RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Android tablet
Test Model/HVIN:	KST103SD-L
Sample ID:	20210804-05_01-02
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202202-0209-1	

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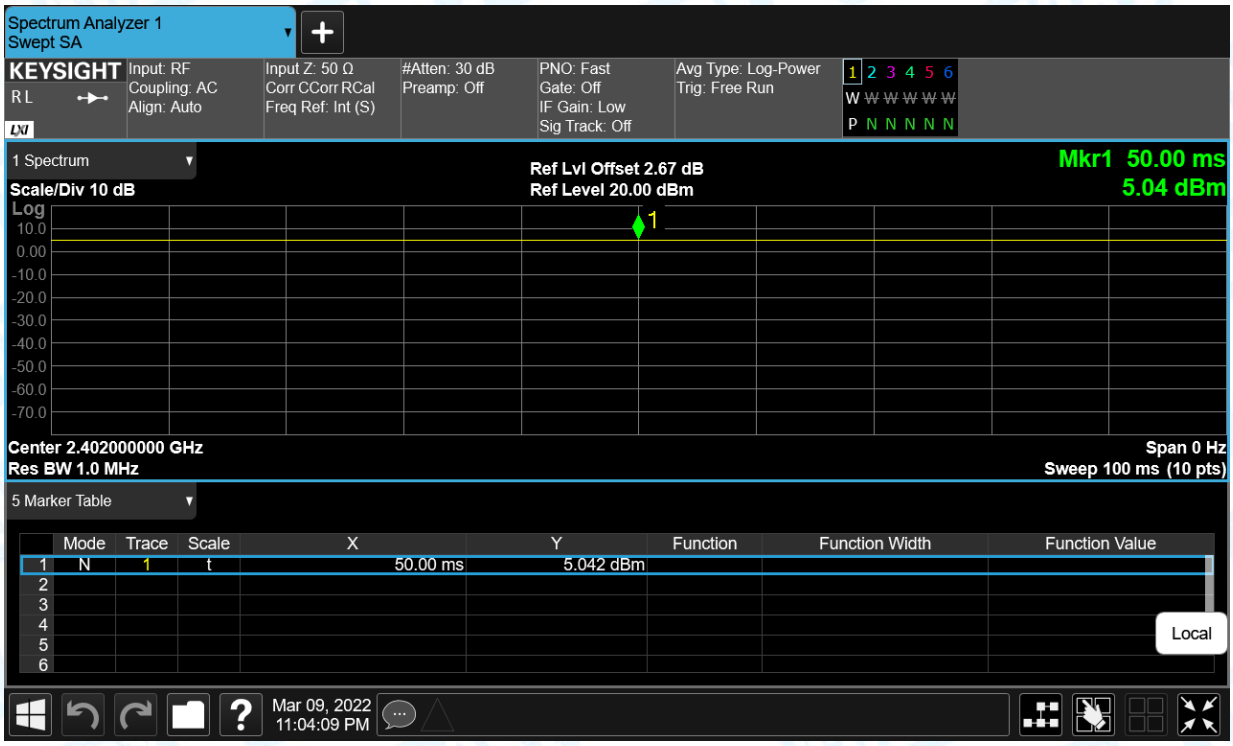
1.Duty Cycle

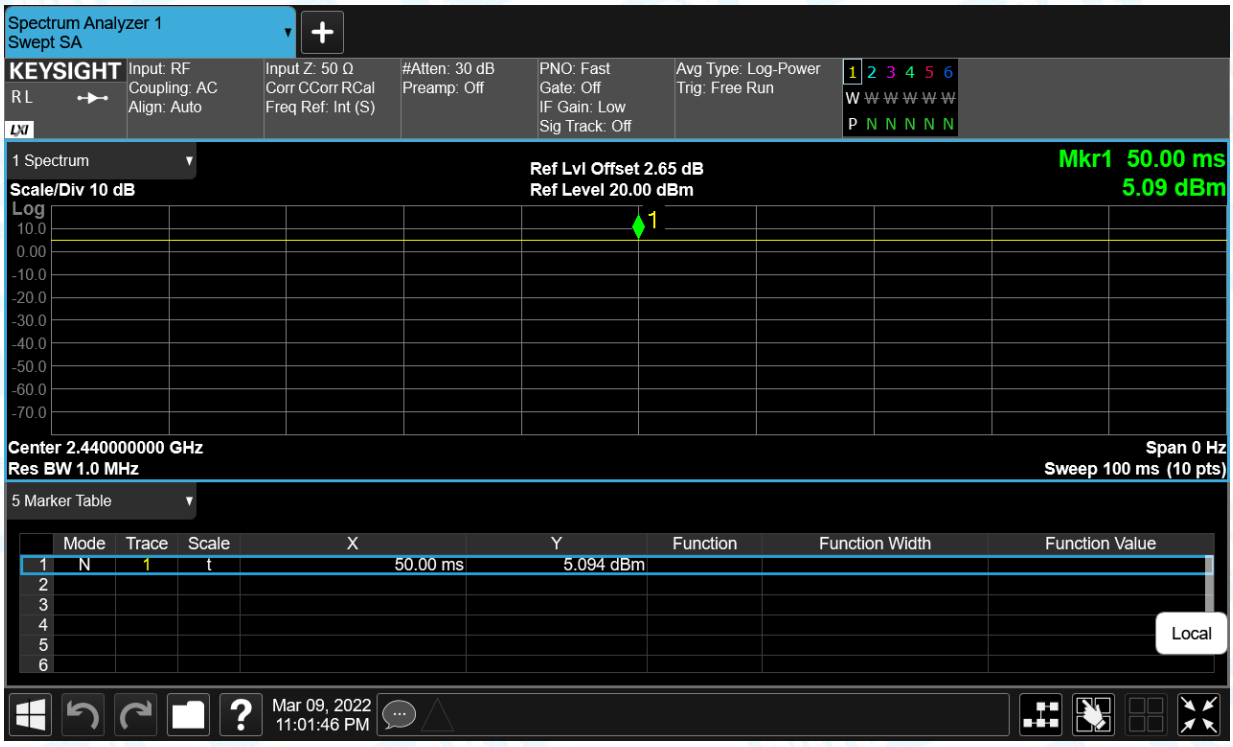
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1Mbps	2402	Ant1	100	0	0
NVNT	BLE 1Mbps	2440	Ant1	100	0	0
NVNT	BLE 1Mbps	2480	Ant1	100	0	0
NVNT	BLE 2Mbps	2402	Ant1	100	0	0
NVNT	BLE 2Mbps	2440	Ant1	100	0	0
NVNT	BLE 2Mbps	2480	Ant1	100	0	0

Test Graphs

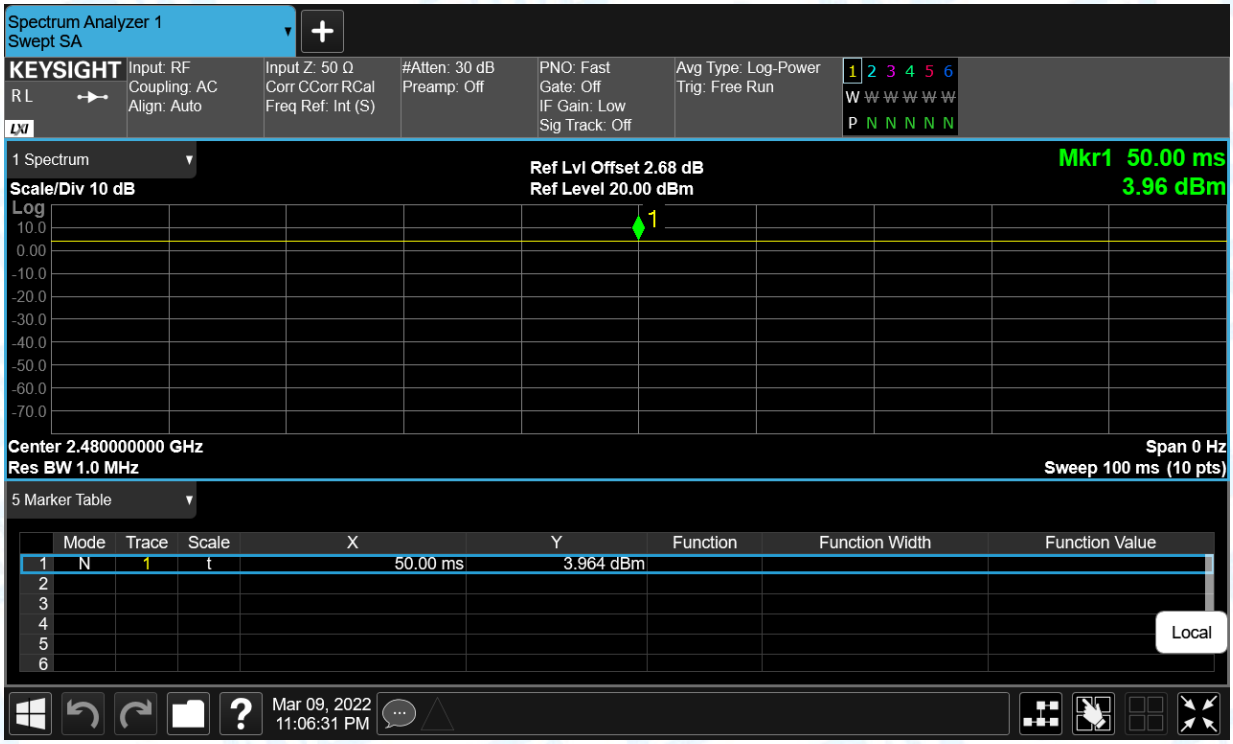
Duty Cycle NVNT BLE 1Mbps 2402MHz Ant1



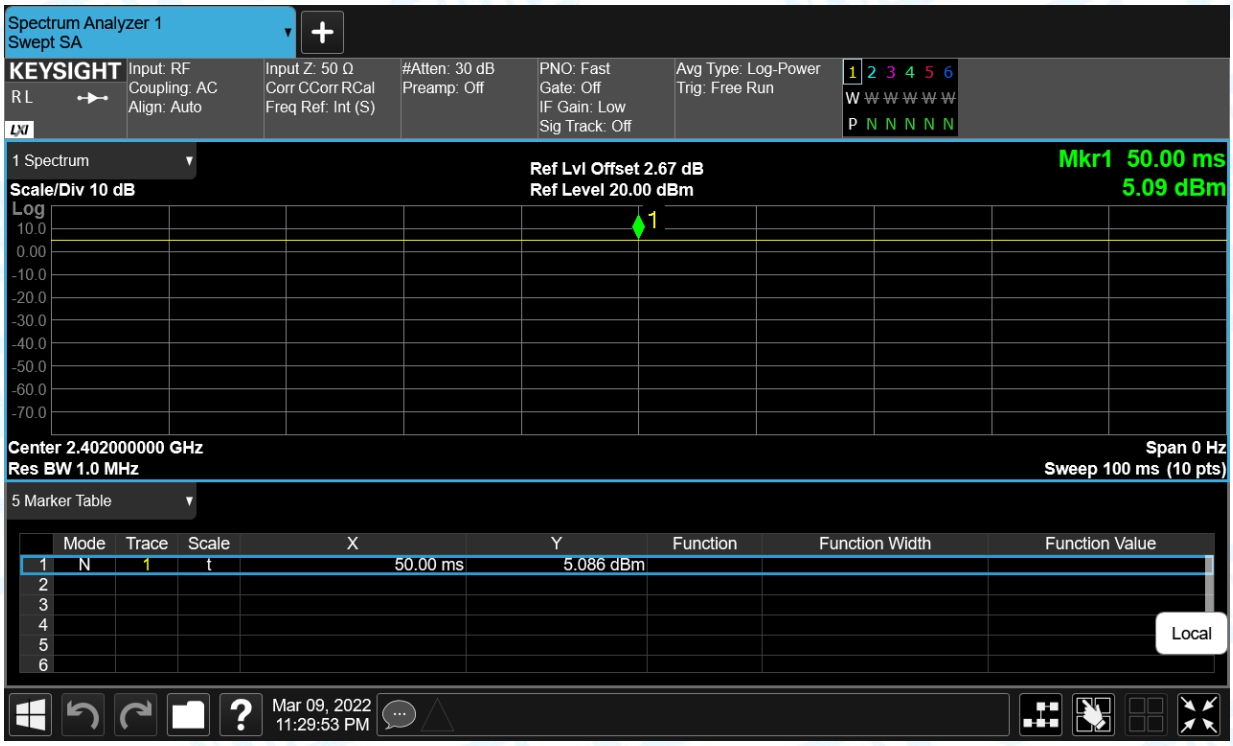
Duty Cycle NVNT BLE 1Mbps 2440MHz Ant1



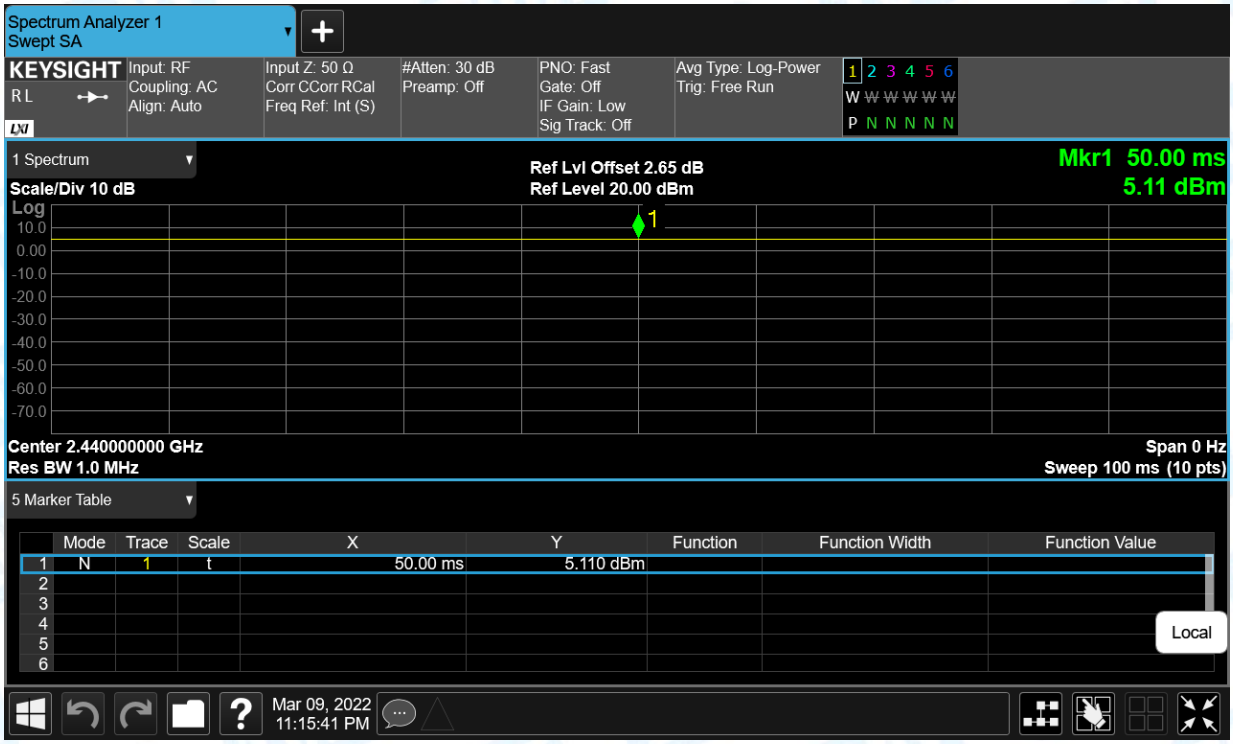
Duty Cycle NVNT BLE 1Mbps 2480MHz Ant1



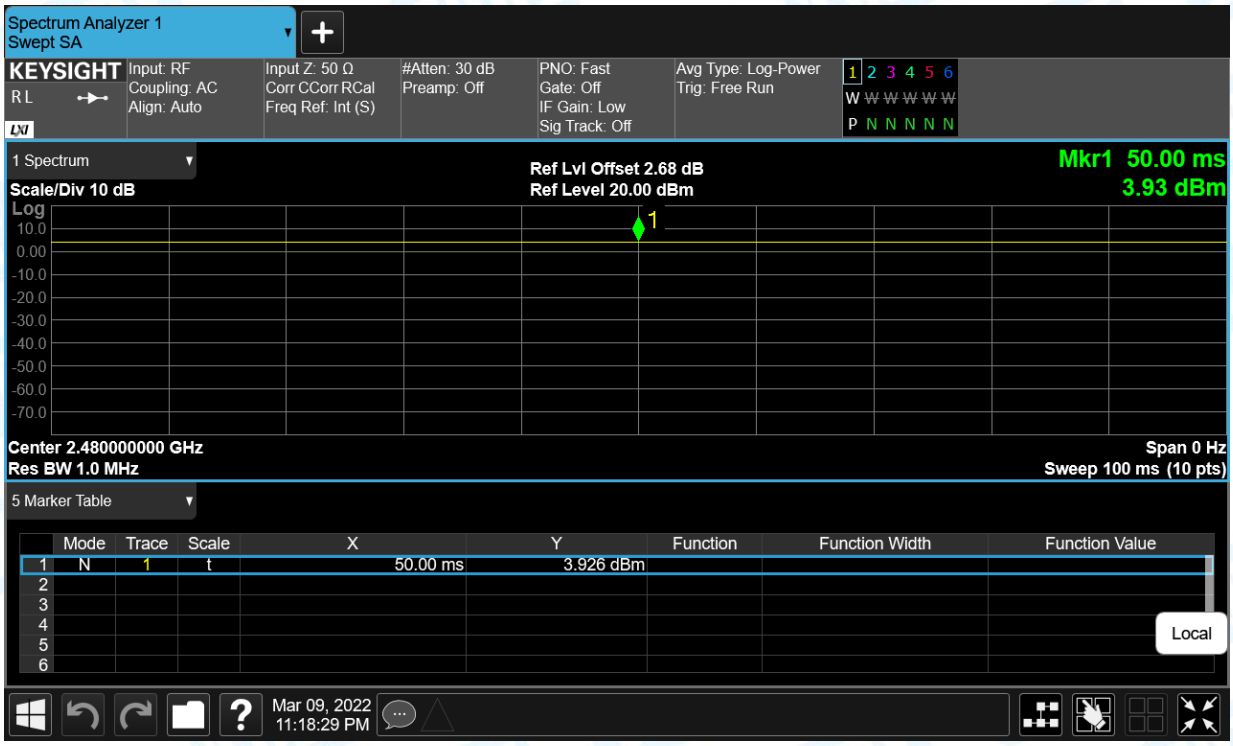
Duty Cycle NVNT BLE 2Mbps 2402MHz Ant1



Duty Cycle NVNT BLE 2Mbps 2440MHz Ant1



Duty Cycle NVNT BLE 2Mbps 2480MHz Ant1

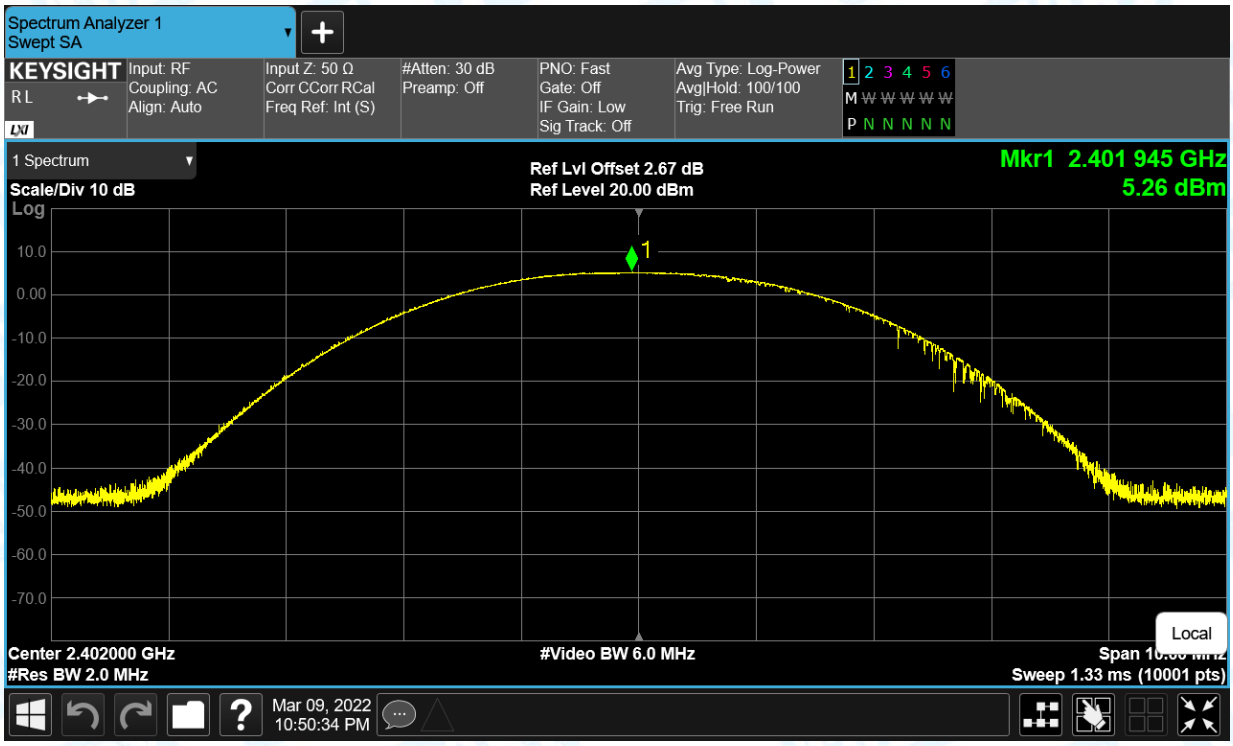


2.Maximum Conducted Output Power

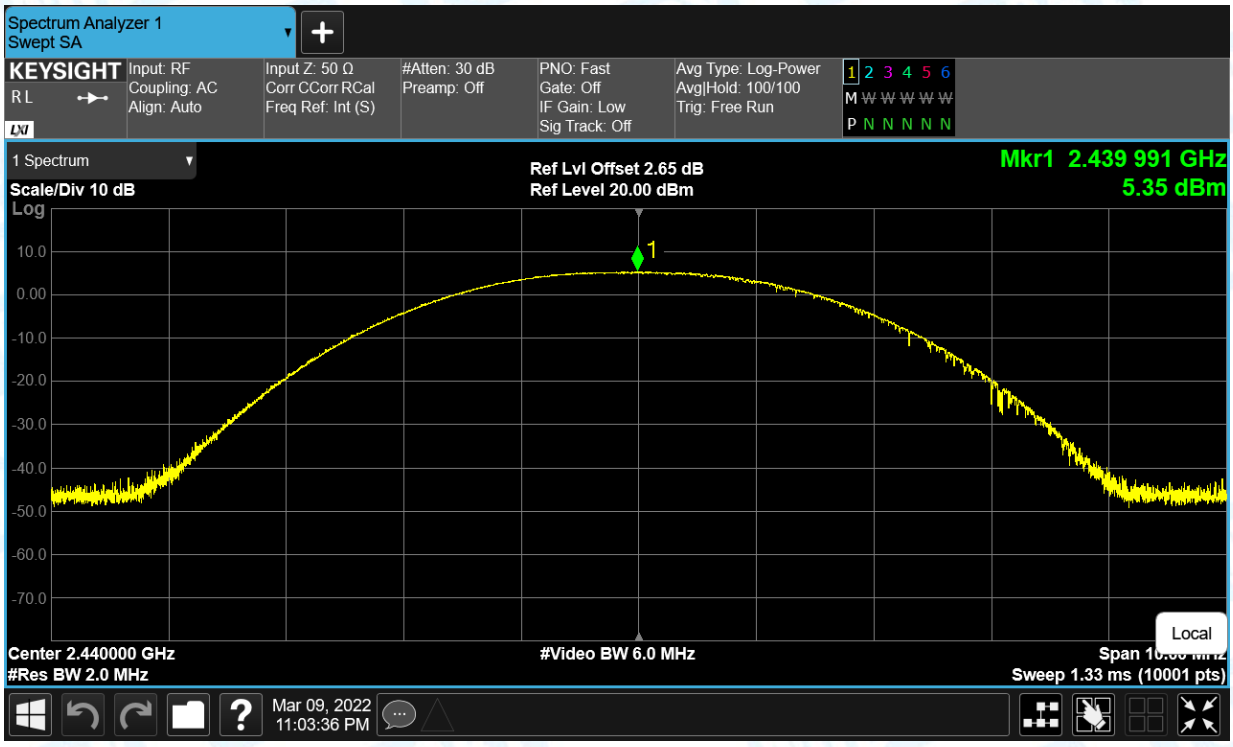
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	5.263	30	Pass
NVNT	BLE 1Mbps	2440	Ant1	5.353	30	Pass
NVNT	BLE 1Mbps	2480	Ant1	4.217	30	Pass
NVNT	BLE 2Mbps	2402	Ant1	5.118	30	Pass
NVNT	BLE 2Mbps	2440	Ant1	5.282	30	Pass
NVNT	BLE 2Mbps	2480	Ant1	4.134	30	Pass

Test Graphs

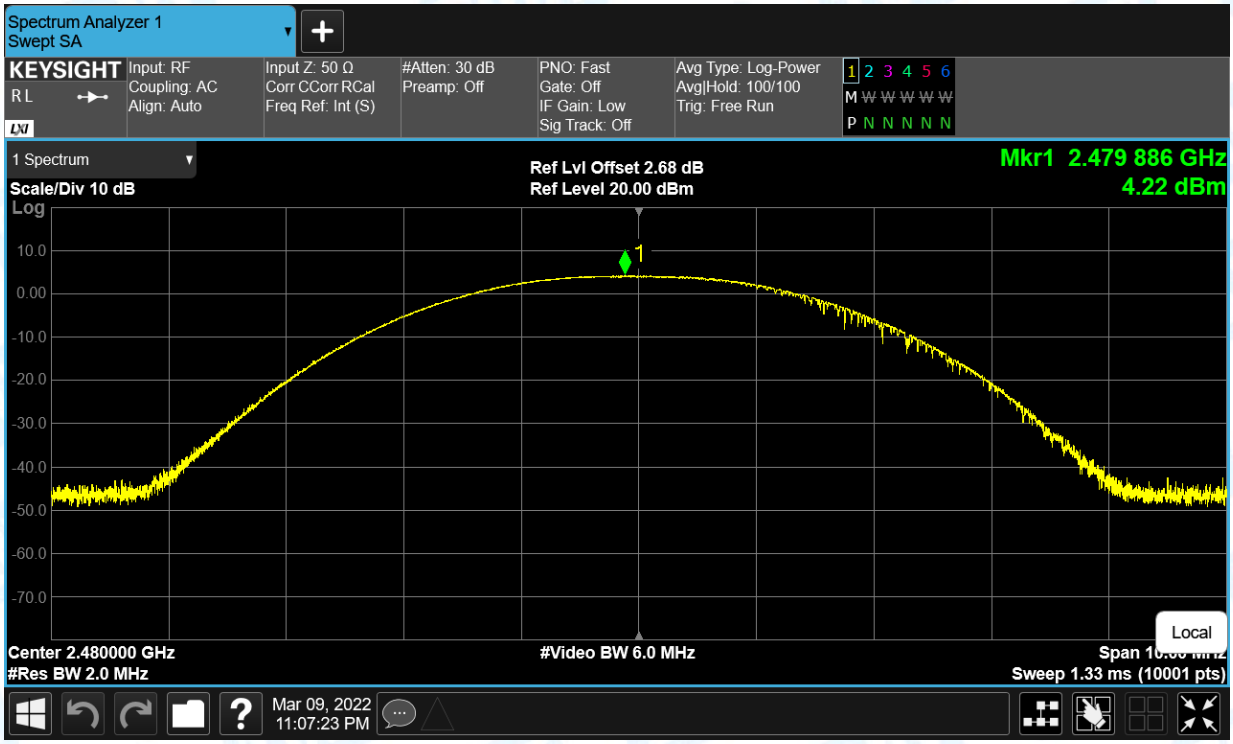
Power NVNT BLE 1Mbps 2402MHz Ant1



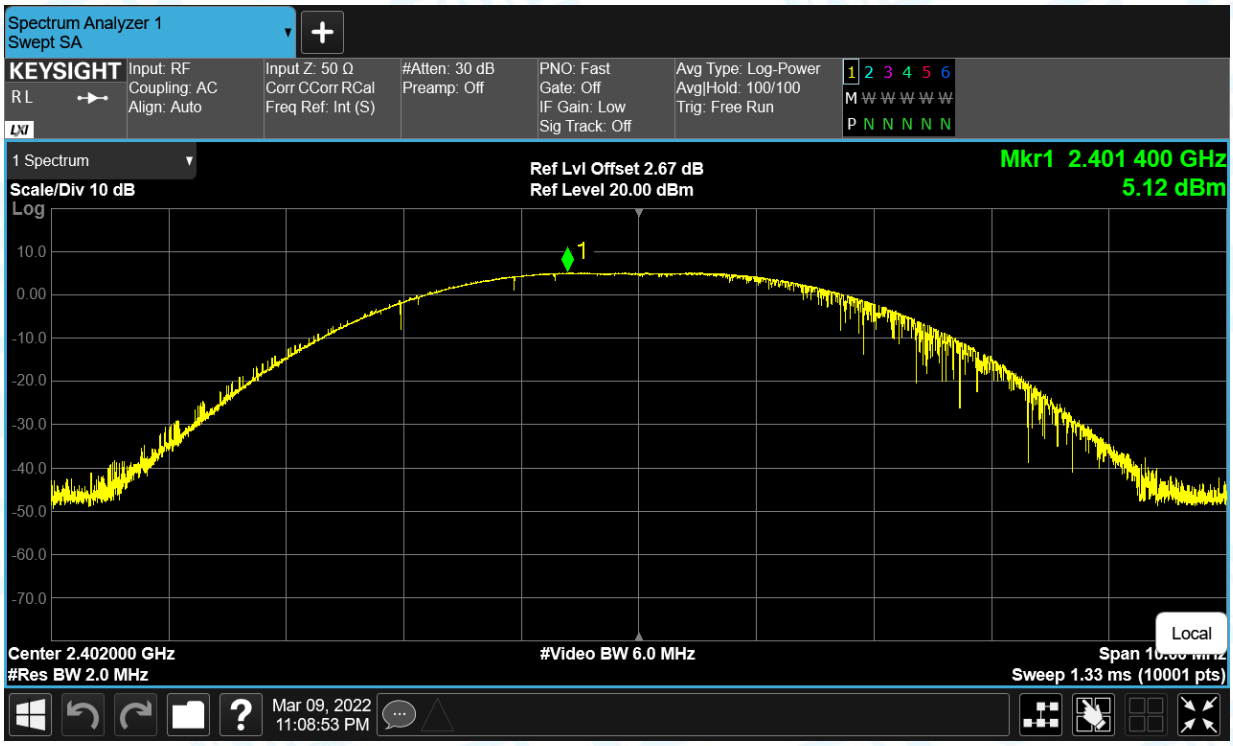
Power NVNT BLE 1Mbps 2440MHz Ant1



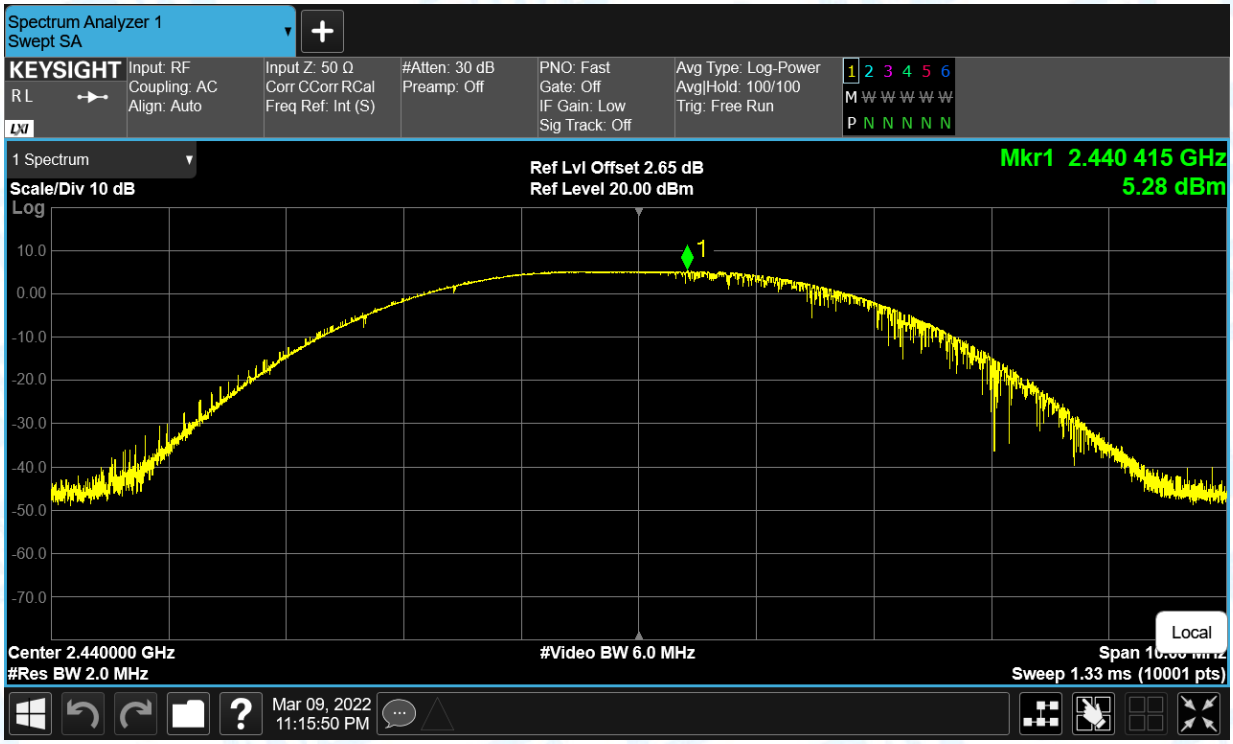
Power NVNT BLE 1Mbps 2480MHz Ant1



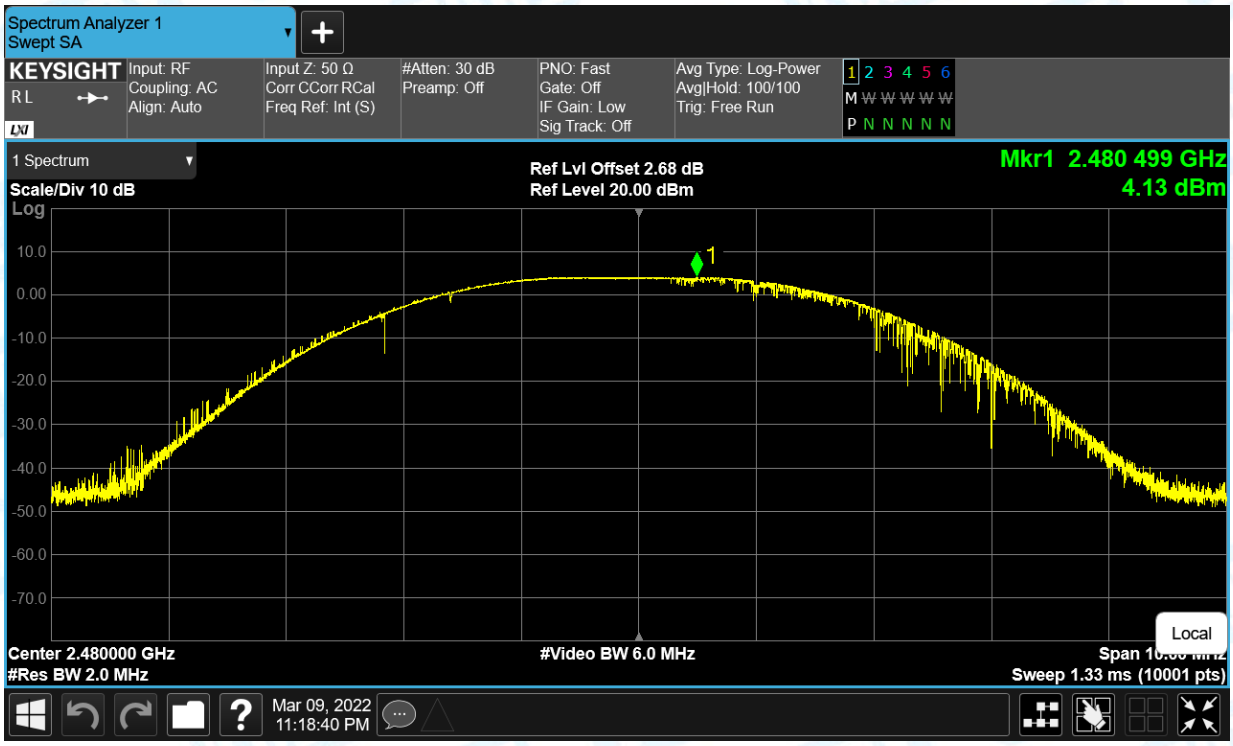
Power NVNT BLE 2Mbps 2402MHz Ant1



Power NVNT BLE 2Mbps 2440MHz Ant1



Power NVNT BLE 2Mbps 2480MHz Ant1



3.-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	0.5	0.5	Pass
NVNT	BLE 1Mbps	2440	Ant1	0.5	0.5	Pass
NVNT	BLE 1Mbps	2480	Ant1	0.5	0.5	Pass
NVNT	BLE 2Mbps	2402	Ant1	0.78	0.5	Pass
NVNT	BLE 2Mbps	2440	Ant1	0.82	0.5	Pass
NVNT	BLE 2Mbps	2480	Ant1	0.8	0.5	Pass

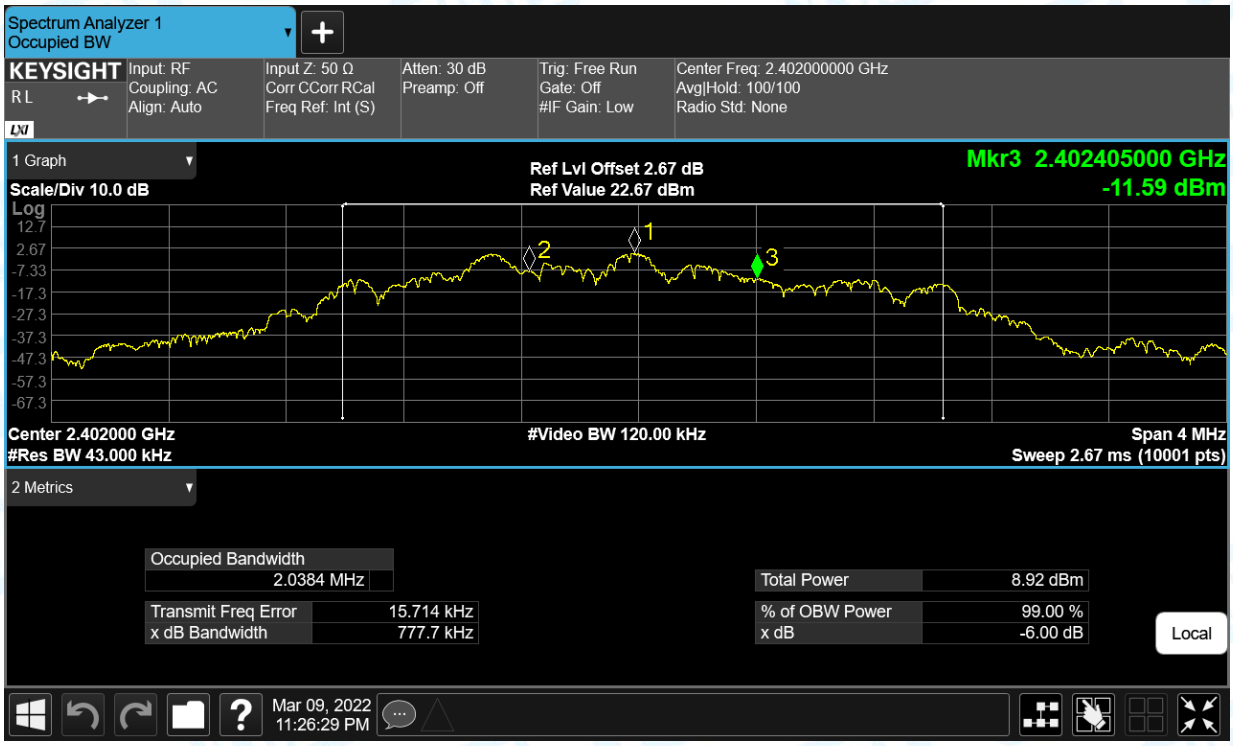
Test Graphs

-6dB Bandwidth NVNT BLE 1Mbps 2402MHz Ant1

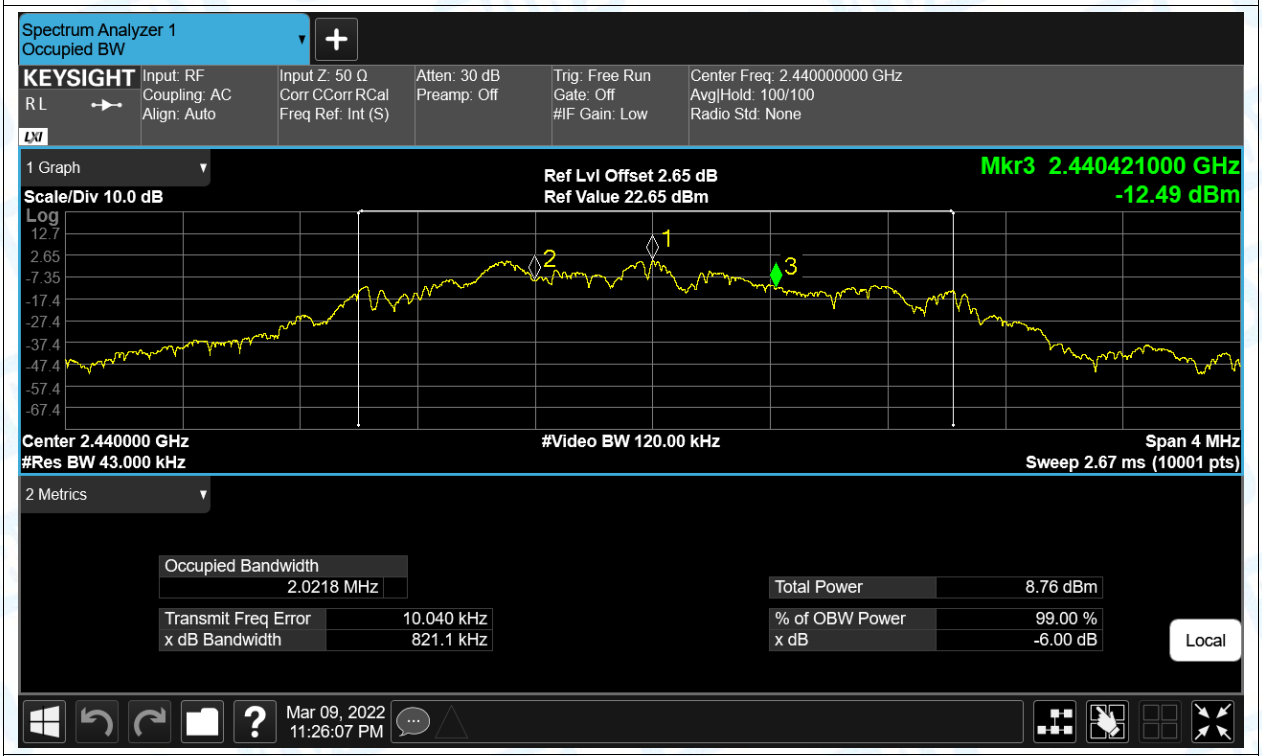
-6dB Bandwidth NVNT BLE 1Mbps 2440MHz Ant1

-6dB Bandwidth NVNT BLE 1Mbps 2480MHz Ant1

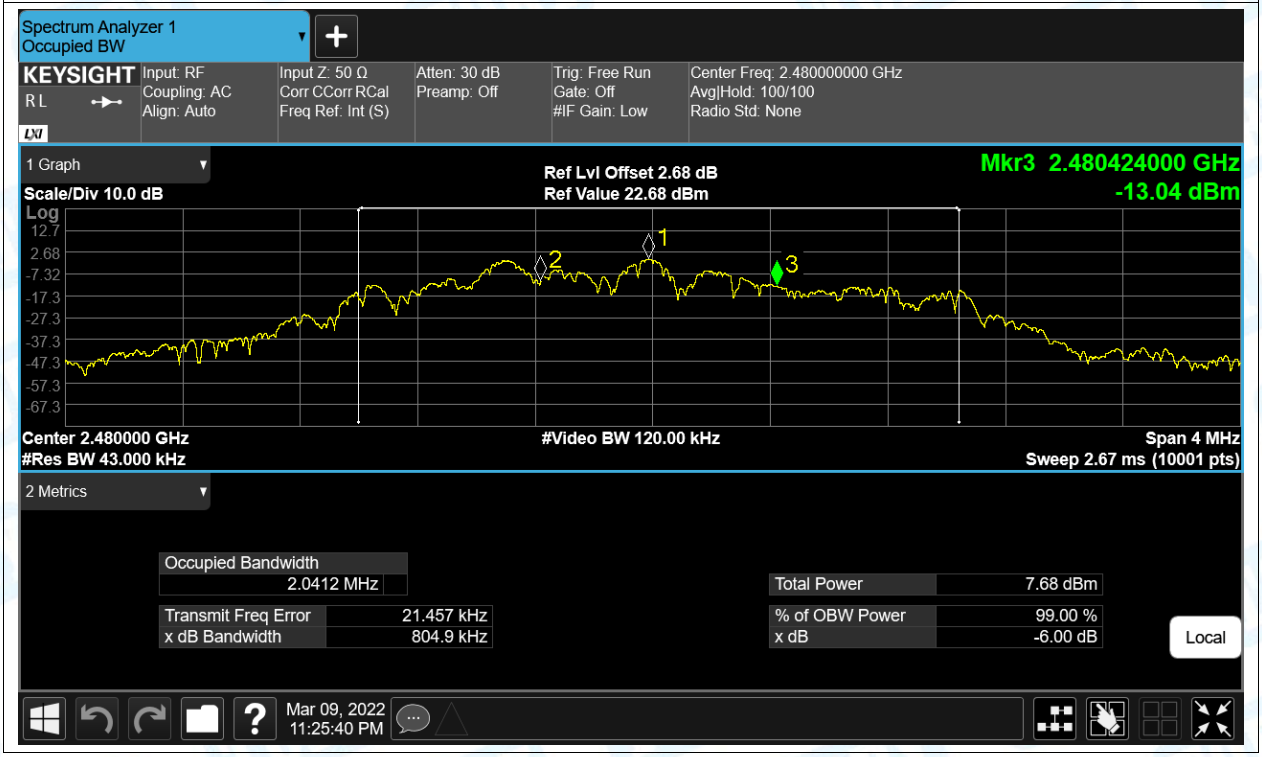
-6dB Bandwidth NVNT BLE 2Mbps 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2440MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2480MHz Ant1



4.Occupied Channel Bandwidth

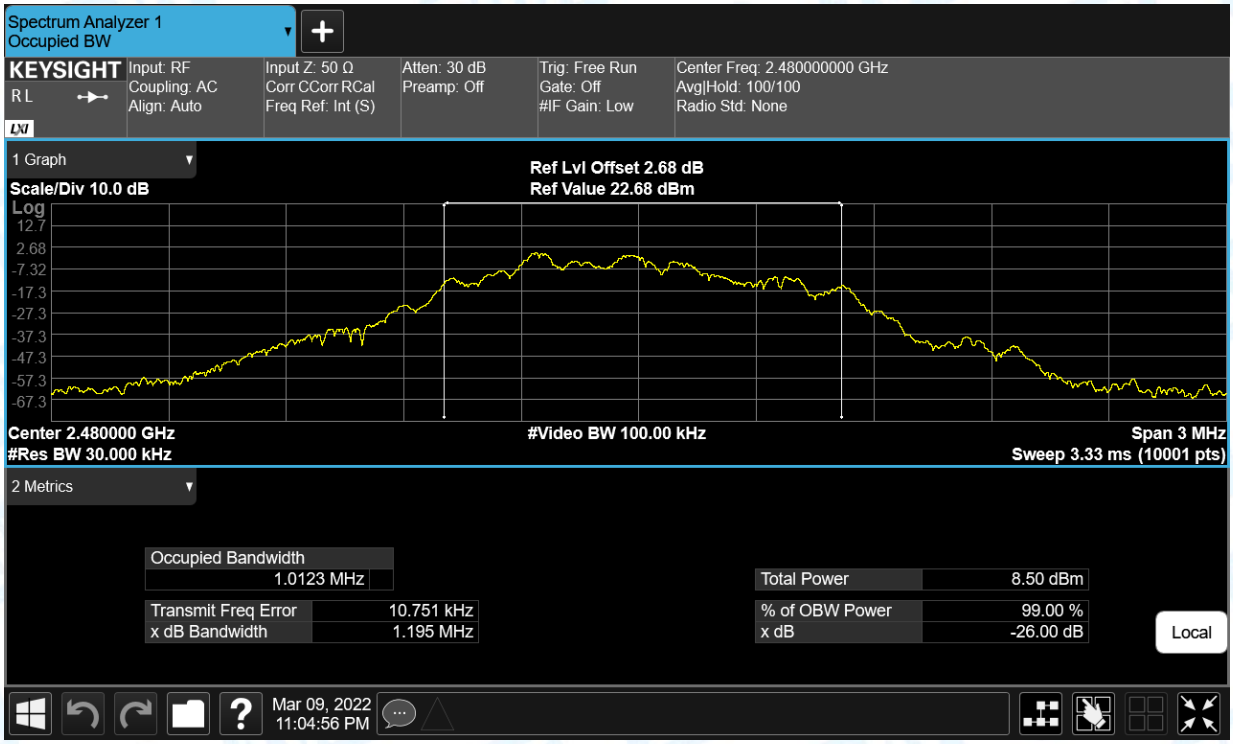
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1Mbps	2402	Ant1	1.011
NVNT	BLE 1Mbps	2440	Ant1	1.008
NVNT	BLE 1Mbps	2480	Ant1	1.012
NVNT	BLE 2Mbps	2402	Ant1	2.022
NVNT	BLE 2Mbps	2440	Ant1	2.026
NVNT	BLE 2Mbps	2480	Ant1	2.021

Test Graphs

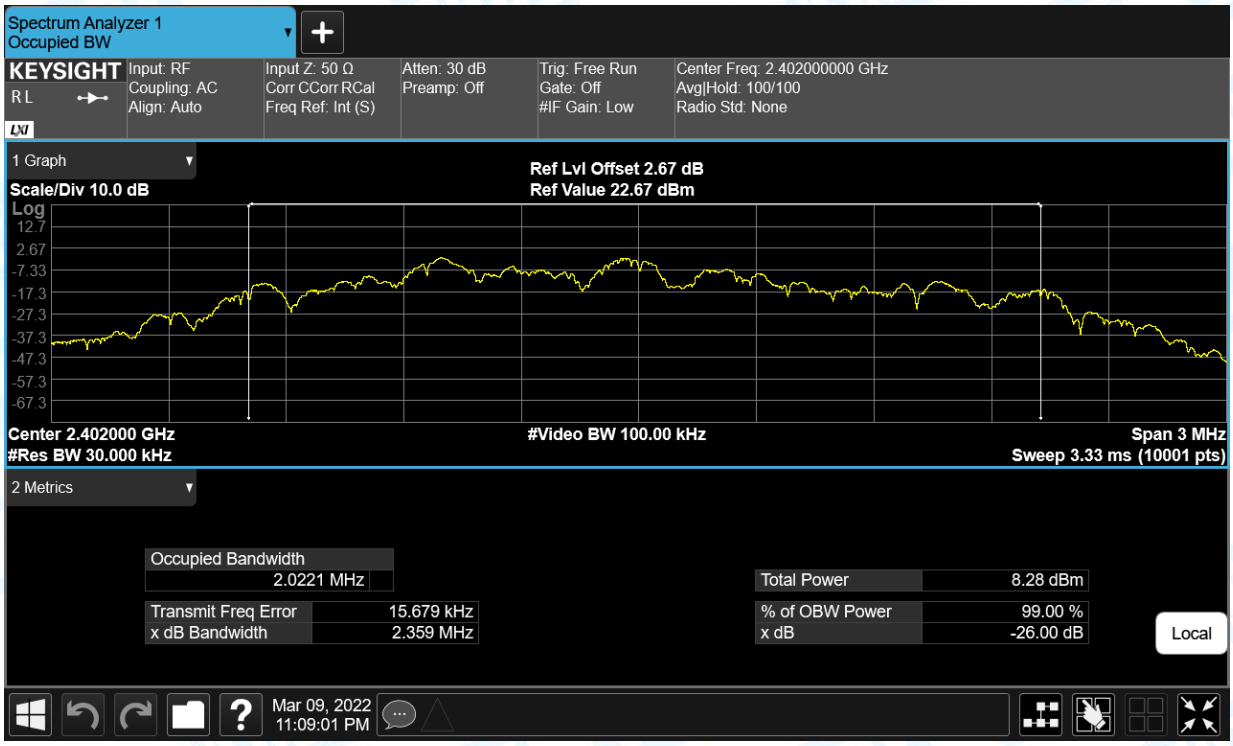
OBW NVNT BLE 1Mbps 2402MHz Ant1

OBW NVNT BLE 1Mbps 2440MHz Ant1

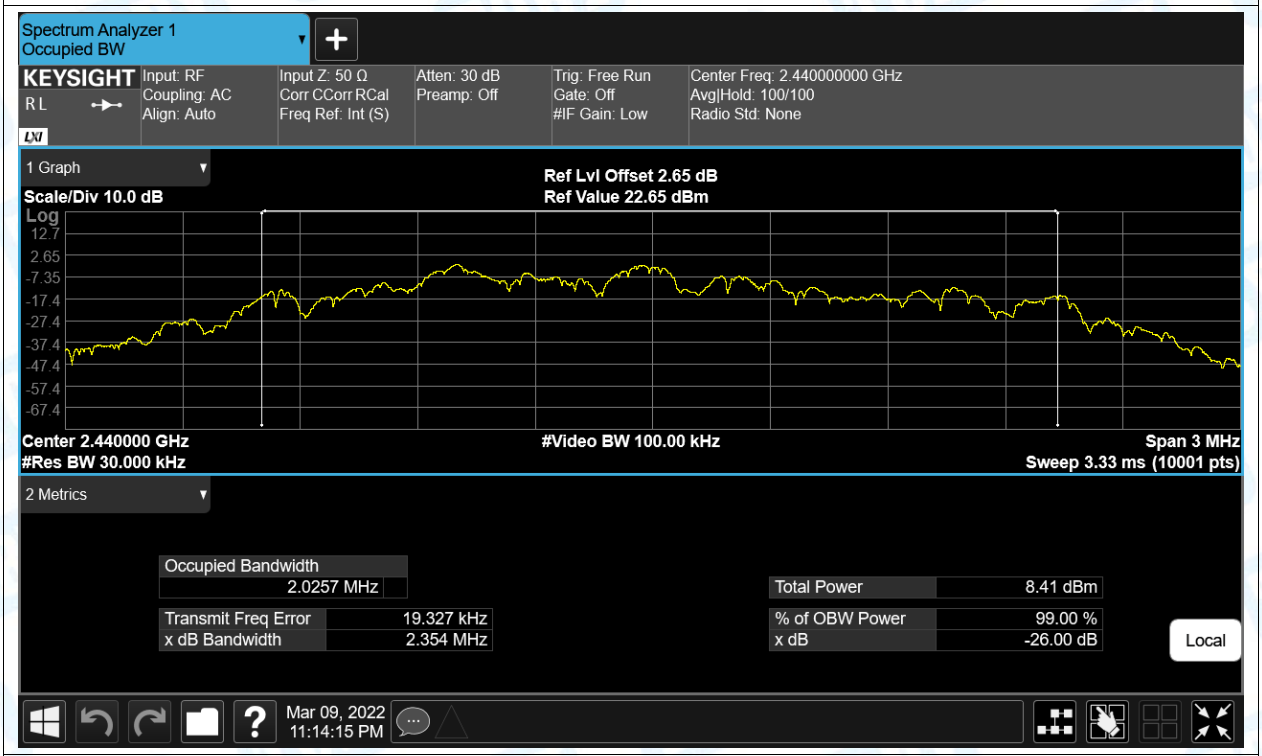
OBW NVNT BLE 1Mbps 2480MHz Ant1



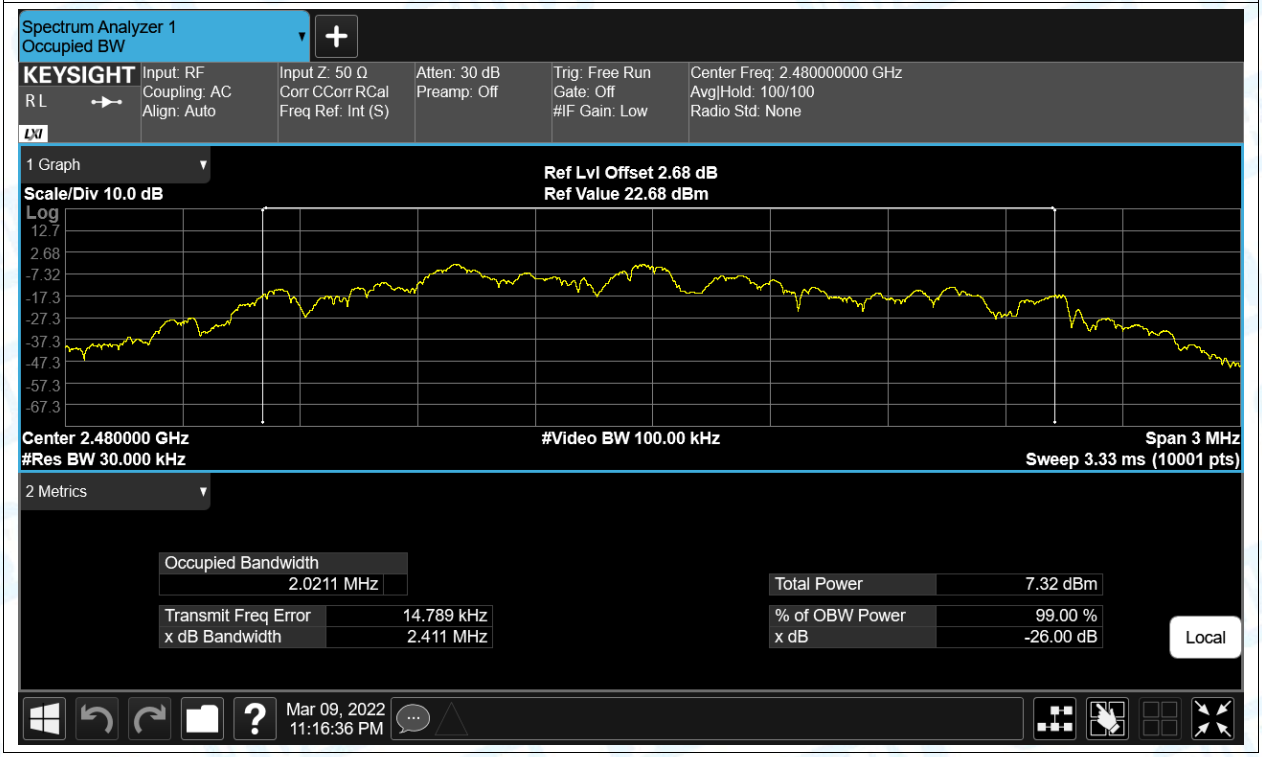
OBW NVNT BLE 2Mbps 2402MHz Ant1



OBW NVNT BLE 2Mbps 2440MHz Ant1



OBW NVNT BLE 2Mbps 2480MHz Ant1

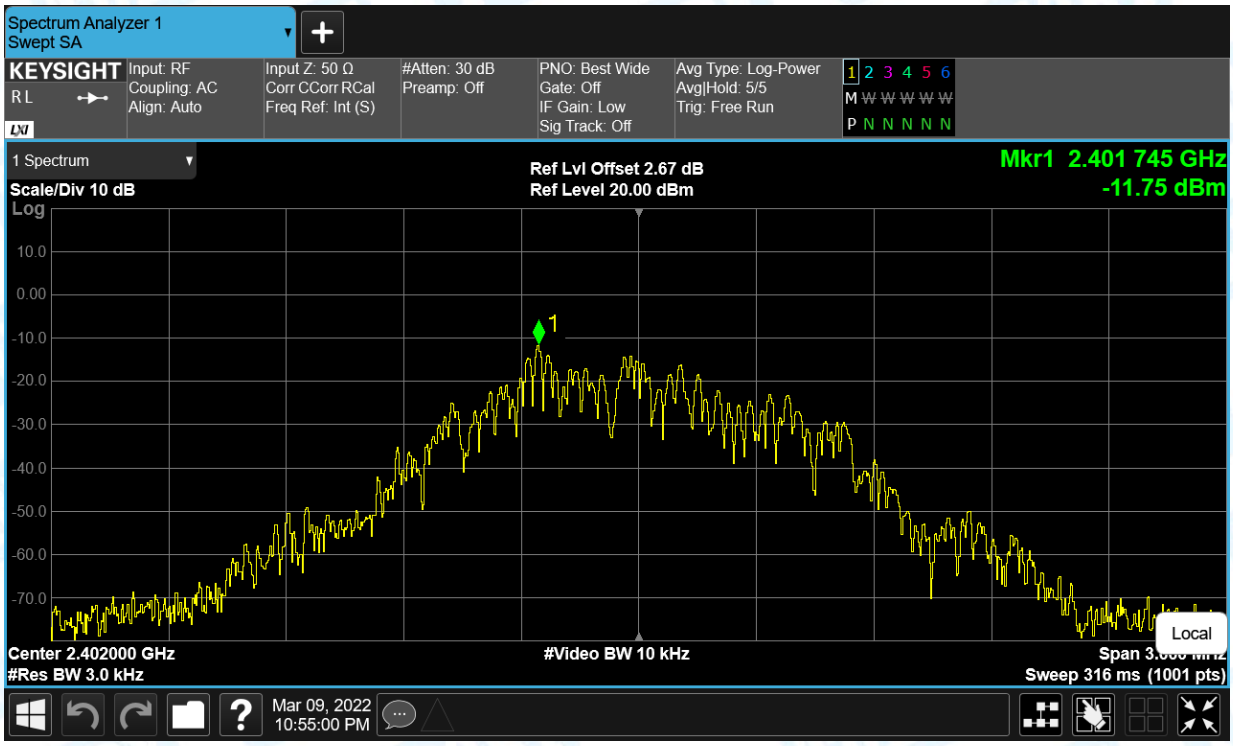


5.Maximum Power Spectral Density Level

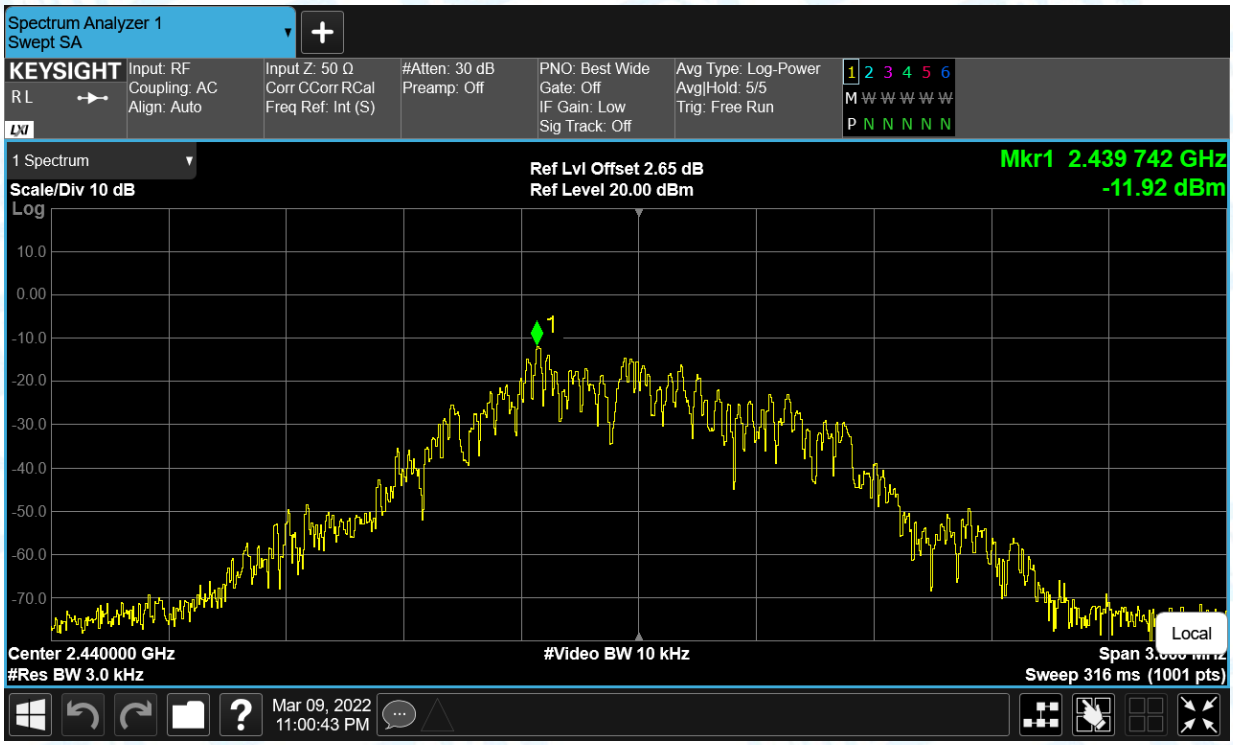
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-11.751	8	Pass
NVNT	BLE 1Mbps	2440	Ant1	-11.922	8	Pass
NVNT	BLE 1Mbps	2480	Ant1	-12.9	8	Pass
NVNT	BLE 2Mbps	2402	Ant1	-17.143	8	Pass
NVNT	BLE 2Mbps	2440	Ant1	-17.067	8	Pass
NVNT	BLE 2Mbps	2480	Ant1	-18.2	8	Pass

Test Graphs

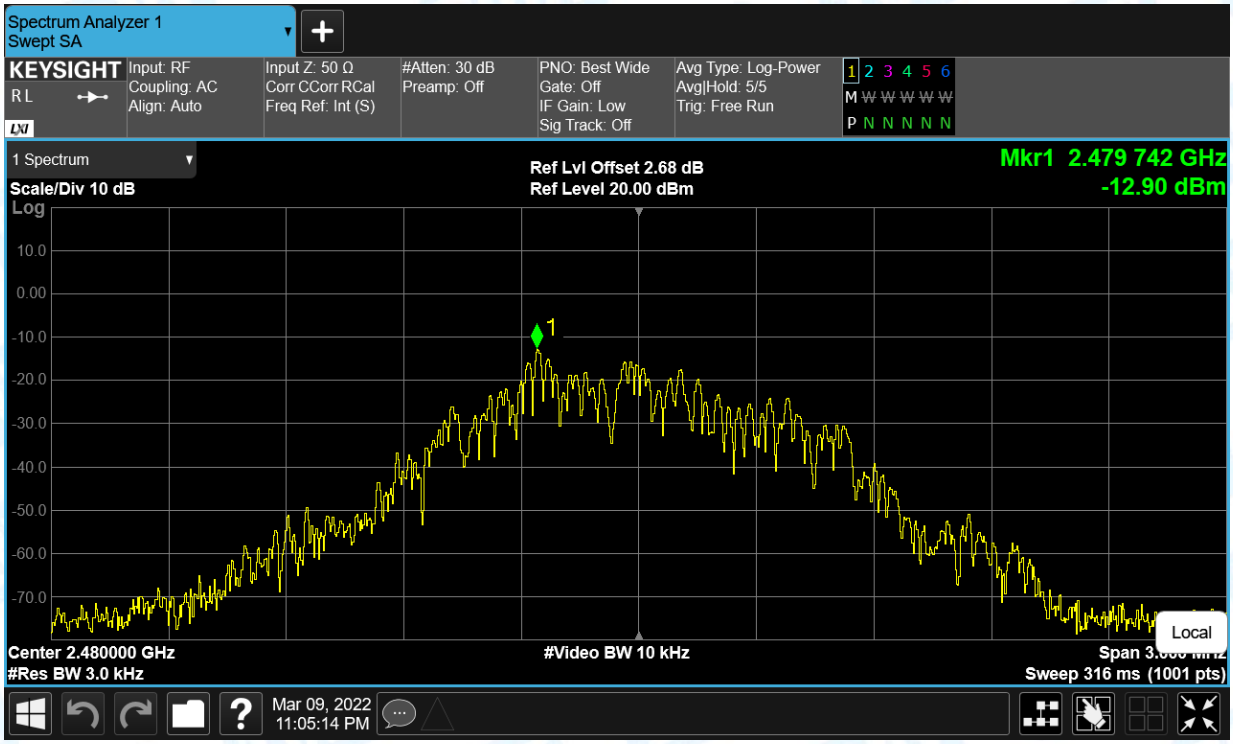
PSD NVNT BLE 1Mbps 2402MHz Ant1



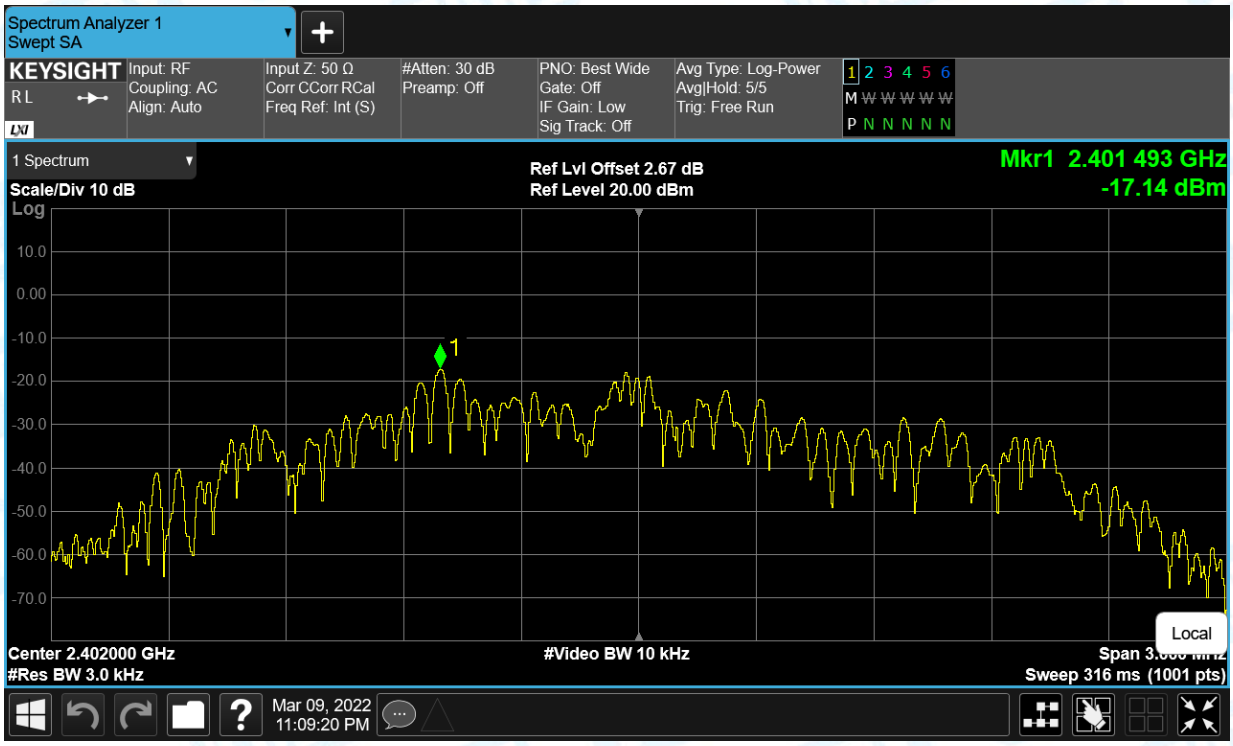
PSD NVNT BLE 1Mbps 2440MHz Ant1



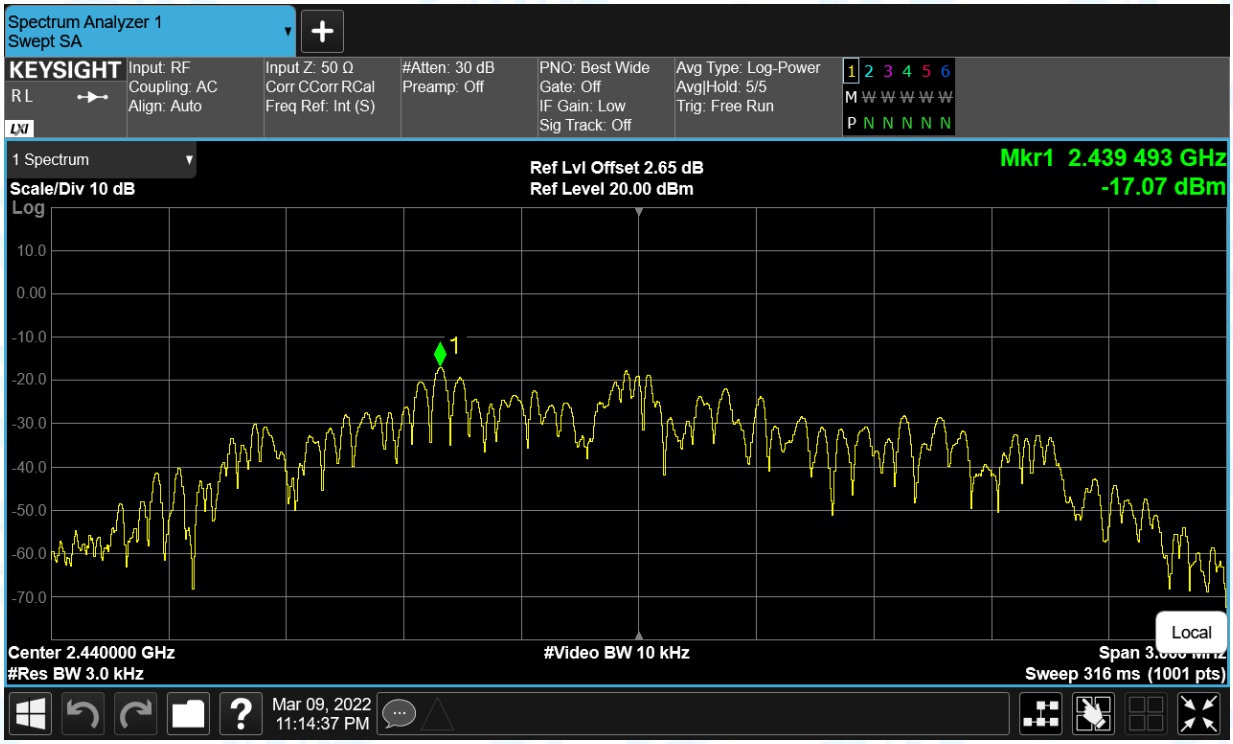
PSD NVNT BLE 1Mbps 2480MHz Ant1



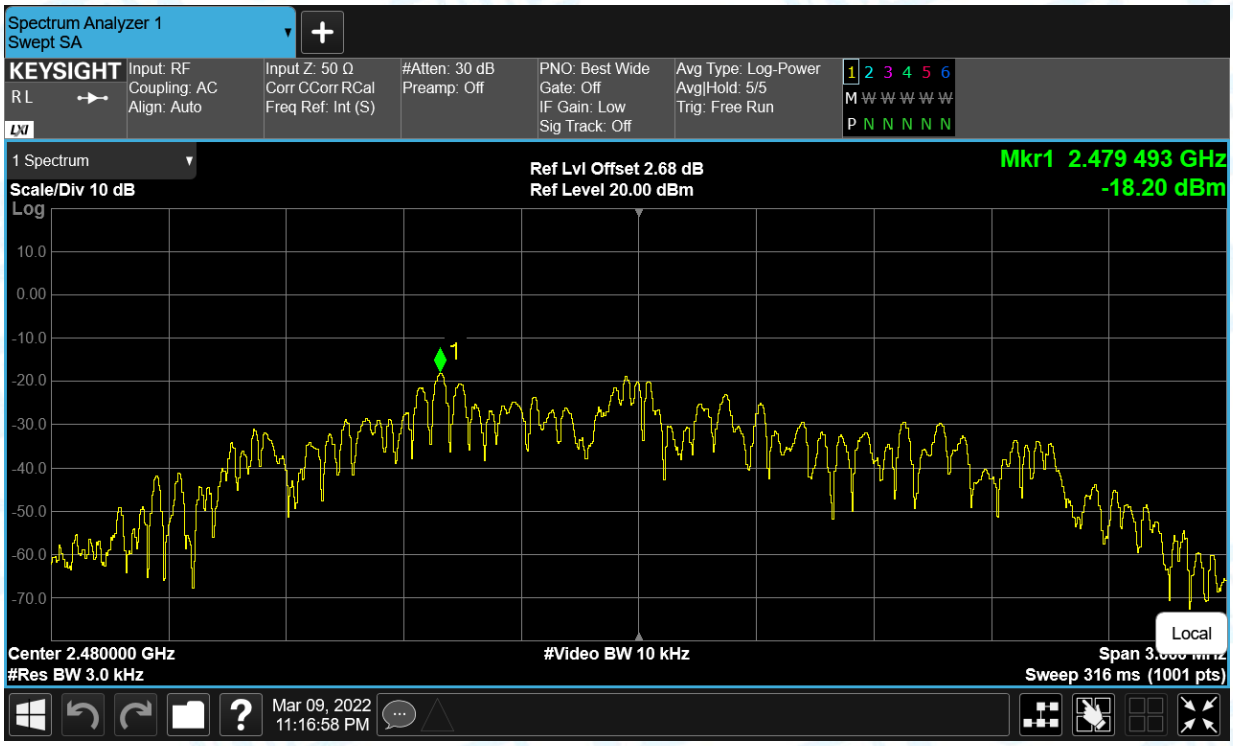
PSD NVNT BLE 2Mbps 2402MHz Ant1



PSD NVNT BLE 2Mbps 2440MHz Ant1



PSD NVNT BLE 2Mbps 2480MHz Ant1

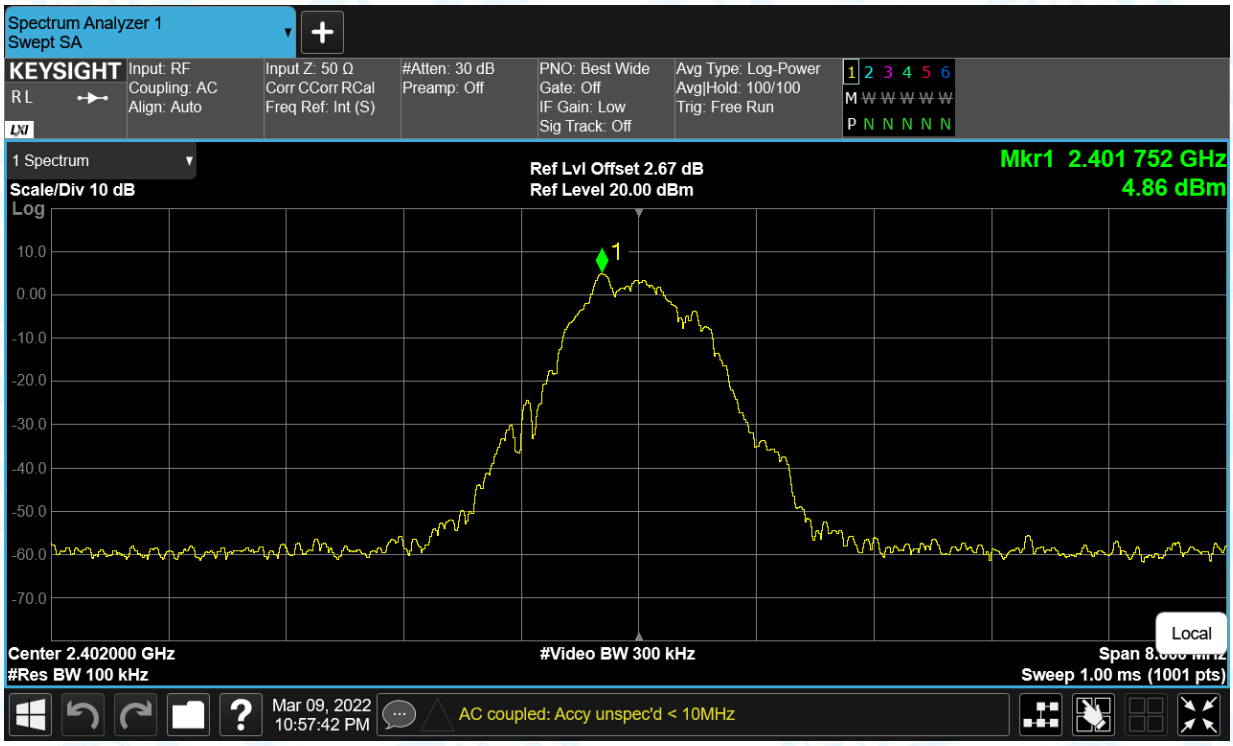


6.Band Edge

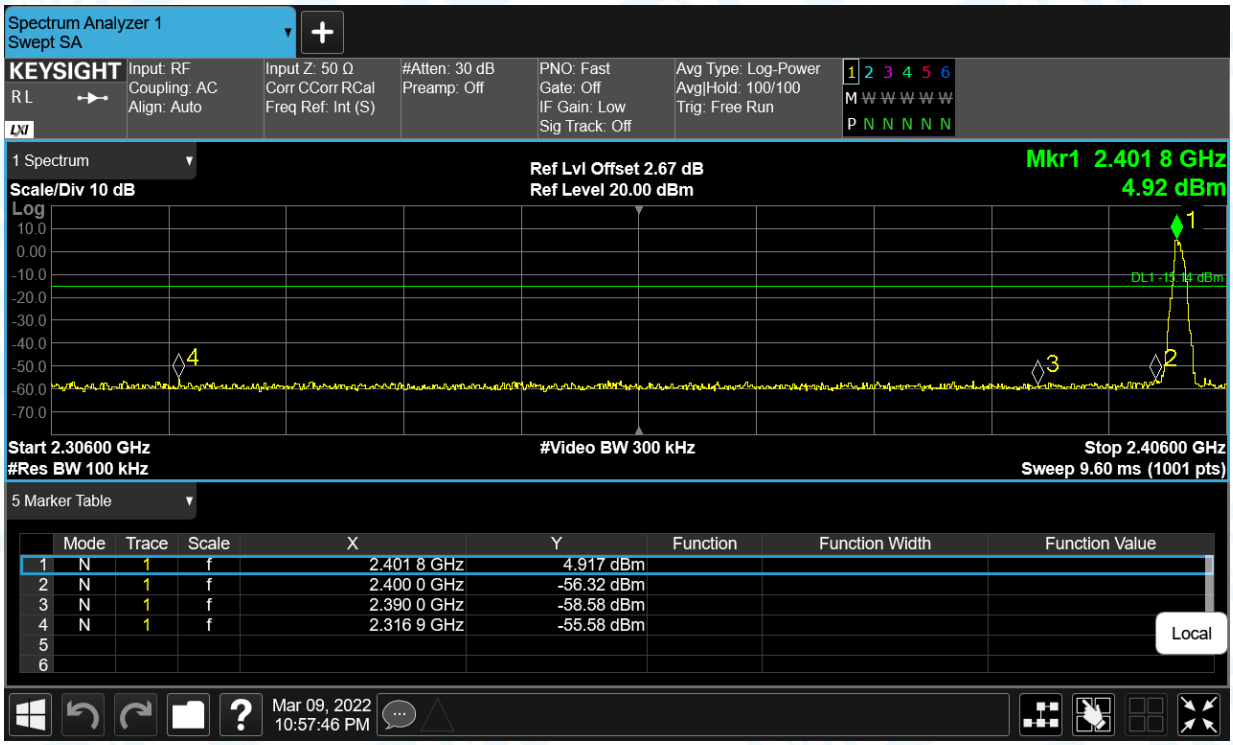
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-60.44	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-58.92	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-60.81	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-58.39	-20	Pass

Test Graphs

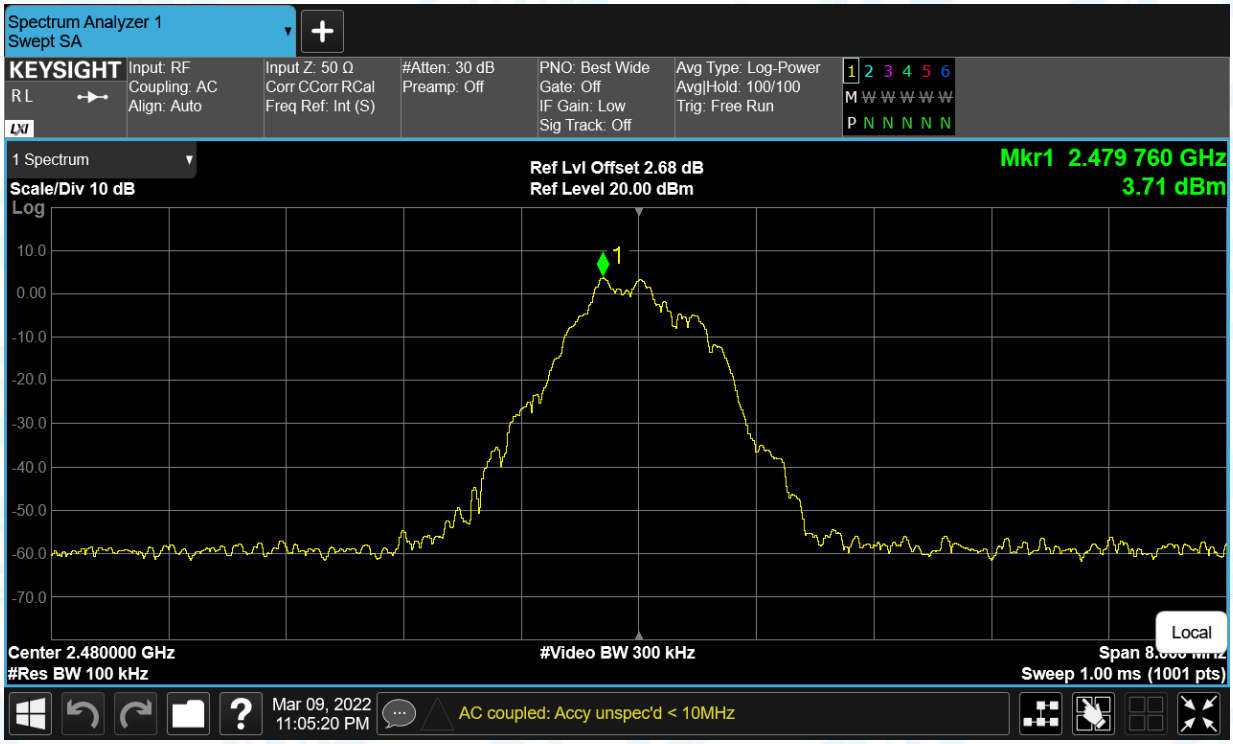
Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Ref



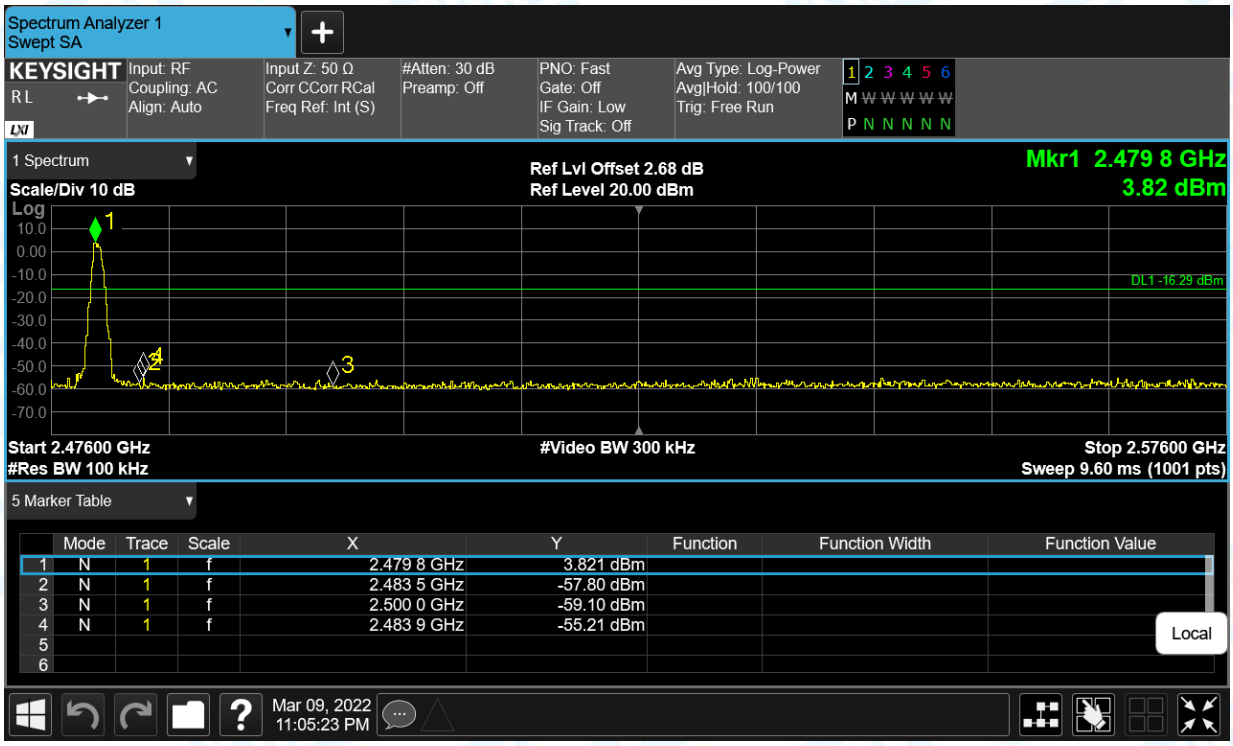
Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Emission



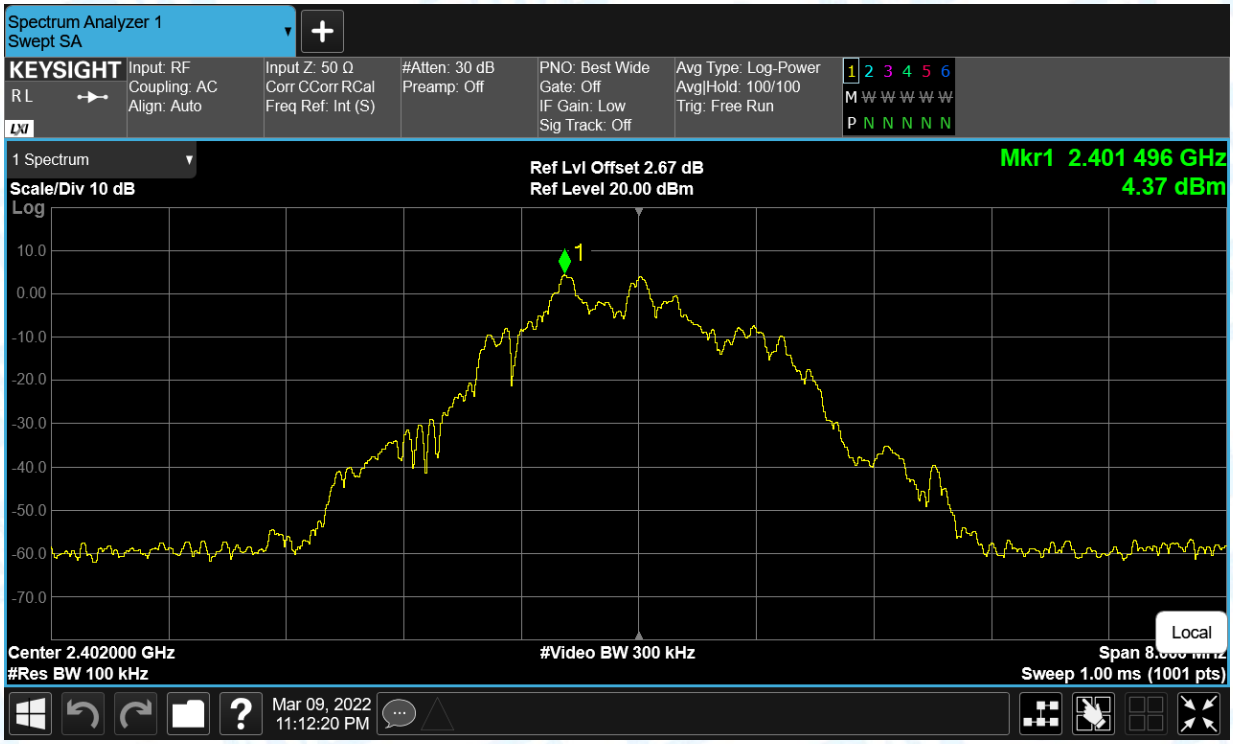
Band Edge NVNT BLE 1Mbps 2480MHz Ant1 Ref



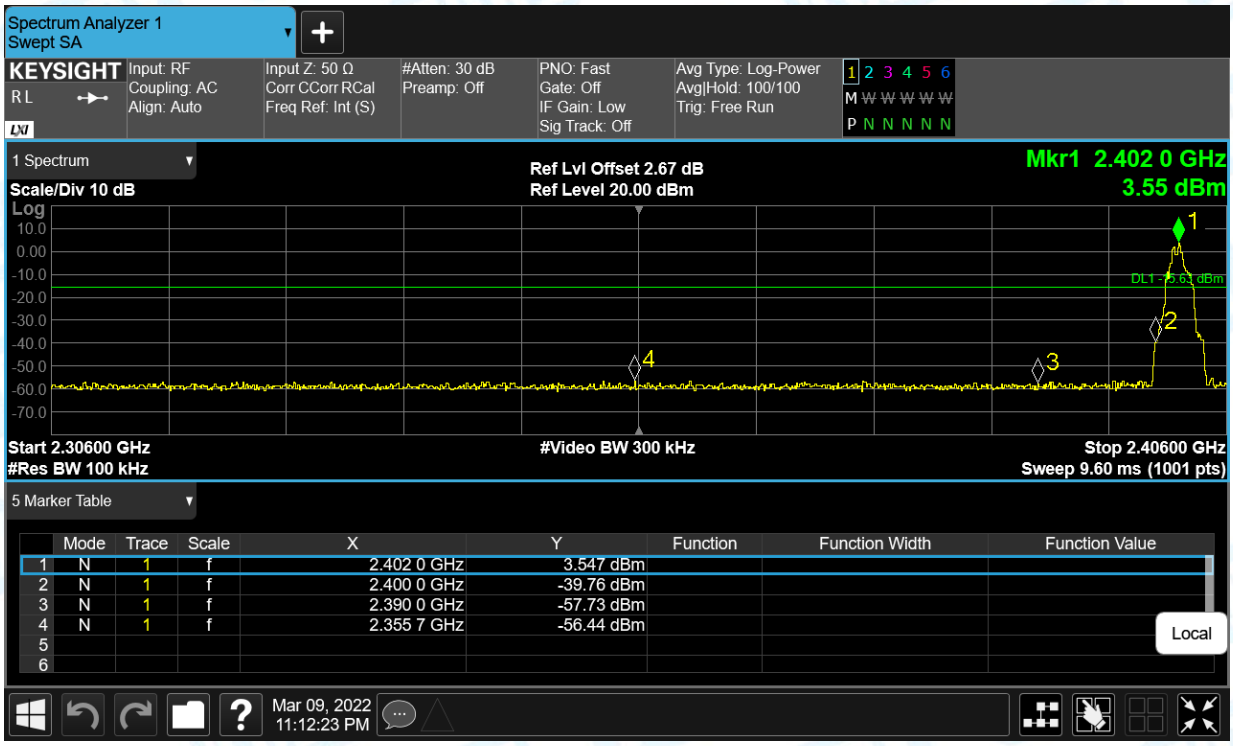
Band Edge NVNT BLE 1Mbps 2480MHz Ant1 Emission



Band Edge NVNT BLE 2Mbps 2402MHz Ant1 Ref

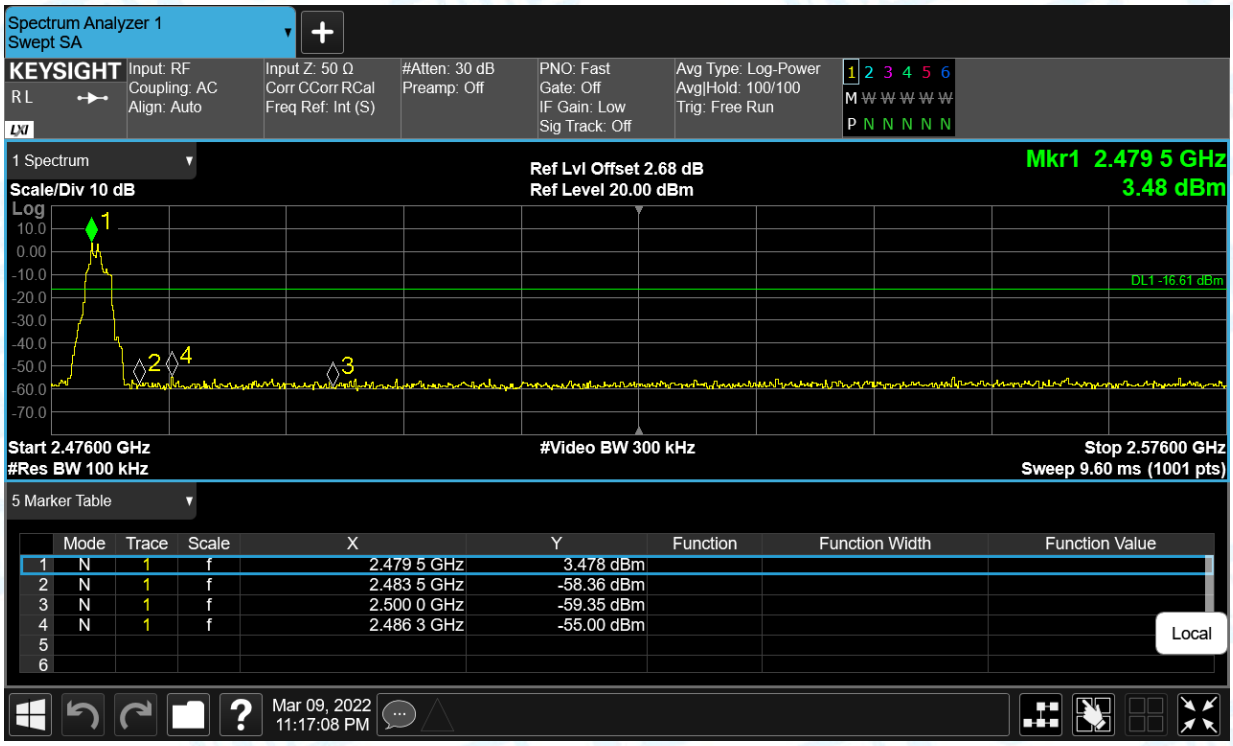


Band Edge NVNT BLE 2Mbps 2402MHz Ant1 Emission



Band Edge NVNT BLE 2Mbps 2480MHz Ant1 Ref

Band Edge NVNT BLE 2Mbps 2480MHz Ant1 Emission

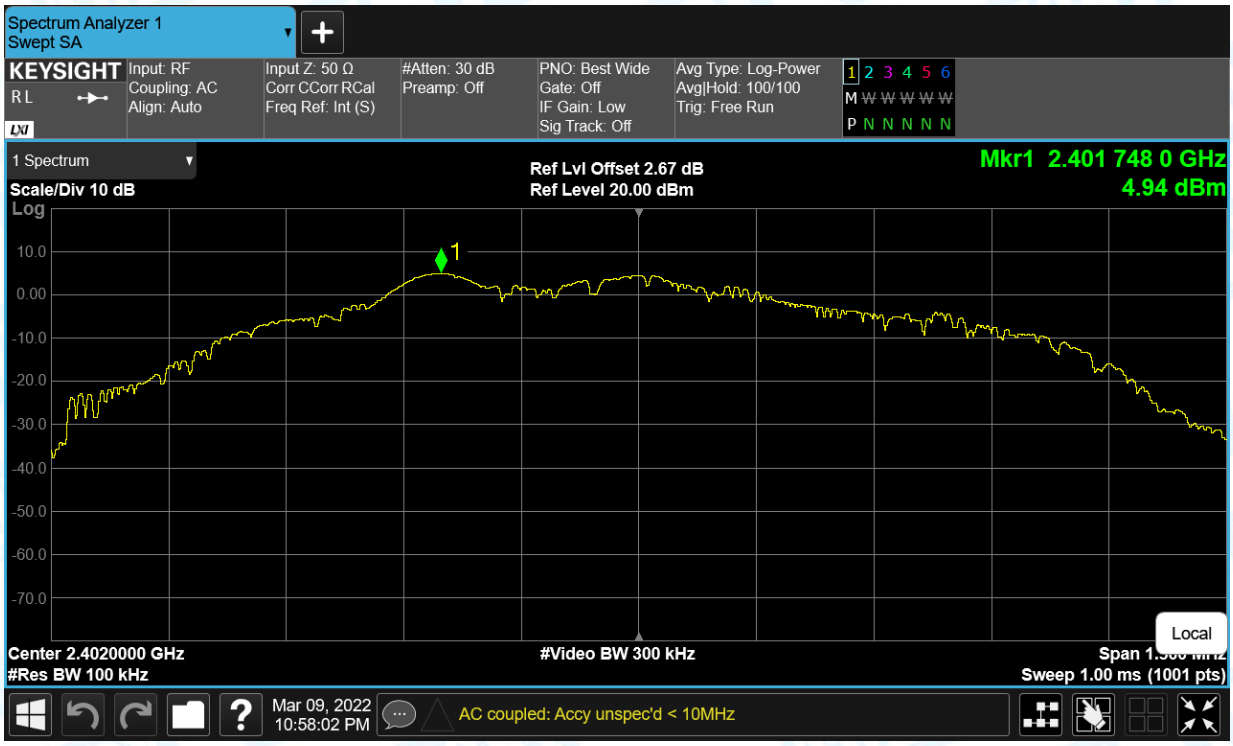


7.Conducted RF Spurious Emission

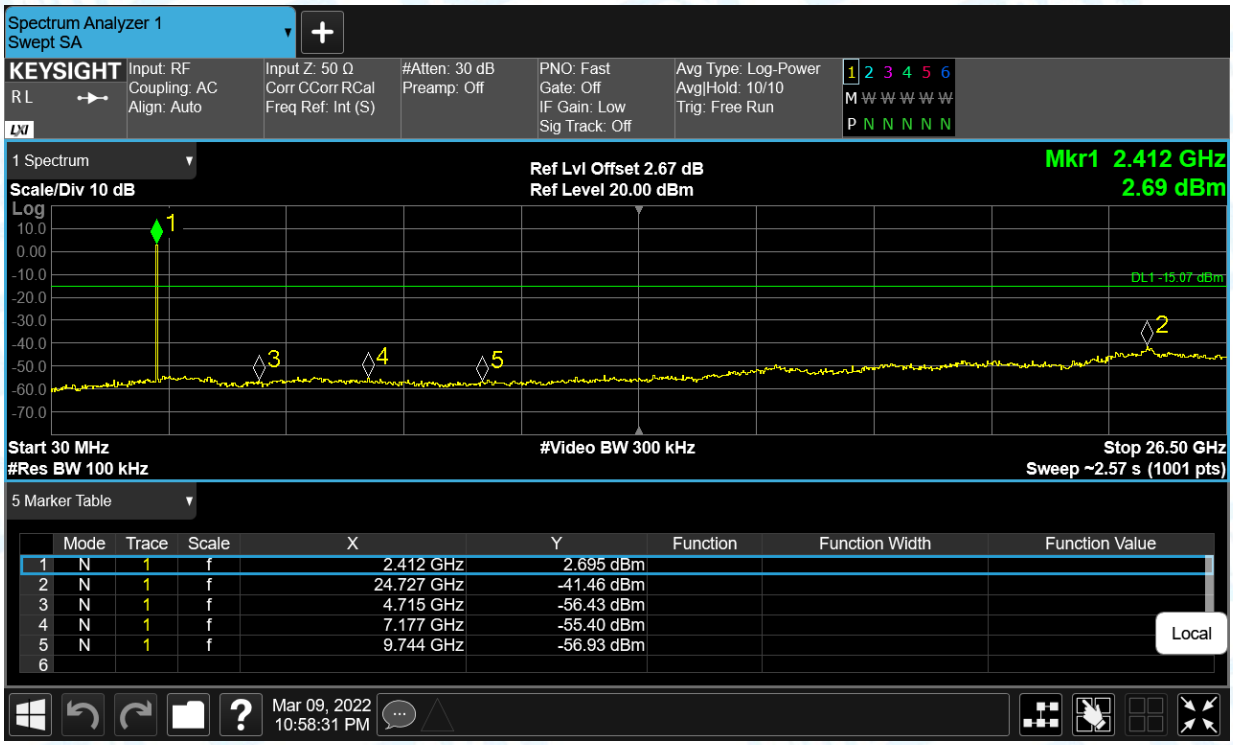
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-46.4	-20	Pass
NVNT	BLE 1Mbps	2440	Ant1	-47.29	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-46.66	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-45.7	-20	Pass
NVNT	BLE 2Mbps	2440	Ant1	-46.34	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-45.03	-20	Pass

Test Graphs

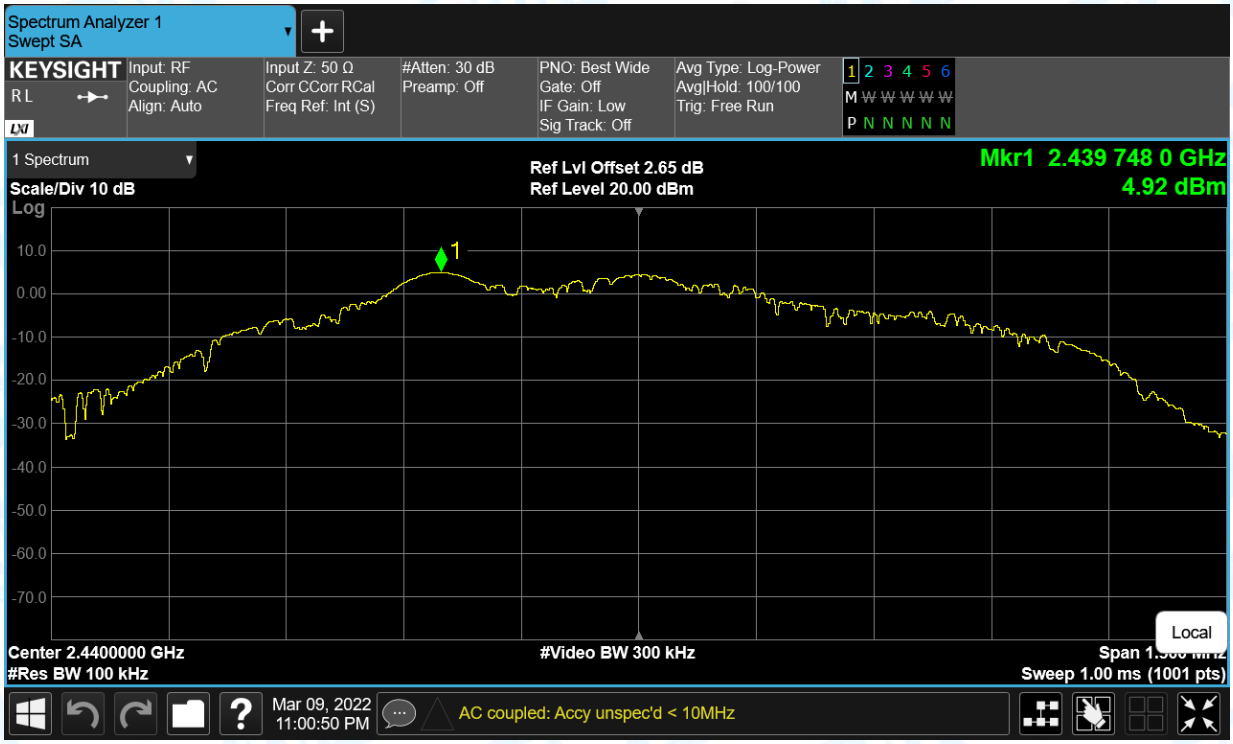
Tx. Spurious NVNT BLE 1Mbps 2402MHz Ant1 Ref



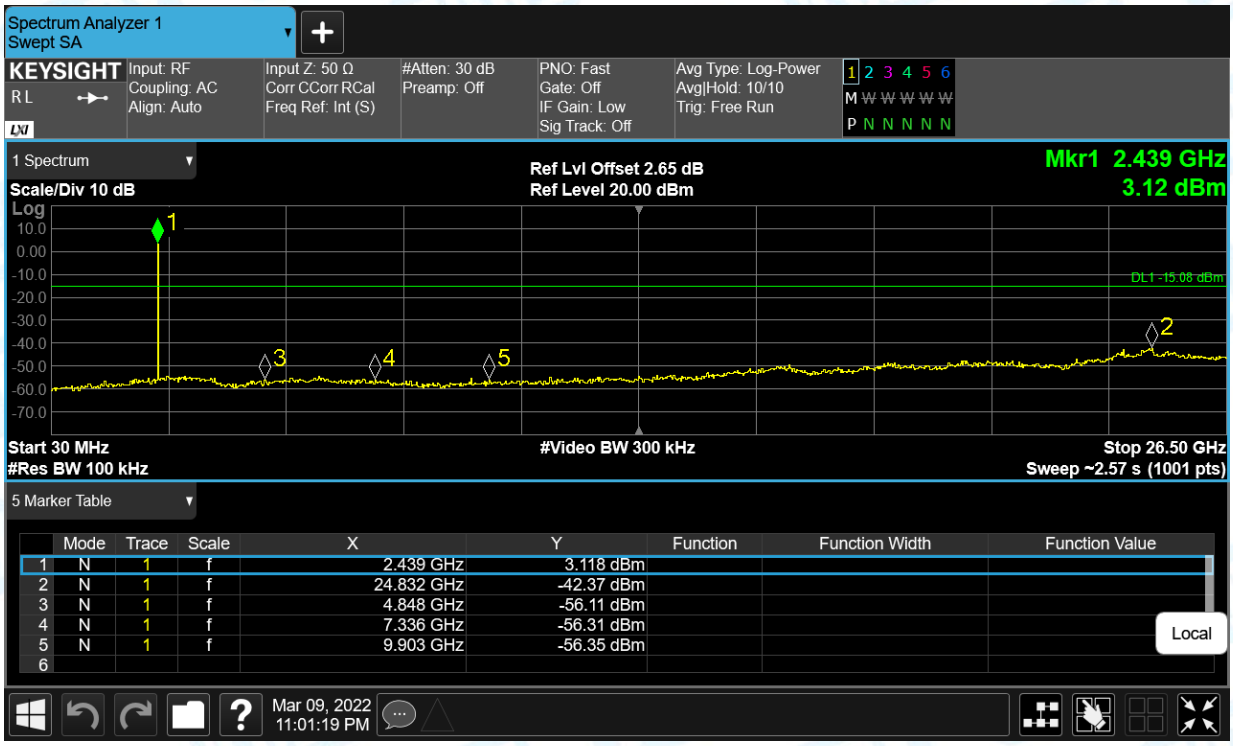
Tx. Spurious NVNT BLE 1Mbps 2402MHz Ant1 Emission



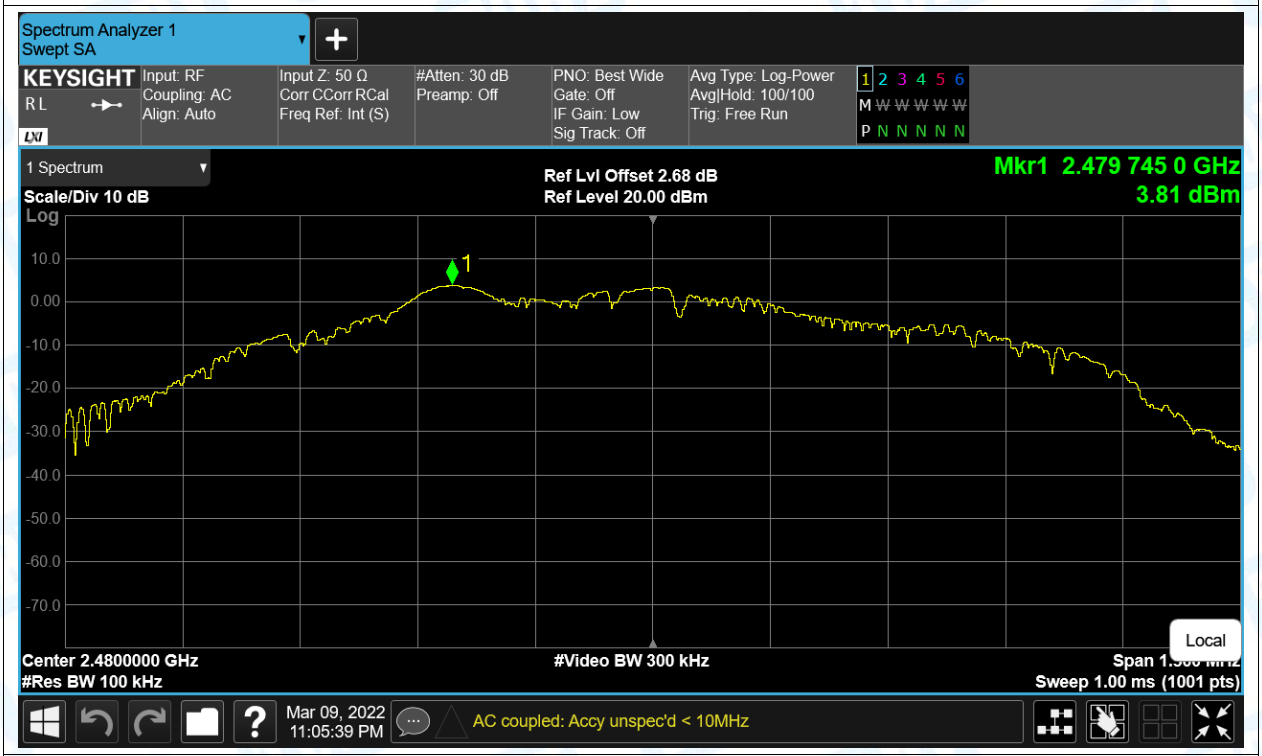
Tx. Spurious NVNT BLE 1Mbps 2440MHz Ant1 Ref



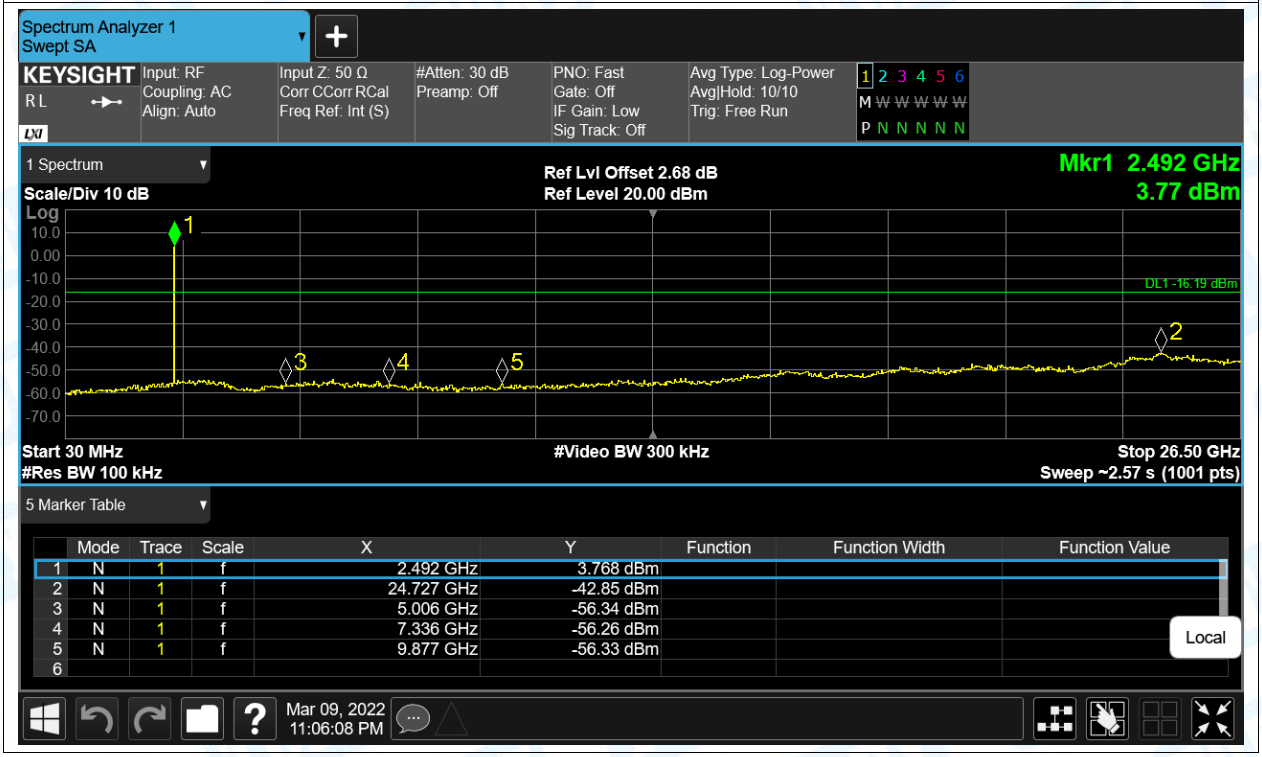
Tx. Spurious NVNT BLE 1Mbps 2440MHz Ant1 Emission



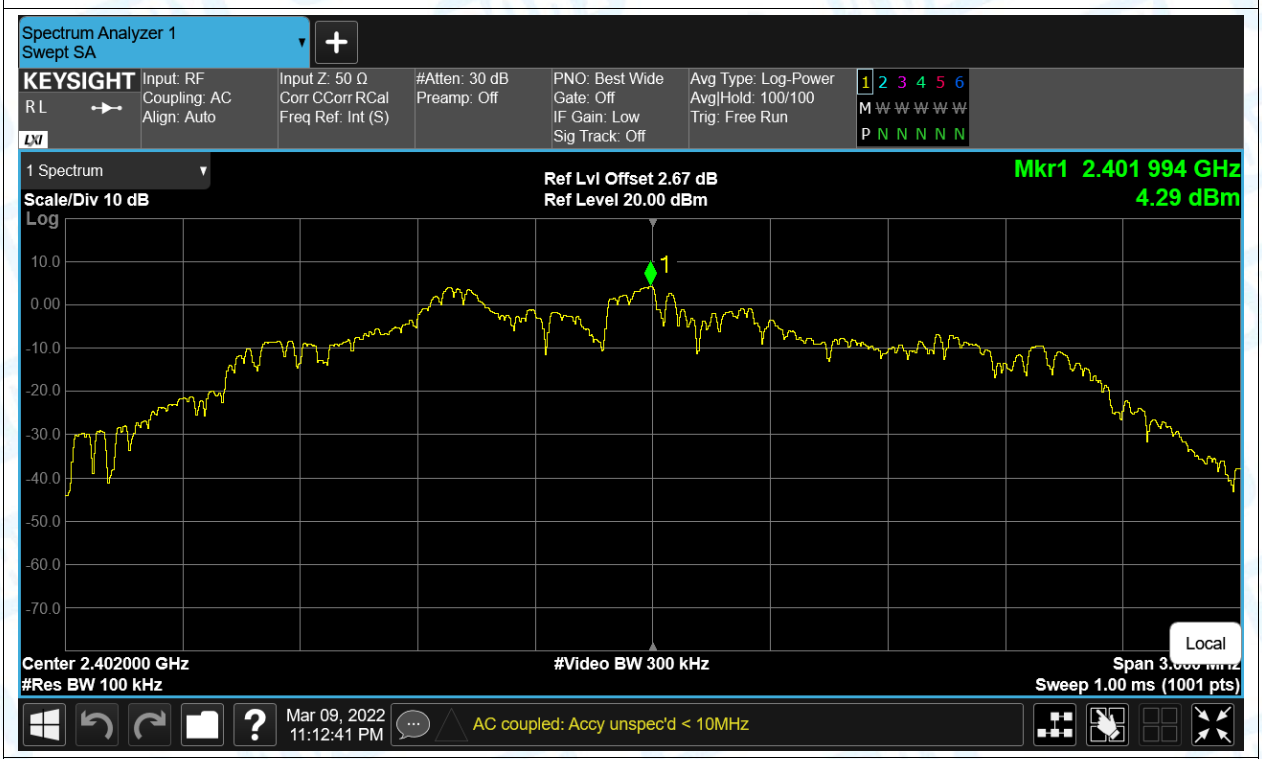
Tx. Spurious NVNT BLE 1Mbps 2480MHz Ant1 Ref



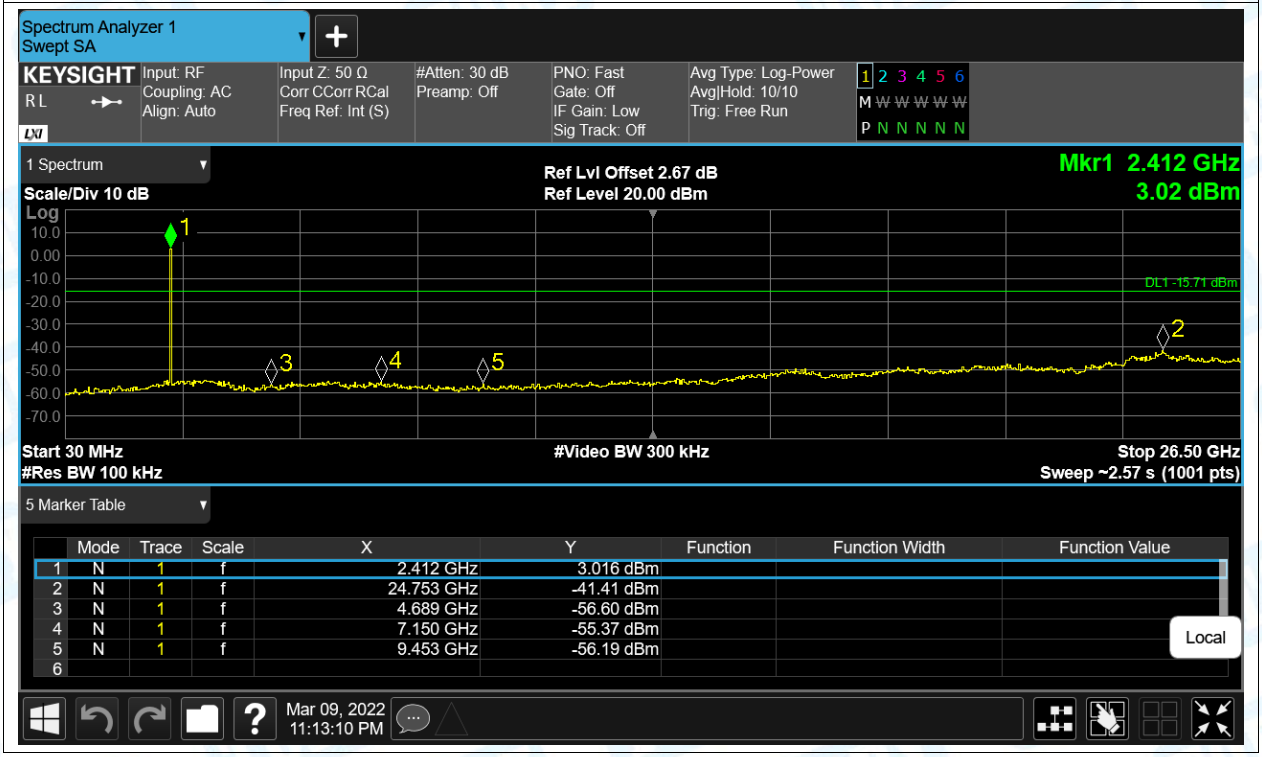
Tx. Spurious NVNT BLE 1Mbps 2480MHz Ant1 Emission



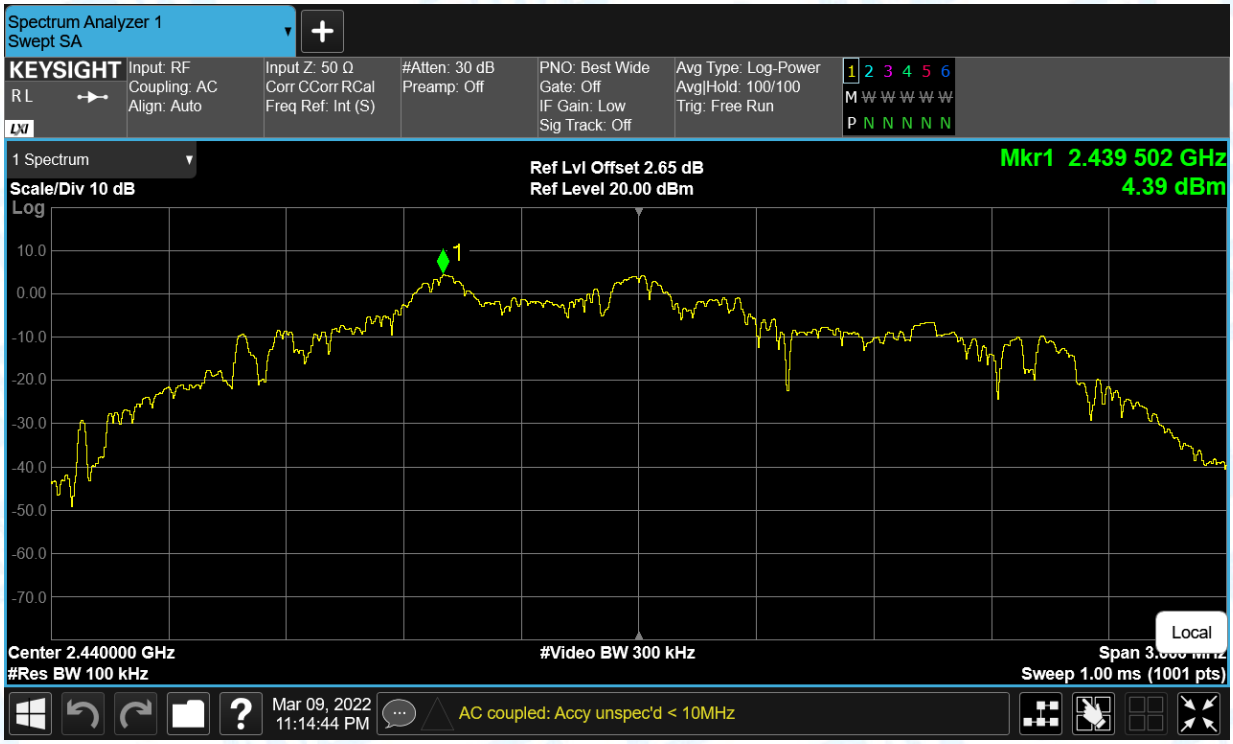
Tx. Spurious NVNT BLE 2Mbps 2402MHz Ant1 Ref



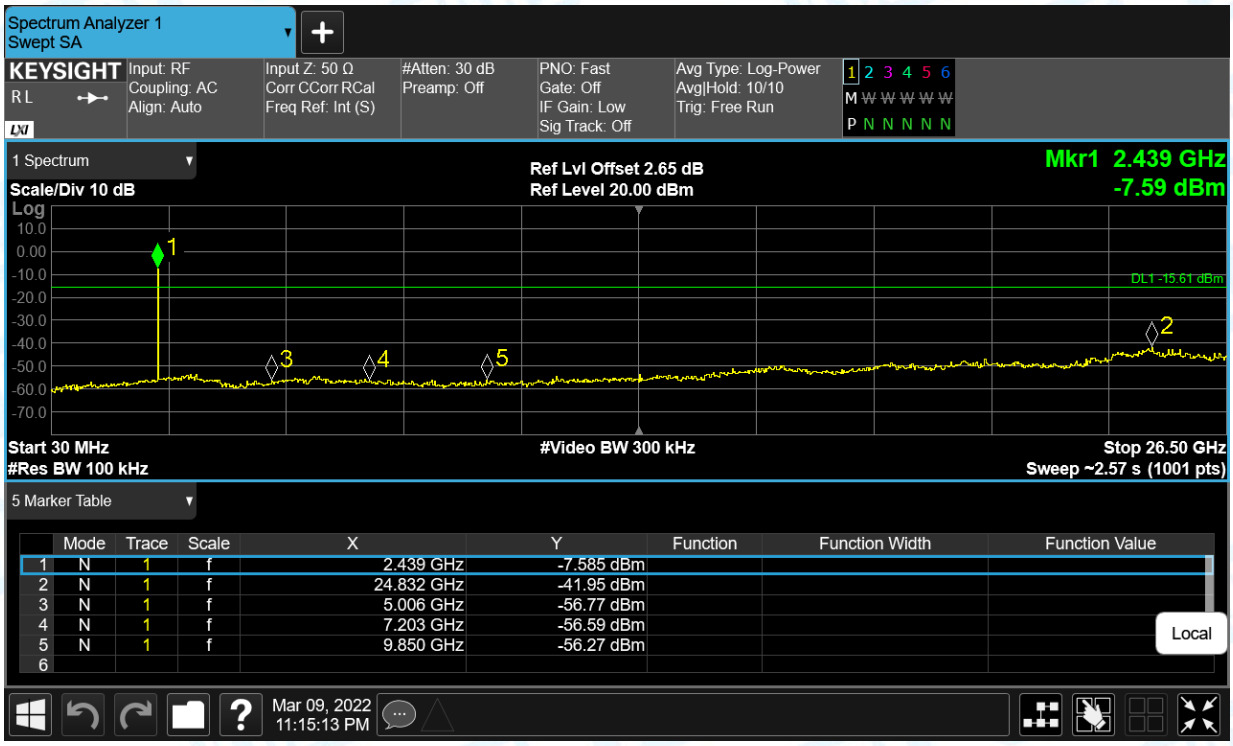
Tx. Spurious NVNT BLE 2Mbps 2402MHz Ant1 Emission



Tx. Spurious NVNT BLE 2Mbps 2440MHz Ant1 Ref

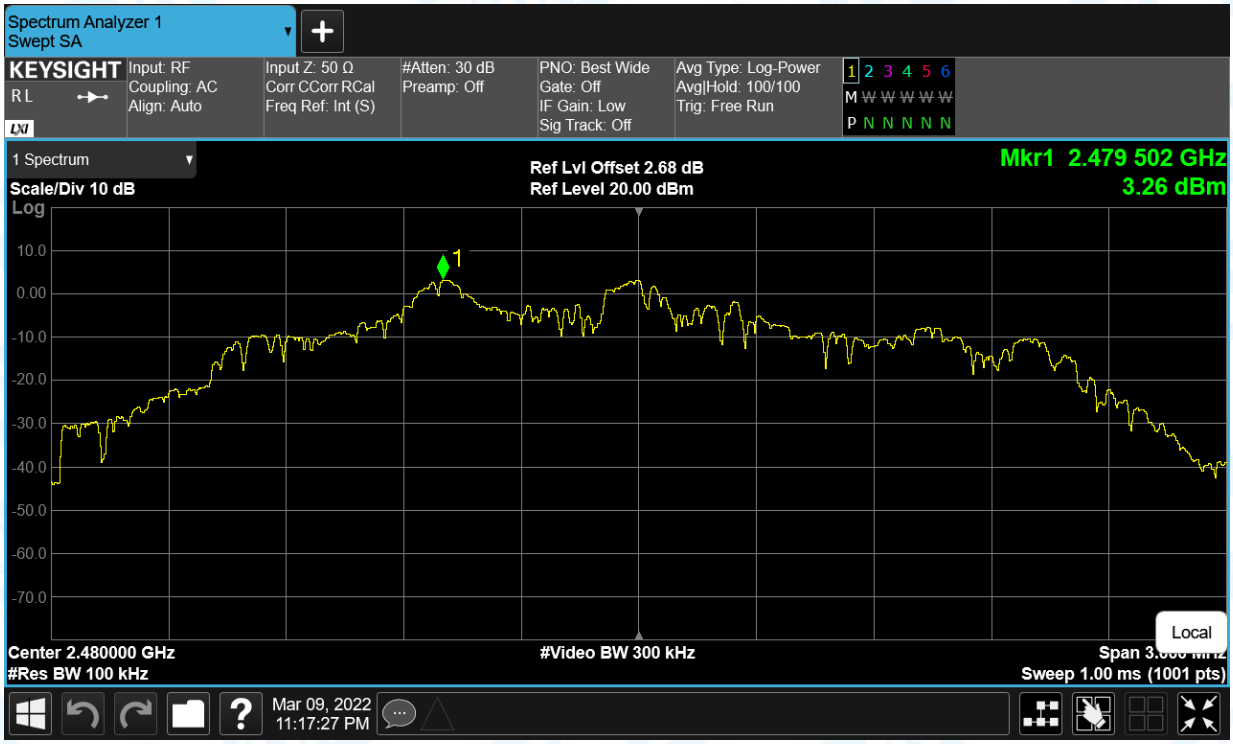


Tx. Spurious NVNT BLE 2Mbps 2440MHz Ant1 Emission

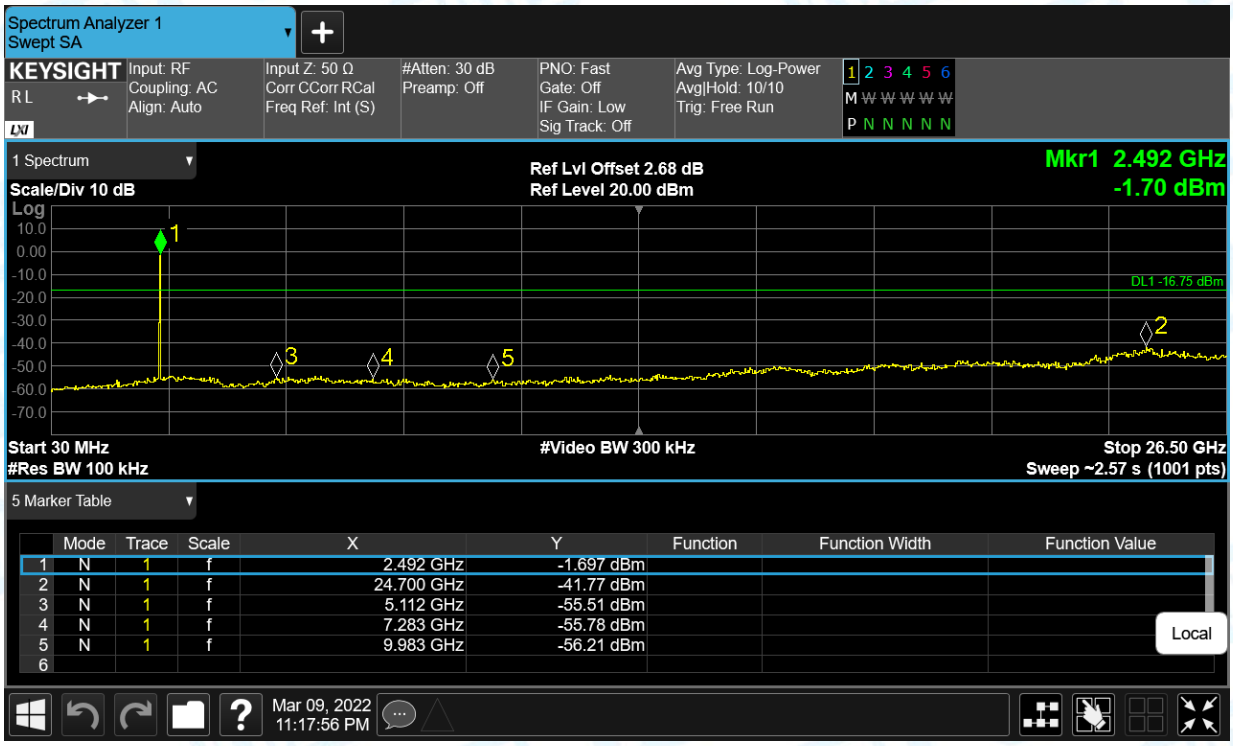


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.439 GHz	-7.585 dBm			
2	N	1	f	24.832 GHz	-41.95 dBm			
3	N	1	f	5.006 GHz	-56.77 dBm			
4	N	1	f	7.203 GHz	-56.59 dBm			
5	N	1	f	9.850 GHz	-56.27 dBm			
6								

Tx. Spurious NVNT BLE 2Mbps 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 2Mbps 2480MHz Ant1 Emission



	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.492 GHz	-1.697 dBm			
2	N	1	f	24.700 GHz	-41.77 dBm			
3	N	1	f	5.112 GHz	-55.51 dBm			
4	N	1	f	7.283 GHz	-55.78 dBm			
5	N	1	f	9.983 GHz	-56.21 dBm			
6								

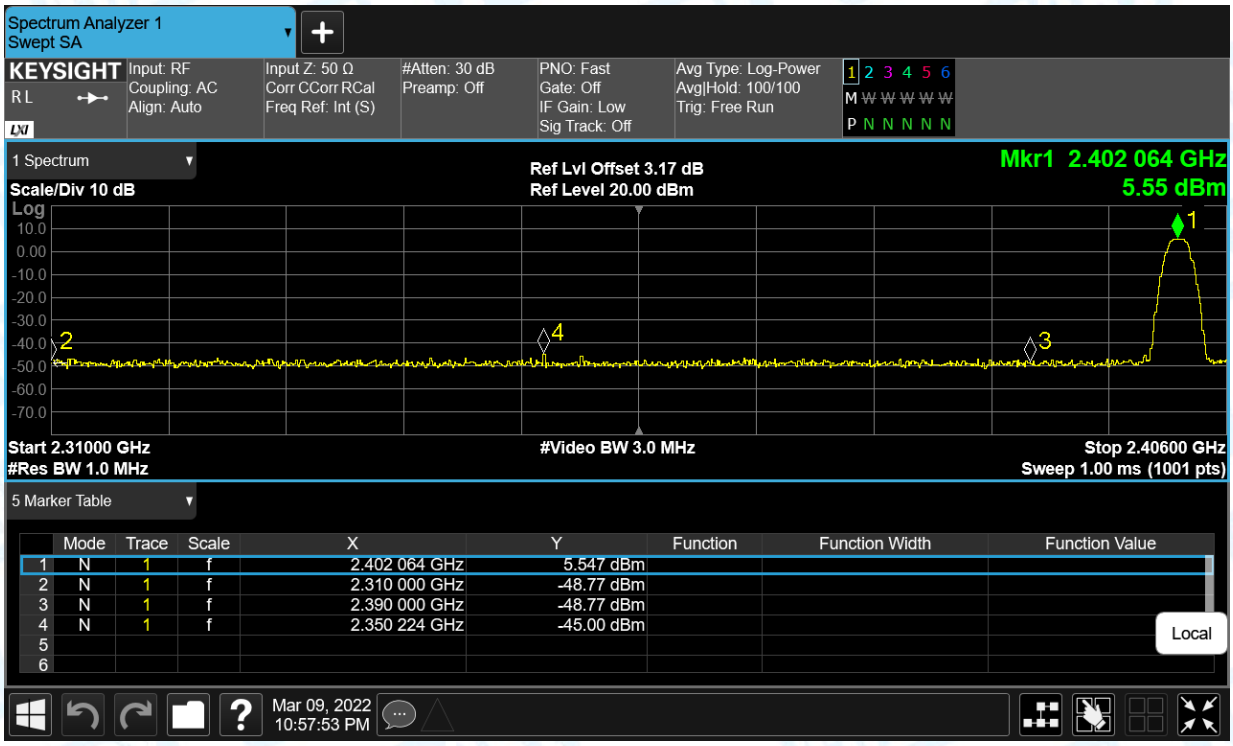
8.Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2310	-48.77	2	48.49	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2310	-57.42	2	39.84	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2350.224	-45	2	52.26	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2338.224	-56.01	2	41.25	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-49.16	2	48.1	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-56.97	2	40.29	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-49.61	2	47.65	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-56.3	2	40.96	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2498.056	-45.47	2	51.79	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2484.232	-55.57	2	41.69	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-47.77	2	49.49	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-56.57	2	40.69	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-47.76	2	49.5	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-56.08	2	41.18	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2387.472	-46.09	2	51.17	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2377.968	-54.54	2	42.72	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-47.93	2	49.33	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-55.97	2	41.29	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-47.49	2	49.77	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-55.91	2	41.35	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.584	-45.64	2	51.62	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.848	-55	2	42.26	Average	54	Pass

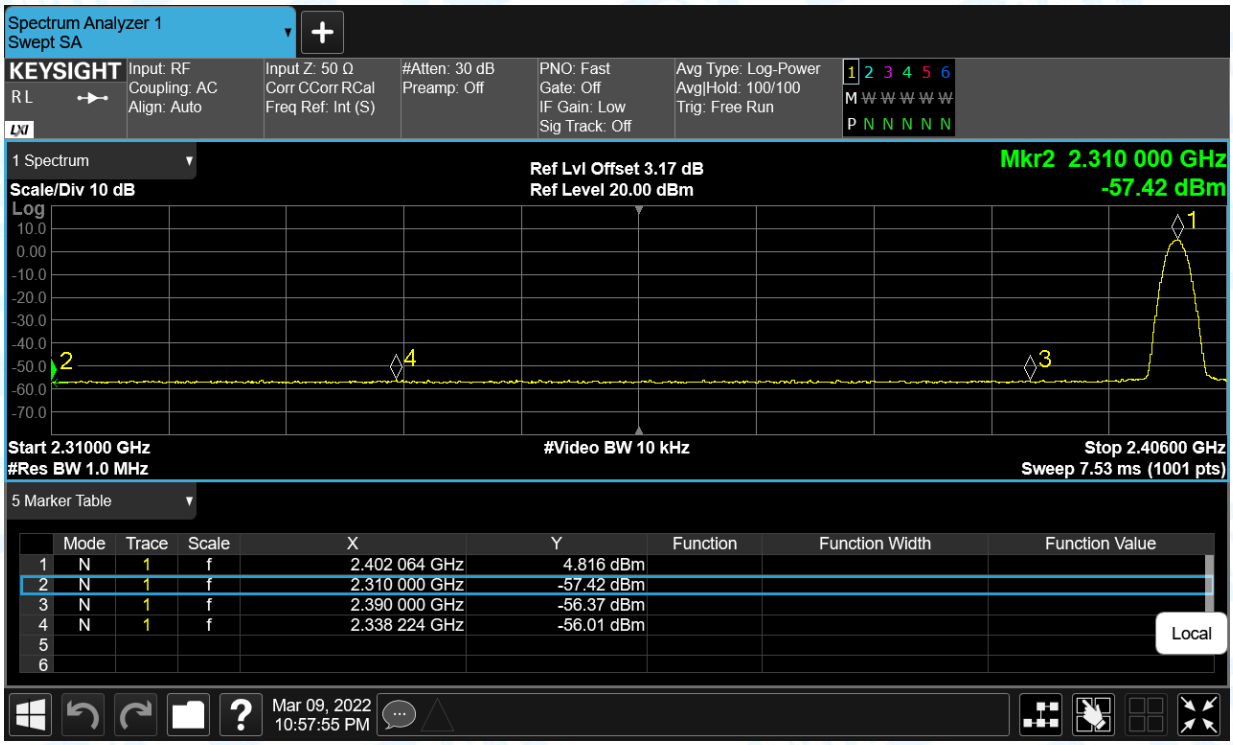
NVNT	BLE 2Mbps	2480	Ant1	2500	-49.16	2	48.1	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2500	-55.94	2	41.32	Average	54	Pass

Test Graphs

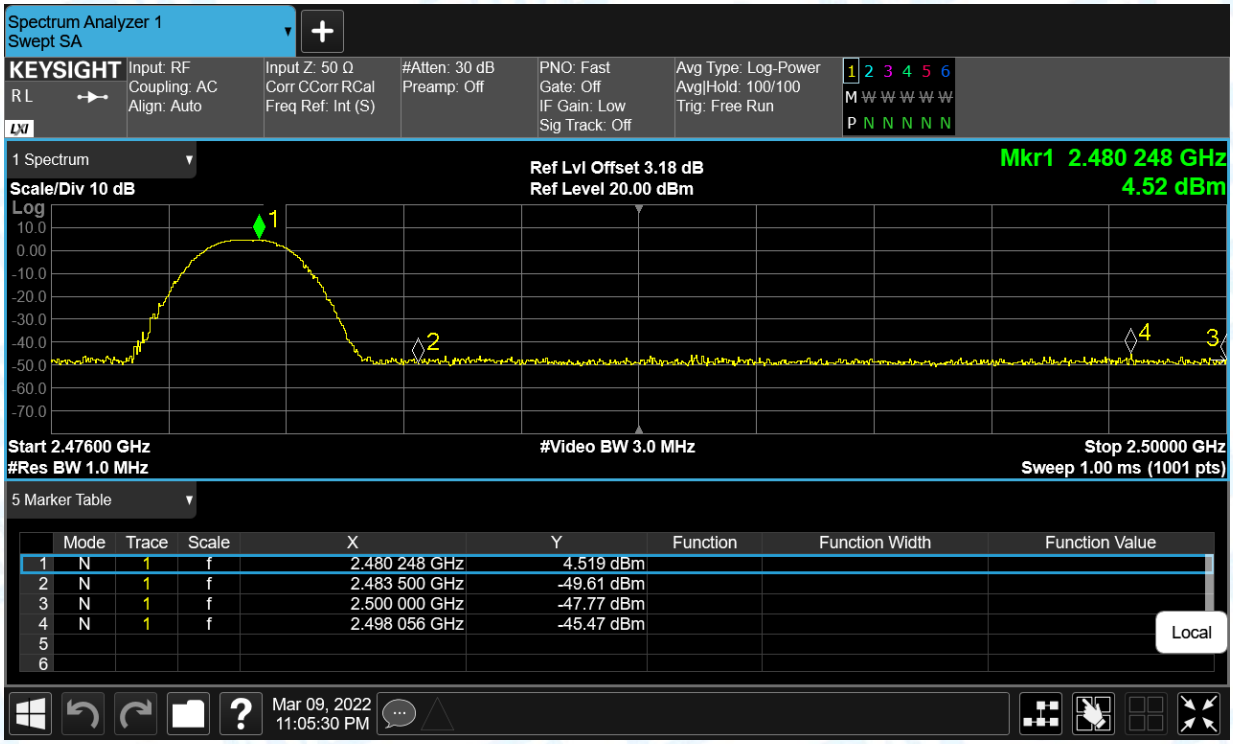
Restrict Band NVNT BLE 1Mbps 2402MHz Ant1 Peak



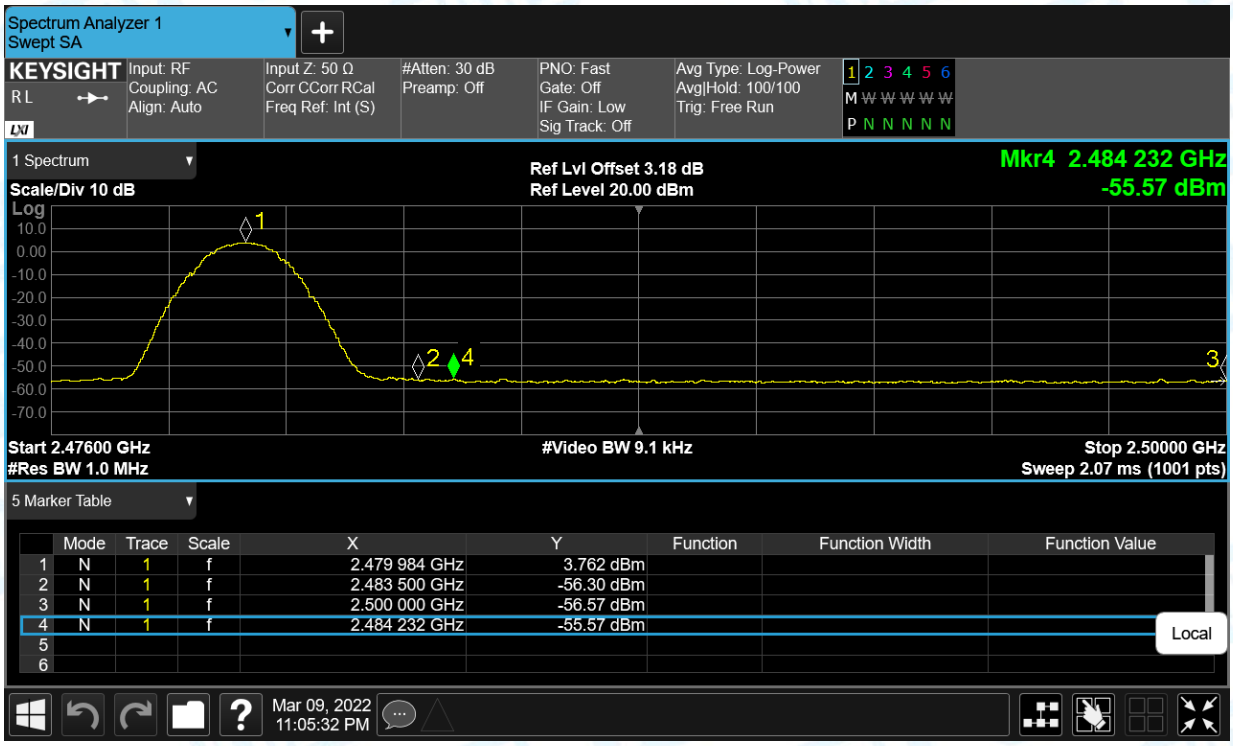
Restrict Band NVNT BLE 1Mbps 2402MHz Ant1 Average



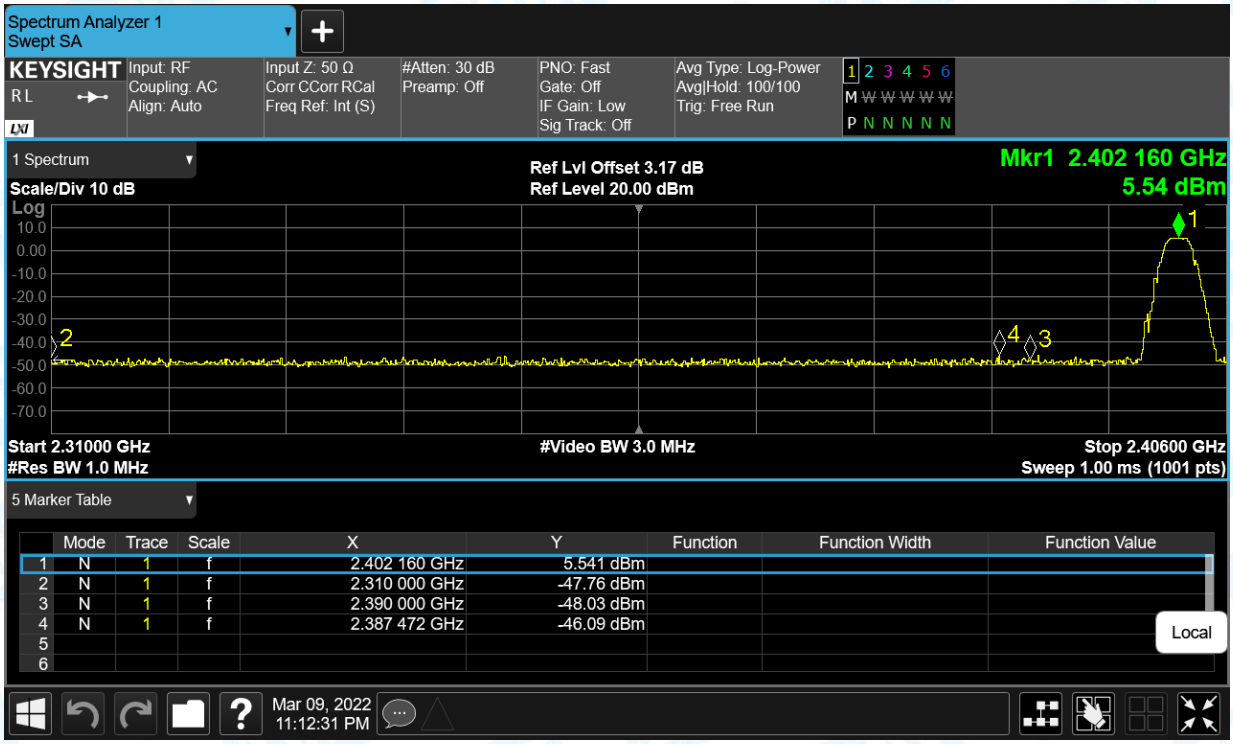
Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Peak



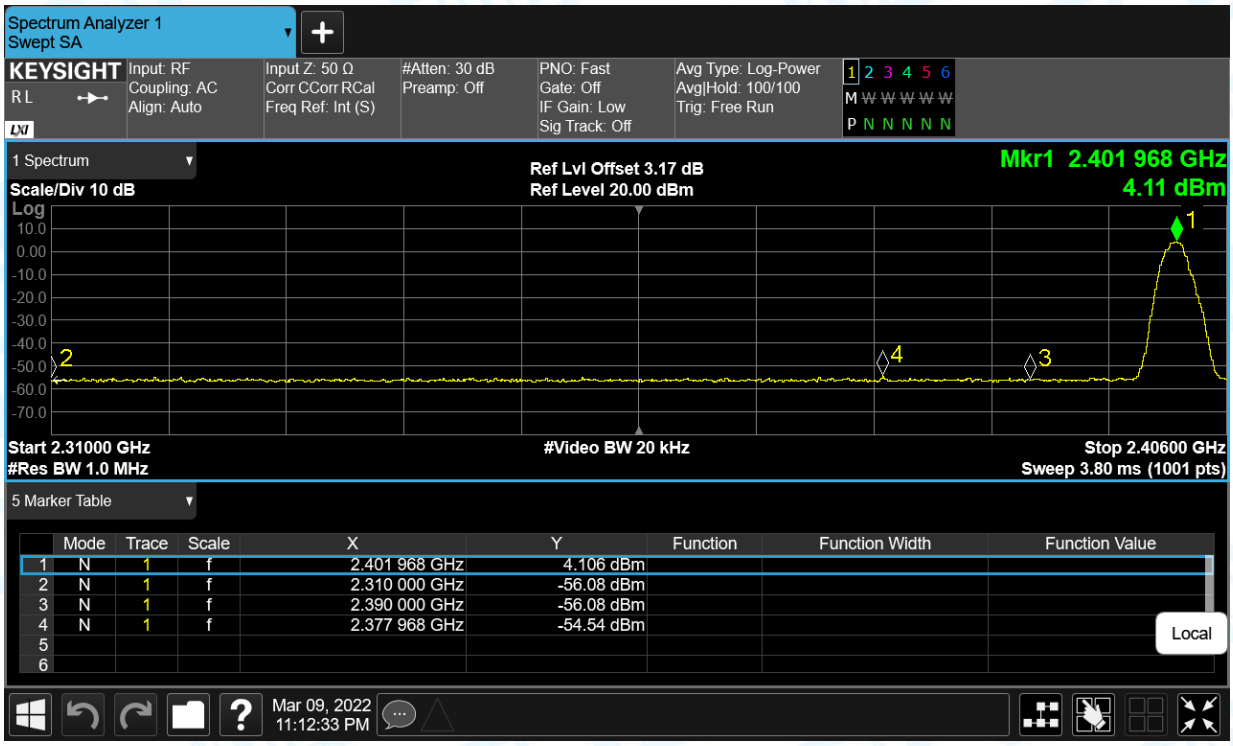
Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Average



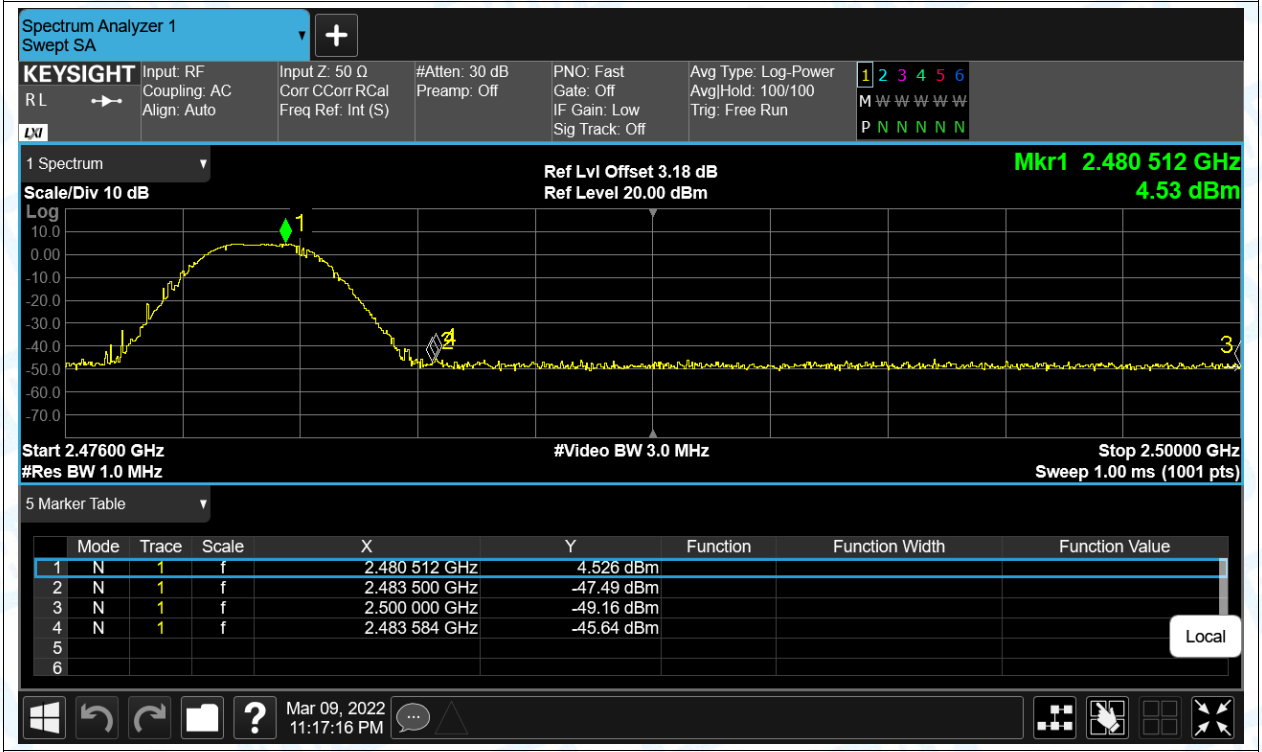
Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Peak



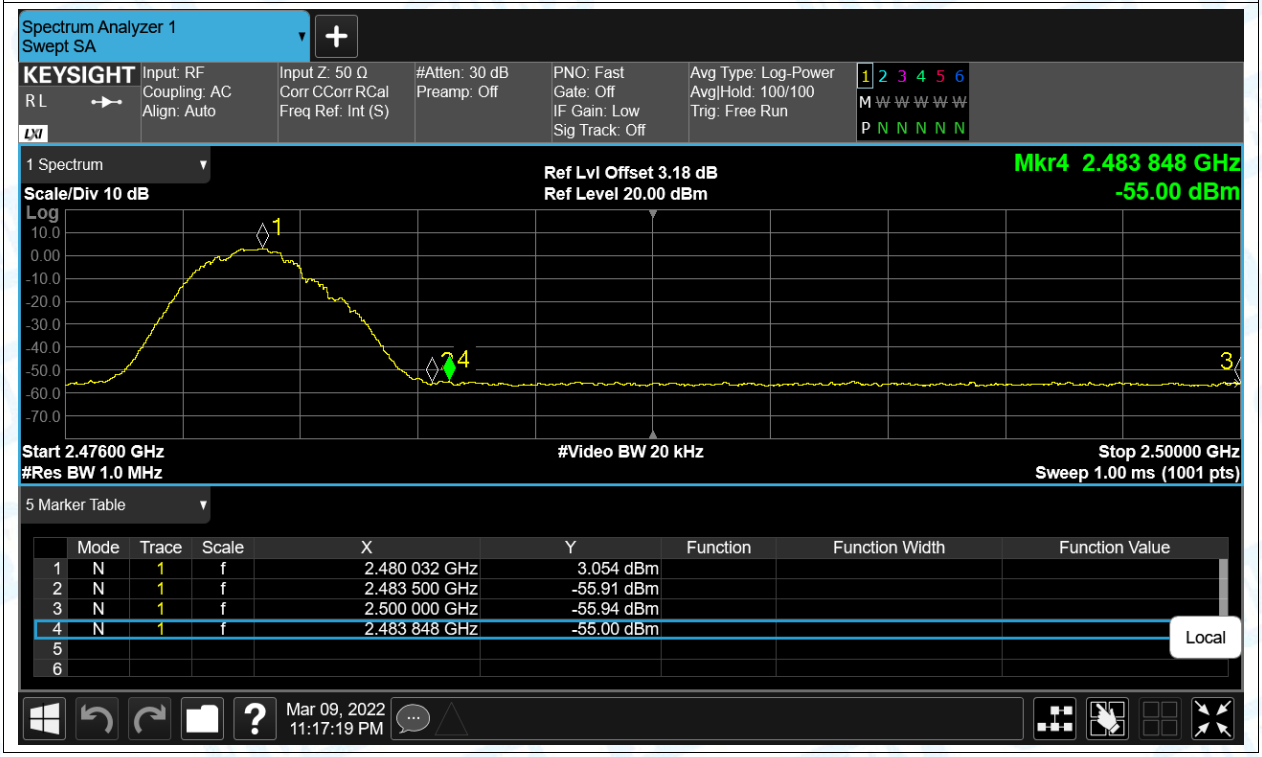
Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Average



Restrict Band NVNT BLE 2Mbps 2480MHz Ant1 Peak



Restrict Band NVNT BLE 2Mbps 2480MHz Ant1 Average



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