

Appendix B

RF Test Data for BT LE(Conducted Measurement)

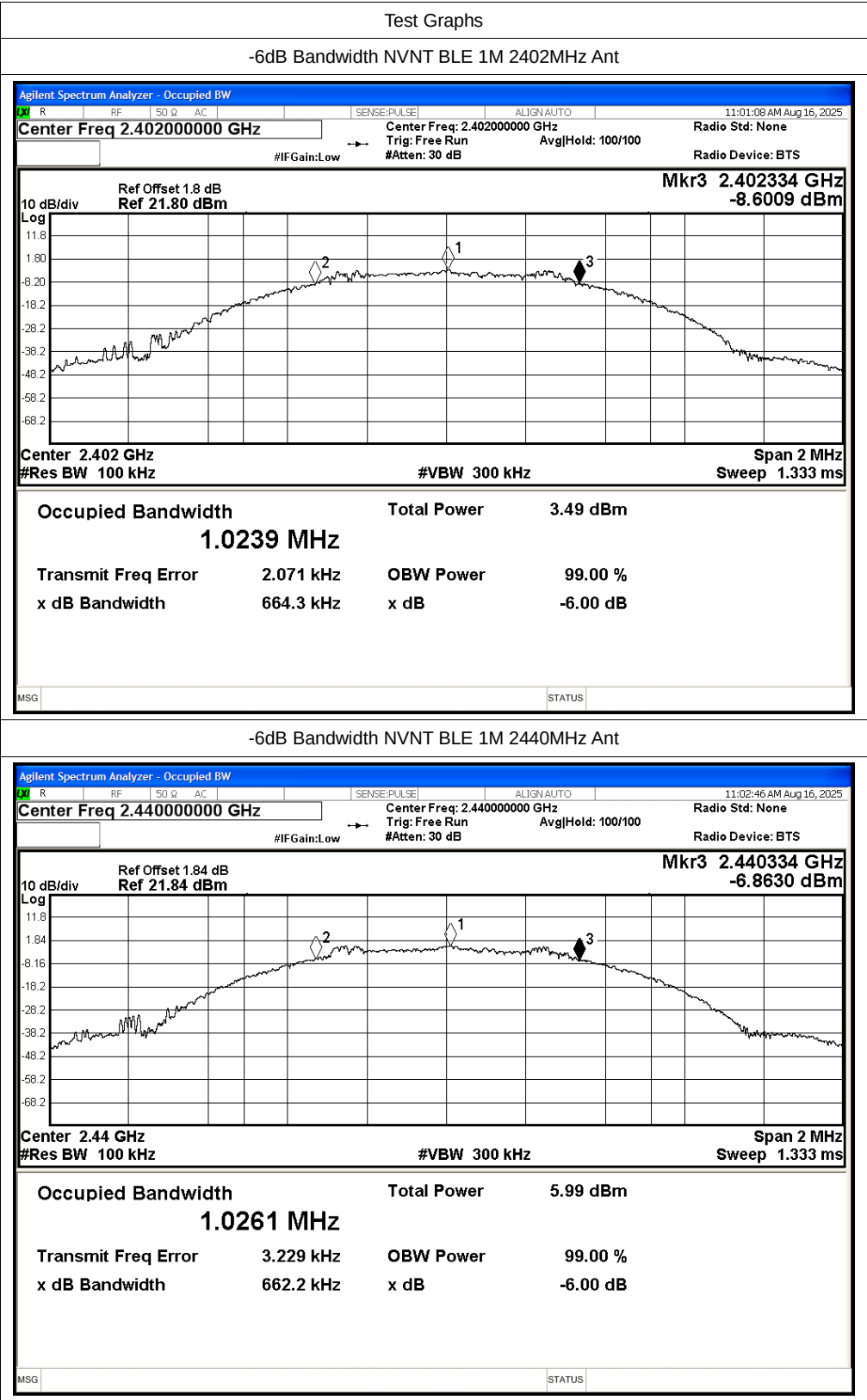
Product Name: Projector
Test Model: X3AA

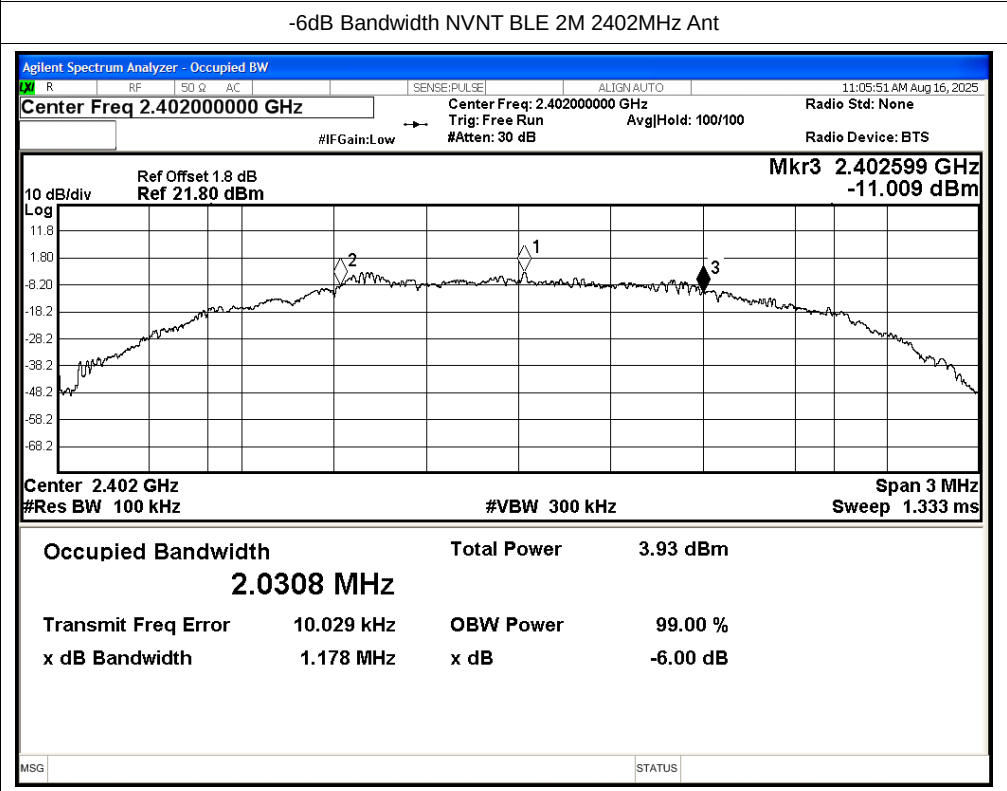
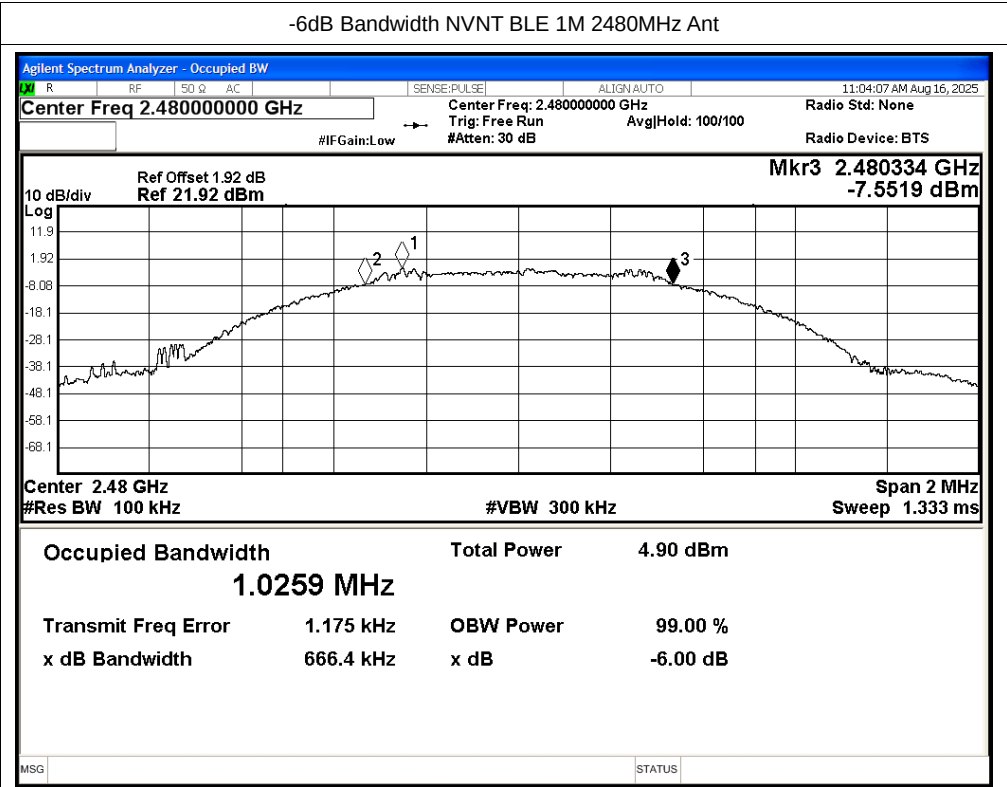
Environmental Conditions

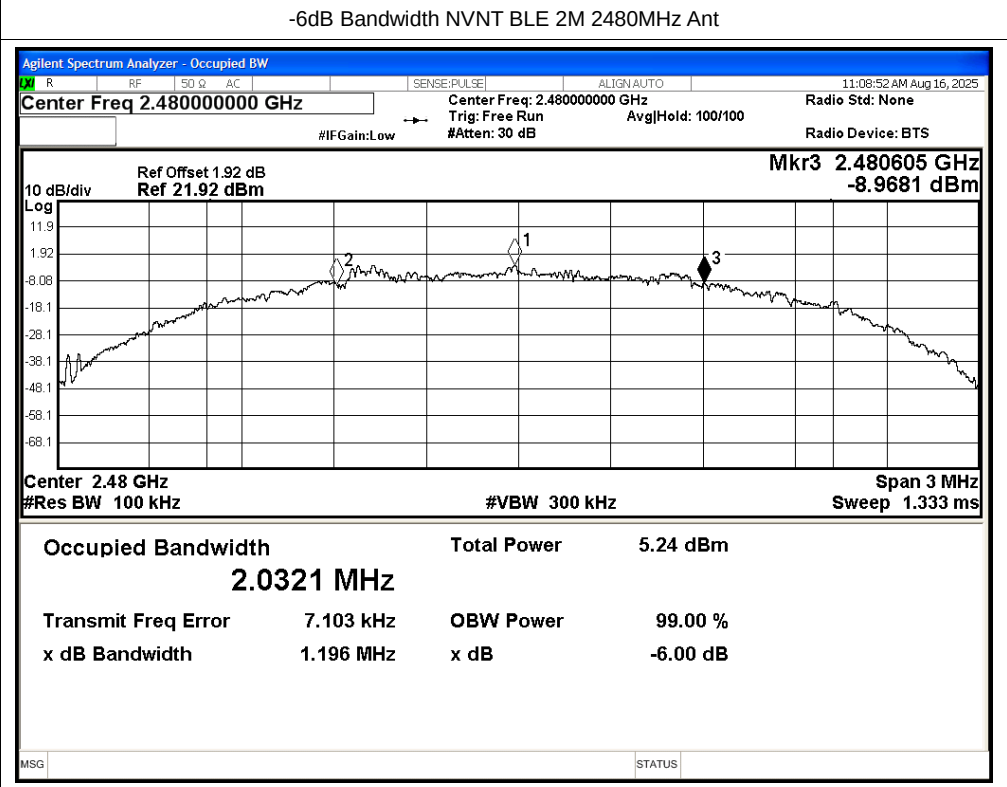
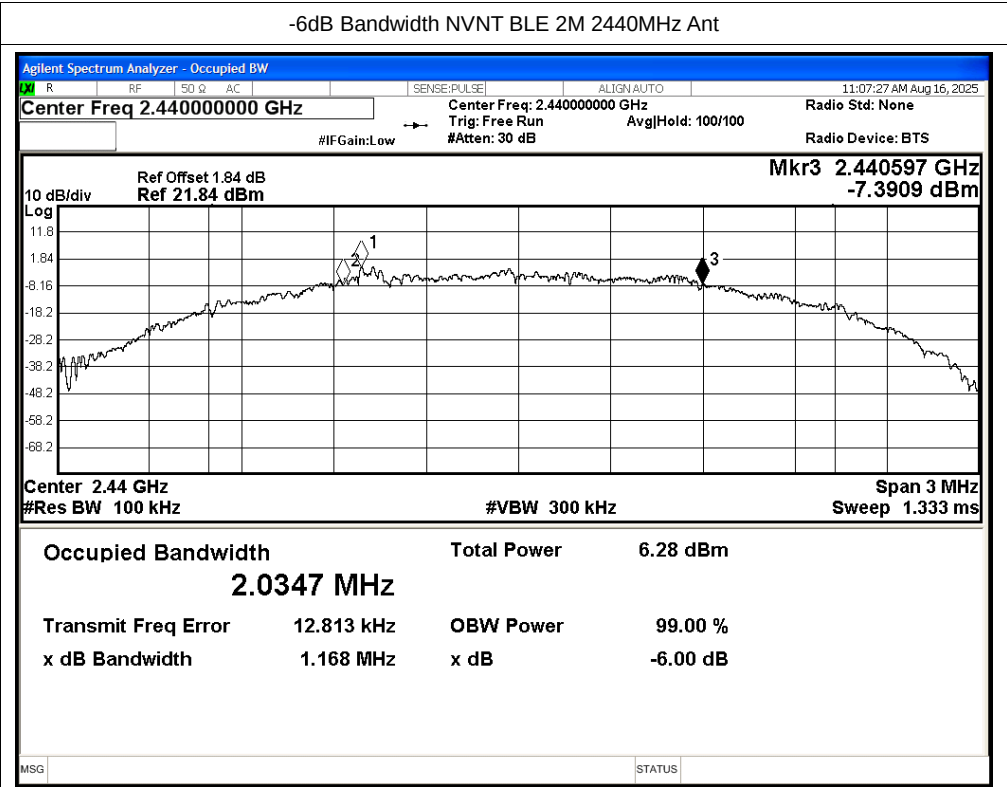
Temperature:	23.8°C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

B.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant	0.664	>=0.5	Pass
NVNT	BLE 1M	2440	Ant	0.662	>=0.5	Pass
NVNT	BLE 1M	2480	Ant	0.666	>=0.5	Pass
NVNT	BLE 2M	2402	Ant	1.178	>=0.5	Pass
NVNT	BLE 2M	2440	Ant	1.168	>=0.5	Pass
NVNT	BLE 2M	2480	Ant	1.196	>=0.5	Pass





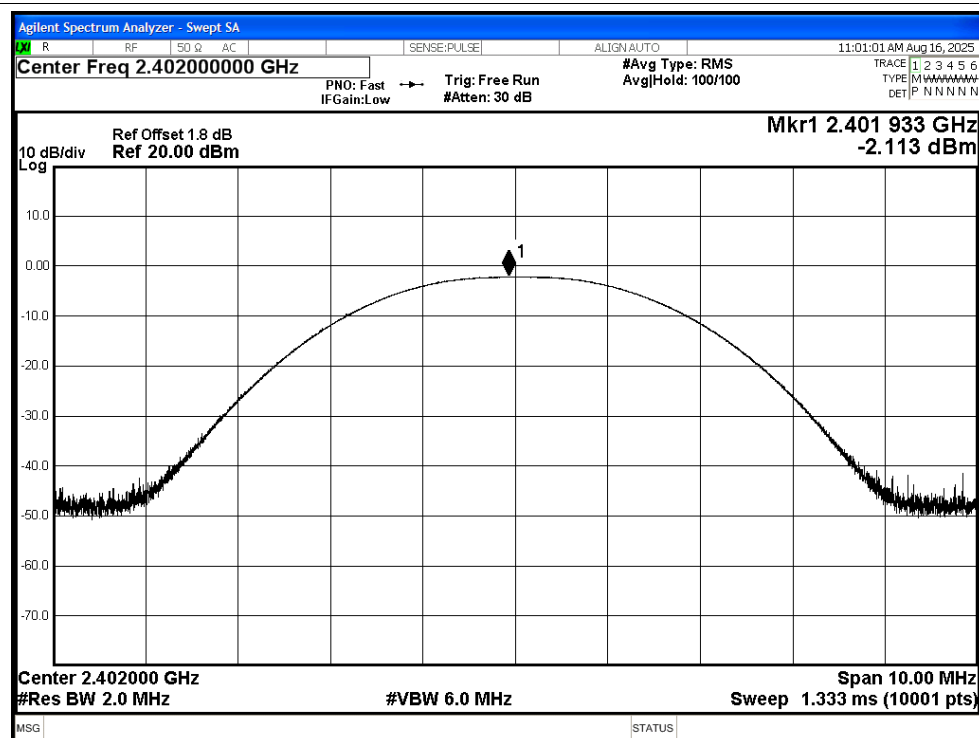


B.2 Maximum Peak Conducted Output Power

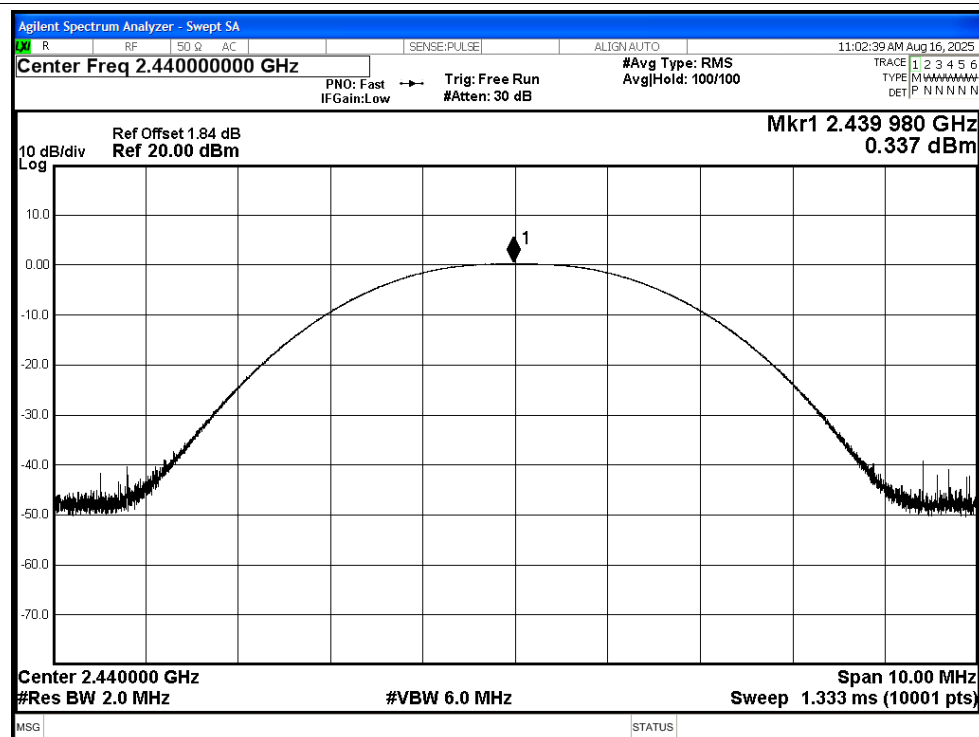
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant	-2.11	30	Pass
NVNT	BLE 1M	2440	Ant	0.34	30	Pass
NVNT	BLE 1M	2480	Ant	-0.76	30	Pass
NVNT	BLE 2M	2402	Ant	-2.21	30	Pass
NVNT	BLE 2M	2440	Ant	0.18	30	Pass
NVNT	BLE 2M	2480	Ant	-0.87	30	Pass

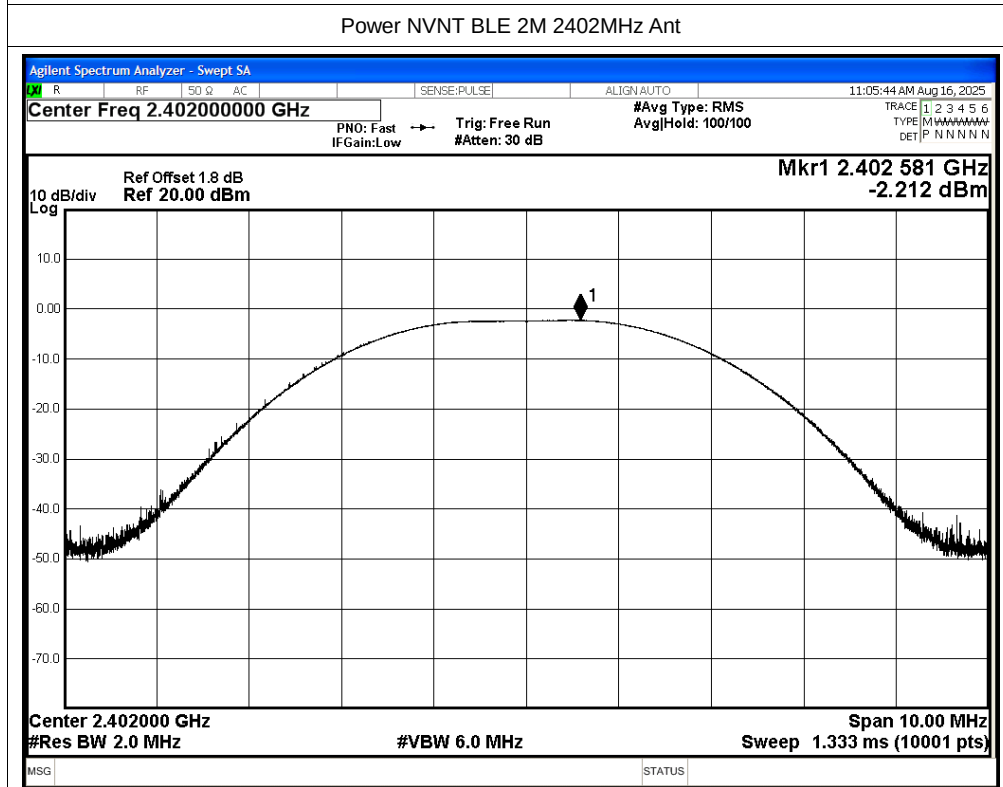
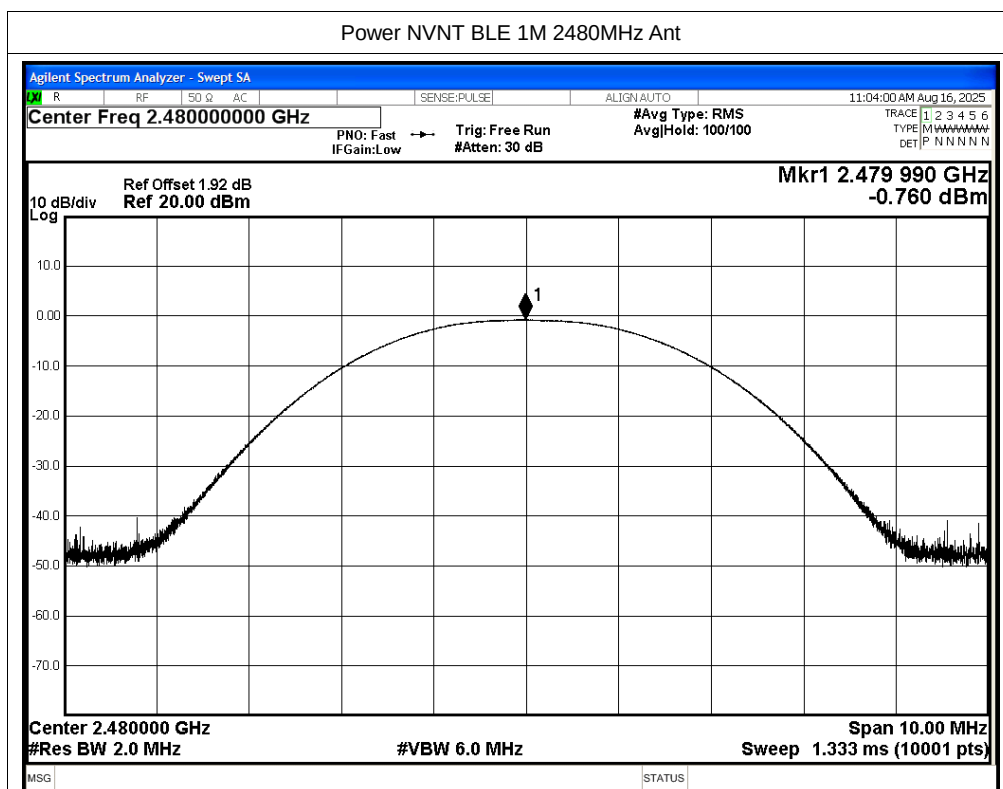
Test Graphs

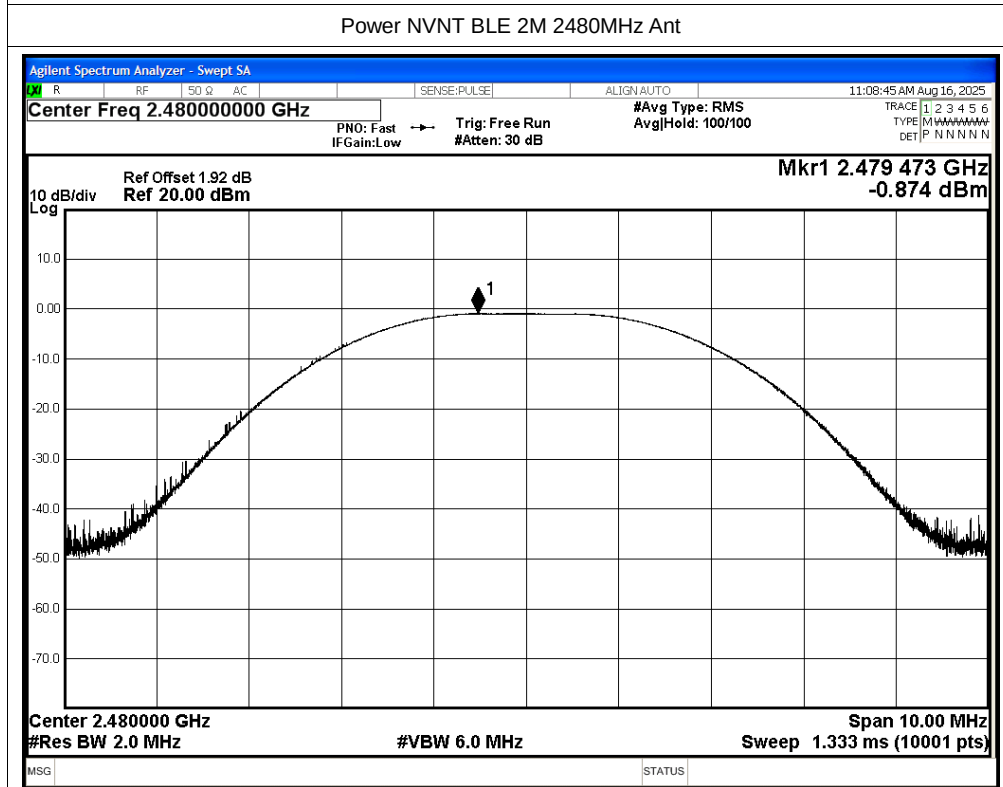
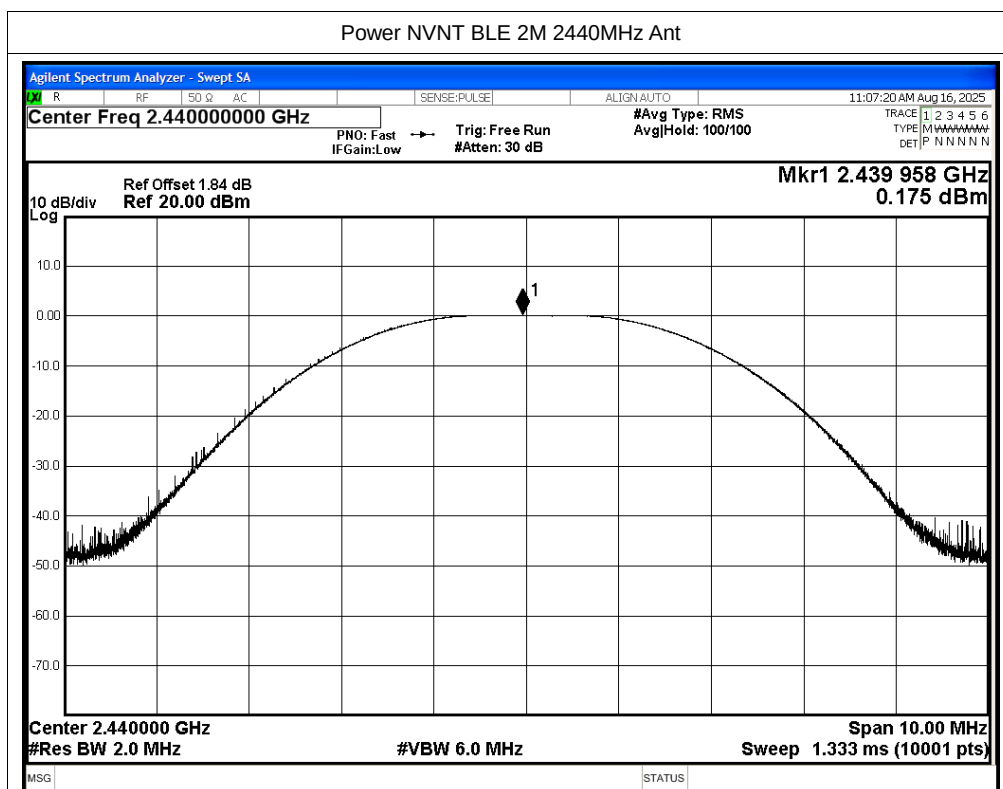
Power NVNT BLE 1M 2402MHz Ant



Power NVNT BLE 1M 2440MHz Ant





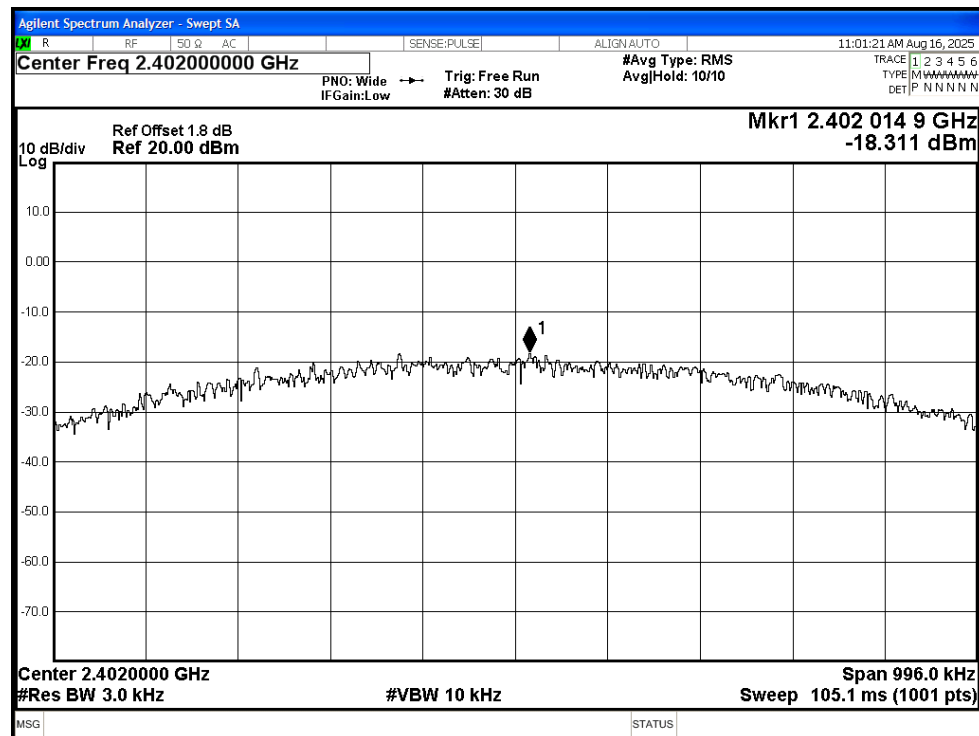


B.3 Maximum Power Spectral Density Level

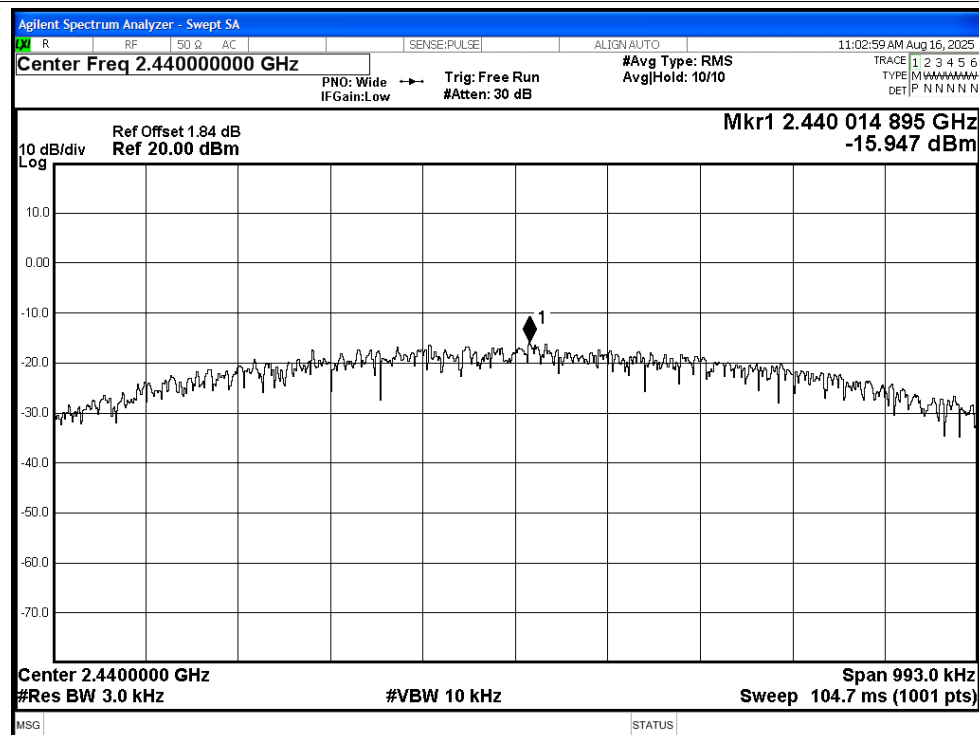
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant	-18.31	8	Pass
NVNT	BLE 1M	2440	Ant	-15.95	8	Pass
NVNT	BLE 1M	2480	Ant	-17.1	8	Pass
NVNT	BLE 2M	2402	Ant	-21.36	8	Pass
NVNT	BLE 2M	2440	Ant	-19.09	8	Pass
NVNT	BLE 2M	2480	Ant	-20.05	8	Pass

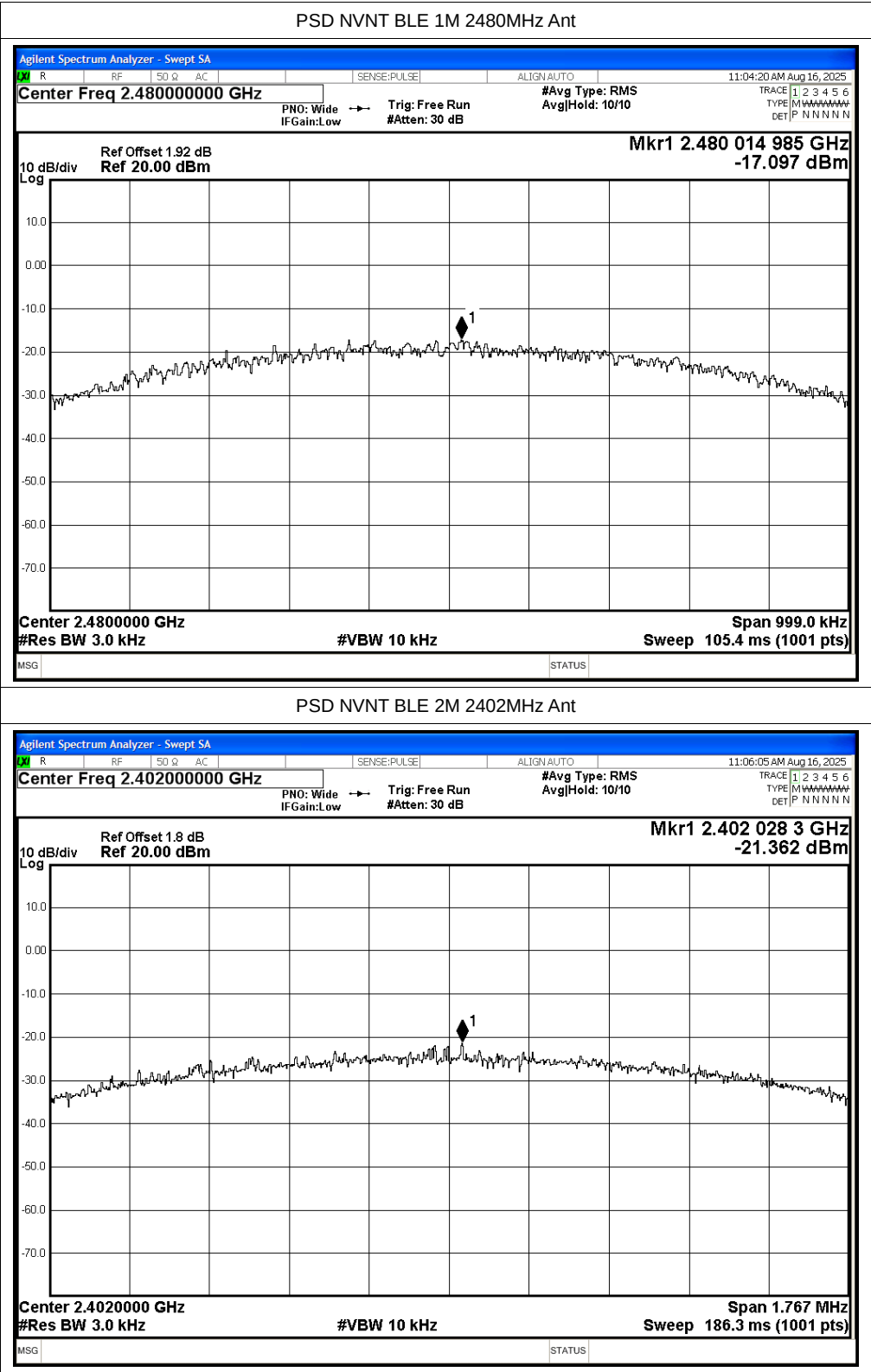
Test Graphs

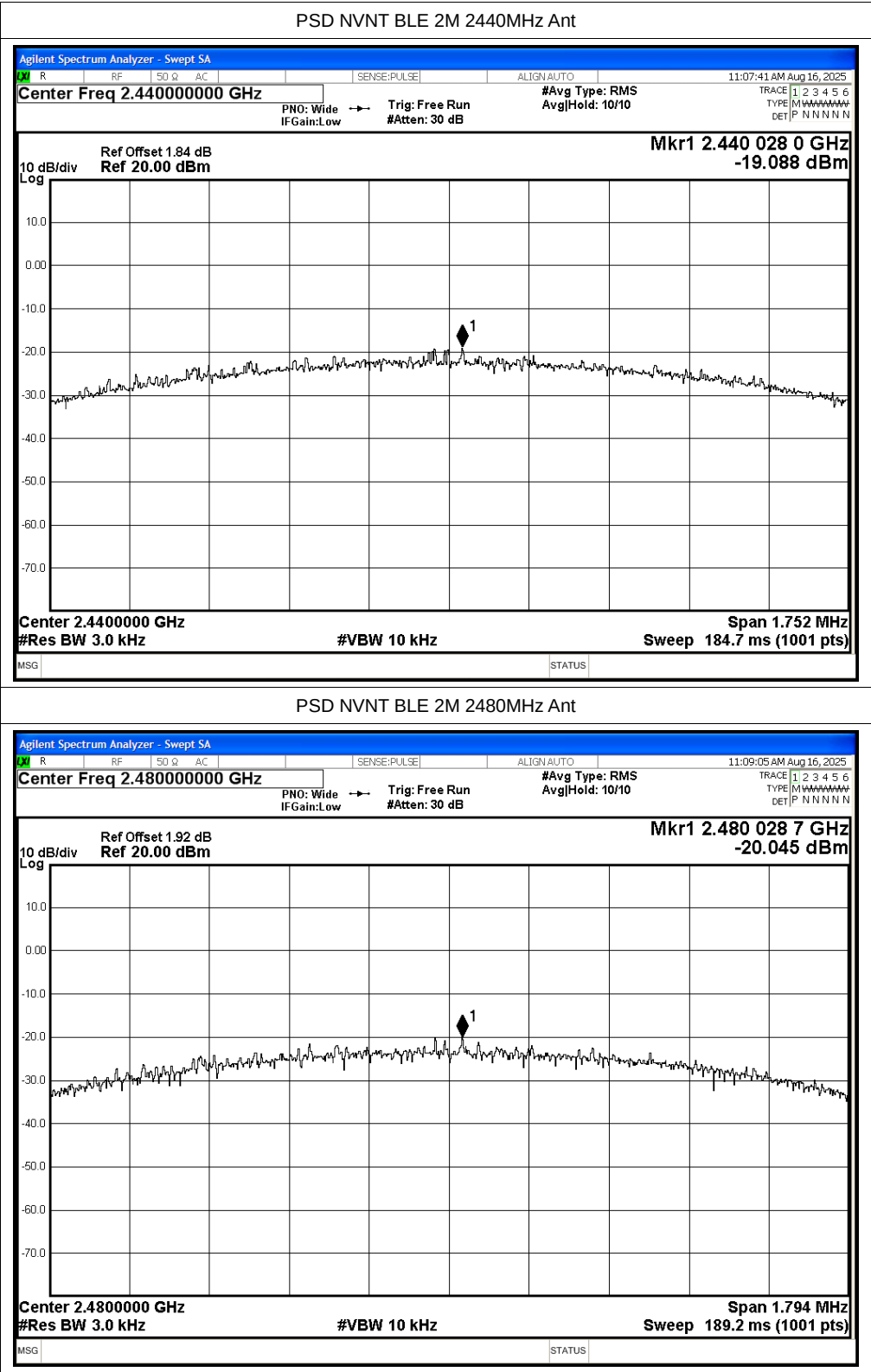
PSD NVNT BLE 1M 2402MHz Ant



PSD NVNT BLE 1M 2440MHz Ant

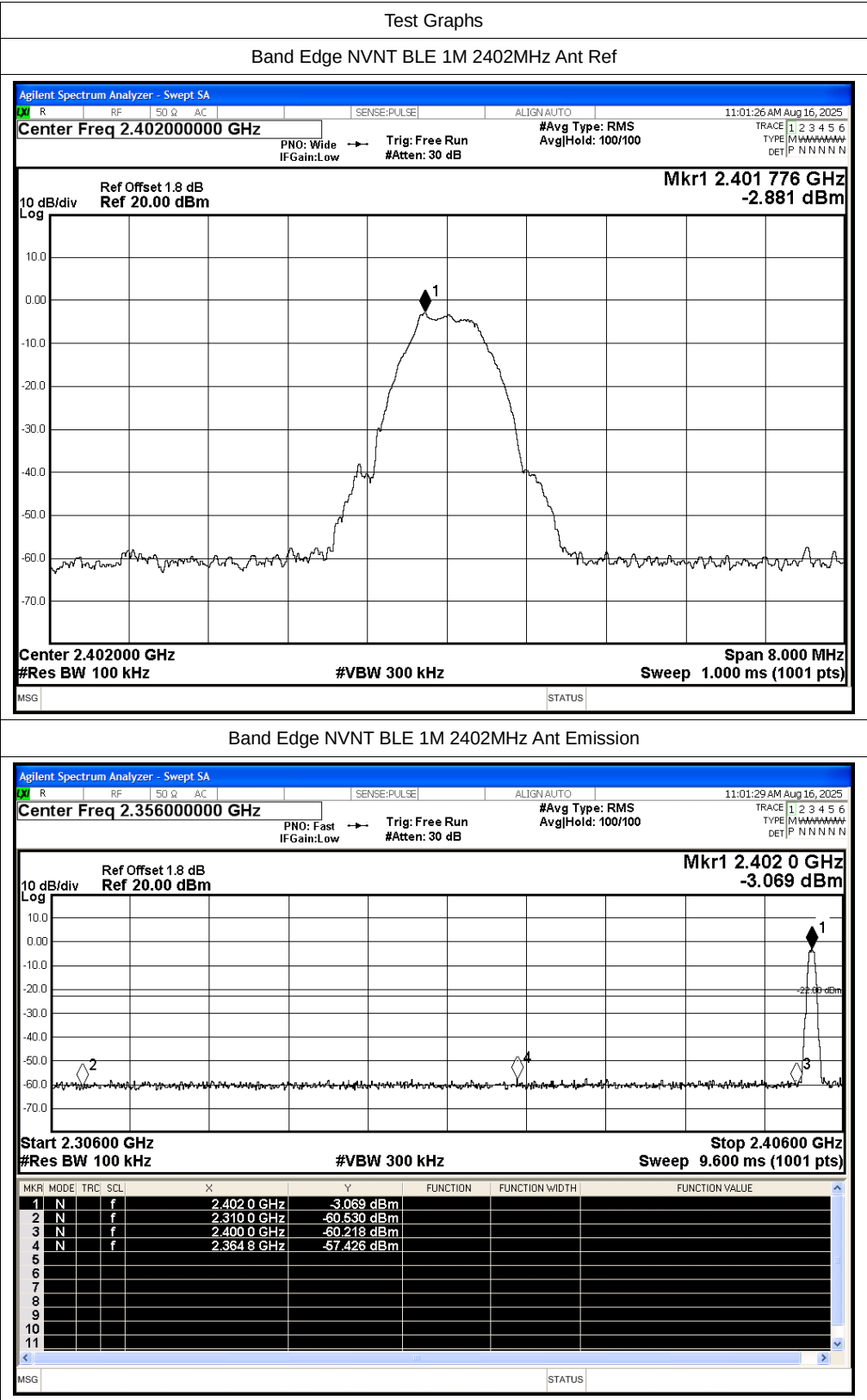


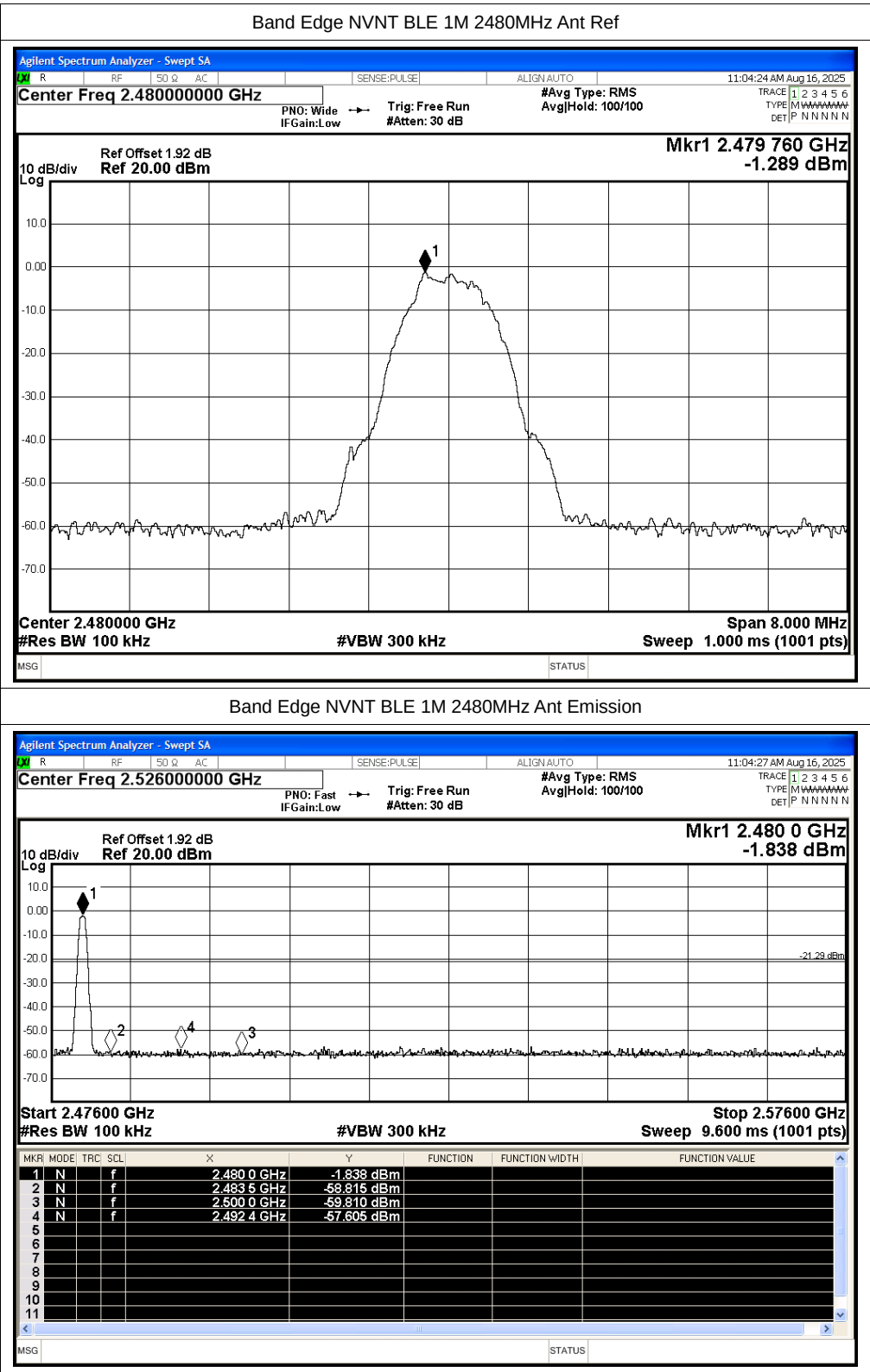


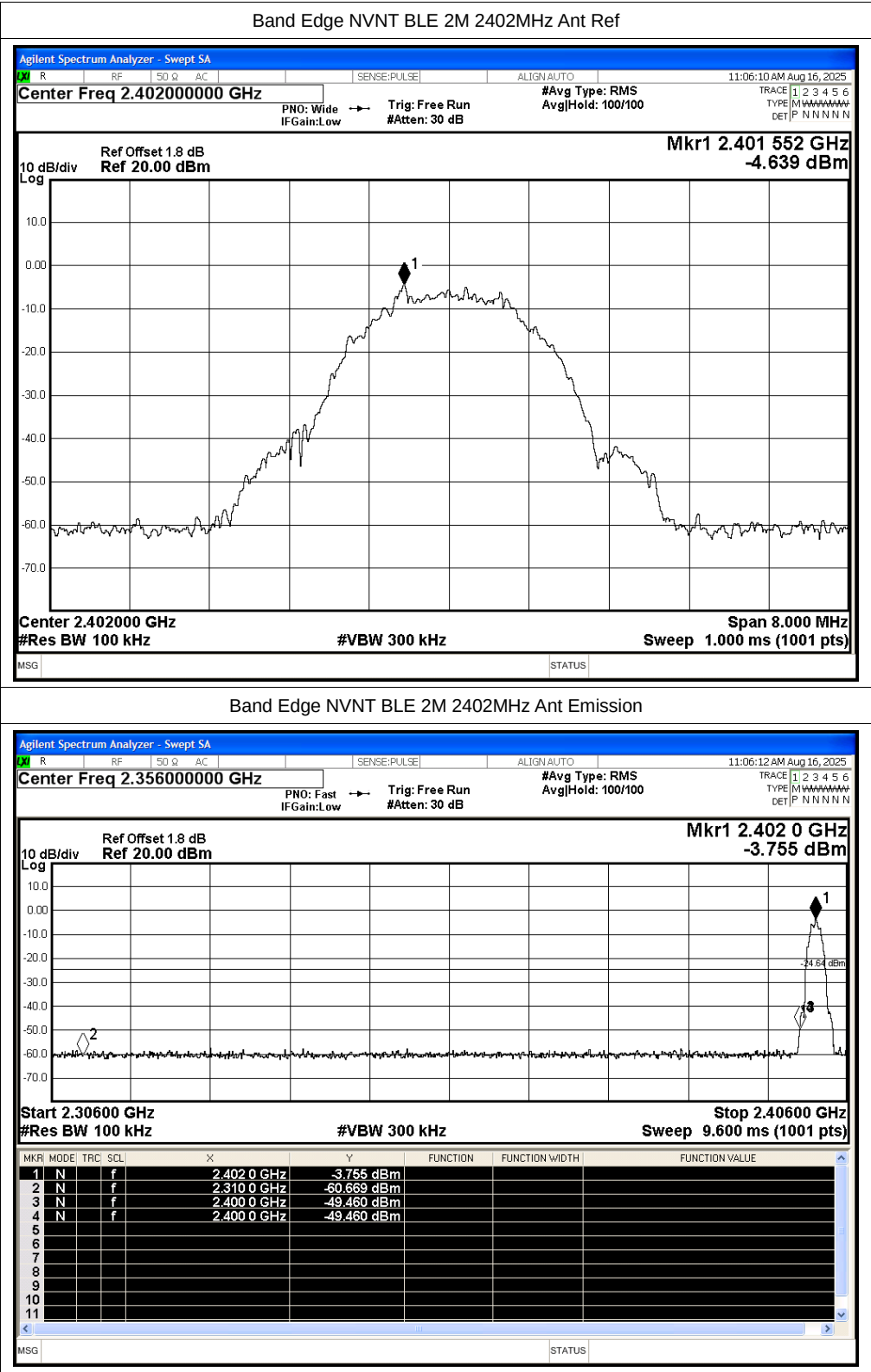


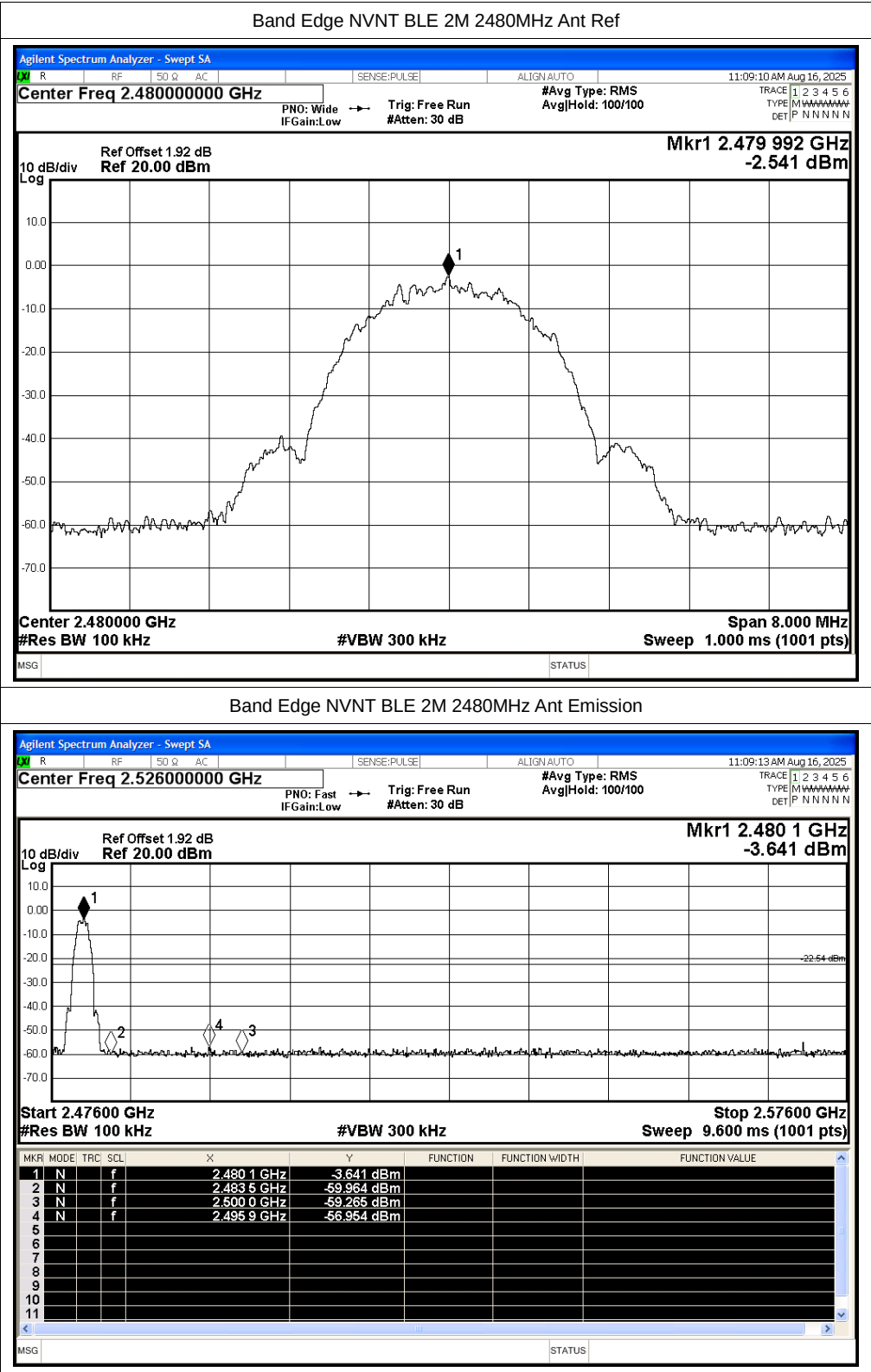
B.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant	-54.55	-20	Pass
NVNT	BLE 1M	2480	Ant	-56.32	-20	Pass
NVNT	BLE 2M	2402	Ant	-44.82	-20	Pass
NVNT	BLE 2M	2480	Ant	-54.41	-20	Pass



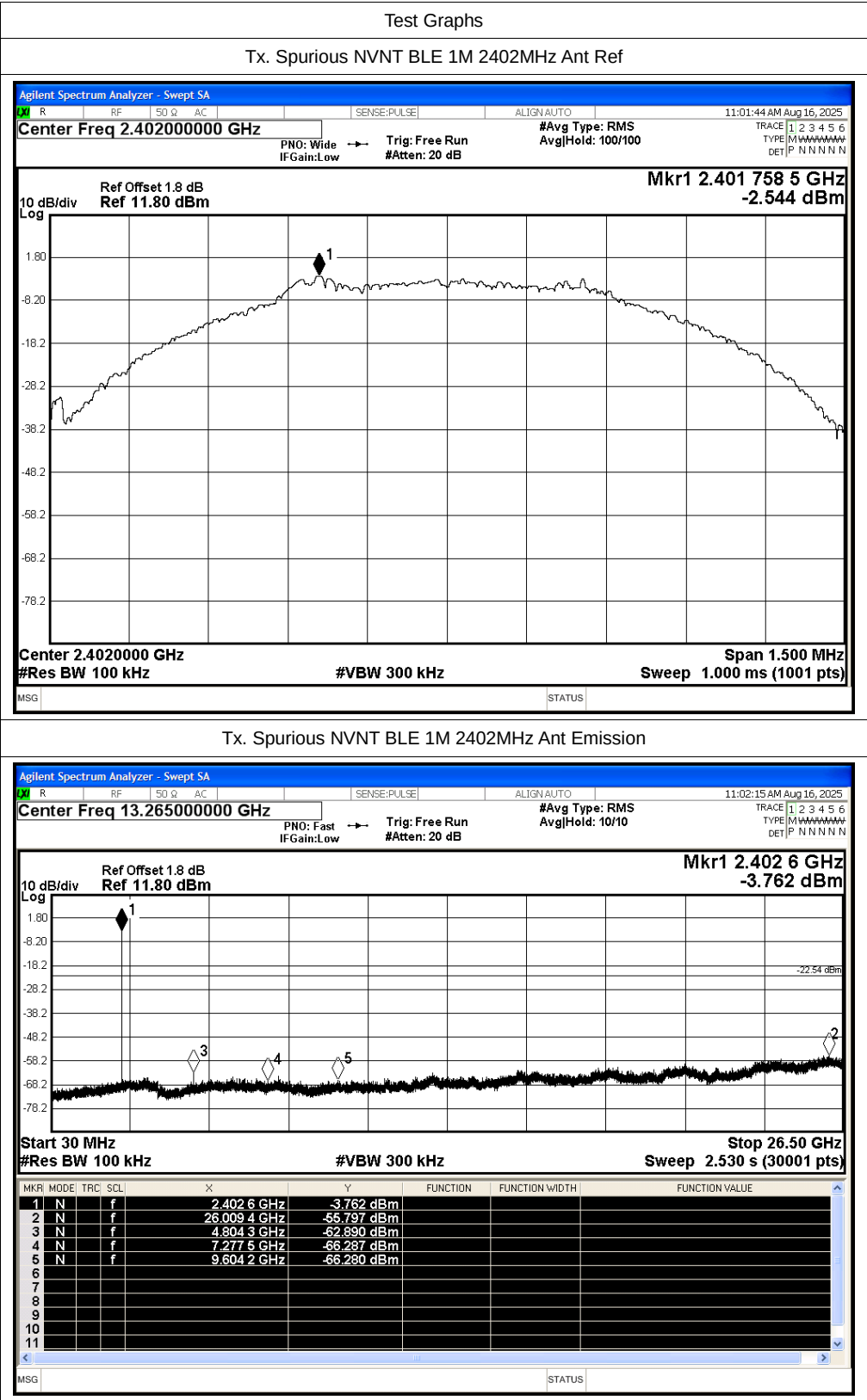


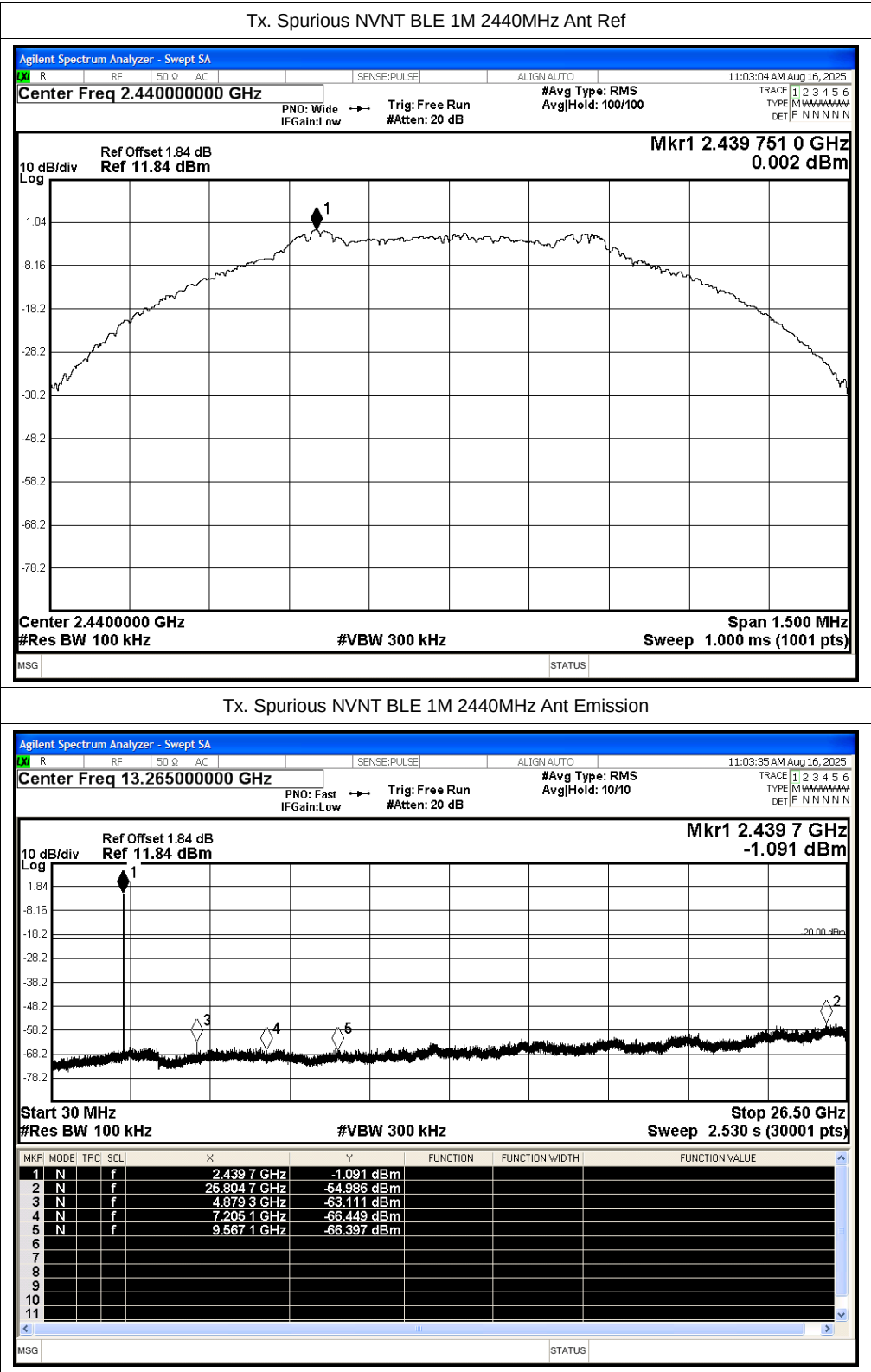


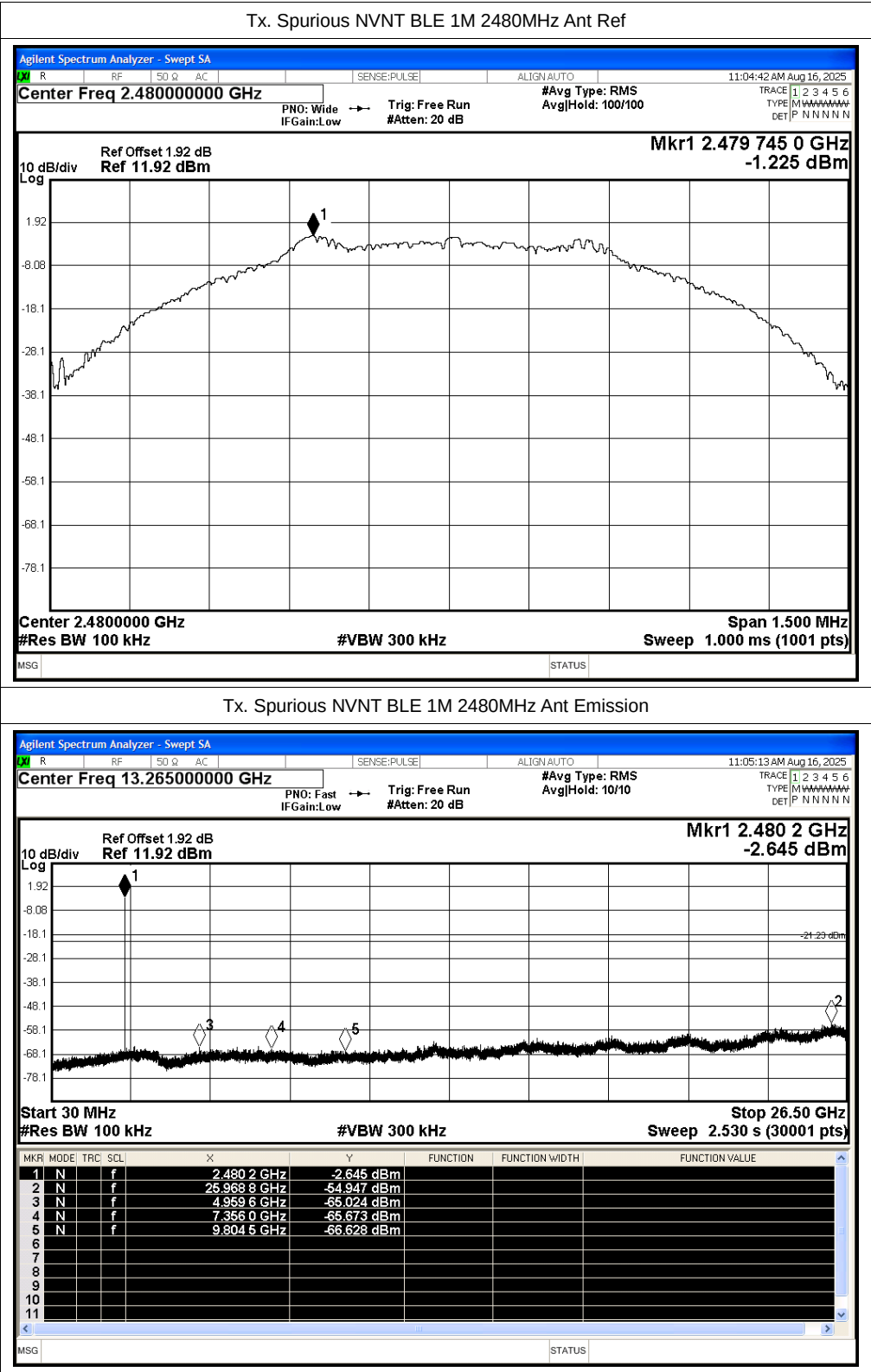


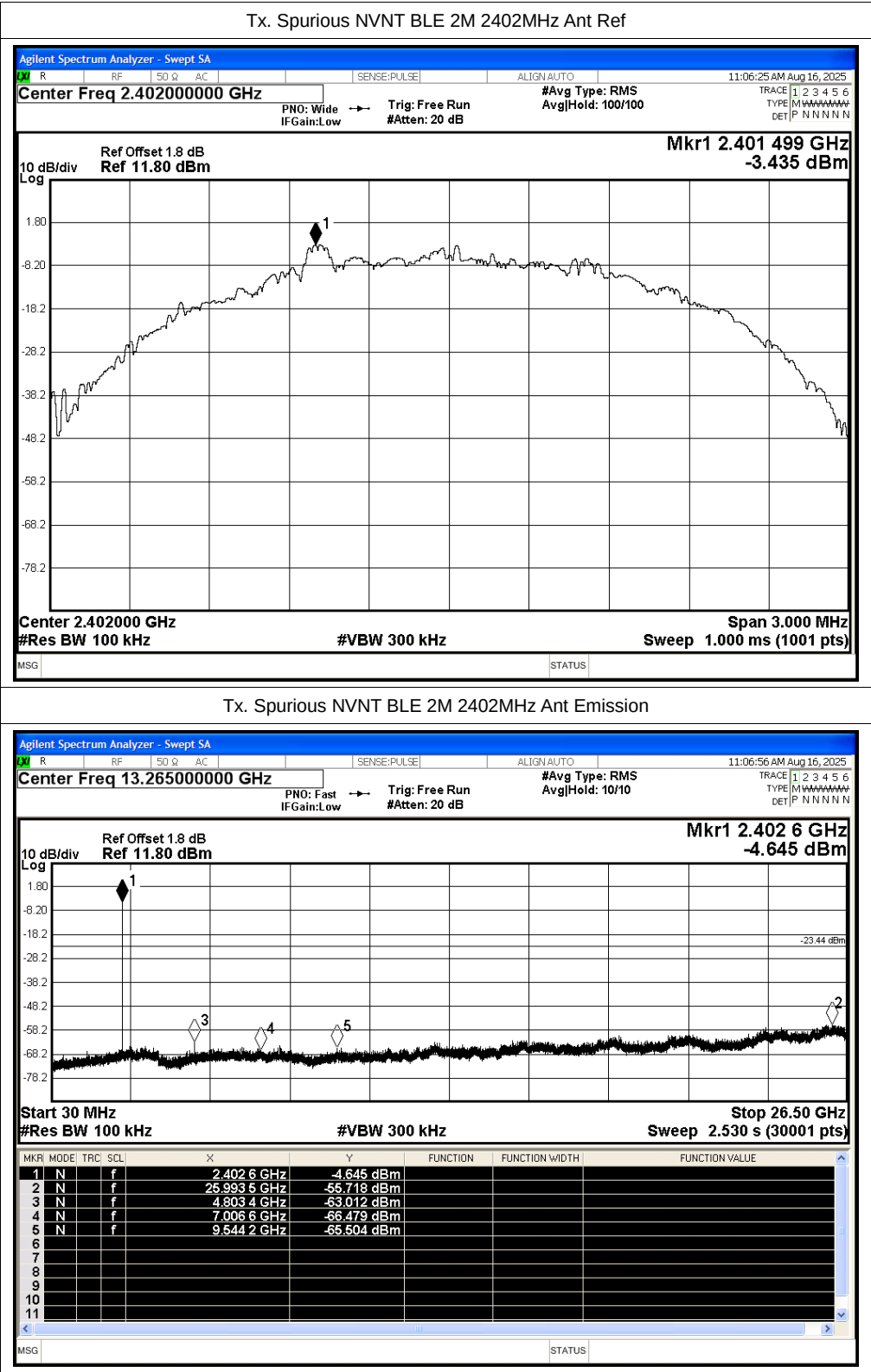
B.5 Conducted RF Spurious Emission

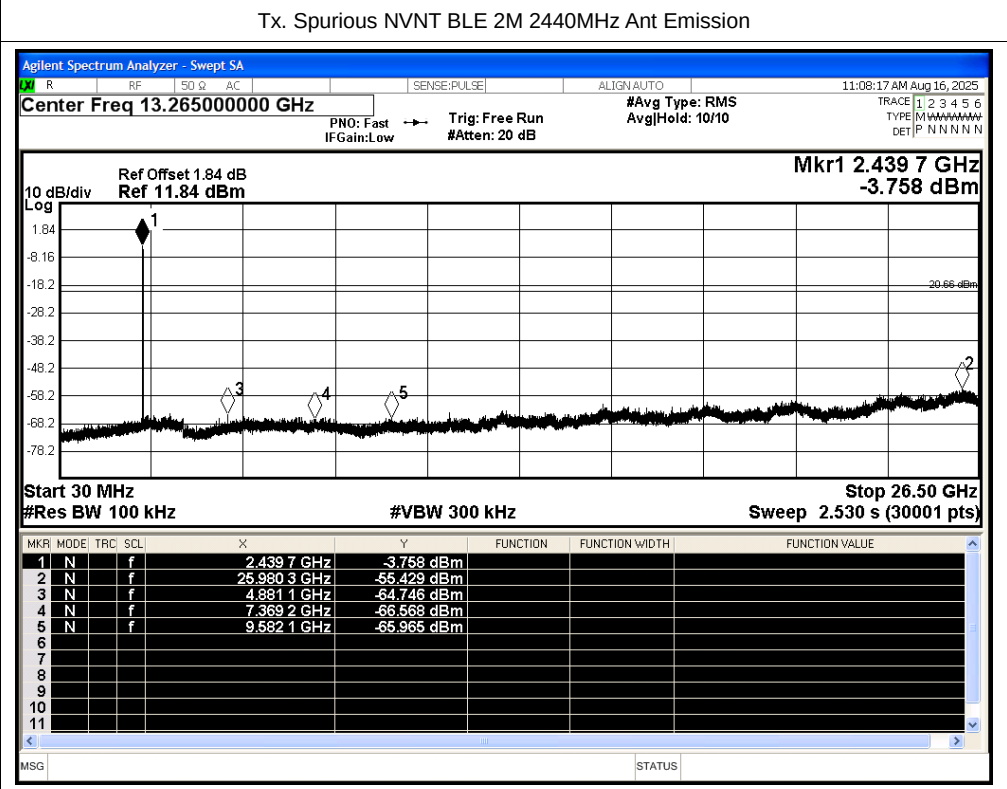
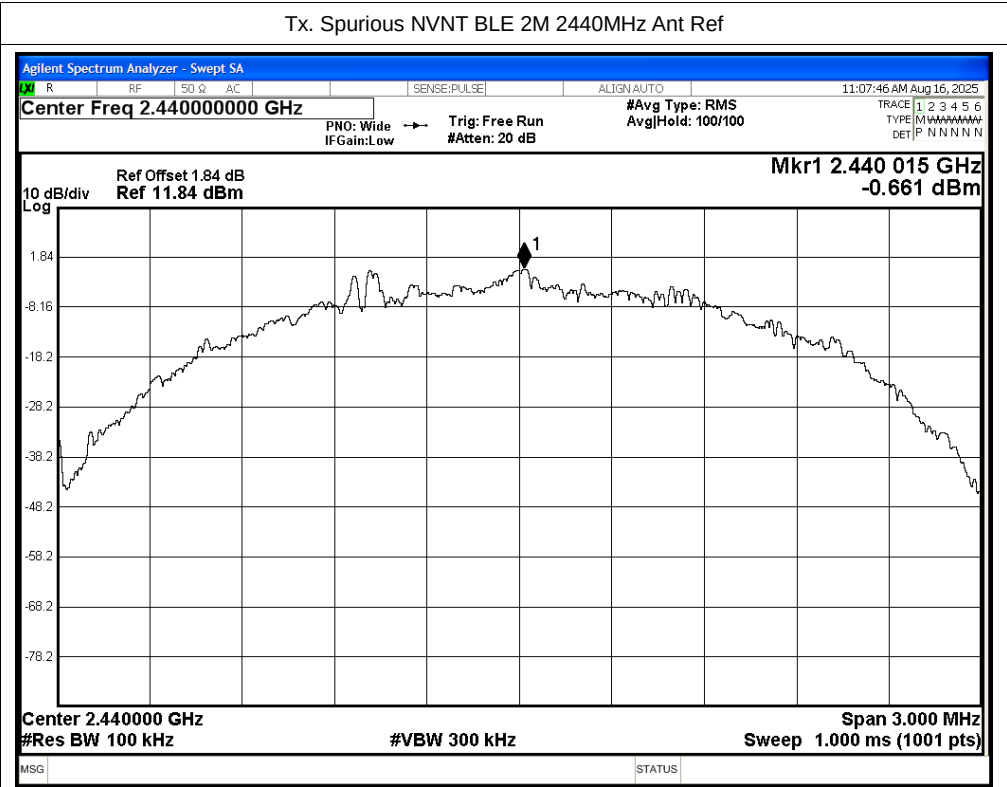
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant	-53.25	-20	Pass
NVNT	BLE 1M	2440	Ant	-54.99	-20	Pass
NVNT	BLE 1M	2480	Ant	-53.72	-20	Pass
NVNT	BLE 2M	2402	Ant	-52.28	-20	Pass
NVNT	BLE 2M	2440	Ant	-54.77	-20	Pass
NVNT	BLE 2M	2480	Ant	-53.13	-20	Pass

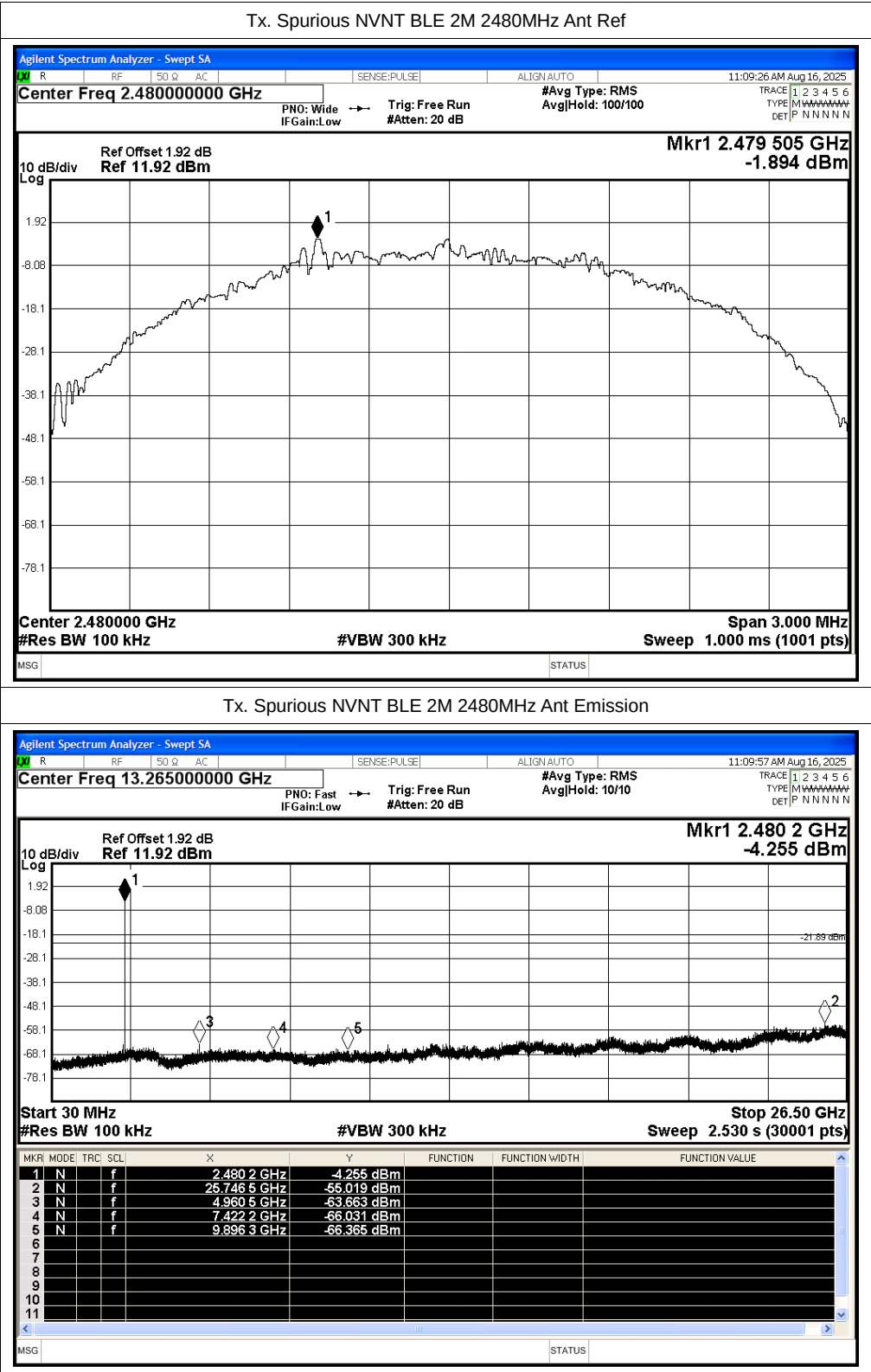






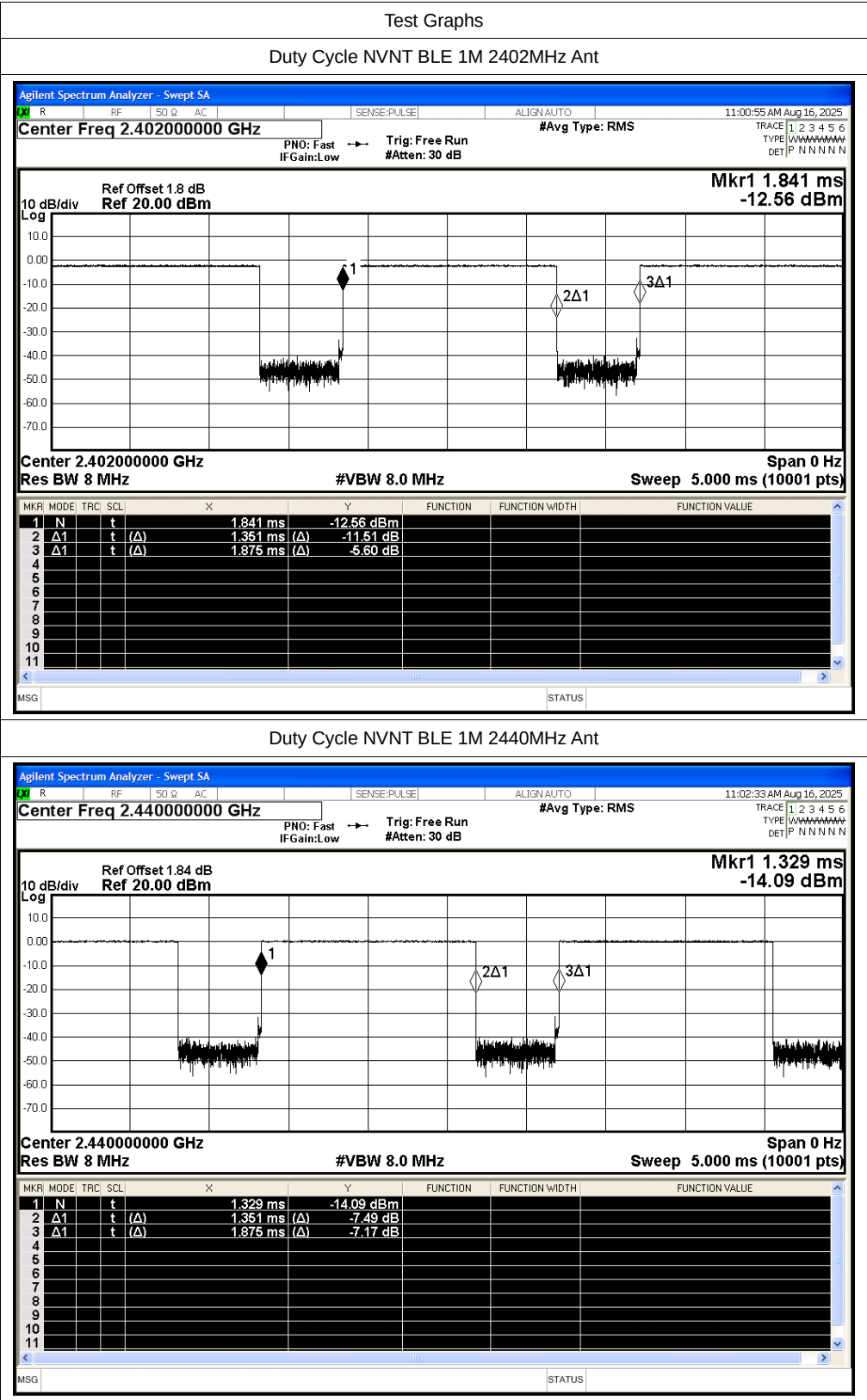


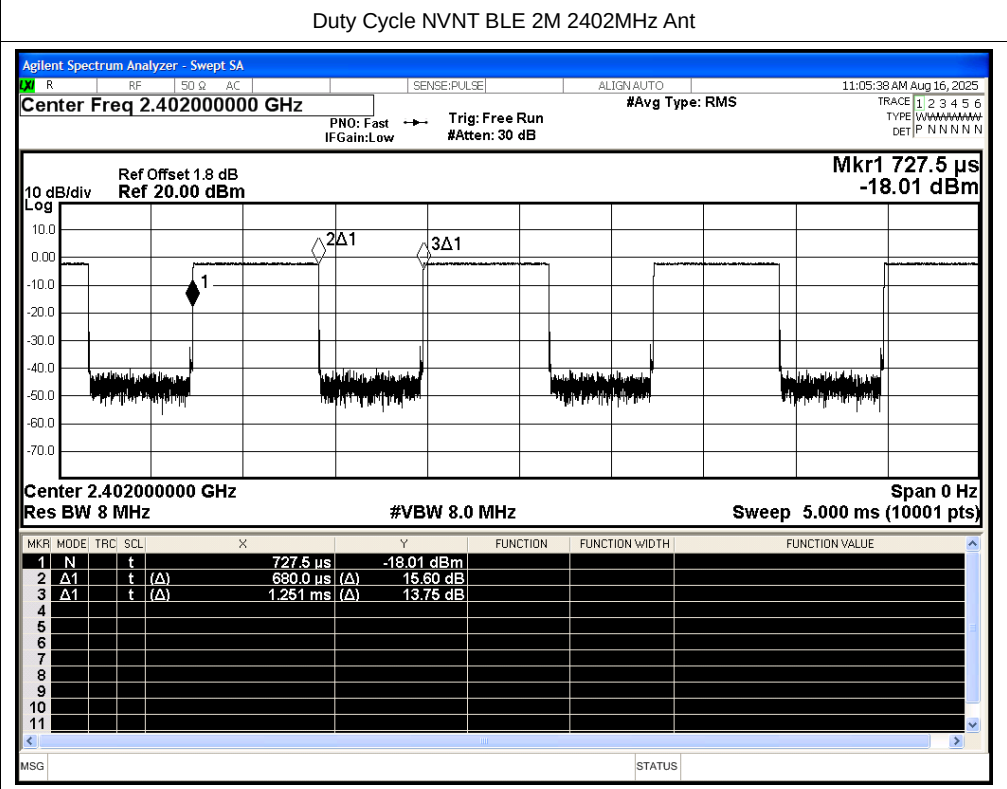
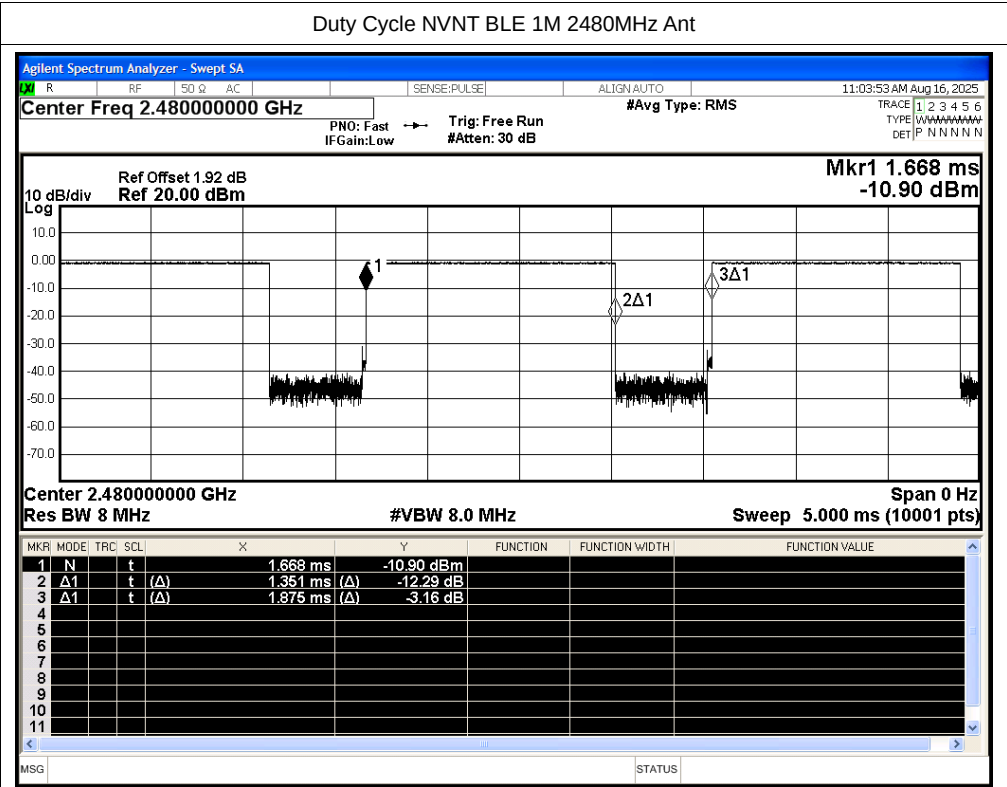


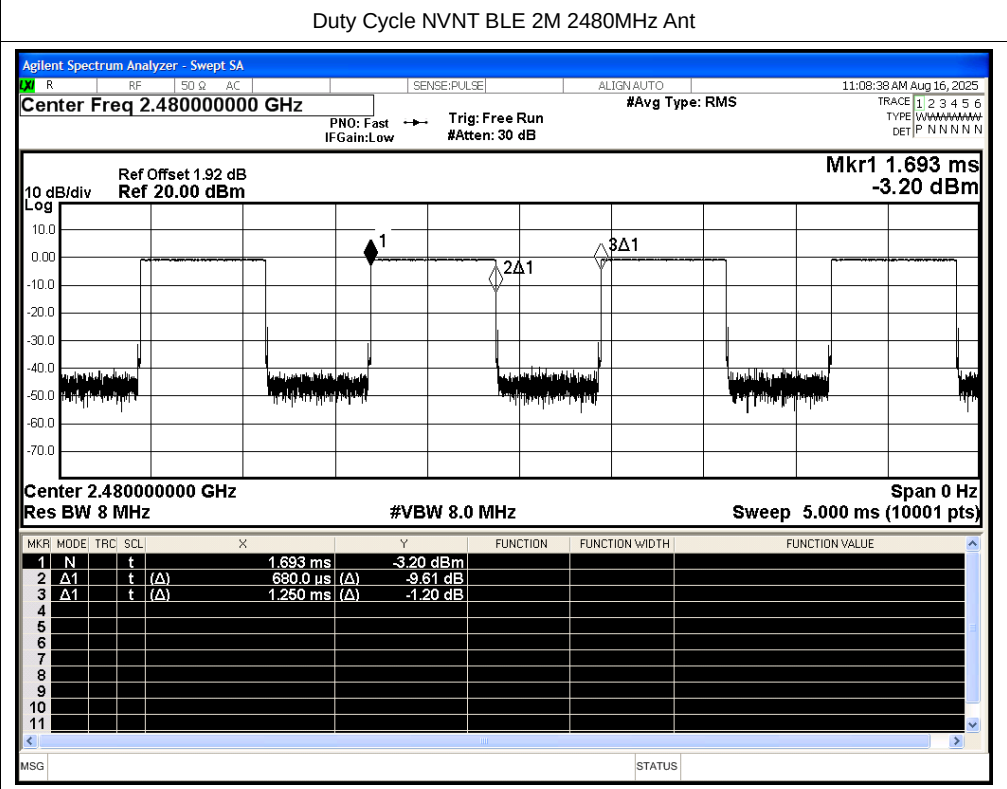
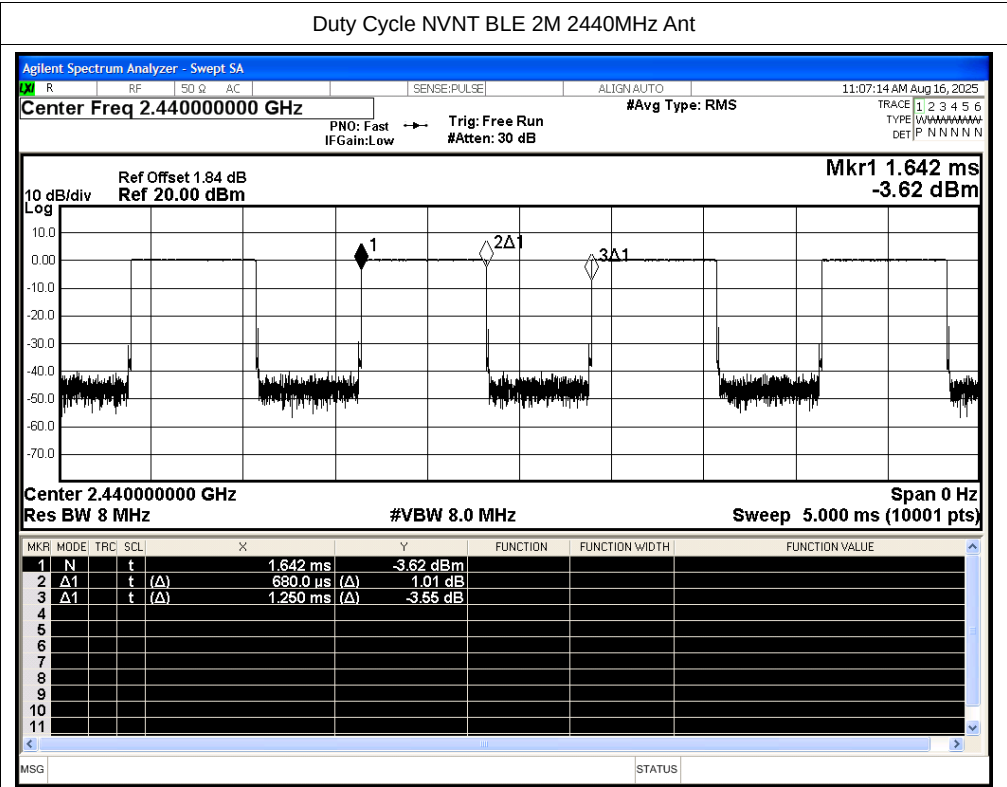


B.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant	72.03	1.42	0.74
NVNT	BLE 1M	2440	Ant	72.03	1.42	0.74
NVNT	BLE 1M	2480	Ant	72.03	1.42	0.74
NVNT	BLE 2M	2402	Ant	54.38	2.65	1.47
NVNT	BLE 2M	2440	Ant	54.4	2.64	1.47
NVNT	BLE 2M	2480	Ant	54.4	2.64	1.47







B.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	Ant	2310	-51.22	3.68	-	47.72	Peak	74	Pass
NVNT	BLE 1M	2402	Ant	2310	-58.94	3.68	1.42	41.42	Average	54	Pass
NVNT	BLE 1M	2402	Ant	2344.272	-47.99	3.68	-	50.95	Peak	74	Pass
NVNT	BLE 1M	2402	Ant	2387.376	-58.34	3.68	1.42	42.02	Average	54	Pass
NVNT	BLE 1M	2402	Ant	2390	-50.47	3.68	-	48.47	Peak	74	Pass
NVNT	BLE 1M	2402	Ant	2390	-58.48	3.68	1.42	41.88	Average	54	Pass
NVNT	BLE 1M	2480	Ant	2483.5	-48.65	3.68	-	50.29	Peak	74	Pass
NVNT	BLE 1M	2480	Ant	2483.5	-58.11	3.68	1.42	42.25	Average	54	Pass
NVNT	BLE 1M	2480	Ant	2492.872	-46.74	3.68	-	52.20	Peak	74	Pass
NVNT	BLE 1M	2480	Ant	2483.56	-57.79	3.68	1.42	42.57	Average	54	Pass
NVNT	BLE 1M	2480	Ant	2500	-49.31	3.68	-	49.63	Peak	74	Pass
NVNT	BLE 1M	2480	Ant	2500	-58.02	3.68	1.42	42.34	Average	54	Pass
NVNT	BLE 2M	2402	Ant	2310	-47.83	3.68	-	51.11	Peak	74	Pass
NVNT	BLE 2M	2402	Ant	2310	-58.76	3.68	2.65	42.83	Average	54	Pass
NVNT	BLE 2M	2402	Ant	2310.48	-47.13	3.68	-	51.81	Peak	74	Pass
NVNT	BLE 2M	2402	Ant	2351.856	-58.01	3.68	2.65	43.58	Average	54	Pass
NVNT	BLE 2M	2402	Ant	2390	-50.78	3.68	-	48.16	Peak	74	Pass
NVNT	BLE 2M	2402	Ant	2390	-58.17	3.68	2.65	43.42	Average	54	Pass
NVNT	BLE 2M	2480	Ant	2483.5	-51.47	3.68	-	47.47	Peak	74	Pass
NVNT	BLE 2M	2480	Ant	2483.5	-58.53	3.68	2.64	43.05	Average	54	Pass
NVNT	BLE 2M	2480	Ant	2485.792	-46.22	3.68	-	52.72	Peak	74	Pass
NVNT	BLE 2M	2480	Ant	2483.752	-57.29	3.68	2.64	44.29	Average	54	Pass
NVNT	BLE 2M	2480	Ant	2500	-51.75	3.68	-	47.19	Peak	74	Pass
NVNT	BLE 2M	2480	Ant	2500	-57.86	3.68	2.64	43.72	Average	54	Pass

