



Antenna specification

Customer name:	Dongguan Hele Electronics Co.,Ltd
Product Model:	TW09
Risuntek P/N:	10.157.000110
Version:	A
Prodcut Name:	FPC antenna
Description:	TW09 JL7006F FPC L ANT+Touch V1.7 Yuhong
Date:	2023/2/16

(Customer Signatures)

(PM)	(ME)	(QE)

(Inner Signatures)

(QE)	(ME)	(RF)
Aston	Cindy	jim

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telephone: 0755-21031946

<http://www.yuhong-co.com/>

catalogue

One、 Resume

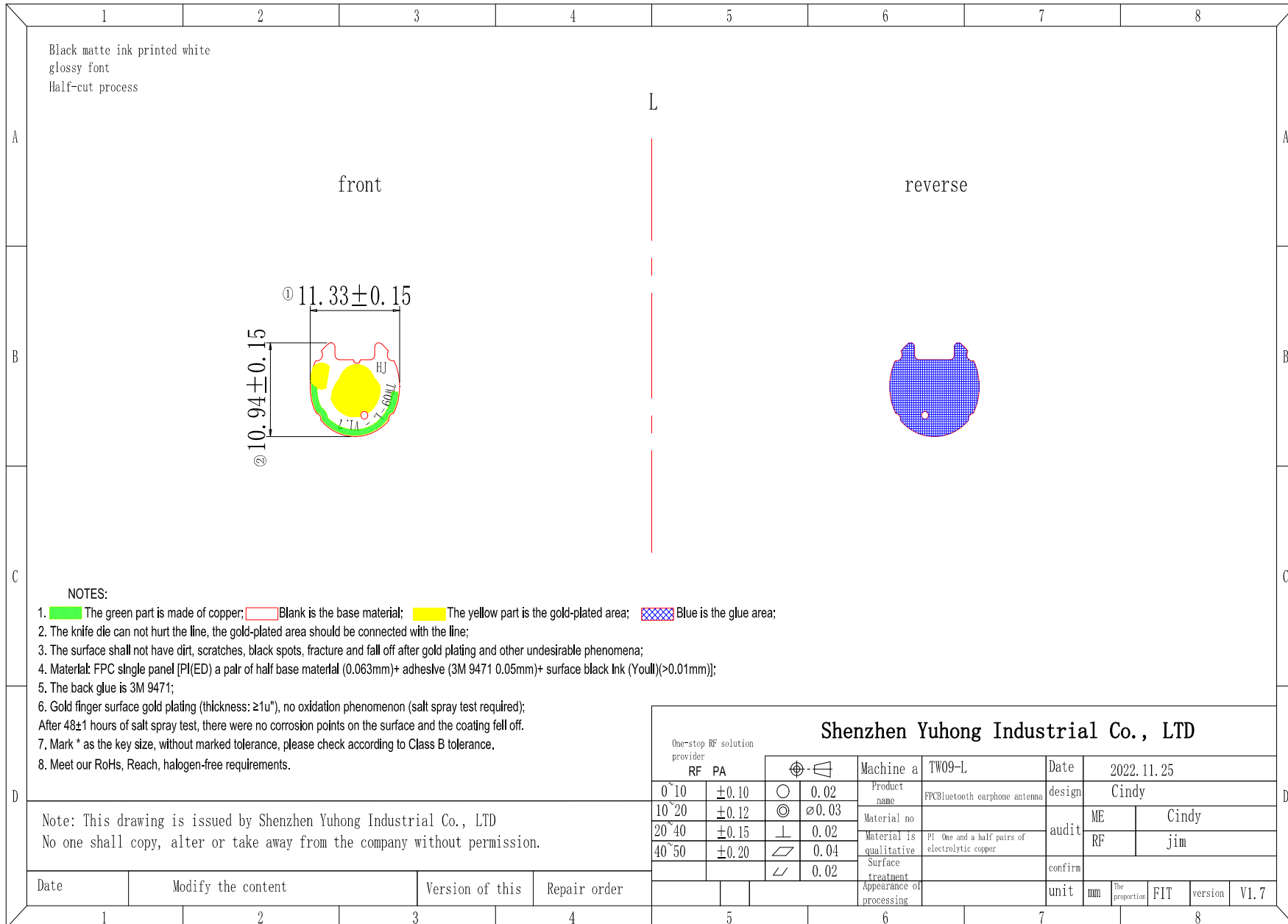
Two、 Product drawings

Three Description of electrical and
mechanical properties

one、Preparation / revision change resume

editi on	Revision page	Change time	Changed by	Reason and content of change	remarks
A0	—	2023/2/16	Cindy	First version of the antenna form	
A1					
A2					
A3					
A4					
A5					
A6					

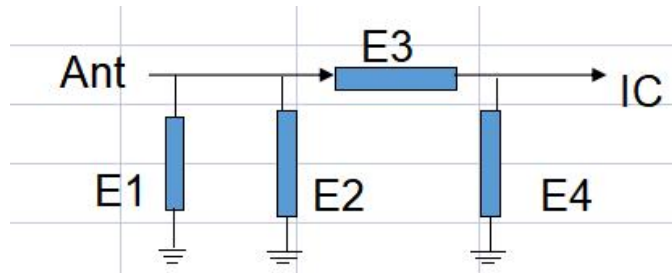
二、Product drawing



One-stop RF solution provider		Shenzhen Yuhong Industrial Co., LTD						
RF	PA	\oplus	\triangleleft	Machine a	TW09-L	Date	2022.11.25	
0~10	±0.10	○	0.02	Product name	FPCBluetooth earphone antenna	design	Cindy	
10~20	±0.12	◎	∅0.03	Material no		audit	ME	Cindy
20~40	±0.15	⊥	0.02	Material is	PI One and a half pairs of electrolytic copper	RF	jim	
40~50	±0.20	∕	0.04	Surface treatment		confirm		
		∕	0.02	Appearance of processing		unit	mm	The proportion: FIT version V1.7

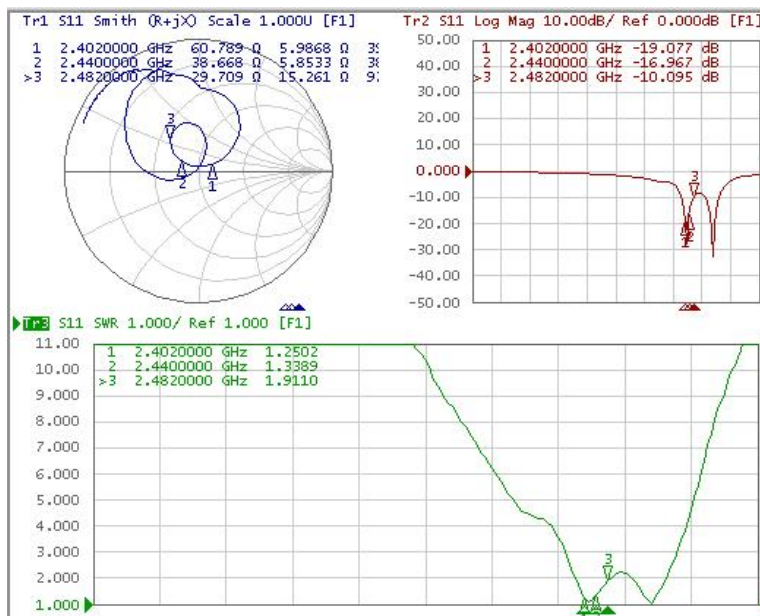
三、 Specification of electrical and mechanical properties

1、 Match the circuit diagram



Elemen	Value
E1	ESD
E2	1.2nH
E3	0ohm
E4	0.5pF

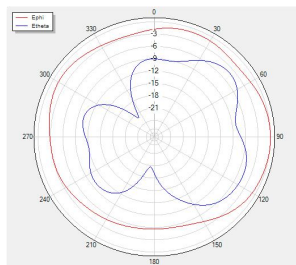
2、 S11 parameter



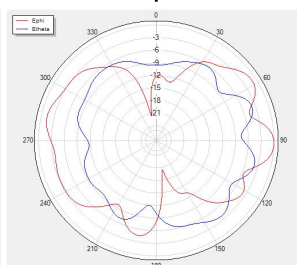
3, Passive efficiency

Freq[MHz]	Gain(dBi)	Efficiency value (dB)	Efficiency
	Free space	Free space	Free space
2400	-0.9	-5.13	30.71
2410	-1.24	-5.28	29.62
2420	-1.53	-5.4	28.84
2430	-1.82	-5.5	28.18
2440	-2.1	-5.64	27.3
2450	-2.27	-5.75	26.63
2460	-2.26	-5.82	26.17
2470	-2.11	-5.91	25.64
2480	-0.58	-5.99	25.17

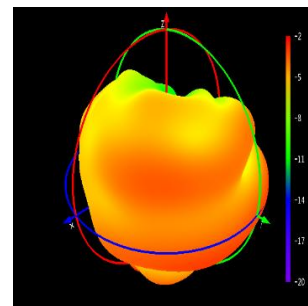
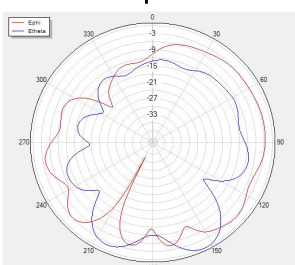
Theta=90 freq=2400MHz



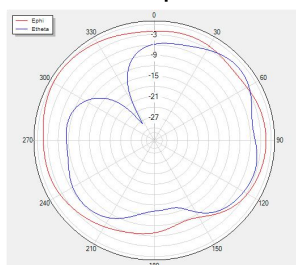
Phi=90 freq=2400MHz



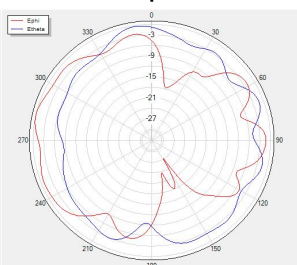
Phi=0 freq=2400MHz



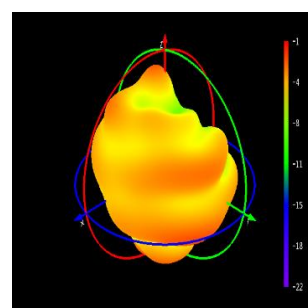
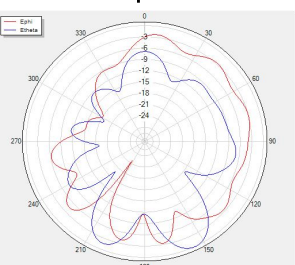
Theta=90 freq=2440MHz



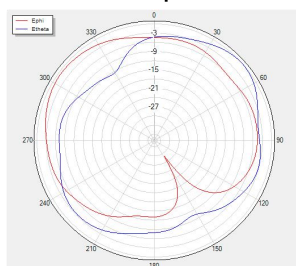
Phi=90 freq=2440MHz



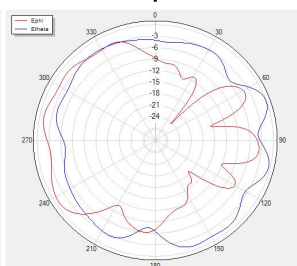
Phi=0 freq=2440MHz



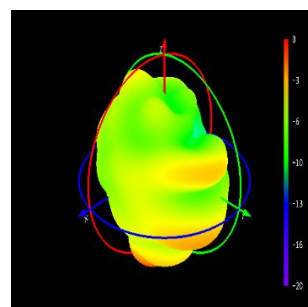
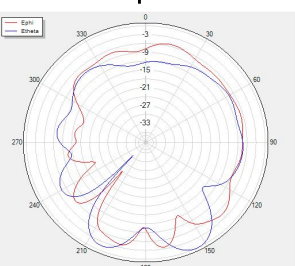
Theta=90 freq=2480MHz



Phi=90 freq=2480MHz



Phi=0 freq=2480MHz



4、 Active OTA data

L	channel	TRP (dbm)	TRP (dBm)
Free space	0	3.4	-87.22
	39	3.49	-88.7
	78	3.43	-88.67
L	channel	TRP (dbm)	TIS (dbm)
Second generation head die	0	-4.62	-79.84
	39	-3.52	-82.83
	78	-4.2	-81.87