

Shenzhen Xunyan Communication Technology Co., Ltd.

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Antenna Impedance Correction and Testing Report

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DATE:2025-11-28

1

Test images and antenna

2

position, Antenna testing
environment: Antenna

3

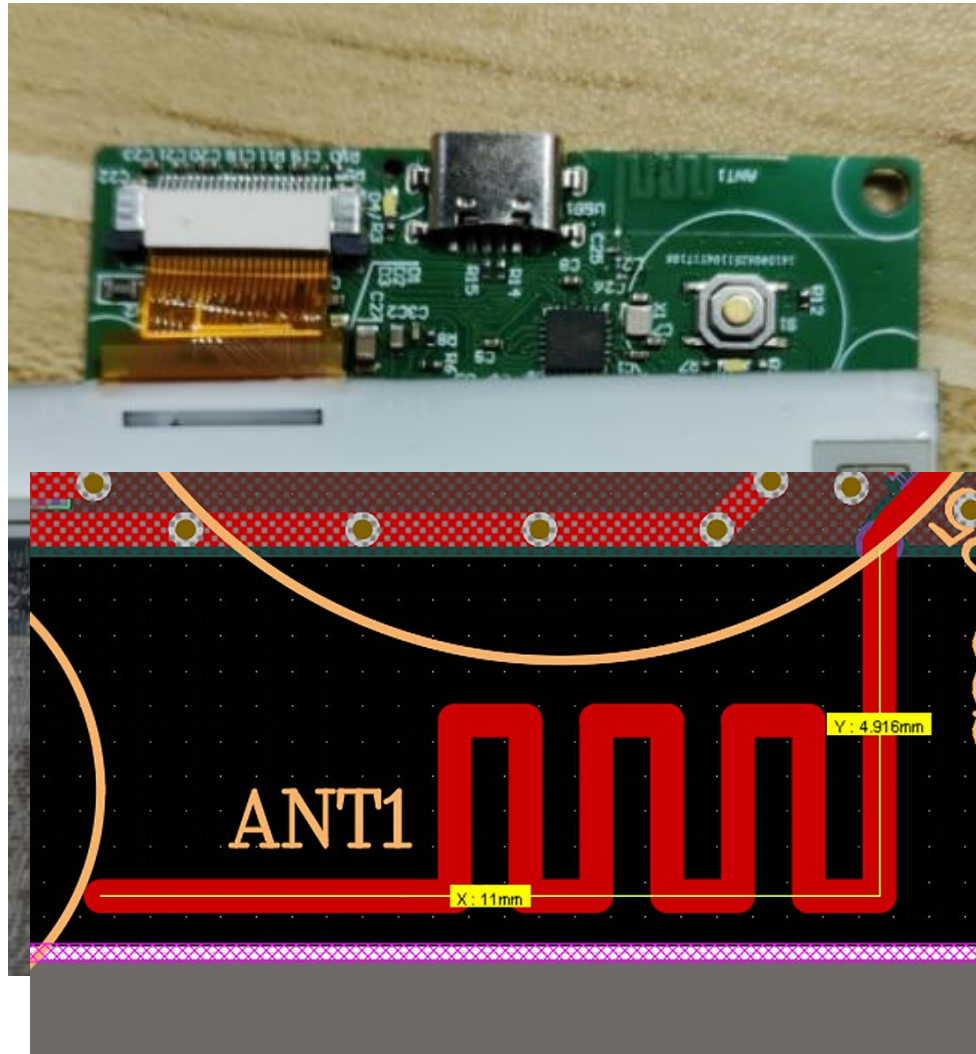
impedance testing

4

Antenna efficiency gain test

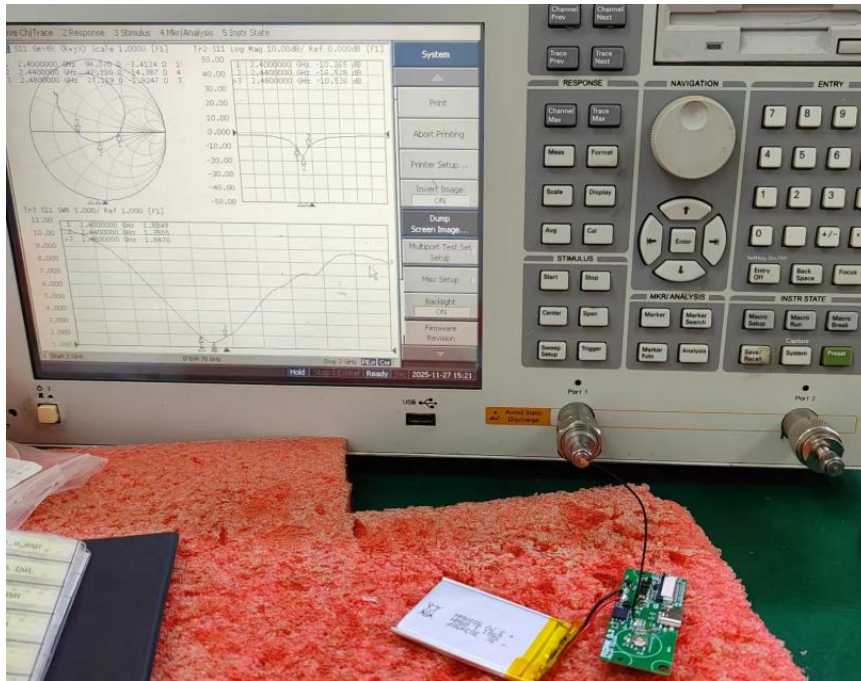
5

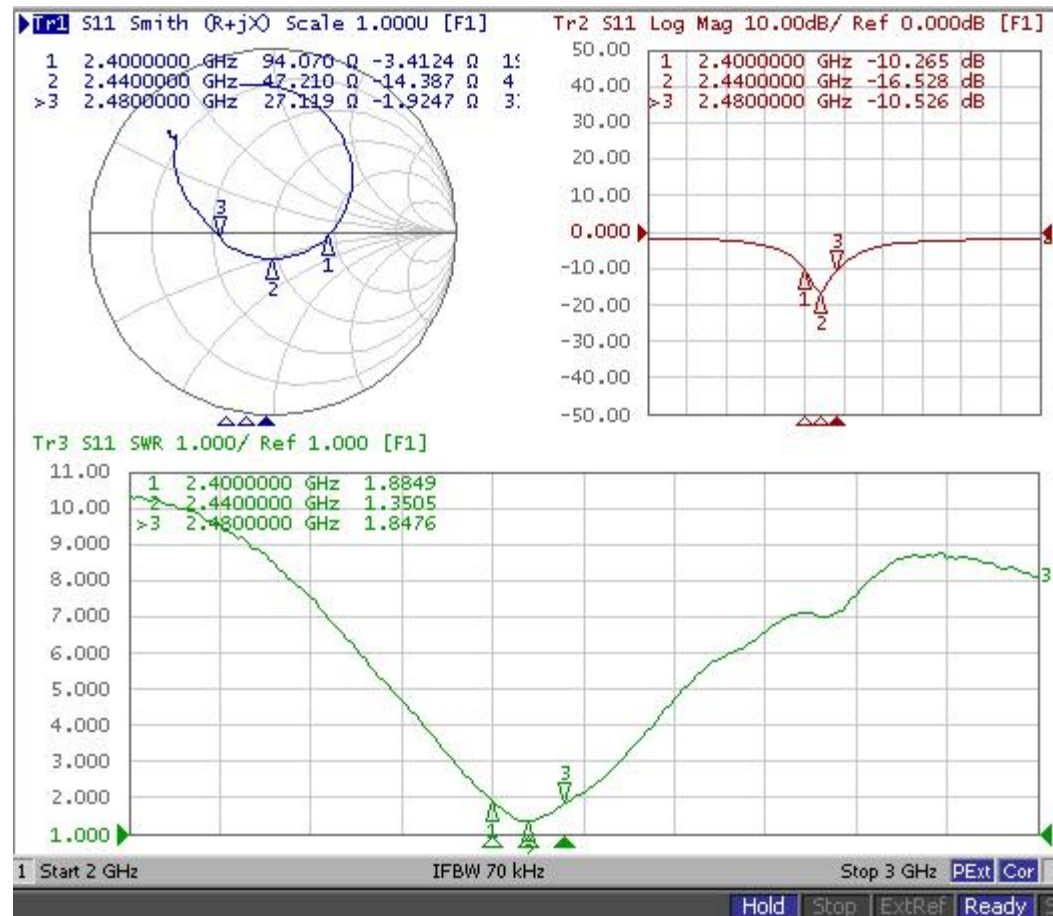
Impedance adjustment parameters and instructions



2. Antenna Testing Environment

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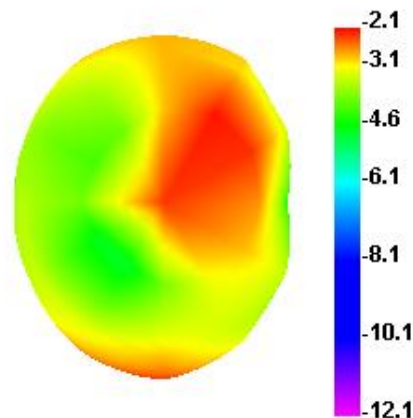


After Impedance Optimization-

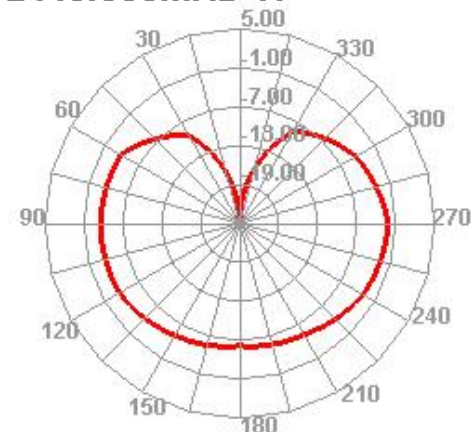
4.2 After the Modification

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	31.98	-4.95	-1.62
2410	31.42	-5.03	-1.61
2420	28.17	-5.5	-2.06
2430	27.71	-5.57	-2.08
2440	27.42	-5.62	-2.13
2450	27.98	-5.53	-2.03
2460	25.39	-5.95	-2.46
2470	24.26	-6.15	-2.67
2480	23.68	-6.26	-2.88
2490	23.79	-6.24	-2.9
2500	19.89	-7.01	-3.88

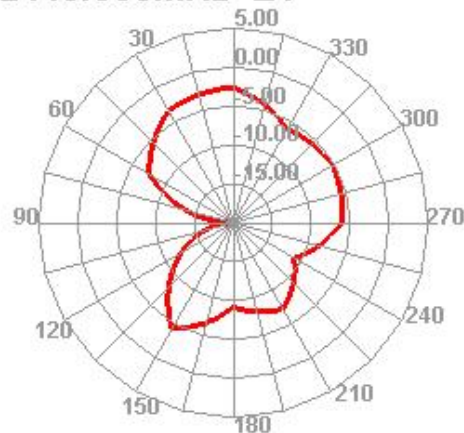
2440.000MHz



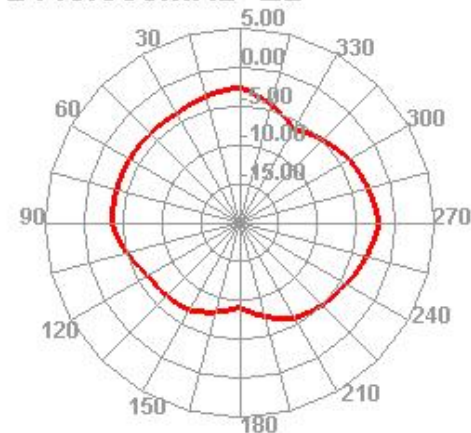
2440.000MHz H

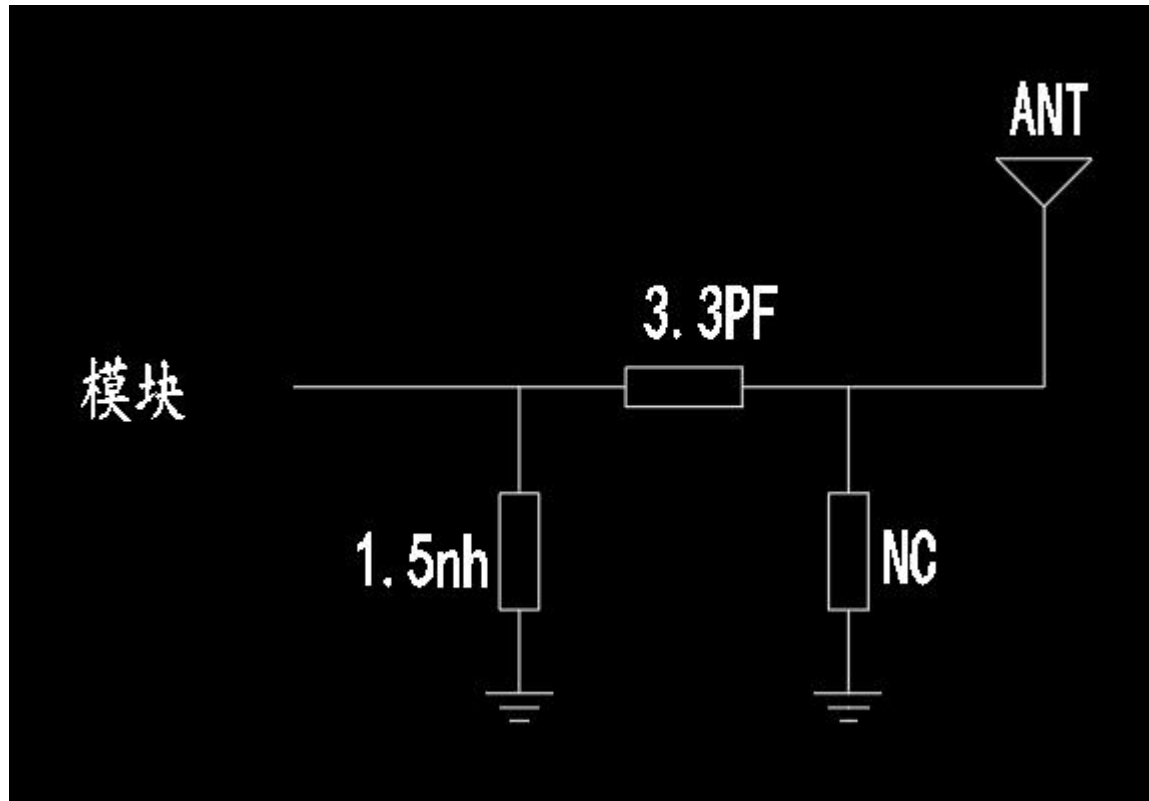


2440.000MHz E1



2440.000MHz E2





Based on metrics such as antenna S11 VSWR, Smith's gain, and efficiency gain, the antenna impedance optimization has yielded a significant improvement in efficiency gain. However, due to the limited spatial dimensions of the antenna itself, its overall efficiency remains relatively low.

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**Thank You for Watc-
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