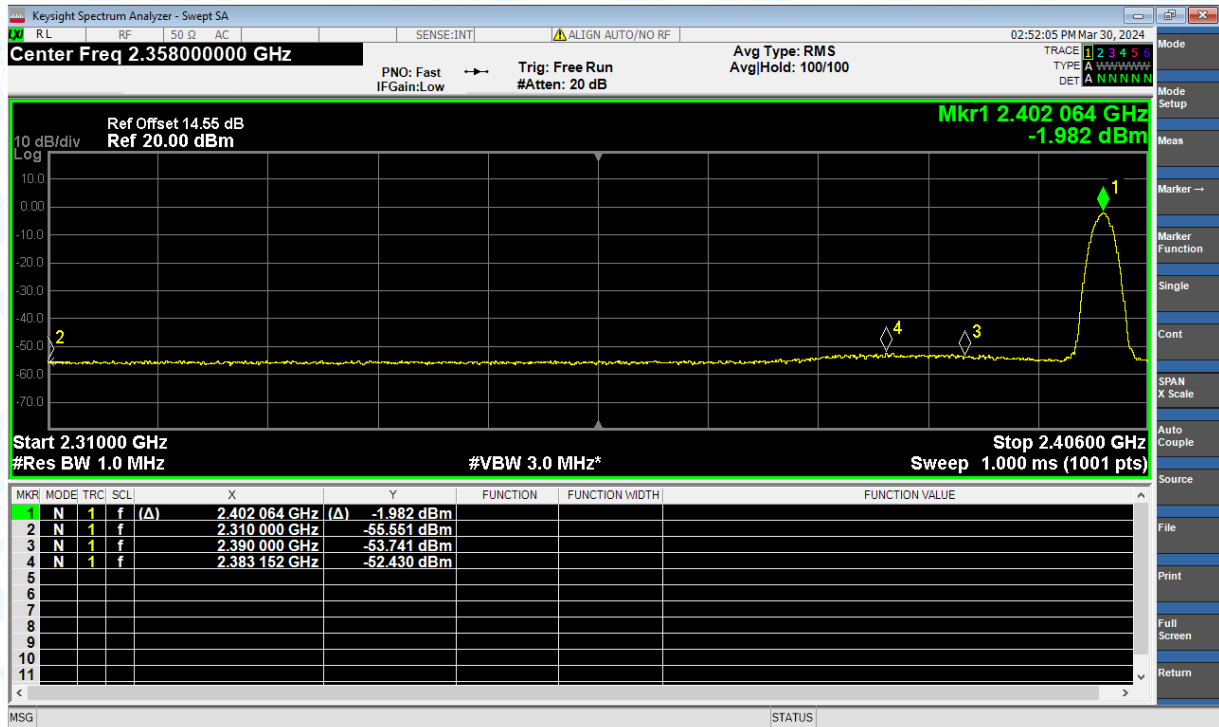
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



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



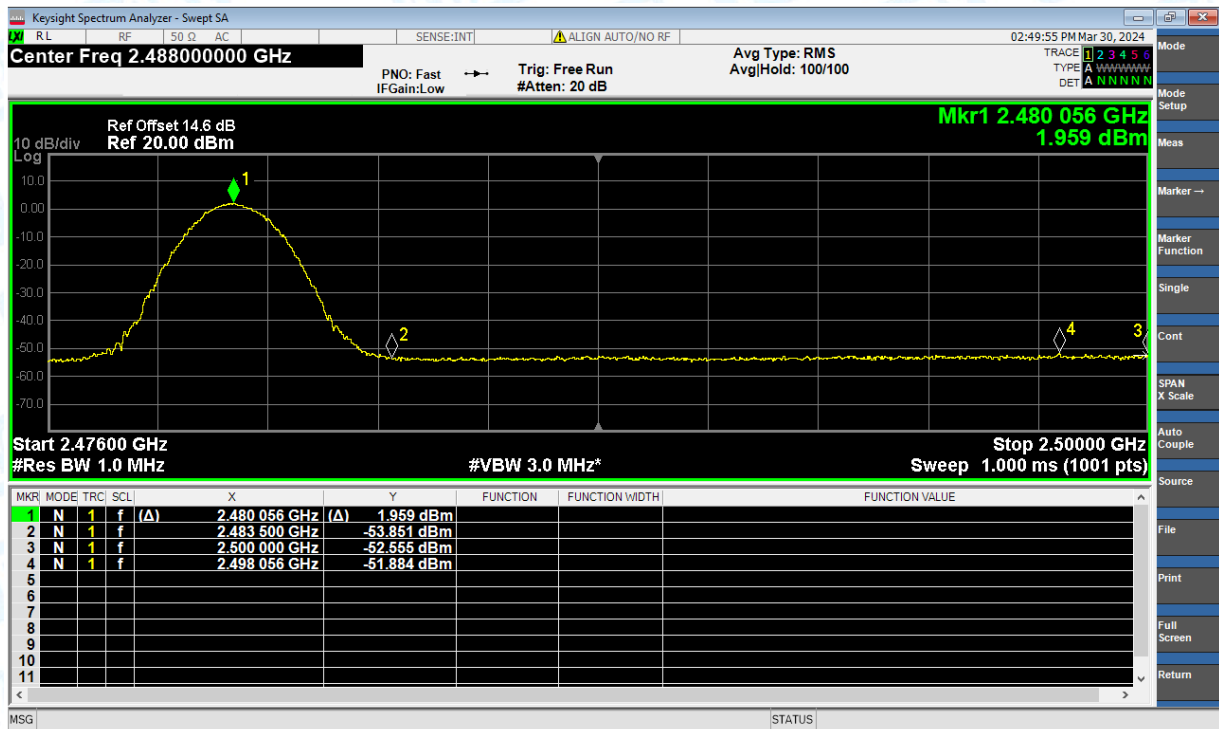
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



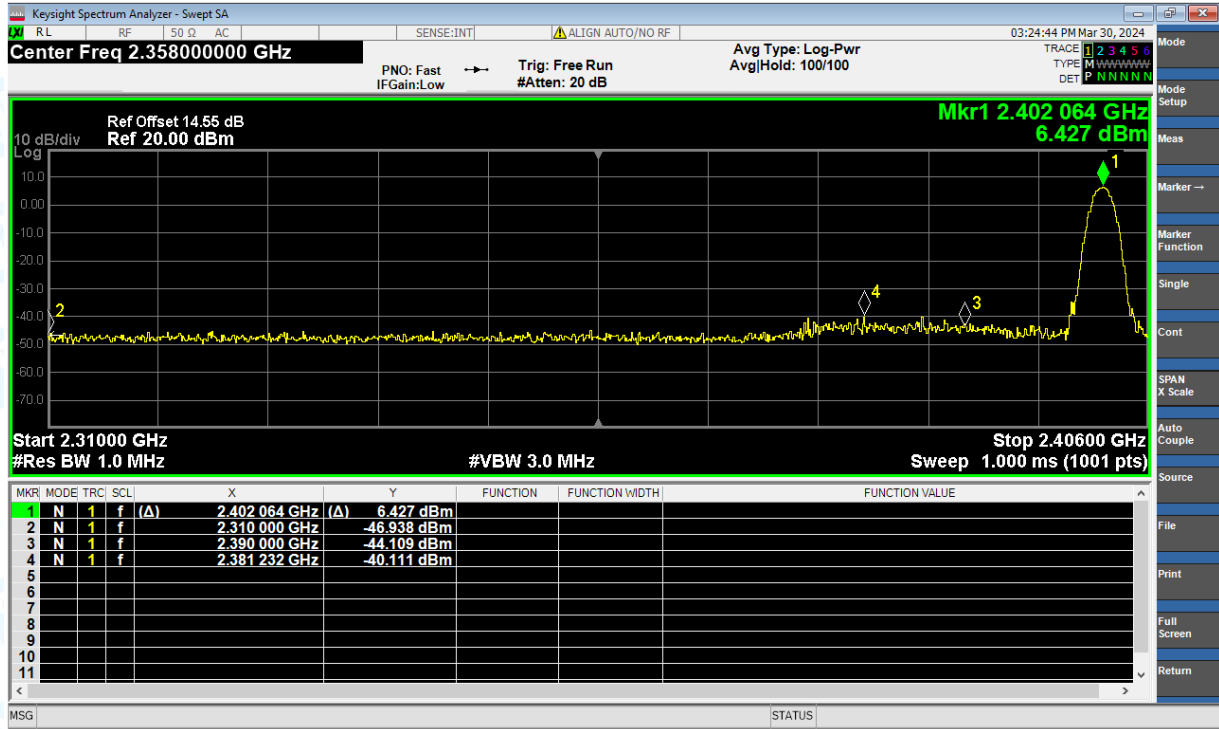
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



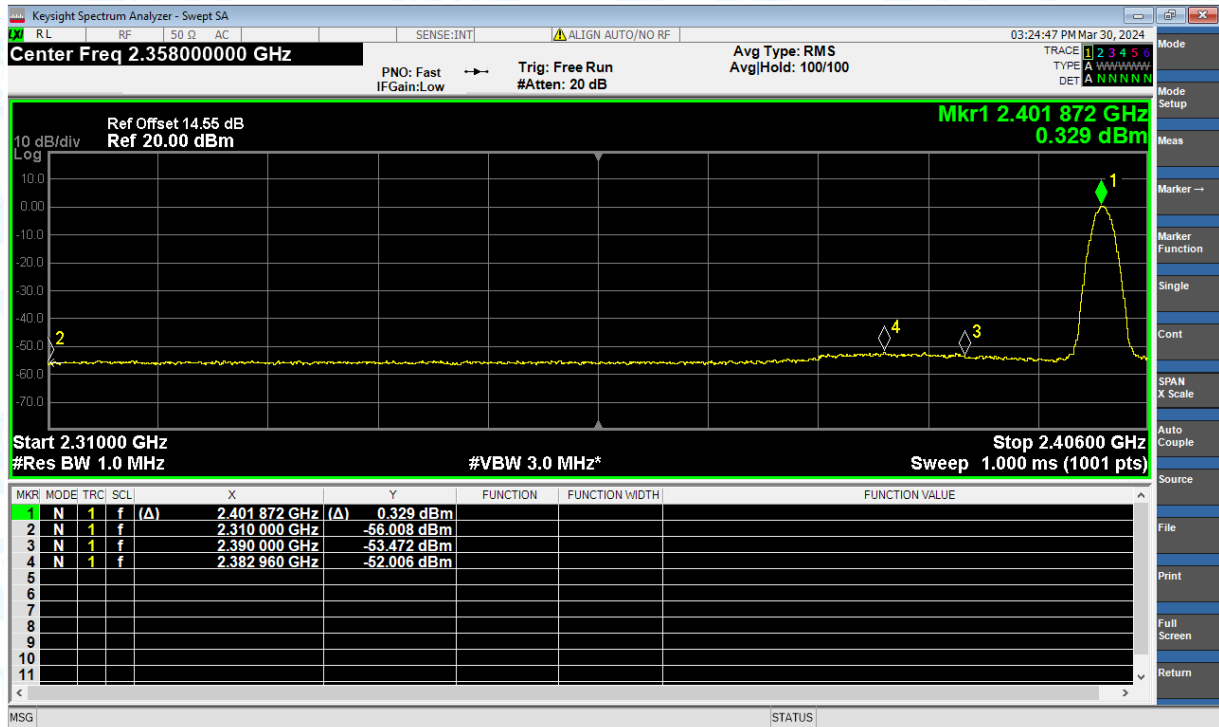
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



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



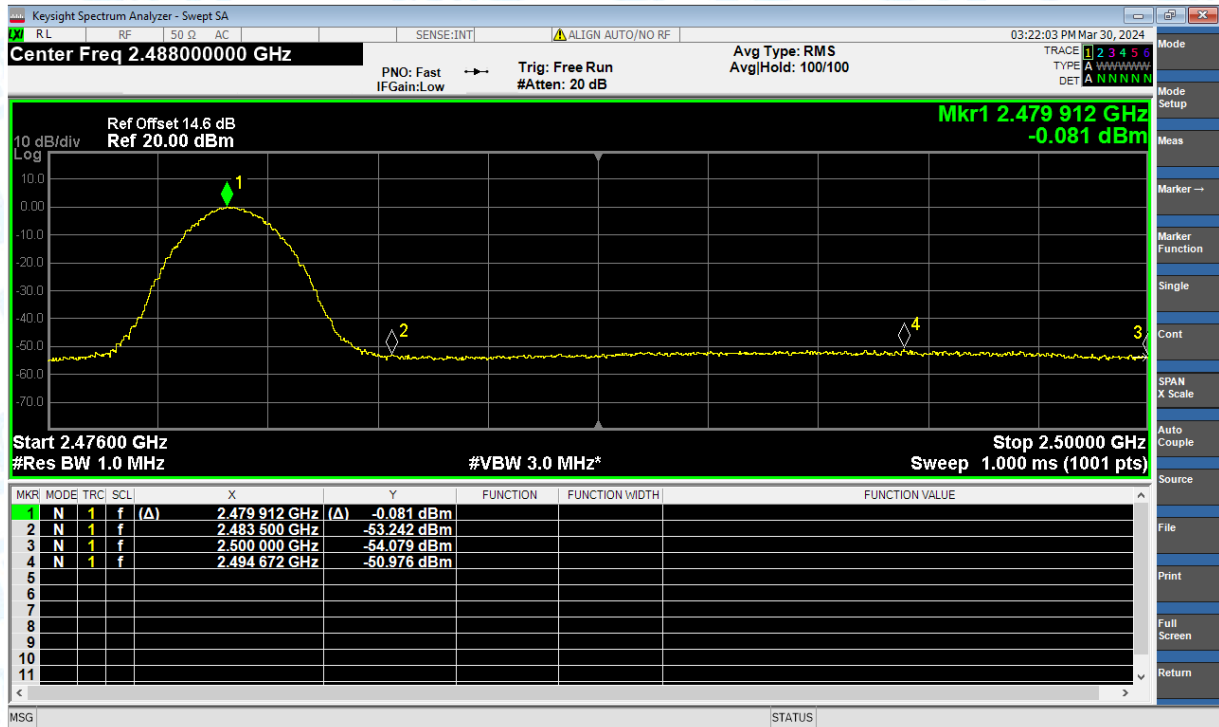
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

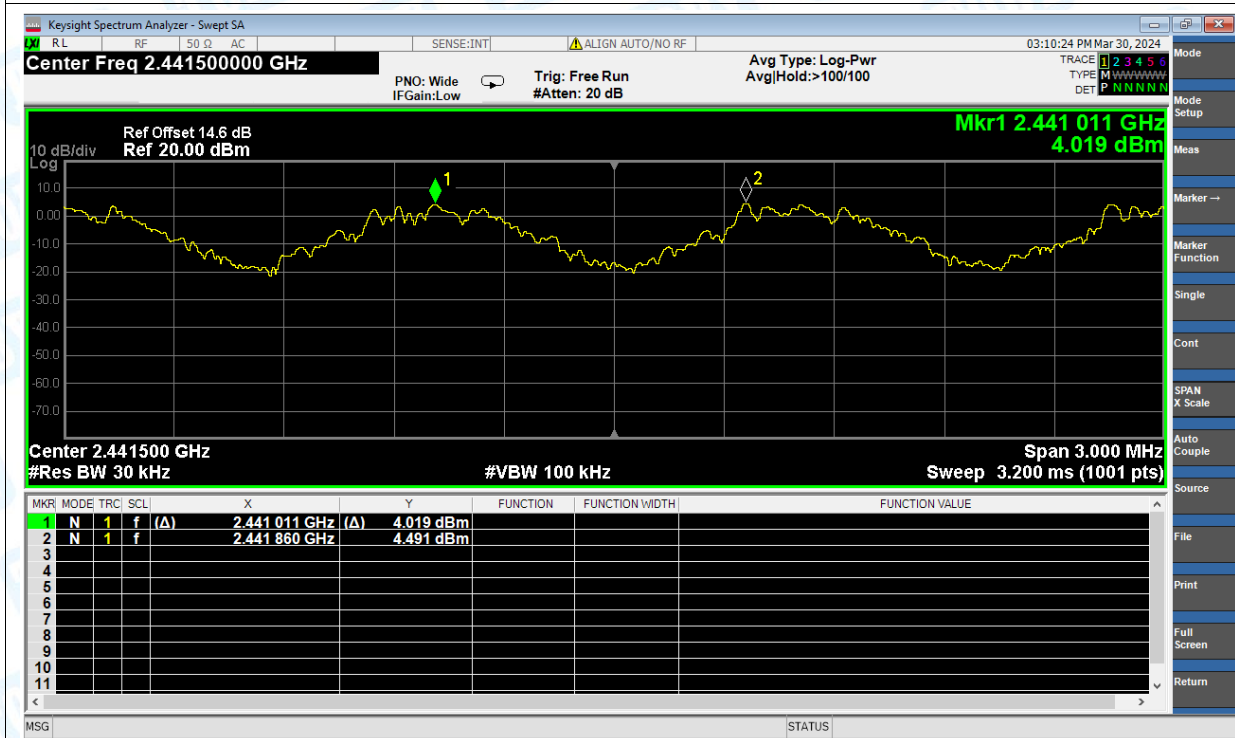


9. Carrier Frequencies Separation

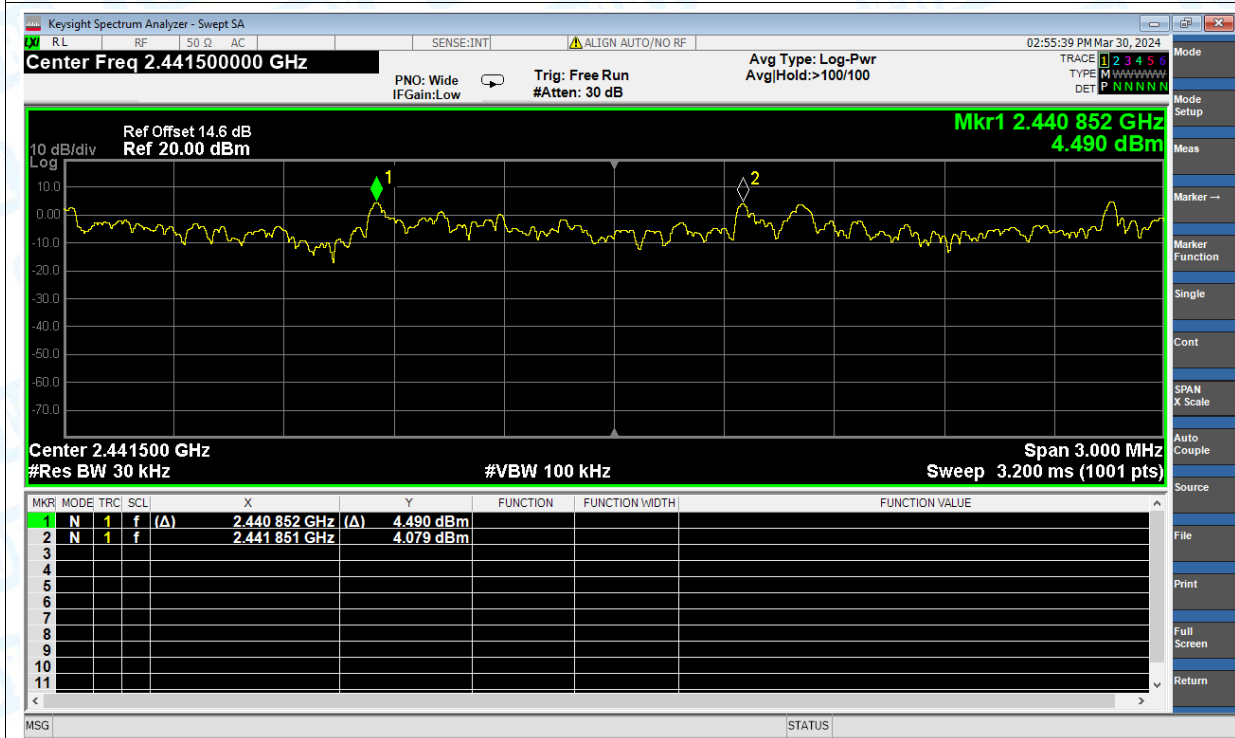
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.011	2441.86	0.849	0.787	Pass
NVNT	2-DH1	Ant1	2440.852	2441.851	0.999	0.840	Pass
NVNT	3-DH1	Ant1	2441.008	2442.01	1.002	0.813	Pass

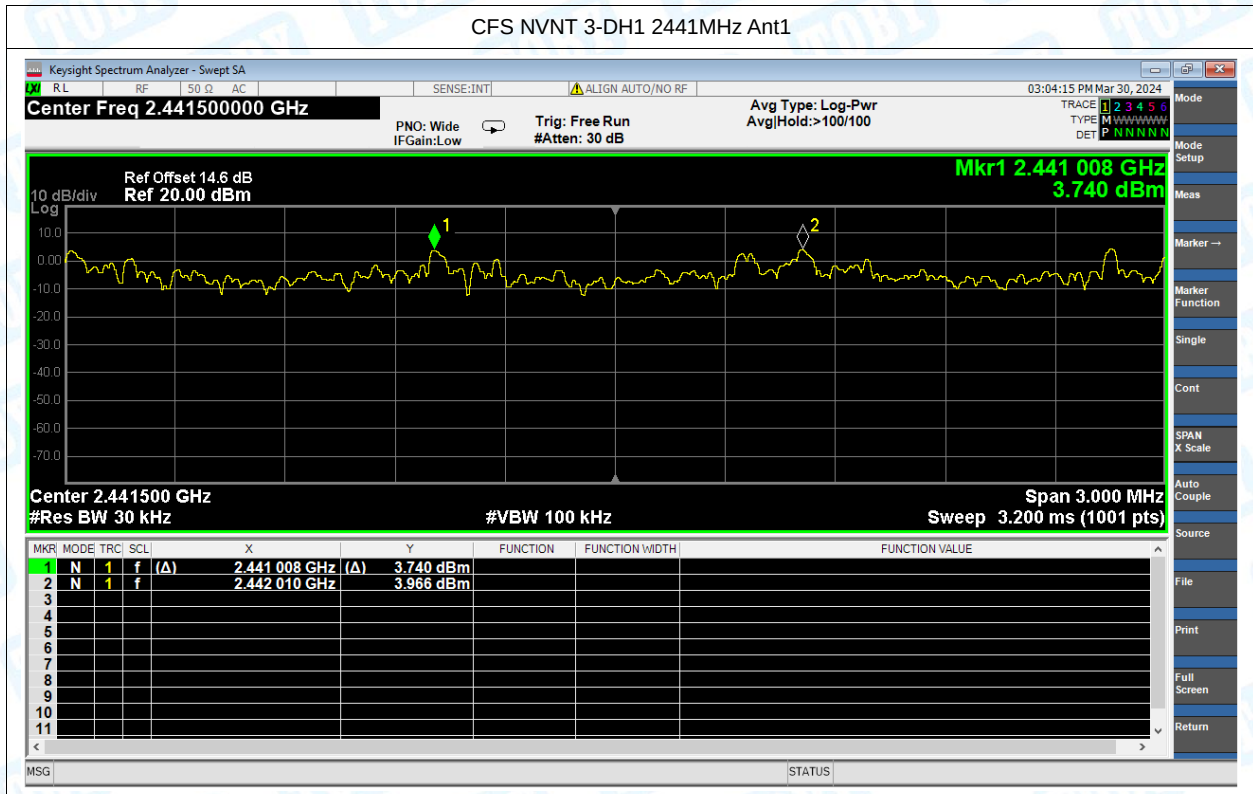
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



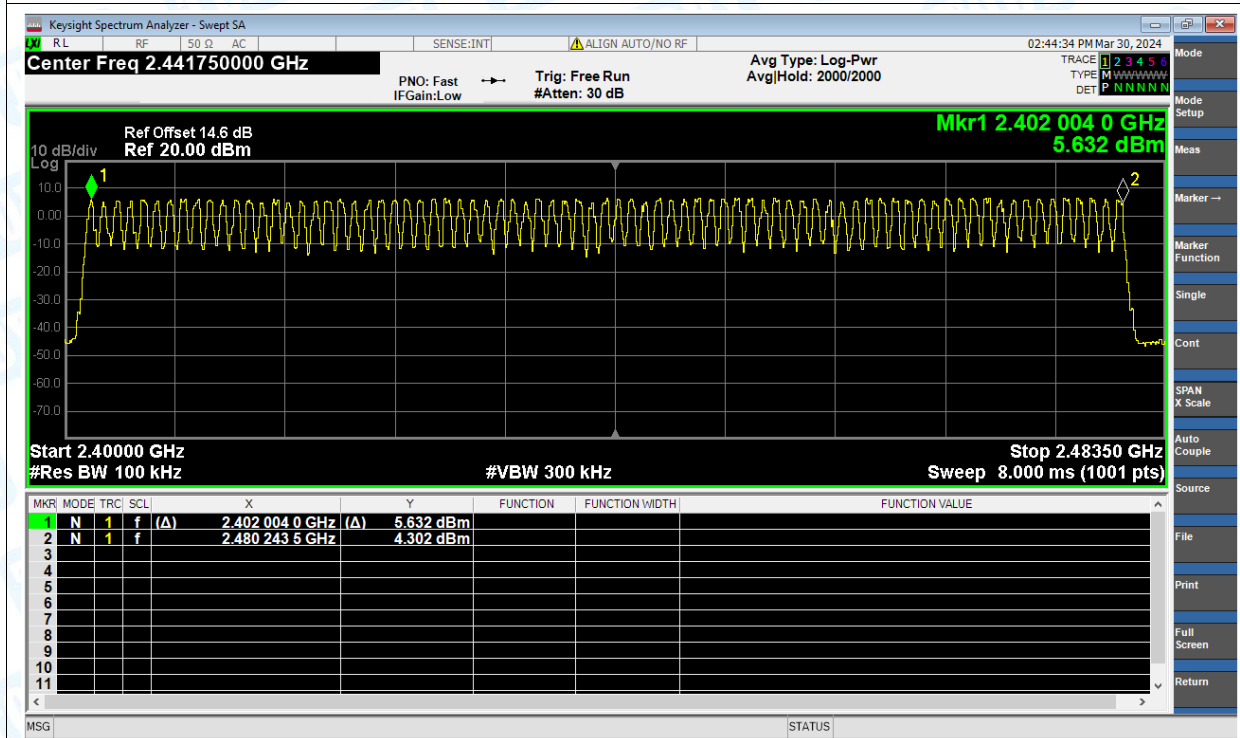


10. Number of Hopping Channel

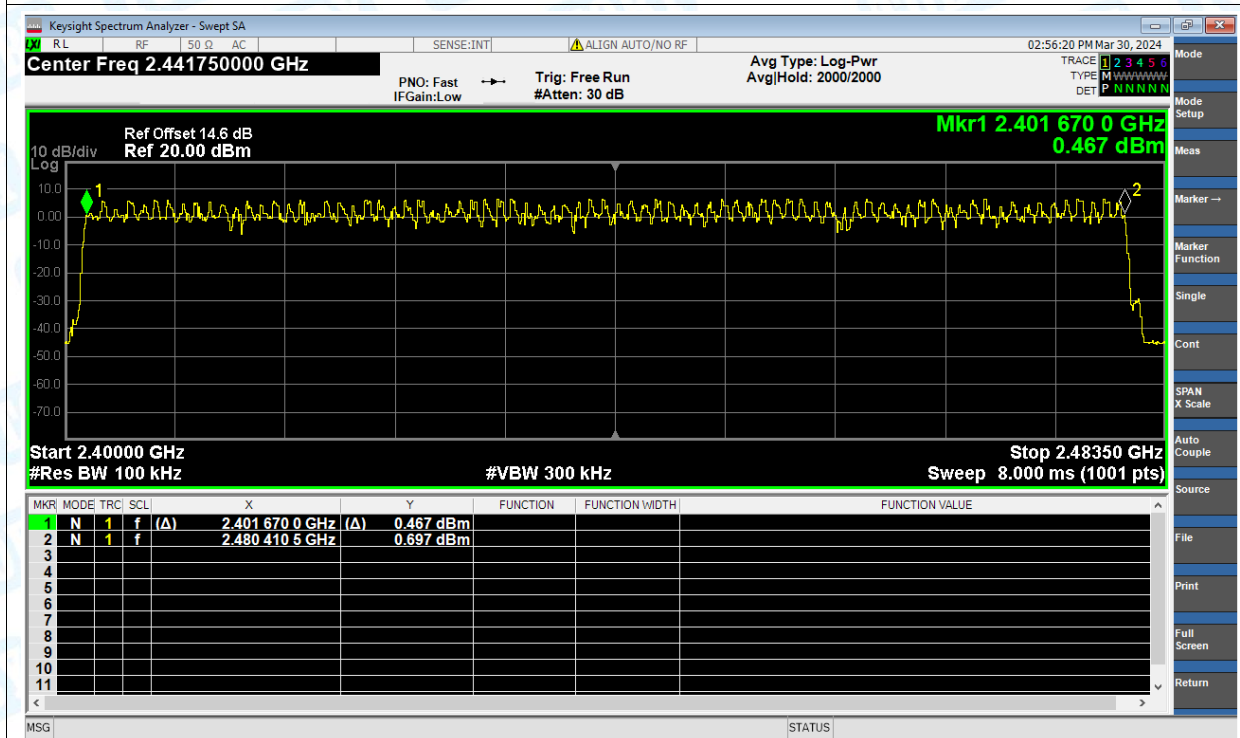
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

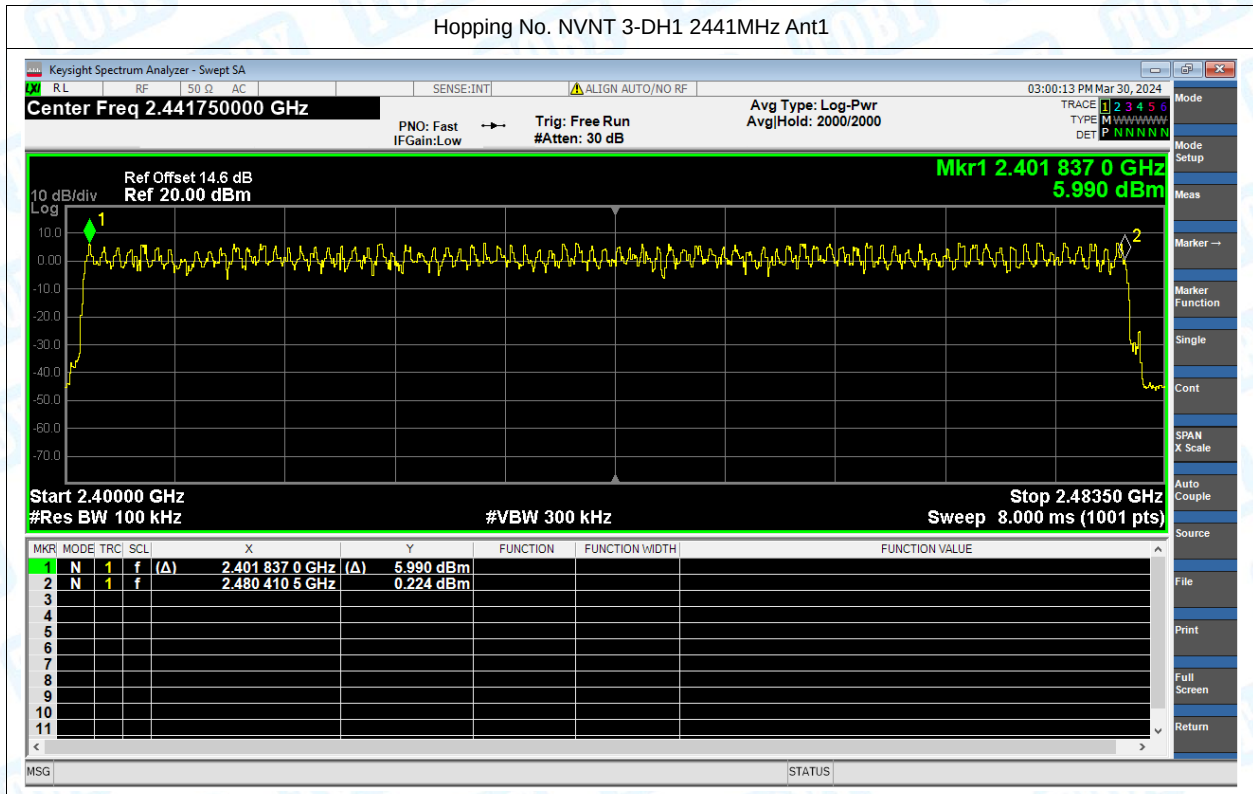
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



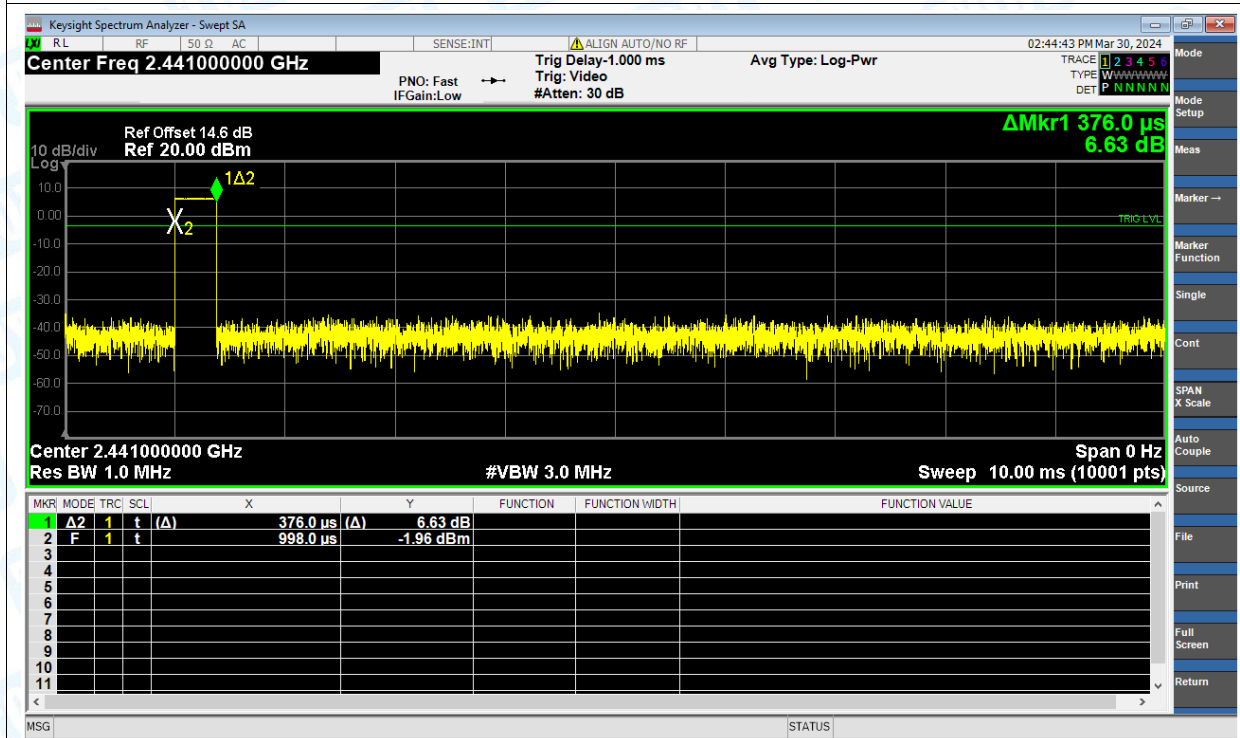


11. Dwell Time

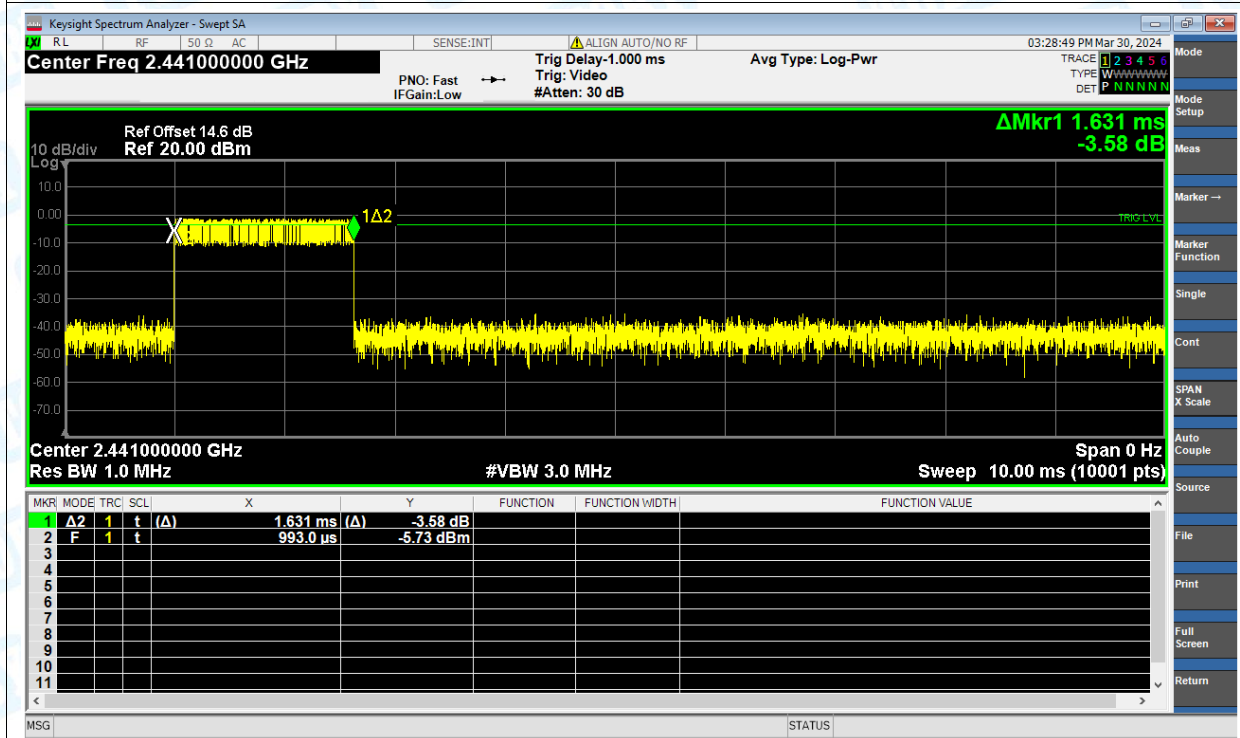
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.631	260.96	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.879	307.093	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.63	260.8	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.885	307.733	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	307.947	31600	400	Pass

Test Graphs

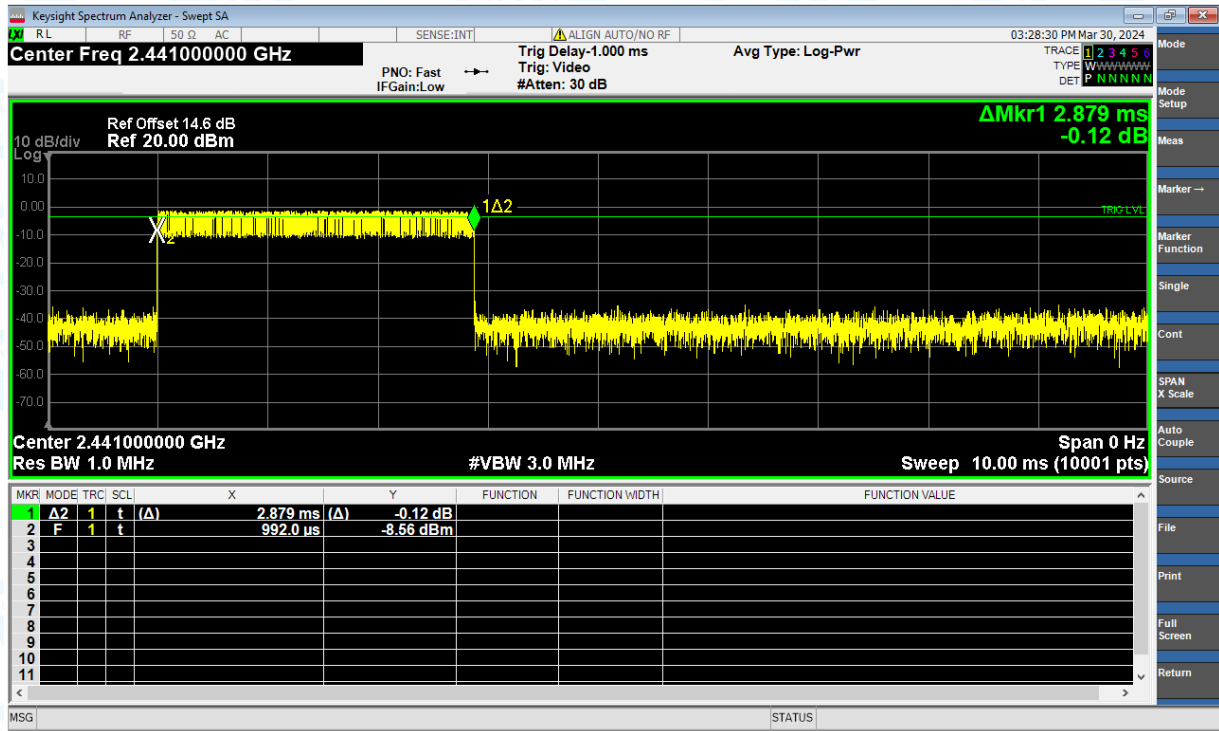
Dwell NVNT 1-DH1 2441MHz Ant1



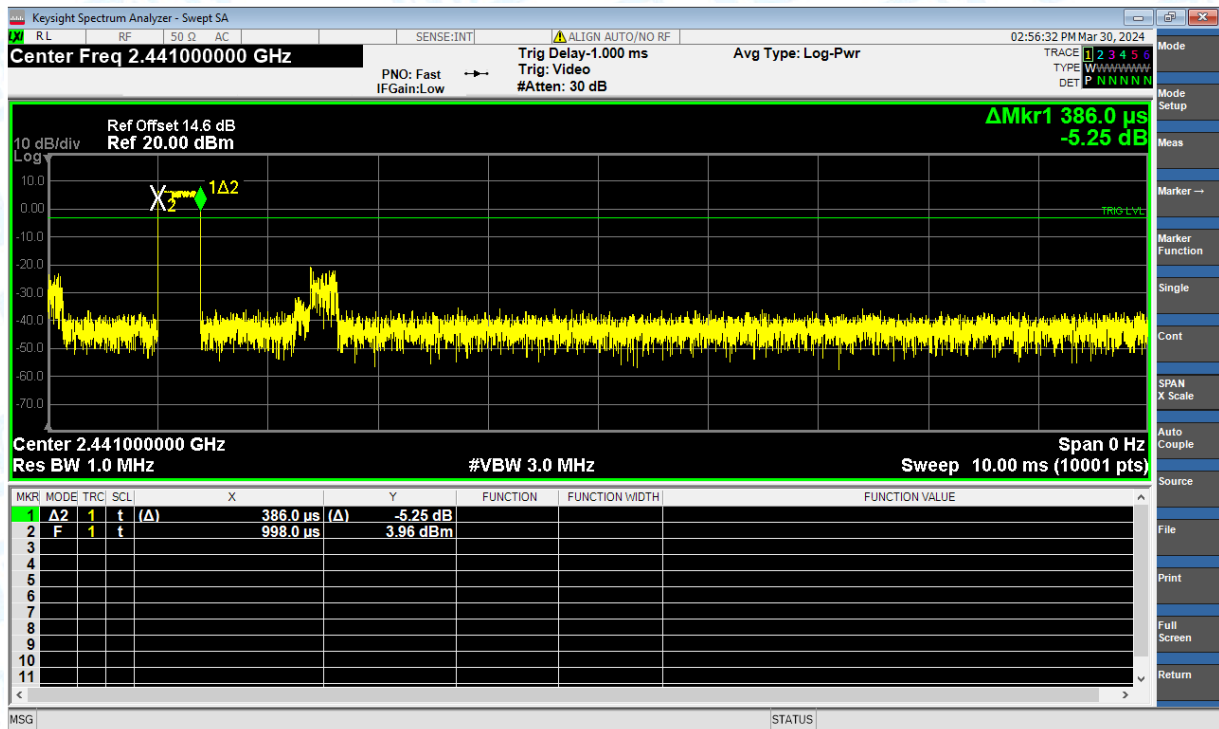
Dwell NVNT 1-DH3 2441MHz Ant1



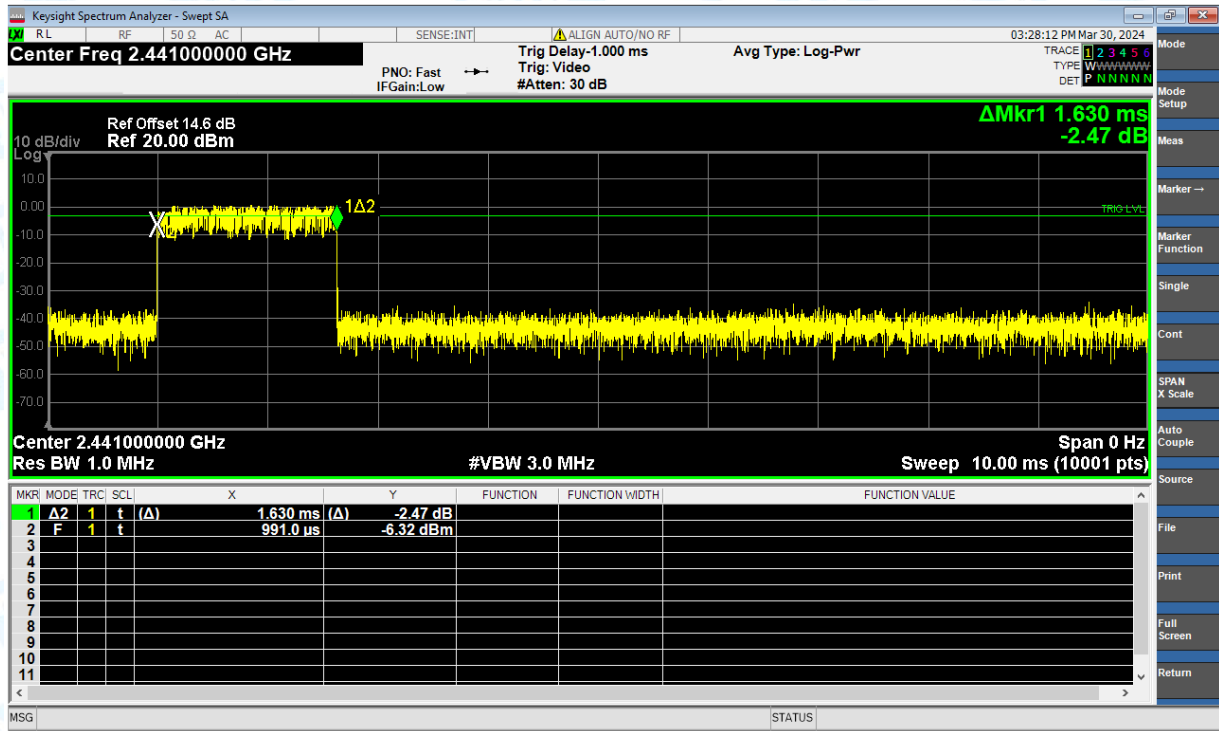
Dwell NVNT 1-DH5 2441MHz Ant1



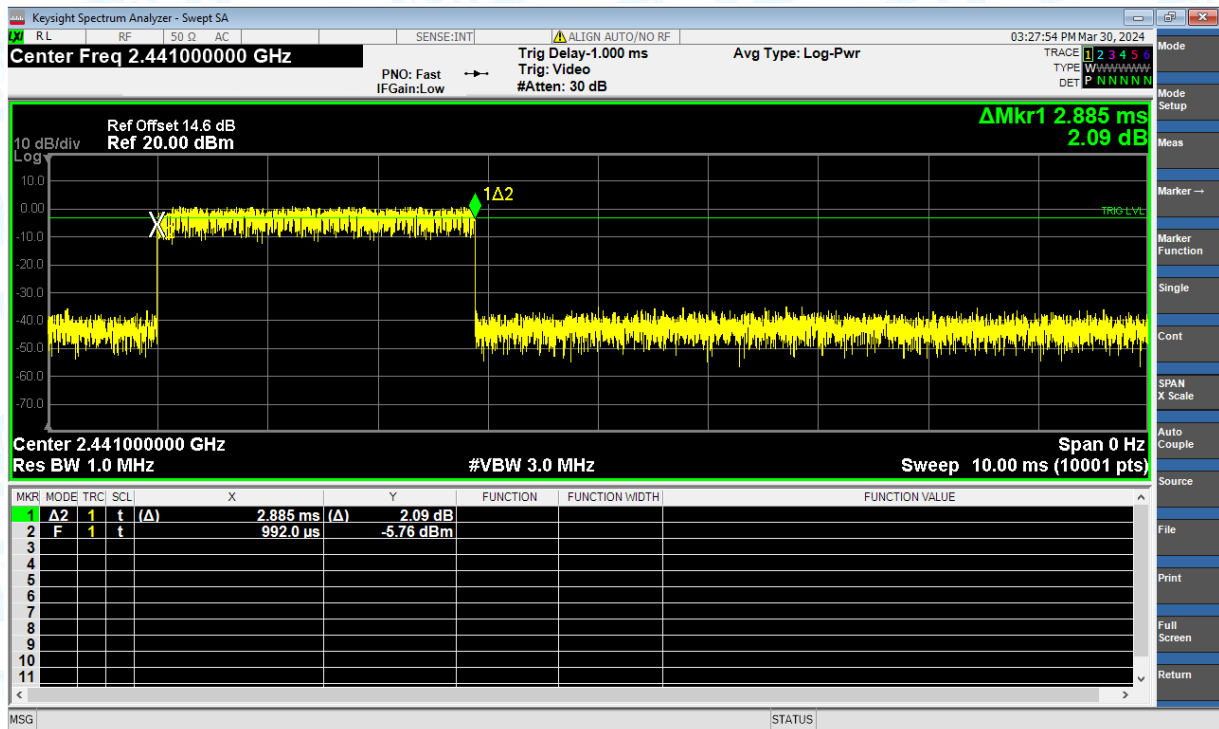
Dwell NVNT 2-DH1 2441MHz Ant1



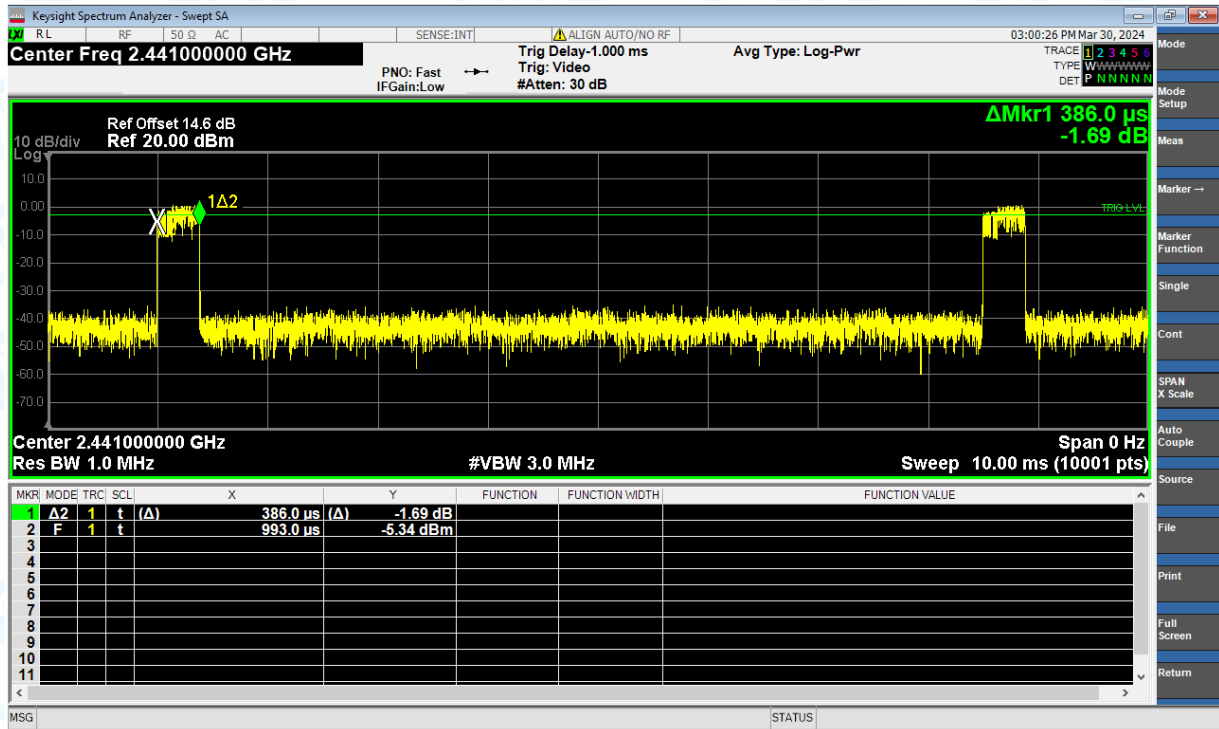
Dwell NVNT 2-DH3 2441MHz Ant1



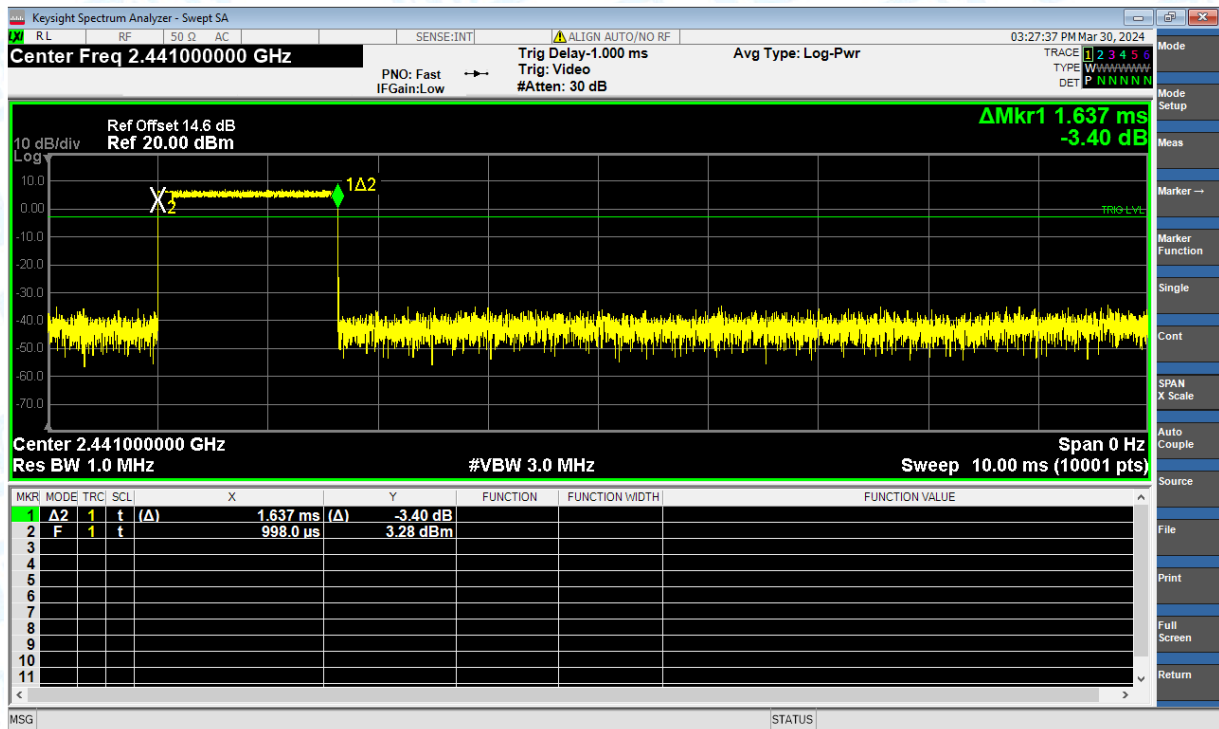
Dwell NVNT 2-DH5 2441MHz Ant1

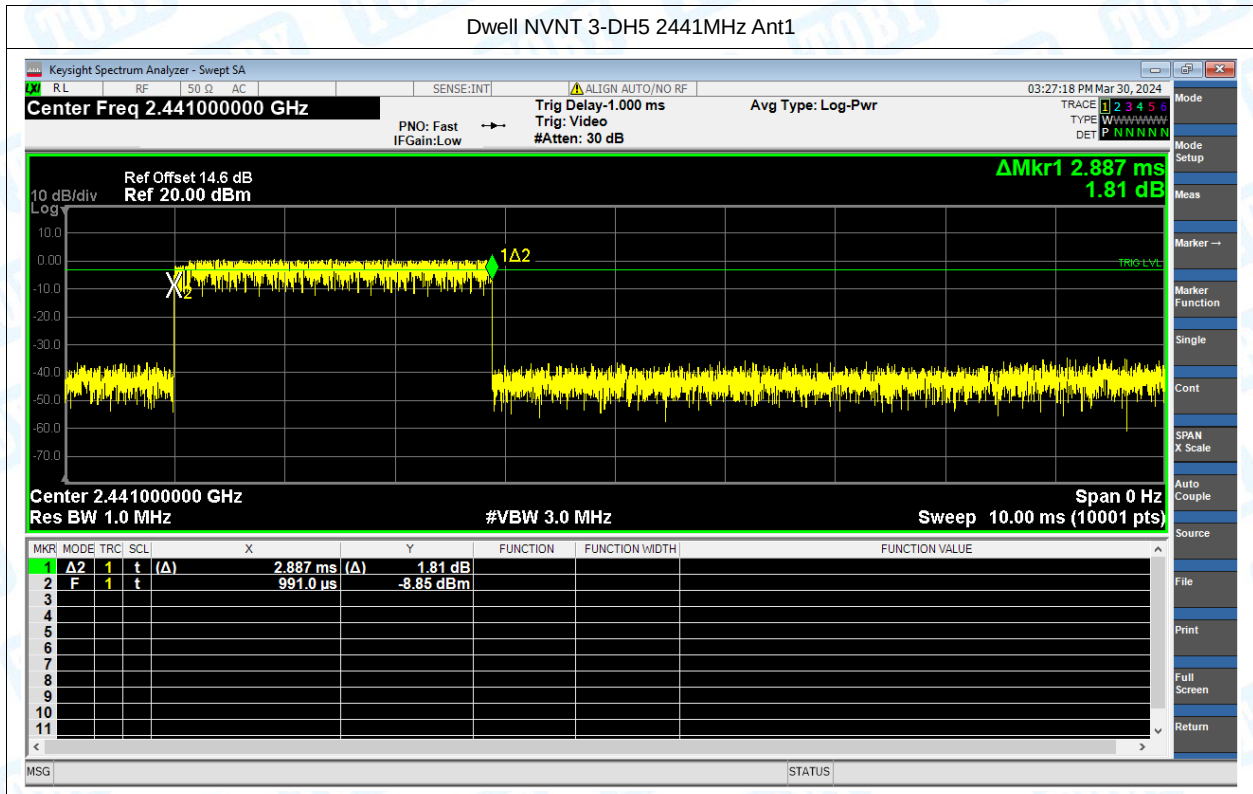


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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