RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless over-ear Bluetooth headphones
Test Model:	Y05
Sample ID:	HC-C-202506-0084-03-2#
Environmental Conditions	
Temperature:	23.9℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202506-0084-11 The report only show the worst case data.	

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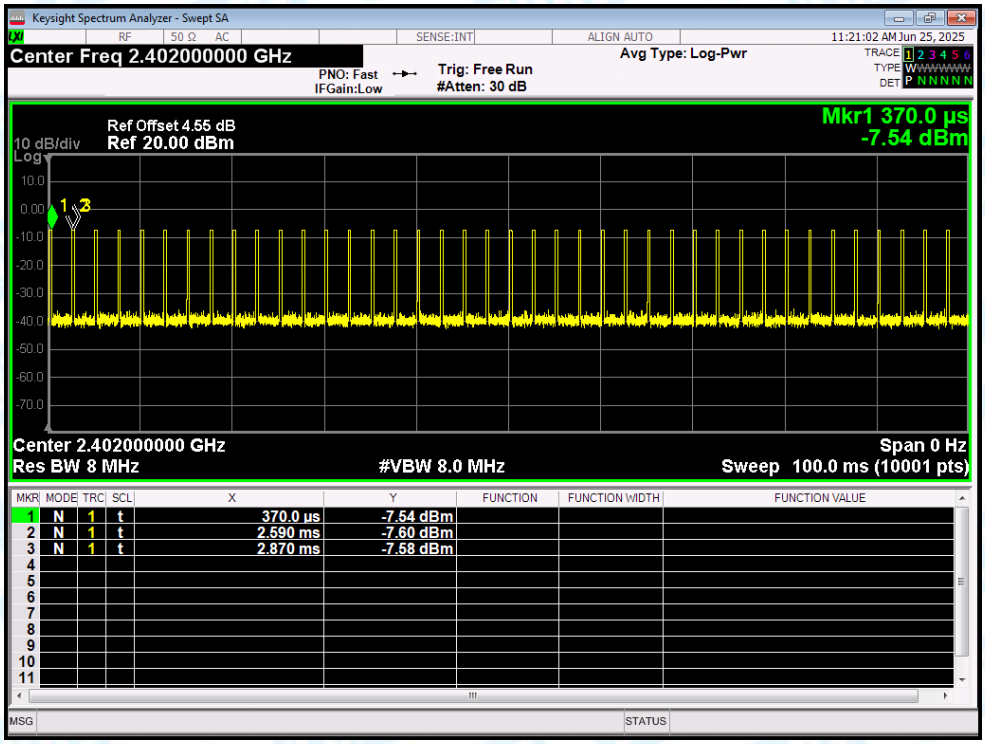
1. Duty Cycle

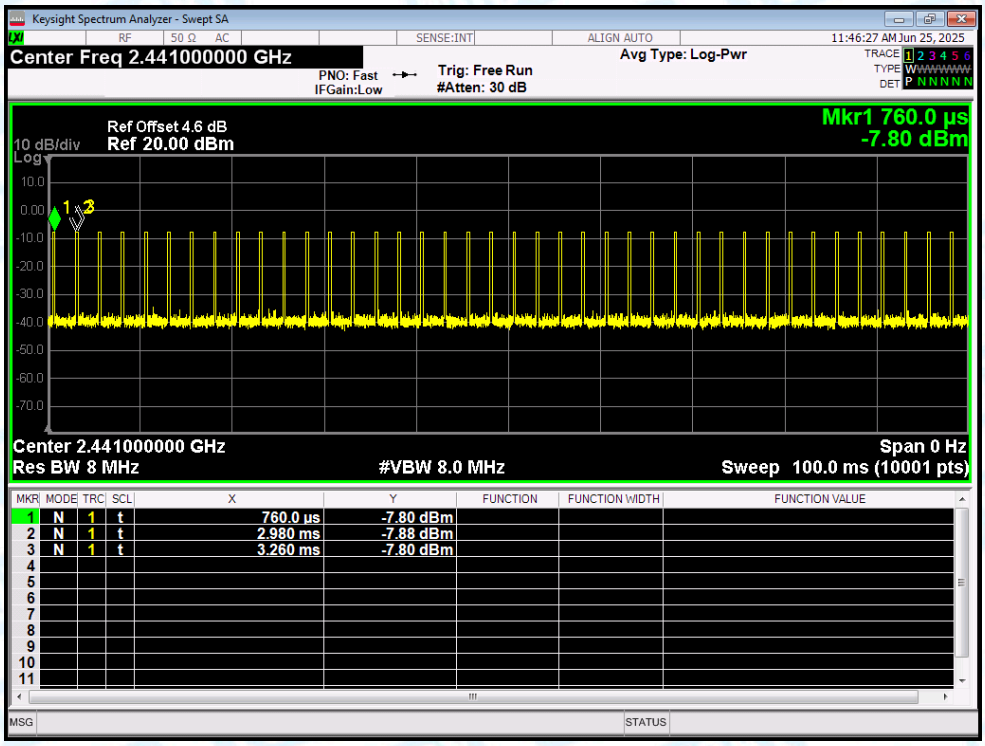
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	11.2	9.51	3.57
NVNT	1-DH1	2441	Ant1	11.2	9.51	3.57
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

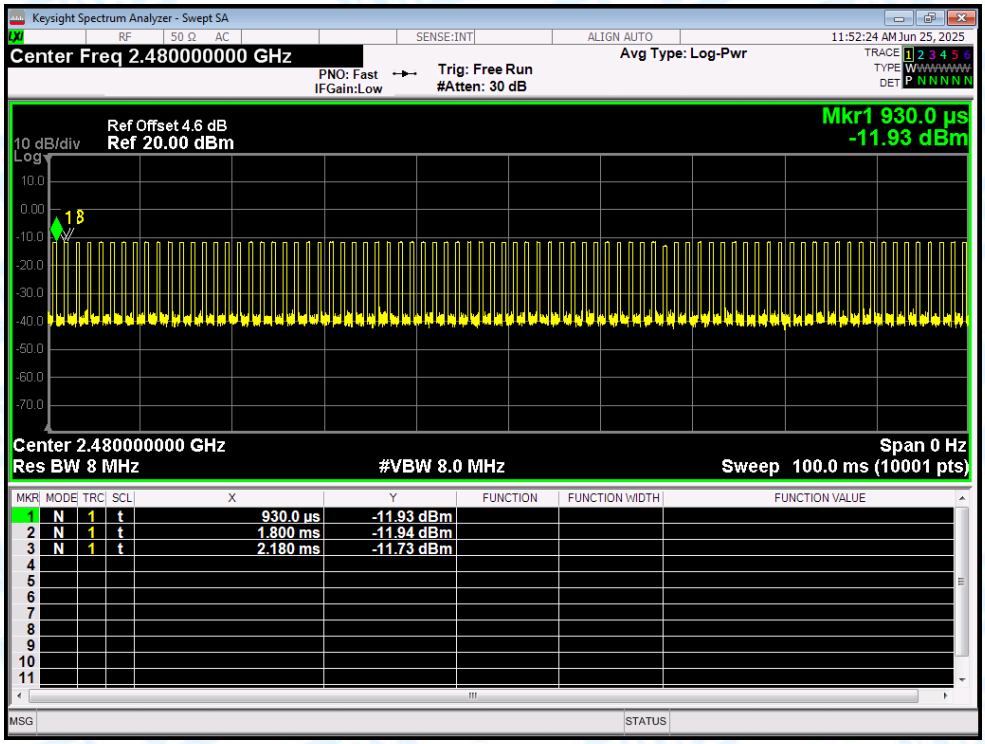
Duty Cycle NVNT 1-DH1 2402MHz Ant1



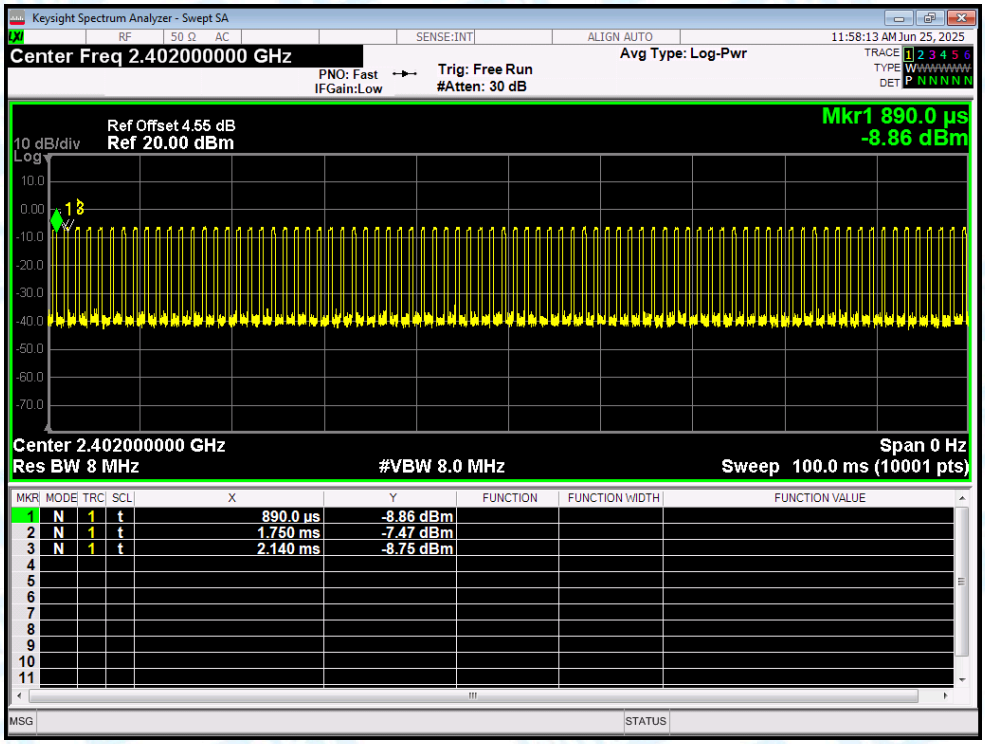
Duty Cycle NVNT 1-DH1 2441MHz Ant1



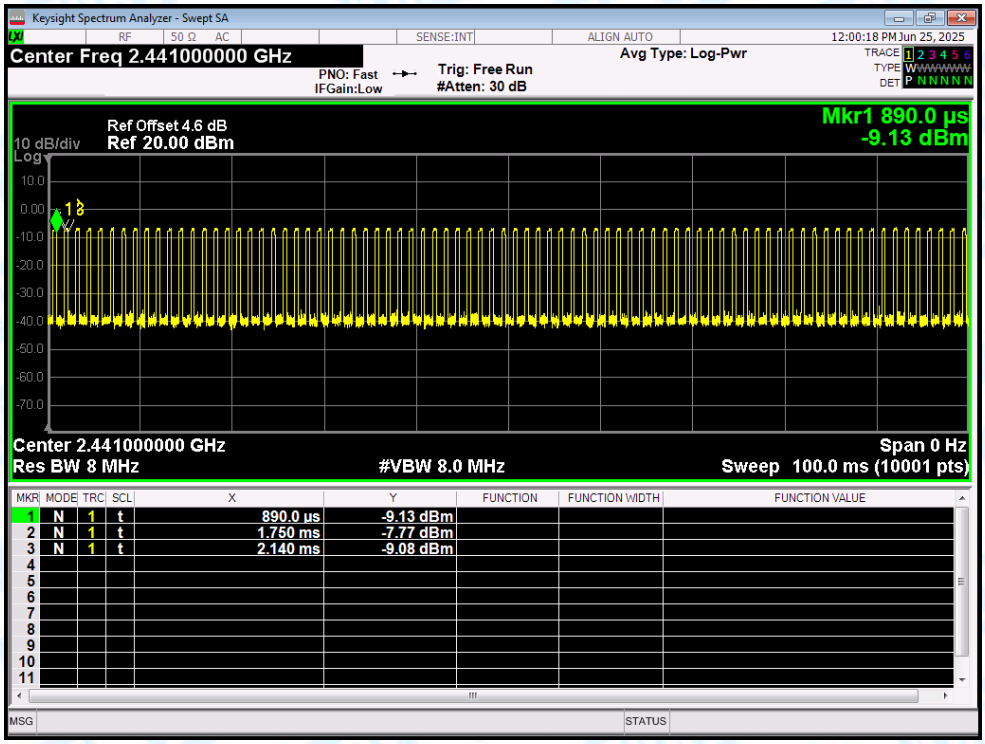
Duty Cycle NVNT 1-DH1 2480MHz Ant1



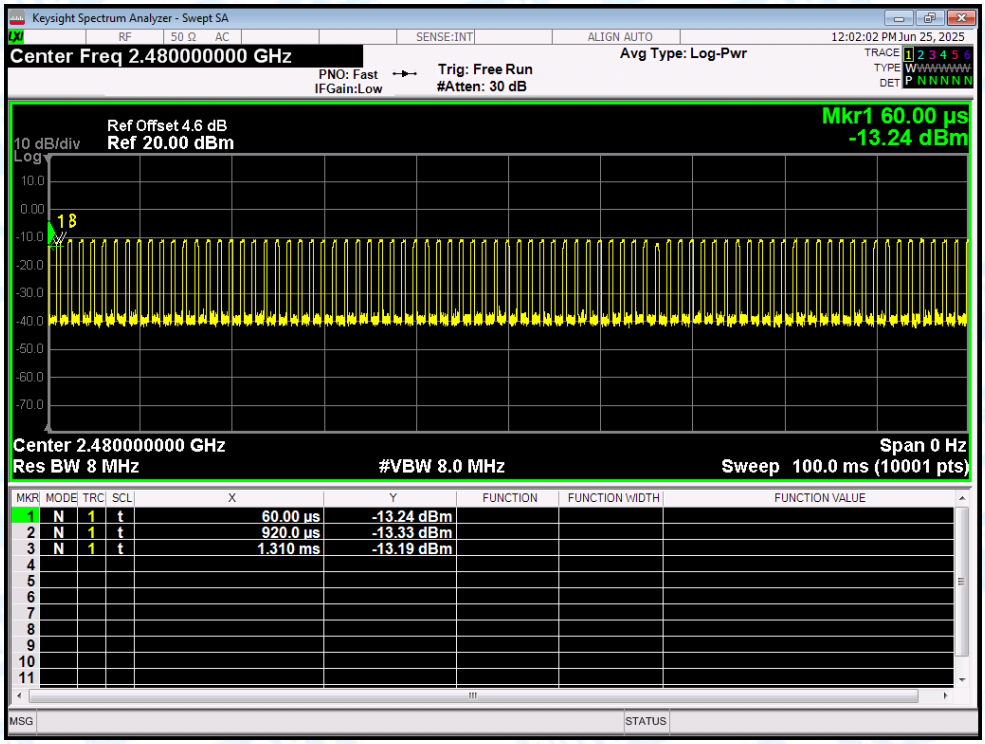
Duty Cycle NVNT 2-DH1 2402MHz Ant1



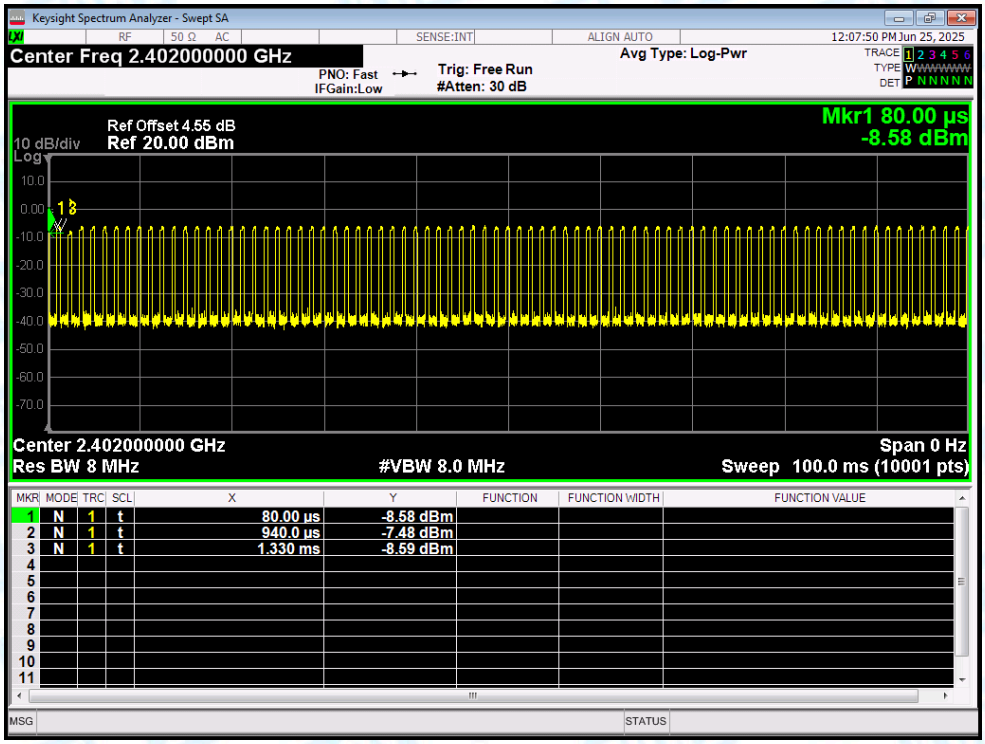
Duty Cycle NVNT 2-DH1 2441MHz Ant1



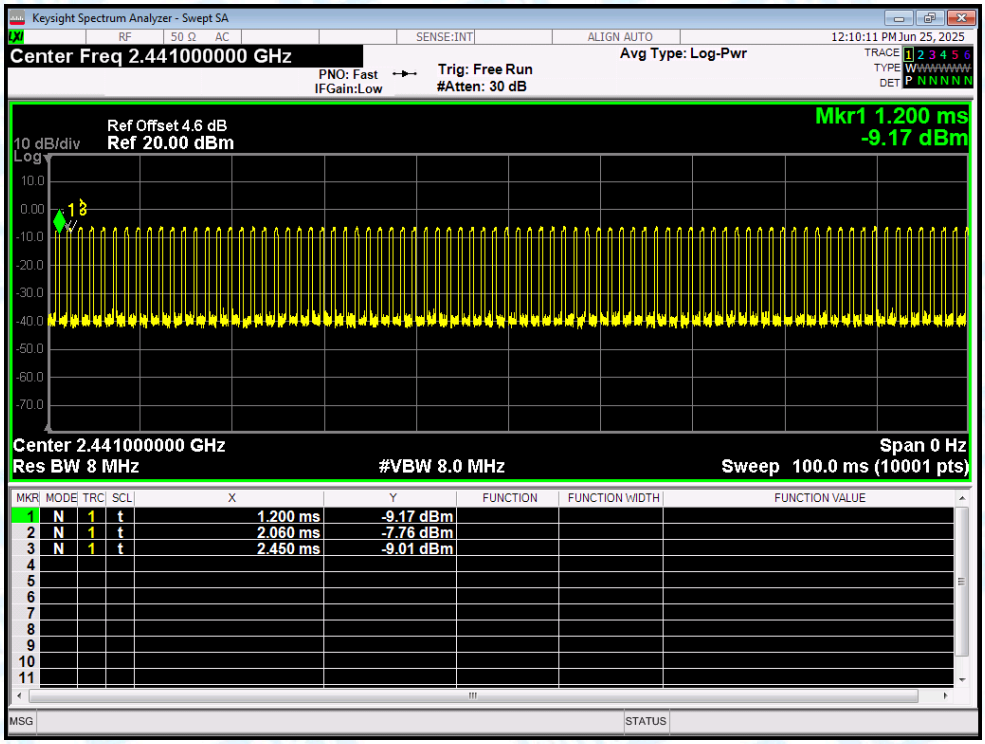
Duty Cycle NVNT 2-DH1 2480MHz Ant1



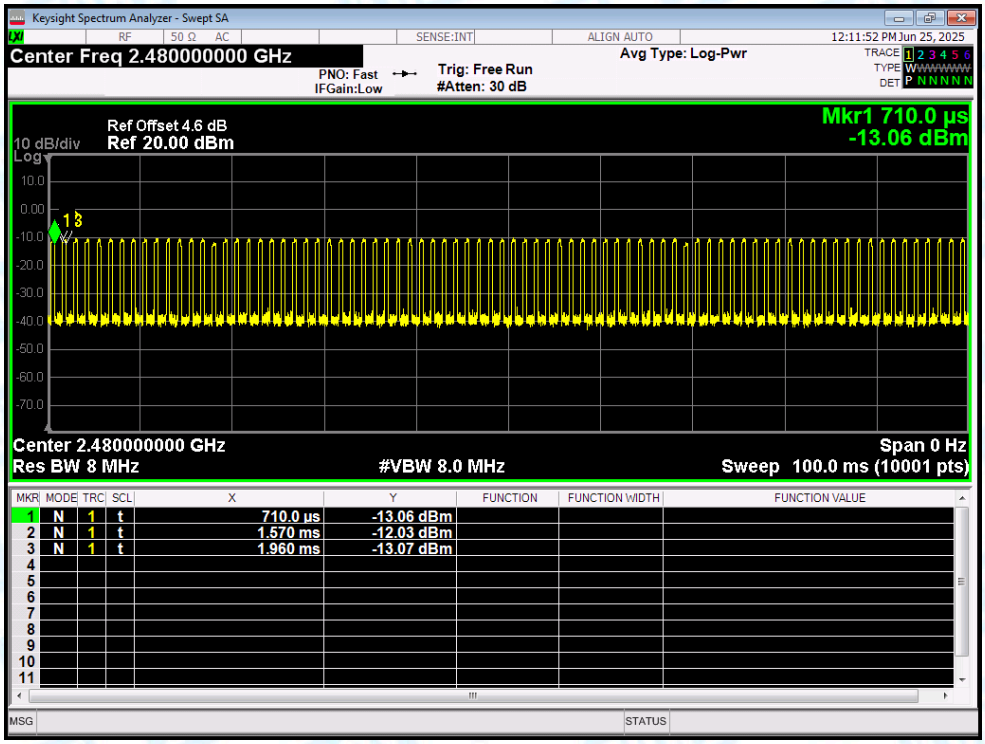
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

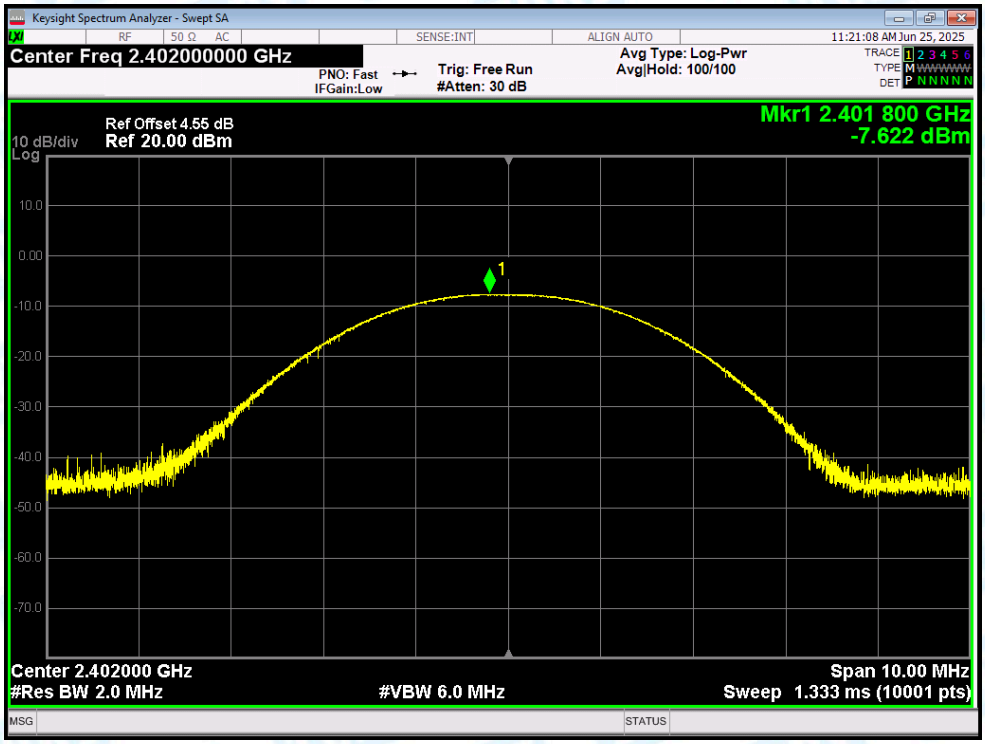


2. Maximum Conducted Output Power

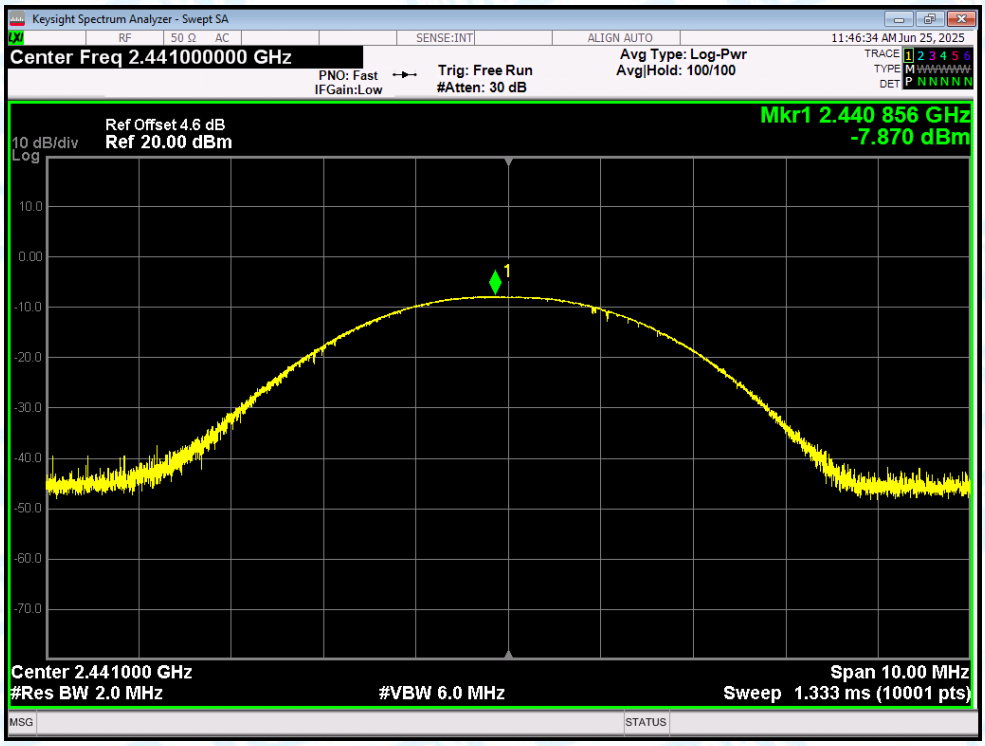
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-7.622	21	Pass
NVNT	1-DH1	2441	Ant1	-7.87	21	Pass
NVNT	1-DH1	2480	Ant1	-11.939	21	Pass
NVNT	1-DH3	2441	Ant1	-7.828	21	Pass
NVNT	1-DH5	2441	Ant1	-7.814	21	Pass
NVNT	2-DH1	2402	Ant1	-6.722	21	Pass
NVNT	2-DH1	2441	Ant1	-7.036	21	Pass
NVNT	2-DH1	2480	Ant1	-11.204	21	Pass
NVNT	2-DH3	2441	Ant1	-6.998	21	Pass
NVNT	2-DH5	2441	Ant1	-7.016	21	Pass
NVNT	3-DH1	2402	Ant1	-7.884	21	Pass
NVNT	3-DH1	2441	Ant1	-6.531	21	Pass
NVNT	3-DH1	2480	Ant1	-10.648	21	Pass
NVNT	3-DH3	2441	Ant1	-6.534	21	Pass
NVNT	3-DH5	2441	Ant1	-6.645	21	Pass

Test Graphs

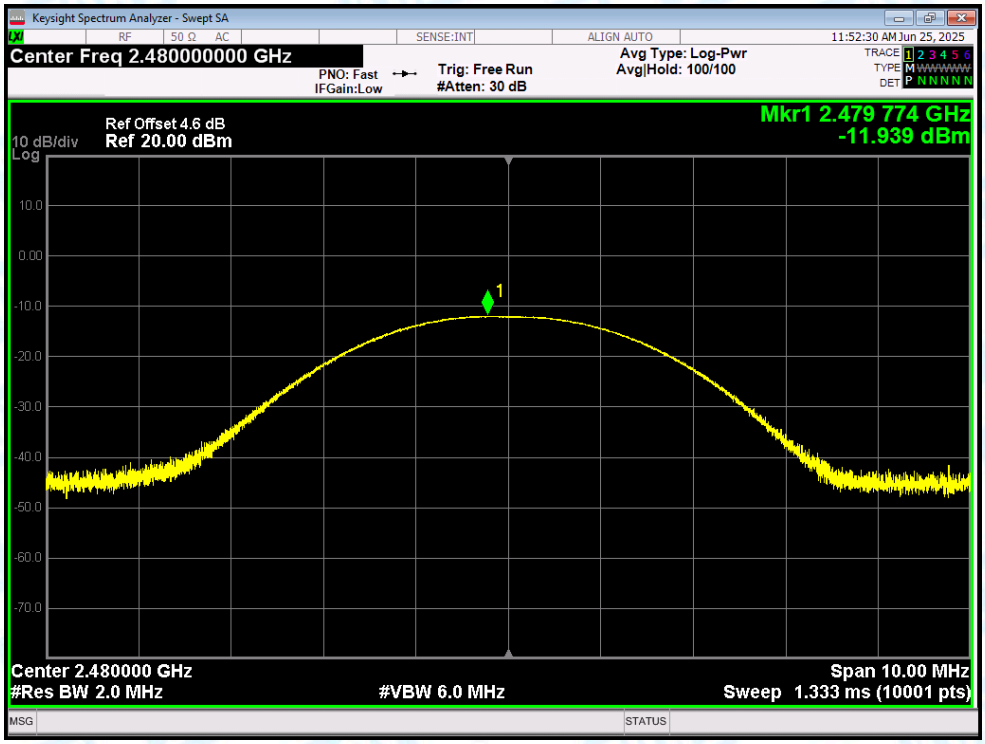
Power NVNT 1-DH1 2402MHz Ant1



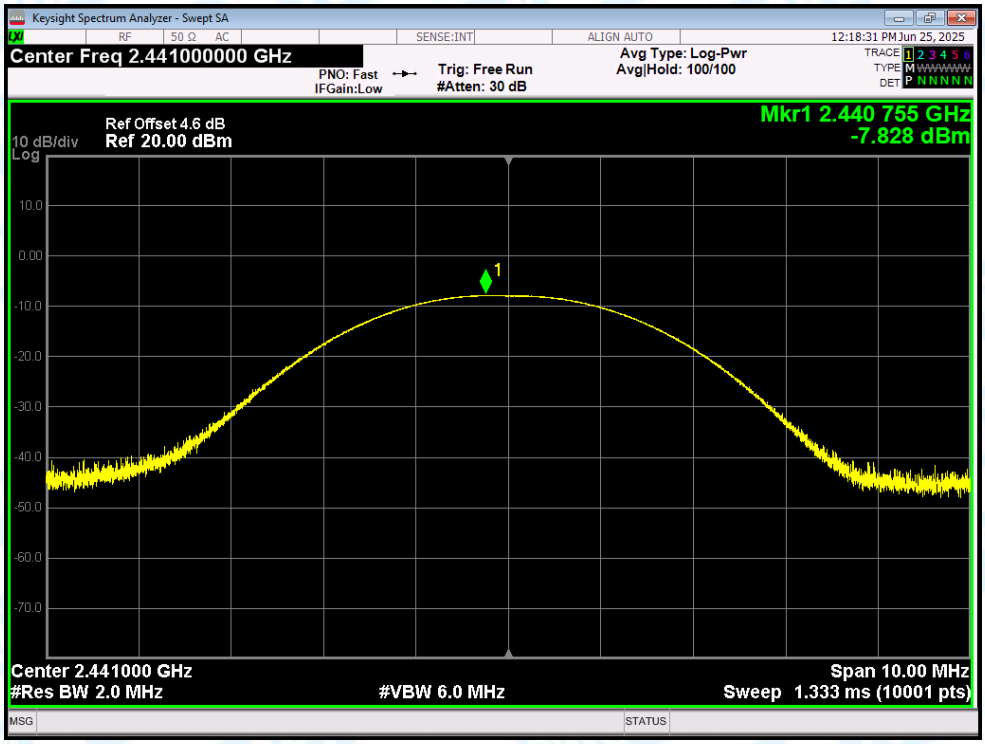
Power NVNT 1-DH1 2441MHz Ant1



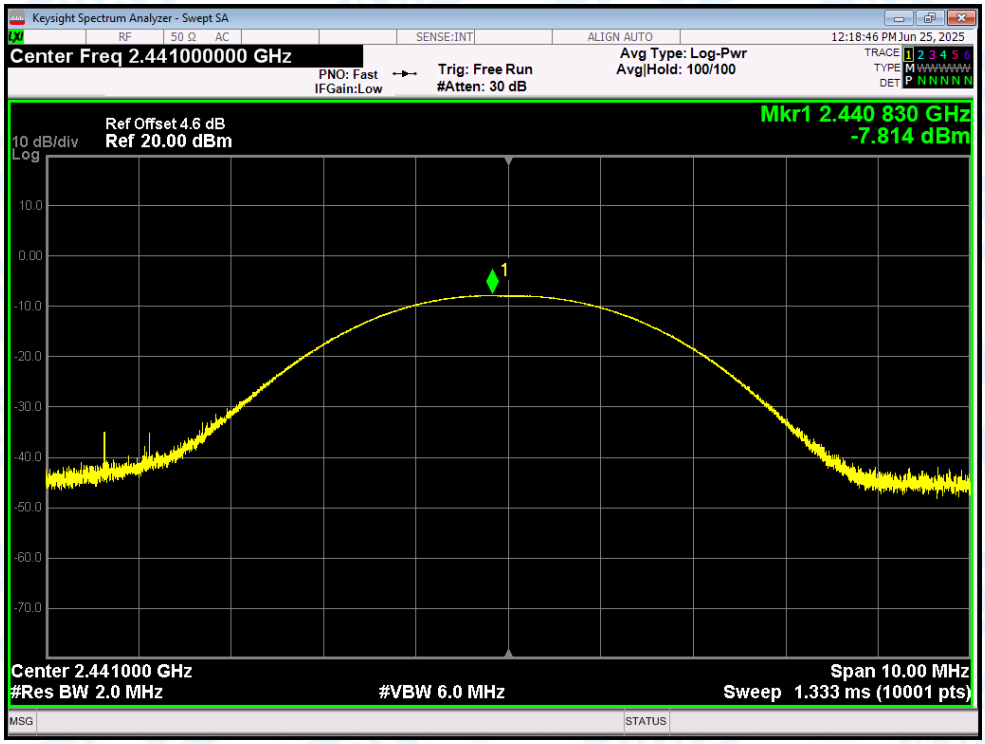
Power NVNT 1-DH1 2480MHz Ant1



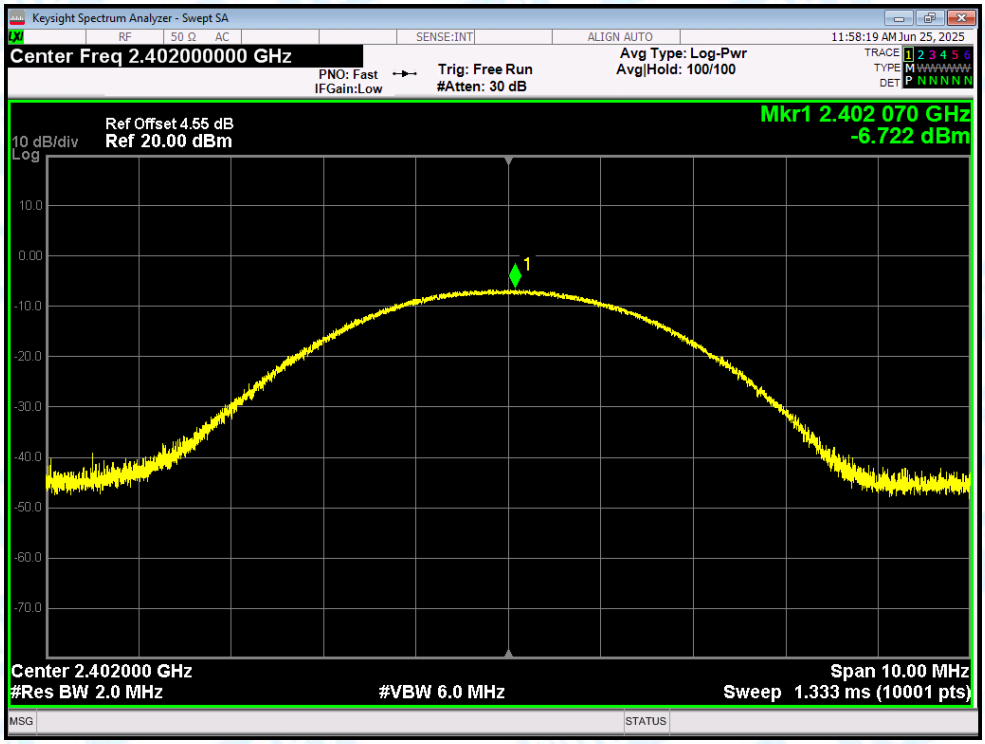
Power NVNT 1-DH3 2441MHz Ant1



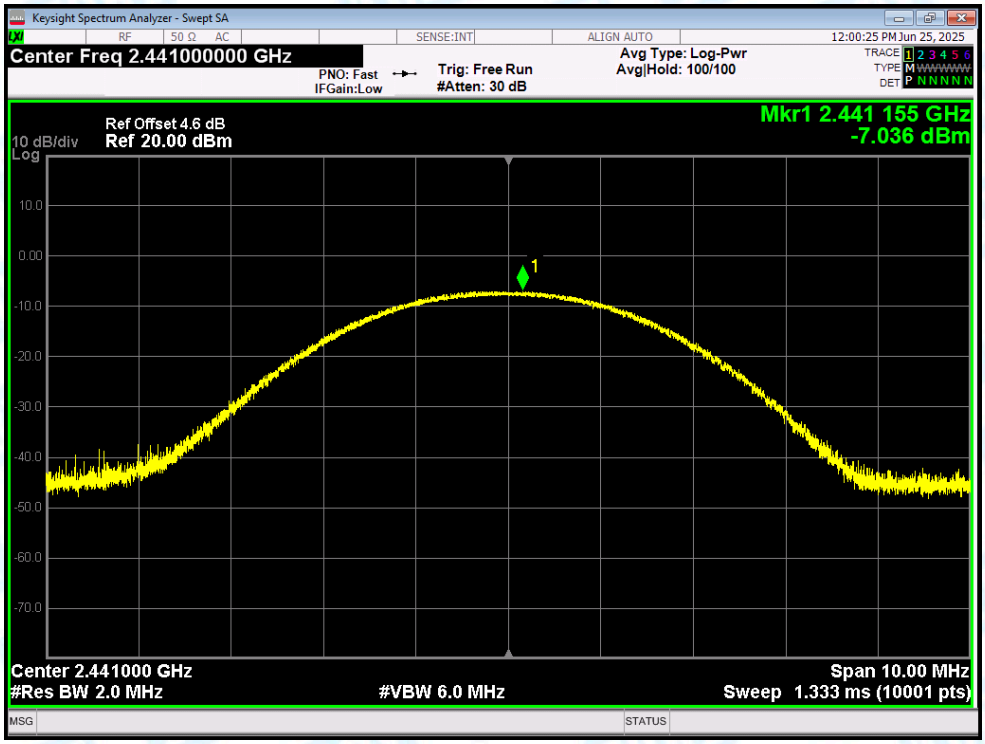
Power NVNT 1-DH5 2441MHz Ant1



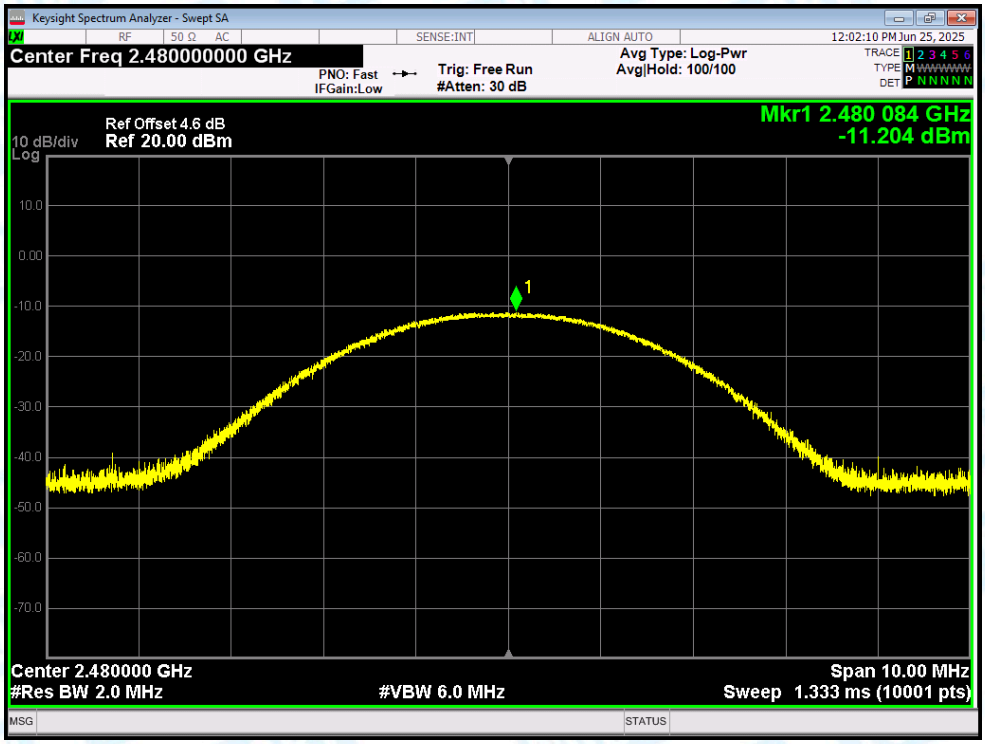
Power NVNT 2-DH1 2402MHz Ant1



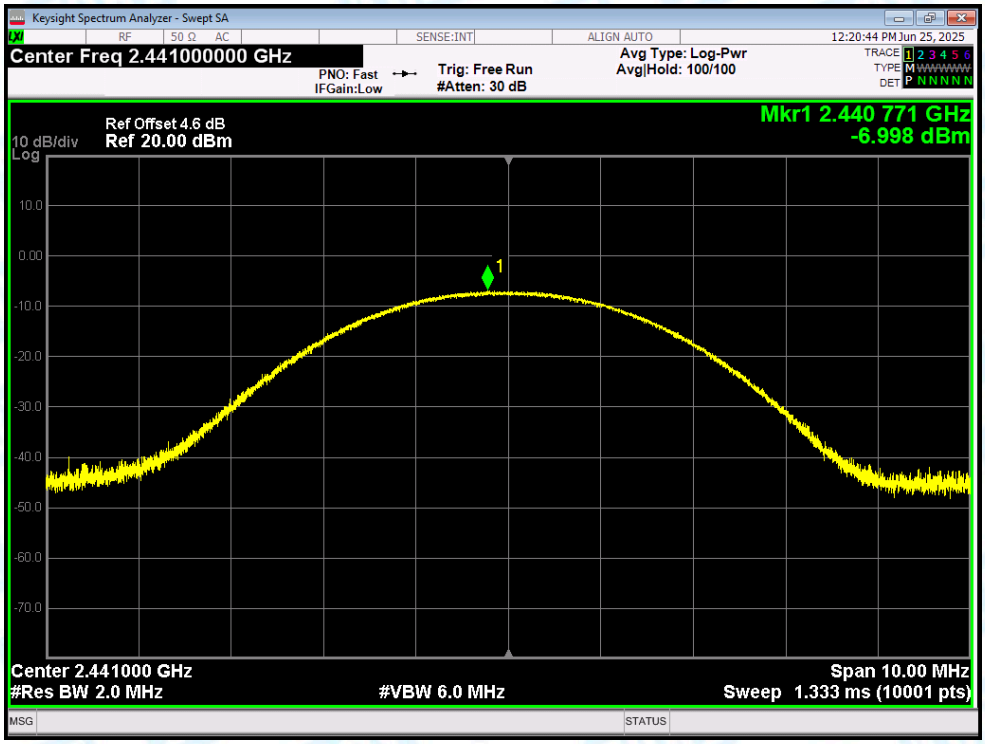
Power NVNT 2-DH1 2441MHz Ant1



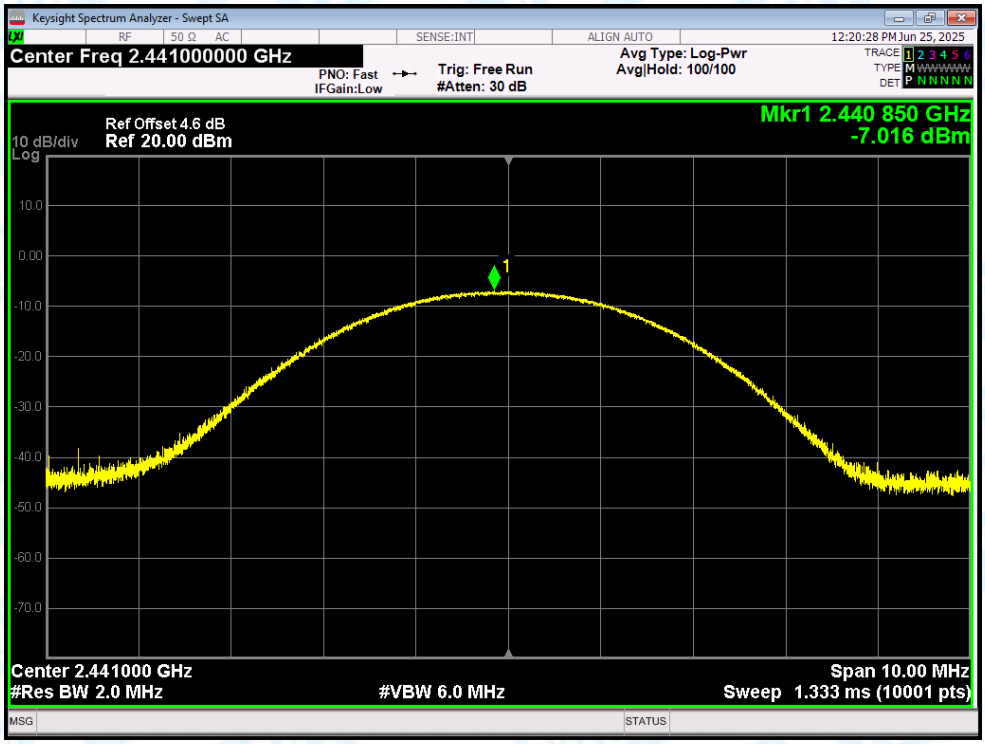
Power NVNT 2-DH1 2480MHz Ant1



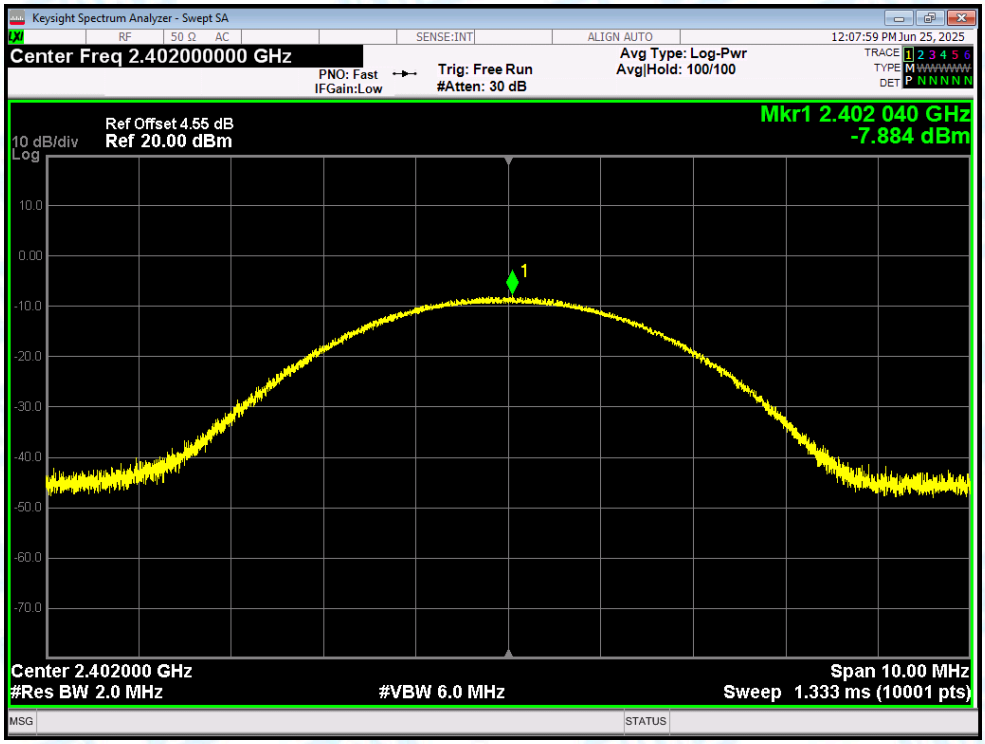
Power NVNT 2-DH3 2441MHz Ant1



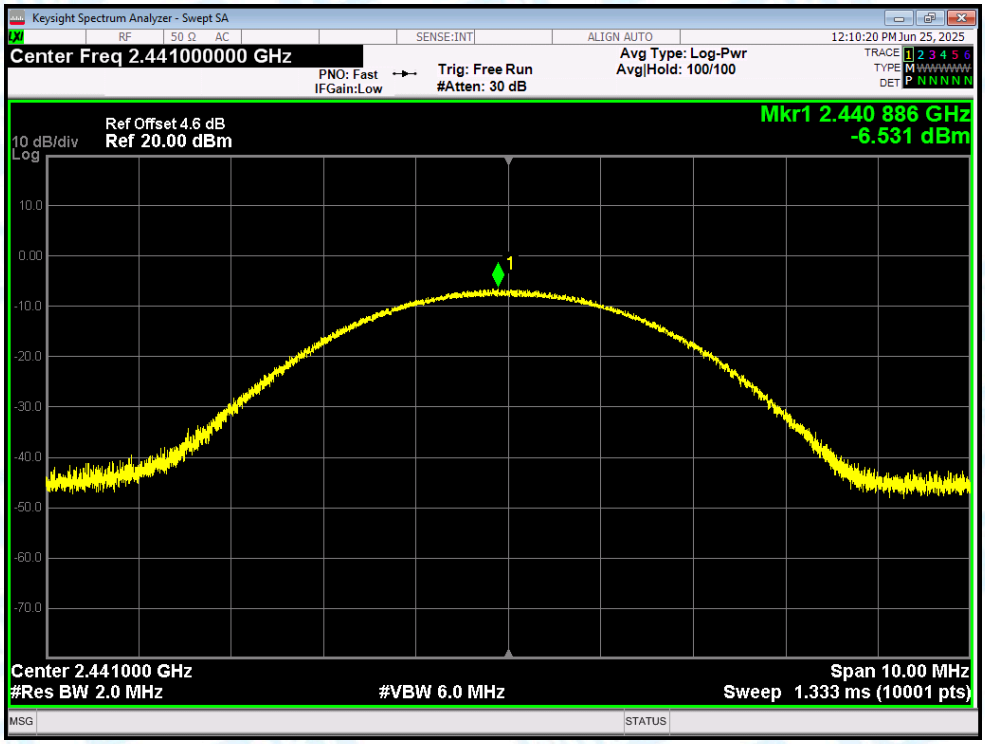
Power NVNT 2-DH5 2441MHz Ant1



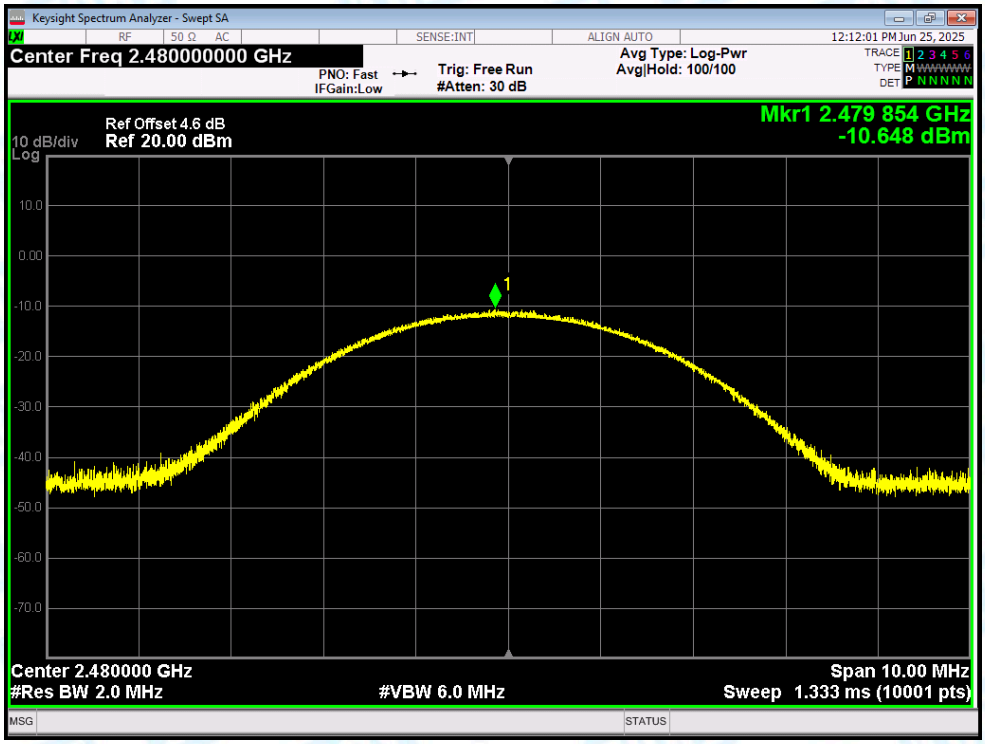
Power NVNT 3-DH1 2402MHz Ant1



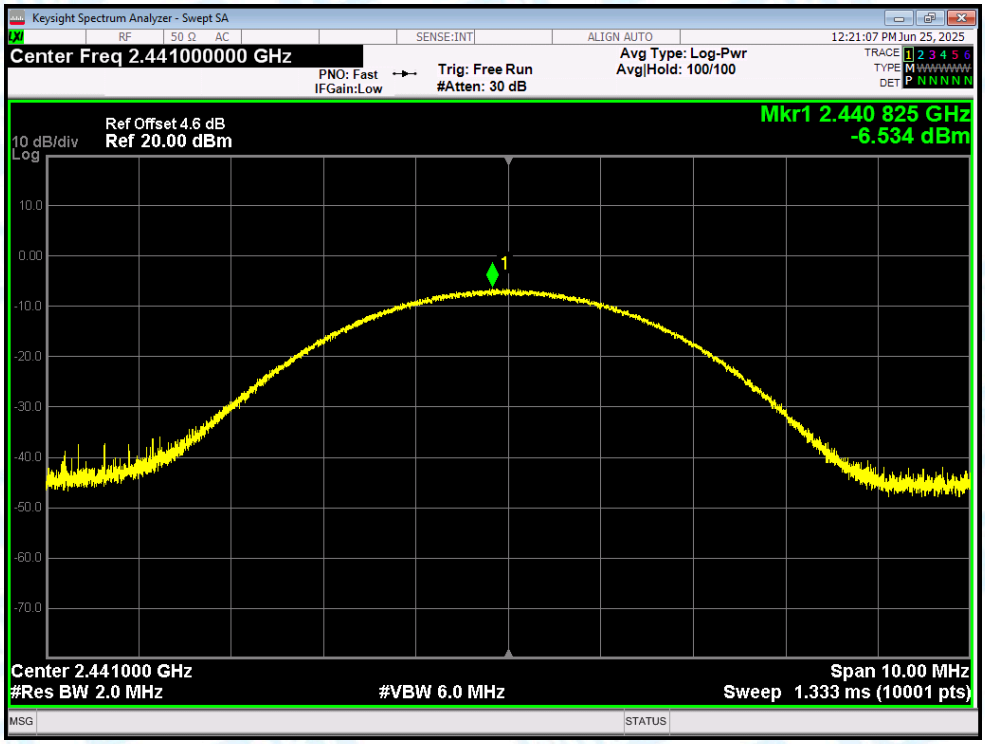
Power NVNT 3-DH1 2441MHz Ant1



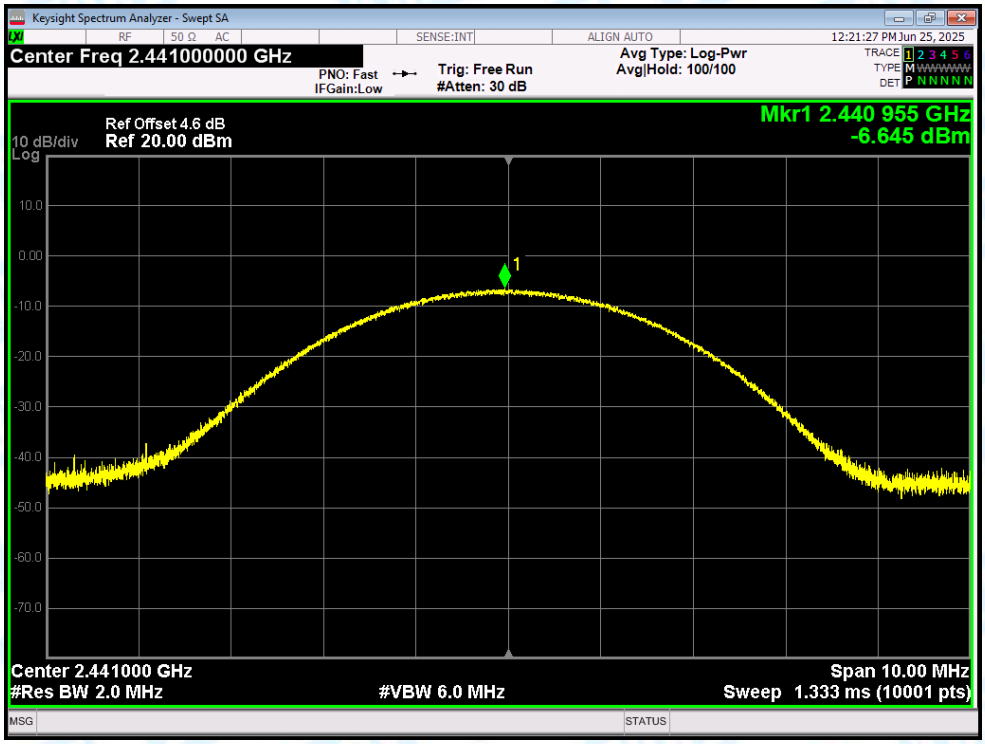
Power NVNT 3-DH1 2480MHz Ant1



Power NVNT 3-DH3 2441MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1

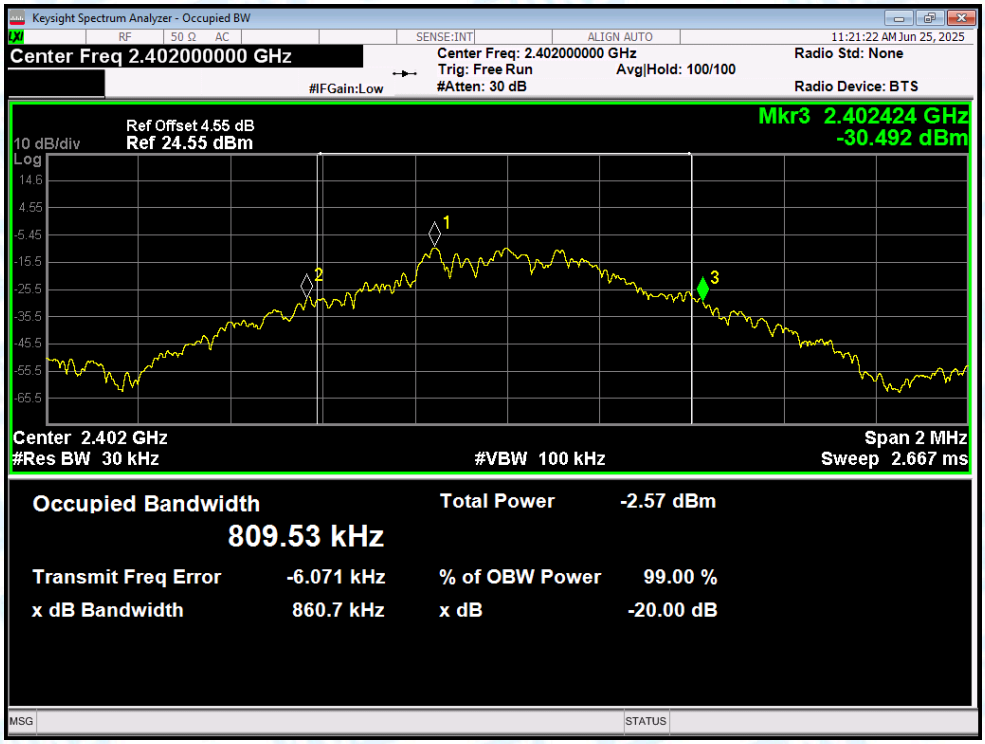


3. -20dB Bandwidth

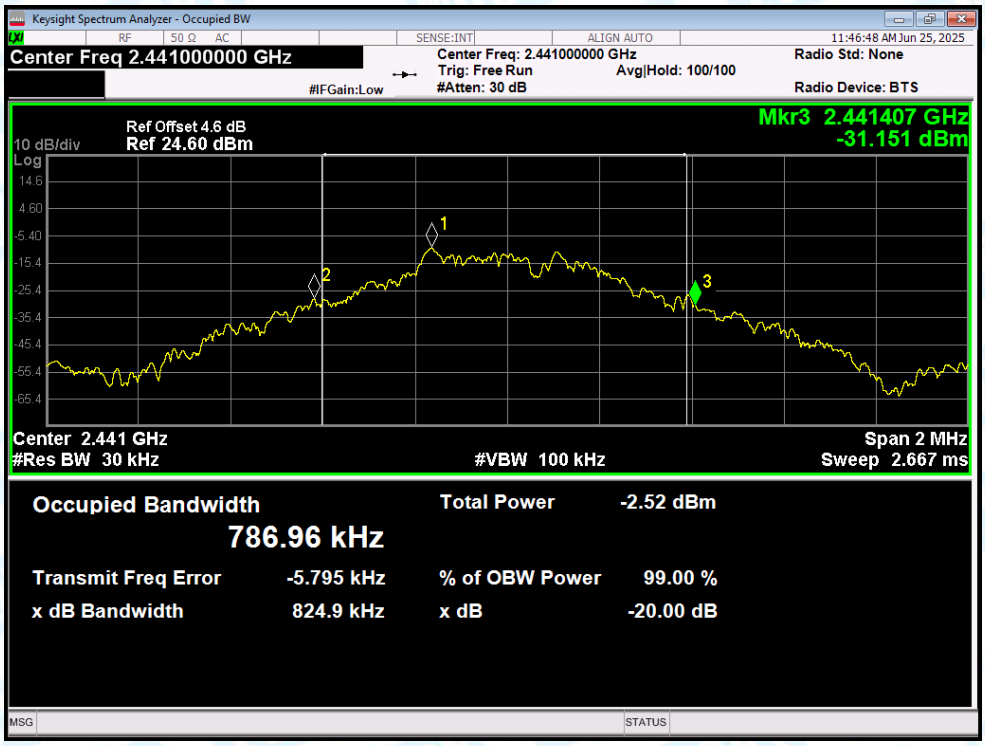
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.82	0	Pass
NVNT	1-DH1	2480	Ant1	0.92	0	Pass
NVNT	2-DH1	2402	Ant1	1.22	0	Pass
NVNT	2-DH1	2441	Ant1	1.23	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.22	0	Pass
NVNT	3-DH1	2480	Ant1	1.23	0	Pass

Test Graphs

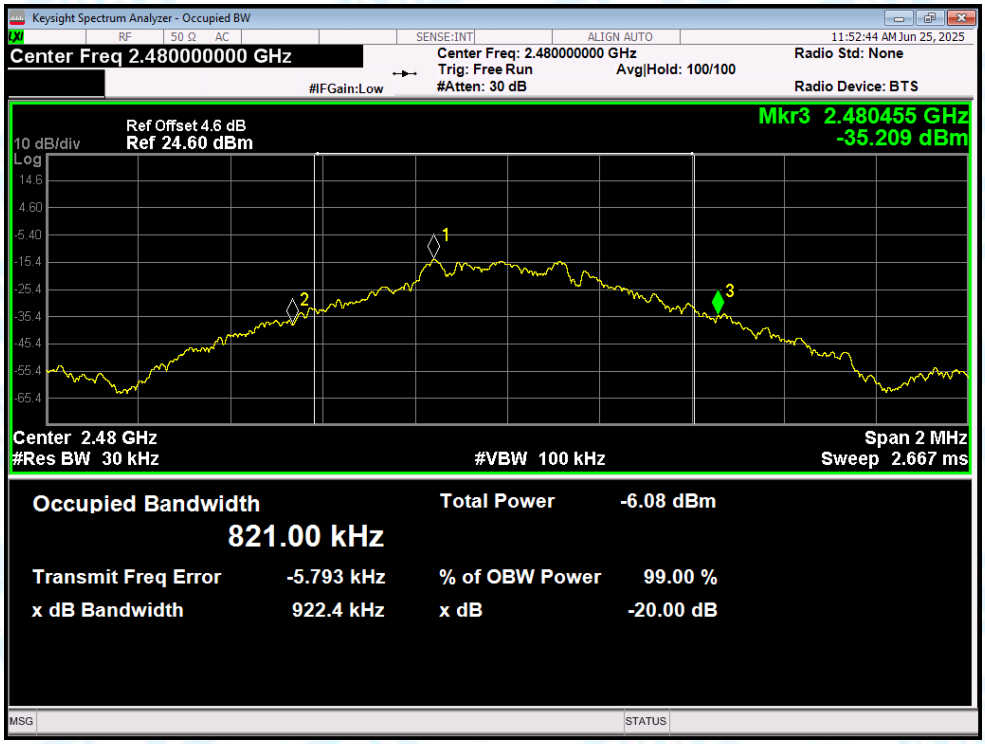
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



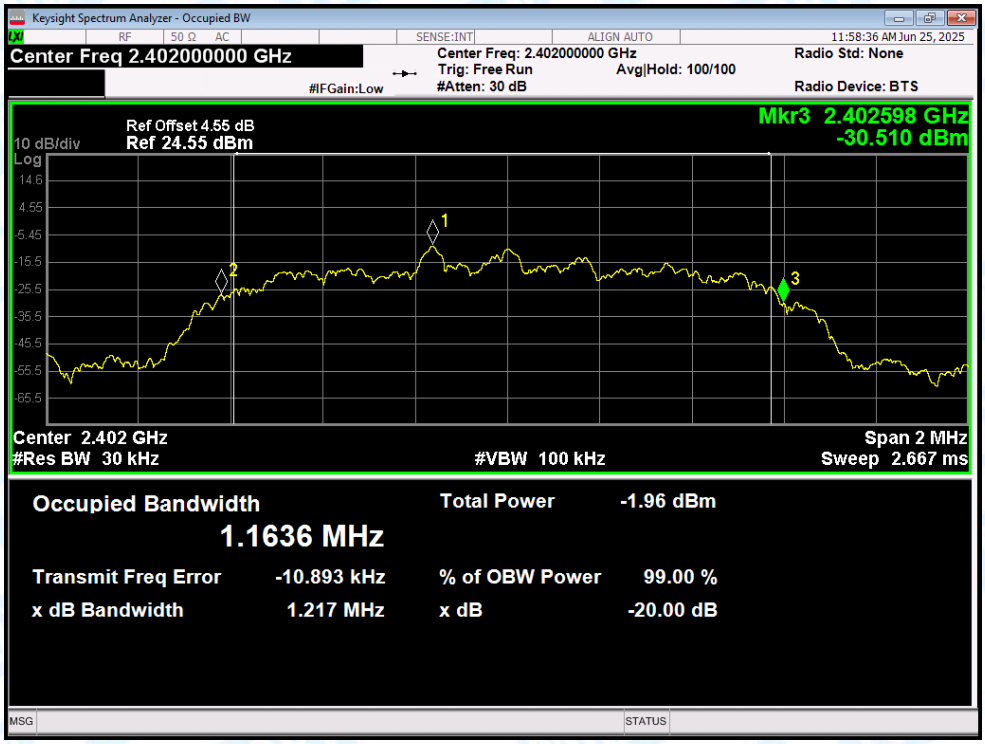
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



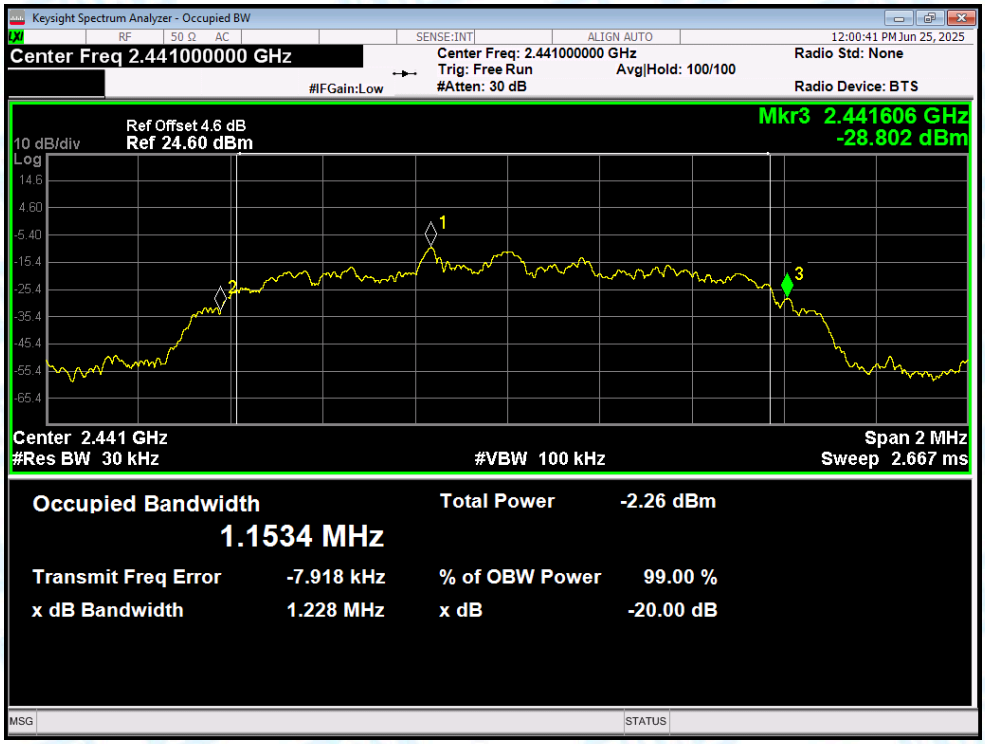
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



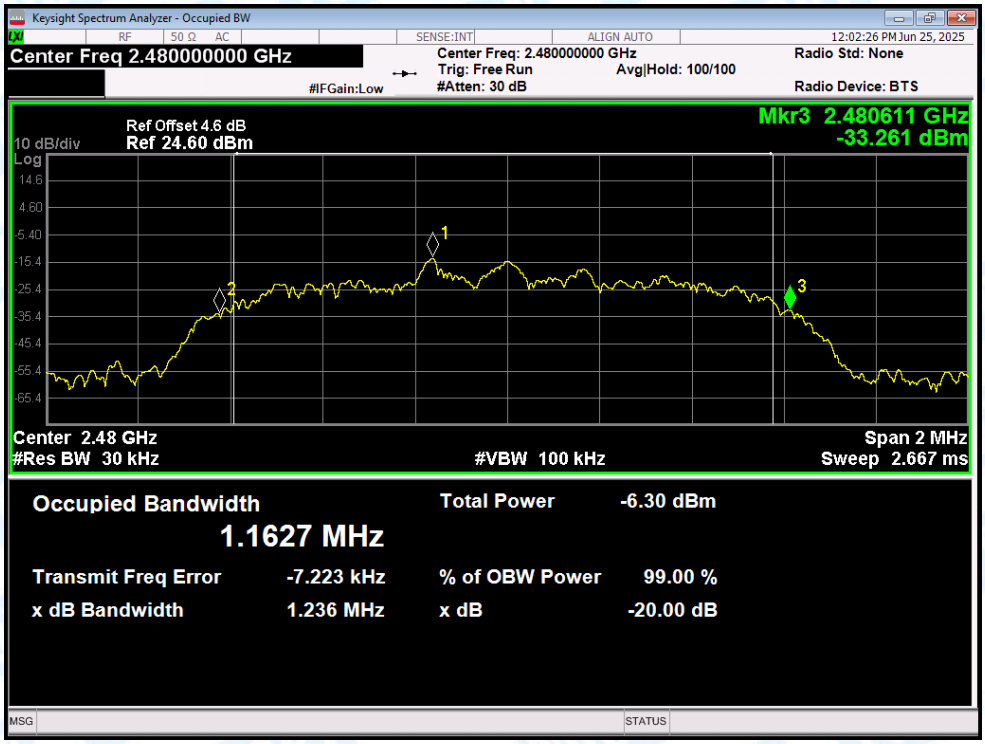
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



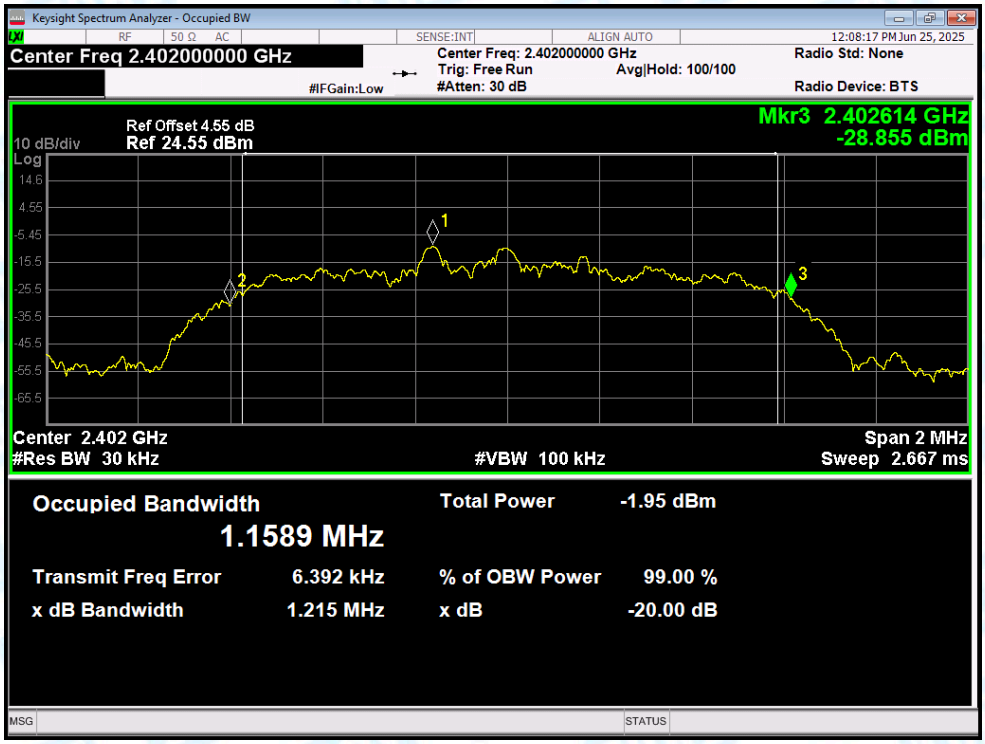
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



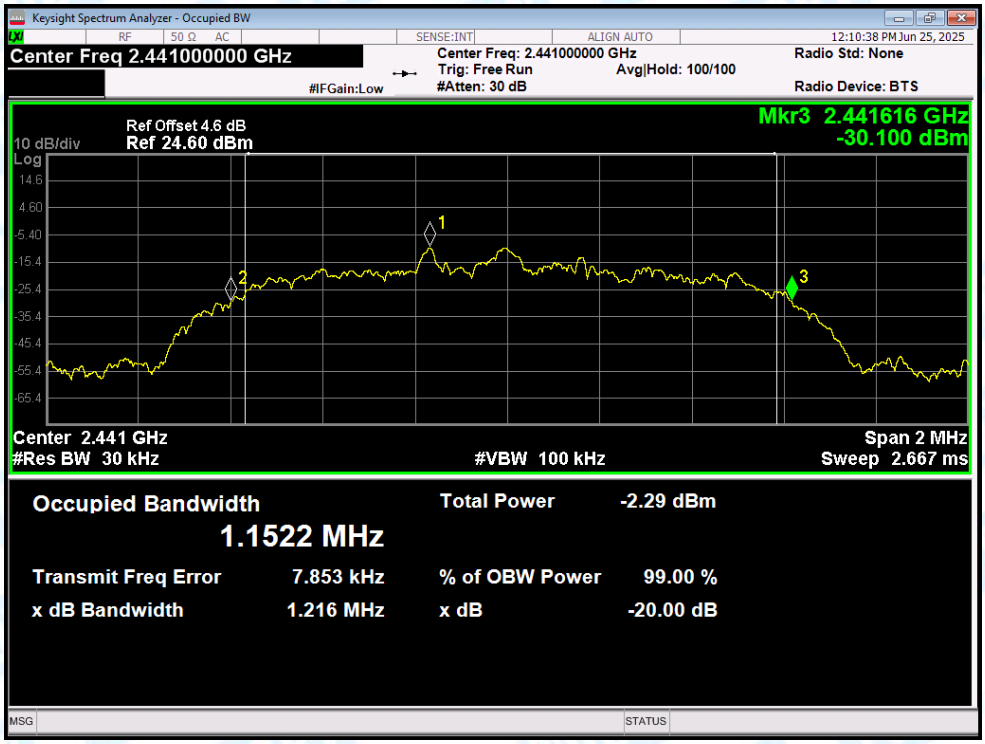
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



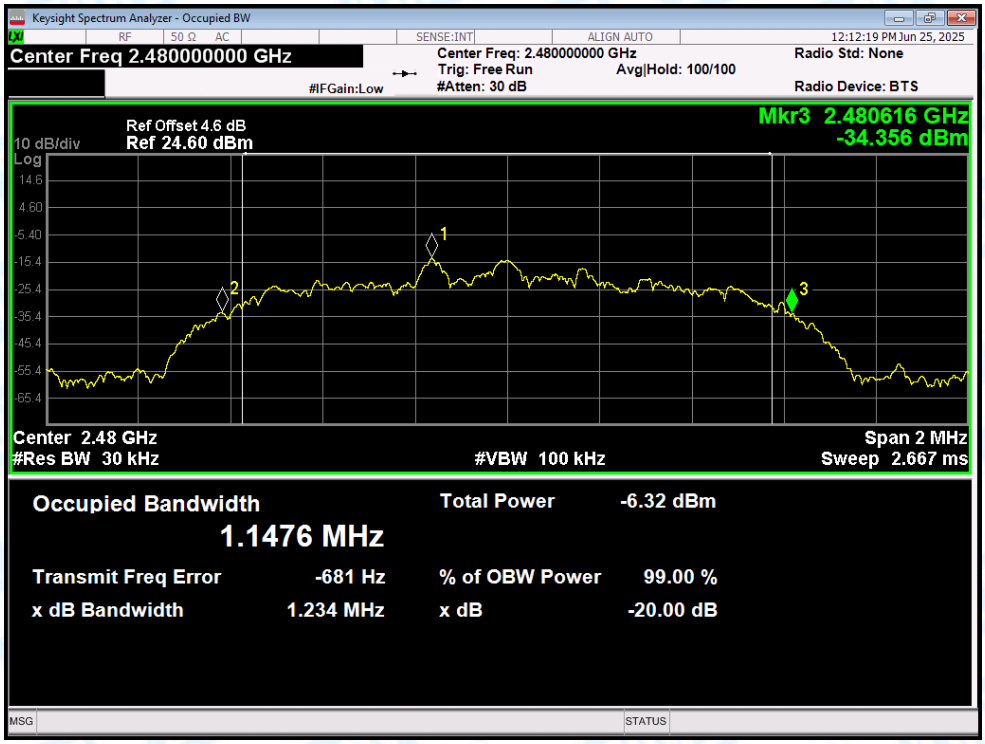
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

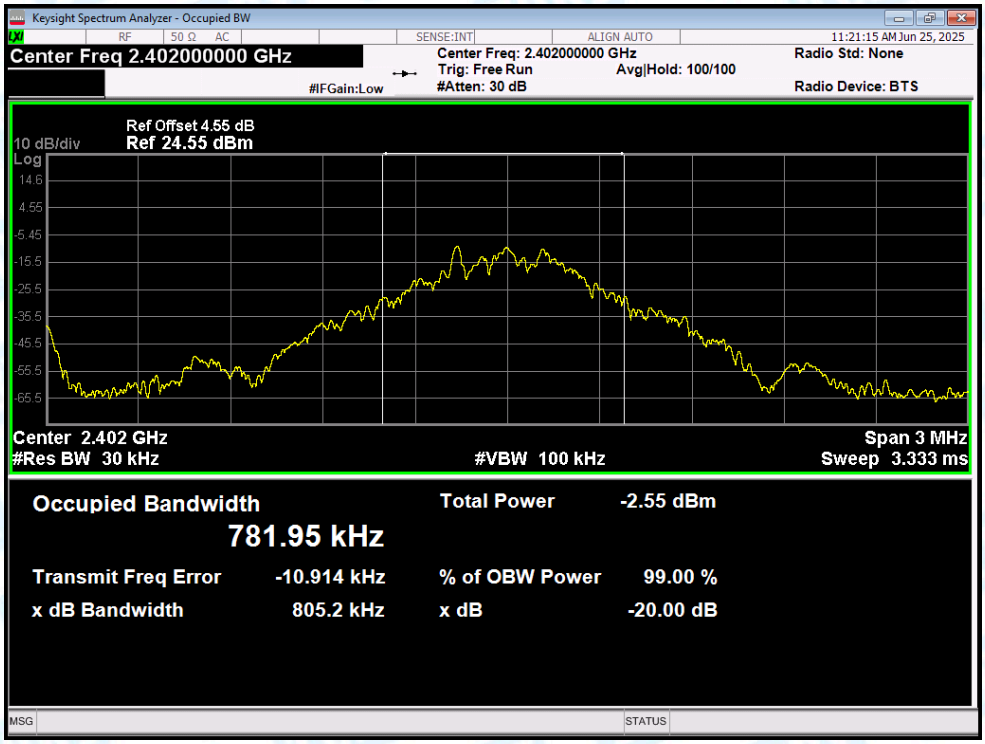


4. Occupied Channel Bandwidth

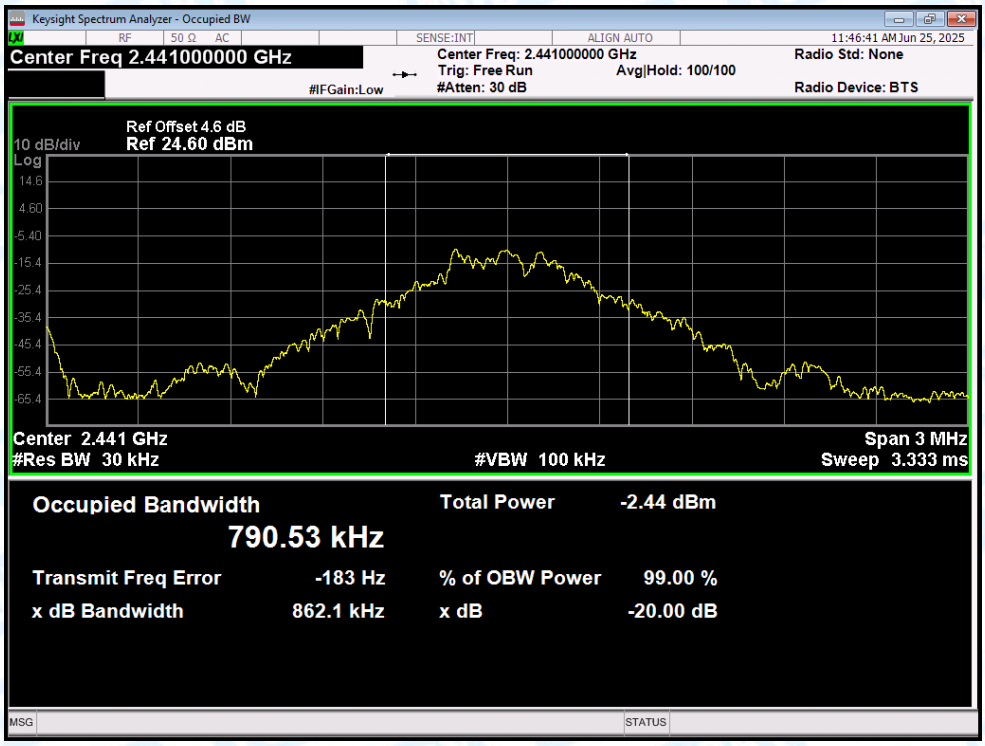
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.782
NVNT	1-DH1	2441	Ant1	0.791
NVNT	1-DH1	2480	Ant1	0.821
NVNT	2-DH1	2402	Ant1	1.175
NVNT	2-DH1	2441	Ant1	1.157
NVNT	2-DH1	2480	Ant1	1.153
NVNT	3-DH1	2402	Ant1	1.157
NVNT	3-DH1	2441	Ant1	1.154
NVNT	3-DH1	2480	Ant1	1.163

Test Graphs

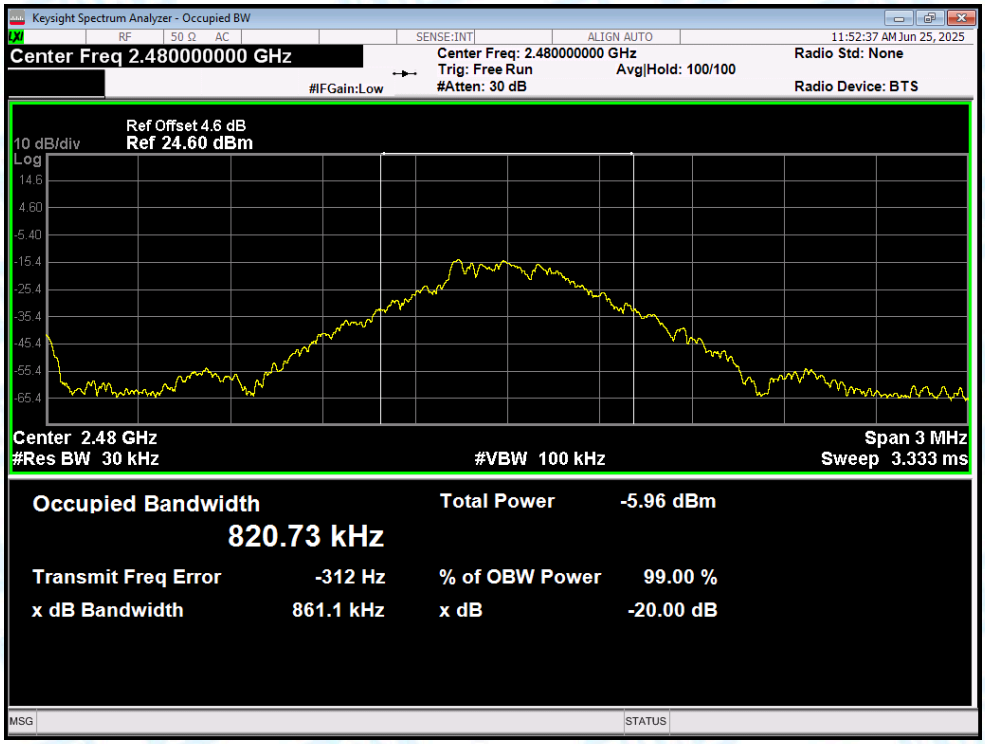
OBW NVNT 1-DH1 2402MHz Ant1



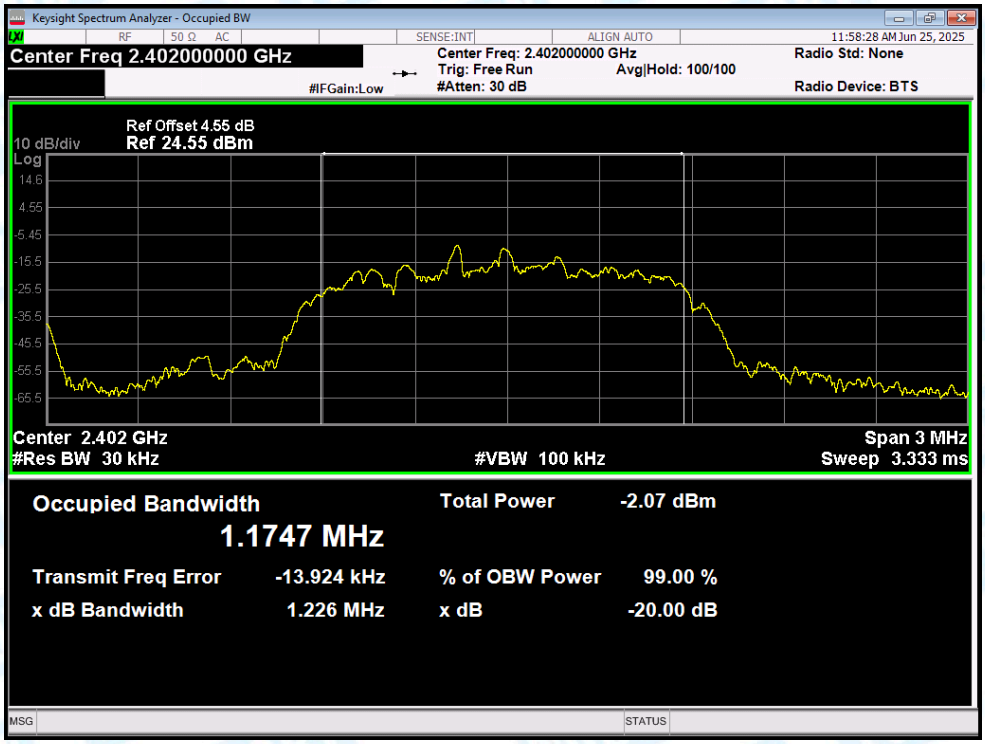
OBW NVNT 1-DH1 2441MHz Ant1



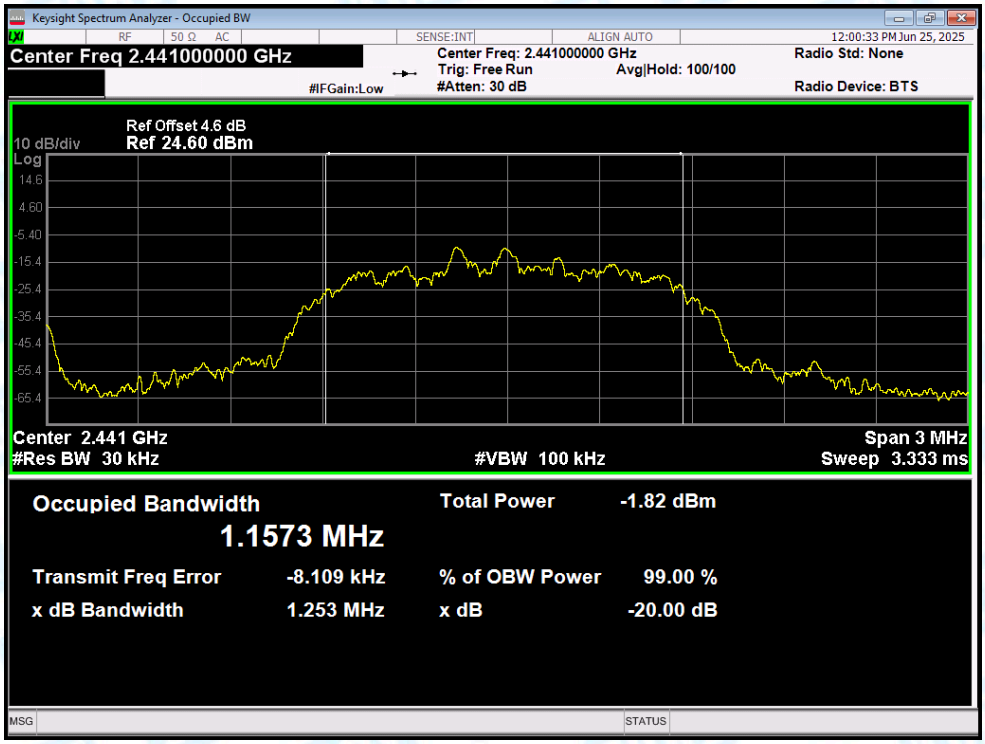
OBW NVNT 1-DH1 2480MHz Ant1



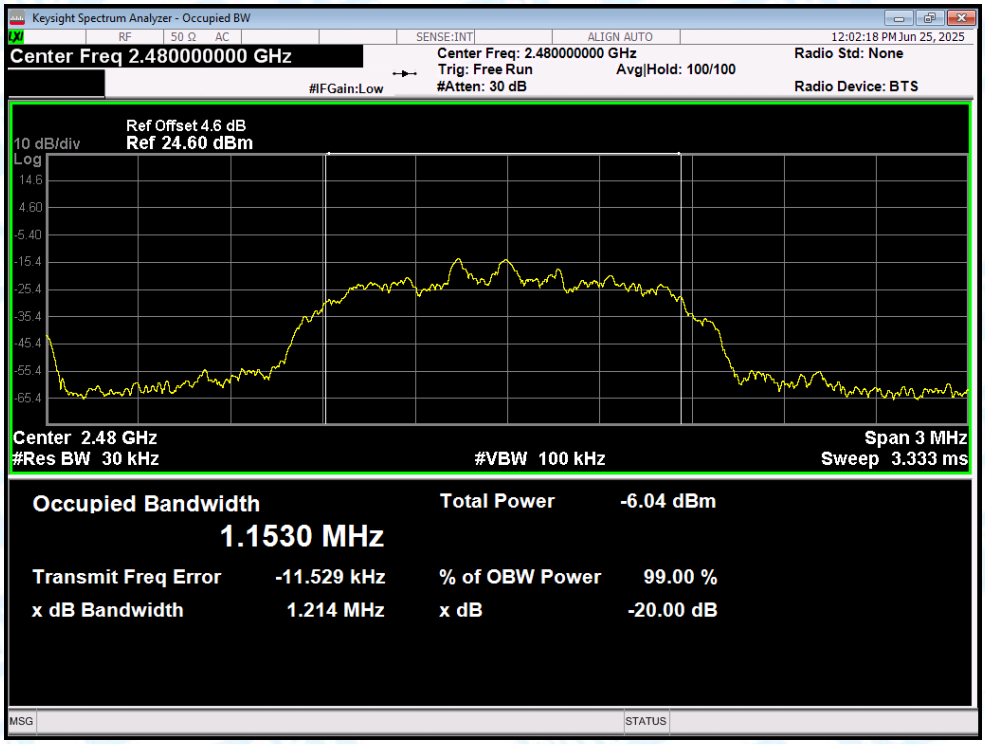
OBW NVNT 2-DH1 2402MHz Ant1



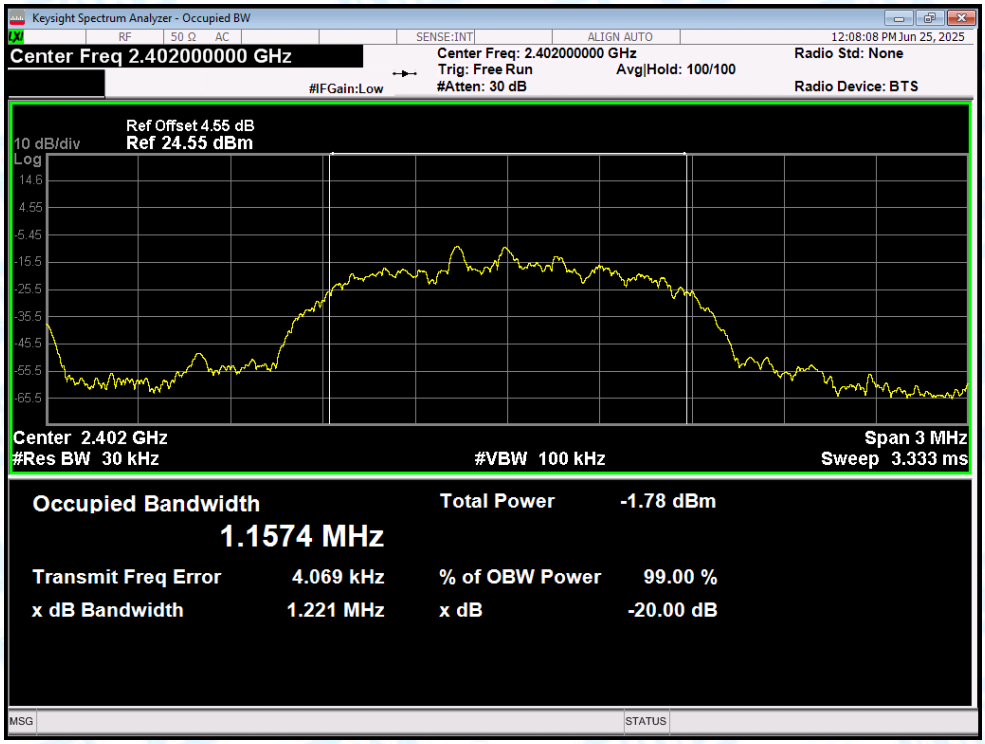
OBW NVNT 2-DH1 2441MHz Ant1



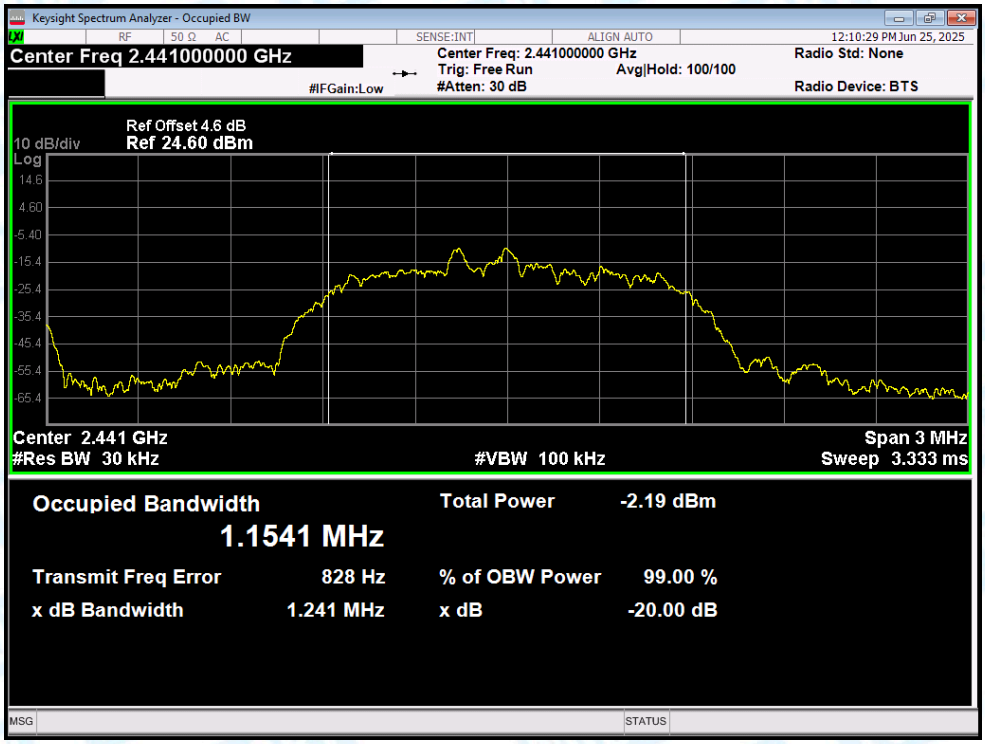
OBW NVNT 2-DH1 2480MHz Ant1



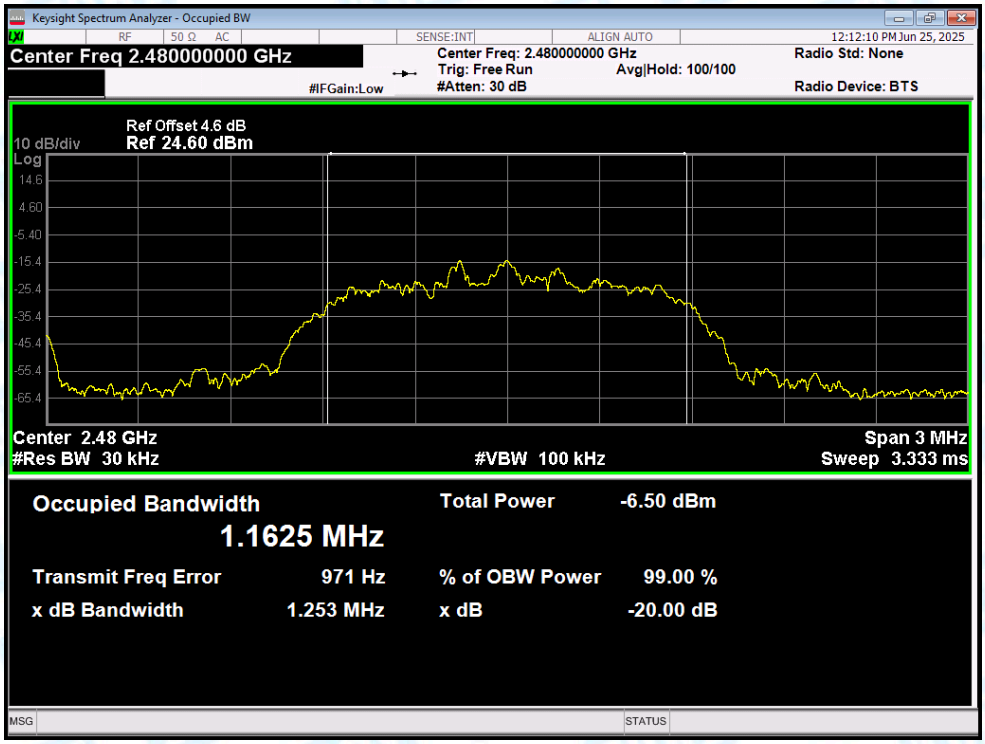
OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



OBW NVNT 3-DH1 2480MHz Ant1

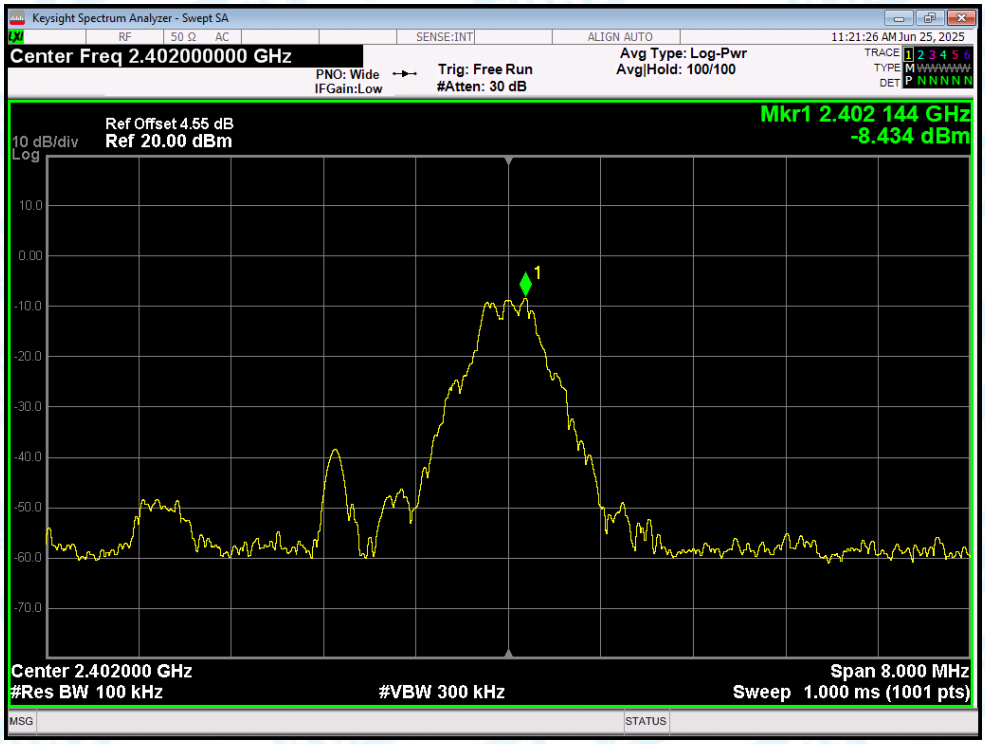


5. Band Edge

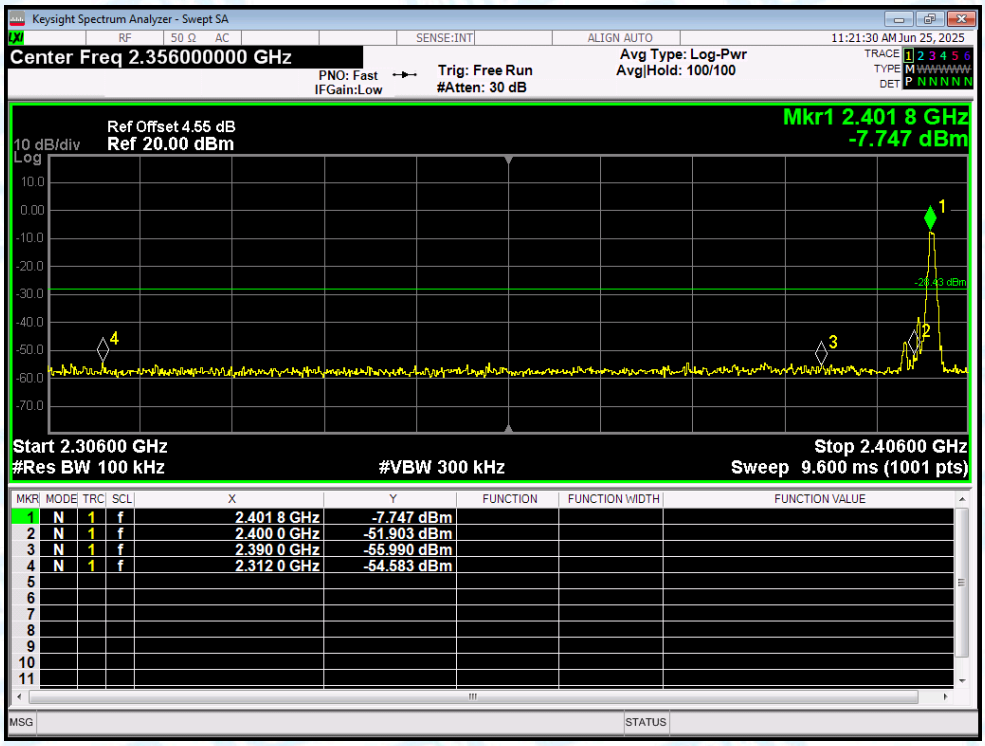
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-46.15	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-42.24	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-46.66	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-41.03	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-45.66	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-42.55	-20	Pass

Test Graphs

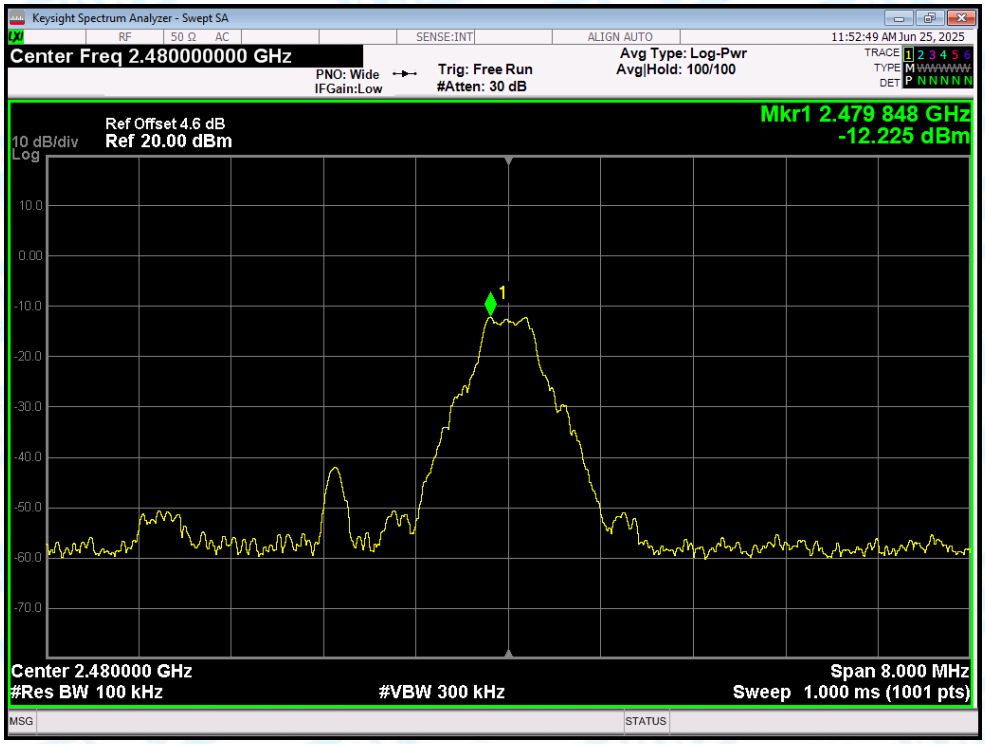
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



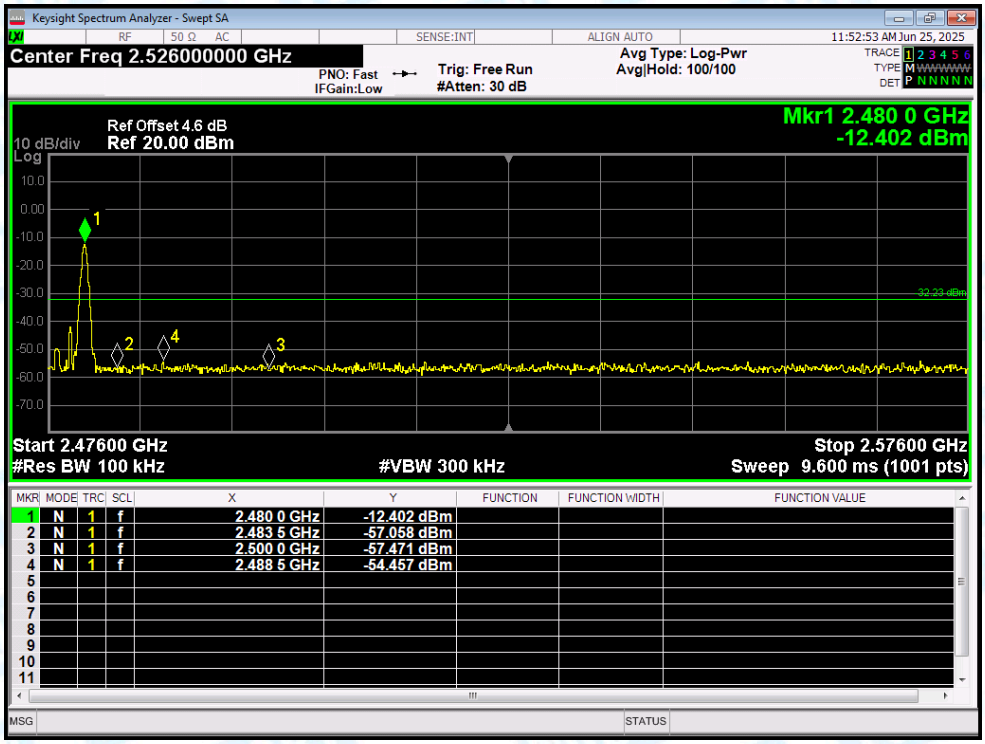
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



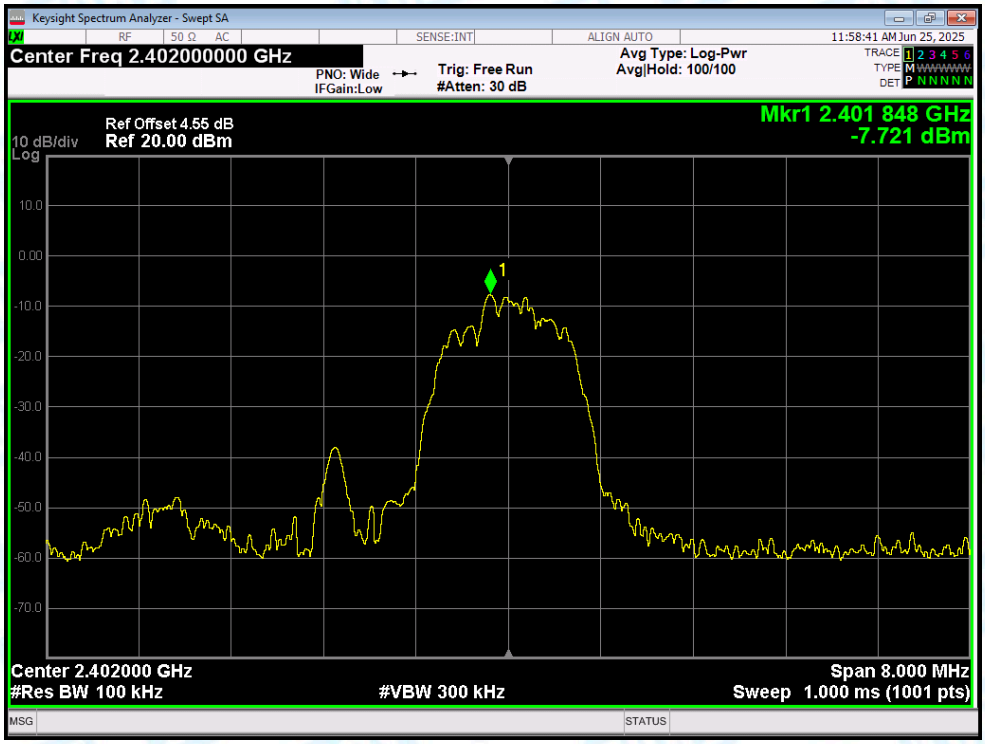
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



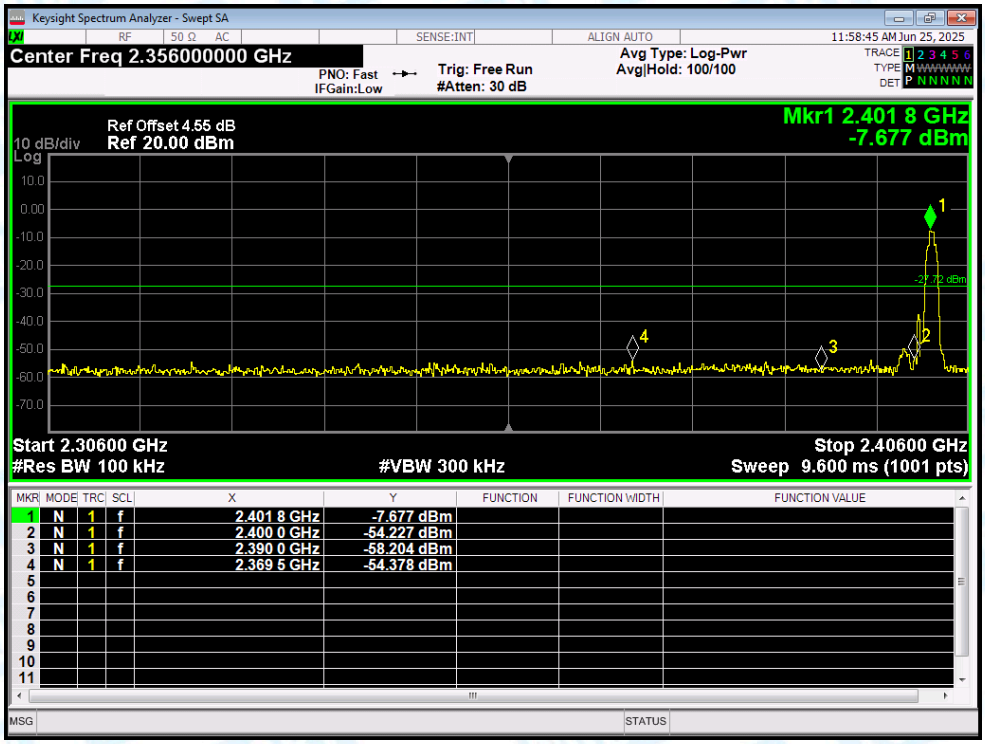
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



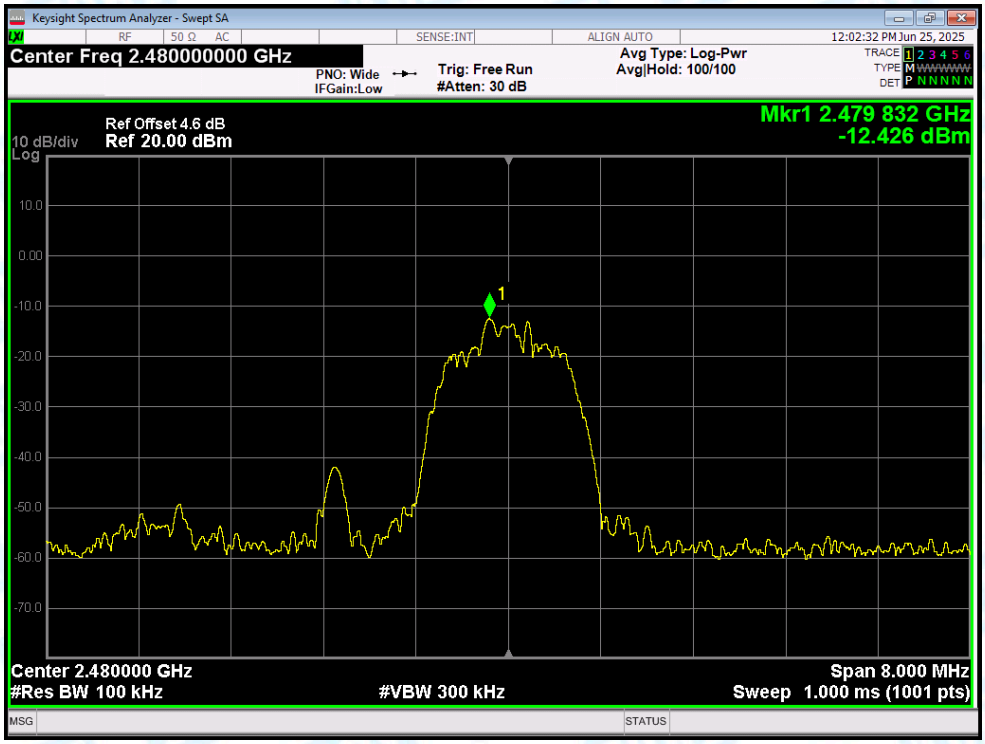
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



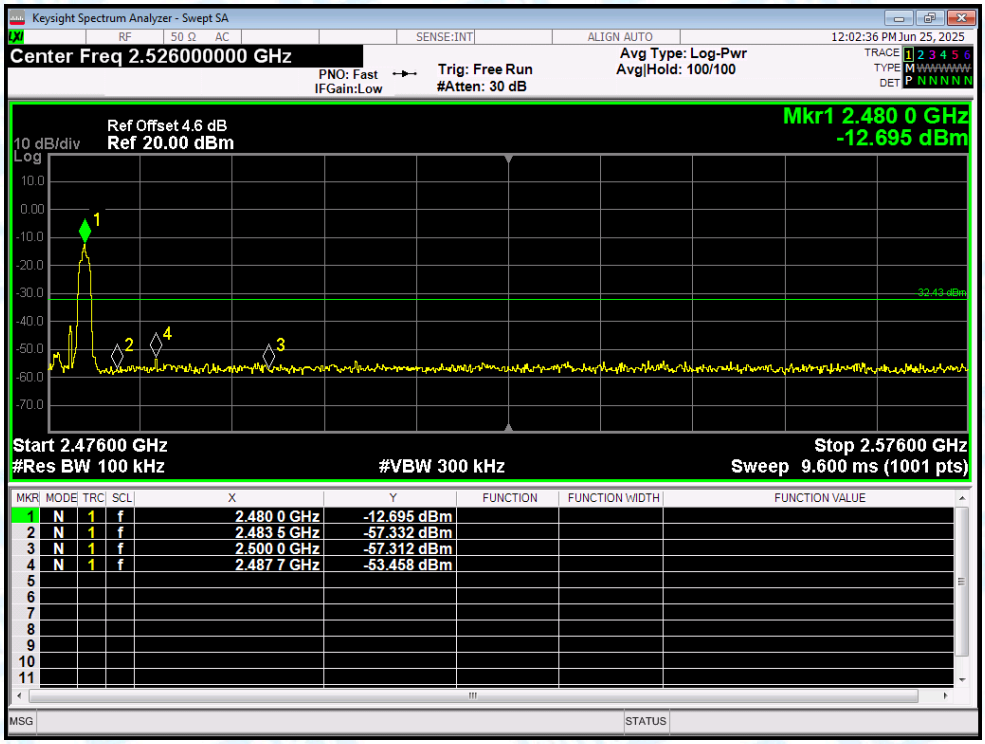
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



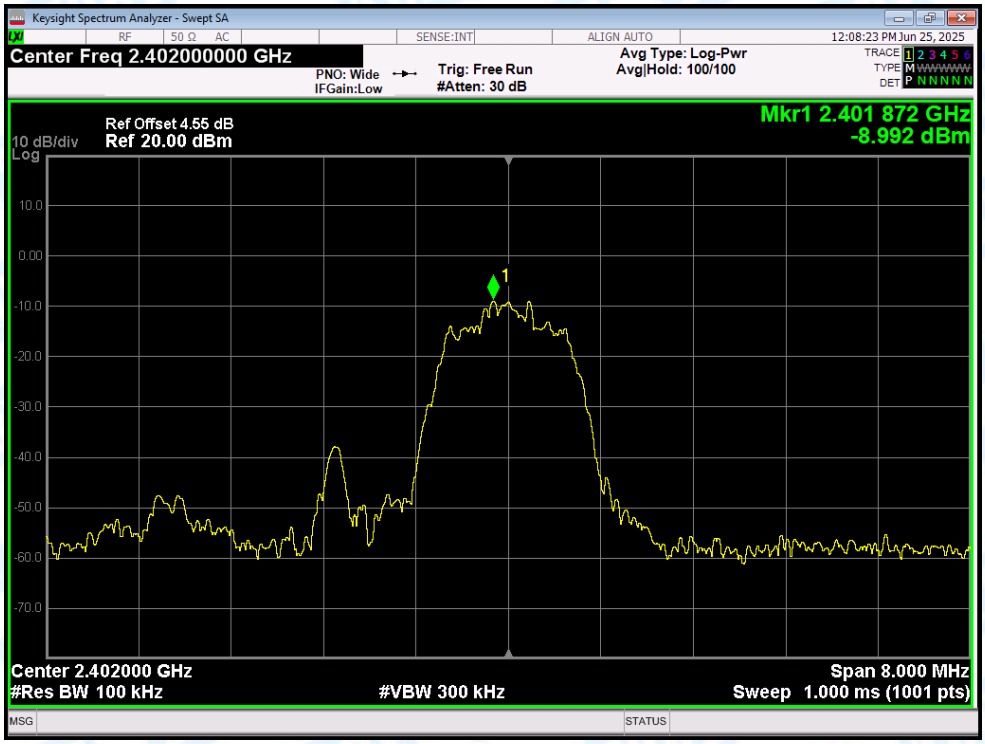
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



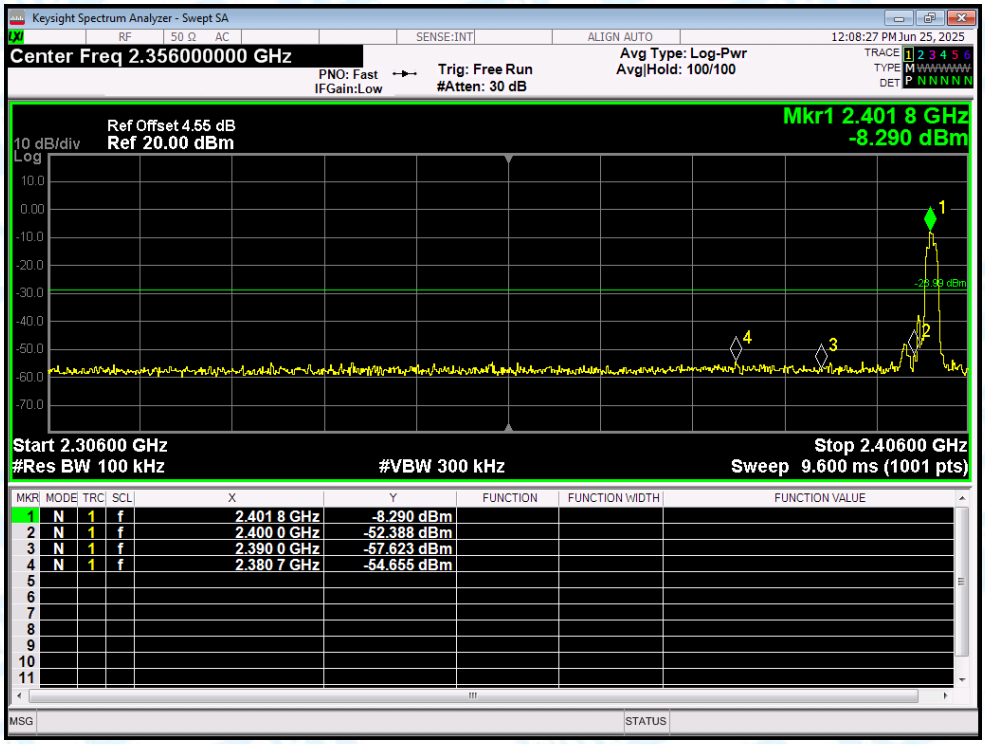
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



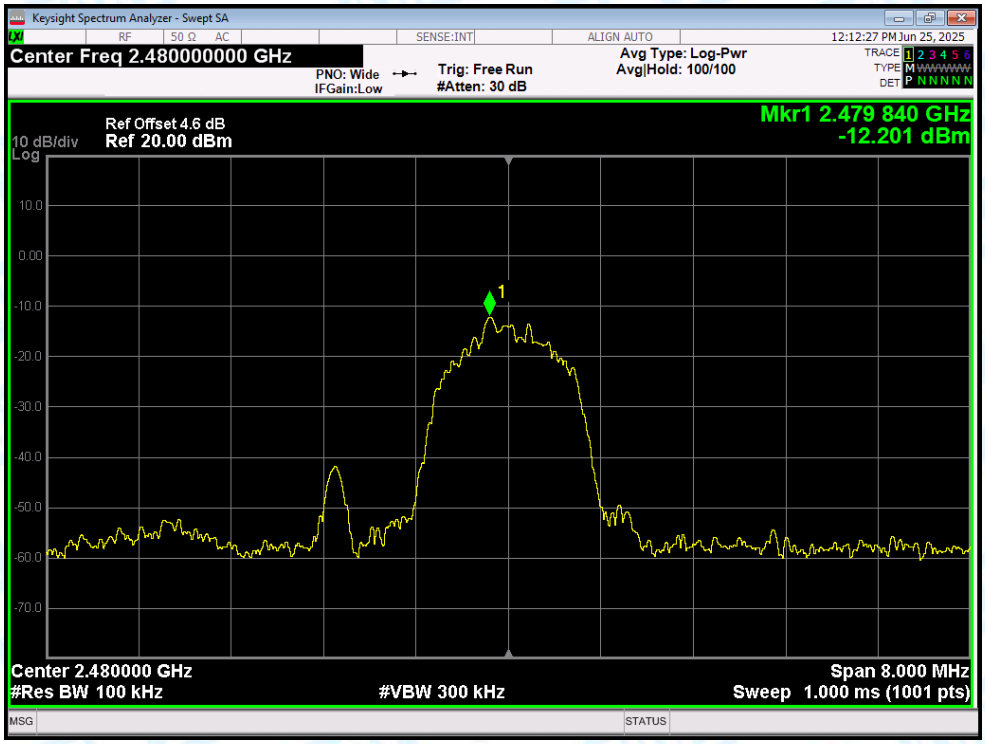
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



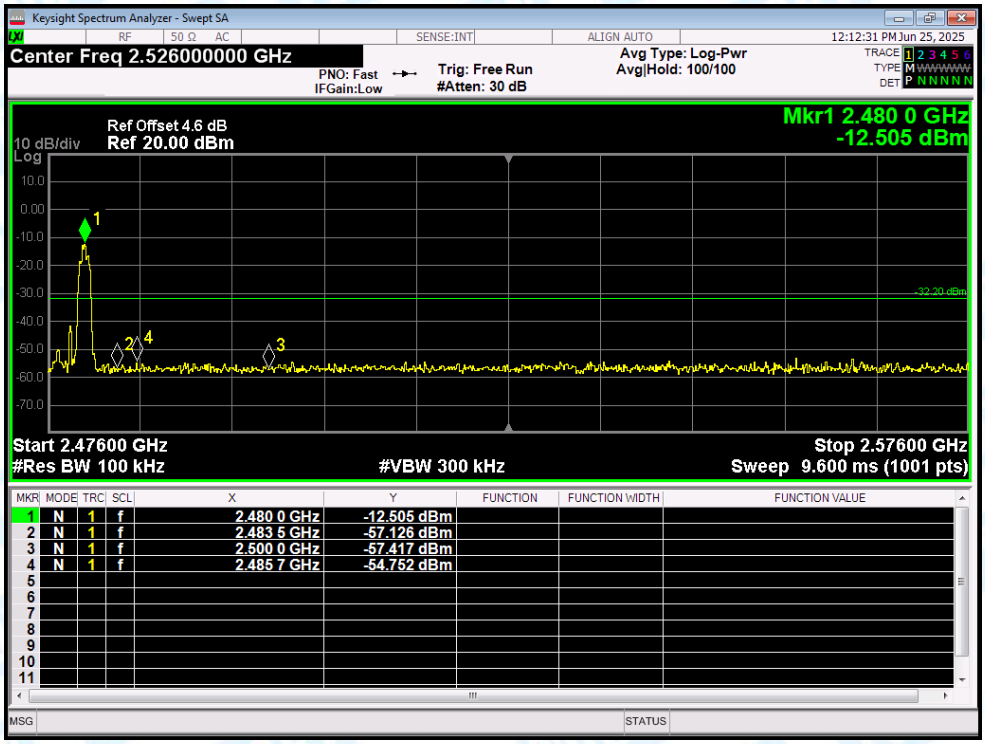
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

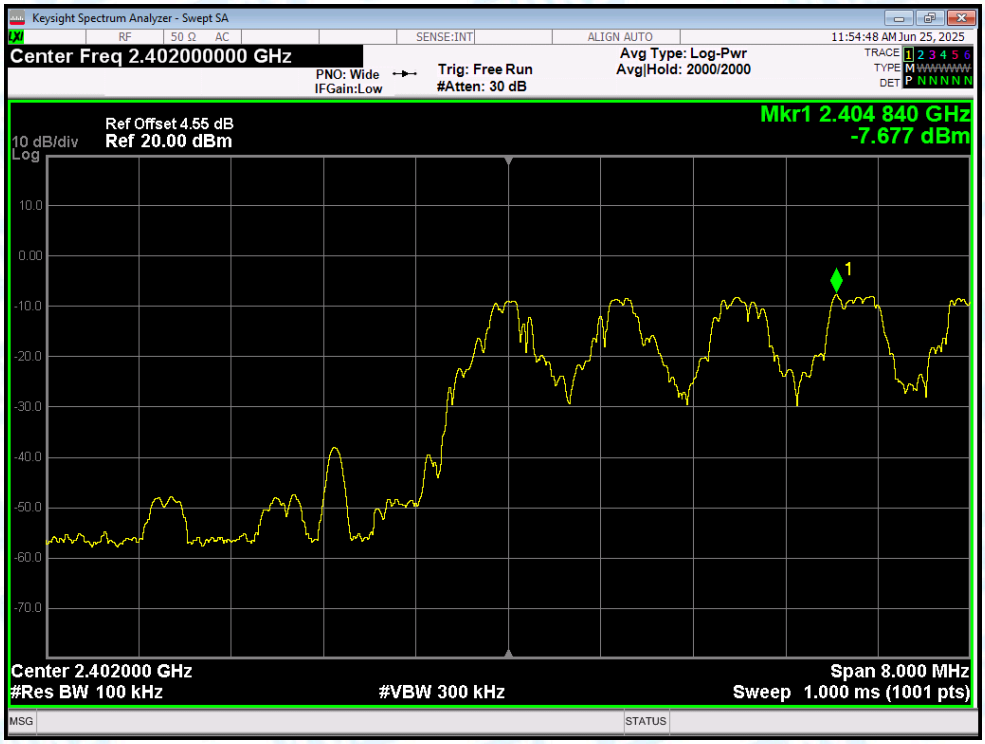


6. Band Edge(Hopping)

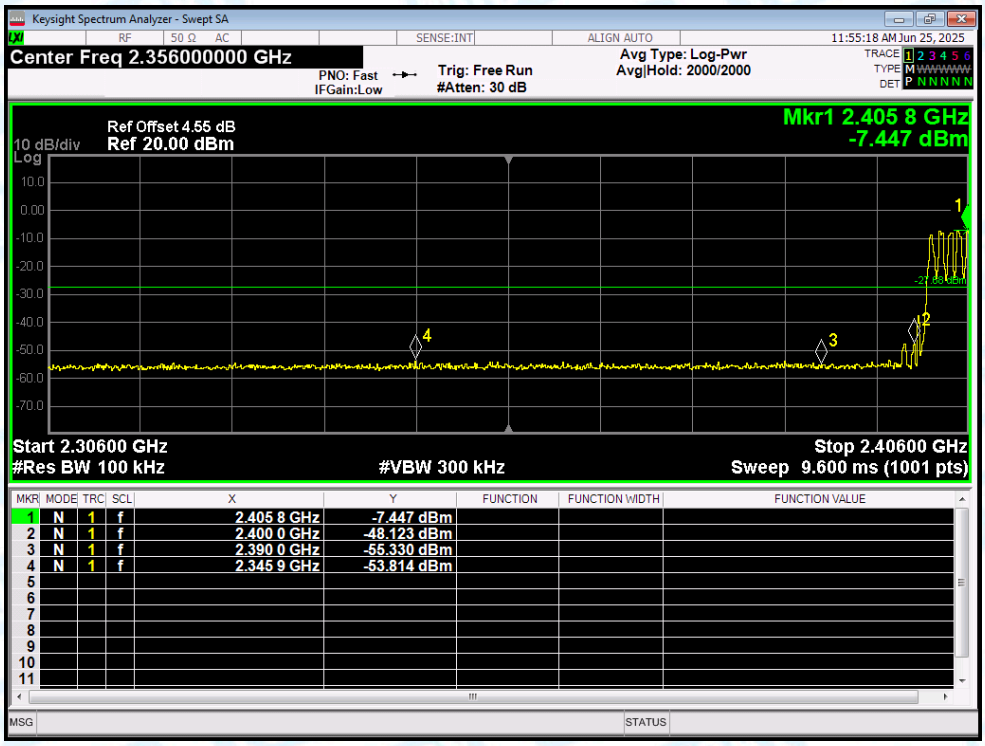
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-46.13	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-40.93	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-44.95	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-41.37	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-45.21	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-40.83	-20	Pass

Test Graphs

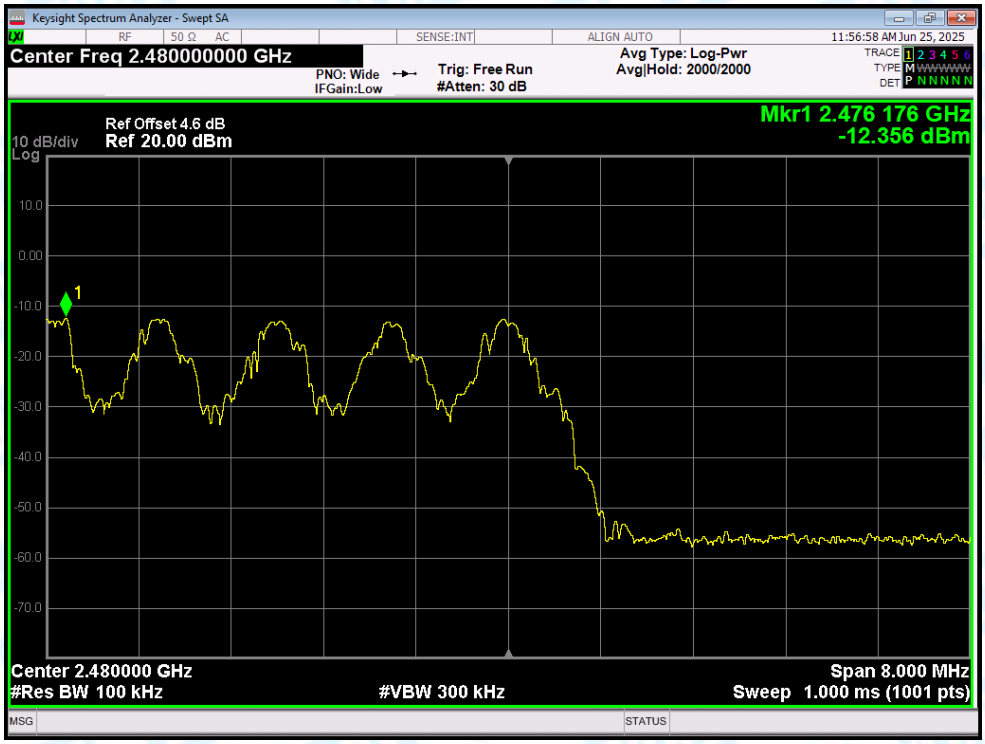
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



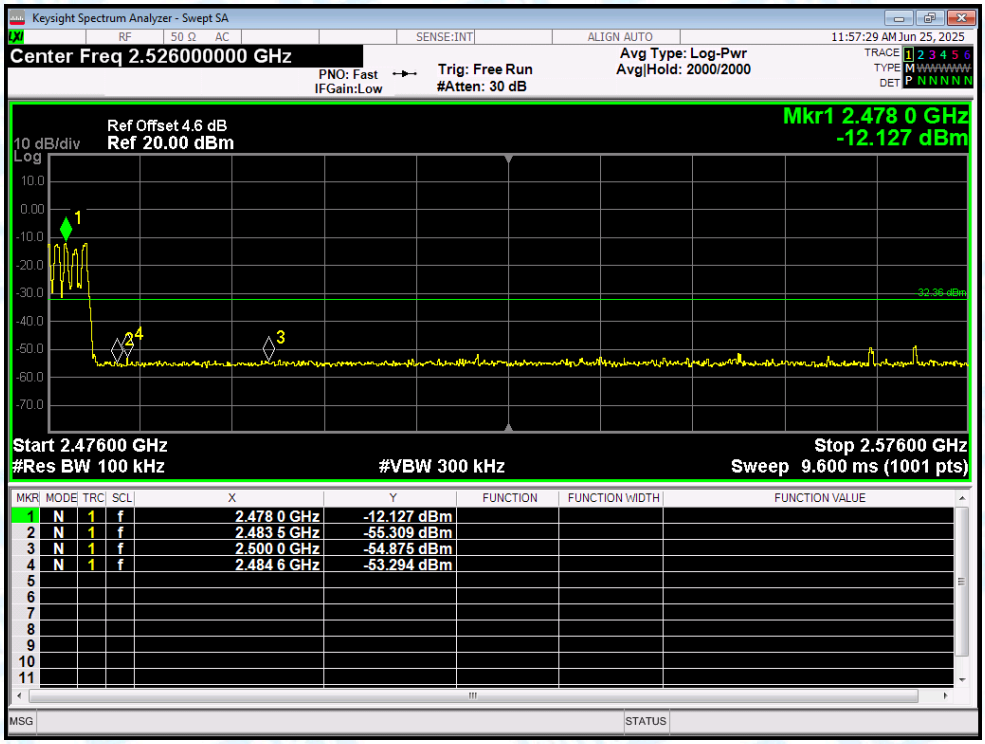
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



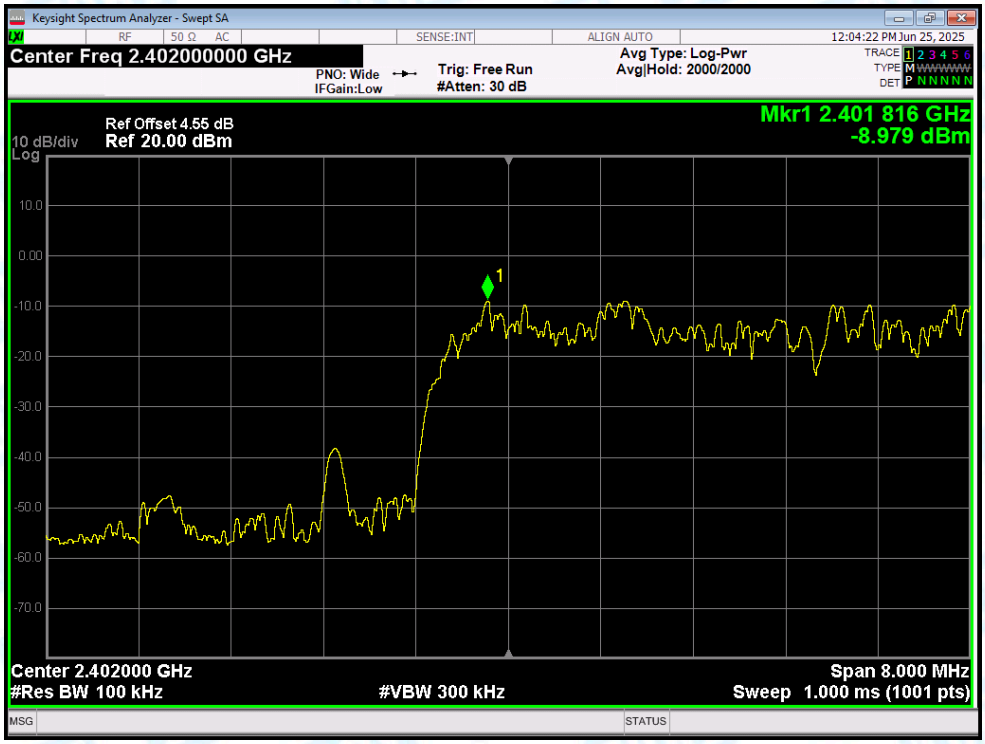
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



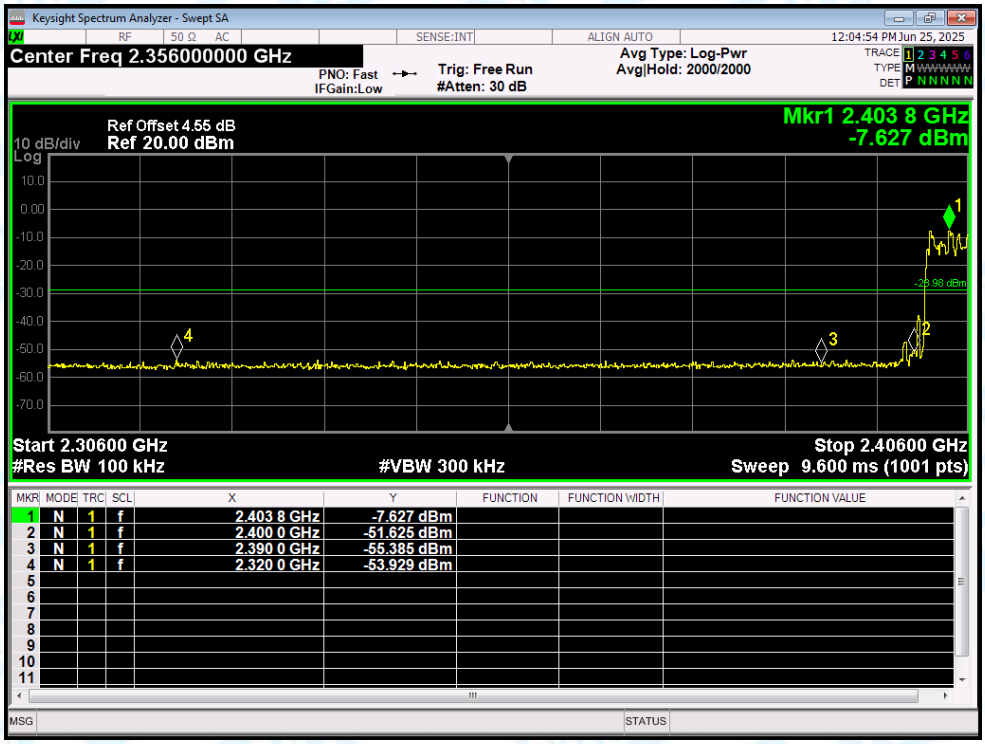
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



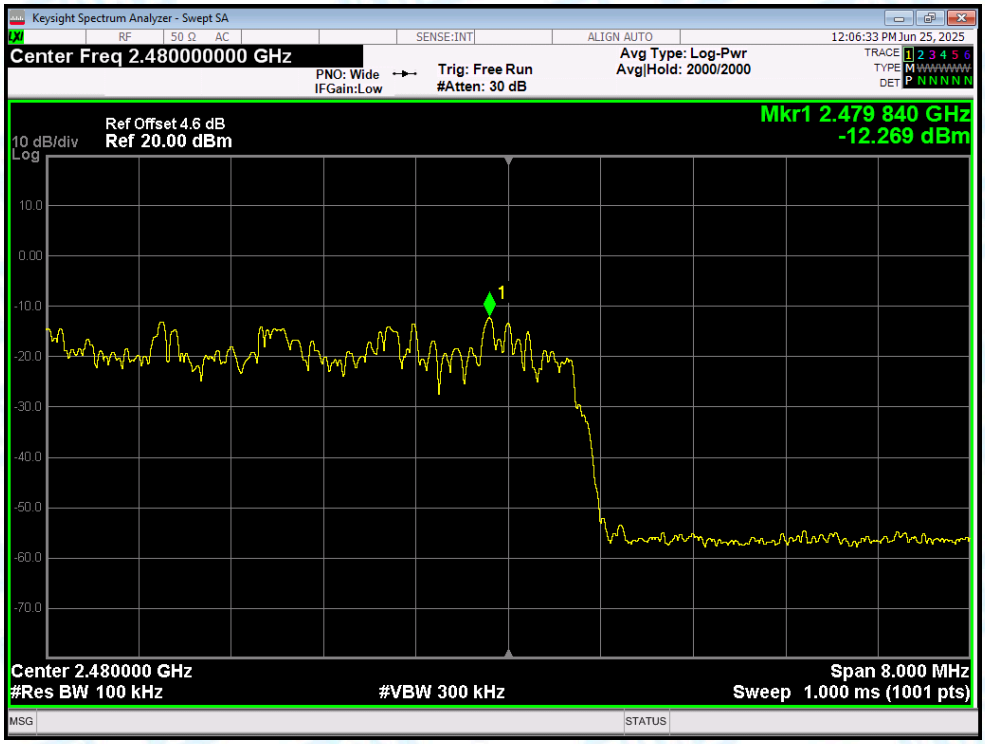
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



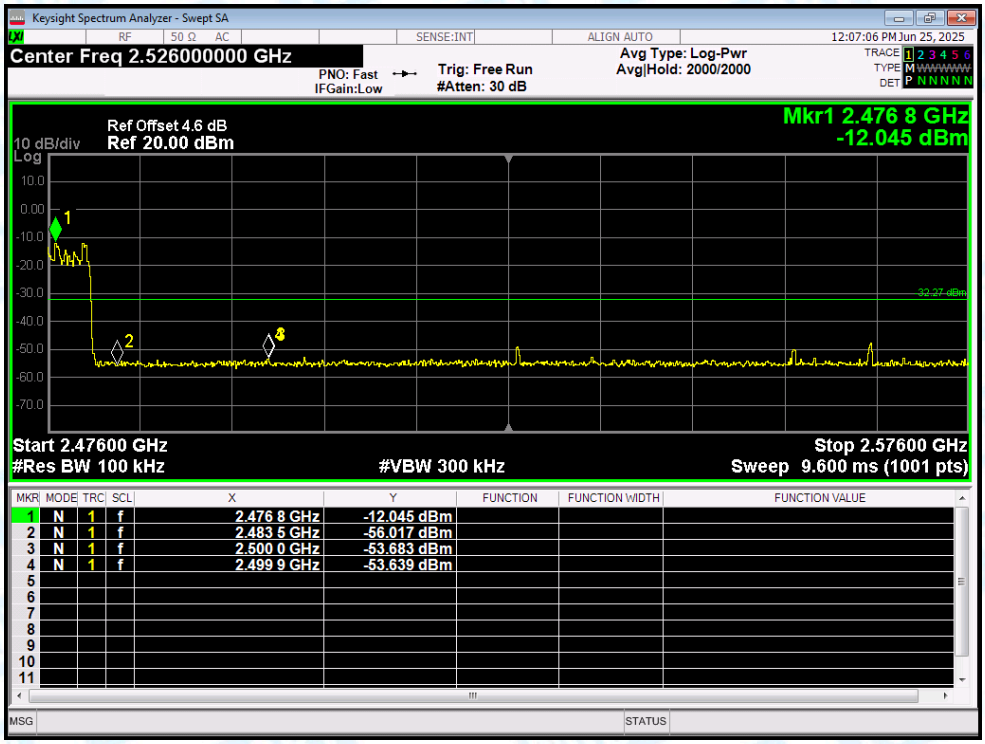
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



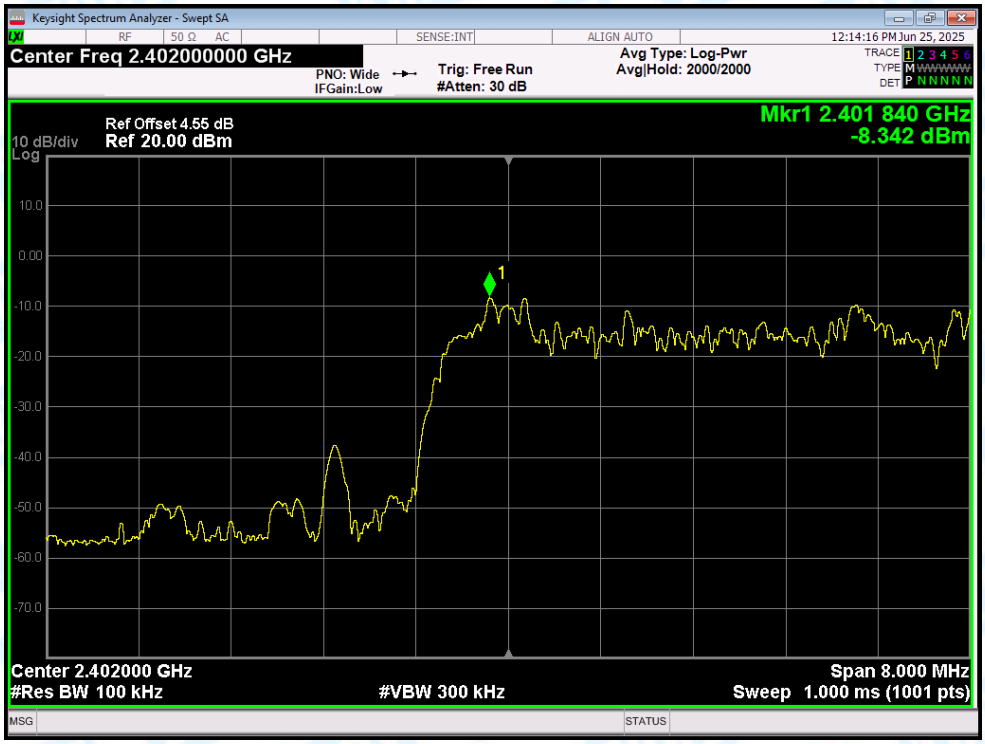
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



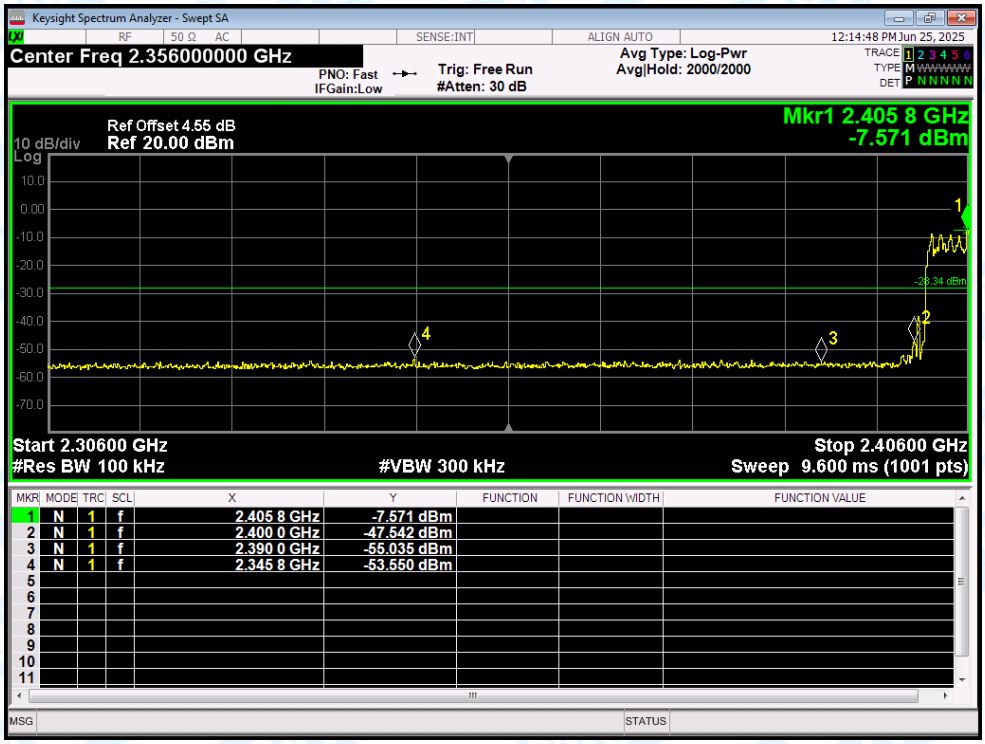
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



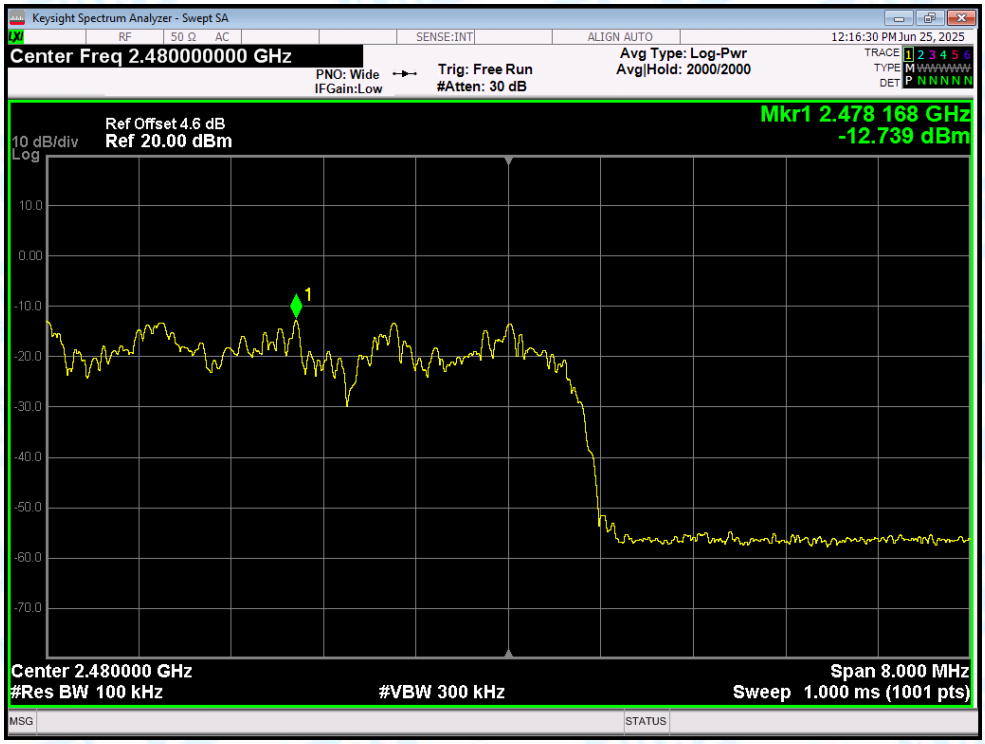
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



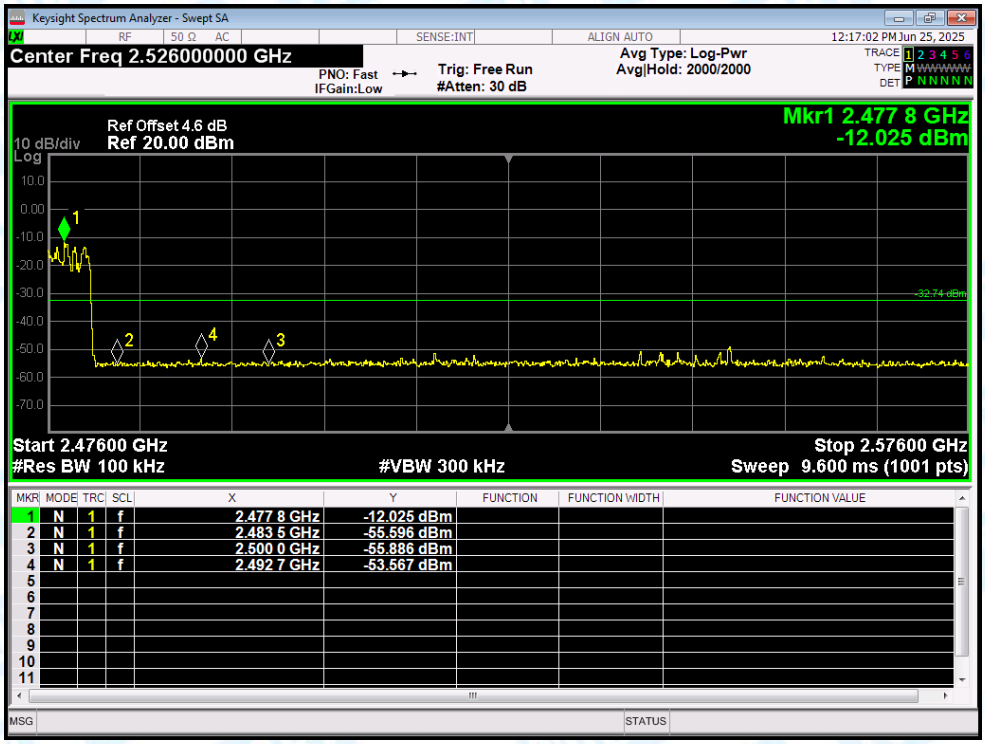
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

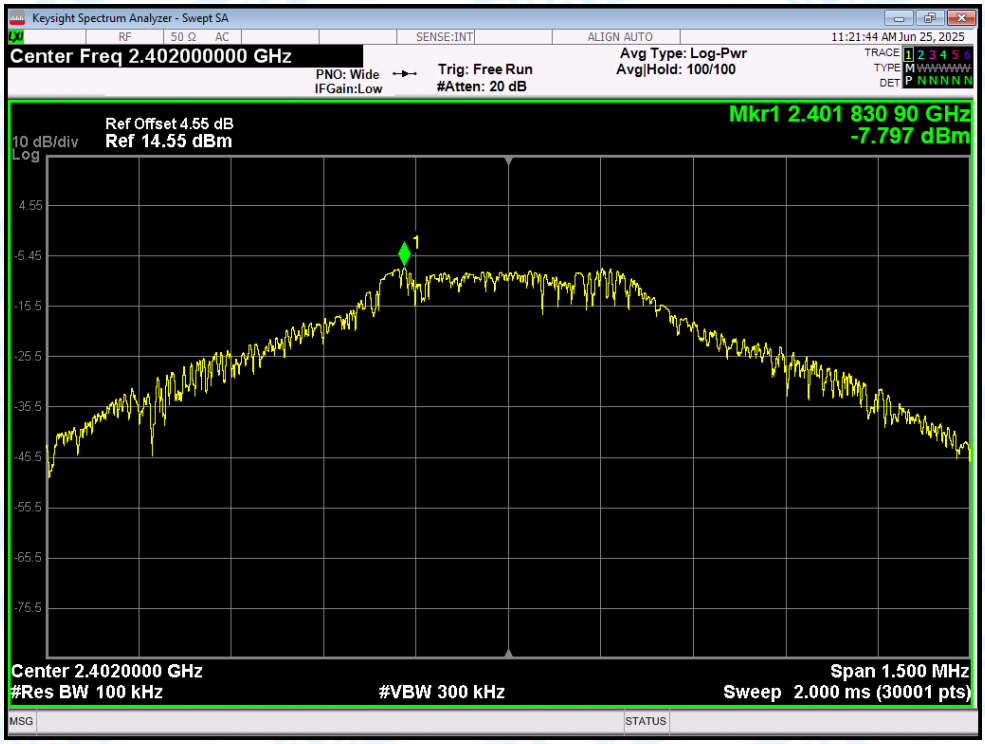


7. Conducted RF Spurious Emission

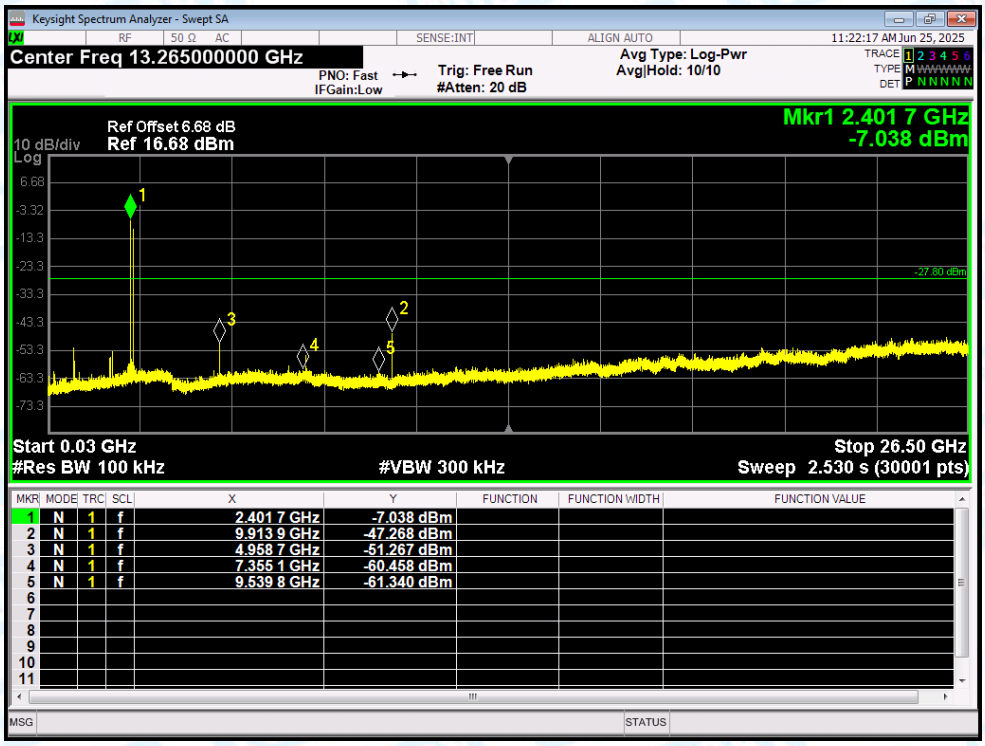
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-39.47	-20	Pass
NVNT	1-DH1	2441	Ant1	-39.04	-20	Pass
NVNT	1-DH1	2480	Ant1	-36.79	-20	Pass
NVNT	2-DH1	2402	Ant1	-41.29	-20	Pass
NVNT	2-DH1	2441	Ant1	-41.33	-20	Pass
NVNT	2-DH1	2480	Ant1	-36.65	-20	Pass
NVNT	3-DH1	2402	Ant1	-40.89	-20	Pass
NVNT	3-DH1	2441	Ant1	-37.59	-20	Pass
NVNT	3-DH1	2480	Ant1	-36.4	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref

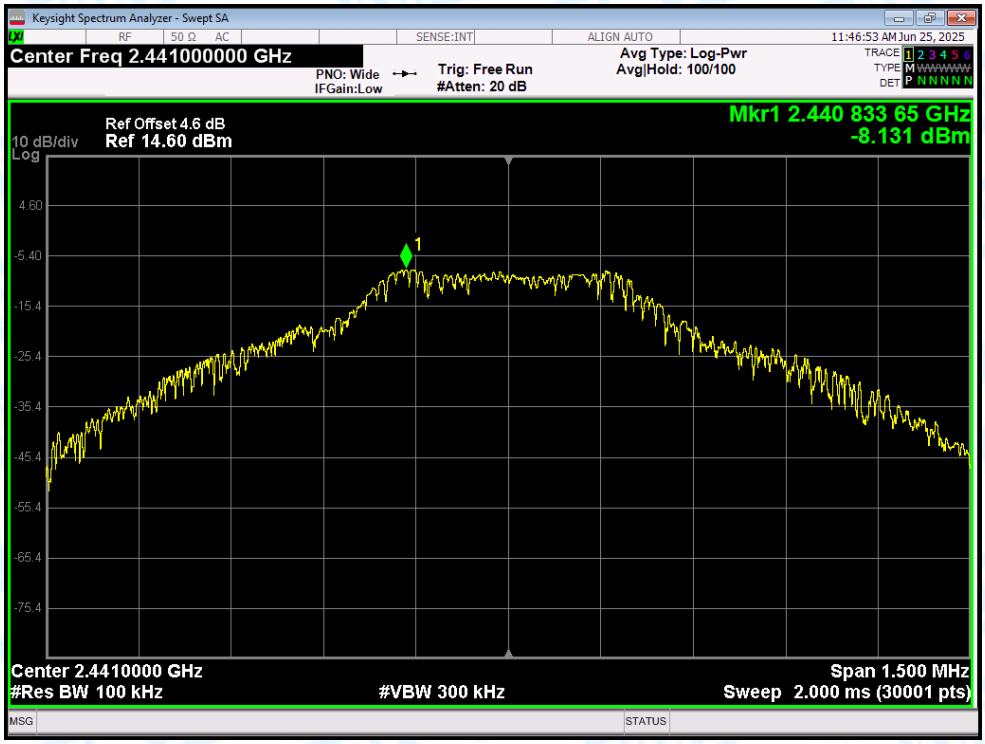


Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

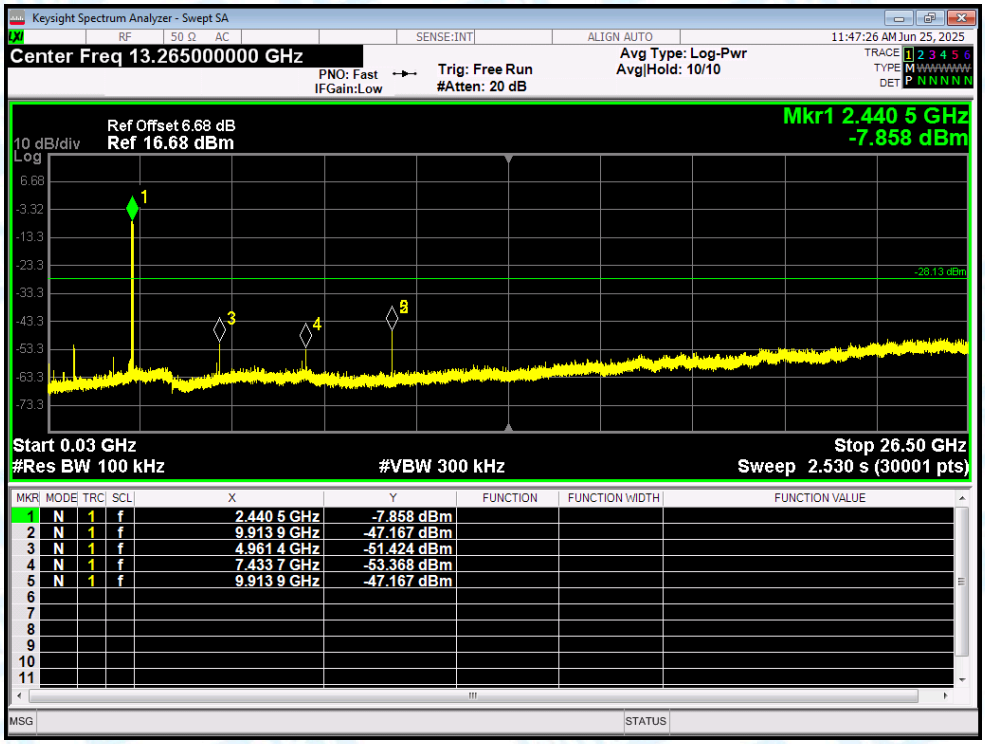


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 7 GHz	-7.038 dBm			
2	N	1	f	9.913 9 GHz	-47.268 dBm			
3	N	1	f	4.958 7 GHz	-51.267 dBm			
4	N	1	f	7.355 1 GHz	-60.458 dBm			
5	N	1	f	9.539 8 GHz	-61.340 dBm			
6								
7								
8								
9								
10								
11								

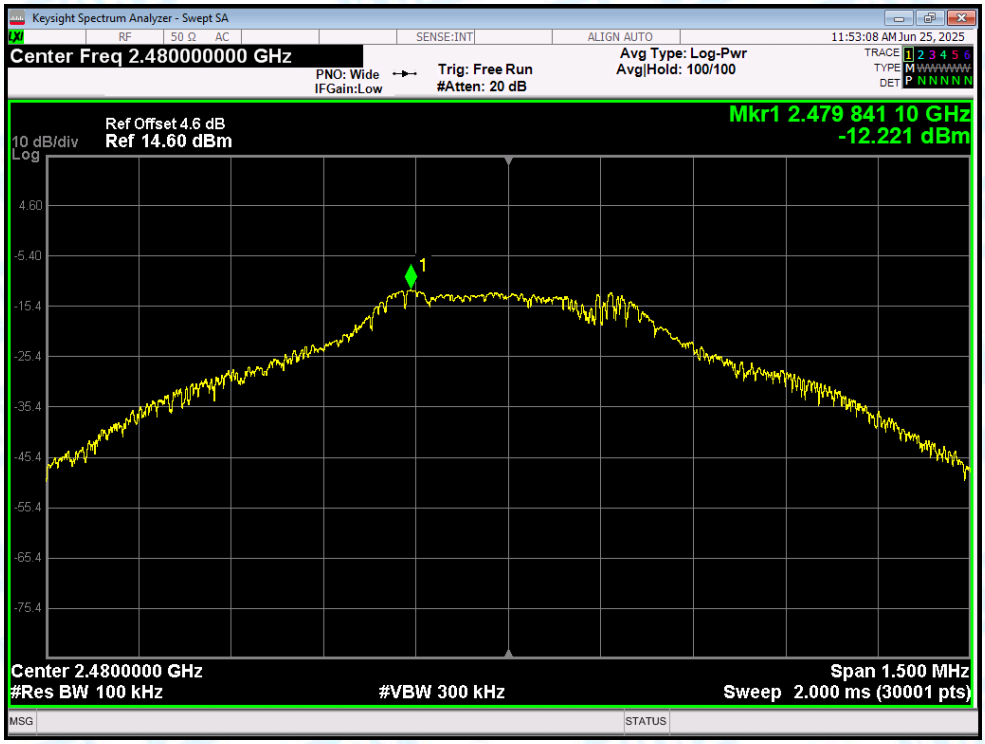
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



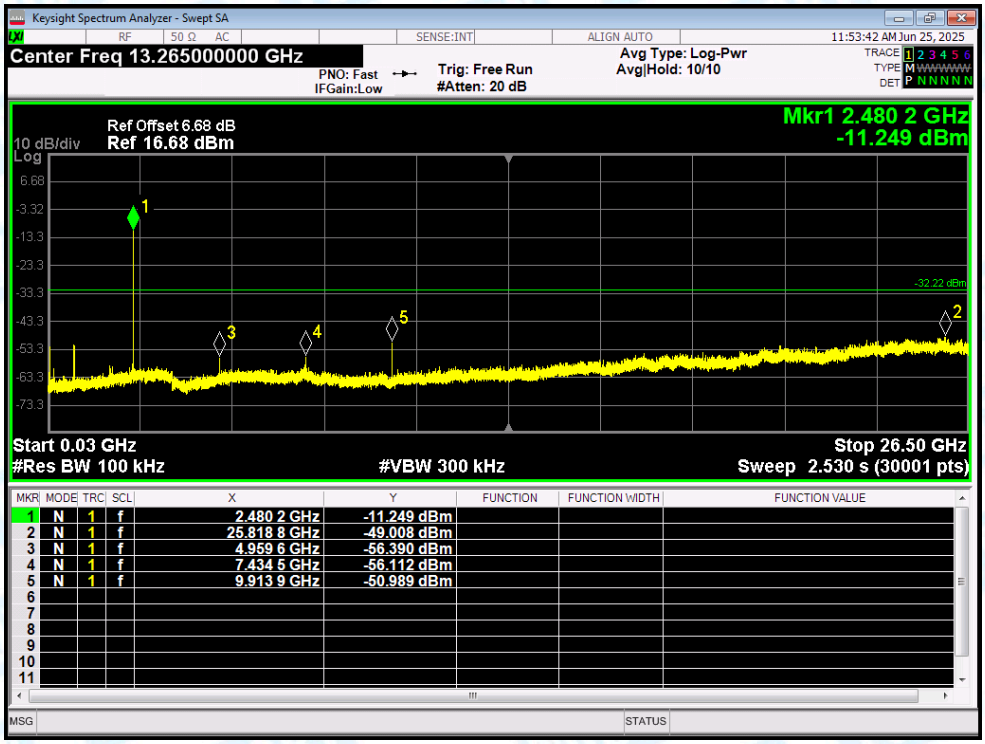
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



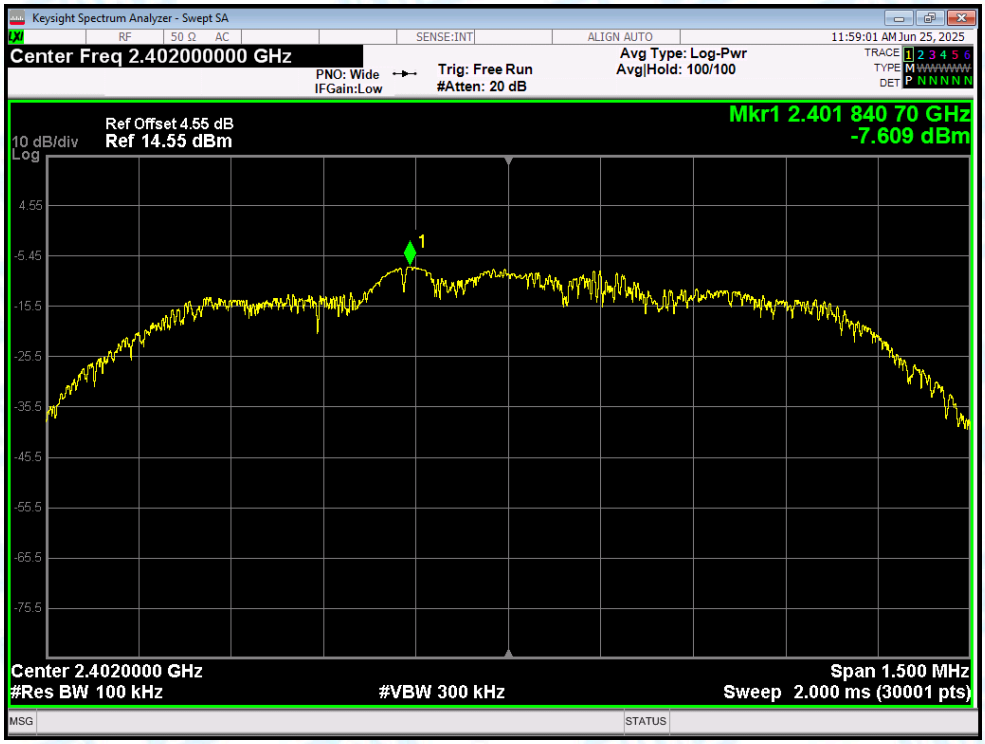
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



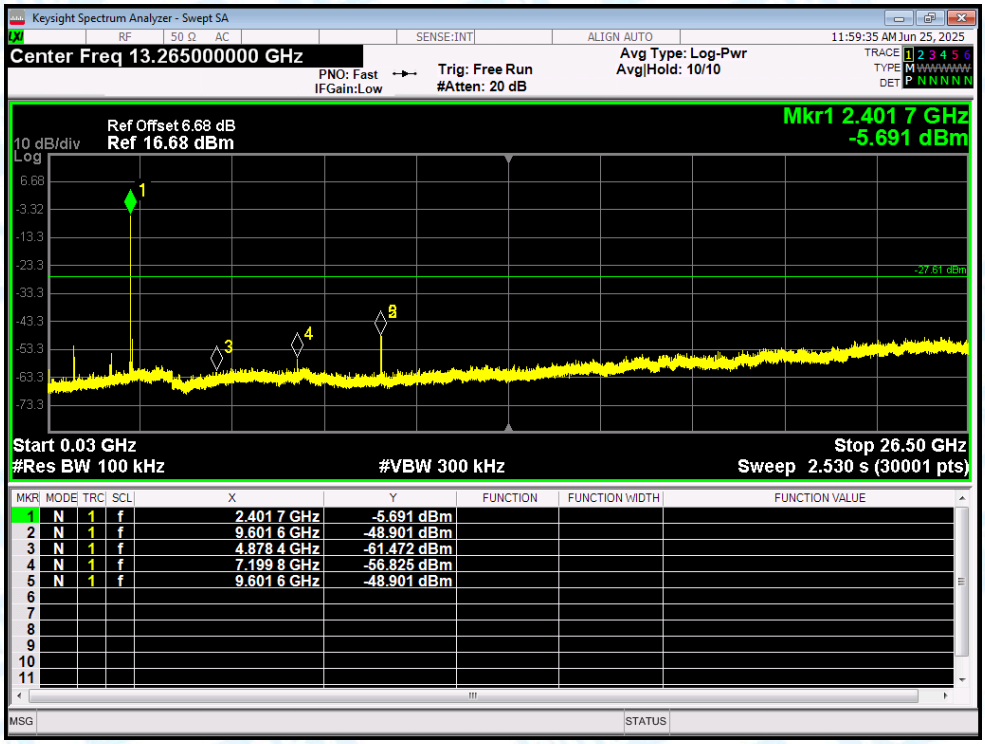
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



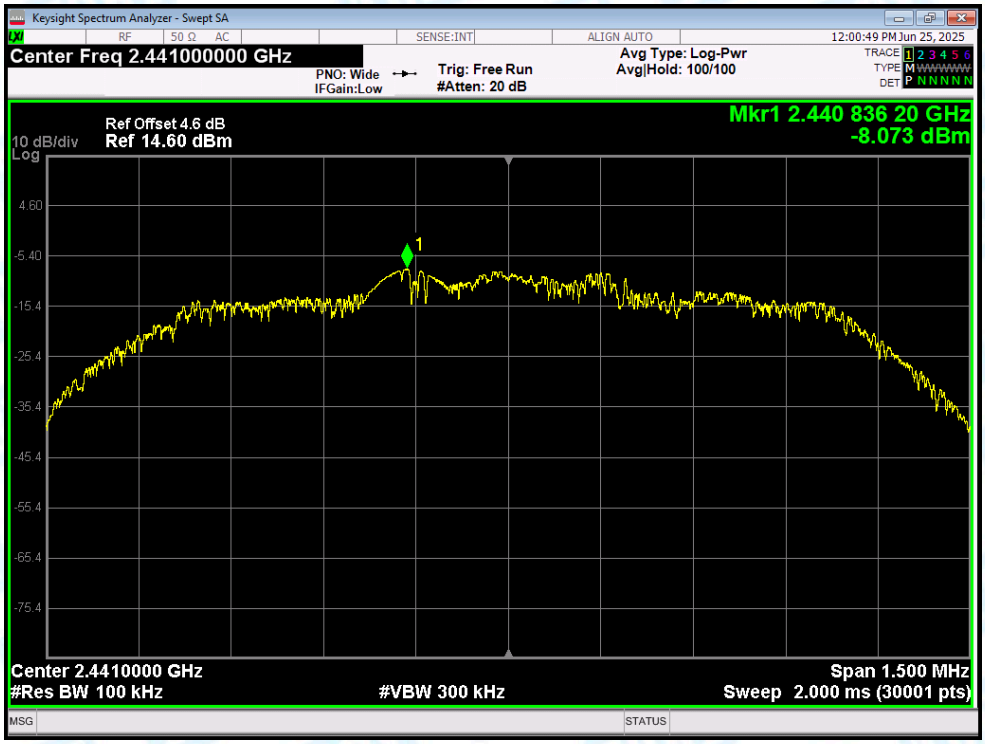
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



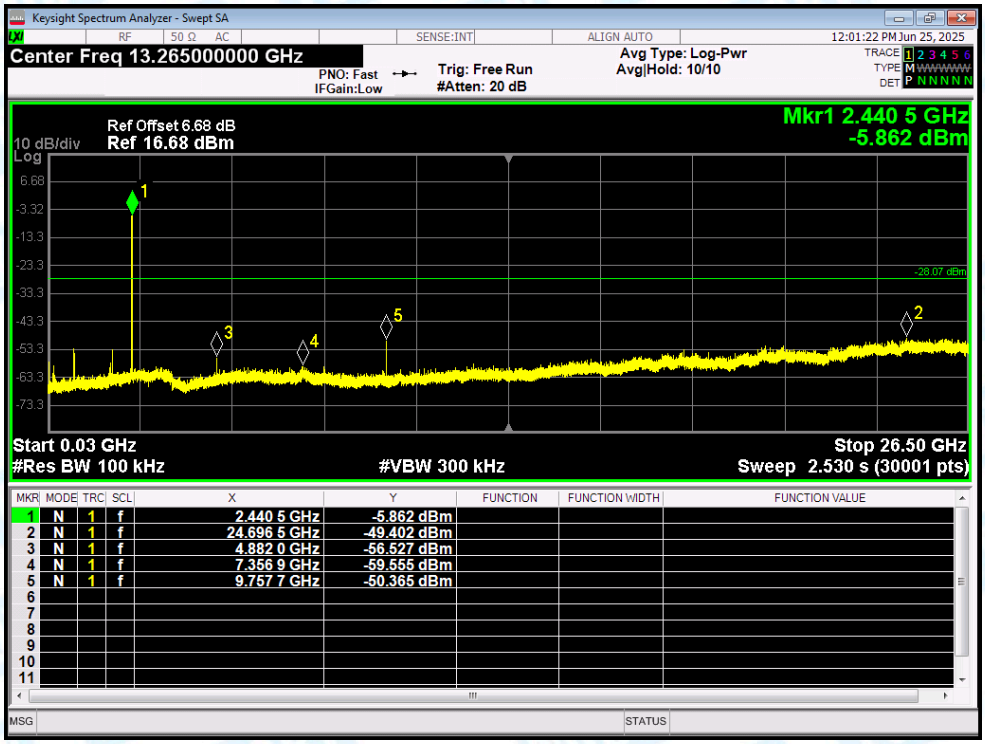
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref

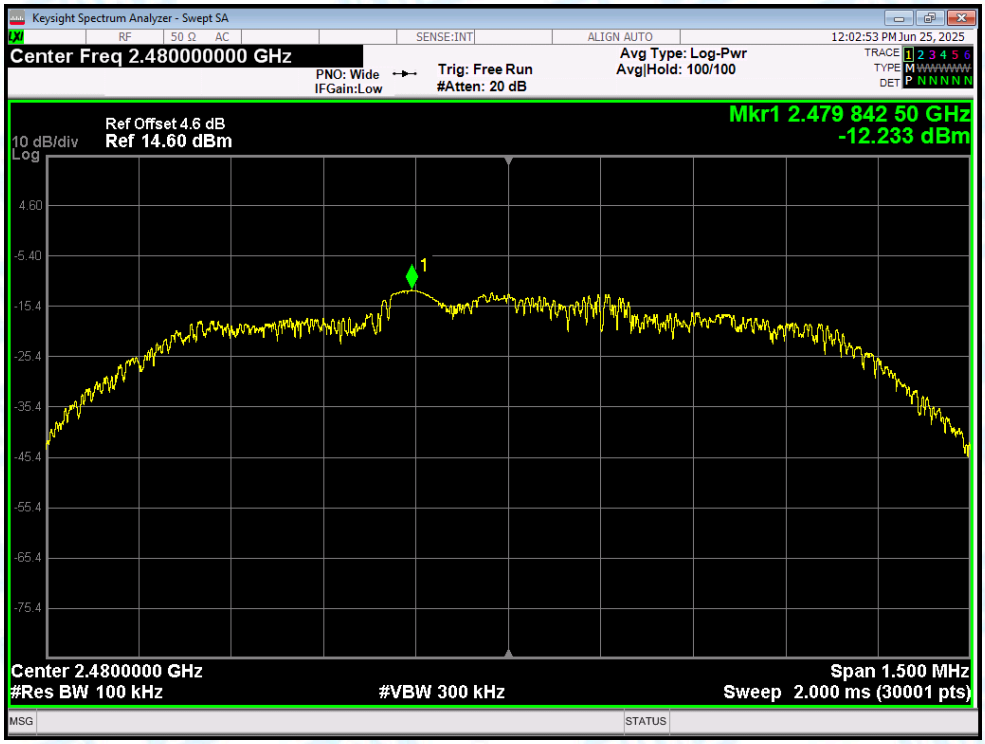


Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission

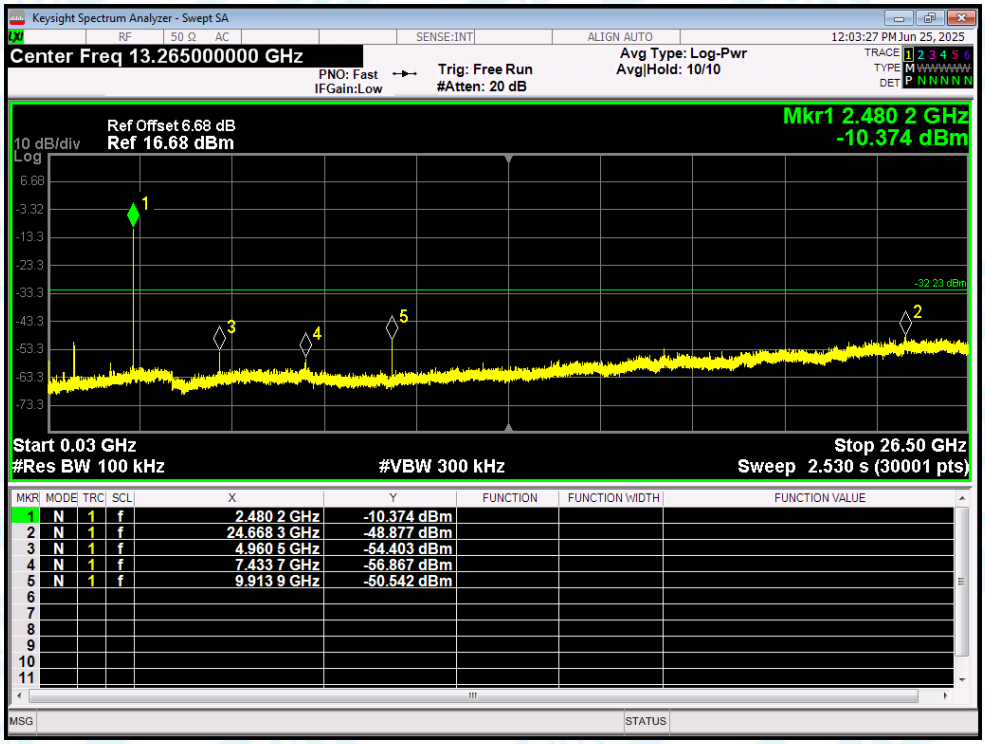


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440 5 GHz	-5.862 dBm			
2	N	1	f	24.696 5 GHz	-49.402 dBm			
3	N	1	f	4.882 0 GHz	-56.527 dBm			
4	N	1	f	7.356 9 GHz	-59.555 dBm			
5	N	1	f	9.757 7 GHz	-50.365 dBm			
6								
7								
8								
9								
10								
11								

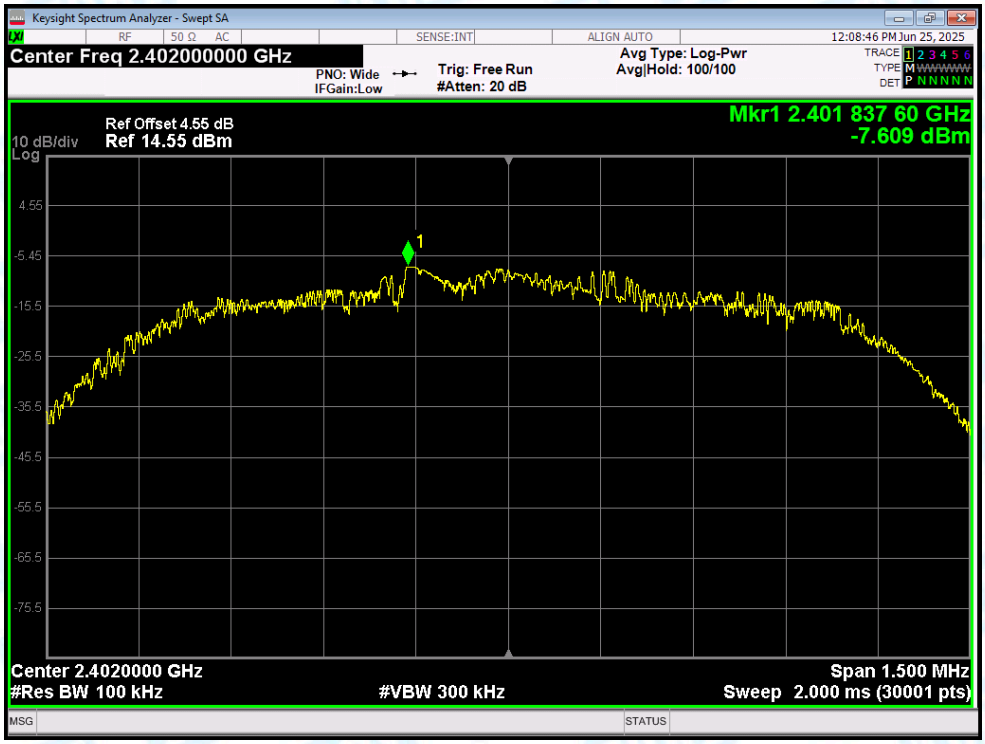
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



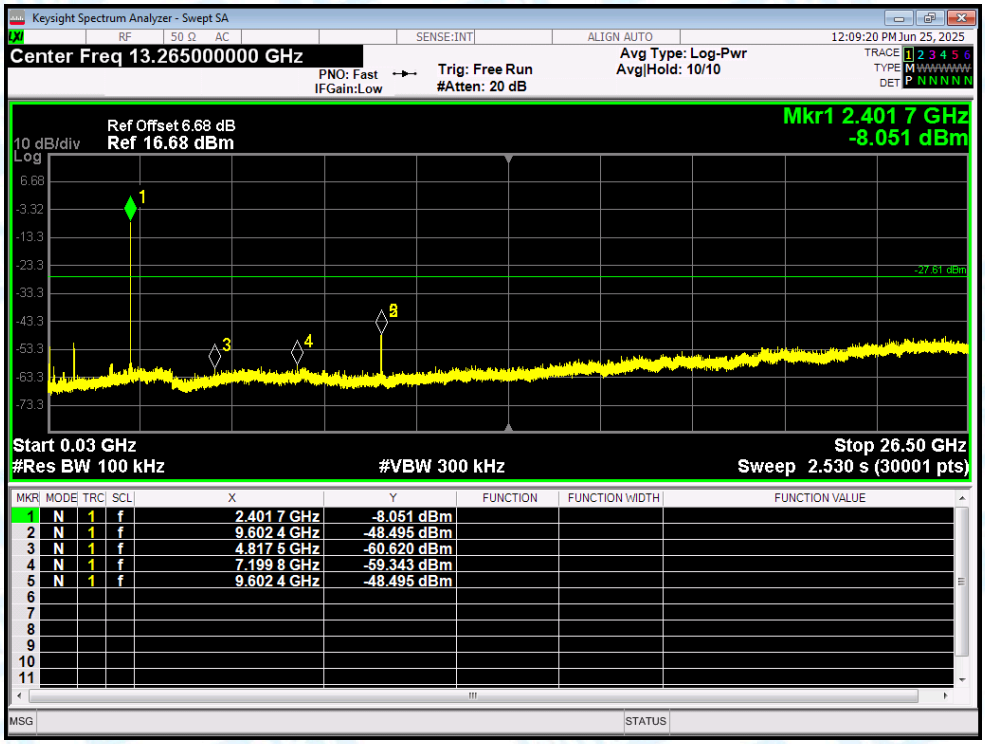
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



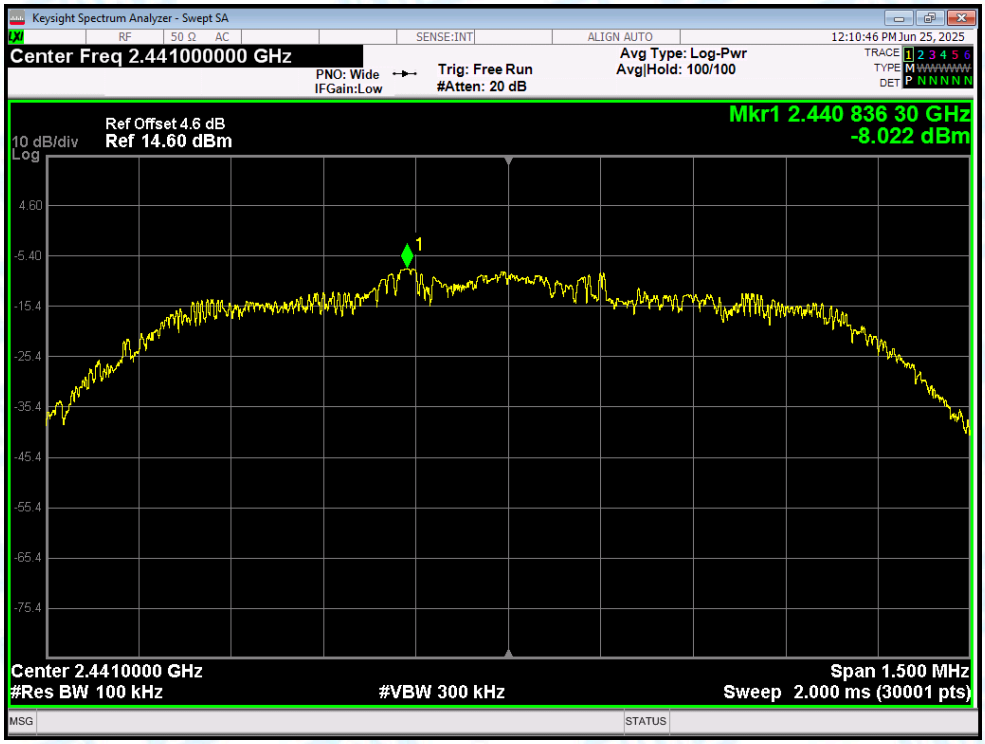
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



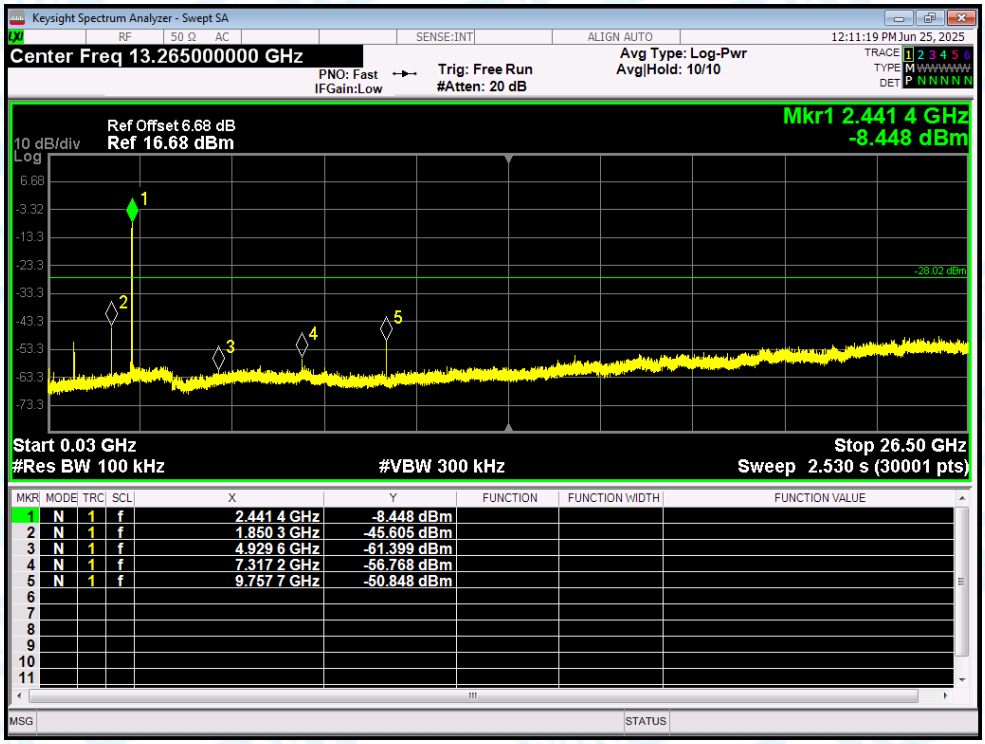
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



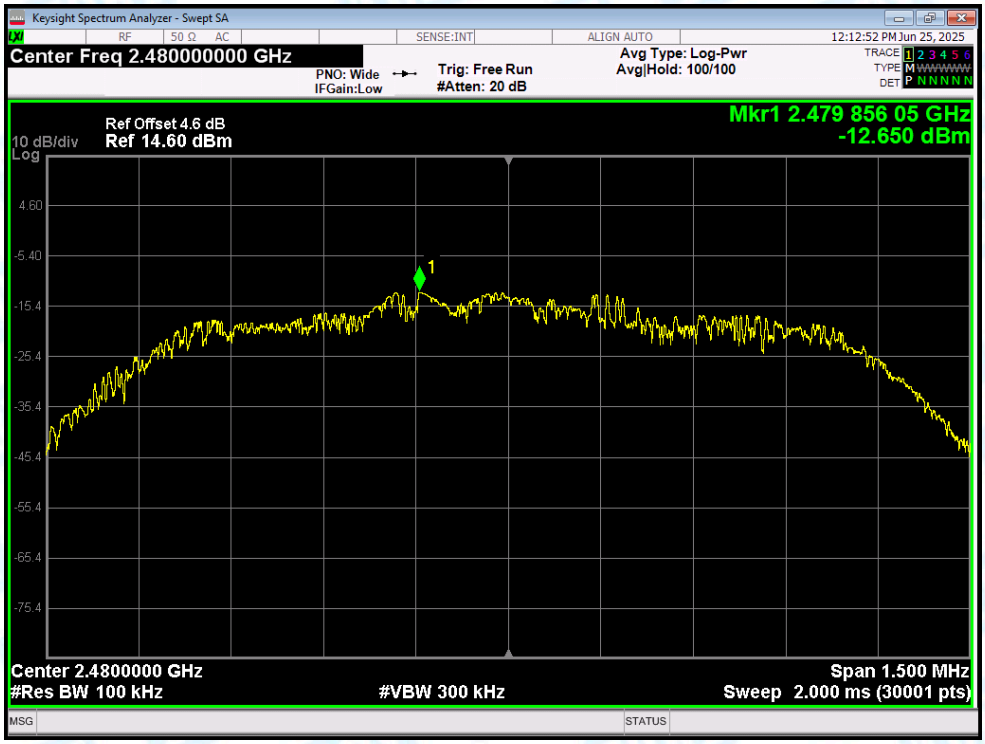
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



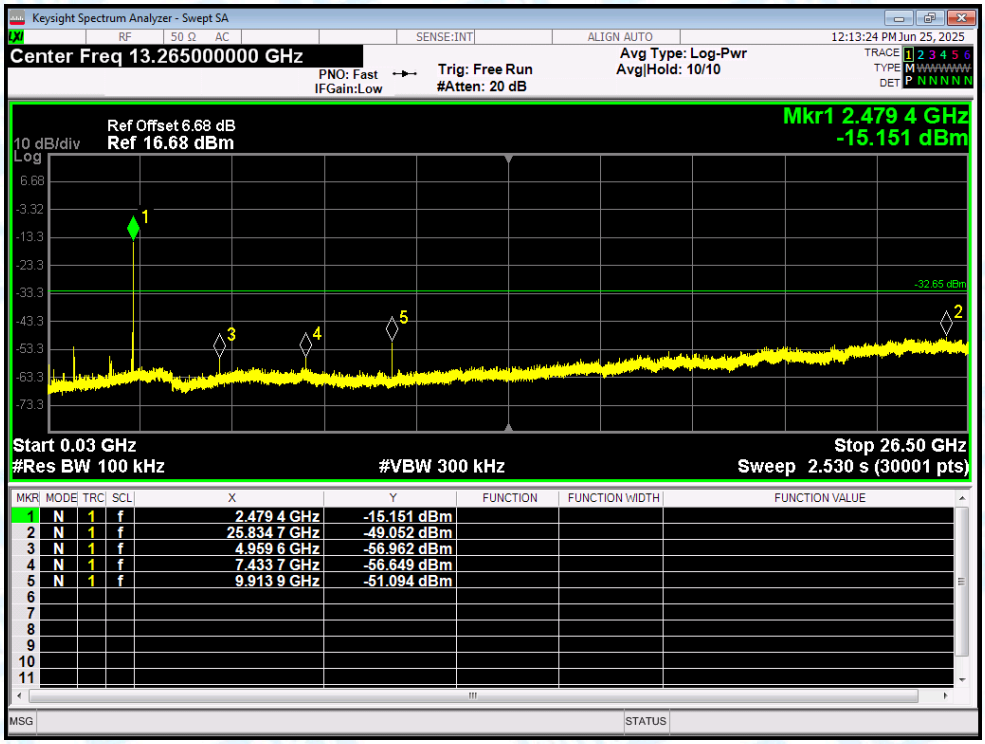
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

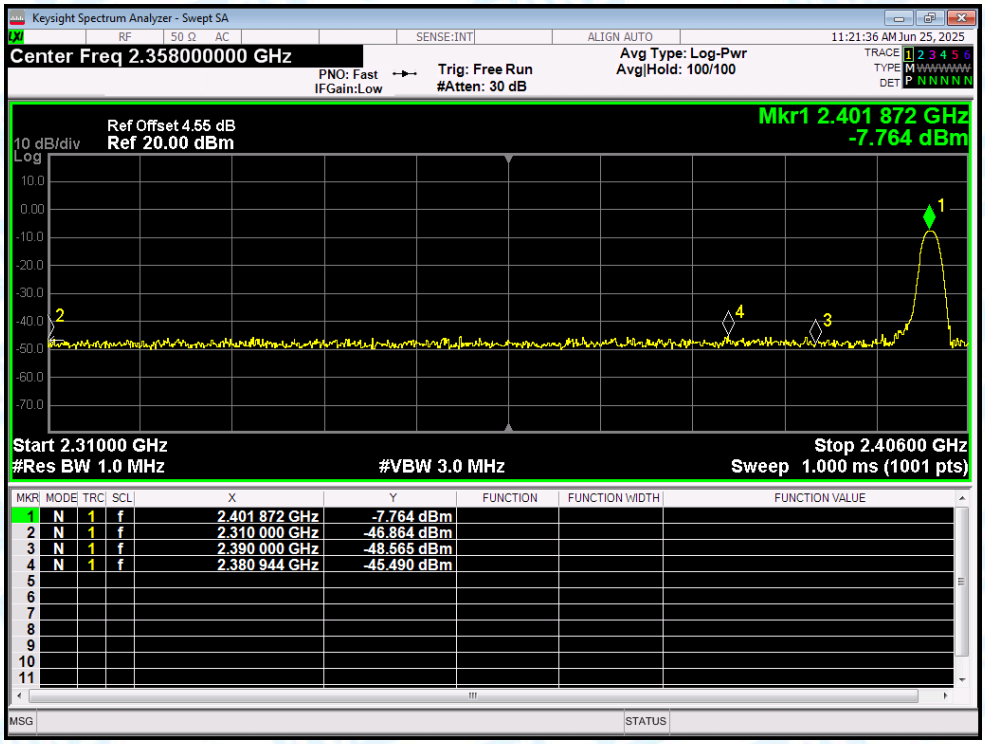


8. Restrict Band

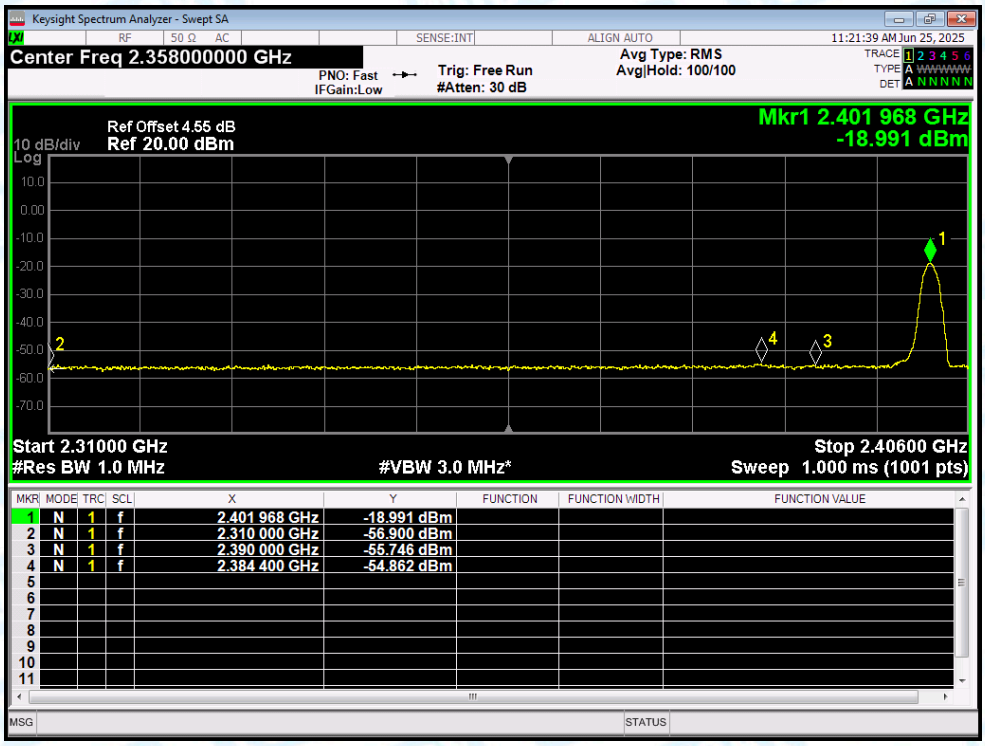
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-46.86	2	-	50.4	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.9	2	9.51	49.87	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2380.944	-45.49	2	-	51.77	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2384.4	-54.86	2	9.51	51.91	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.57	2	-	48.69	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.75	2	9.51	51.02	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.13	2	-	50.13	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.55	2	5.17	46.88	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2496.952	-44.88	2	-	52.38	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.328	-54.65	2	5.17	47.78	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.59	2	-	49.67	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.85	2	5.17	46.58	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-46.75	2	-	50.51	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.96	2	5.06	46.36	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2358.192	-44.8	2	-	52.46	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2377.968	-55.18	2	5.06	47.14	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-49.15	2	-	48.11	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.5	2	5.06	46.82	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.52	2	-	49.74	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.01	2	5.06	47.31	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2493.376	-44.87	2	-	52.39	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2497.336	-54.66	2	5.06	47.66	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.33	2	-	49.93	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.39	2	5.06	46.93	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48	2	-	49.26	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.97	2	5.06	45.35	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2366.544	-44.95	2	-	52.31	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2378.64	-54.97	2	5.06	47.35	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.53	2	-	50.73	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.75	2	5.06	46.57	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-48.26	2	-	49	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.85	2	5.06	46.47	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2498.392	-44.45	2	-	52.81	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2497.864	-54.72	2	5.06	47.6	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.37	2	-	49.89	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.01	2	5.06	47.31	Average	54	Pass

Test Graphs

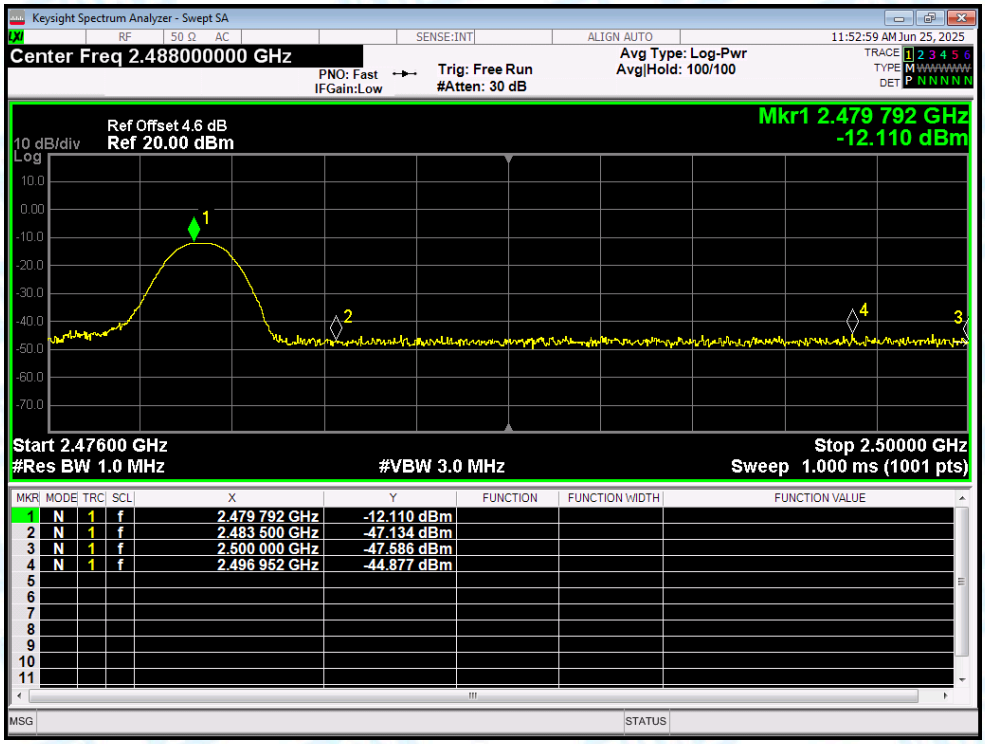
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



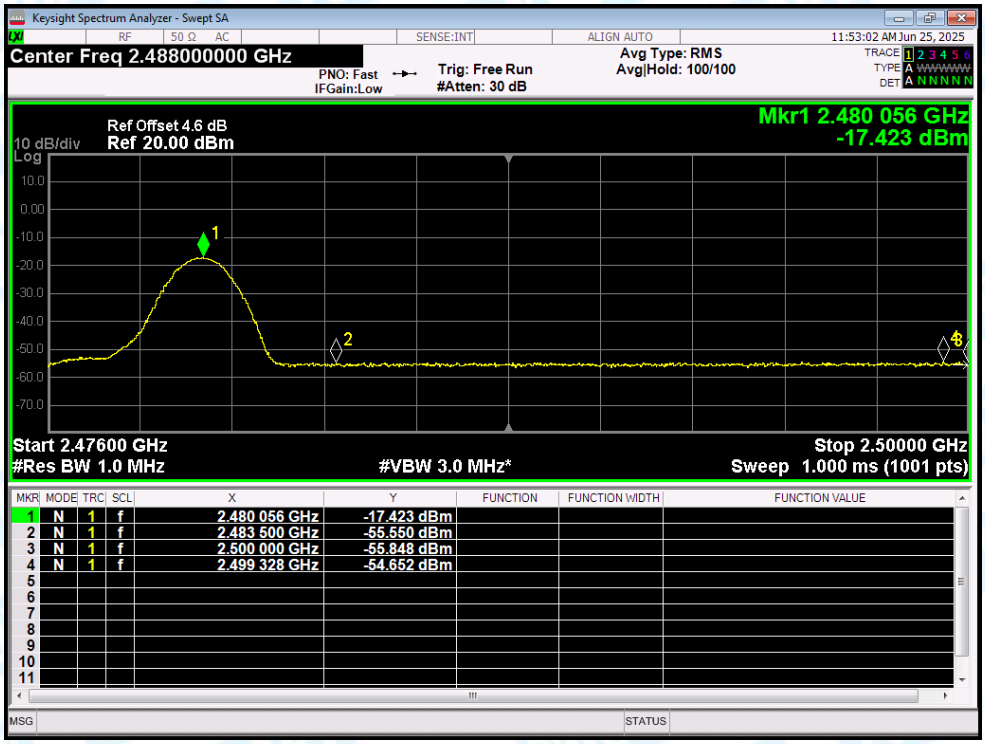
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



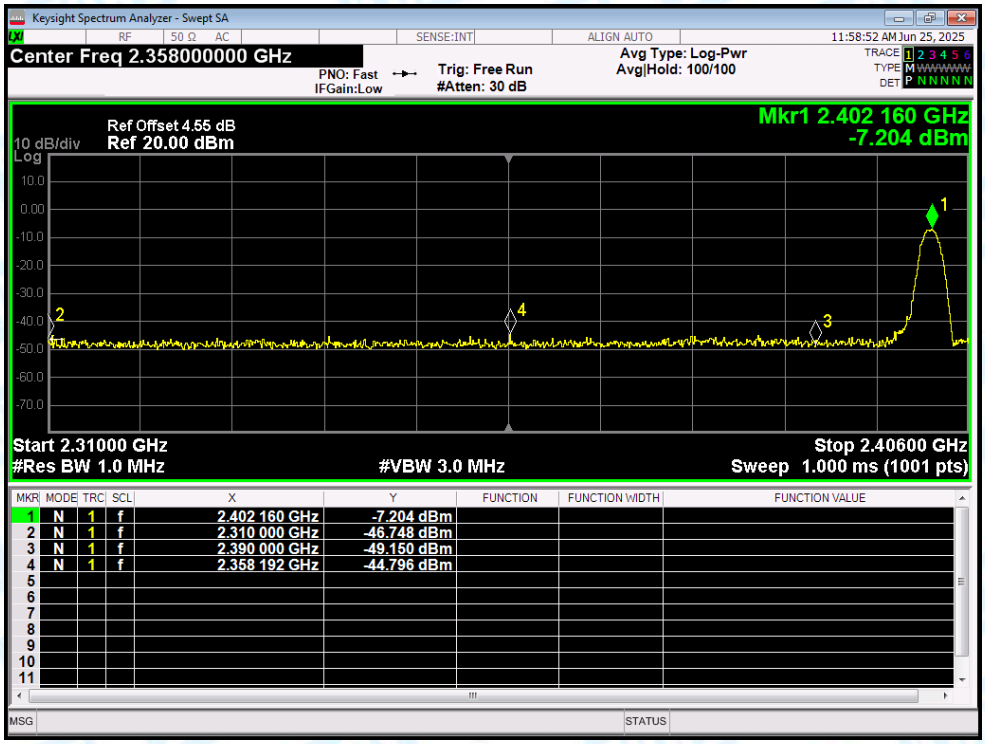
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



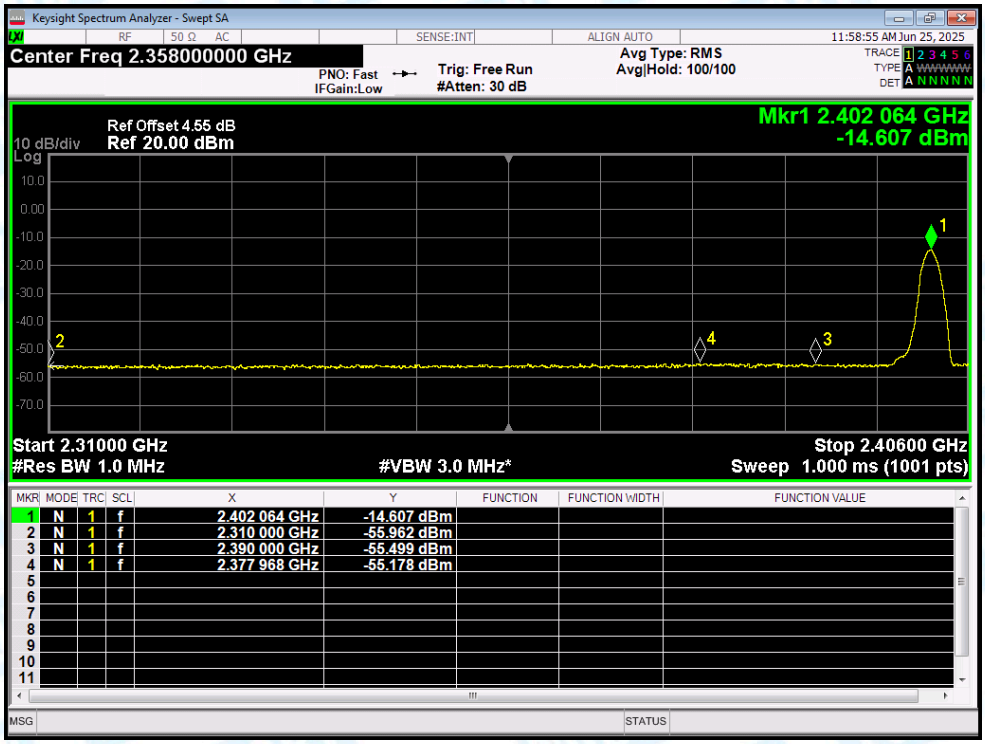
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



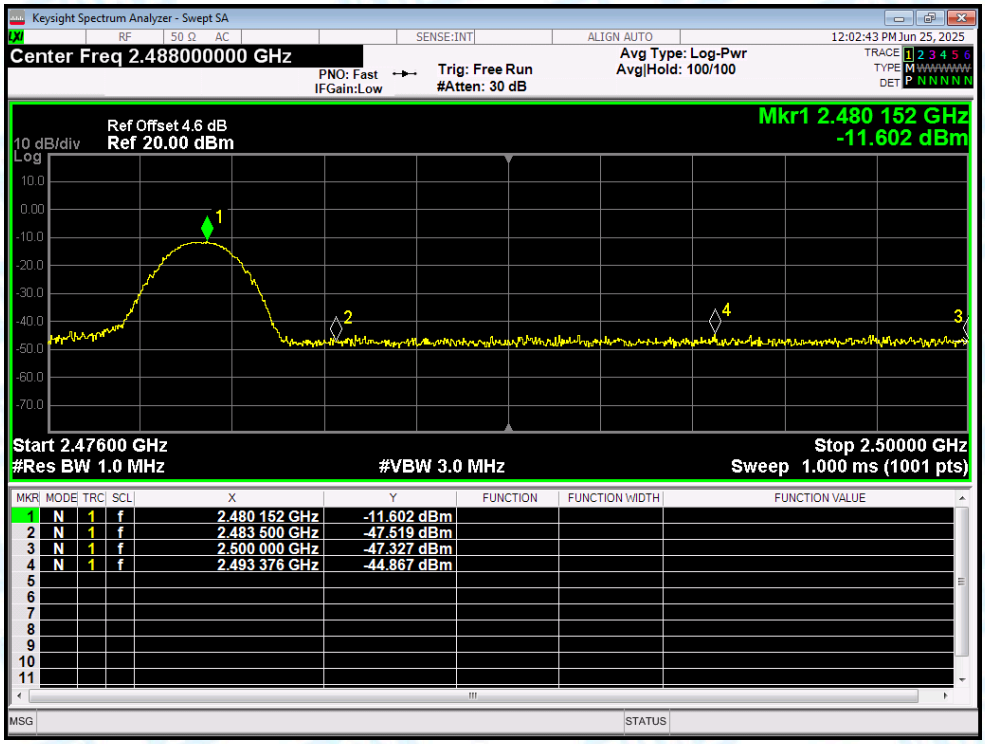
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



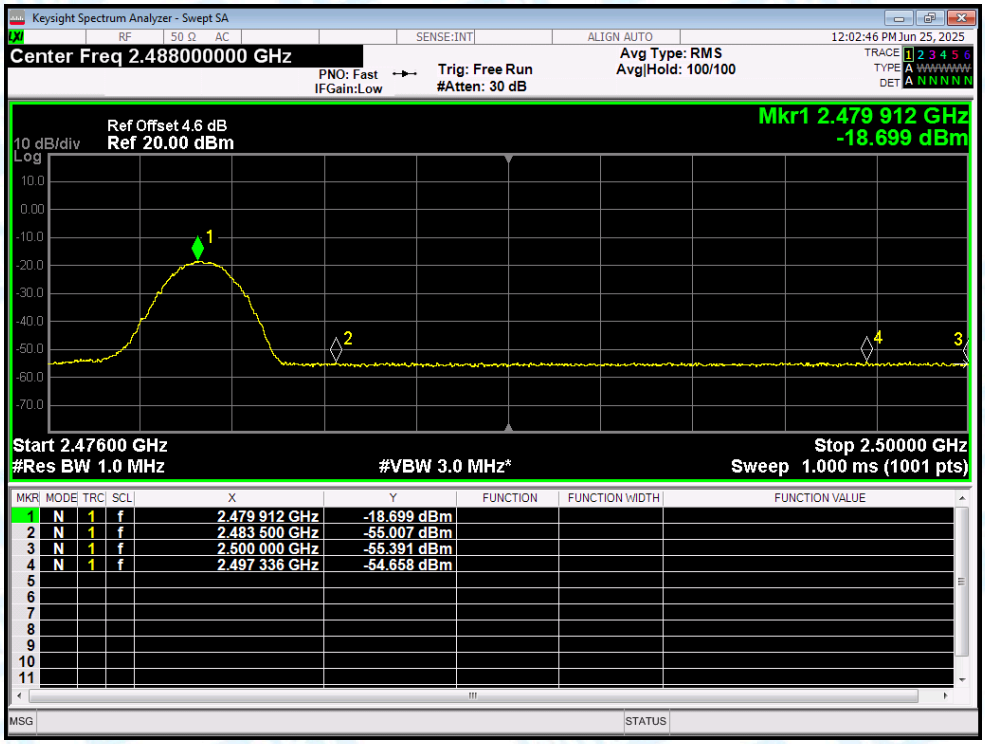
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



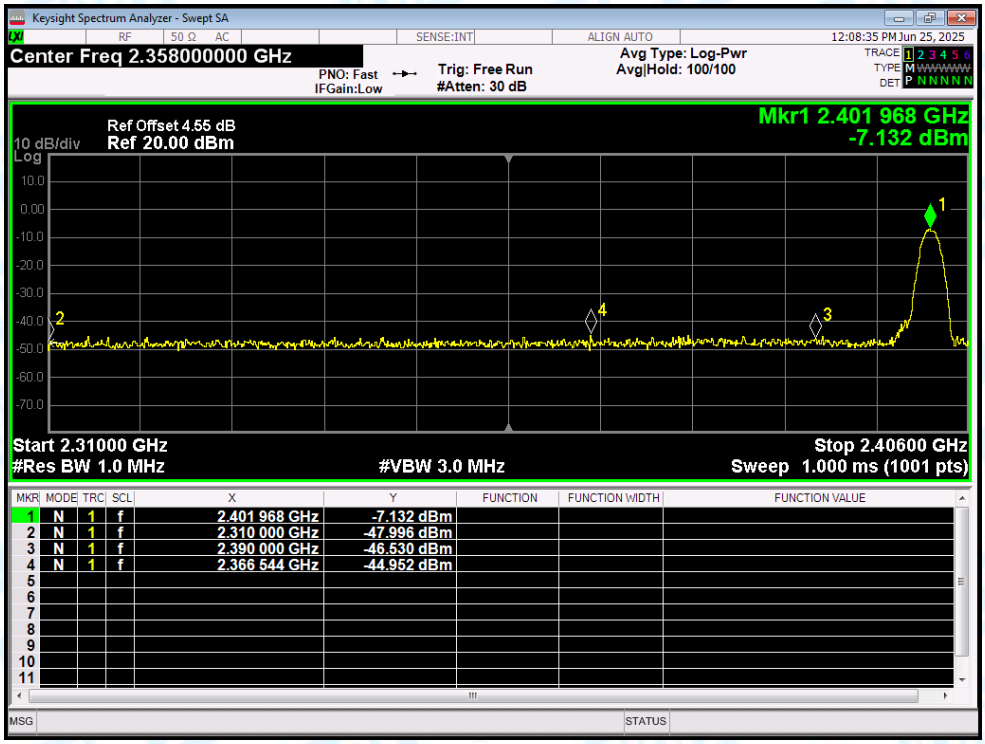
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



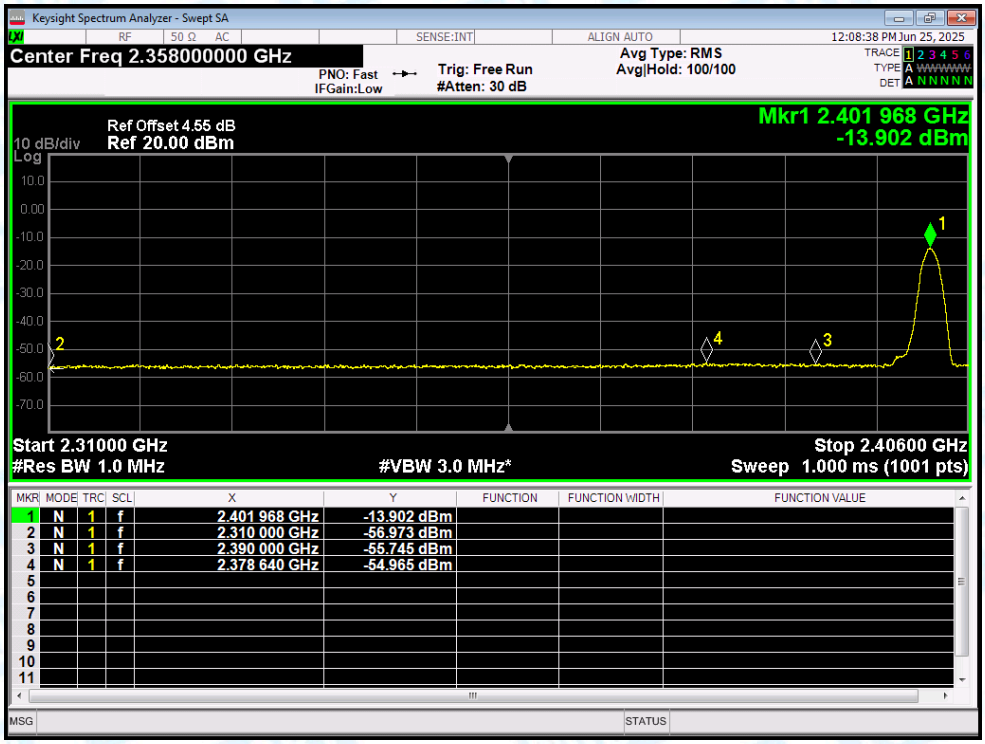
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



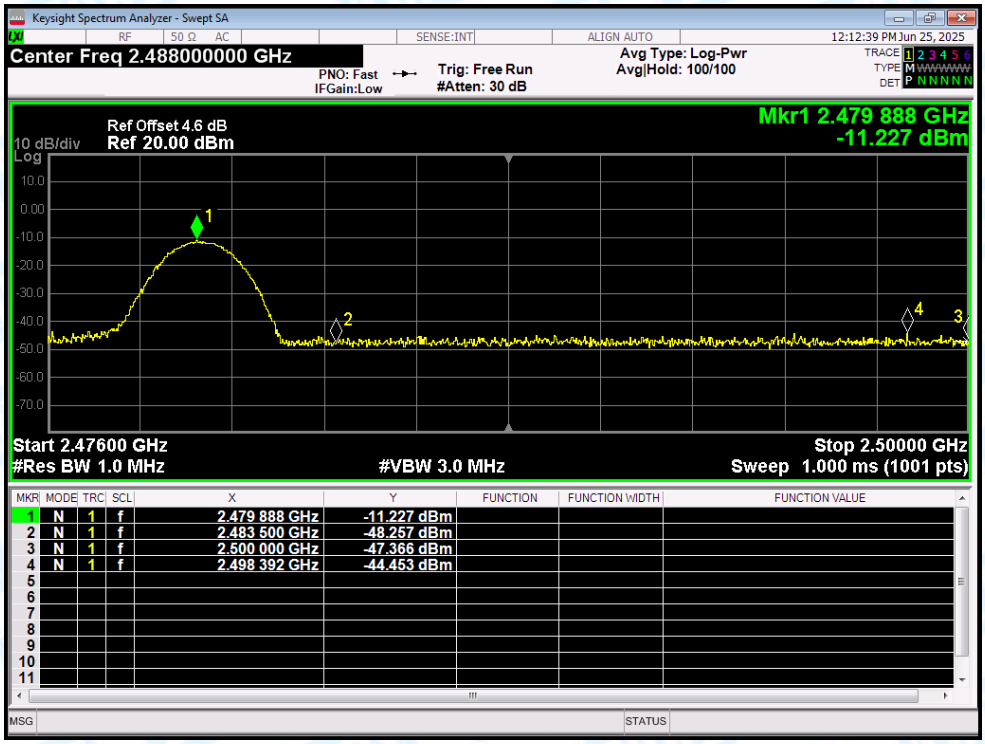
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



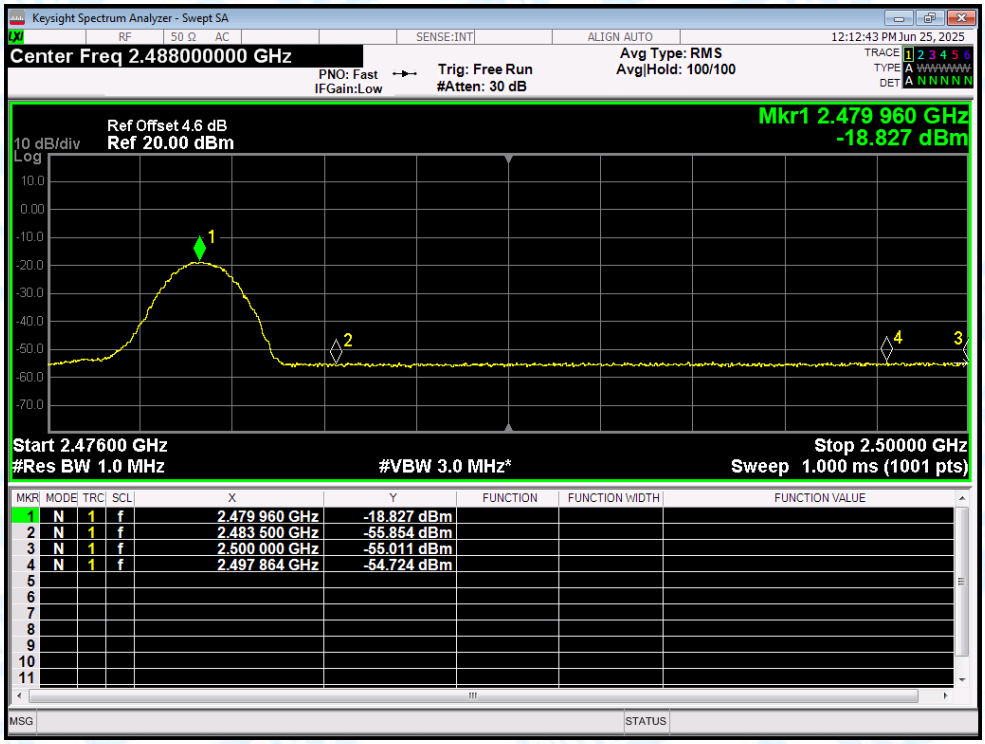
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

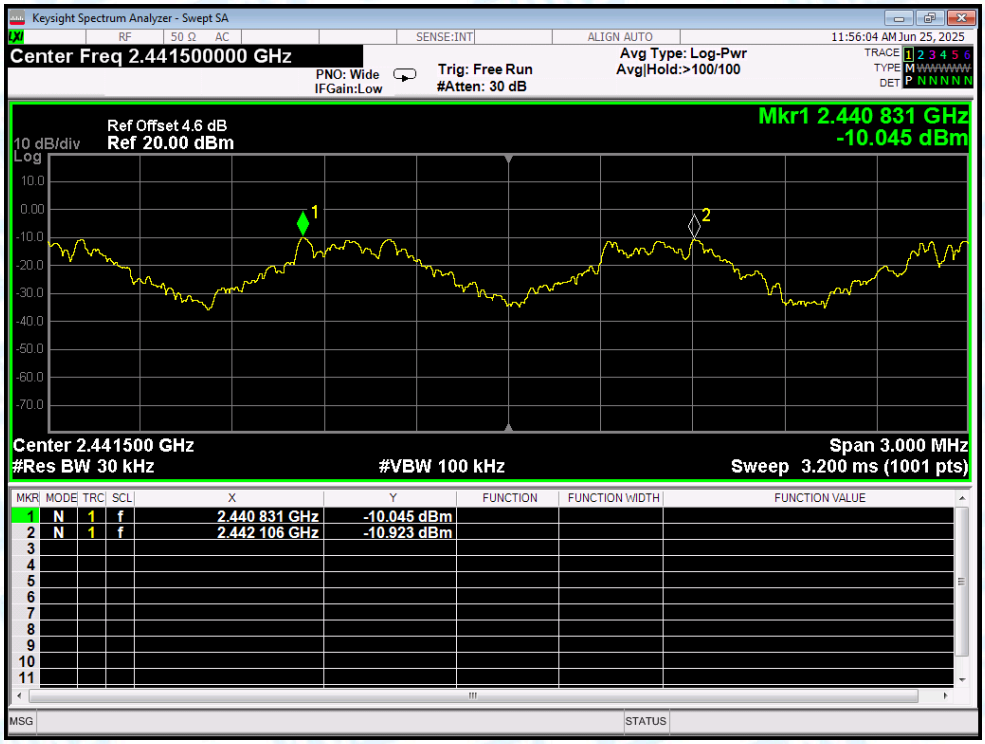


9. Carrier Frequencies Separation

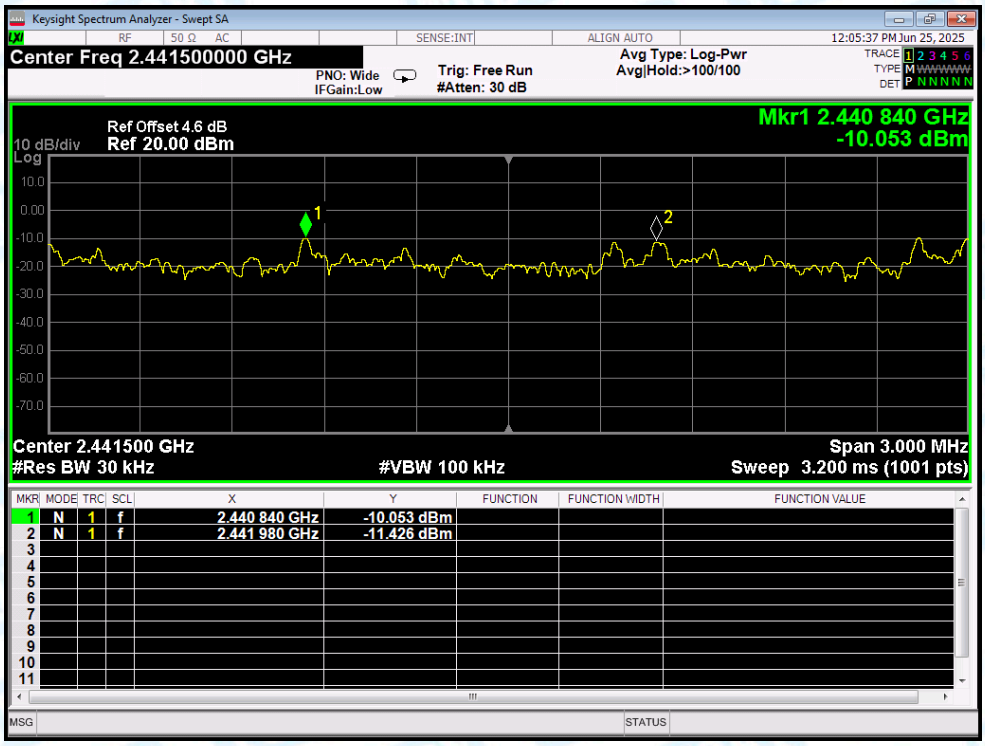
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.831	2442.106	1.275	0.547	Pass
NVNT	2-DH1	Ant1	2440.84	2441.98	1.14	0.82	Pass
NVNT	3-DH1	Ant1	2440.849	2441.842	0.993	0.813	Pass

Test Graphs

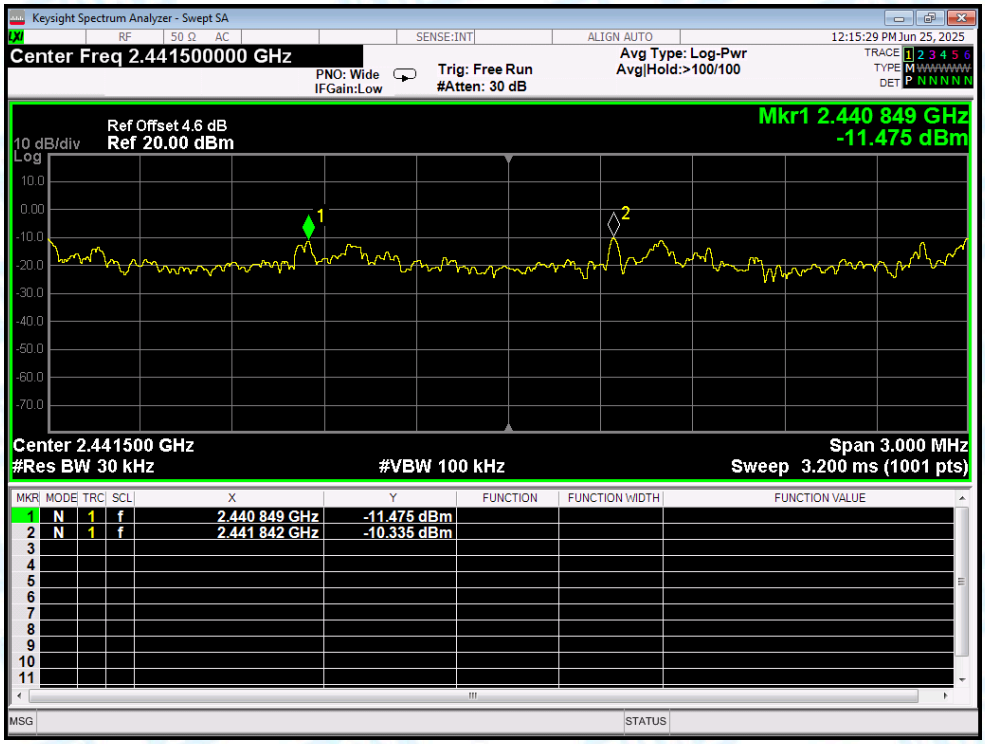
CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

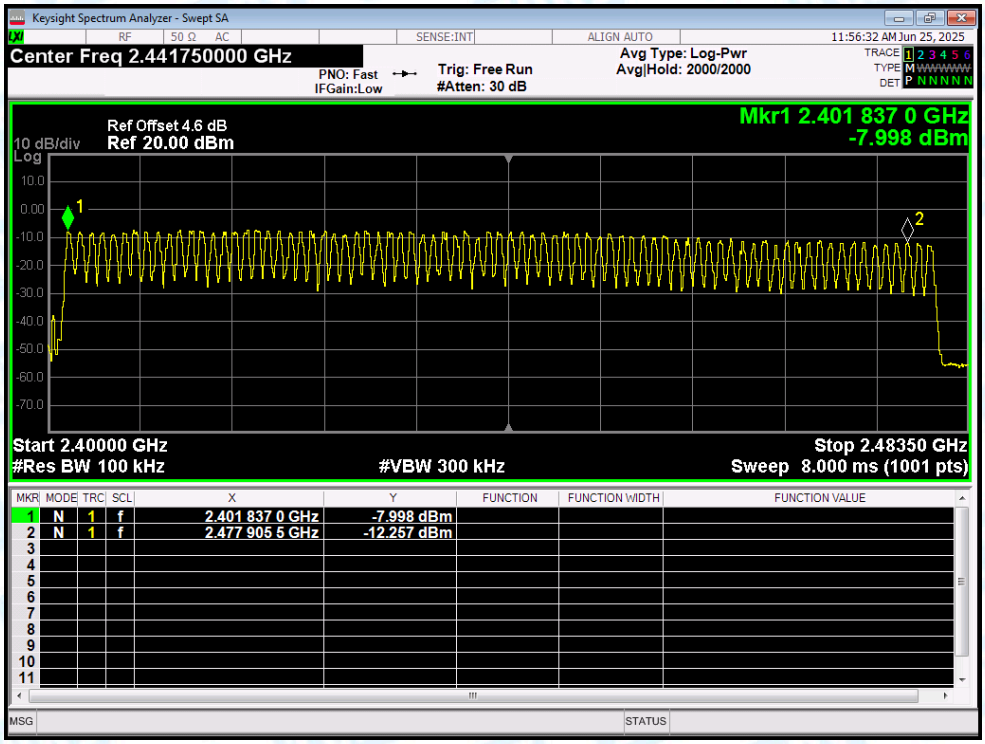


10. Number of Hopping Channel

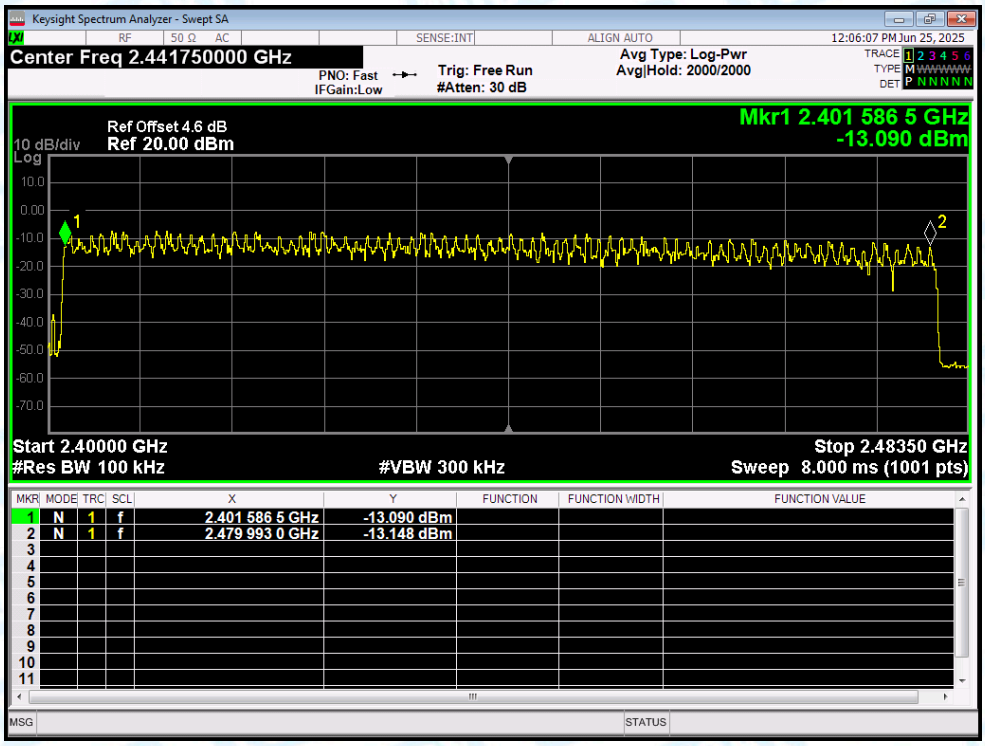
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

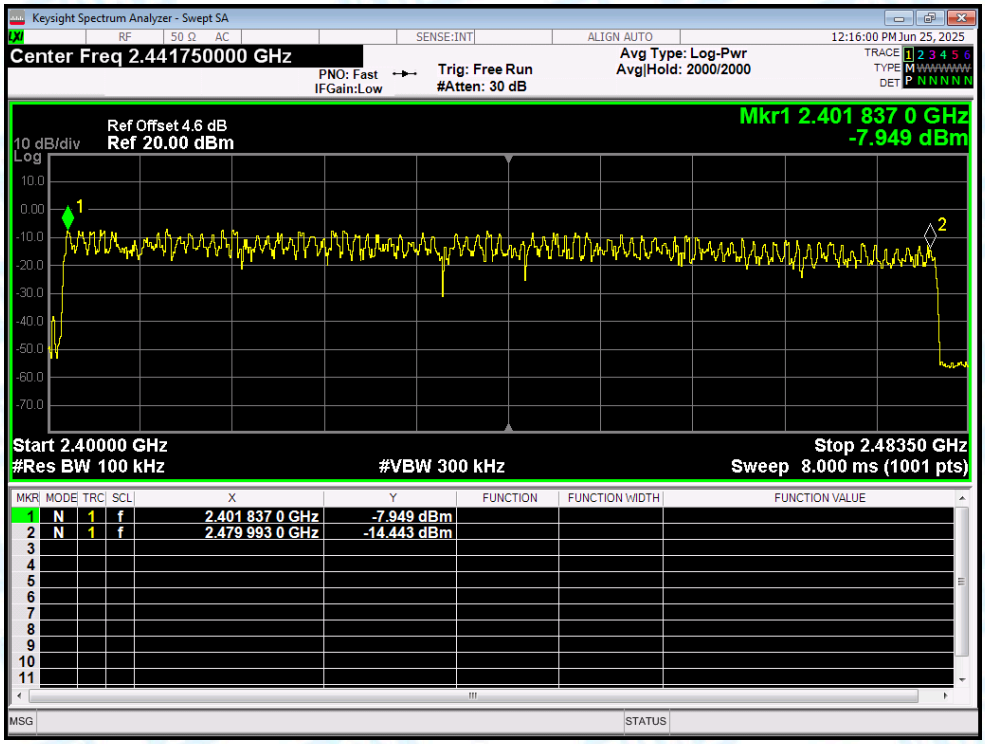
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

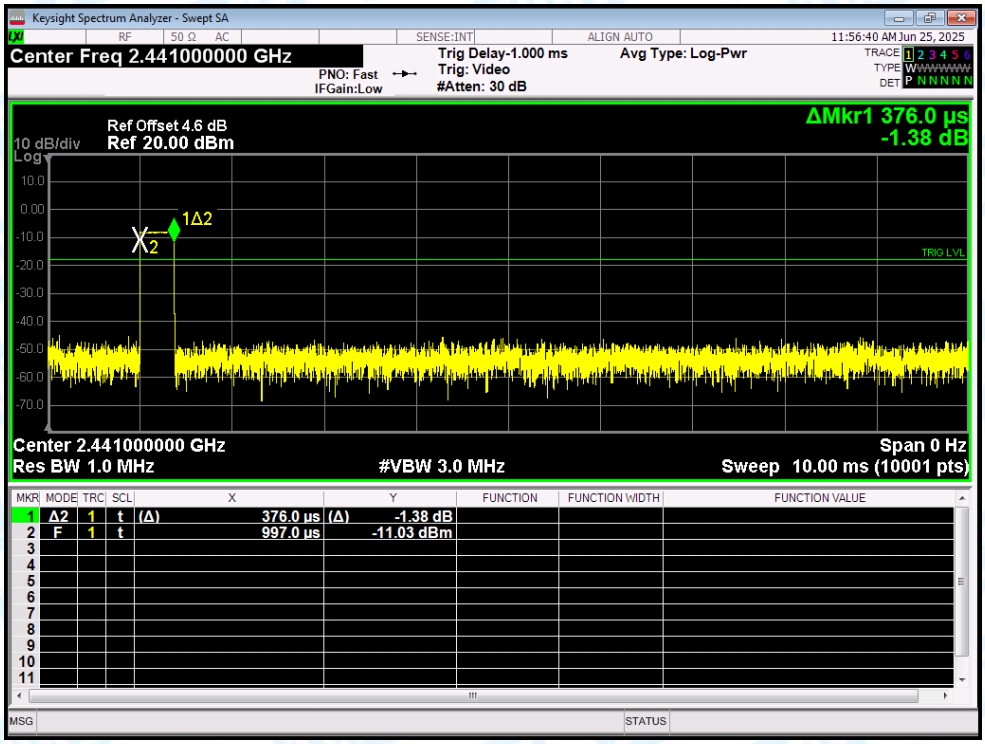


11. Dwell Time

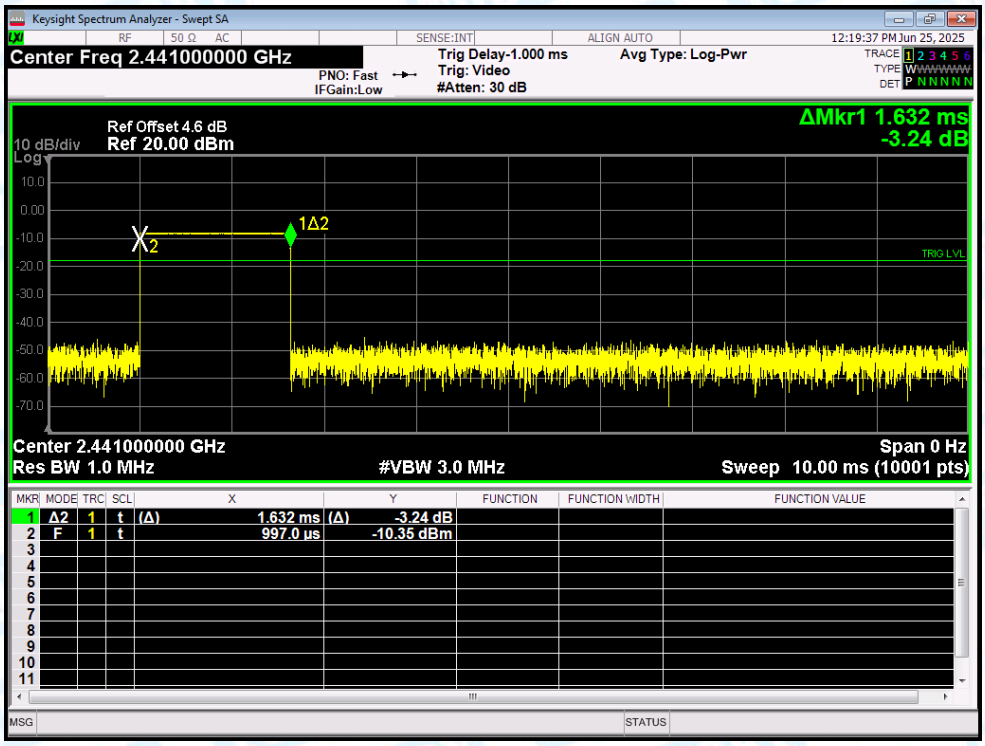
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.632	261.12	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.637	261.92	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	1.636	261.76	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	307.947	31600	400	Pass

Test Graphs

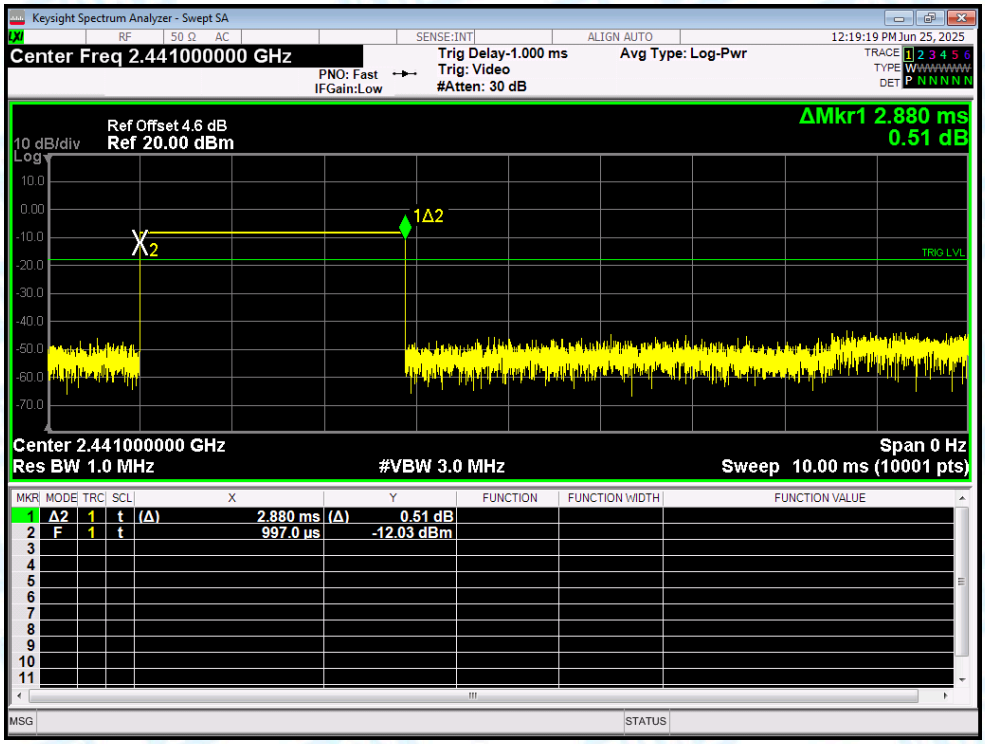
Dwell NVNT 1-DH1 2441MHz Ant1



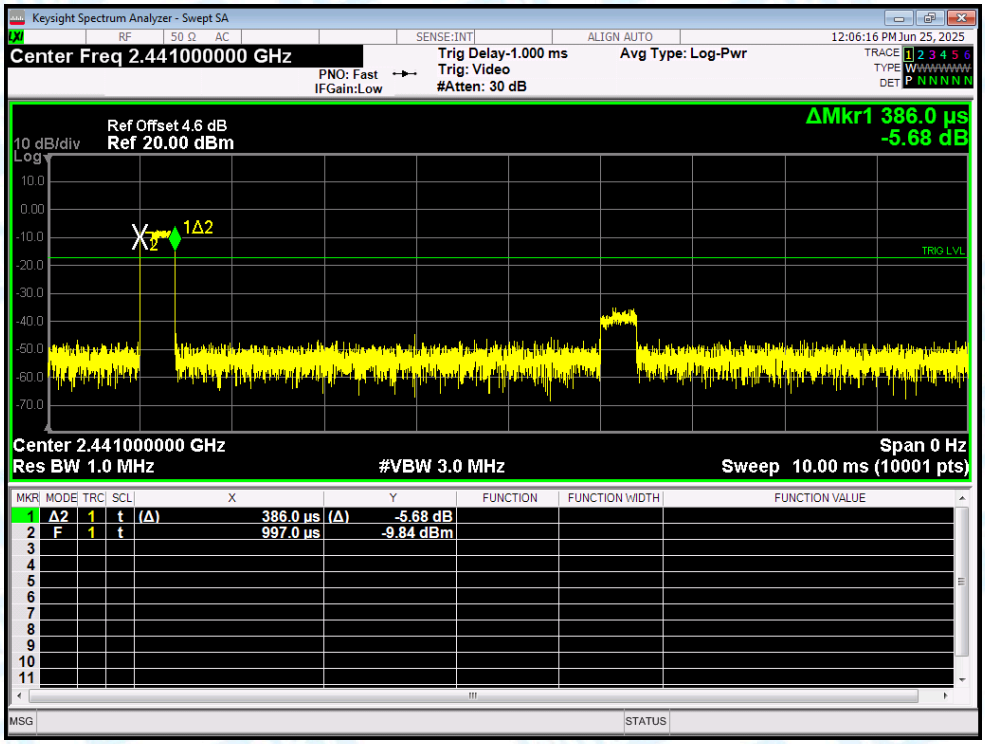
Dwell NVNT 1-DH3 2441MHz Ant1



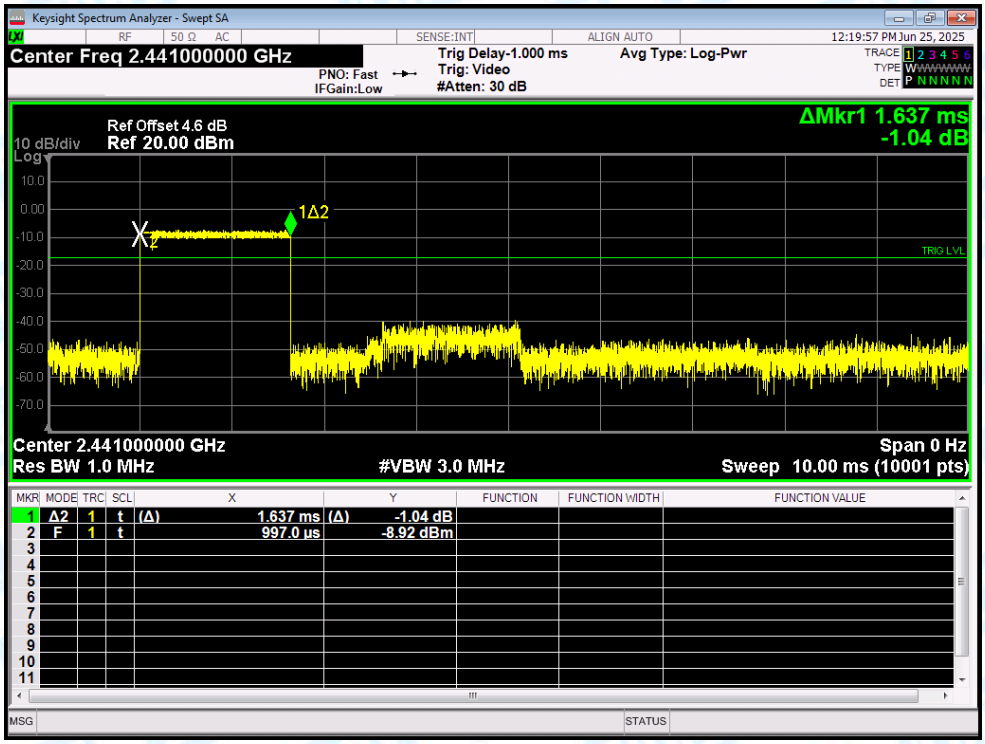
Dwell NVNT 1-DH5 2441MHz Ant1



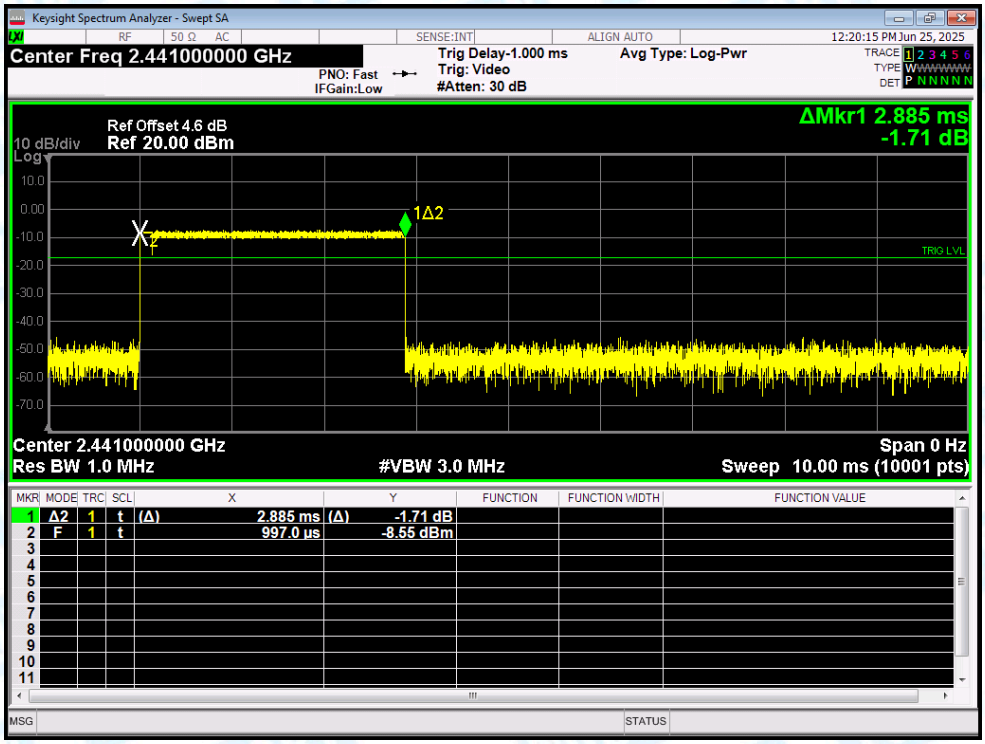
Dwell NVNT 2-DH1 2441MHz Ant1



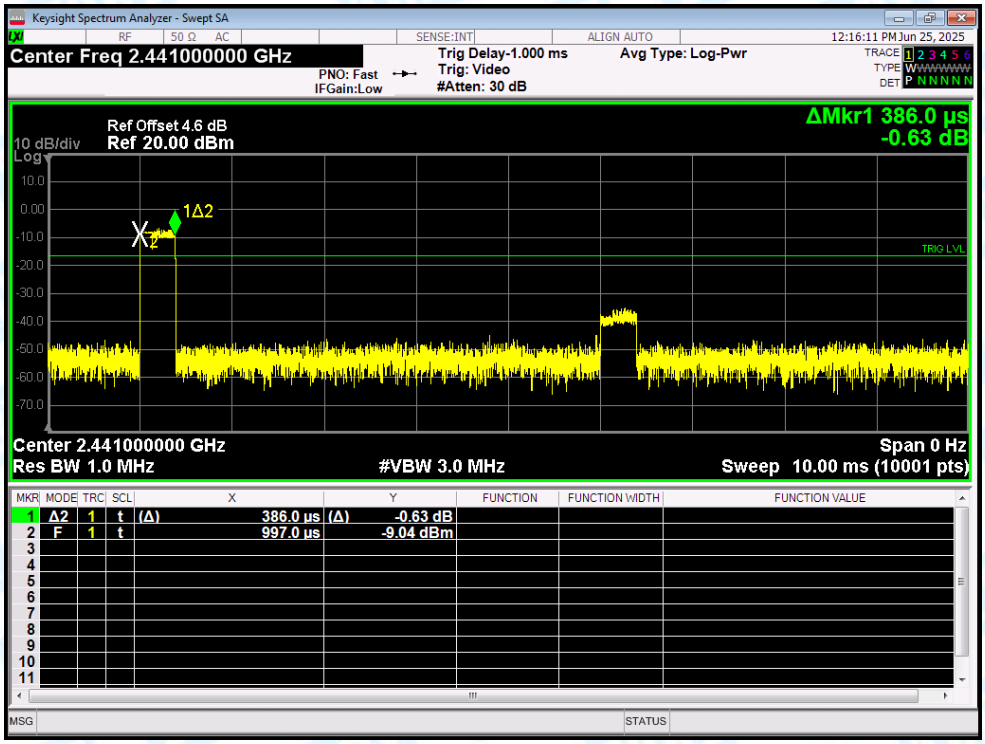
Dwell NVNT 2-DH3 2441MHz Ant1



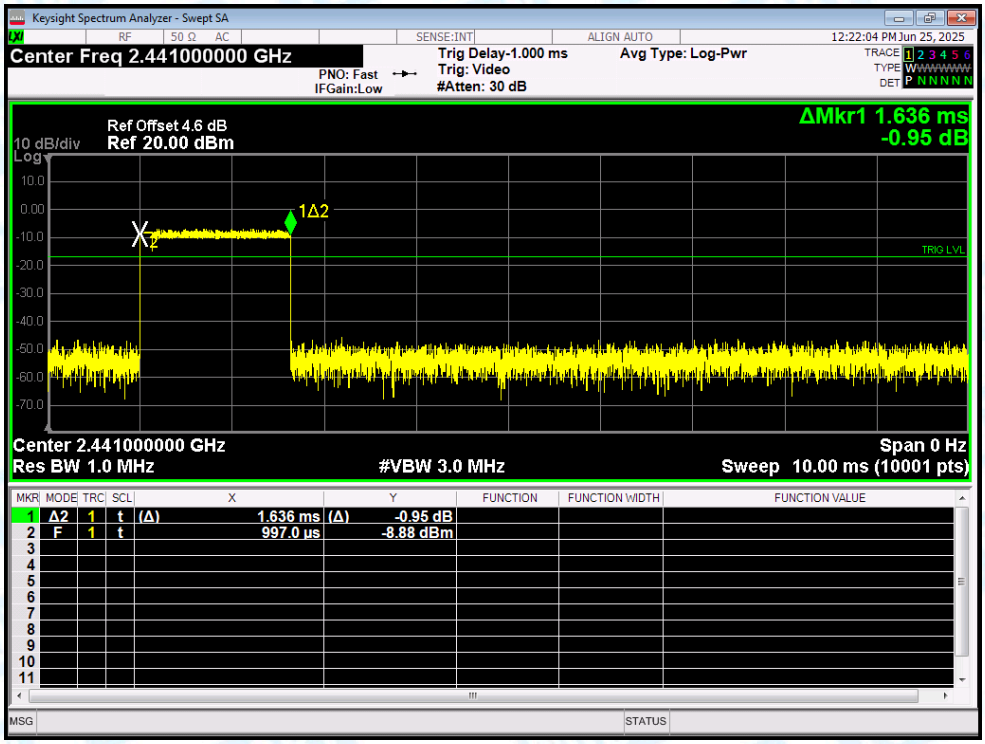
Dwell NVNT 2-DH5 2441MHz Ant1



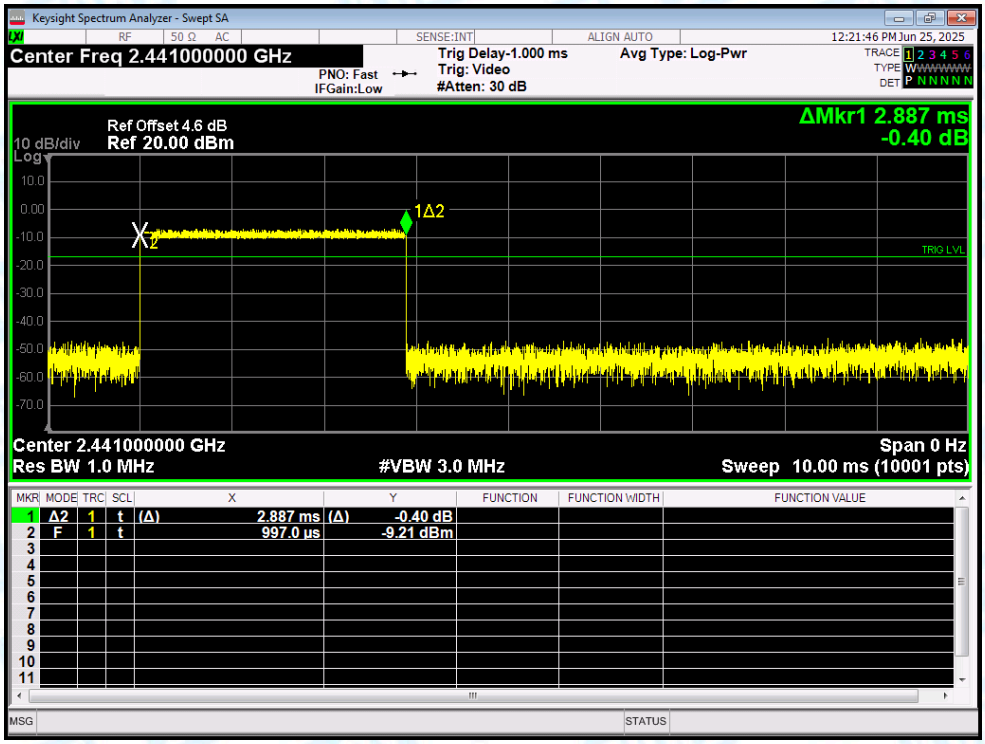
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1



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