

Specification of JT10A FPC Antenna

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

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.

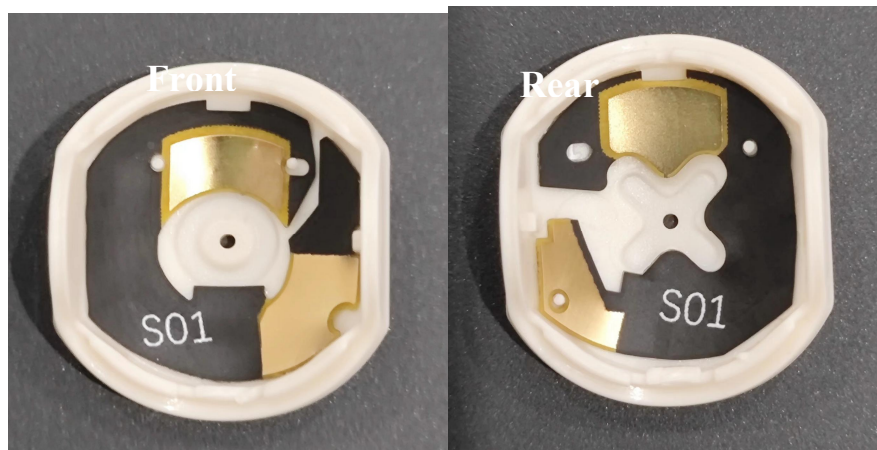


Figure 1: FPC Antenna

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.

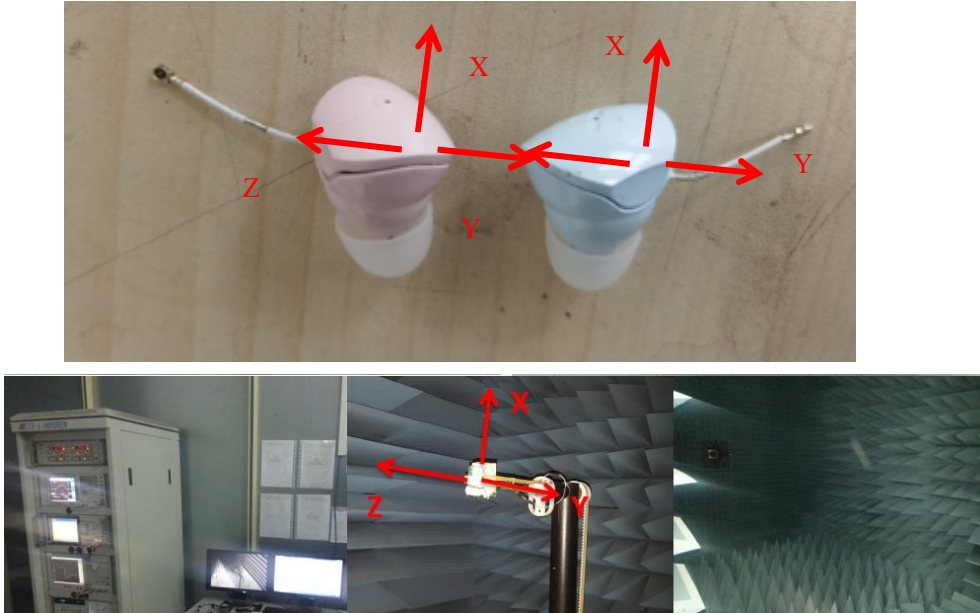
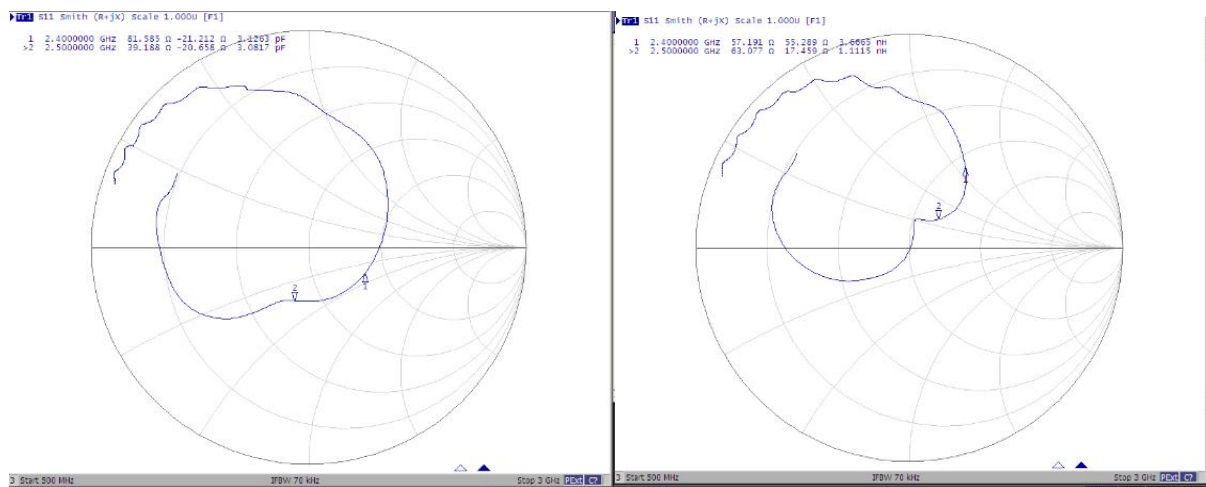


Figure 2: ETS chamber and measurement system

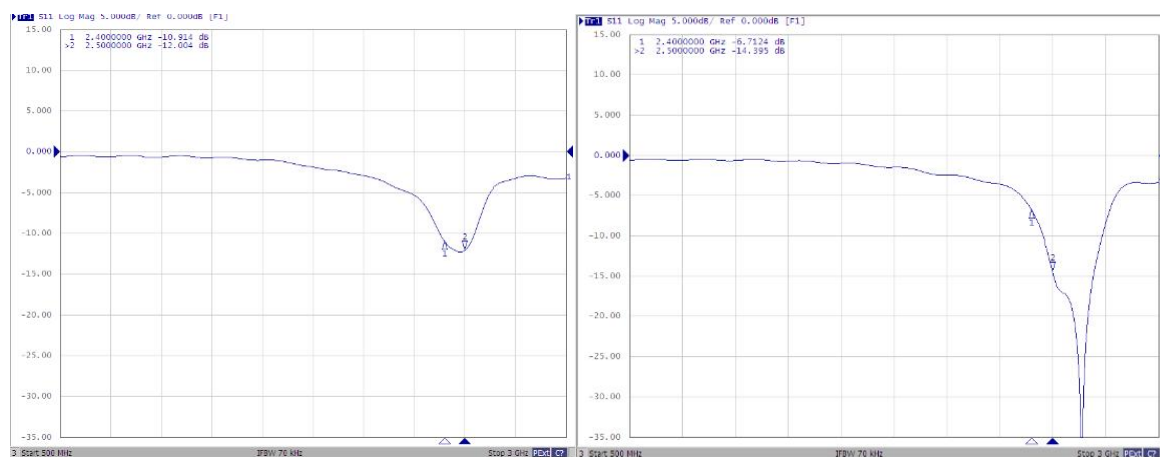
2.3 Smith Chart & Return Loss & VSWR



left

right

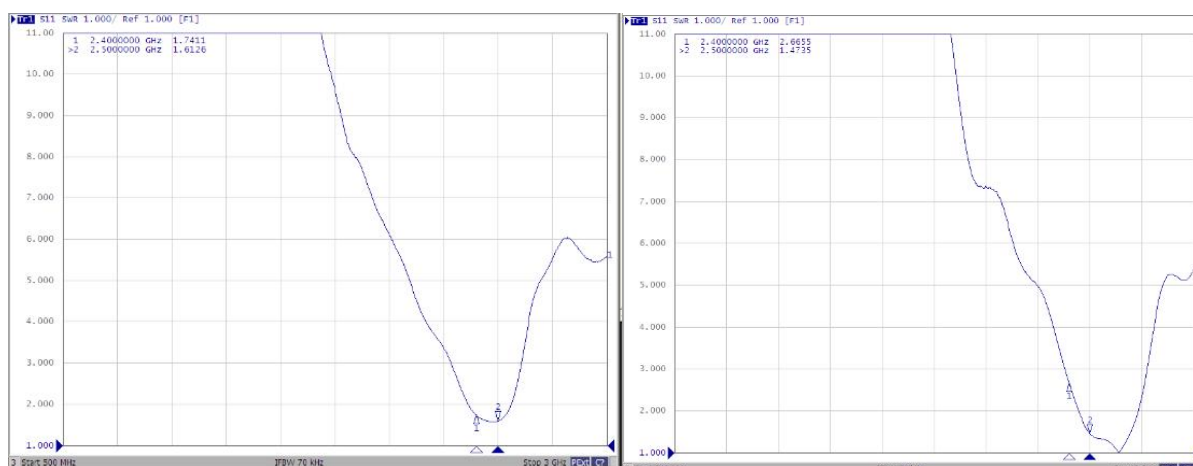
Smith



left

right

Return Loss

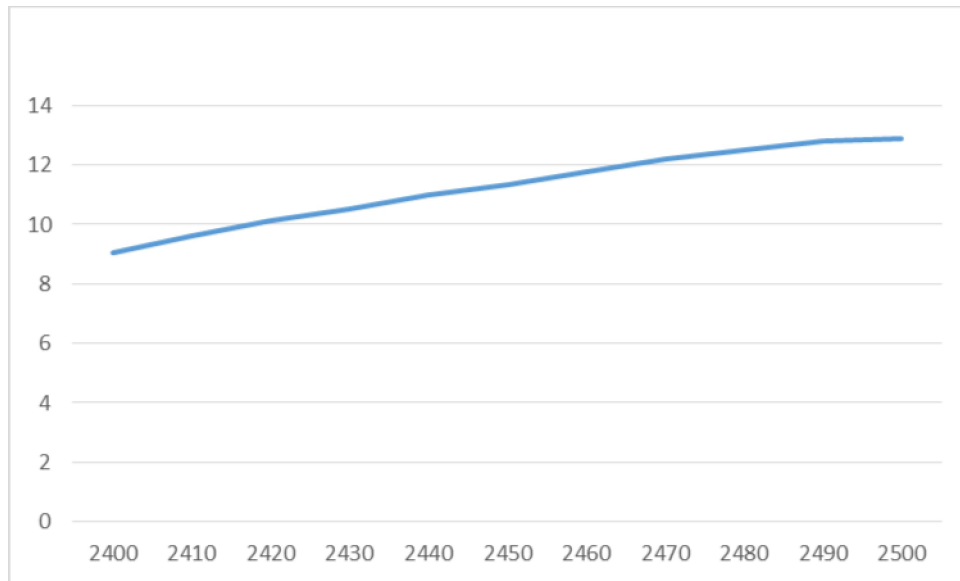


left

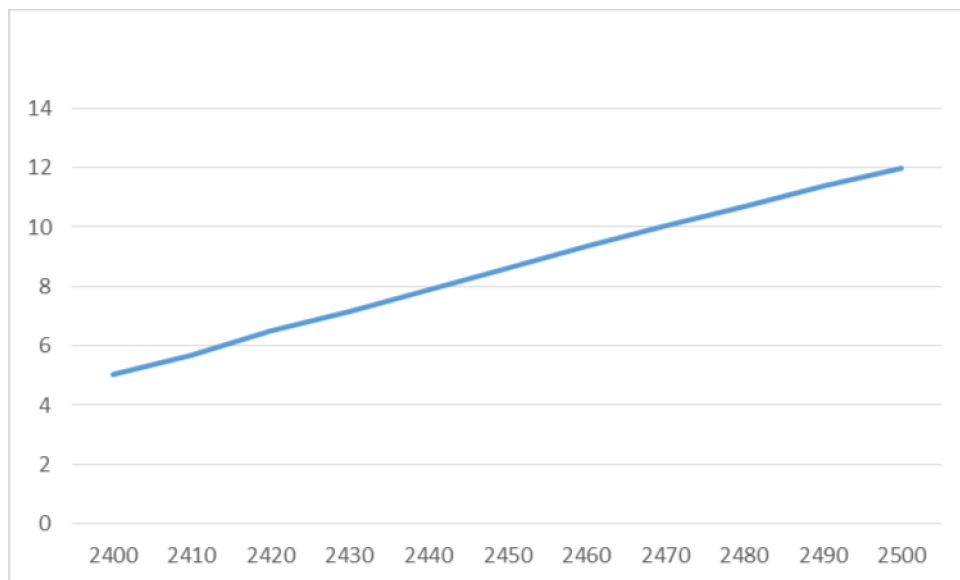
right

VSWR

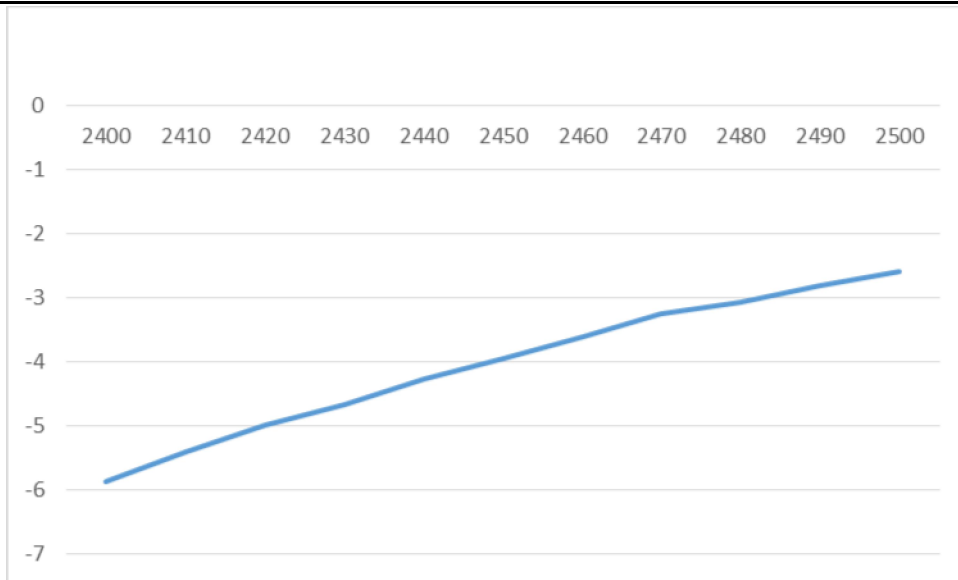
2.4 Efficiency and Gain



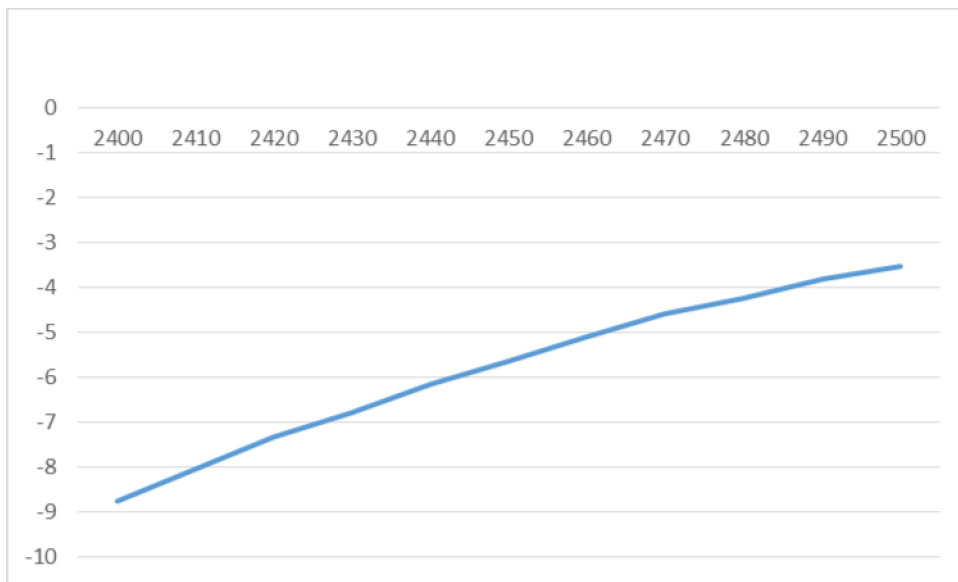
Efficiency(left)



Efficiency(right)

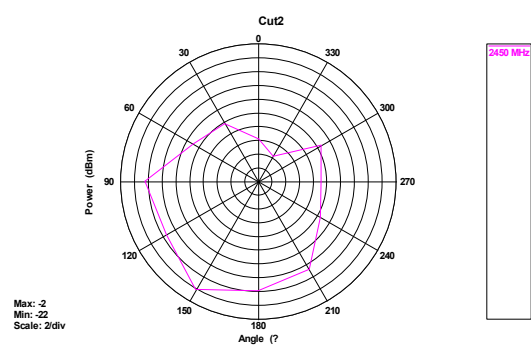
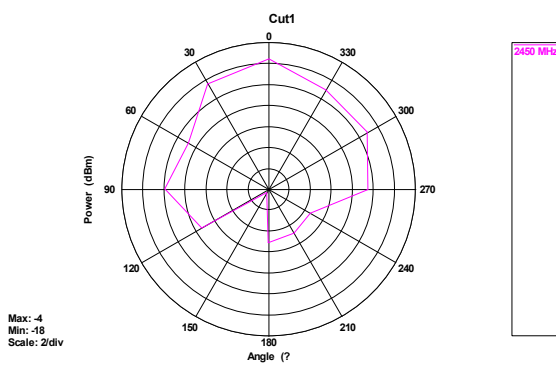


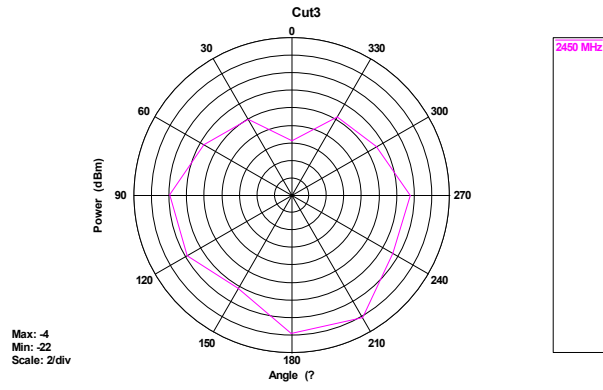
Peak Gain(left)



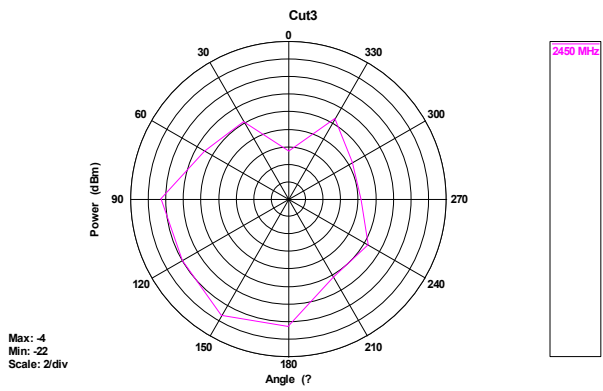
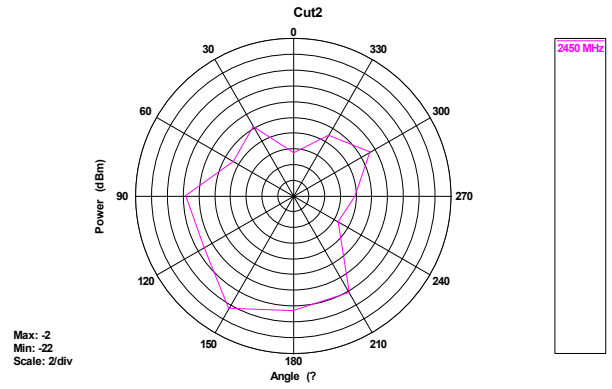
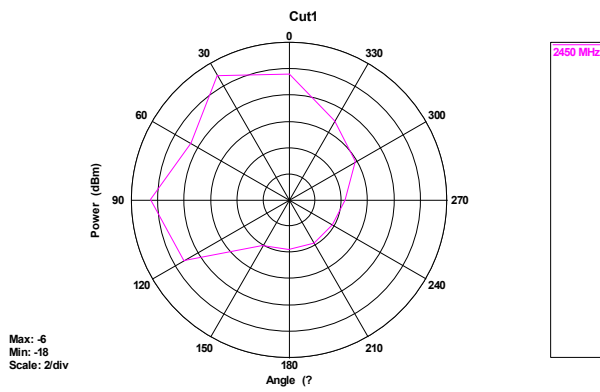
Peak Gain(right)

2.5 Gain and Radiation Pattern

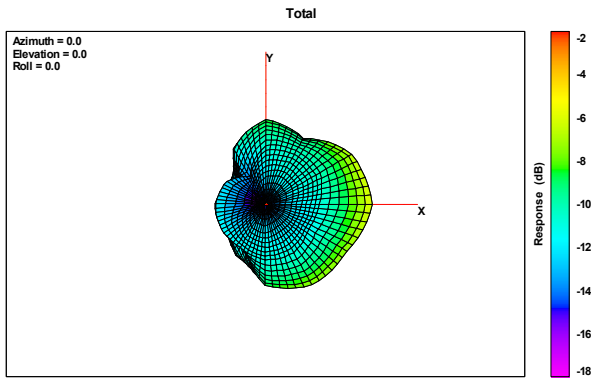




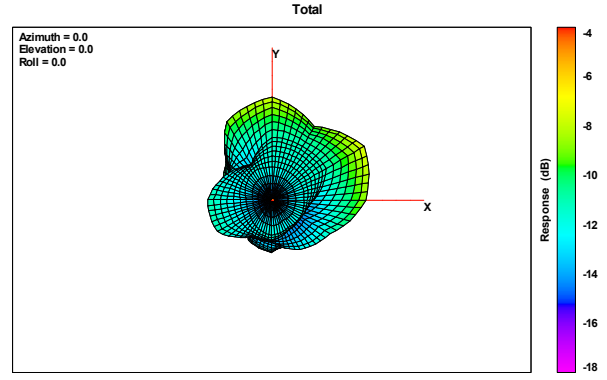
2D pattern(left)



2D pattern (right)

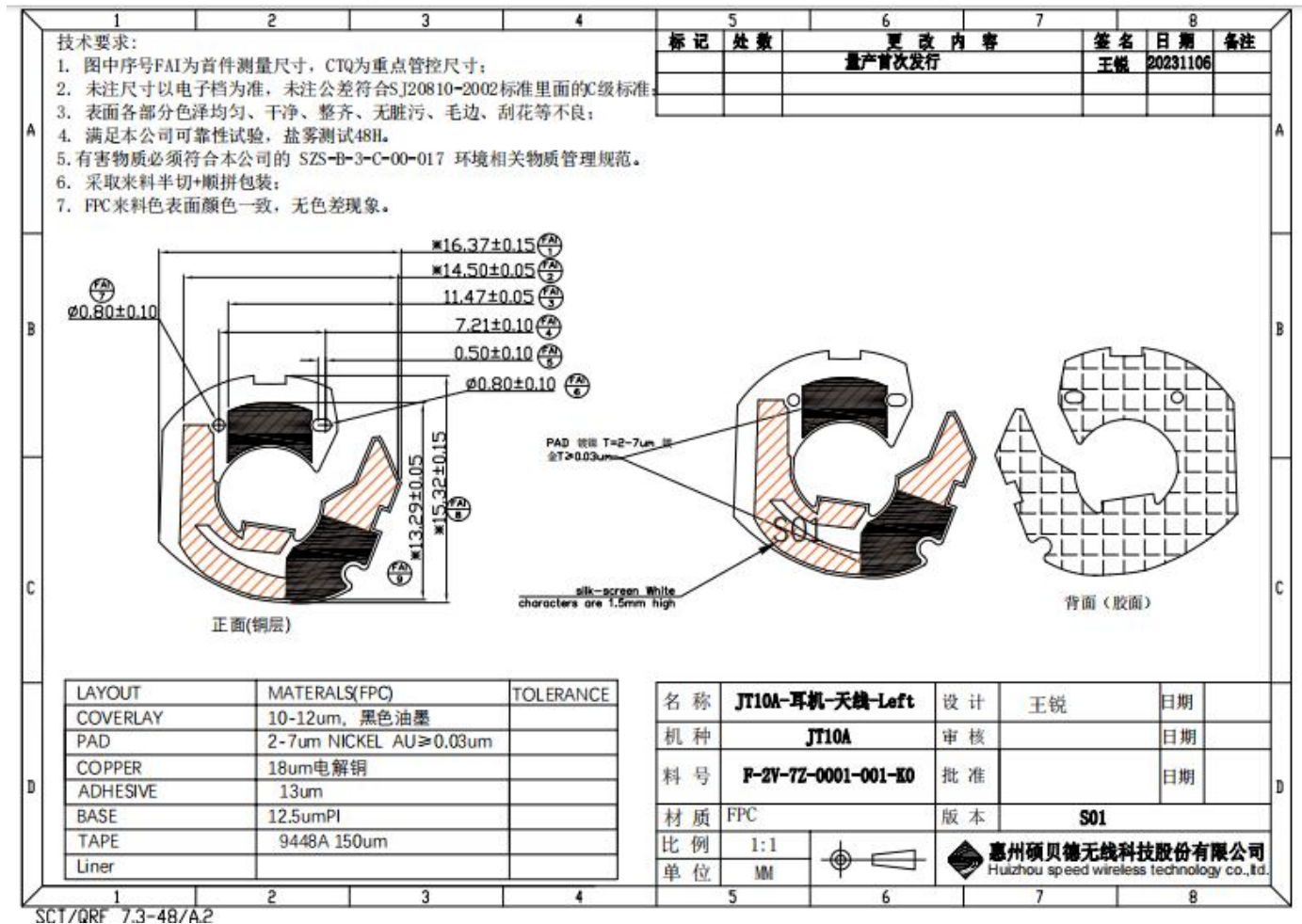


3D radiation pattern(left)



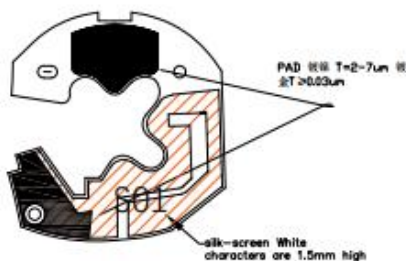
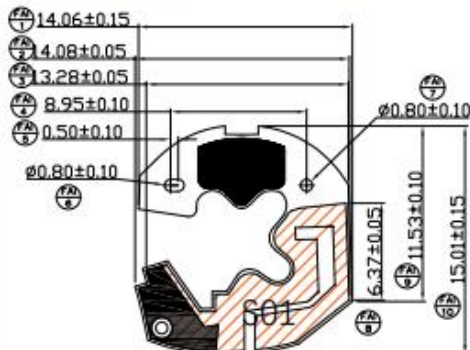
3D radiation pattern(right)

3 Mechanical Drawing (Units: mm)

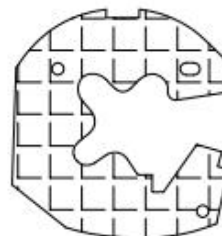


技术要求:

1. 图中序号FAI为首件测量尺寸, CTQ为重点管控尺寸;
2. 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;
3. 表面各部分色泽均匀、干净、整齐、无脏污、毛边、刮花等不良;
4. 满足本公司可靠性试验, 盐雾测试48H。
5. 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。
6. 采取来料半切+顺拼包装;
7. FPC来料色表面颜色一致, 无色差现象。



正面(铜层)



背面(胶面)

LAYOUT	MATERIALS(FPC)	TOLERANCE
COVERLAY	10-12um, 黑色油墨	
PAD	2-7um NICKEL AU≥0.03um	
COPPER	18um电解铜	
ADHESIVE	13um	
BASE	12.5umPI	
TAPE	9448A 150um	
Liner		

名称	JT10A-耳机-天线-Right	设计	王锐	日期	
机种	JT10A	审核		日期	
料号	F-2Y-7Z-0001-002-E0	批准		日期	
材质	FPC	版本	S02		
比例	1:1				
单位	MM				

惠州硕贝德无线科技股份有限公司
Huizhou speed wireless technology co., ltd.

SCT/GRF 7.3-48/A.2