

## Specification of JT10A FPC Antenna

<b>Project</b>	JT10A ear support		<b>Frequency Band</b>	BT(2400-2500) MHz	
<b>P/N</b>	Left F-2V-7Z-0001-001-K0 Right F-2V-7Z-0001-002-K0		<b>Version</b>	S01	
<b>Date</b>	2023/11/01				
<b>SPEED</b>					
<b>Checked by</b>	<b>RF</b>	Ruliang Zhang	<b>Design by</b>	<b>RF</b>	Yu Wang
	<b>ME</b>	Kevin Wang		<b>ME</b>	Rui Wang
			<b>Remark</b>		
<b>Customer</b>					
<b>Date</b>					
<b>Confirmed by</b>	<b>RF</b>				
	<b>ME</b>				
<b>Remark</b>					

**Antenna Supplier Name:** Huizhou SPEED Wireless Technology Co., Ltd

**Address:** No. SX-01-02, Shangxia District, Dongjiang High-Tech Zone, Huizhou City, Guangdong Province

# 1 Introduction

The antenna covers the band:BT(2400MHz-2500MHz)  
 Antenna properties were measured in the actual environment plane.

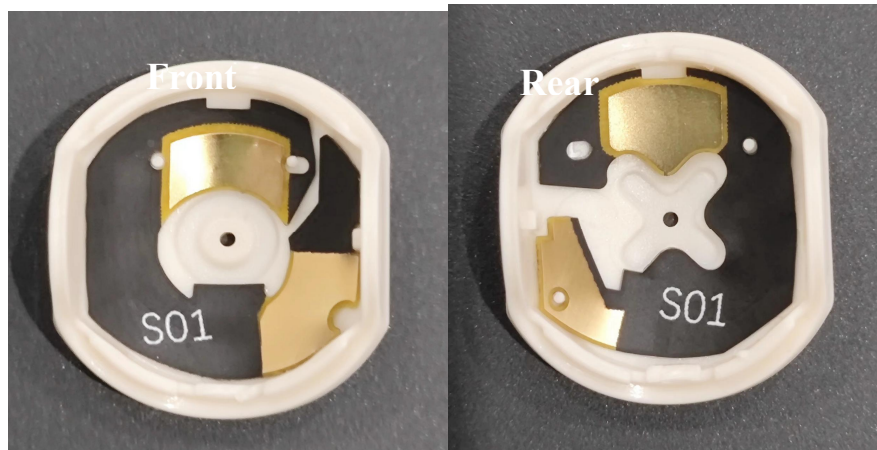


Figure 1: FPC Antenna

# 2 Electrical Performance

## 2.1 Specification

Antenna Passive Performance		
Antenna Bands		
1	Operation Frequency (MHz)	2400-2500
2	Return Loss (dB)	-15
3	Zenith Gain(dBi)	Peak gain left:-2.6 right:-3.5
4	Efficiency (%)	Left:11 Right: 8.5
5	Polarization	Vertical polarization
6	Impedance	50Ω

## 2.2 Test Set-up

The return loss and VSWR were measured with Agilent E5071C.

The efficiency and gain were measured in ETS-Lindgren Chamber as shown by picture2.

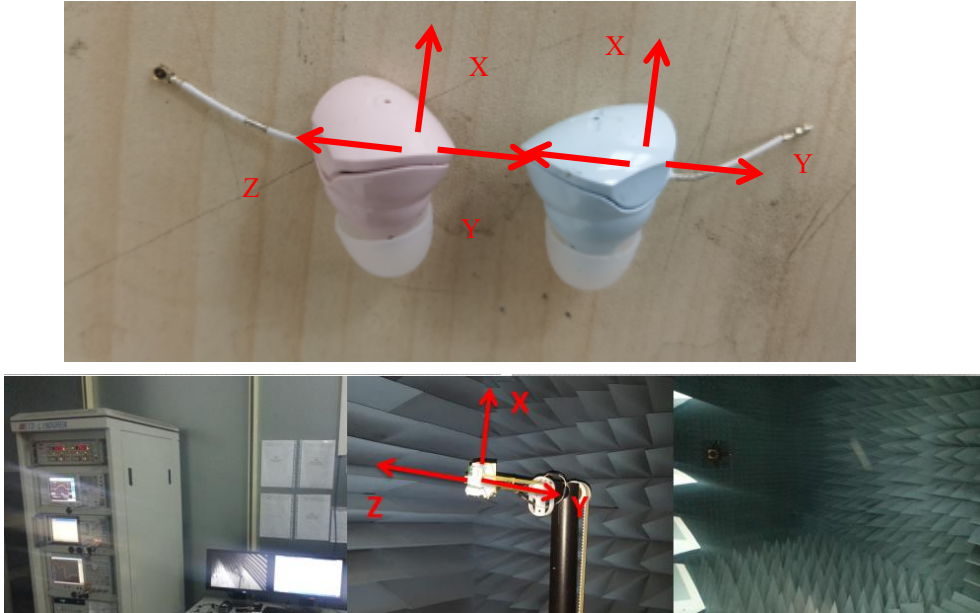
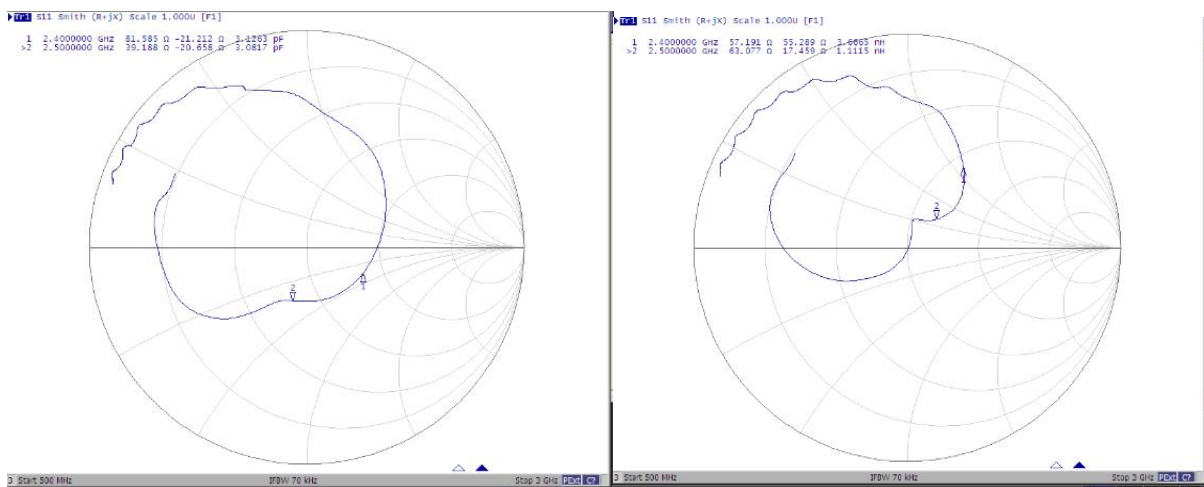


Figure 2: ETS chamber and measurement system

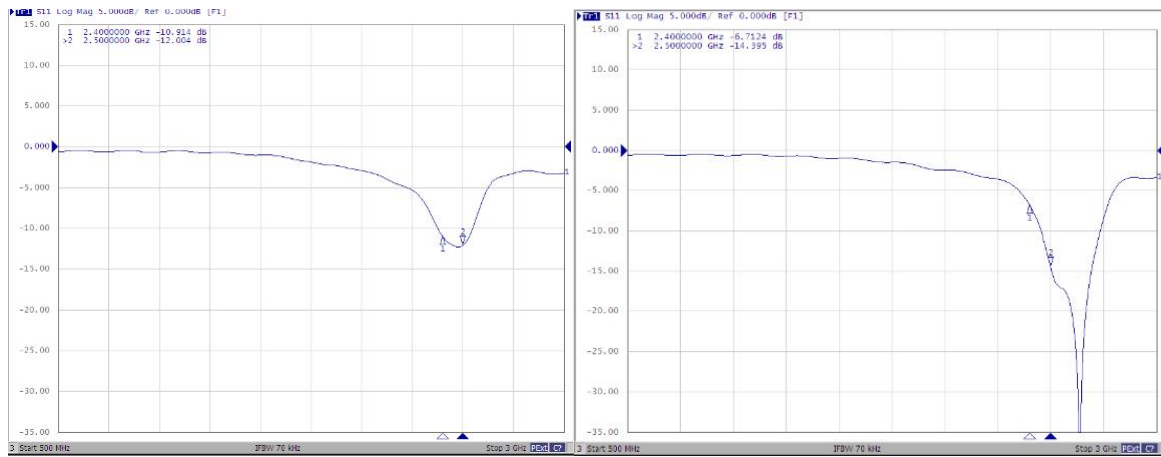
## 2.3 Smith Chart & Return Loss & VSWR



left

right

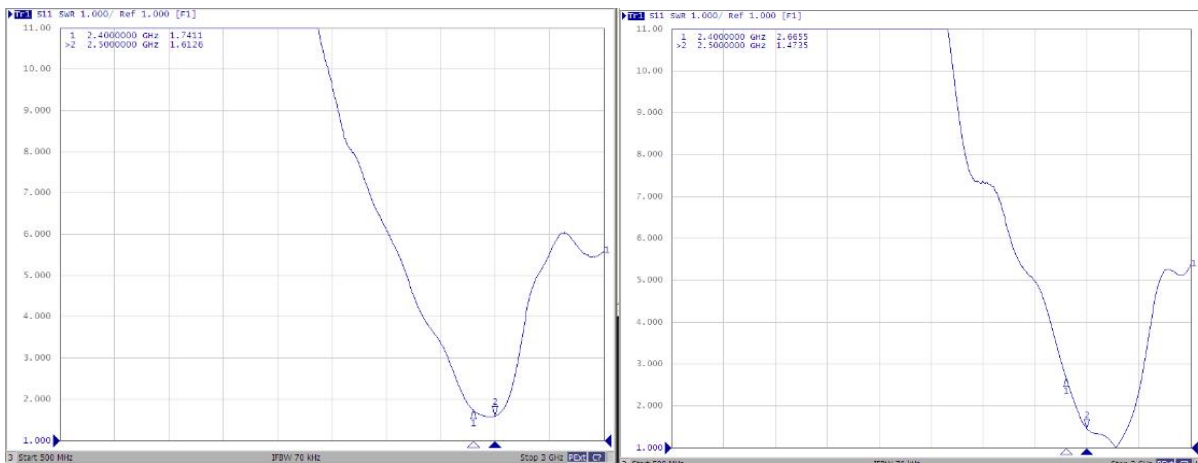
## Smith



left

right

## Return Loss

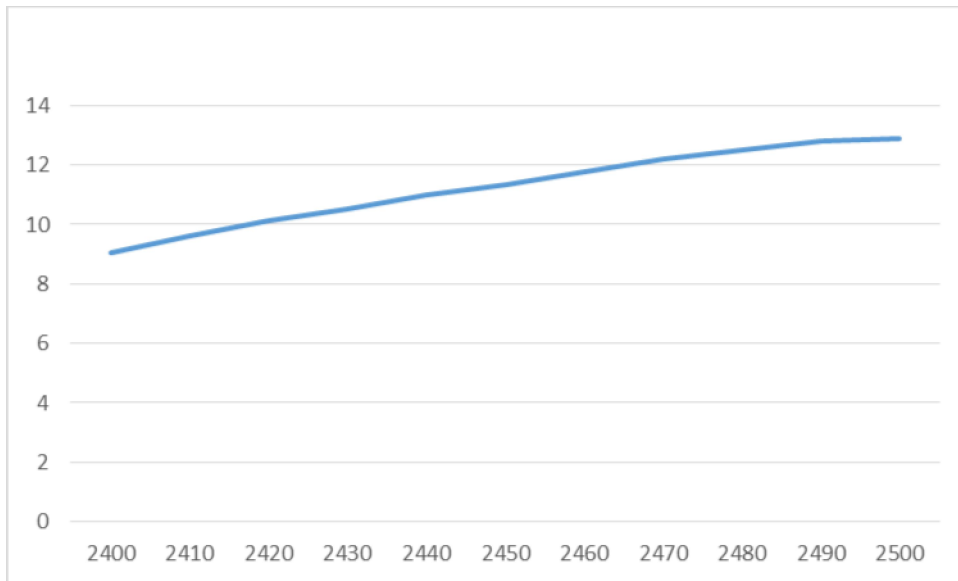


left

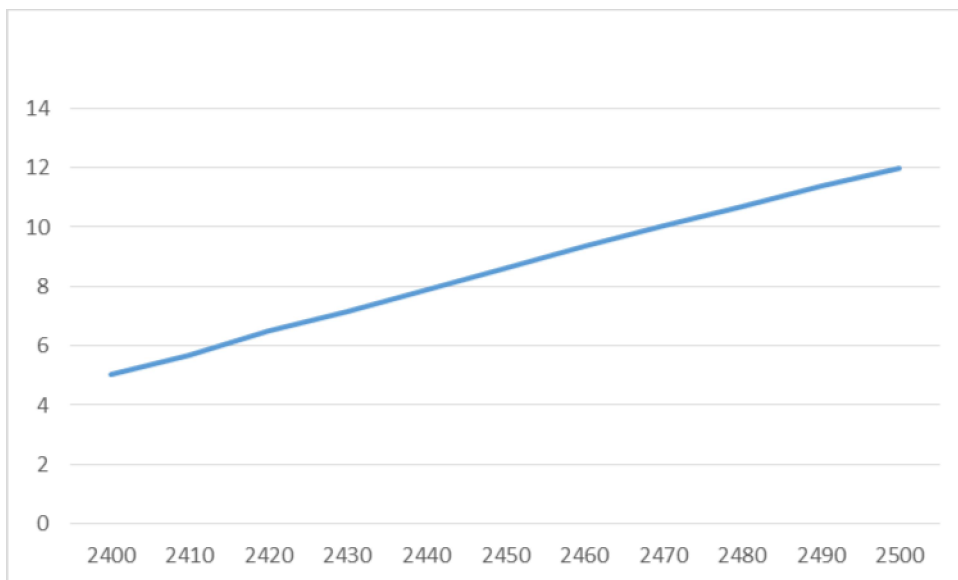
right

## VSWR

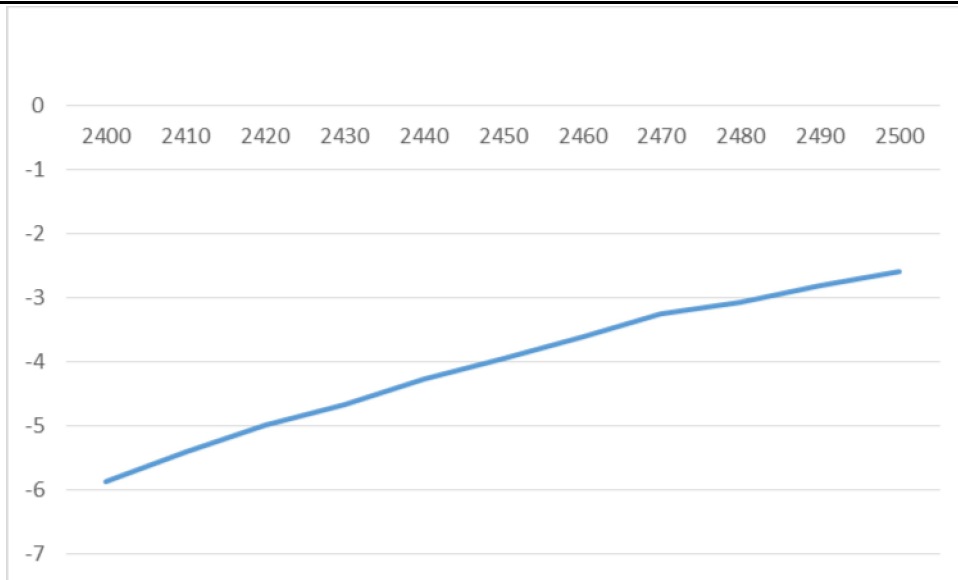
## 2.4 Efficiency and Gain



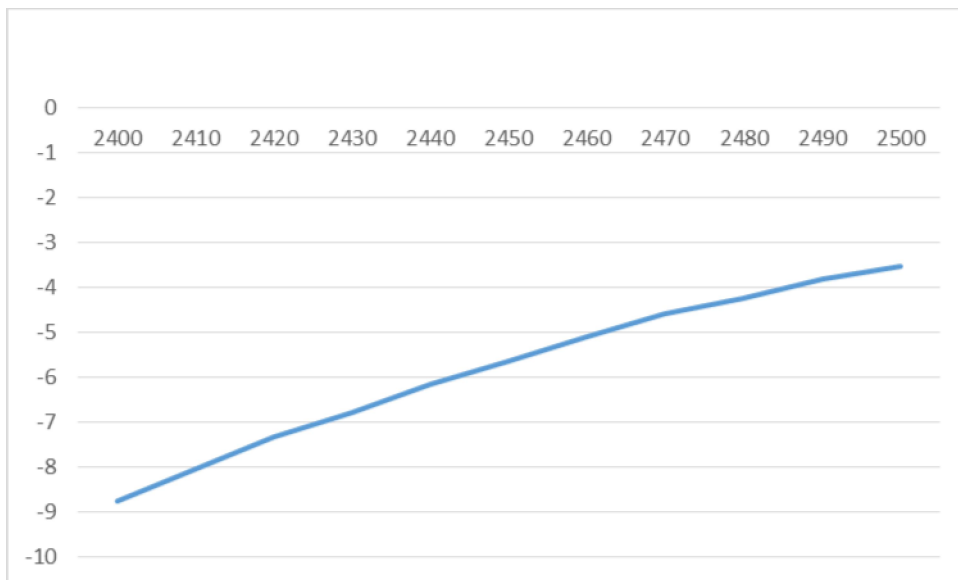
Efficiency(left)



Efficiency(right)

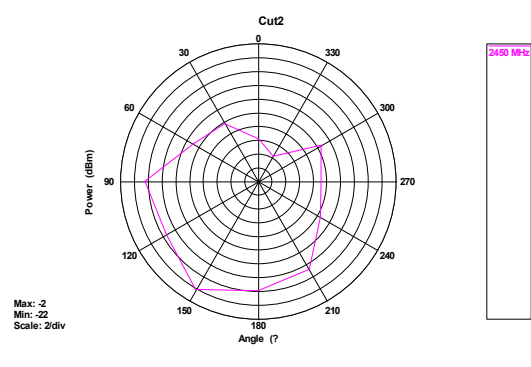
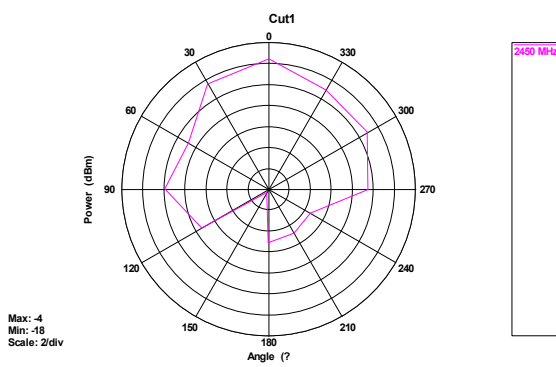


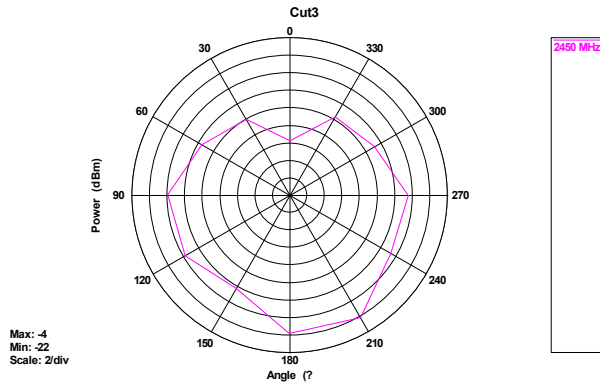
Peak Gain(left)



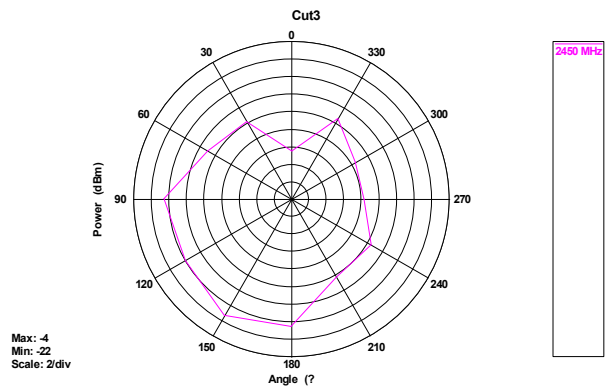
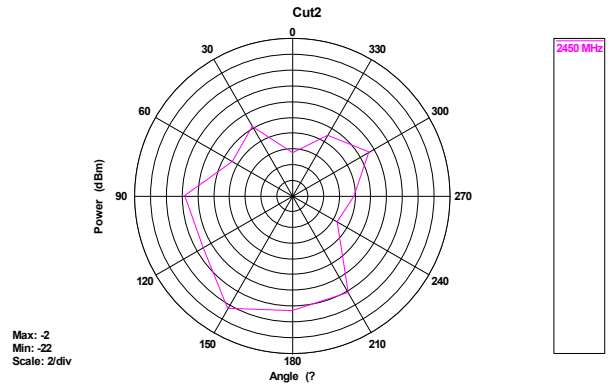
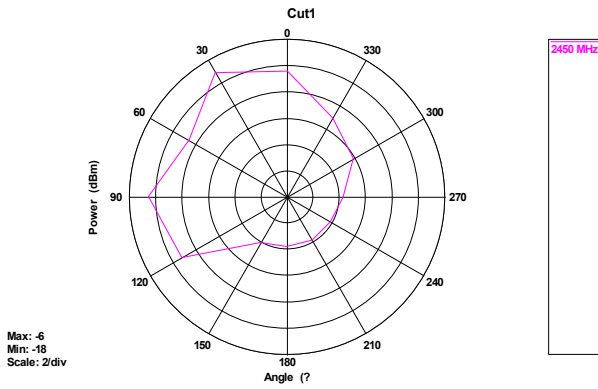
Peak Gain(right)

## 2.5 Gain and Radiation Pattern

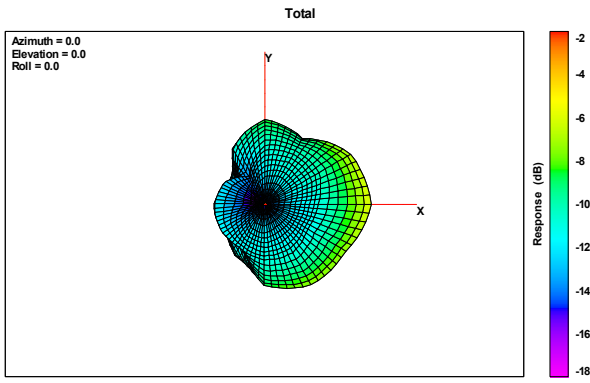




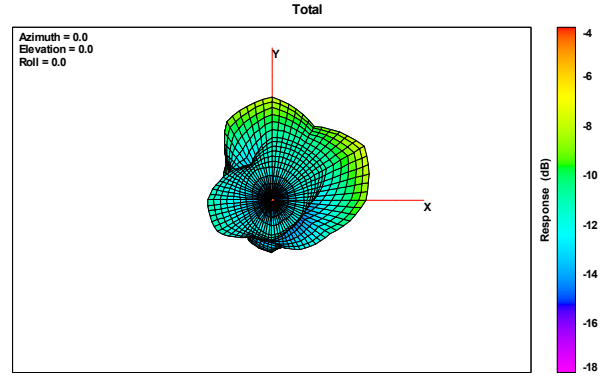
### 2D pattern(left)



### 2D pattern (right)

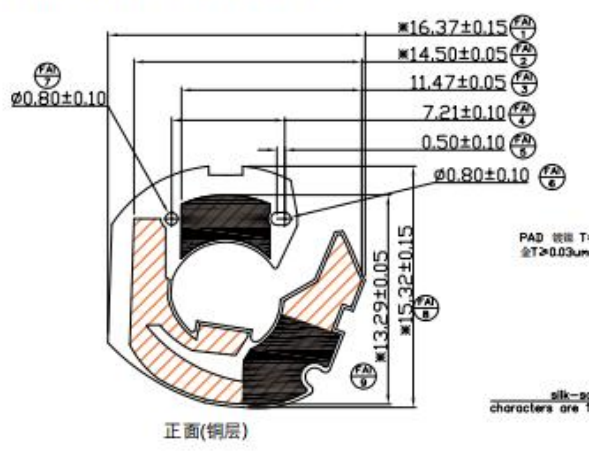





3D radiation pattern(left)



3D radiation pattern(right)

### 3 Mechanical Drawing (Units: mm)

<p>技术要求:</p> <ol style="list-style-type: none"> <li>图中序号FAI为首件测量尺寸, CTQ为重点管控尺寸;</li> <li>未注尺寸以电子档为准, 未注公差符合SJ20810-2002标准里面的C级标准;</li> <li>表面各部分色泽均匀、干净、整齐、无脏污、毛边、刮花等不良;</li> <li>满足本公司可靠性试验, 盐雾测试48H.</li> <li>有害物质必须符合本公司的 SZS-B-3-C-00-017 环境相关物质管理规范.</li> <li>采取来料半切+顺拼包装;</li> <li>FPC来料色表面颜色一致, 无色差现象.</li> </ol>				<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>标记</th> <th>处数</th> <th>更改内容</th> <th>签名</th> <th>日期</th> <th>备注</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>量产首次发行</td> <td>王锐</td> <td>20231106</td> <td></td> </tr> </tbody> </table>		标记	处数	更改内容	签名	日期	备注			量产首次发行	王锐	20231106																																															
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A	 <p>正面(铜层)</p> <p>背面(胶面)</p> <p>丝印白字, 字符高度1.5mm</p> <p>PAD 镀层 T=2-7um, 金T&gt;0.03um</p>				B																																																										
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