

Appendix RF Test Data for BLE

Company : HIROMORI INC

EUT : positioner

Model Number : F2

Report No. : CTA26012700701

Reviewed By : Eric Wang

Appendix A: Frequency Error

Test Result

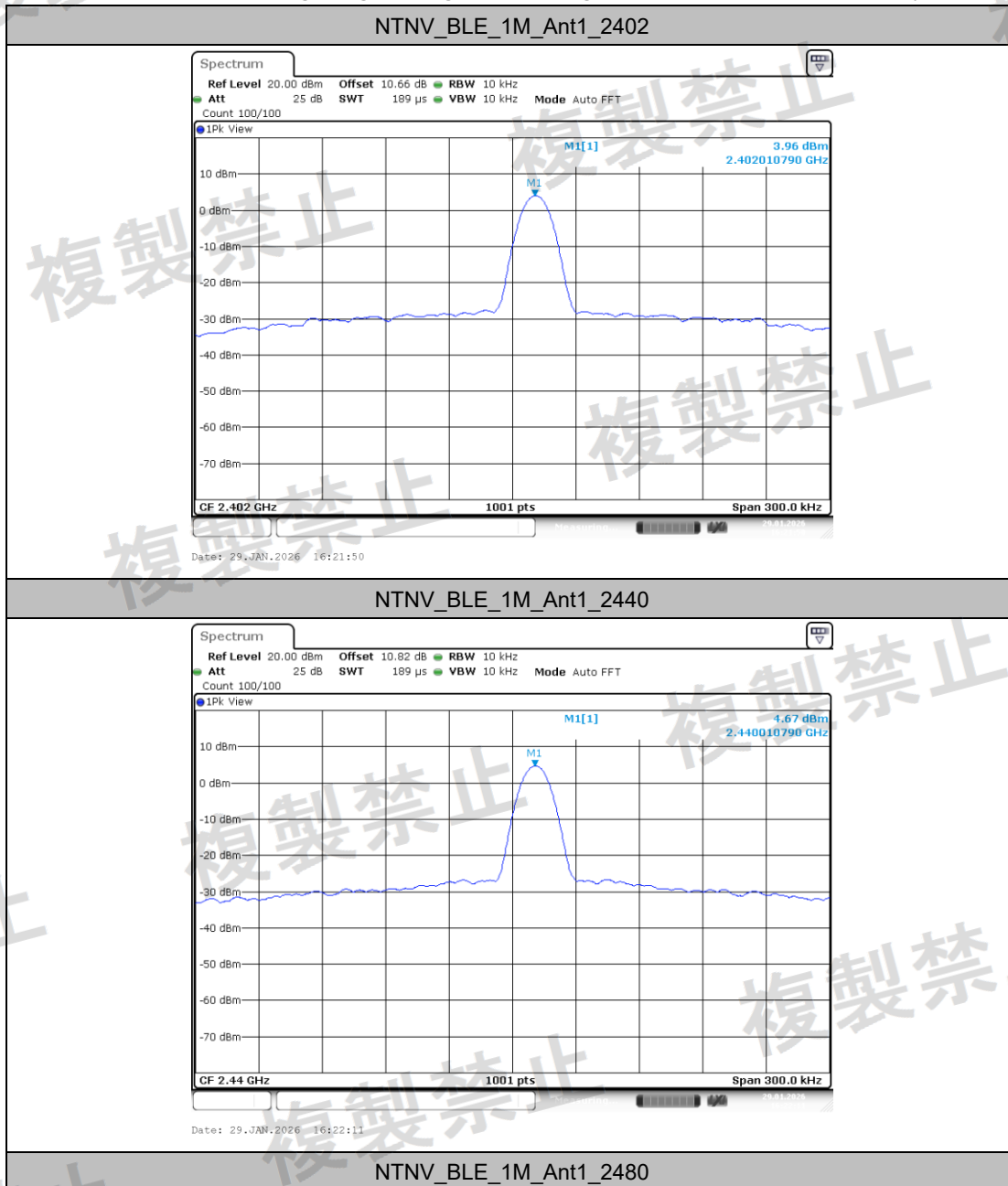
TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.49209	±50	PASS
			2440	4.42213	±50	PASS
			2480	4.35081	±50	PASS

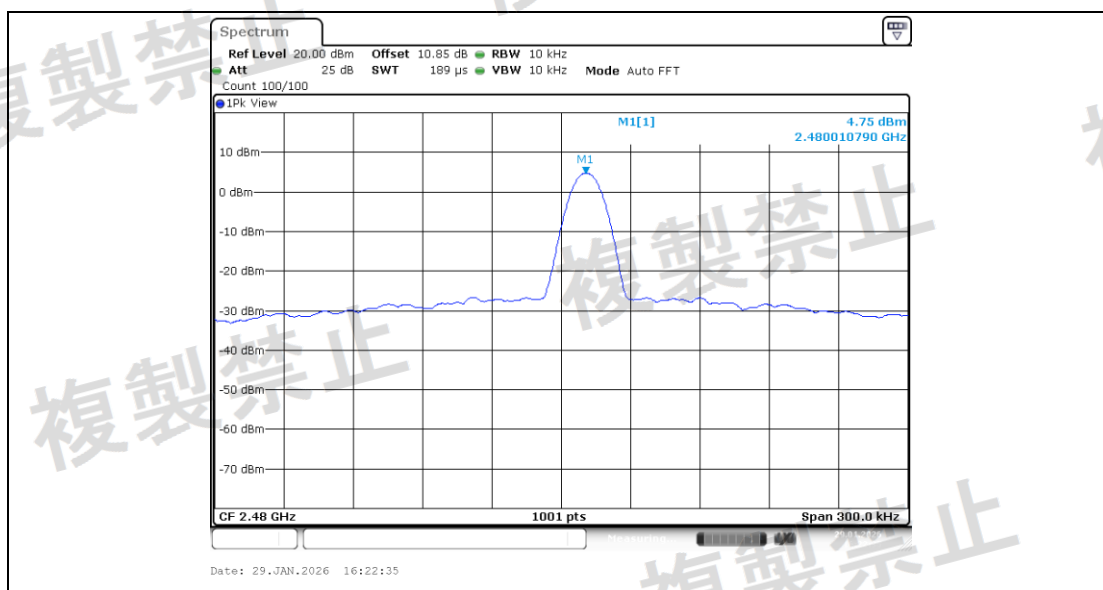
TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTLV	BLE_1M	Ant1	2402	4.26824	±50	PASS
			2440	4.21931	±50	PASS
			2480	4.14062	±50	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTHV	BLE_1M	Ant1	2402	4.23519	±50	PASS
			2440	4.20261	±50	PASS
			2480	4.13184	±50	PASS

Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





Appendix B: Occupied Bandwidth

Test Result

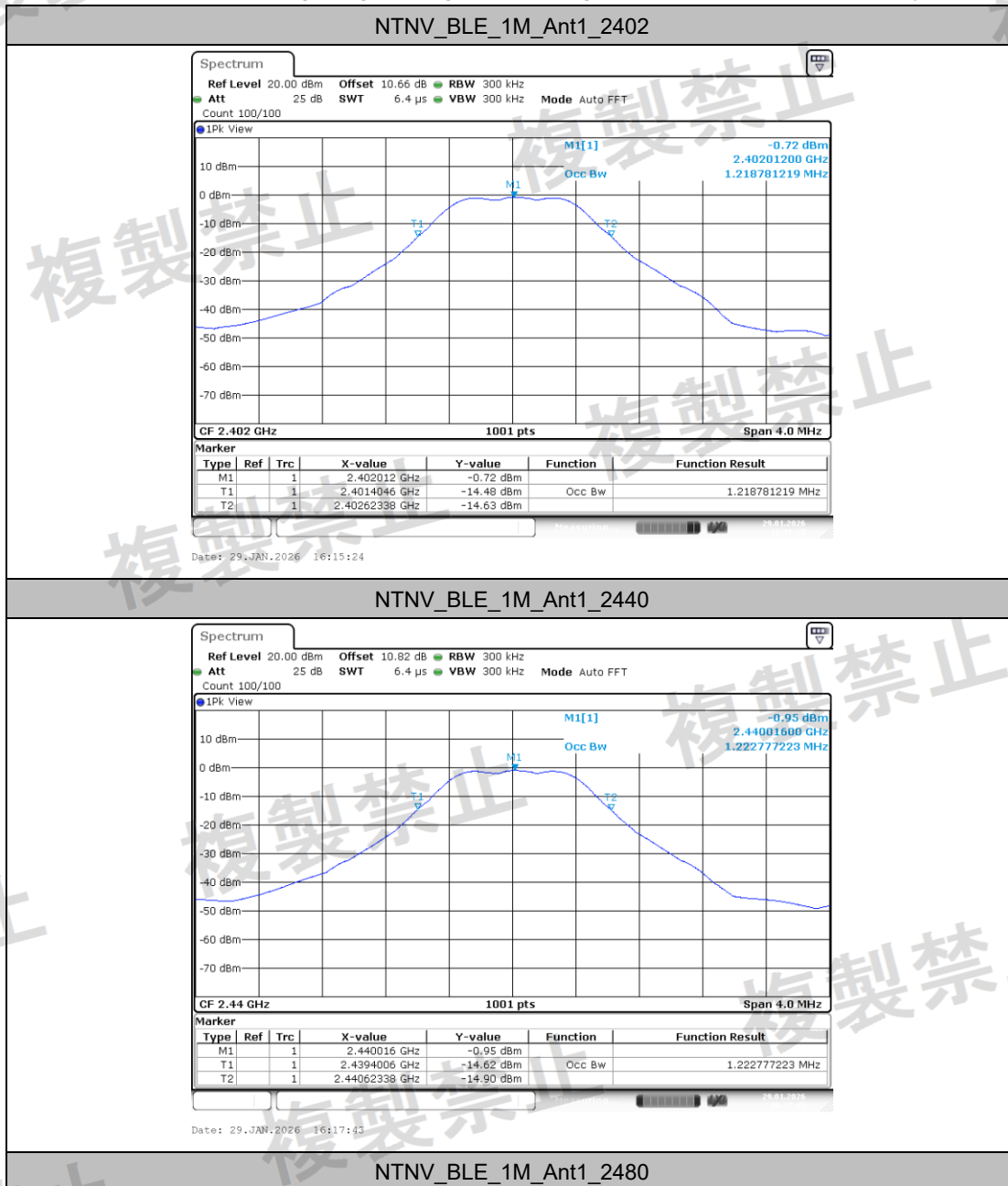
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.219	≤26	PASS
			2440	1.223	≤26	PASS
			2480	1.227	≤26	PASS

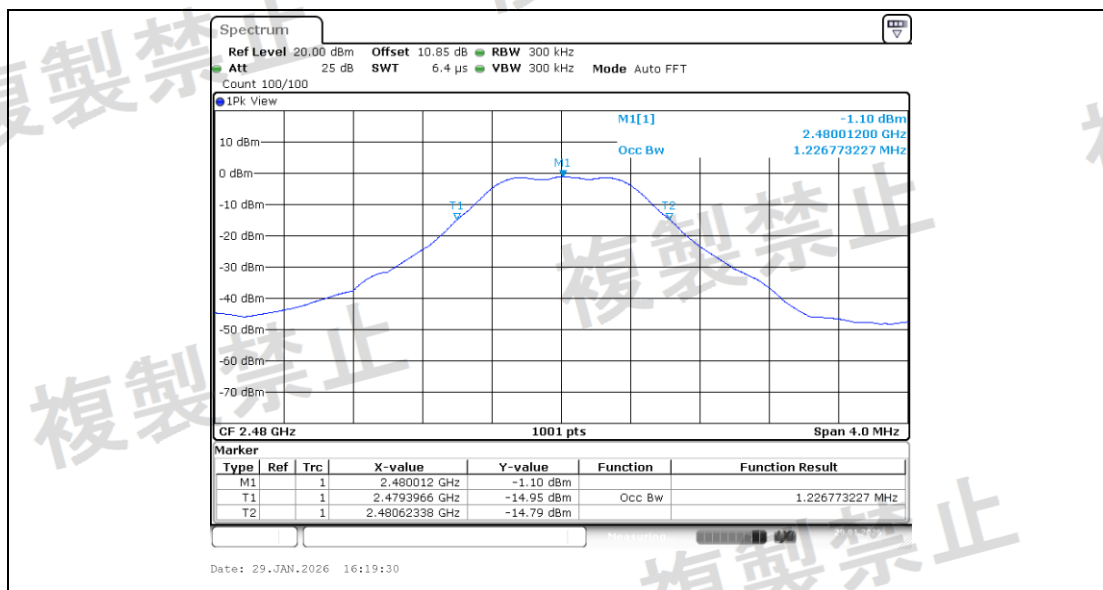
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTLV	BLE_1M	Ant1	2402	1.216	≤26	PASS
			2440	1.220	≤26	PASS
			2480	1.223	≤26	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTHV	BLE_1M	Ant1	2402	1.212	≤26	PASS
			2440	1.217	≤26	PASS
			2480	1.220	≤26	PASS

Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





Appendix C: Spread Bandwidth

Test Result

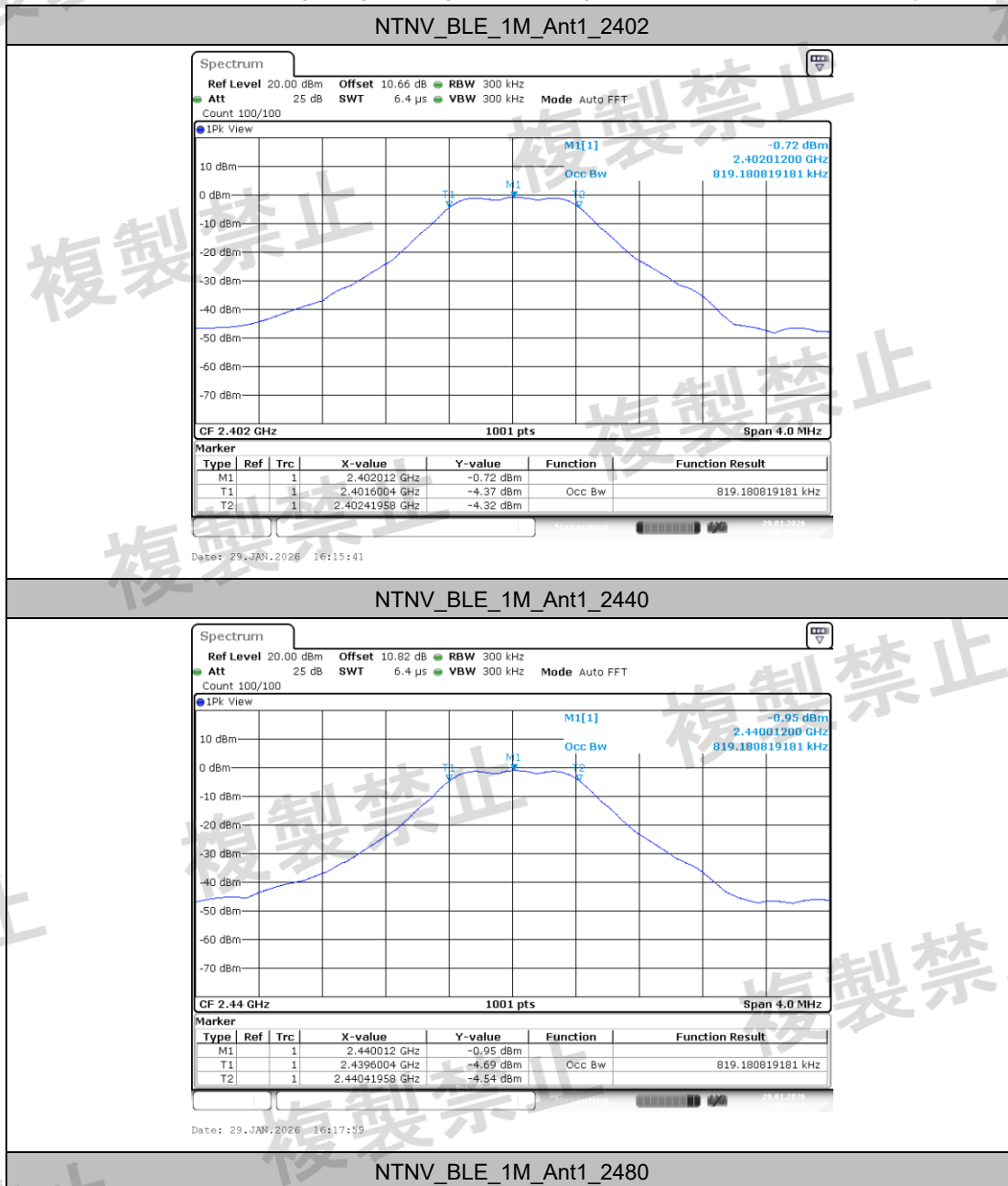
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.819	≥0.5	PASS
			2440	0.819	≥0.5	PASS
			2480	0.823	≥0.5	PASS

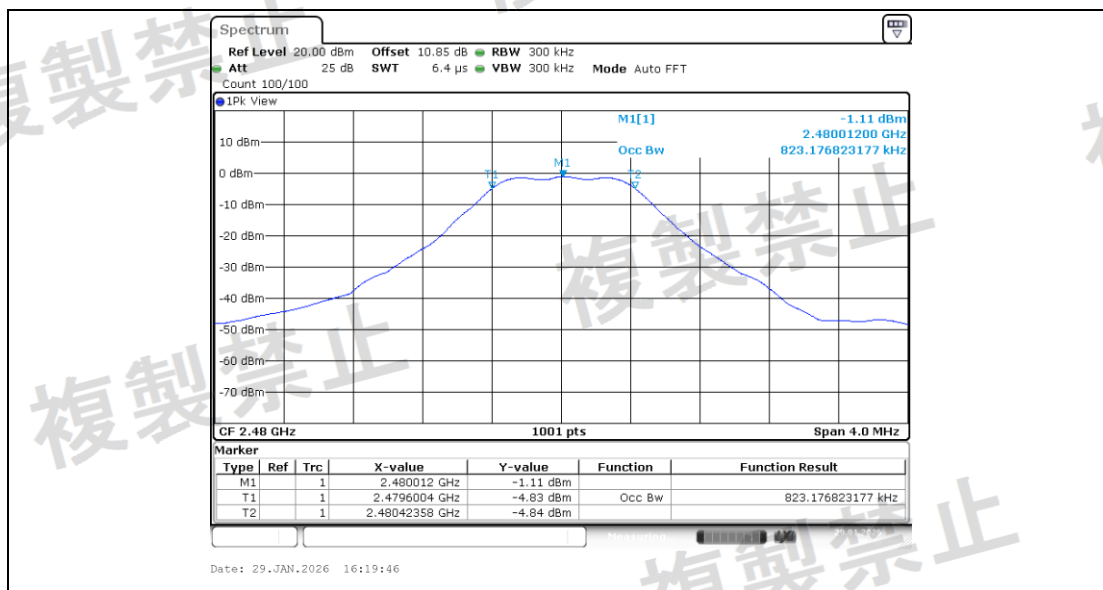
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTLV	BLE_1M	Ant1	2402	0.815	≥0.5	PASS
			2440	0.817	≥0.5	PASS
			2480	0.820	≥0.5	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTHV	BLE_1M	Ant1	2402	0.811	≥0.5	PASS
			2440	0.814	≥0.5	PASS
			2480	0.817	≥0.5	PASS

Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





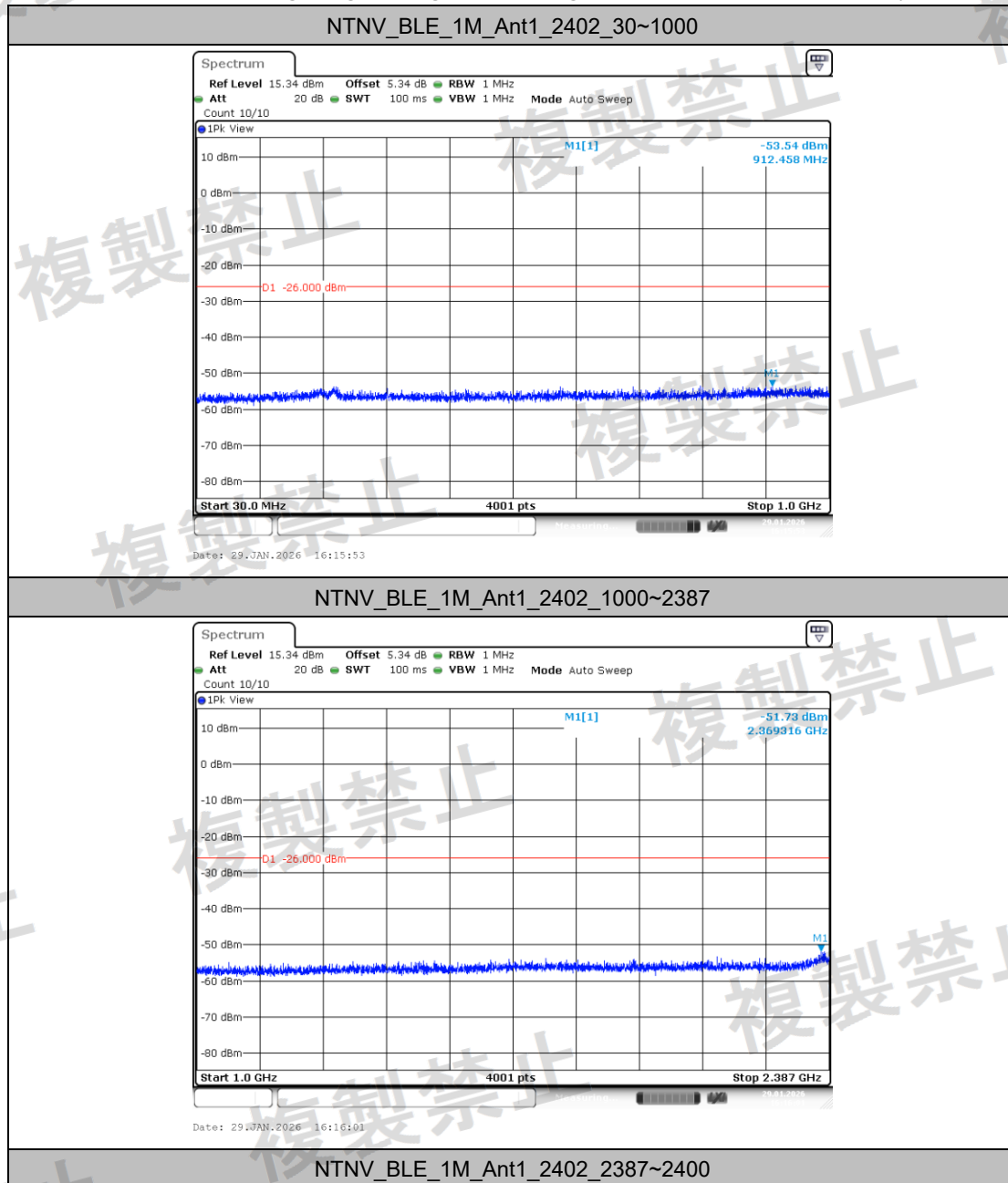
Appendix D: Spurious Emission of TX

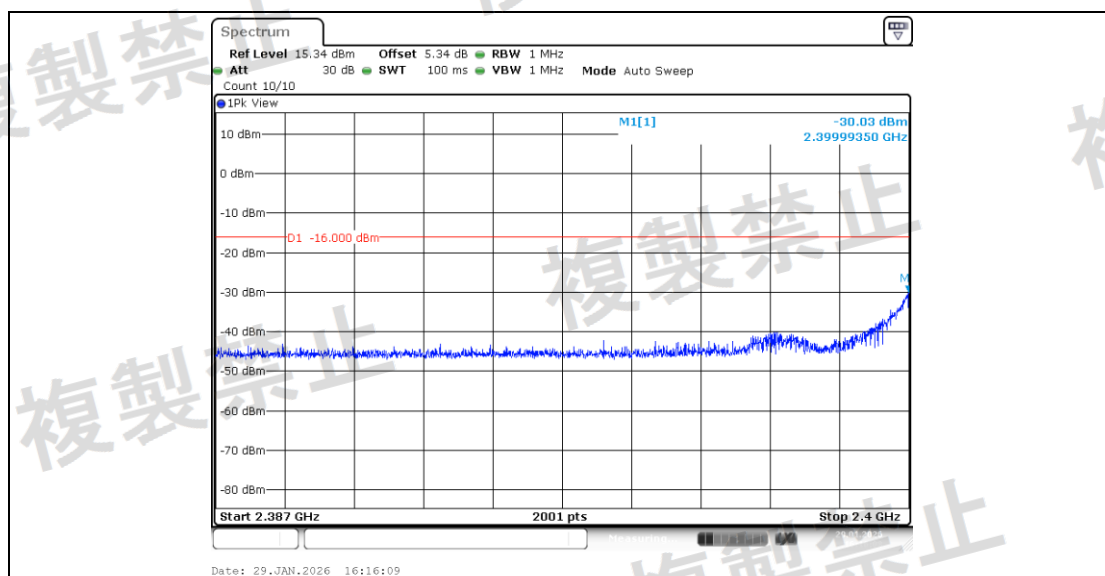
Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	912.46	-53.54	≤-26	0.00443	≤2.5	PASS
				1000~2387	2369.32	-51.73	≤-26	0.00671	≤2.5	PASS
				2387~2400	2399.99	-30.03	≤-16	0.99312	≤25	PASS
				2483.5~2496.5	2486.30	-43.27	≤-16	0.04710	≤25	PASS
				2496.5~13000	4804.12	-43.66	≤-26	0.04305	≤2.5	PASS
			2440	30~1000	240.98	-52.86	≤-26	0.00518	≤2.5	PASS
				1000~2387	2375.90	-53.62	≤-26	0.00435	≤2.5	PASS
				2387~2400	2389.30	-43.40	≤-16	0.04571	≤25	PASS
				2483.5~2496.5	2491.17	-41.98	≤-16	0.06339	≤25	PASS
				2496.5~13000	4879.74	-43.80	≤-26	0.04169	≤2.5	PASS
			2480	30~1000	239.52	-51.11	≤-26	0.00774	≤2.5	PASS
				1000~2387	2320.08	-46.69	≤-26	0.02143	≤2.5	PASS
				2387~2400	2398.92	-42.93	≤-16	0.05093	≤25	PASS
				2483.5~2496.5	2484.09	-40.06	≤-16	0.09863	≤25	PASS
				2496.5~13000	4959.05	-43.95	≤-26	0.04027	≤2.5	PASS

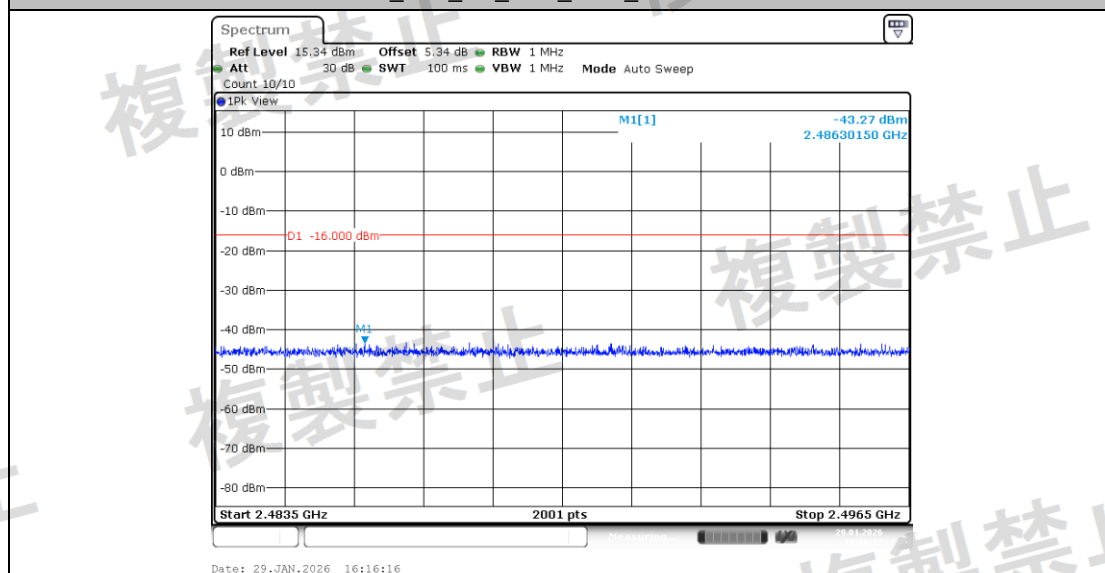
Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.

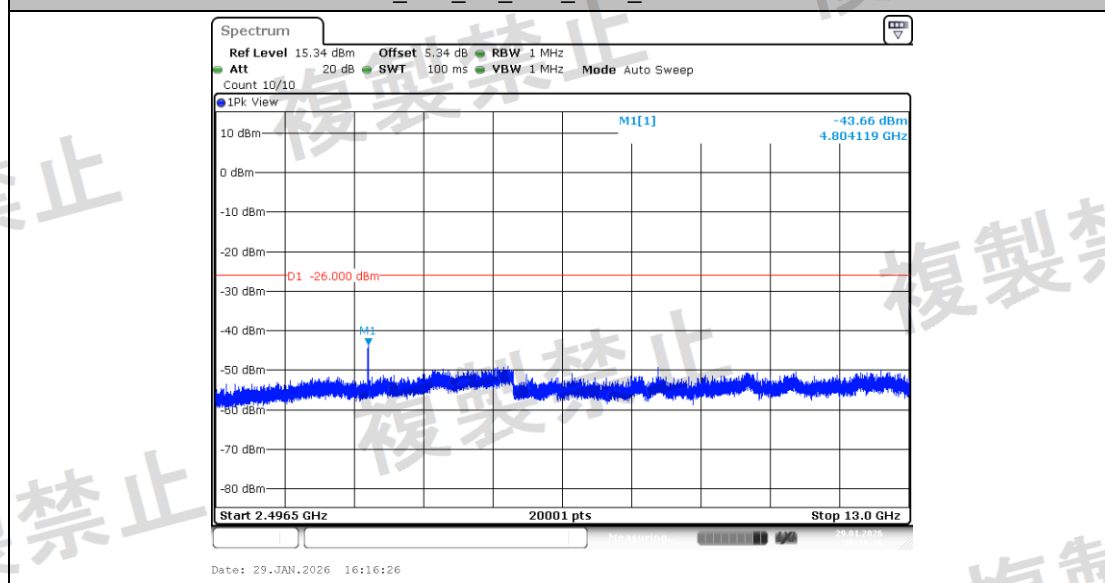


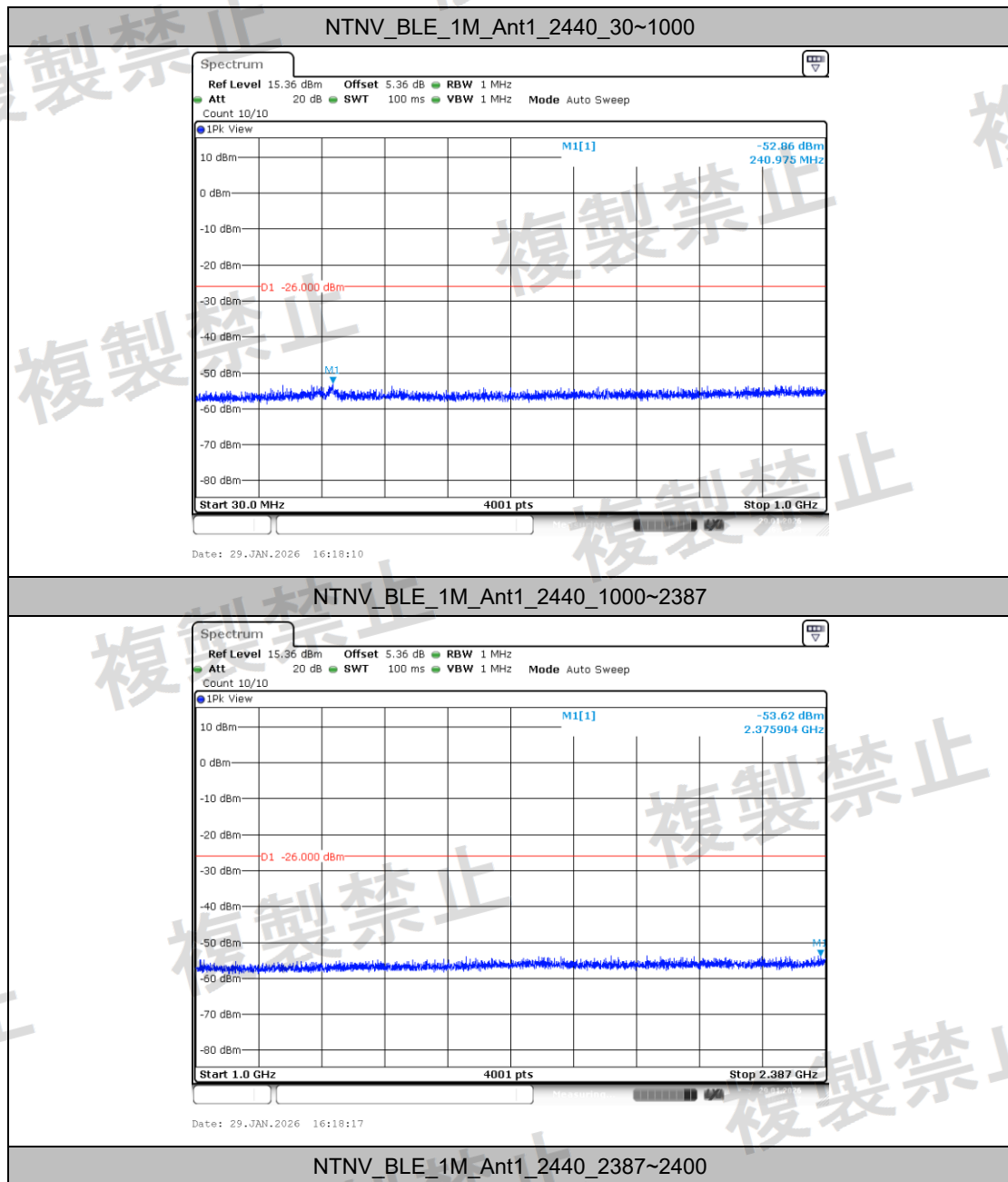


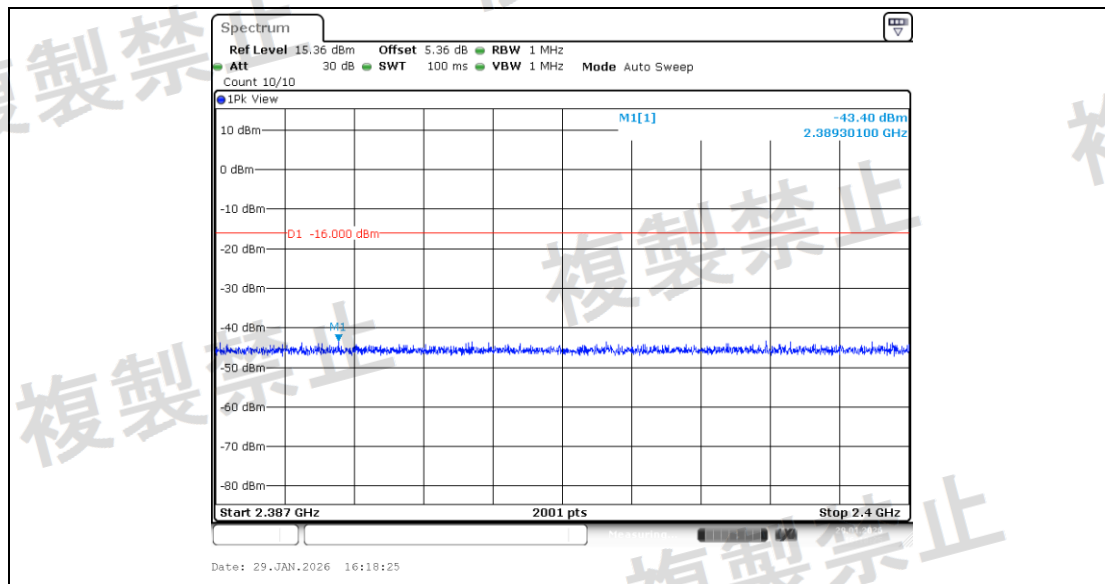
NTNV_BLE_1M_Ant1_2402_2483.5~2496.5



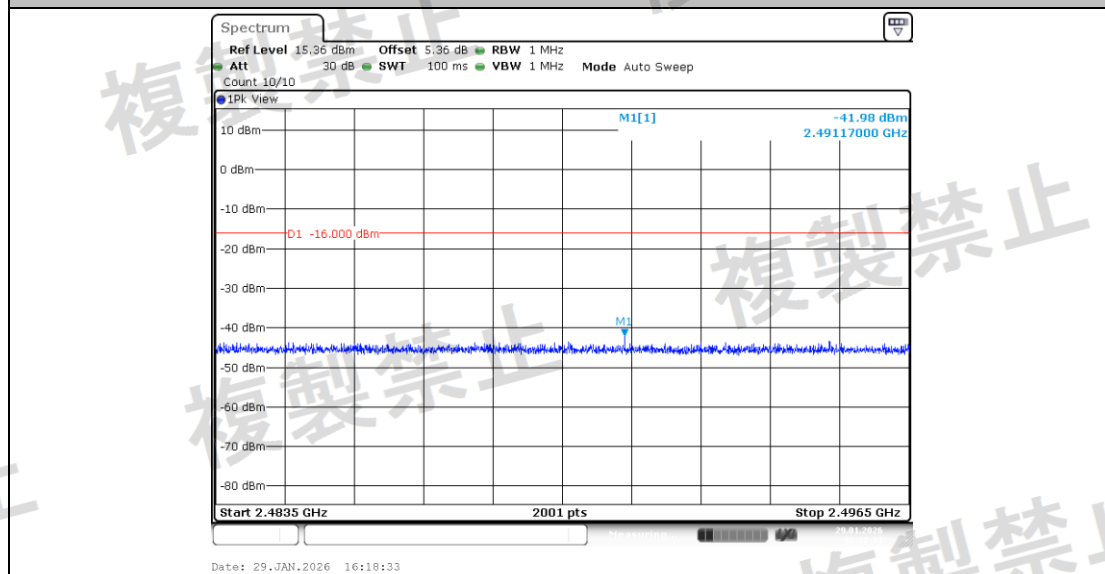
NTNV_BLE_1M_Ant1_2402_2496.5~13000



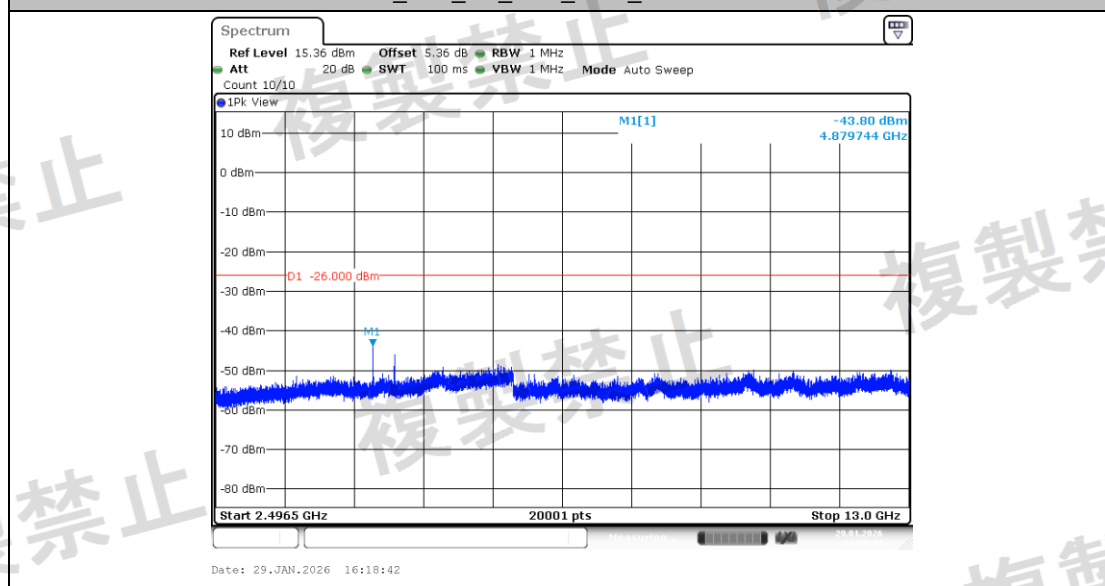


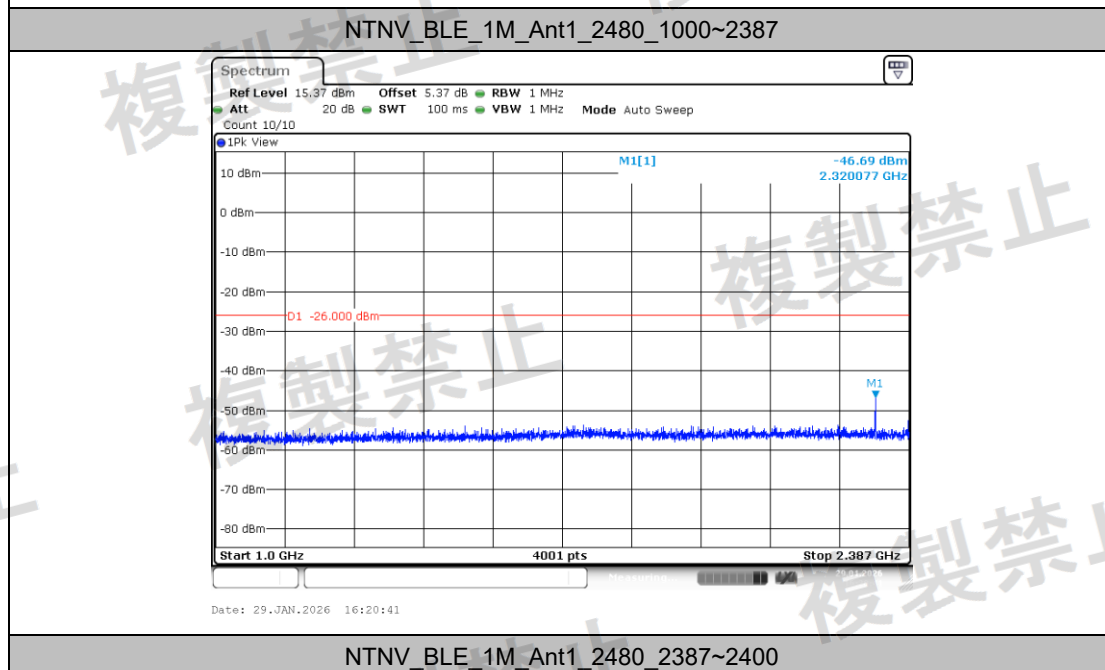
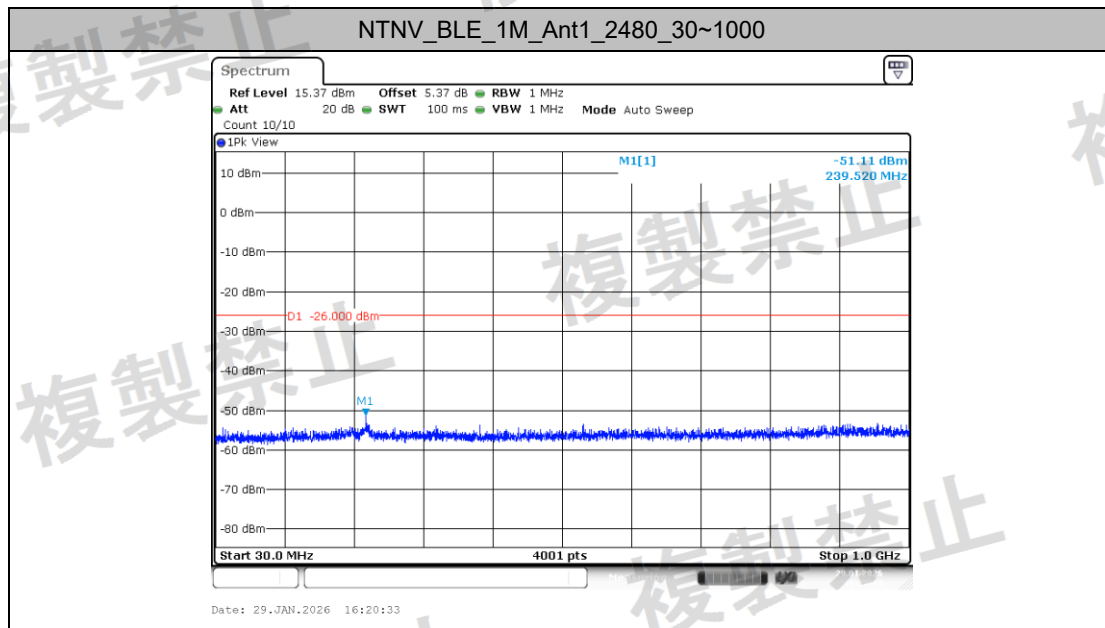


NTNV_BLE_1M_Ant1_2440_2483.5~2496.5

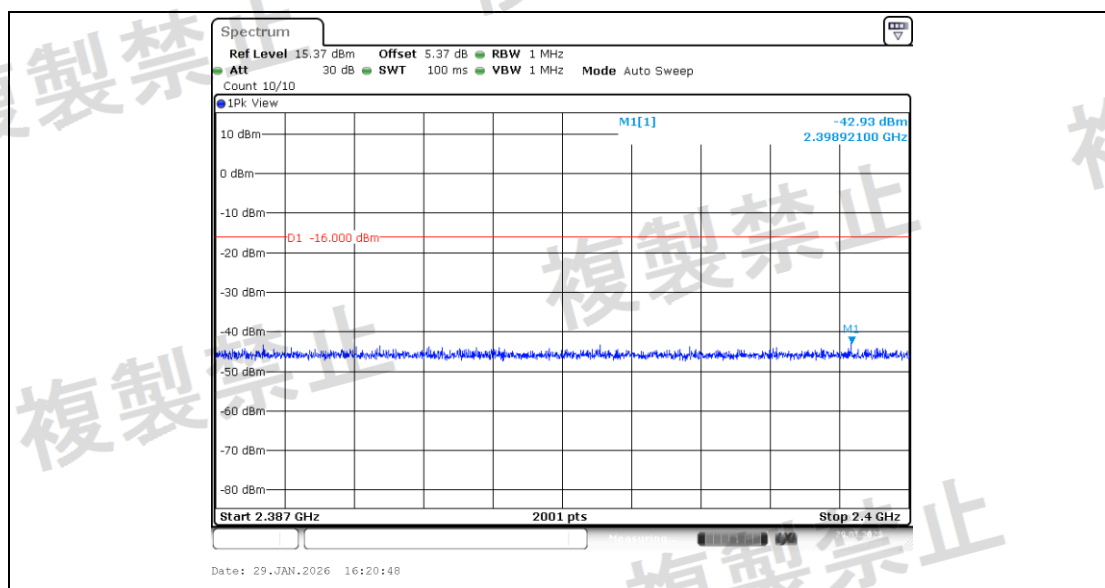


NTNV_BLE_1M_Ant1_2440_2496.5~13000

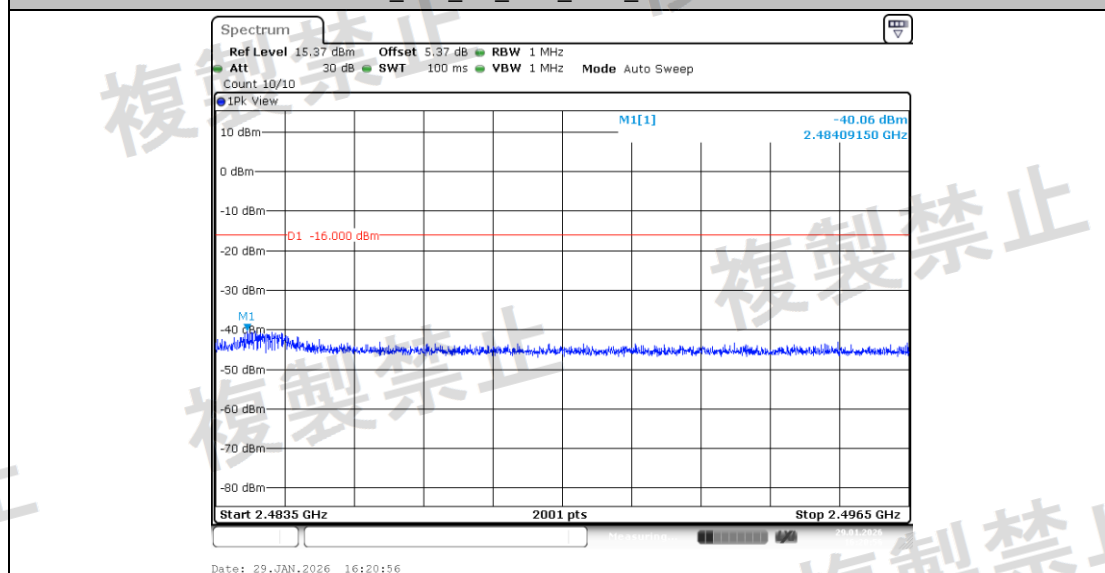




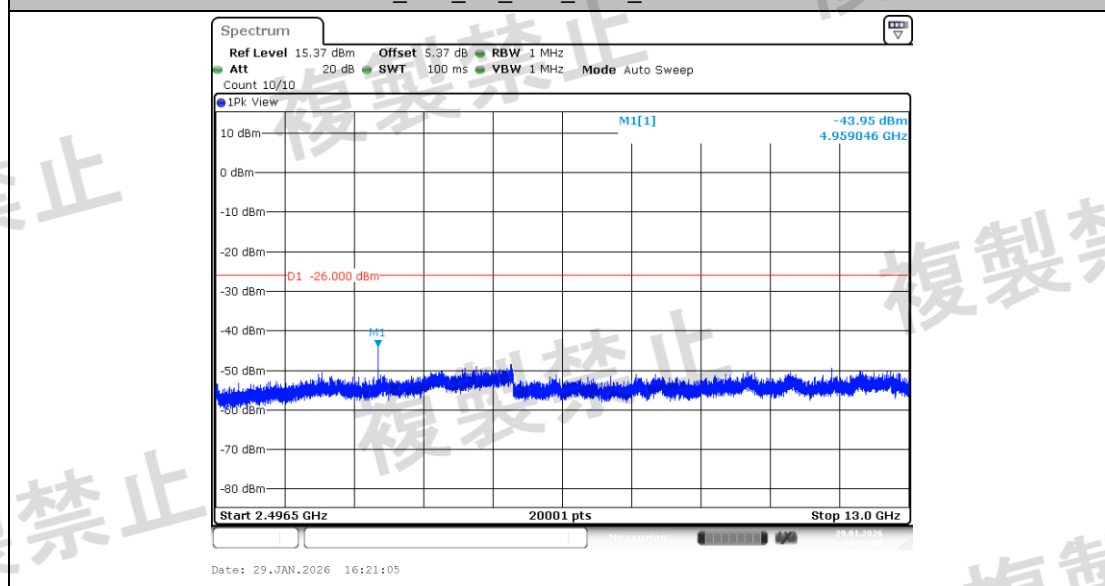
NTNV_BLE_1M_Ant1_2480_2387~2400



NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



NTNV_BLE_1M_Ant1_2480_2496.5~13000



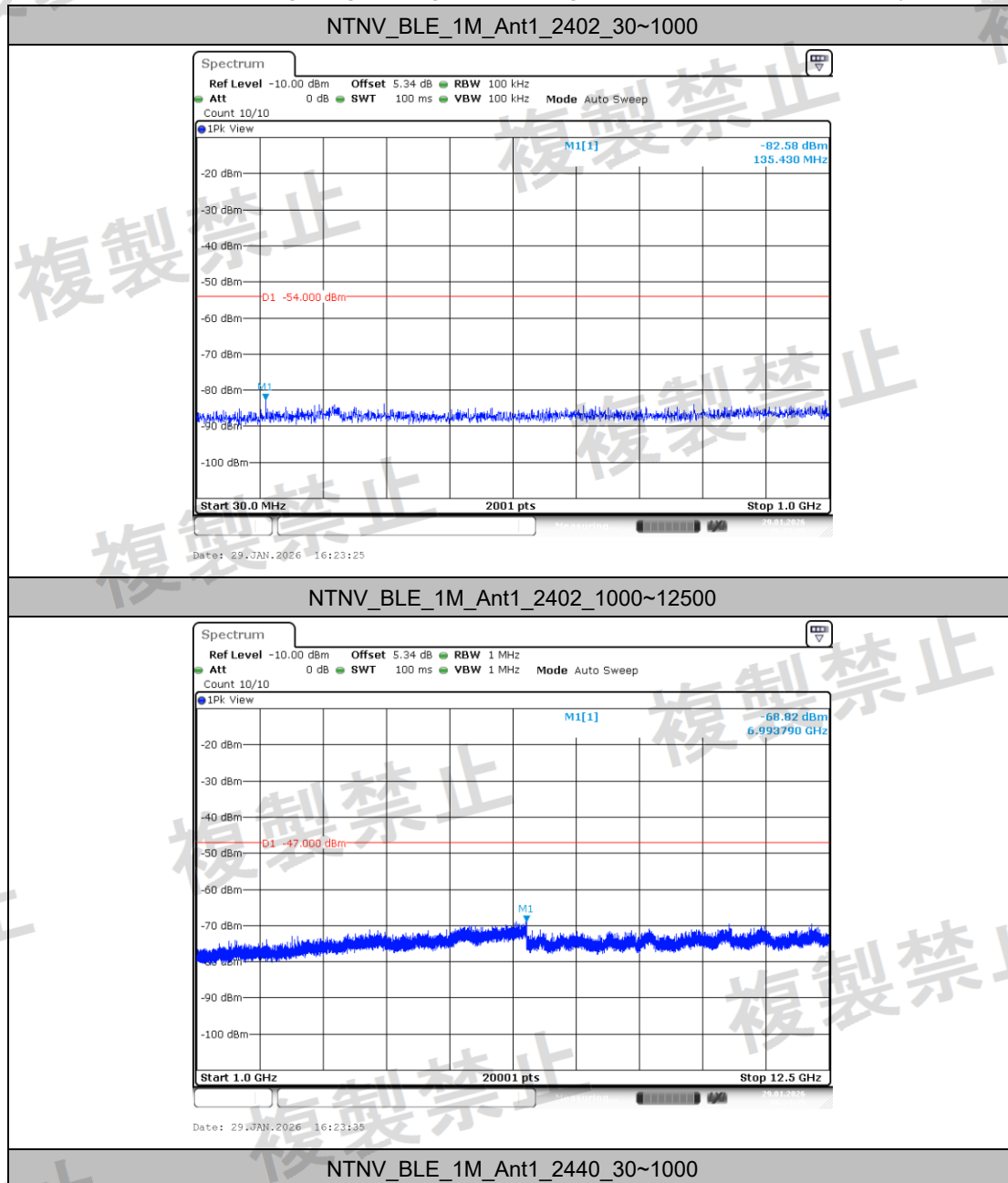
Appendix E: Spurious Emission of RX

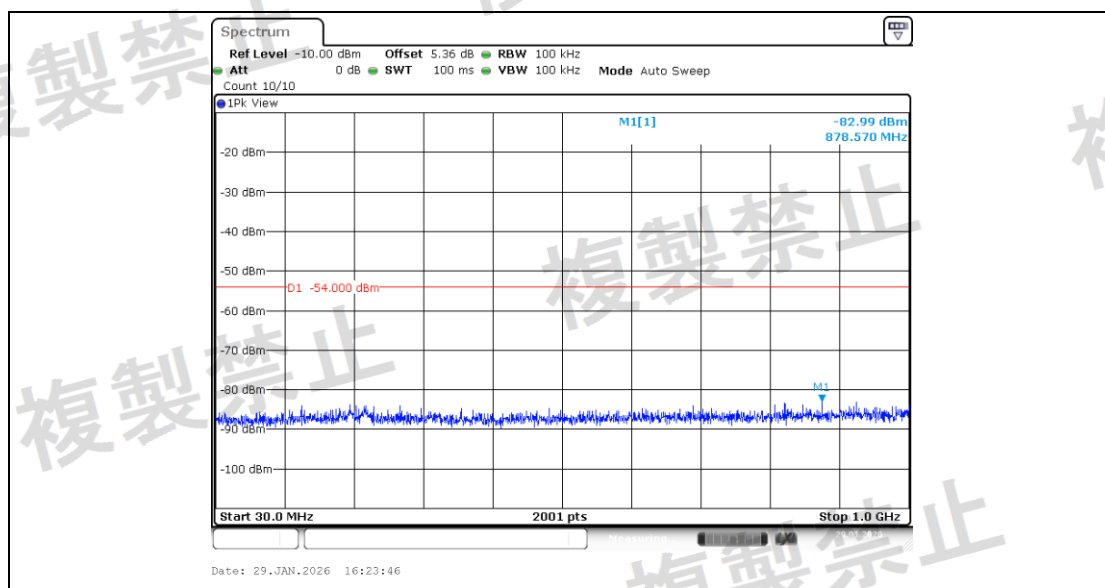
Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	135.43	-82.58	≤-54	0.00552	≤4	PASS
				1000~12500	6993.79	-68.82	≤-47	0.13122	≤20	PASS
			2440	30~1000	878.57	-82.99	≤-54	0.00502	≤4	PASS
				1000~12500	5874.89	-69.07	≤-47	0.12388	≤20	PASS
			2480	30~1000	921.71	-83.55	≤-54	0.00442	≤4	PASS
				1000~12500	6981.71	-68.75	≤-47	0.13335	≤20	PASS

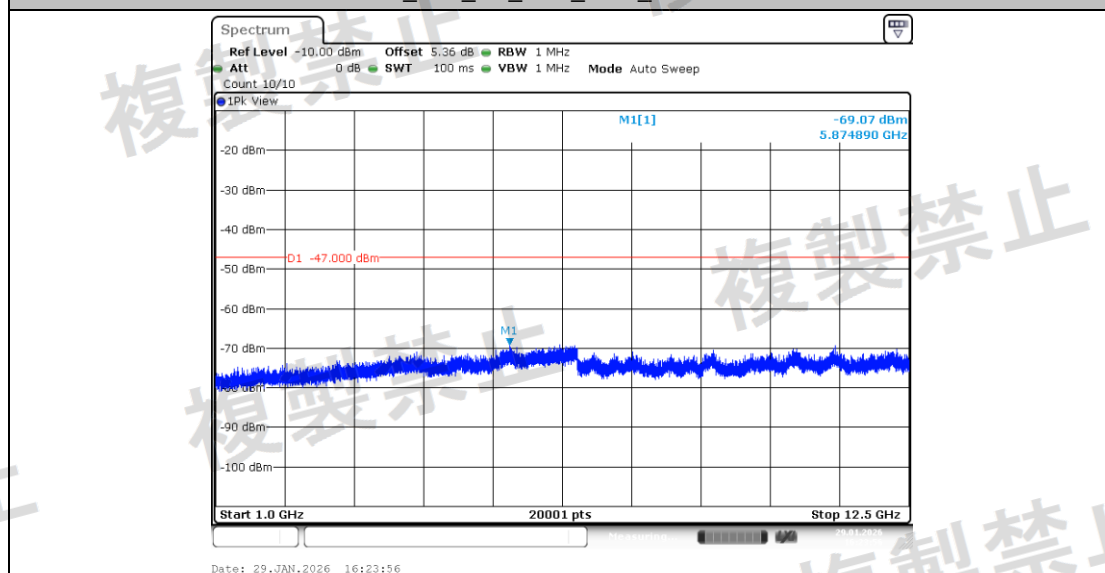
Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





NTNV_BLE_1M_Ant1_2440_1000~12500



NTNV_BLE_1M_Ant1_2480_30~1000

