

Appendix B for BT LE Test Data

Product Name: FUNLOGY Earbuds SE

Test Model: FLU01

Environmental Conditions

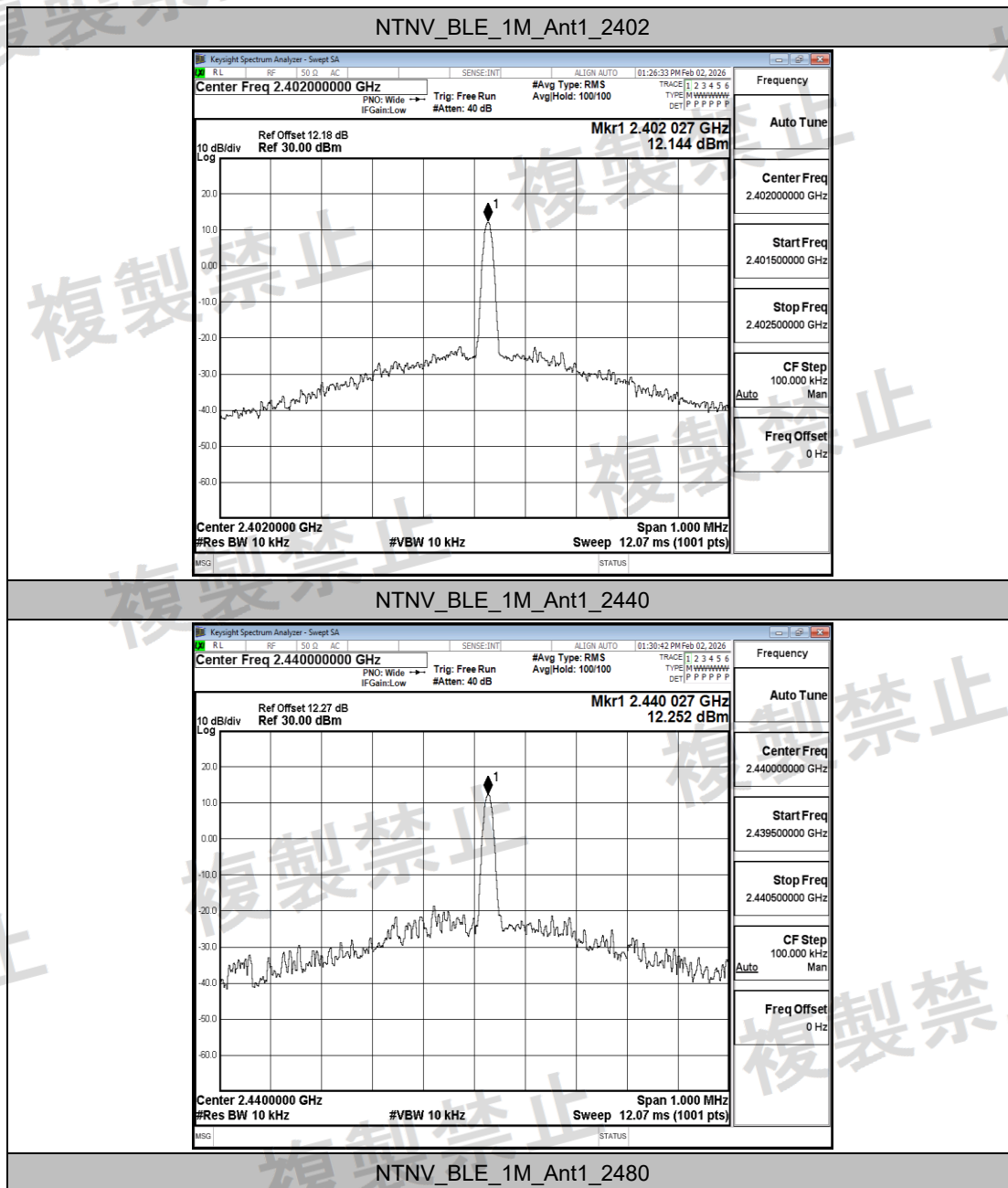
Temperature:	23.6° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Yan Chen
Supervised by:	Fengliu Tang

B.1 Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	11.24063	±50	PASS
			2440	11.06557	±50	PASS
			2480	11.29032	±50	PASS
	BLE_2M	Ant1	2402	11.24063	±50	PASS
			2440	11.06557	±50	PASS
			2480	11.29032	±50	PASS

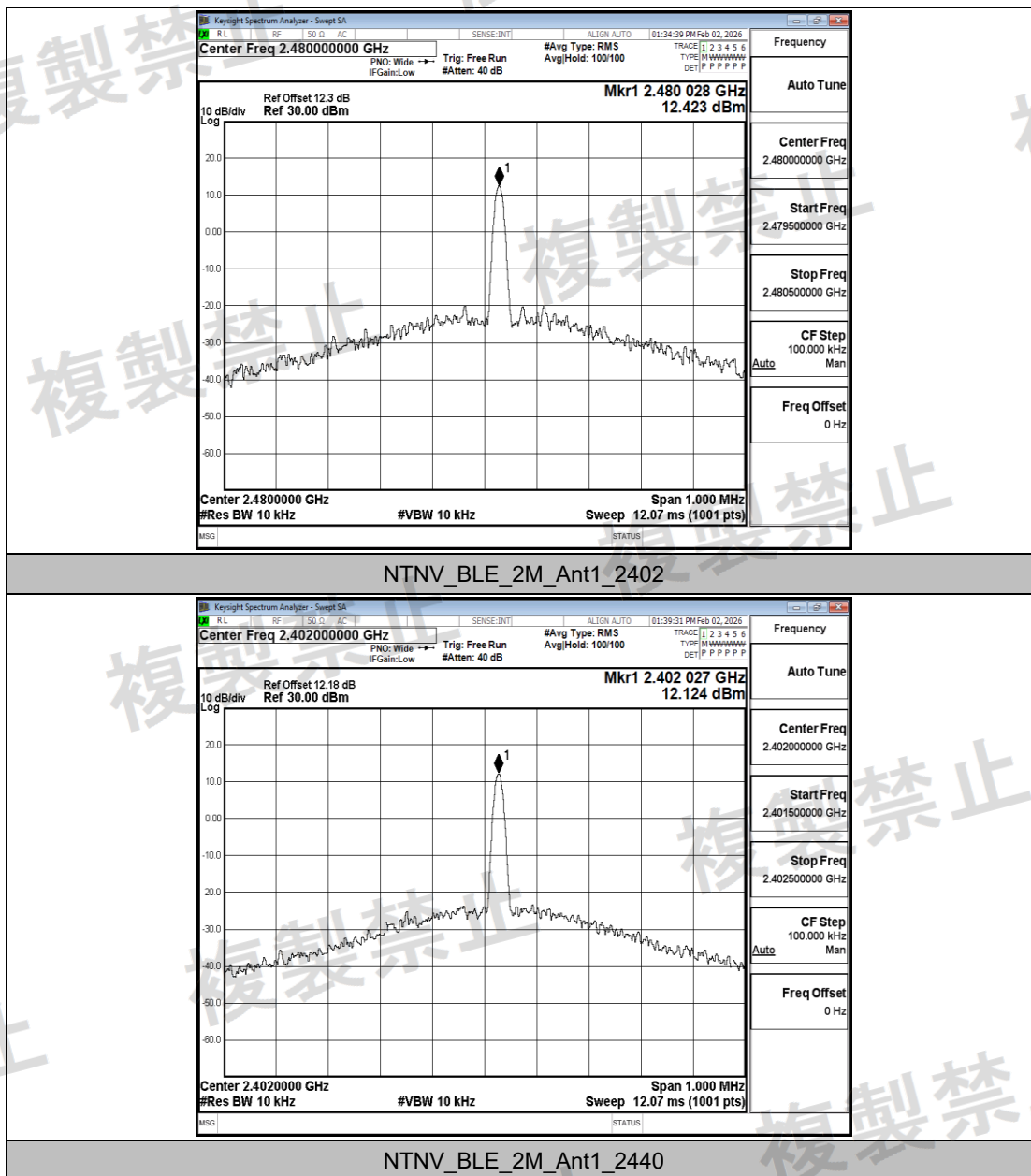
Test Graphs

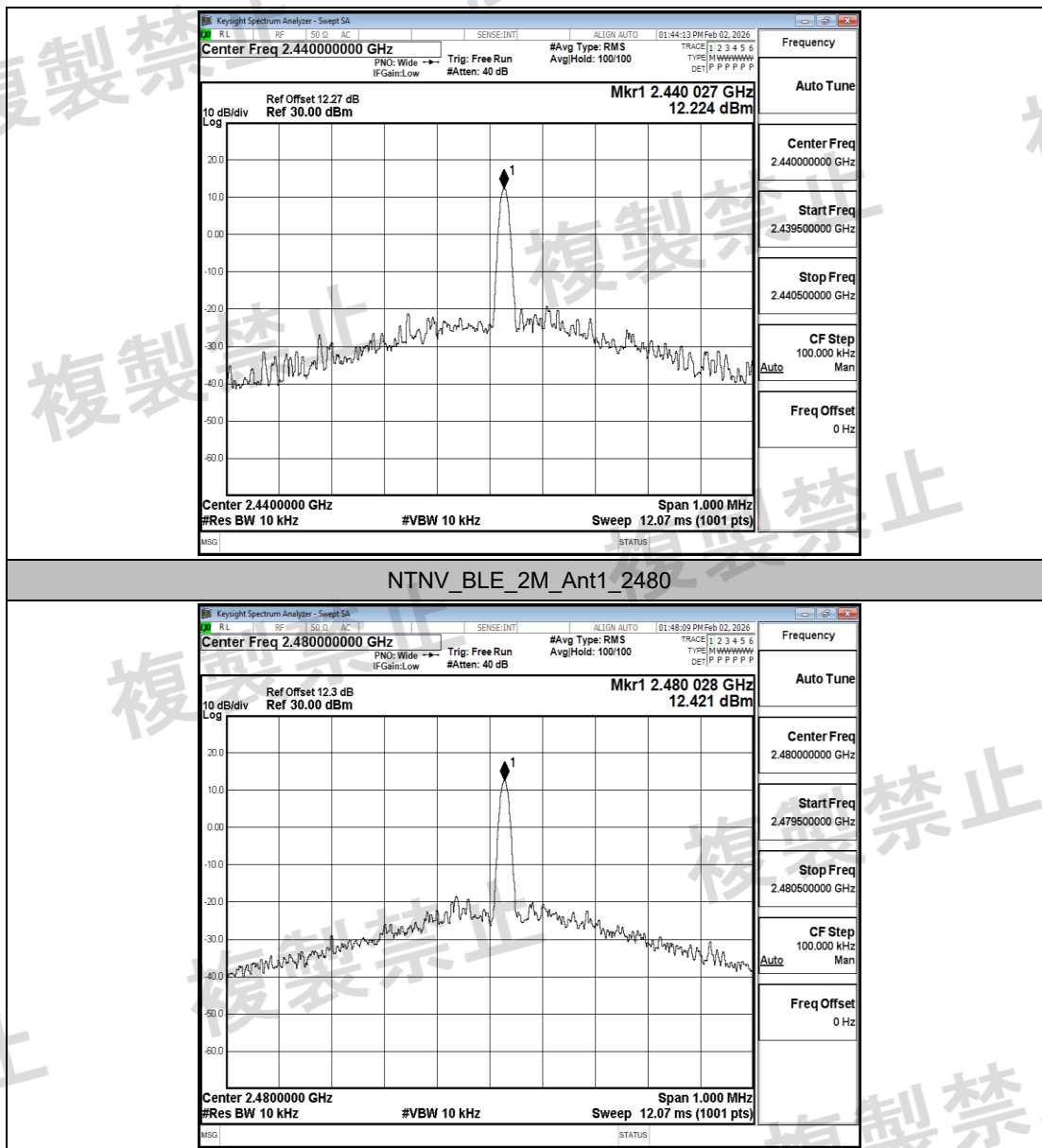


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B.2 Antenna Power & EIRP

Test Result

Antenna Power							
TestCondition	TestMode	Antenna	Freq (MHz)	Result(dBm)	Result(mW)	Limit(mW)	Verdict
NTNV	BLE_1M	Ant1	2402	6.21	4.1783	≤10	PASS
			2440	6.44	4.4055	≤10	PASS
			2480	6.63	4.6026	≤10	PASS
	BLE_2M	Ant1	2402	6.58	4.5499	≤10	PASS
			2440	6.76	4.7424	≤10	PASS
			2480	6.80	4.7863	≤10	PASS

Tolerance								
Test Condition	Test Mode	Antenna	Freq (MHz)	Power (mW)	Rated Power (mW)	Result (%)	Limit (%)	Verdict
NTNV	BLE_1M	Ant1	2402	4.1783	5.0	-16.43	20	PASS
			2440	4.4055	5.0	-11.89	20	PASS
			2480	4.6026	5.0	-7.95	20	PASS
	BLE_2M	Ant1	2402	4.5499	5.0	-9.00	20	PASS
			2440	4.7424	5.0	-5.15	20	PASS
			2480	4.7863	5.0	-4.27	20	PASS

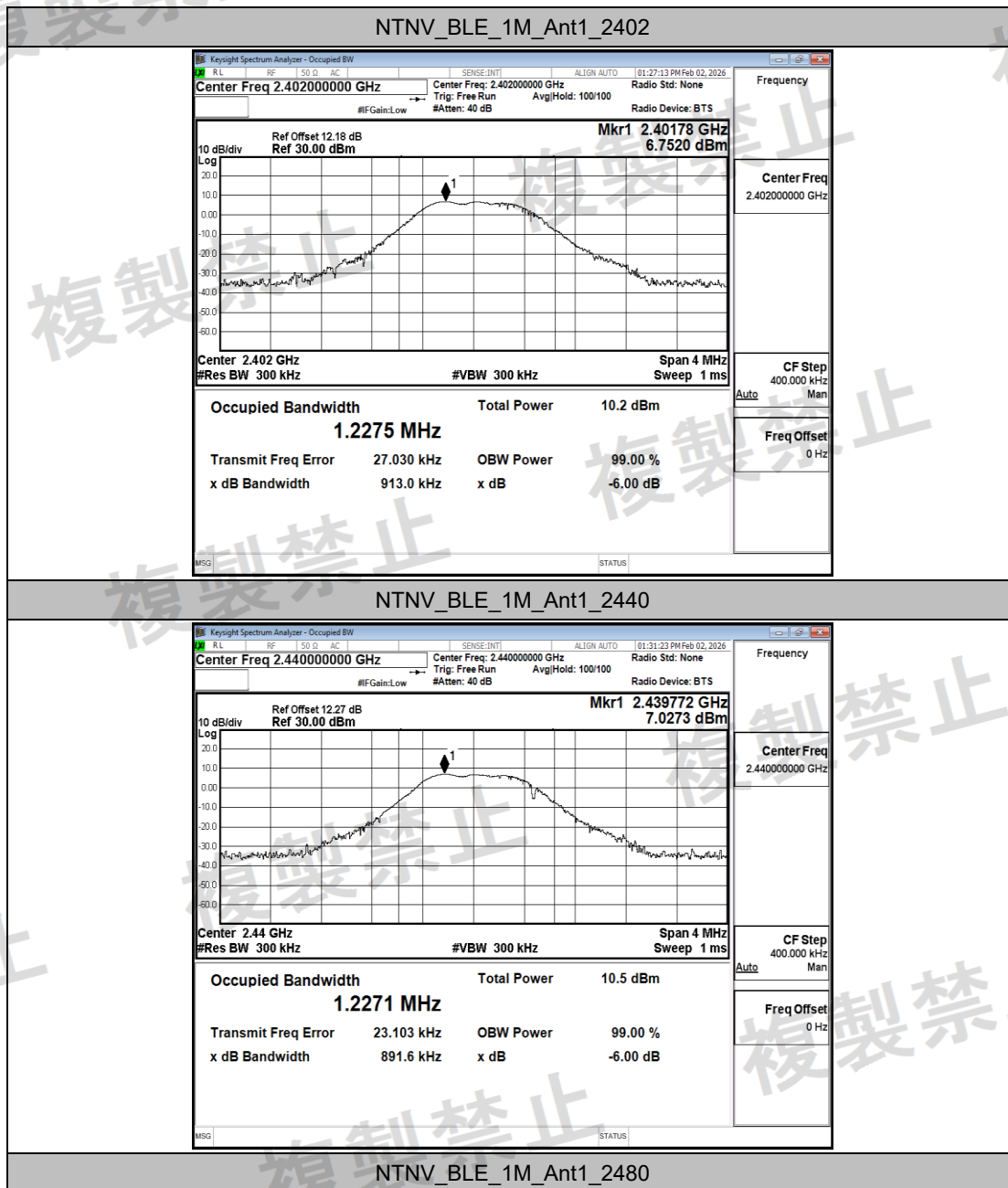
EIRP								
TestCondition	TestMode	Antenna	Frequenc y[MHz]	Measured Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	Limit (dBm)	Verdict
NTNV	BLE_1M	Ant1	2402	6.21	2.69	8.90	≤12.14	PASS
			2440	6.44	2.69	9.13	≤12.14	PASS
			2480	6.63	2.69	9.32	≤12.14	PASS
	BLE_2M	Ant1	2402	6.58	2.69	9.27	≤12.14	PASS
			2440	6.76	2.69	9.45	≤12.14	PASS
			2480	6.80	2.69	9.49	≤12.14	PASS

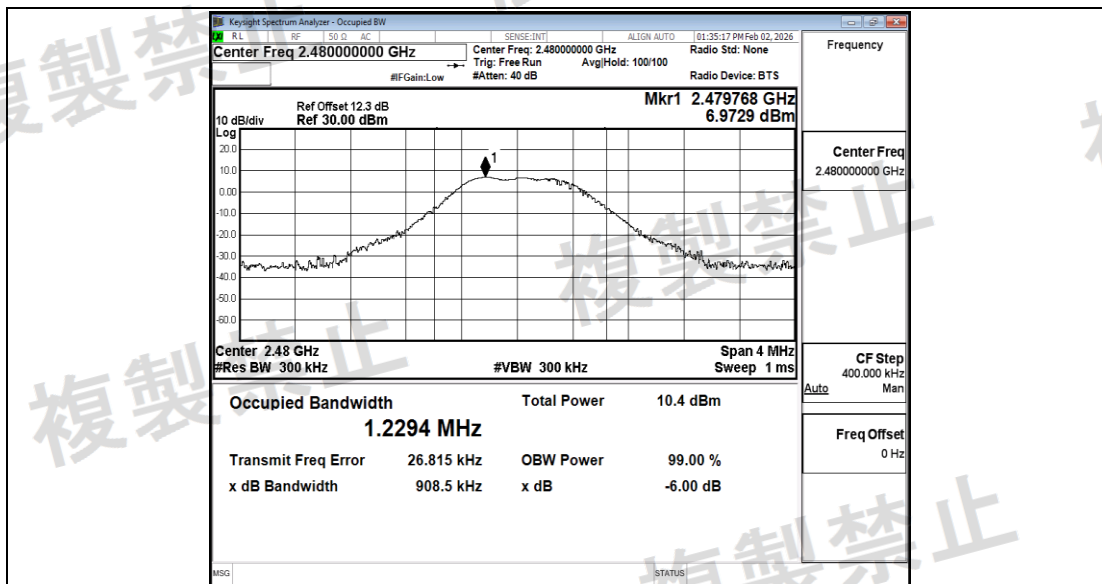
B.3 Occupied Bandwidth

Test Result

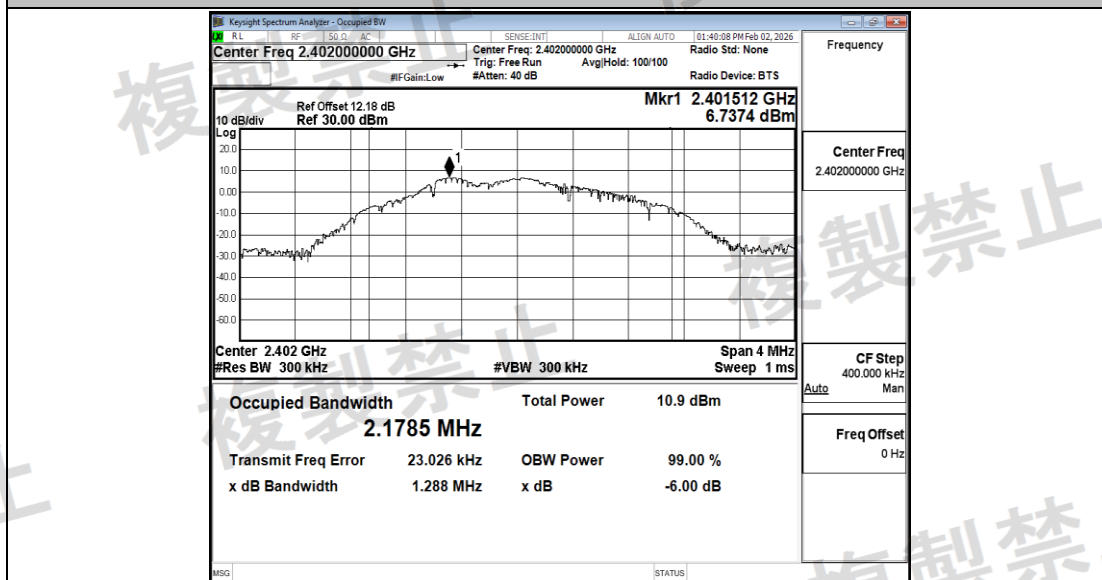
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.228	≤26	PASS
			2440	1.227	≤26	PASS
			2480	1.229	≤26	PASS
	BLE_2M	Ant1	2402	2.179	≤26	PASS
			2440	2.148	≤26	PASS
			2480	2.163	≤26	PASS

Test Graphs

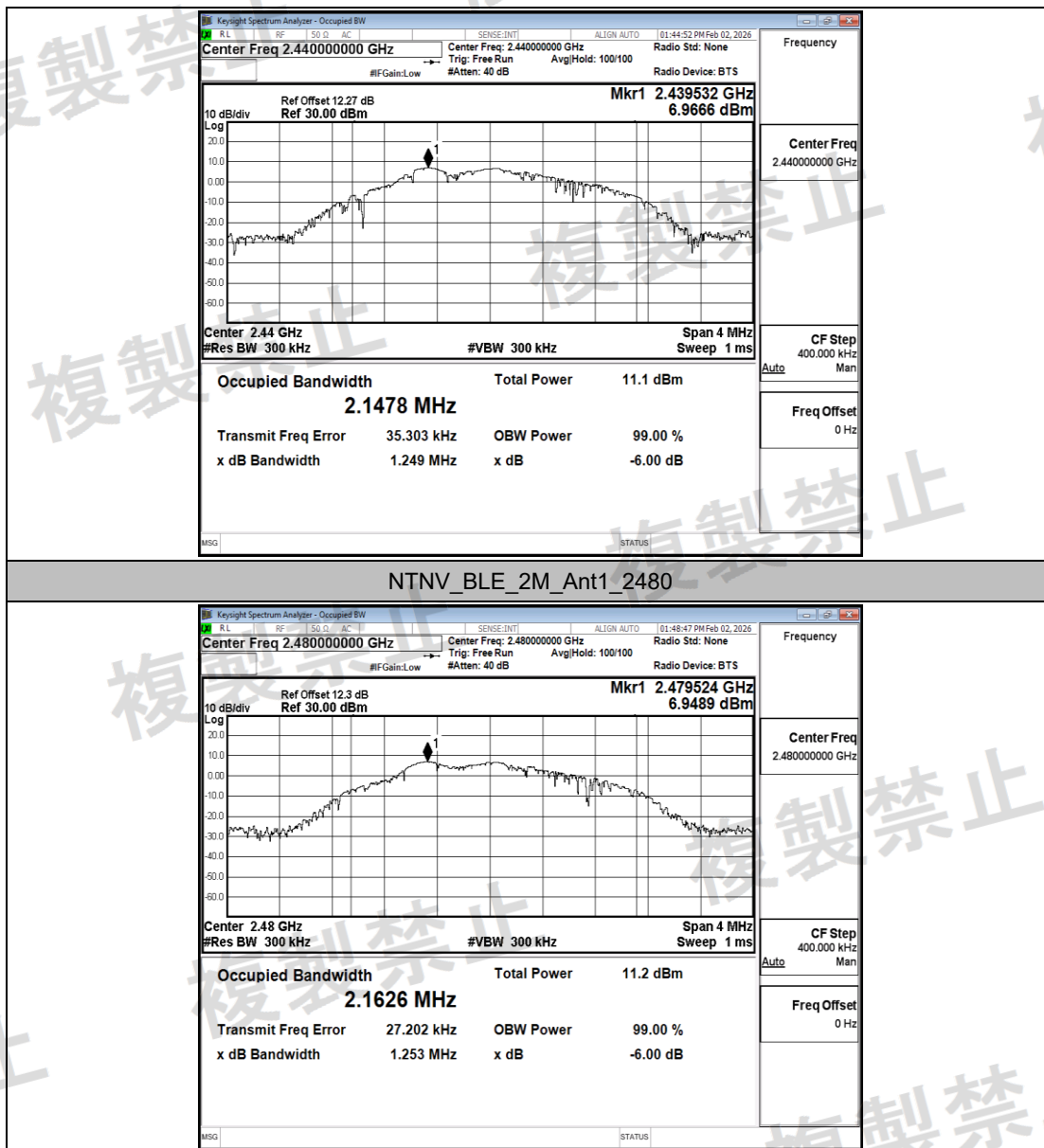




NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440

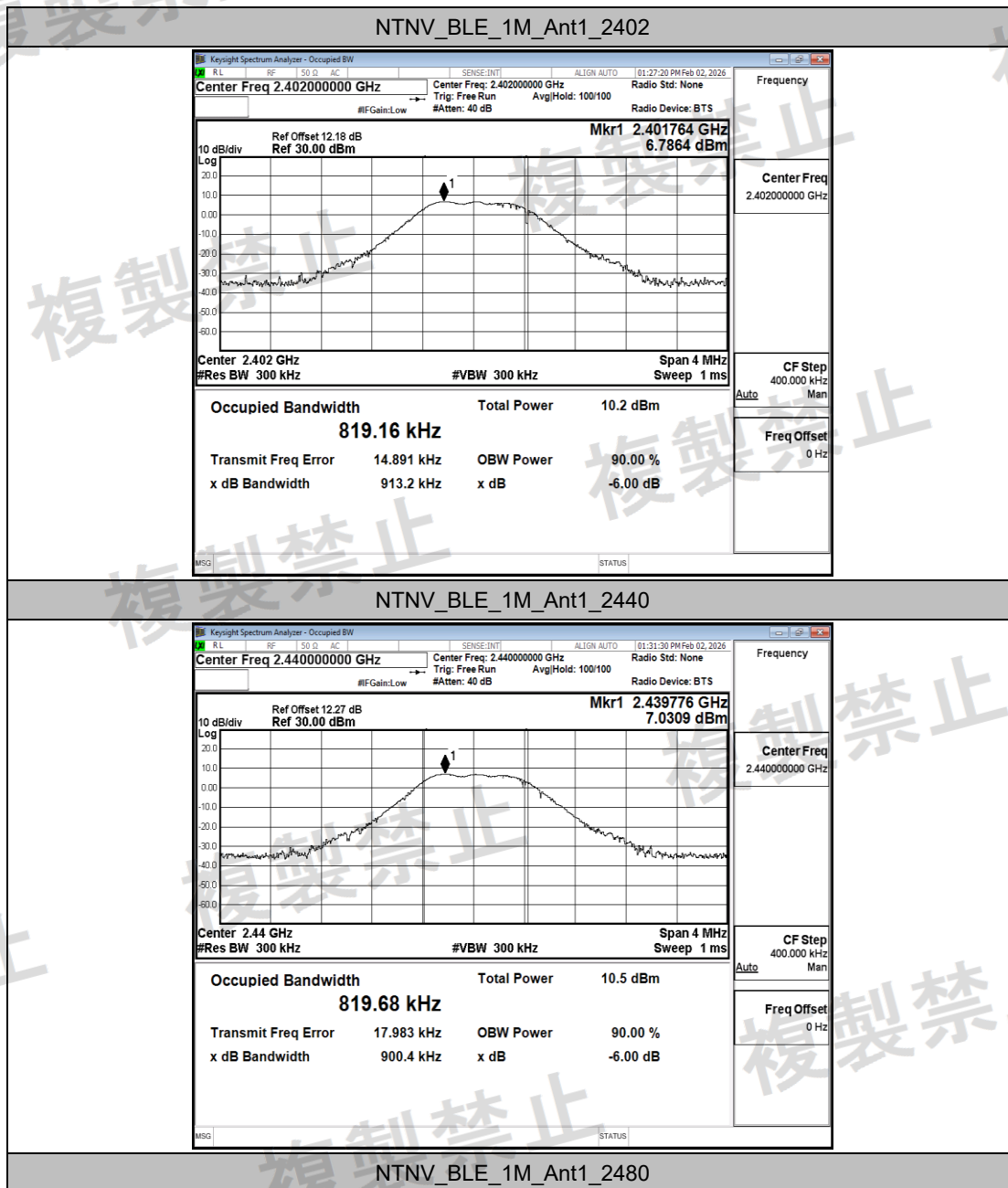


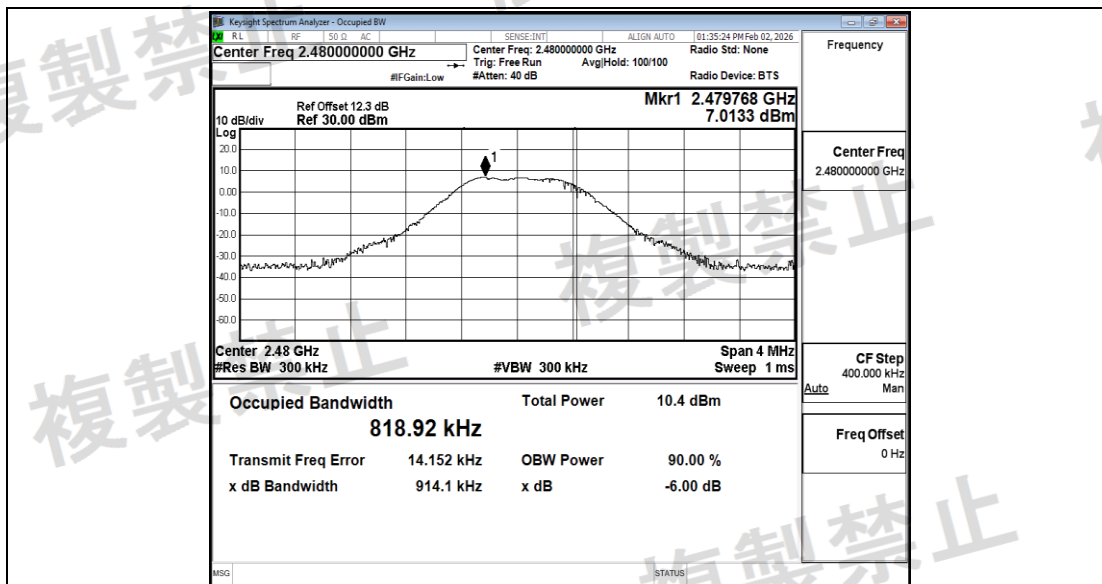
B.4 Spread Bandwidth

Test Result

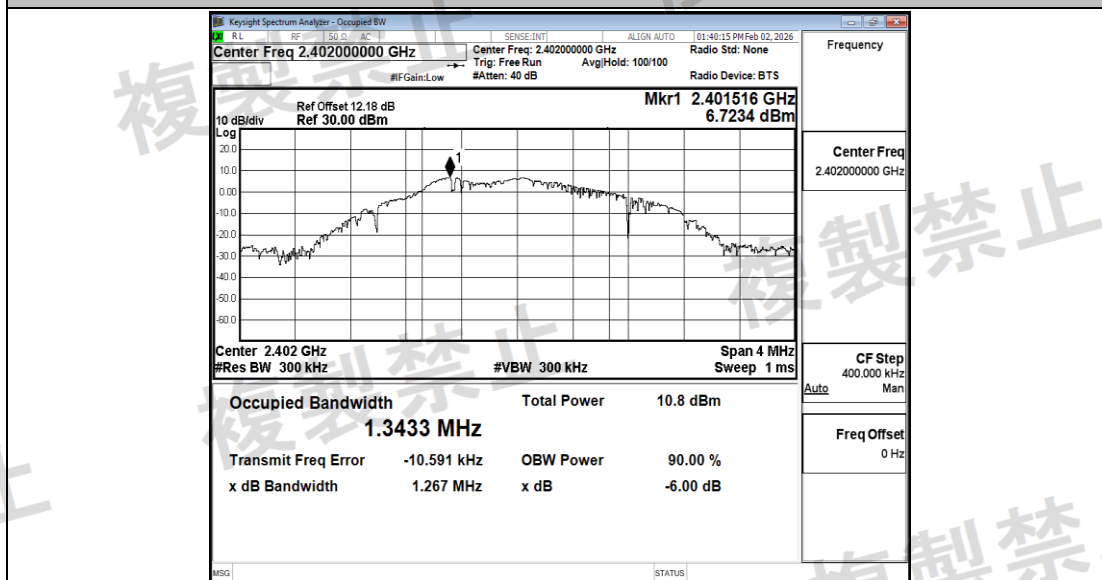
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.819	---	PASS
			2440	0.820	---	PASS
			2480	0.819	---	PASS
	BLE_2M	Ant1	2402	1.343	---	PASS
			2440	1.345	---	PASS
			2480	1.344	---	PASS

Test Graphs

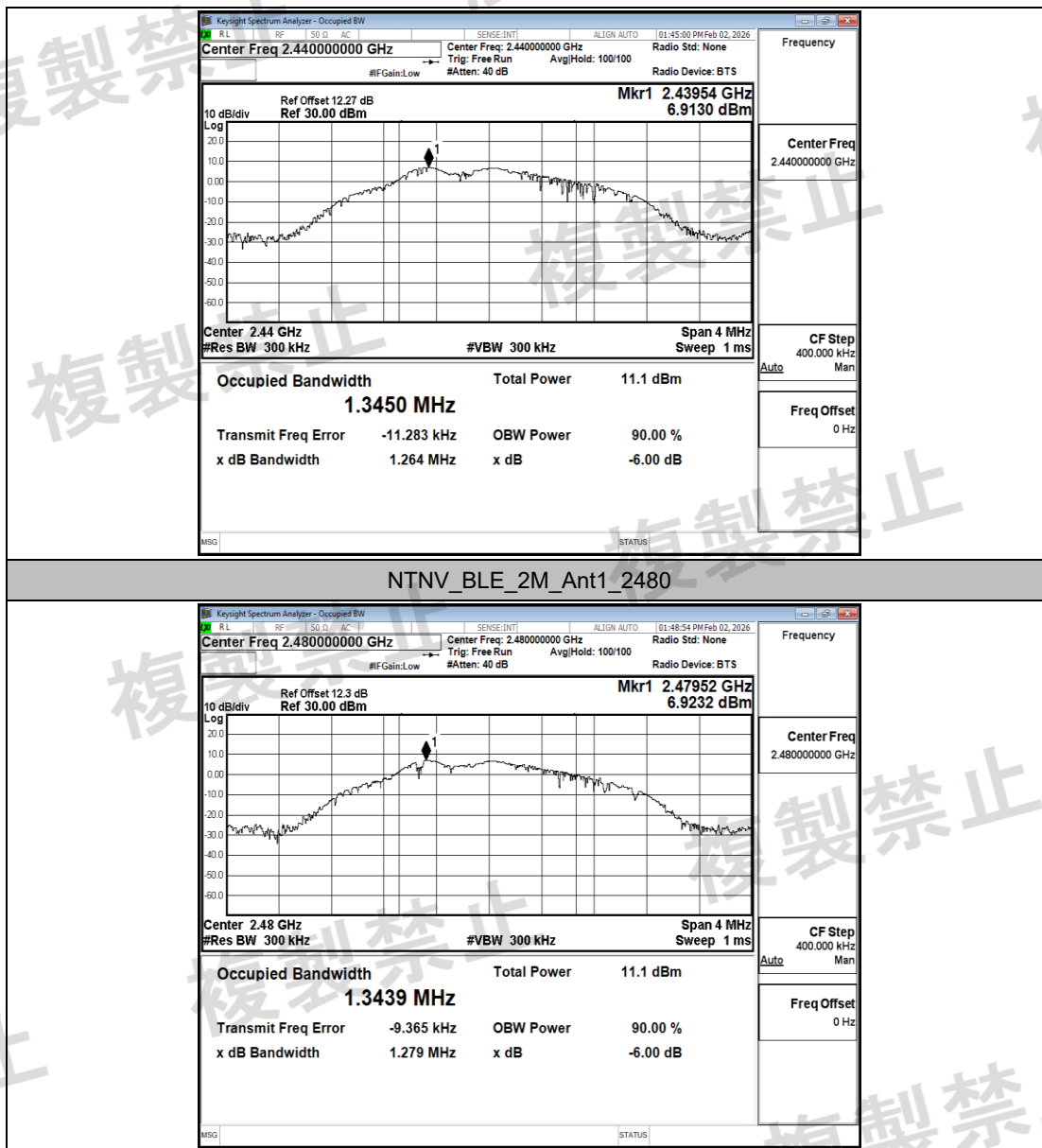




NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440



B.5 Spurious Emission of TX

Test Result

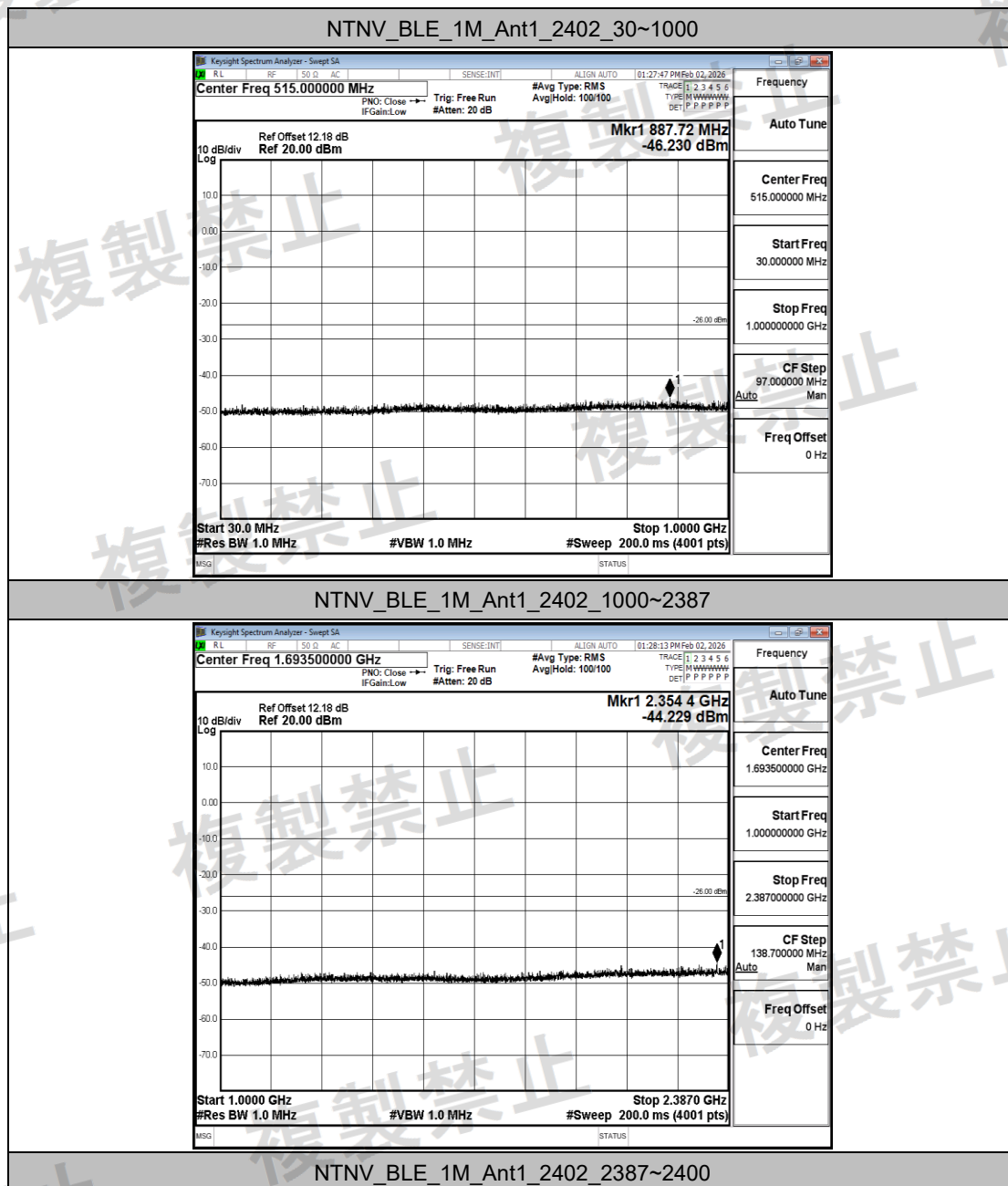
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	887.72	-46.23	≤-26	0.02382	≤2.5	PASS
				1000~2387	2354.41	-44.23	≤-26	0.03776	≤2.5	PASS
				2387~2400	2399.99	-27.03	≤-16	1.98153	≤25	PASS
				2483.5~2496.5	2489.08	-34.37	≤-16	0.36559	≤25	PASS
				2496.5~13000	4803.59	-31.51	≤-26	0.70632	≤2.5	PASS
			2440	30~1000	739.31	-46.11	≤-26	0.02449	≤2.5	PASS
				1000~2387	2069.38	-45.22	≤-26	0.03006	≤2.5	PASS
				2387~2400	2388.50	-34.87	≤-16	0.32584	≤25	PASS
				2483.5~2496.5	2487.95	-34.54	≤-16	0.35156	≤25	PASS
				2496.5~13000	4879.74	-29.04	≤-26	1.24738	≤2.5	PASS
			2480	30~1000	984.00	-46.03	≤-26	0.02495	≤2.5	PASS
				1000~2387	2168.55	-45.12	≤-26	0.03076	≤2.5	PASS
				2387~2400	2388.24	-35.17	≤-16	0.30409	≤25	PASS
				2483.5~2496.5	2483.82	-33.96	≤-16	0.40179	≤25	PASS
				2496.5~13000	4959.57	-28.16	≤-26	1.52757	≤2.5	See table below
	BLE_2M	Ant1	2402	30~1000	864.20	-46.36	≤-26	0.02312	≤2.5	PASS
				1000~2387	2354.06	-42.87	≤-26	0.05164	≤2.5	PASS
				2387~2400	2400	-16.29	≤-16	23.4963 3	≤25	See table below
				2483.5~2496.5	2483.57	-34.79	≤-16	0.33189	≤25	PASS
				2496.5~13000	4804.12	-31.73	≤-26	0.67143	≤2.5	PASS
			2440	30~1000	903.00	-46.62	≤-26	0.02178	≤2.5	PASS
				1000~2387	2308.98	-44.72	≤-26	0.03373	≤2.5	PASS
				2387~2400	2396.81	-34.19	≤-16	0.38107	≤25	PASS
				2483.5~2496.5	2483.74	-34.71	≤-16	0.33806	≤25	PASS
				2496.5~13000	4879.22	-29.39	≤-26	1.15080	≤2.5	PASS
			2480	30~1000	907.37	-46.28	≤-26	0.02355	≤2.5	PASS
				1000~2387	2387.00	-44.64	≤-26	0.03436	≤2.5	PASS
				2387~2400	2393.86	-34.24	≤-16	0.37670	≤25	PASS
				2483.5~2496.5	2489.11	-34.75	≤-16	0.33497	≤25	PASS
				2496.5~13000	4960.1	-28.24	≤-26	1.49968	≤2.5	See table below

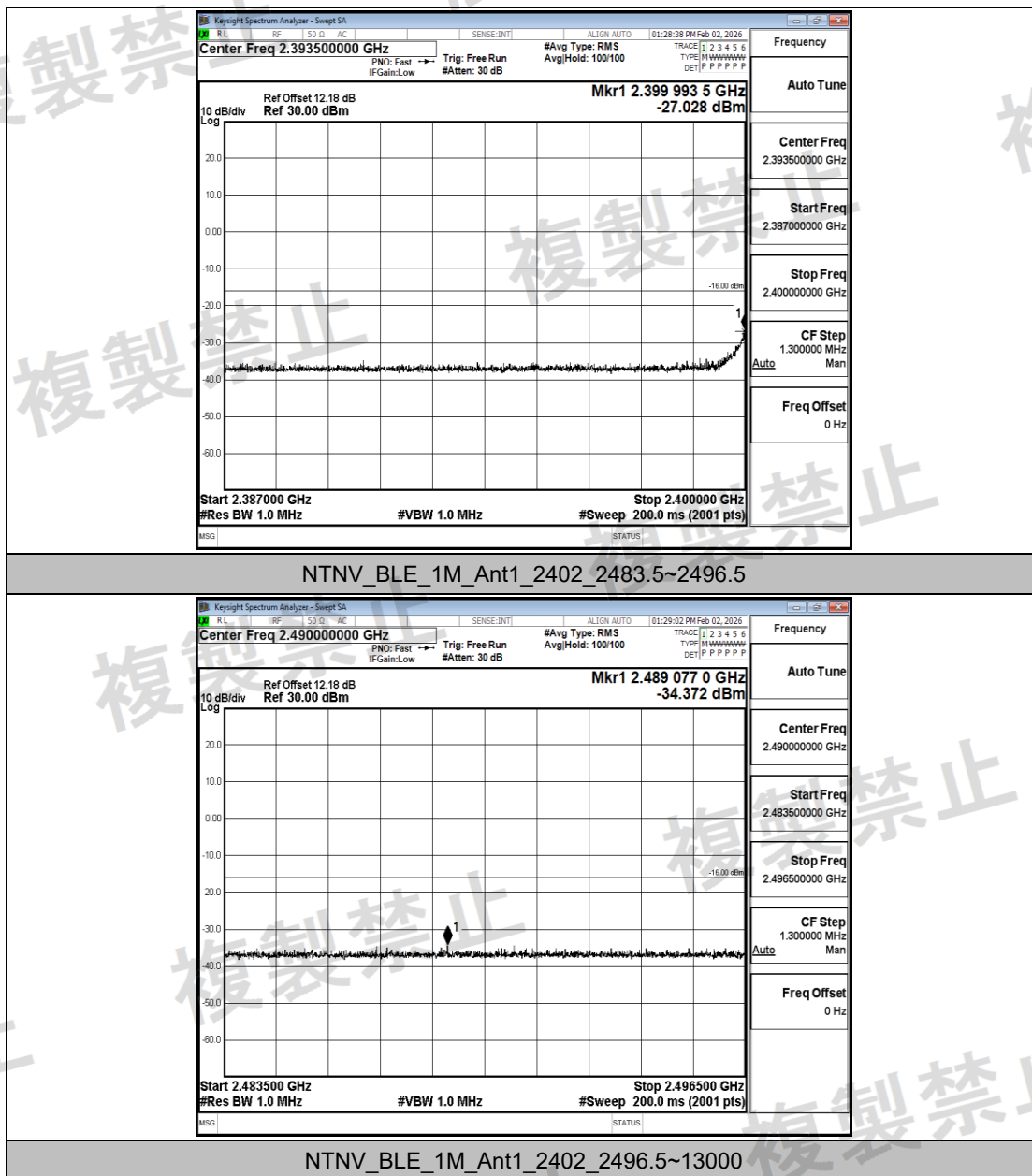
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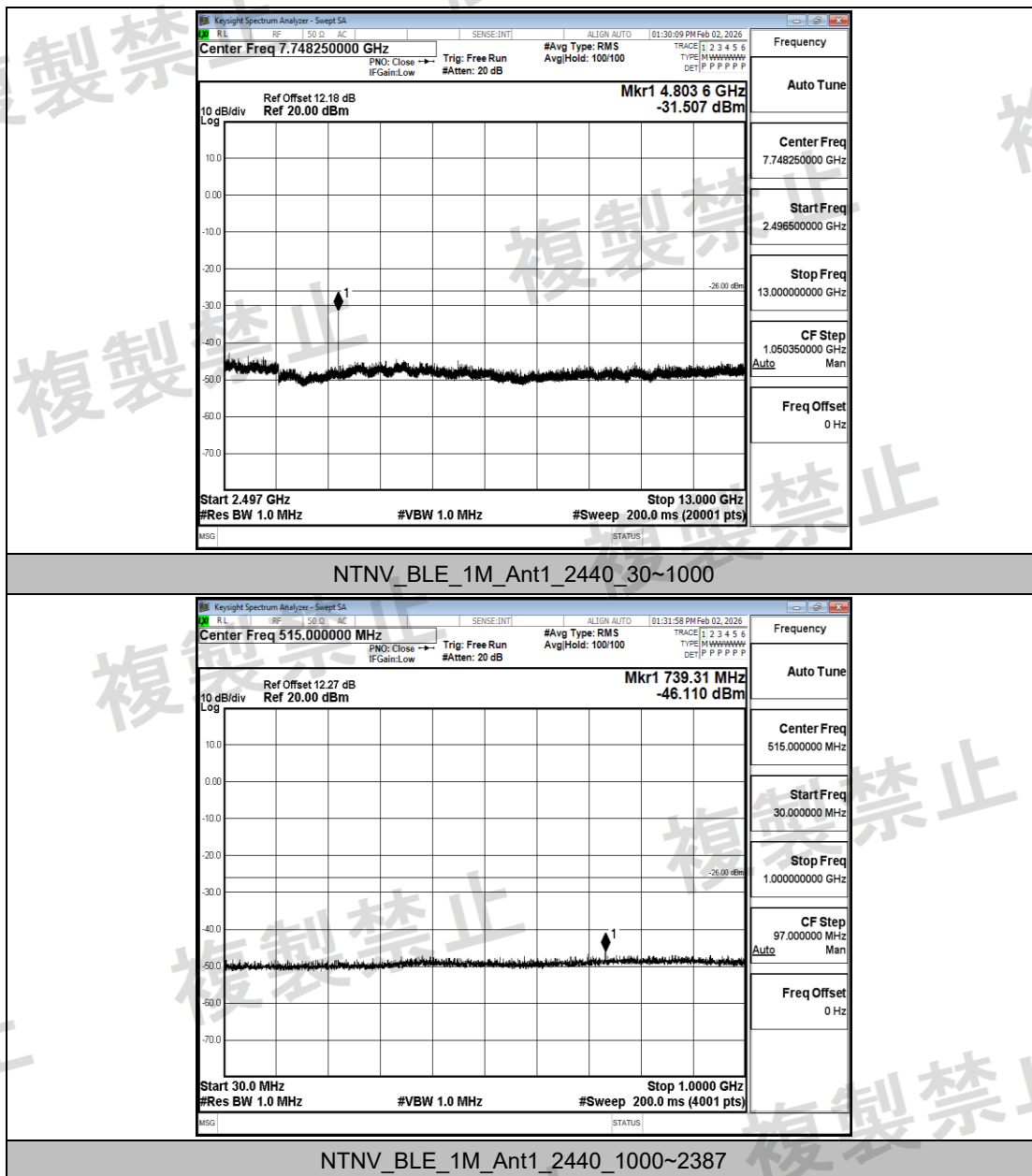
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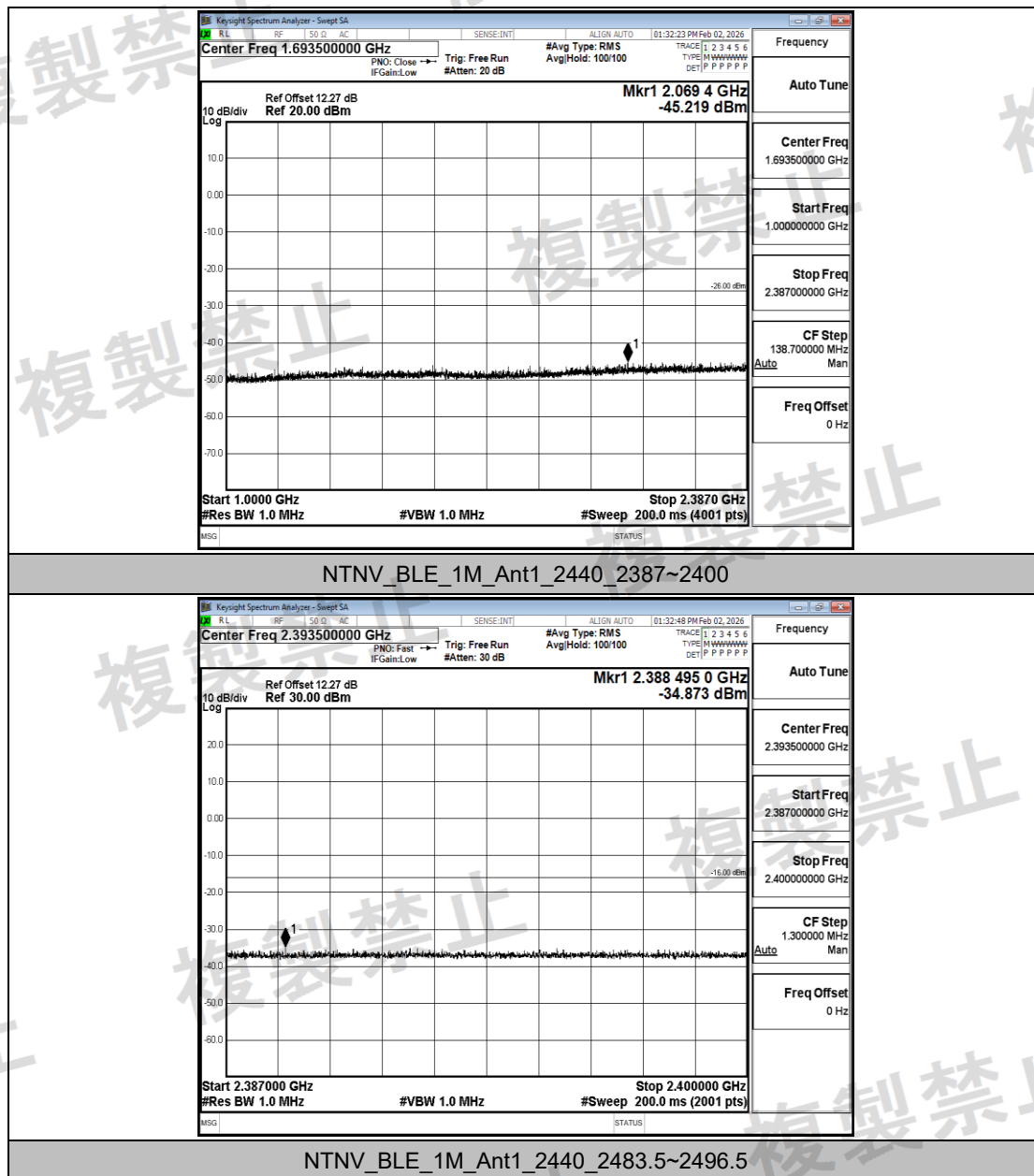
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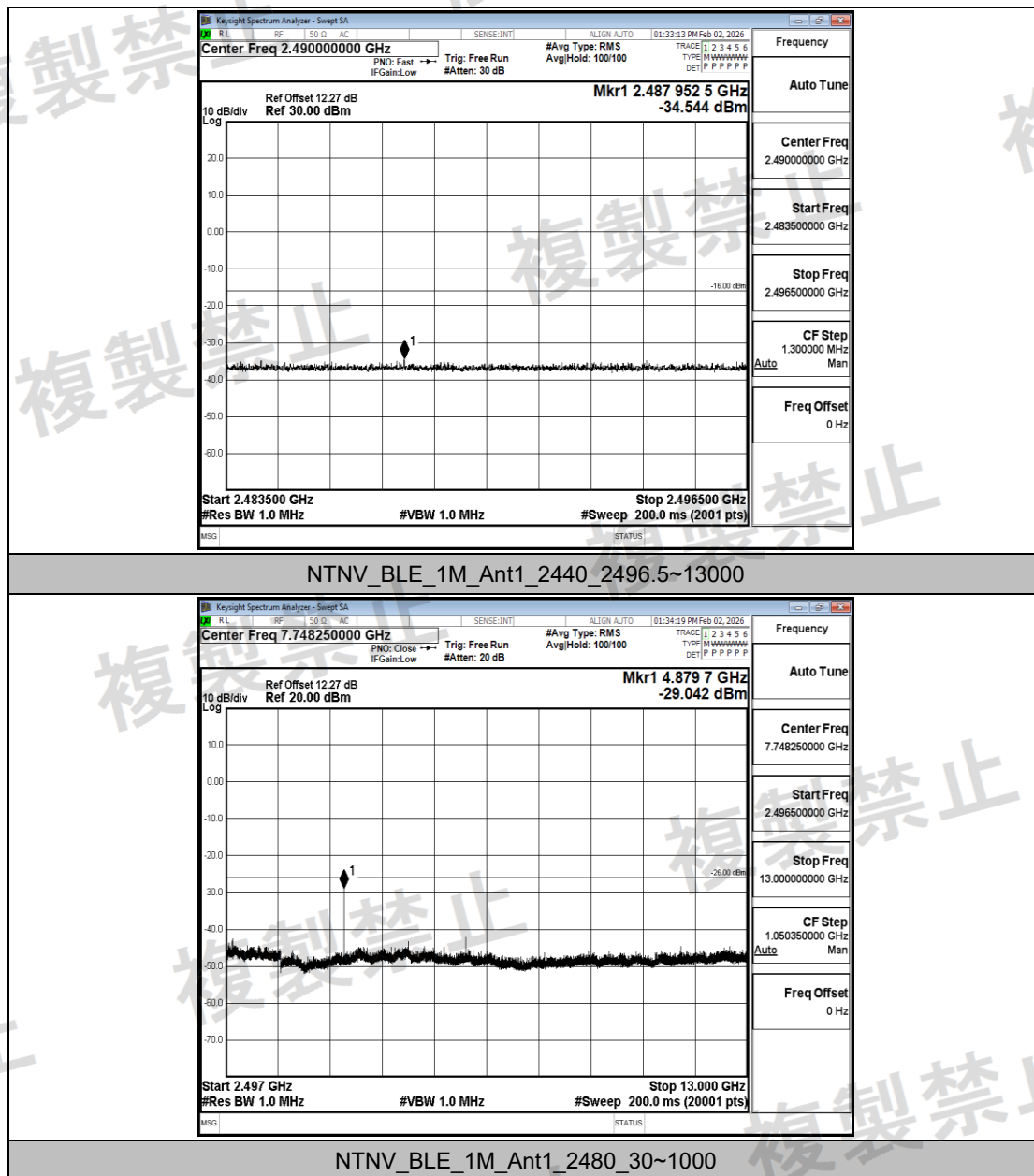
Test Graphs

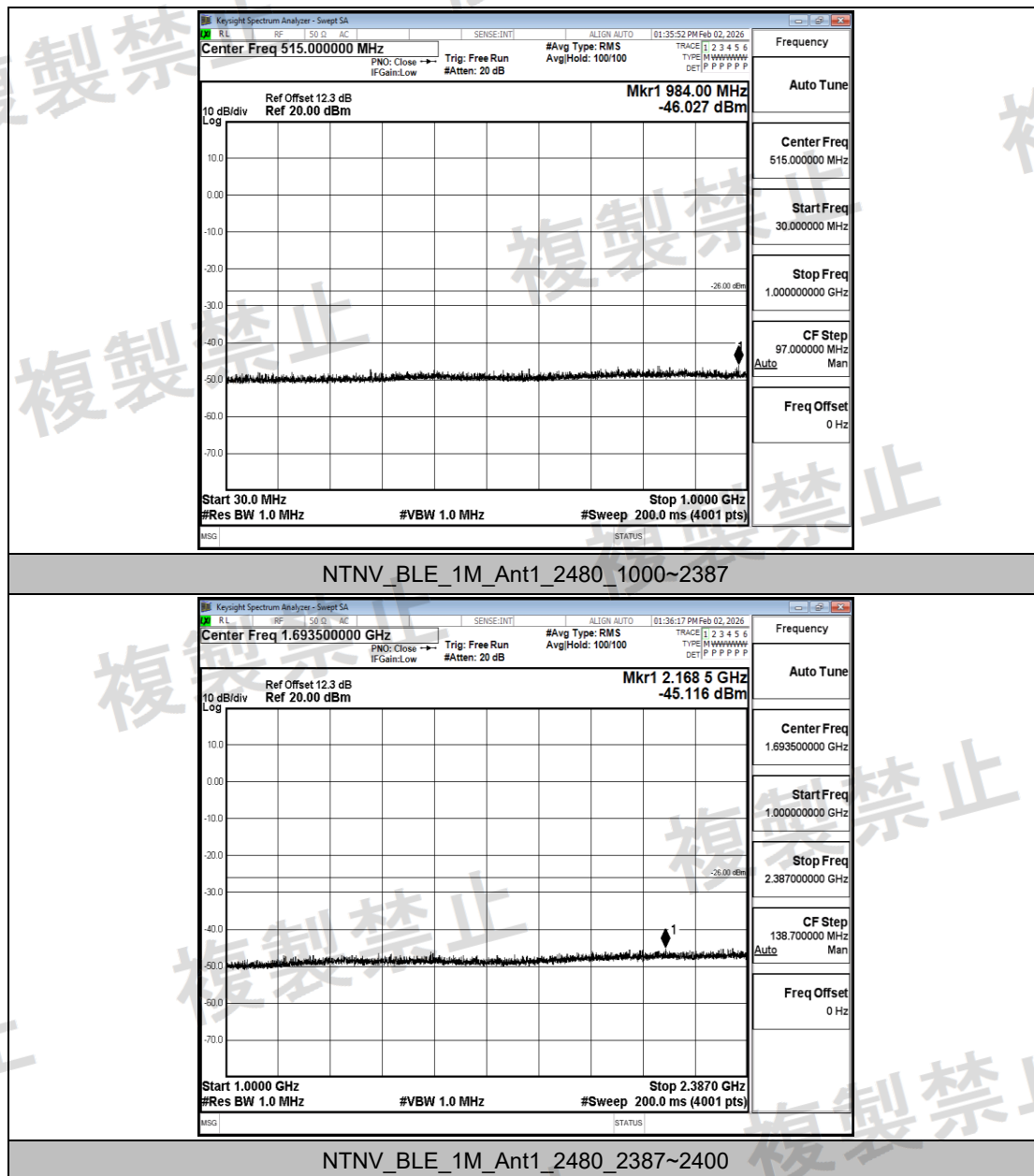








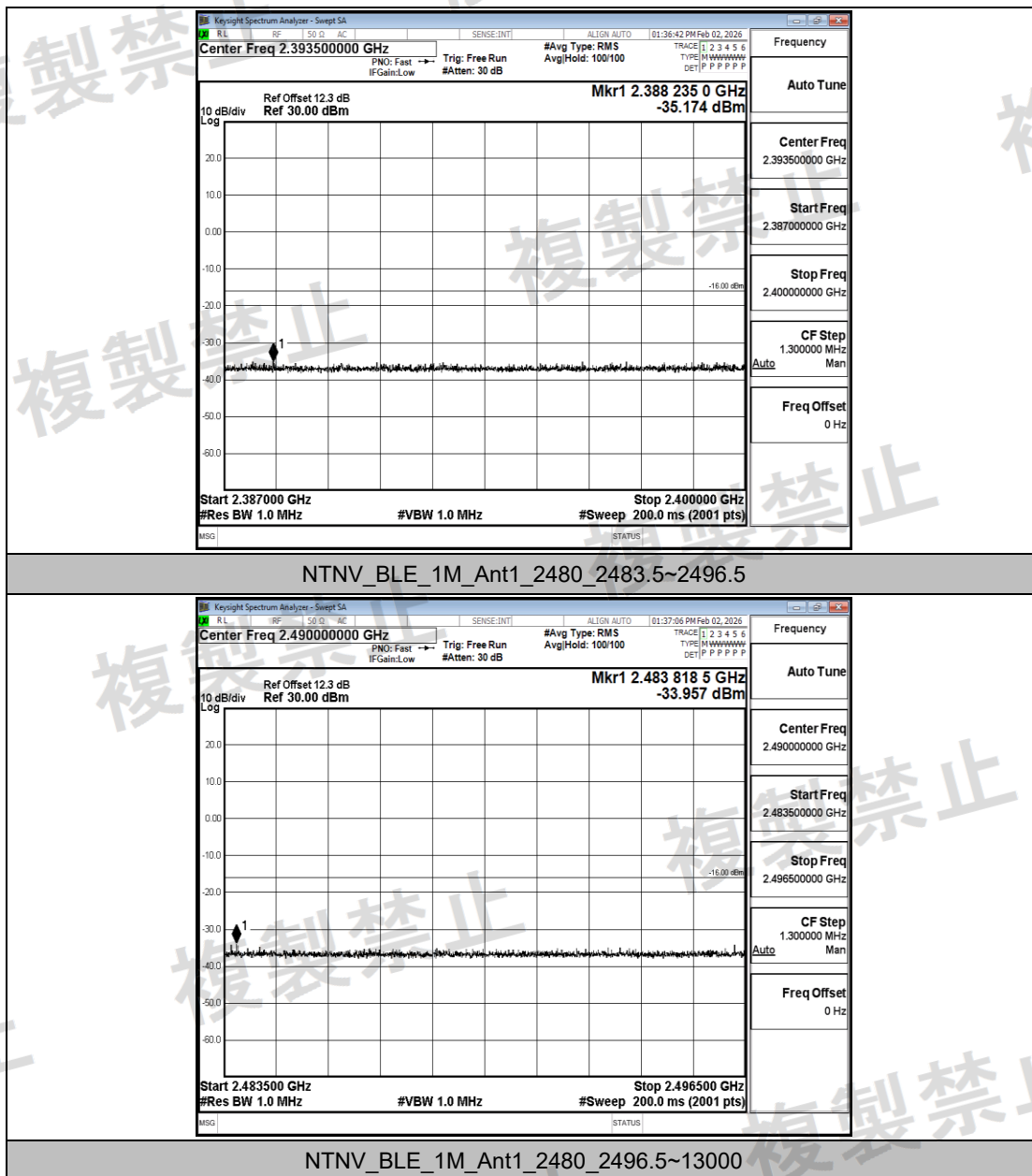


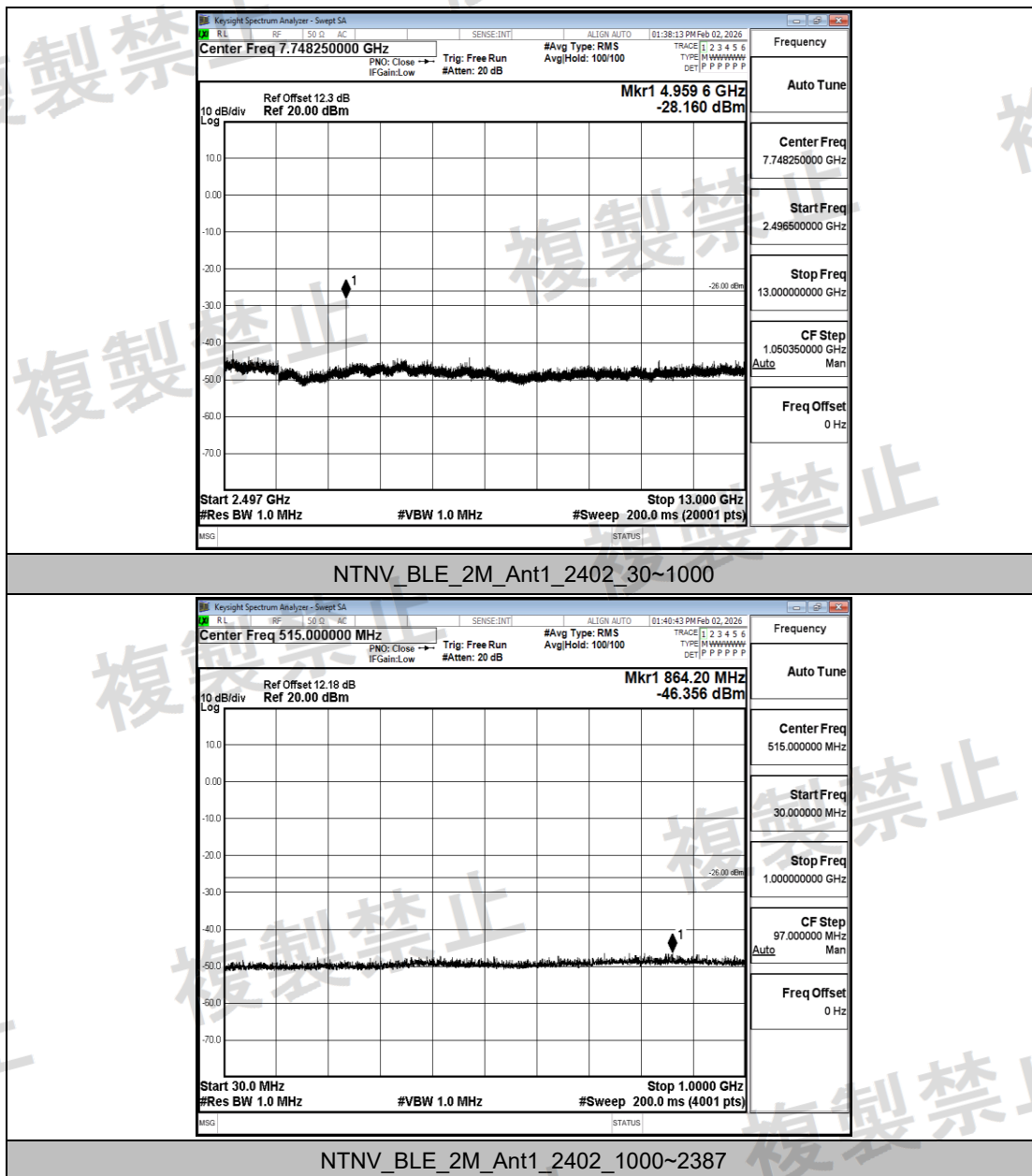


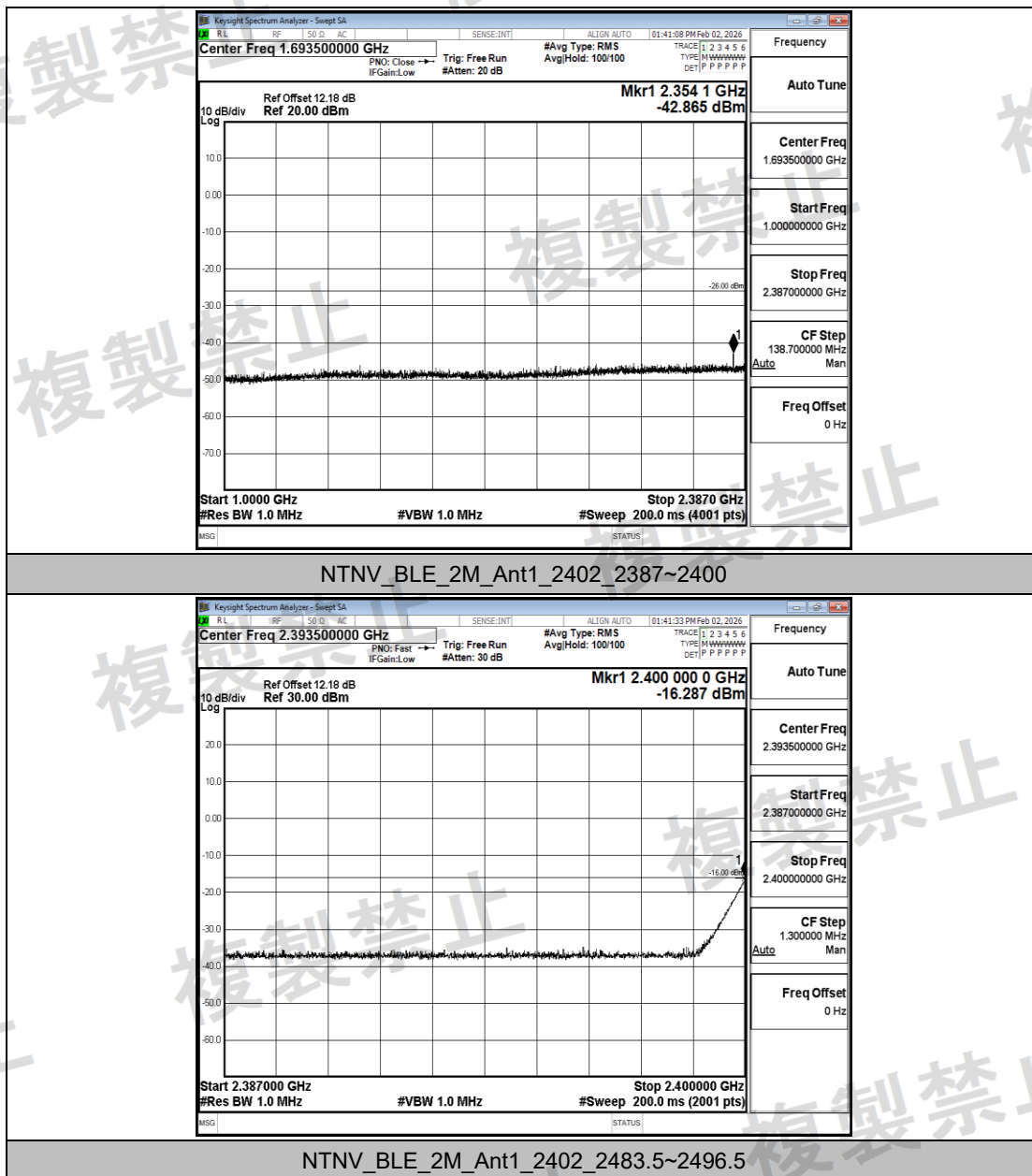
Guangzhou LCS Compliance Testing Laboratory Ltd.

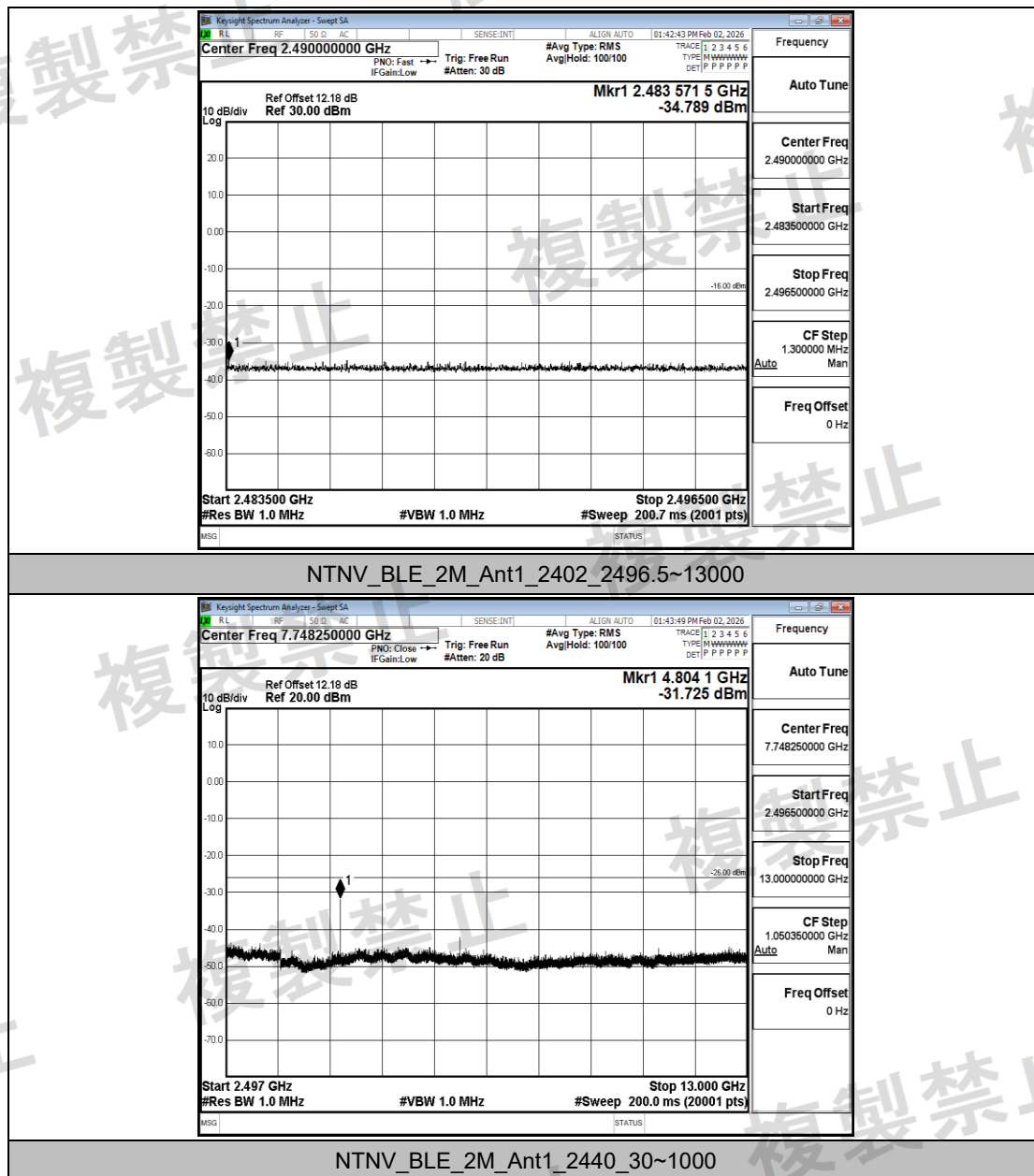
Add: No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China

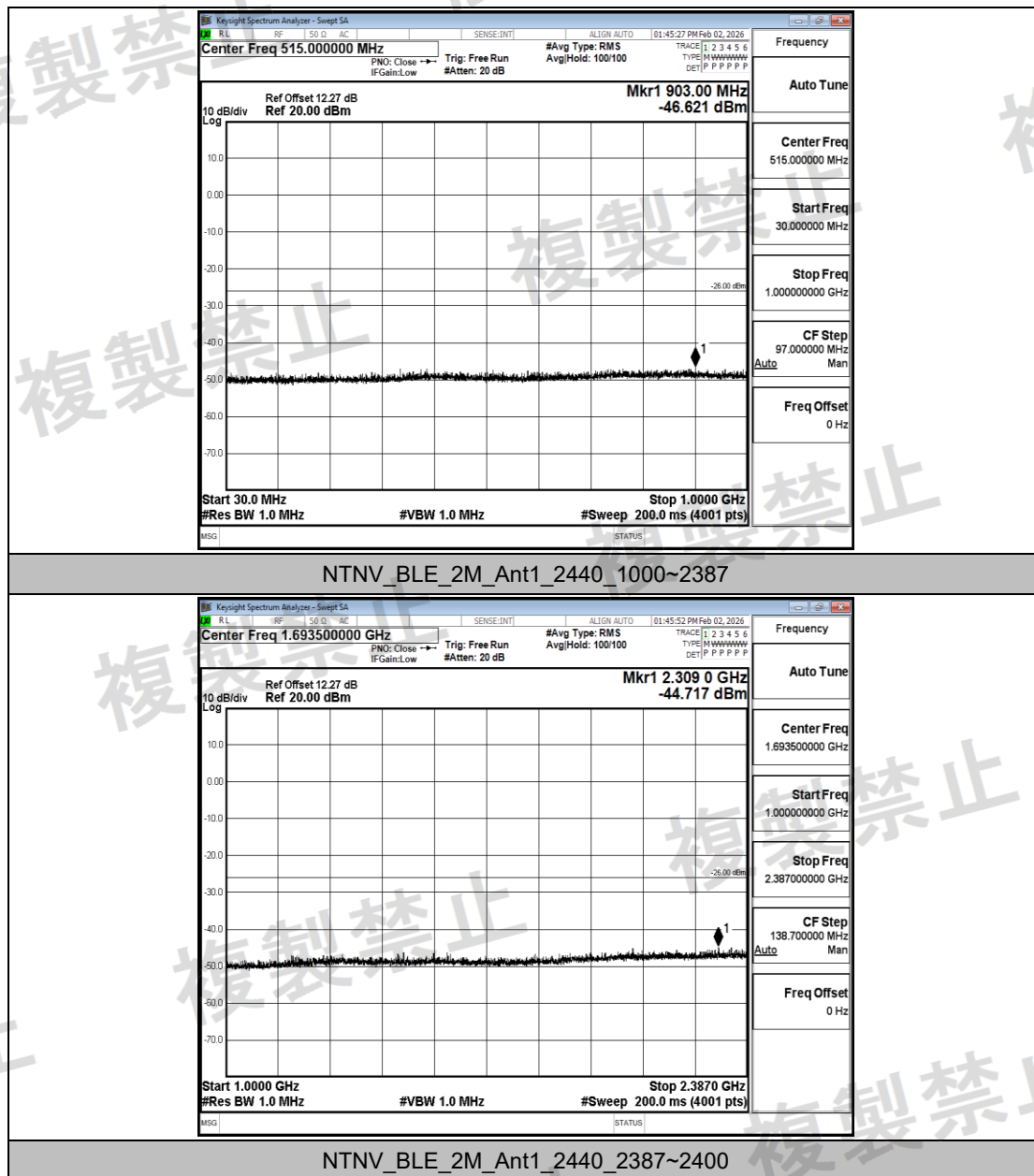
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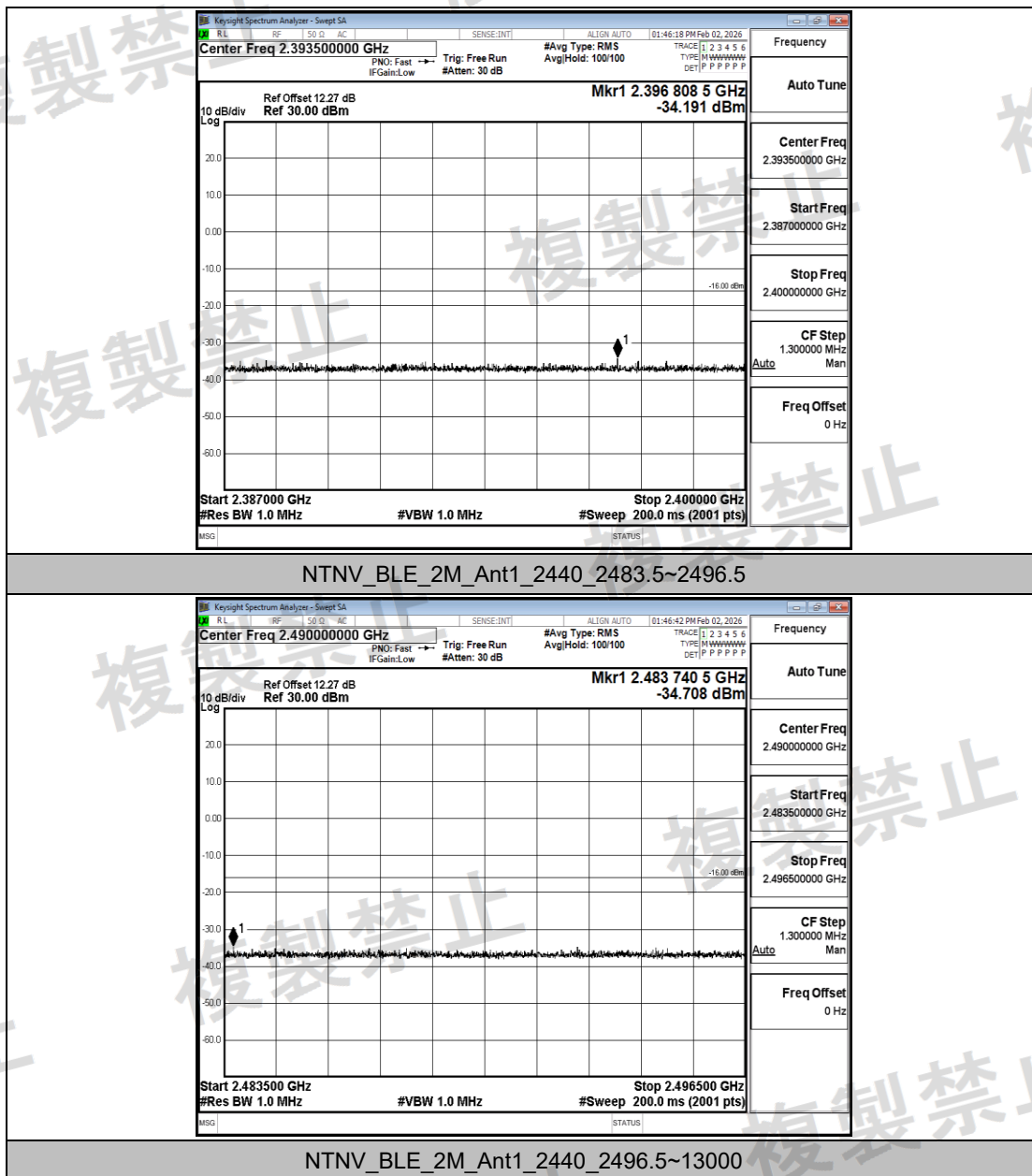


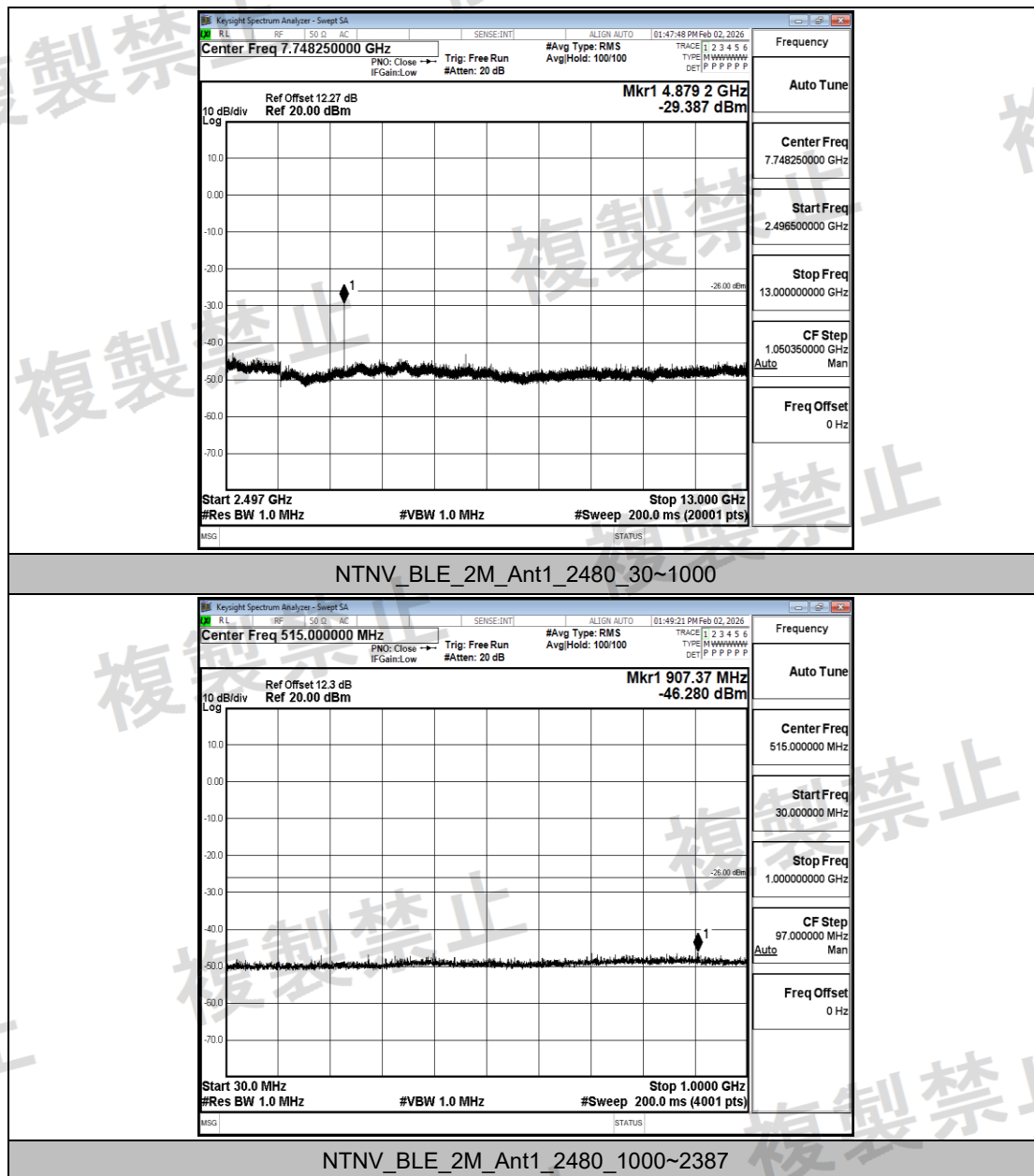


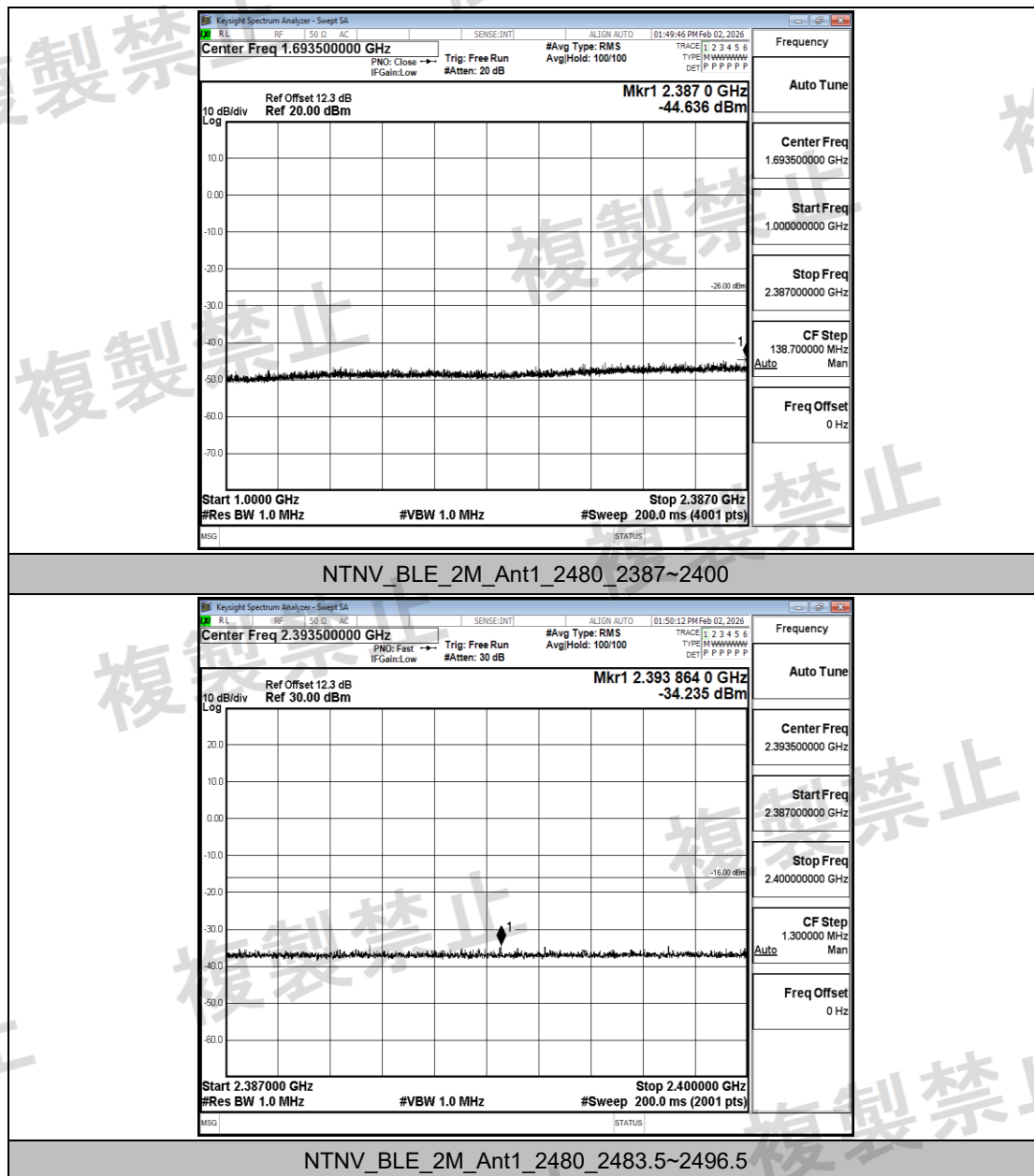


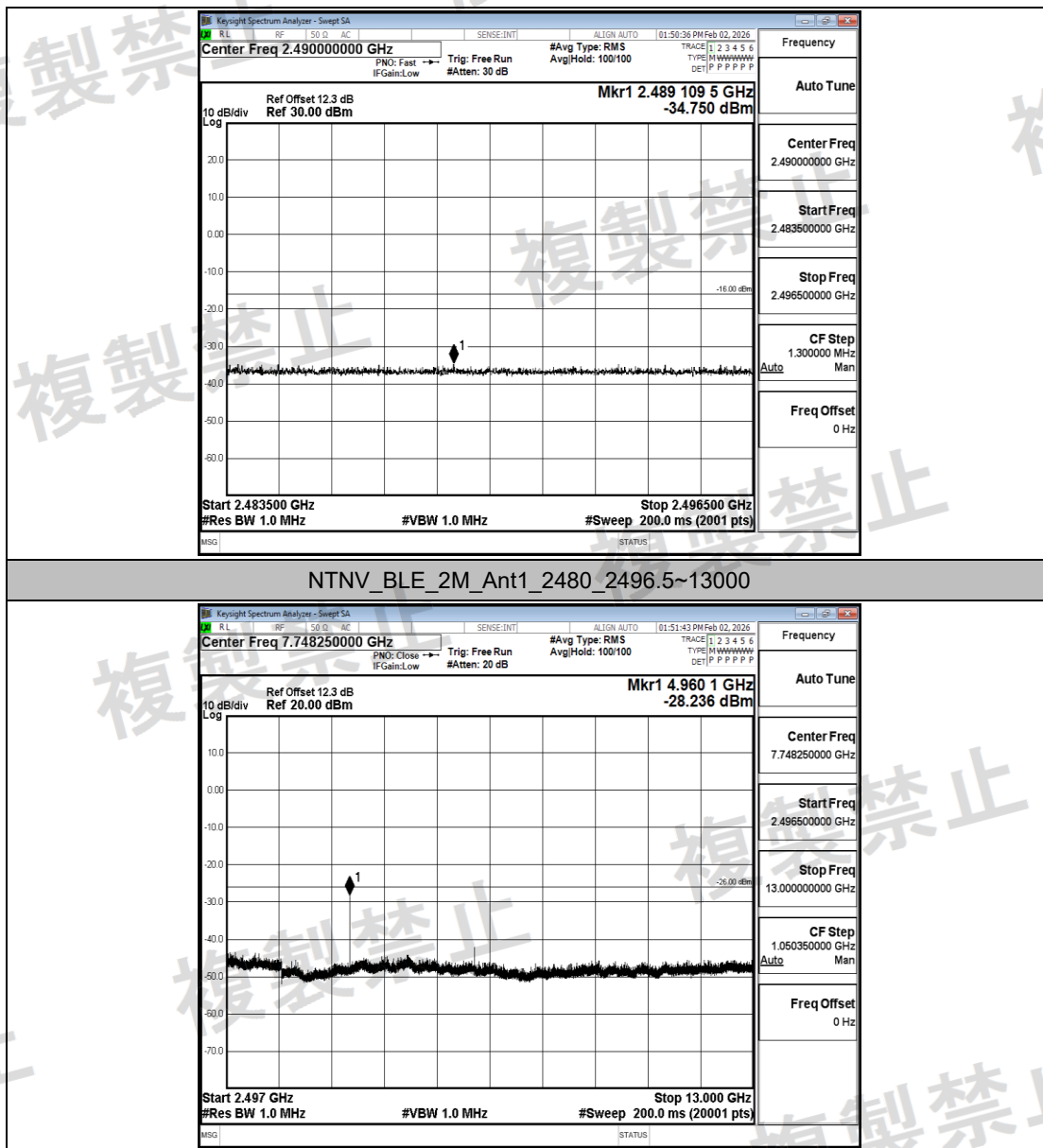












B.6 Spurious Emission of RX

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	865.66	-77.14	≤-54	0.0193 2	≤4	PASS
				1000~12500	2666.9 3	-64.76	≤-47	0.3342 0	≤20	PASS
			2440	30~1000	852.56	-78.63	≤-54	0.0137 1	≤4	PASS
				1000~12500	3011.93	-65.02	≤-47	0.3147 7	≤20	PASS
			2480	30~1000	757.50	-78.01	≤-54	0.0158 1	≤4	PASS
				1000~12500	2683.0 3	-65.09	≤-47	0.3097 4	≤20	PASS
	BLE_2M	Ant1	2402	30~1000	831.71	-78.11	≤-54	0.0154 5	≤4	PASS
				1000~12500	2667.5 0	-65.22	≤-47	0.3006 1	≤20	PASS
			2440	30~1000	861.78	-78.02	≤-54	0.0157 8	≤4	PASS
				1000~12500	2708.3 3	-64.71	≤-47	0.3380 6	≤20	PASS
			2480	30~1000	781.27	-78.10	≤-54	0.0154 9	≤4	PASS
				1000~12500	2527.7 8	-64.64	≤-47	0.3435 6	≤20	PASS

Test Graphs

NTNV_BLE_1M_Ant1_2402_30~1000

