

Appendix RF Test Data for BLE

Company : Artec Co.,Ltd.

EUT : microphone with built-in speaker

Model Number : 52313

Report No. : CTA26040700801

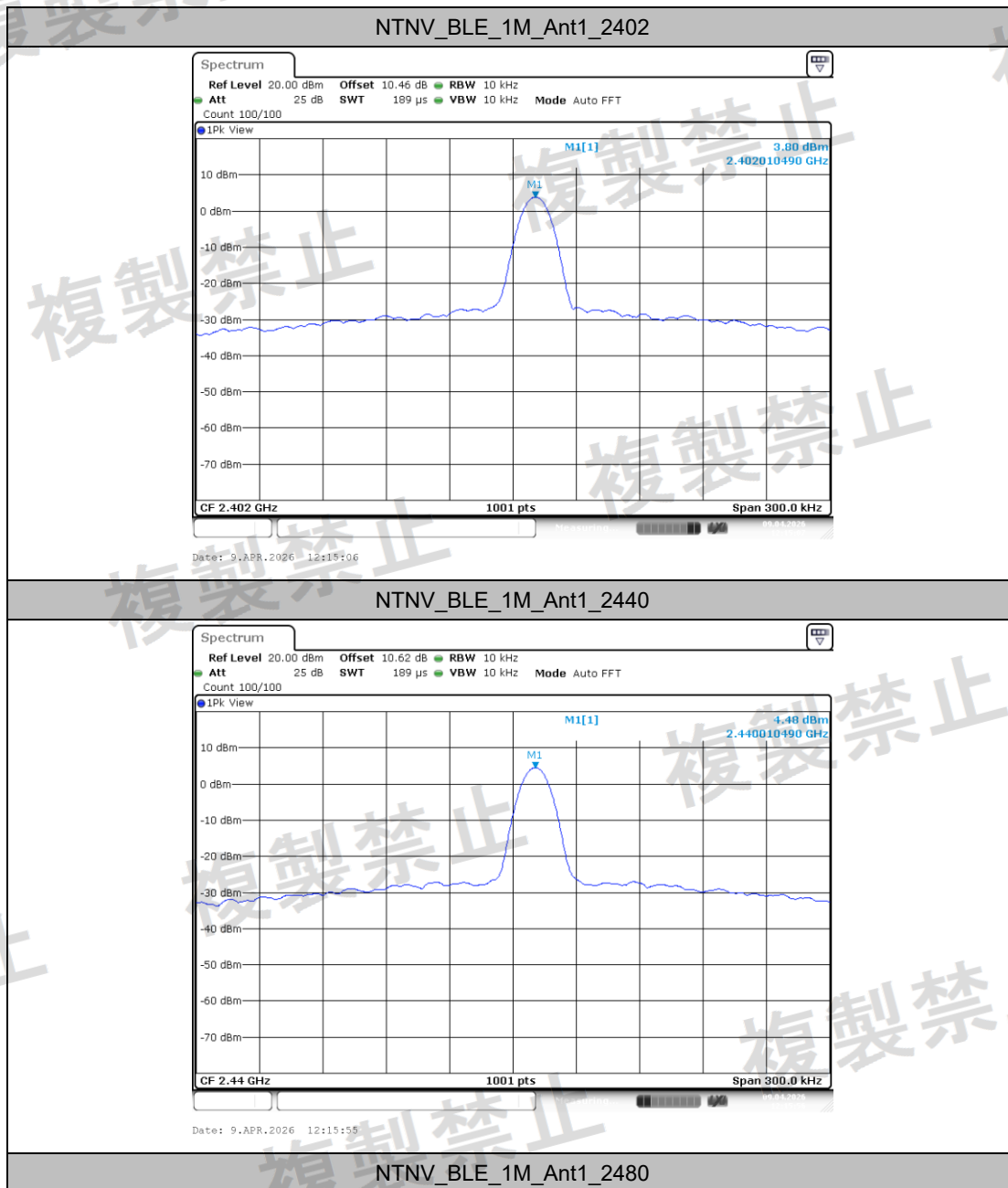
Reviewed By : Eric Wang

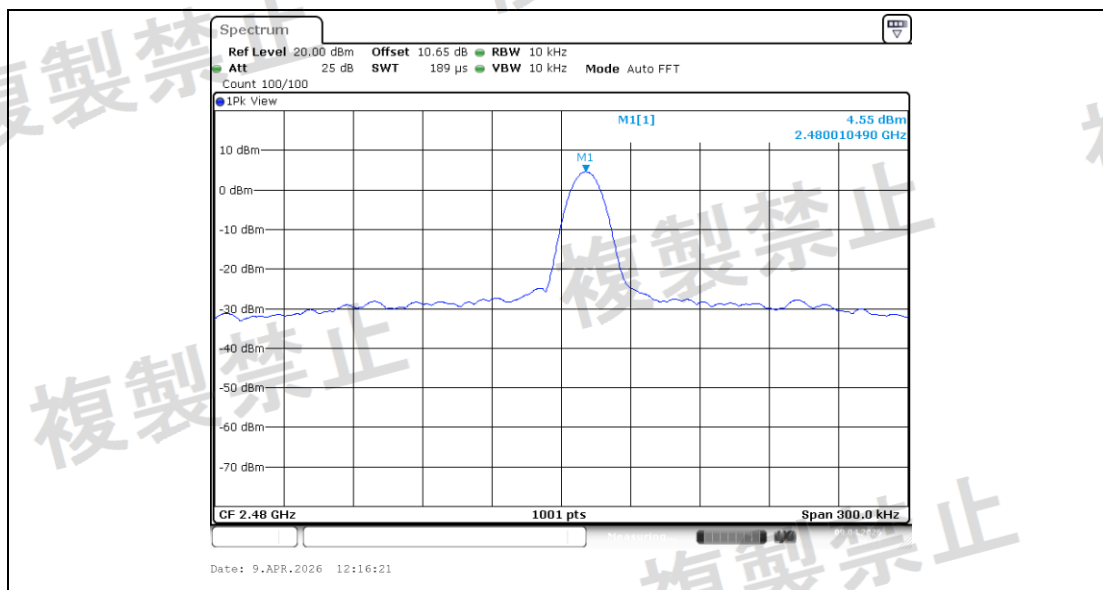
Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.36719	±50	PASS
			2440	4.29918	±50	PASS
			2480	4.22984	±50	PASS

Test Graphs



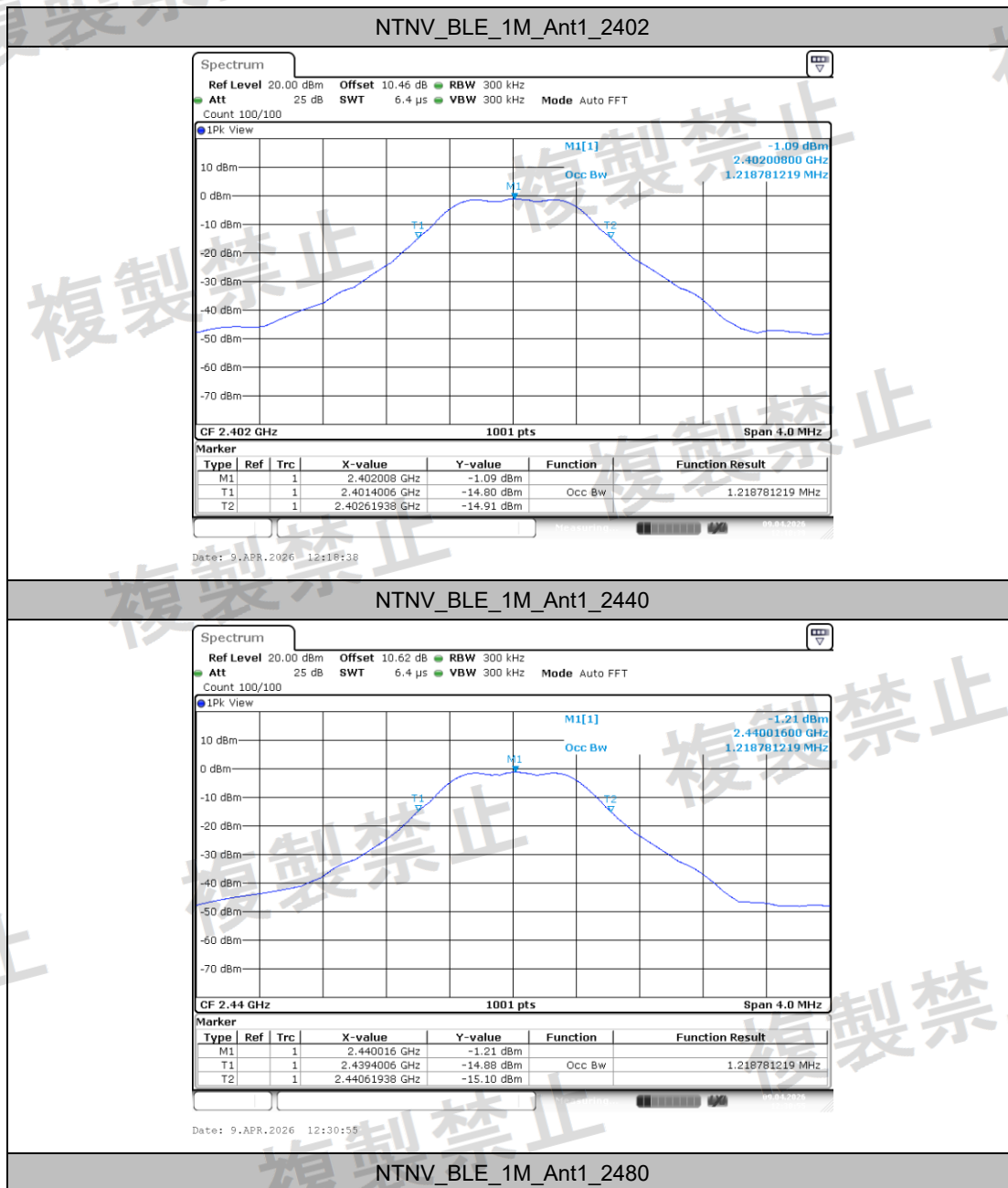


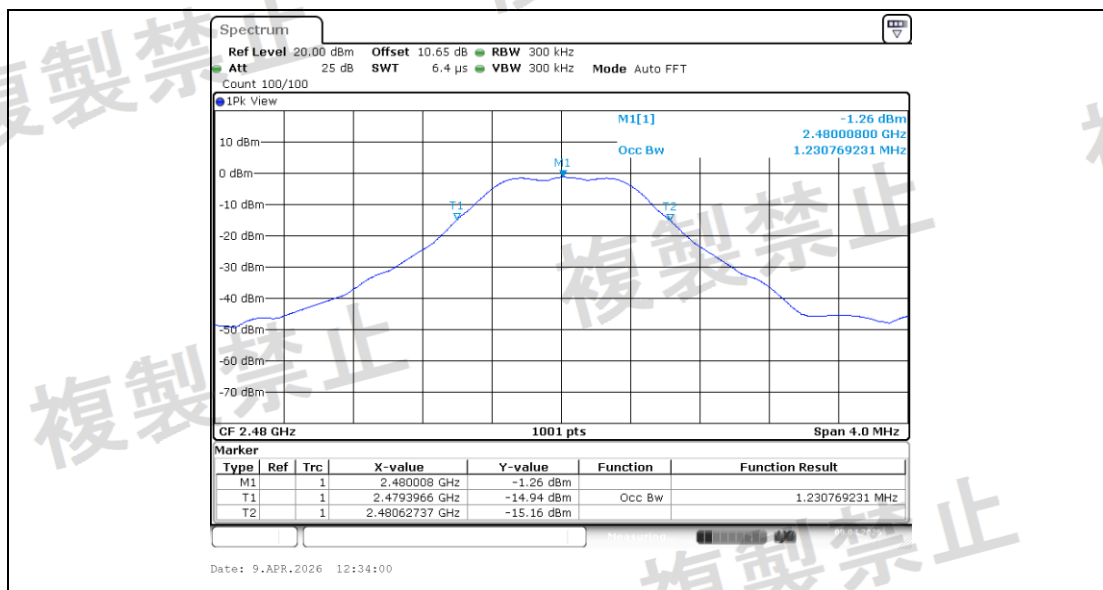
Appendix B: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.219	≤26	PASS
			2440	1.219	≤26	PASS
			2480	1.231	≤26	PASS

Test Graphs



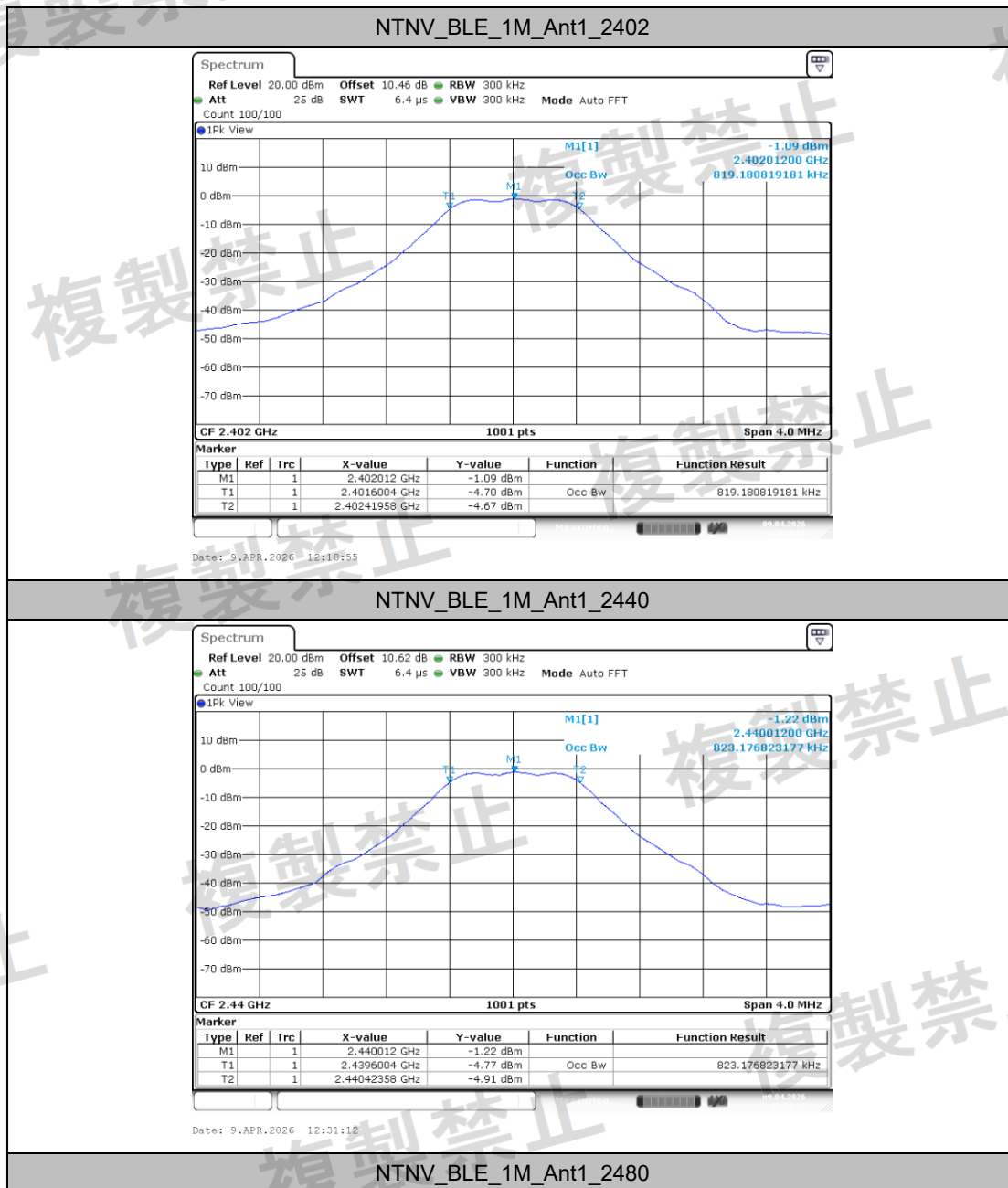


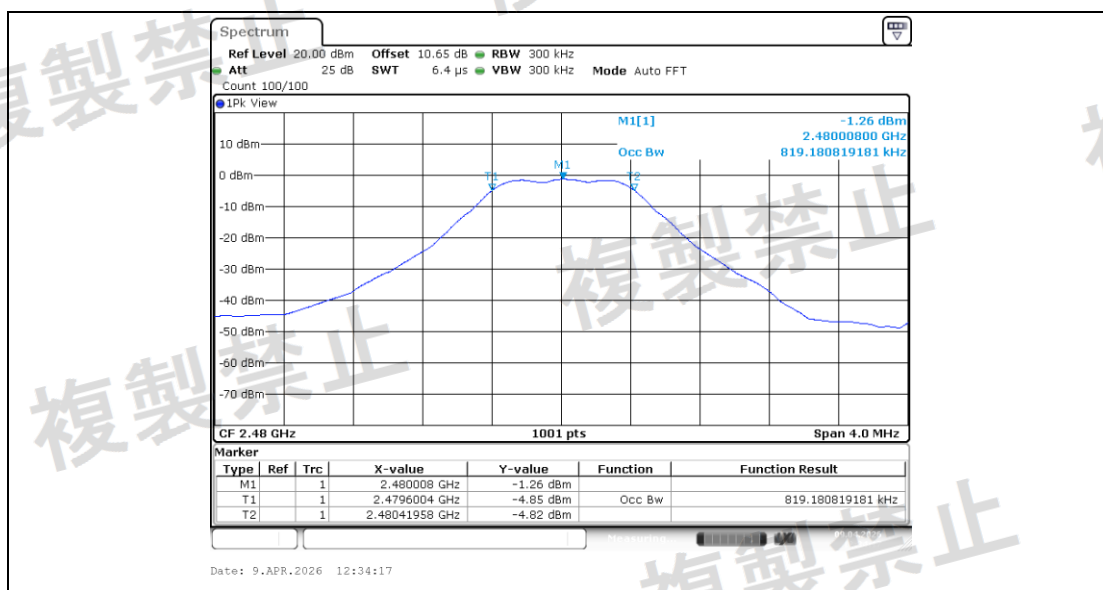
Appendix C: Spread Bandwidth

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



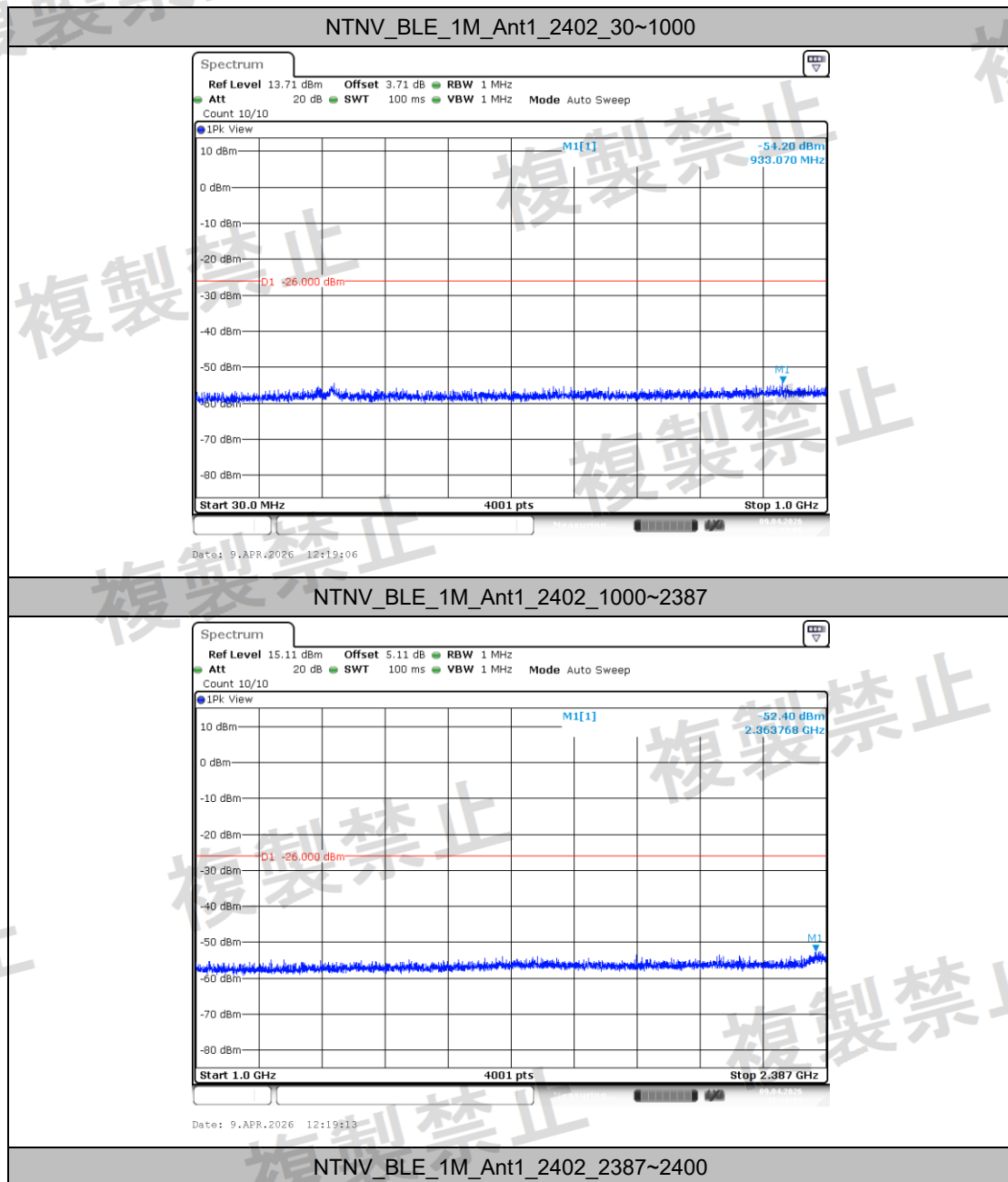


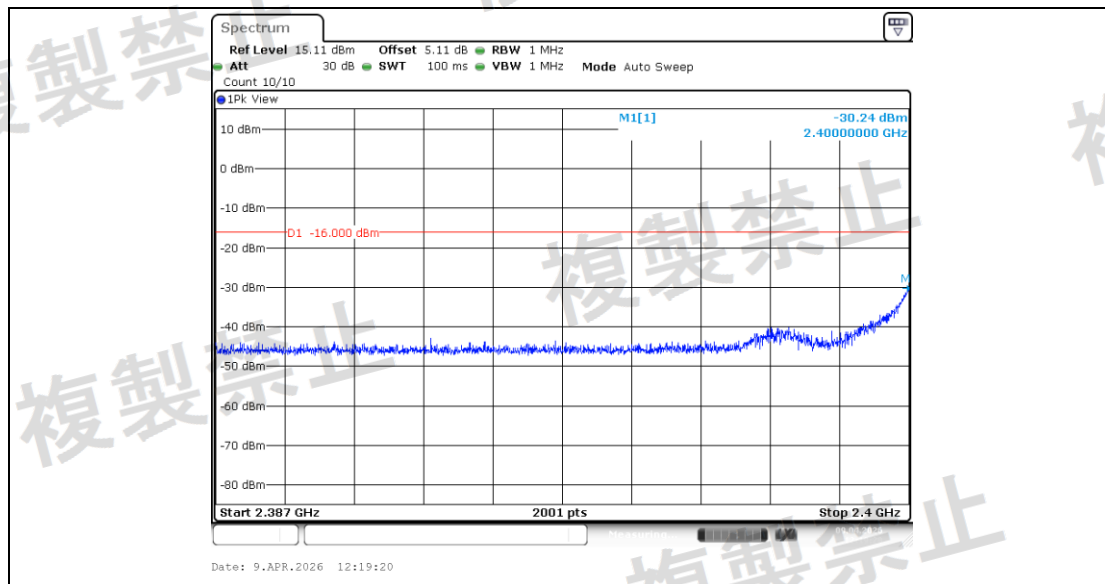
Appendix D: Spurious Emission of TX

Test Result

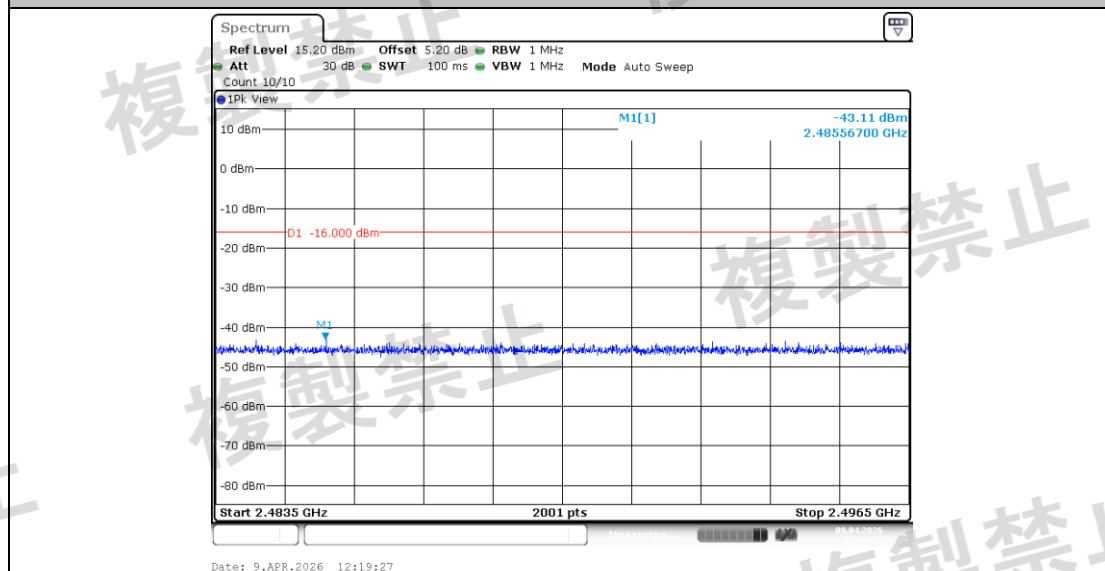
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	933.07	-54.20	≤-26	0.00380	≤2.5	PASS
				1000~2387	2363.77	-52.40	≤-26	0.00575	≤2.5	PASS
				2387~2400	2400.00	-30.24	≤-16	0.94624	≤25	PASS
				2483.5~2496.5	2485.57	-43.11	≤-16	0.04887	≤25	PASS
				2496.5~13000	4804.12	-36.09	≤-26	0.24604	≤2.5	PASS
			2440	30~1000	506.27	-54.16	≤-26	0.00384	≤2.5	PASS
				1000~2387	1629.70	-53.45	≤-26	0.00452	≤2.5	PASS
				2387~2400	2390.43	-43.73	≤-16	0.04236	≤25	PASS
				2483.5~2496.5	2490.54	-42.95	≤-16	0.05070	≤25	PASS
				2496.5~13000	4879.74	-36.56	≤-26	0.22080	≤2.5	PASS
			2480	30~1000	910.76	-54.57	≤-26	0.00349	≤2.5	PASS
				1000~2387	2020.14	-53.79	≤-26	0.00418	≤2.5	PASS
				2387~2400	2390.41	-43.79	≤-16	0.04178	≤25	PASS
				2483.5~2496.5	2484.48	-39.61	≤-16	0.10940	≤25	PASS
				2496.5~13000	4960.10	-36.24	≤-26	0.23768	≤2.5	PASS

Test Graphs

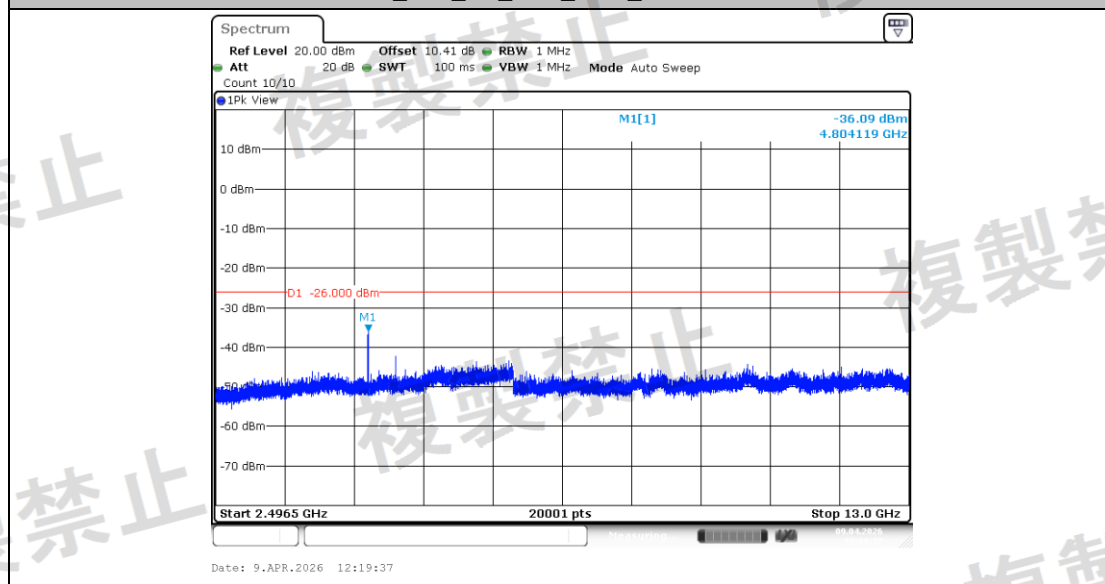


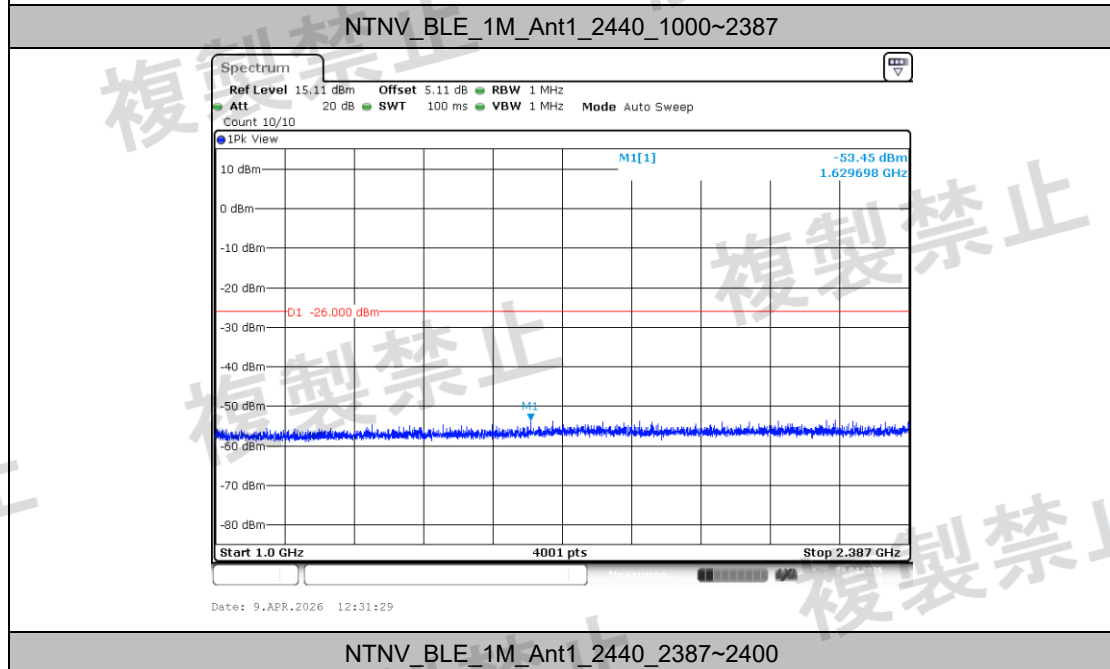
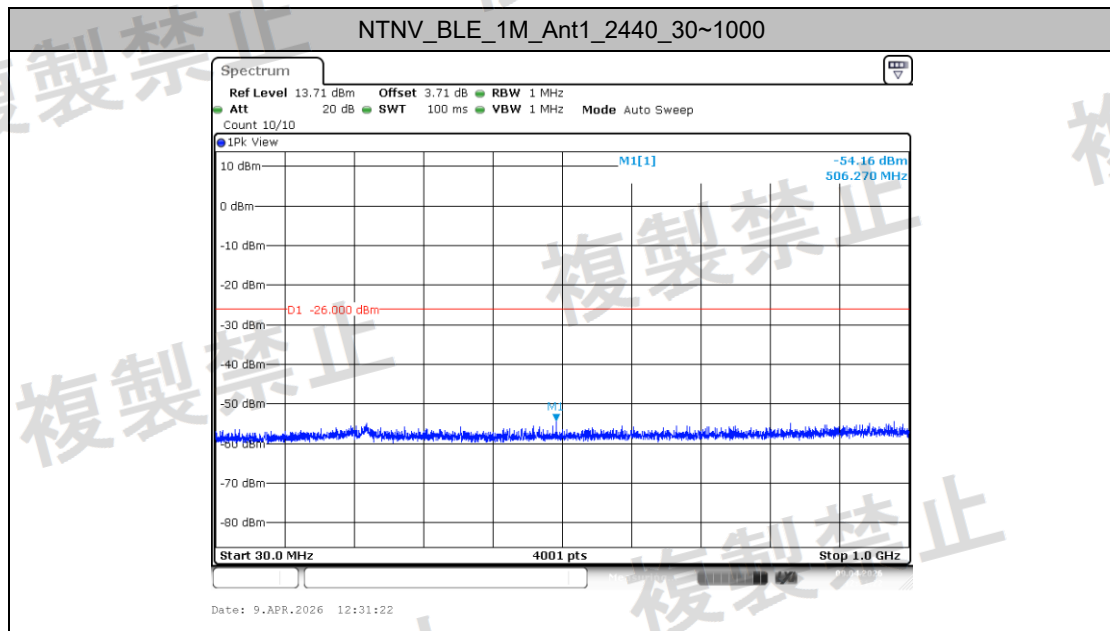


NTNV_BLE_1M_Ant1_2402_2483.5~2496.5

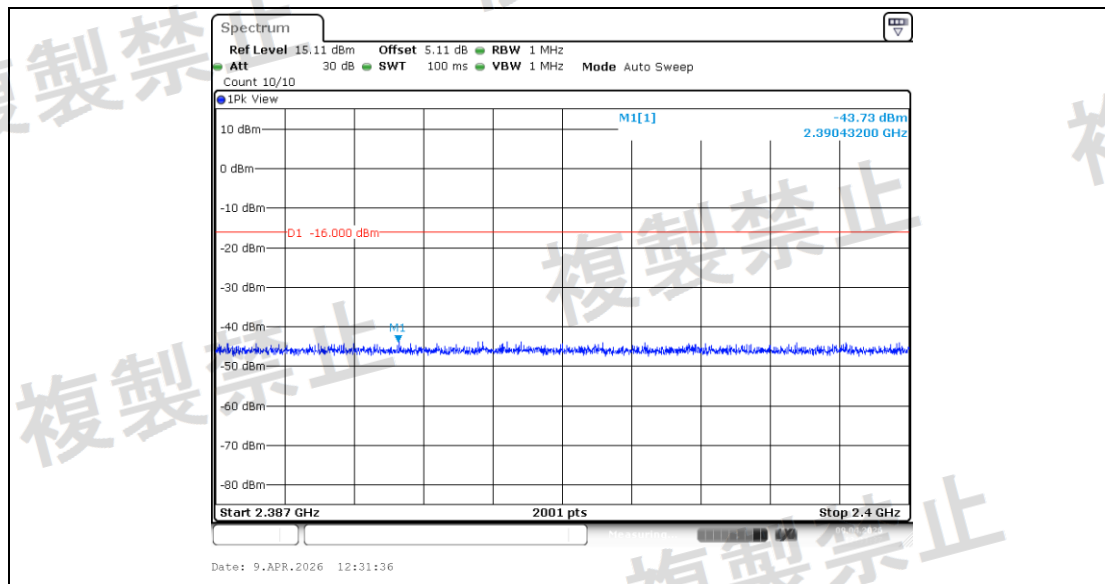


NTNV_BLE_1M_Ant1_2402_2496.5~13000

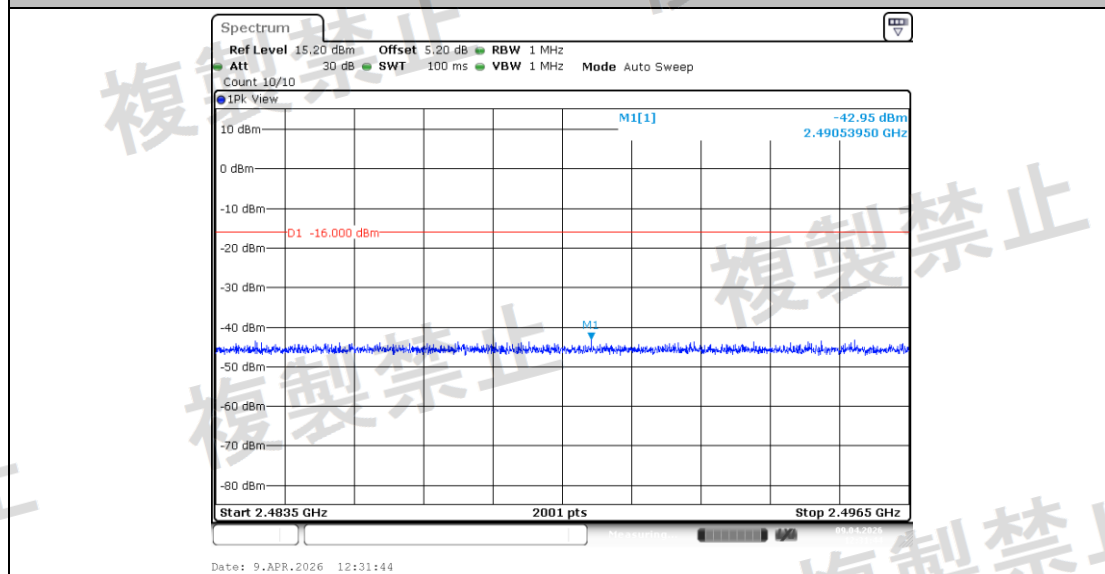




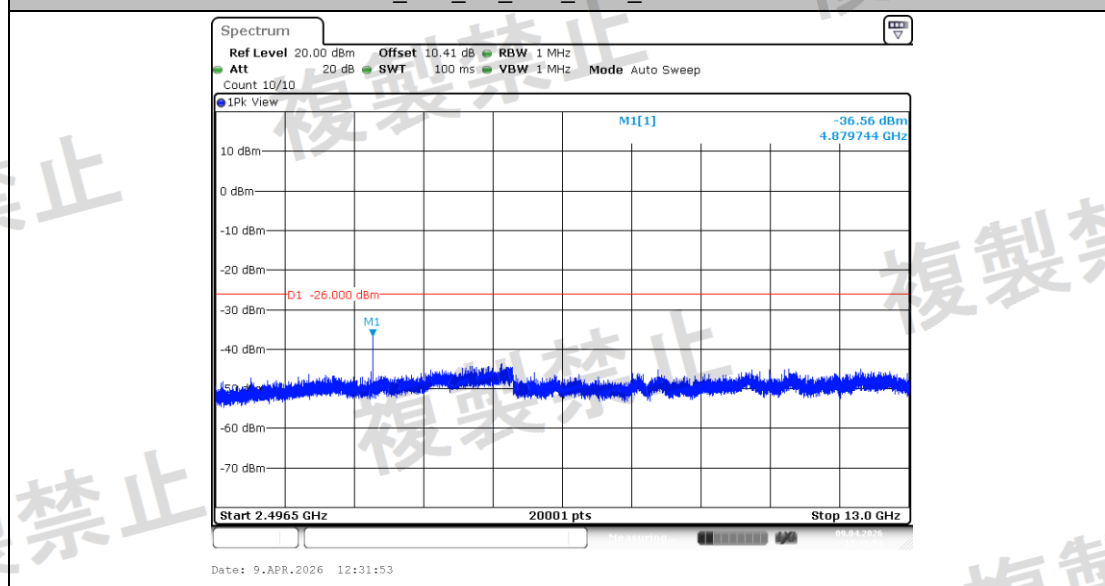
NTNV_BLE_1M_Ant1_2440_2387~2400

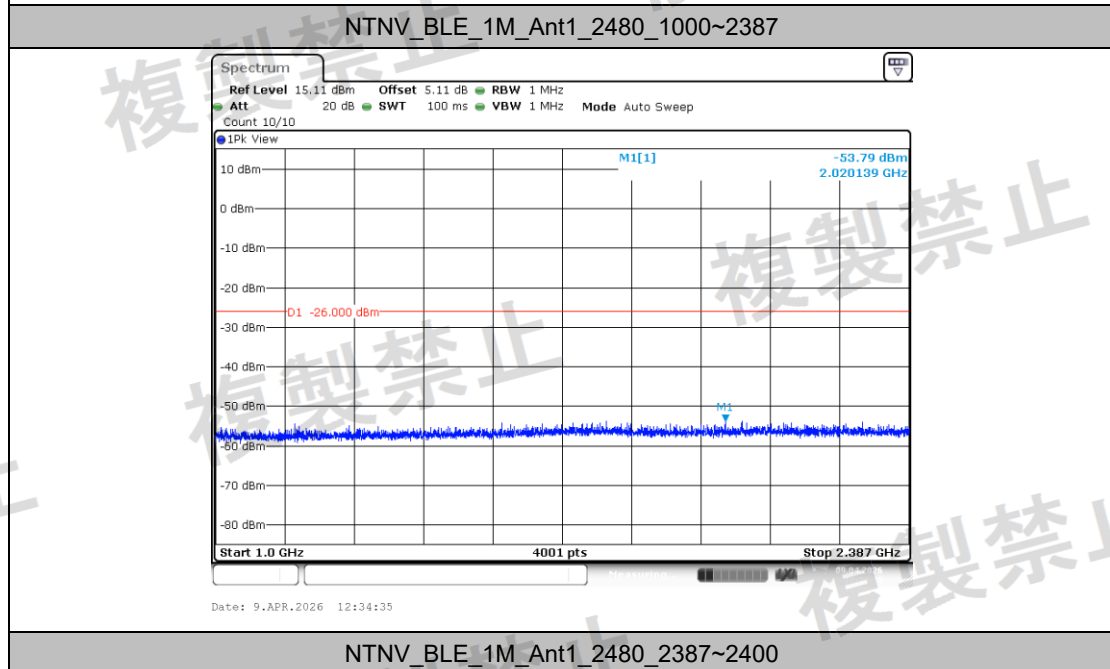
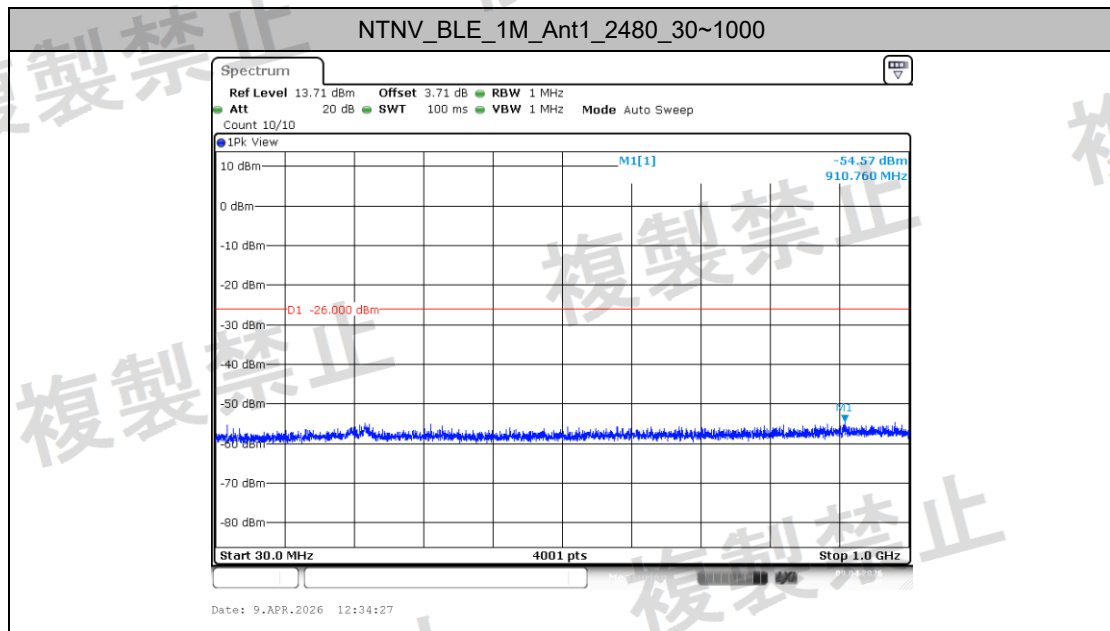


NTNV_BLE_1M_Ant1_2440_2483.5~2496.5

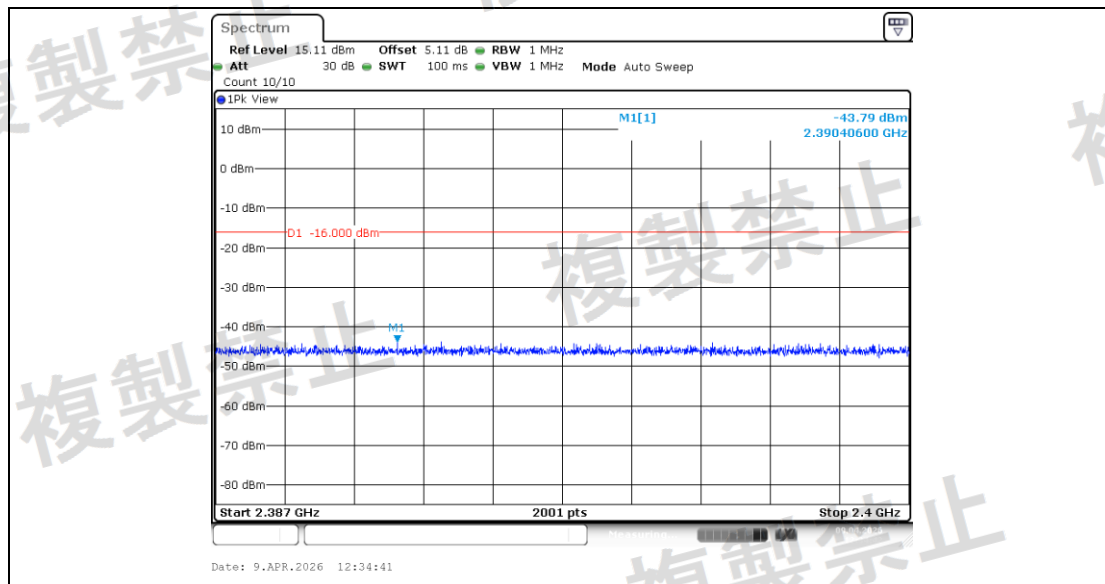


NTNV_BLE_1M_Ant1_2440_2496.5~13000

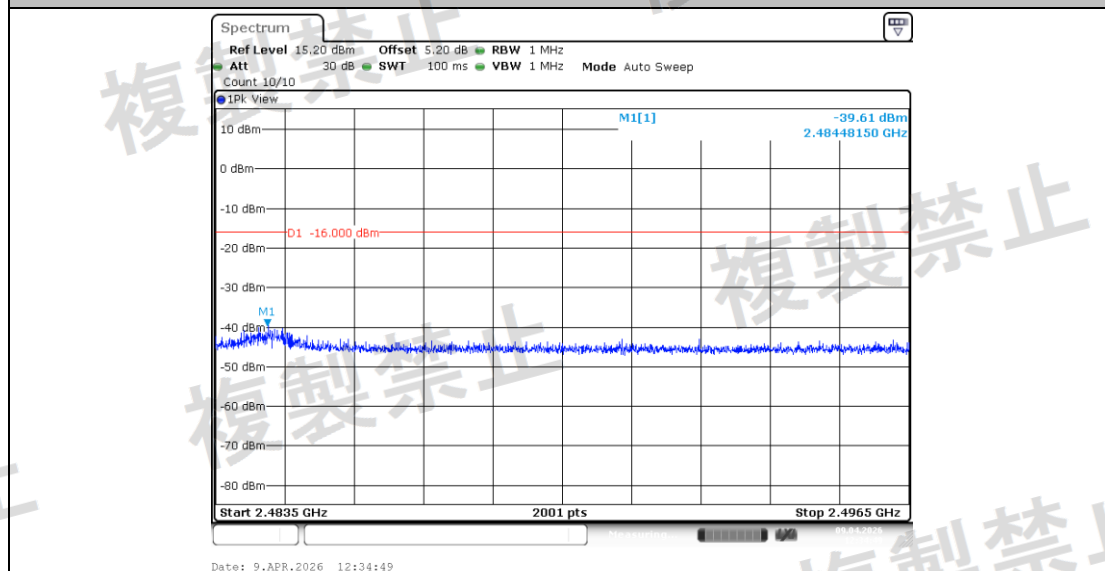




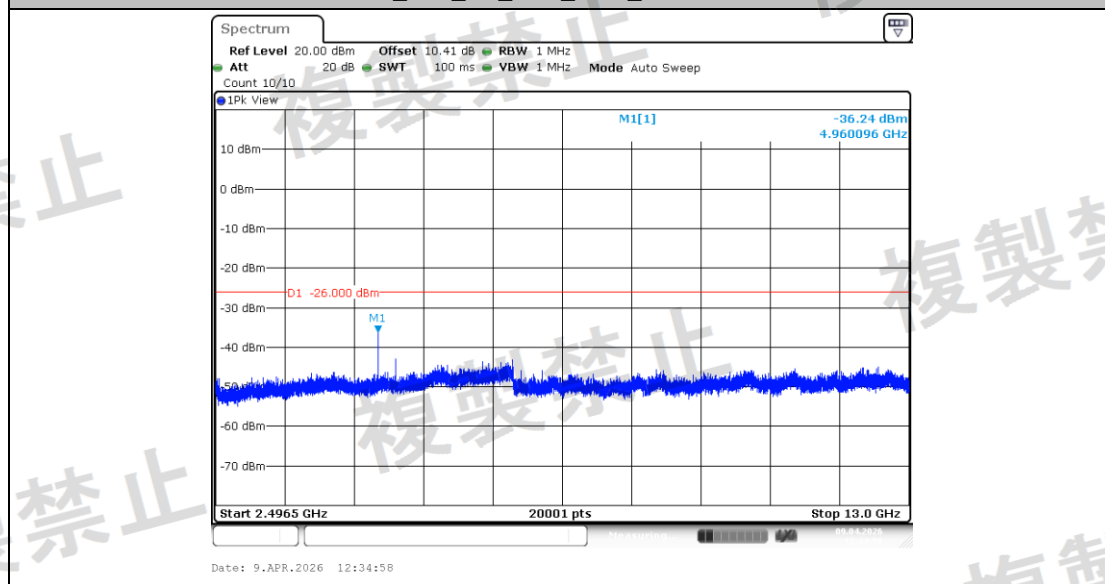
NTNV_BLE_1M_Ant1_2480_2387~2400



NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



NTNV_BLE_1M_Ant1_2480_2496.5~13000

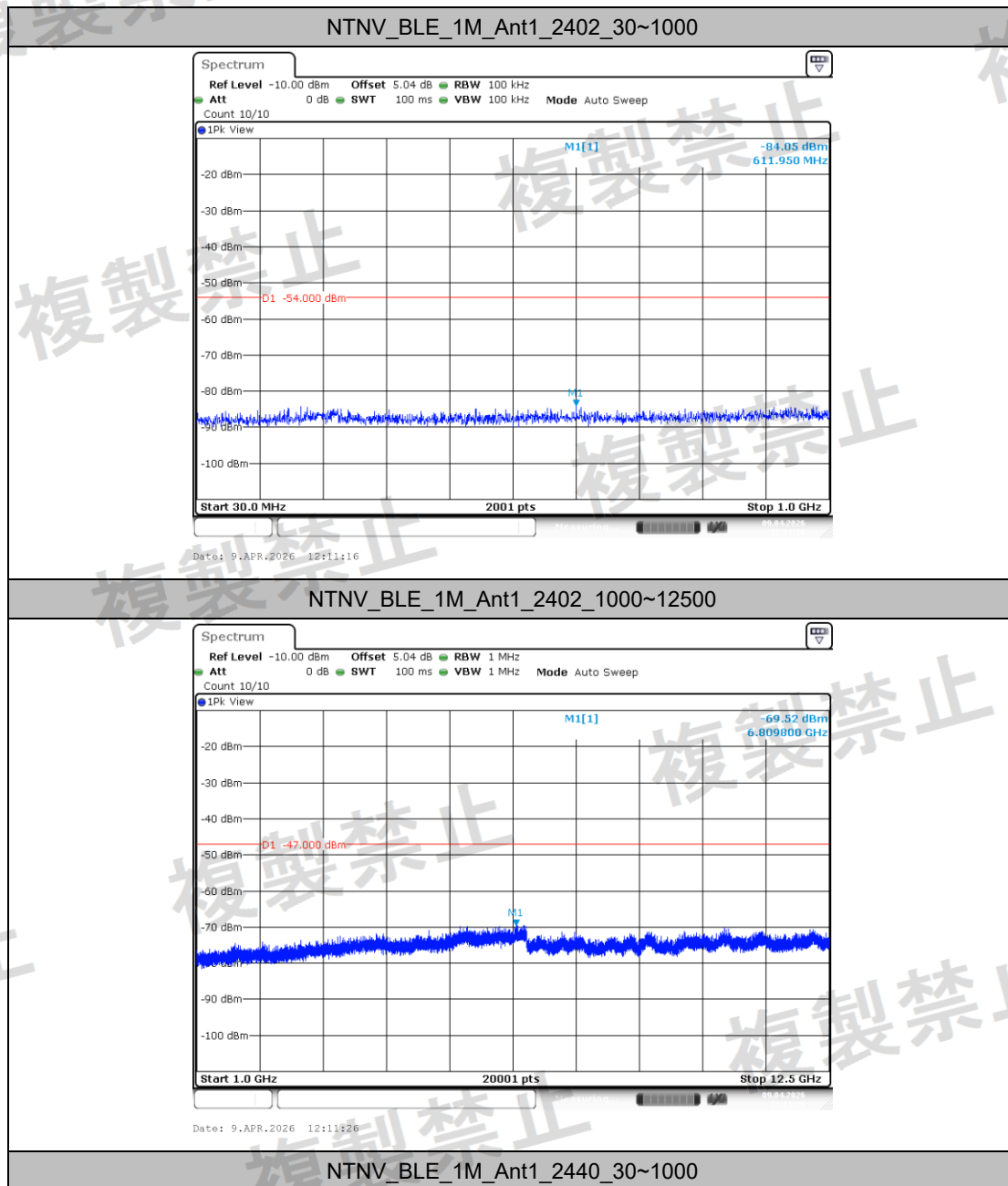


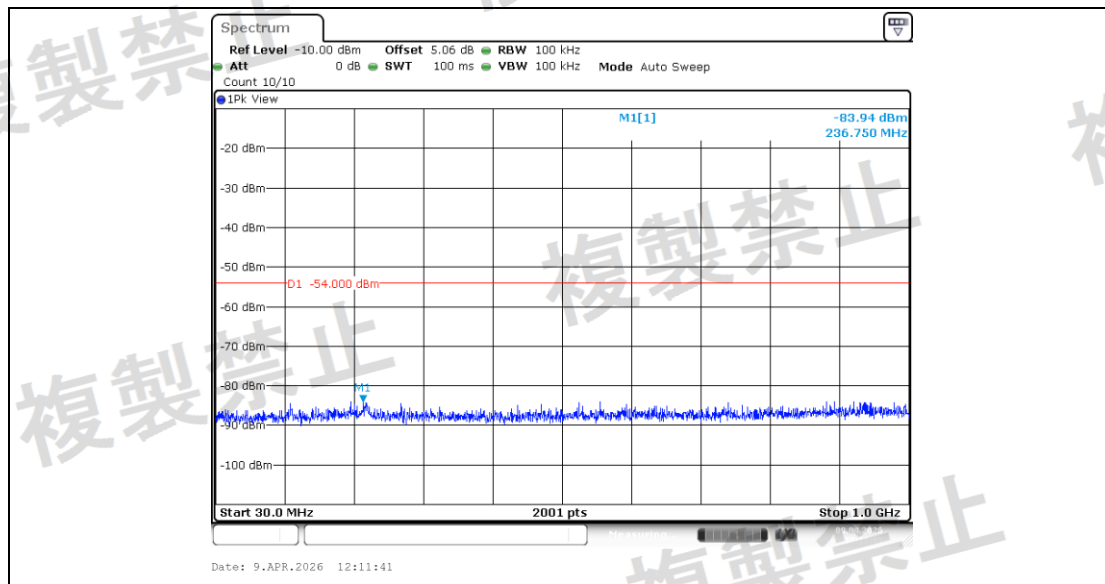
Appendix E: Spurious Emission of RX

Test Result

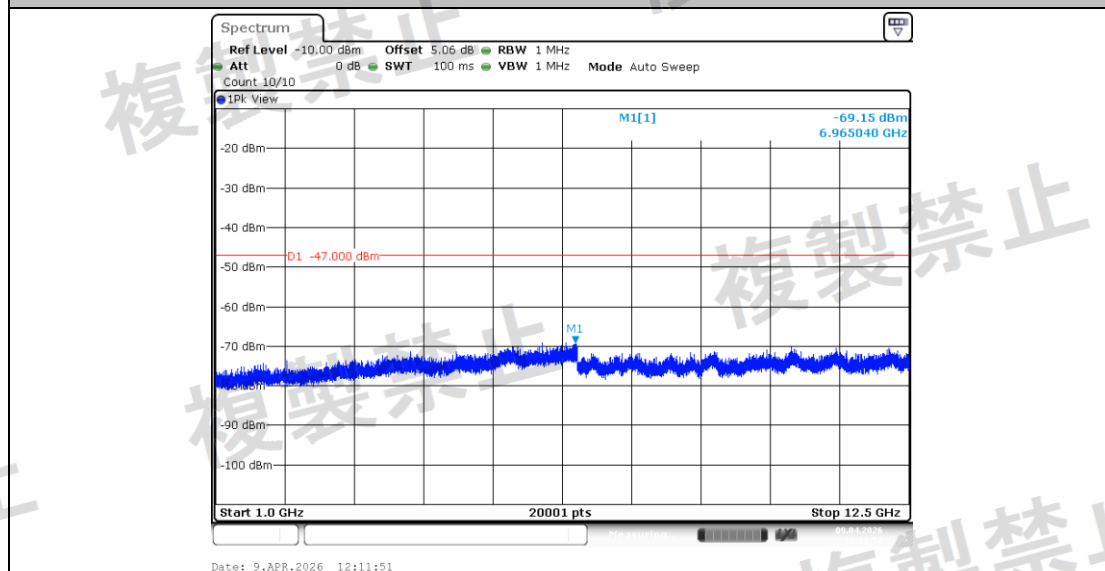
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	611.95	-84.05	≤-54	0.00394	≤4	PASS
				1000~12500	6809.80	-69.52	≤-47	0.11169	≤20	PASS
			2440	30~1000	236.75	-83.94	≤-54	0.00404	≤4	PASS
				1000~12500	6965.04	-69.15	≤-47	0.12162	≤20	PASS
			2480	30~1000	798.58	-83.24	≤-54	0.00474	≤4	PASS
				1000~12500	11214.08	-69.38	≤-47	0.11535	≤20	PASS

Test Graphs





NTNV_BLE_1M_Ant1_2440_1000~12500



NTNV_BLE_1M_Ant1_2480_30~1000

