

RF Test Data for Bluetooth LE

(Conducted Measurements)

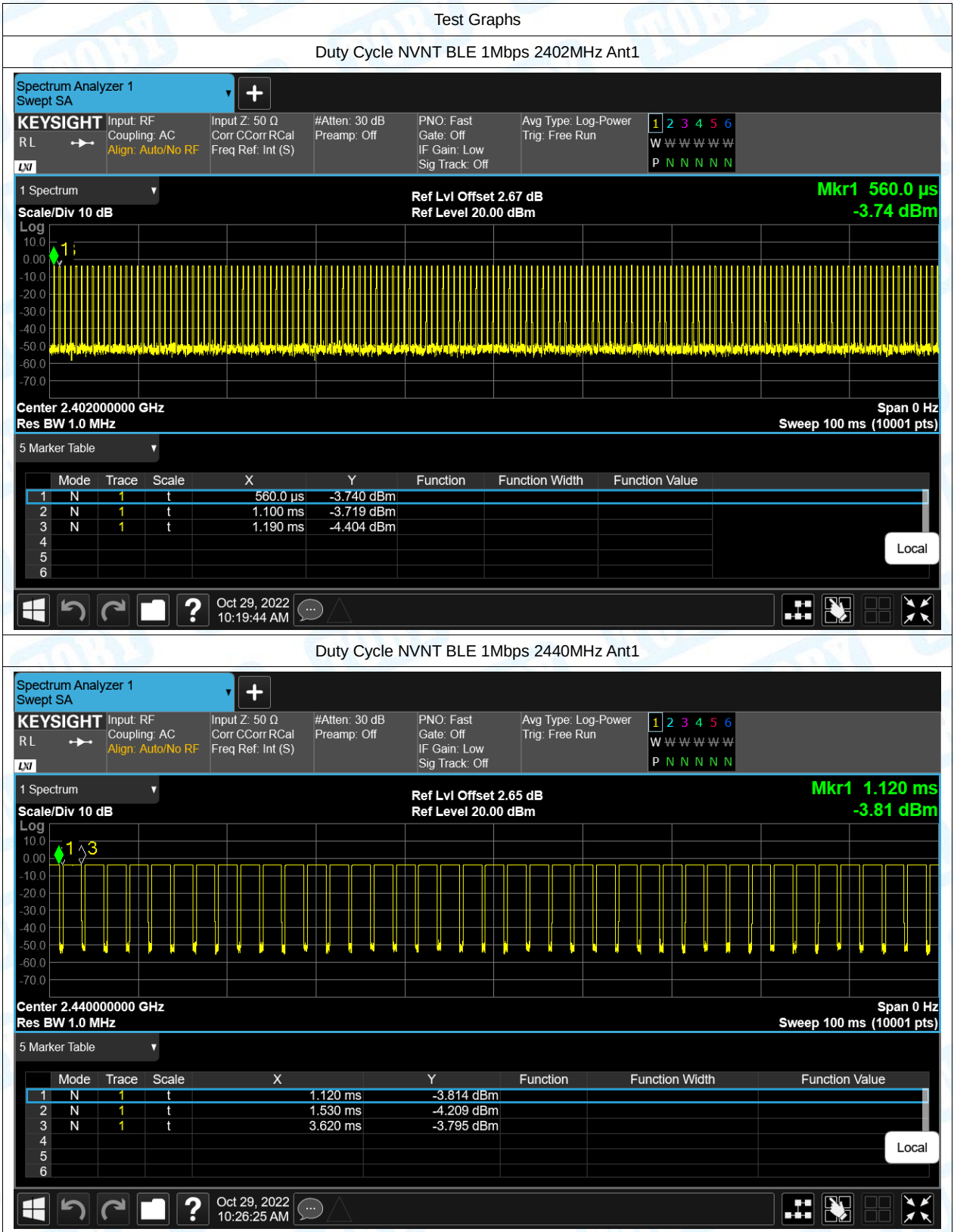
General Description of EUT	
Product Name:	Tablet PC
Test Model:	Tablet Lite 3.0
Sample ID:	RW-C-202209-0163-1-1#&RW-C-202209-0163-1-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Zhu Dian Yuan
Note: For a more detailed features description, please refer to the report TBR-C-202209-0163-2	

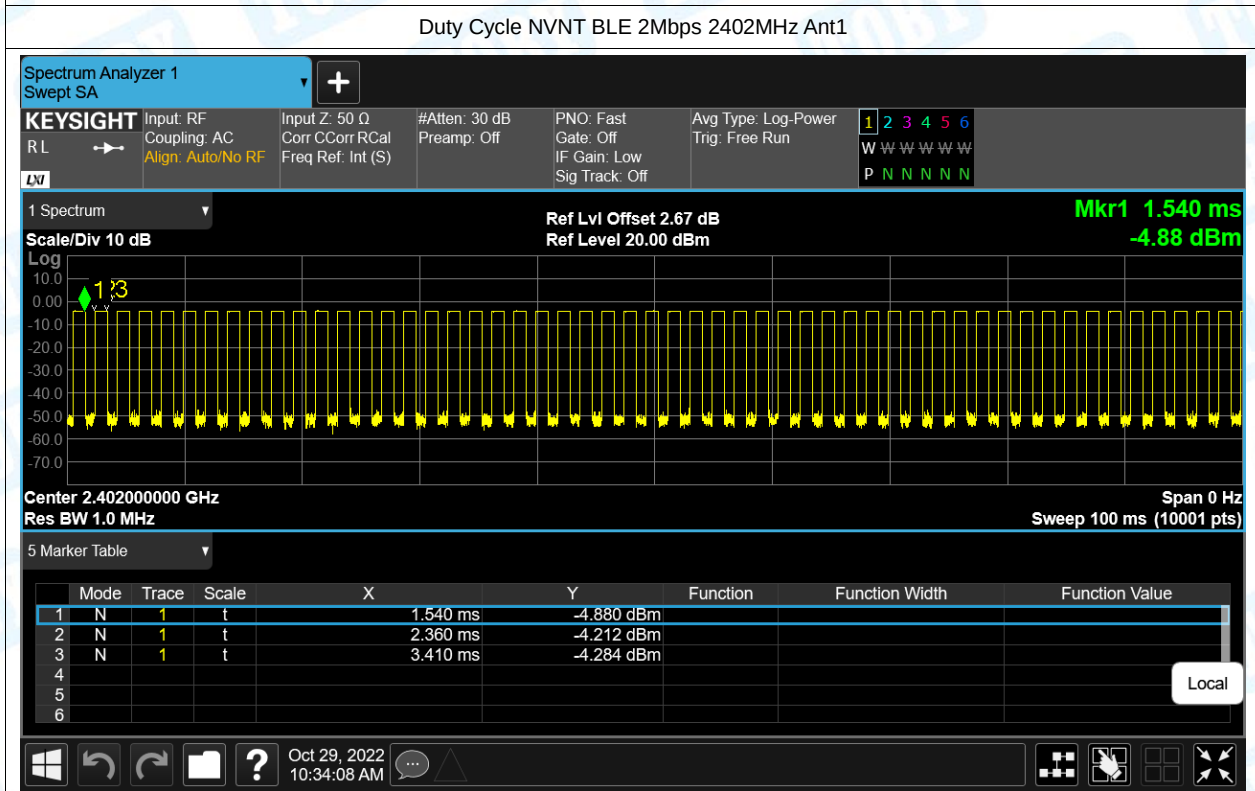
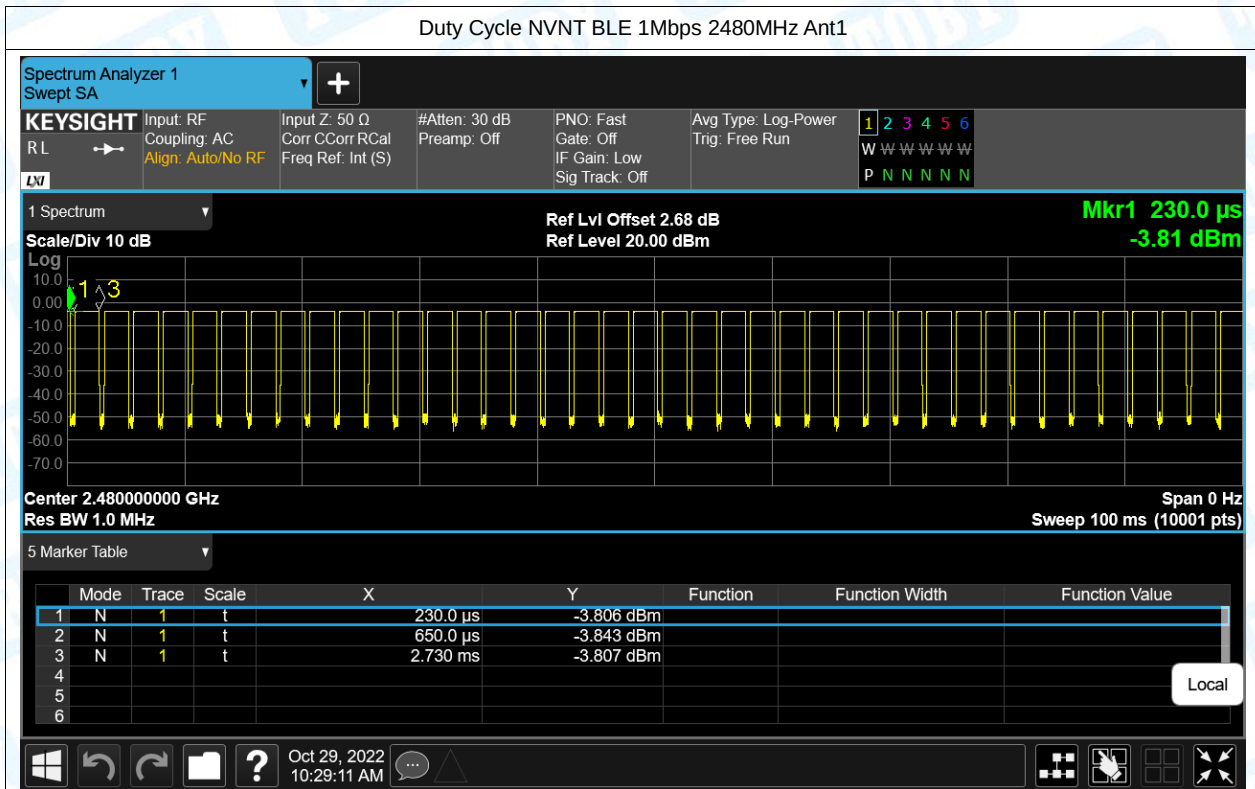
Contents

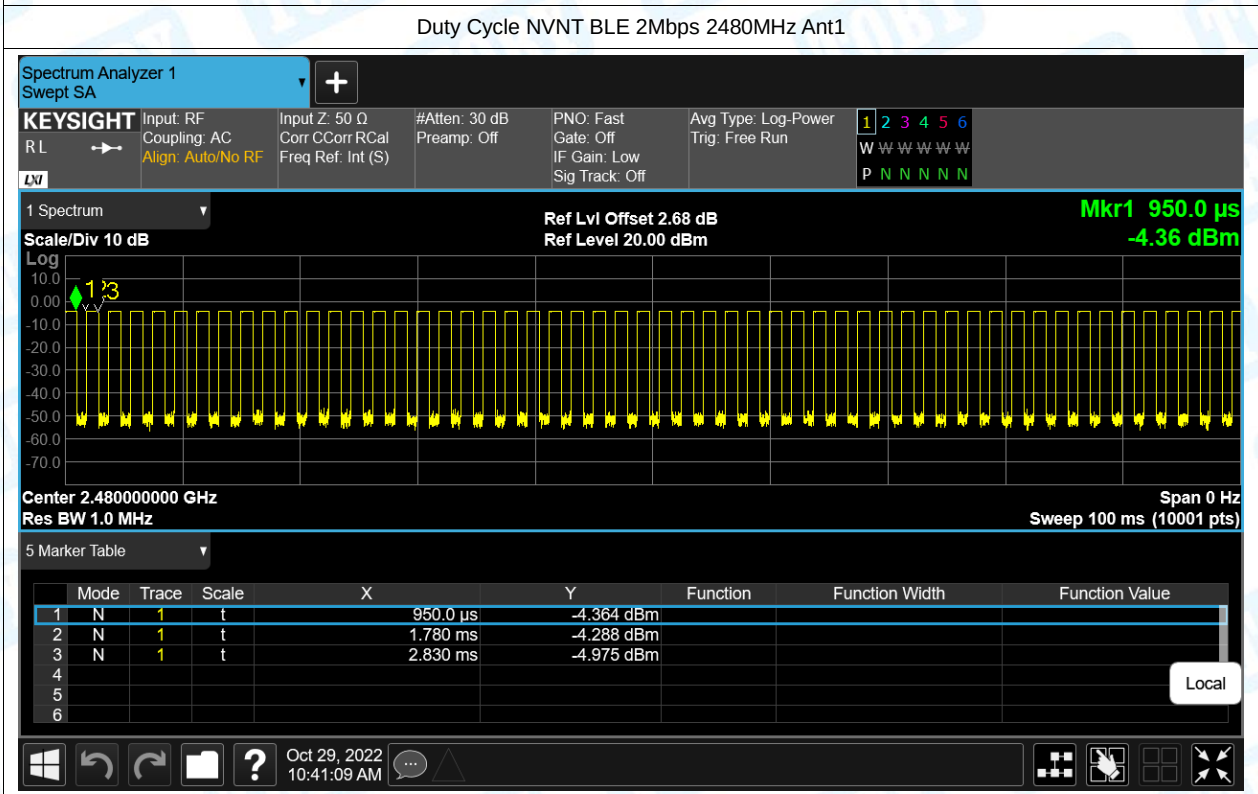
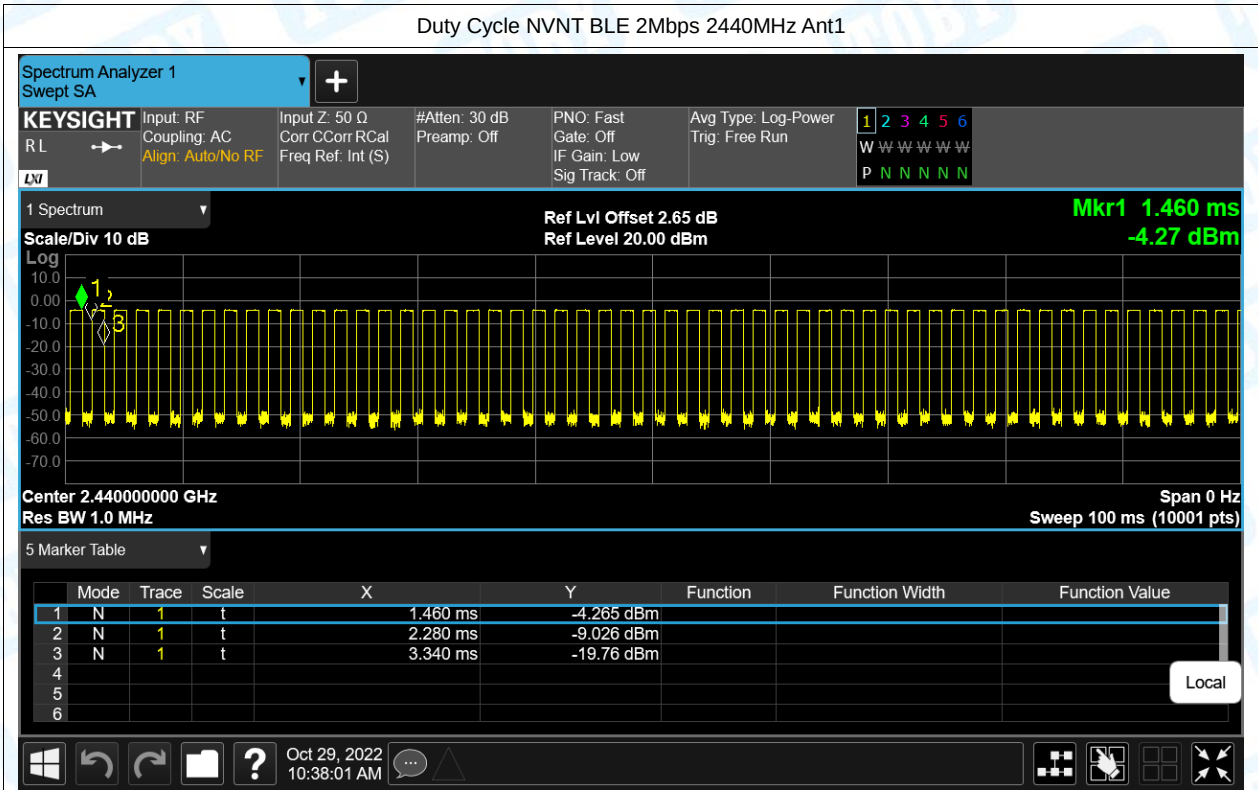
- 1. Duty Cycle.....3
- 2. Maximum Conducted Output Power7
- 3. -6dB Bandwidth11
- 4. Occupied Channel Bandwidth.....15
- 5. Maximum Power Spectral Density Level.....19
- 6. Band Edge23
- 7. Conducted RF Spurious Emission.....28
- 8. Restrict Band.....35

1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1Mbps	2402	Ant1	14.29	8.45	11.11
NVNT	BLE 1Mbps	2440	Ant1	83.6	0.78	0.48
NVNT	BLE 1Mbps	2480	Ant1	83.2	0.8	0.48
NVNT	BLE 2Mbps	2402	Ant1	56.15	2.51	0.95
NVNT	BLE 2Mbps	2440	Ant1	56.38	2.49	0.94
NVNT	BLE 2Mbps	2480	Ant1	55.85	2.53	0.95
Note: $Duty\ Cycle(\%) = \frac{ON(ms)}{ON(ms) + OFF(ms)}$ $ON(ms) = Maker3 - Maker2$ $(ON(ms) + OFF(ms)) = Maker3 - Maker1$						





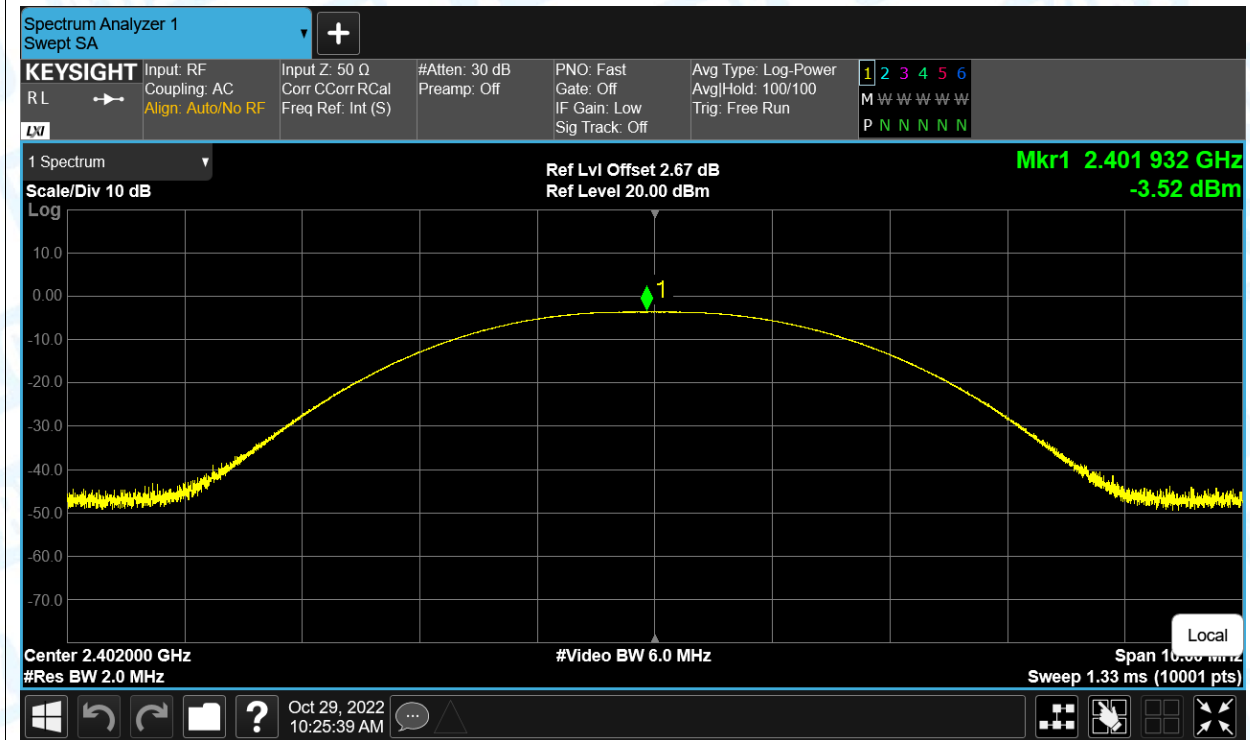


2. Maximum Conducted Output Power

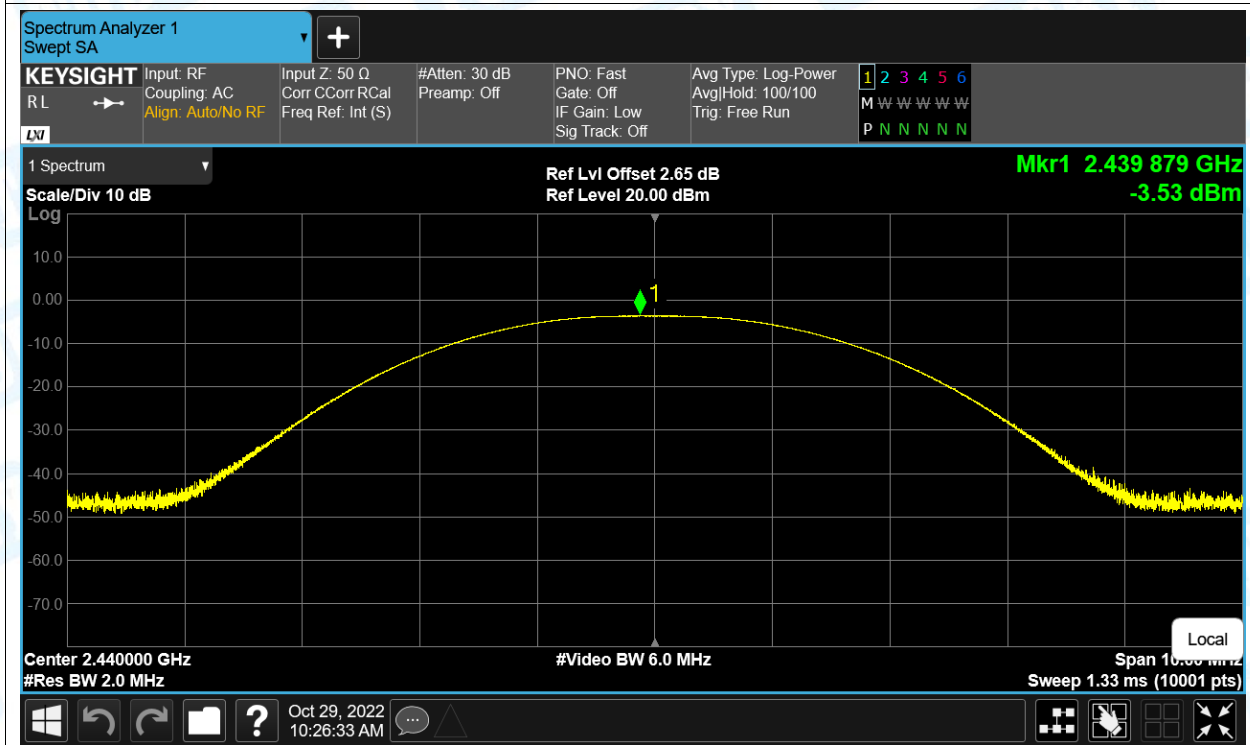
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-3.52	30	Pass
NVNT	BLE 1Mbps	2440	Ant1	-3.53	30	Pass
NVNT	BLE 1Mbps	2480	Ant1	-3.60	30	Pass
NVNT	BLE 2Mbps	2402	Ant1	-3.61	30	Pass
NVNT	BLE 2Mbps	2440	Ant1	-3.61	30	Pass
NVNT	BLE 2Mbps	2480	Ant1	-3.69	30	Pass

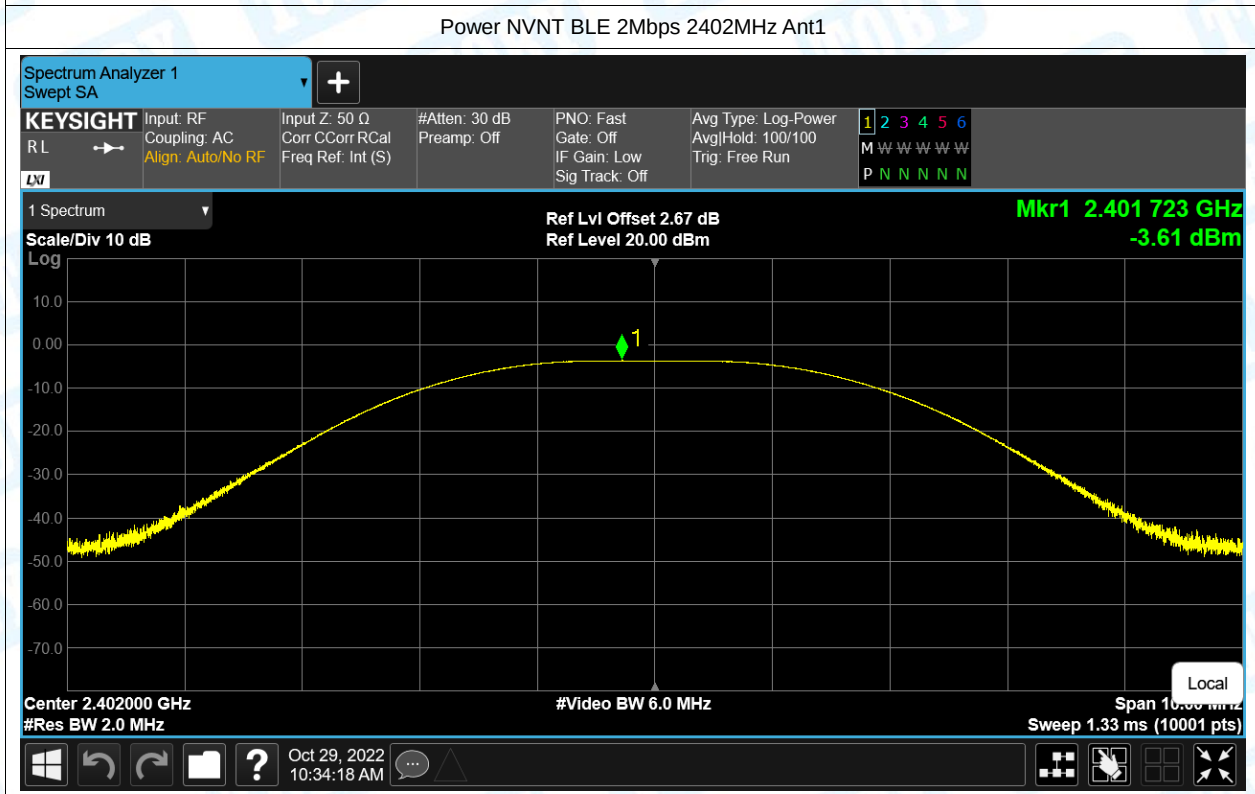
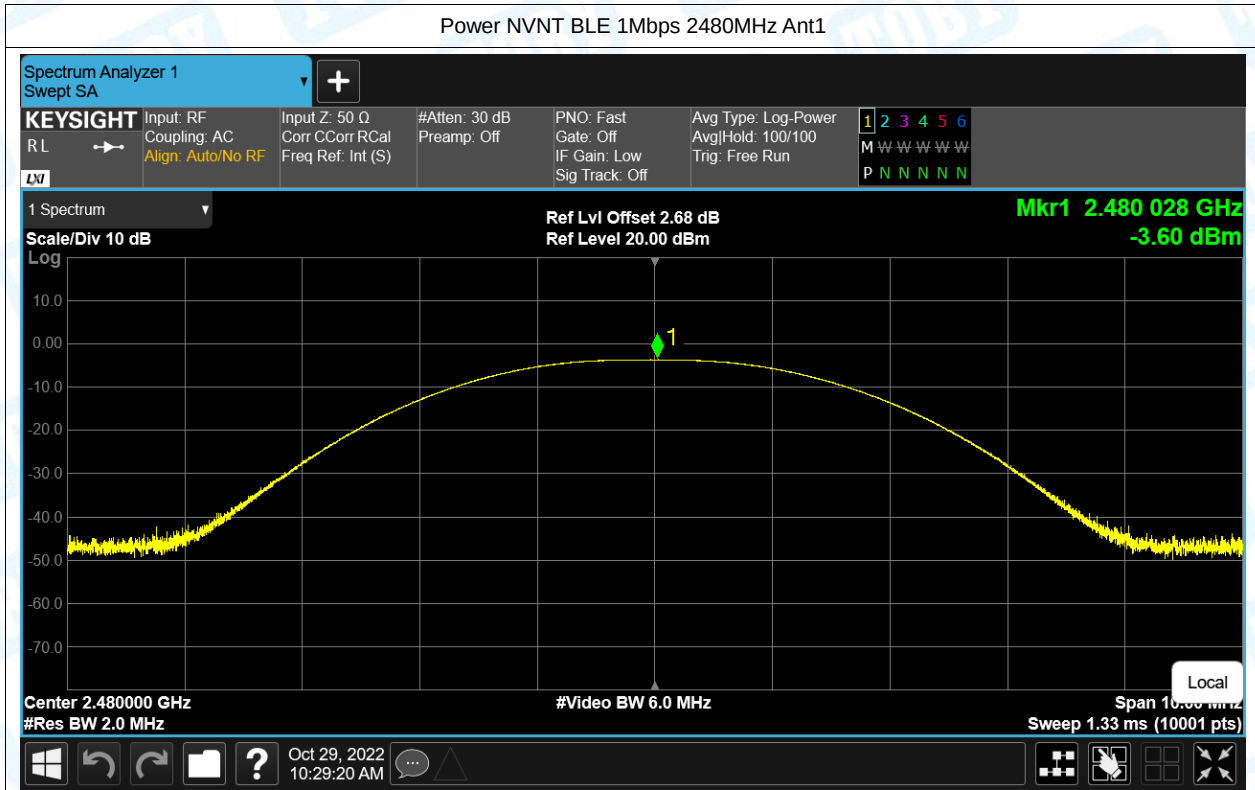
Test Graphs

Power NVNT BLE 1Mbps 2402MHz Ant1

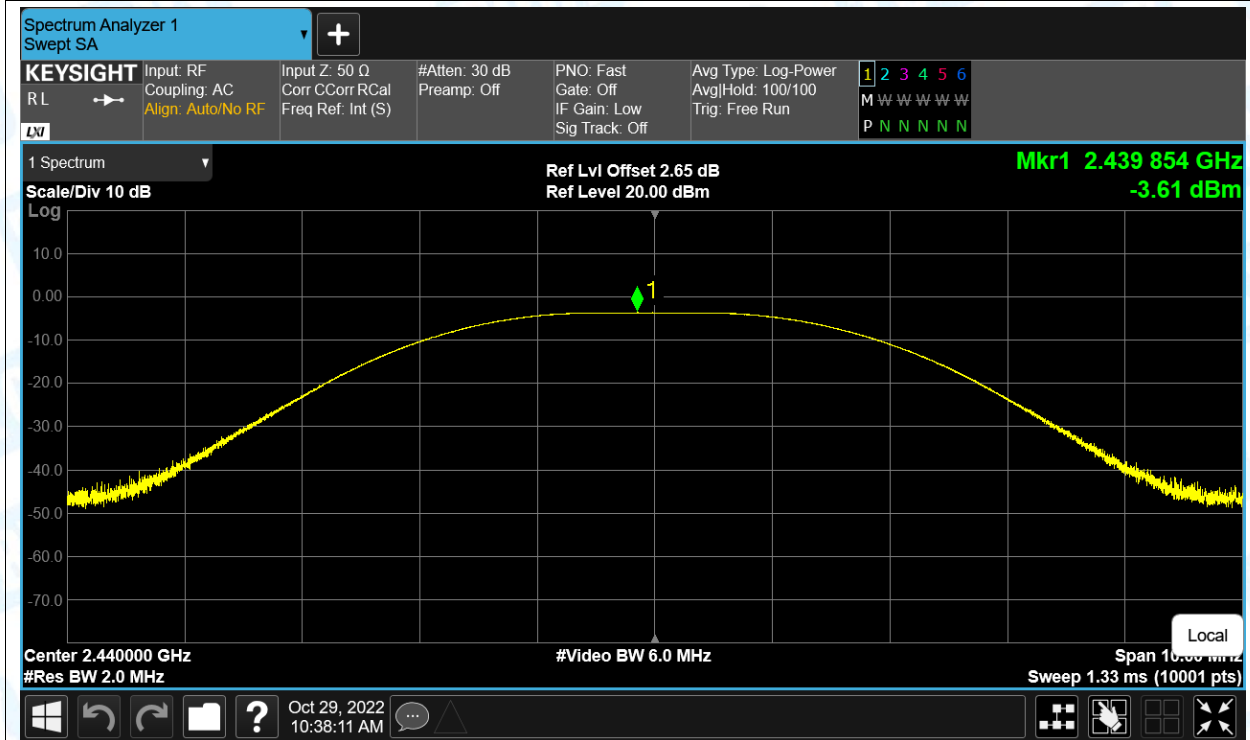


Power NVNT BLE 1Mbps 2440MHz Ant1

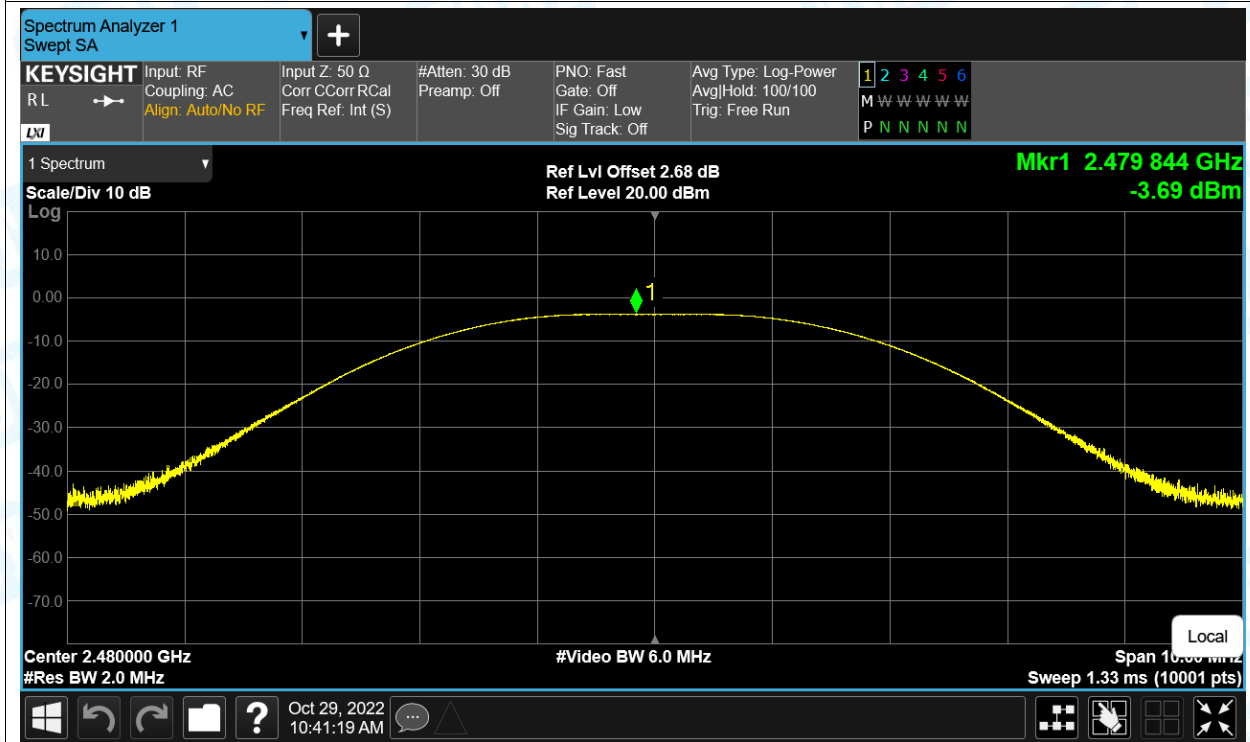




Power NVNT BLE 2Mbps 2440MHz Ant1



Power NVNT BLE 2Mbps 2480MHz Ant1

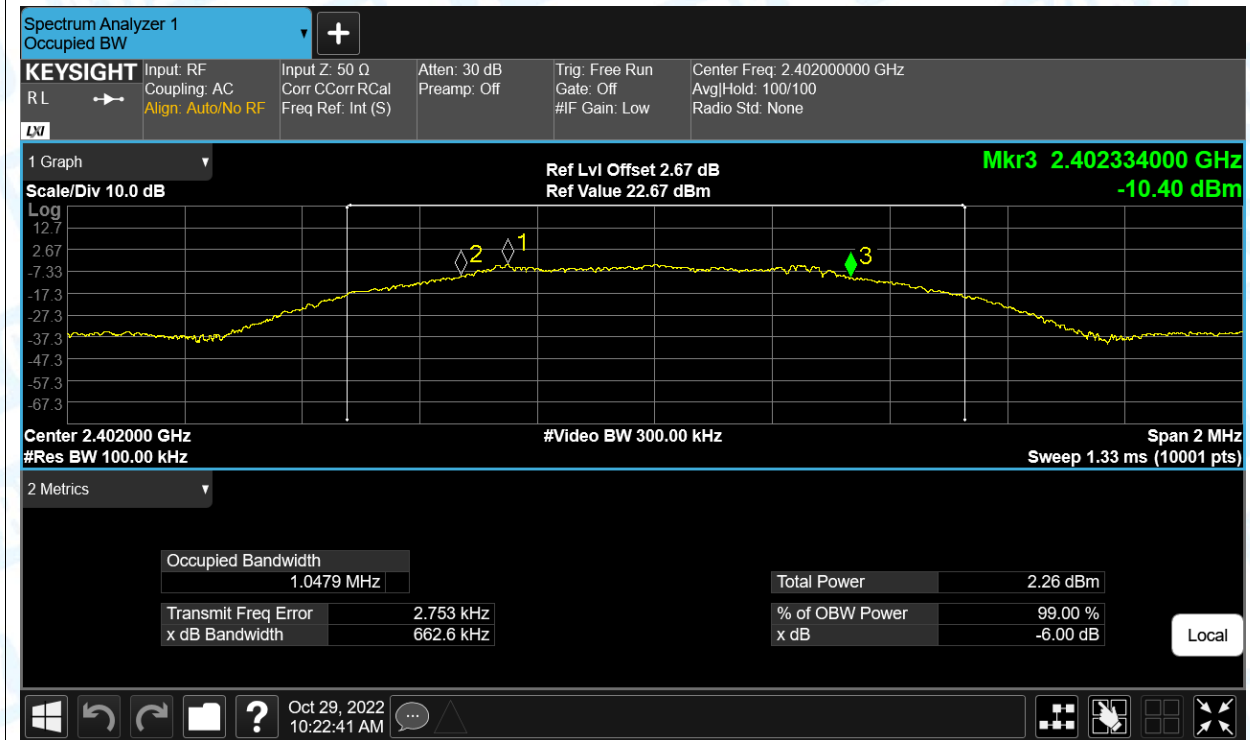


3. -6dB Bandwidth

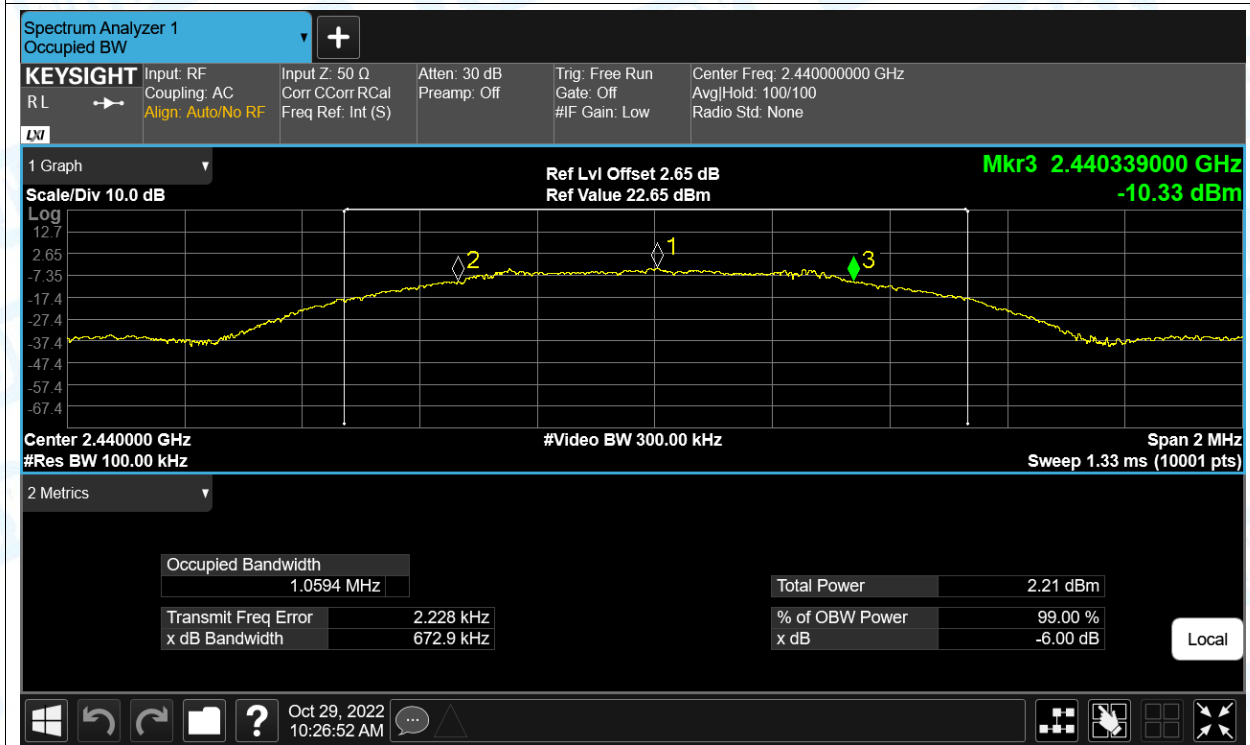
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	0.66	0.5	Pass
NVNT	BLE 1Mbps	2440	Ant1	0.67	0.5	Pass
NVNT	BLE 1Mbps	2480	Ant1	0.65	0.5	Pass
NVNT	BLE 2Mbps	2402	Ant1	1.33	0.5	Pass
NVNT	BLE 2Mbps	2440	Ant1	1.18	0.5	Pass
NVNT	BLE 2Mbps	2480	Ant1	1.14	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT BLE 1Mbps 2402MHz Ant1



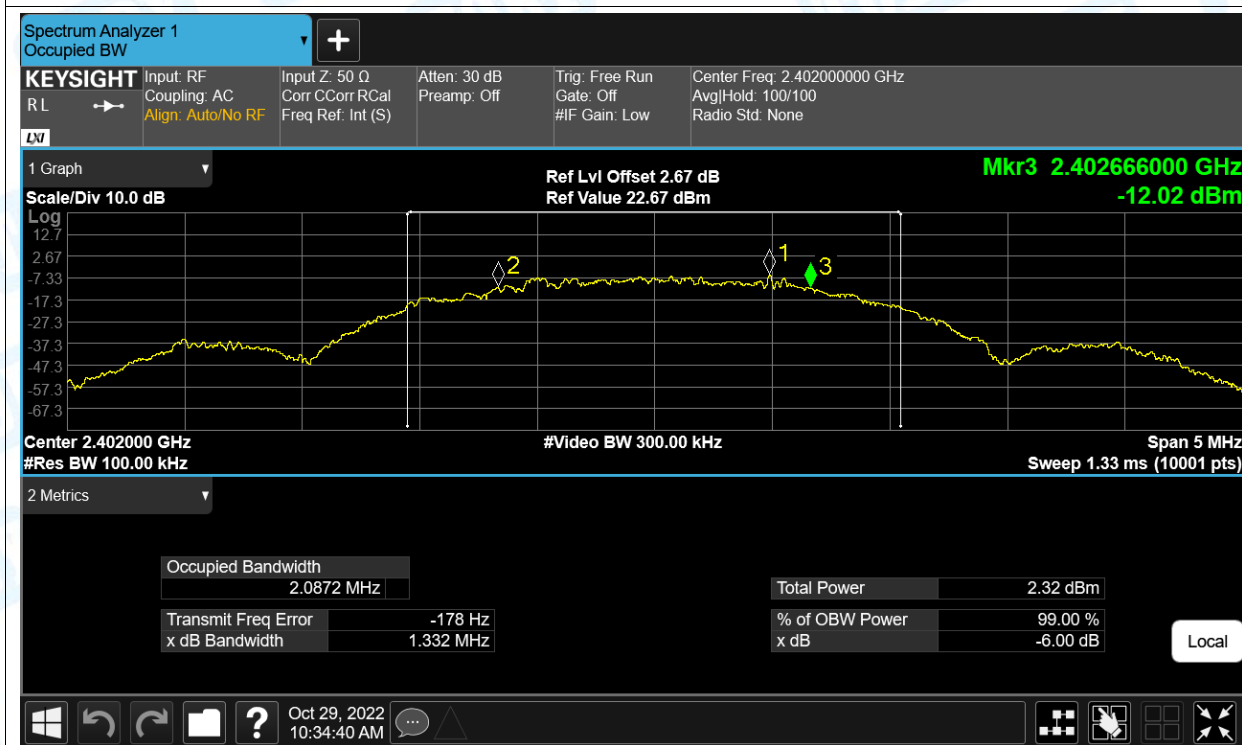
-6dB Bandwidth NVNT BLE 1Mbps 2440MHz Ant1

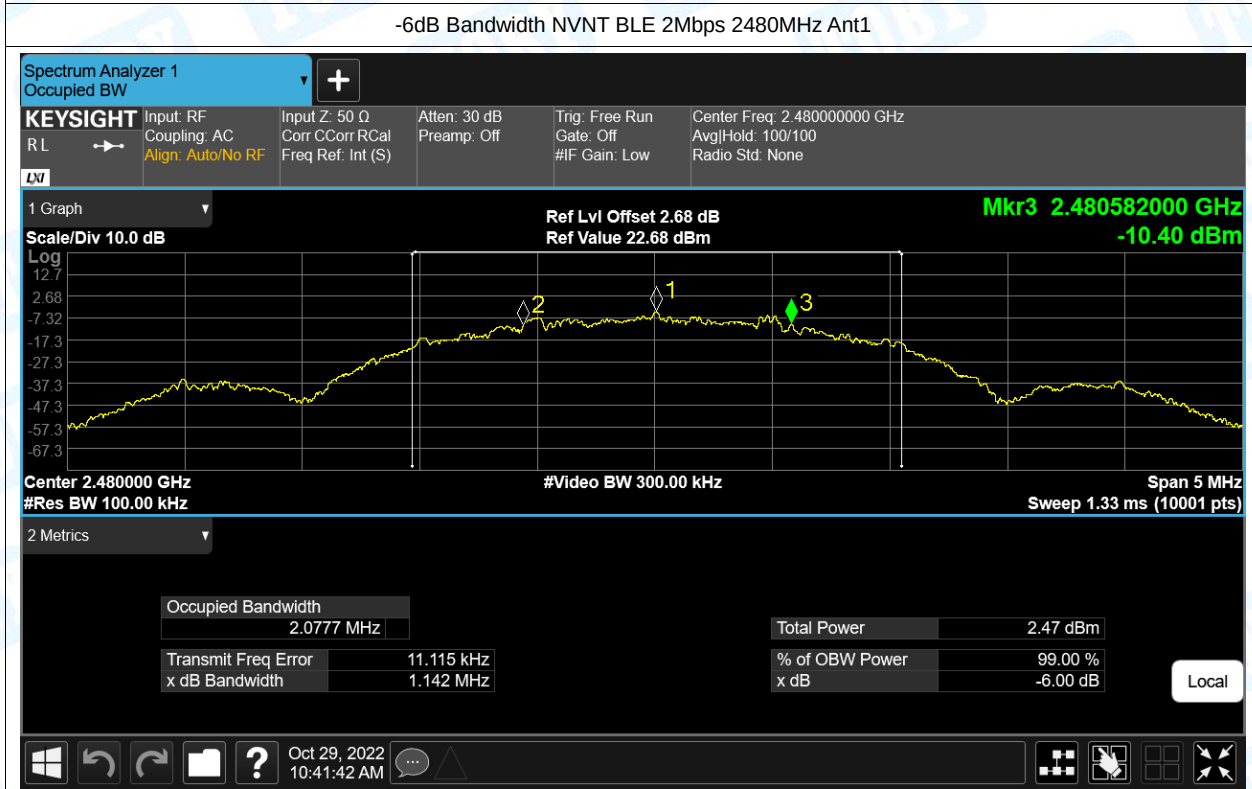
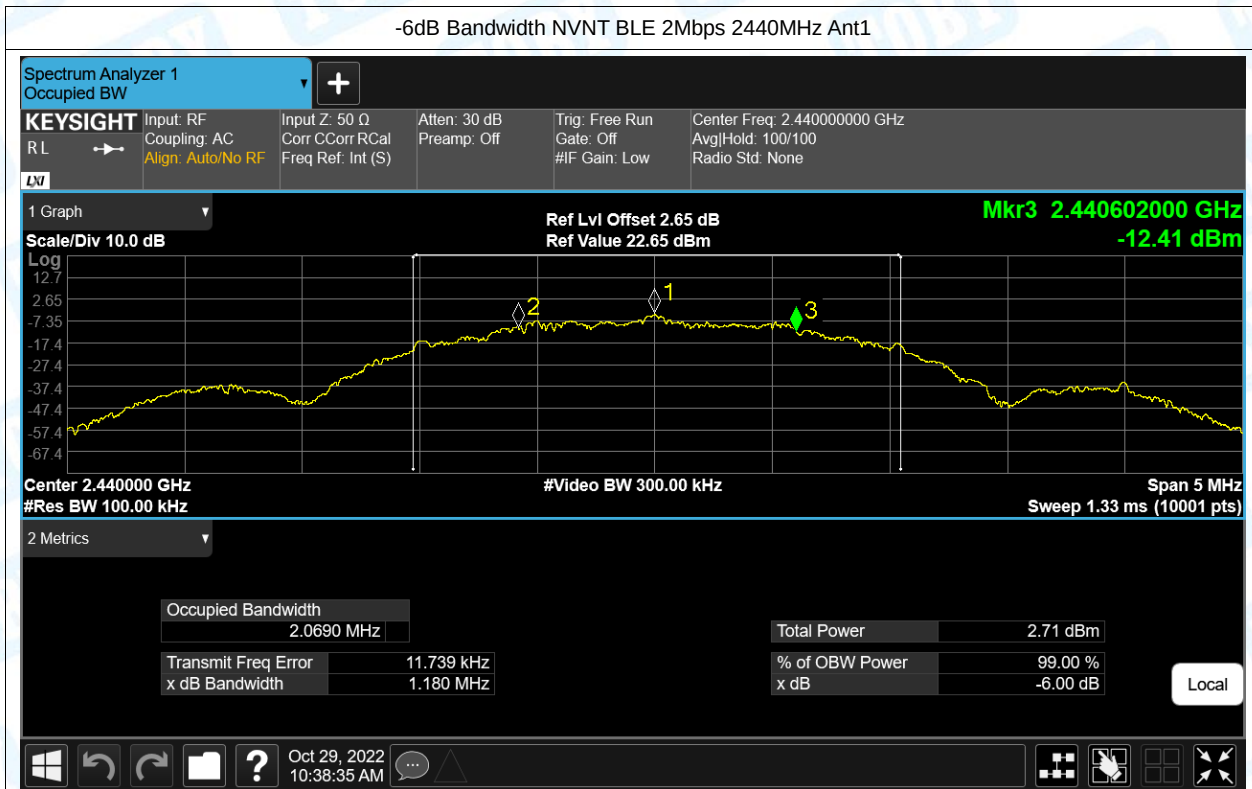


-6dB Bandwidth NVNT BLE 1Mbps 2480MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2402MHz Ant1





4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1Mbps	2402	Ant1	1.05
NVNT	BLE 1Mbps	2440	Ant1	1.046
NVNT	BLE 1Mbps	2480	Ant1	1.047
NVNT	BLE 2Mbps	2402	Ant1	2.099
NVNT	BLE 2Mbps	2440	Ant1	2.097
NVNT	BLE 2Mbps	2480	Ant1	2.106

Test Graphs

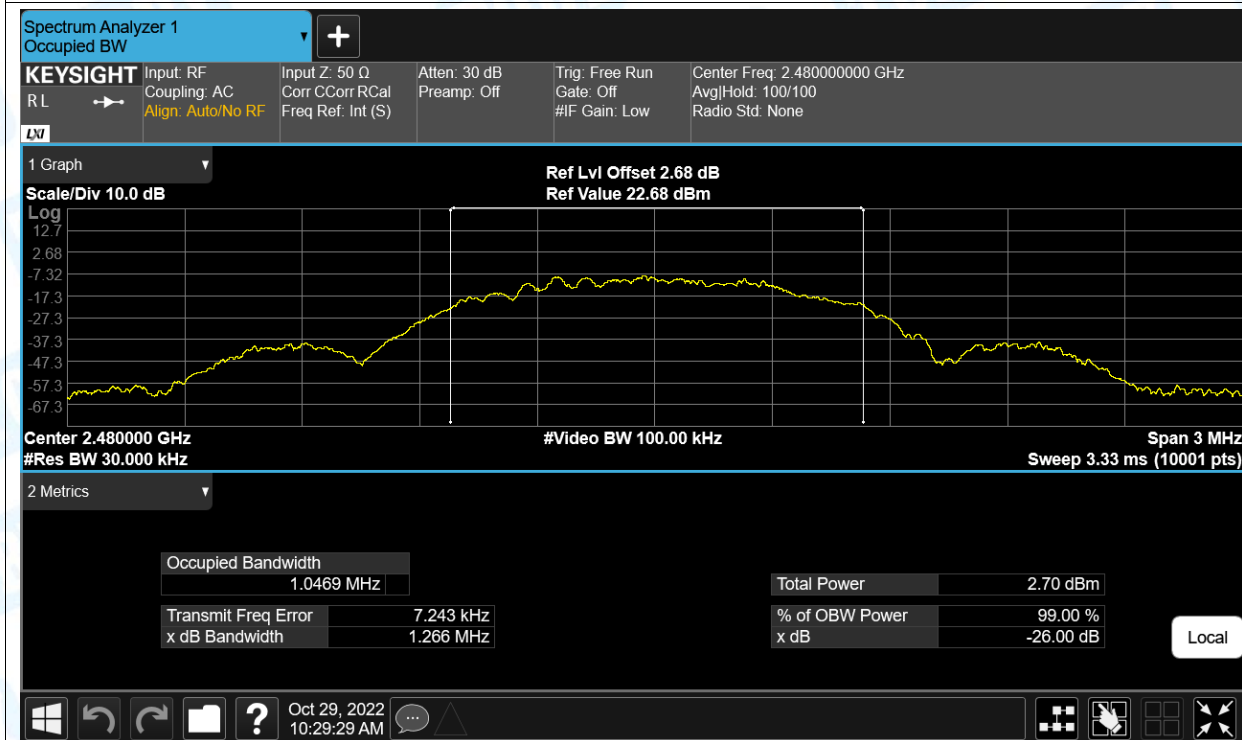
OBW NVNT BLE 1Mbps 2402MHz Ant1



OBW NVNT BLE 1Mbps 2440MHz Ant1



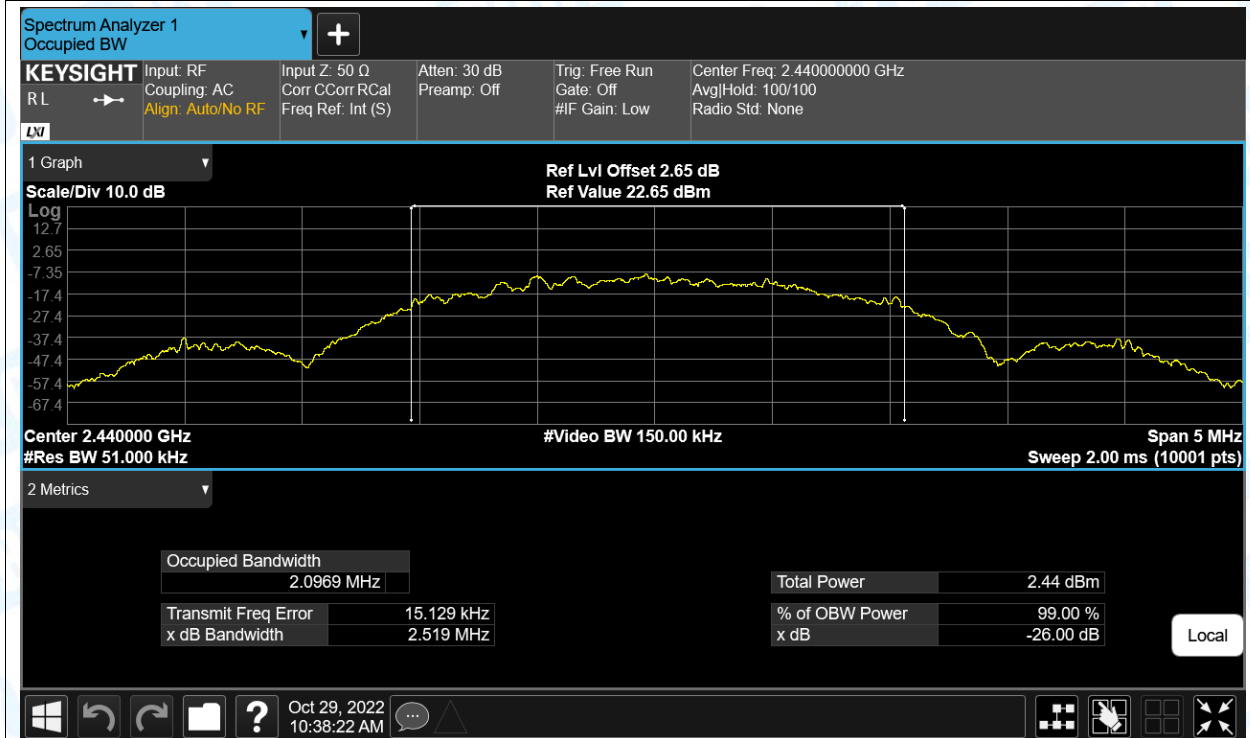
OBW NVNT BLE 1Mbps 2480MHz Ant1



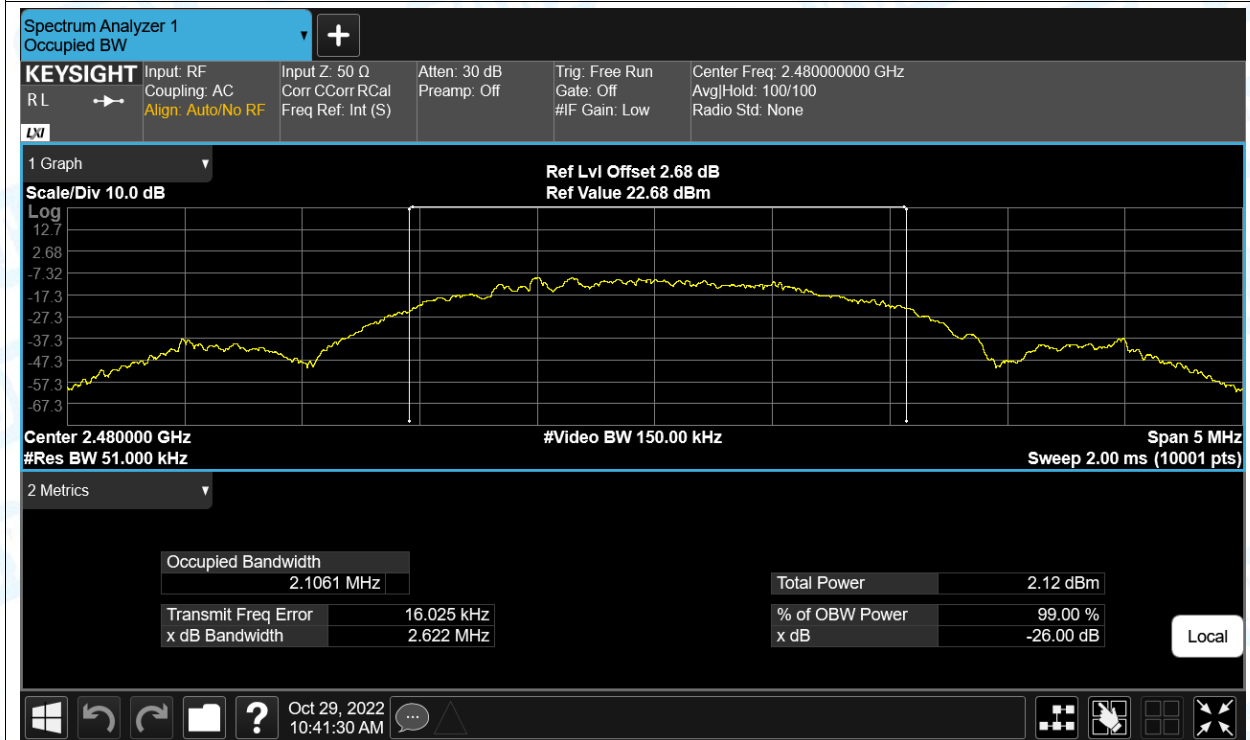
OBW NVNT BLE 2Mbps 2402MHz Ant1



OBW NVNT BLE 2Mbps 2440MHz Ant1



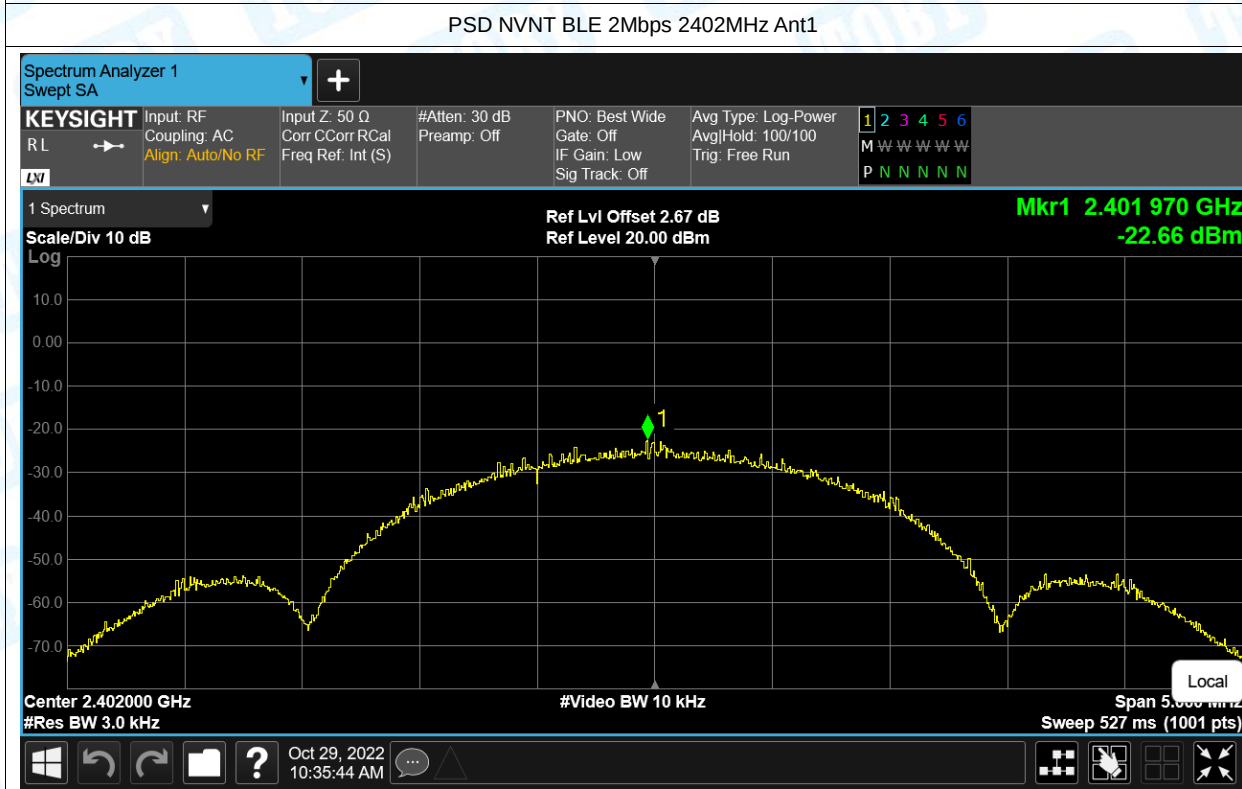
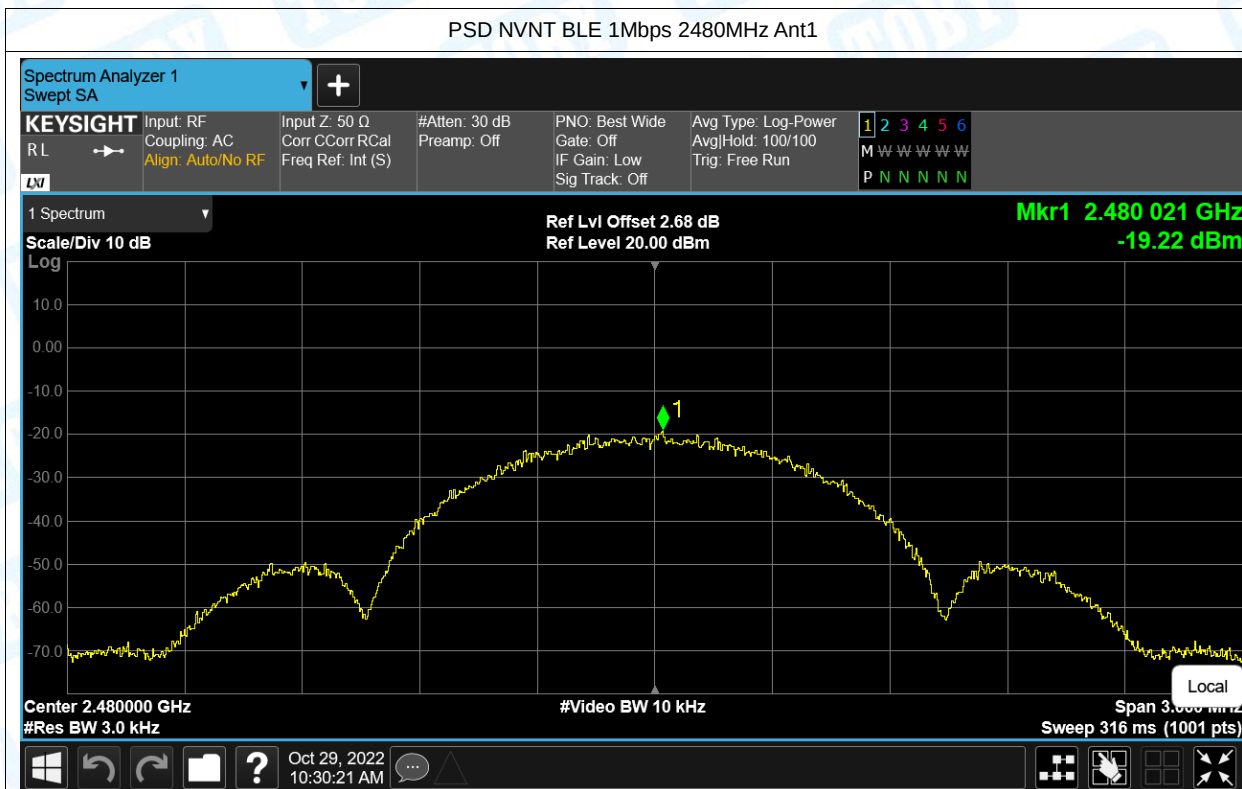
OBW NVNT BLE 2Mbps 2480MHz Ant1

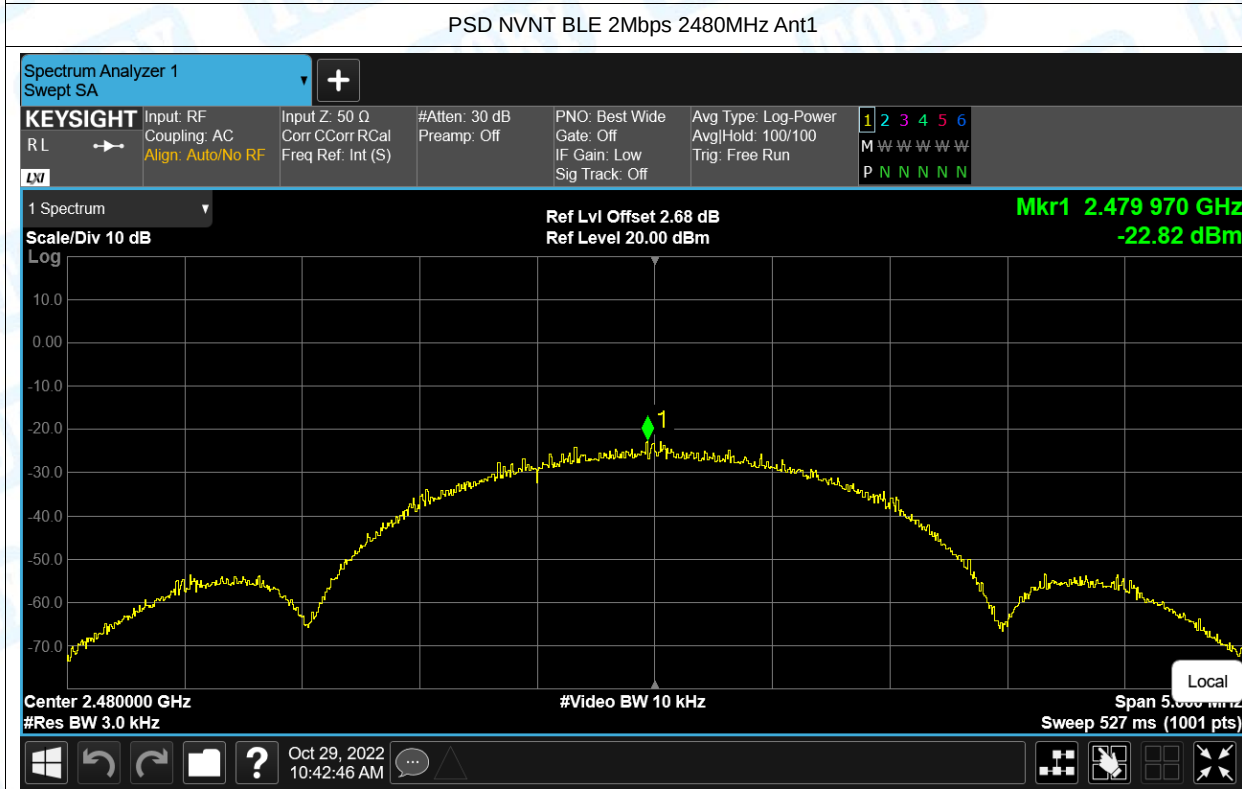
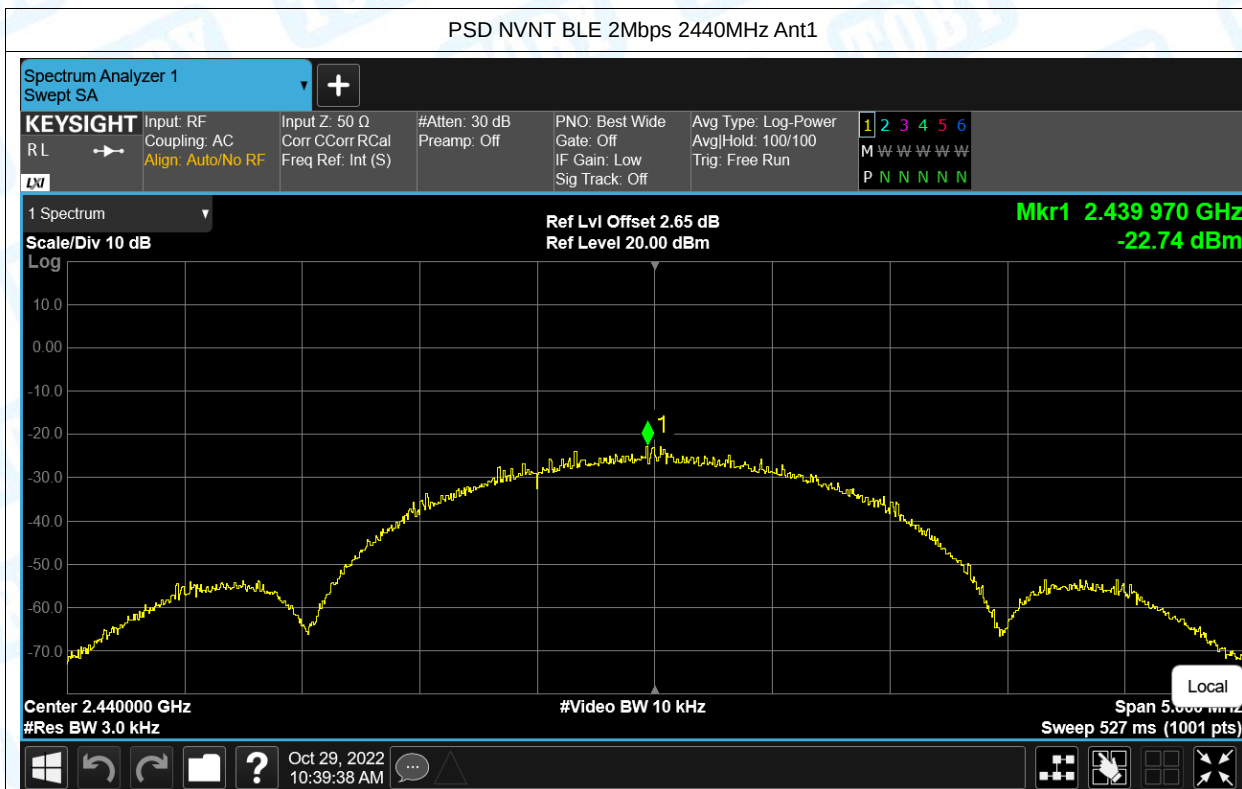


5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-20.175	8	Pass
NVNT	BLE 1Mbps	2440	Ant1	-18.978	8	Pass
NVNT	BLE 1Mbps	2480	Ant1	-19.225	8	Pass
NVNT	BLE 2Mbps	2402	Ant1	-22.656	8	Pass
NVNT	BLE 2Mbps	2440	Ant1	-22.744	8	Pass
NVNT	BLE 2Mbps	2480	Ant1	-22.815	8	Pass





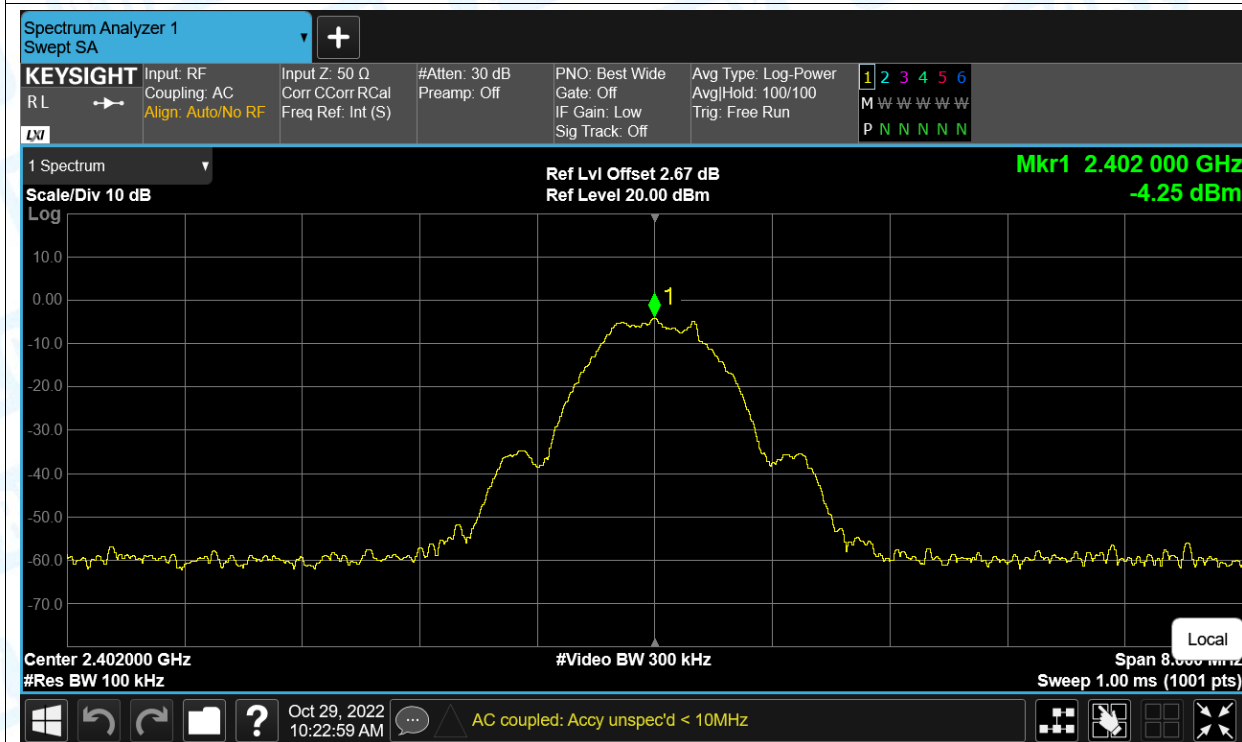


6. Band Edge

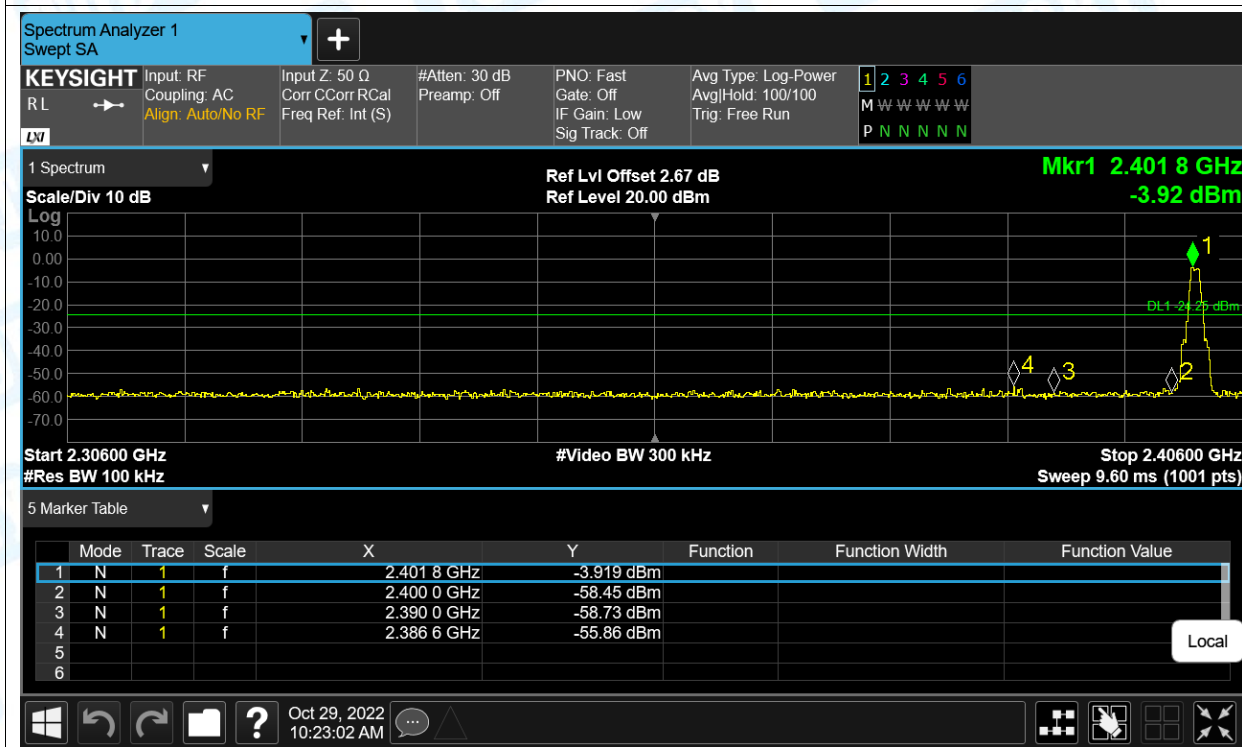
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-51.61	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-51.82	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-51.79	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-49.23	-20	Pass

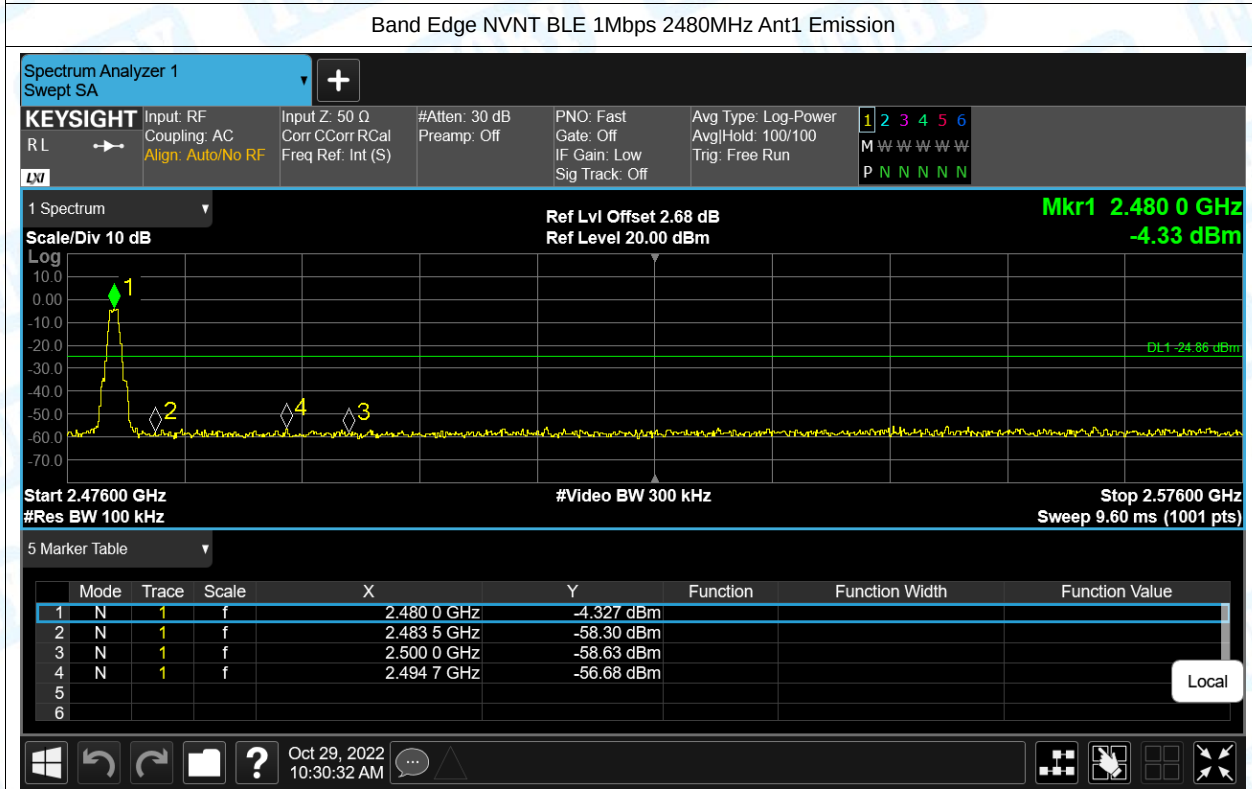
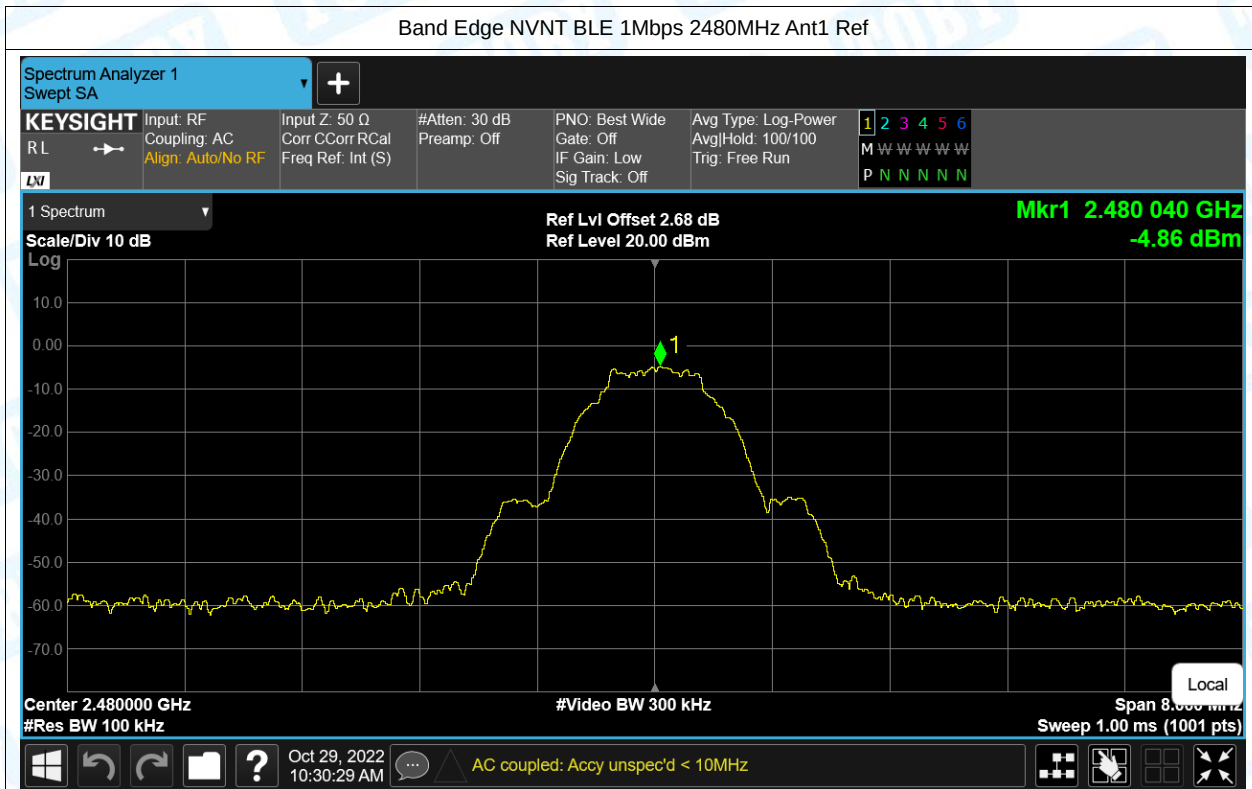
Test Graphs

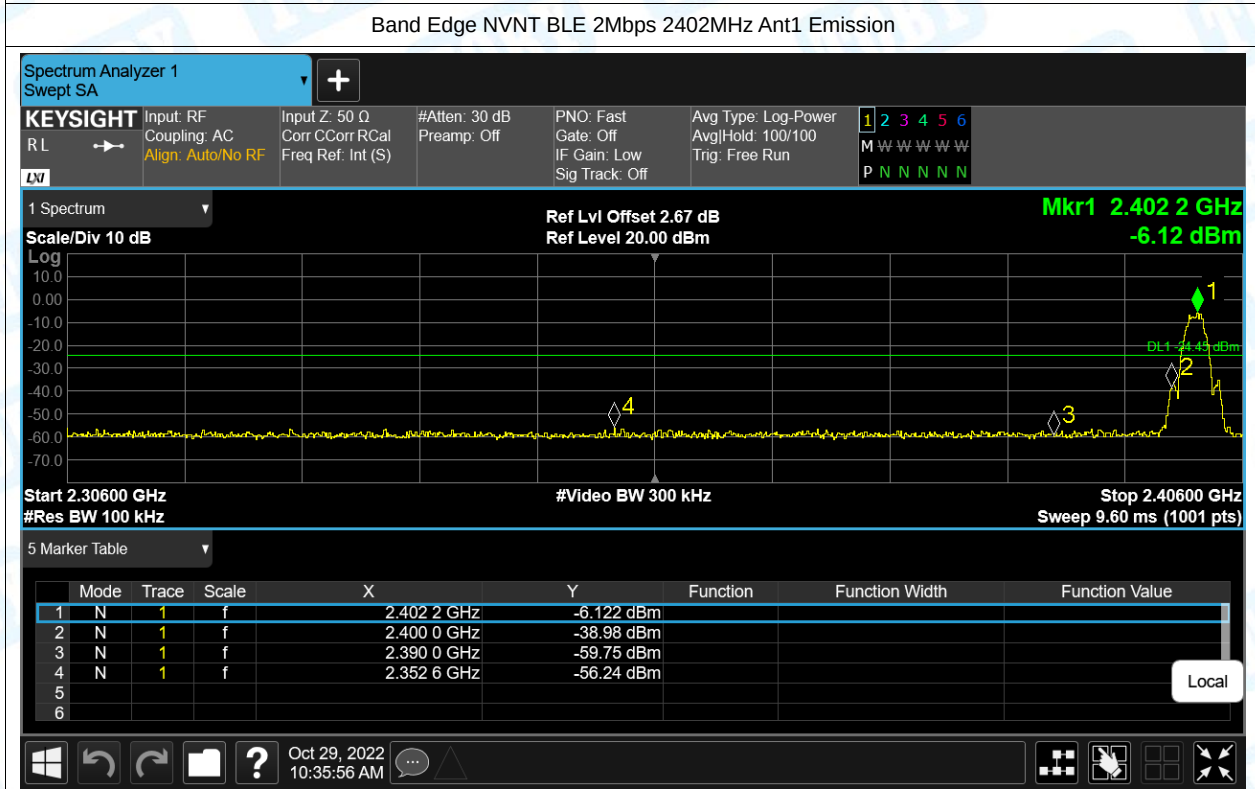
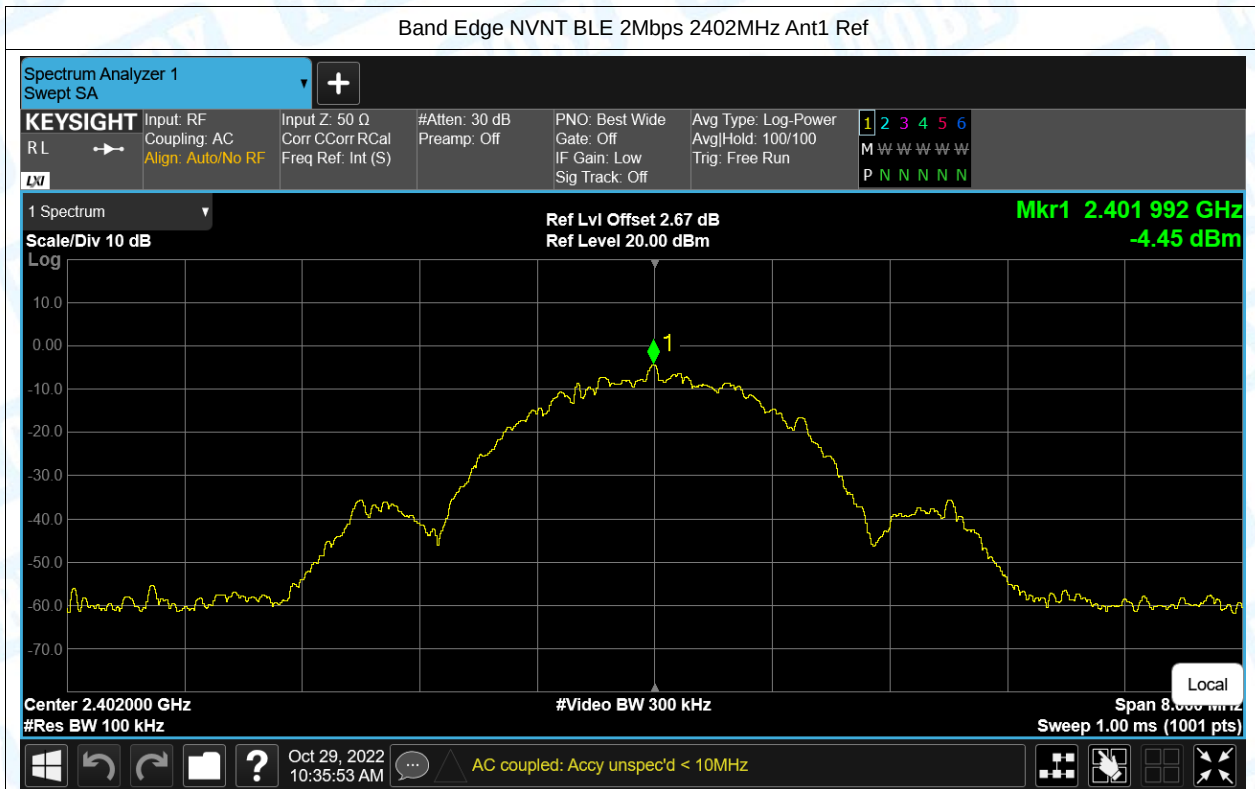
Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Ref

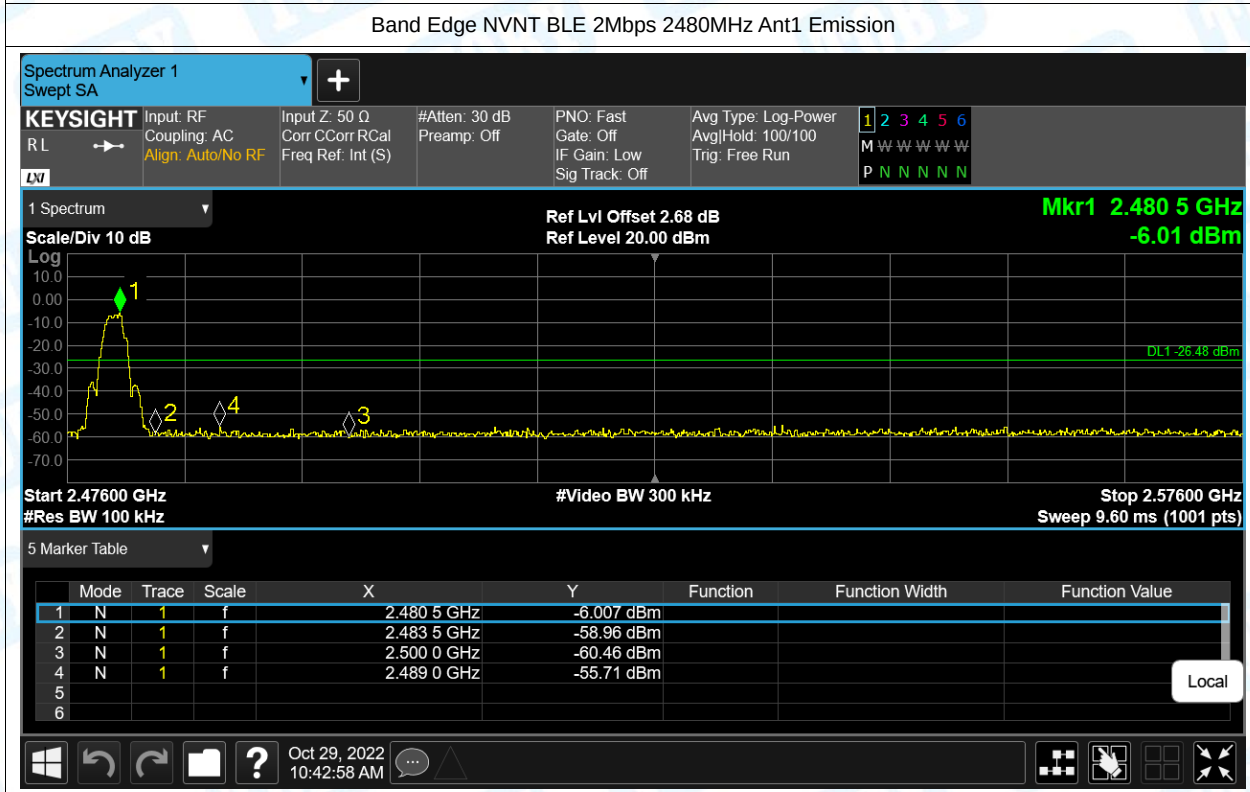
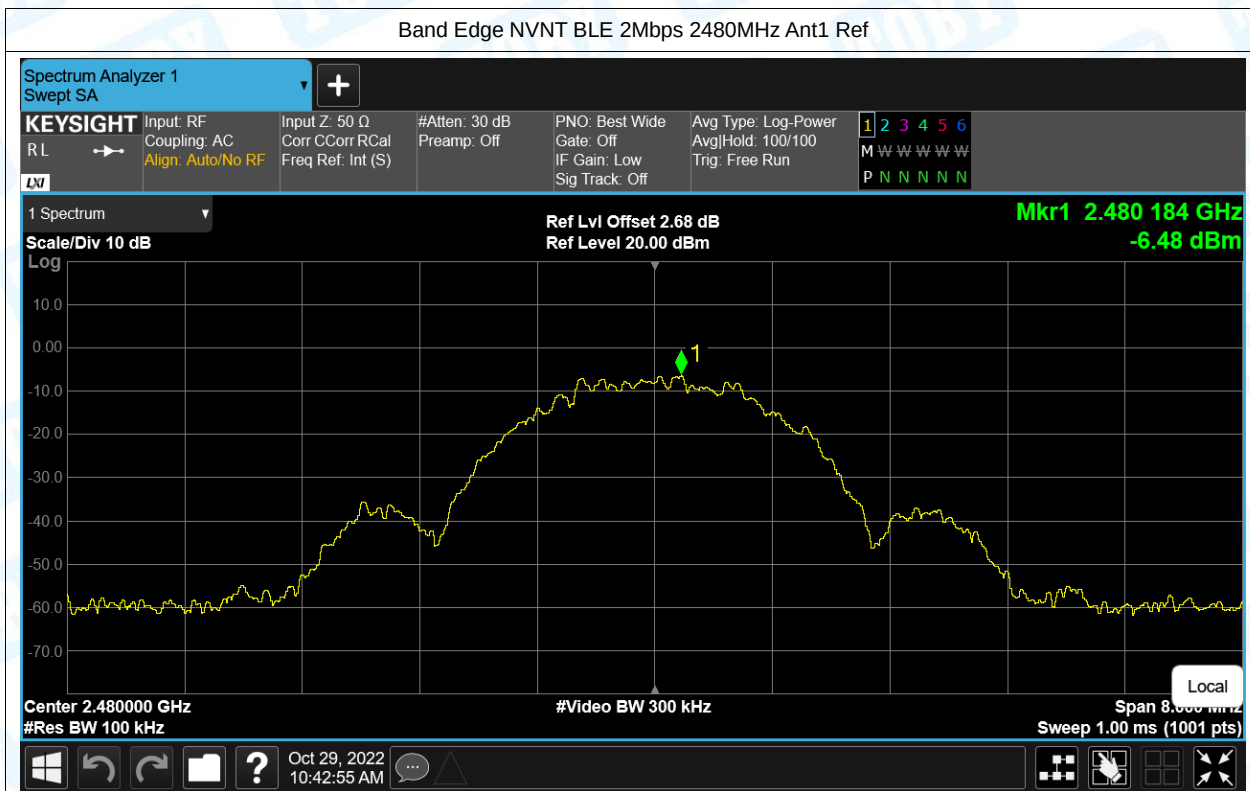


Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Emission





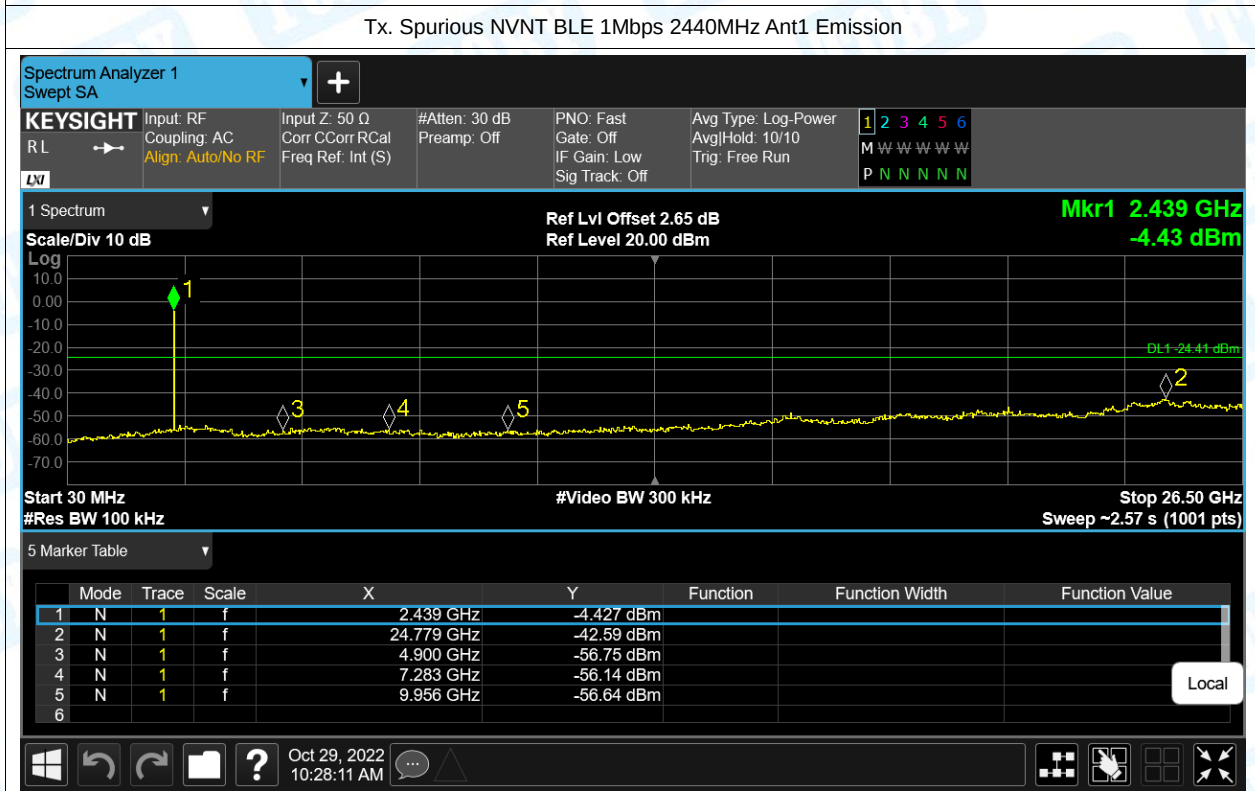
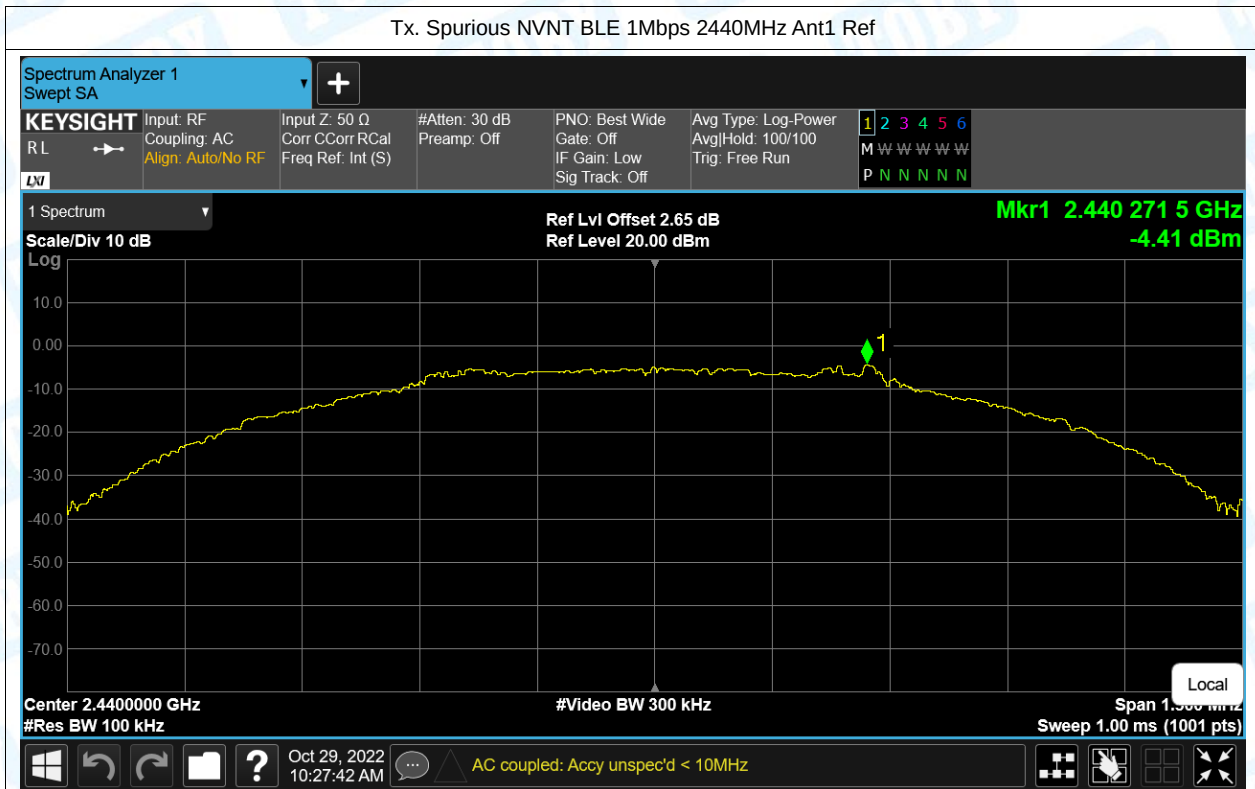


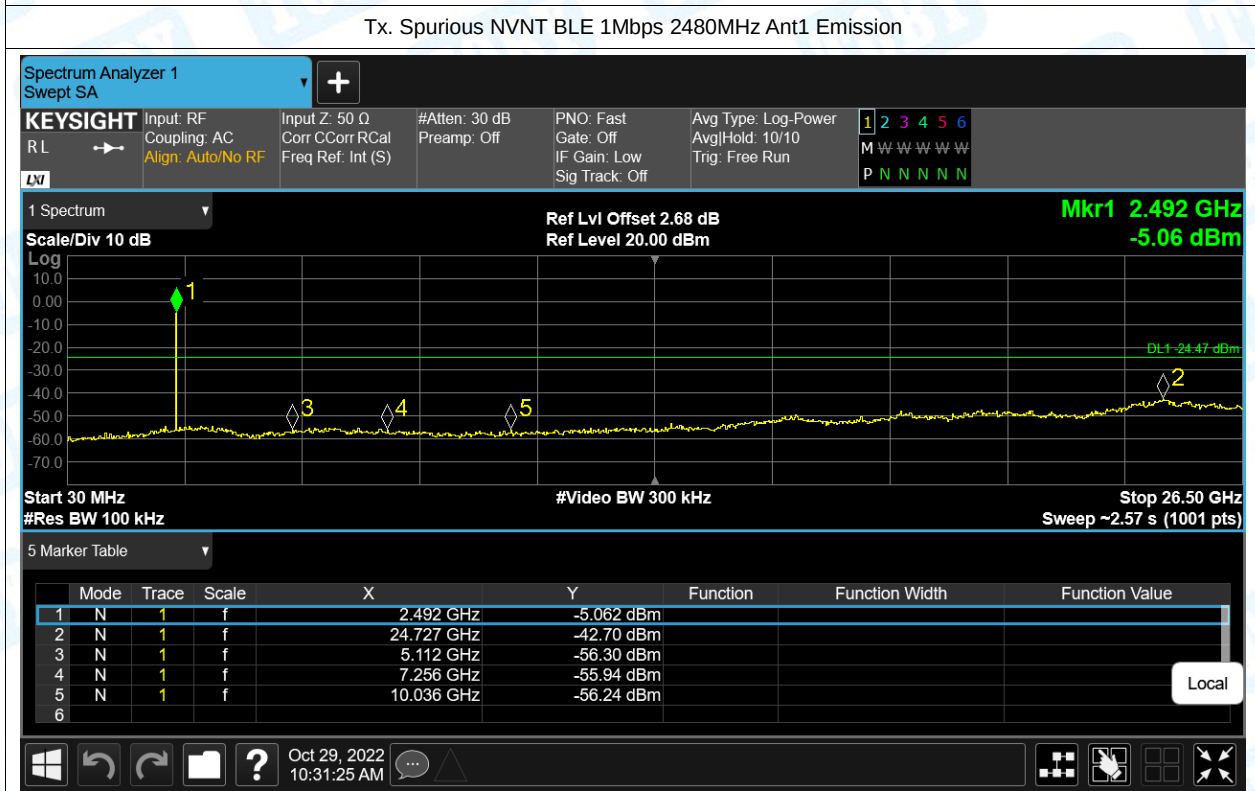
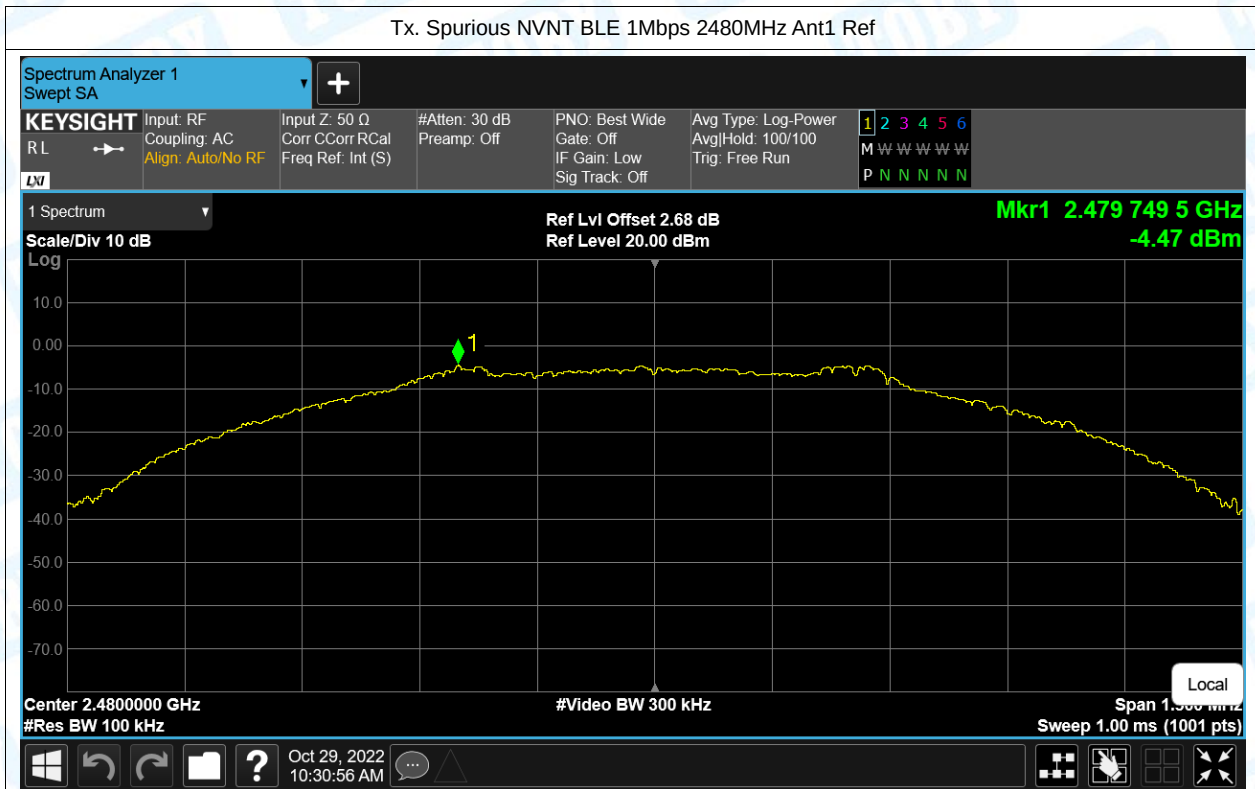


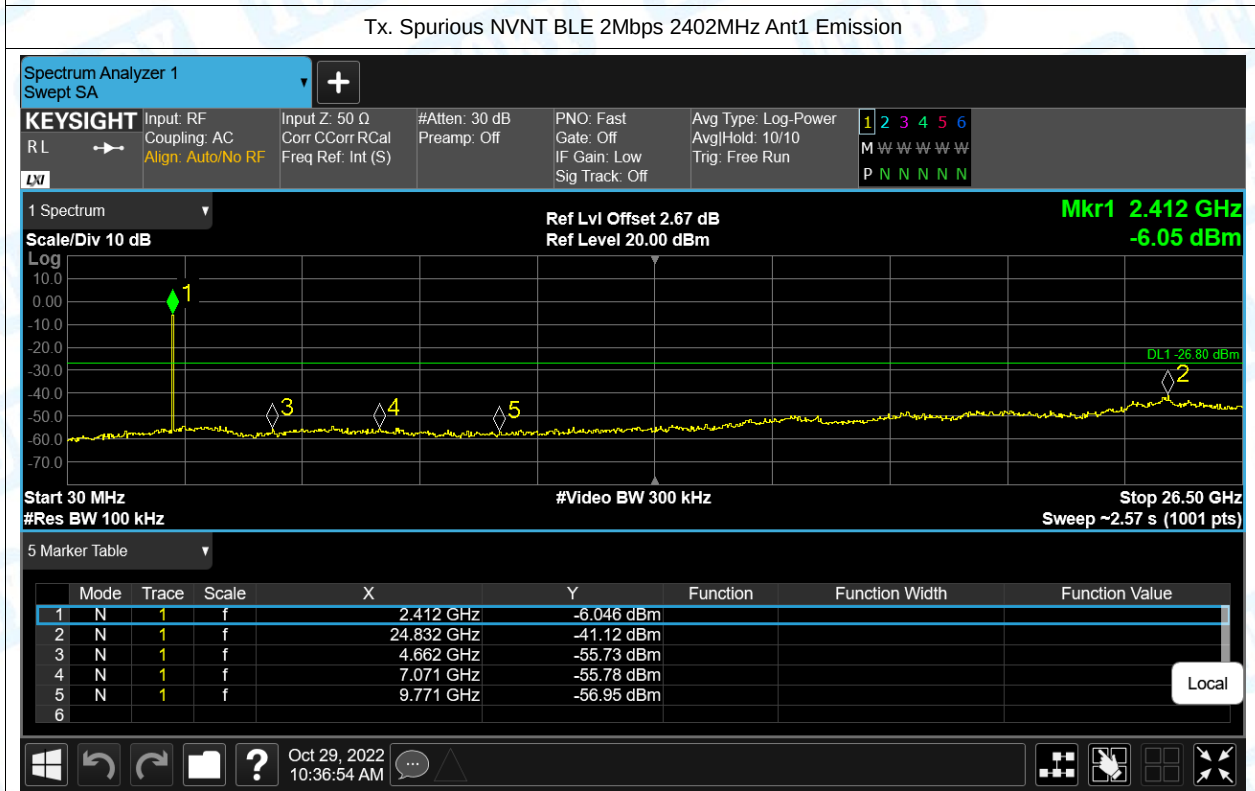
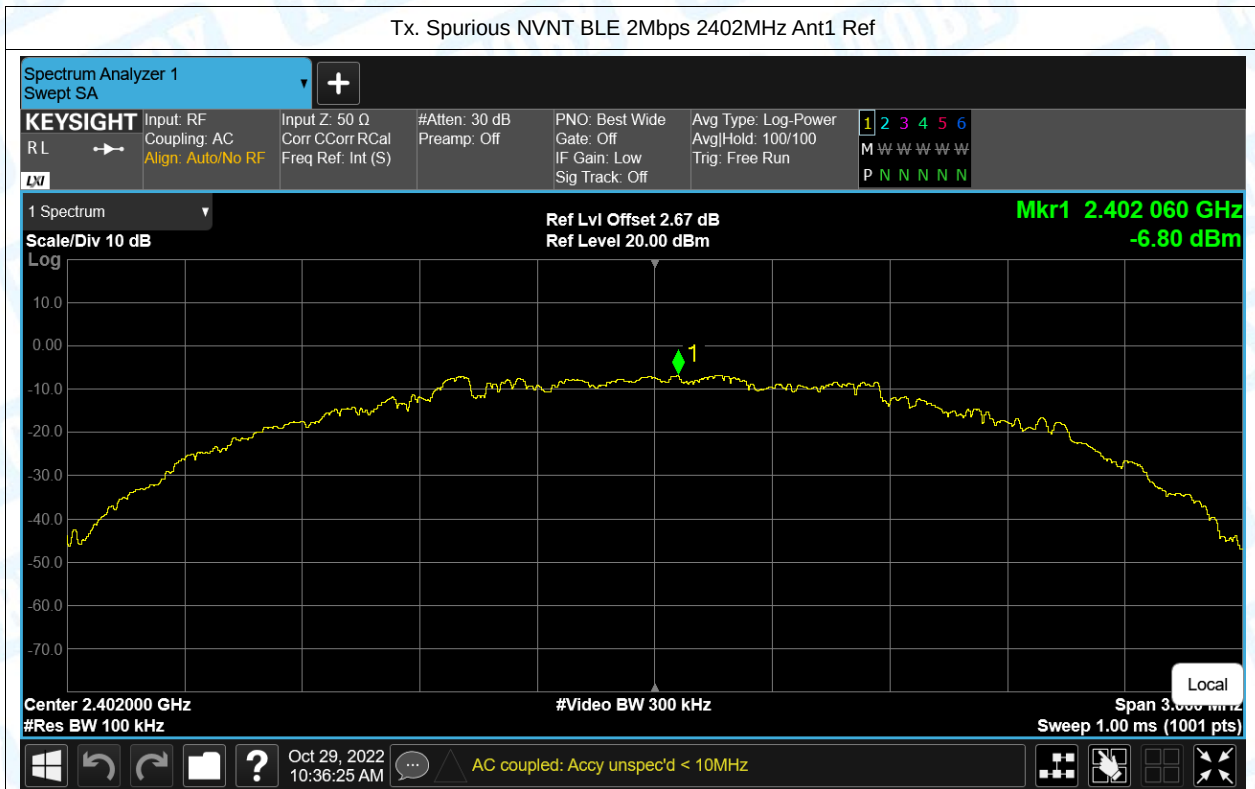
7. Conducted RF Spurious Emission

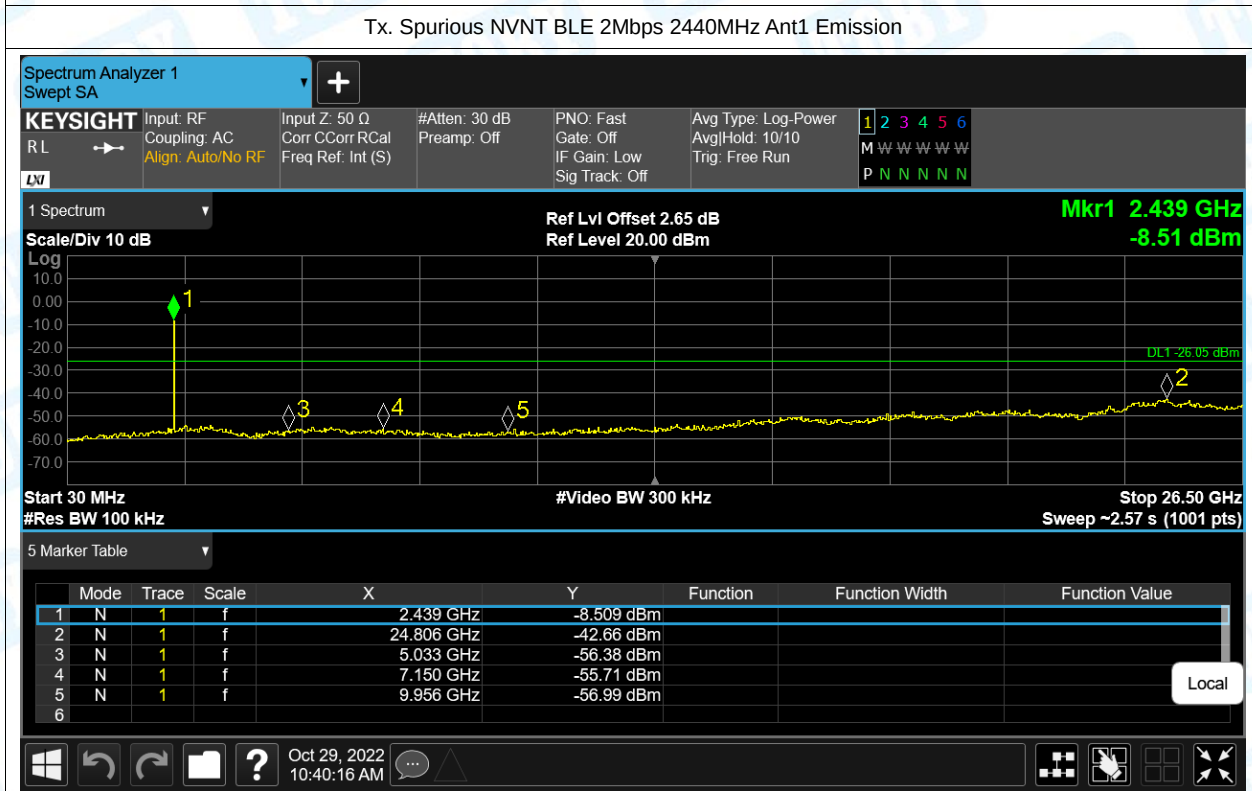
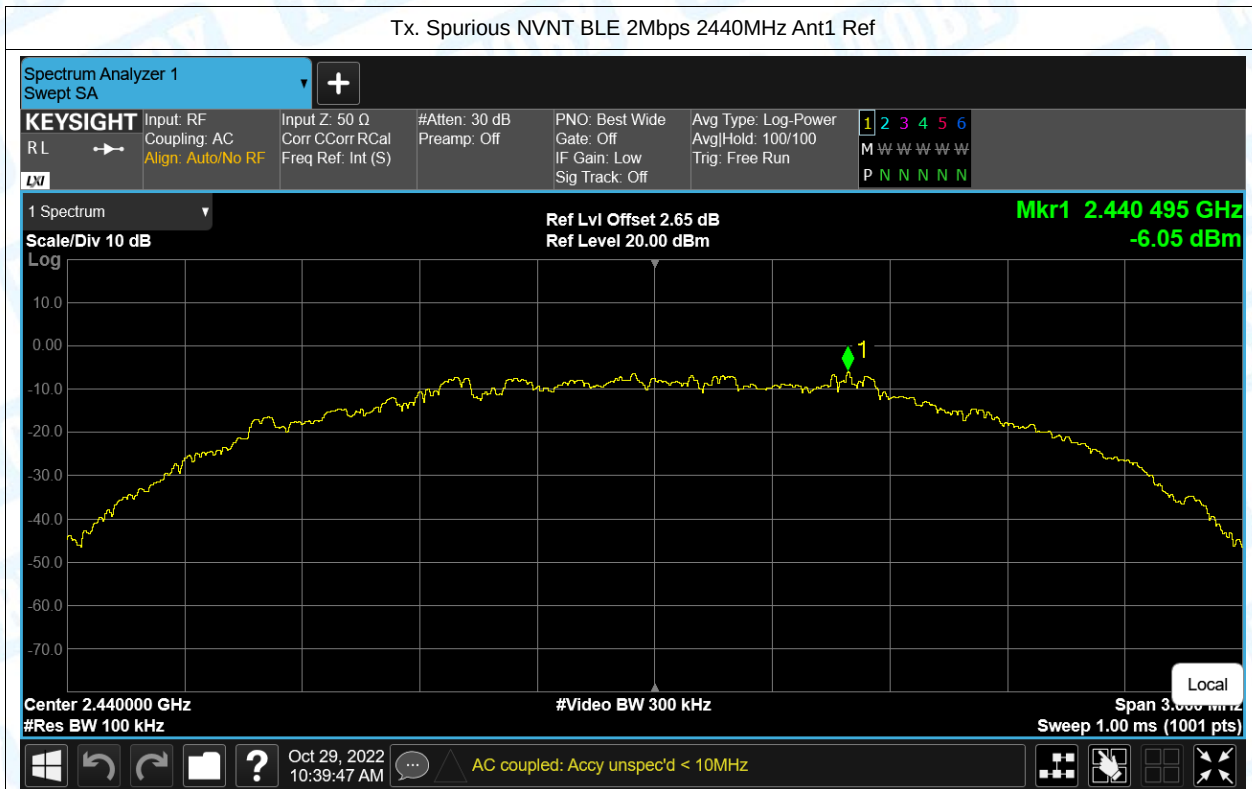
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-38.1	-20	Pass
NVNT	BLE 1Mbps	2440	Ant1	-38.19	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-38.23	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-34.32	-20	Pass
NVNT	BLE 2Mbps	2440	Ant1	-36.61	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-36.47	-20	Pass

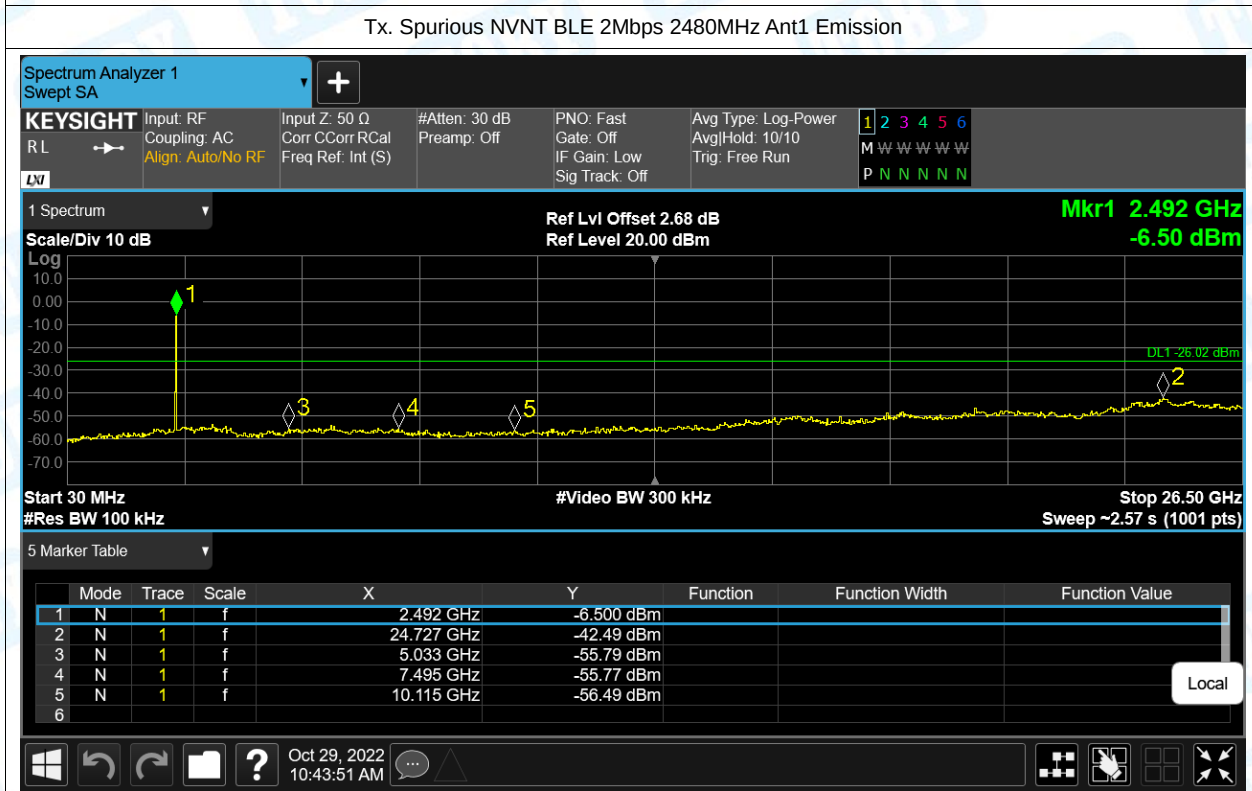
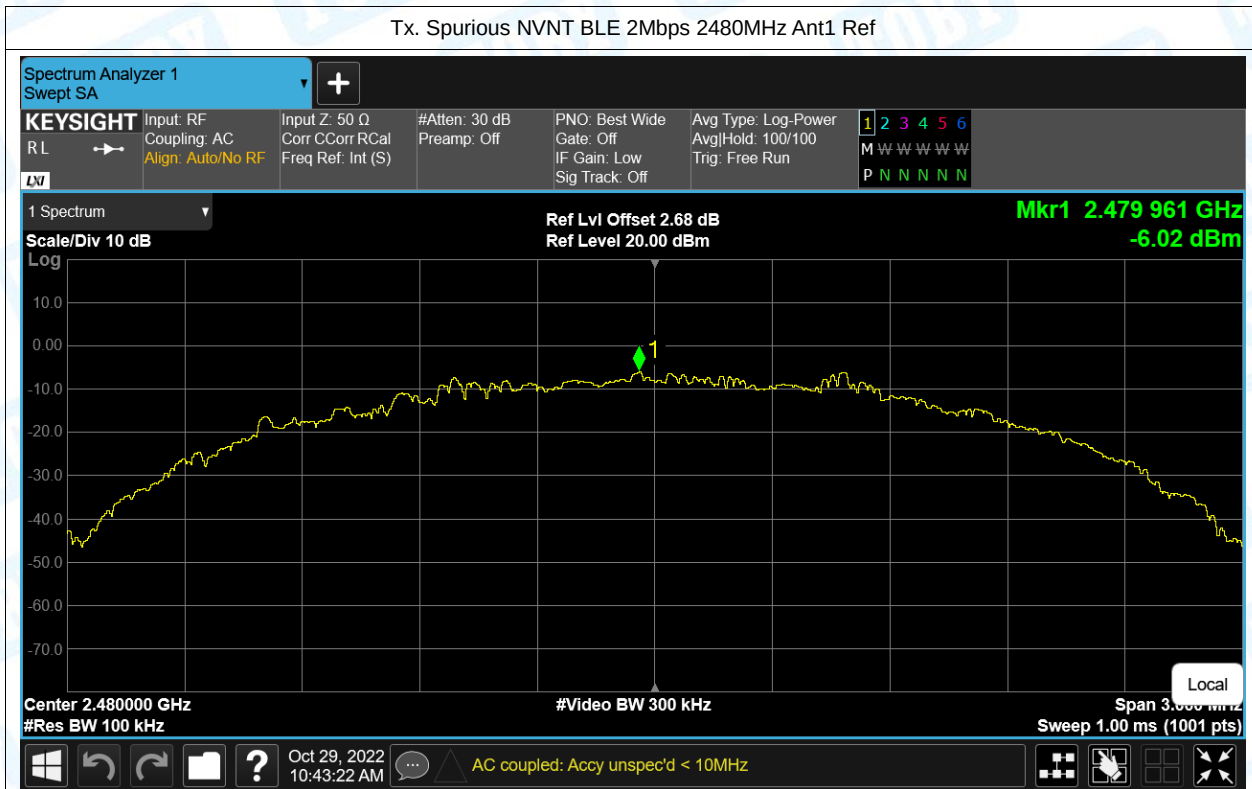






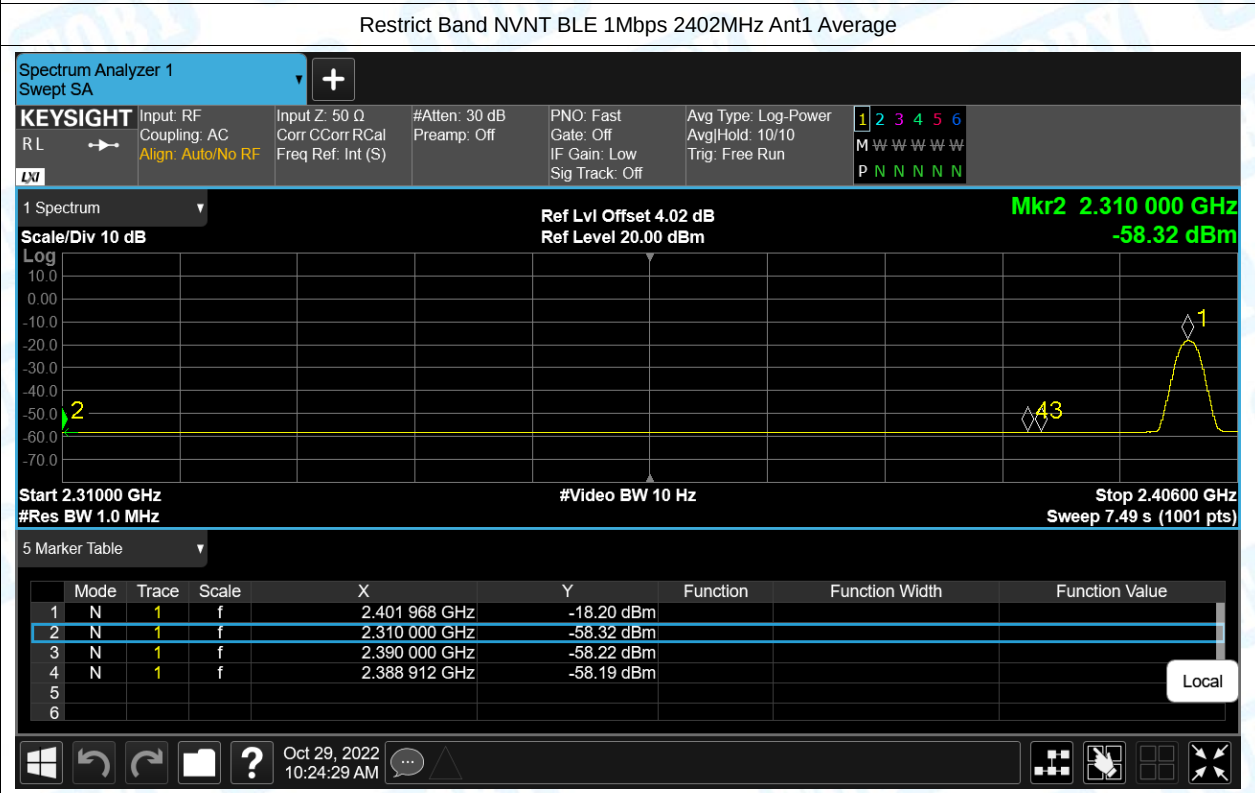
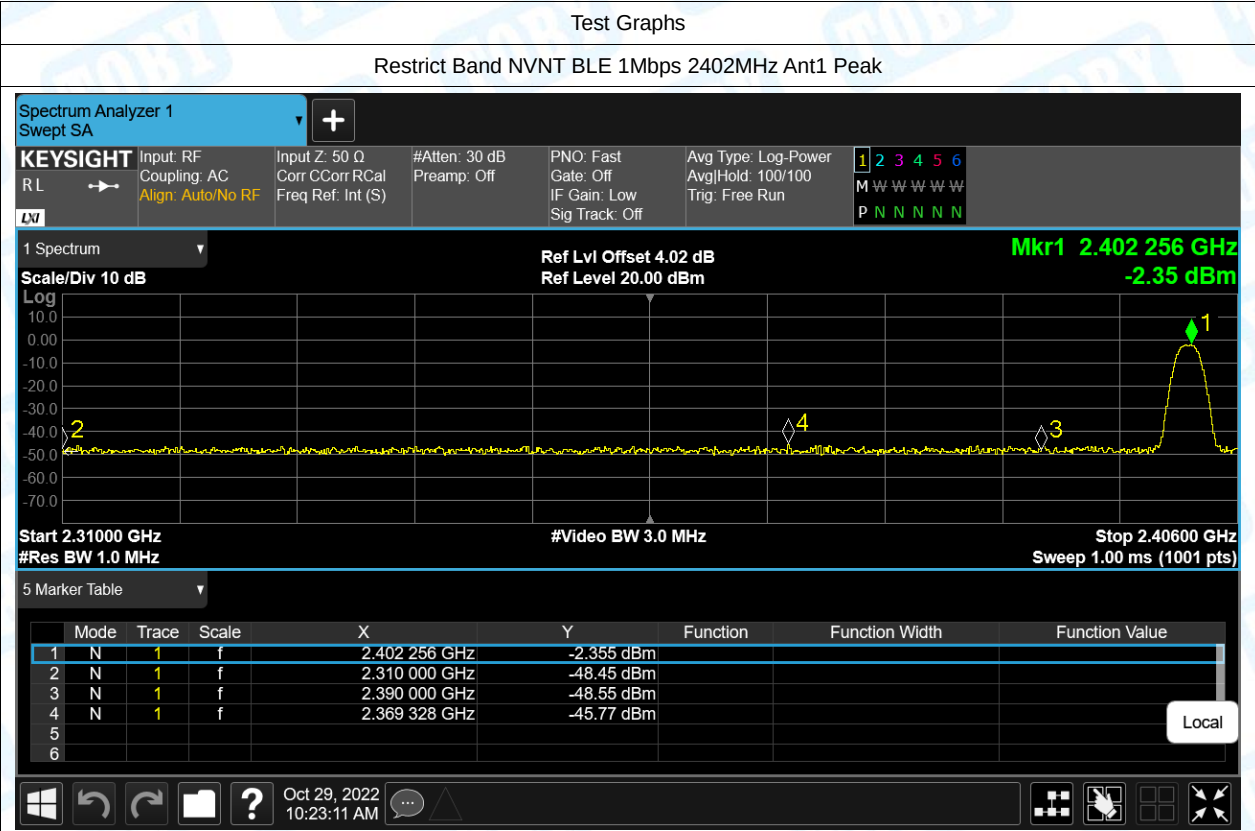




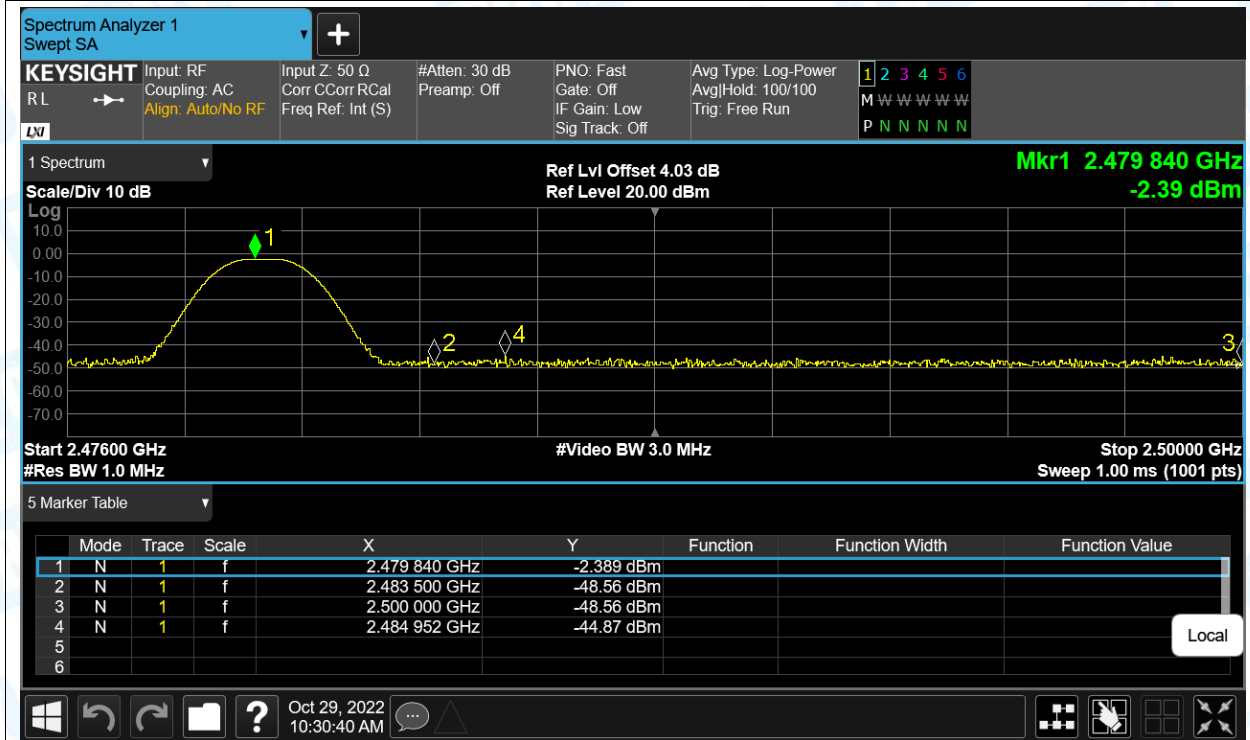


8. Restrict Band

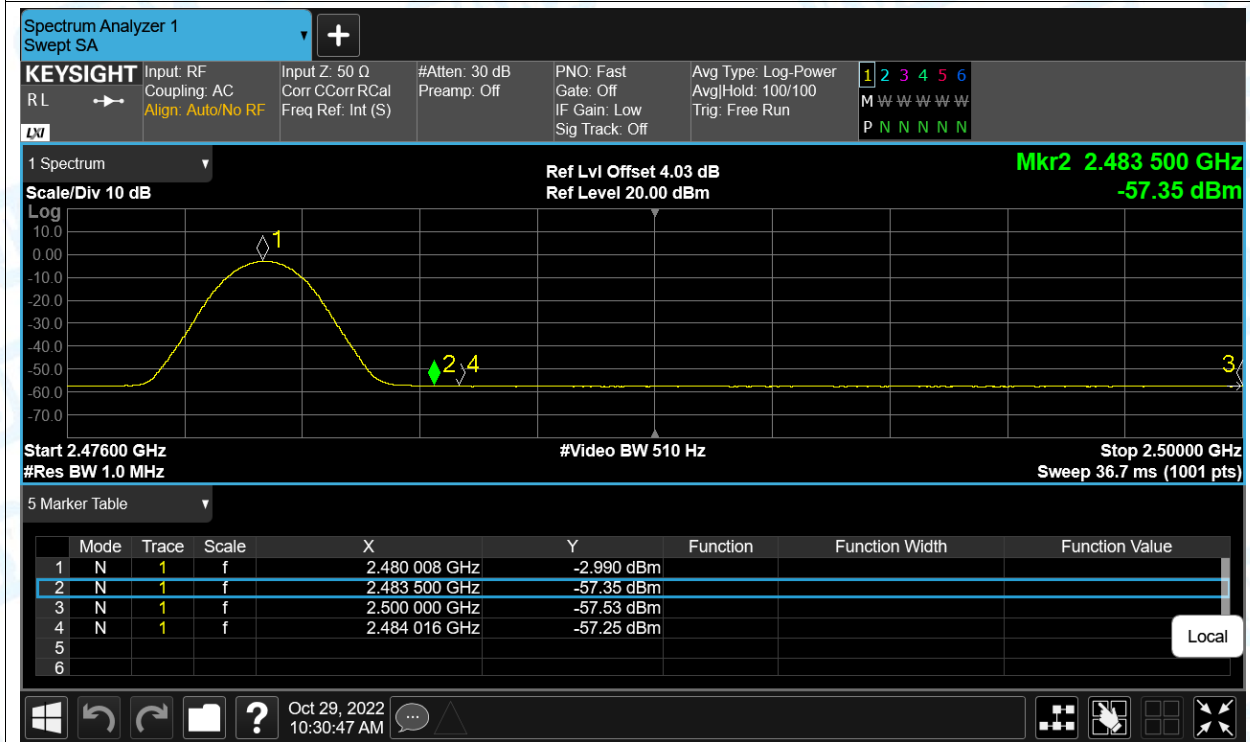
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2310	-48.45	2	48.81	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2310	-58.32	2	38.94	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2369.328	-45.77	2	51.49	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2388.912	-58.19	2	39.07	Average	54	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-47.22	2	50.04	Peak	74	Pass
NVNT	BLE 1Mbps	2402	Ant1	2390	-58.21	2	39.05	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-48.56	2	48.7	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2483.5	-57.35	2	39.91	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2484.952	-44.87	2	52.39	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2484.016	-57.25	2	40.01	Average	54	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-48.56	2	48.7	Peak	74	Pass
NVNT	BLE 1Mbps	2480	Ant1	2500	-57.53	2	39.73	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-49.86	2	47.4	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2310	-57.66	2	39.6	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2349.84	-45.23	2	52.03	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2355.6	-57.25	2	40.01	Average	54	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-46.87	2	50.39	Peak	74	Pass
NVNT	BLE 2Mbps	2402	Ant1	2390	-57.63	2	39.63	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-46.9	2	50.36	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.5	-56.04	2	41.22	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2485.36	-45.07	2	52.19	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2483.512	-56.04	2	41.22	Average	54	Pass
NVNT	BLE 2Mbps	2480	Ant1	2500	-47.15	2	50.11	Peak	74	Pass
NVNT	BLE 2Mbps	2480	Ant1	2500	-57.31	2	39.95	Average	54	Pass



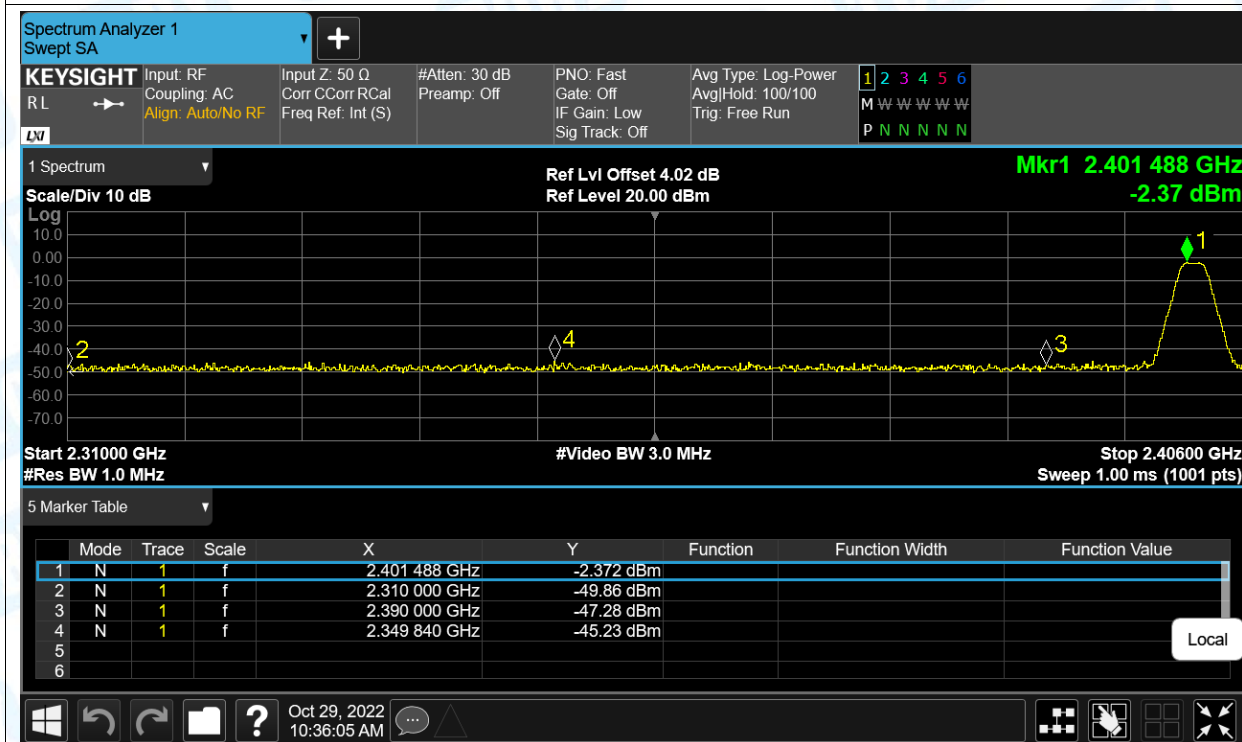
Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Peak



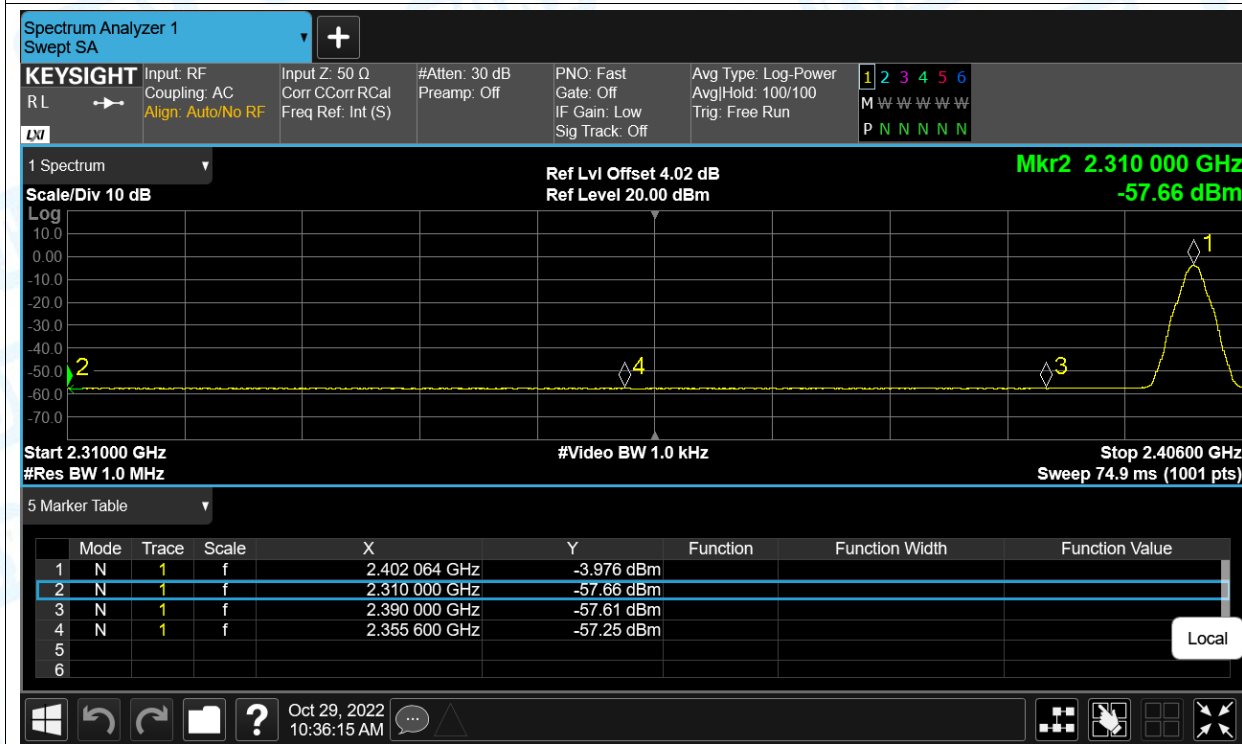
Restrict Band NVNT BLE 1Mbps 2480MHz Ant1 Average



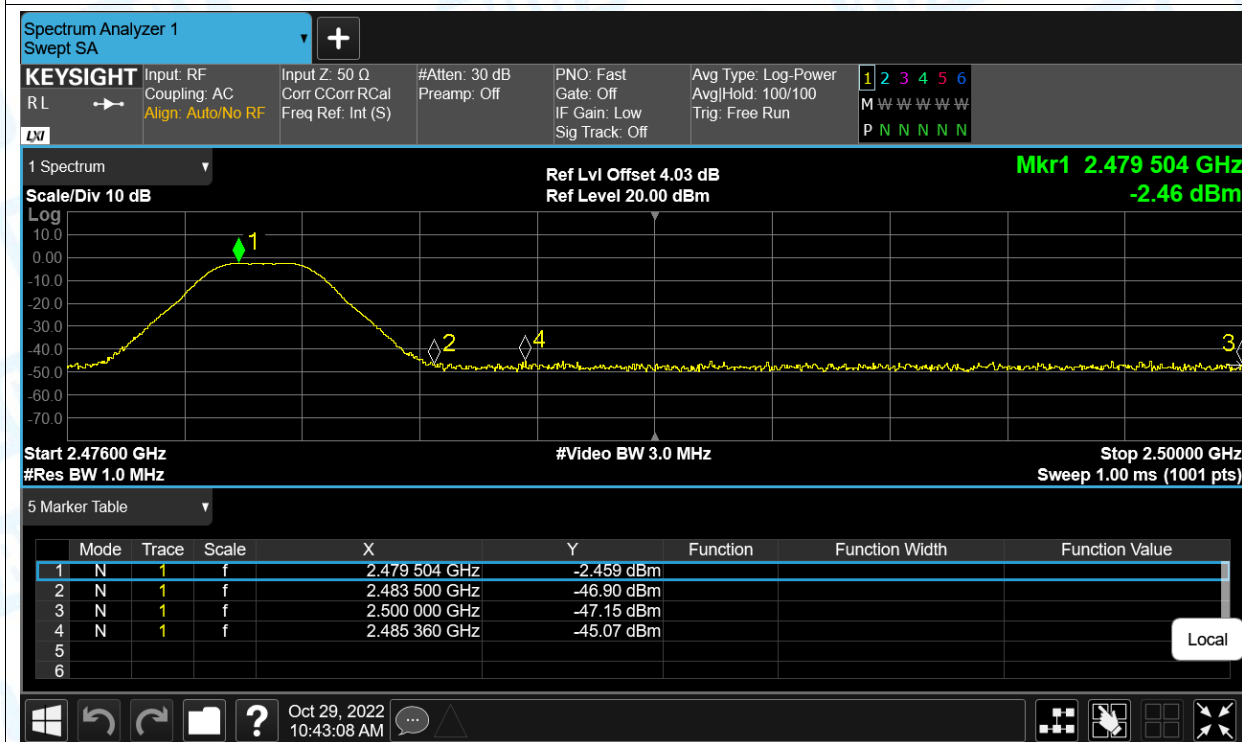
Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Peak



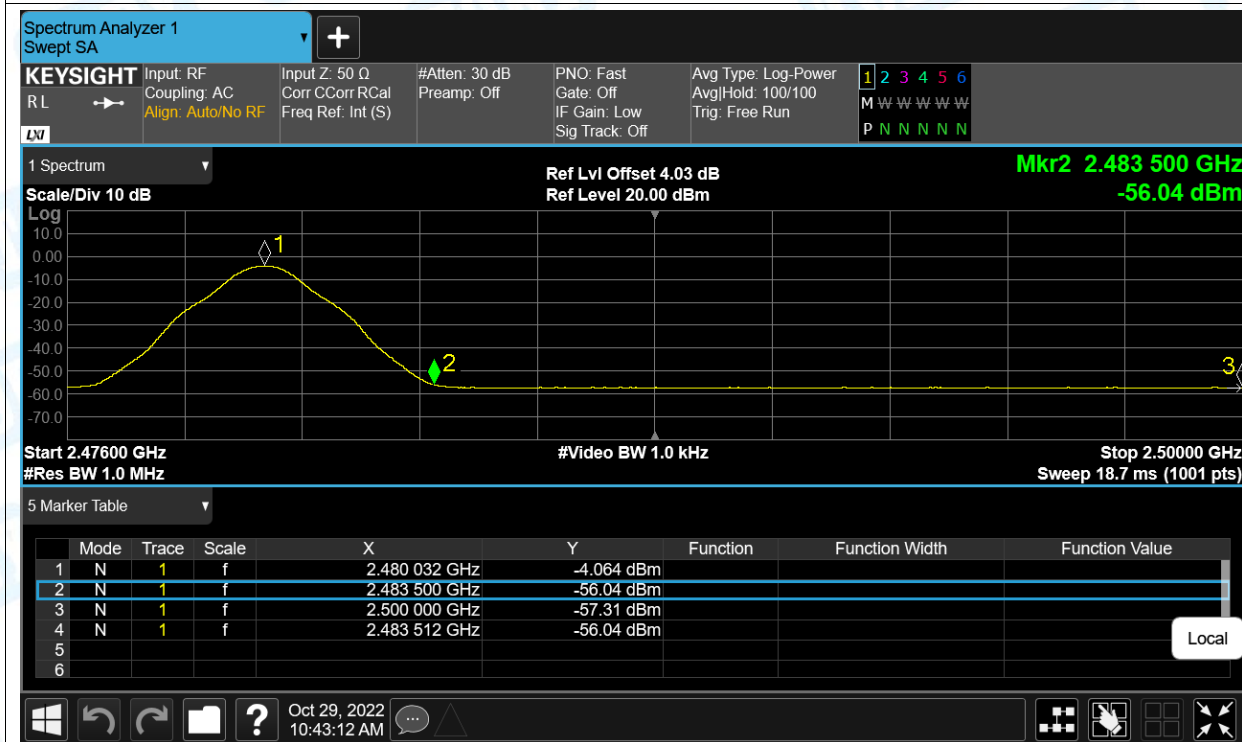
Restrict Band NVNT BLE 2Mbps 2402MHz Ant1 Average



Restrict Band NVNT BLE 2Mbps 2480MHz Ant1 Peak



Restrict Band NVNT BLE 2Mbps 2480MHz Ant1 Average



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