



福州中天迅通信技术有限公司

Fuzhou ZHONGTIANXUN Communication Technology Co., Ltd

项目名称(Project Name): WIFI 天线

WIFI Antenna

日期 (Date) : 2025-5-7



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1 名词解释 (Explanation of Nouns)

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	Receive frequency
TRP	Total Radiated Power
TIS	Total Isotropic Sensitivity
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access

2 测试设备 (Test equipment)

矢量网络分析仪 (Vector network analyzer)

安捷伦 8753E (Agilent 8753E)

频谱分析仪 (Frequency analyzer)

综合测试仪 (General-purpose tester)

安捷伦 8960 E5515C

标准高性能无反射屏蔽暗室 (High performance no-reflection shielding darkroom)

ETS

8m*4m*4m

3 适用频段 (Applied frequency band)

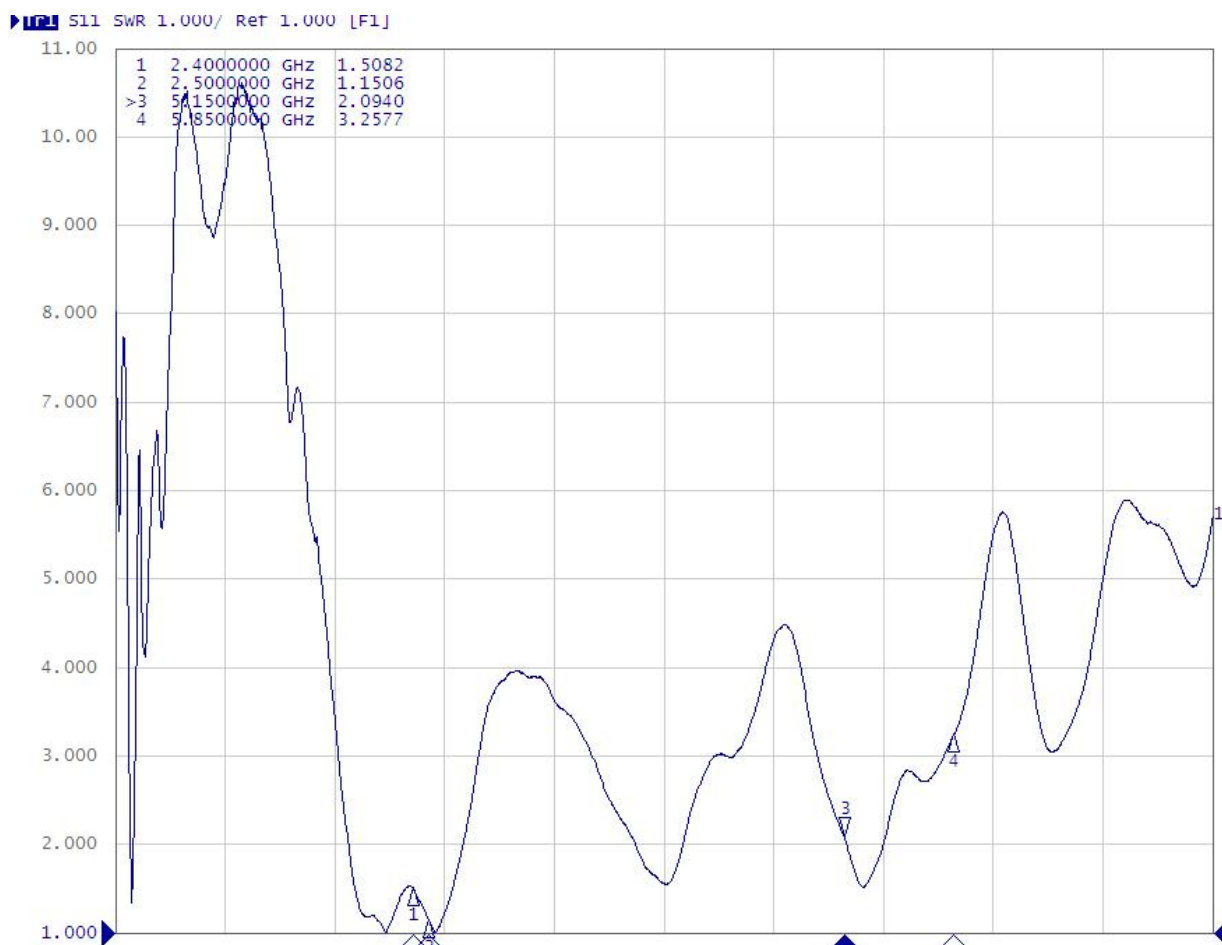
频段 Frequency Band	频率 Frequency
WIFI	2400-2500MHz, 5150-5850MHz。





4. 测试指标和数据图表 (Test project)

4.1 驻波图 (VSWR)





4.2 无源效率 (Antenna passive test)

freq(MHz)	gain(dBi)	efficiency(%)
2400	1.379059	62.96644
2410	1.582084	67.37423
2420	1.900354	71.36931
2430	1.908051	70.20039
2440	1.675671	67.64328
2450	1.801483	69.95177
2460	1.746933	70.14566
2470	1.793529	71.68441
2480	1.919208	70.48527
2490	1.690219	68.16047
2500	1.88465	69.24891
5150	-0.00099	31.73767
5200	-0.36581	32.76096
5250	-0.1401	39.40239
5300	-0.92484	35.88577
5350	-1.12325	36.27466
5400	-0.73557	40.45195
5450	-1.02309	36.83867





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5500	-2.01625	27.0712
5550	-2.08494	24.88137
5600	-1.6065	24.14548
5650	0.487649	29.37376
5700	-0.56688	28.30067
5750	-0.55923	27.19646
5800	-0.25072	28.63153
5850	0.302497	30.04046



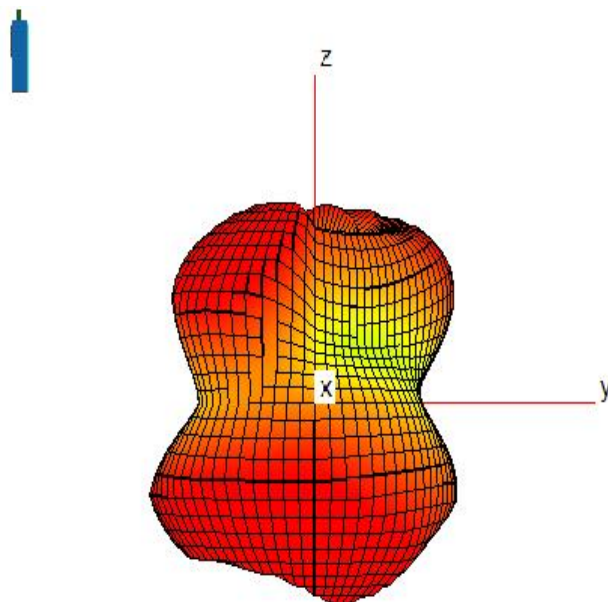
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4.3 3D 辐射图 (3D radiation drawing)

2450MHz

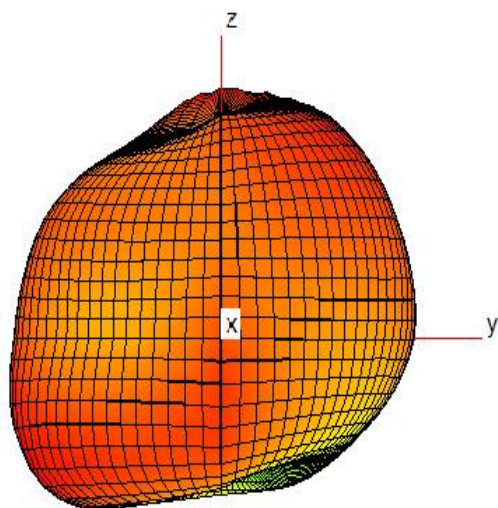




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5500MHz



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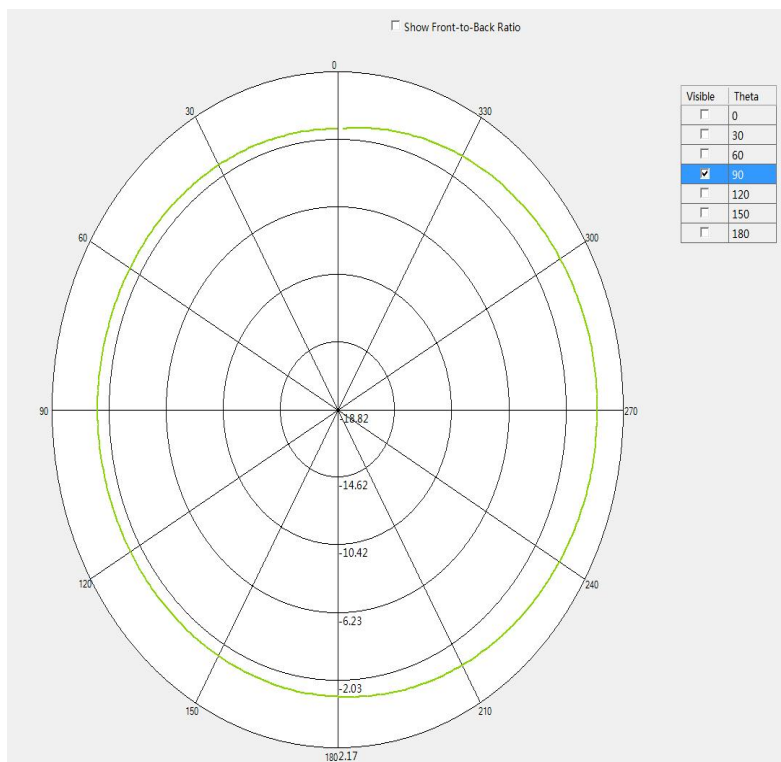
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4.4 2D 辐射图 (2D radiation drawing)

Theta=90°

2450MHz



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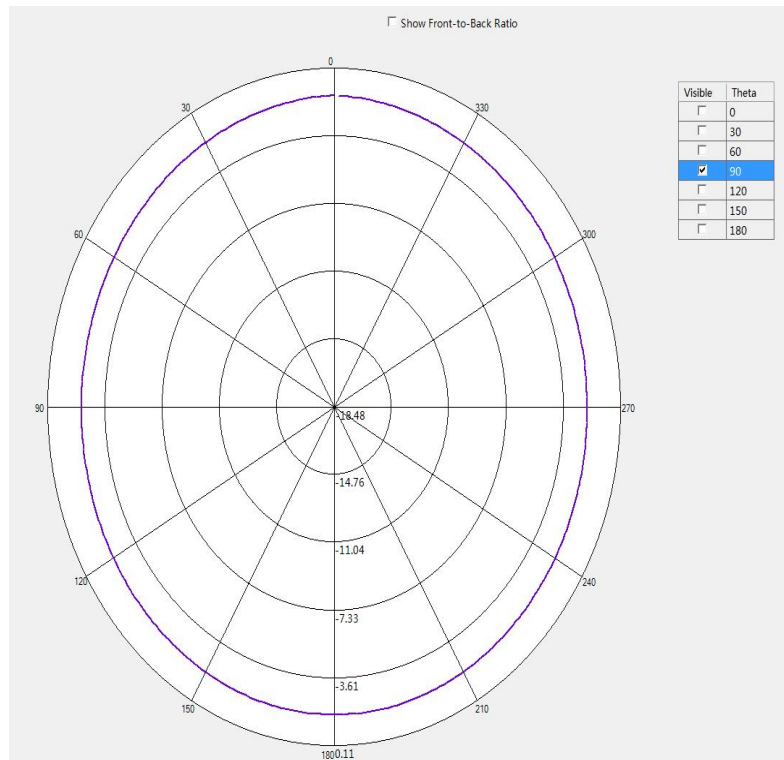
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5500MHz



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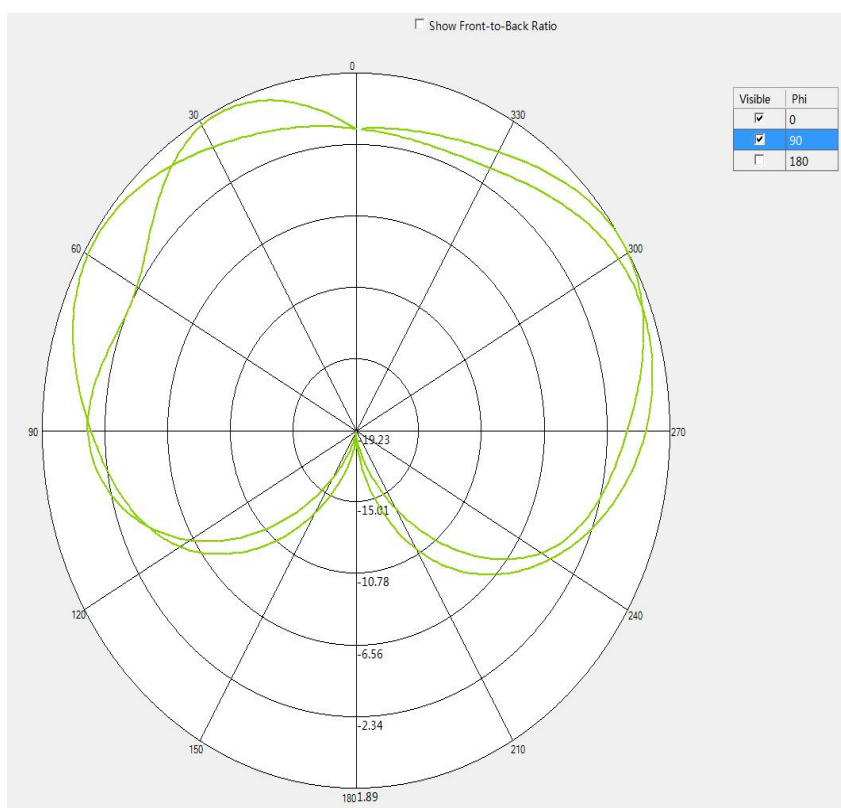


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Phi=0° Phi=90°

2450MHz



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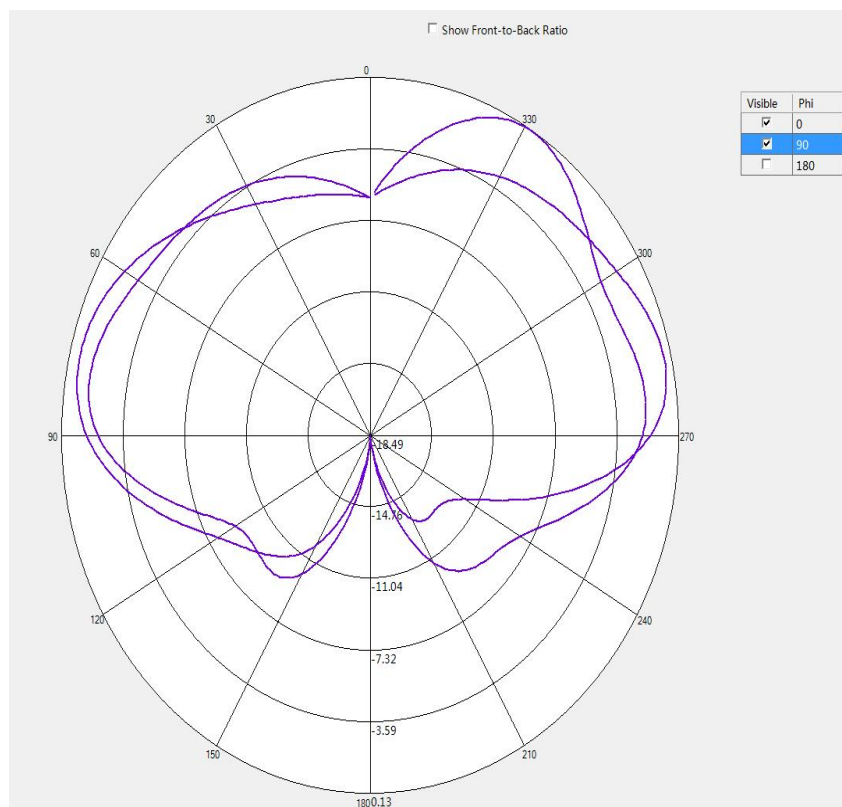
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5500MHz



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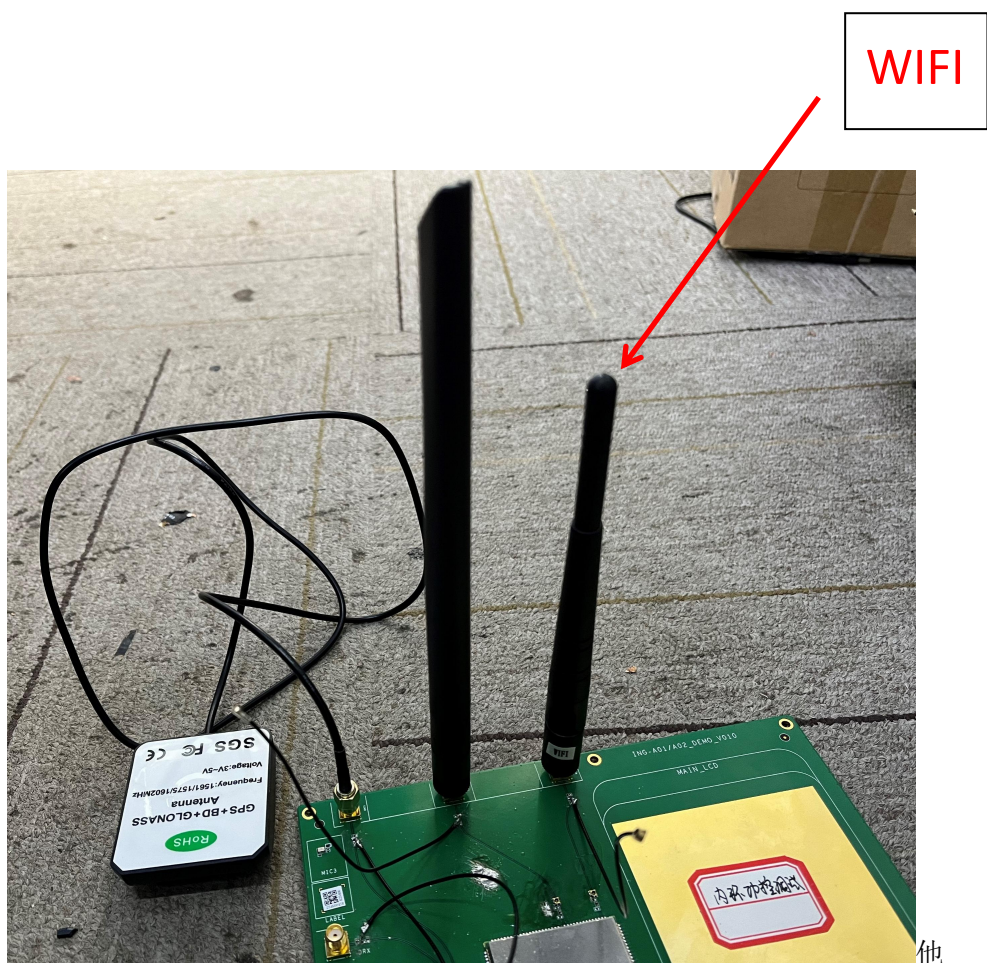
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4.5 装配图 (Environment treatment)



他



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