

Appendix RF Test Data for BLE

Company : SOHIMI JAPAN, K.K.

EUT : Massager

Model Number : Vortex 3s

Report No. : CTA25082003501

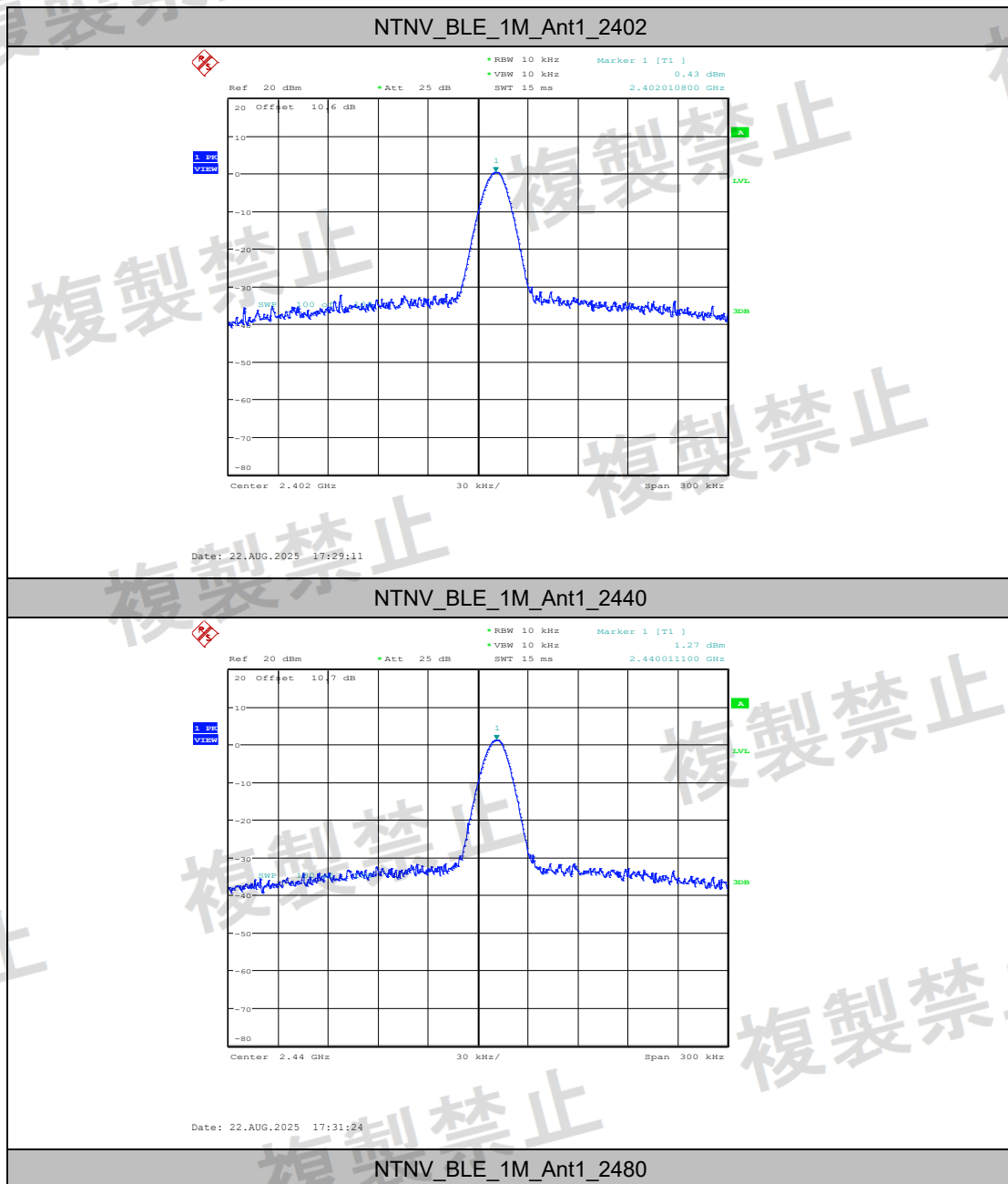
Reviewed By : Eric Wang

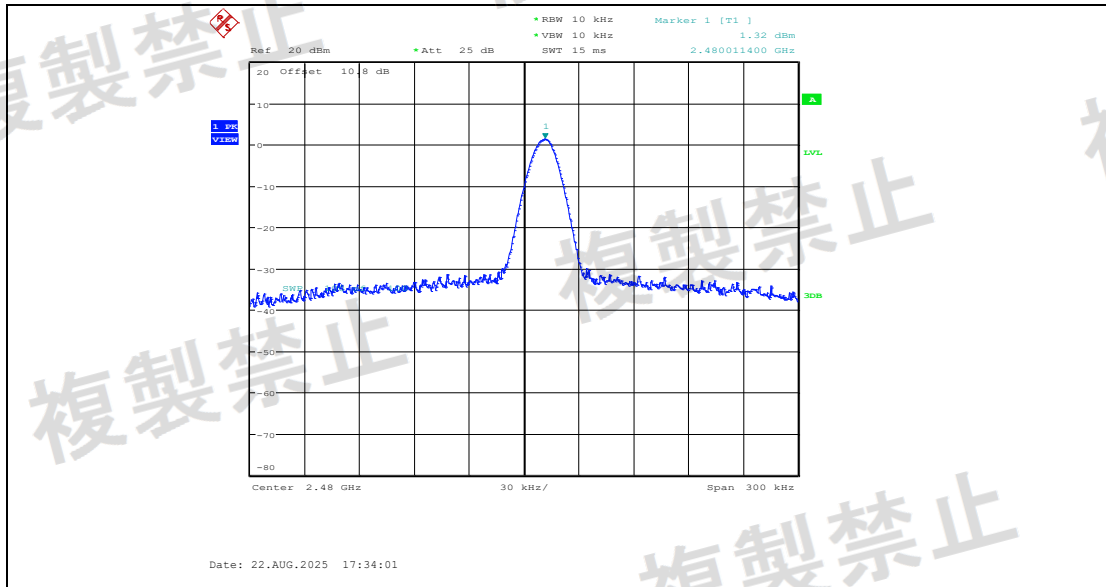
Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.49625	±50	PASS
			2440	4.54918	±50	PASS
			2480	4.59677	±50	PASS

Test Graphs



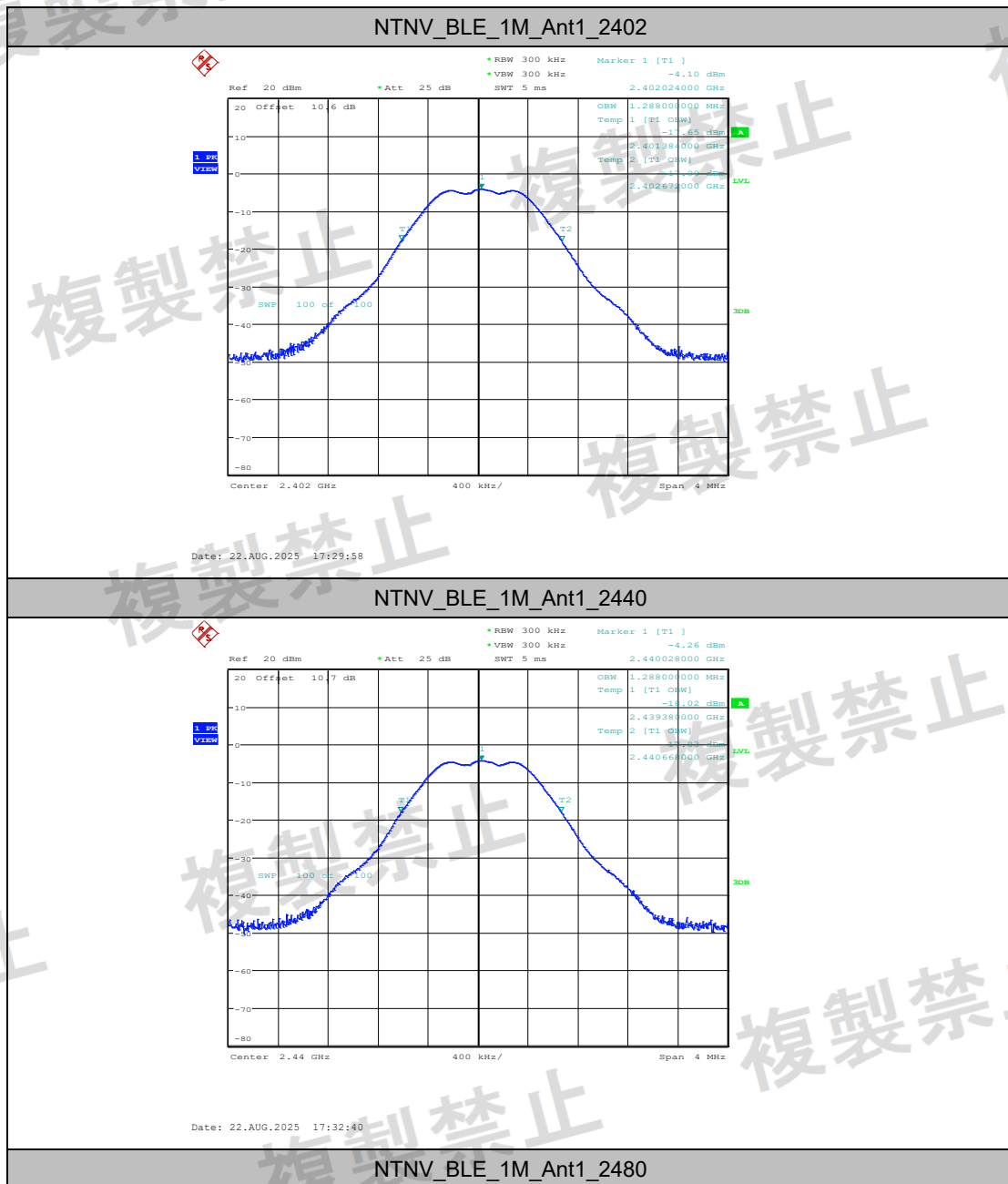


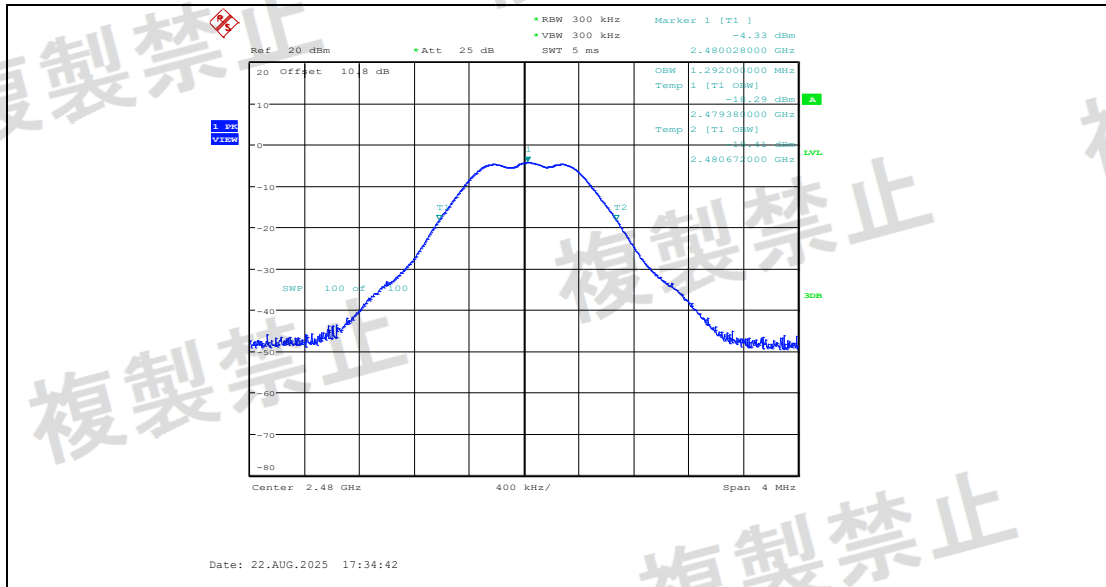
Appendix B: Occupied Bandwidth

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	1.292	≤26	PASS

Test Graphs



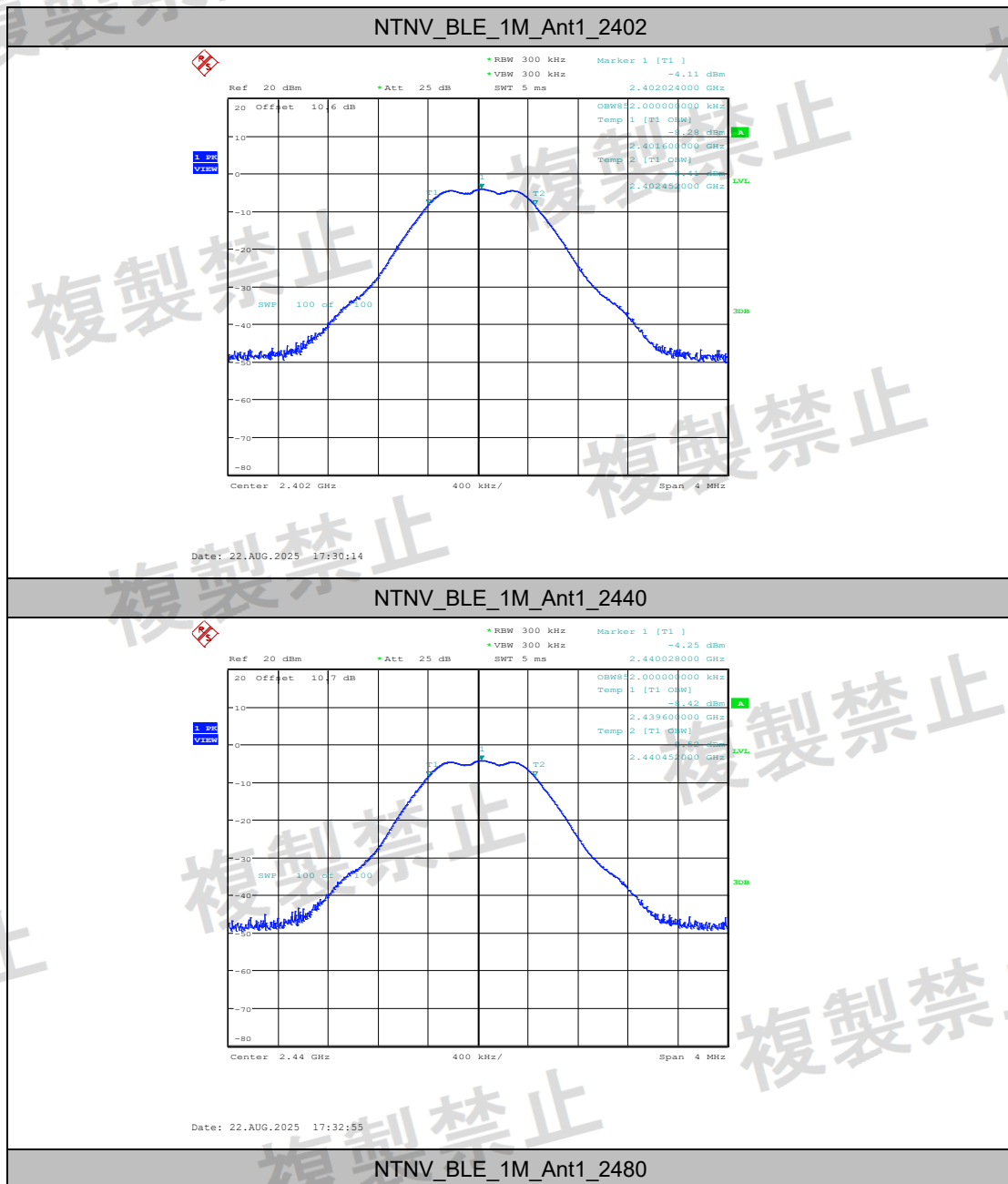


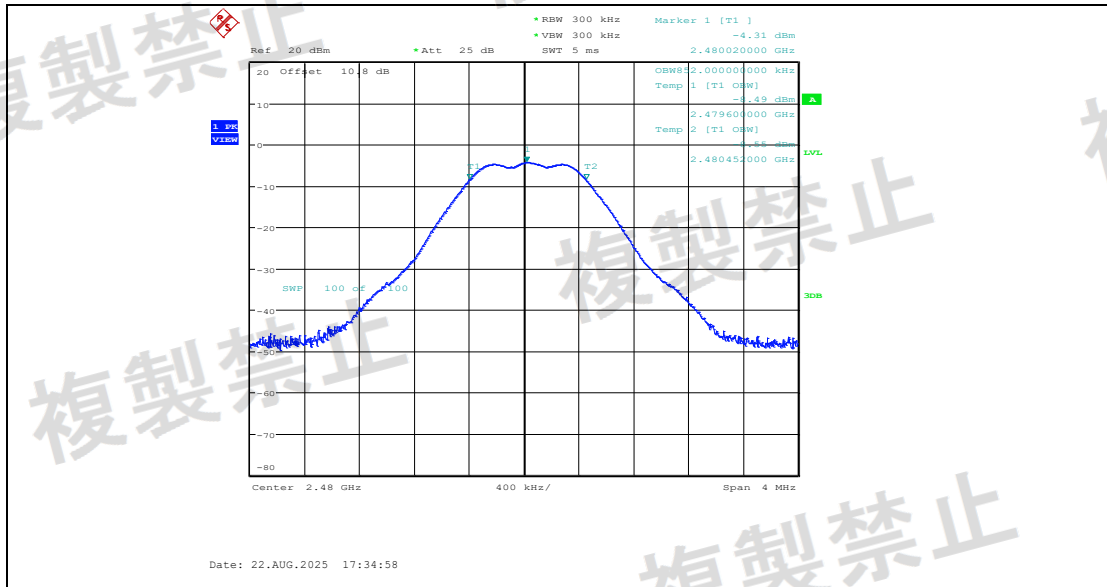
Appendix C: Spread Bandwidth

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



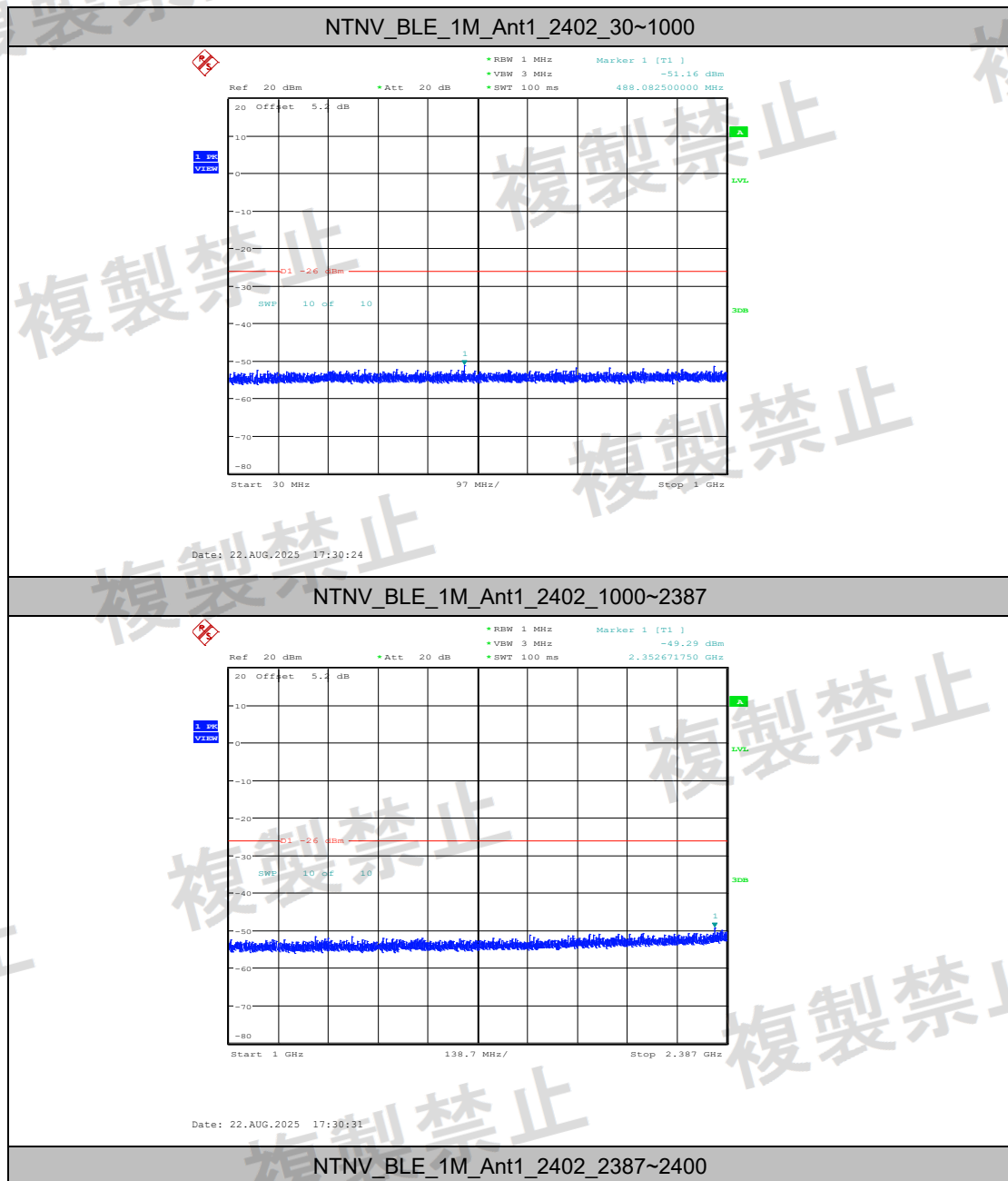


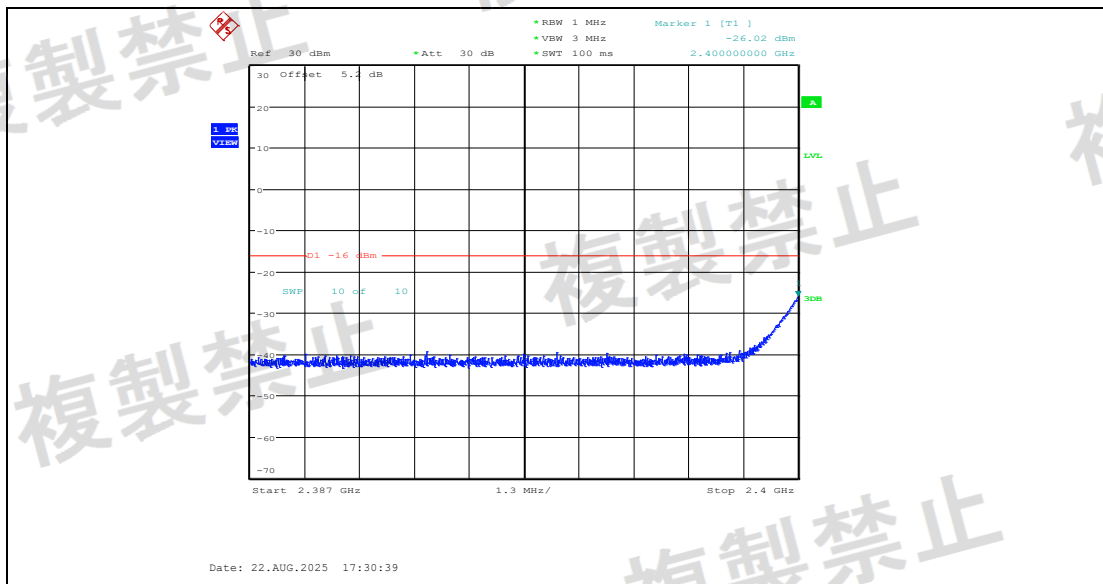
Appendix D: Spurious Emission of TX

Test Result

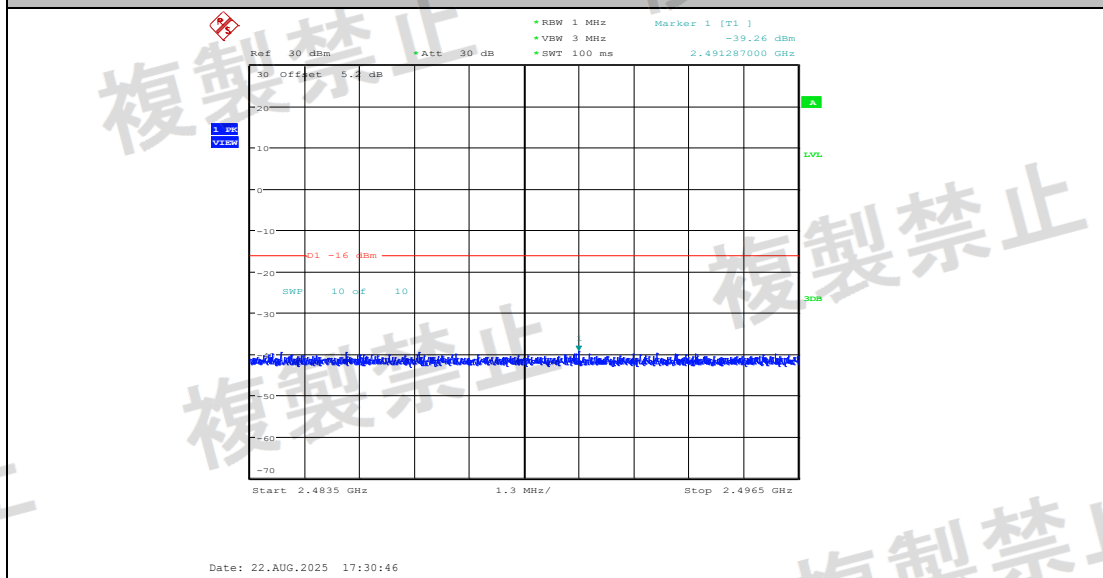
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	488.08	-51.16	≤-26	0.00766	≤2.5	PASS
				1000~2387	2352.67	-49.29	≤-26	0.01178	≤2.5	PASS
				2387~2400	2400.00	-26.02	≤-16	2.50035	≤25	PASS
				2483.5~2496.5	2491.29	-39.26	≤-16	0.11858	≤25	PASS
				2496.5~13000	5195.37	-47.29	≤-26	0.01866	≤2.5	PASS
			2440	30~1000	108.81	-51.81	≤-26	0.00659	≤2.5	PASS
				1000~2387	2016.32	-49.31	≤-26	0.01172	≤2.5	PASS
				2387~2400	2388.45	-39.25	≤-16	0.11885	≤25	PASS
				2483.5~2496.5	2495.03	-39.36	≤-16	0.11588	≤25	PASS
				2496.5~13000	4880.27	-46.97	≤-26	0.02009	≤2.5	PASS
			2480	30~1000	378.23	-51.19	≤-26	0.00760	≤2.5	PASS
				1000~2387	1957.72	-49.95	≤-26	0.01012	≤2.5	PASS
				2387~2400	2395.31	-39.33	≤-16	0.11668	≤25	PASS
				2483.5~2496.5	2483.68	-38.29	≤-16	0.14825	≤25	PASS
				2496.5~13000	4960.10	-45.15	≤-26	0.03055	≤2.5	PASS

Test Graphs

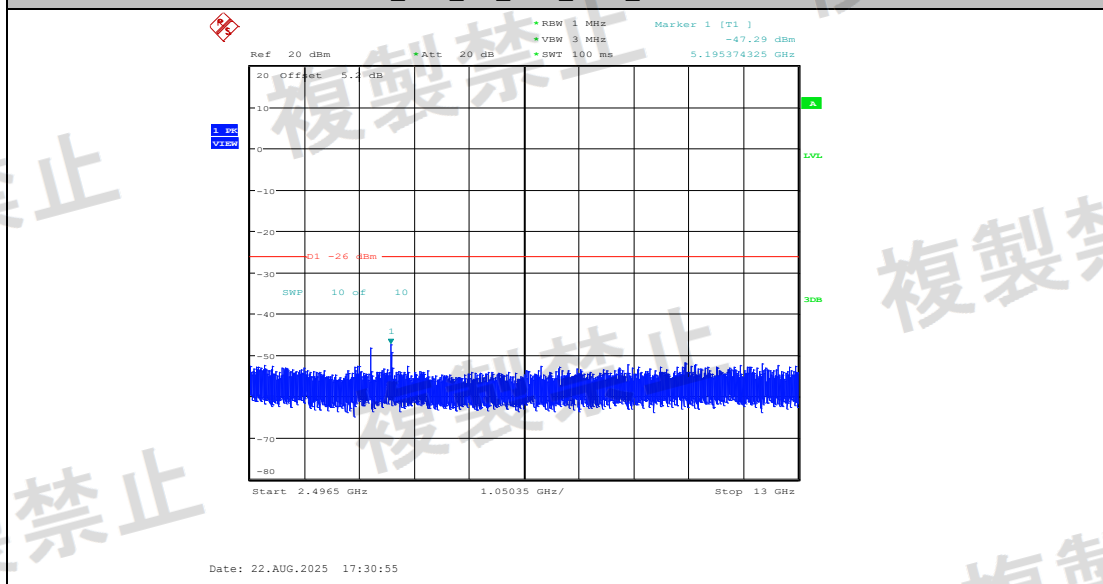


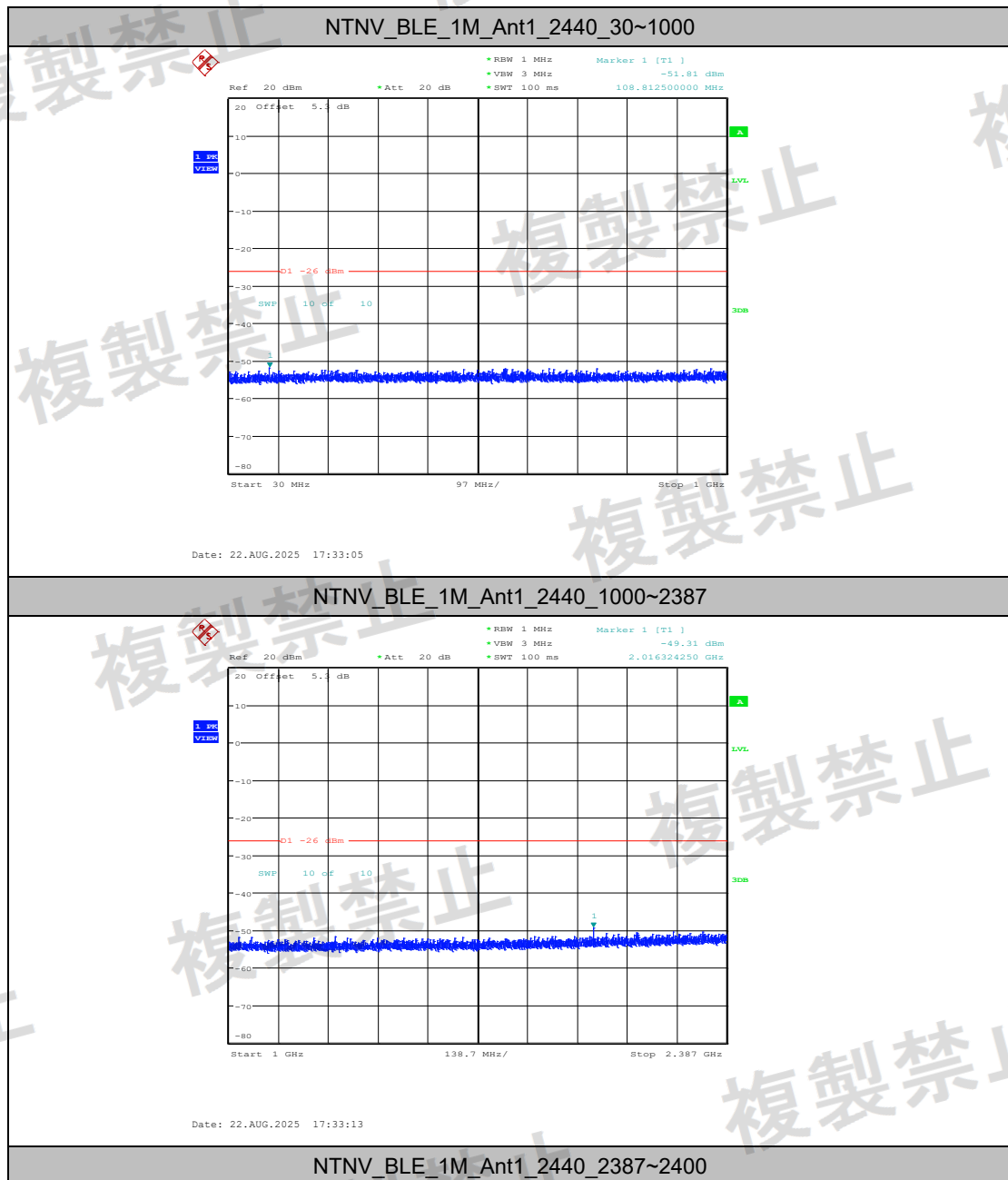


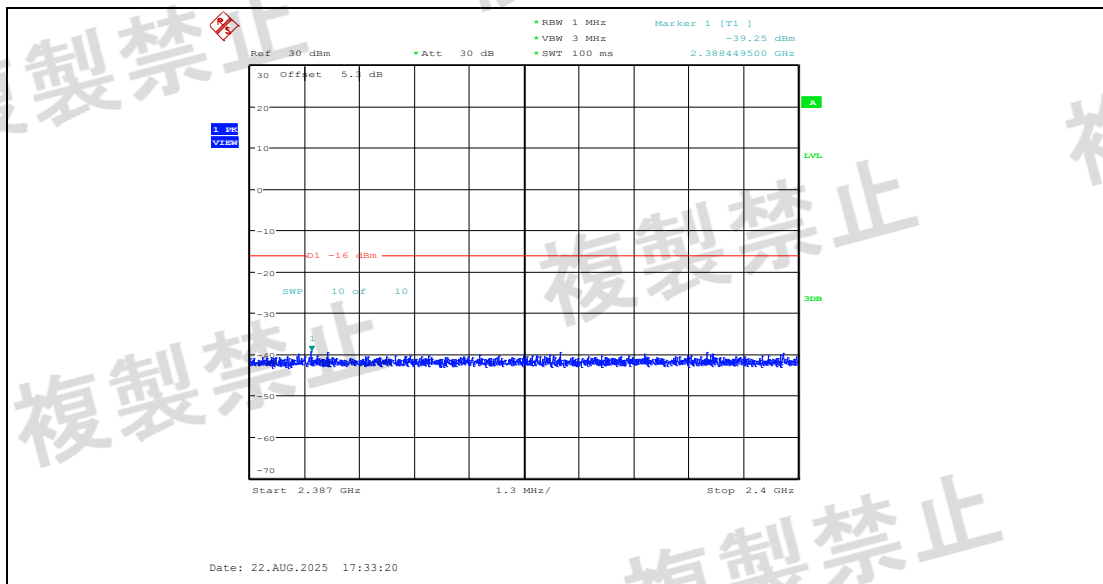
NTNV_BLE_1M_Ant1_2402_2483.5~2496.5



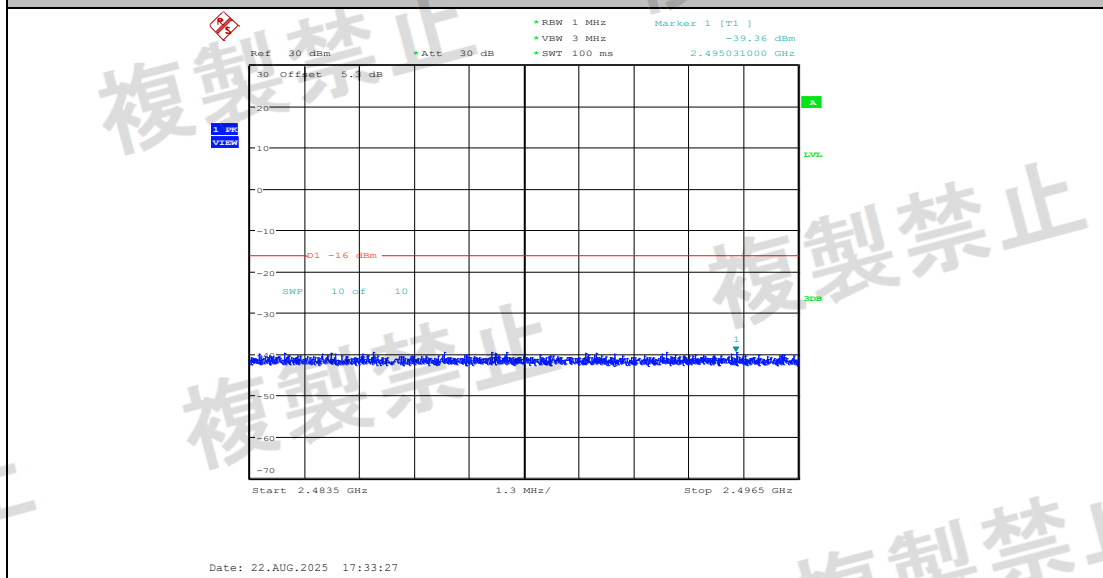
NTNV_BLE_1M_Ant1_2402_2496.5~13000



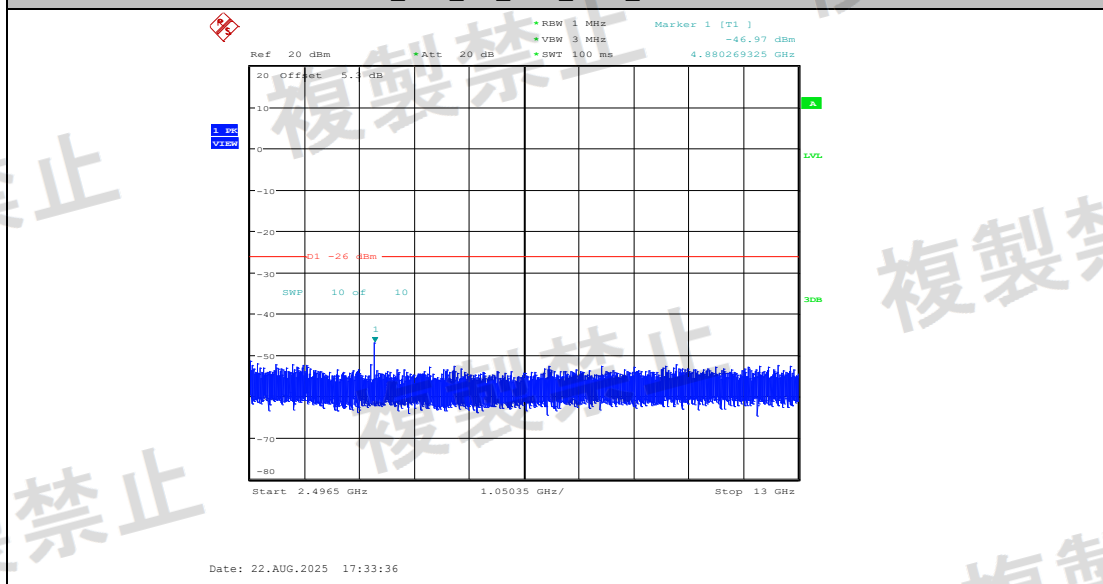


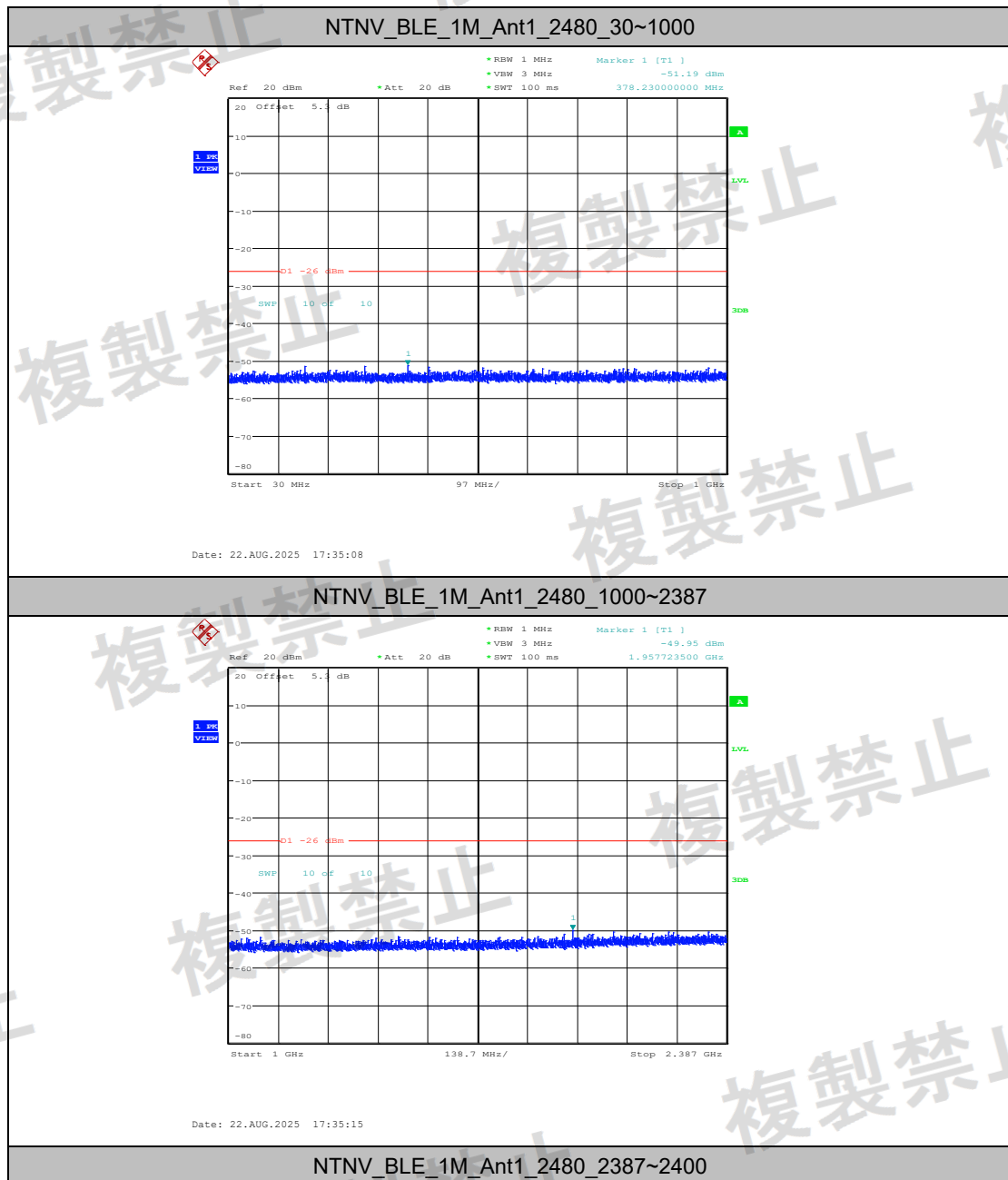


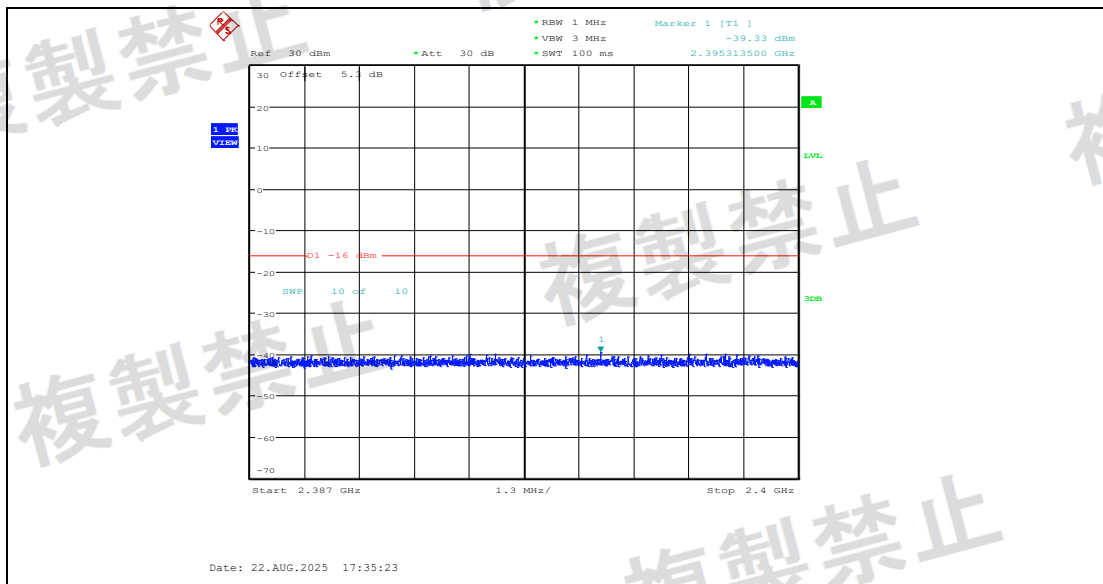
NTNV_BLE_1M_Ant1_2440_2483.5~2496.5



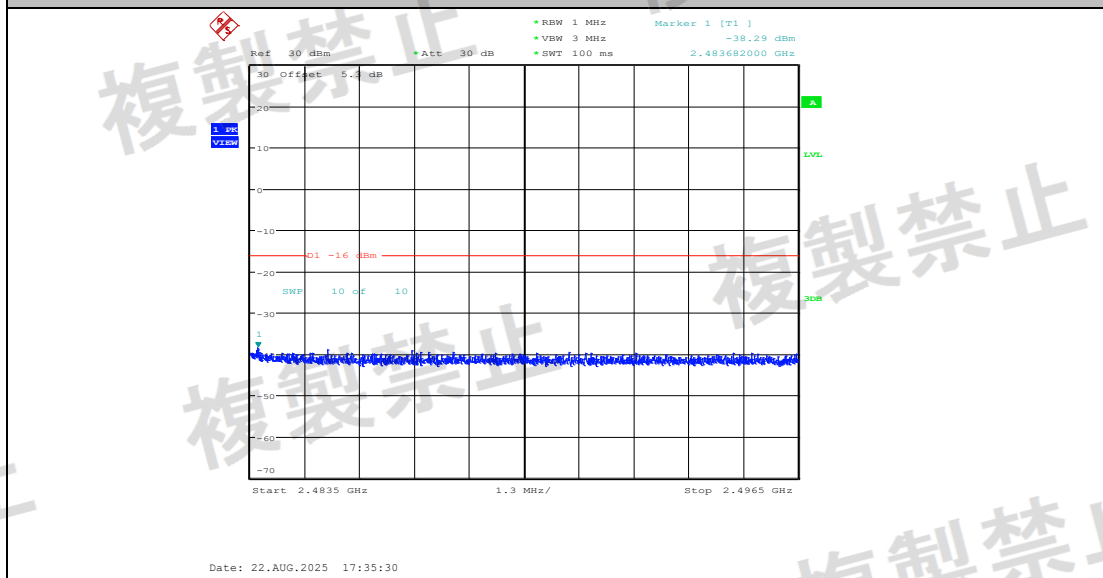
NTNV_BLE_1M_Ant1_2440_2496.5~13000



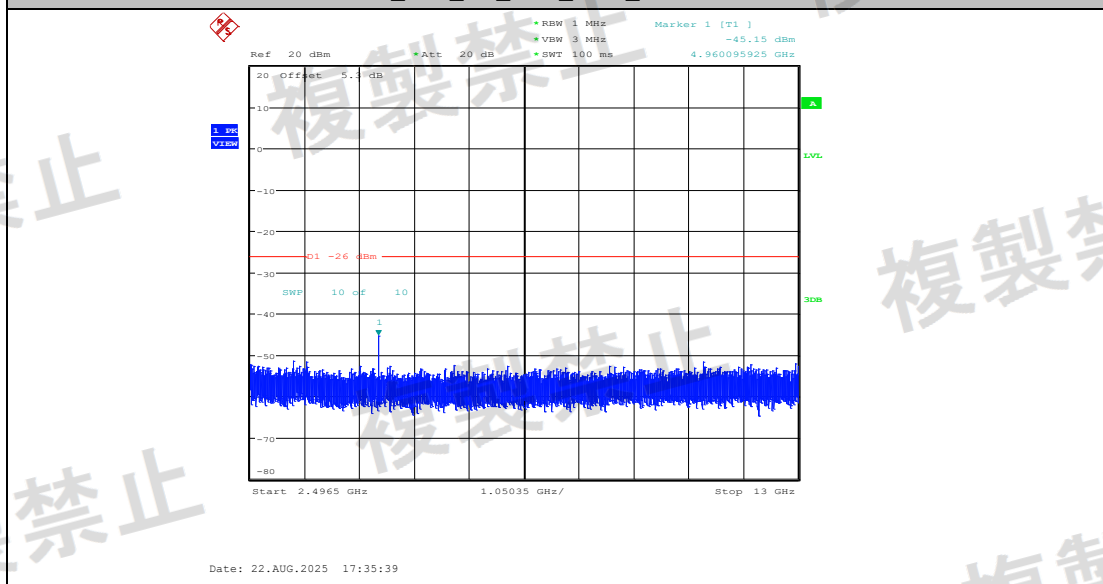




NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



NTNV_BLE_1M_Ant1_2480_2496.5~13000

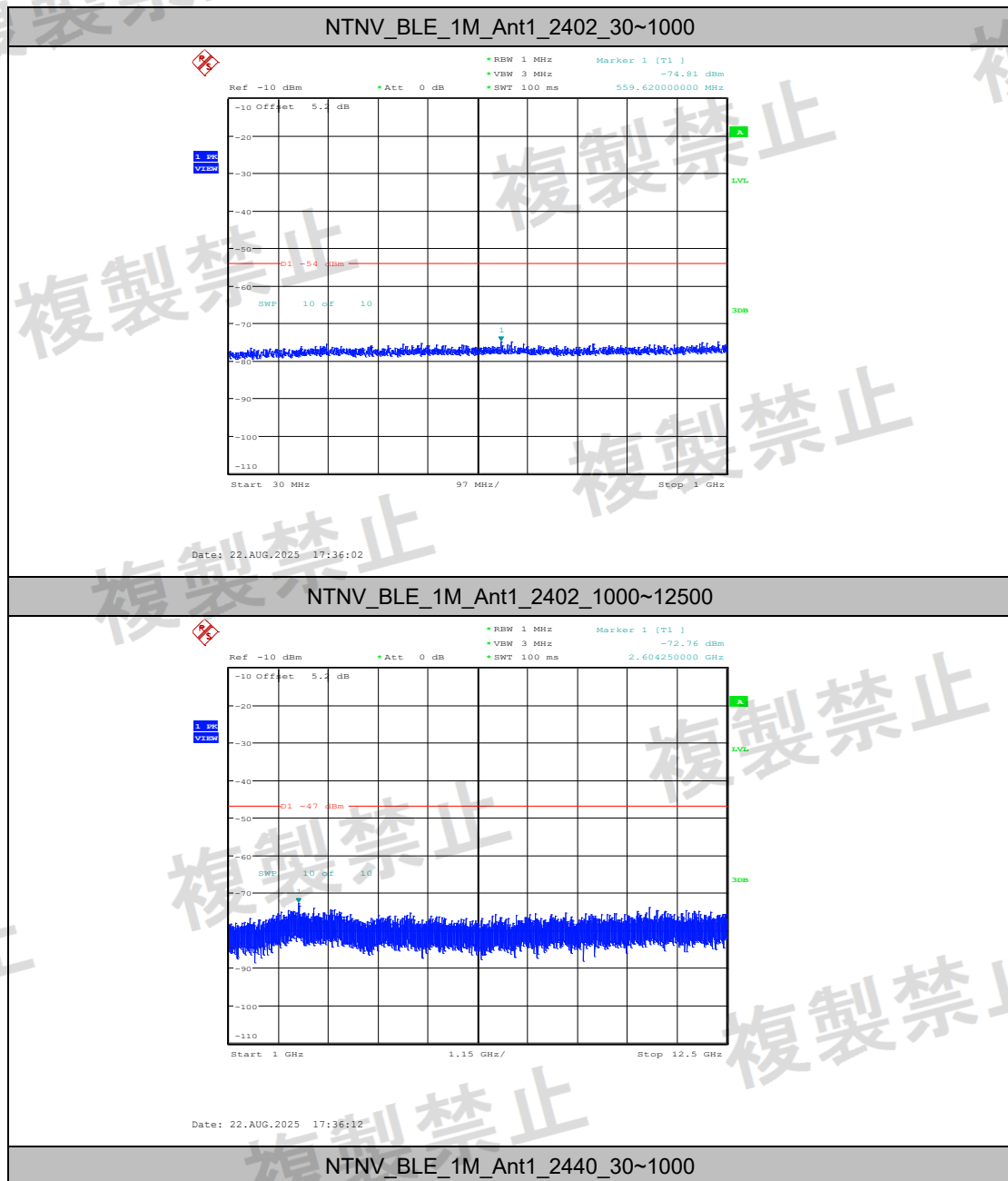


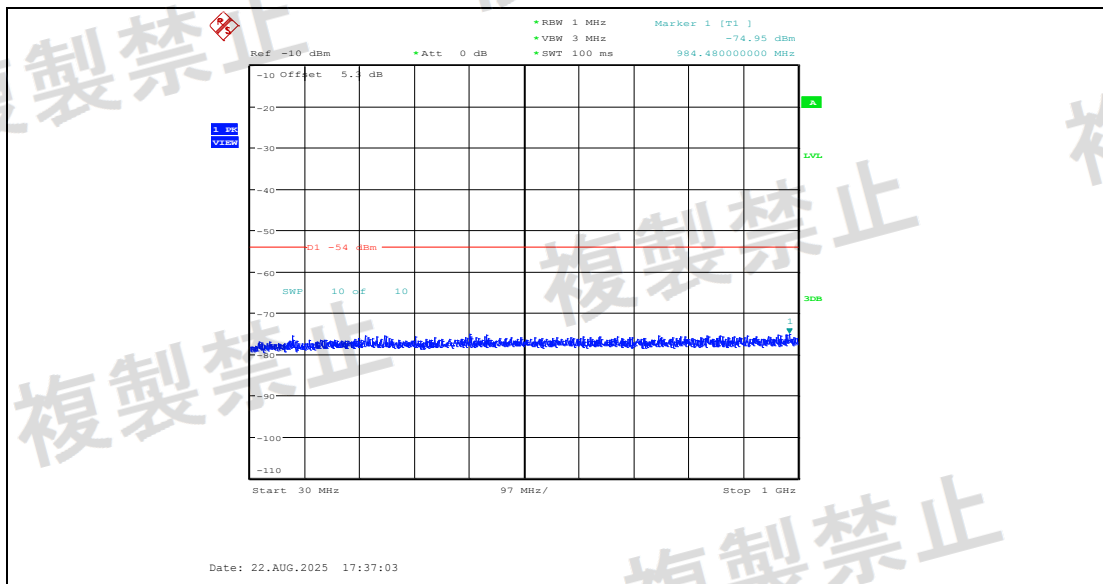
Appendix E: Spurious Emission of RX

Test Result

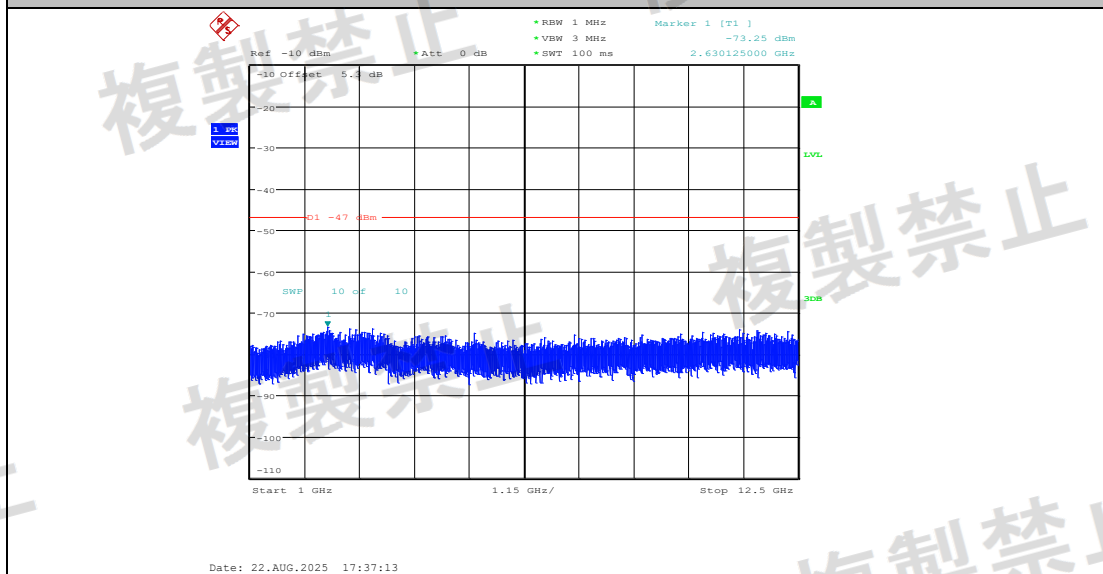
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	559.62	-74.81	≤-54	0.03304	≤4	PASS
				1000~12500	2604.25	-72.76	≤-47	0.05297	≤20	PASS
			2440	30~1000	984.48	-74.95	≤-54	0.03199	≤4	PASS
				1000~12500	2630.13	-73.25	≤-47	0.04732	≤20	PASS
			2480	30~1000	556.23	-74.35	≤-54	0.03673	≤4	PASS
				1000~12500	3569.10	-73.21	≤-47	0.04775	≤20	PASS

Test Graphs





NTNV_BLE_1M_Ant1_2440_1000~12500



NTNV_BLE_1M_Ant1_2480_30~1000

