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FCC_BT(Part15.247) Test Data

1.Dwell Time

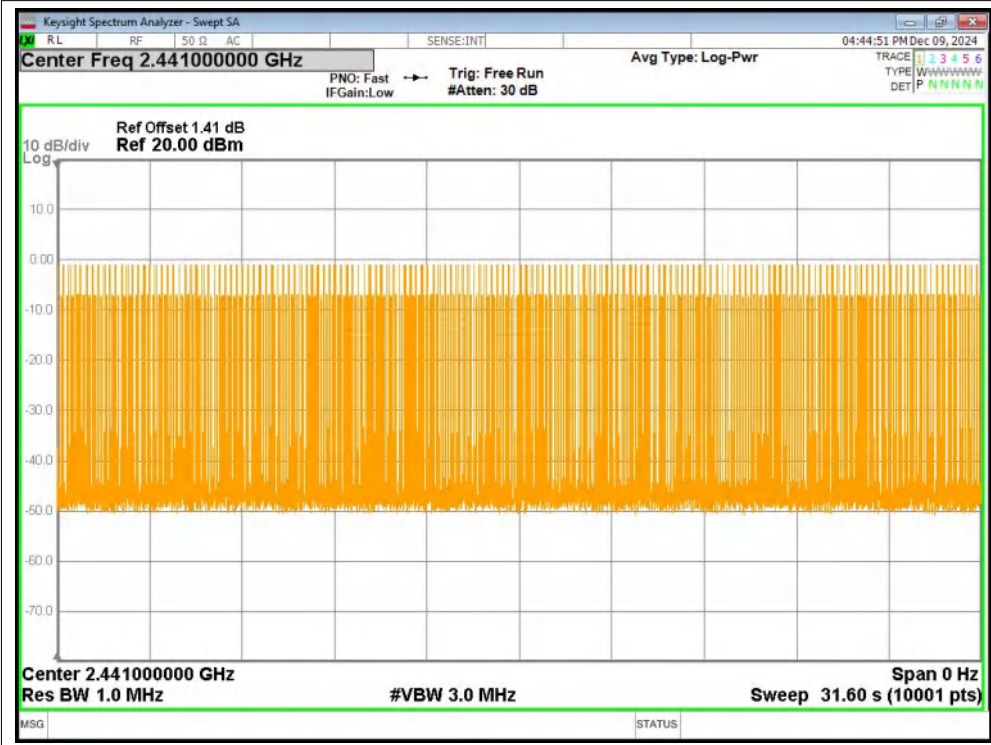
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	0.376	119.568	318	31600	400	Pass
1-DH3	2441	1.632	248.064	152	31600	400	Pass
1-DH5	2441	2.88	282.24	98	31600	400	Pass
2-DH1	2441	0.386	123.134	319	31600	400	Pass
2-DH3	2441	1.639	257.323	157	31600	400	Pass
2-DH5	2441	2.885	314.465	109	31600	400	Pass
3-DH1	2441	0.387	123.066	318	31600	400	Pass
3-DH3	2441	1.637	265.194	162	31600	400	Pass
3-DH5	2441	2.888	268.584	93	31600	400	Pass

Test Graphs

Dwell NVNT 1-DH1 2441MHz Ant1 One Burst



Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated



The screenshot shows a Keysight Spectrum Analyzer interface. The main display area shows a swept spectrum plot with a green trace. A peak is identified with a yellow diamond marker and labeled "Δ2". The measurement results are displayed in the top right corner: $\Delta\text{Mkr}1$ 1.632 ms and 1.69 dB. The bottom status bar shows the center frequency as 2.441000000 GHz, resolution bandwidth (Res BW) as 1.0 MHz, video bandwidth (#VBW) as 3.0 MHz, and sweep time as 10.00 ms (10001 pts).

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	$\Delta 2$	t	(Δ)	1.632 ms (Δ)	1.69 dB			
2	F	t		491.0 μ s	-16.44 dBm			

Keysight Spectrum Analyzer - Swept SA

04:45:35 PM Dec 09, 2024

Center Freq 2.441000000 GHz

Avg Type: Log-Pwr

Trace 1 2 3 4 5 6

Type: WWWWWWW

Det: P N N N N N

PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB

10 dB/div Log

Ref Offset 1.41 dB

Ref 20.00 dBm

Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Span 0 Hz

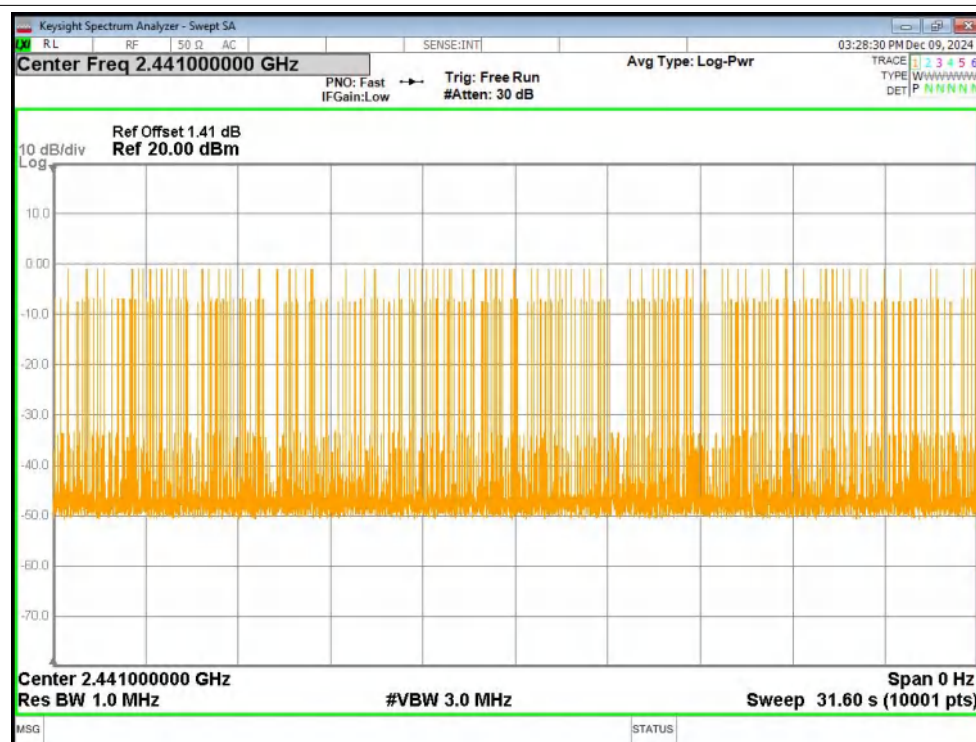
Sweep 31.60 s (10001 pts)

MSG STATUS

Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



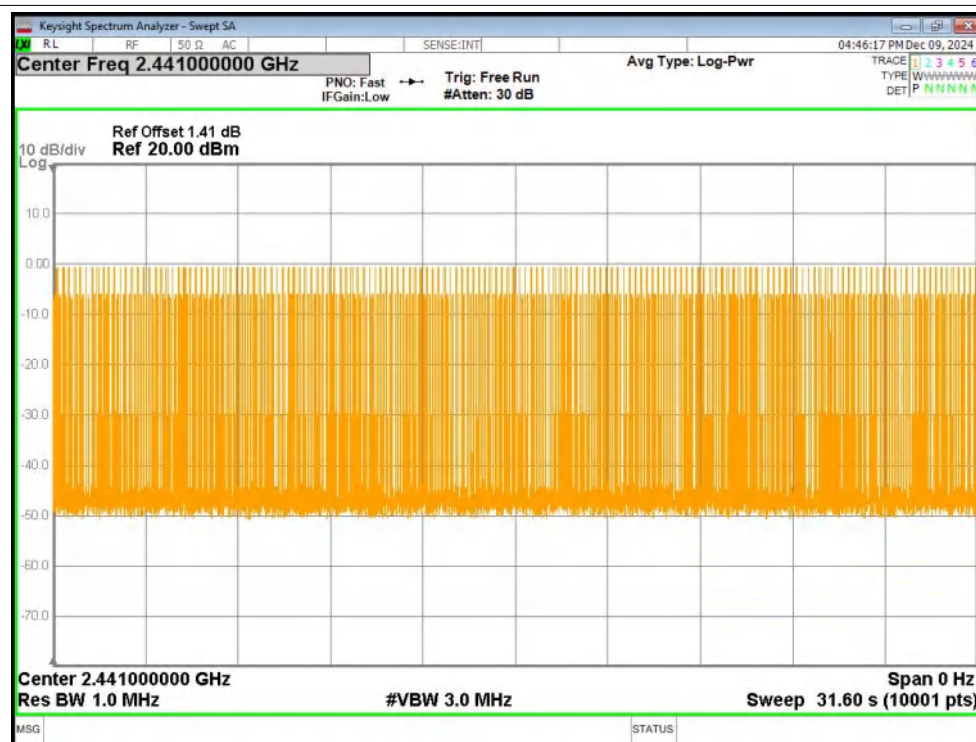
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH1 2441MHz Ant1 One Burst



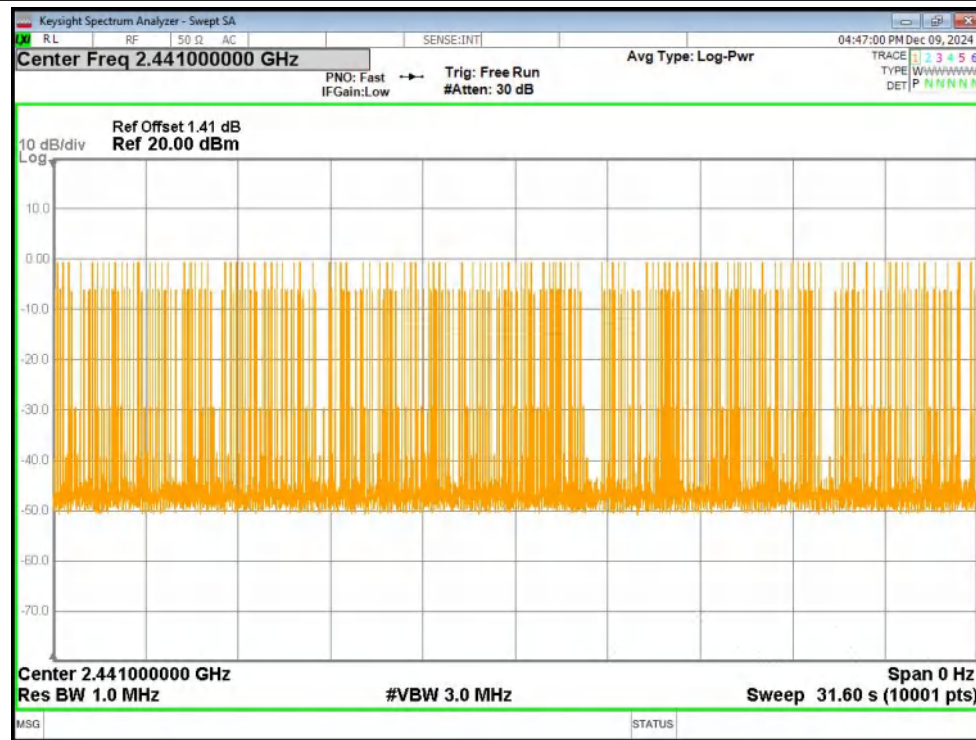
Dwell NVNT 2-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH3 2441MHz Ant1 One Burst



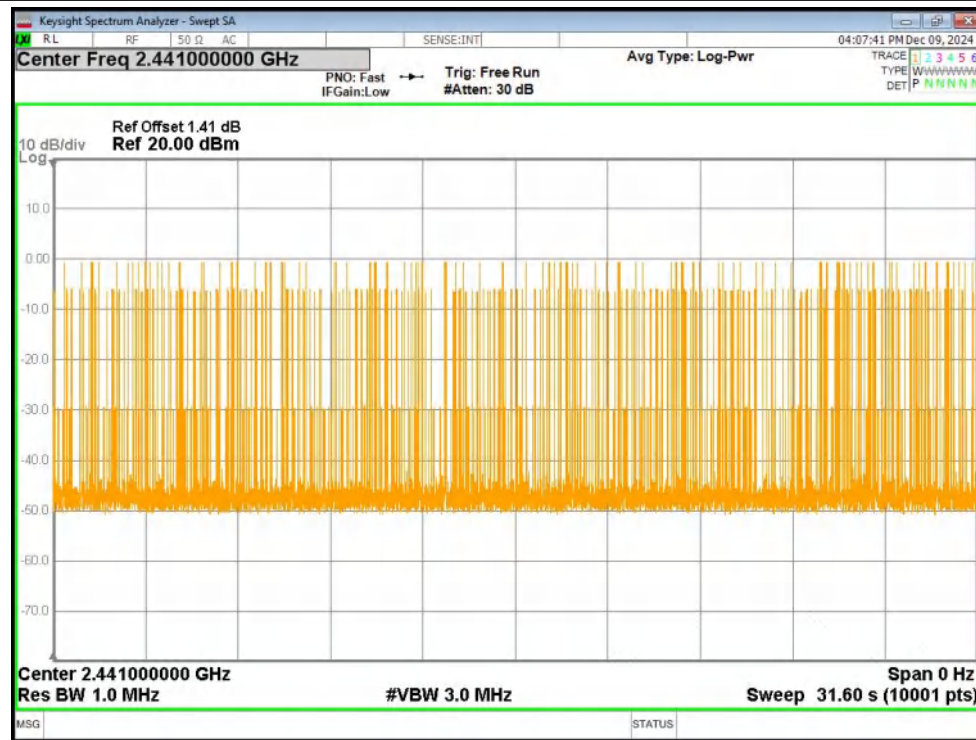
Dwell NVNT 2-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



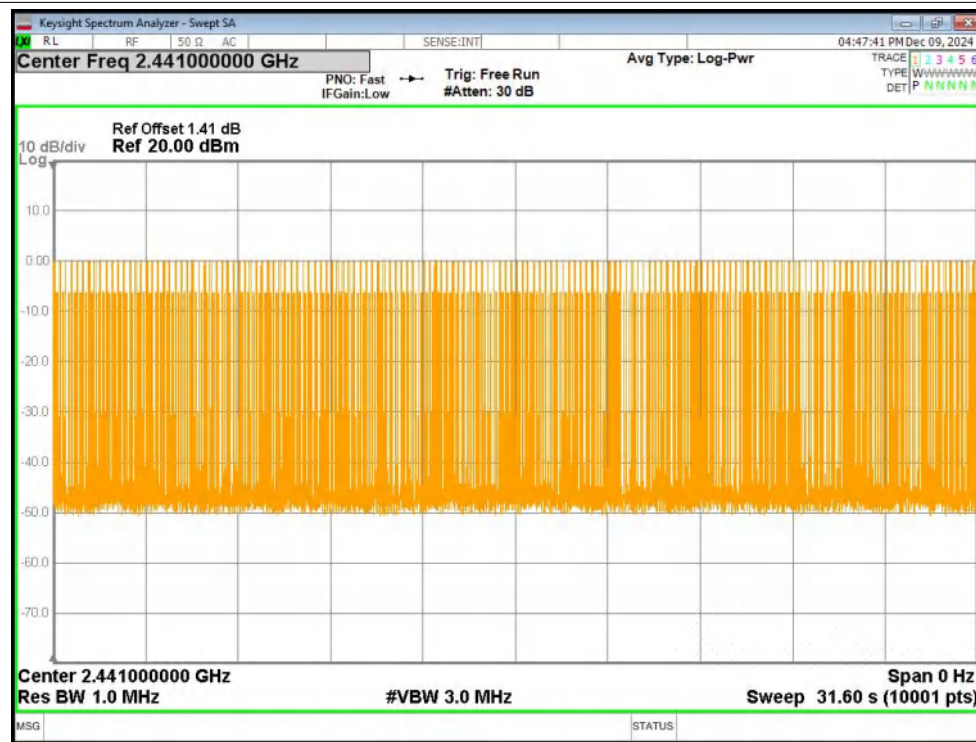
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH1 2441MHz Ant1 One Burst



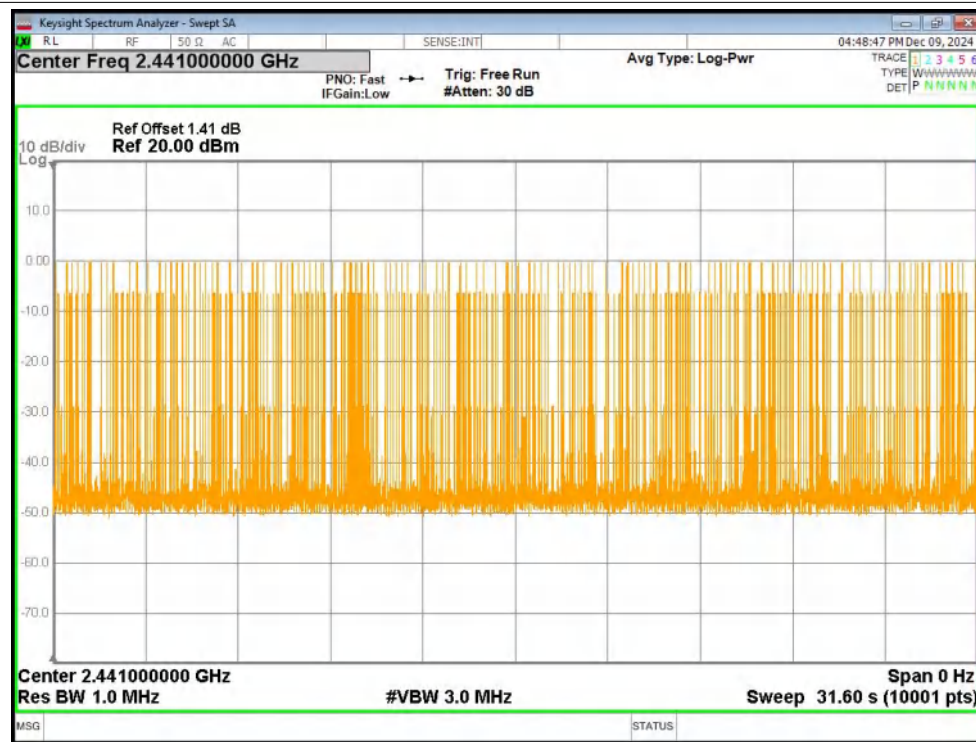
Dwell NVNT 3-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH3 2441MHz Ant1 One Burst



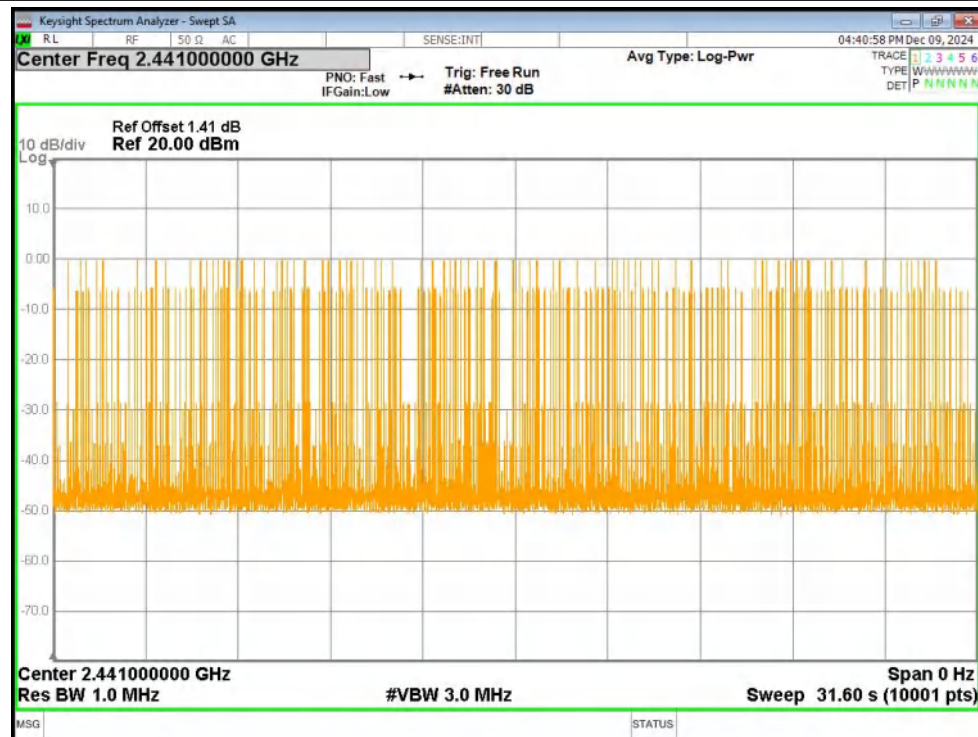
Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

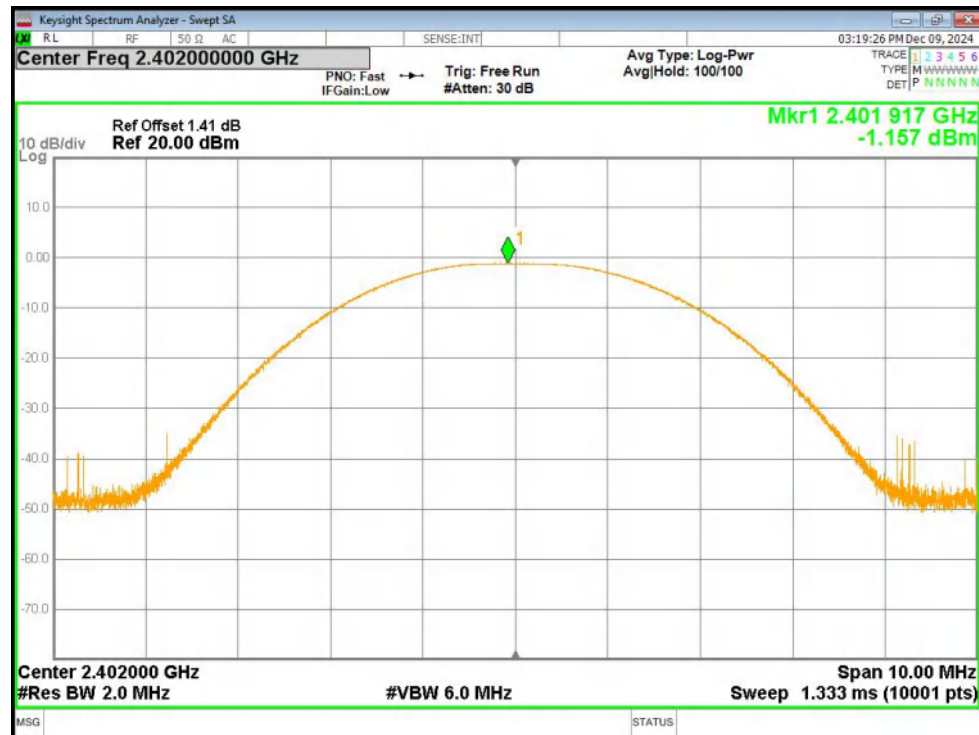


2.Maximum Peak Conducted Output Power

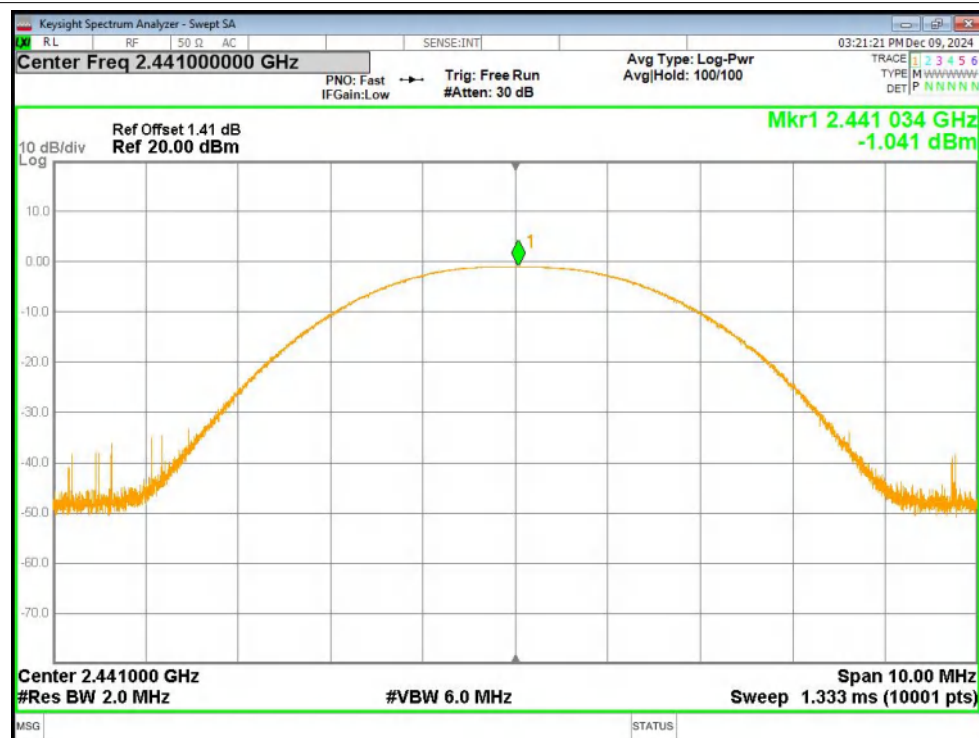
Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
1-DH5	2402	-1.16	21	Pass
1-DH5	2441	-1.04	21	Pass
1-DH5	2480	-1.34	21	Pass
2-DH5	2402	-0.38	21	Pass
2-DH5	2441	-0.31	21	Pass
2-DH5	2480	-0.5	21	Pass
3-DH5	2402	-0.03	21	Pass
3-DH5	2441	0.07	21	Pass
3-DH5	2480	-0.21	21	Pass

Test Graphs

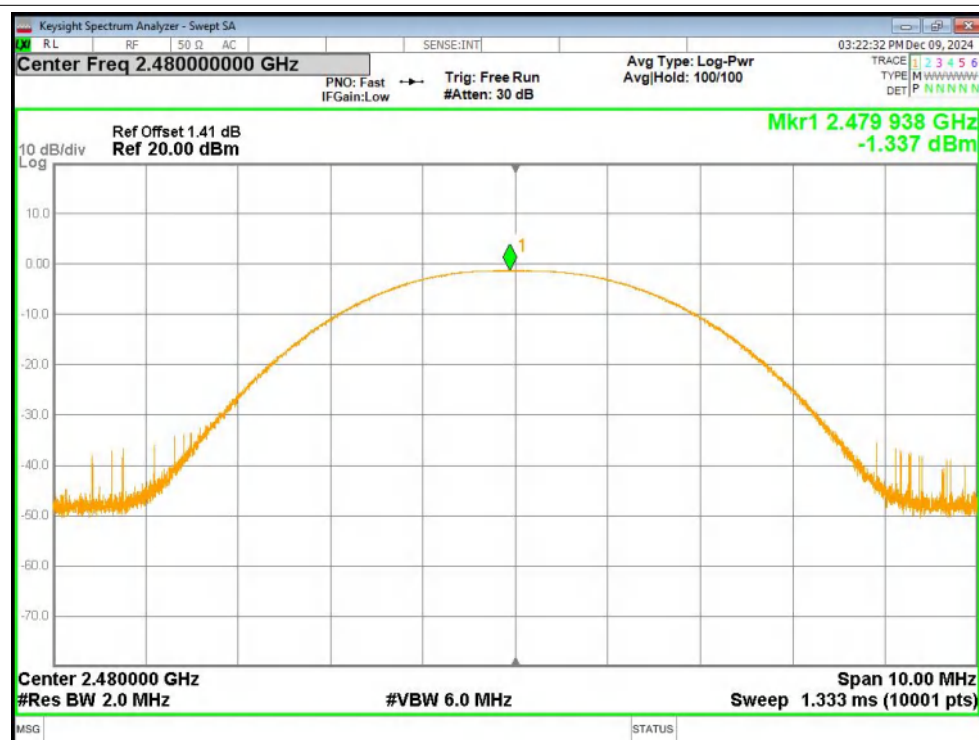
Peak Power NVNT 1-DH5 2402MHz Ant1



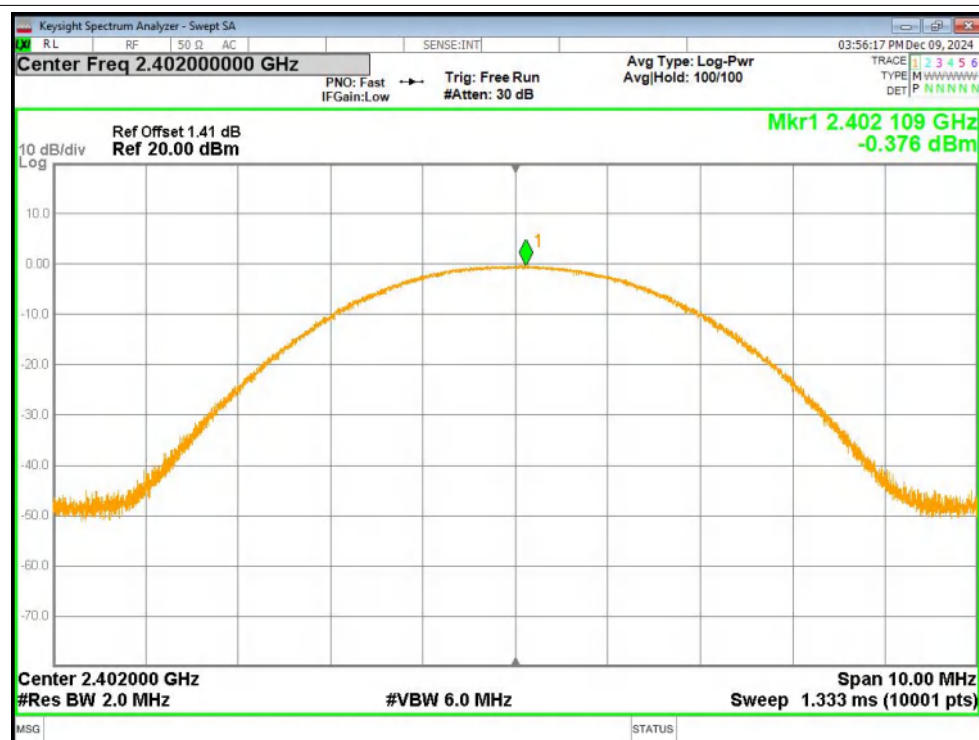
Peak Power NVNT 1-DH5 2441MHz Ant1



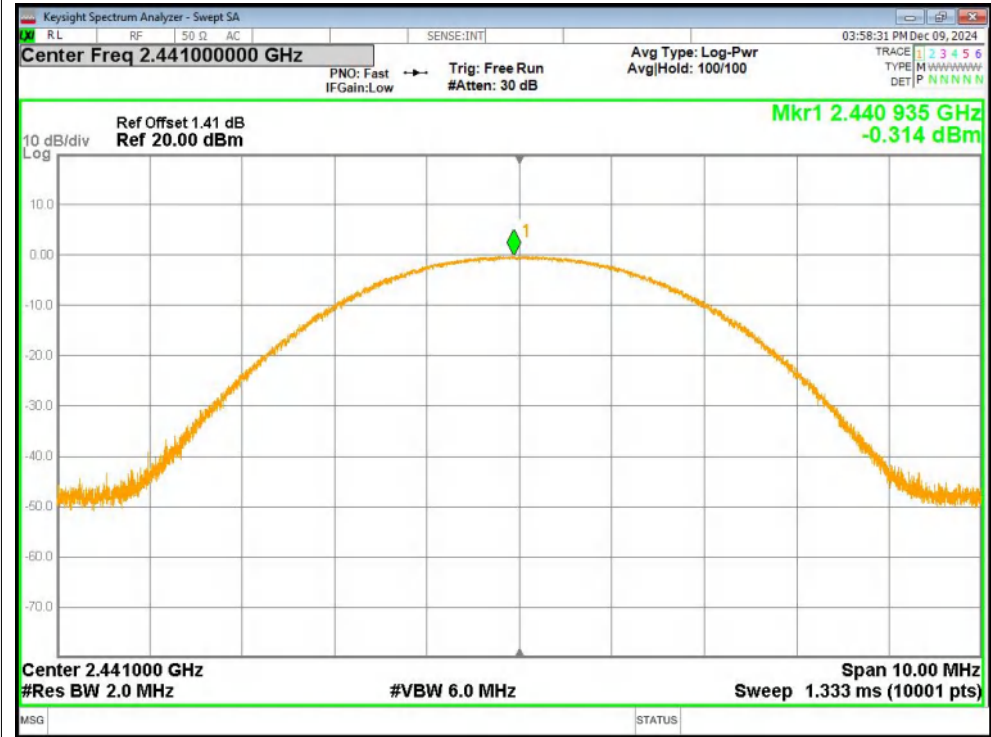
Peak Power NVNT 1-DH5 2480MHz Ant1



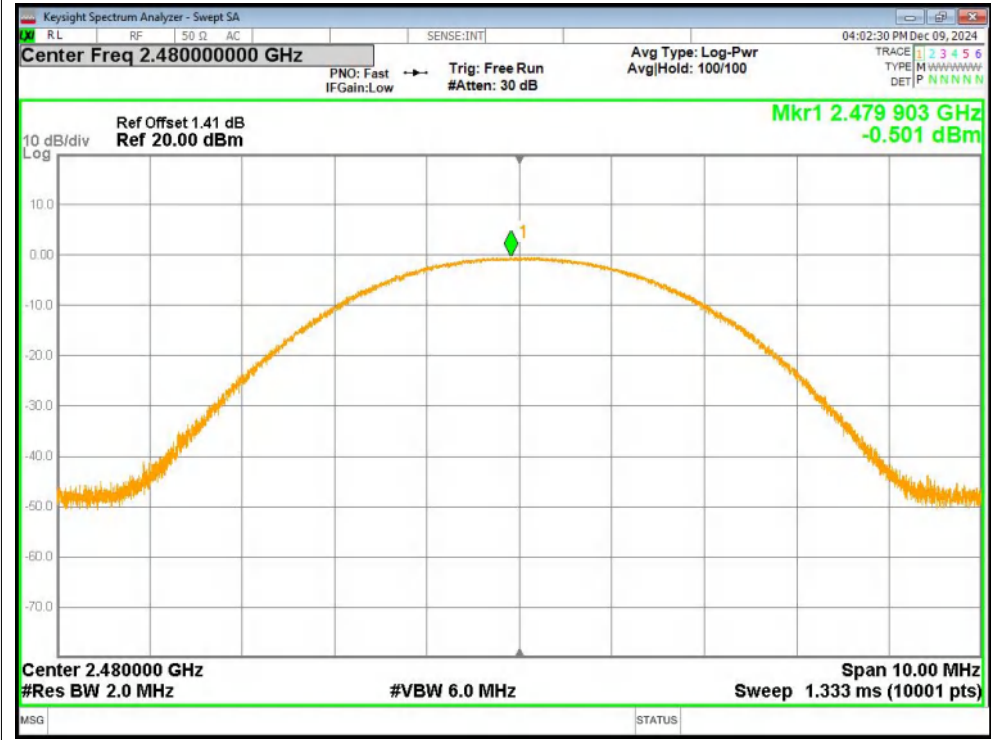
Peak Power NVNT 2-DH5 2402MHz Ant1



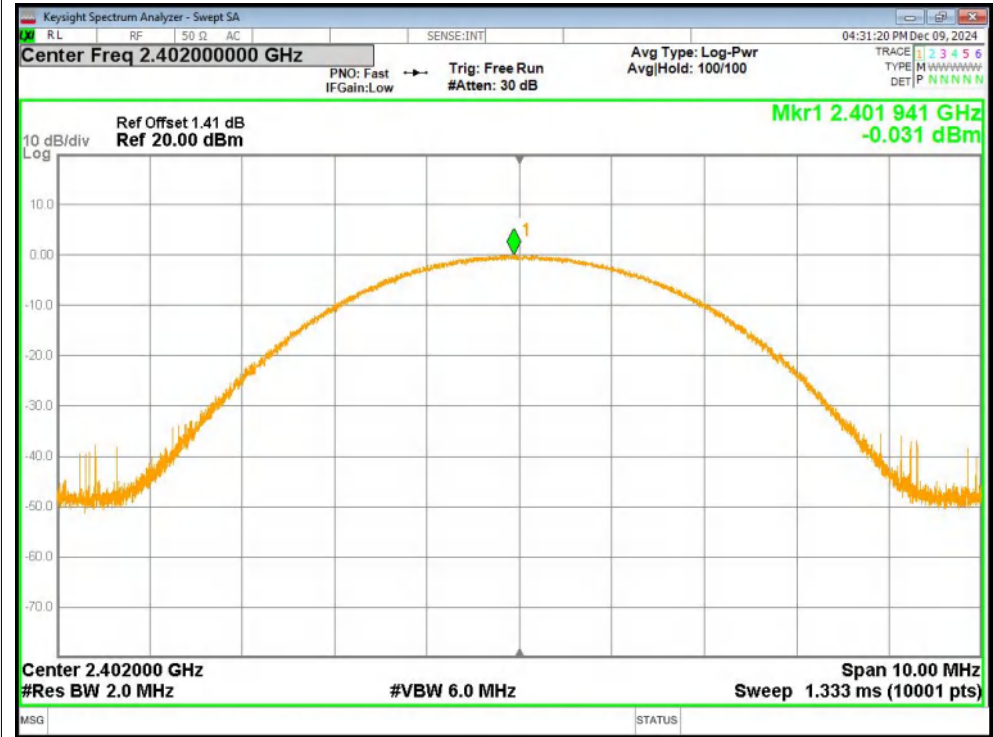
Peak Power NVNT 2-DH5 2441MHz Ant1



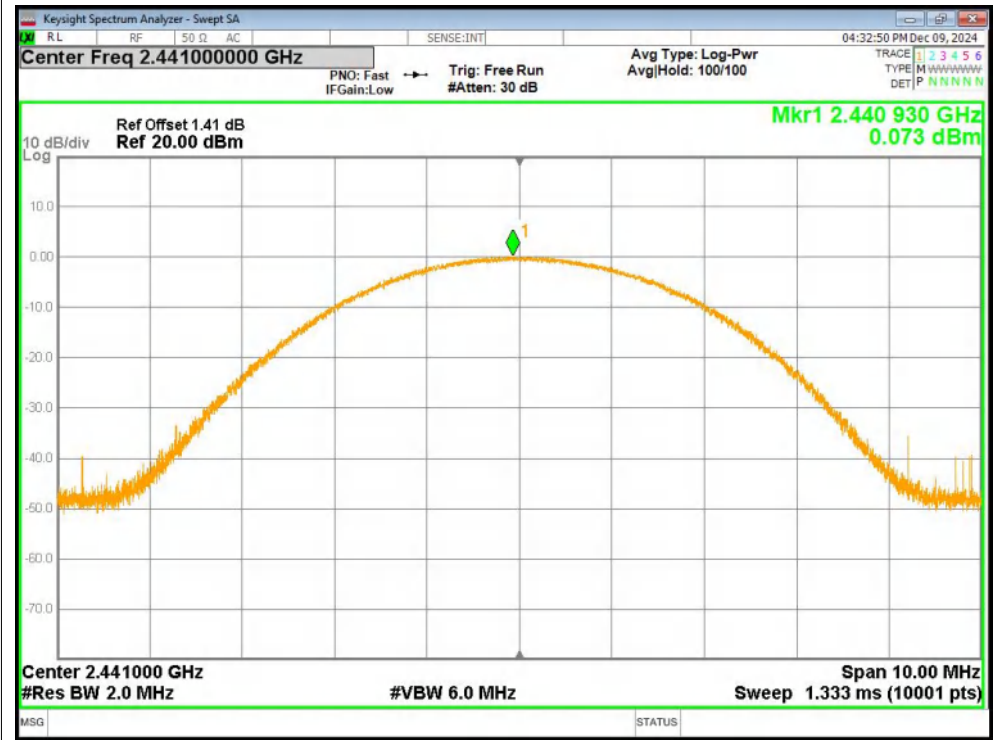
Peak Power NVNT 2-DH5 2480MHz Ant1



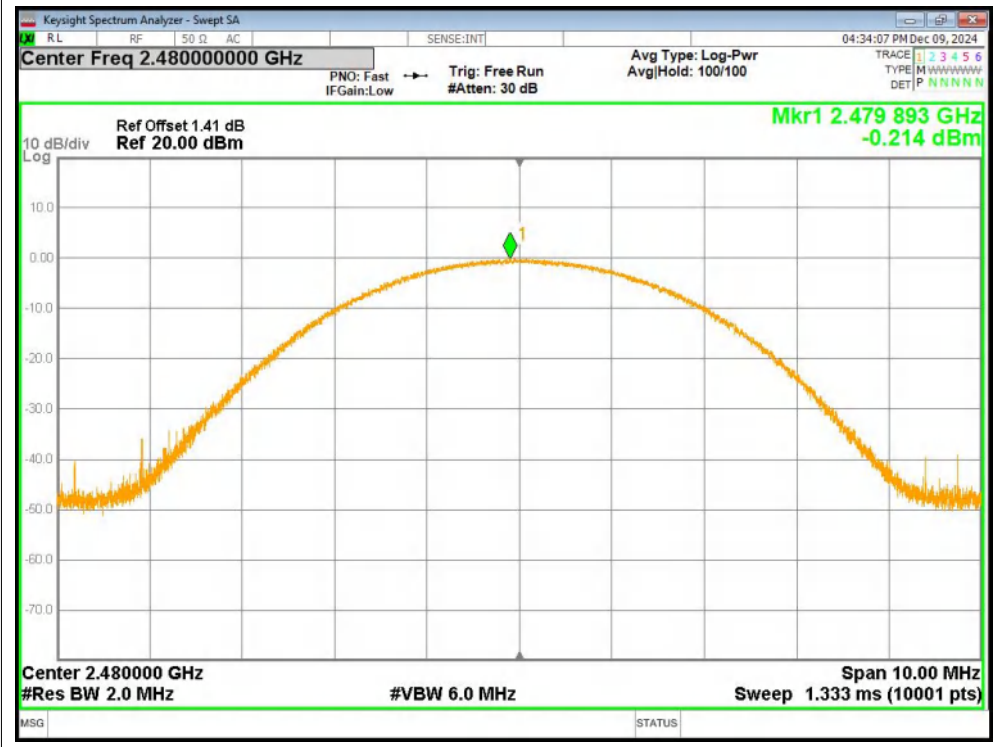
Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1



Peak Power NVNT 3-DH5 2480MHz Ant1

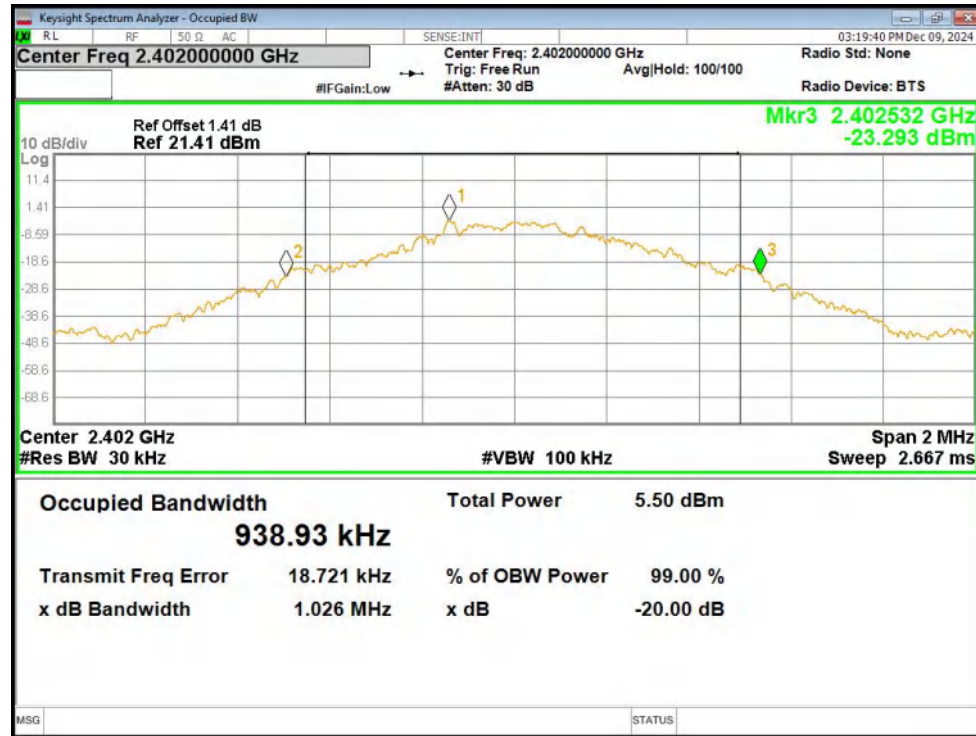


3.-20dB Bandwidth

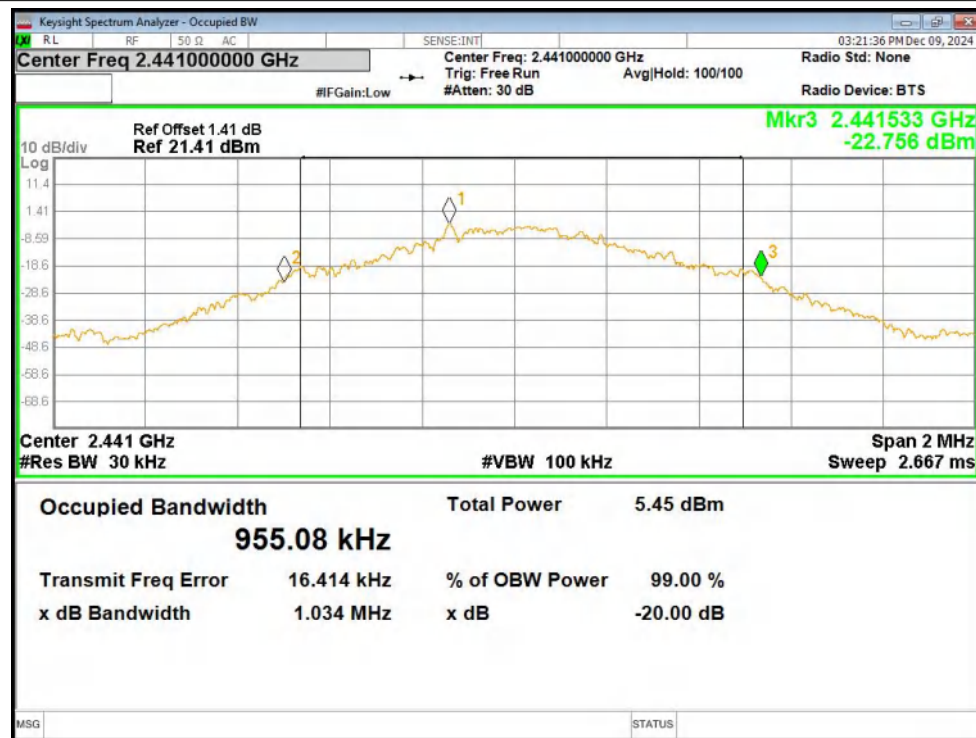
Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict
1-DH5	2402	1.026	Pass
1-DH5	2441	1.034	Pass
1-DH5	2480	1.033	Pass
2-DH5	2402	1.318	Pass
2-DH5	2441	1.324	Pass
2-DH5	2480	1.341	Pass
3-DH5	2402	1.292	Pass
3-DH5	2441	1.29	Pass
3-DH5	2480	1.296	Pass

Test Graphs

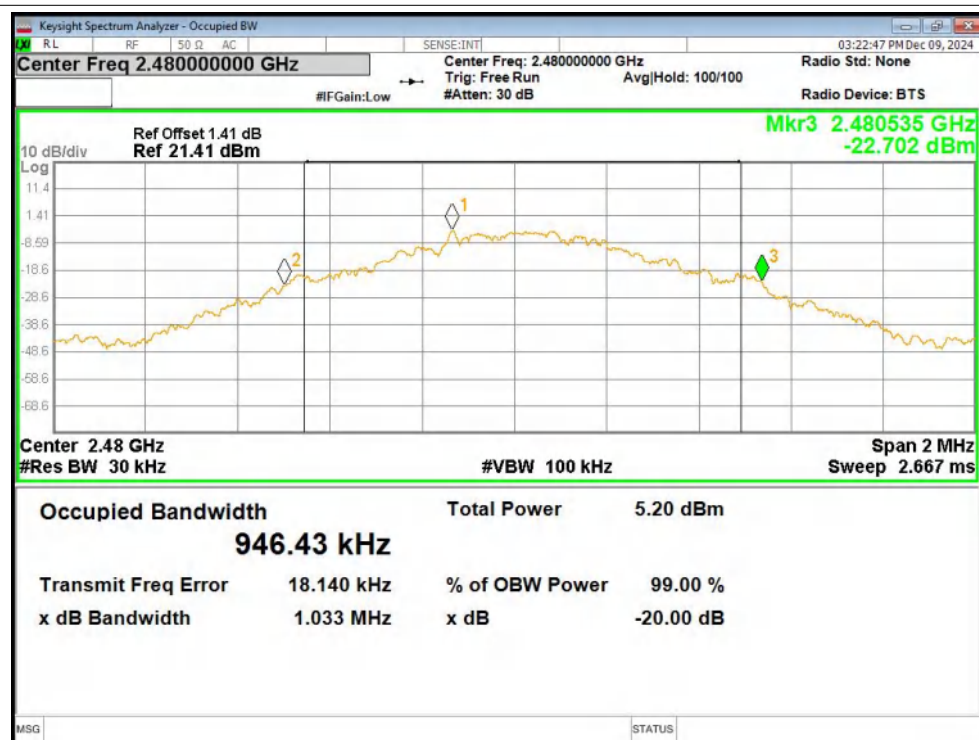
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



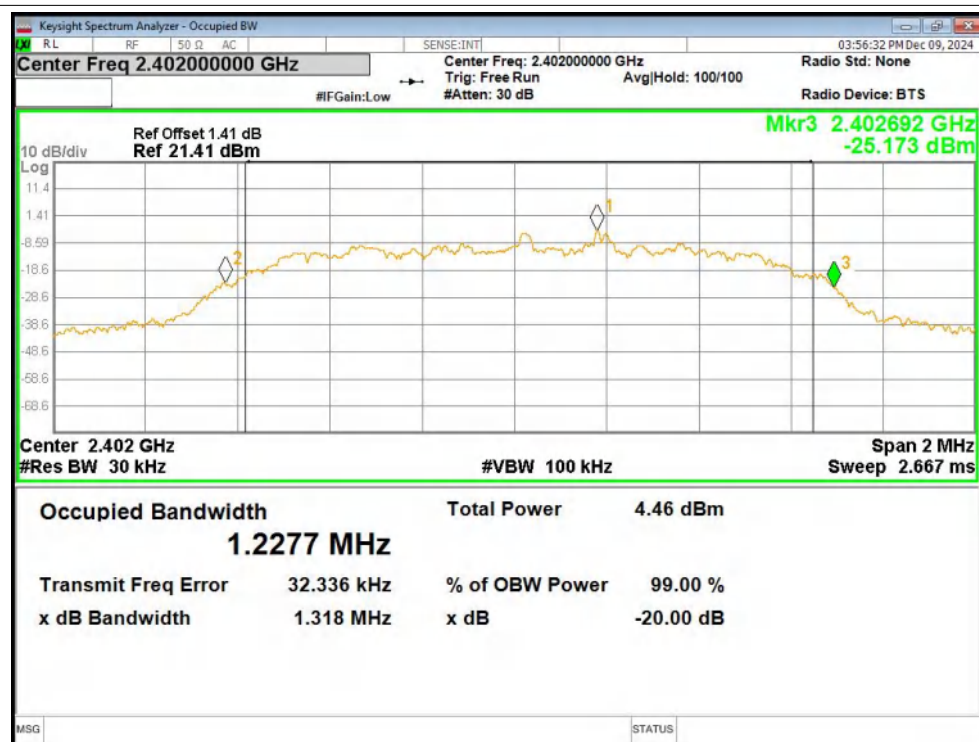
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



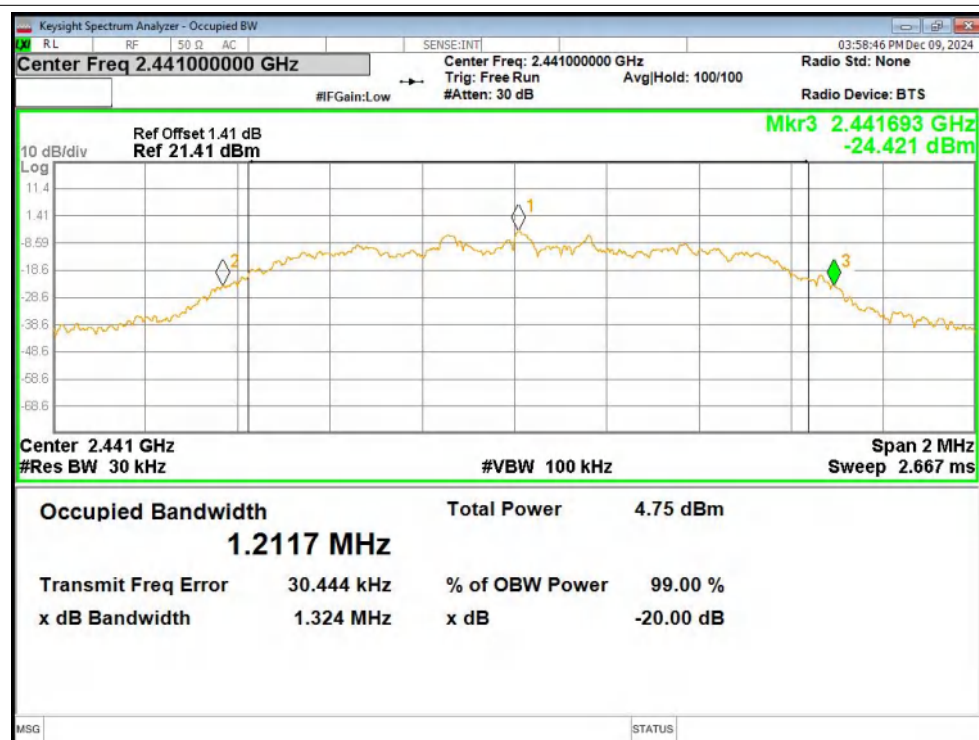
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



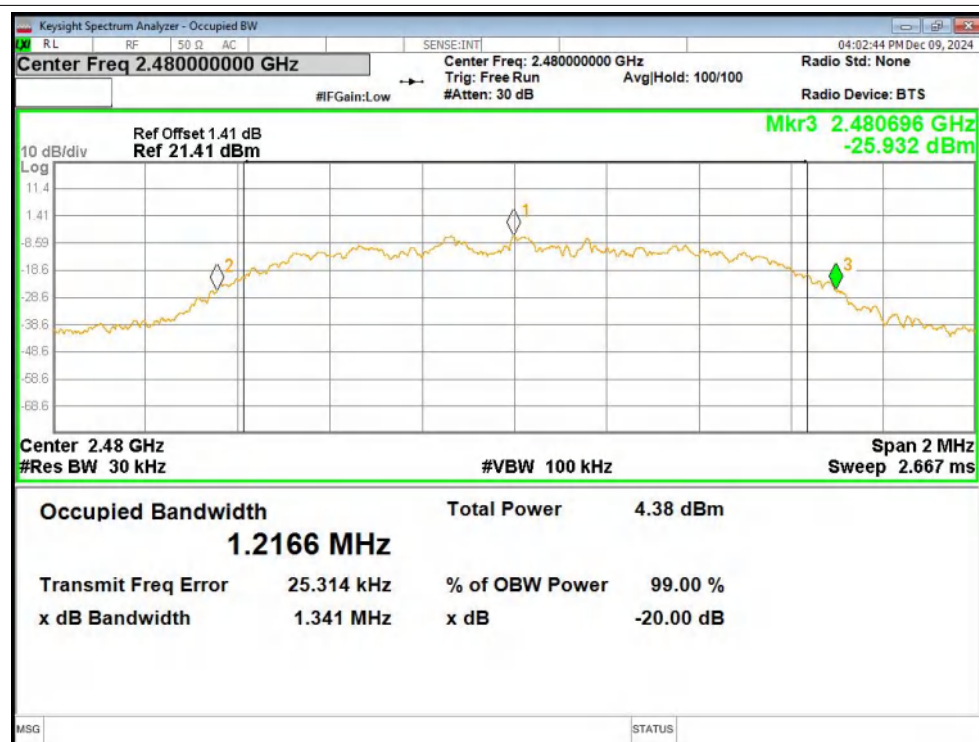
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



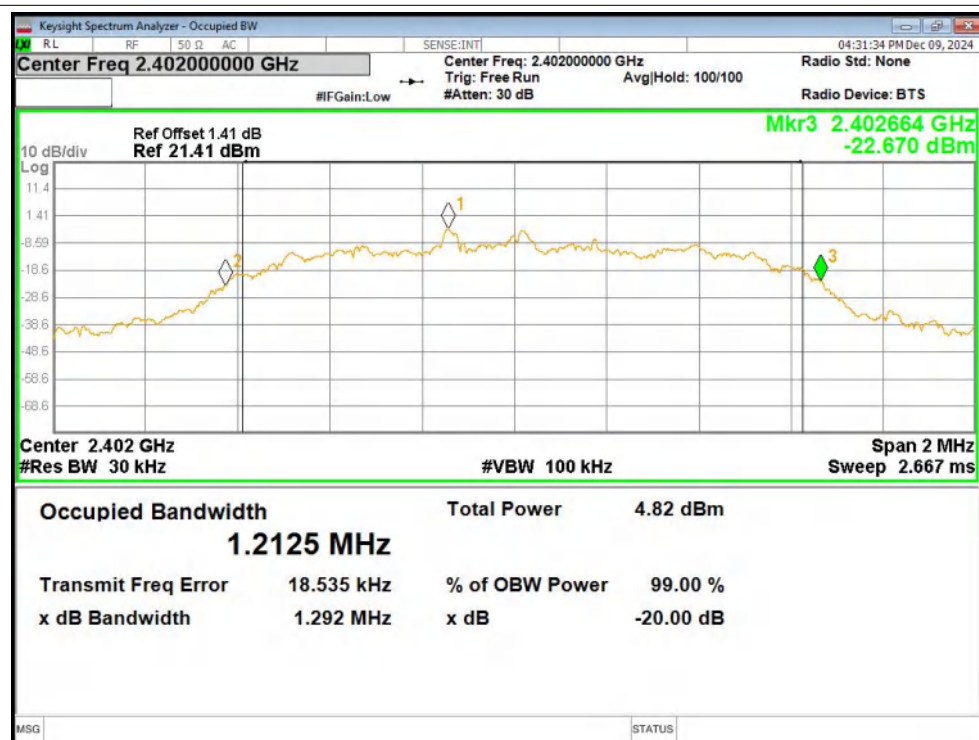
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



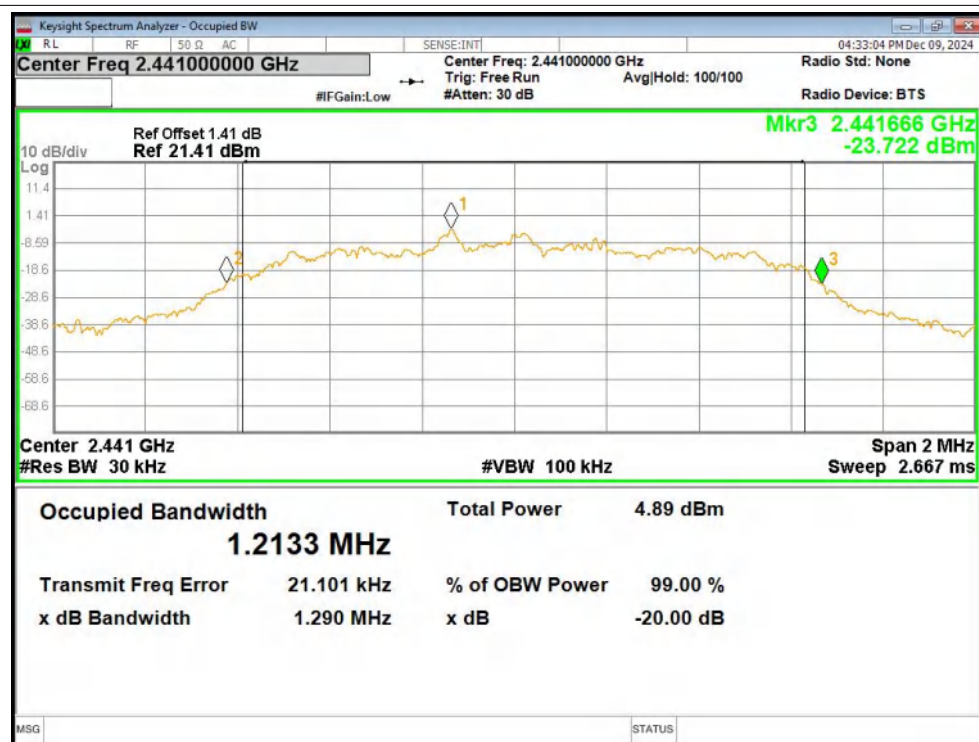
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



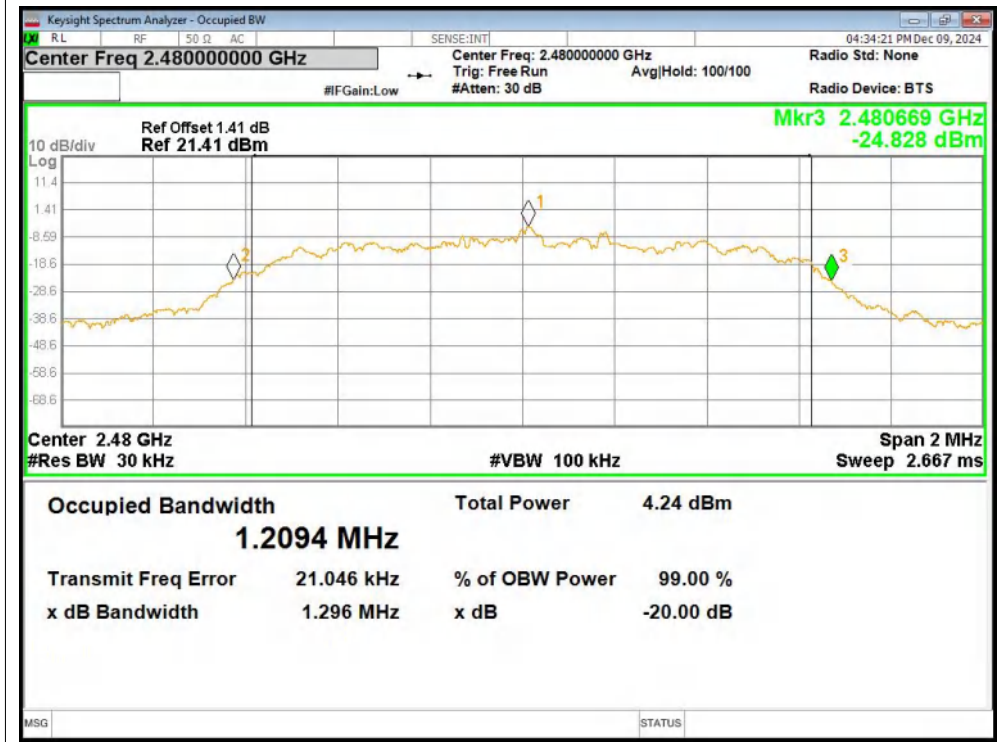
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

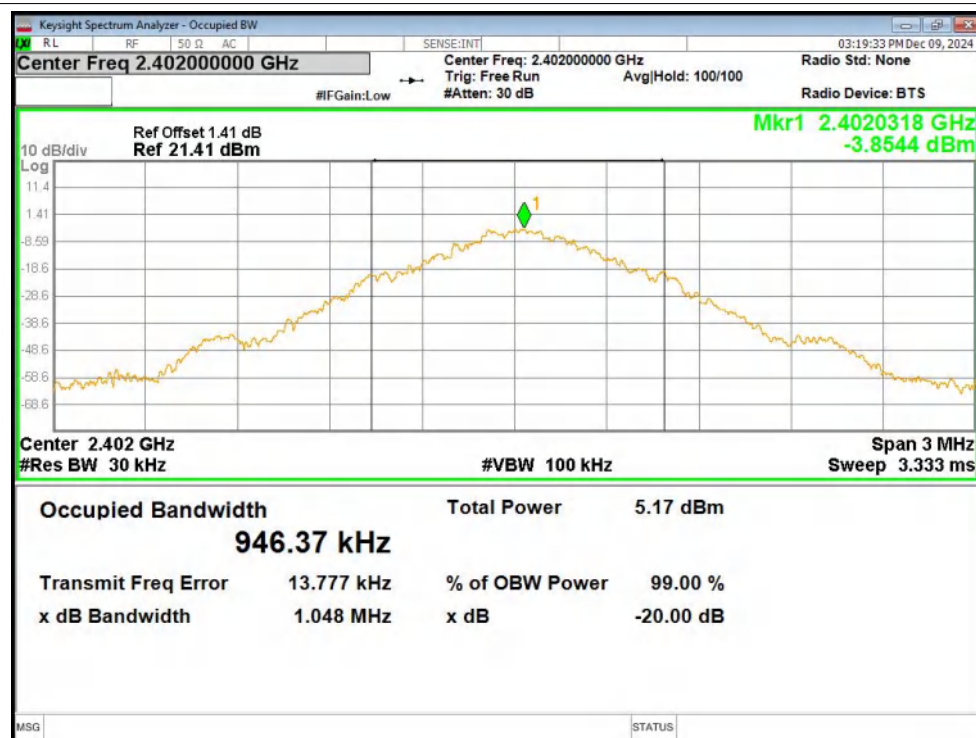


4.Occupied Channel Bandwidth

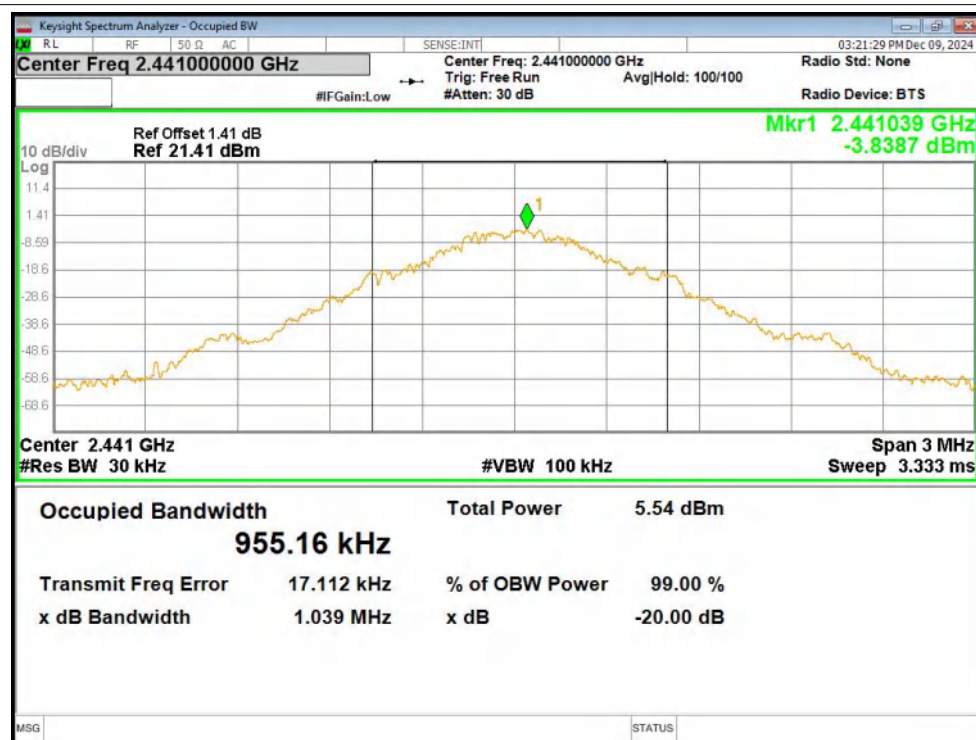
Mode	Frequency (MHz)	99% OBW (MHz)
1-DH5	2402	0.946
1-DH5	2441	0.955
1-DH5	2480	0.953
2-DH5	2402	1.214
2-DH5	2441	1.247
2-DH5	2480	1.237
3-DH5	2402	1.214
3-DH5	2441	1.228
3-DH5	2480	1.209

Test Graphs

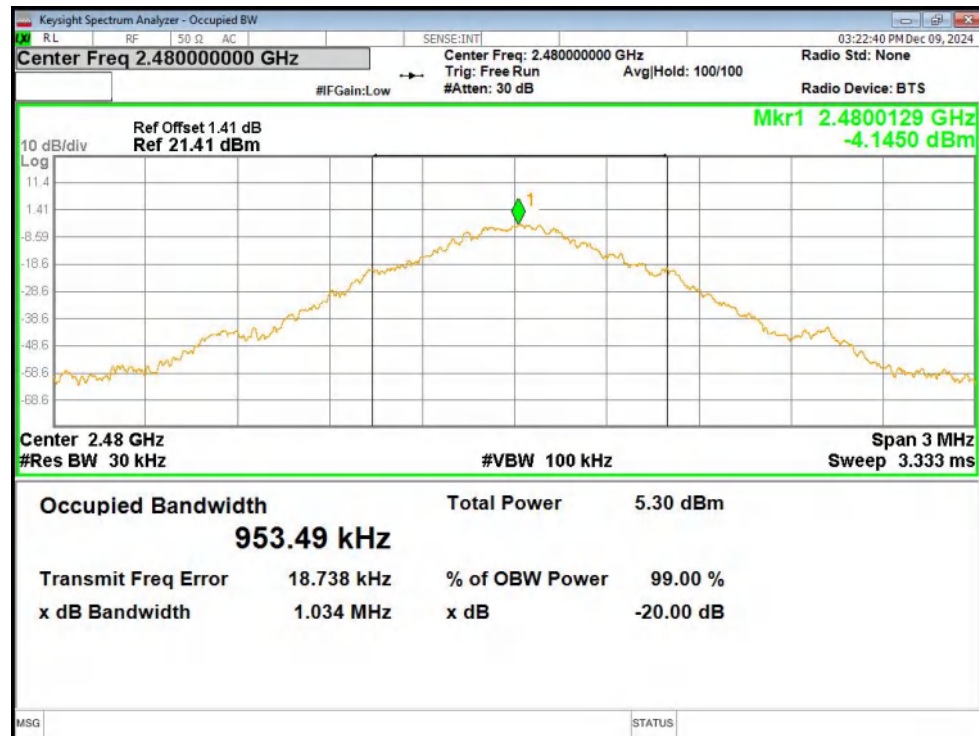
OBW NVNT 1-DH5 2402MHz Ant1



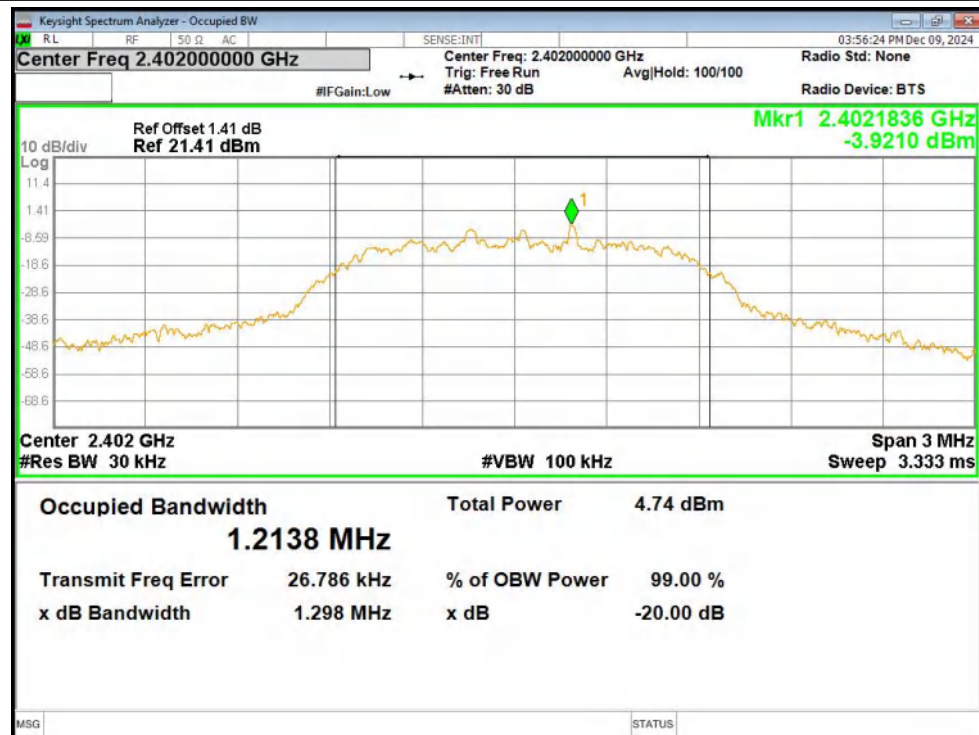
OBW NVNT 1-DH5 2441MHz Ant1



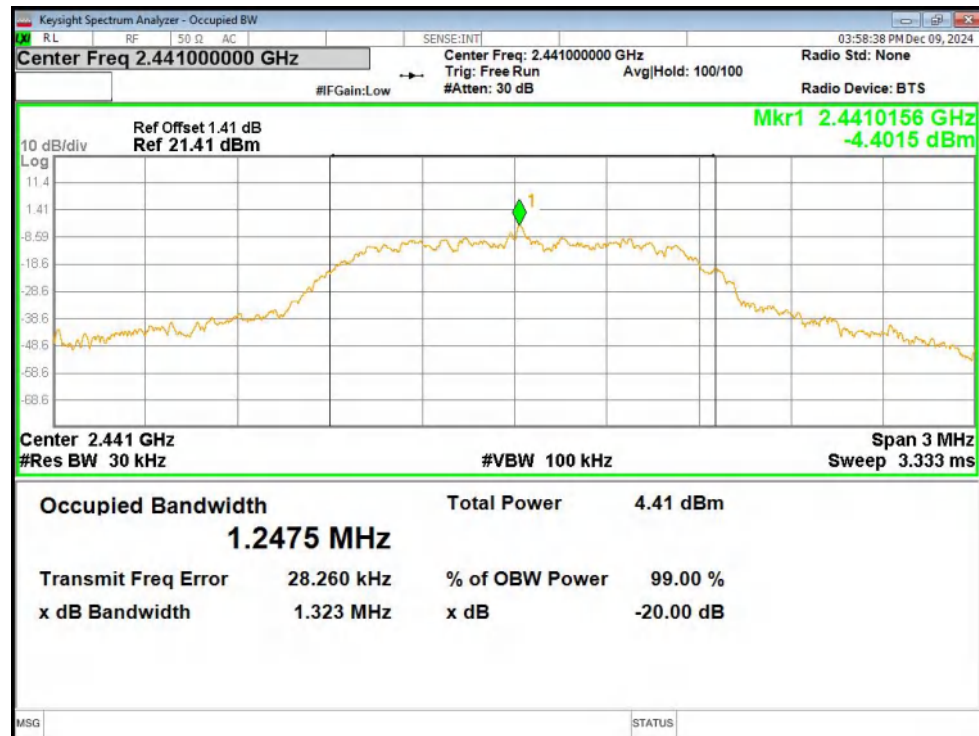
OBW NVNT 1-DH5 2480MHz Ant1



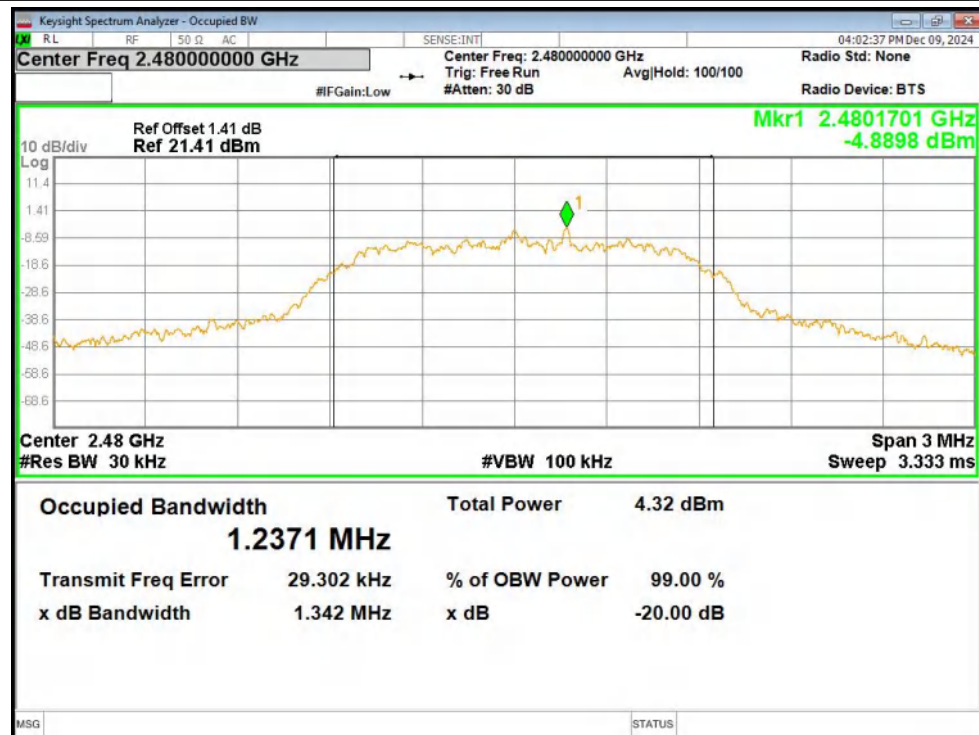
OBW NVNT 2-DH5 2402MHz Ant1



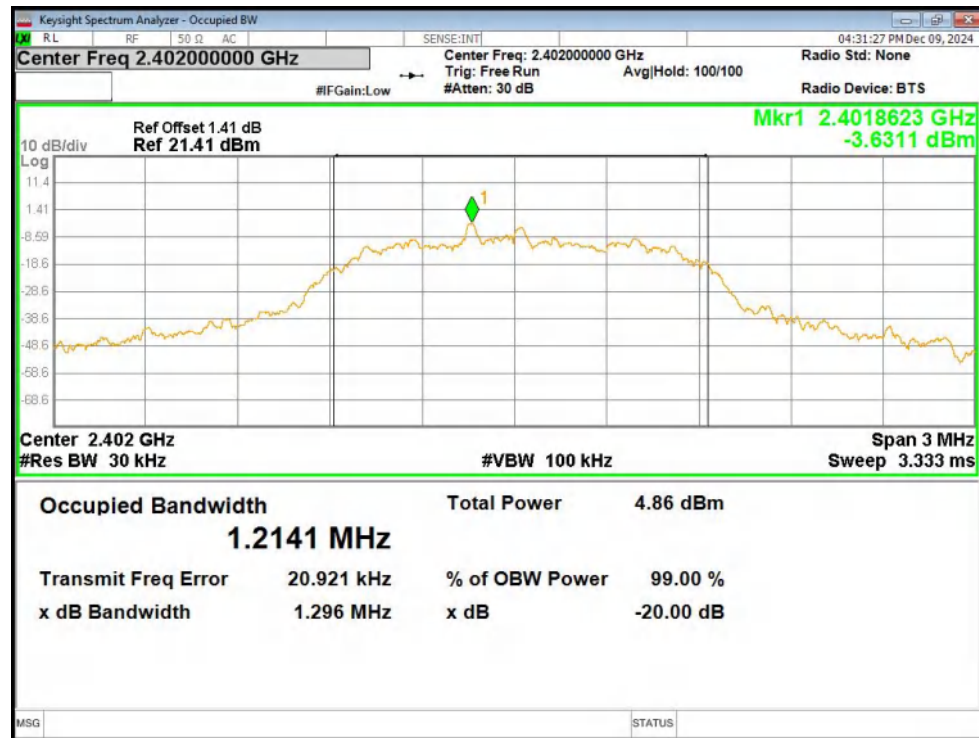
OBW NVNT 2-DH5 2441MHz Ant1



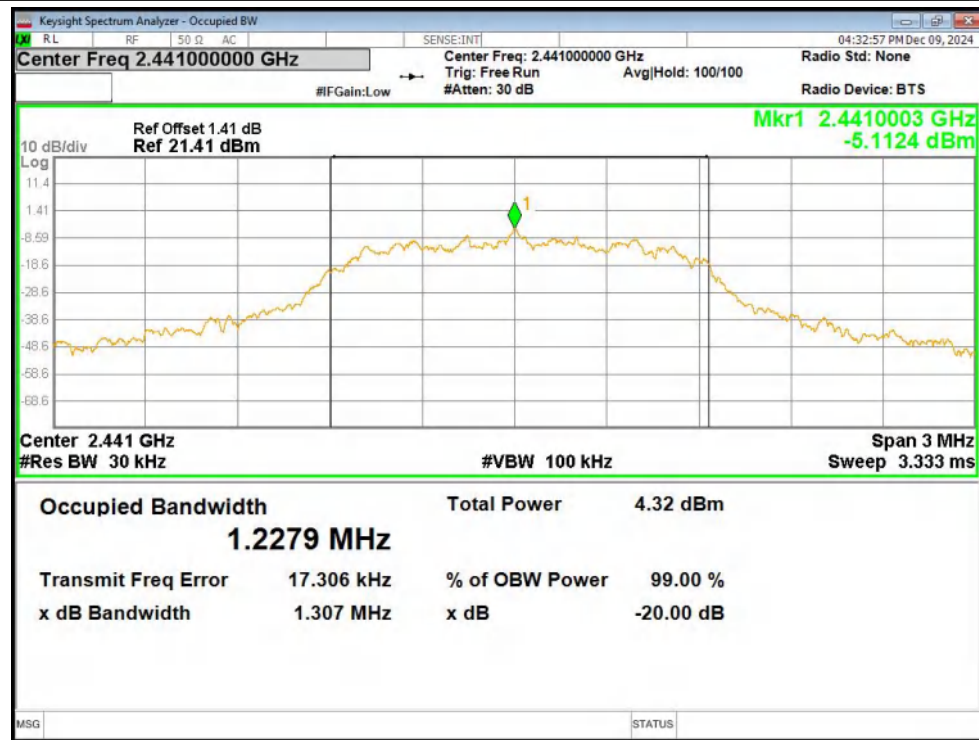
OBW NVNT 2-DH5 2480MHz Ant1



OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1

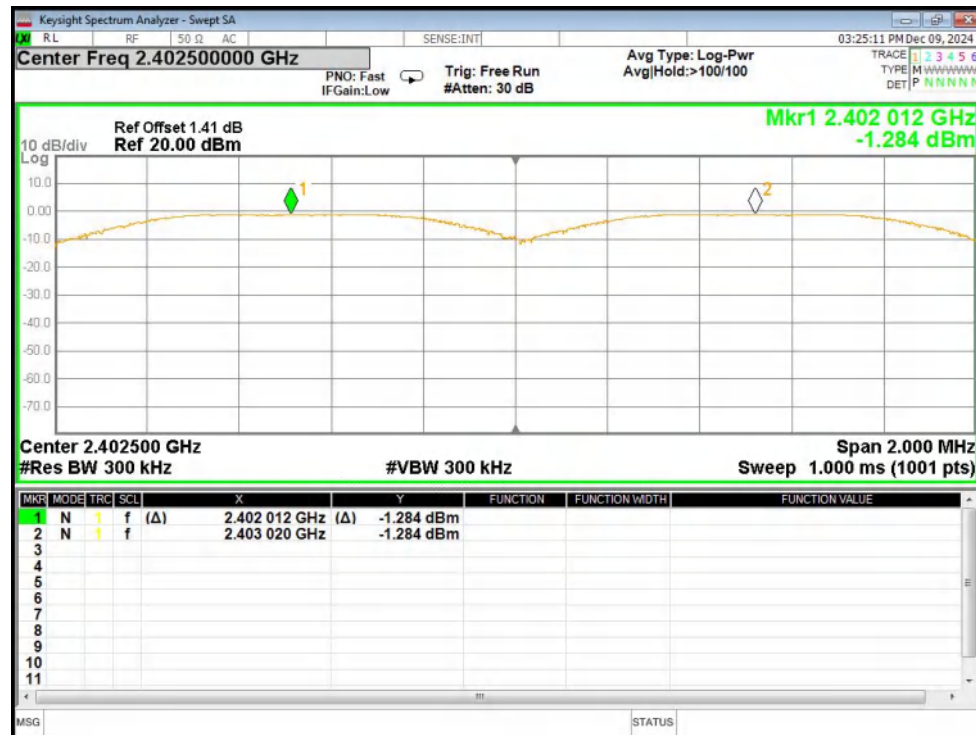


5.Carrier Frequencies Separation

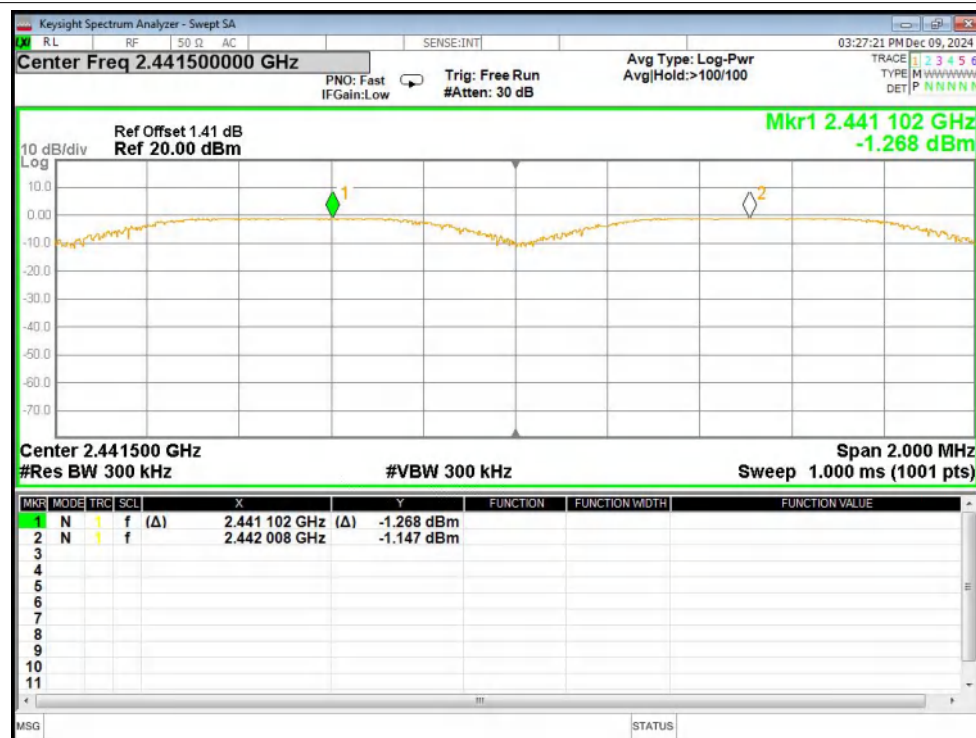
Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
1-DH5	2402.012	2403.02	1.008	0.684	Pass
1-DH5	2441.102	2442.008	0.906	0.689	Pass
1-DH5	2478.996	2479.936	0.94	0.689	Pass
2-DH5	2401.828	2402.994	1.166	0.879	Pass
2-DH5	2440.998	2442.084	1.086	0.883	Pass
2-DH5	2478.982	2479.902	0.92	0.894	Pass
3-DH5	2402.028	2402.994	0.966	0.861	Pass
3-DH5	2441.008	2442.082	1.074	0.86	Pass
3-DH5	2478.844	2479.986	1.142	0.864	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



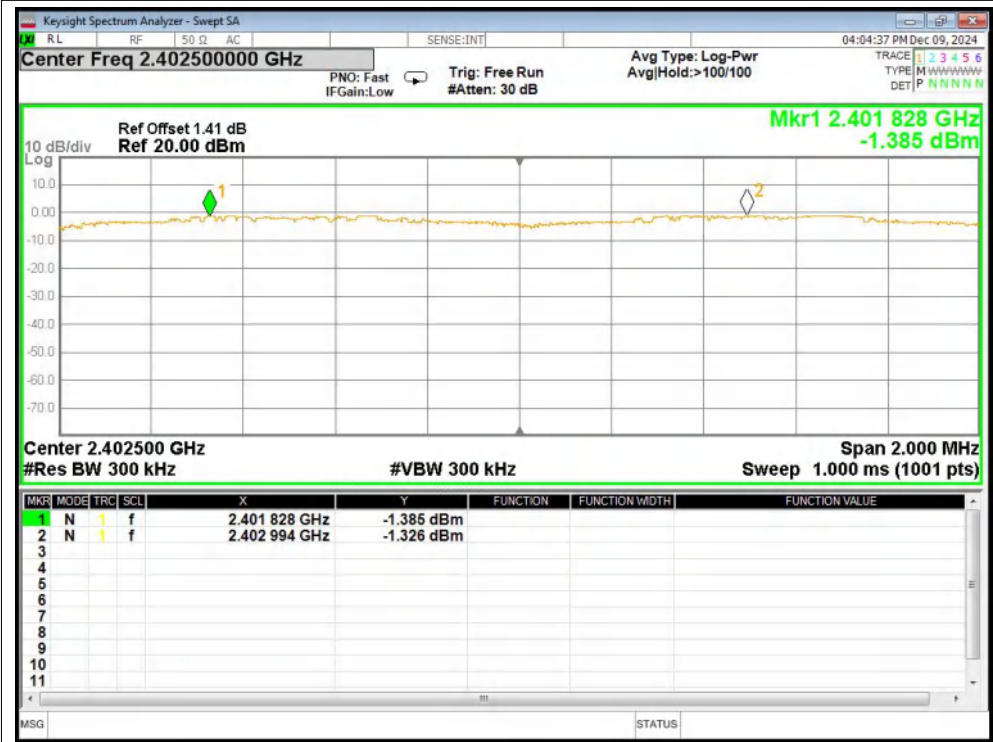
CFS NVNT 1-DH5 2441MHz Ant1



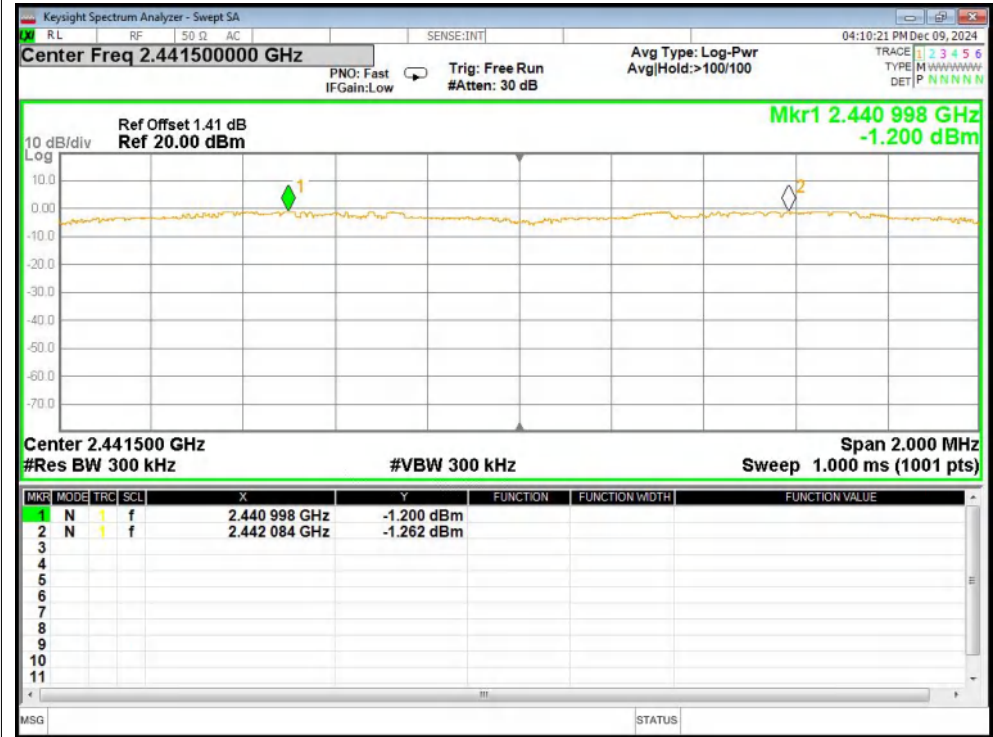
CFS NVNT 1-DH5 2480MHz Ant1



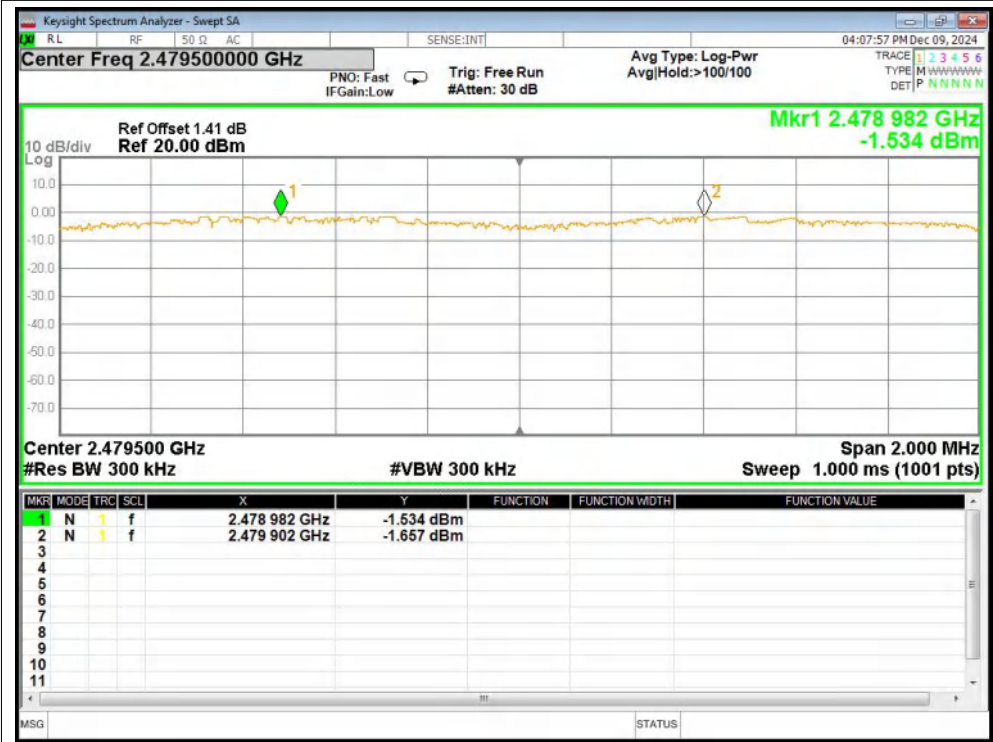
CFS NVNT 2-DH5 2402MHz Ant1



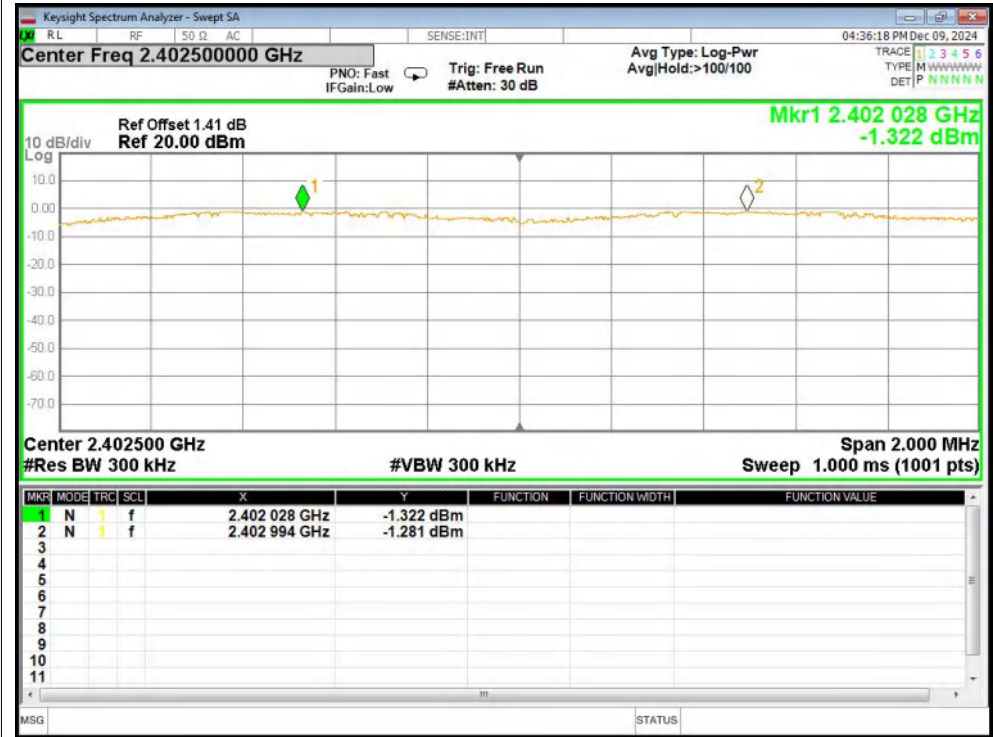
CFS NVNT 2-DH5 2441MHz Ant1



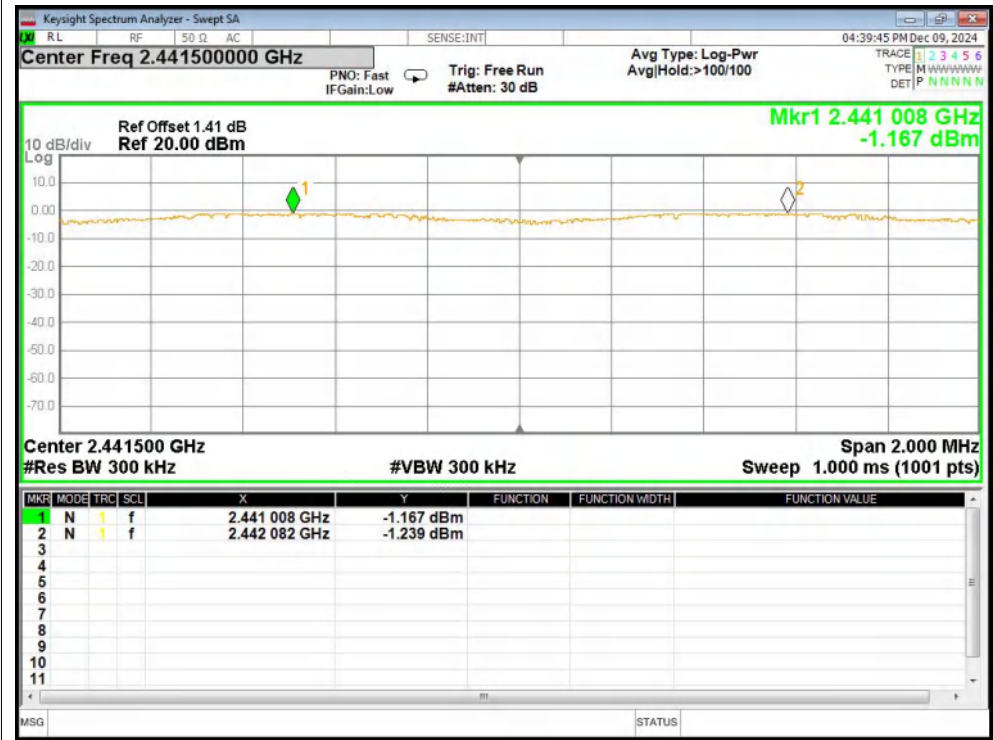
CFS NVNT 2-DH5 2480MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2480MHz Ant1

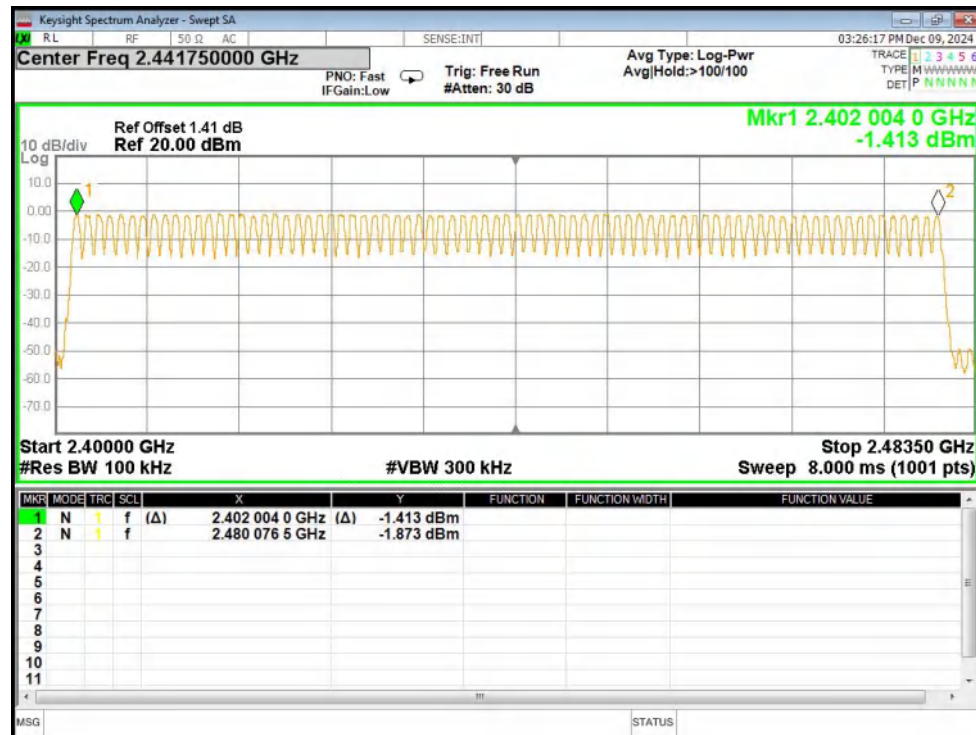


6.Number of Hopping Channel

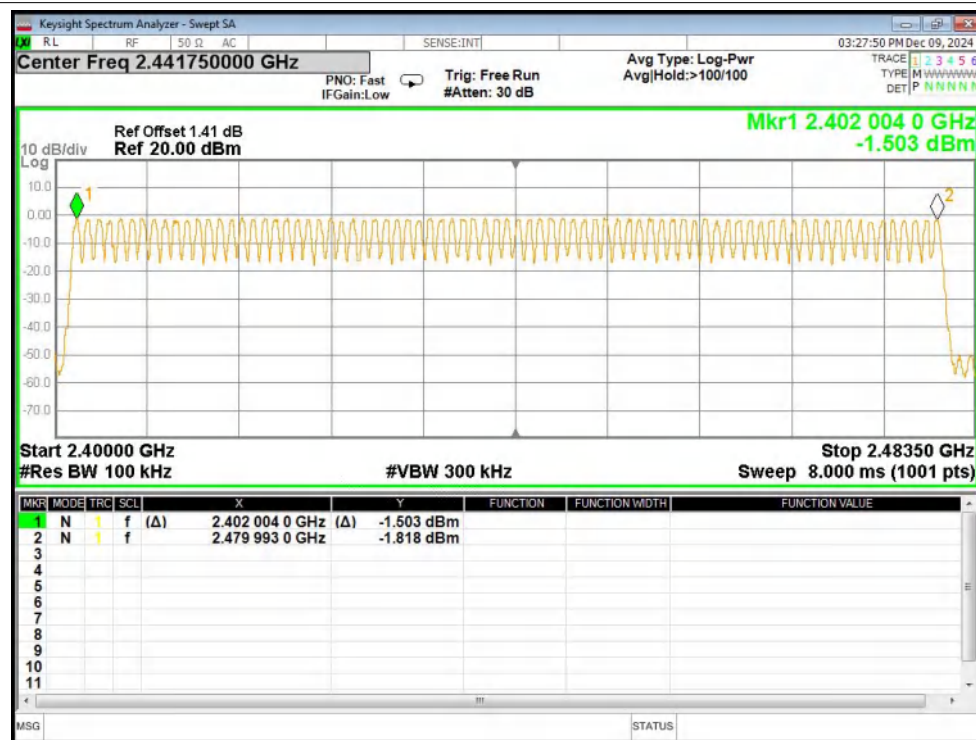
Mode	Hopping Number	Limit	Verdict
1-DH5	79	15	Pass
2-DH5	79	15	Pass
3-DH5	79	15	Pass

Test Graphs

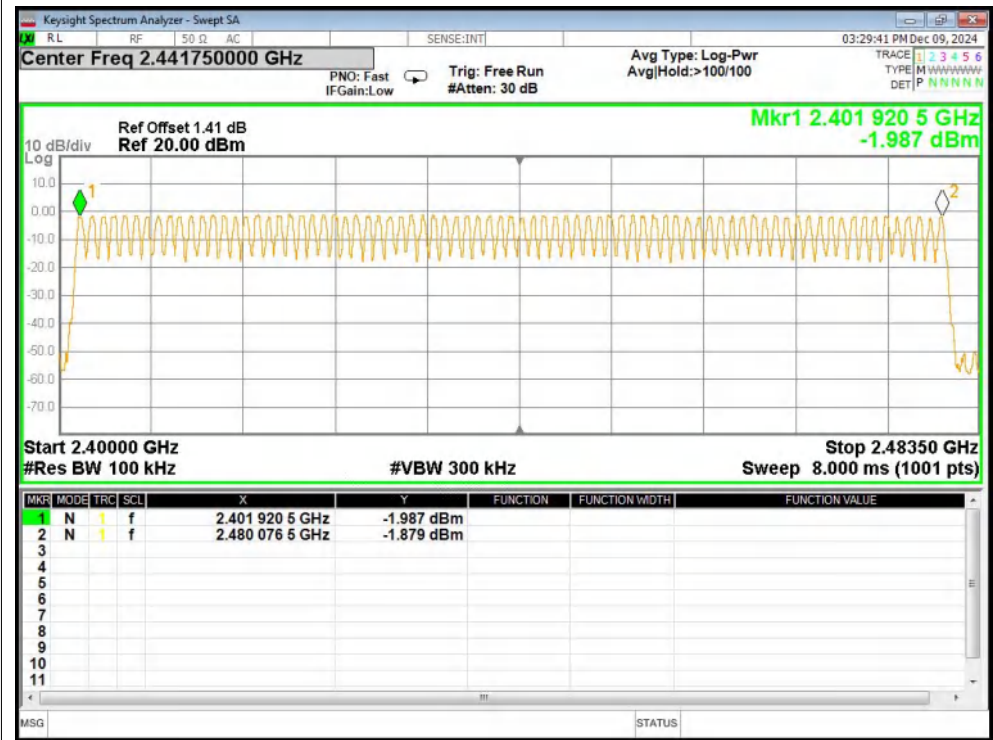
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 1-DH5 2480MHz Ant1



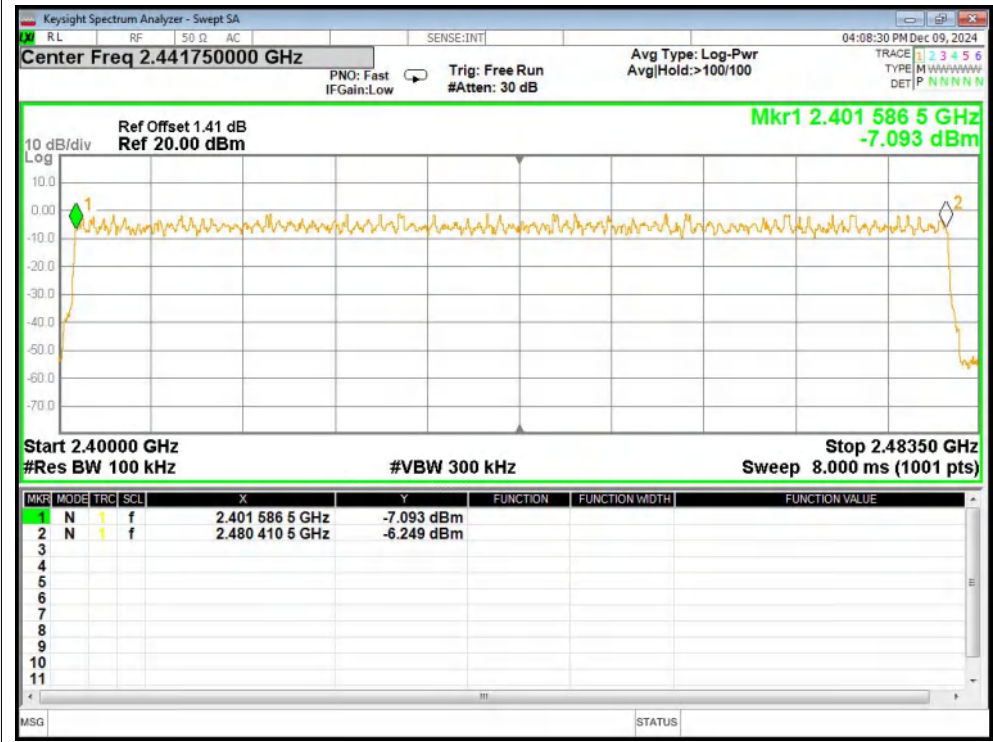
Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1



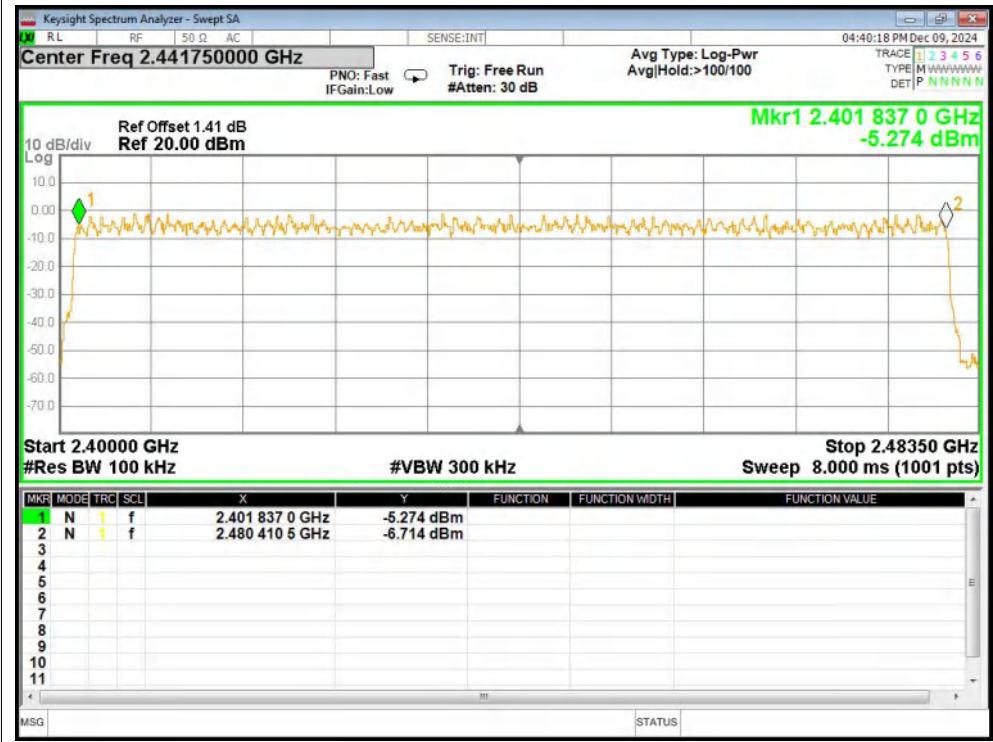
Hopping No. NVNT 2-DH5 2480MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2441MHz Ant1



Hopping No. NVNT 3-DH5 2480MHz Ant1

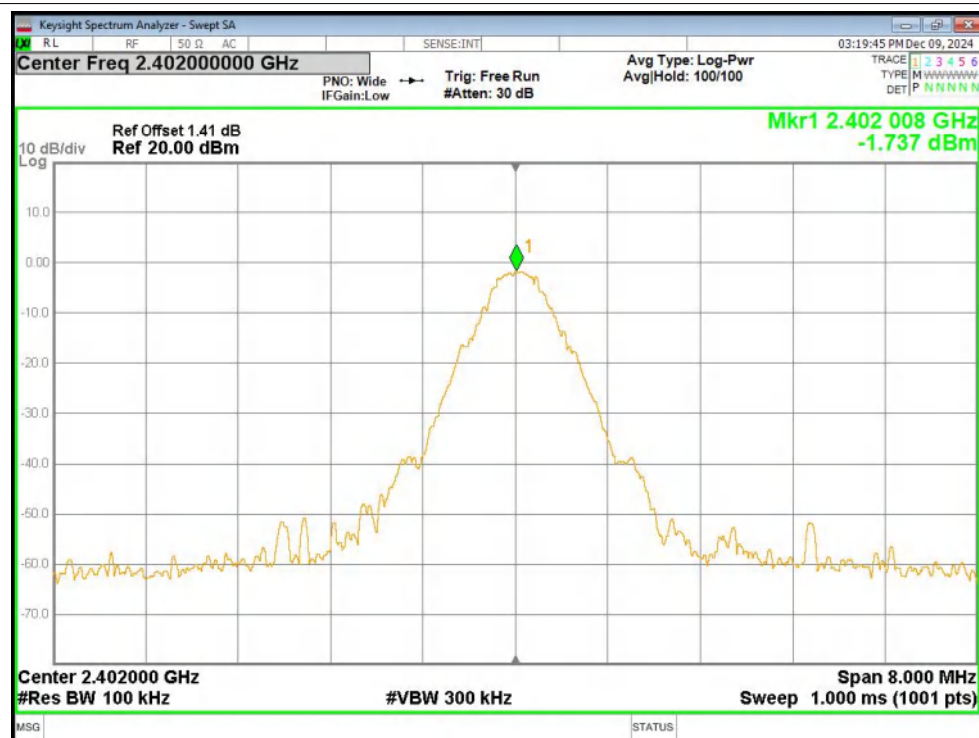


7.Band Edge

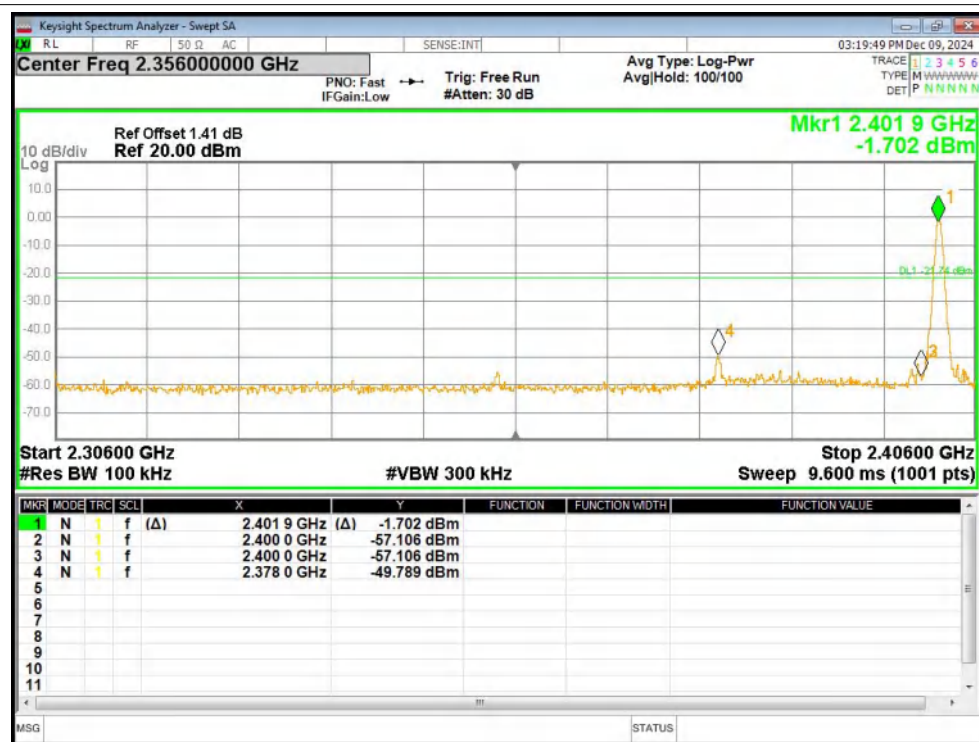
Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	No-Hopping	-48.04	-20	Pass
1-DH5	2480	No-Hopping	-54.36	-20	Pass
2-DH5	2402	No-Hopping	-50.09	-20	Pass
2-DH5	2480	No-Hopping	-54.54	-20	Pass
3-DH5	2402	No-Hopping	-49.5	-20	Pass
3-DH5	2480	No-Hopping	-54.57	-20	Pass

Test Graphs

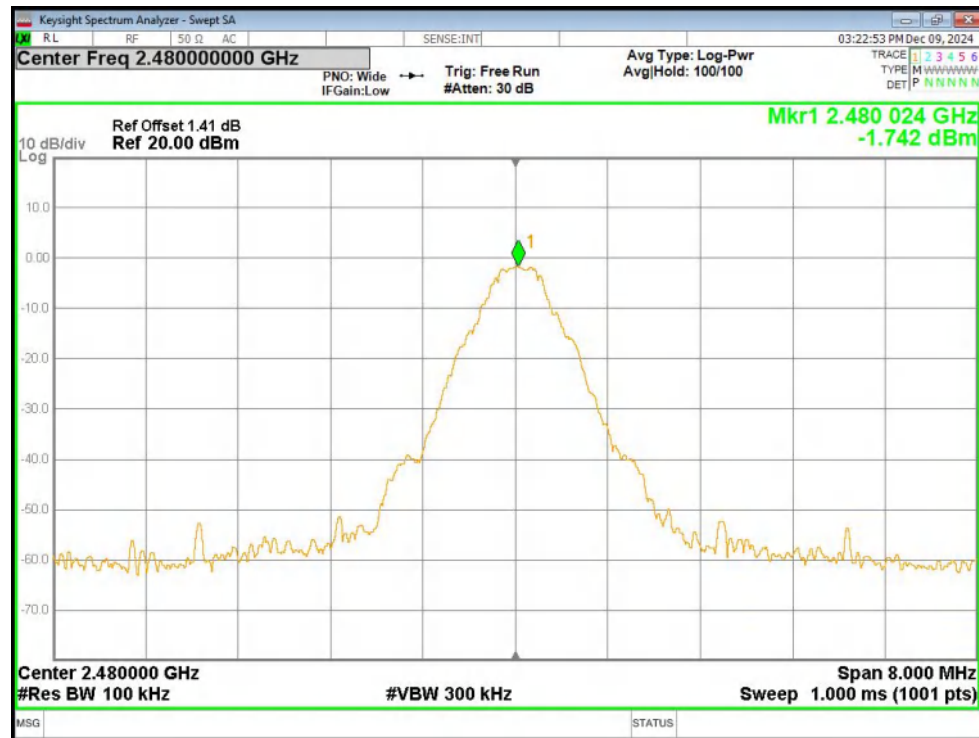
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



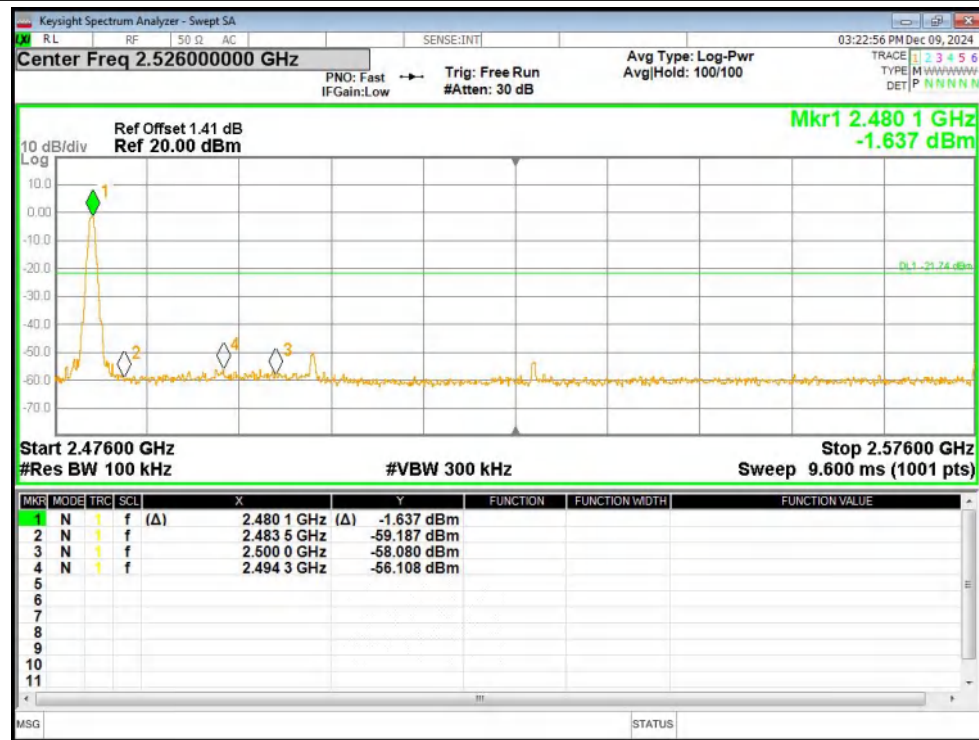
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



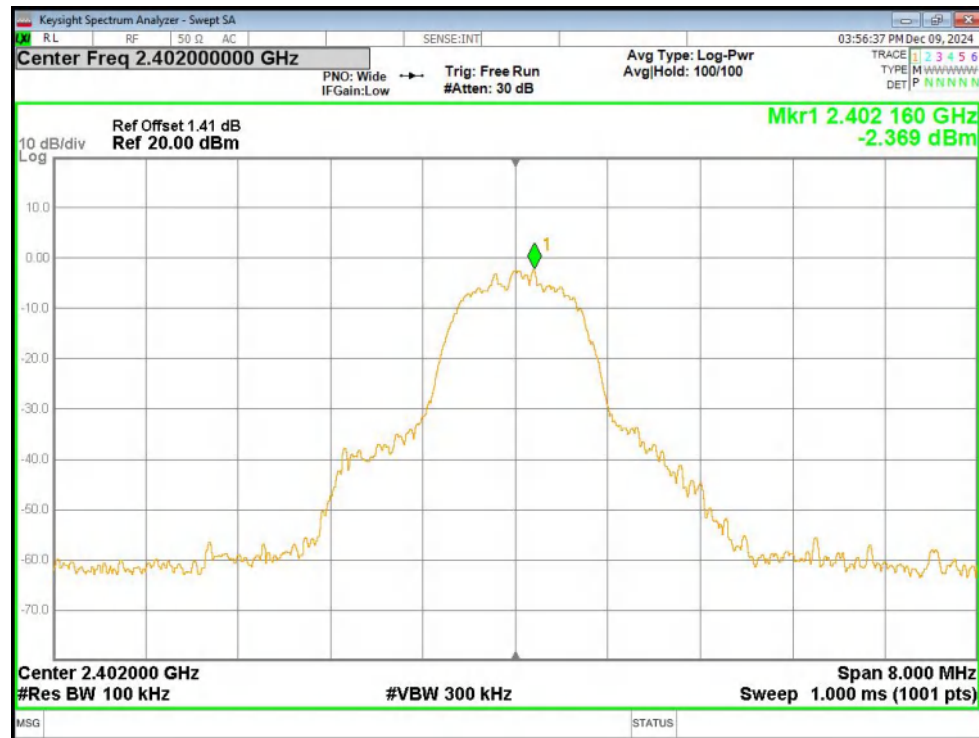
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



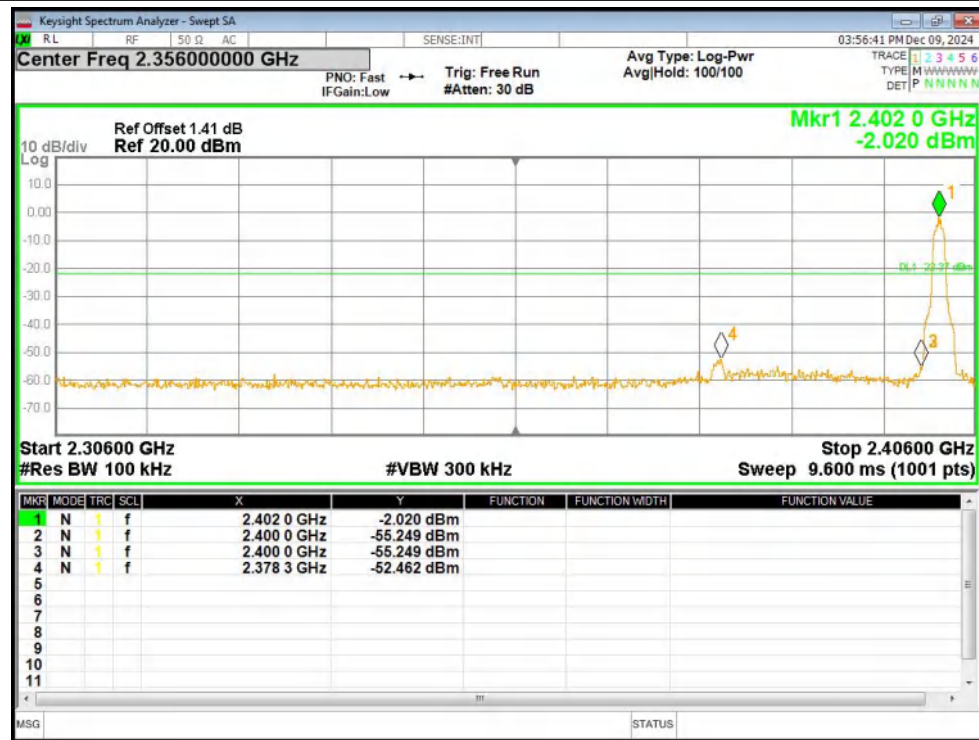
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



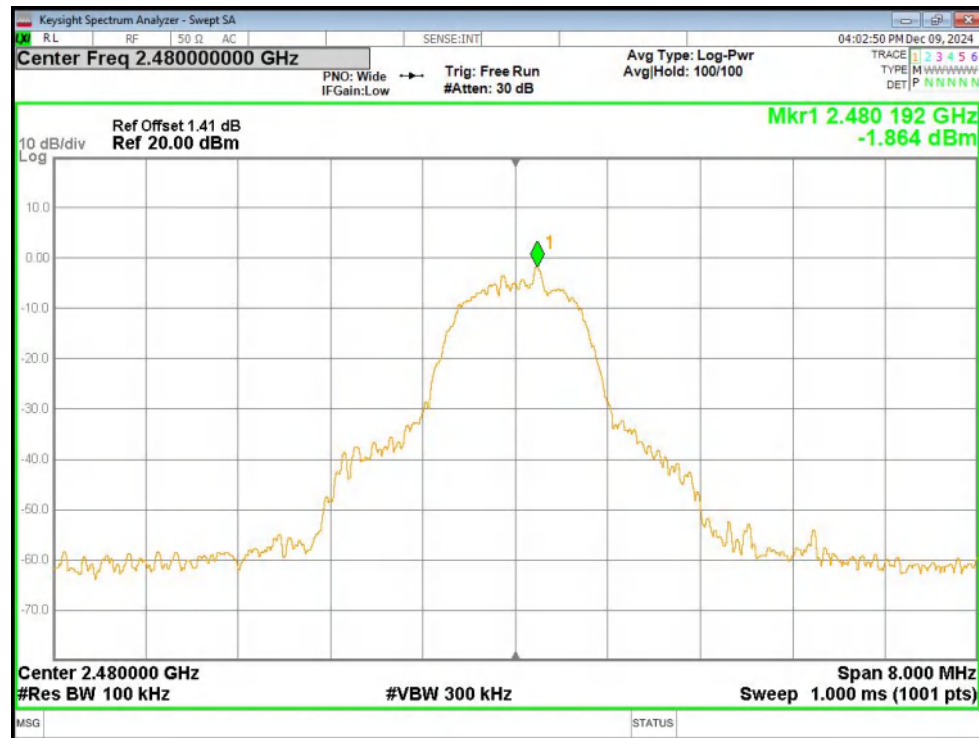
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



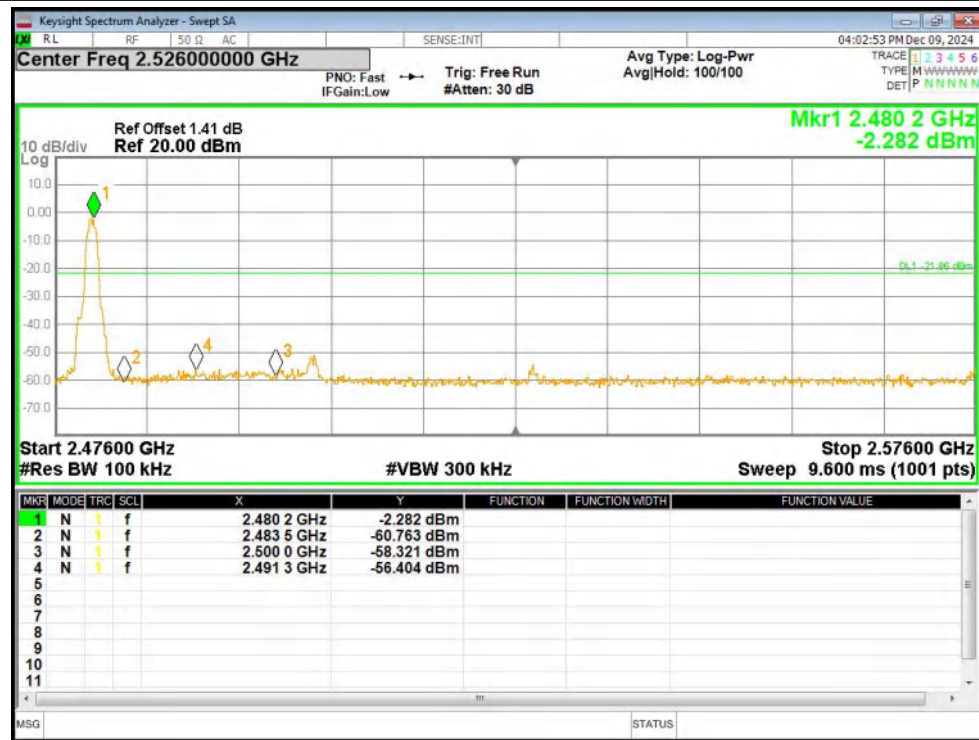
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



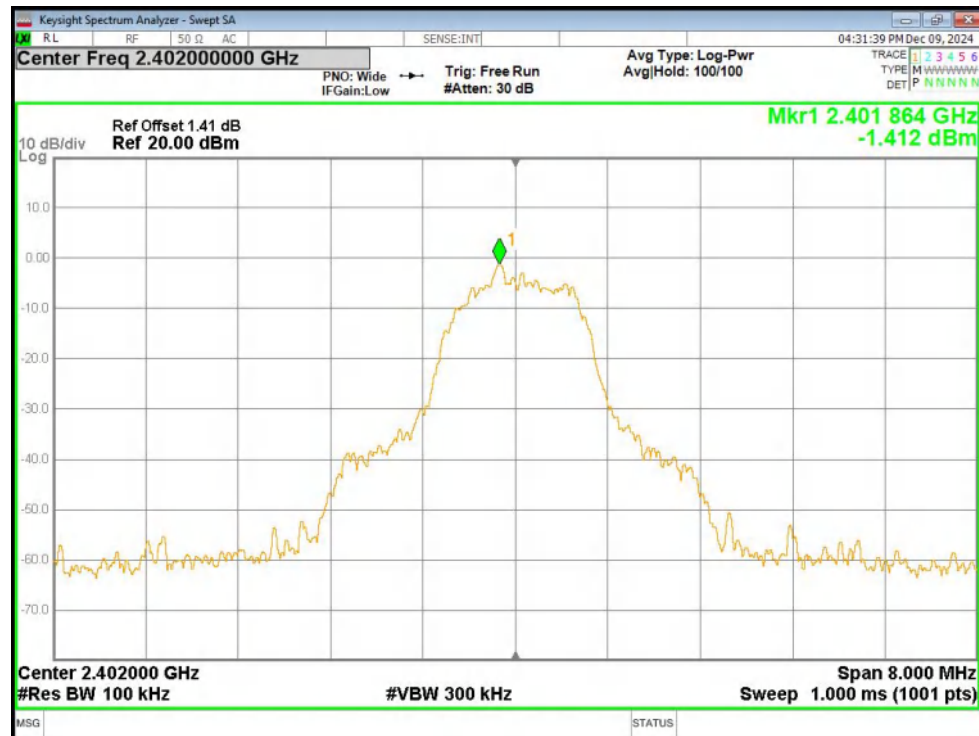
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



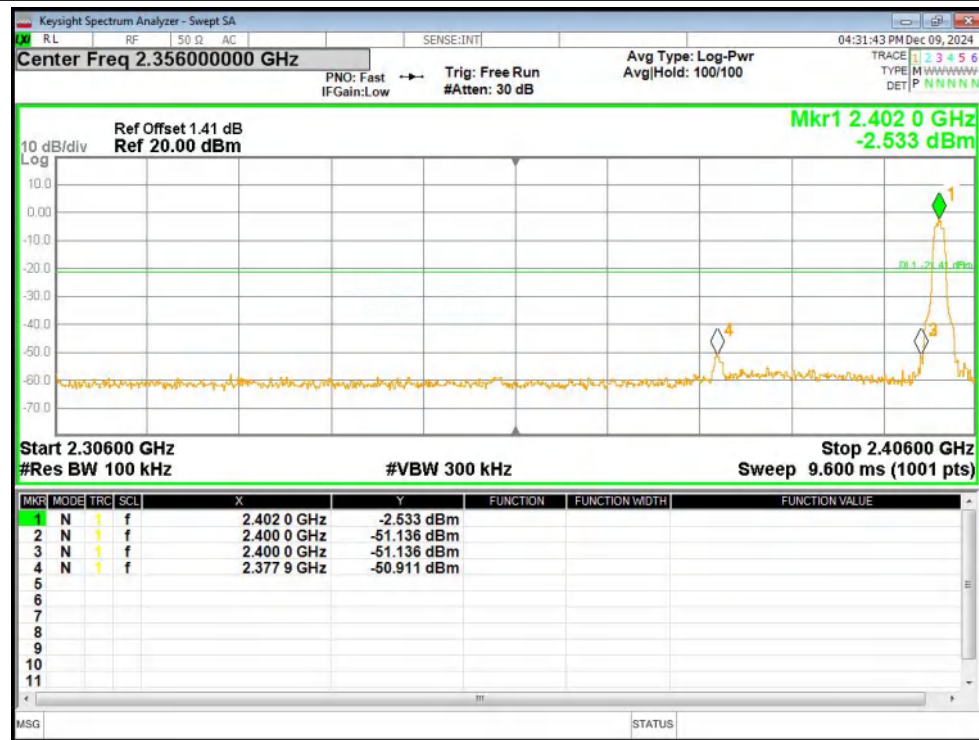
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



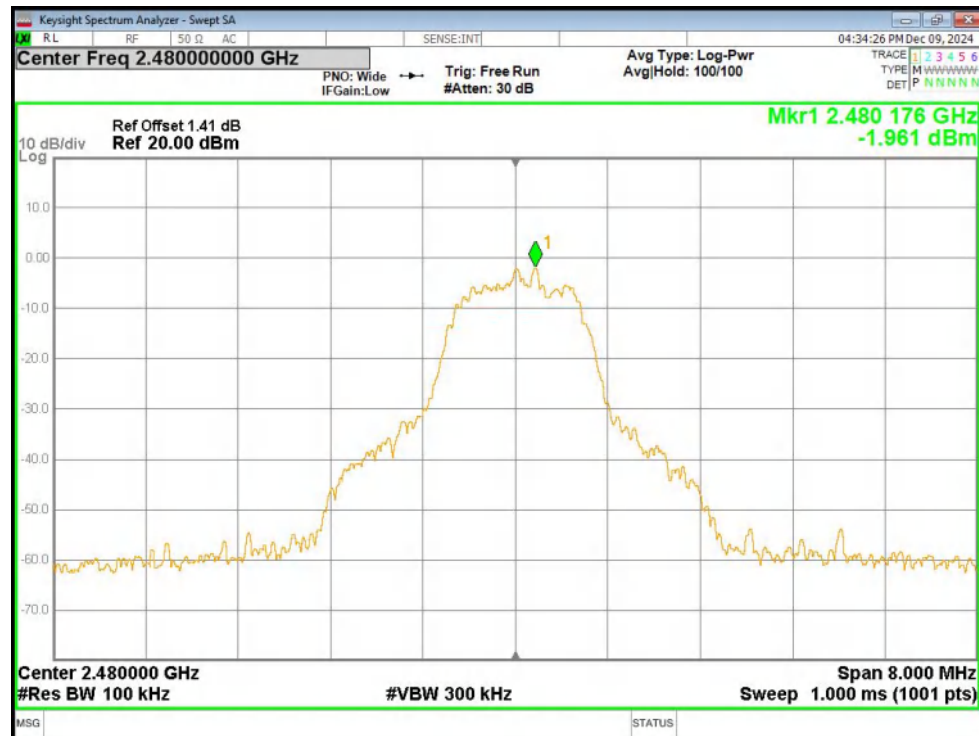
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



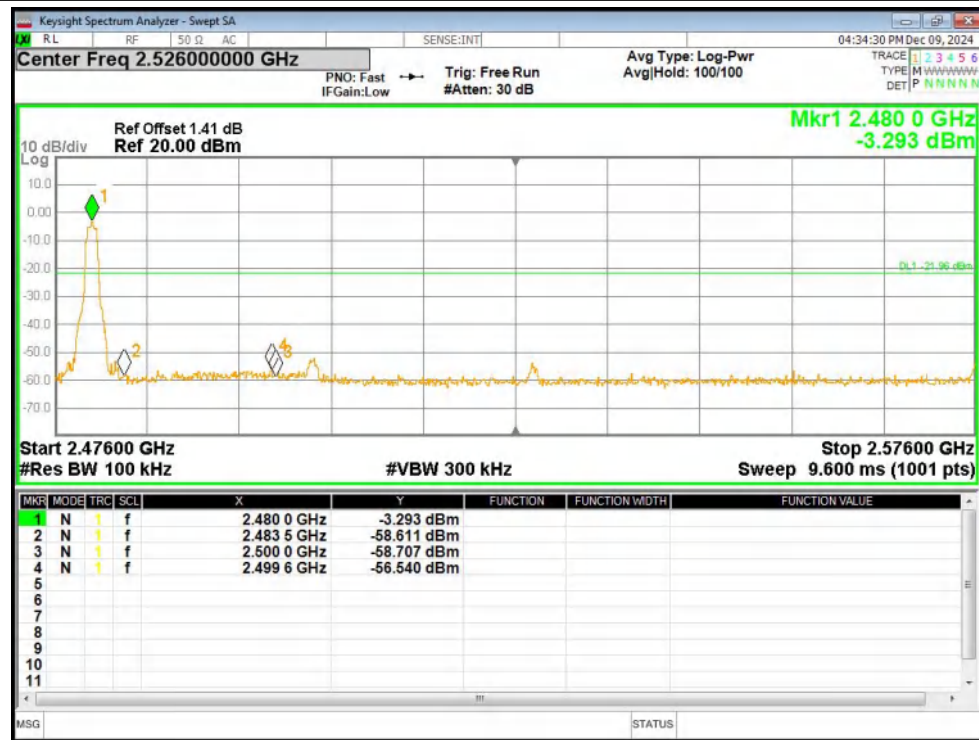
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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



8.Band Edge(Hopping)

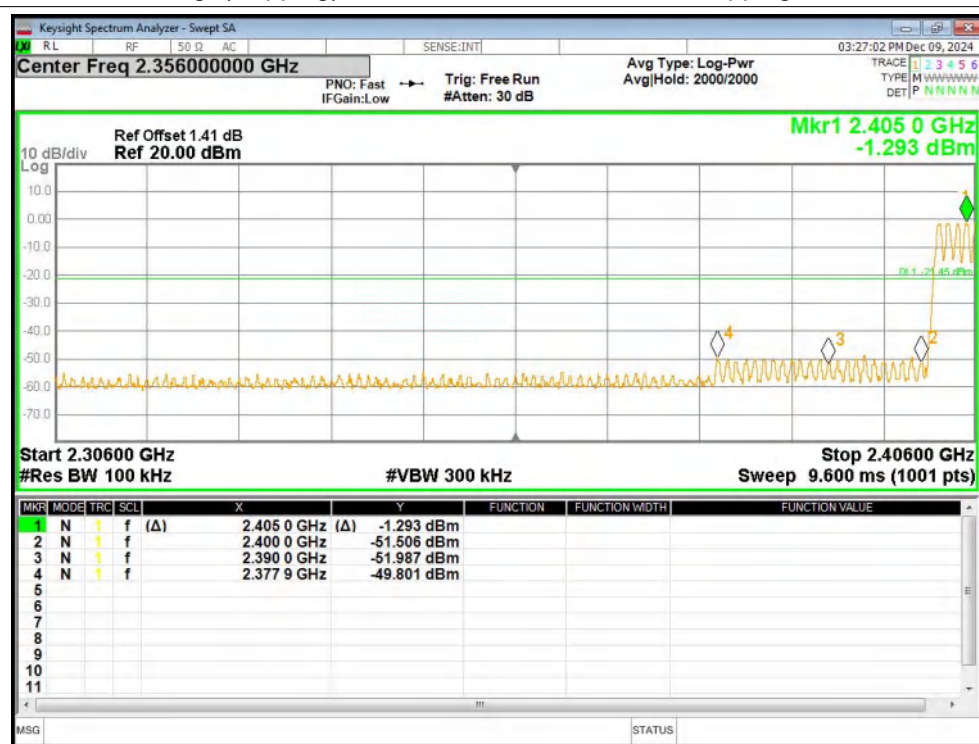
Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Hopping	-48.35	-20	Pass
1-DH5	2480	Hopping	-47.03	-20	Pass
2-DH5	2402	Hopping	-48.1	-20	Pass
2-DH5	2480	Hopping	-47.46	-20	Pass
3-DH5	2402	Hopping	-48.31	-20	Pass
3-DH5	2480	Hopping	-49.23	-20	Pass

Test Graphs

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



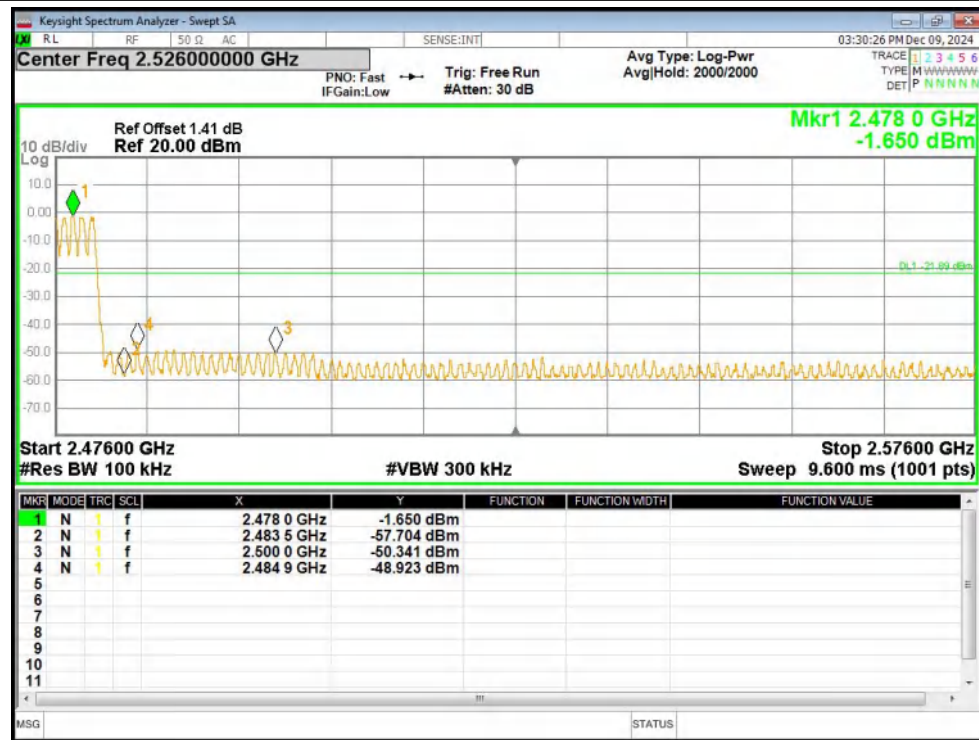
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



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



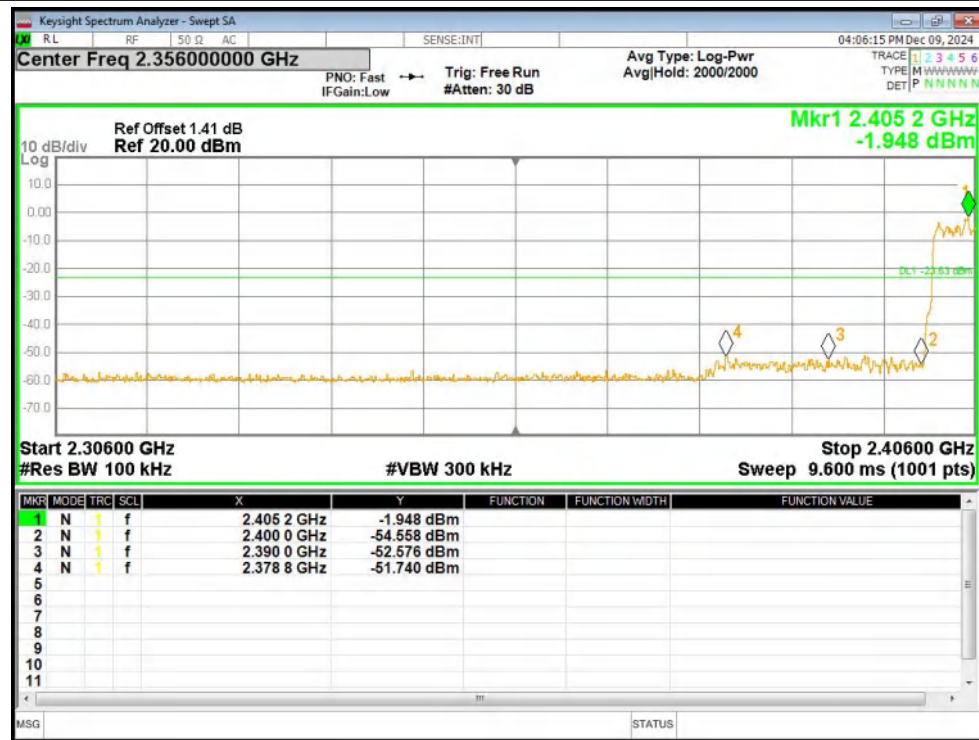
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



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



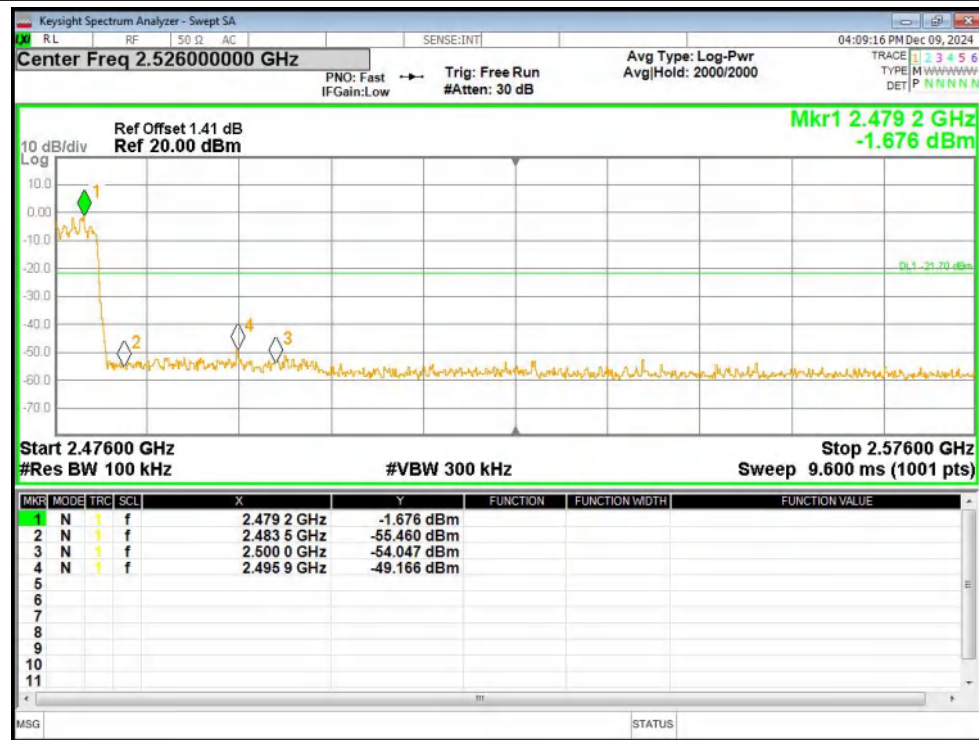
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



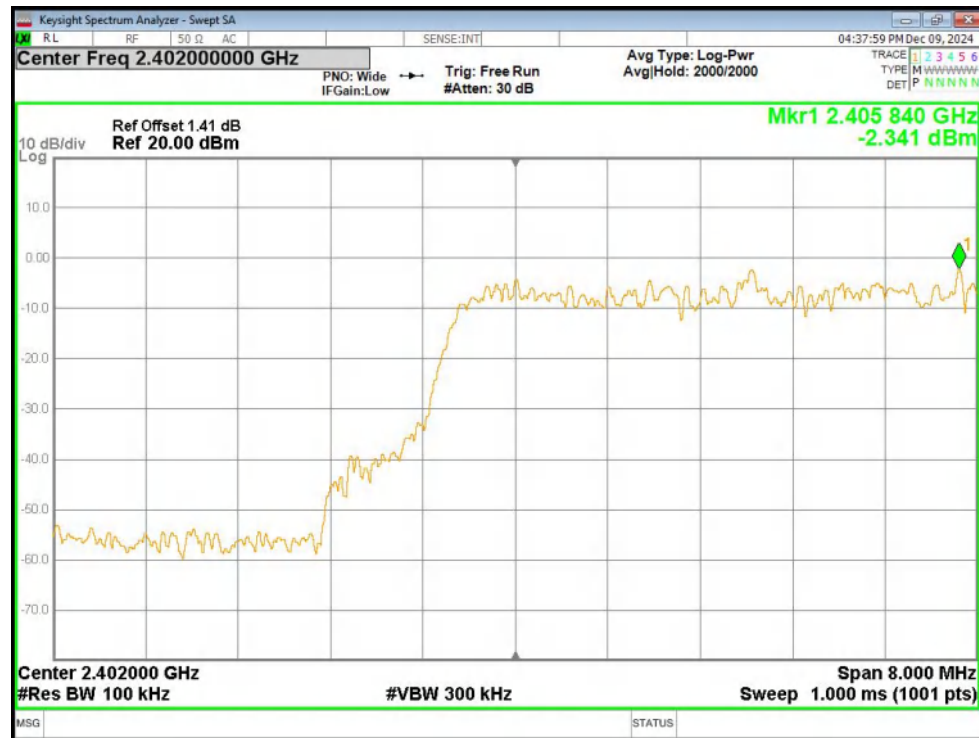
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



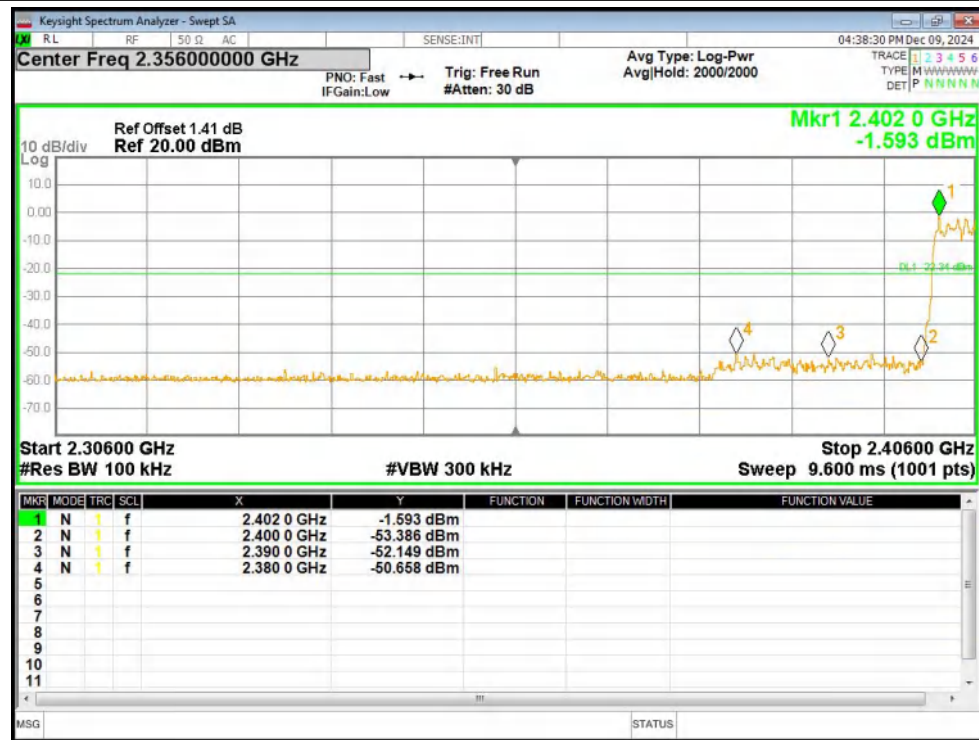
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



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



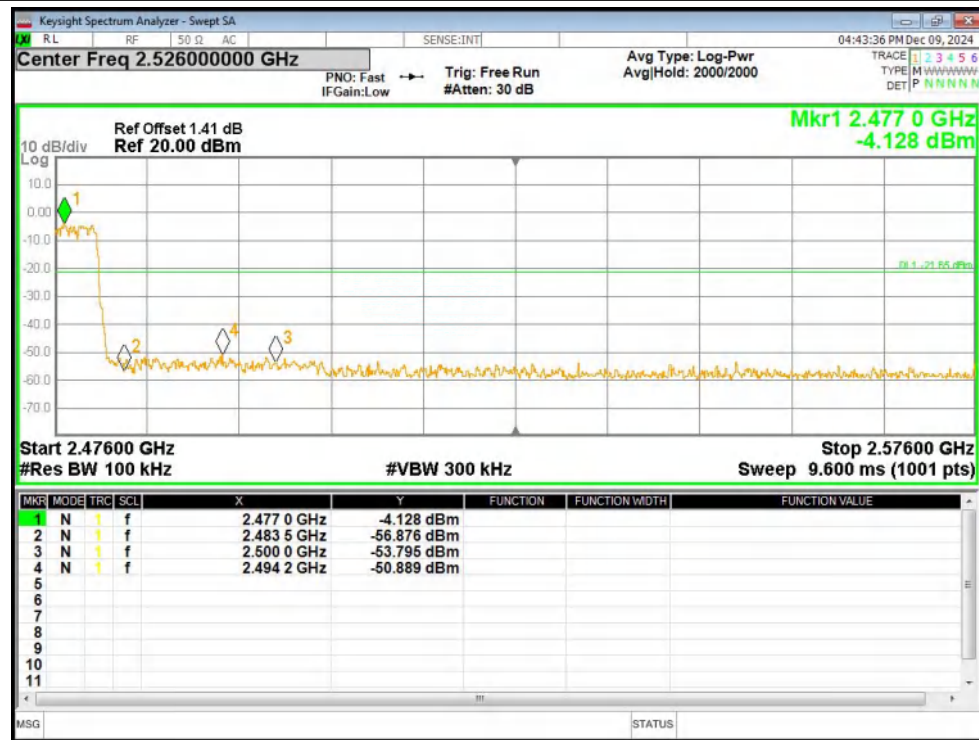
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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

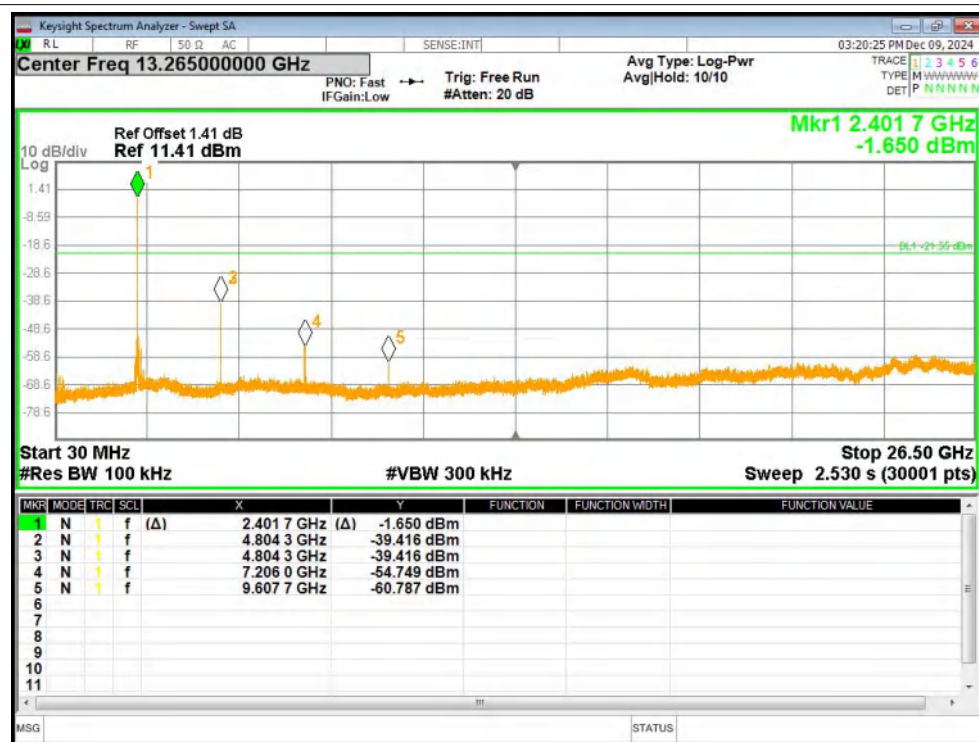
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	-37.86	-20	Pass
1-DH5	2441	-37.77	-20	Pass
1-DH5	2480	-40.75	-20	Pass
2-DH5	2402	-40.87	-20	Pass
2-DH5	2441	-40.37	-20	Pass
2-DH5	2480	-40.88	-20	Pass
3-DH5	2402	-40.83	-20	Pass
3-DH5	2441	-39.18	-20	Pass
3-DH5	2480	-41.75	-20	Pass

Test Graphs

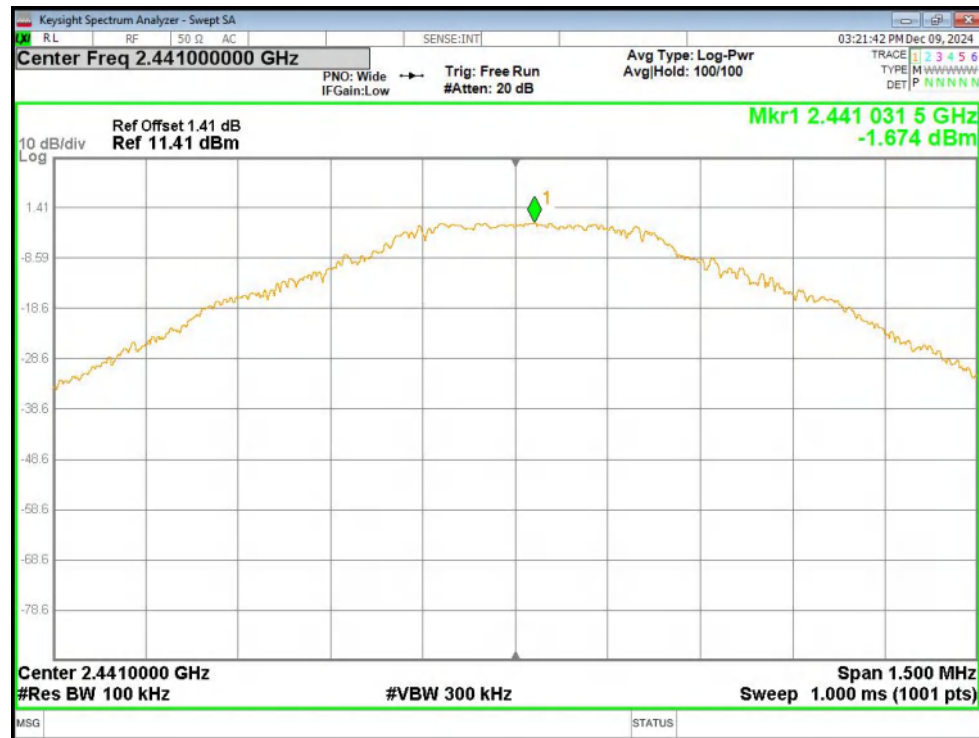
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



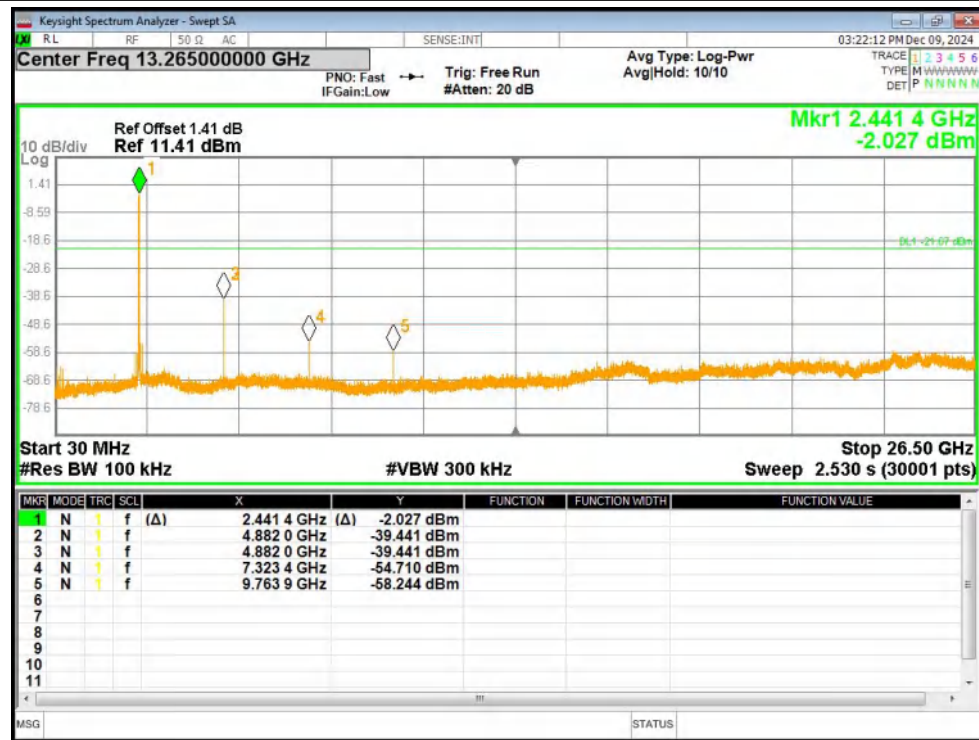
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



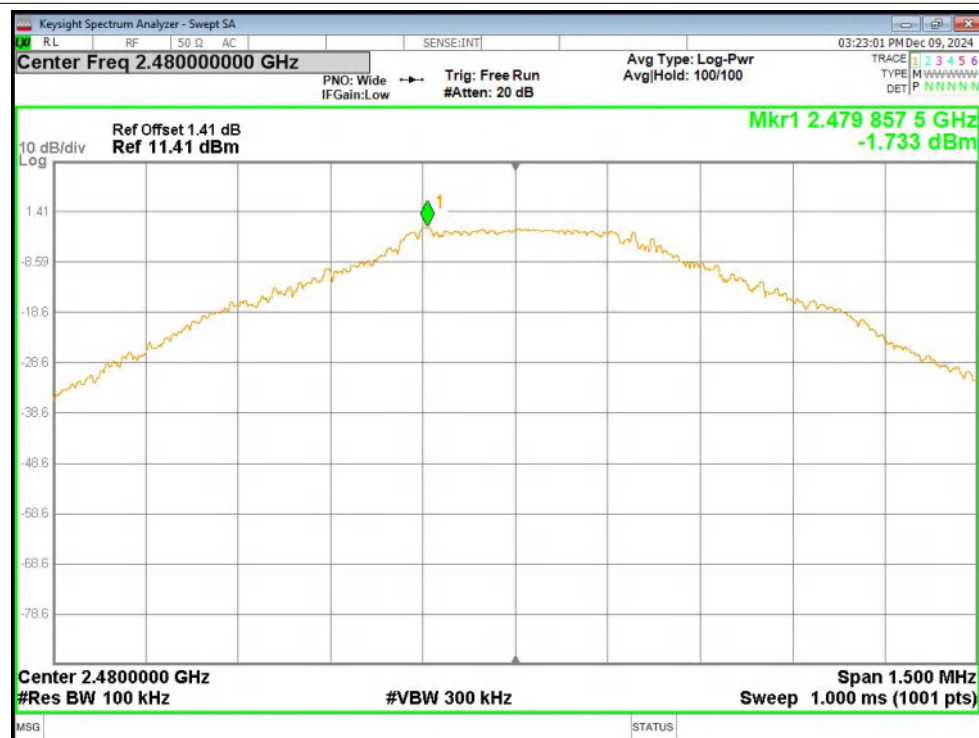
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



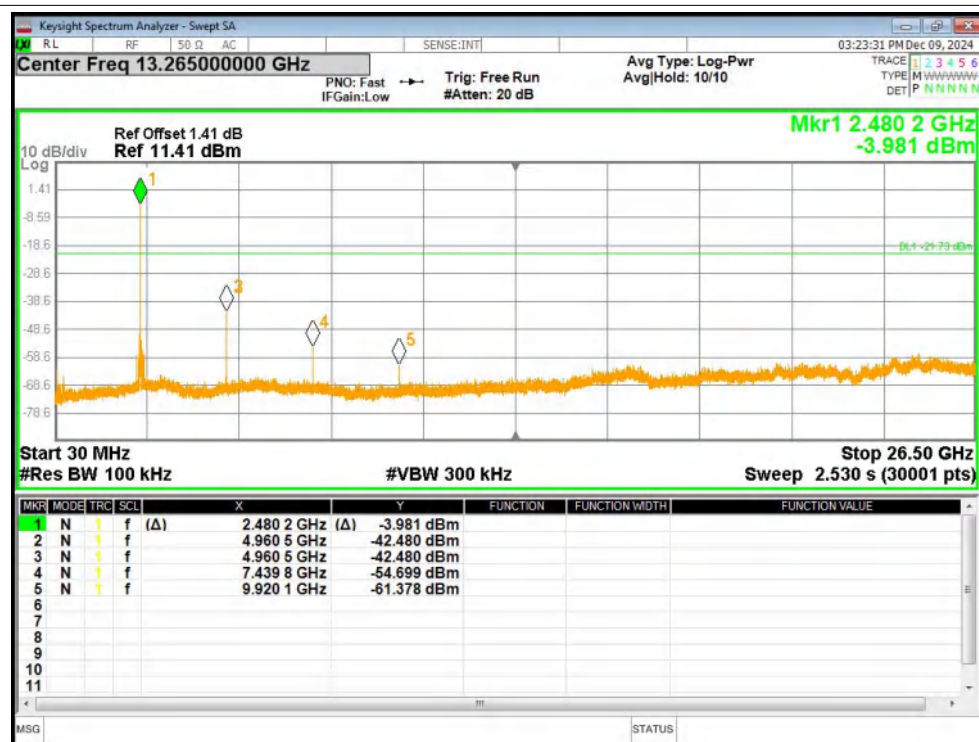
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



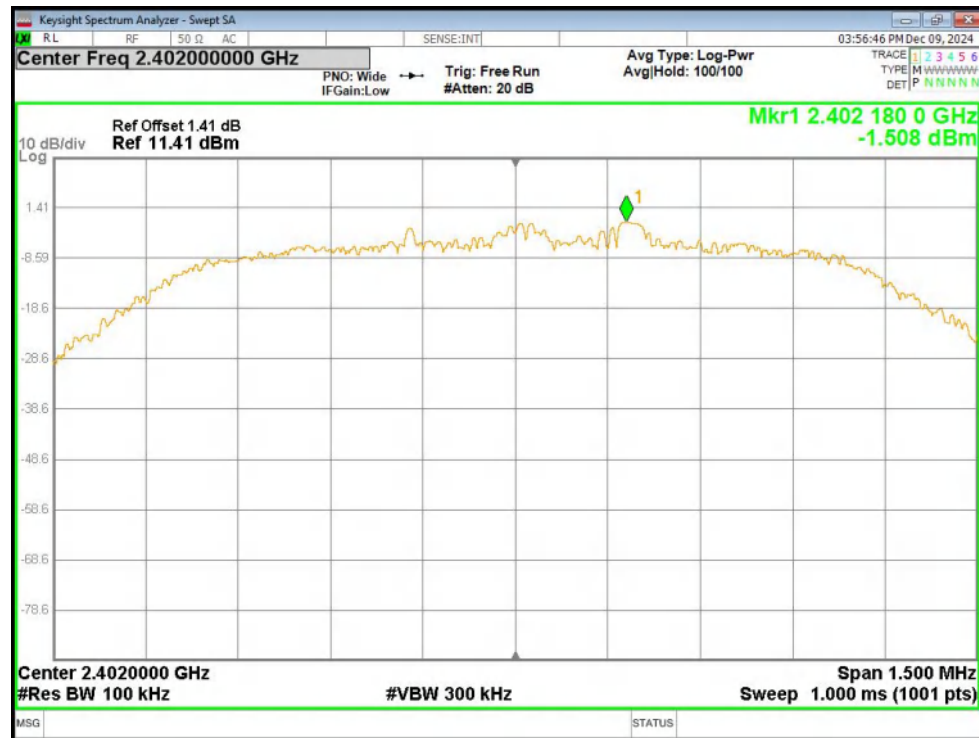
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



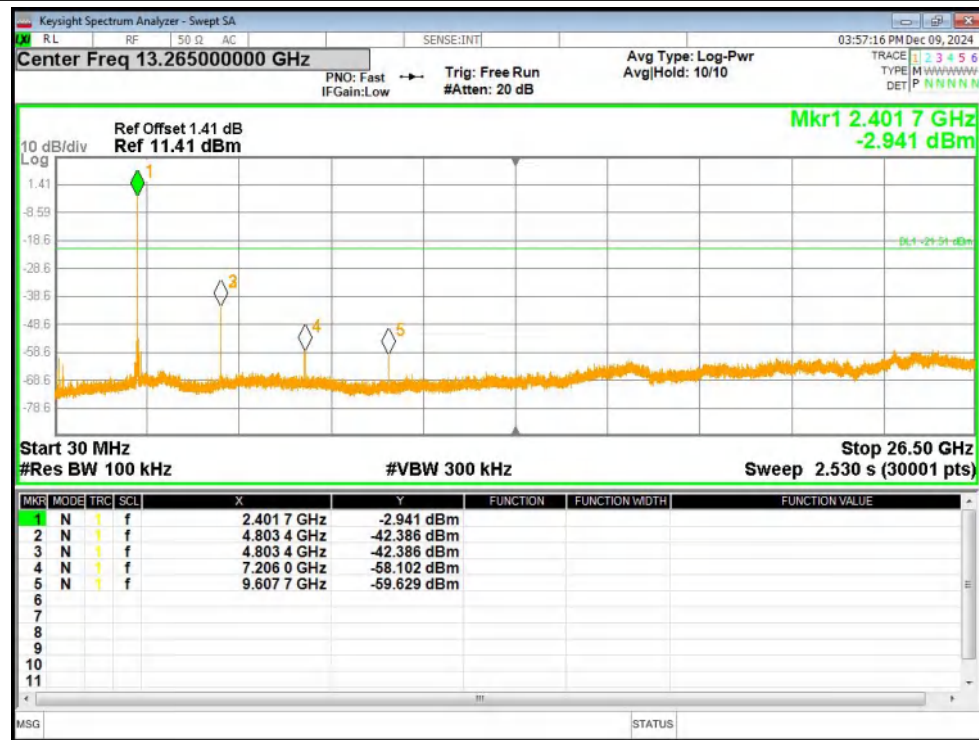
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



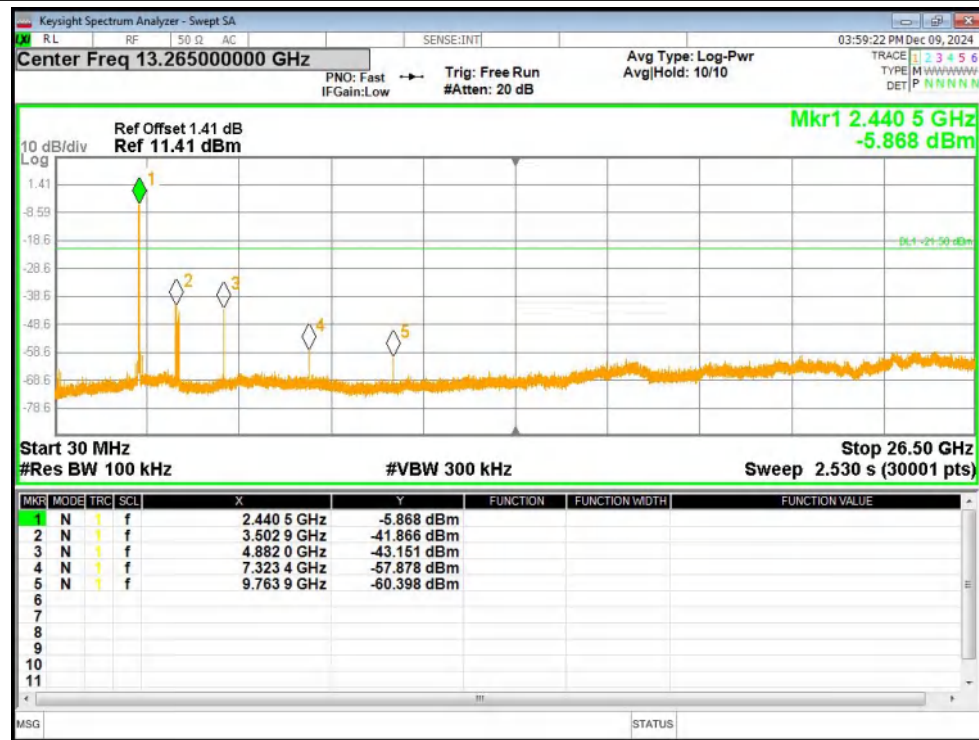
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



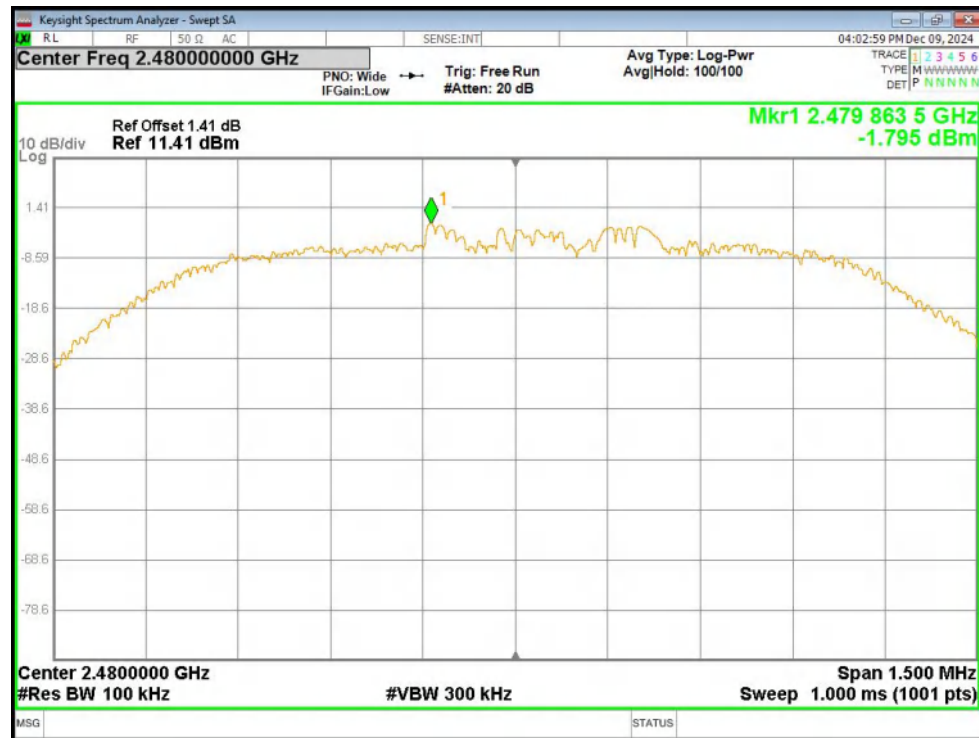
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



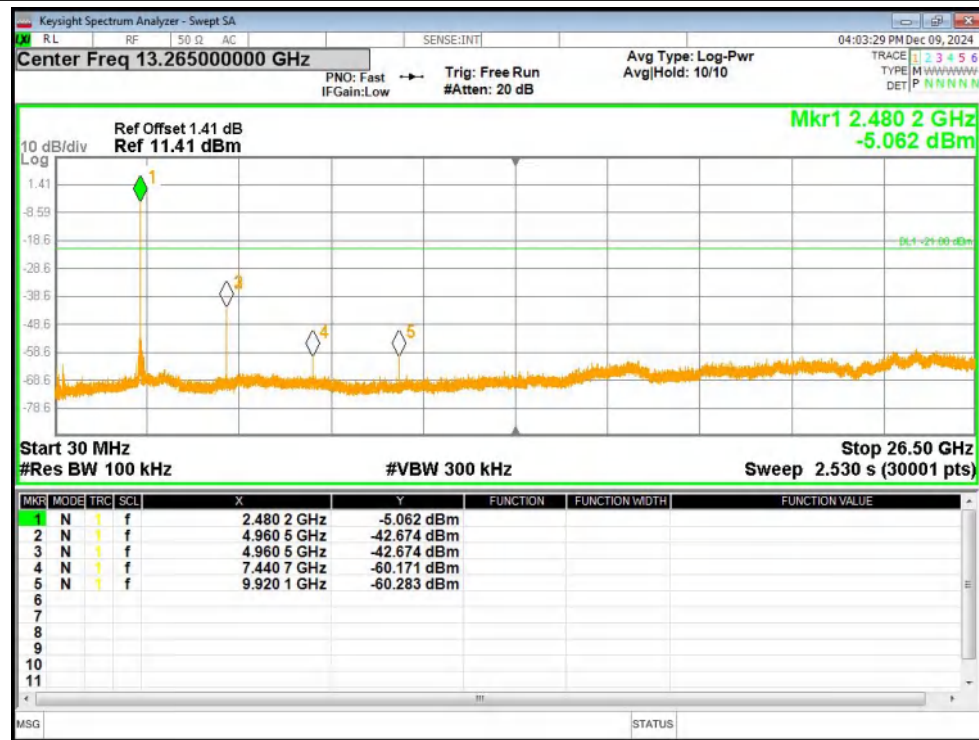
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



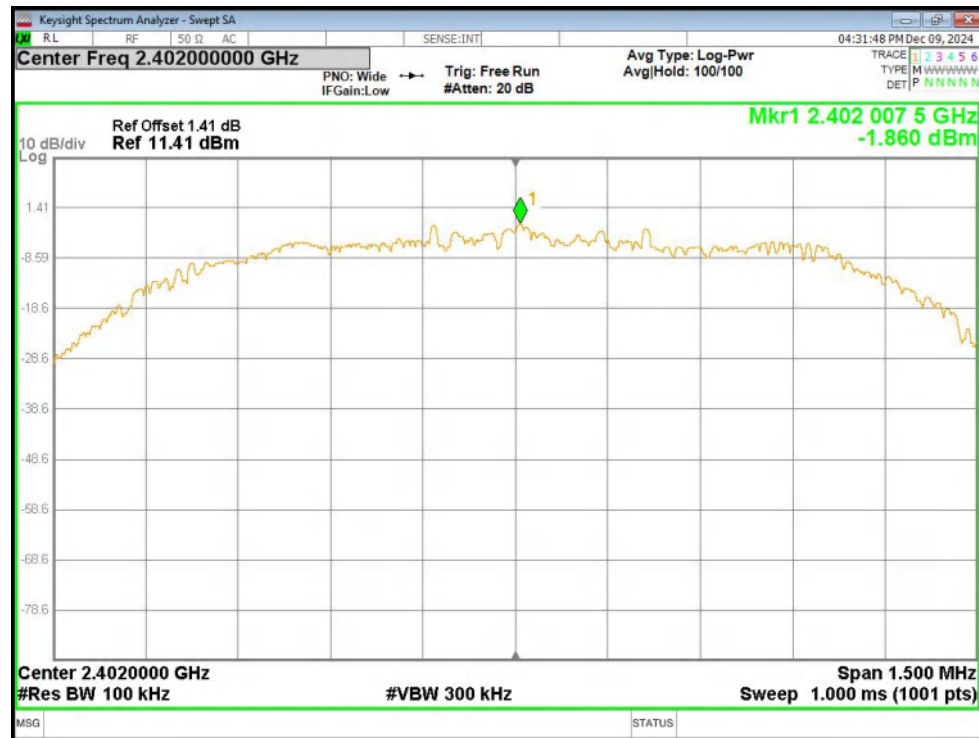
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



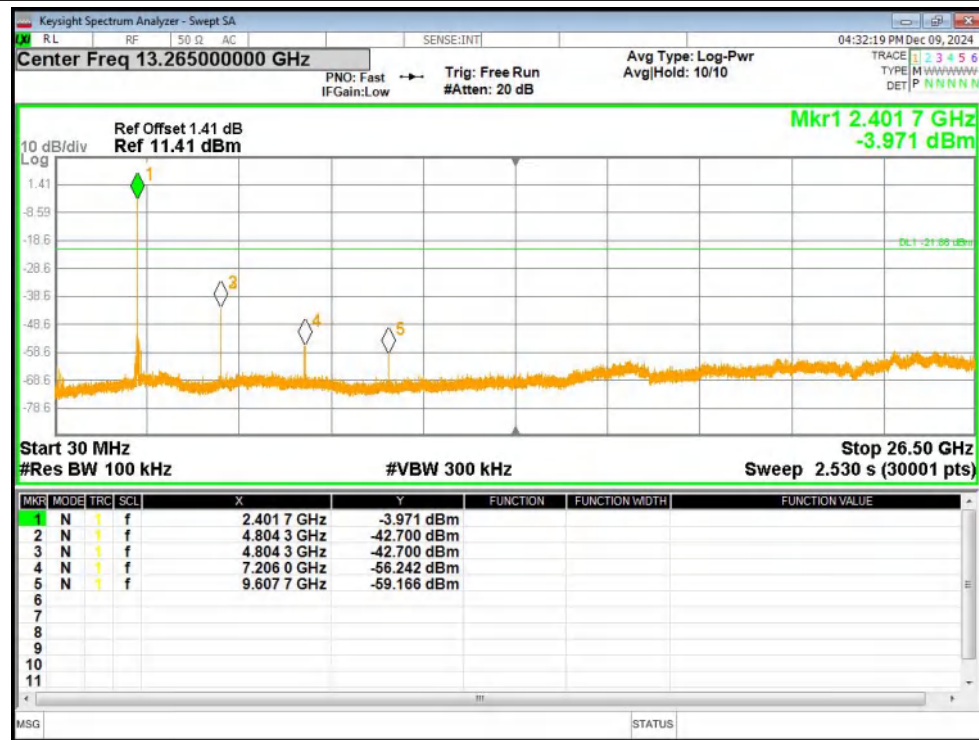
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



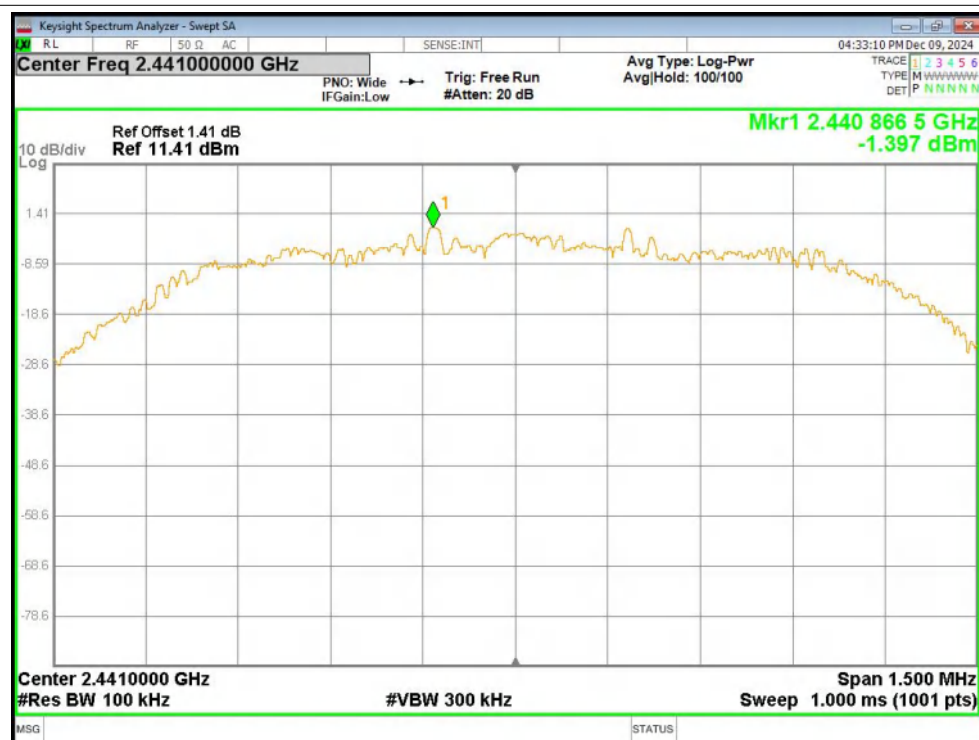
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



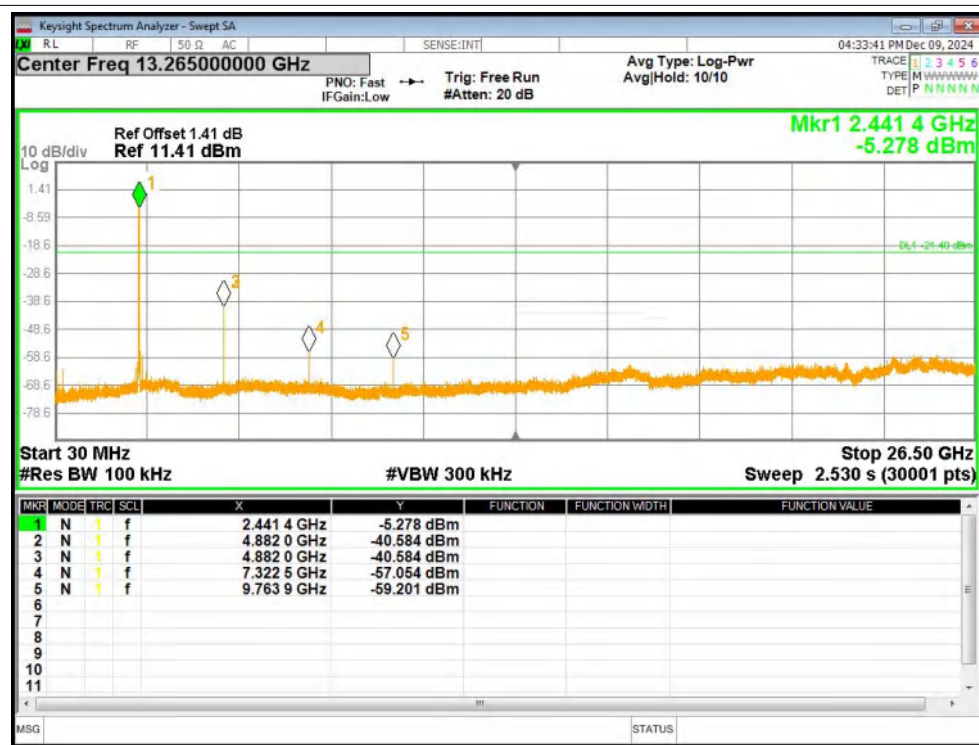
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



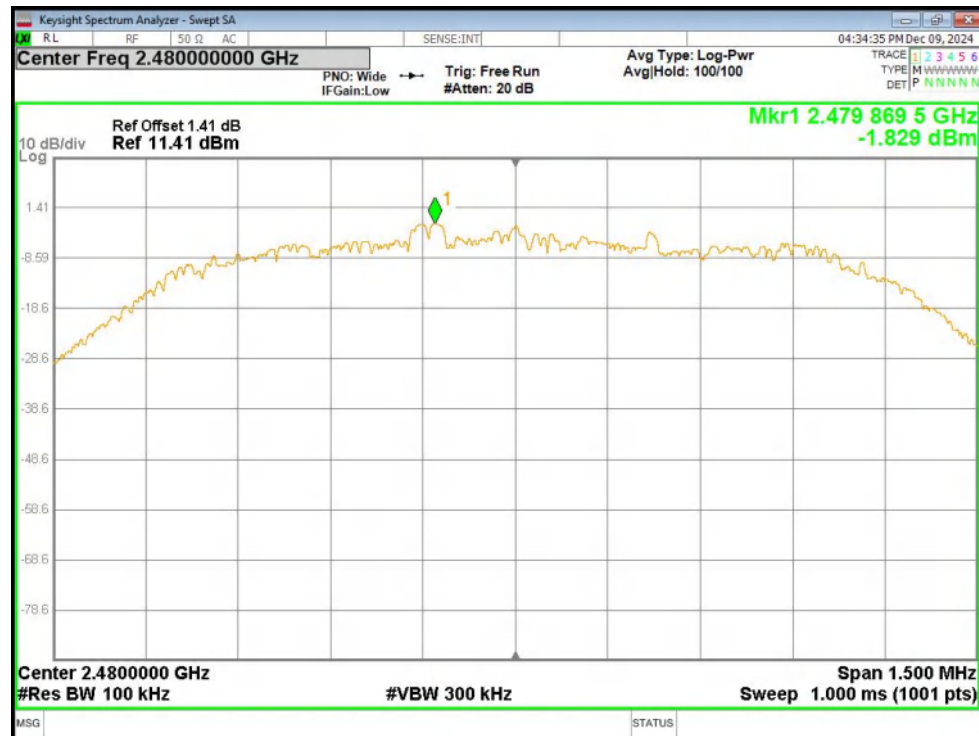
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

