



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

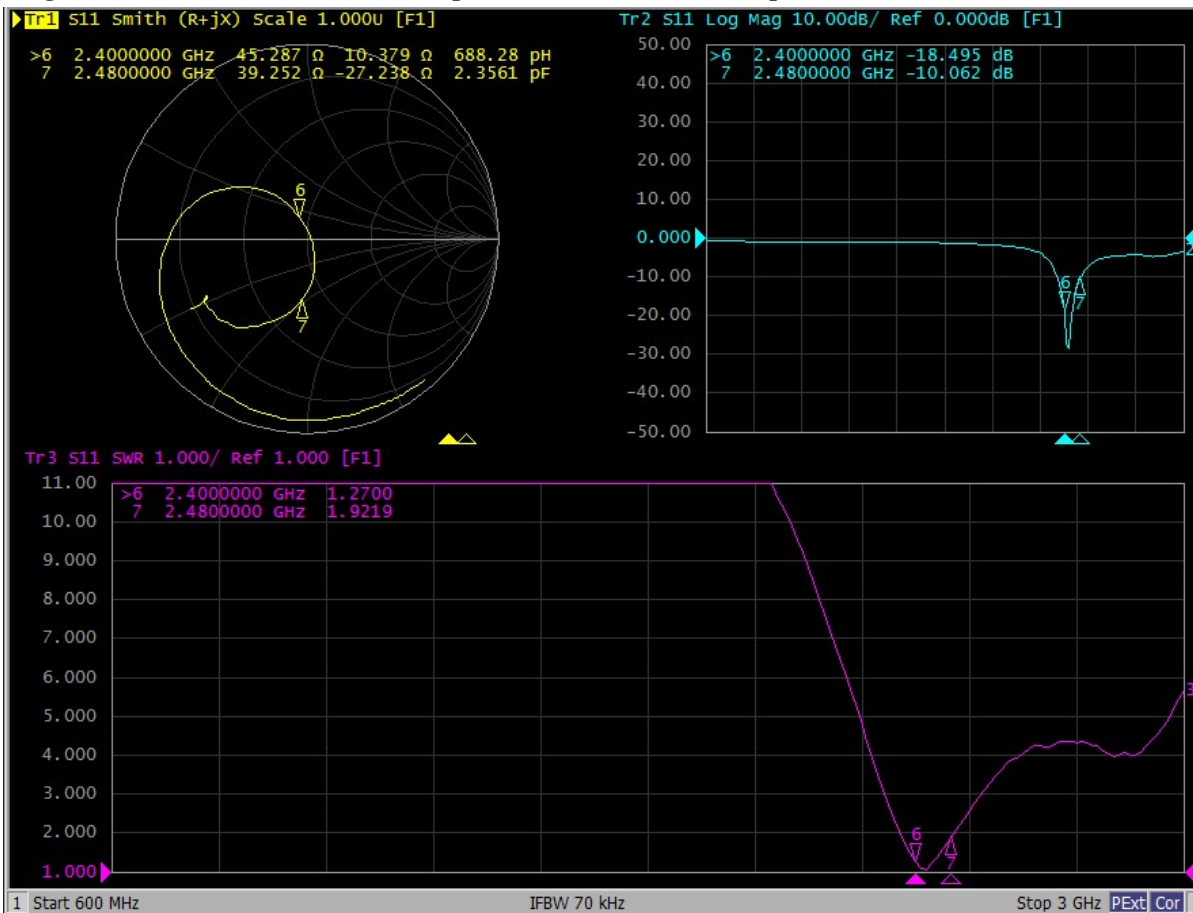
I: The report of passive data



Angilent E5071C

右耳天线 S 参数（自由空间）

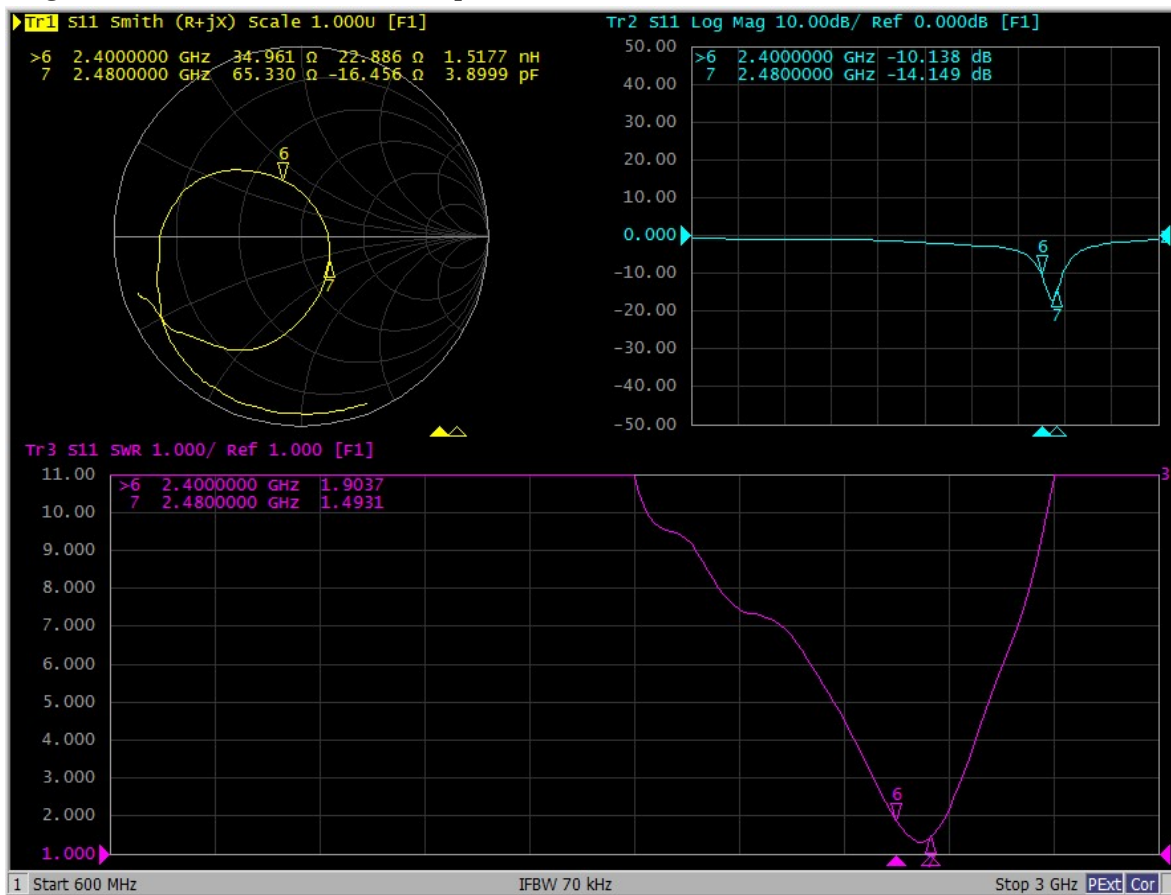
Right antenna VSWR(S11) parameter (free space)





右耳天线 S 参数 (头模)

Right antenna VSWR(S11) parameter (headform)





右耳天线无源效率与增益（自由空间）

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

R			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	-3.57	-5.51	28.14
2410	-3.63	-5.61	27.48
2420	-3.64	-5.86	25.96
2430	-3.96	-5.90	25.69
2440	-4.24	-6.30	23.46
2450	-4.17	-6.32	23.33
2460	-4.40	-6.44	22.70
2470	-4.18	-6.27	23.63
2480	-3.94	-6.08	24.64
Average value	-3.97	-6.03	25.00

右耳天线无源效率与增益（头模）

Passive efficiency and gain of Right ear antenna (headform)

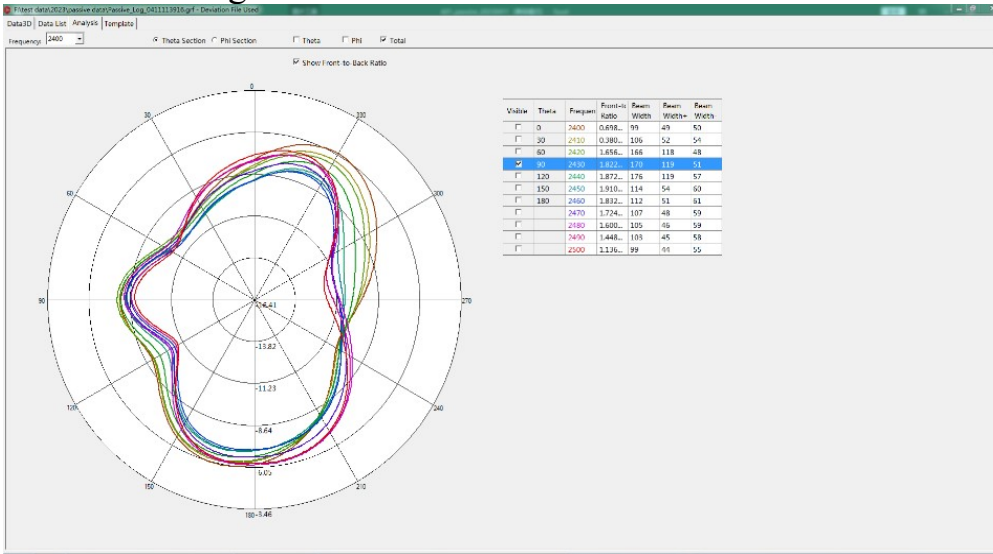
R			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	-5.72	-10.88	8.17
2410	-5.90	-10.96	8.01
2420	-6.10	-11.10	7.76
2430	-6.09	-10.99	7.96
2440	-6.21	-11.04	7.88
2450	-5.94	-10.70	8.51
2460	-5.74	-10.42	9.07
2470	-5.92	-10.59	8.72
2480	-5.89	-10.63	8.65
Average value	-5.94	-10.81	8.30



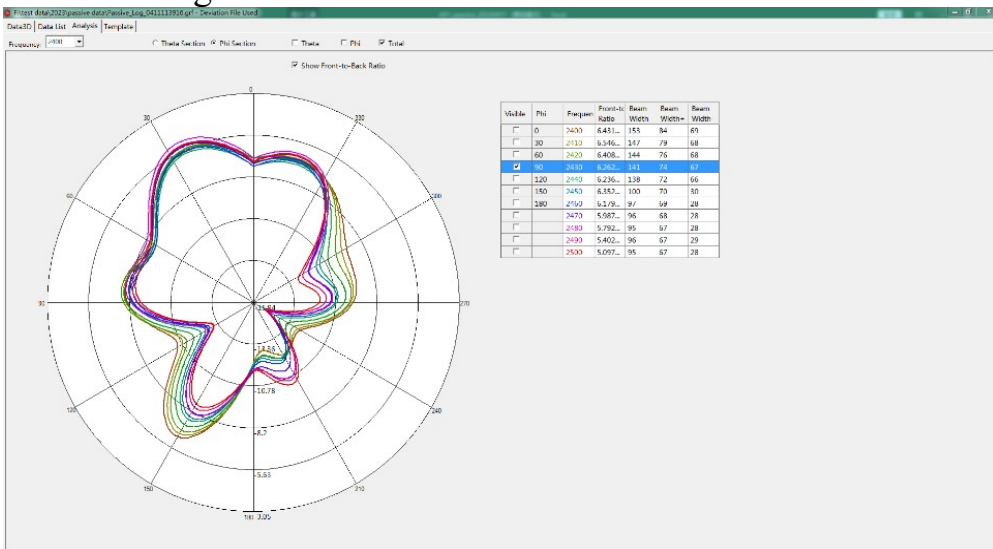
天线无源方向图（自由空间）

Antenna radiation pattern (free space)

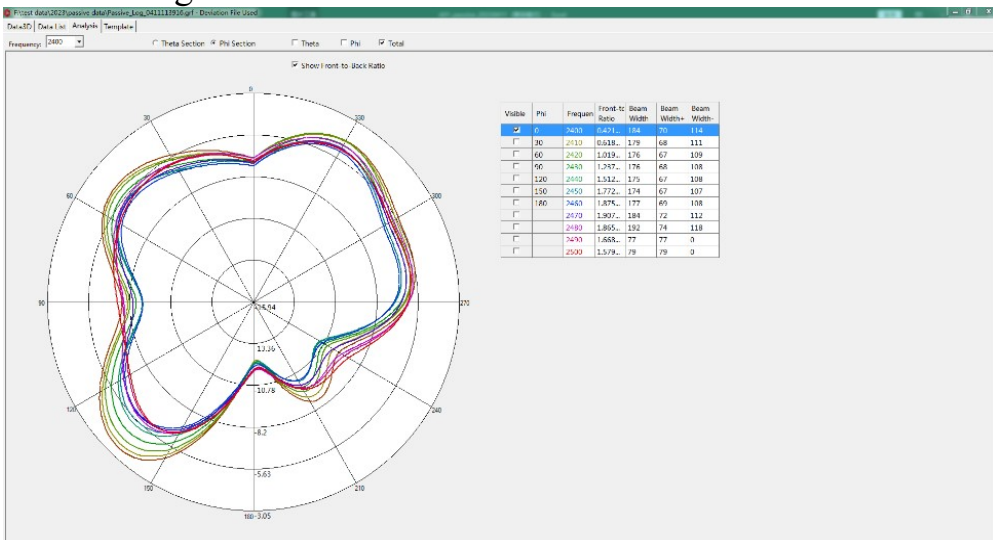
Theta=90.00deg



Phi=90.00deg



Phi=0.00deg

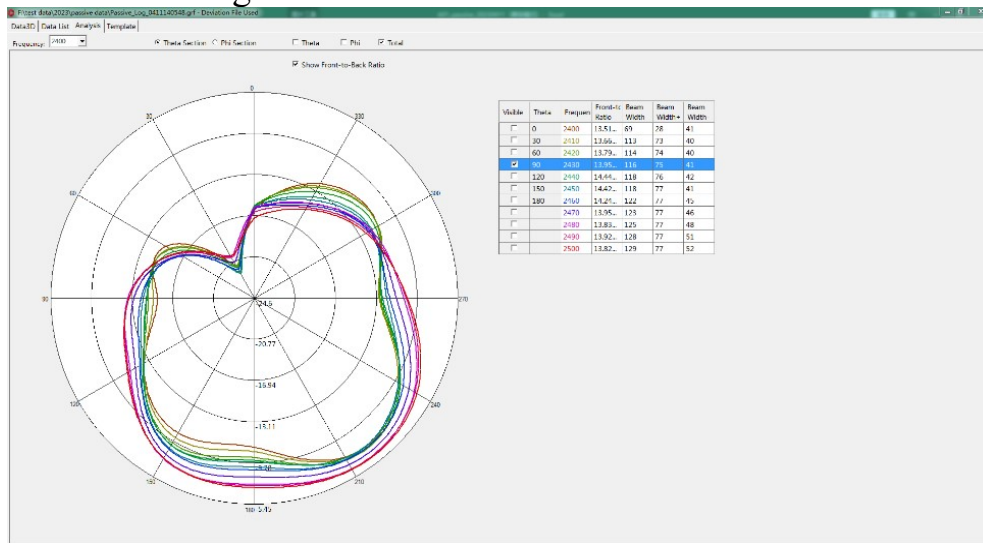




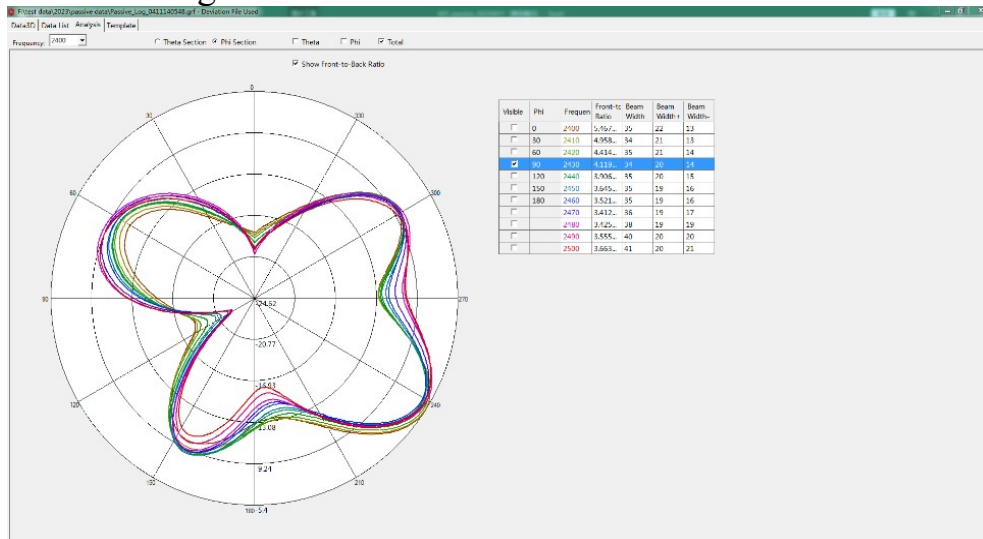
天线无源方向图 (头模)

Antenna radiation pattern (headform)

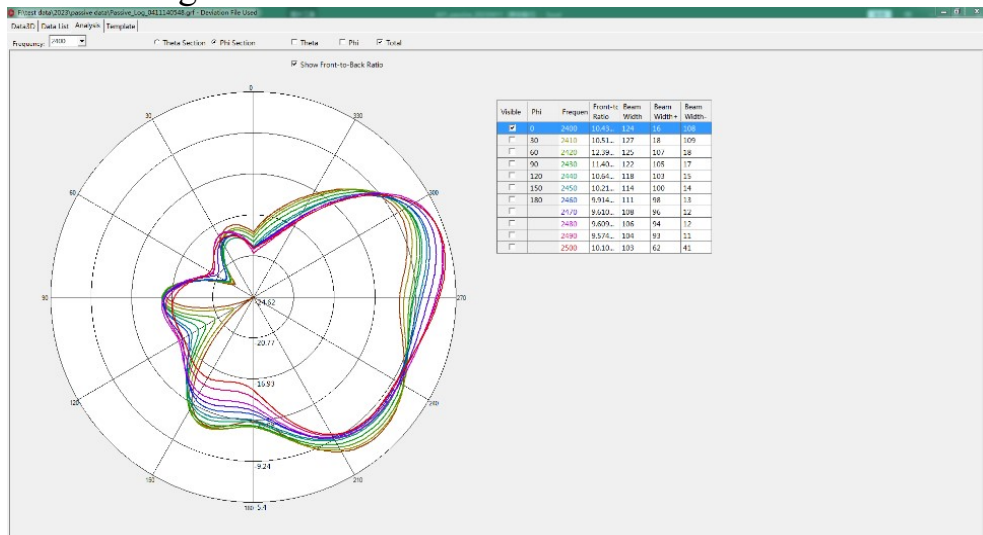
Theta=90.00deg



Phi=90.00deg



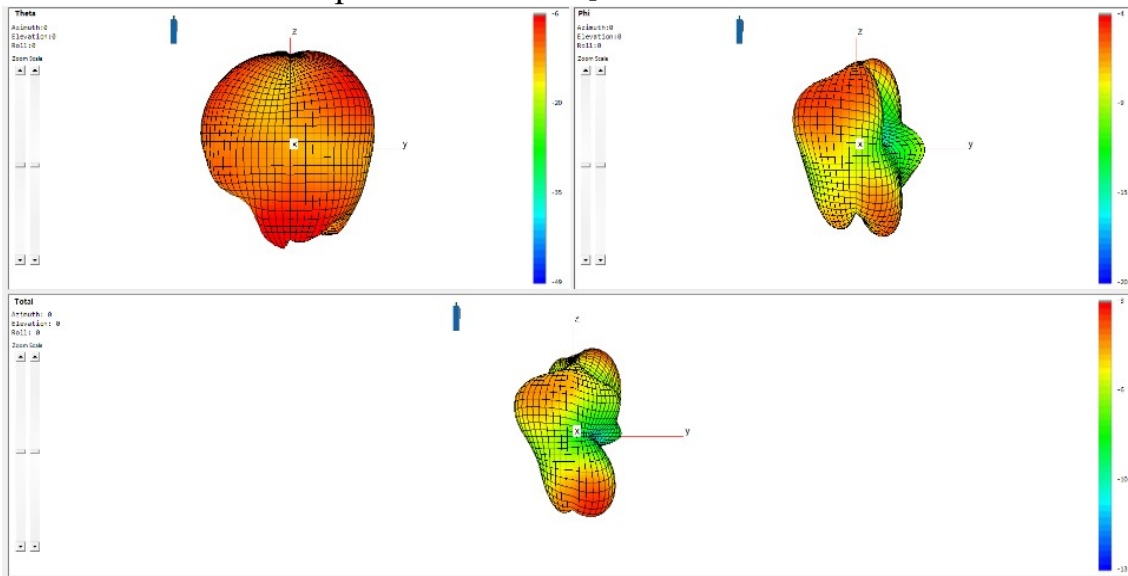
Phi=0.00deg





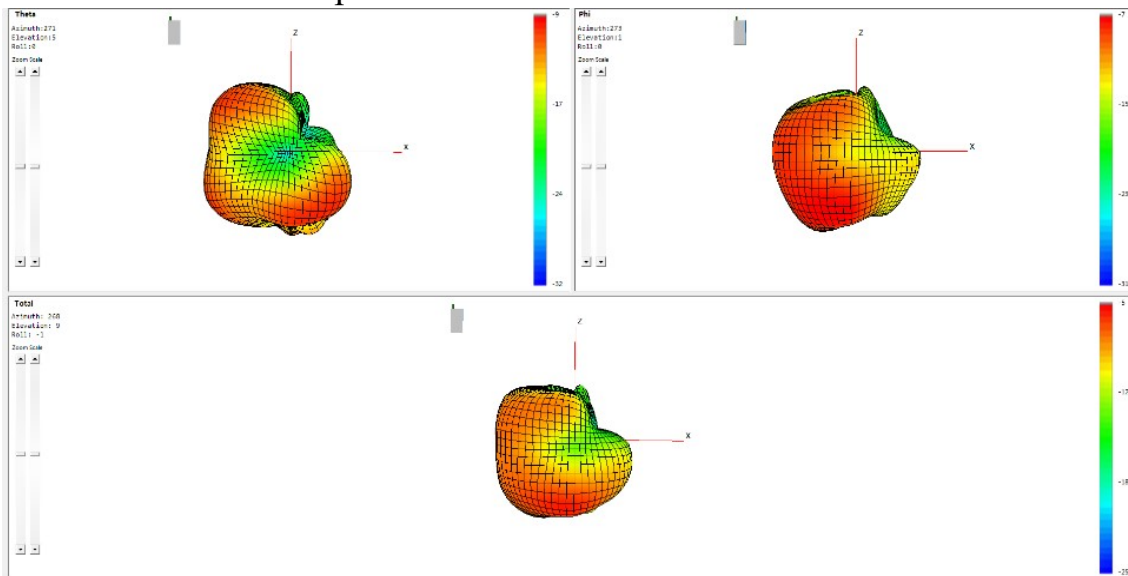
天线无源 3D 方向图 (自由空间)

3D Antenna radiation pattern (free space)



天线无源 3D 方向图 (头模)

3D Antenna radiation pattern (headform)



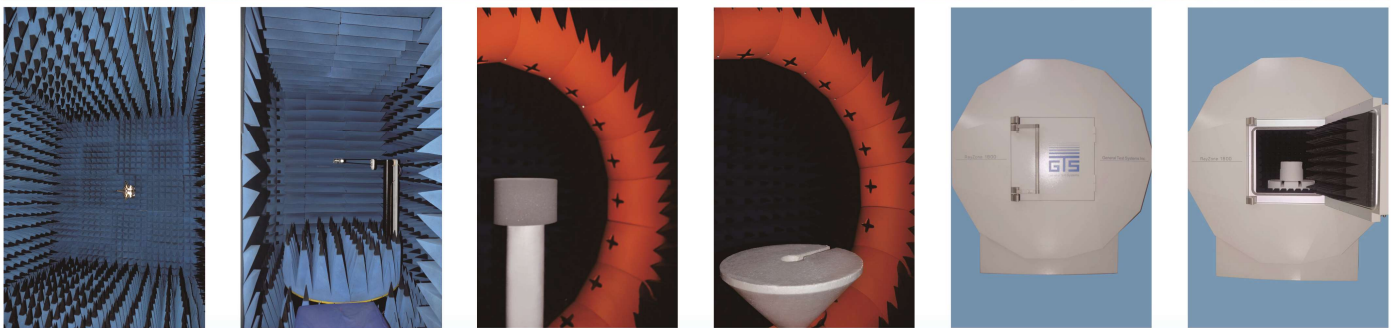


二：暗室有源测试数据

II: 3D Active test report of antenna

Free/自由空间	Channel	TRP (dBm)	TIS (dBm)
R	CH 0	1.0	-90.8
	CH 39	0.5	-91.3
	CH 78	-0.6	-92.0

Headform/头模	Channel	TRP (dBm)	TIS (dBm)
R	CH 0	-6.7	-81.3
	CH 39	-6.6	-81.7
	CH 78	-7.0	-82.4

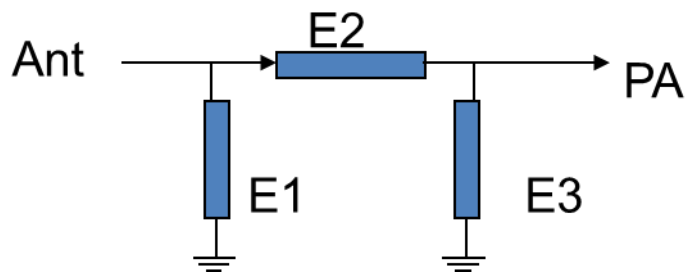


OTA Standard Chamber

三：匹配电路

III: Matching circuit

Element	Value
E1	0.5pF
E2	0Ω
E3	N/A



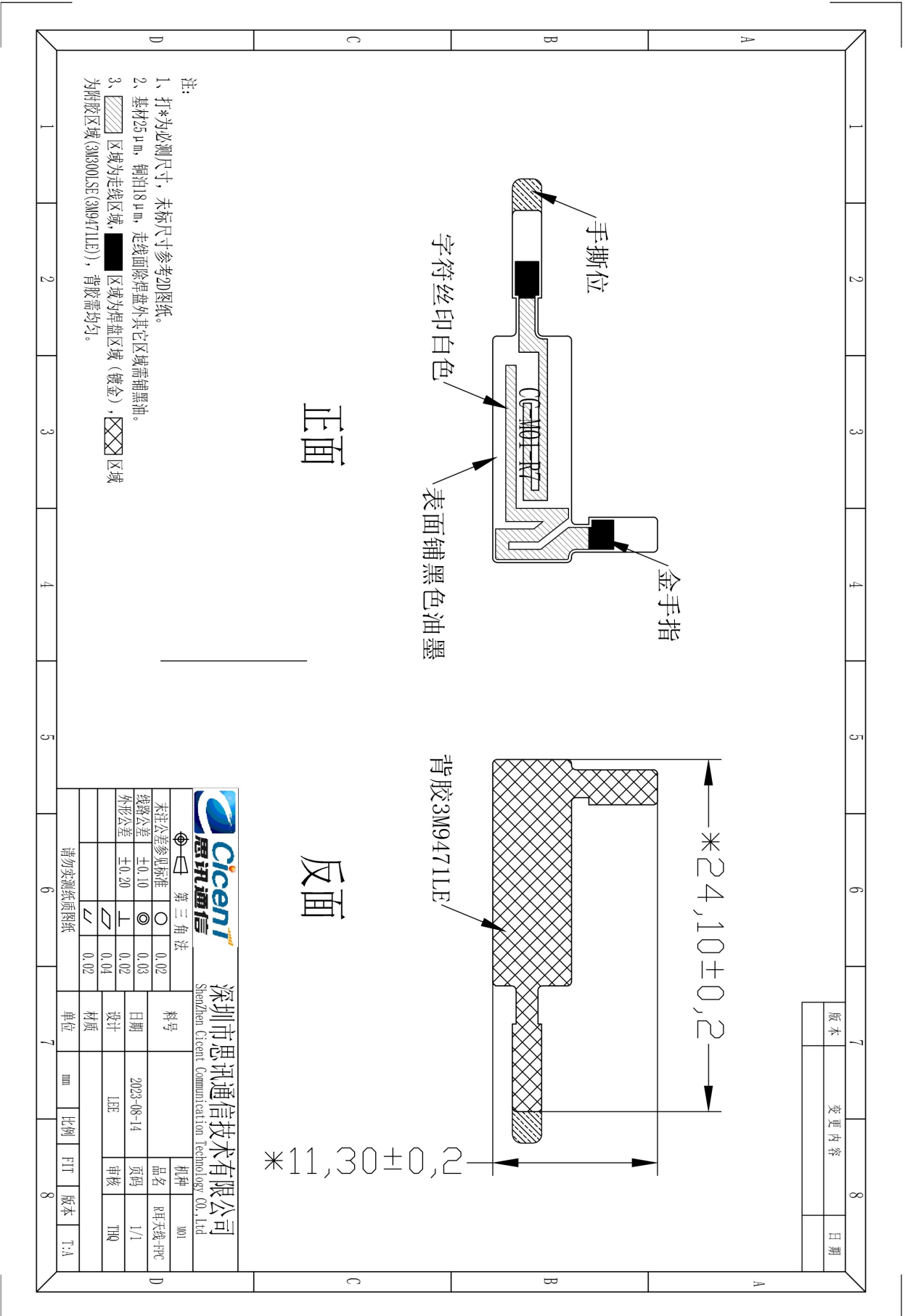
Red box position matches bit and 0.5pF capacitor

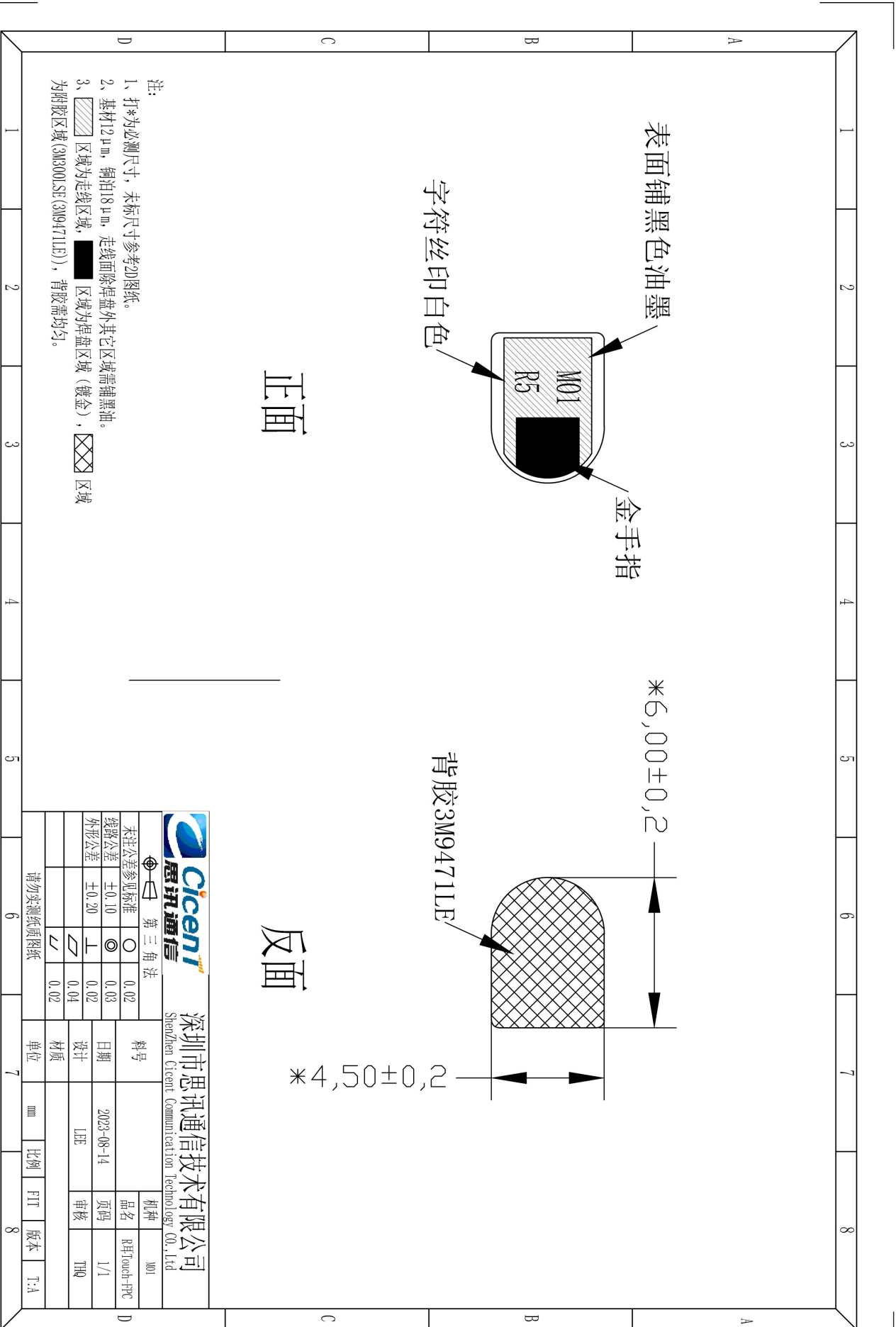




四：结构图档

IV: Structure file



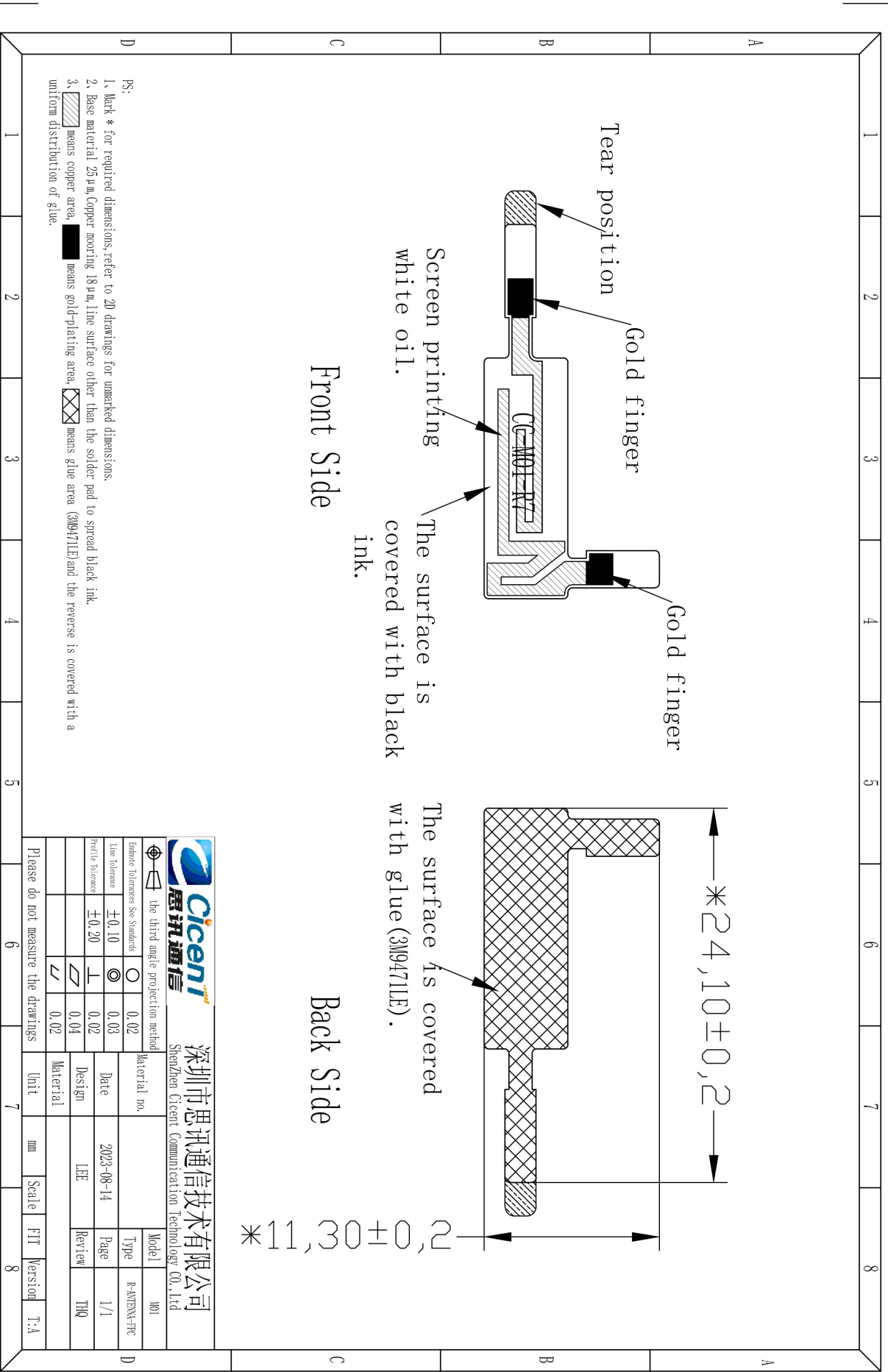


- 注:
- 1、打*为必测尺寸，未标尺寸参考2D图纸。
 - 2、基材12 μm，铜箔18 μm，走线面除焊盘外其它区域需铺黑油。
 - 3、▨ 区域为走线区域，■ 区域为焊盘区域（镀金），⊗ 区域为附胶区域（3M3001SE (3M9471LE)），背胶需均匀。

正面

反面

		深圳市思讯通信技术有限公司 Shenzhen Cicent Communication Technology Co., Ltd	
第三角法	料号	机种	M01
未注公差参见标准	日期	品名	RFTouch-PPC
±0.10	2023-08-14	页码	1/1
±0.20	设计	审核	TJQ
±0.02	LEF		
±0.04	材质		
±0.02	单位		
请勿实测纸质图纸			

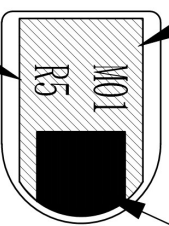


- PS:
1. Mark * for required dimensions, refer to 2D drawings for unmarked dimensions.
 2. Base material 25 μm, Copper mooring 18 μm, line surface other than the solder pad to spread black ink.
 3. means copper area, means gold-plating area, means glue area (3M9471LE) and the reverse is covered with 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	Material no.	M01
Endnote	Refer to See Standards	Type	R-ANTENNA-FPC
Line tolerance	±0.10	Date	2023-08-14
Profile tolerance	±0.20	Design	LEE
		Material	FR4
		Unit	mm
Please do not measure the drawings		Scale	1:1
		FIT	Version
			T:A

The surface is covered with black ink.

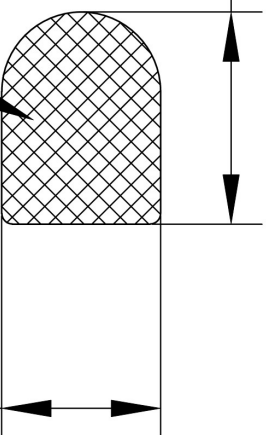
Gold finger



Screen printing white oil.

Front Side

$*6,00 \pm 0,2$



The surface is covered with glue (3M9471LE).

$*4,50 \pm 0,2$

Back Side

- PS:
1. Mark * for required dimensions, refer to 2D drawings for unmarked dimensions.
 2. Base material 25 μ m, Copper mooring 18 μ m, 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			
Indicate Tolerances See Standards		Material no.	M01
Line Tolerance	$\pm 0,10$	Date	2023-08-14
Profile Tolerance	$\pm 0,20$	Design	LEE
of glue.		Material	
		Unit	mm
		Scale	FIT
Please do not measure the drawings		Version	T-1

