



# Antenna Part Specification

Customer name:	Tianjian
Project name:	M01
Material category:	BT antenna
Version:	V1.0
Date:	2023.08.14



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变更记录栏 Change record			
编制/变更日期 Compile / change date	变更理由 Reason for change	变更内容 Changed content	版本 Version
2023.08.14	初版发行 first edition	初版发行 first edition	V1.0



# 一：无源测试报告

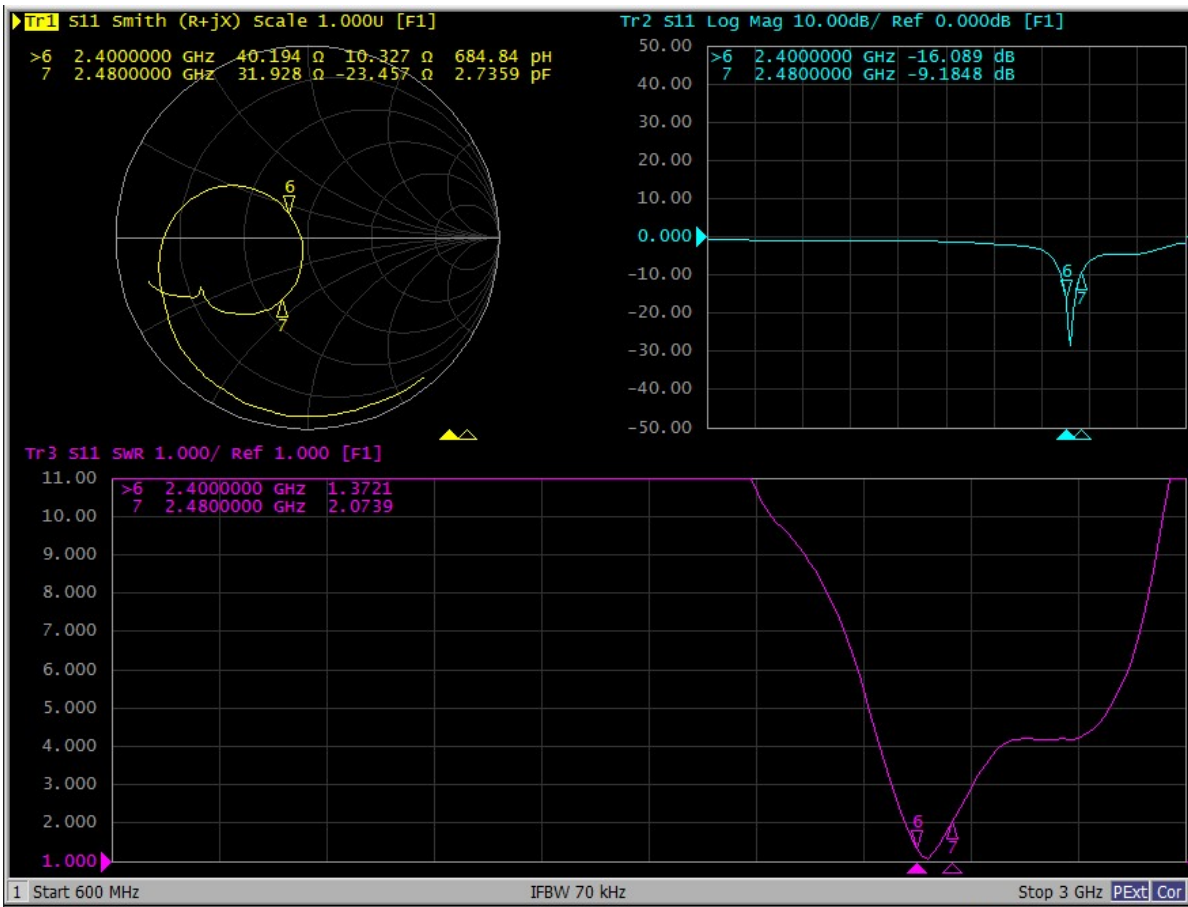
## I: The report of passive data



Angilent E5071C

### 左耳天线 S 参数（自由空间）

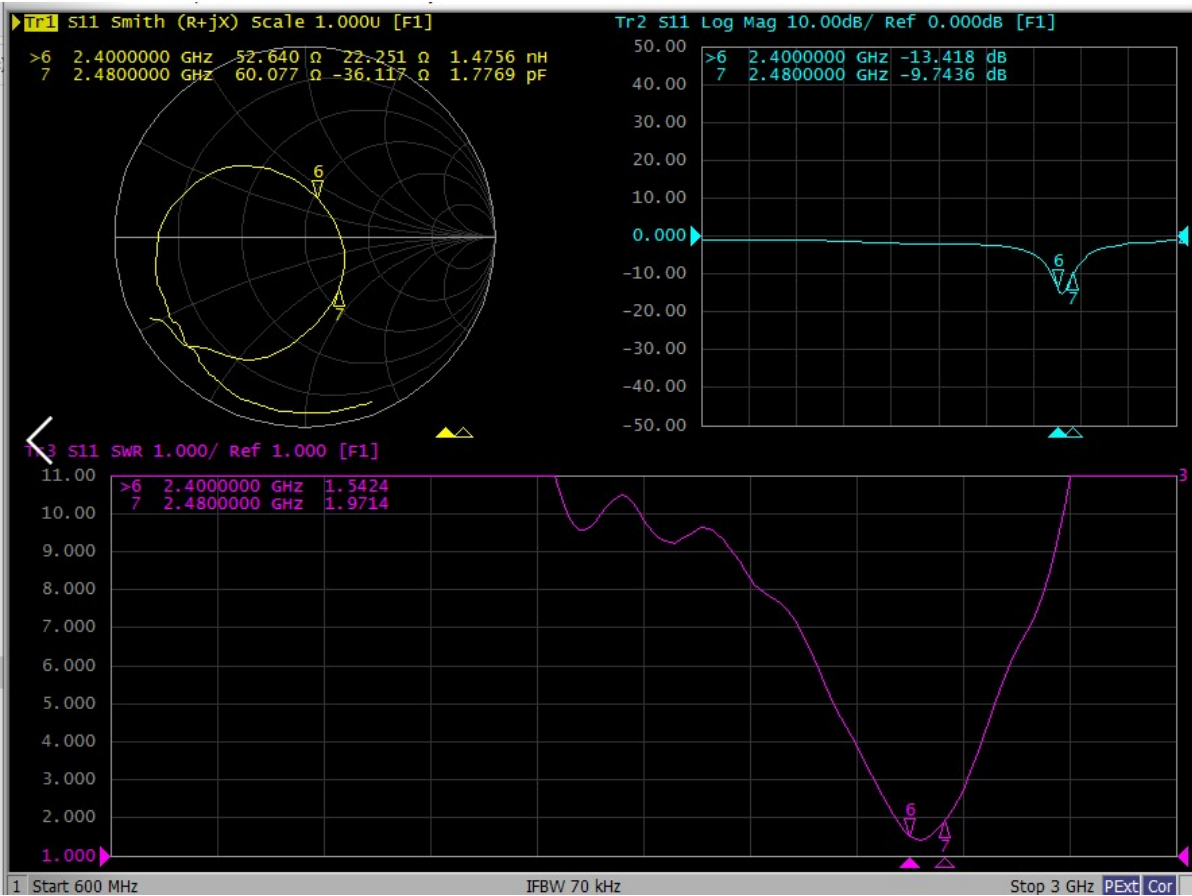
### Left antenna VSWR(S11) parameter (free space)





# 左耳天线 S 参数 (头模)

## Left antenna VSWR(S11) parameter (headform)





左耳天线无源效率与增益（自由空间）

Passive efficiency and gain of left ear antenna (free space)

L			
Frequency (MHz)	Gain (dBi)	Efficiency (dB )	Efficiency
2400	-3.03	-6.30	23.43
2410	-3.23	-6.32	23.35
2420	-3.26	-6.39	22.97
2430	-2.99	-6.20	24.00
2440	-3.01	-6.19	24.06
2450	-2.65	-5.74	26.66
2460	-2.31	-5.31	29.41
2470	-2.47	-5.40	28.84
2480	-2.42	-5.33	29.28
Average value	-2.82	-5.91	25.78

左耳天线无源效率与增益（头模）

Passive efficiency and gain of left ear antenna (headform)

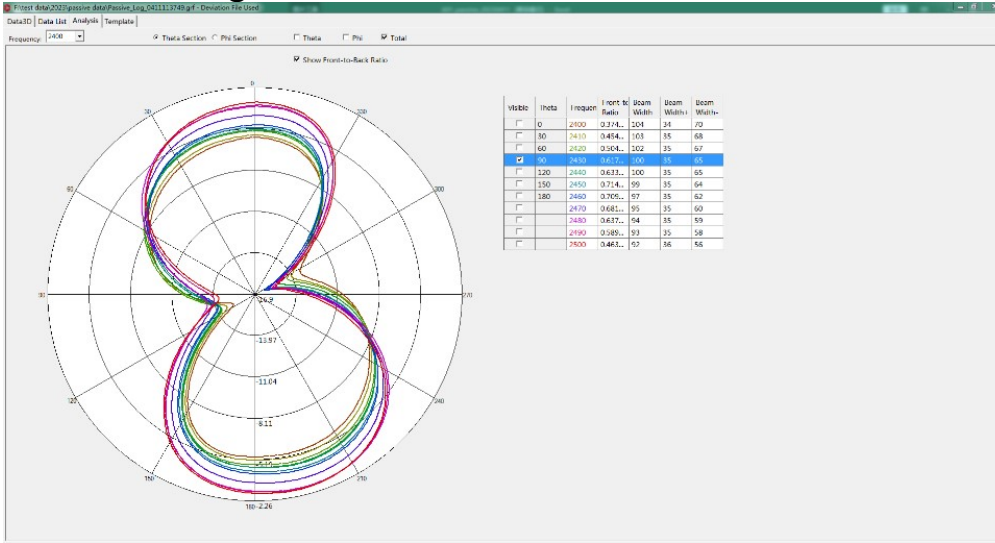
L			
Frequency (MHz)	Gain (dBi)	Efficiency (dB )	Efficiency
2400	-5.1	-11.1	7.8
2410	-5.0	-11.2	7.6
2420	-5.0	-11.3	7.5
2430	-4.7	-11.1	7.7
2440	-4.6	-11.1	7.7
2450	-4.2	-10.8	8.3
2460	-3.8	-10.5	8.9
2470	-3.8	-10.6	8.7
2480	-3.9	-10.6	8.7
Average value	-4.45	-10.92	8.11



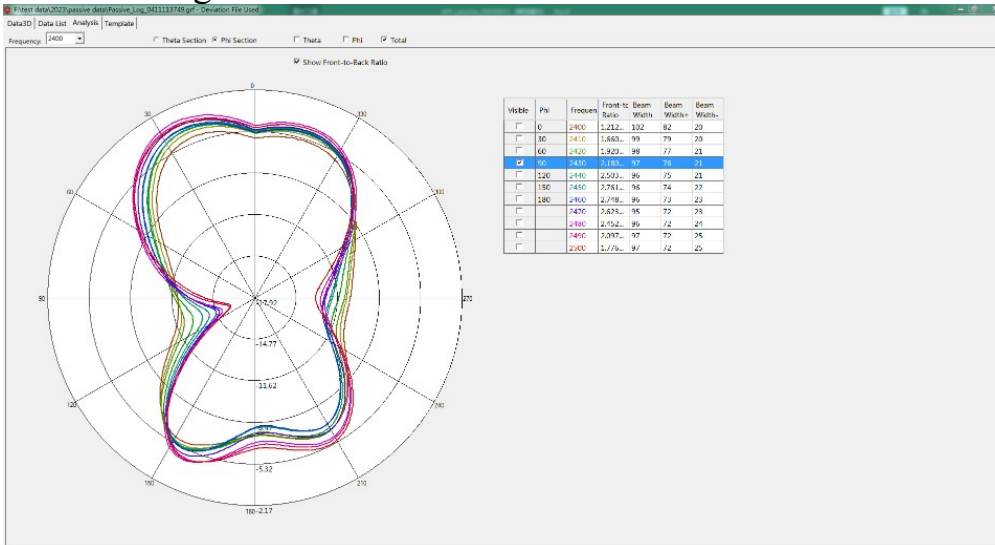
# 天线无源方向图（自由空间）

## Antenna radiation pattern (free space)

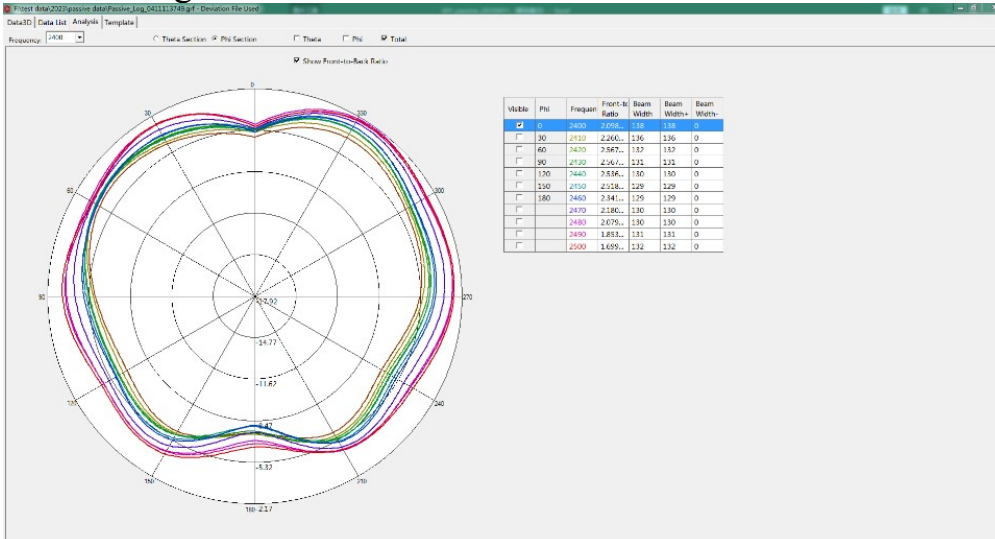
### Theta=90.00deg



### Phi=90.00deg



### Phi=0.00deg

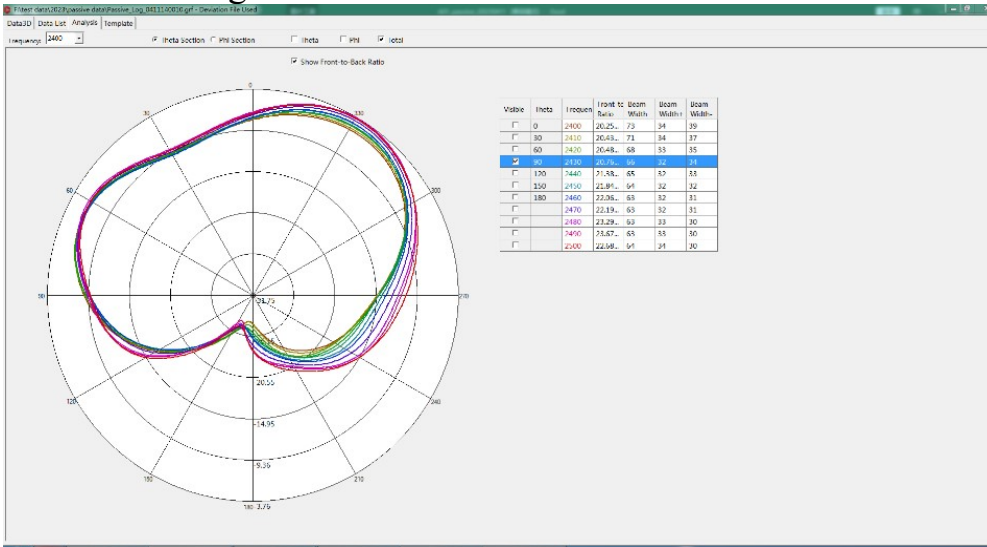




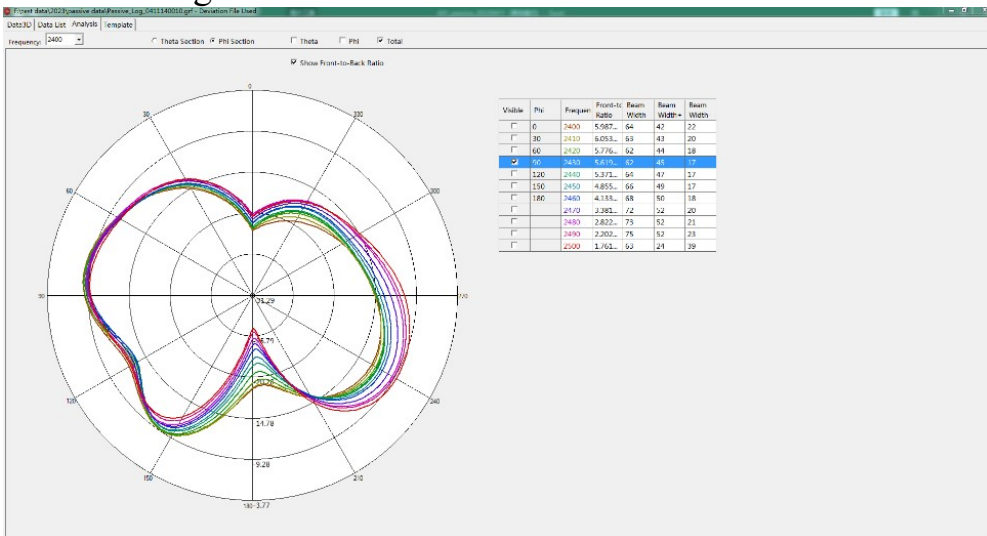
# 天线无源方向图 (头模)

## Antenna radiation pattern (headform)

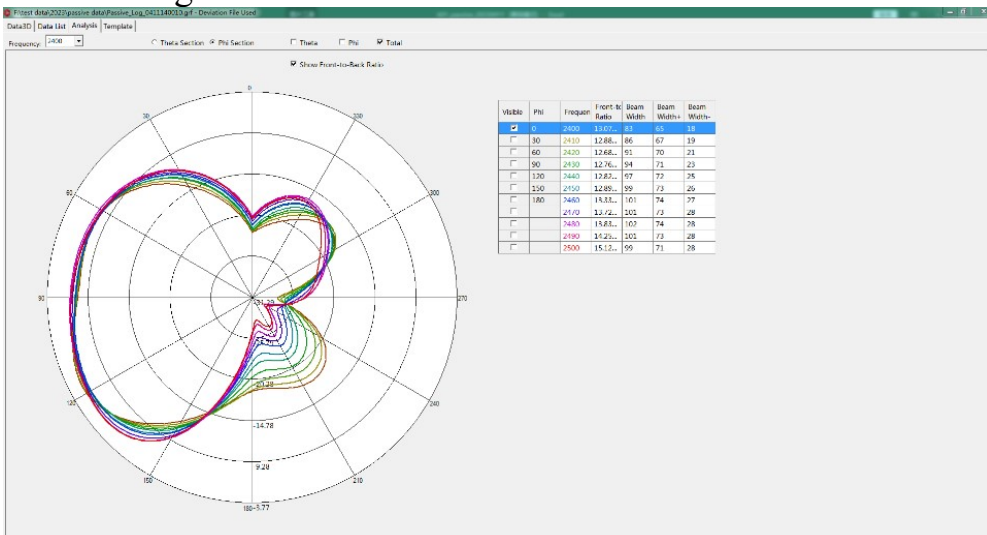
### Theta=90.00deg



### Phi=90.00deg



### Phi=0.00deg

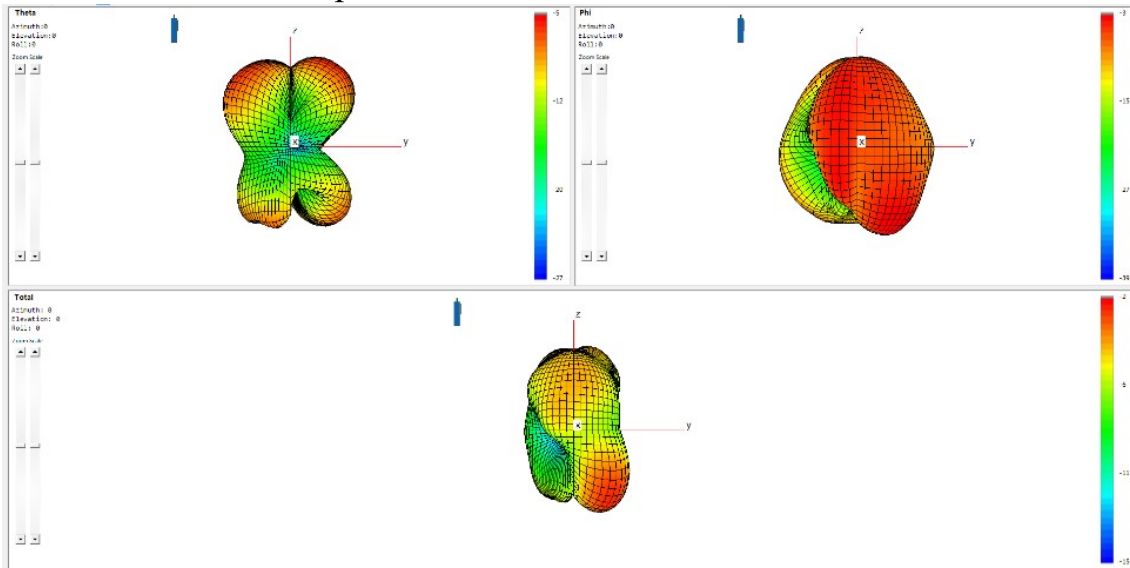






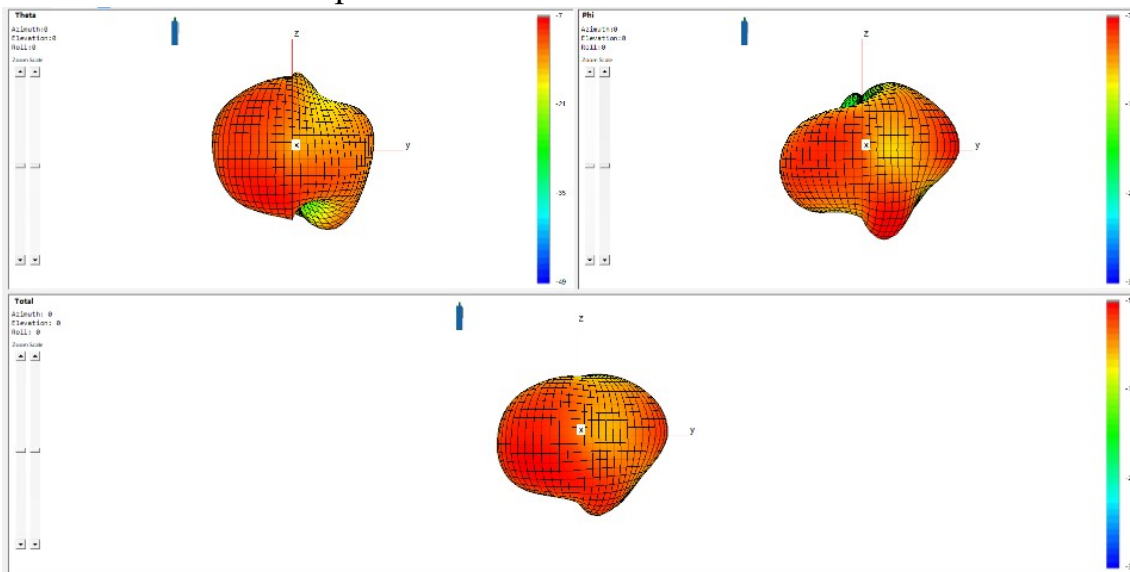
### 天线无源 3D 方向图（自由空间）

### 3D Antenna radiation pattern (free space)



### 天线无源 3D 方向图（头模）

### 3D Antenna radiation pattern (headform)





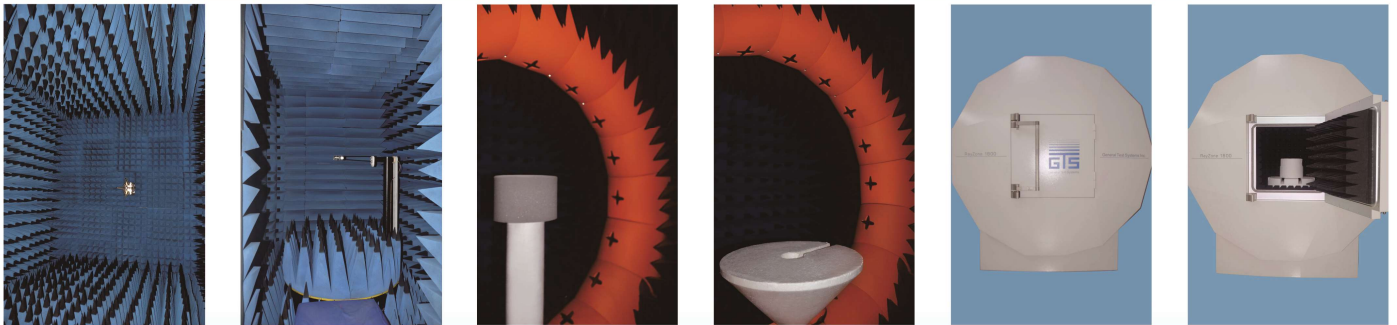


## 二：暗室有源测试数据

### II: 3D Active test report of antenna

Free/自由空间	Channel	TRP (dBm)	TIS (dBm)
L	CH 0	1.1	-90.2
	CH 39	0.4	-91.6
	CH 78	-0.4	-92.7

Headform/头模	Channel	TRP (dBm)	TIS (dBm)
L	CH 0	-6.2	-81.8
	CH 39	-7.1	-81.8
	CH 78	-7.3	-82.2

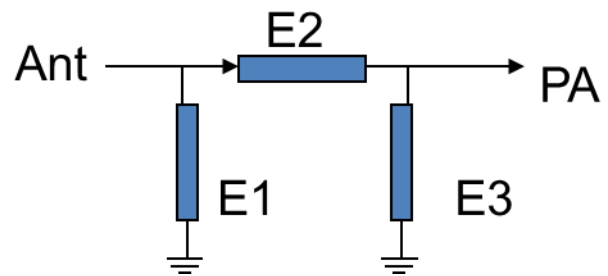


OTA Standard Chamber

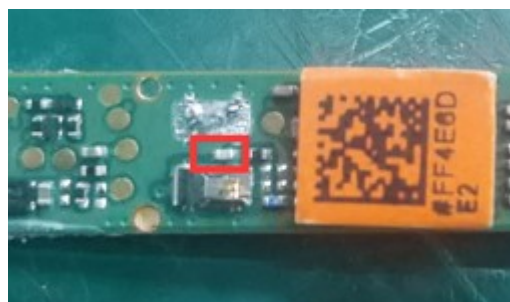
## 三：匹配电路

### III: Matching circuit

Element	Value
E1	0.5pF
E2	0Ω
E3	N/A



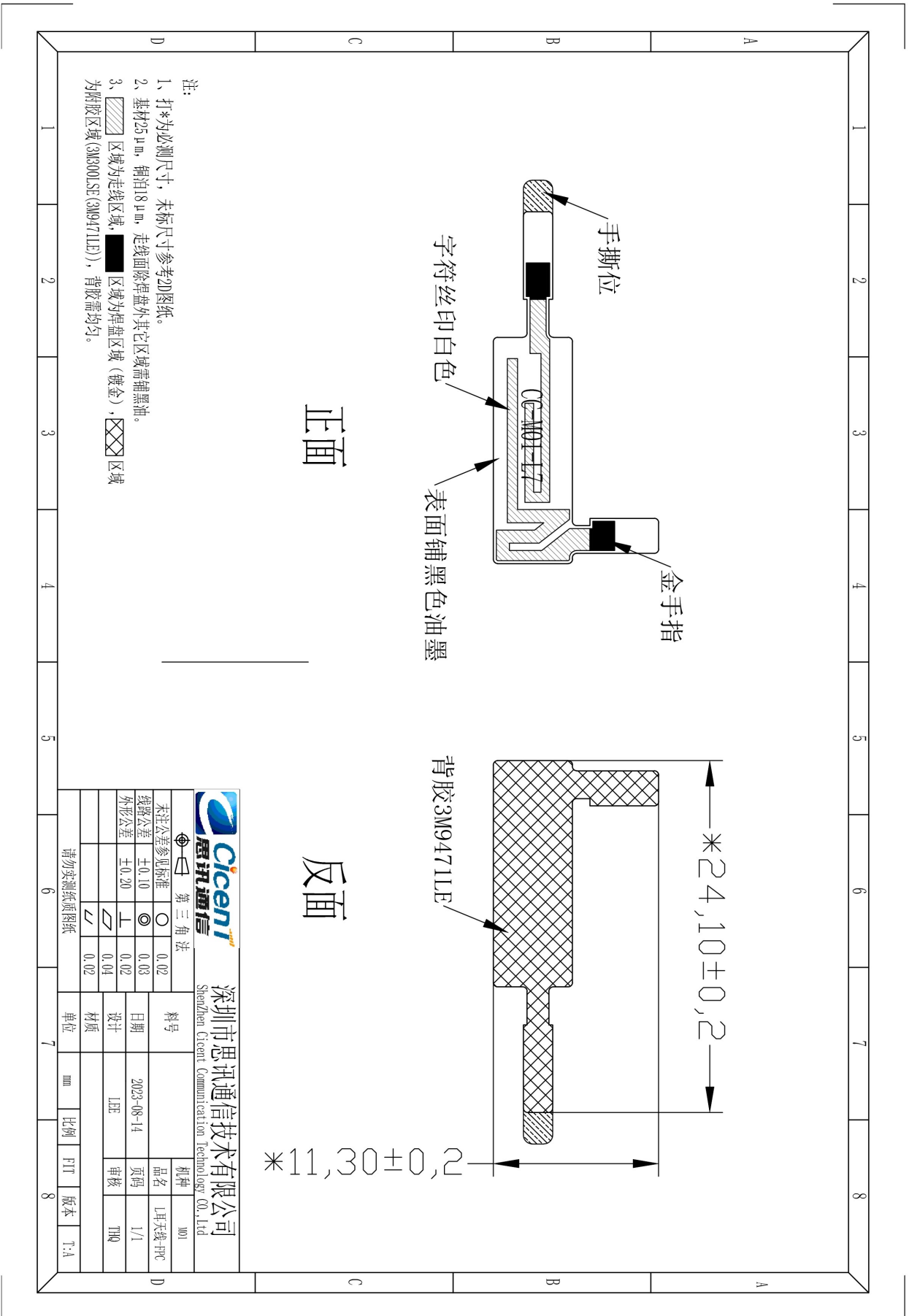
Red box position matches bit and 0.5pF capacitor



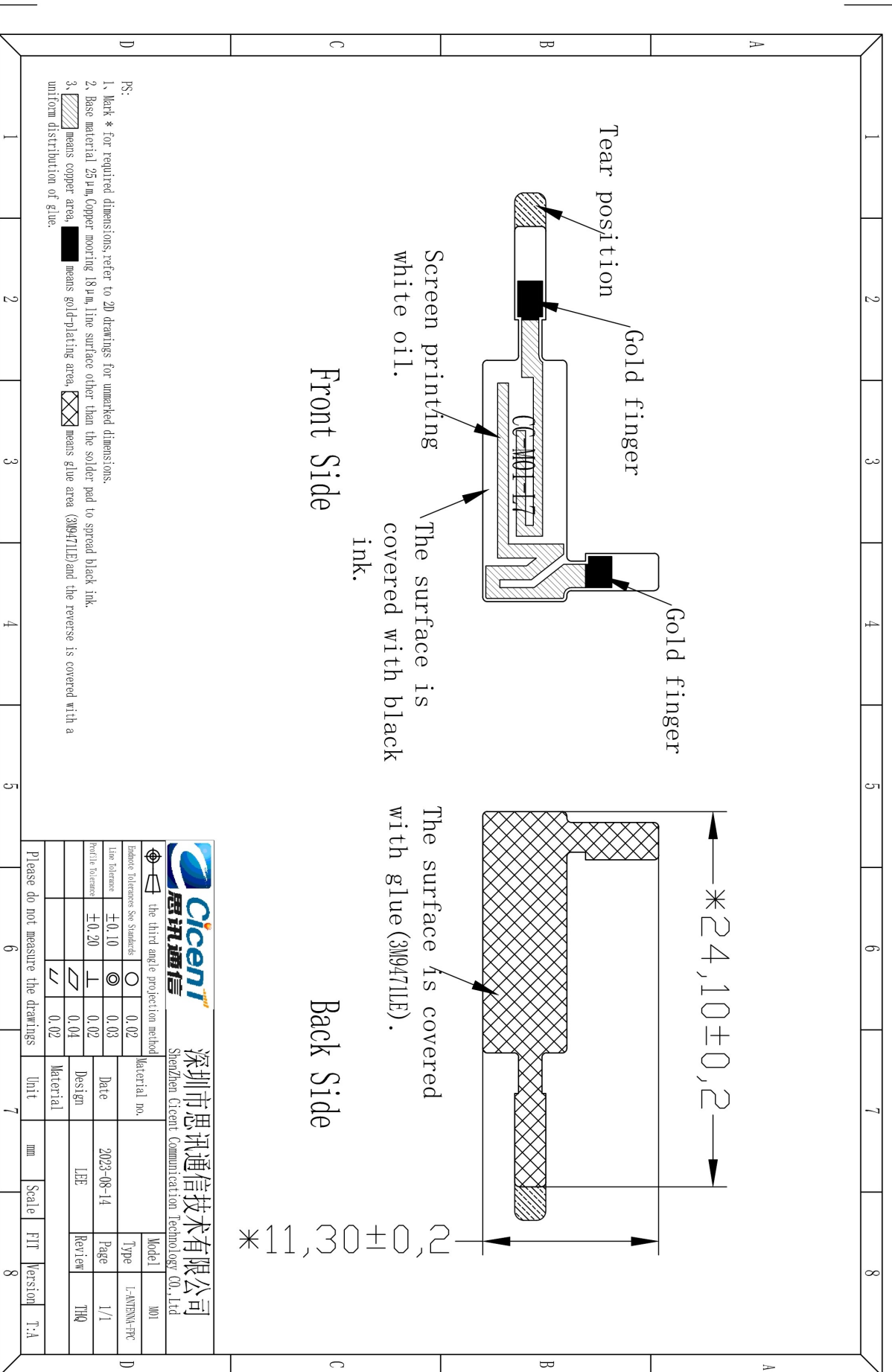


#### 四：结构图档

#### IV: Structure file



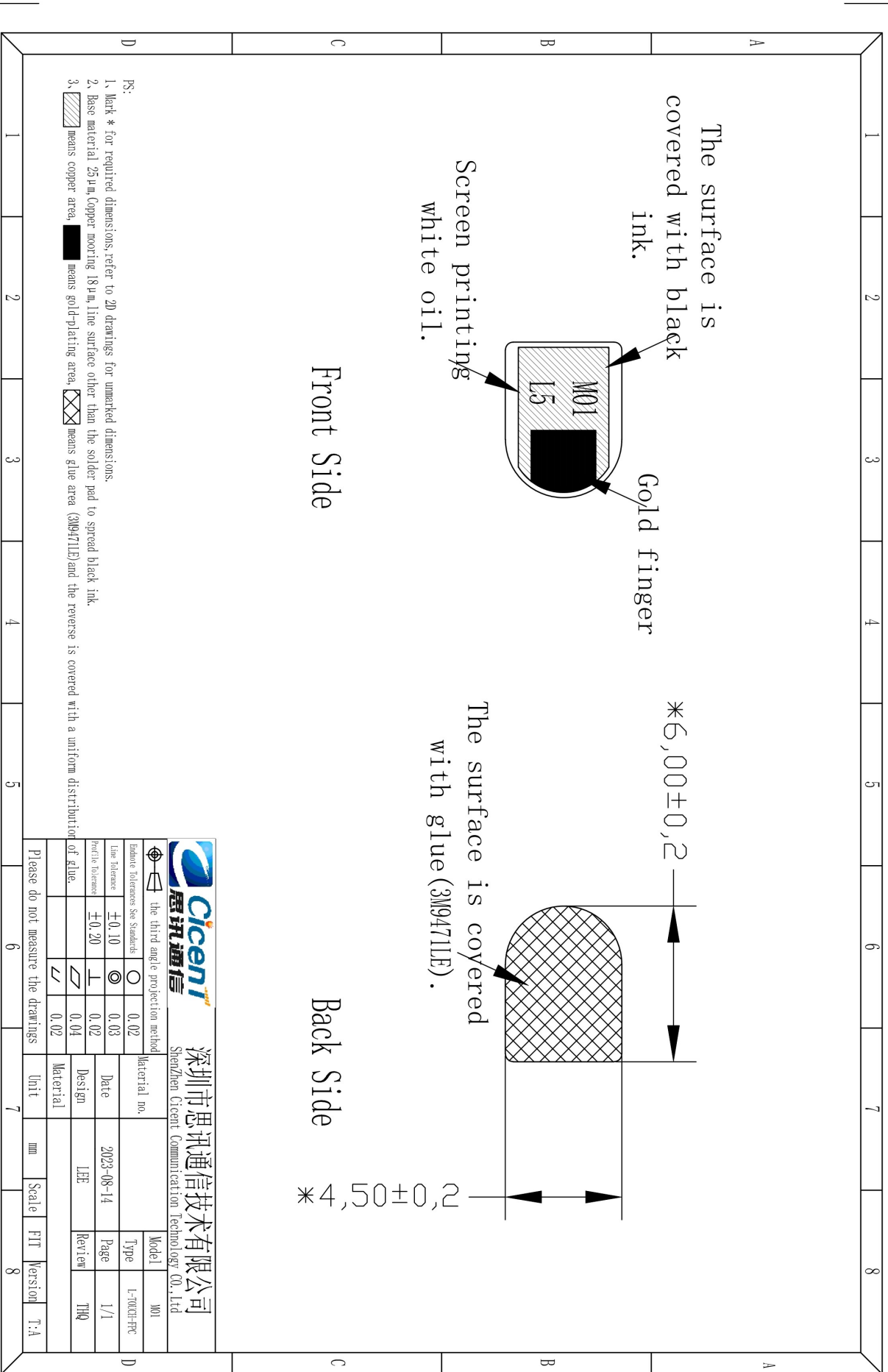




- PS:
1. Mark \* for required dimensions, refer to 2D drawings for unmarked dimensions.
  2. Base material 25μm Copper mooring 18μm, line surface other than the solder pad to spread black ink.
  3. means copper area, means gold-plating area, means glue area (3M9471LE) and the reverse is covered with a uniform distribution of glue.

		深圳市思讯通信技术有限公司 Shenzhen Cicent Communication Technology Co., Ltd	
the third angle projection method			
Endure Tolerances See Standards	○	0.02	Material no.
Line tolerance	◎	0.03	Date
Part's tolerance	⊥	0.02	2023-08-14
	∠	0.04	Design
	∇	0.02	LEF
			Material
Please do not measure the drawings		Unit	mm
		Scale	1:1
		PT	Version
			T-A





- PS:
1. Mark \* for required dimensions, refer to 2D drawings for unmarked dimensions.
  2. Base material 25μm Copper mooring 18μm, line surface other than the solder pad to spread black ink.
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the third angle projection method	Material no.	Model	M01
Induce Tolerances See Standards Line Tolerance ±0.10 Profile Tolerance ±0.20 of Kfilte.	Date	Type	1-F003-IPC
	2023-08-14	Page	1/1
	Design	Review	THQ
	Material		
Please do not measure the drawings		Unit	mm
		Scale	FIT
		Version	T-A