



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

Appendix RF Test Data for BLE

Company : DOSHISHA CORPORATION

EUT : SmartBadge

Model Number : EB180TSL

Report No. : CTA26052600201

Reviewed By : Eric Wang



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Appendix A: Frequency Error

Test Result

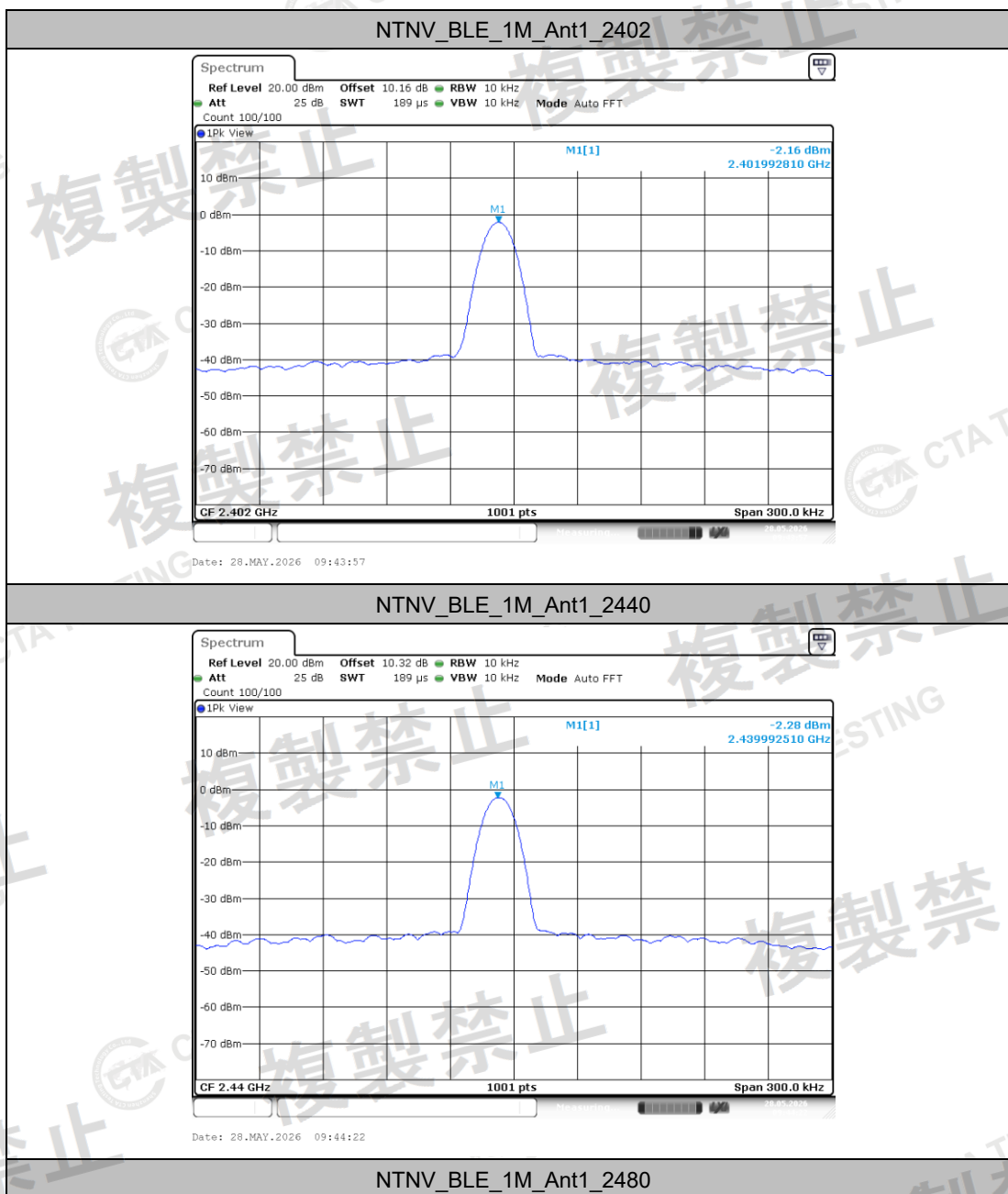
TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	-2.99334	±50	PASS
			2440	-3.06967	±50	PASS
			2480	-3.02016	±50	PASS



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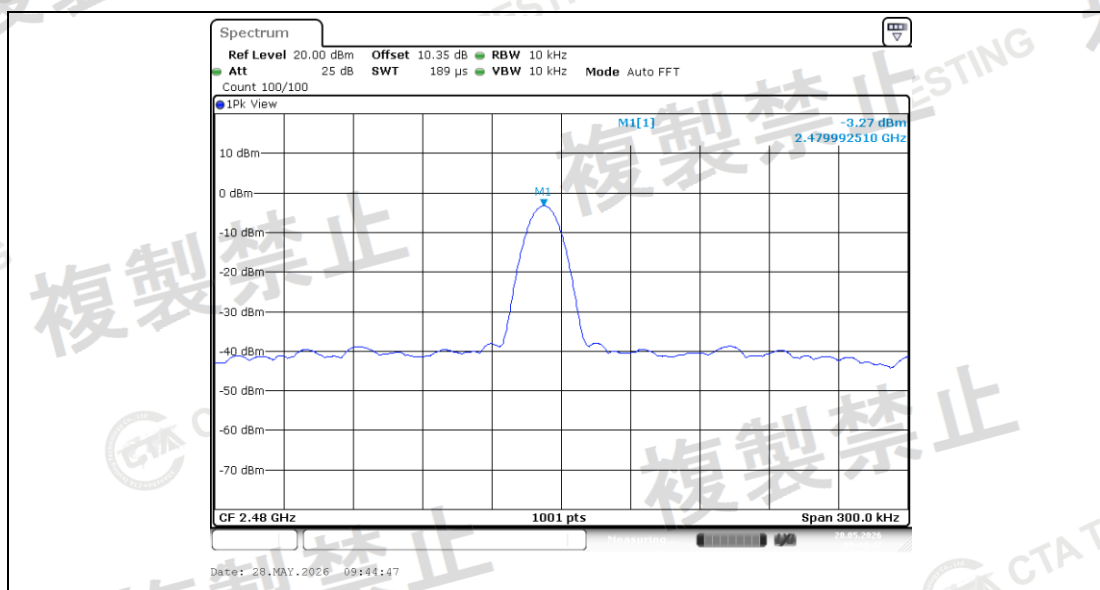
Test Graphs





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Appendix B: Occupied Bandwidth

Test Result

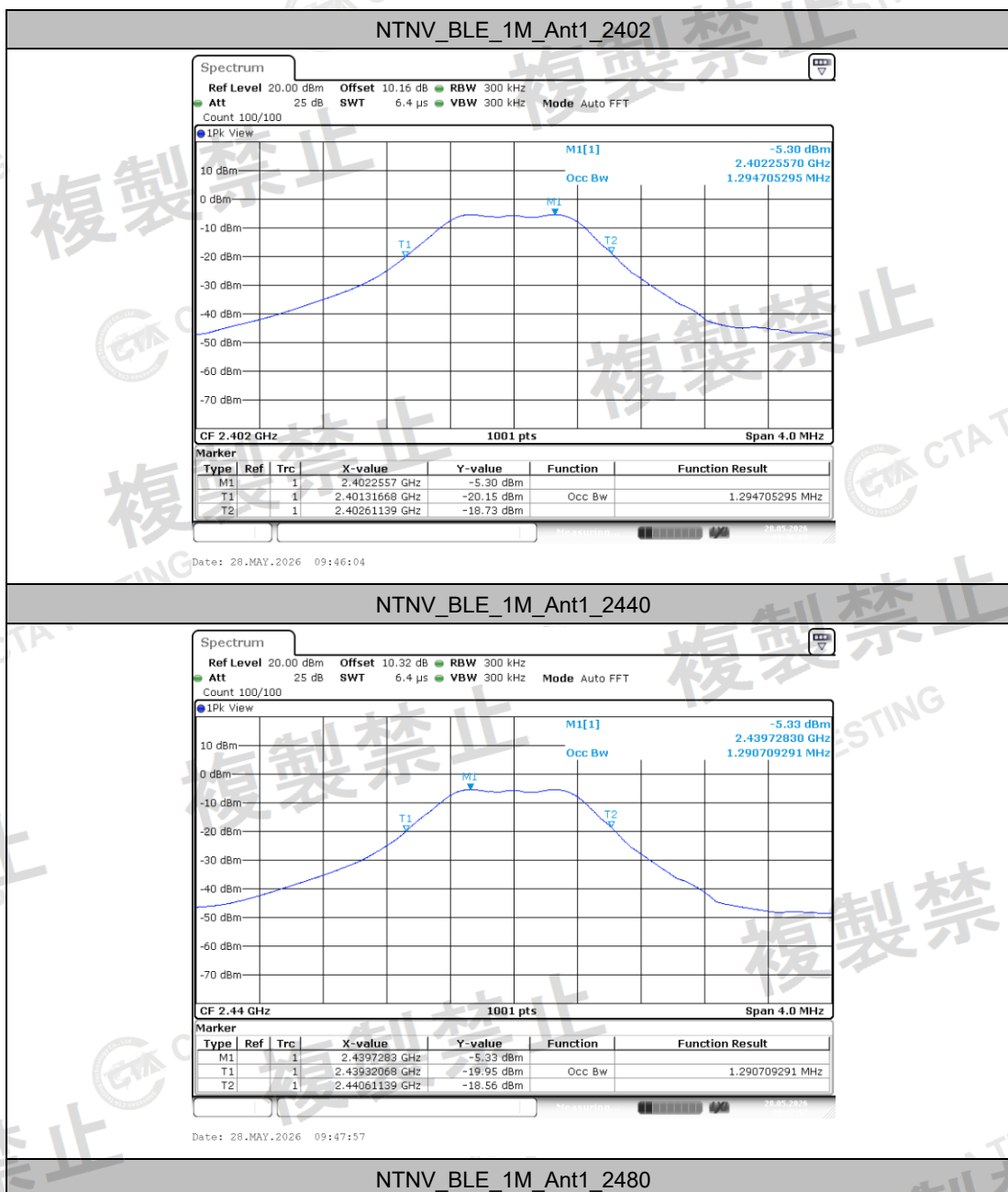
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.295	≤26	PASS
			2440	1.291	≤26	PASS
			2480	1.303	≤26	PASS



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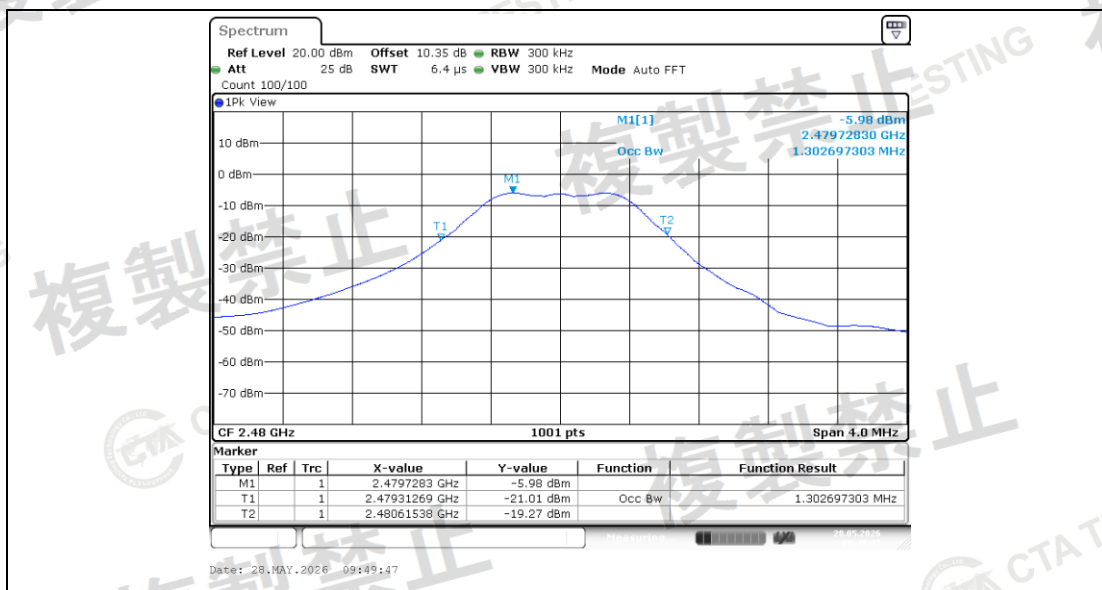
Test Graphs





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Appendix C: Spread Bandwidth

Test Result

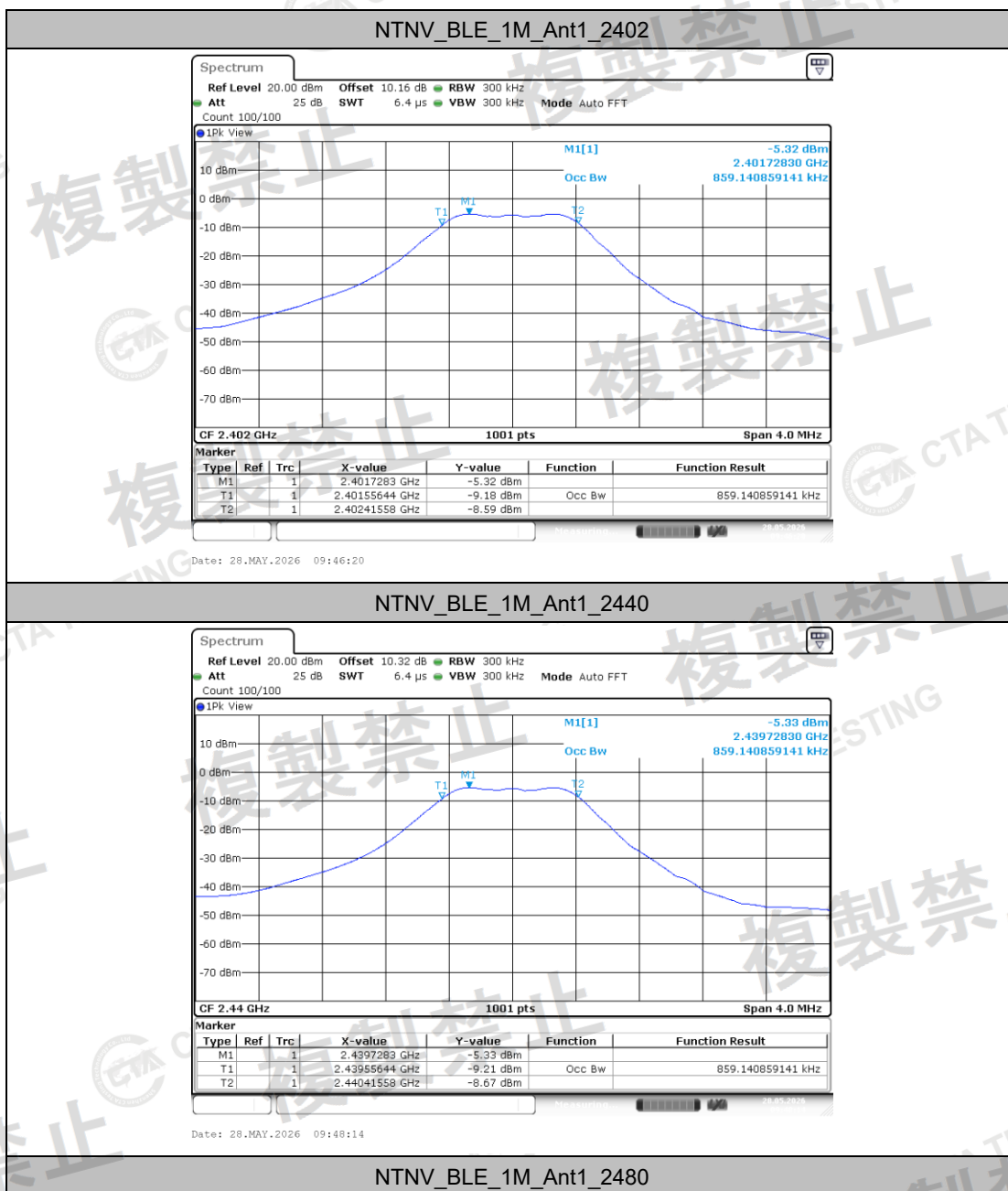
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.859	≥ 0.5	PASS
			2440	0.859	≥ 0.5	PASS
			2480	0.859	≥ 0.5	PASS



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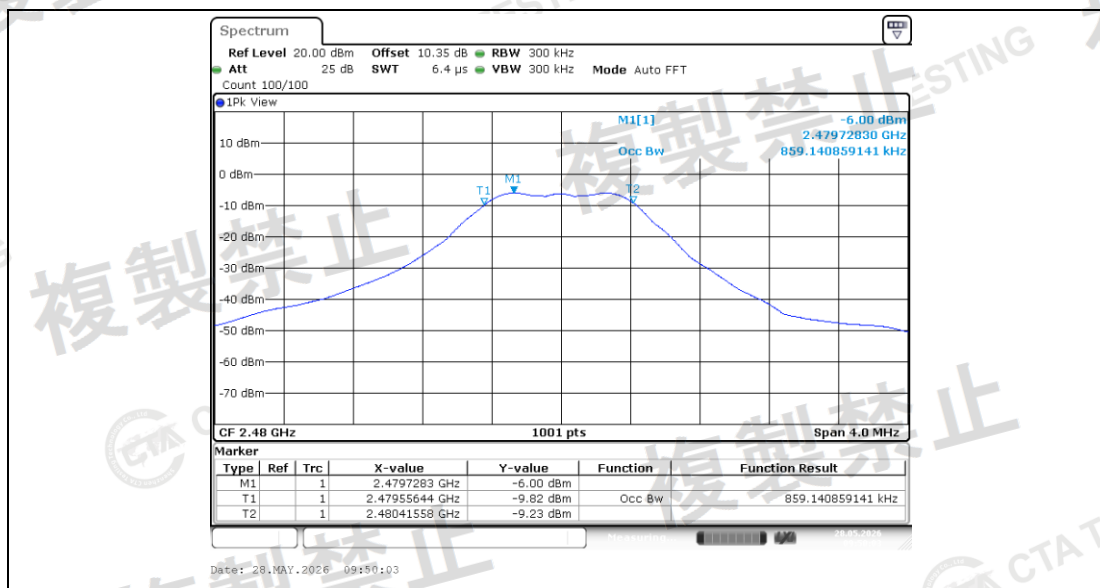
Test Graphs





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Appendix D: Spurious Emission of TX

Test Result

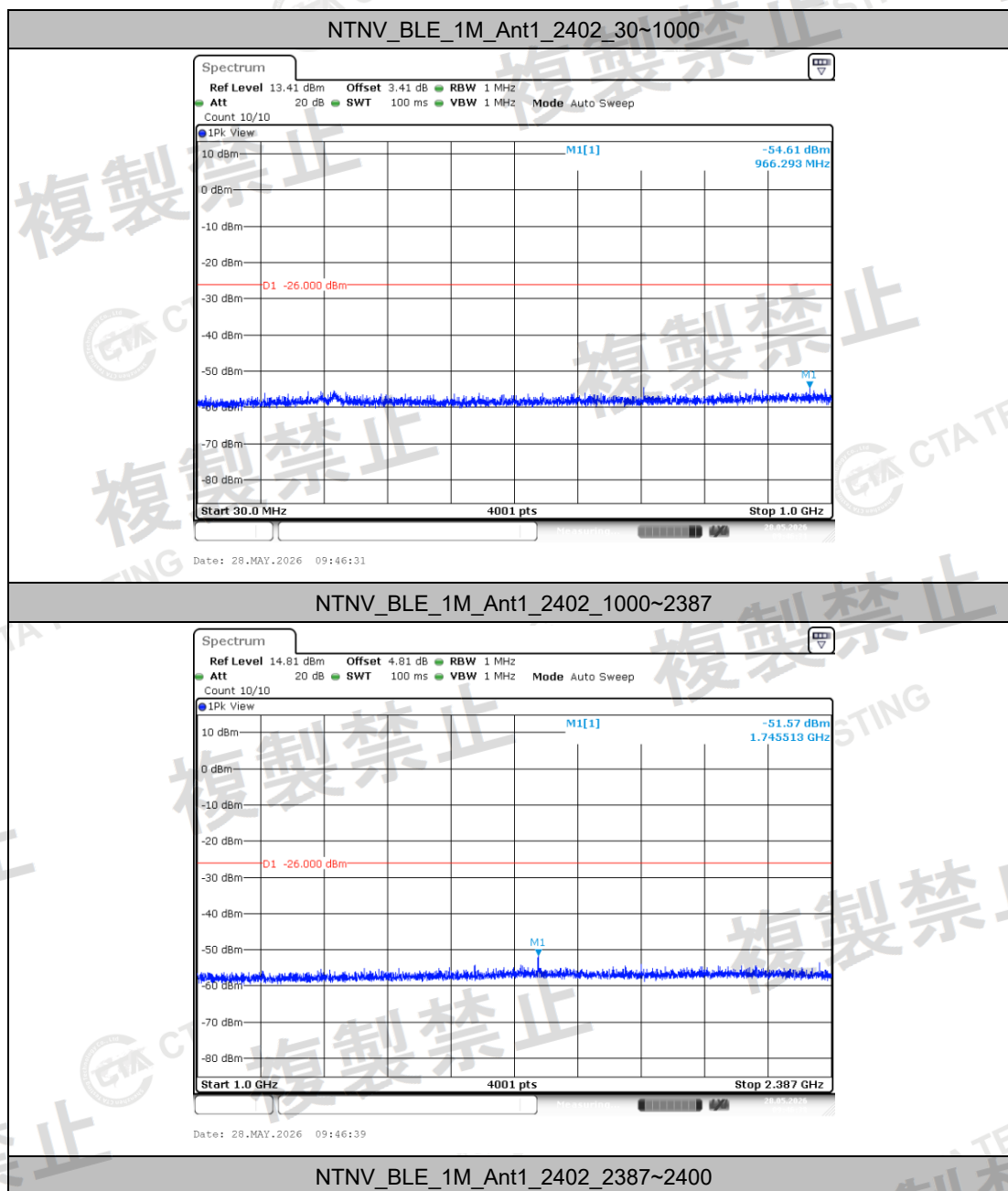
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	966.29	-54.61	≤-26	0.00346	≤2.5	PASS
				1000~2387	1745.51	-51.57	≤-26	0.00697	≤2.5	PASS
				2387~2400	2400.00	-29.68	≤-16	1.07647	≤25	PASS
				2483.5~2496.5	2487.86	-43.65	≤-16	0.04315	≤25	PASS
				2496.5~13000	6923.73	-44.40	≤-26	0.03631	≤2.5	PASS
			2440	30~1000	925.31	-55.10	≤-26	0.00309	≤2.5	PASS
				1000~2387	2313.14	-53.44	≤-26	0.00453	≤2.5	PASS
				2387~2400	2399.62	-43.78	≤-16	0.04188	≤25	PASS
				2483.5~2496.5	2492.54	-43.84	≤-16	0.04130	≤25	PASS
				2496.5~13000	4879.74	-43.45	≤-26	0.04519	≤2.5	PASS
			2480	30~1000	708.27	-54.58	≤-26	0.00348	≤2.5	PASS
				1000~2387	1778.80	-52.88	≤-26	0.00515	≤2.5	PASS
				2387~2400	2397.75	-43.77	≤-16	0.04198	≤25	PASS
				2483.5~2496.5	2489.98	-42.87	≤-16	0.05164	≤25	PASS
				2496.5~13000	6979.92	-44.17	≤-26	0.03828	≤2.5	PASS



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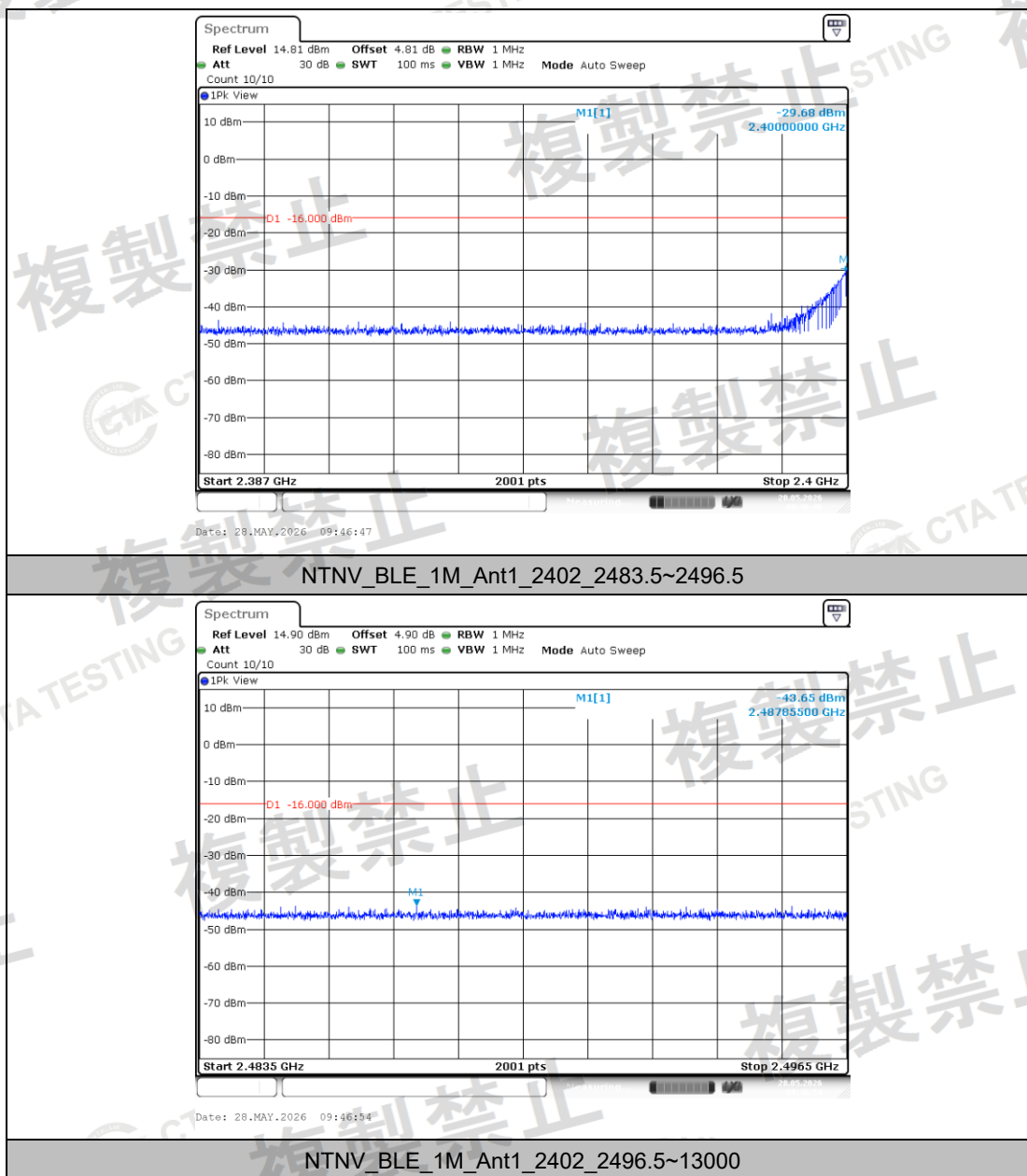
Test Graphs





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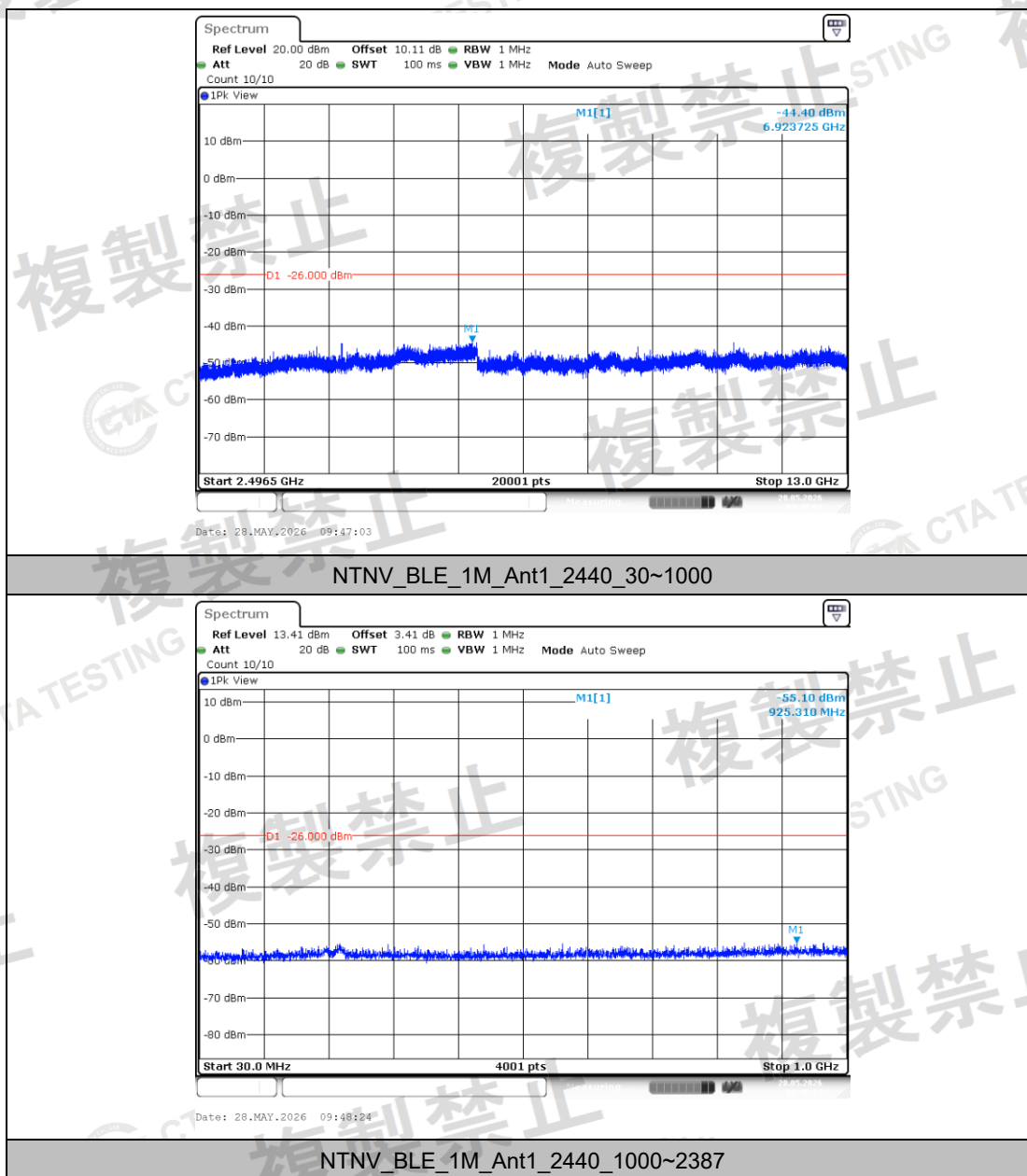
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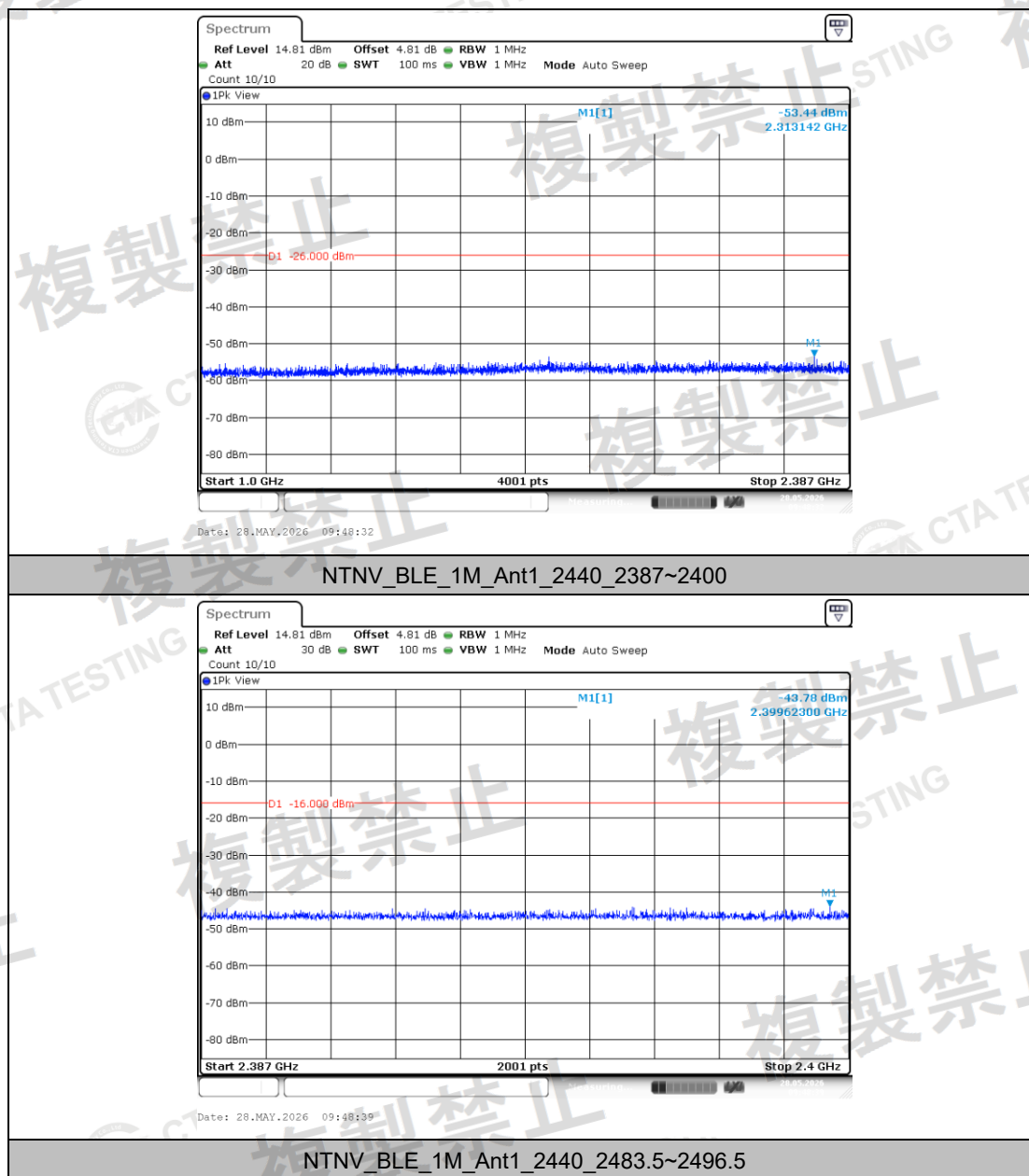
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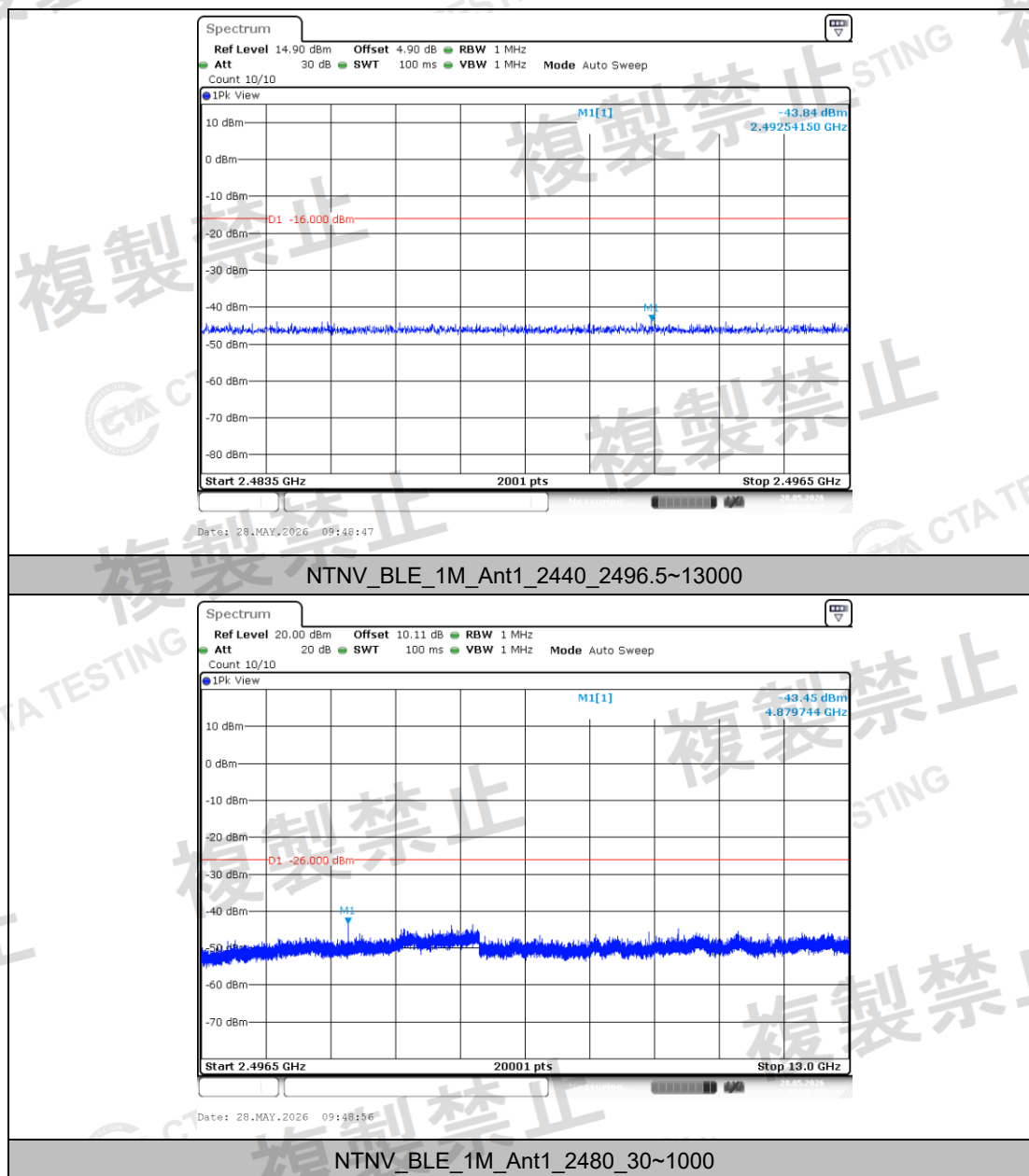
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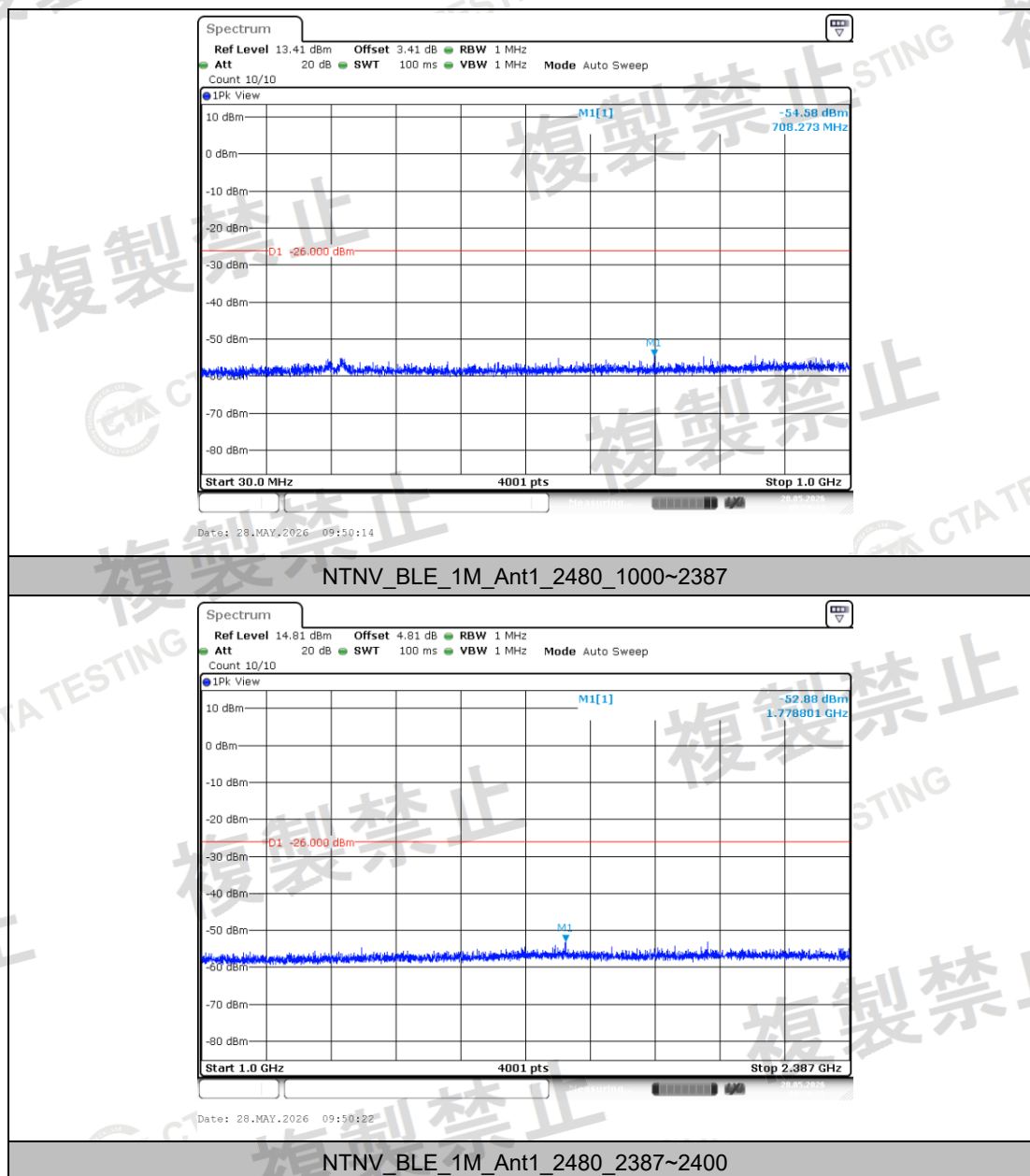
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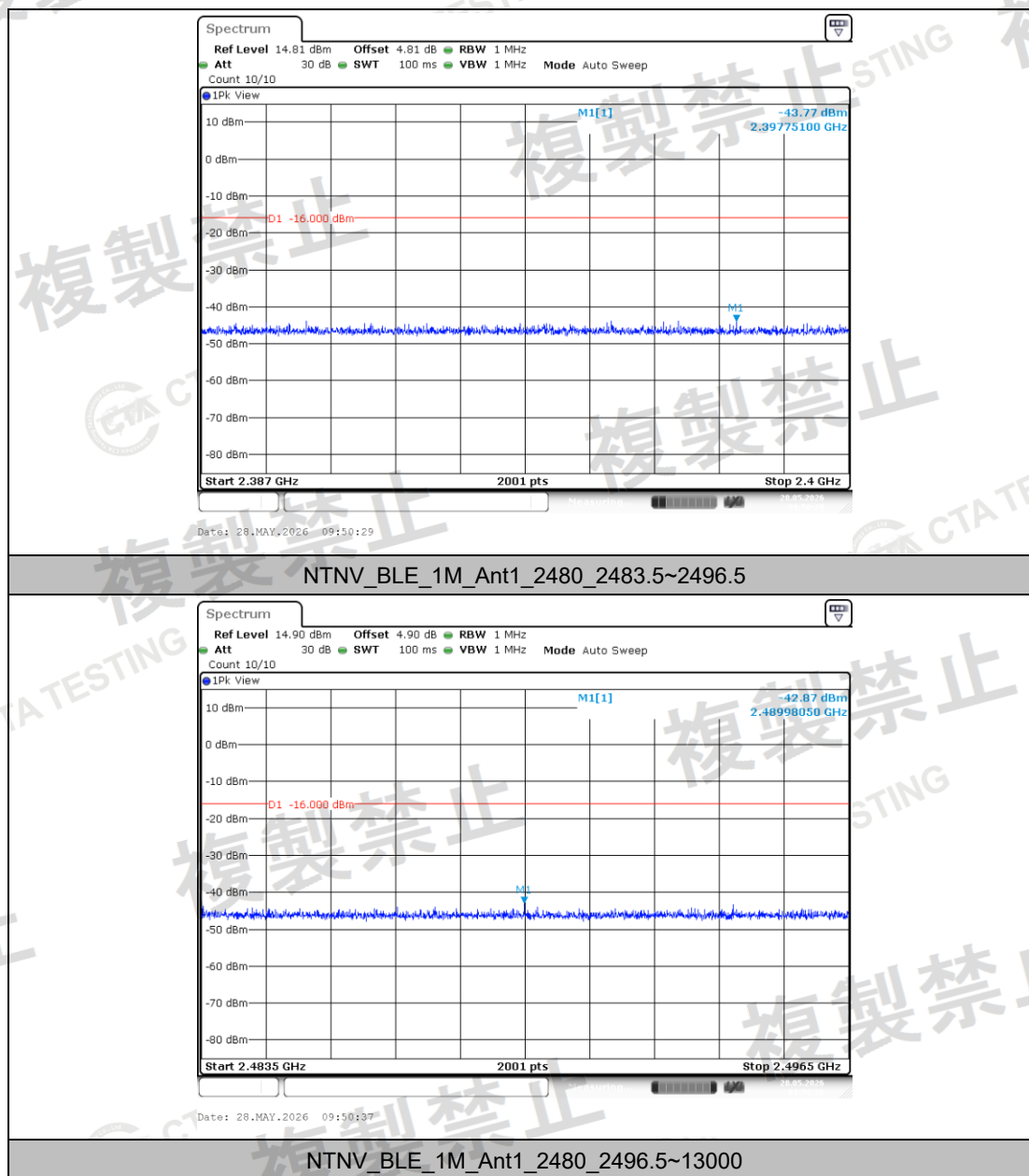
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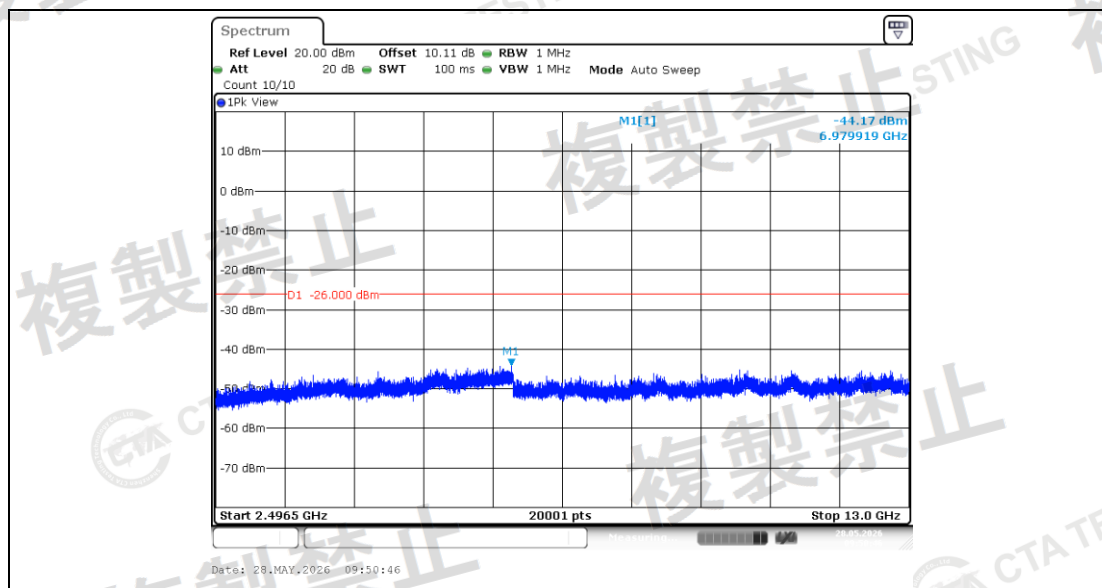
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Appendix E: Spurious Emission of RX

Test Result

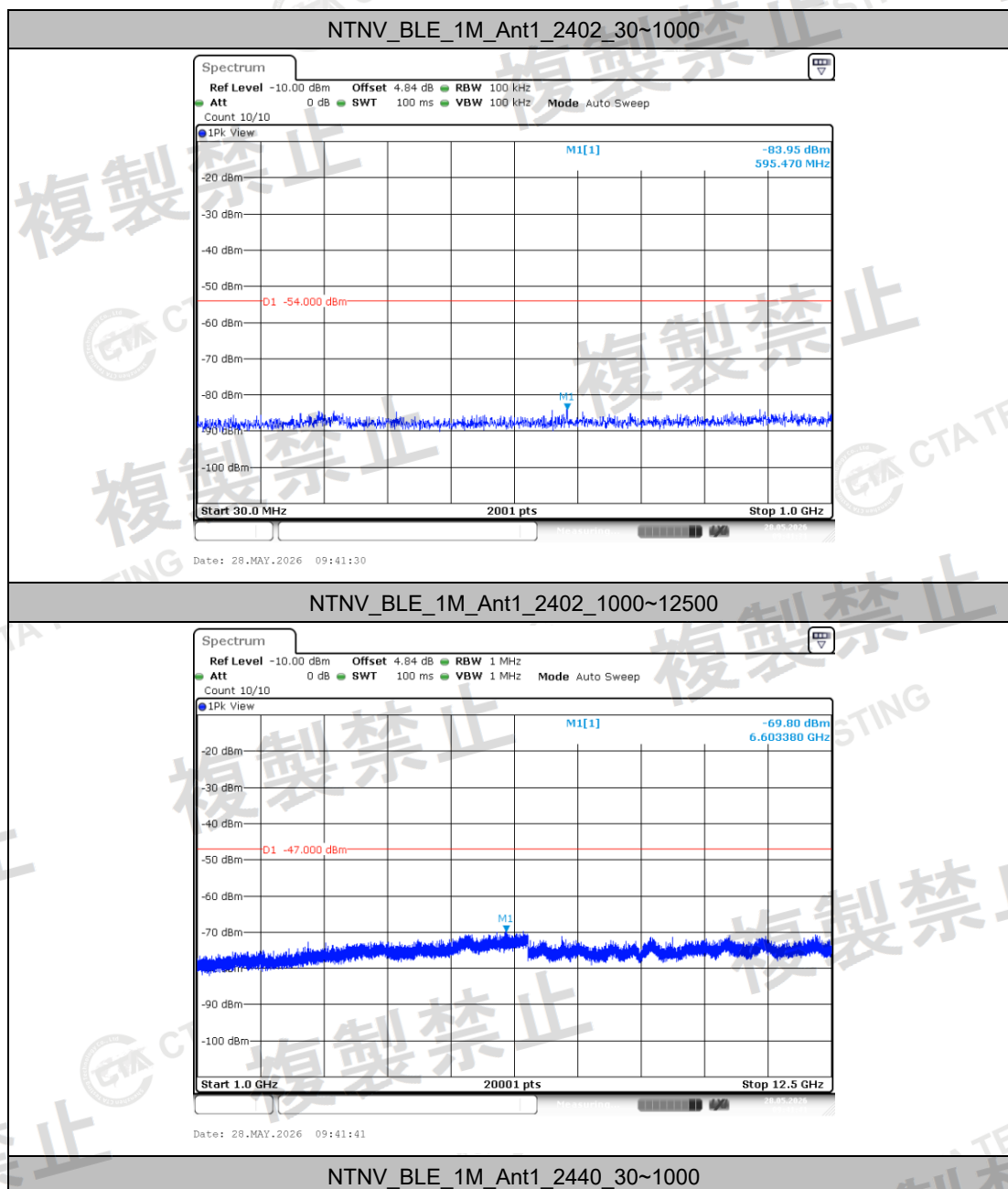
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	595.47	-83.95	≤-54	0.0040 3	≤4	PASS
				1000~12500	6603.3 8	-69.80	≤-47	0.1047 1	≤20	PASS
			2440	30~1000	934.32	-83.83	≤-54	0.0041 4	≤4	PASS
				1000~12500	6864.4 2	-70.06	≤-47	0.0986 3	≤20	PASS
			2480	30~1000	955.16	-83.86	≤-54	0.00411	≤4	PASS
				1000~12500	6382.0 2	-69.25	≤-47	0.11885	≤20	PASS



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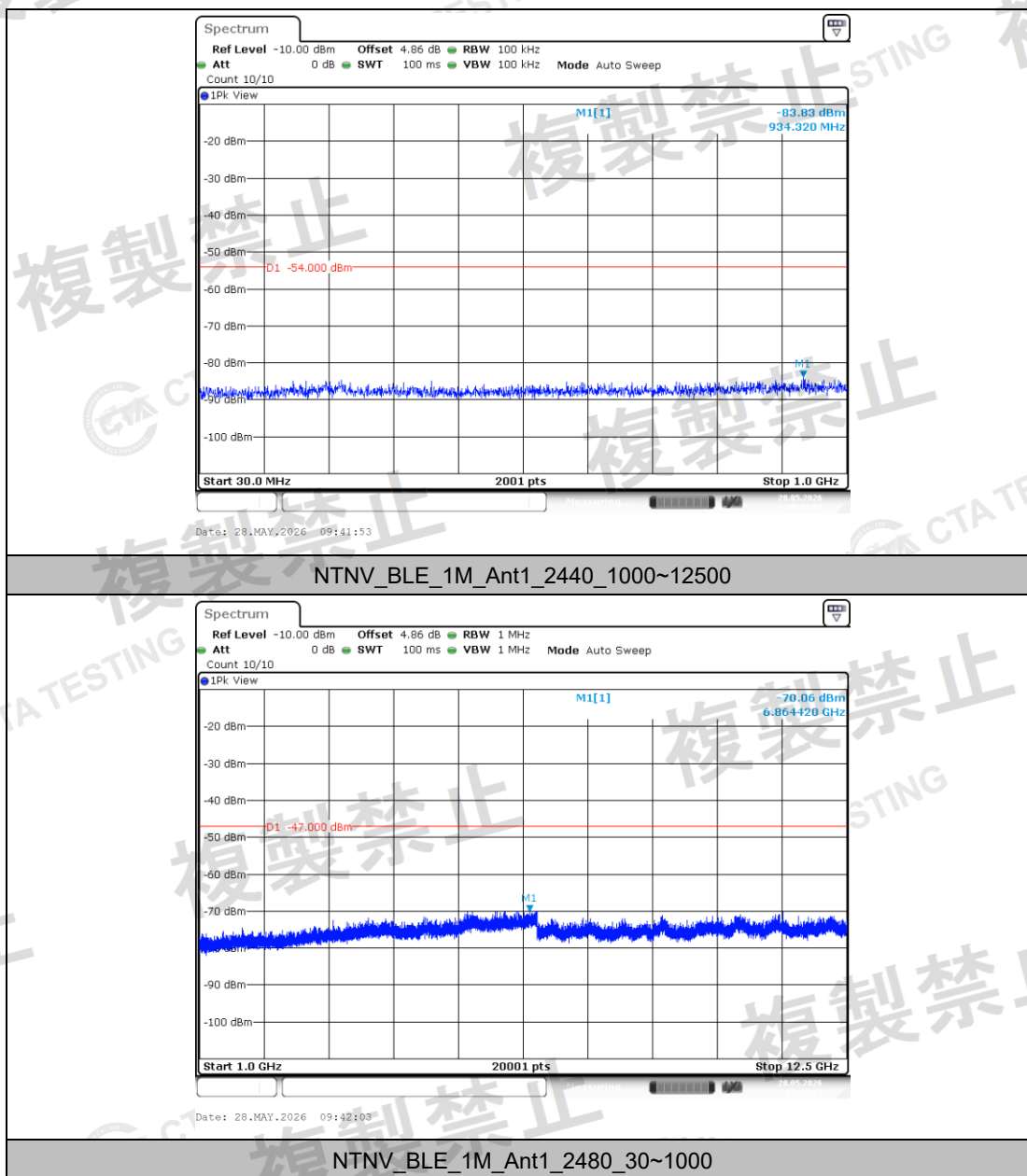
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