

Appendix A for BT LE Test Data

Product Name: Effects Pedal

Test Model: Effects Pedal

Environmental Conditions

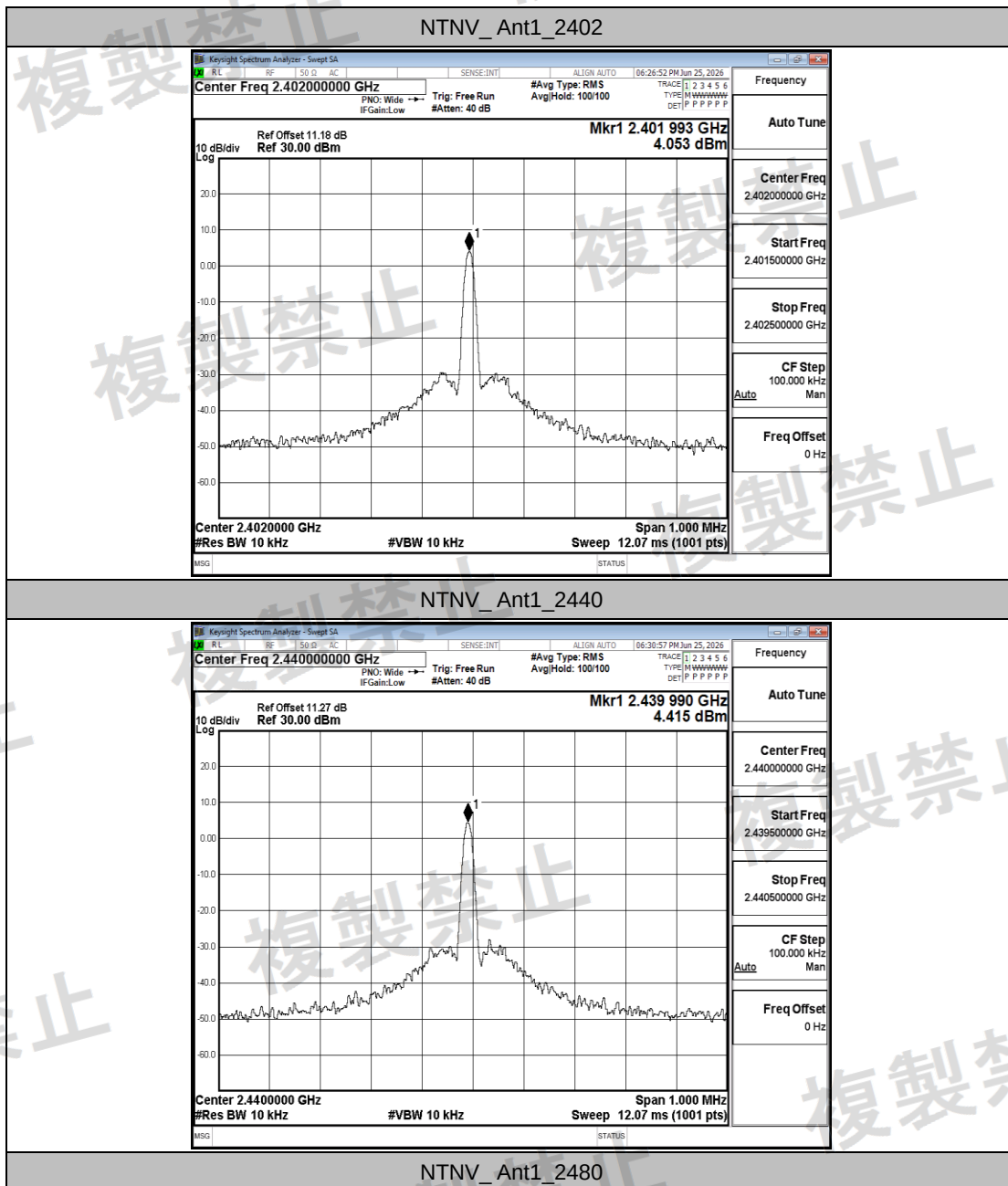
Temperature:	23.8°C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhao Xing Hai
Supervised by:	Fengliu Tang

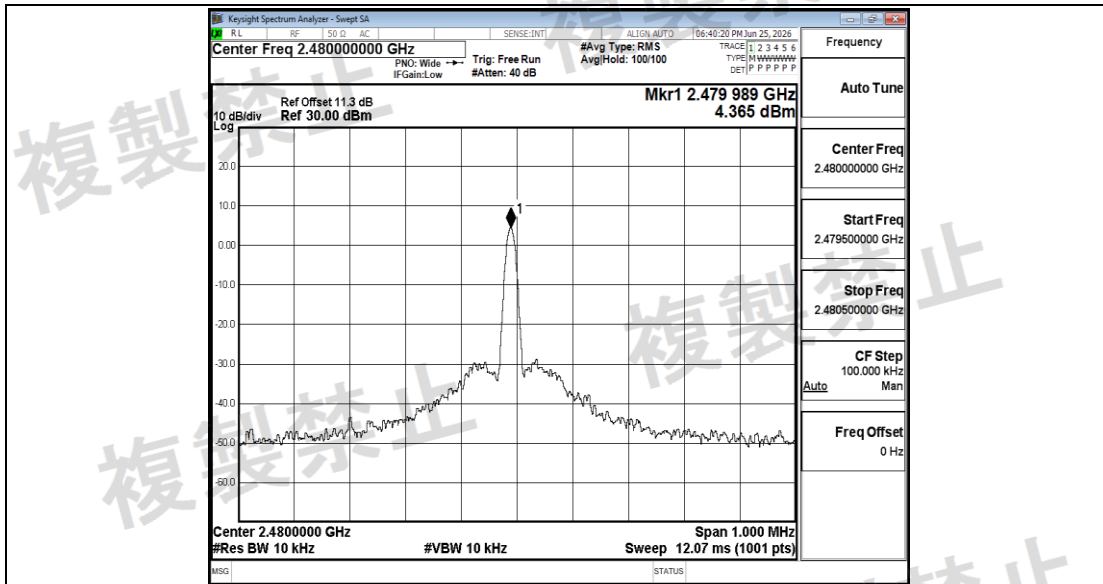
A.1 Frequency Error

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	Frequency Error	Ant1	2402	-2.91424	±50	PASS
			2440	-4.09836	±50	PASS
			2480	-4.43548	±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	-1.16	0.7656	≤10	PASS
			2440	-0.83	0.8260	≤10	PASS
			2480	-0.81	0.8299	≤10	PASS
NTNV	BLE_2M	Ant1	2402	-1.07	0.7816	≤10	PASS
			2440	-1.05	0.7852	≤10	PASS
			2480	-0.51	0.8892	≤10	PASS

Tolerance								
Test Condition	Test Mode	Antenna	Frequency[MHz]	Power (mW)	Rated Power (mW)	Result (%)	Limit (%)	Verdict
NTNV	BLE_1M	Ant1	2402	0.7656	1	-23.44	+20	PASS
			2440	0.8260	1	-17.40	+20	PASS
			2480	0.8299	1	-17.01	+20	PASS
NTNV	BLE_2M	Ant1	2402	0.7816	1	-21.84	+20	PASS
			2440	0.7852	1	-21.48	+20	PASS
			2480	0.8892	1	-11.08	+20	PASS

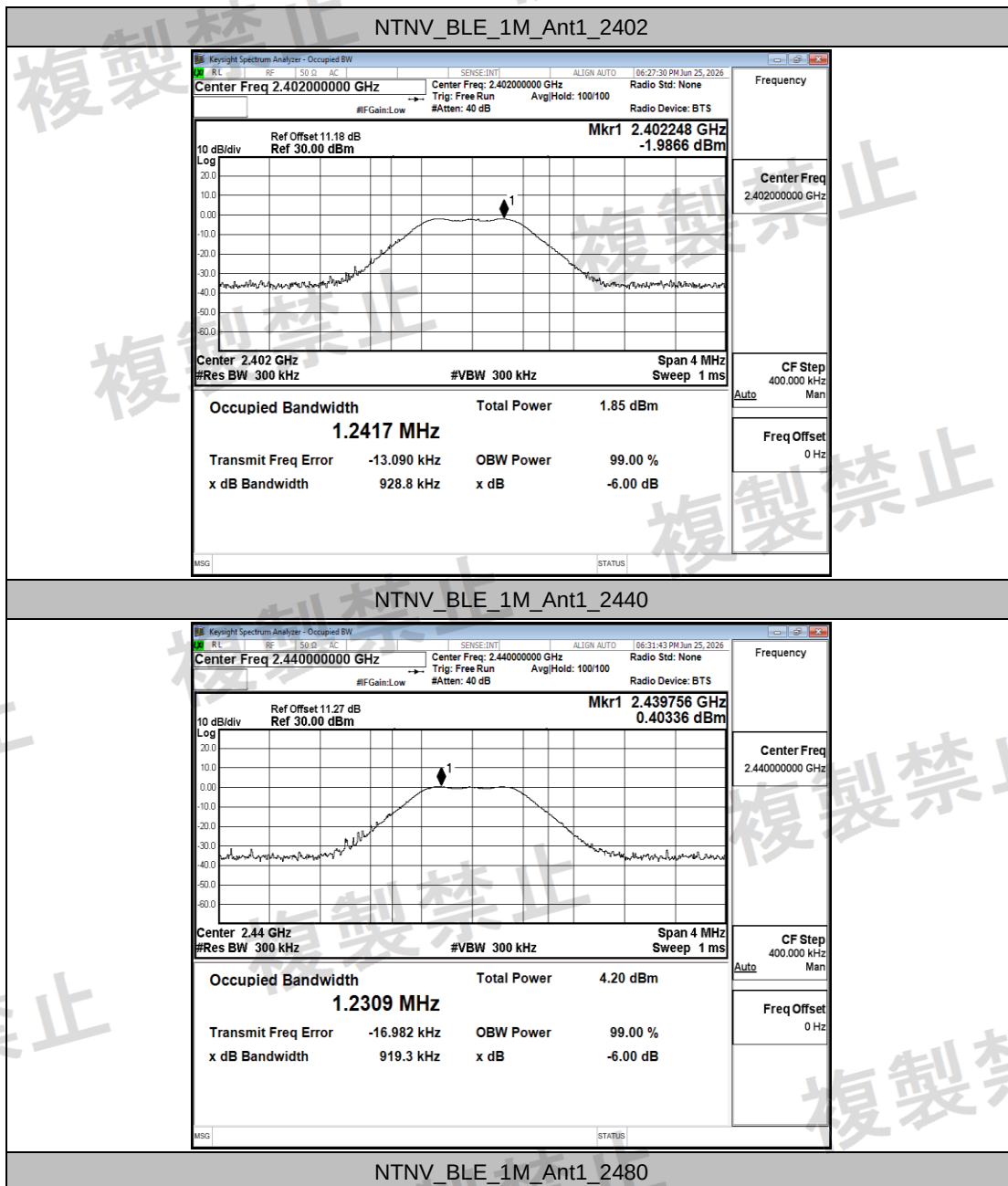
EIRP								
TestCondition	TestMode	Antenna	Frequency[MHz]	Measured Power (dBm/MHz)	Antenna gain (dBi)	EIRP (dBm)	Limit (dBm)	Verdict
NTNV	BLE_1M	Ant1	2402	-1.16	3.9	2.74	≤12.14	PASS
			2440	-0.83	3.9	3.07	≤12.14	PASS
			2480	-0.81	3.9	3.09	≤12.14	PASS
NTNV	BLE_2M	Ant1	2402	-1.07	3.9	2.83	≤12.14	PASS
			2440	-1.05	3.9	2.85	≤12.14	PASS
			2480	-0.51	3.9	3.39	≤12.14	PASS

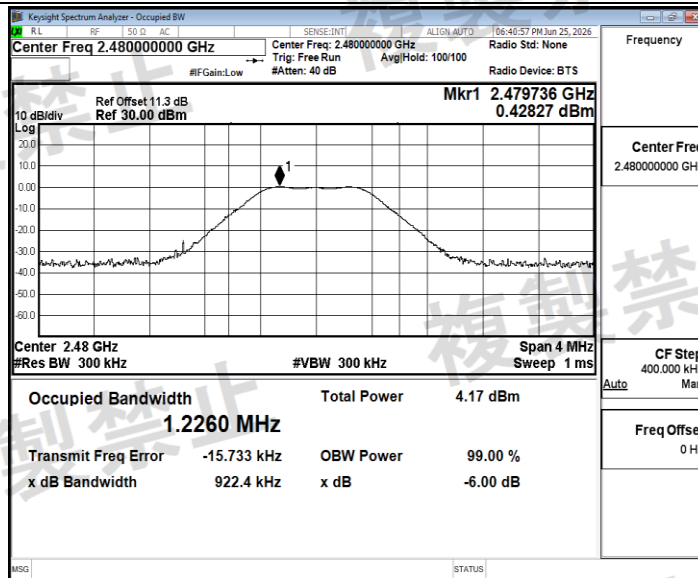
A.3 Occupied Bandwidth

Test Result

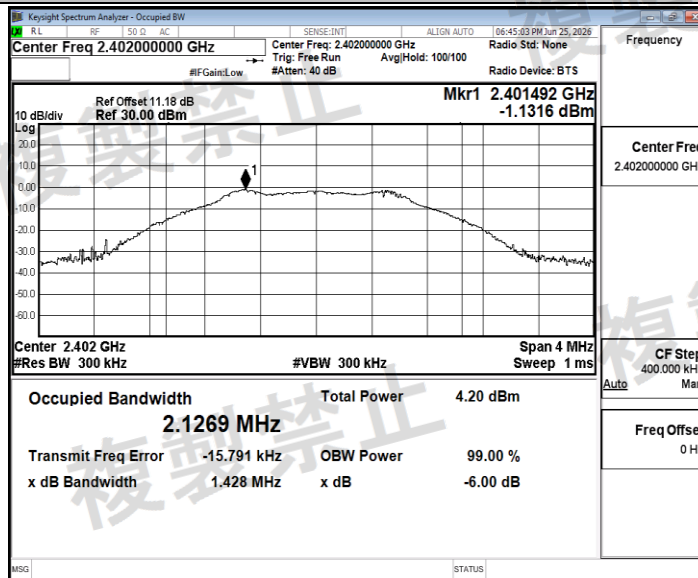
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	1.242	≤26	PASS
			2440	1.231	≤26	PASS
			2480	1.226	≤26	PASS
	BLE_2M	Ant1	2402	2.127	≤26	PASS
			2440	2.131	≤26	PASS
			2480	2.137	≤26	PASS

Test Graphs

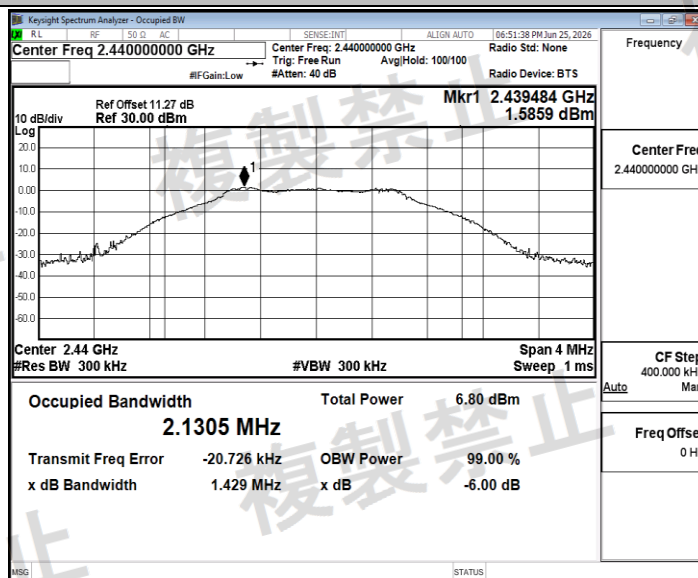




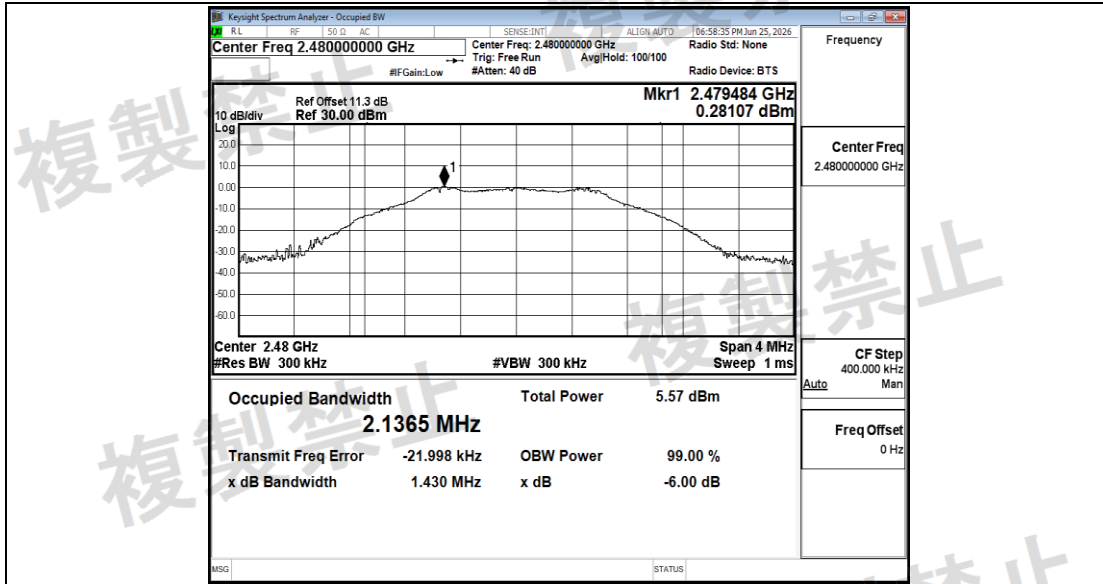
NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440



NTNV_BLE_2M_Ant1_2480

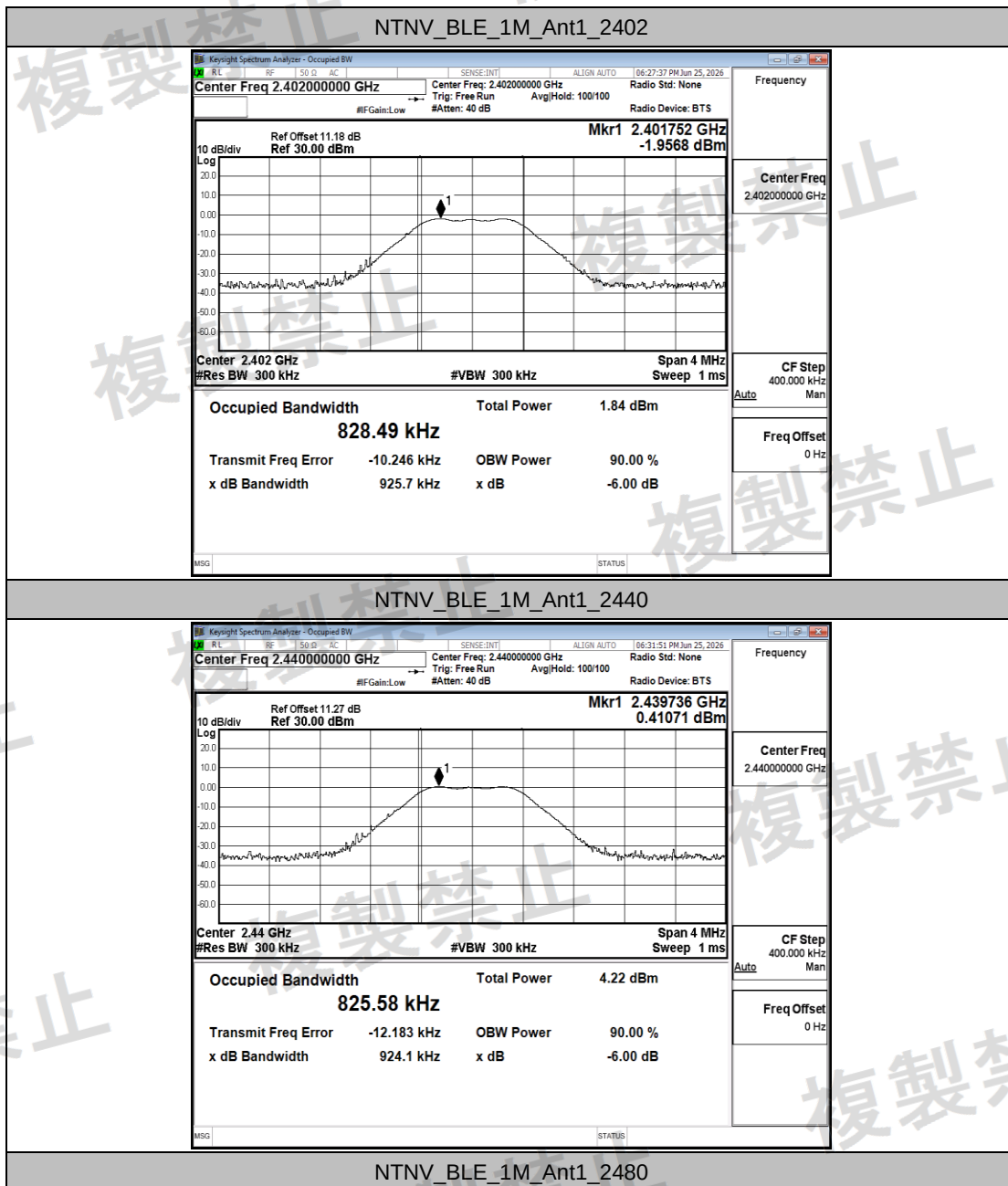


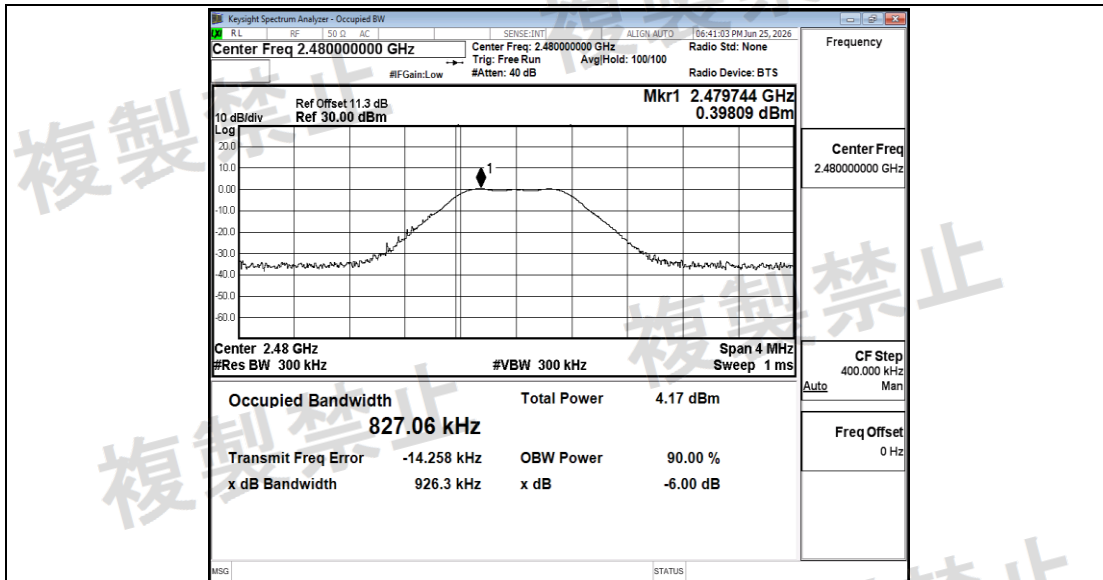
A.4 Spread Bandwidth

Test Result

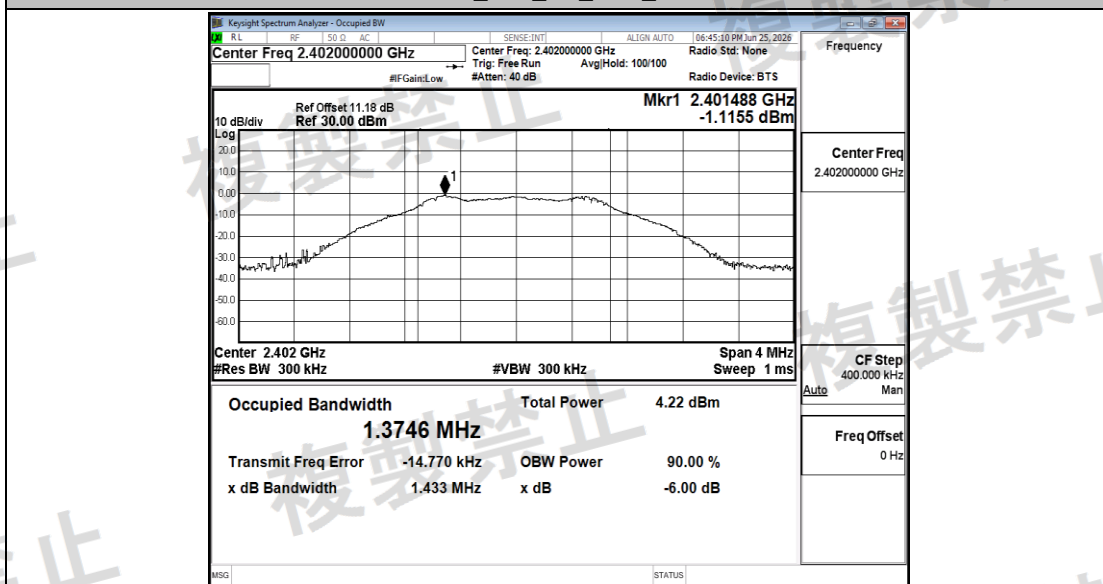
TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	BLE_1M	Ant1	2402	0.828	---	PASS
			2440	0.826	---	PASS
			2480	0.827	---	PASS
	BLE_2M	Ant1	2402	1.375	---	PASS
			2440	1.369	---	PASS
			2480	1.375	---	PASS

Test Graphs

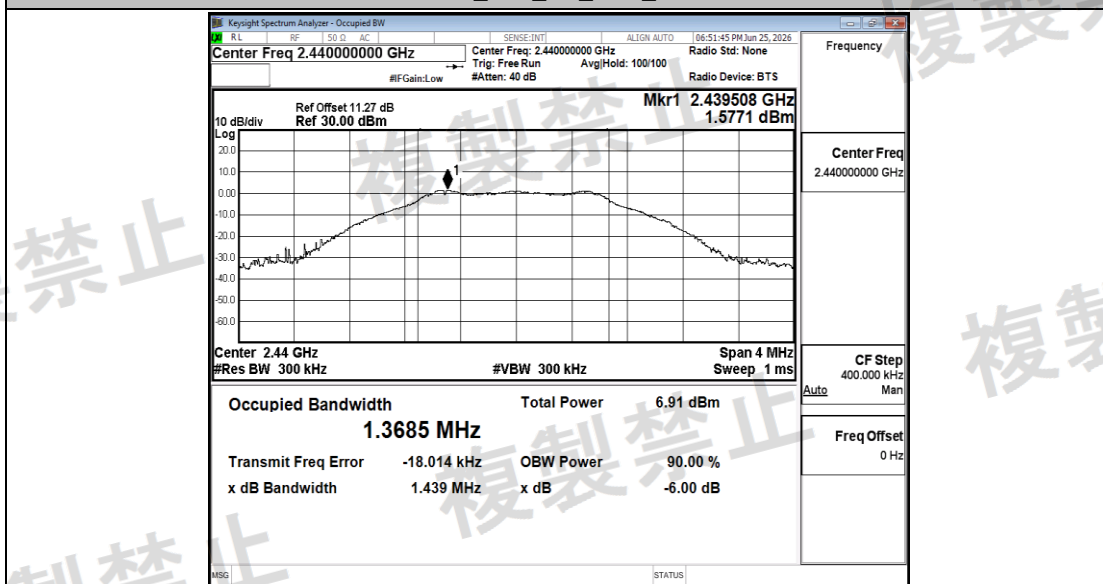




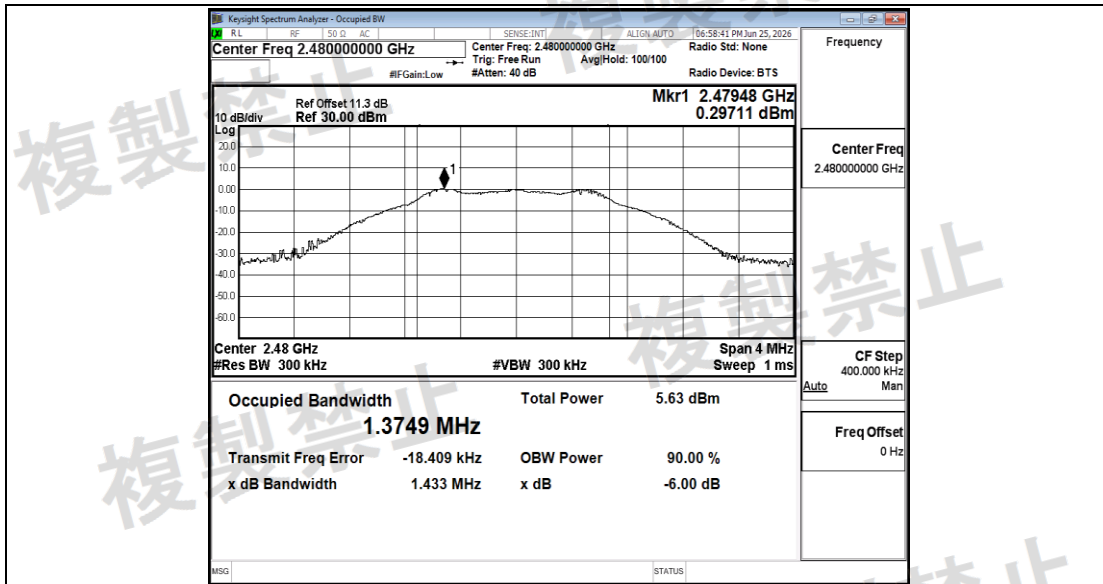
NTNV_BLE_2M_Ant1_2402



NTNV_BLE_2M_Ant1_2440



NTNV_BLE_2M_Ant1_2480

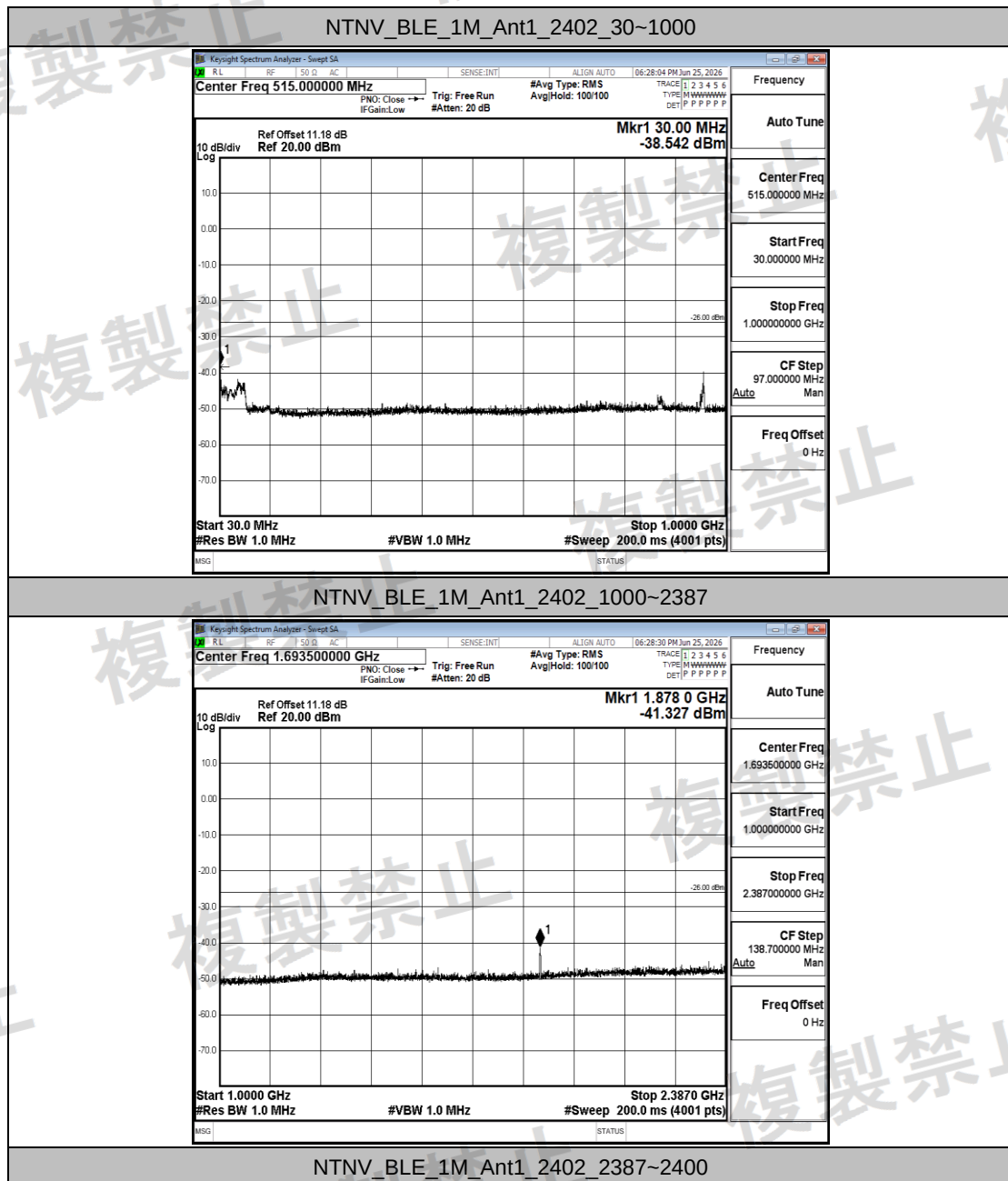


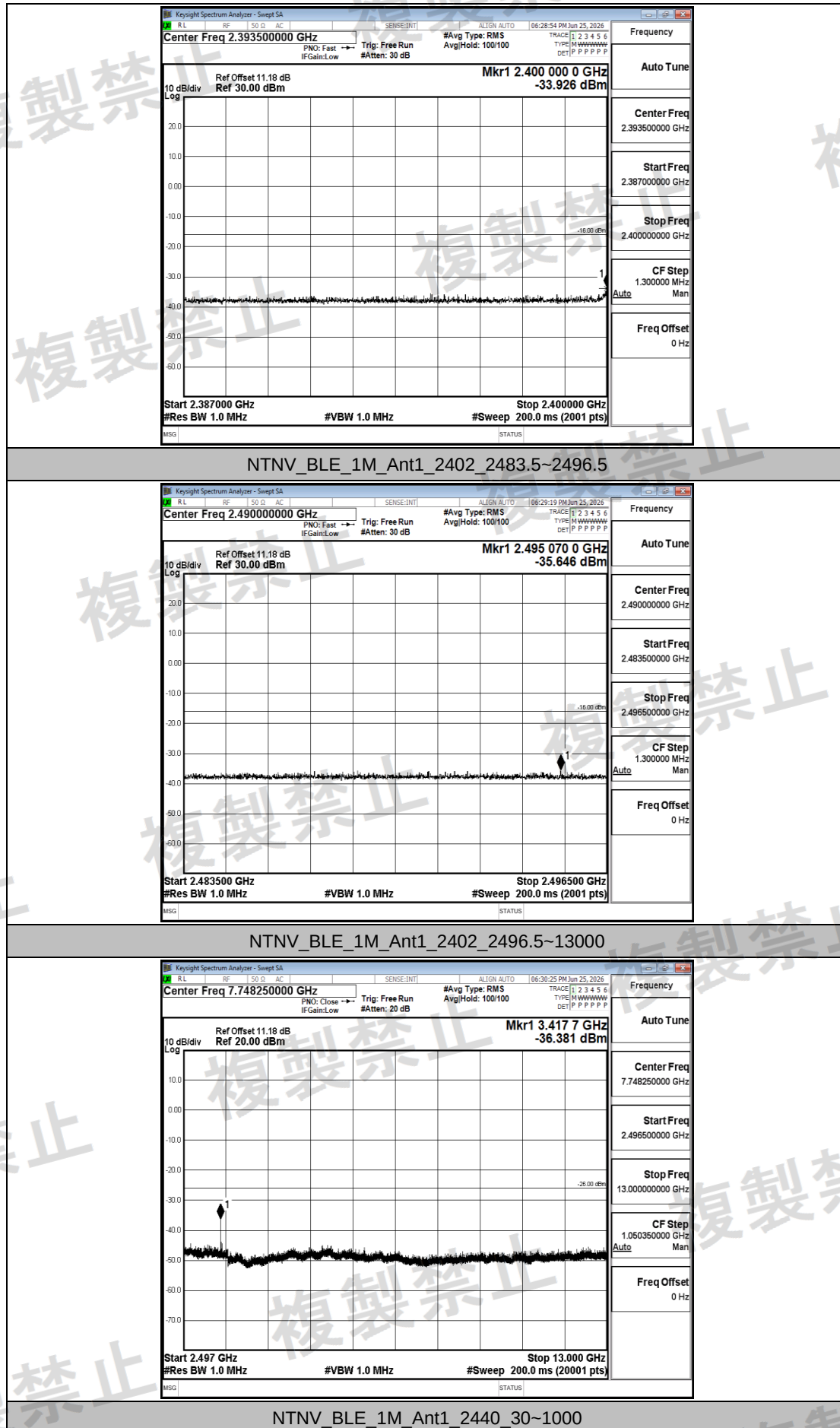
A.5 Spurious Emission of TX

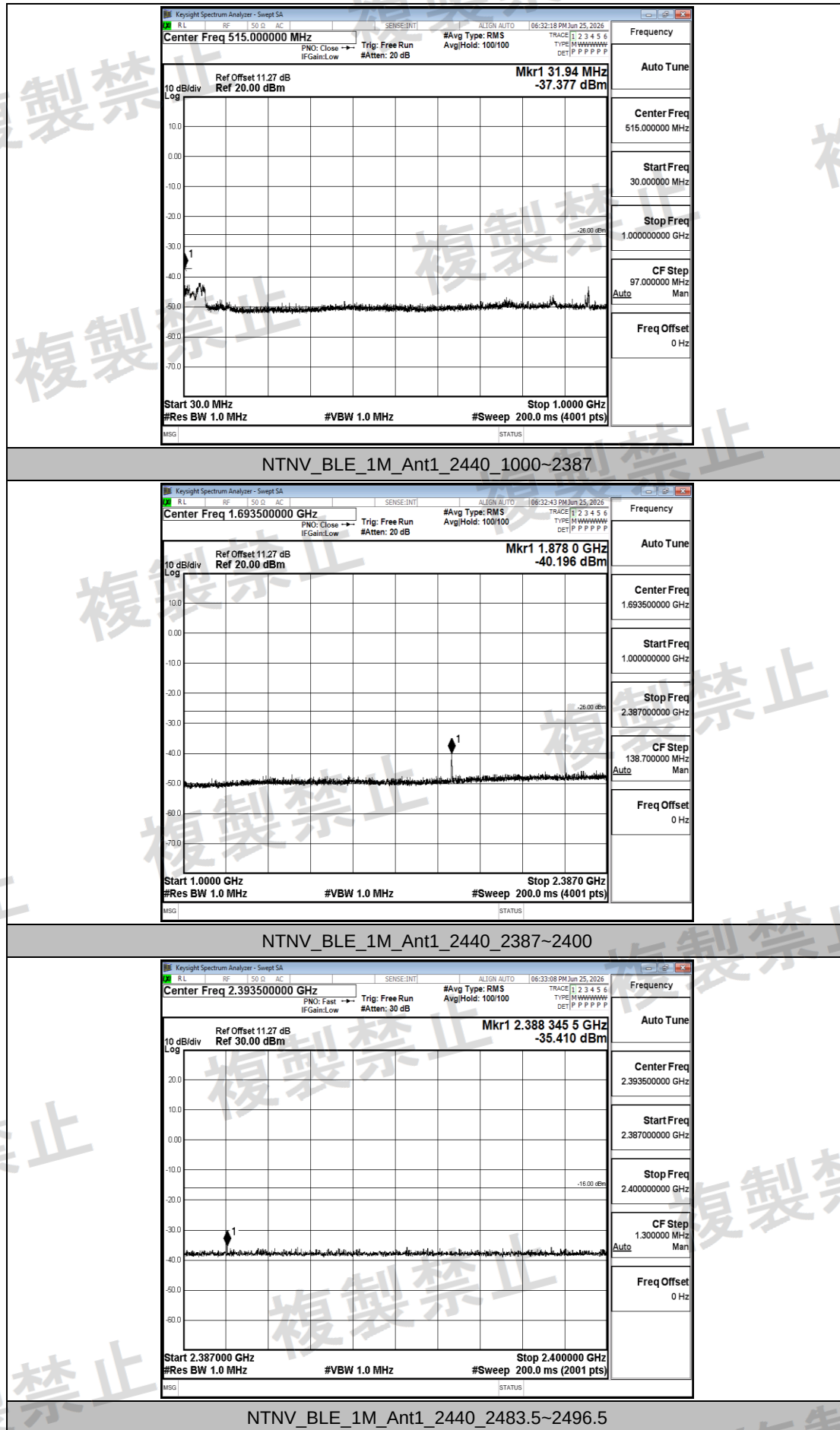
Test Result

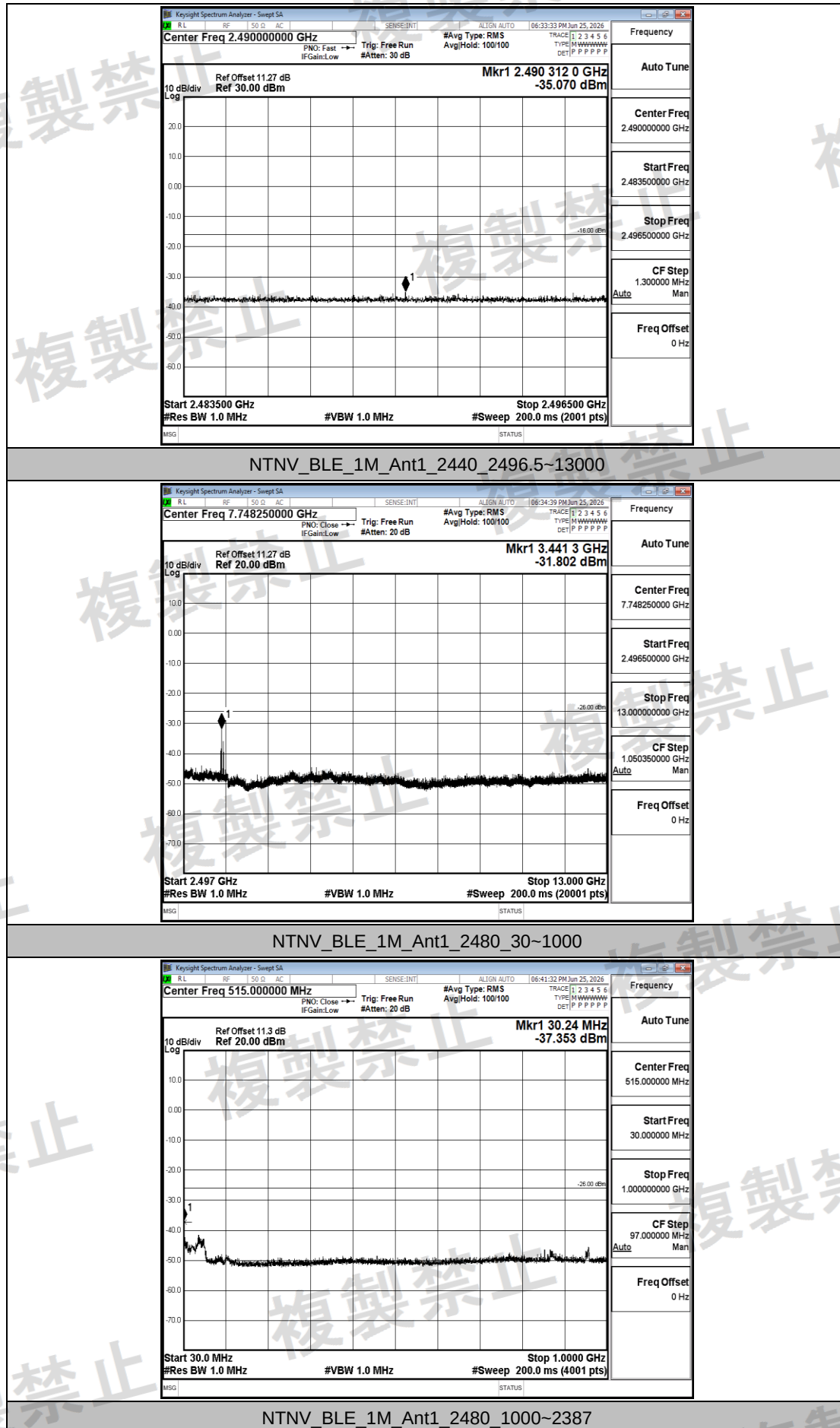
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	BLE_1M	Ant1	2402	30~1000	30.00	-38.54	≤-26	0.13996	≤2.5	PASS
				1000~2387	1877.97	-41.33	≤-26	0.07362	≤2.5	PASS
				2387~2400	2400.00	-33.93	≤-16	0.40458	≤25	PASS
				2483.5~2496.5	2495.07	-35.65	≤-16	0.27227	≤25	PASS
				2496.5~13000	3417.66	-36.38	≤-26	0.23014	≤2.5	PASS
			2440	30~1000	31.94	-37.38	≤-26	0.18281	≤2.5	PASS
				1000~2387	1877.97	-40.20	≤-26	0.09550	≤2.5	PASS
				2387~2400	2388.35	-35.41	≤-16	0.28774	≤25	PASS
				2483.5~2496.5	2490.31	-35.07	≤-16	0.31117	≤25	PASS
				2496.5~13000	3441.29	-31.80	≤-26	0.66069	≤2.5	PASS
			2480	30~1000	30.24	-37.35	≤-26	0.18408	≤2.5	PASS
				1000~2387	1850.92	-41.67	≤-26	0.06808	≤2.5	PASS
				2387~2400	2391.42	-34.92	≤-16	0.32211	≤25	PASS
				2483.5~2496.5	2490.97	-35.26	≤-16	0.29785	≤25	PASS
				2496.5~13000	3434.99	-36.51	≤-26	0.22336	≤2.5	PASS
	BLE_2M	Ant1	2402	30~1000	30.00	-37.75	≤-26	0.16788	≤2.5	PASS
				1000~2387	1909.53	-39.92	≤-26	0.10186	≤2.5	PASS
				2387~2400	2400.00	-19.97	≤-16	10.06932	≤25	PASS
				2483.5~2496.5	2488.17	-35.11	≤-16	0.30832	≤25	PASS
				2496.5~13000	3401.90	-29.03	≤-26	1.25026	≤2.5	PASS
			2440	30~1000	31.70	-36.67	≤-26	0.21528	≤2.5	PASS
				1000~2387	1850.58	-42.45	≤-26	0.05689	≤2.5	PASS
				2387~2400	2397.76	-35.17	≤-16	0.30409	≤25	PASS
				2483.5~2496.5	2488.49	-35.49	≤-16	0.28249	≤25	PASS
				2496.5~13000	3498.01	-34.24	≤-26	0.37670	≤2.5	PASS
			2480	30~1000	30.49	-39.08	≤-26	0.12359	≤2.5	PASS
				1000~2387	1850.58	-40.11	≤-26	0.09750	≤2.5	PASS
				2387~2400	2394.23	-35.43	≤-16	0.28642	≤25	PASS
				2483.5~2496.5	2488.88	-35.53	≤-16	0.27990	≤25	PASS
				2496.5~13000	3026.93	-44.57	≤-26	0.03491	≤2.5	PASS

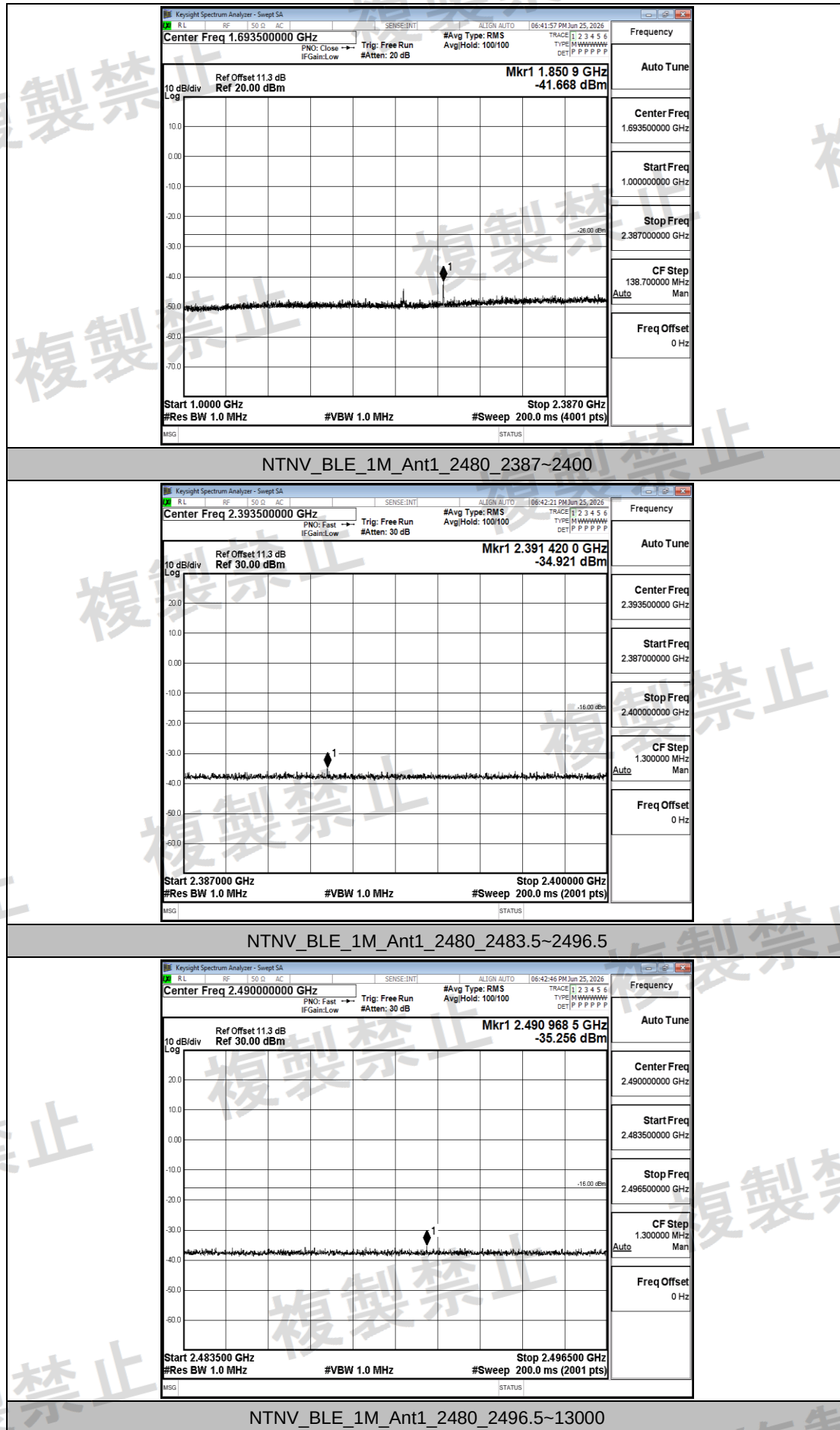
Test Graphs

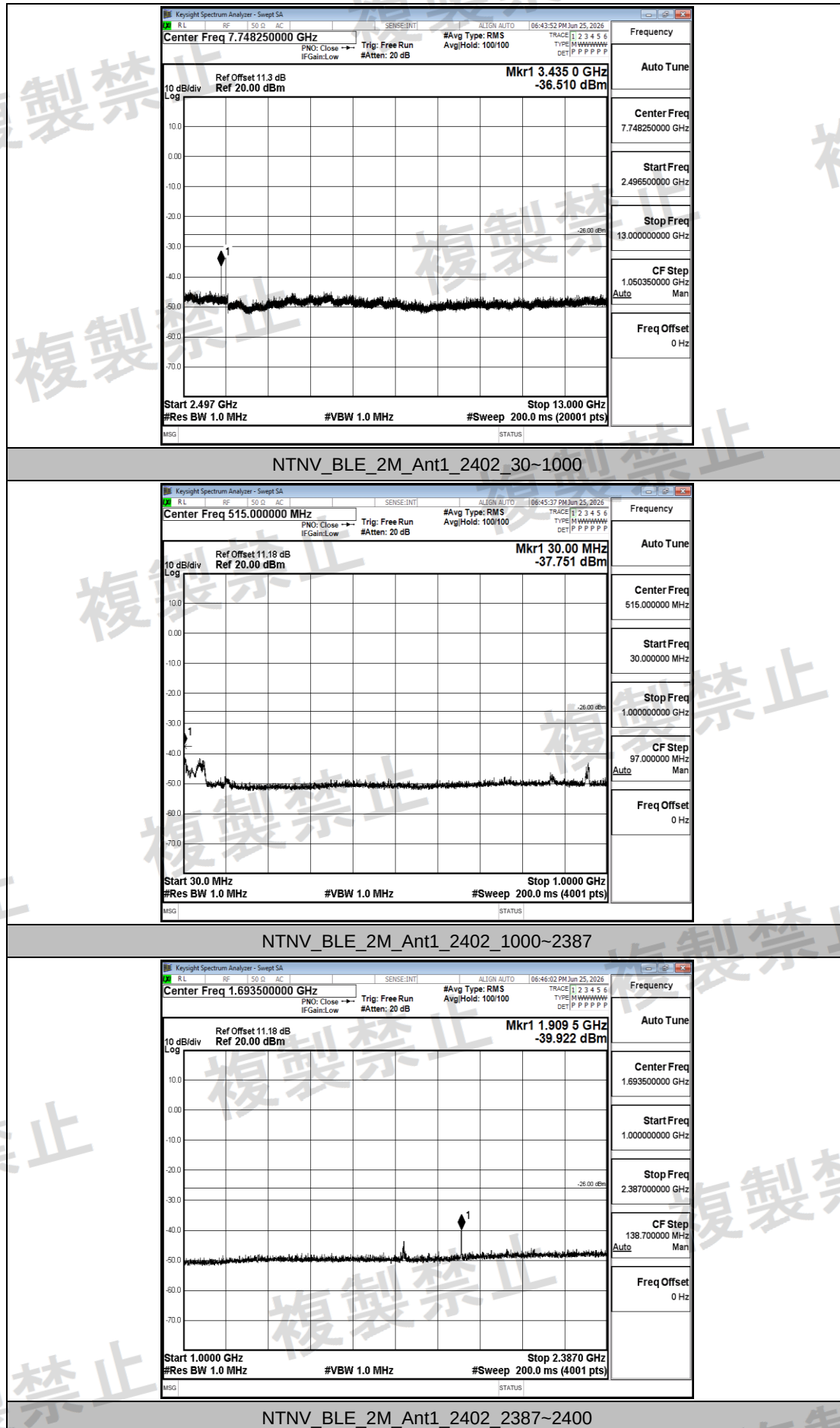


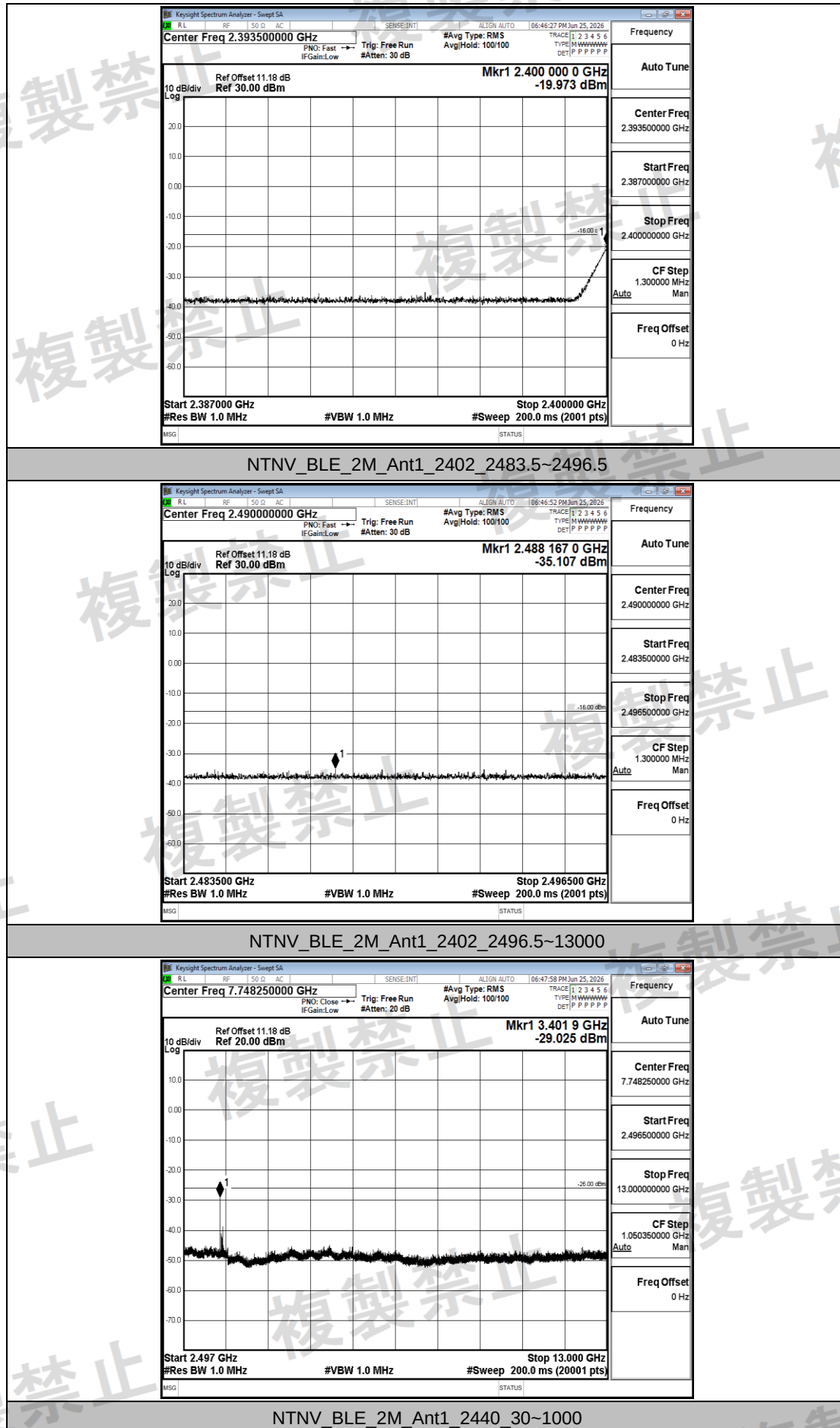


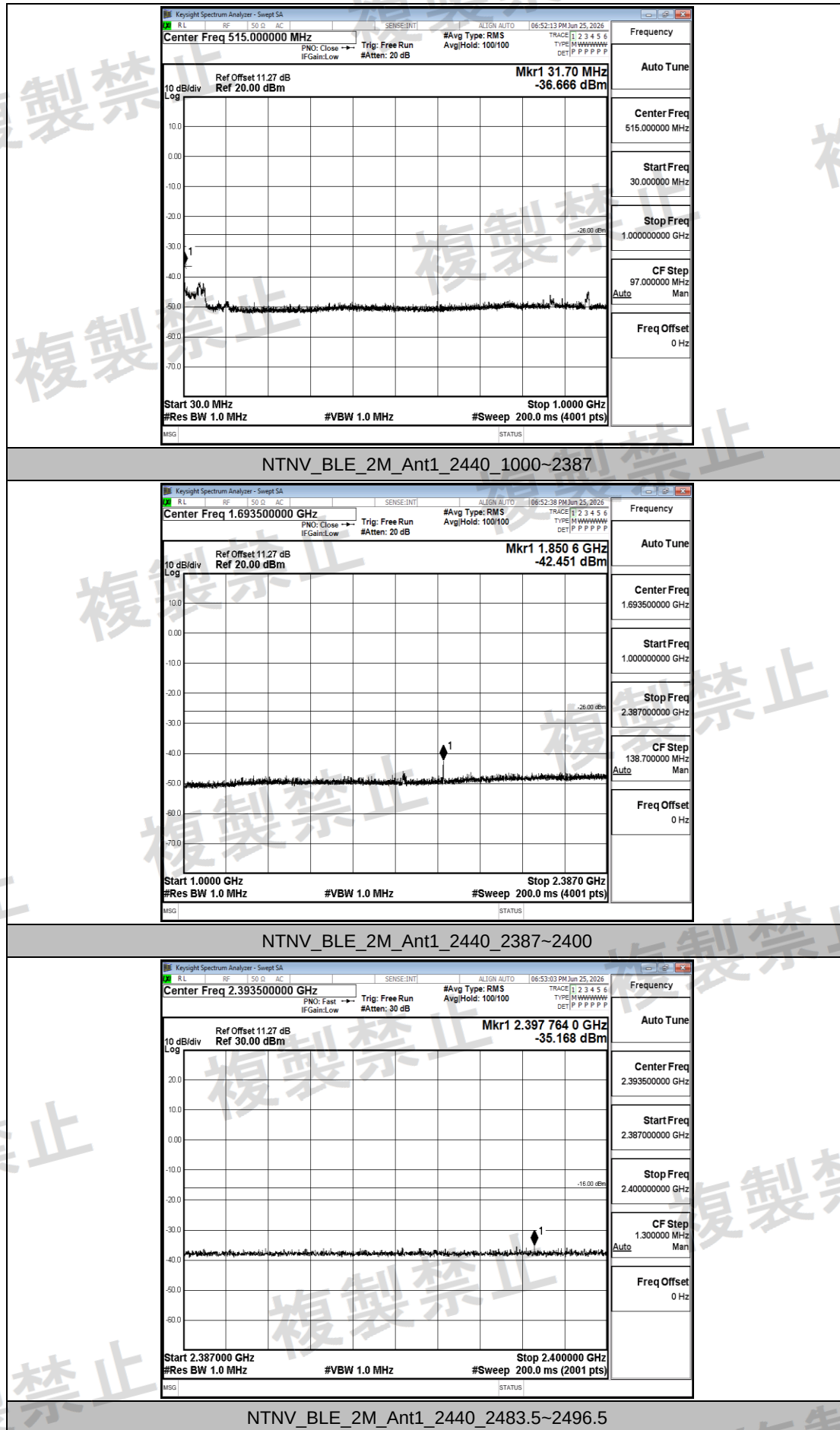


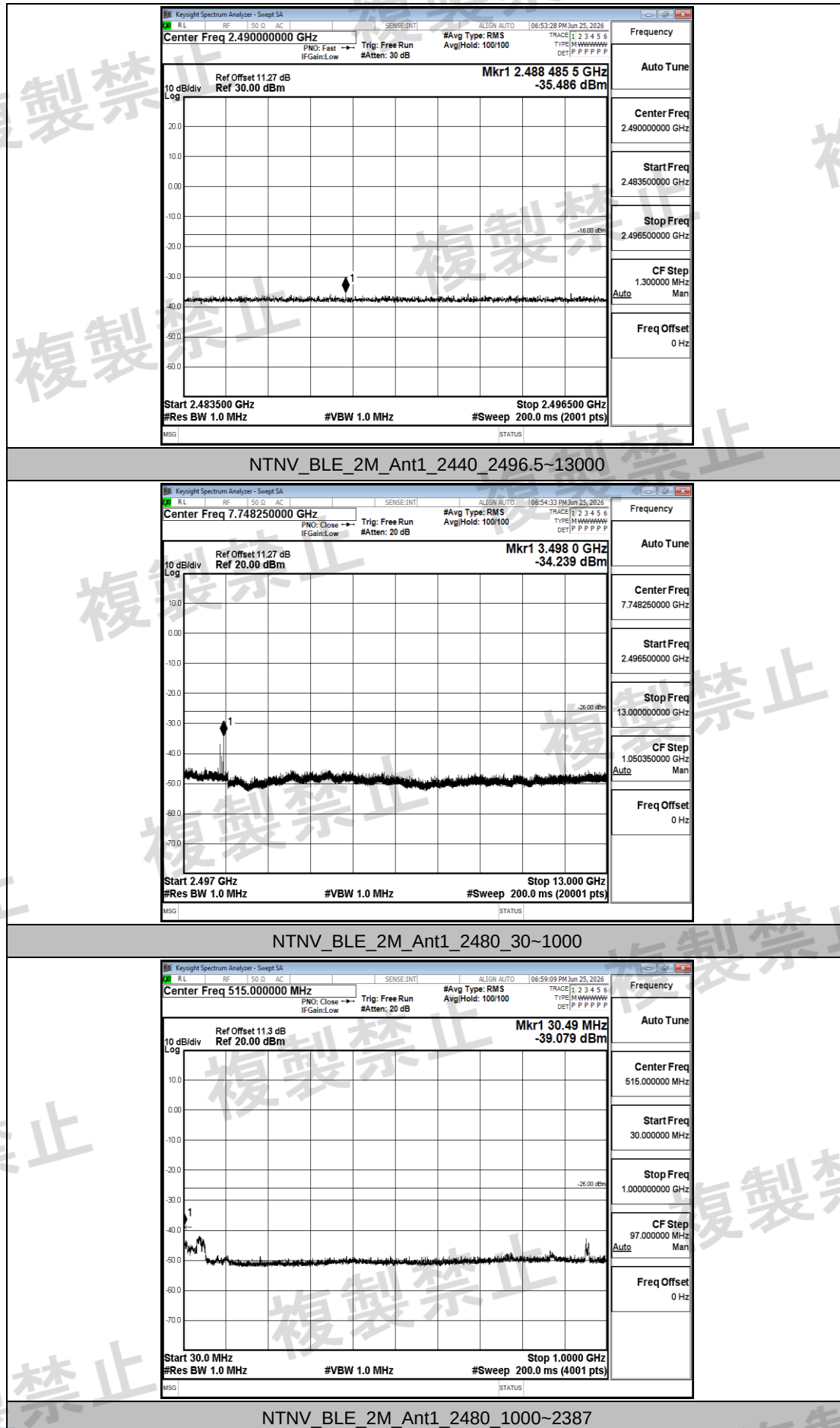


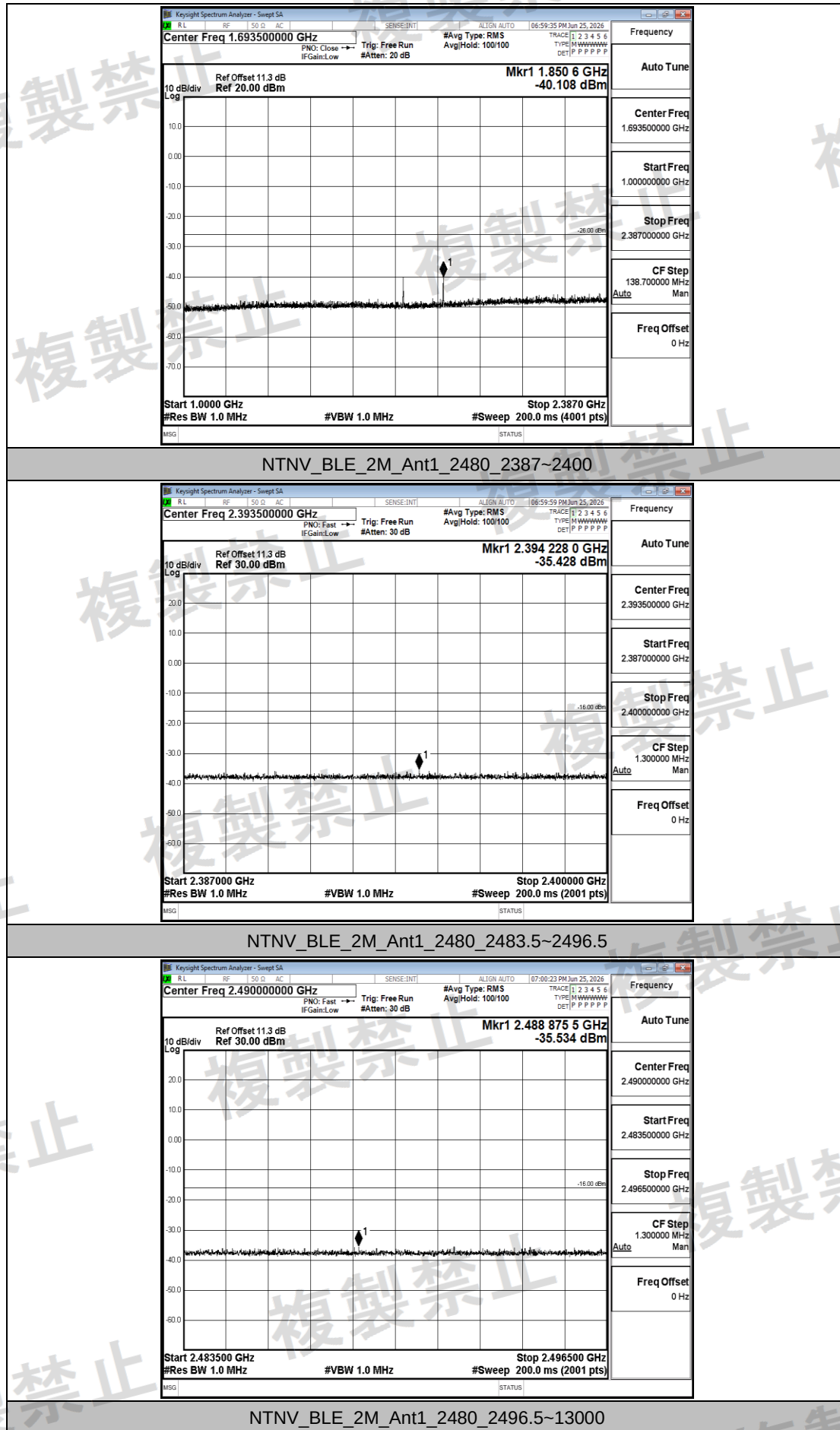


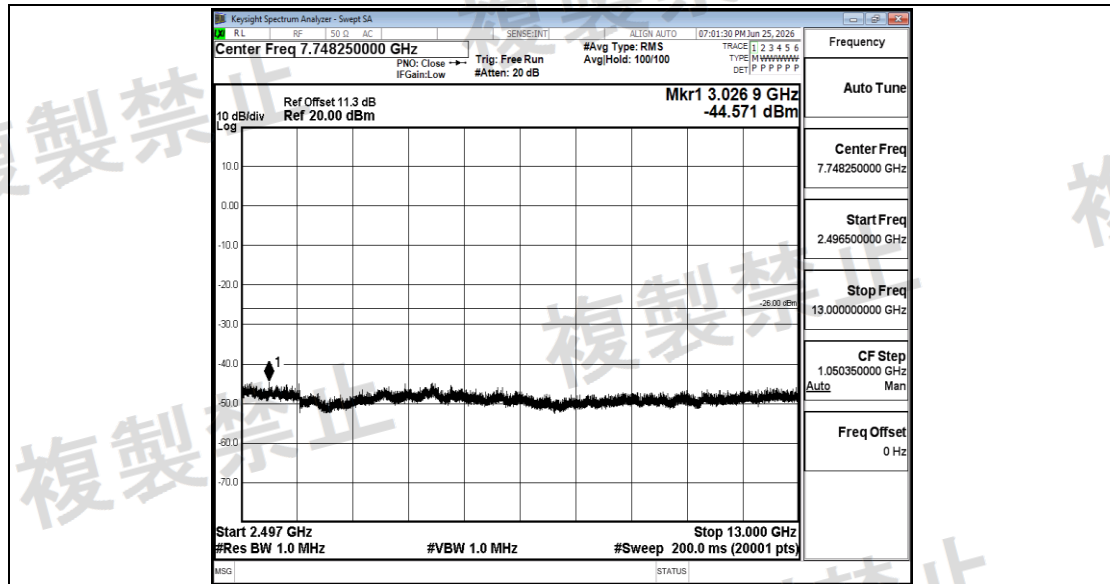












A.6 Spurious Emission of RX

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	740.04	-78.90	≤-54	0.01288	≤4	PASS
				1000~12500	3417.88	-64.02	≤-47	0.39628	≤20	PASS
			2440	30~1000	606.67	-79.33	≤-54	0.01167	≤4	PASS
				1000~12500	3417.88	-65.41	≤-47	0.28774	≤20	PASS
			2480	30~1000	803.09	-79.43	≤-54	0.01140	≤4	PASS
				1000~12500	3048.15	-66.05	≤-47	0.24831	≤20	PASS
	BLE_2M	Ant1	2402	30~1000	802.61	-79.54	≤-54	0.01112	≤4	PASS
				1000~12500	3405.23	-61.29	≤-47	0.74302	≤20	PASS
			2440	30~1000	741.50	-79.42	≤-54	0.01143	≤4	PASS
				1000~12500	3416.15	-65.58	≤-47	0.27669	≤20	PASS
			2480	30~1000	375.32	-78.96	≤-54	0.01271	≤4	PASS
				1000~12500	3417.30	-62.50	≤-47	0.56234	≤20	PASS

Test Graphs

