

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G 内置天线

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01NF3D977A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Yongxin. Lu 	
APPROVED BY:	Changxing. Liu	
DATE:	2022/6/14	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2022-6-14

Content

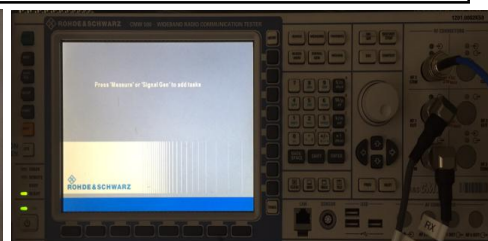
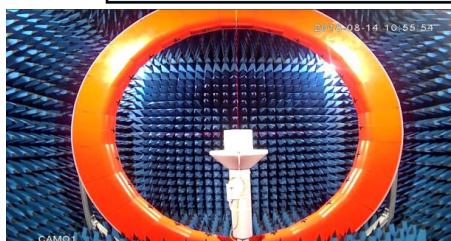
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter-Single antenna test
4.-----	Efficiency and Gain
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	20.8x32.5	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2.0	
Polarization	Linear Polarization	
Gain	-4 REF	dBi
Efficiency	> 20	%
Connector Type	N/A	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

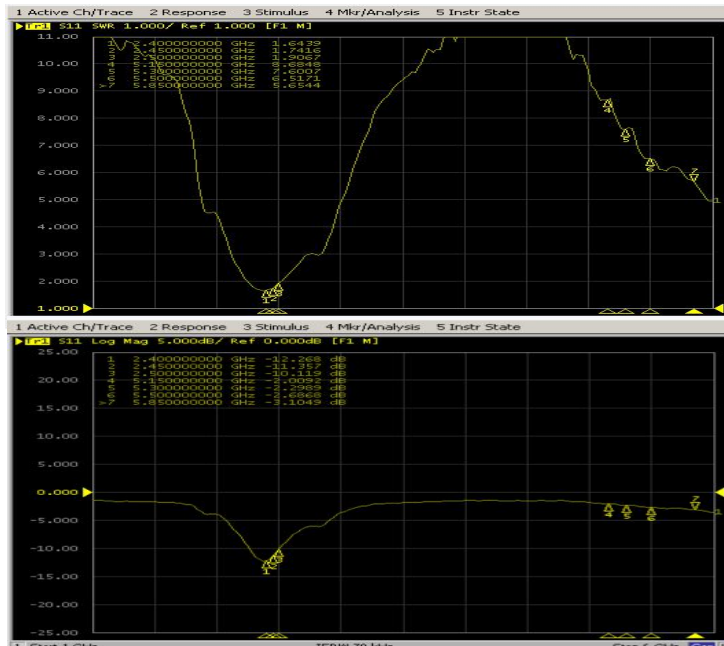
2. Test Items and Equipment

	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-Single antenna test

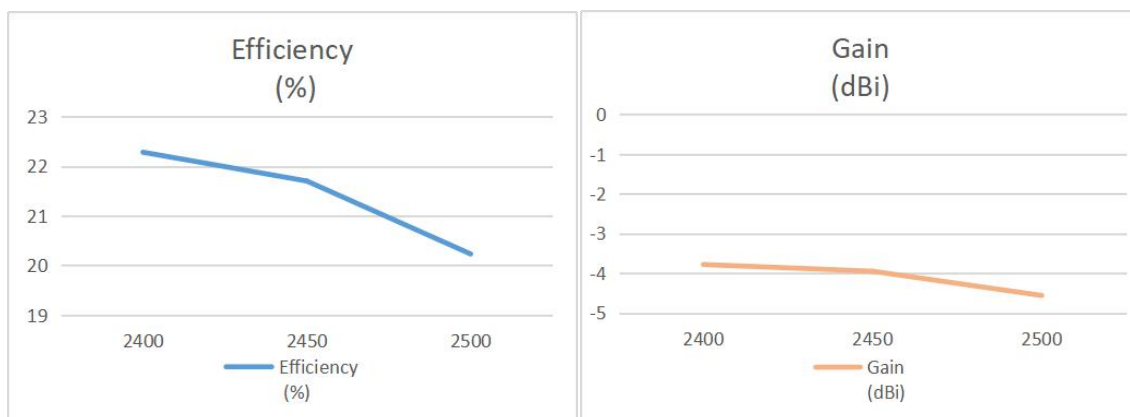
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-12.26	1.64
2450	-11.35	1.74
2500	-10.11	1.90



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

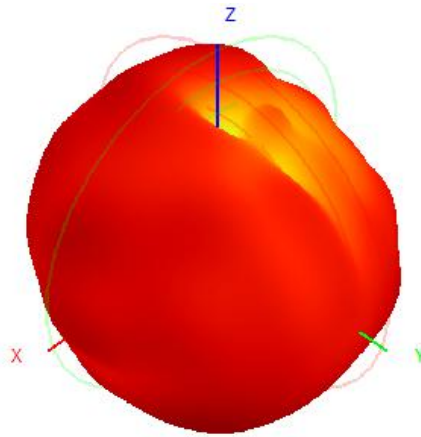
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	22.28	21.70	20.23
Gain (dBi)	-3.78	-3.95	-4.56

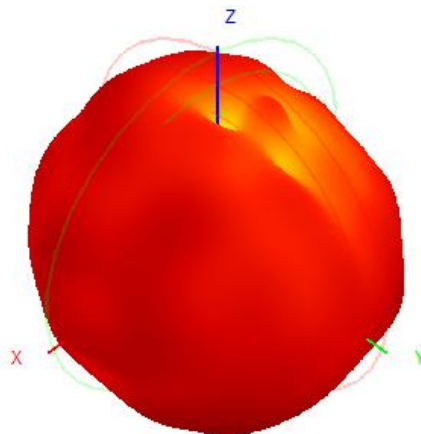


5. Radiation Pattern

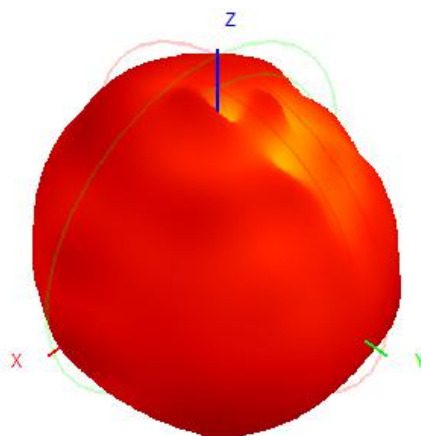
5-1 Antenna 3D Radiation Pattern



2400MHz

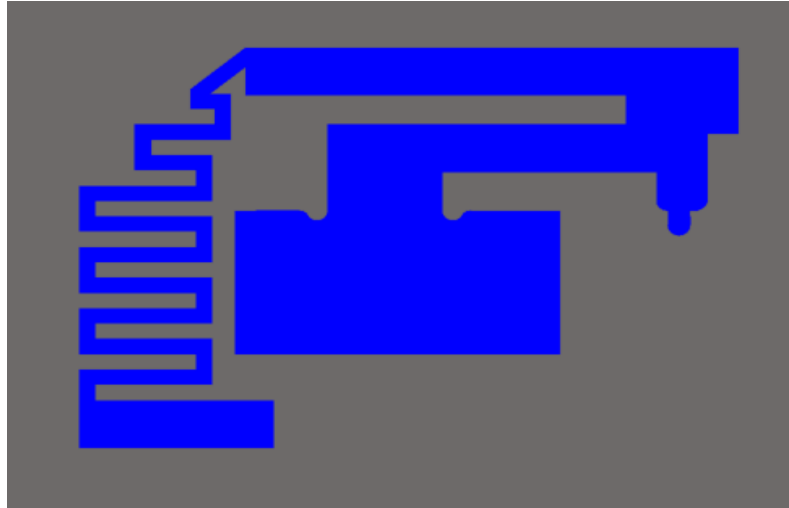


2450MHZ

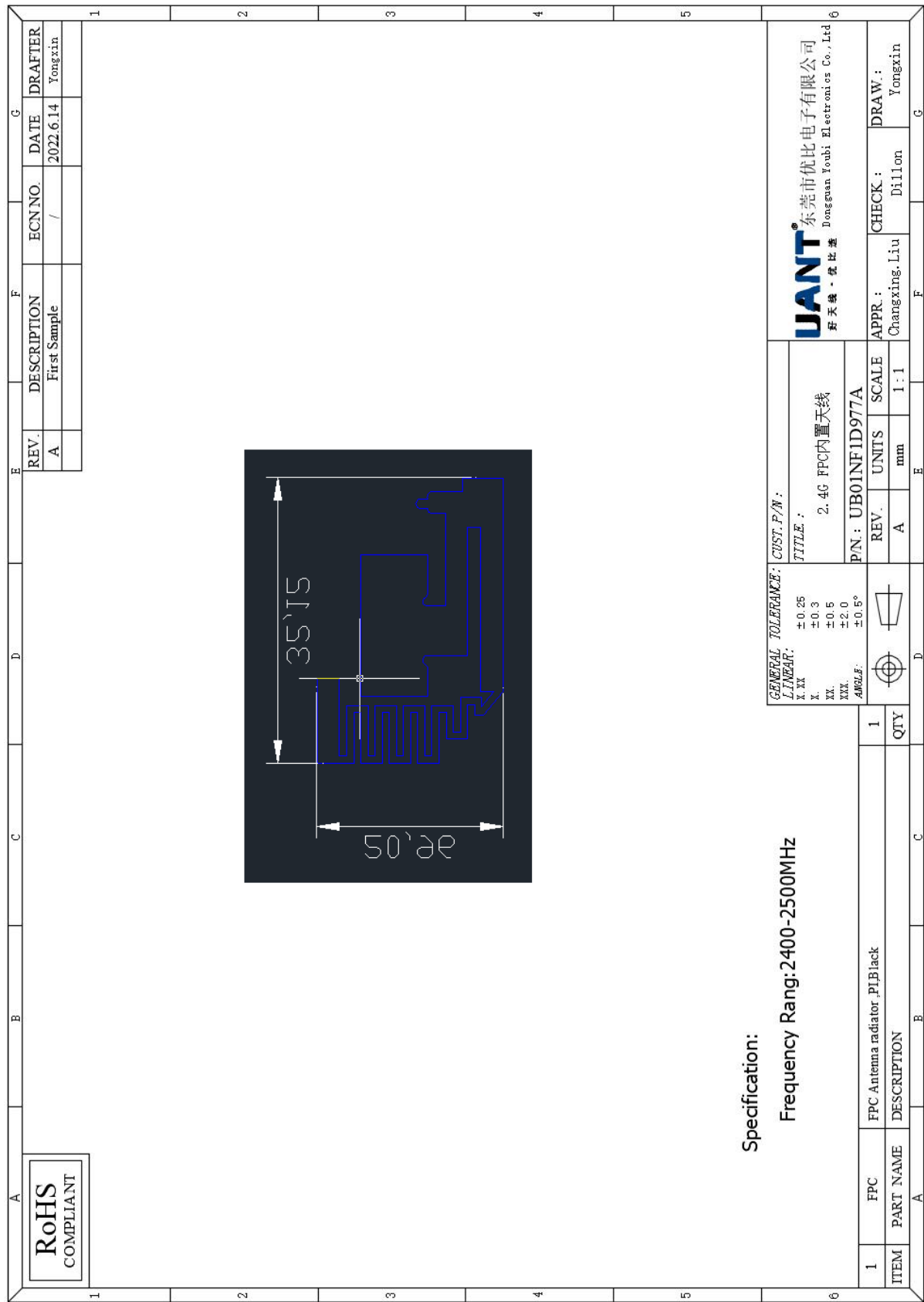


2500MHZ

6. Antenna installation diagram

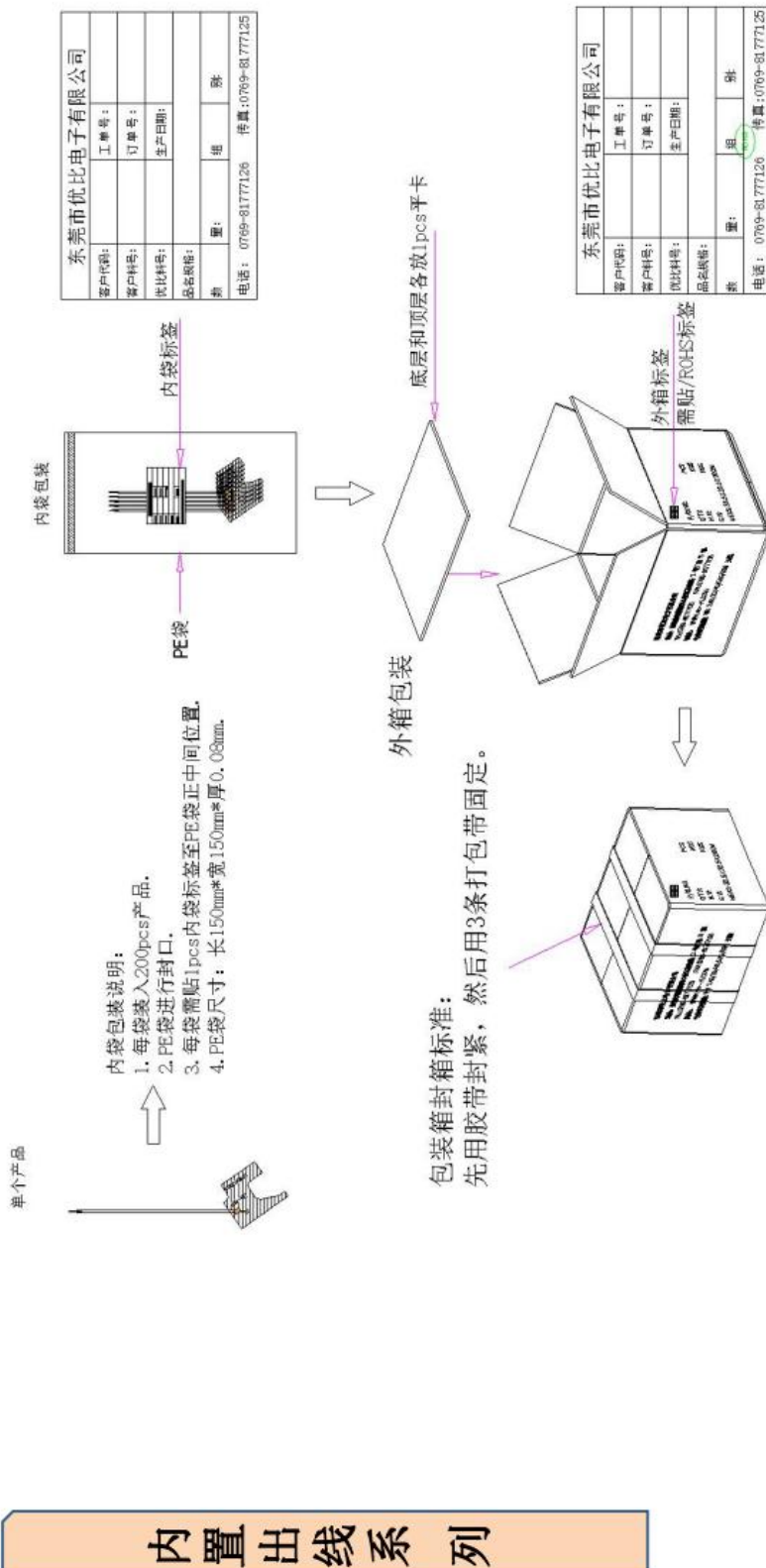


7.Mechanical Specification



8. 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