

RF Test Data for Bluetooth LE

(Conducted Measurements)

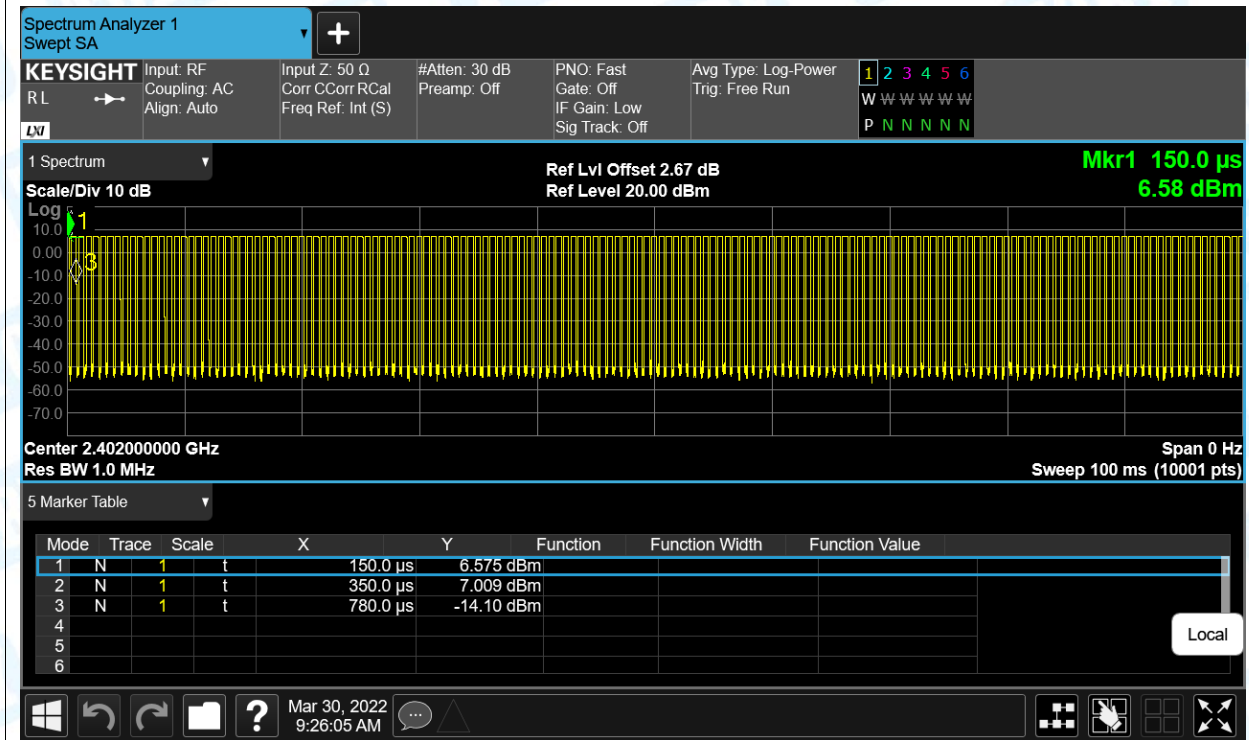
General Description of EUT	
Product Name:	Smart Watch
Test Model:	KT58
Sample ID:	202203-0044-2-2#
Environmental Conditions	
Temperature:	24℃
Relative Humidity:	50%
Test Voltage:	DC 3.7V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202203-0044-2.	

Duty Cycle

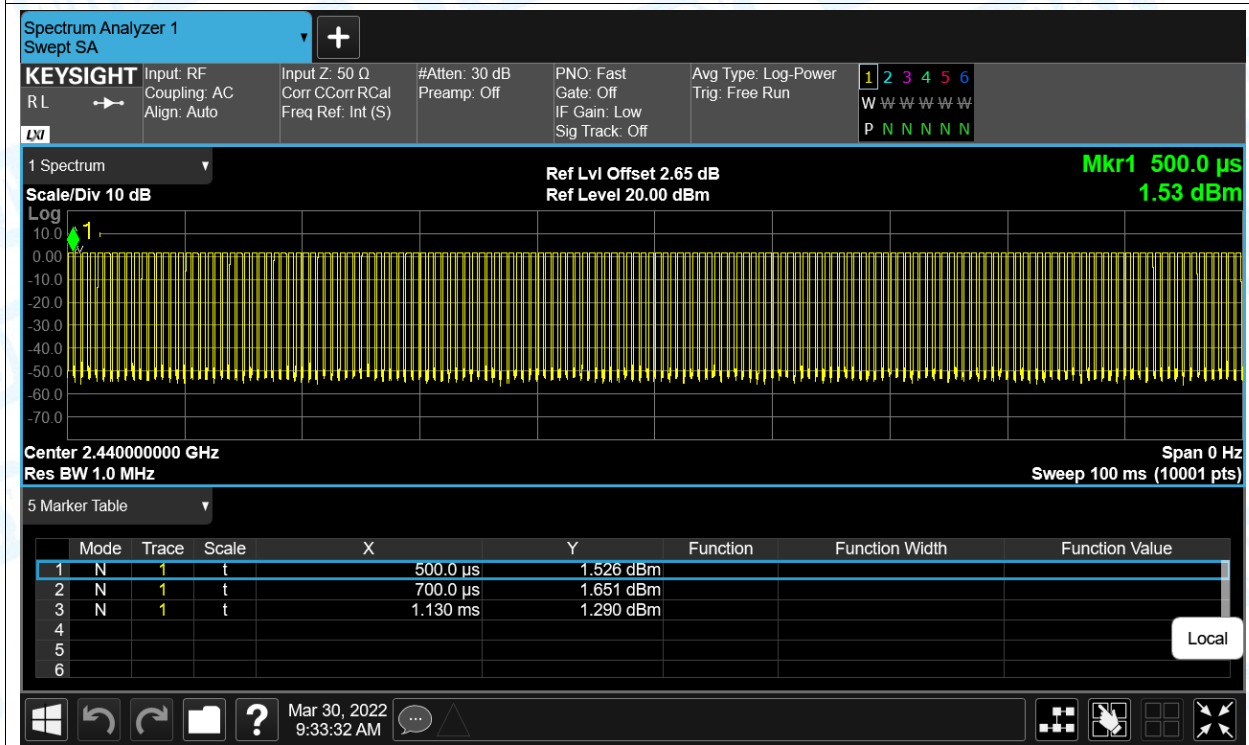
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1Mbps	2402	Ant1	69.8	1.56	2.33
NVNT	BLE 1Mbps	2440	Ant1	70.39	1.52	2.33
NVNT	BLE 1Mbps	2480	Ant1	70	1.55	2.38
NVNT	BLE 2Mbps	2402	Ant1	41.27	3.84	4
NVNT	BLE 2Mbps	2440	Ant1	41.6	3.81	4
NVNT	BLE 2Mbps	2480	Ant1	41.6	3.81	4

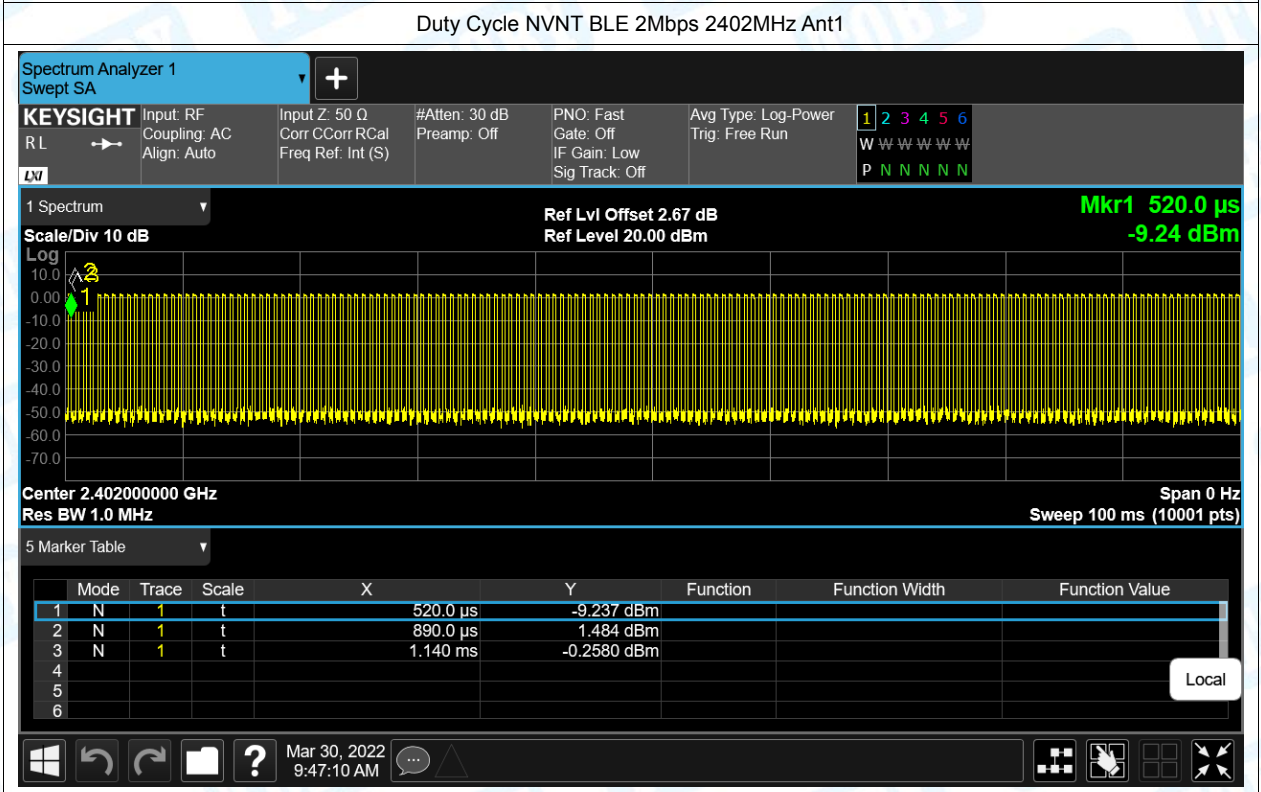
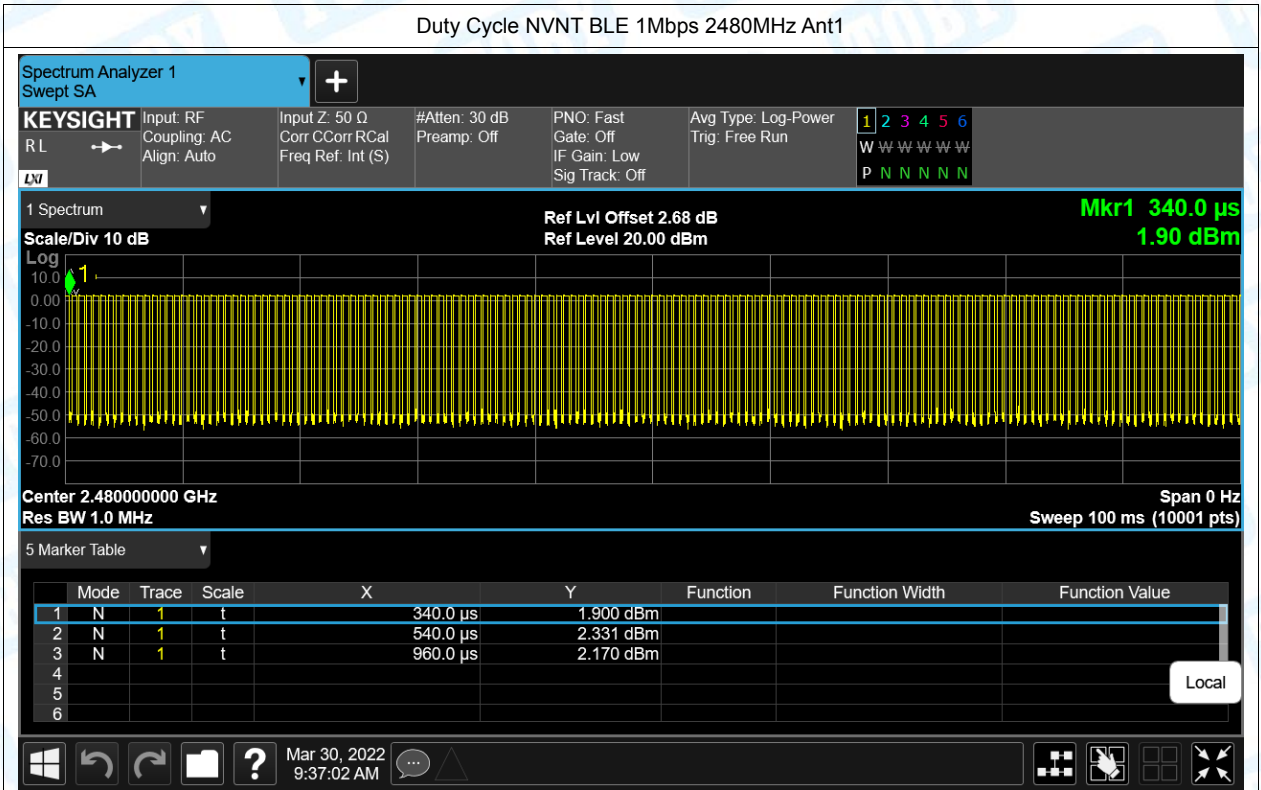
Test Graphs

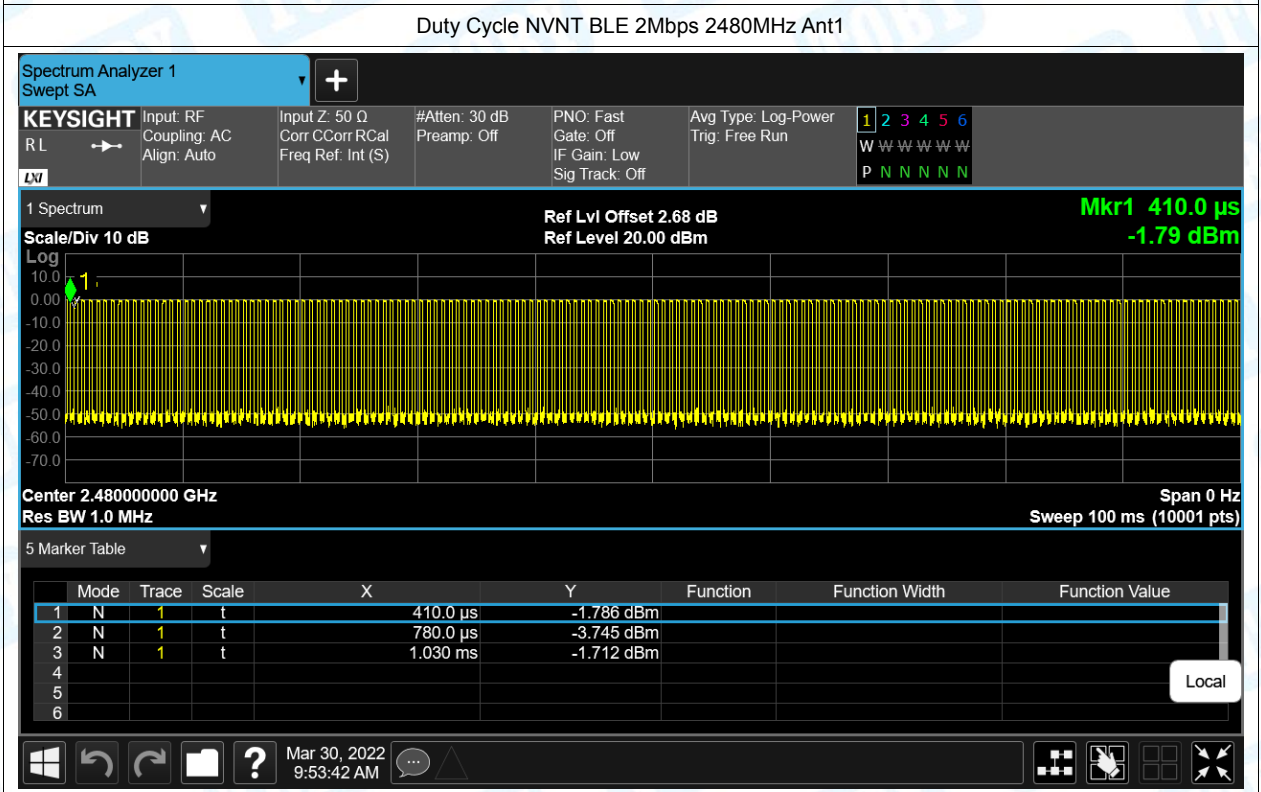
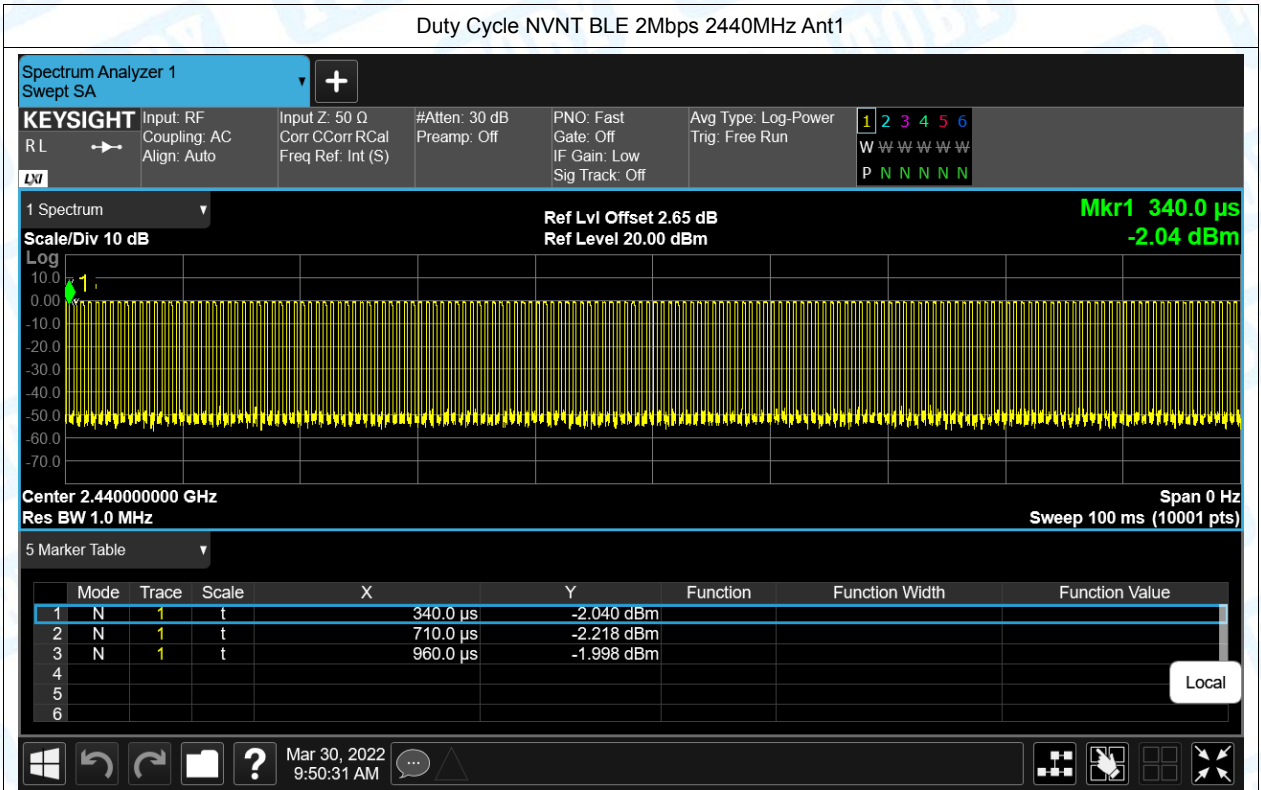
Duty Cycle NVNT BLE 1Mbps 2402MHz Ant1



Duty Cycle NVNT BLE 1Mbps 2440MHz Ant1

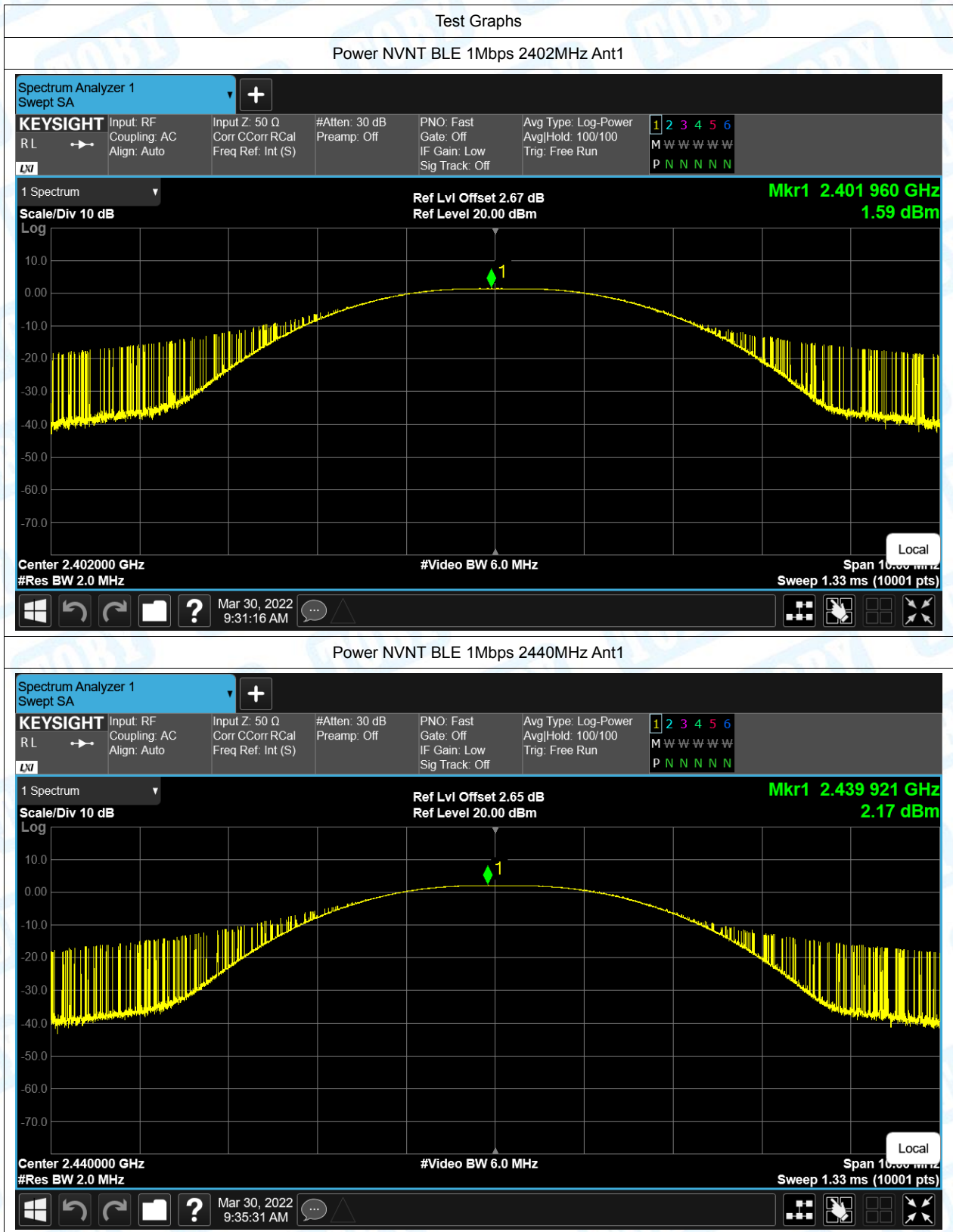


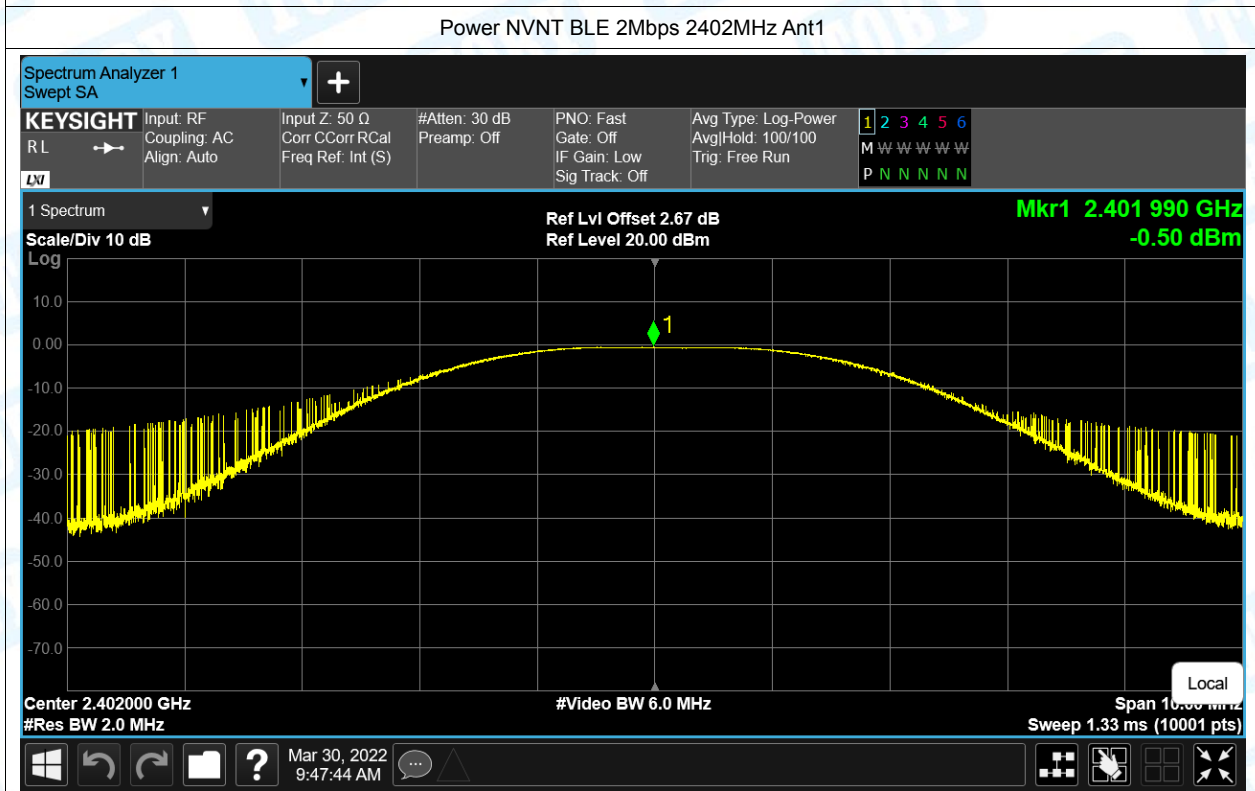
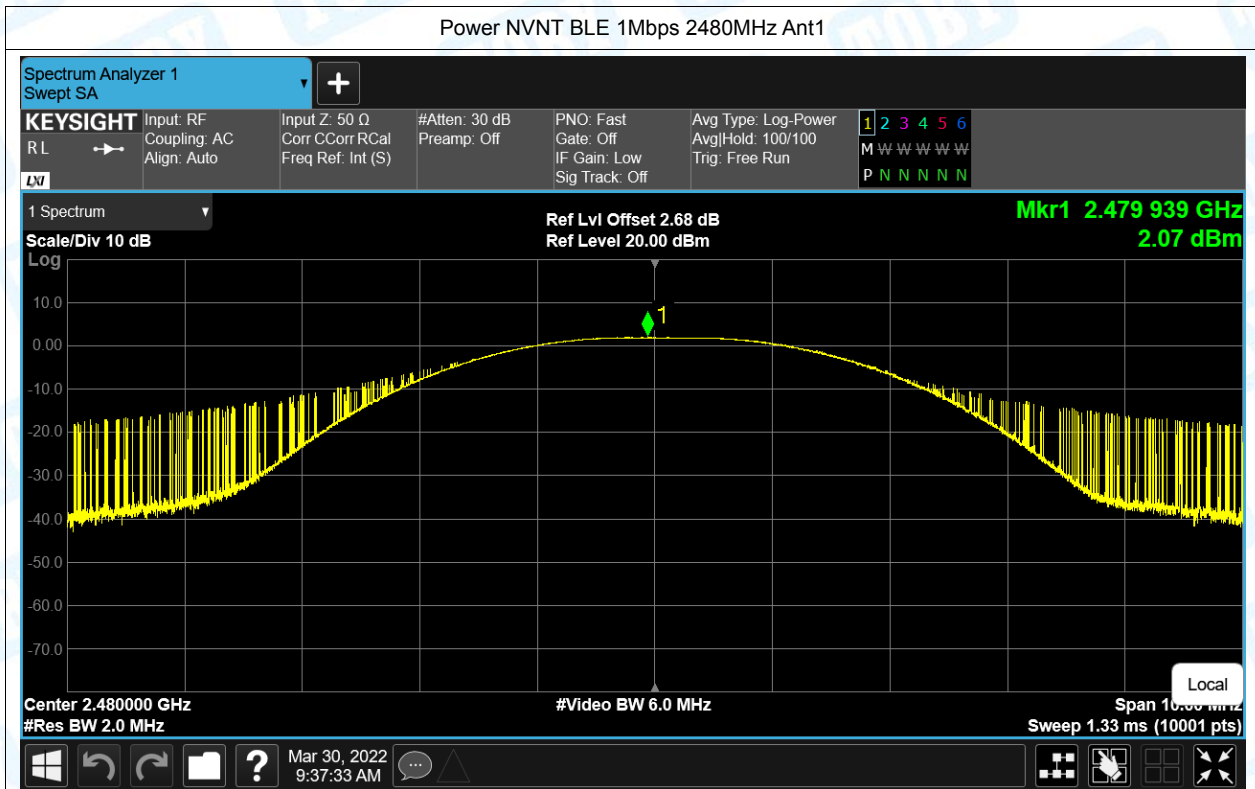


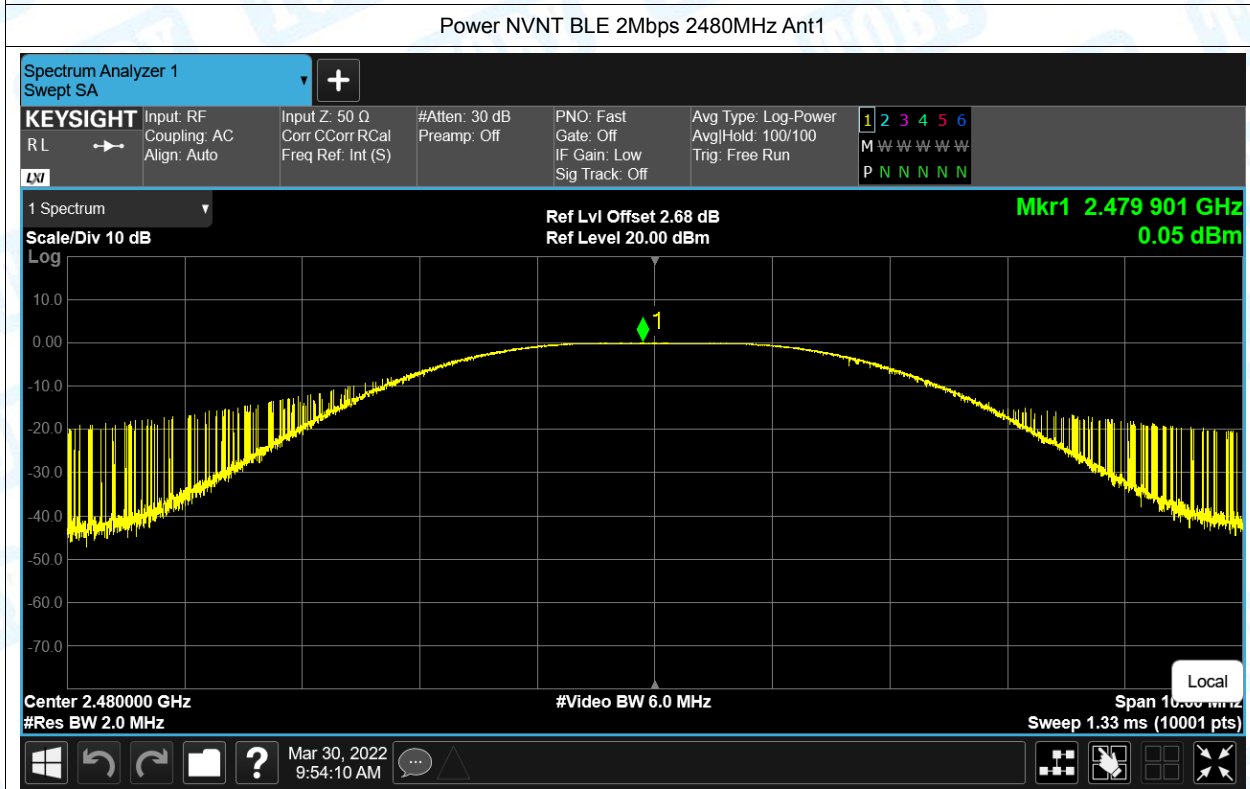
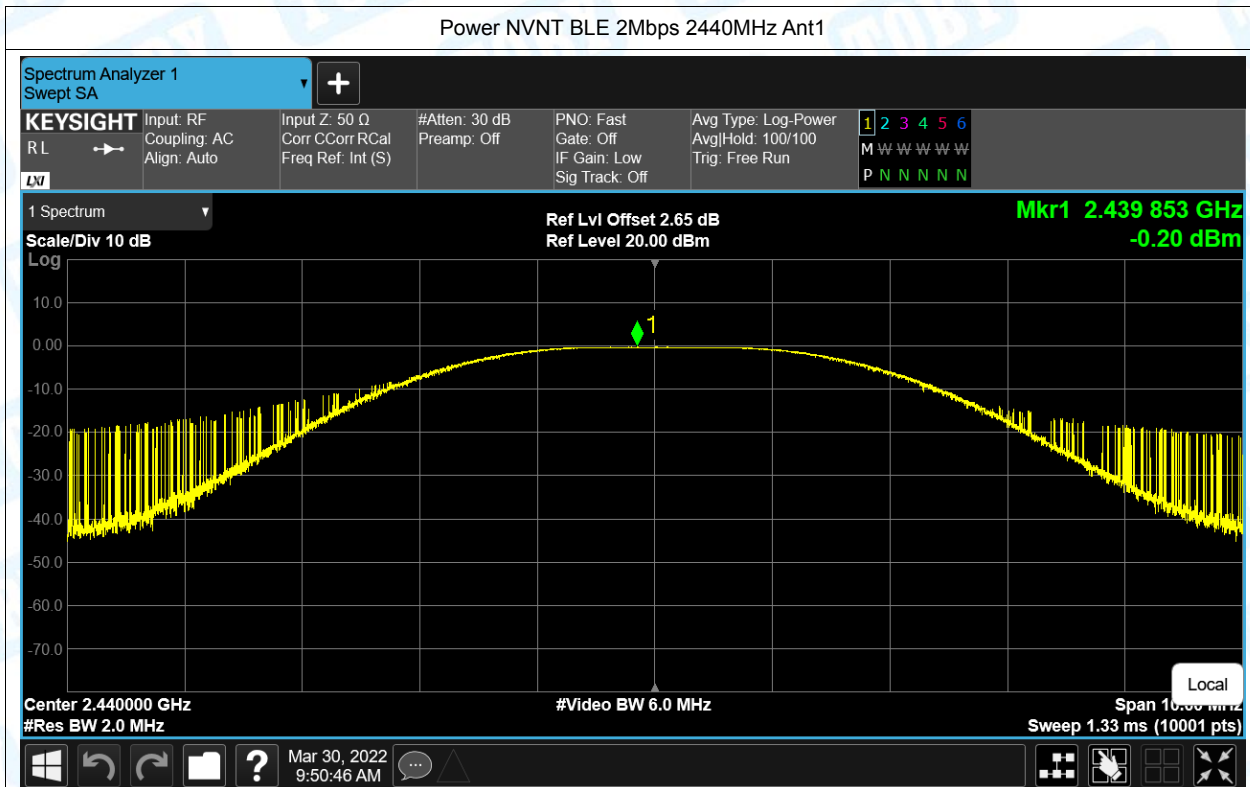


Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	1.59	30	Pass
NVNT	BLE 1Mbps	2440	Ant1	2.173	30	Pass
NVNT	BLE 1Mbps	2480	Ant1	2.066	30	Pass
NVNT	BLE 2Mbps	2402	Ant1	-0.502	30	Pass
NVNT	BLE 2Mbps	2440	Ant1	-0.201	30	Pass
NVNT	BLE 2Mbps	2480	Ant1	0.046	30	Pass





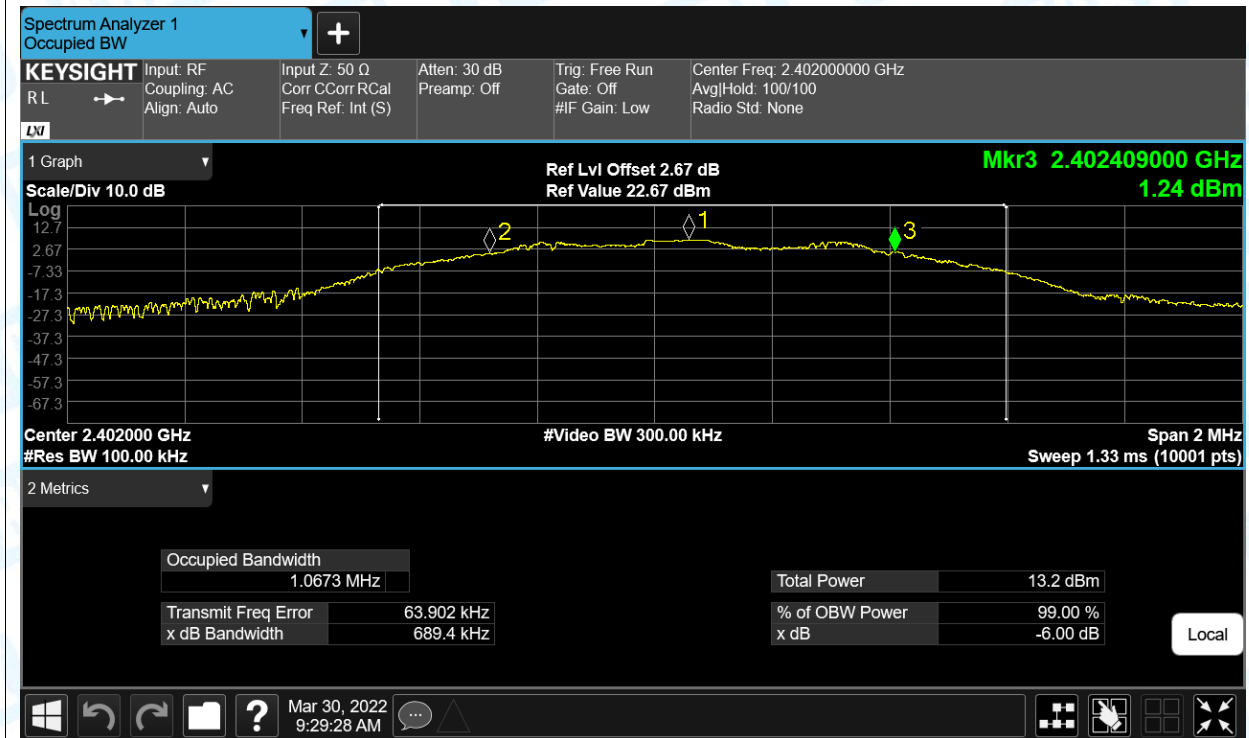


-6dB Bandwidth

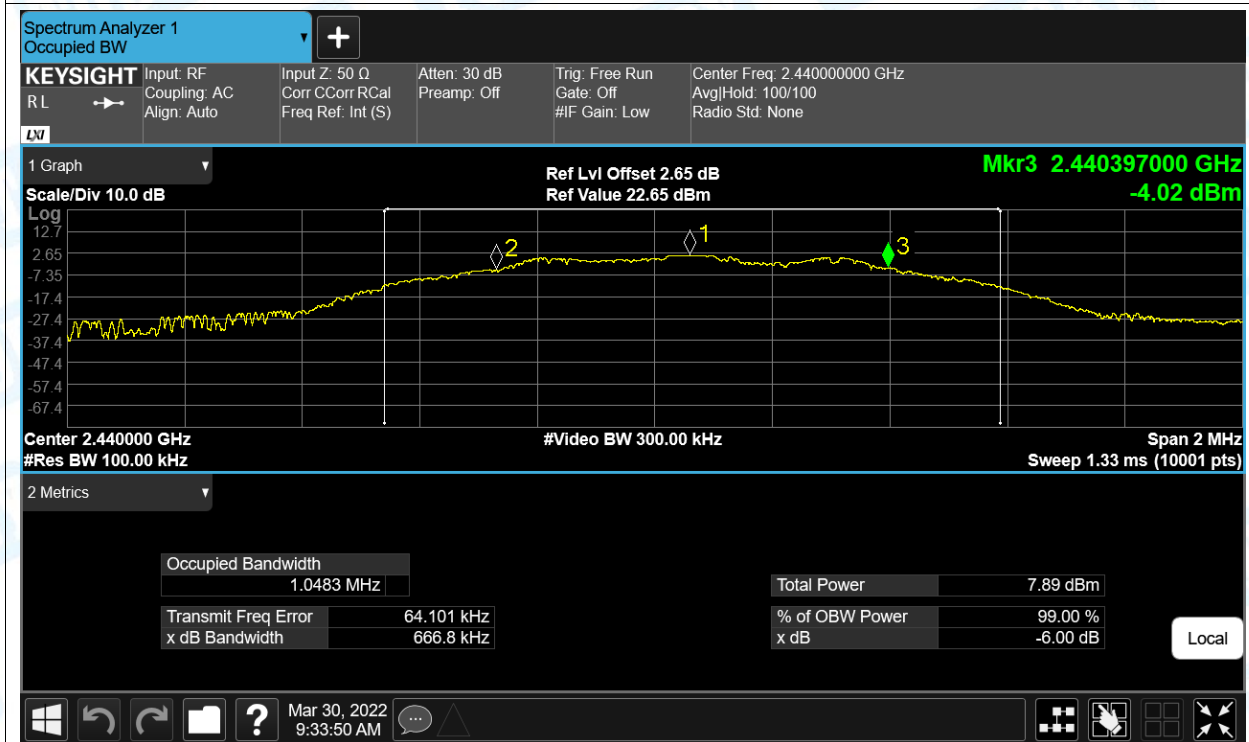
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	0.69	0.5	Pass
NVNT	BLE 1Mbps	2440	Ant1	0.67	0.5	Pass
NVNT	BLE 1Mbps	2480	Ant1	0.64	0.5	Pass
NVNT	BLE 2Mbps	2402	Ant1	0.51	0.5	Pass
NVNT	BLE 2Mbps	2440	Ant1	0.55	0.5	Pass
NVNT	BLE 2Mbps	2480	Ant1	0.55	0.5	Pass

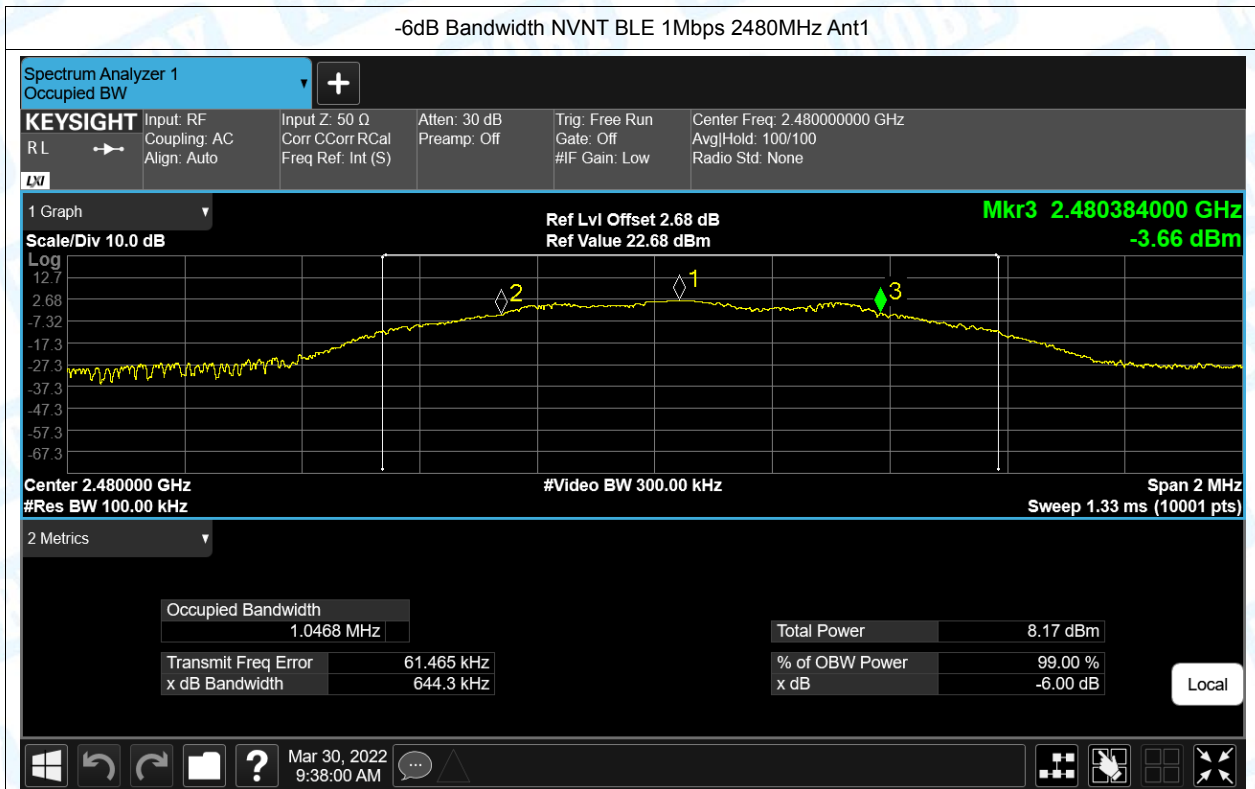
Test Graphs

-6dB Bandwidth NVNT BLE 1Mbps 2402MHz Ant1

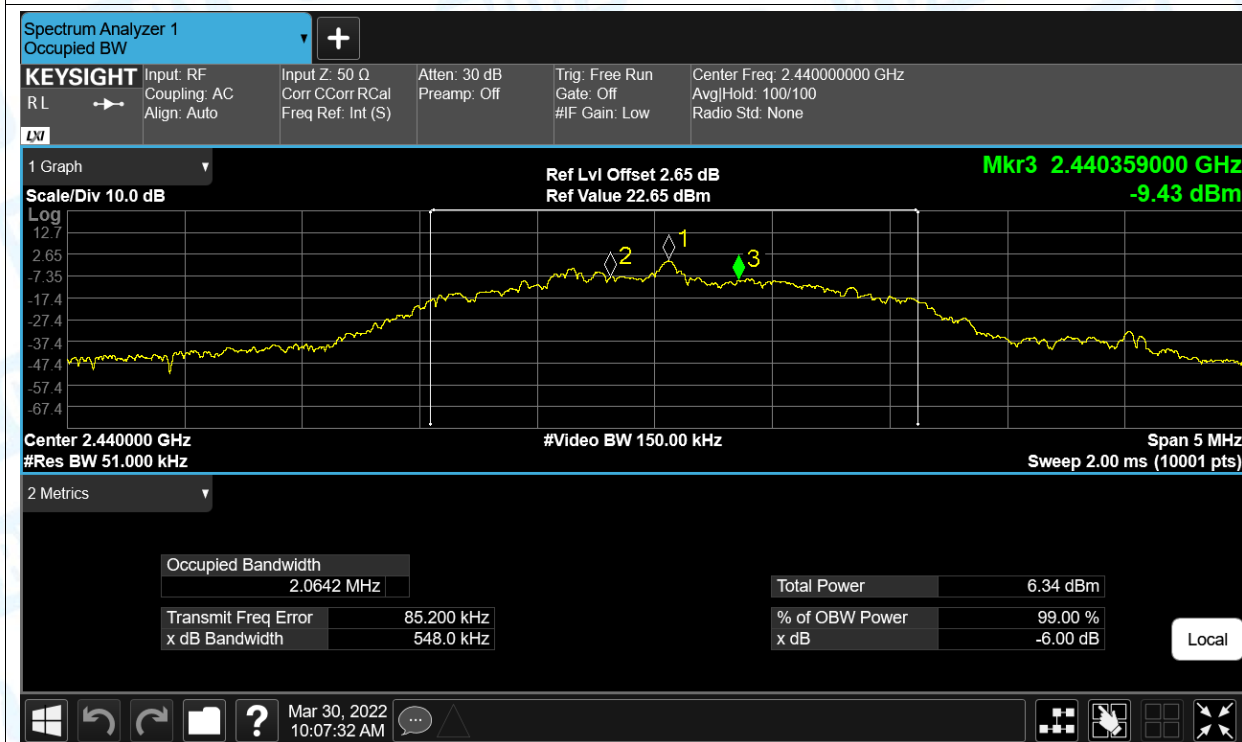


-6dB Bandwidth NVNT BLE 1Mbps 2440MHz Ant1





-6dB Bandwidth NVNT BLE 2Mbps 2440MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2480MHz Ant1

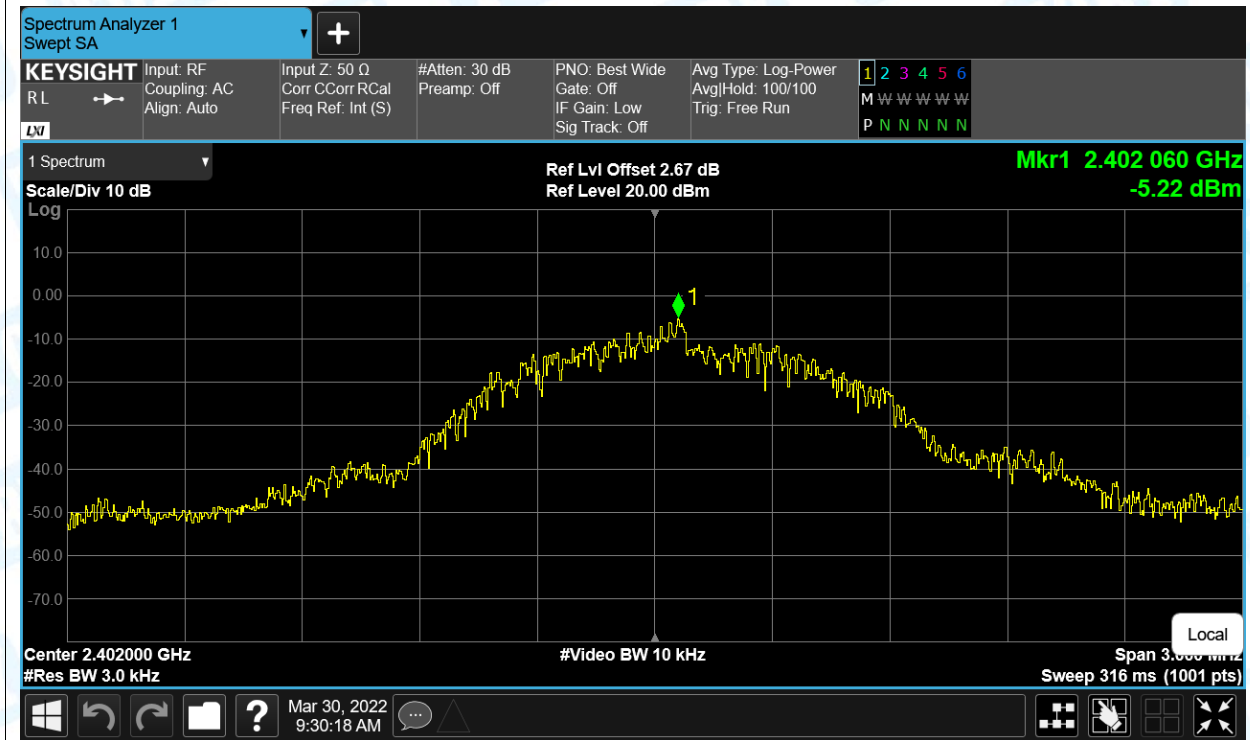


Maximum Power Spectral Density Level

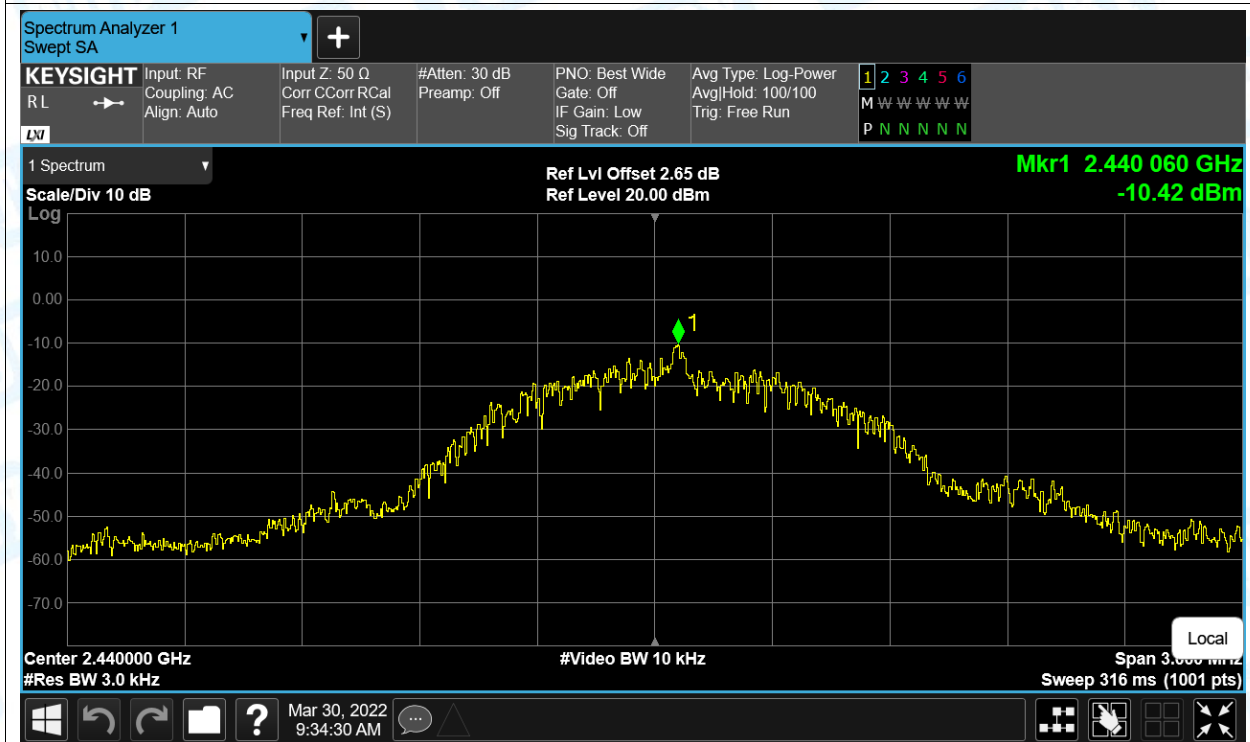
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-5.216	8	Pass
NVNT	BLE 1Mbps	2440	Ant1	-10.417	8	Pass
NVNT	BLE 1Mbps	2480	Ant1	-9.943	8	Pass
NVNT	BLE 2Mbps	2402	Ant1	-12.548	8	Pass
NVNT	BLE 2Mbps	2440	Ant1	-12.373	8	Pass
NVNT	BLE 2Mbps	2480	Ant1	-12.324	8	Pass

Test Graphs

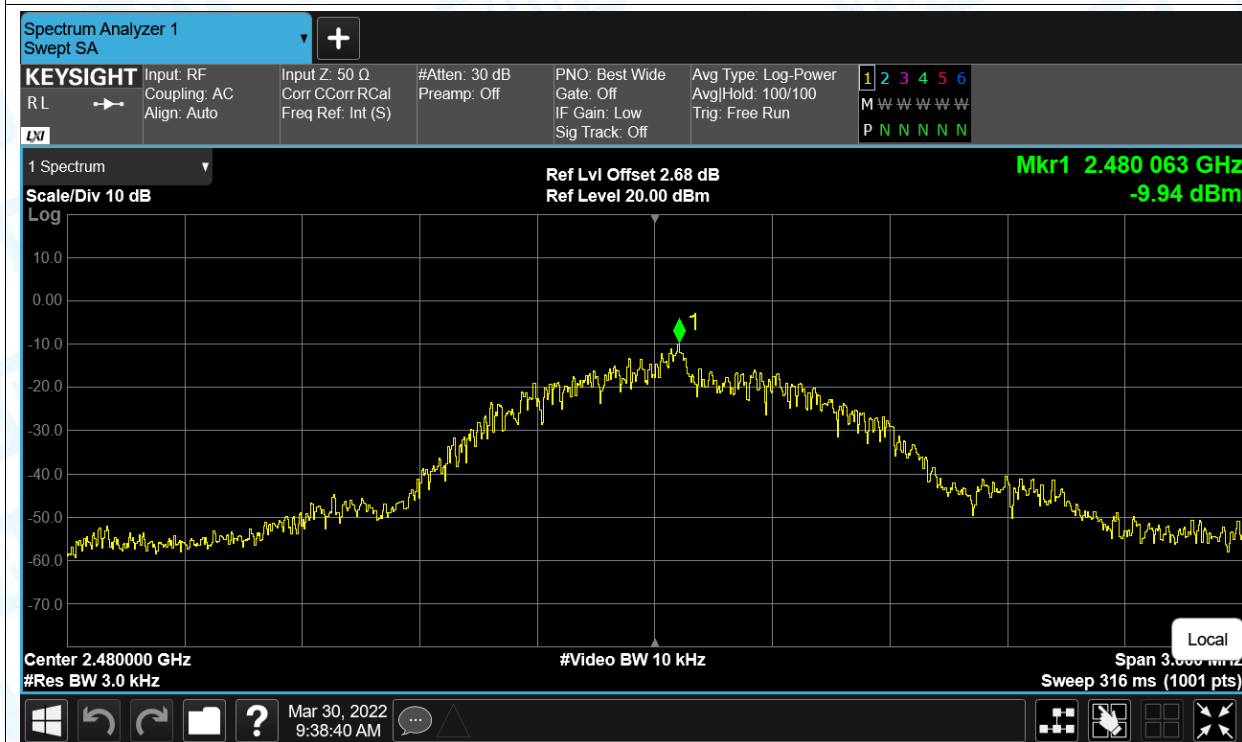
PSD NVNT BLE 1Mbps 2402MHz Ant1



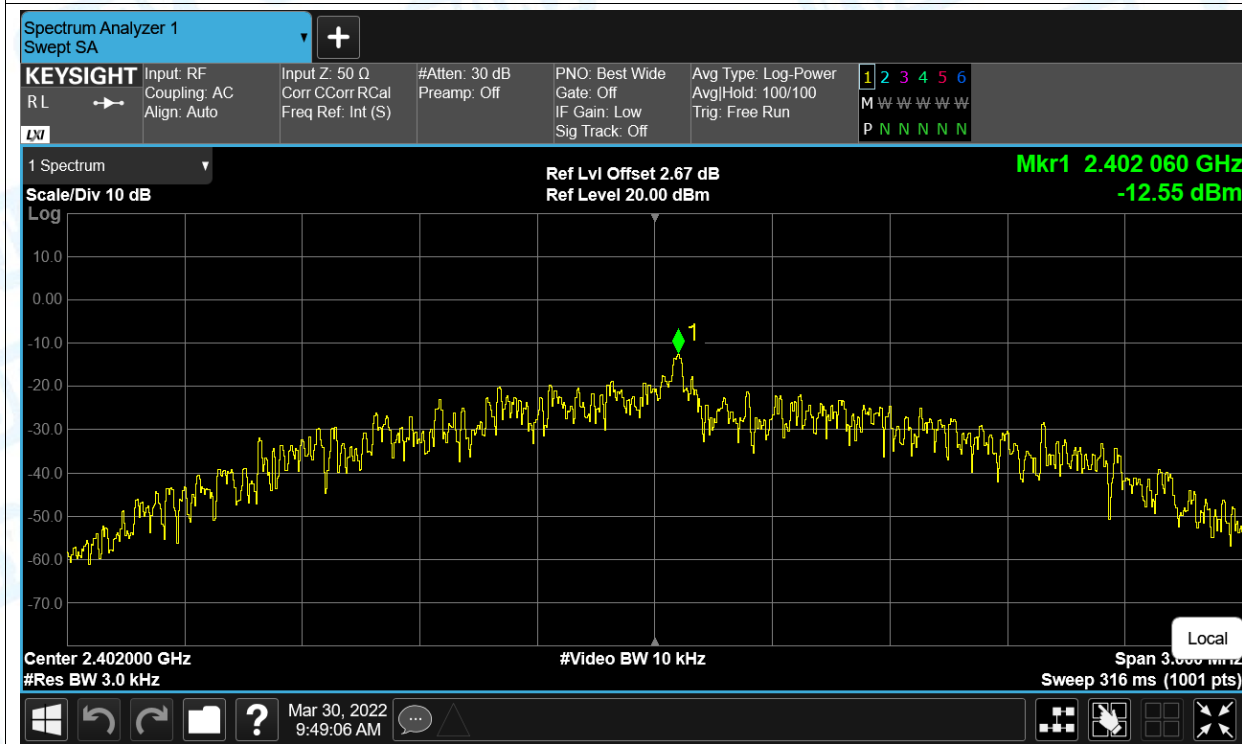
PSD NVNT BLE 1Mbps 2440MHz Ant1

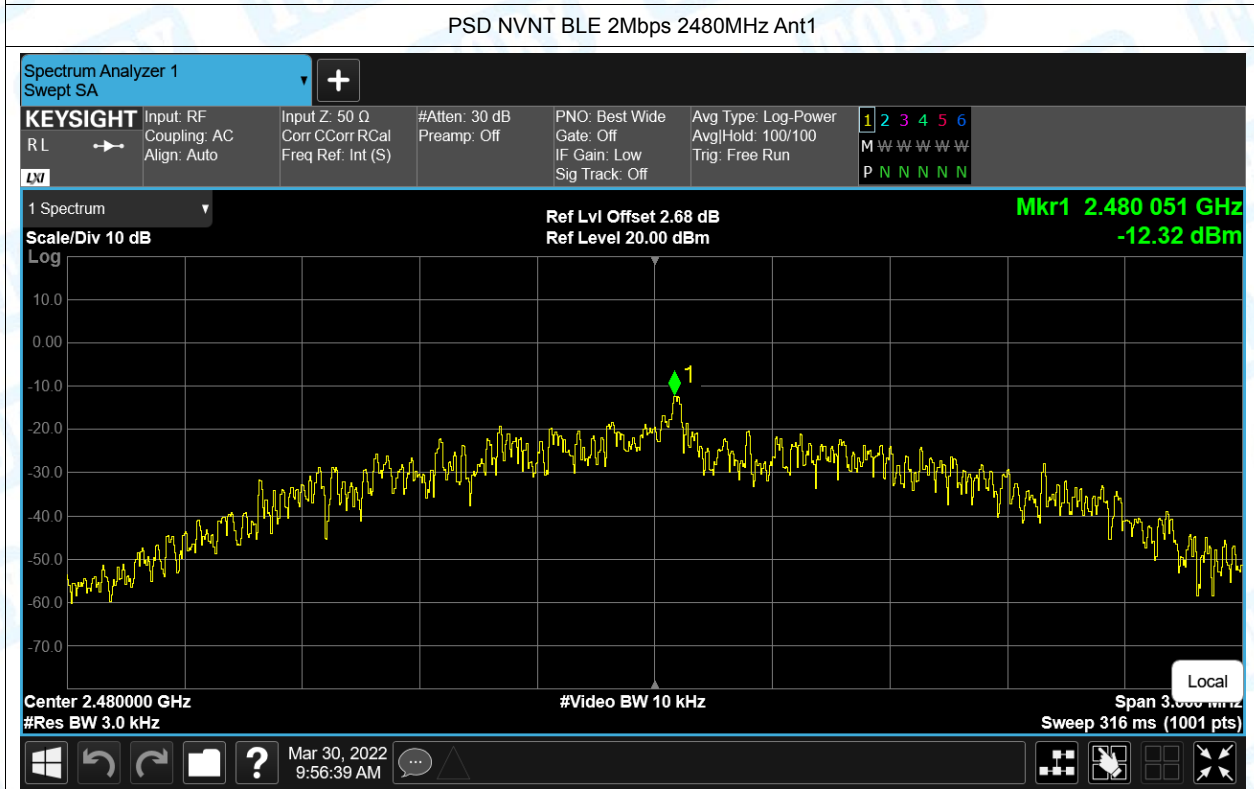
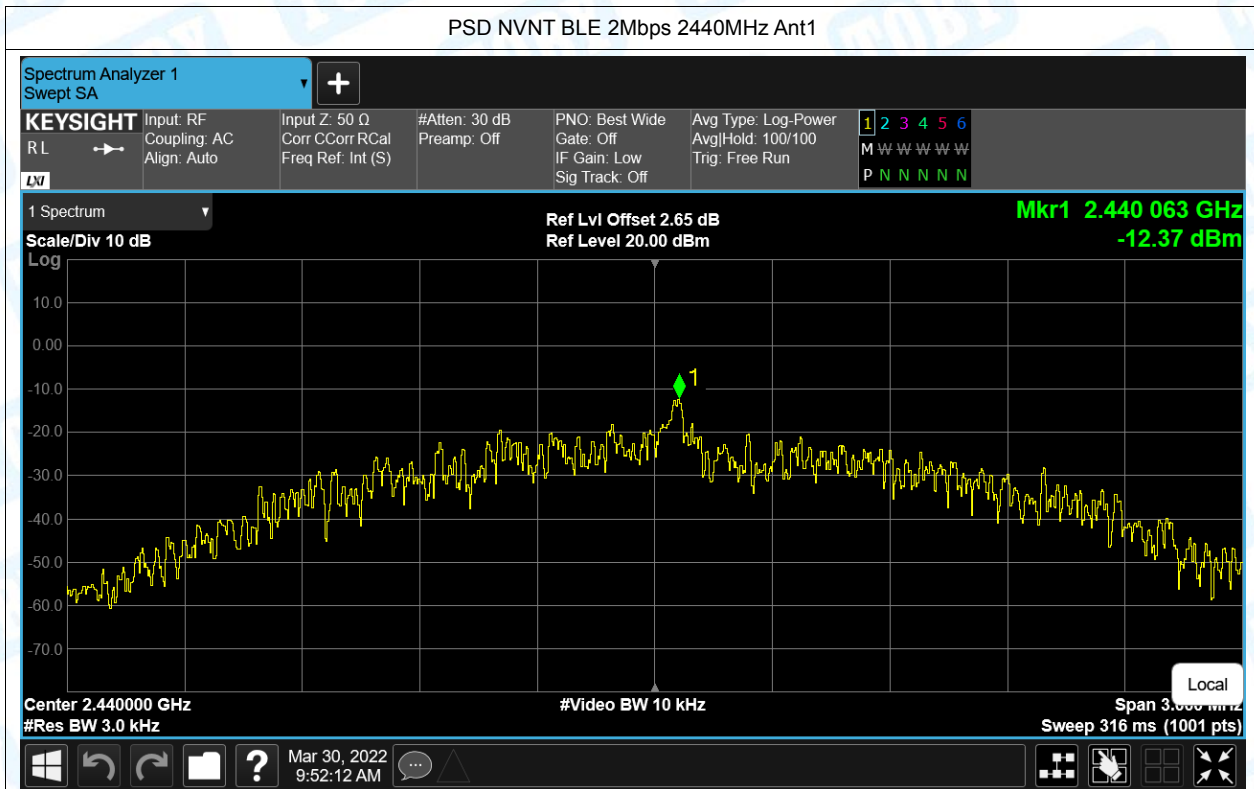


PSD NVNT BLE 1Mbps 2480MHz Ant1



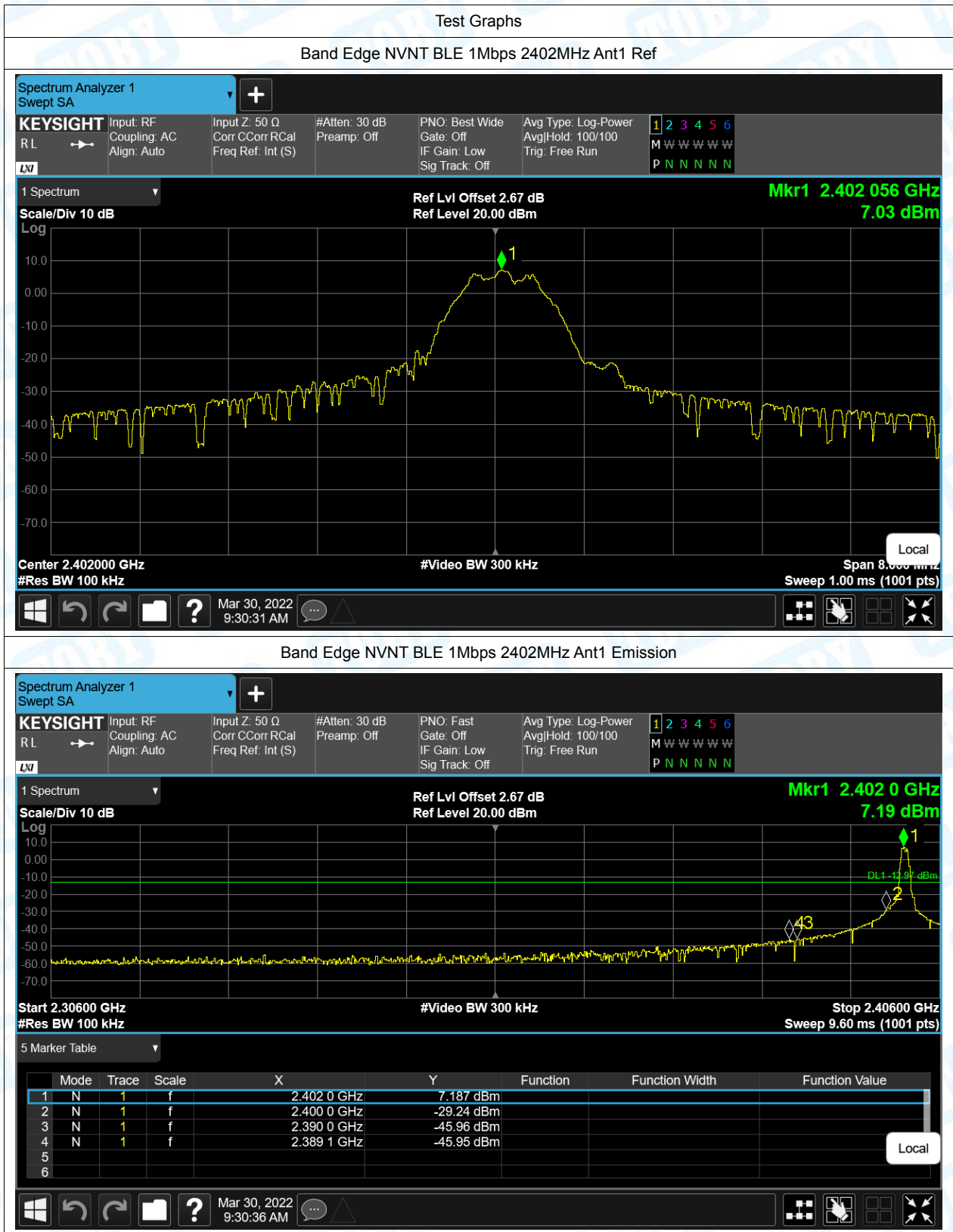
PSD NVNT BLE 2Mbps 2402MHz Ant1

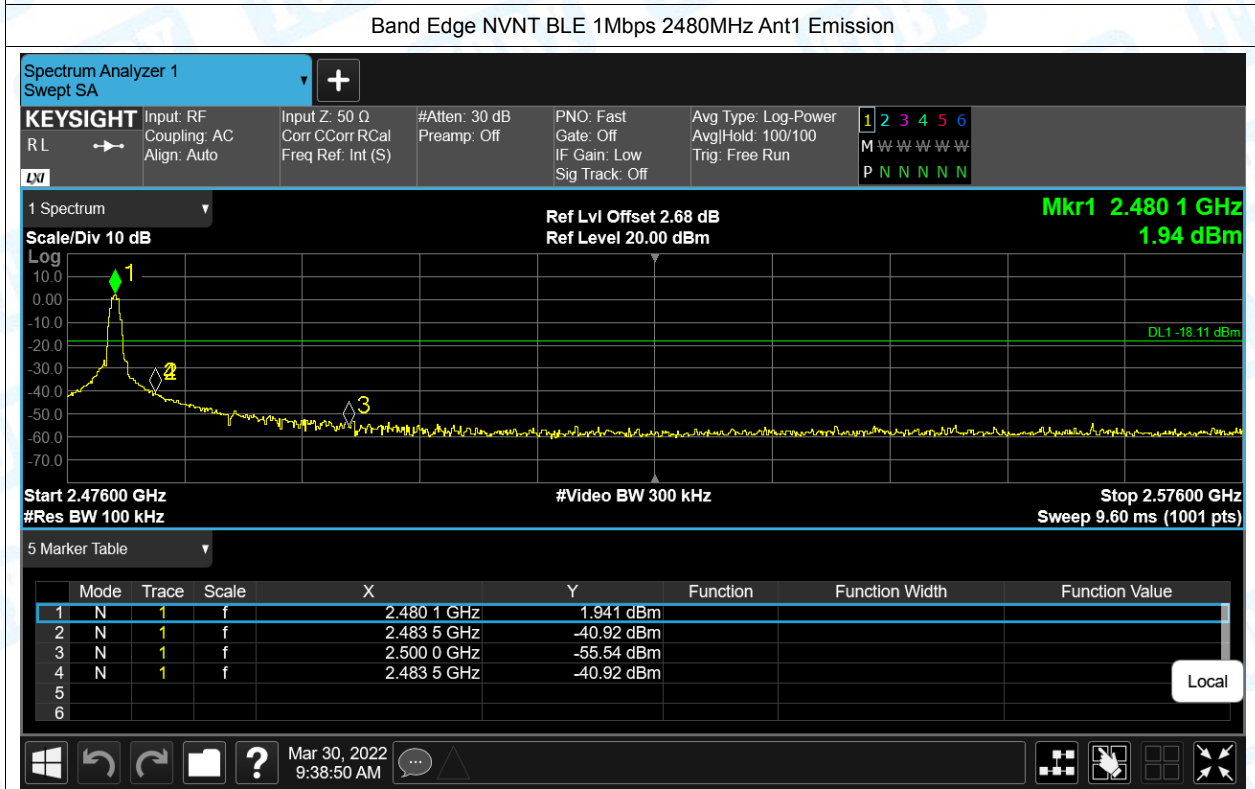
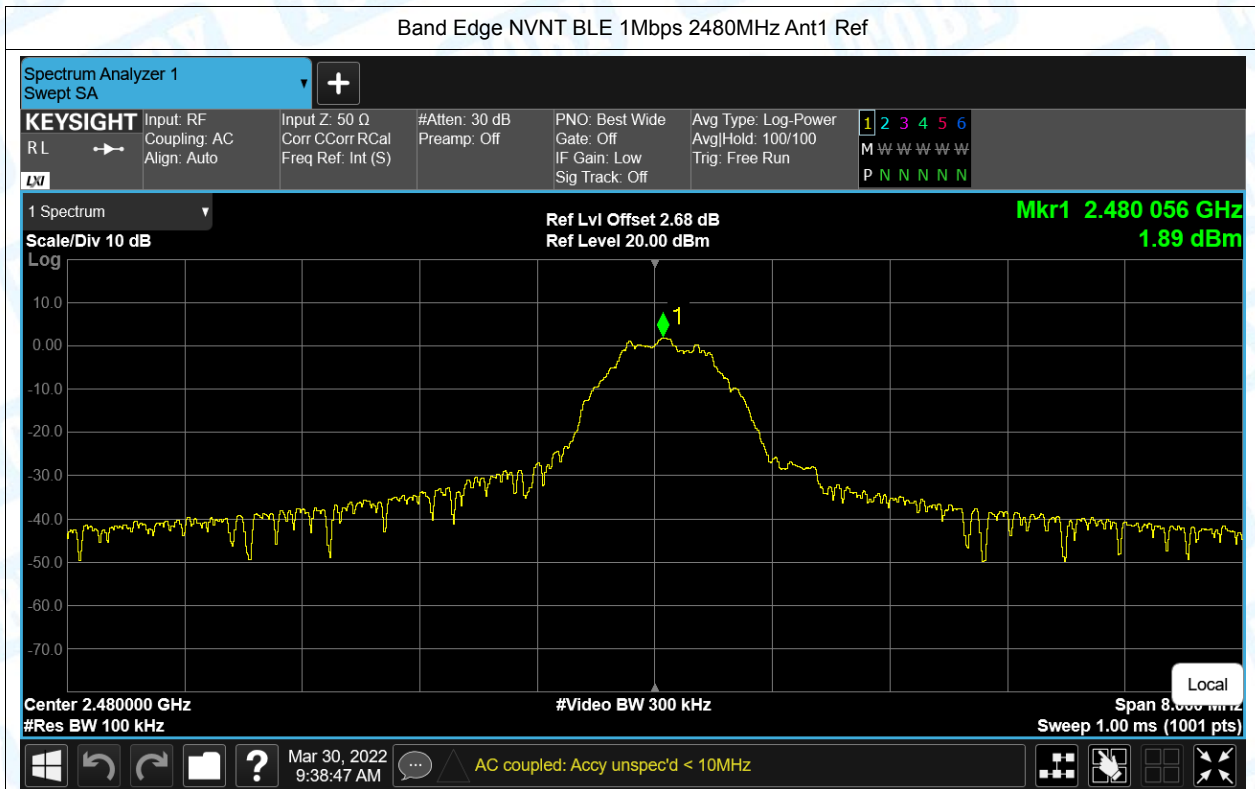


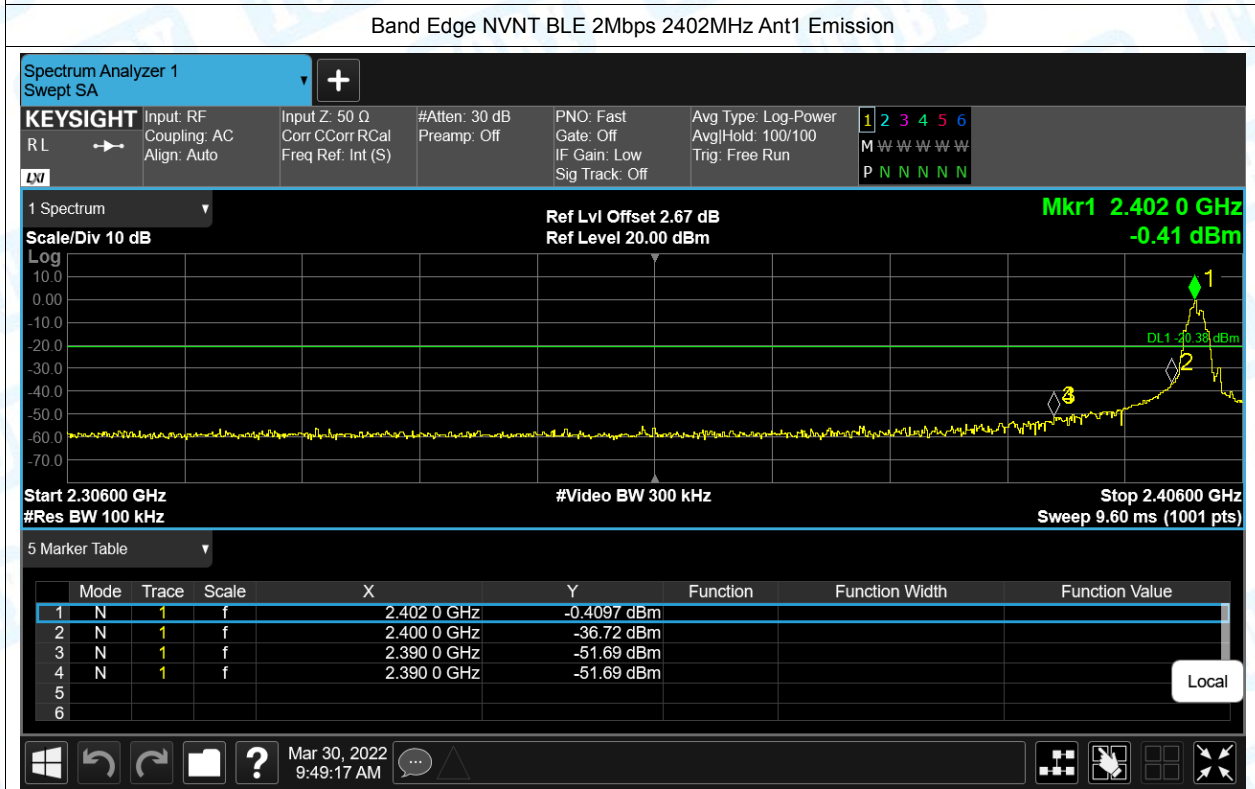
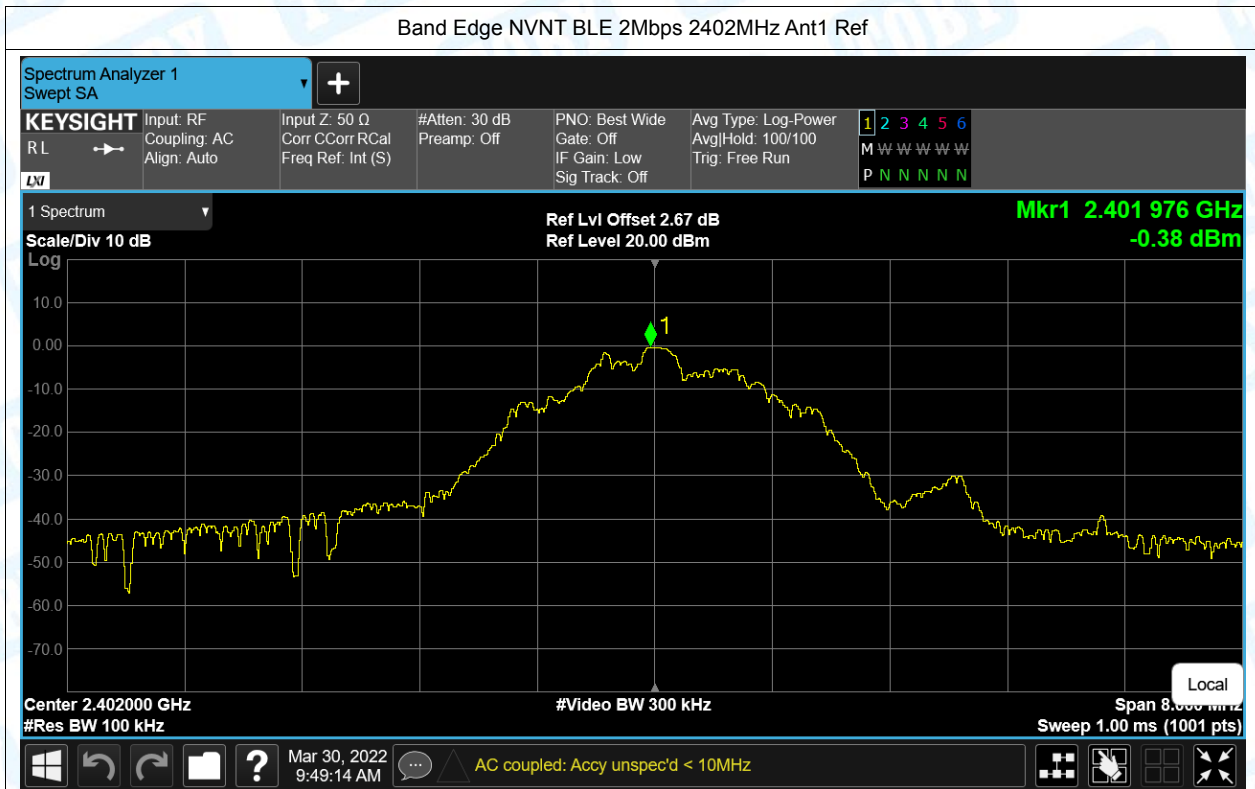


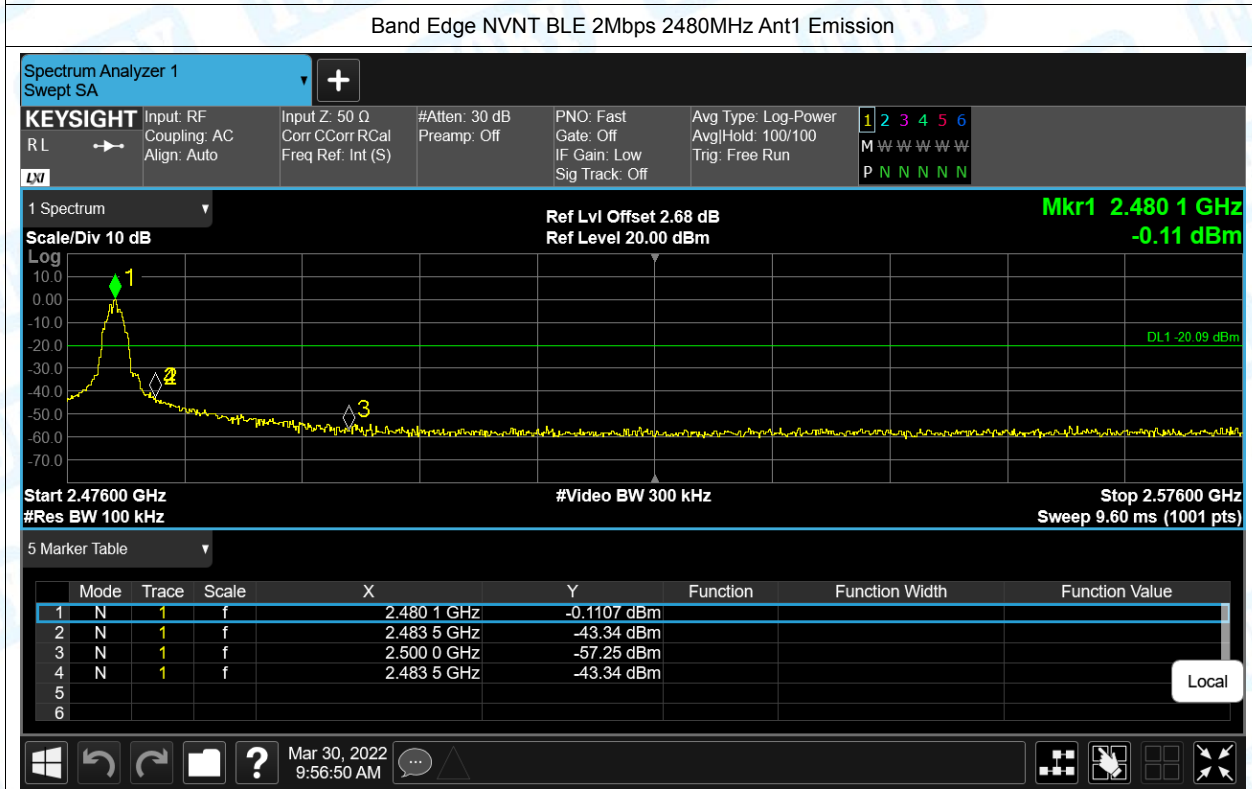
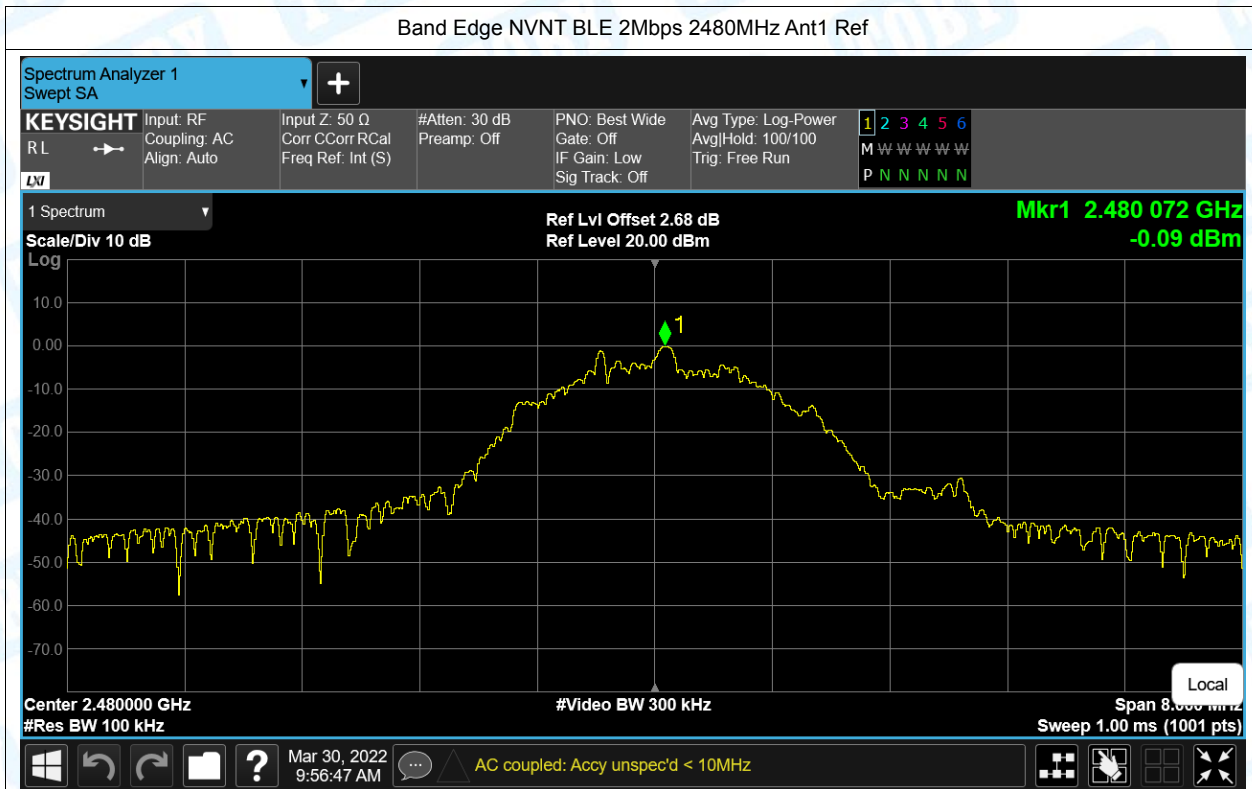
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-52.98	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-42.81	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-51.31	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-43.25	-20	Pass





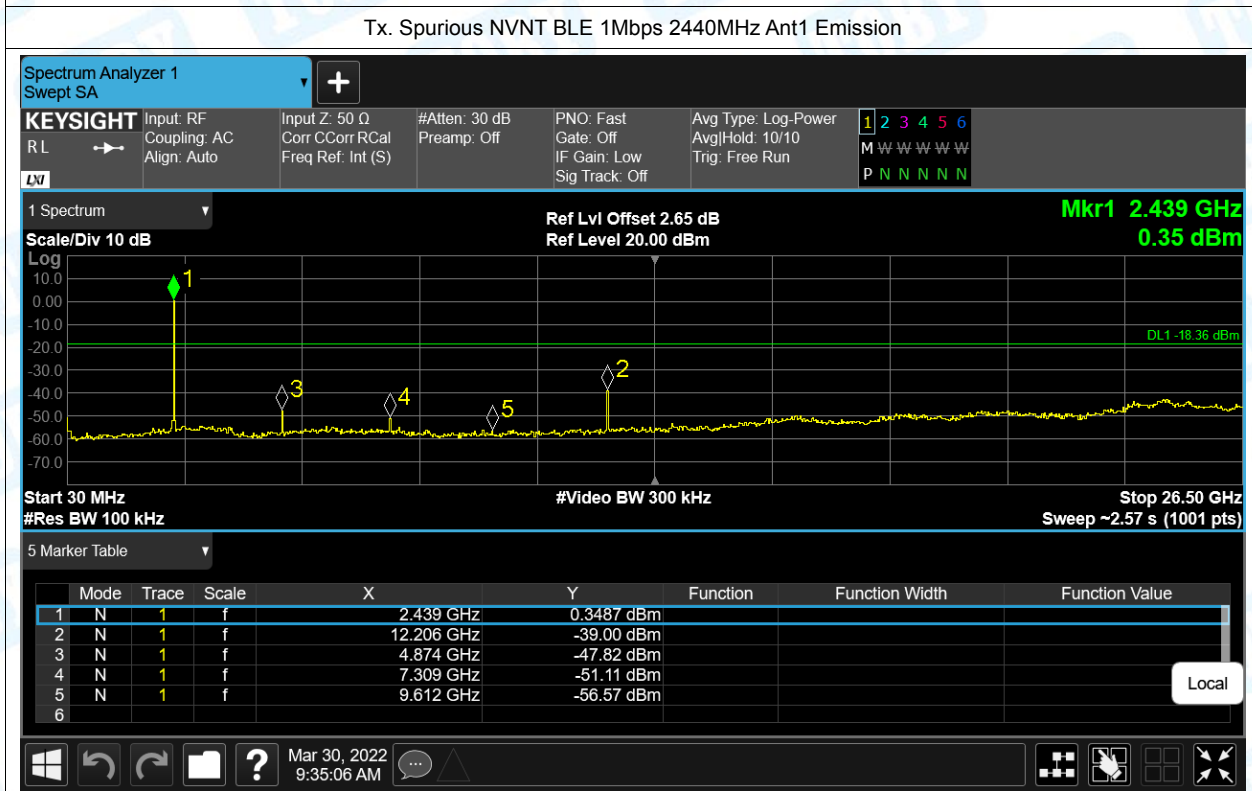
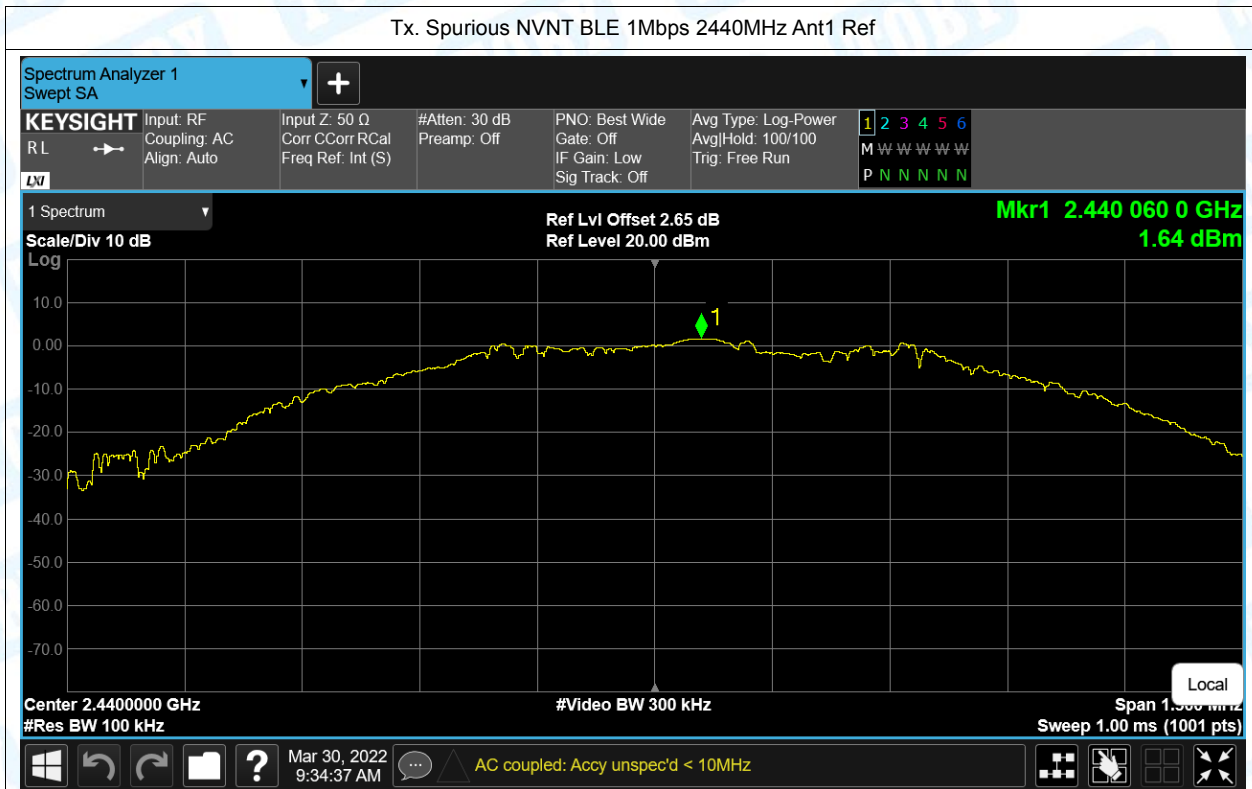


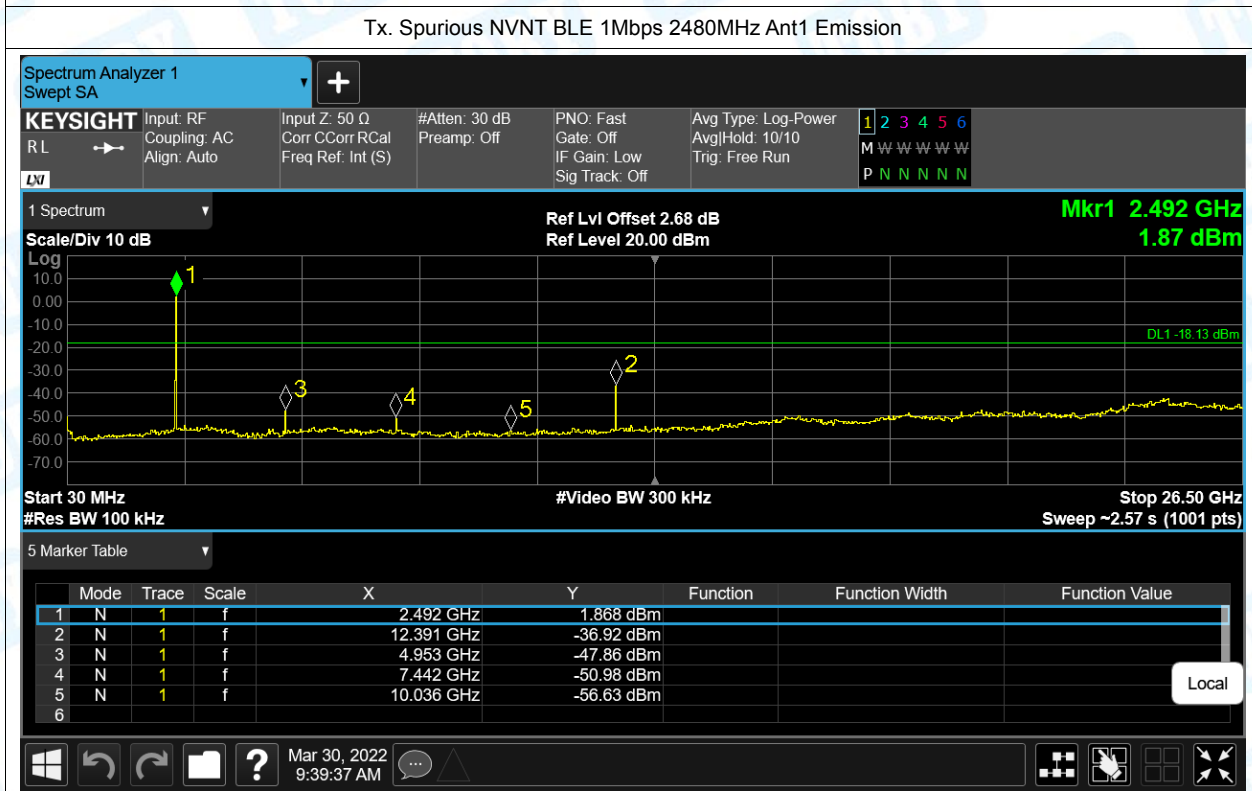
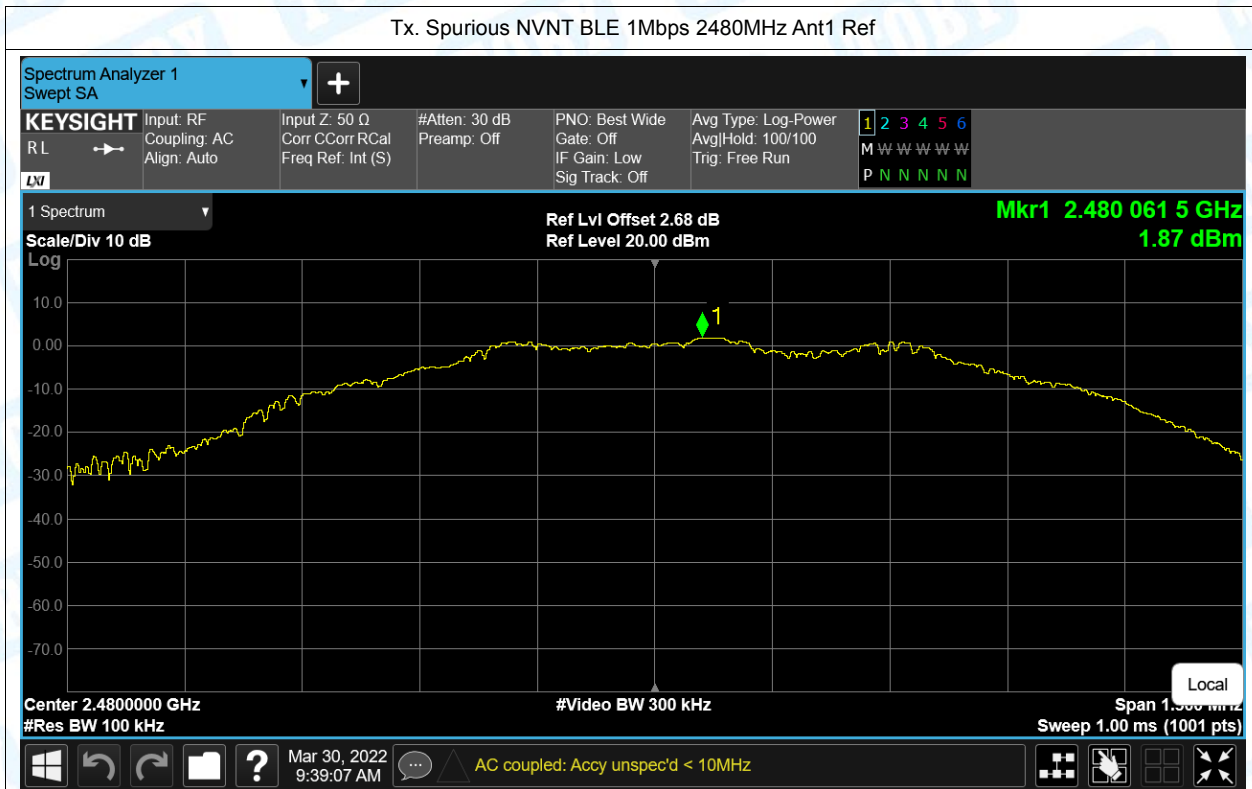


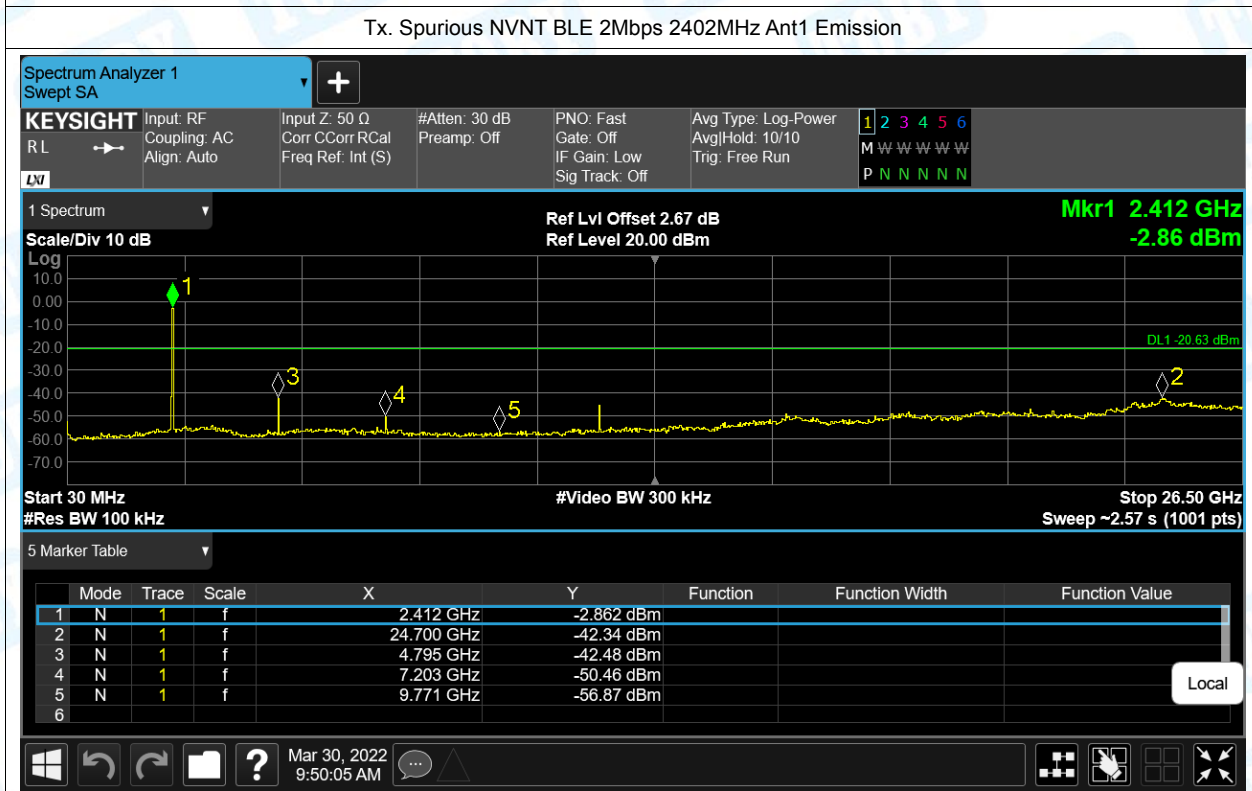
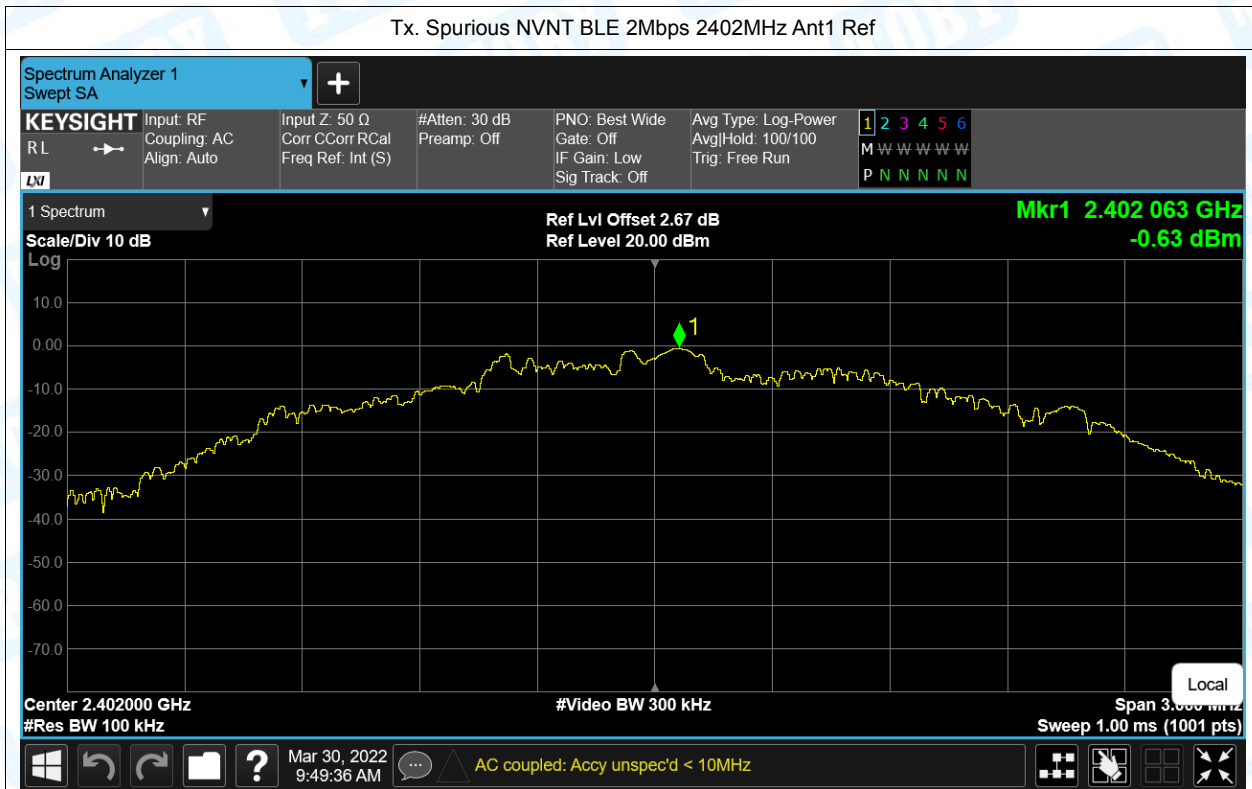
Conducted RF Spurious Emission

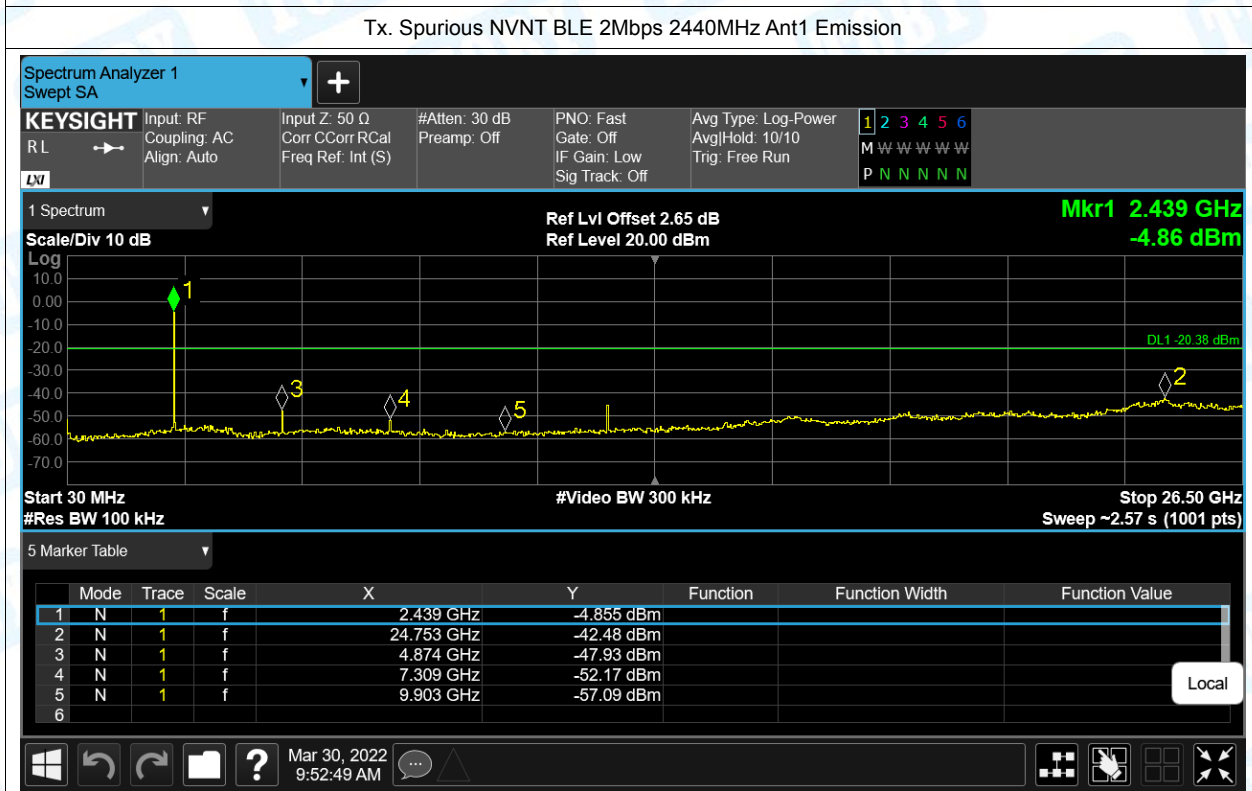
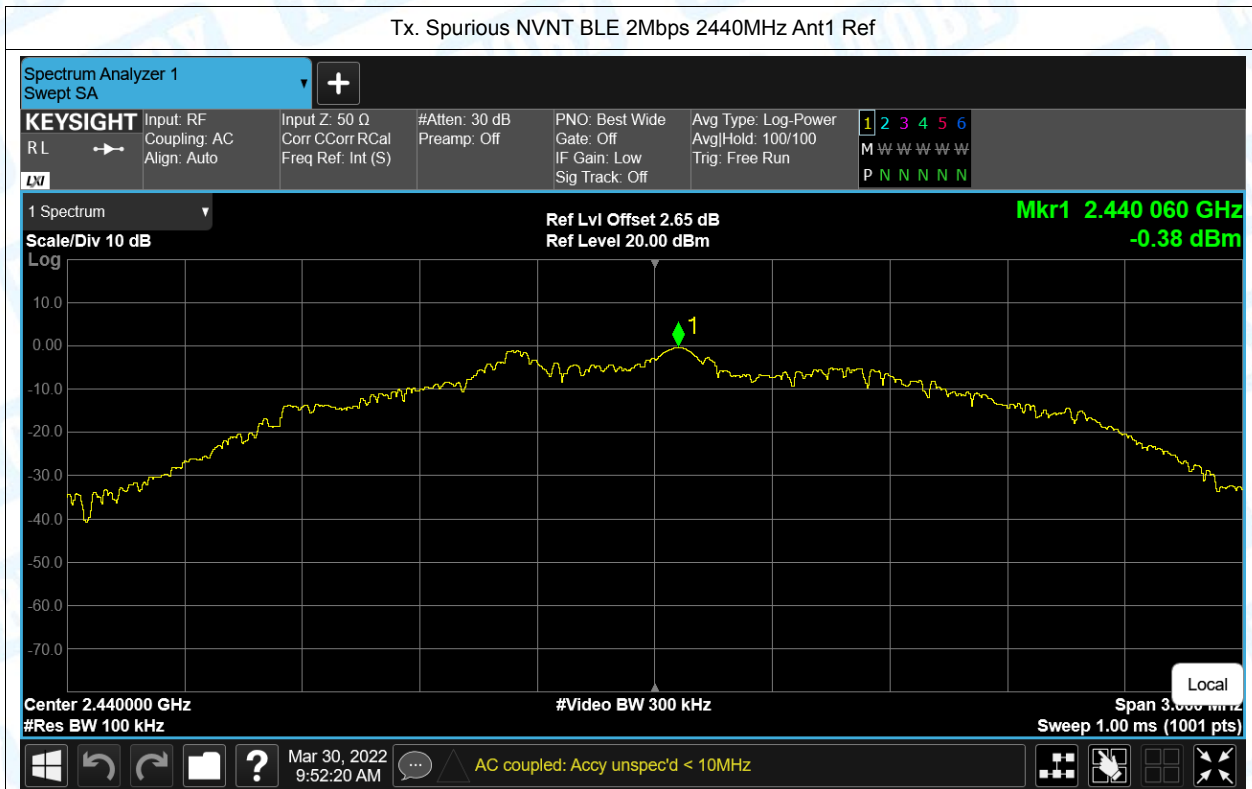
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-42.89	-20	Pass
NVNT	BLE 1Mbps	2440	Ant1	-40.64	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-38.79	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-41.71	-20	Pass
NVNT	BLE 2Mbps	2440	Ant1	-42.1	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-42.56	-20	Pass

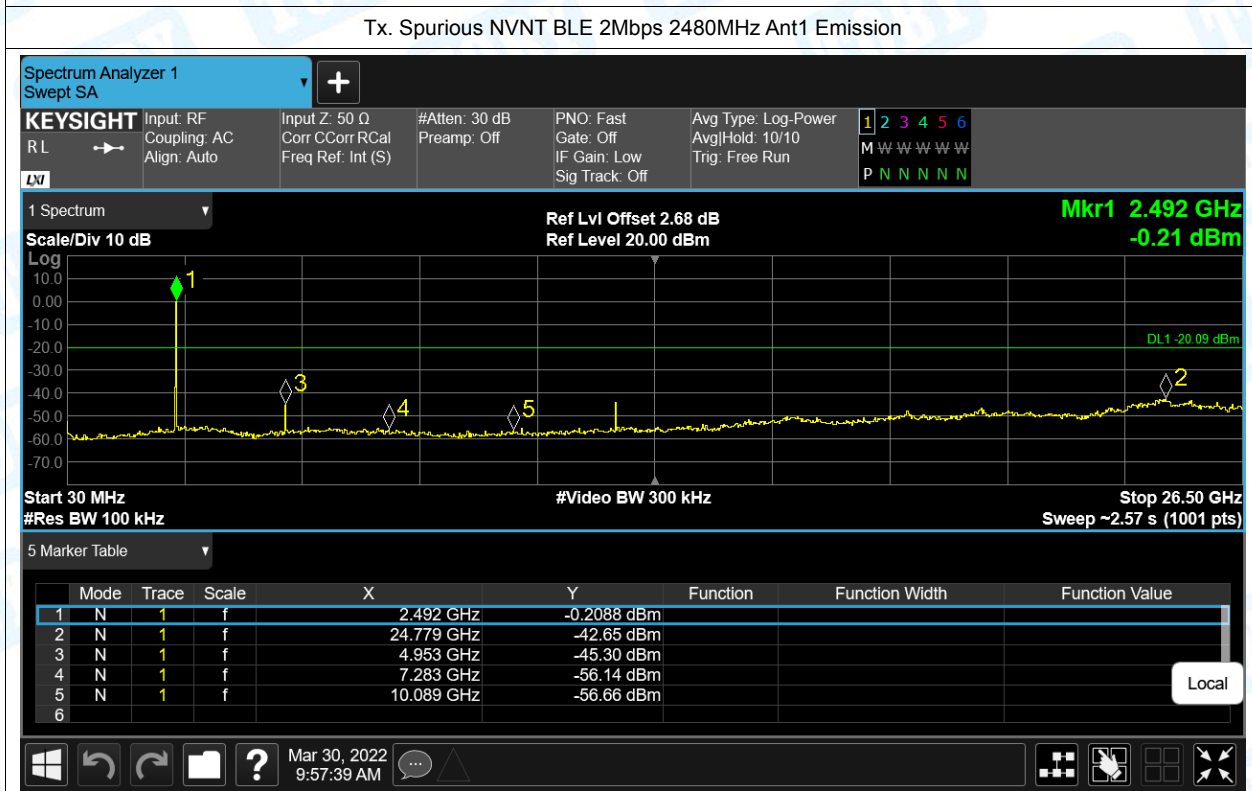
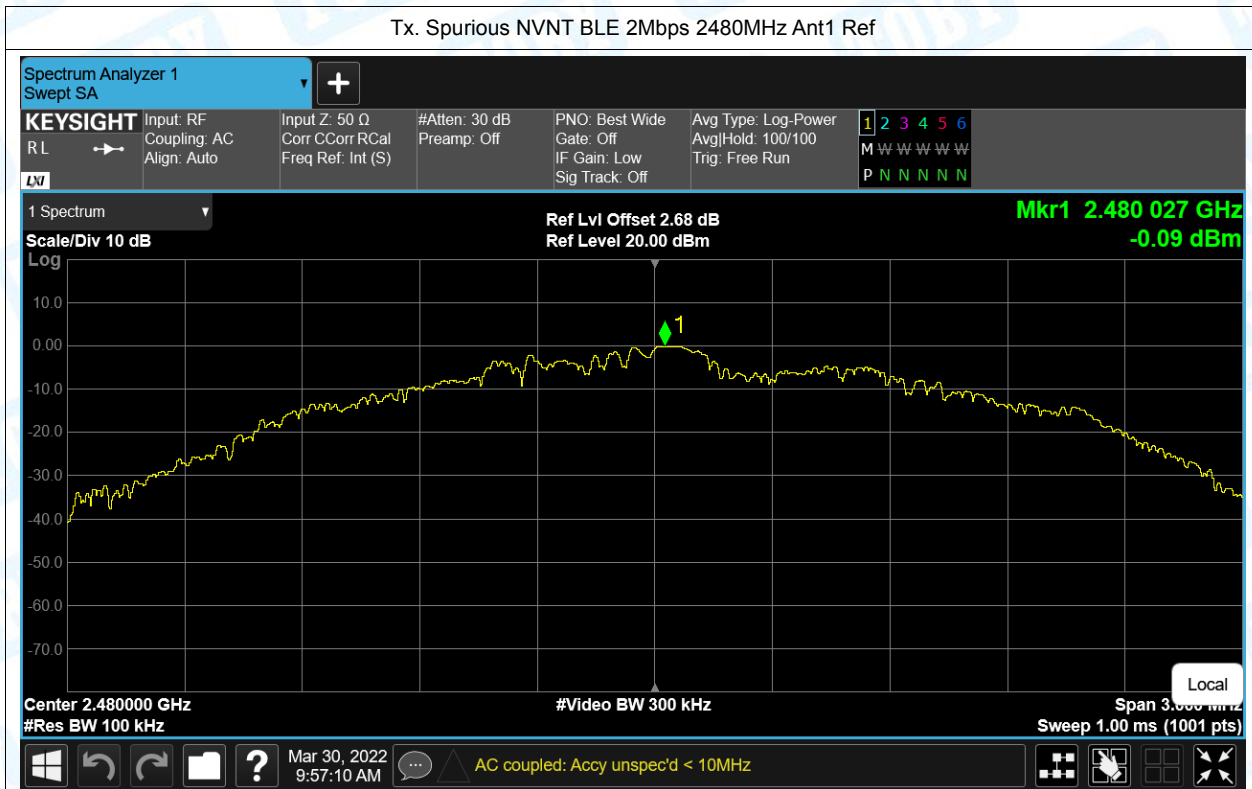








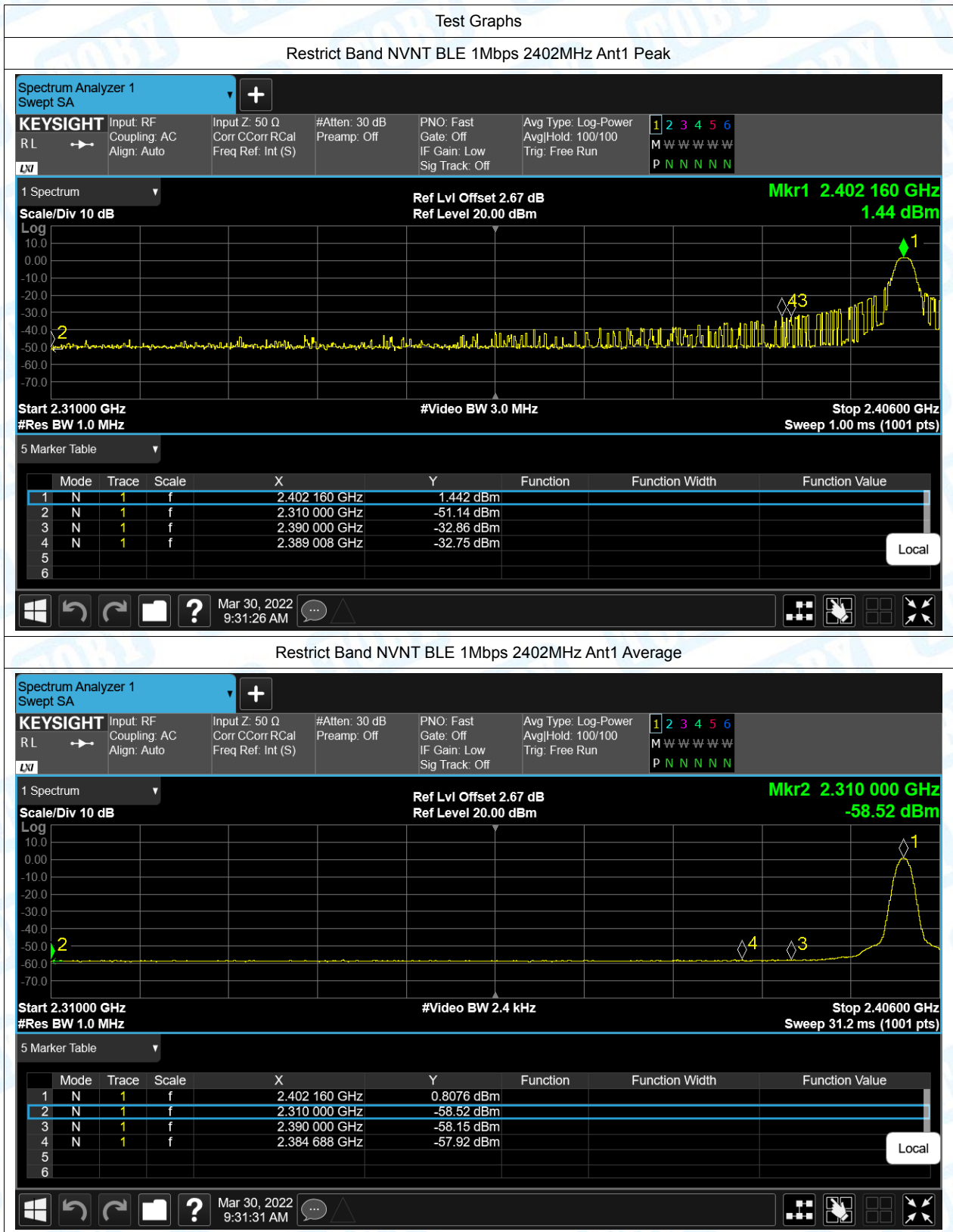




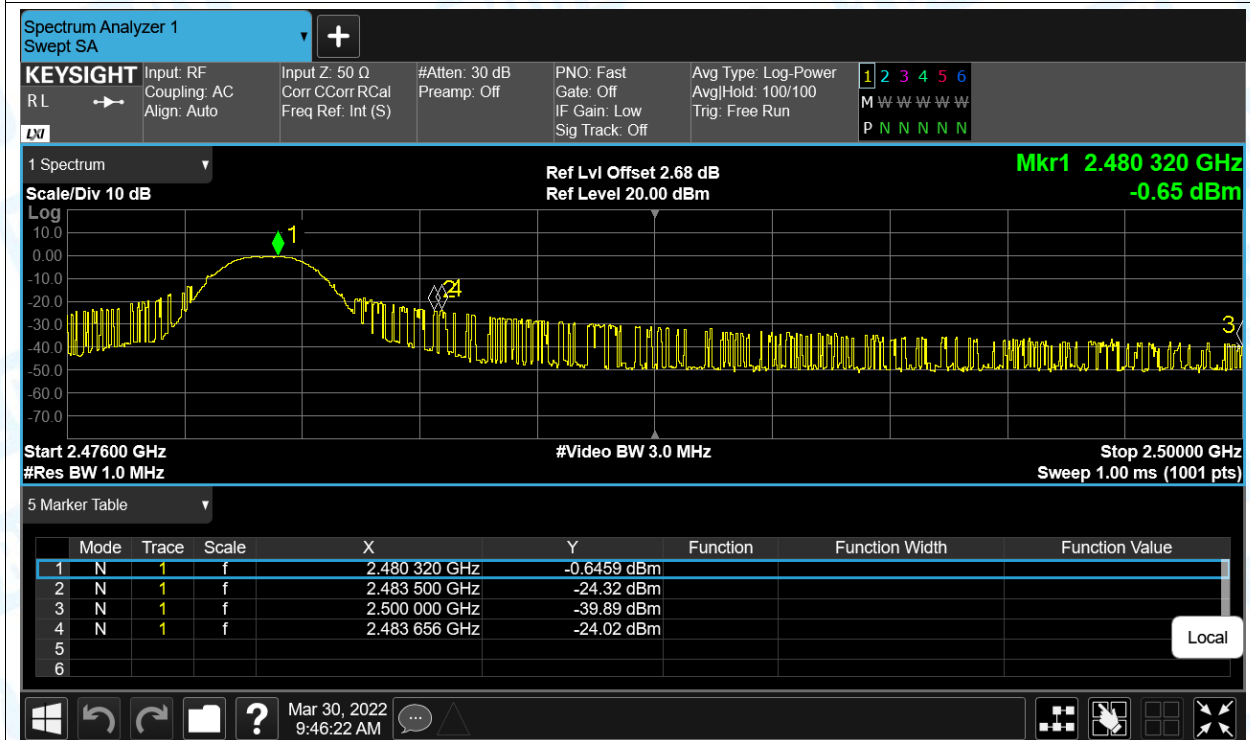
Restrict Band

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	-51.14	2	46.12	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2310	-58.52	2	38.74	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2389.008	-32.75	2	64.51	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2384.688	-57.92	2	39.34	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-37.37	2	59.89	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-58.18	2	39.08	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-24.32	2	72.94	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-52.08	2	45.18	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.656	-24.02	2	73.24	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.536	-52.04	2	45.22	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-39.89	2	57.37	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-58.33	2	38.93	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-50.58	2	46.68	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-58.35	2	38.91	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2389.584	-34.71	2	62.55	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2389.68	-57.41	2	39.85	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-50.18	2	47.08	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-57.88	2	39.38	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-39.43	2	57.83	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-48.68	2	48.58	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.632	-23.98	2	73.28	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.512	-48.68	2	48.58	Average	54	Pass

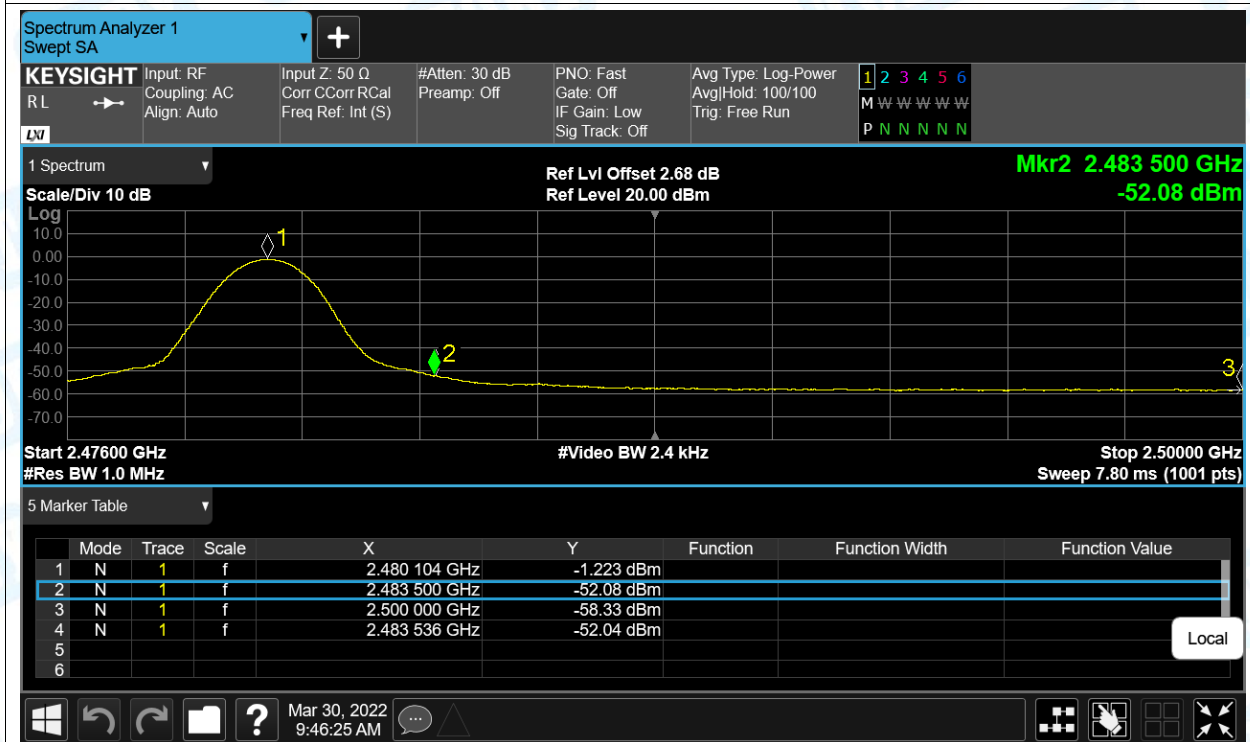
NVNT	BLE 2Mbps	2480	Ant1	2500	-49.09	2	48.17	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2500	-57.92	2	39.34	Average	54	Pass



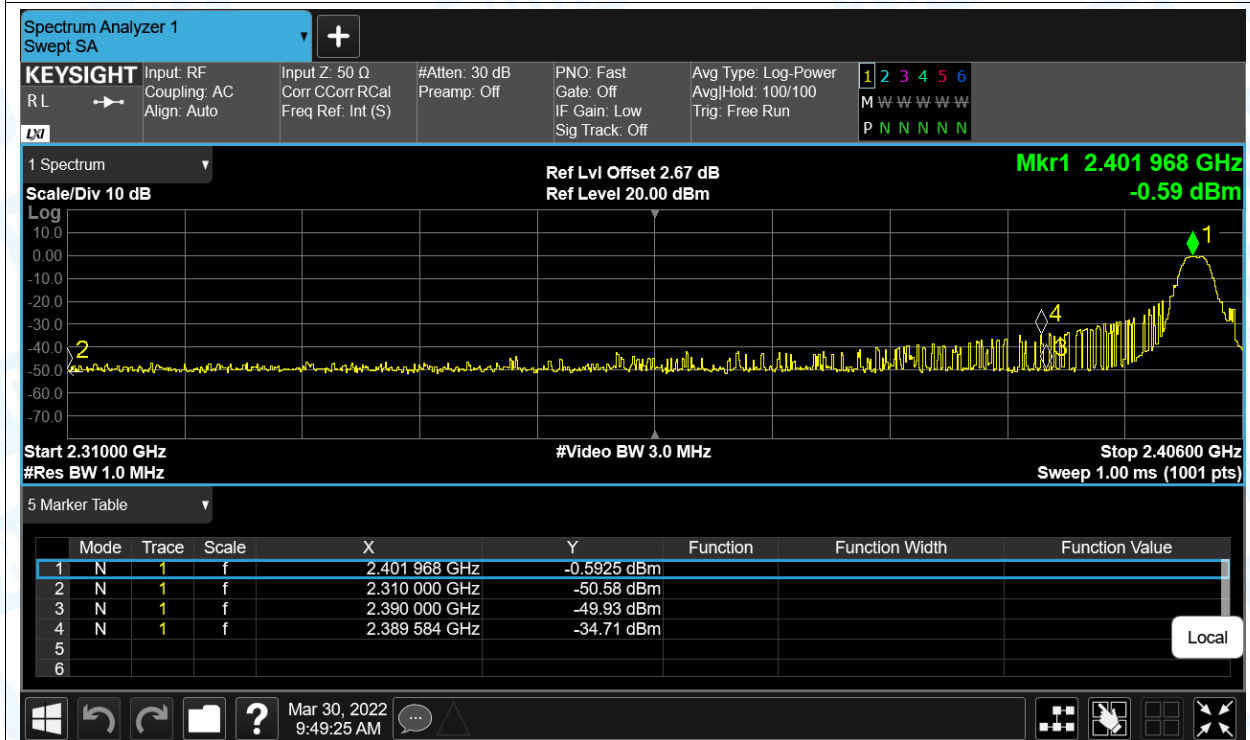
Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Average



Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Peak



Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Average

