

ANNEX D TEST DATA

For

Project No.:	8234EU010815W
Client:	Zeroplus Technology Corporation
Product Name:	Cat CPU Plus
Model No.:	ZPP006R
Technology:	Bluetooth Low Energy (BLE)
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2024-10-10

Test Summary

Item	Result
Duty Cycle	Pass
Frequency Error	Pass
Occupied Bandwidth	Pass
Antenna Power	Pass
Spurious Emission Intensity	Pass
Secondary Radiated Emission	Pass

1. Duty Cycle

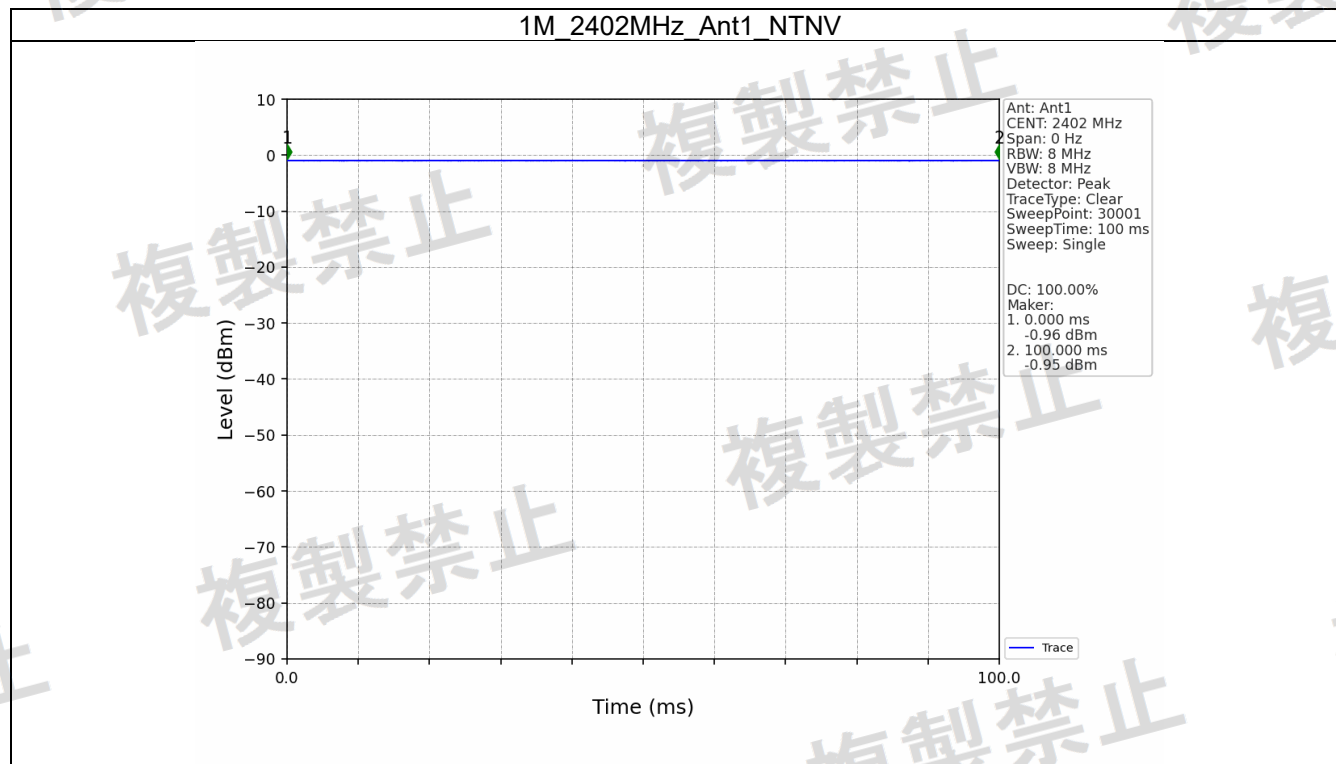
1.1 Test Result

1.1.1 Ant1

Ant1								
ENV	Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	1M	SISO	2402	100.000	100.000	100.00	0.00	0.00

1.2 Test Graph

1.2.1 Ant1



2. Frequency Error

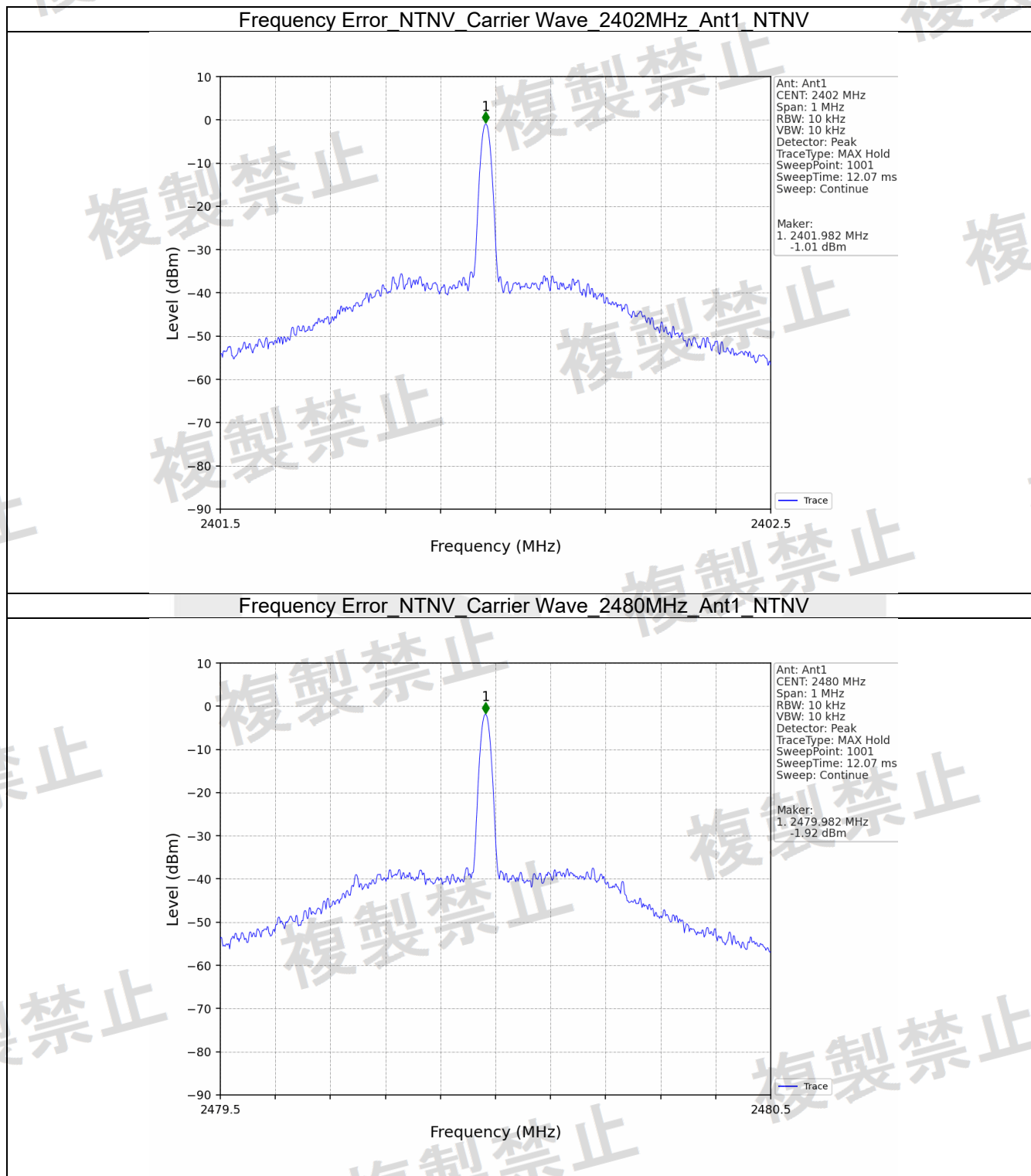
2.1 Test Result

2.1.1 Ant1

Ant1							
ENV	Mode	TX Type	Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)		Verdict
					Result	Limit	
NTNV	Carrier Wave	SISO	2402	2401.982	-7.49	-50 to 50	Pass
			2480	2479.982	-7.26	-50 to 50	Pass

2.2 Test Graph

2.2.1 Ant1



3. Occupied Bandwidth

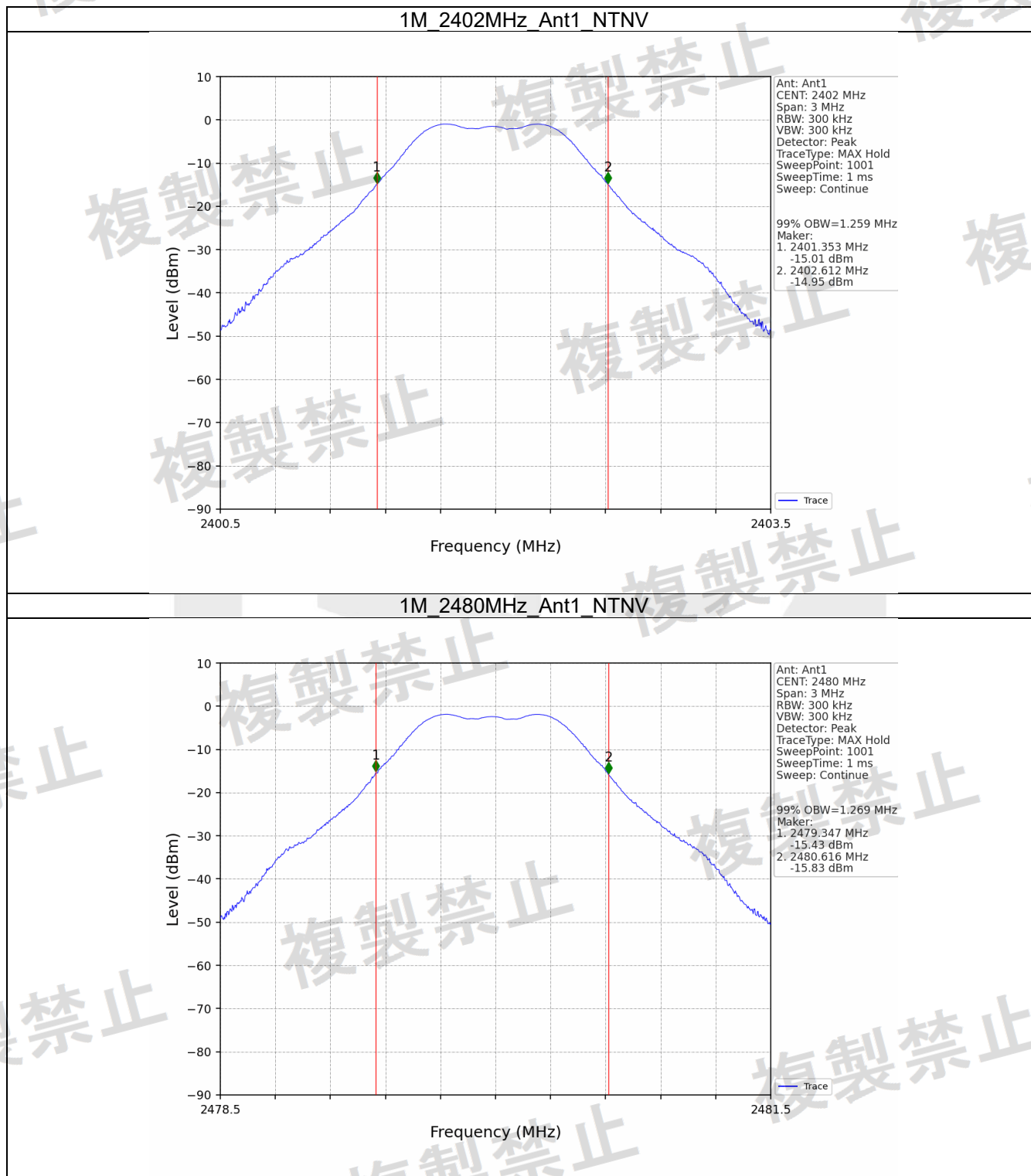
3.1 Test Result

3.1.1 OBW

ENV	Mode	TX Type	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
				ANT1	Limit	
NTNV	1M	SISO	2402	1.259	≤ 26	Pass
			2480	1.269	≤ 26	Pass

3.2 Test Graph

3.2.1 OBW



4. Spread Bandwidth

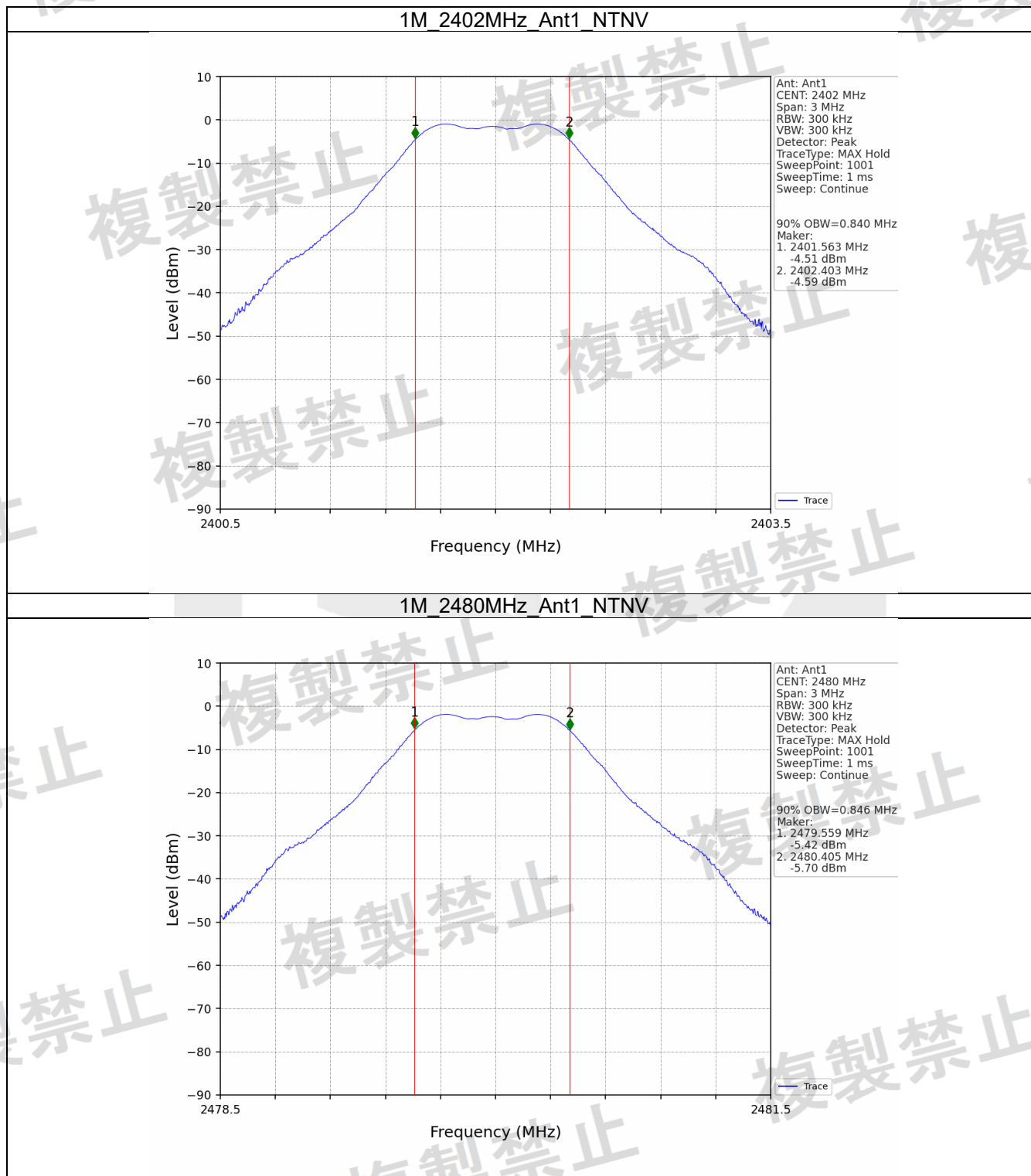
4.1 Test Result

4.1.1 SPBW

ENV	Mode	TX Type	Frequency (MHz)	Spread Bandwidth (MHz)	Verdict
				ANT1	
NTNV	1M	SISO	2402	0.840	Pass
			2480	0.846	Pass

4.2 Test Graph

4.2.1 SPBW



5. Antenna Power

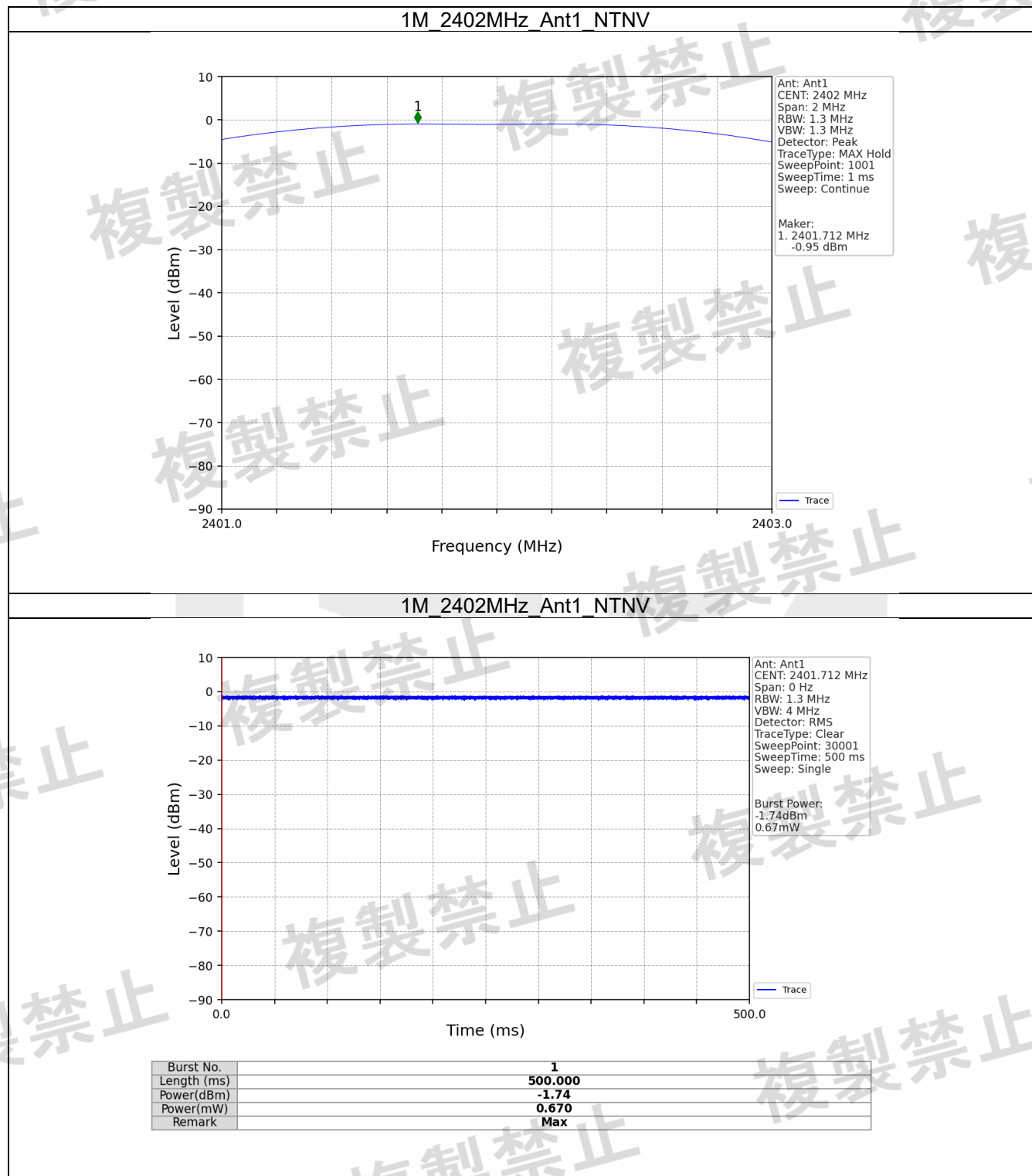
5.1 Test Result

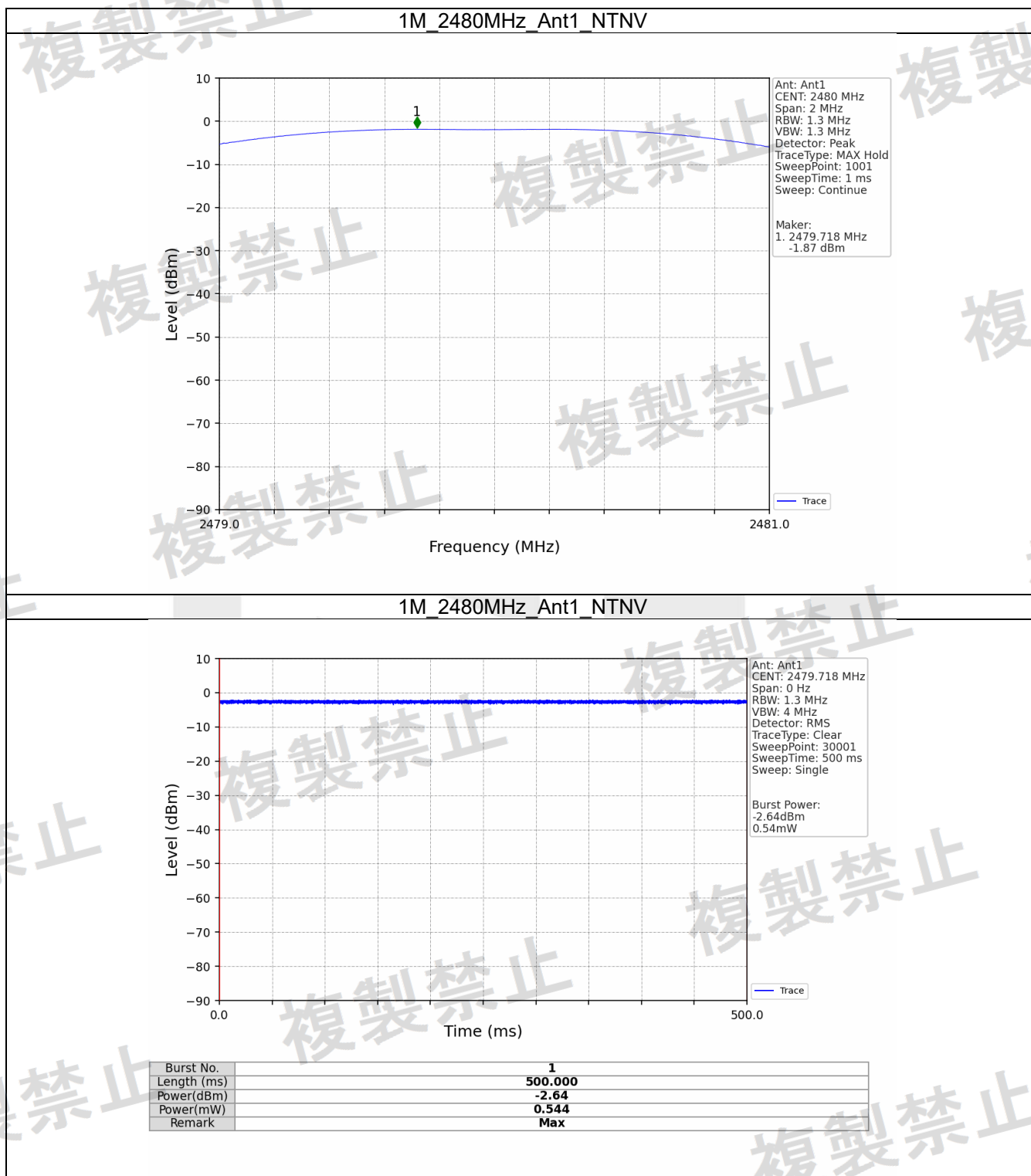
5.1.1 Power

ENV	Mode	TX Type	Frequency (MHz)	ANT	Antenna Power (mW)		Nominal Power (mW)	Tolerance (%)		Verdict
					Measured	Limit		Measured	Limit	
NTNV	1M	SISO	2402	1	-1.739	≤ 10.00	2.000	-66.50	≤ 20	Pass
			2480	1	-2.644	≤ 10.00	2.000	-72.80	≤ 20	Pass

5.2 Test Graph

5.2.1 Power





6. Spurious Emission Intensity

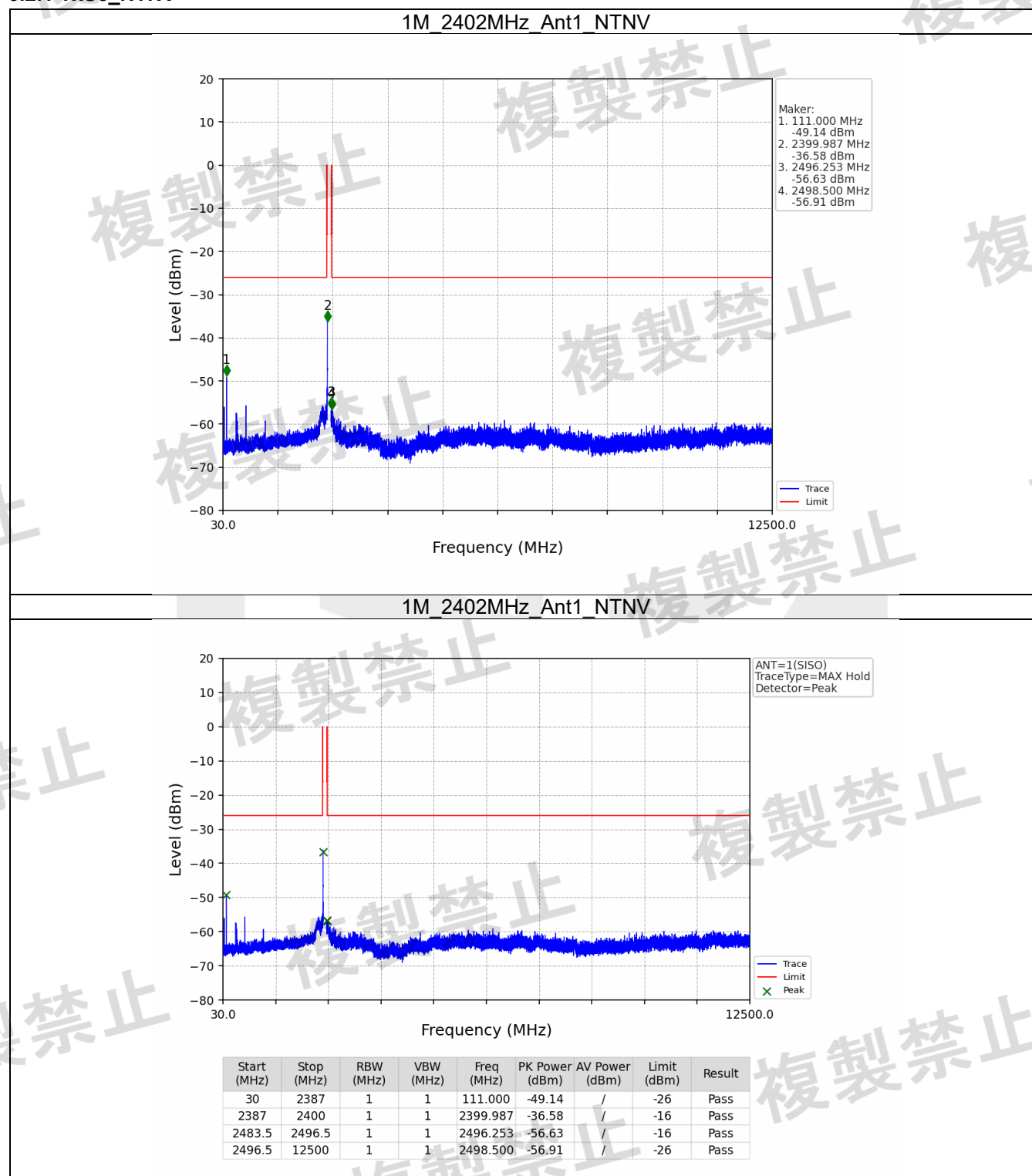
6.1 Test Result

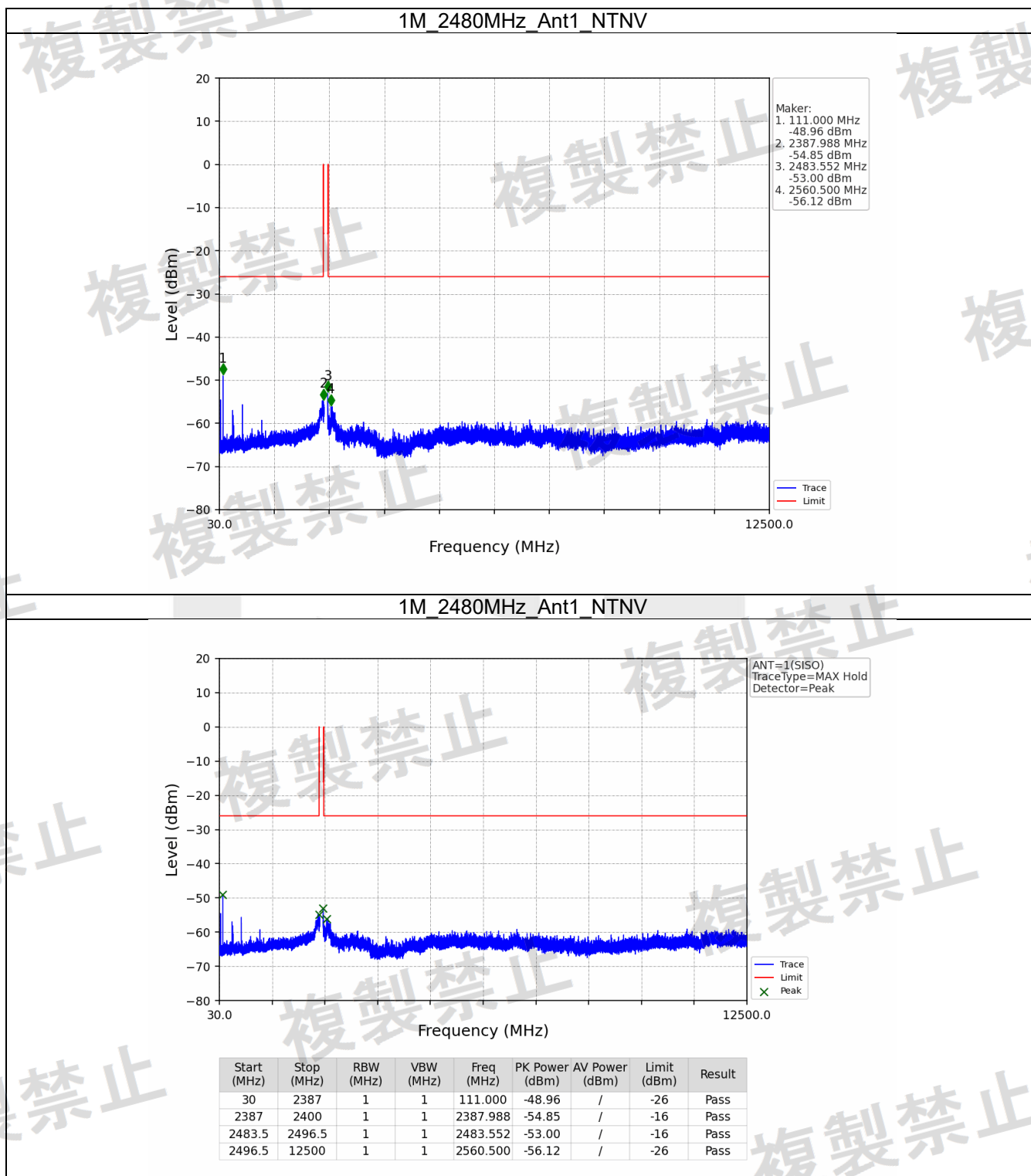
6.1.1 TxSe_NTNV

NTNV												
Mode	TX Type	Freq. (MHz)	ANT	Freq. Range		Marker					Limit (uW /MHz)	Verdict
				Start (MHz)	Stop (MHz)	Freq. (MHz)	PK Power (dBm /MHz)	PK Power (uW /MHz)	AV Power (dBm /MHz)	AV Power (uW /MHz)		
1M	SISO	2402	1	30	2387	111	-49.14	0.012	/	/	2.5	Pass
				2387	2400	2399.987	-36.58	0.220	/	/	25	Pass
				2483.5	2496.5	2496.253	-56.63	0.002	/	/	25	Pass
				2496.5	12500	2498.5	-56.91	0.002	/	/	2.5	Pass
		2480	1	30	2387	111	-48.96	0.013	/	/	2.5	Pass
				2387	2400	2387.988	-54.85	0.003	/	/	25	Pass
				2483.5	2496.5	2483.552	-53.00	0.005	/	/	25	Pass
				2496.5	12500	2560.5	-56.12	0.002	/	/	2.5	Pass

6.2 Test Graph

6.2.1 TxSe_NTNV





7. Secondary Radiated Emission

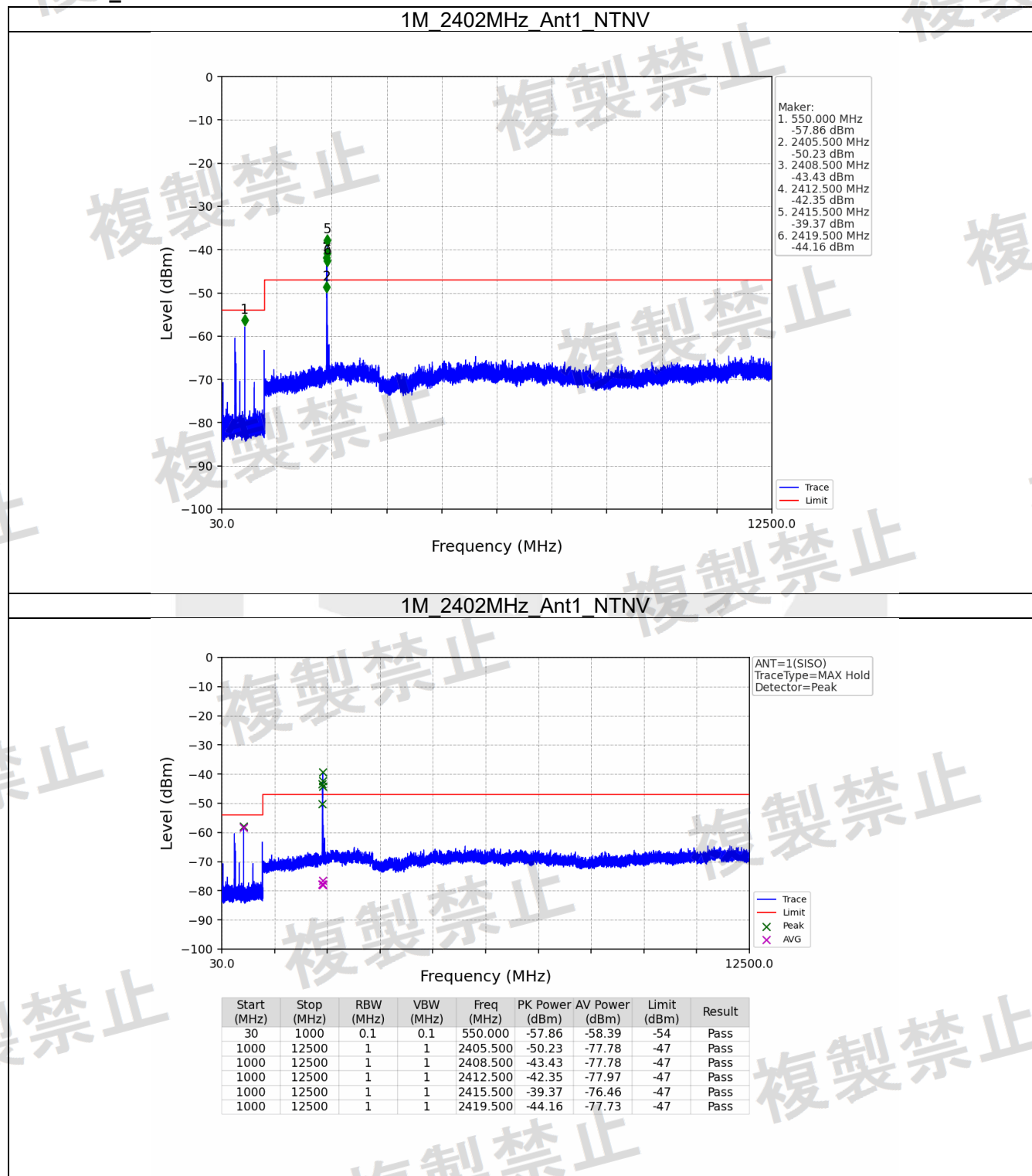
7.1 Test Result

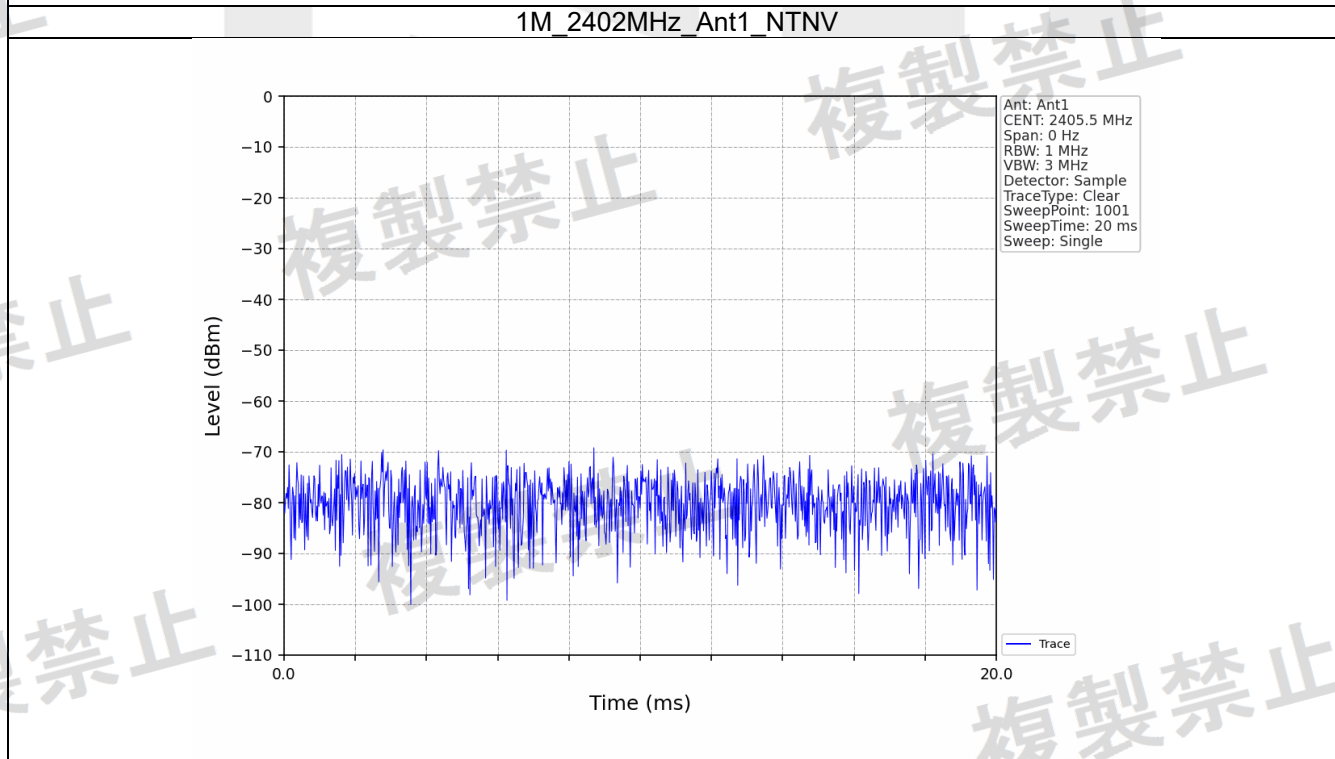
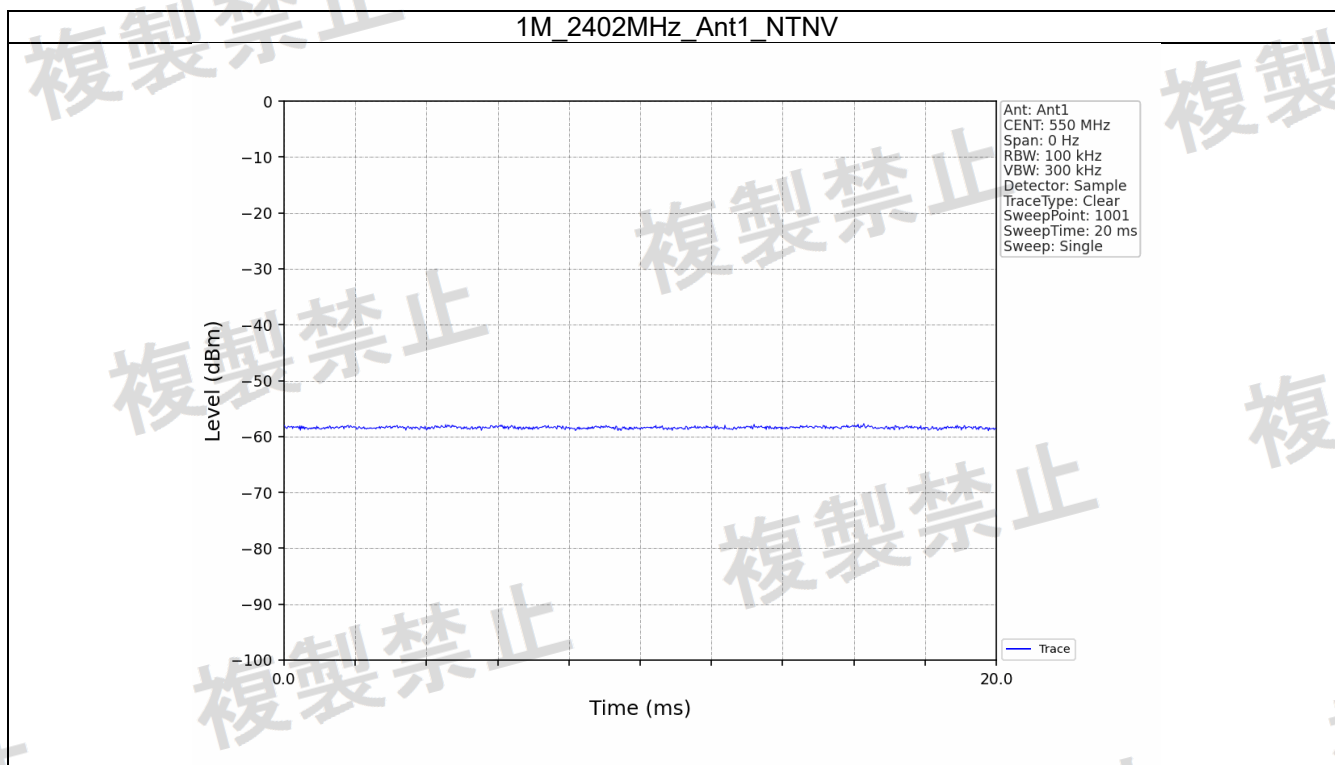
7.1.1 RxSe_NTNV

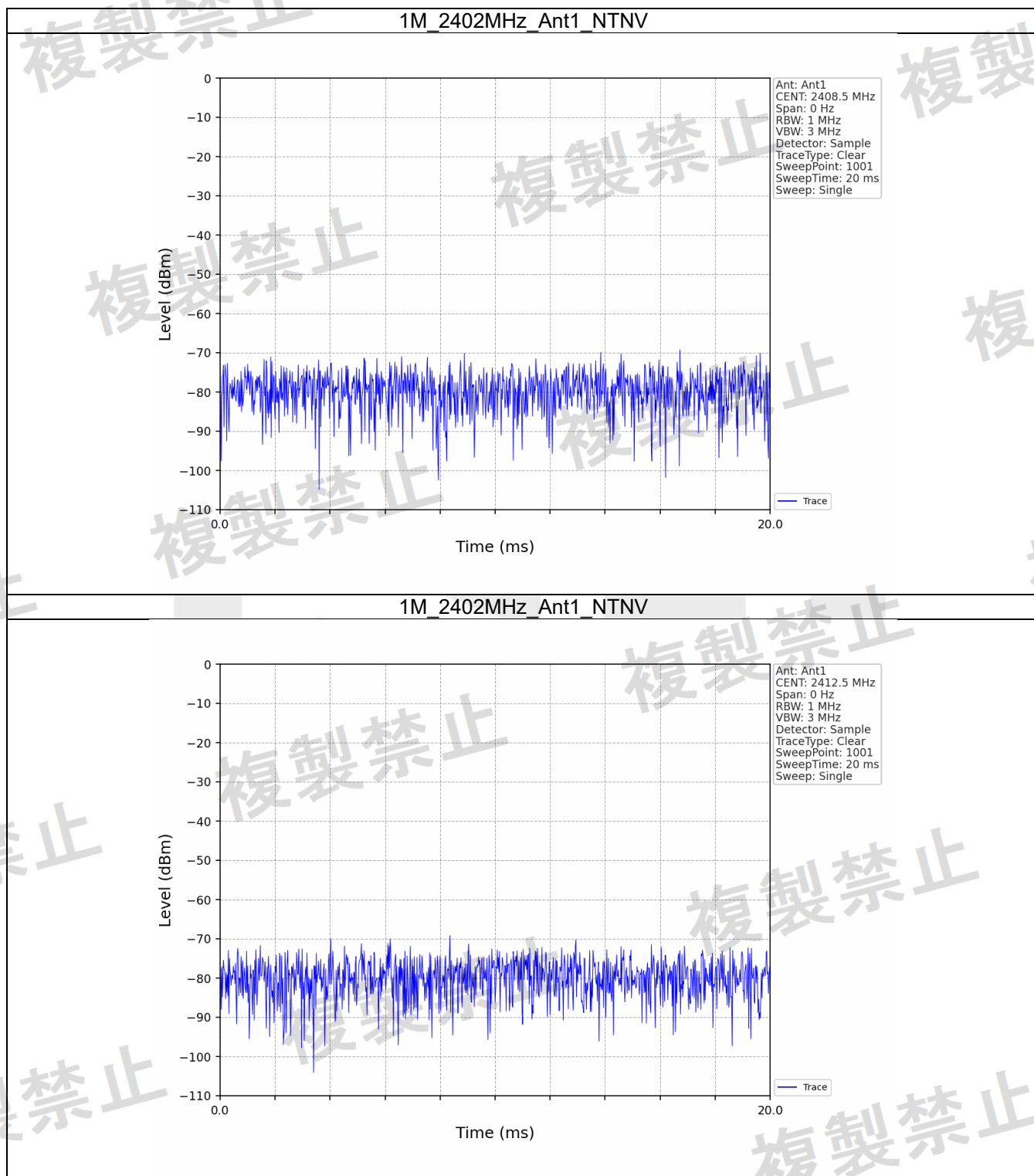
NTNV												
Mode	TX Type	Freq. (MHz)	ANT	Freq. Range		Marker					Limit (nW)	Verdict
				Start (MHz)	Stop (MHz)	Freq. (MHz)	PK Power (dBm)	PK Power (nW)	AV Power (dBm)	AV Power (nW)		
1M	SISO	2402	1	30	1000	550	-57.86	1.637	-58.39	1.449	4	Pass
				1000	12500	2405.5	-50.23	9.484	-77.78	0.017	20	Pass
						2408.5	-43.43	45.394	-77.78	0.017	20	Pass
						2412.5	-42.35	58.210	-77.97	0.016	20	Pass
						2415.5	-39.37	115.611	-76.46	0.023	20	Pass
						2419.5	-44.16	38.371	-77.73	0.017	20	Pass
		2480	1	30	1000	550	-57.55	1.758	-58.36	1.459	4	Pass
				1000	12500	2427	-49.36	11.588	-77.36	0.018	20	Pass

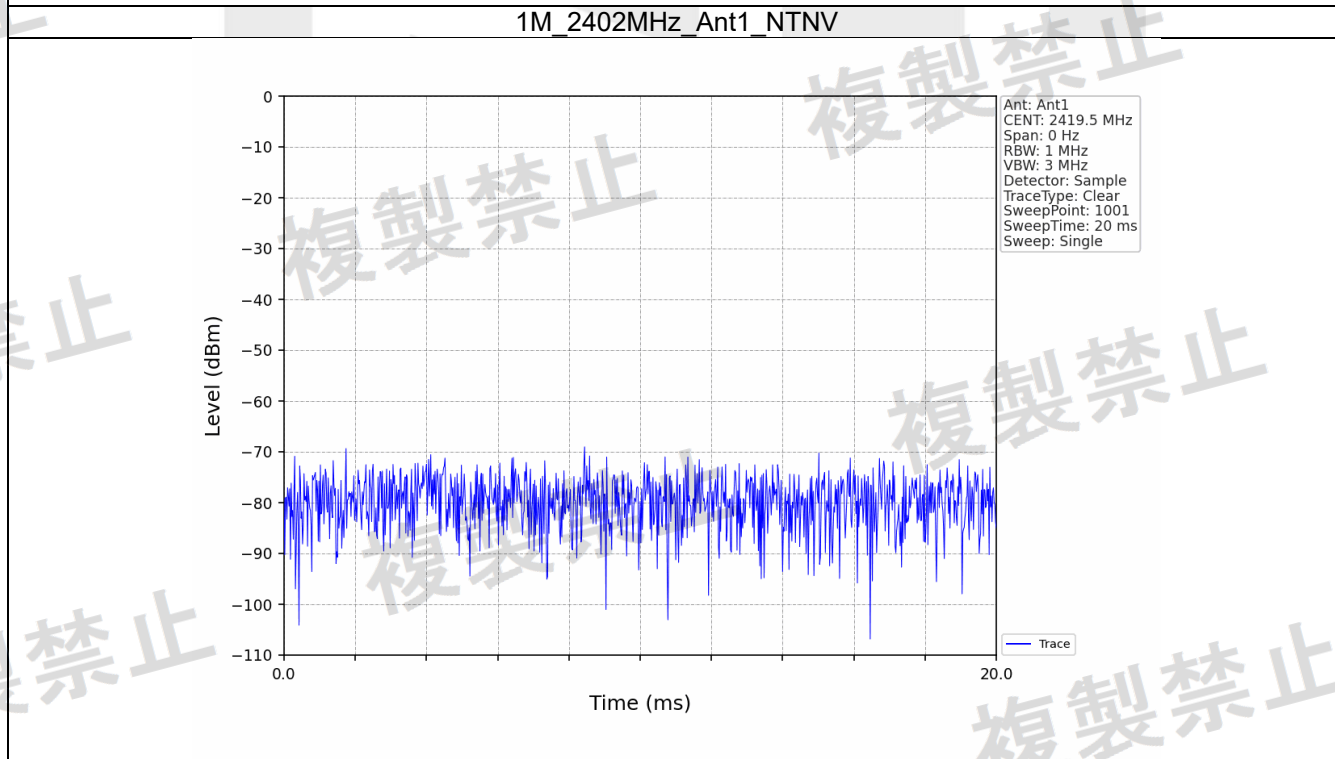
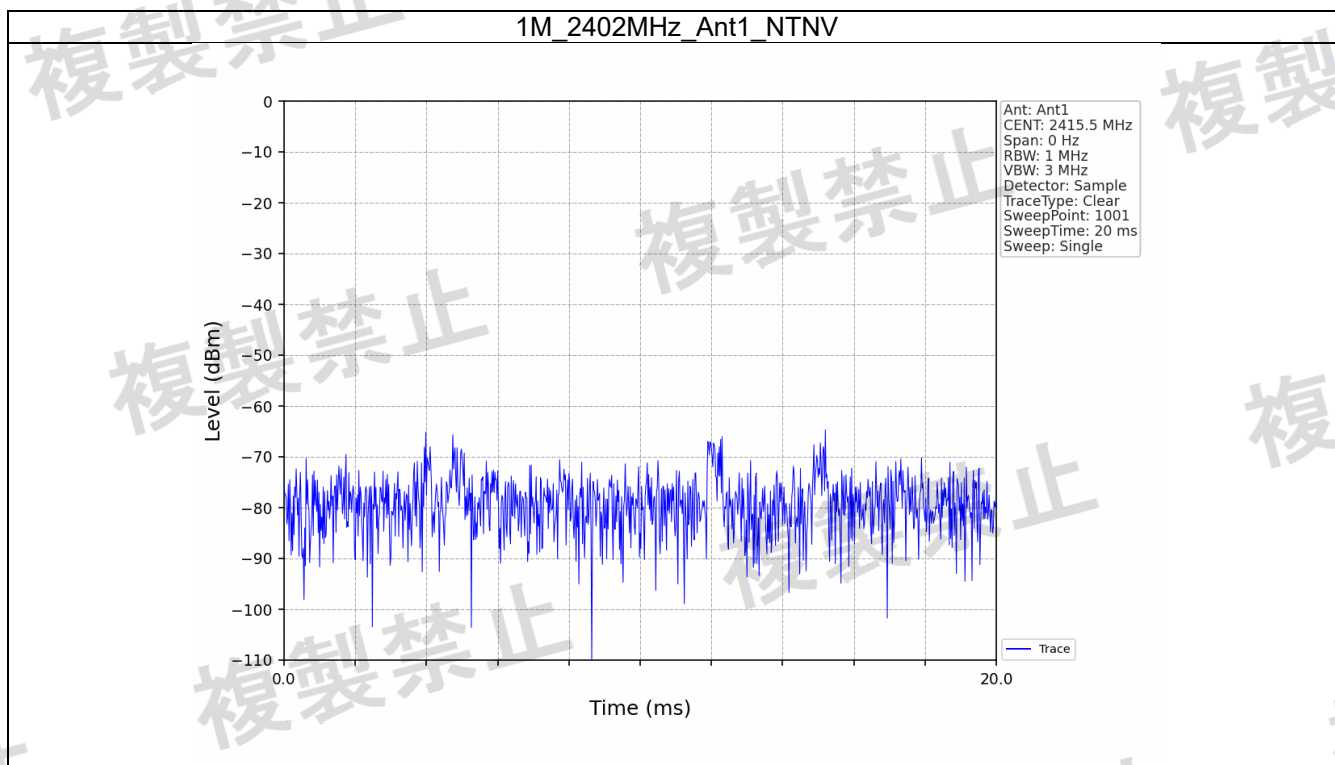
7.2 Test Graph

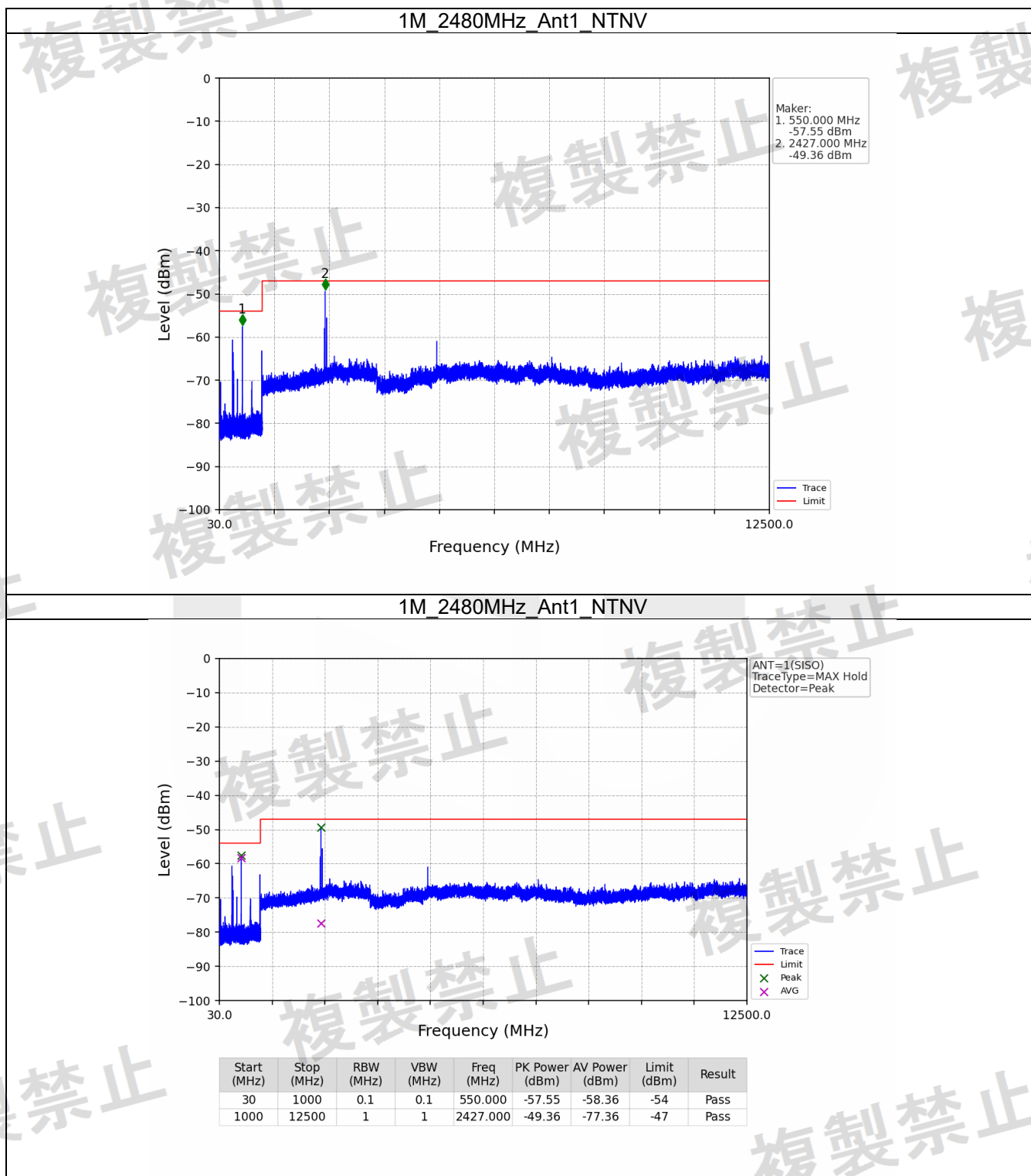
7.2.1 RxSe_NTNV

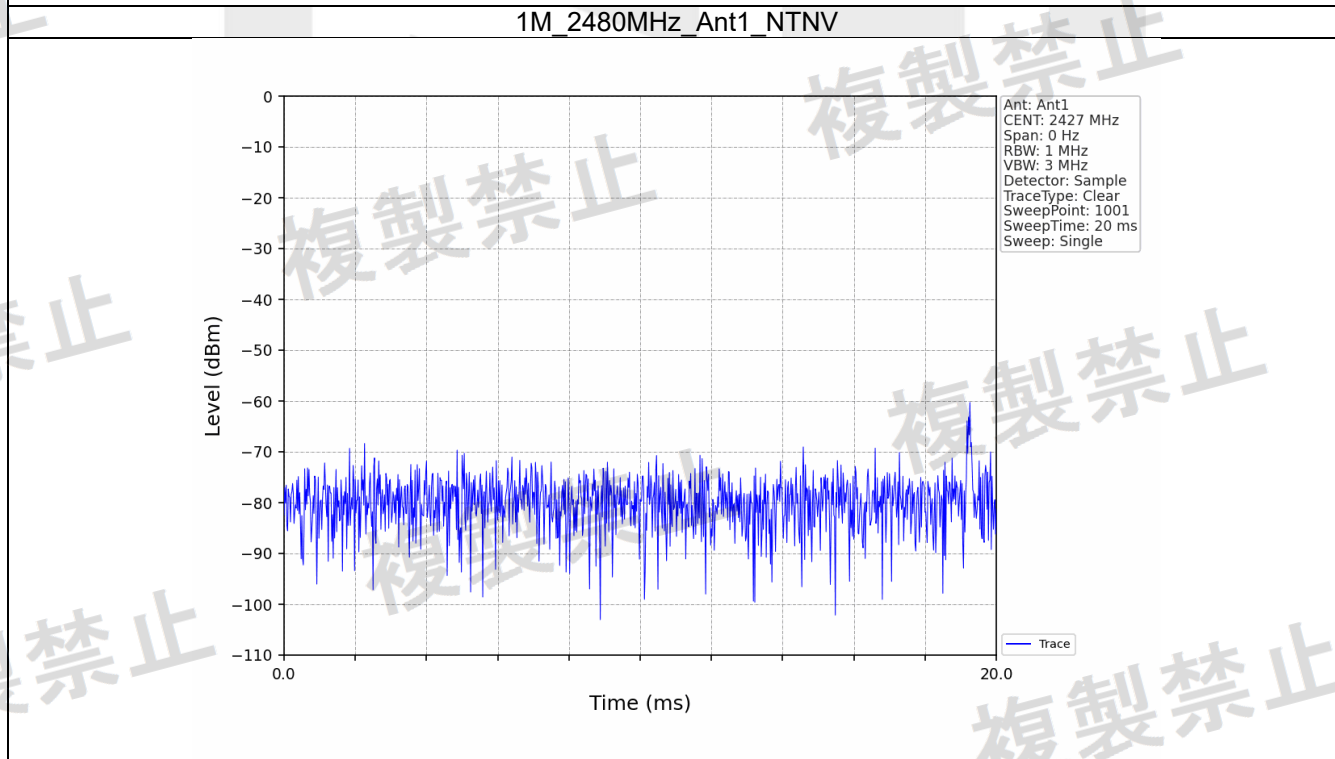
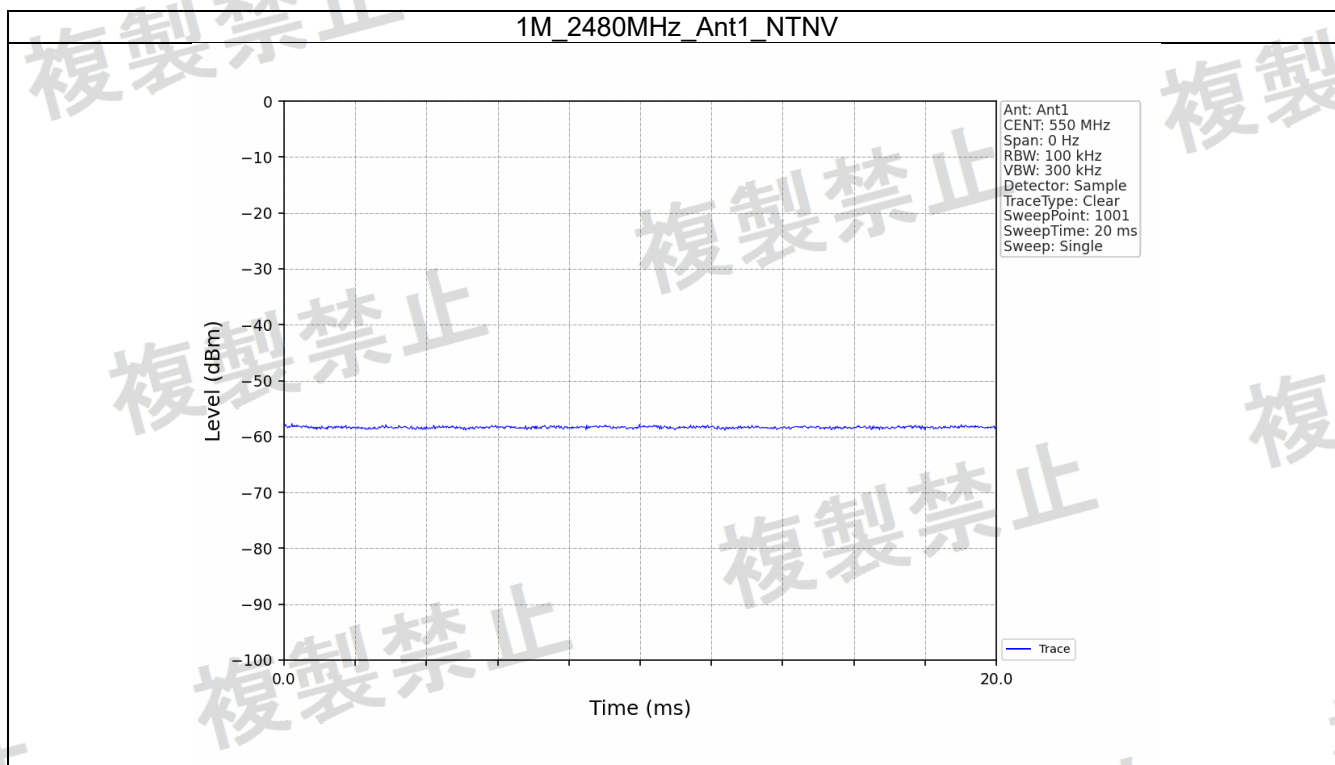












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