

Appendix C

Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	E.I.R.P (dBm)	E.I.R.P Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	5.33	0	5.33	21	8.31	<=36.02	Pass
NVNT	1-DH5	2441	Ant1	4.7	0	4.7	21	7.68	<=36.02	Pass
NVNT	1-DH5	2480	Ant1	5.34	0	5.34	21	8.32	<=36.02	Pass
NVNT	2-DH5	2402	Ant1	7.19	0	7.19	21	10.17	<=36.02	Pass
NVNT	2-DH5	2441	Ant1	6.75	0	6.75	21	9.73	<=36.02	Pass
NVNT	2-DH5	2480	Ant1	7.31	0	7.31	21	10.29	<=36.02	Pass
NVNT	3-DH5	2402	Ant1	8.36	0	8.36	21	11.34	<=36.02	Pass
NVNT	3-DH5	2441	Ant1	7.34	0	7.34	21	10.32	<=36.02	Pass
NVNT	3-DH5	2480	Ant1	7.92	0	7.92	21	10.90	<=36.02	Pass
Note1: Antenna Gain: 2.98dBi; Note2: E.I.R.P = Measured Power + Antenna Gain										

Test Graphs

Power NVNT 1-DH5 2402MHz Ant1



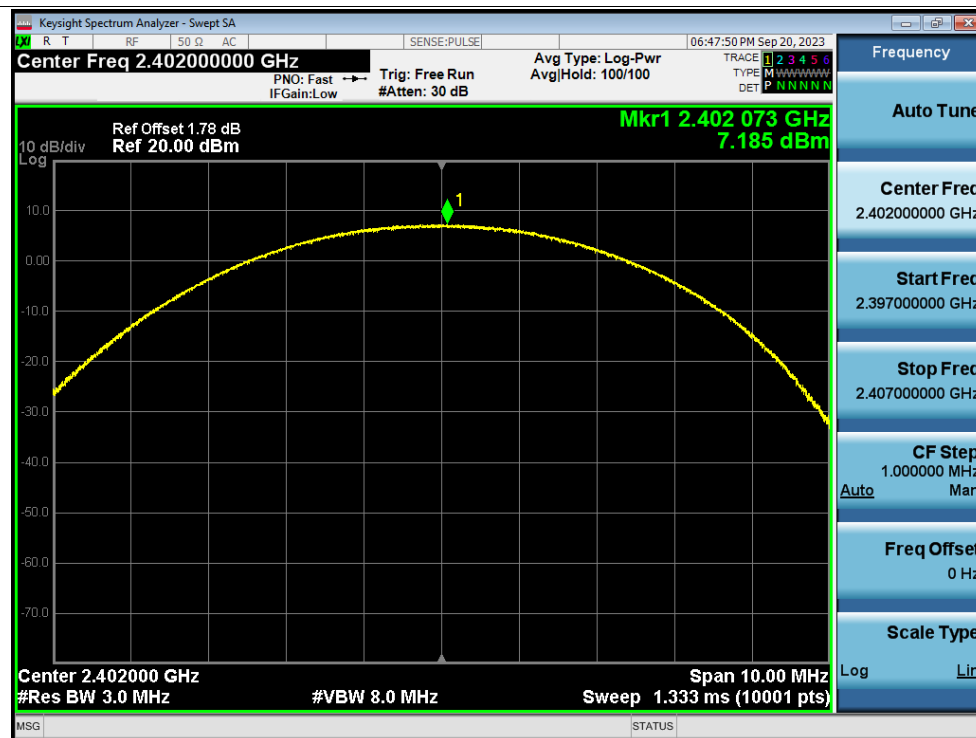
Power NVNT 1-DH5 2441MHz Ant1



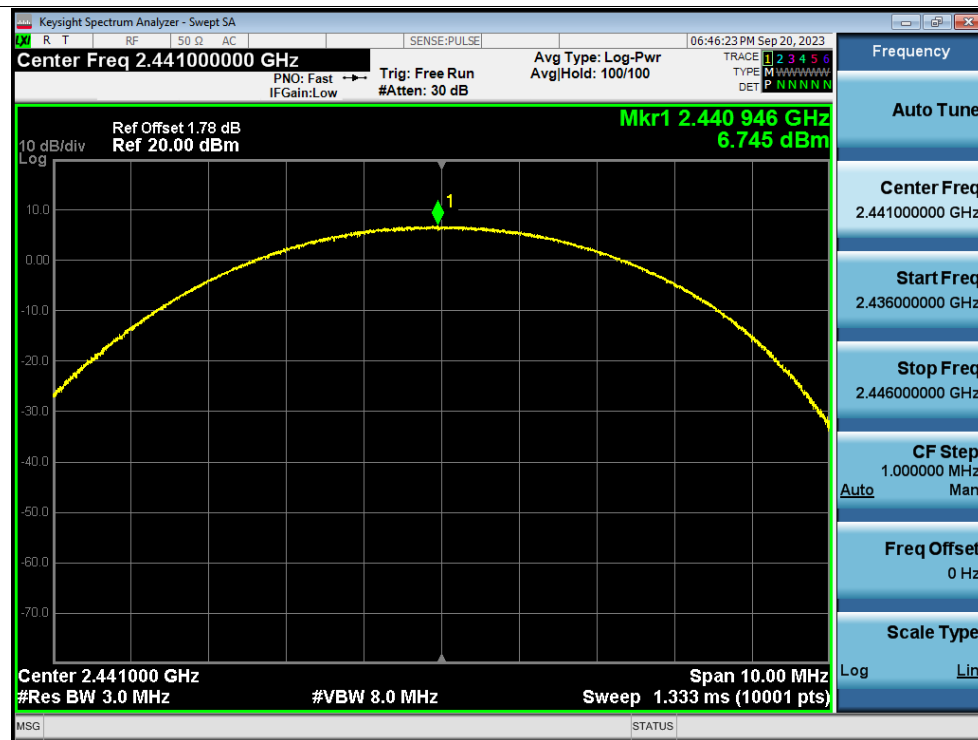
Power NVNT 1-DH5 2480MHz Ant1



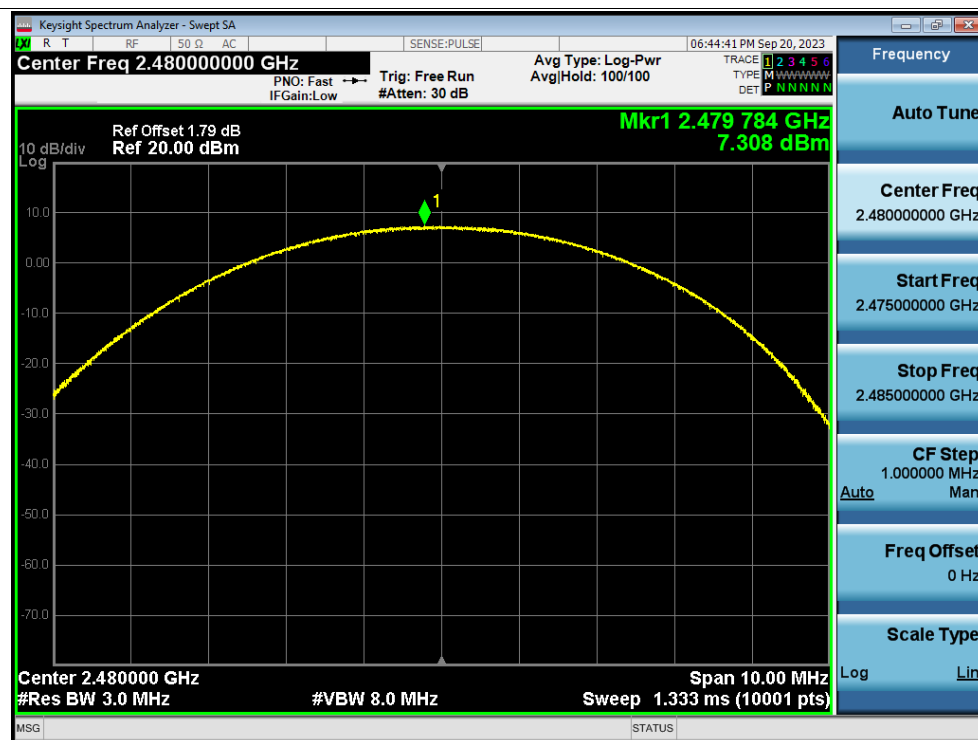
Power NVNT 2-DH5 2402MHz Ant1



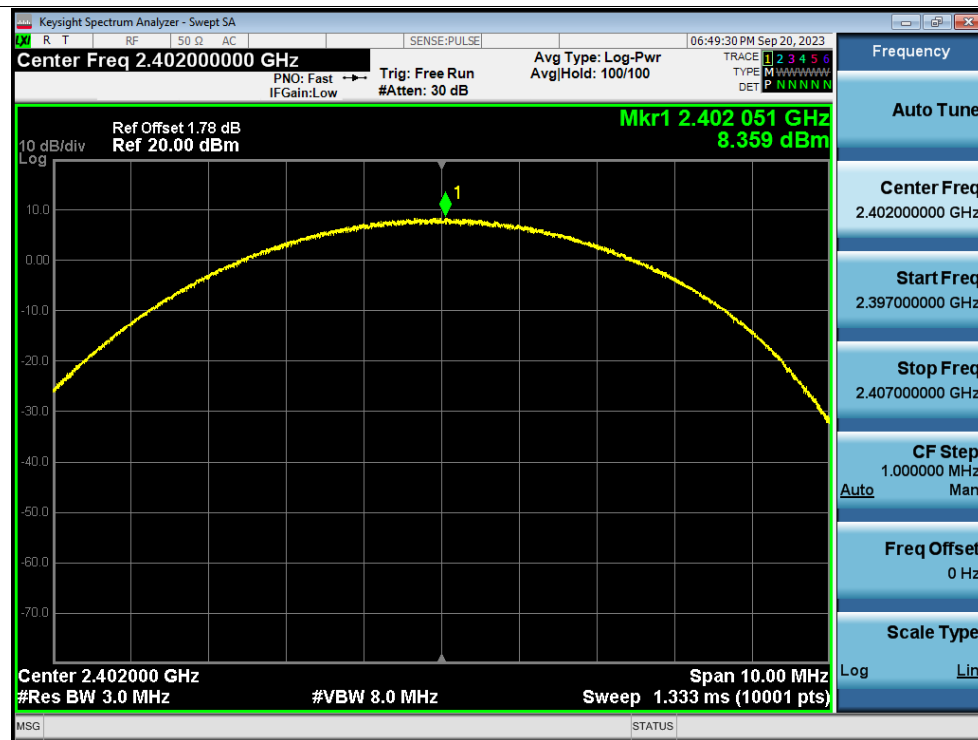
Power NVNT 2-DH5 2441MHz Ant1



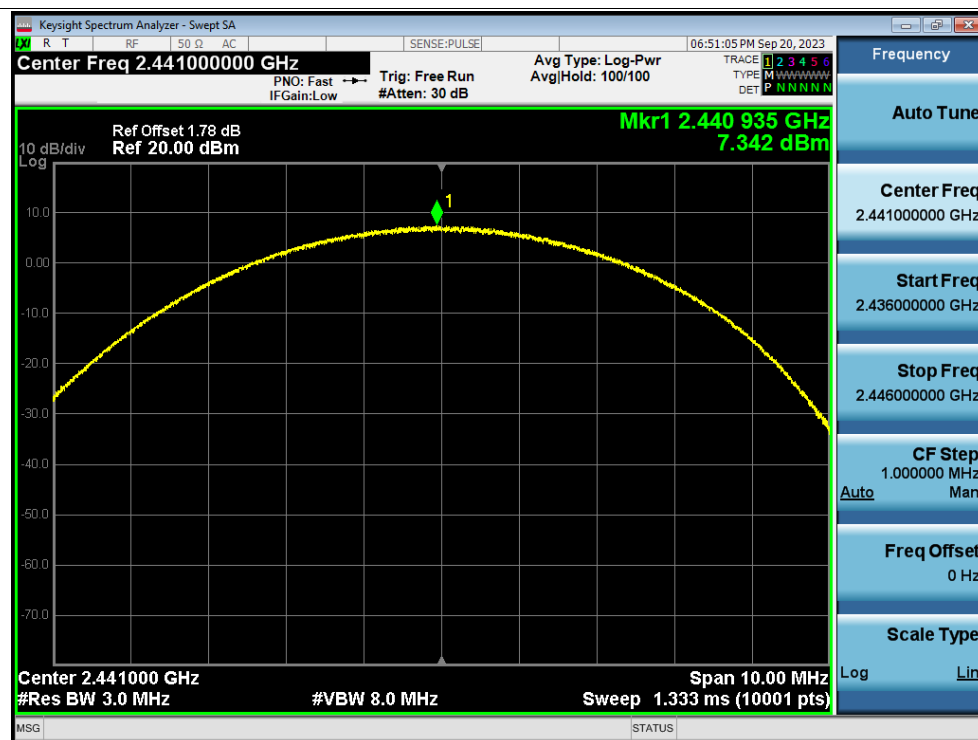
Power NVNT 2-DH5 2480MHz Ant1



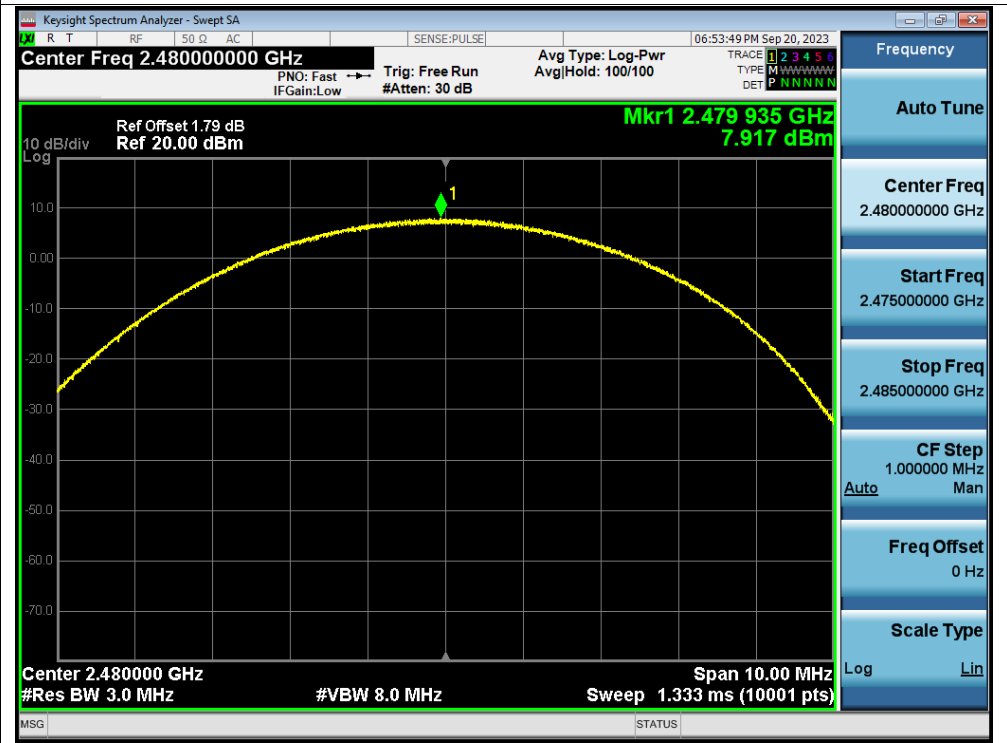
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1



-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.954	Pass
NVNT	1-DH5	2441	Ant1	0.958	Pass
NVNT	1-DH5	2480	Ant1	0.952	Pass
NVNT	2-DH5	2402	Ant1	1.361	Pass
NVNT	2-DH5	2441	Ant1	1.365	Pass
NVNT	2-DH5	2480	Ant1	1.365	Pass
NVNT	3-DH5	2402	Ant1	1.346	Pass
NVNT	3-DH5	2441	Ant1	1.348	Pass
NVNT	3-DH5	2480	Ant1	1.347	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



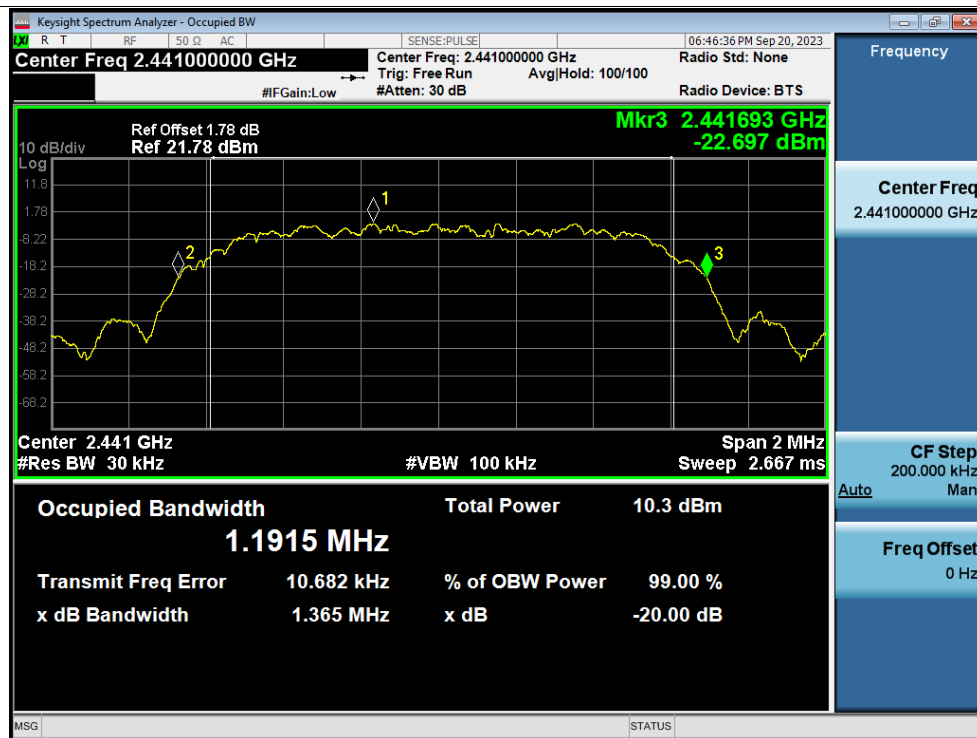
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



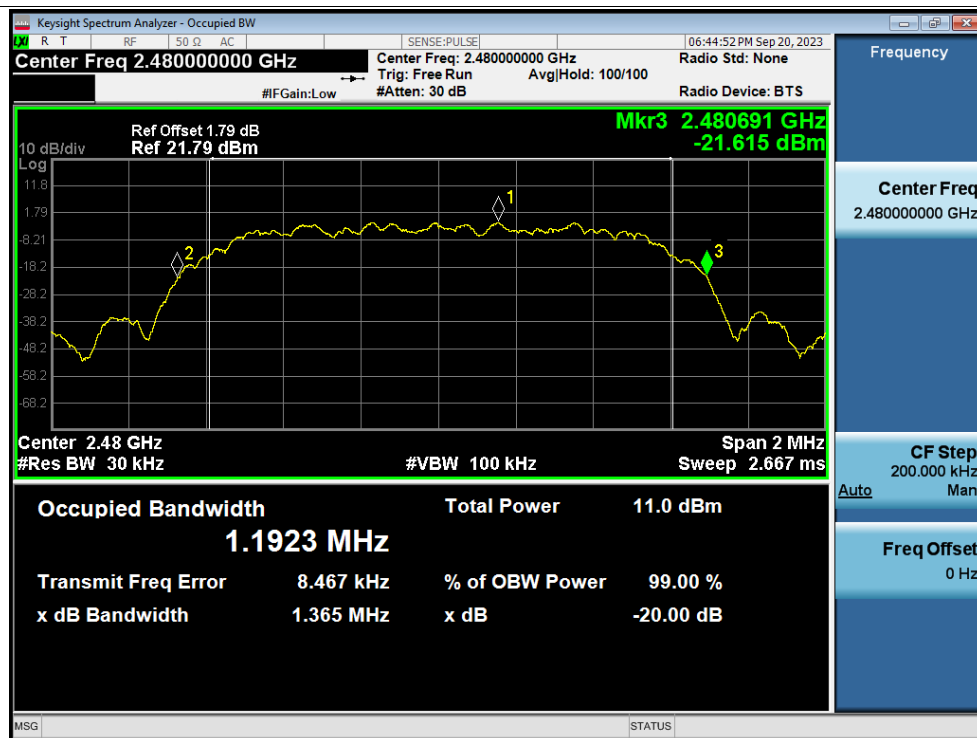
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



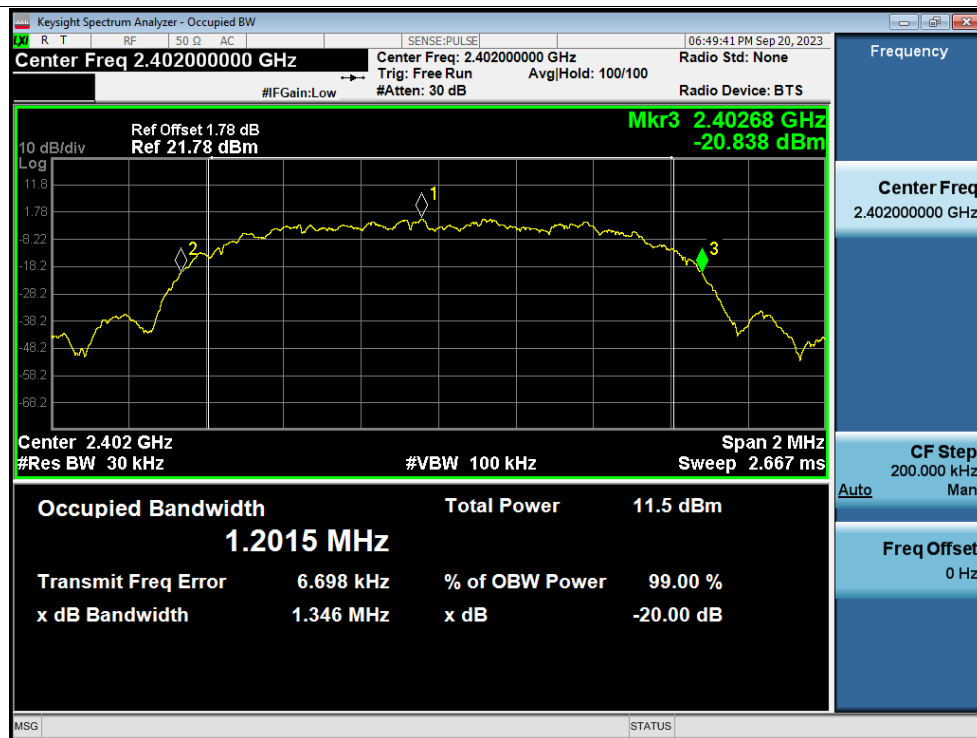
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



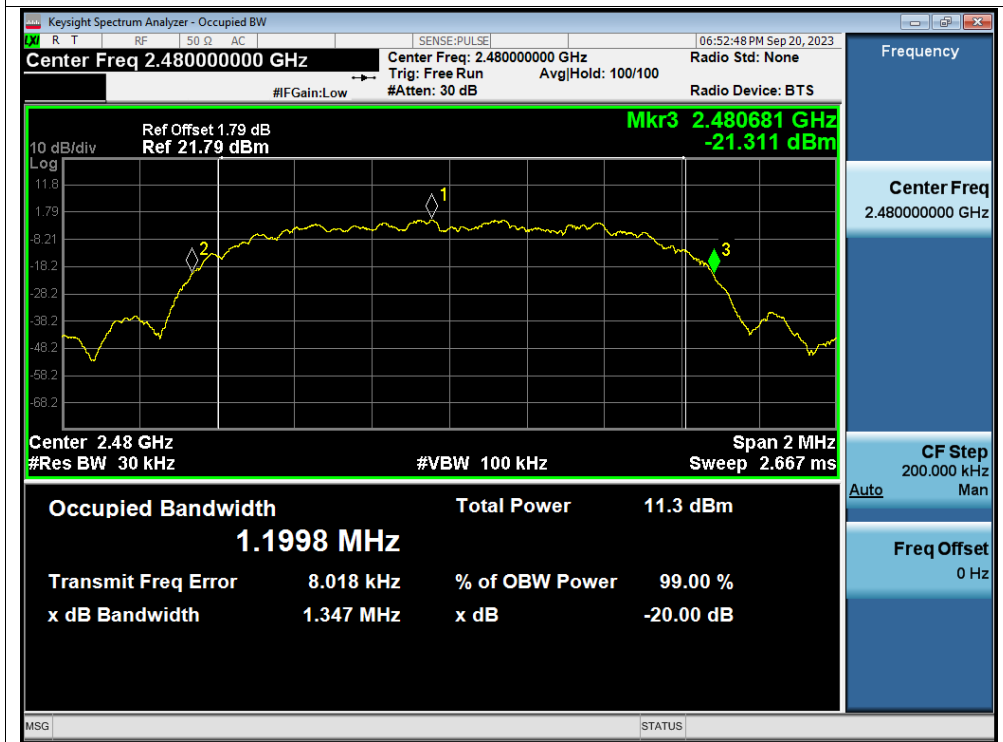
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1



Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.886
NVNT	1-DH5	2441	Ant1	0.893
NVNT	1-DH5	2480	Ant1	0.898
NVNT	2-DH5	2402	Ant1	1.194
NVNT	2-DH5	2441	Ant1	1.194
NVNT	2-DH5	2480	Ant1	1.192
NVNT	3-DH5	2402	Ant1	1.202
NVNT	3-DH5	2441	Ant1	1.187
NVNT	3-DH5	2480	Ant1	1.202

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



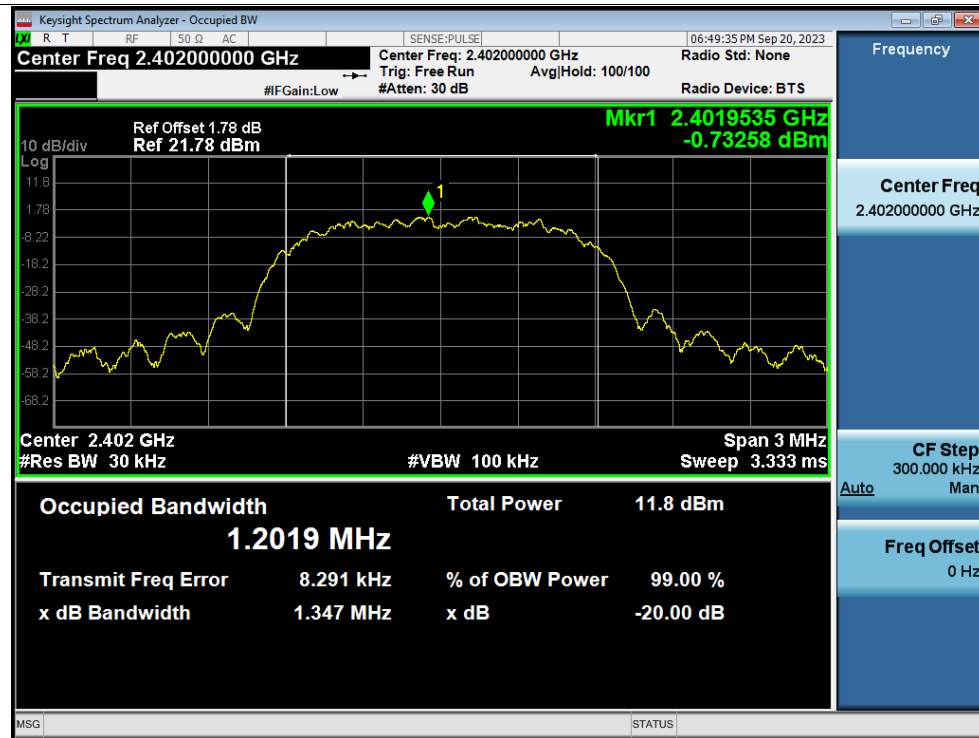
OBW NVNT 2-DH5 2441MHz Ant1



OBW NVNT 2-DH5 2480MHz Ant1



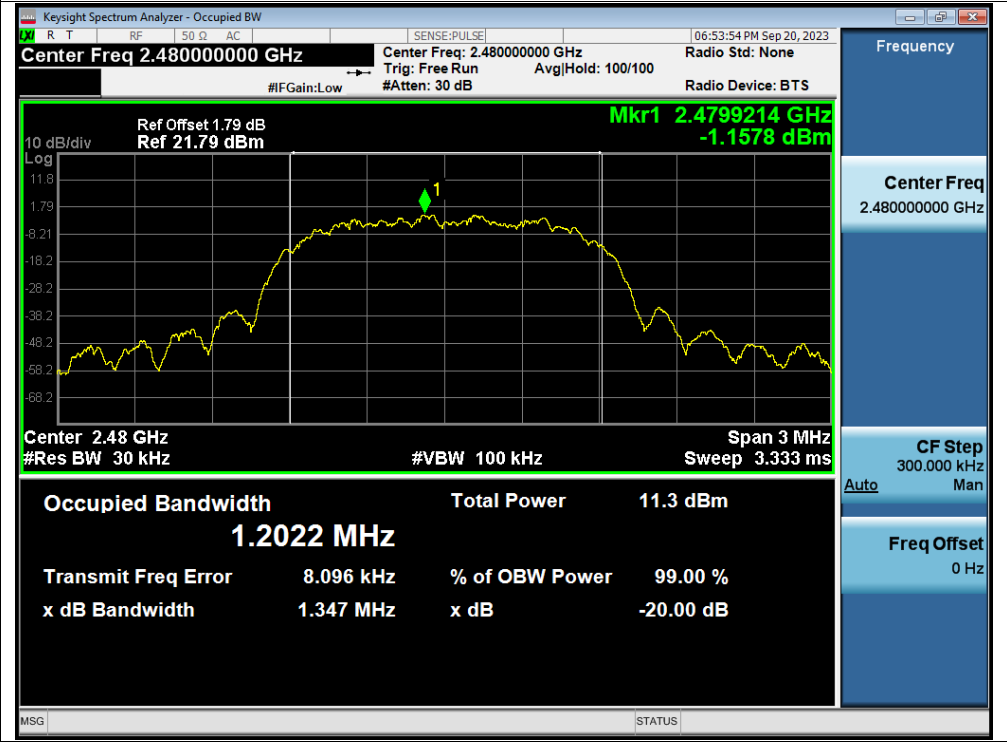
OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1



Carrier Frequencies Separation

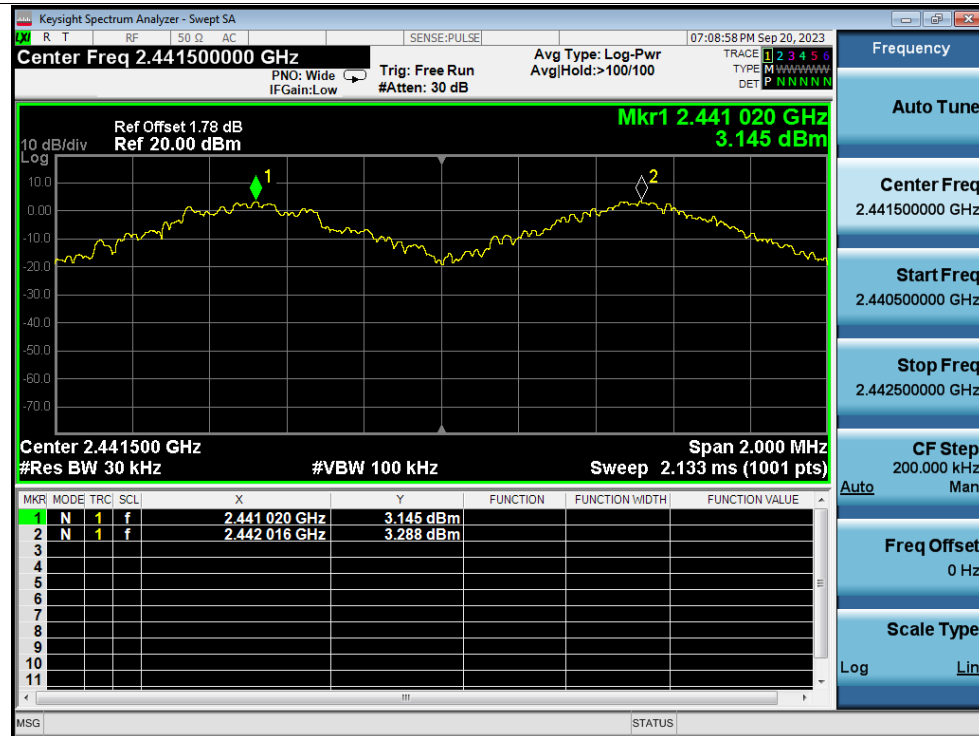
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.976	2403.05	1.074	0.636	Pass
NVNT	1-DH5	Ant1	2441.02	2442.016	0.996	0.639	Pass
NVNT	1-DH5	Ant1	2478.954	2480.032	1.078	0.635	Pass
NVNT	2-DH5	Ant1	2401.846	2403.01	1.164	0.907	Pass
NVNT	2-DH5	Ant1	2440.848	2441.992	1.144	0.91	Pass
NVNT	2-DH5	Ant1	2478.958	2479.978	1.02	0.91	Pass
NVNT	3-DH5	Ant1	2402	2402.942	0.942	0.897	Pass
NVNT	3-DH5	Ant1	2440.984	2441.974	0.99	0.899	Pass
NVNT	3-DH5	Ant1	2478.684	2479.682	0.998	0.898	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



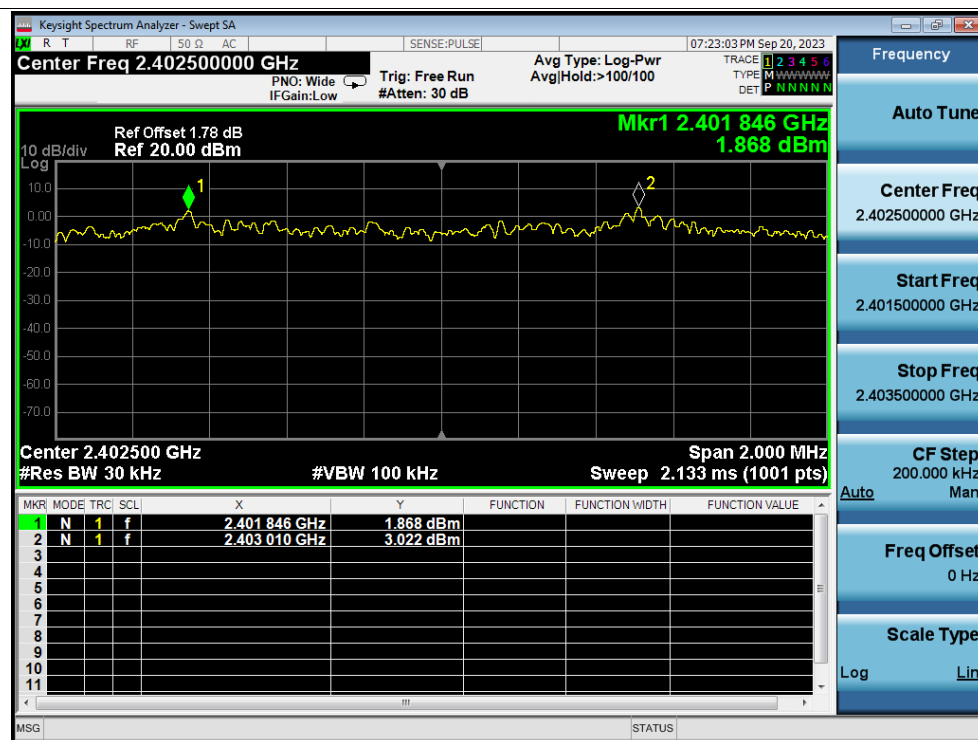
CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 1-DH5 2480MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.441500000 GHz

Ref Offset 1.78 dB
Ref 20.00 dBm

Span 2.000 MHz

#Res BW 30 kHz

#VBW 100 kHz

Sweep 2.133 ms (1001 pts)

Mkr1 2.440848 GHz
-0.125 dBm

Mkr2 2.441992 GHz
2.954 dBm

Mkr	Mode	Trc	SCL	X	Y	Function	Function Width	Function Value
1	N	1	f	2.440848 GHz	-0.125 dBm			
2	N	1	f	2.441992 GHz	2.954 dBm			

Frequency

Auto Tune

Center Freq
2.441500000 GHz

Start Freq
2.440500000 GHz

Stop Freq
2.442500000 GHz

CF Step
200.000 kHz

Man

Auto

Freq Offset
0 Hz

Scale Type
Log

CFS NVNT 2-DH5 2480MHz Ant1

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC

SENSE: PULSE

07:27:43 PM Sep 20, 2023

Center Freq 2.479500000 GHz

PNO: Wide IF Gain: Low

Trig: Free Run #Atten: 30 dB

Avg Type: Log-Pwr Avg/Hold: >100/100

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

Ref Offset 1.79 dB
Ref 20.00 dBm

**Mkr1 2.478 958 GHz
1.974 dBm**

10 dB/div Log

Center Freq 2.479500000 GHz

Span 2.000 MHz

#Res BW 30 kHz #VBW 100 kHz Sweep 2.133 ms (1001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.478 958 GHz	1.974 dBm			
2	N	1	f	2.479 978 GHz	1.101 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG

STATUS

Frequency

Auto Tune

Center Freq 2.479500000 GHz

Start Freq 2.478500000 GHz

Stop Freq 2.480500000 GHz

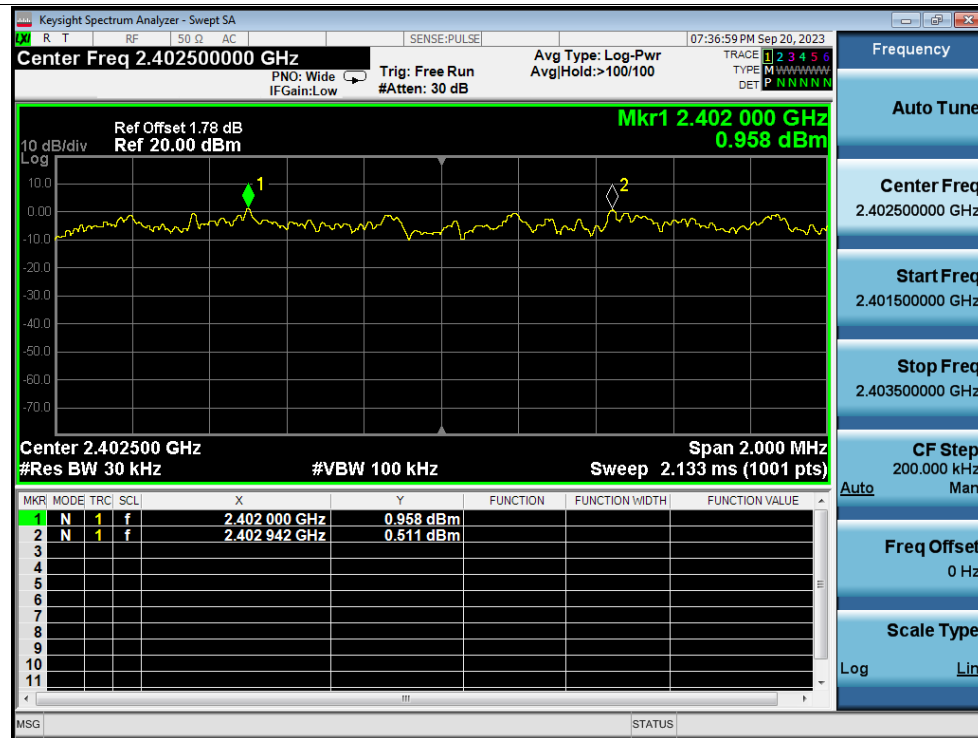
CF Step 200.000 kHz Man

Auto

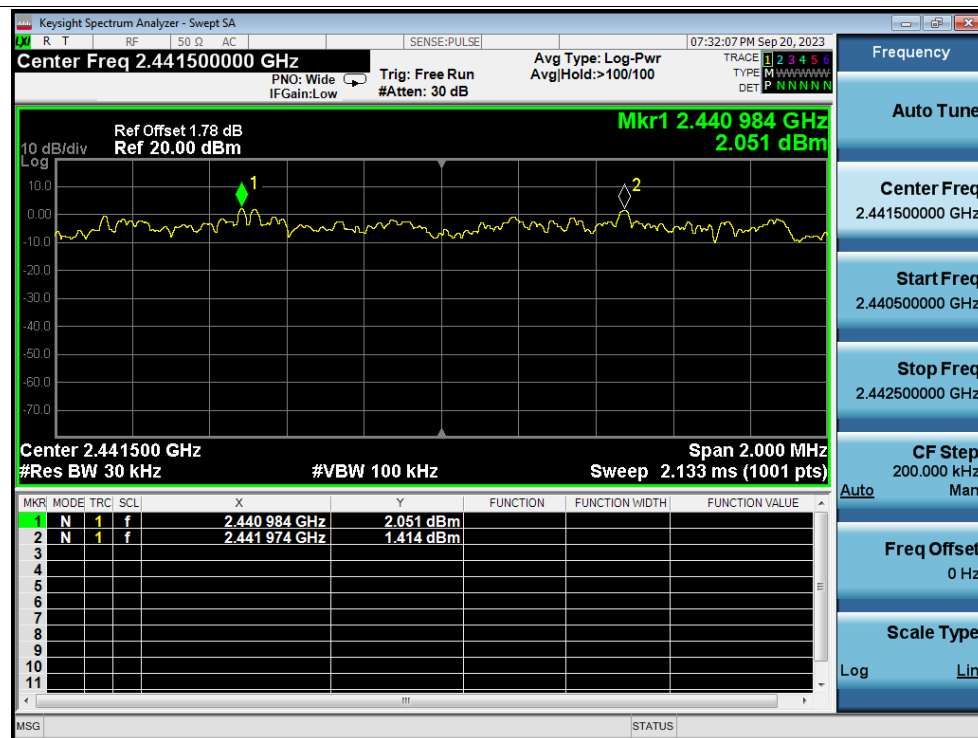
Freq Offset 0 Hz

Scale Type Log Lin

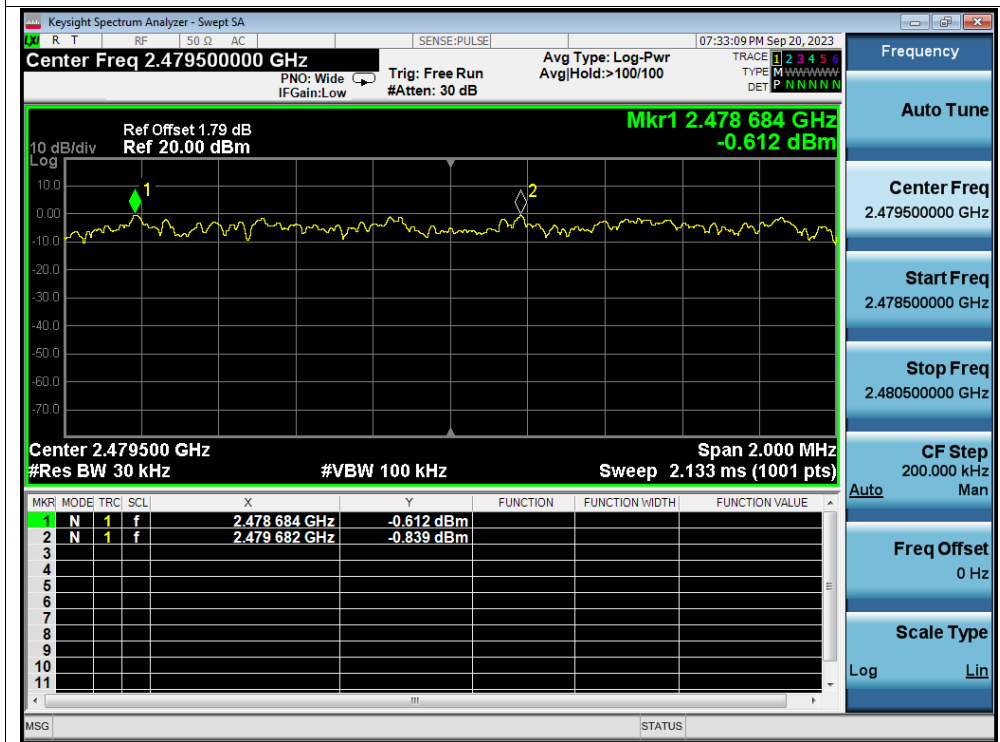
CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2480MHz Ant1

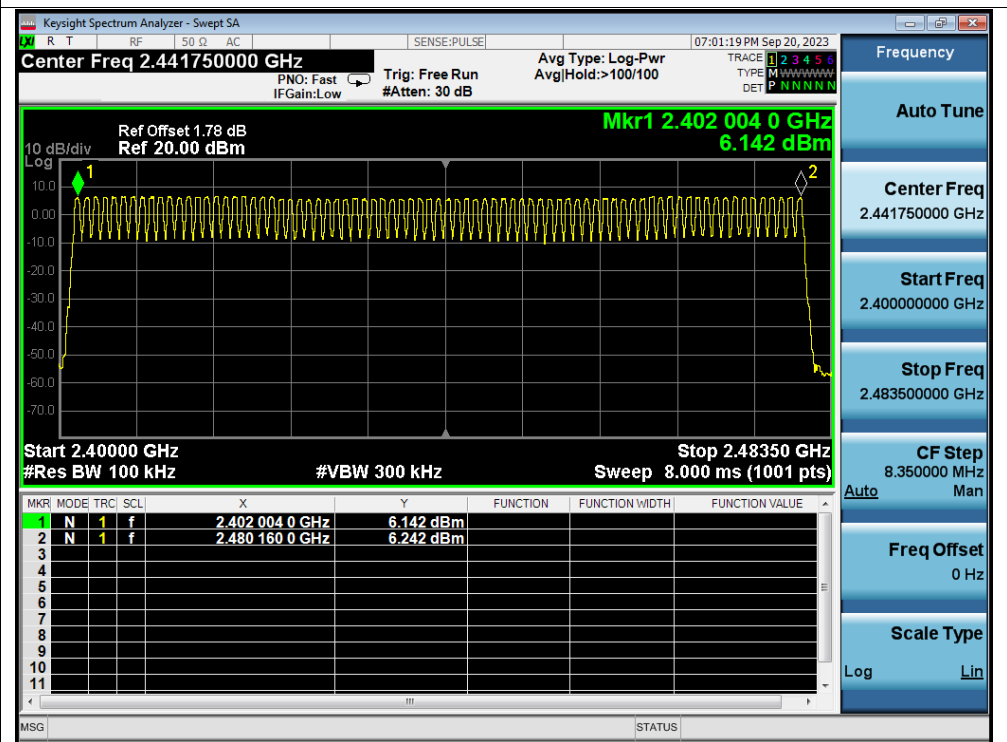


Number of Hopping Channel

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

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Keysight Spectrum Analyzer - Swept SA
 R T RF 50 Ω AC SENSE:PULSE 07:23:27 PM Sep 20, 2023
Center Freq 2.441750000 GHz Avg Type: Log-Pwr
 PNO: Fast Trg: Free Run Avg|Hold:>100/100
 IFGain:Low #Atten: 30 dB TRACE 1 2 3 4 5 6
 TYPE M W W W W W W W
 DET P N N N N N N N

Ref Offset 1.78 dB
 Ref 20.00 dBm
 Mkr1 2.401 753 5 GHz
 1.917 dBm

Start 2.40000 GHz Stop 2.48350 GHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (1001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 753 5 GHz	1.917 dBm			
2	N	1	f	2.480 410 5 GHz	1.556 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Frequency
 Auto Tune
 Center Freq 2.441750000 GHz
 Start Freq 2.400000000 GHz
 Stop Freq 2.483500000 GHz
 CF Step 8.350000 MHz
 Man
 Auto
 Freq Offset 0 Hz
 Scale Type Log Lin

MSG STATUS

Keysight Spectrum Analyzer - Swept SA
 R T RF 50 Ω AC SENSE:PULSE 07:30:16 PM Sep 20, 2023
Center Freq 2.441750000 GHz Avg Type: Log-Pwr Avg|Hold:>100/100
 PNO: Fast Trig: Free Run #Atten: 30 dB
 IFGain:Low

Ref Offset 1.78 dB
 Ref 20.00 dBm
 Mkr1 2.401 503 0 GHz
 -0.483 dBm

10 dB/div
 Log
 Start 2.40000 GHz Stop 2.48300 GHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (1001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 503 0 GHz	-0.483 dBm			
2	N	1	f	2.480 327 0 GHz	2.615 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

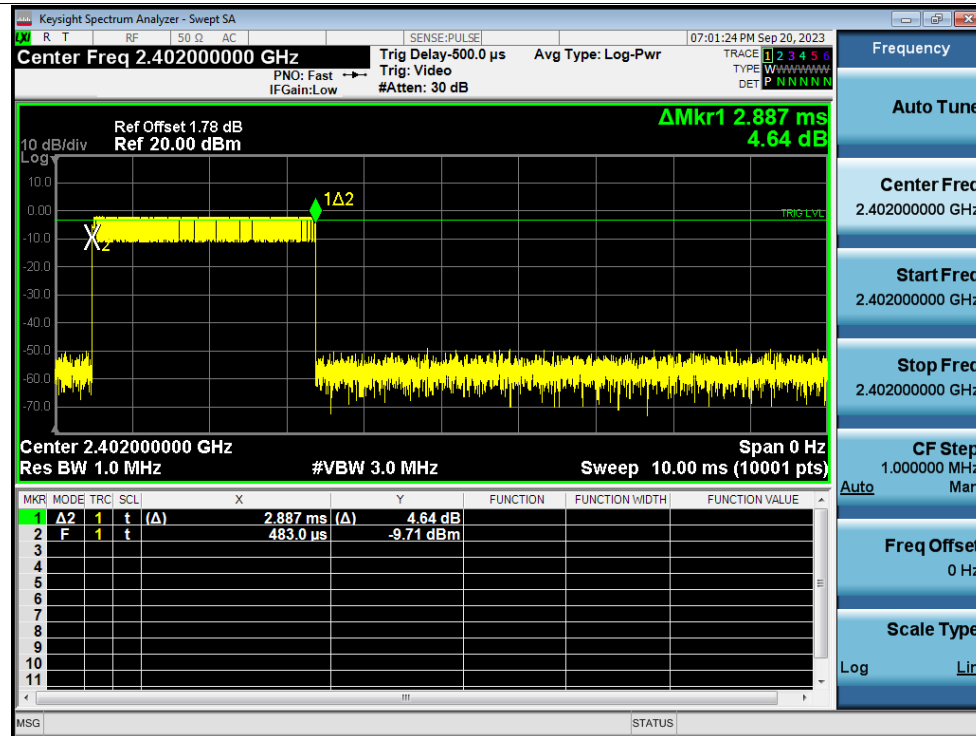
Frequency
 Auto Tune
 Center Freq 2.441750000 GHz
 Start Freq 2.400000000 GHz
 Stop Freq 2.483500000 GHz
 CF Step 8.350000 MHz
 Man
 Auto
 Freq Offset 0 Hz
 Scale Type Log Lin

Dwell Time

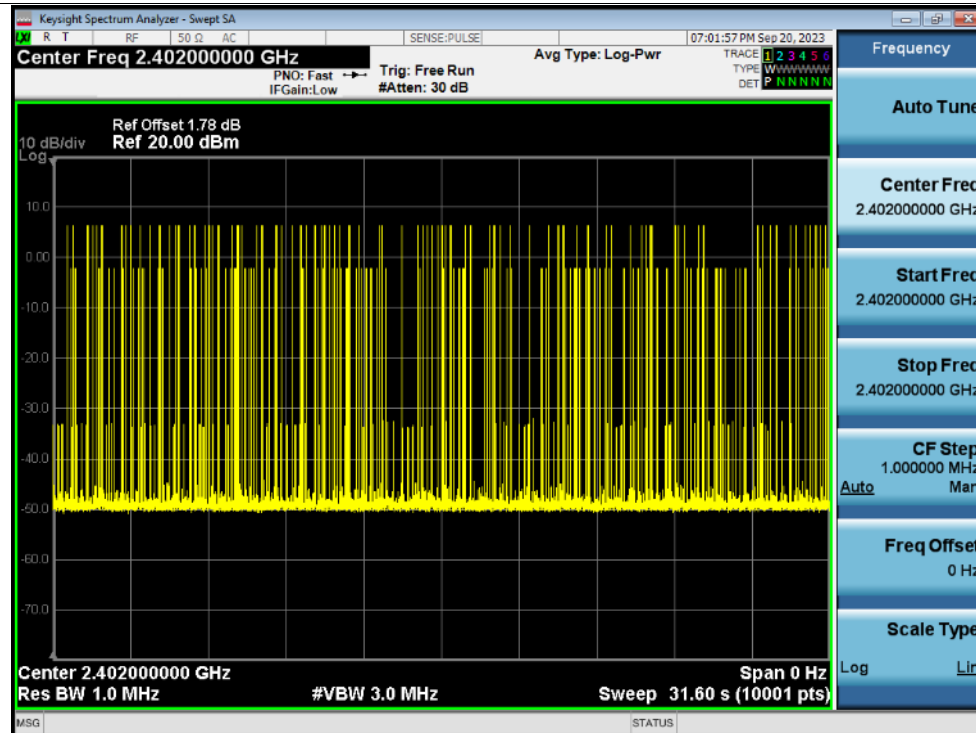
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.887	300.248	104	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	297.361	103	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.891	306.446	106	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.891	309.337	107	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.891	286.209	99	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.893	341.374	118	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.893	306.658	106	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.894	300.976	104	31600	400	Pass

Test Graphs

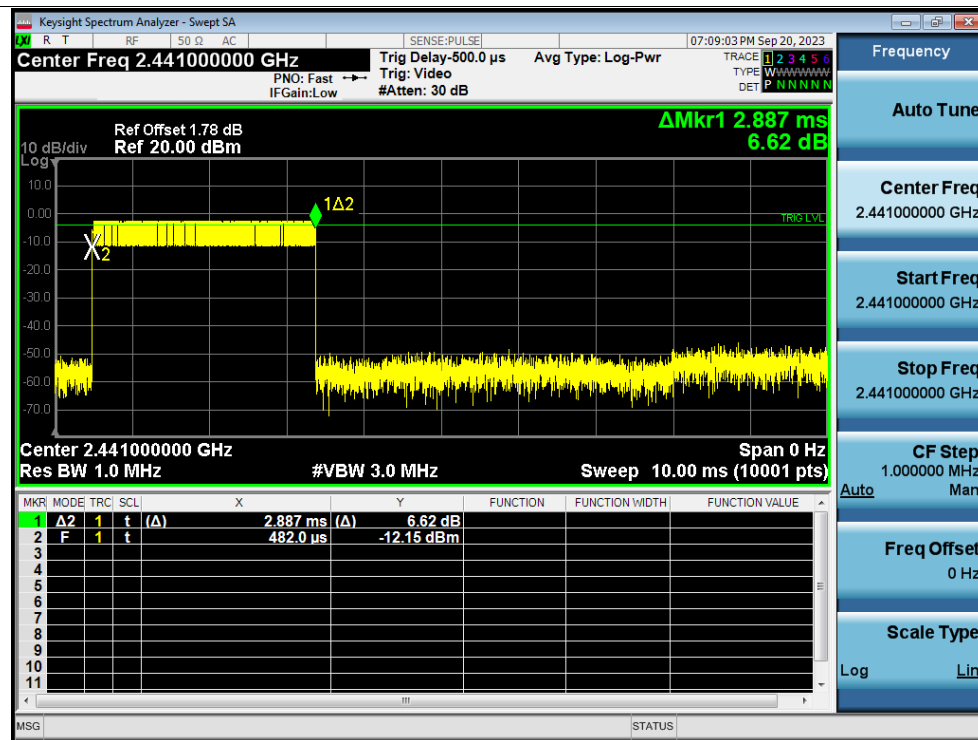
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



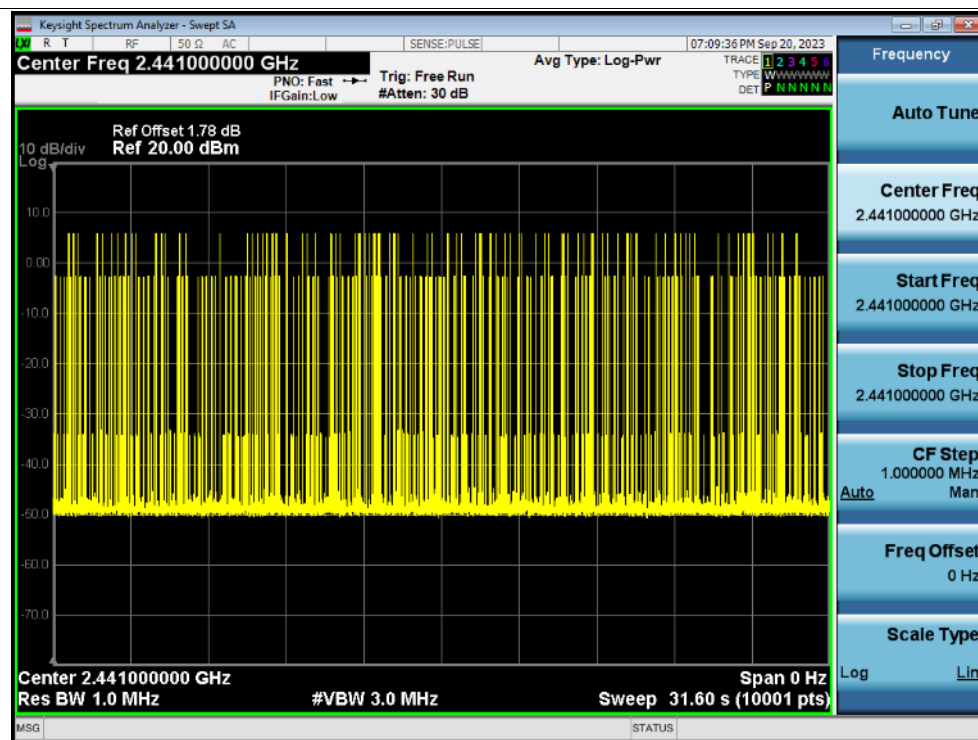
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



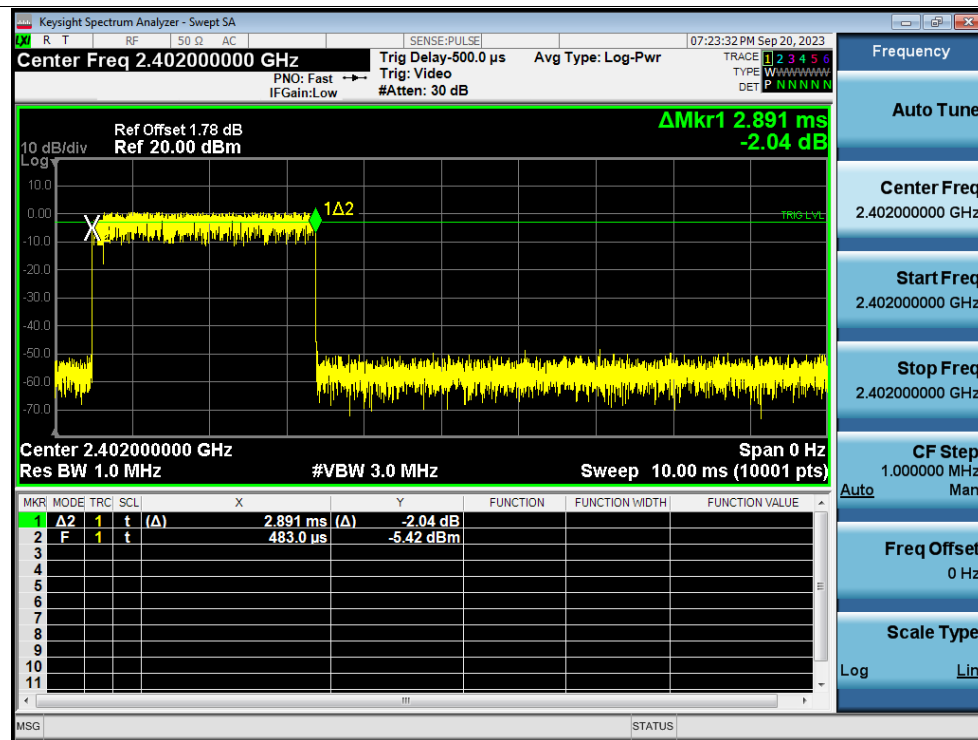
Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



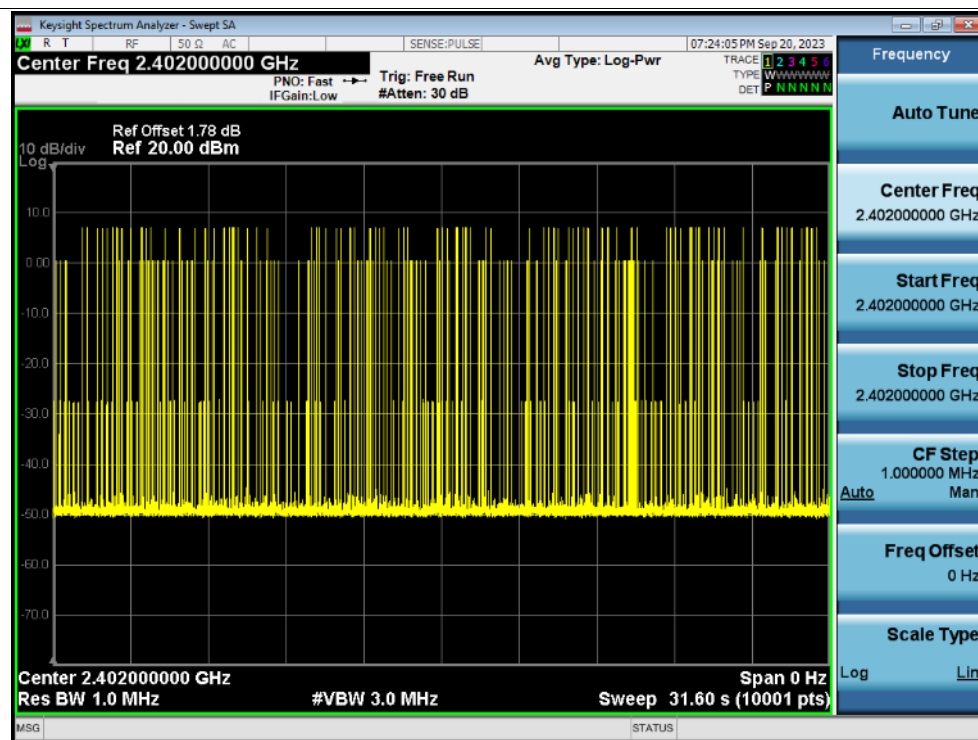
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



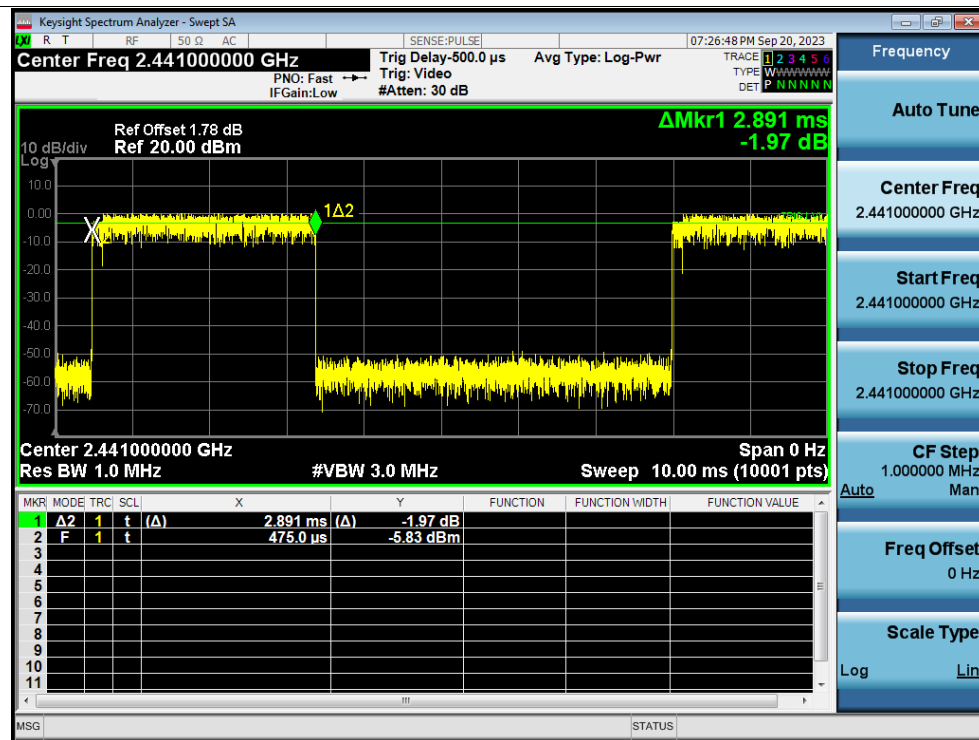
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



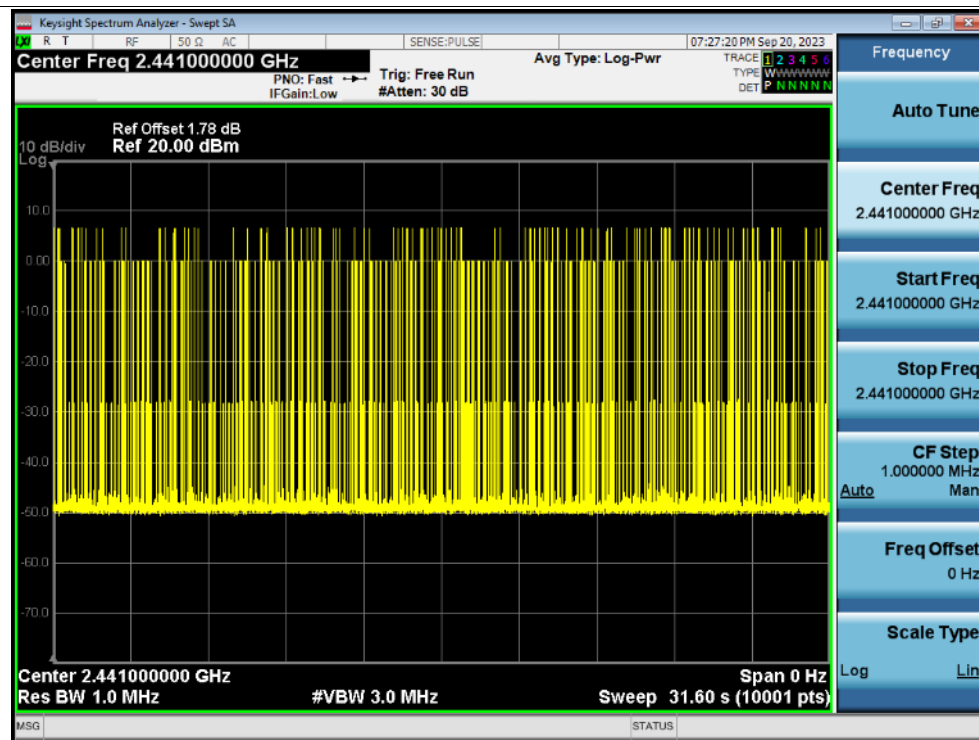
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



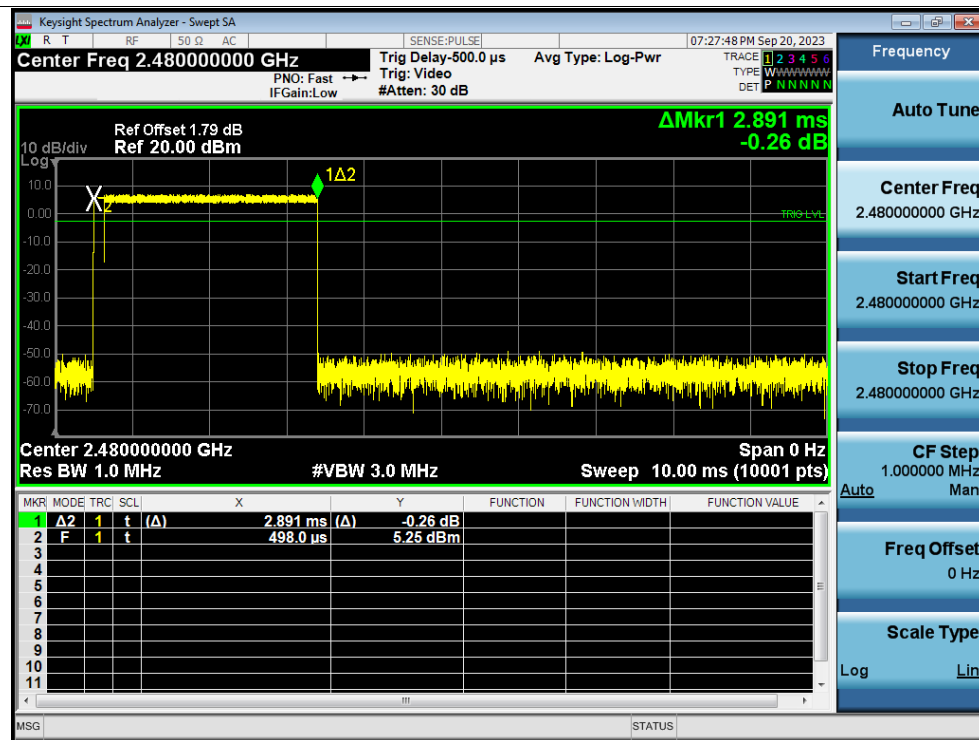
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



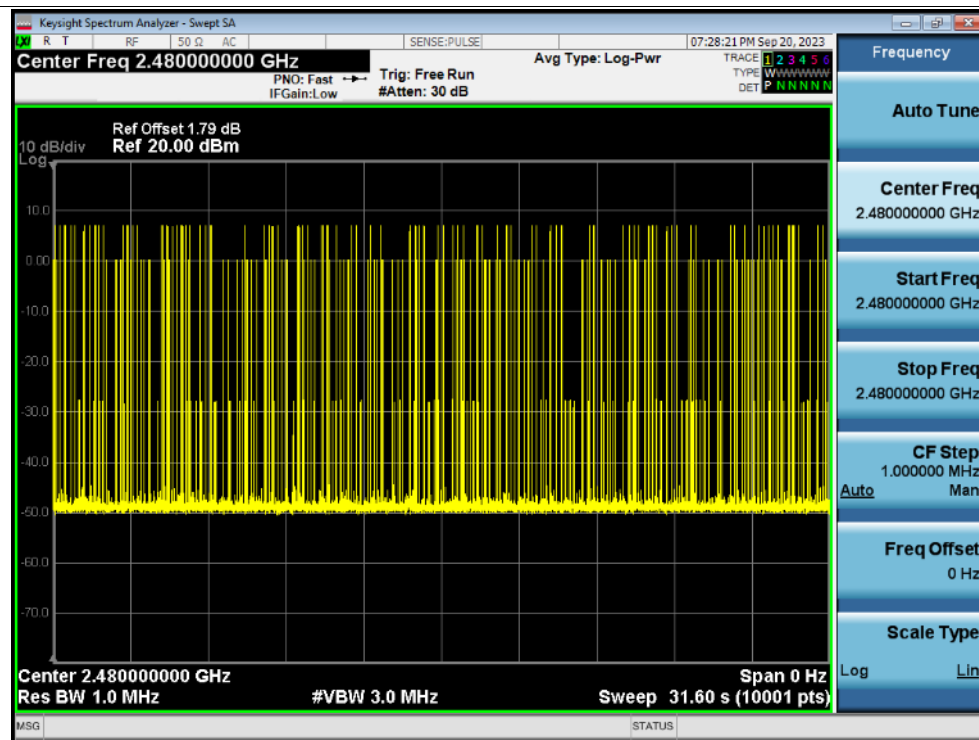
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



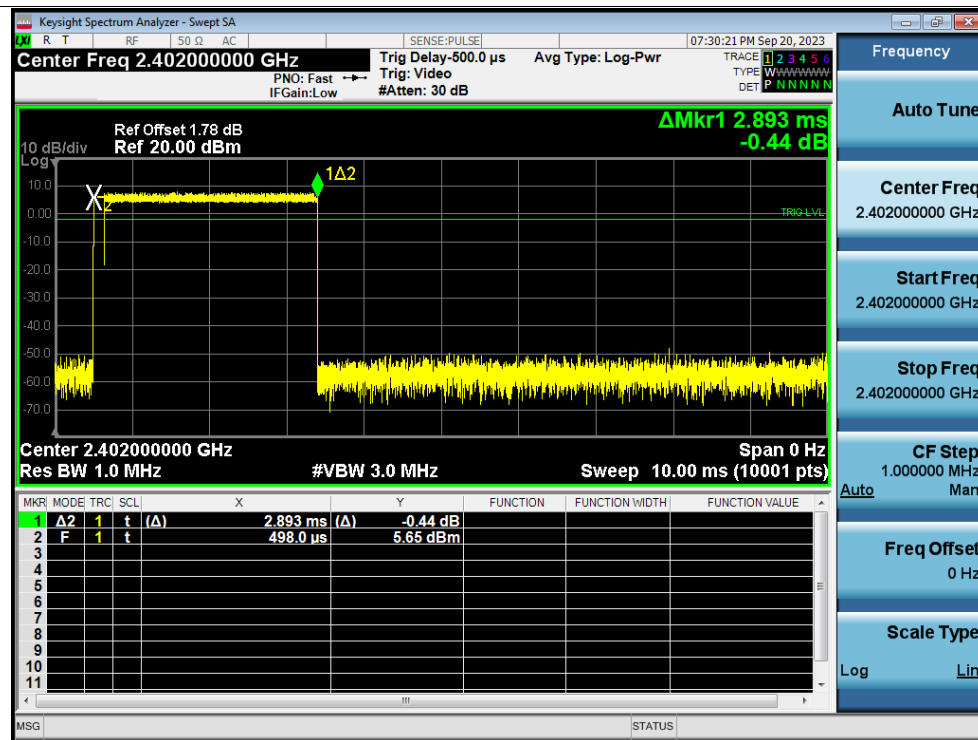
Dwell NVNT 2-DH5 2480MHz Ant1 One Burst



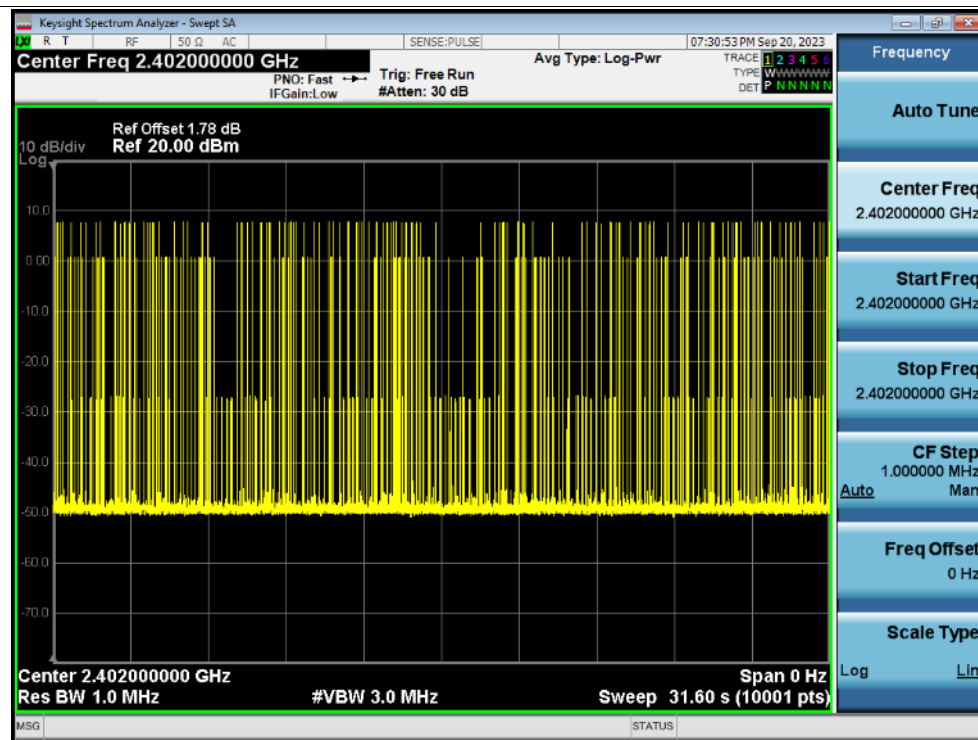
Dwell NVNT 2-DH5 2480MHz Ant1 Accumulated



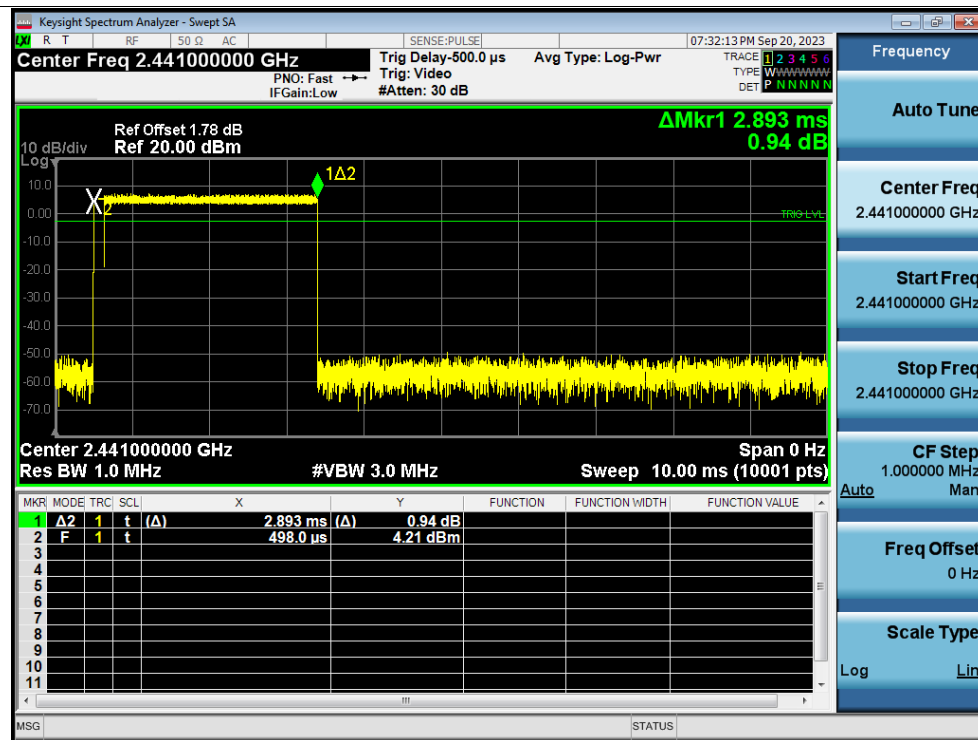
Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



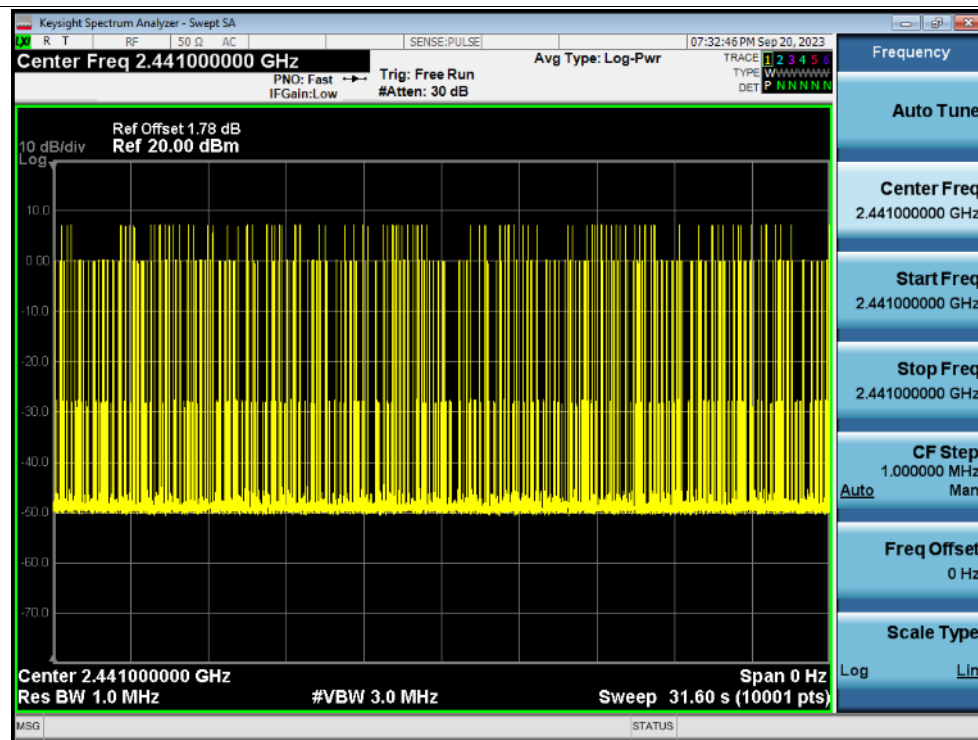
Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated



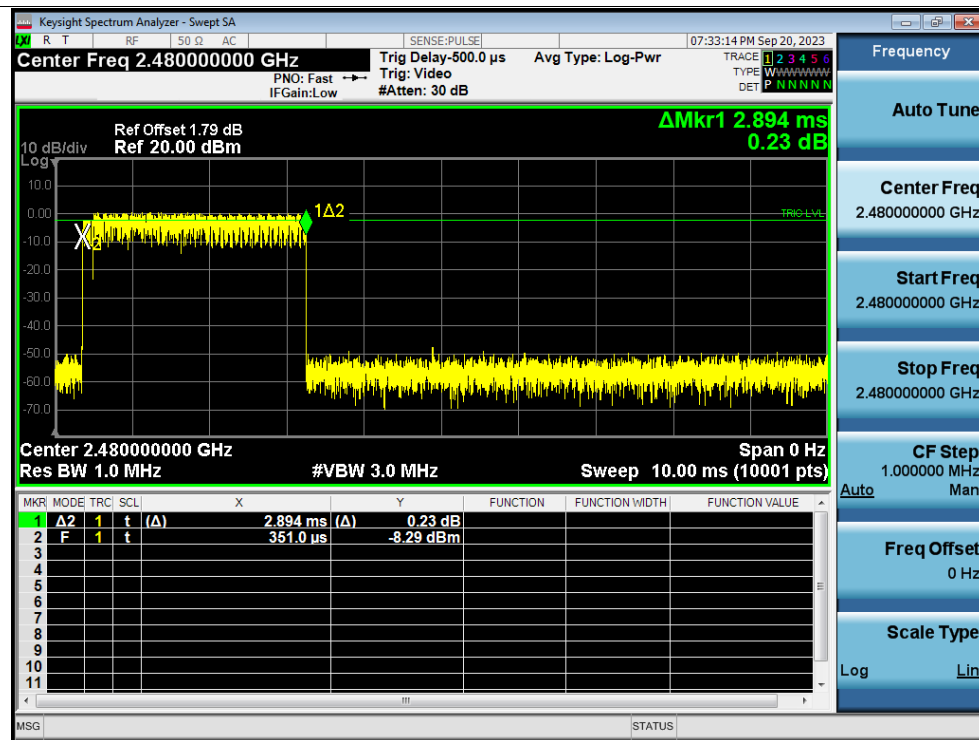
Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



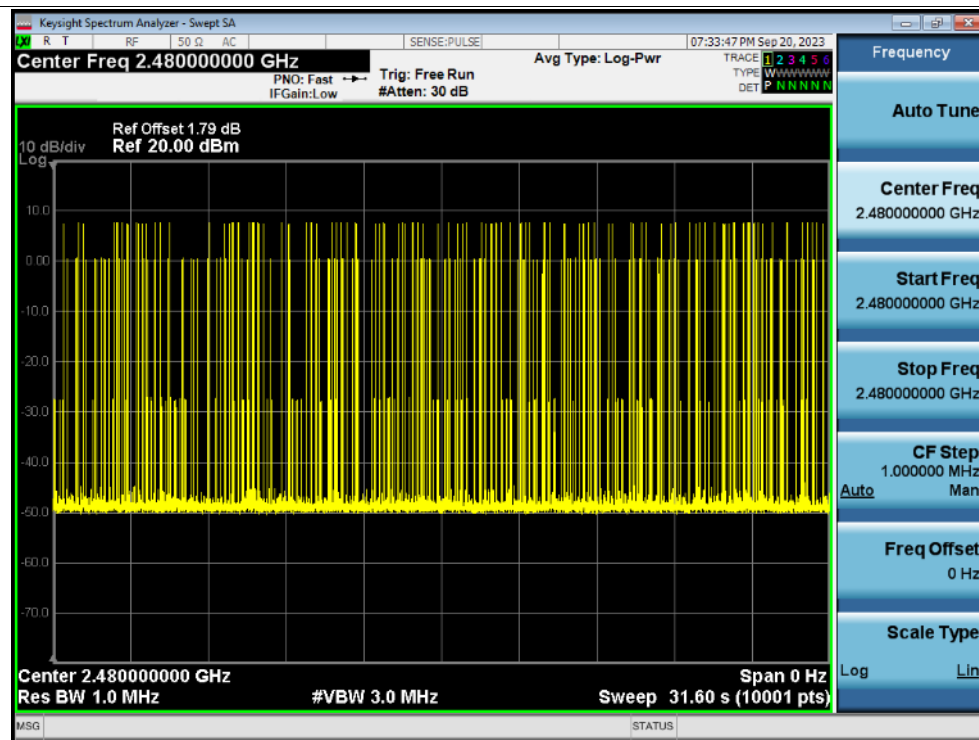
Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2480MHz Ant1 One Burst



Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated

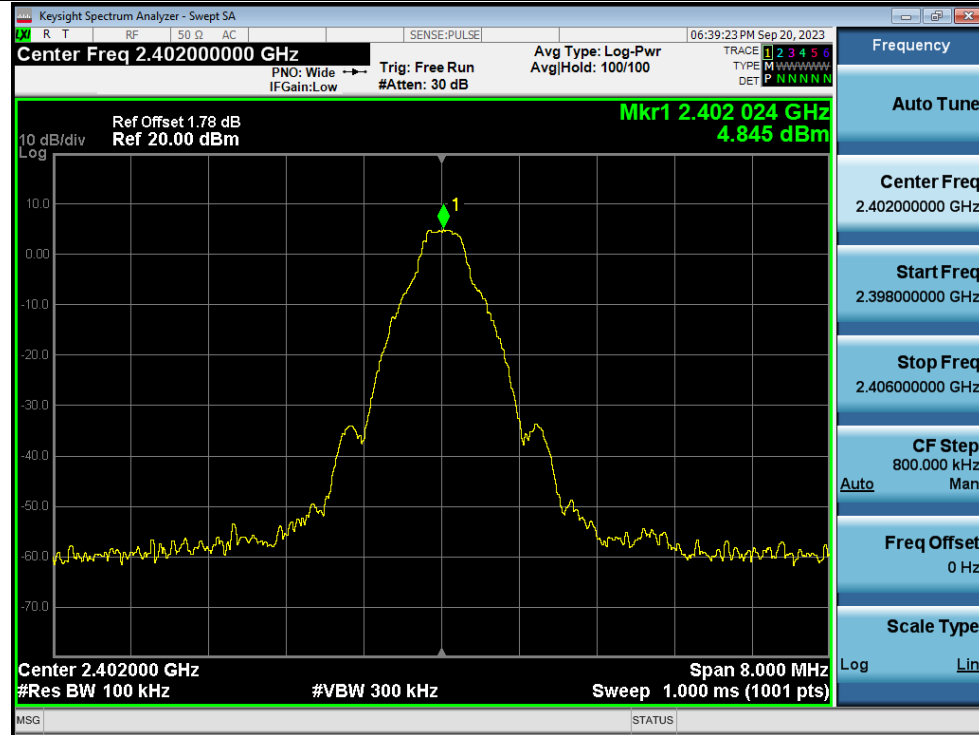


Band Edge

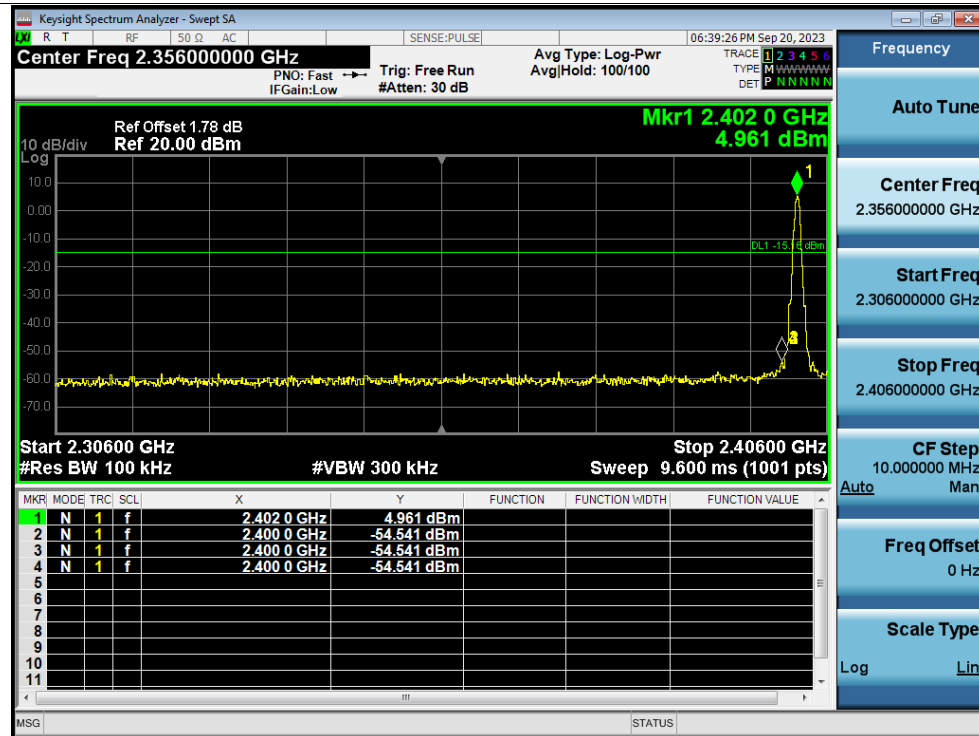
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-59.39	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-61.89	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.78	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-59.81	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-56.11	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-59.23	-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 NVNet 1-DH5 2480MHz Ant1 No-Hopping Ref

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PULSE 06:42:37 PM Sep 20, 2023

Center Freq 2.48000000 GHz PNO: Wide Trig: Free Run Avg Type: Log-Pwr
IF Gain: Low #Atten: 30 dB Avg Hold: 100/100

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

Ref Offset 1.79 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 2.480 024 GHz
4.702 dBm

Center 2.480000 GHz Span 8.000 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.48000000 GHz

Start Freq
2.476000000 GHz

Stop Freq
2.484000000 GHz

CF Step
800.000 kHz
Man

Auto

Freq Offset
0 Hz

Scale Type
Log Lin

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PULSE 06:42:40 PM Sep 20, 2023

Center Freq 2.526000000 GHz

PNO: Fast IF Gain: Low Trig: Free Run Avg|Hold: 100/100

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

Ref Offset 1.79 dB
Ref 20.00 dBm

Mkr1 2.480 0 GHz
4.770 dBm

Start 2.47600 GHz Stop 2.57600 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 0 GHz	4.770 dBm			
2	N	1	f	2.483 5 GHz	-60.200 dBm			
3	N	1	f	2.500 0 GHz	-60.461 dBm			
4	N	1	f	2.494 2 GHz	-57.191 dBm			

Auto Tune

Center Freq 2.526000000 GHz

Start Freq 2.476000000 GHz

Stop Freq 2.576000000 GHz

CF Step 10.000000 MHz Man

Freq Offset 0 Hz

Scale Type Log Lin

[illegible]

Keysight Spectrum Analyzer - Swept SA

RF 50 Ω AC SENSE:PULSE 06:48:10 PM Sep 20, 2023

Center Freq 2.356000000 GHz Avg Type: Log-Pwr Avg/Hold: 100/100

PN0: Fast IFGain:Low Trig: Free Run #Atten: 30 dB

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

Ref Offset 1.78 dB
Ref 20.00 dBm

Mkr1 2.402 1 GHz
3.003 dBm

10 dB/div
Log

Start 2.30600 GHz Stop 2.40600 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.402 1 GHz	3.003 dBm			
2	N	1	f	2.400 0 GHz	-52.701 dBm			
3	N	1	f	2.400 0 GHz	-52.701 dBm			
4	N	1	f	2.400 0 GHz	-52.701 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.356000000 GHz

Start Freq
2.306000000 GHz

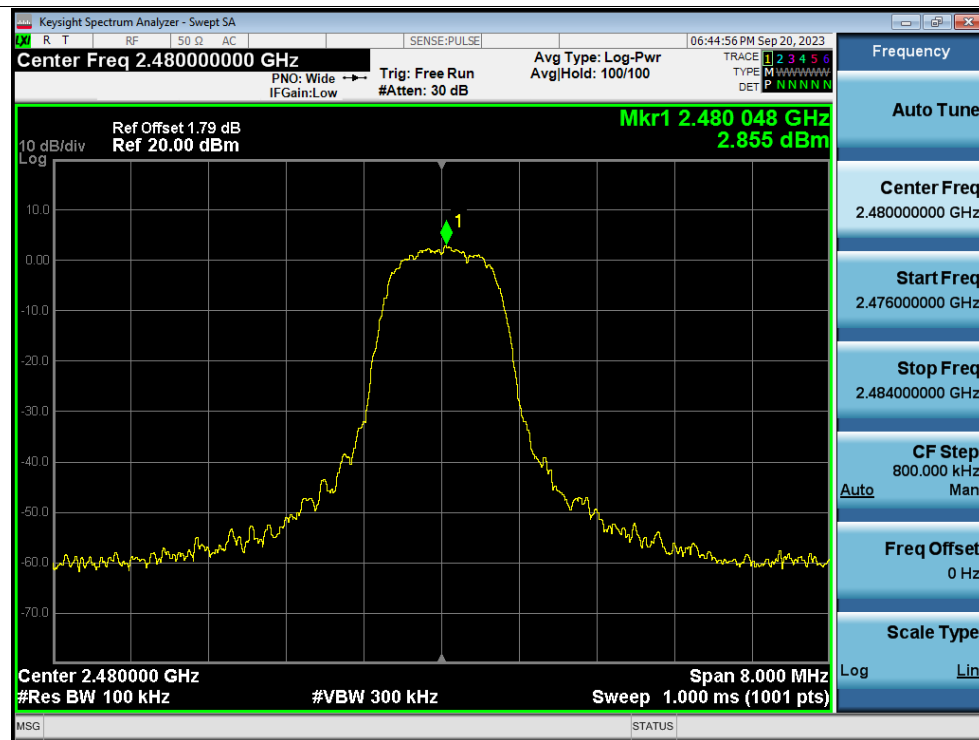
Stop Freq
2.406000000 GHz

CF Step
10.000000 MHz
Auto Man

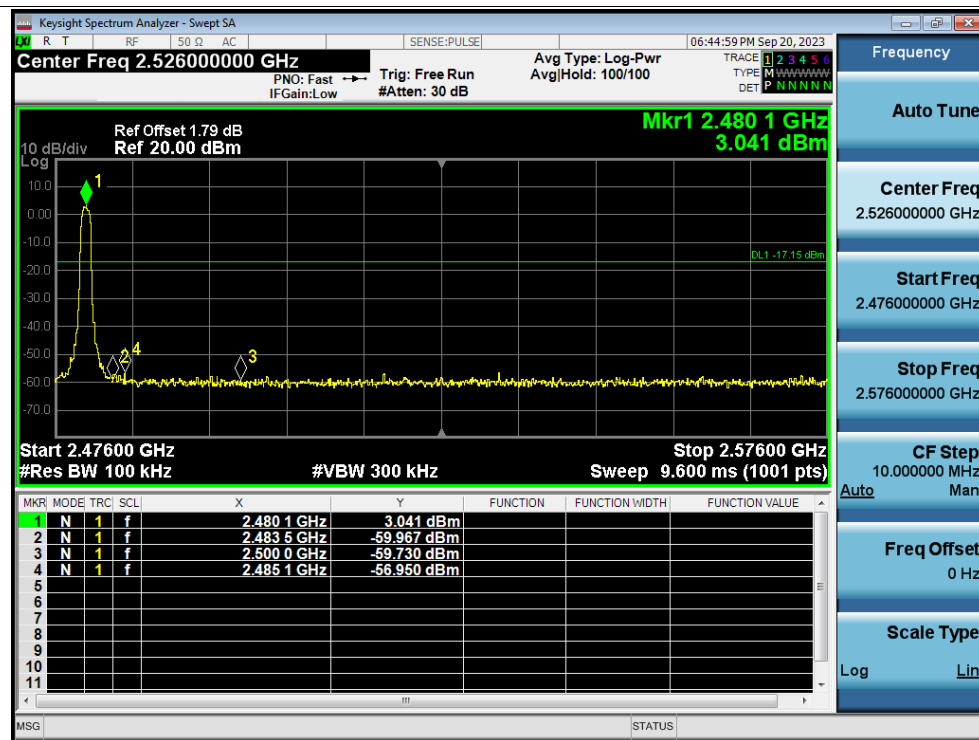
Freq Offset
0 Hz

Scale Type
Log Lin

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



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



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.40200000 GHz

Ref Offset 1.78 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 2.402104 GHz
3.242 dBm

Center Freq 2.40200000 GHz

Span 8.000 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.000 ms (1001 pts)

Frequency

Auto Tune

Center Freq 2.402000000 GHz

Start Freq 2.398000000 GHz

Stop Freq 2.406000000 GHz

CF Step 800.000 kHz
Man

Freq Offset 0 Hz

Scale Type Log

The image shows a Keysight Spectrum Analyzer interface. The main display area shows a spectrum plot with a yellow trace. A peak is marked with a green diamond and labeled '1'. The peak frequency is 2.402104 GHz and its power is 3.242 dBm. The plot has a logarithmic scale (Log) and a span of 8.000 MHz. The center frequency is 2.40200000 GHz. The resolution bandwidth (Res BW) is 100 kHz and the video bandwidth (VBW) is 300 kHz. The sweep time is 1.000 ms (1001 pts). The plot also shows a reference offset of 1.78 dB and a reference power of 20.00 dBm. On the right side, there is a table of parameters including Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, Freq Offset, and Scale Type.

Keysight Spectrum Analyzer - Swept SA

06:49:48 PM Sep 20, 2023

Center Freq 2.356000000 GHz

Ref Offset 1.78 dB
Ref 20.00 dBm

PN0: Fast
IFGain: Low

Trig: Free Run
#Atten: 30 dB

Avg Type: Log-Pwr
Avg/Hold: 100/100

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

10 dB/div
Log

Mkr1 2.402 1 GHz
3.294 dBm

Start 2.30600 GHz
#Res BW 100 kHz

Stop 2.40600 GHz
#VBW 300 kHz
Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.402 1 GHz	3.294 dBm			
2	N	1	f	2.400 0 GHz	-53.611 dBm			
3	N	1	f	2.400 0 GHz	-53.611 dBm			
4	N	1	f	2.399 9 GHz	-52.874 dBm			
5								
6								
7								
8								
9								
10								
11								

Auto Tune

Center Freq
2.356000000 GHz

Start Freq
2.306000000 GHz

Stop Freq
2.406000000 GHz

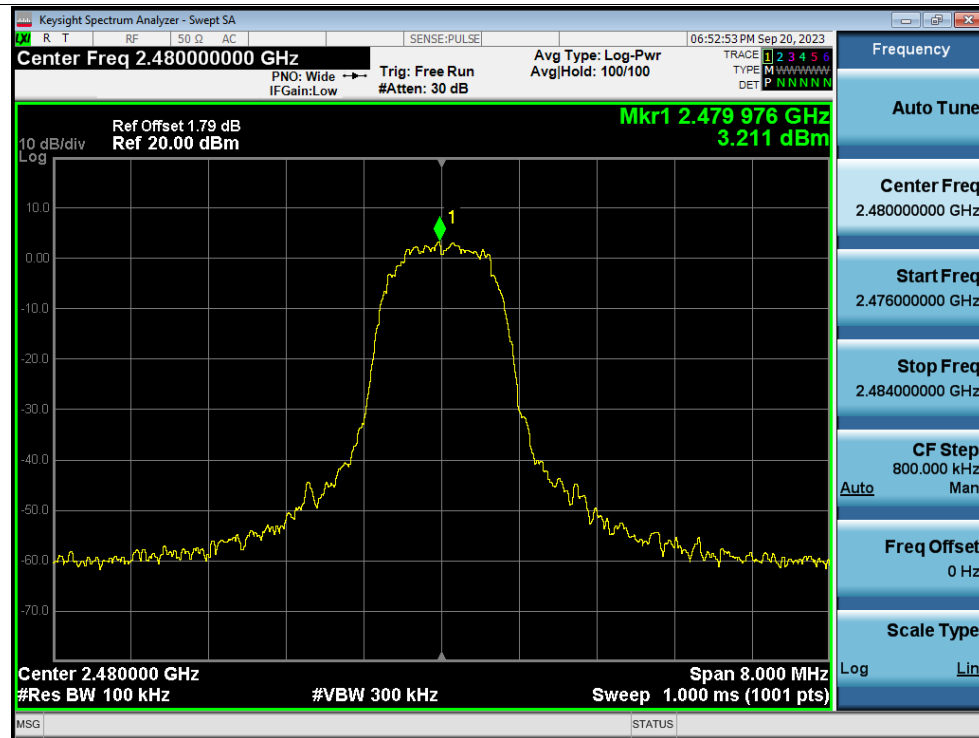
CF Step
10.000000 MHz
Man

Freq Offset
0 Hz

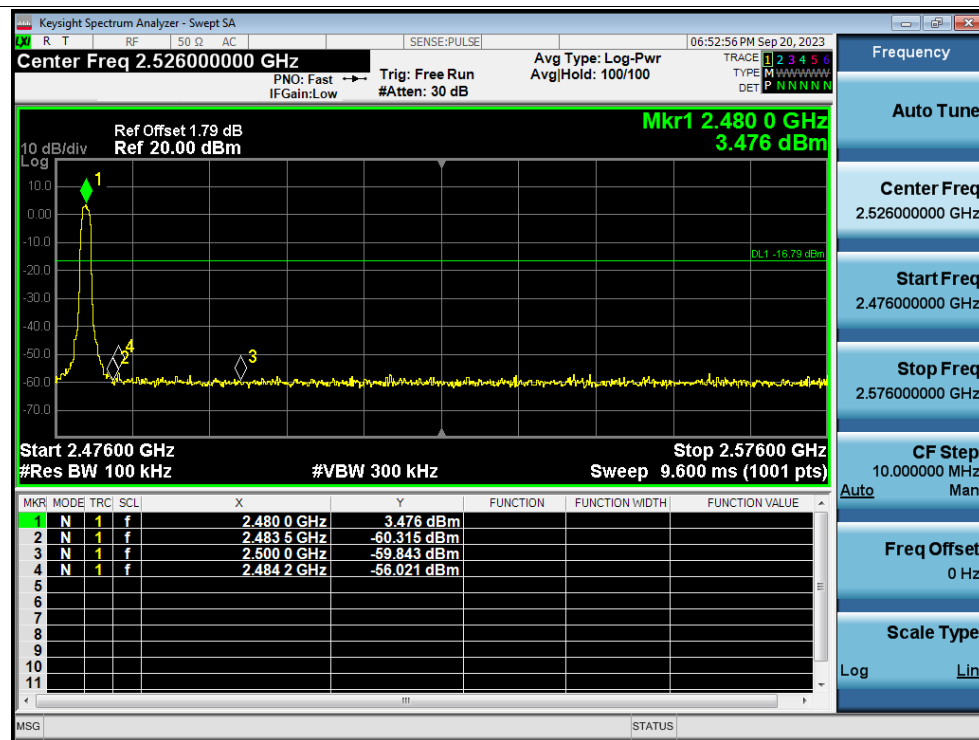
Scale Type
Log

MSG STATUS

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



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



Band Edge(Hopping)

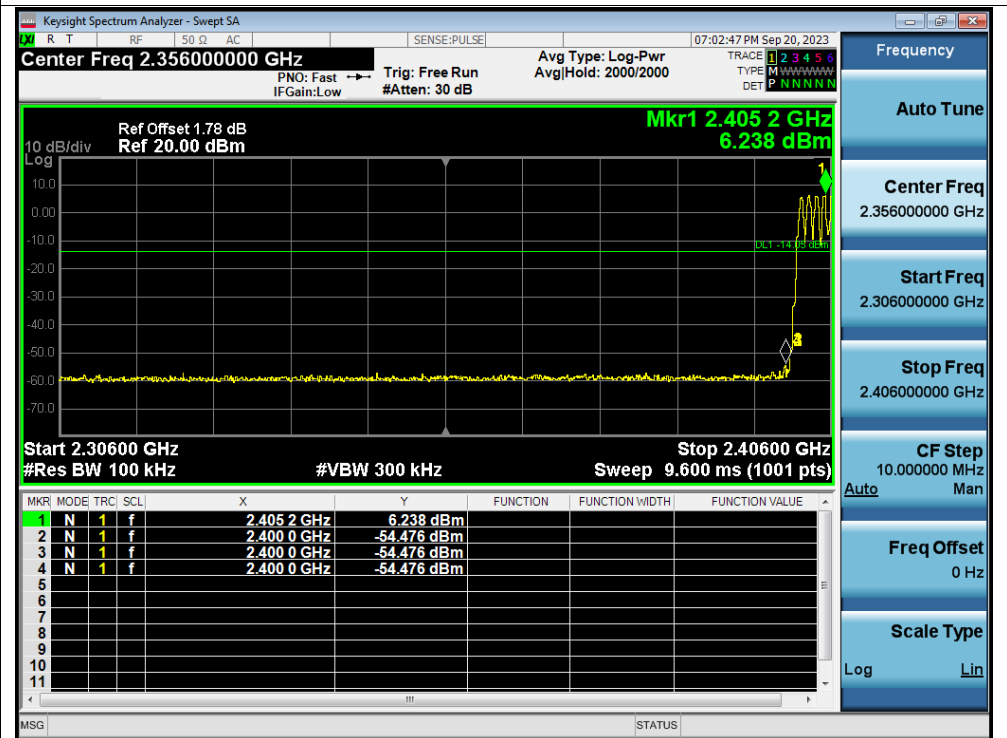
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-60.42	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-61.5	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-60.51	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-61.57	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-60.66	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-63.03	-20	Pass

Test Graphs

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



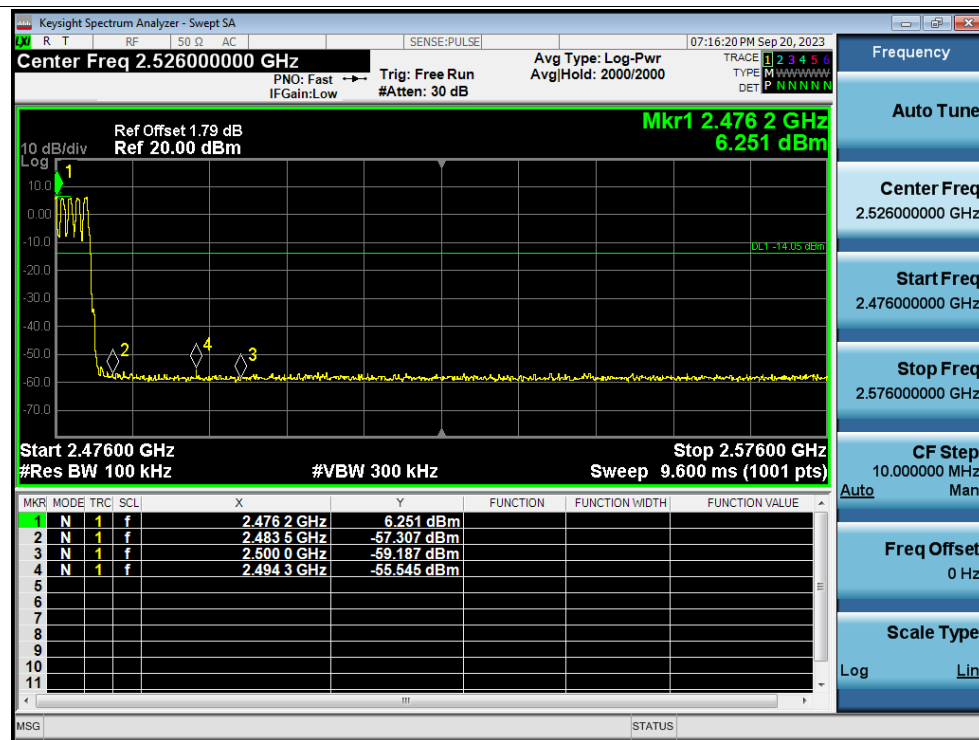
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



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



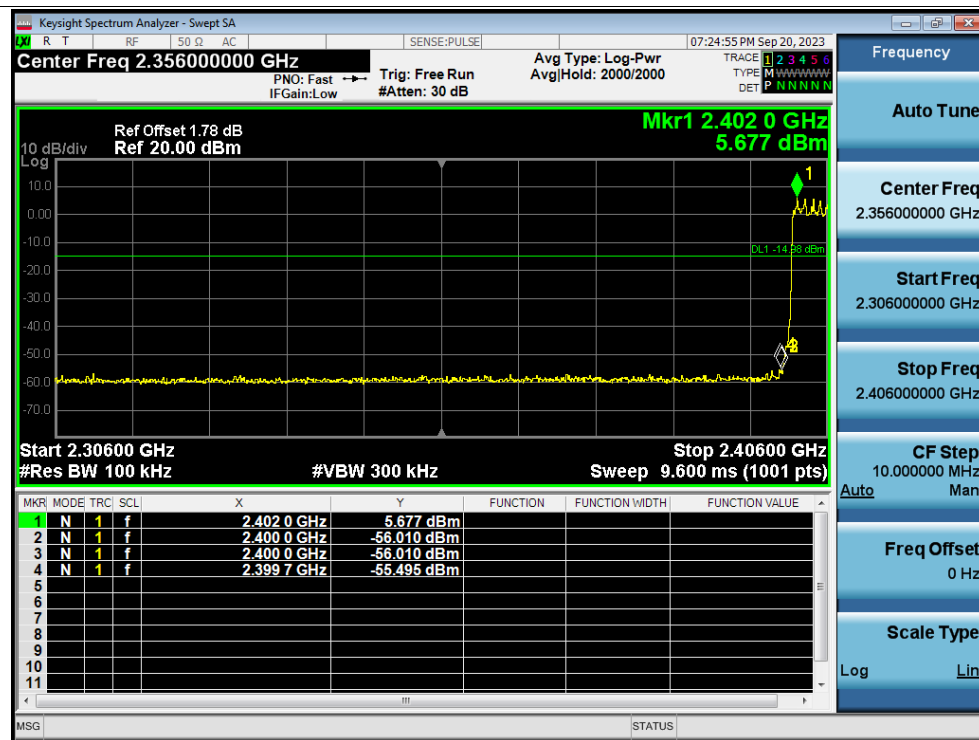
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



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



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



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.48000000 GHz

Ref Offset 1.79 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 2.479152 GHz
4.910 dBm

Center Freq 2.48000000 GHz

Span 8.000 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.000 ms (1001 pts)

Frequency	Power
2.479152 GHz	-4.910 dBm

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

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PUSE 07:29:13 PM Sep 20, 2023

Center Freq 2.526000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr Avg|Hold: 2000/2000

Ref Offset 1.79 dB Ref 20.00 dBM

Mkr1 2.477 1 GHz 5.160 dBm

10 dB/div Log

Start 2.47600 GHz Stop 2.57600 GHz

#Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.477 1 GHz	5.160 dBm			
2	N	1	f	2.483 5 GHz	-59.235 dBm			
3	N	1	f	2.500 0 GHz	-58.557 dBm			
4	N	1	f	2.486 6 GHz	-56.666 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 2.526000000 GHz

Start Freq 2.476000000 GHz

Stop Freq 2.576000000 GHz

CF Step 10.000000 MHz Man

Auto

Freq Offset 0 Hz

Scale Type Log Lin

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

Keysight Spectrum Analyzer - Swept SA

RF 50 Ω AC SENSE:PULSE 07:31:09 PM Sep 20, 2023

Center Freq 2.402000000 GHz PNO: Wide → Trig: Free Run Avg Type: Log-Pwr Avg|Hold: 2000/2000

IFGain:Low #Atten: 30 dB TRACE 1 2 3 4 5 6 TYPE MNRNWWN DET P NNNNN

Ref Offset 1.78 dB Ref 20.00 dB

10 dB/div Log

Mkr1 2.403 008 GHz 5.978 dBm

1

Center 2.402000 GHz Span 8.000 MHz

#Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts)

Frequency

Auto Tune

Center Freq 2.402000000 GHz

Start Freq 2.398000000 GHz

Stop Freq 2.406000000 GHz

CF Step 800.000 kHz Man

Auto

Freq Offset 0 Hz

Scale Type Log Lin

MSG STATUS

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

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PULSE 07:31:43 PM Sep 20, 2023

Center Freq 2.356000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr Avg|Hold: 2000/2000 TRACER 1 2 3 4 5 6 TYPE M W W W W W W W DET P N N N N N N N

Ref Offset 1.78 dB Ref 20.00 dBm

10 dB/div Log

Mkr1 2.406 0 GHz 6.116 dBm

Start 2.30600 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.40600 GHz Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.406 0 GHz	6.116 dBm			
2	N	1	f	2.400 0 GHz	-56.318 dBm			
3	N	1	f	2.400 0 GHz	-56.318 dBm			
4	N	1	f	2.399 8 GHz	-54.681 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 2.356000000 GHz

Start Freq 2.306000000 GHz

Stop Freq 2.406000000 GHz

CF Step 10.000000 MHz Man

Auto

Freq Offset 0 Hz

Scale Type Log Lin

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PULSE 07:34:04 PM Sep 20, 2023

Center Freq 2.48000000 GHz Avg Type: Log-Pwr
PNO: Wide → Trig: Free Run Avg|Hold: 2000/2000
IFGain:Low #Atten: 30 dB

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

Ref Offset 1.79 dB
Ref 20.00 dBm

Mkr1 2.479 848 GHz
5.902 dBm

10 dB/div
Log

Center 2.480000 GHz **Span 8.000 MHz**
#Res BW 100 kHz **#VBW 300 kHz** **Sweep 1.000 ms (1001 pts)**

Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.476000000 GHz
Stop Freq 2.484000000 GHz
CF Step 800.000 kHz Man
Auto
Freq Offset 0 Hz
Scale Type Log Lin

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

Keysight Spectrum Analyzer - Swept SA

R T RF 50 Ω AC SENSE:PULSE 07:34:37 PM Sep 20, 2023

Center Freq 2.526000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr
IF Gain: Low #Atten: 30 dB Avg Hold: 2000/2000

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

Ref Offset 1.79 dB
Ref 20.00 dBm

Mkr1 2.479 0 GHz
5.827 dBm

10 dB/div
Log

Start 2.47600 GHz Stop 2.57600 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.479 0 GHz	5.827 dBm			
2	N	1	f	2.483 5 GHz	-58.120 dBm			
3	N	1	f	2.500 0 GHz	-58.243 dBm			
4	N	1	f	2.484 3 GHz	-57.133 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.526000000 GHz

Start Freq
2.476000000 GHz

Stop Freq
2.576000000 GHz

CF Step
10.000000 MHz
Man

Auto

Freq Offset
0 Hz

Scale Type
Log Lin

Conducted RF Spurious Emission

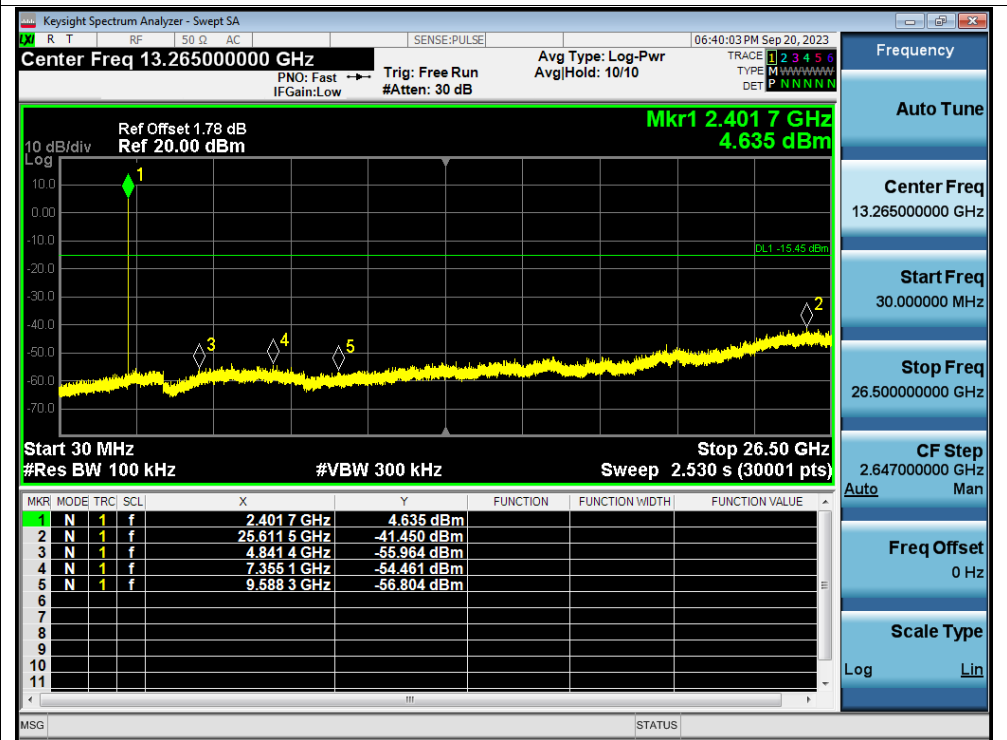
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-46	-20	Pass
NVNT	1-DH5	2441	Ant1	-45.97	-20	Pass
NVNT	1-DH5	2480	Ant1	-46.23	-20	Pass
NVNT	2-DH5	2402	Ant1	-44.83	-20	Pass
NVNT	2-DH5	2441	Ant1	-44.06	-20	Pass
NVNT	2-DH5	2480	Ant1	-44.93	-20	Pass
NVNT	3-DH5	2402	Ant1	-44.78	-20	Pass
NVNT	3-DH5	2441	Ant1	-43.44	-20	Pass
NVNT	3-DH5	2480	Ant1	-44.69	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



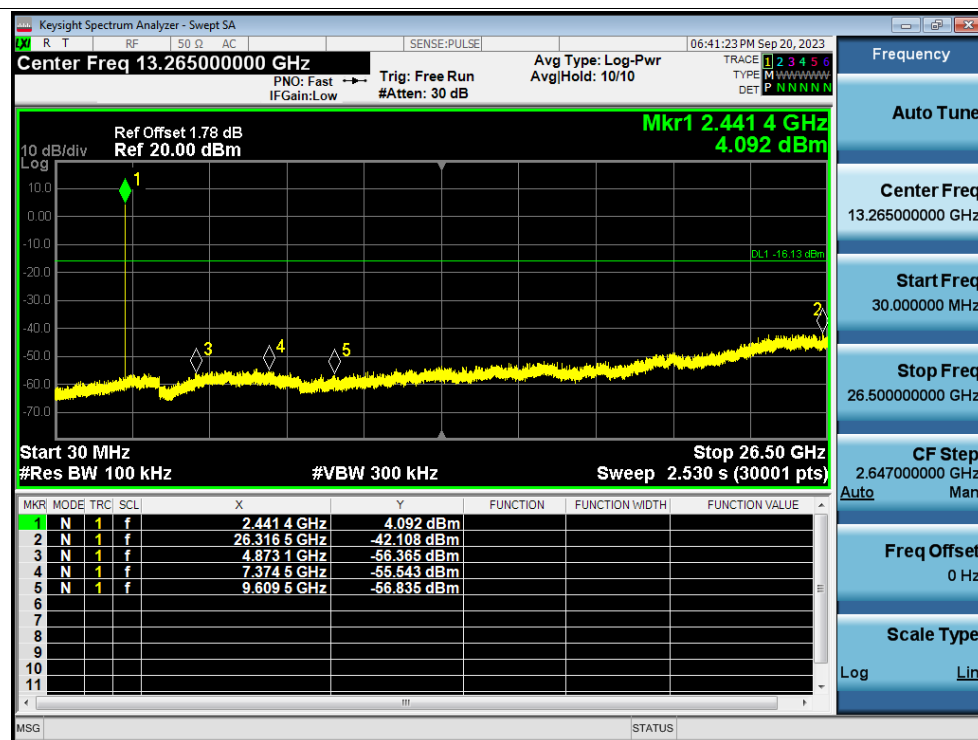
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



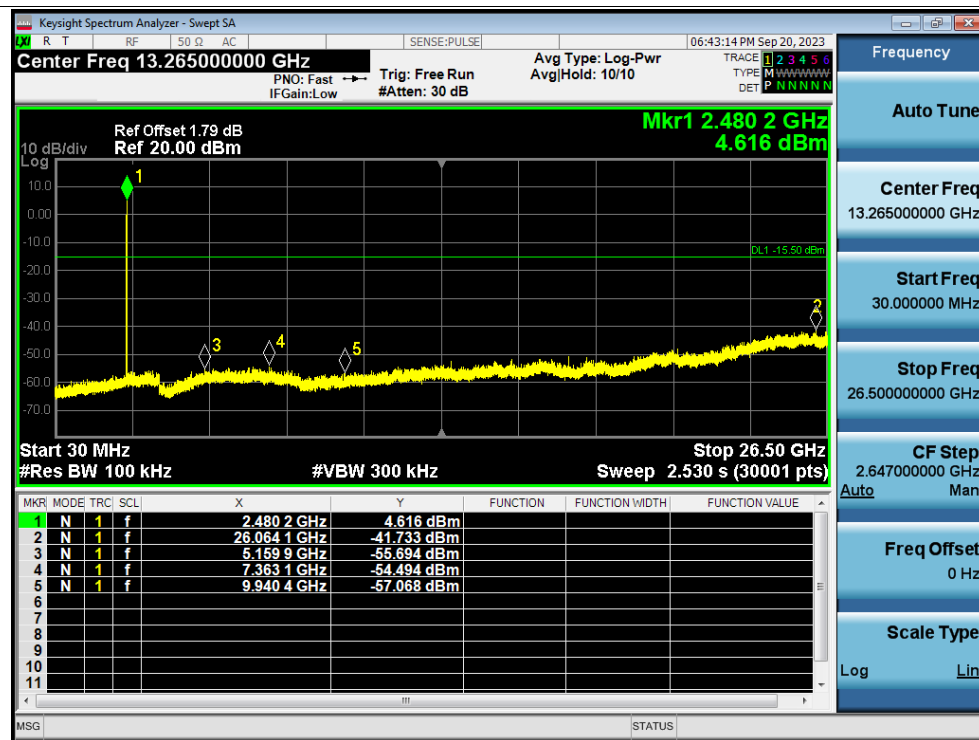
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



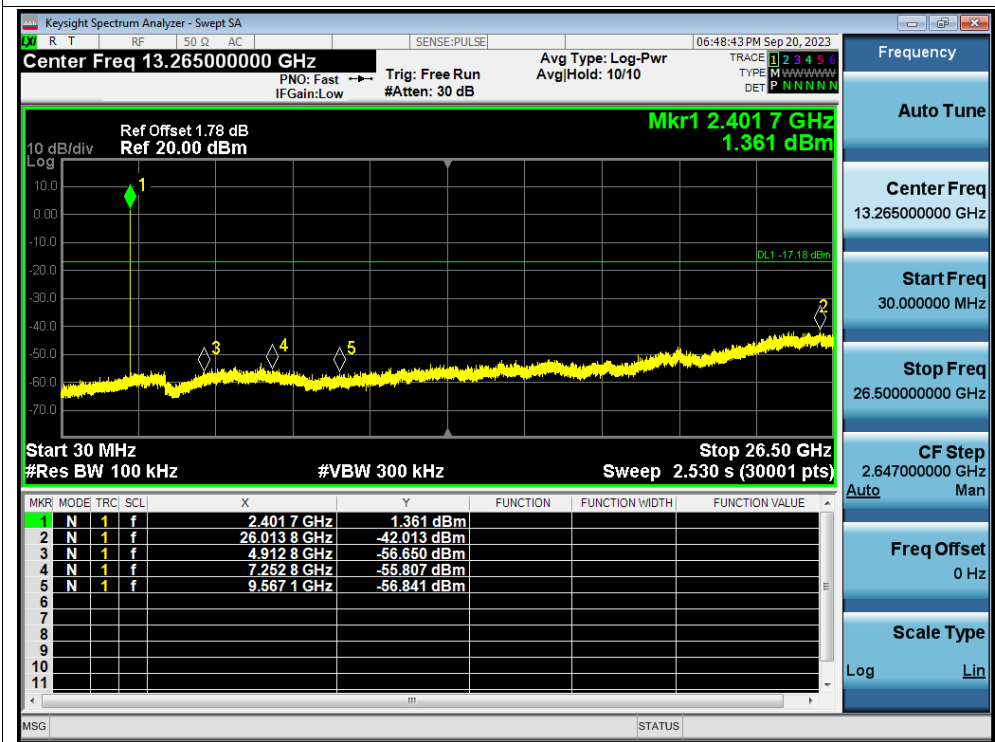
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



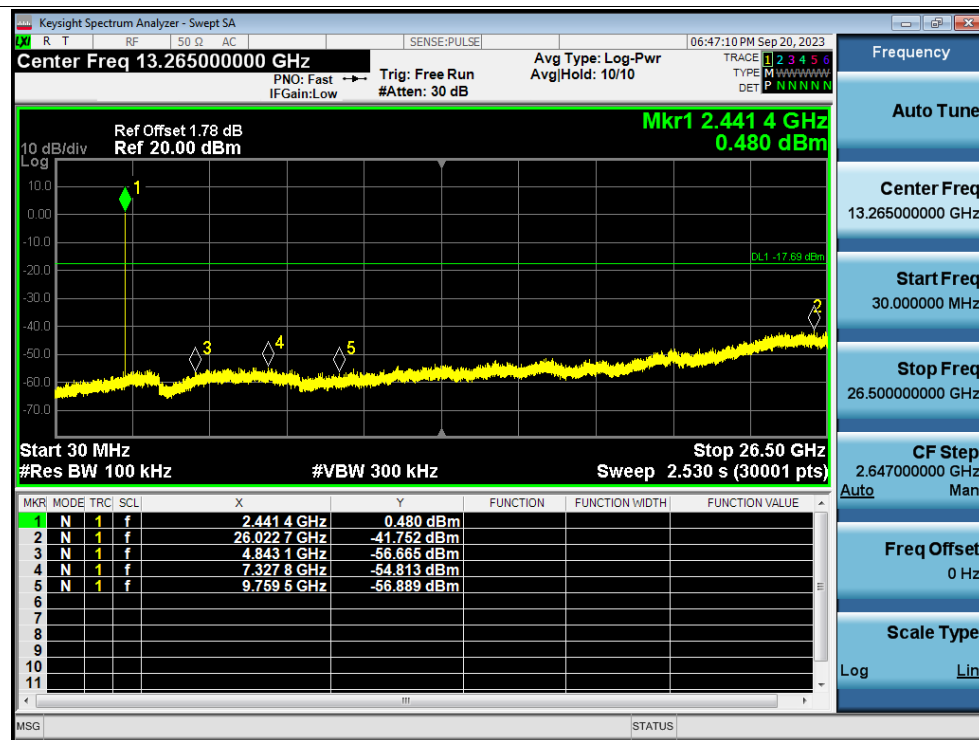
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



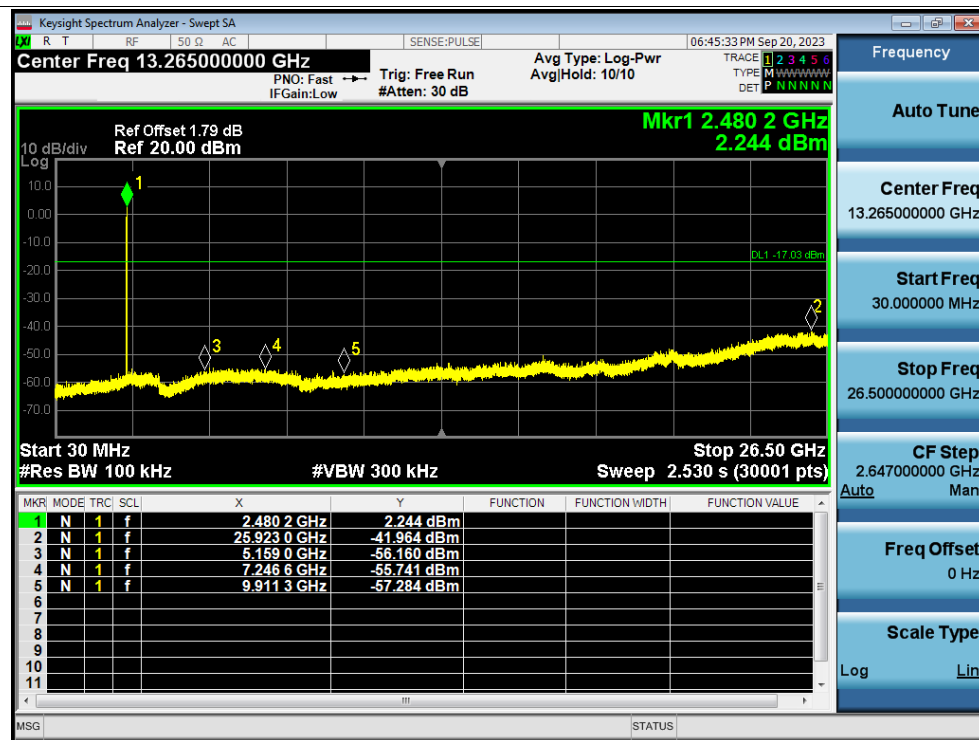
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



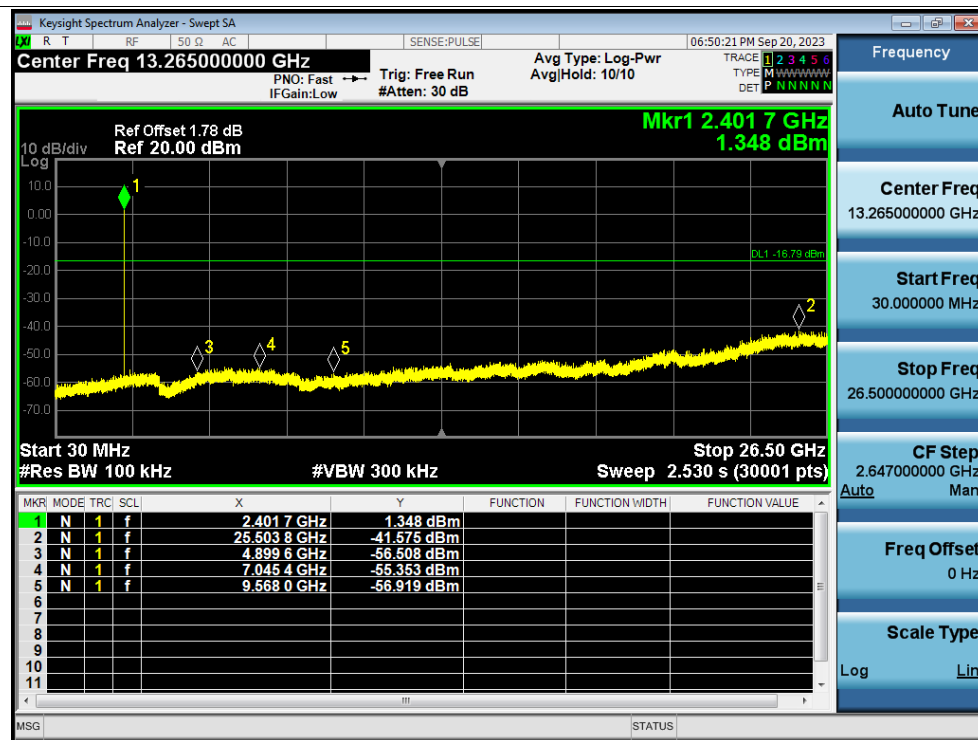
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



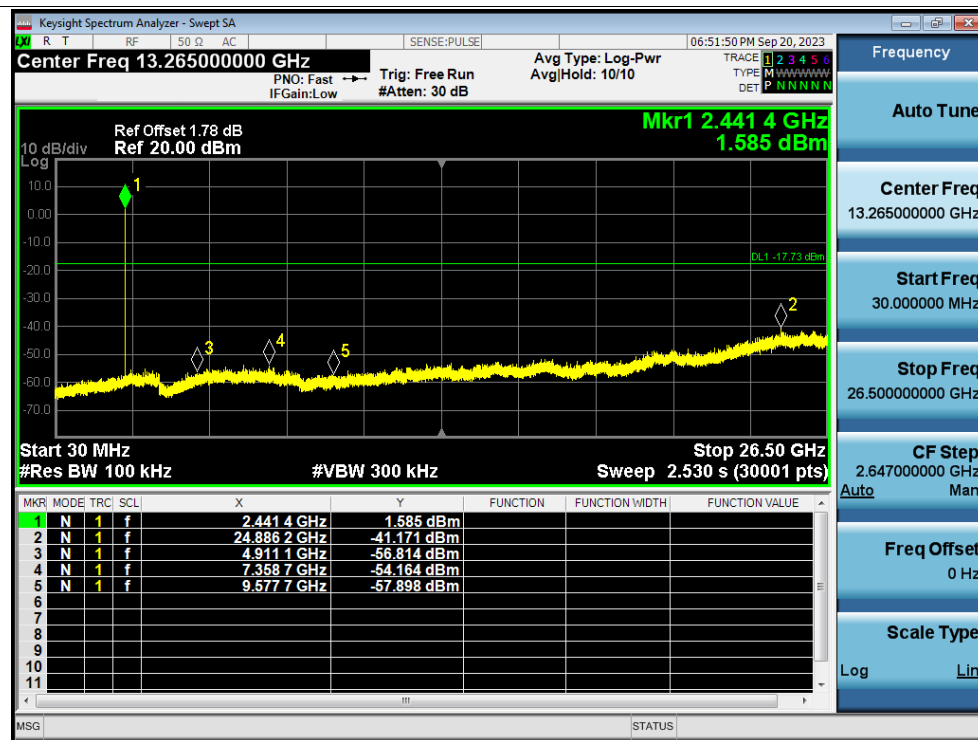
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



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

