

Appendix A

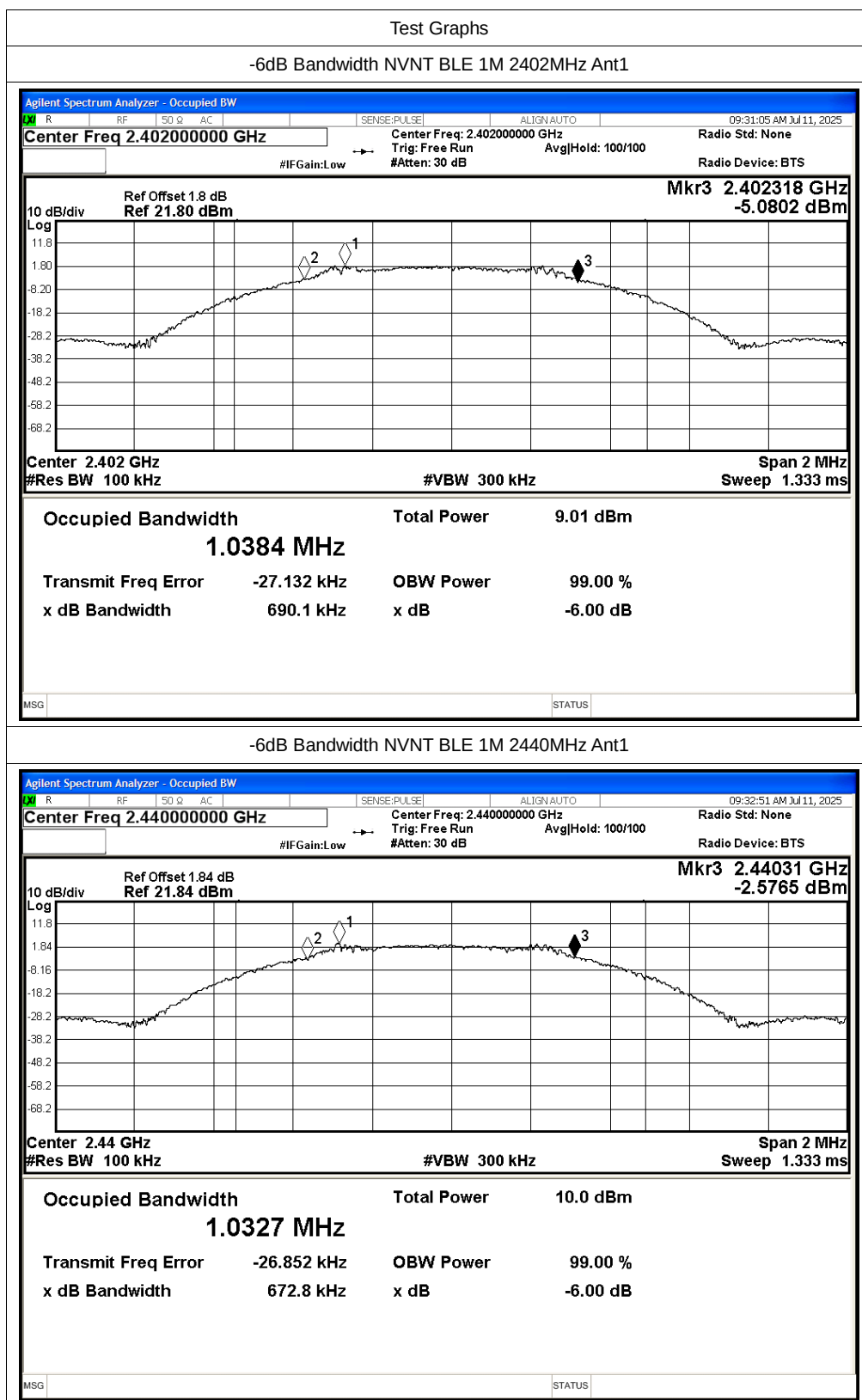
RF Test Data for BT LE (Conducted Measurement)

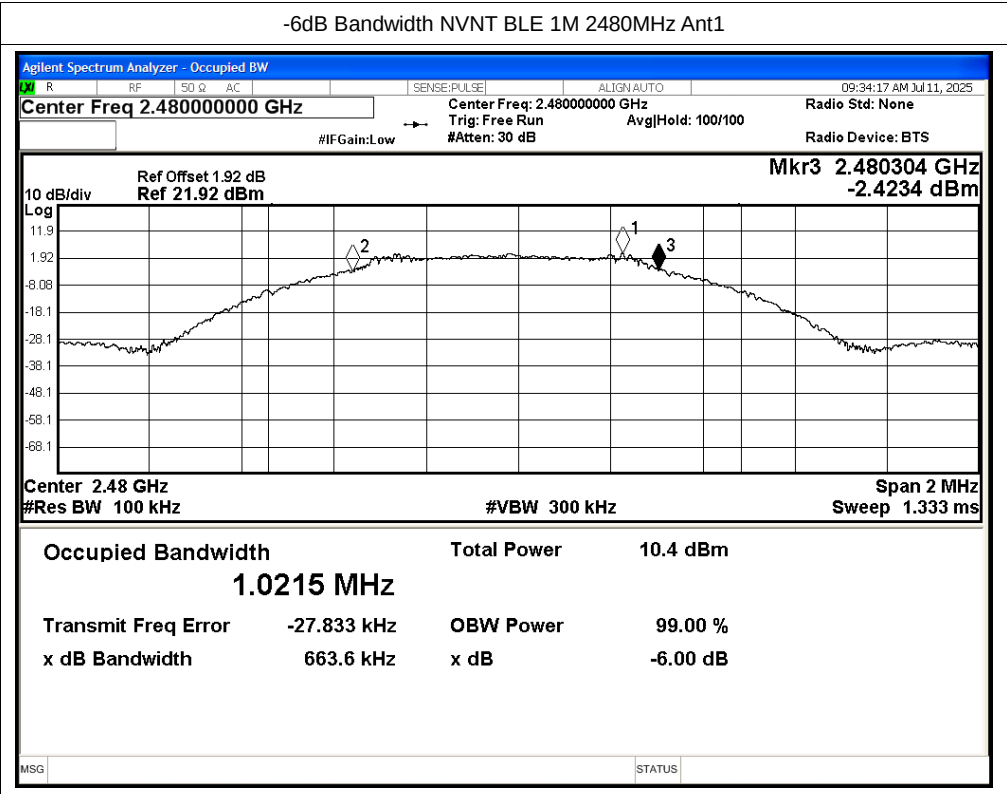
2D Barcode scanner
Test Model: J15B

Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone.Lee
Supervised by:	Yan Chen

A.1 -6dB Bandwidth

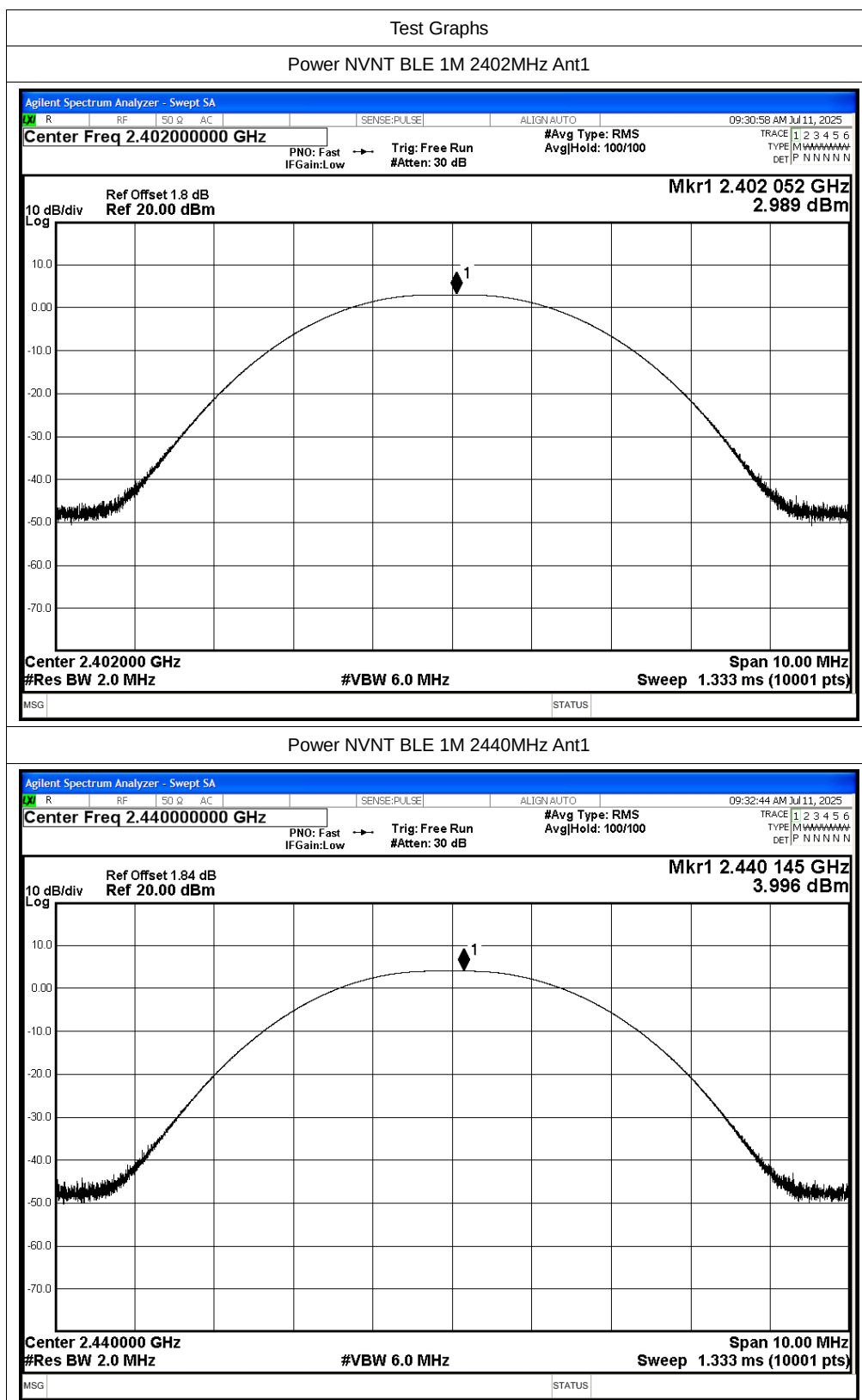
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.69	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.673	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.664	≥ 0.5	Pass

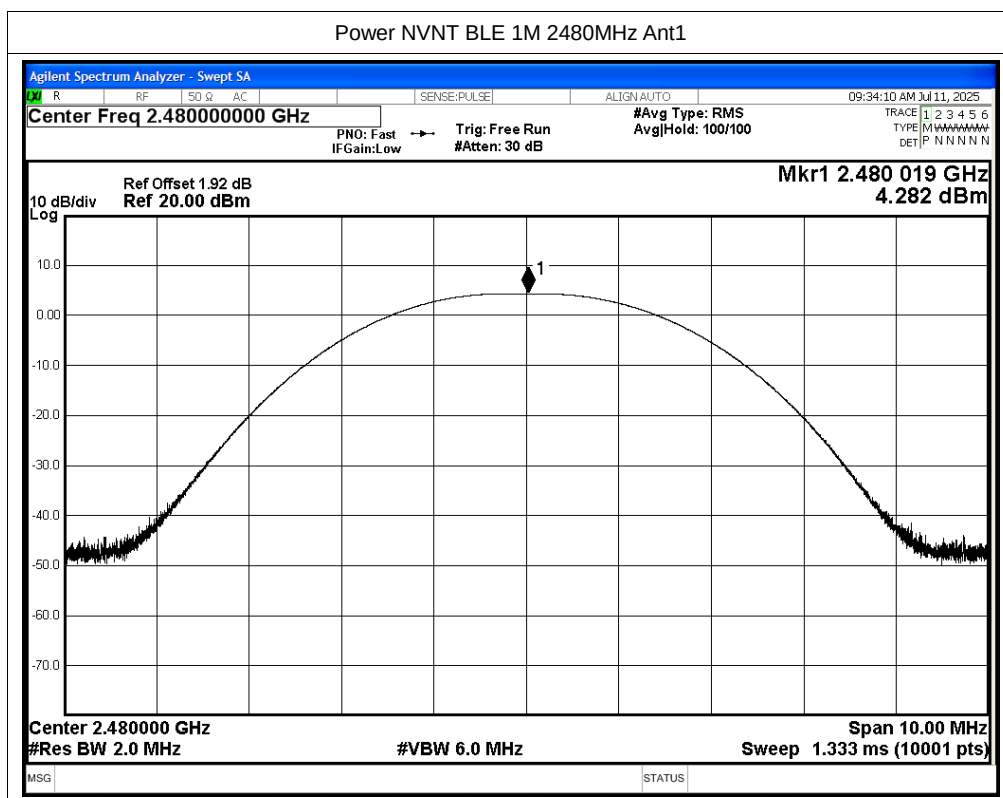




A.2 Maximum Peak Conducted Output Power

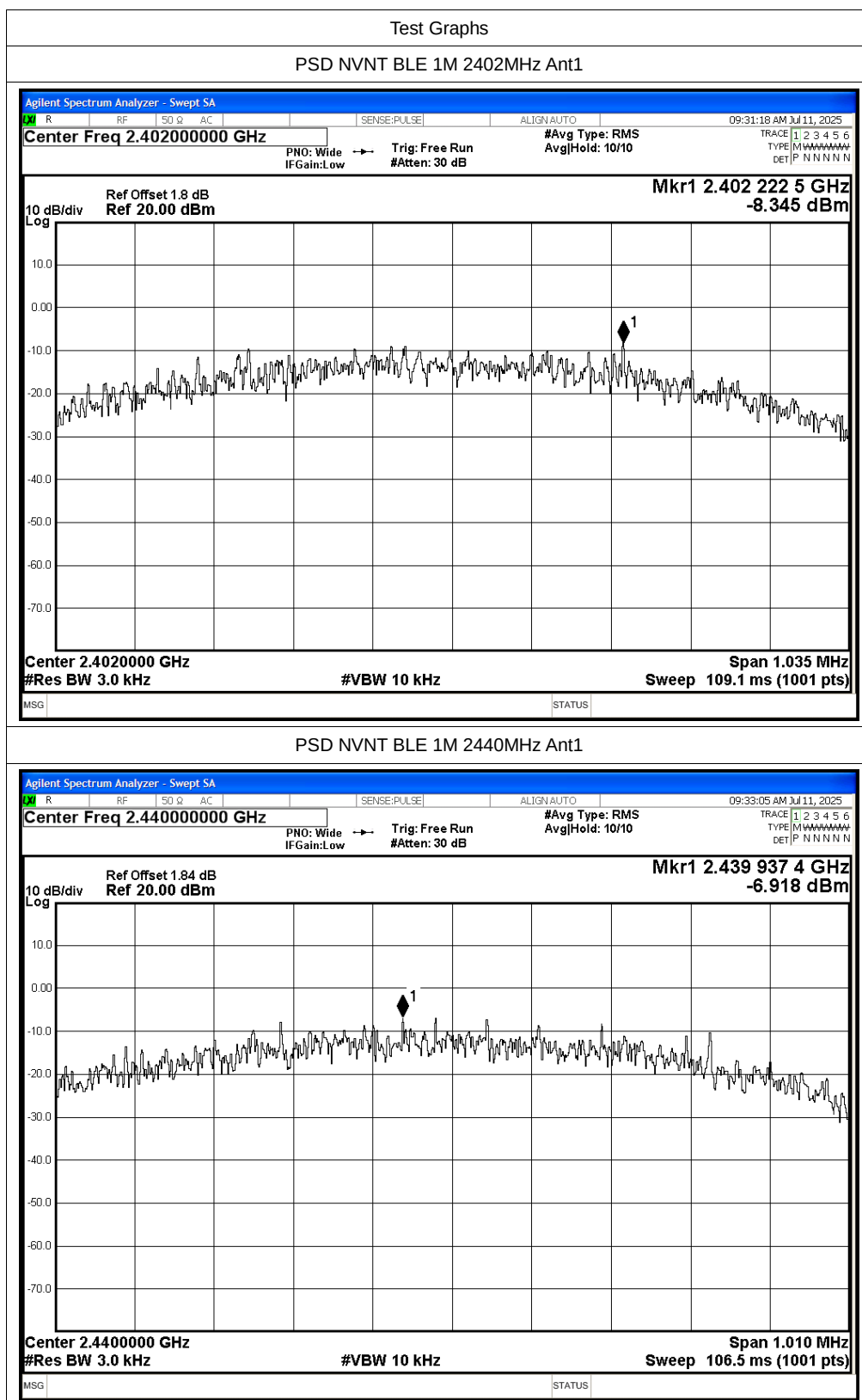
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	2.99	30	Pass
NVNT	BLE 1M	2440	Ant1	4	30	Pass
NVNT	BLE 1M	2480	Ant1	4.28	30	Pass

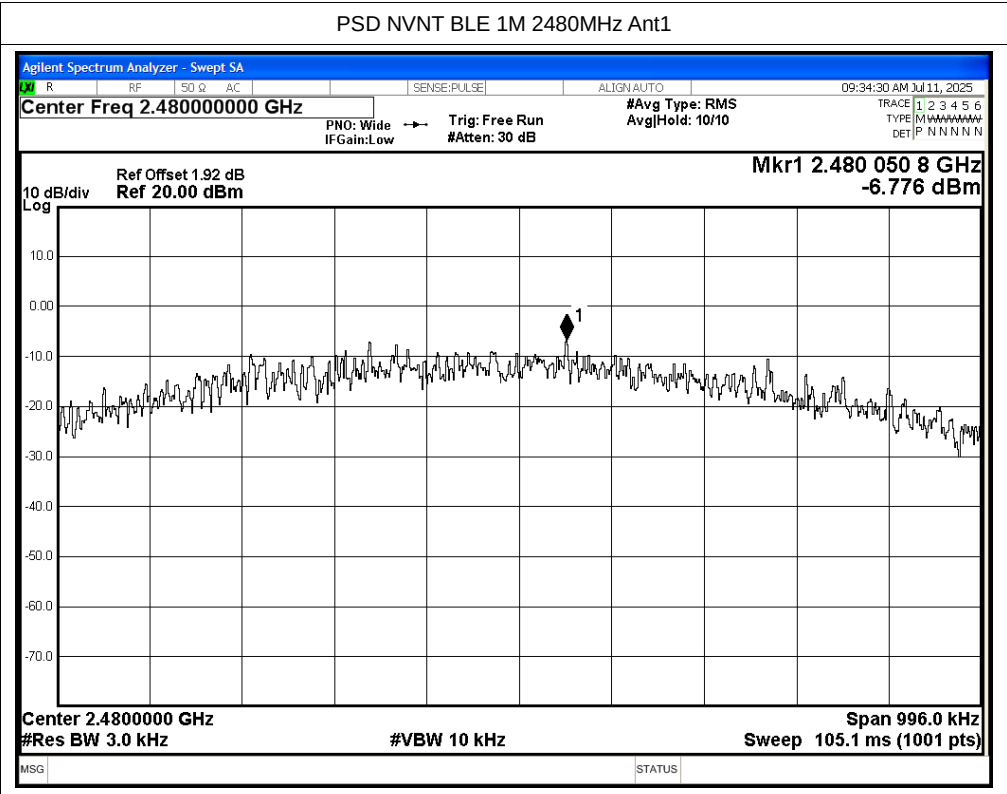




A.3 Maximum Power Spectral Density Level

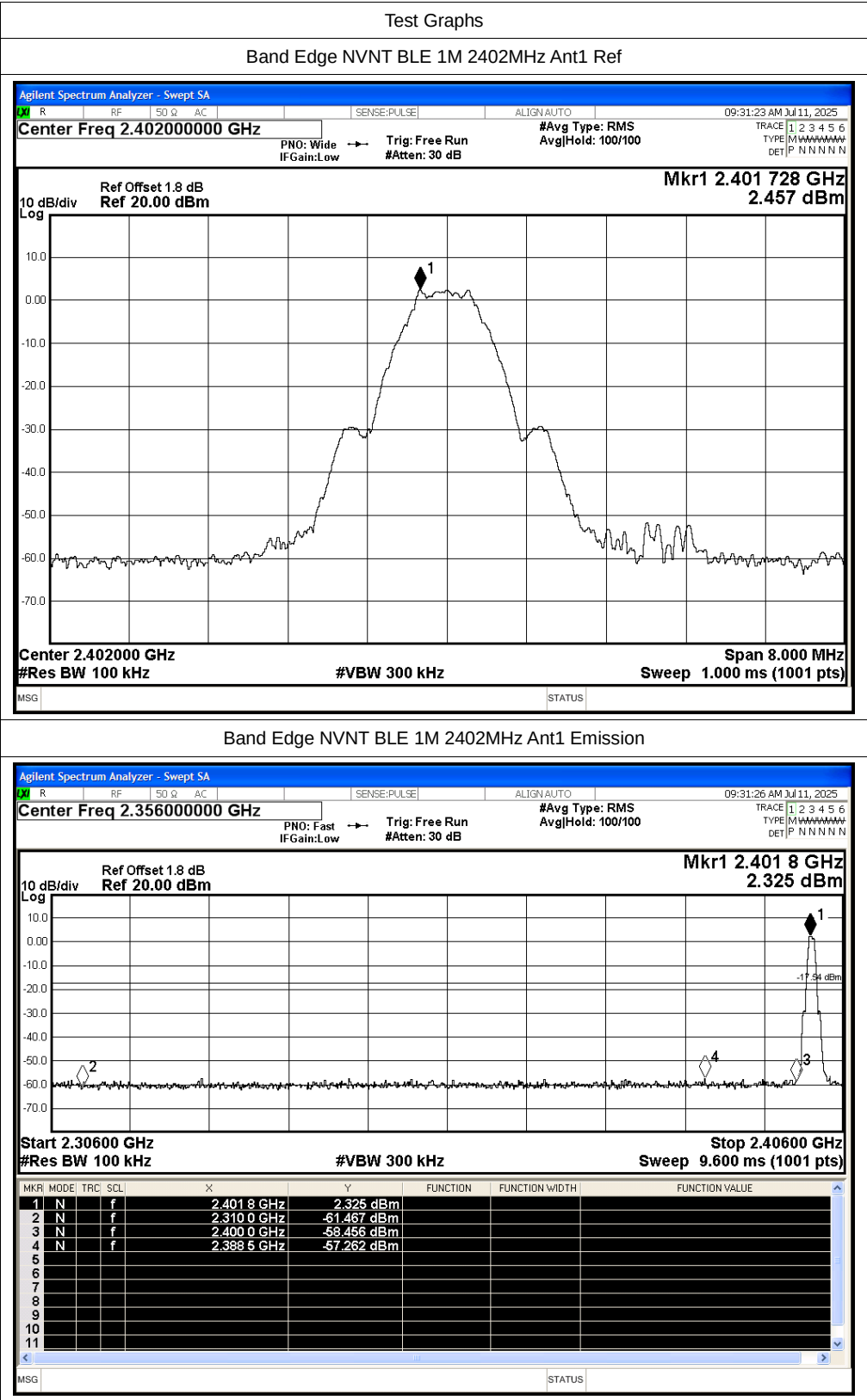
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-8.35	8	Pass
NVNT	BLE 1M	2440	Ant1	-6.92	8	Pass
NVNT	BLE 1M	2480	Ant1	-6.78	8	Pass

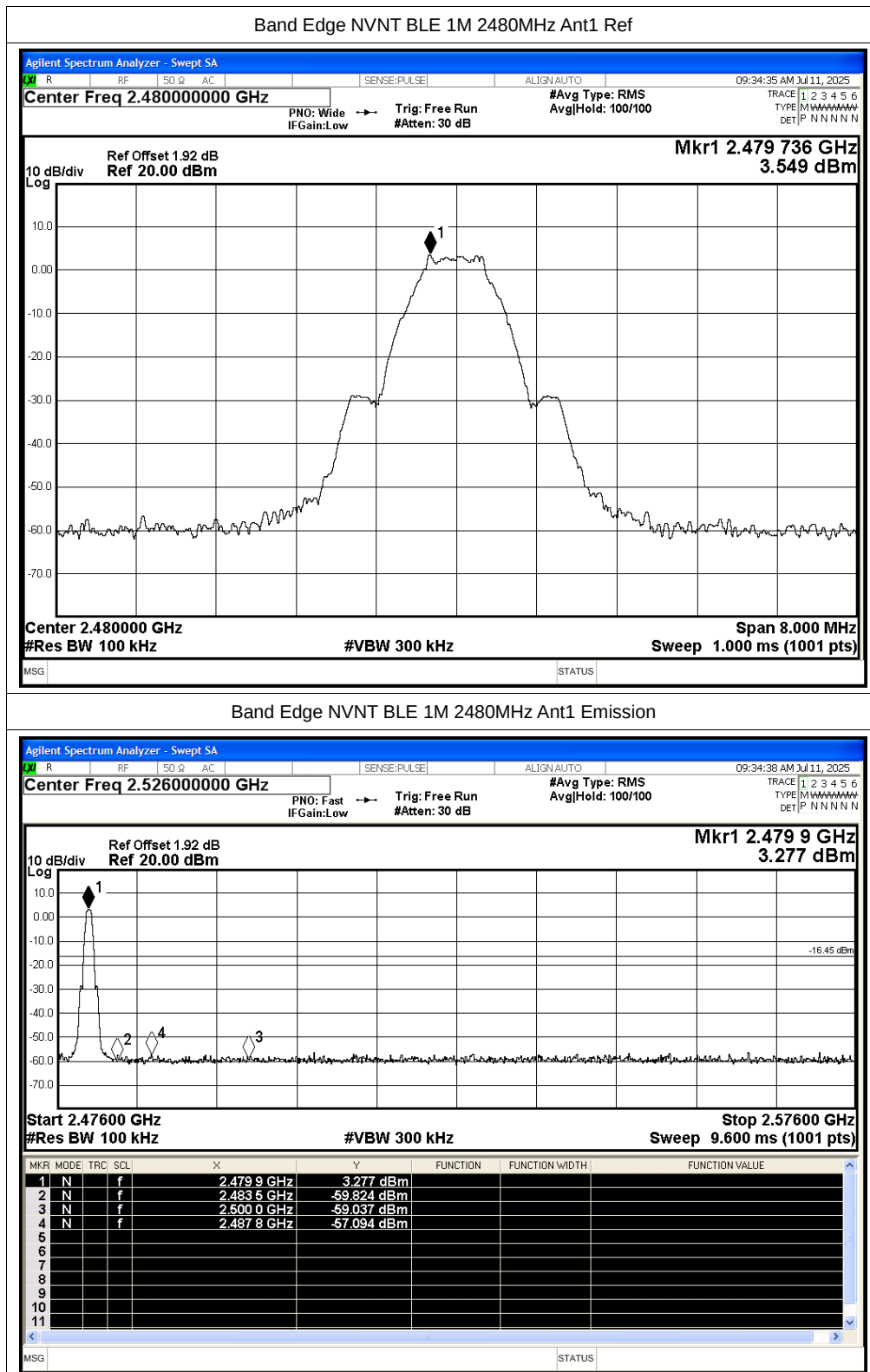




A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-59.72	-20	Pass
NVNT	BLE 1M	2480	Ant1	-60.64	-20	Pass



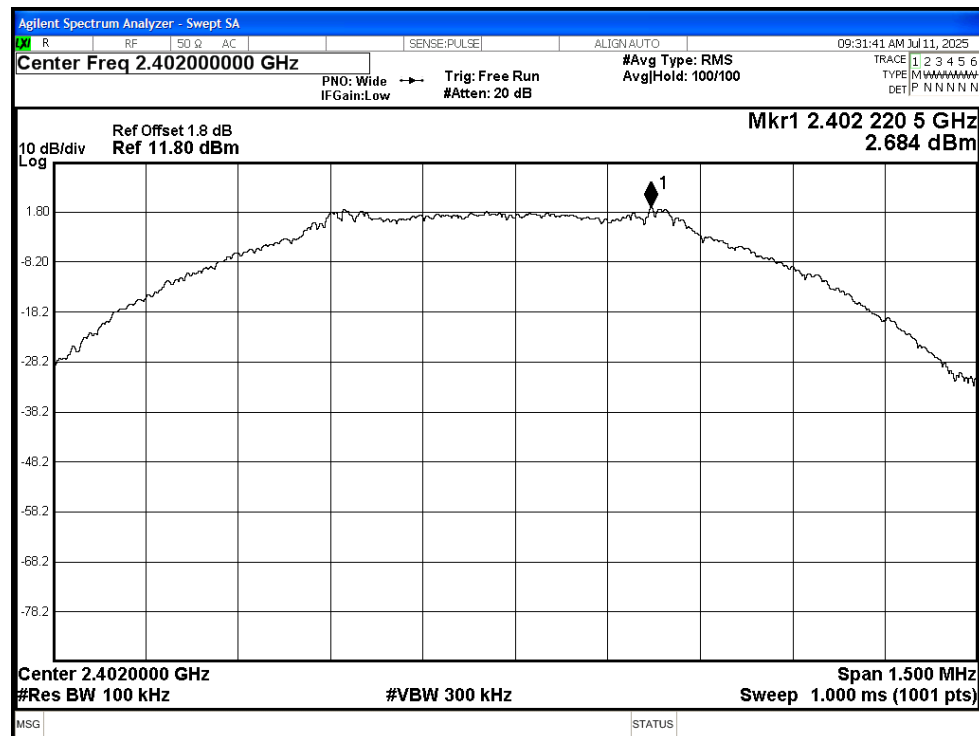


A.5 Conducted RF Spurious Emission

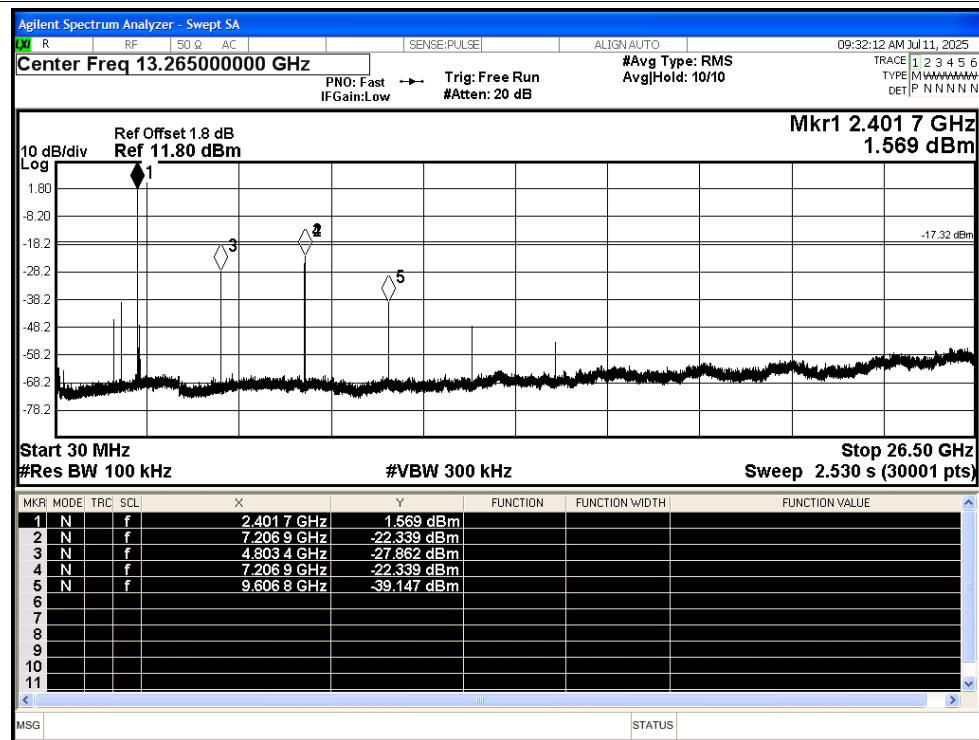
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-25.02	-20	Pass
NVNT	BLE 1M	2440	Ant1	-26.37	-20	Pass
NVNT	BLE 1M	2480	Ant1	-28.77	-20	Pass

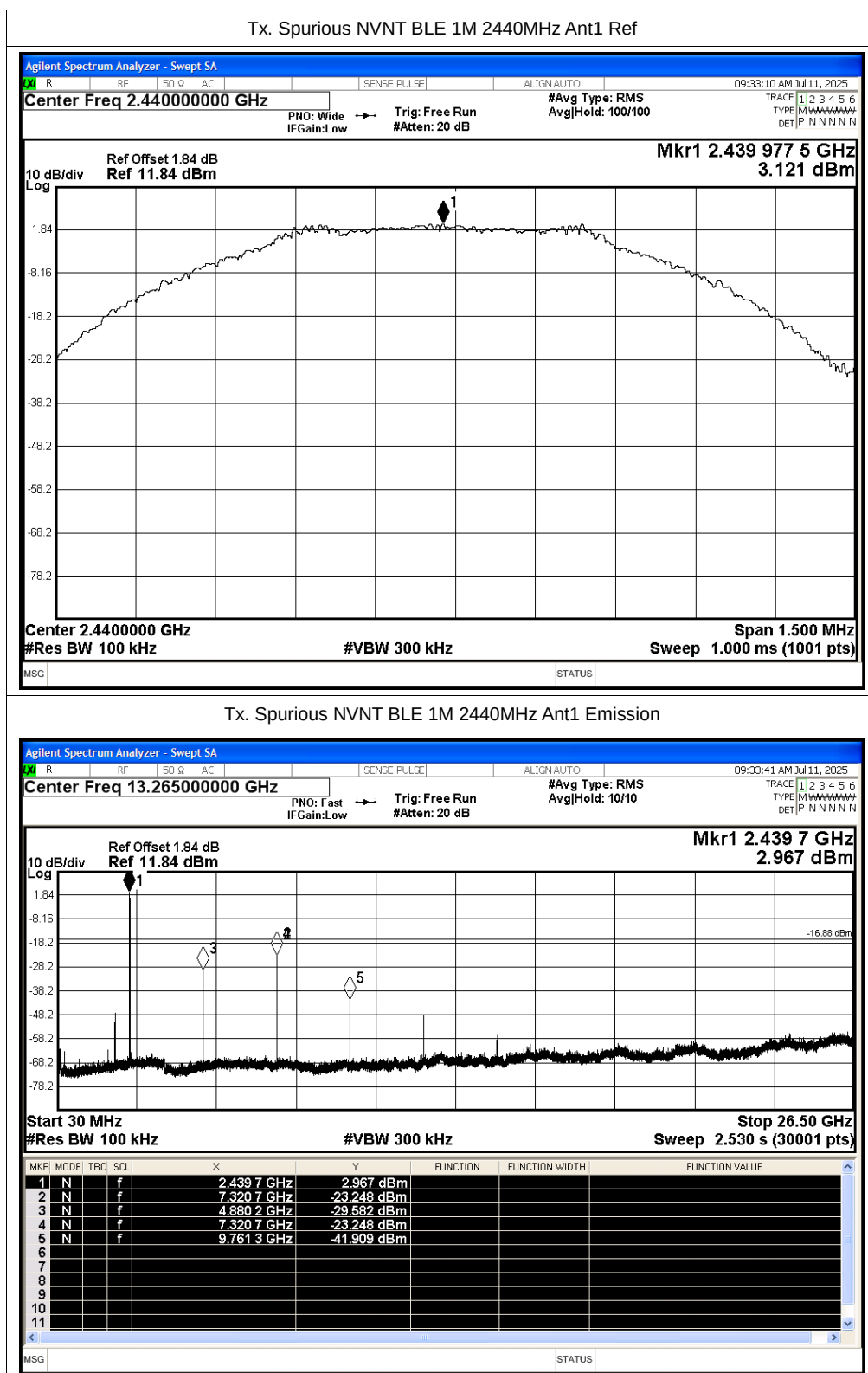
Test Graphs

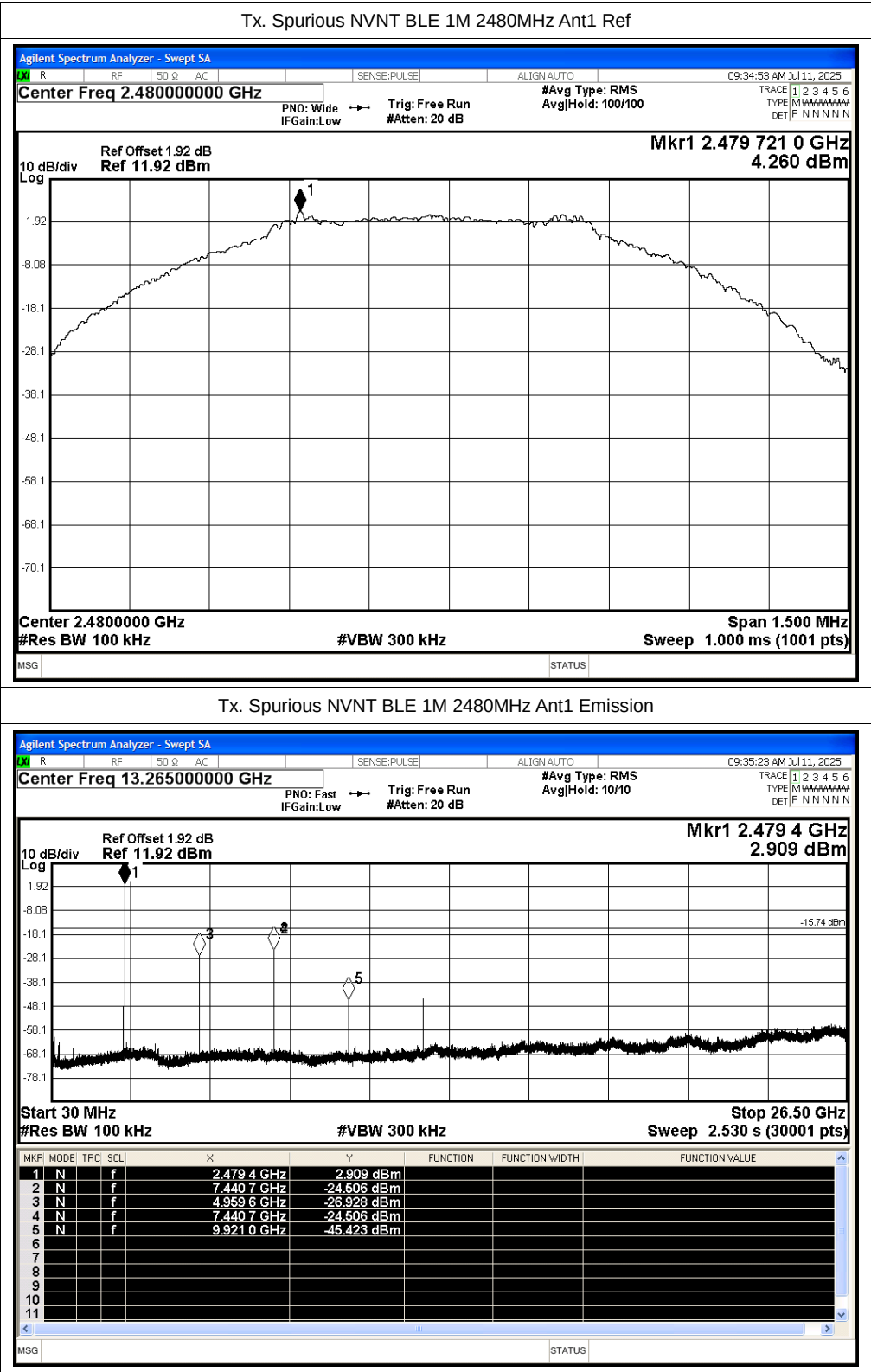
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

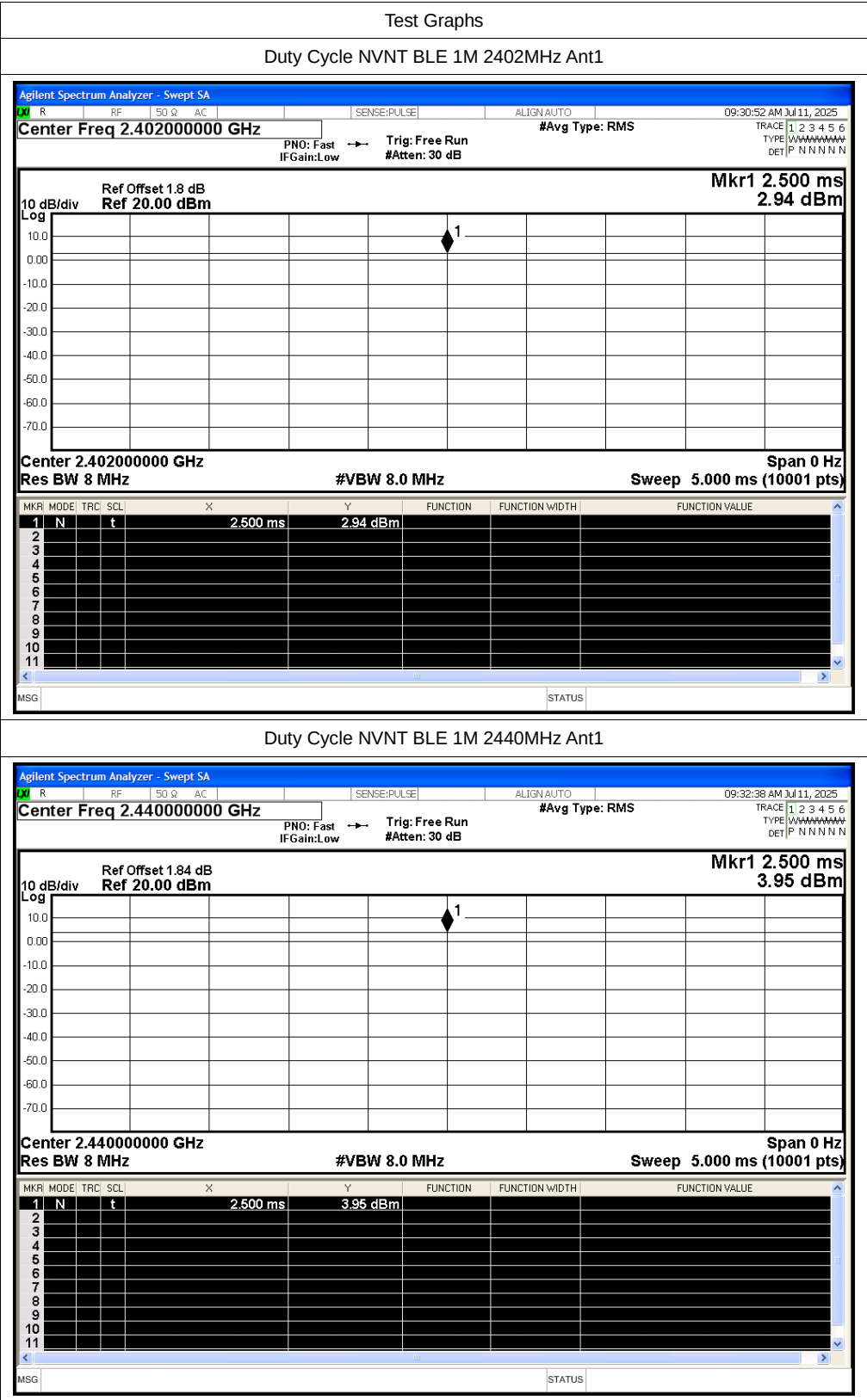






A.6 Duty Cycle

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



Duty Cycle NVNT BLE 1M 2440MHz Ant1

Agilent Spectrum Analyzer - Swept SA

R

RF

50 Q

AC

SENSE:PULSE

ALIGN:AUTO

09:32:38 AM Jul 11, 2025

Center Freq 2.440000000 GHz

PN0: Fast
IF Gain: Low

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS

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

Ref Offset 1.84 dB
Ref 20.00 dBm

Mkr1 2.500 ms
3.95 dBm

10 dB/div
Log

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

-70.0

Center 2.440000000 GHz

Res BW 8 MHz

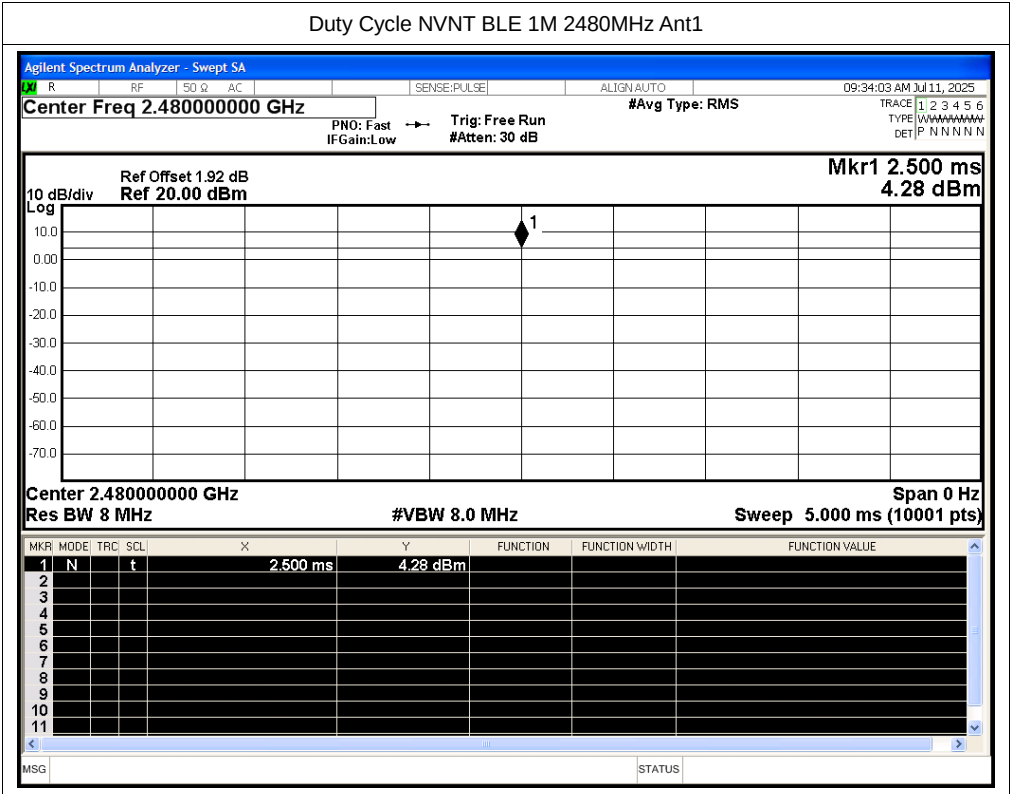
#VBW 8.0 MHz

Sweep 5.000 ms (10001 pts)

Span 0 Hz

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		t	2.500 ms	3.95 dBm			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSGSTATUS



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	-51.46	3.00	-	46.80	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.98	3.00	0	39.28	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2388.528	-47.96	3.00	-	50.30	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2389.968	-58.25	3.00	0	40.01	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.77	3.00	-	47.49	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.25	3.00	0	40.01	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-50.87	3.00	-	47.39	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.38	3.00	0	40.88	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2484.472	-47.27	3.00	-	50.99	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.512	-57.38	3.00	0	40.88	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.97	3.00	-	47.29	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.95	3.00	0	40.31	Average	54	Pass

