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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	0.4	128	320	31600	400	Pass
1-DH3	2441	Ant1	1.654	259.678	157	31600	400	Pass
1-DH5	2441	Ant1	2.903	281.591	97	31600	400	Pass
2-DH1	2441	Ant1	0.41	130.79	319	31600	400	Pass
2-DH3	2441	Ant1	1.662	252.624	152	31600	400	Pass
2-DH5	2441	Ant1	2.907	334.305	115	31600	400	Pass
3-DH1	2441	Ant1	0.412	131.428	319	31600	400	Pass
3-DH3	2441	Ant1	1.662	264.258	159	31600	400	Pass
3-DH5	2441	Ant1	2.91	328.83	113	31600	400	Pass

Test Graphs

Dwell NVNT 1-DH1 2441MHz Ant1 One Burst



Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated



[illegible]

Keysight Spectrum Analyzer - Swept SA

03:03:28 PM Nov 26, 2024

Center Freq 2.441000000 GHz

Avg Type: Log-Pwr

Trace 1: 3 4 5 6

Type: WWWWWW

Det: P N N N N

PNO: Fast IFGain: Low

Trig: Free Run

#Atten: 30 dB

Ref Offset 1.41 dB

Ref 20.00 dBm

10 dB/div

Log

Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Span 0 Hz

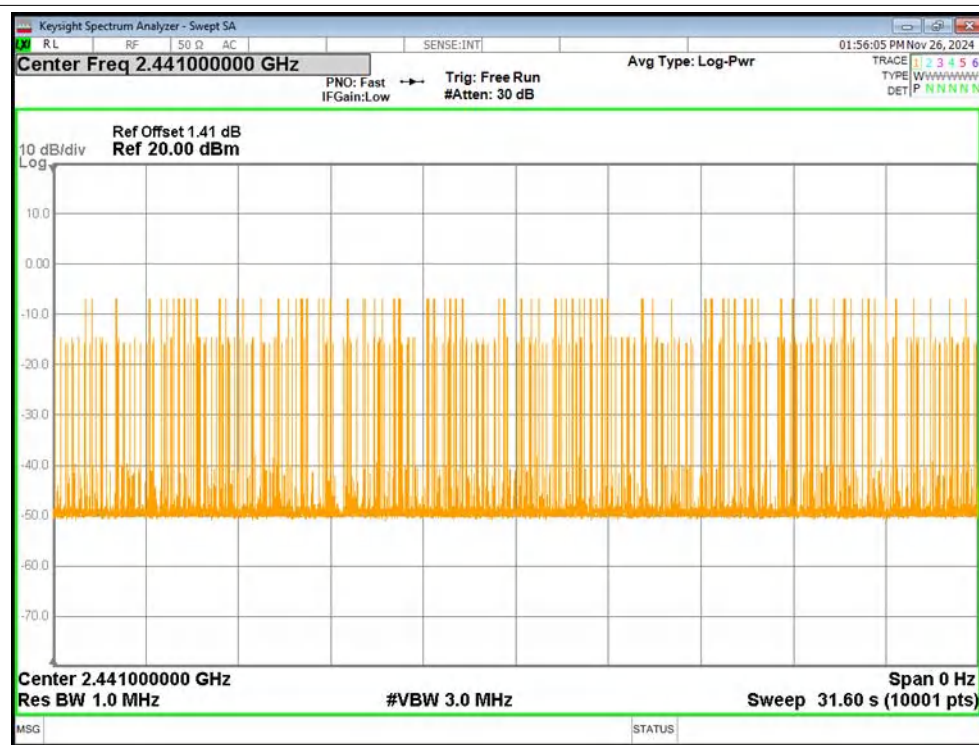
Sweep 31.60 s (10001 pts)

MSG STATUS

Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



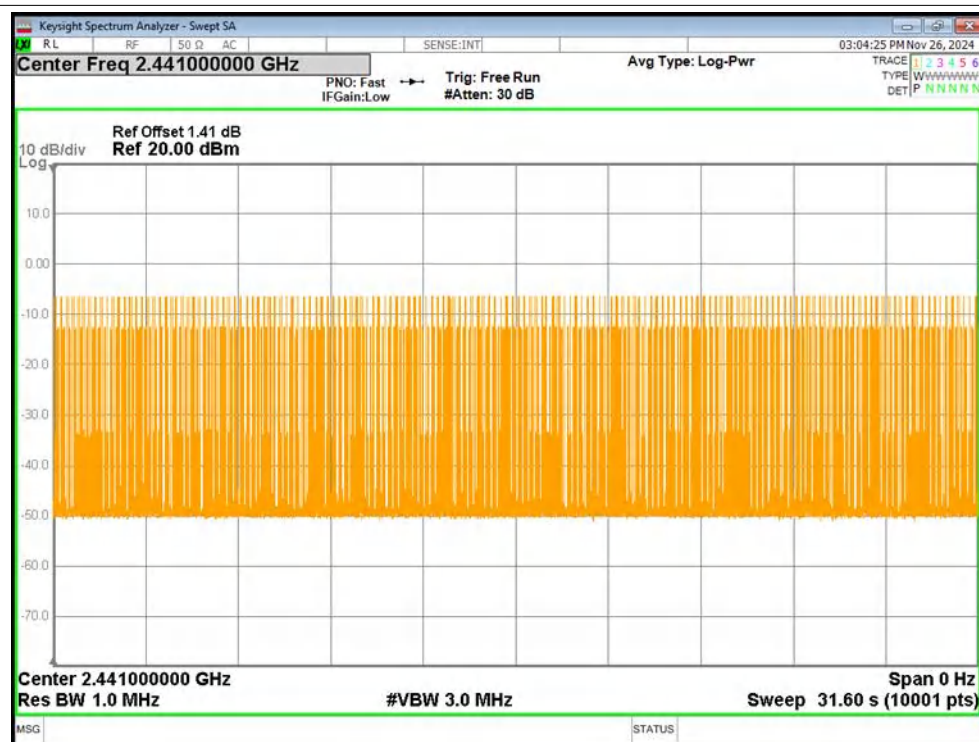
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH1 2441MHz Ant1 One Burst



Dwell NVNT 2-DH1 2441MHz Ant1 Accumulated



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.44100000 GHz

Trig Delay-500.0 μ s

Avg Type: Log-Pwr

Ref Offset 1.41 dB

Ref 20.00 dBm

Δ Mkr1 1.662 ms

3.66 dB

10 dB/div

Log

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

-70.0

Center 2.44100000 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)	1.662 ms	(Δ)	3.66 dB		
2	F	t		497.0 μ s	-15.36 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Keysight Spectrum Analyzer - Swept SA

03:05:16 PM Nov 26, 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 --> Trig: Free Run

IFGain:Low #Atten: 30 dB

Ref Offset 1.41 dB

Ref 20.00 dBm

10 dB/div

Log

Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Span 0 Hz

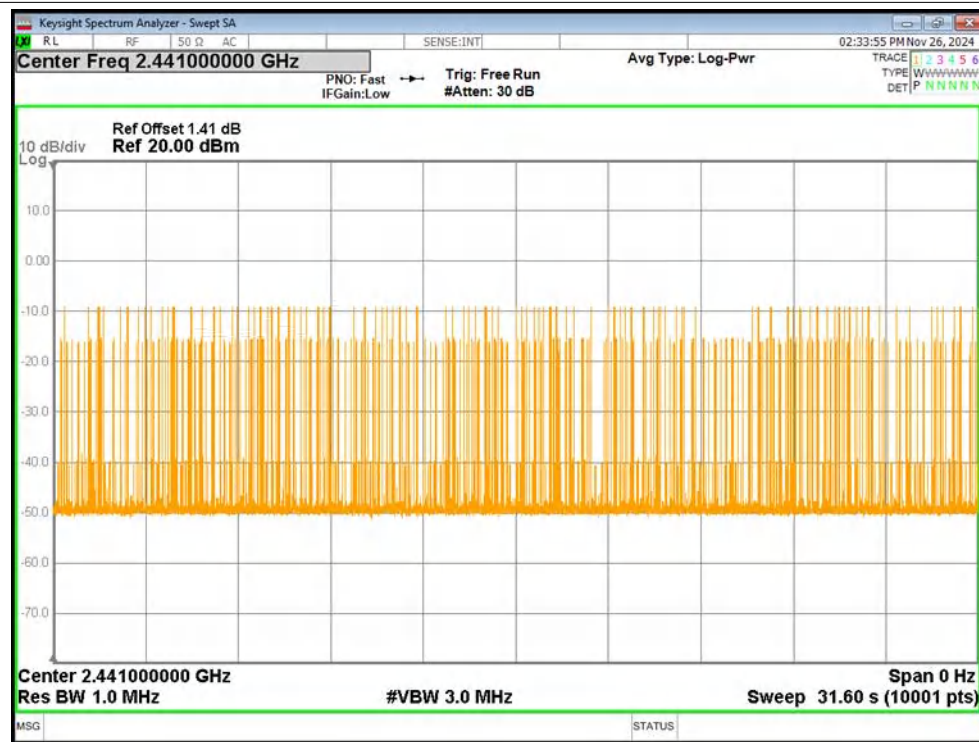
Sweep 31.60 s (10001 pts)

MSG STATUS

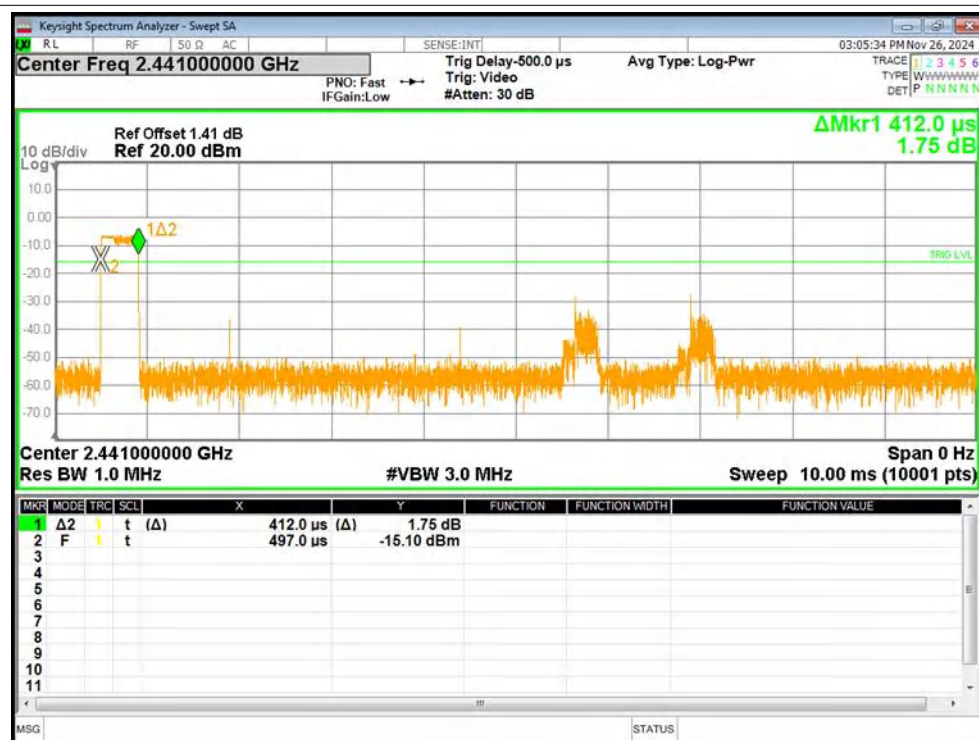
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



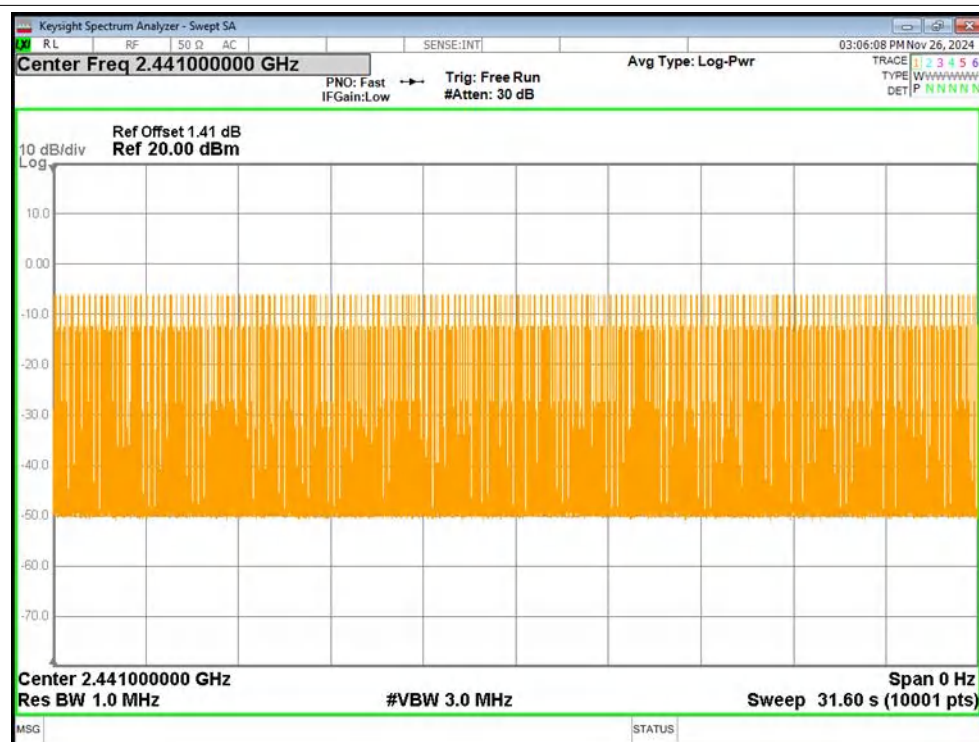
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



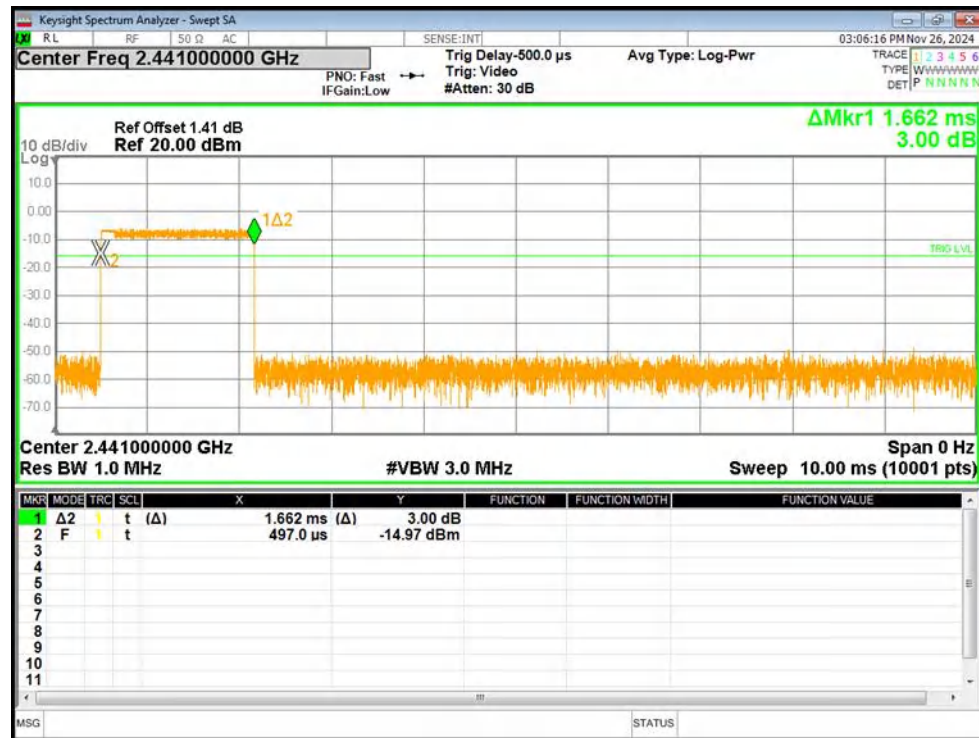
Dwell NVNT 3-DH1 2441MHz Ant1 One Burst



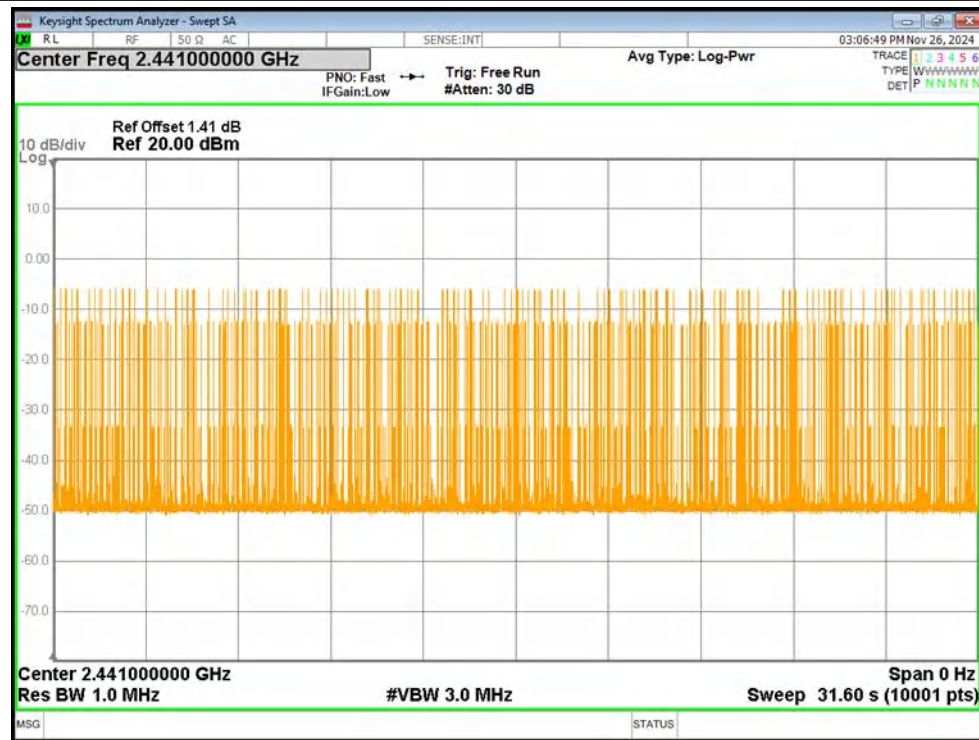
Dwell NVNT 3-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH3 2441MHz Ant1 One Burst



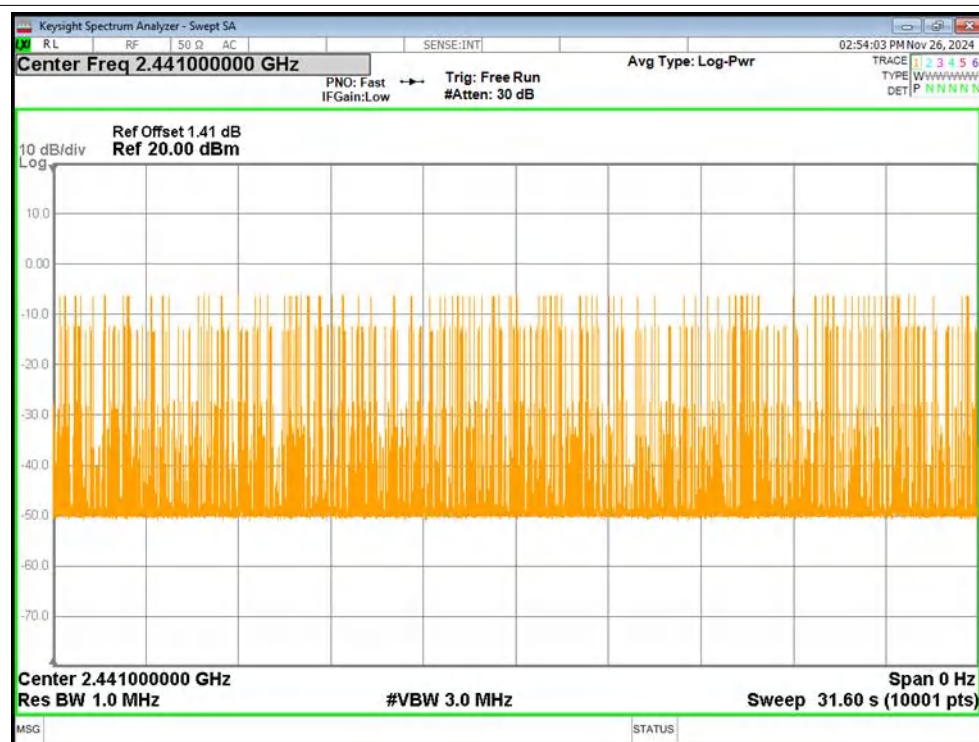
Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

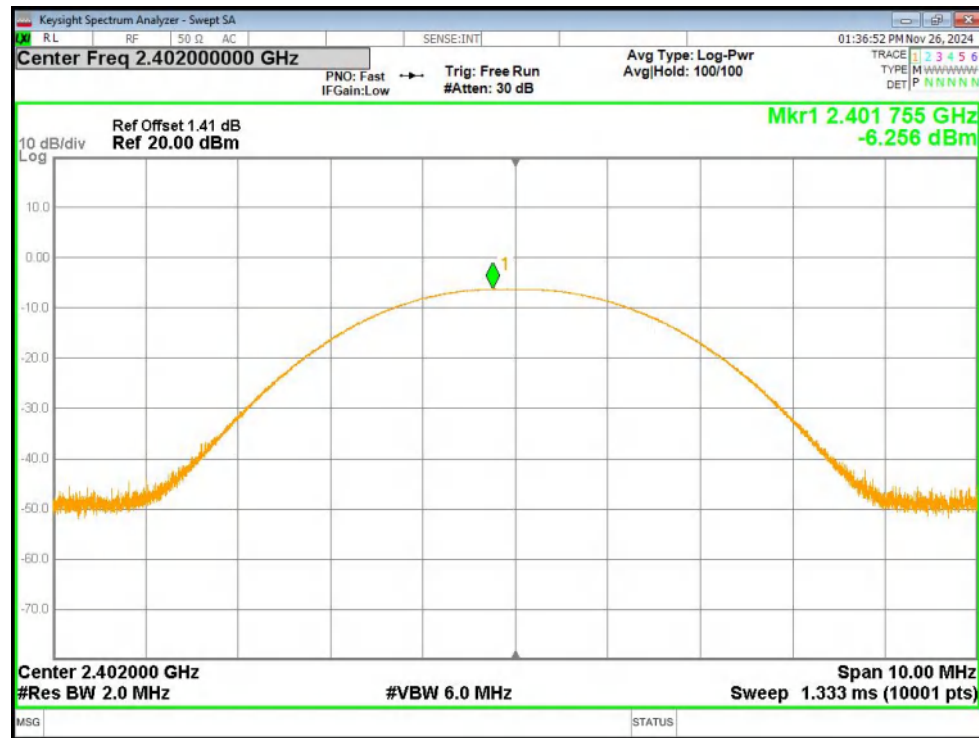


2.Maximum Peak Conducted Output Power

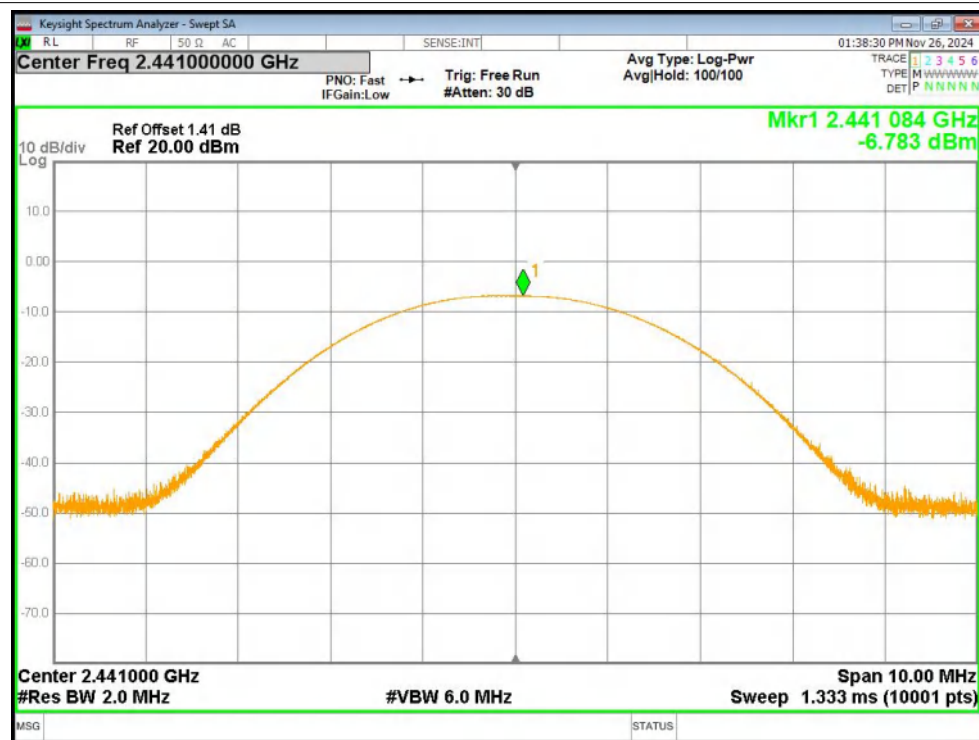
Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
1-DH5	2402	Ant1	-6.26	30	Pass
1-DH5	2441	Ant1	-6.78	30	Pass
1-DH5	2480	Ant1	-9.44	30	Pass
2-DH5	2402	Ant1	-5.6	21	Pass
2-DH5	2441	Ant1	-6.26	21	Pass
2-DH5	2480	Ant1	-8.96	21	Pass
3-DH5	2402	Ant1	-5.14	21	Pass
3-DH5	2441	Ant1	-5.91	21	Pass
3-DH5	2480	Ant1	-8.63	21	Pass

Test Graphs

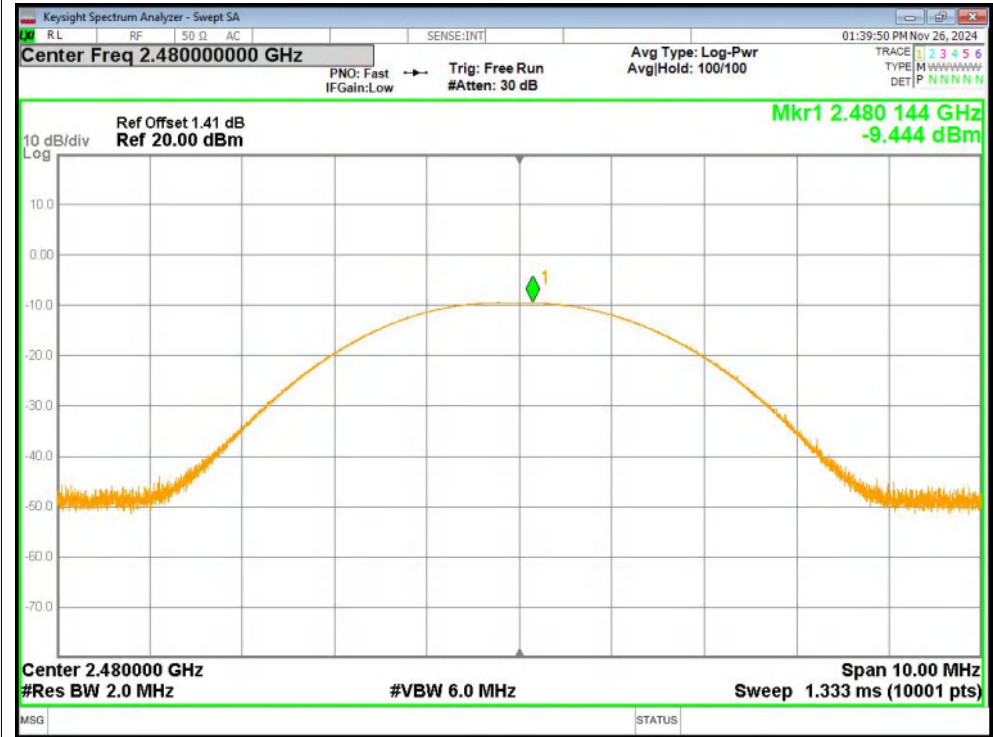
Peak Power NVNT 1-DH5 2402MHz Ant1



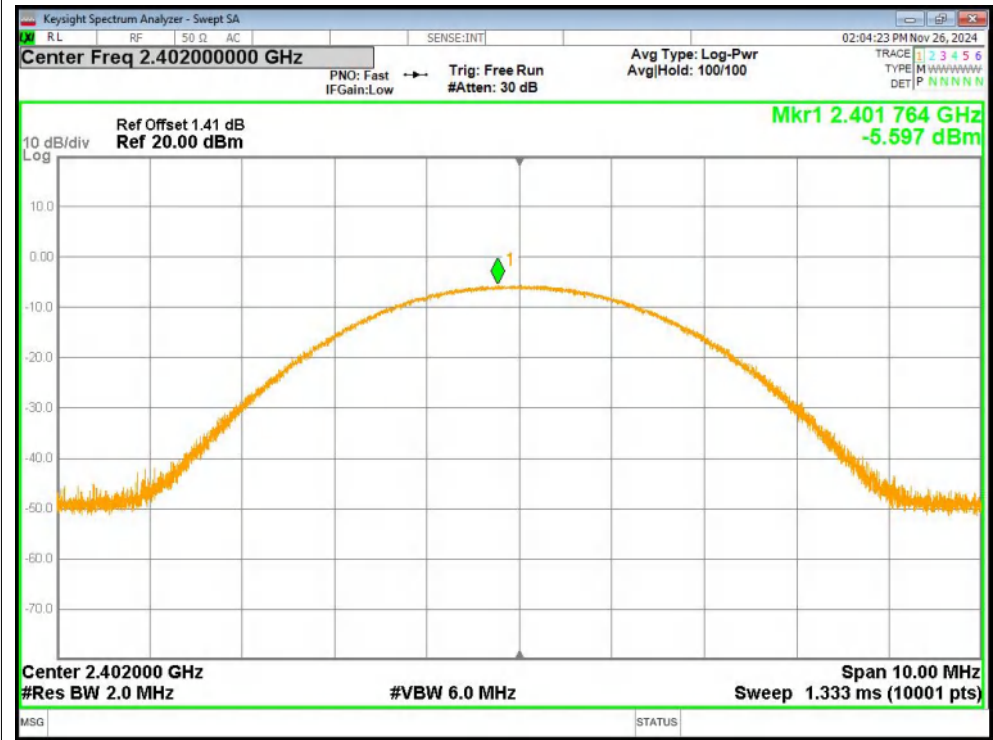
Peak Power NVNT 1-DH5 2441MHz Ant1



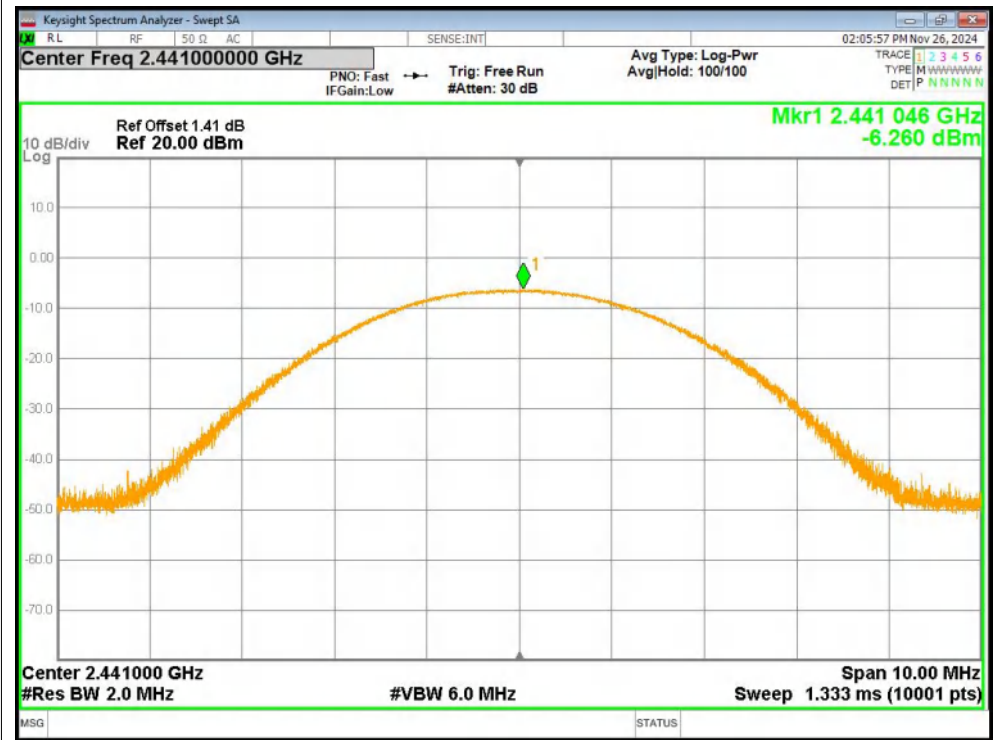
Peak Power NVNT 1-DH5 2480MHz Ant1



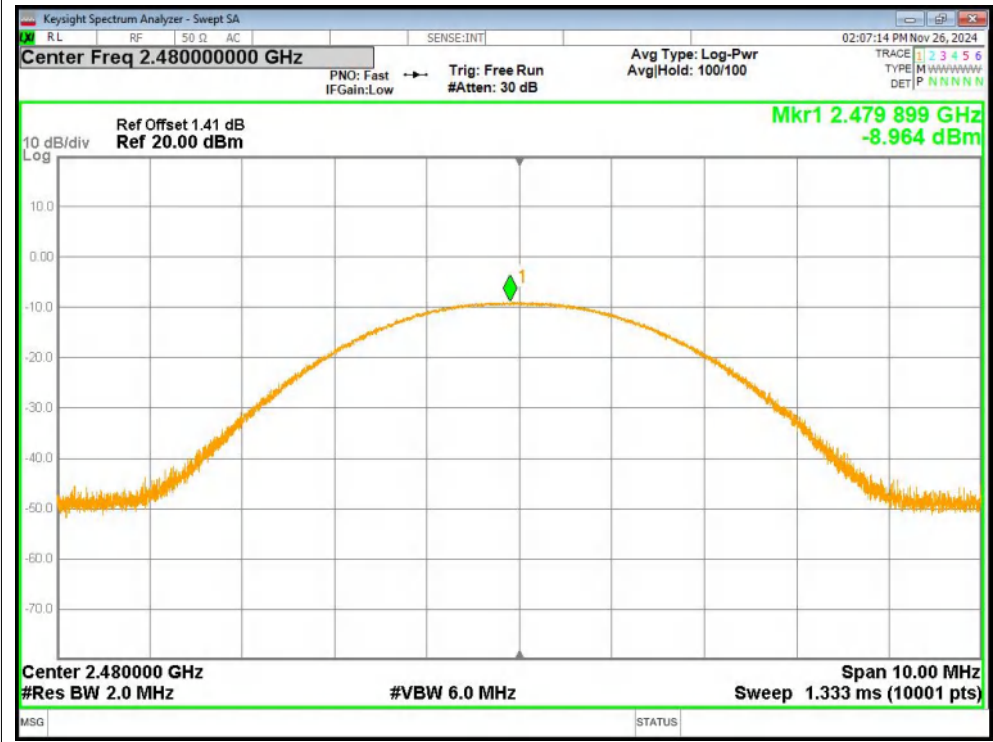
Peak Power NVNT 2-DH5 2402MHz Ant1



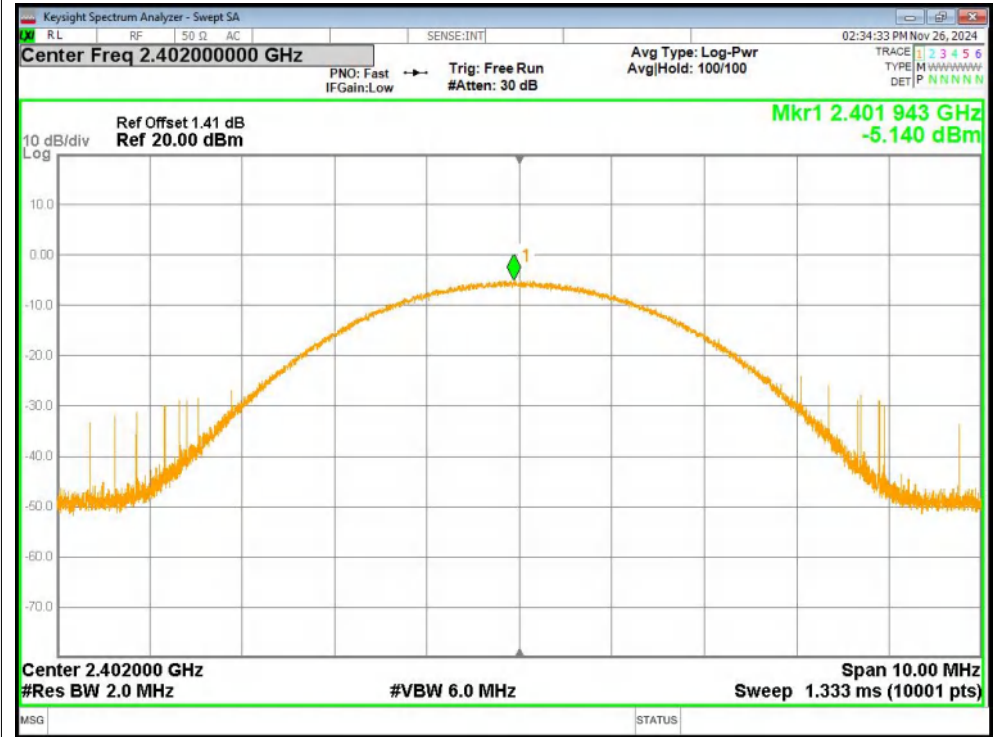
Peak Power NVNT 2-DH5 2441MHz Ant1



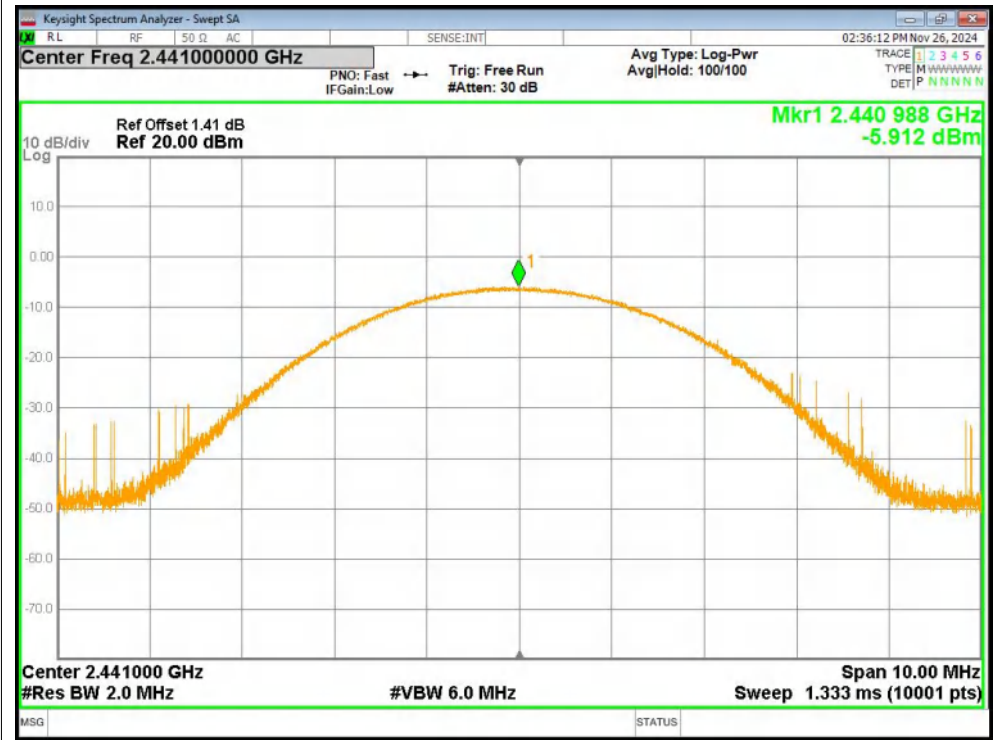
Peak Power NVNT 2-DH5 2480MHz Ant1



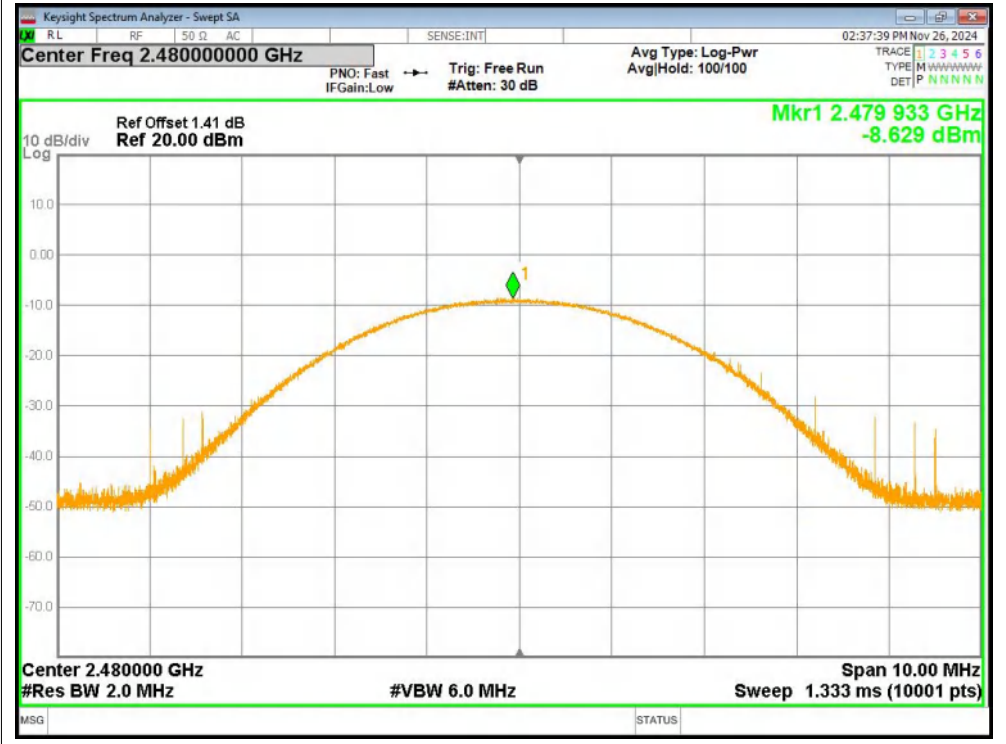
Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1



Peak Power NVNT 3-DH5 2480MHz Ant1



3.-20dB Bandwidth

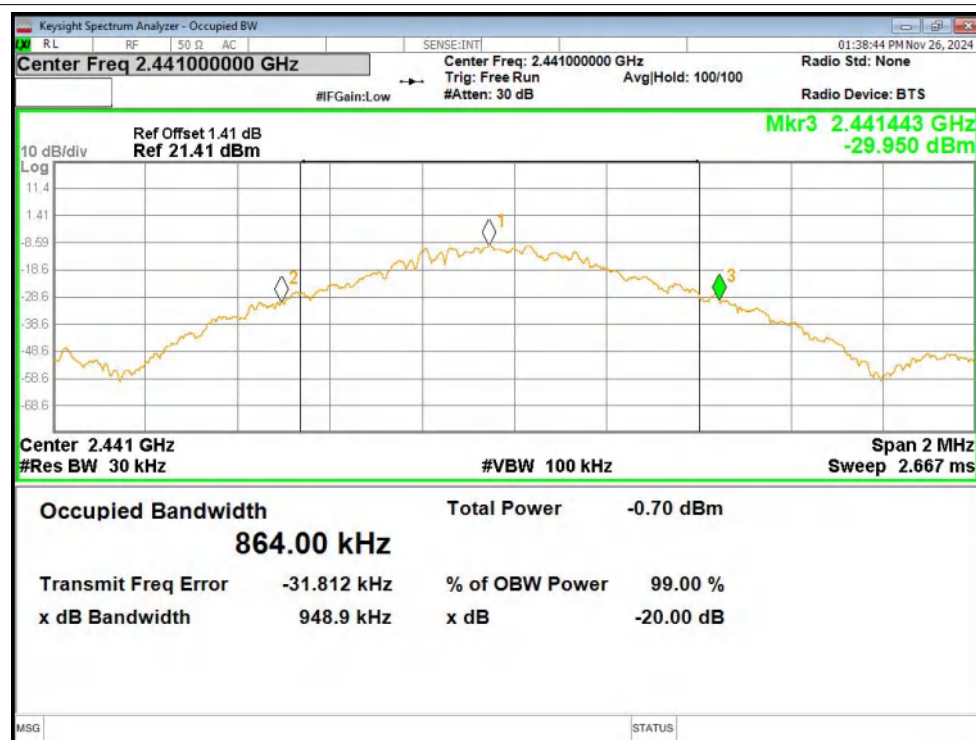
Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
1-DH5	2402	Ant1	0.948	Pass
1-DH5	2441	Ant1	0.949	Pass
1-DH5	2480	Ant1	0.953	Pass
2-DH5	2402	Ant1	1.317	Pass
2-DH5	2441	Ant1	1.27	Pass
2-DH5	2480	Ant1	1.318	Pass
3-DH5	2402	Ant1	1.292	Pass
3-DH5	2441	Ant1	1.288	Pass
3-DH5	2480	Ant1	1.278	Pass

Test Graphs

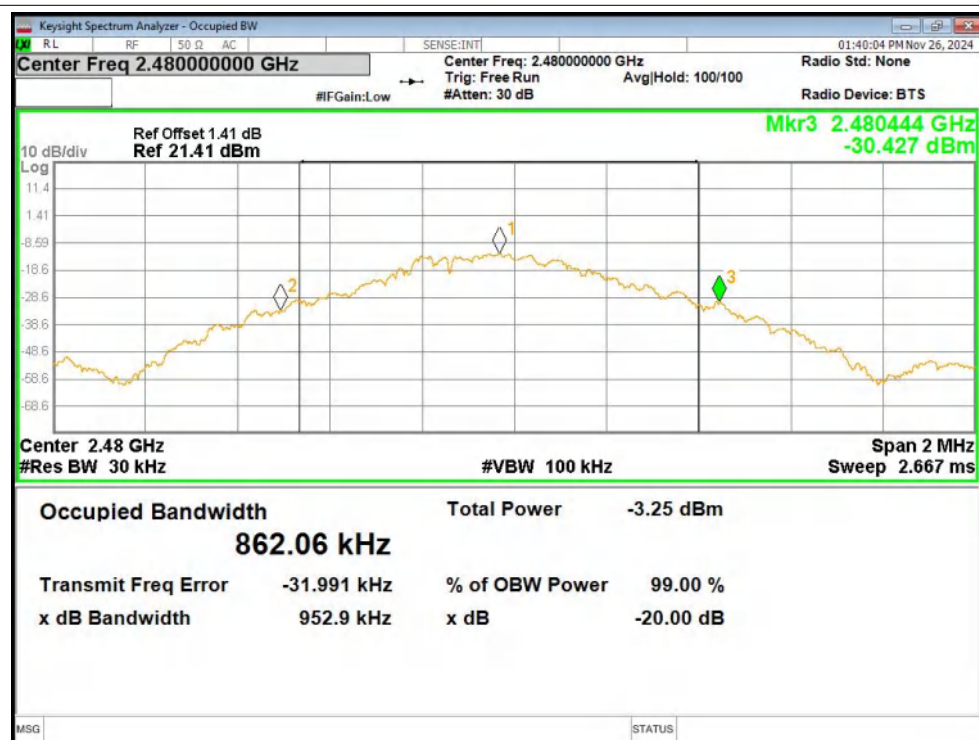
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



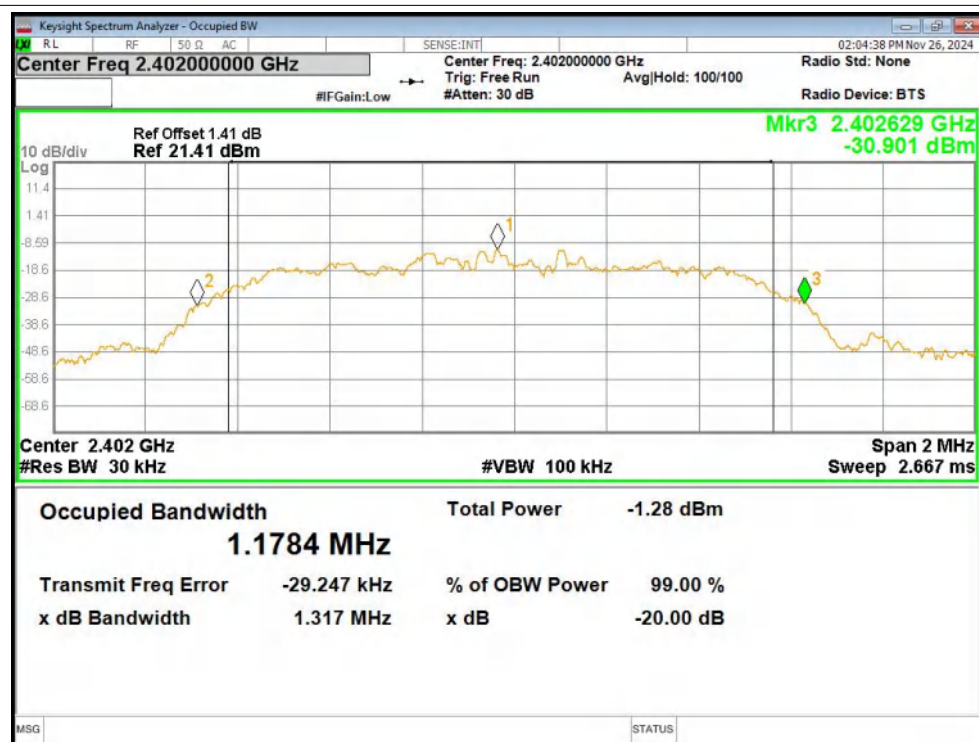
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



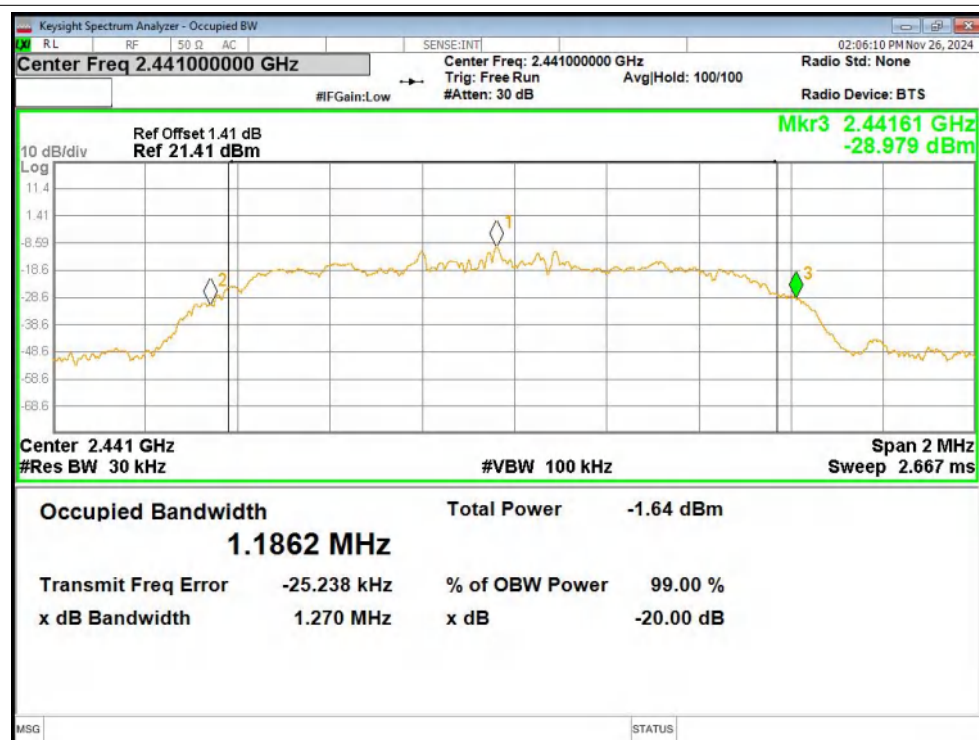
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



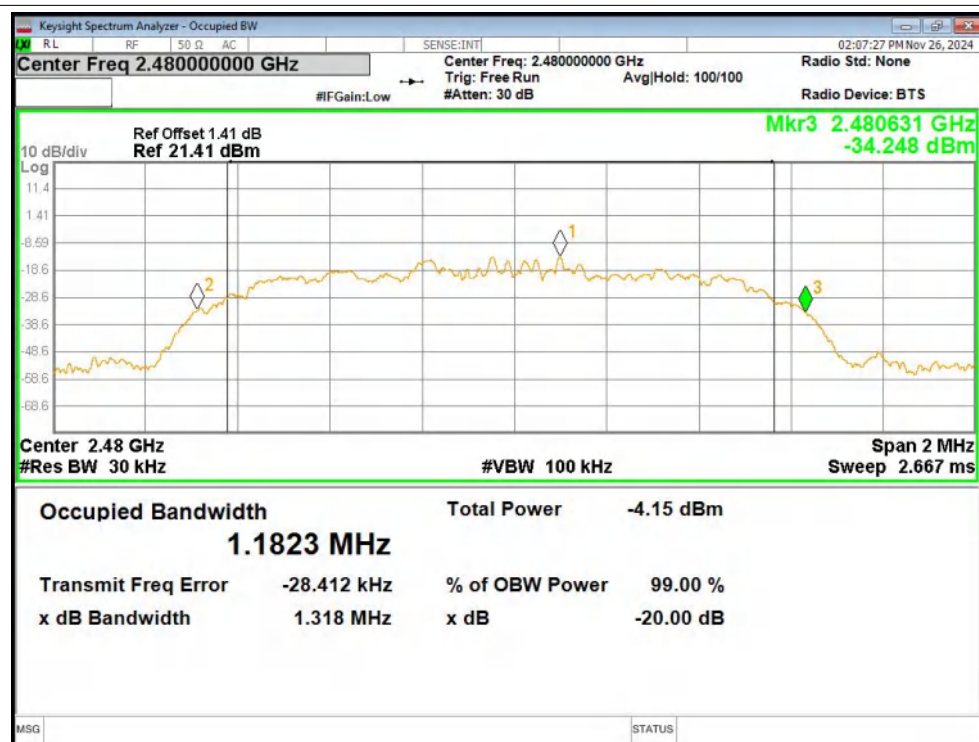
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



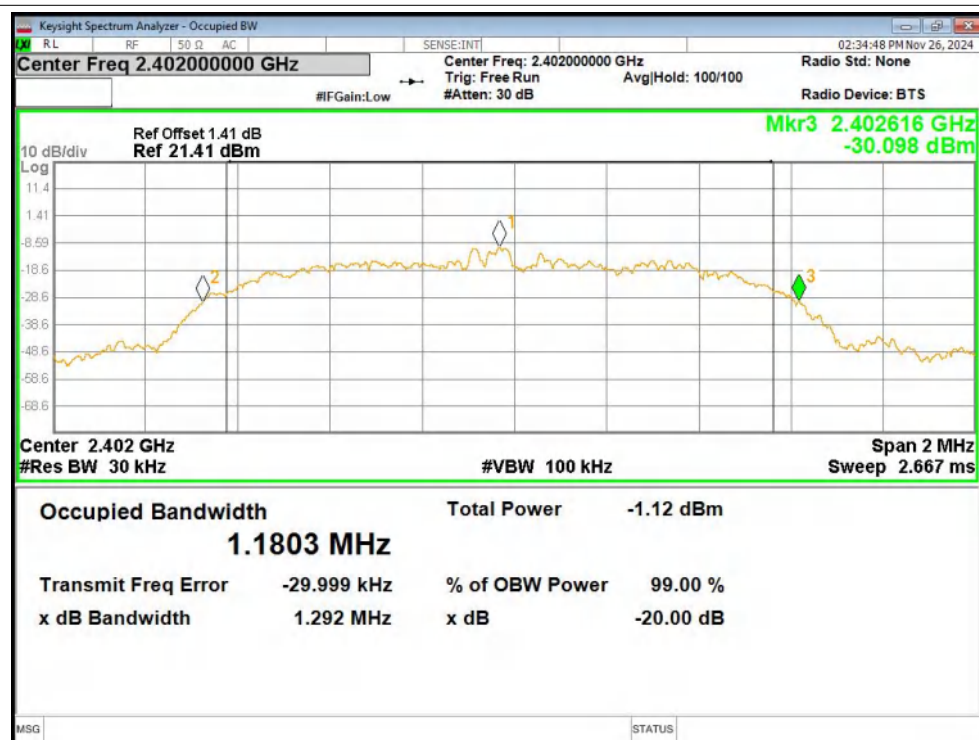
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



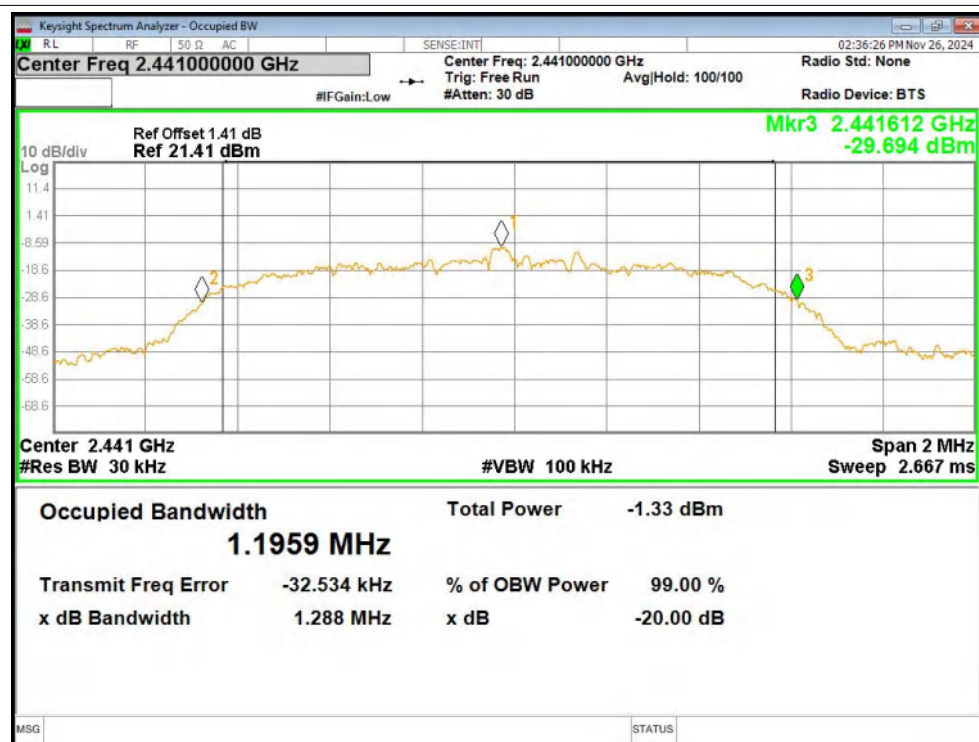
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



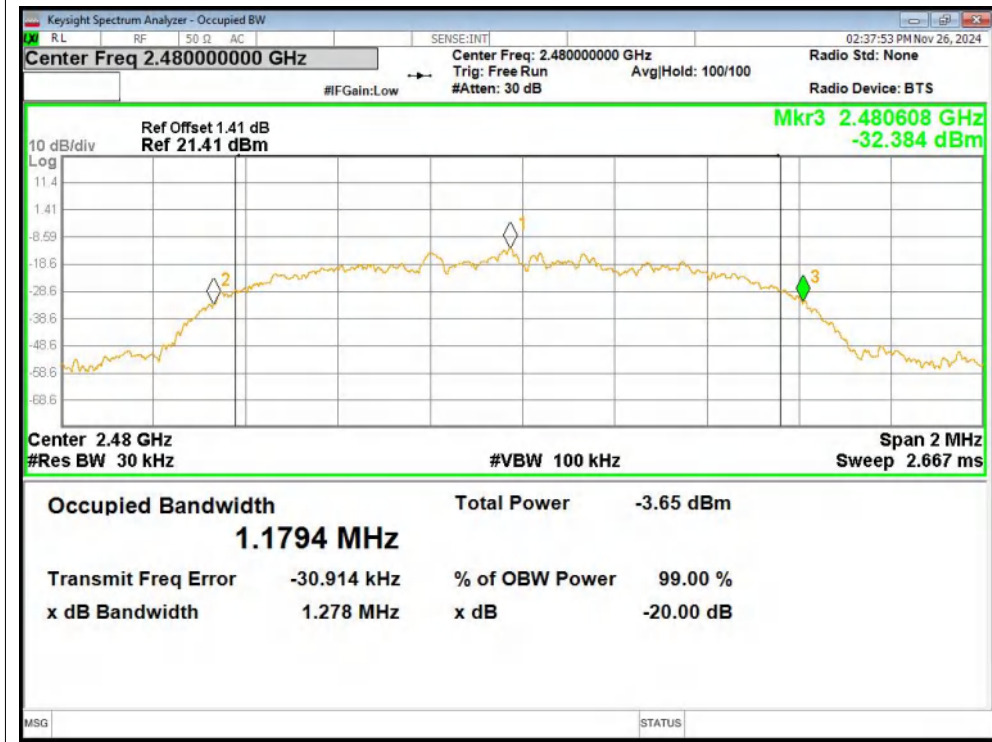
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

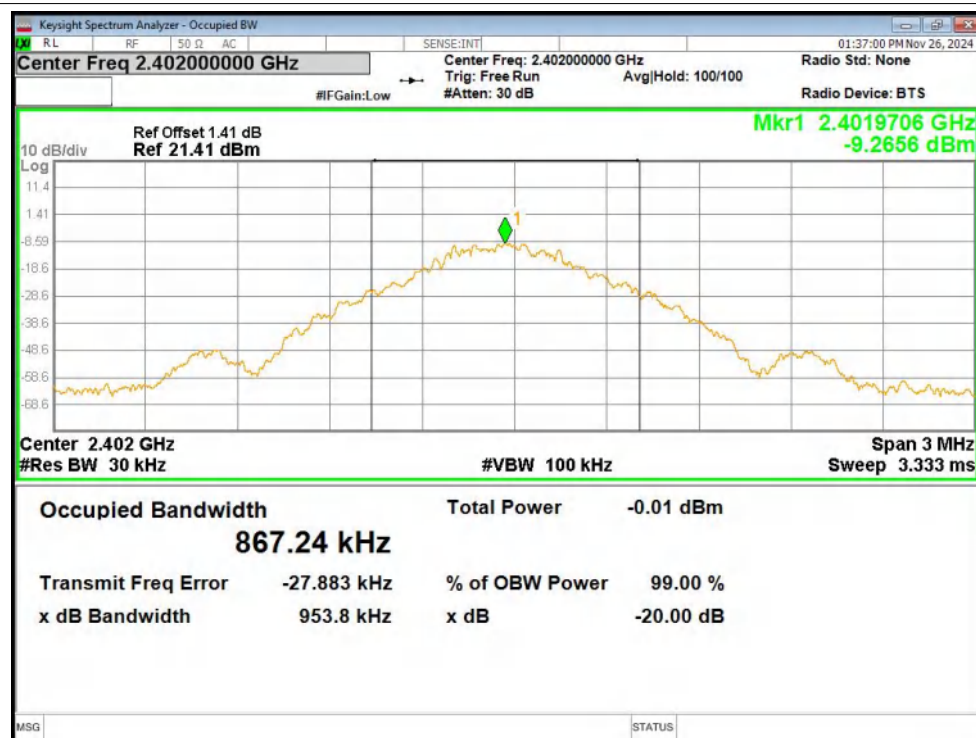


4.Occupied Channel Bandwidth

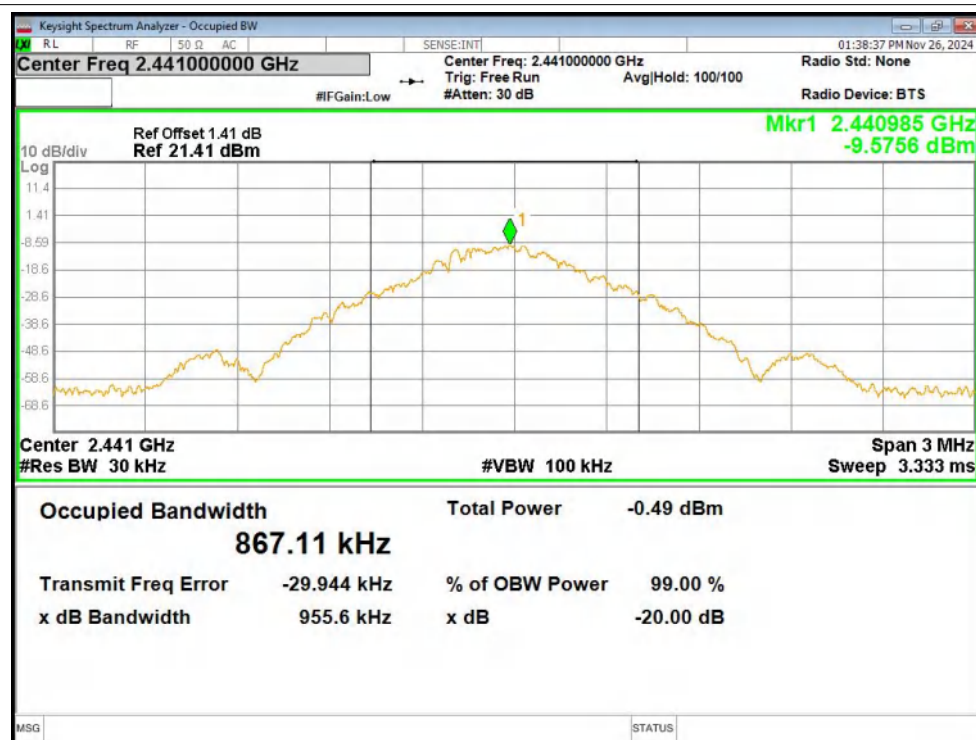
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
1-DH5	2402	Ant1	0.867
1-DH5	2441	Ant1	0.867
1-DH5	2480	Ant1	0.868
2-DH5	2402	Ant1	1.187
2-DH5	2441	Ant1	1.191
2-DH5	2480	Ant1	1.179
3-DH5	2402	Ant1	1.167
3-DH5	2441	Ant1	1.185
3-DH5	2480	Ant1	1.181

Test Graphs

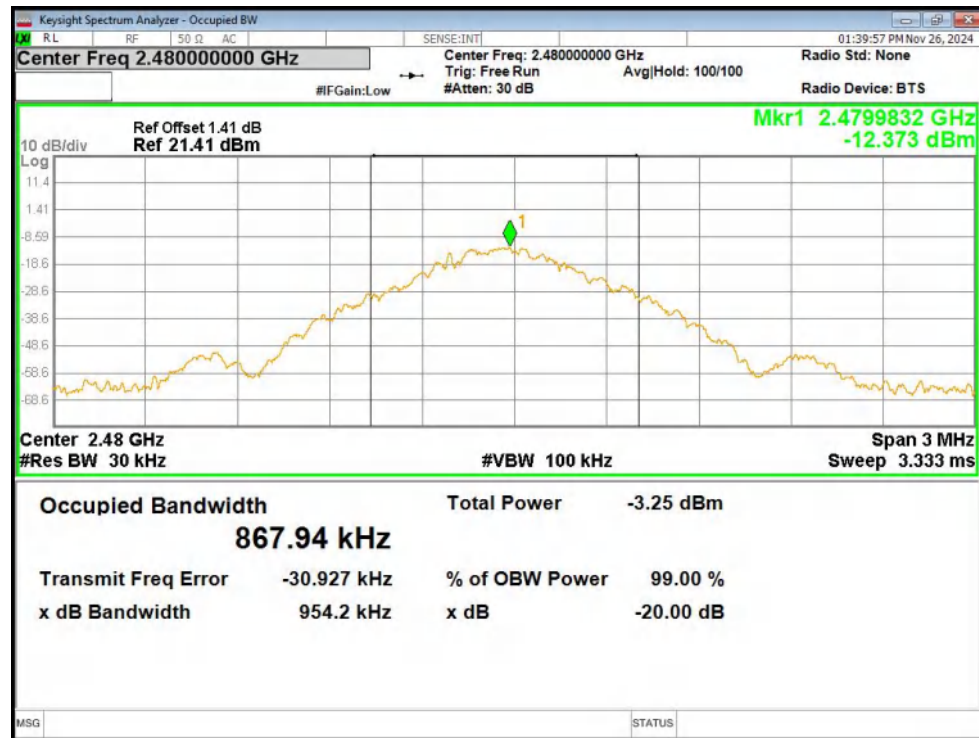
OBW NVNT 1-DH5 2402MHz Ant1



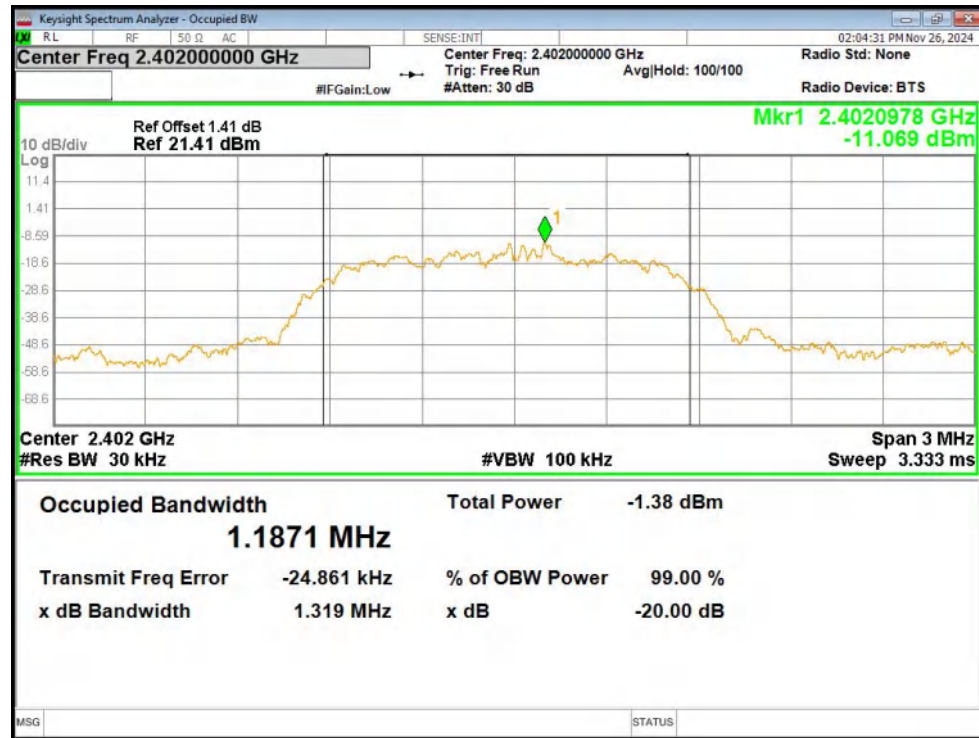
OBW NVNT 1-DH5 2441MHz Ant1



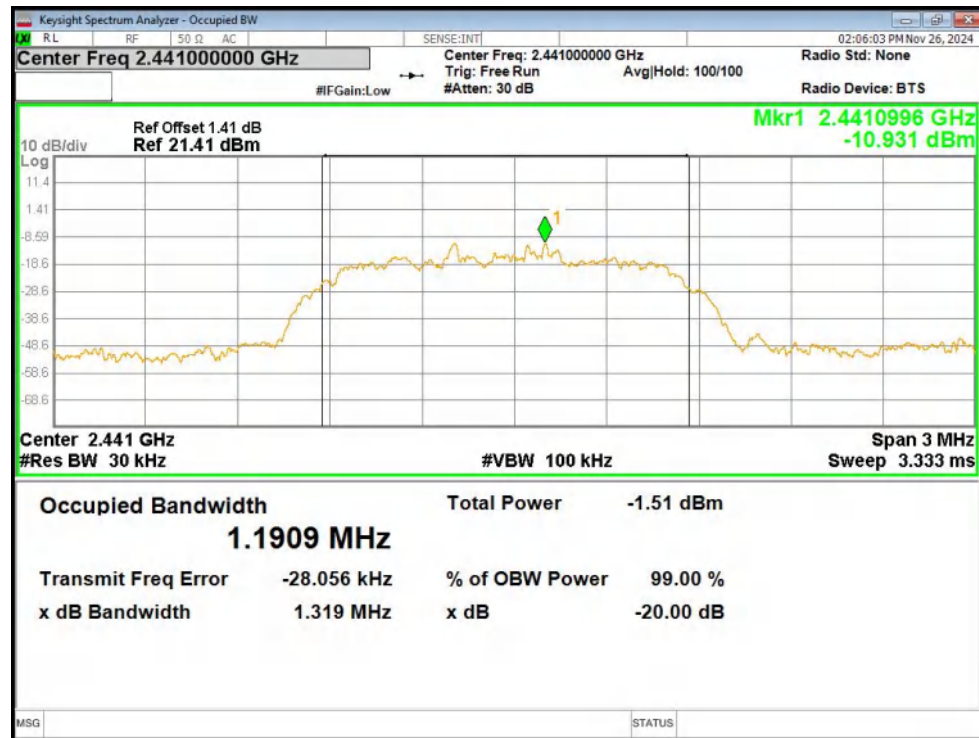
OBW NVNT 1-DH5 2480MHz Ant1



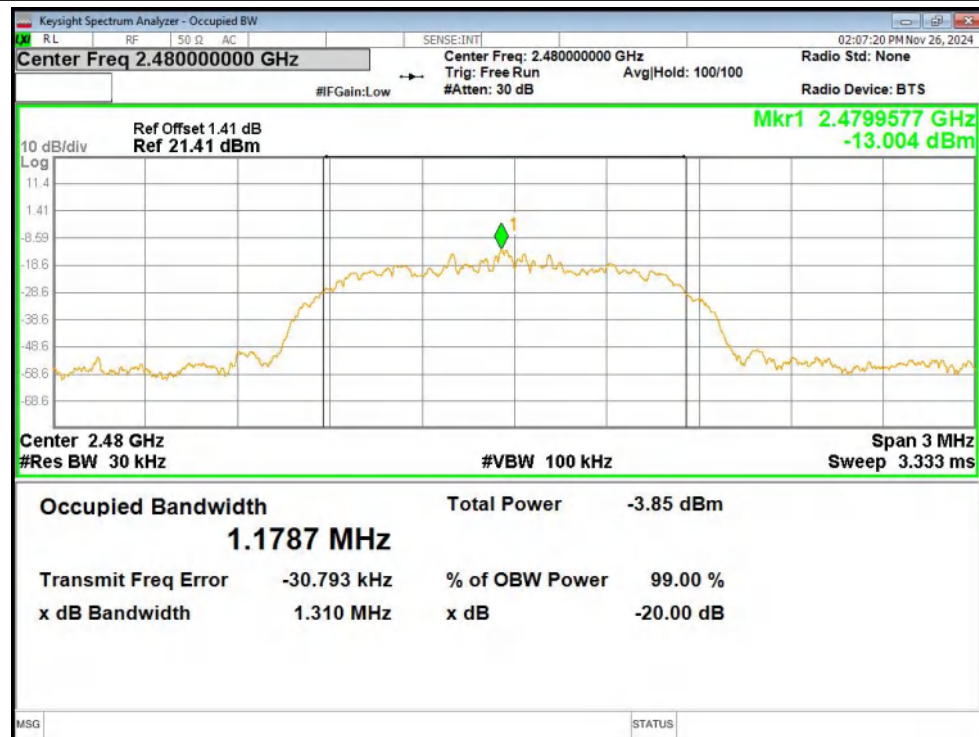
OBW NVNT 2-DH5 2402MHz Ant1



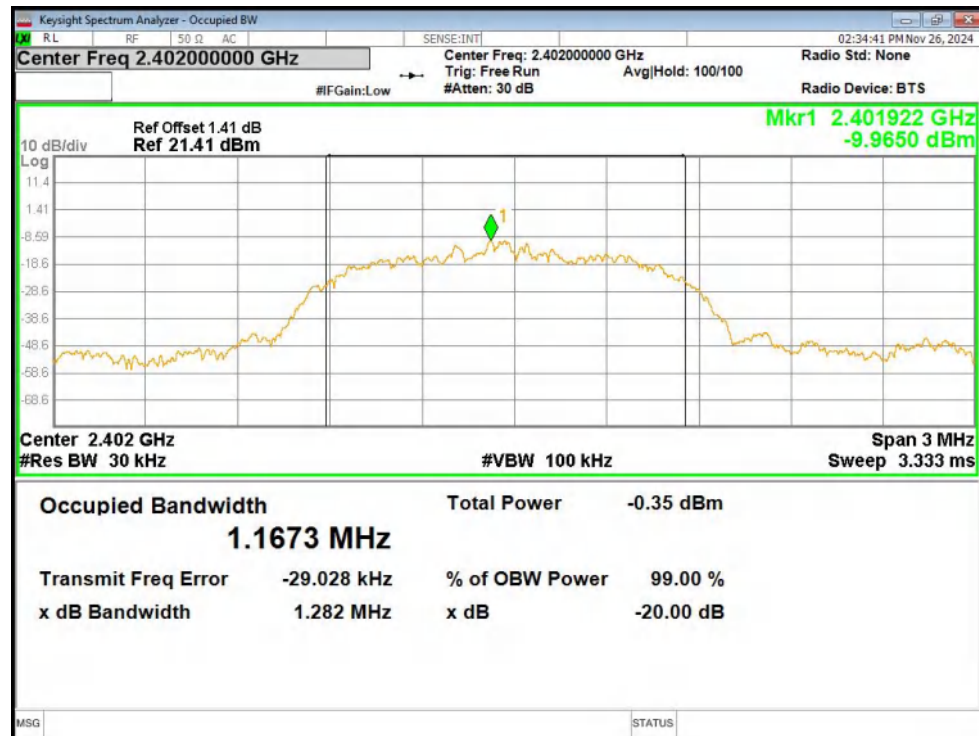
OBW NVNT 2-DH5 2441MHz Ant1



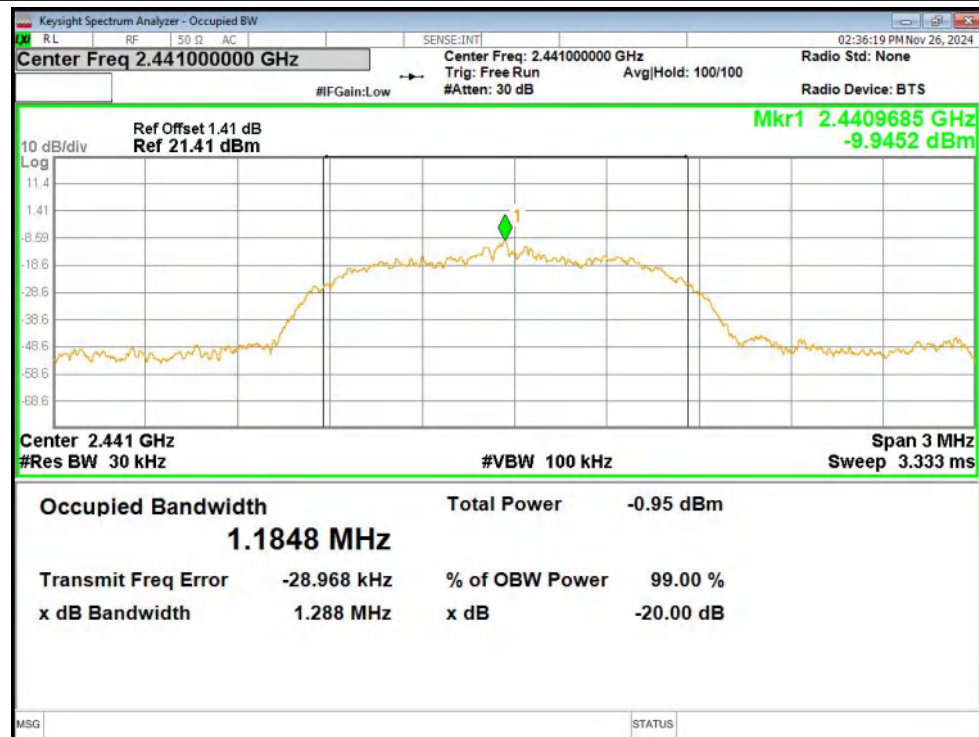
OBW NVNT 2-DH5 2480MHz Ant1



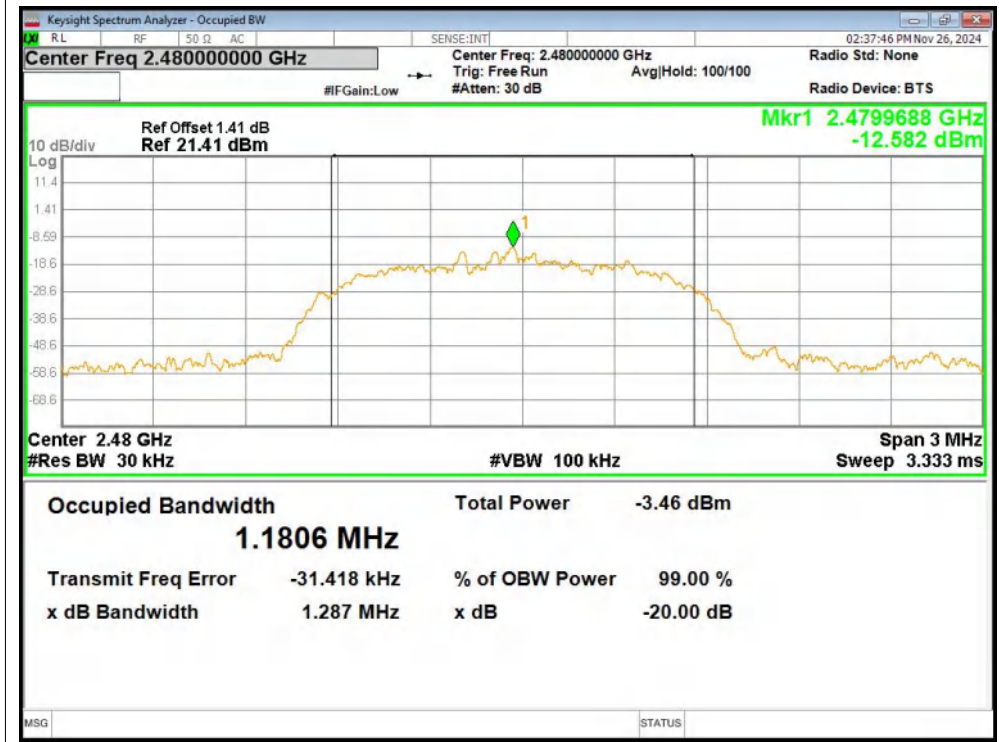
OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1

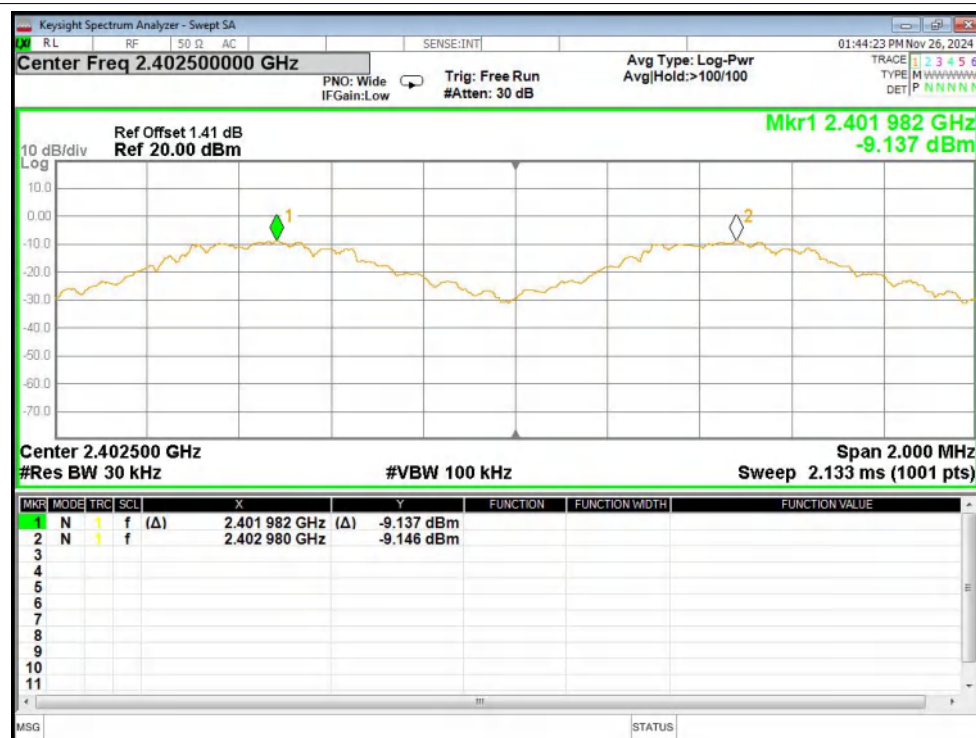


5.Carrier Frequencies Separation

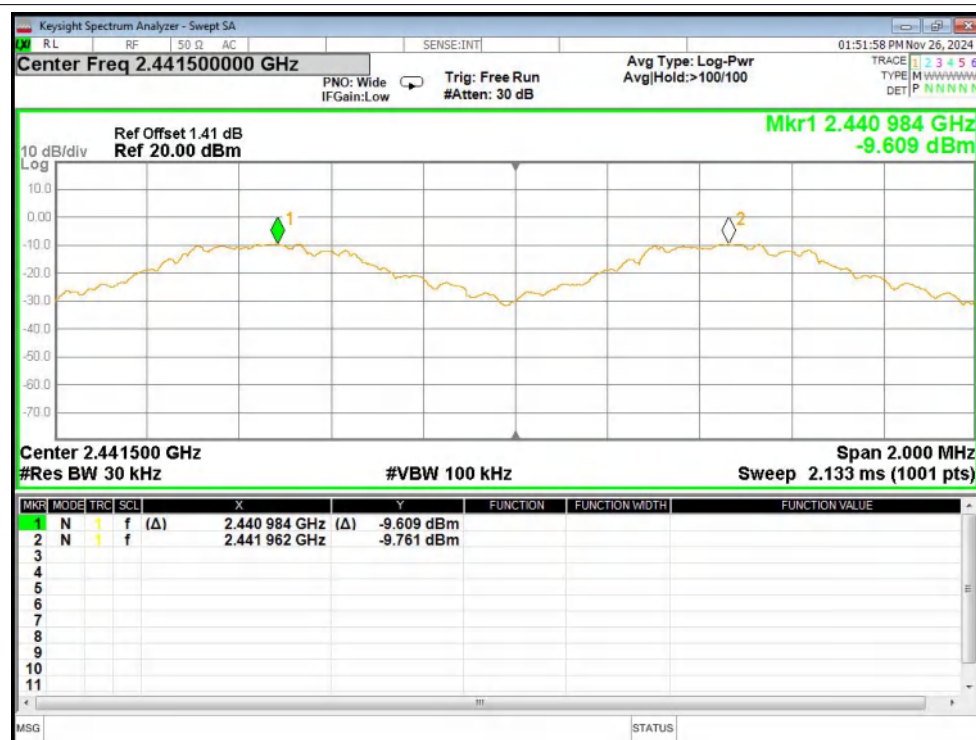
Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
1-DH5	Ant1	2401.982	2402.98	0.998	0.948	Pass
1-DH5	Ant1	2440.984	2441.962	0.978	0.949	Pass
1-DH5	Ant1	2478.946	2479.962	1.016	0.953	Pass
2-DH5	Ant1	2401.922	2402.926	1.004	0.878	Pass
2-DH5	Ant1	2440.962	2441.966	1.004	0.847	Pass
2-DH5	Ant1	2478.918	2479.962	1.044	0.879	Pass
3-DH5	Ant1	2401.972	2402.97	0.998	0.861	Pass
3-DH5	Ant1	2440.972	2441.968	0.996	0.859	Pass
3-DH5	Ant1	2478.966	2479.97	1.004	0.852	Pass

Test Graphs

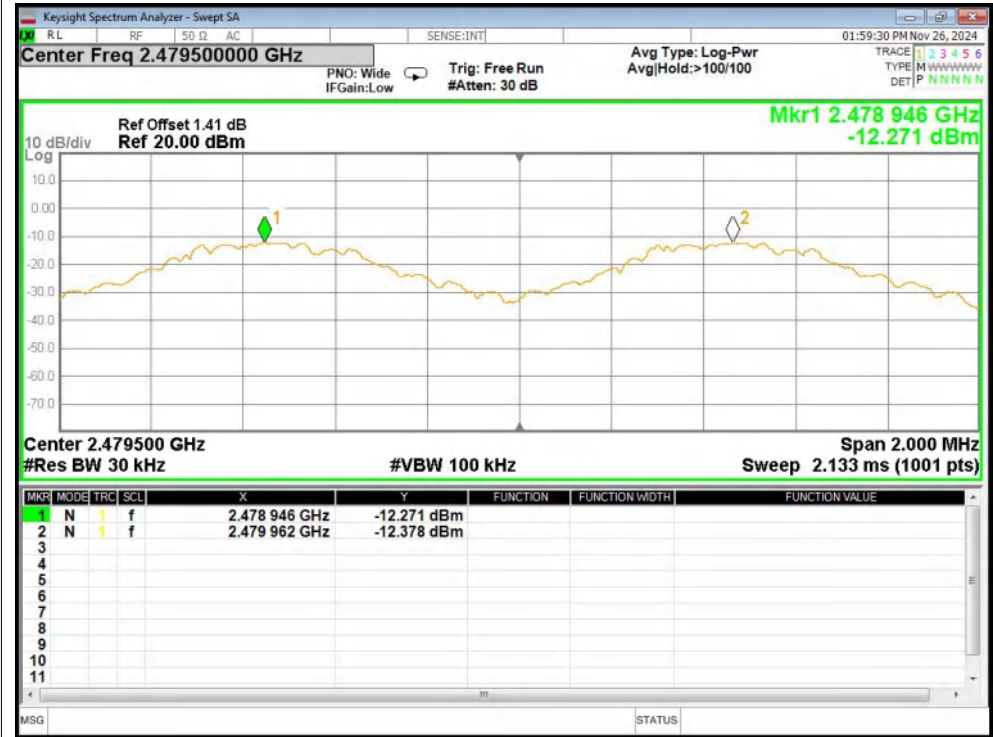
CFS NVNT 1-DH5 2402MHz Ant1



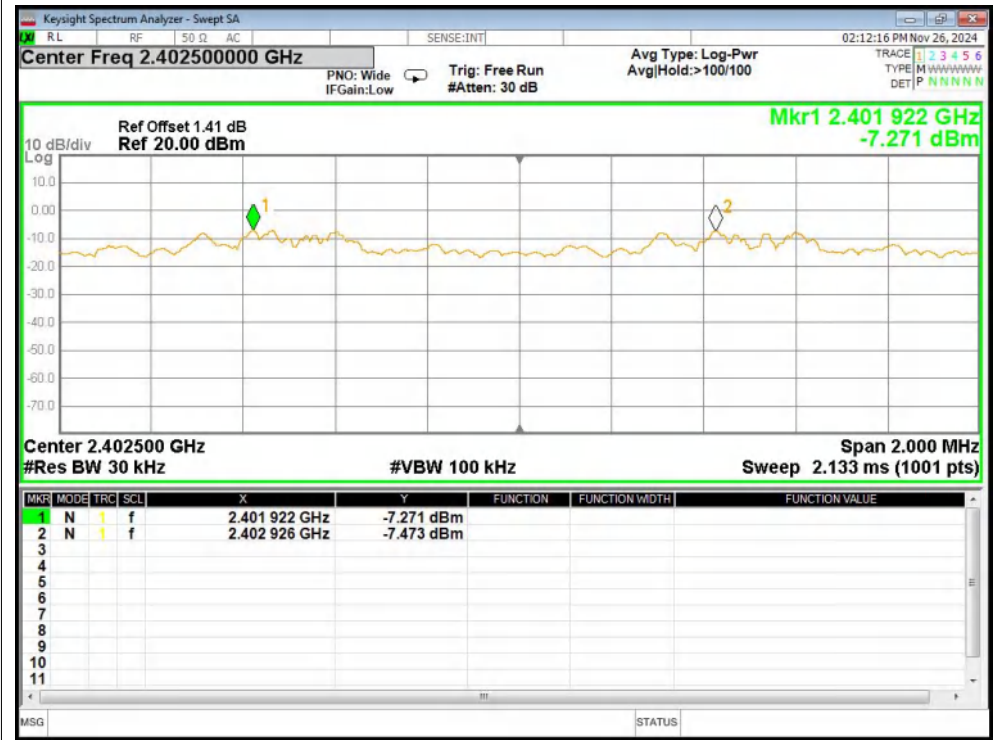
CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 1-DH5 2480MHz Ant1



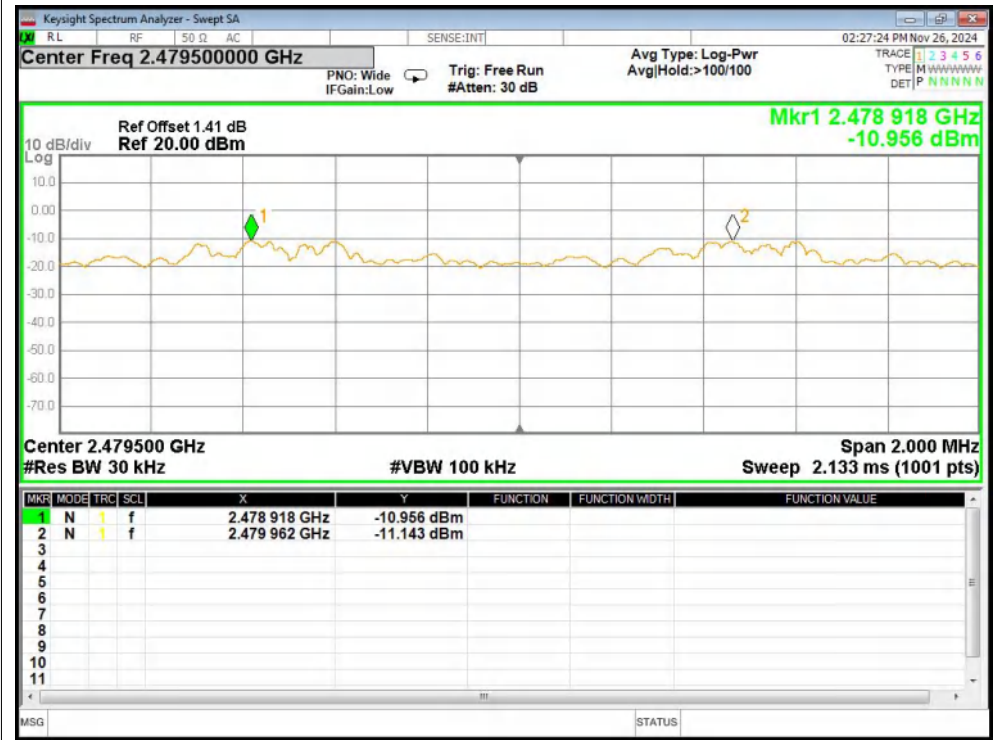
CFS NVNT 2-DH5 2402MHz Ant1



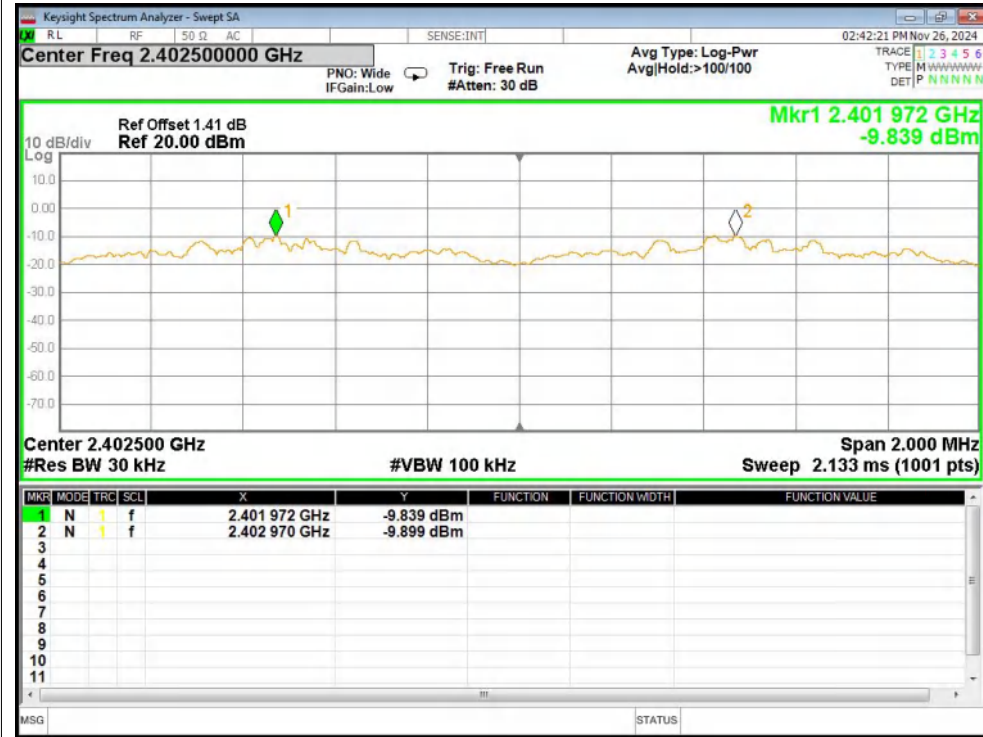
CFS NVNT 2-DH5 2441MHz Ant1



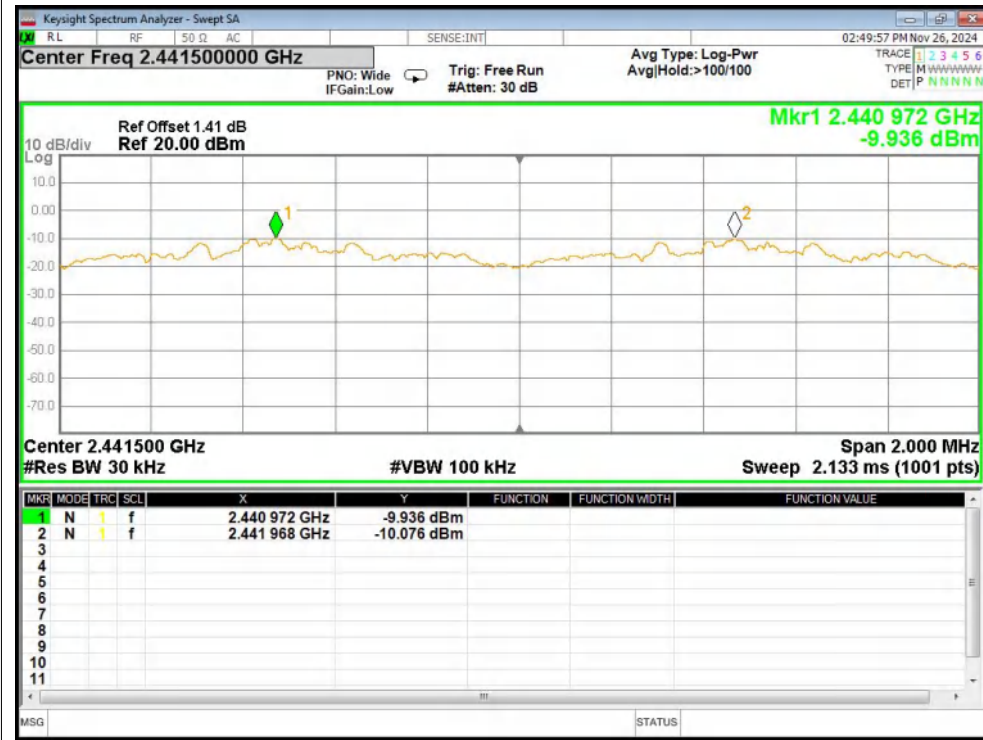
CFS NVNT 2-DH5 2480MHz Ant1



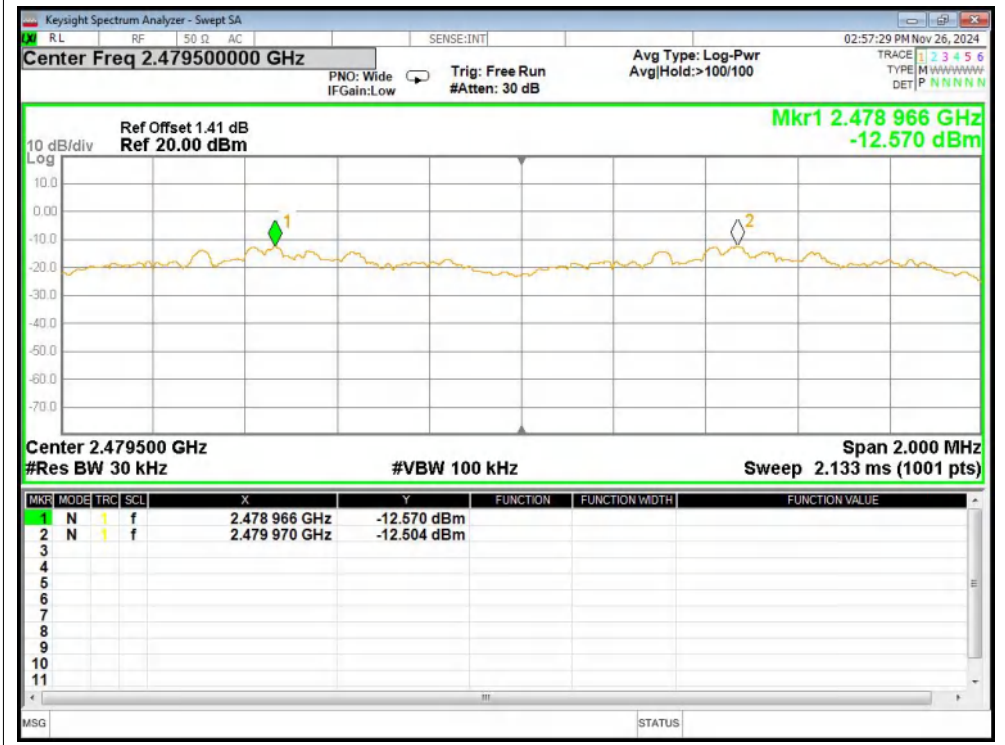
CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2480MHz Ant1

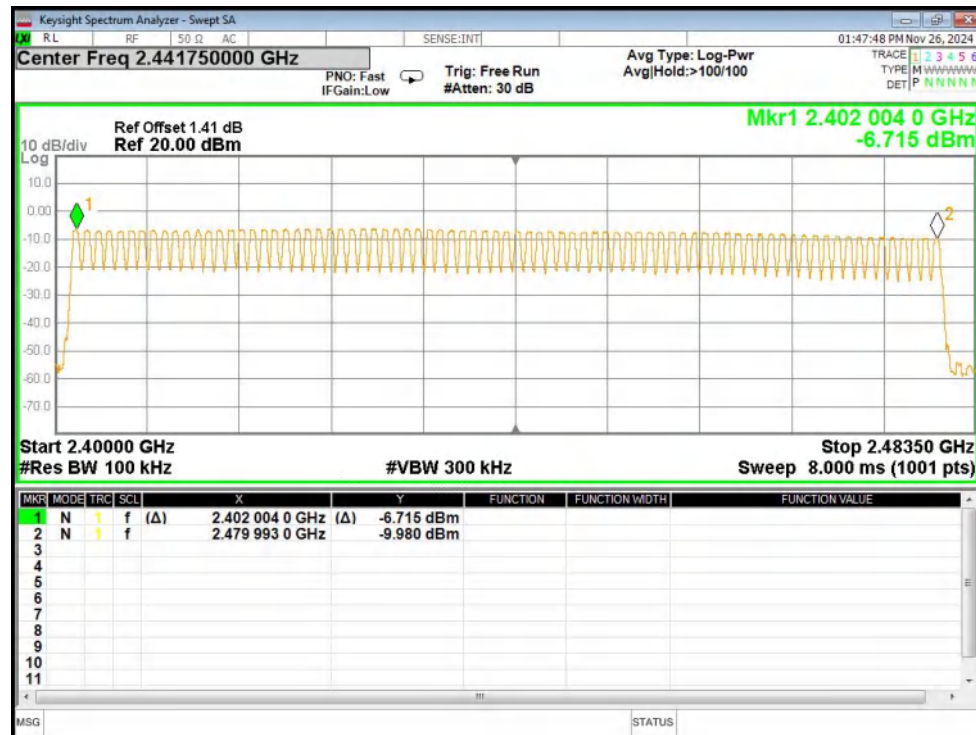


6.Number of Hopping Channel

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



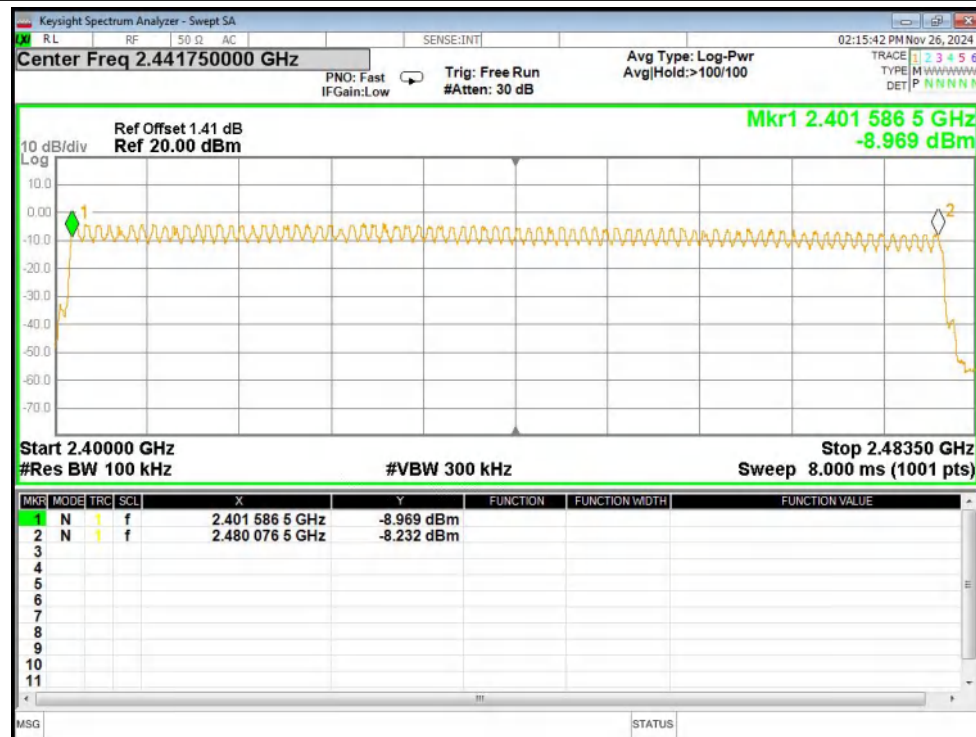
Hopping No. NVNT 1-DH5 2441MHz Ant1



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

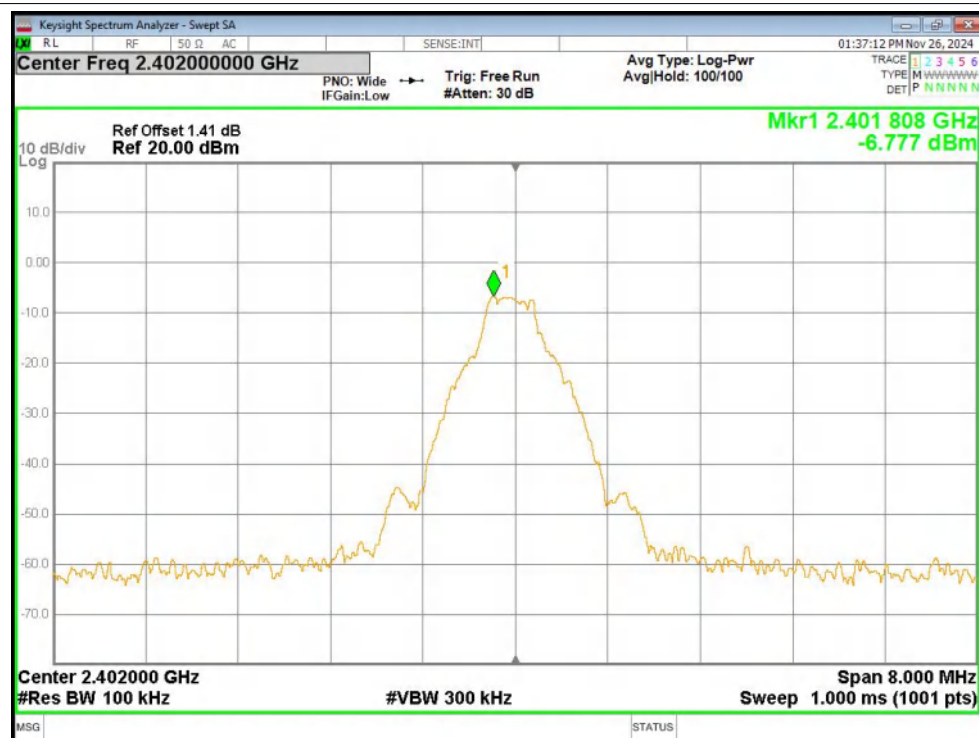


7.Band Edge

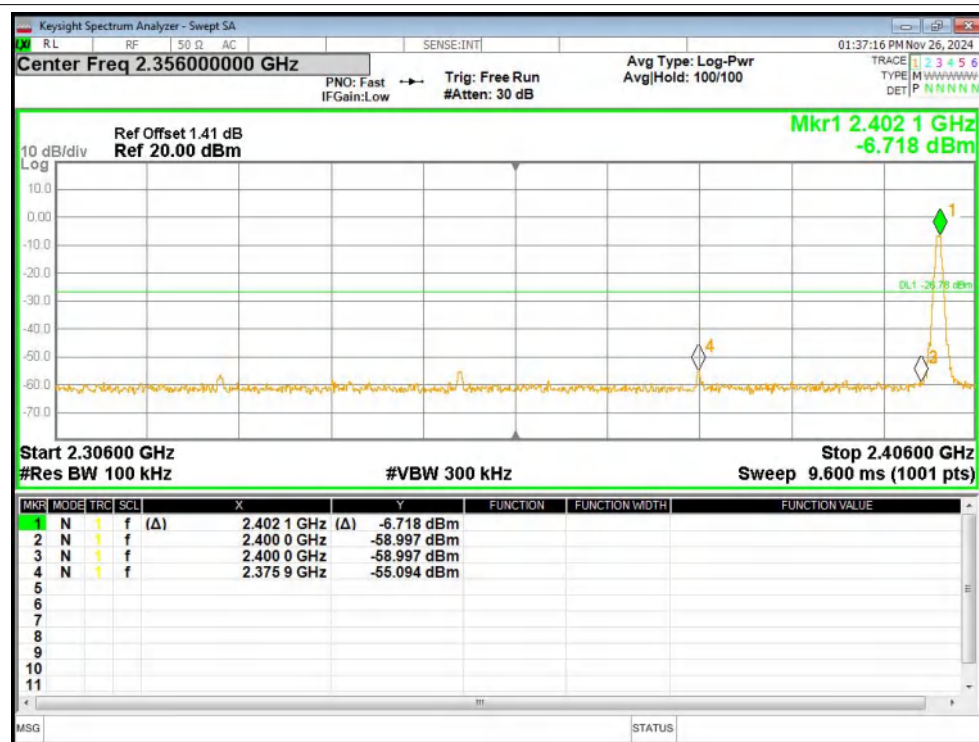
Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	No-Hopping	-48.31	-20	Pass
1-DH5	2480	Ant1	No-Hopping	-47.89	-20	Pass
2-DH5	2402	Ant1	No-Hopping	-46.43	-20	Pass
2-DH5	2480	Ant1	No-Hopping	-47.2	-20	Pass
3-DH5	2402	Ant1	No-Hopping	-43.42	-20	Pass
3-DH5	2480	Ant1	No-Hopping	-46.99	-20	Pass

Test Graphs

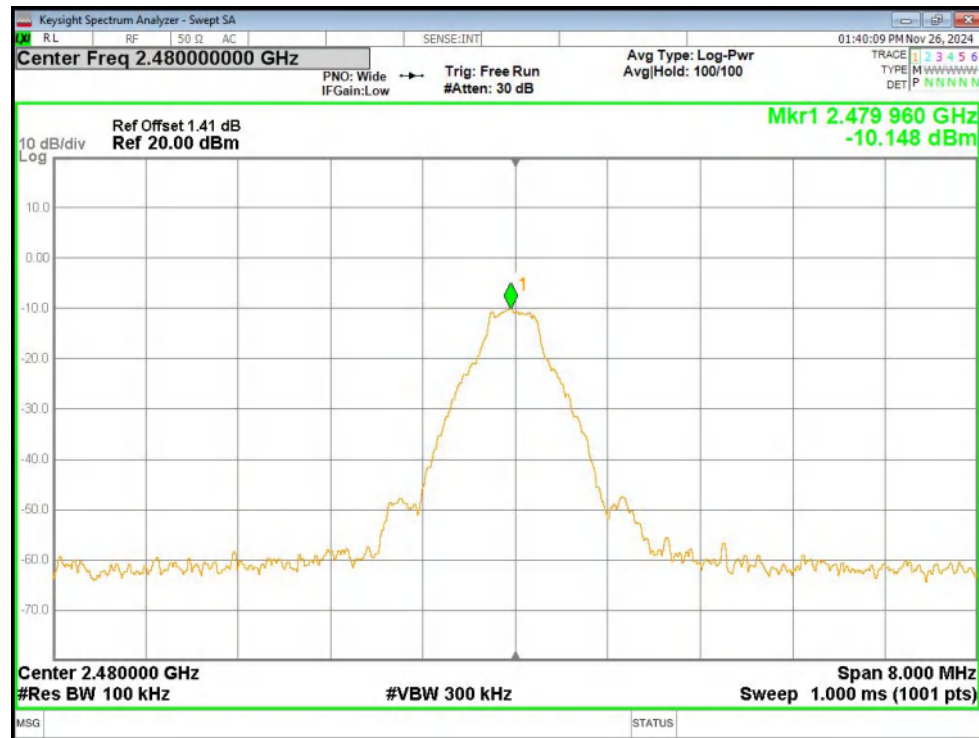
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



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



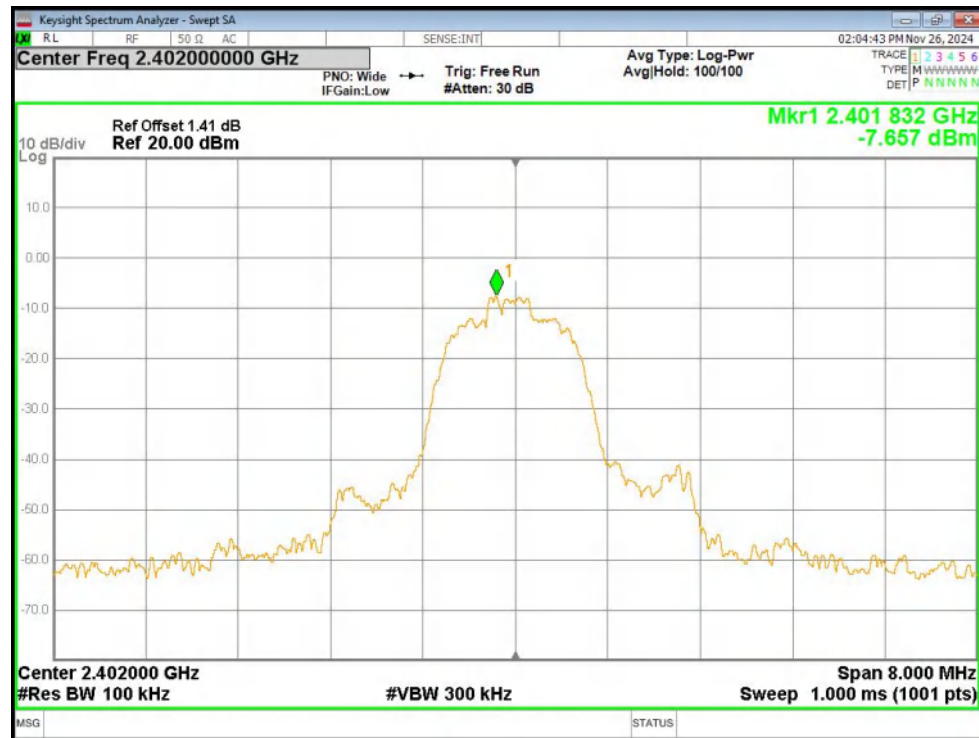
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



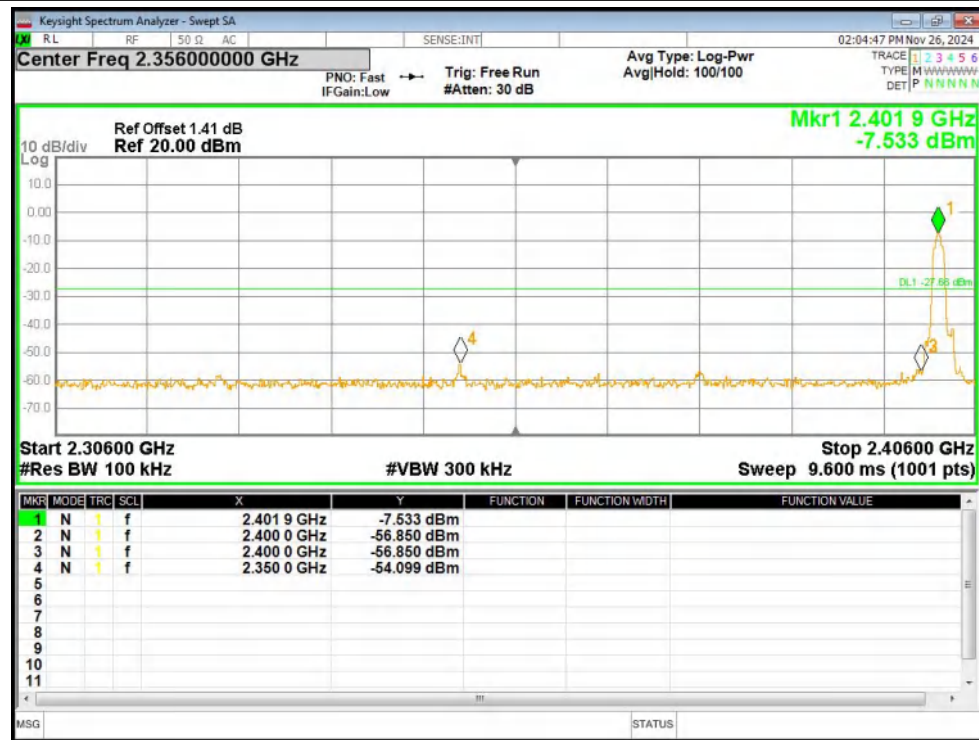
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



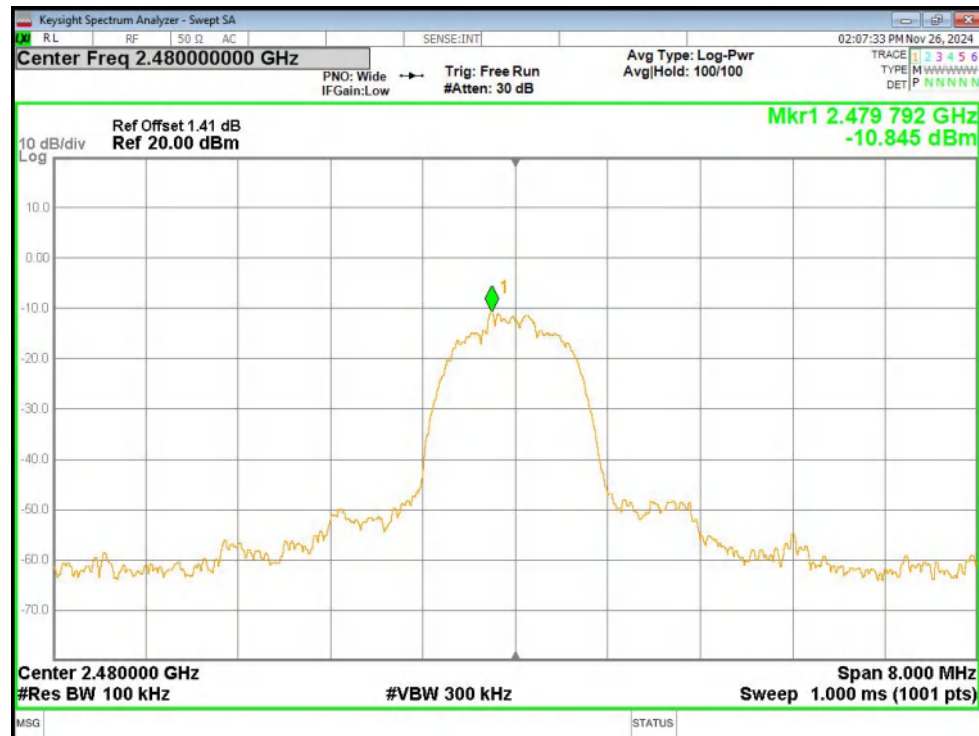
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



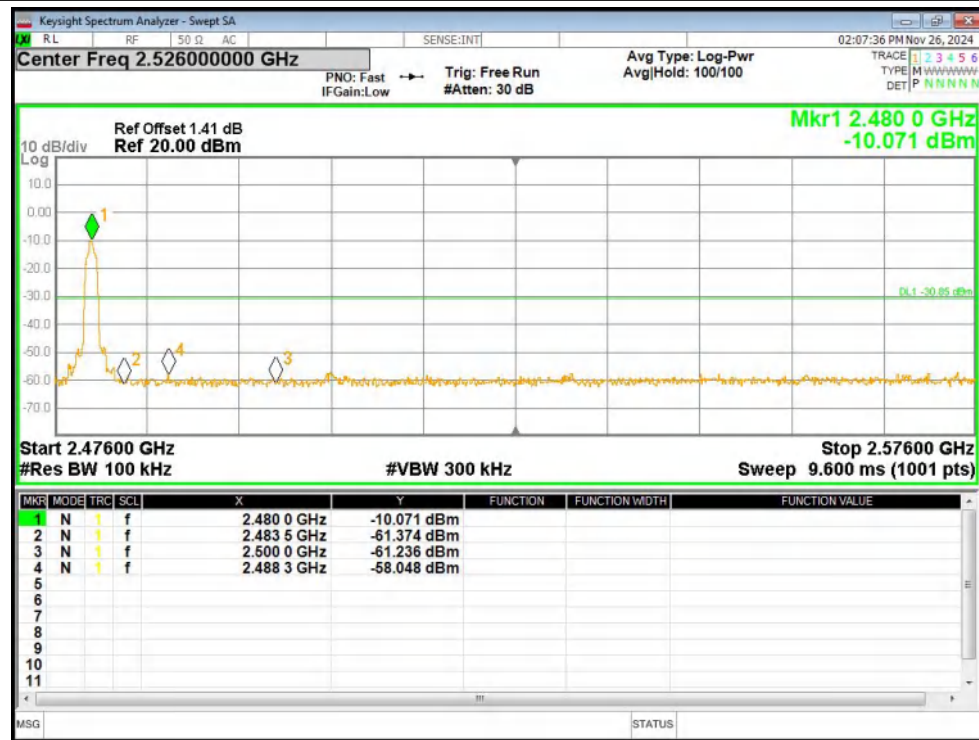
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



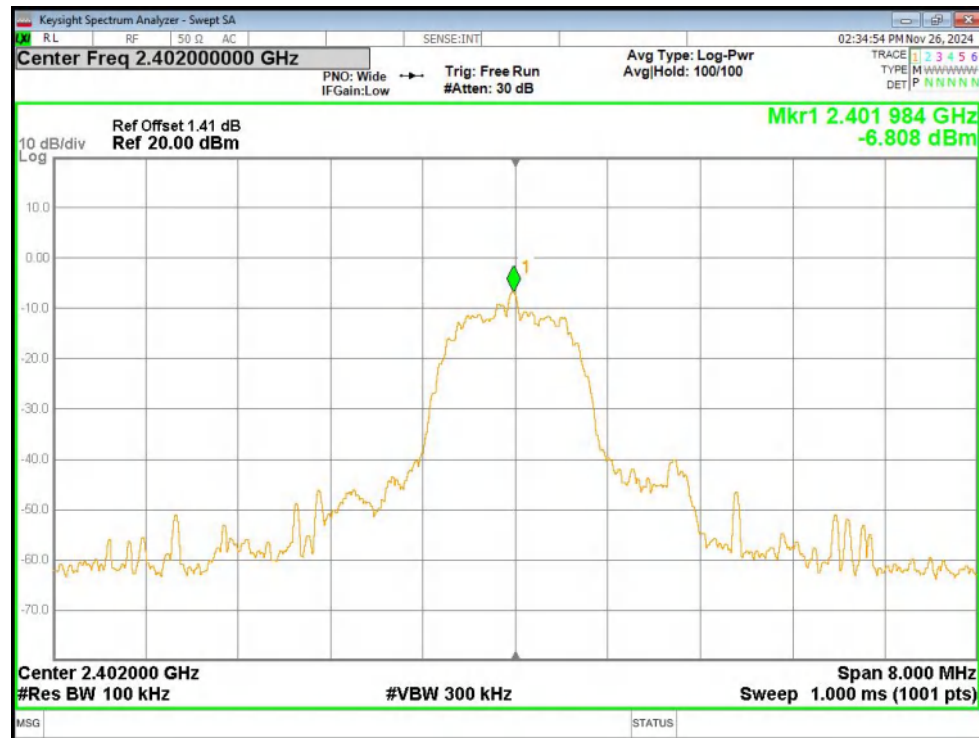
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



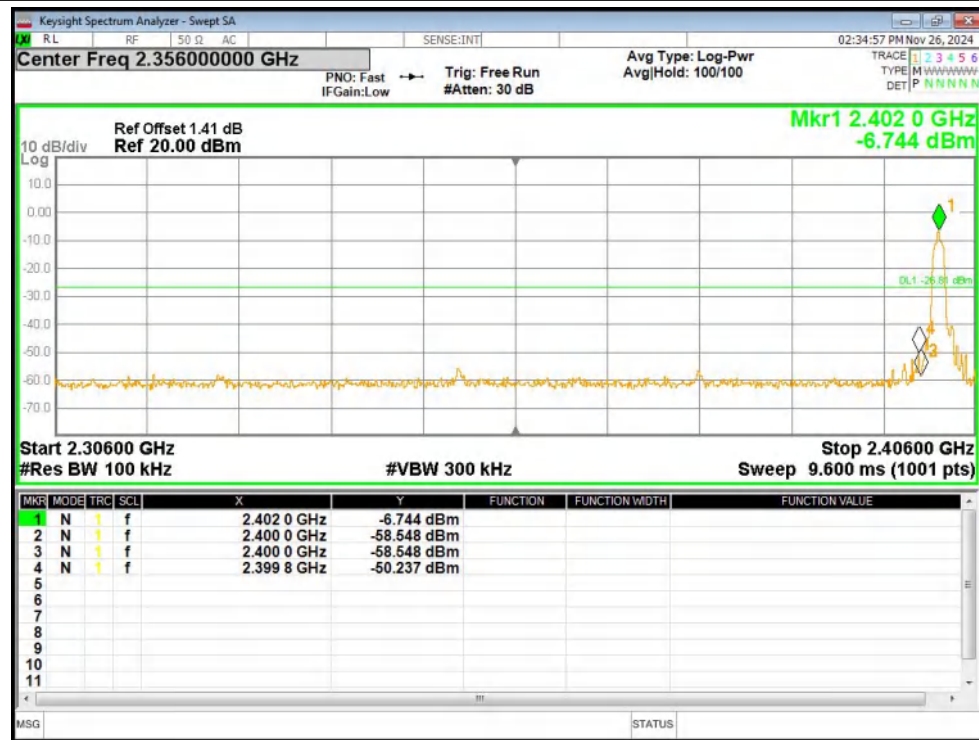
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



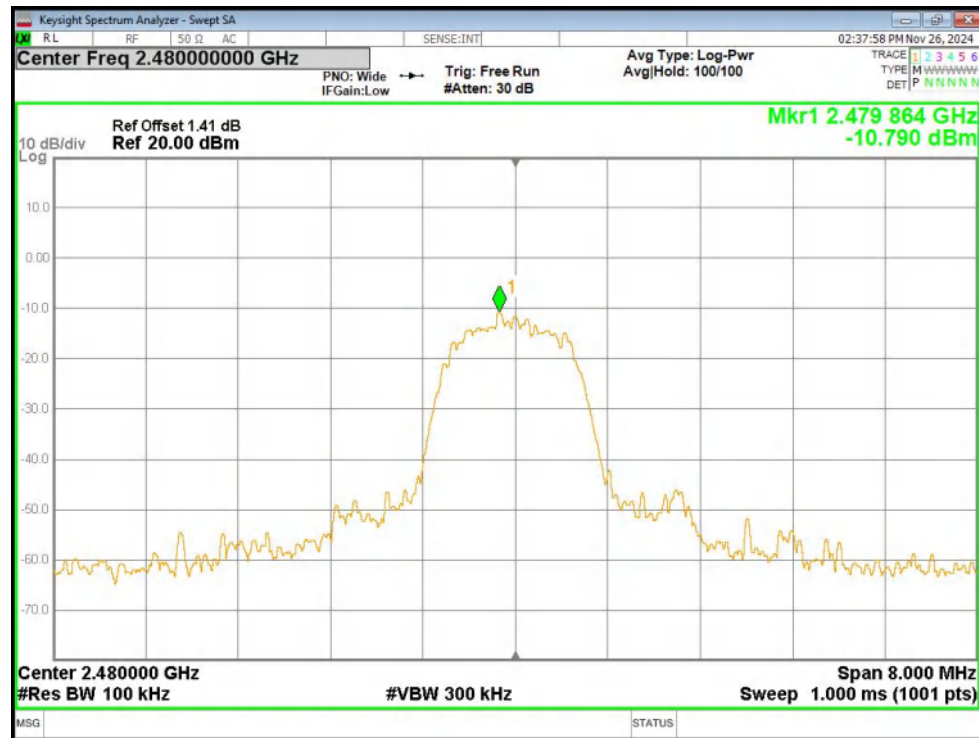
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



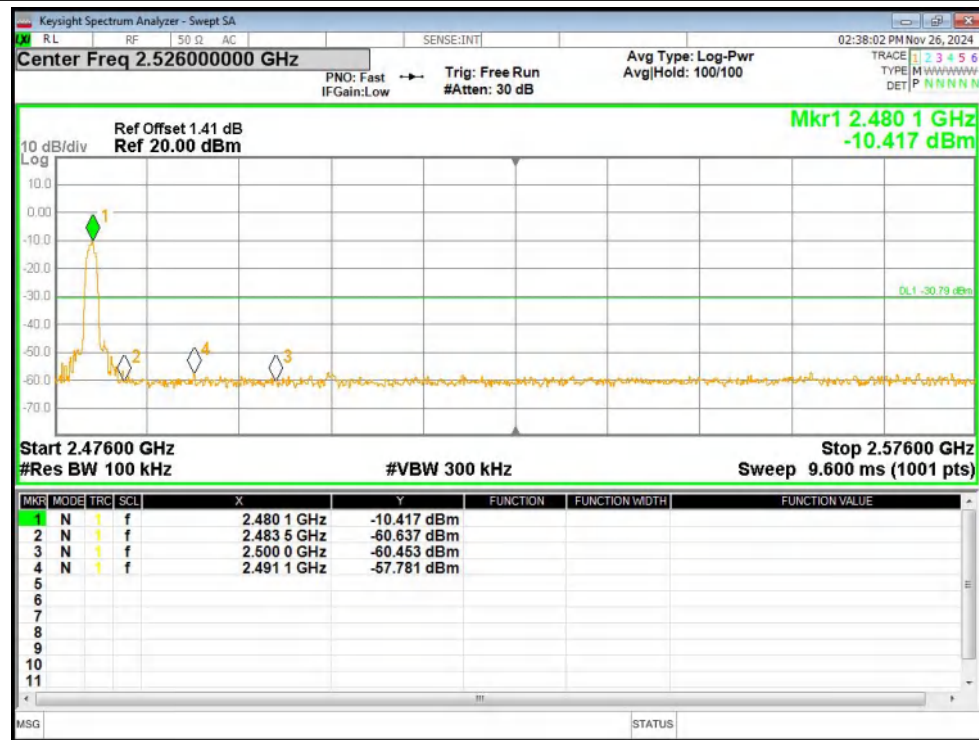
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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



8.Band Edge(Hopping)

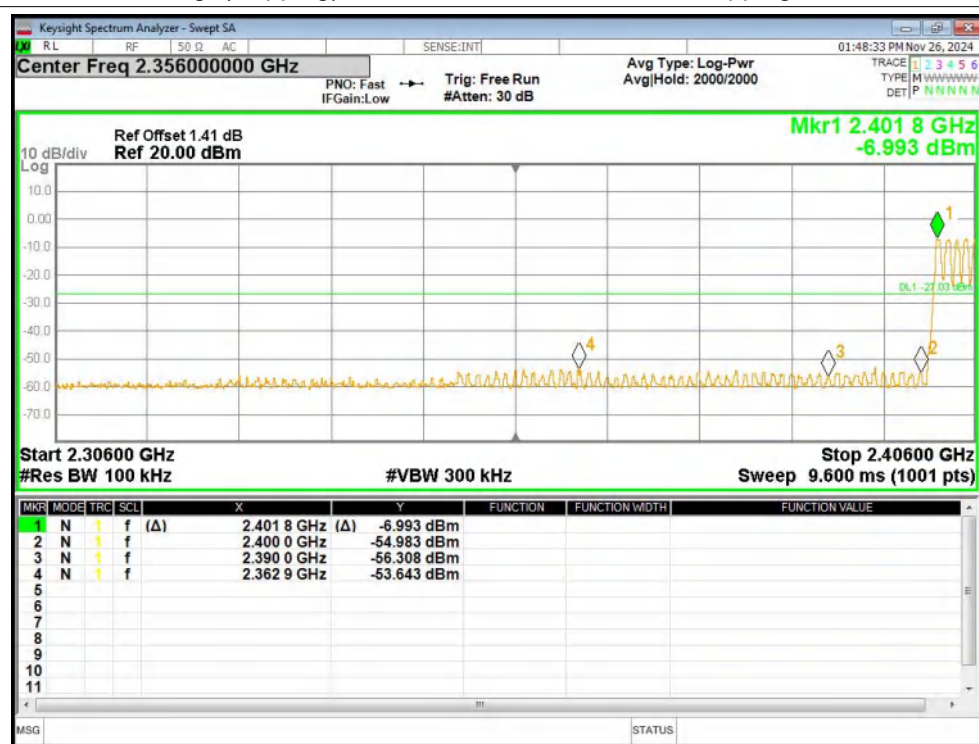
Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	Hopping	-46.61	-20	Pass
1-DH5	2480	Ant1	Hopping	-44.85	-20	Pass
2-DH5	2402	Ant1	Hopping	-48.26	-20	Pass
2-DH5	2480	Ant1	Hopping	-46.5	-20	Pass
3-DH5	2402	Ant1	Hopping	-45.8	-20	Pass
3-DH5	2480	Ant1	Hopping	-45.31	-20	Pass

Test Graphs

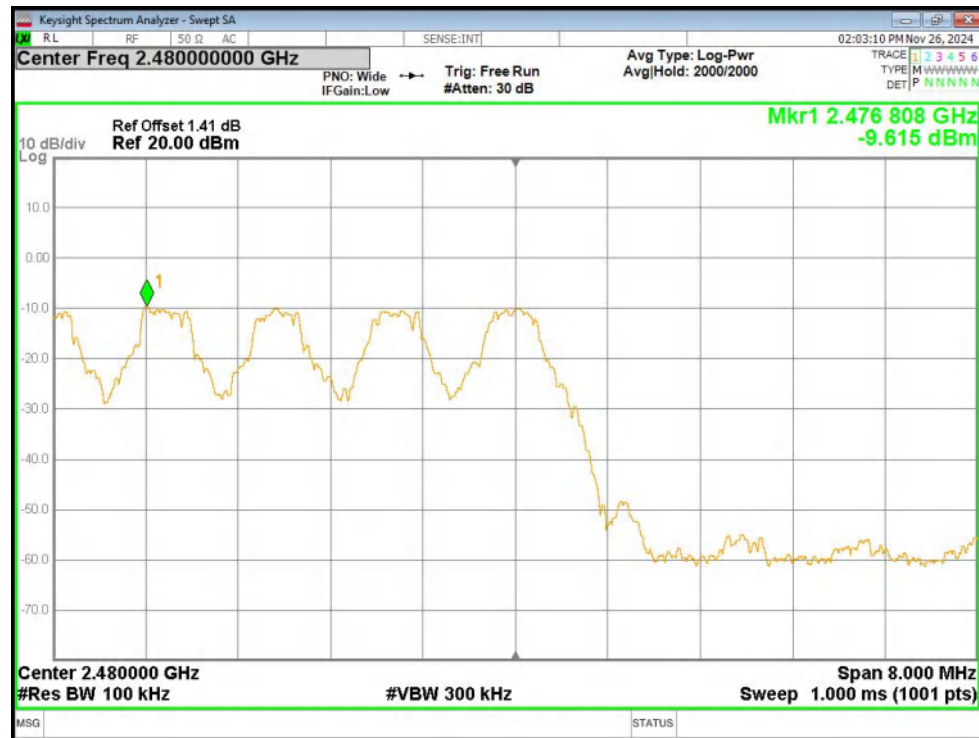
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



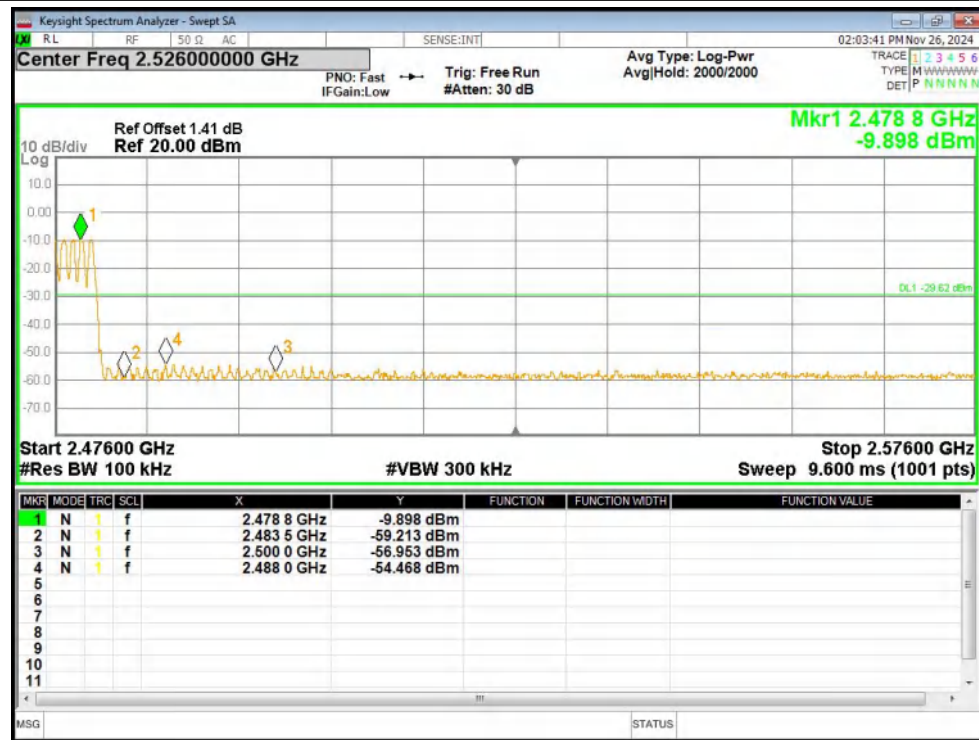
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



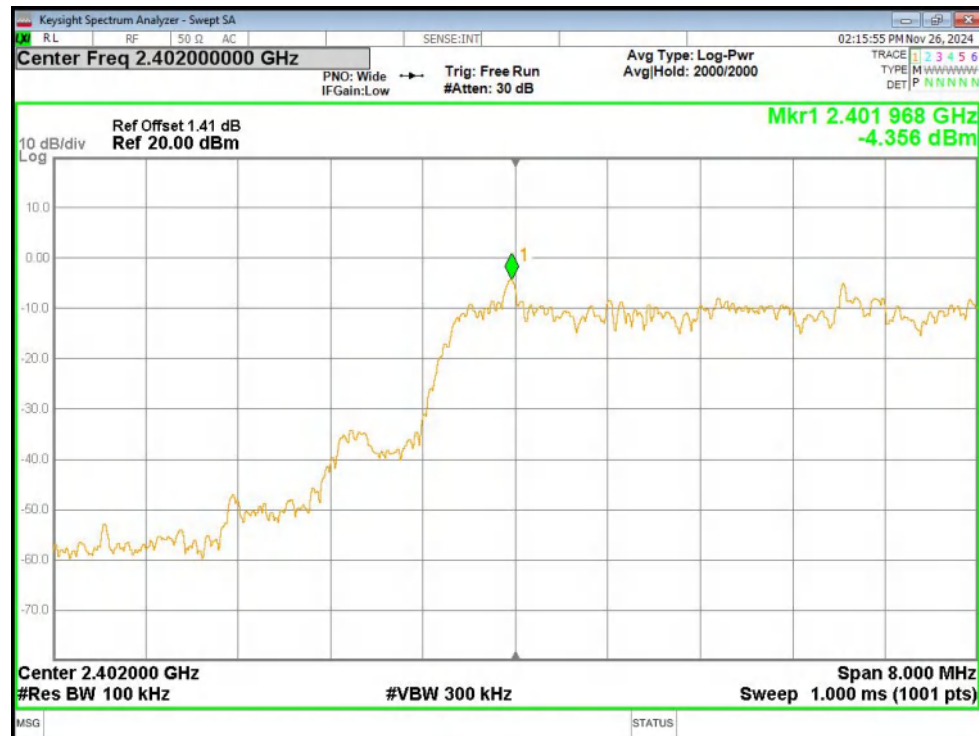
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



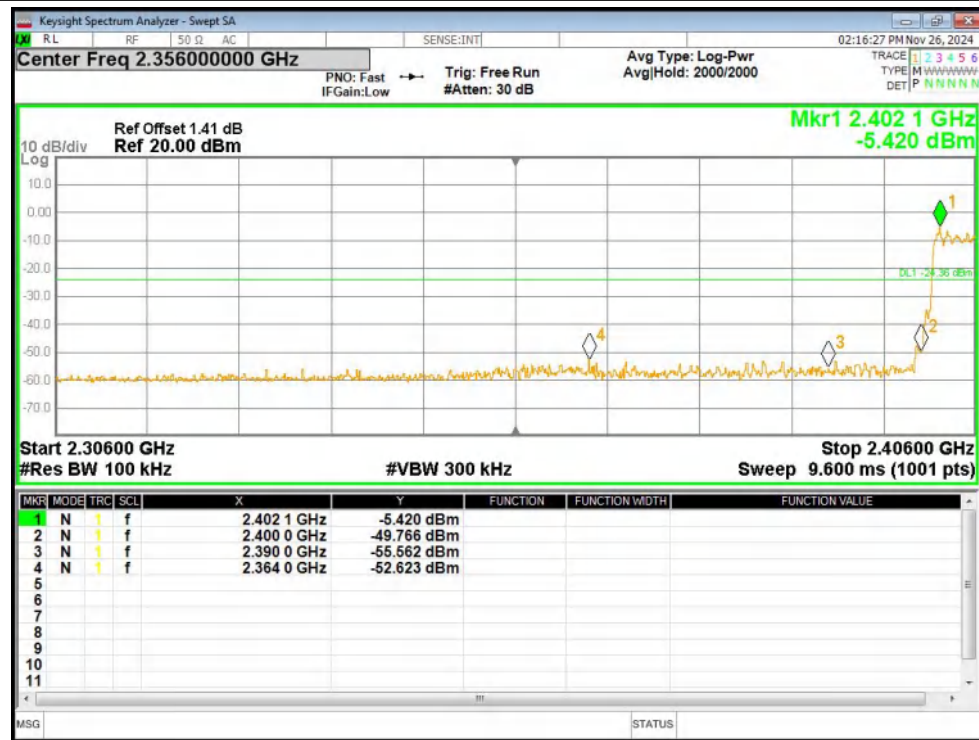
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



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



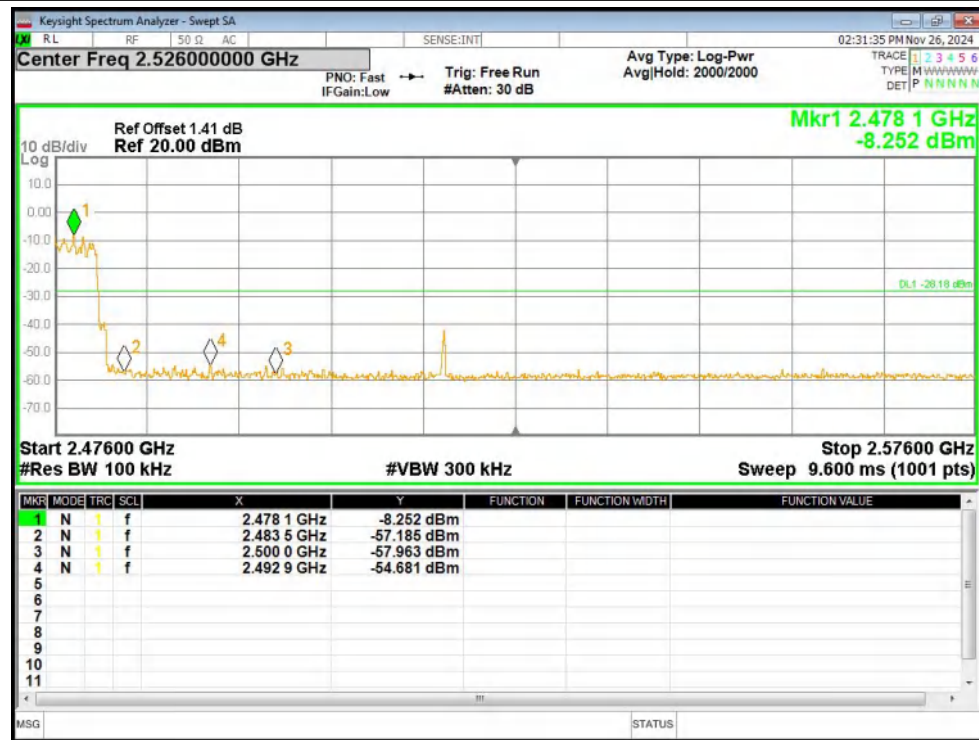
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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



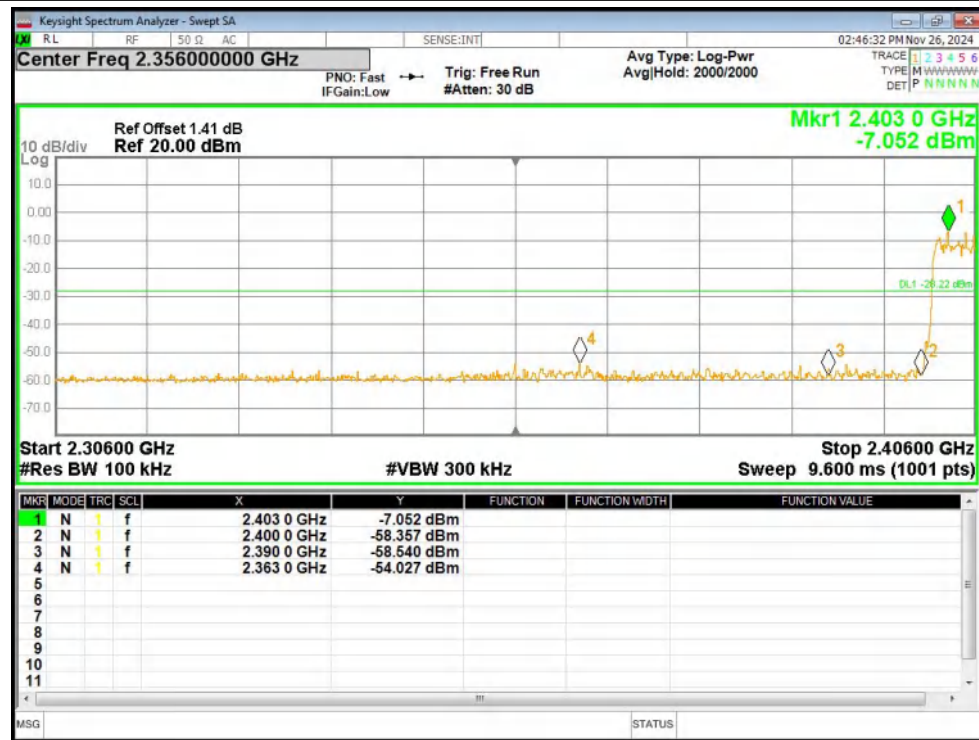
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



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



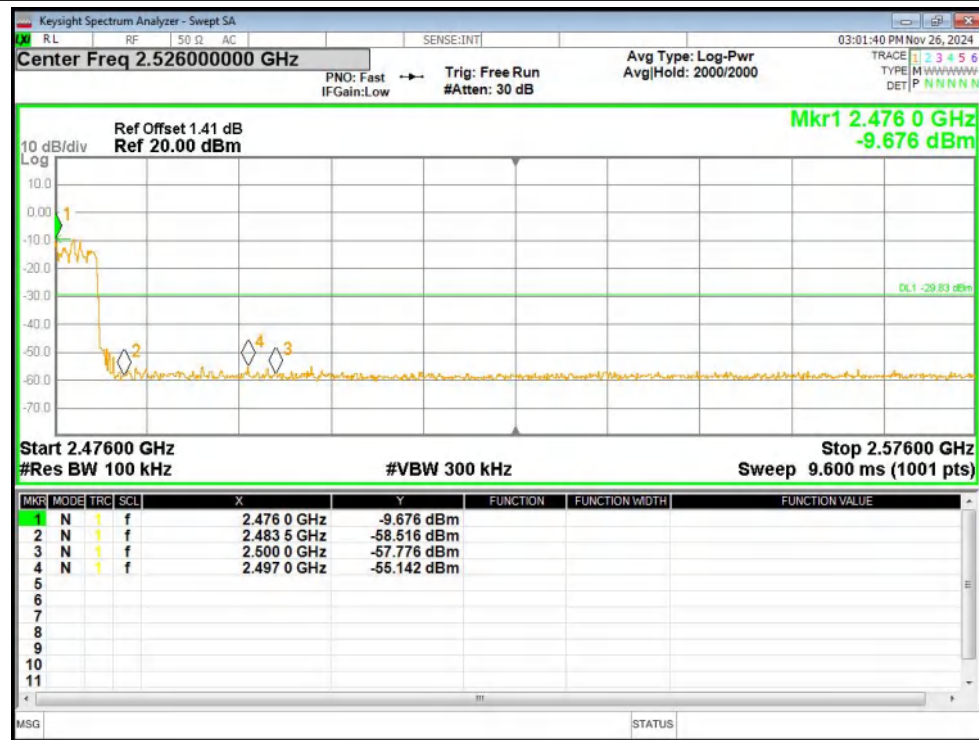
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

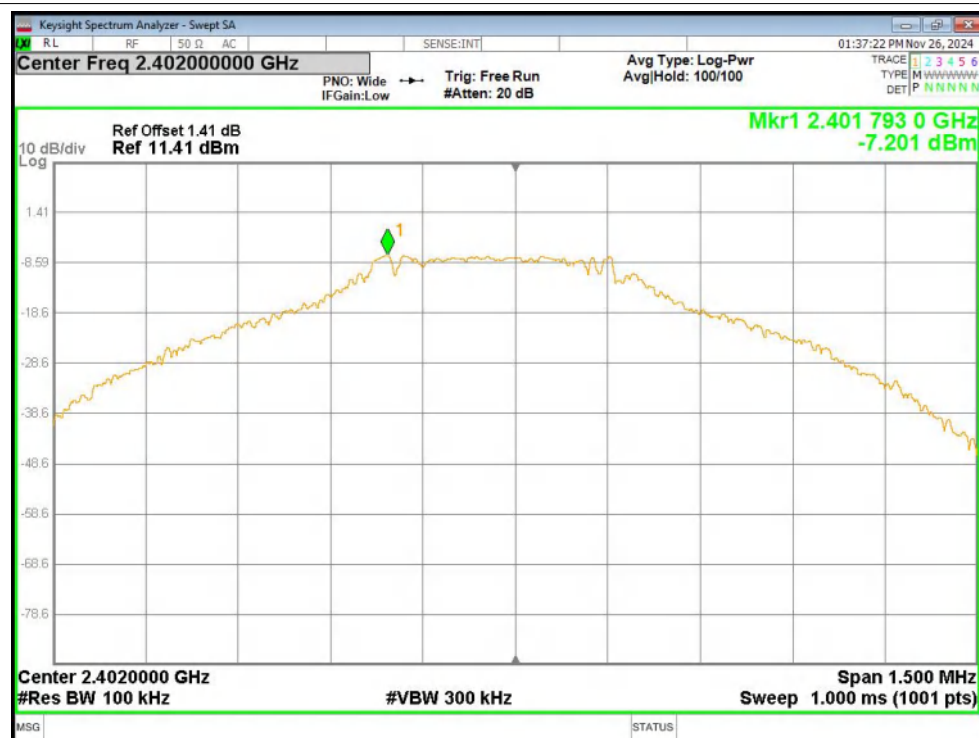


9. Conducted RF Spurious Emission

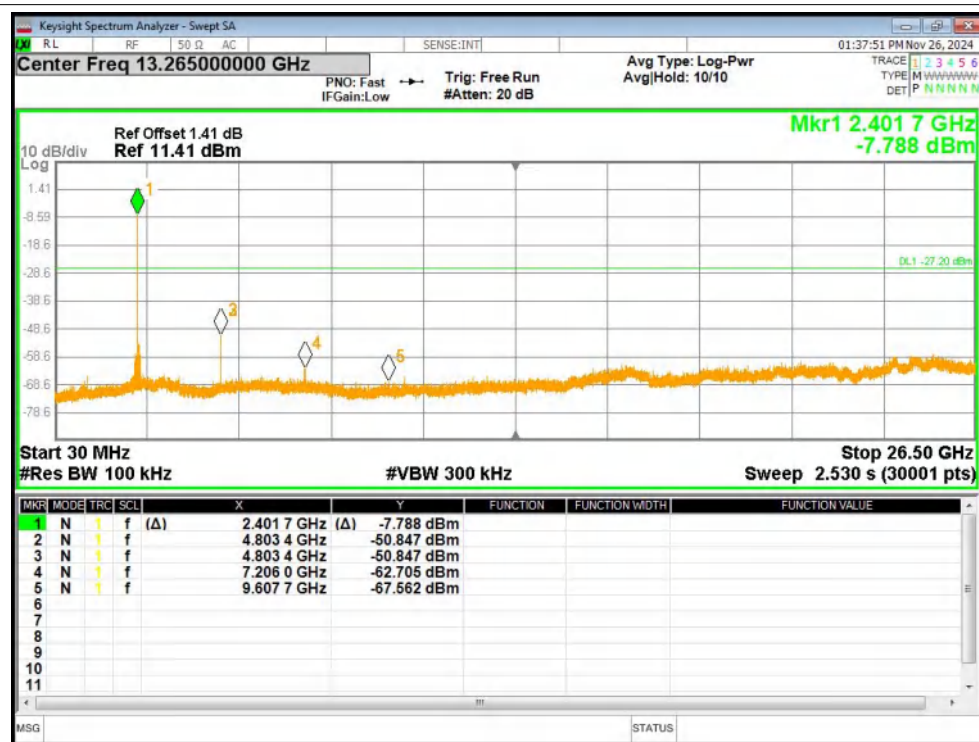
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
1-DH5	2402	Ant1	-43.64	-20	Pass
1-DH5	2441	Ant1	-37.04	-20	Pass
1-DH5	2480	Ant1	-33.39	-20	Pass
2-DH5	2402	Ant1	-41.96	-20	Pass
2-DH5	2441	Ant1	-38.91	-20	Pass
2-DH5	2480	Ant1	-37.04	-20	Pass
3-DH5	2402	Ant1	-46.03	-20	Pass
3-DH5	2441	Ant1	-40.83	-20	Pass
3-DH5	2480	Ant1	-31.55	-20	Pass

Test Graphs

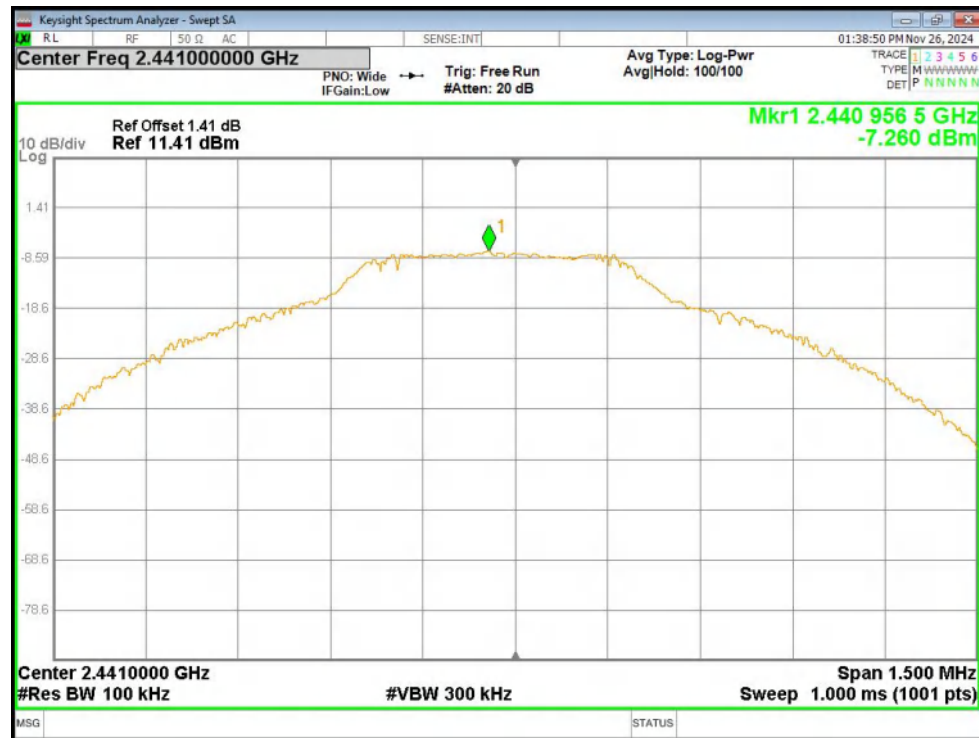
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



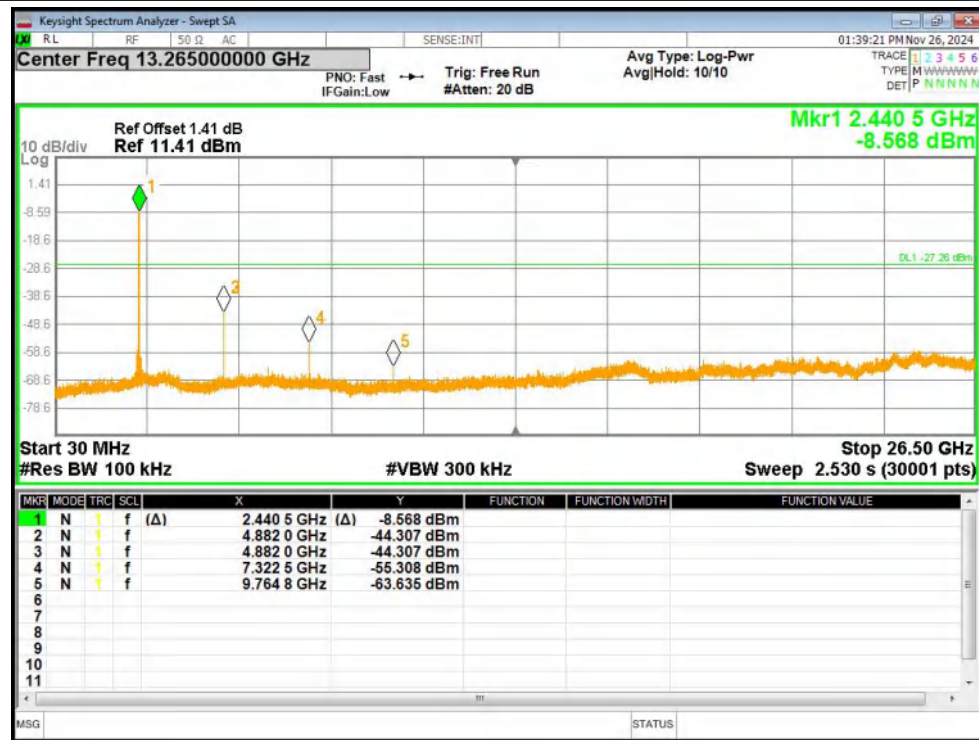
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



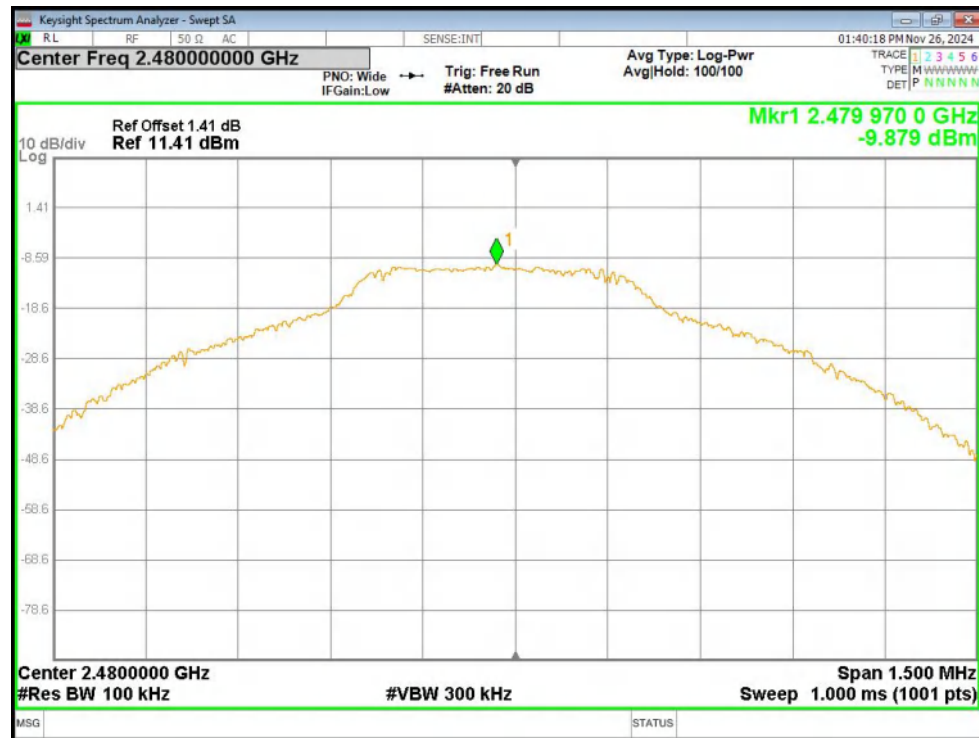
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



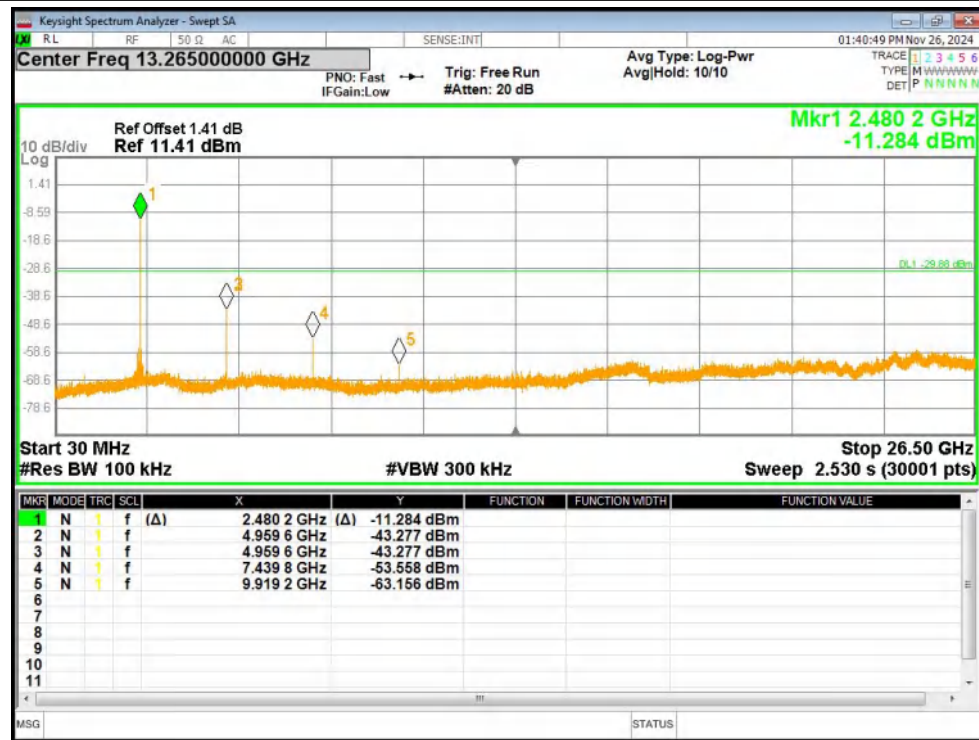
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



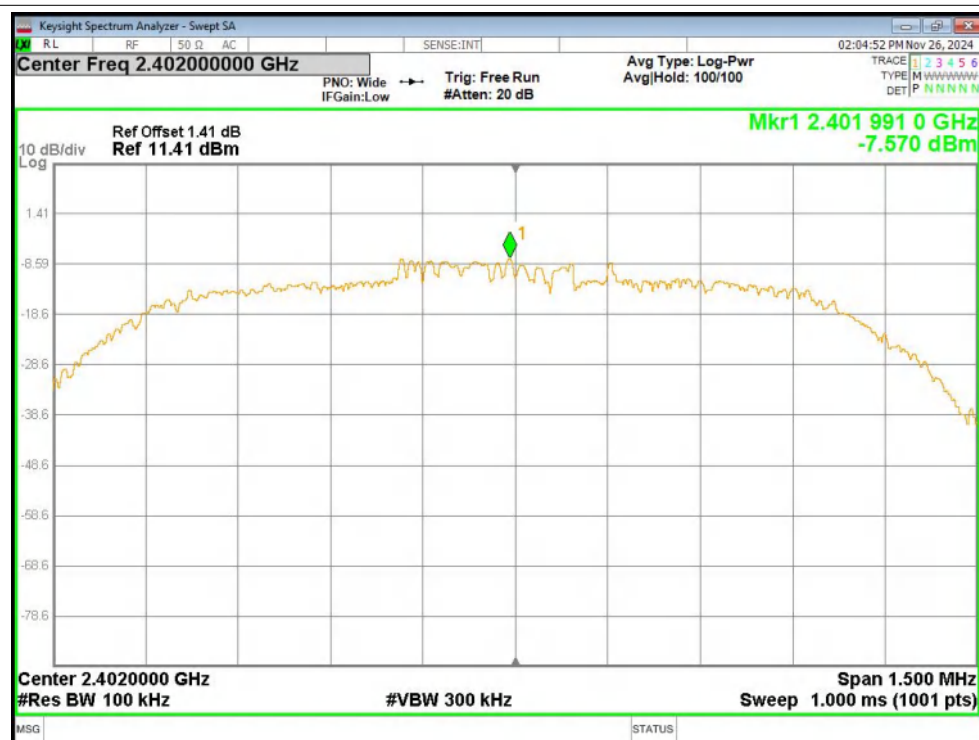
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



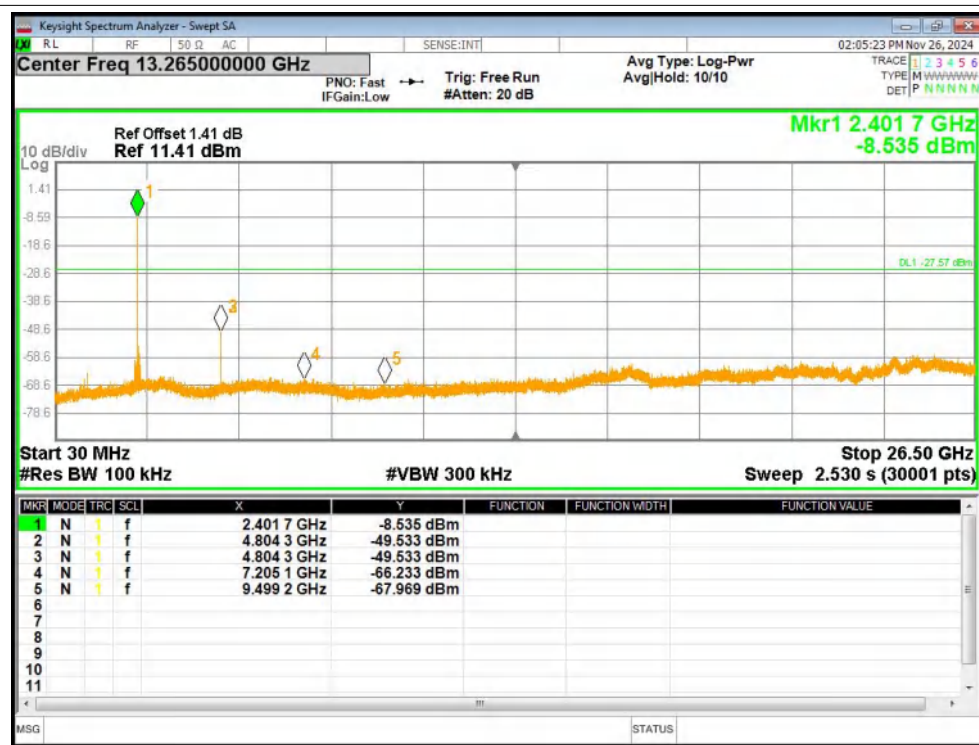
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



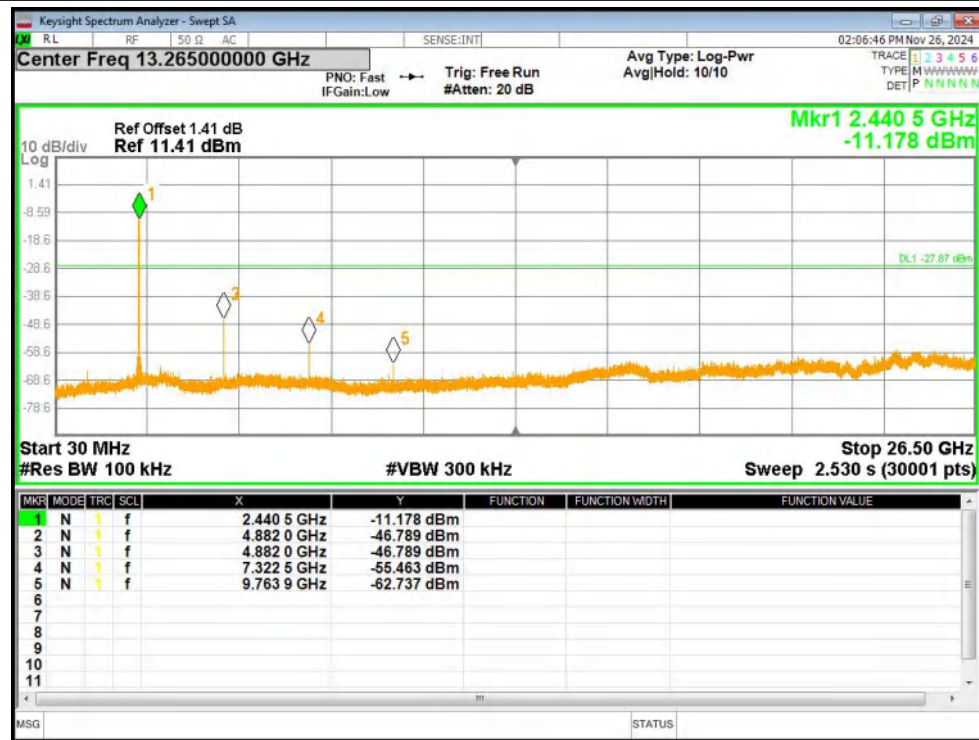
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



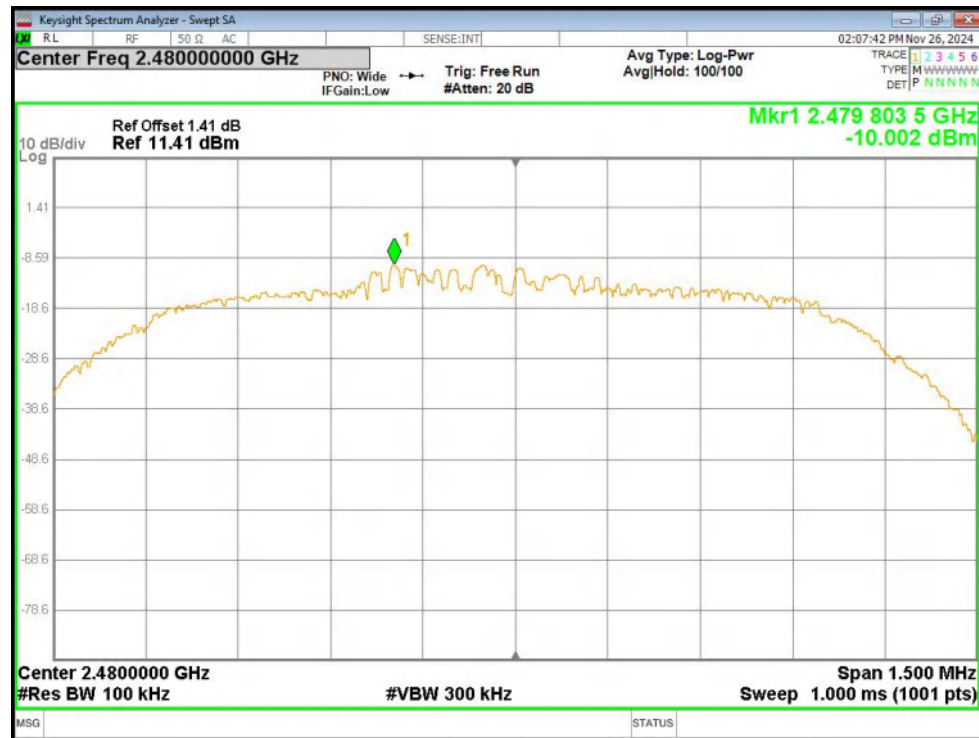
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



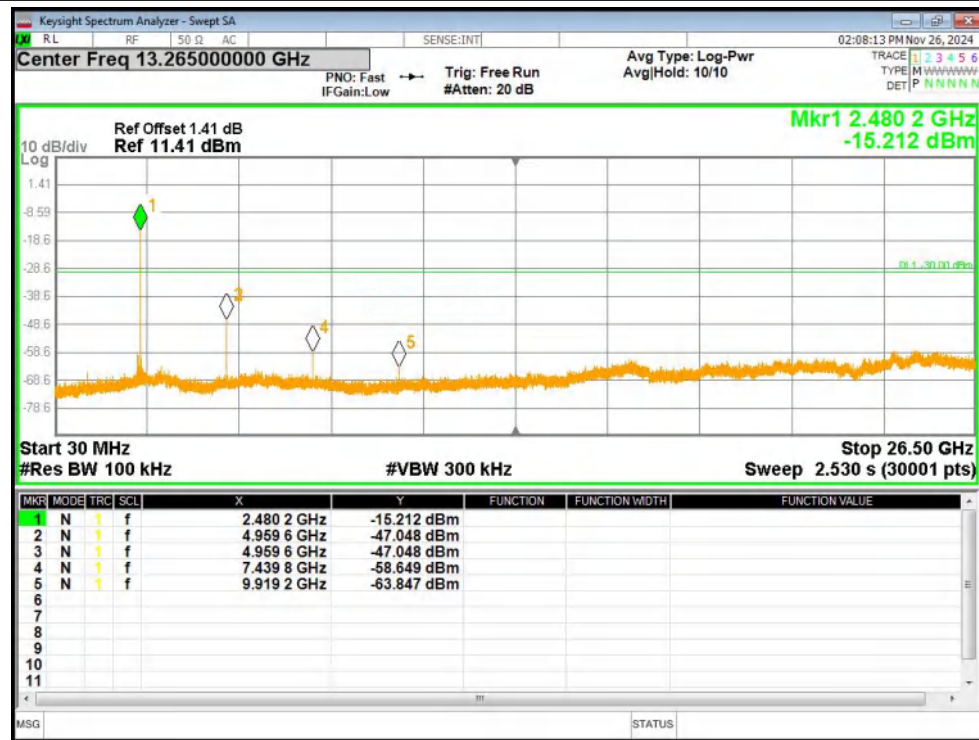
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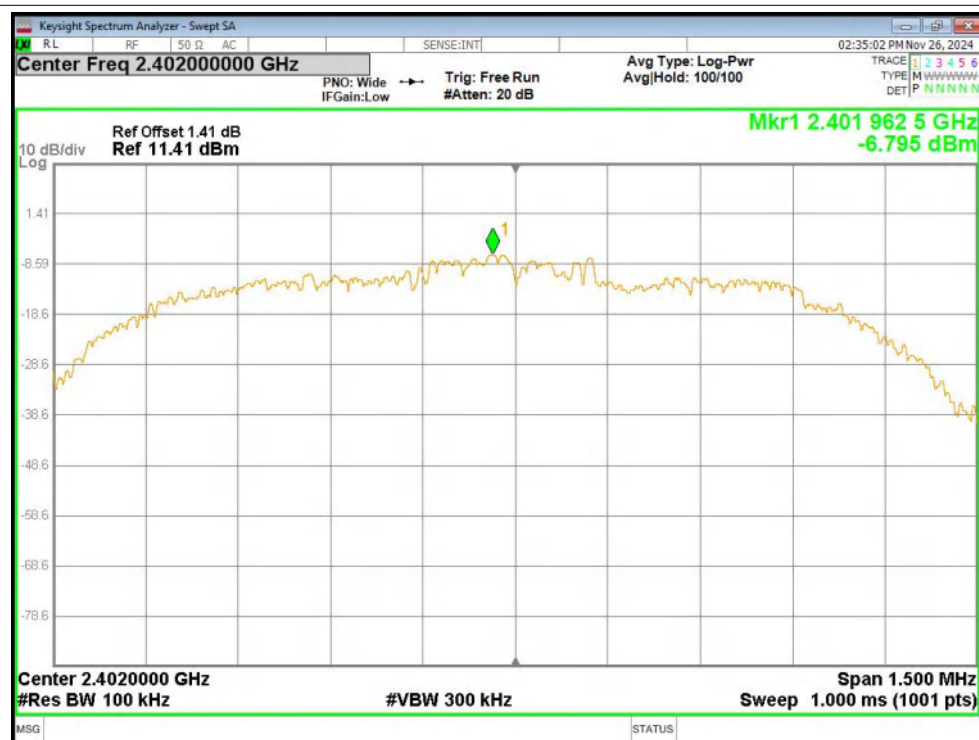
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



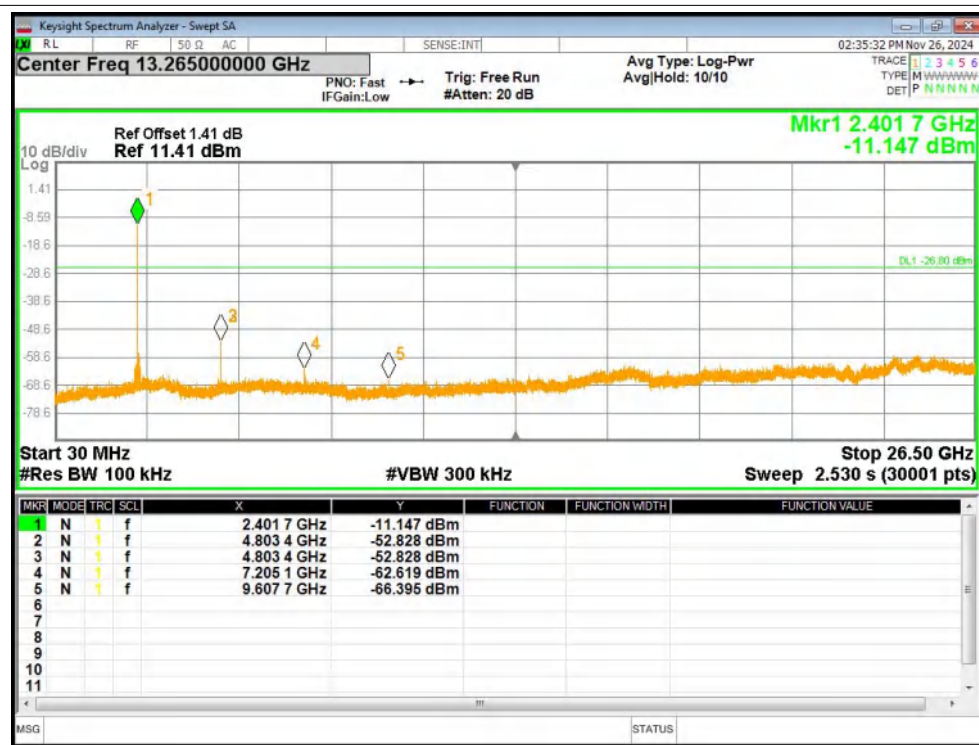
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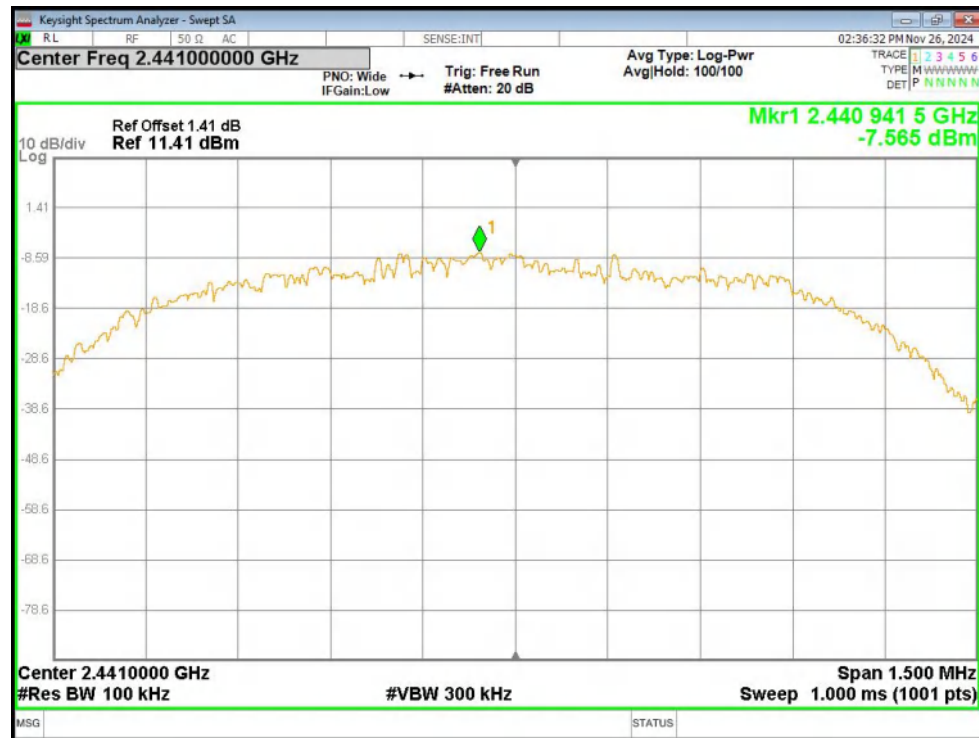
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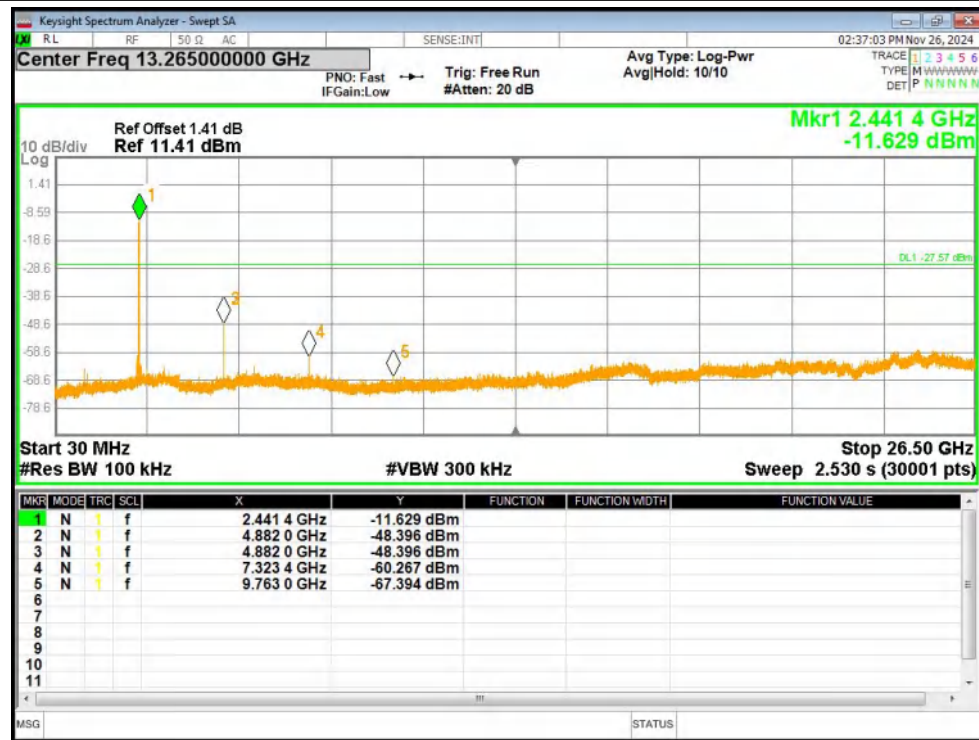
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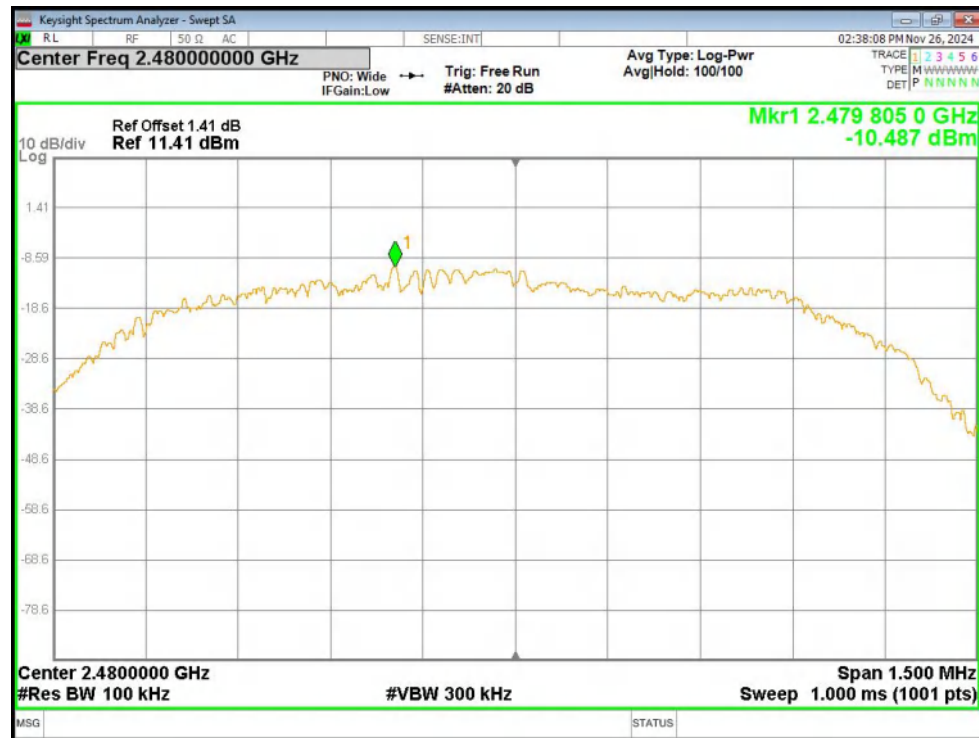
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

