



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Mini Wireless Keyboard

Test Model: I8

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Lihm





A.1 6dB Bandwidth

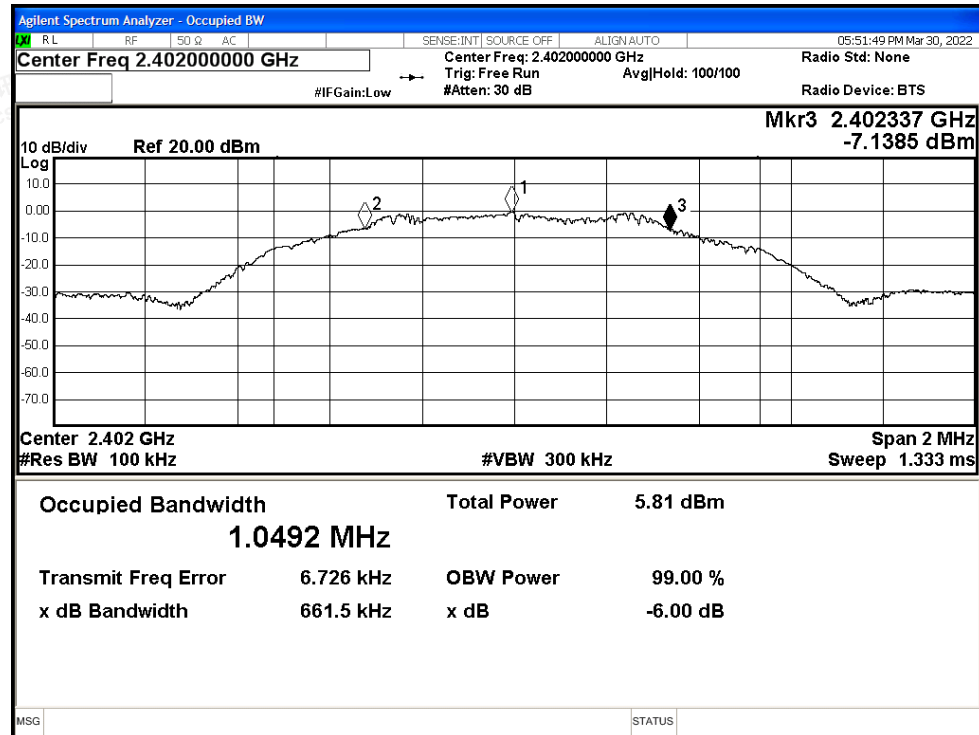
Condition	Mode	Frequency (MHz)	Antenna	6 dB Bandwidth (MHz)	Limit 6 dB Bandwidth (MHz)	Verdict
NVNT	BLE	2402	Ant	0.661	0.5	Pass
NVNT	BLE	2440	Ant	0.670	0.5	Pass
NVNT	BLE	2480	Ant	0.652	0.5	Pass



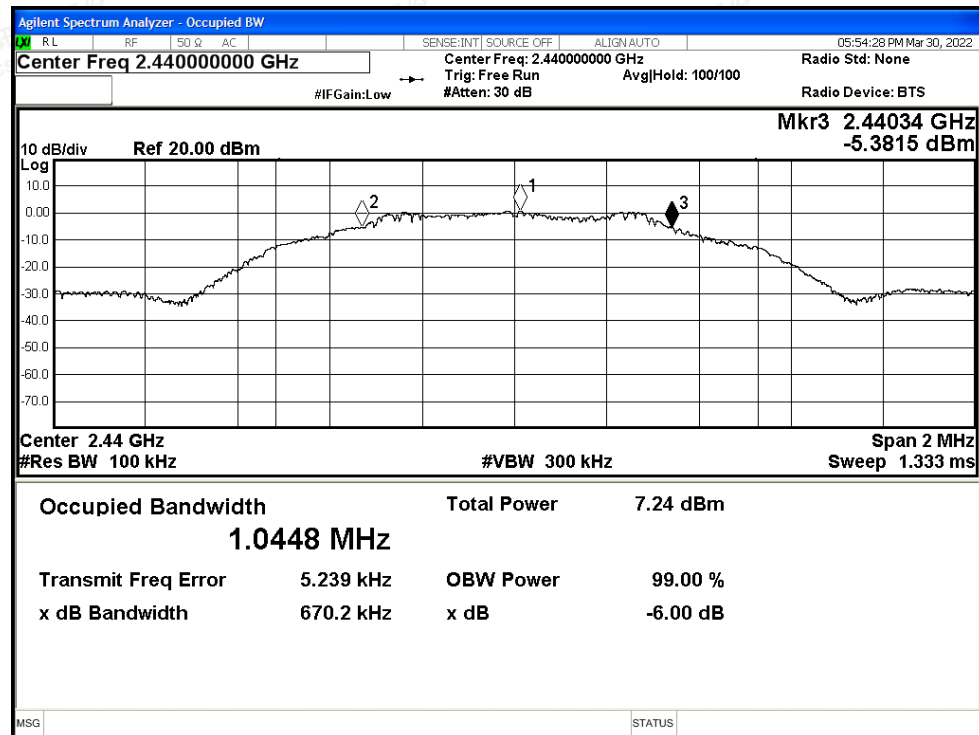


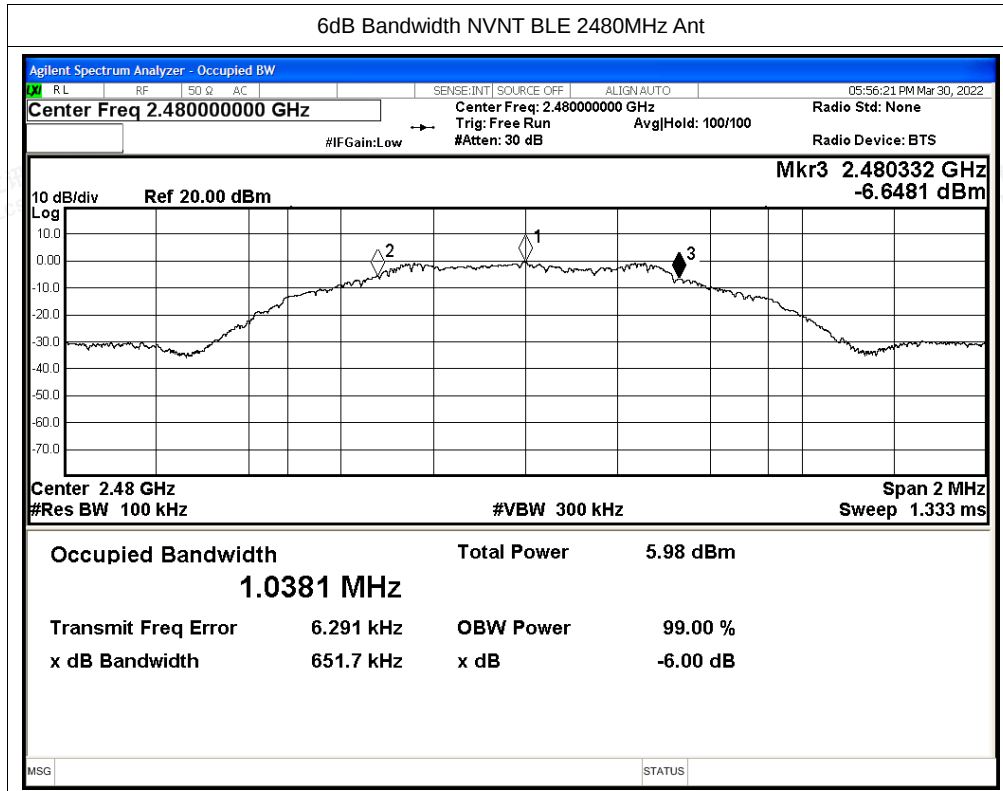
Test Graphs

6dB Bandwidth NVNT BLE 2402MHz Ant



6dB Bandwidth NVNT BLE 2440MHz Ant







A.2 Maximum Conducted Output Power

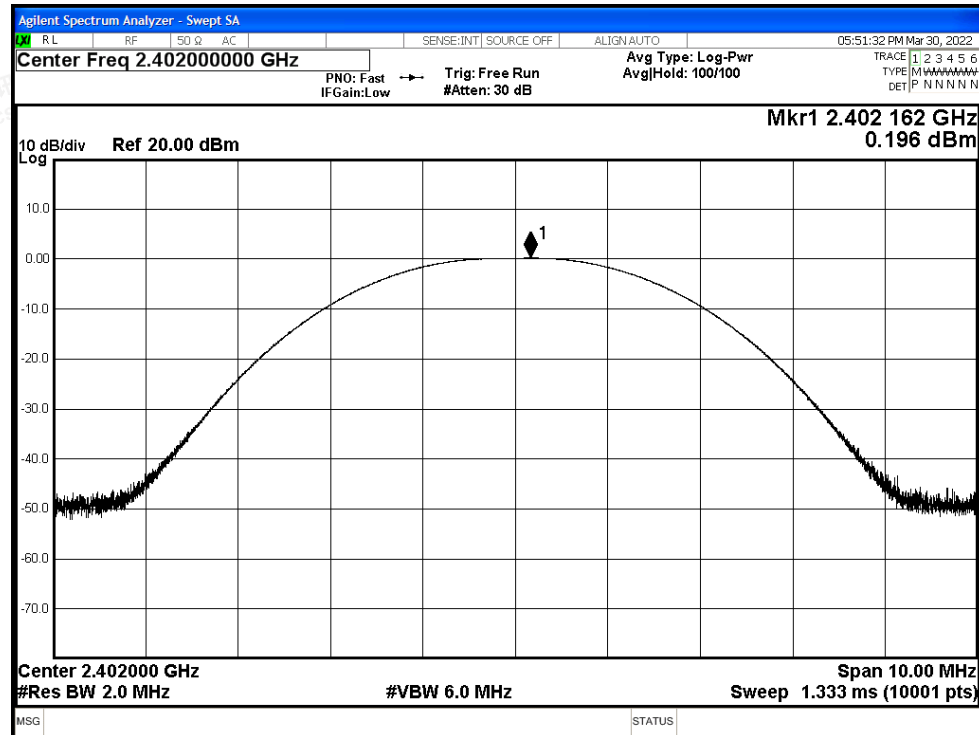
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant	0.2	0	0.2	30	Pass
NVNT	BLE	2440	Ant	1.54	0	1.54	30	Pass
NVNT	BLE	2480	Ant	0.2	0	0.2	30	Pass



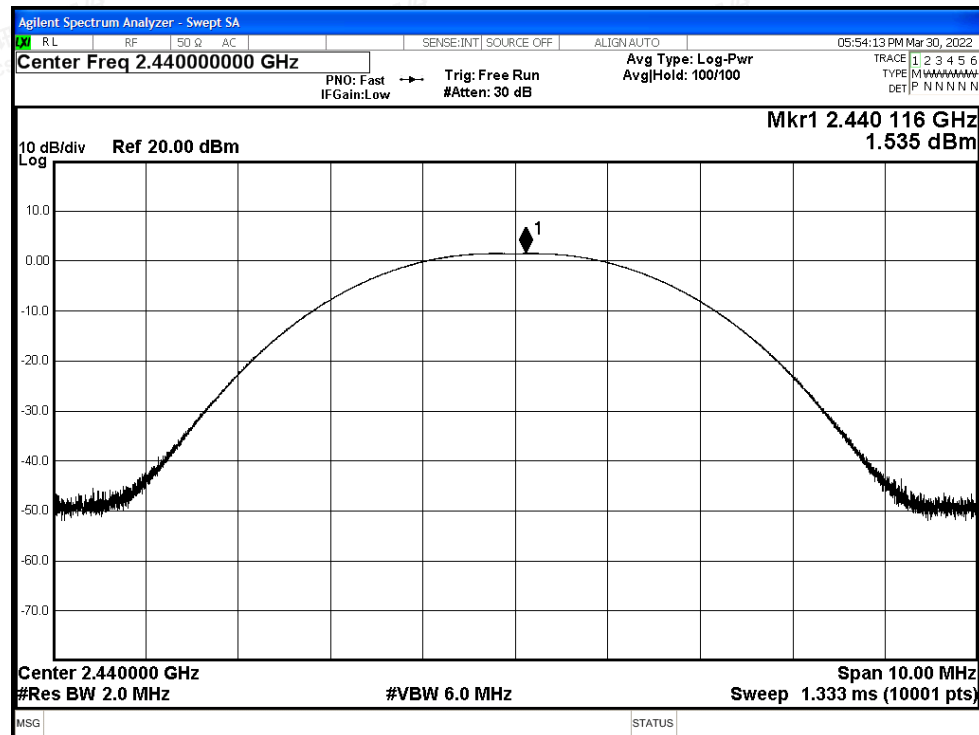


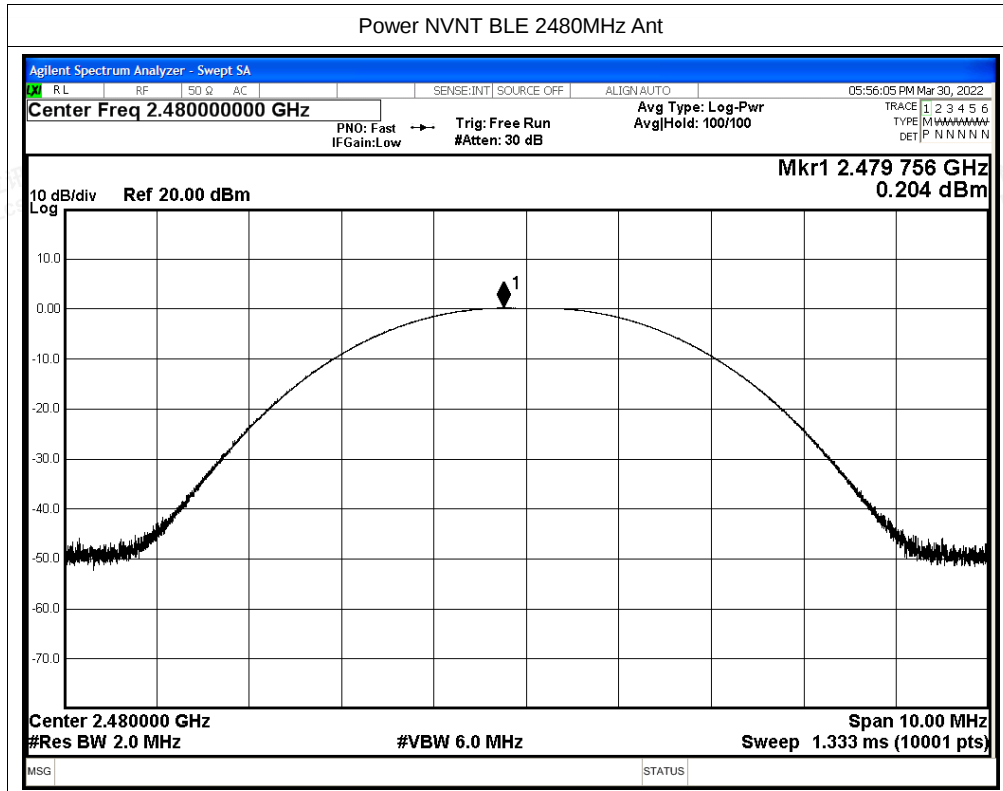
Test Graphs

Power NVNT BLE 2402MHz Ant



Power NVNT BLE 2440MHz Ant







A.3 Maximum Power Spectral Density

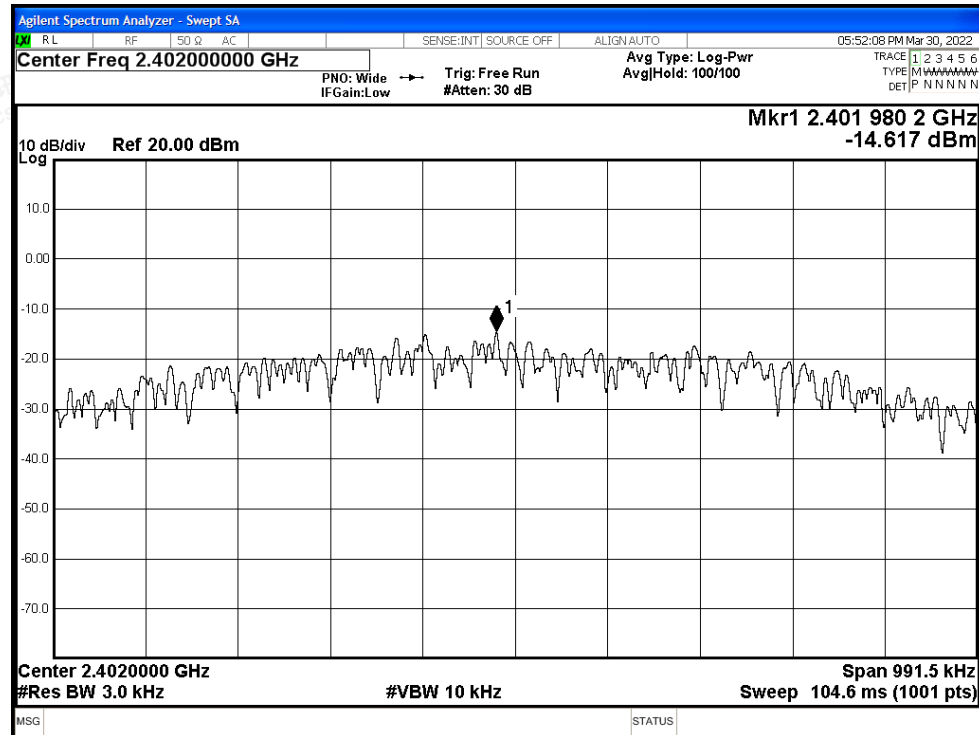
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE	2402	Ant	-14.62	0	-14.62	8	Pass
NVNT	BLE	2440	Ant	-13.27	0	-13.27	8	Pass
NVNT	BLE	2480	Ant	-14.57	0	-14.57	8	Pass



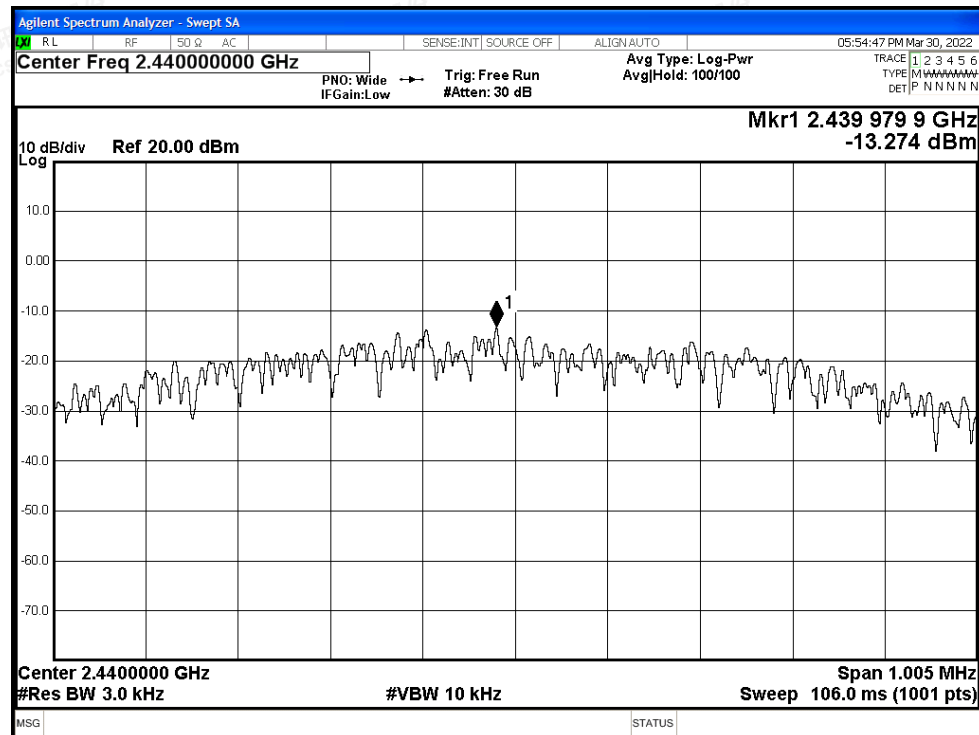


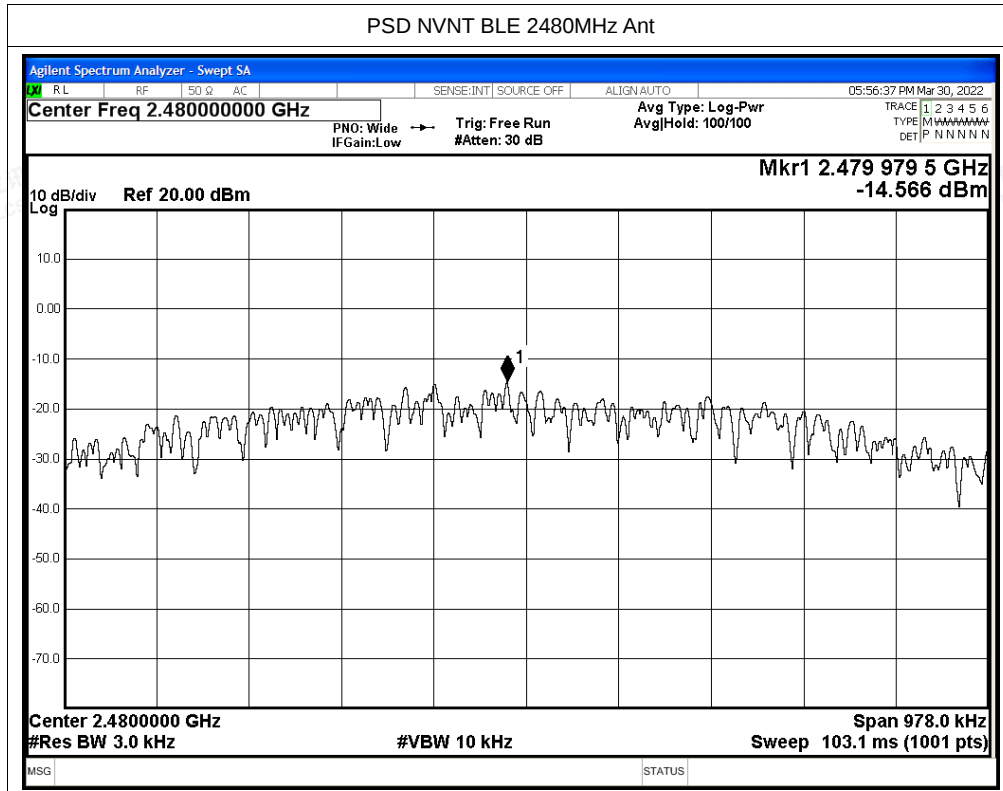
Test Graphs

PSD NVNT BLE 2402MHz Ant



PSD NVNT BLE 2440MHz Ant







A.4 Band edge measurements

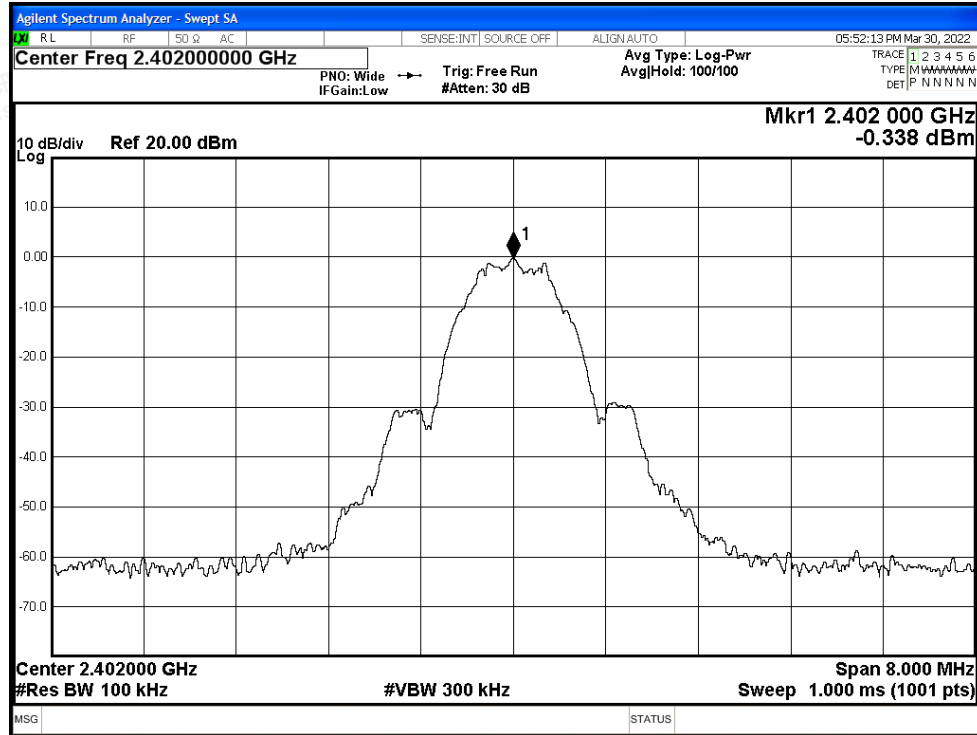
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-57.51	-20	Pass
NVNT	BLE	2480	Ant	-58.4	-20	Pass



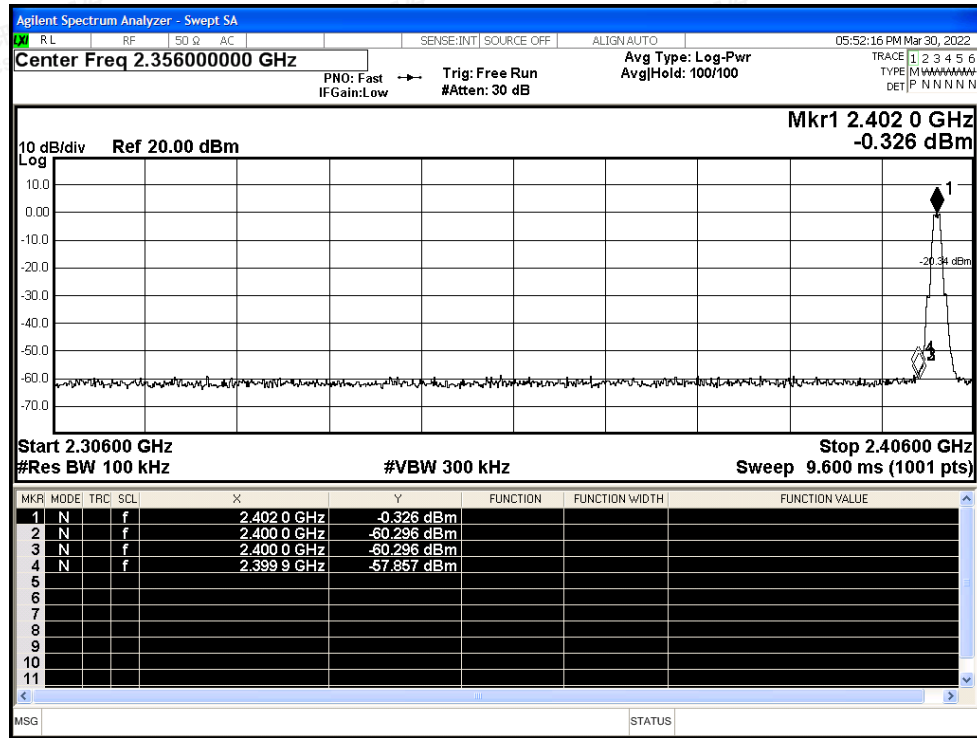


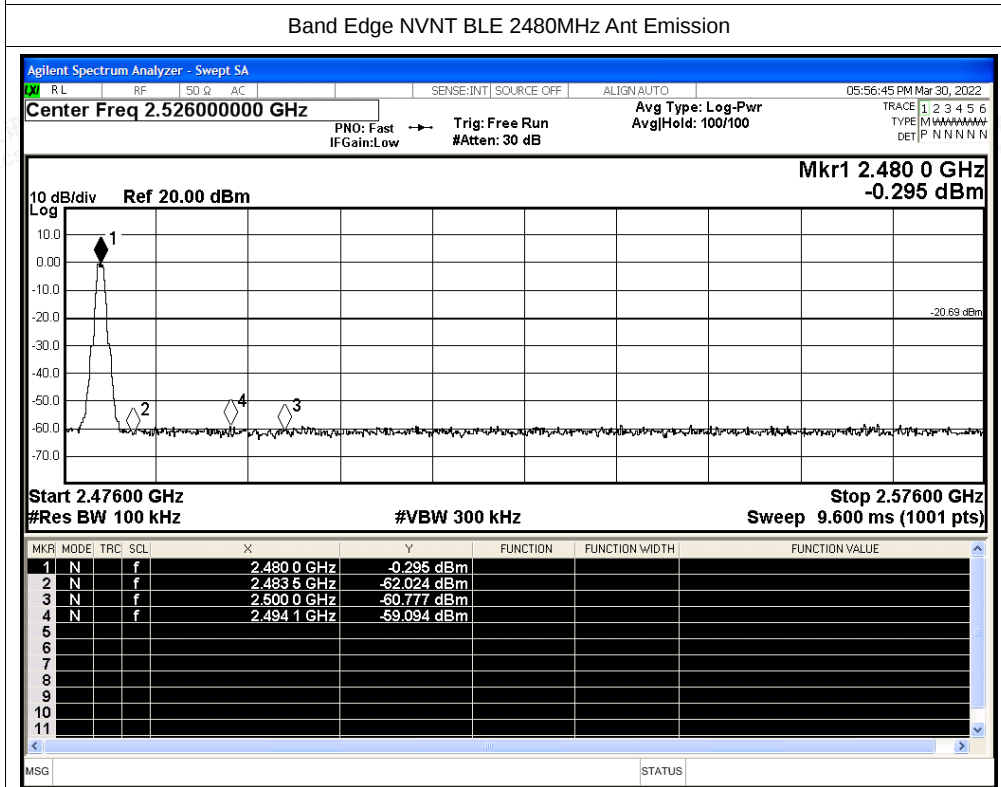
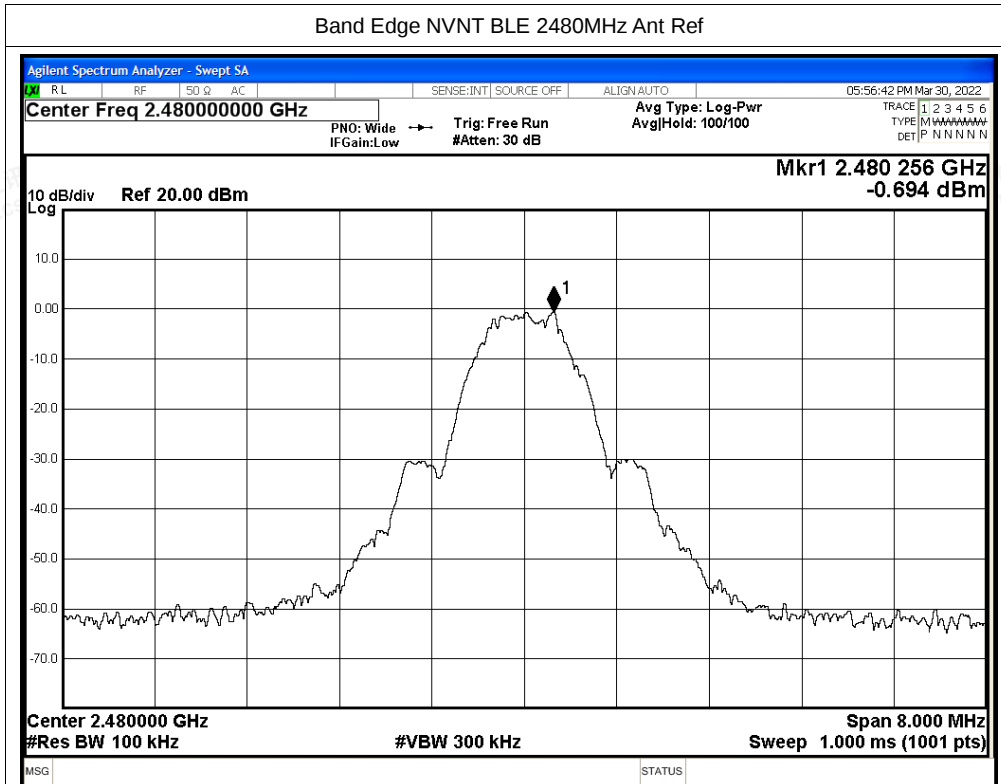
Test Graphs

Band Edge NVNT BLE 2402MHz Ant Ref



Band Edge NVNT BLE 2402MHz Ant Emission







A.5 Conducted Spurious Emission

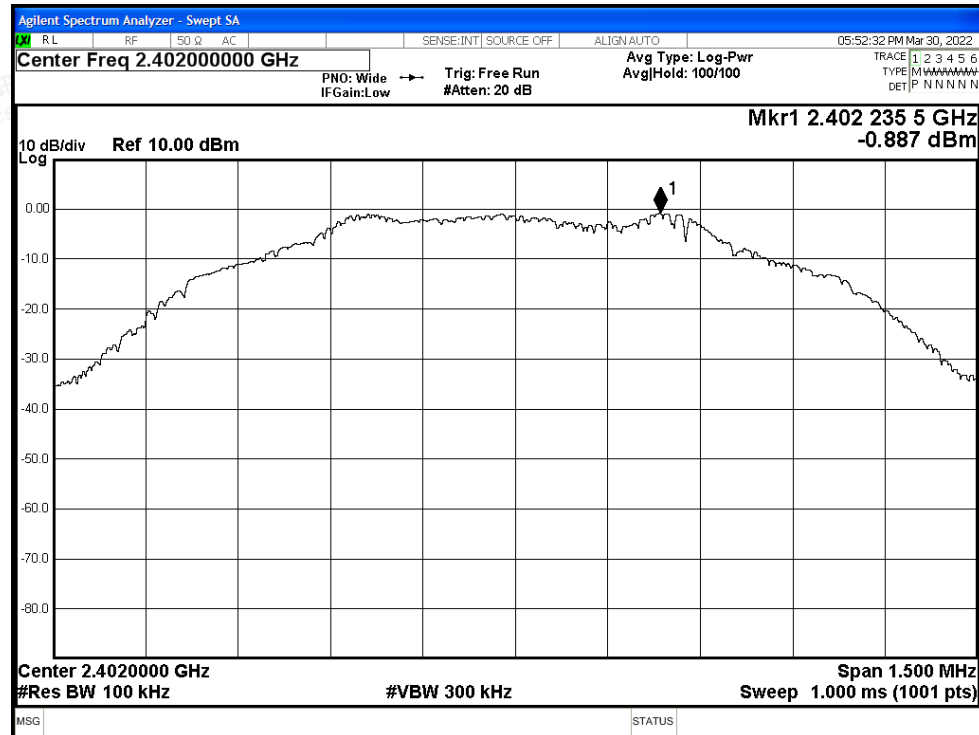
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-56.70	-20	Pass
NVNT	BLE	2440	Ant	-58.01	-20	Pass
NVNT	BLE	2480	Ant	-57.44	-20	Pass



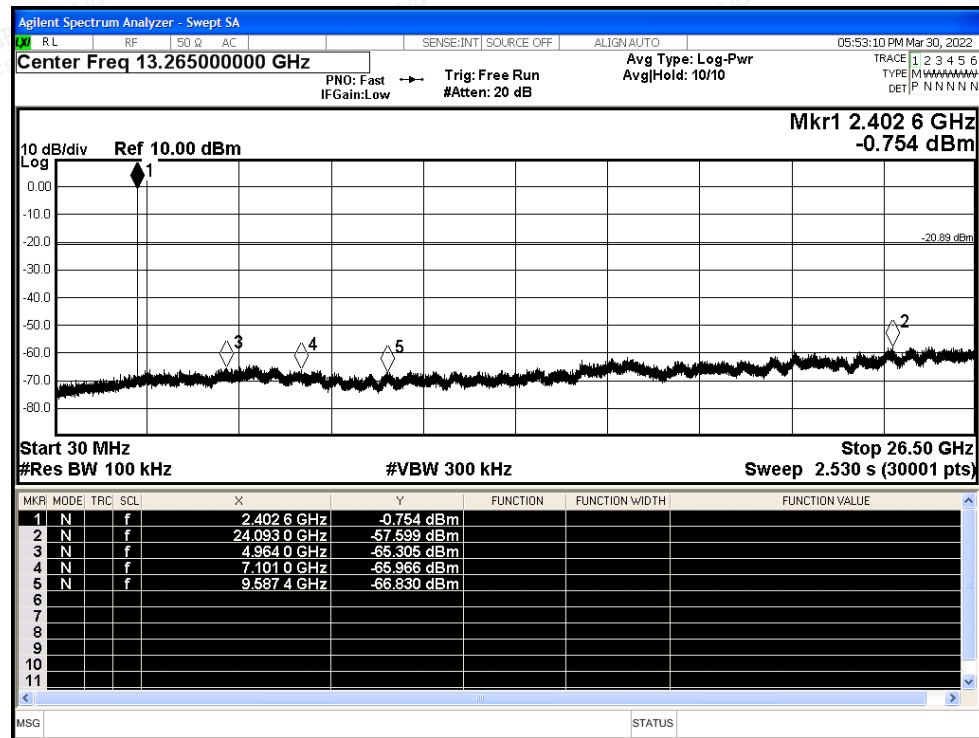


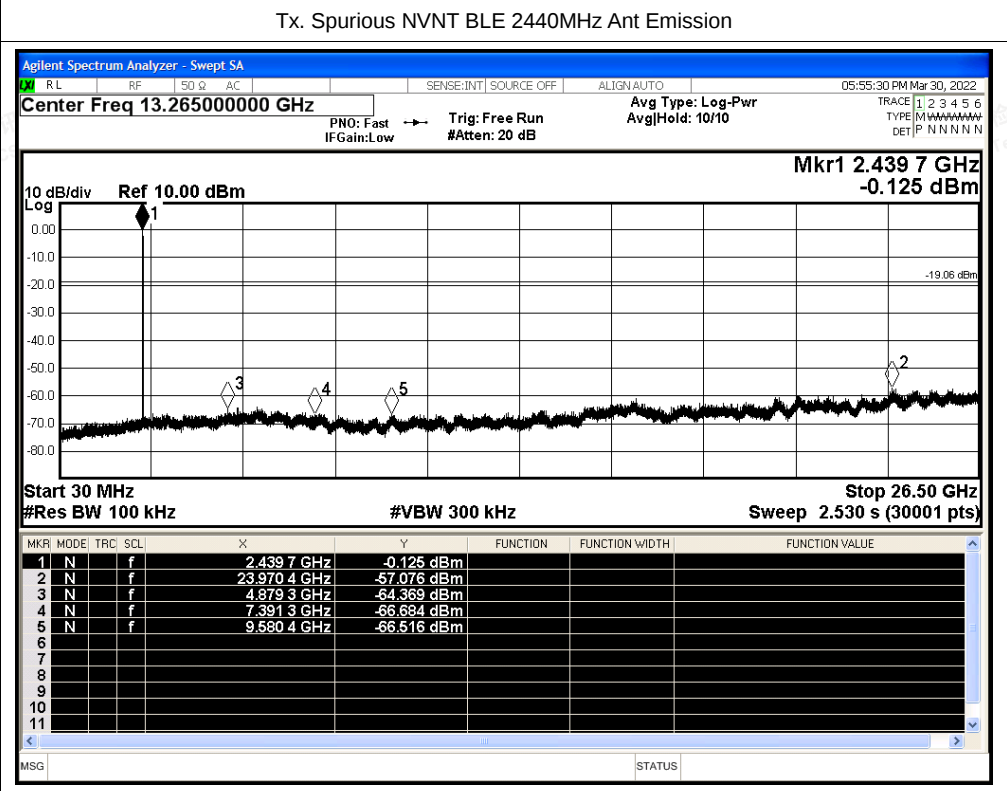
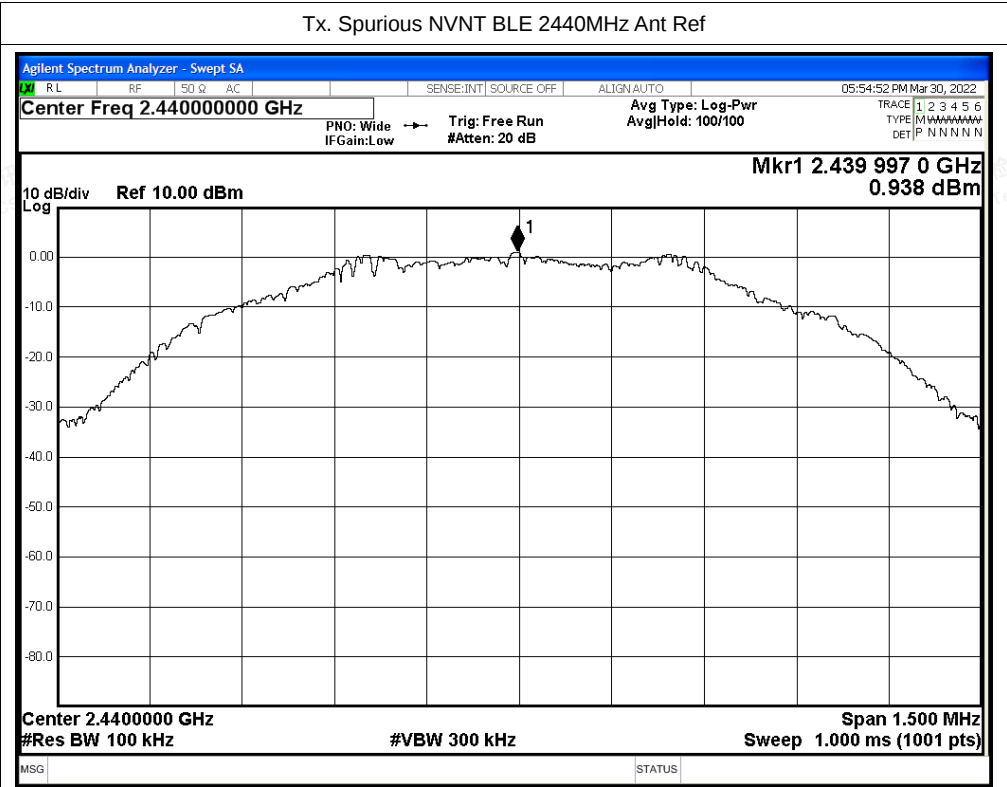
Test Graphs

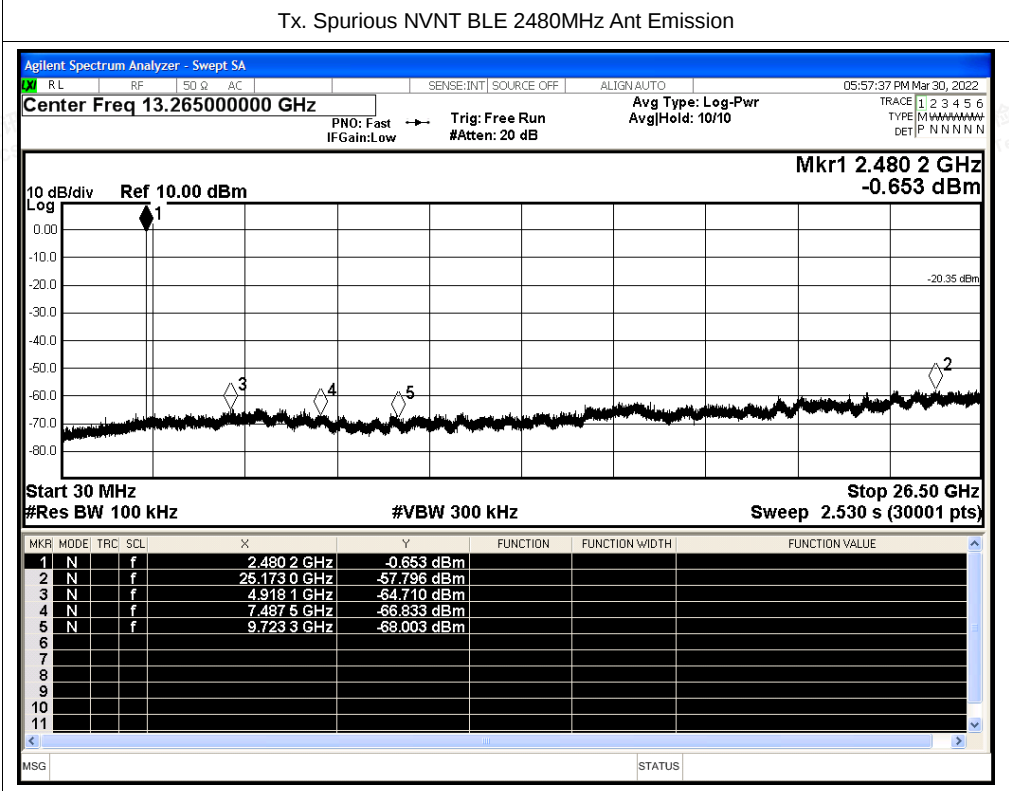
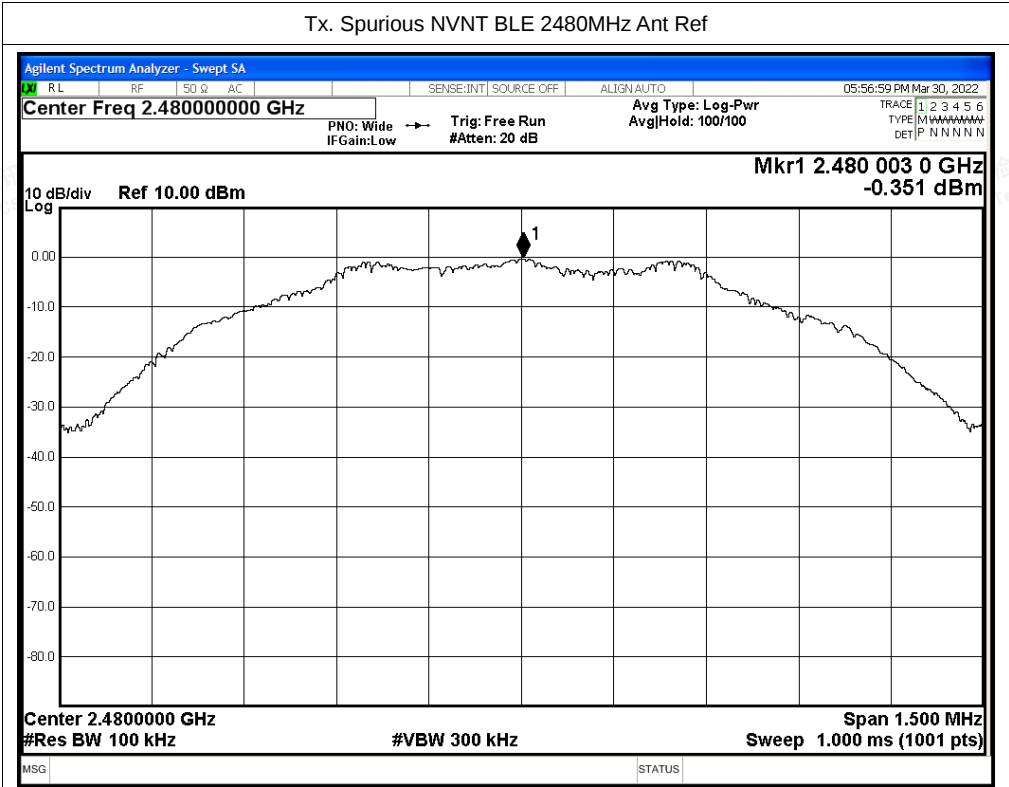
Tx. Spurious NVNT BLE 2402MHz Ant Ref



Tx. Spurious NVNT BLE 2402MHz Ant Emission









A.6 Duty Cycle

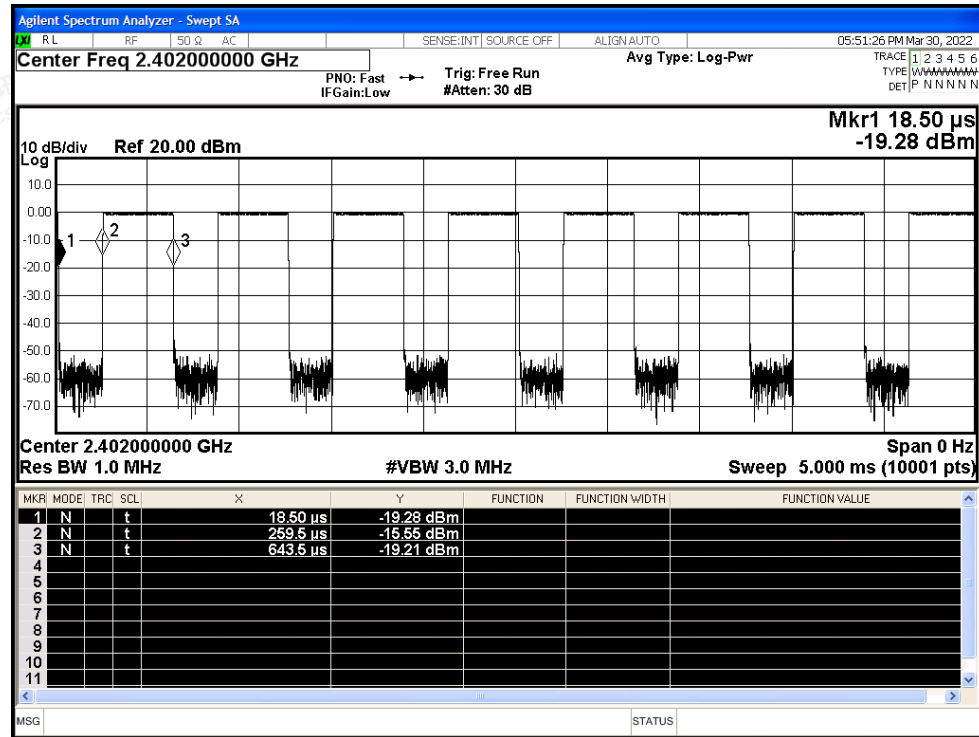
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE	2402	Ant	61.44	2.12	2.6
NVNT	BLE	2440	Ant	61.44	2.12	2.6
NVNT	BLE	2480	Ant	61.39	2.12	2.6



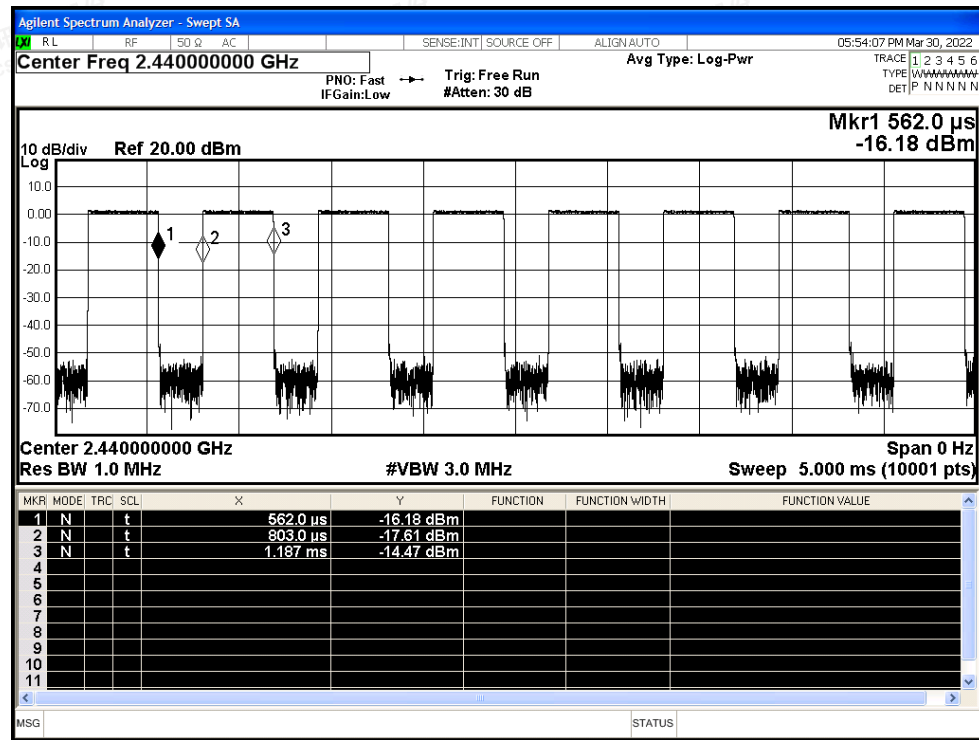


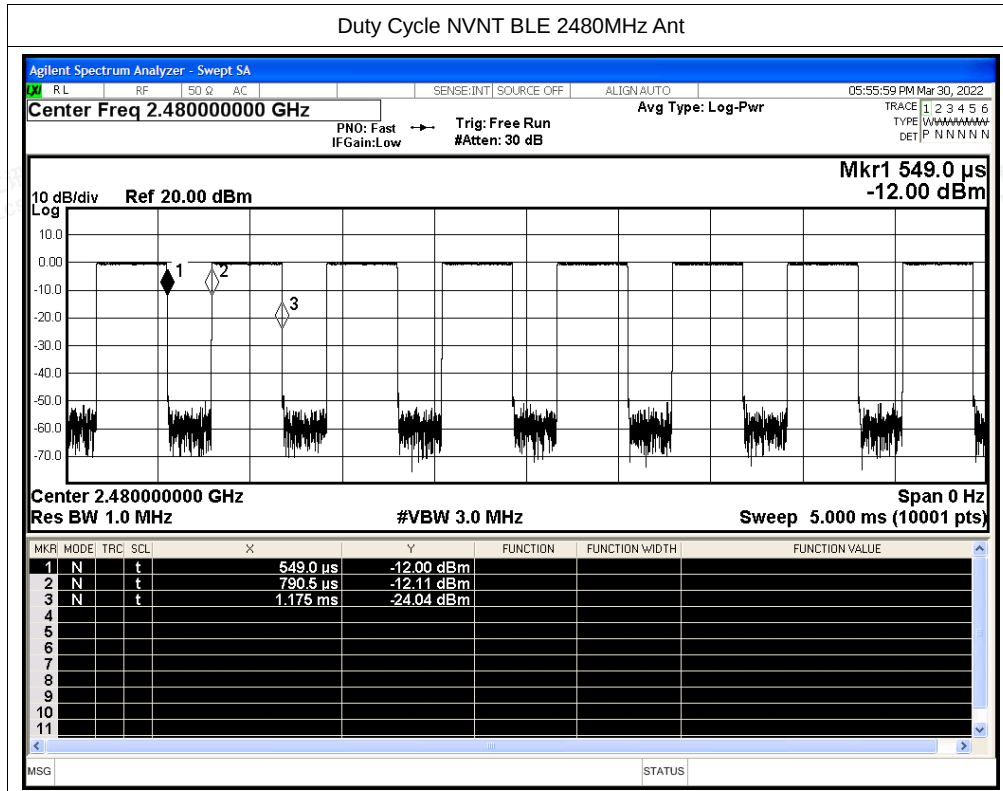
Test Graphs

Duty Cycle NVNT BLE 2402MHz Ant



Duty Cycle NVNT BLE 2440MHz Ant







A.7 Emissions in Restricted Bands

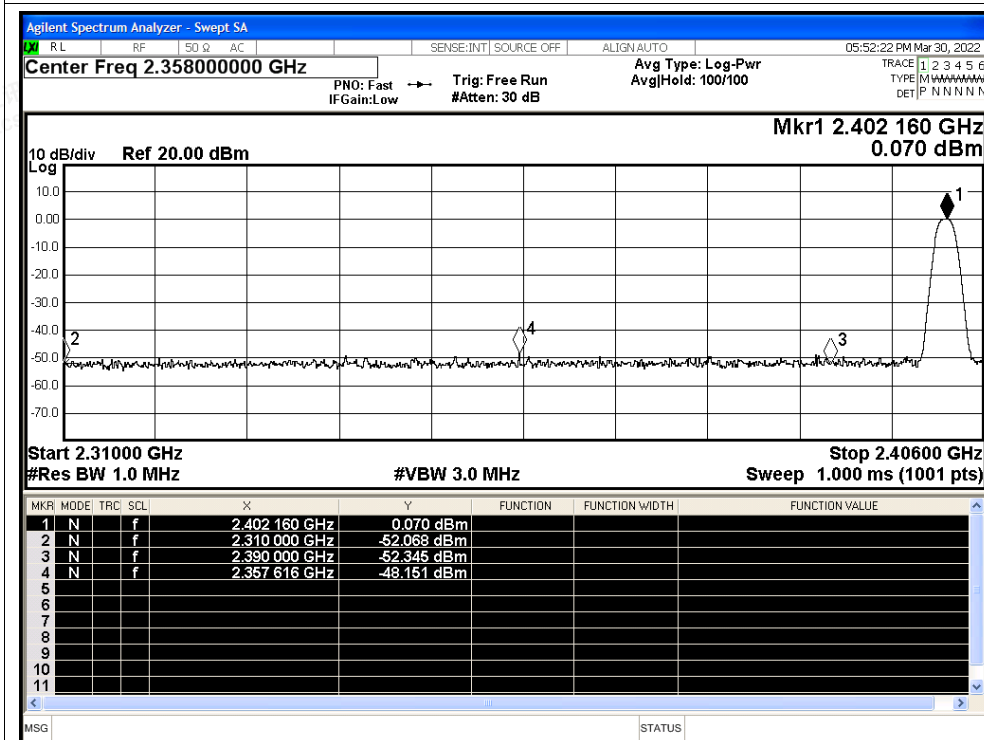
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE	2402	Ant	2310	-52.06	2	45.2	Peak	74	Pass
NVNT	BLE	2402	Ant	2310	-61.14	2	36.12	Average	54	Pass
NVNT	BLE	2402	Ant	2357.616	-48.15	2	49.11	Peak	74	Pass
NVNT	BLE	2402	Ant	2380.464	-60.29	2	36.97	Average	54	Pass
NVNT	BLE	2402	Ant	2390	-51.19	2	46.07	Peak	74	Pass
NVNT	BLE	2402	Ant	2390	-60.91	2	36.35	Average	54	Pass
NVNT	BLE	2480	Ant	2483.5	-52.51	2	44.75	Peak	74	Pass
NVNT	BLE	2480	Ant	2483.5	-60.5	2	36.76	Average	54	Pass
NVNT	BLE	2480	Ant	2485.96	-47.81	2	49.45	Peak	74	Pass
NVNT	BLE	2480	Ant	2483.608	-60.32	2	36.94	Average	54	Pass
NVNT	BLE	2480	Ant	2500	-50.63	2	46.63	Peak	74	Pass
NVNT	BLE	2480	Ant	2500	-60.89	2	36.37	Average	54	Pass





Test Graphs

Restrict Band NVNT BLE 2402MHz Ant Peak



Restrict Band NVNT BLE 2402MHz Ant Average

