RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Bone conduction earphone
Test Model:	S800C
Sample ID:	HC-C-202502-0103-02-2#
Environmental Conditions	
Temperature:	24.0℃
Relative Humidity:	50%
Test Voltage:	DC 3.7V
Test Engineer:	Rick Chen
Note: For a more detailed features description, please refer to the report TBR-C-202502-0103-6 The report only show the worst case data.	

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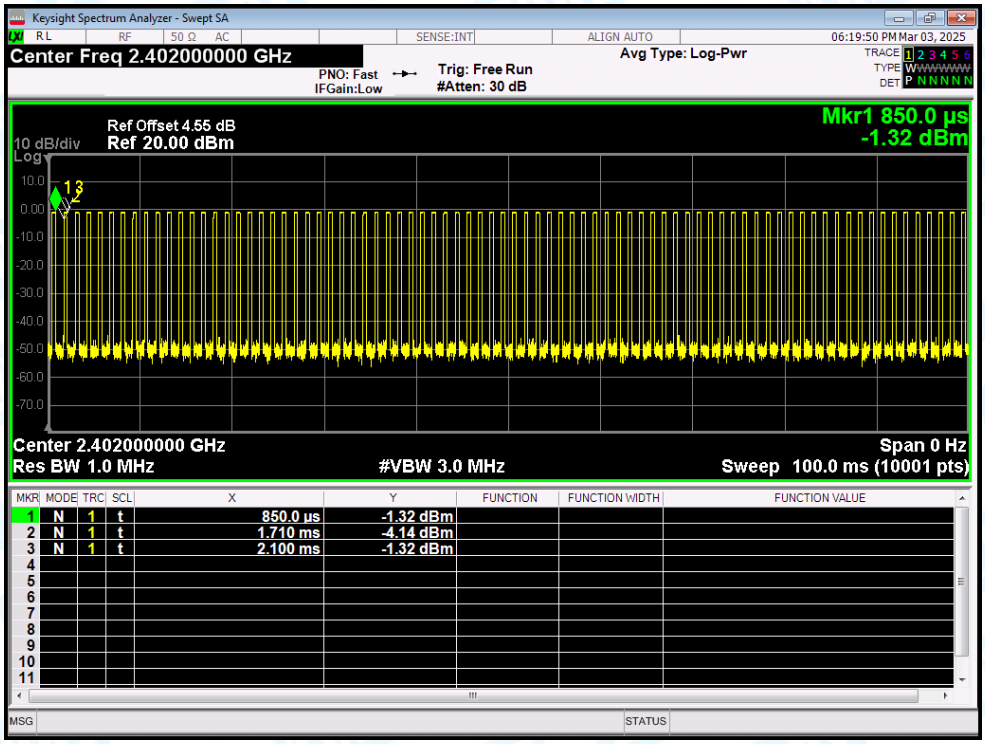
1. Duty Cycle

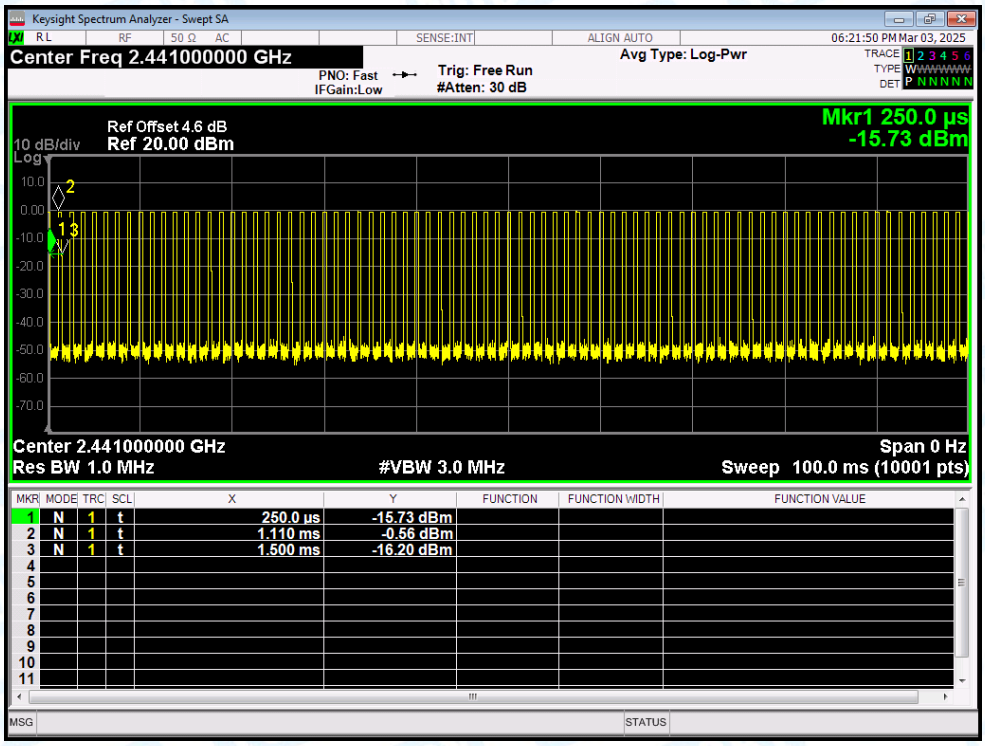
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT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

Test Graphs

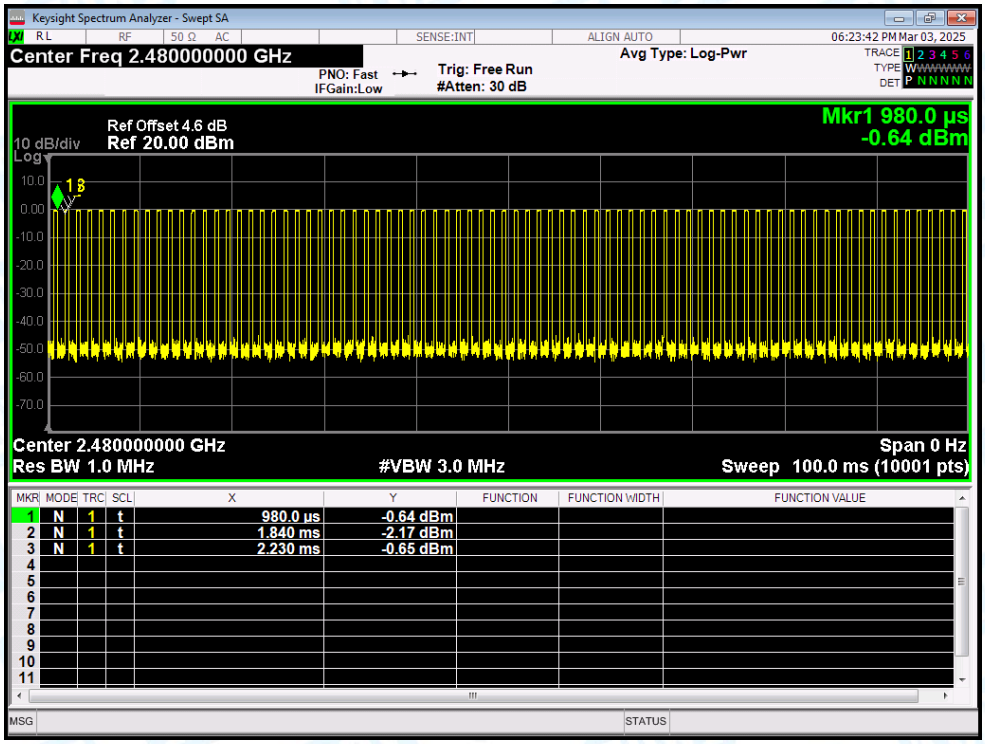
Duty Cycle NVNT 1-DH1 2402MHz Ant1



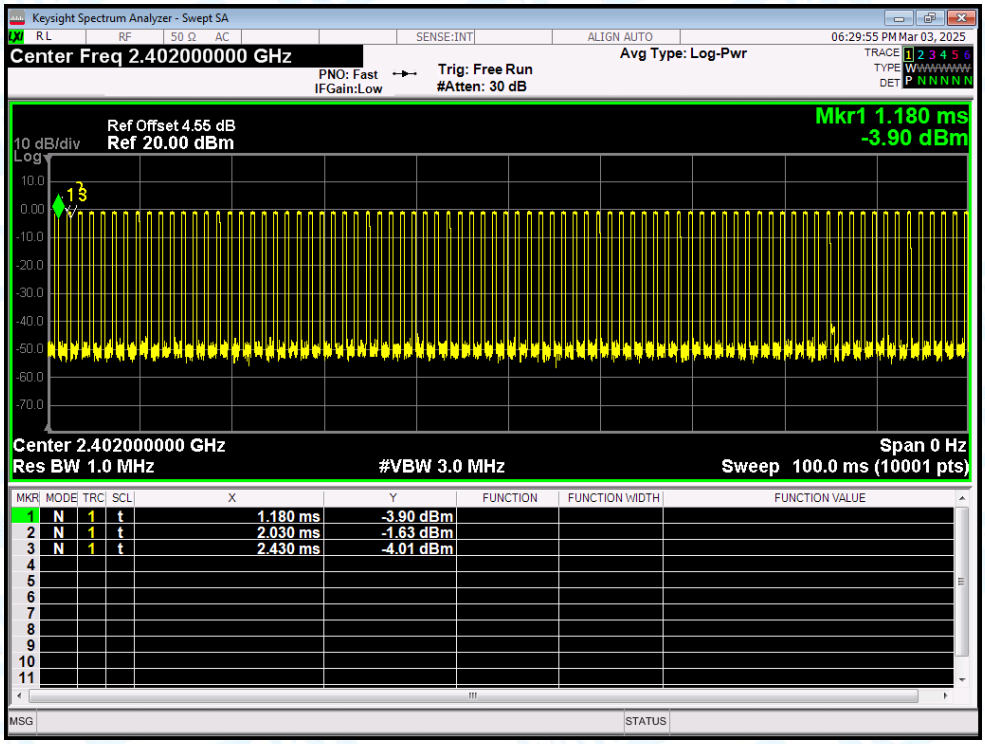
Duty Cycle NVNT 1-DH1 2441MHz Ant1



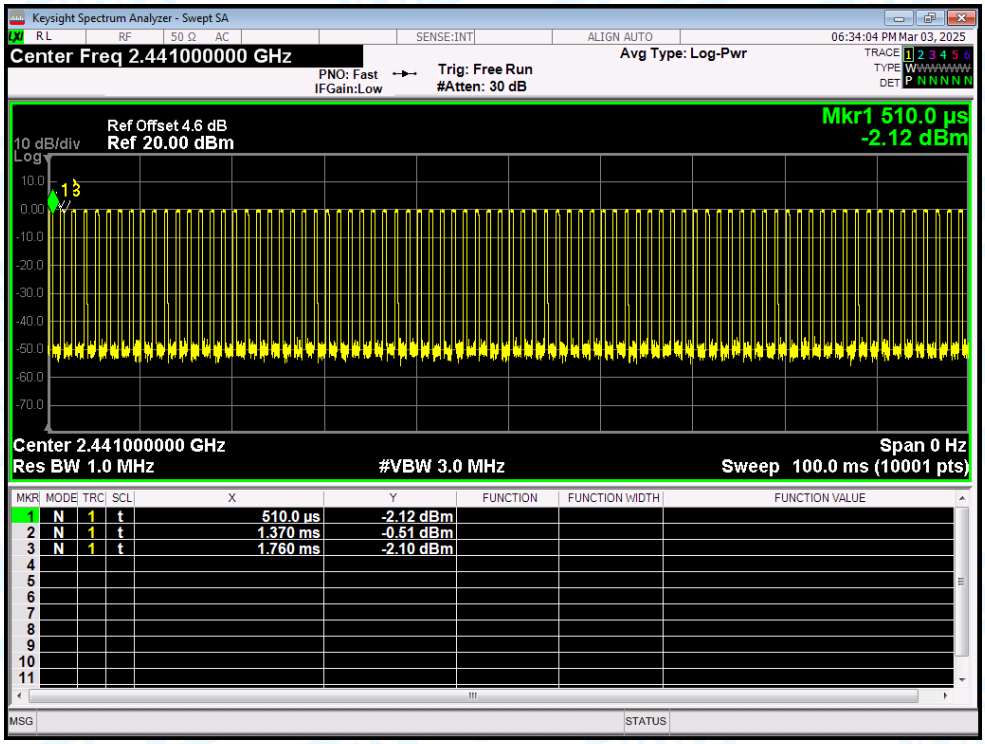
Duty Cycle NVNT 1-DH1 2480MHz Ant1



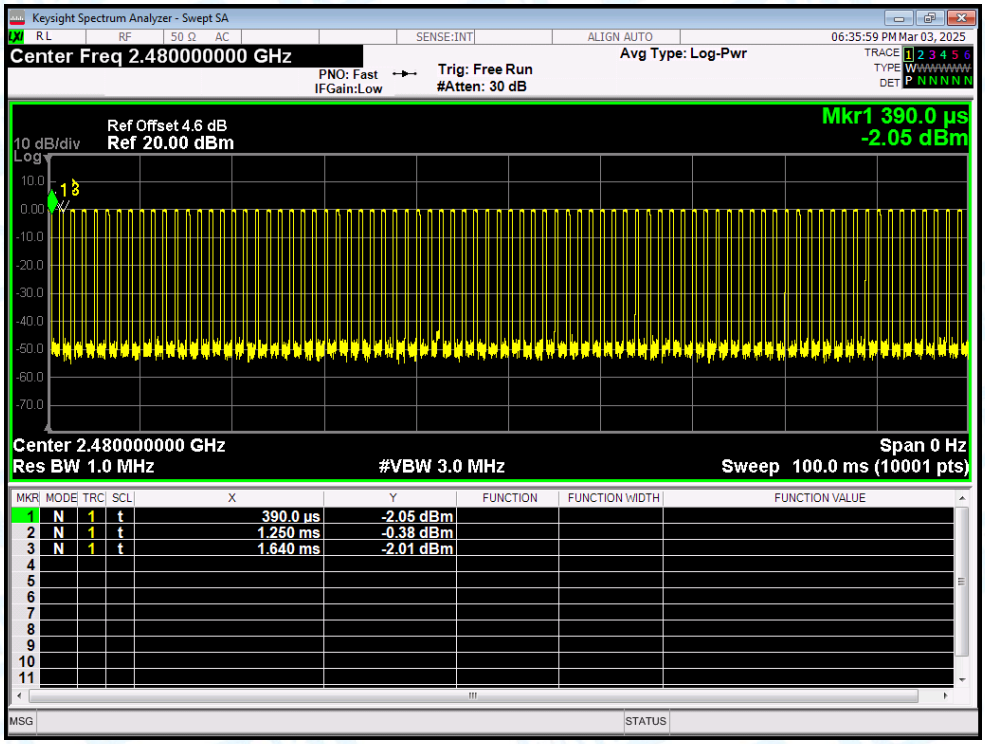
Duty Cycle NVNT 2-DH1 2402MHz Ant1



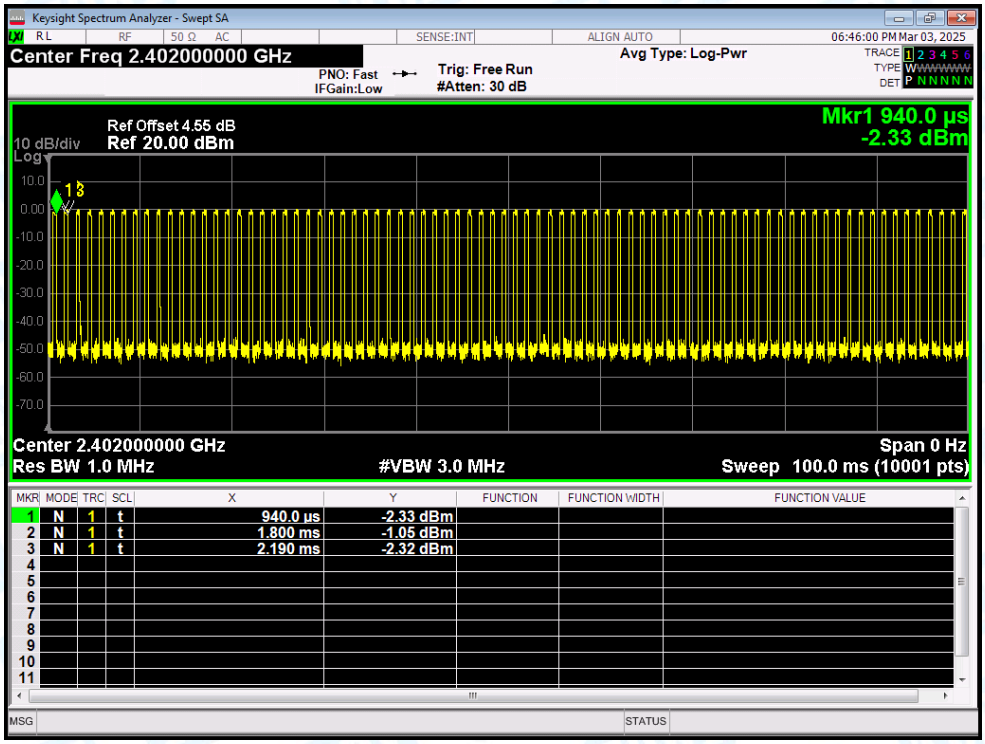
Duty Cycle NVNT 2-DH1 2441MHz Ant1



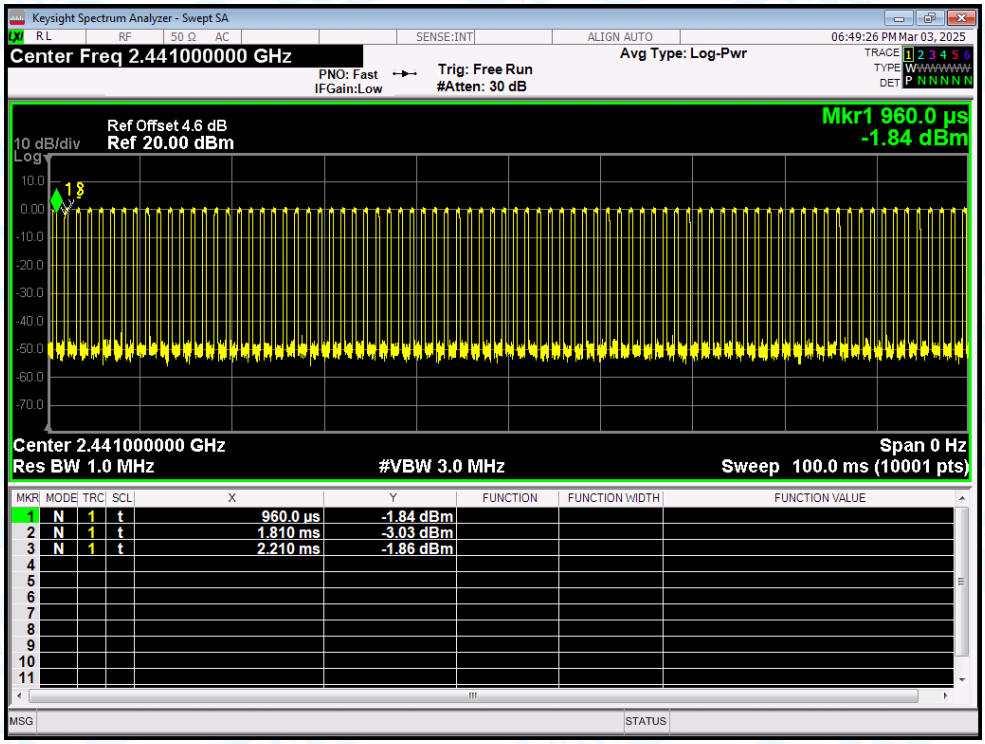
Duty Cycle NVNT 2-DH1 2480MHz Ant1



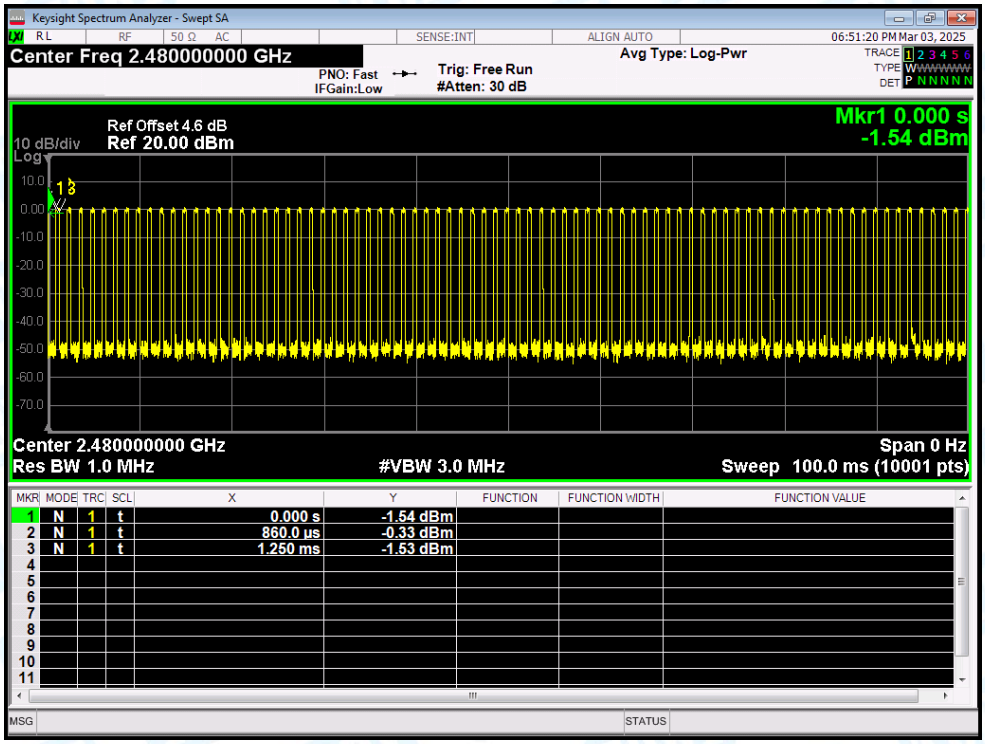
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

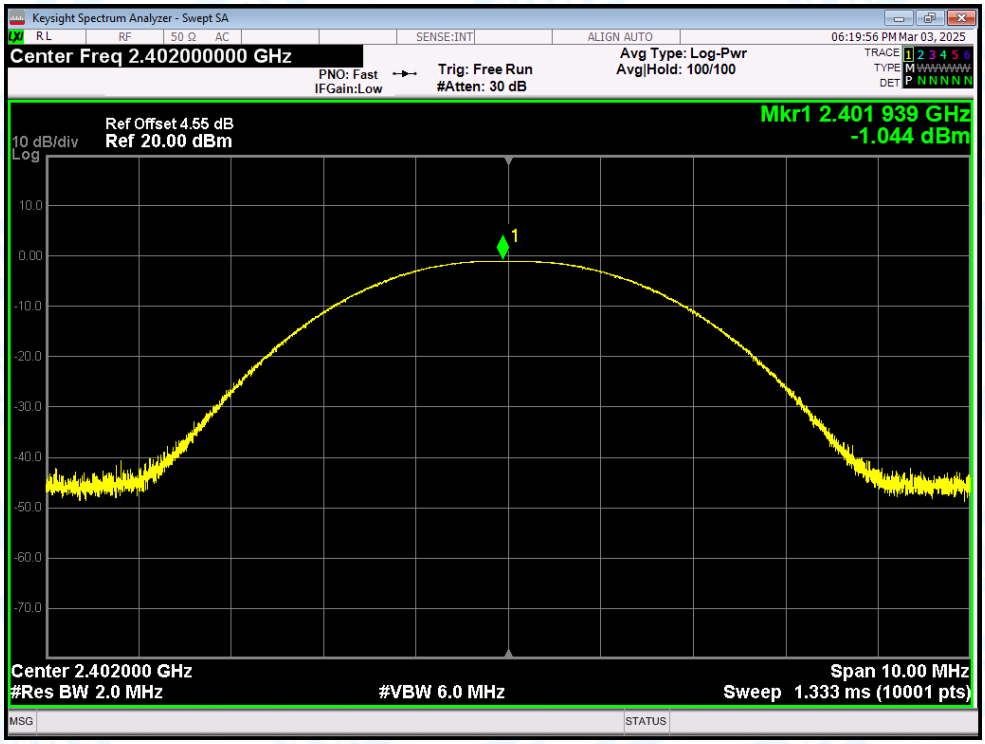


2. Maximum Conducted Output Power

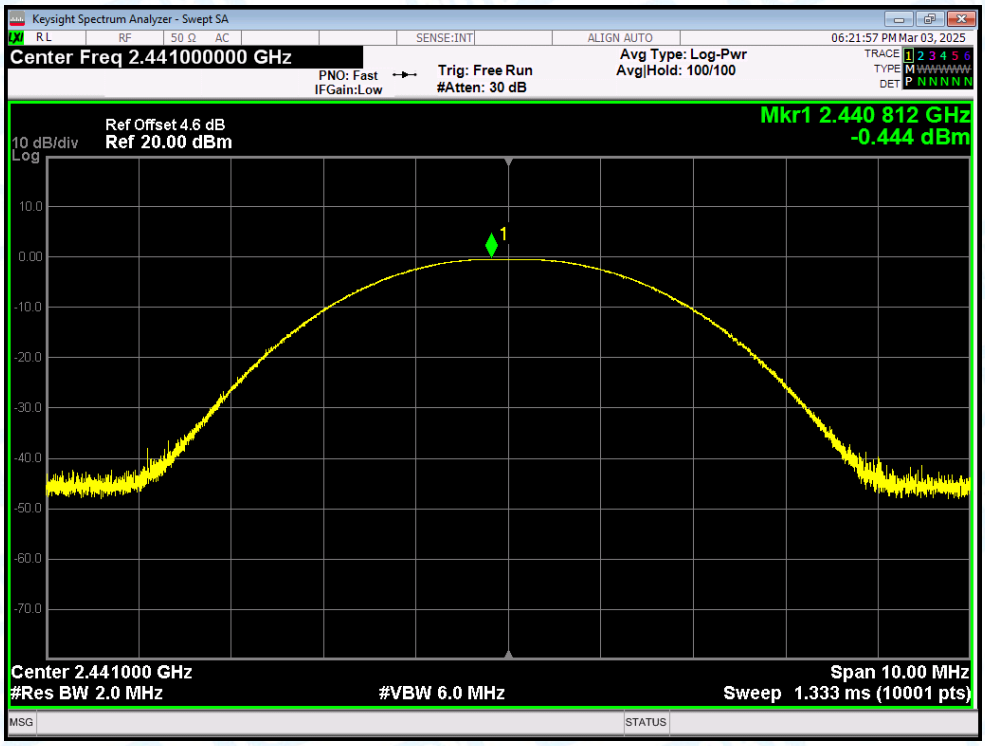
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-1.044	21	Pass
NVNT	1-DH1	2441	Ant1	-0.444	21	Pass
NVNT	1-DH1	2480	Ant1	-0.348	21	Pass
NVNT	1-DH3	2441	Ant1	-0.38	21	Pass
NVNT	1-DH5	2441	Ant1	-0.419	21	Pass
NVNT	2-DH1	2402	Ant1	-0.236	21	Pass
NVNT	2-DH1	2441	Ant1	0.456	21	Pass
NVNT	2-DH1	2480	Ant1	0.614	21	Pass
NVNT	2-DH3	2441	Ant1	0.463	21	Pass
NVNT	2-DH5	2441	Ant1	0.463	21	Pass
NVNT	3-DH1	2402	Ant1	0.4	21	Pass
NVNT	3-DH1	2441	Ant1	1.072	21	Pass
NVNT	3-DH1	2480	Ant1	1.233	21	Pass
NVNT	3-DH3	2441	Ant1	0.919	21	Pass
NVNT	3-DH5	2441	Ant1	0.853	21	Pass

Test Graphs

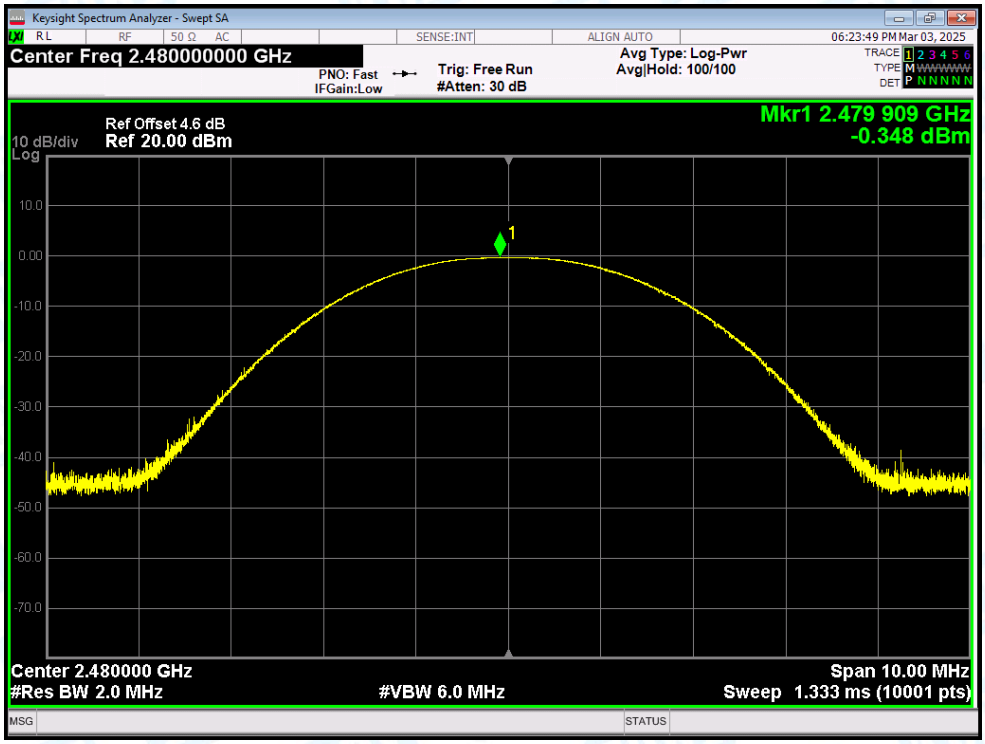
Power NVNT 1-DH1 2402MHz Ant1



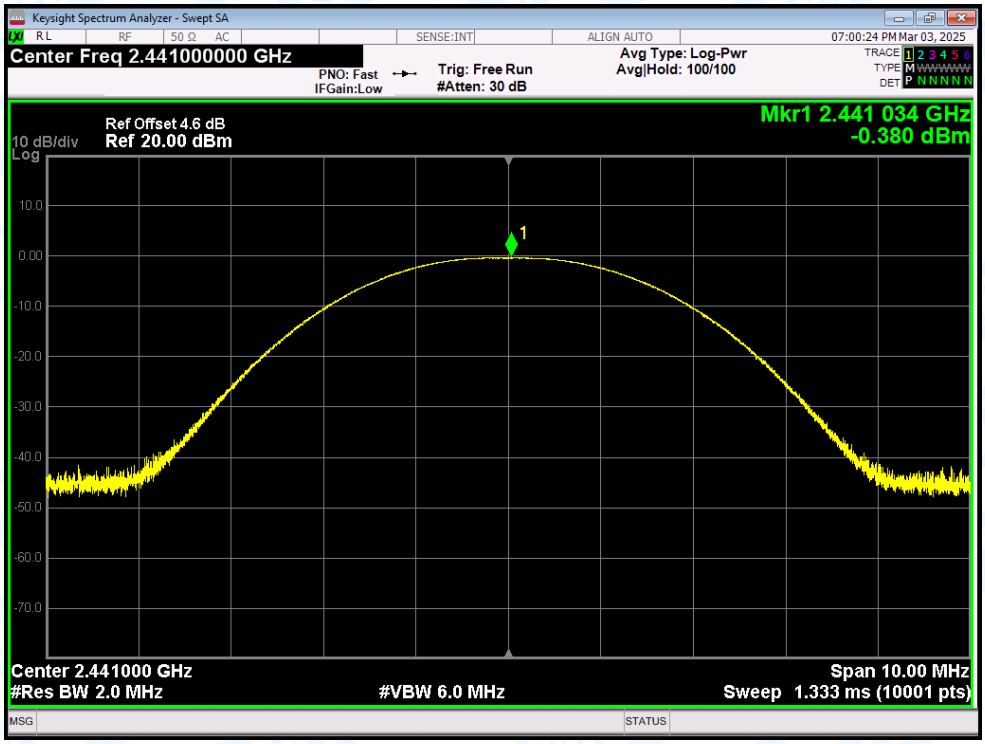
Power NVNT 1-DH1 2441MHz Ant1



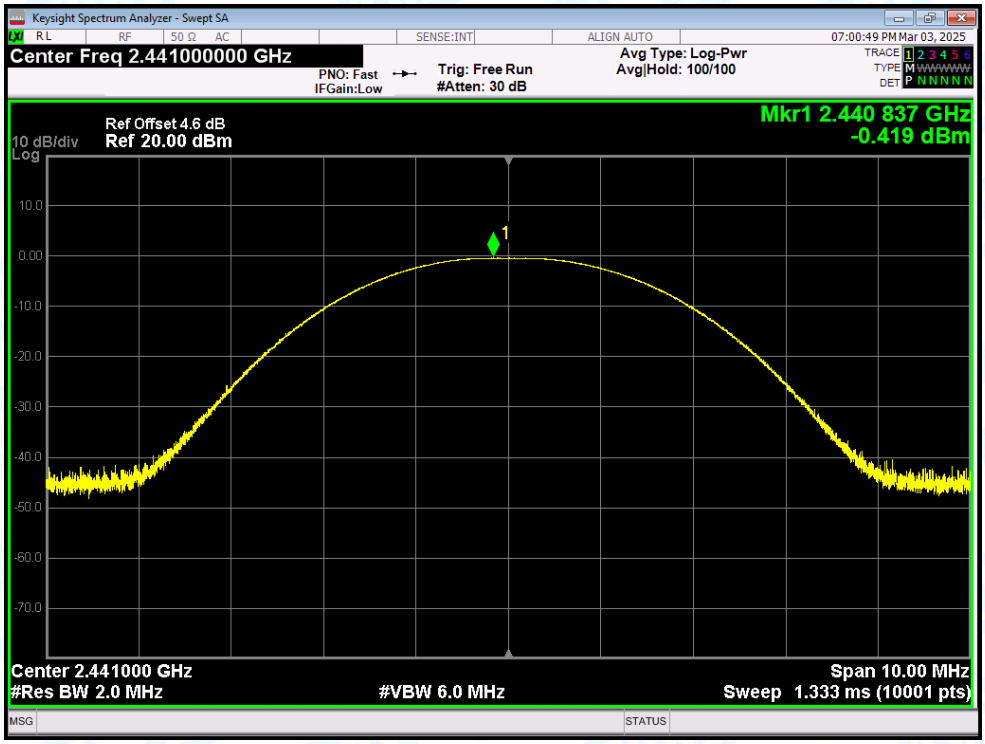
Power NVNT 1-DH1 2480MHz Ant1



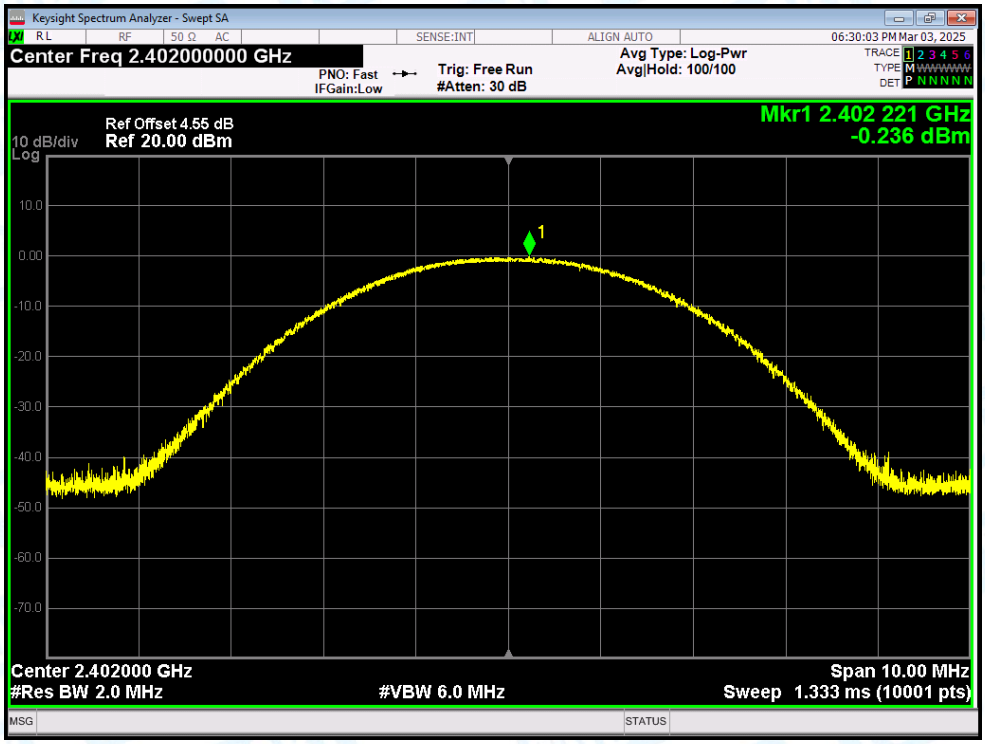
Power NVNT 1-DH3 2441MHz Ant1



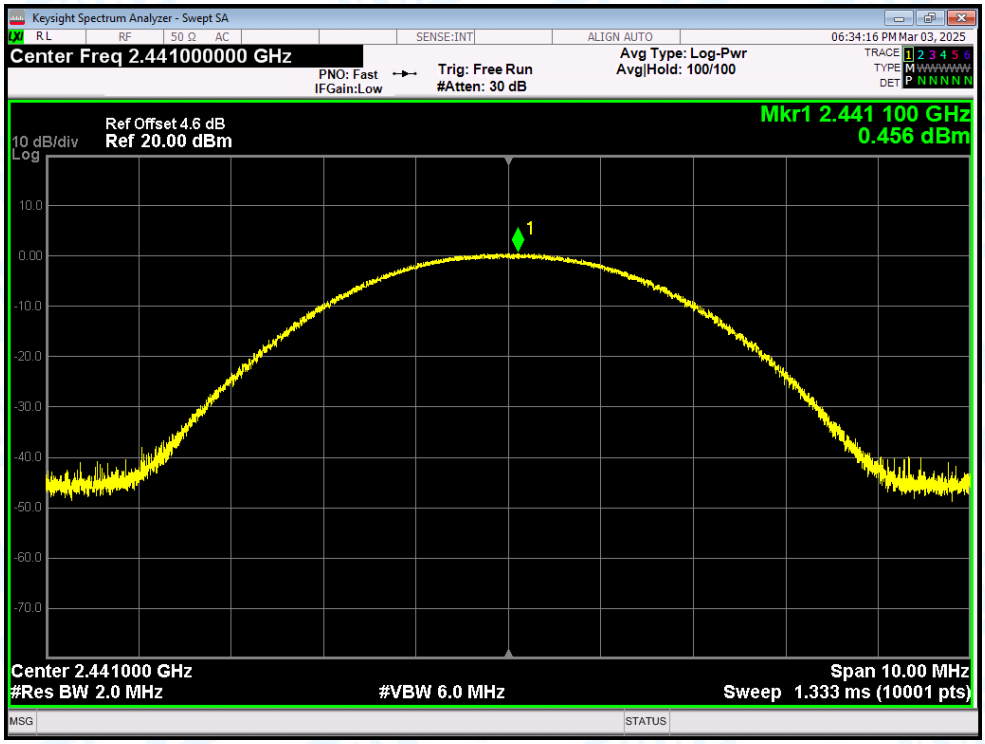
Power NVNT 1-DH5 2441MHz Ant1



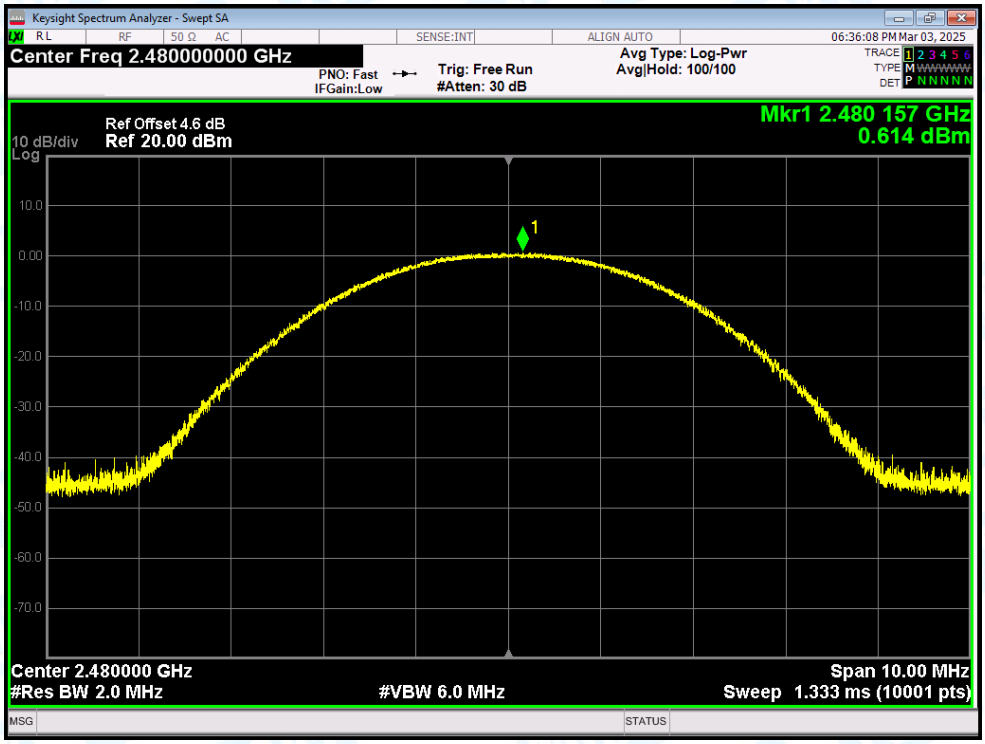
Power NVNT 2-DH1 2402MHz Ant1



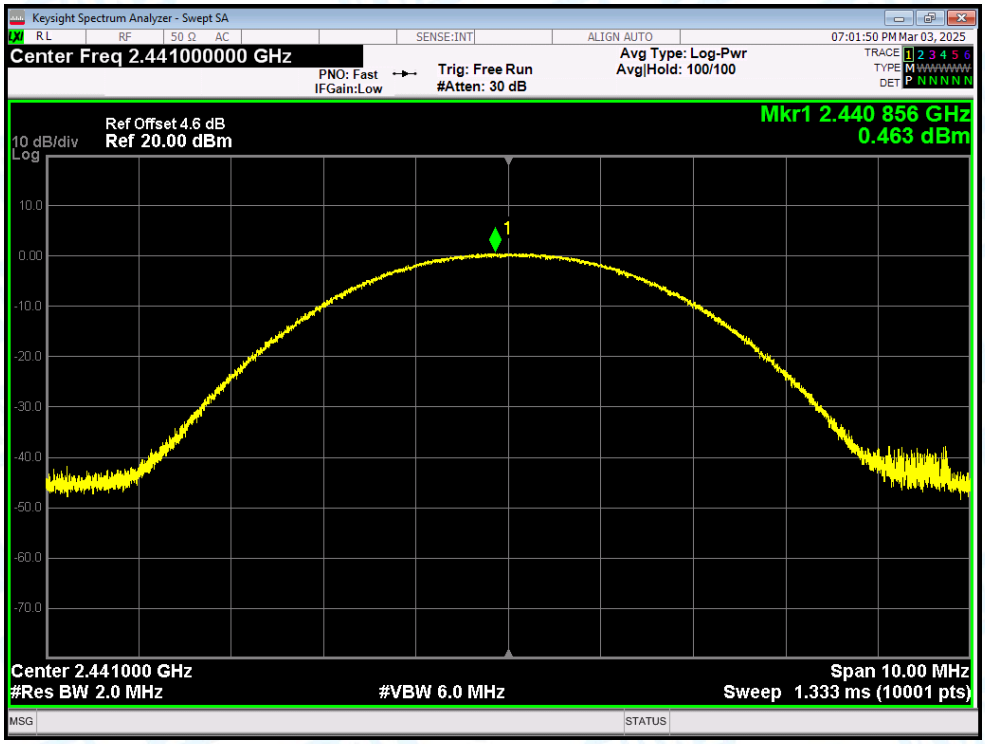
Power NVNT 2-DH1 2441MHz Ant1



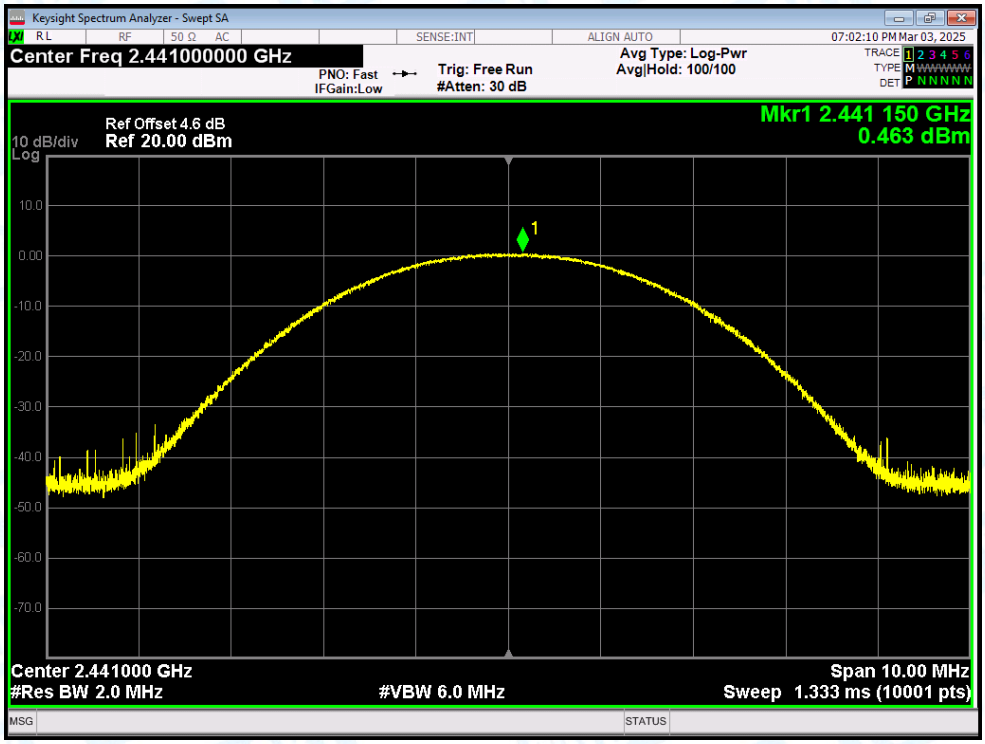
Power NVNT 2-DH1 2480MHz Ant1



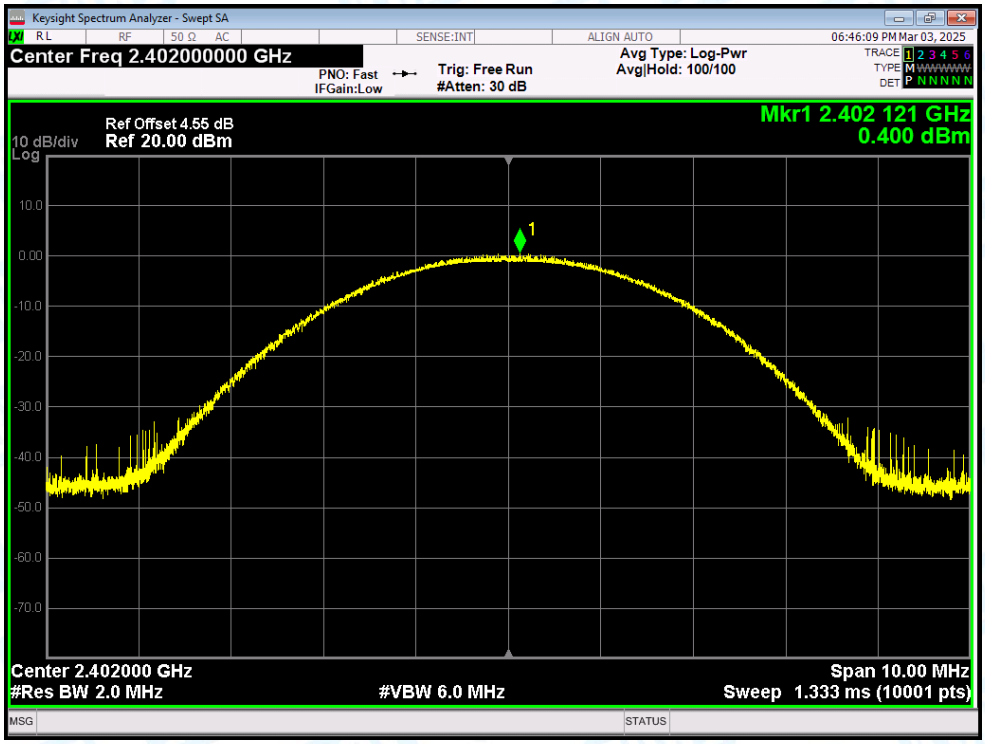
Power NVNT 2-DH3 2441MHz Ant1



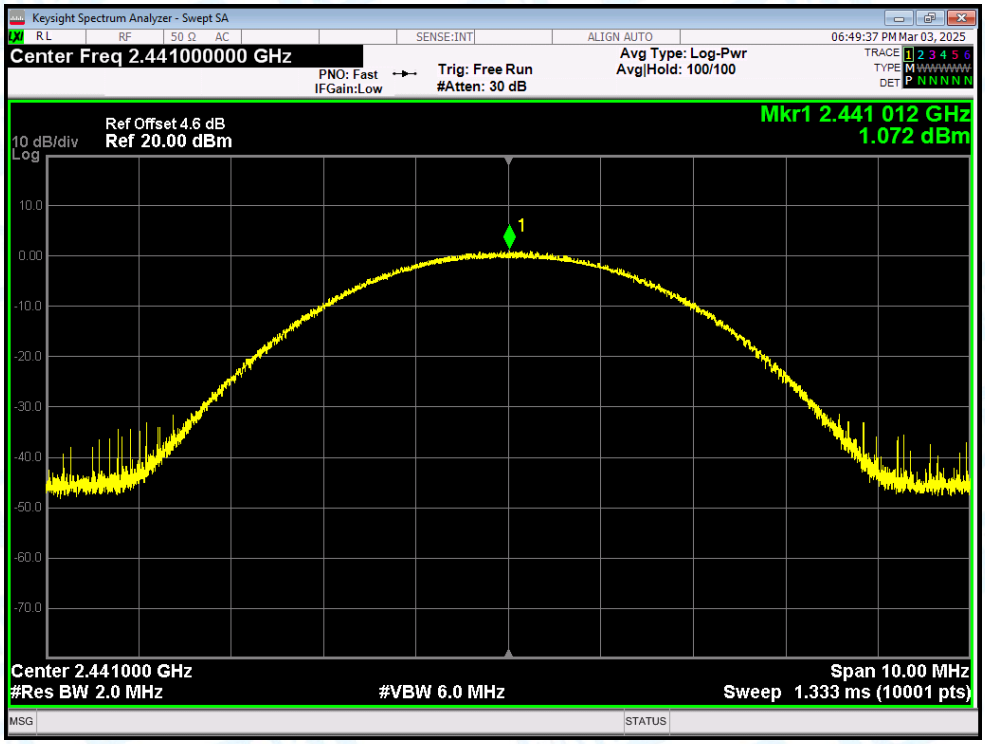
Power NVNT 2-DH5 2441MHz Ant1



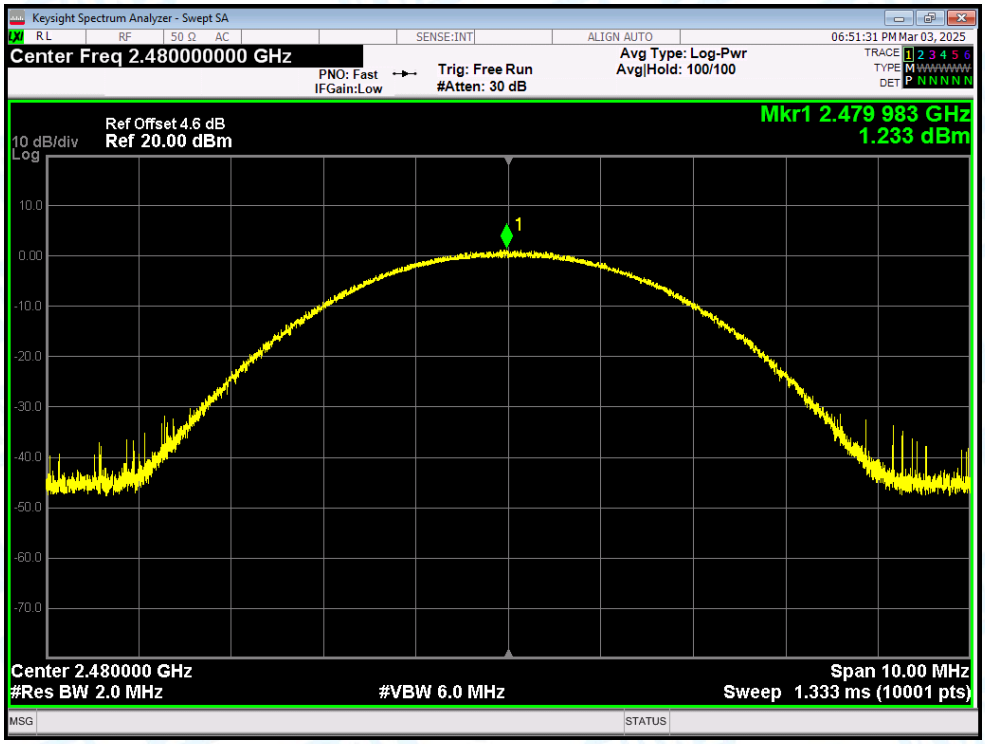
Power NVNT 3-DH1 2402MHz Ant1



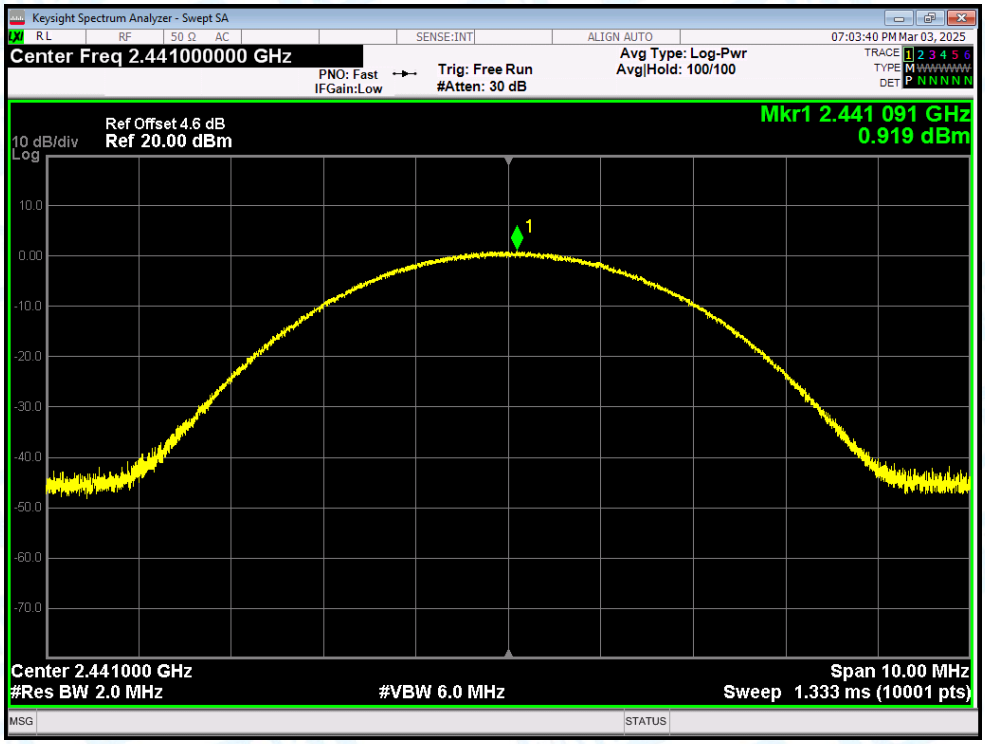
Power NVNT 3-DH1 2441MHz Ant1



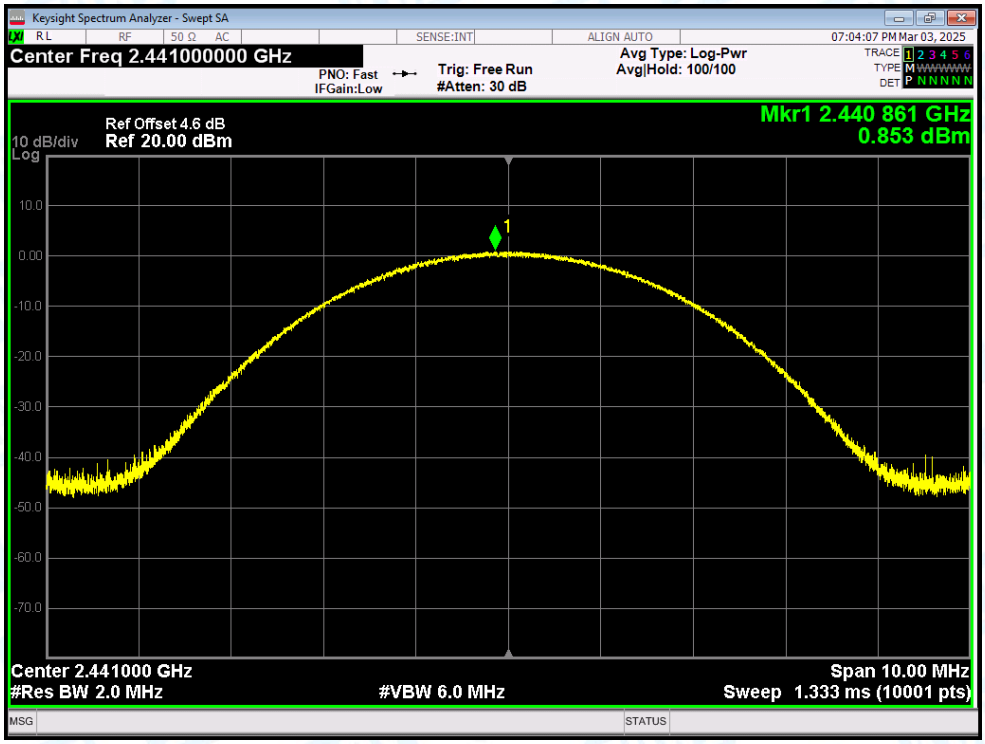
Power NVNT 3-DH1 2480MHz Ant1



Power NVNT 3-DH3 2441MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1

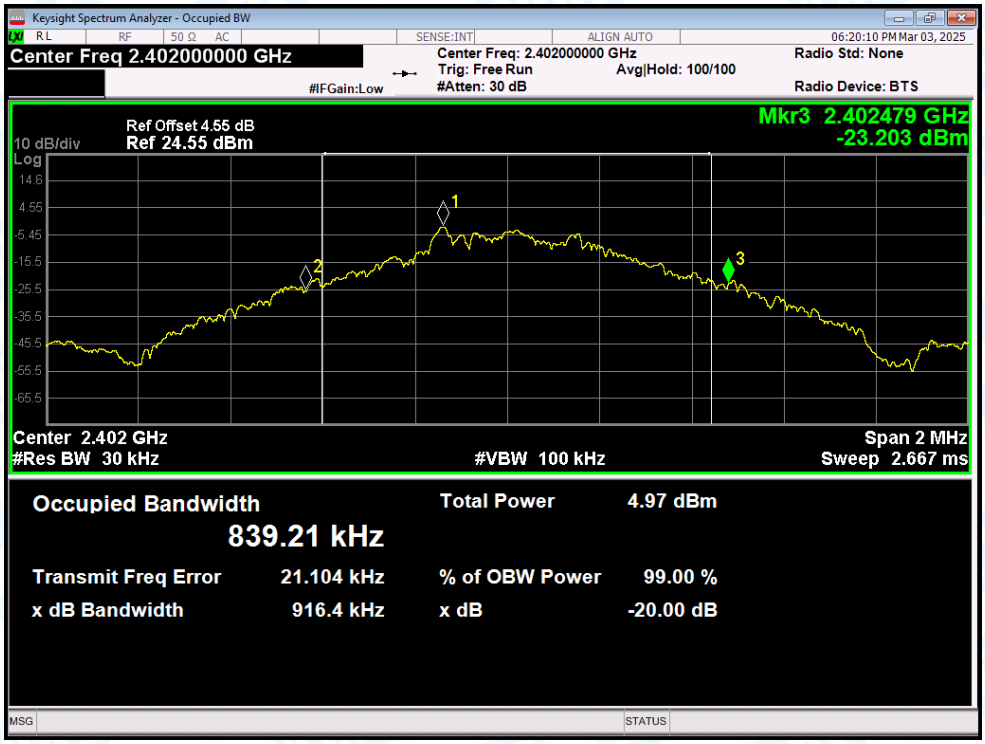


3. -20dB Bandwidth

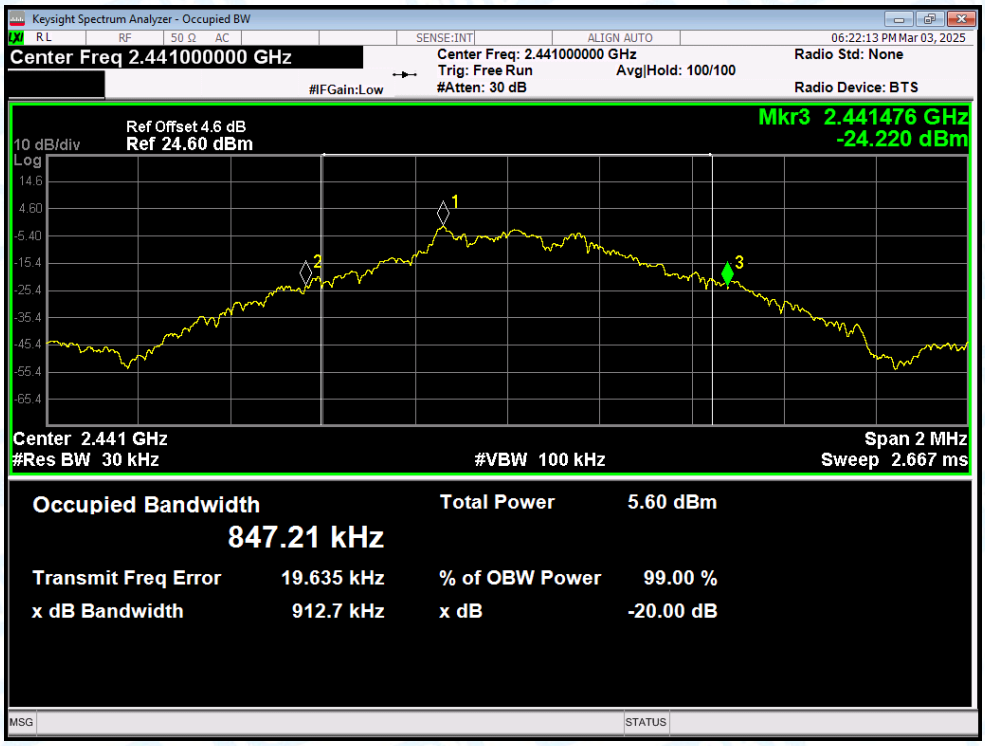
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.92	0	Pass
NVNT	1-DH1	2441	Ant1	0.91	0	Pass
NVNT	1-DH1	2480	Ant1	0.85	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.24	0	Pass
NVNT	3-DH1	2441	Ant1	1.24	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

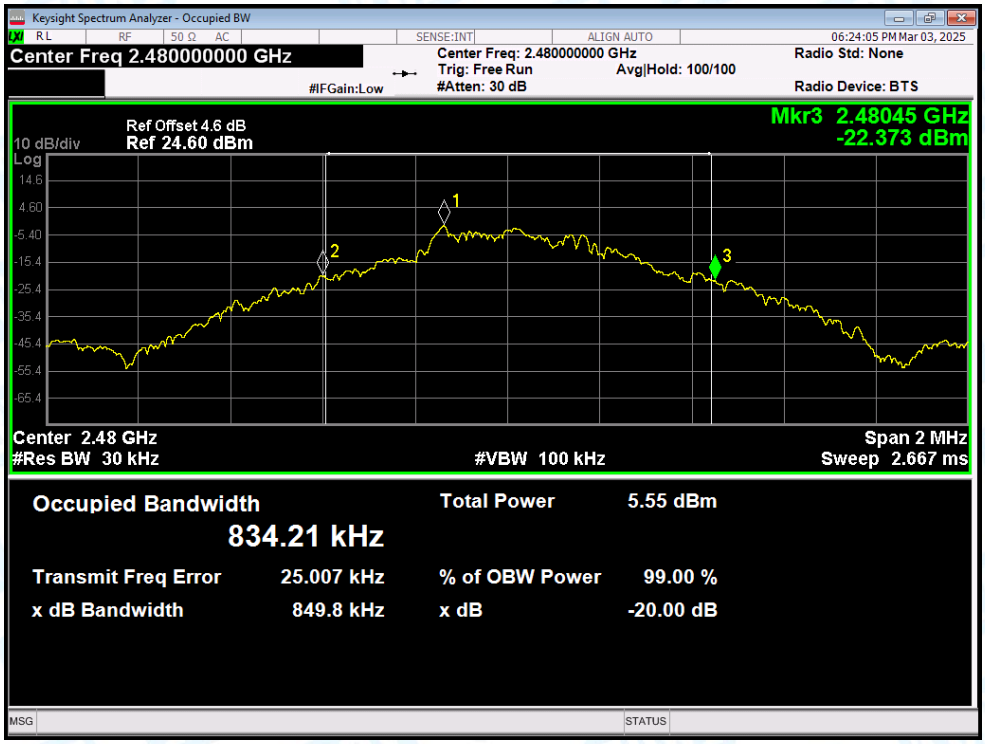
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



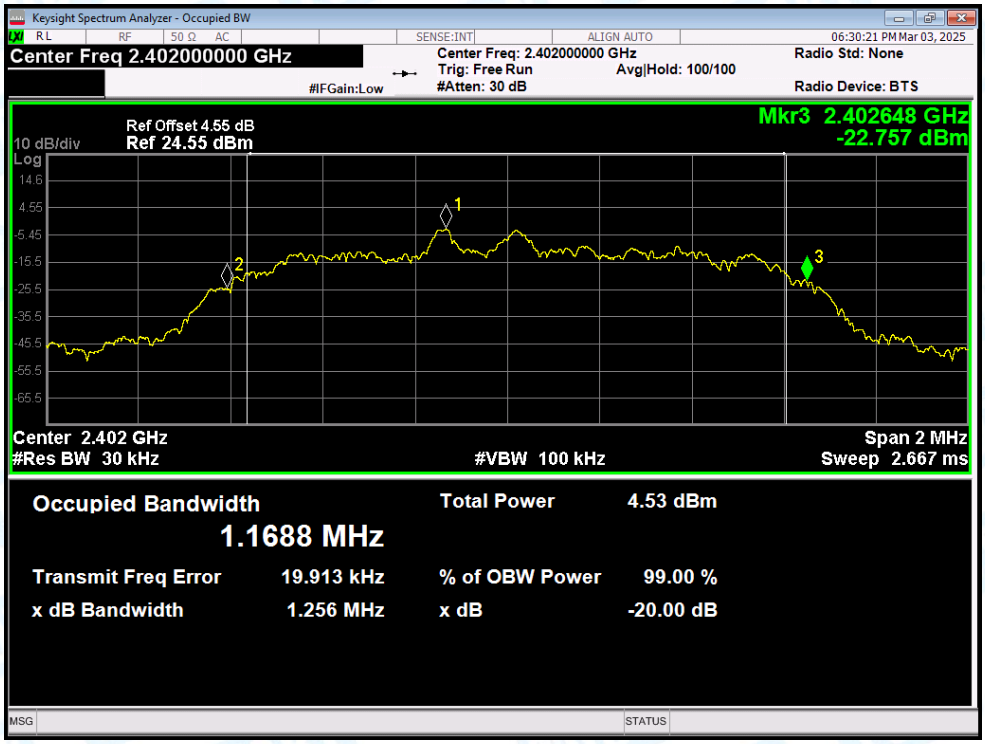
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



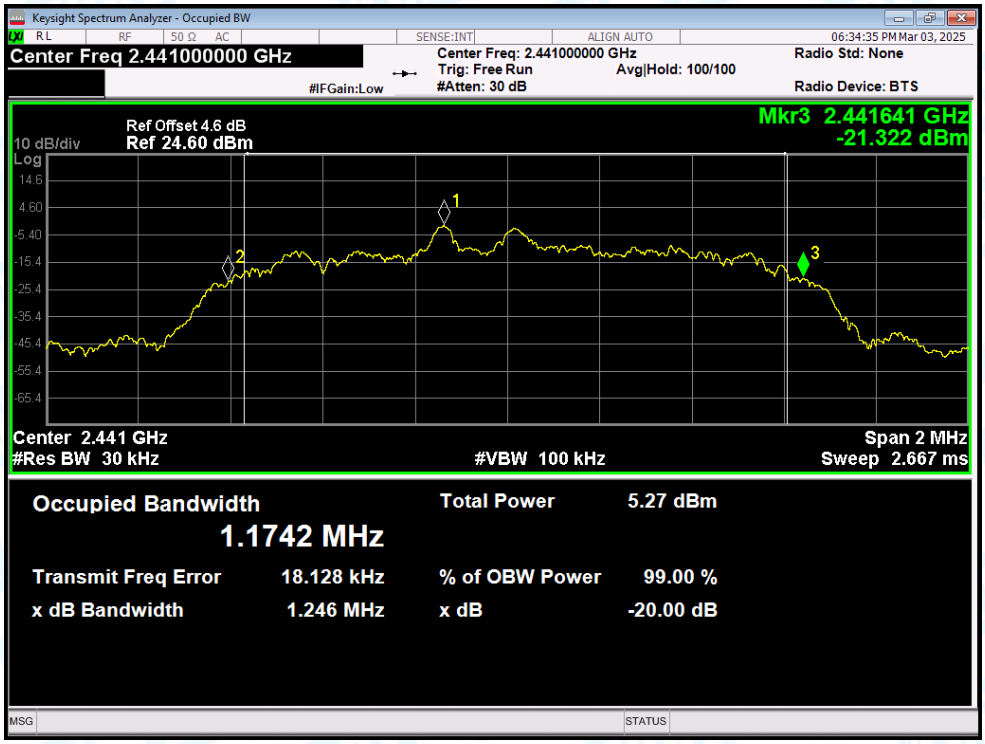
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



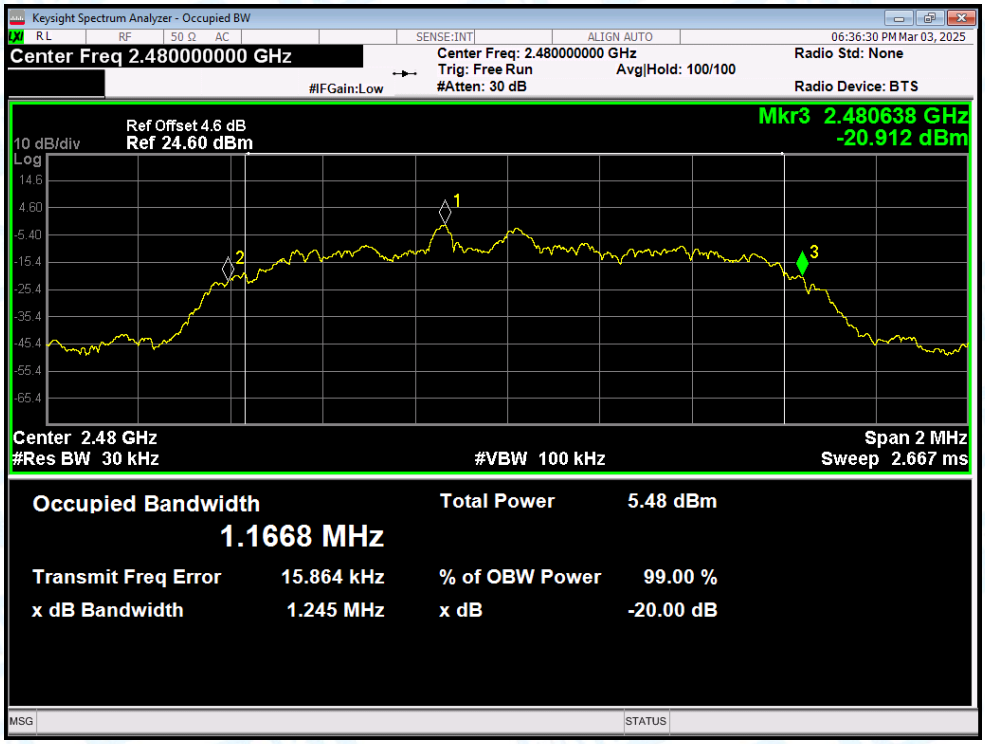
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



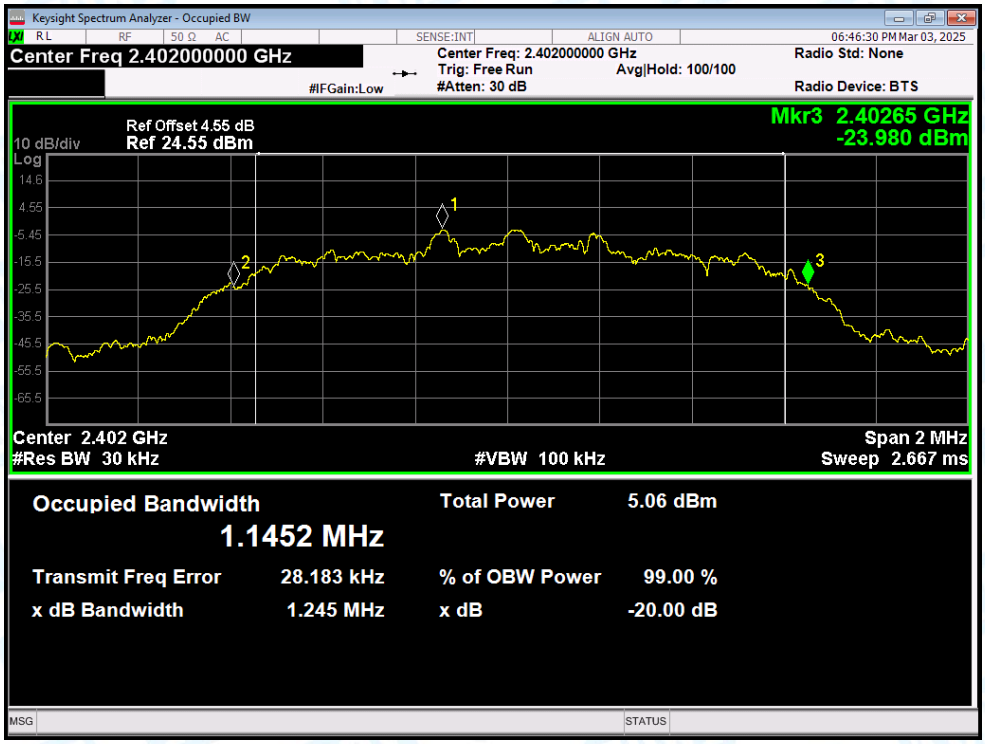
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



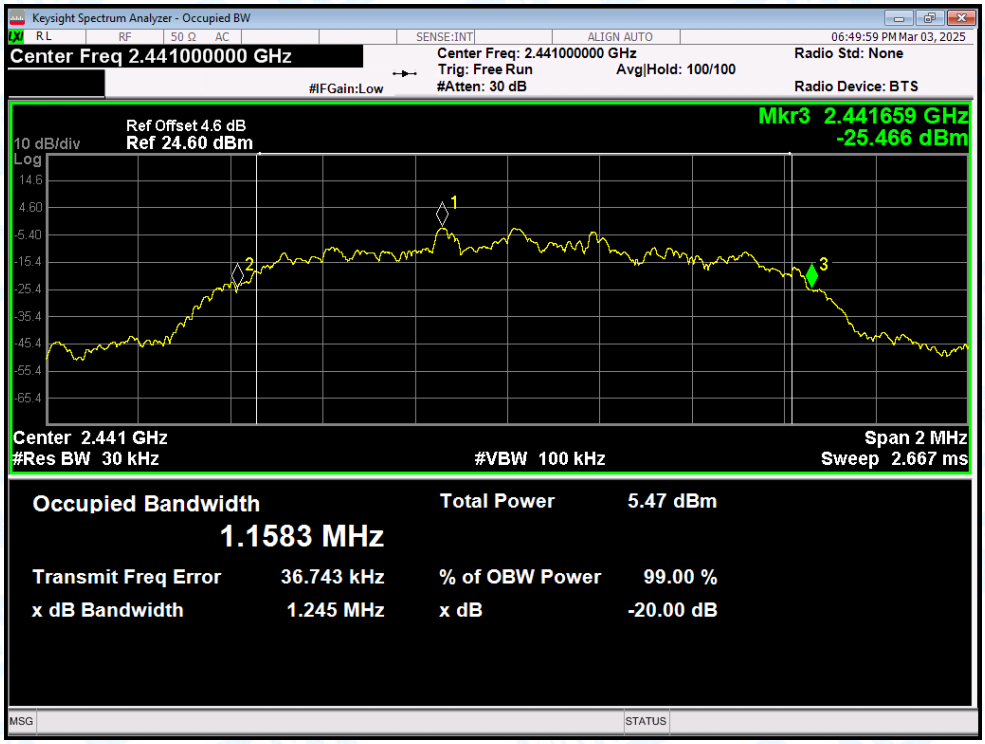
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



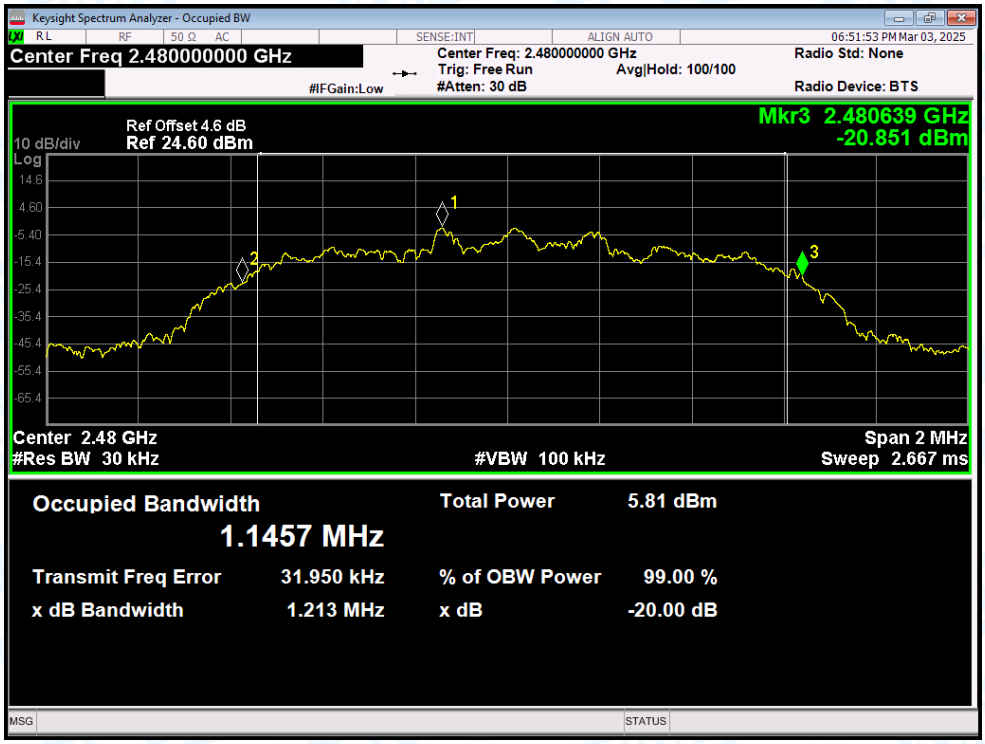
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

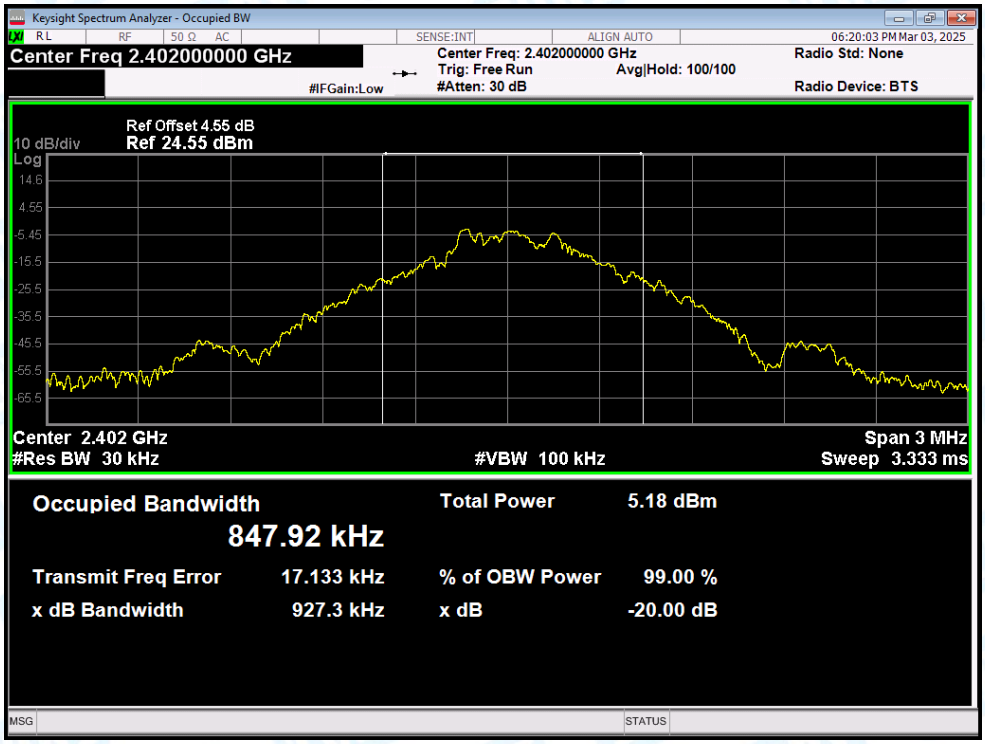


4. Occupied Channel Bandwidth

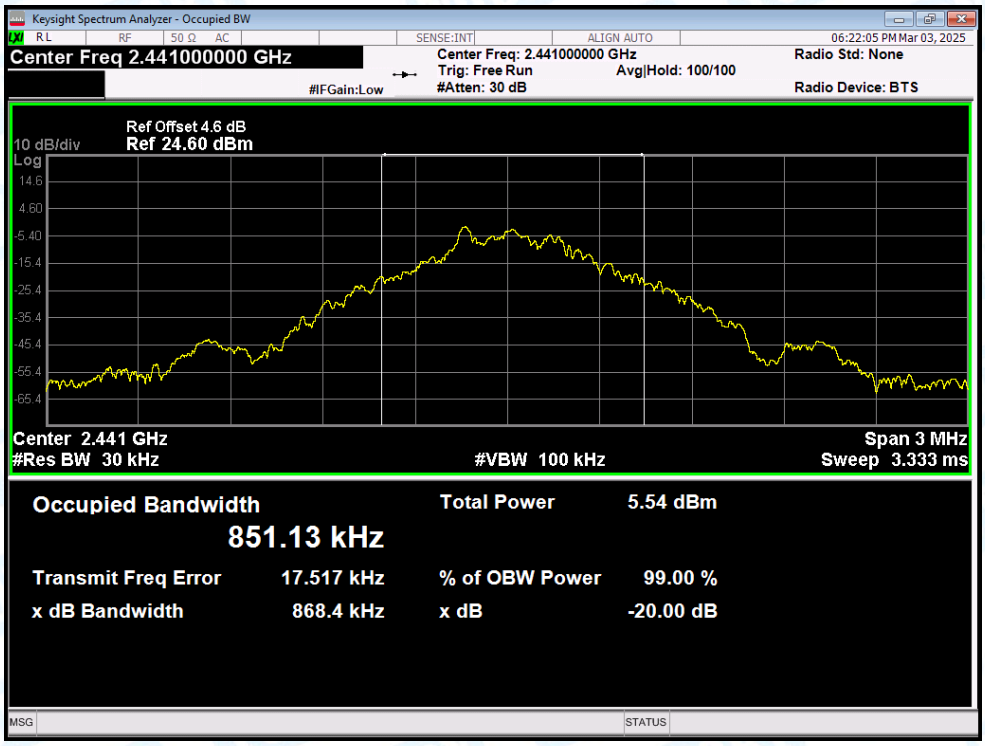
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.848
NVNT	1-DH1	2441	Ant1	0.851
NVNT	1-DH1	2480	Ant1	0.853
NVNT	2-DH1	2402	Ant1	1.144
NVNT	2-DH1	2441	Ant1	1.173
NVNT	2-DH1	2480	Ant1	1.171
NVNT	3-DH1	2402	Ant1	1.154
NVNT	3-DH1	2441	Ant1	1.156
NVNT	3-DH1	2480	Ant1	1.159

Test Graphs

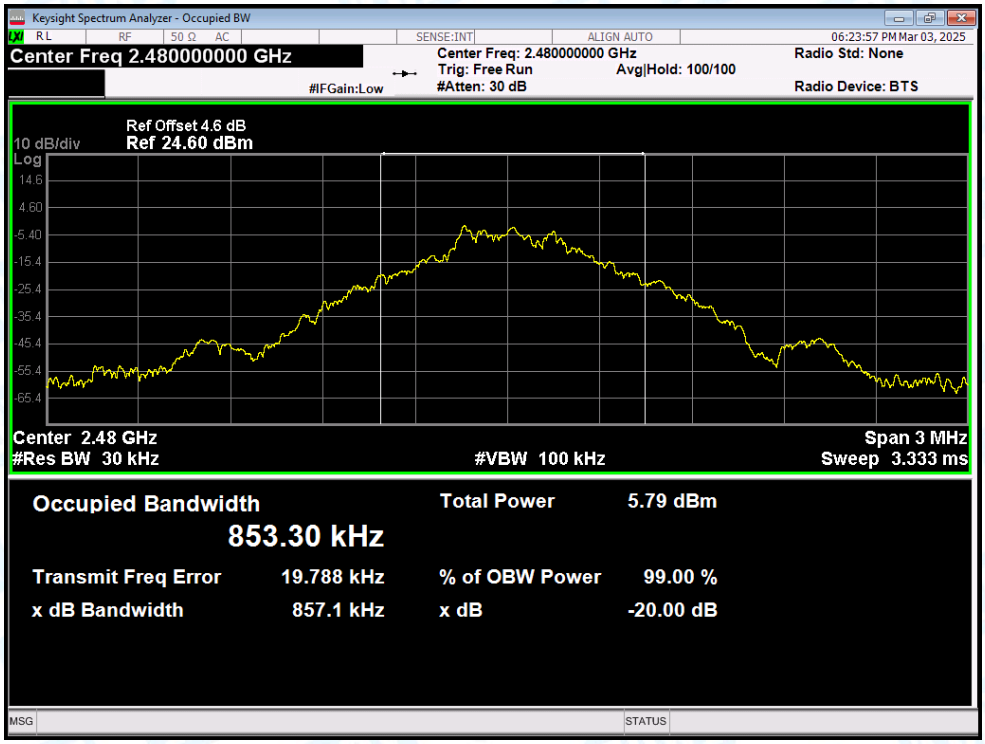
OBW NVNT 1-DH1 2402MHz Ant1



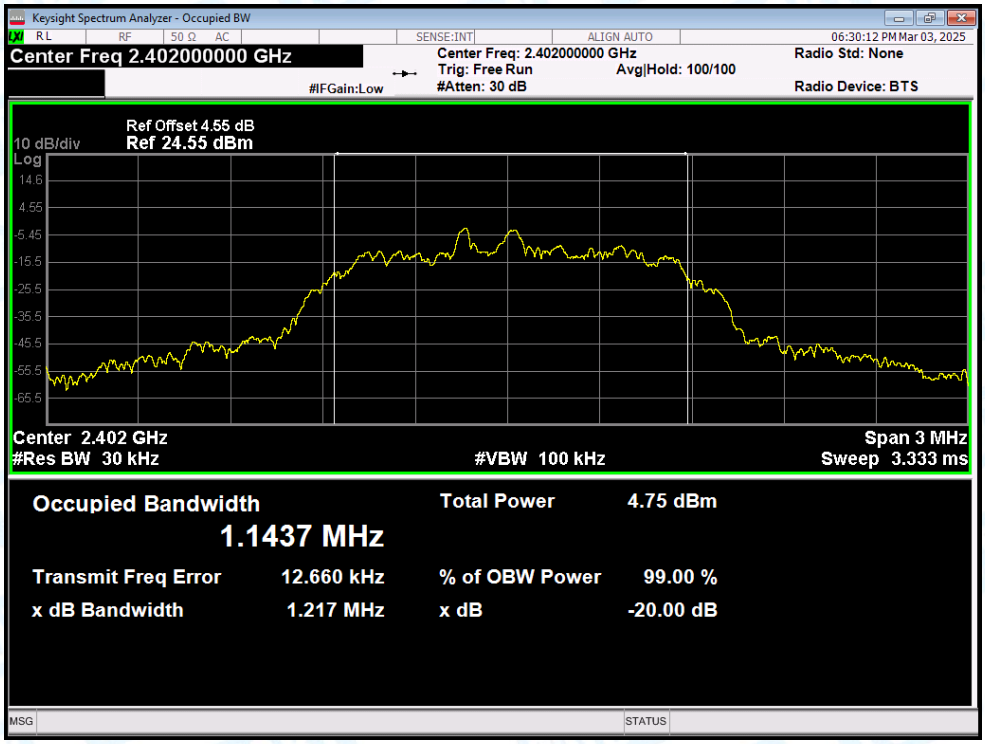
OBW NVNT 1-DH1 2441MHz Ant1



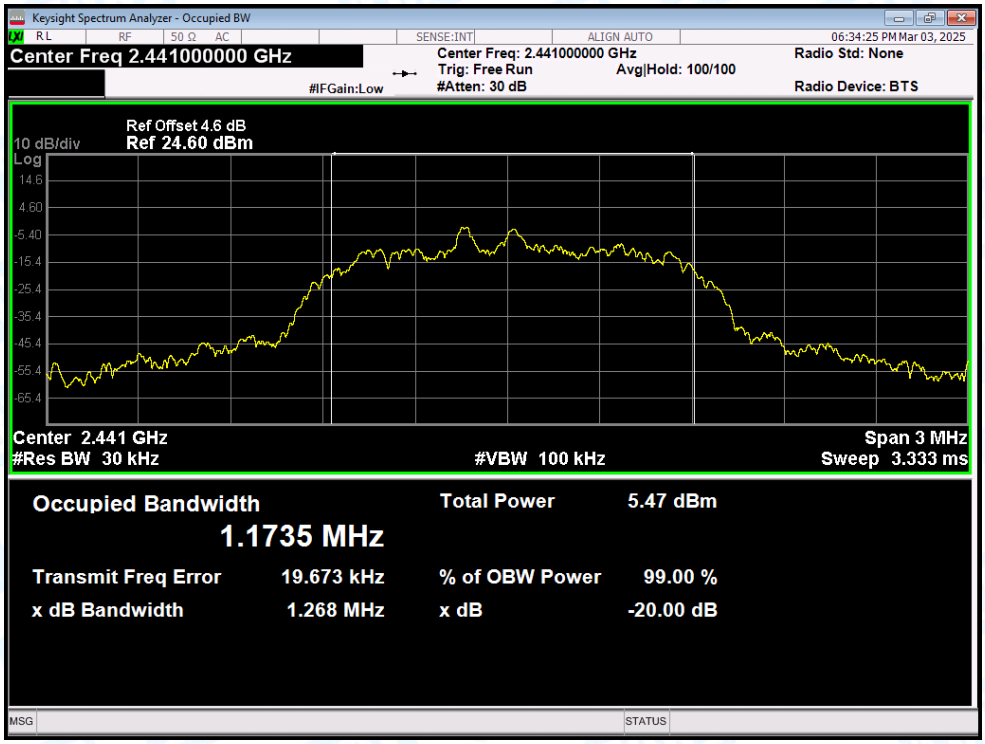
OBW NVNT 1-DH1 2480MHz Ant1



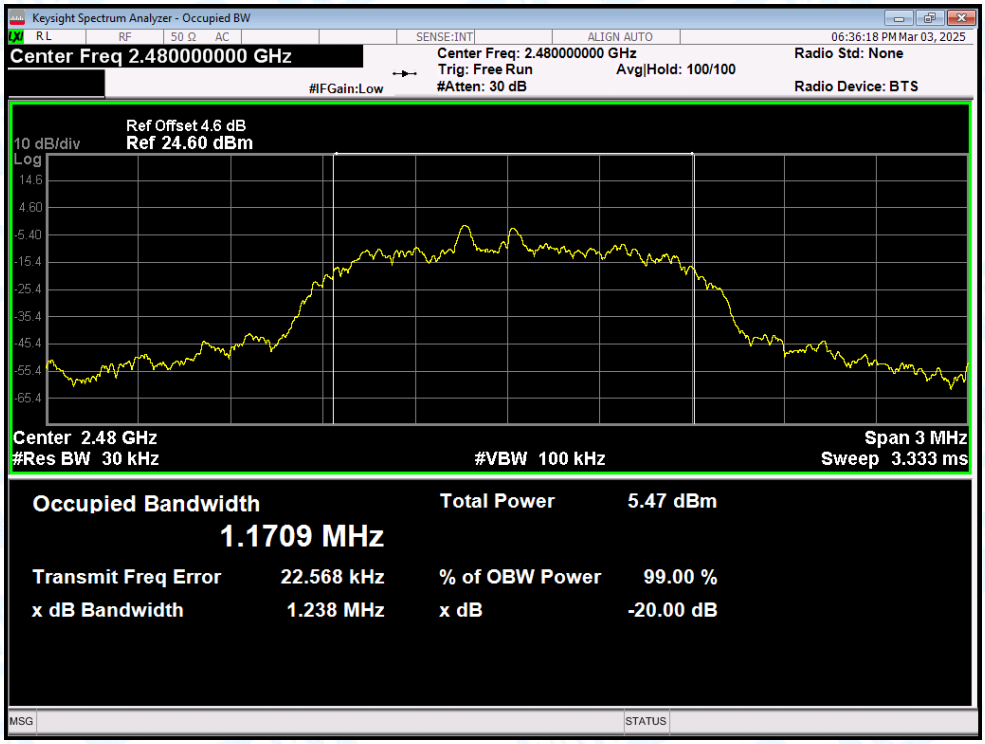
OBW NVNT 2-DH1 2402MHz Ant1



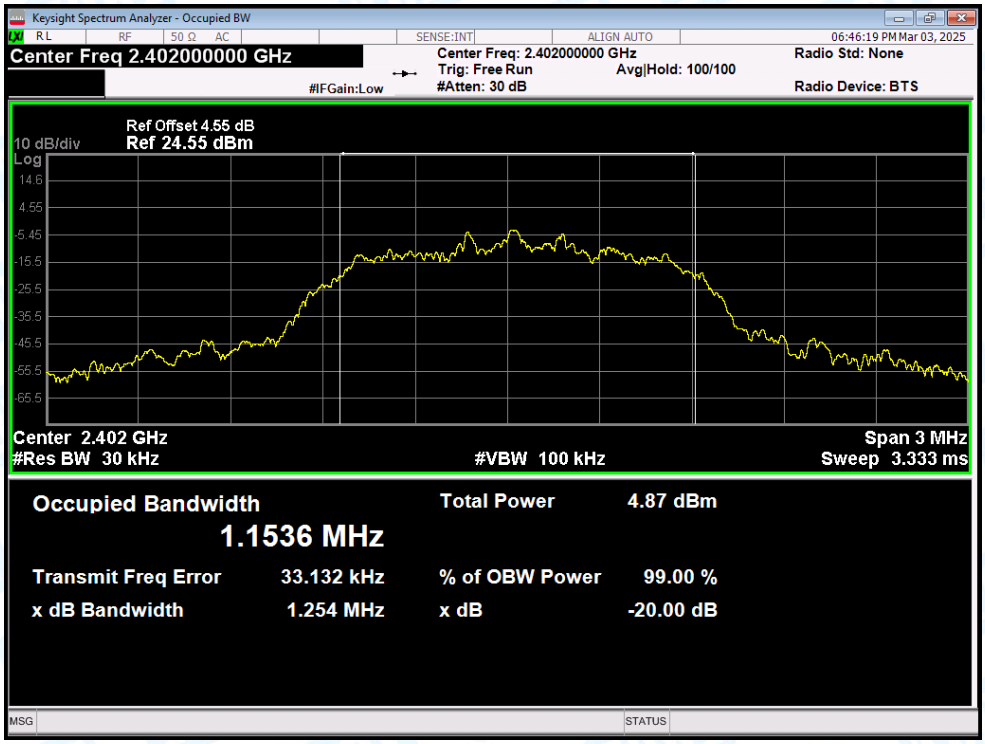
OBW NVNT 2-DH1 2441MHz Ant1



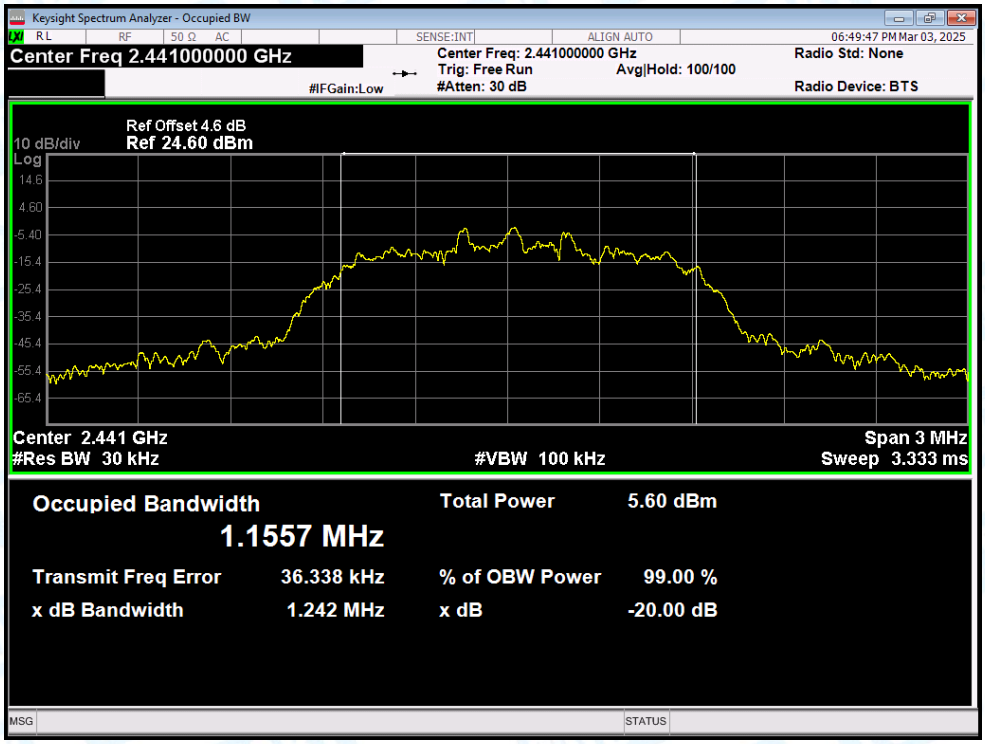
OBW NVNT 2-DH1 2480MHz Ant1



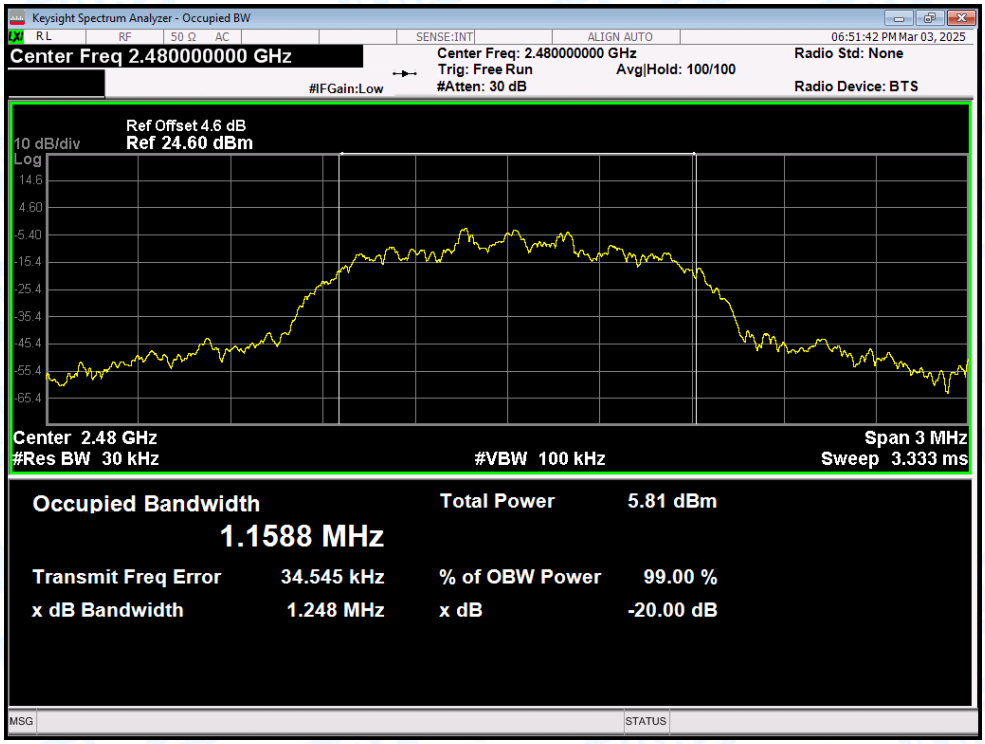
OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



OBW NVNT 3-DH1 2480MHz Ant1

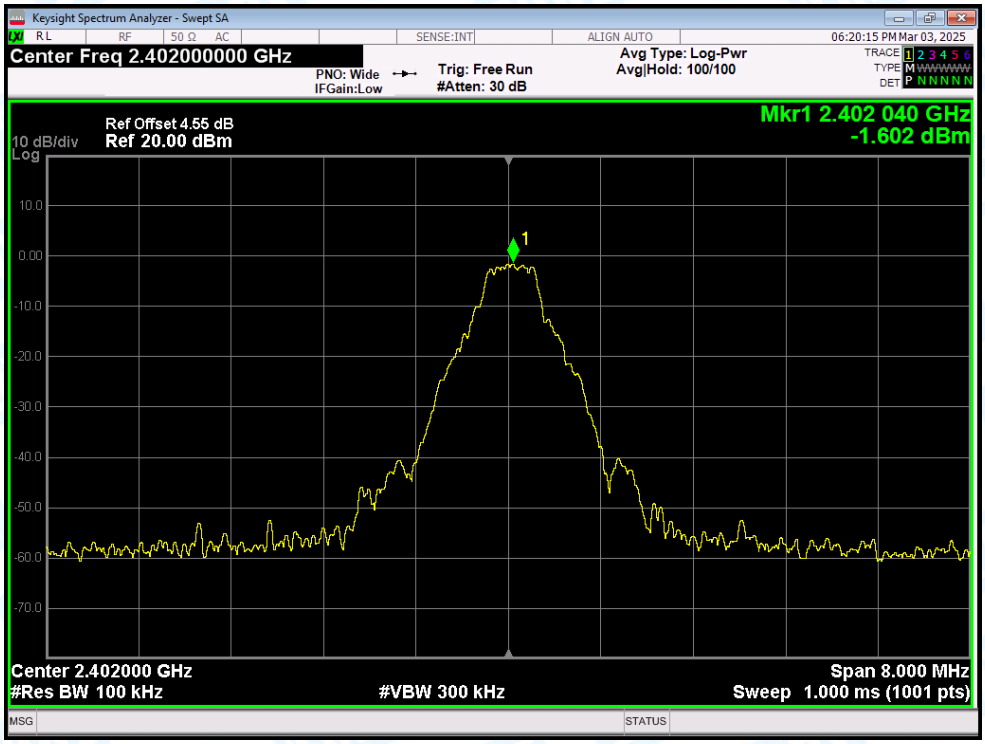


5. Band Edge

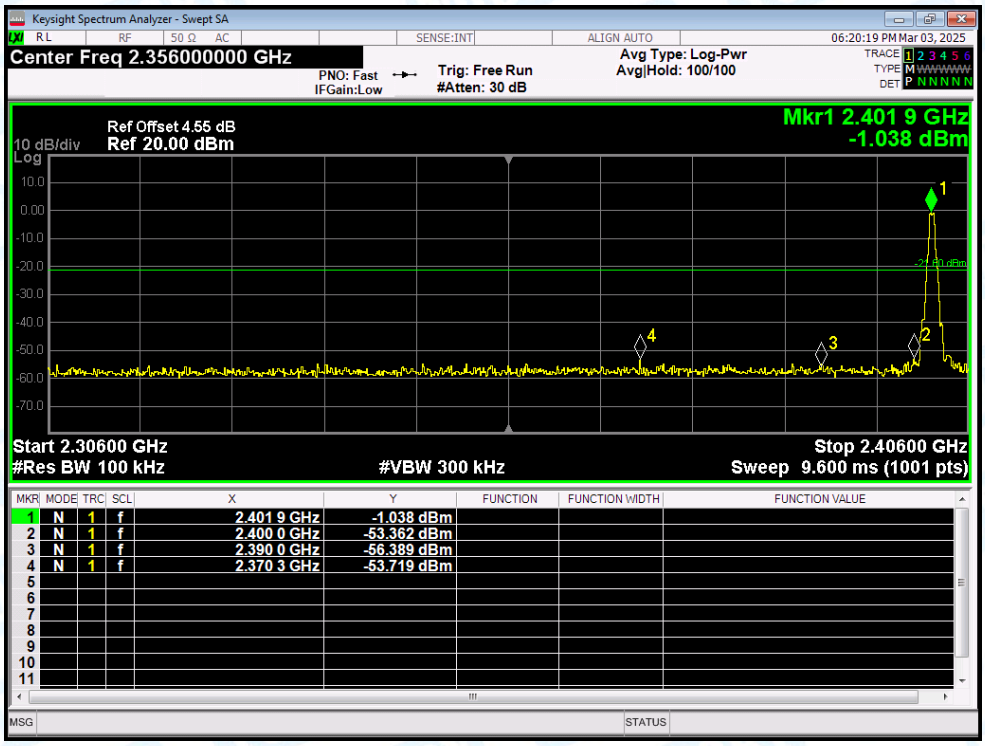
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-52.12	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.83	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.45	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-53.44	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-52.58	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-55.01	-20	Pass

Test Graphs

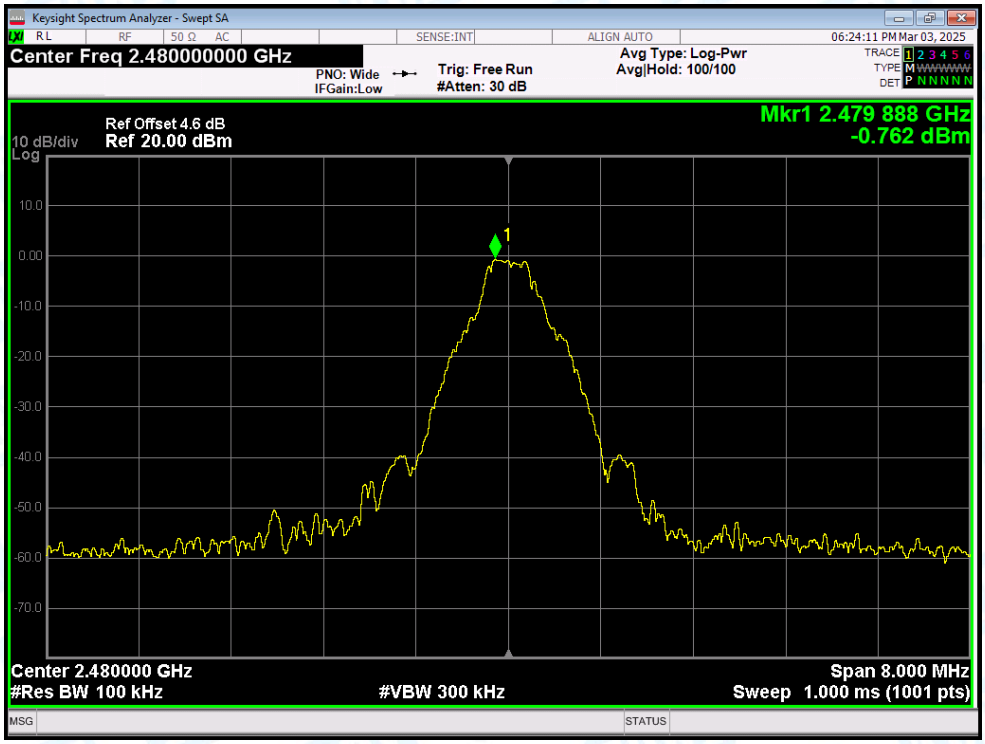
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



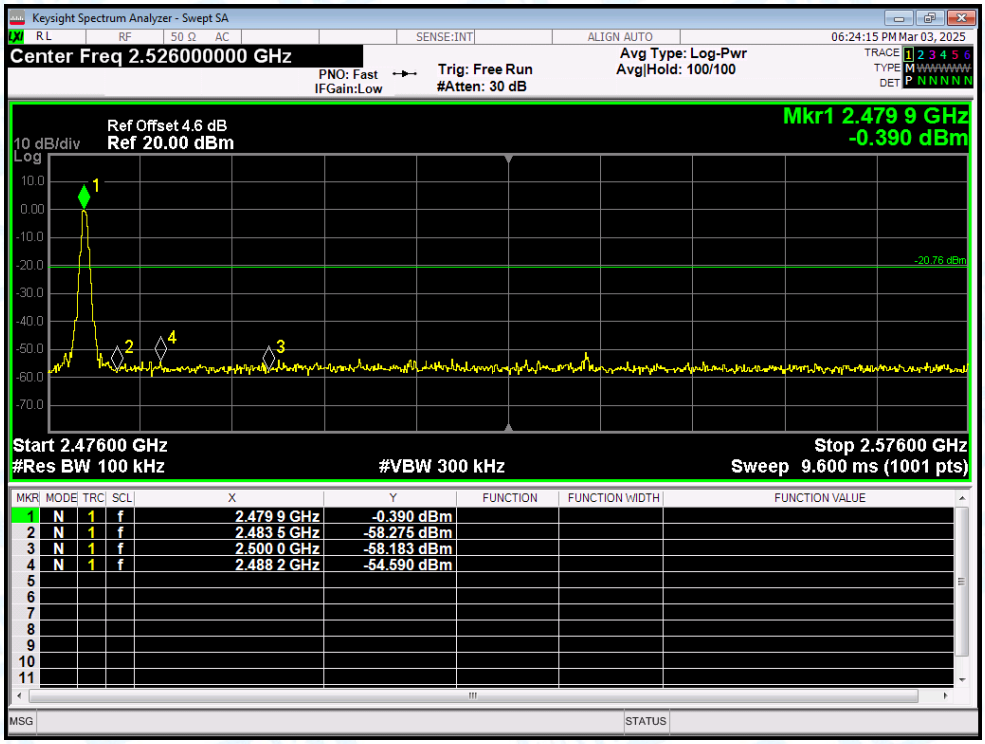
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



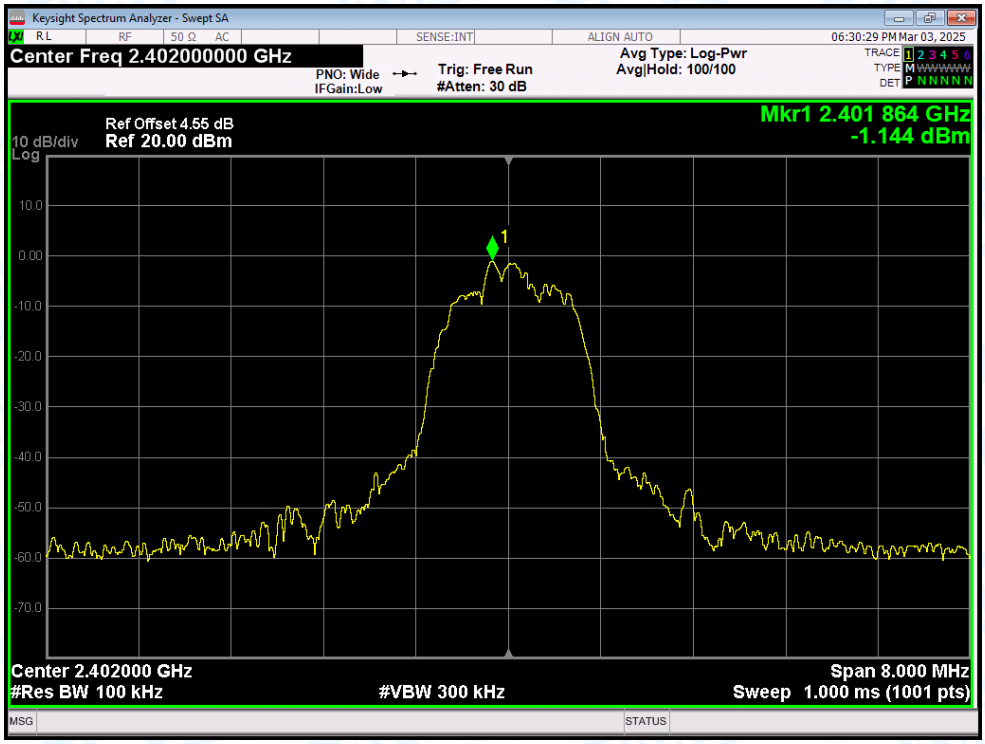
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



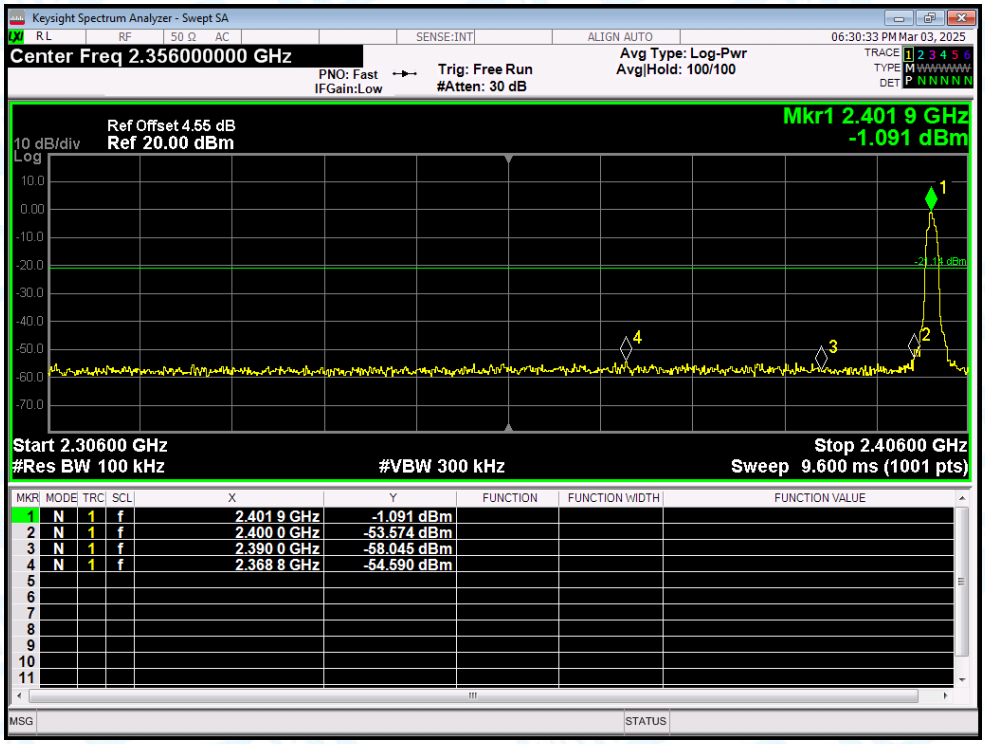
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



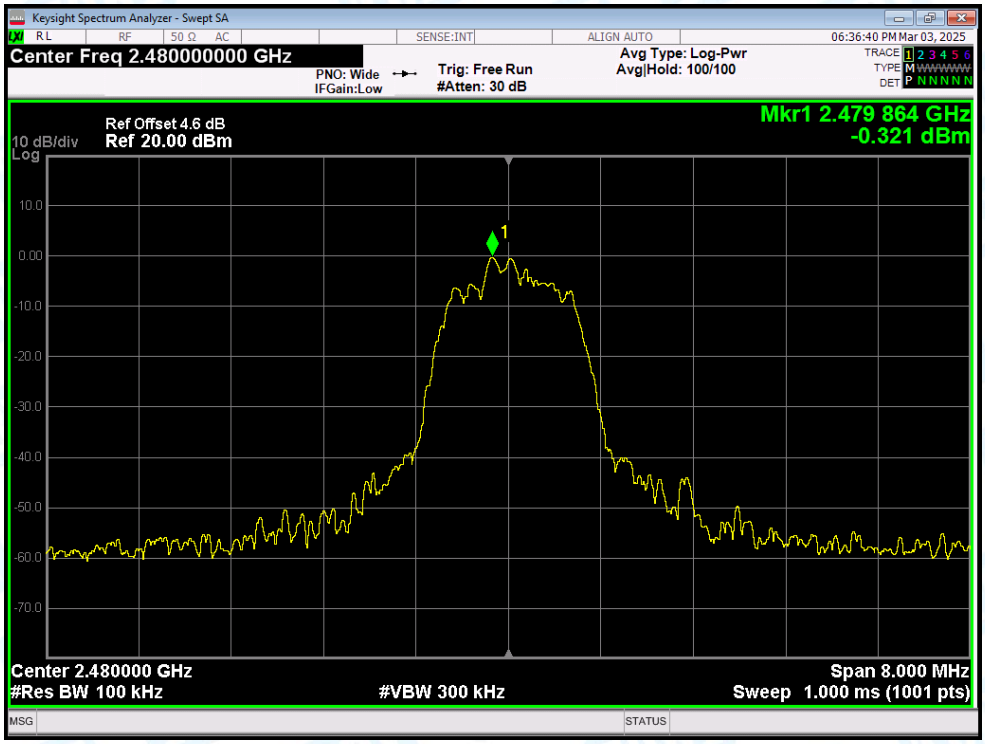
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



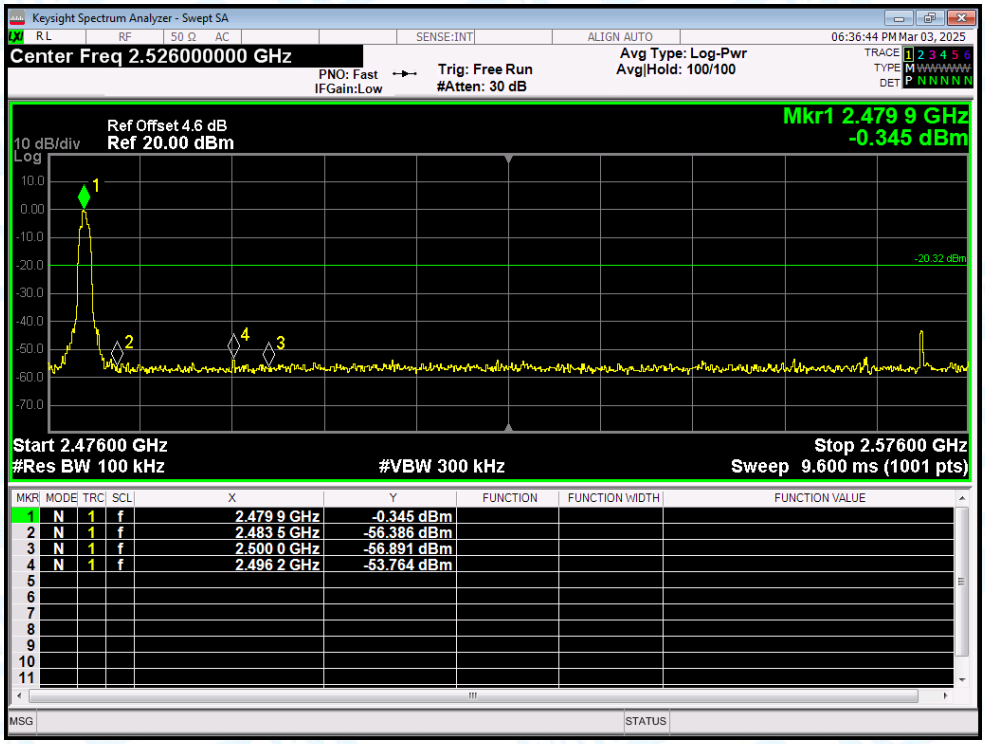
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



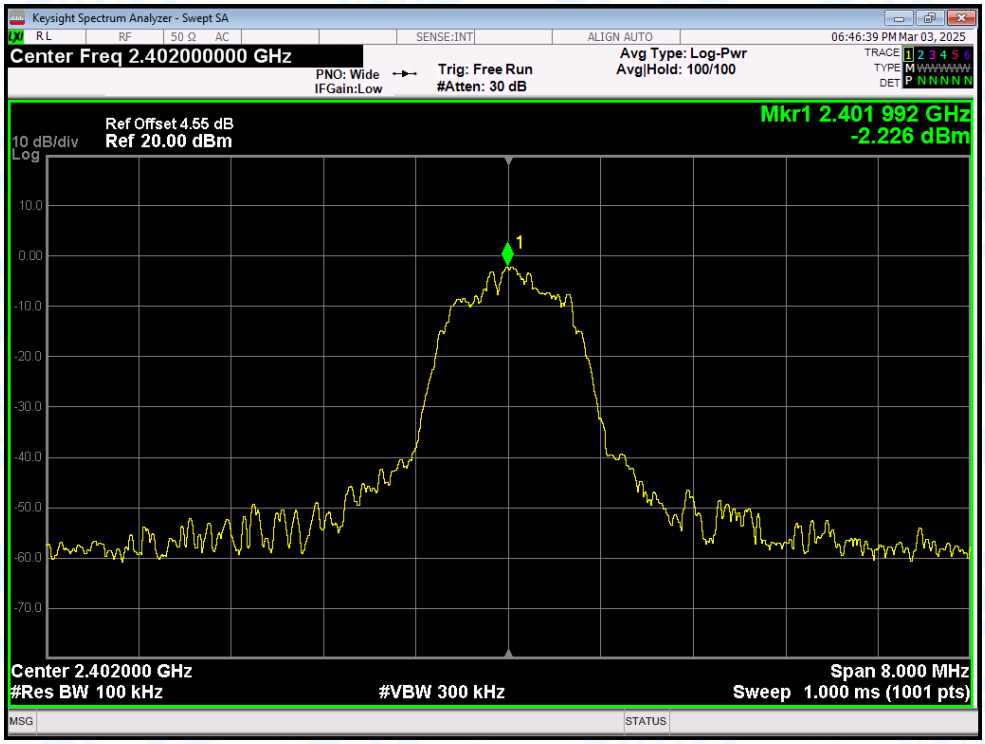
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



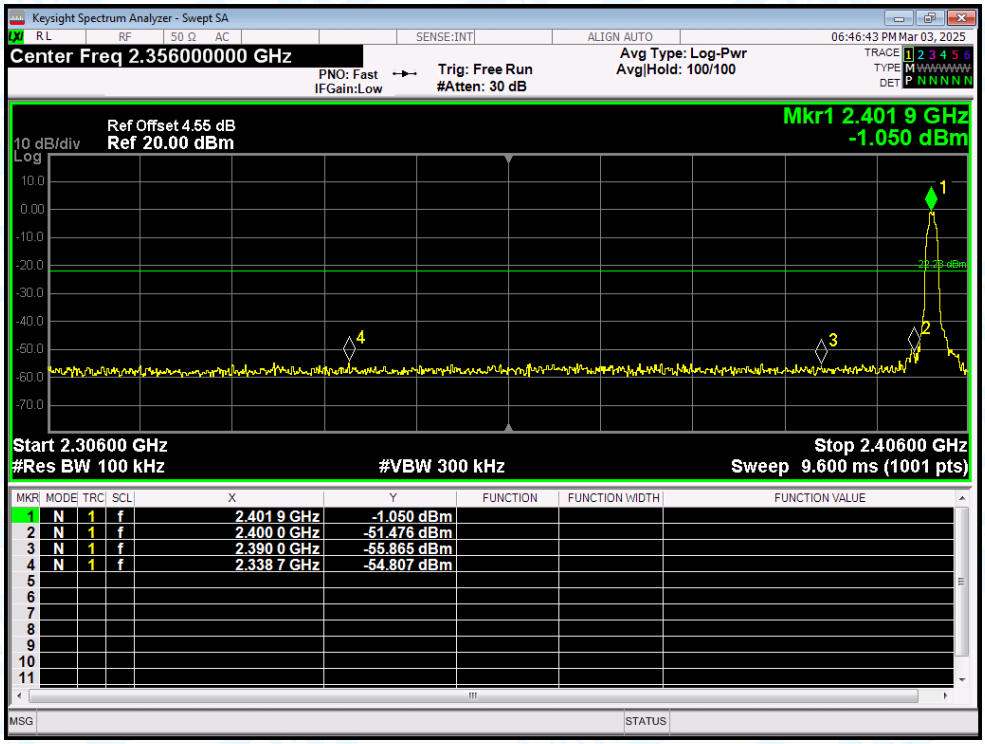
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



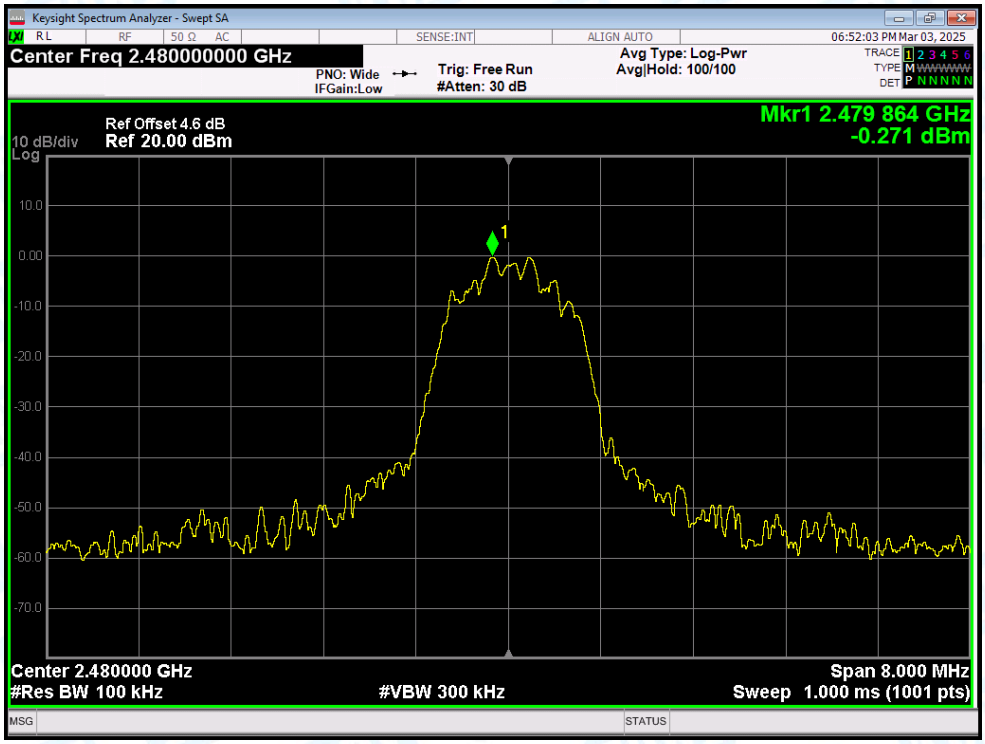
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



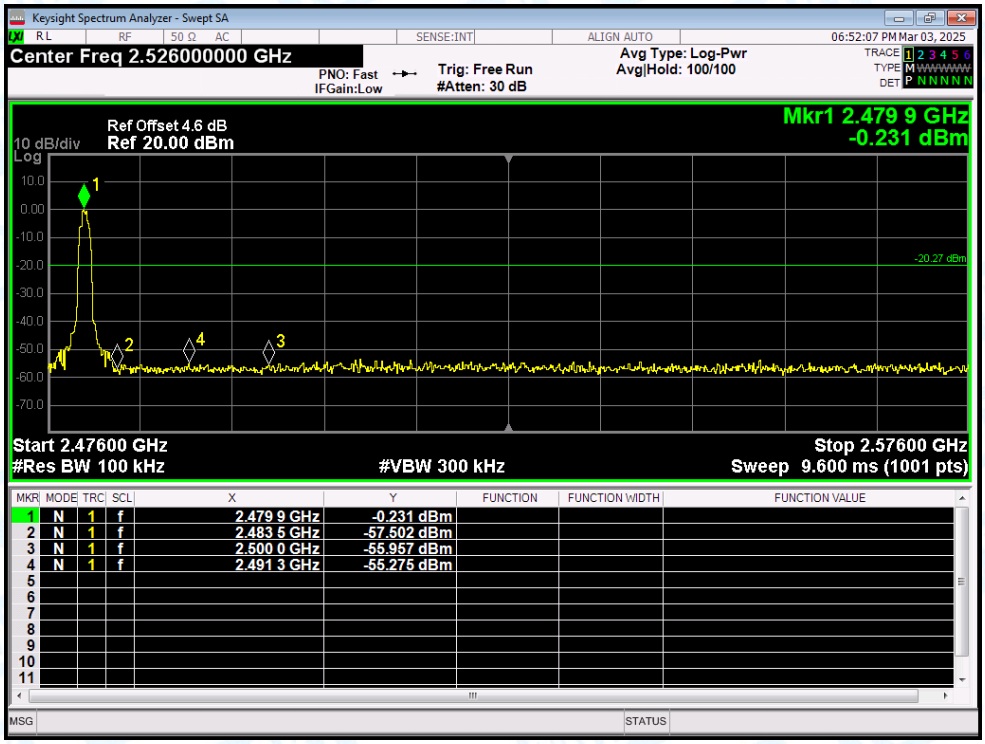
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

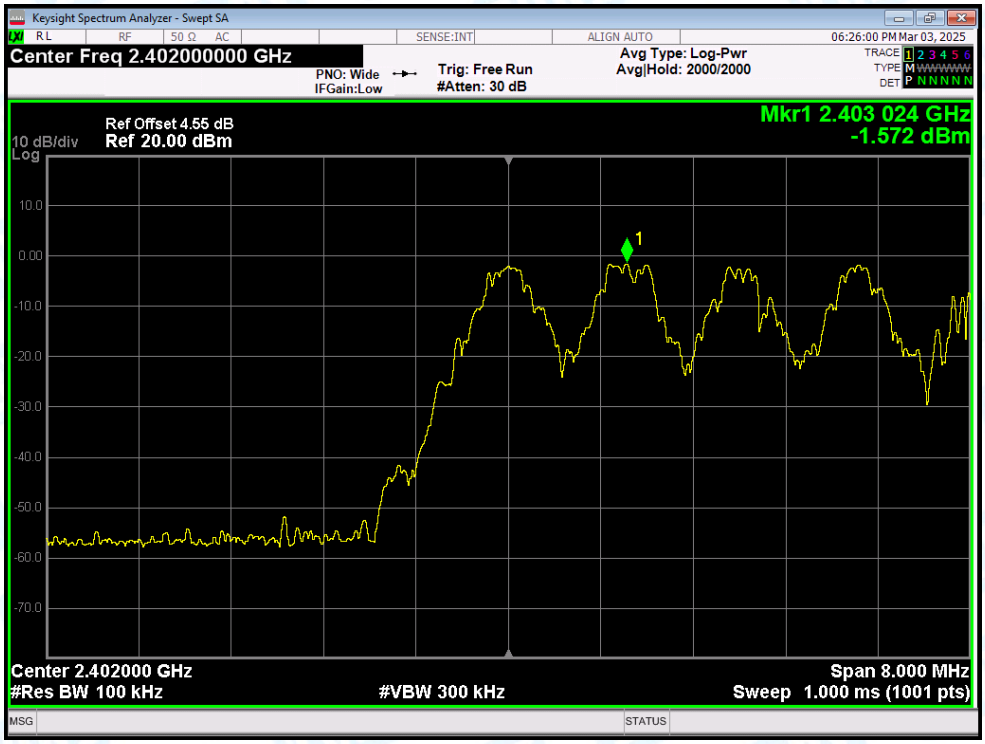


6. Band Edge(Hopping)

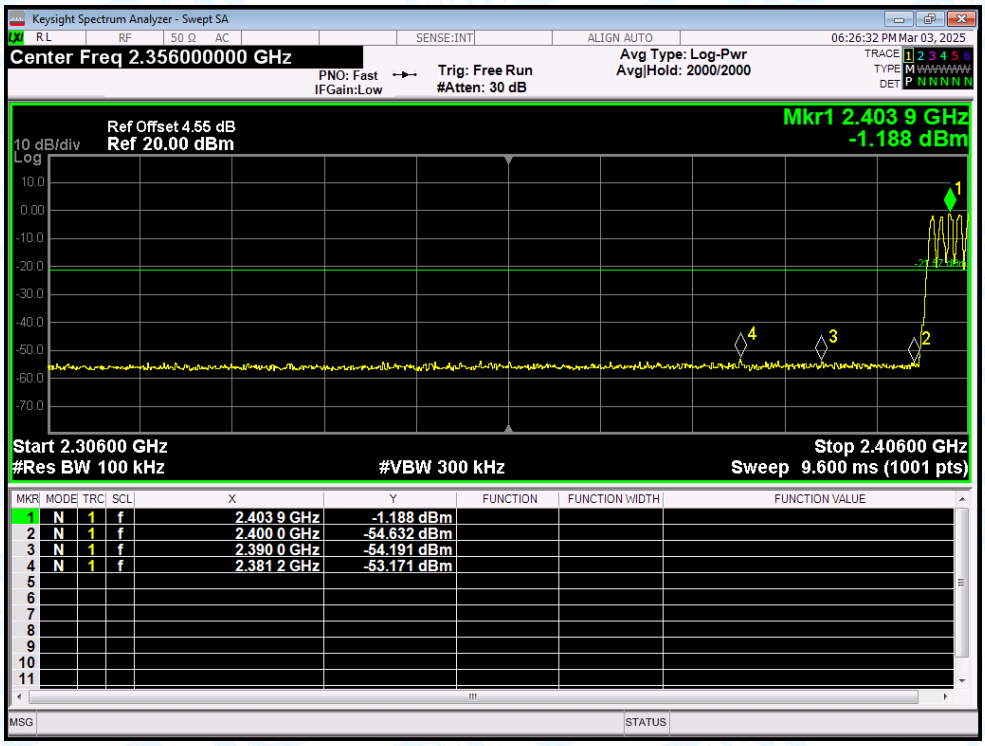
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-51.6	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.92	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-51.43	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.26	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-51.87	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-53.06	-20	Pass

Test Graphs

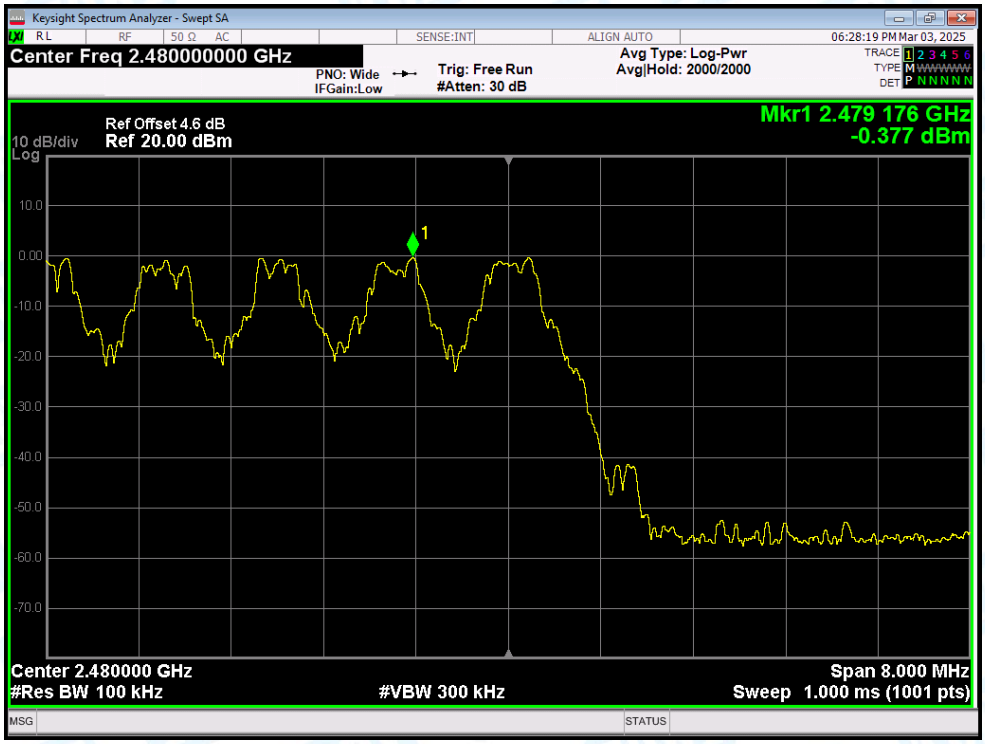
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



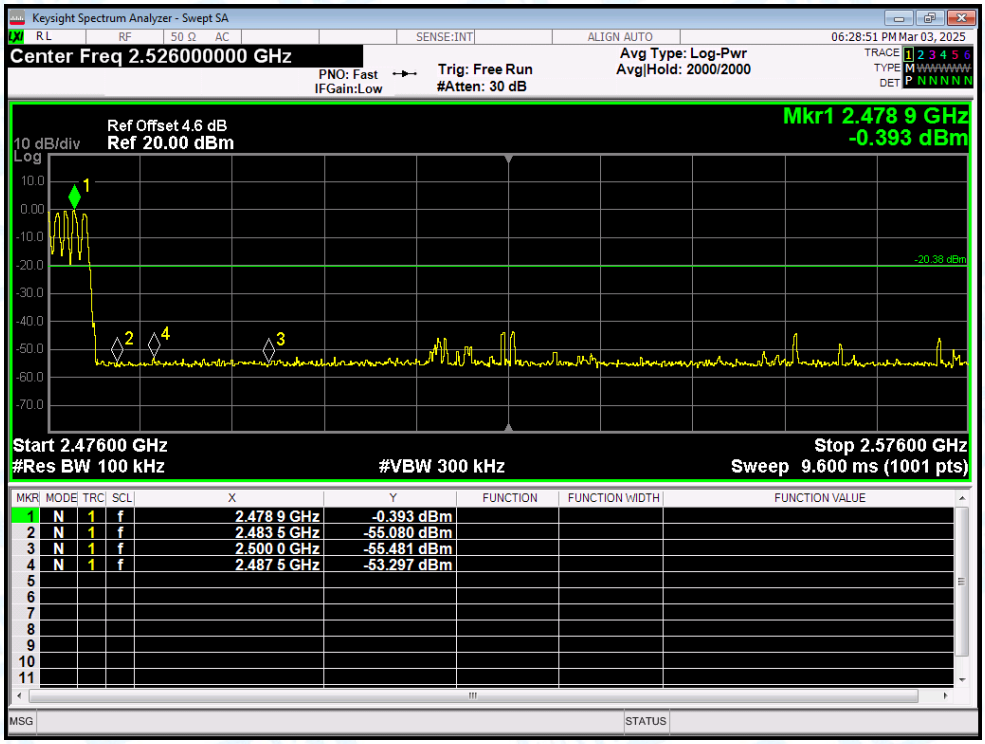
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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

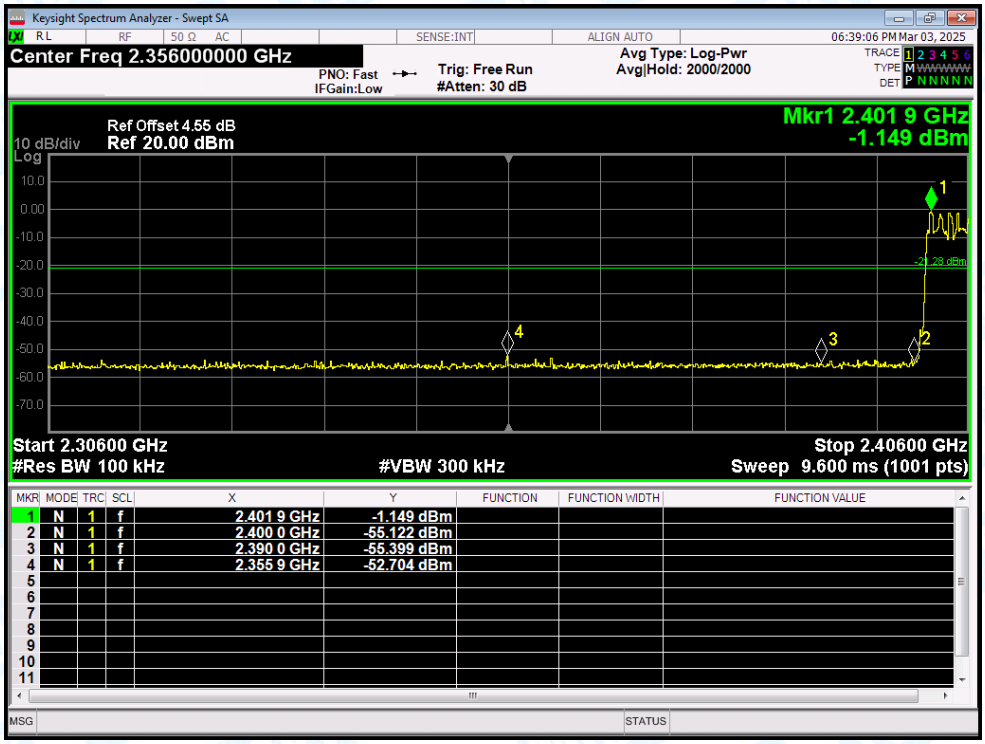


Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



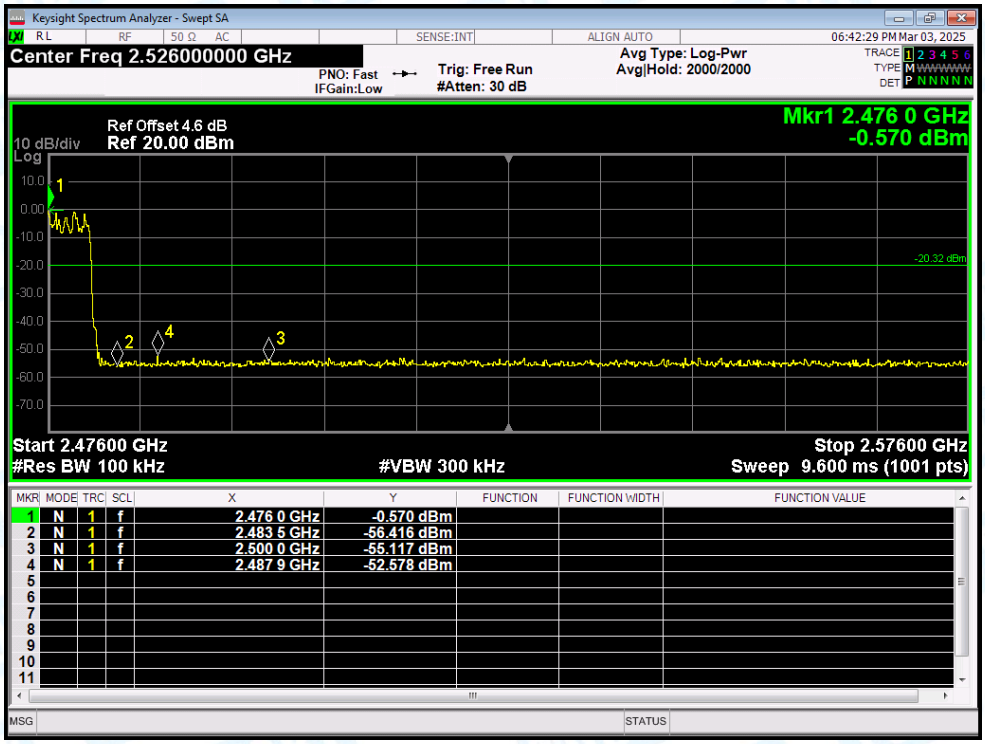
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

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

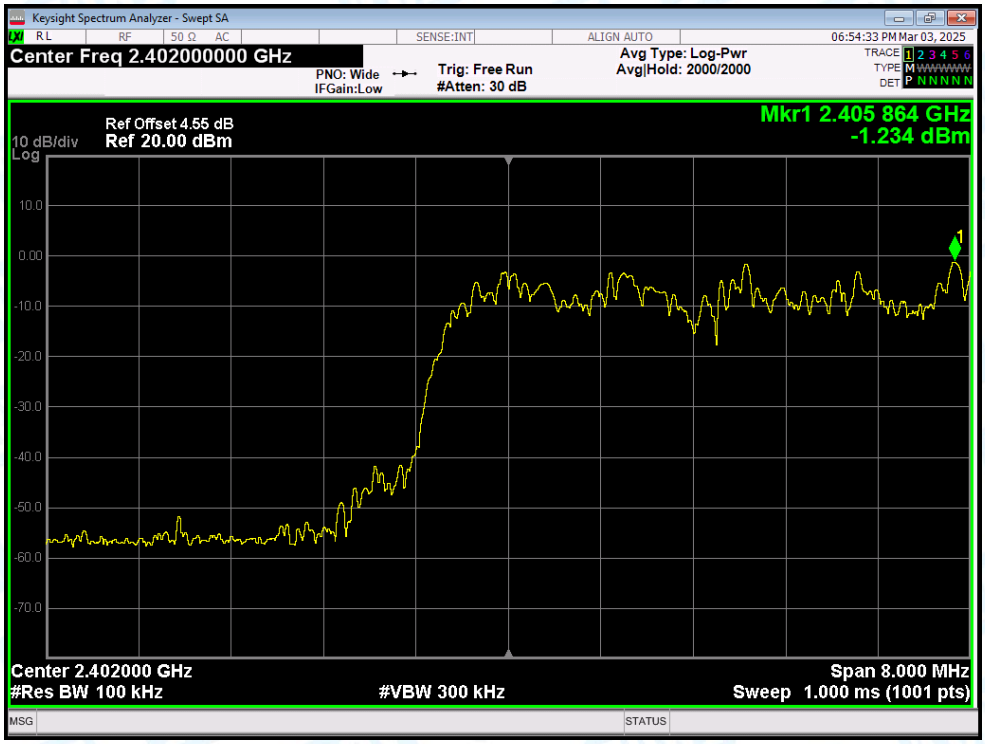


Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref

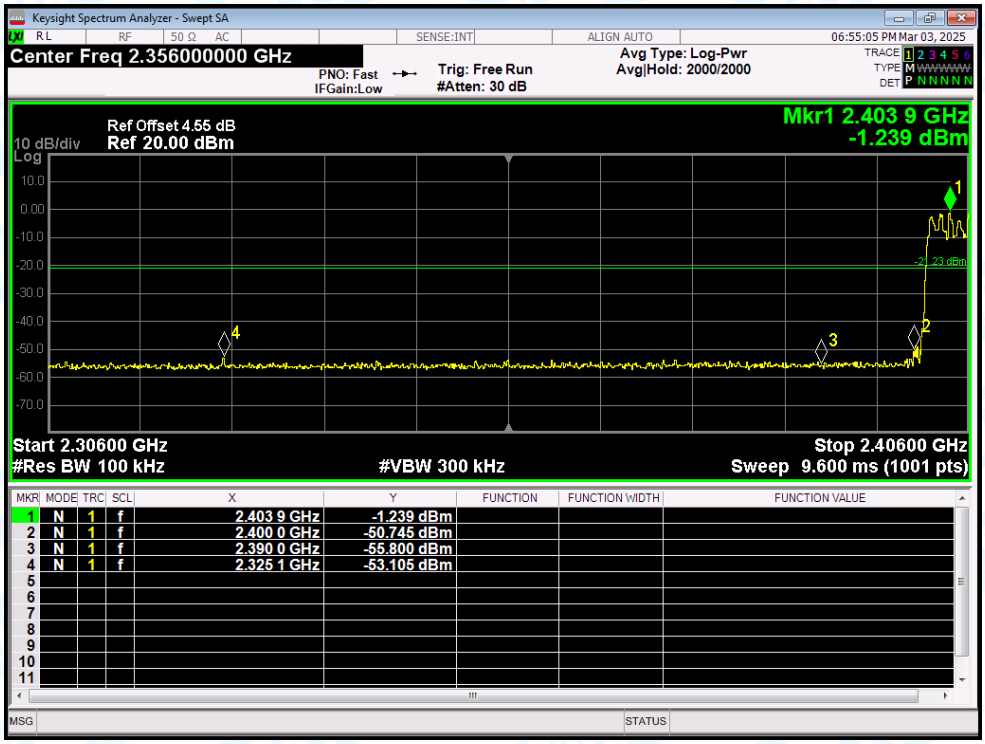
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



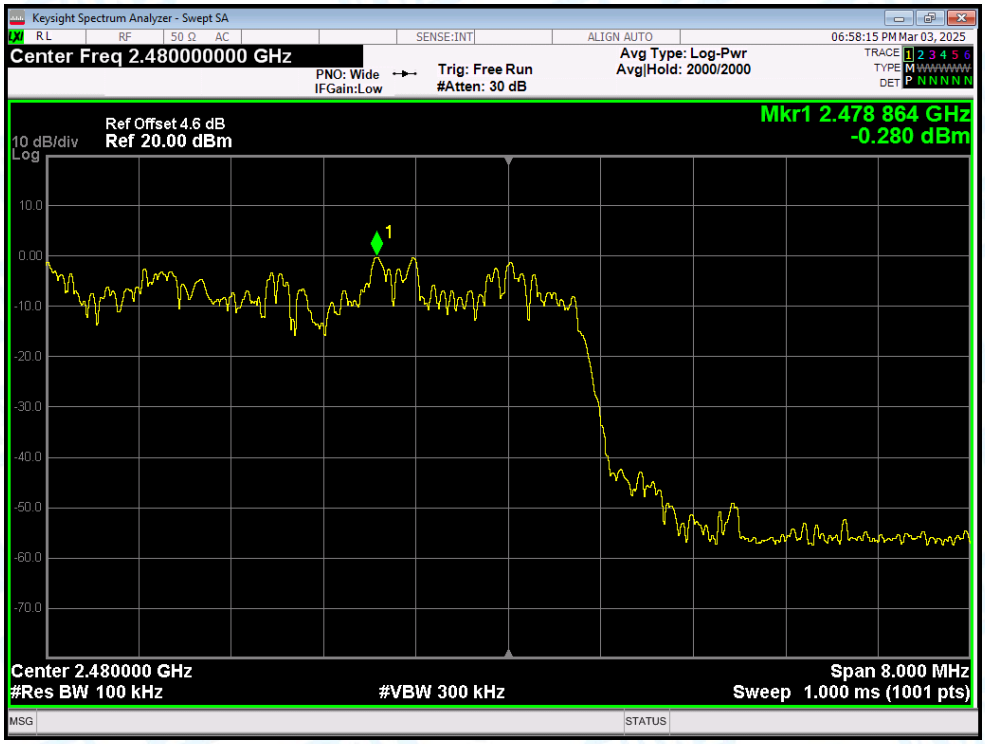
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



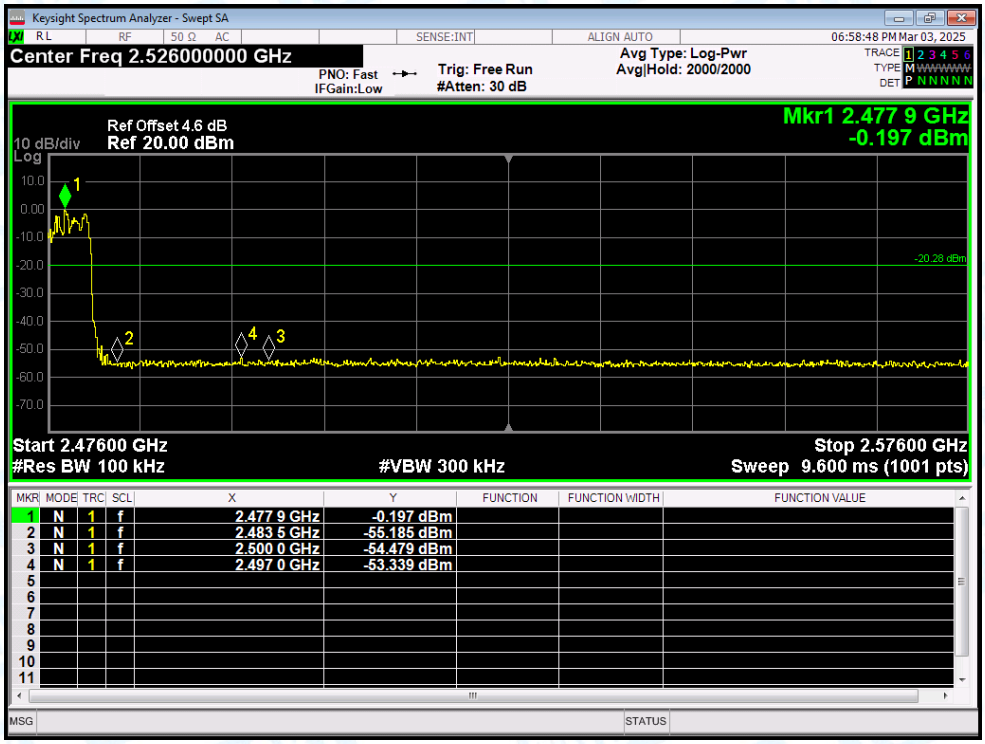
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

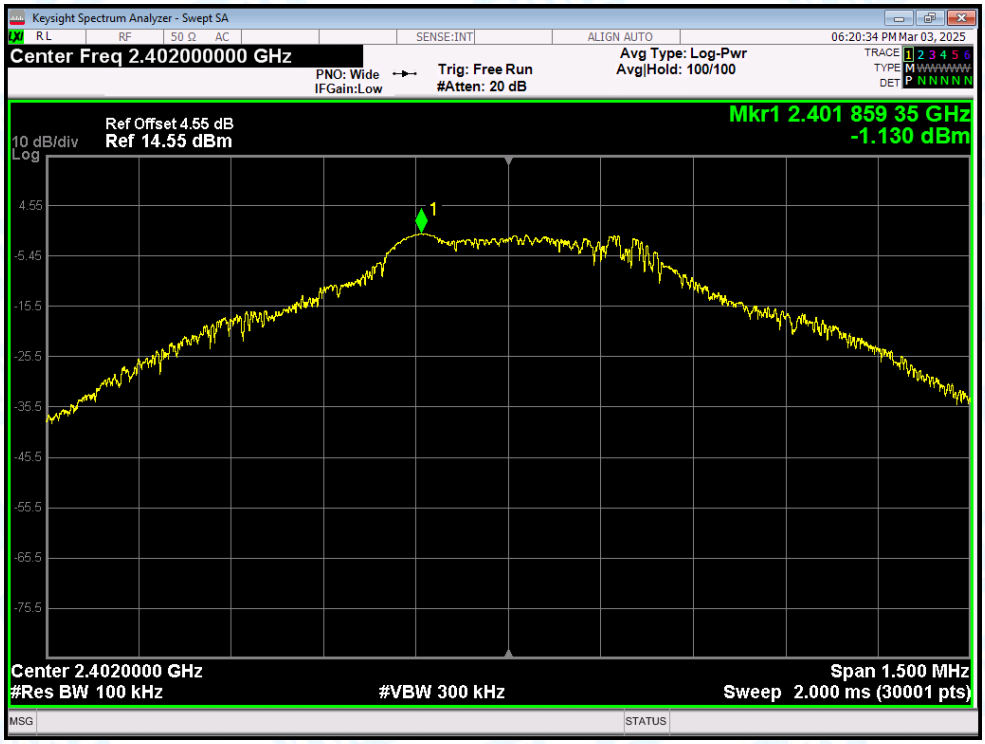


7. Conducted RF Spurious Emission

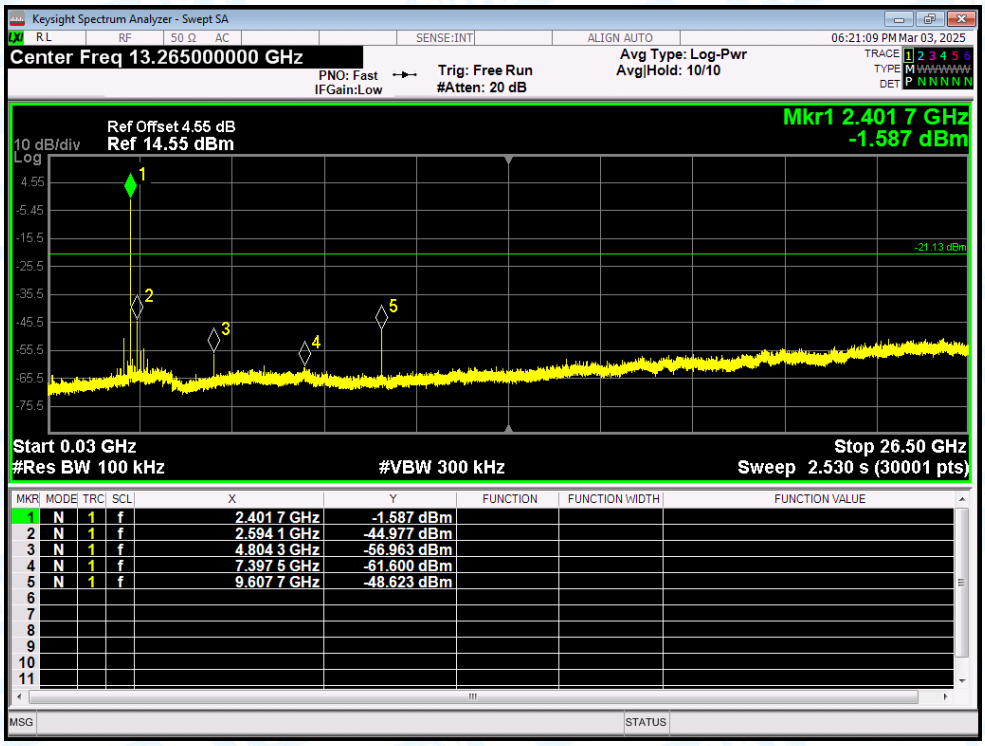
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-43.85	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.01	-20	Pass
NVNT	1-DH1	2480	Ant1	-44.74	-20	Pass
NVNT	2-DH1	2402	Ant1	-41.98	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.84	-20	Pass
NVNT	2-DH1	2480	Ant1	-44.98	-20	Pass
NVNT	3-DH1	2402	Ant1	-42.32	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.36	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.17	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref

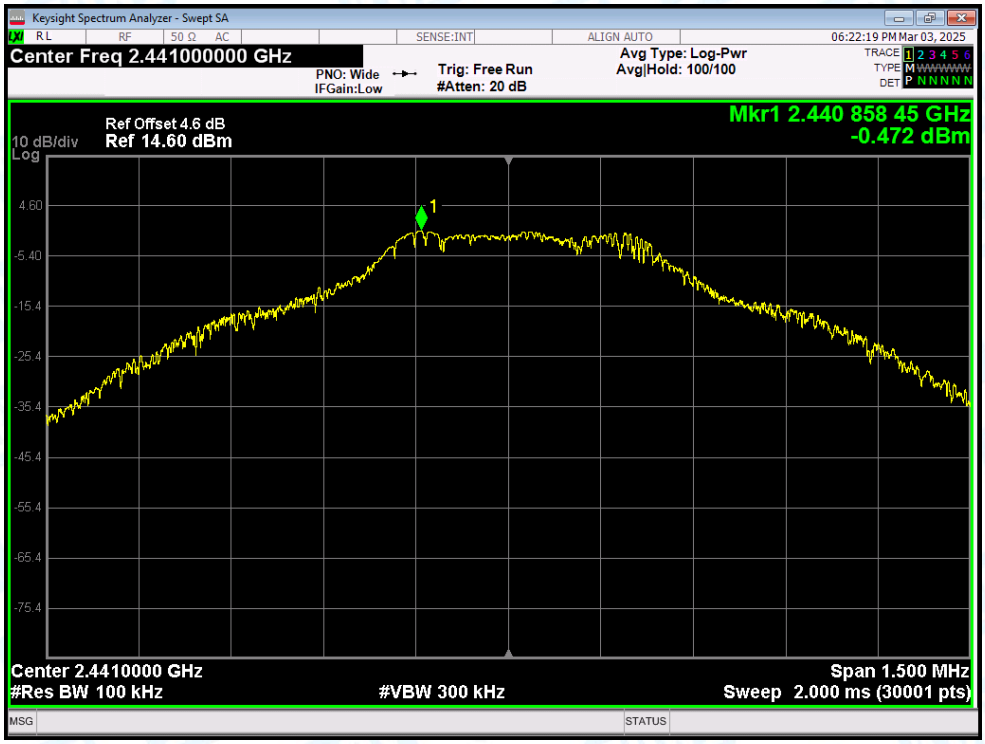


Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

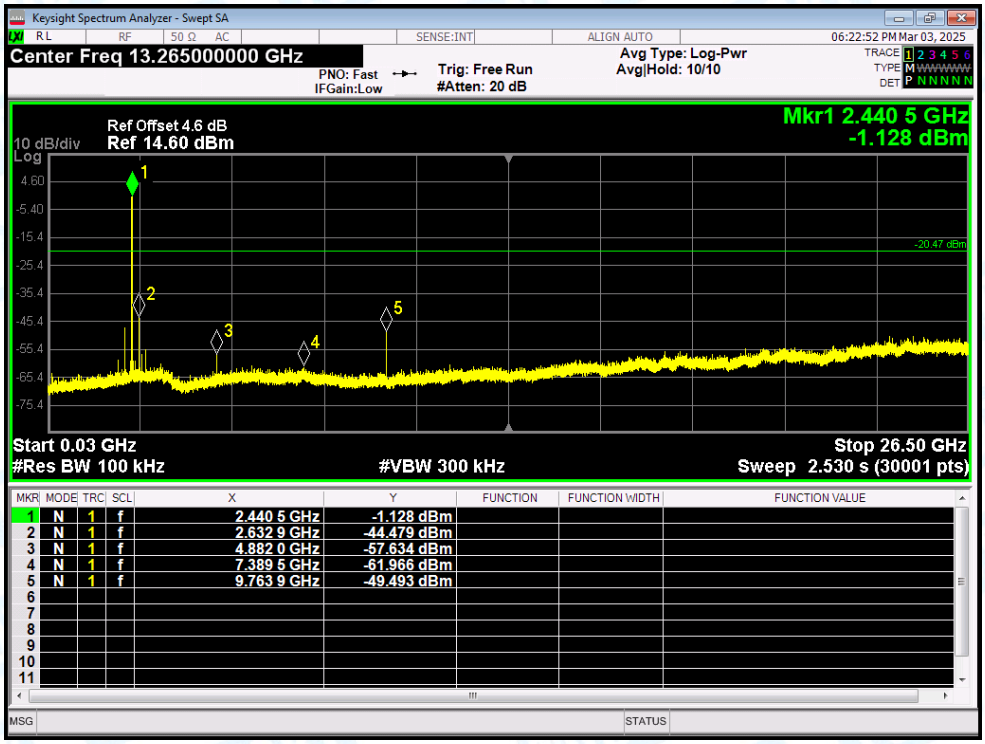


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 7 GHz	-1.587 dBm			
2	N	1	f	2.594 1 GHz	-44.977 dBm			
3	N	1	f	4.804 3 GHz	-56.963 dBm			
4	N	1	f	7.397 5 GHz	-61.600 dBm			
5	N	1	f	9.607 7 GHz	-48.623 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref

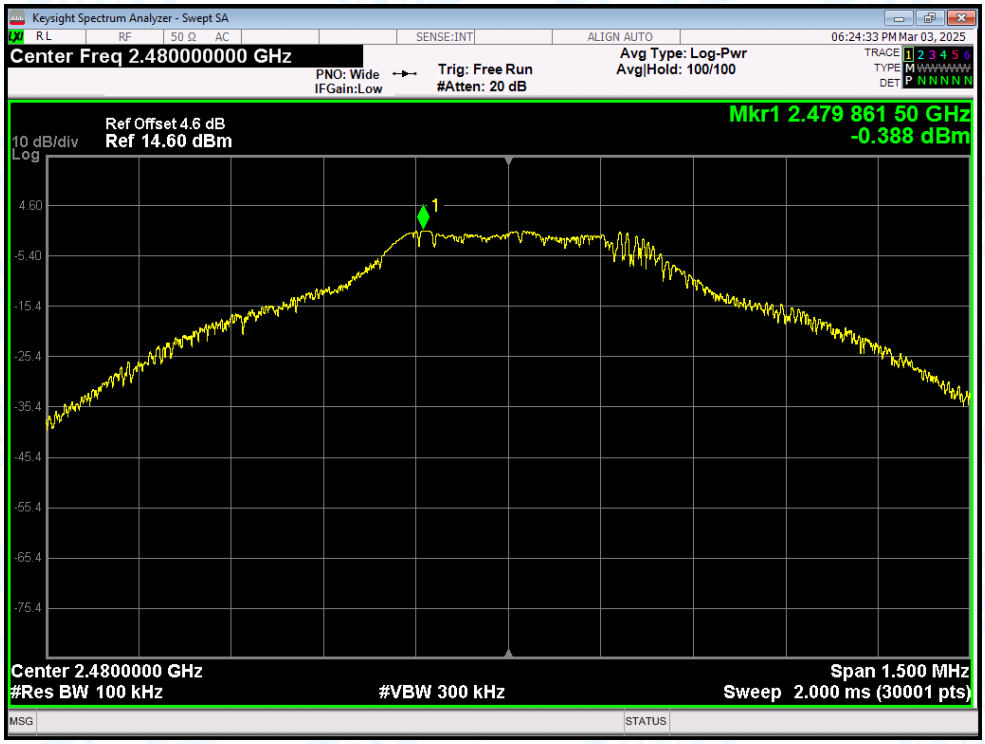


Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission

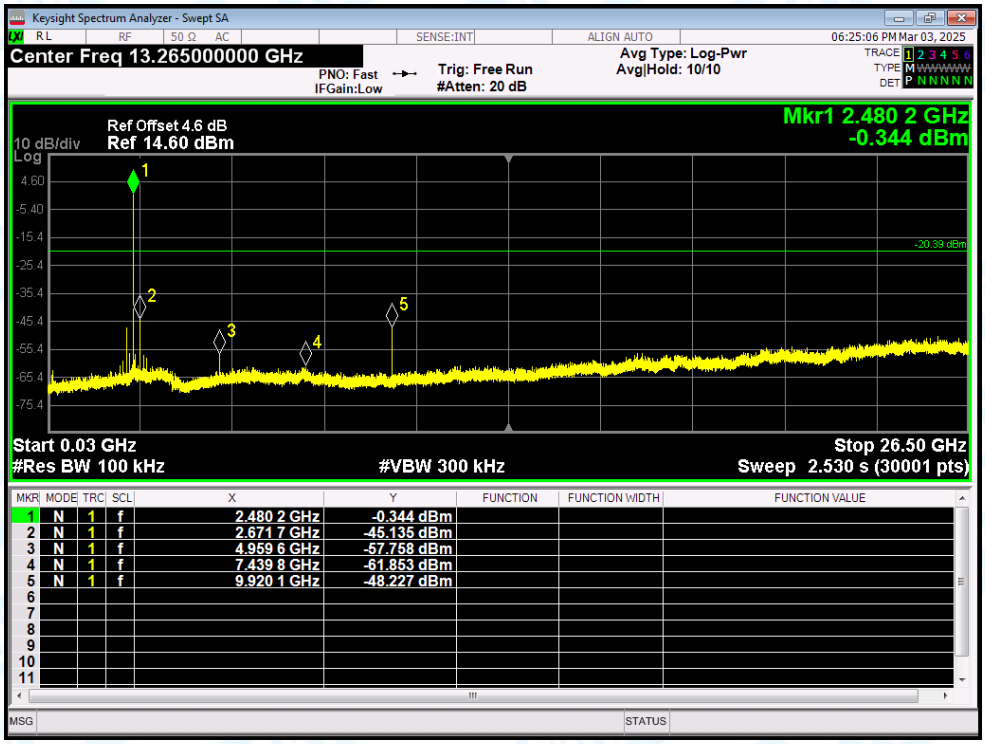


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440 5 GHz	-1.128 dBm			
2	N	1	f	2.632 9 GHz	-44.479 dBm			
3	N	1	f	4.882 0 GHz	-57.634 dBm			
4	N	1	f	7.389 5 GHz	-61.966 dBm			
5	N	1	f	9.763 9 GHz	-49.493 dBm			
6								
7								
8								
9								
10								
11								

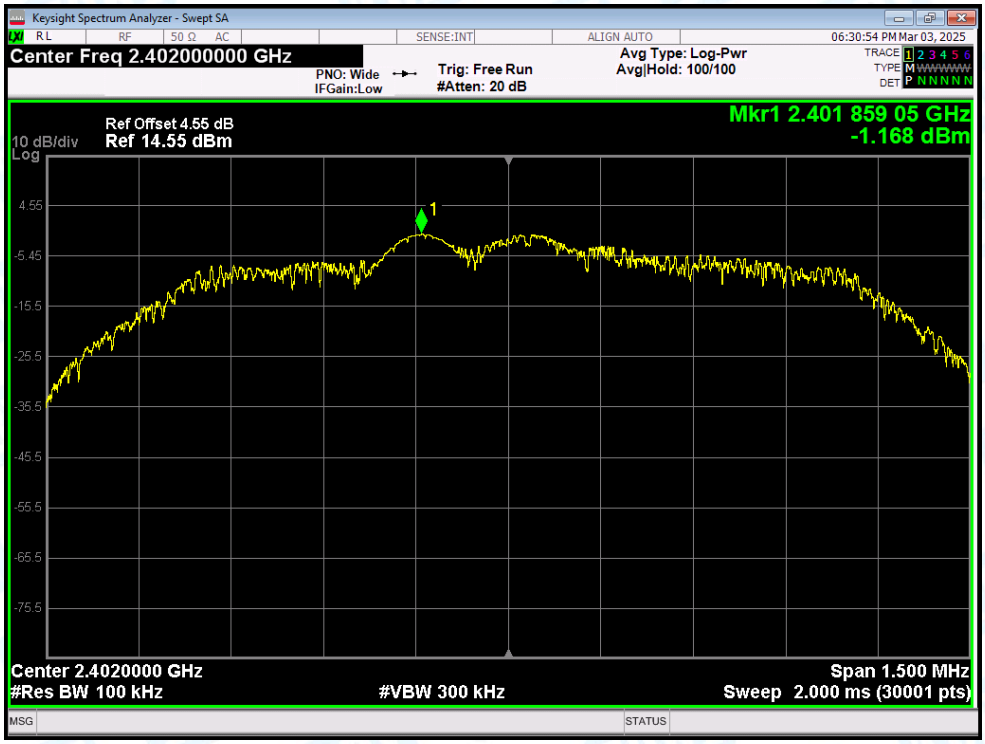
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



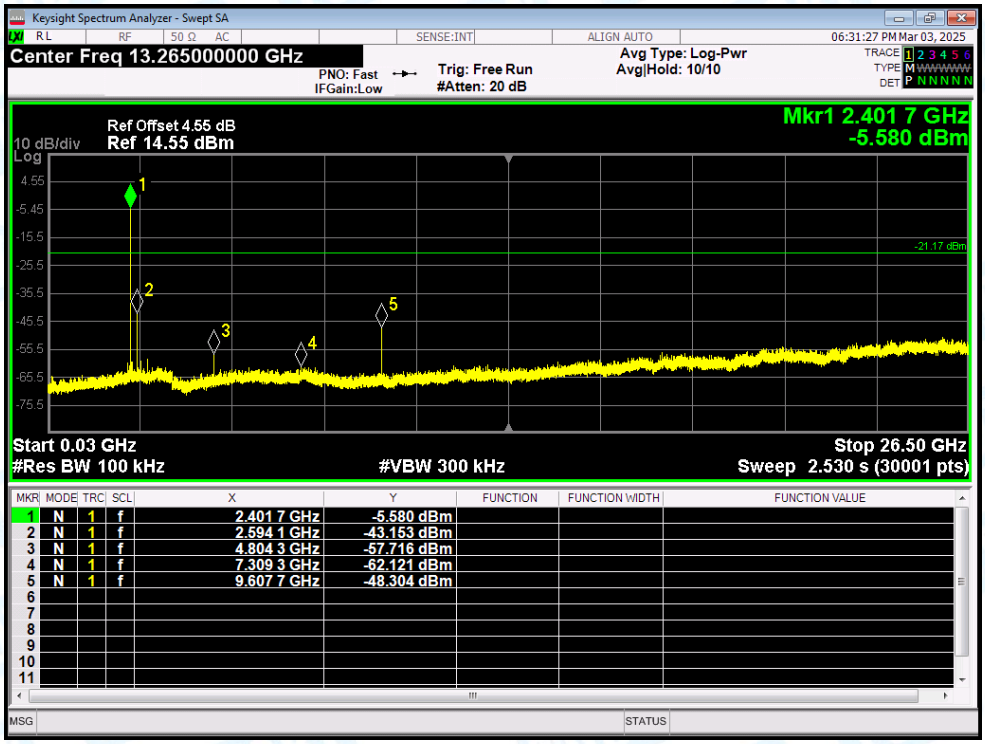
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



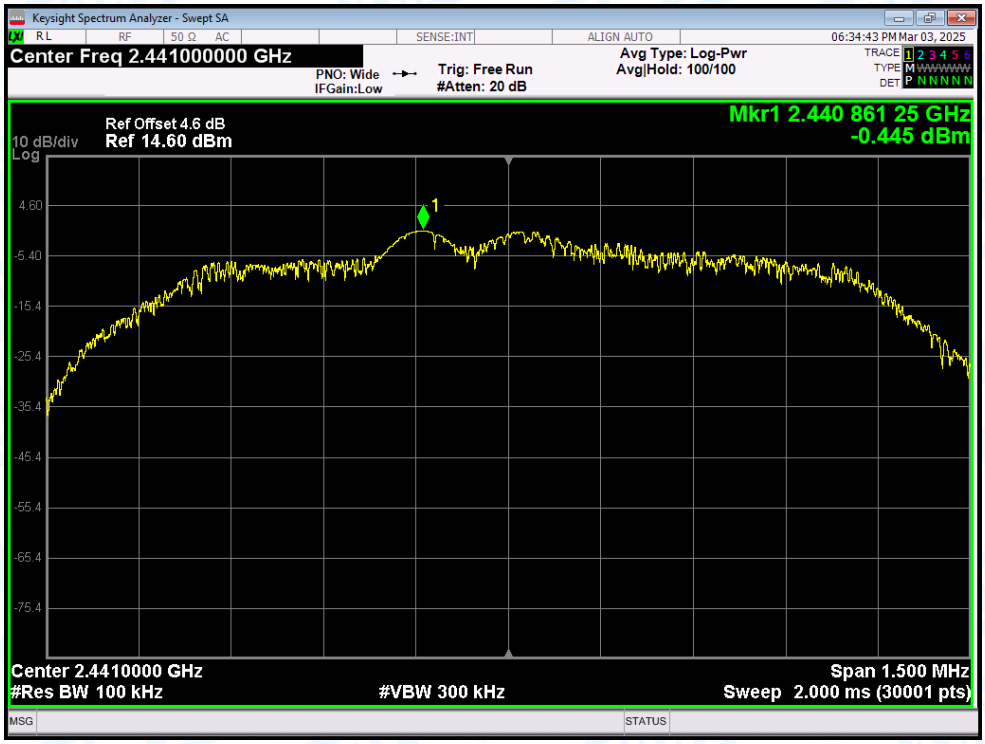
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



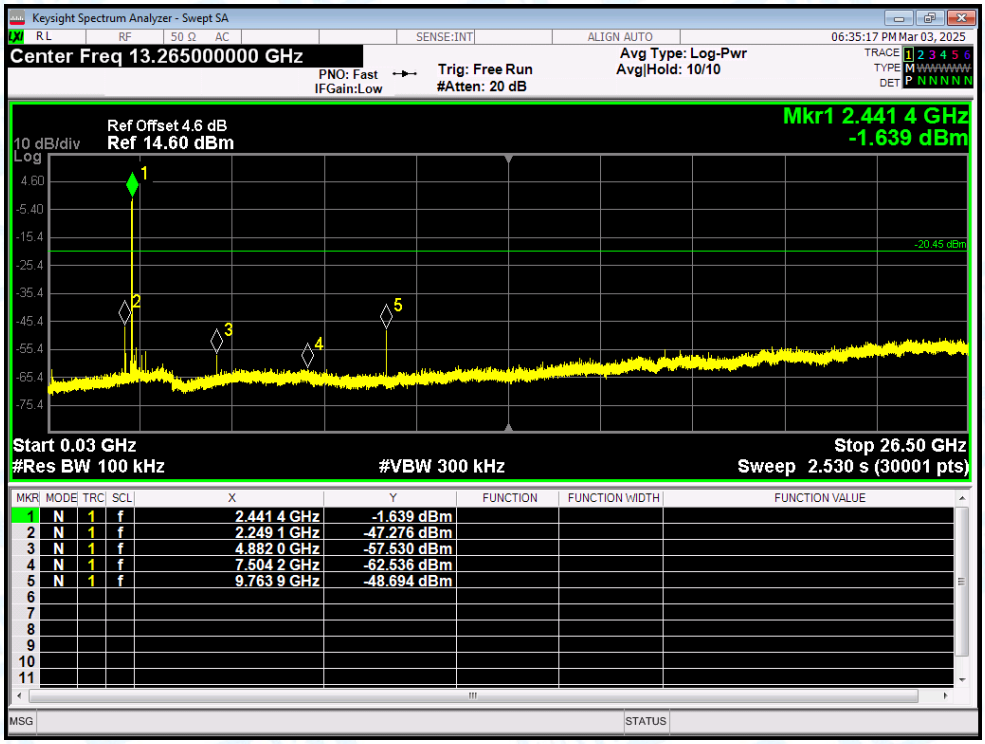
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



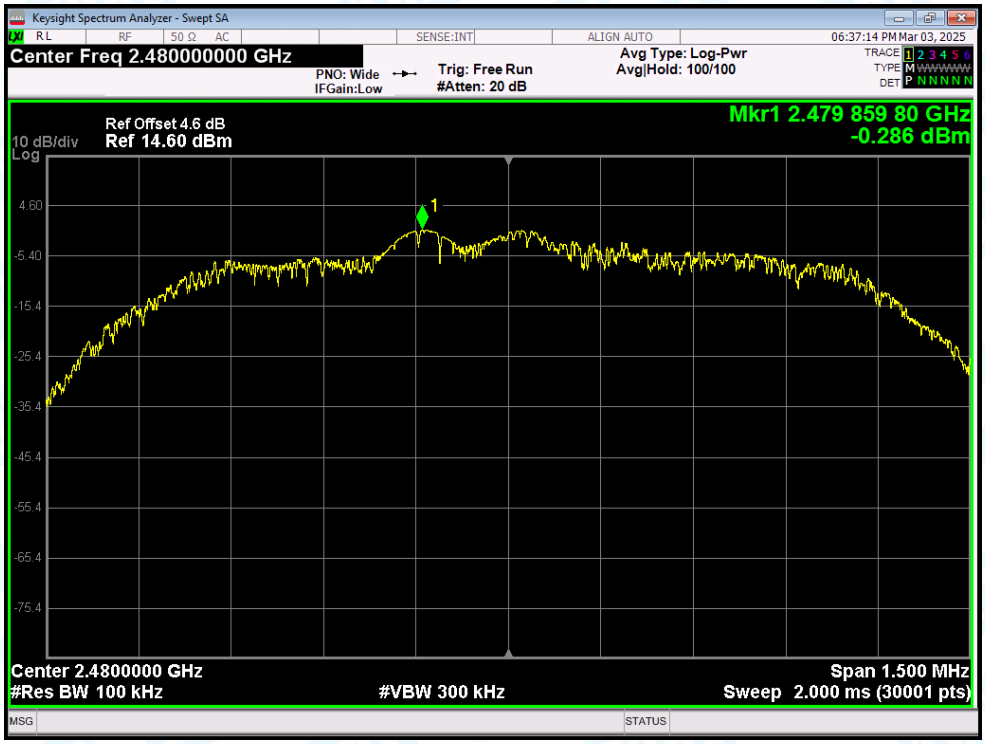
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



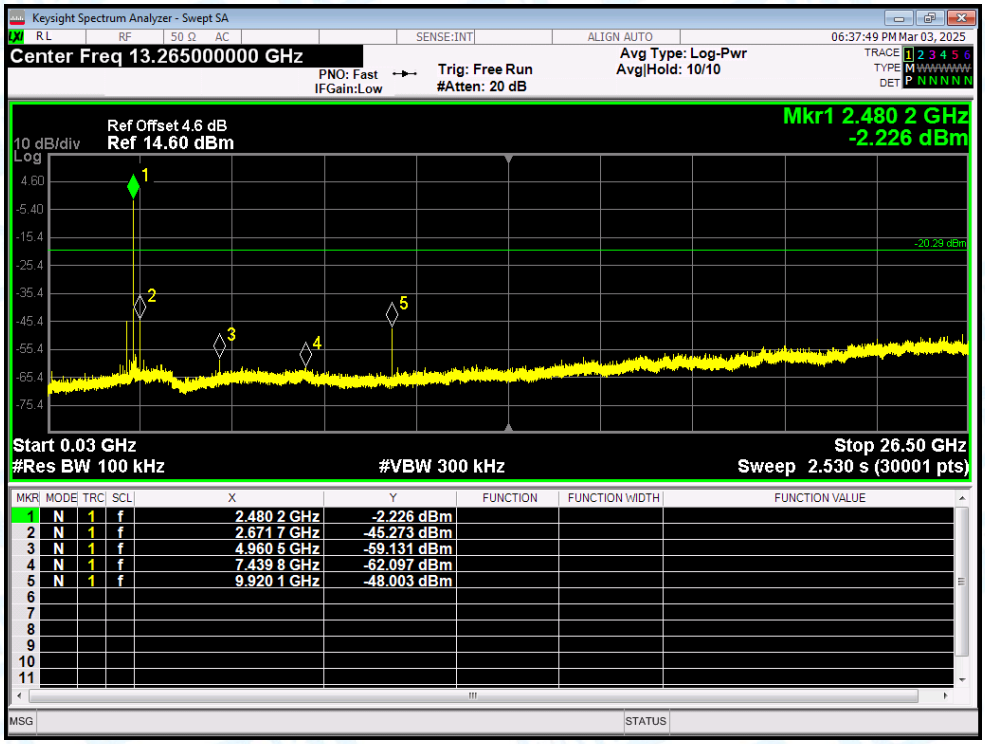
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref

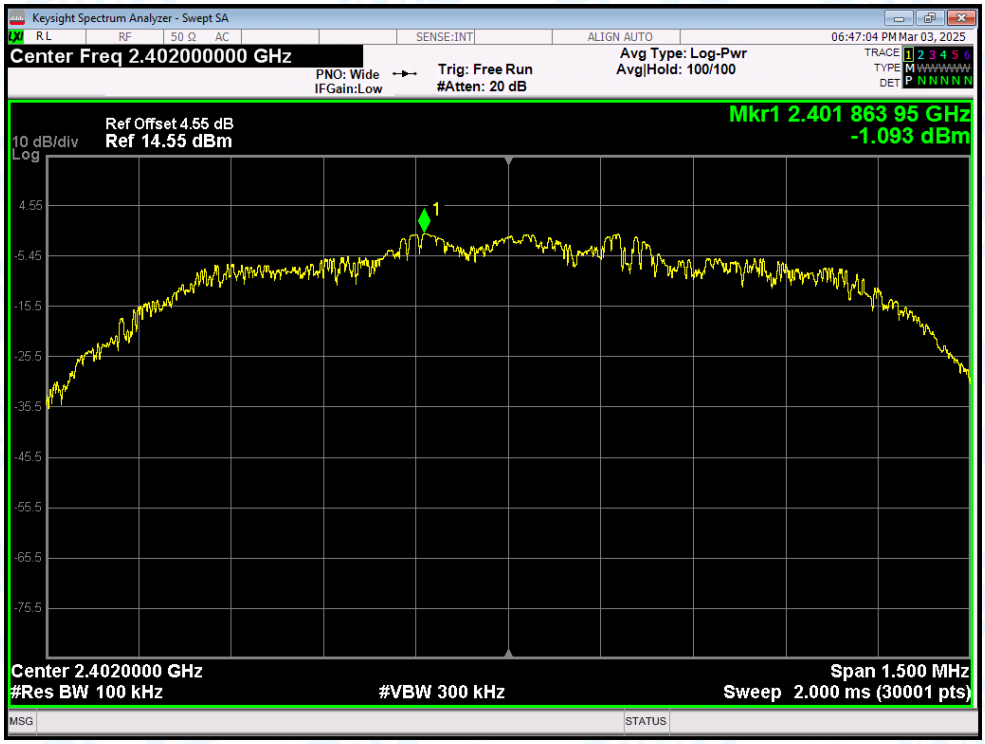


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

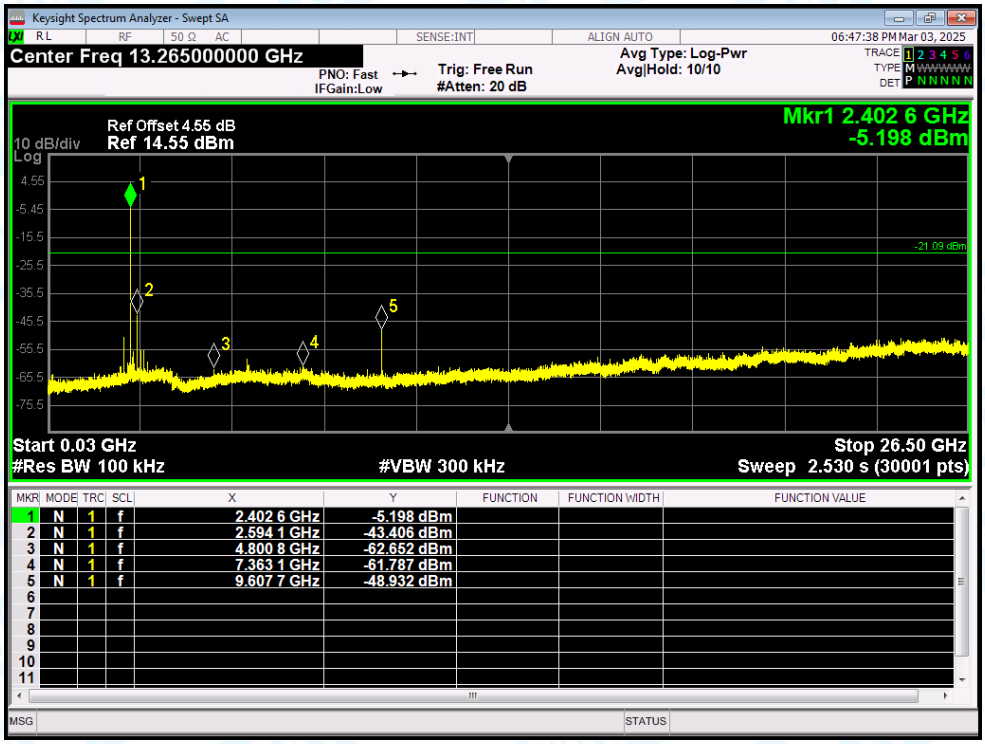


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 2 GHz	-2.226 dBm			
2	N	1	f	2.671 7 GHz	-45.273 dBm			
3	N	1	f	4.960 5 GHz	-59.131 dBm			
4	N	1	f	7.439 8 GHz	-62.097 dBm			
5	N	1	f	9.920 1 GHz	-48.003 dBm			
6								
7								
8								
9								
10								
11								

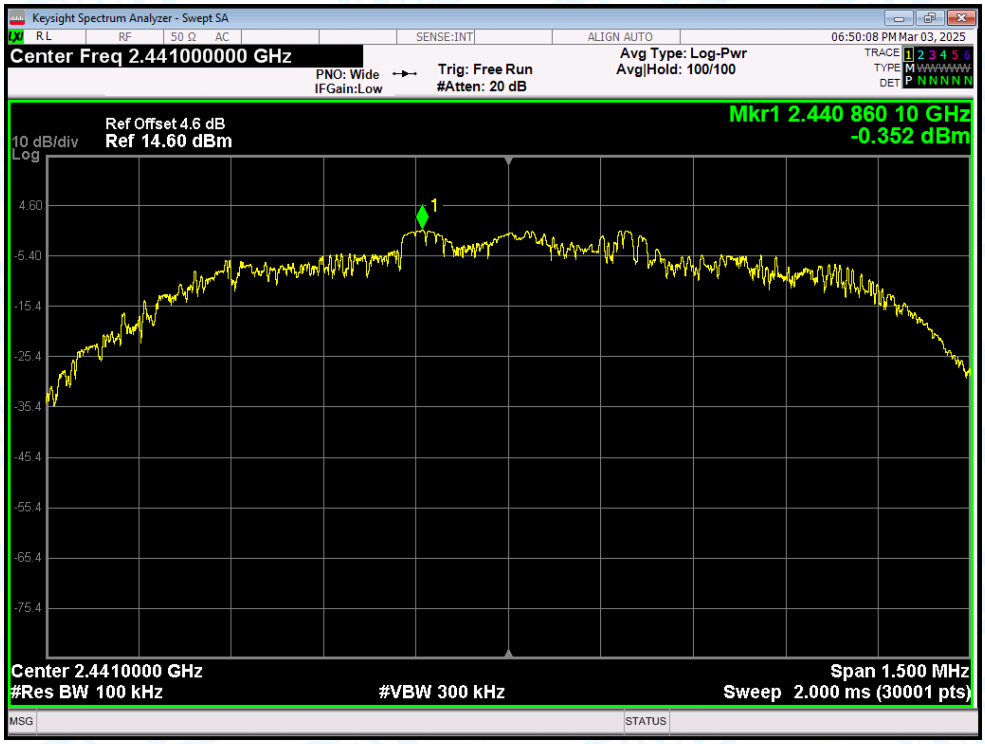
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



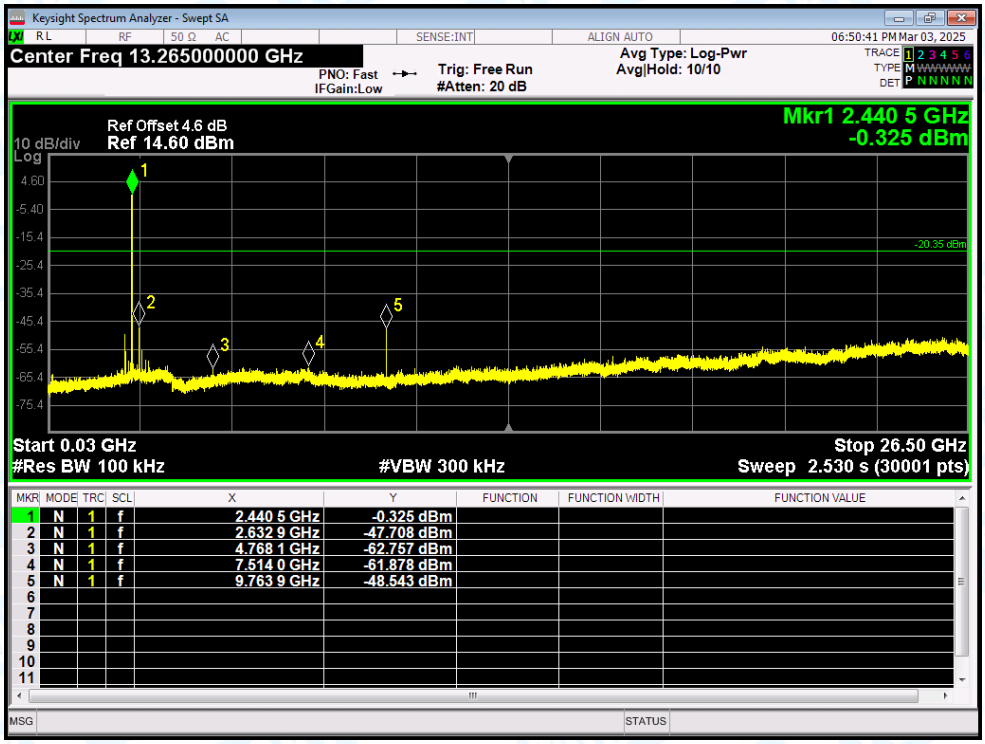
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref

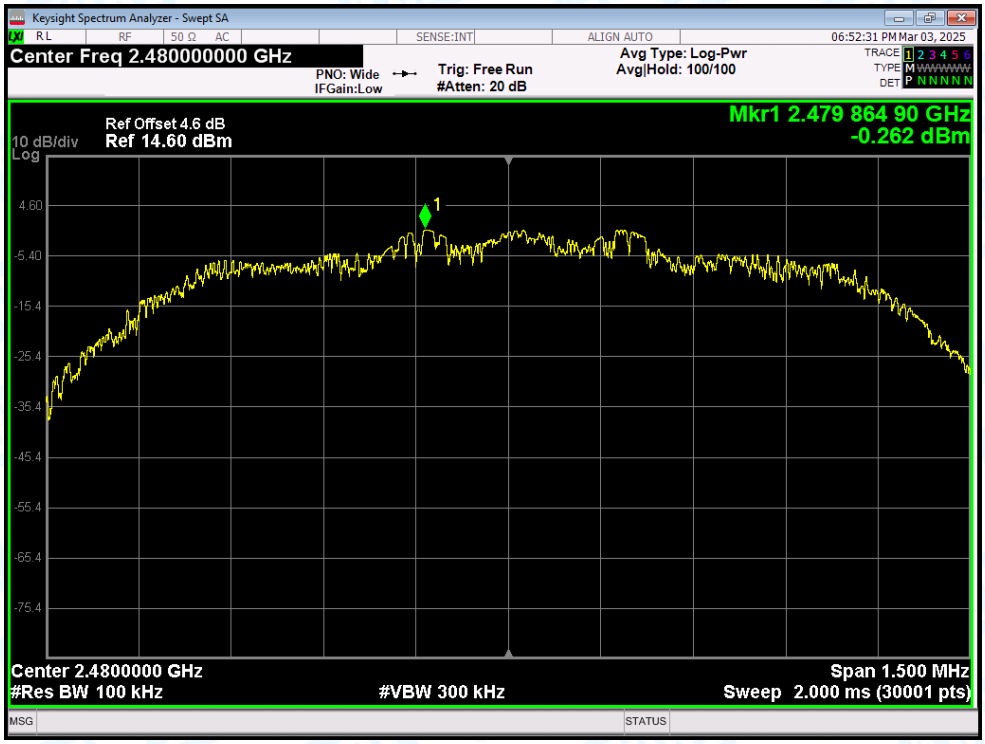


Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission

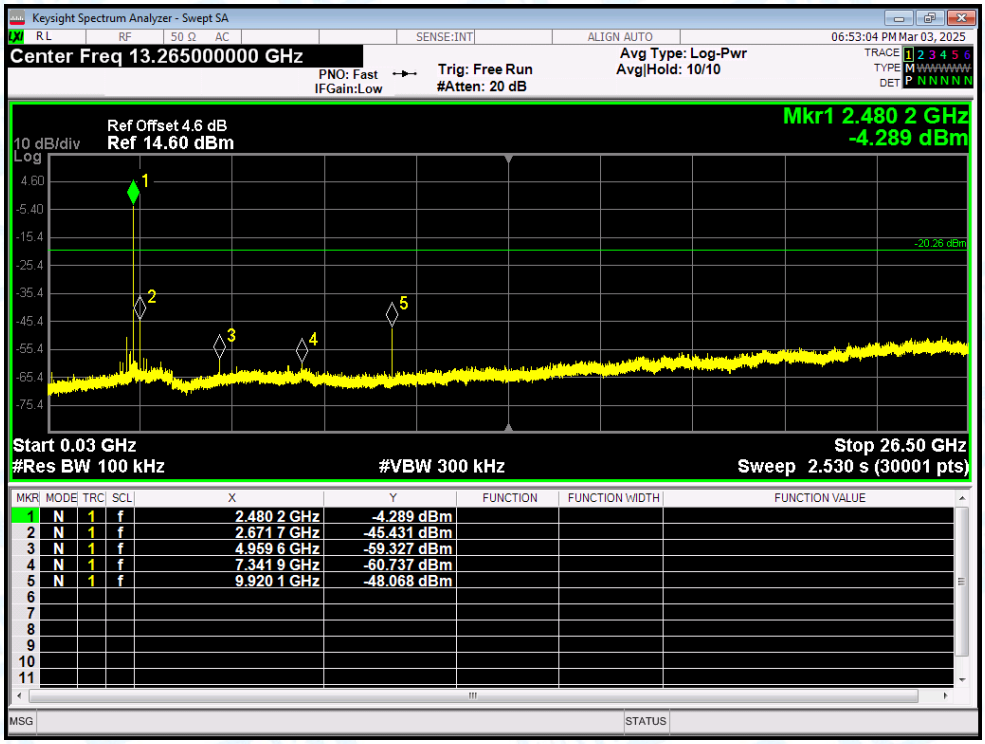


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440 5 GHz	-0.325 dBm			
2	N	1	f	2.632 9 GHz	-47.708 dBm			
3	N	1	f	4.768 1 GHz	-62.757 dBm			
4	N	1	f	7.514 0 GHz	-61.878 dBm			
5	N	1	f	9.763 9 GHz	-48.543 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission



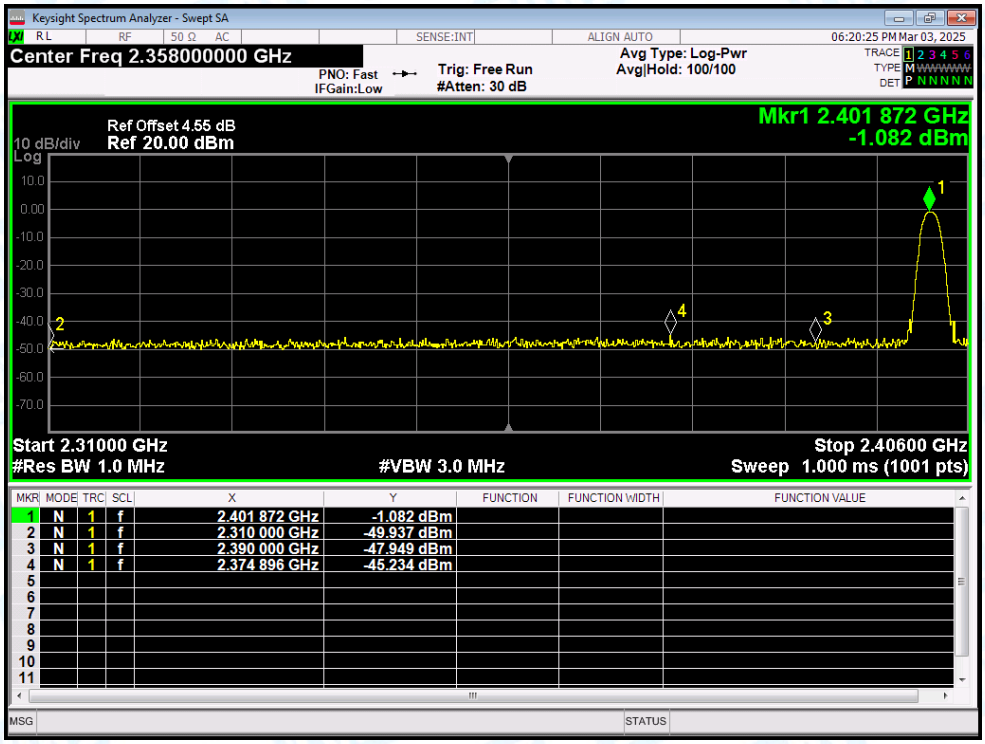
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 2 GHz	-4.289 dBm			
2	N	1	f	2.671 7 GHz	-45.431 dBm			
3	N	1	f	4.959 6 GHz	-59.327 dBm			
4	N	1	f	7.341 9 GHz	-60.737 dBm			
5	N	1	f	9.920 1 GHz	-48.068 dBm			
6								
7								
8								
9								
10								
11								

8. Restrict Band

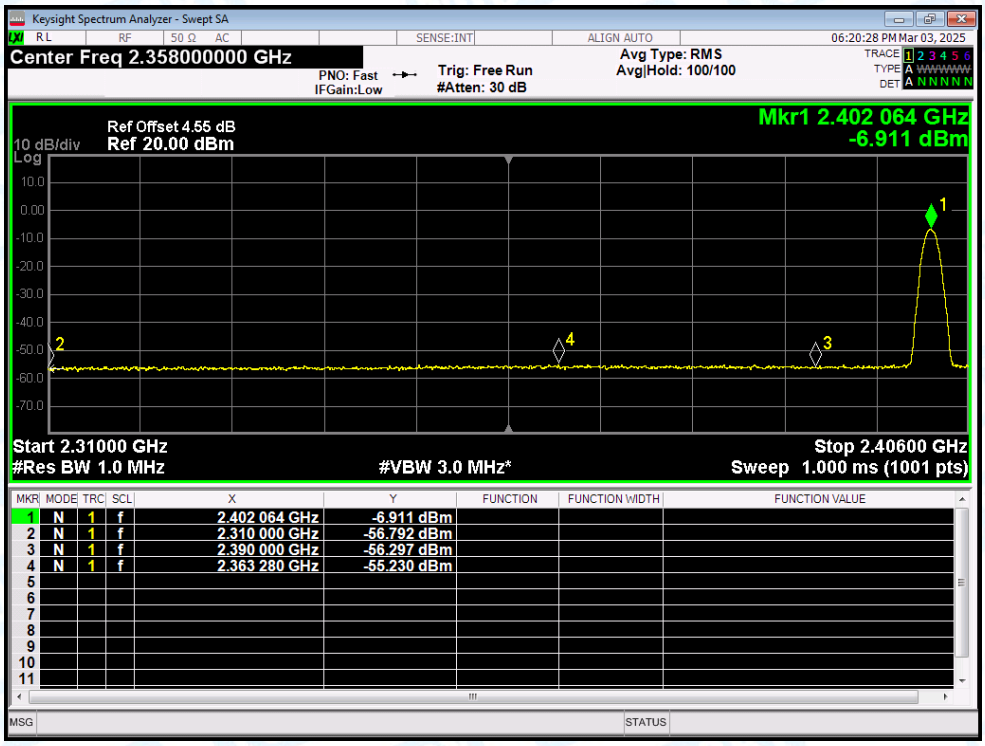
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.94	2.36	-	47.68	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.79	2.36	5.06	45.89	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2374.896	-45.23	2.36	-	52.39	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2363.28	-55.23	2.36	5.06	47.45	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.95	2.36	-	49.67	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.3	2.36	5.06	46.38	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-48.26	2.36	-	49.36	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.8	2.36	5.06	46.88	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2498.224	-44.61	2.36	-	53.01	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.264	-54.56	2.36	5.06	48.12	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.84	2.36	-	51.78	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.23	2.36	5.06	47.45	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.18	2.36	-	48.44	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.28	2.36	4.95	46.29	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2363.376	-44.42	2.36	-	53.2	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2382.384	-55.17	2.36	4.95	47.4	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.86	2.36	-	50.76	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56	2.36	4.95	46.57	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.88	2.36	-	50.74	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.07	2.36	5.06	47.61	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2497.456	-44.6	2.36	-	53.02	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2487.304	-54.7	2.36	5.06	47.98	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.28	2.36	-	49.34	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.74	2.36	5.06	46.94	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.41	2.36	-	49.21	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.75	2.36	5.06	45.93	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2318.832	-45.38	2.36	-	52.24	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2362.032	-55.22	2.36	5.06	47.46	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-45.97	2.36	-	51.65	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.99	2.36	5.06	46.69	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-48.39	2.36	-	49.23	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.51	2.36	5.06	47.17	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.824	-40.23	2.36	-	57.39	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2492.248	-54.71	2.36	5.06	47.97	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.38	2.36	-	51.24	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.37	2.36	5.06	47.31	Average	54	Pass

Test Graphs

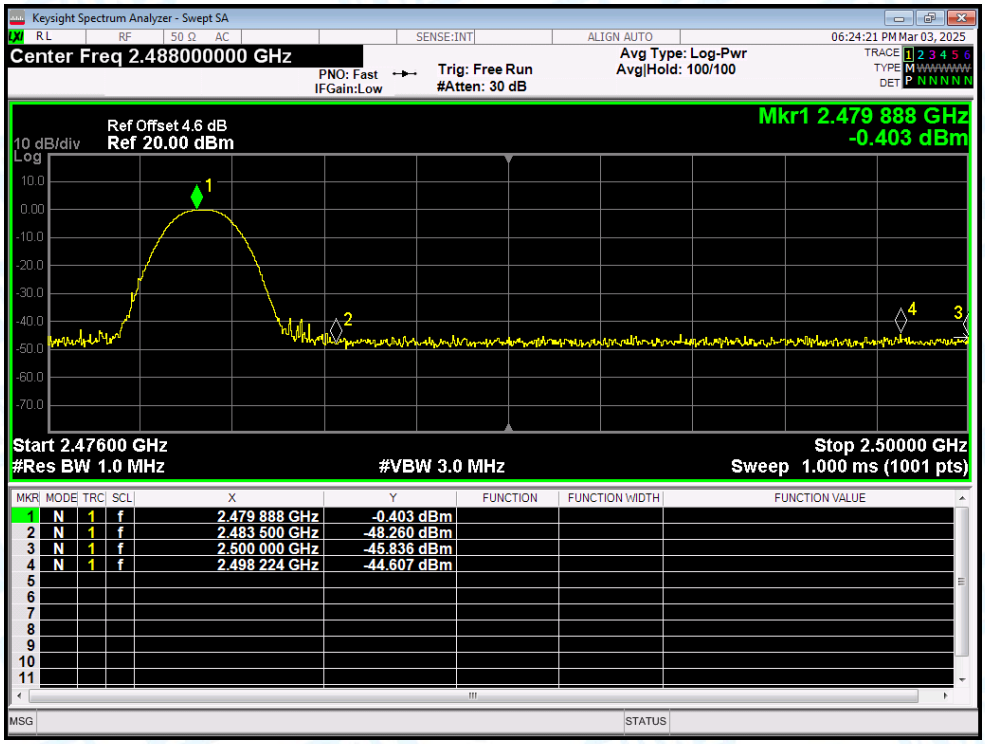
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



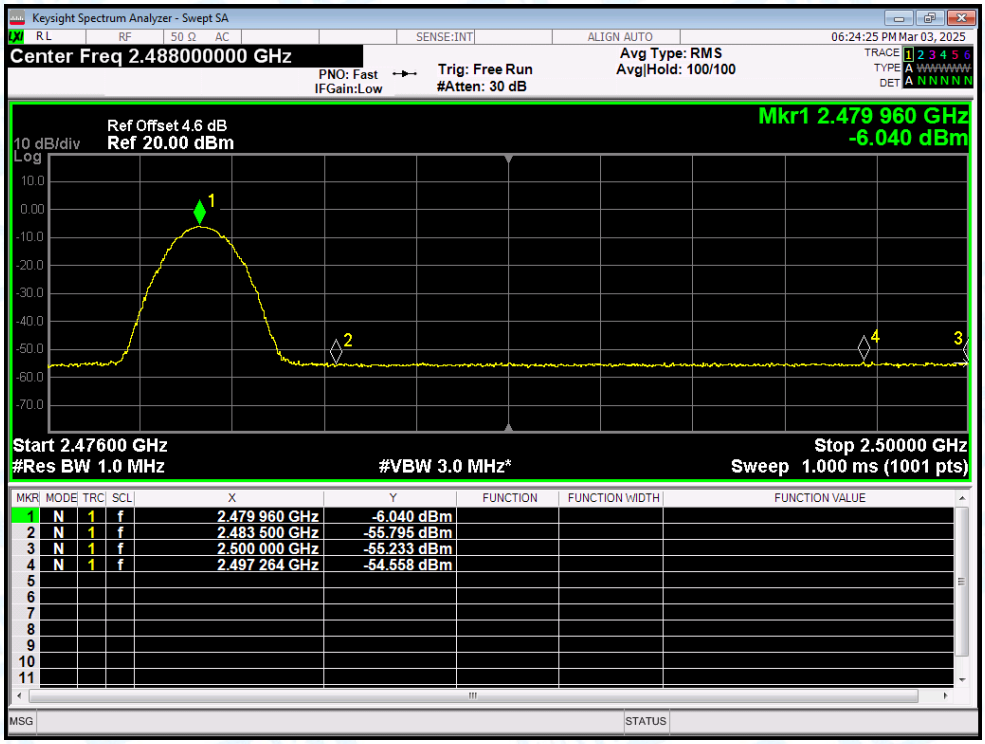
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



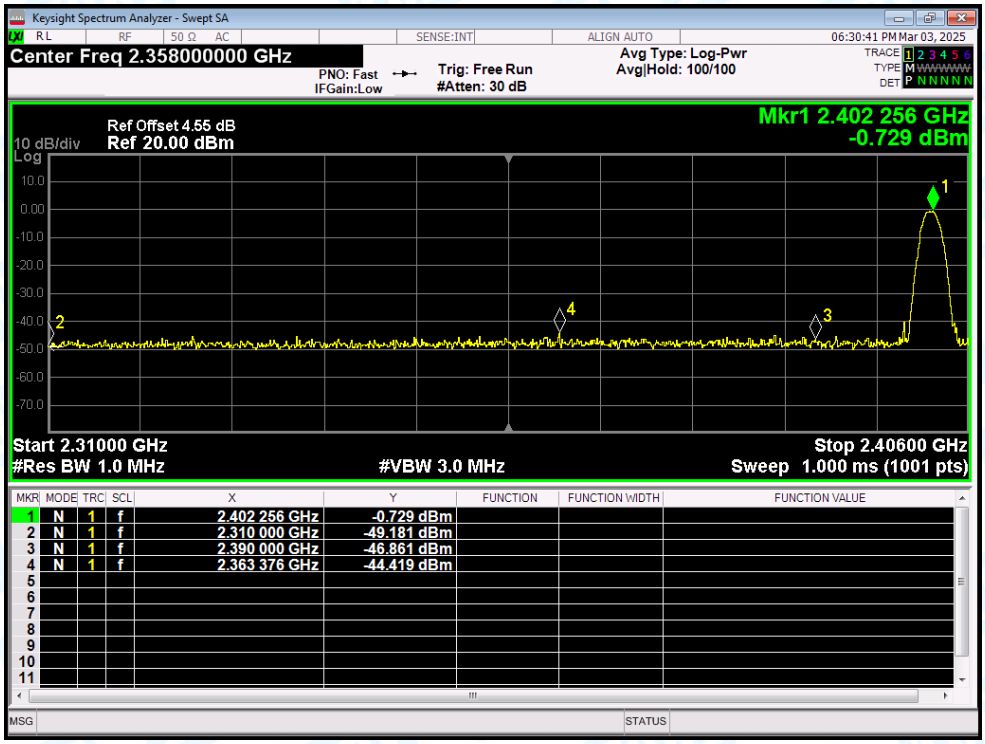
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



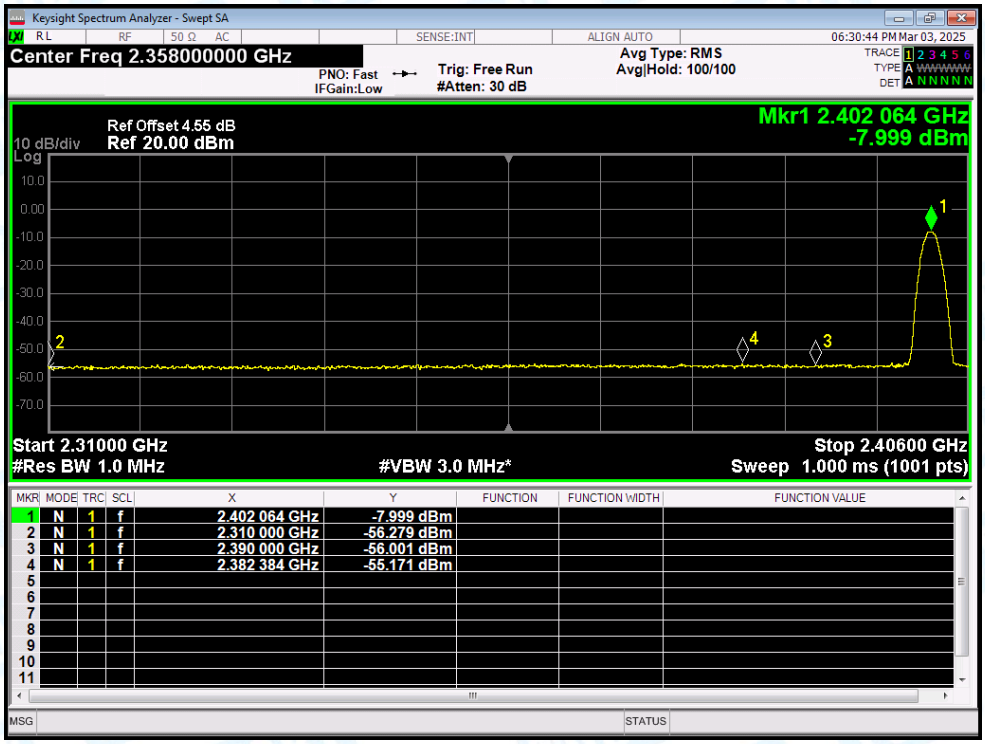
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



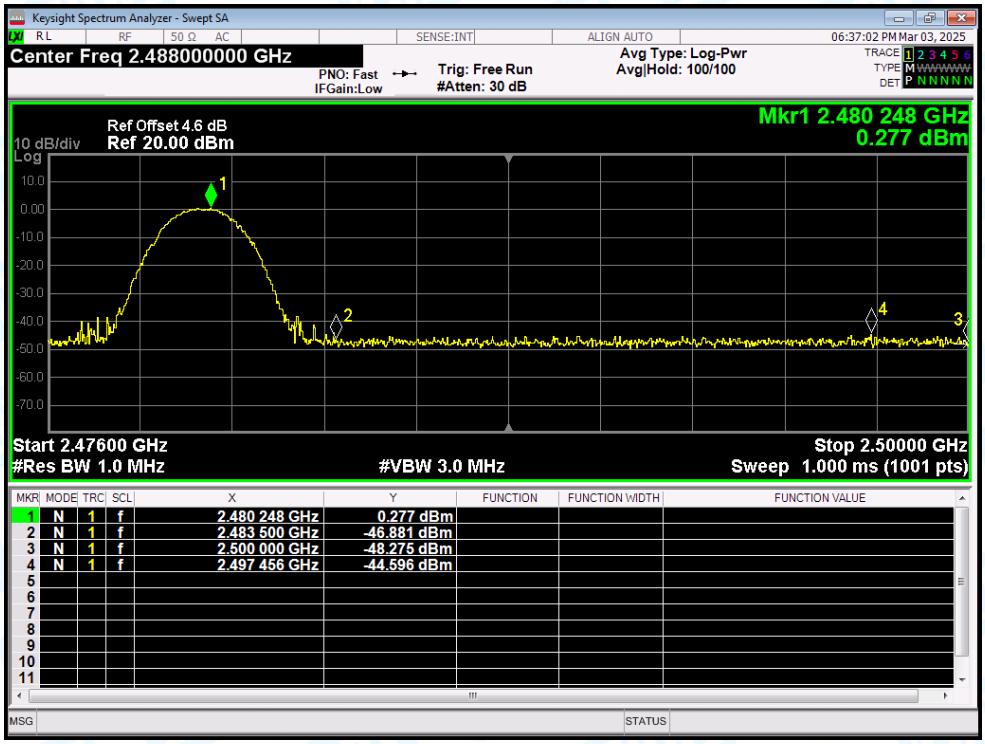
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



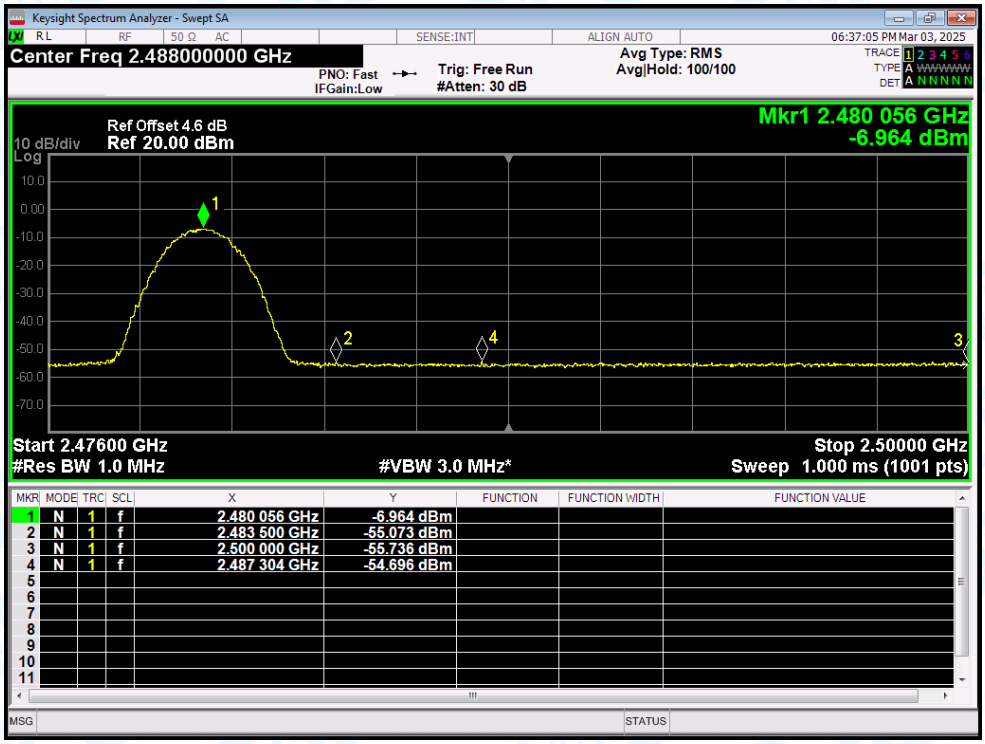
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



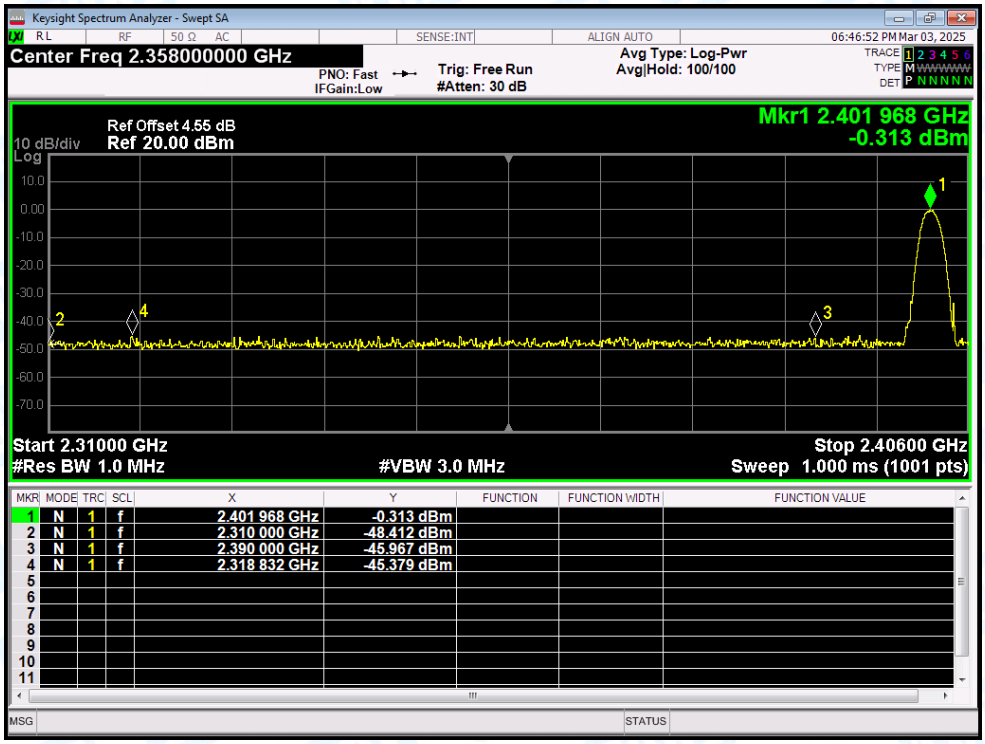
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



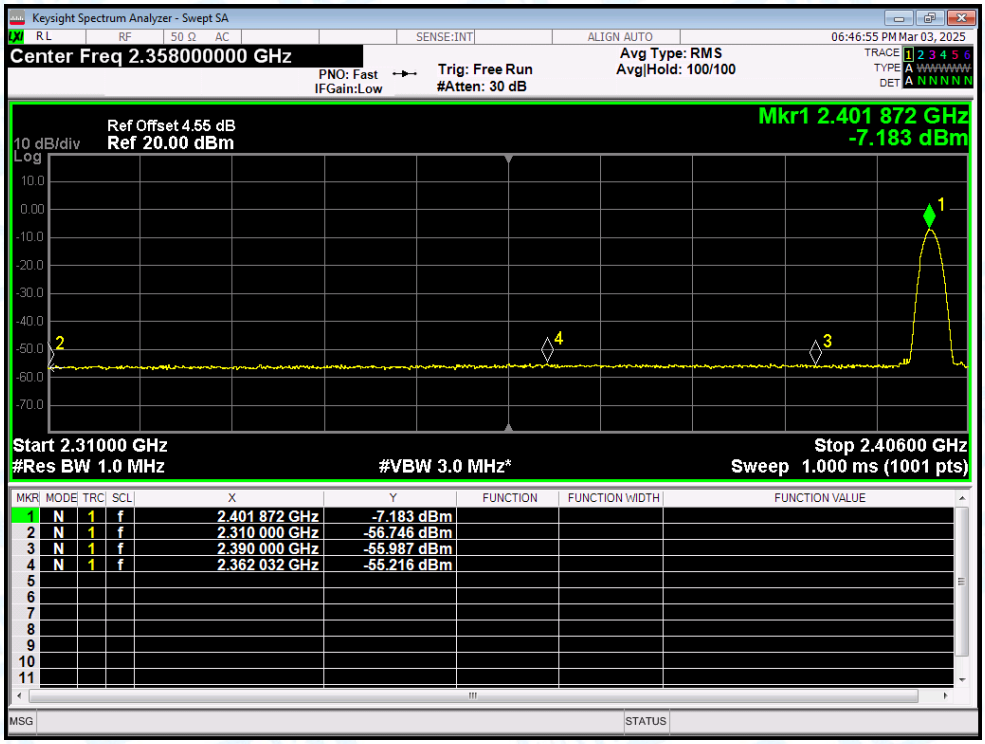
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



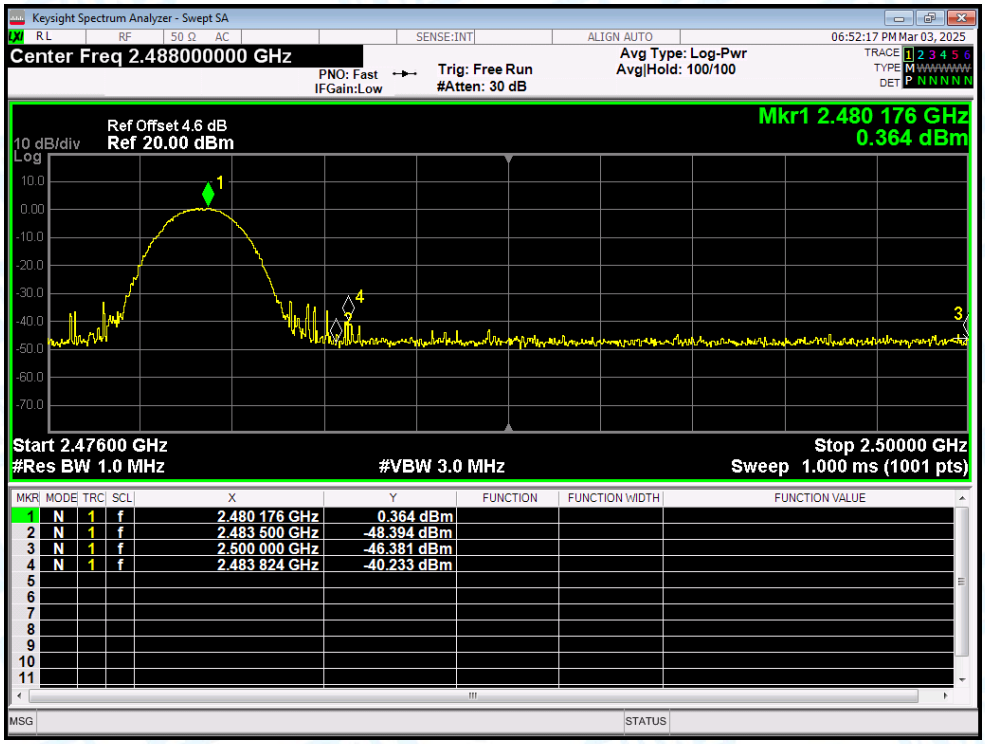
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



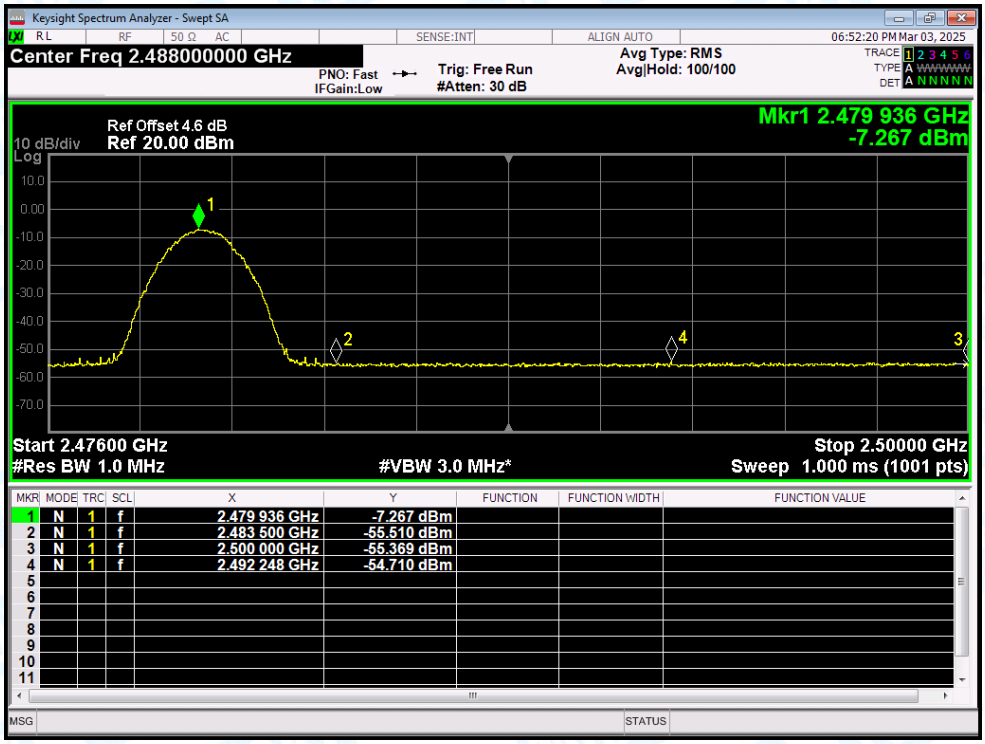
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

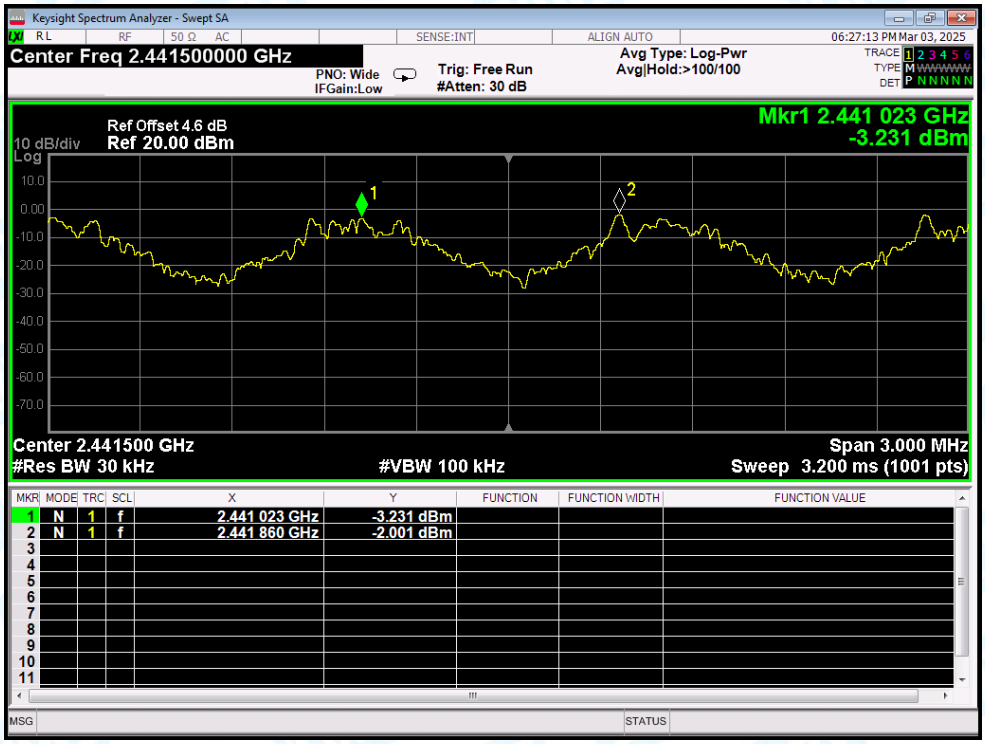


9. Carrier Frequencies Separation

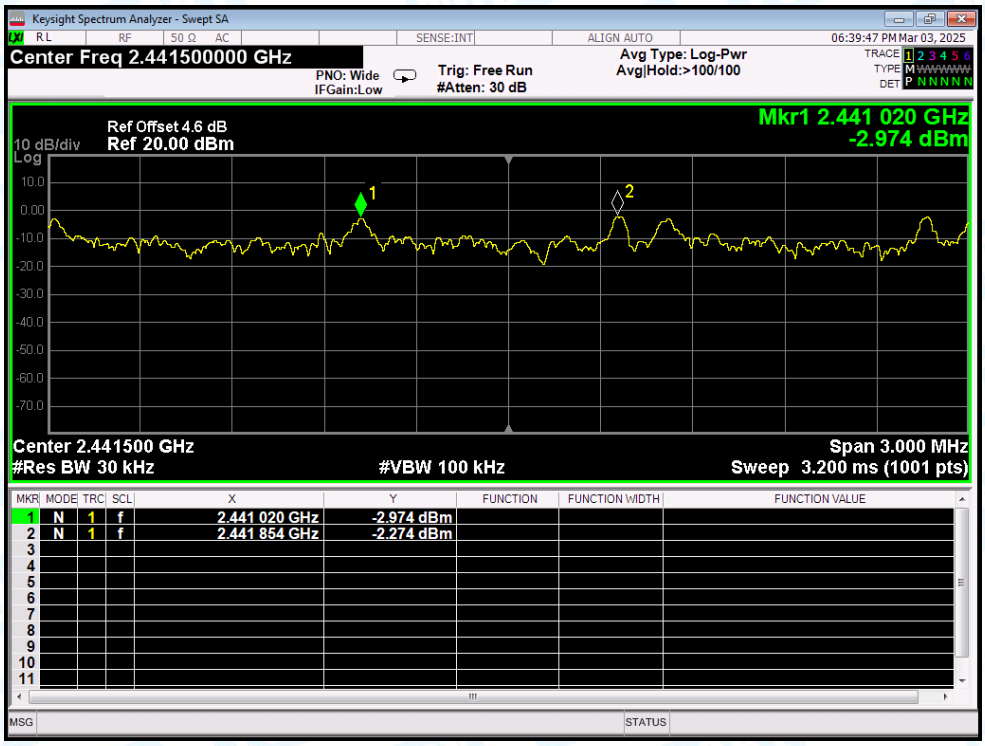
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.023	2441.86	0.837	0.607	Pass
NVNT	2-DH1	Ant1	2441.02	2441.854	0.834	0.833	Pass
NVNT	3-DH1	Ant1	2441.023	2442.028	1.005	0.827	Pass

Test Graphs

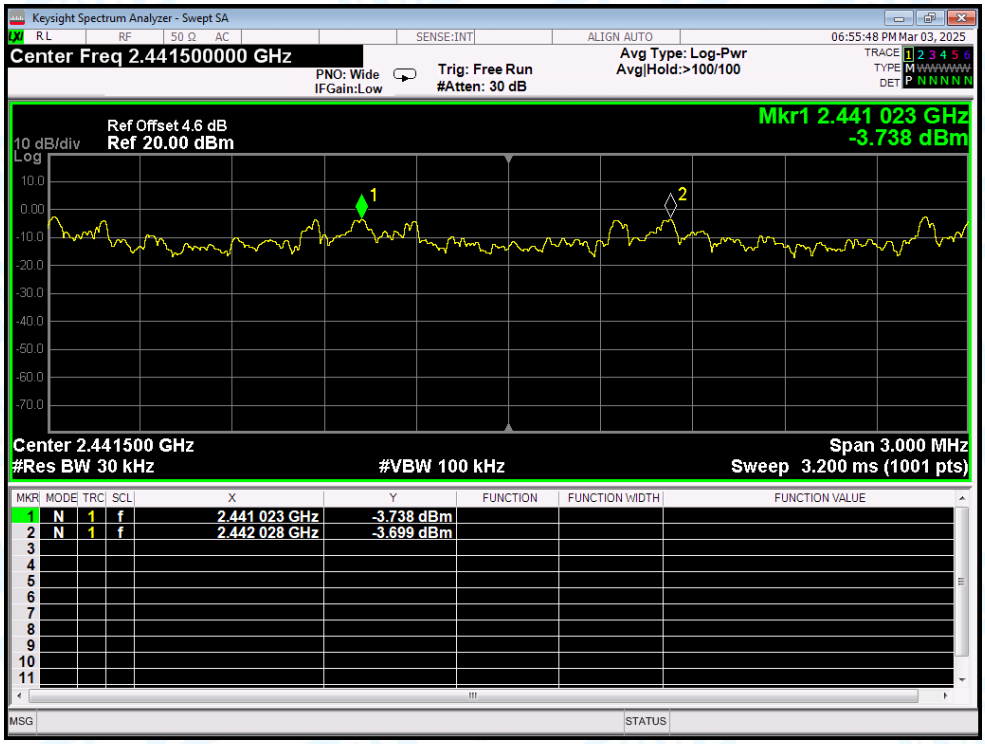
CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

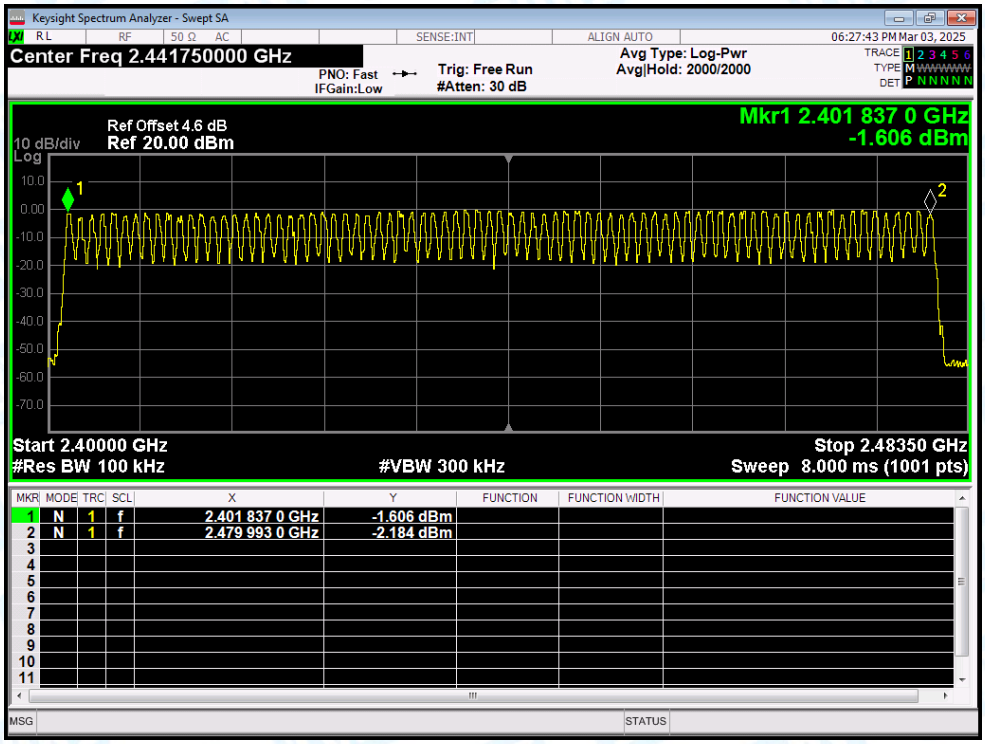


10. Number of Hopping Channel

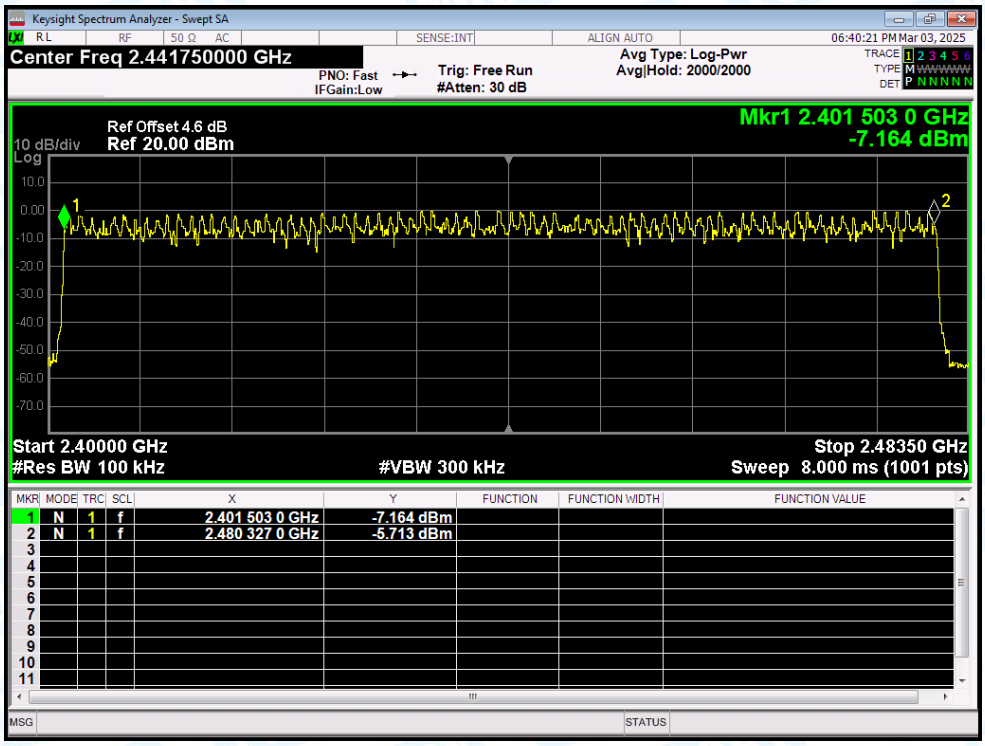
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

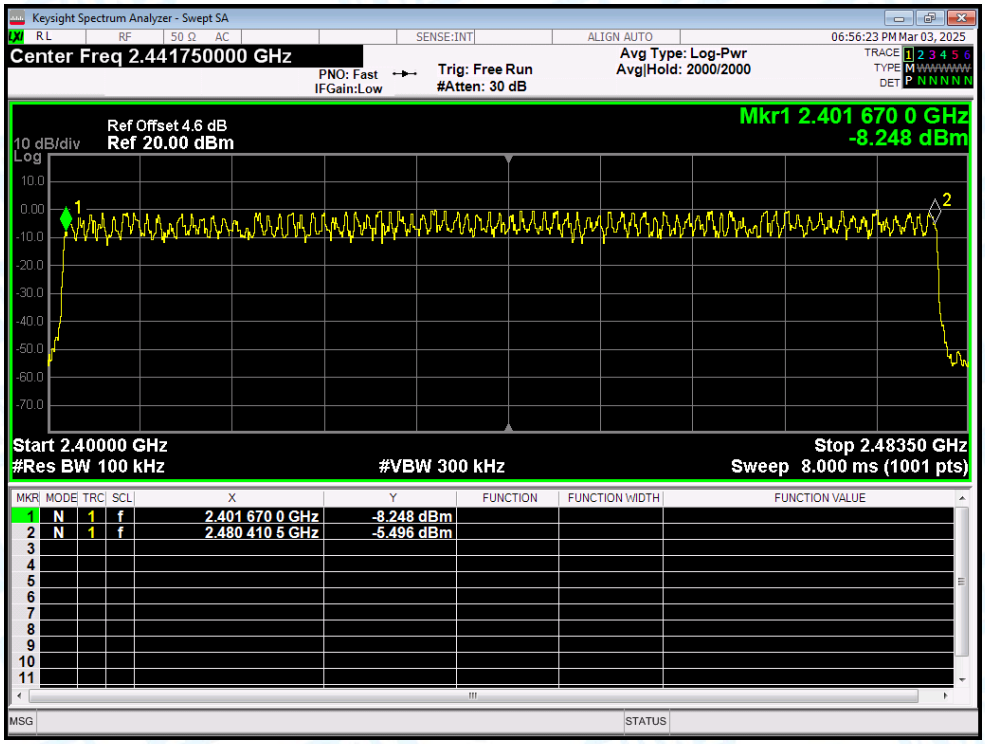
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

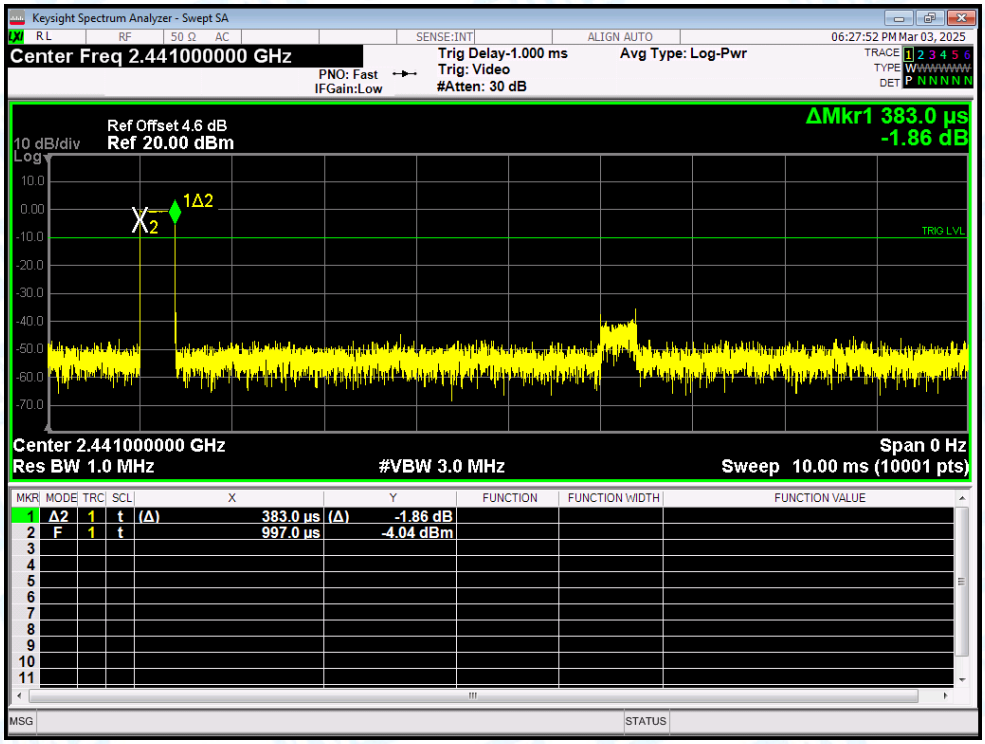


11. Dwell Time

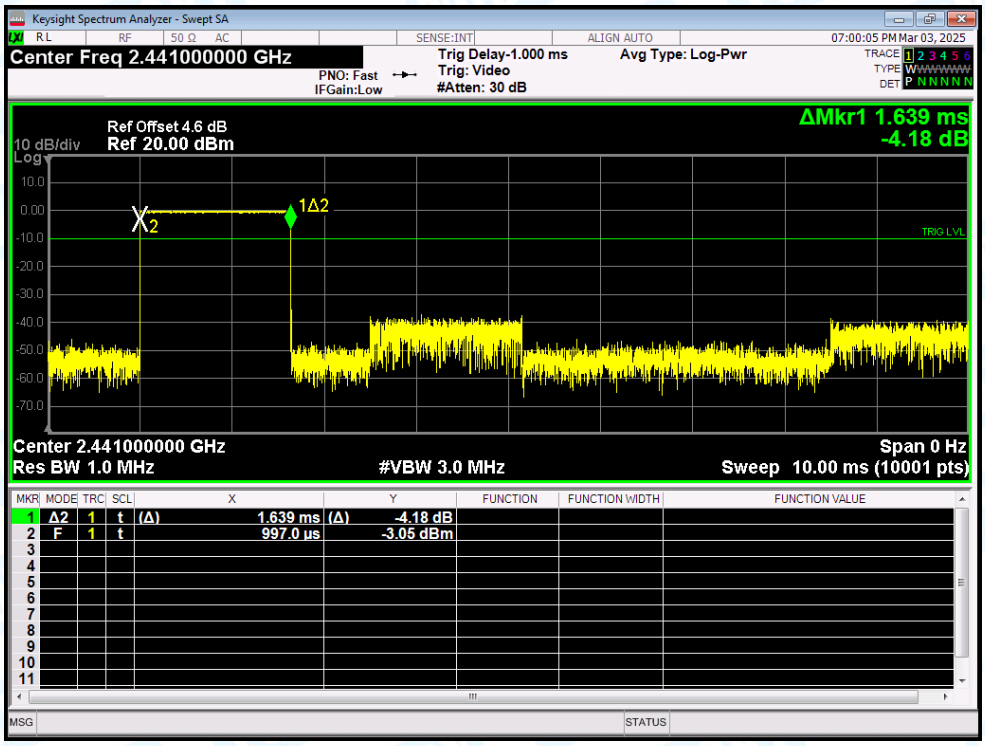
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	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
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	2.894	308.693	31600	400	Pass

Test Graphs

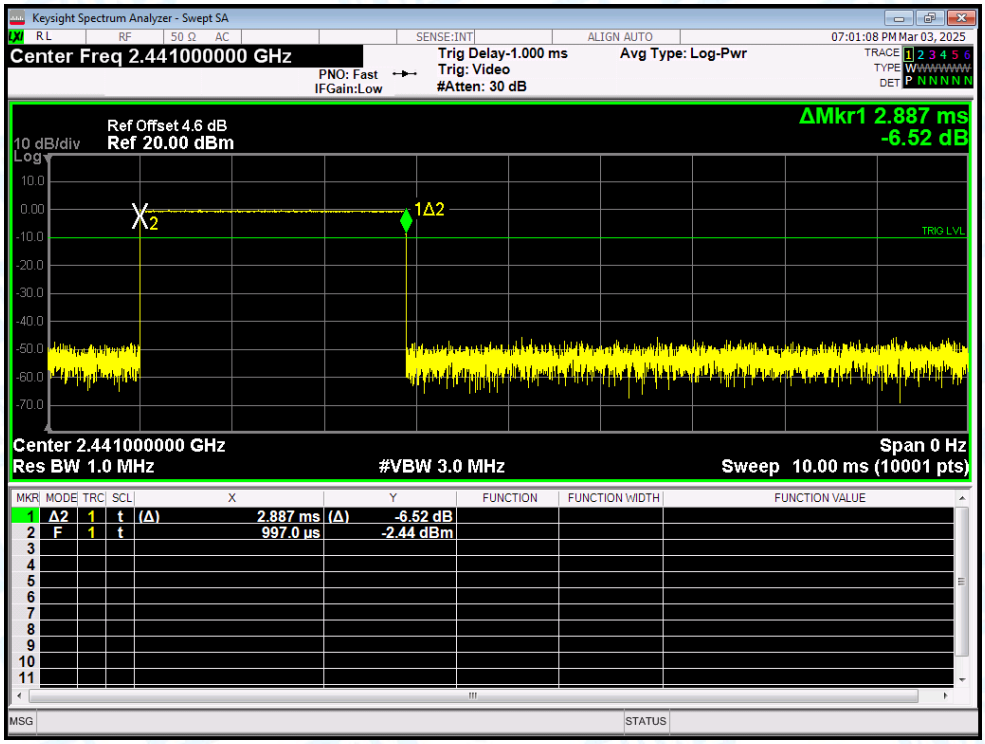
Dwell NVNT 1-DH1 2441MHz Ant1



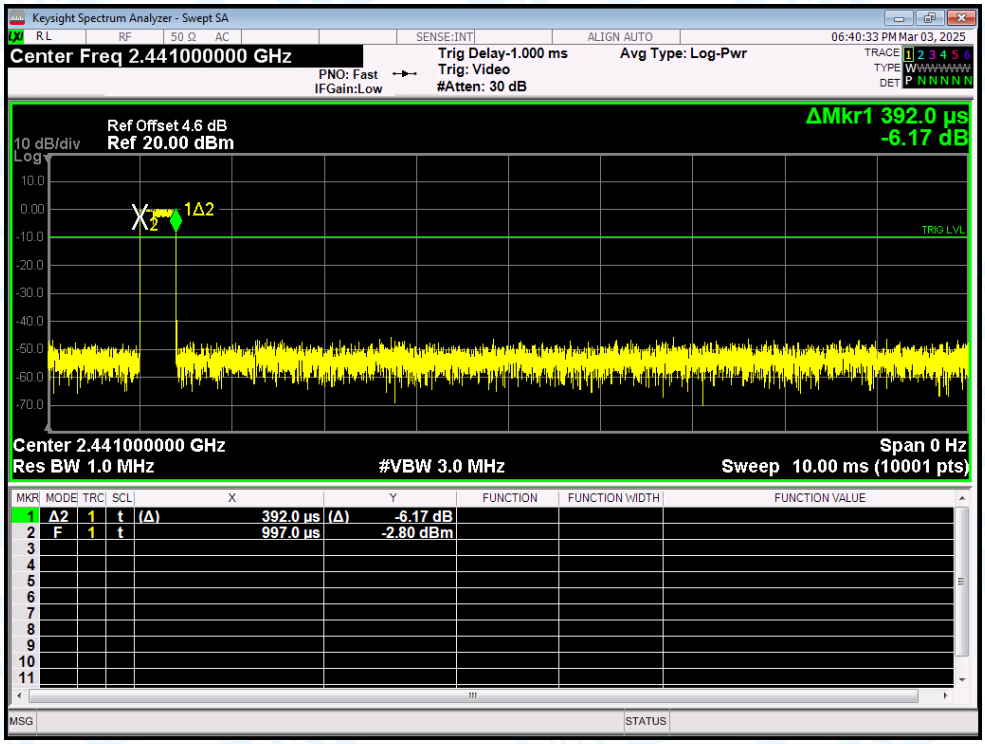
Dwell NVNT 1-DH3 2441MHz Ant1



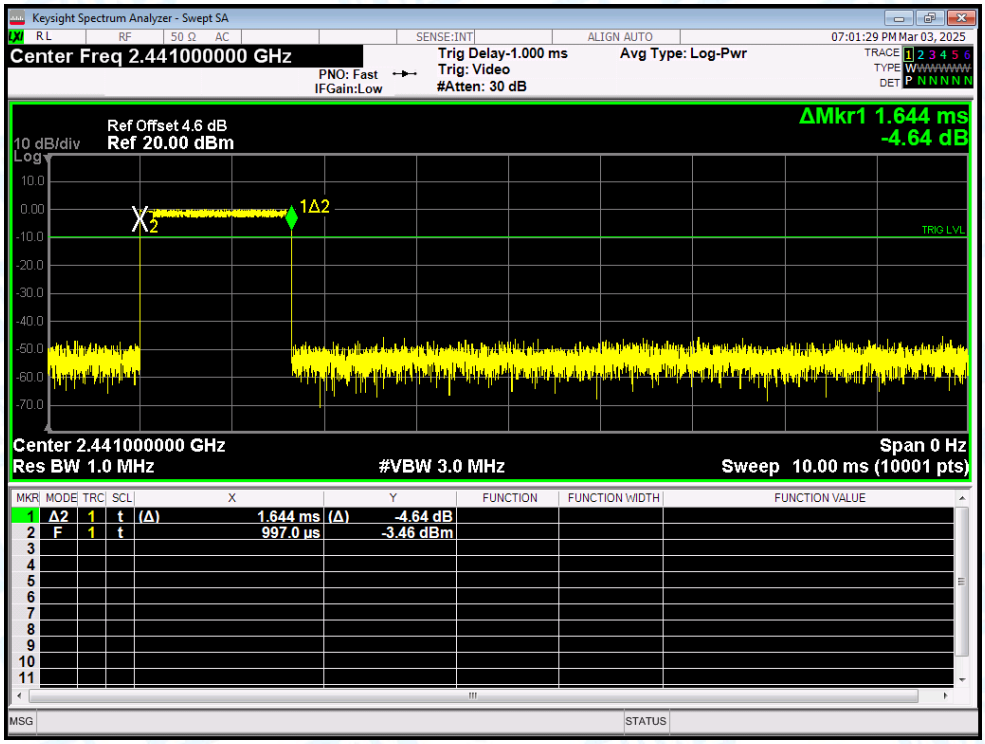
Dwell NVNT 1-DH5 2441MHz Ant1



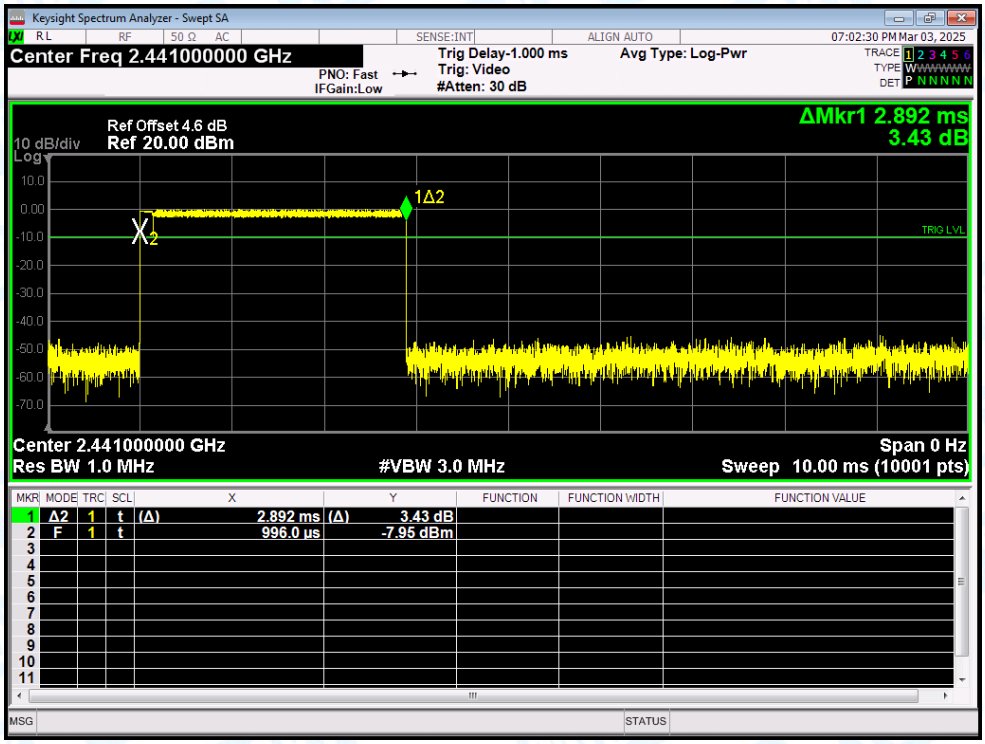
Dwell NVNT 2-DH1 2441MHz Ant1



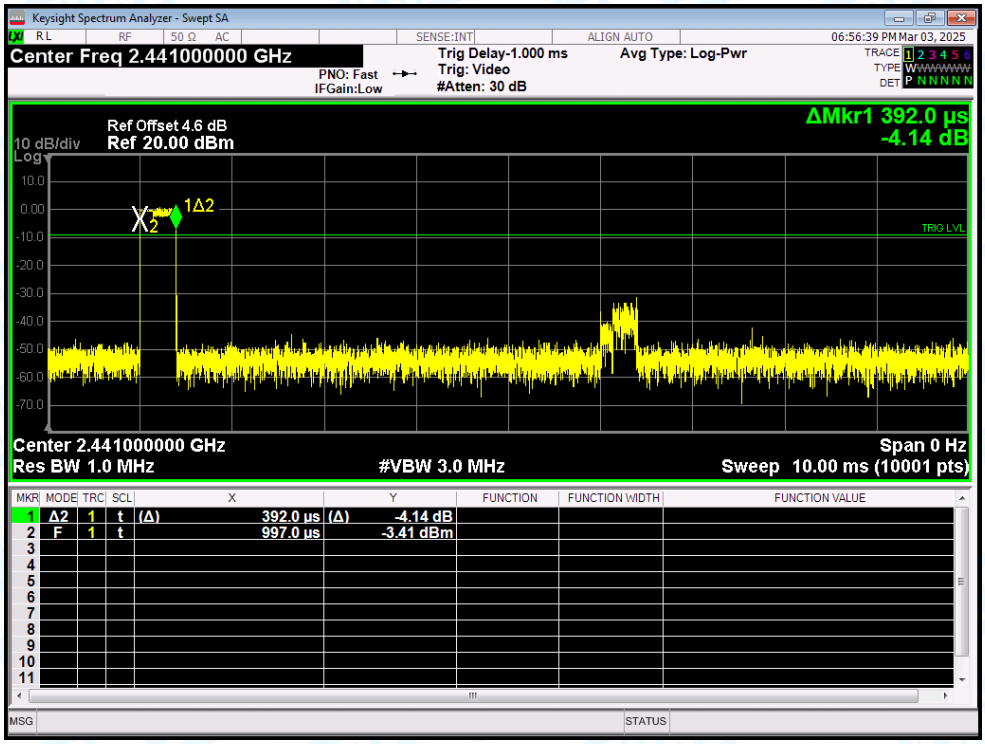
Dwell NVNT 2-DH3 2441MHz Ant1



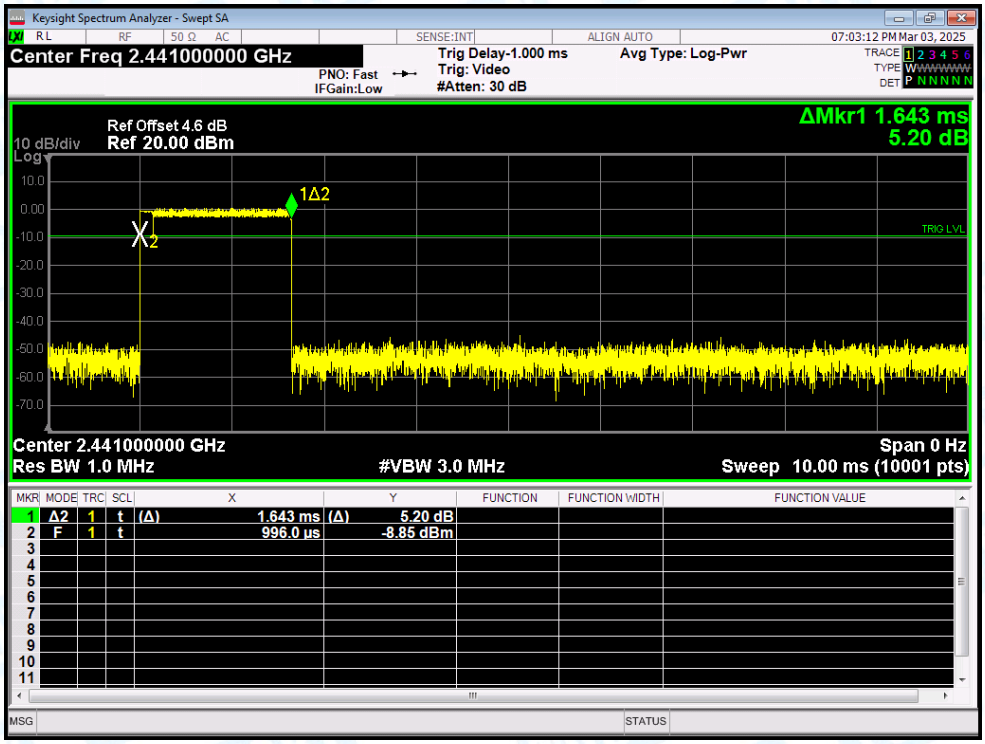
Dwell NVNT 2-DH5 2441MHz Ant1



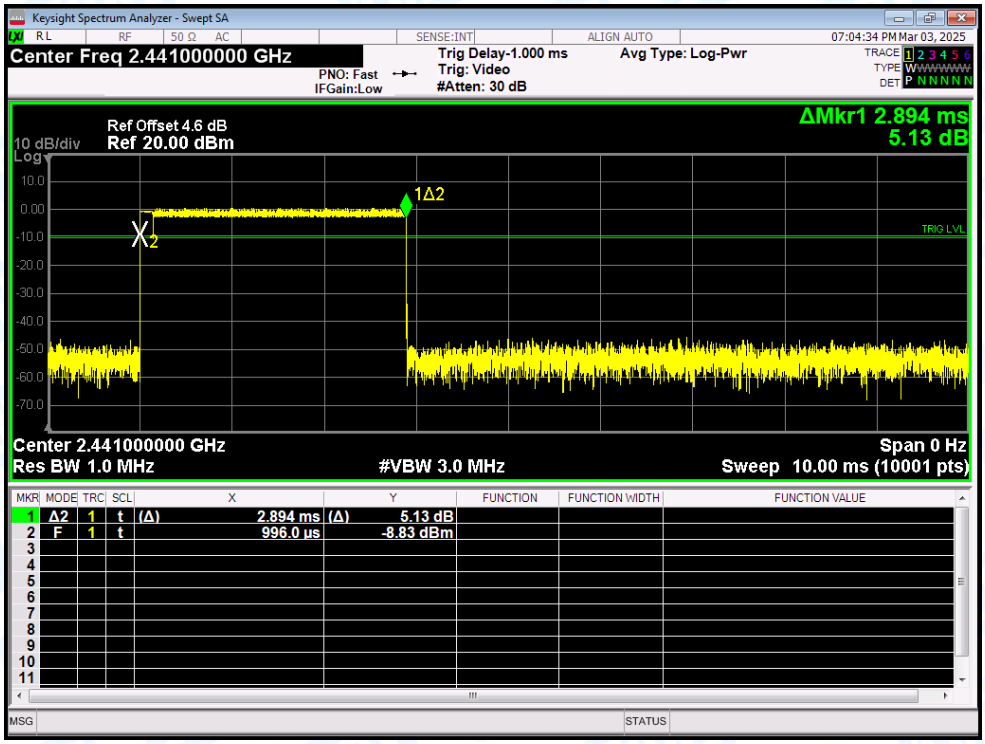
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1



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