Table of Contents

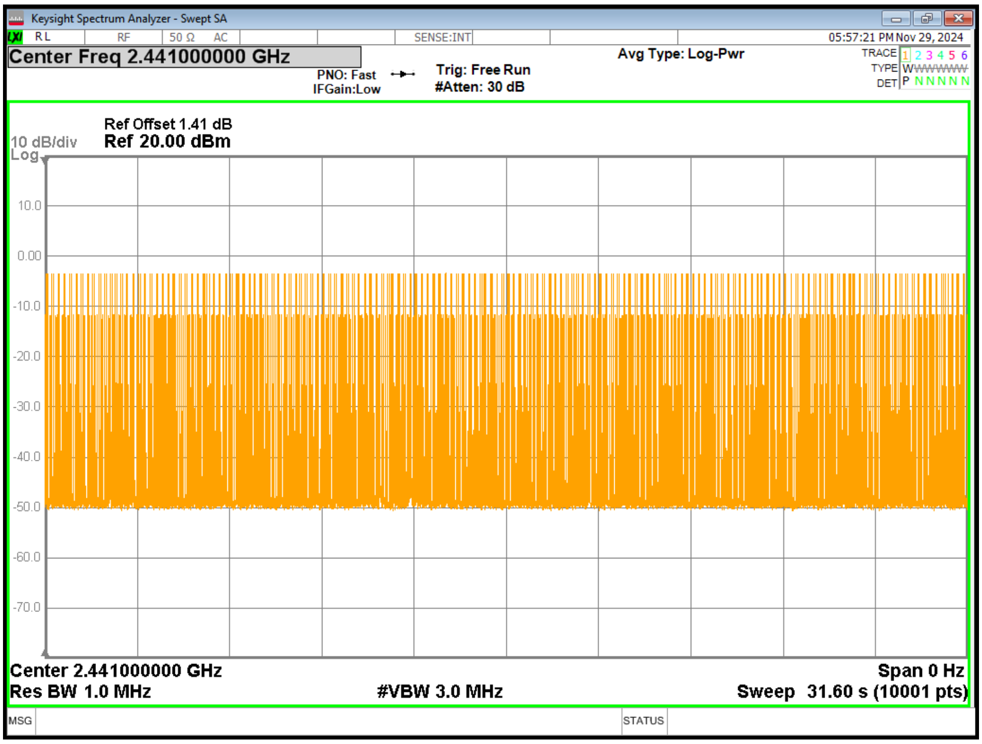
FCC_BT(Part15.247) Test Data

1.Dwell Time

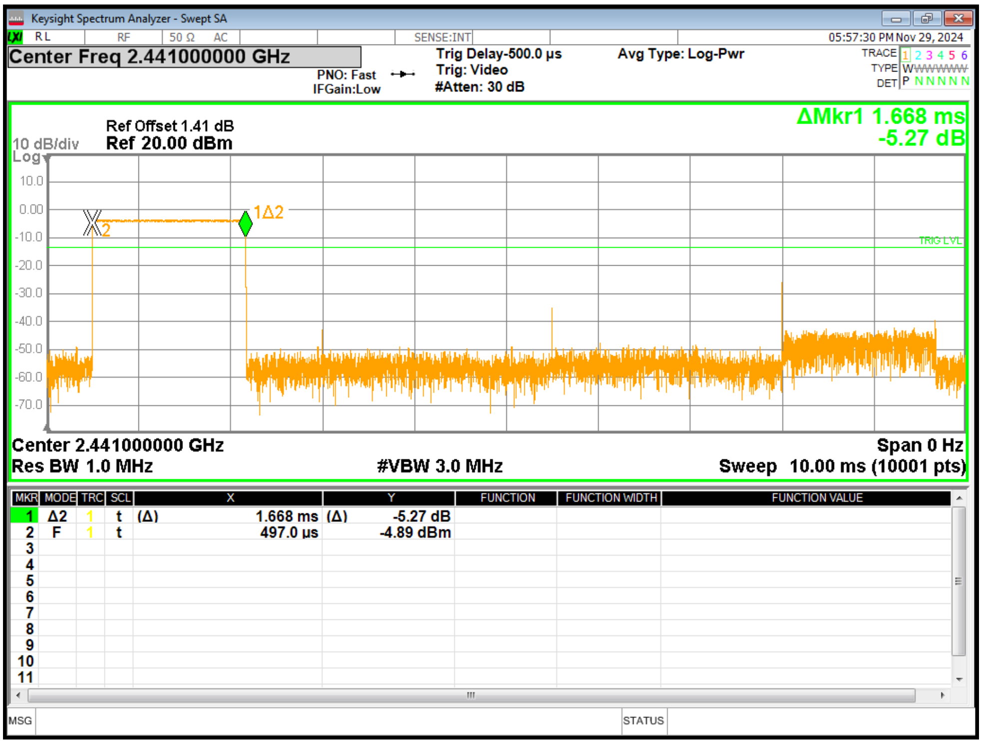
Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	Ant1	0.412	131.428	319	31600	400	Pass
1-DH3	2441	Ant1	1.668	268.548	161	31600	400	Pass
1-DH5	2441	Ant1	2.916	294.516	101	31600	400	Pass
2-DH1	2441	Ant1	0.421	134.299	319	31600	400	Pass
2-DH3	2441	Ant1	1.674	252.774	151	31600	400	Pass
2-DH5	2441	Ant1	2.921	332.994	114	31600	400	Pass
3-DH1	2441	Ant1	0.424	135.256	319	31600	400	Pass
3-DH3	2441	Ant1	1.674	271.188	162	31600	400	Pass
3-DH5	2441	Ant1	2.925	348.075	119	31600	400	Pass

Test Graphs
Dwell NVNT 1-DH1 2441MHz Ant1 One Burst

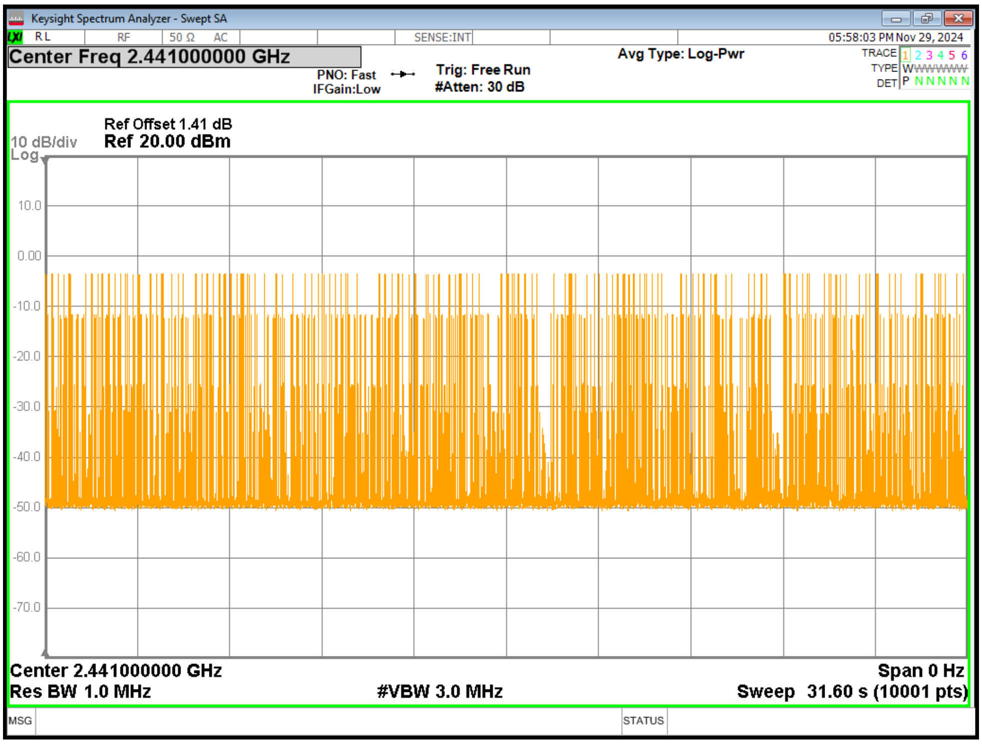
Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 1-DH3 2441MHz Ant1 One Burst

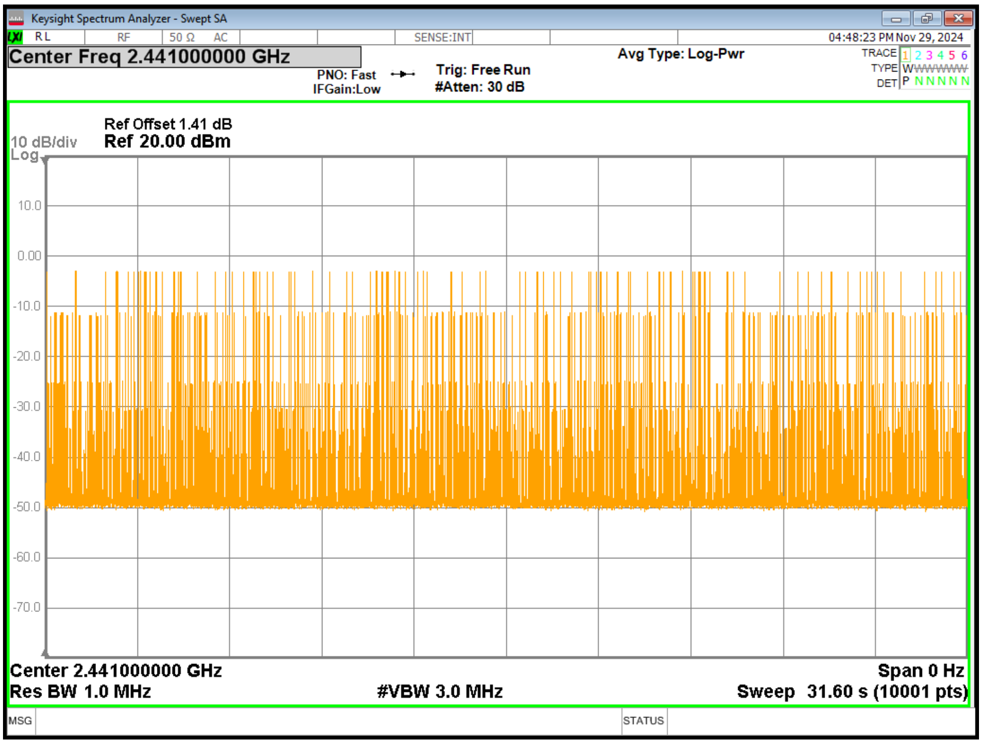


Dwell NVNT 1-DH3 2441MHz Ant1 Accumulated



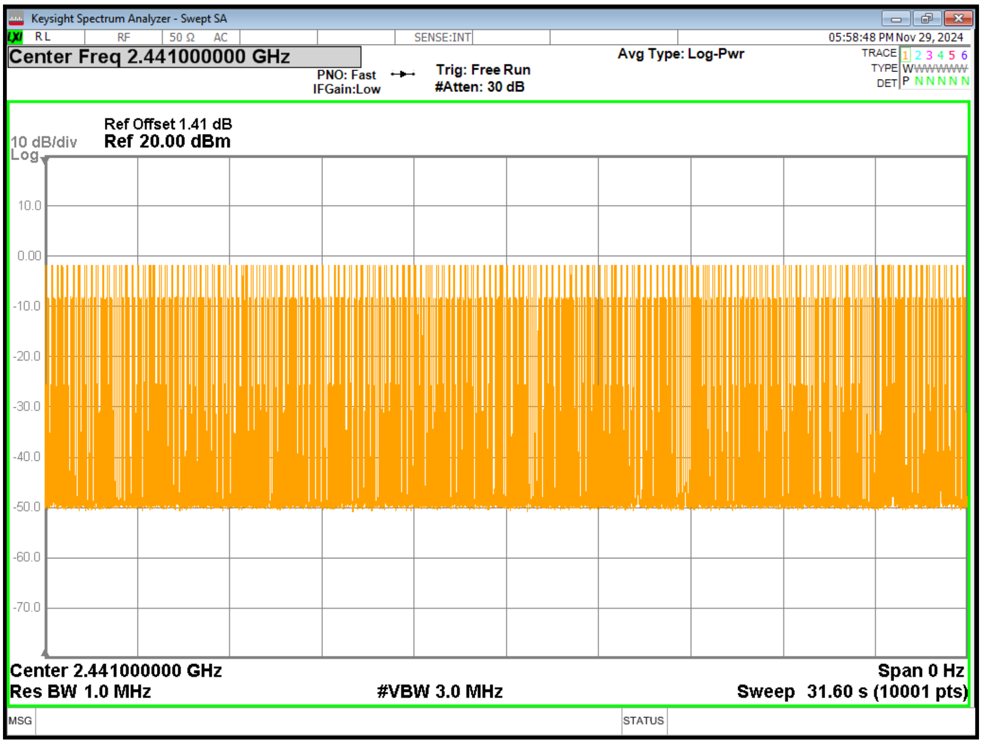
Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH1 2441MHz Ant1 One Burst

Dwell NVNT 2-DH1 2441MHz Ant1 Accumulated

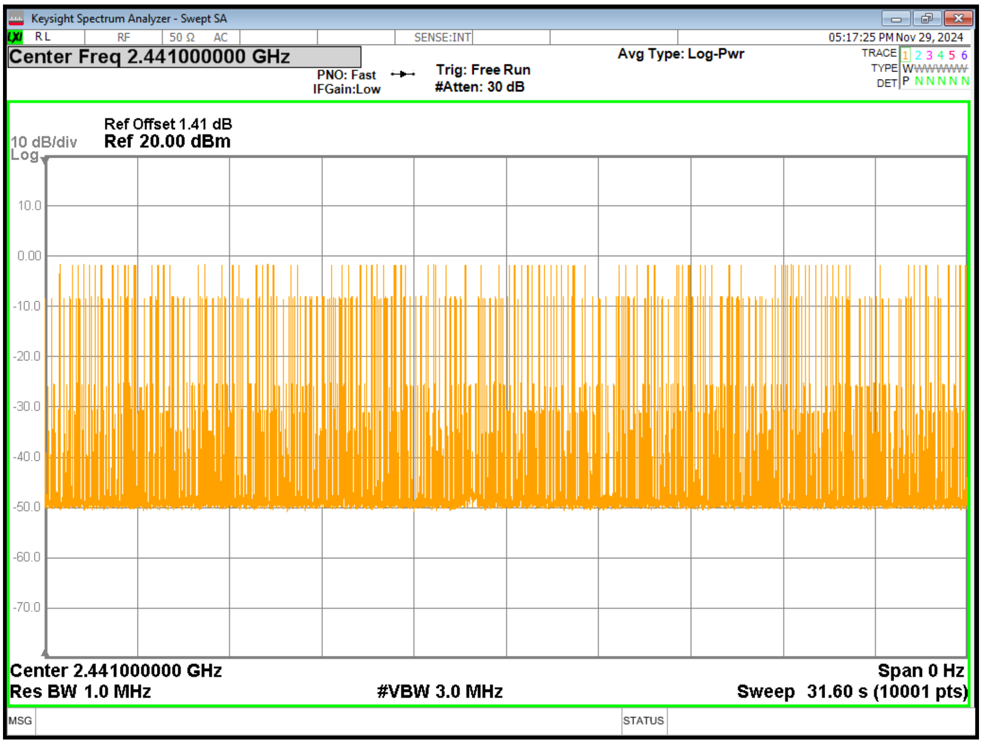


Dwell NVNT 2-DH3 2441MHz Ant1 One Burst

Dwell NVNT 2-DH3 2441MHz Ant1 Accumulated

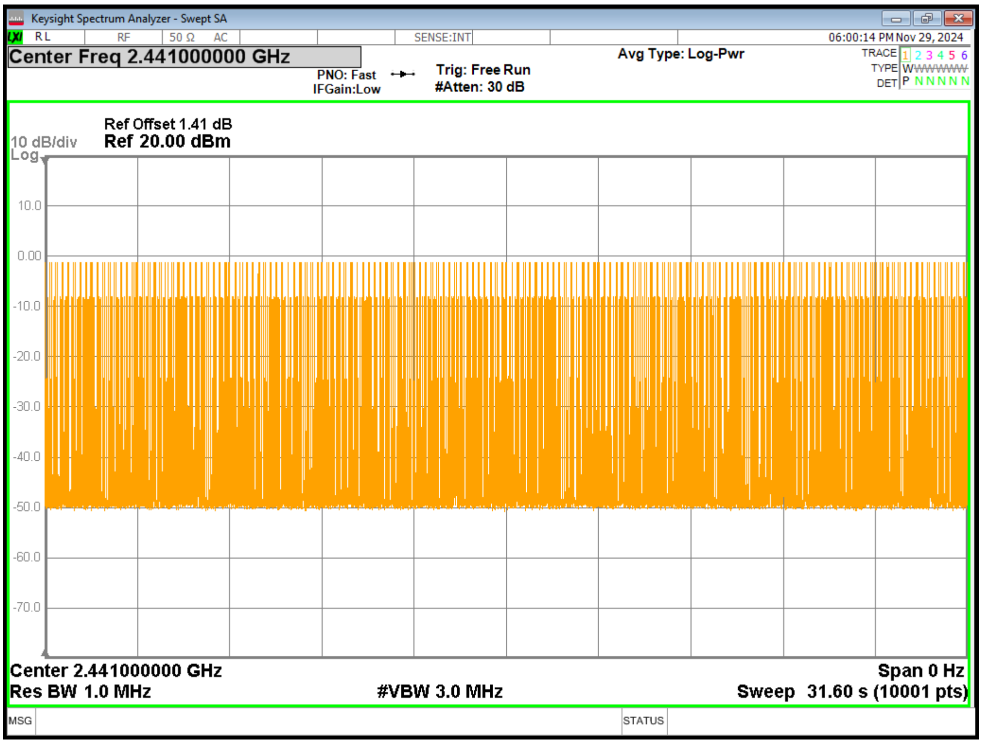
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



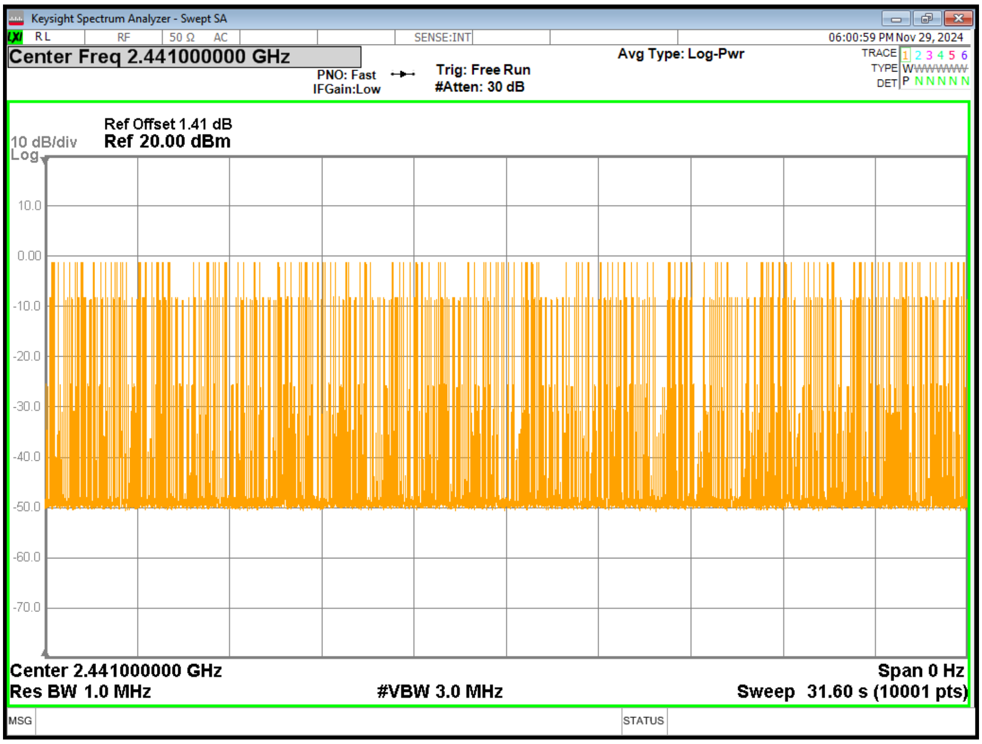
Dwell NVNT 3-DH1 2441MHz Ant1 One Burst

Dwell NVNT 3-DH1 2441MHz Ant1 Accumulated

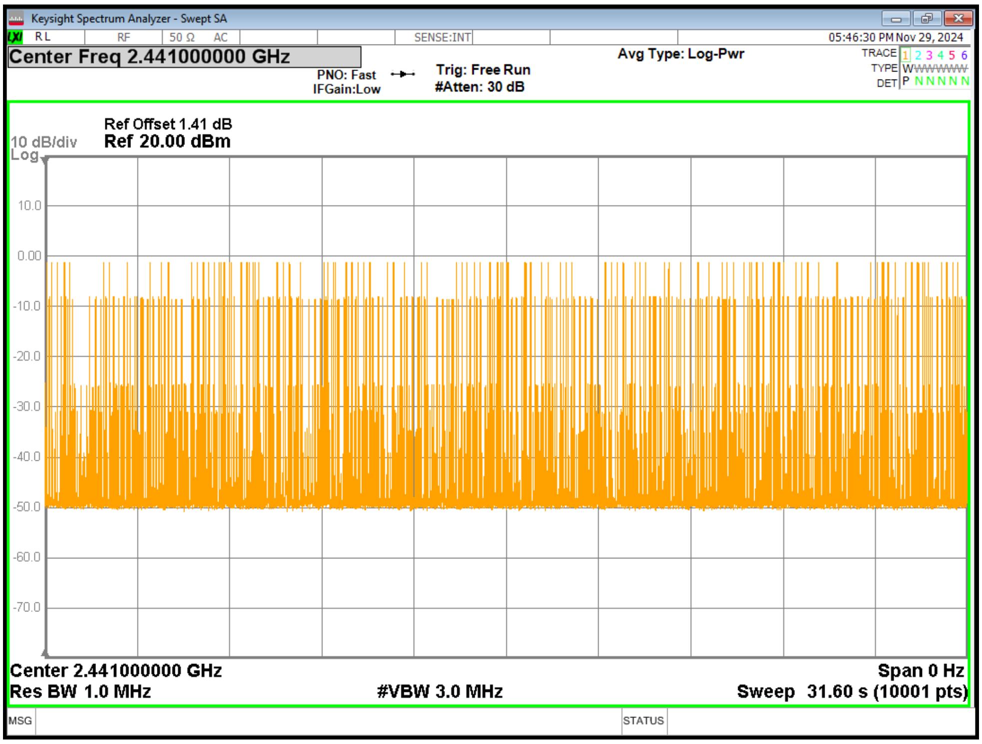


Dwell NVNT 3-DH3 2441MHz Ant1 One Burst

Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated

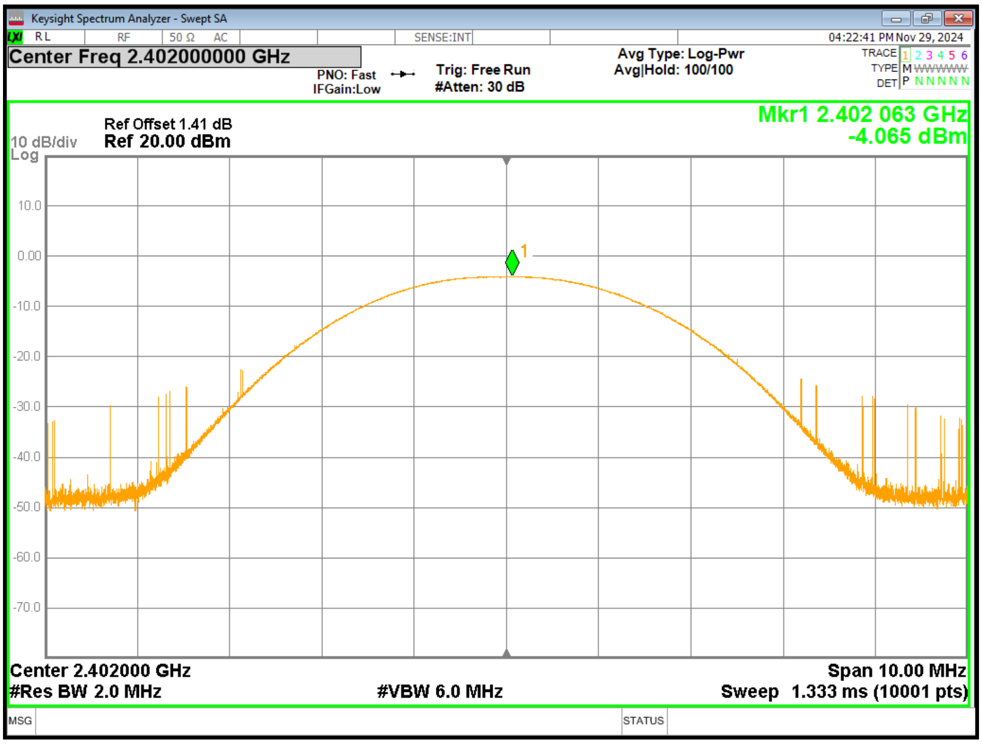
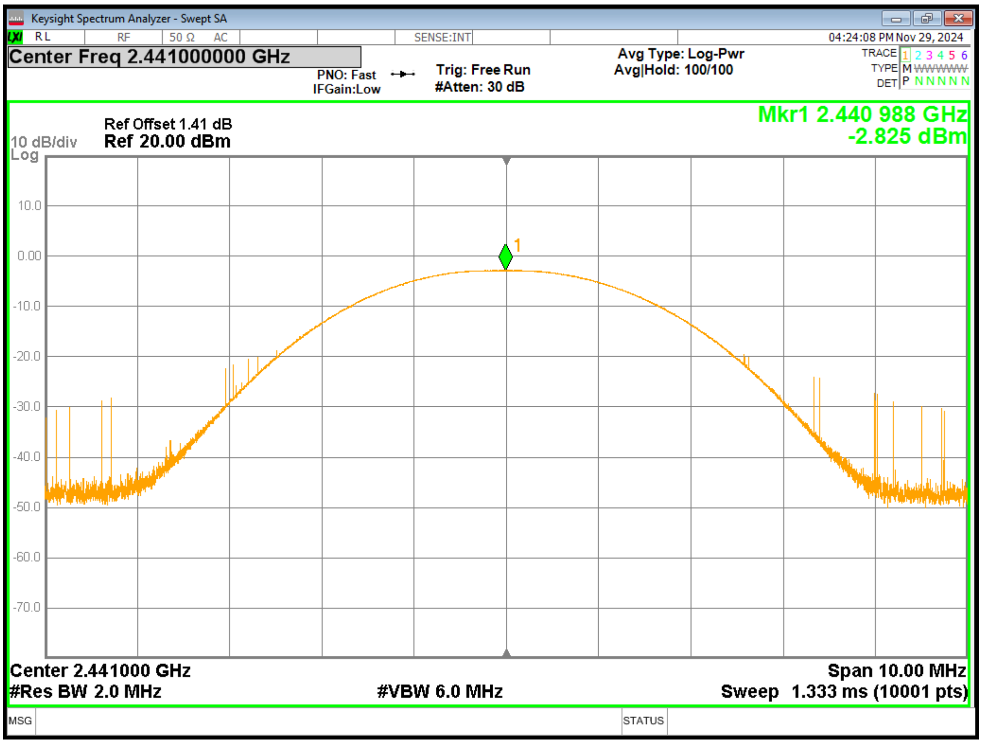


Dwell NVNT 3-DH5 2441MHz Ant1 One Burst

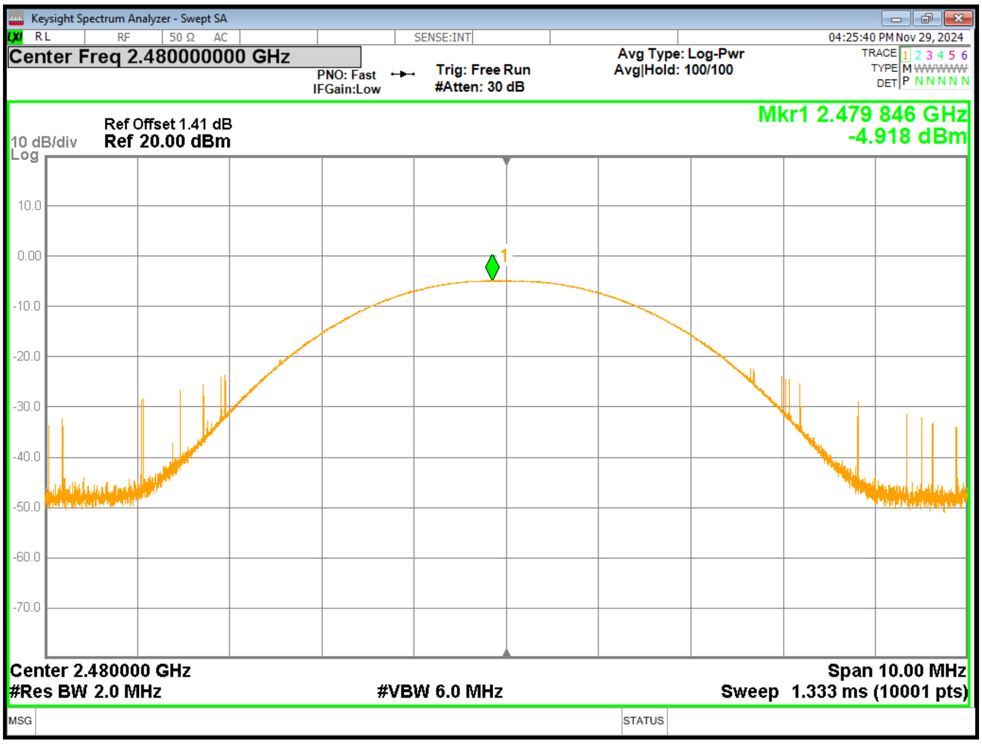
Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated


2.Maximum Peak Conducted Output Power

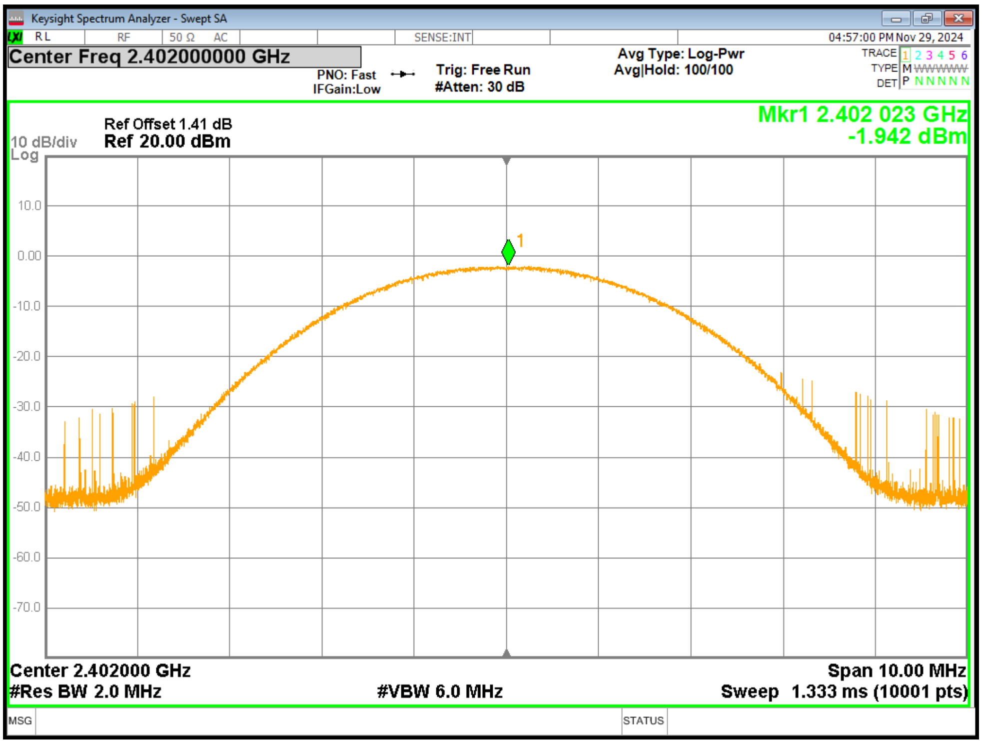
Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
1-DH5	2402	Ant1	-4.07	30	Pass
1-DH5	2441	Ant1	-2.83	30	Pass
1-DH5	2480	Ant1	-4.92	30	Pass
2-DH5	2402	Ant1	-1.94	21	Pass
2-DH5	2441	Ant1	-1.08	21	Pass
2-DH5	2480	Ant1	-3.23	21	Pass
3-DH5	2402	Ant1	-1.43	21	Pass
3-DH5	2441	Ant1	-0.72	21	Pass
3-DH5	2480	Ant1	-2.69	21	Pass

Test Graphs
Peak Power NVNT 1-DH5 2402MHz Ant1

Peak Power NVNT 1-DH5 2441MHz Ant1


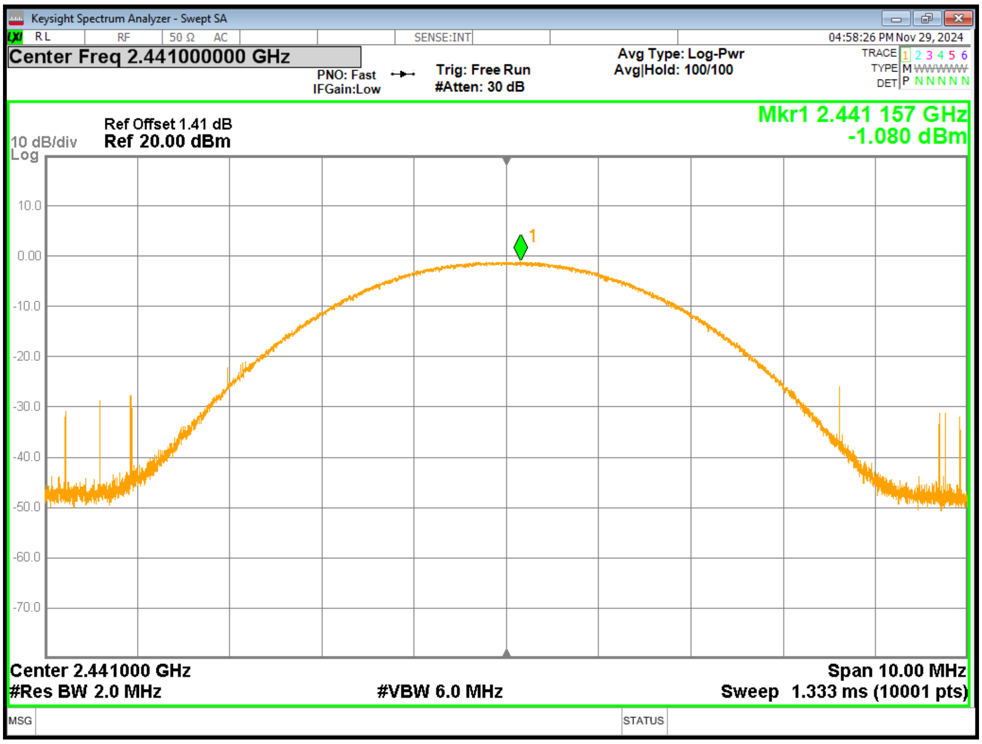
Peak Power NVNT 1-DH5 2480MHz Ant1



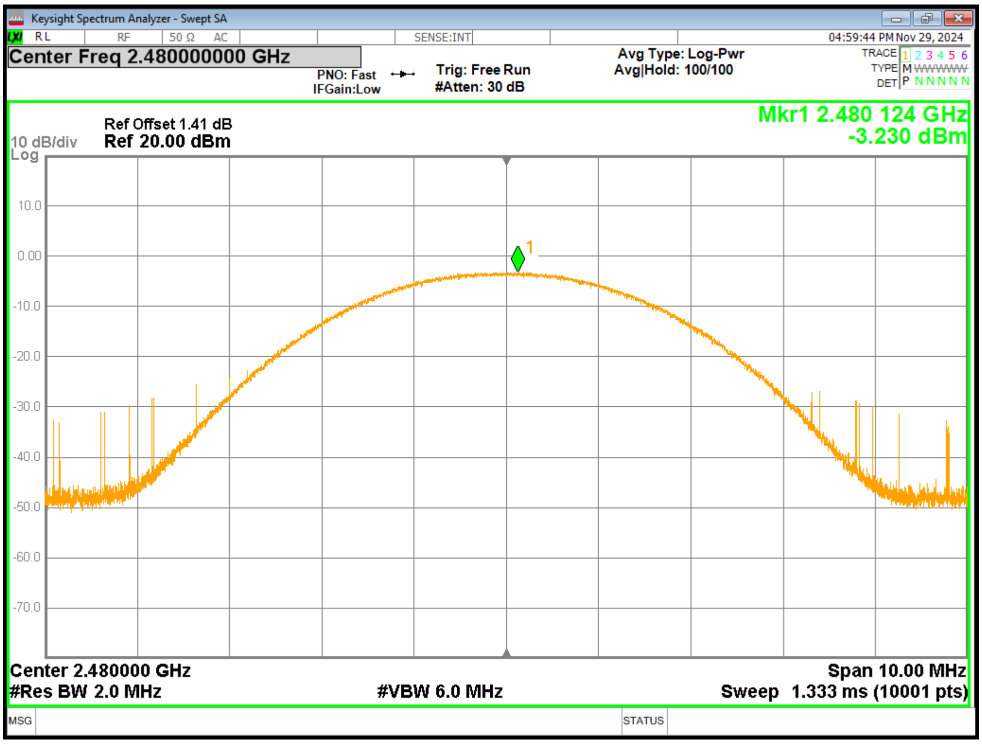
Peak Power NVNT 2-DH5 2402MHz Ant1



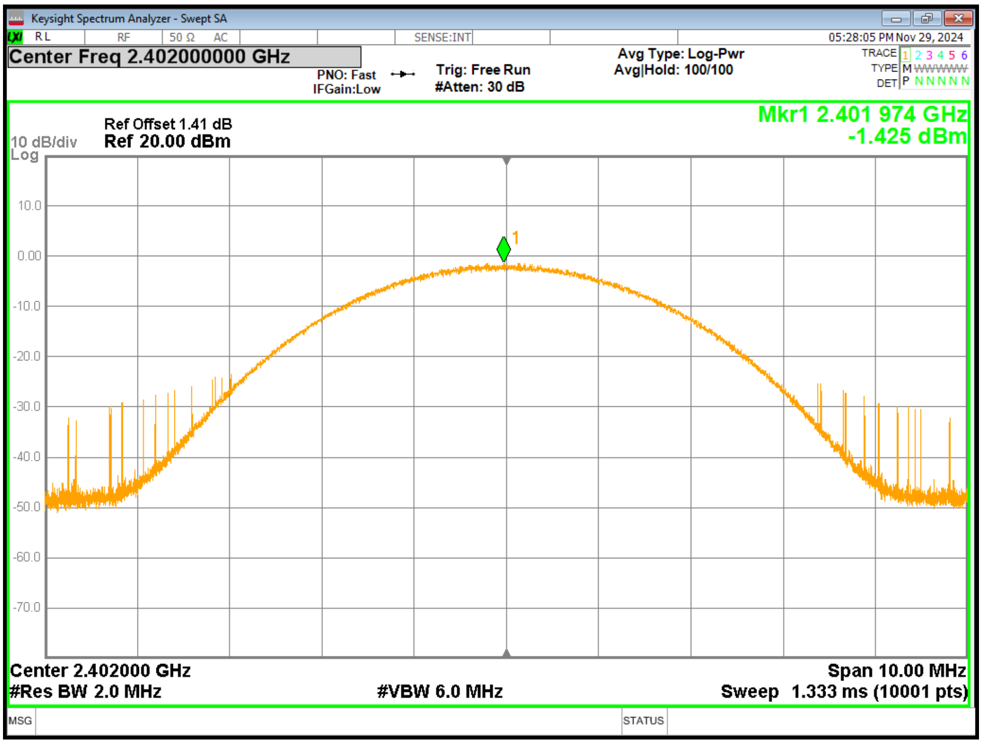
Peak Power NVNT 2-DH5 2441MHz Ant1



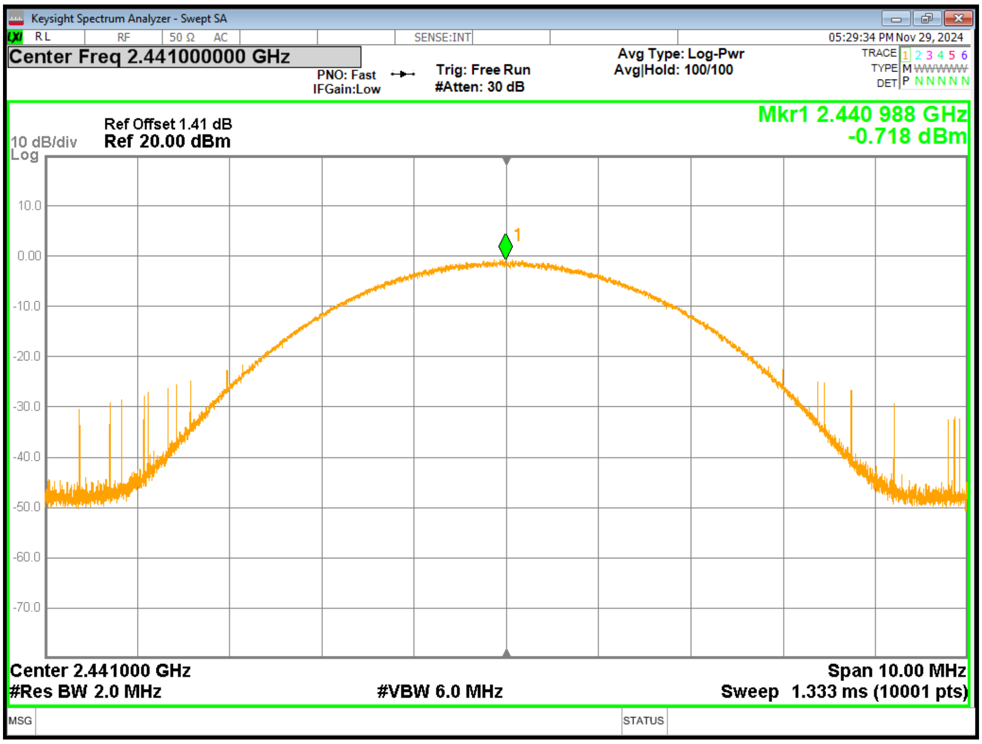
Peak Power NVNT 2-DH5 2480MHz Ant1



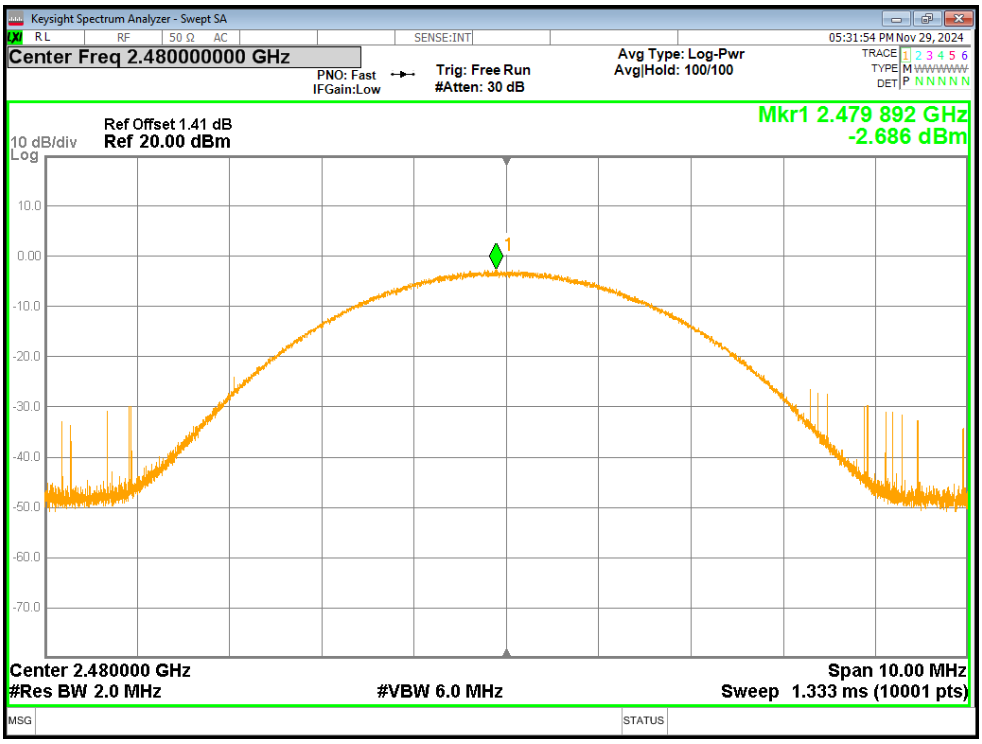
Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1



Peak Power NVNT 3-DH5 2480MHz Ant1

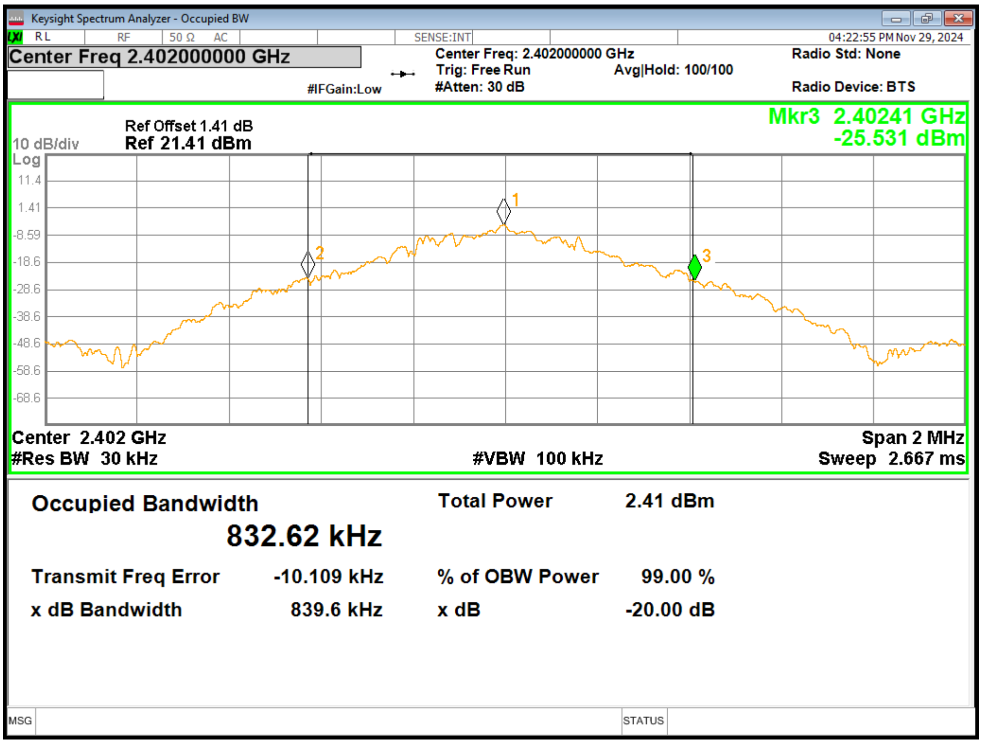


3.-20dB Bandwidth

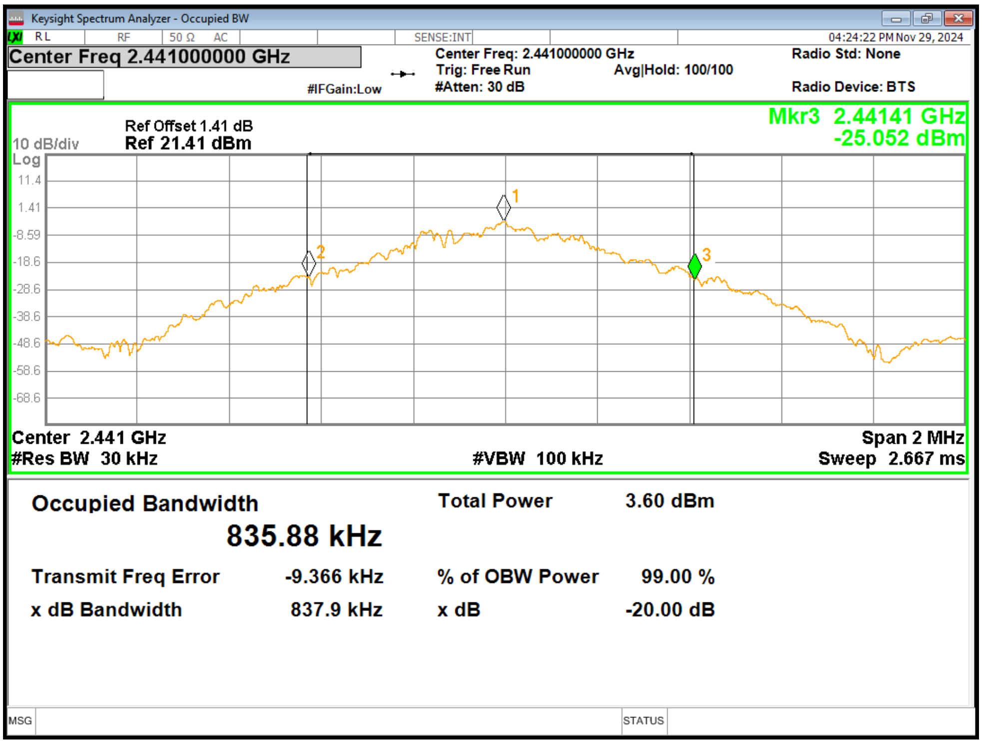
Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
1-DH5	2402	Ant1	0.840	Pass
1-DH5	2441	Ant1	0.838	Pass
1-DH5	2480	Ant1	0.948	Pass
2-DH5	2402	Ant1	1.327	Pass
2-DH5	2441	Ant1	1.321	Pass
2-DH5	2480	Ant1	1.276	Pass
3-DH5	2402	Ant1	1.292	Pass
3-DH5	2441	Ant1	1.283	Pass
3-DH5	2480	Ant1	1.27	Pass

Test Graphs

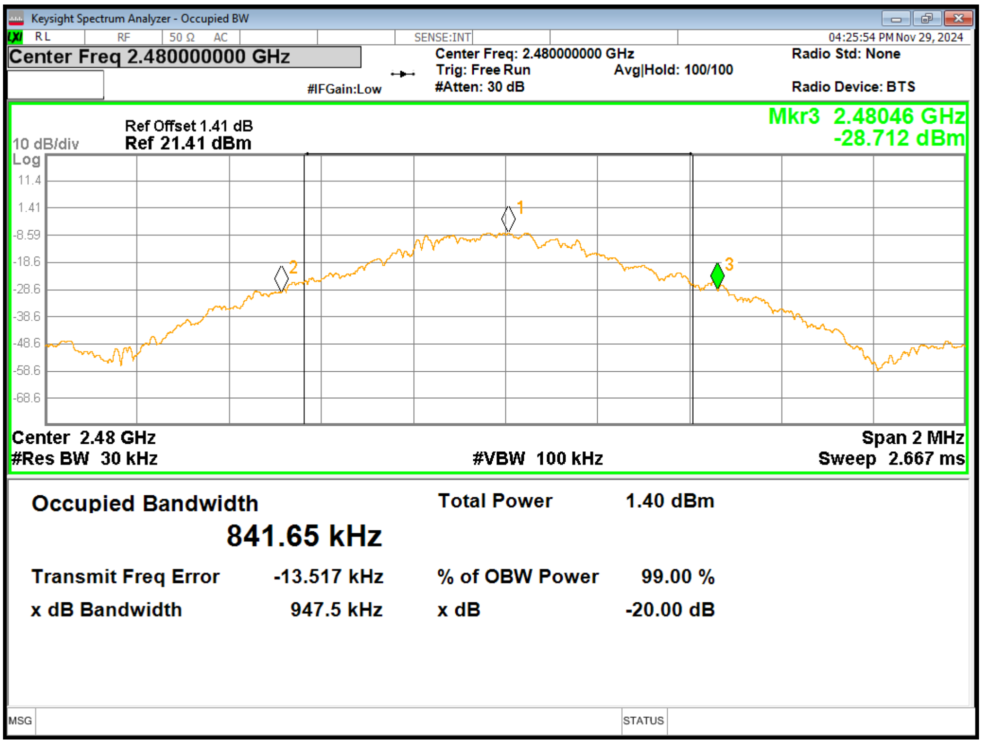
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



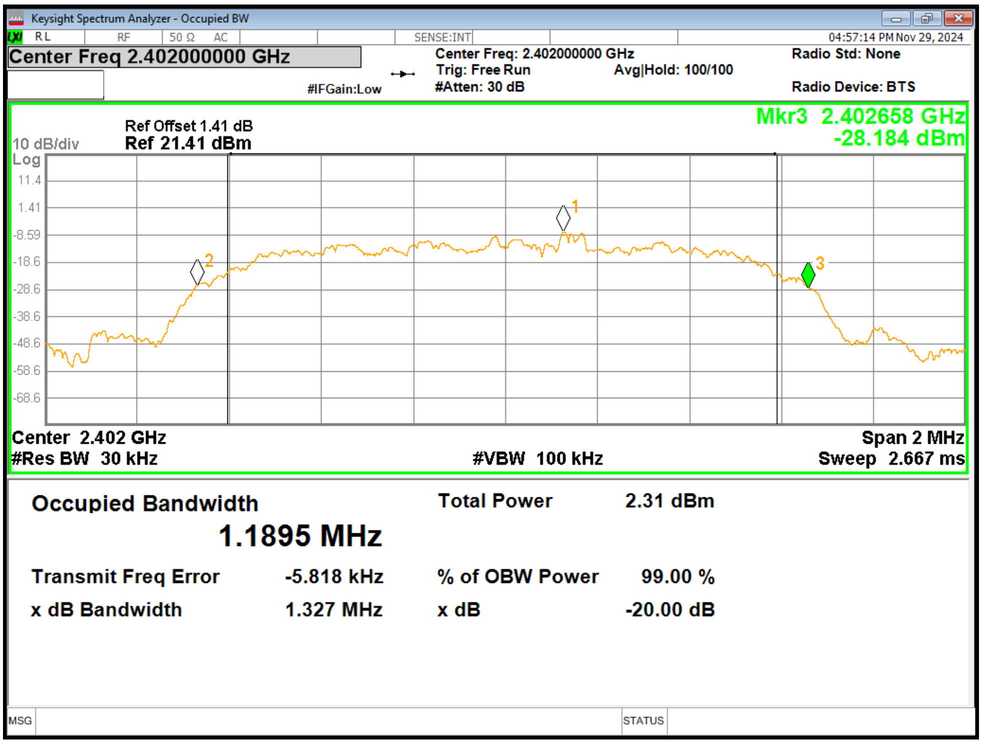
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



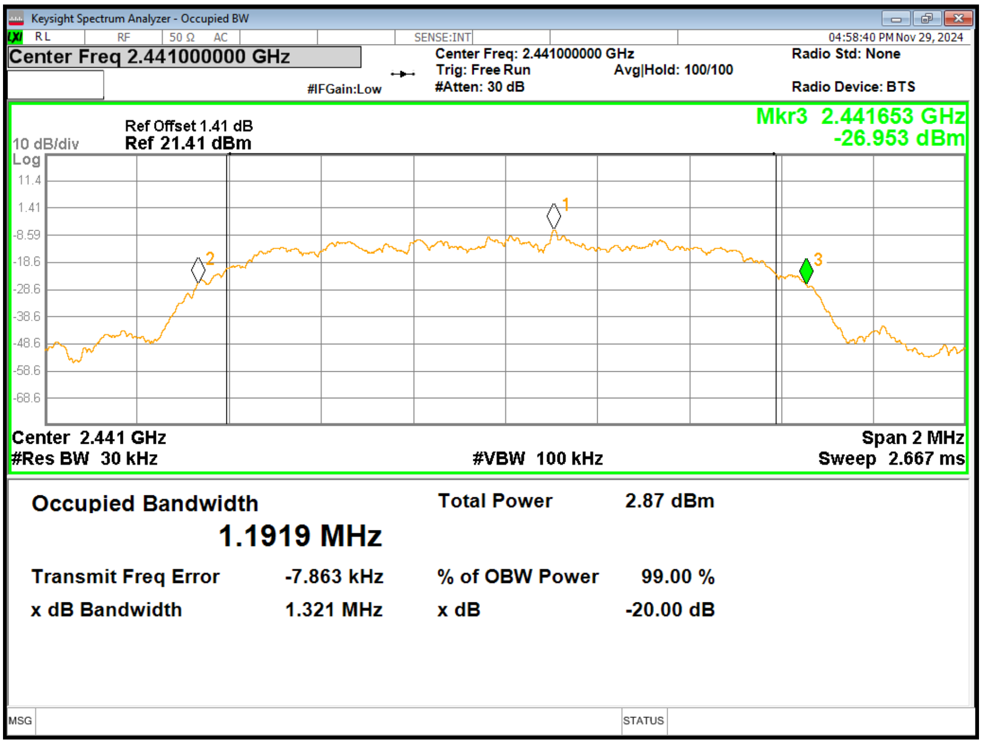
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



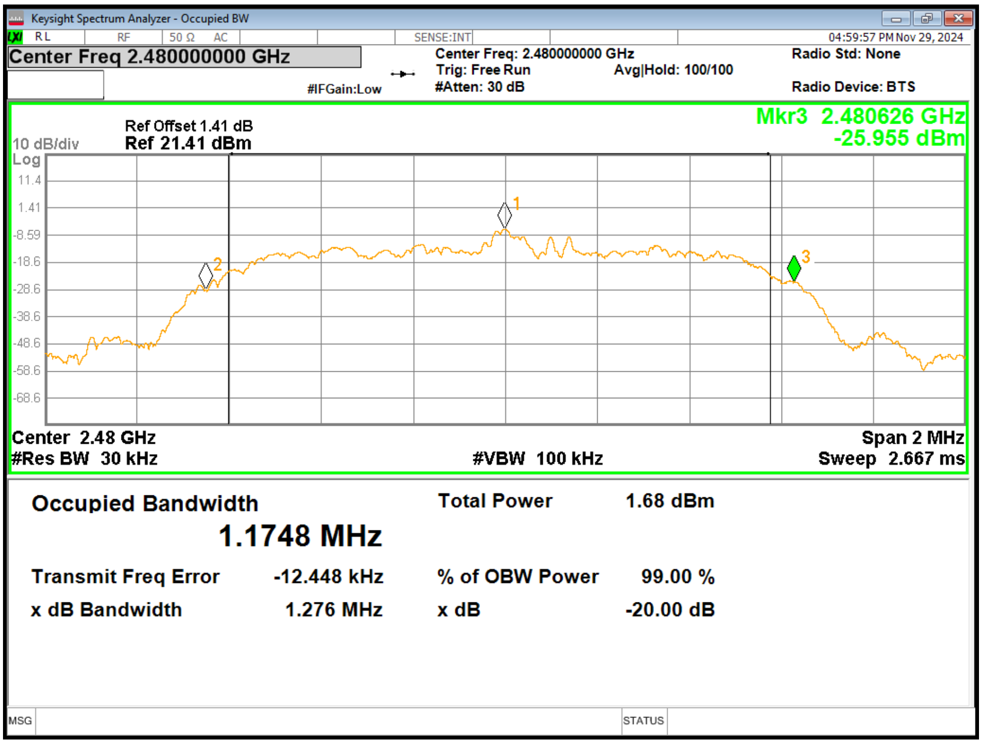
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



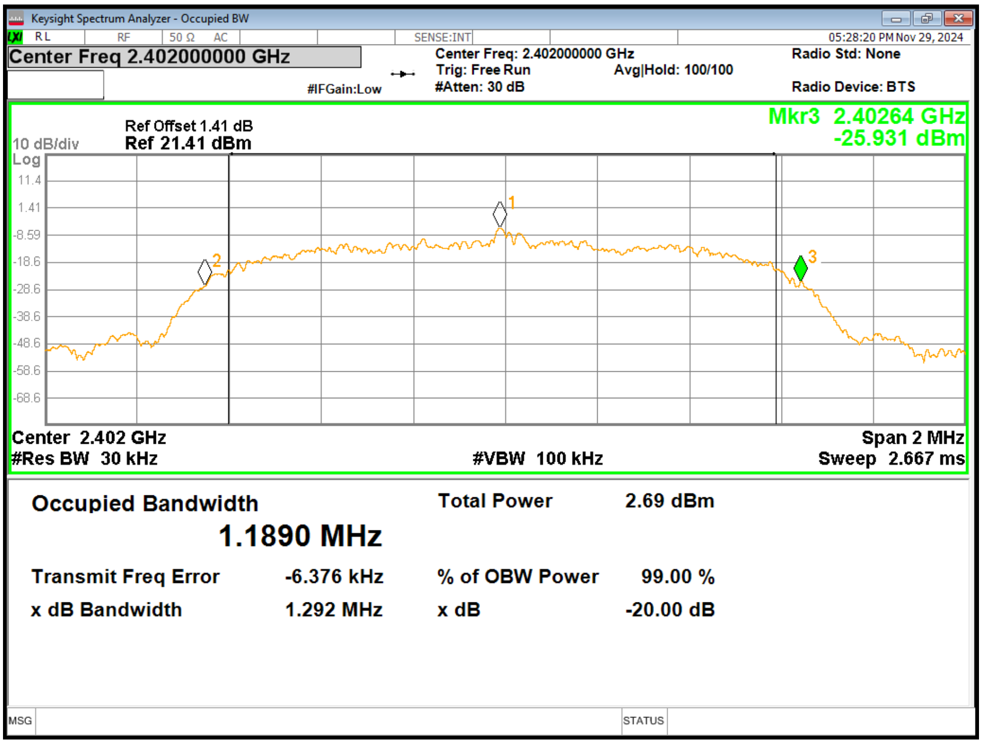
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



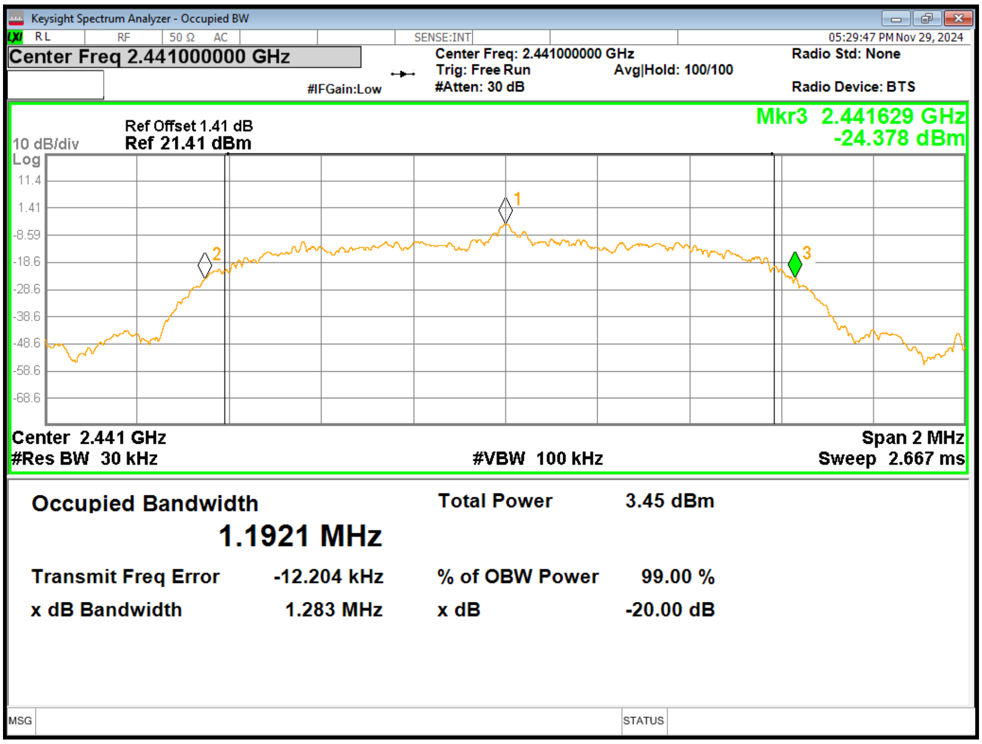
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



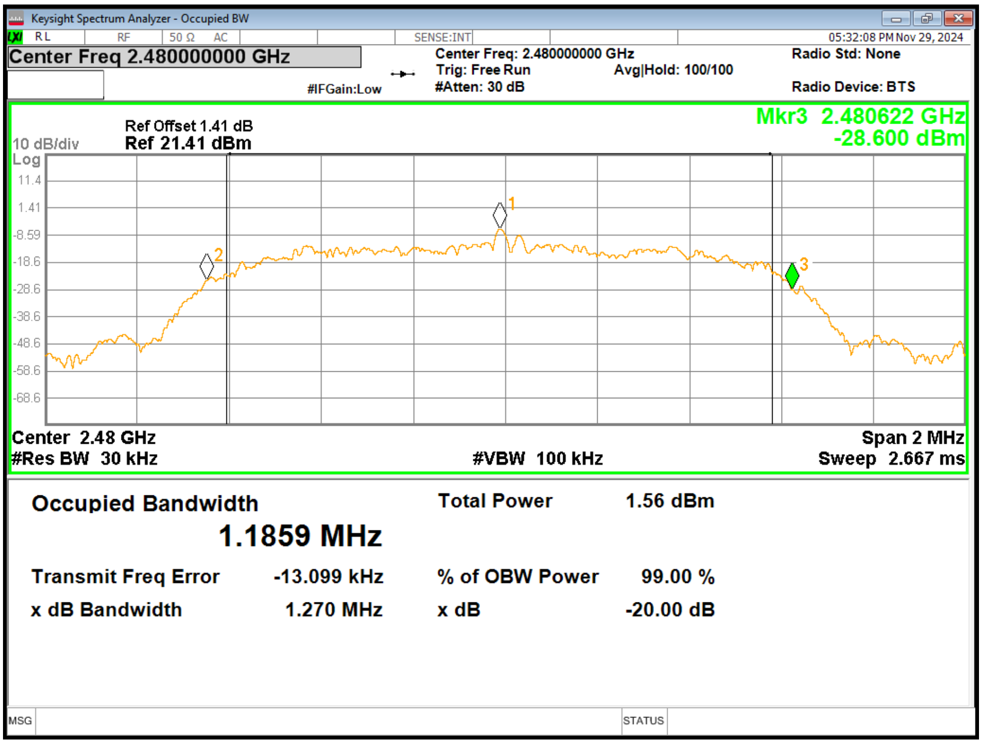
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

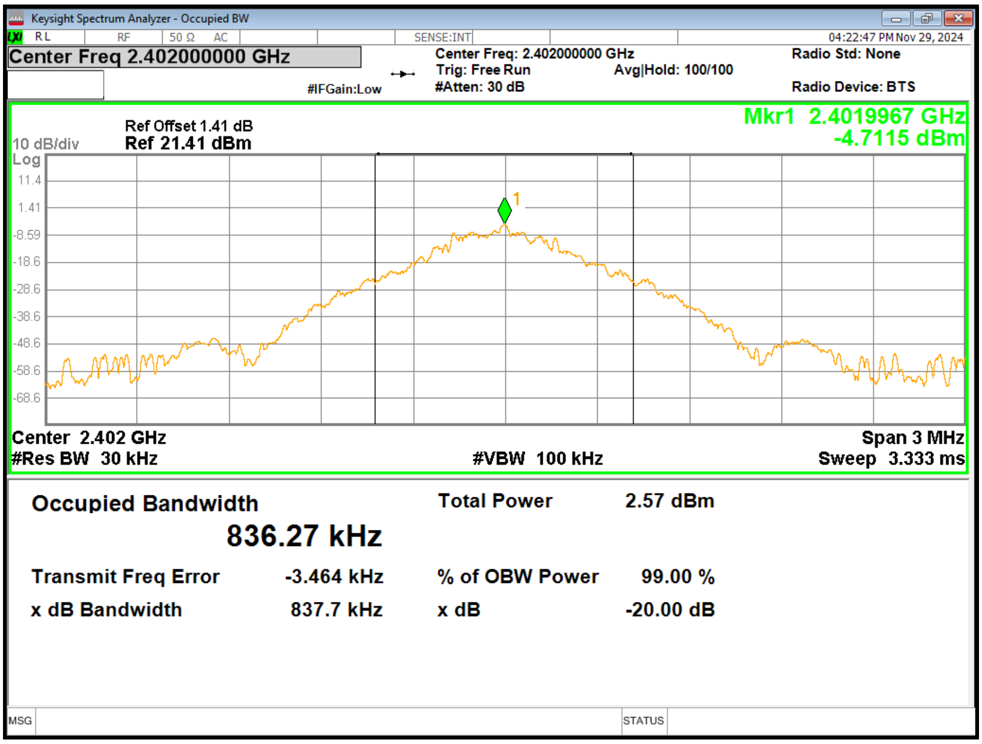


4.Occupied Channel Bandwidth

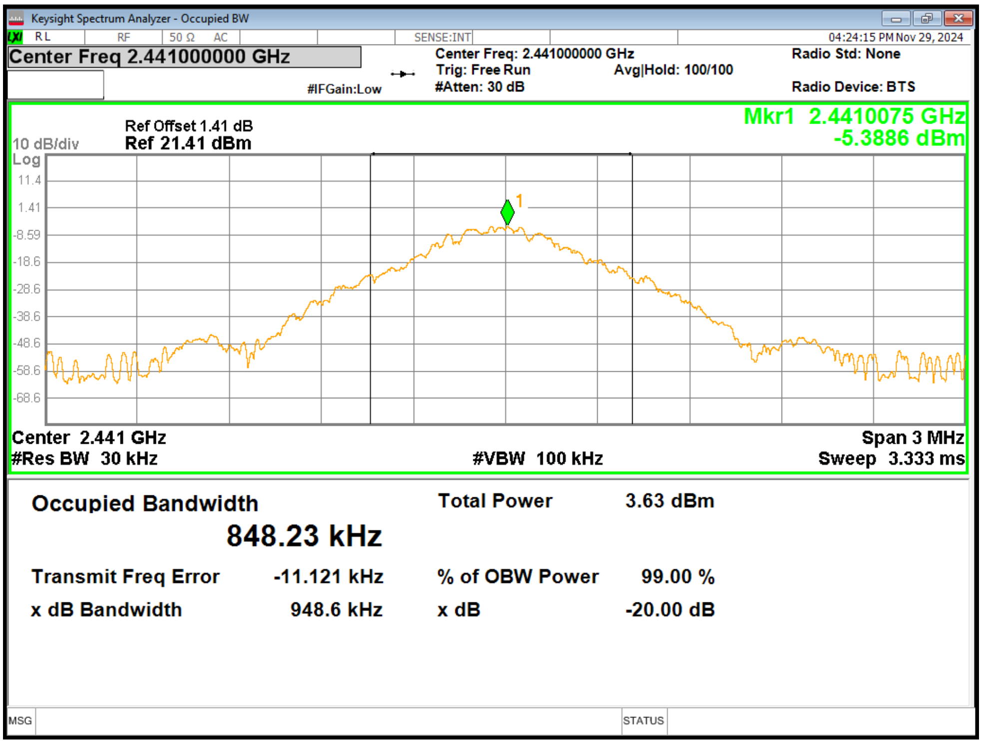
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
1-DH5	2402	Ant1	0.836
1-DH5	2441	Ant1	0.848
1-DH5	2480	Ant1	0.846
2-DH5	2402	Ant1	1.18
2-DH5	2441	Ant1	1.177
2-DH5	2480	Ant1	1.177
3-DH5	2402	Ant1	1.183
3-DH5	2441	Ant1	1.182
3-DH5	2480	Ant1	1.19

Test Graphs

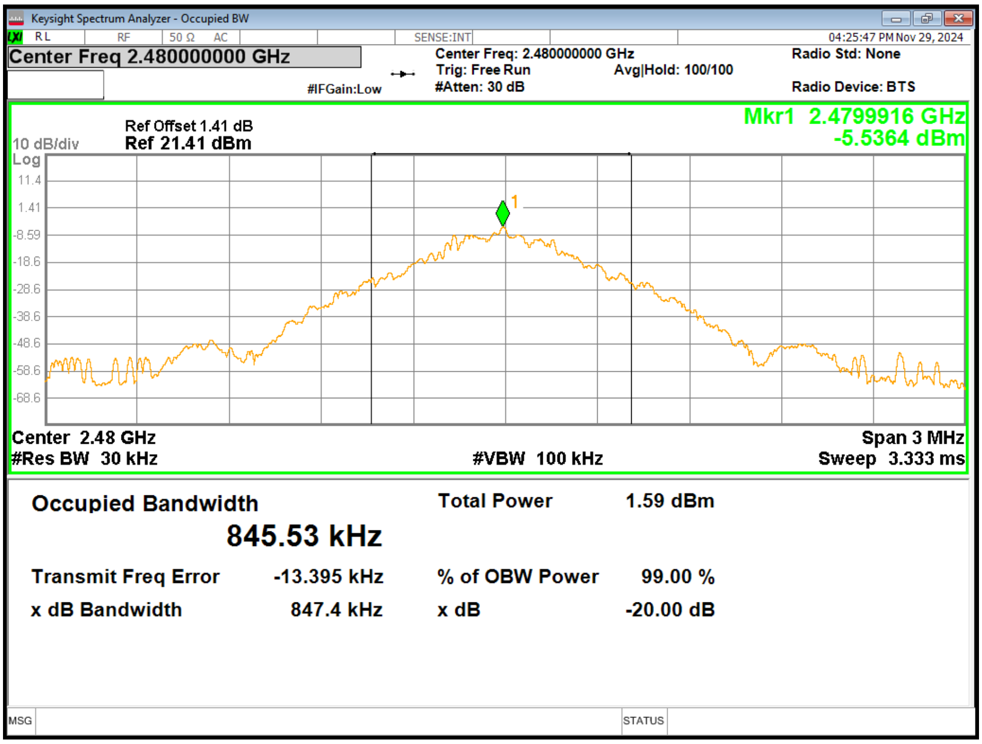
OBW NVNT 1-DH5 2402MHz Ant1



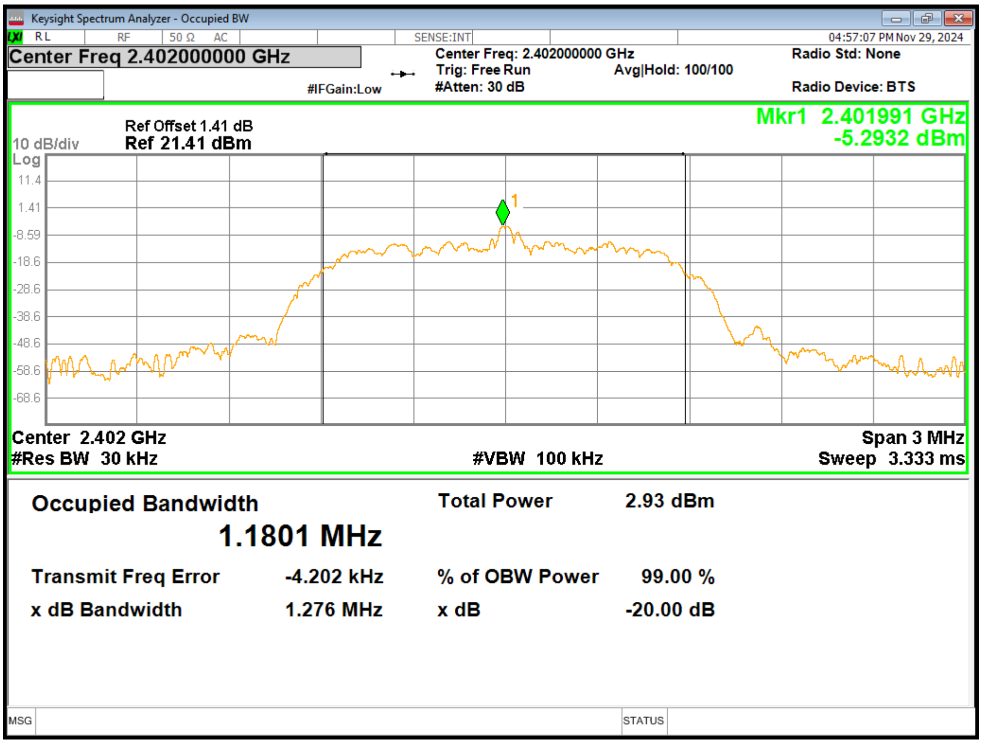
OBW NVNT 1-DH5 2441MHz Ant1



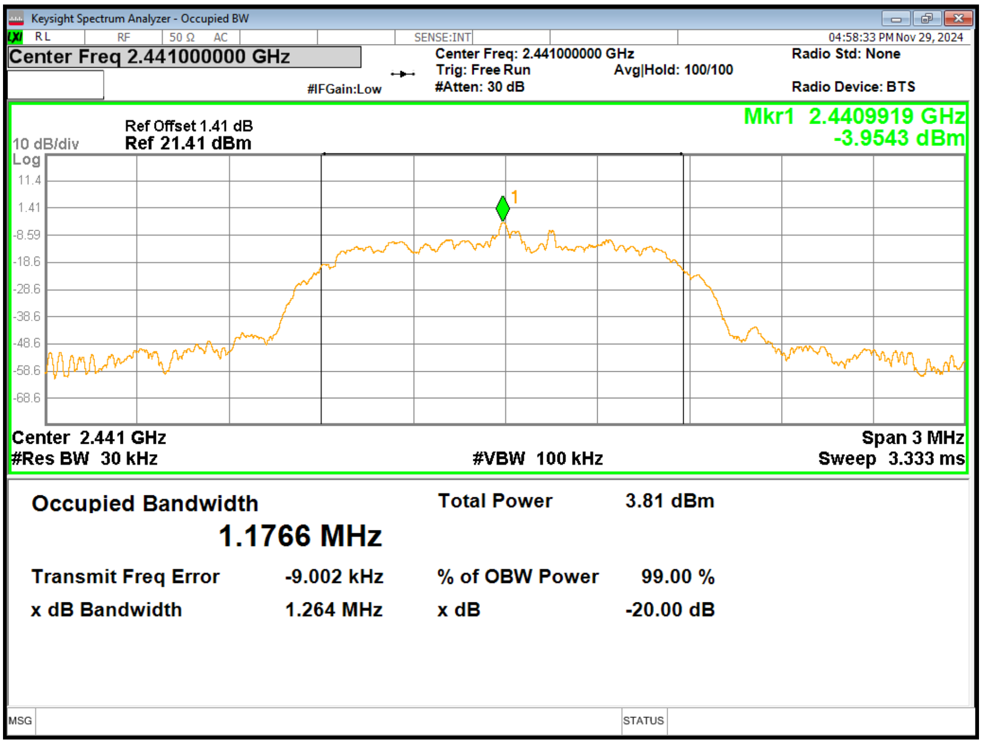
OBW NVNT 1-DH5 2480MHz Ant1



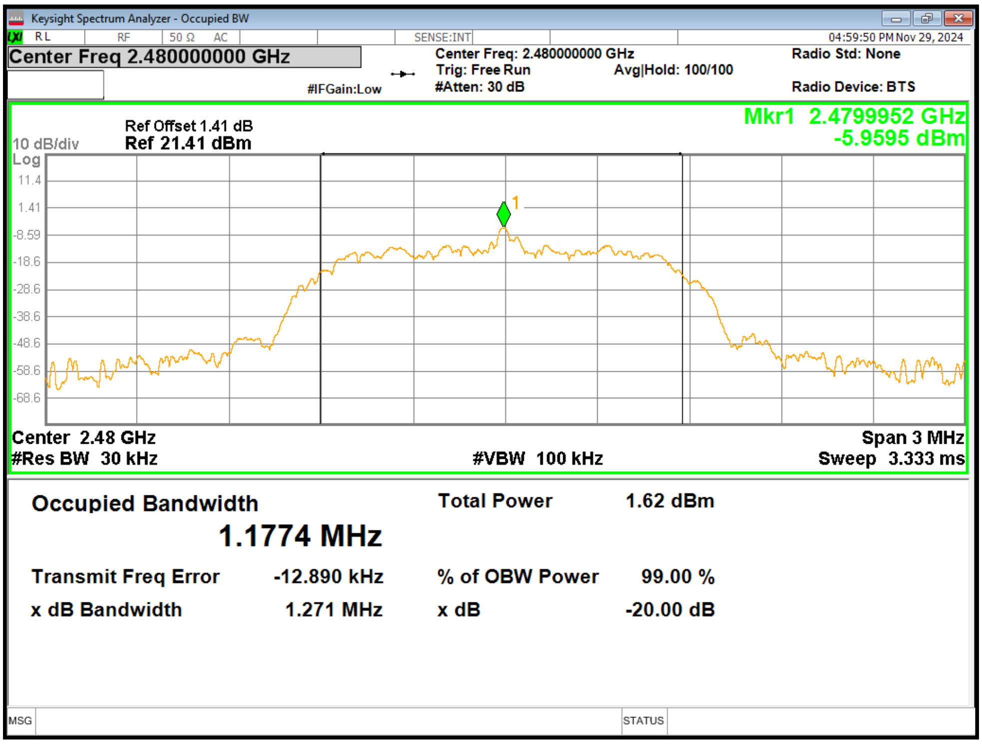
OBW NVNT 2-DH5 2402MHz Ant1



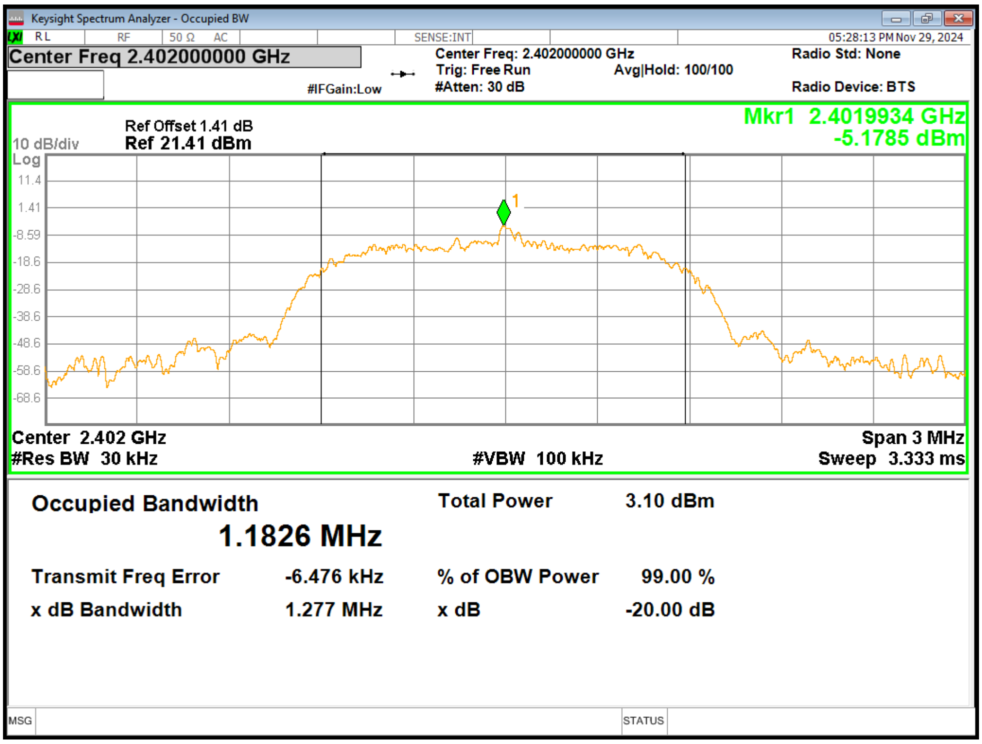
OBW NVNT 2-DH5 2441MHz Ant1



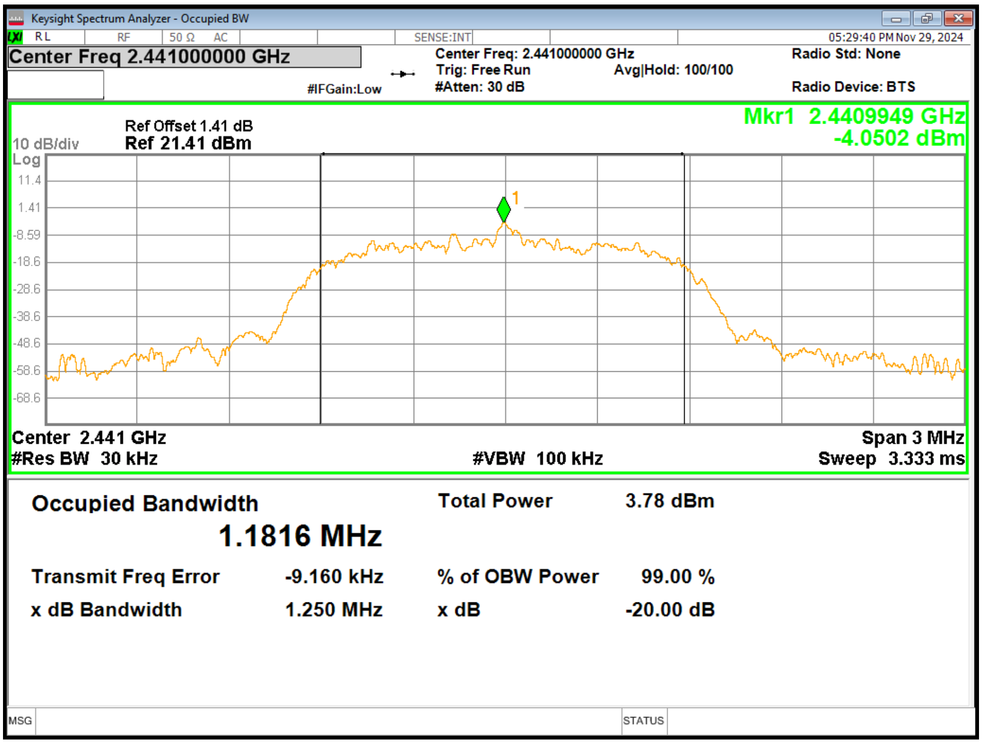
OBW NVNT 2-DH5 2480MHz Ant1



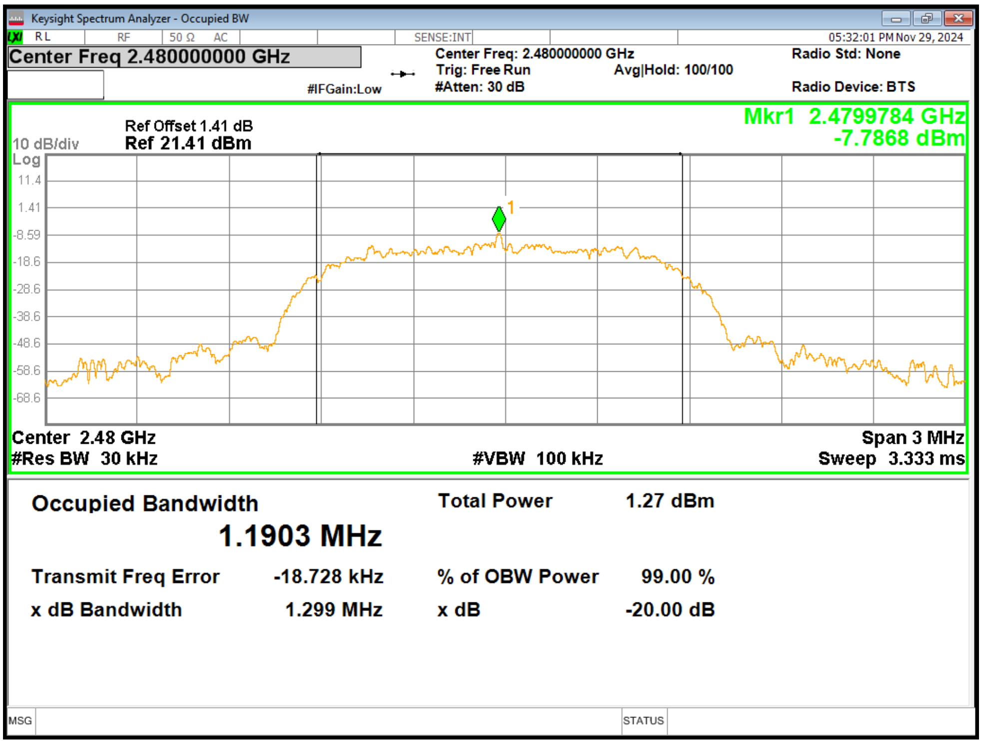
OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1

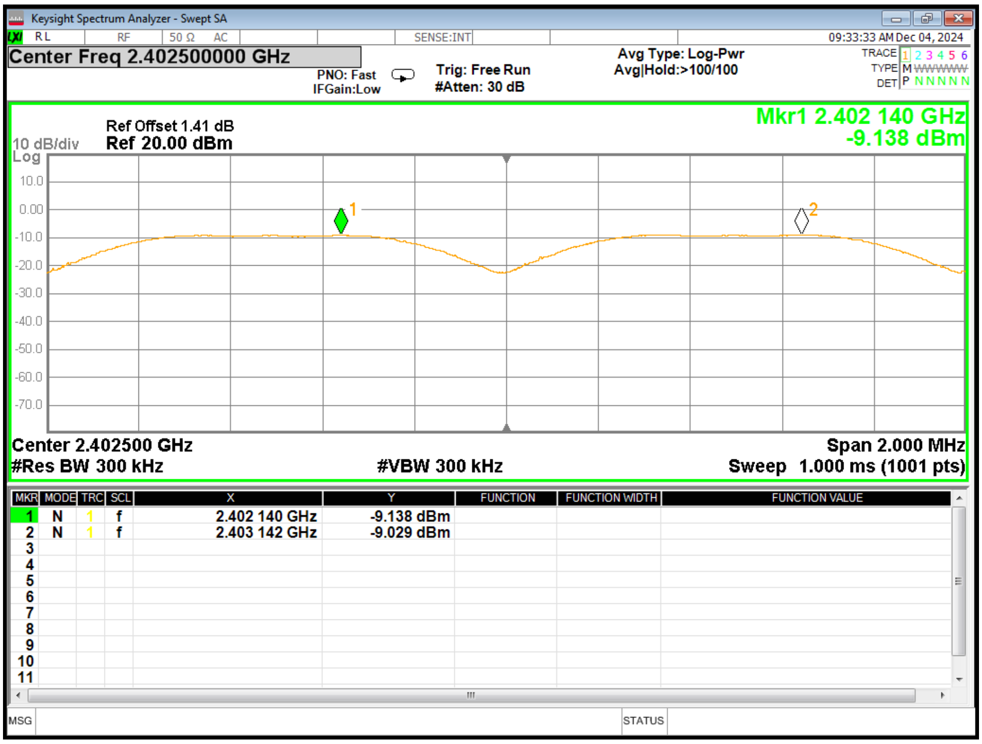


5.Carrier Frequencies Separation

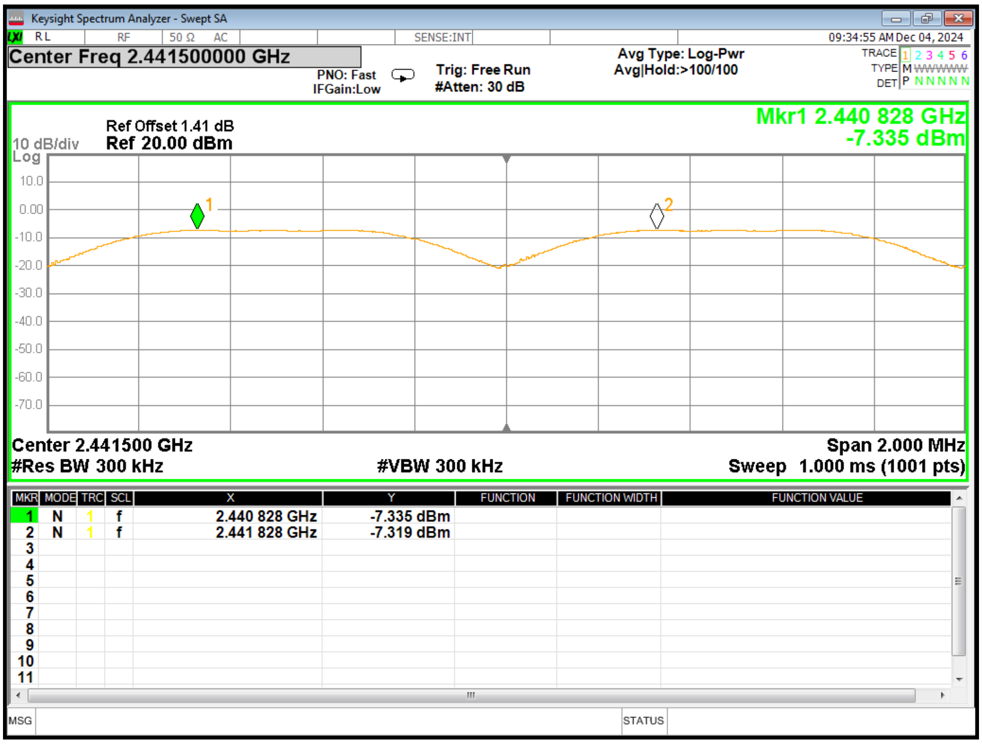
Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
1-DH5	Ant1	2402.14	2403.142	1.002	0.840	Pass
1-DH5	Ant1	2440.828	2441.828	1.000	0.838	Pass
1-DH5	Ant1	2478.832	2479.838	1.006	0.948	Pass
2-DH5	Ant1	2401.972	2403.136	1.164	0.885	Pass
2-DH5	Ant1	2440.98	2442.144	1.164	0.881	Pass
2-DH5	Ant1	2478.968	2479.98	1.012	0.851	Pass
3-DH5	Ant1	2402.136	2403.15	1.014	0.861	Pass
3-DH5	Ant1	2440.956	2442.152	1.196	0.855	Pass
3-DH5	Ant1	2479.148	2480.146	0.998	0.847	Pass

Test Graphs

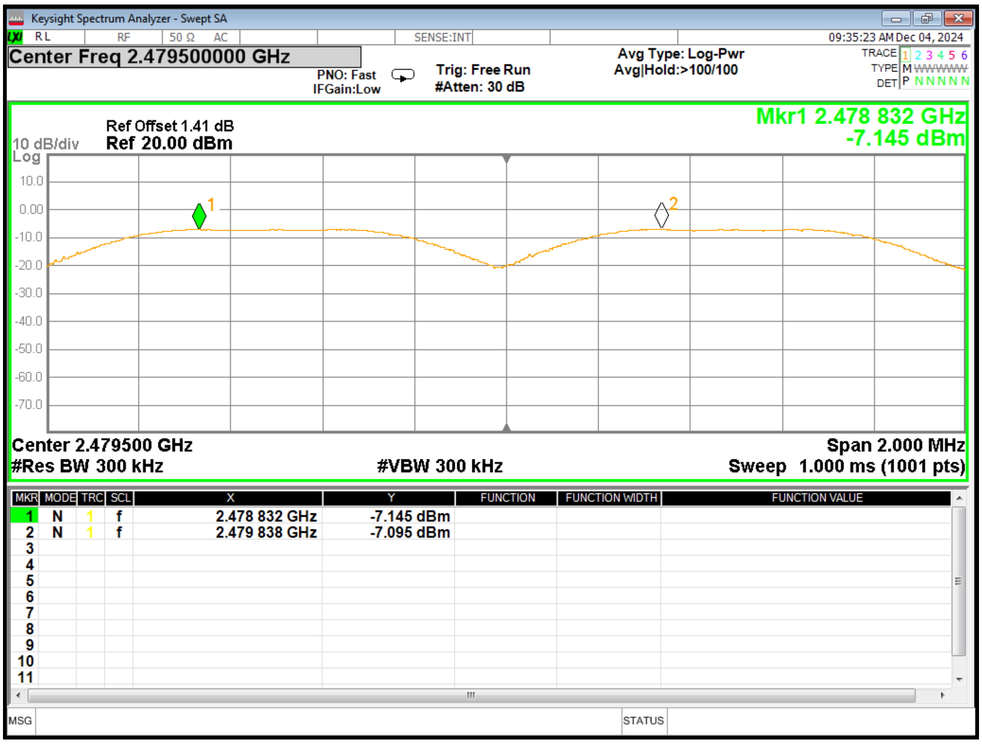
CFS NVNT 1-DH5 2402MHz Ant1



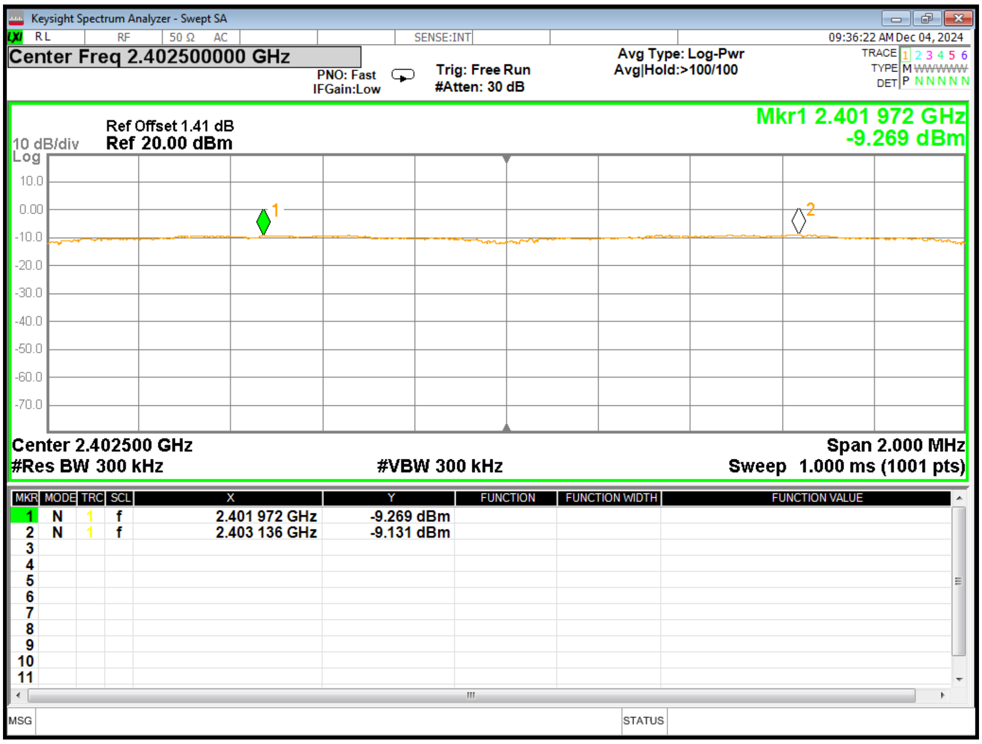
CFS NVNT 1-DH5 2441MHz Ant1

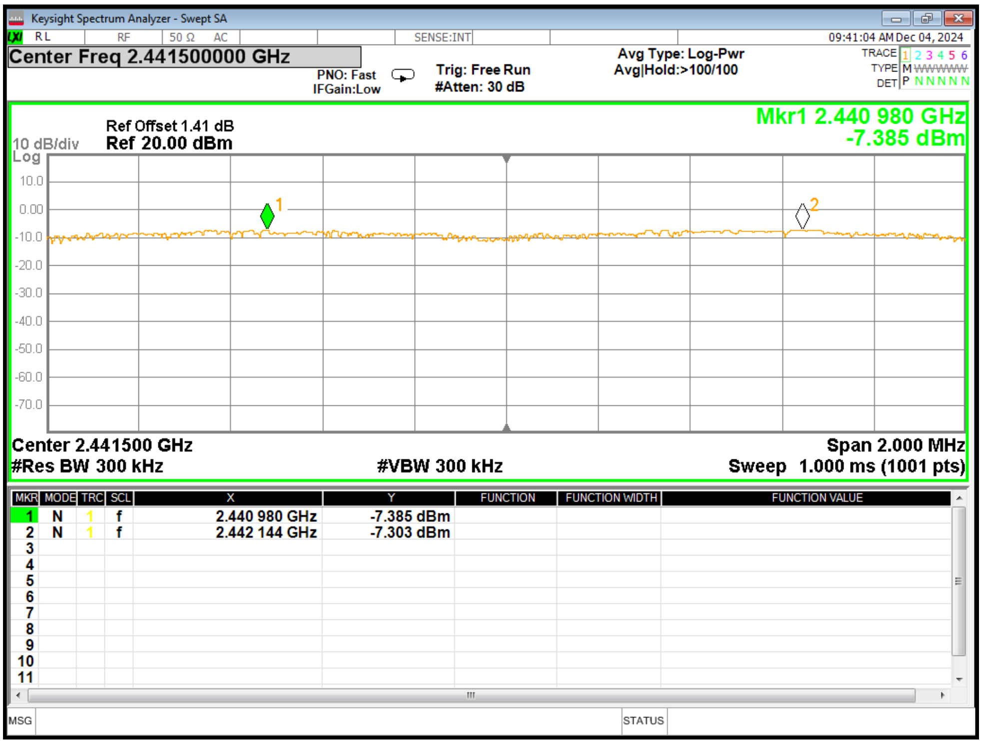
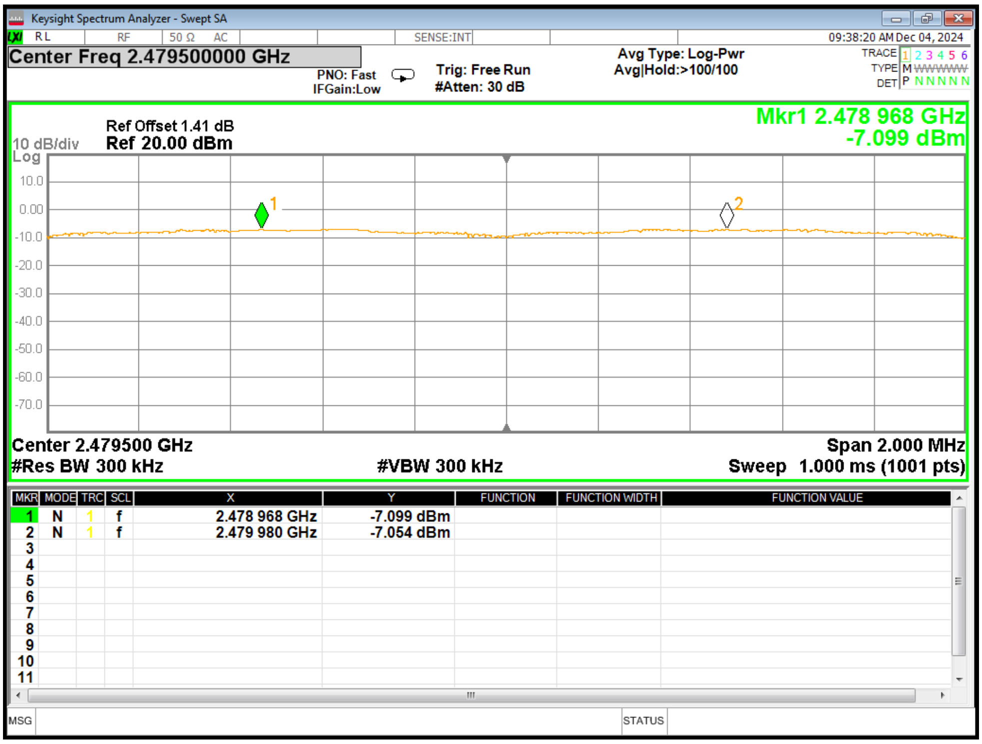


CFS NVNT 1-DH5 2480MHz Ant1

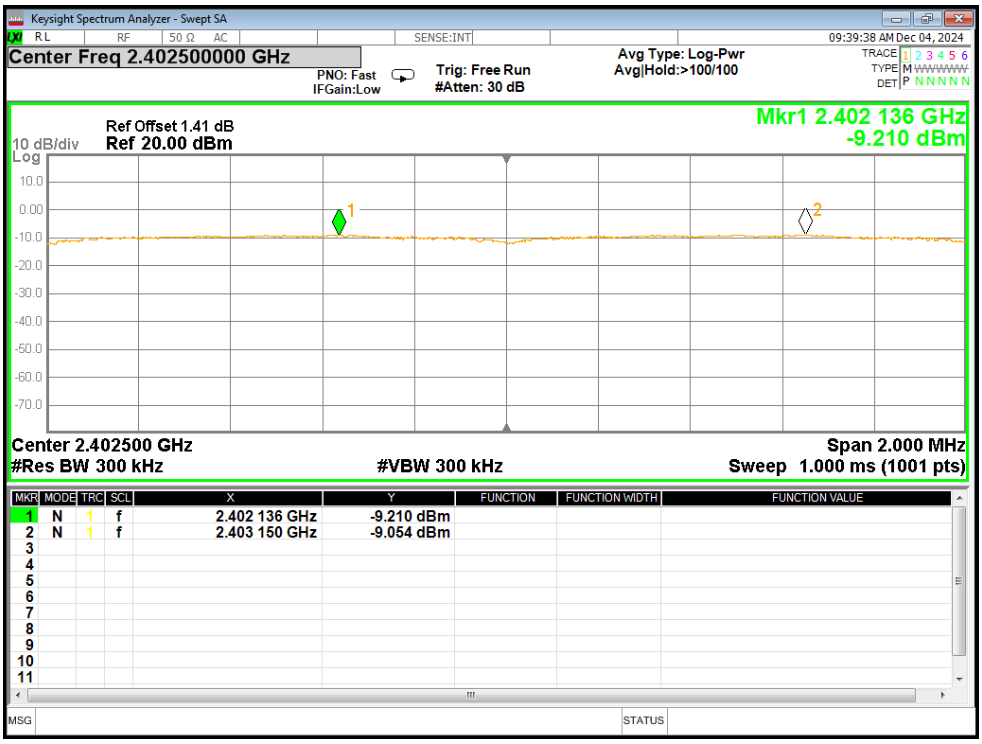


CFS NVNT 2-DH5 2402MHz Ant1

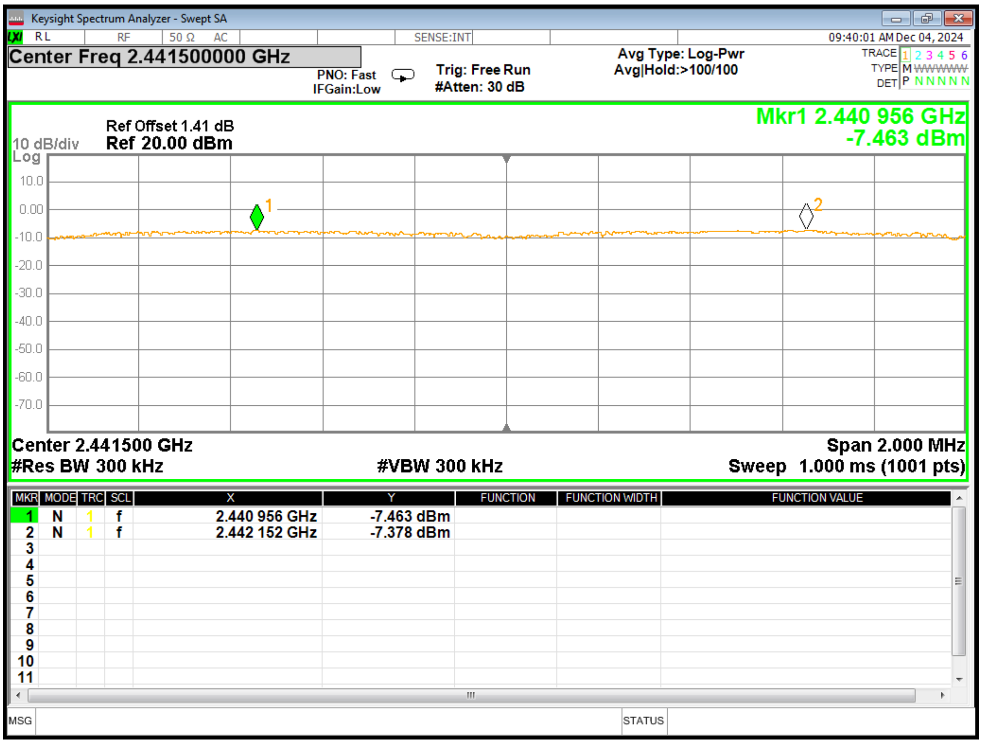


CFS NVNT 2-DH5 2441MHz Ant1

CFS NVNT 2-DH5 2480MHz Ant1


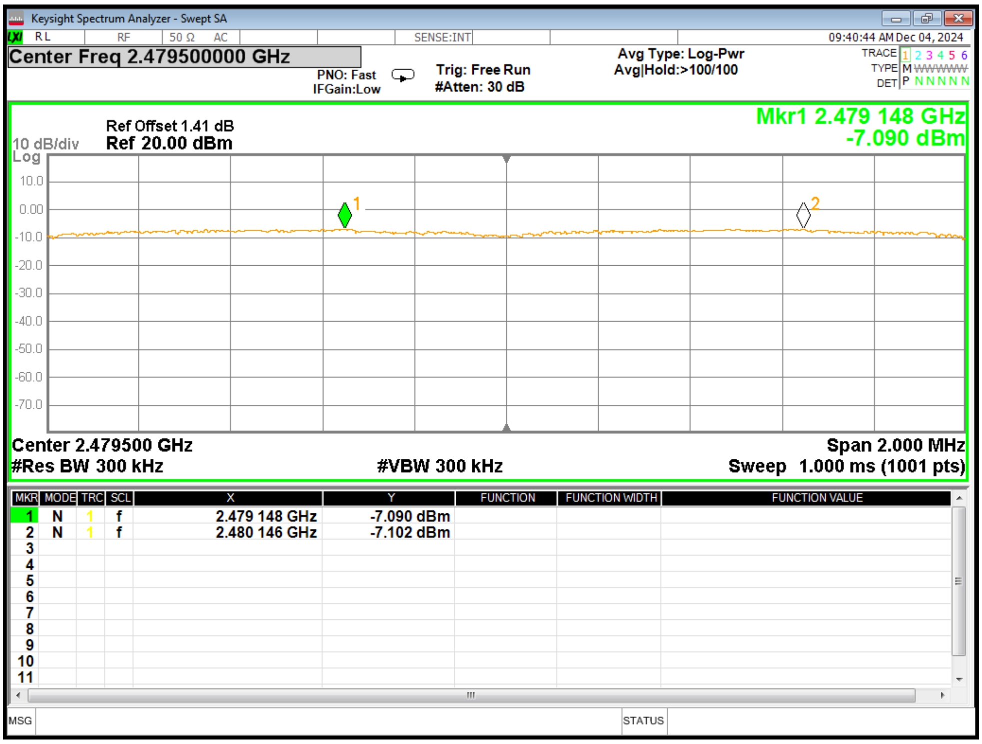
CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



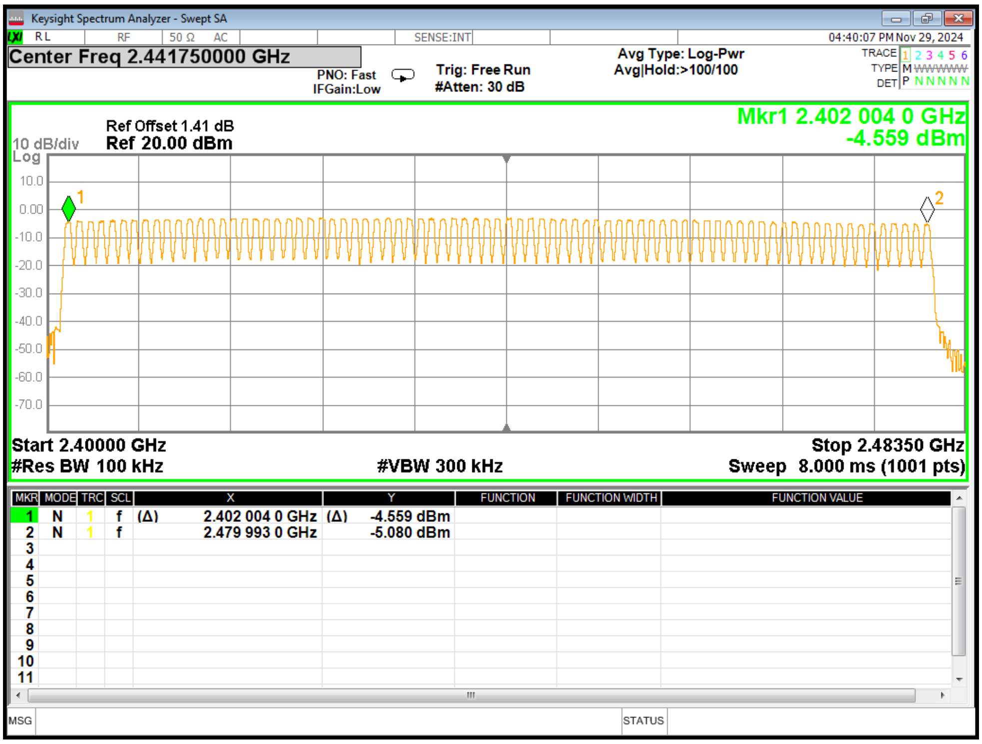
CFS NVNT 3-DH5 2480MHz Ant1



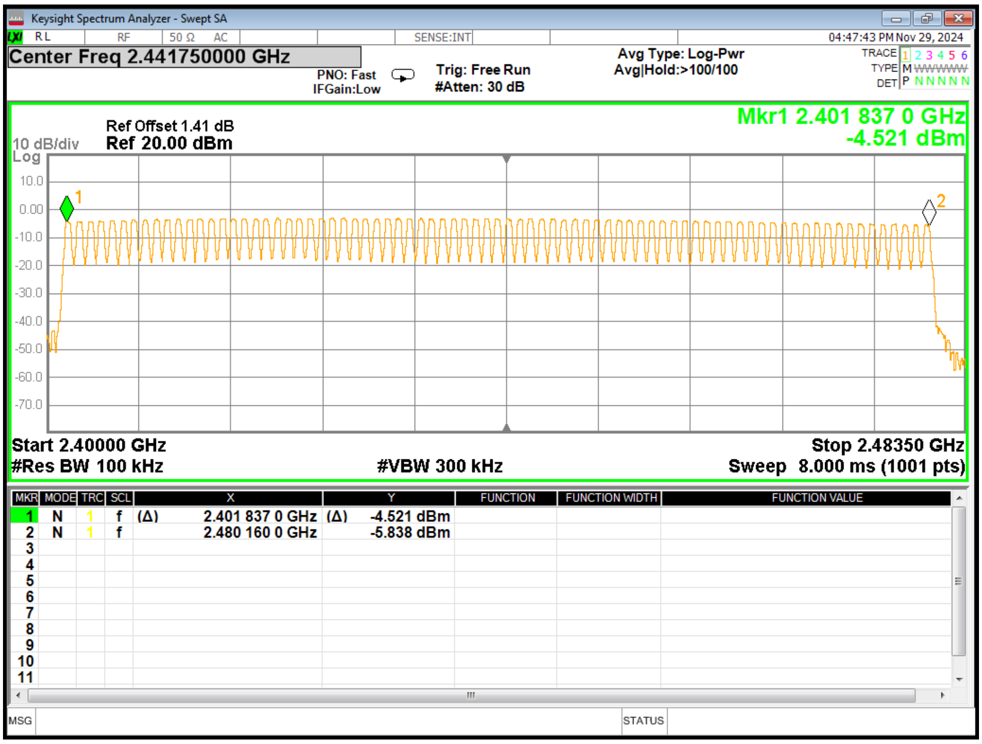
6.Number of Hopping Channel

Mode	Antenna	Hopping Number	Limit	Verdict
1-DH5	Ant1	79	15	Pass
2-DH5	Ant1	79	15	Pass
3-DH5	Ant1	79	15	Pass

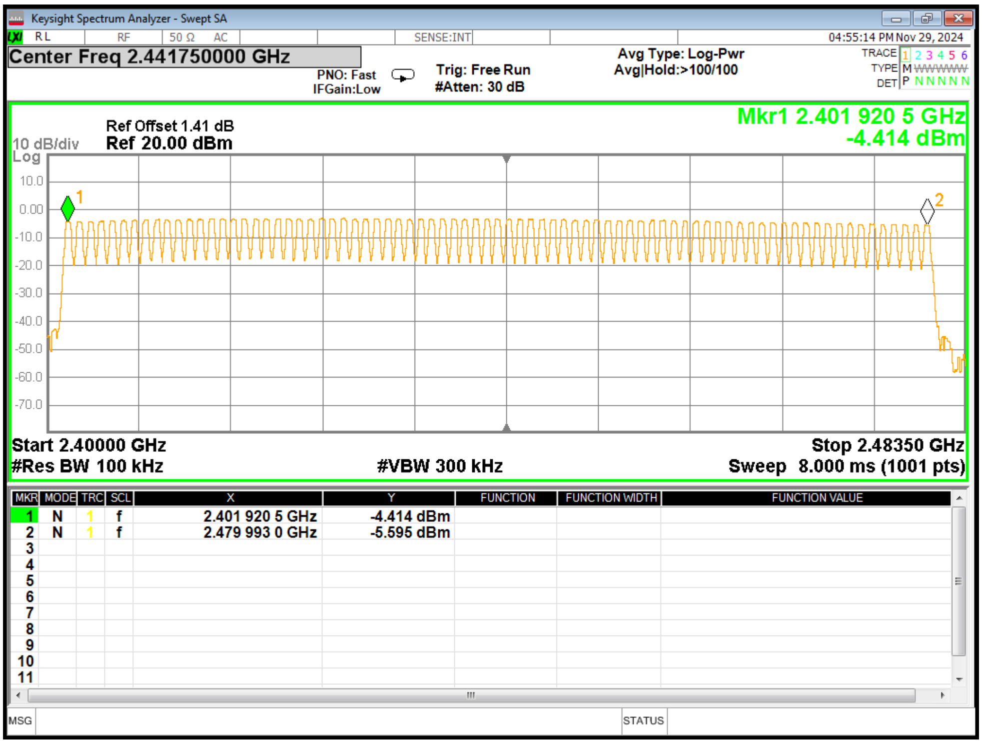
Test Graphs
Hopping No. NVNT 1-DH5 2402MHz Ant1



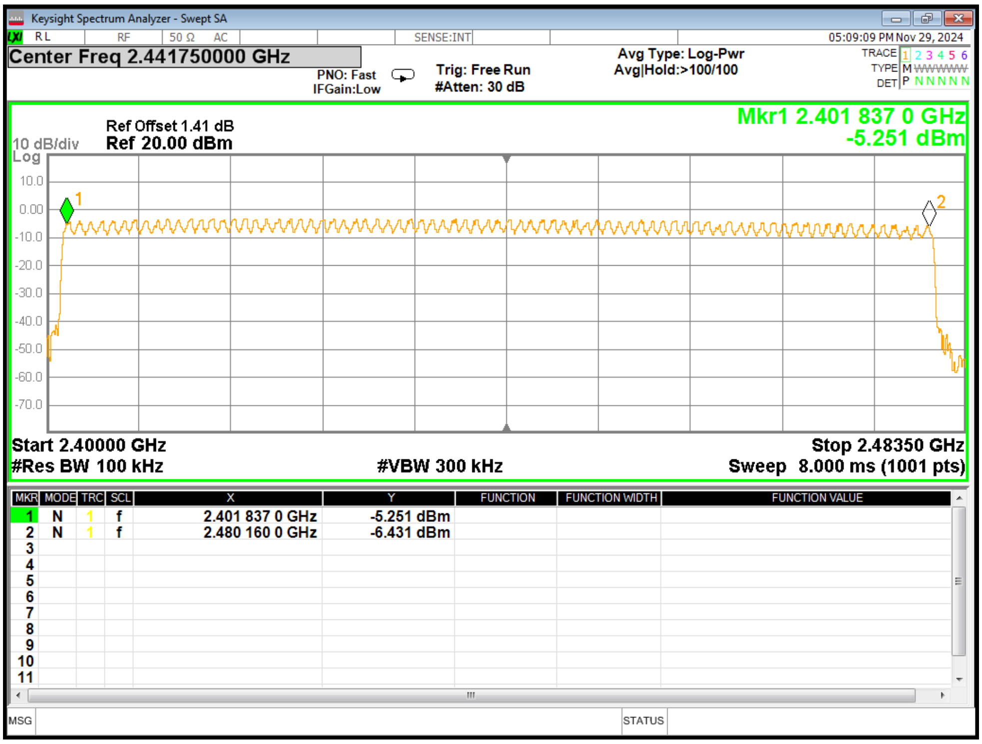
Hopping No. NVNT 1-DH5 2441MHz Ant1



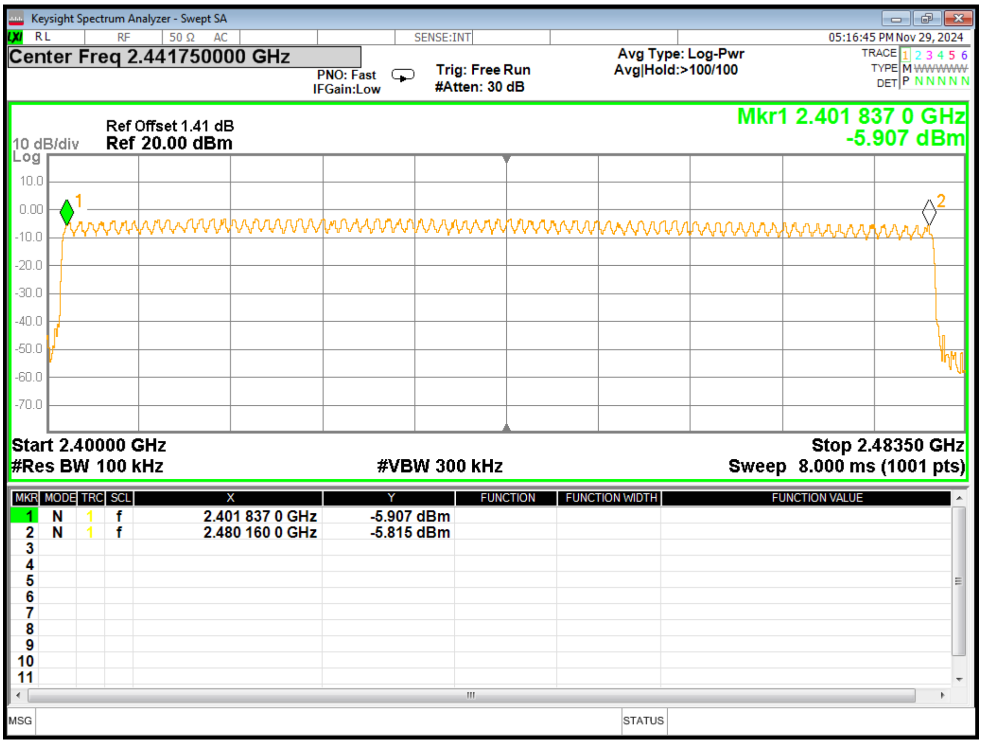
Hopping No. NVNT 1-DH5 2480MHz Ant1



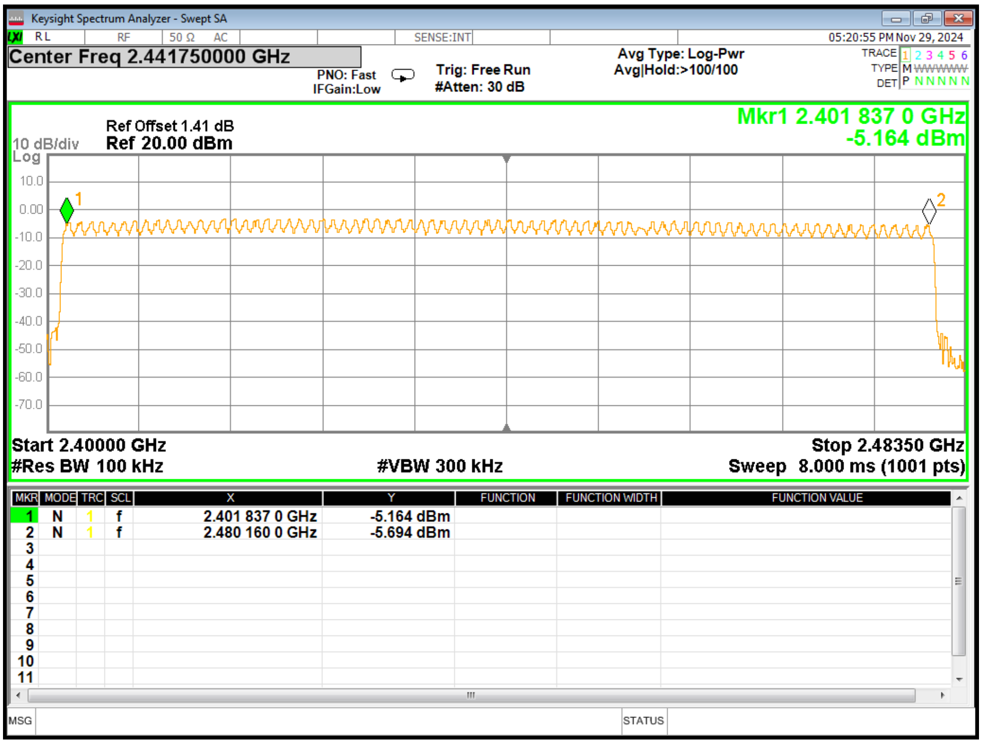
Hopping No. NVNT 2-DH5 2402MHz Ant1



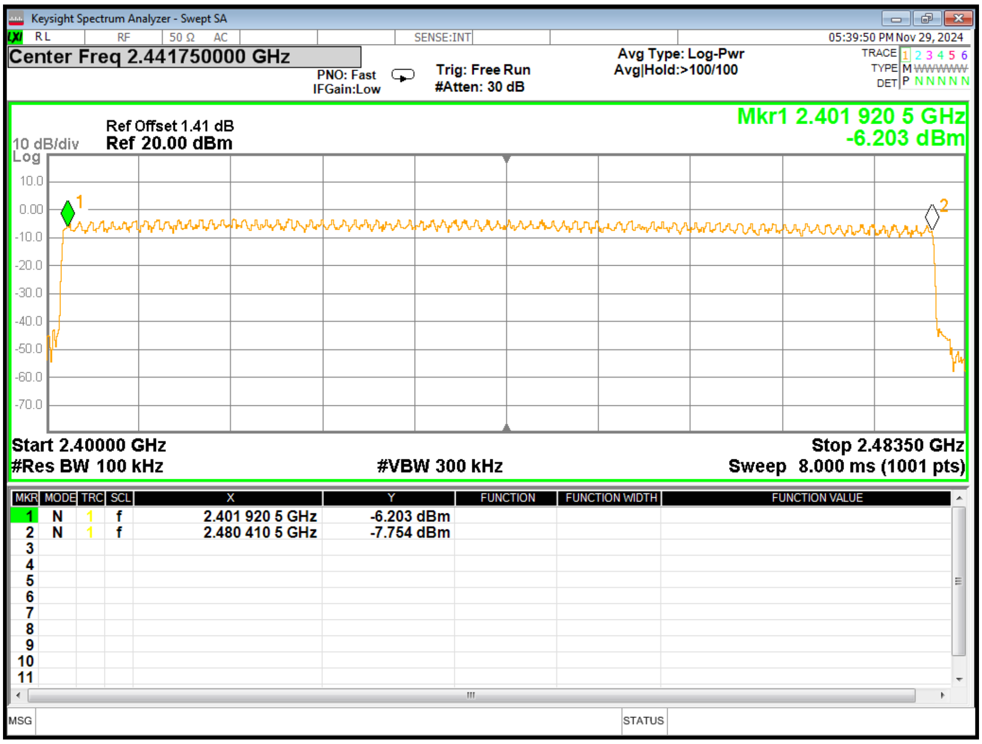
Hopping No. NVNT 2-DH5 2441MHz Ant1



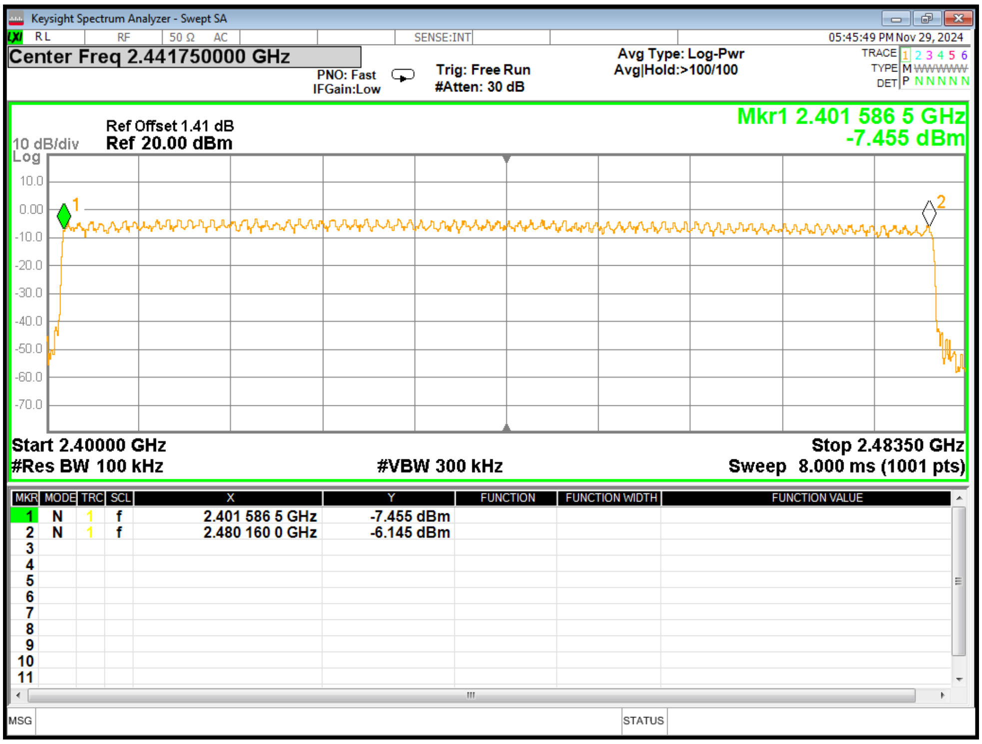
Hopping No. NVNT 2-DH5 2480MHz Ant1



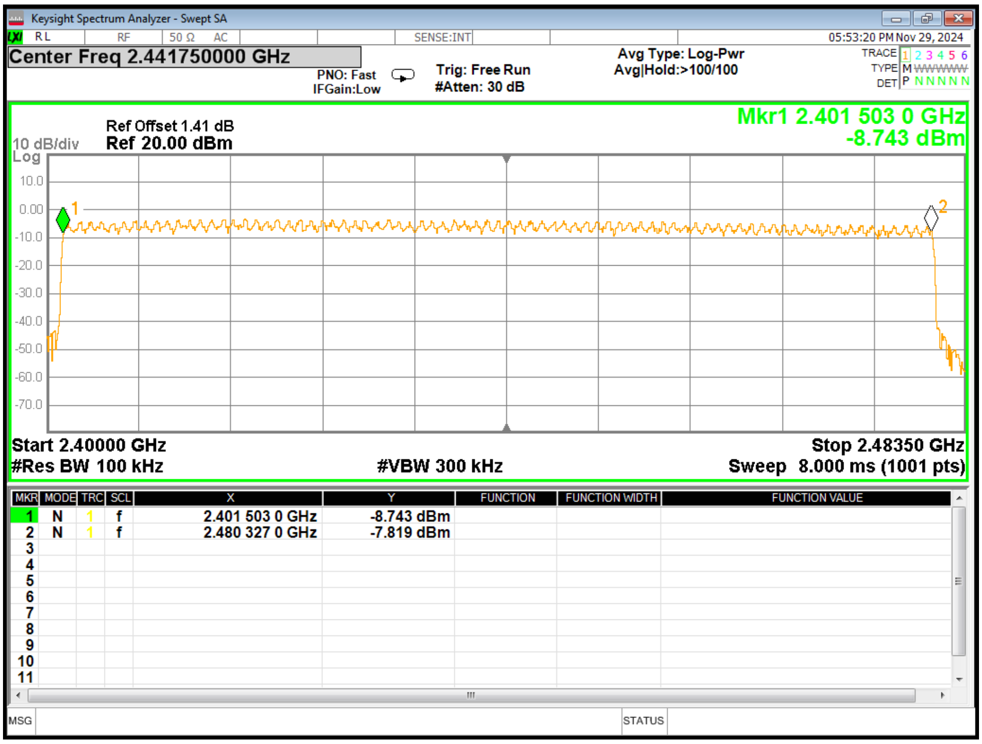
Hopping No. NVNT 3-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2441MHz Ant1



Hopping No. NVNT 3-DH5 2480MHz Ant1

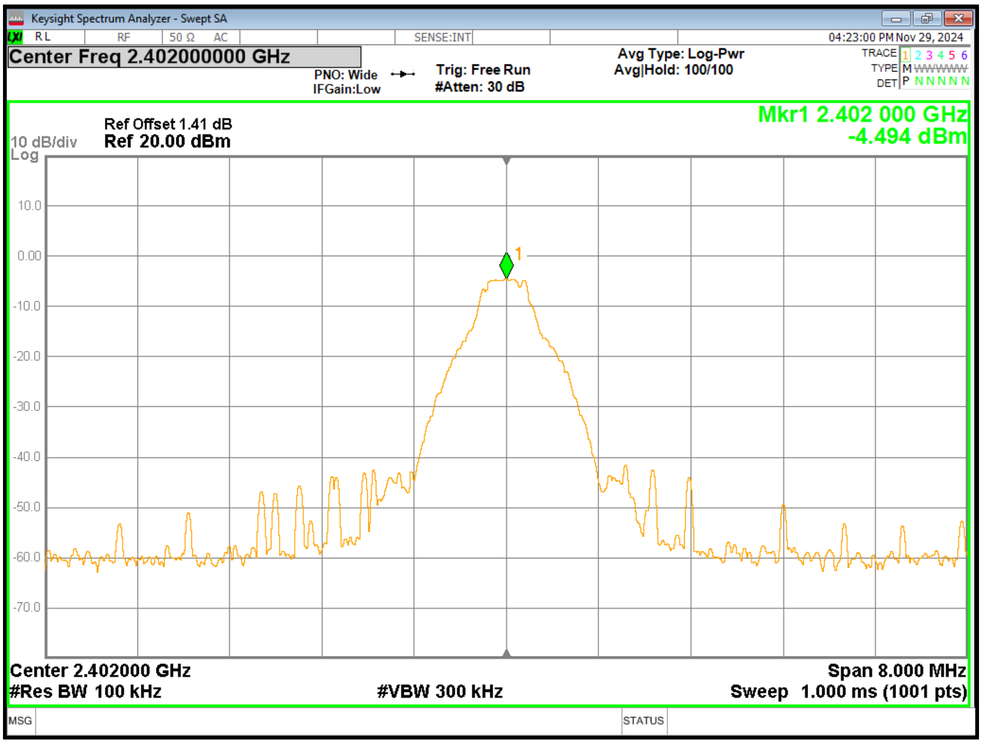


7.Band Edge

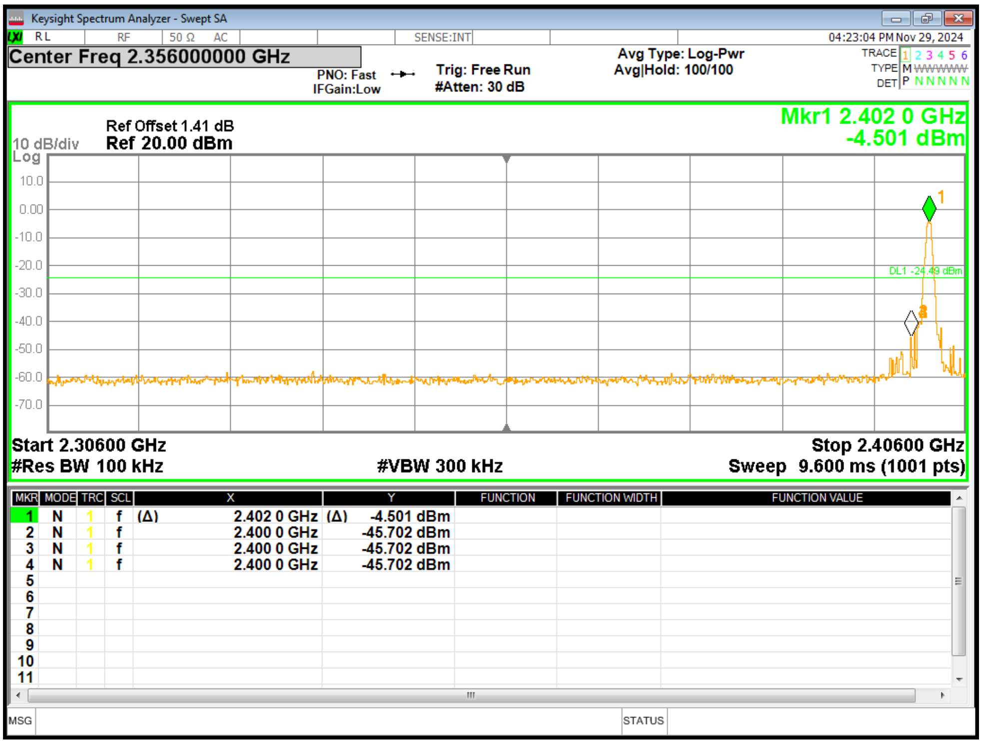
Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	No-Hopping	-41.21	-20	Pass
1-DH5	2480	Ant1	No-Hopping	-49.2	-20	Pass
2-DH5	2402	Ant1	No-Hopping	-45.02	-20	Pass
2-DH5	2480	Ant1	No-Hopping	-49.49	-20	Pass
3-DH5	2402	Ant1	No-Hopping	-45.59	-20	Pass
3-DH5	2480	Ant1	No-Hopping	-50	-20	Pass

Test Graphs

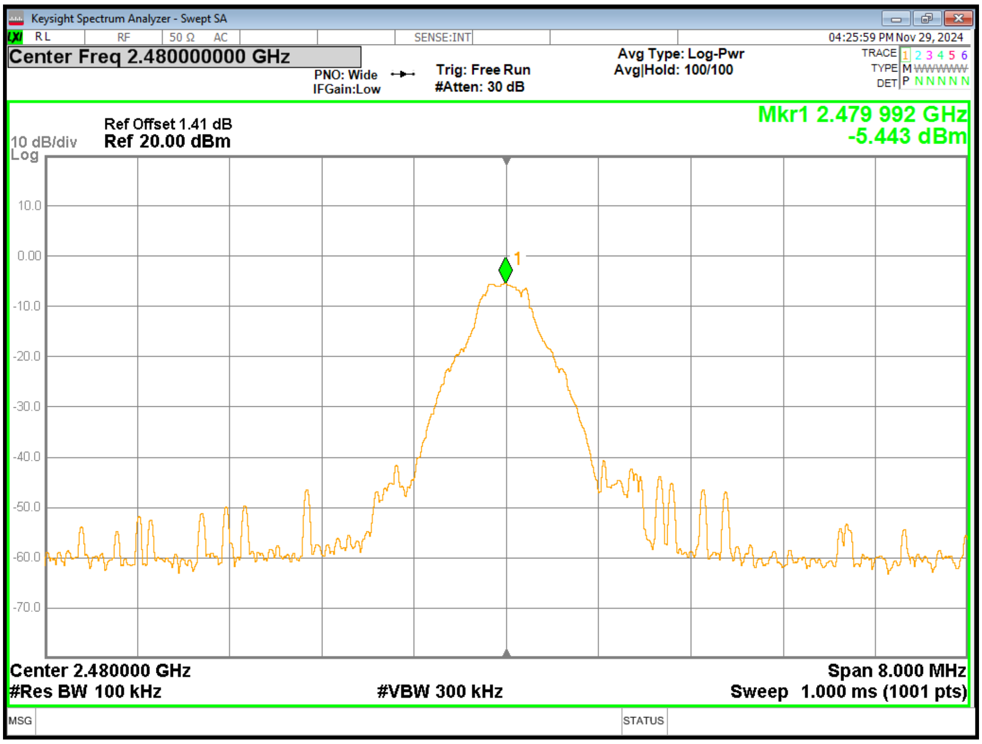
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



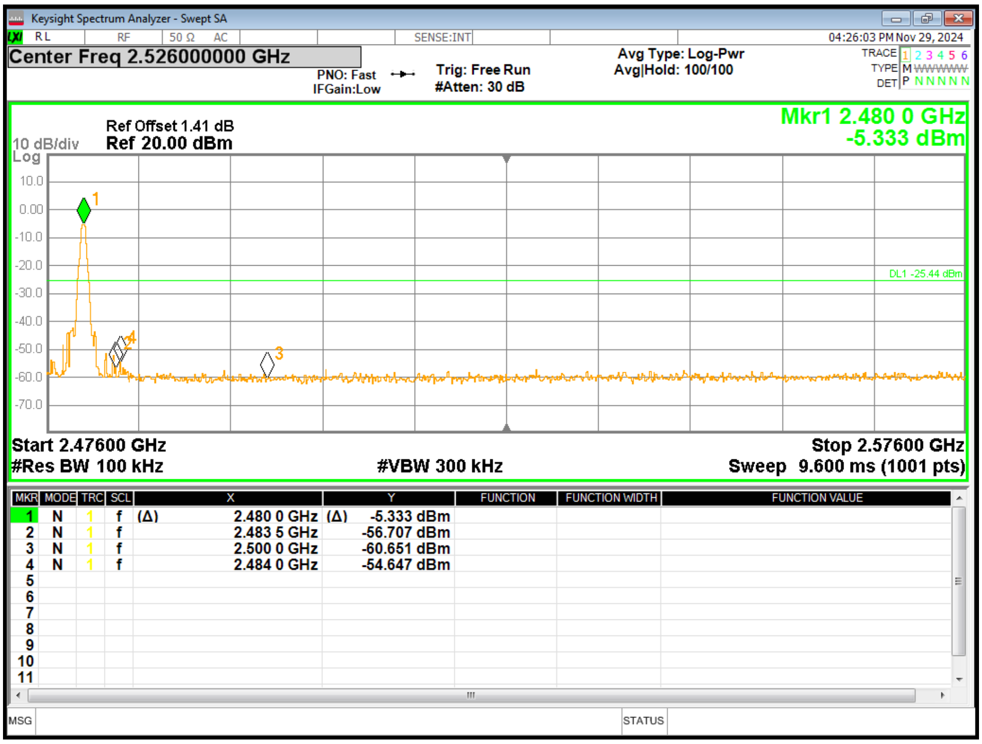
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



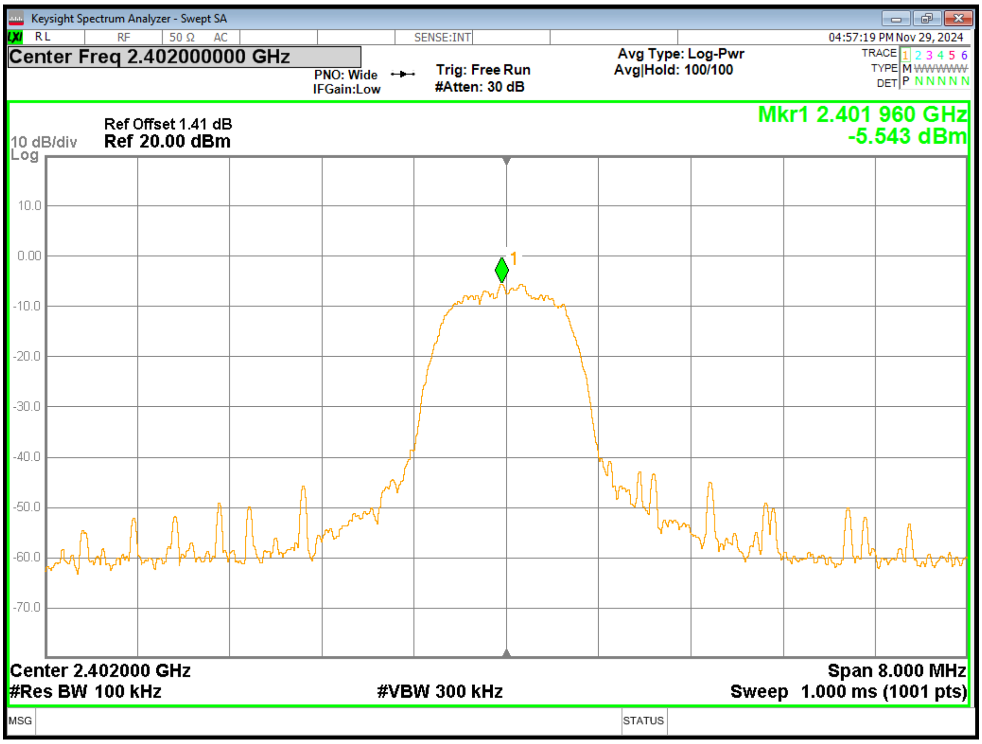
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



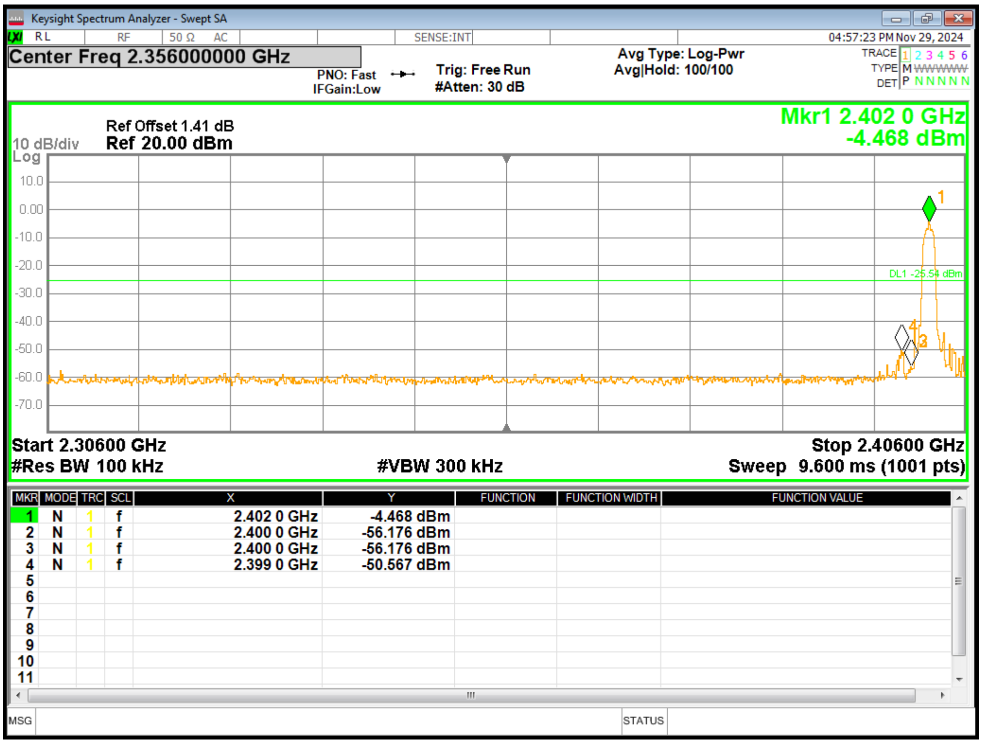
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



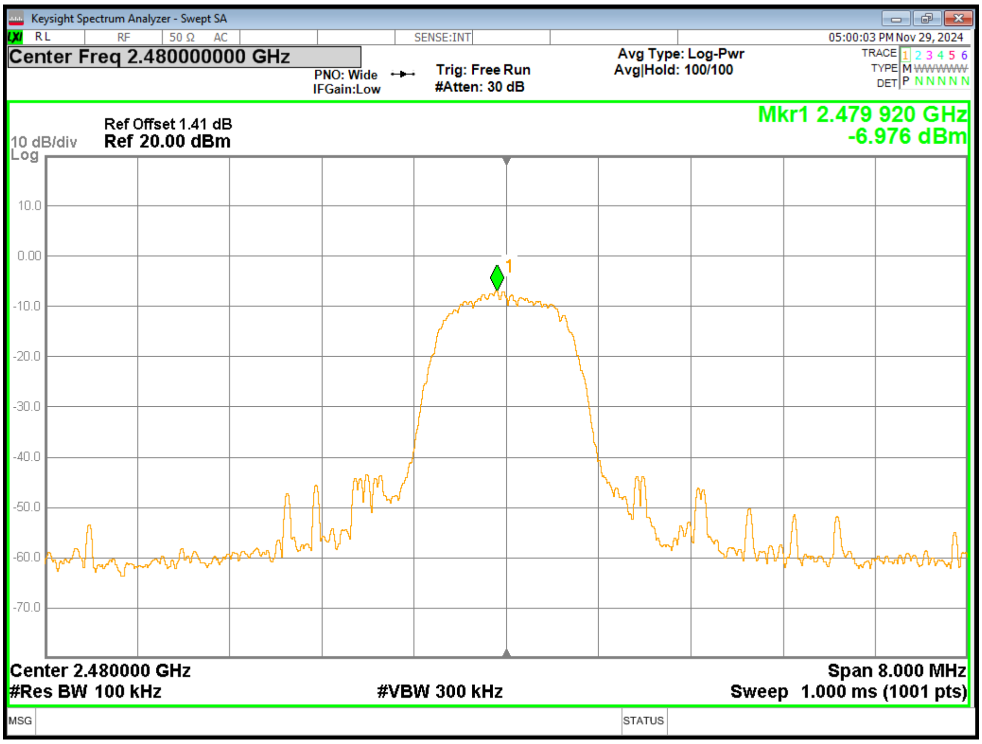
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



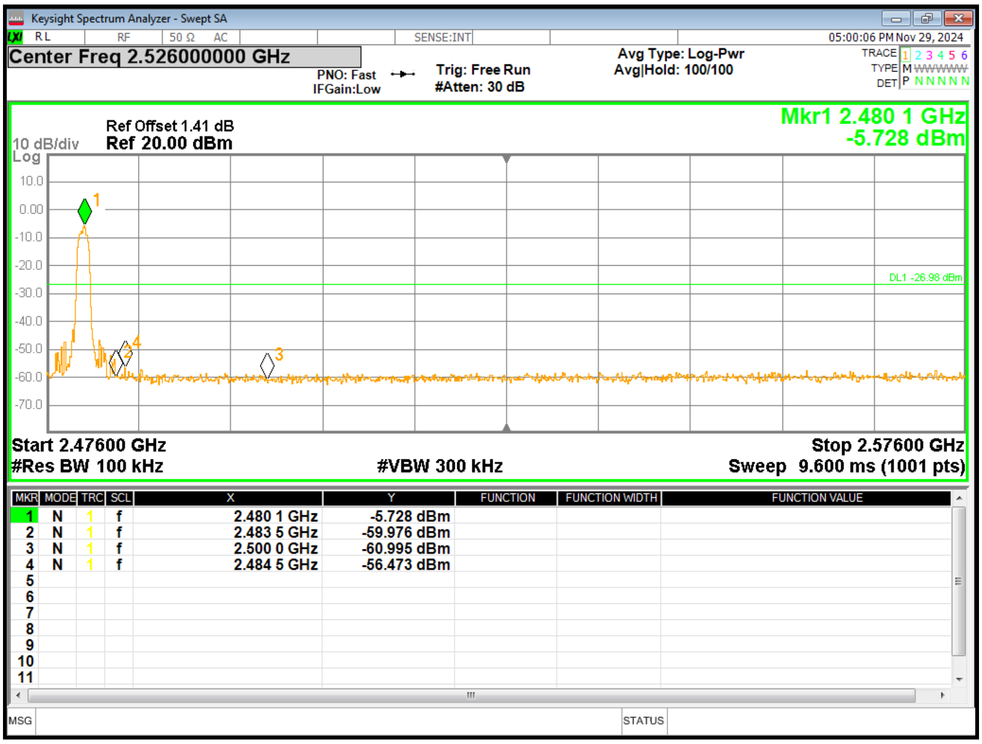
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



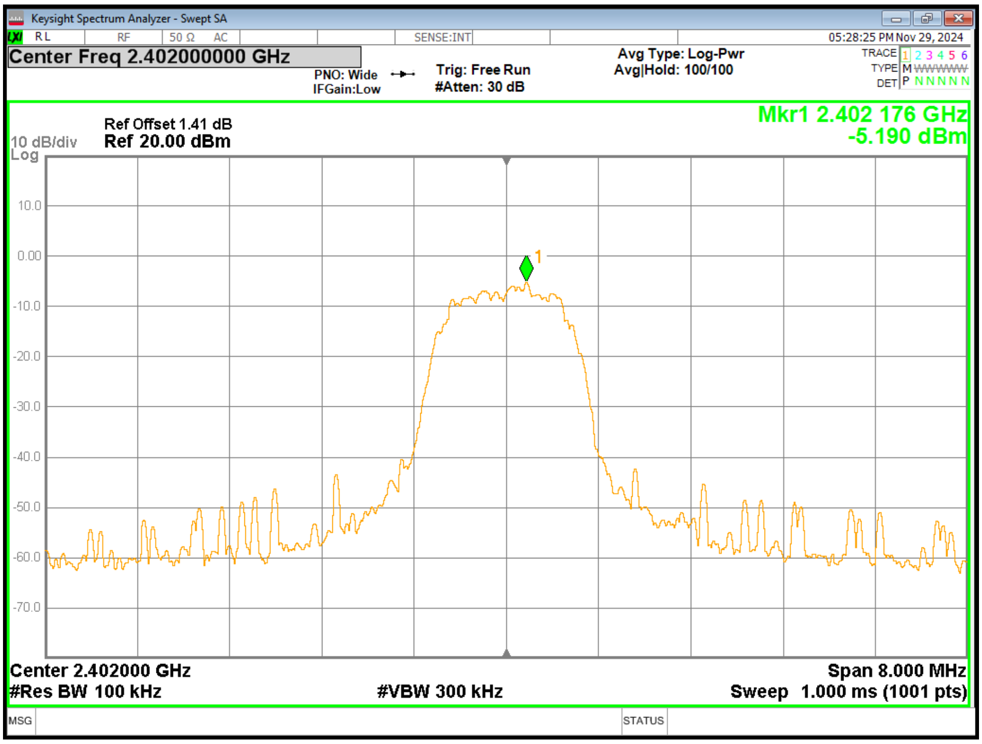
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



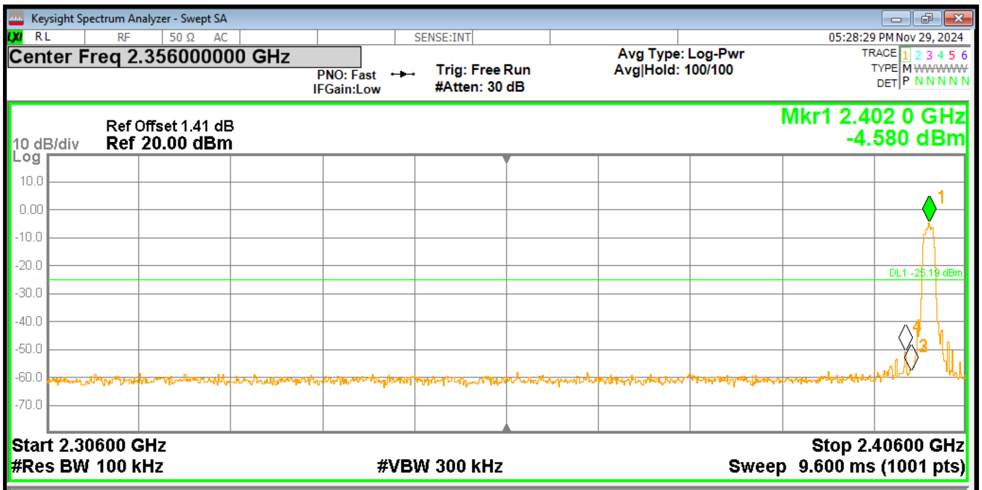
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

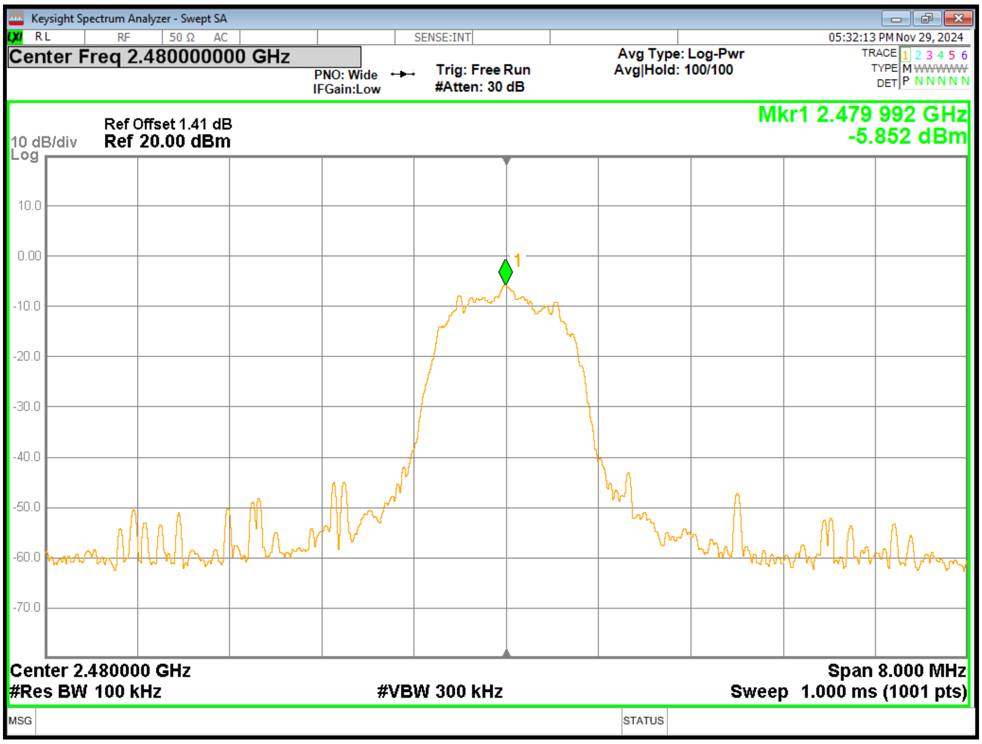


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

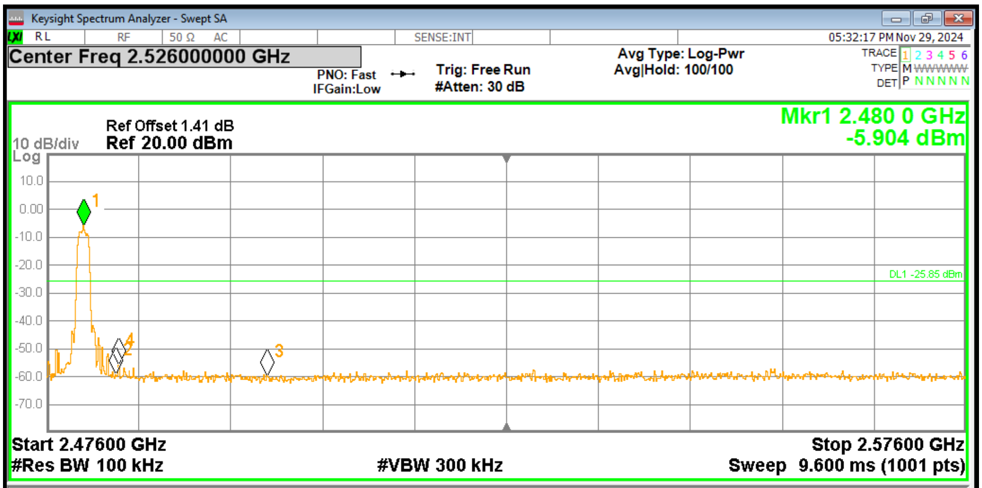


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.402 0 GHz	-4.580 dBm			
2	N	1	f	2.400 0 GHz	-57.669 dBm			
3	N	1	f	2.400 0 GHz	-57.669 dBm			
4	N	1	f	2.399 4 GHz	-50.786 dBm			
5								
6								
7								
8								
9								
10								
11								

Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

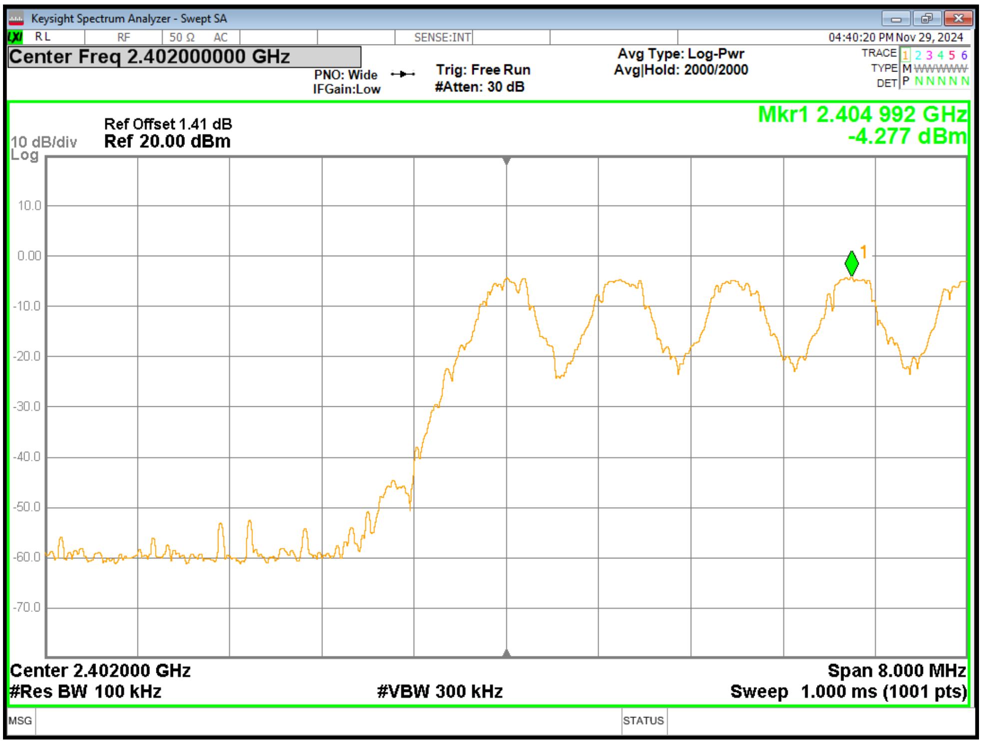


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 0 GHz	-5.904 dBm			
2	N	1	f	2.483 5 GHz	-59.165 dBm			
3	N	1	f	2.500 0 GHz	-59.827 dBm			
4	N	1	f	2.483 8 GHz	-55.855 dBm			
5								
6								
7								
8								
9								
10								
11								

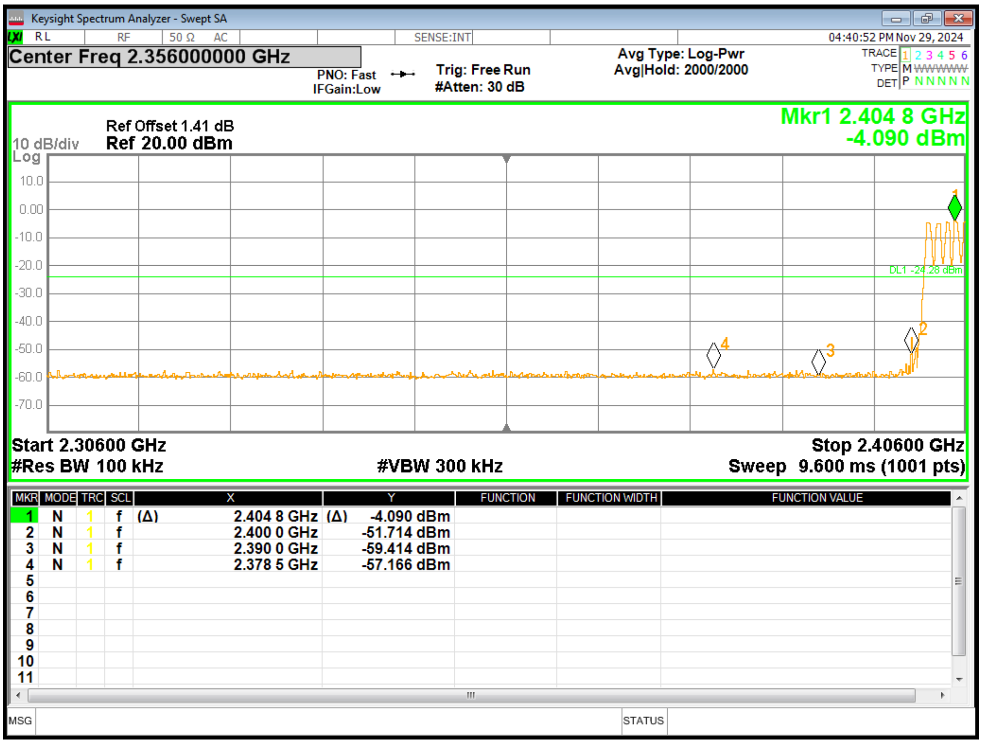
8.Band Edge(Hopping)

Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	Hopping	-52.88	-20	Pass
1-DH5	2480	Ant1	Hopping	-51.19	-20	Pass
2-DH5	2402	Ant1	Hopping	-52.99	-20	Pass
2-DH5	2480	Ant1	Hopping	-51.9	-20	Pass
3-DH5	2402	Ant1	Hopping	-52.69	-20	Pass
3-DH5	2480	Ant1	Hopping	-48.57	-20	Pass

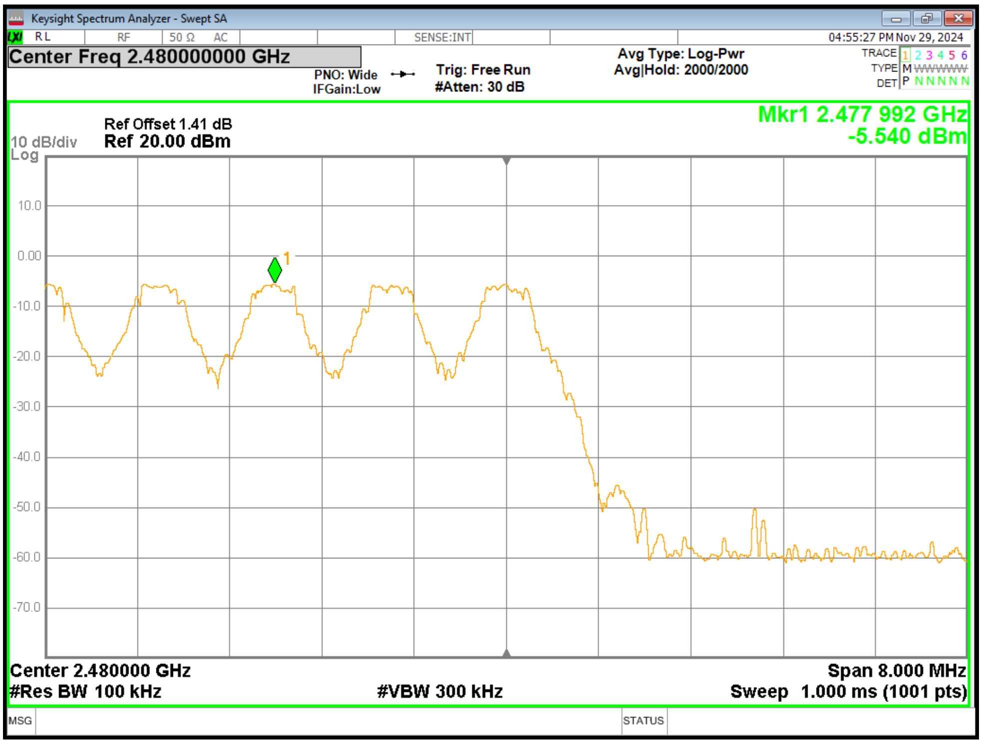
Test Graphs
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



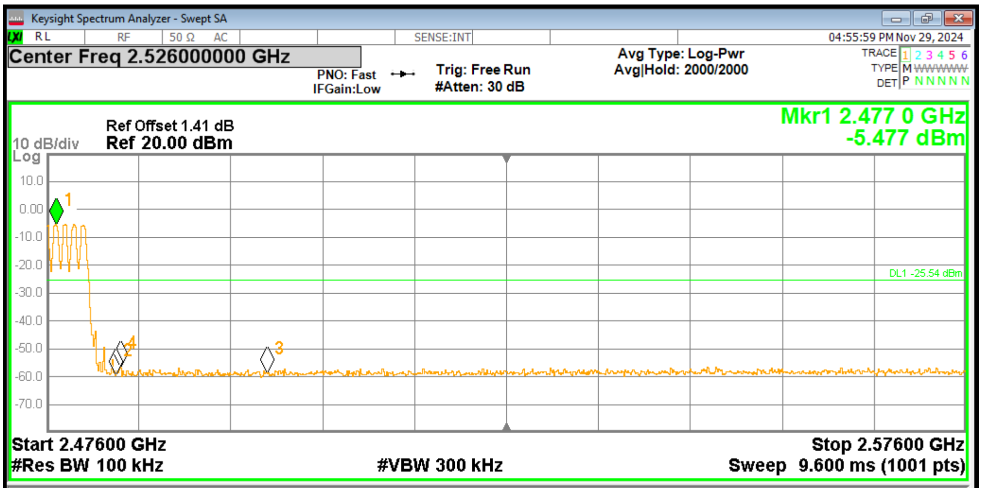
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

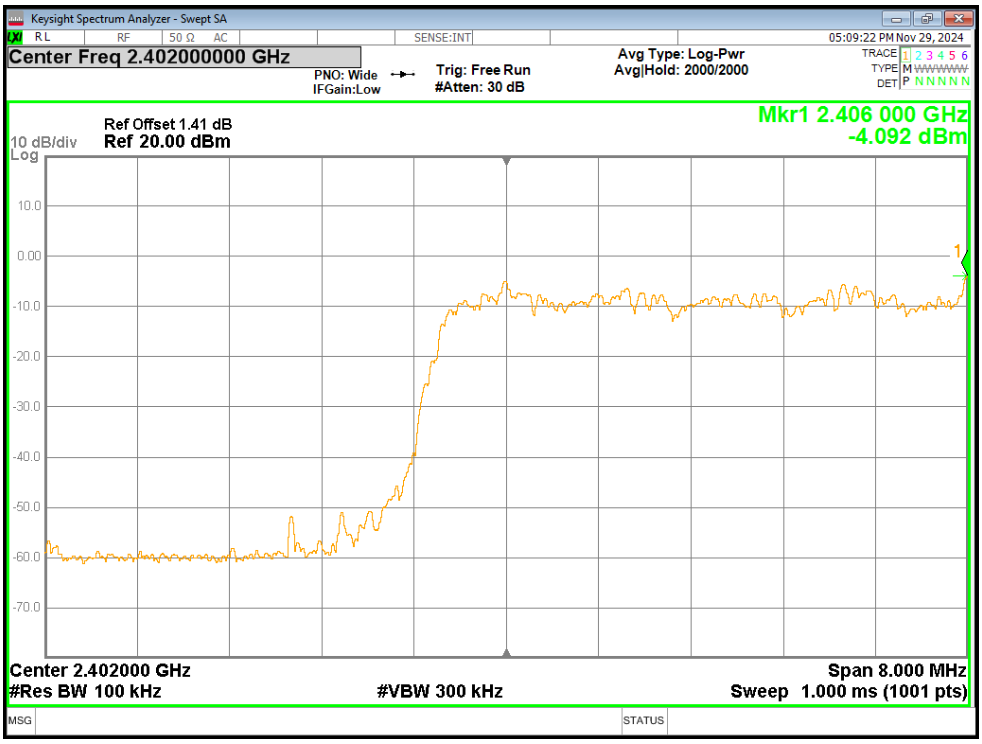


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

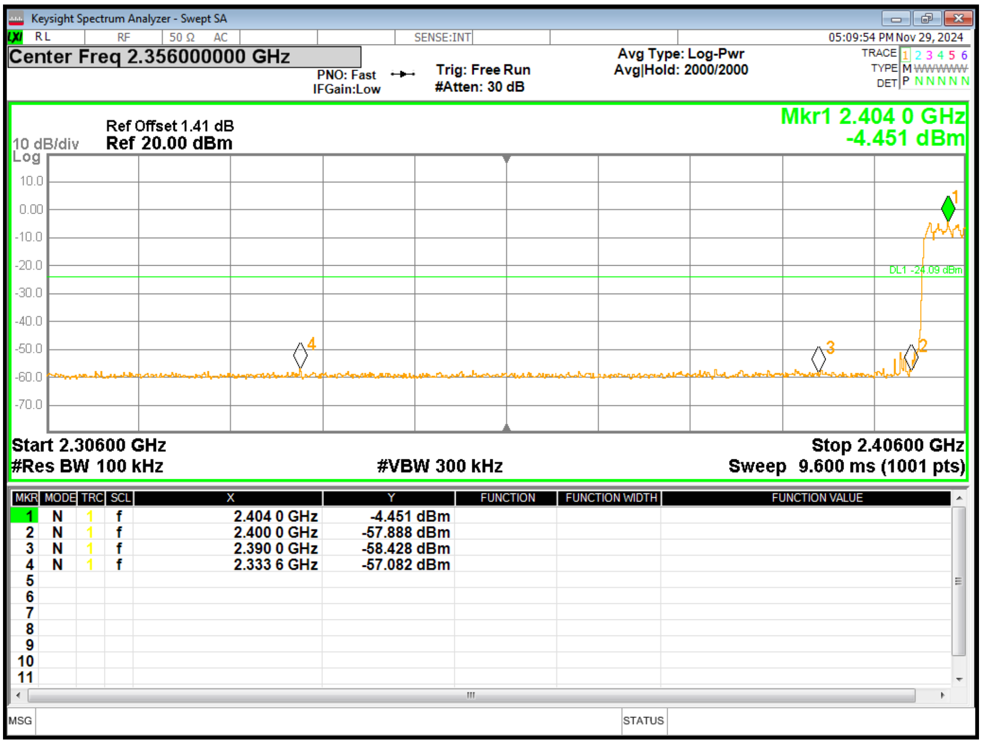


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.477 0 GHz	-5.477 dBm			
2	N	1	f	2.483 5 GHz	-59.557 dBm			
3	N	1	f	2.500 0 GHz	-58.745 dBm			
4	N	1	f	2.484 0 GHz	-56.740 dBm			
5								
6								
7								
8								
9								
10								
11								

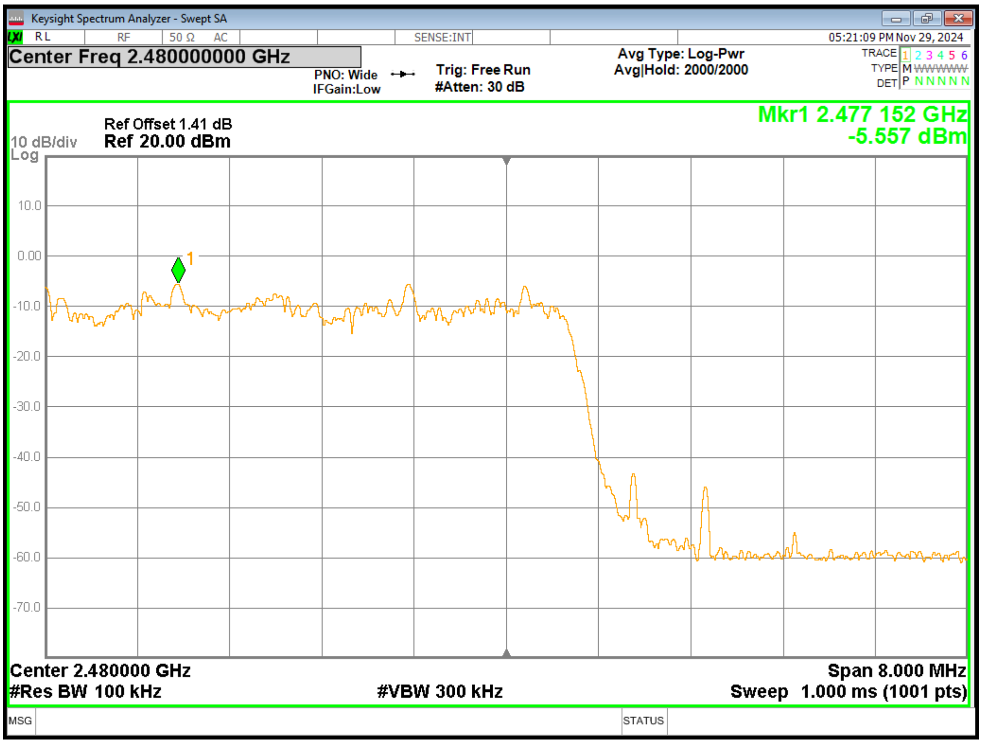
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



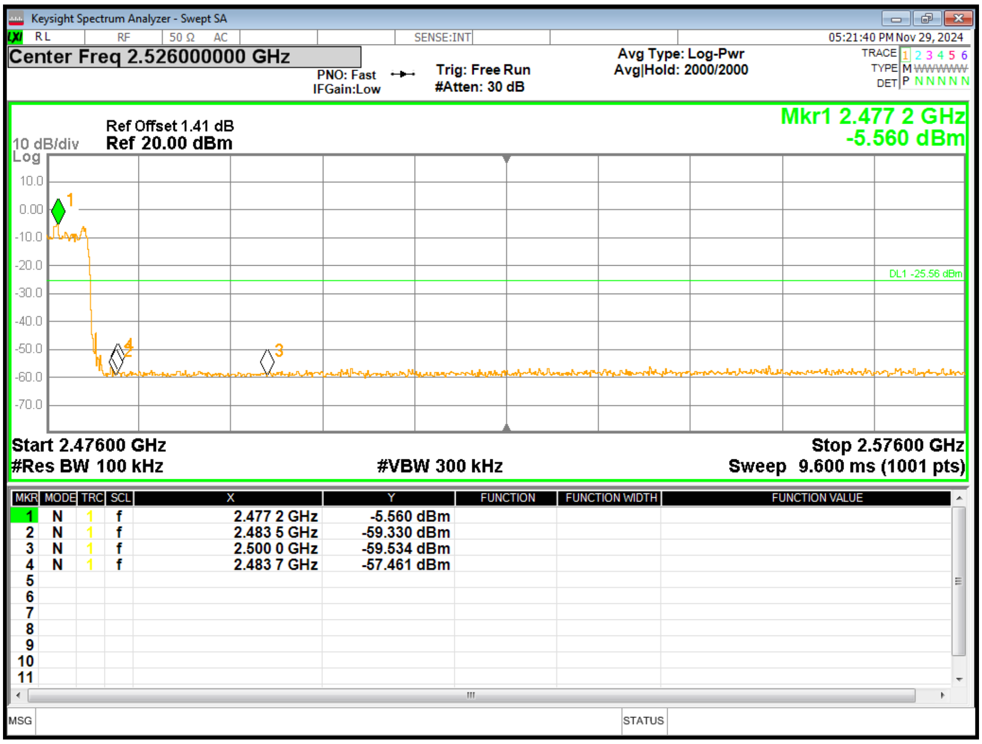
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



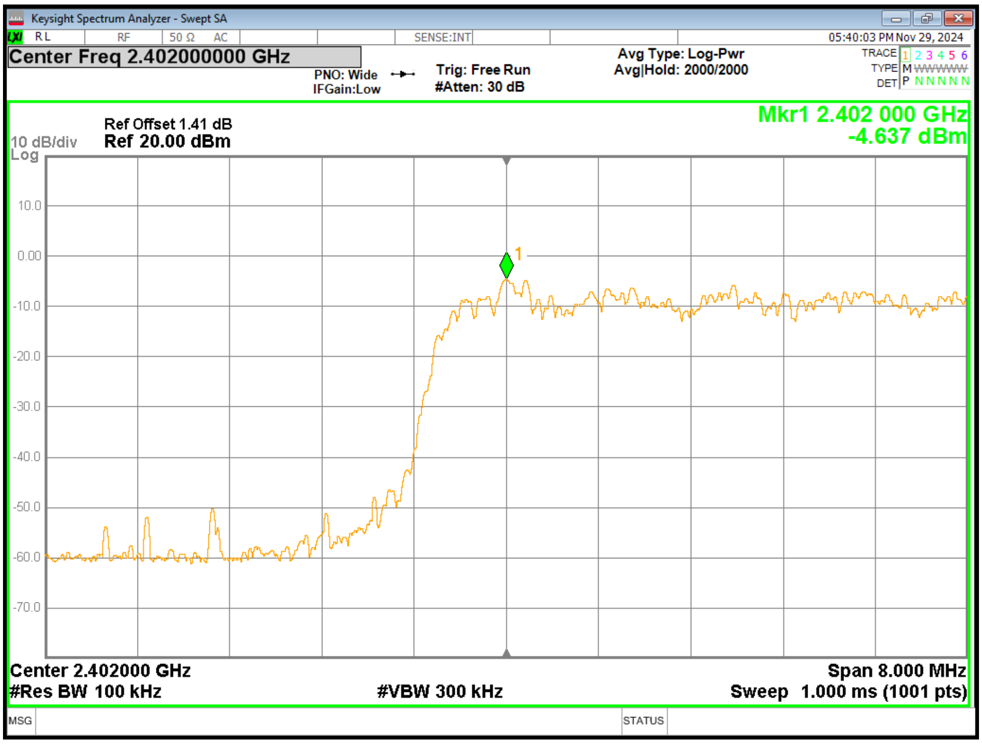
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



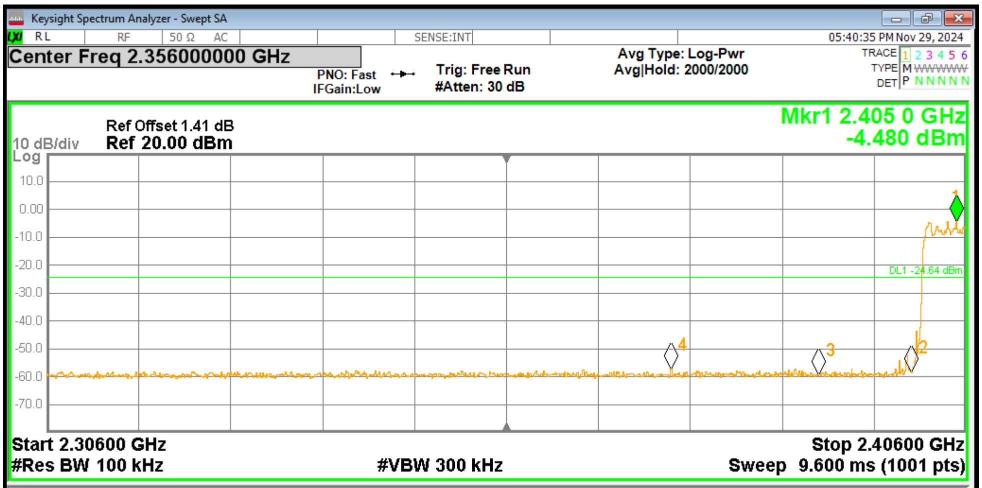
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

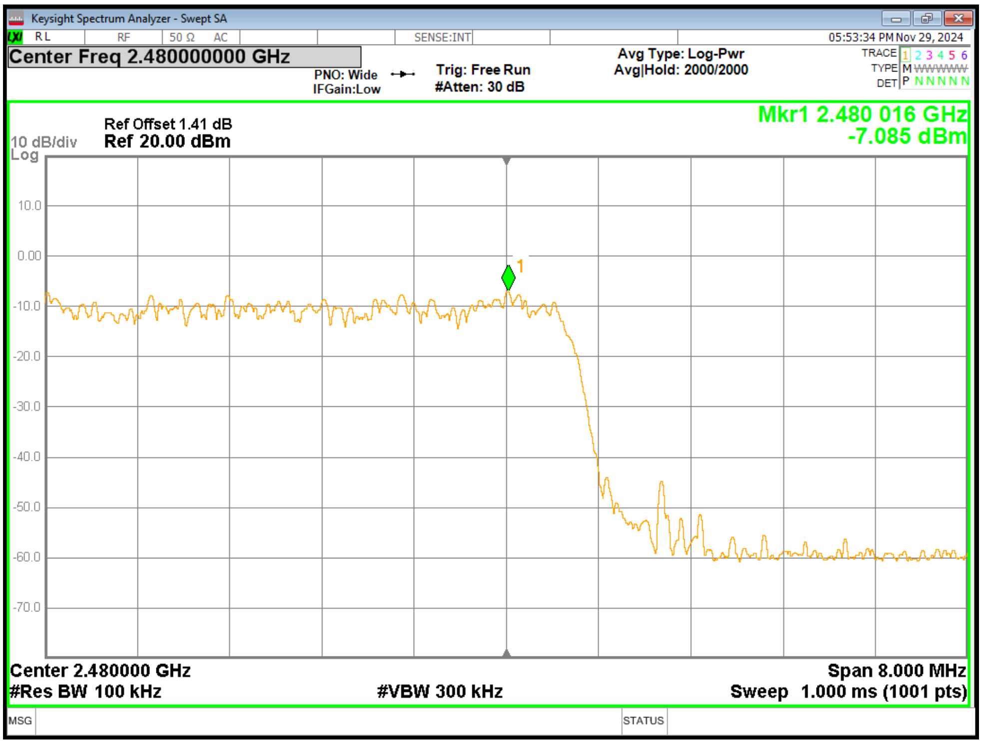


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

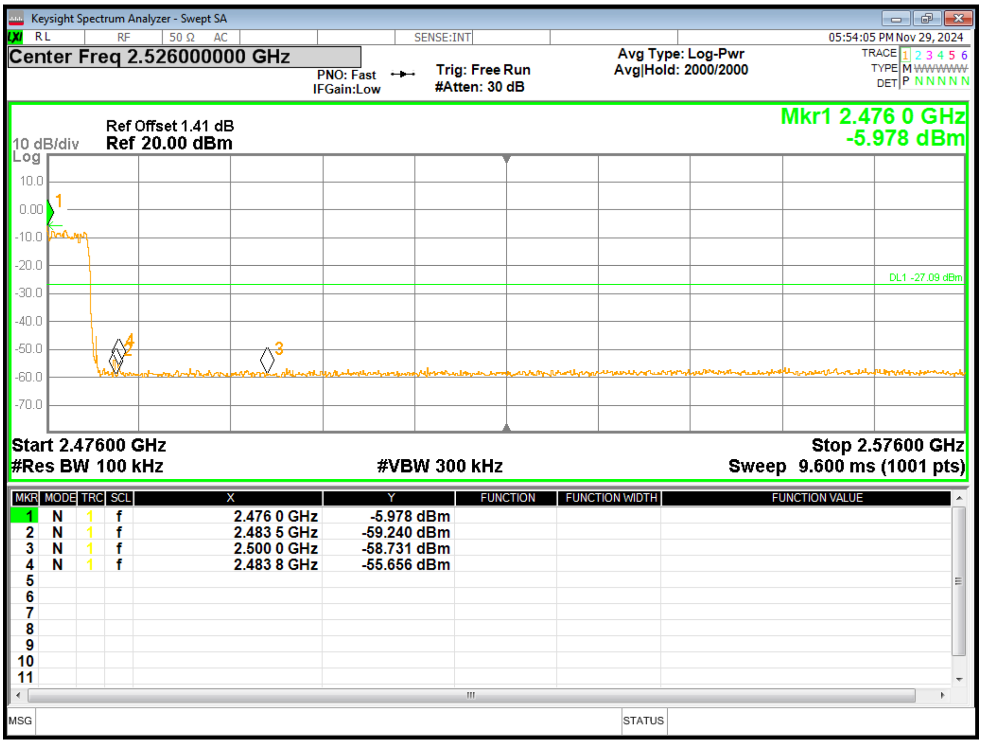


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.405 0 GHz	-4.480 dBm			
2	N	1	f	2.400 0 GHz	-58.416 dBm			
3	N	1	f	2.390 0 GHz	-59.336 dBm			
4	N	1	f	2.373 9 GHz	-57.331 dBm			
5								
6								
7								
8								
9								
10								
11								

Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



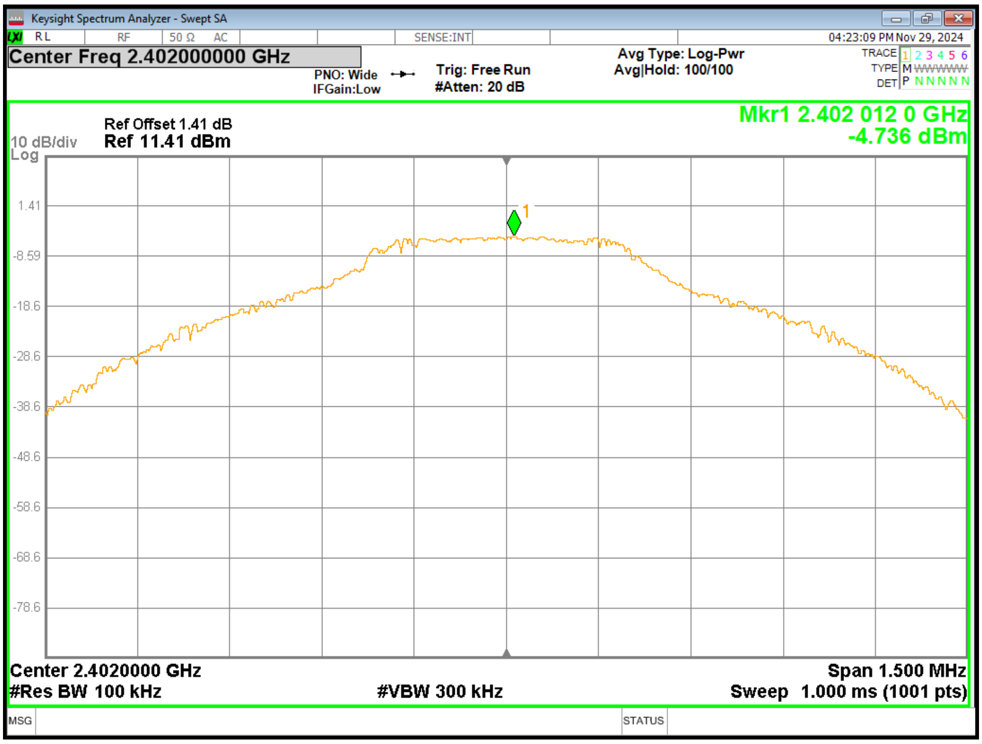
Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission



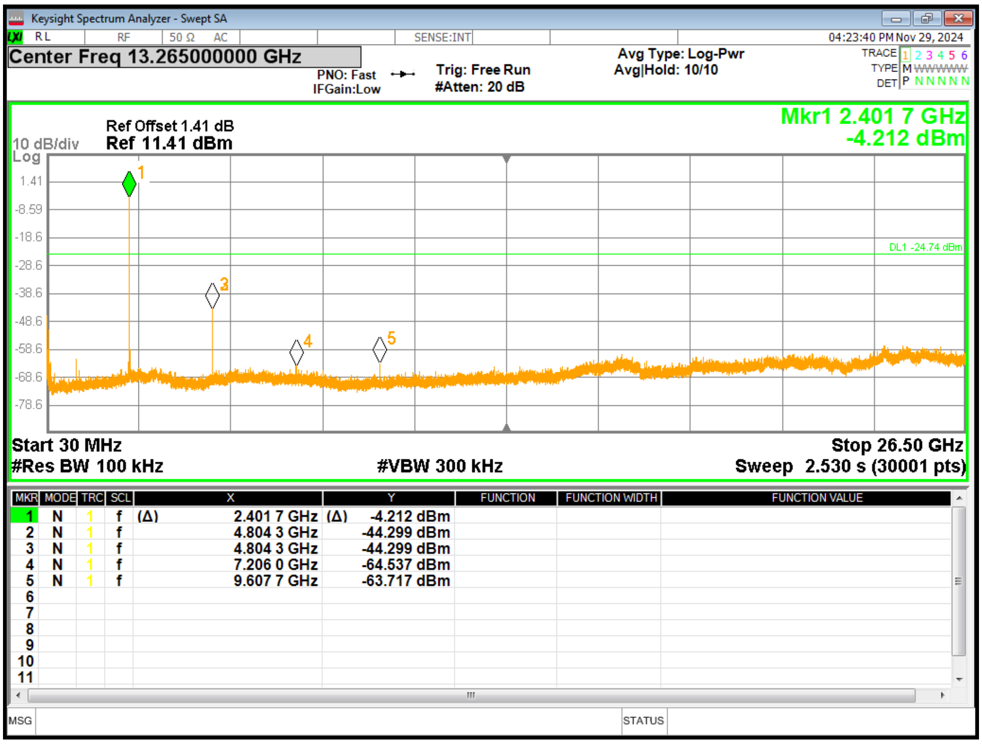
9.Conducted RF Spurious Emission

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	-39.55	-20	Pass
1-DH5	2441	Ant1	-39.82	-20	Pass
1-DH5	2480	Ant1	-35.1	-20	Pass
2-DH5	2402	Ant1	-39.76	-20	Pass
2-DH5	2441	Ant1	-41.66	-20	Pass
2-DH5	2480	Ant1	-35.06	-20	Pass
3-DH5	2402	Ant1	-41.36	-20	Pass
3-DH5	2441	Ant1	-38.94	-20	Pass
3-DH5	2480	Ant1	-36.68	-20	Pass

Test Graphs
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

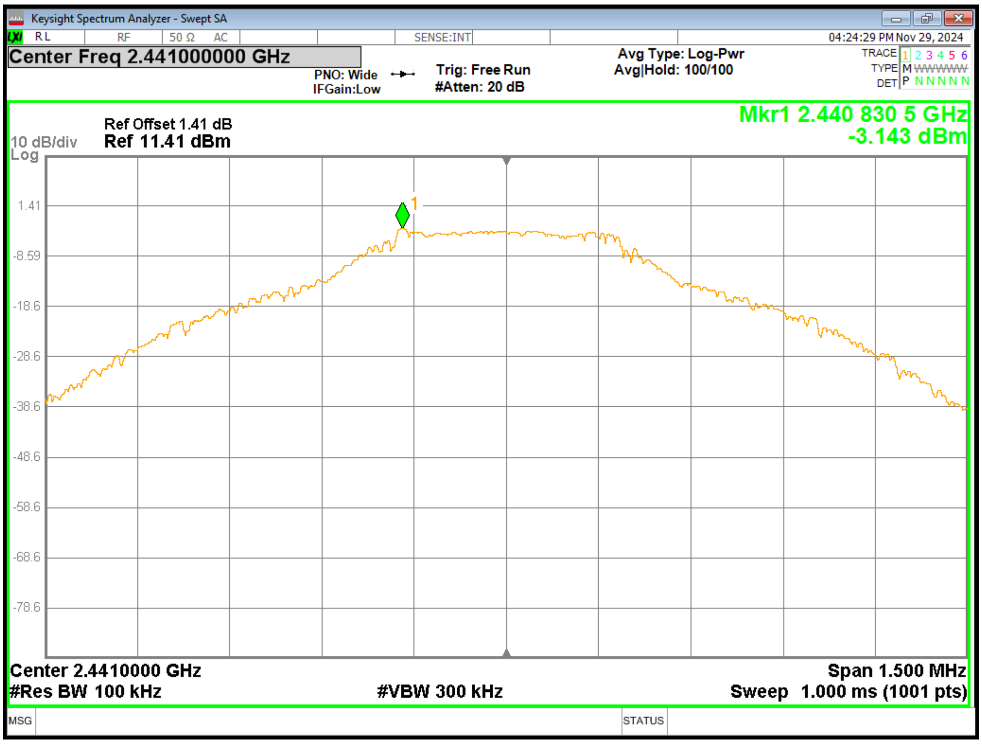


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

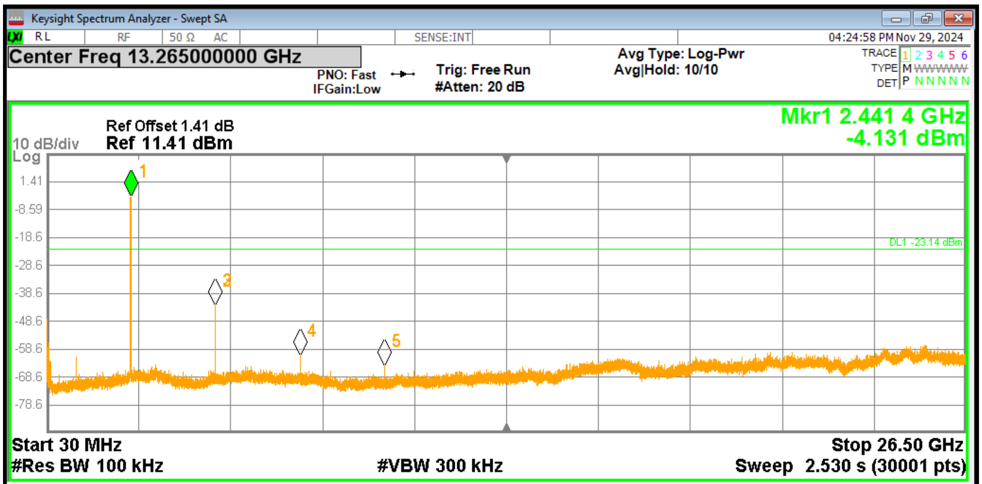


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f (Δ)	2.401 7 GHz (Δ)	-4.212 dBm			
2	N	1	f	4.804 3 GHz	-44.299 dBm			
3	N	1	f	4.804 3 GHz	-44.299 dBm			
4	N	1	f	7.206 0 GHz	-64.537 dBm			
5	N	1	f	9.607 7 GHz	-63.717 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

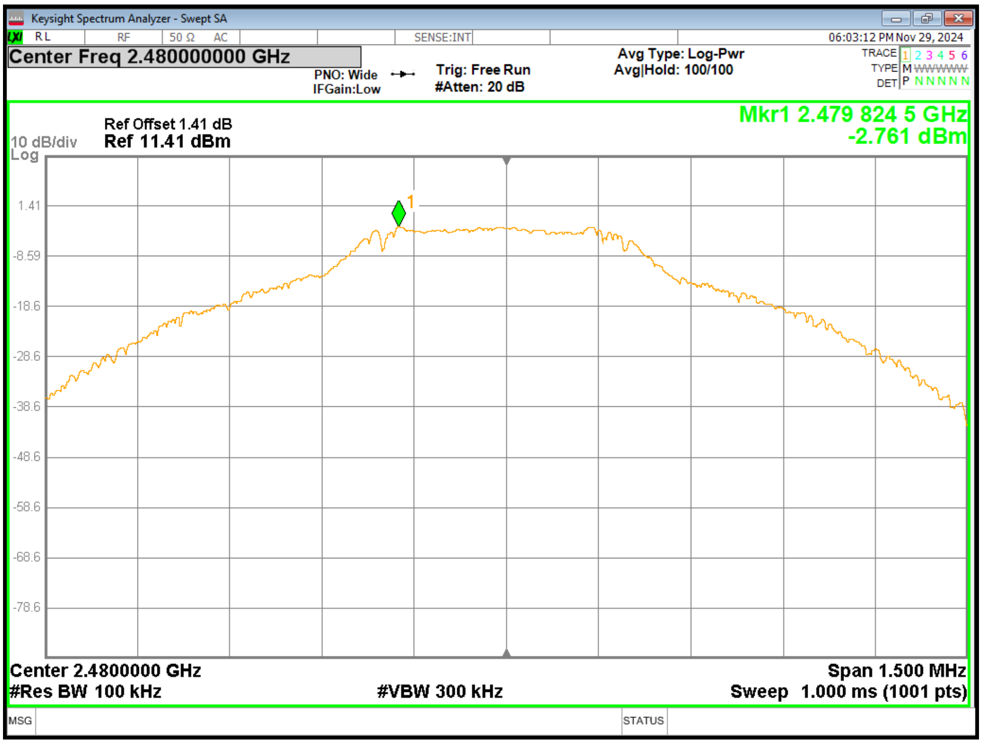


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

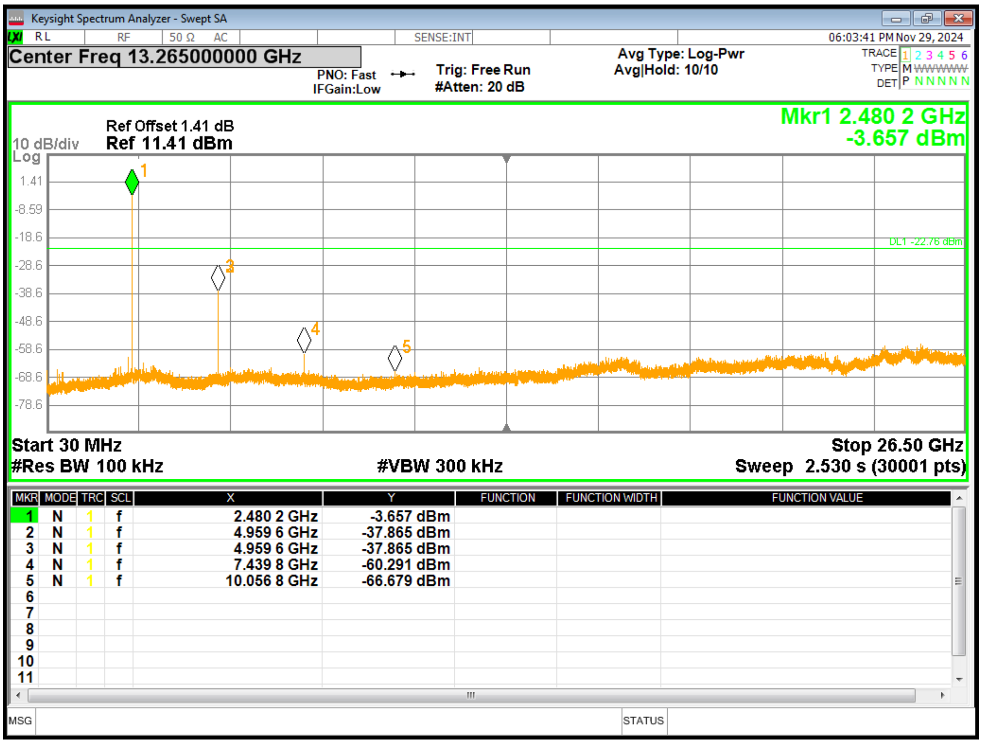


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f (Δ)	2.441 4 GHz (Δ)	-4.131 dBm			
2	N	1	f	4.882 0 GHz	-42.966 dBm			
3	N	1	f	4.882 0 GHz	-42.966 dBm			
4	N	1	f	7.323 4 GHz	-60.865 dBm			
5	N	1	f	9.763 9 GHz	-64.523 dBm			
6								
7								
8								
9								
10								
11								

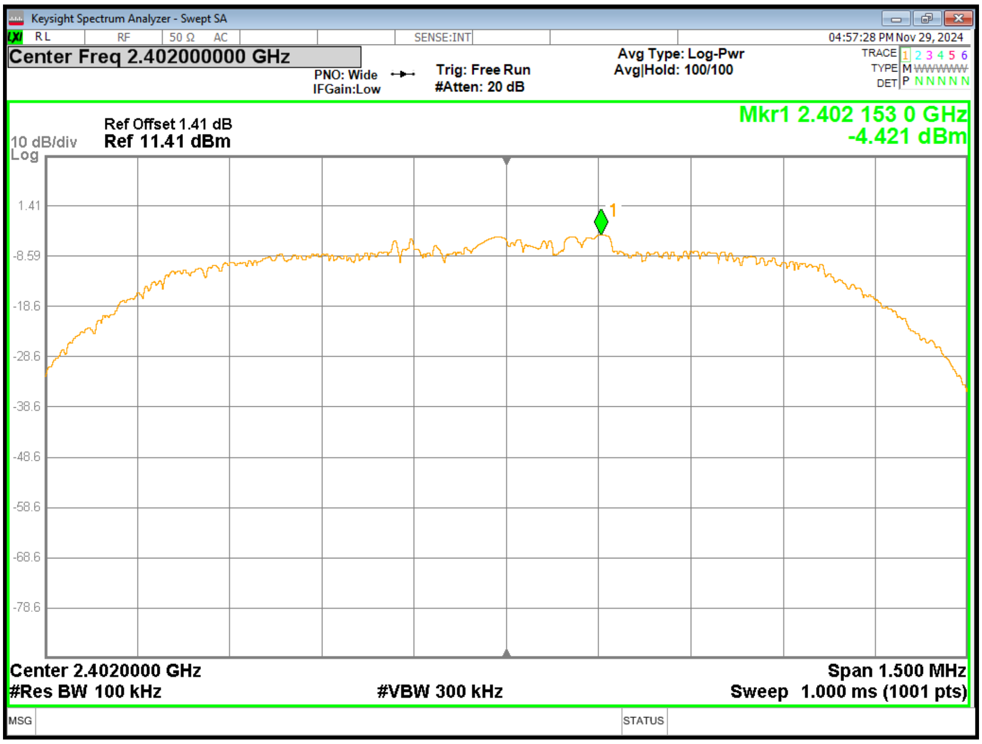
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



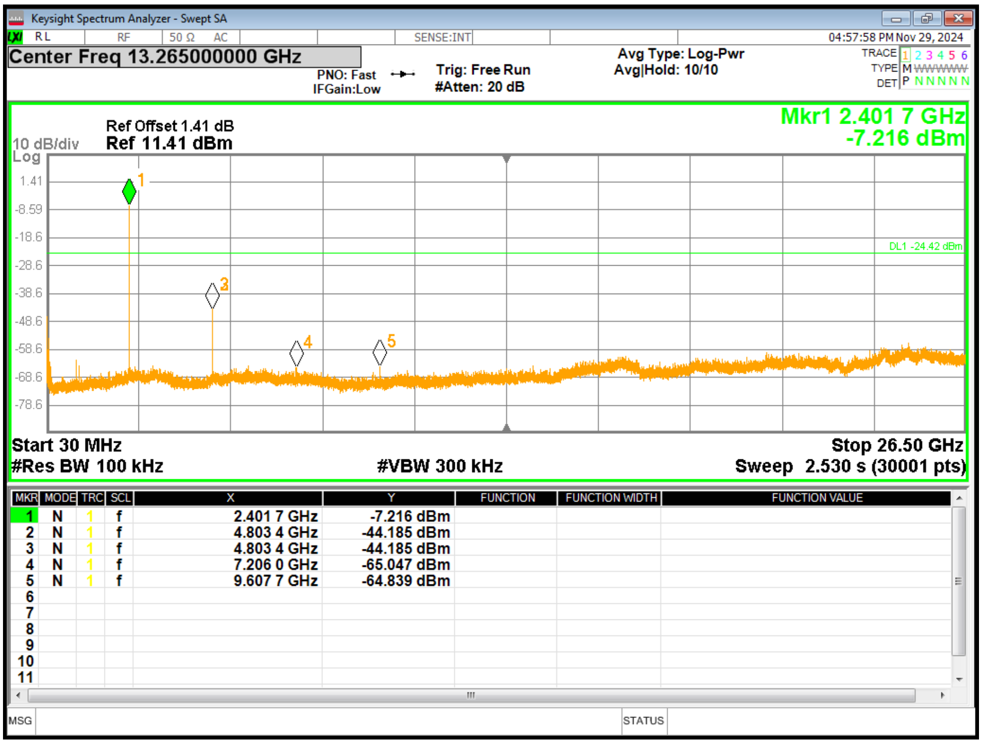
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



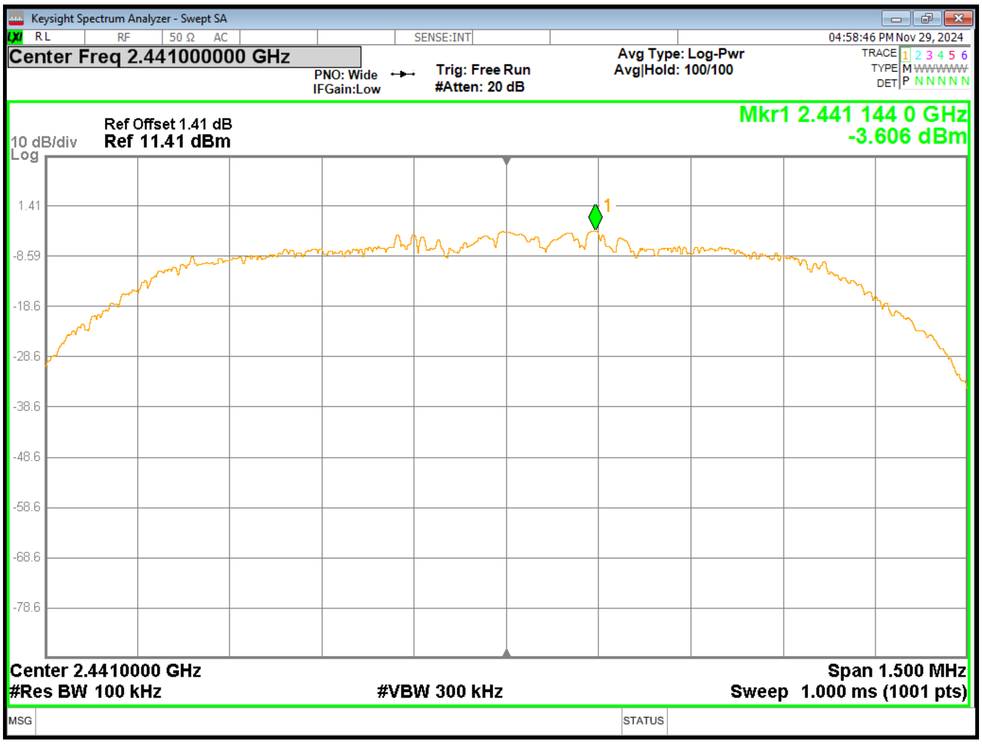
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



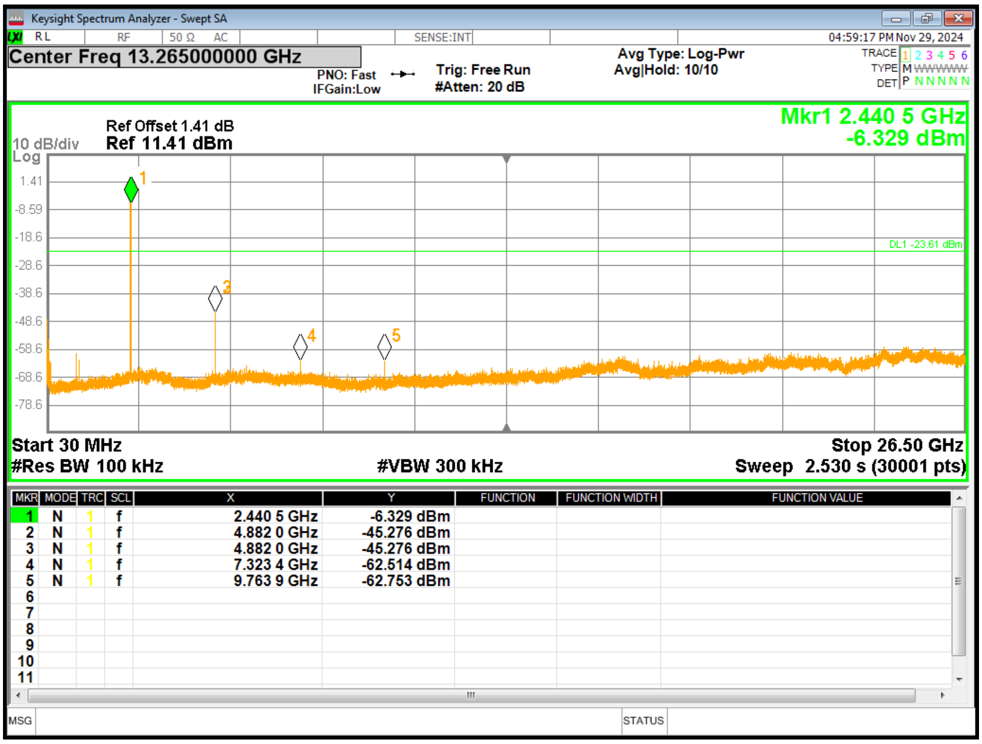
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



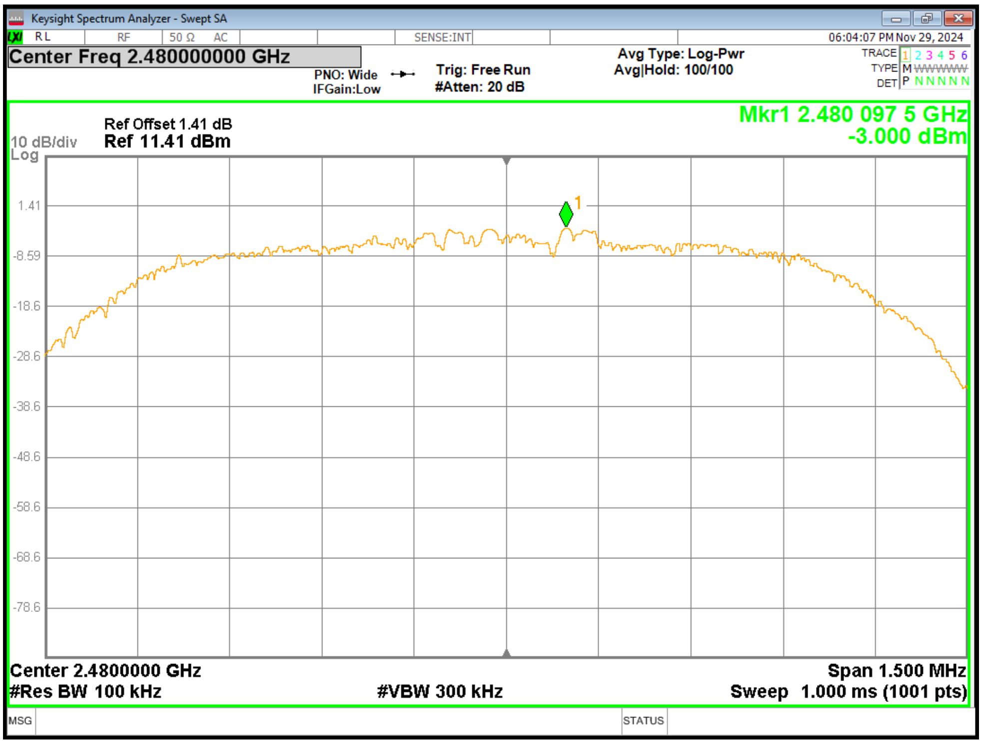
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



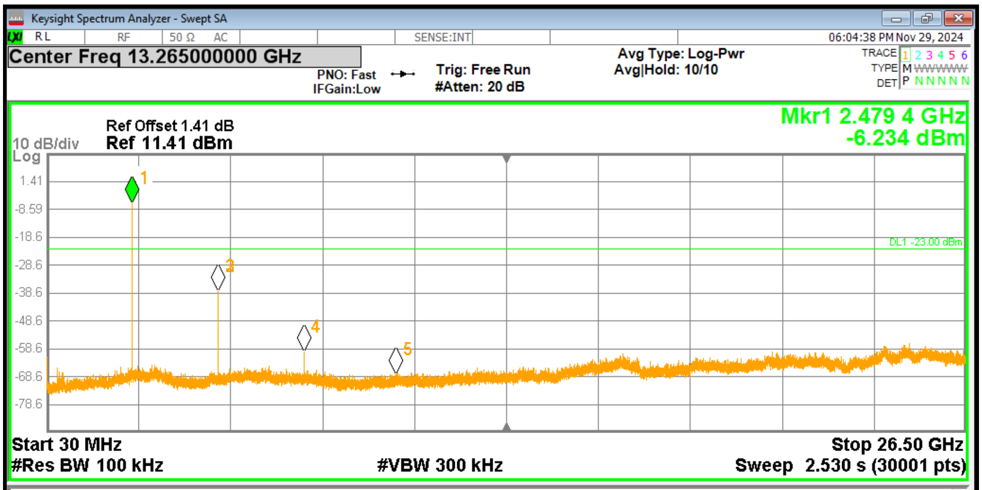
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

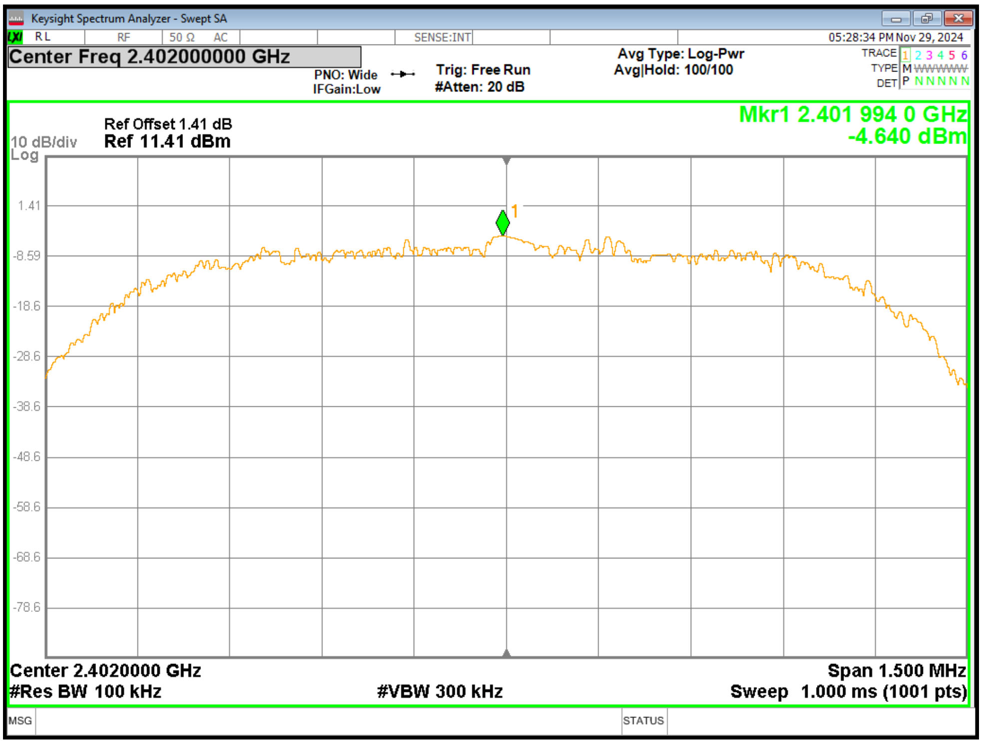


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

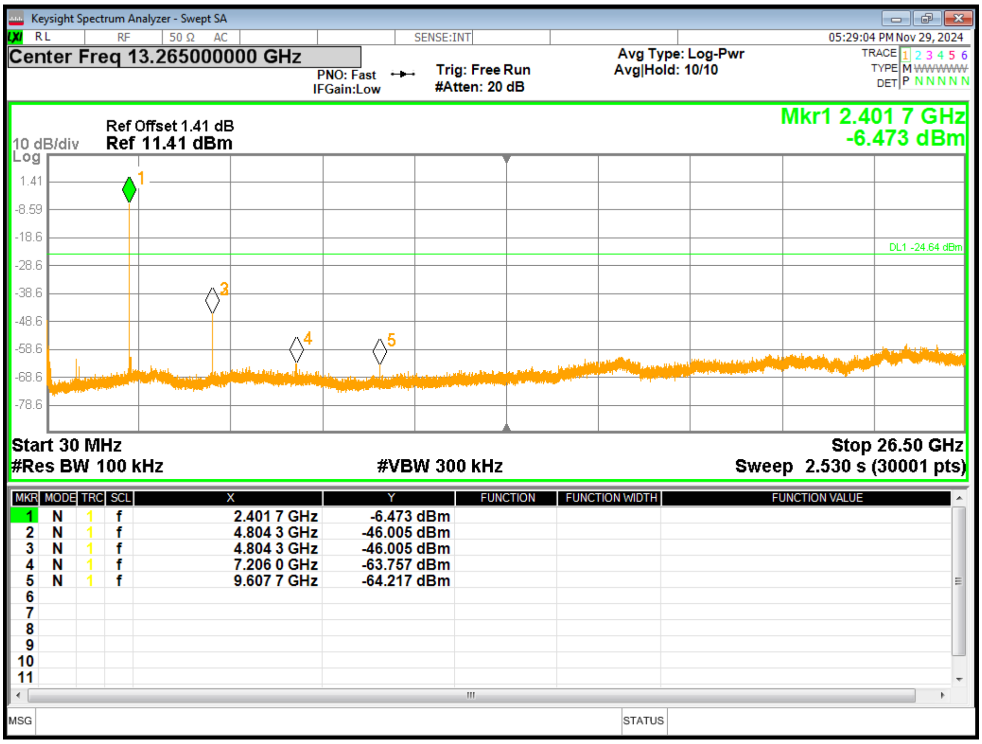


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.479 4 GHz	-6.234 dBm			
2	N	1	f	4.960 5 GHz	-38.061 dBm			
3	N	1	f	4.960 5 GHz	-38.061 dBm			
4	N	1	f	7.439 8 GHz	-59.676 dBm			
5	N	1	f	10.066 5 GHz	-67.715 dBm			
6								
7								
8								
9								
10								
11								

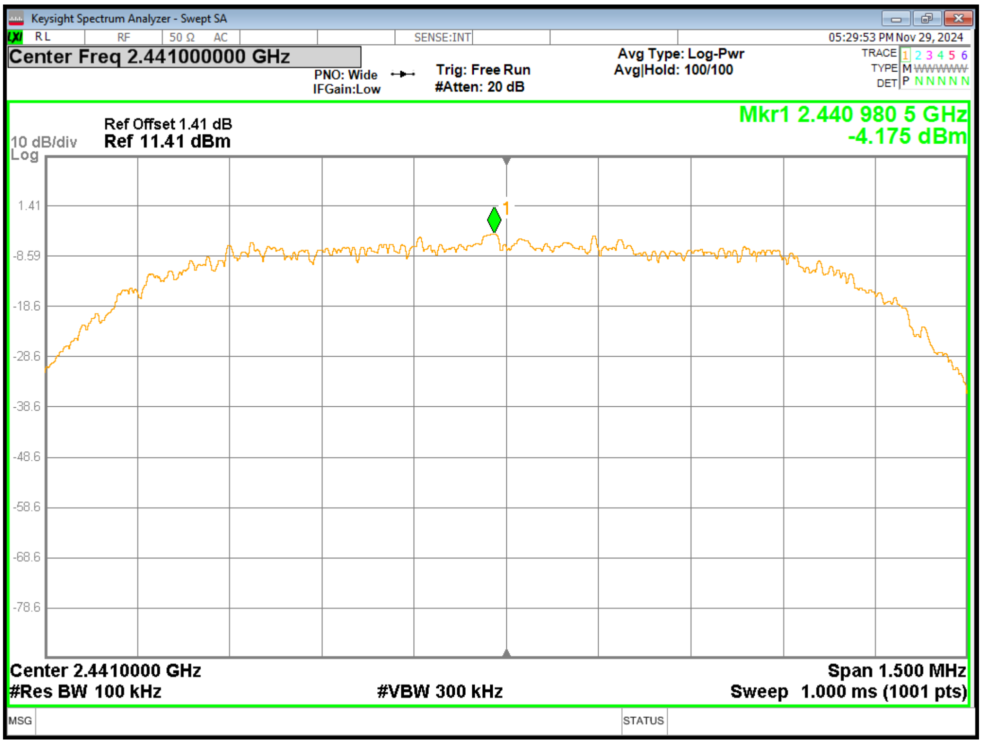
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



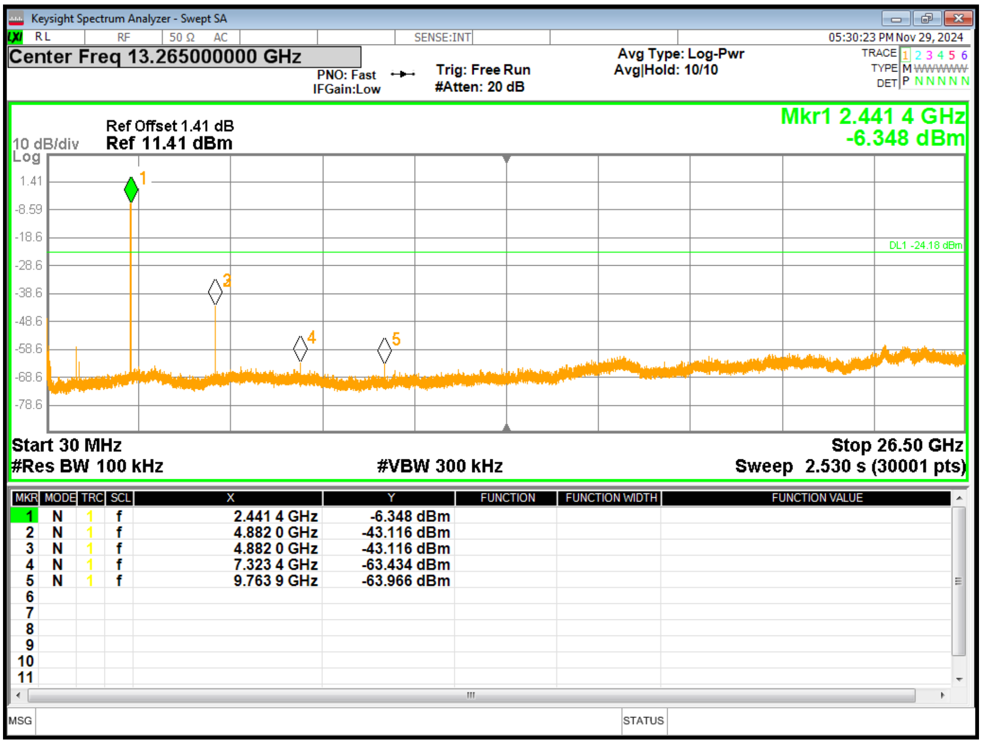
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



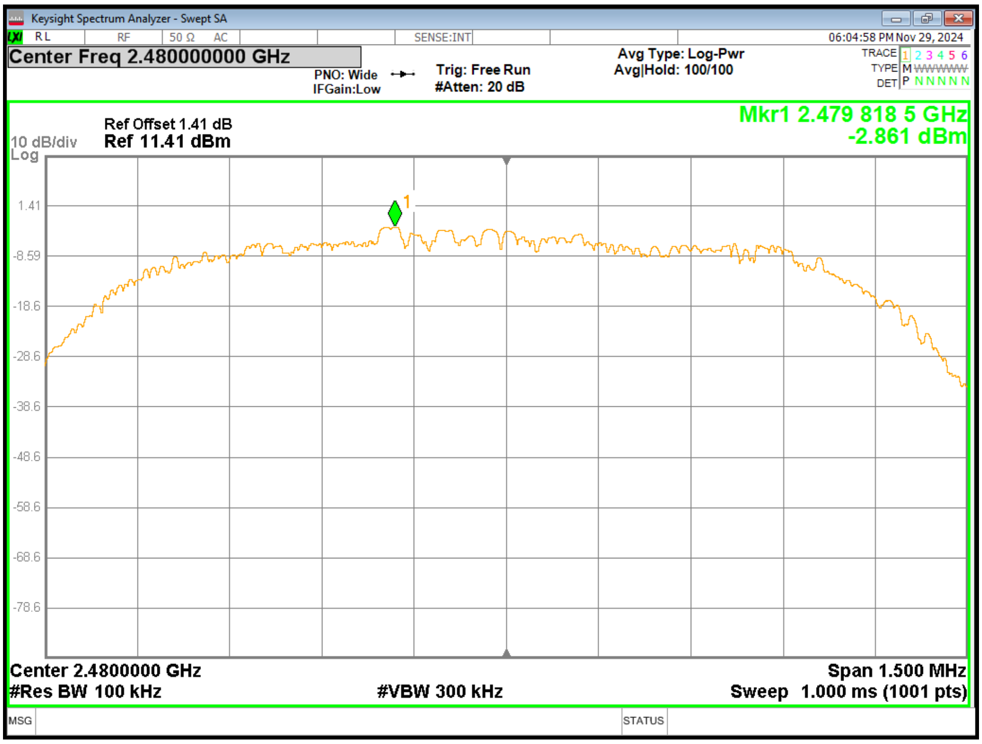
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



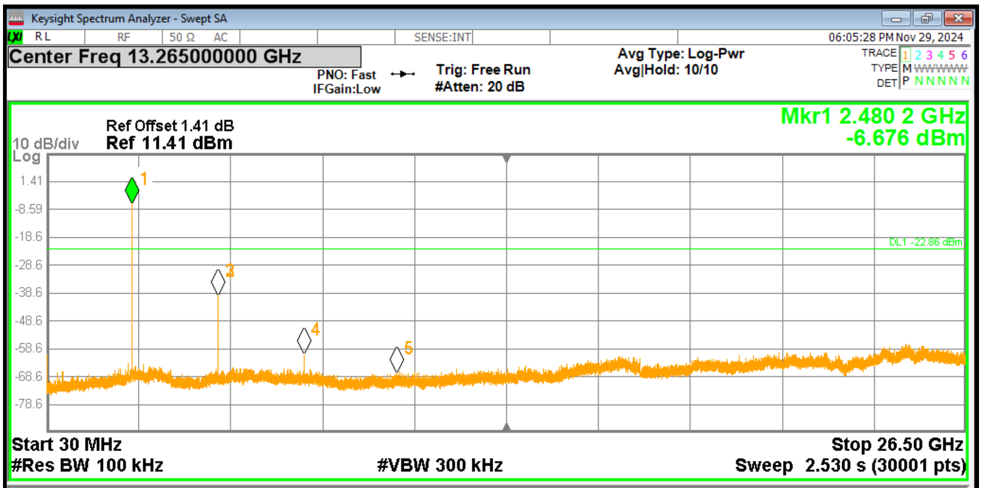
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 2 GHz	-6.676 dBm			
2	N	1	f	4.960 5 GHz	-39.543 dBm			
3	N	1	f	4.960 5 GHz	-39.543 dBm			
4	N	1	f	7.439 8 GHz	-60.755 dBm			
5	N	1	f	10.109 8 GHz	-67.305 dBm			
6								
7								
8								
9								
10								
11								