

Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Thermo Hygrometer

Test Model: GA3001

Environmental Conditions

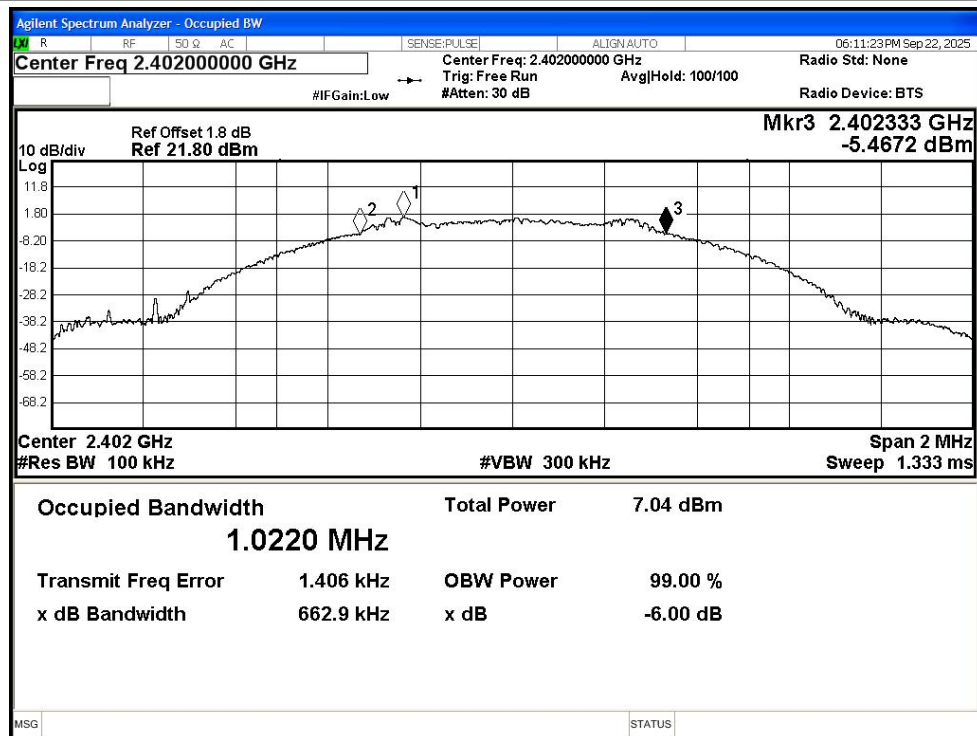
Temperature:	23.8 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 -6dB Bandwidth

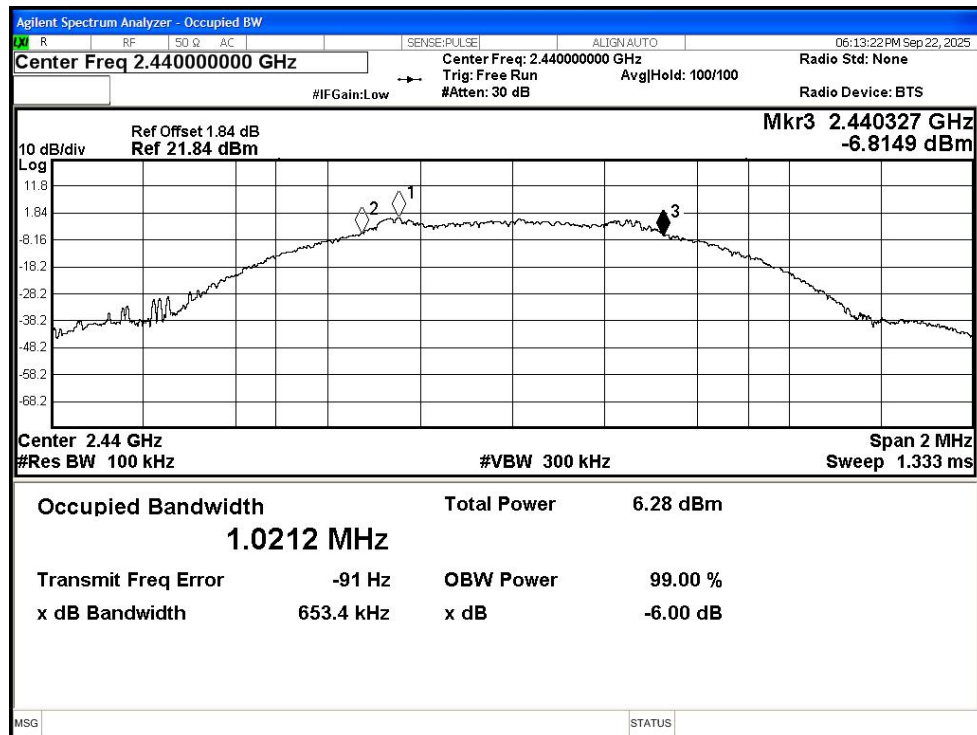
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.663	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.653	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.659	≥ 0.5	Pass

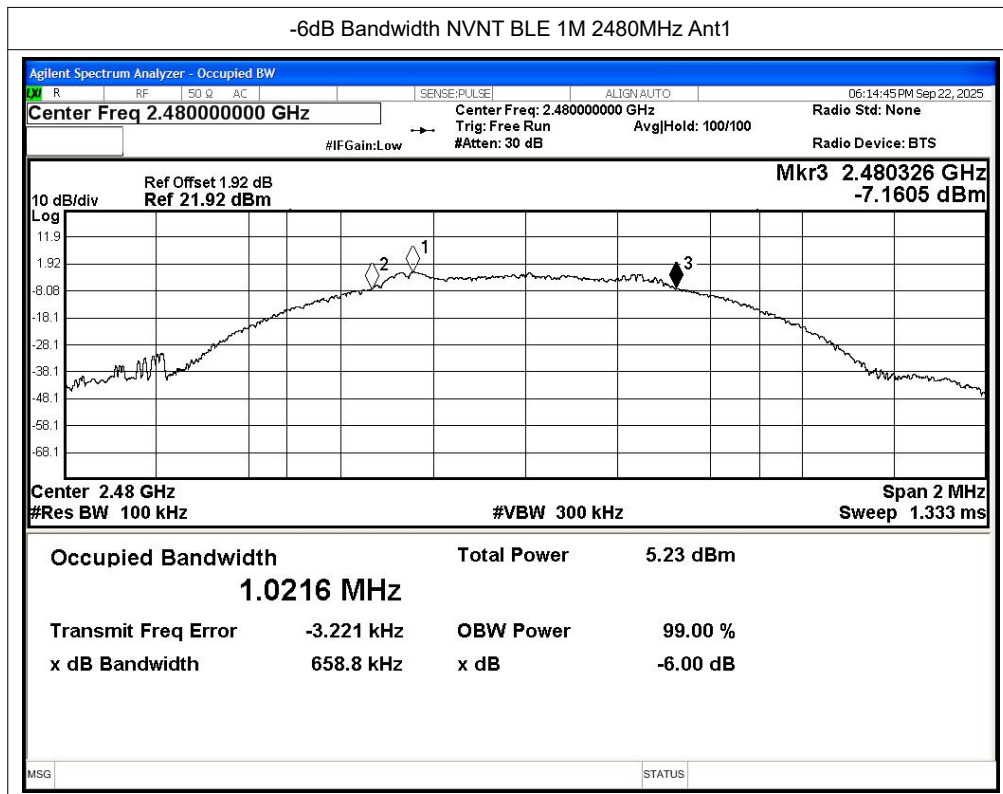
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



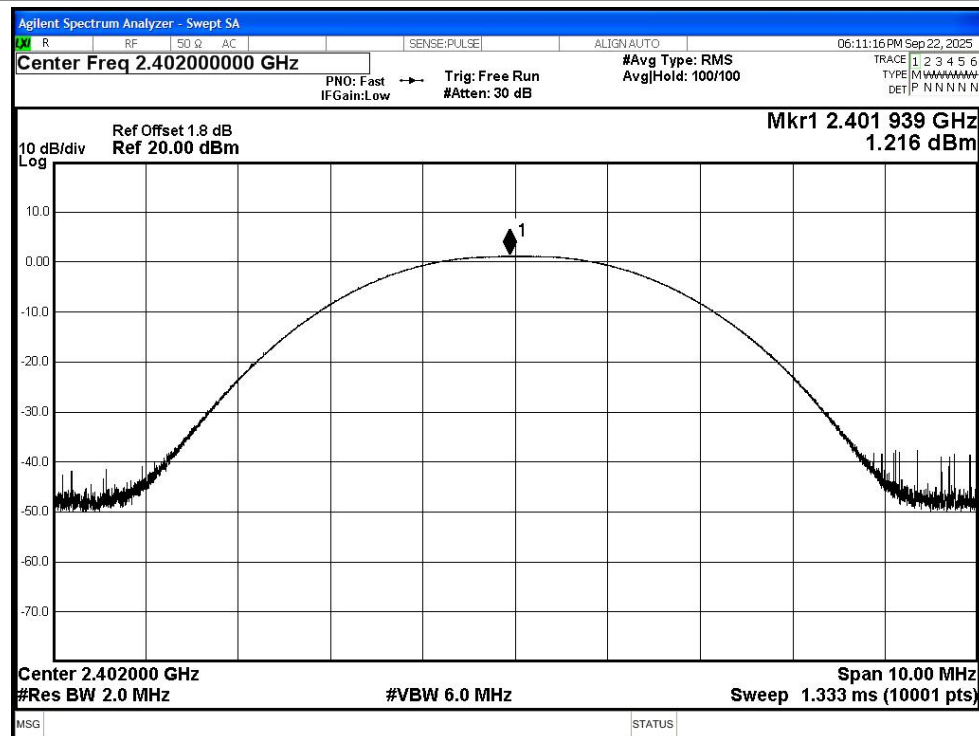


A.2 Maximum Peak Conducted Output Power

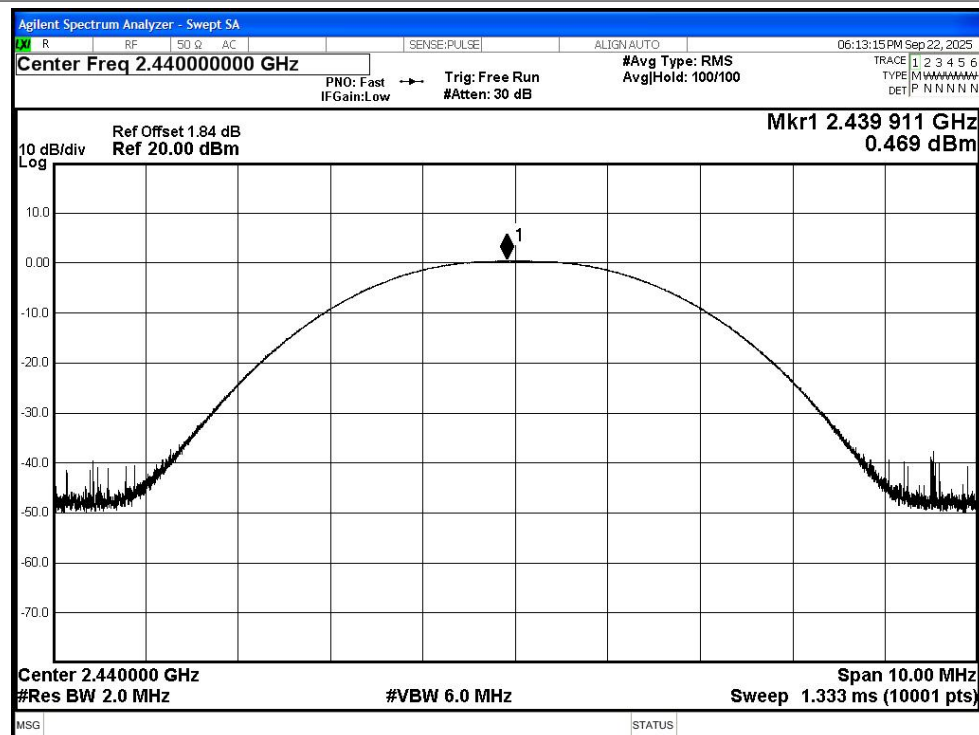
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.22	30	Pass
NVNT	BLE 1M	2440	Ant1	0.47	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.59	30	Pass

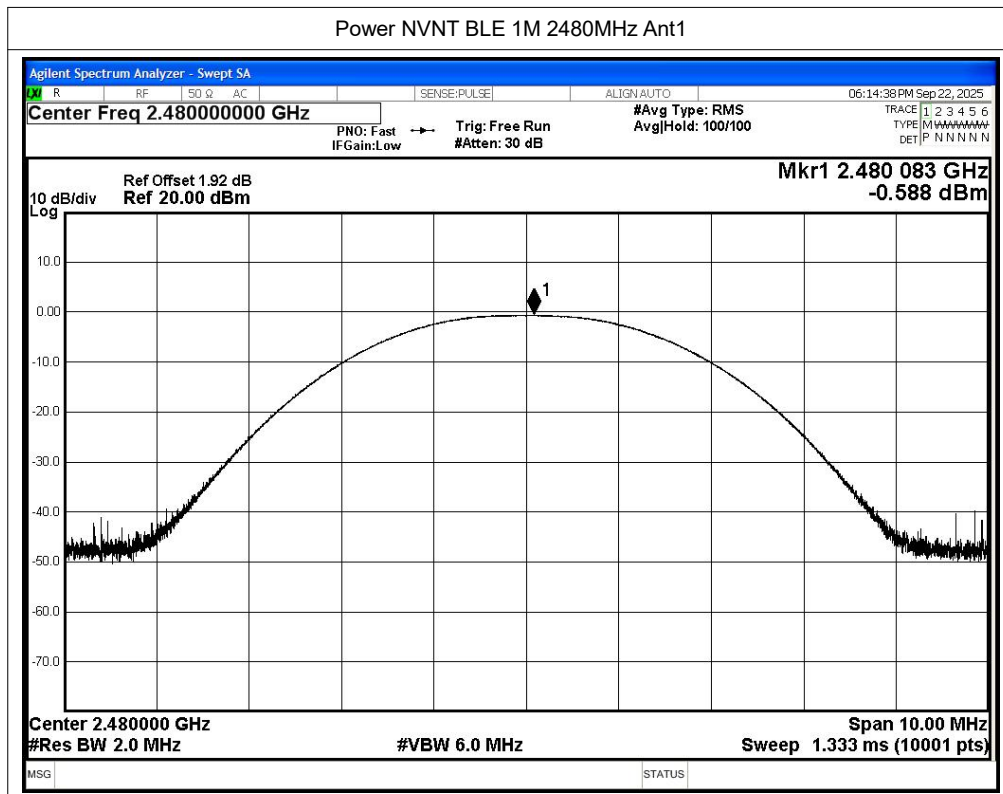
Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1



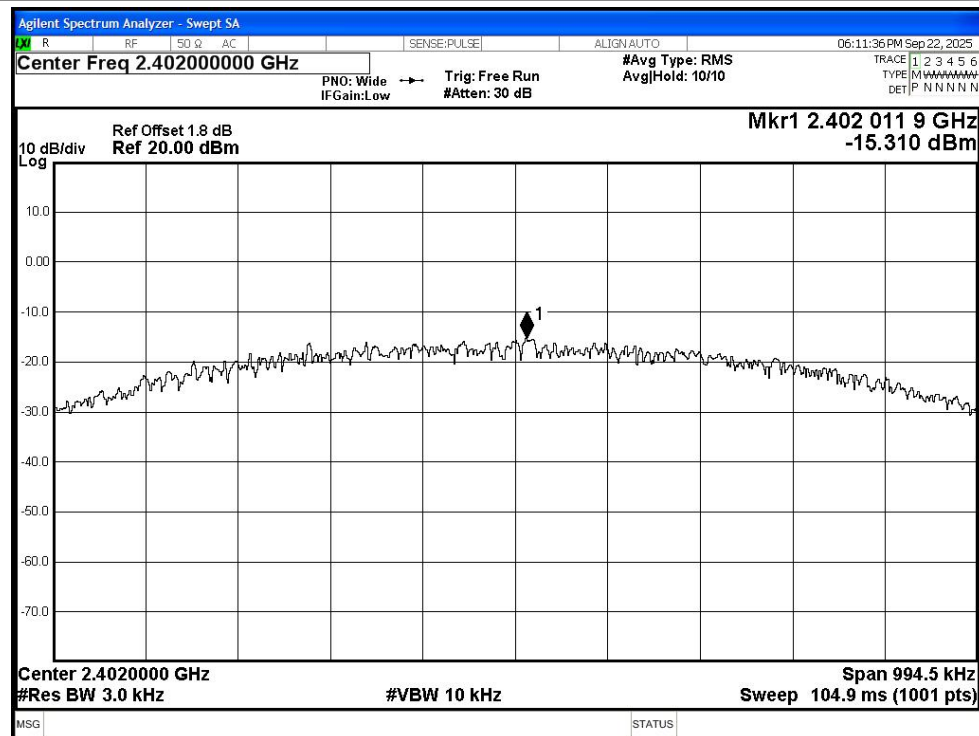


A.3 Maximum Power Spectral Density Level

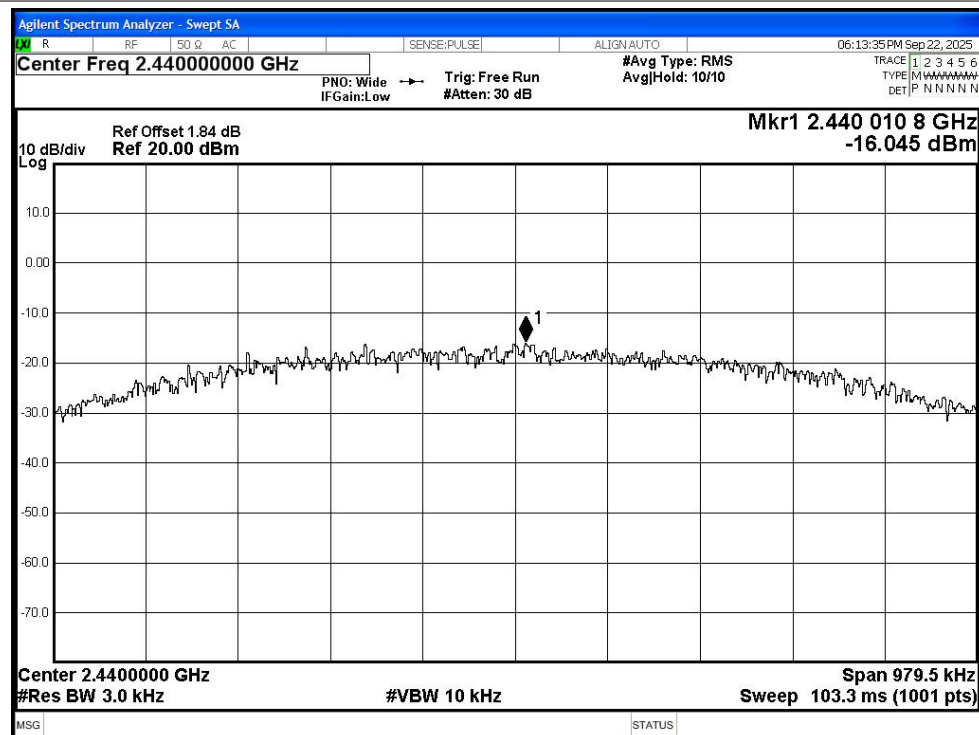
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-15.31	8	Pass
NVNT	BLE 1M	2440	Ant1	-16.05	8	Pass
NVNT	BLE 1M	2480	Ant1	-17.2	8	Pass

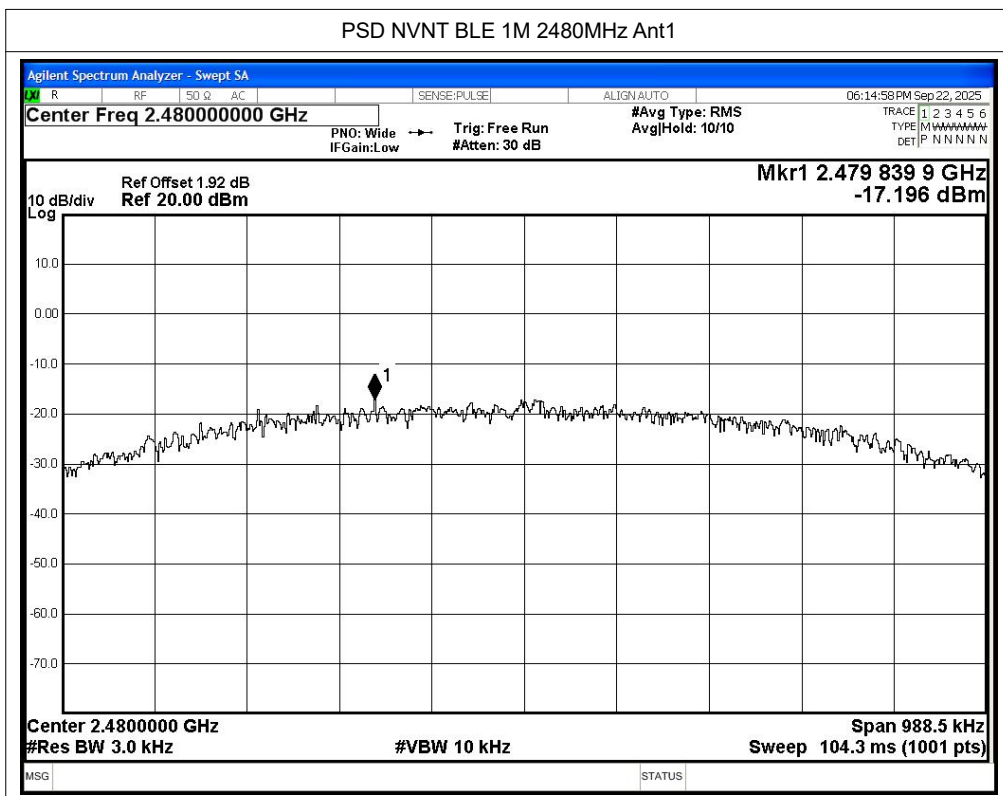
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



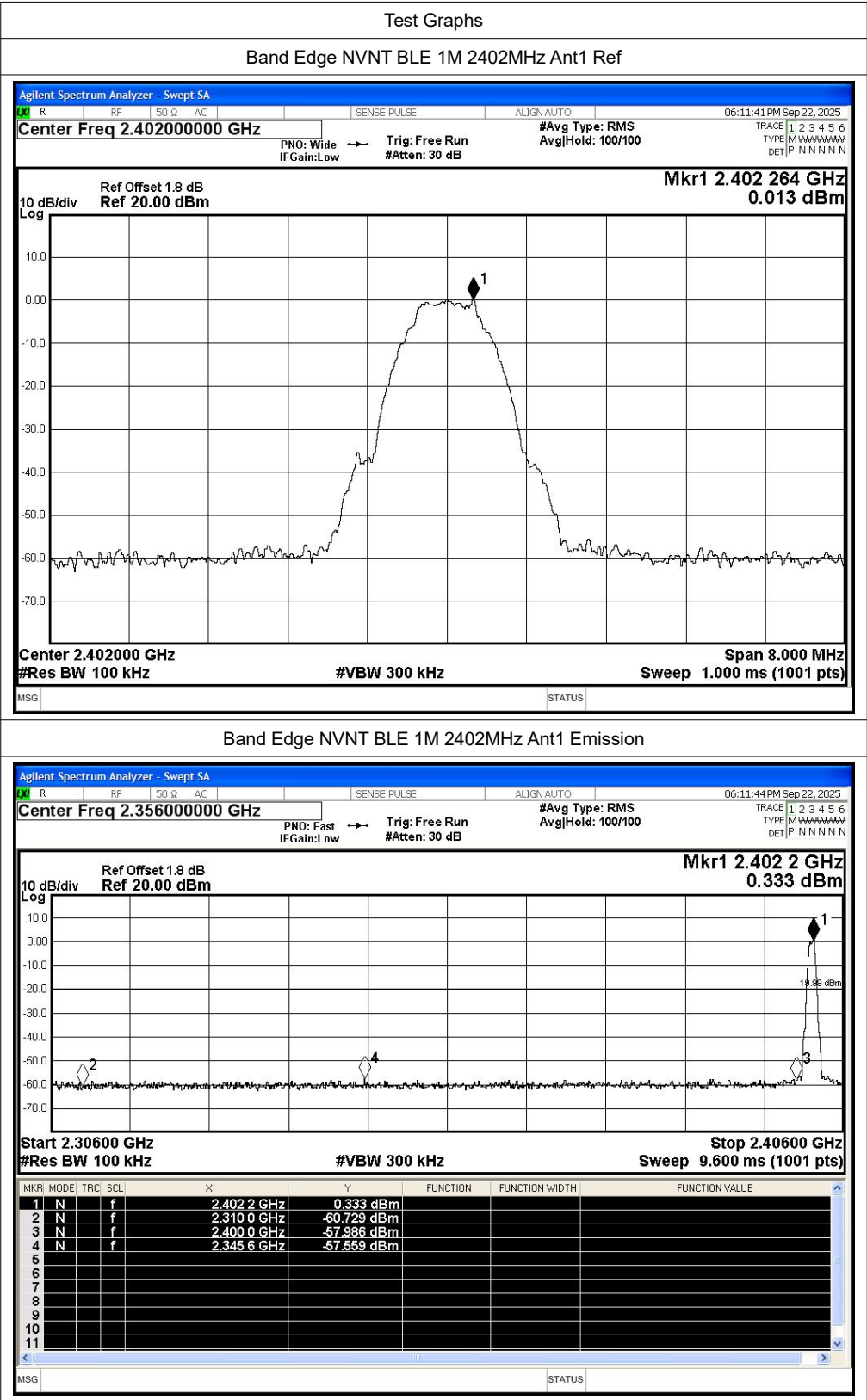
PSD NVNT BLE 1M 2440MHz Ant1

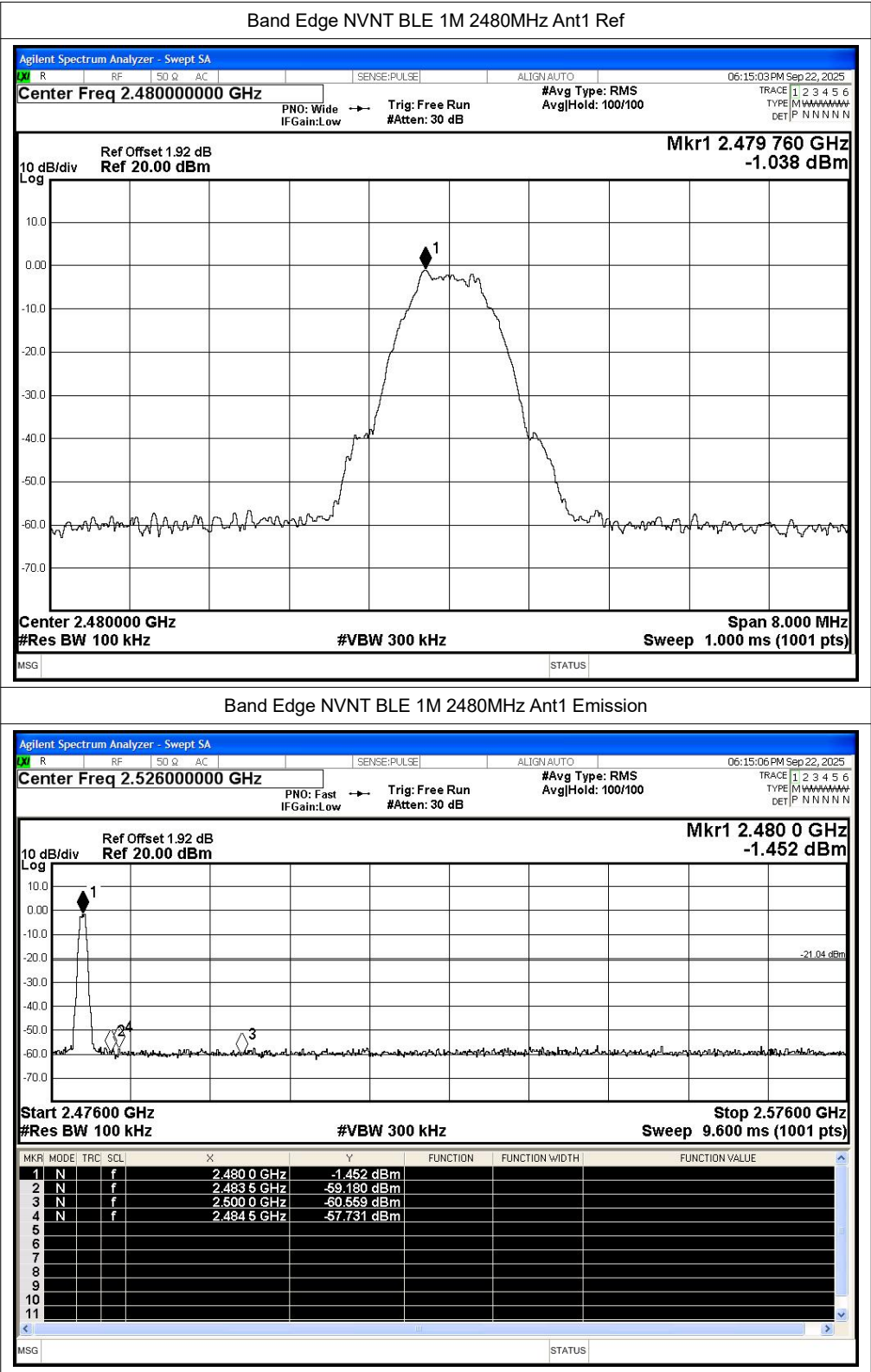




A.4 Band Edge

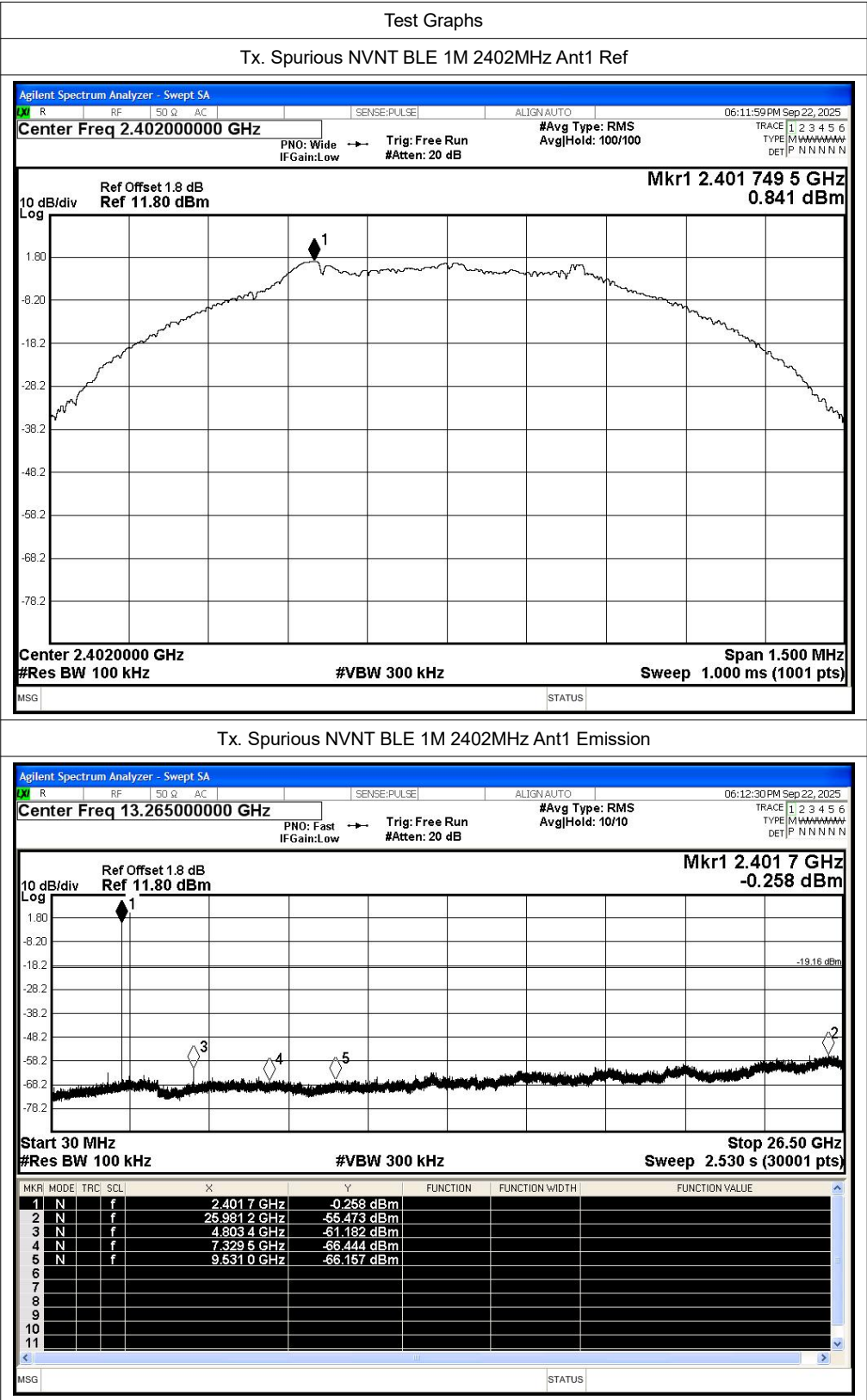
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-57.57	-20	Pass
NVNT	BLE 1M	2480	Ant1	-56.69	-20	Pass

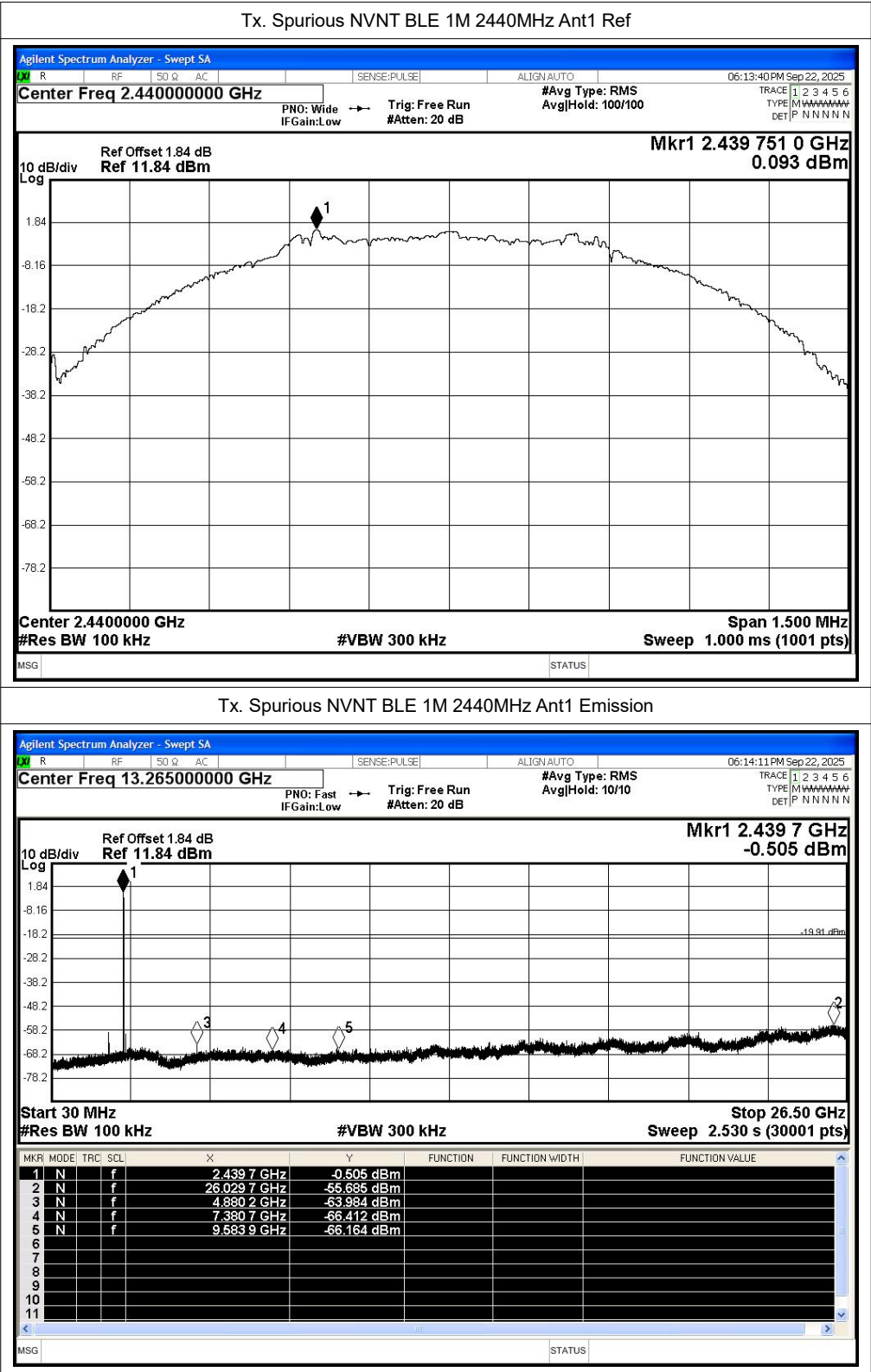


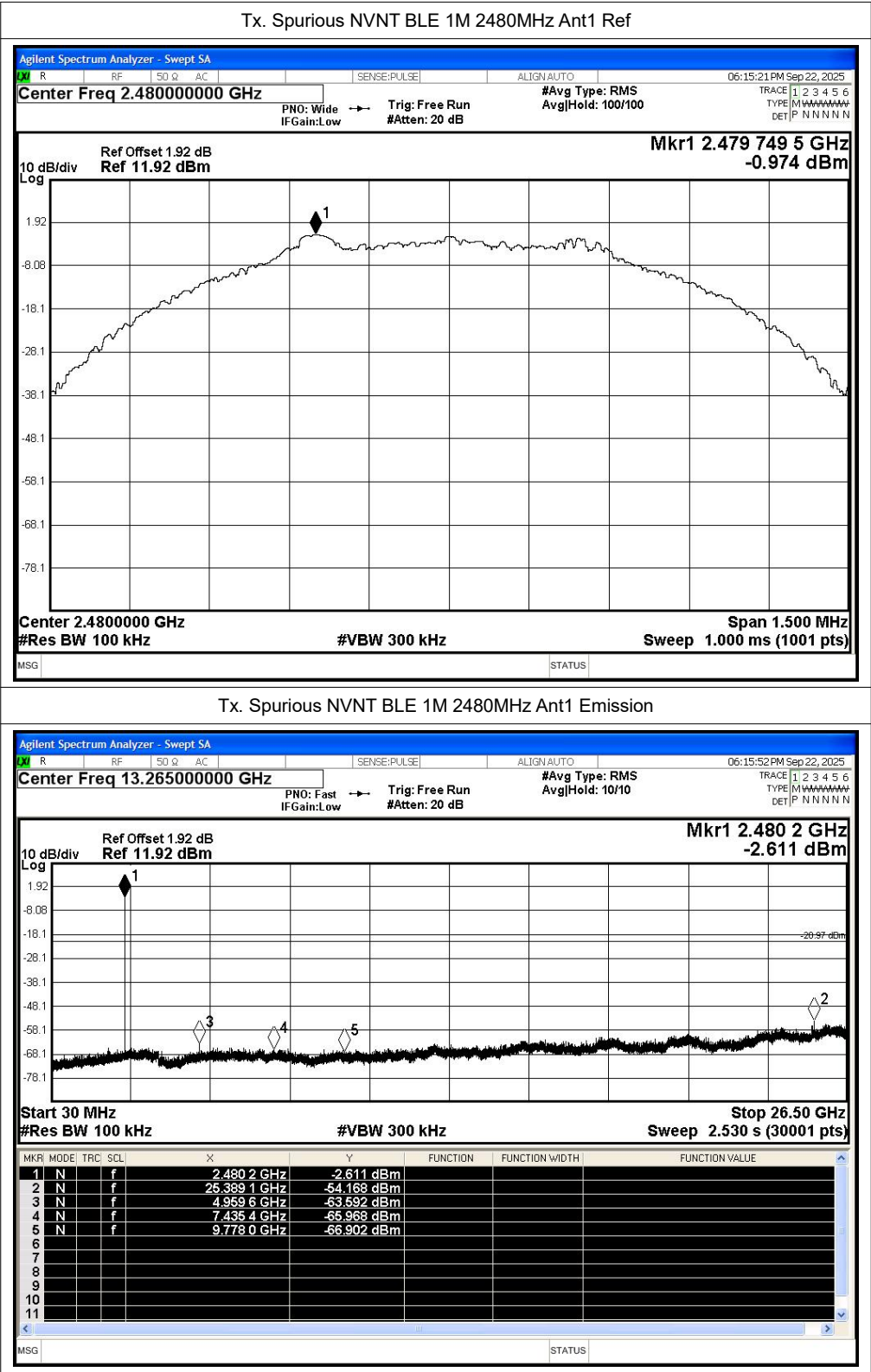


A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-56.31	-20	Pass
NVNT	BLE 1M	2440	Ant1	-55.78	-20	Pass
NVNT	BLE 1M	2480	Ant1	-53.19	-20	Pass

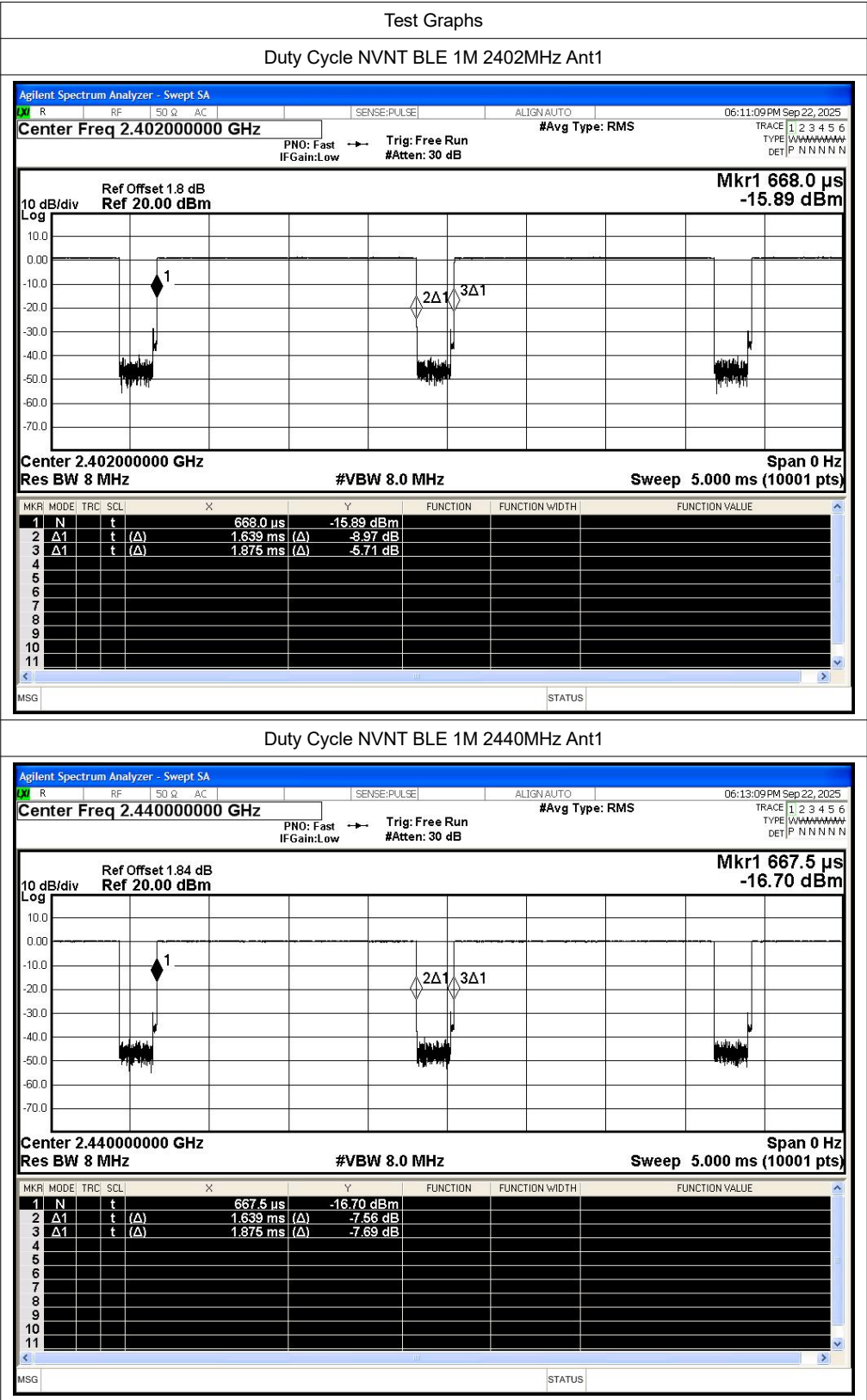


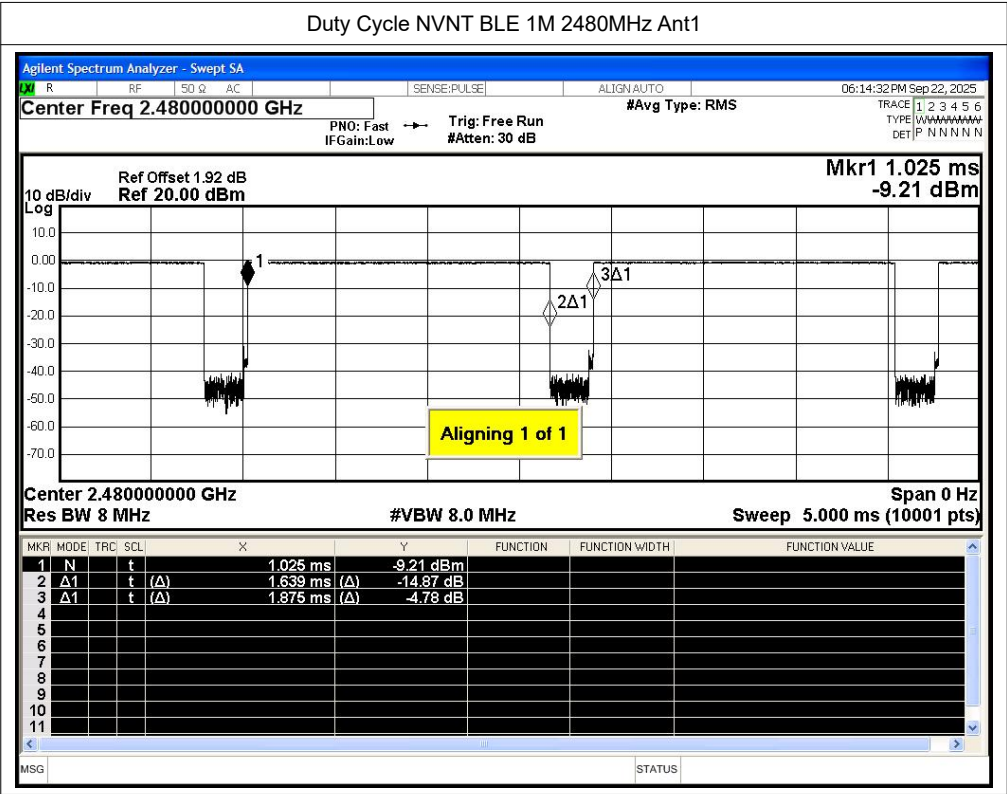




A.6 Duty Cycle

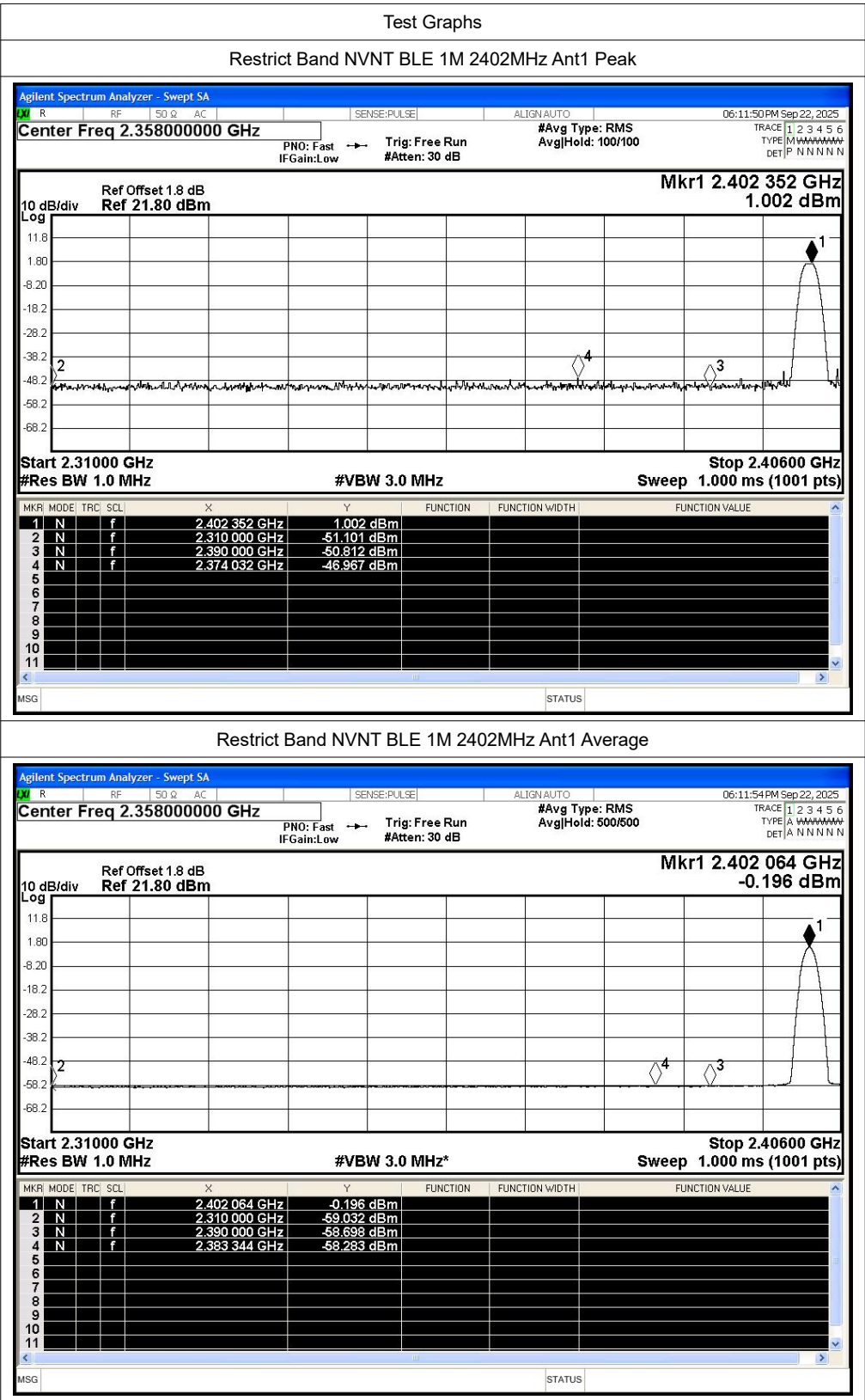
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	87.41	0.58	0.61
NVNT	BLE 1M	2440	Ant1	87.41	0.58	0.61
NVNT	BLE 1M	2480	Ant1	87.39	0.59	0.61





A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-51.1	2.5	-	46.66	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-59.03	2.5	0.58	39.31	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2374.032	-46.97	2.5	-	50.79	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2383.344	-58.28	2.5	0.58	40.06	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.81	2.5	-	46.95	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.7	2.5	0.58	39.64	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-45.59	2.5	-	52.17	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-58.15	2.5	0.59	40.20	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2484.688	-45.28	2.5	-	52.48	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2484.088	-57.68	2.5	0.59	40.67	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.71	2.5	-	47.05	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.91	2.5	0.59	40.44	Average	54	Pass



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.358000000 GHz

PN0: Fast
IF Gain: Low

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
Avg/Hold: 500/500

06:11:54 PM Sep 22, 2025

TRACE 1 2 3 4 5 6
TYPE A W W W W W W W
DET A N N N N N N

Ref Offset 1.8 dB
Ref 21.80 dBm

Mkr1 2.402 064 GHz
-0.196 dBm

10 dB/div
Log

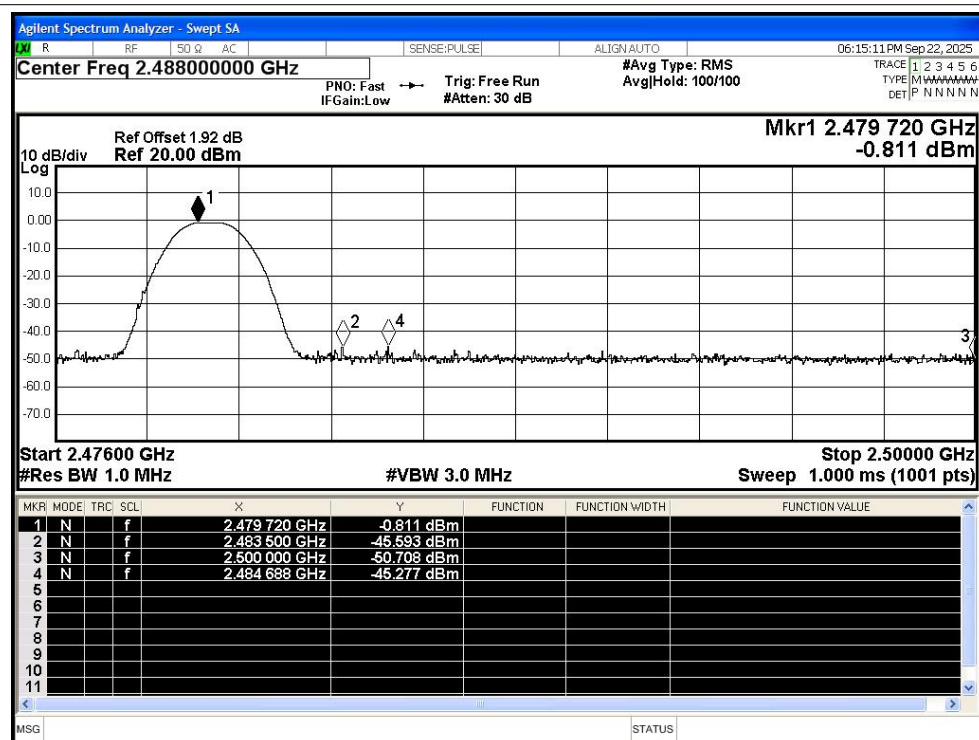
Start 2.31000 GHz
#Res BW 1.0 MHz

#VBW 3.0 MHz*

Stop 2.40600 GHz
Sweep 1.000 ms (1001 pts)

MSG STATUS

Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average

