

Appendix RF Test Data for BLE

Company : Monomam,inc

EUT : SmartWatch

Model Number : Rotondo2

Report No. : CTA26022600201

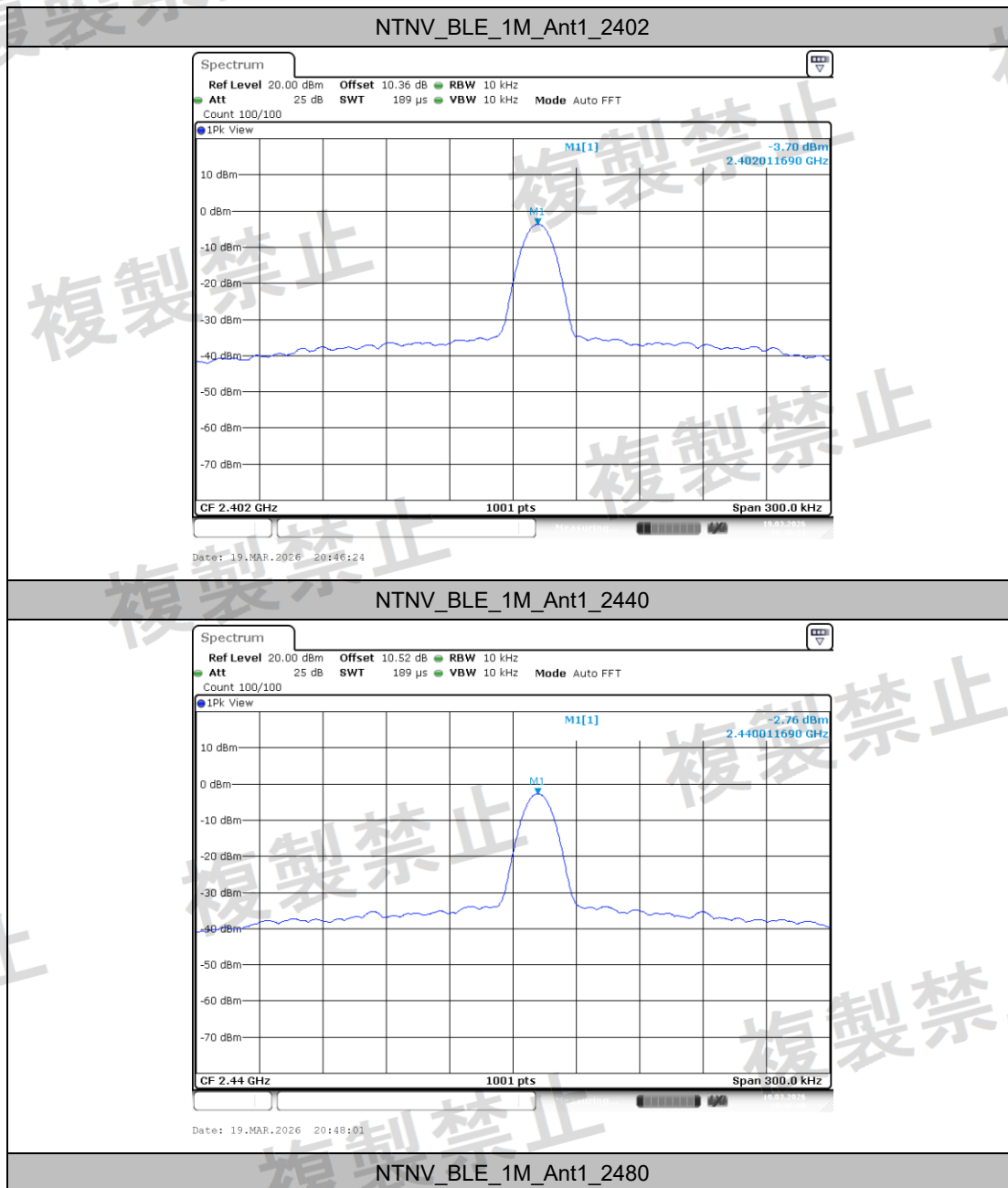
Reviewed By : Eric Wang

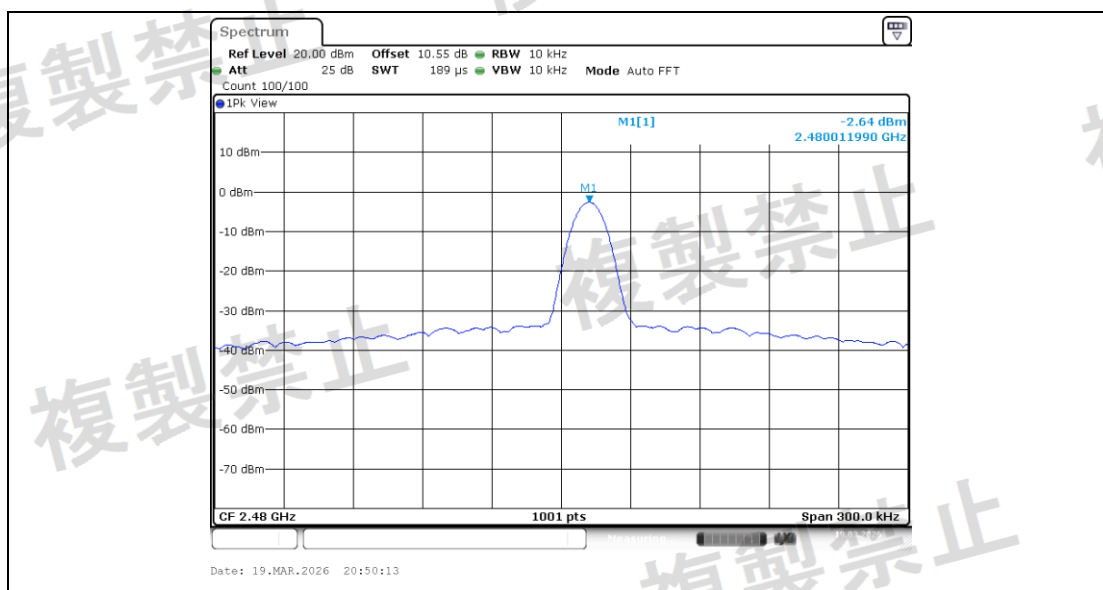
Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	4.86678	±50	PASS
			2440	4.79098	±50	PASS
			2480	4.83468	±50	PASS

Test Graphs



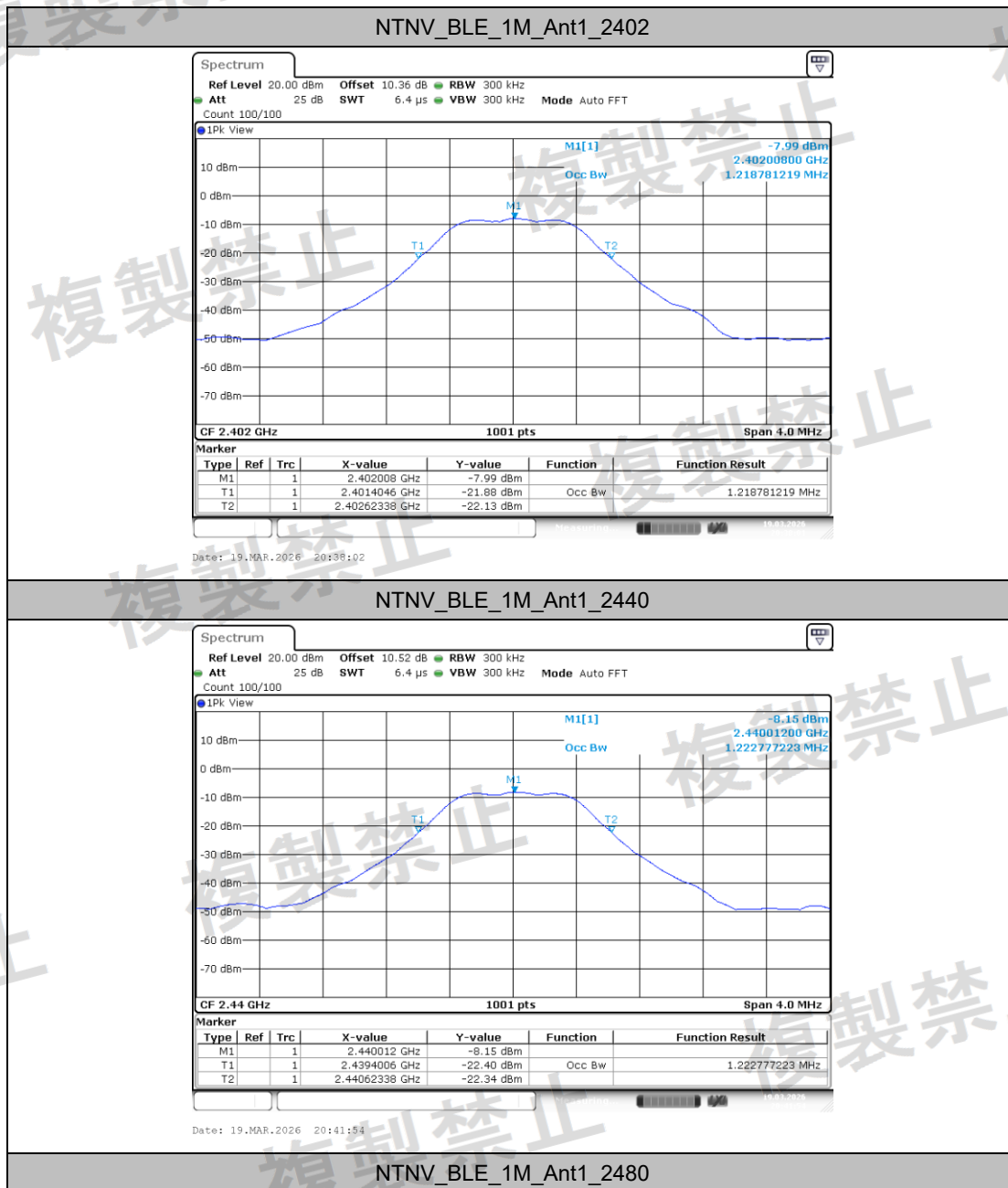


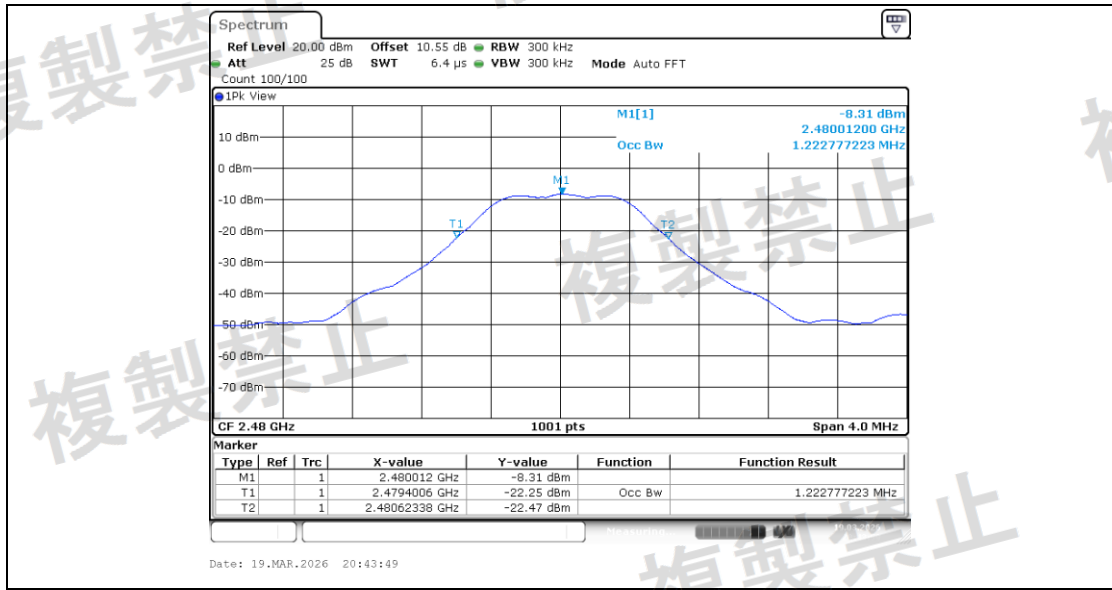
Appendix B: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.219	≤26	PASS
			2440	1.223	≤26	PASS
			2480	1.223	≤26	PASS

Test Graphs



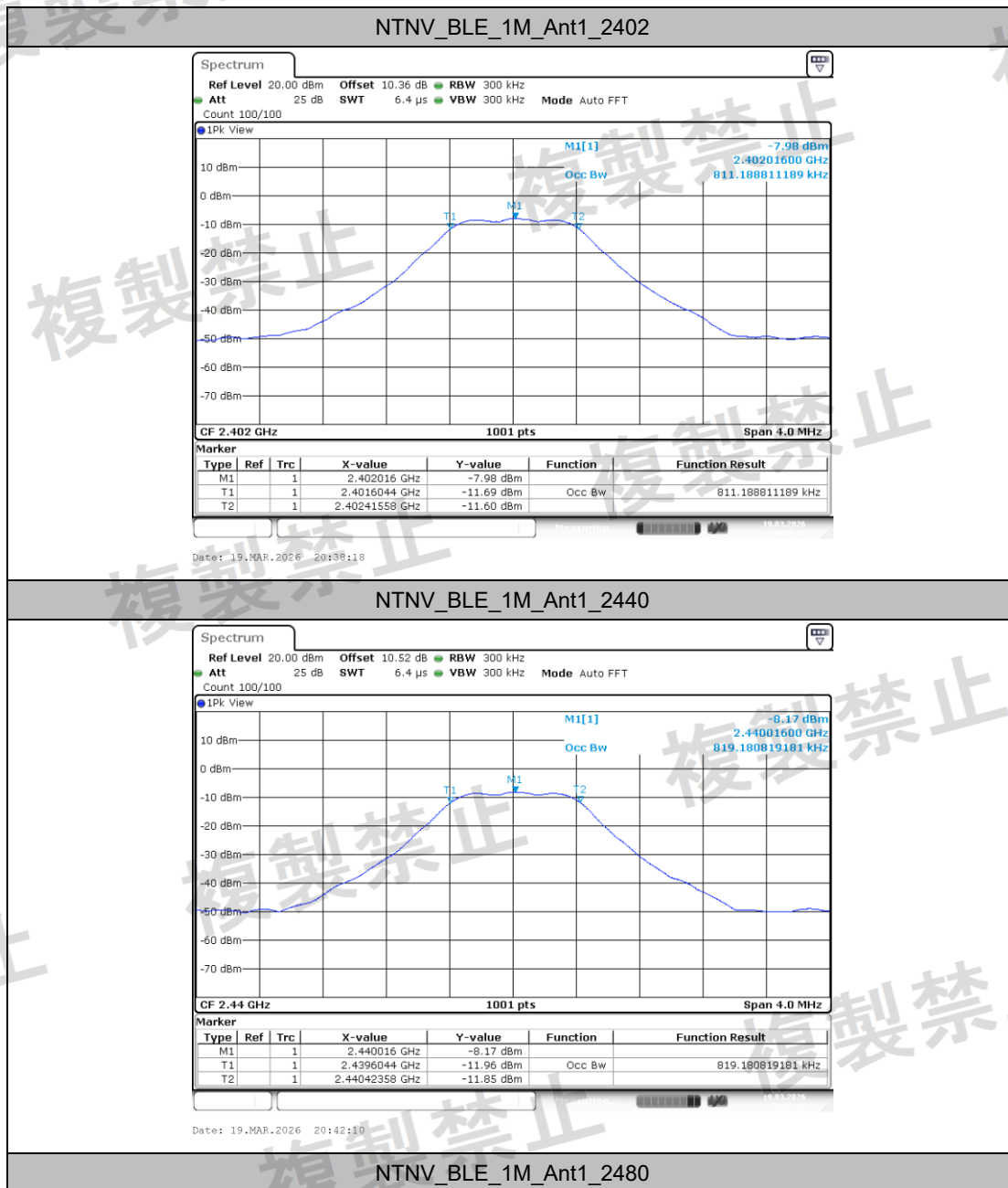


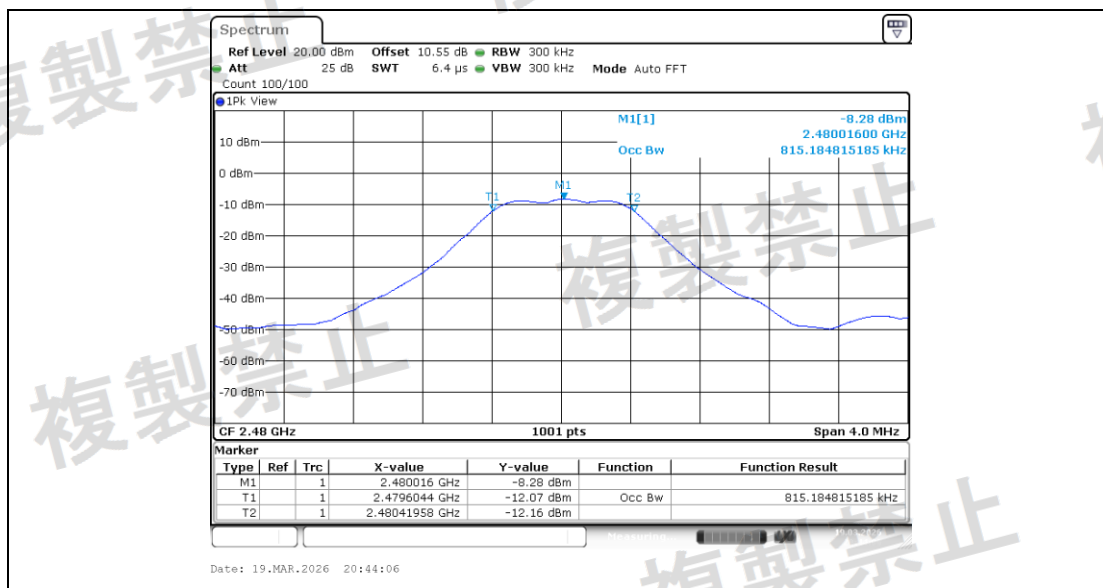
Appendix C: Spread Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.811	≥0.5	PASS
			2440	0.819	≥0.5	PASS
			2480	0.815	≥0.5	PASS

Test Graphs



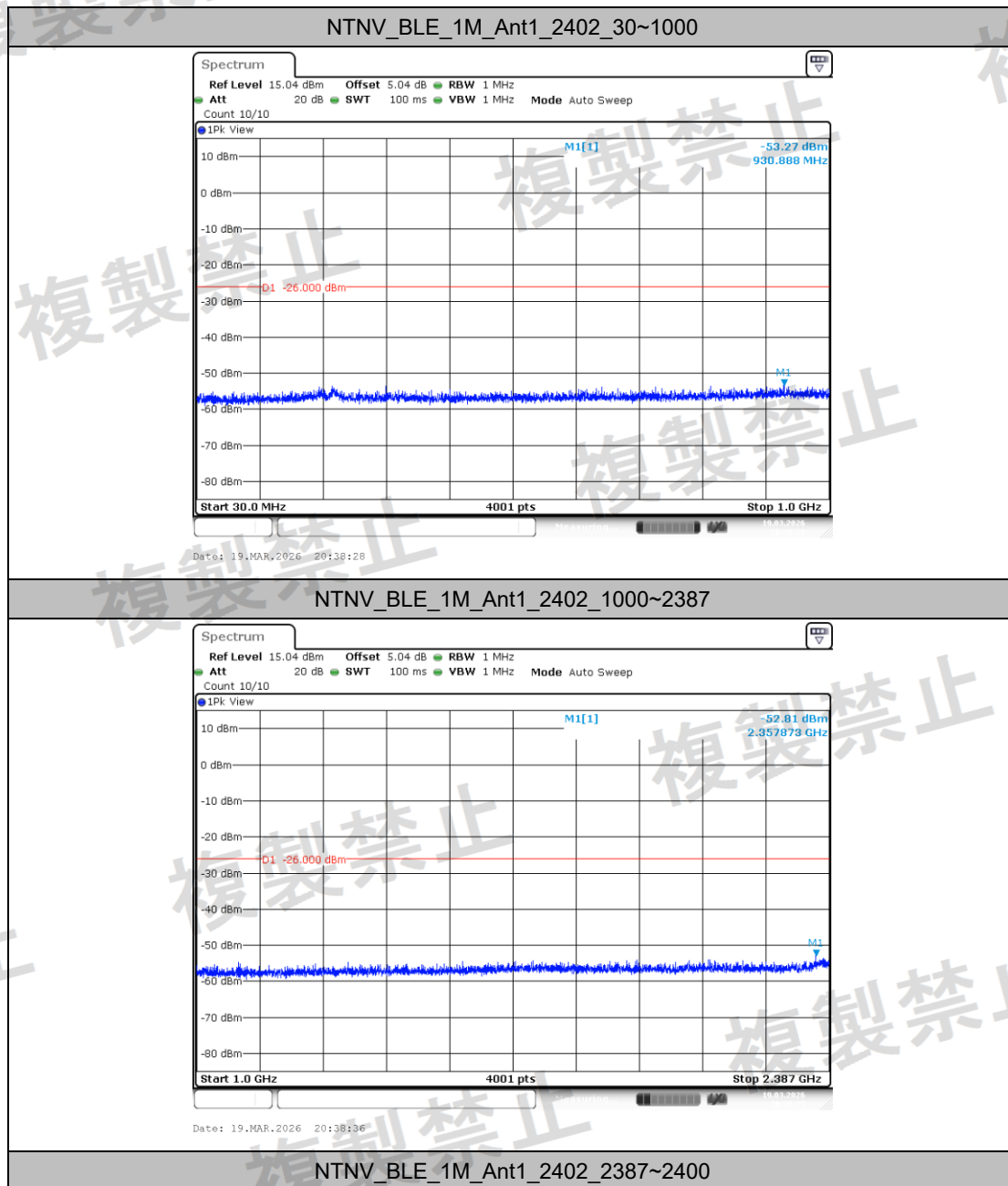


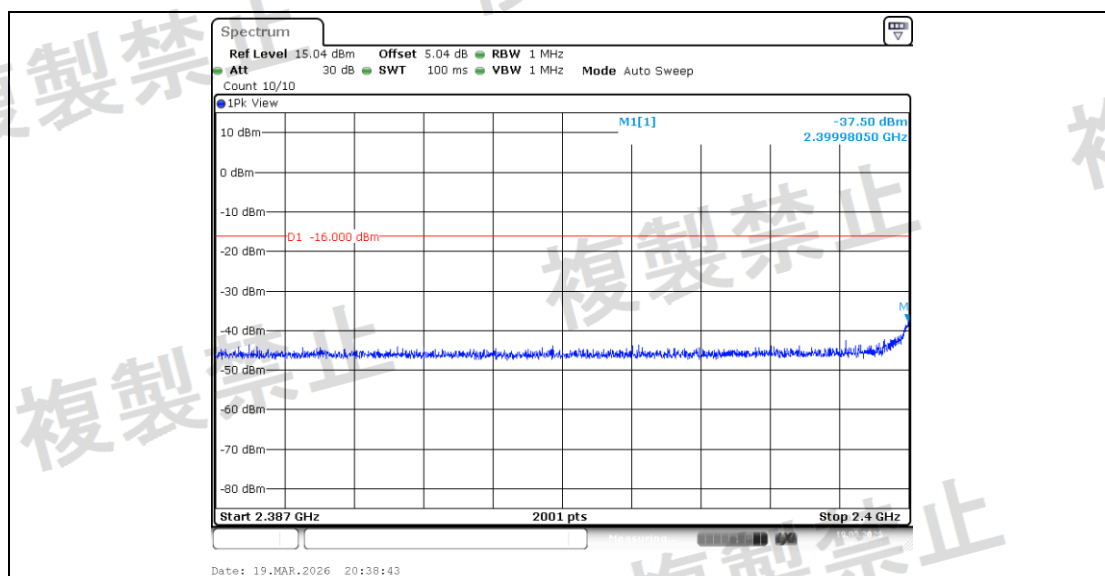
Appendix D: Spurious Emission of TX

Test Result

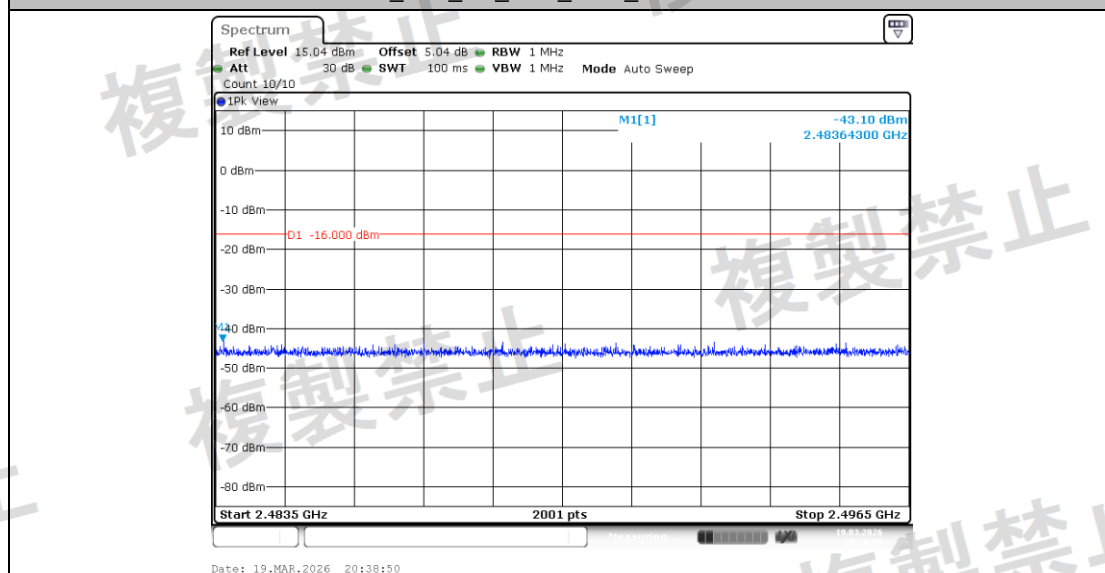
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	930.89	-53.27	≤-26	0.00471	≤2.5	PASS
				1000~2387	2357.87	-52.81	≤-26	0.00524	≤2.5	PASS
				2387~2400	2399.98	-37.50	≤-16	0.17783	≤25	PASS
				2483.5~2496.5	2483.64	-43.10	≤-16	0.04898	≤25	PASS
				2496.5~13000	5222.16	-46.45	≤-26	0.02265	≤2.5	PASS
			2440	30~1000	875.36	-53.22	≤-26	0.00476	≤2.5	PASS
				1000~2387	2310.72	-53.65	≤-26	0.00432	≤2.5	PASS
				2387~2400	2391.33	-43.50	≤-16	0.04467	≤25	PASS
				2483.5~2496.5	2493.06	-43.64	≤-16	0.04325	≤25	PASS
				2496.5~13000	6792.43	-48.11	≤-26	0.01545	≤2.5	PASS
			2480	30~1000	928.95	-53.16	≤-26	0.00483	≤2.5	PASS
				1000~2387	2015.98	-53.86	≤-26	0.00411	≤2.5	PASS
				2387~2400	2394.10	-43.39	≤-16	0.04581	≤25	PASS
				2483.5~2496.5	2484.74	-42.82	≤-16	0.05224	≤25	PASS
				2496.5~13000	5224.78	-43.77	≤-26	0.04198	≤2.5	PASS

Test Graphs

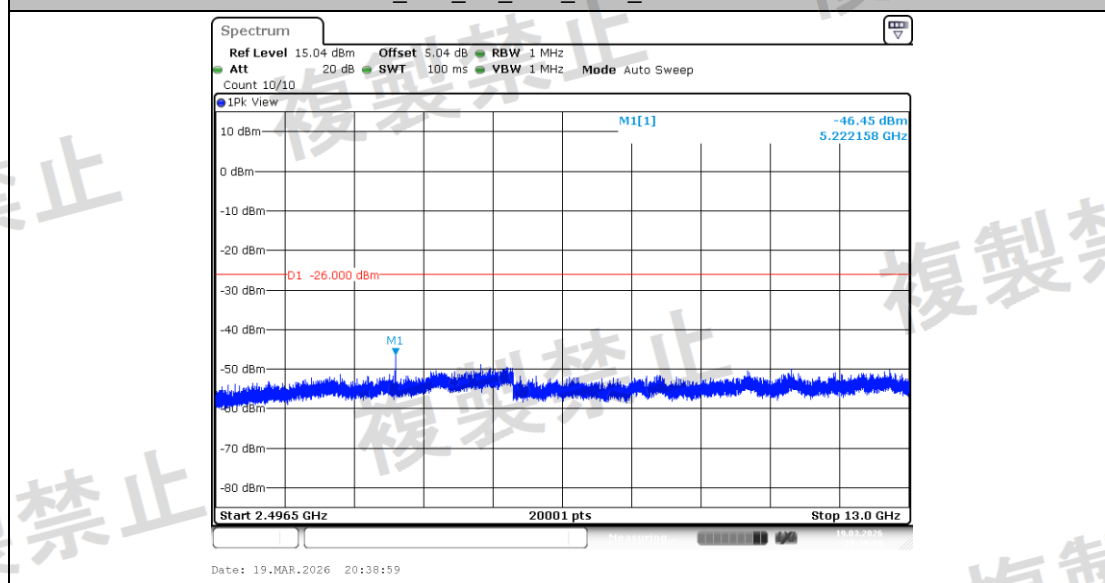


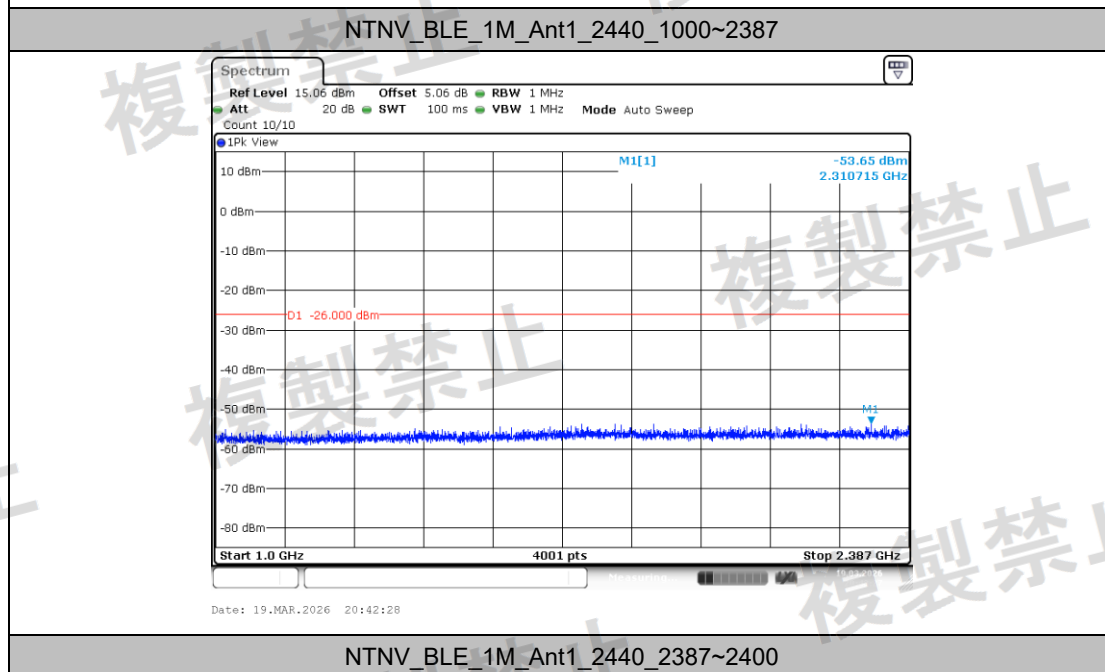
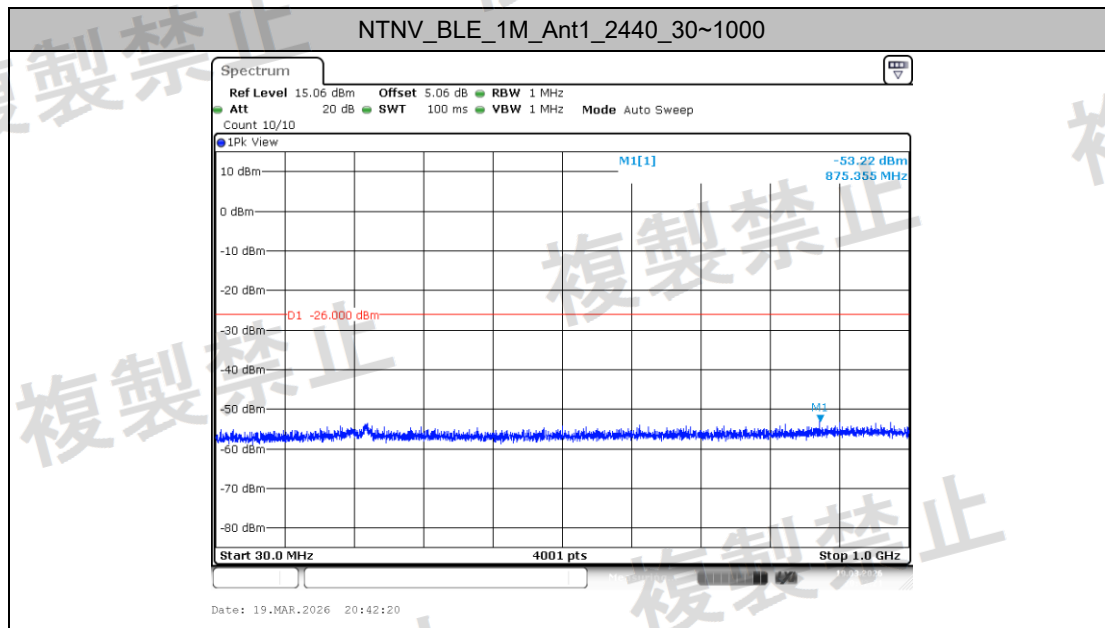


NTNV_BLE_1M_Ant1_2402_2483.5~2496.5

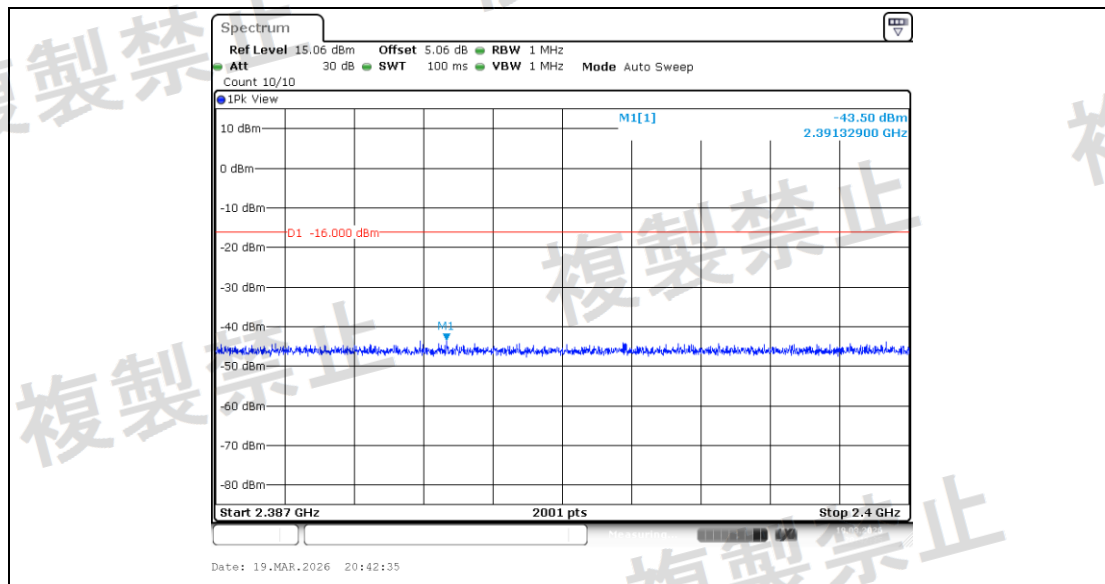


NTNV_BLE_1M_Ant1_2402_2496.5~13000

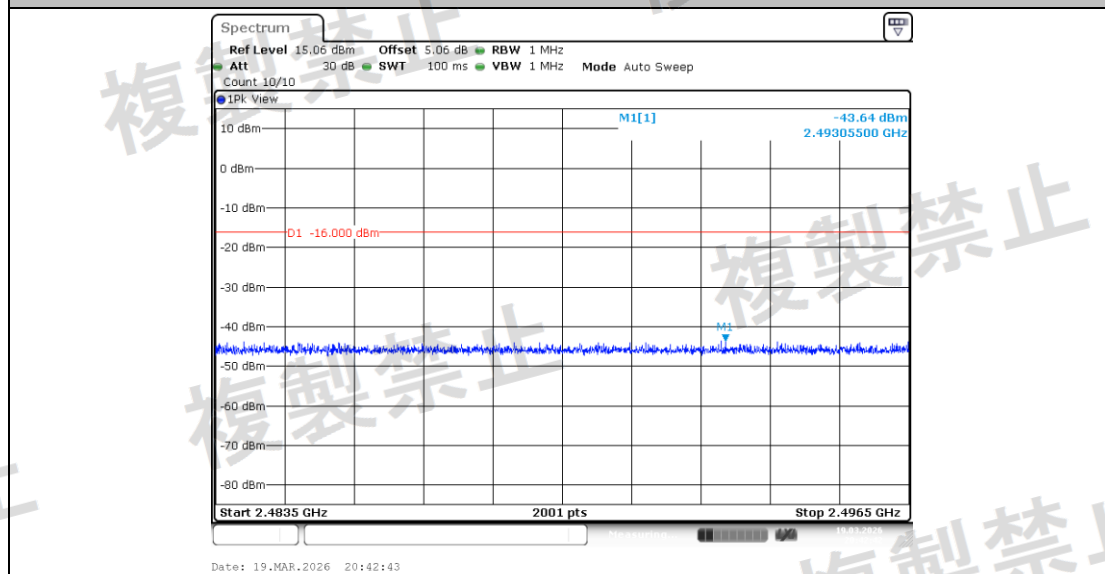




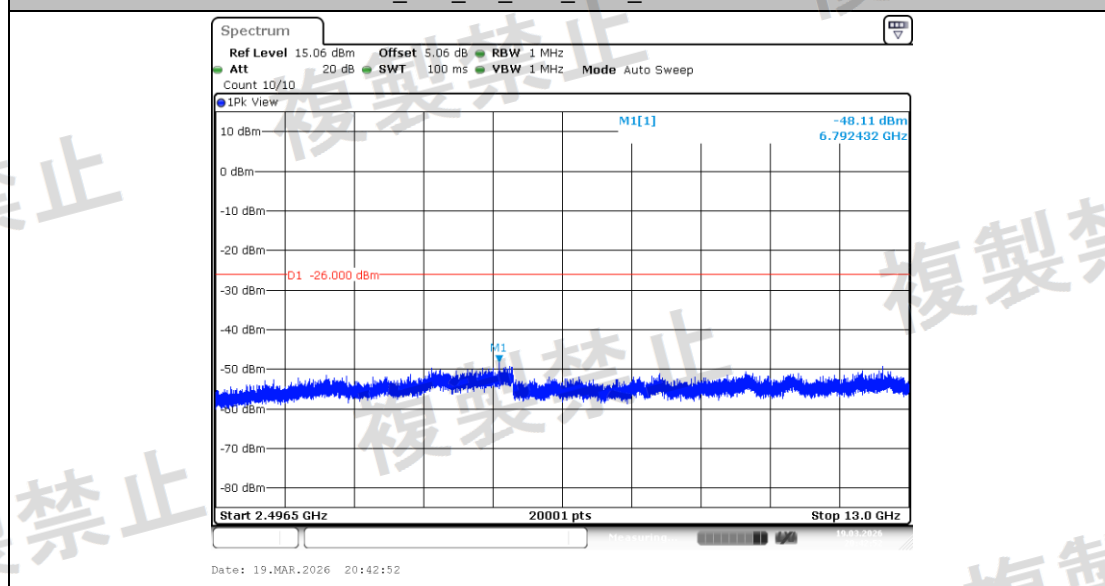
NTNV_BLE_1M_Ant1_2440_2387~2400

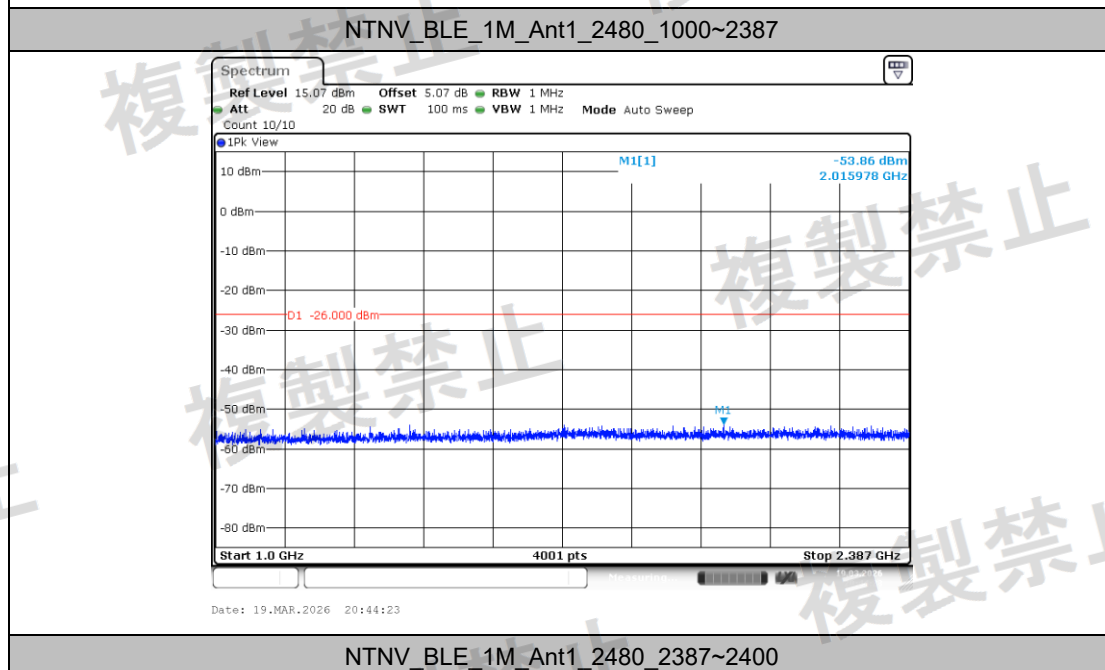
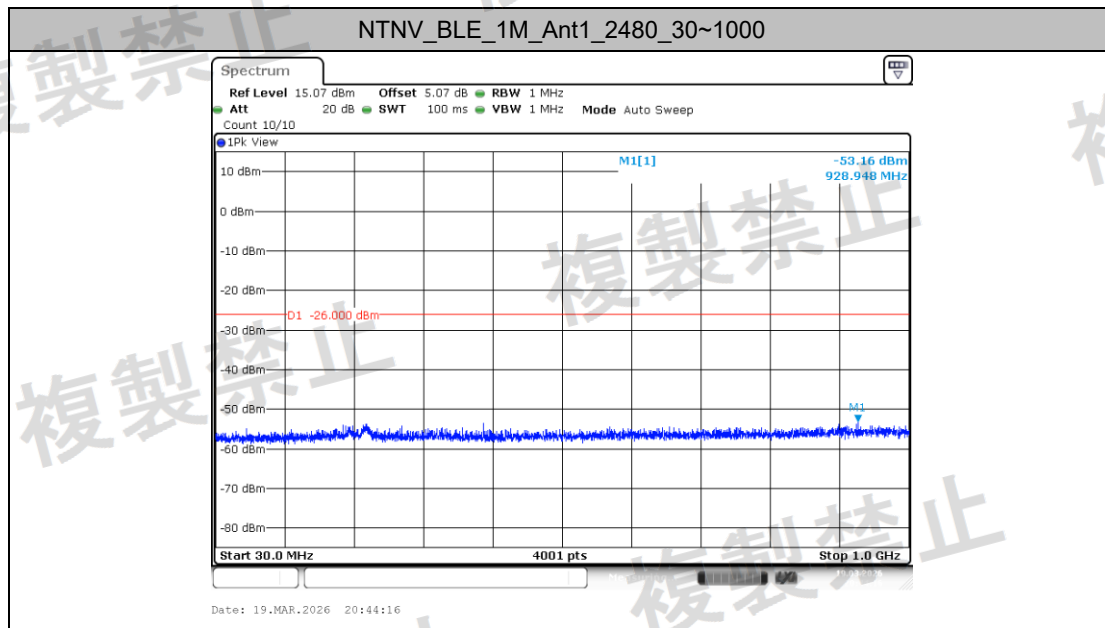


NTNV_BLE_1M_Ant1_2440_2483.5~2496.5

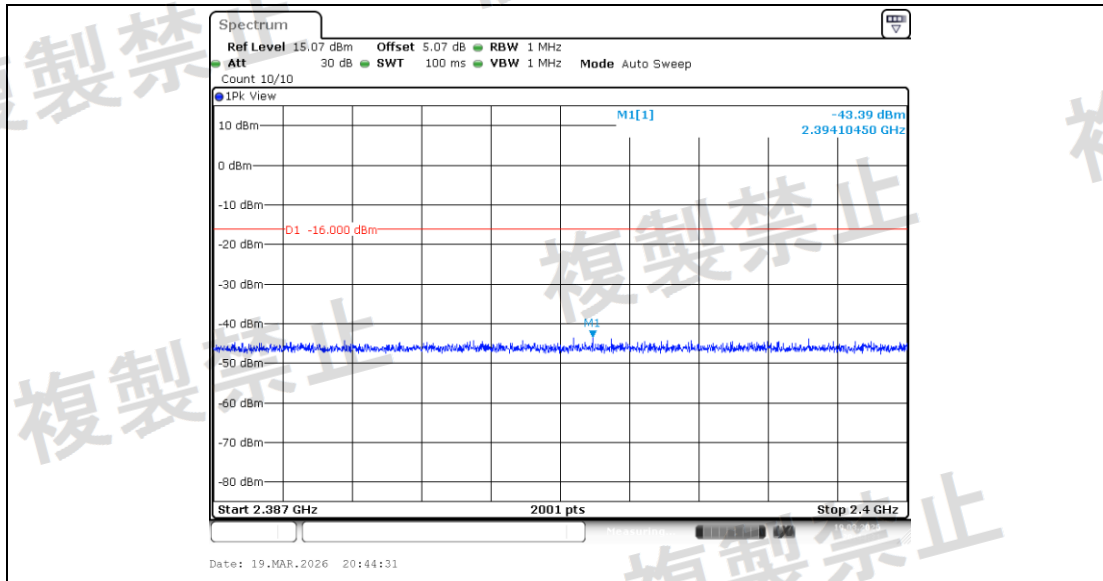


NTNV_BLE_1M_Ant1_2440_2496.5~13000

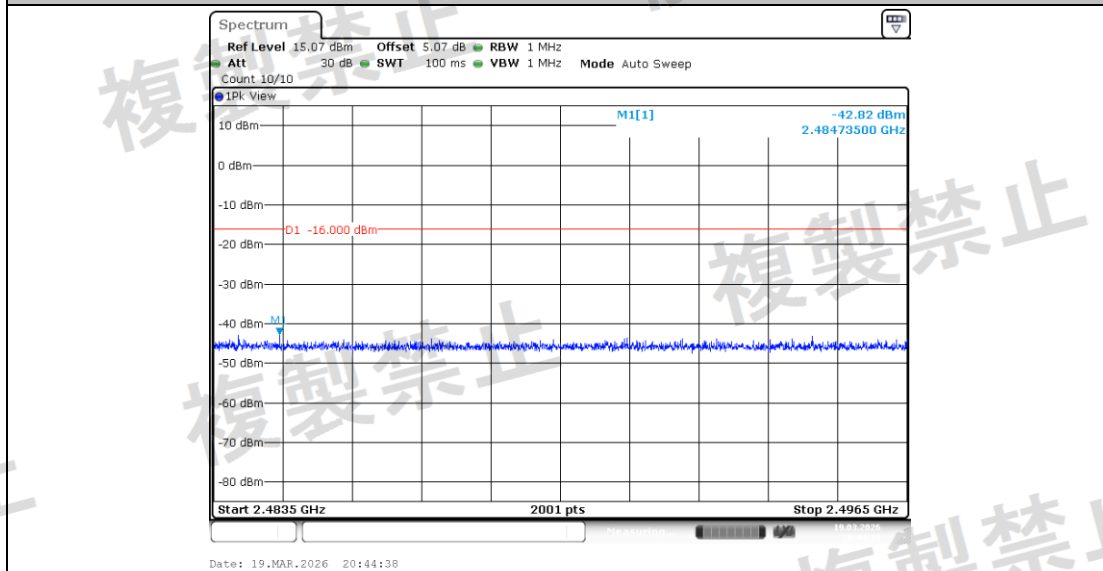




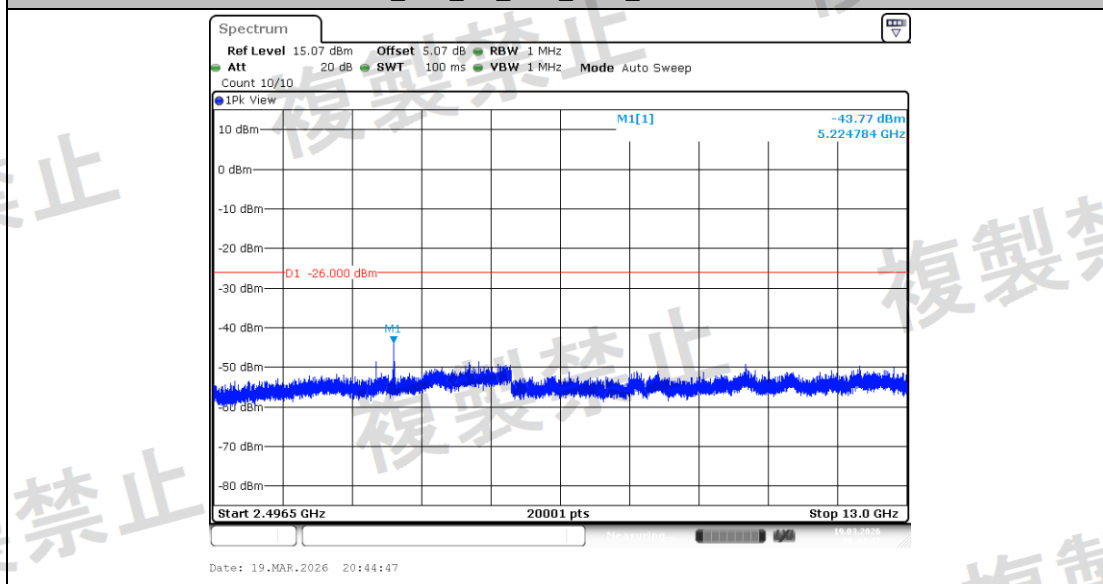
NTNV_BLE_1M_Ant1_2480_2387~2400



NTNV_BLE_1M_Ant1_2480_2483.5~2496.5



NTNV_BLE_1M_Ant1_2480_2496.5~13000

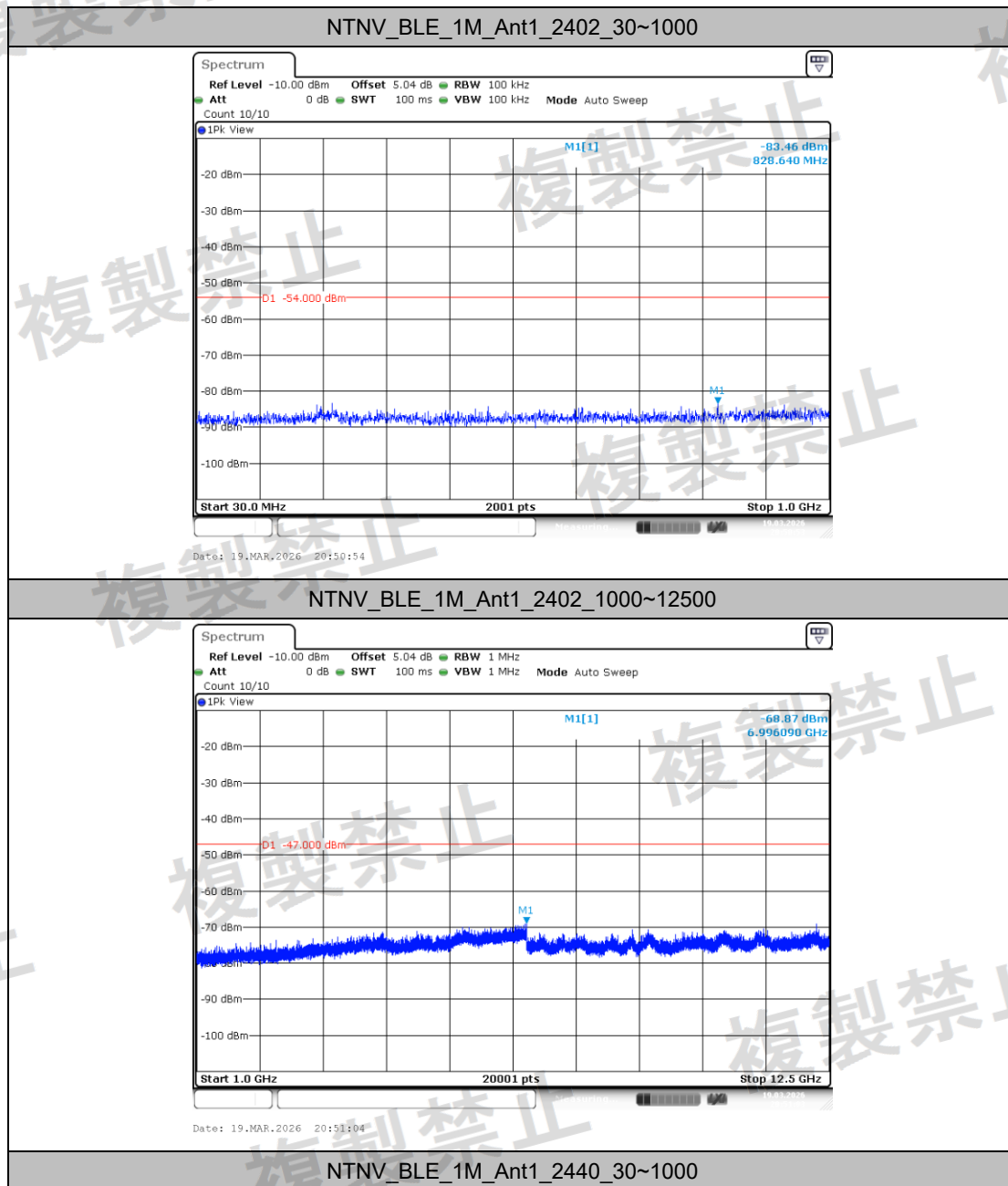


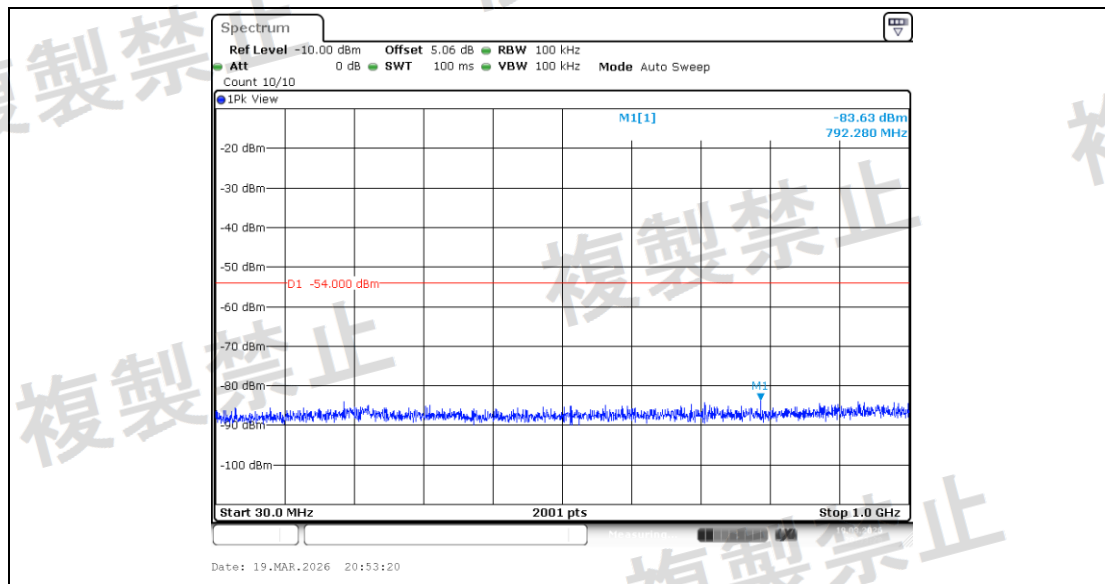
Appendix E: Spurious Emission of RX

Test Result

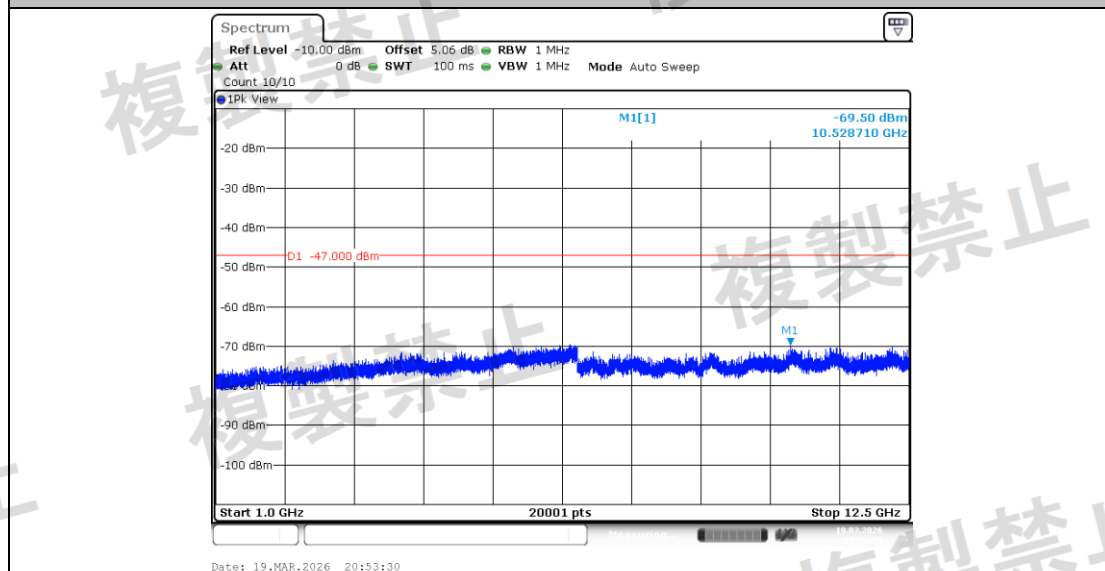
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	828.64	-83.46	≤-54	0.00451	≤4	PASS
				1000~12500	6996.09	-68.87	≤-47	0.12972	≤20	PASS
			2440	30~1000	792.28	-83.63	≤-54	0.00434	≤4	PASS
				1000~12500	10528.71	-69.50	≤-47	0.11220	≤20	PASS
			2480	30~1000	945.95	-84.14	≤-54	0.00385	≤4	PASS
				1000~12500	6833.95	-69.80	≤-47	0.10471	≤20	PASS

Test Graphs





NTNV_BLE_1M_Ant1_2440_1000~12500



NTNV_BLE_1M_Ant1_2480_30~1000

