

承 认 书

SPECIFICATION FOR APPROVAL

客 户 名 称

CUSTOMER NAME: 微网

产 品 名 称

PRODUCT NAME: 五金天线

客 户 料 号

CUSTOMER P/N: 51010274

仁 丰 料 号:

Ren Feng P/N: U00T03S000N04516 REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	杨 振	
AUDITOR BY:	肖玉鹏	
APPROVED BY:	姚定军	
DATE:	2023-11-08	

Contents

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一、变更履历

[illegible]

二、规格表:

产品主要技术参数

主要技术指标		Main technical specifications	
频率范围 (MHZ)	2400-2500 5150-5850	Frequency Range (MHZ)	2400-2500 5150-5850
特性阻抗(Ω)	50	Impedance(Ω)	50
增益(dBi)	2.4G:4.13 5G:4.78	Peak Gain(dBi)	2.4G:4.13 5G:4.78
输出电压 驻波比	≤ 2.0	VSWR	≤ 2.0
方向性	全向性	Radiation	Omni-directional
连接方式	/	Connector Type	/
物理性能		Physical Properties	
天线外套材料	SUS 304	Antenna cover	SUS 304
工作温度	-20℃~+70℃	Operating Temp	-20℃~+70℃
保存温度	-20℃~+70℃	Storage Temp	-20℃~+70℃

Technical drawing of a mechanical part, likely a bracket or connector, showing multiple views (front, side, top, and detail views) and dimensions. The drawing is oriented horizontally with a coordinate system (A-G, 1-5) at the top.

Dimensions:

- Overall width: 16 ± 0.2
- Overall height: 30.00 ± 0.10
- Top flange width: 13 ± 0.2
- Top flange thickness: 3.5 ± 0.2
- Bottom flange width: 16 ± 0.2
- Bottom flange thickness: 3.5 ± 0.2
- Central hole diameter: $\varnothing 3 \pm 0.05$
- Central hole position: 5 ± 0.2
- Side flange width: 3.5 ± 0.2
- Side flange thickness: 3 ± 0.2
- Side flange position: 2 ± 0.2
- Side flange hole diameter: $\varnothing 2 \pm 0.05$
- Side flange hole position: 5 ± 0.2

Table:

REV	DATE	DESCRIPTION
A	2023-11-08	New Issue

Notes:

1. 材质: SUS 304 (3/4H, >370HV), 材料厚度 0.3mm;
2. 零件表面电镀 (镀镍), 镀层厚度: 30uin~60uin; 可焊性良好。
3. 产品不可变形。
4. 产品需过盐雾 24H。
5. 表面不可有划痕, 灰尘, 油污, 黑斑, 毛边等不良。
6. 带*尺寸为检验尺寸, 带□为CPK尺寸
7. 产品需符合RoHS2.0环保要求

Approval:

陈梦超

Table:

XXX	±2.0	APPROVED	VENDER	PART NO	PARTNAME	R.F PNO	REV	UNIT	SCALE	SIZE	SHEET	FILE NAME
XX	±1.0	CHECKED					A	mm	1:1	A4	1 OF 1	
X	±0.5	DRAWING										
.X	±0.2											
.XX	±0.1											

Production Information:

五金件

东莞市仁丰电子科技有限公司

RenFeng Electronic technology Co., LTD.

PRODUCTION DRAWING

REV	DATE	DESCRIPTION
A	2023-11-08	New Issue

XXX	±2.0	APPROVED	VENDER			
XX	±1.0		PART NO			
X	±0.5	CHECKED	PARTNAME	五金件		
.X	±0.2		R.F P/NO	U00T03S000N04516		
.XX	±0.1	DRAWING	REV	UNIT	SCALE	SIZE SHEET FILE NAME
		陈梦超	A	mm	1:1	A4 1 OF 1

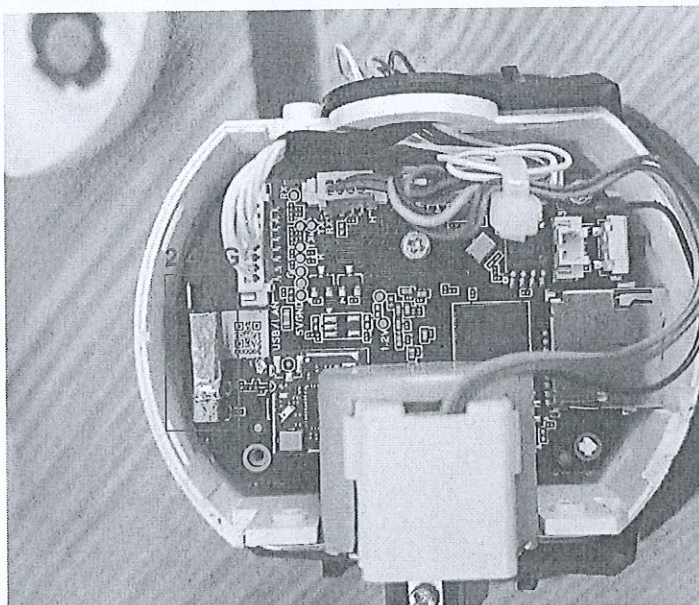
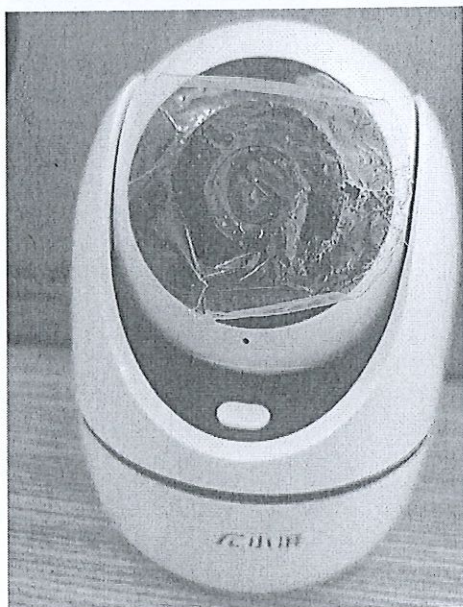
东莞市仁丰电子科技有限公司
RenFeng Electronic
technology Co., LTD.

PRODUCTION DRAWING

LC2310 Project

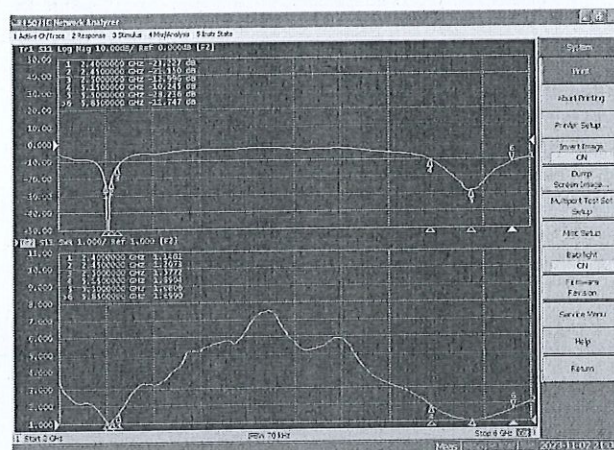
天线位置及走线

RF link



回波损耗与驻波比 RL-VSWR

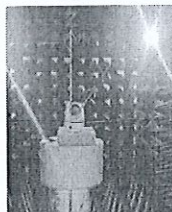
RF link



Frequency (MHz)	2400	2450	2500	5150	5500	5850
return loss	-23.23	-21.15	-12.99	-10.25	-28.24	-11.75
VSWR	1.15	1.21	1.58	1.89	1.08	1.70

增益与远场方向图

2D/3D Pattern

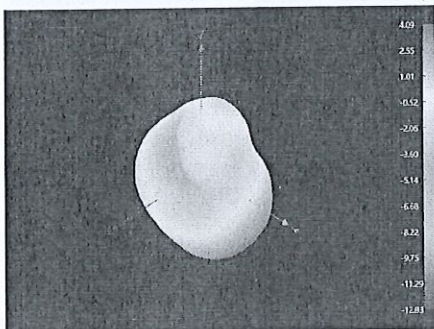


H面: XY (水平面)

E1面: XZ

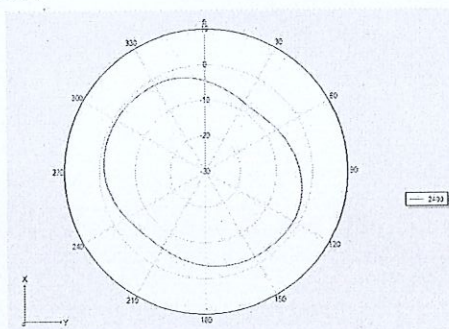
E2面: YZ

远场方向图

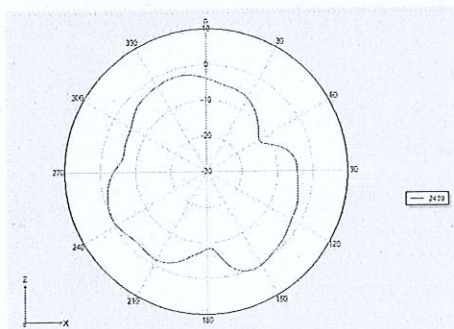


2400MHz

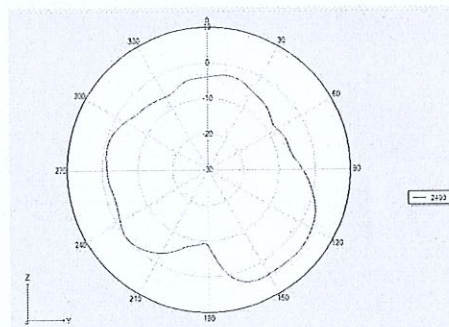
H面



E1面

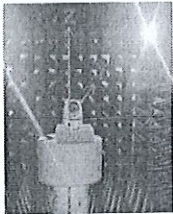


E2面



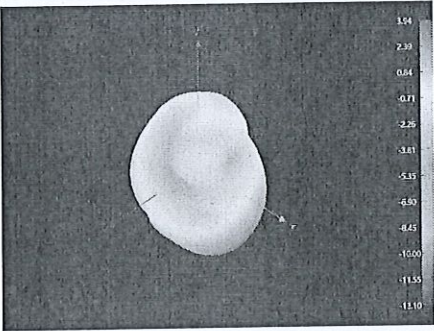
增益与远场方向图

2D/3D Pattern



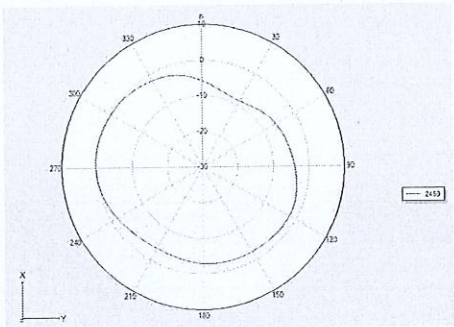
H面: XY (水平面)
E1面: XZ
E2面: YZ

远场方向图

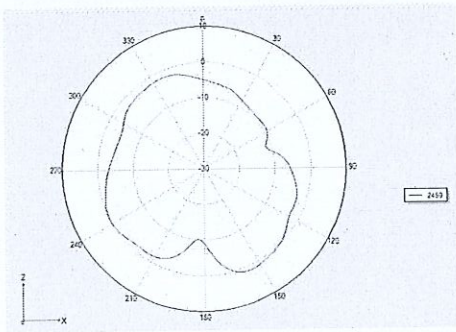


2450MHz

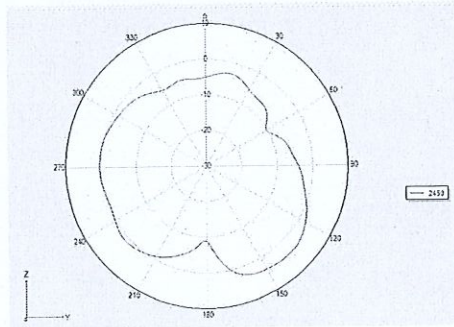
H面



E1面



E2面



增益与远场方向图

2D/3D Pattern

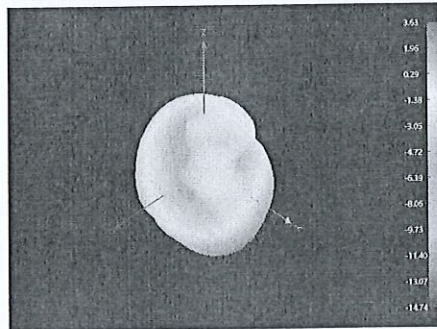


H面: XY (水平面)

E1面: XZ

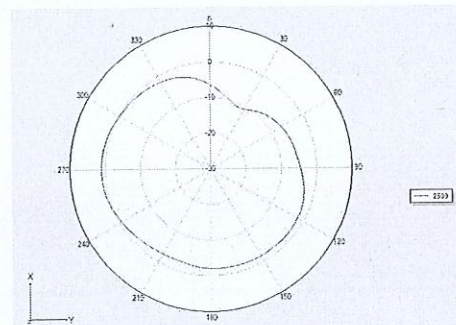
E2面: YZ

远场方向图

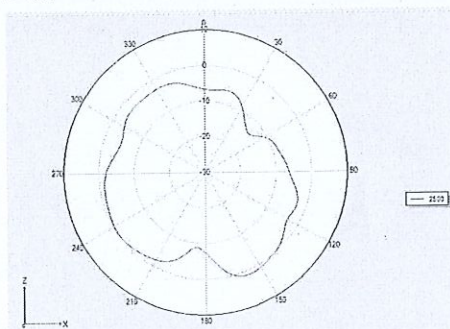


2500MHz

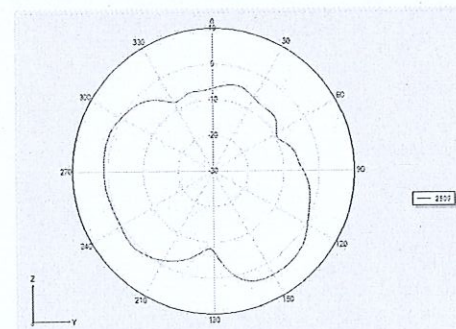
H面



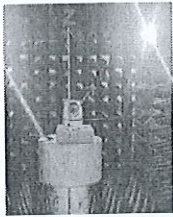
E1面



E2面

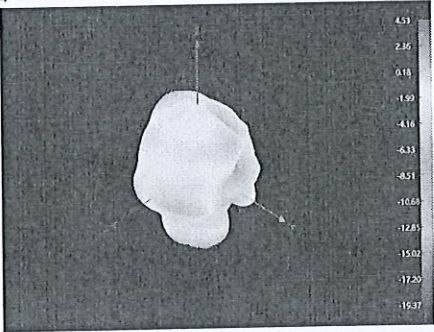


增益与远场方向图
2D/3D Pattern



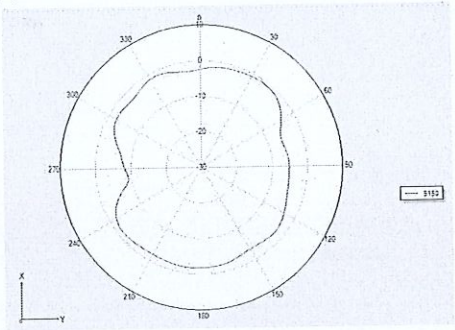
H面: XY (水平面)
E1面: XZ
E2面: YZ

远场方向图

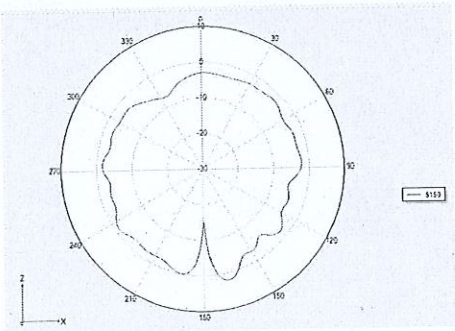


5150MHz

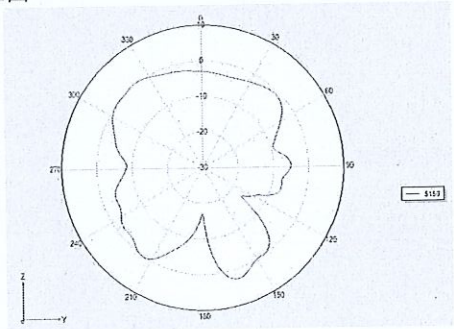
H面



E1面

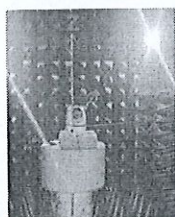


E2面



增益与远场方向图

2D/3D Pattern



H面: XY (水平面)

E1面: XZ

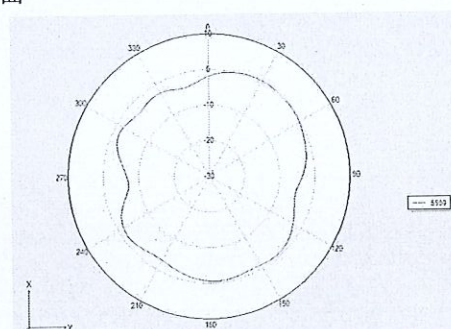
E2面: YZ

远场方向图

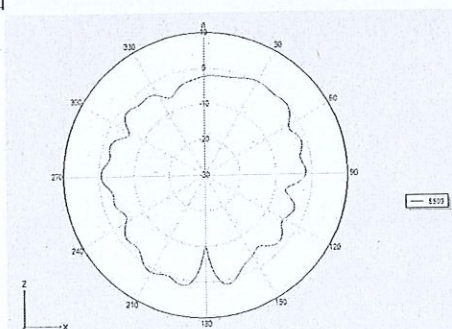


5500MHz

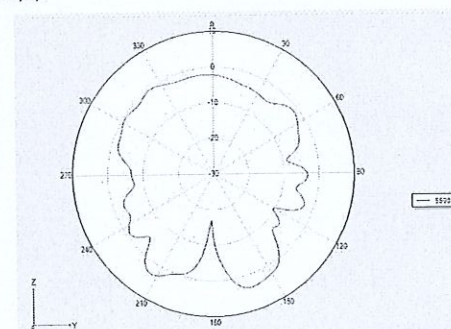
H面



E1面

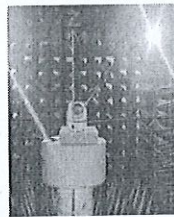


E2面



增益与远场方向图

2D/3D Pattern

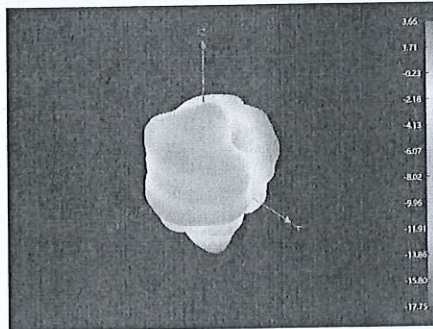


H面: XY (水平面)

E1面: XZ

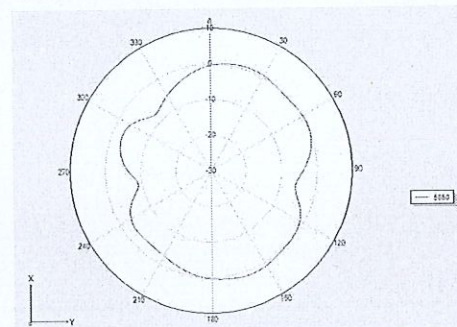
E2面: YZ

远场方向图

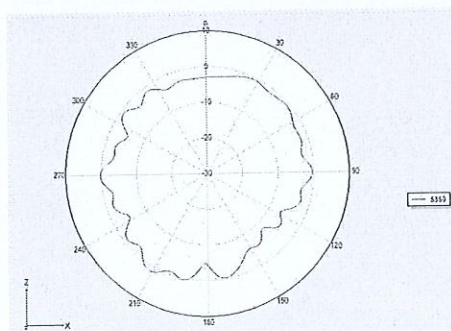


5850MHz

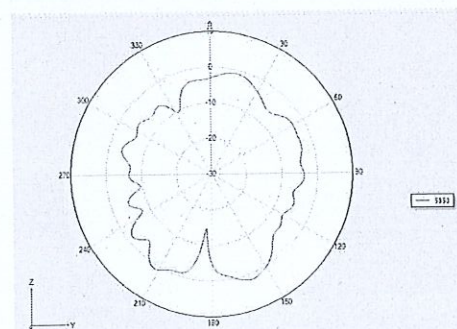
H面



E1面



E2面



天线效率与增益

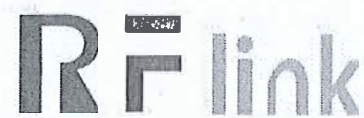
Peak Gain

RF link

2.4G		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	60.12	4.09
2410	61.80	4.13
2420	61.38	4.05
2430	61.80	3.94
2440	63.83	3.97
2450	65.01	3.94
2460	62.66	3.79
2470	69.70	3.73
2480	60.53	3.85
2490	69.02	3.84
2500	67.15	3.63

5G		
Freq (MHz)	Effi (%)	Gain (dBi)
5150	65.21	4.53
5200	69.43	3.92
5250	67.68	3.71
5300	62.66	4.11
5350	64.71	4.20
5400	63.39	4.03
5450	69.82	3.87
5500	69.34	4.73
5550	72.11	4.04
5600	68.71	4.48
5650	67.30	4.02
5700	69.82	4.65
5750	65.31	4.78
5800	64.12	4.45
5850	67.45	3.66

OTA测试结果



2.4G			
Mode	Channel	Data Rate, Mbps	TRP
IEEE 802.11b	1	1	14.73
	6	1	14.28
	11	1	15.16

5G			
Mode	Channel	Data Rate, Mbps	TRP
IEEE 802.11a	36	6	12.93
	100	6	11.16
	161	6	11.43

2.4G			
Mode	Channel	Data Rate, Mbps	TIS
IEEE 802.11b	1	11	-81.61
	6	11	-81.99
	11	11	-82.25

5G			
Mode	Channel	Data Rate, Mbps	TIS
IEEE 802.11a	36	54	-71.65
	100	54	-71.32
	161	54	-71.24