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FCC ID:2A9CD-X55

FCC_BT(Part15.247) Test Data

1.Dwell Time

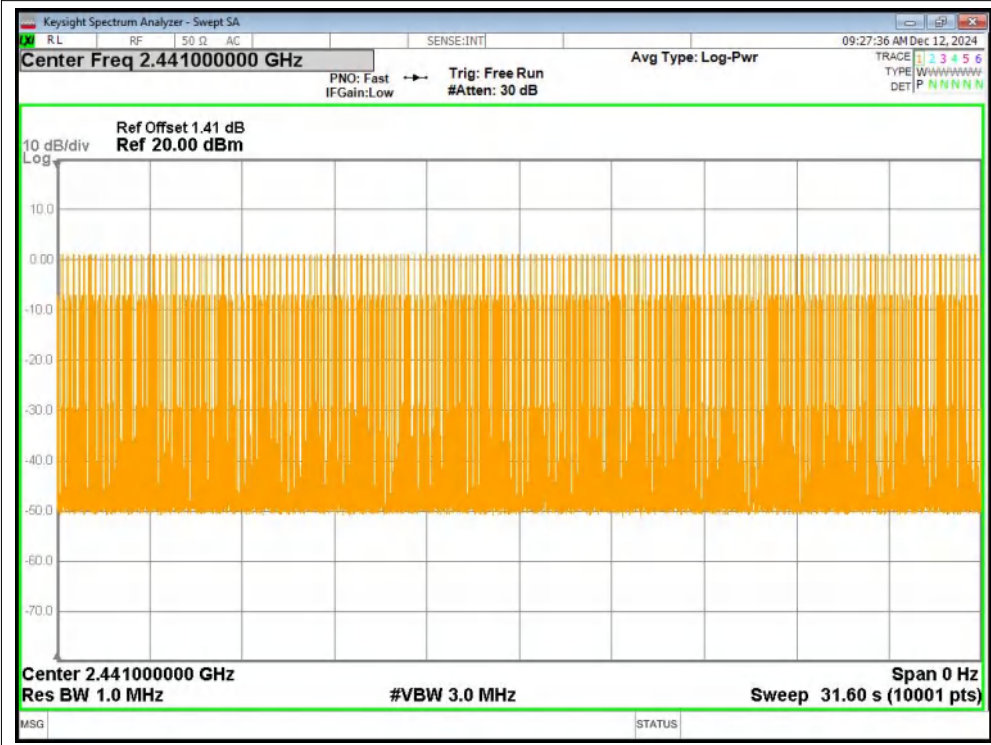
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	0.4	126.8	317	31600	400	Pass
1-DH3	2441	1.657	270.091	163	31600	400	Pass
1-DH5	2441	2.905	316.645	109	31600	400	Pass
2-DH1	2441	0.39	124.41	319	31600	400	Pass
2-DH3	2441	1.654	269.602	163	31600	400	Pass
2-DH5	2441	2.906	302.224	104	31600	400	Pass
3-DH1	2441	0.407	129.833	319	31600	400	Pass
3-DH3	2441	1.66	268.92	162	31600	400	Pass
3-DH5	2441	2.907	325.584	112	31600	400	Pass

Test Graphs

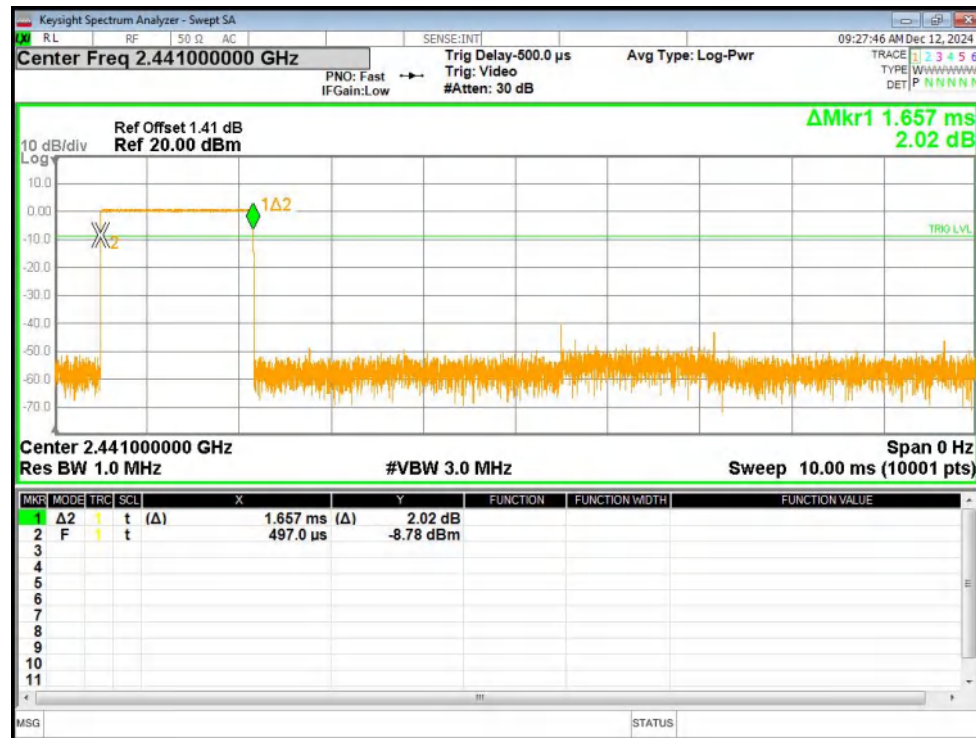
Dwell NVNT 1-DH1 2441MHz Ant1 One Burst



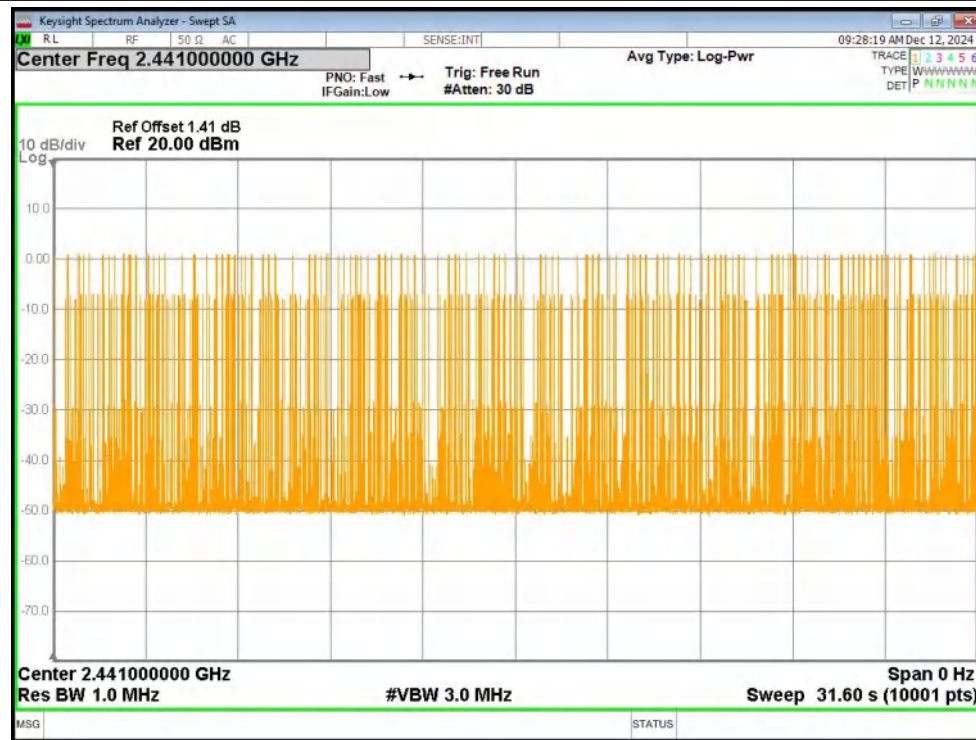
Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated



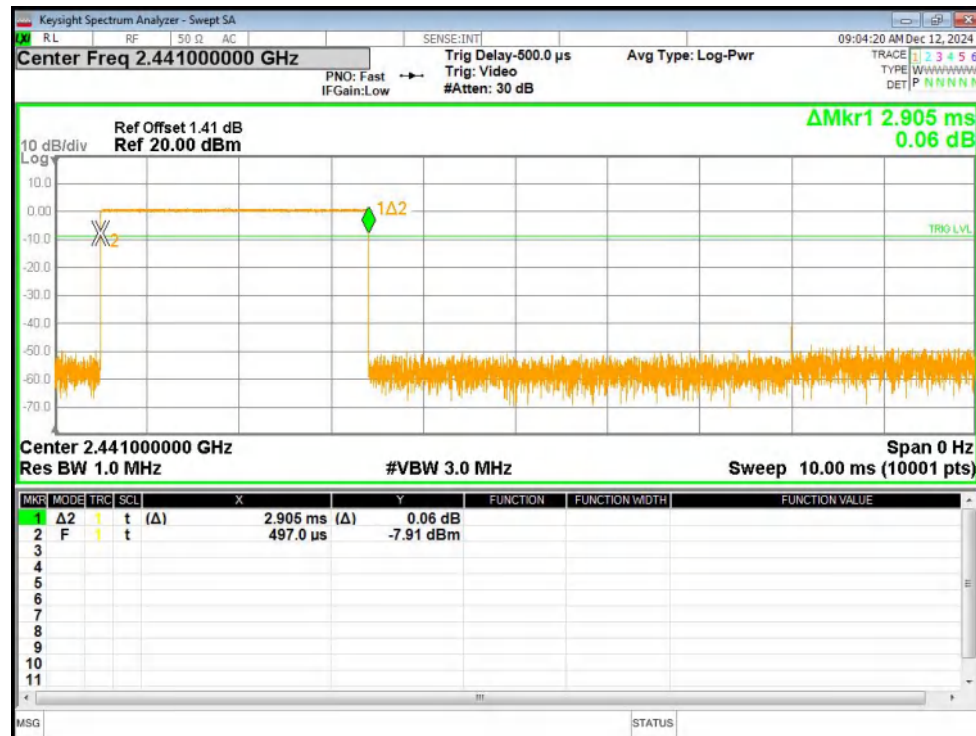
Dwell NVNT 1-DH3 2441MHz Ant1 One Burst



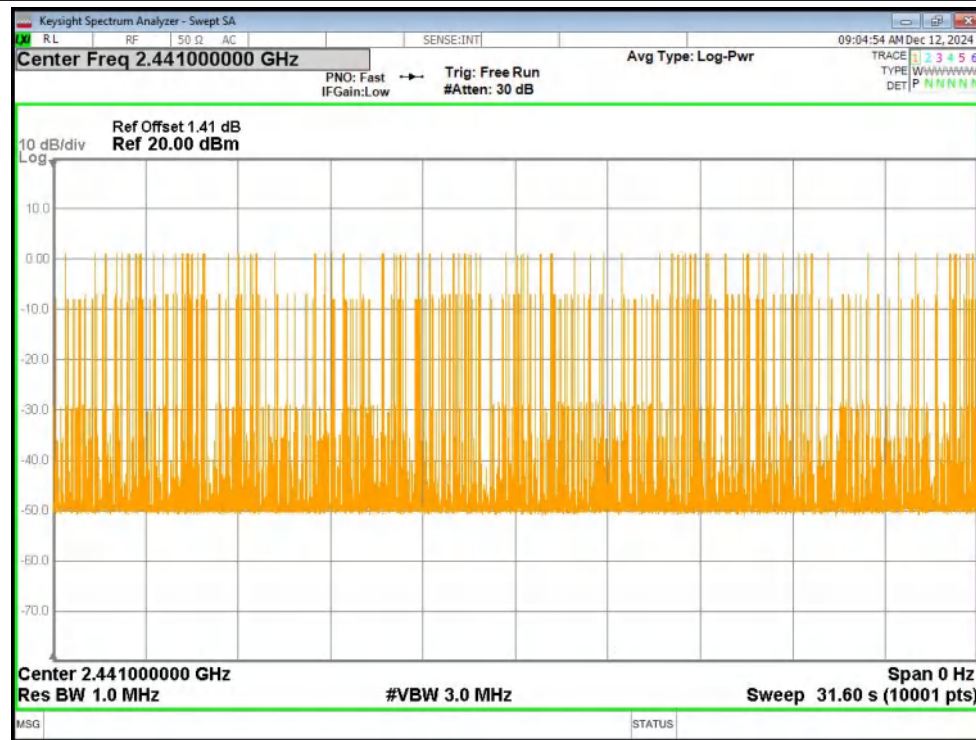
Dwell NVNT 1-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



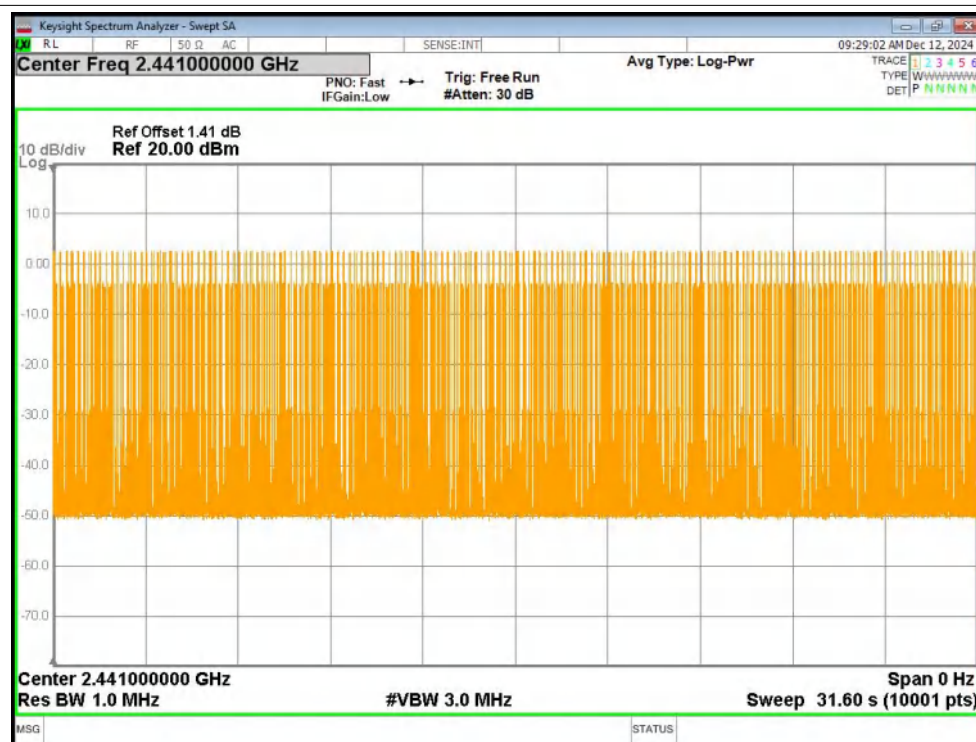
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH1 2441MHz Ant1 One Burst



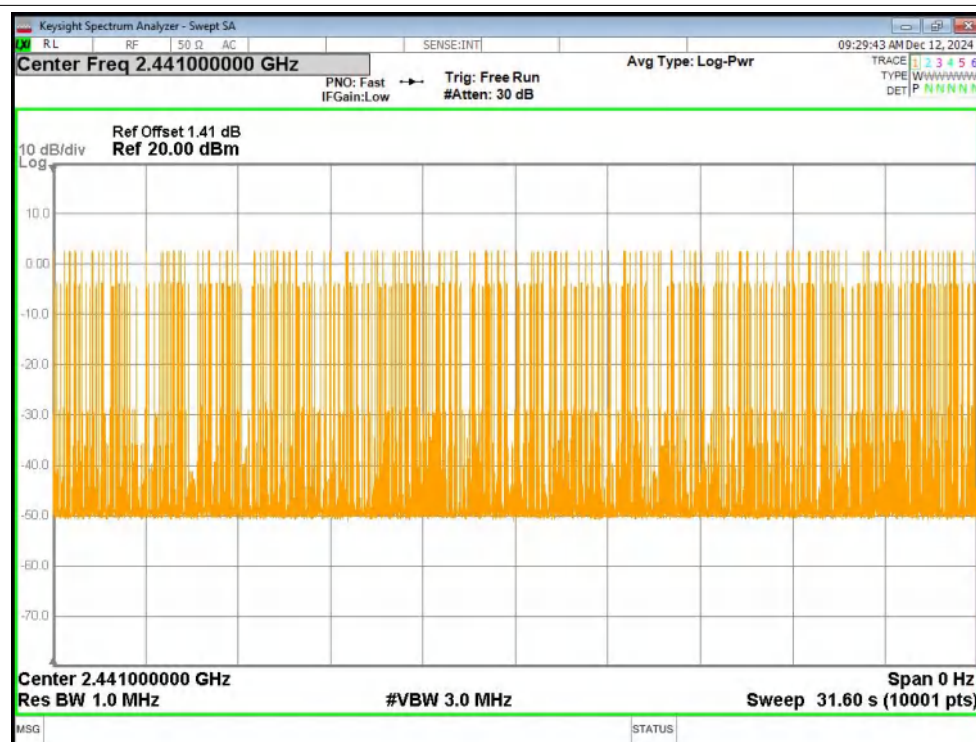
Dwell NVNT 2-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH3 2441MHz Ant1 One Burst



Dwell NVNT 2-DH3 2441MHz Ant1 Accumulated



[illegible]

Keysight Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT 09:14:45 AM Dec 12, 2024

Center Freq 2.441000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N N

10 dB/div
Log

Ref Offset 1.41 dB
Ref 20.00 dBm

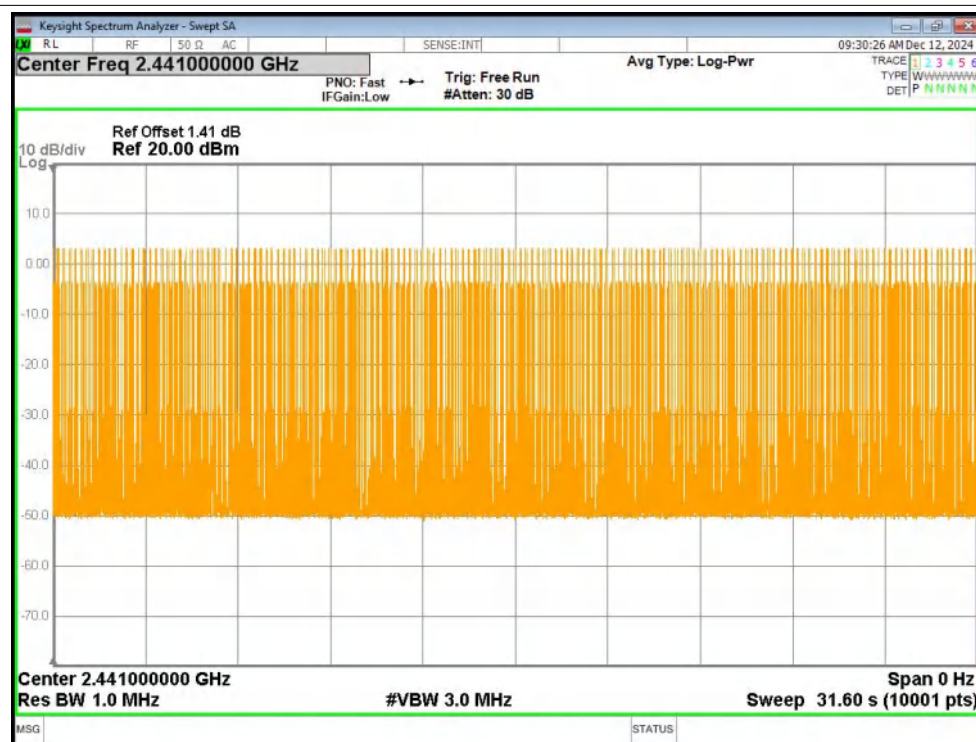
Center 2.441000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 3.0 MHz Sweep 31.60 s (10001 pts)

MSG STATUS

Dwell NVNT 3-DH1 2441MHz Ant1 One Burst



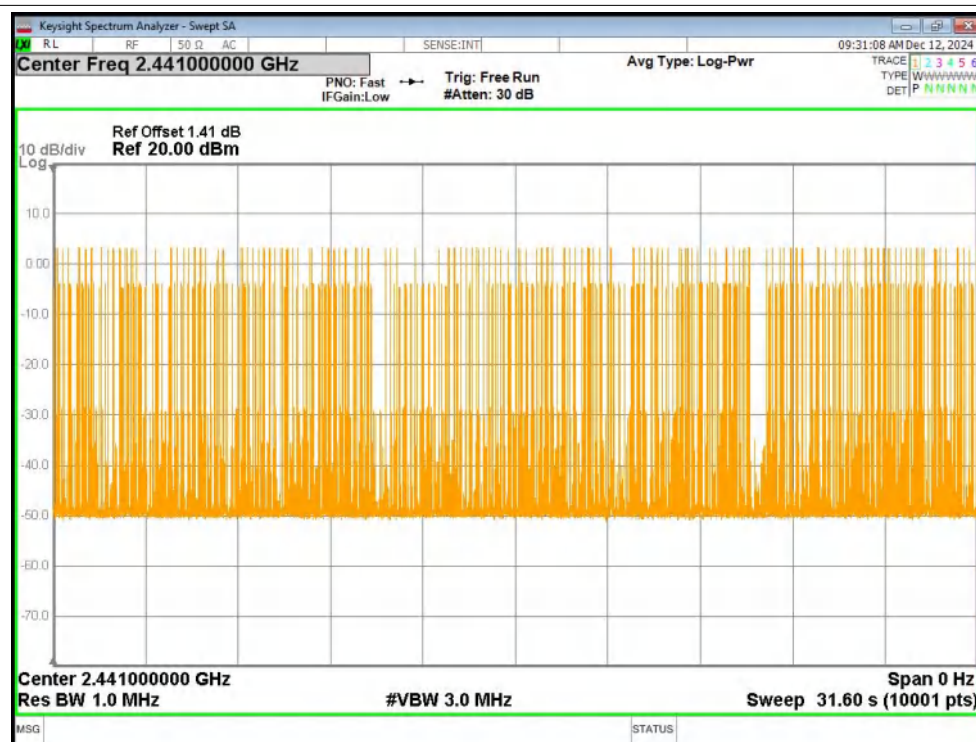
Dwell NVNT 3-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH3 2441MHz Ant1 One Burst



Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Trig Delay: 500.0 μ s

Trig: Video

#Atten: 30 dB

Avg Type: Log-Pwr

Ref Offset 1.41 dB

Ref 20.00 dBm

Δ Mkr1 2.907 ms

0.50 dB

Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Span 0 Hz

Sweep 10.00 ms (10001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ 2	t	(Δ)	2.907 ms	(Δ) 0.50 dB			
2	F	t		349.0 μ s	-12.75 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Keysight Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT 09:24:58 AM Dec 12, 2024

Center Freq 2.441000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N N

10 dB/div
Log

Ref Offset 1.41 dB
Ref 20.00 dBm

Center 2.441000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 3.0 MHz Sweep 31.60 s (10001 pts)

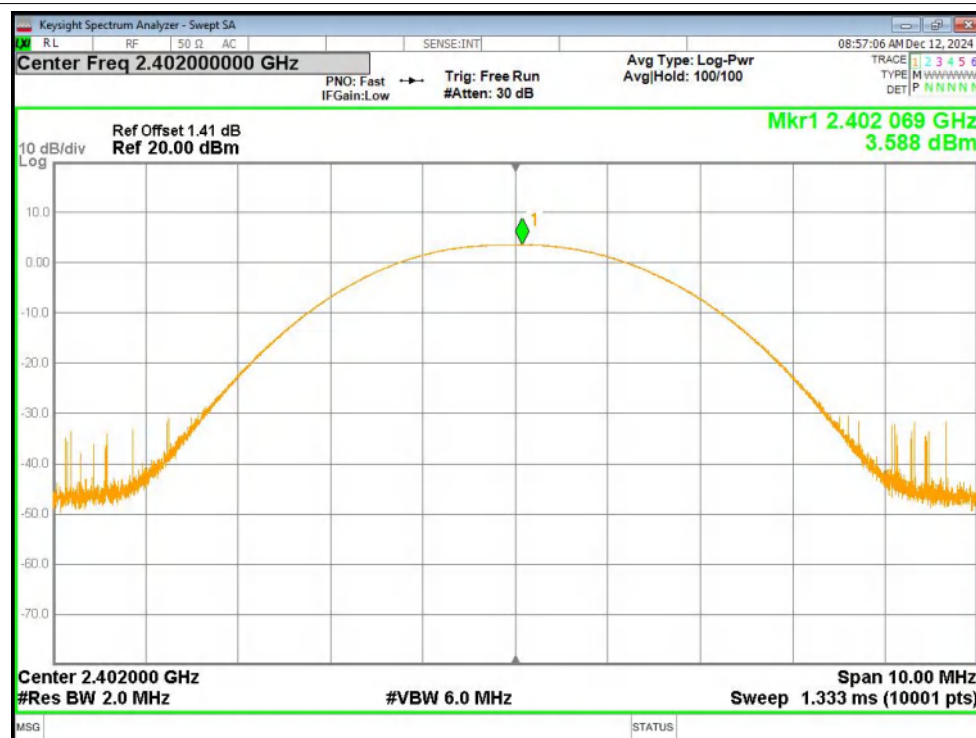
MSG STATUS

2.Maximum Peak Conducted Output Power

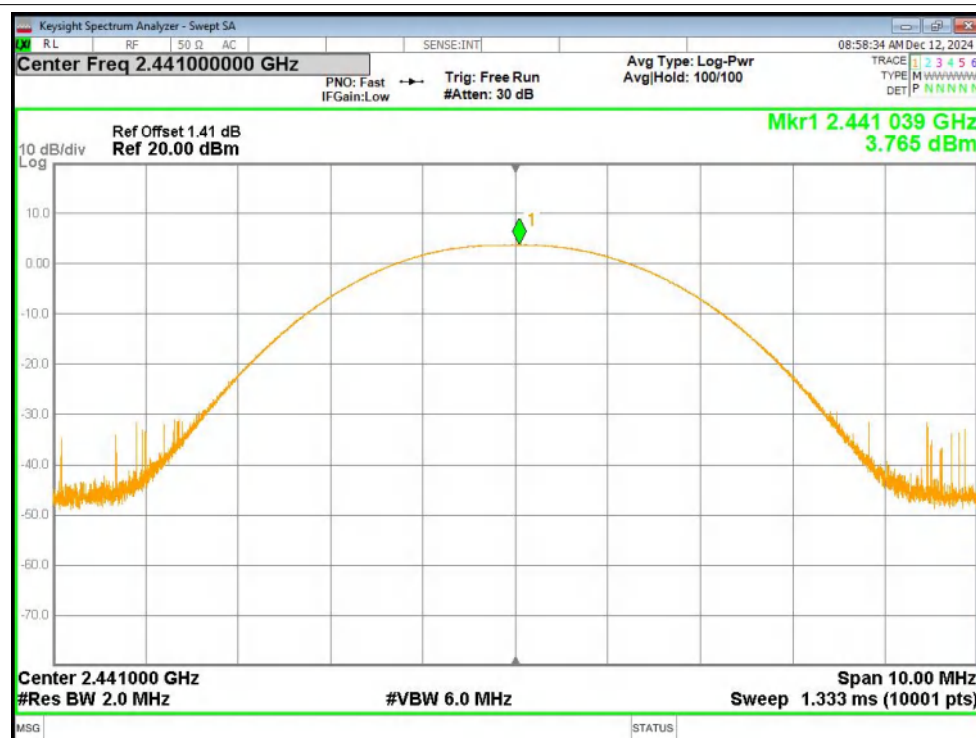
	Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
Right earphone	1-DH5	2402	3.59	21	Pass
	1-DH5	2441	3.77	21	Pass
	1-DH5	2480	3.5	21	Pass
	2-DH5	2402	2.9	21	Pass
	2-DH5	2441	3.07	21	Pass
	2-DH5	2480	2.76	21	Pass
	3-DH5	2402	3.07	21	Pass
	3-DH5	2441	3.32	21	Pass
	3-DH5	2480	3.03	21	Pass
Left earphone	1-DH5	2402	3.35	21	Pass
	1-DH5	2441	3.56	21	Pass
	1-DH5	2480	3.17	21	Pass
	2-DH5	2402	2.49	21	Pass
	2-DH5	2441	2.82	21	Pass
	2-DH5	2480	2.38	21	Pass
	3-DH5	2402	3.05	21	Pass
	3-DH5	2441	3.29	21	Pass
	3-DH5	2480	2.92	21	Pass

Test Graphs Right earphone

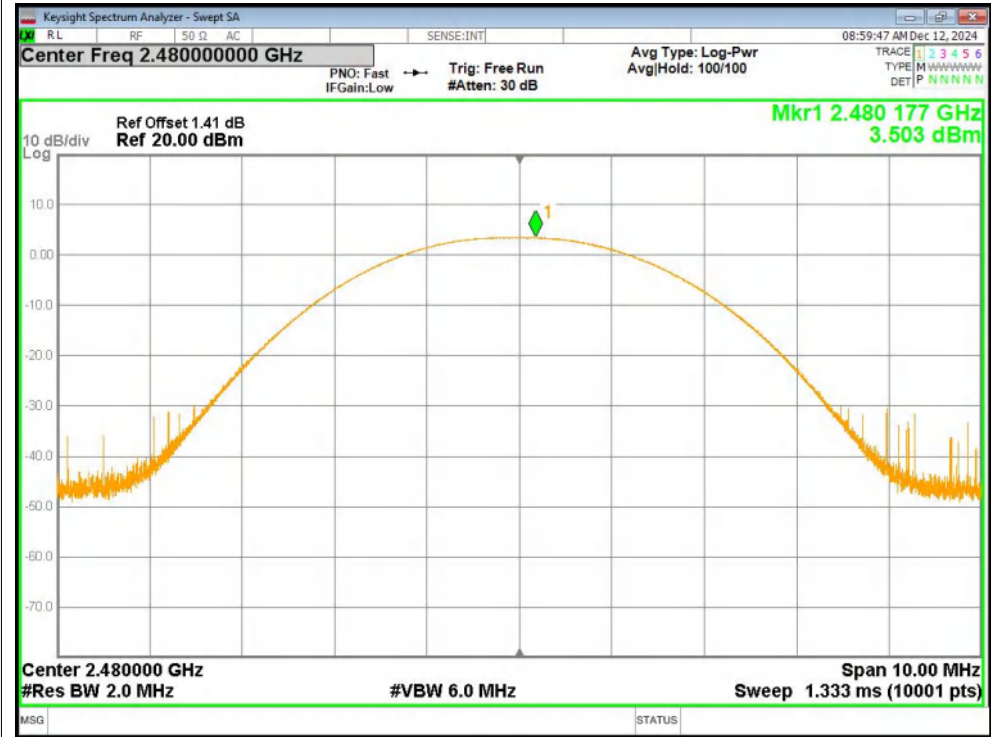
Peak Power NVNT 1-DH5 2402MHz Ant1



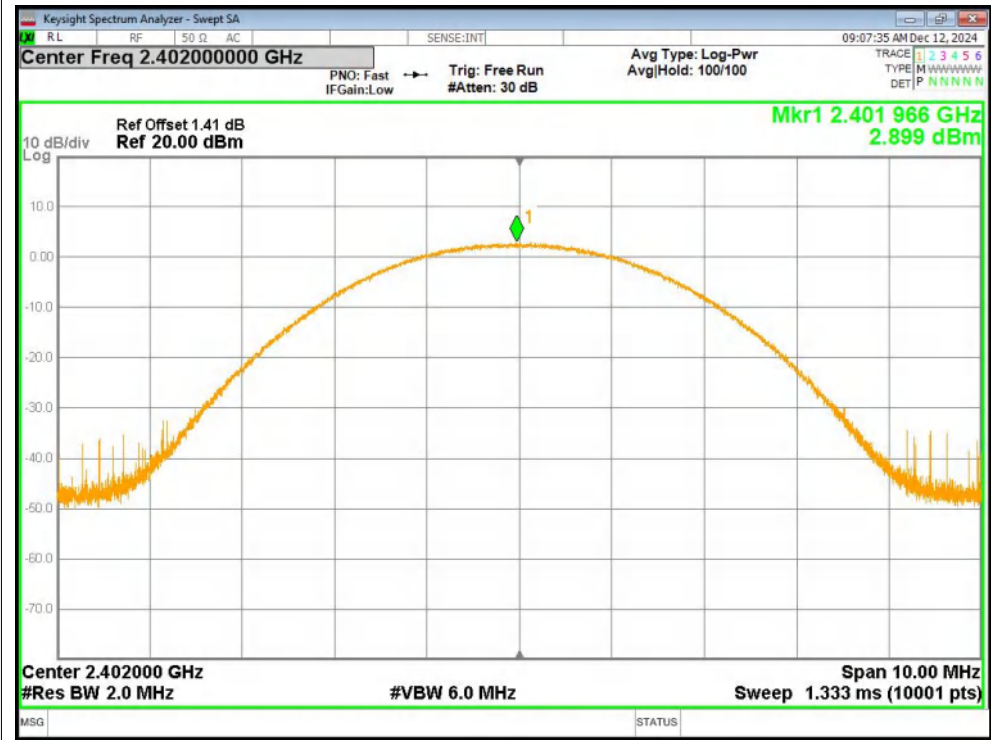
Peak Power NVNT 1-DH5 2441MHz Ant1



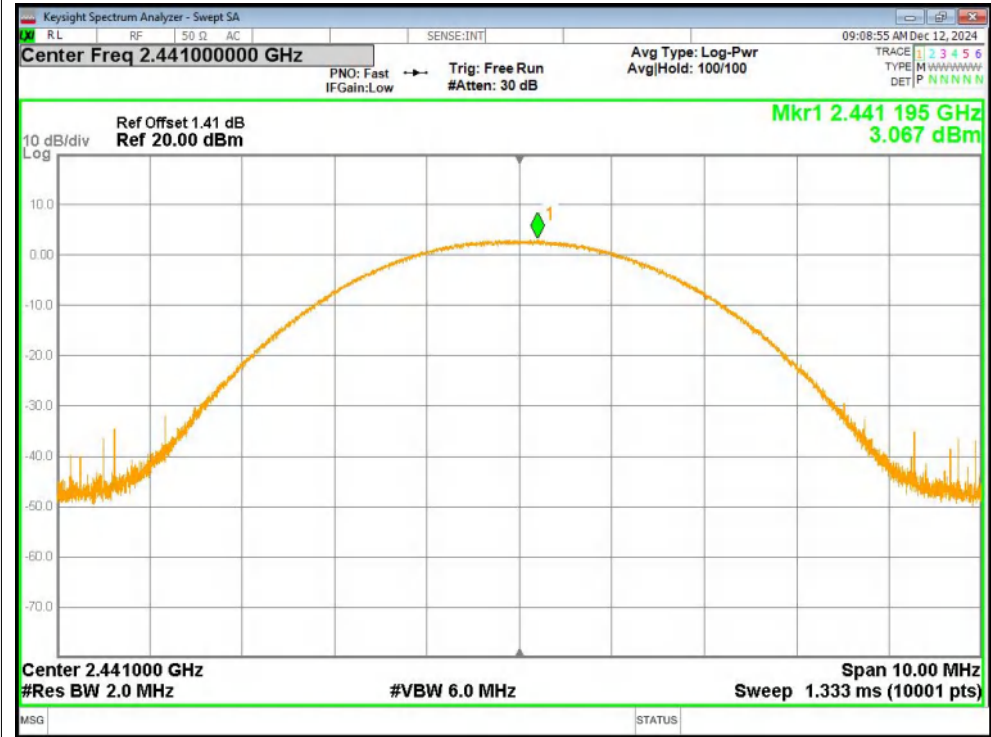
Peak Power NVNT 1-DH5 2480MHz Ant1



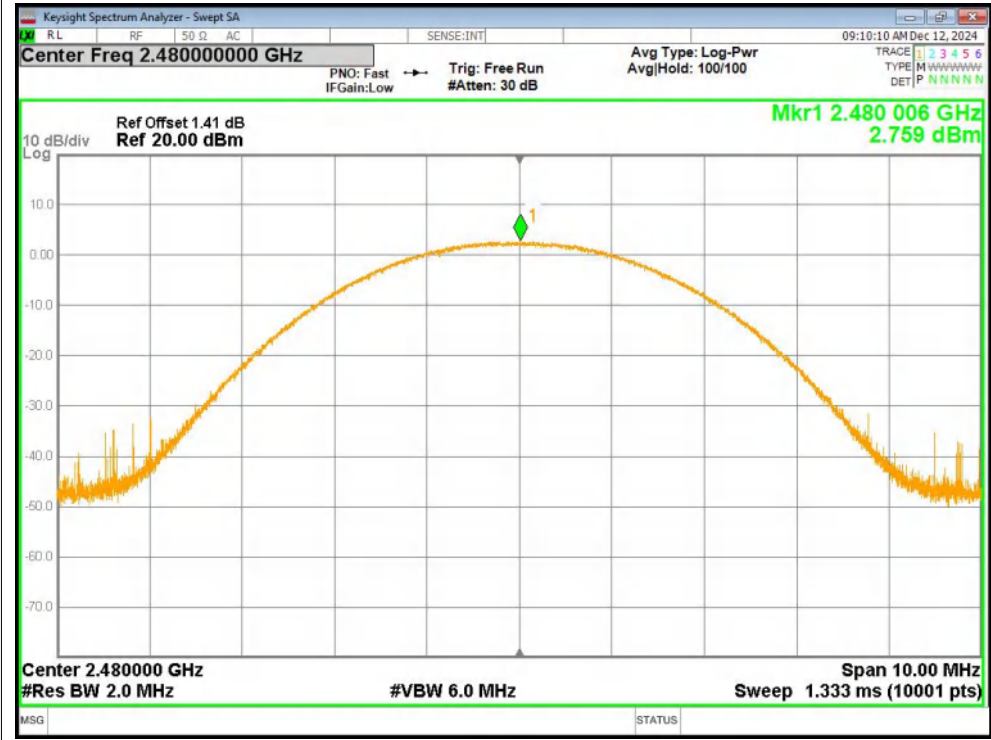
Peak Power NVNT 2-DH5 2402MHz Ant1



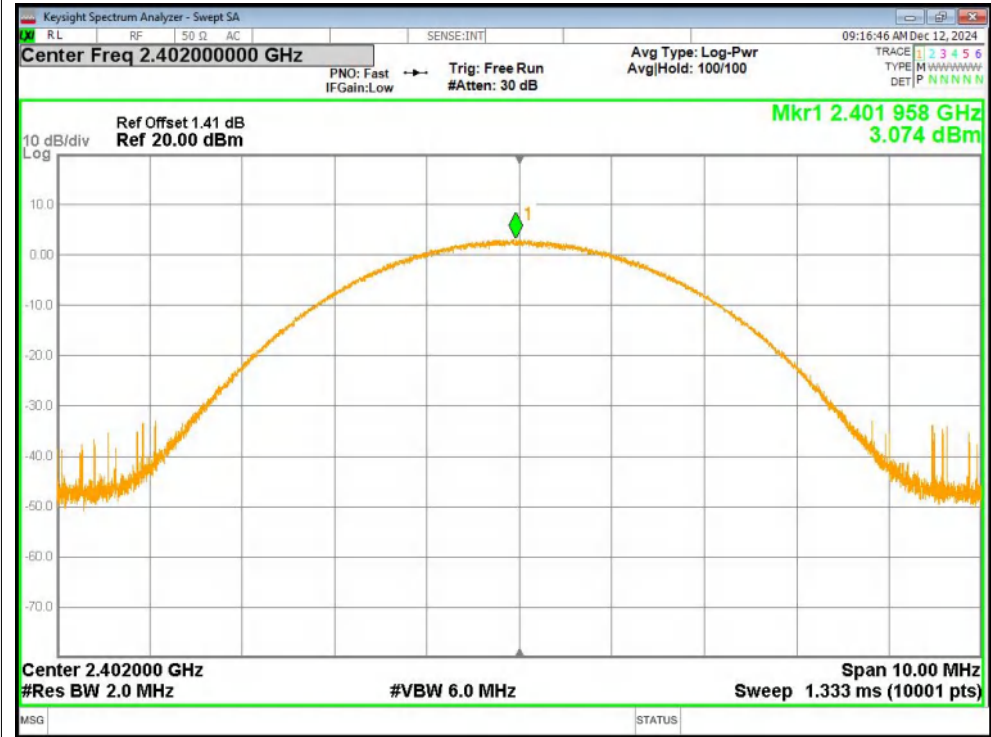
Peak Power NVNT 2-DH5 2441MHz Ant1



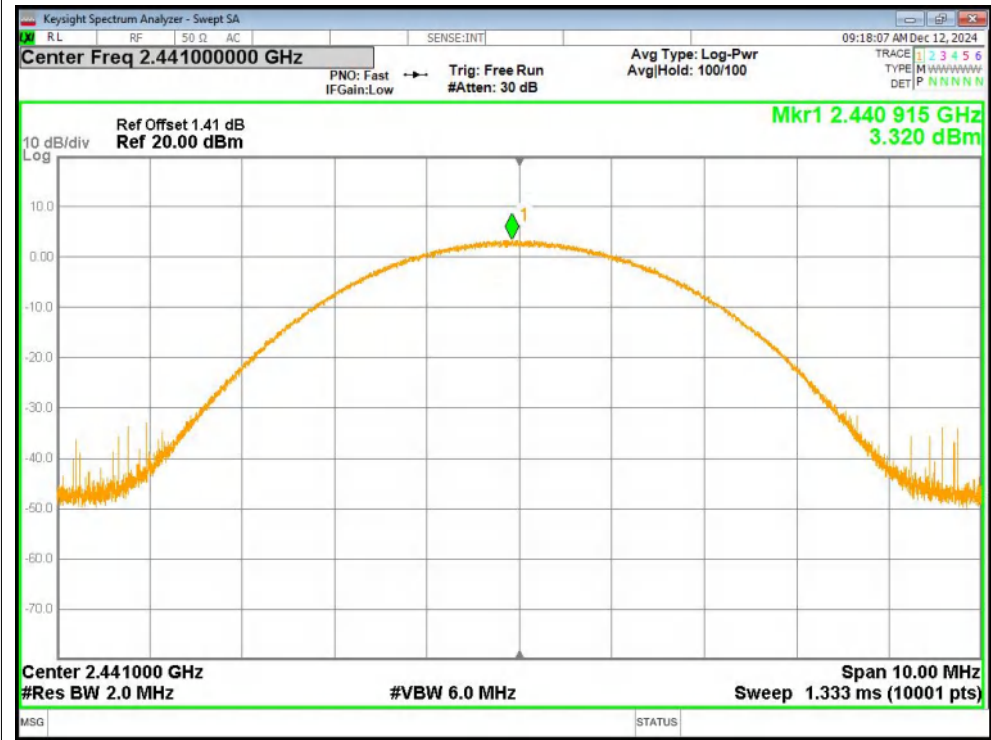
Peak Power NVNT 2-DH5 2480MHz Ant1



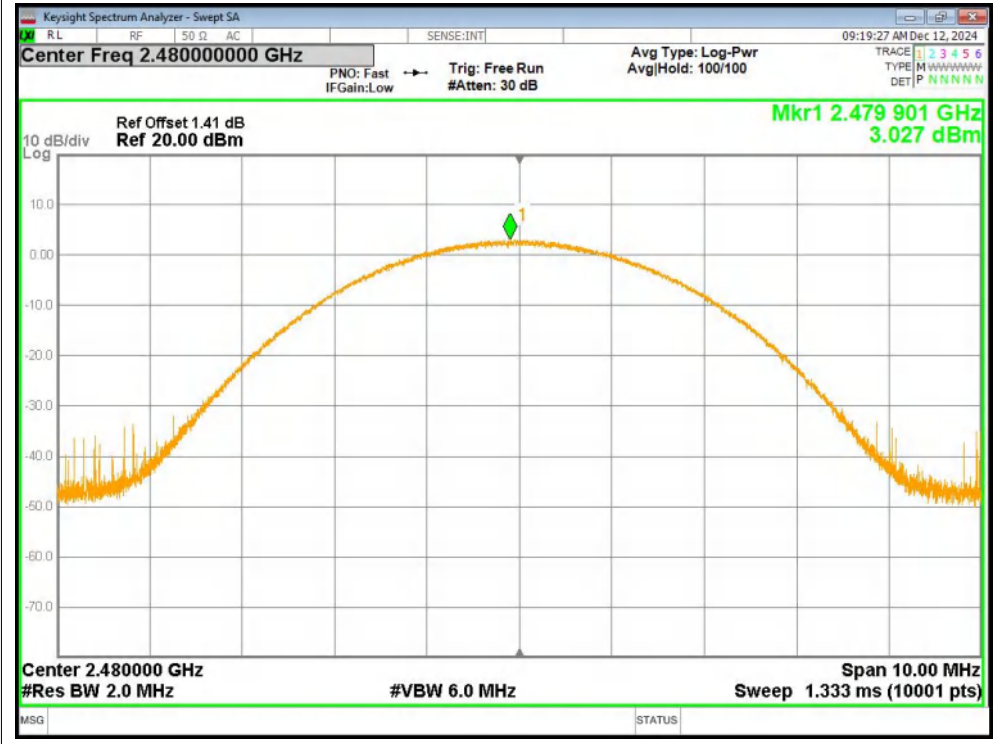
Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1

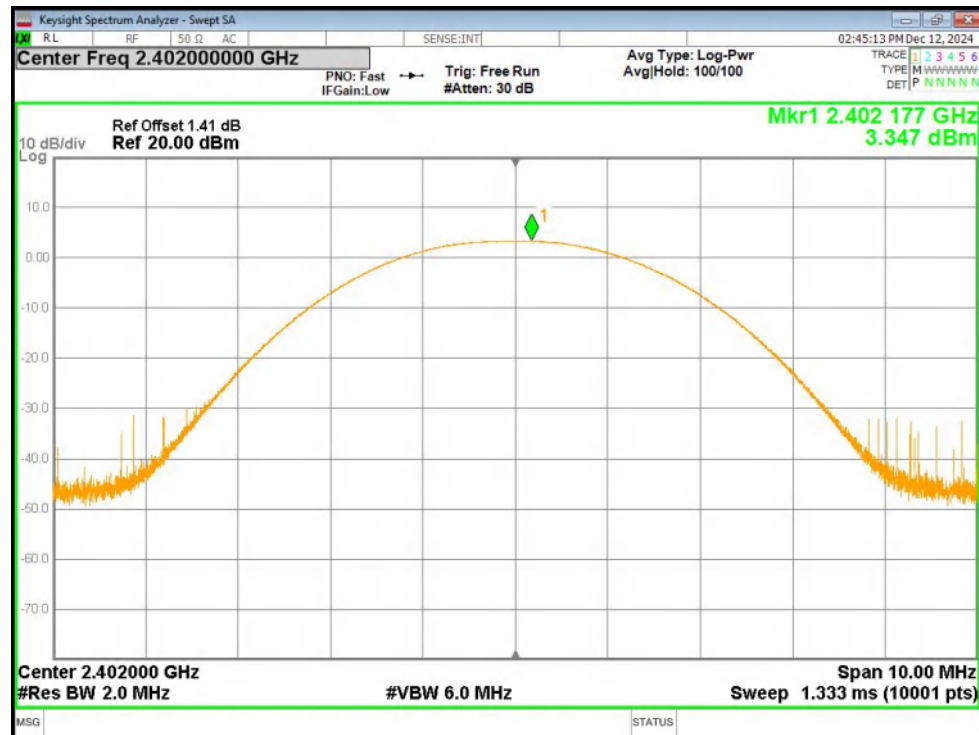


Peak Power NVNT 3-DH5 2480MHz Ant1

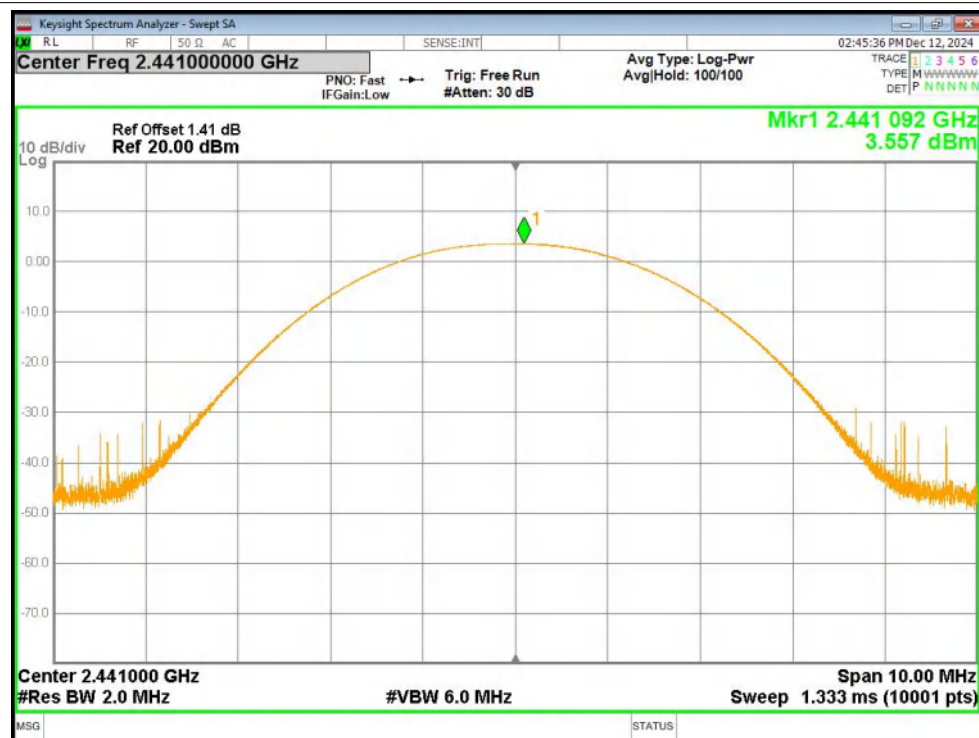


Test Graphs Left earphone

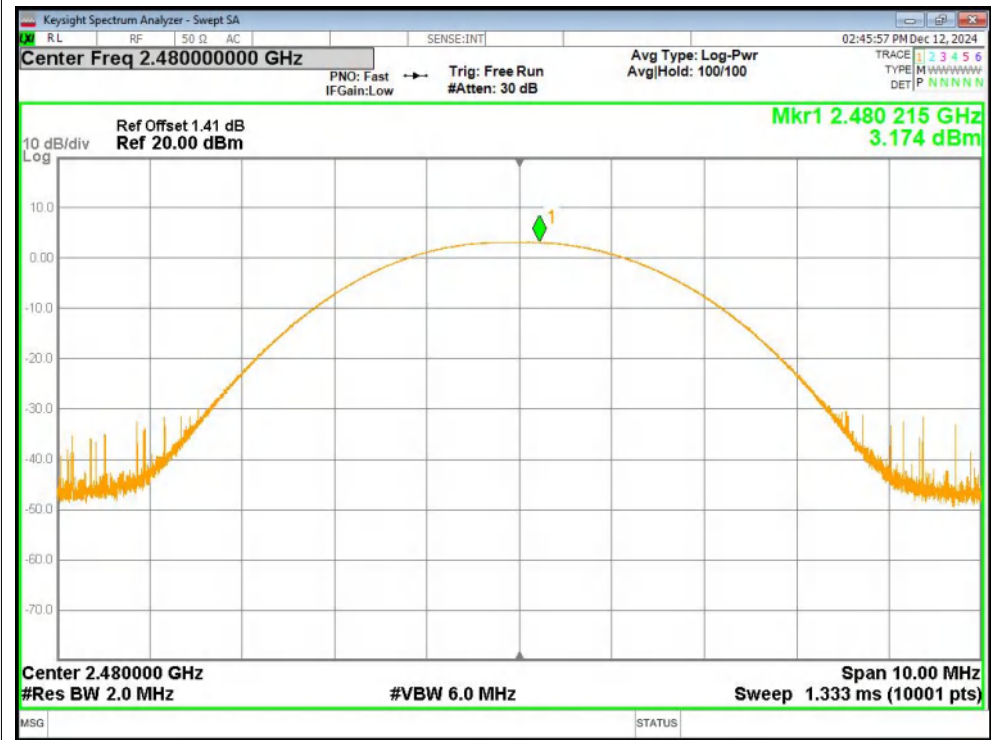
Peak Power NVNT 1-DH5 2402MHz Ant1



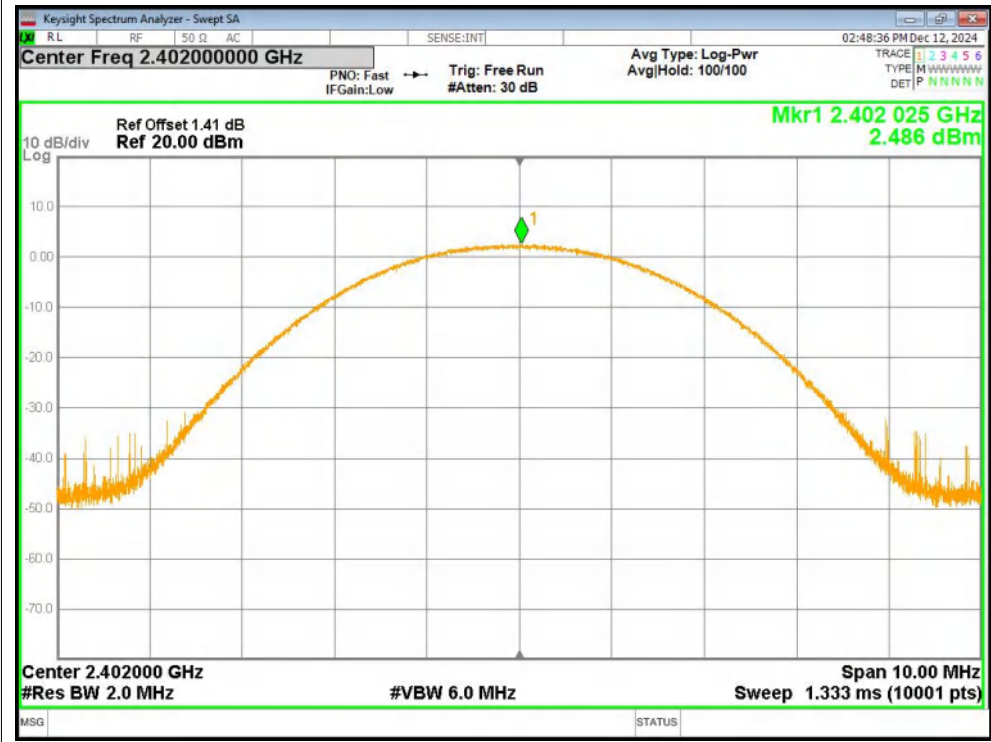
Peak Power NVNT 1-DH5 2441MHz Ant1



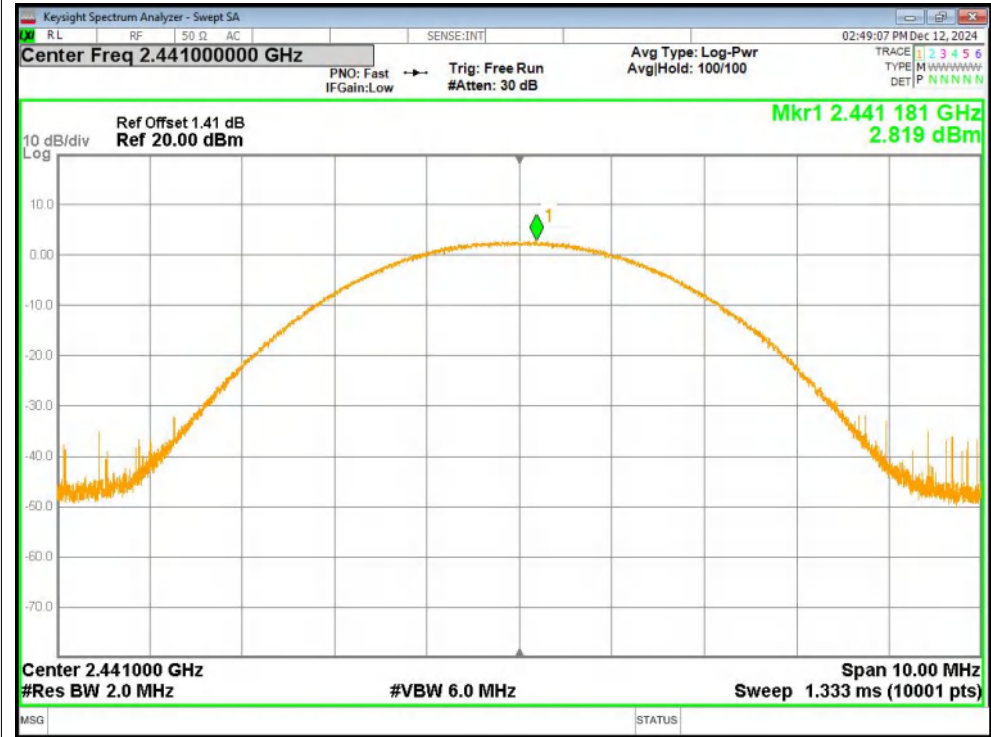
Peak Power NVNT 1-DH5 2480MHz Ant1



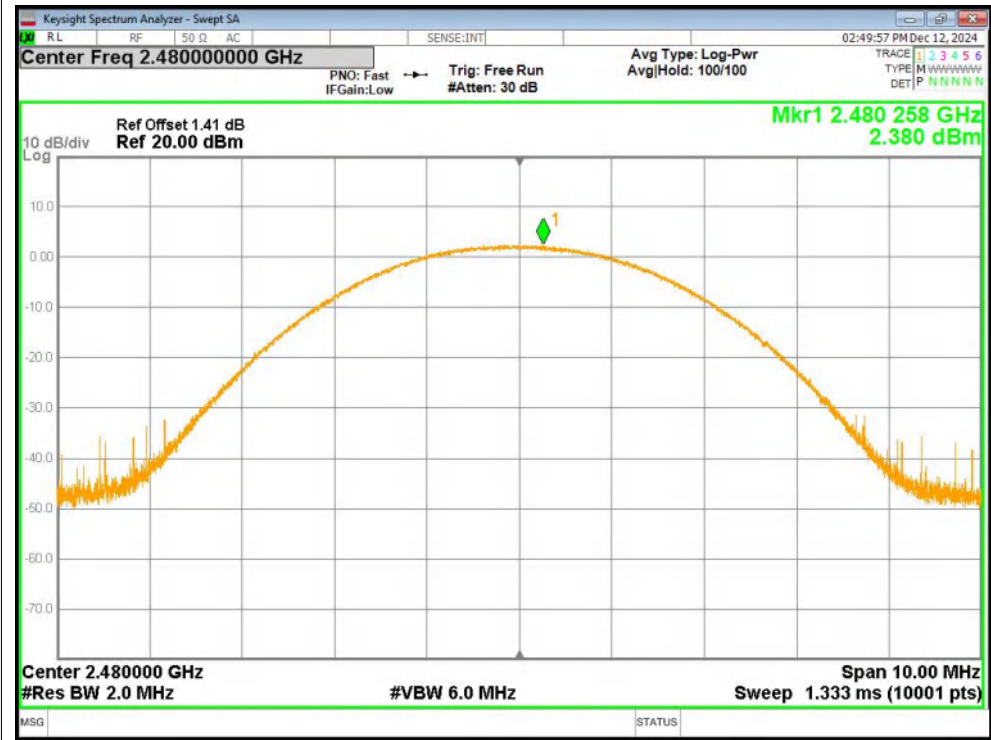
Peak Power NVNT 2-DH5 2402MHz Ant1



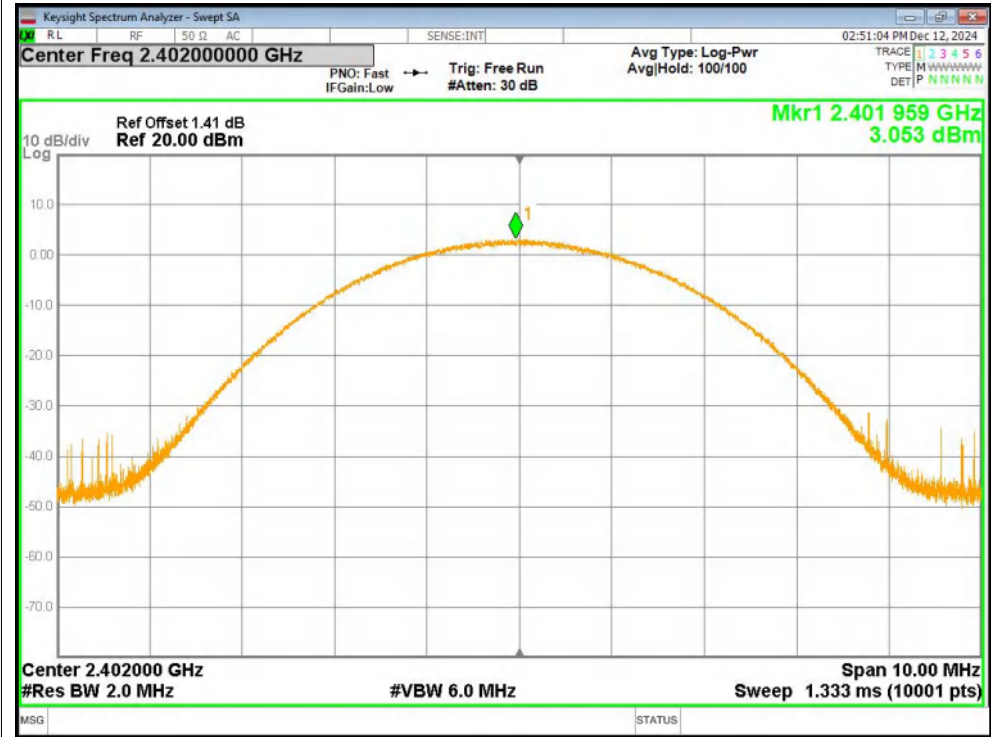
Peak Power NVNT 2-DH5 2441MHz Ant1



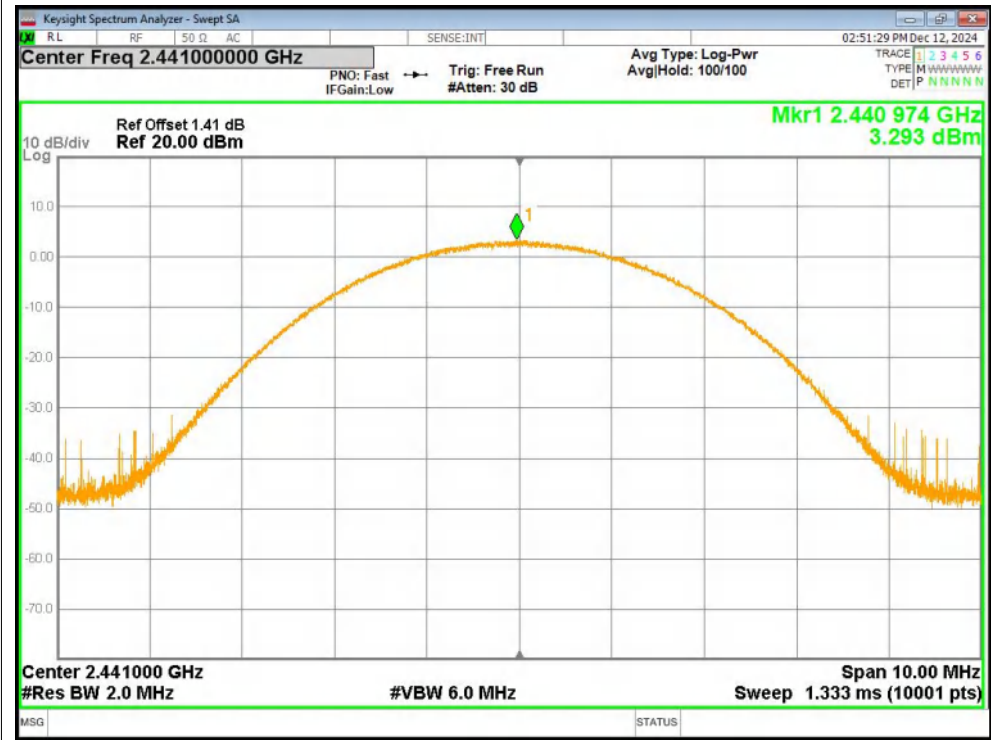
Peak Power NVNT 2-DH5 2480MHz Ant1



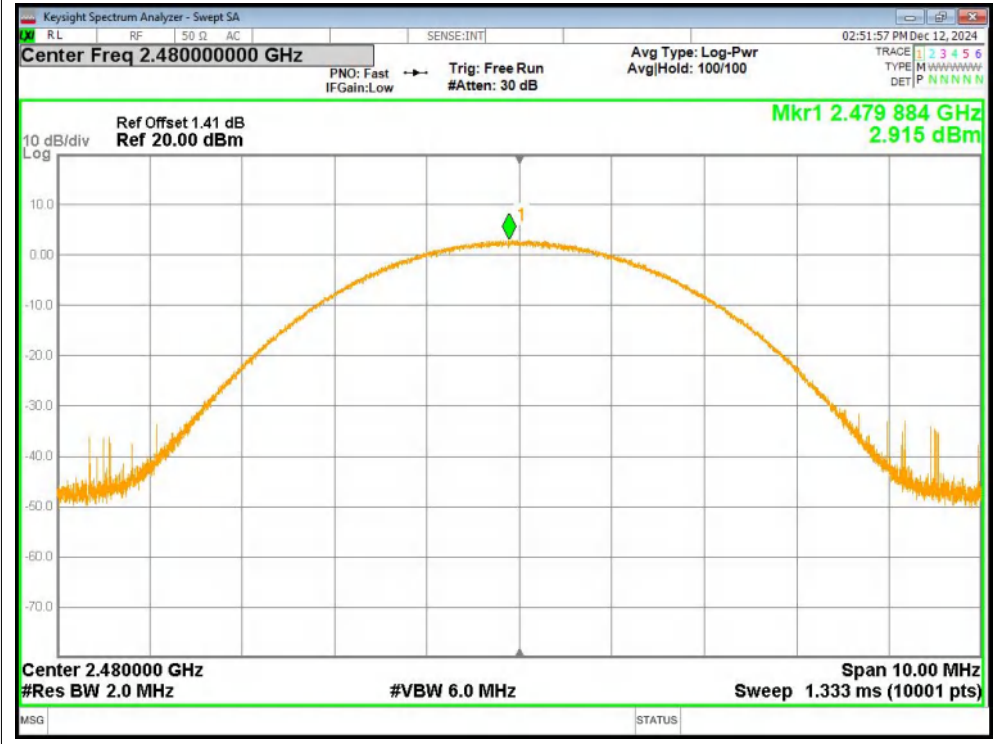
Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1



Peak Power NVNT 3-DH5 2480MHz Ant1

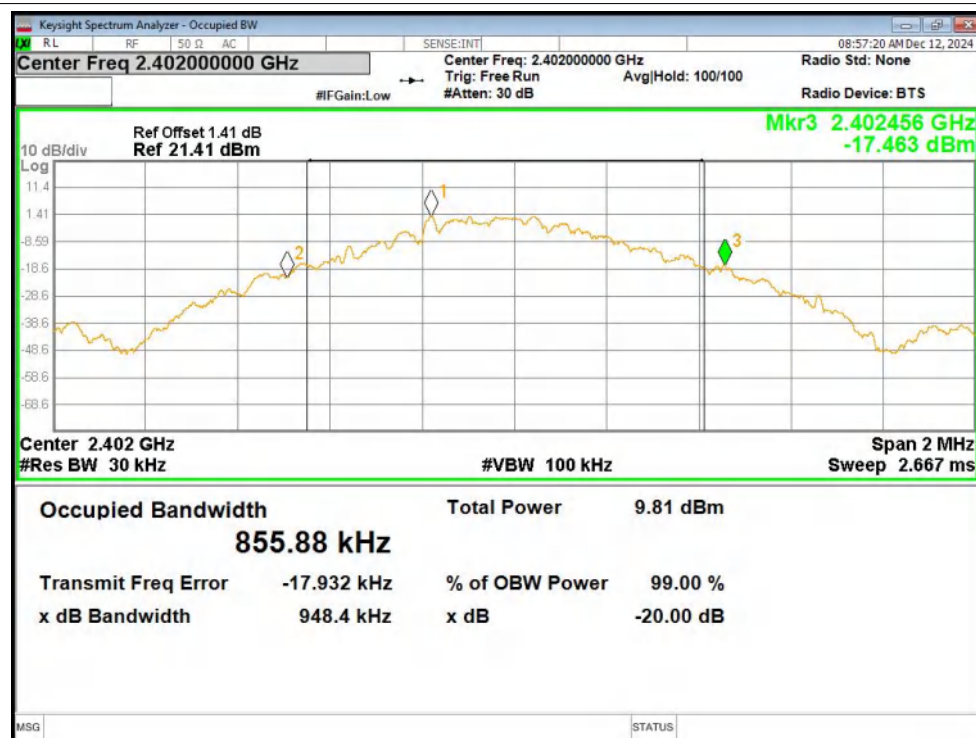


3.-20dB Bandwidth

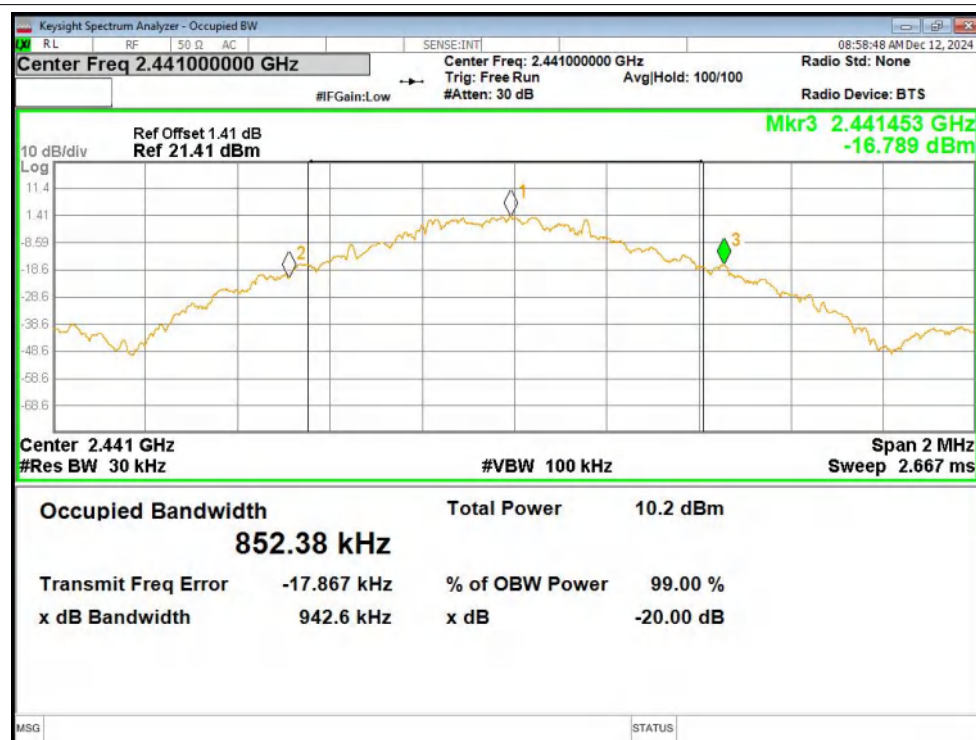
Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict
1-DH5	2402	0.948	Pass
1-DH5	2441	0.943	Pass
1-DH5	2480	0.938	Pass
2-DH5	2402	1.311	Pass
2-DH5	2441	1.313	Pass
2-DH5	2480	1.313	Pass
3-DH5	2402	1.28	Pass
3-DH5	2441	1.297	Pass
3-DH5	2480	1.301	Pass

Test Graphs

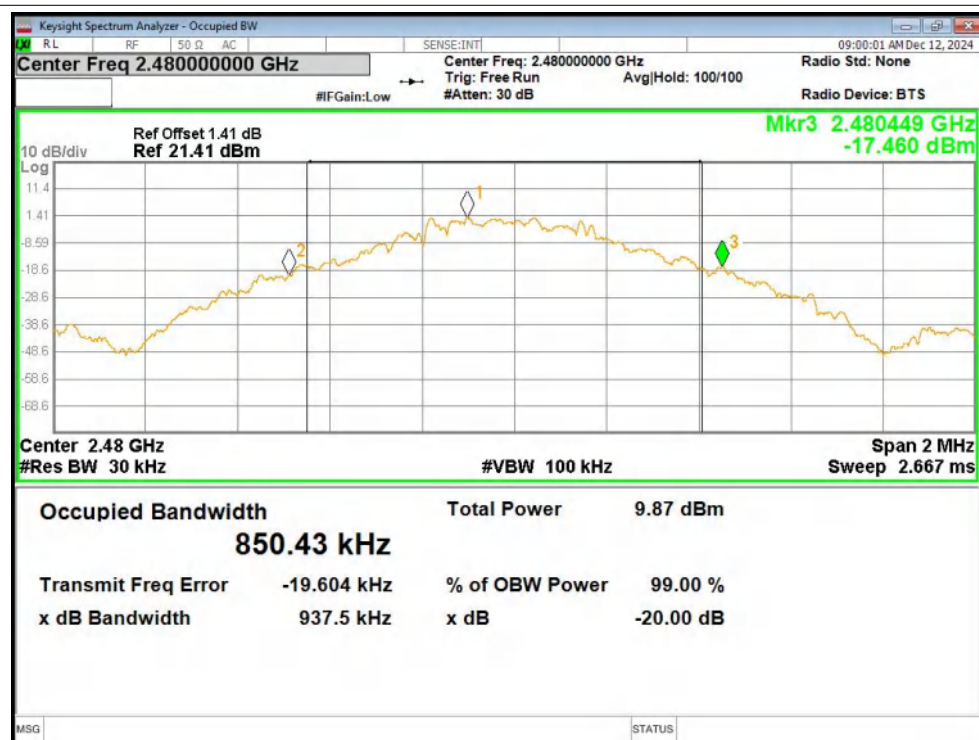
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



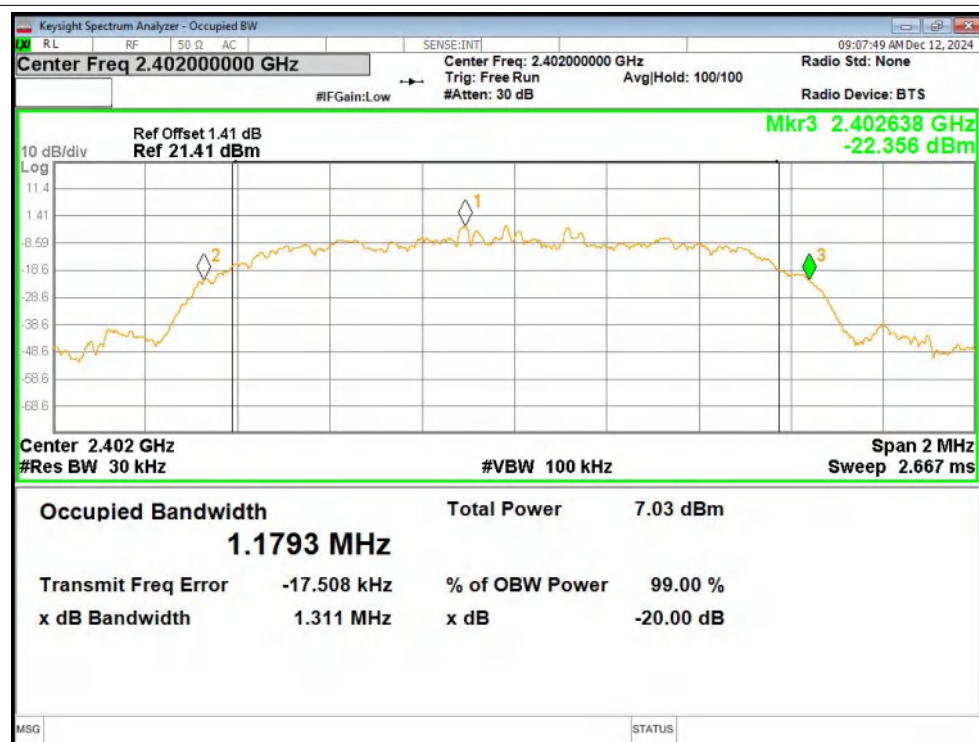
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



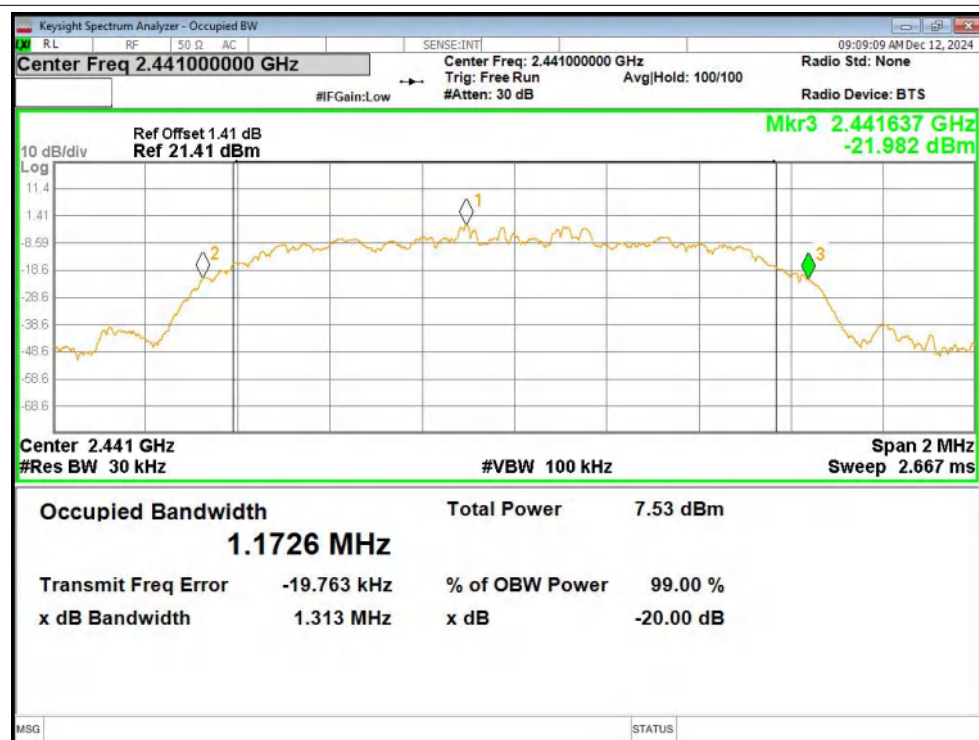
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



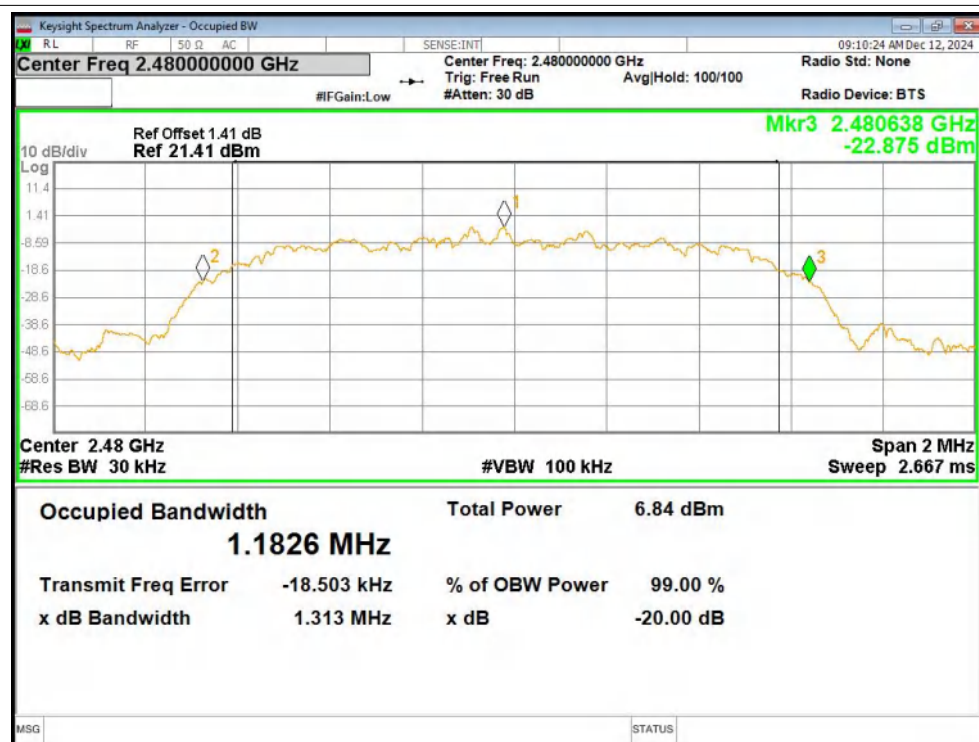
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



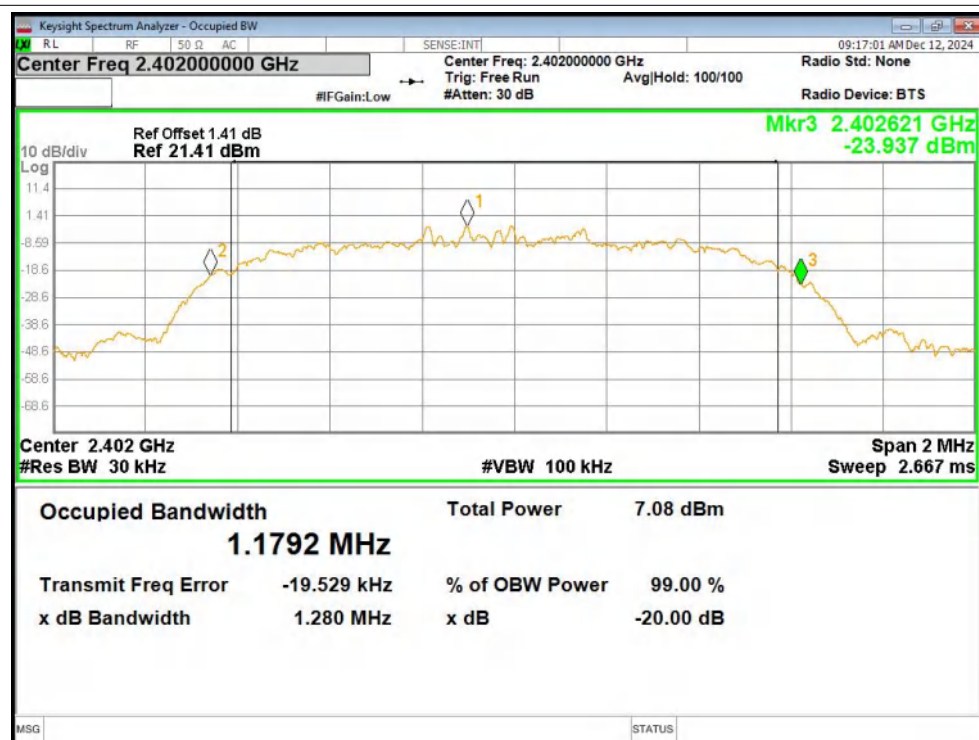
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



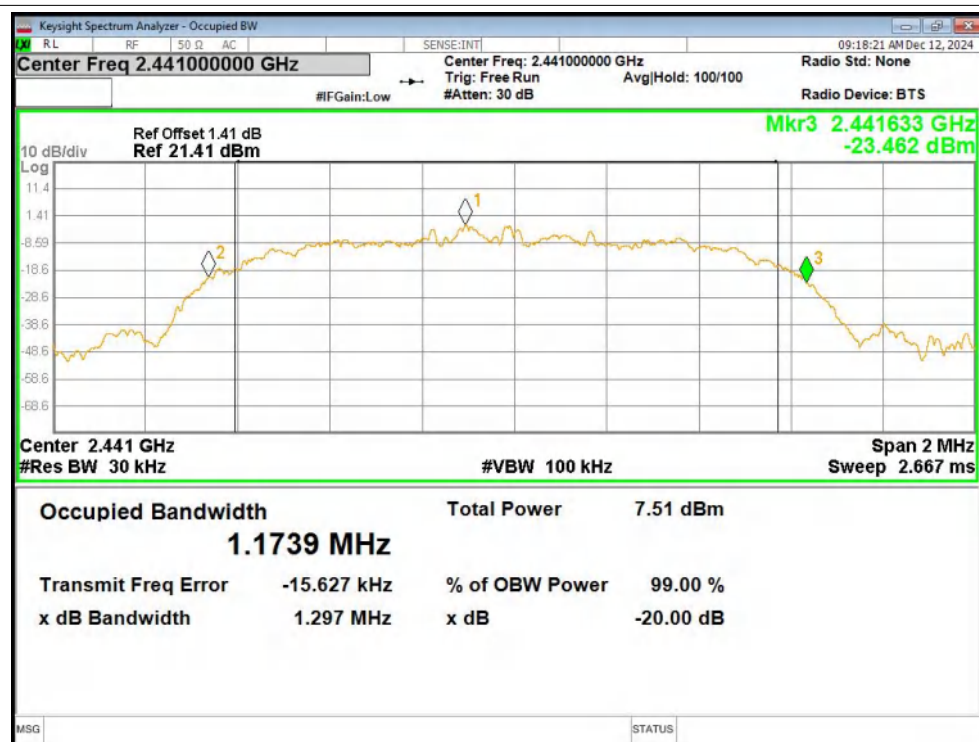
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



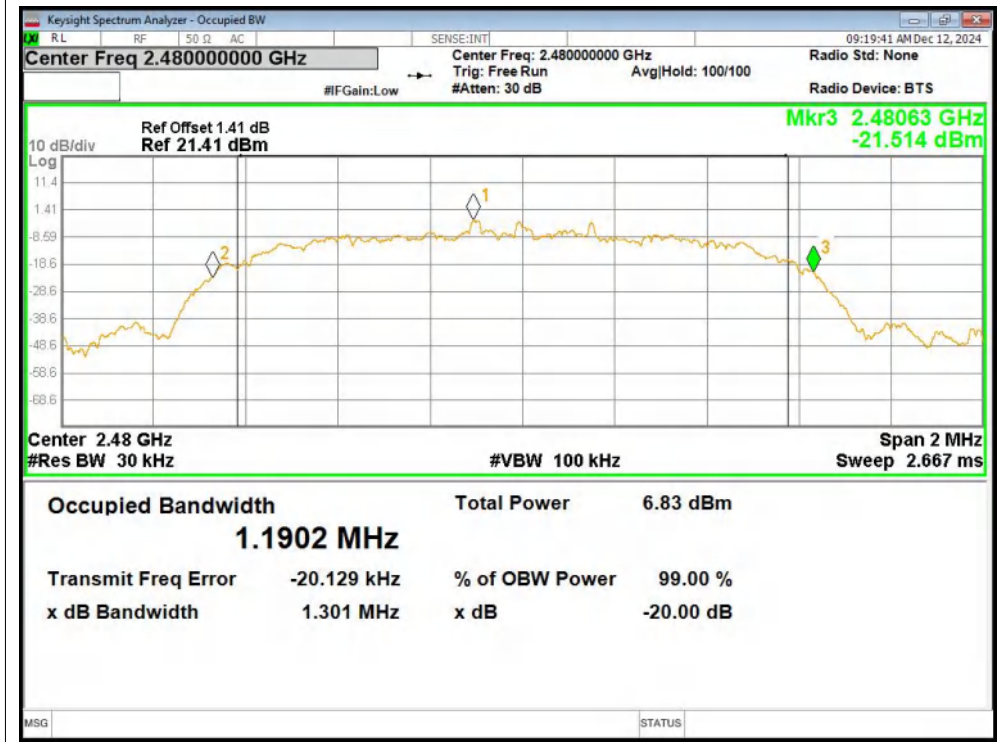
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

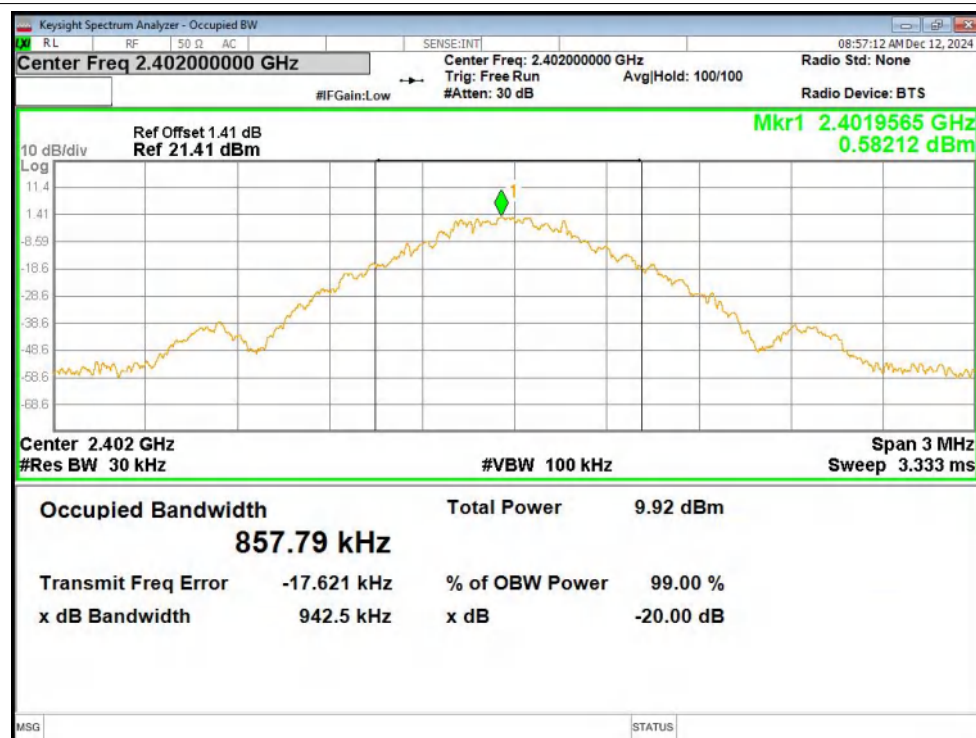


4.Occupied Channel Bandwidth

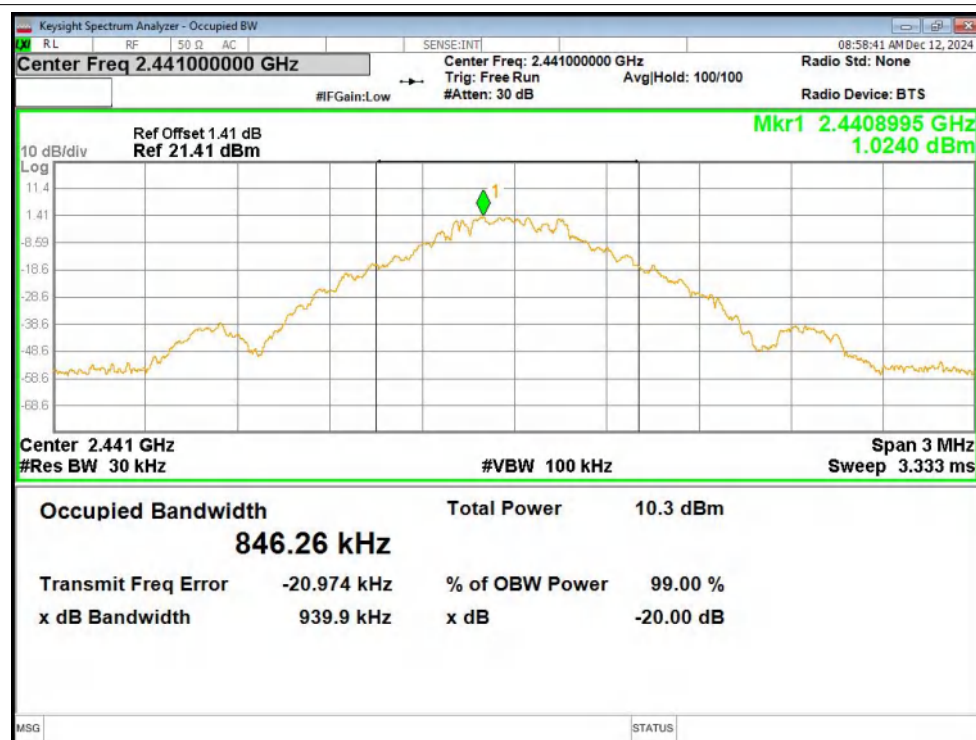
Mode	Frequency (MHz)	99% OBW (MHz)
1-DH5	2402	0.858
1-DH5	2441	0.846
1-DH5	2480	0.855
2-DH5	2402	1.18
2-DH5	2441	1.177
2-DH5	2480	1.18
3-DH5	2402	1.192
3-DH5	2441	1.189
3-DH5	2480	1.185

Test Graphs

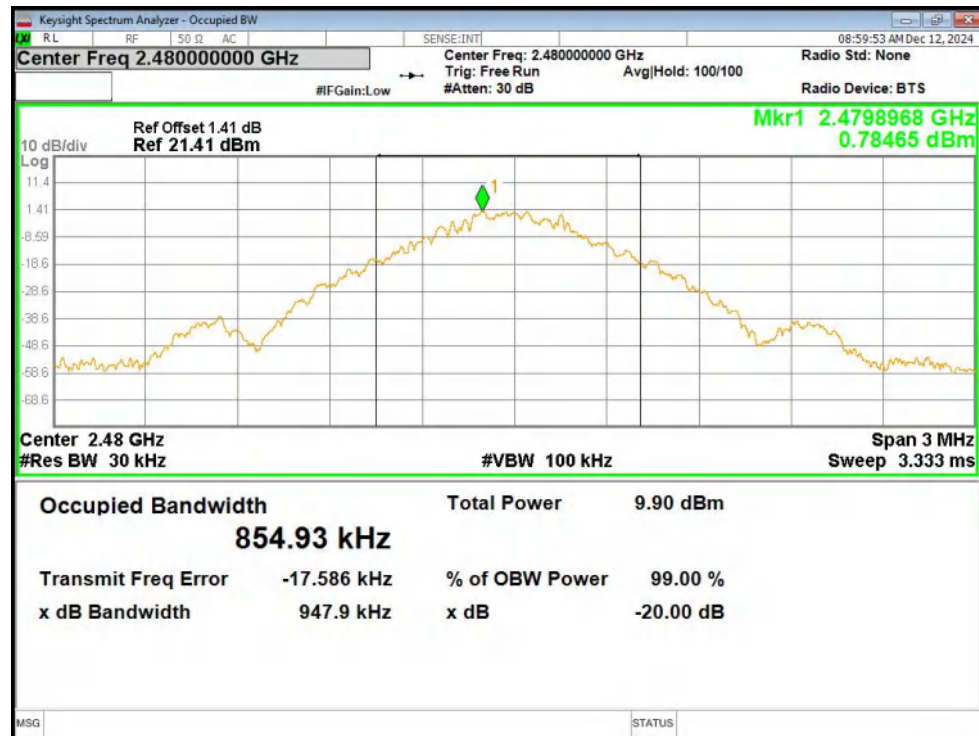
OBW NVNT 1-DH5 2402MHz Ant1



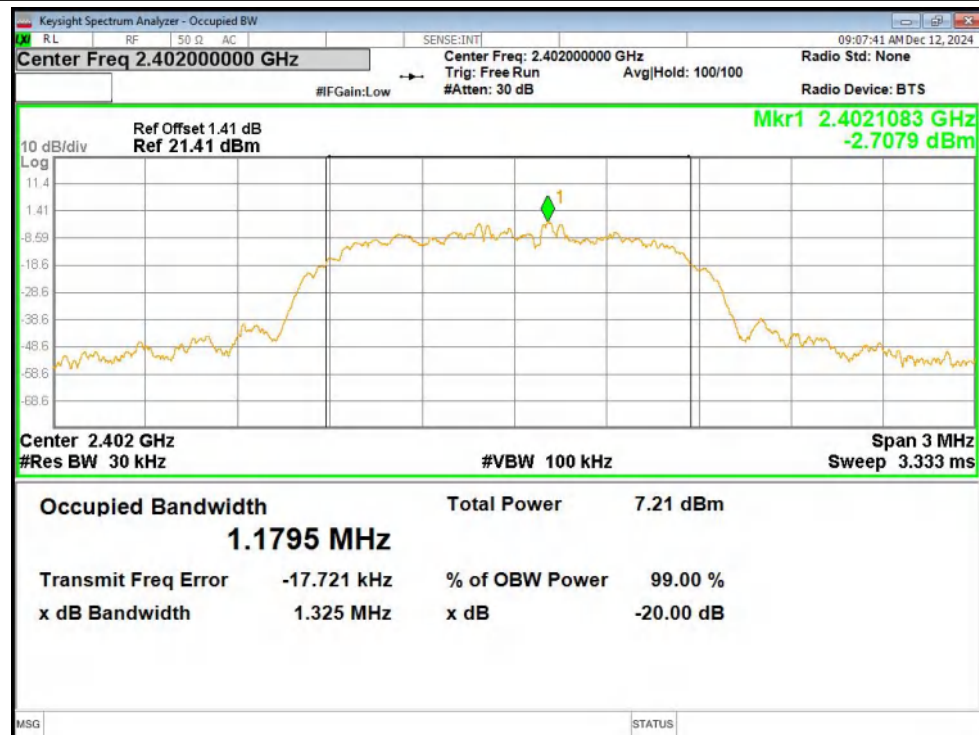
OBW NVNT 1-DH5 2441MHz Ant1



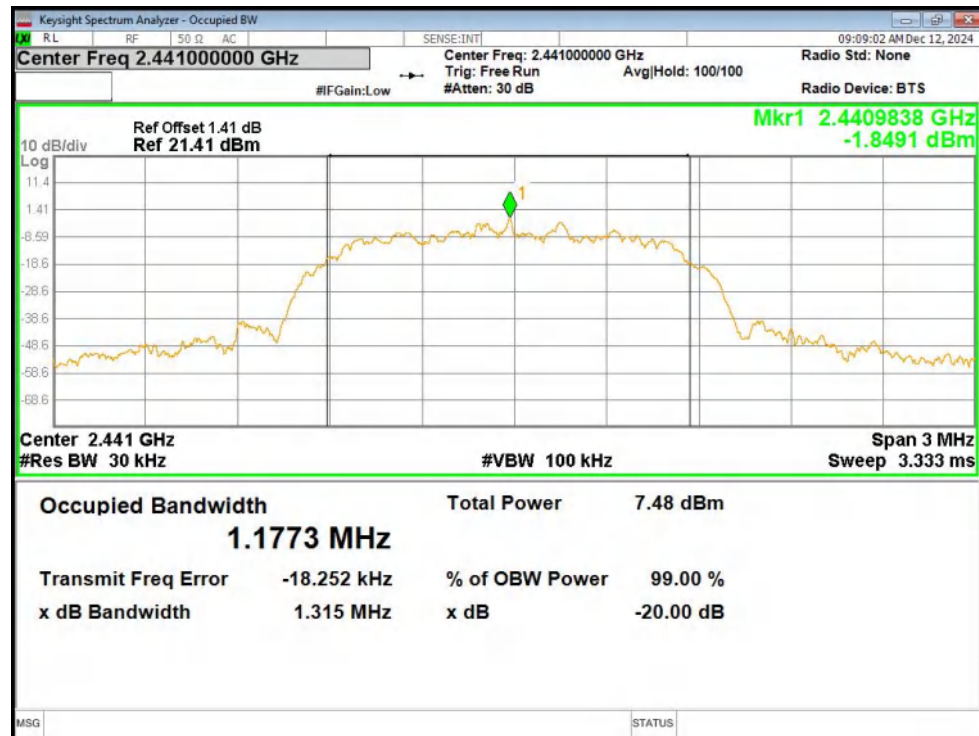
OBW NVNT 1-DH5 2480MHz Ant1



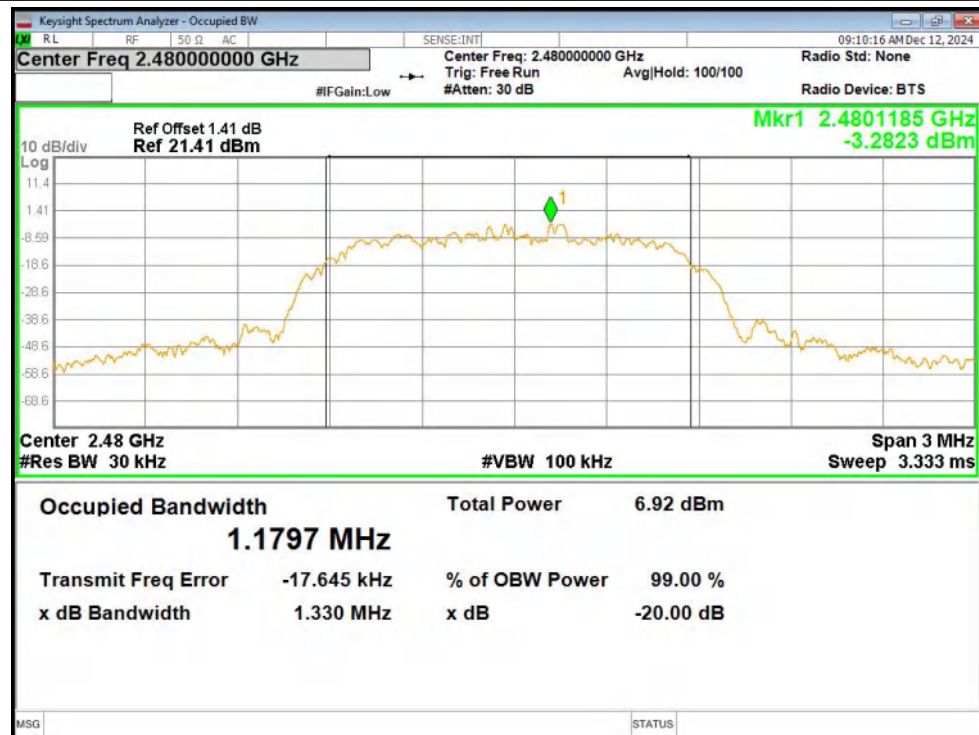
OBW NVNT 2-DH5 2402MHz Ant1



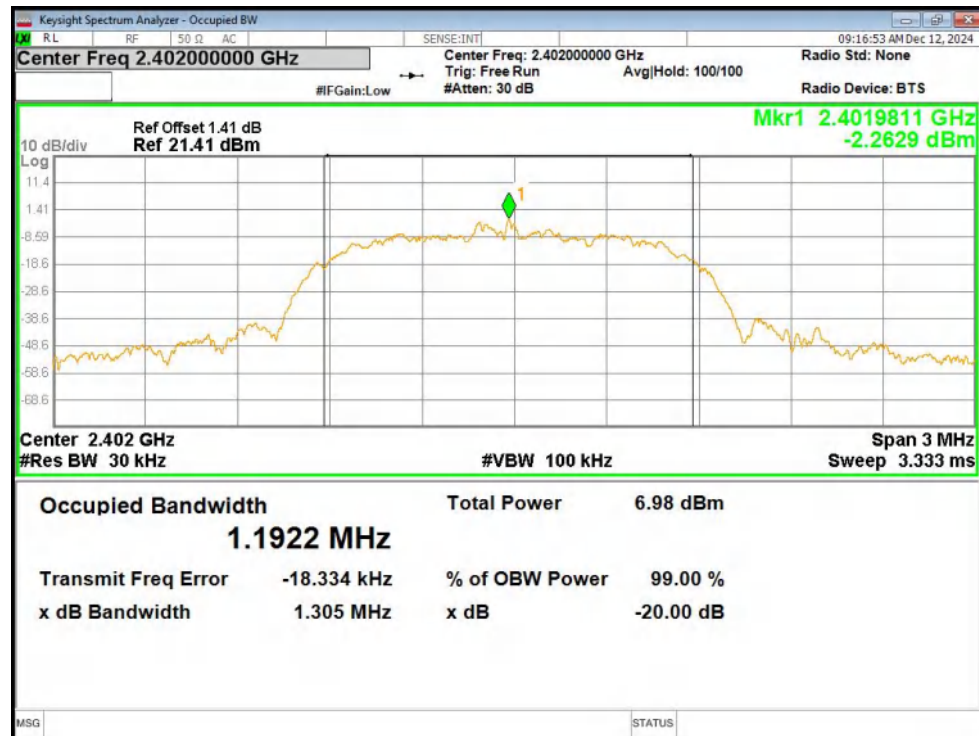
OBW NVNT 2-DH5 2441MHz Ant1



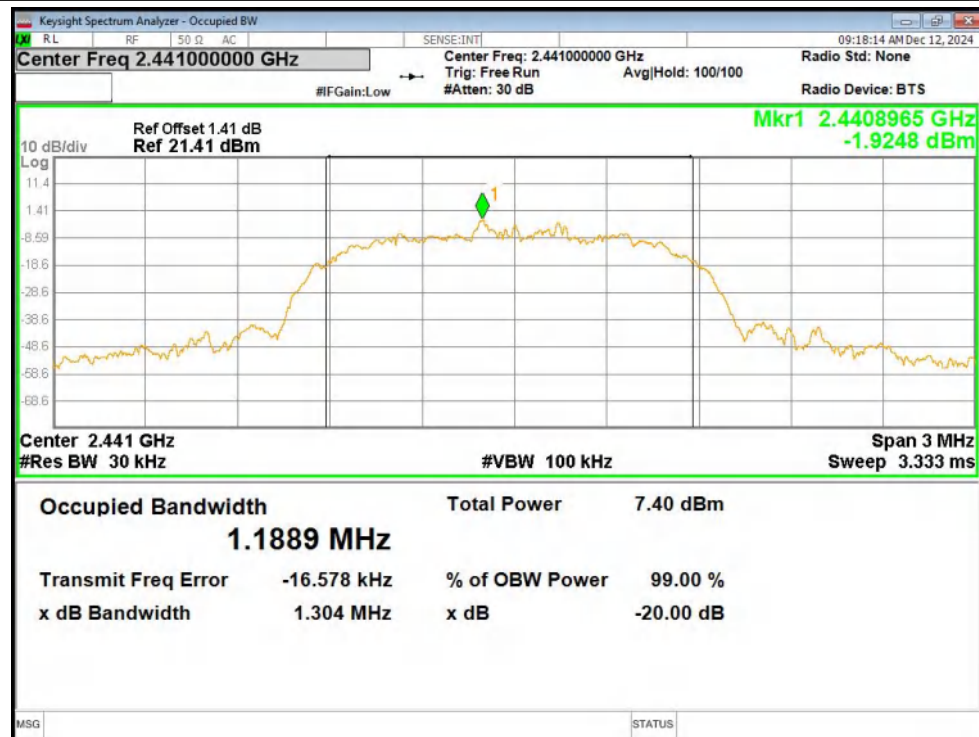
OBW NVNT 2-DH5 2480MHz Ant1



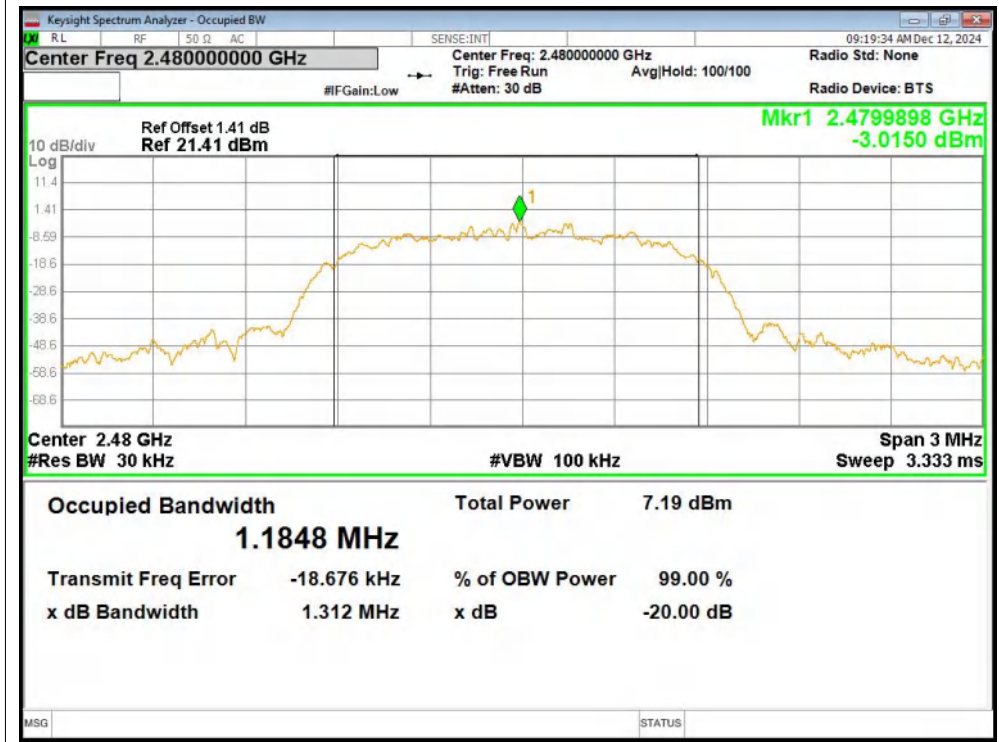
OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1

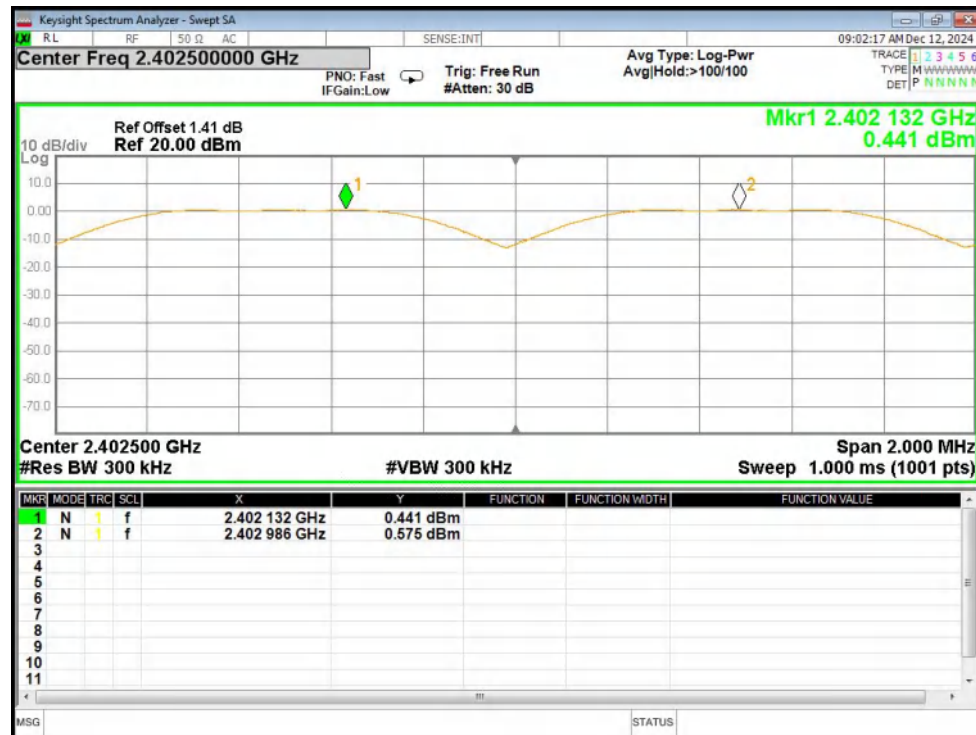


5.Carrier Frequencies Separation

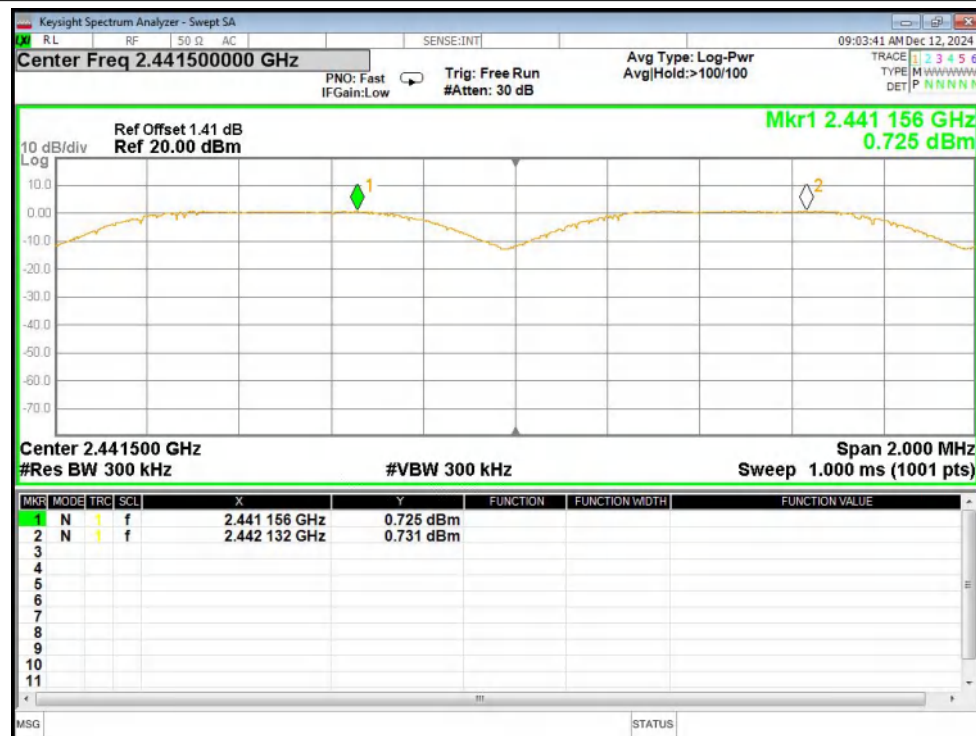
Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
1-DH5	2402.132	2402.986	0.854	0.632	Pass
1-DH5	2441.156	2442.132	0.976	0.629	Pass
1-DH5	2478.804	2479.966	1.162	0.625	Pass
2-DH5	2401.812	2402.86	1.048	0.874	Pass
2-DH5	2440.828	2442.118	1.29	0.875	Pass
2-DH5	2479.156	2480.1	0.944	0.875	Pass
3-DH5	2401.984	2403.136	1.152	0.853	Pass
3-DH5	2440.794	2441.99	1.196	0.865	Pass
3-DH5	2478.826	2480.154	1.328	0.867	Pass

Test Graphs

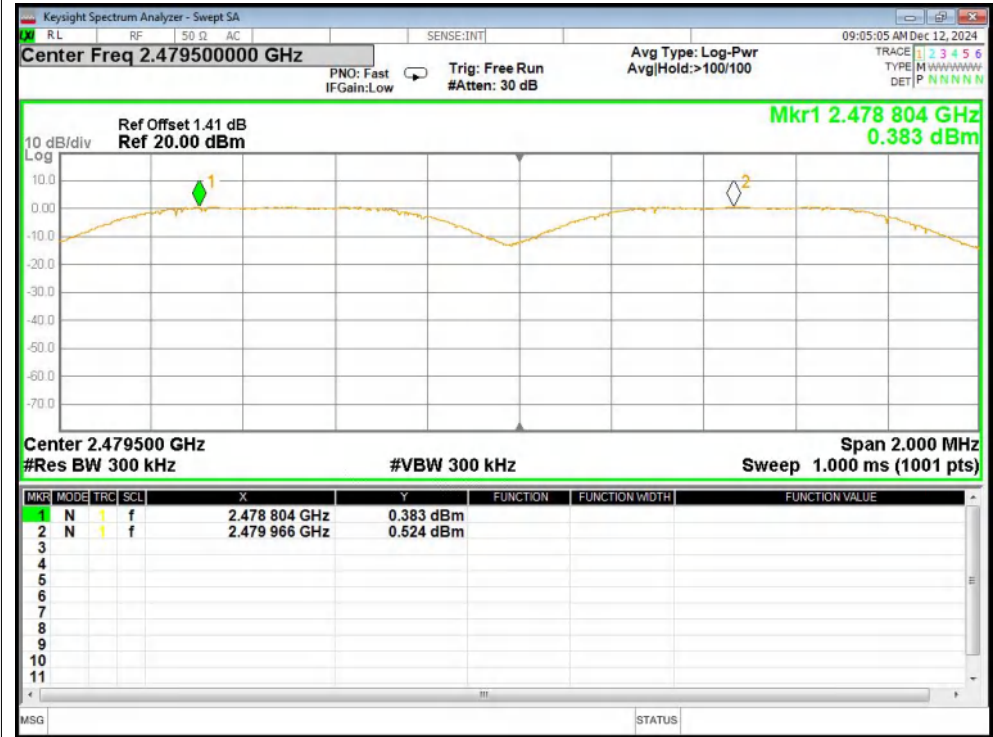
CFS NVNT 1-DH5 2402MHz Ant1



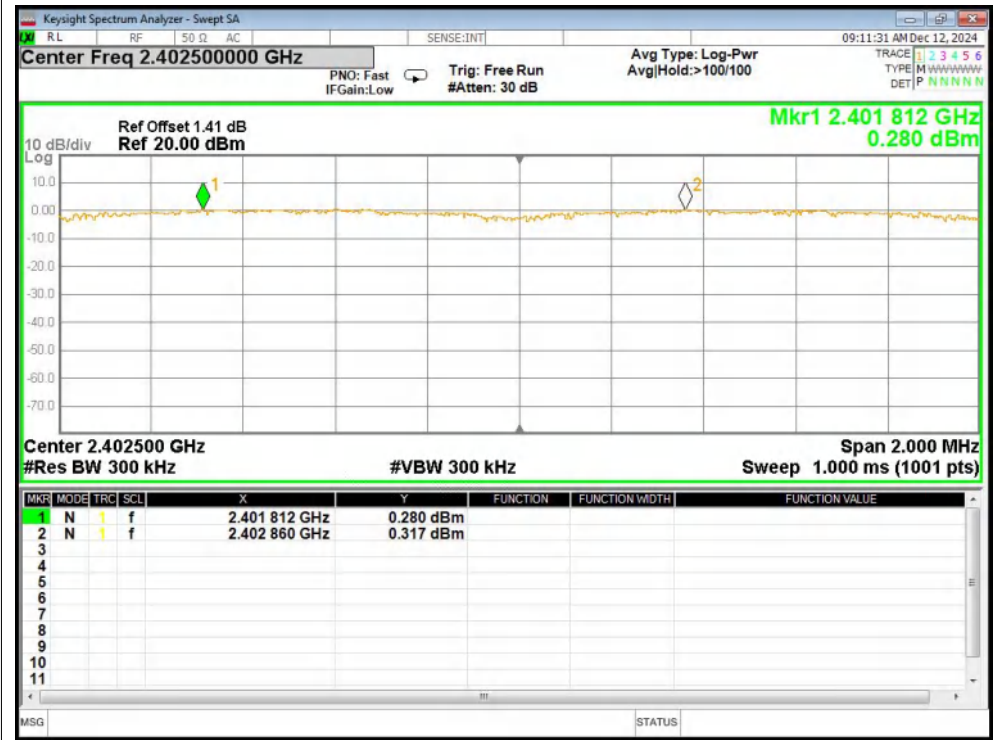
CFS NVNT 1-DH5 2441MHz Ant1



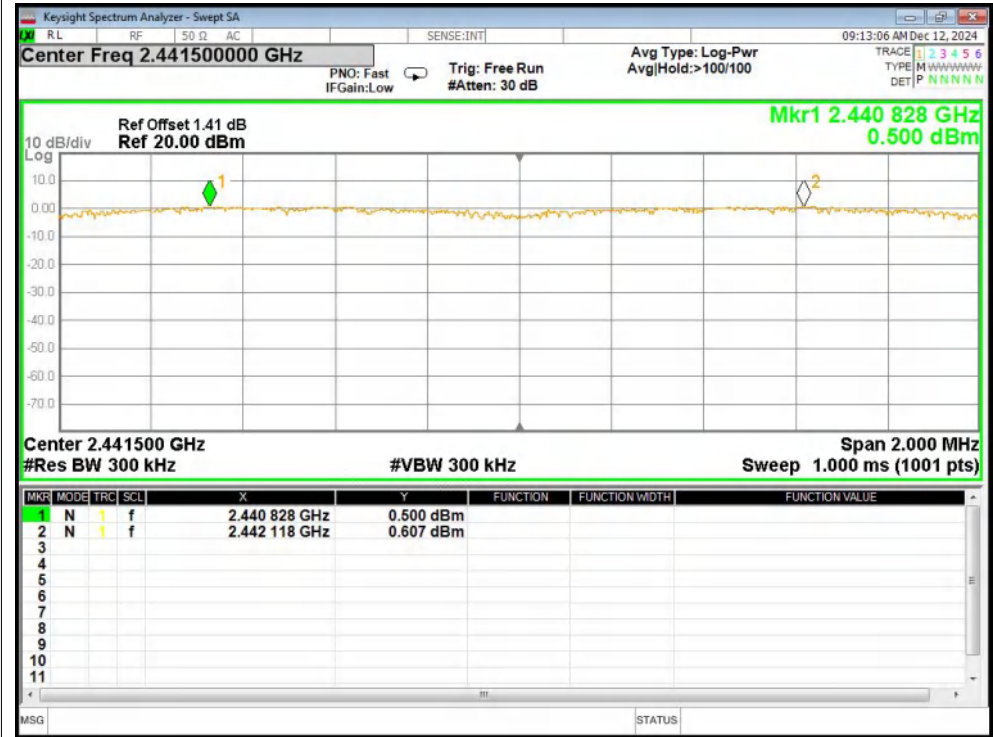
CFS NVNT 1-DH5 2480MHz Ant1



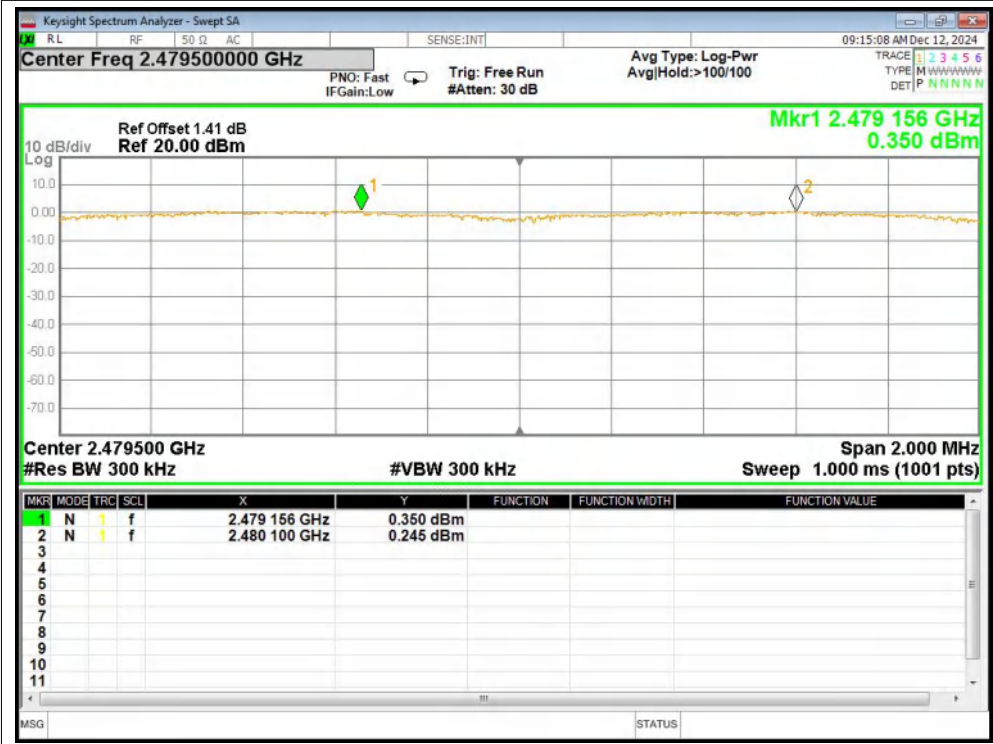
CFS NVNT 2-DH5 2402MHz Ant1



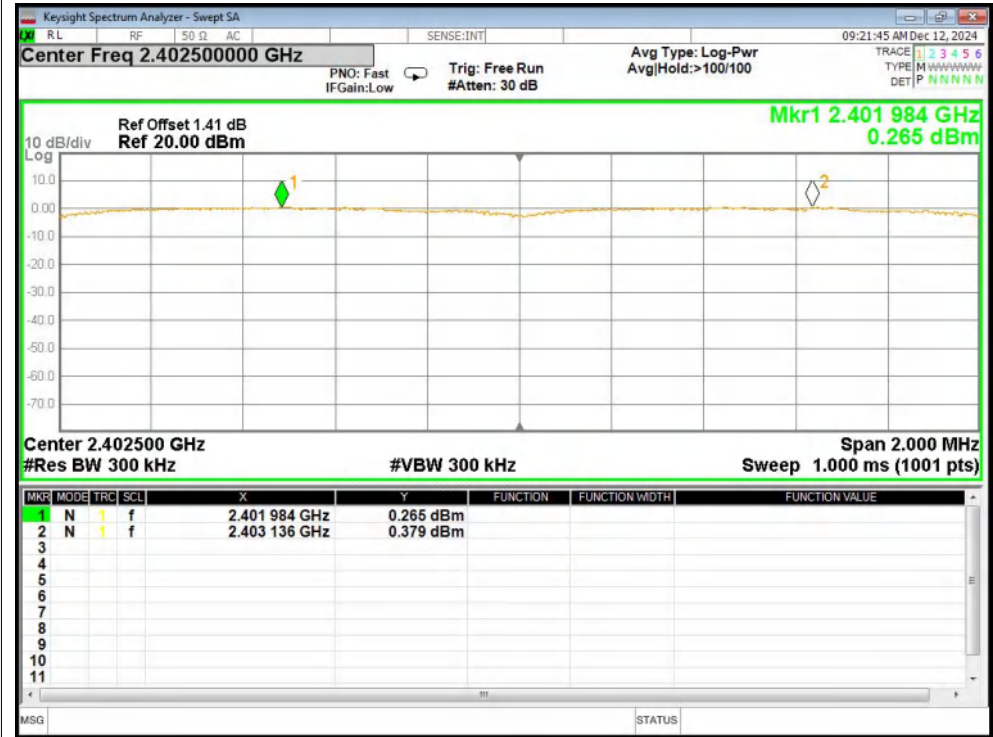
CFS NVNT 2-DH5 2441MHz Ant1



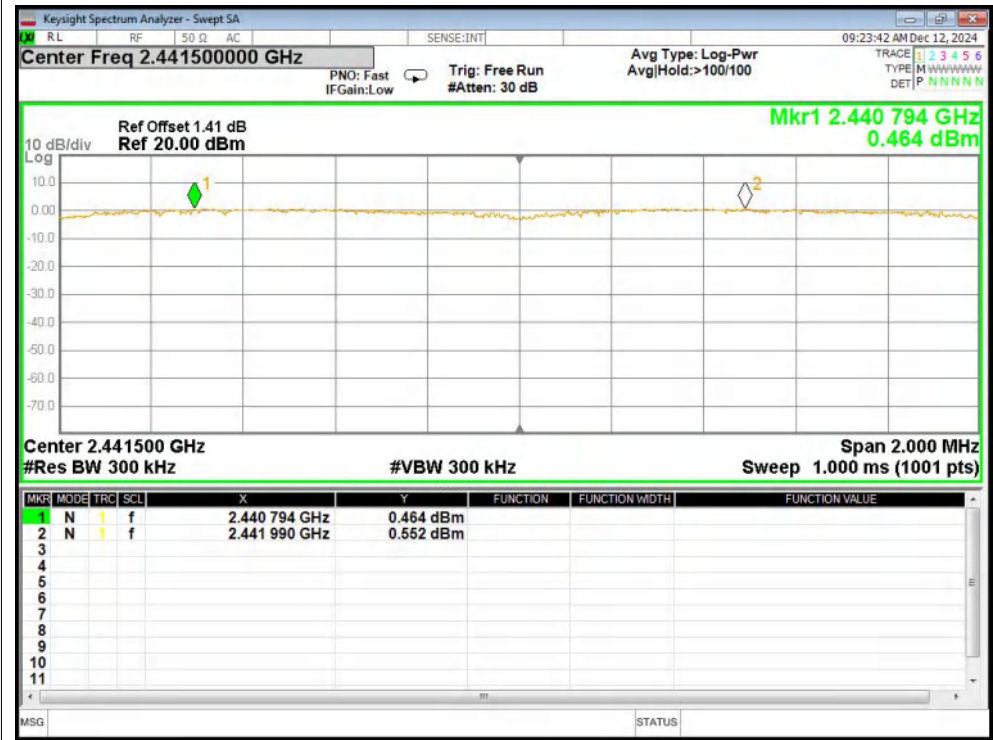
CFS NVNT 2-DH5 2480MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1

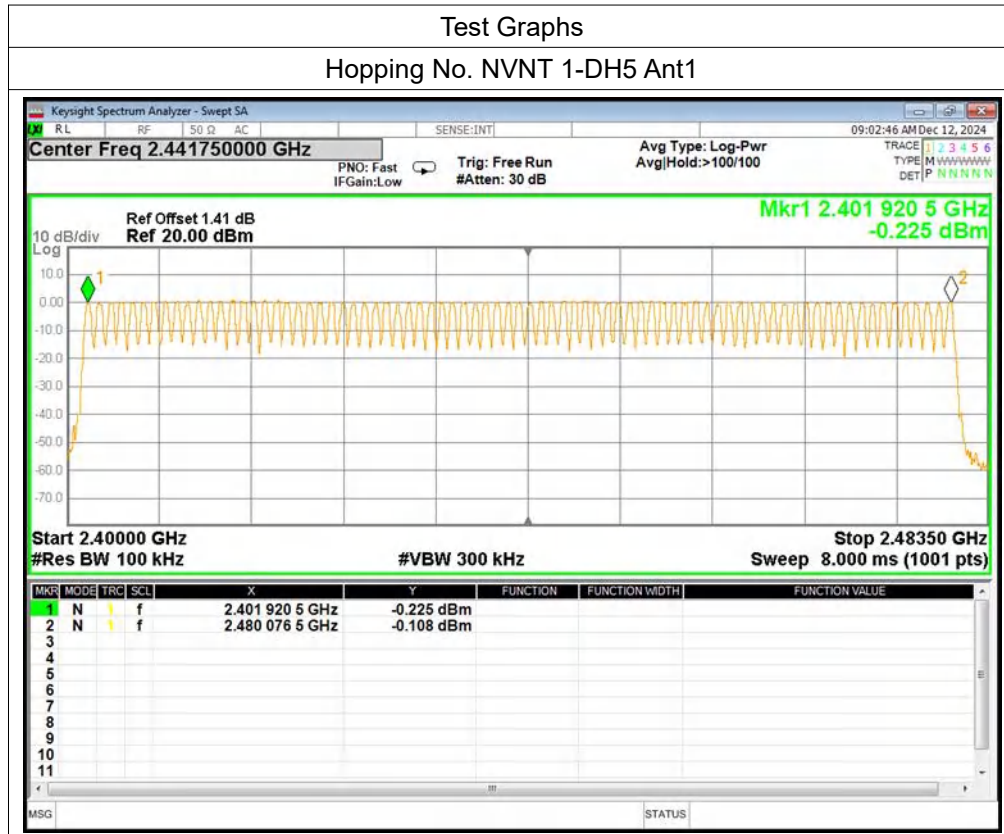


CFS NVNT 3-DH5 2480MHz Ant1



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



Hopping No. NVNT 2-DH5 Ant1



Hopping No. NVNT 3-DH5 Ant1

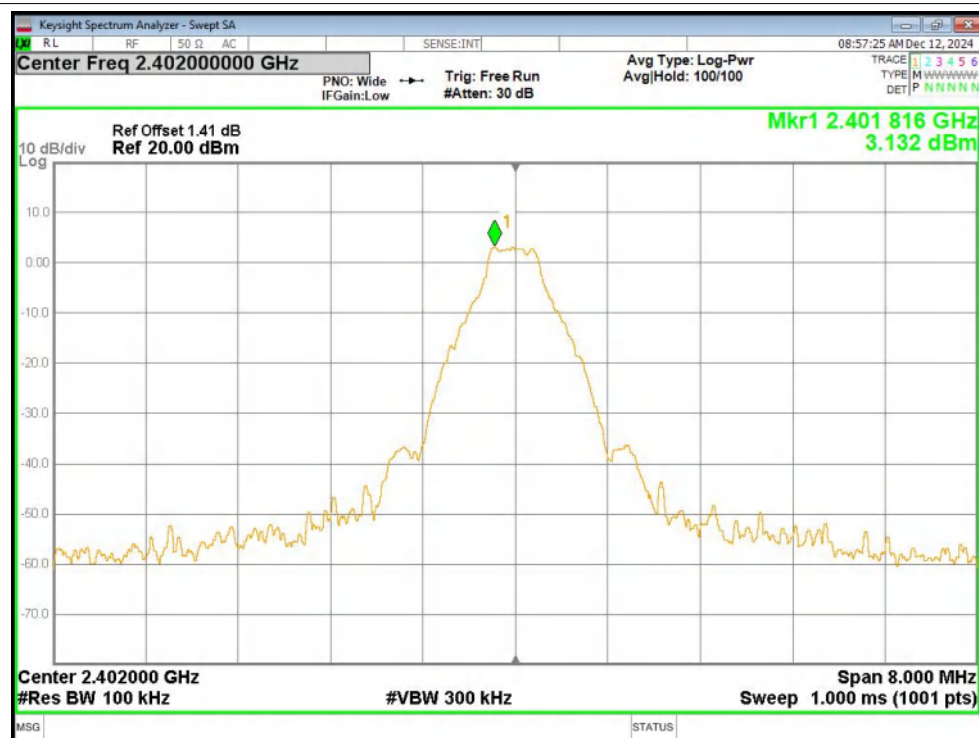


7.Band Edge

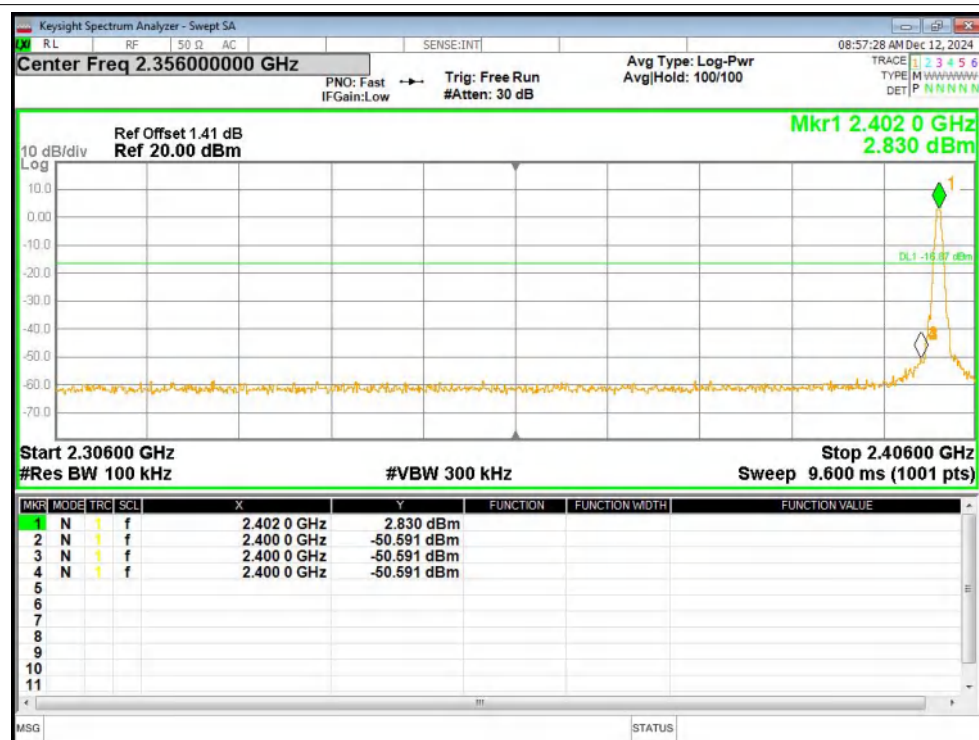
Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	No-Hopping	-53.72	-20	Pass
1-DH5	2480	No-Hopping	-56.73	-20	Pass
2-DH5	2402	No-Hopping	-51.95	-20	Pass
2-DH5	2480	No-Hopping	-56.26	-20	Pass
3-DH5	2402	No-Hopping	-51.31	-20	Pass
3-DH5	2480	No-Hopping	-57.44	-20	Pass

Test Graphs

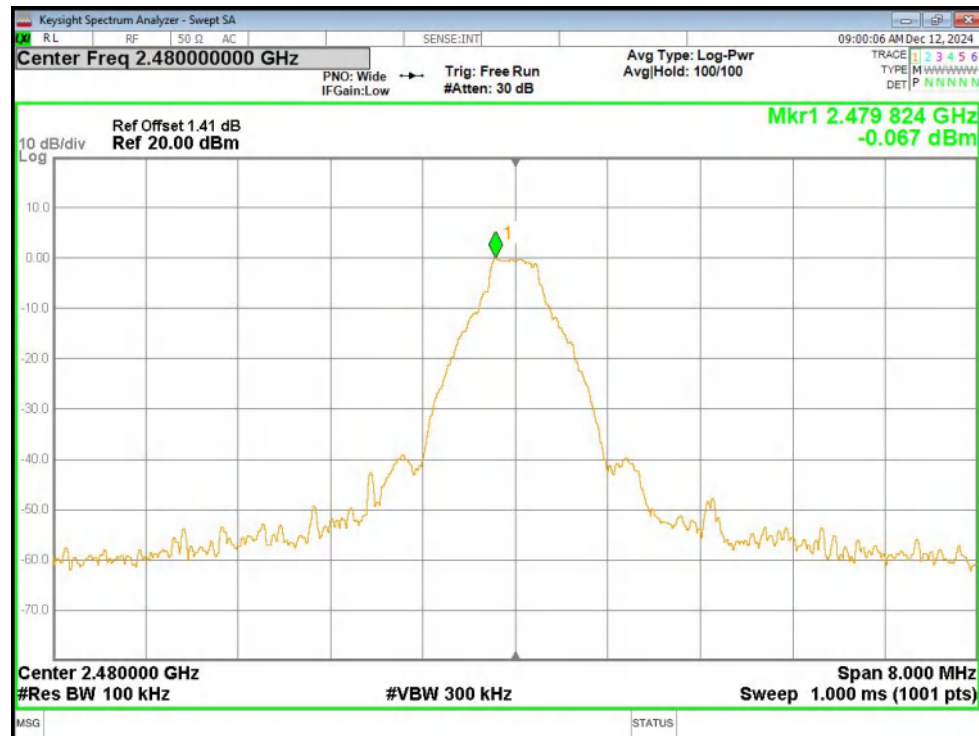
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



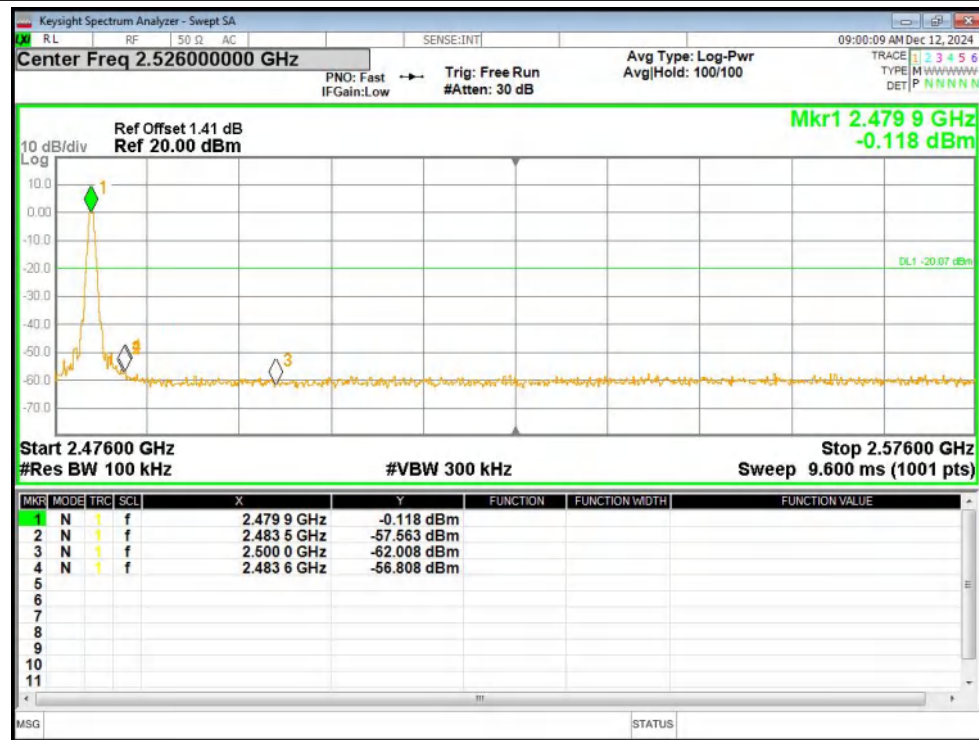
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



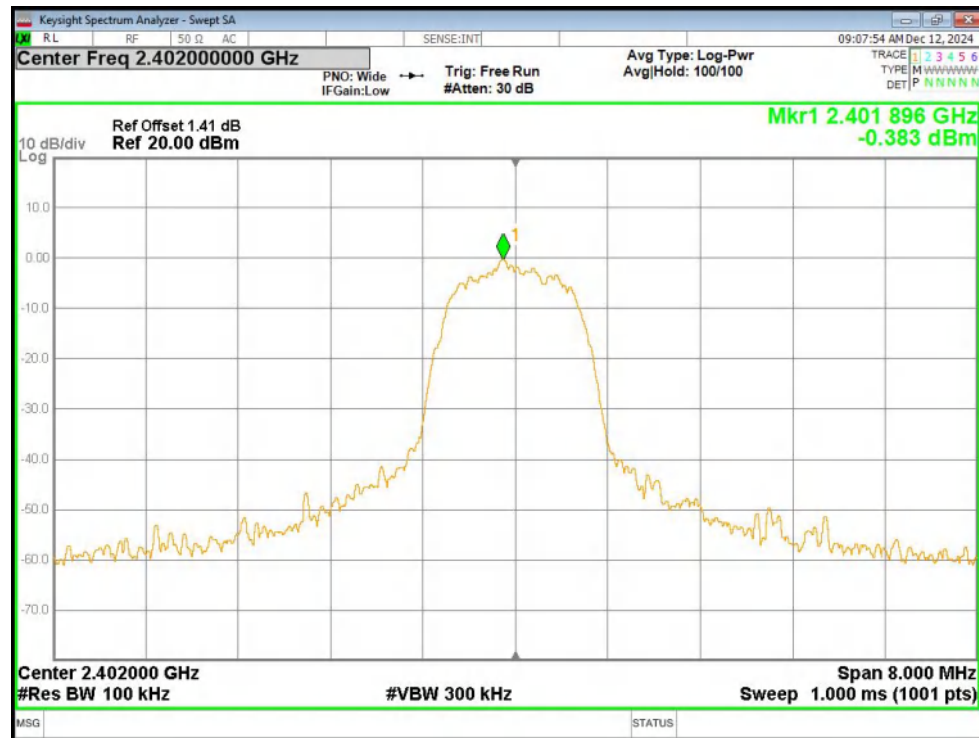
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



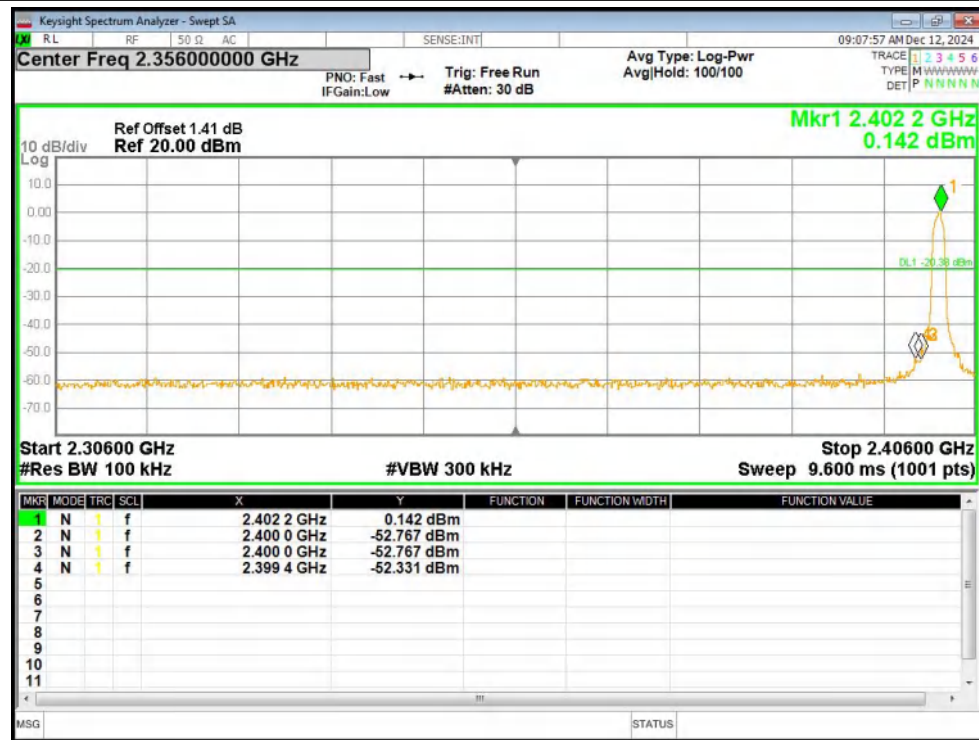
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



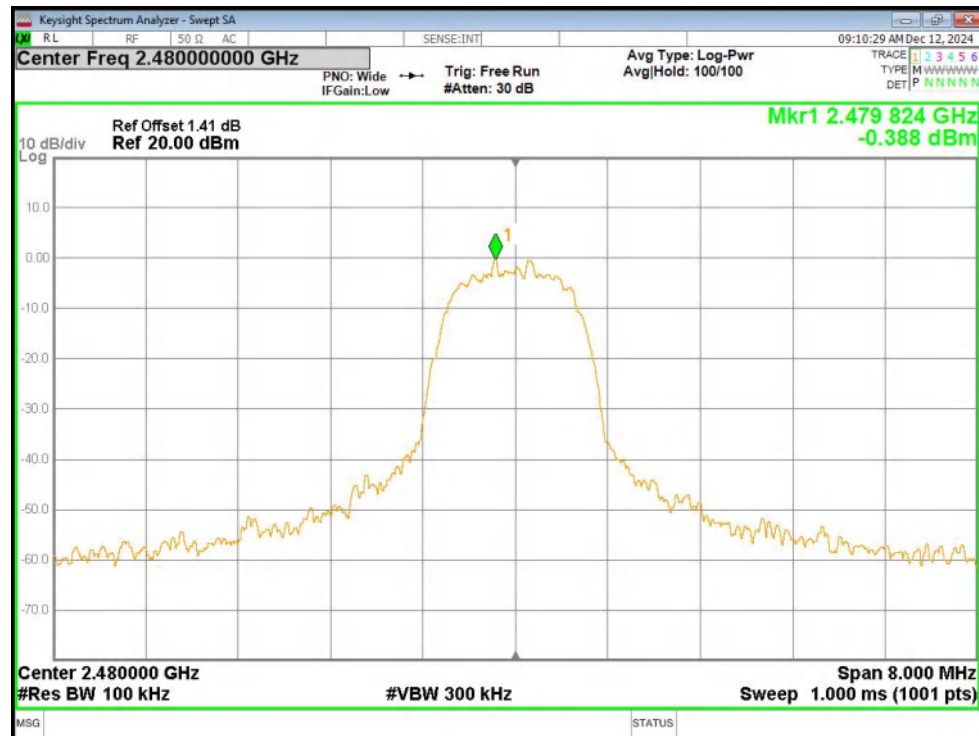
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



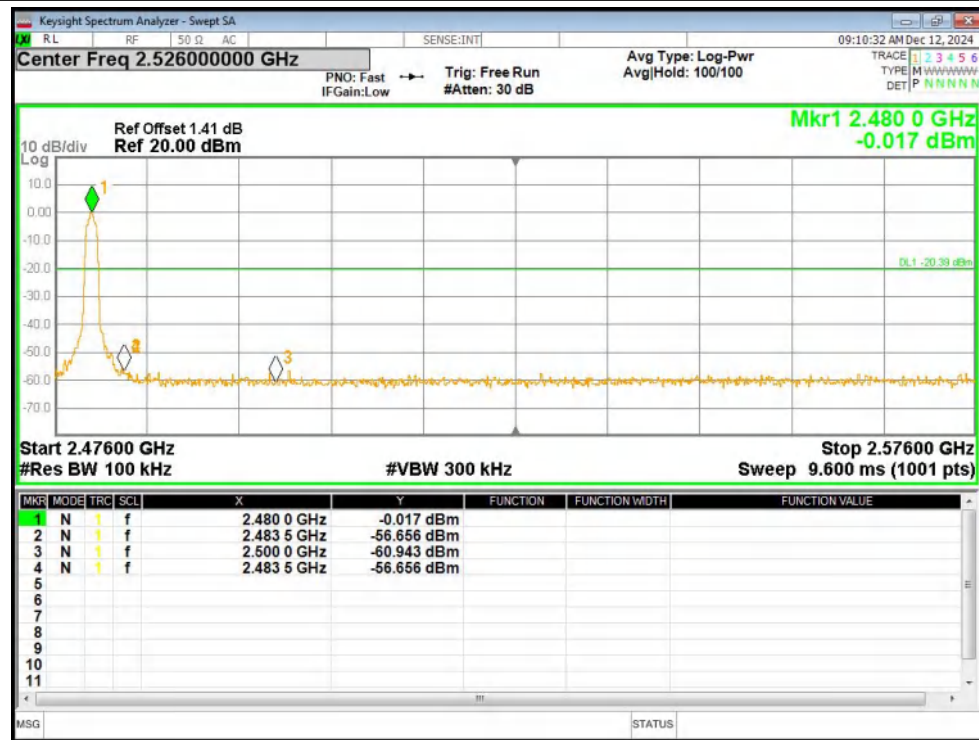
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



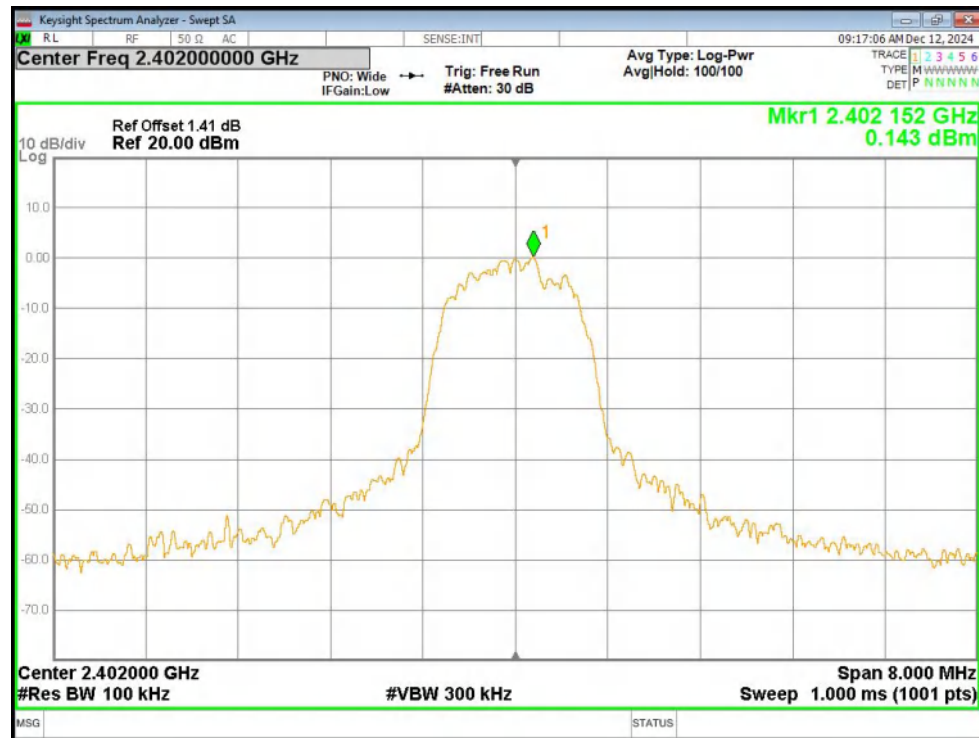
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



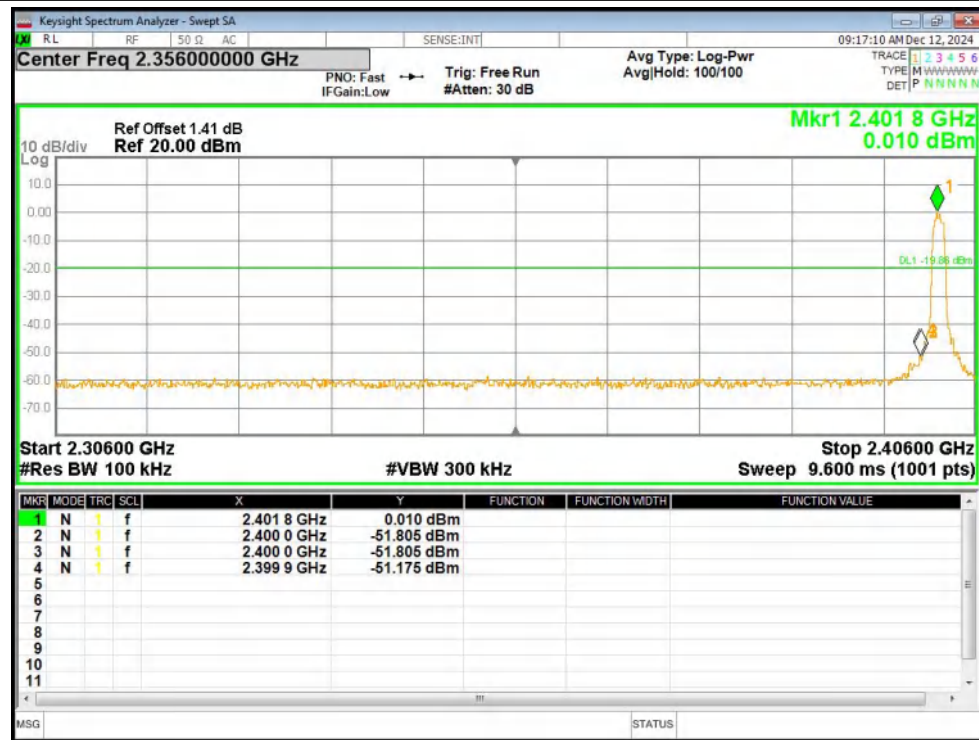
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



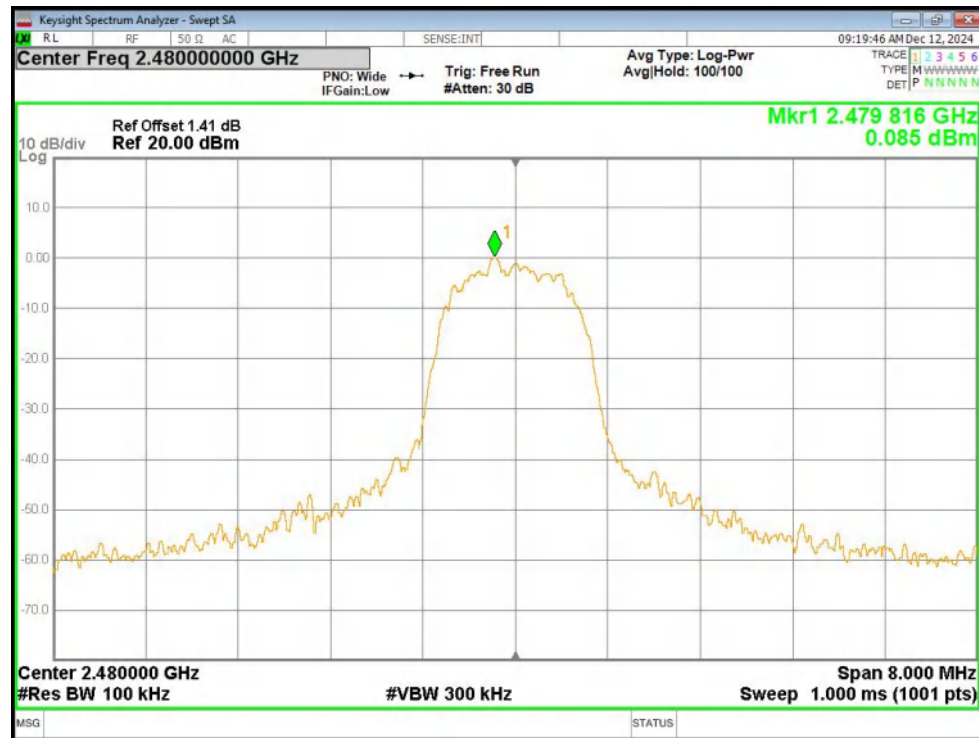
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



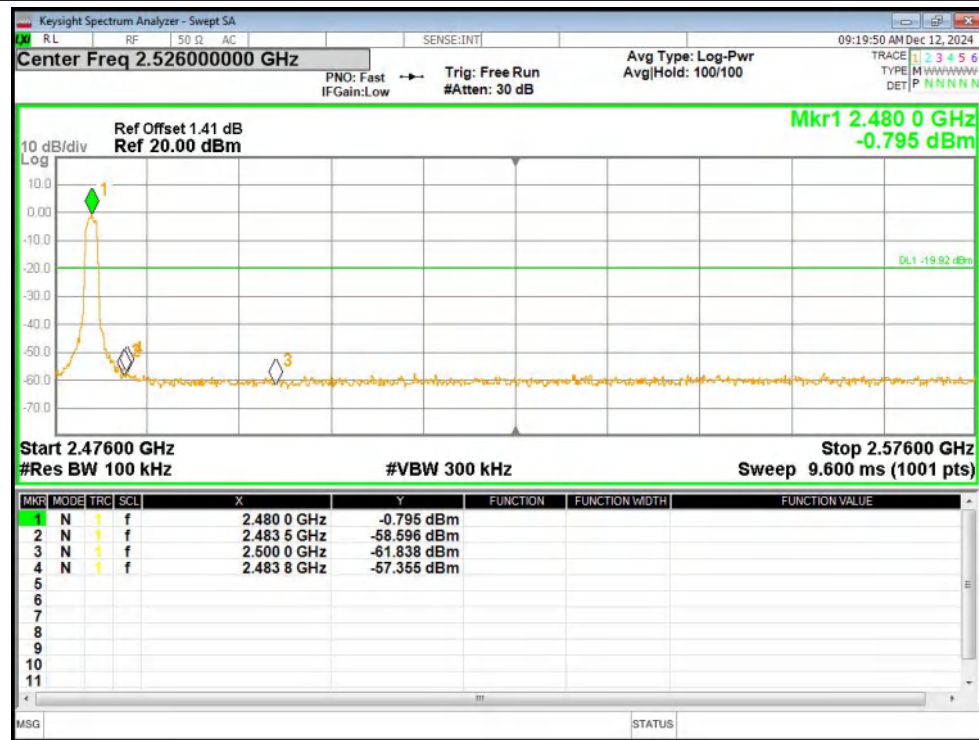
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

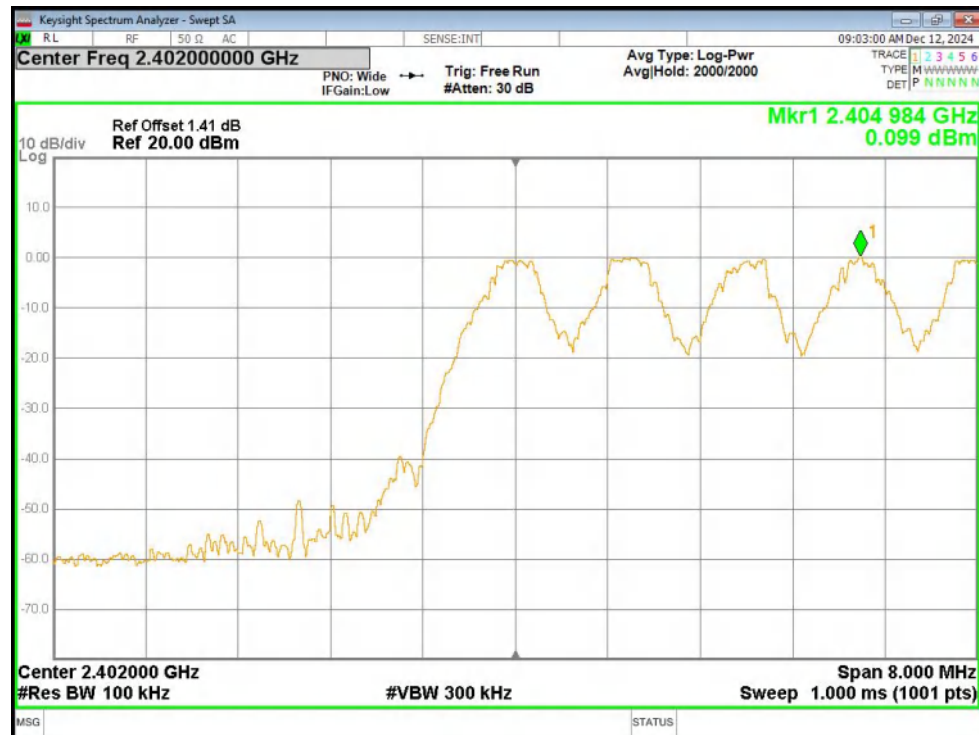


8.Band Edge(Hopping)

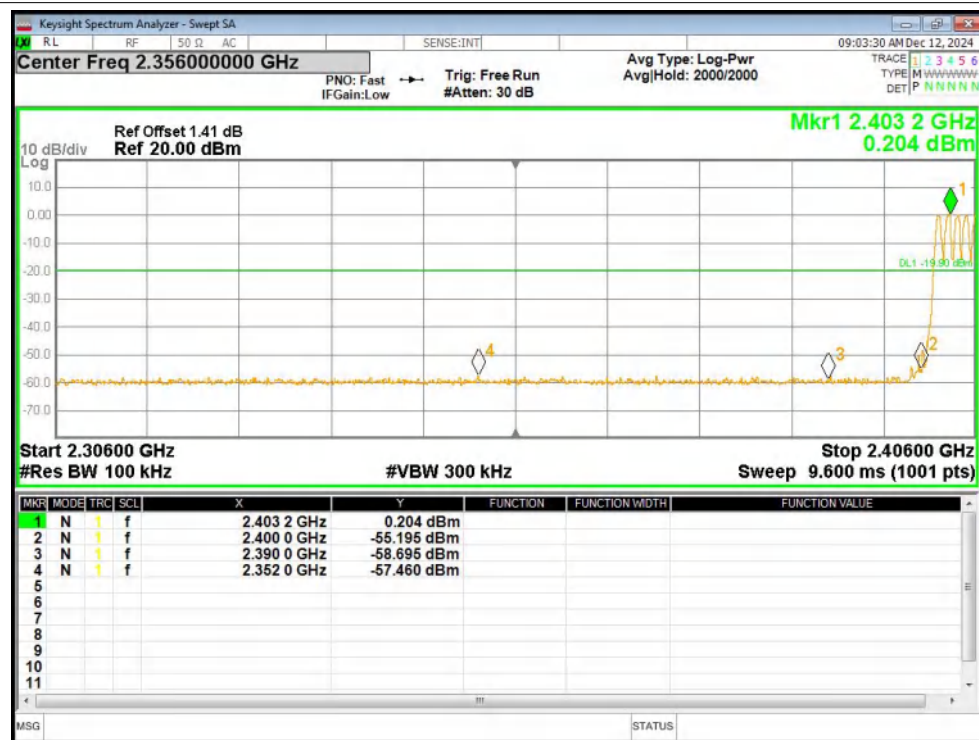
Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Hopping	-57.55	-20	Pass
1-DH5	2480	Hopping	-57.34	-20	Pass
2-DH5	2402	Hopping	-57.57	-20	Pass
2-DH5	2480	Hopping	-56.85	-20	Pass
3-DH5	2402	Hopping	-56.87	-20	Pass
3-DH5	2480	Hopping	-57.44	-20	Pass

Test Graphs

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



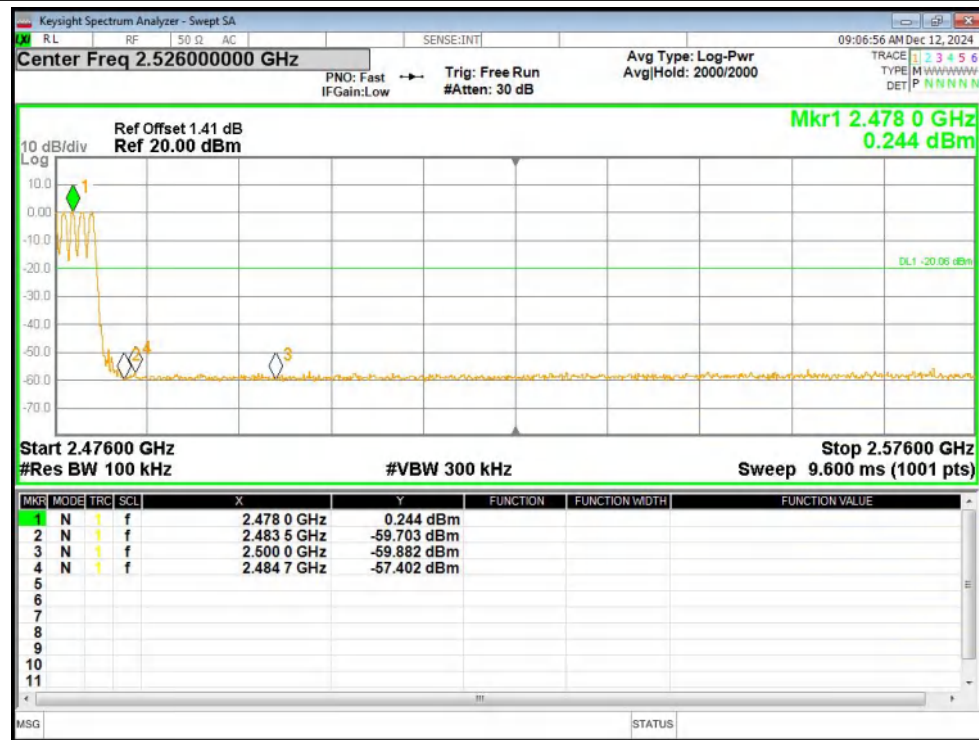
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



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



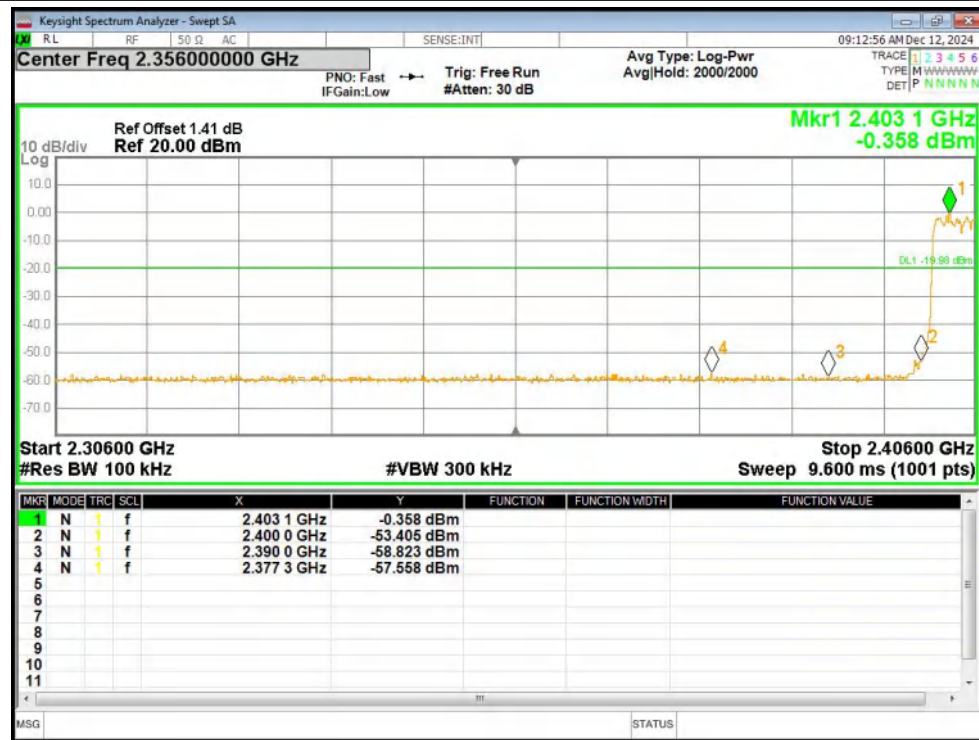
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



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



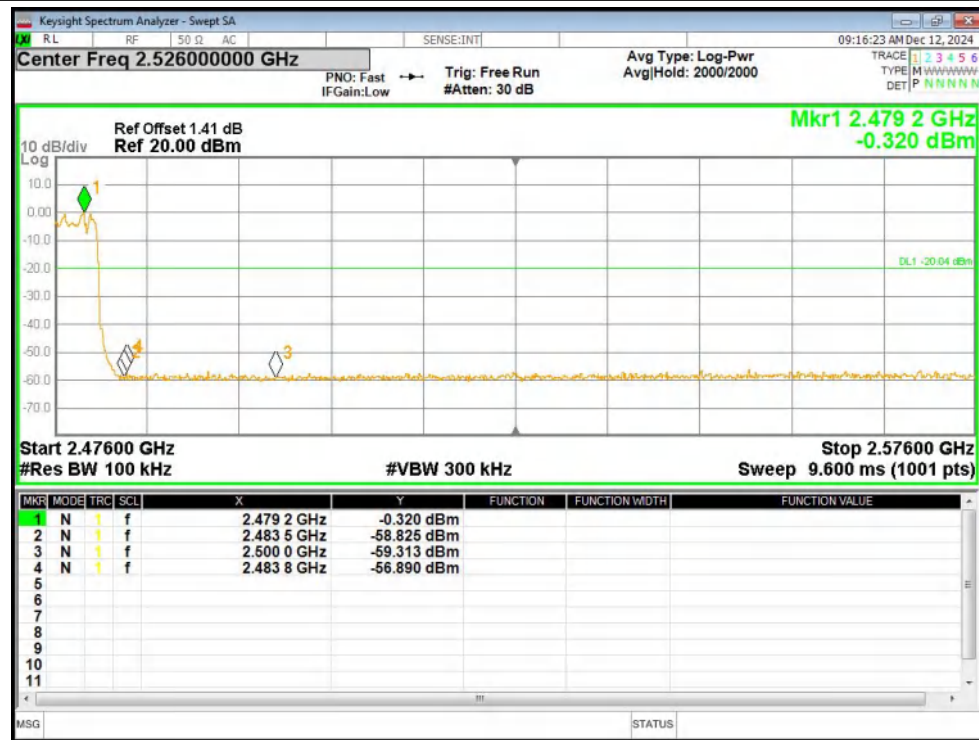
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



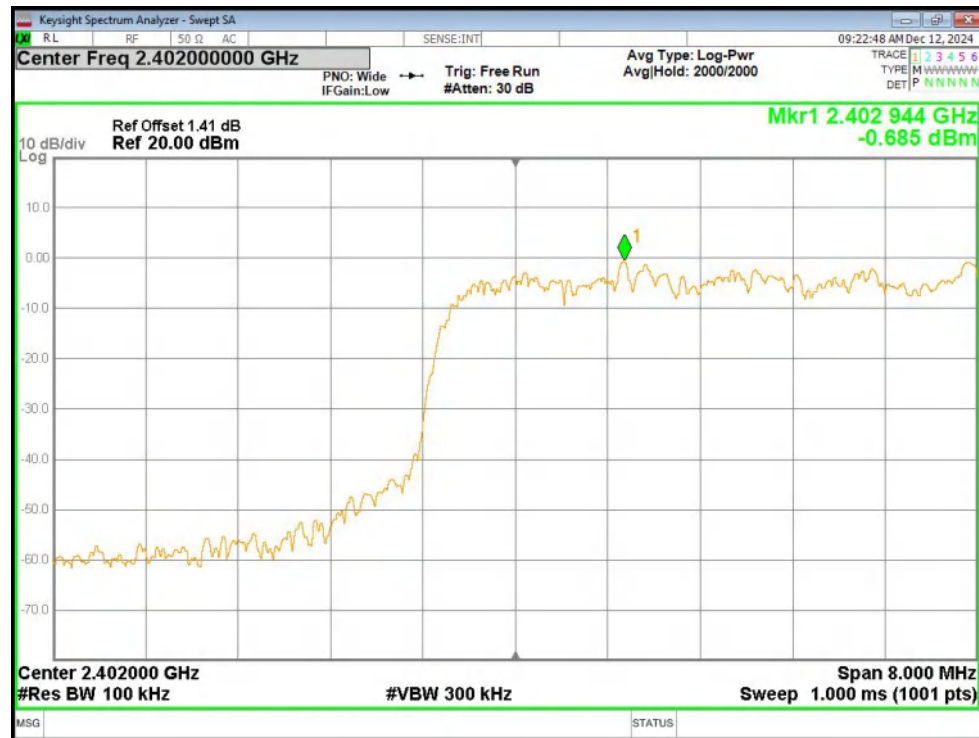
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



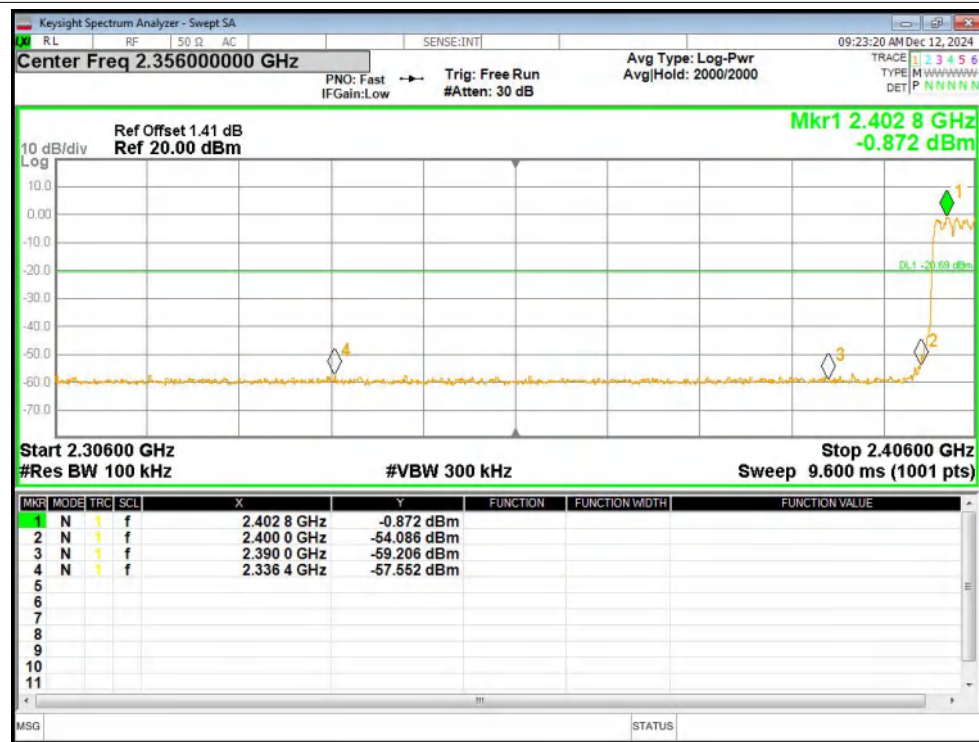
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



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



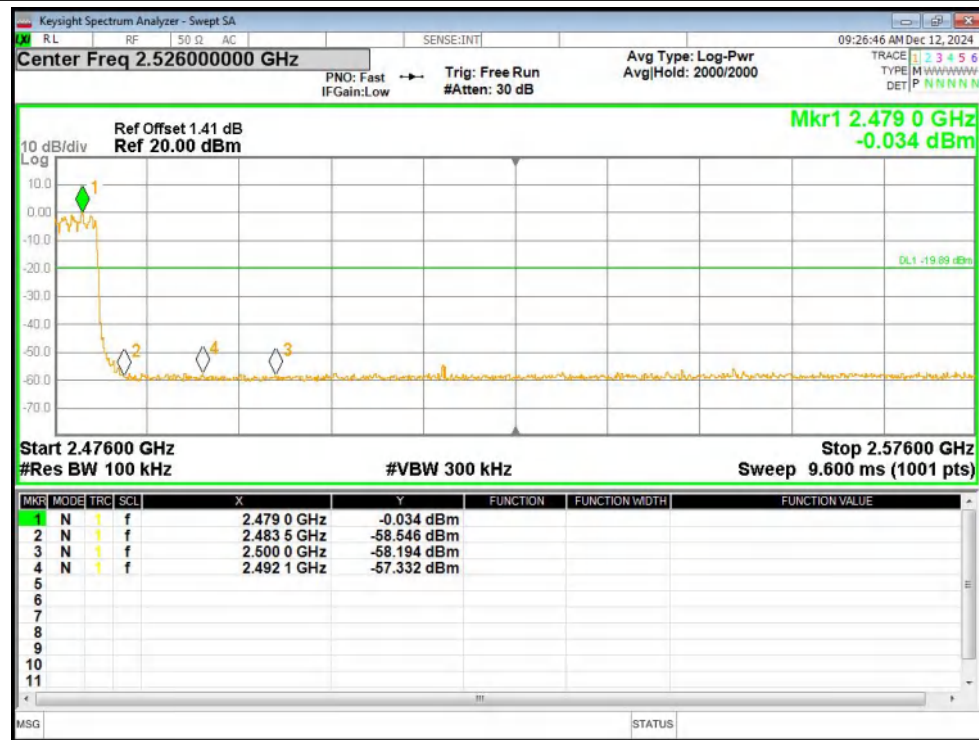
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

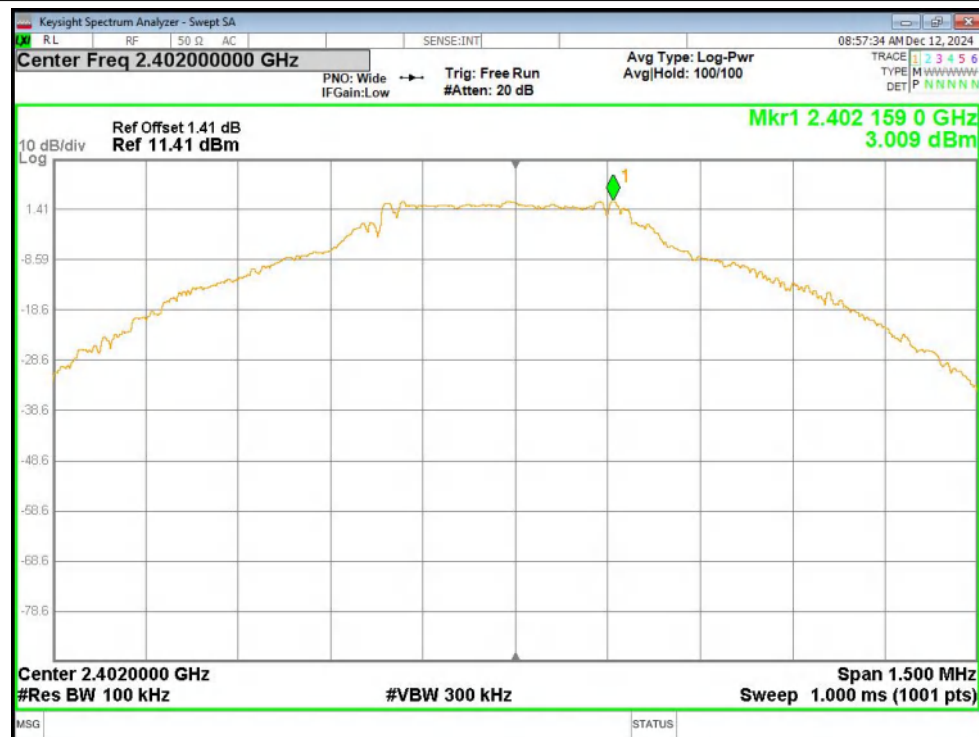


9. Conducted RF Spurious Emission

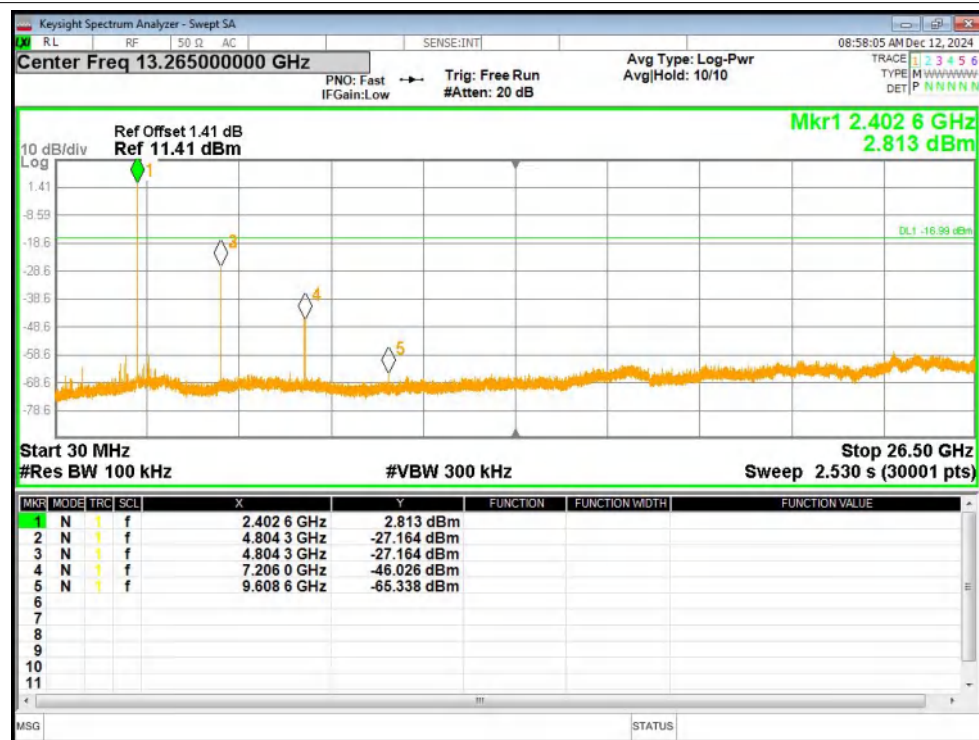
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	-30.17	-20	Pass
1-DH5	2441	-31.93	-20	Pass
1-DH5	2480	-32.83	-20	Pass
2-DH5	2402	-35.34	-20	Pass
2-DH5	2441	-36.35	-20	Pass
2-DH5	2480	-36.08	-20	Pass
3-DH5	2402	-36.16	-20	Pass
3-DH5	2441	-36.58	-20	Pass
3-DH5	2480	-36.18	-20	Pass

Test Graphs

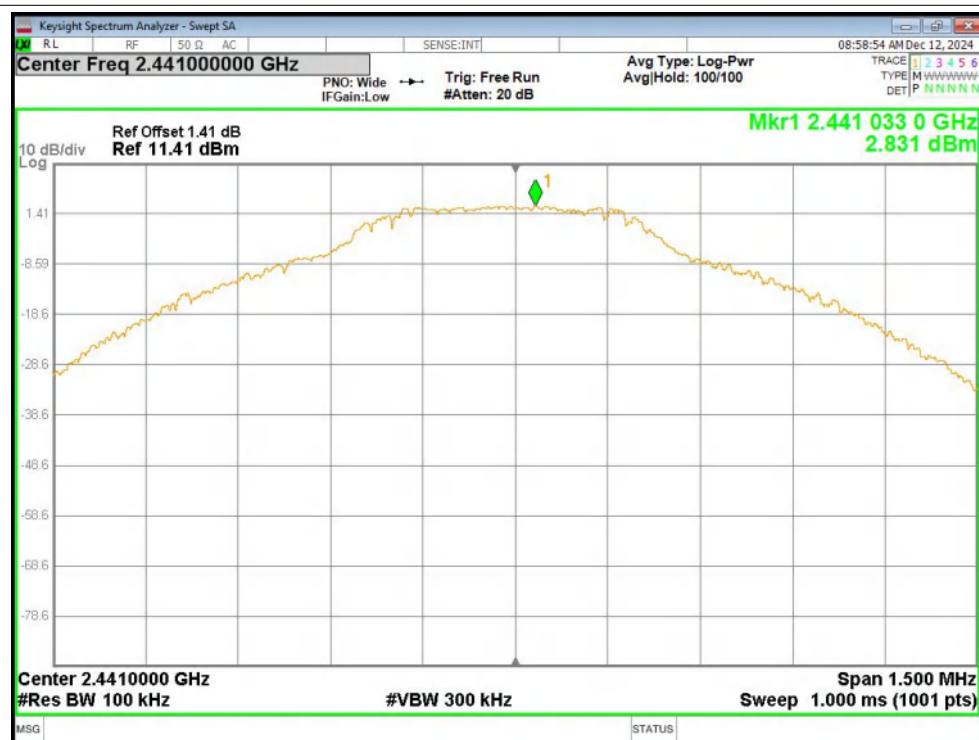
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



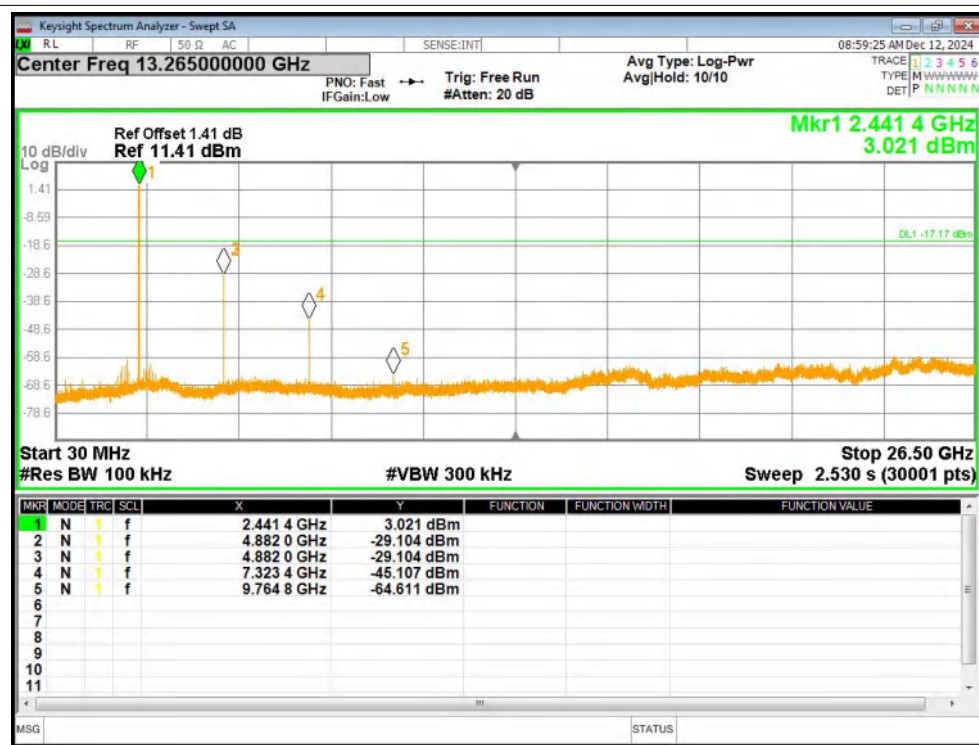
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



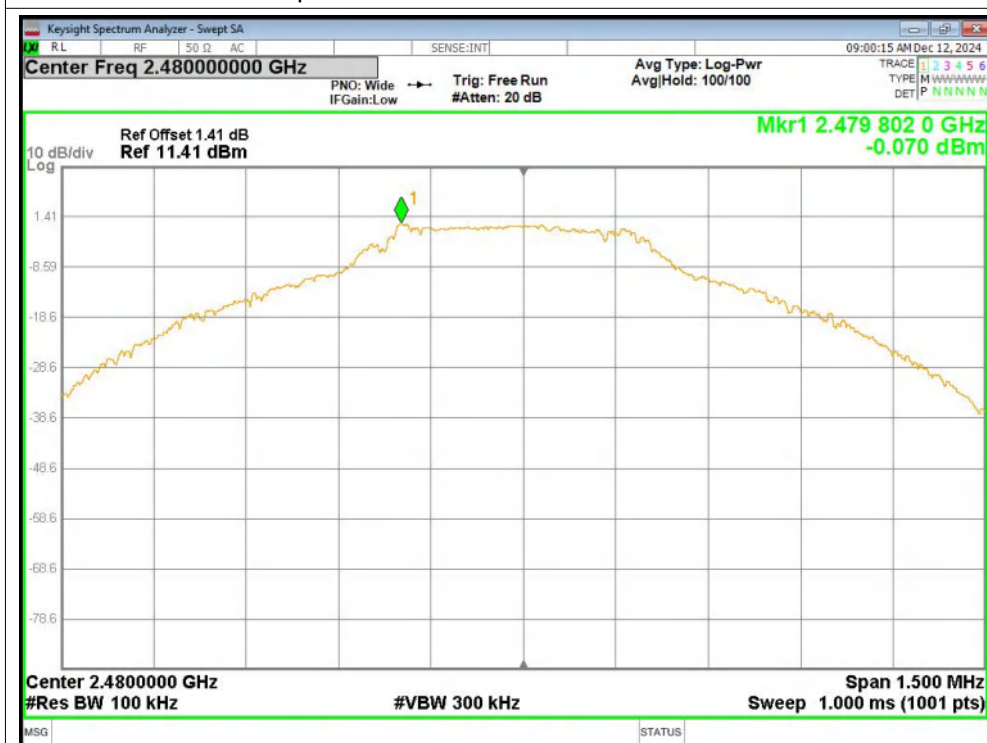
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



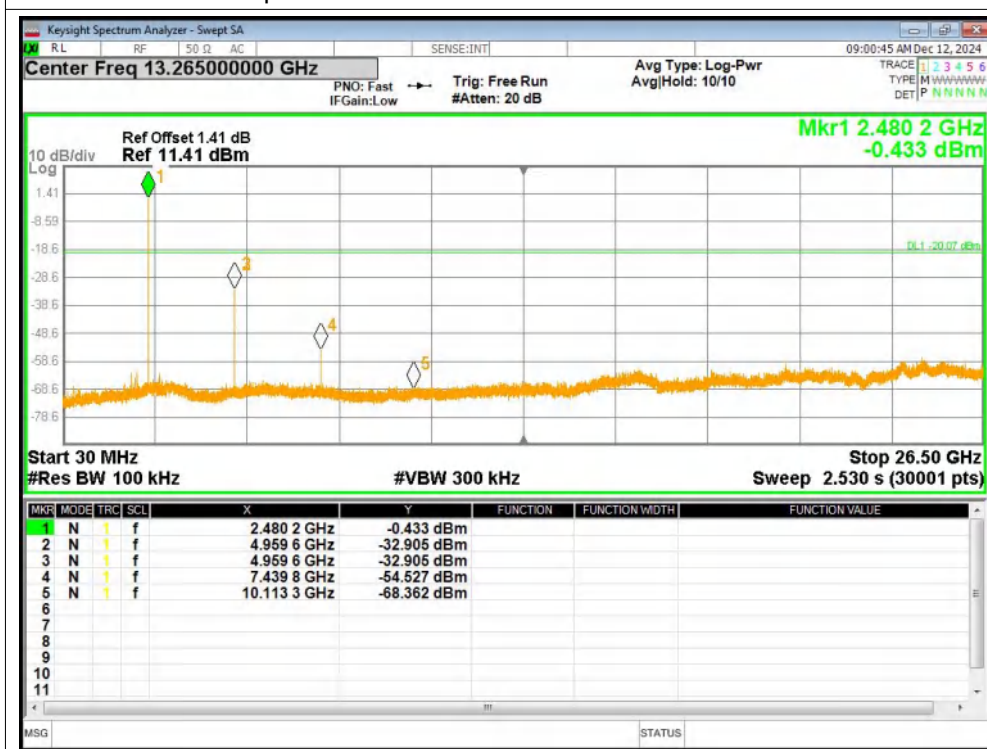
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



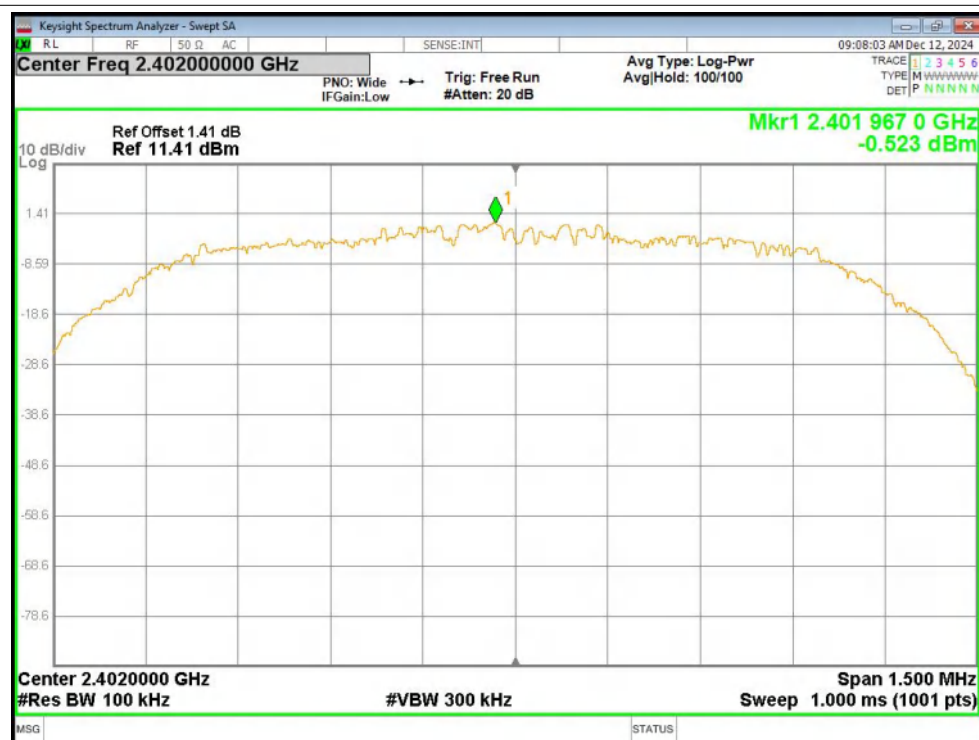
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



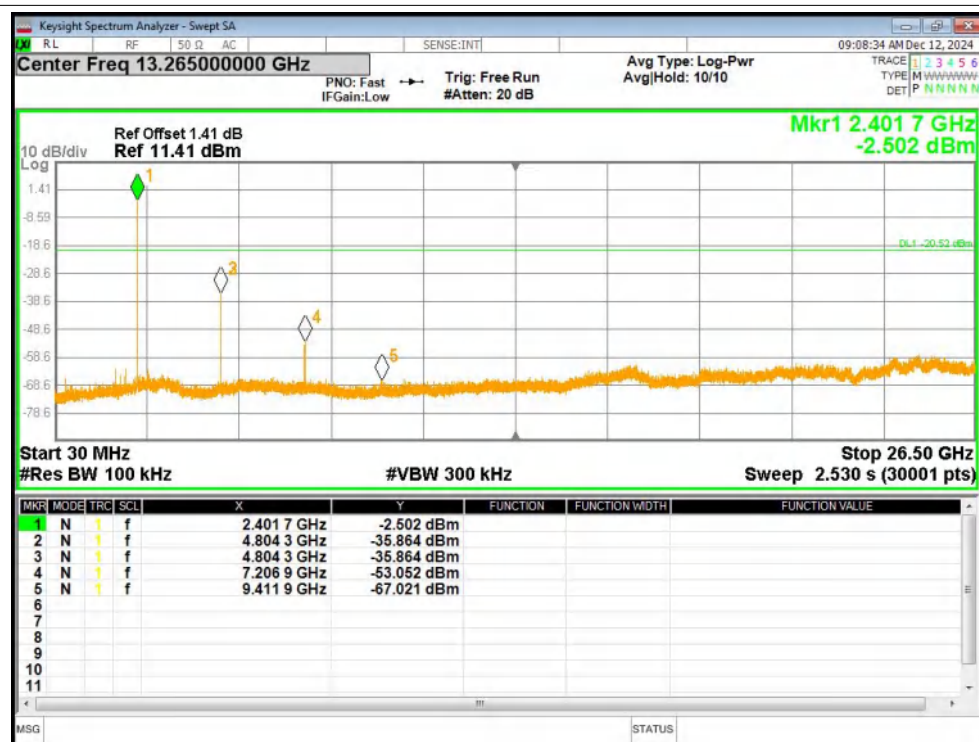
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



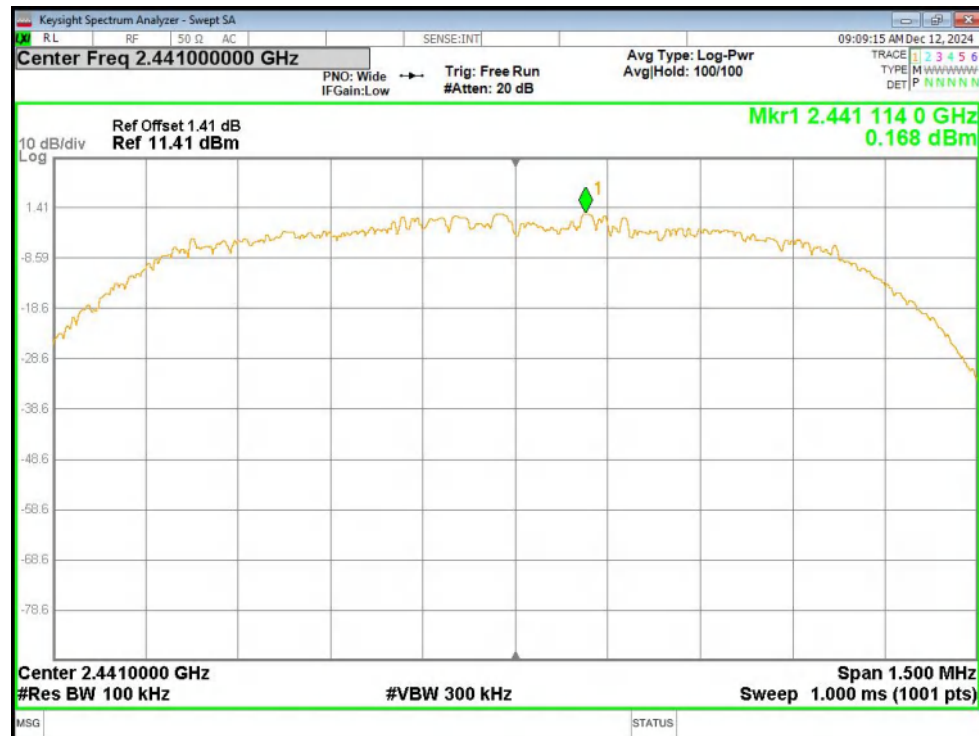
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



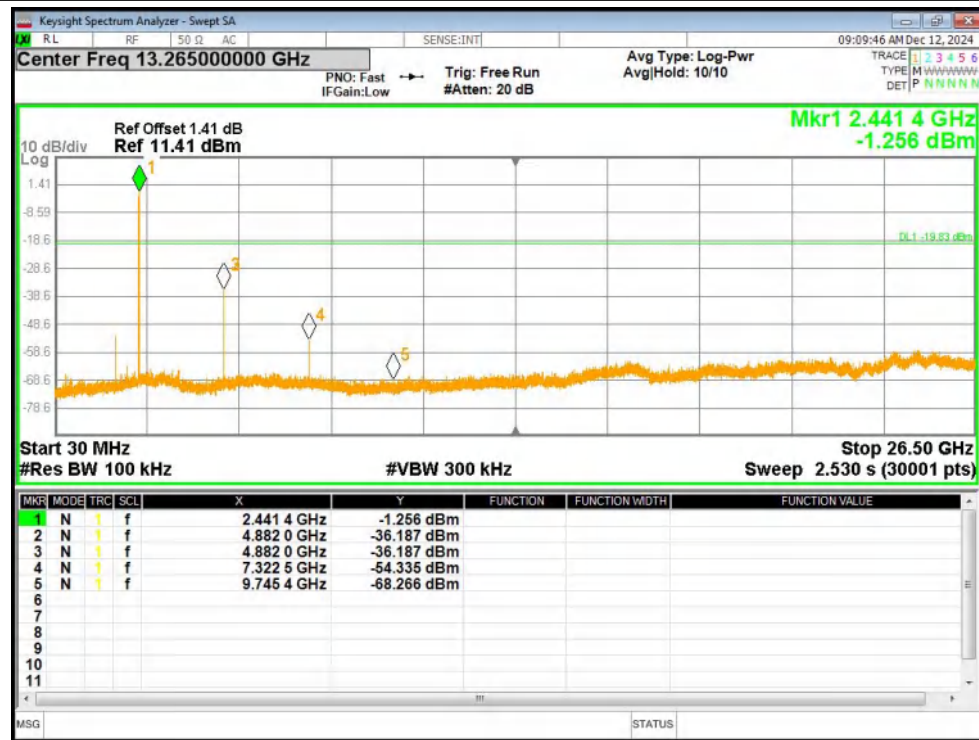
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



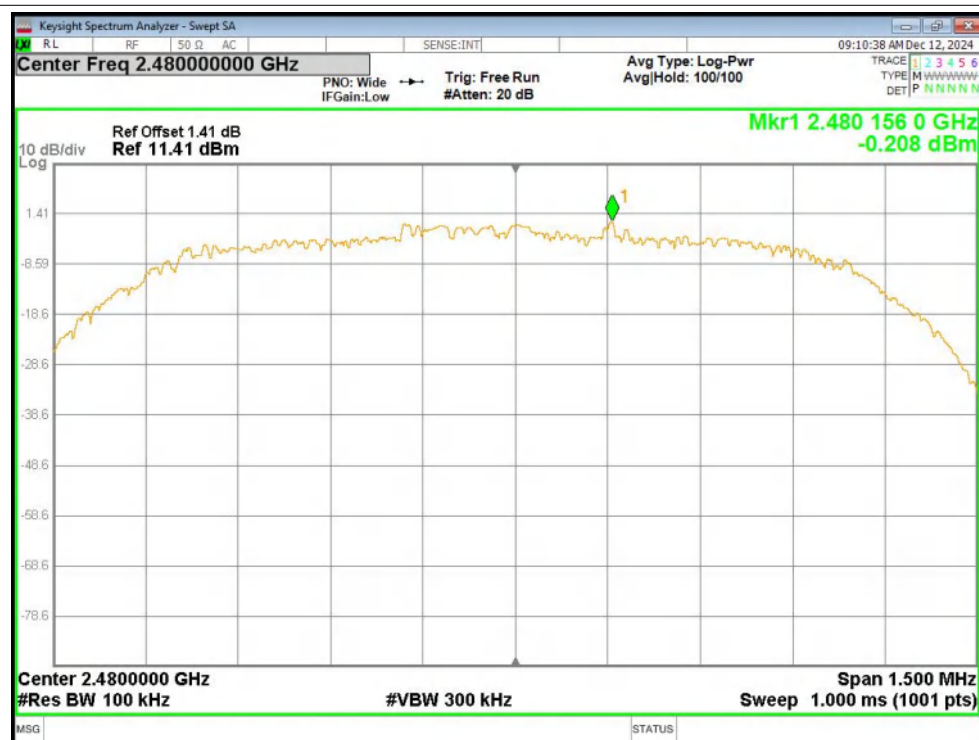
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



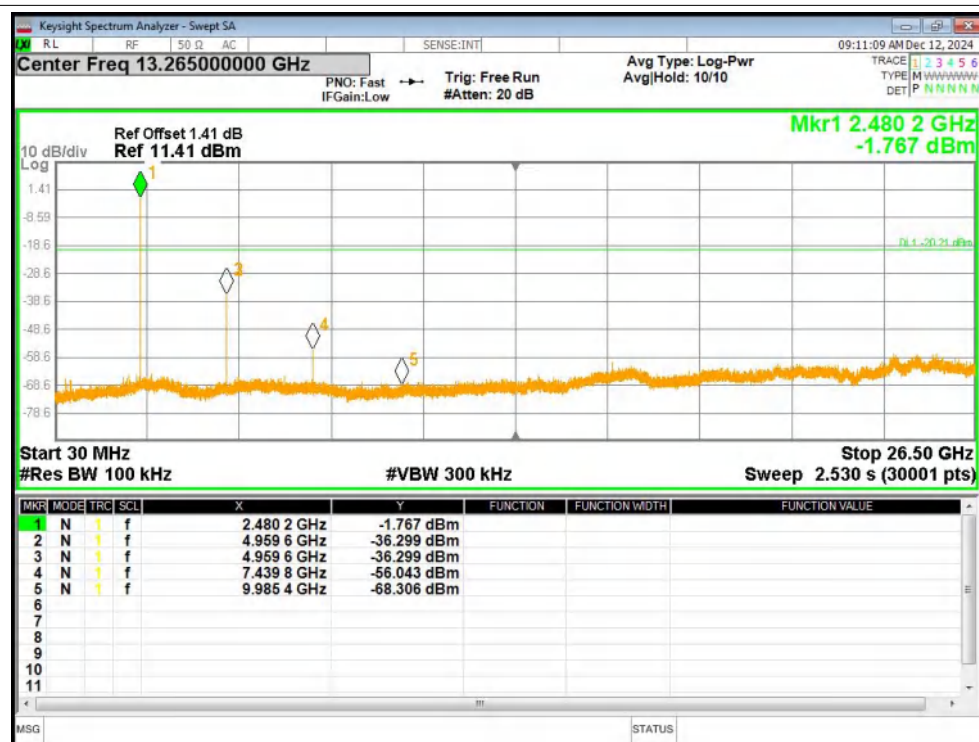
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



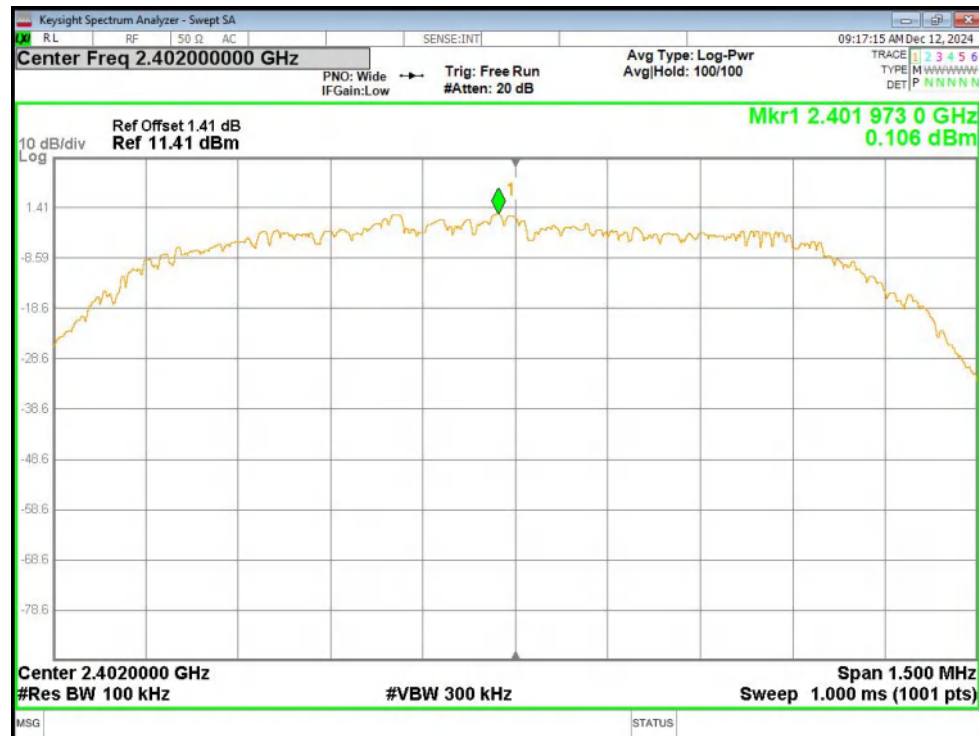
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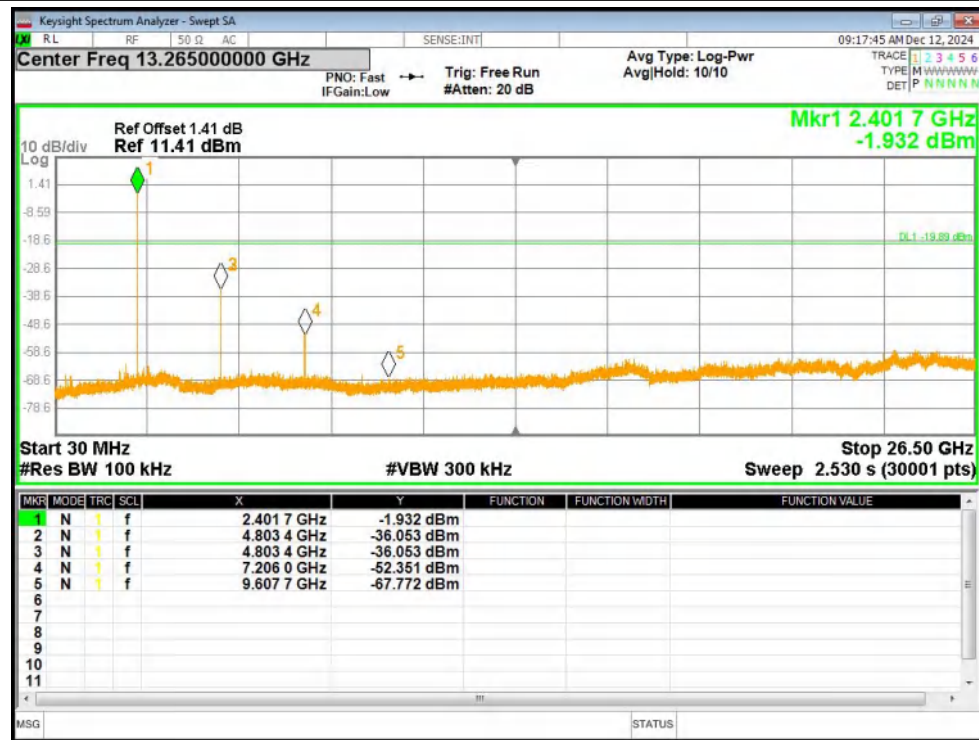
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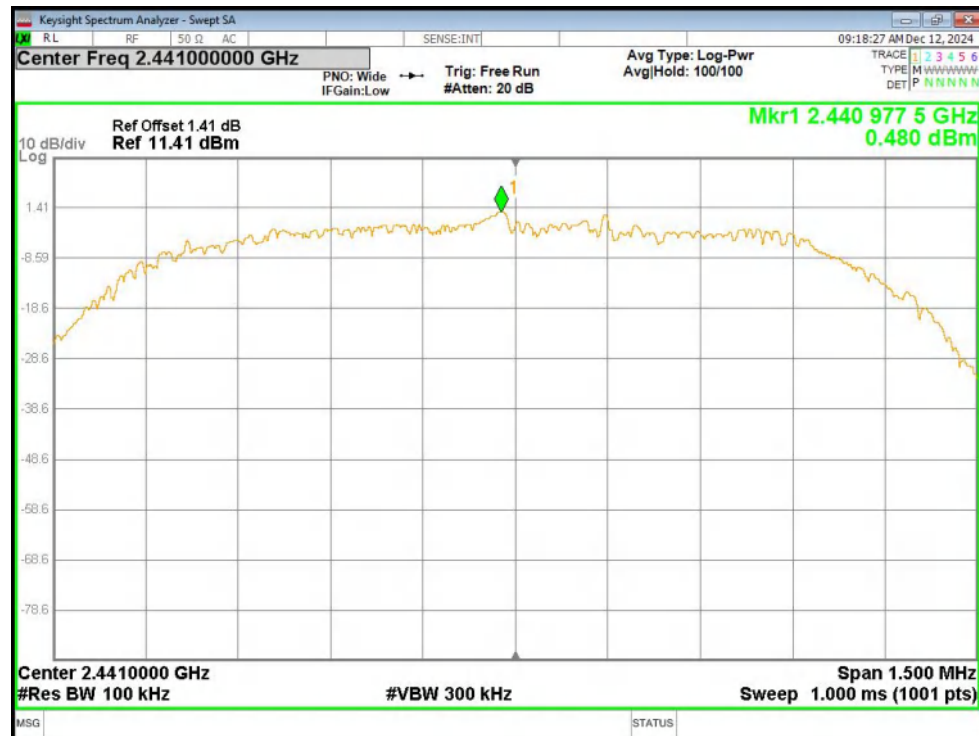
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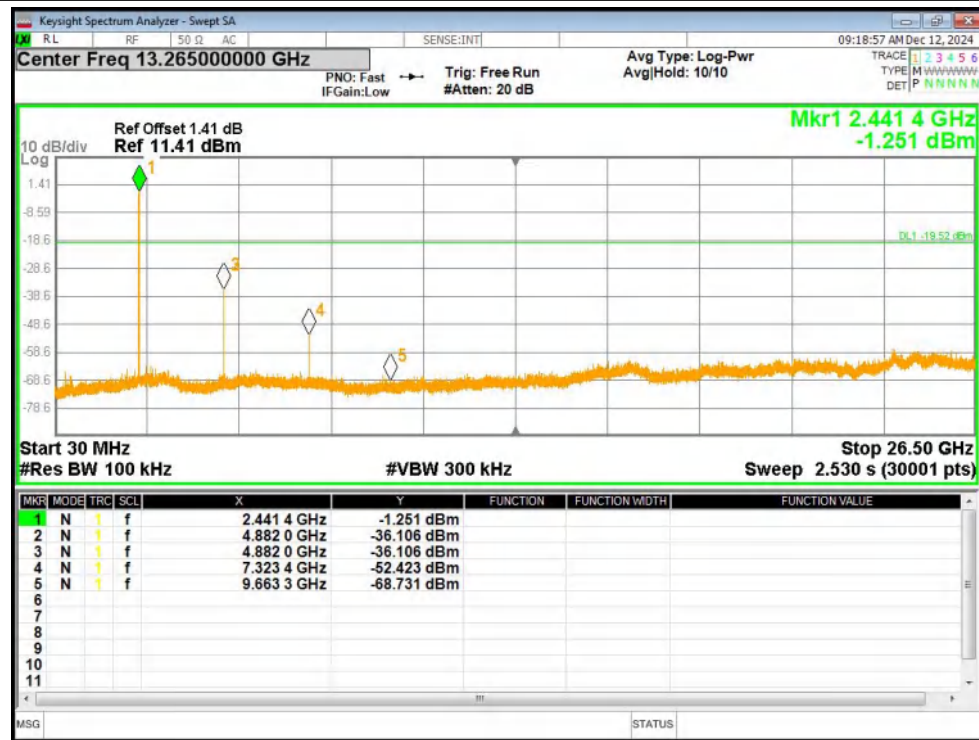
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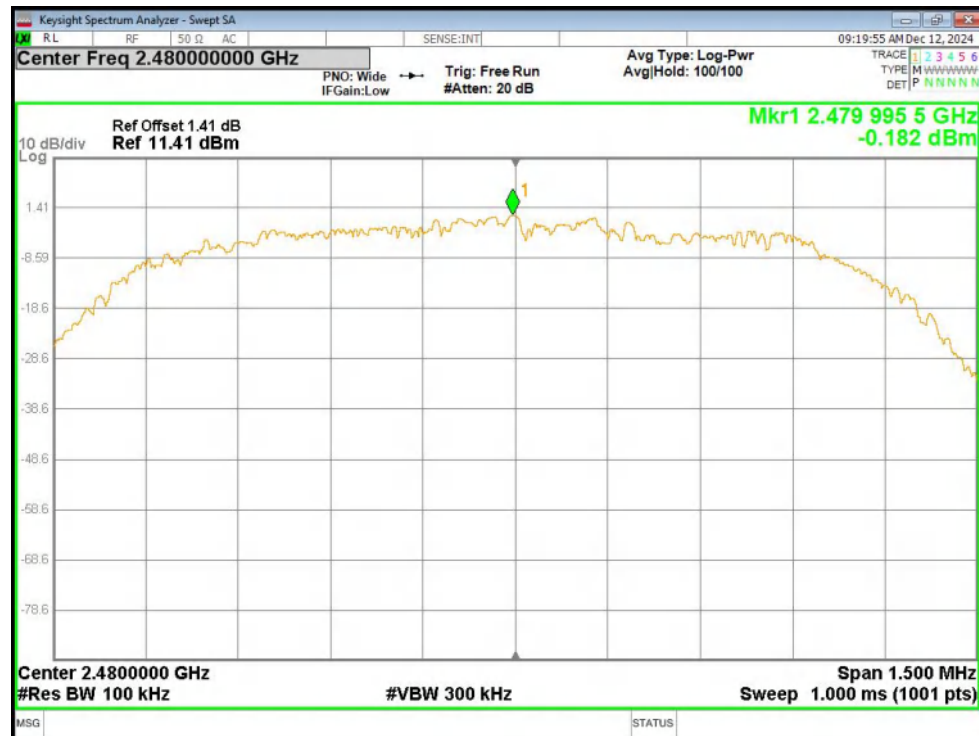
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

