

Appendix A for BT LE Test Data

Product Name: iPad pogo pin Wired+Bluetooth keyboard

Test Model: TK-CA400MMPBK

Environmental Conditions

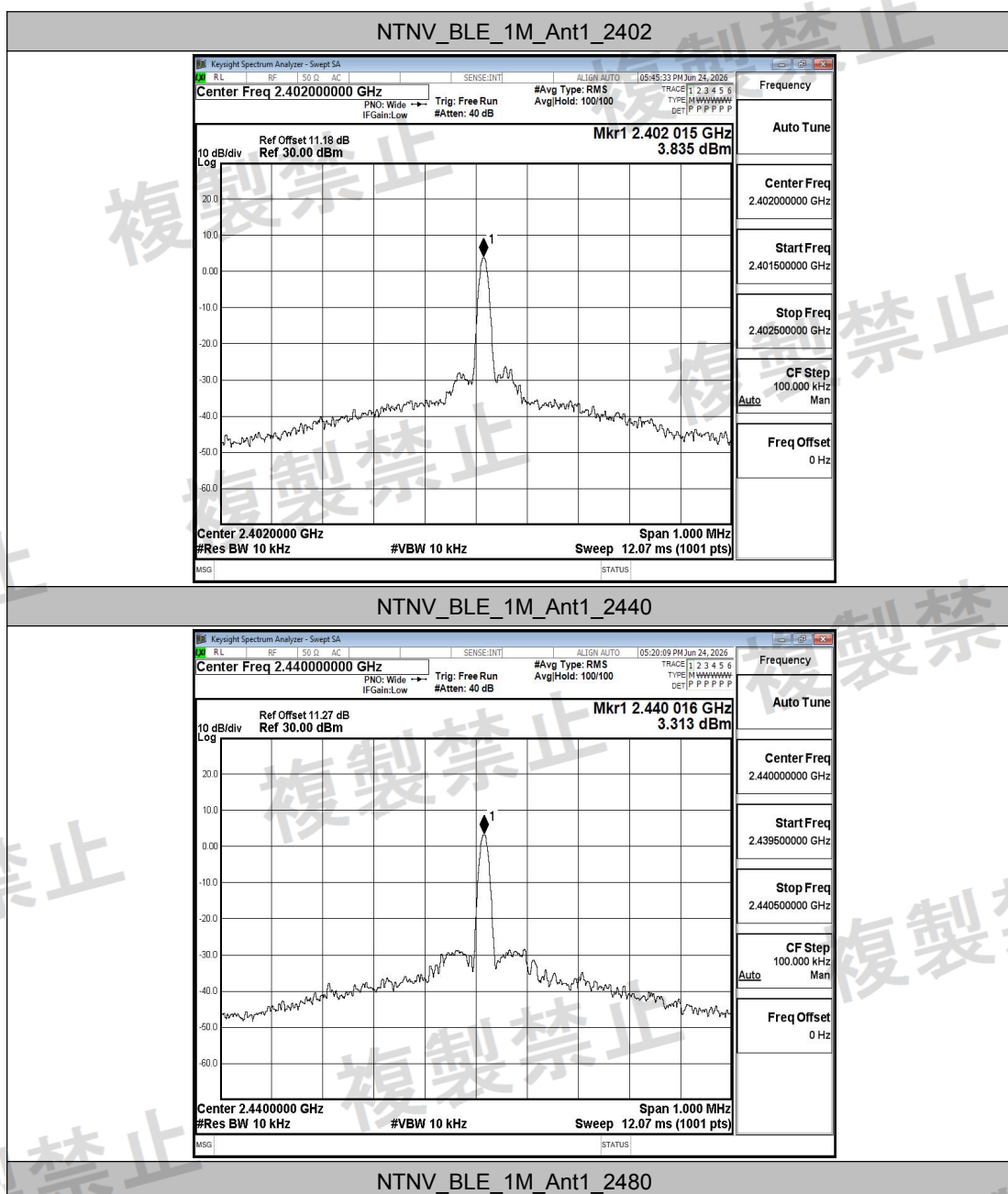
Temperature:	24.5° C
Relative Humidity:	53.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

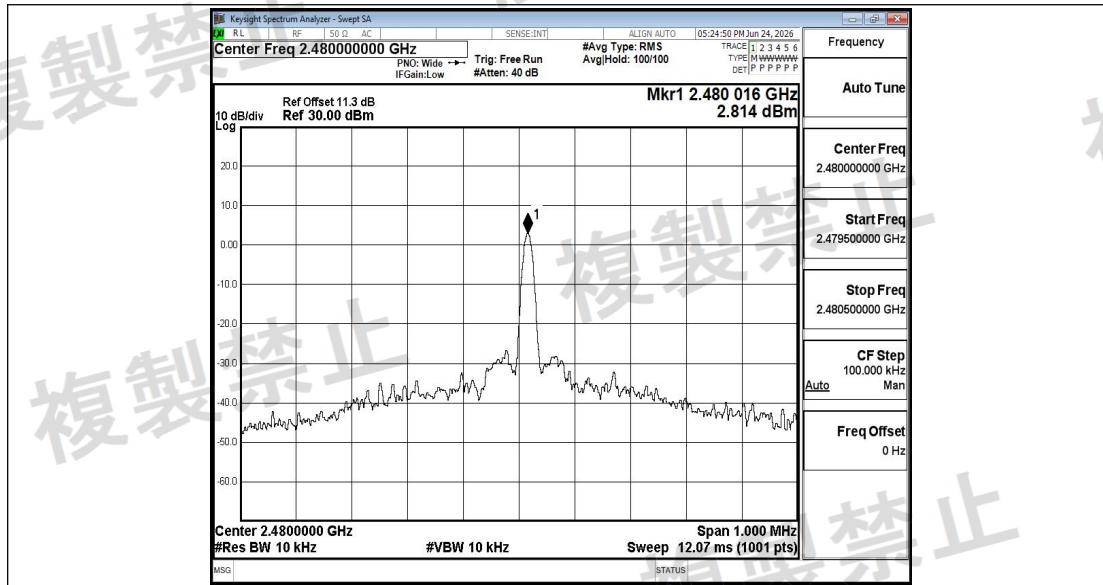
A.1 Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	BLE_1M	Ant1	2402	6.24480	±50	PASS
			2440	6.55738	±50	PASS
			2480	6.45161	±50	PASS

Test Graphs





A.2 Antenna Power

Test Result

Antenna Power							
TestCondition	TestMode	Antenna	Freq(MHz)	Result(dBm)	Result(mW)	Limit(mW)	Verdict
NTNV	BLE_1M	Ant1	2402	3.06	2.0230	≤10	PASS
			2440	2.48	1.7701	≤10	PASS
			2480	1.32	1.3552	≤10	PASS

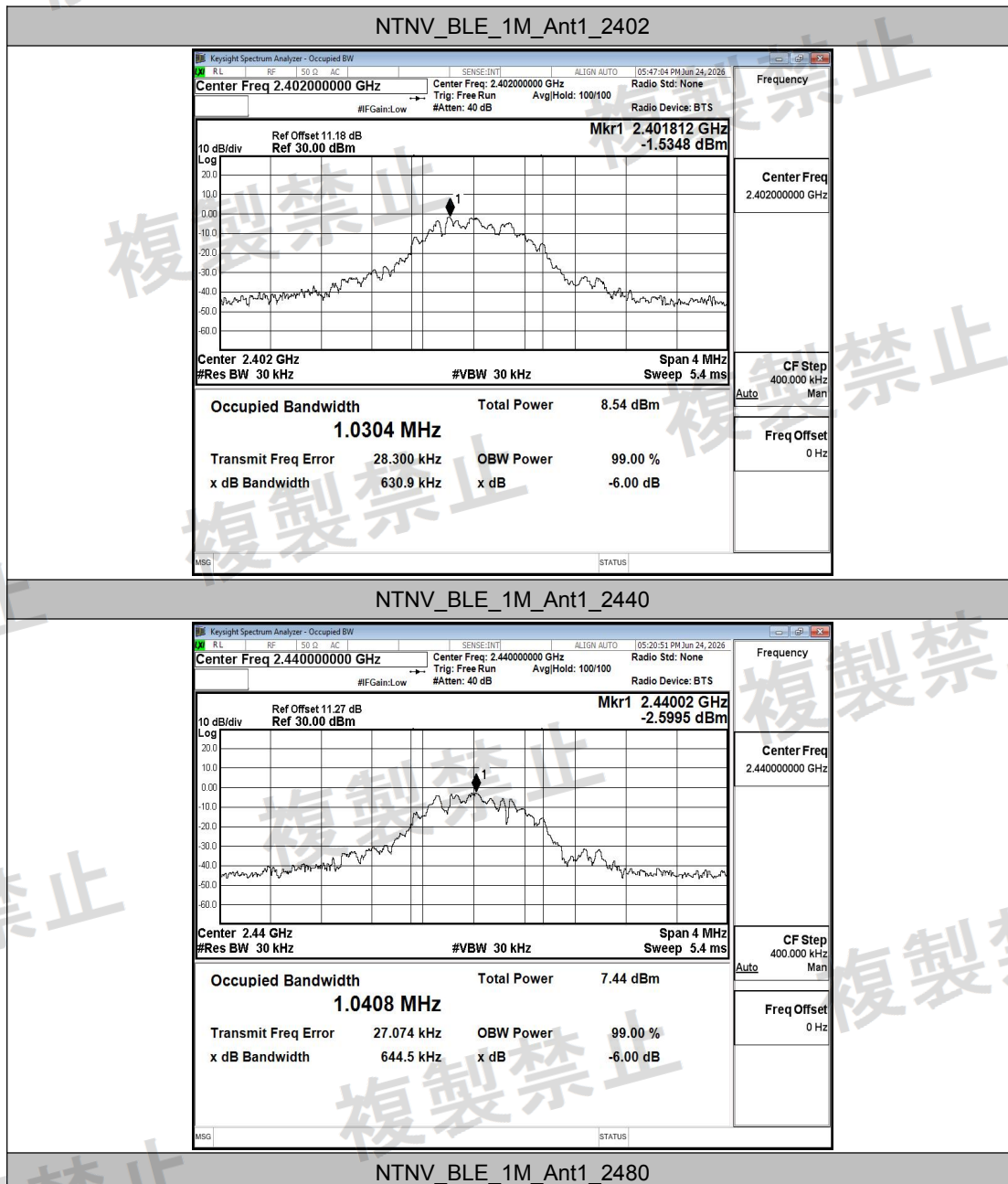
Tolerance								
Test Condition	Test Mode	Antenna	Freq(MHz)	Power (mW)	Rated Power (mW)	Result (%)	Limit (%)	Verdict
NTNV	BLE_1M	Ant1	2402	2.0230	2.0	1.15	+20	PASS
			2440	1.7701	2.0	-11.50	+20	PASS
			2480	1.3552	2.0	-32.24	+20	PASS

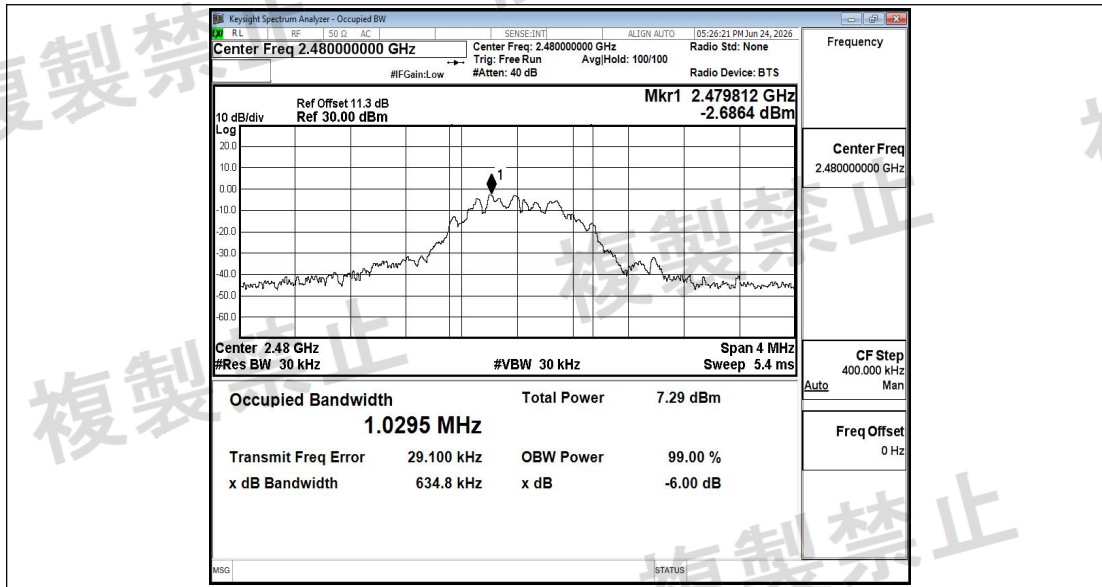
A.3 Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.030	≤26	PASS
			2440	1.041	≤26	PASS
			2480	1.030	≤26	PASS

Test Graphs



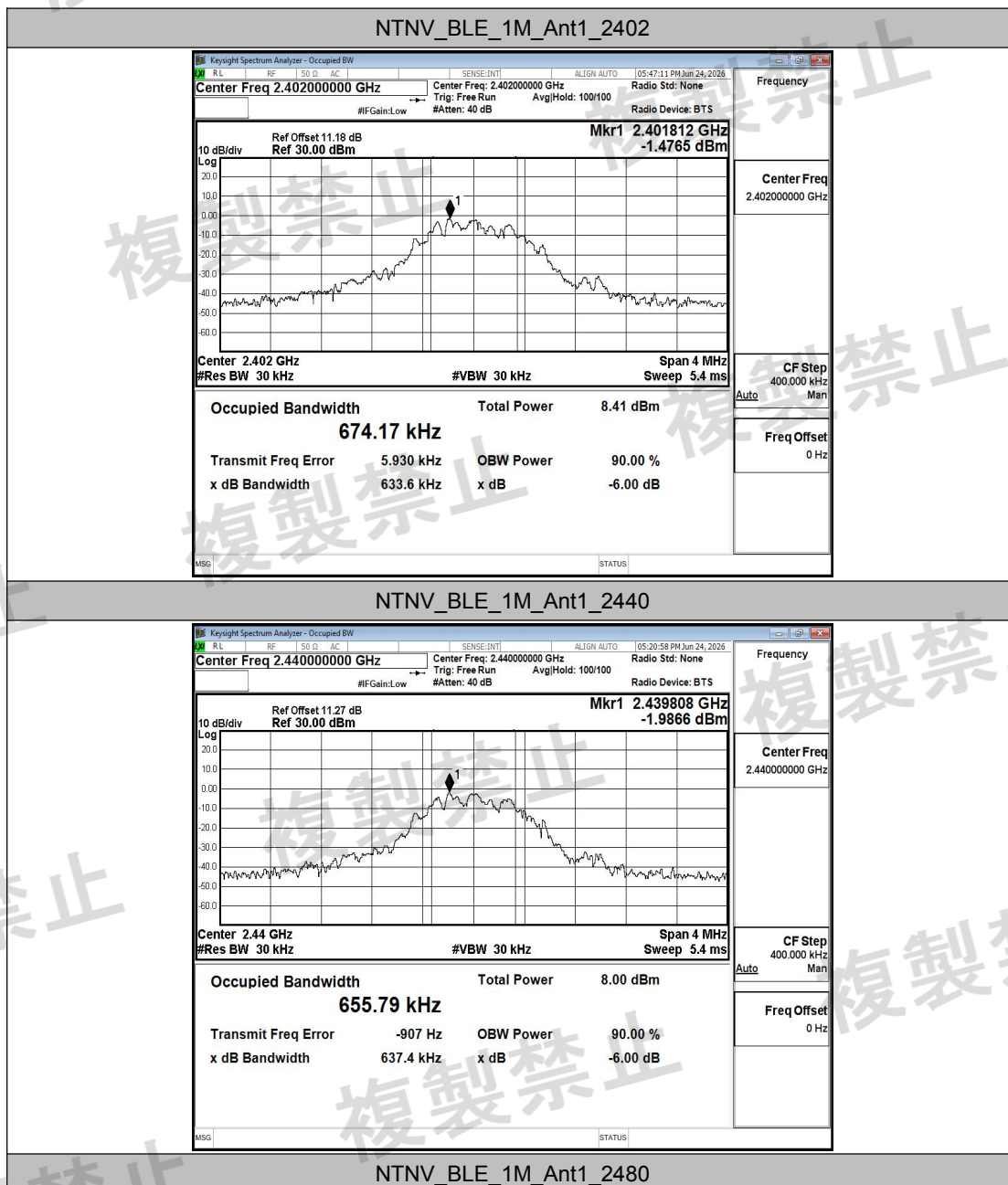


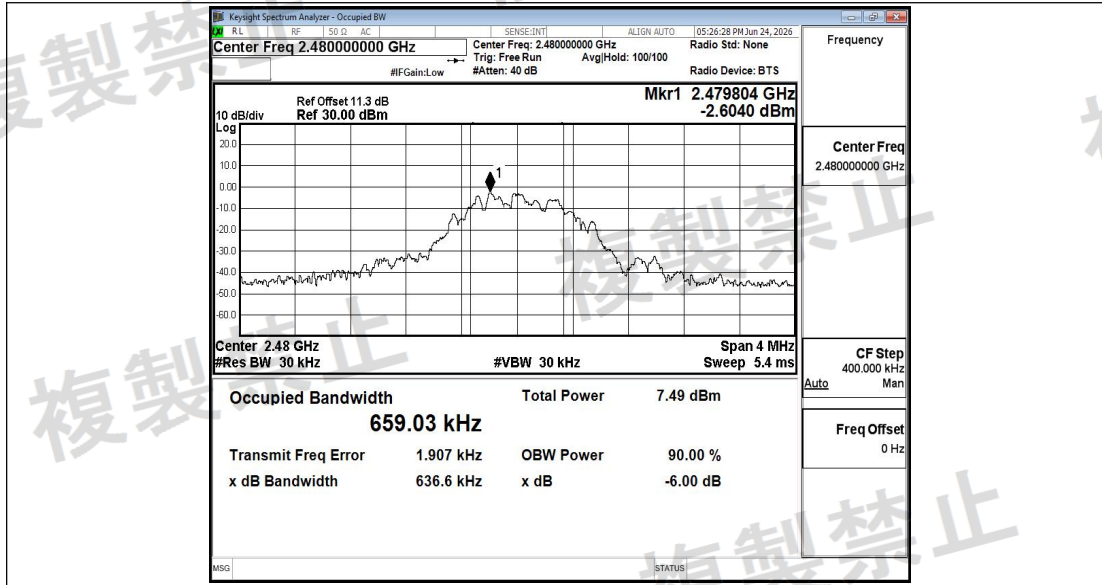
A.4 Spread Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.674	---	PASS
			2440	0.656	---	PASS
			2480	0.659	---	PASS

Test Graphs





A.5 Spurious Emission of TX

Test Result

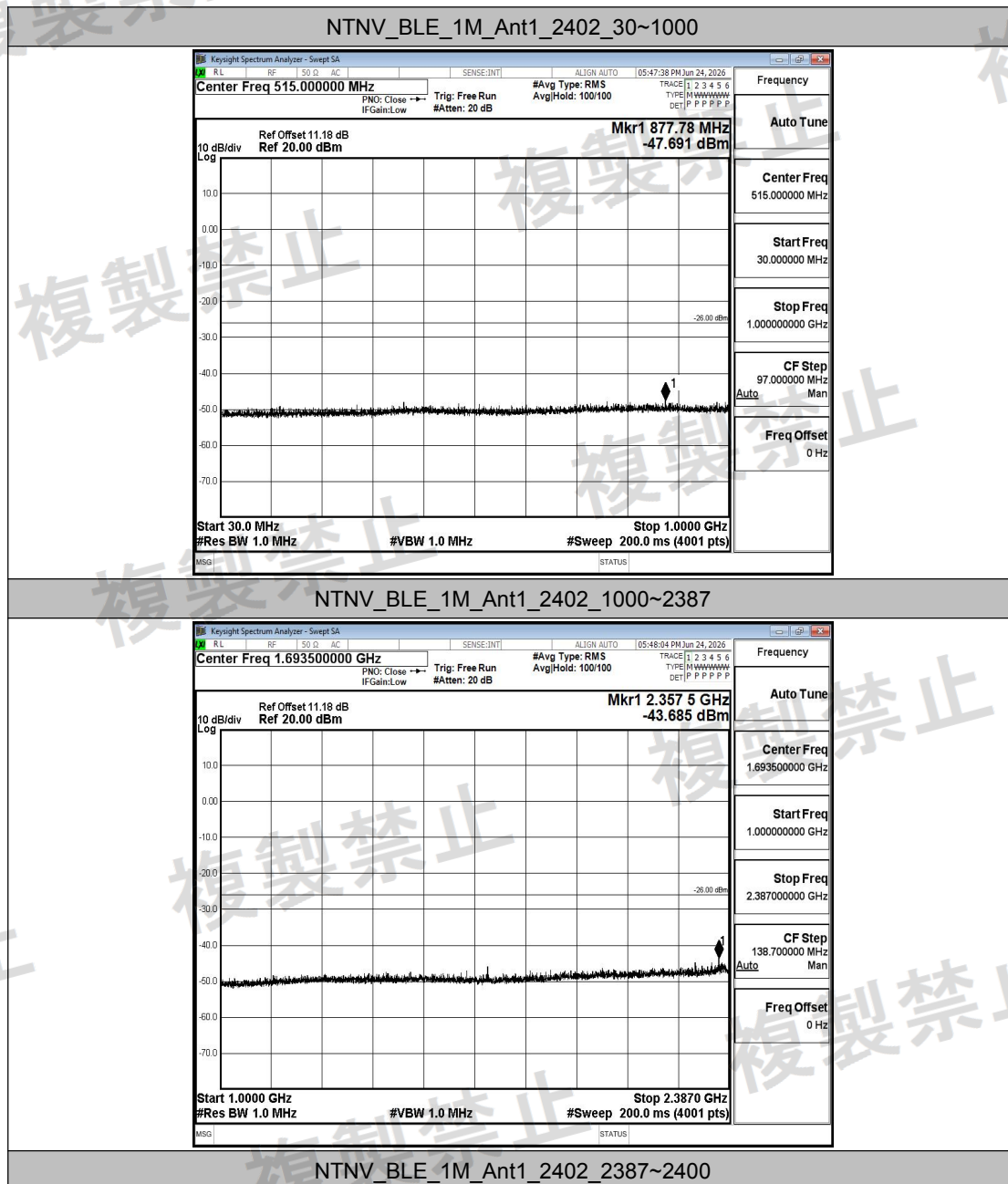
Test Result

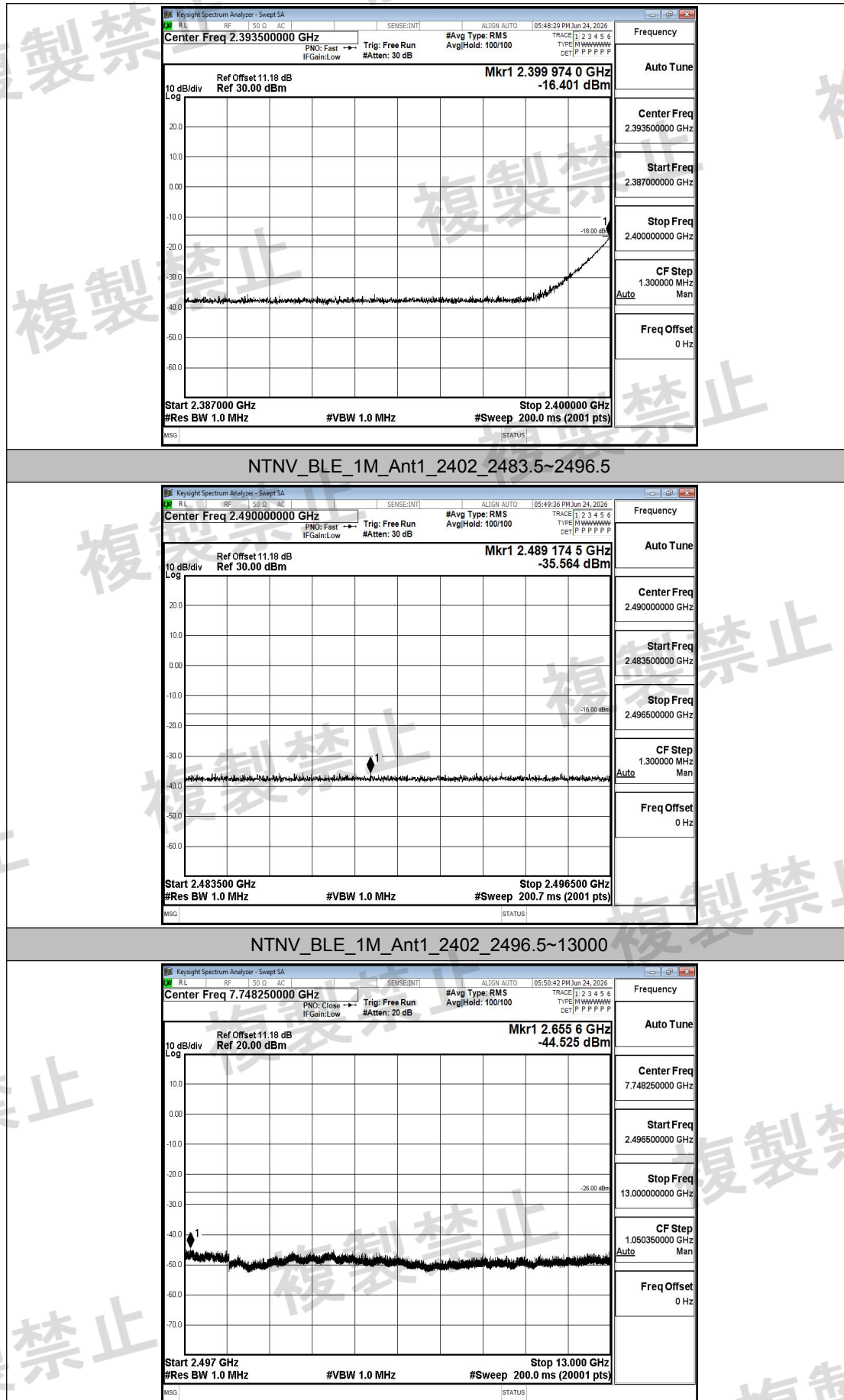
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	877.78	-47.69	≤-26	0.01702	≤2.5	PASS
				1000~2387	2357.53	-43.69	≤-26	0.04276	≤2.5	PASS
				2387~2400	2399.97	-16.40	≤-16	22.90868	≤25	See table below
				2483.5~2496.5	2489.17	-35.56	≤-16	0.27797	≤25	PASS
				2496.5~13000	2655.63	-44.53	≤-26	0.03524	≤2.5	PASS
			2440	30~1000	923.13	-47.83	≤-26	0.01648	≤2.5	PASS
				1000~2387	2366.89	-44.57	≤-26	0.03491	≤2.5	PASS
				2387~2400	2393.97	-35.32	≤-16	0.29376	≤25	PASS
				2483.5~2496.5	2486.33	-35.76	≤-16	0.26546	≤25	PASS
				2496.5~13000	3064.74	-44.34	≤-26	0.03681	≤2.5	PASS
			2480	30~1000	783.69	-47.74	≤-26	0.01683	≤2.5	PASS
				1000~2387	2296.85	-44.47	≤-26	0.03573	≤2.5	PASS
				2387~2400	2392.39	-35.44	≤-16	0.28576	≤25	PASS
				2483.5~2496.5	2483.56	-34.40	≤-16	0.36308	≤25	PASS
				2496.5~13000	2544.82	-44.30	≤-26	0.03715	≤2.5	PASS

Test Result_Step2

TestCondition	TestMode	Antenna	Freq(M Hz)	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	2399.97	-36.48	≤-16	0.22491	≤25	PASS

Test Graphs

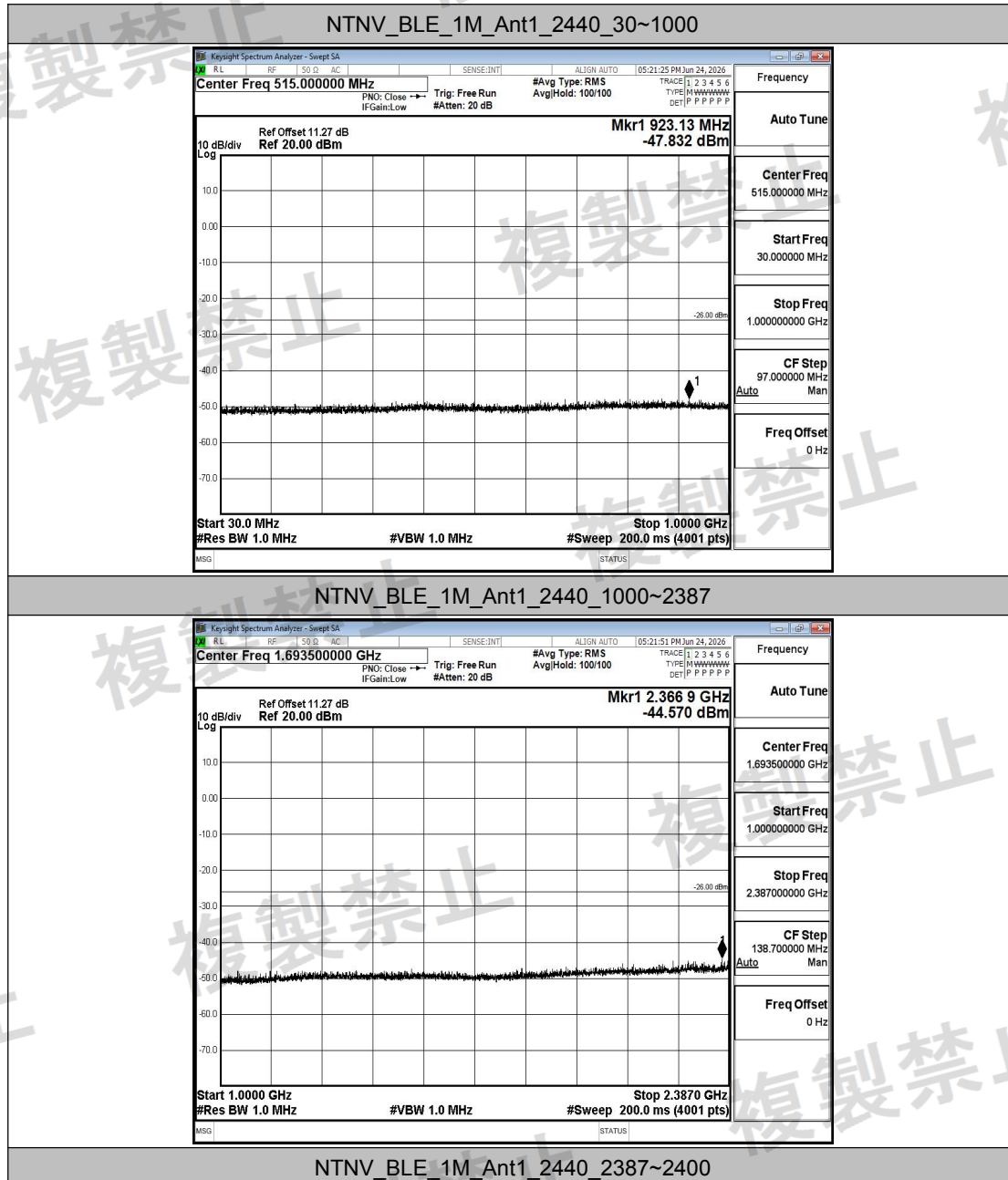


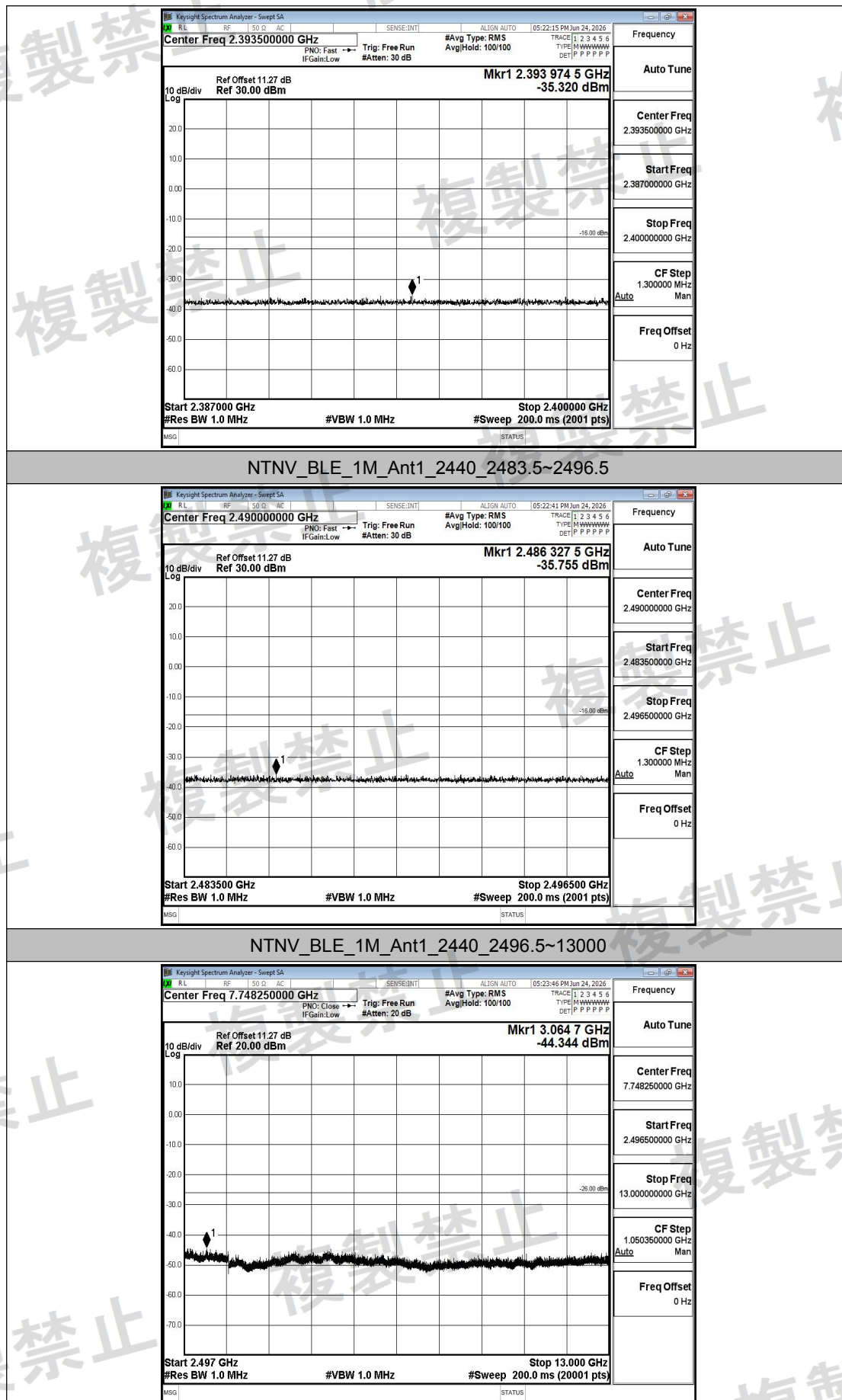


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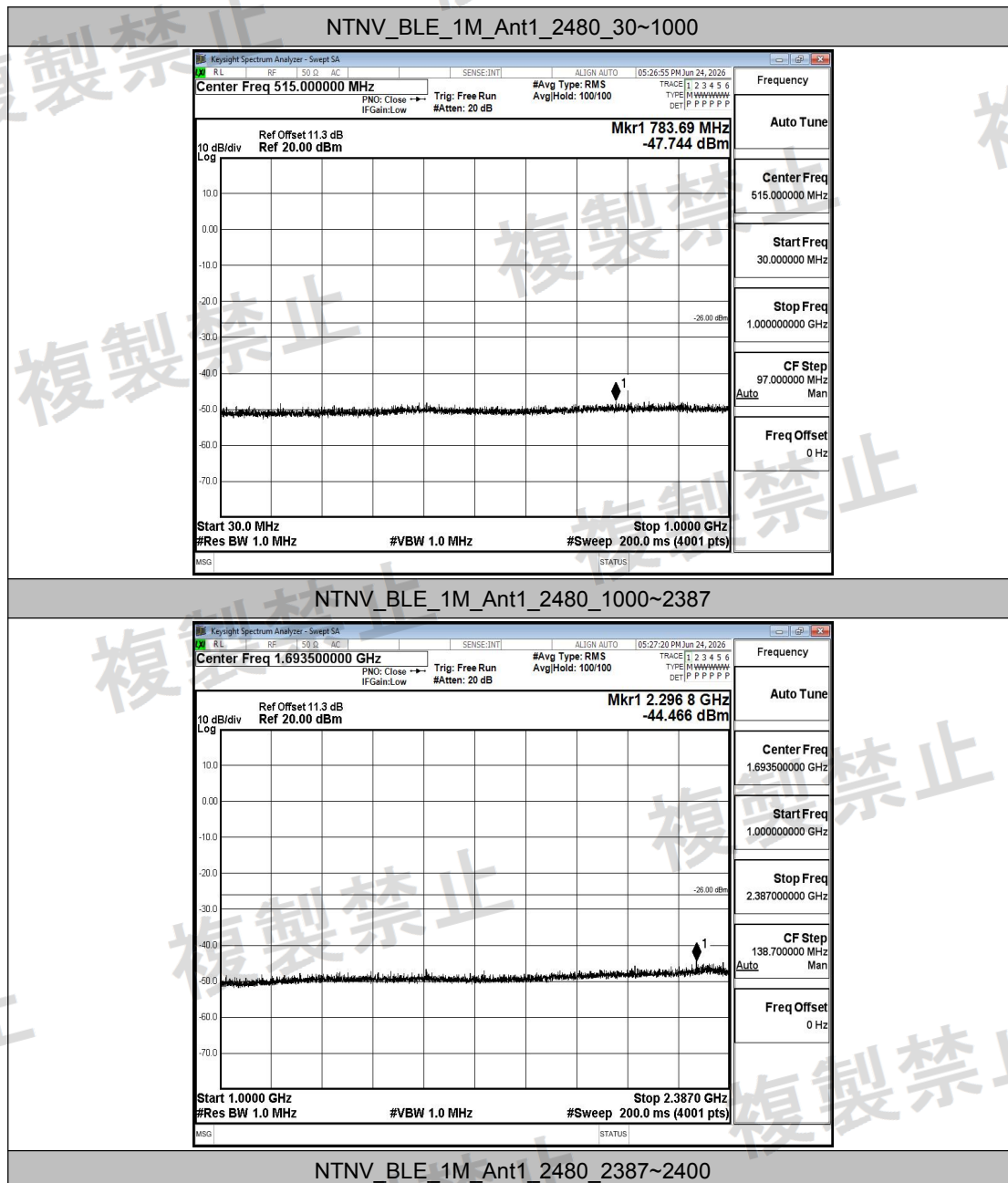


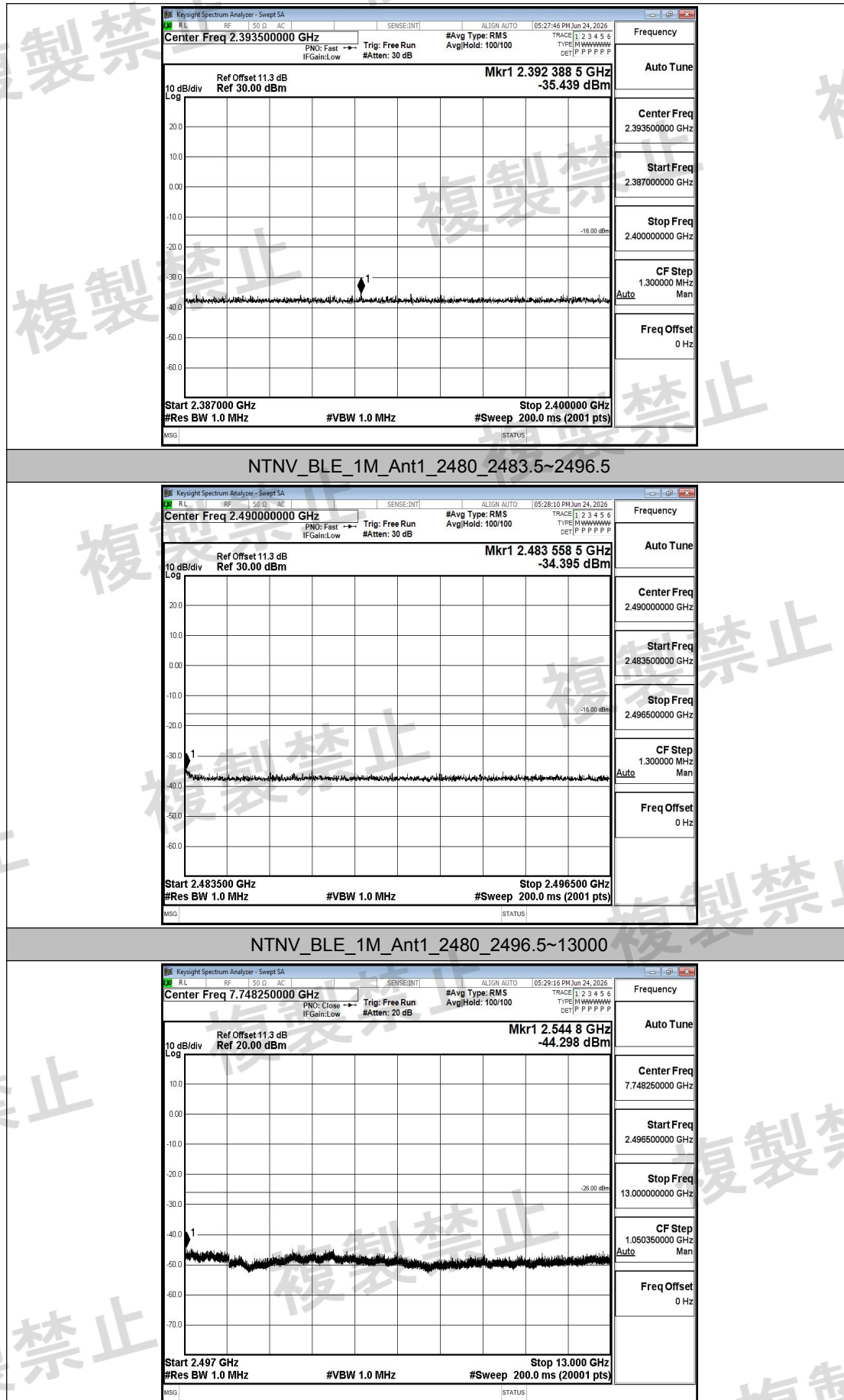


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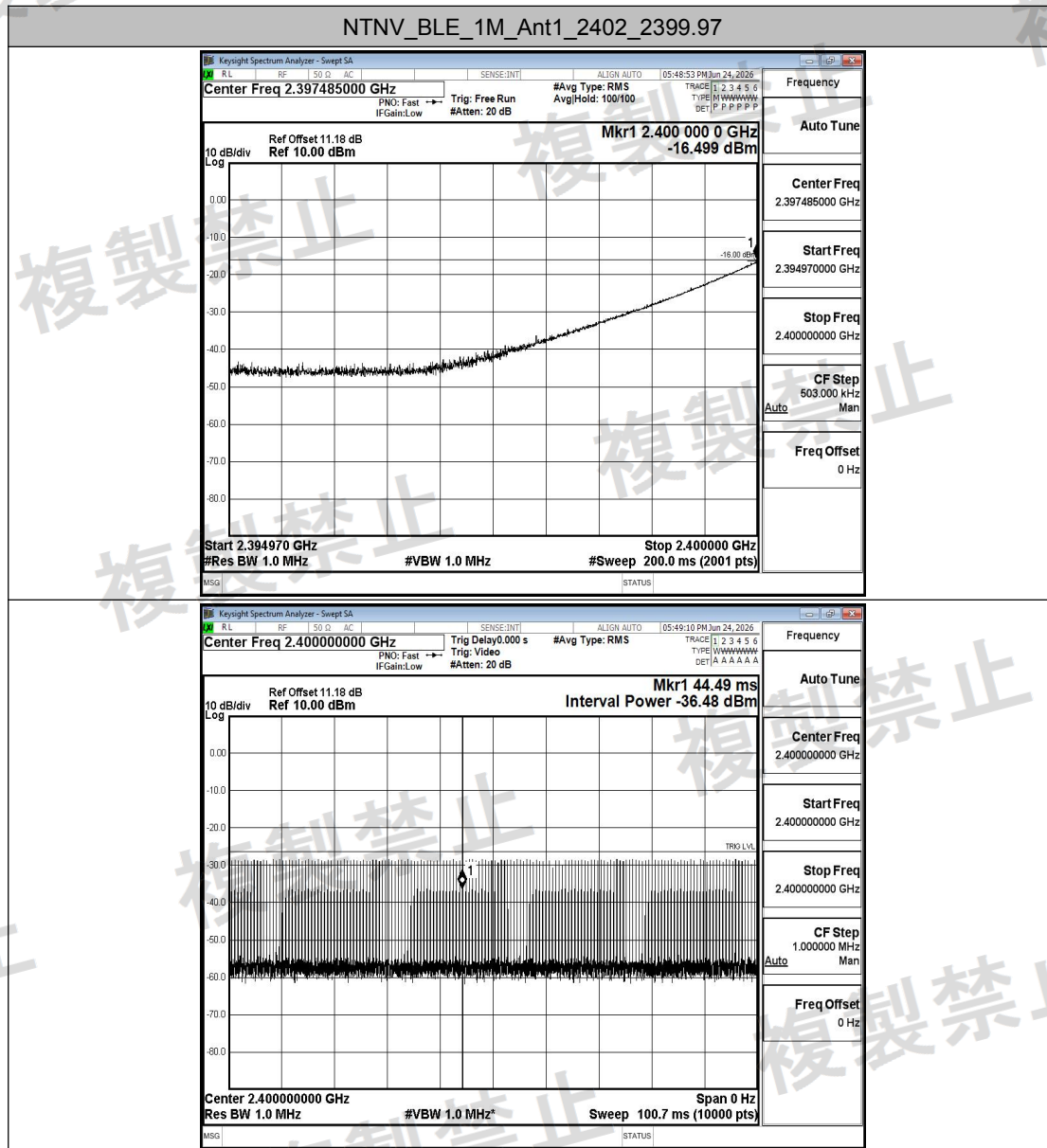


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Test Graphs_Step2

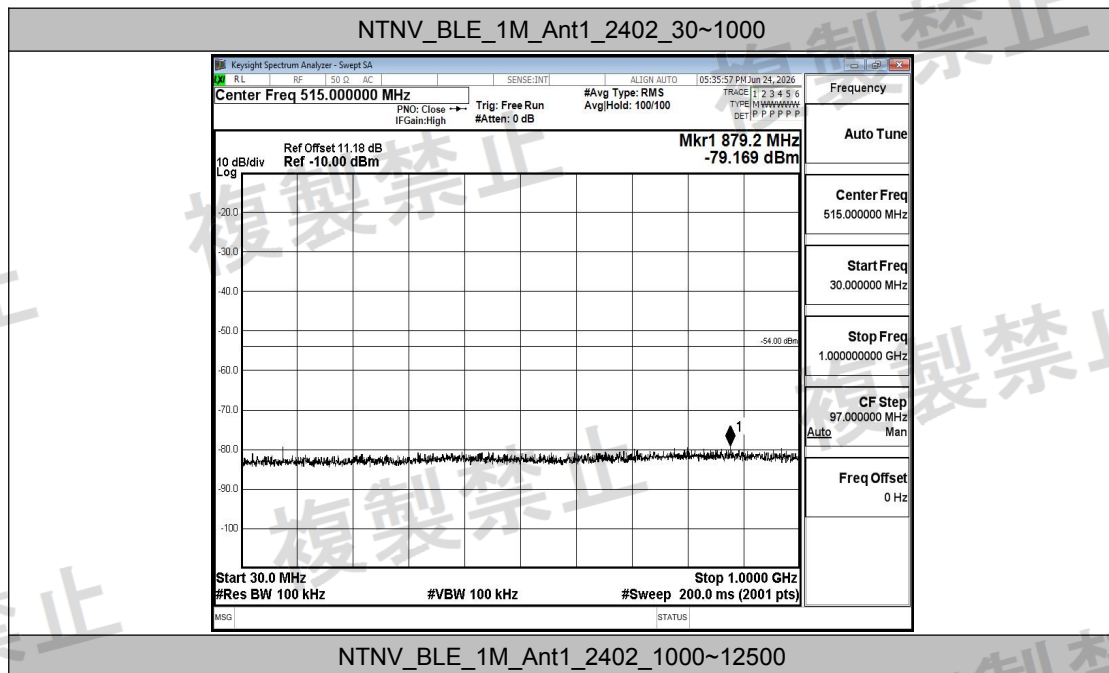


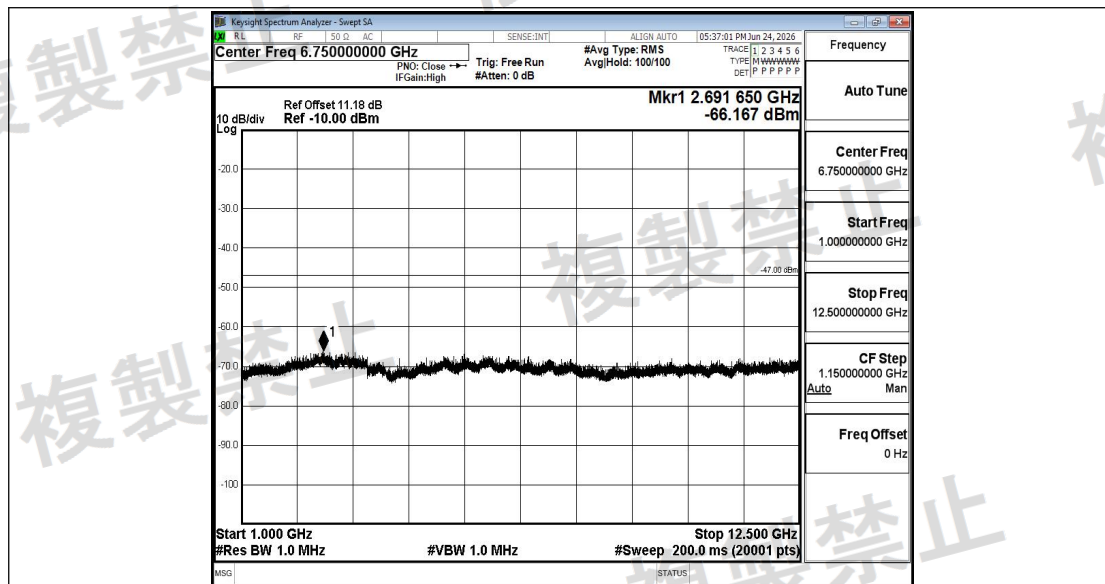
A.6 Spurious Emission of RX

Test Result

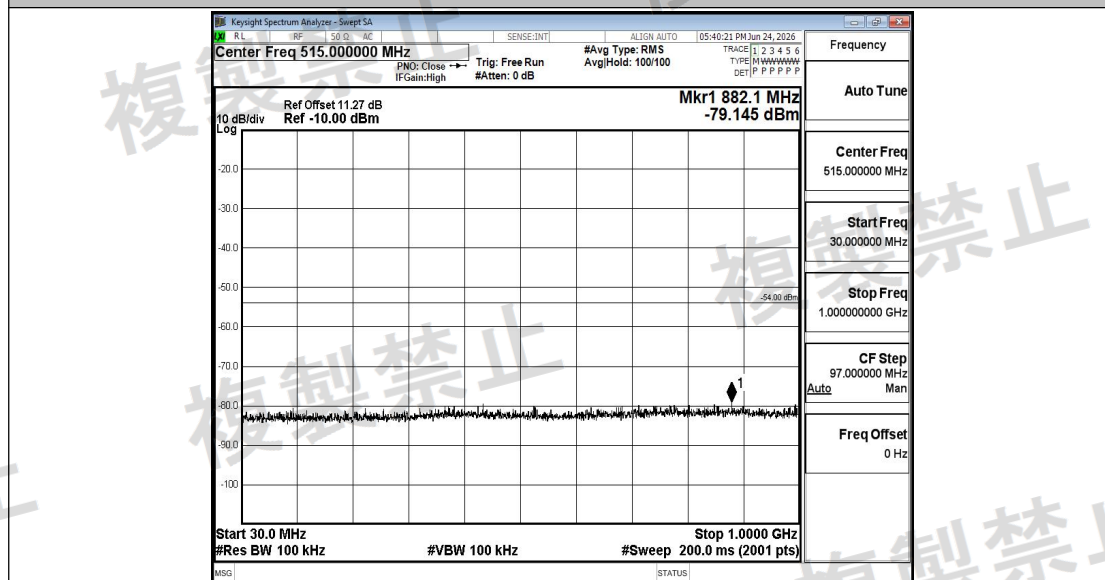
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	879.24	-79.17	≤-54	0.01211	≤4	PASS
				1000~12500	2691.6 5	-66.17	≤-47	0.2415 5	≤20	PASS
			2440	30~1000	882.15	-79.15	≤-54	0.0121 6	≤4	PASS
				1000~12500	3009.0 5	-65.92	≤-47	0.2558 6	≤20	PASS
			2480	30~1000	650.80	-79.56	≤-54	0.01107	≤4	PASS
				1000~12500	2721.5 5	-66.16	≤-47	0.2421 0	≤20	PASS

Test Graphs

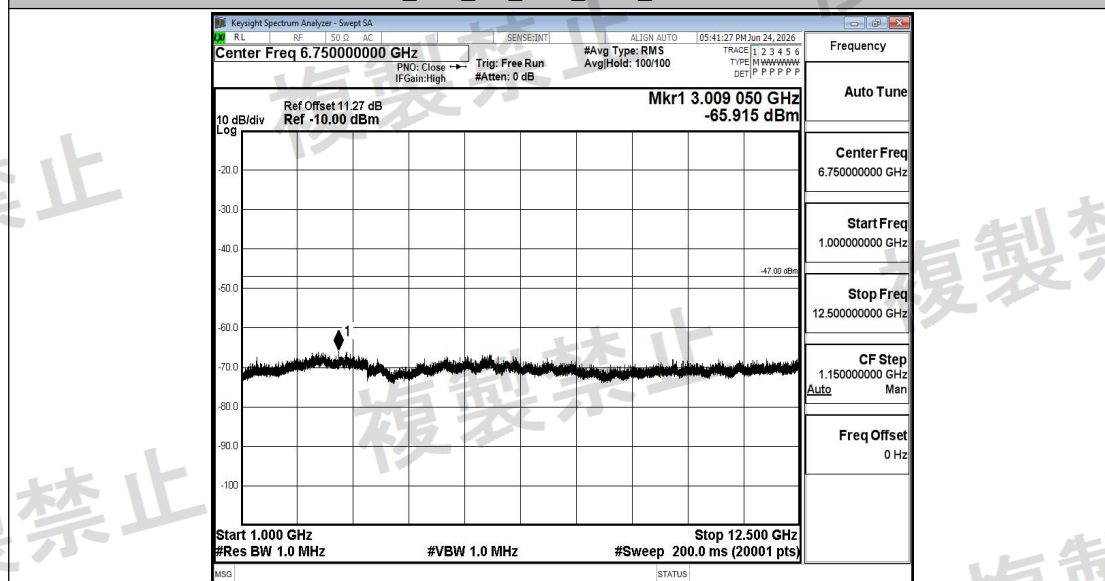




NTNV_BLE_1M_Ant1_2440_30~1000



NTNV_BLE_1M_Ant1_2440_1000~12500



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