

RF Test Data for Bluetooth(BDR+EDR) (Conducted Measurements)

General Description of EUT	
Product Name:	Bluetooth headset
Test Model:	Q1
Sample ID:	20211125-05_1-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	HEJINGCHANG
Note: For a more detailed features description, please refer to the report TB-RF185984	

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1.Maximum Conducted Output Power

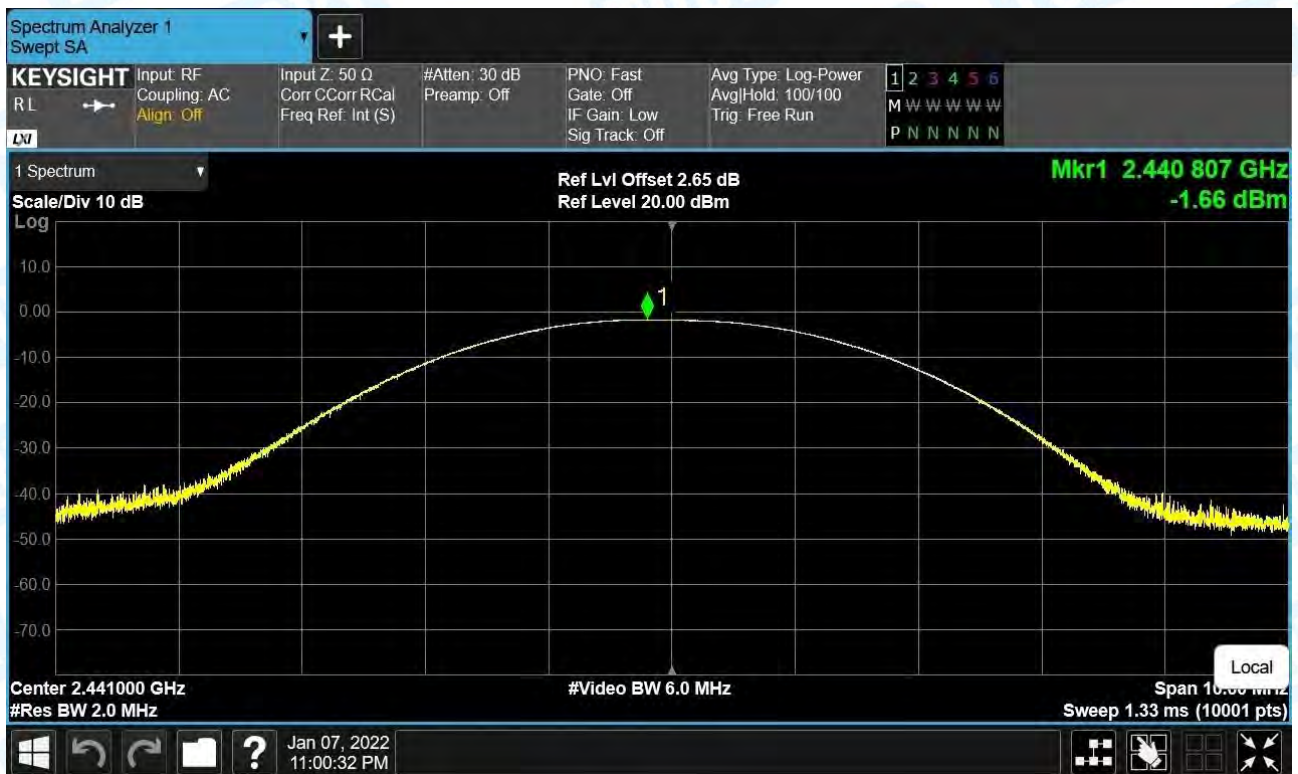
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-1.472	21	Pass
NVNT	1-DH1	2441	Ant1	-1.655	21	Pass
NVNT	1-DH1	2480	Ant1	-2.006	21	Pass
NVNT	2-DH1	2402	Ant1	-0.51	21	Pass
NVNT	2-DH1	2441	Ant1	-0.809	21	Pass
NVNT	2-DH1	2480	Ant1	-1.159	21	Pass

Test Graphs

Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1







Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1



2.-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.84	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.25	0	Pass
NVNT	2-DH1	2441	Ant1	1.28	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



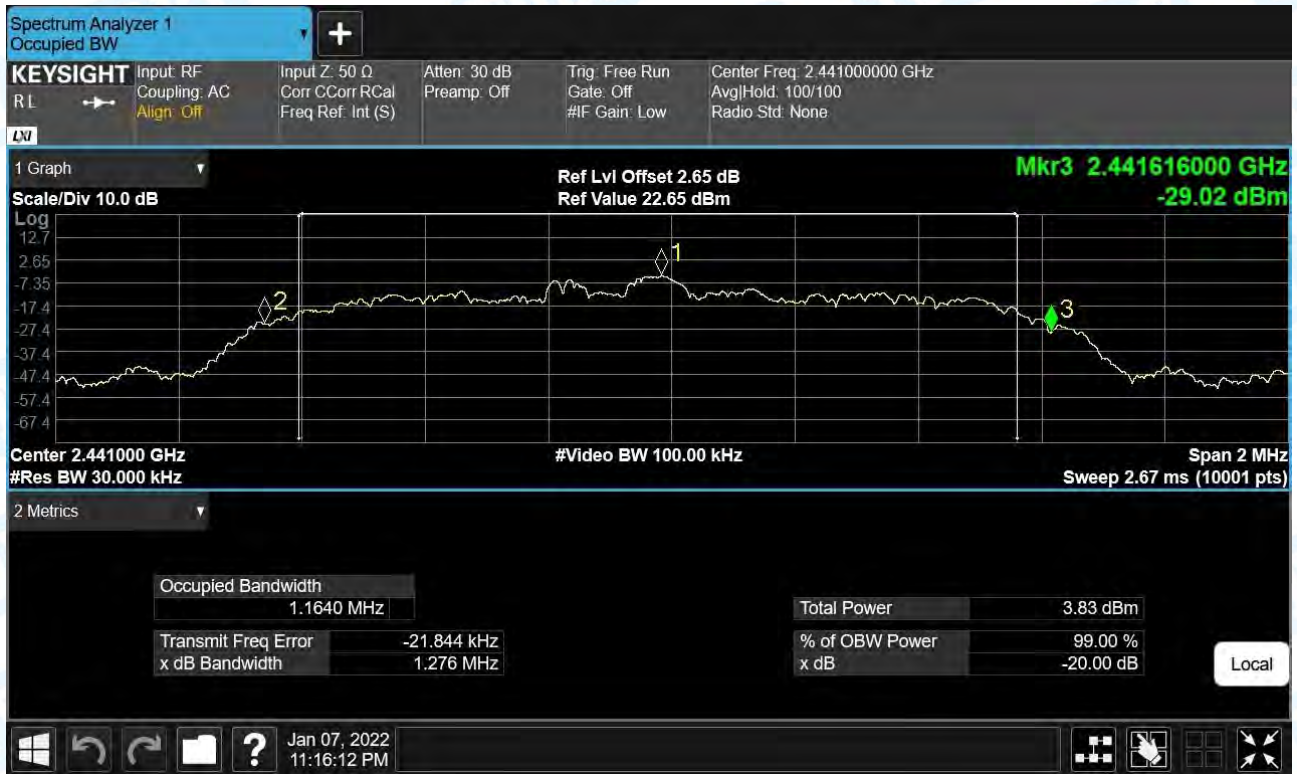
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

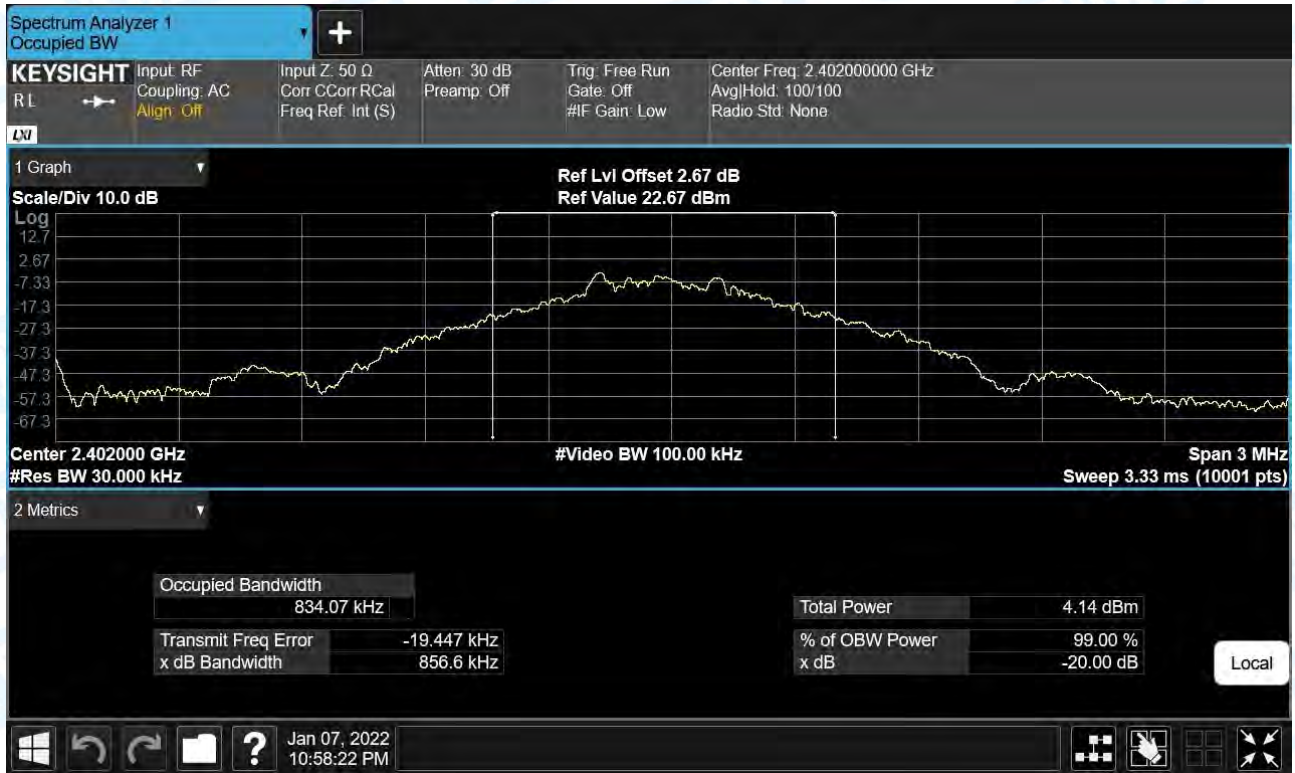


3.Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.834
NVNT	1-DH1	2441	Ant1	0.821
NVNT	1-DH1	2480	Ant1	0.813
NVNT	2-DH1	2402	Ant1	1.164
NVNT	2-DH1	2441	Ant1	1.148
NVNT	2-DH1	2480	Ant1	1.147

Test Graphs

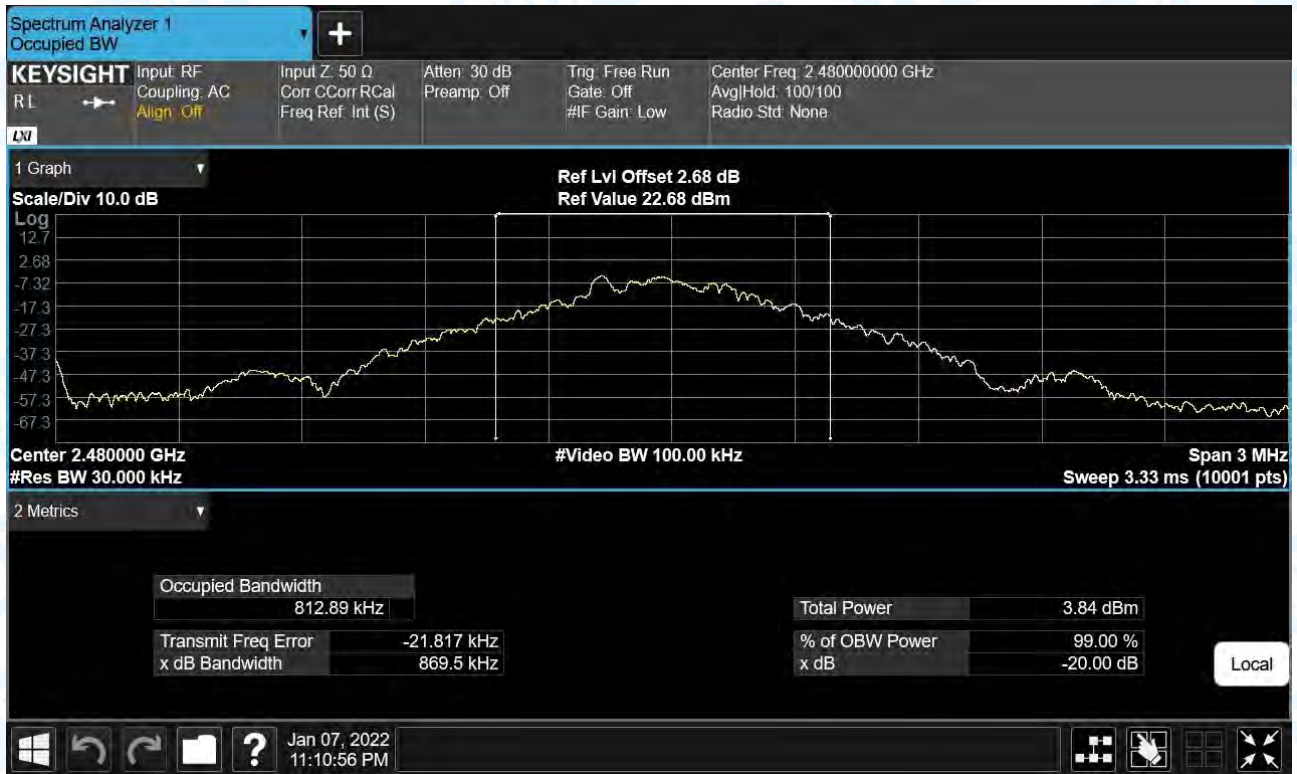
OBW NVNT 1-DH1 2402MHz Ant1



OBW NVNT 1-DH1 2441MHz Ant1



OBW NVNT 1-DH1 2480MHz Ant1



OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



OBW NVNT 2-DH1 2480MHz Ant1



4.Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2401.834	2402.83	0.996	0.573	Pass
NVNT	1-DH1	Ant1	2440.825	2441.974	1.149	0.56	Pass
NVNT	1-DH1	Ant1	2478.819	2479.824	1.005	0.025	Pass
NVNT	2-DH1	Ant1	2401.969	2402.824	0.855	0.833	Pass
NVNT	2-DH1	Ant1	2440.822	2441.83	1.008	0.853	Pass
NVNT	2-DH1	Ant1	2478.969	2479.833	0.864	0.827	Pass

Test Graphs

CFS NVNT 1-DH1 2402MHz Ant1



CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 1-DH1 2480MHz Ant1



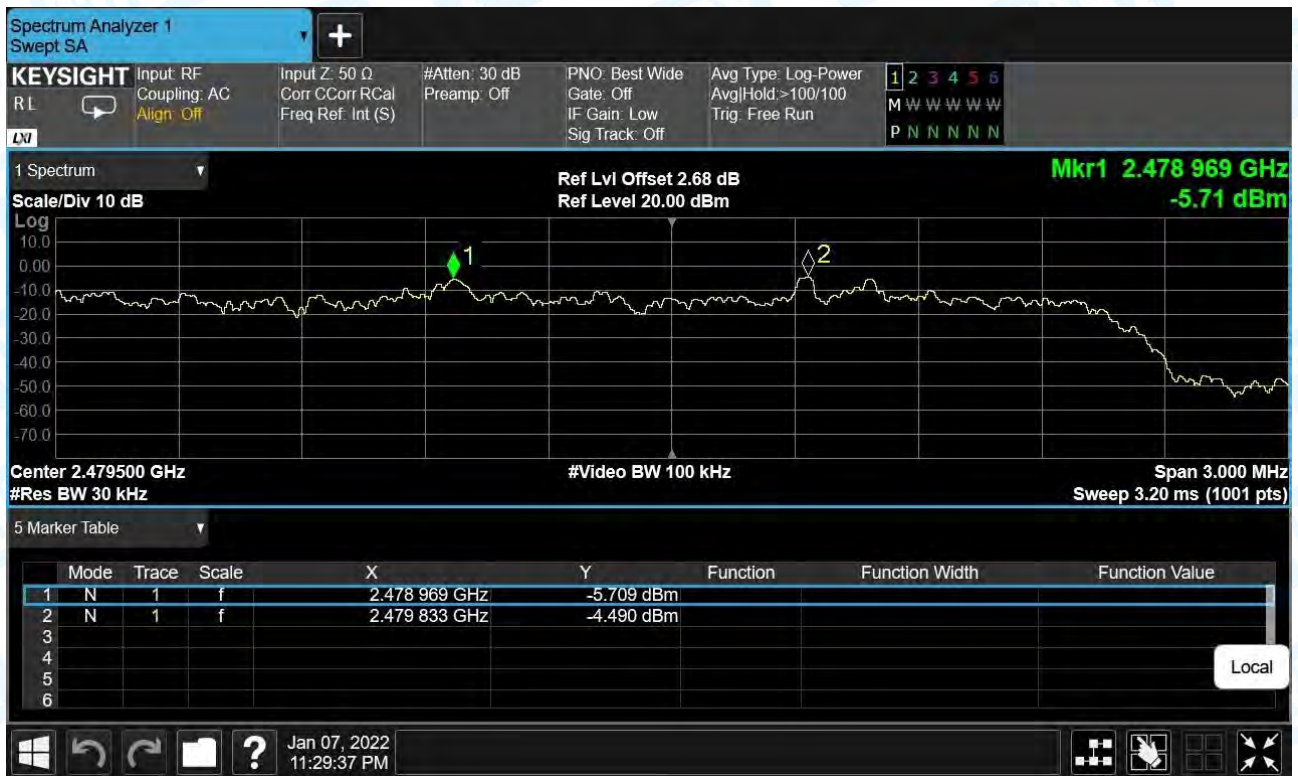
CFS NVNT 2-DH1 2402MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2480MHz Ant1

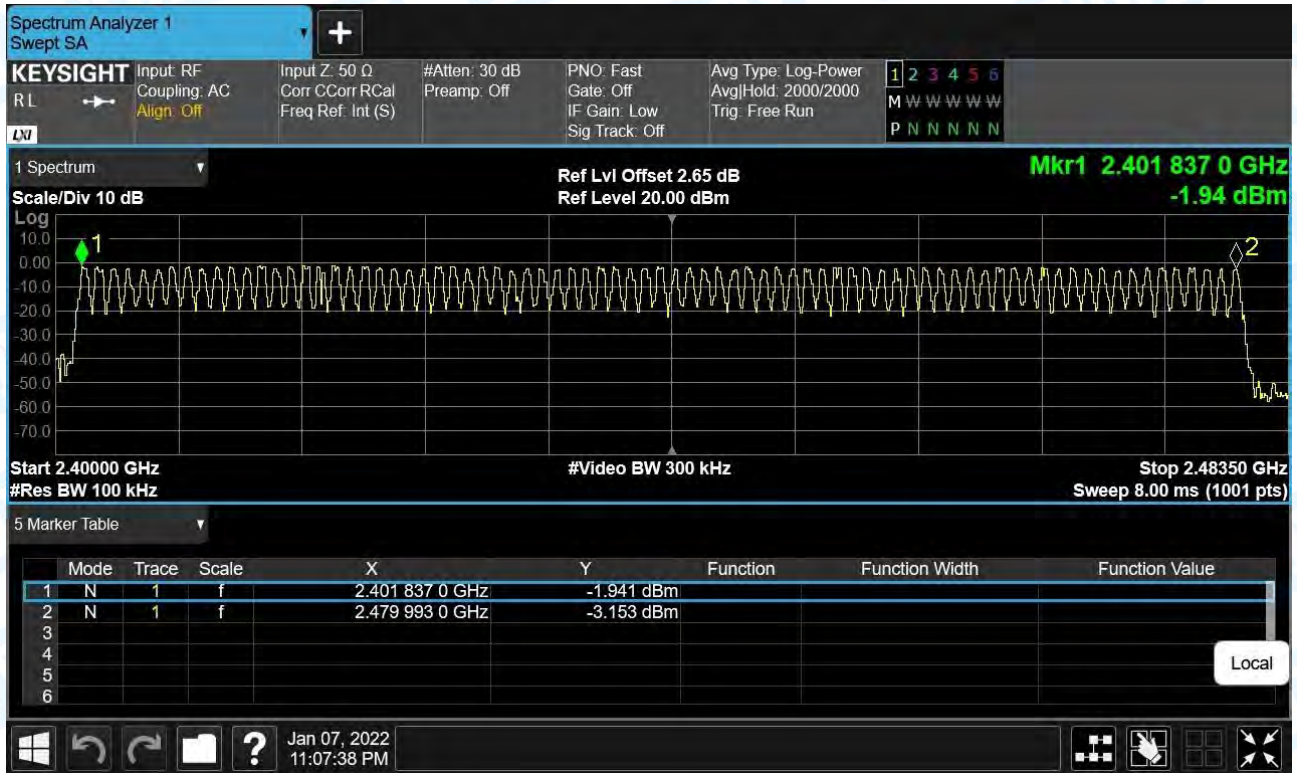


5.Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



6.Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.19	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-51.67	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.03	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-52.2	-20	Pass



Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

Spectrum Analyzer 1

Swept SA

KEYSIGHT

Input: RF

Coupling: AC

Align: Off

Input Z: 50 Ω

Corr: CCorr RCal

Freq Ref: Int (S)

#Atten: 30 dB

Preamp: Off

PNO: Fast

Gate: Off

IF Gain: Low

Sig Track: Off

Avg Type: Log-Power

AvgHld: 100/100

Trig: Free Run

1 2 3 4 5 6

M W W W W W

P N N N N N

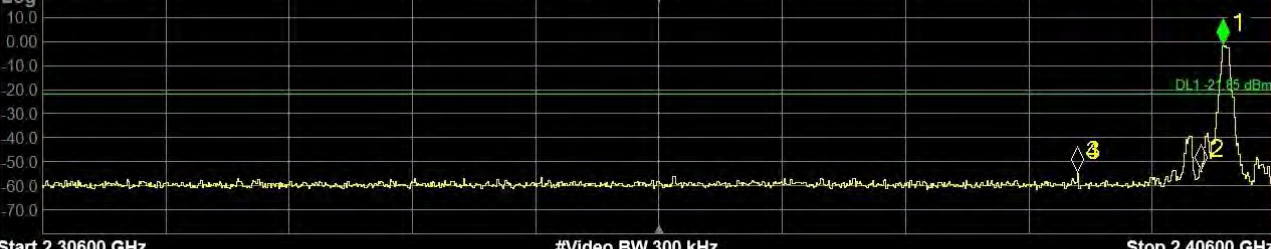
1 Spectrum

Ref Lvl Offset 2.67 dB

Ref Level 20.00 dBm

Mkr1 2.401 8 GHz

-1.73 dBm



Start 2.30600 GHz

#Res BW 100 kHz

#Video BW 300 kHz

Stop 2.40600 GHz

Sweep 9.60 ms (1001 pts)

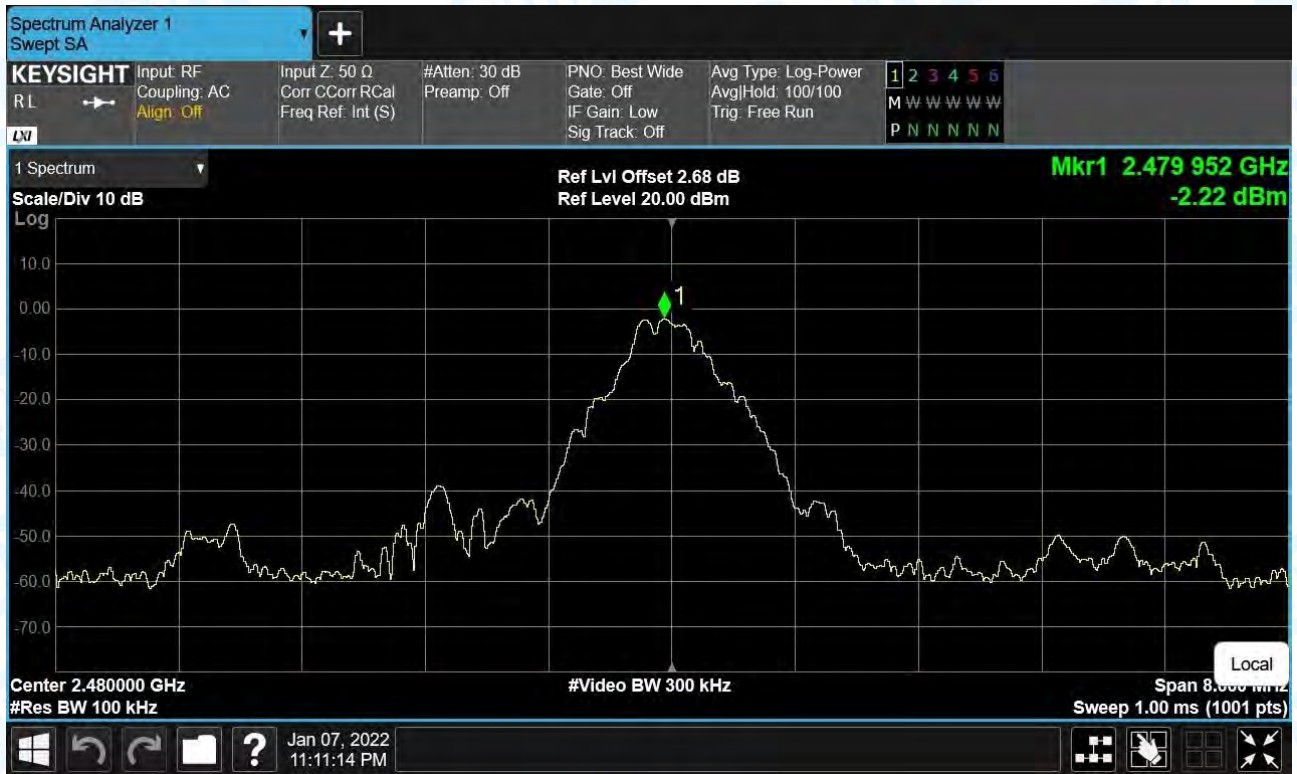
5 Marker Table

	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.401 8 GHz	-1.726 dBm			
2	N	1	f	2.400 0 GHz	-54.27 dBm			
3	N	1	f	2.390 0 GHz	-55.04 dBm			
4	N	1	f	2.390 0 GHz	-55.04 dBm			
5								
6								

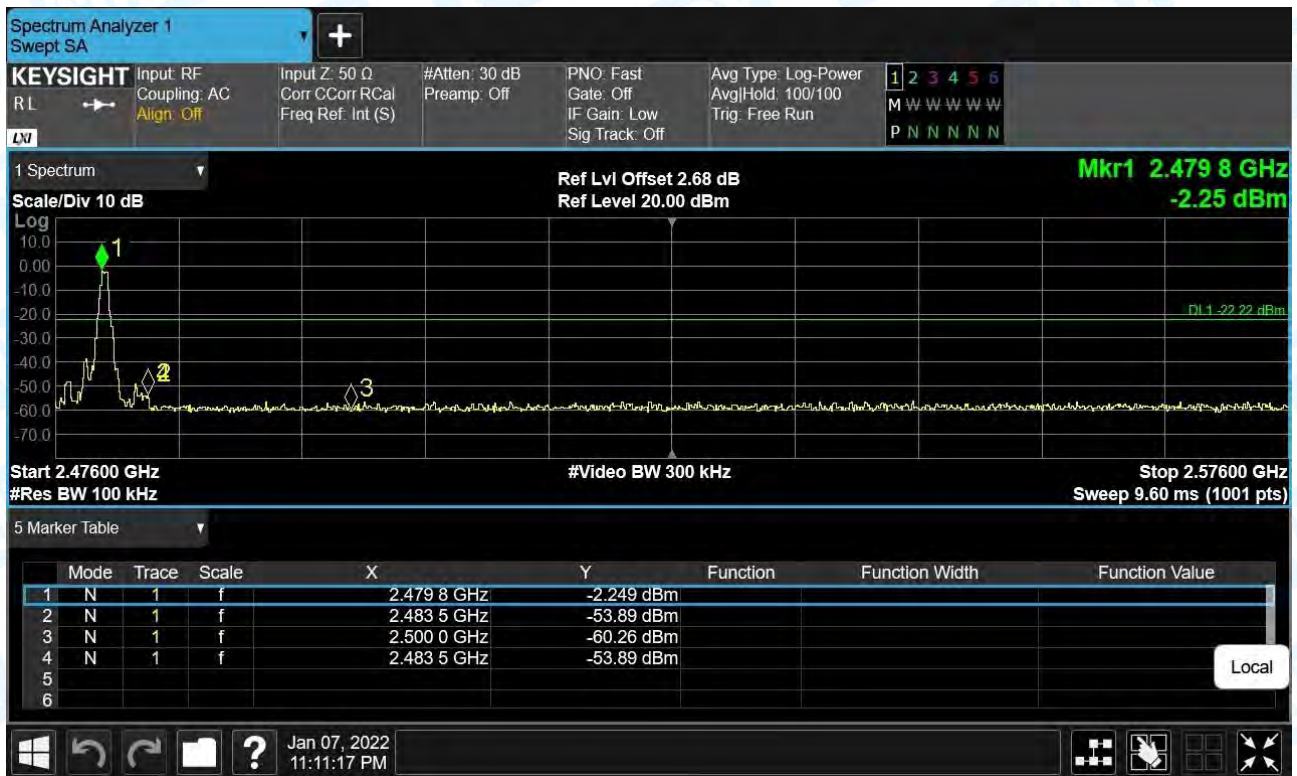
Jan 07, 2022

10:58:59 PM

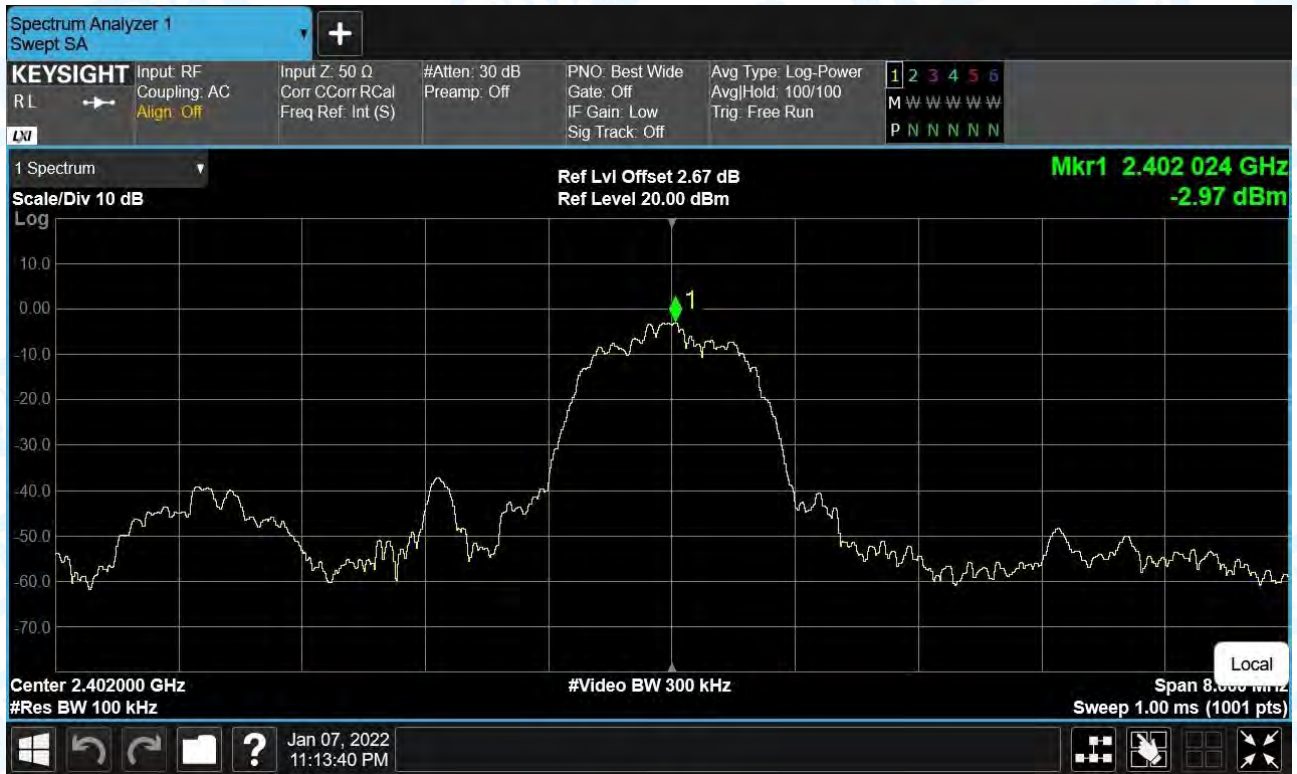
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



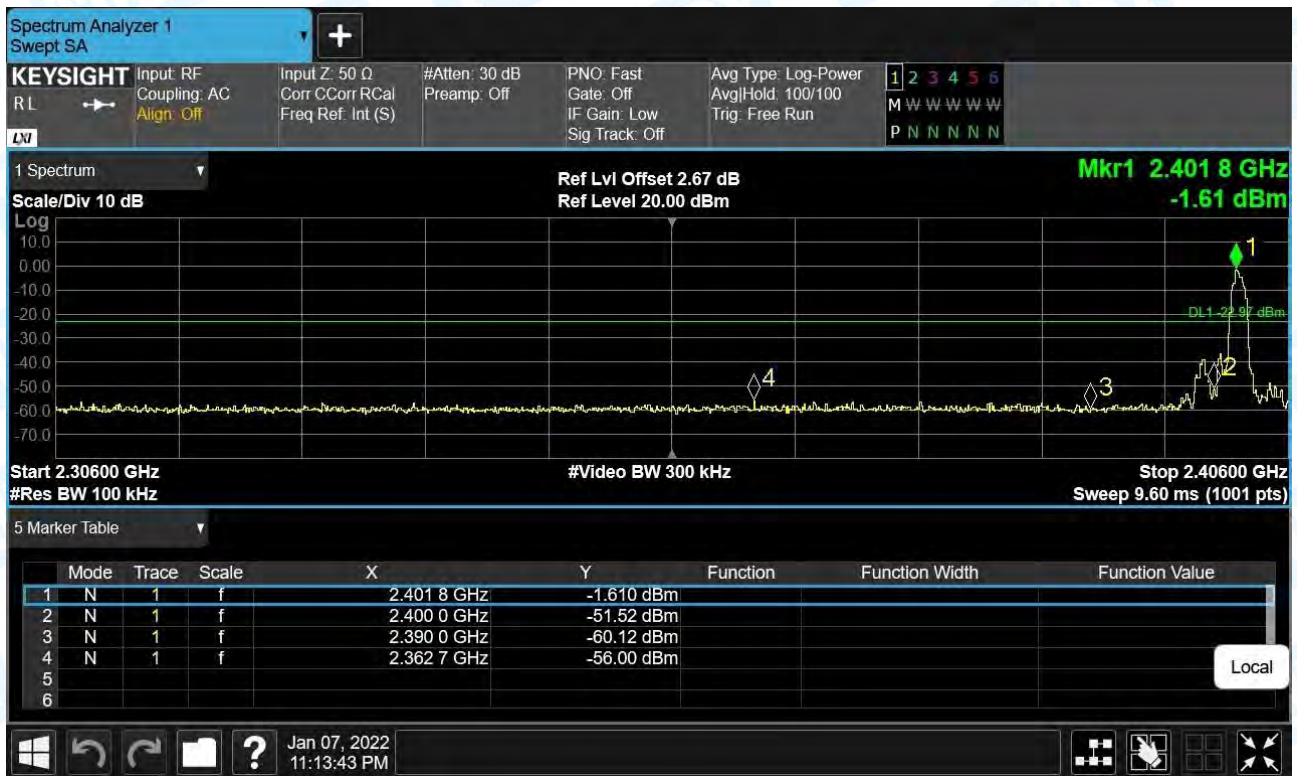
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



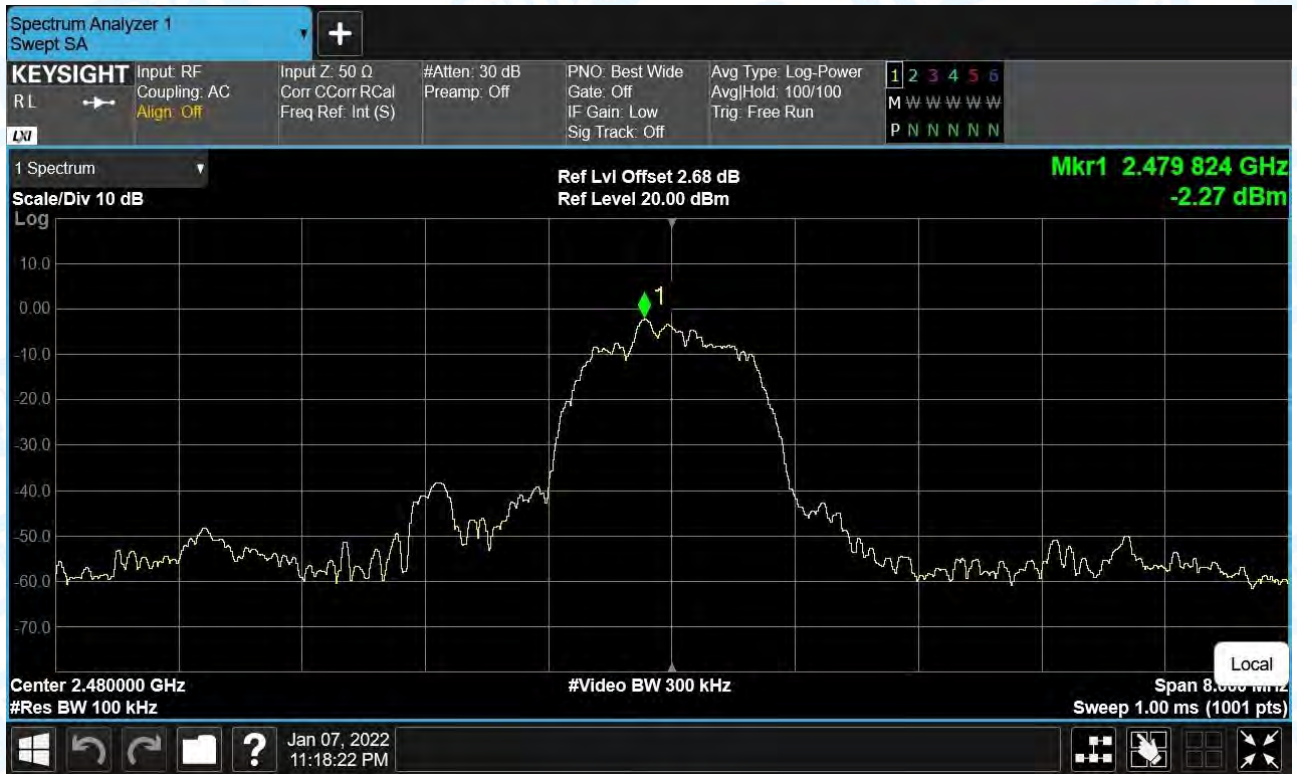
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



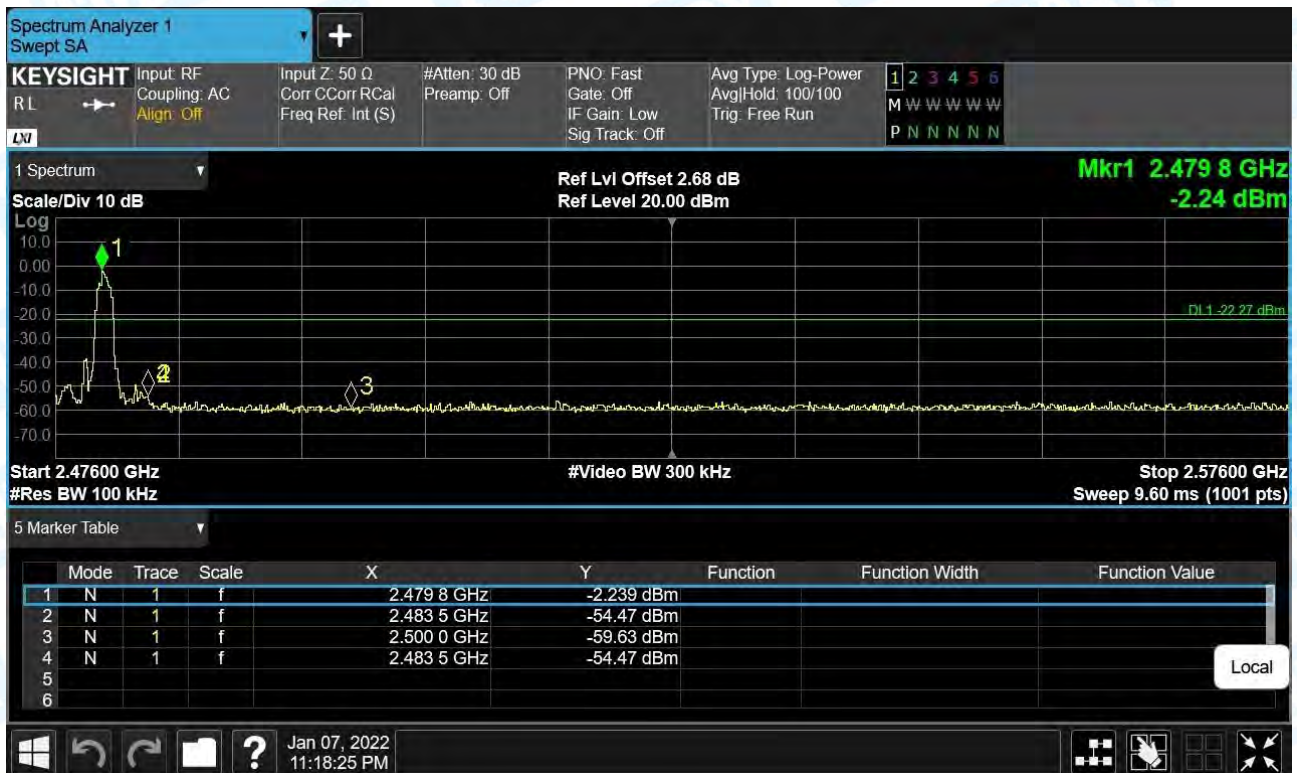
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



7.Band Edge(Hopping)

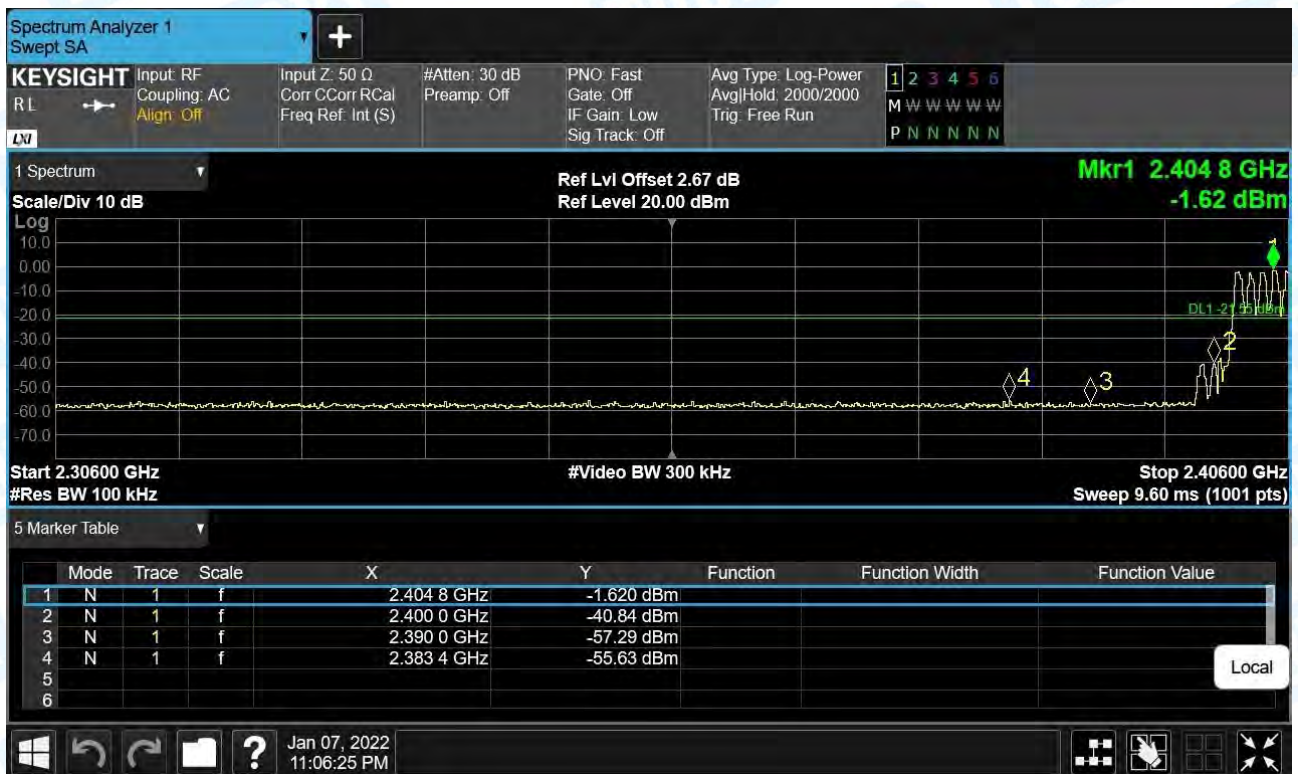
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.08	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.32	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.01	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-53.18	-20	Pass

Test Graphs

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



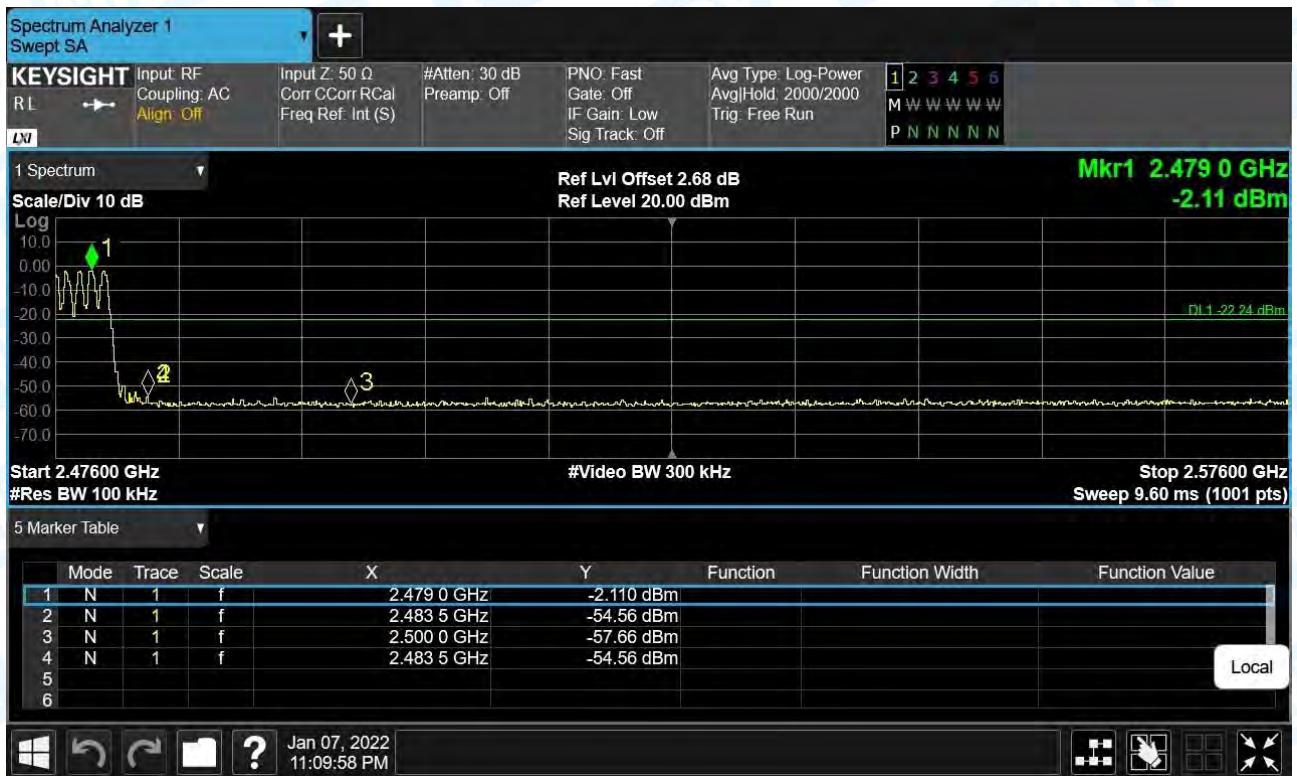
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



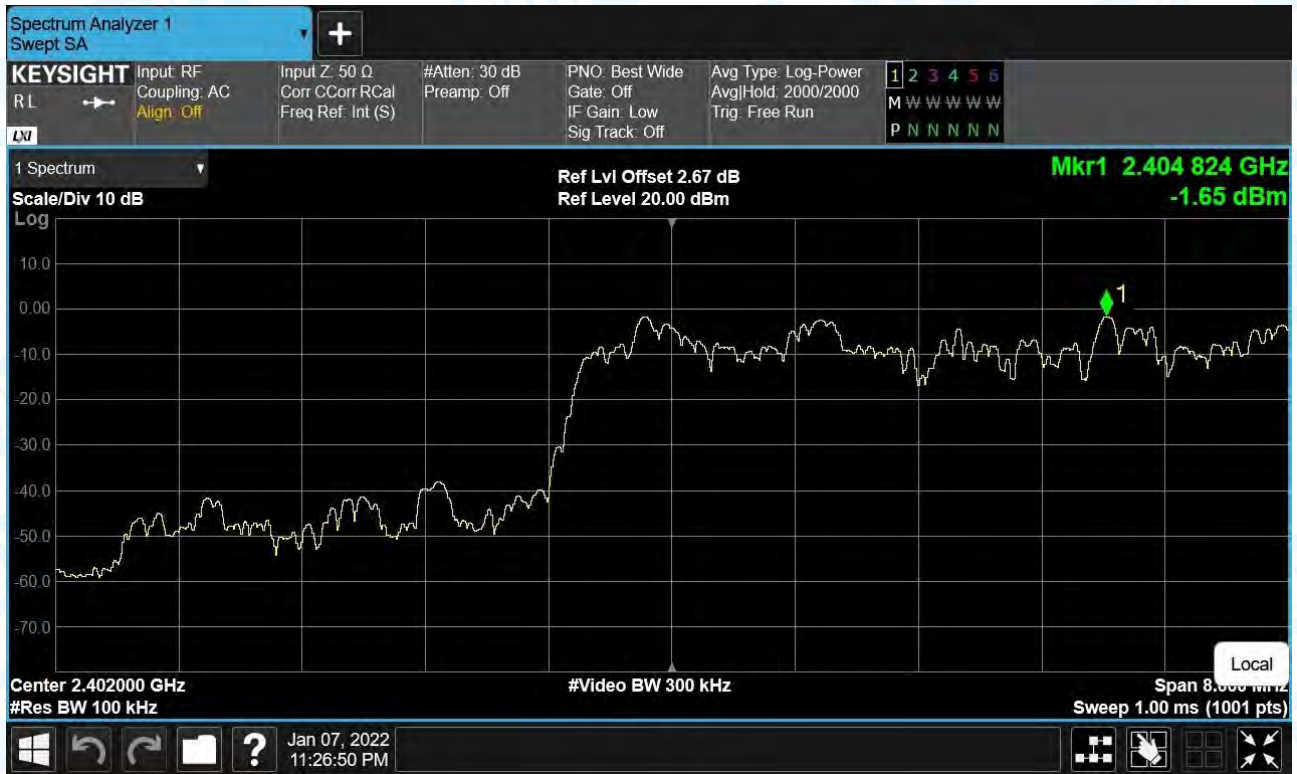
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



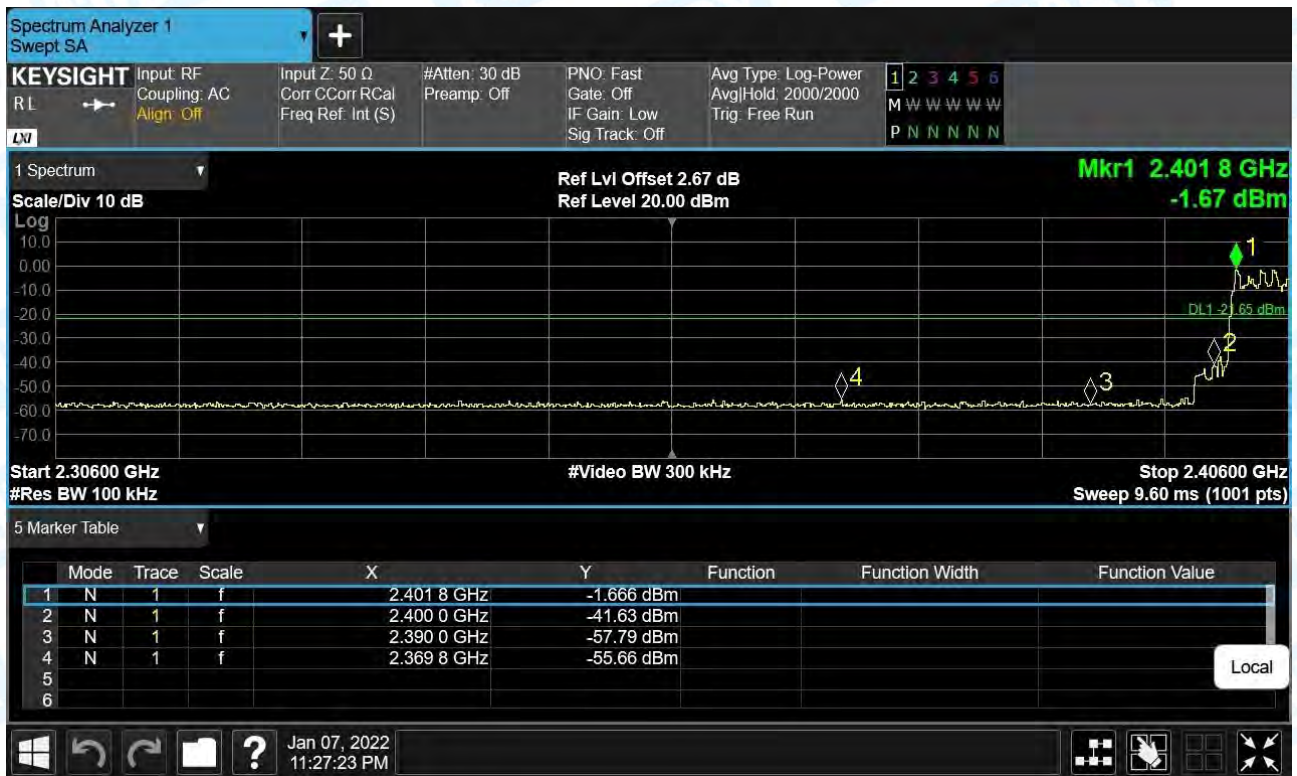
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



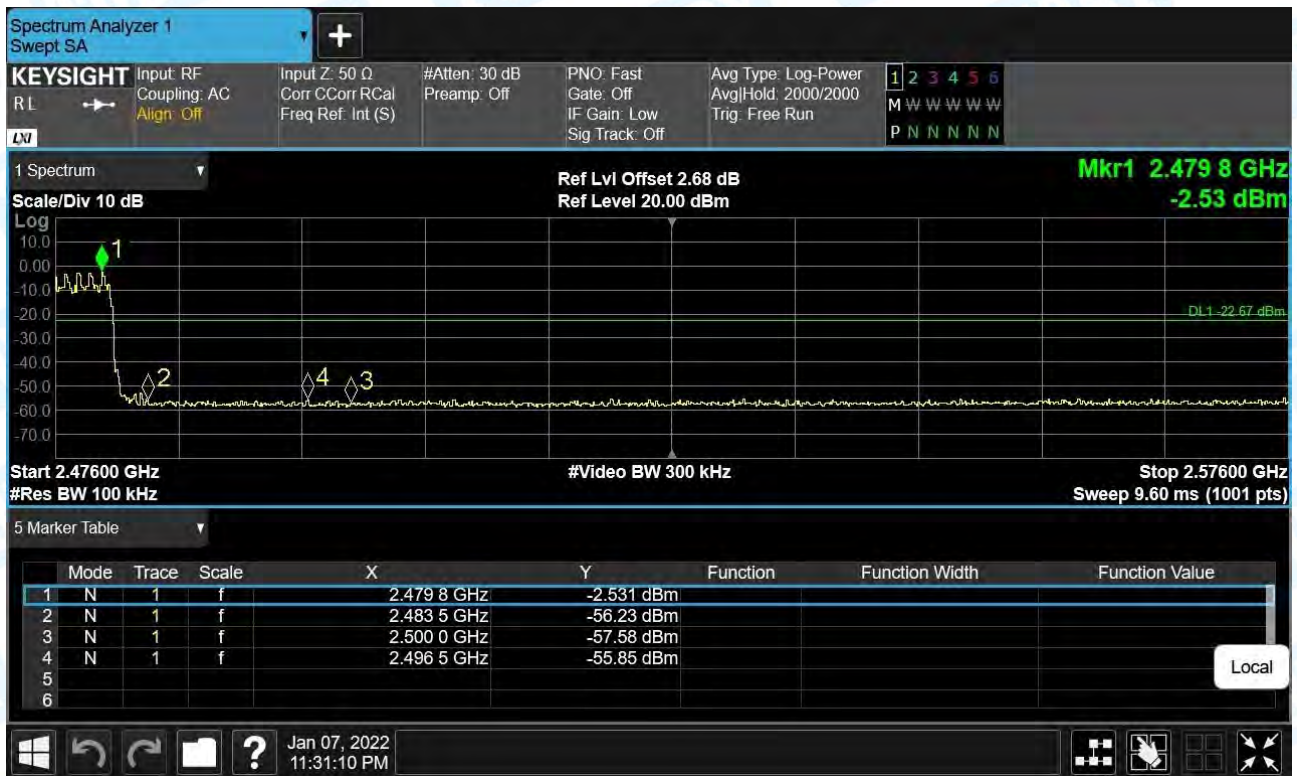
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



8.Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-37.18	-20	Pass
NVNT	1-DH1	2480	Ant1	-34.49	-20	Pass
NVNT	2-DH1	2402	Ant1	-37.18	-20	Pass
NVNT	2-DH1	2480	Ant1	-34.74	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



9.Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.382	122.24	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.638	262.08	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.387	123.84	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.891	308.373	31600	400	Pass

Test Graphs

Dwell NVNT 1-DH1 2441MHz Ant1



Dwell NVNT 1-DH3 2441MHz Ant1



Dwell NVNT 1-DH5 2441MHz Ant1



Dwell NVNT 2-DH1 2441MHz Ant1



Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1

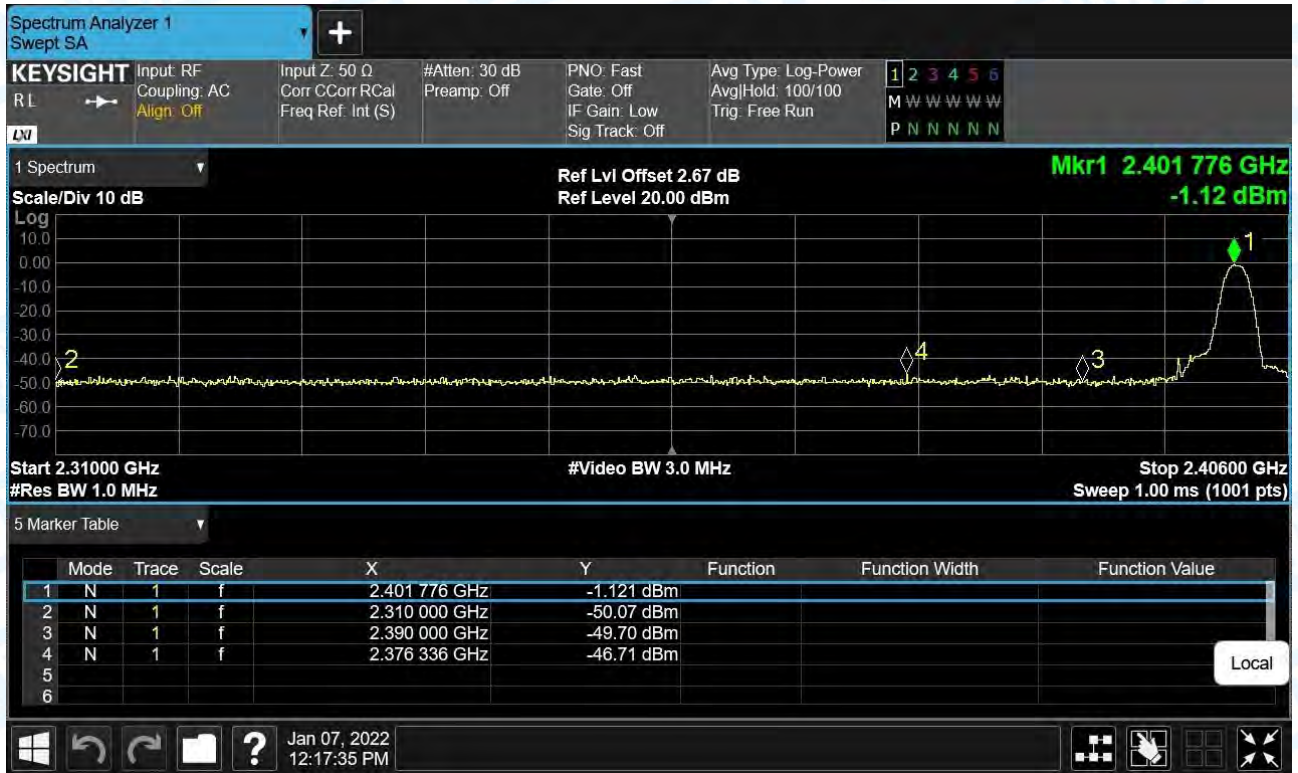


10.Restrict Band

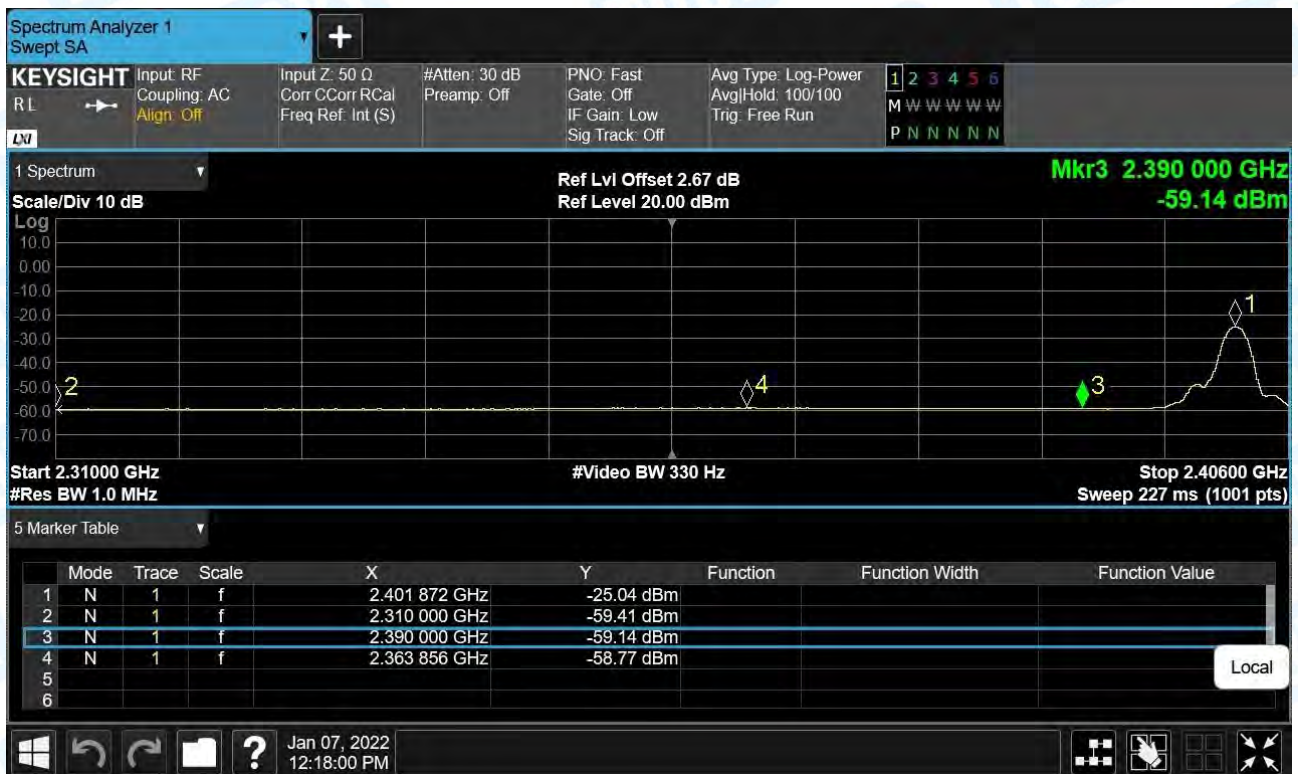
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-50.07	2	47.19	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-59.41	2	37.85	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2376.336	-46.71	2	50.55	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2363.856	-58.77	2	38.49	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-49.32	2	47.94	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-58.98	2	38.28	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46	2	51.26	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.76	2	40.5	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.704	-43.92	2	53.34	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.536	-56.7	2	40.56	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-50.45	2	46.81	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-58.91	2	38.35	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.76	2	47.5	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-59.35	2	37.91	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2363.664	-45.89	2	51.37	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2370.096	-58.79	2	38.47	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-50.52	2	46.74	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-59.18	2	38.08	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-48.35	2	48.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-57.34	2	39.92	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.752	-45.35	2	51.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.512	-57.34	2	39.92	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-49.41	2	47.85	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-58.9	2	38.36	Average	54	Pass

Test Graphs

Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



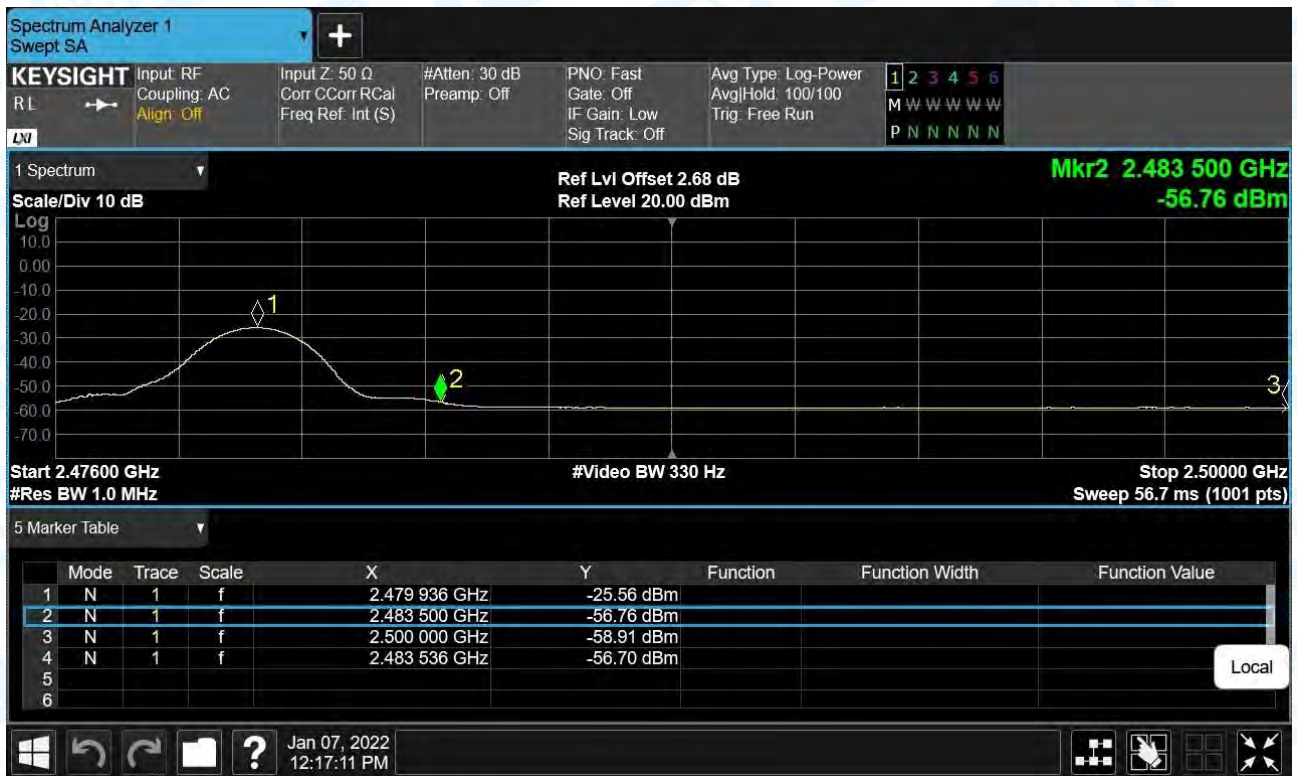
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



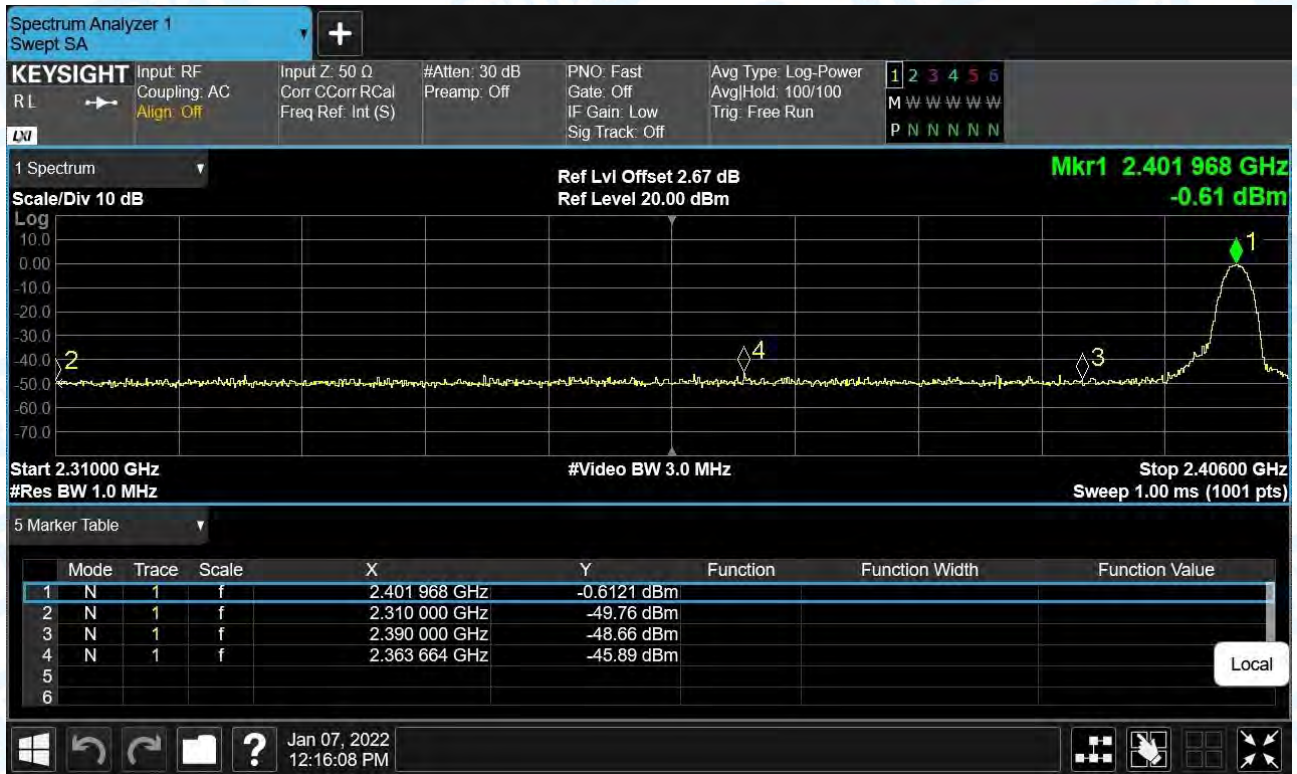
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



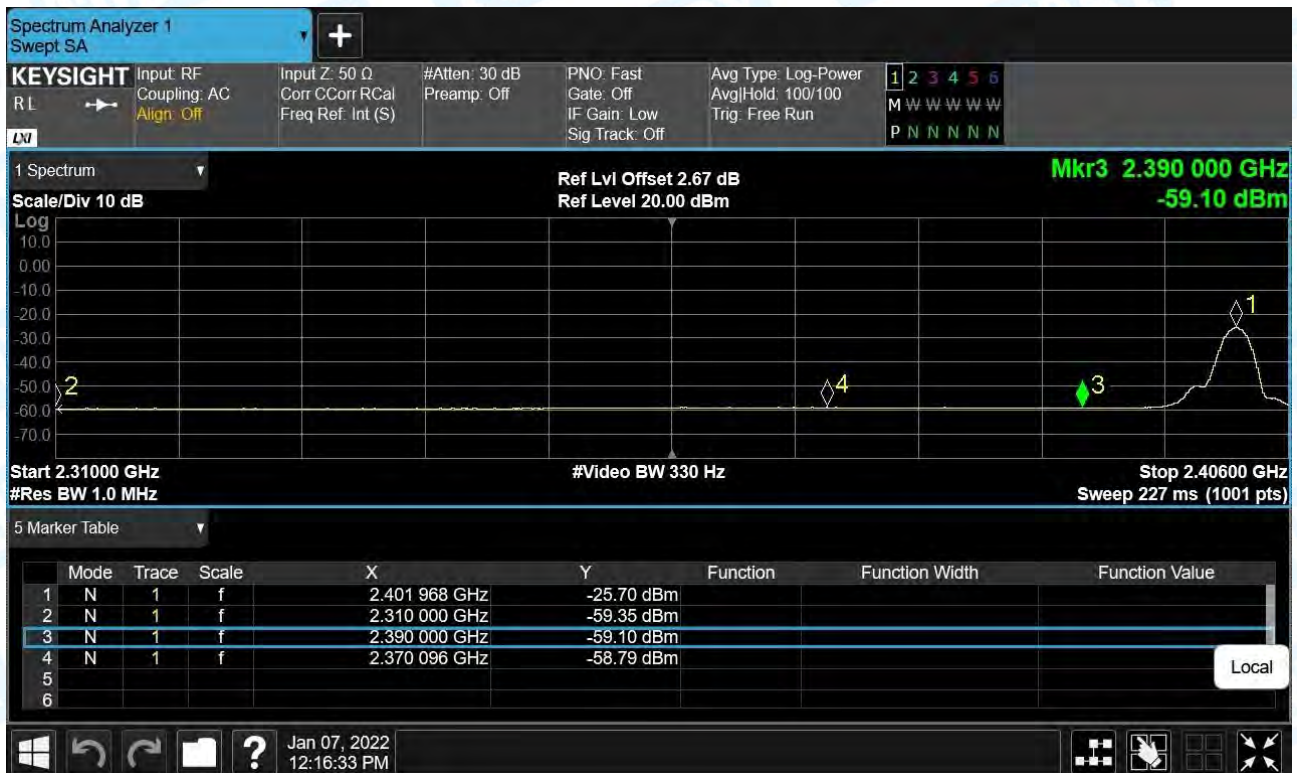
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



-----END OF REPORT-----