

Shenzhen Jiexuntong Wireless Technology Co., Ltd

Antenna Recognition Letter

Customer Name: Lingdu

Project model: AL502

Our part number:

20514051401/20514052401

Antenna specifications: FPC antenna

Date of issuance: October 12, 2023

Manufacturer recognition column:

Project Preparation	RF	structure	ratify	data

Customer recognition column:

confirm	to examine	ratify	data



Confirmation Letter Change History

version	data	Change description	Remarks
R/A	2023-8- 11	First edition	
R/A	2023-10- 12	Revised version	

catalogue

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一、Antenna image

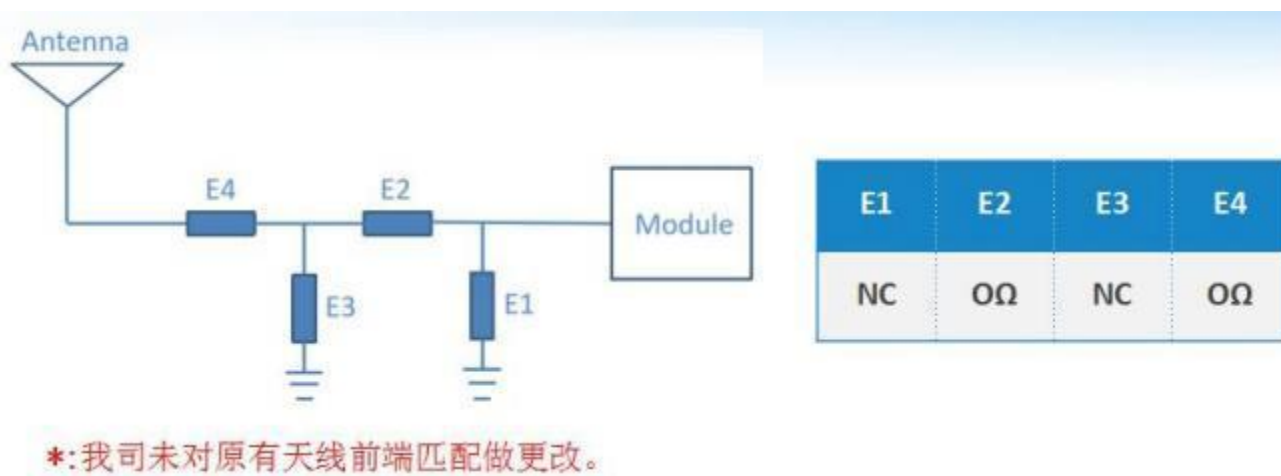


二. testing environment

2.1. Environmental treatment

无

3、Antenna matching



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三：Products Specification

无源电性能指标 Passive Electrical Specifications

频率范围 Frequency Range (MHz)	2400-2500
输入阻抗 Input Impedence (Ω)	50
电压驻波比 VSWR	≤ 2.0
极化形式 Polarization Type	线极化

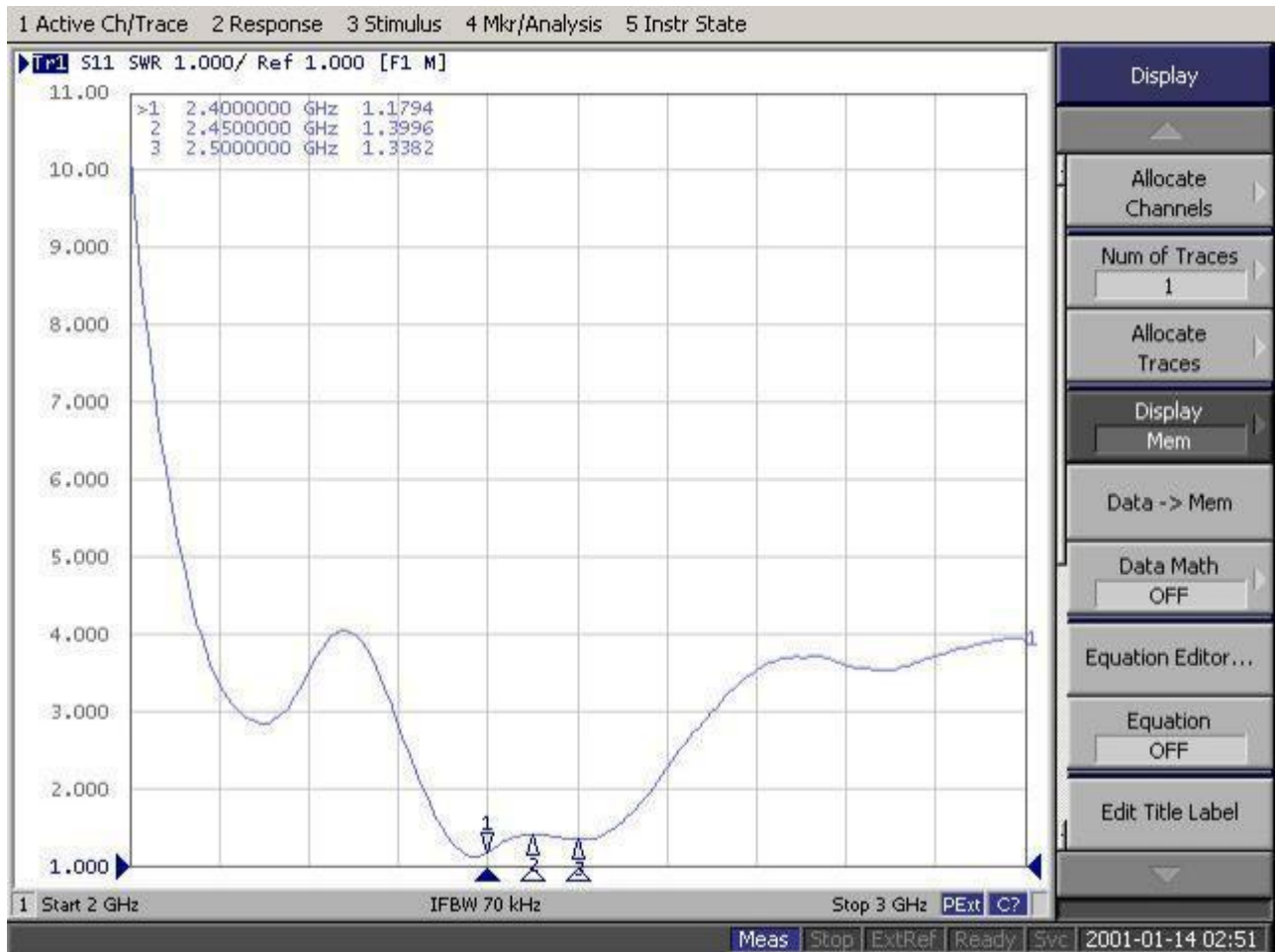
机械指标 Mechanical Specifications

天线形式 (Antenna form)	WIFI
天线尺寸 Antenna Size (mm)	33.9*22.3*0.12
馈线长度 Cable Length (mm)	93mm+230mm
辐射体 Radiator	铜 Cuprum
连接器型号 Connect Type	MCX 公直头+MCX 母头
工作温度 Working Temperature ($^{\circ}\text{C}$)	-40 ~ +85
颜色 Radome Color	/



4、Electrical performance report

VSWR



Frequency (MHz)	2400	2450	2500
VSWR	1.17	1.39	1.33

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Passive test data:

Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	1.845714318	-3.471073917	44.96686477
2410	1.687207189	-3.675203866	42.90220497
2420	1.622027796	-3.774241849	41.93491964
2430	1.524246621	-3.841094747	41.29433963
2440	1.513310018	-3.847032858	41.23791643
2450	1.496867764	-3.81678877	41.52609785
2460	1.589075463	-3.699911788	42.65881834
2470	1.584383848	-3.614584637	43.50523674
2480	1.589041356	-3.530837524	44.35231036
2490	1.422152737	-3.554477936	44.11153863
2500	1.201726922	-3.581470065	43.83822825

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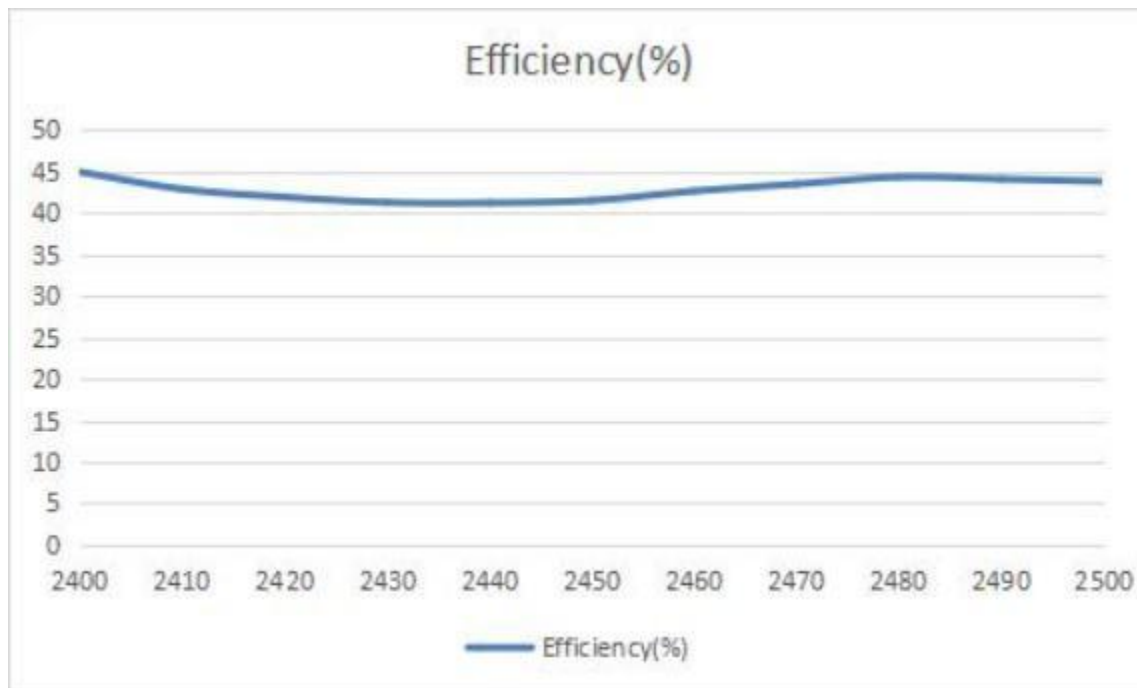


Active data:

b 模			g 模			gn 模		
信道	TRP	TIS	信道	TRP	TIS	信道	TRP	TIS
1	16.02	-78.26	1	14.42	-72.3	1	13.05	-69.33
6	16.42	-78.49	6	13.11	-73.37	6	12.2	-69.26
11	15.42	-78.33	11	12.59	-73.25	11	13.23	-69.49

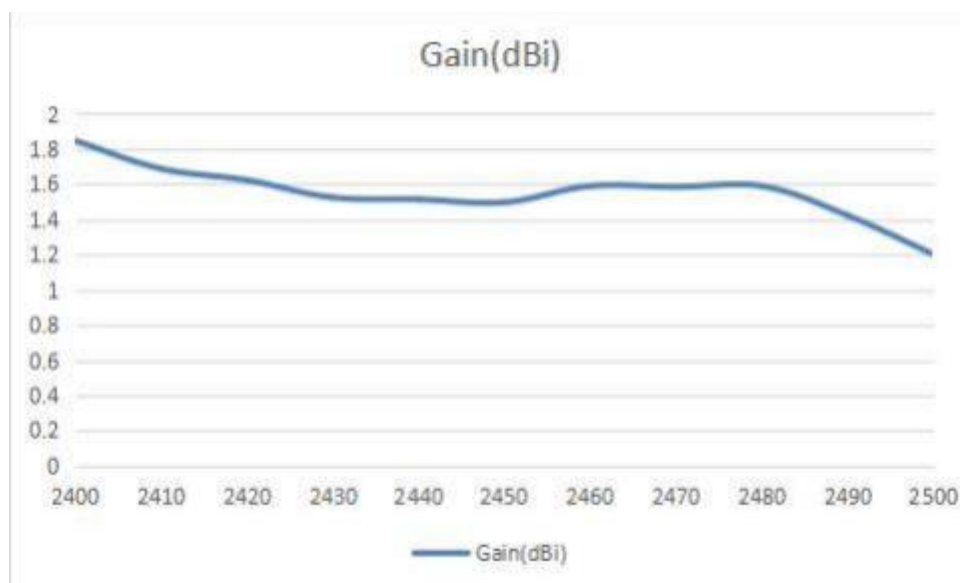


Efficiency line chart:



Frequency (MHz)	2400	2450	2500
Efficiency(%)	44.96	41.52	43.83

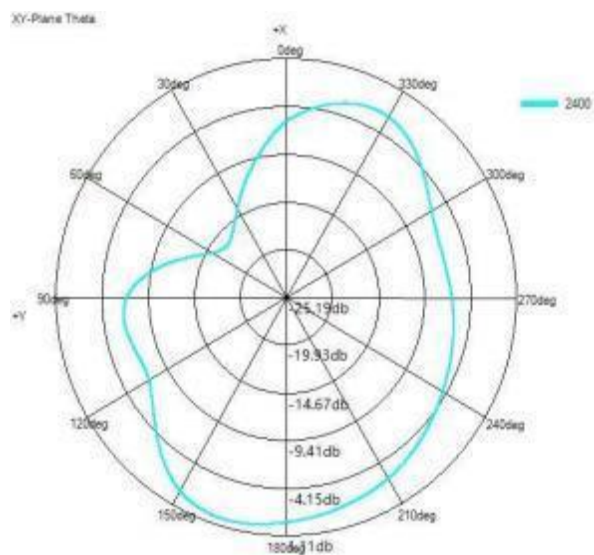
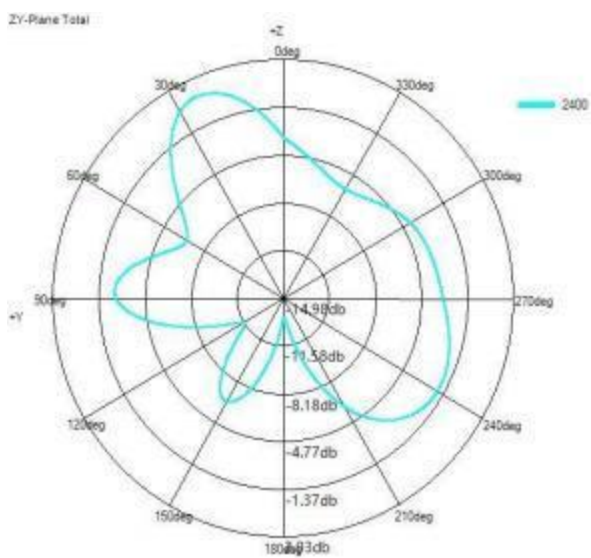
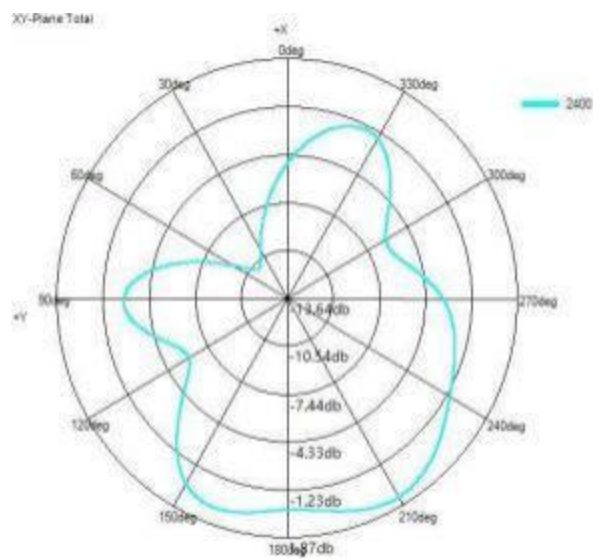
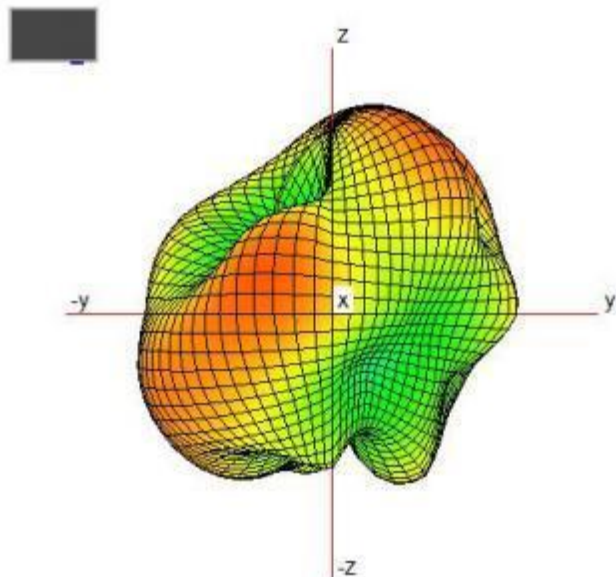
Gain line chart:



Frequency (MHz)	2400	2450	2500
Gain(dbi)	1.84	1.49	1.2

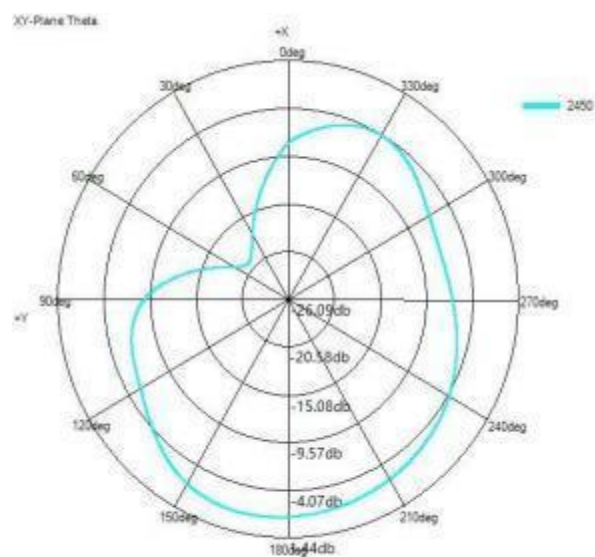
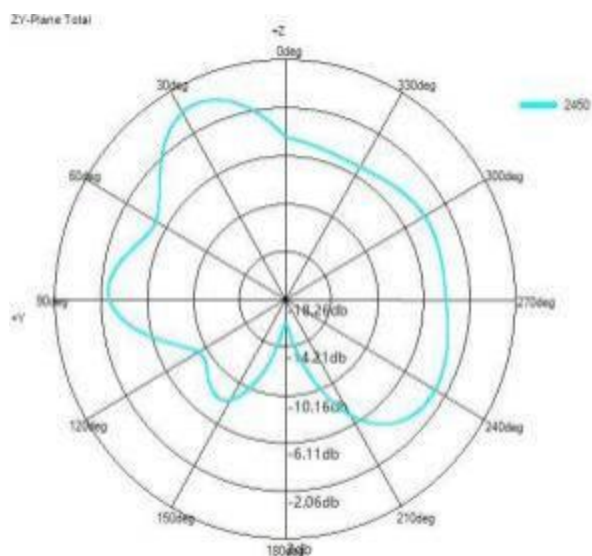
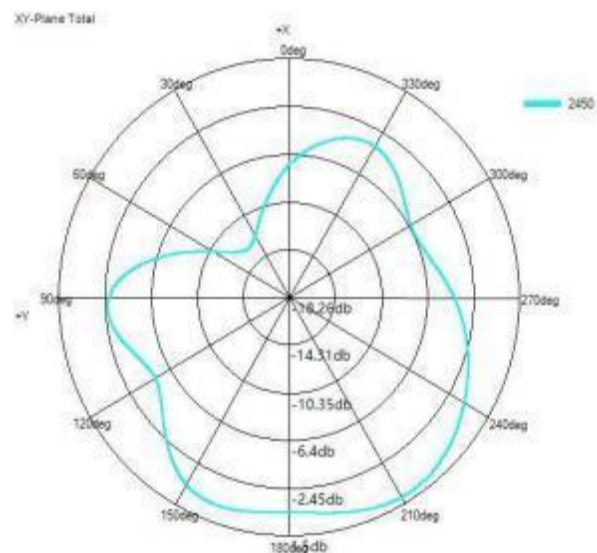
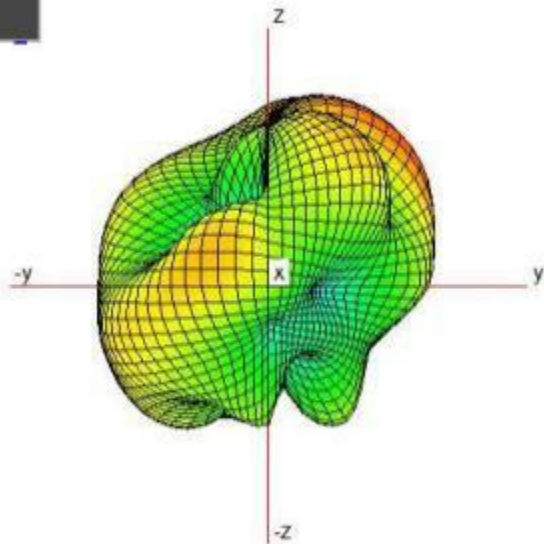
Field diagram:

2400MHZ



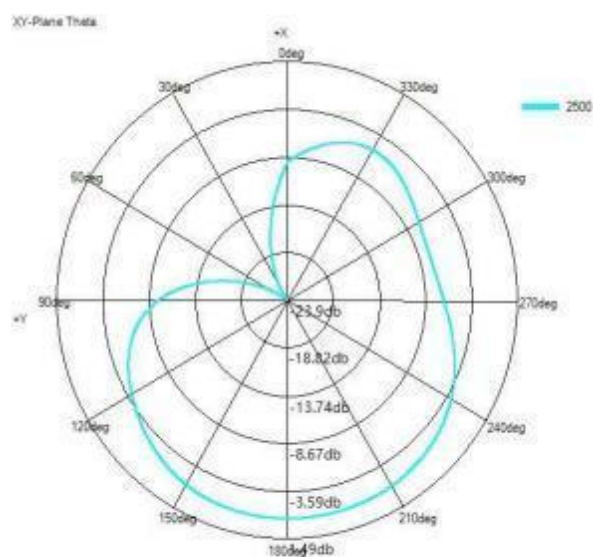
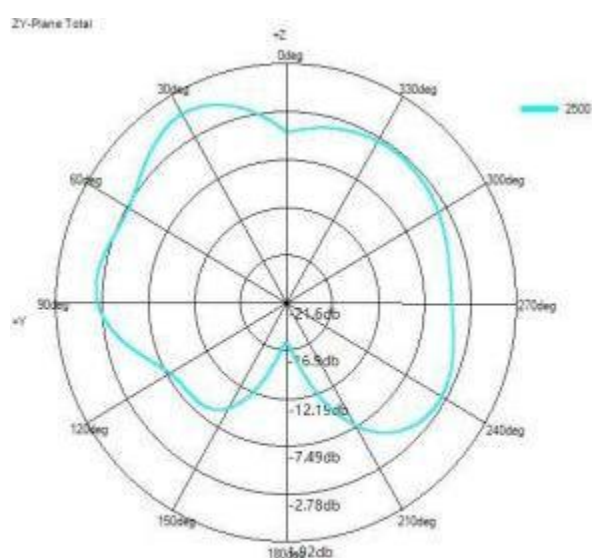
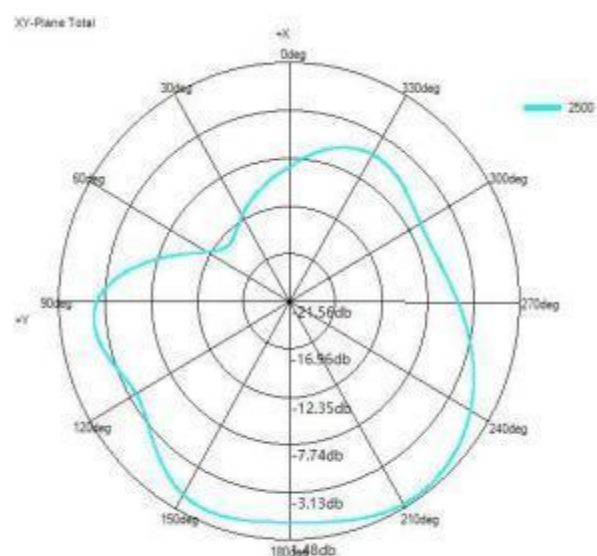
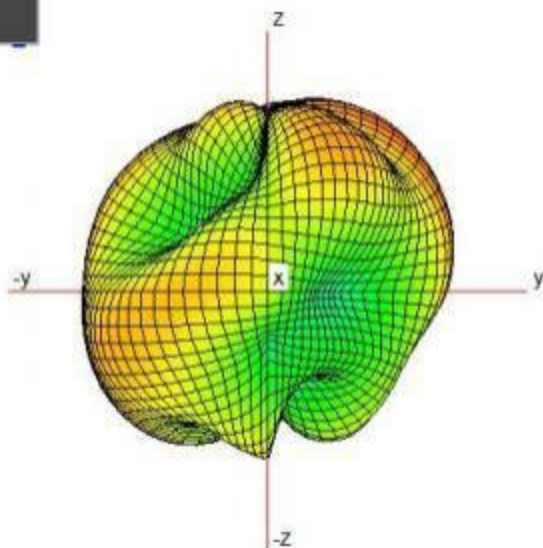
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2450MHZ



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2500MHZ



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五、 Reliability test report

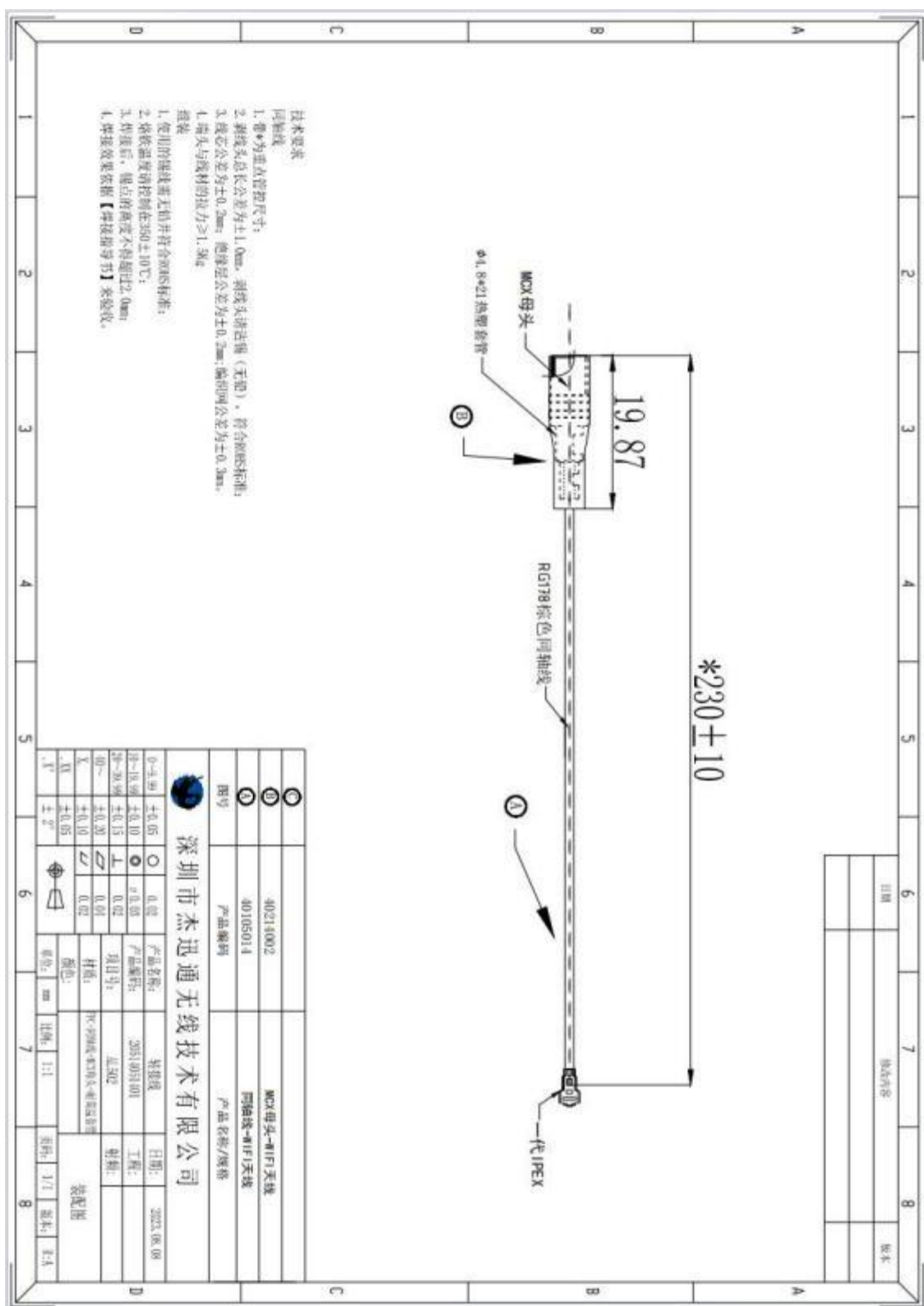
5.1. Salt spray test report

Customers	Ling Du	Part Name	AL502	Completion date	2023-8-6
Testing items	Testing requirements			Actual measurement results	evaluate
Neutral salt spray experiment	Test process: conduct neutral salt spray test on the hardware on the antenna. In a closed environment of 35 °C± 2 °C, the humidity is more than 85%, and the PH value is within the range of 6.5-7.2. After using 5% ± 1% Nacl solution and continuous 24h saline spray, the product surface should be free of rust, discoloration, and coating peeling.			After the experiment, the surface of the product has no rust, no discoloration, and no peeling of the coating.	qualified
Experiment: Wang Ming			Approved by: Wang Ming		

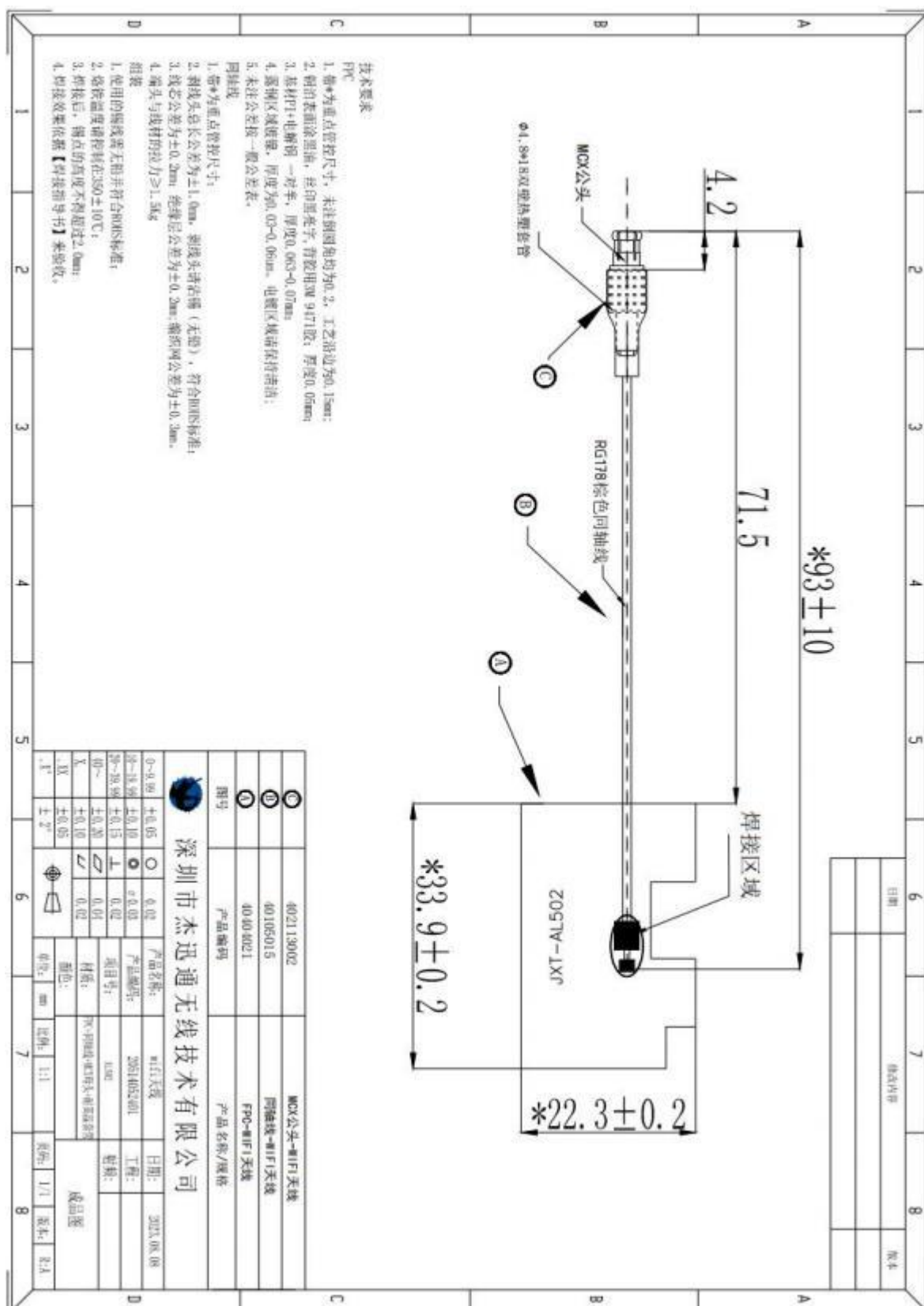


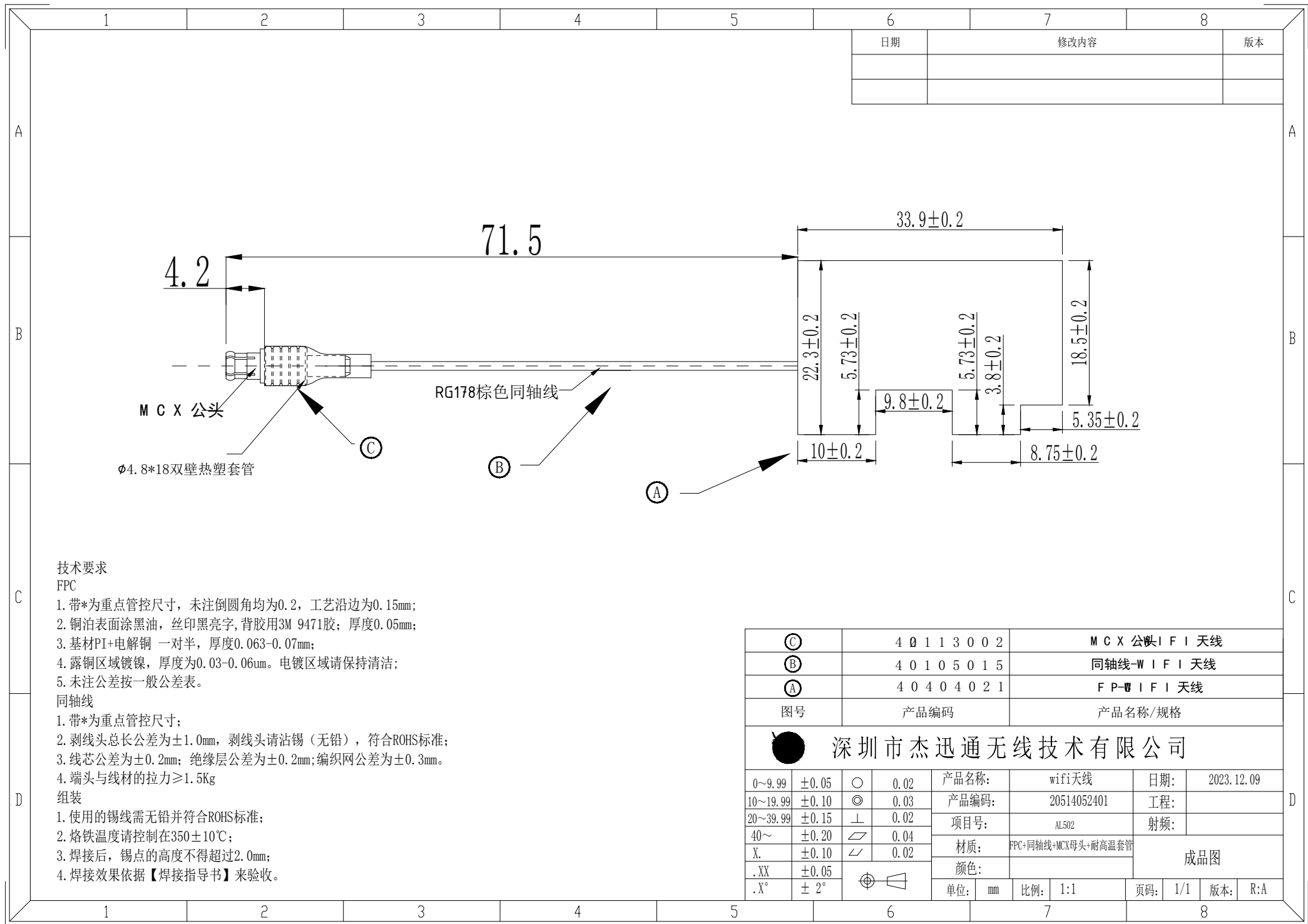
Antenna testing instrument

六. Engineering drawings



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③	4 0 1 1 3 0 0 2	M C X 公头 I F I 天线
②	4 0 1 0 5 0 1 5	同轴线-W I F I 天线
①	4 0 4 0 4 0 2 1	F P C-W I F I 天线
图号	产品编码	产品名称/规格

● 深圳市杰迅通无线技术有限公司							
0~9.99	±0.05	○	0.02	产品名称:	wifi天线	日期:	2023.12.09
10~19.99	±0.10	◎	0.03	产品编码:	20514052401	工程:	
20~39.99	±0.15	⊥	0.02	项目号:	AL502	射频:	
40~	±0.20	∕	0.04	材质:	FPC+同轴线+MCX母头+耐高温套管	成品图	
X.	±0.10	∕	0.02	颜色:			
.XX	±0.05	⊕		单位:	mm	比例:	1:1
.X°	± 2°			页码:	1/1	版本:	R:A