

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME: 熵基科技股份有限公司

产 品 名 称

PRODUCT NAME: 2.4G FPC 内置天线 L=80mm+端子

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C80F2D4622A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy 	
APPROVED BY:	Changxing. Liu	
DATE:	2024/8/6	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-8-6

Content

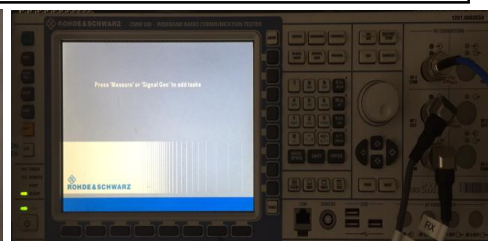
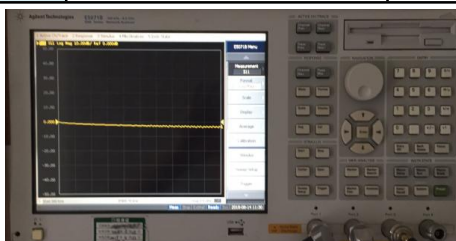
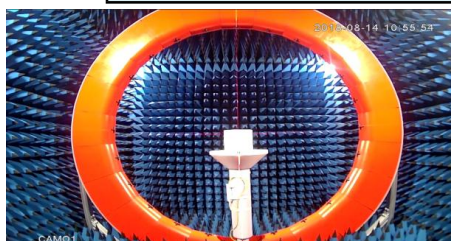
<i>Item</i>	<i>Description</i>
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	31x14,L80	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	2.0±0.5	dBi
Efficiency	>40	%
Connector Type	MHF-1-Plug	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

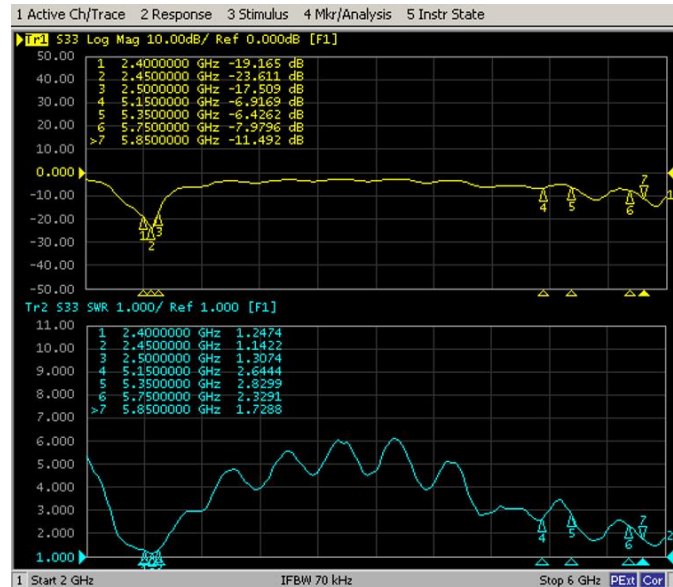
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



3. S Parameter

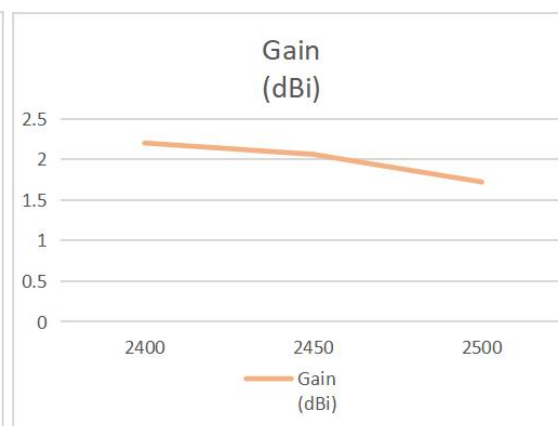
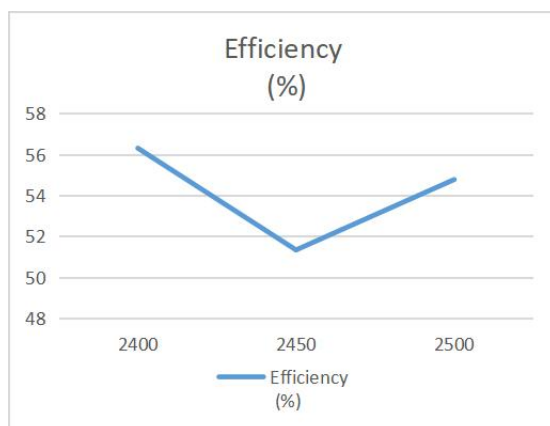
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-19.16	1.24
2450	-23.61	1.14
2500	-17.50	1.30

* Voltage Standing Wave Ratio(VSWR)
Return Loss(RL)
 $RL = 20 * \log_{10}[(VSWR + 1)/(VSWR - 1)]$



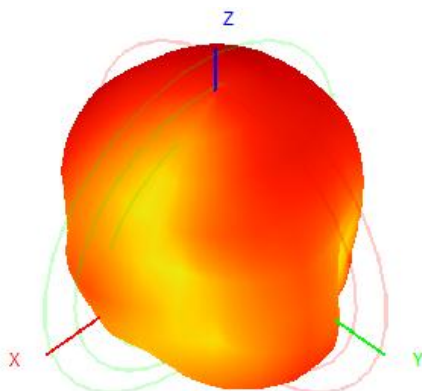
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	56.32	51.35	54.79
Gain (dBi)	2.2	2.06	1.72

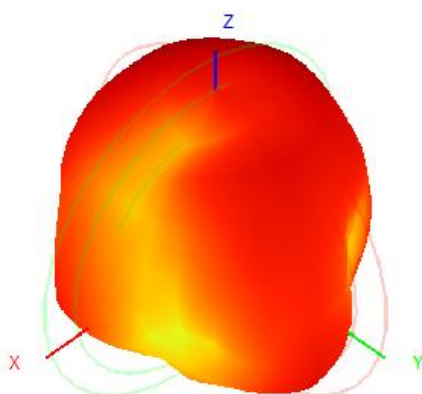


5. Radiation Pattern

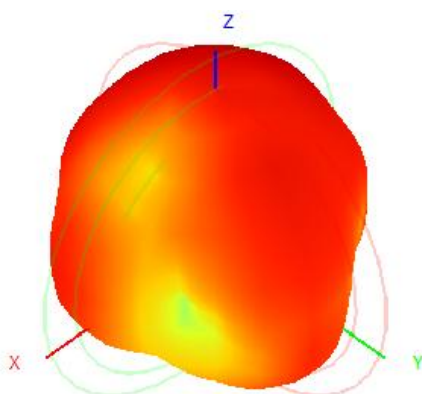
5-1 Antenna 3D Radiation Pattern



2400MHz

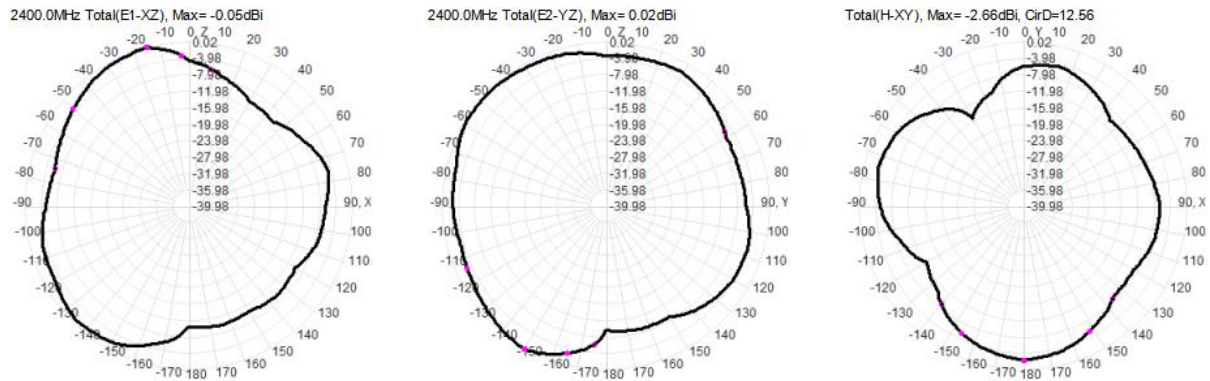


2450MHz

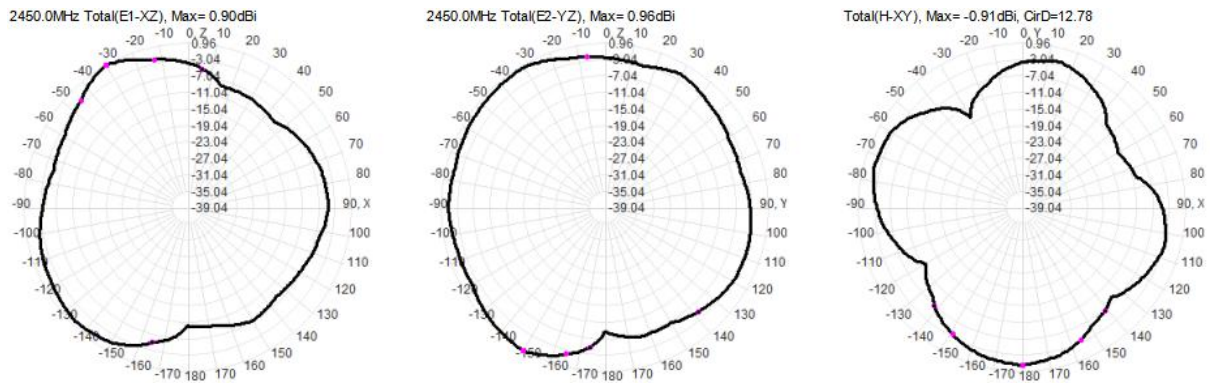


2500MHz

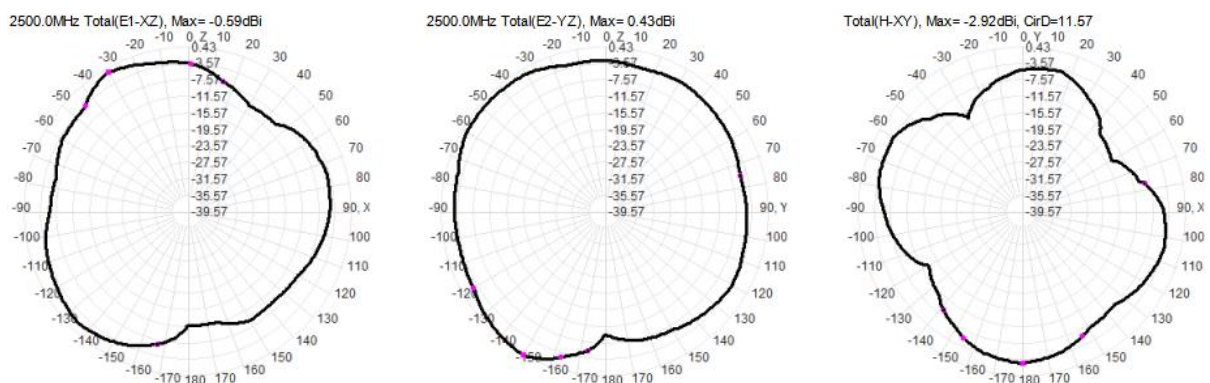
5-2 Antenna 2D Radiation Pattern



2400MHz



2450MHz

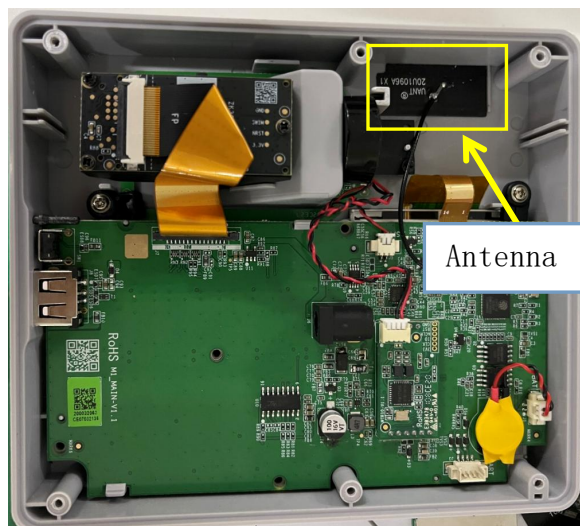


2500MHz

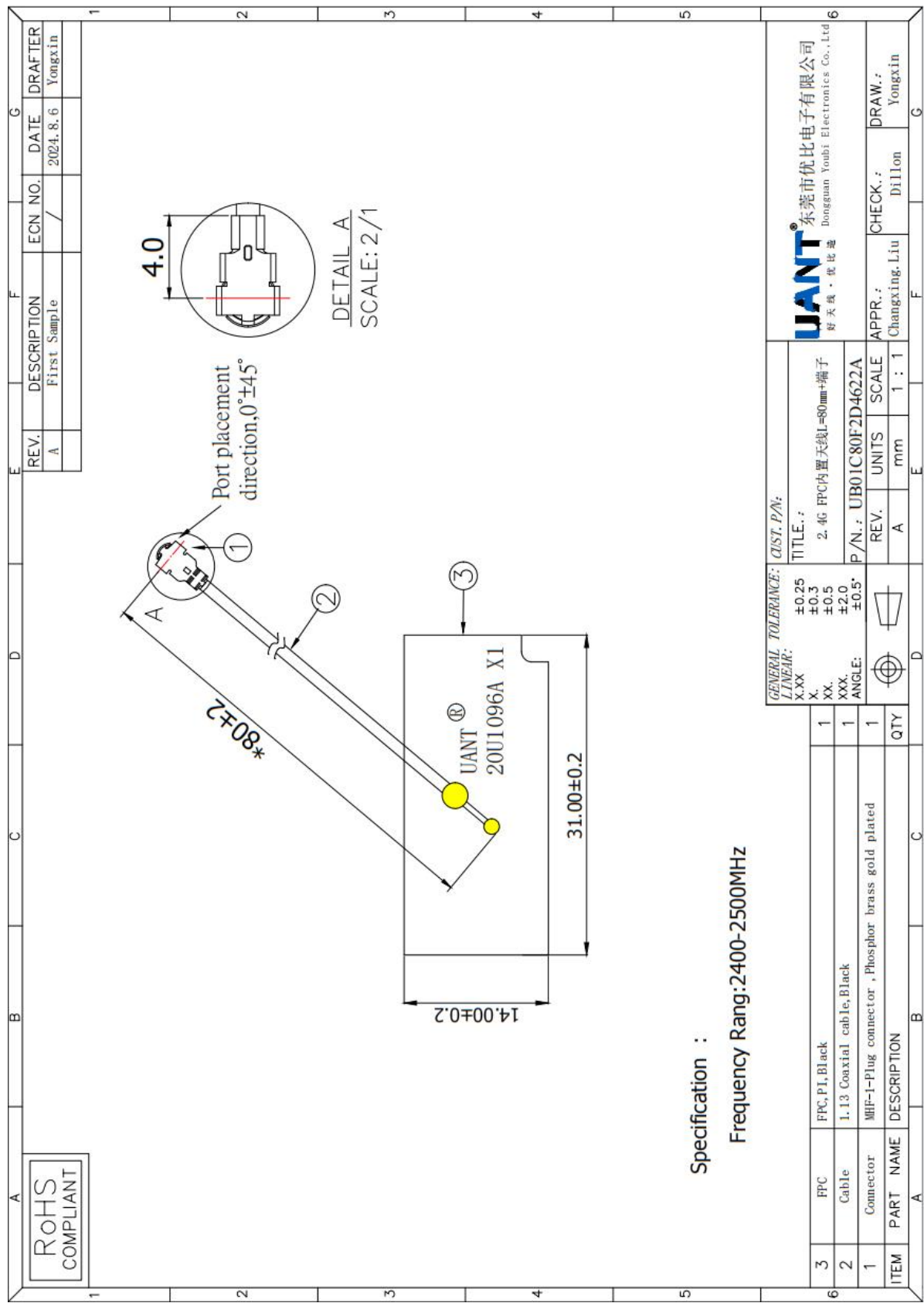
6. Active test data

Test Information											
#	Tester	Type	Azimuths	Elevations	Standard	Band	Channel	Frequency	Max	Min	Total
1	Cmw500	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	20.36	4.2	16.85
2	Cmw500	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-68.58	-85.54	-82.01
3	Cmw500	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	20.68	4.92	16.97
4	Cmw500	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	-68.18	-84.01	-80.27
5	Cmw500	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	21.71	7.45	17.8
6	Cmw500	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	-72.23	-86.5	-82.59

7. Antenna installation diagram

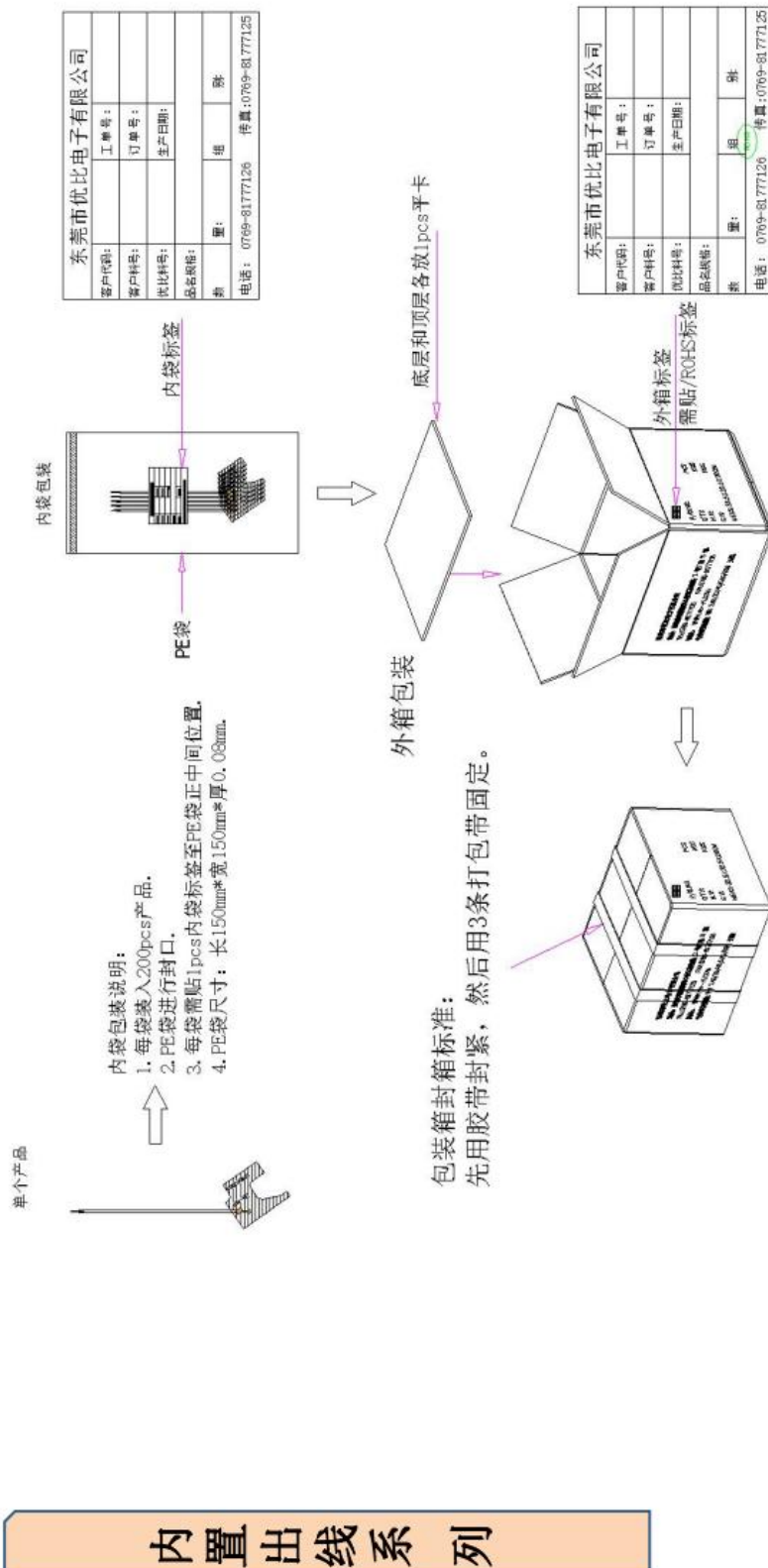


8.Mechanical Specification



9. Packaging

产品包装规范



注: 此份包装规范适用于FPC, PCB天线类的线材总长<90mm带ipex和不带ipex产品, 属于通用类型.

1. 中号纸箱装10000pcs产品每箱.

内置出线系列

未使用特定化合物声明

兹有我司东莞市优比电子有限公司，应熵基科技股份有限公司要求，
我司所交货物料符合 ROHS 2.0 标准，特此声明我司所交物料符合 ROHS 2.0
标准，如有不符合项我司愿意承担一切责任：

欧盟 ROHS 2.0 法规及其豁免条列

铅 (Pb)	1000PPM
镉 (Cd)	100PPM
汞 (Hg)	1000PPM
六价铬 (Cr6+)	1000PPM
多溴联苯 (PBBs)	1000PPM
多溴联苯醚 (PBDEs)	1000PPM
邻苯二甲酸二 (2-乙基己基) 酯 (DEHP)	1000PPM
邻苯二甲酸甲苯基丁酯 (BBP)	1000PPM
邻苯二甲酸二丁基酯 (DBP)	1000PPM
邻苯二甲酸二异丁酯 (DIBP)	1000PPM

公司总经理签字及公司盖章：

日 期：