

Appendix RF Test Data for BLE

Company : EJEK TECHNOLOGY CO.,LTD.

EUT : BT5.1 Music Bluetooth Module

Model Number : AI00750

Report No. : CTA26010902101

Reviewed By : Eric Wang

Appendix A: Frequency Error

Test Result

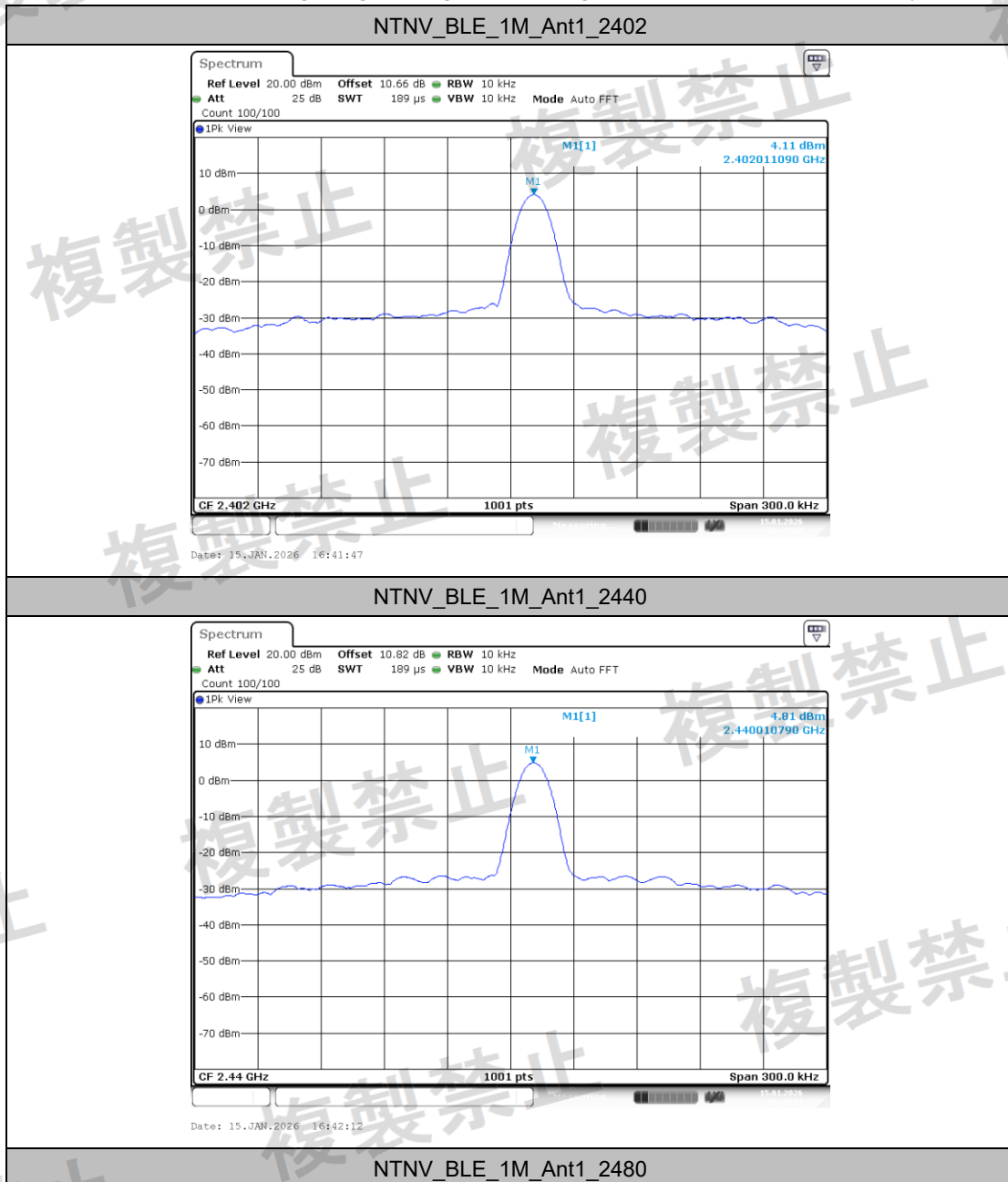
TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.61699	±50	PASS
			2440	4.42213	±50	PASS
			2480	4.35081	±50	PASS

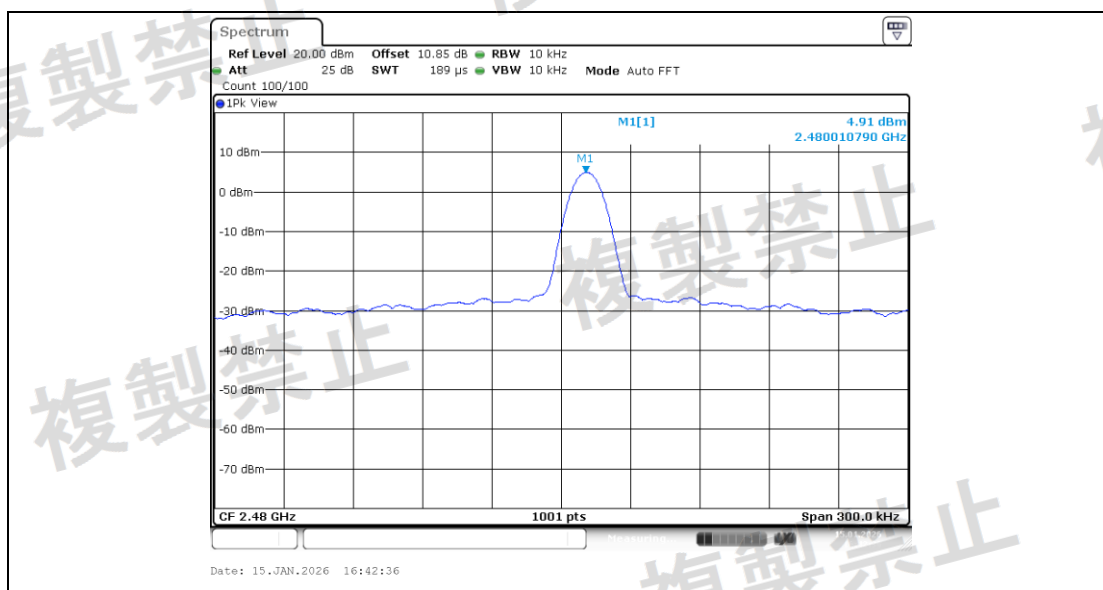
TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTLV	BLE_1M	Ant1	2402	4.40853	±50	PASS
			2440	4.21516	±50	PASS
			2480	4.12812	±50	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTHV	BLE_1M	Ant1	2402	4.40237	±50	PASS
			2440	4.20351	±50	PASS
			2480	4.11927	±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

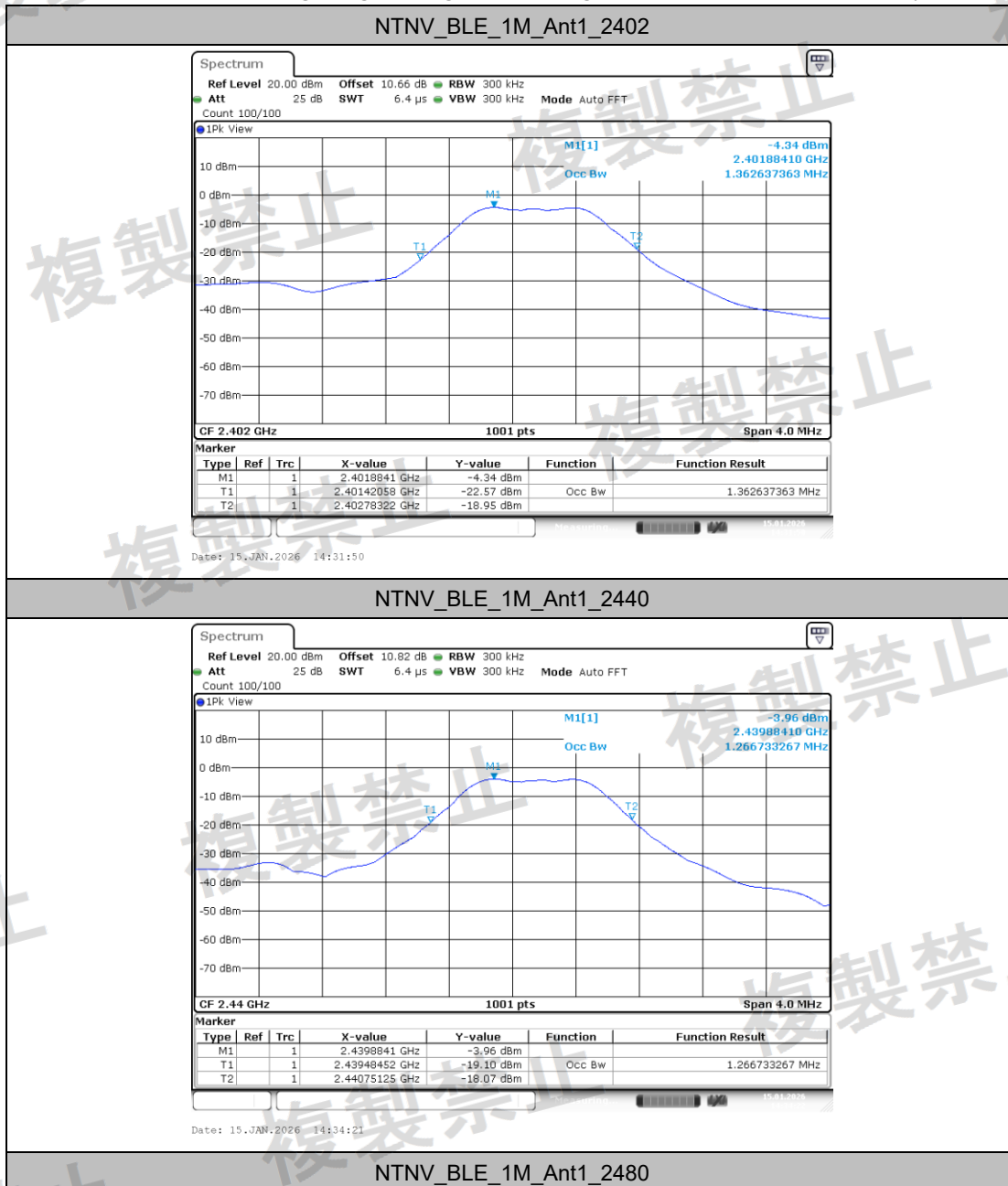
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.363	≤26	PASS
			2440	1.267	≤26	PASS
			2480	1.506	≤26	PASS

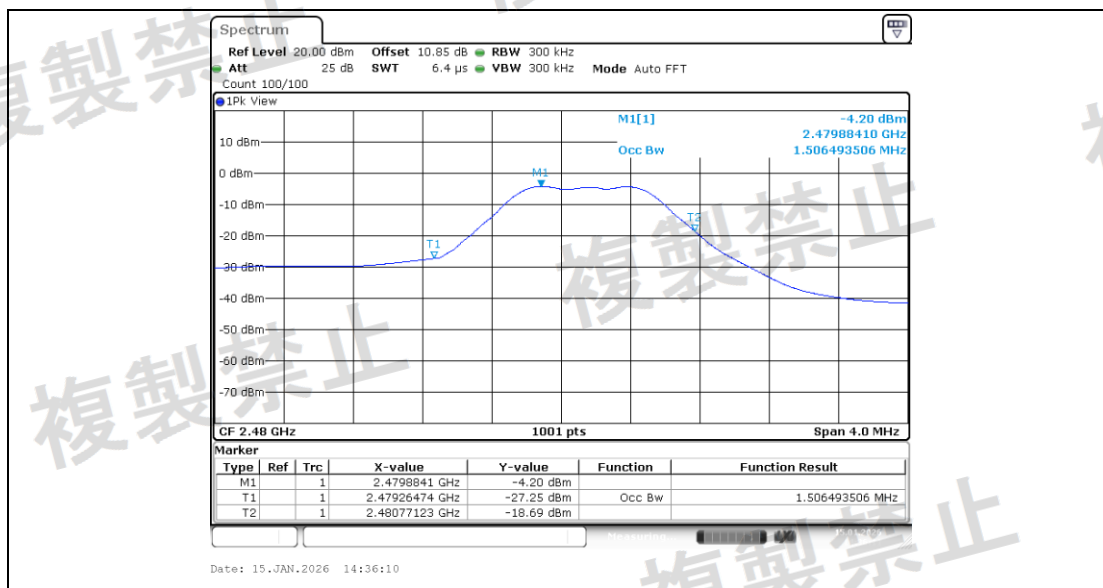
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTLV	BLE_1M	Ant1	2402	1.360	≤26	PASS
			2440	1.264	≤26	PASS
			2480	1.502	≤26	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTHV	BLE_1M	Ant1	2402	1.357	≤26	PASS
			2440	1.260	≤26	PASS
			2480	1.497	≤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

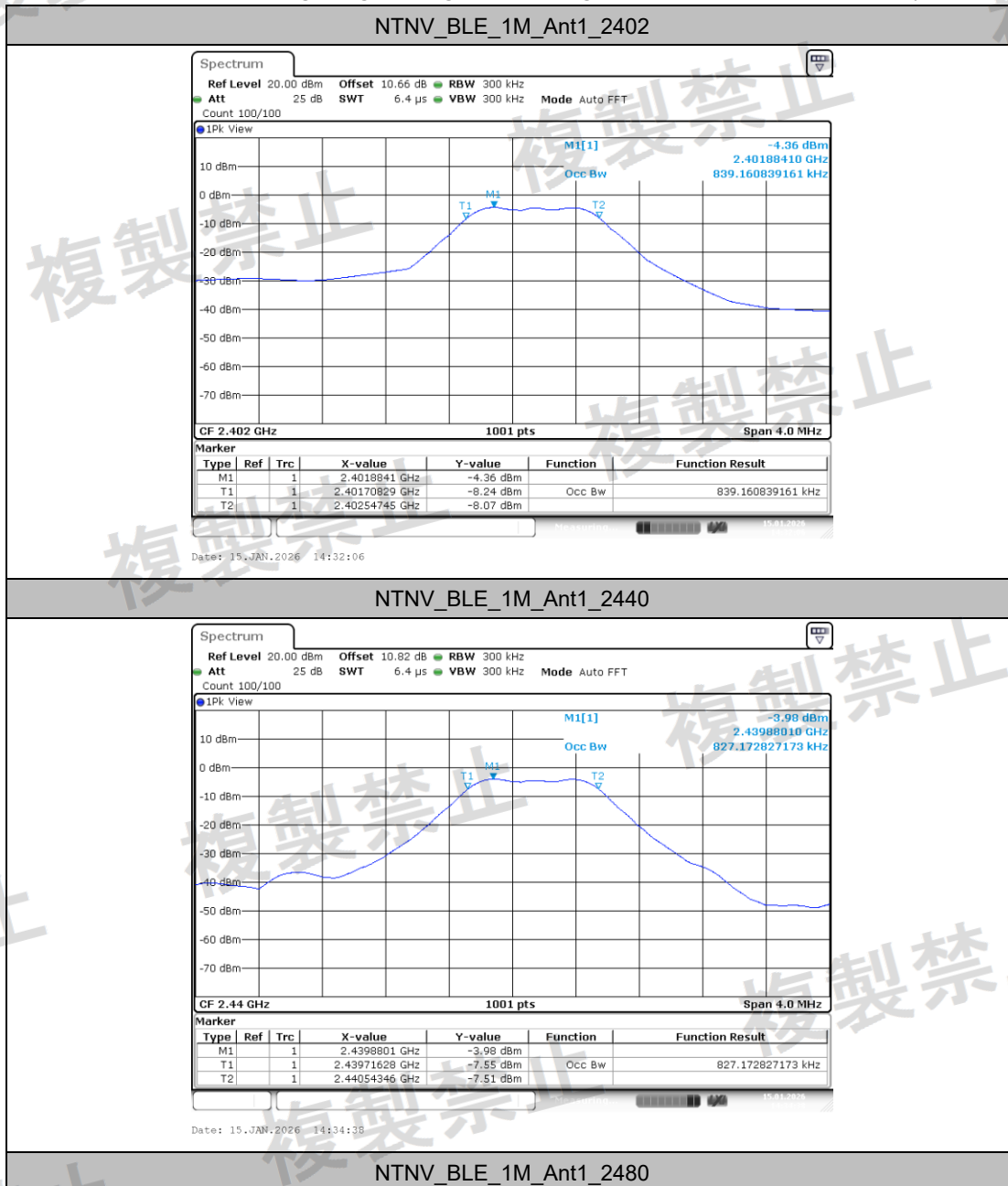
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.839	≥0.5	PASS
			2440	0.827	≥0.5	PASS
			2480	0.839	≥0.5	PASS

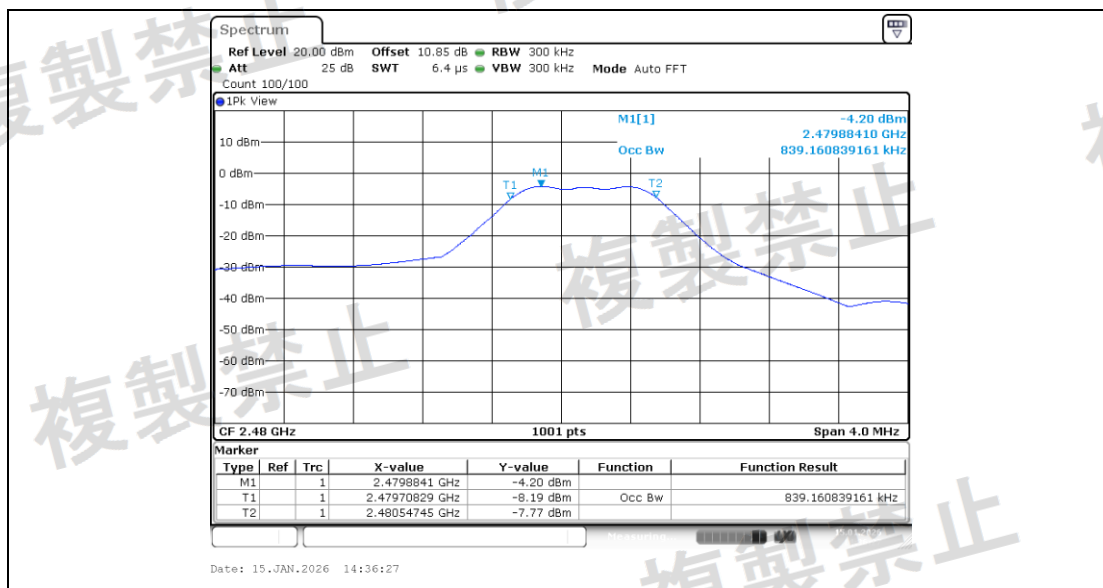
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTLV	BLE_1M	Ant1	2402	0.836	≥0.5	PASS
			2440	0.823	≥0.5	PASS
			2480	0.835	≥0.5	PASS

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTHV	BLE_1M	Ant1	2402	0.833	≥0.5	PASS
			2440	0.822	≥0.5	PASS
			2480	0.830	≥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

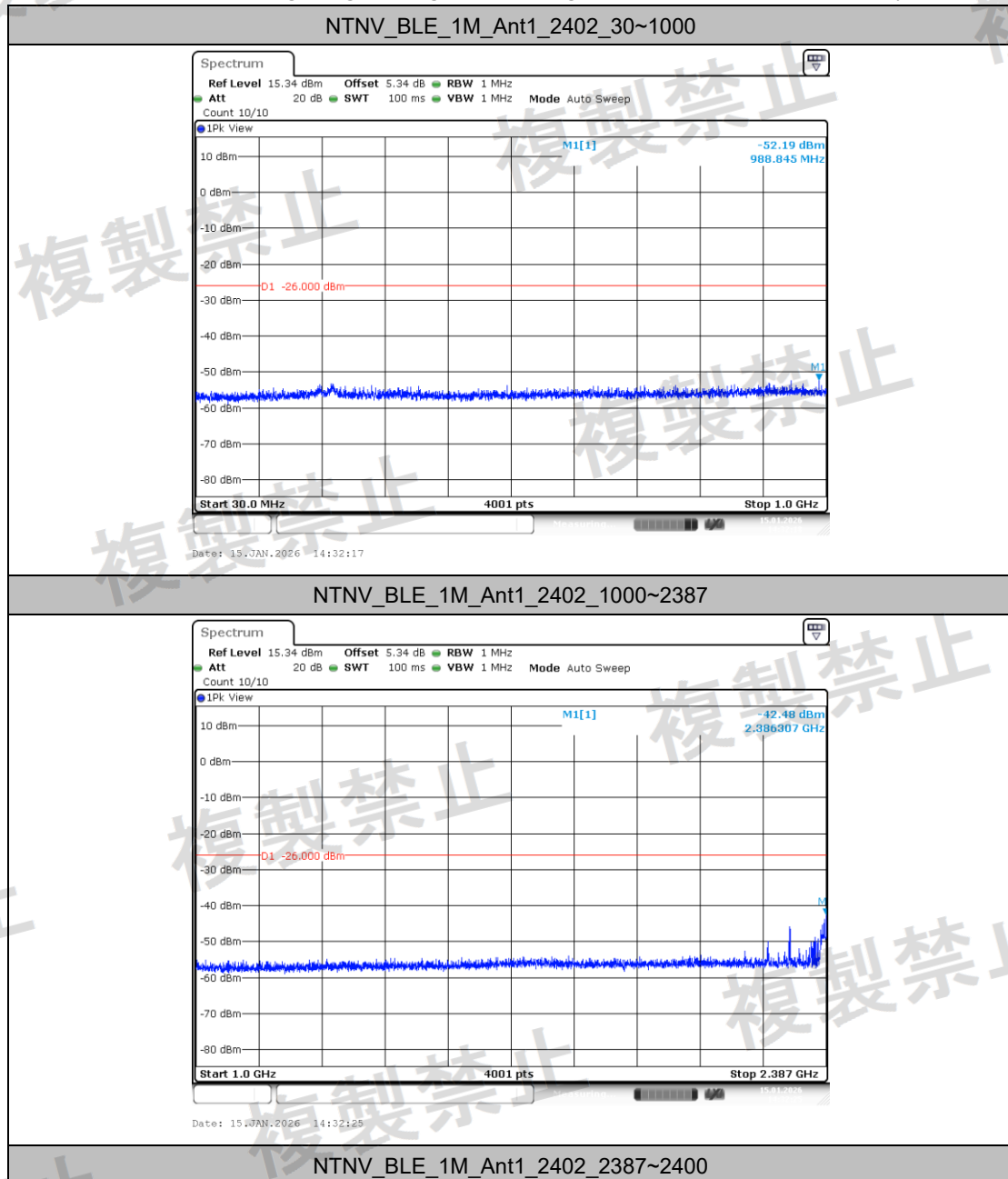
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	988.85	-52.19	≤-26	0.00604	≤2.5	PASS
				1000~2387	2386.31	-42.48	≤-26	0.05649	≤2.5	PASS
				2387~2400	2399.99	-18.83	≤-16	13.0918 2	≤25	See table below
				2483.5~2496.5	2486.28	-43.29	≤-16	0.04688	≤25	PASS
				2496.5~13000	6926.88	-49.08	≤-26	0.01236	≤2.5	PASS
			2440	30~1000	239.52	-52.87	≤-26	0.00516	≤2.5	PASS
				1000~2387	2344.70	-46.76	≤-26	0.02109	≤2.5	PASS
				2387~2400	2392.01	-42.99	≤-16	0.05023	≤25	PASS
				2483.5~2496.5	2488.38	-42.39	≤-16	0.05768	≤25	PASS
				2496.5~13000	2536.41	-43.69	≤-26	0.04276	≤2.5	PASS
			2480	30~1000	243.16	-52.45	≤-26	0.00569	≤2.5	PASS
				1000~2387	2383.88	-44.93	≤-26	0.03214	≤2.5	PASS
				2387~2400	2390.78	-43.29	≤-16	0.04688	≤25	PASS
				2483.5~2496.5	2483.57	-30.26	≤-16	0.94189	≤25	PASS
				2496.5~13000	5225.83	-46.86	≤-26	0.02061	≤2.5	PASS

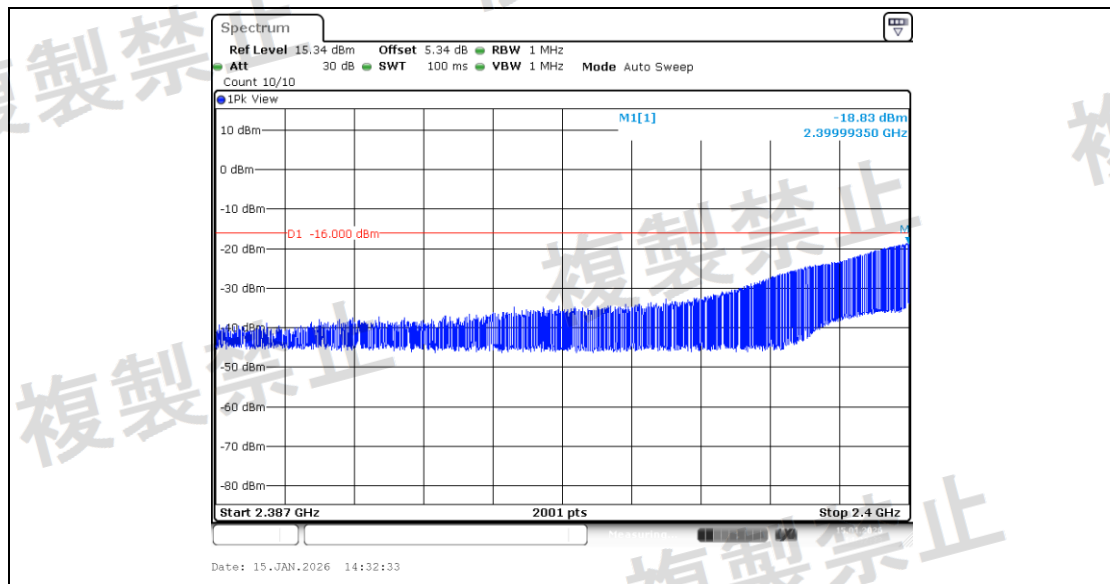
Test Result_Step2

TestCondition	TestMode	Antenna	Freq(M Hz)	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	2399.99	-47.15	≤-16	0.01928	≤25	PASS

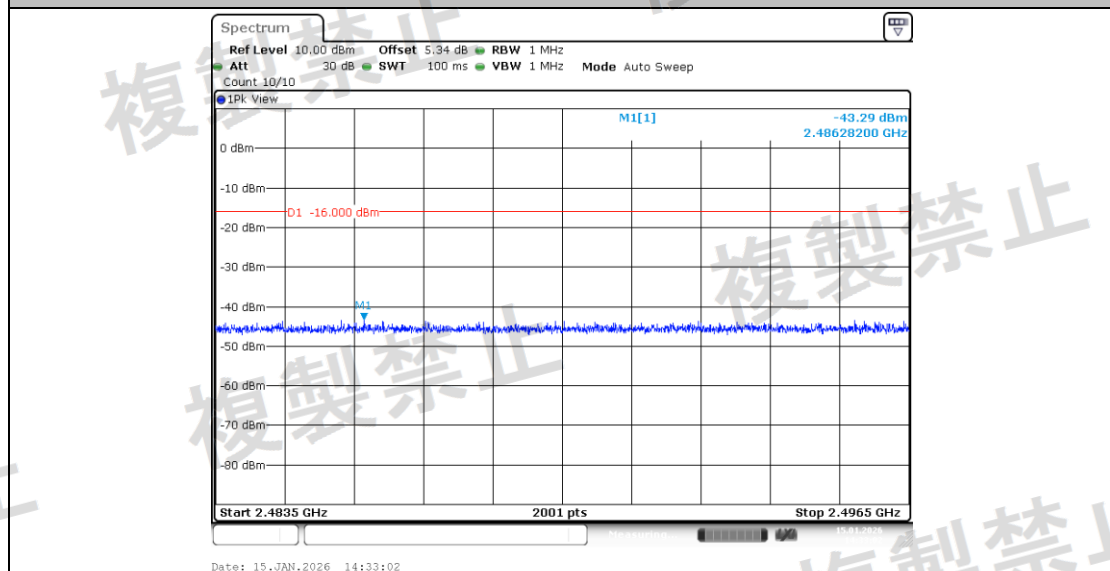
Test Graphs

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

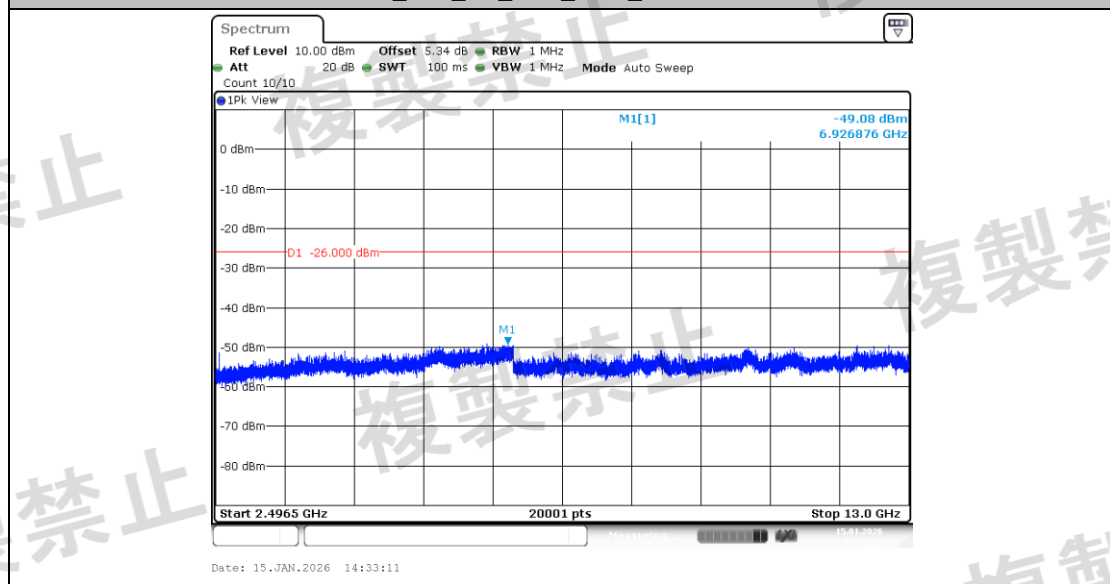


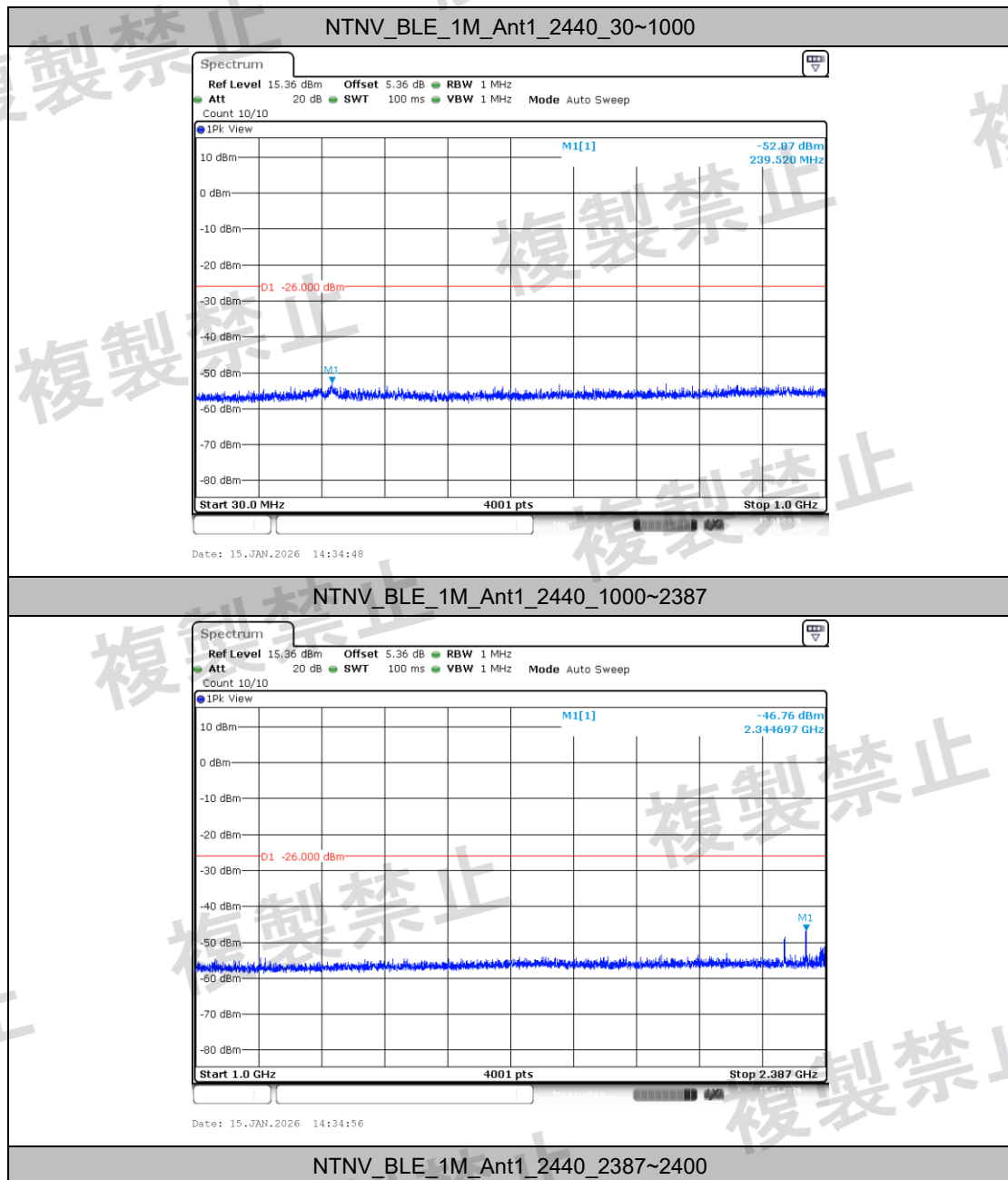


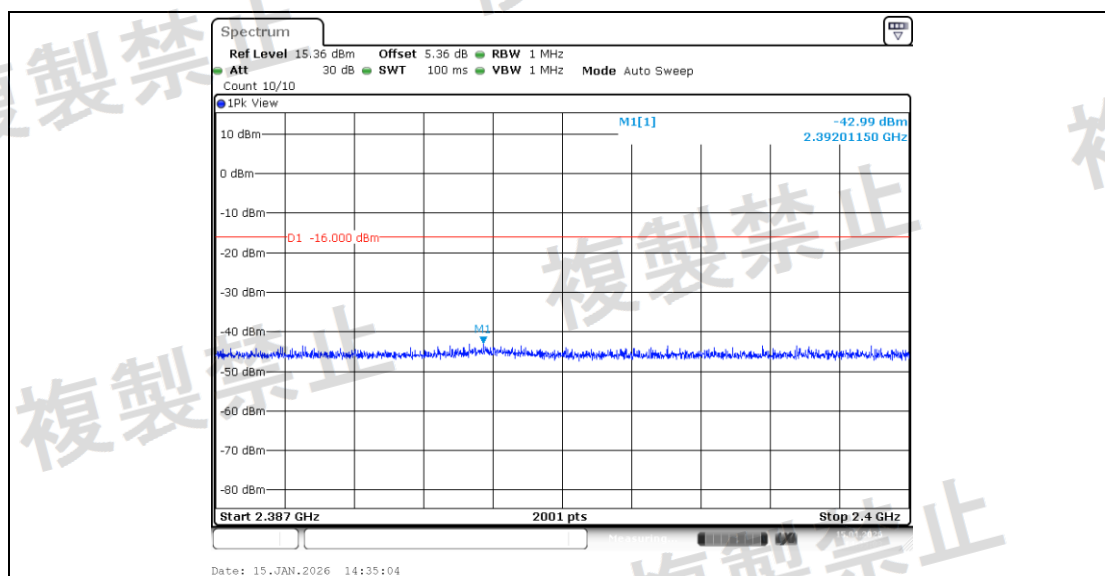
NTNV_BLE_1M_Ant1_2402_2483.5~2496.5



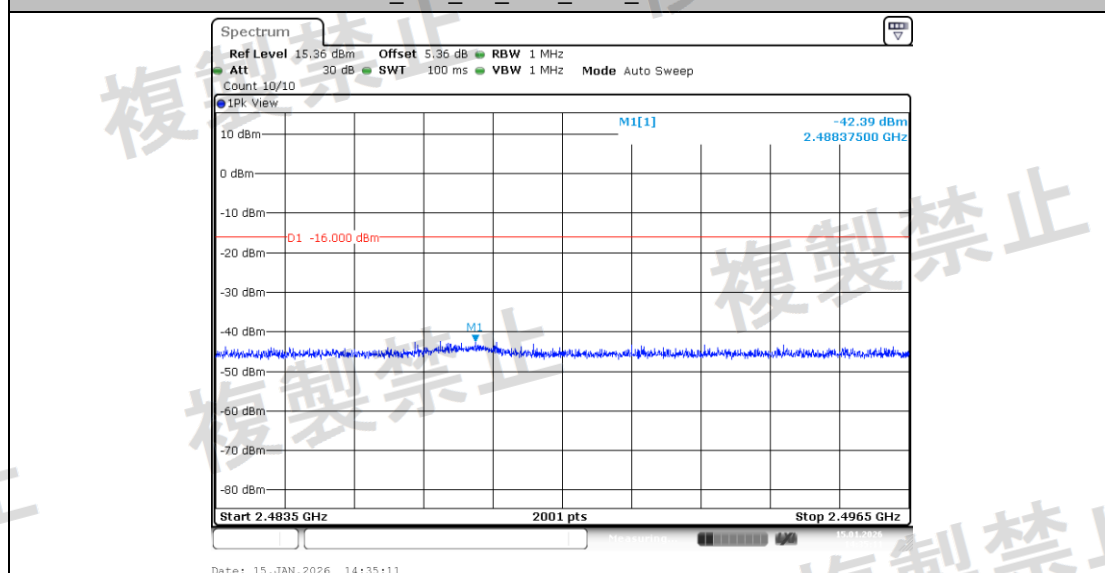
NTNV_BLE_1M_Ant1_2402_2496.5~13000



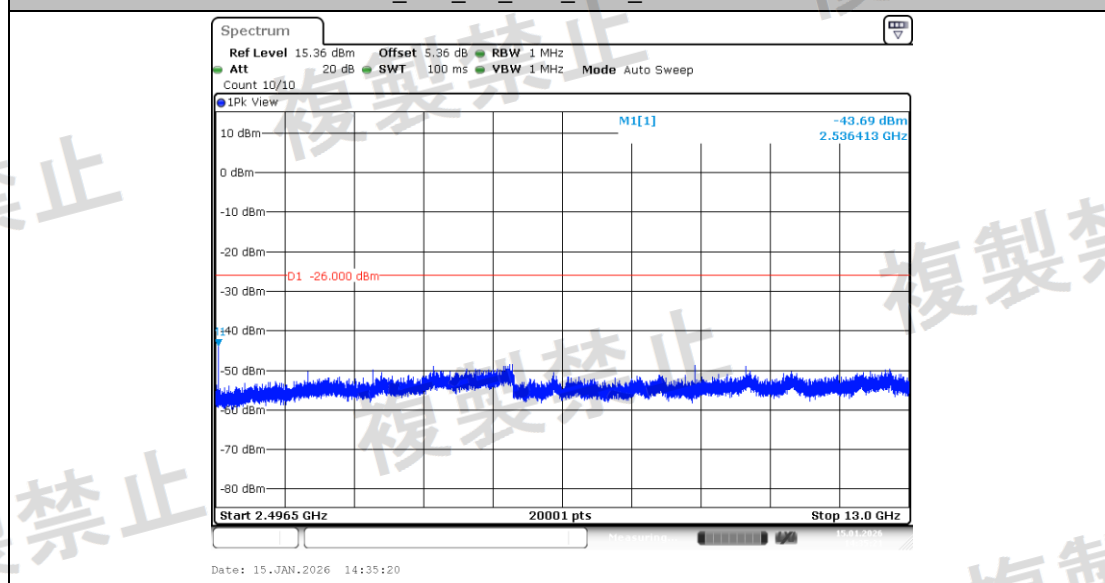


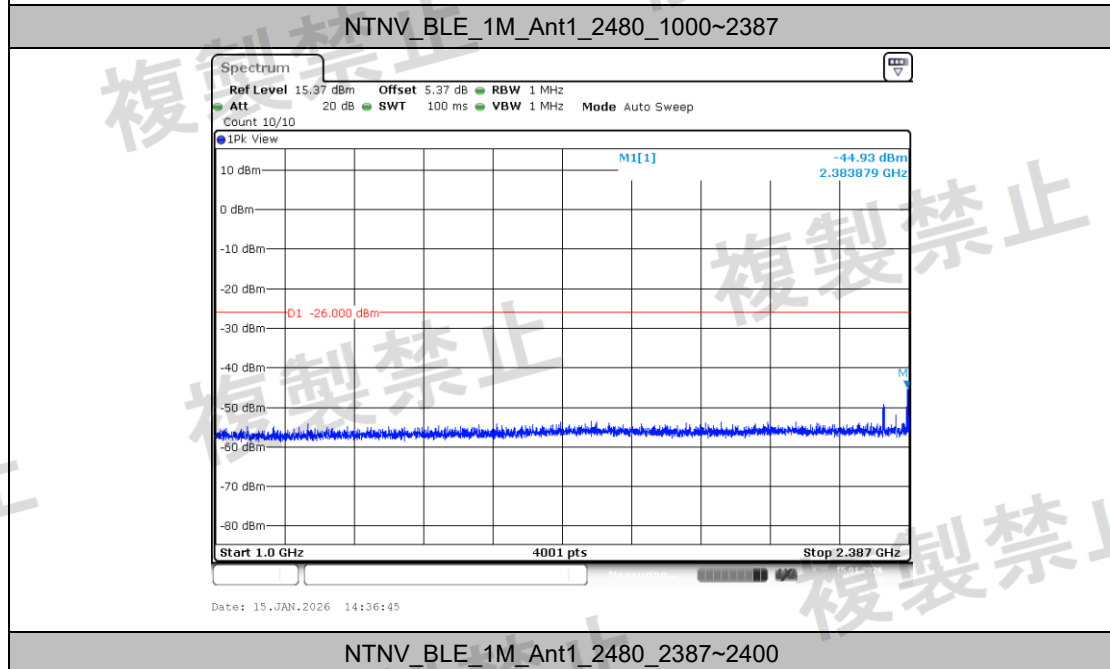
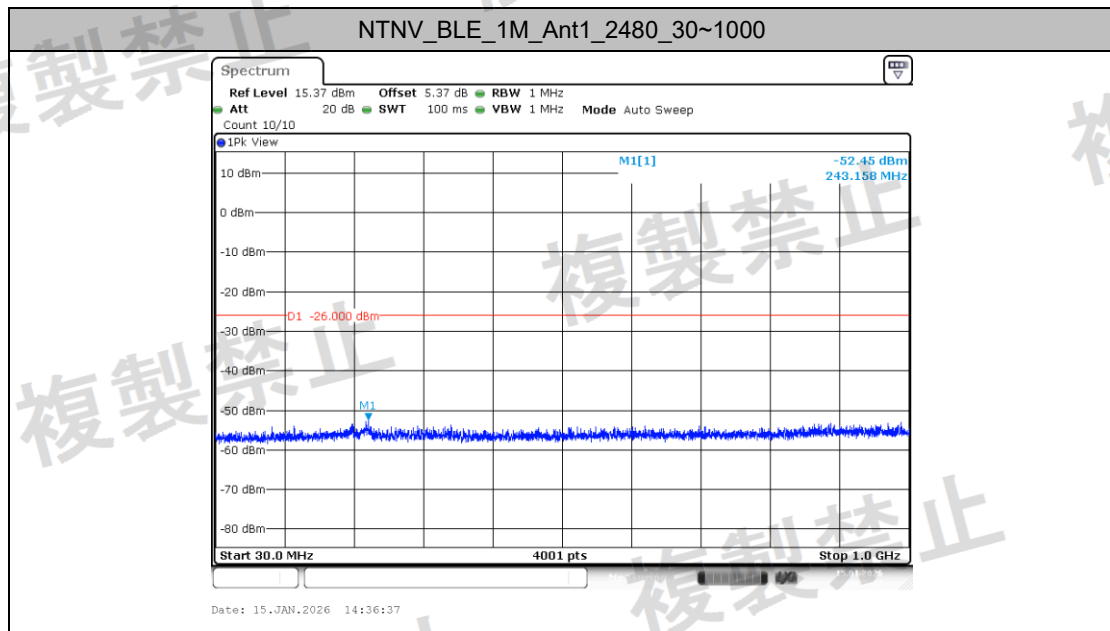


NTNV_BLE_1M_Ant1_2440_2483.5~2496.5

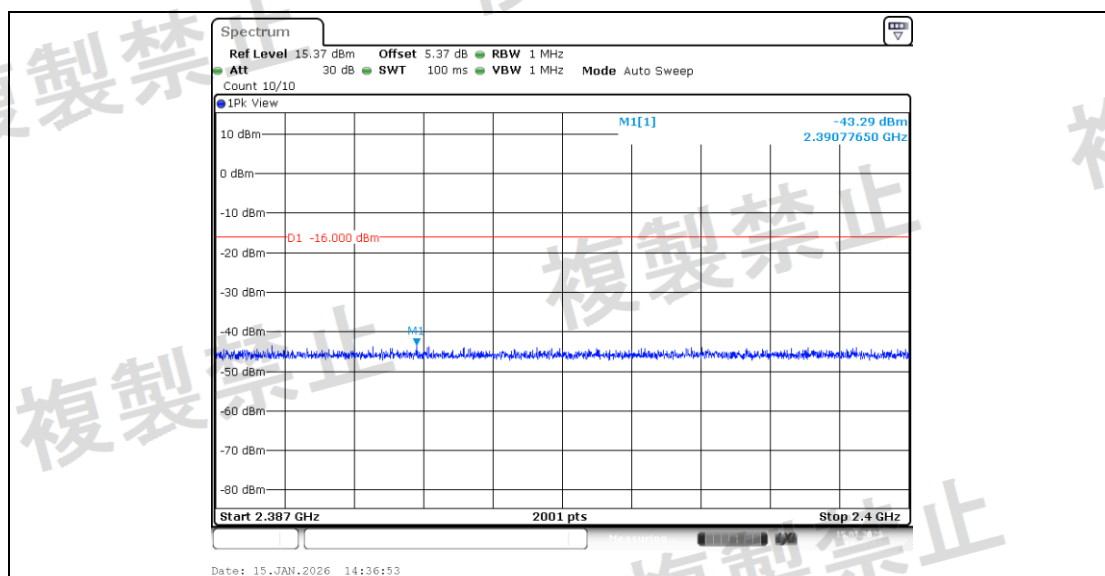


NTNV_BLE_1M_Ant1_2440_2496.5~13000

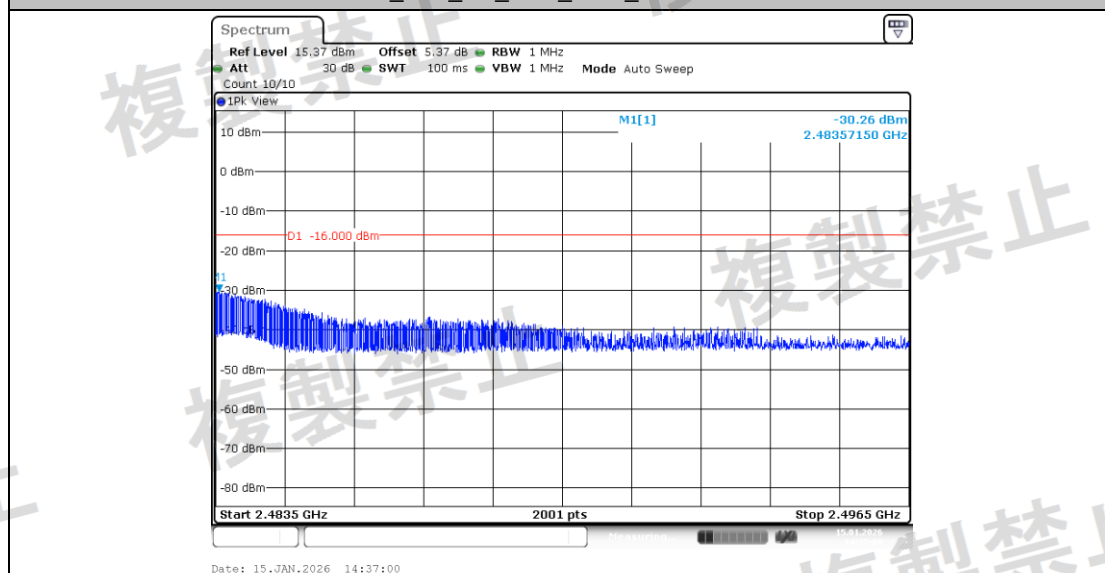




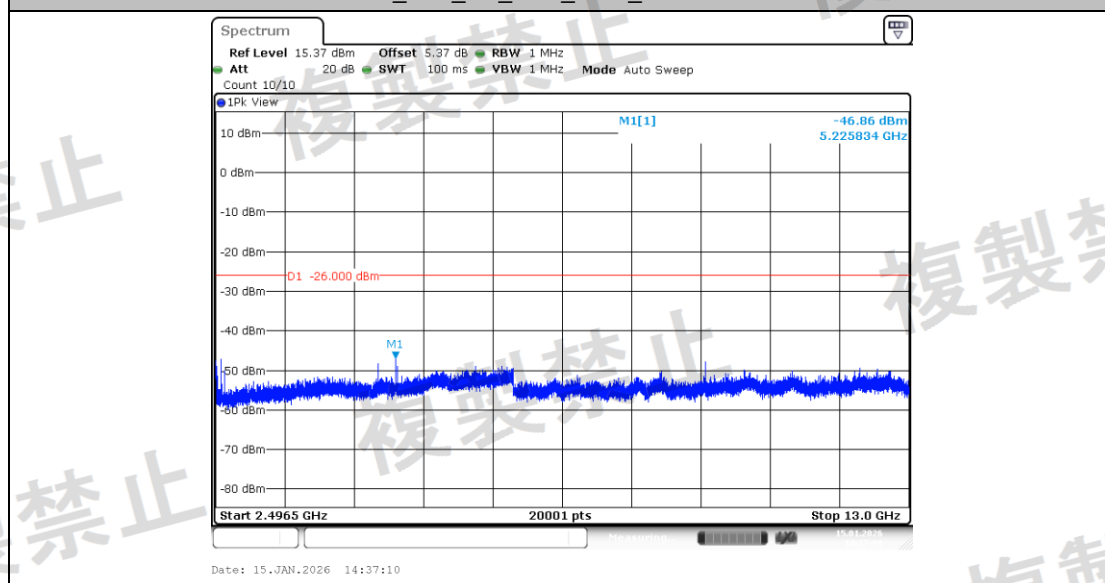
NTNV_BLE_1M_Ant1_2480_2387~2400



NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



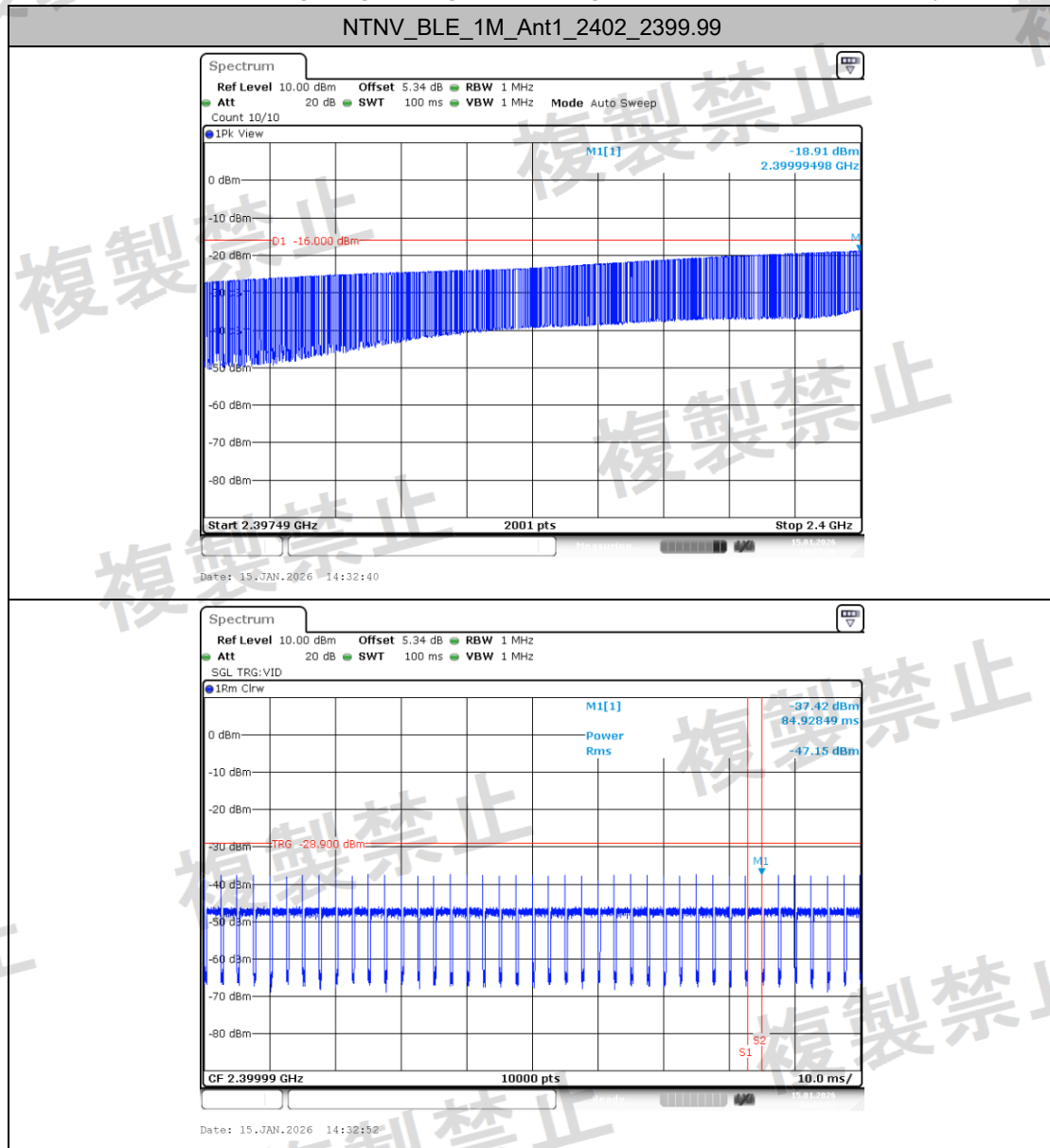
NTNV_BLE_1M_Ant1_2480_2496.5~13000



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Test Graphs_Step2

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



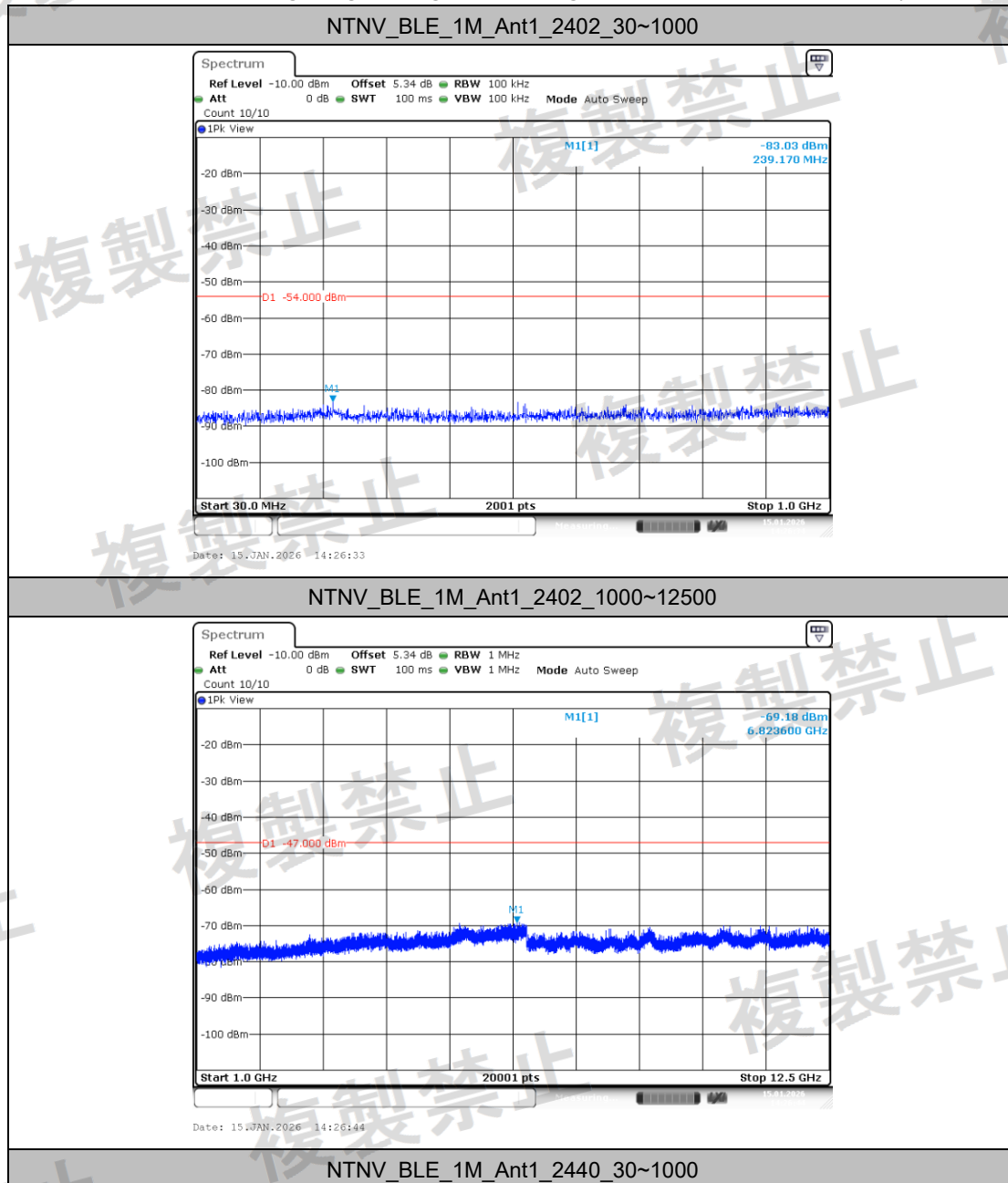
Appendix E: Spurious Emission of RX

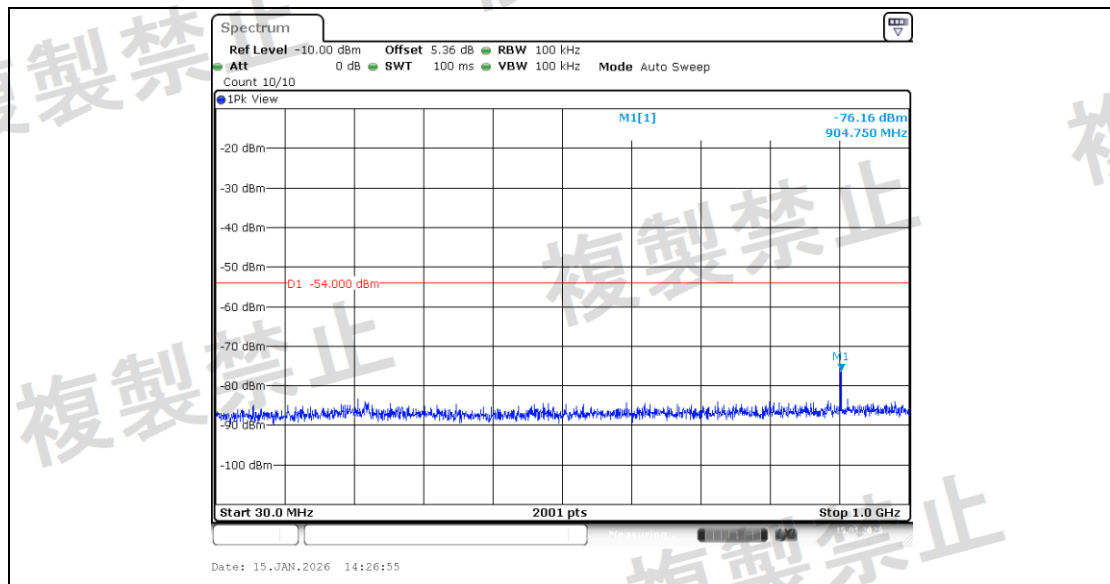
Test Result

TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	239.17	-83.03	≤-54	0.00498	≤4	PASS
				1000~12500	6823.60	-69.18	≤-47	0.12078	≤20	PASS
			2440	30~1000	904.75	-76.16	≤-54	0.02421	≤4	PASS
				1000~12500	6453.89	-68.62	≤-47	0.13740	≤20	PASS
			2480	30~1000	930.92	-83.42	≤-54	0.00455	≤4	PASS
				1000~12500	6533.81	-69.20	≤-47	0.12023	≤20	PASS

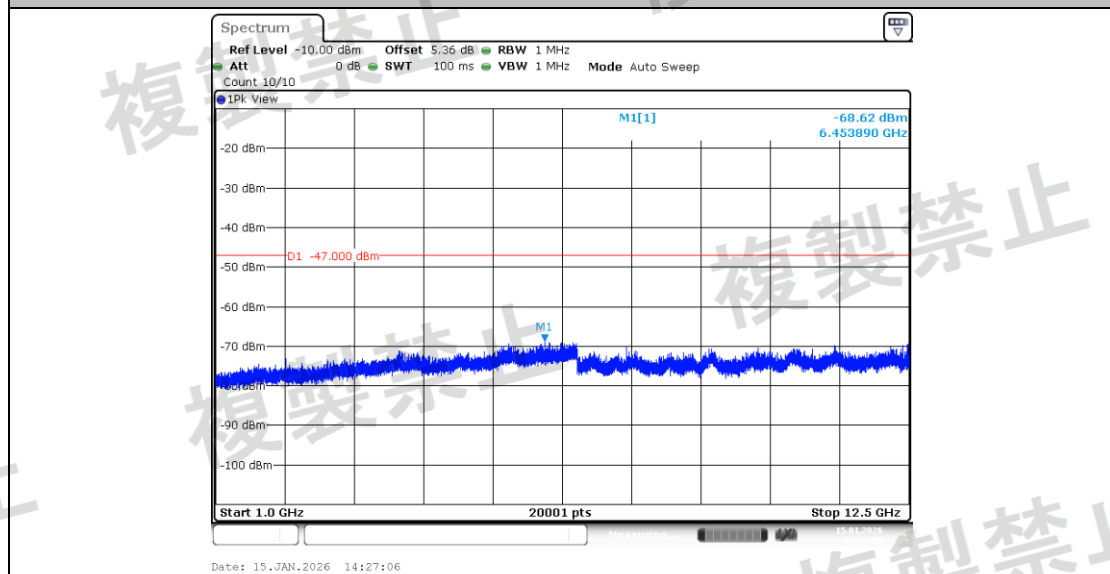
Test Graphs

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

