

Appendix RF Test Data for BLE

Company : ONKYO Corporation

EUT : NAIST-BT-TAG2

Model Number : NAIST-BT-TAG2

Report No. : CTA25090300701

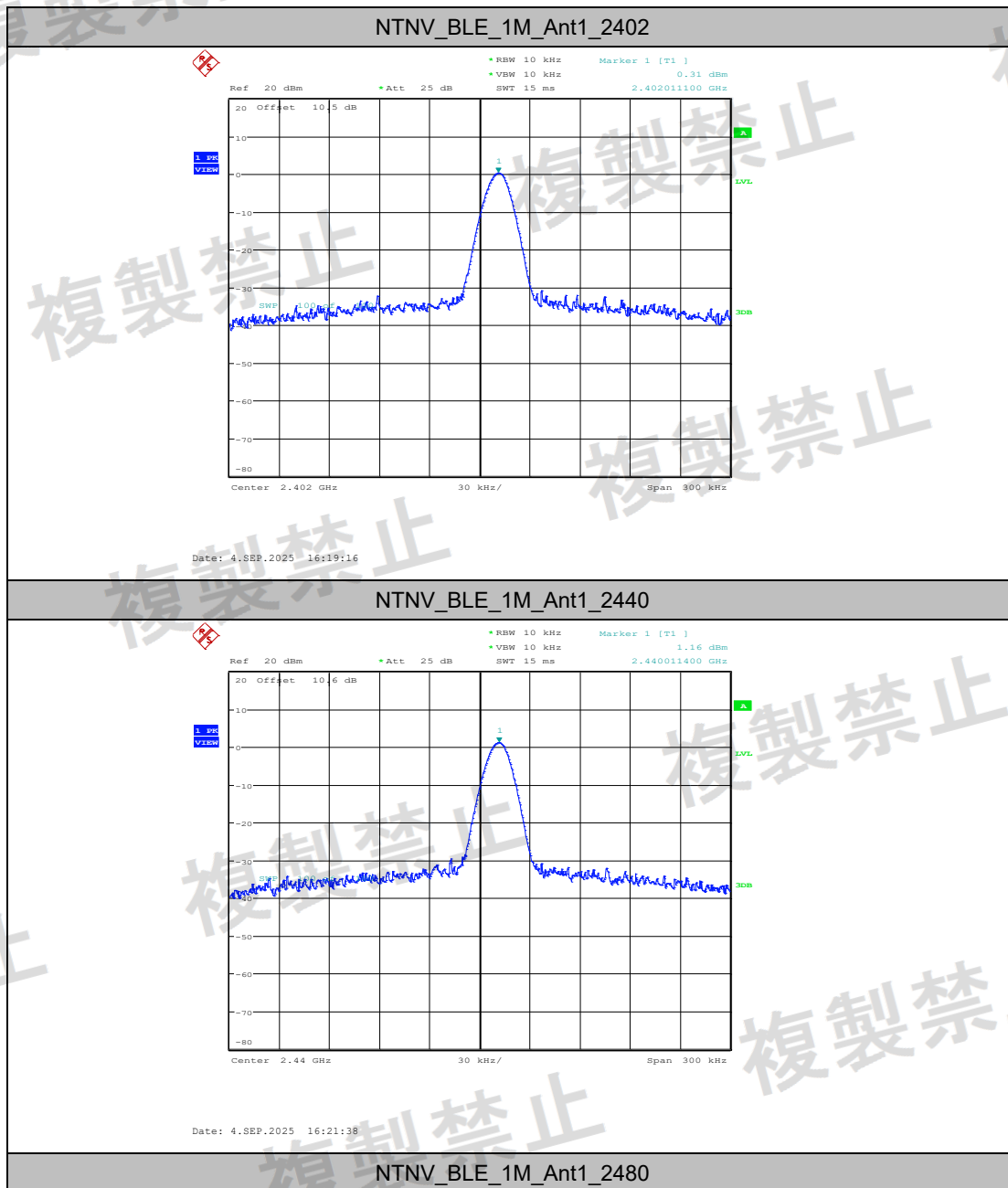
Reviewed By : Eric Wang

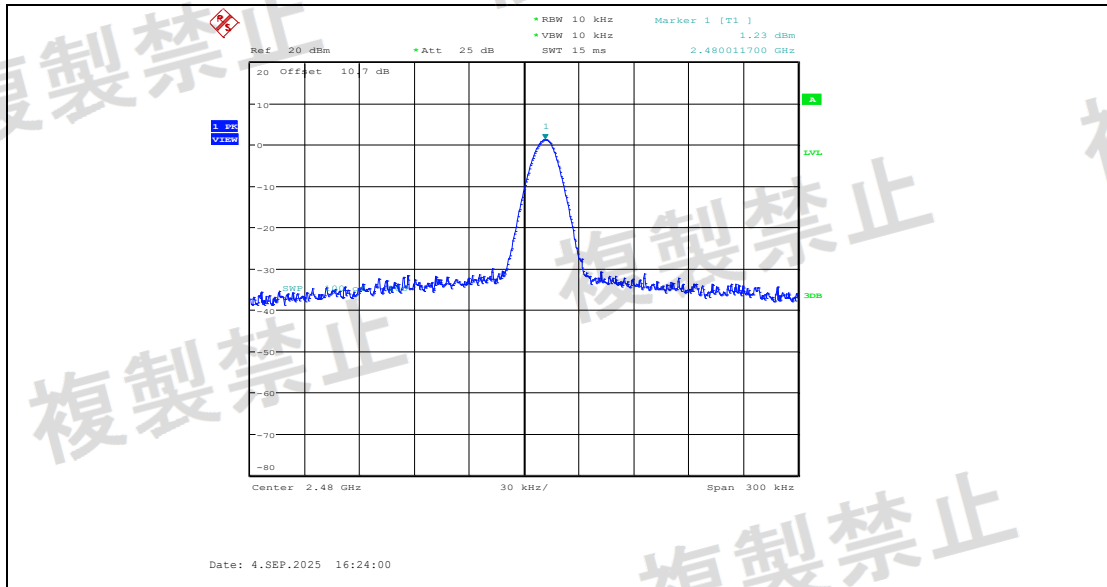
Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.62115	±50	PASS
			2440	4.67213	±50	PASS
			2480	4.71774	±50	PASS

Test Graphs



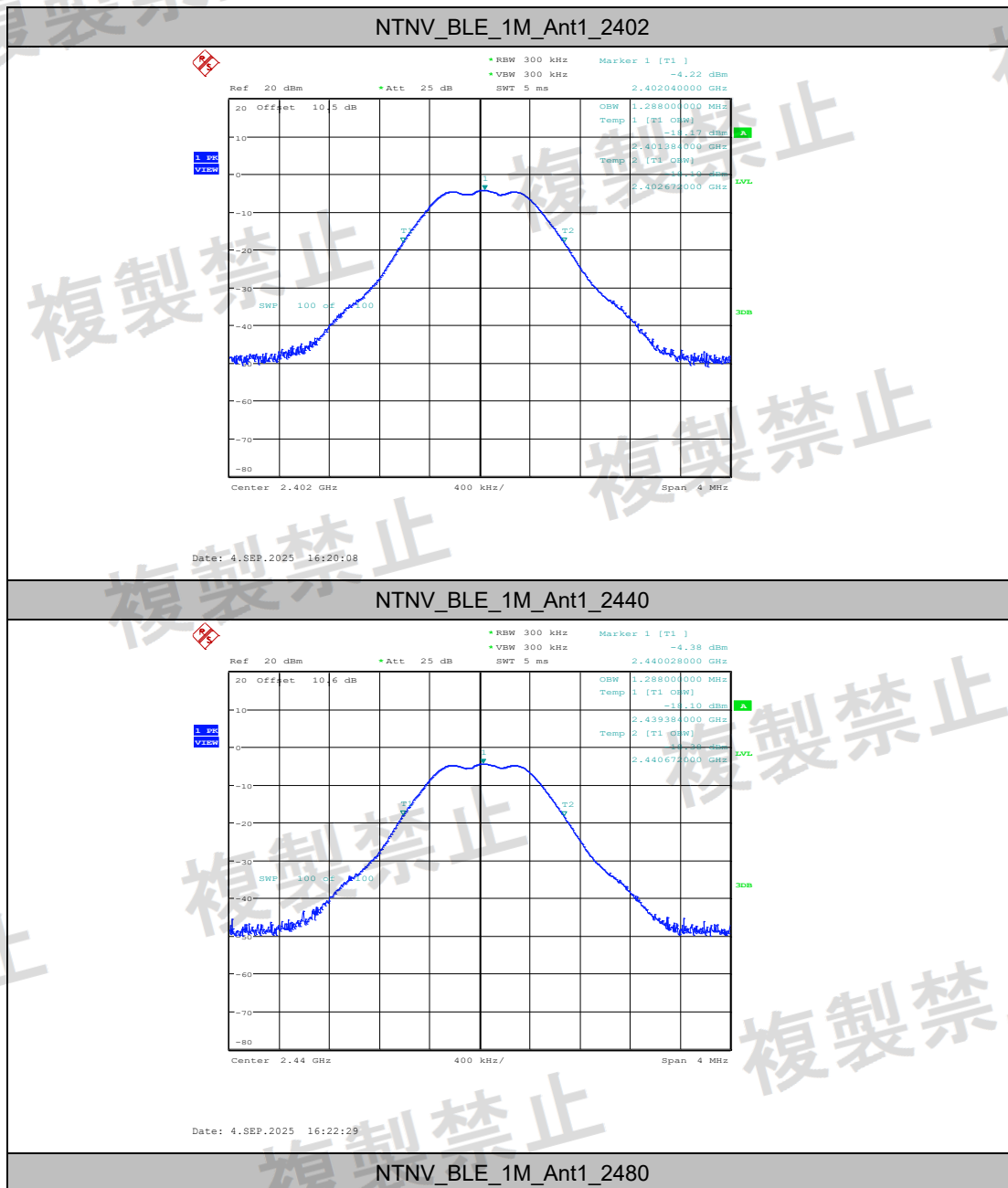


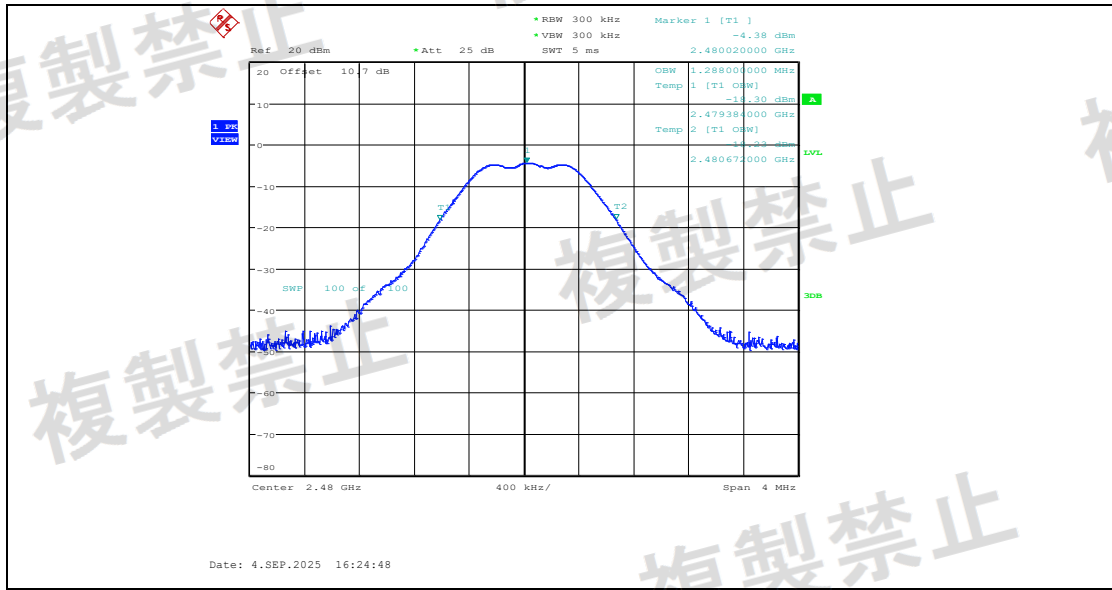
Appendix B: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.288	≤26	PASS
			2440	1.288	≤26	PASS
			2480	1.288	≤26	PASS

Test Graphs



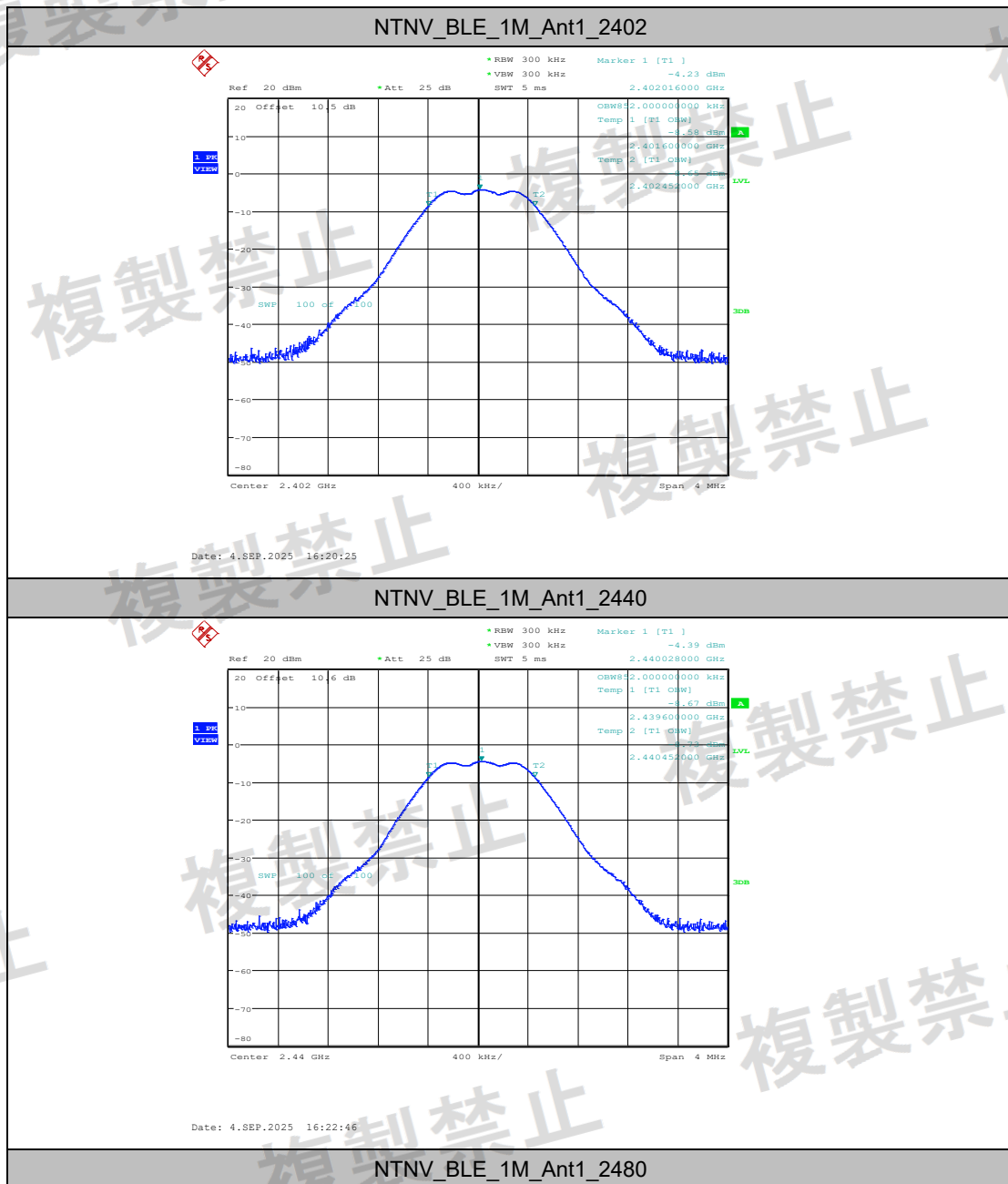


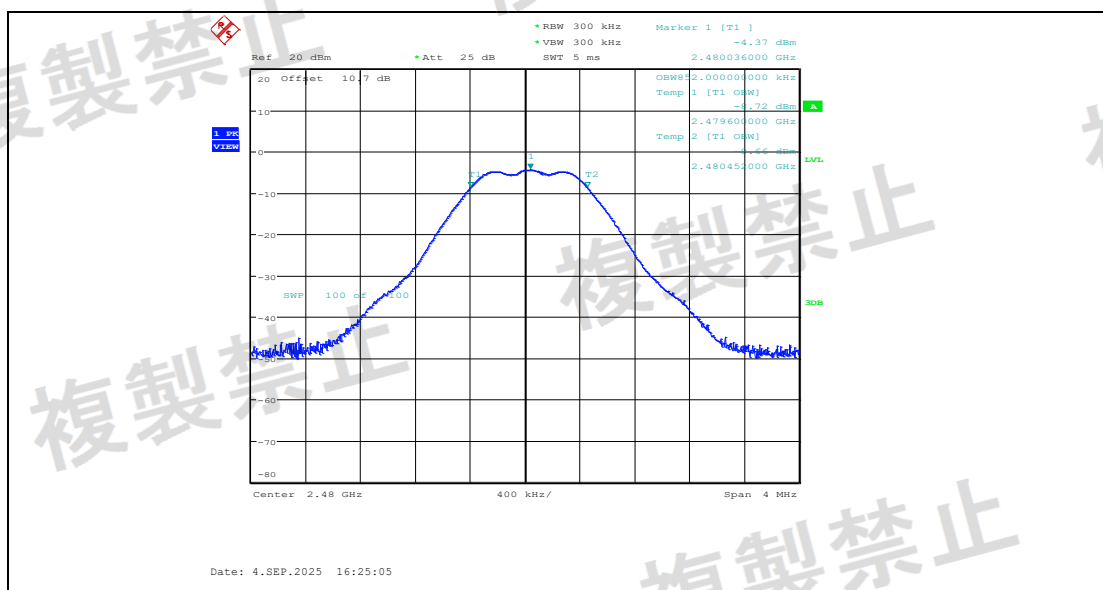
Appendix C: Spread Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.852	≥0.5	PASS
			2440	0.852	≥0.5	PASS
			2480	0.852	≥0.5	PASS

Test Graphs



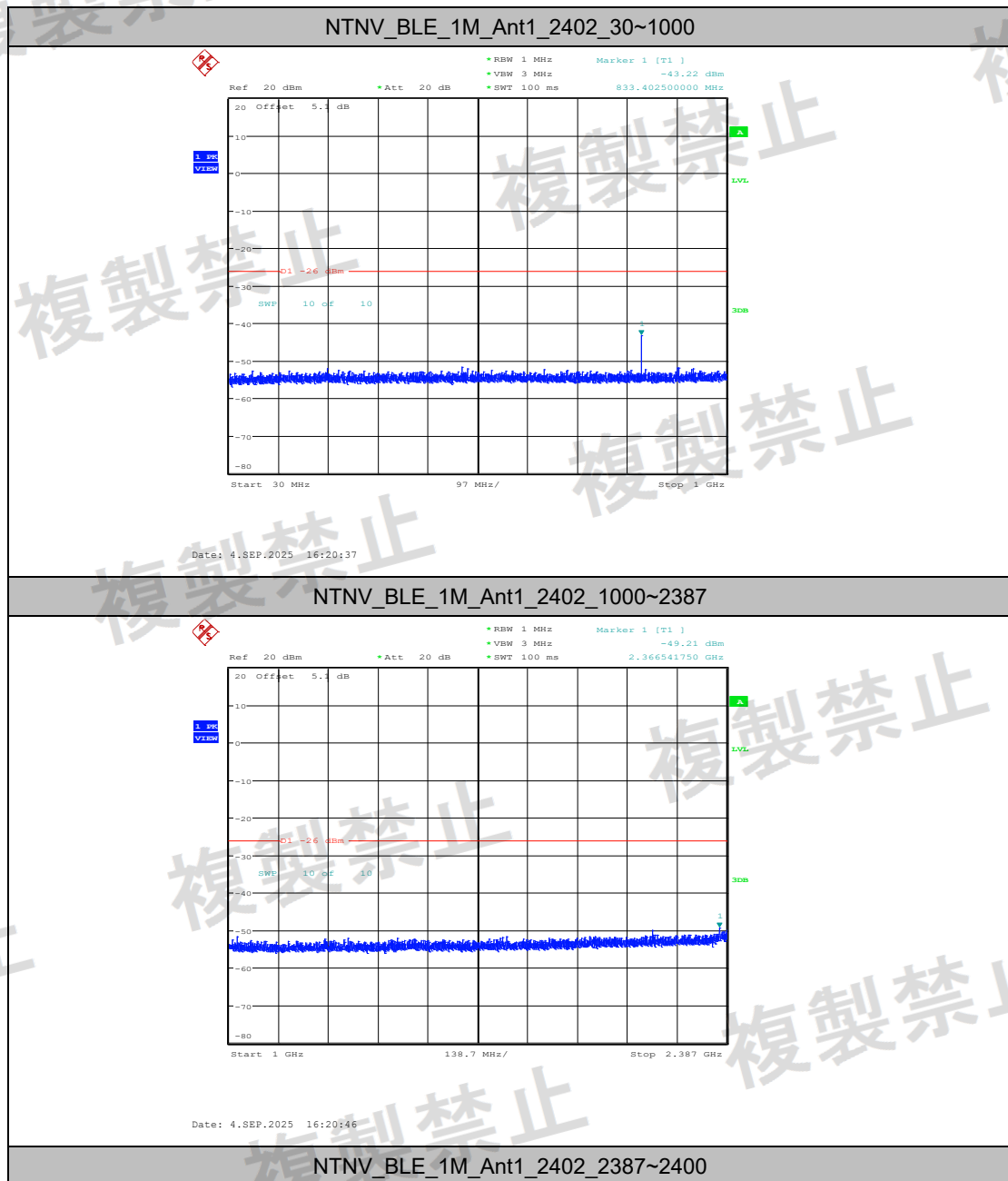


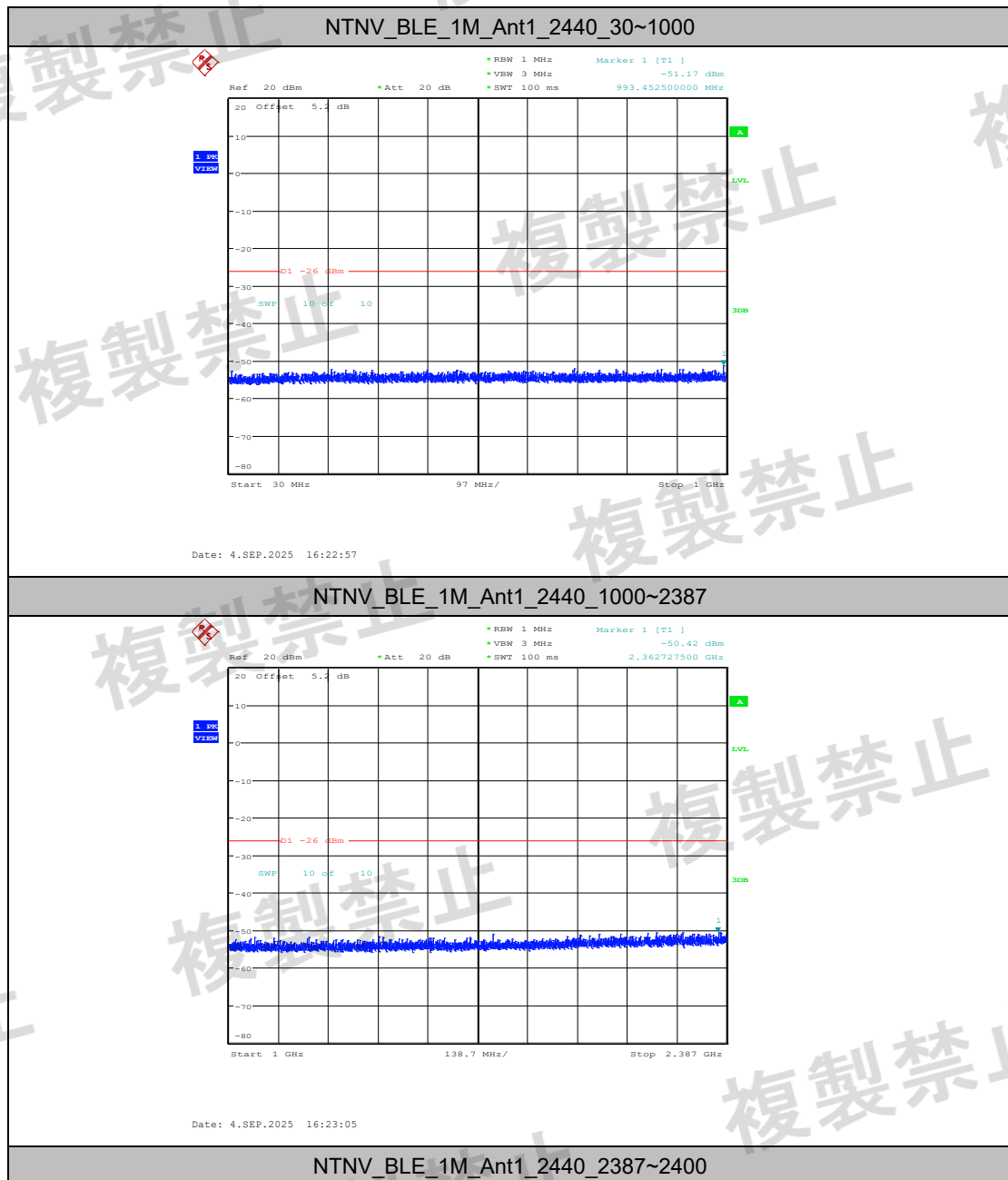
Appendix D: Spurious Emission of TX

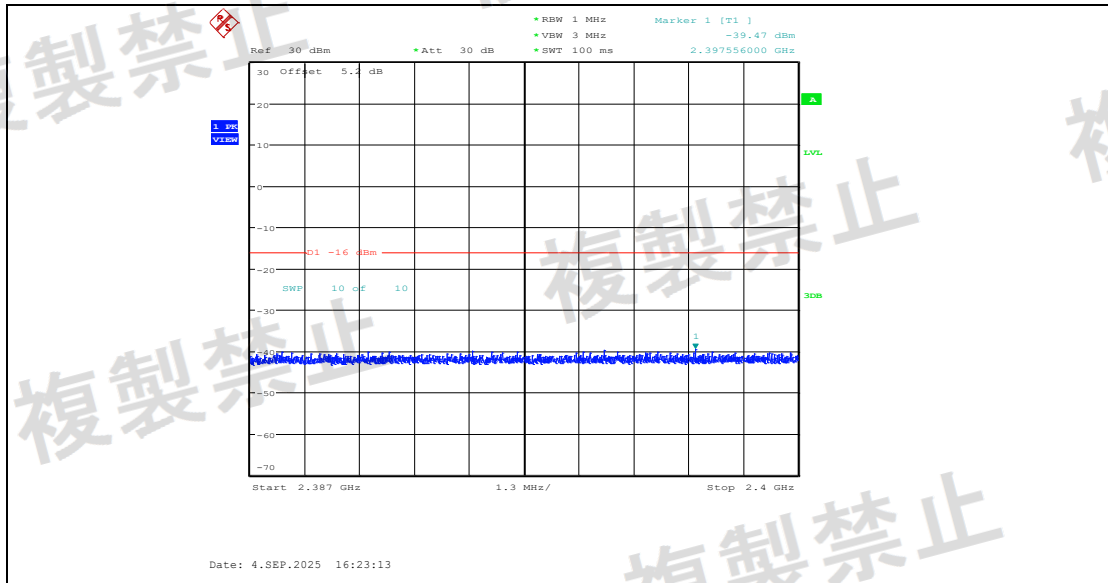
Test Result

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	833.40	-43.22	≤-26	0.04764	≤2.5	PASS
				1000~2387	2366.54	-49.21	≤-26	0.01199	≤2.5	PASS
				2387~2400	2400.00	-26.16	≤-16	2.42103	≤25	PASS
				2483.5~2496.5	2492.50	-38.50	≤-16	0.14125	≤25	PASS
				2496.5~13000	4803.59	-47.56	≤-26	0.01754	≤2.5	PASS
			2440	30~1000	993.45	-51.17	≤-26	0.00764	≤2.5	PASS
				1000~2387	2362.73	-50.42	≤-26	0.00908	≤2.5	PASS
				2387~2400	2397.56	-39.47	≤-16	0.11298	≤25	PASS
				2483.5~2496.5	2494.36	-38.90	≤-16	0.12882	≤25	PASS
				2496.5~13000	4880.27	-45.54	≤-26	0.02793	≤2.5	PASS
			2480	30~1000	687.90	-51.67	≤-26	0.00681	≤2.5	PASS
				1000~2387	2351.98	-50.25	≤-26	0.00944	≤2.5	PASS
				2387~2400	2399.41	-39.50	≤-16	0.11220	≤25	PASS
				2483.5~2496.5	2483.58	-39.21	≤-16	0.11995	≤25	PASS
				2496.5~13000	4959.57	-45.69	≤-26	0.02698	≤2.5	PASS

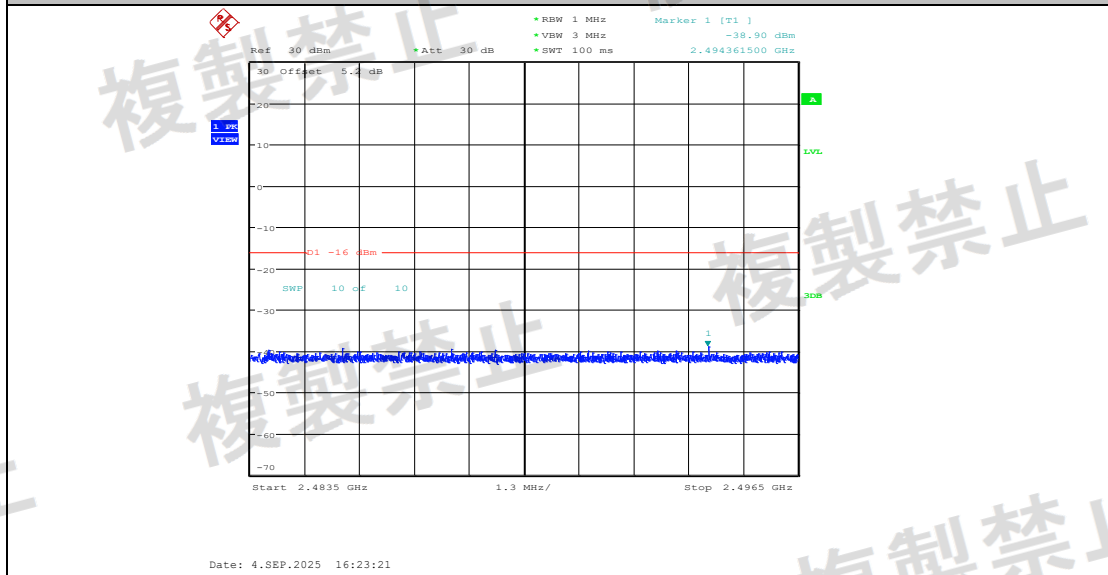
Test Graphs



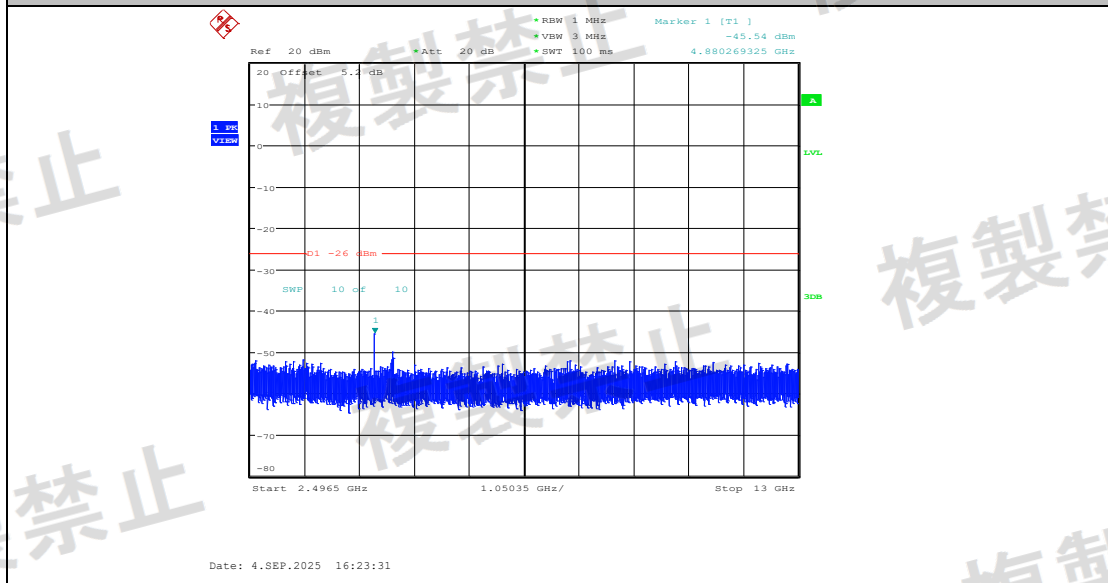


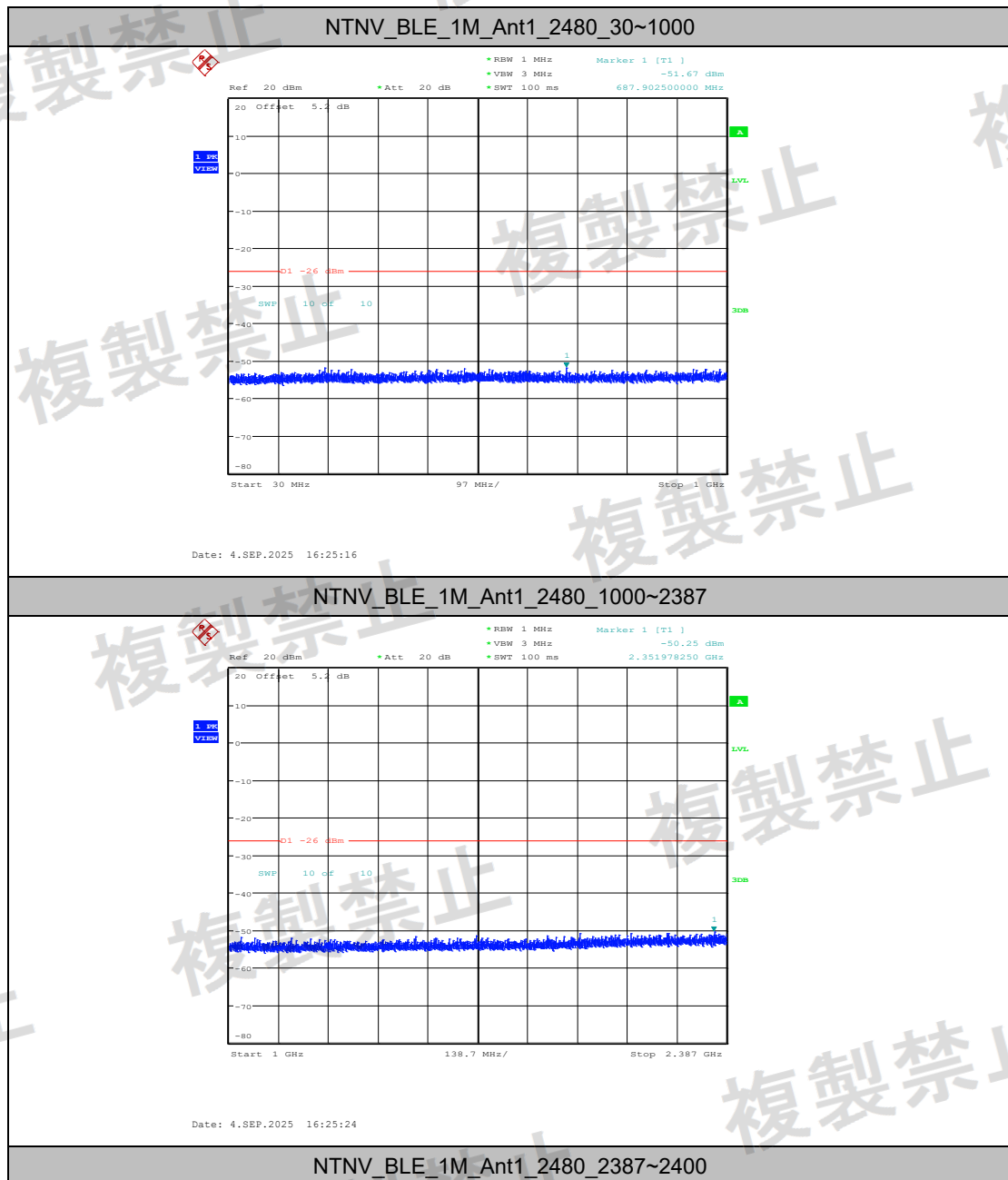


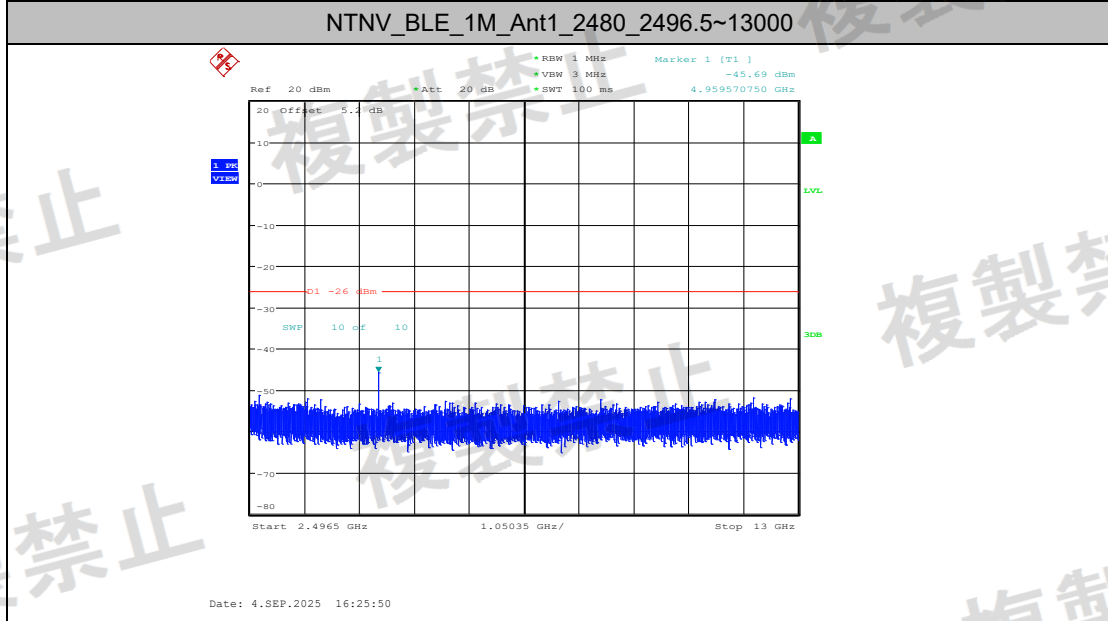
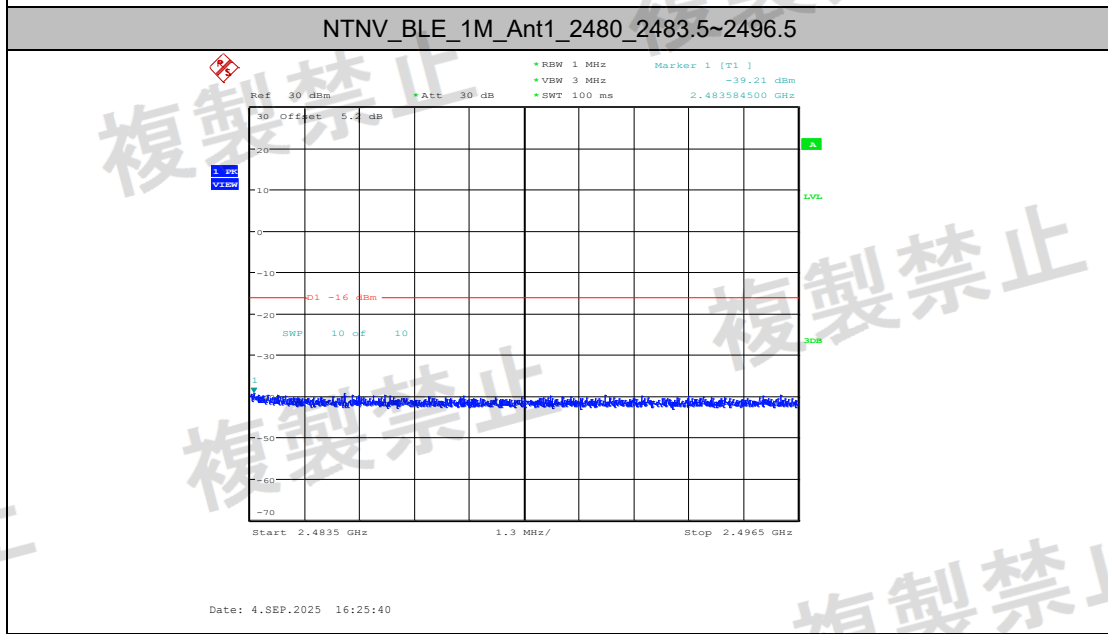
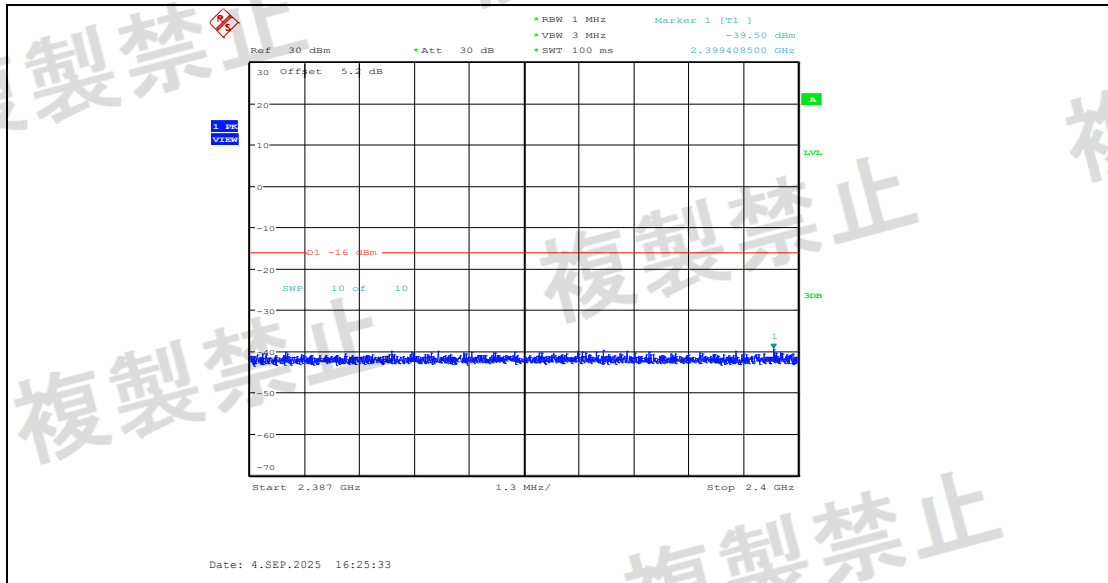
NTNV_BLE_1M_Ant1_2440_2483.5~2496.5



NTNV_BLE_1M_Ant1_2440_2496.5~13000





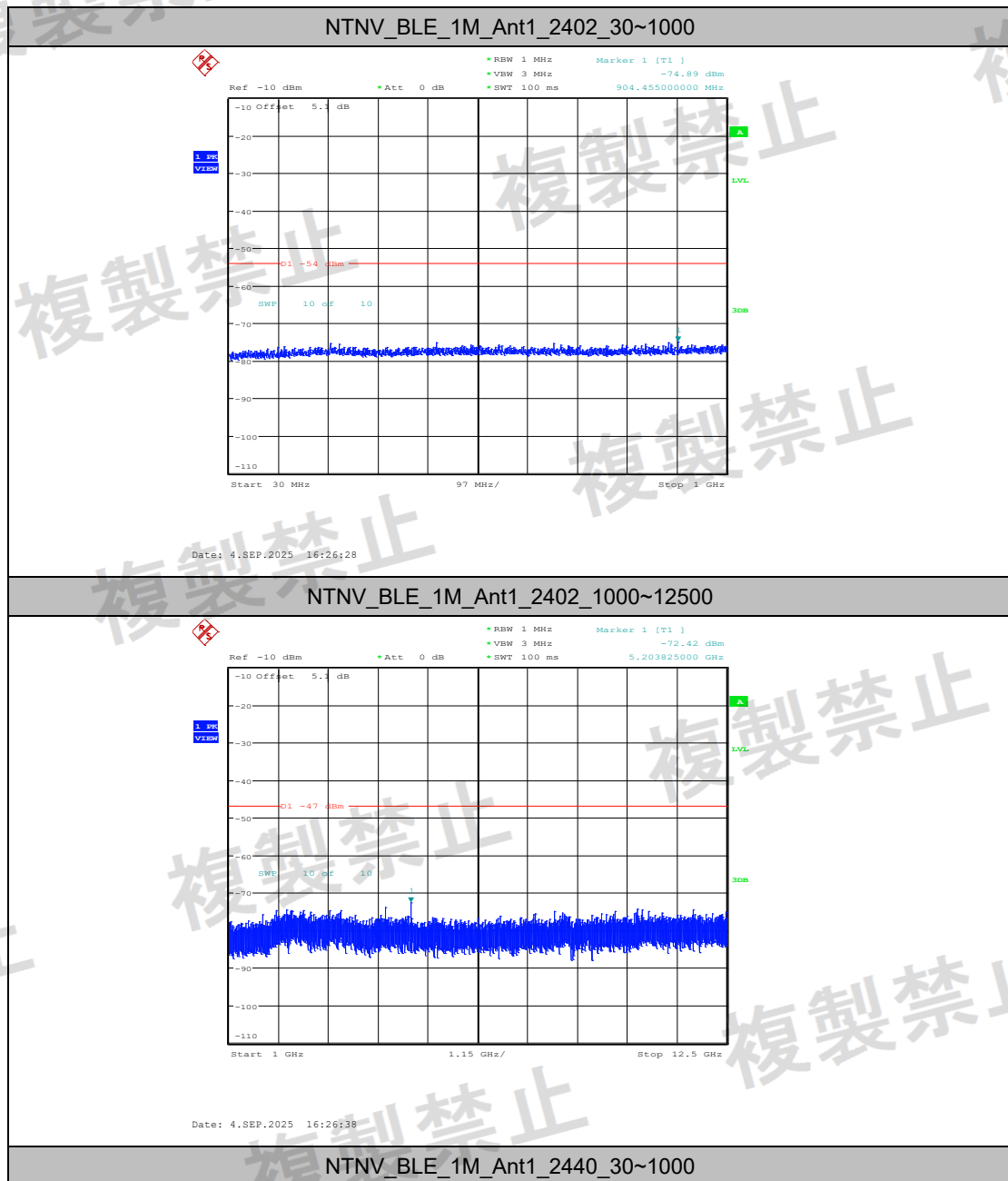


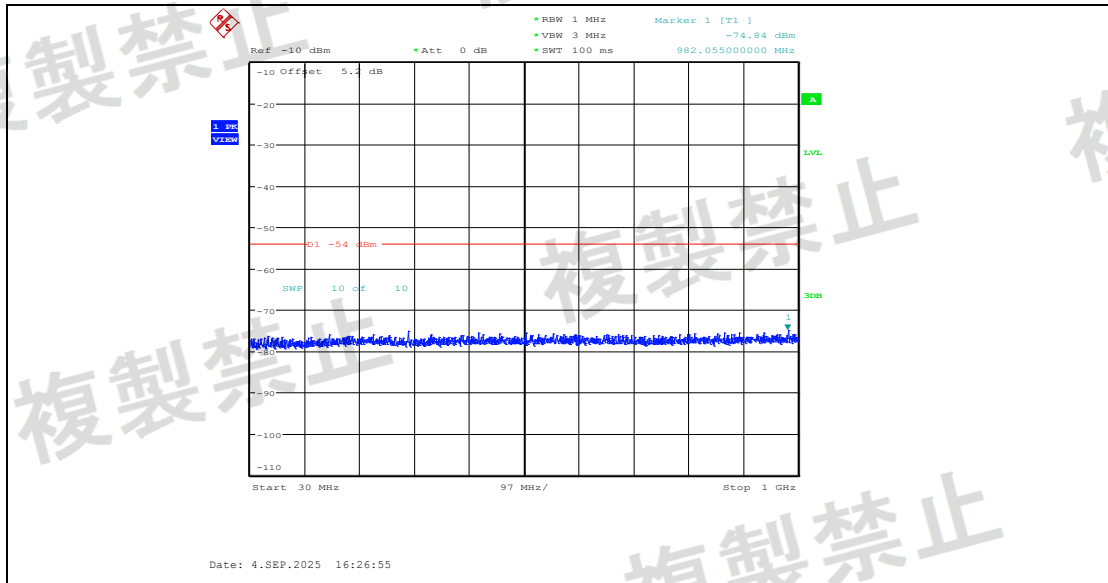
Appendix E: Spurious Emission of RX

Test Result

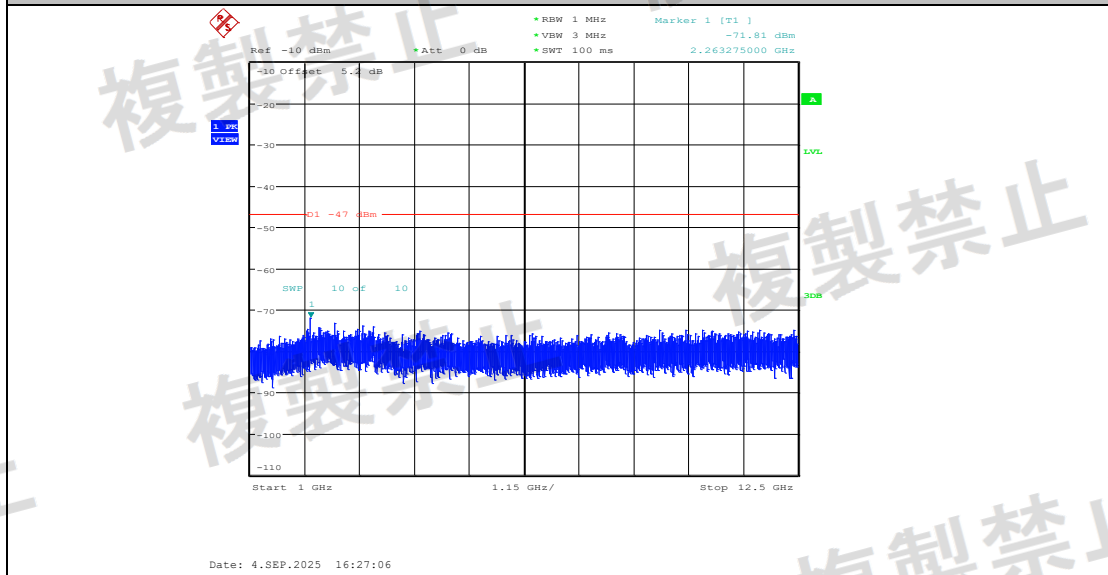
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	904.46	-74.89	≤-54	0.0324 3	≤4	PASS
				1000~12500	5203.8 3	-72.42	≤-47	0.0572 8	≤20	PASS
			2440	30~1000	982.06	-74.84	≤-54	0.0328 1	≤4	PASS
				1000~12500	2263.2 8	-71.81	≤-47	0.0659 2	≤20	PASS
			2480	30~1000	217.70	-74.94	≤-54	0.0320 6	≤4	PASS
				1000~12500	2415.6 5	-67.48	≤-47	0.1786 5	≤20	PASS

Test Graphs





NTNV_BLE_1M_Ant1_2440_1000~12500



NTNV_BLE_1M_Ant1_2480_30~1000

