

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G FPC

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C125F2D2775A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Yongxin. Lu 	
APPROVED BY:	Changxing. Liu	
DATE:	2022/3/15	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2022-3-15

Content

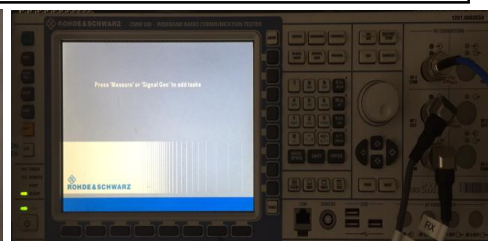
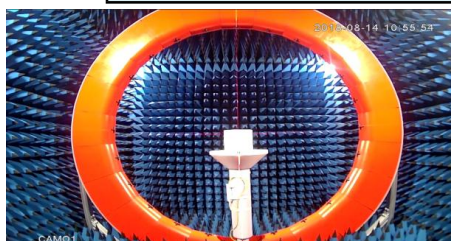
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Active test data
7.-----	Antenna installation diagram
8.-----	Mechanical Specification
9.-----	Packaging

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	38.6x7.7.7,L125	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	<2.0	
Polarization	Linear Polarization	
Gain	3.67	dBi
Efficiency	>60	%
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)



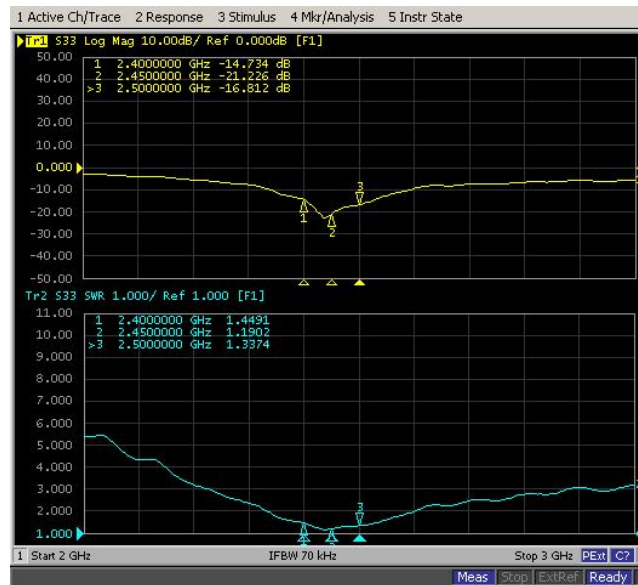
3. S Parameter

Frequency (MHz)	Return Loss (dB)	VSWR
2400	-14.73	1.44
2450	-21.22	1.19
2500	-16.81	1.33

* Voltage Standing Wave Ratio(VSWR)

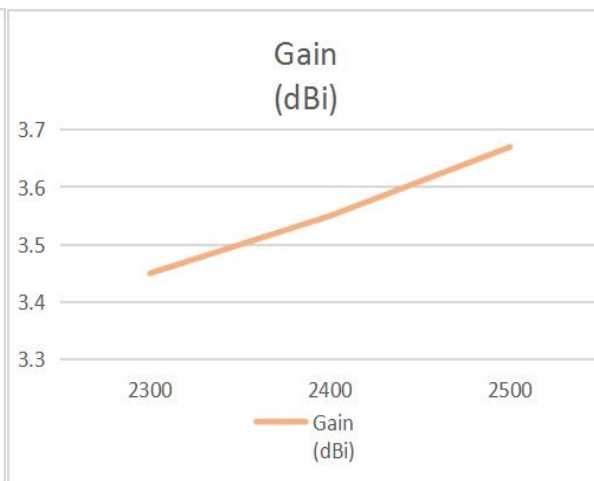
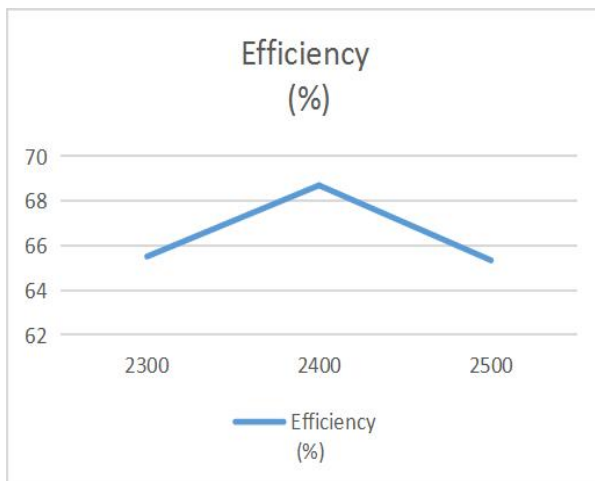
Return Loss(RL)

$$RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$$



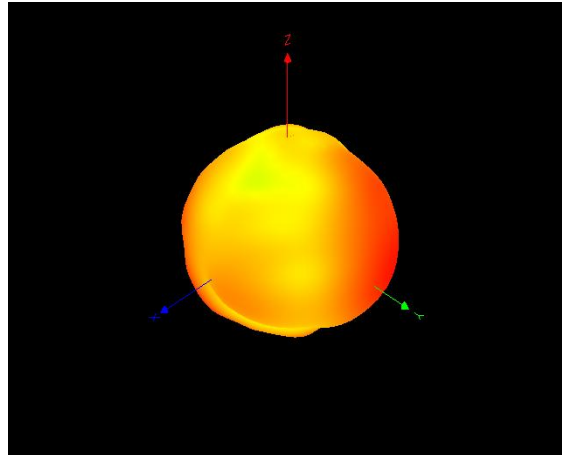
4. Efficiency and Gain

Frequency (MHz)	2400	2400	2500
Efficiency (%)	65.51	68.7	65.34
Gain (dBi)	3.45	3.55	3.67

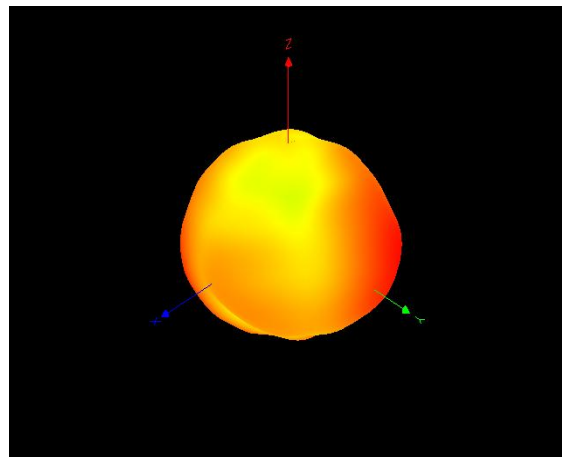


5. Radiation Pattern

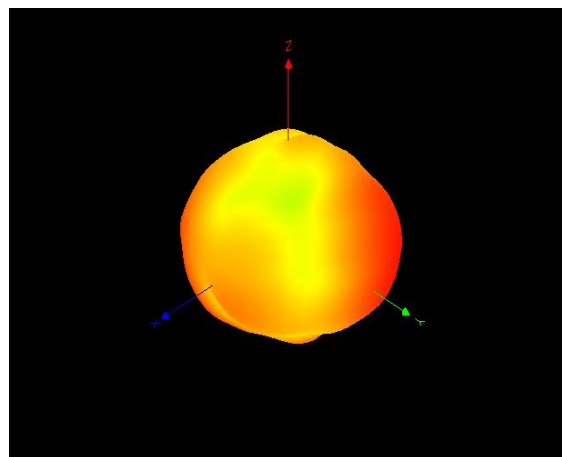
5-1 Antenna 3D Radiation Pattern



2300MHz

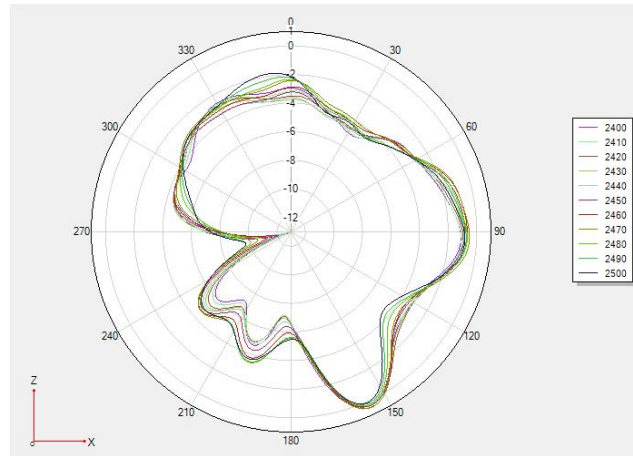


2450MHZ

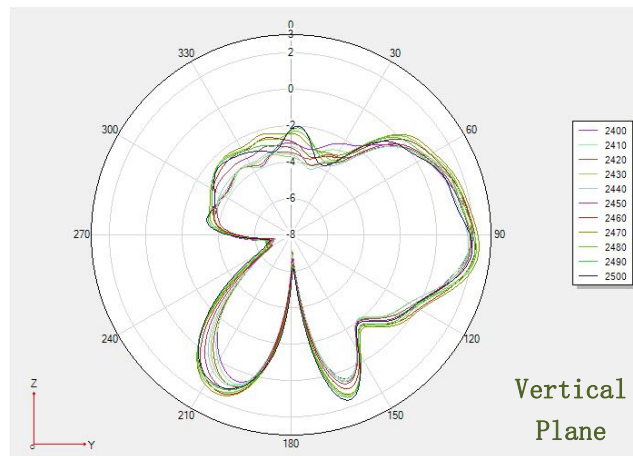


2500MHz

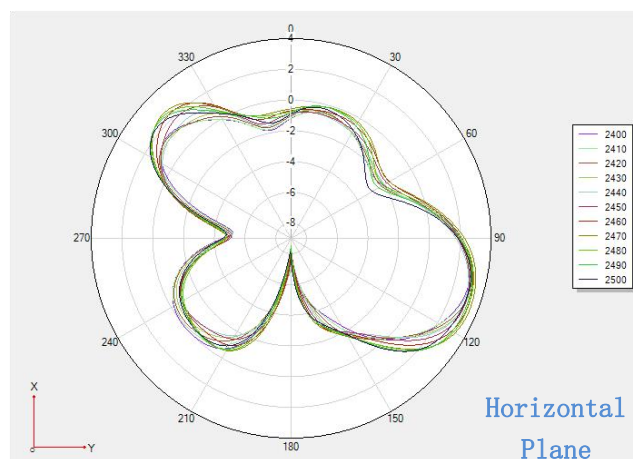
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



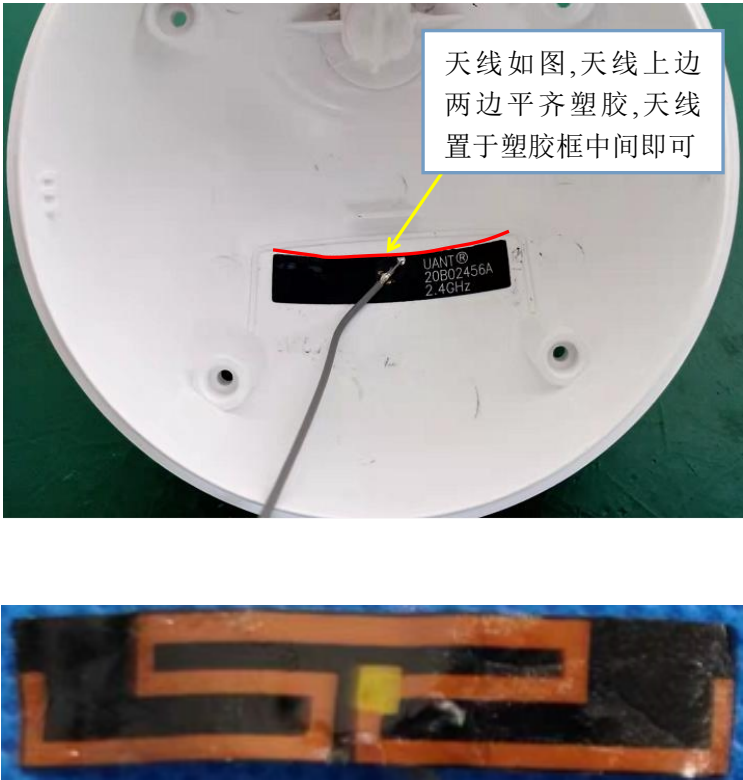
Theta 90 2D

6.Active test data

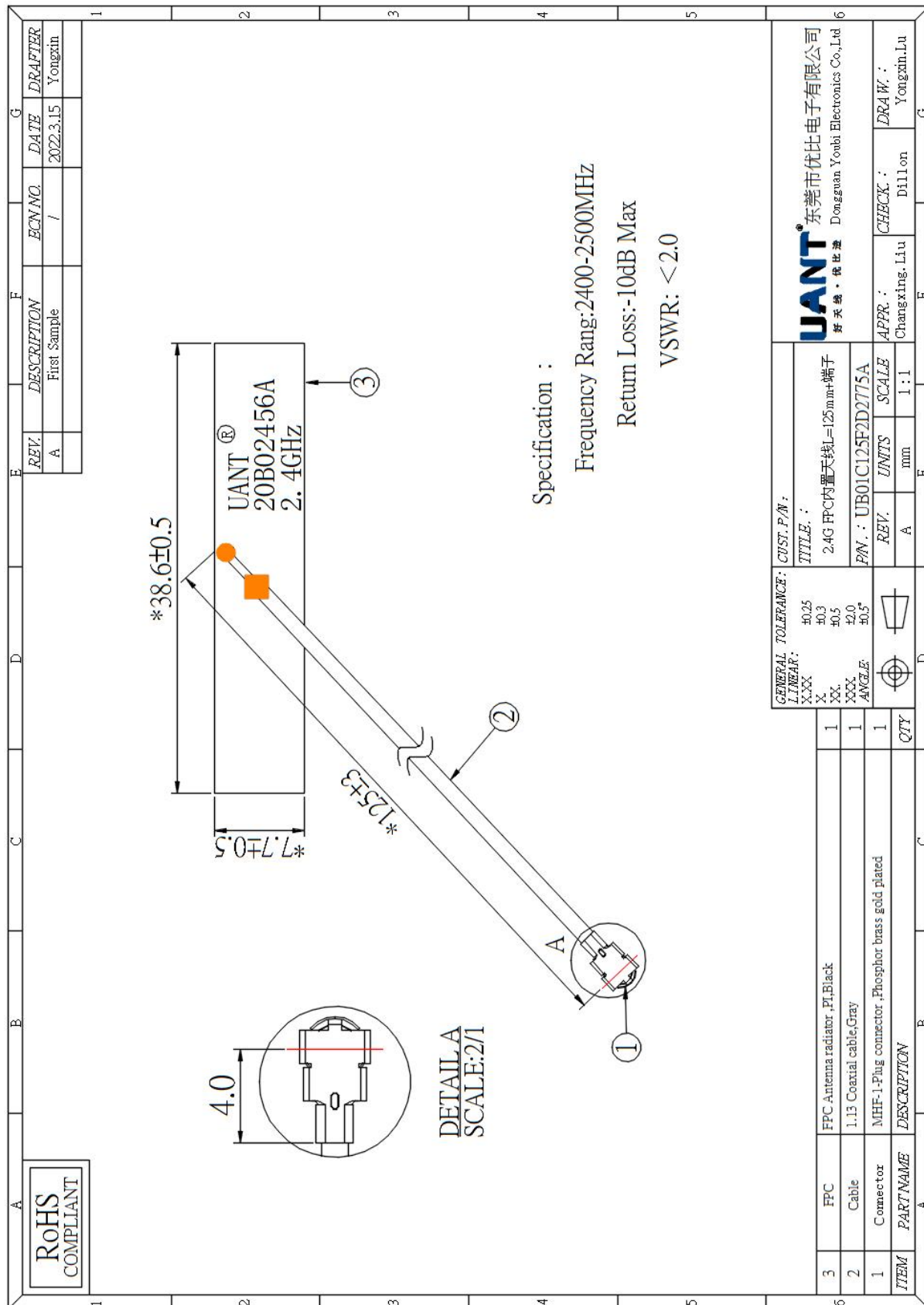
Antenna complete machine test

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Total
1	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	16.37
2	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	15.52
3	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	15.03
4	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-88.53
5	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	-88.44
6	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	-88.13

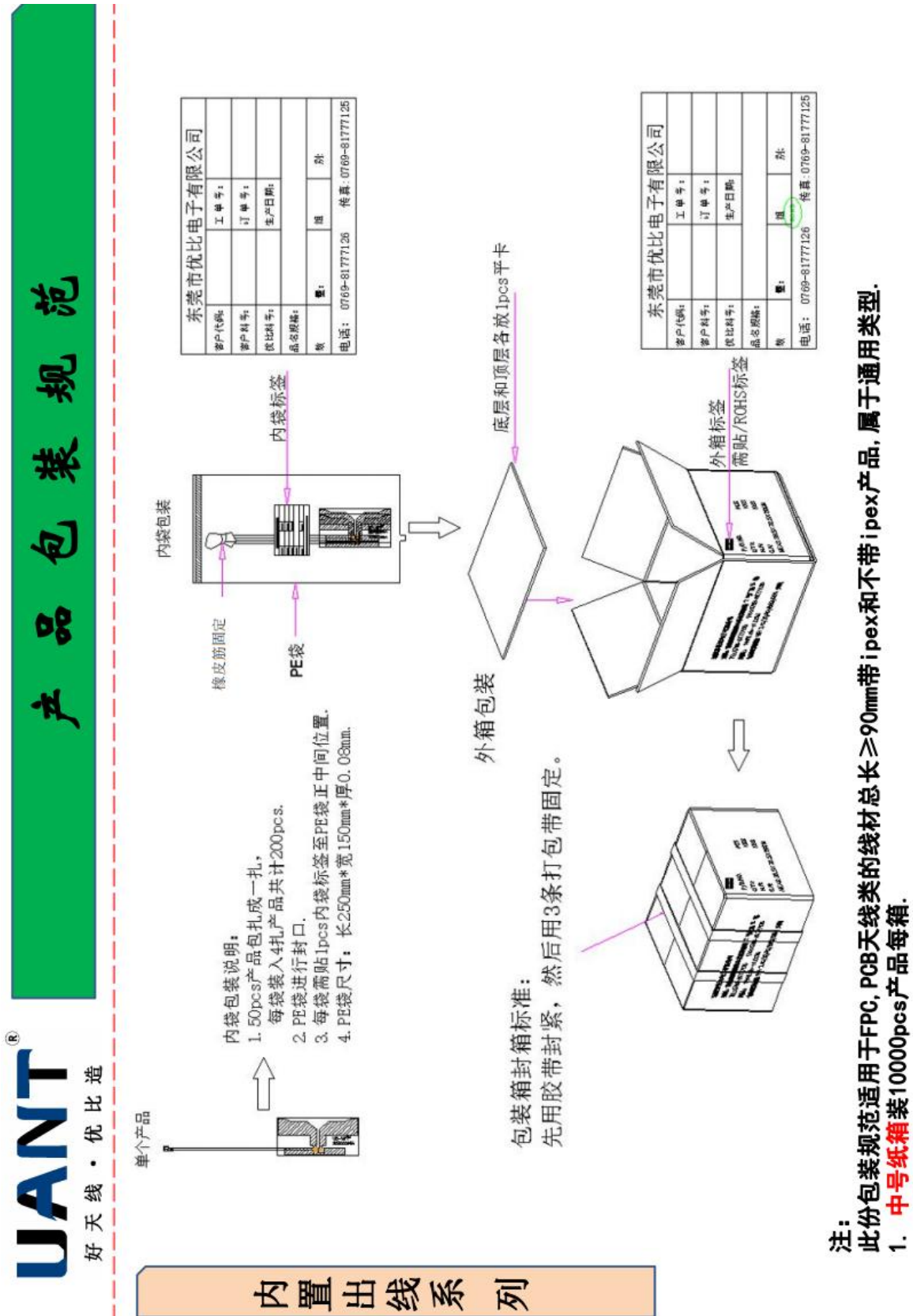
7.Antenna installation diagram



8. Mechanical Specification:



9. Packaging



注:
此份包装规范适用于FPC、PCB天线类的线材总长 $\geq 90\text{mm}$ 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。