

Appendix RF Test Data for BLE

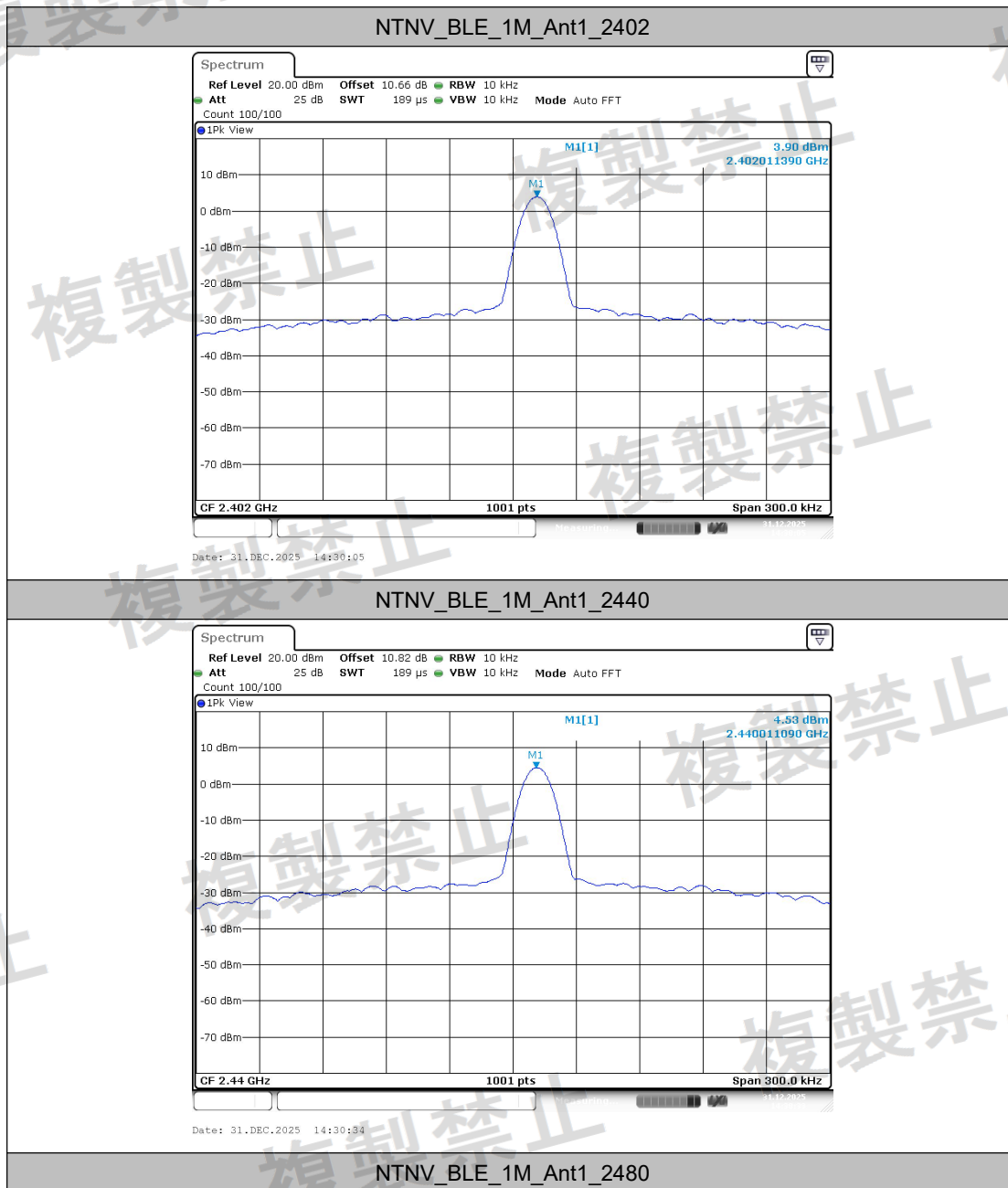
Company : Lubinsong
EUT : Lubinsong Karaoke Machine Integrated Type
Model Number : Lubinsong 20261905
Report No. : CTA25122600101
Reviewed By : Eric Wang

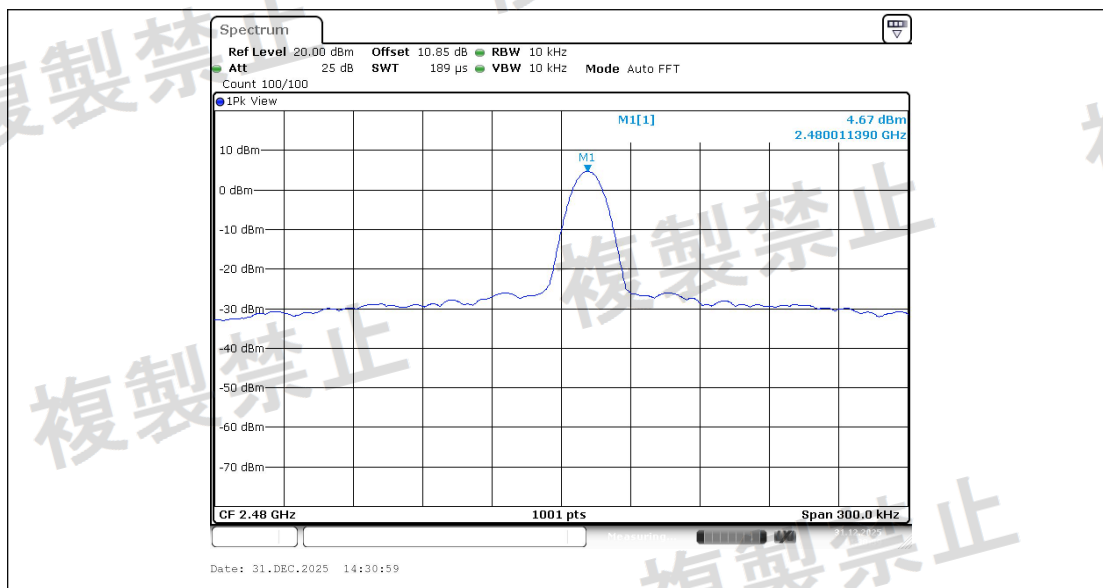
Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.74188	±50	PASS
			2440	4.54508	±50	PASS
			2480	4.59274	±50	PASS

Test Graphs



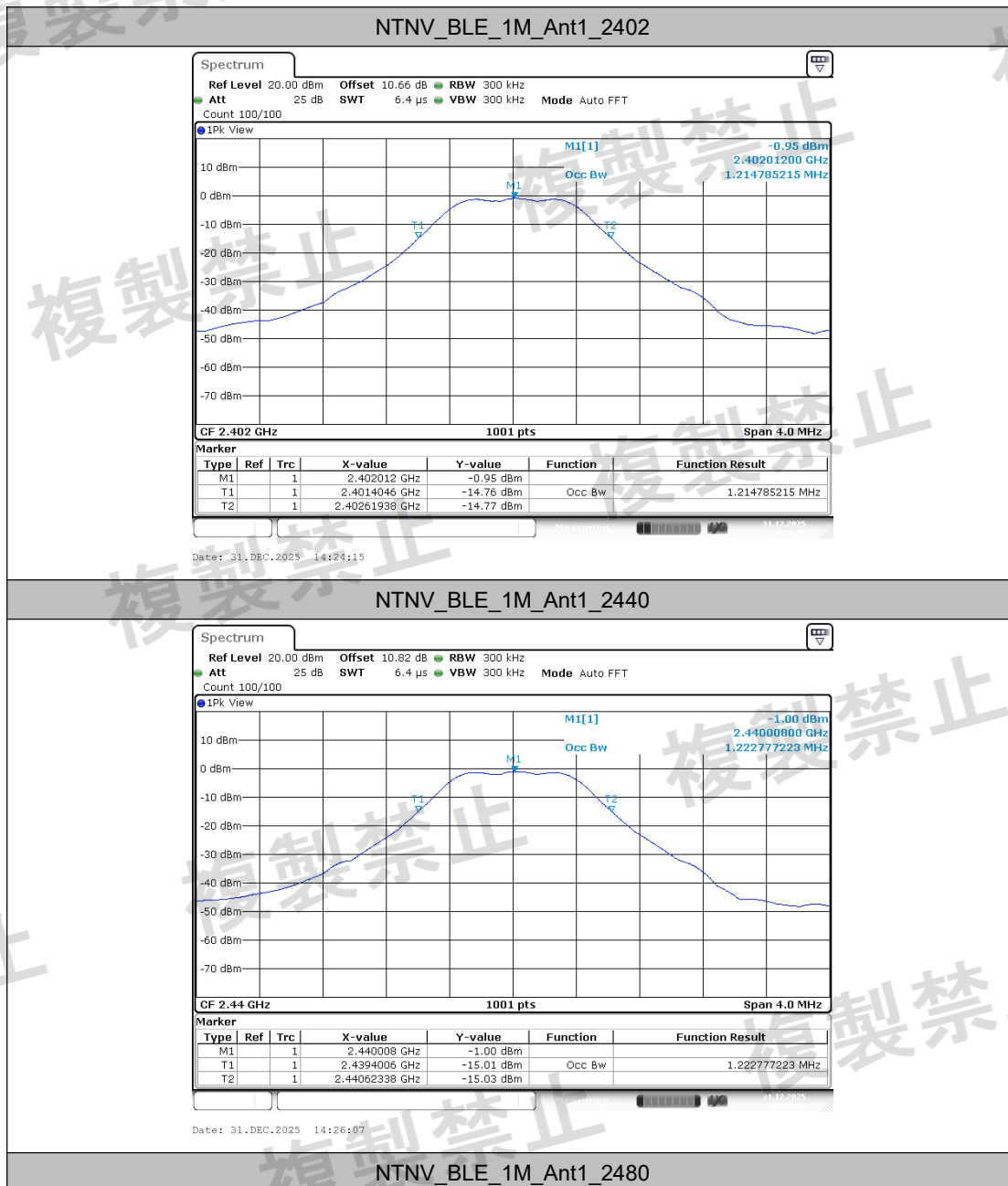


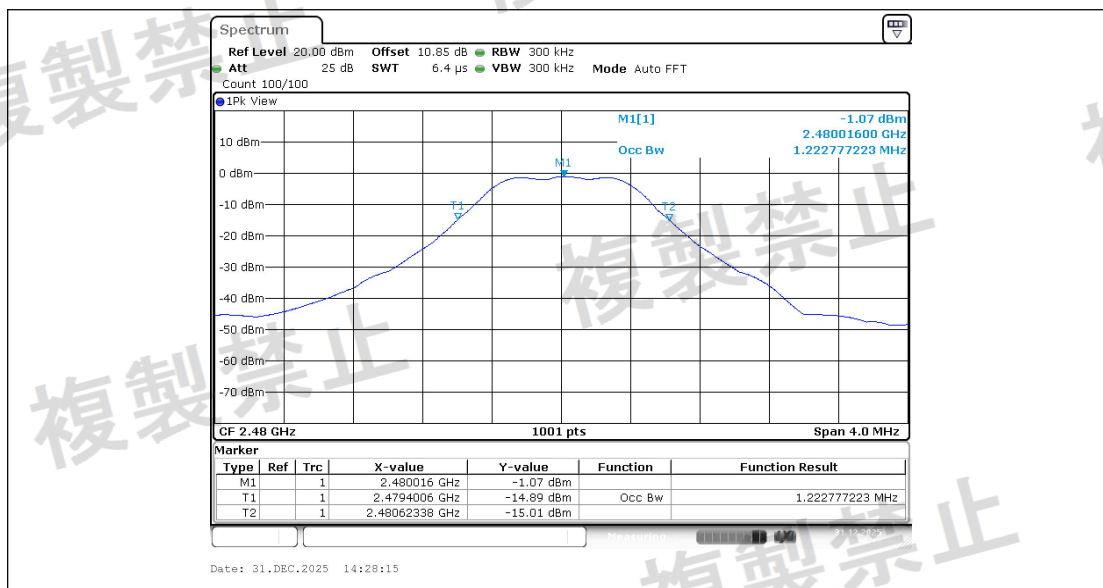
Appendix B: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.215	≤26	PASS
			2440	1.223	≤26	PASS
			2480	1.223	≤26	PASS

Test Graphs



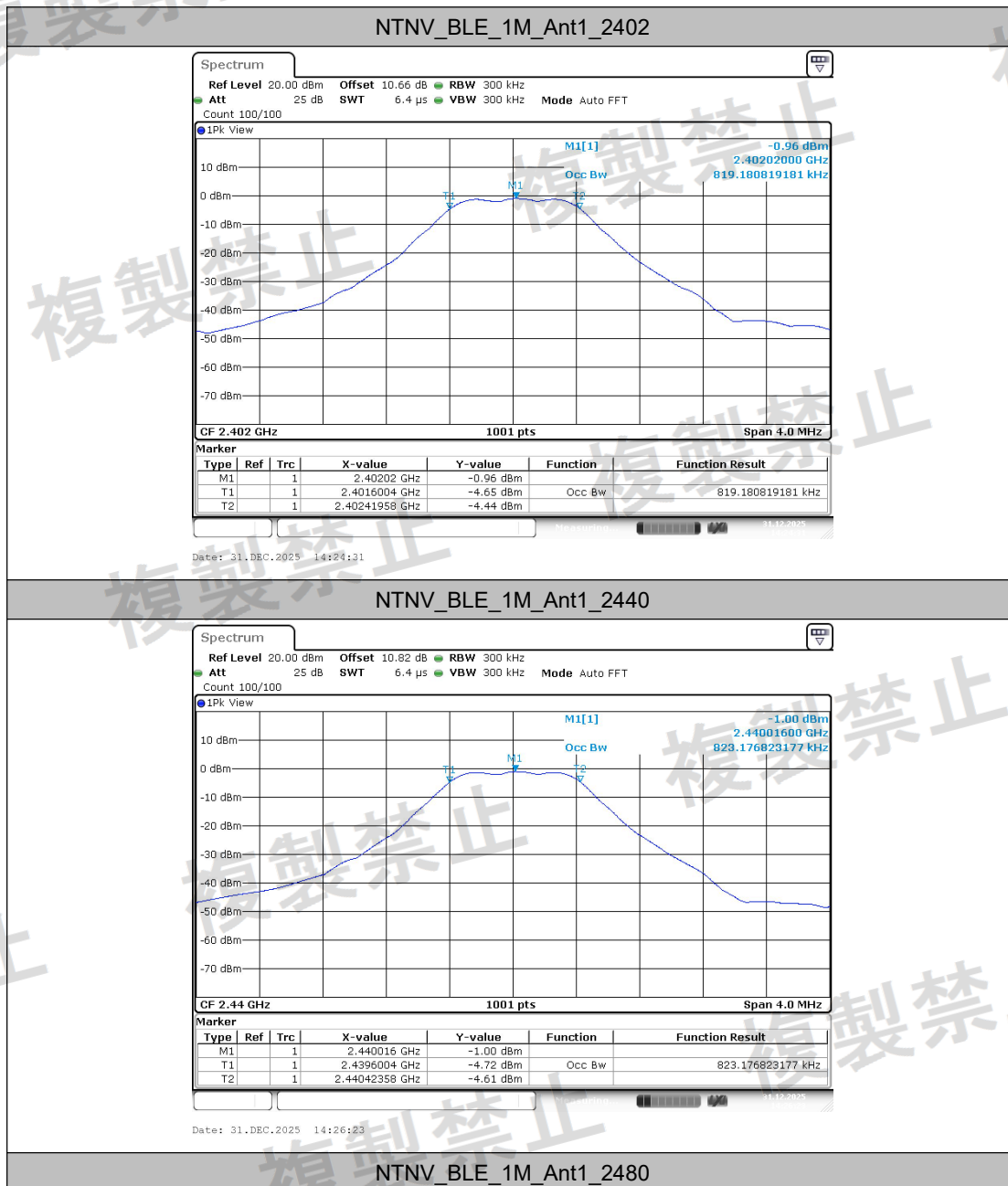


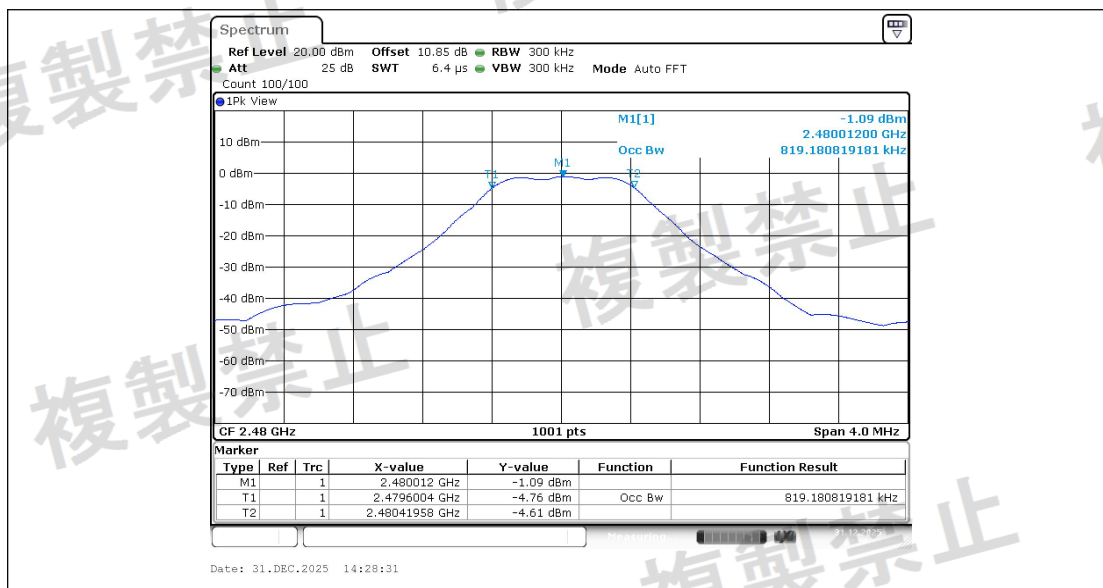
Appendix C: Spread Bandwidth

Test Result

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

Test Graphs



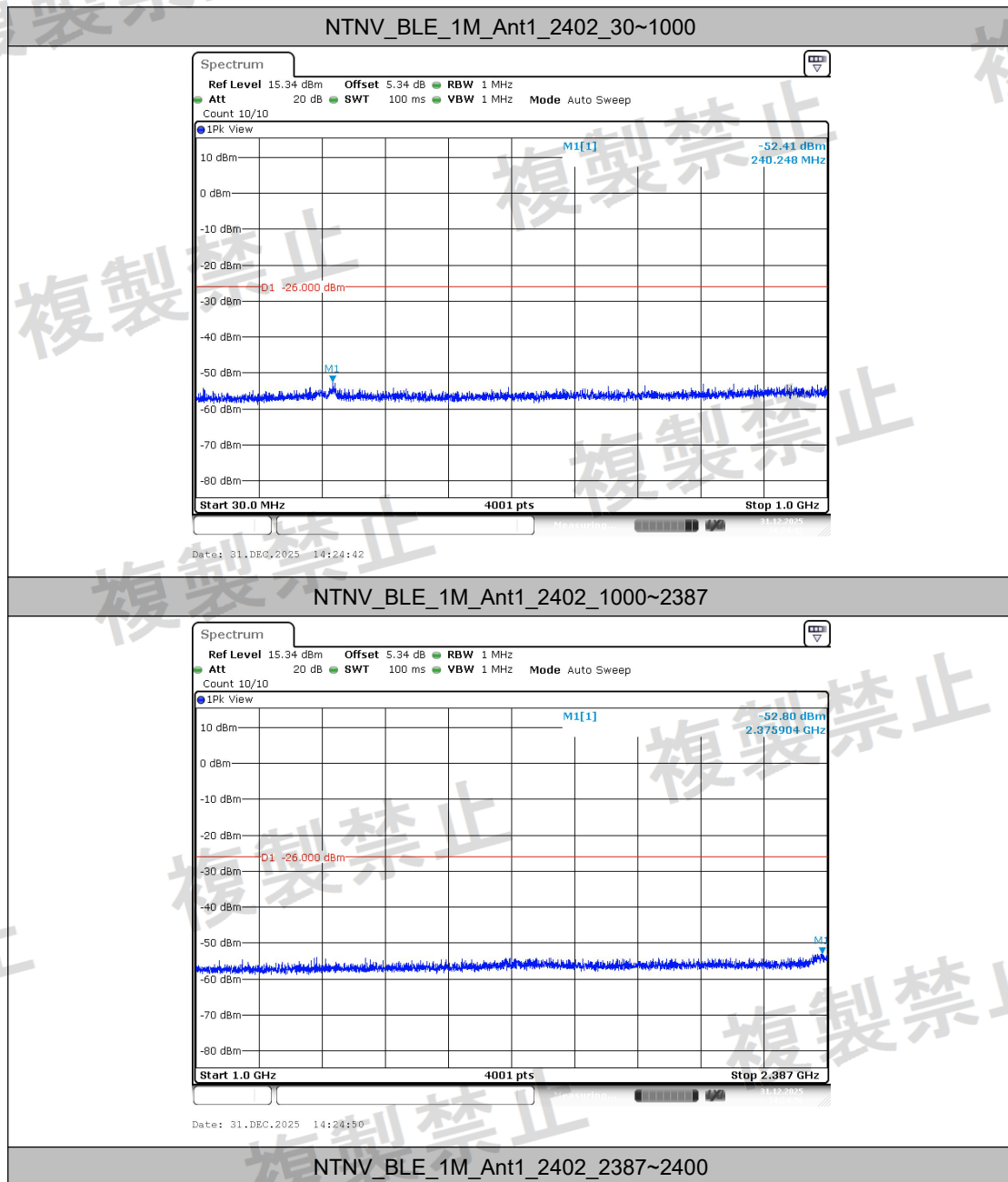


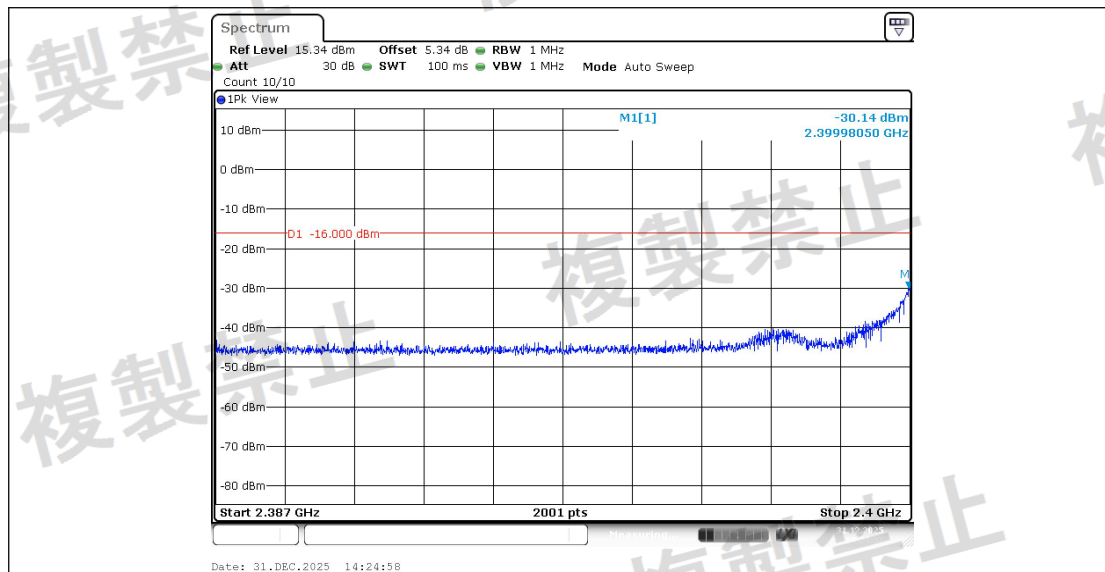
Appendix D: Spurious Emission of TX

Test Result

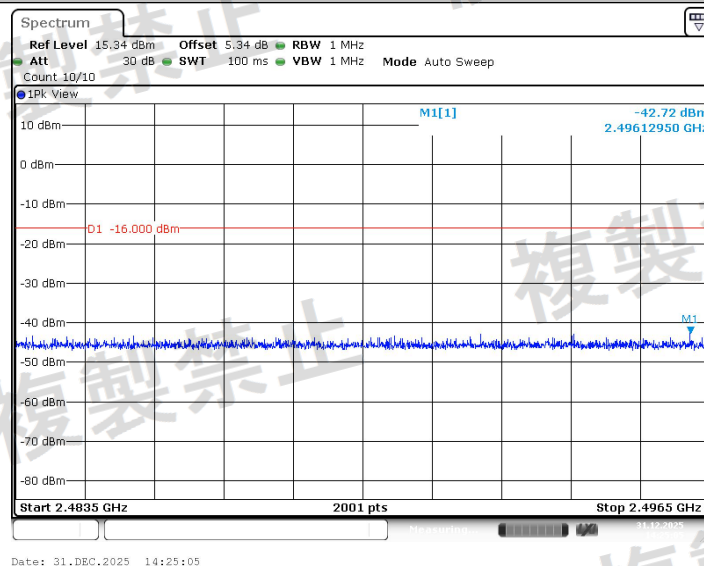
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	240.25	-52.41	≤-26	0.00574	≤2.5	PASS
				1000~2387	2375.90	-52.80	≤-26	0.00525	≤2.5	PASS
				2387~2400	2399.98	-30.14	≤-16	0.96828	≤25	PASS
				2483.5~2496.5	2496.13	-42.72	≤-16	0.05346	≤25	PASS
				2496.5~13000	4804.12	-41.36	≤-26	0.07311	≤2.5	PASS
			2440	30~1000	833.65	-44.18	≤-26	0.03819	≤2.5	PASS
				1000~2387	2279.51	-53.55	≤-26	0.00442	≤2.5	PASS
				2387~2400	2399.23	-43.62	≤-16	0.04345	≤25	PASS
				2483.5~2496.5	2493.36	-43.12	≤-16	0.04875	≤25	PASS
				2496.5~13000	4879.22	-40.74	≤-26	0.08433	≤2.5	PASS
			2480	30~1000	240.49	-52.68	≤-26	0.00540	≤2.5	PASS
				1000~2387	1782.96	-53.20	≤-26	0.00479	≤2.5	PASS
				2387~2400	2393.27	-43.16	≤-16	0.04831	≤25	PASS
				2483.5~2496.5	2484.19	-40.25	≤-16	0.09441	≤25	PASS
				2496.5~13000	4959.57	-40.54	≤-26	0.08831	≤2.5	PASS

Test Graphs

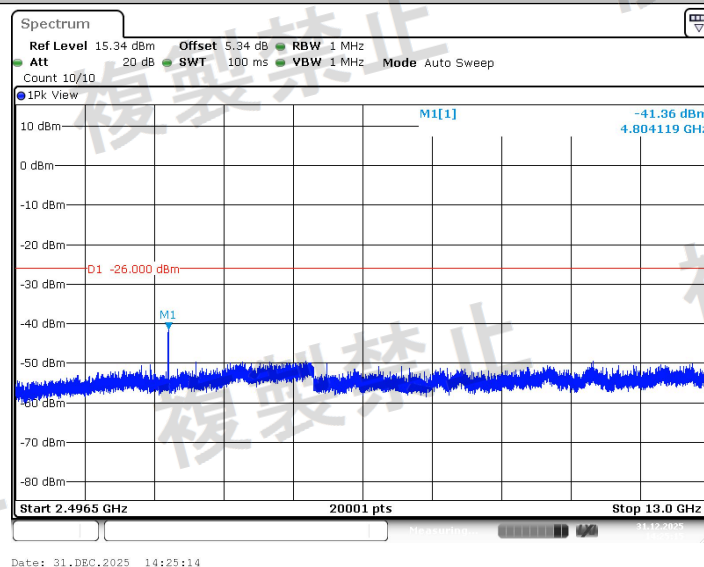


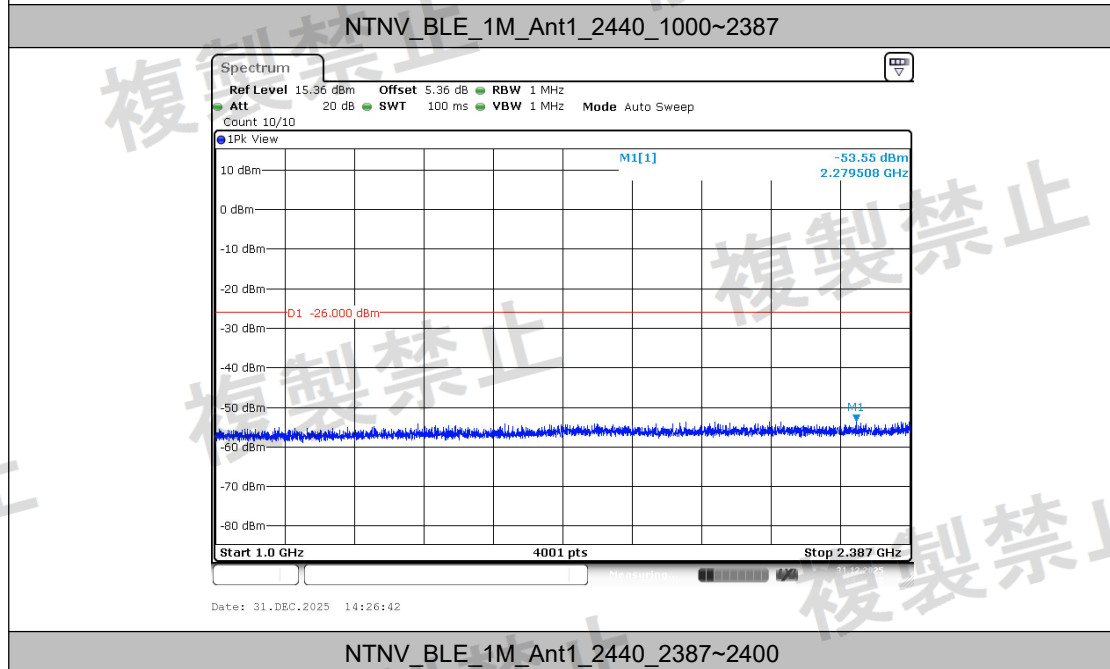
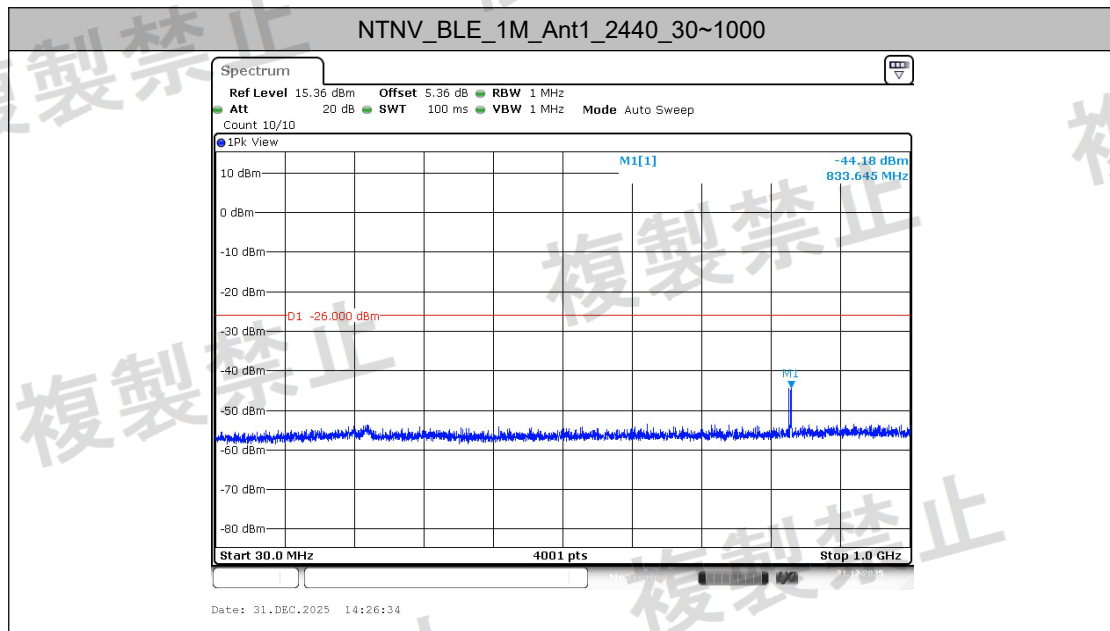


NTNV_BLE_1M_Ant1_2402_2483.5~2496.5

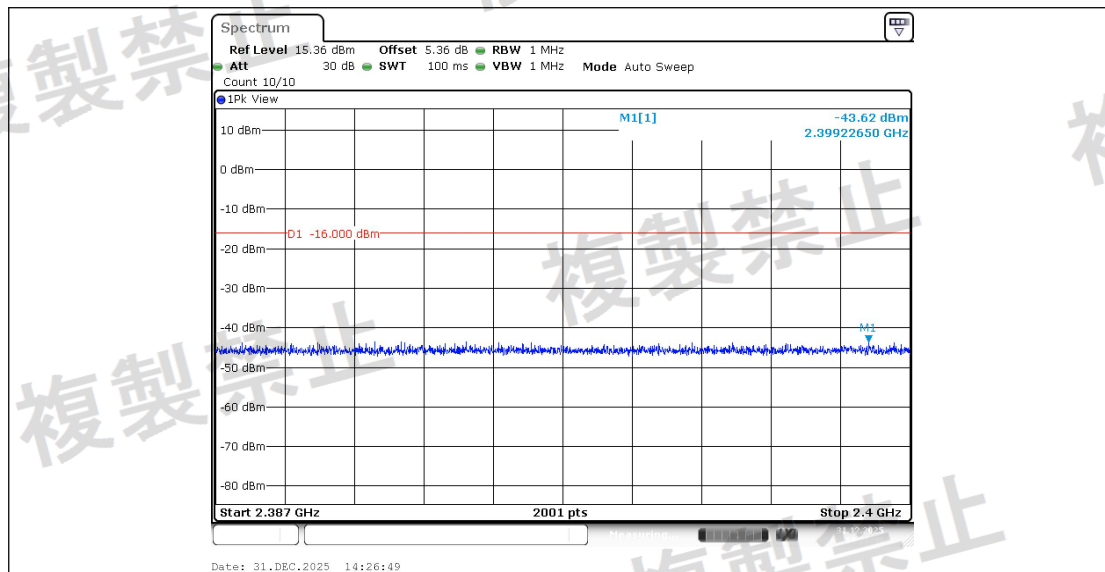


NTNV_BLE_1M_Ant1_2402_2496.5~13000

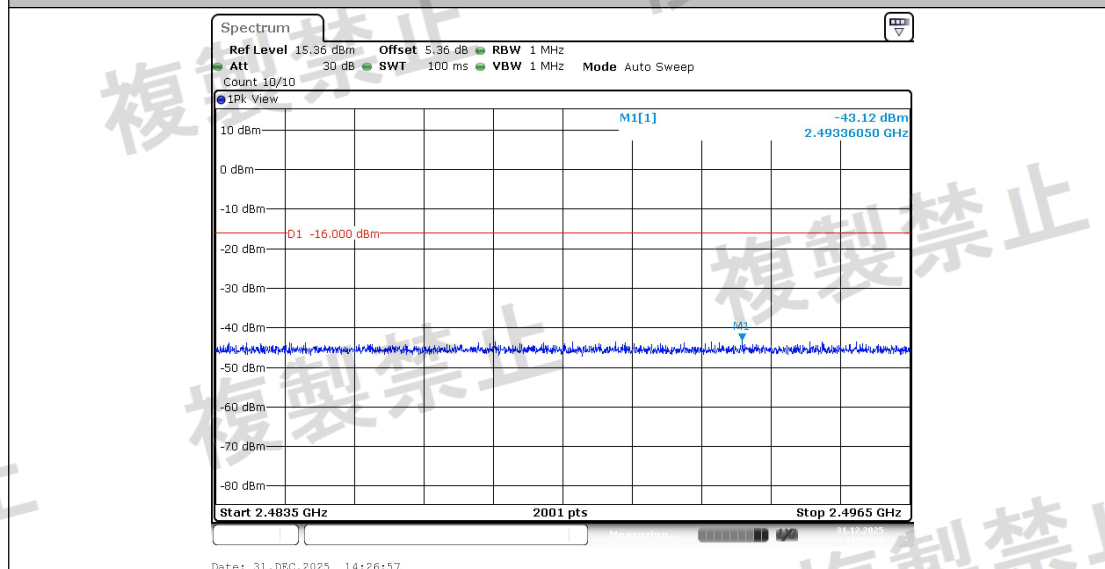




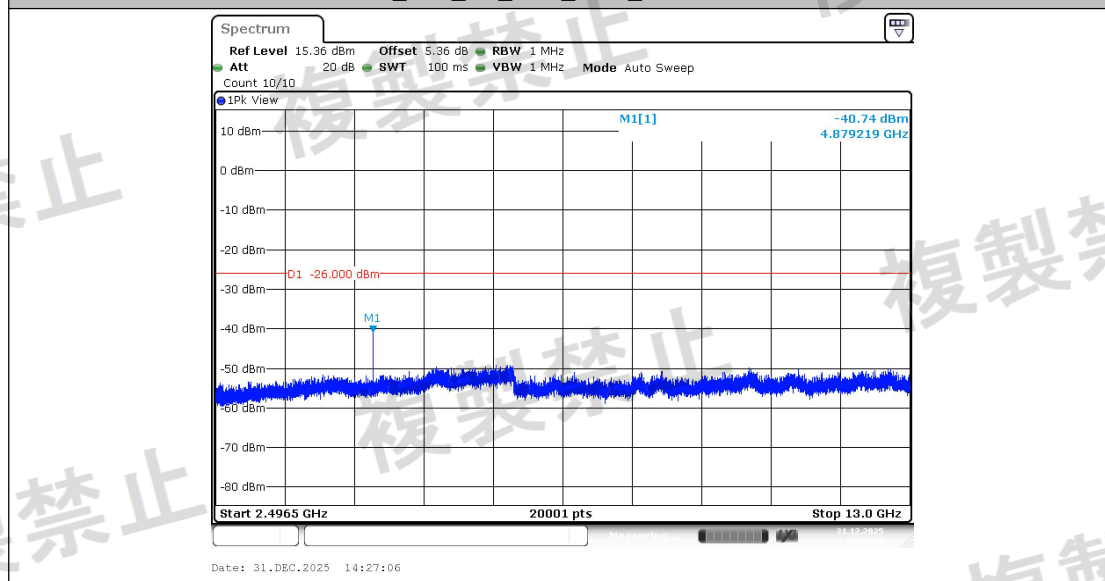
NTNV_BLE_1M_Ant1_2440_2387~2400

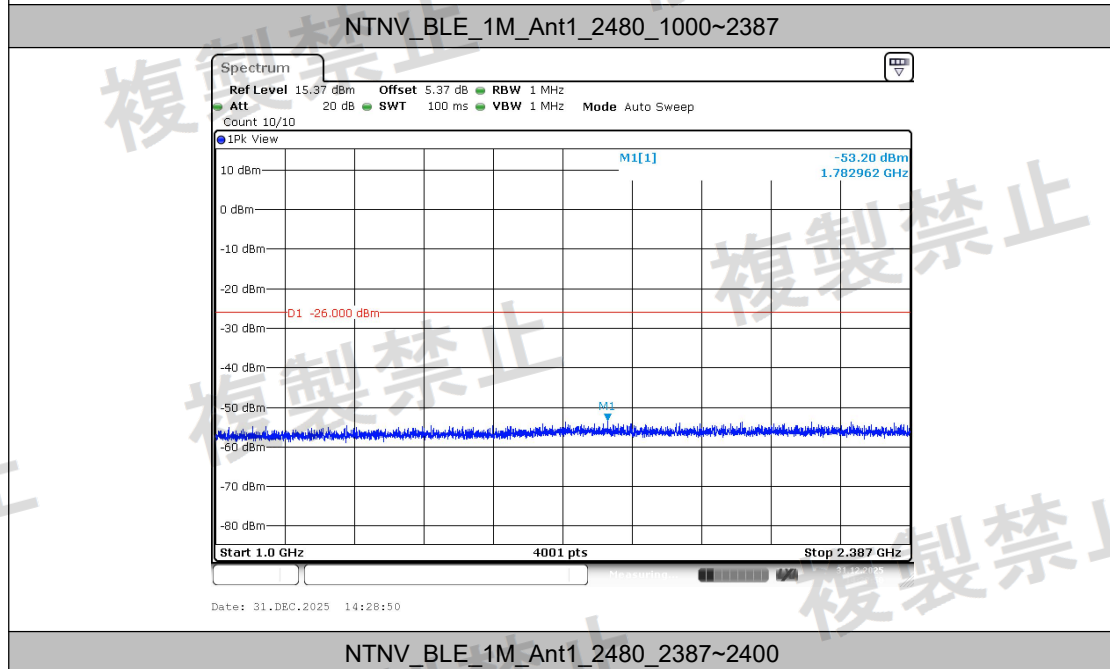
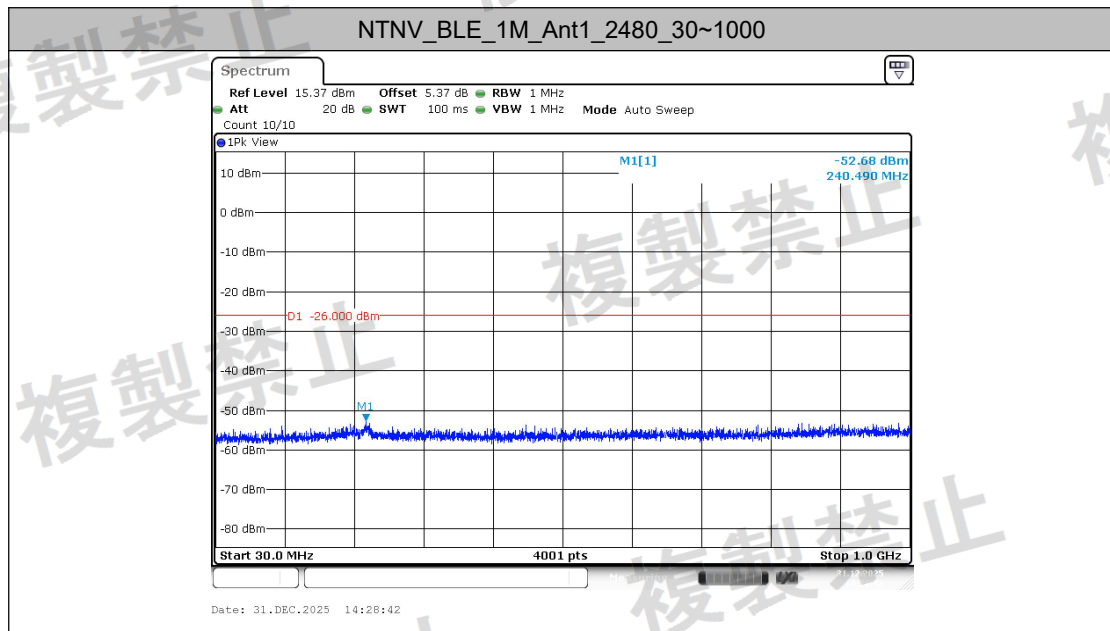


NTNV_BLE_1M_Ant1_2440_2483.5~2496.5

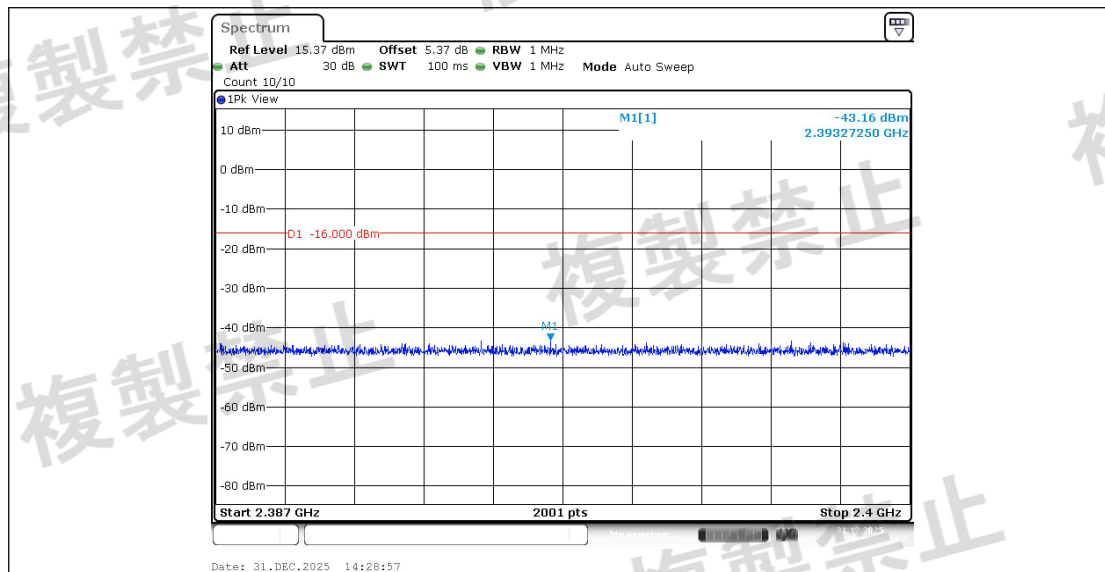


NTNV_BLE_1M_Ant1_2440_2496.5~13000

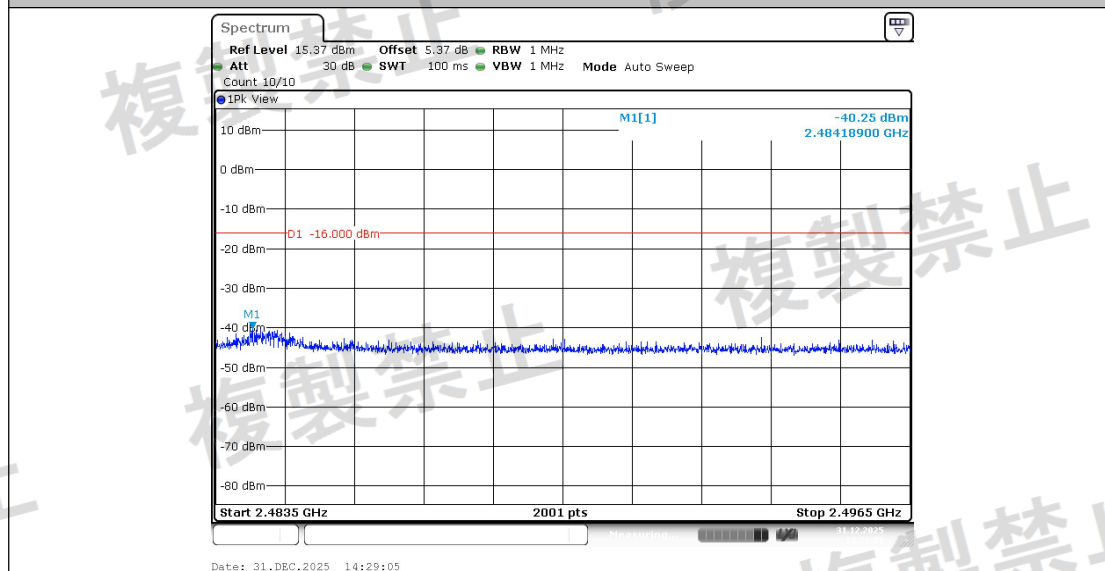




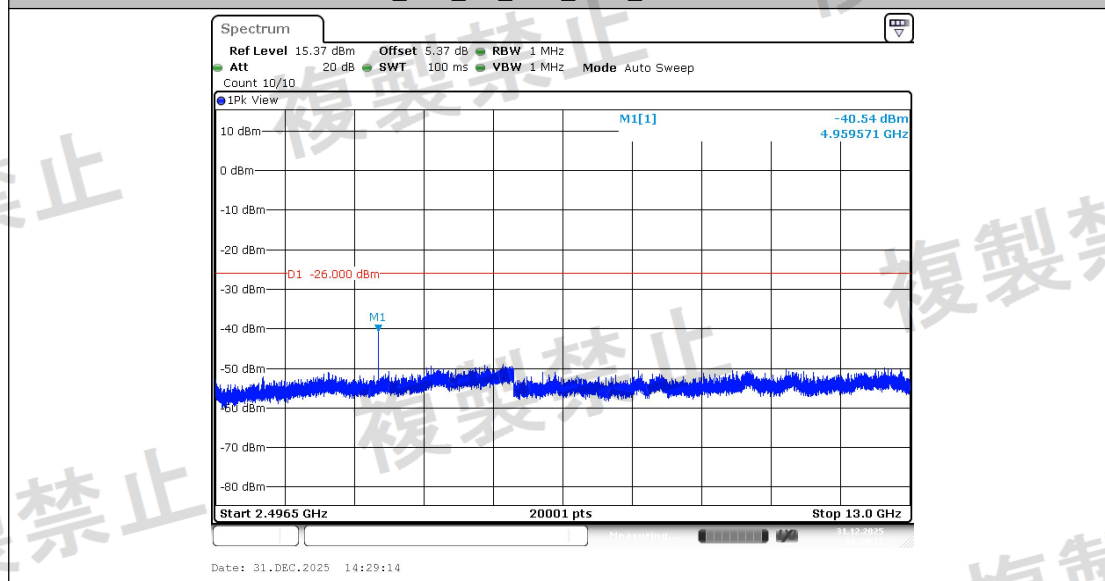
NTNV_BLE_1M_Ant1_2480_2387~2400



NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



NTNV_BLE_1M_Ant1_2480_2496.5~13000

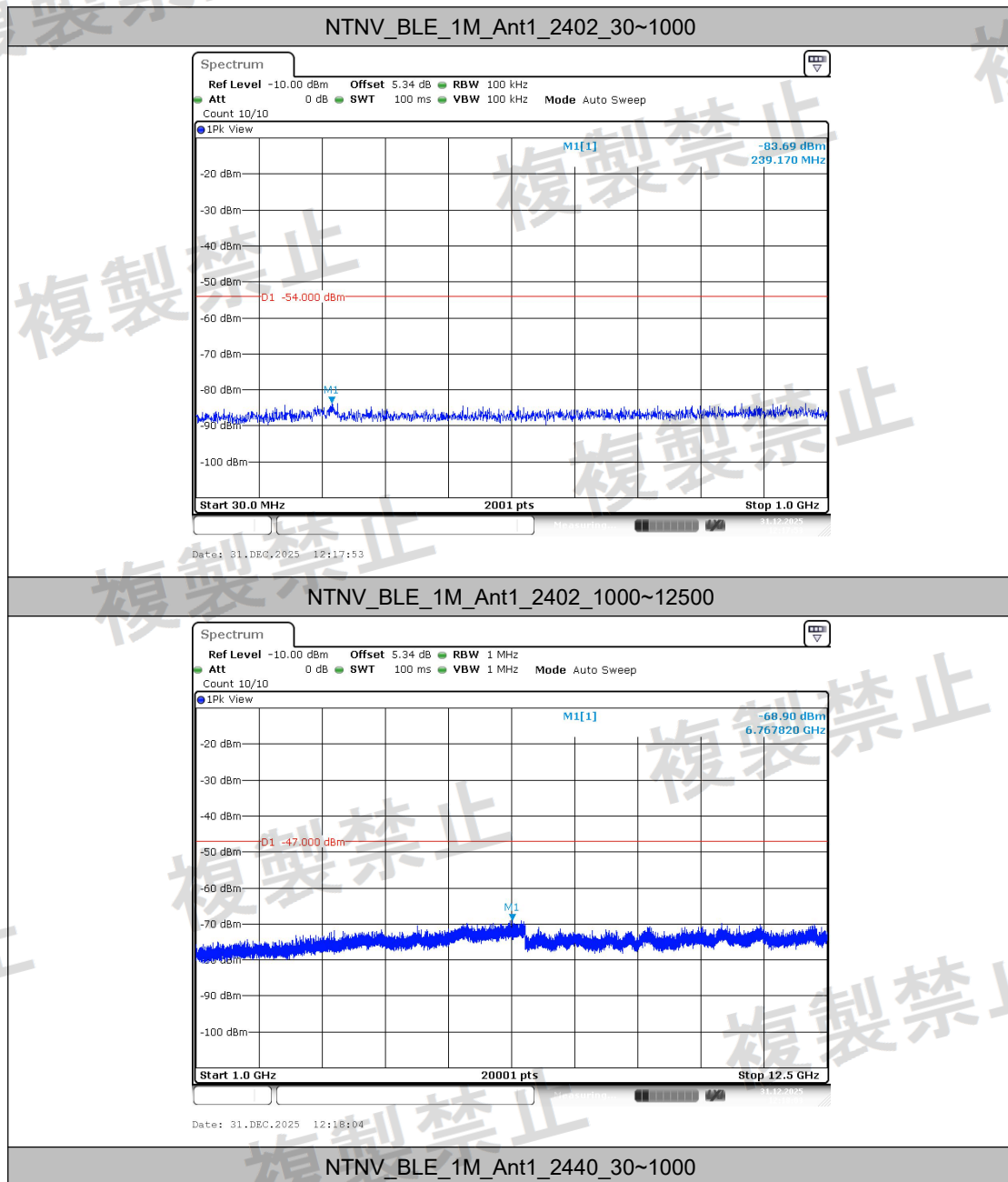


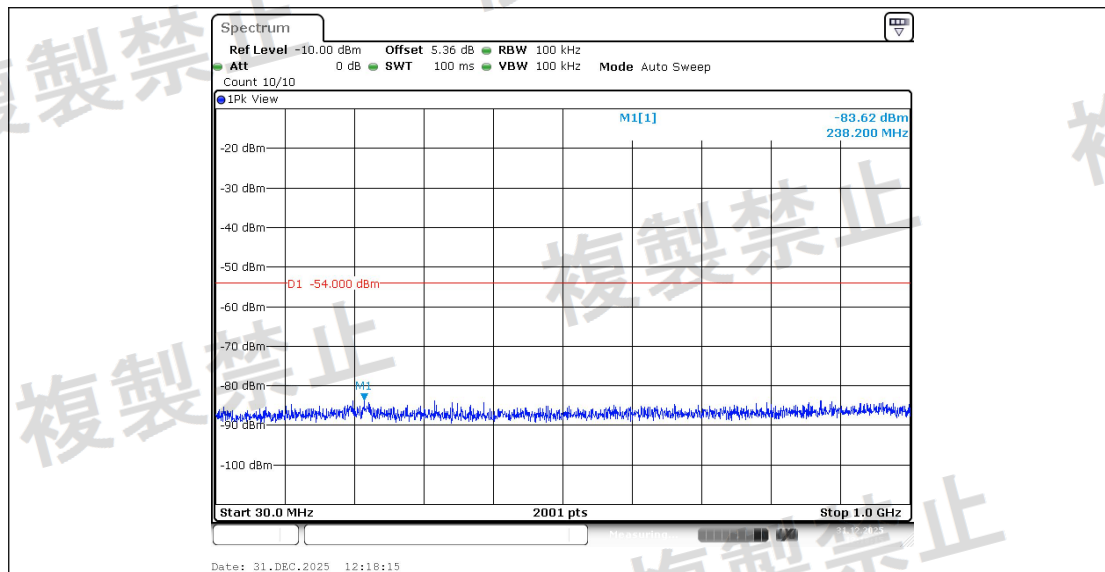
Appendix E: Spurious Emission of RX

Test Result

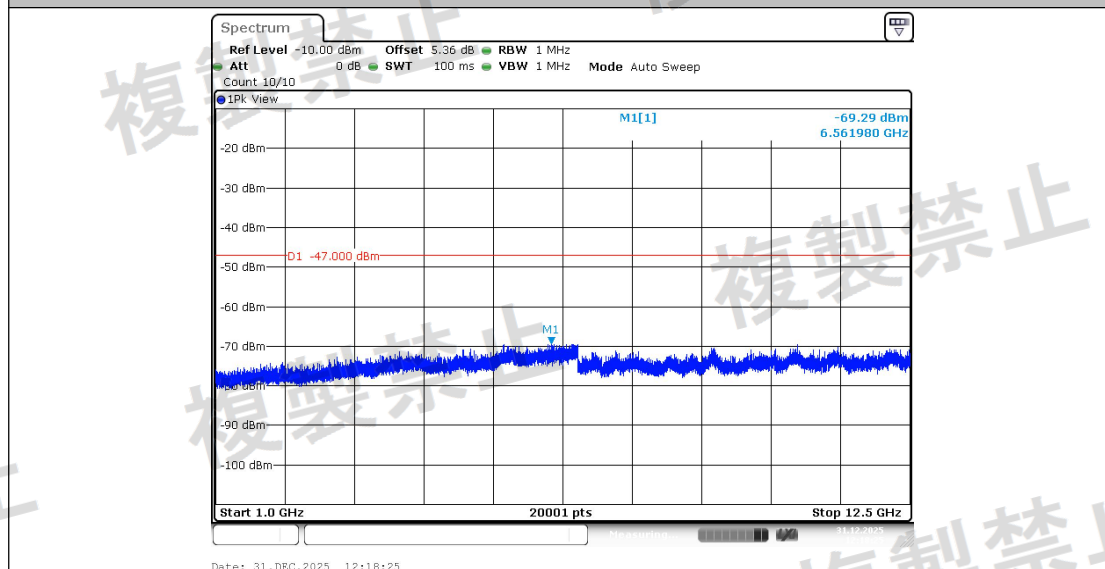
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	239.17	-83.69	≤-54	0.00428	≤4	PASS
				1000~12500	6767.82	-68.90	≤-47	0.12882	≤20	PASS
			2440	30~1000	238.20	-83.62	≤-54	0.00435	≤4	PASS
				1000~12500	6561.98	-69.29	≤-47	0.11776	≤20	PASS
			2480	30~1000	904.26	-83.75	≤-54	0.00422	≤4	PASS
				1000~12500	6854.64	-68.61	≤-47	0.13772	≤20	PASS

Test Graphs





NTVN_BLE_1M_Ant1_2440_1000~12500



NTVN_BLE_1M_Ant1_2480_30~1000

