

RF Test Data for 2.4G (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless Dongle
Test Model:	LuxeMate Q8000/R
Sample ID:	20211209-11_01-02#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	HEJINGCHANG
Note: For a more detailed features description, please refer to the report TB-RF185628	

Contents

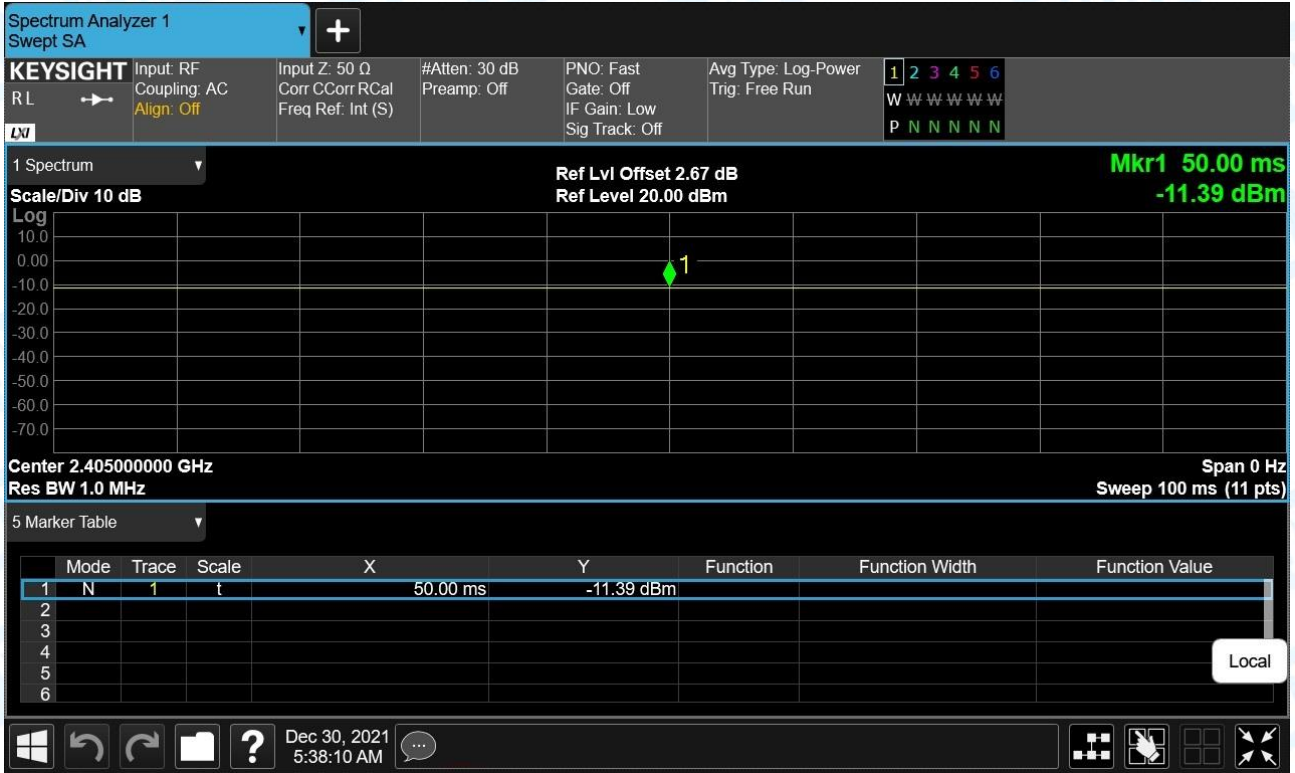
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1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	GFSK	2405	Ant1	100	0	0
NVNT	GFSK	2451	Ant1	100	0	0
NVNT	GFSK	2475	Ant1	100	0	0

Test Graphs

Duty Cycle NVNT BLE 1Mbps 2405MHz Ant1



Duty Cycle NVNT BLE 1Mbps 2451MHz Ant1



Duty Cycle NVNT BLE 1Mbps 2475MHz Ant1

Spectrum Analyzer 1
Swept SA

KEYSIGHT Input: RF Input Z: 50 Ω #Atten: 30 dB PNO: Fast Avg Type: Log-Power
RL Coupling: AC Corr C: Corr R: Cal Preamp: Off Gate: Off Trng: Free Run
Align: Off Freq Ref: Int (S) IF Gain: Low Sig Track: Off

1 2 3 4 5 6
W W W W W W
P N N N N N

1 Spectrum Ref Lvl Offset 2.68 dB Mkr1 50.00 ms
Scale/Div 10 dB Ref Level 20.00 dBm -11.97 dBm

Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0

Center 2.475000000 GHz Span 0 Hz
Res BW 1.0 MHz Sweep 100 ms (11 pts)

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	t	50.00 ms	-11.97 dBm		
2							
3							
4							
5							
6							

Local

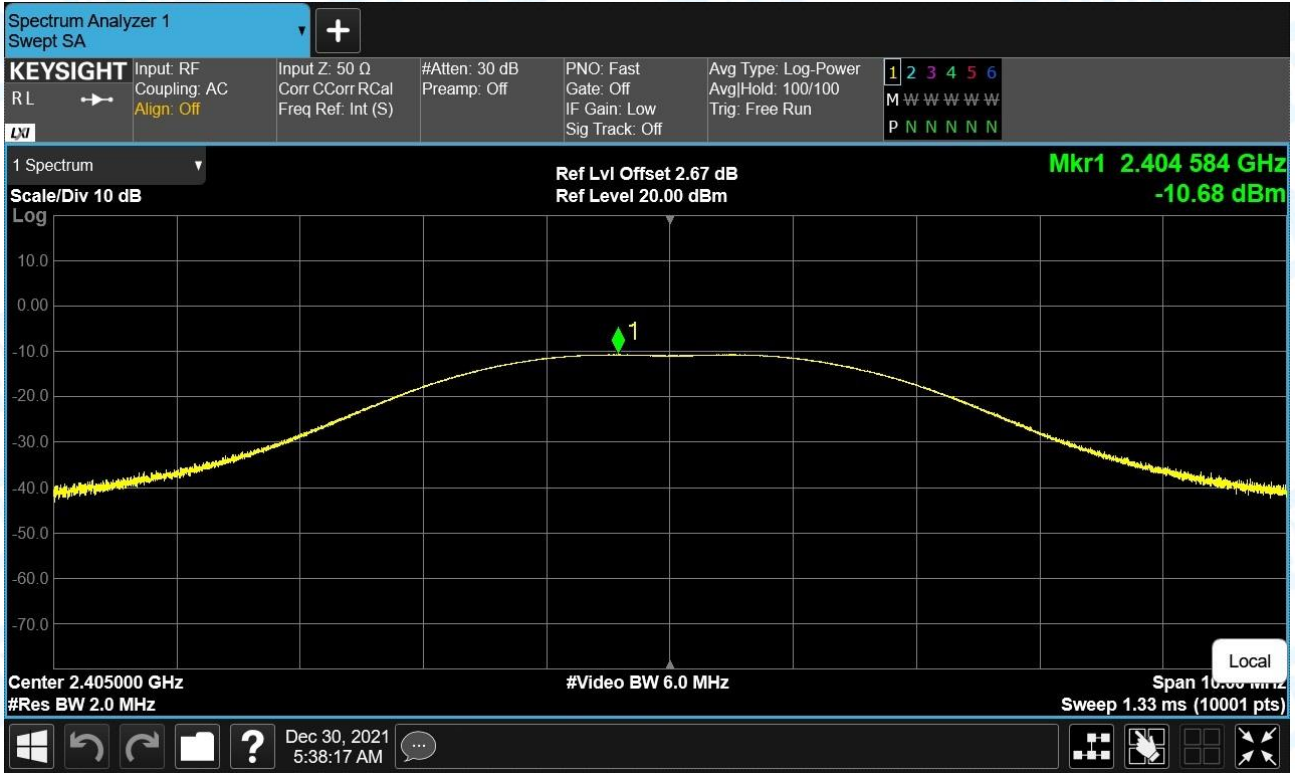
Dec 30, 2021 5:35:17 AM

2. Maximum Conducted Output Power

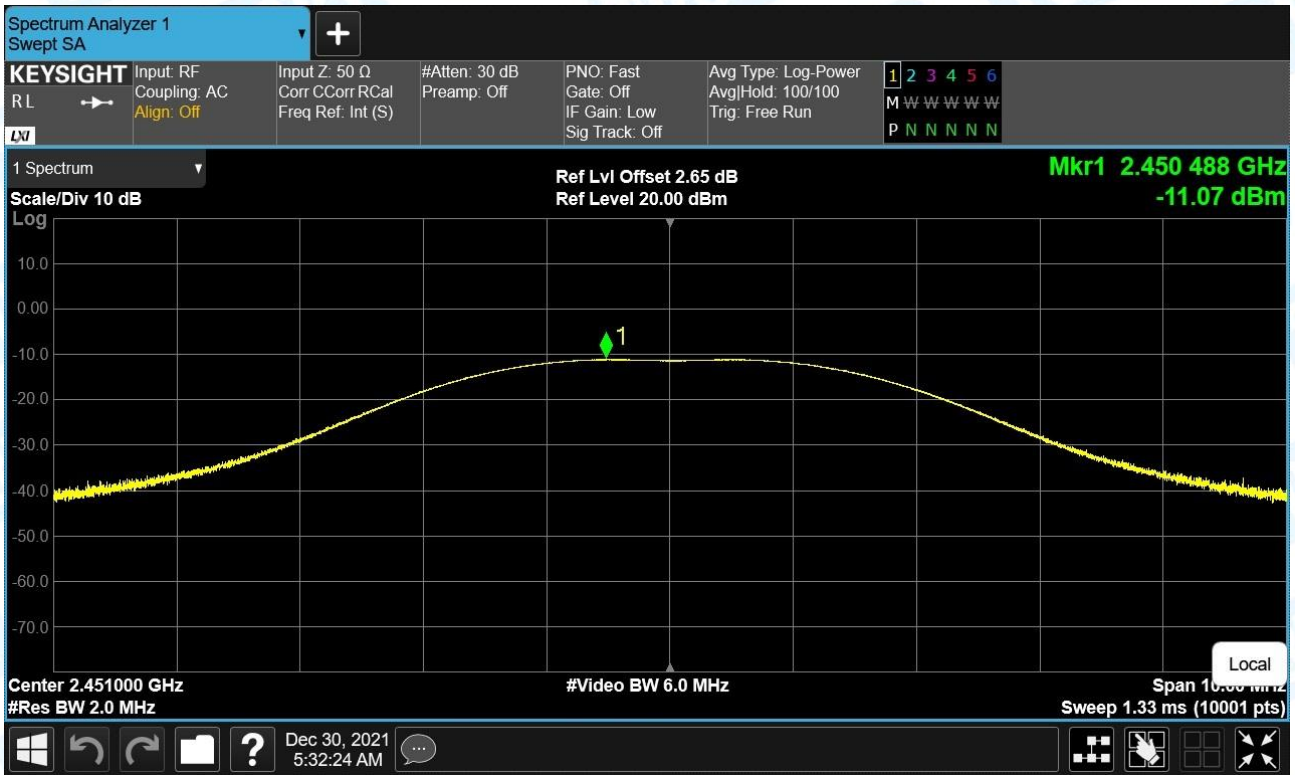
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	GFSK	2405	Ant1	-10.678	0	-10.678	30	Pass
NVNT	GFSK	2451	Ant1	-11.065	0	-11.065	30	Pass
NVNT	GFSK	2475	Ant1	-11.239	0	-11.239	30	Pass

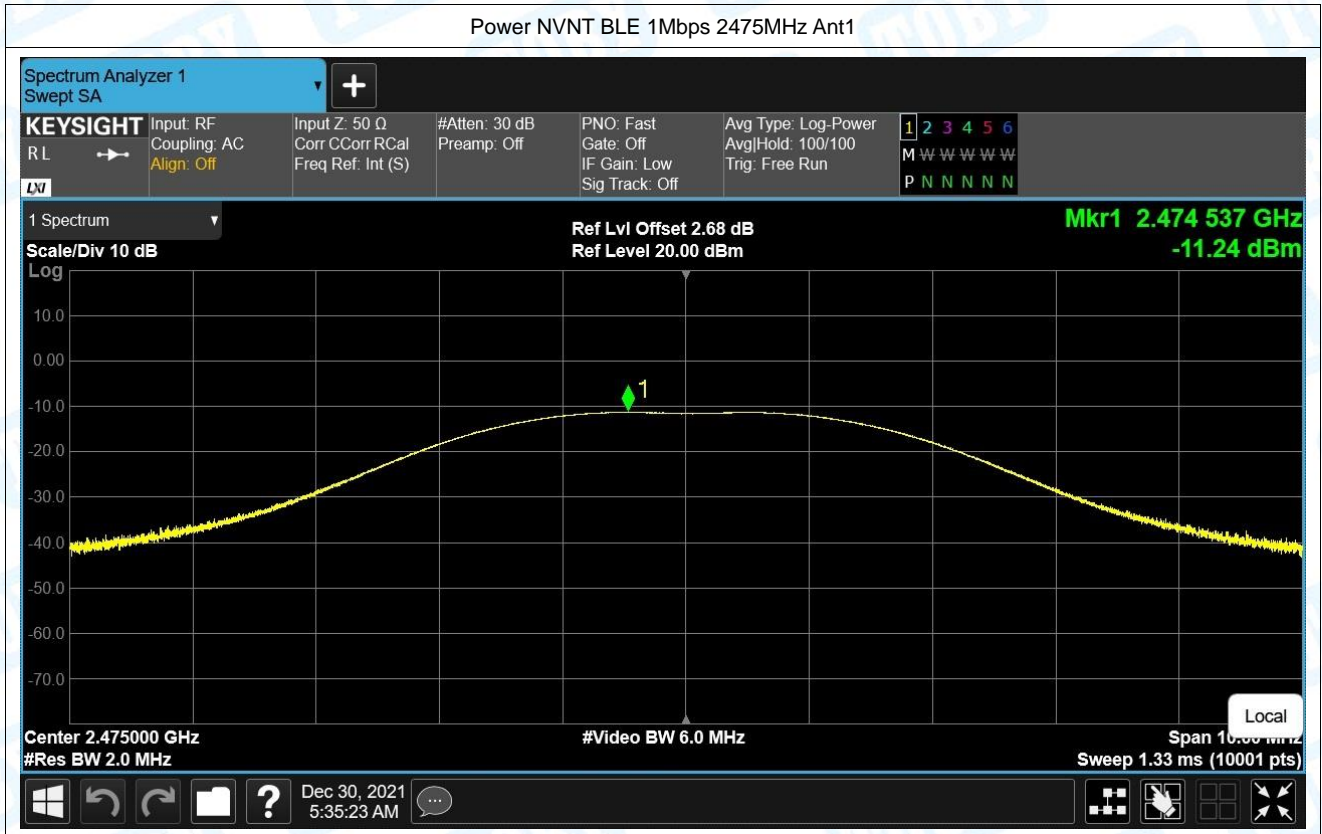
Test Graphs

Power NVNT BLE 1Mbps 2405MHz Ant1



Power NVNT BLE 1Mbps 2451MHz Ant1





3.-6dB Bandwidth

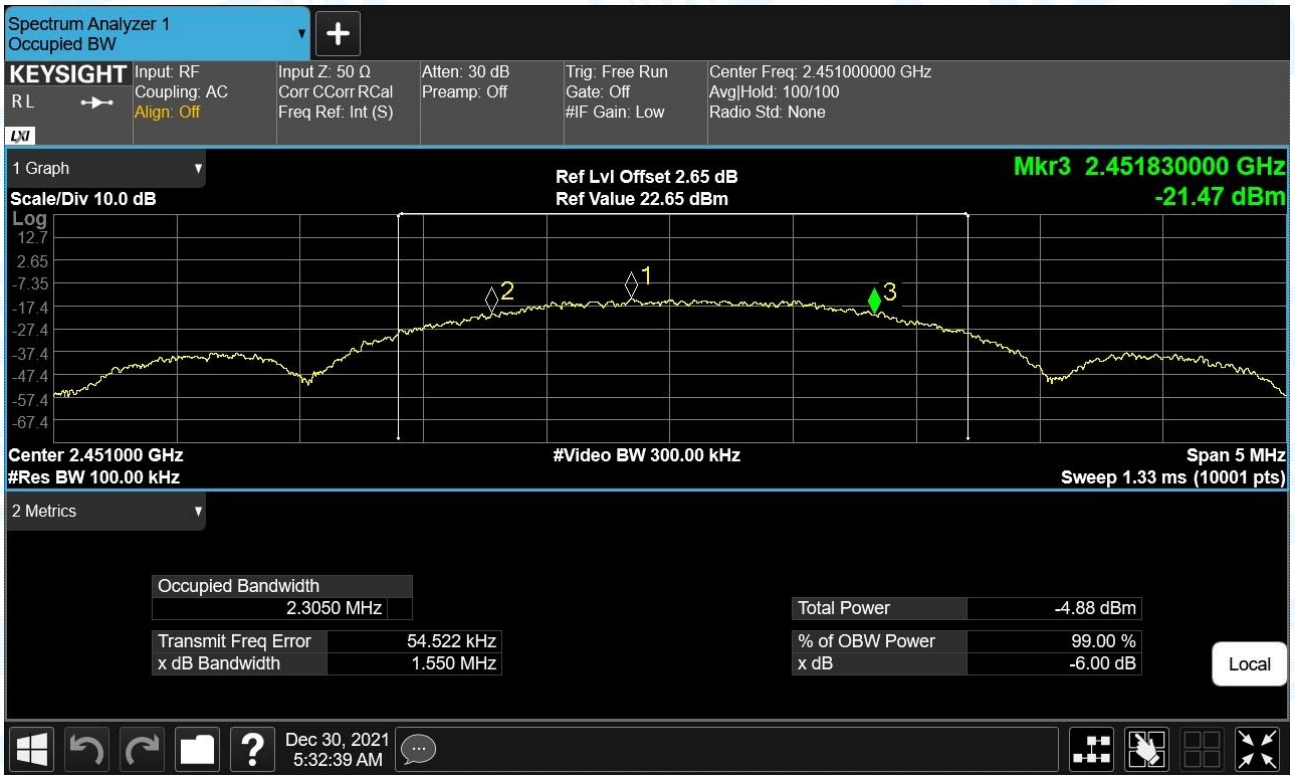
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	GFSK	2405	Ant1	1.44	0.5	Pass
NVNT	GFSK	2451	Ant1	1.55	0.5	Pass
NVNT	GFSK	2475	Ant1	1.37	0.5	Pass

Test Graphs

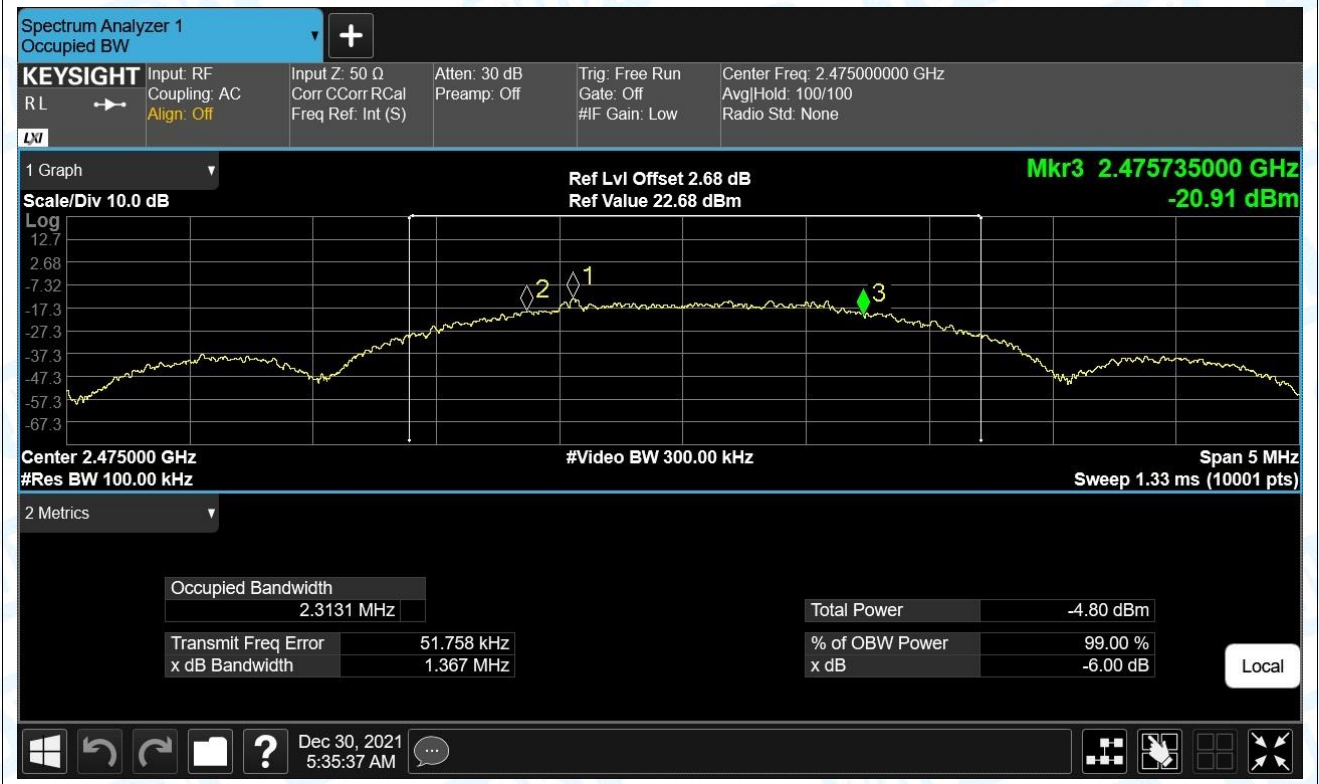
-6dB Bandwidth NVNT BLE 1Mbps 2405MHz Ant1



-6dB Bandwidth NVNT BLE 1Mbps 2451MHz Ant1



-6dB Bandwidth NVNT BLE 1Mbps 2475MHz Ant1

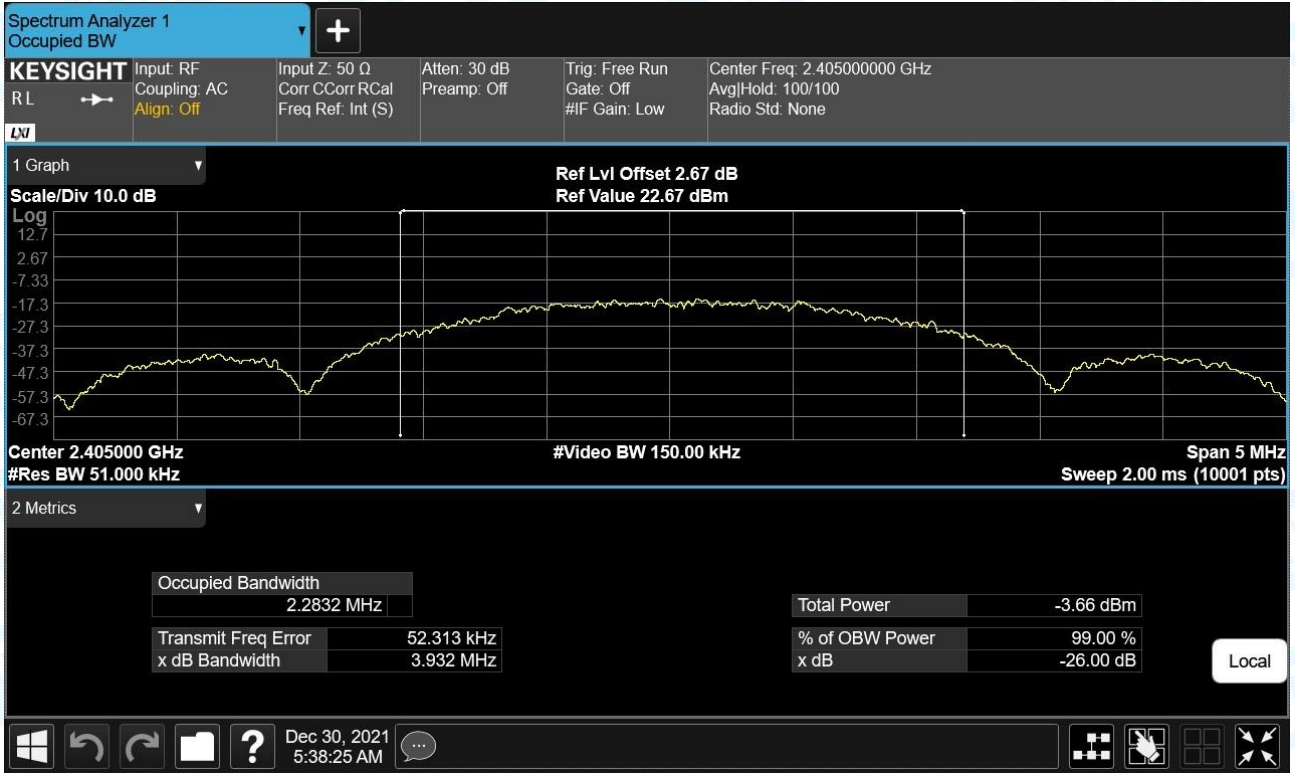


4.Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	GFSK	2405	Ant1	2.283
NVNT	GFSK	2451	Ant1	2.287
NVNT	GFSK	2475	Ant1	2.313

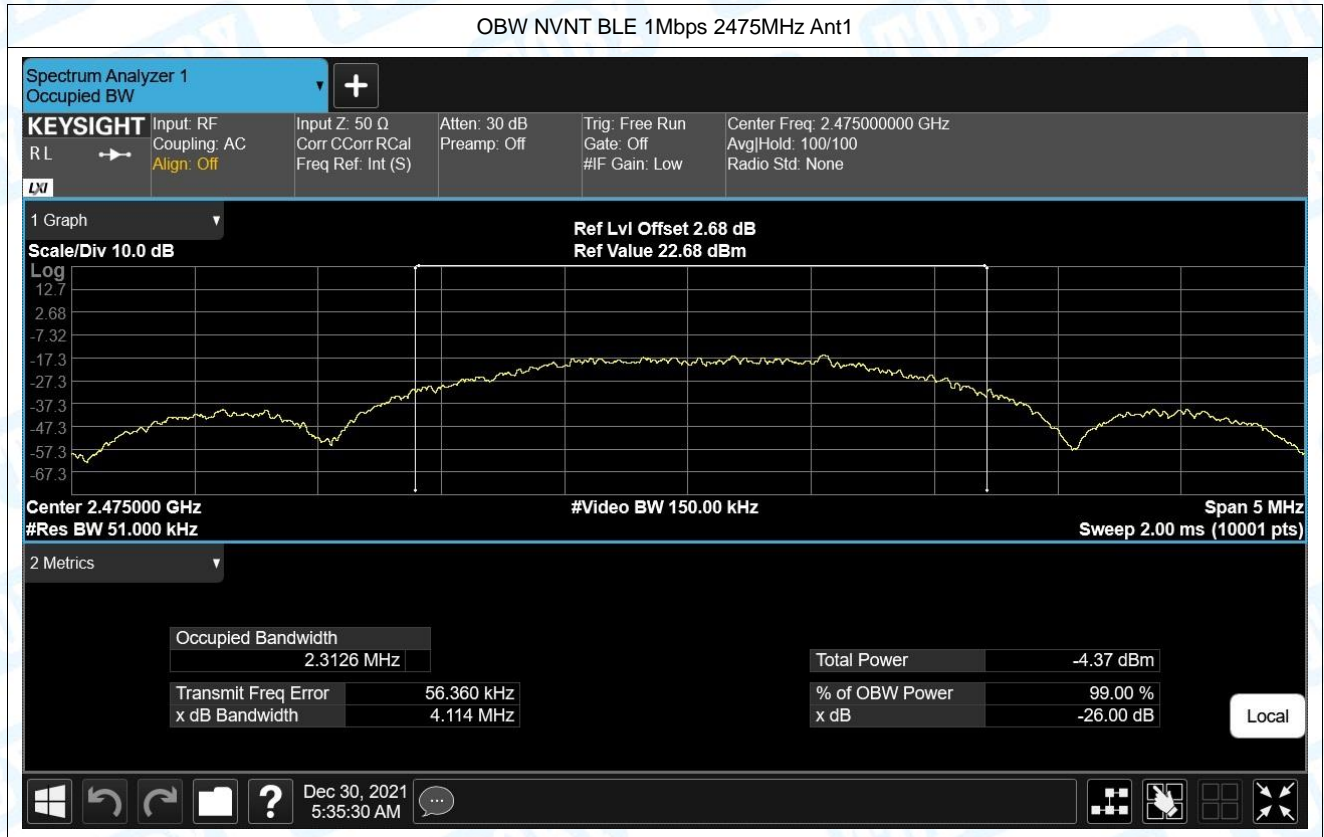
Test Graphs

OBW NVNT BLE 1Mbps 2405MHz Ant1



OBW NVNT BLE 1Mbps 2451MHz Ant1



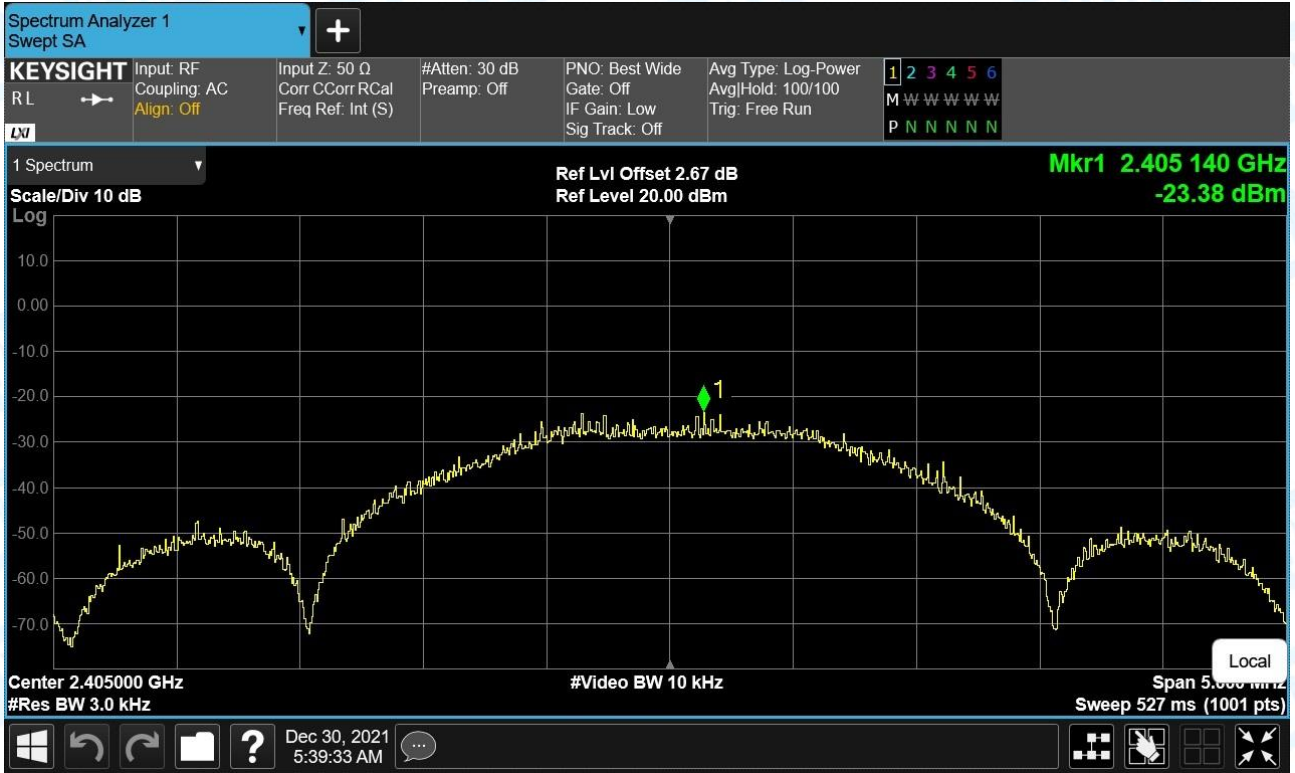


5. Maximum Power Spectral Density Level

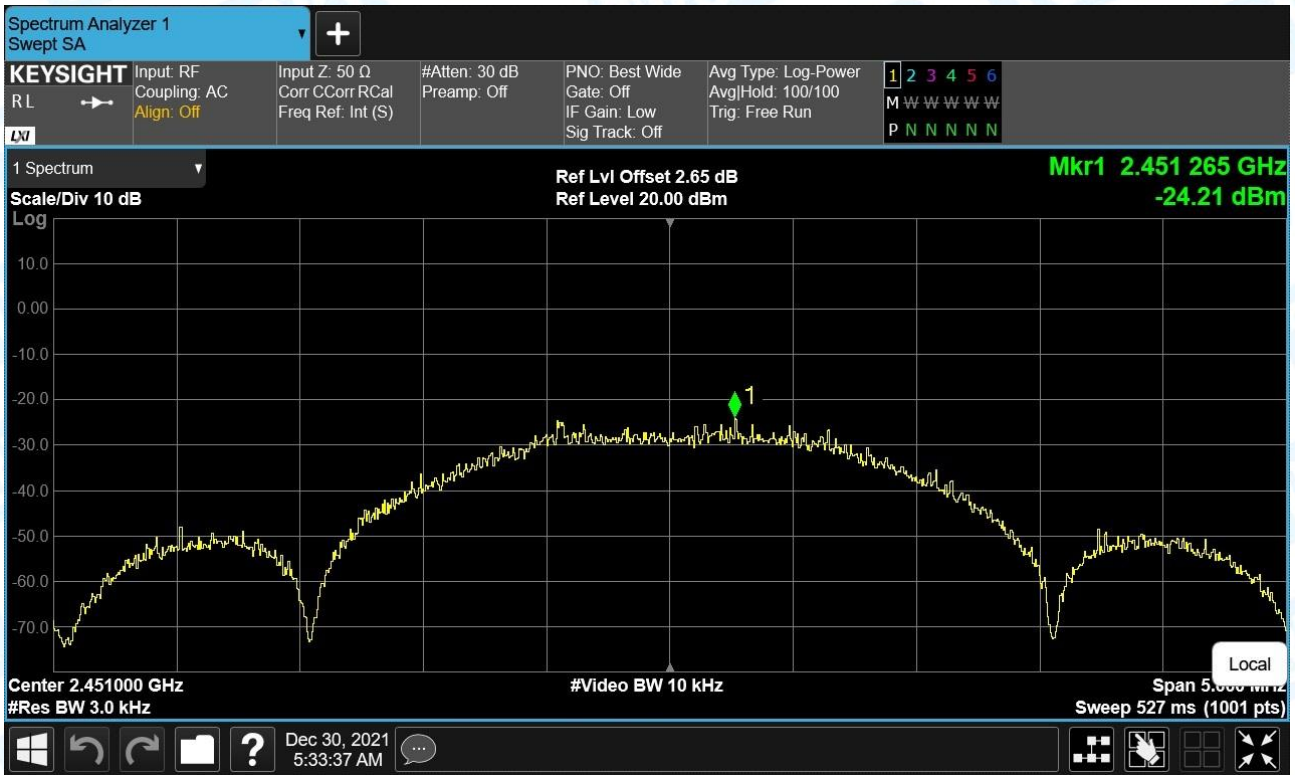
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	GFSK	2405	Ant1	-23.376	8	Pass
NVNT	GFSK	2451	Ant1	-24.21	8	Pass
NVNT	GFSK	2475	Ant1	-27.696	8	Pass

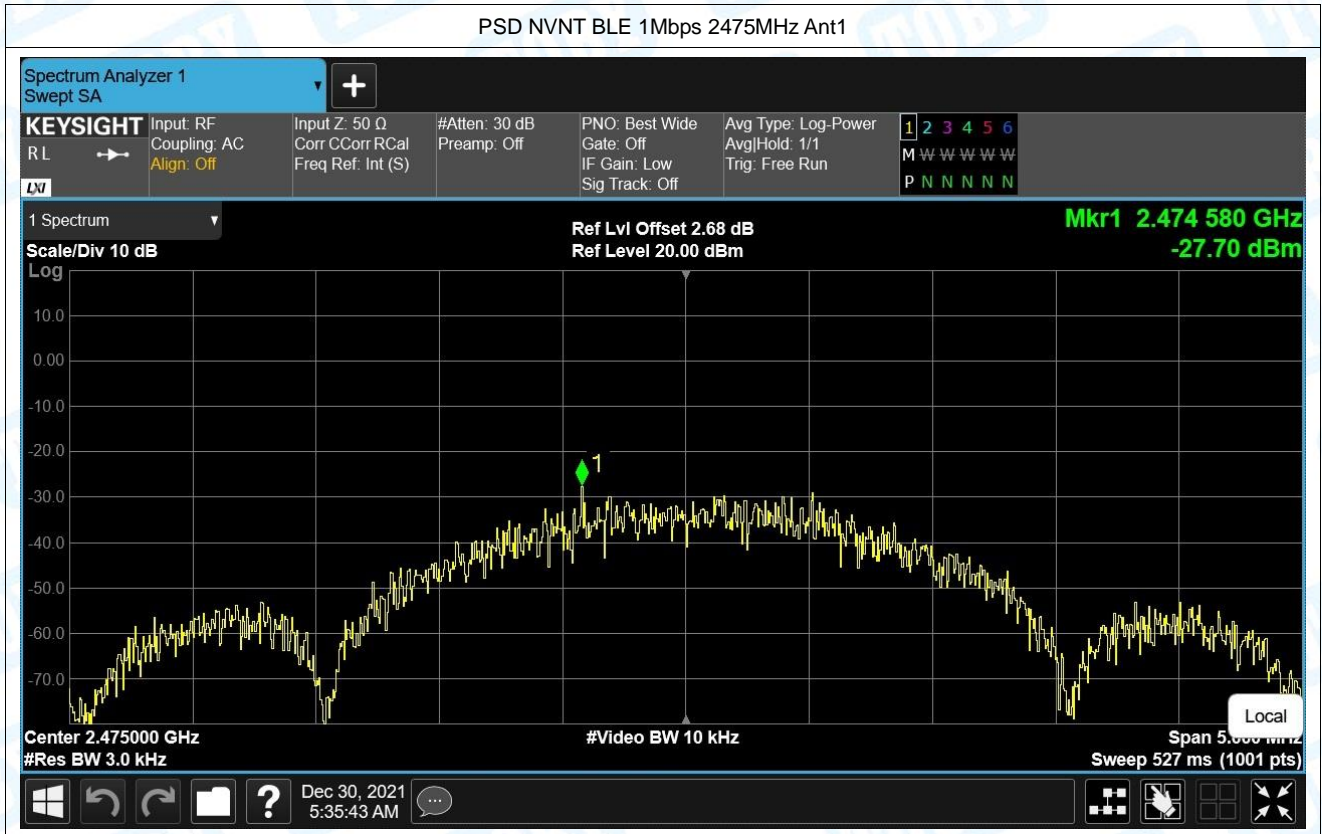
Test Graphs

PSD NVNT BLE 1Mbps 2405MHz Ant1



PSD NVNT BLE 1Mbps 2451MHz Ant1



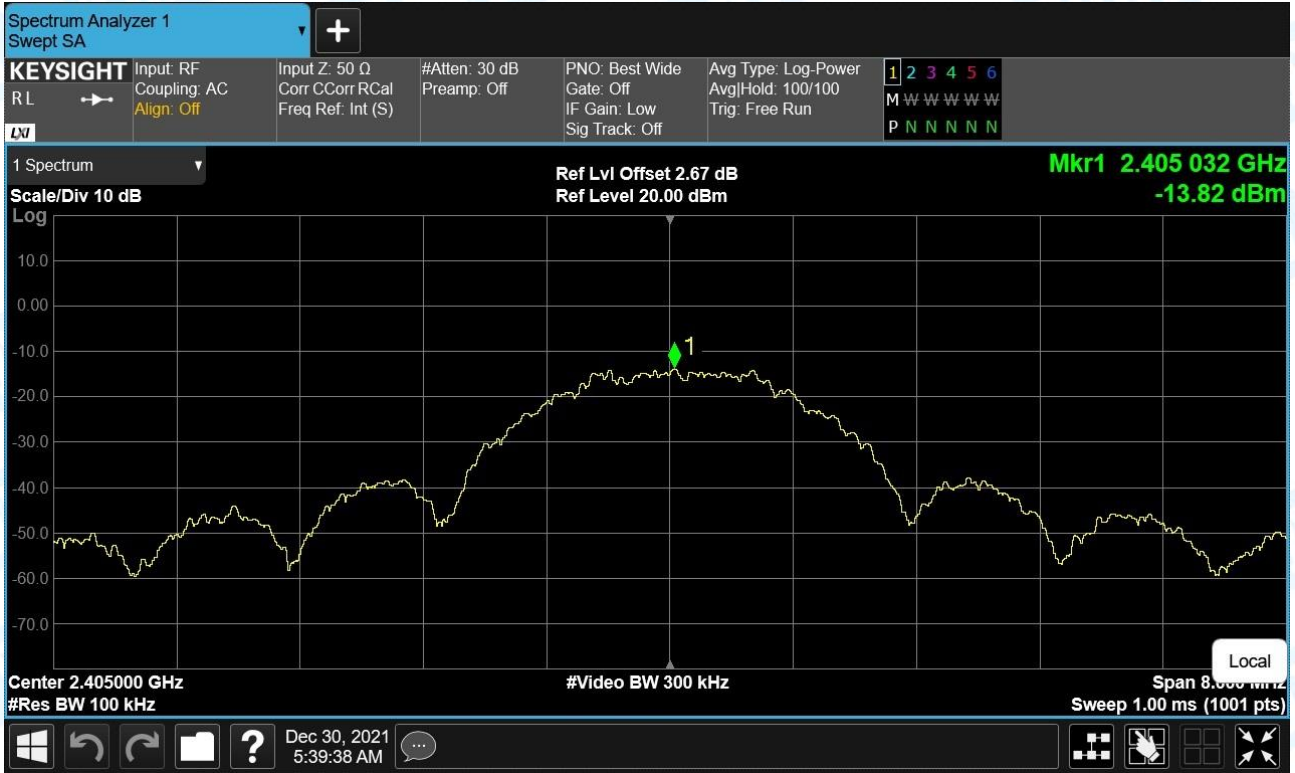


6.Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	GFSK	2405	Ant1	-39.15	-20	Pass
NVNT	GFSK	2475	Ant1	-42.37	-20	Pass

Test Graphs

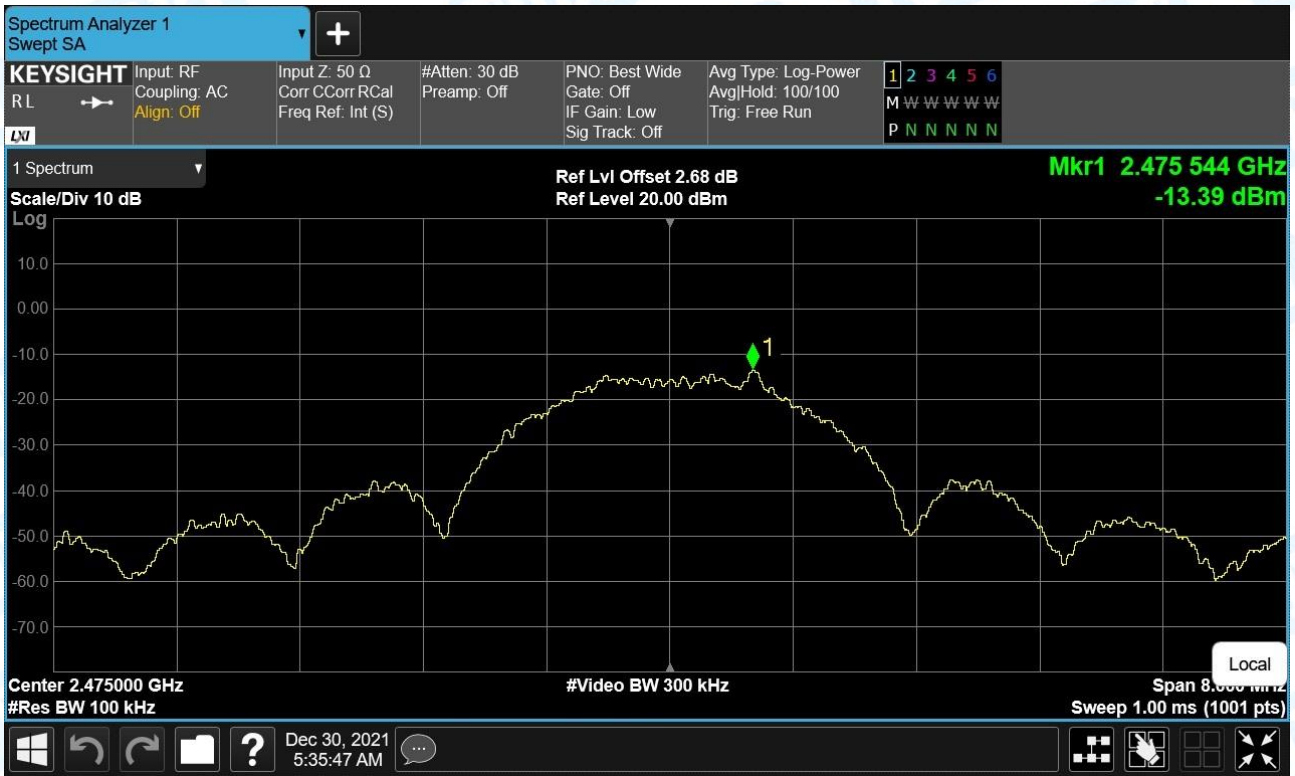
Band Edge NVNT BLE 1Mbps 2405MHz Ant1 Ref



Band Edge NVNT BLE 1Mbps 2405MHz Ant1 Emission



Band Edge NVNT BLE 1Mbps 2475MHz Ant1 Ref



Band Edge NVNT BLE 1Mbps 2475MHz Ant1 Emission

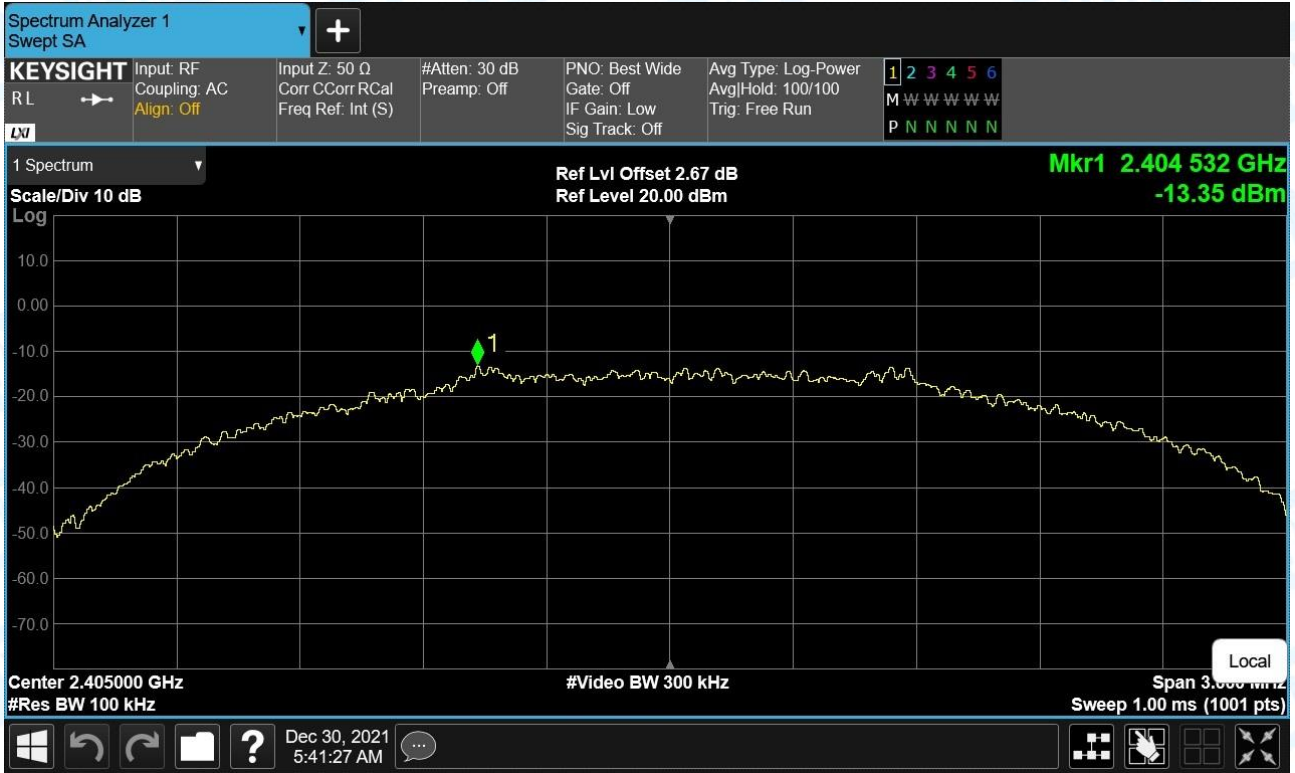


7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	GFSK	2405	Ant1	-30.31	-20	Pass
NVNT	GFSK	2451	Ant1	-30.74	-20	Pass
NVNT	GFSK	2475	Ant1	-30.73	-20	Pass

Test Graphs

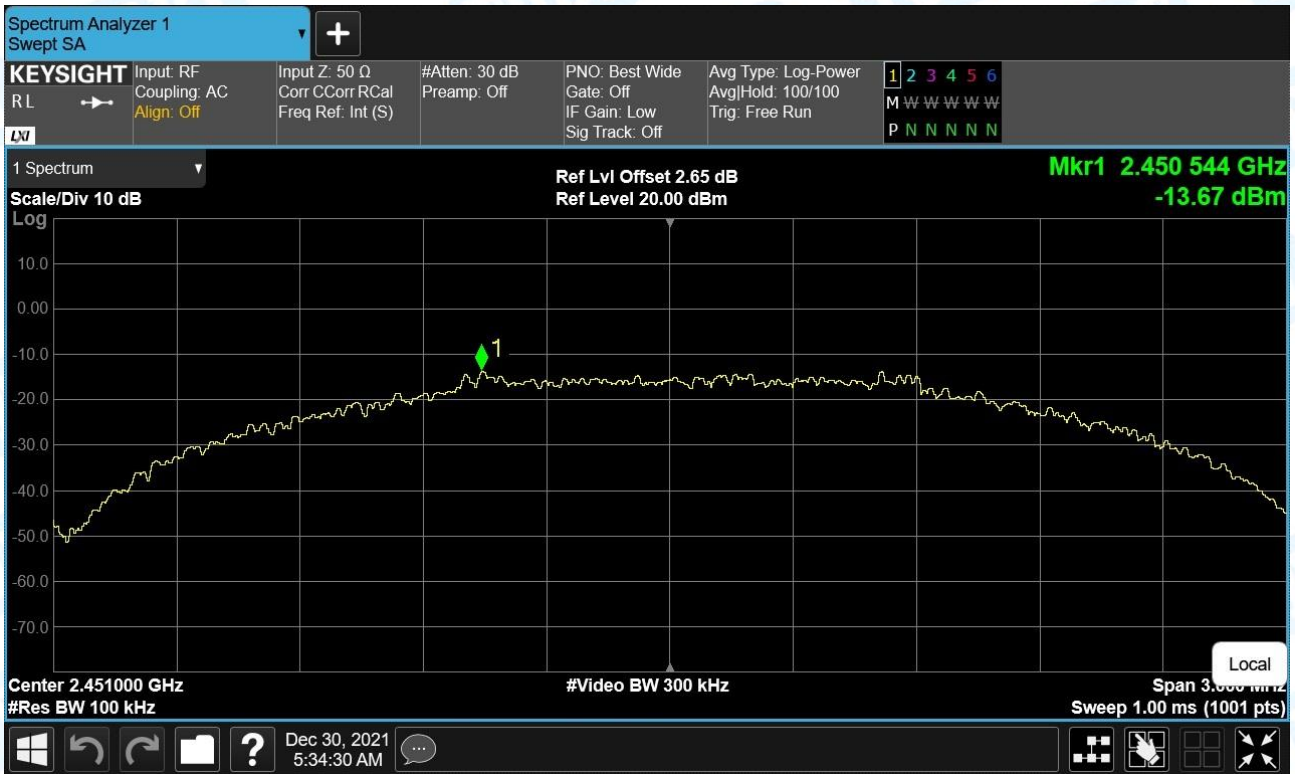
Tx. Spurious NVNT BLE 1Mbps 2405MHz Ant1 Ref



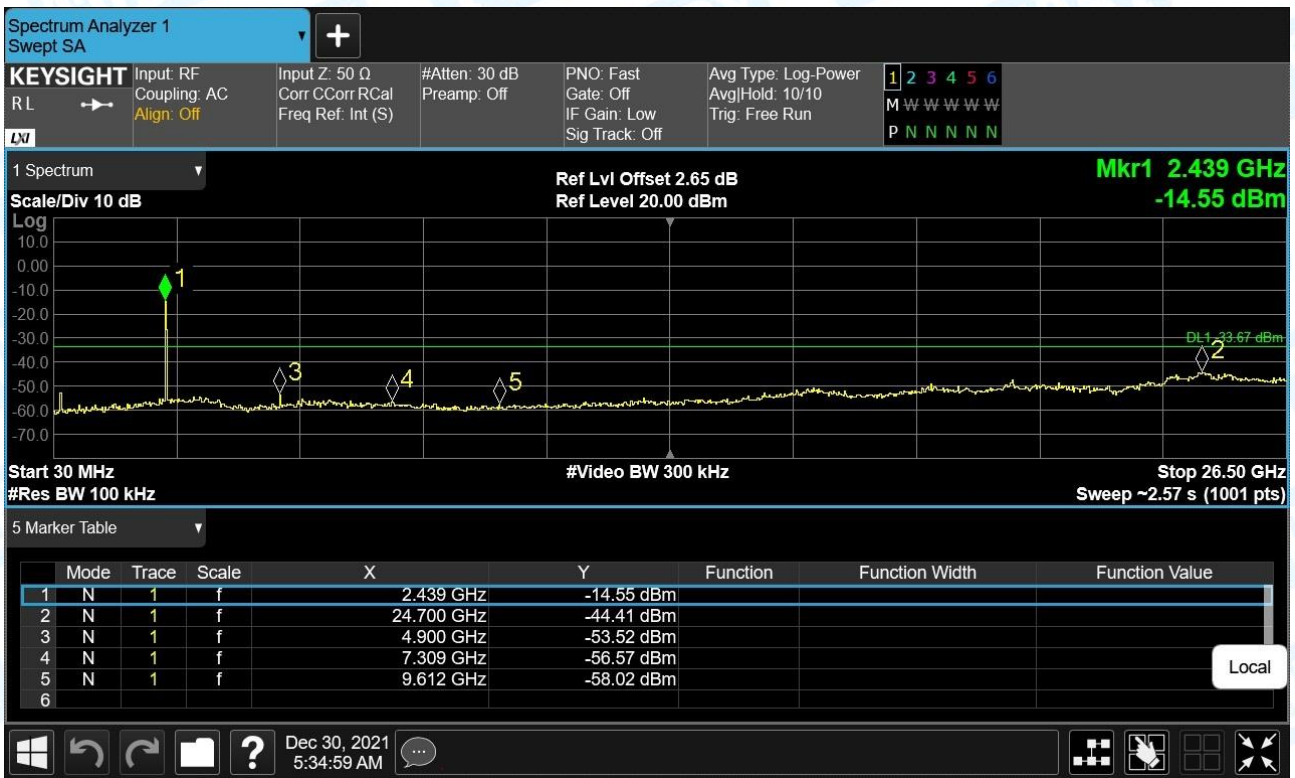
Tx. Spurious NVNT BLE 1Mbps 2405MHz Ant1 Emission



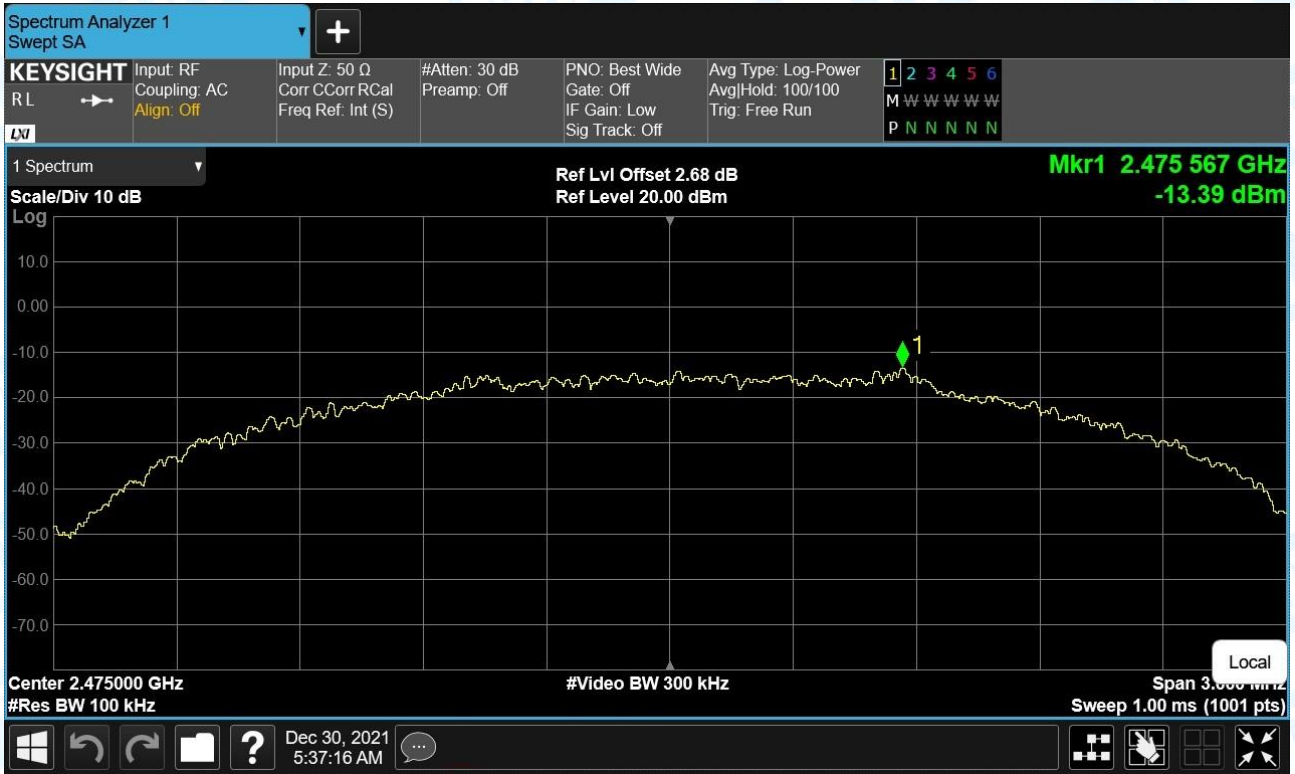
Tx. Spurious NVNT BLE 1Mbps 2451MHz Ant1 Ref



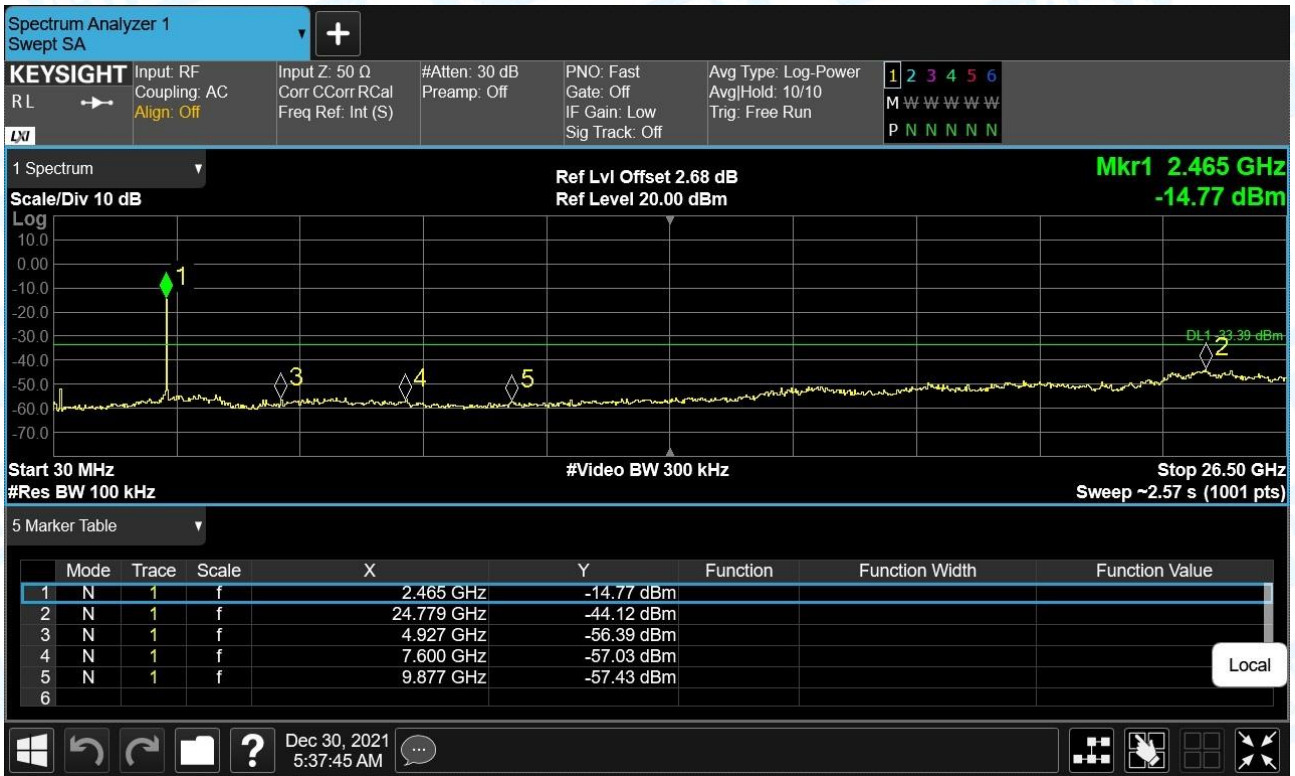
Tx. Spurious NVNT BLE 1Mbps 2451MHz Ant1 Emission



Tx. Spurious NVNT BLE 1Mbps 2475MHz Ant1 Ref



Tx. Spurious NVNT BLE 1Mbps 2475MHz Ant1 Emission

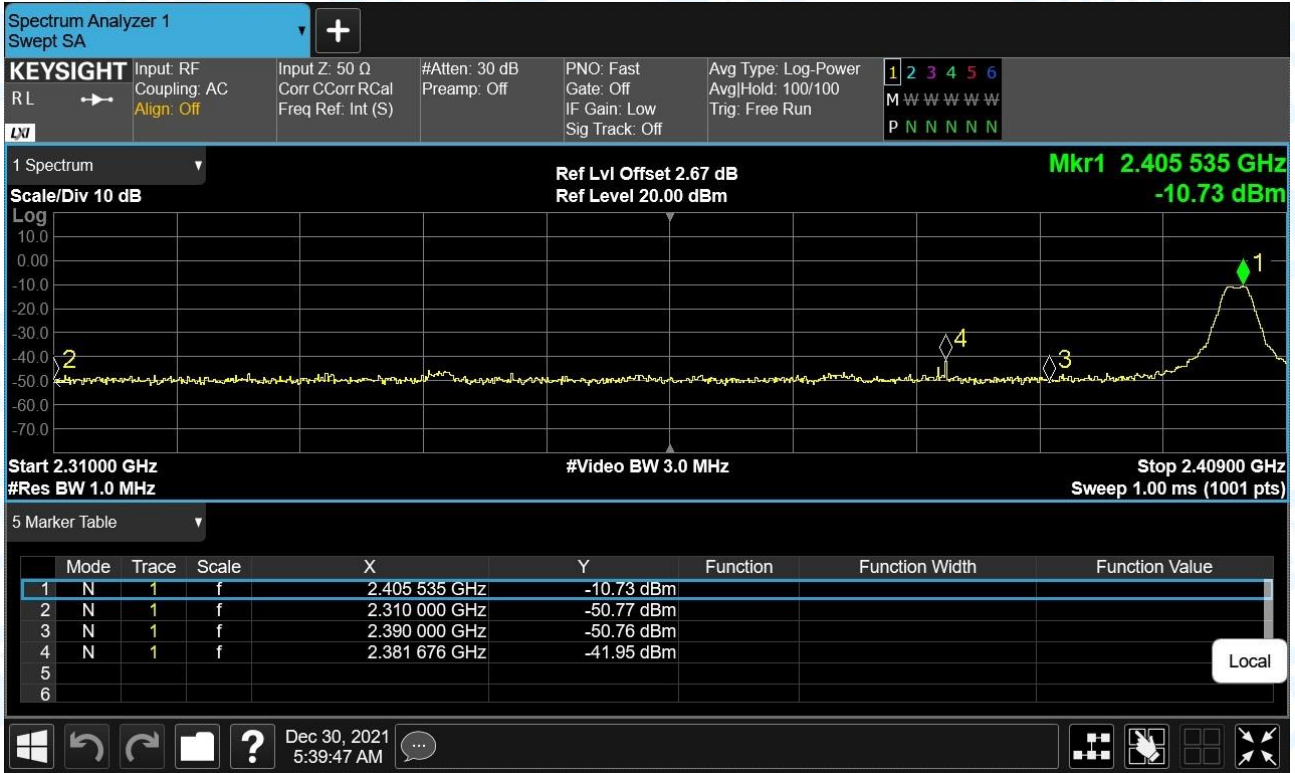


8.Restrict Band

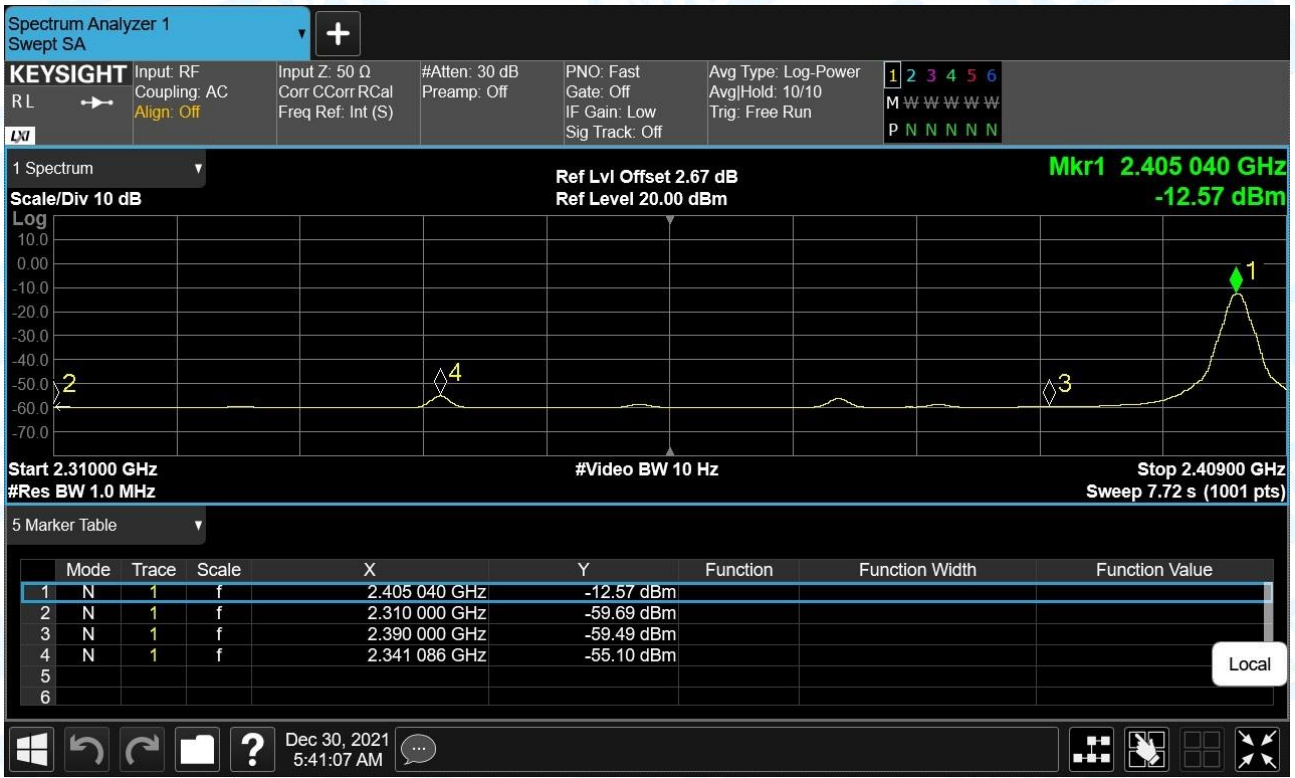
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBUV/m)	Detector	Limit (dBUV/m)	Verdict
NVNT	GFSK	2405	Ant1	2310	-50.77	2	46.49	Peak	74	Pass
NVNT	GFSK	2405	Ant1	2310	-59.69	2	37.57	Average	54	Pass
NVNT	GFSK	2405	Ant1	2381.676	-41.95	2	55.31	Peak	74	Pass
NVNT	GFSK	2405	Ant1	2341.086	-55.1	2	42.16	Average	54	Pass
NVNT	GFSK	2405	Ant1	2390	-48.78	2	48.48	Peak	74	Pass
NVNT	GFSK	2405	Ant1	2390	-59.51	2	37.75	Average	54	Pass
NVNT	GFSK	2475	Ant1	2483.5	-47.98	2	49.28	Peak	74	Pass
NVNT	GFSK	2475	Ant1	2483.5	-58.84	2	38.42	Average	54	Pass
NVNT	GFSK	2475	Ant1	2499.565	-45.64	2	51.62	Peak	74	Pass
NVNT	GFSK	2475	Ant1	2499.159	-58.16	2	39.1	Average	54	Pass
NVNT	GFSK	2475	Ant1	2500	-49.04	2	48.22	Peak	74	Pass
NVNT	GFSK	2475	Ant1	2500	-58.93	2	38.33	Average	54	Pass

Test Graphs

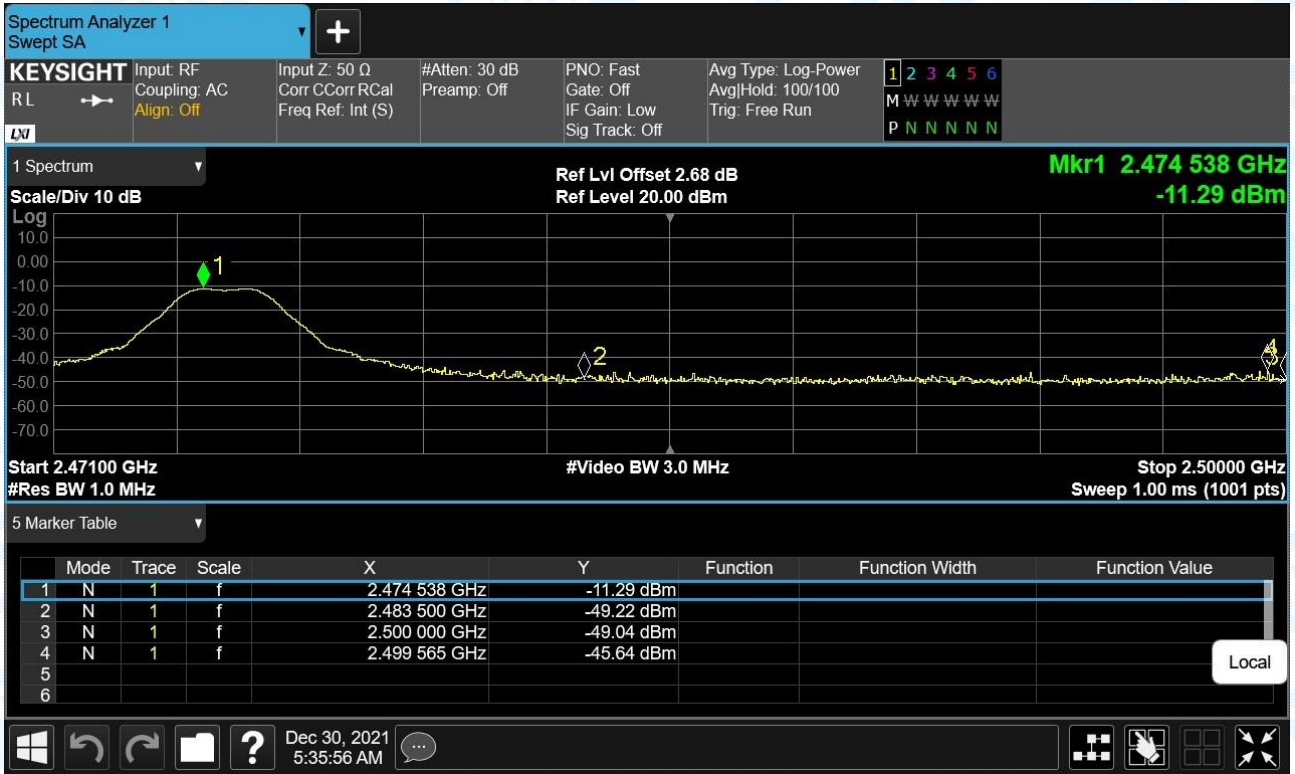
Restrict Band NVNT BLE 1Mbps 2405MHz Ant1 Peak



Restrict Band NVNT BLE 1Mbps 2405MHz Ant1 Average



Restrict Band NVNT BLE 1Mbps 2475MHz Ant1 Peak



Restrict Band NVNT BLE 1Mbps 2475MHz Ant1 Average



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