

Appendix A for BT LE Test Data

Product Name: ANIMORE-Panda.MORE

Test Model: Panda.MORE

Environmental Conditions

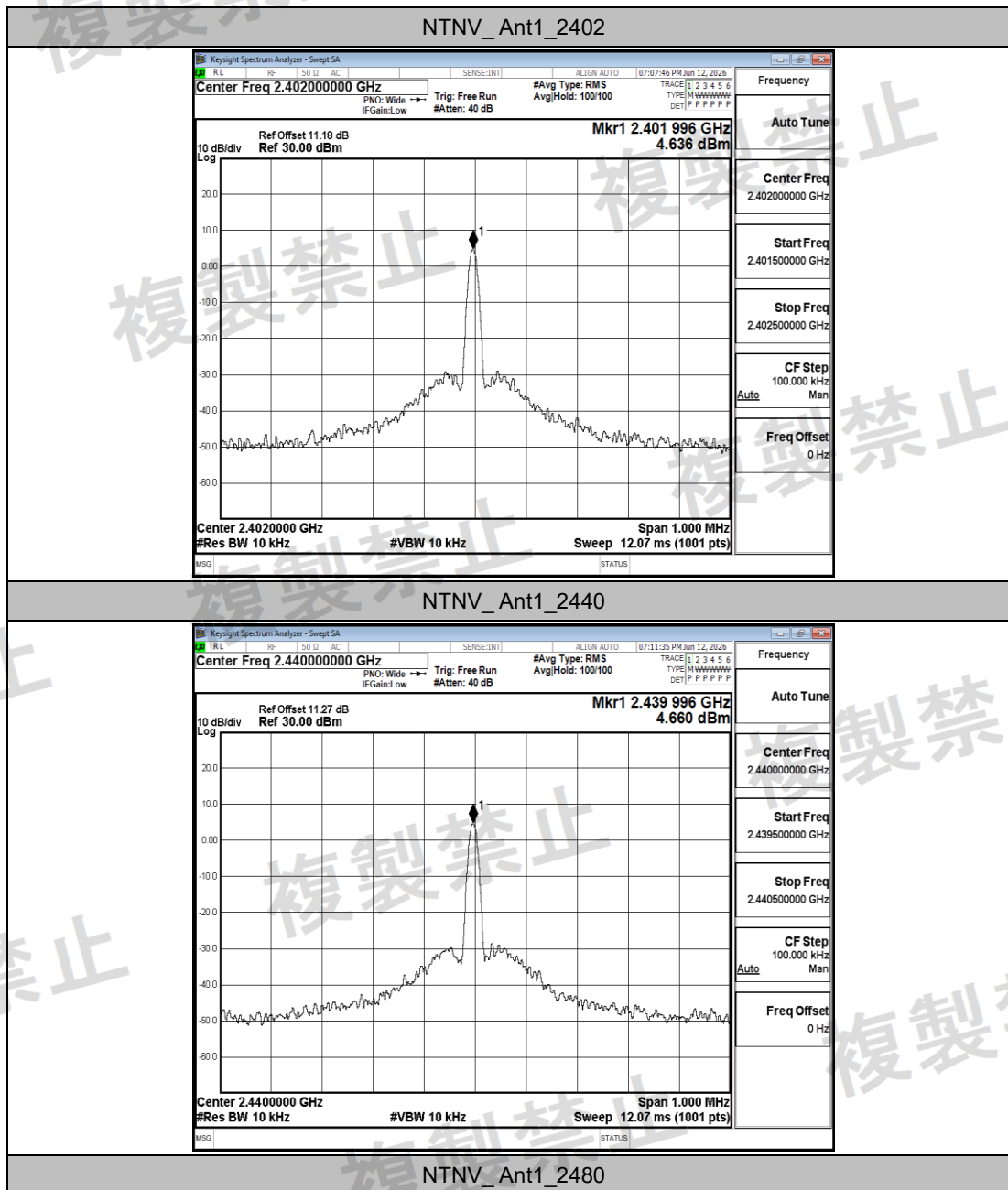
Temperature:	23.8°C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhao Xing Hai
Supervised by:	Fengliu Tang

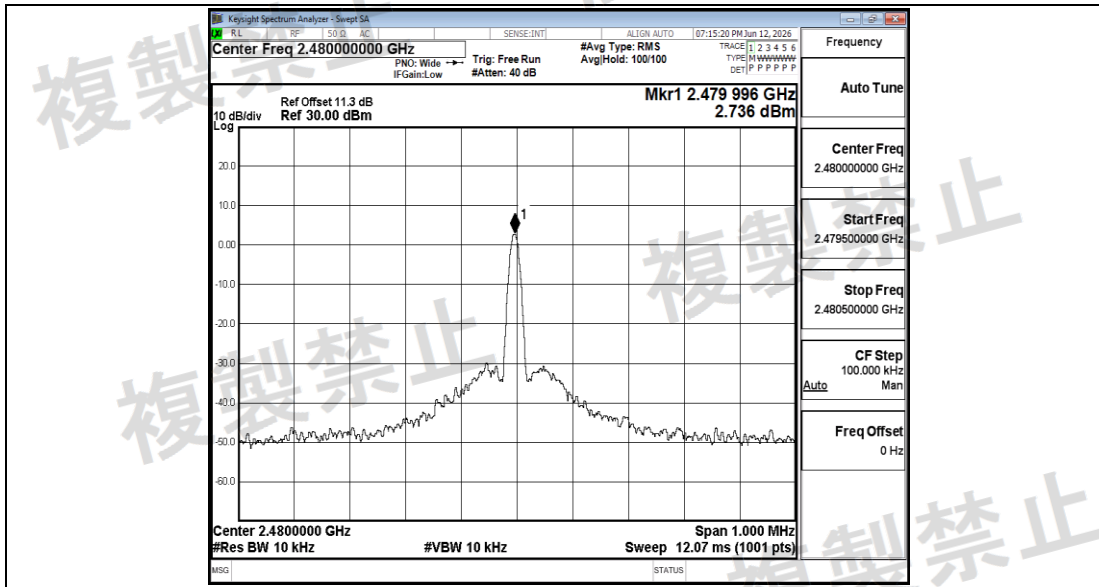
A.1 Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq (MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	Frequency Error	Ant1	2402	-1.66528	±50	PASS
			2440	-1.63934	±50	PASS
			2480	-1.61290	±50	PASS

Test Graphs





A.2 Antenna Power & EIRP

Test Result

Antenna Power							
TestCondition	TestMode	Antenna	Frequency [MHz]	Result [dBm]	Result [mW]	Limit [mW]	Verdict
NTNV	BLE_1M	Ant1	2402	-2.65	0.5433	≤10	PASS
			2440	-0.52	0.8872	≤10	PASS
			2480	-2.32	0.5861	≤10	PASS
NTNV	BLE_2M	Ant1	2402	-3.70	0.4266	≤10	PASS
			2440	-1.12	0.7727	≤10	PASS
			2480	-3.21	0.4775	≤10	PASS

Tolerance								
Test Condition	Test Mode	Antenna	Frequency [MHz]	Power (mW)	Rated Power (mW)	Result (%)	Limit (%)	Verdict
NTNV	BLE_1M	Ant1	2402	0.5433	1	-45.67	+20	PASS
			2440	0.8872	1	-11.28	+20	PASS
			2480	0.5861	1	-41.39	+20	PASS
NTNV	BLE_2M	Ant1	2402	0.4266	1	-57.34	+20	PASS
			2440	0.7727	1	-22.73	+20	PASS
			2480	0.4775	1	-52.25	+20	PASS

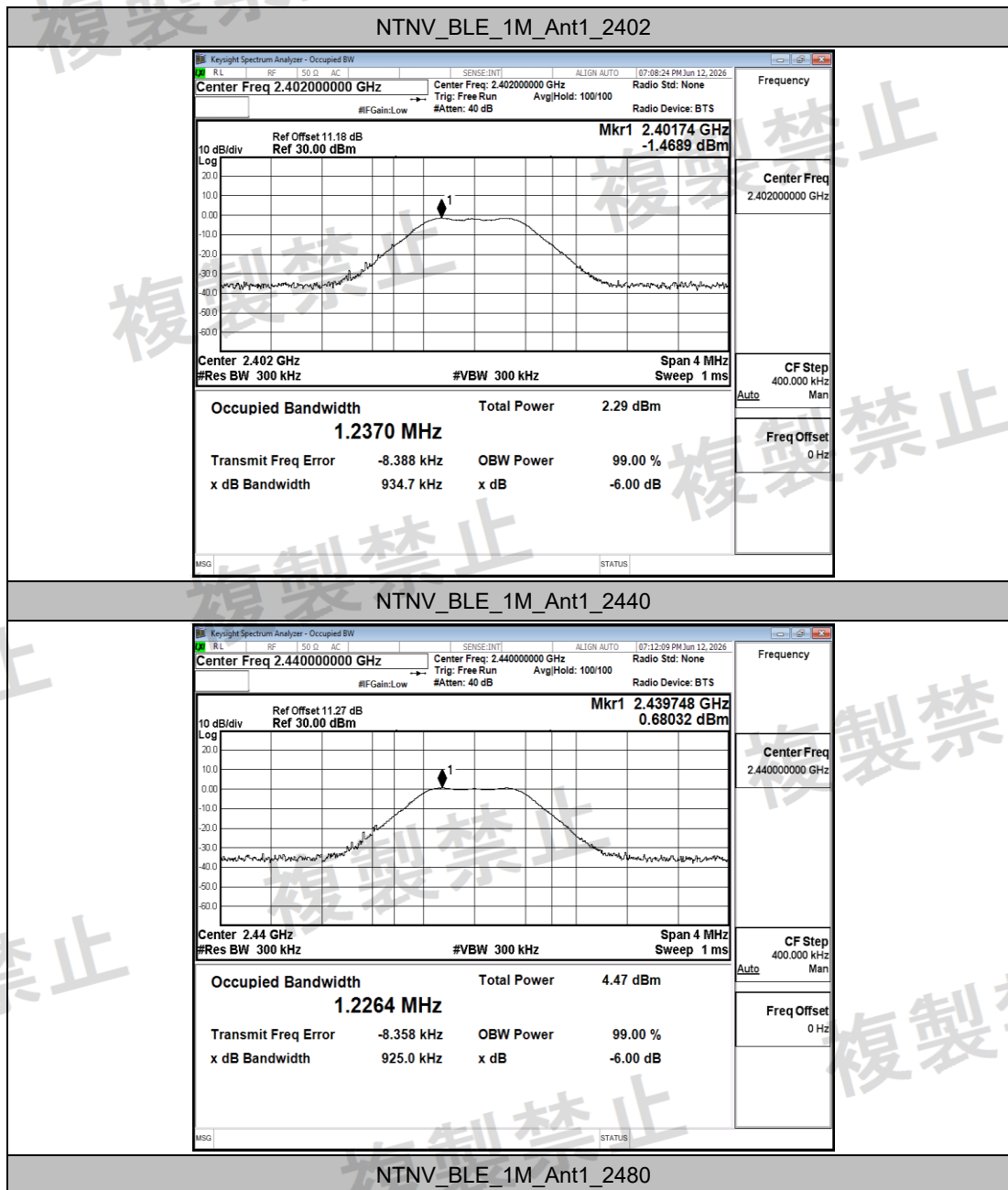
EIRP								
TestCondition	TestMode	Antenna	Frequency [MHz]	Measured Power (dBm/MHz)	Antenna gain (dBi)	EIRP (dBm)	Limit (dBm)	Verdict
NTNV	BLE_1M	Ant1	2402	-2.65	3.37	0.72	≤12.14	PASS
			2440	-0.52	3.37	2.85	≤12.14	PASS
			2480	-2.32	3.37	1.05	≤12.14	PASS
NTNV	BLE_2M	Ant1	2402	-3.70	3.37	-0.33	≤12.14	PASS
			2440	-1.12	3.37	2.25	≤12.14	PASS
			2480	-3.21	3.37	0.16	≤12.14	PASS

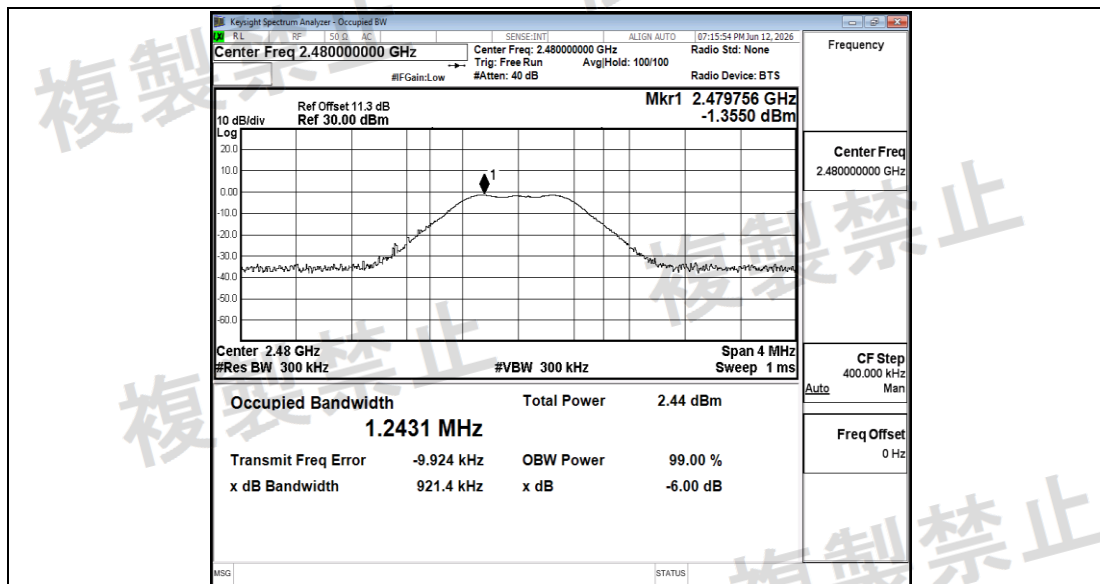
A.3 Occupied Bandwidth

Test Result

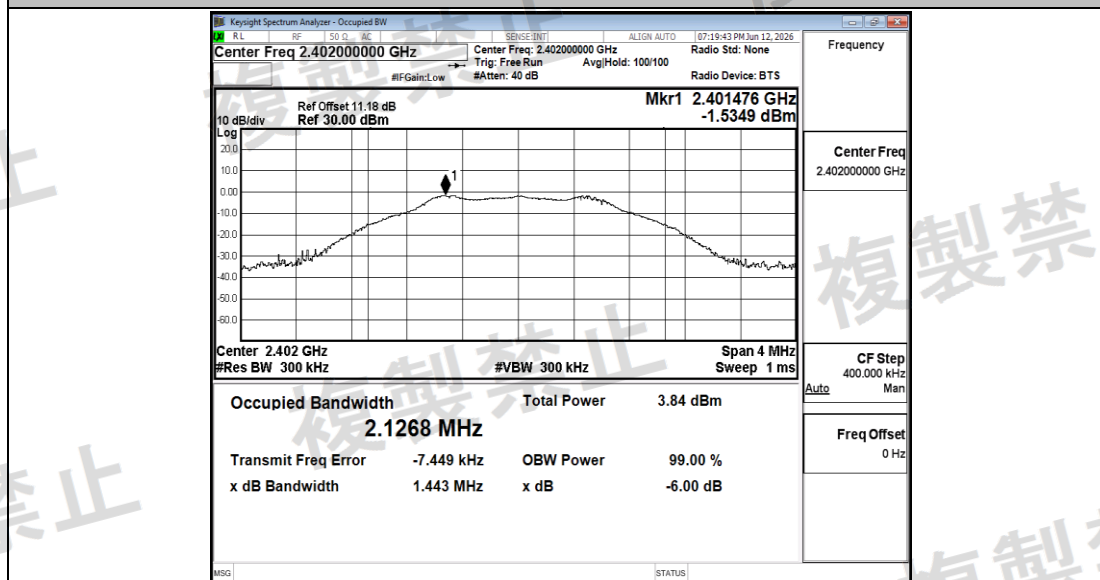
TestCondition	TestMode	Antenna	Freq (MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.237	≤26	PASS
			2440	1.226	≤26	PASS
			2480	1.243	≤26	PASS
	BLE_2M	Ant1	2402	2.127	≤26	PASS
			2440	2.134	≤26	PASS
			2480	2.129	≤26	PASS

Test Graphs

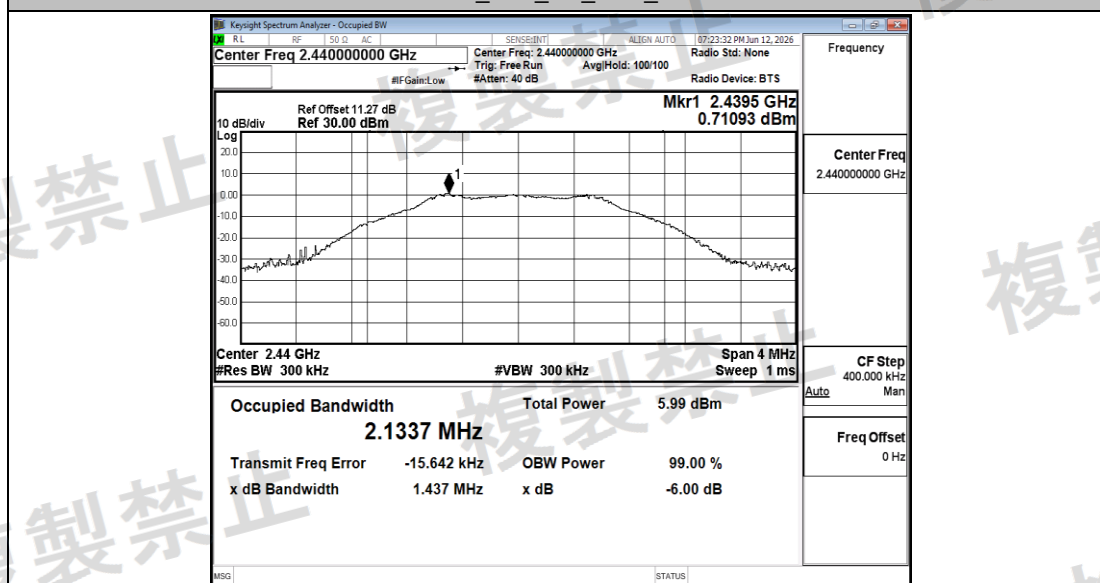


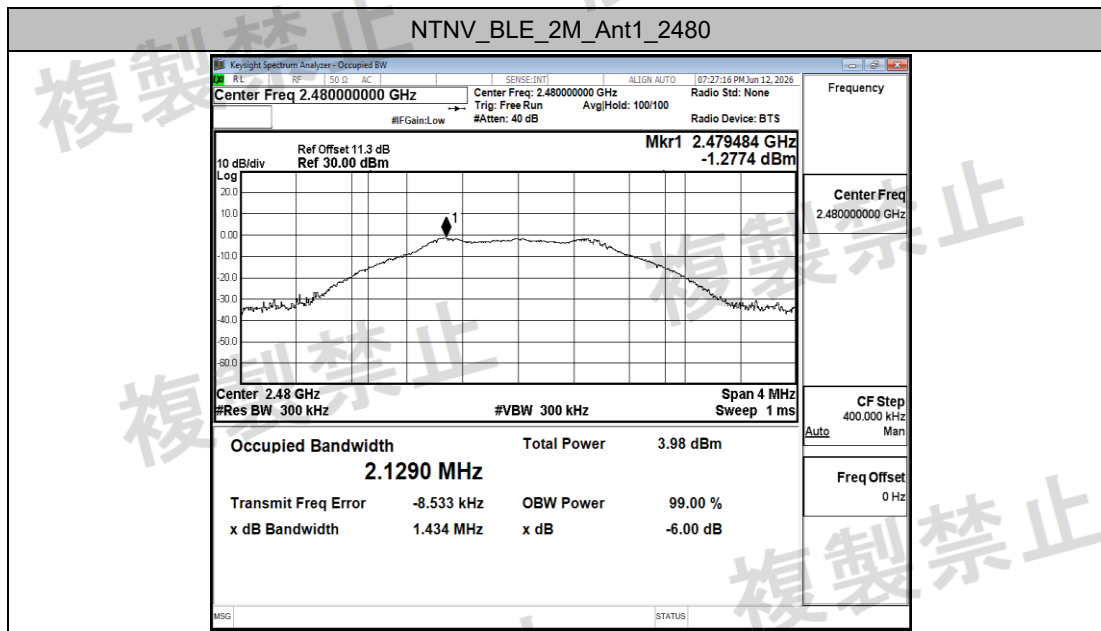


NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440



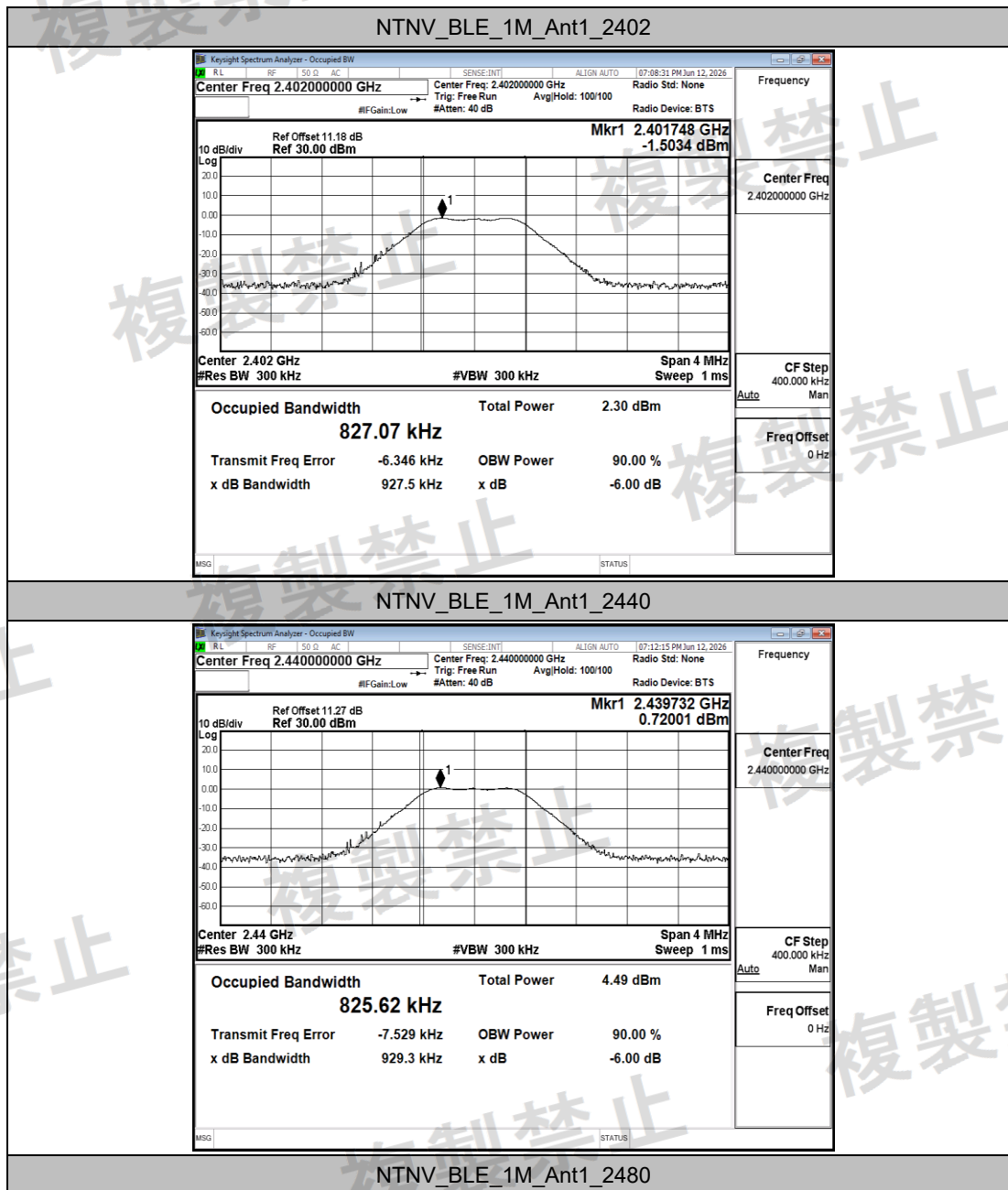


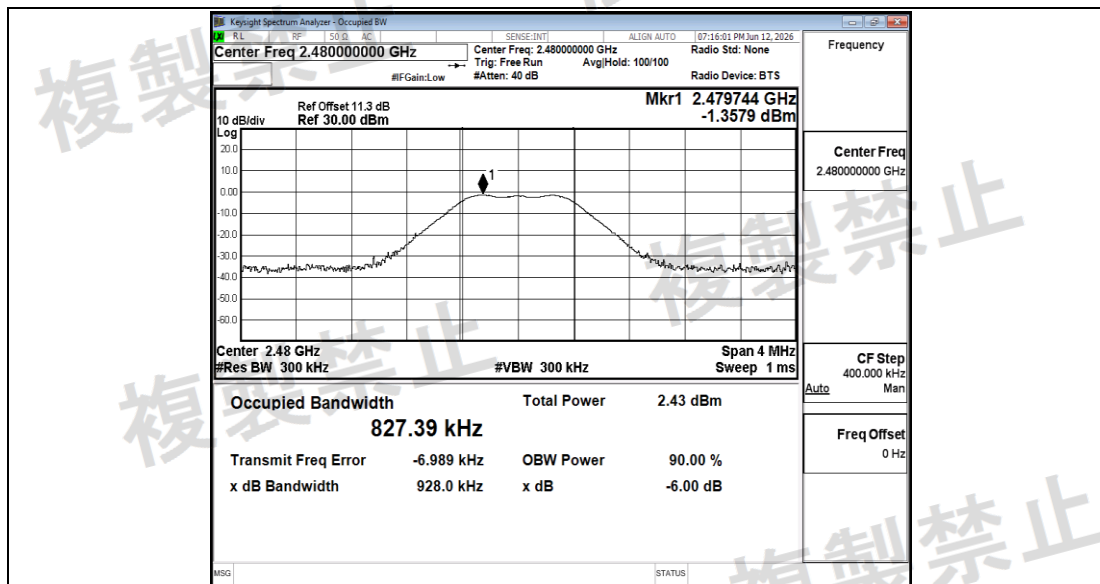
A.4 Spread Bandwidth

Test Result

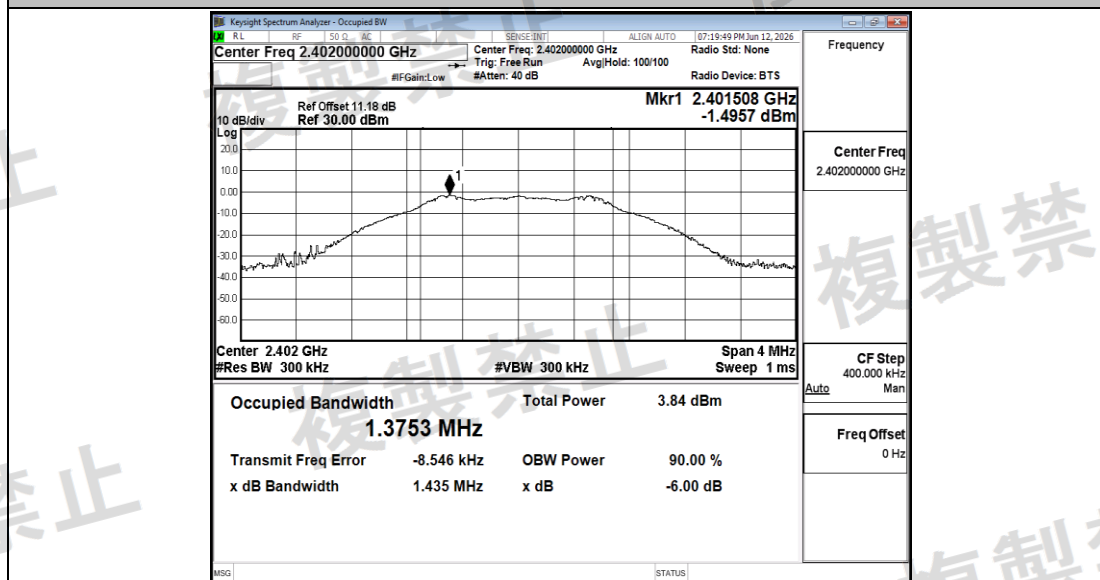
TestCondition	TestMode	Antenna	Freq (MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.827	---	PASS
			2440	0.826	---	PASS
			2480	0.827	---	PASS
	BLE_2M	Ant1	2402	1.375	---	PASS
			2440	1.376	---	PASS
			2480	1.376	---	PASS

Test Graphs

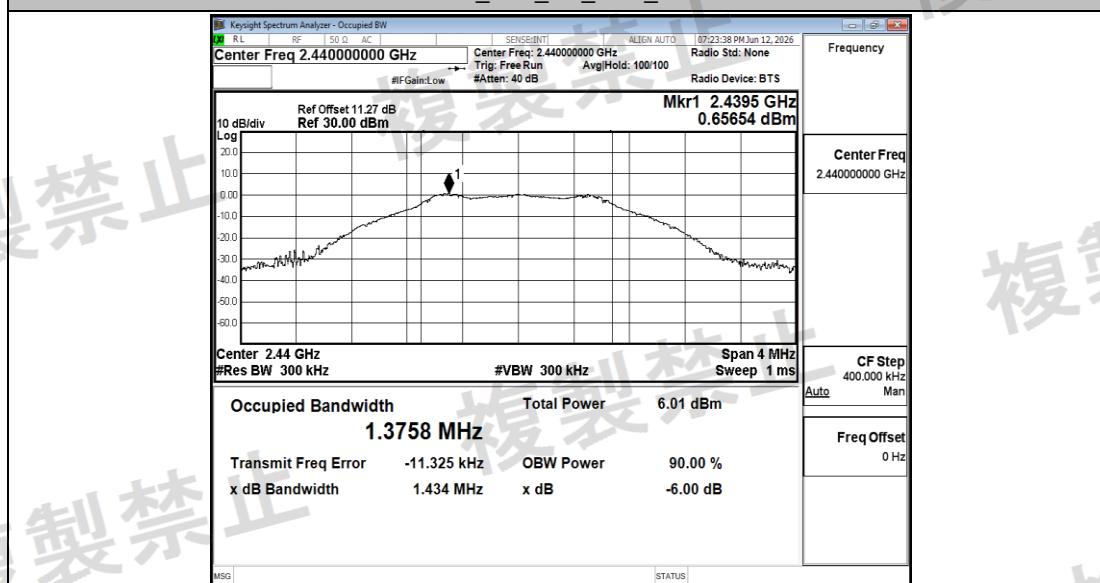


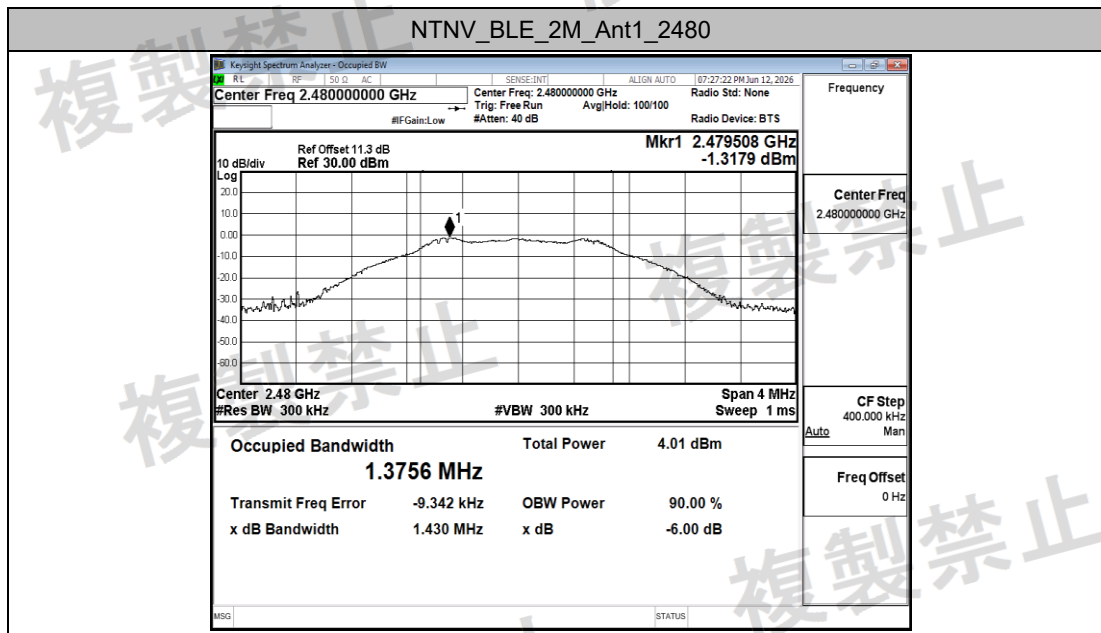


NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440



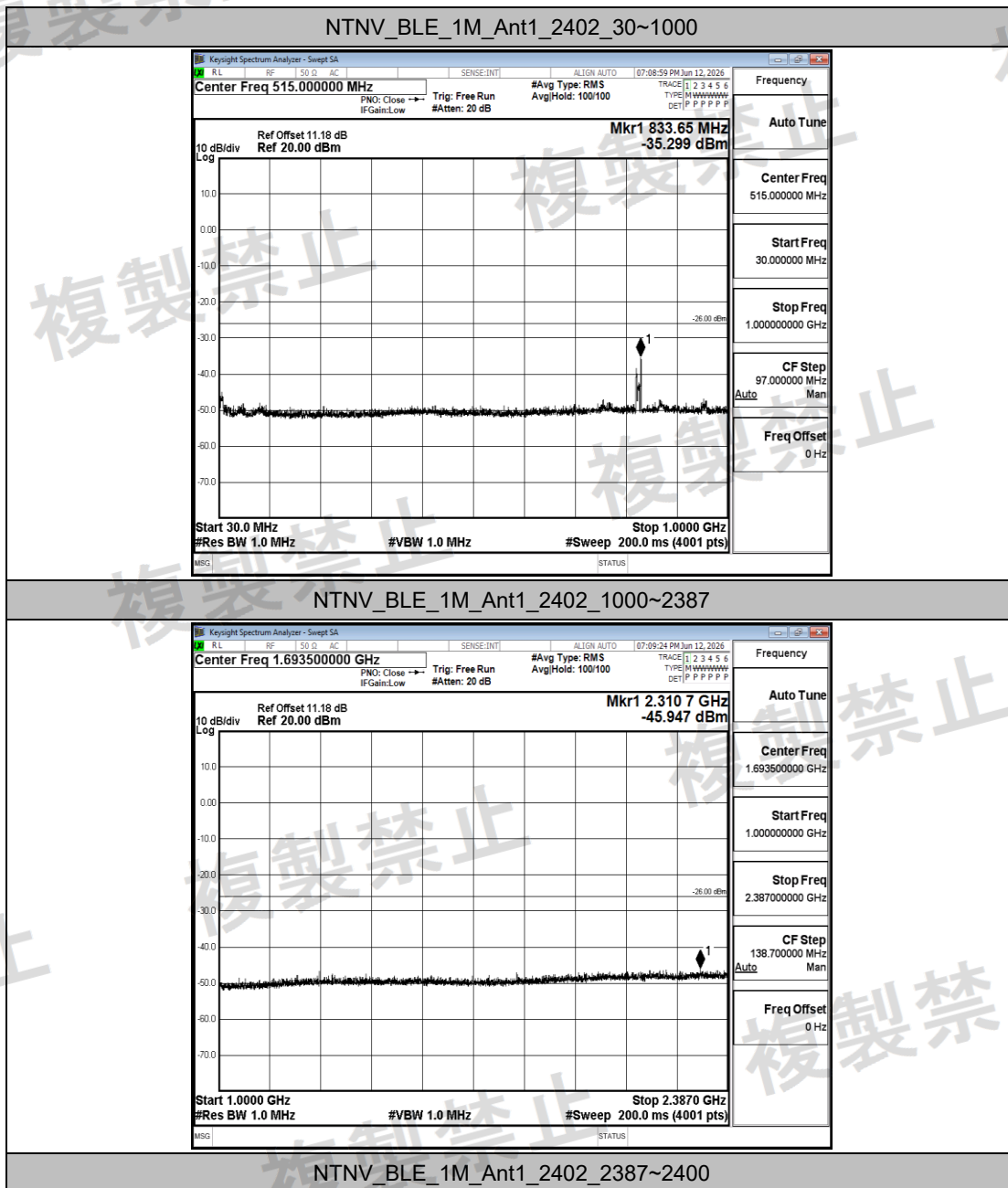


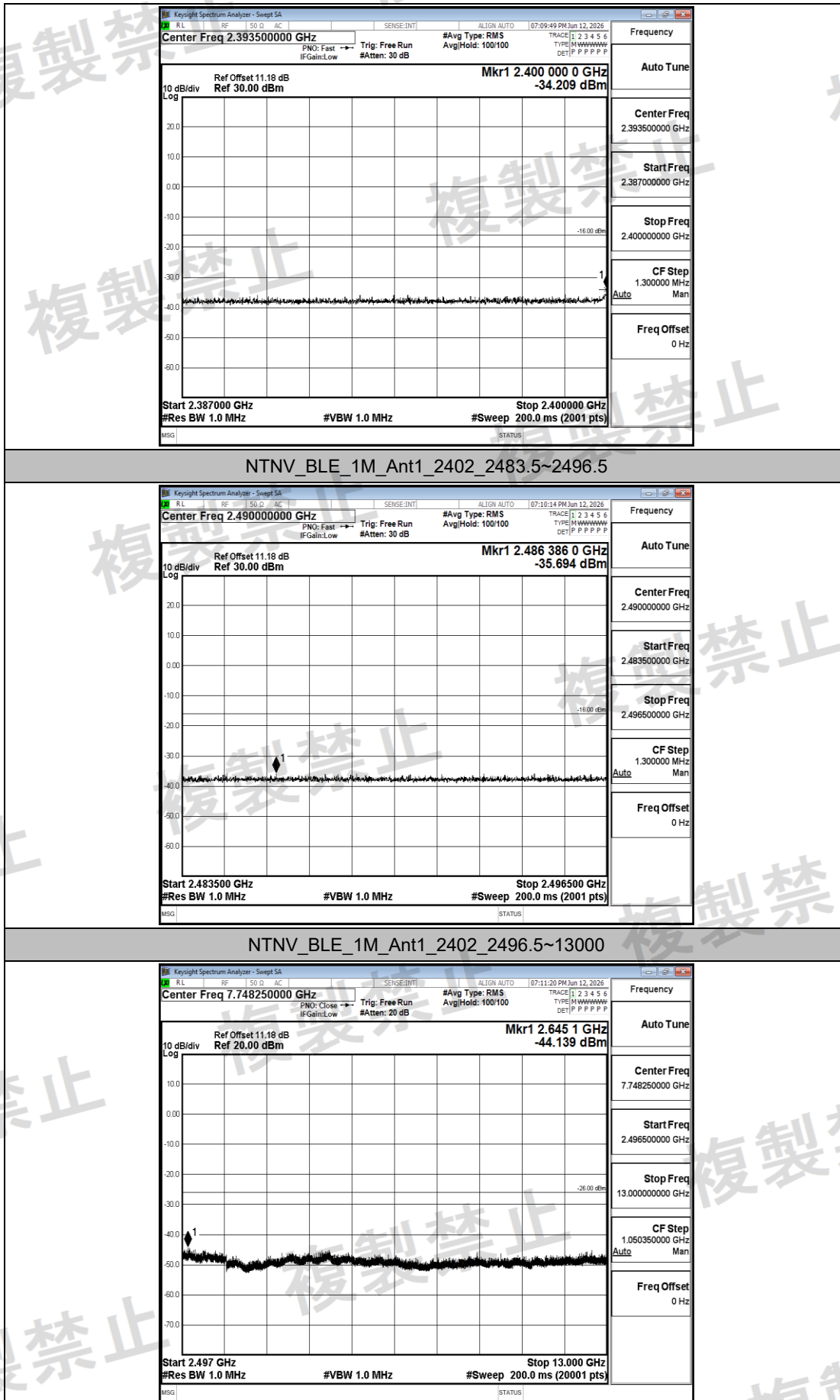
A.5 Spurious Emission of TX

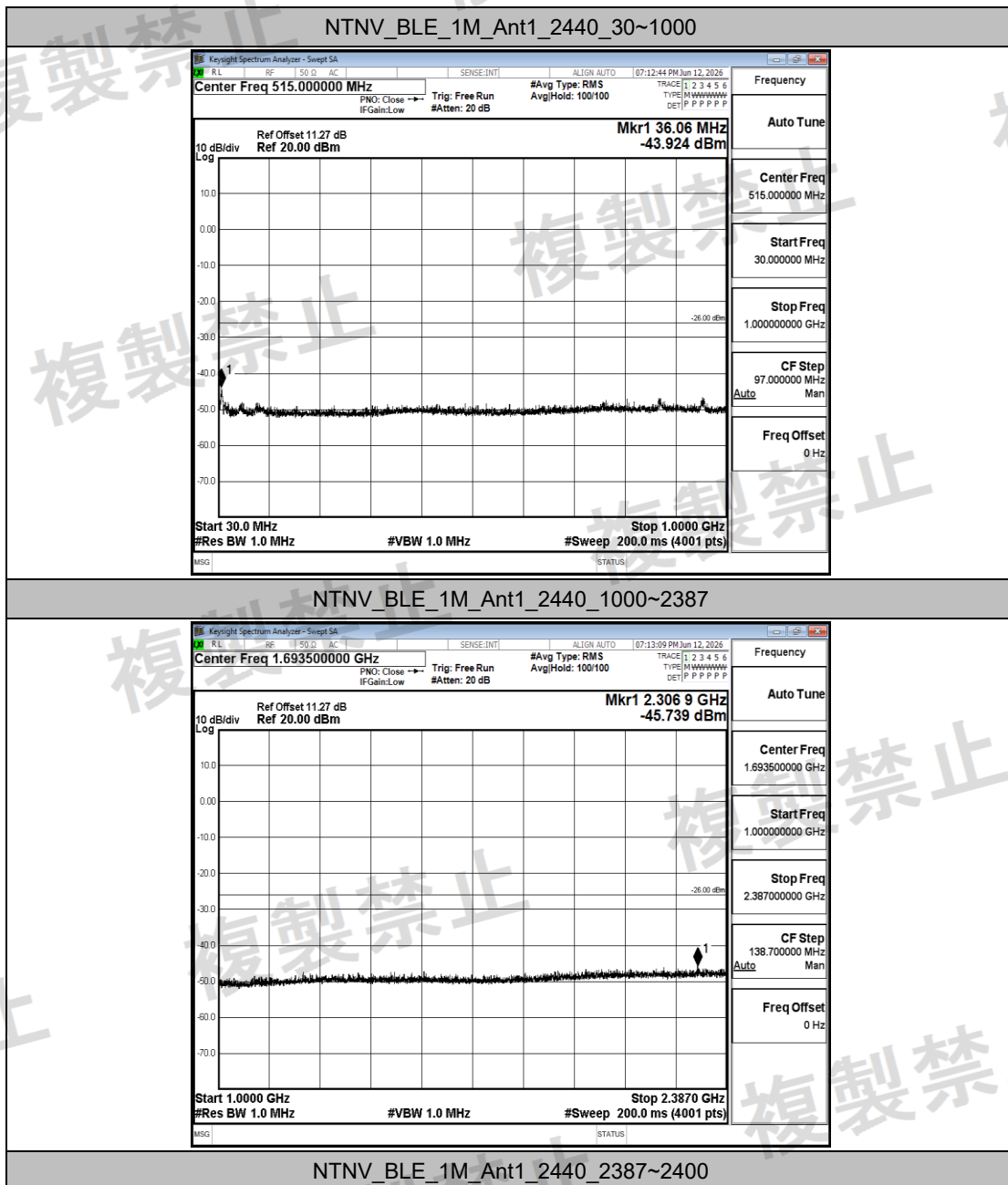
Test Result

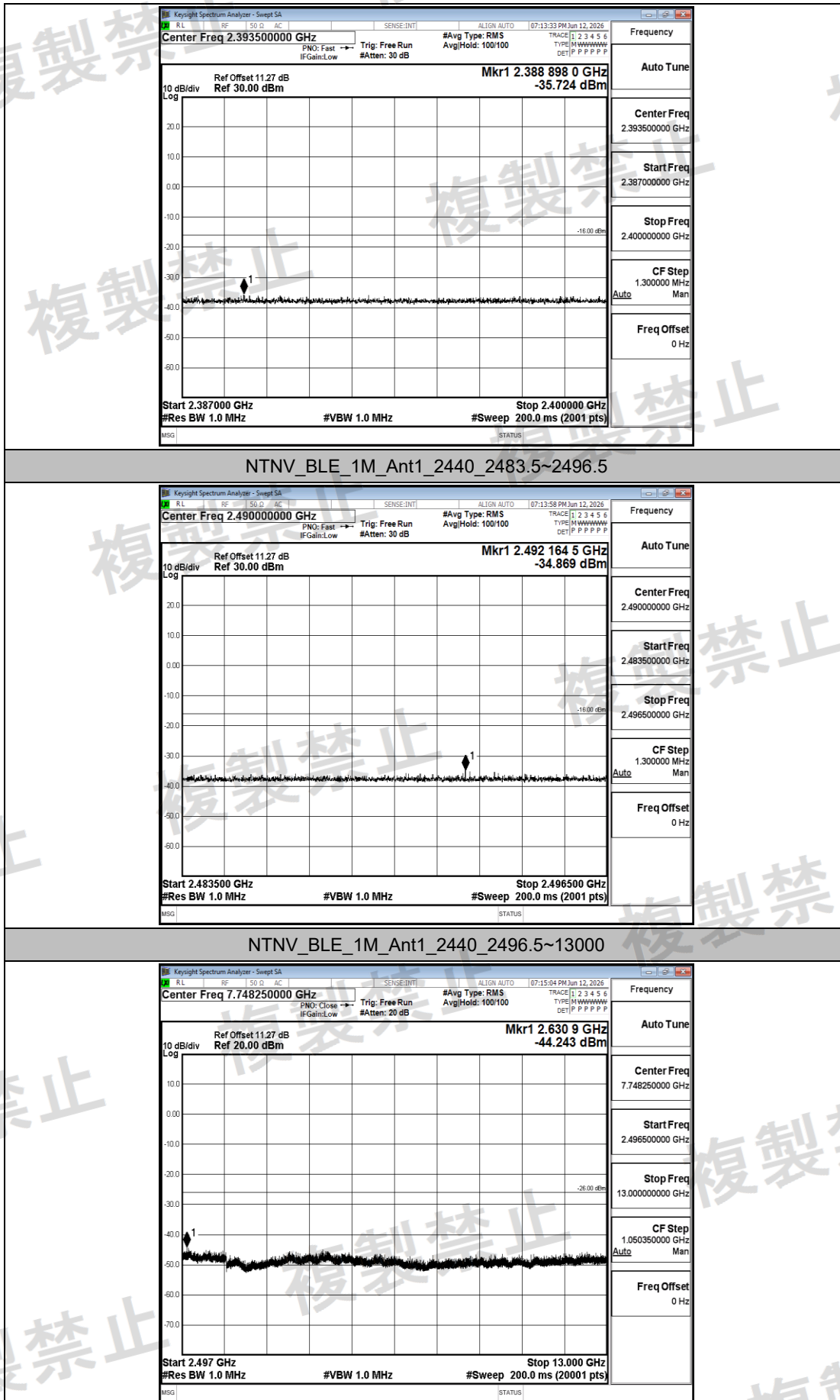
TestCondition	TestMode	Antenna	Freq (MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	833.65	-35.30	≤-26	0.29512	≤2.5	PASS
				1000~2387	2310.72	-45.95	≤-26	0.02541	≤2.5	PASS
				2387~2400	2400.00	-34.21	≤-16	0.37931	≤25	PASS
				2483.5~2496.5	2486.39	-35.69	≤-16	0.26977	≤25	PASS
				2496.5~13000	2645.12	-44.14	≤-26	0.03855	≤2.5	PASS
			2440	30~1000	36.06	-43.92	≤-26	0.04055	≤2.5	PASS
				1000~2387	2306.90	-45.74	≤-26	0.02667	≤2.5	PASS
				2387~2400	2388.90	-35.72	≤-16	0.26792	≤25	PASS
				2483.5~2496.5	2492.16	-34.87	≤-16	0.32584	≤25	PASS
				2496.5~13000	2630.94	-44.24	≤-26	0.03767	≤2.5	PASS
			2480	30~1000	36.06	-45.20	≤-26	0.03020	≤2.5	PASS
				1000~2387	2173.06	-45.85	≤-26	0.02600	≤2.5	PASS
				2387~2400	2398.71	-35.05	≤-16	0.31261	≤25	PASS
				2483.5~2496.5	2491.72	-35.59	≤-16	0.27606	≤25	PASS
				2496.5~13000	2674.53	-44.56	≤-26	0.03499	≤2.5	PASS
	BLE_2M	Ant1	2402	30~1000	36.06	-45.45	≤-26	0.02851	≤2.5	PASS
				1000~2387	2221.25	-46.07	≤-26	0.02472	≤2.5	PASS
				2387~2400	2399.98	-20.74	≤-16	8.43335	≤25	PASS
				2483.5~2496.5	2495.21	-35.38	≤-16	0.28973	≤25	PASS
				2496.5~13000	2714.45	-44.69	≤-26	0.03396	≤2.5	PASS
			2440	30~1000	35.34	-45.02	≤-26	0.03148	≤2.5	PASS
				1000~2387	2269.11	-45.71	≤-26	0.02685	≤2.5	PASS
				2387~2400	2398.93	-35.44	≤-16	0.28576	≤25	PASS
				2483.5~2496.5	2495.95	-35.48	≤-16	0.28314	≤25	PASS
				2496.5~13000	2673.48	-43.67	≤-26	0.04295	≤2.5	PASS
			2480	30~1000	35.34	-45.33	≤-26	0.02931	≤2.5	PASS
				1000~2387	2372.09	-45.51	≤-26	0.02812	≤2.5	PASS
				2387~2400	2388.21	-35.16	≤-16	0.30479	≤25	PASS
				2483.5~2496.5	2491.27	-35.11	≤-16	0.30832	≤25	PASS
				2496.5~13000	2672.43	-44.44	≤-26	0.03597	≤2.5	PASS

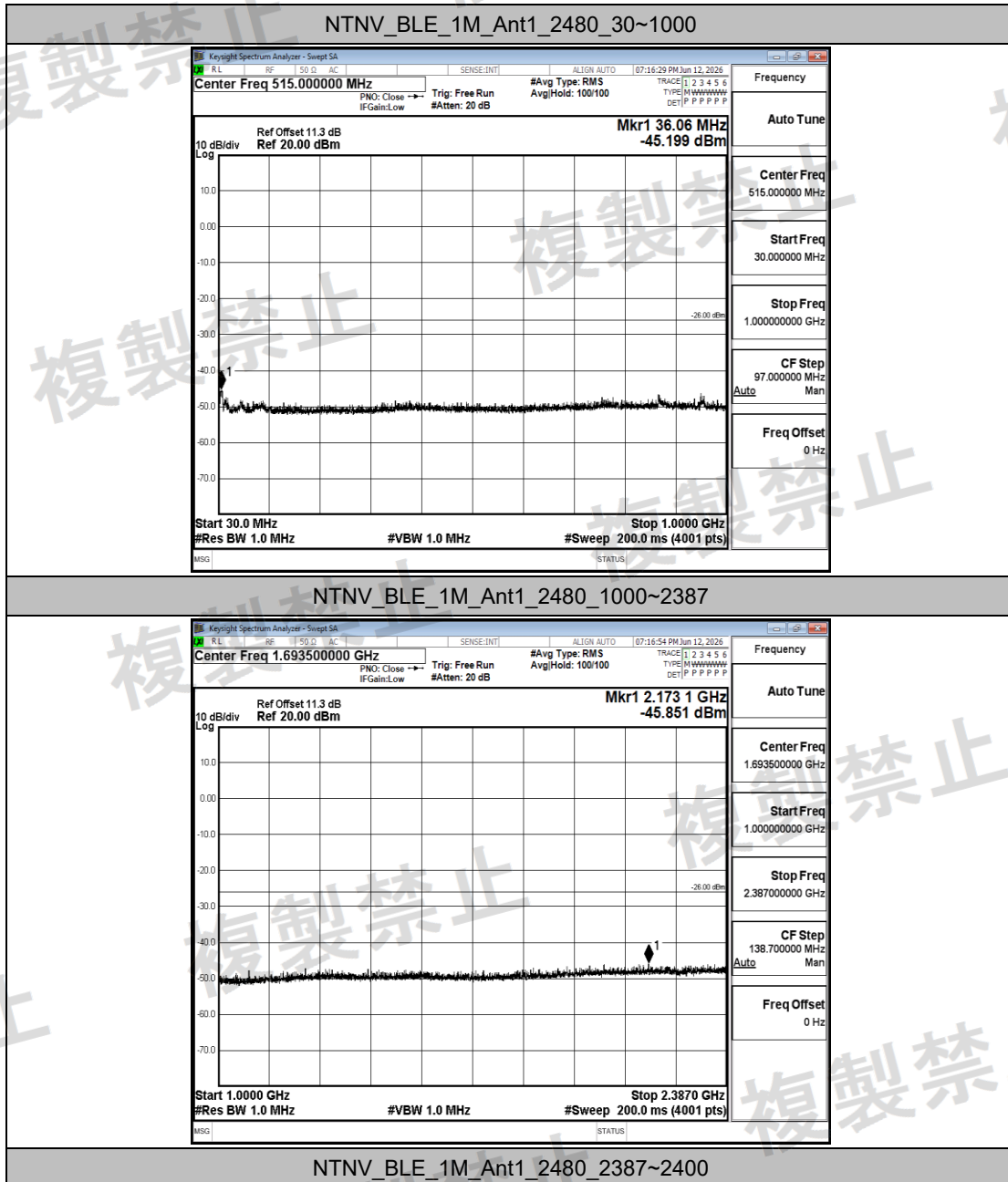
Test Graphs

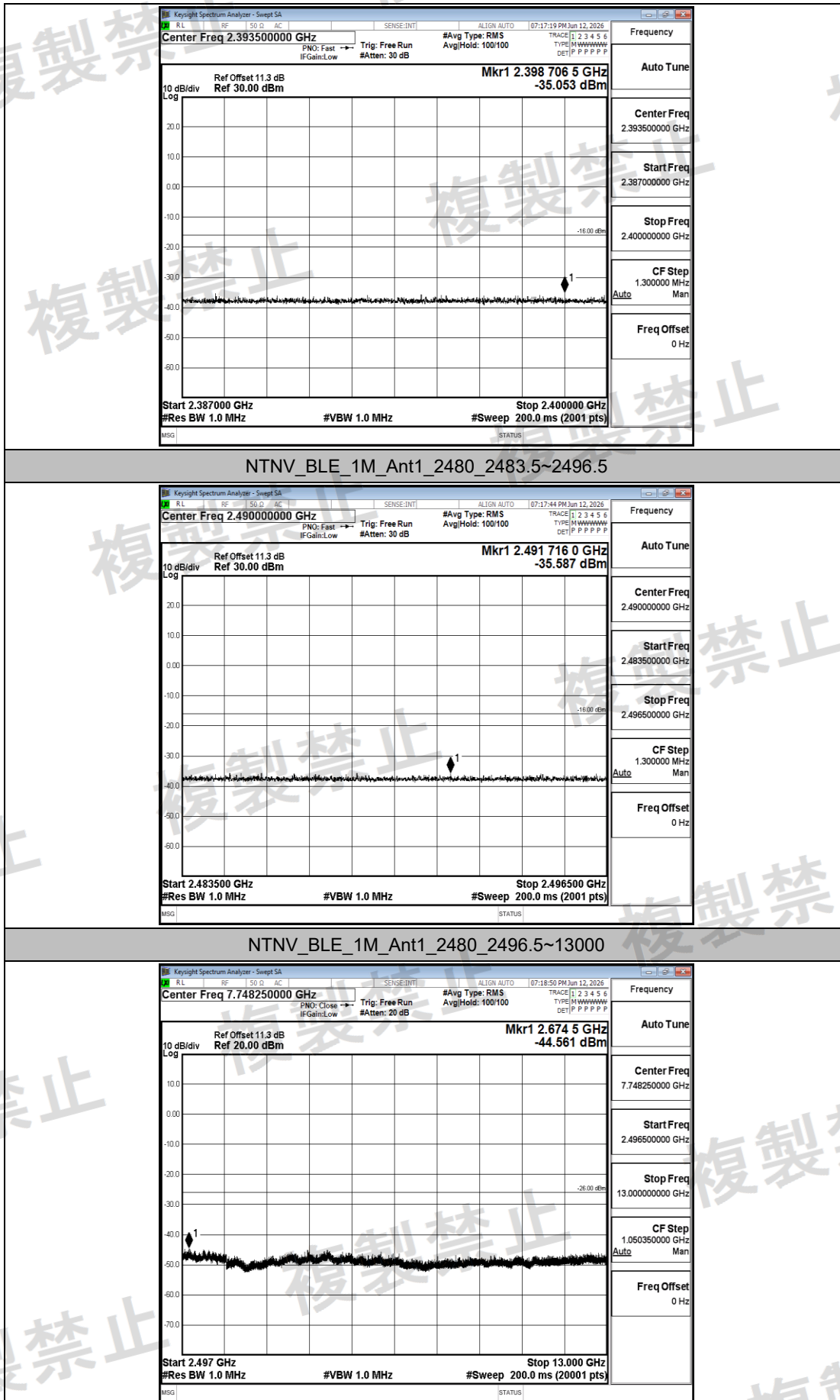


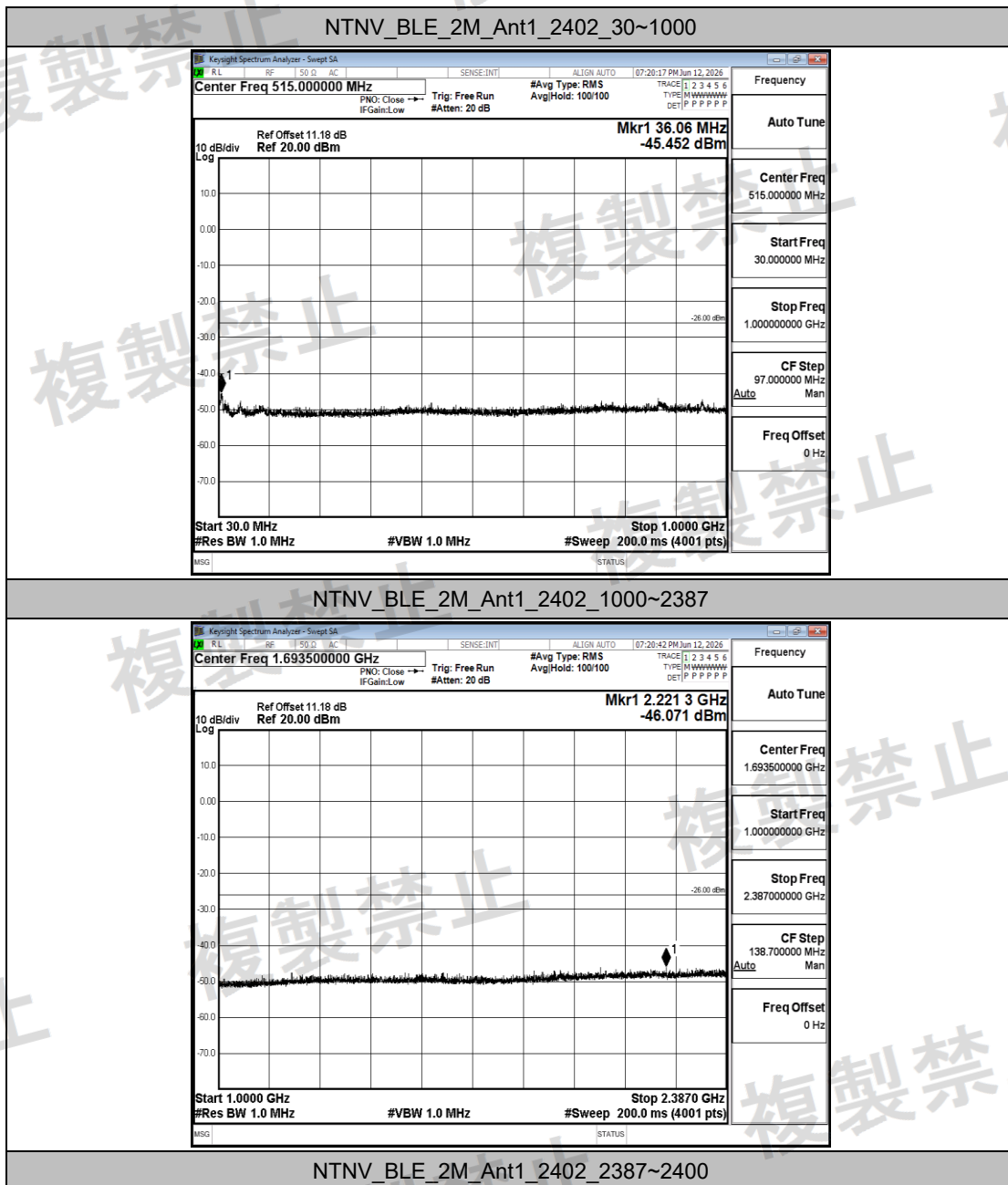


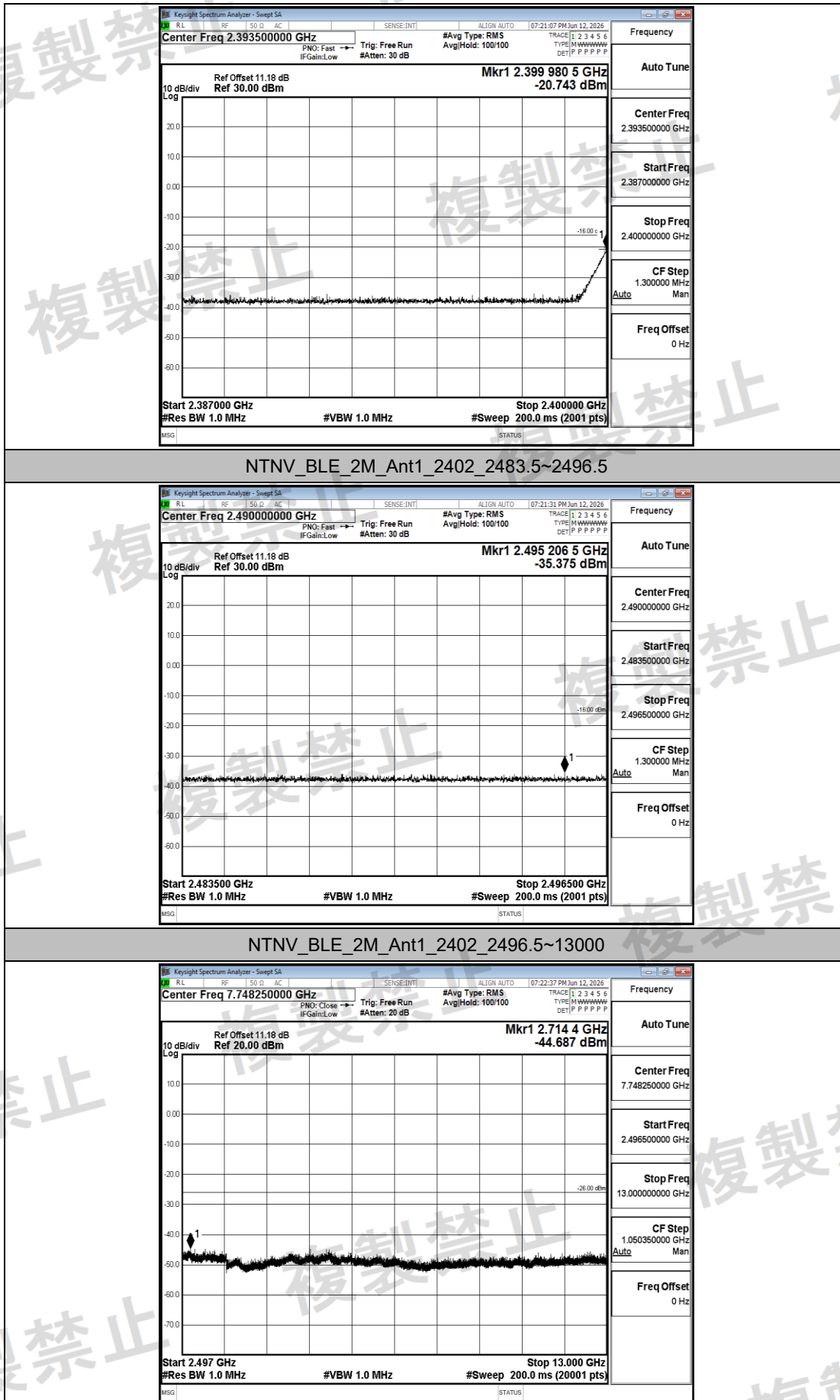


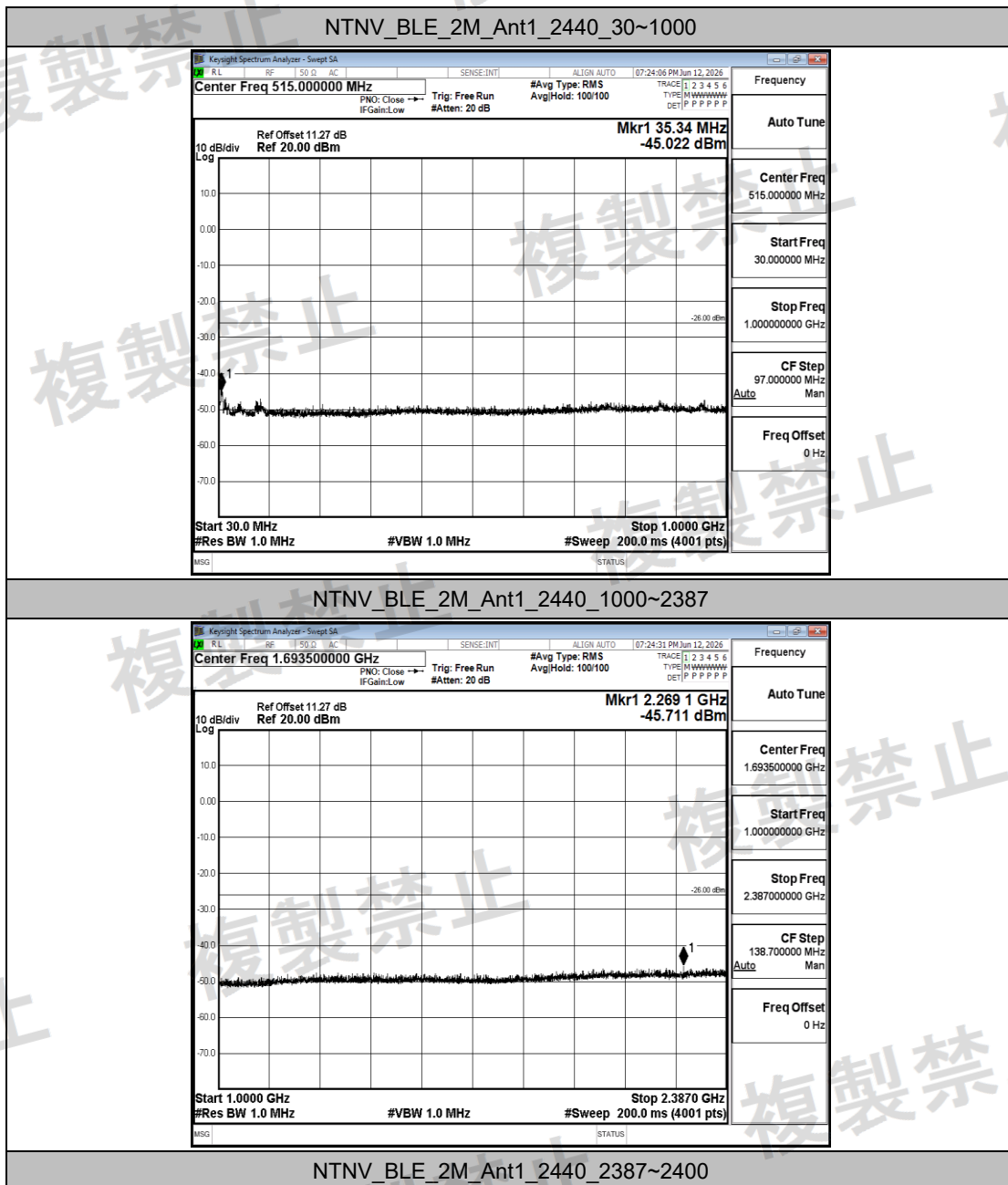


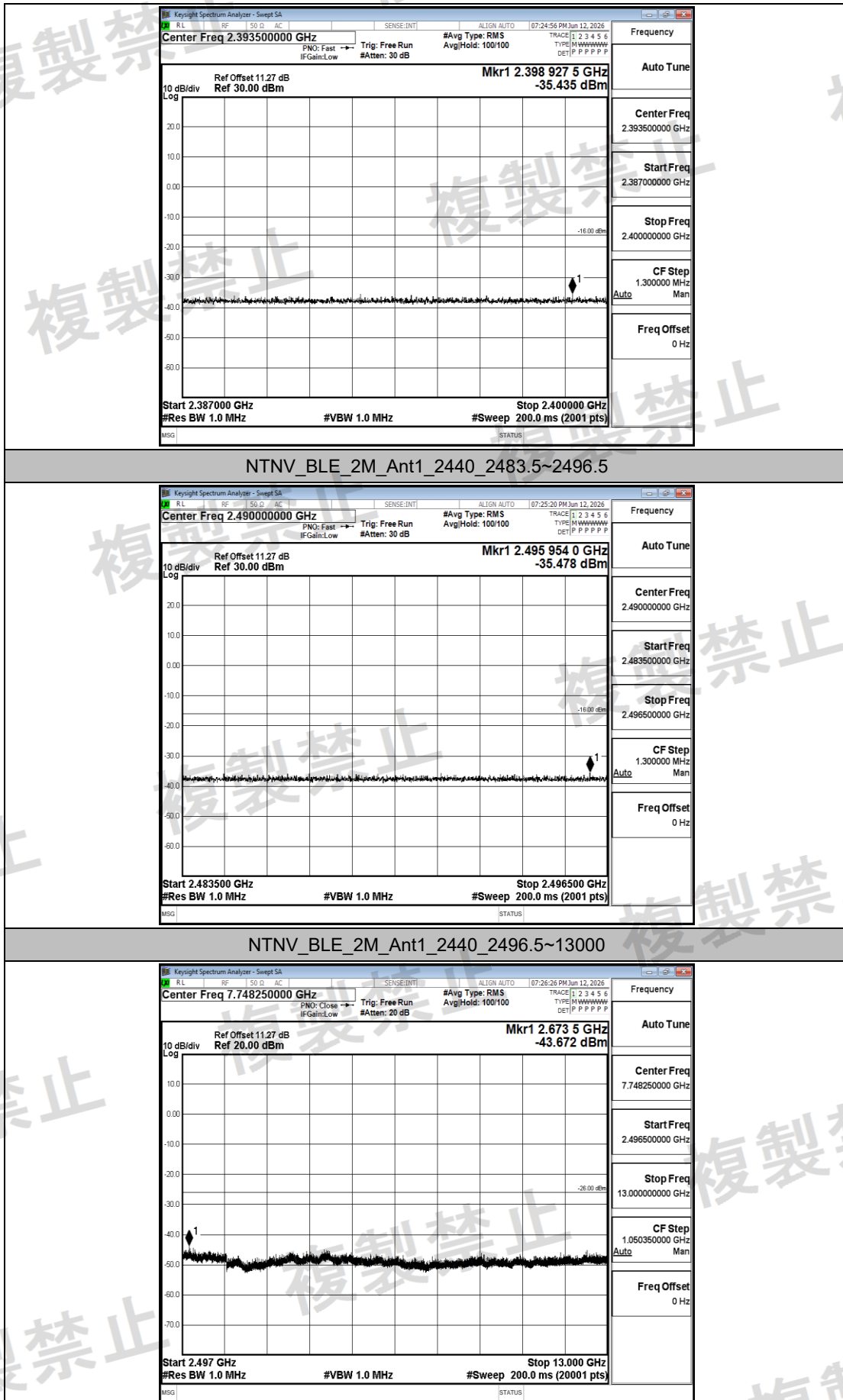


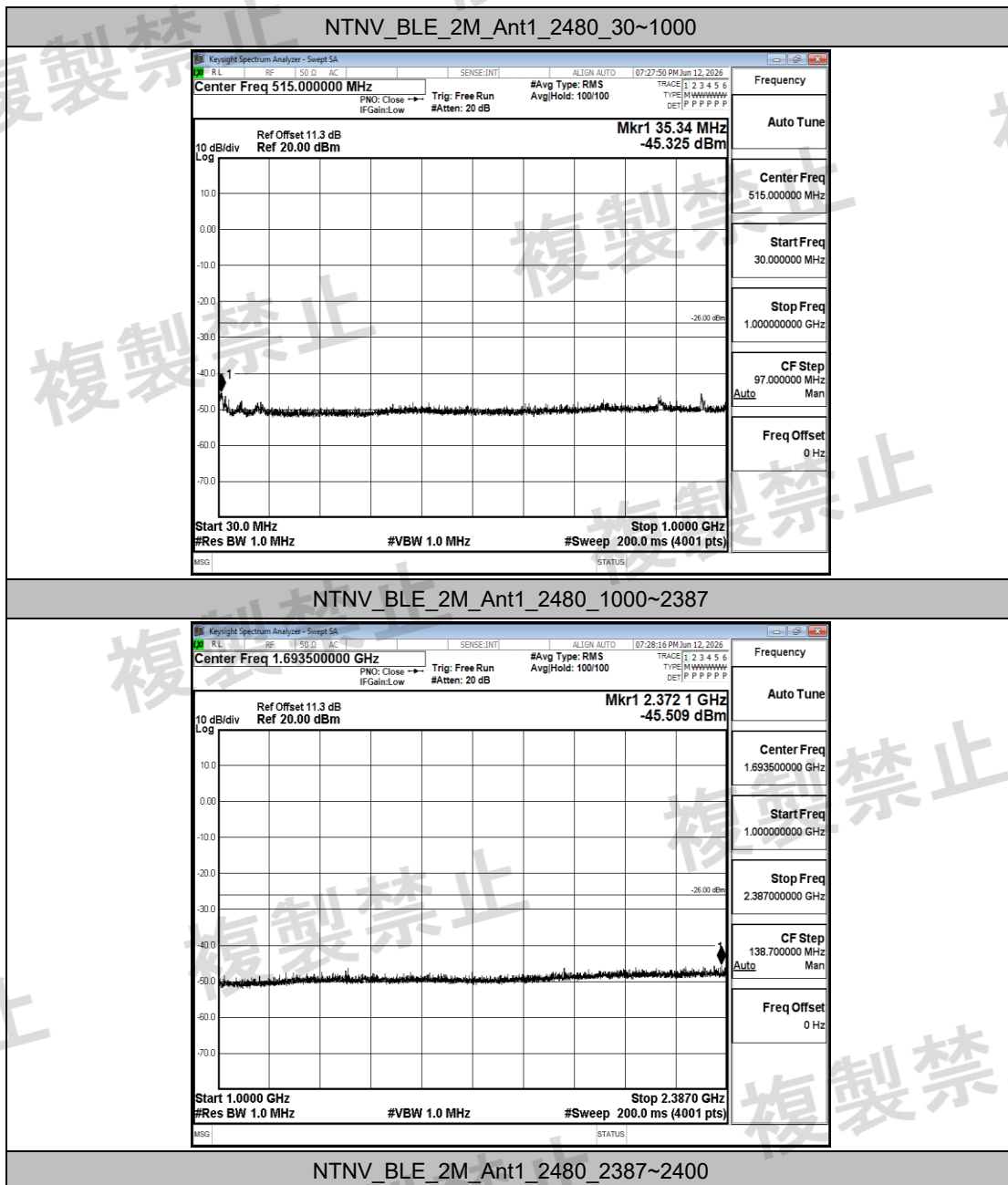


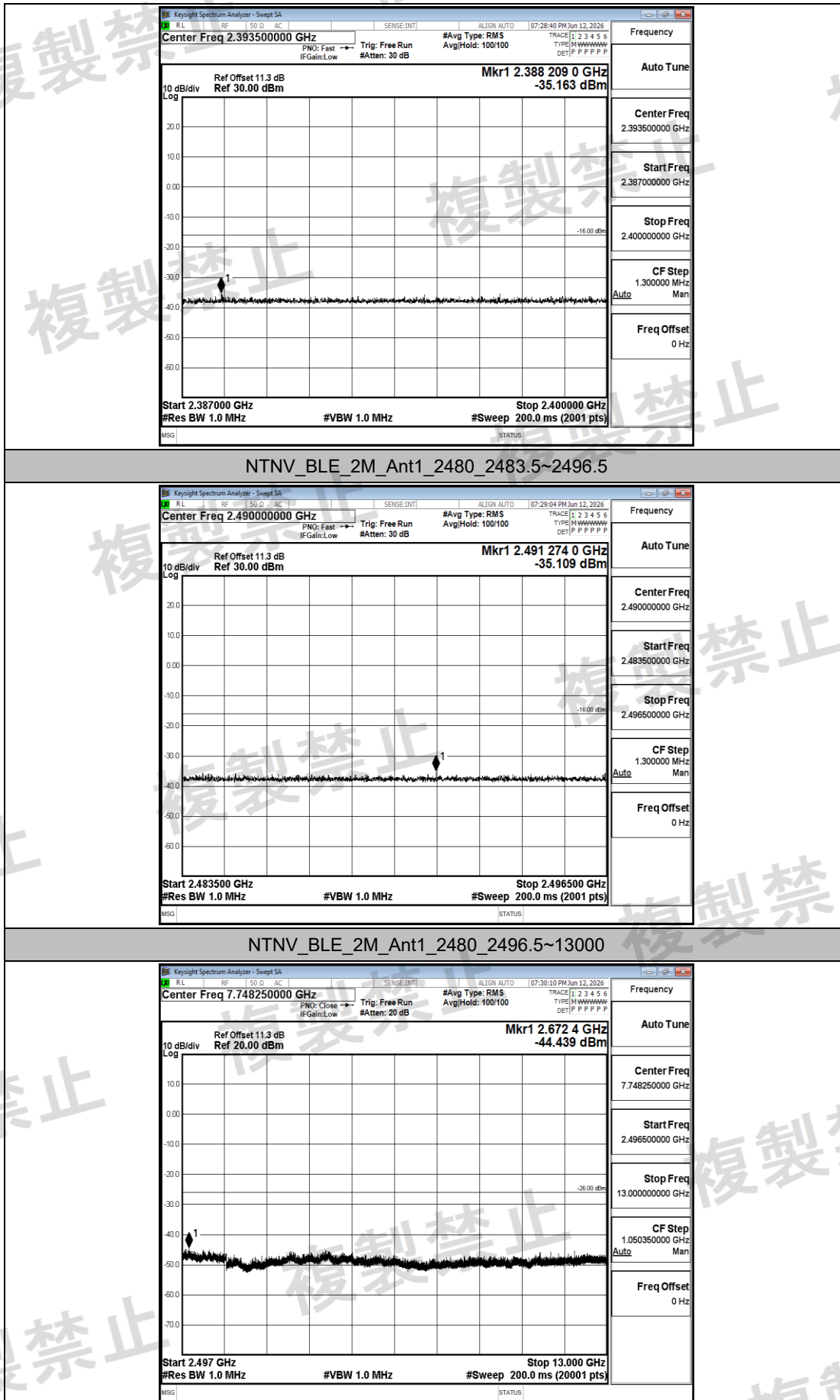












A.6 Spurious Emission of RX

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	711.43	-79.39	≤-54	0.01151	≤4	PASS
				1000~12500	2397.83	-66.34	≤-47	0.23227	≤20	PASS
			2440	30~1000	798.24	-79.33	≤-54	0.01167	≤4	PASS
				1000~12500	3084.38	-65.99	≤-47	0.25177	≤20	PASS
			2480	30~1000	718.22	-78.75	≤-54	0.01334	≤4	PASS
				1000~12500	2608.85	-66.52	≤-47	0.22284	≤20	PASS
	BLE_2M	Ant1	2402	30~1000	905.43	-79.89	≤-54	0.01026	≤4	PASS
				1000~12500	2546.18	-66.28	≤-47	0.23550	≤20	PASS
			2440	30~1000	967.51	-79.50	≤-54	0.01122	≤4	PASS
				1000~12500	2683.03	-65.62	≤-47	0.27416	≤20	PASS
			2480	30~1000	773.02	-78.40	≤-54	0.01445	≤4	PASS
				1000~12500	2670.95	-66.17	≤-47	0.24155	≤20	PASS

Test Graphs

