

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME: 瀚辉

产 品 名 称

PRODUCT NAME: 2.4G FPC 内置天线 L=120mm+端子

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C100F3D2453A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Yongxin. Lu 	
APPROVED BY:	Changxing. Liu	
DATE:	2021/11/19	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2021-11-11
B	Cable and length changed	Yongxin. Lu	2021-11-19

Content

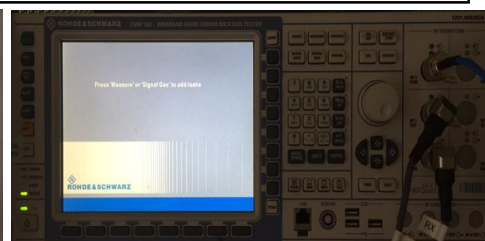
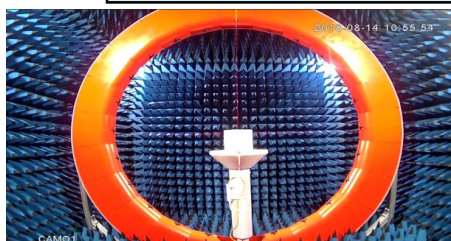
<i>Item</i>	<i>Description</i>
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2.-----	Test Items and Equipment
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5.-----	Radiation Pattern
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8.-----	Packaging

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	9.8x47.5,L120	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2.0	
Polarization	Linear Polarization	
Gain	2.5±0.5	dBi
Efficiency	> 50	%
Connector Type	MHF-2-Plug	
Operating temperature	-20℃~+65℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

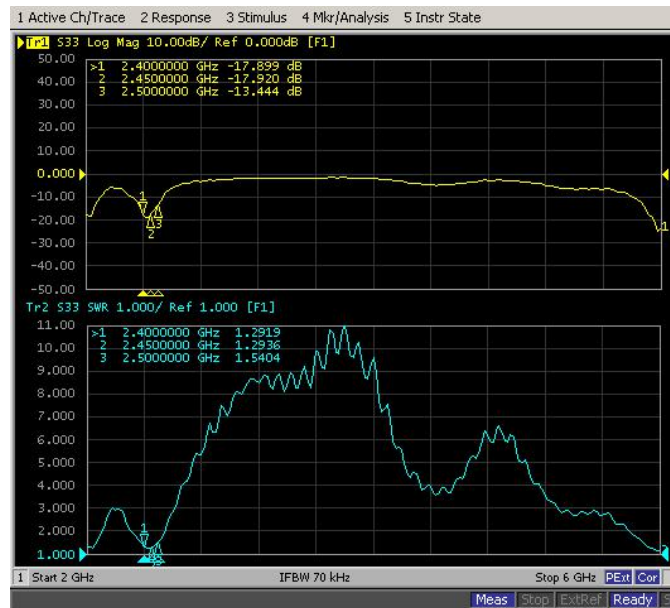
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

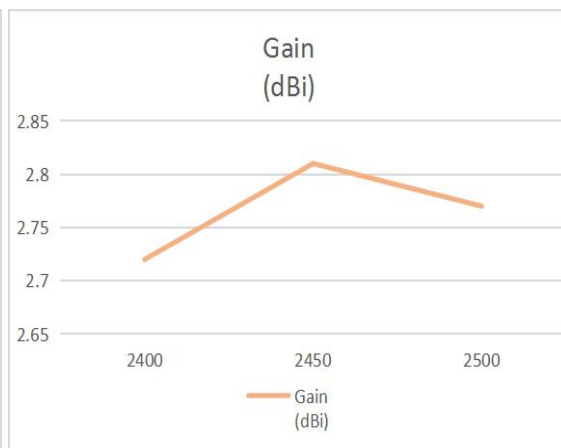
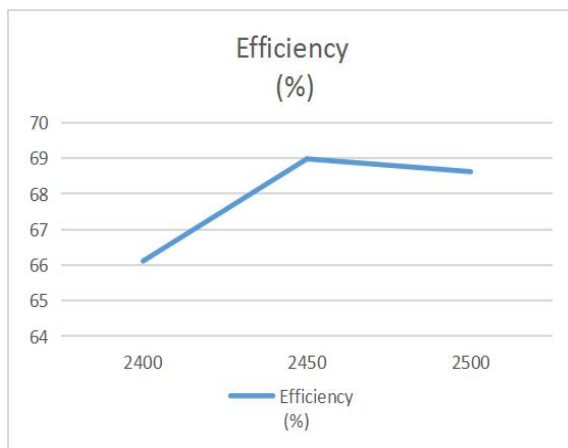
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-17.89	1.29
2450	-17.92	1.29
2500	-13.44	1.54

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



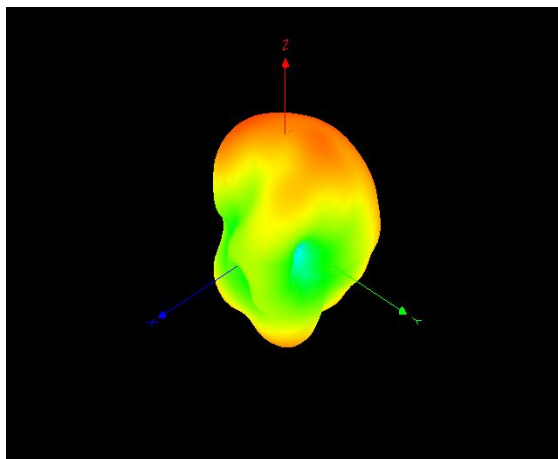
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	66.11	68.98	68.62
Gain (dBi)	2.72	2.81	2.77

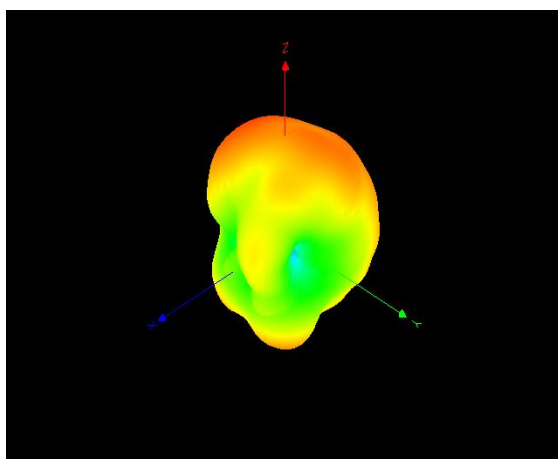


5. Radiation Pattern

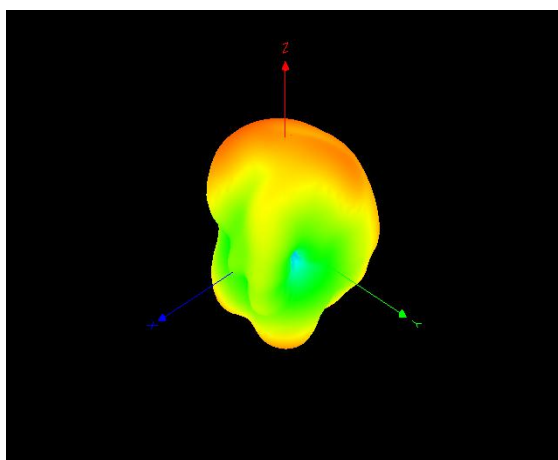
5-1 Antenna 3D Radiation Pattern



2400MHz

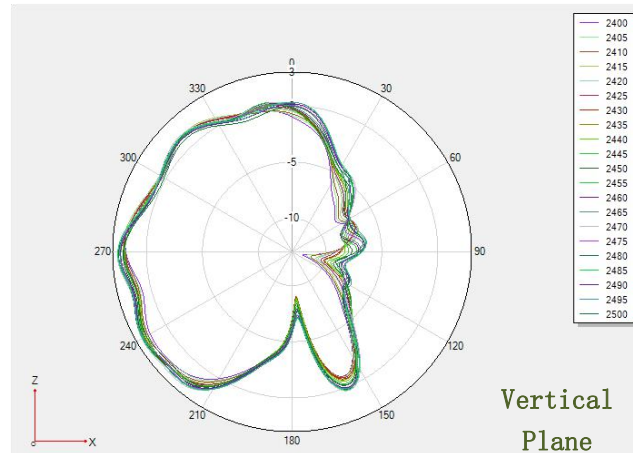


2450MHZ

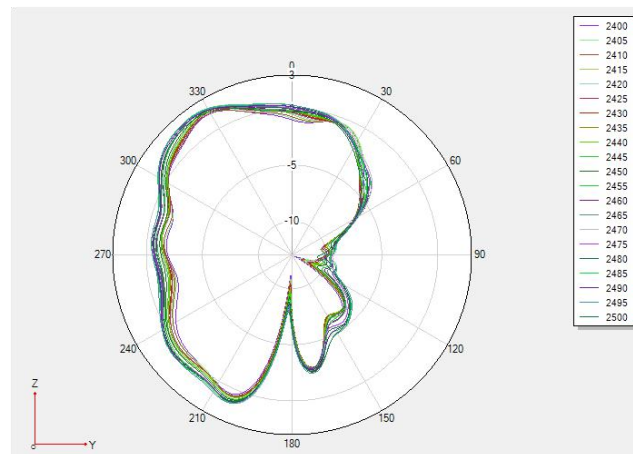


2500MHZ

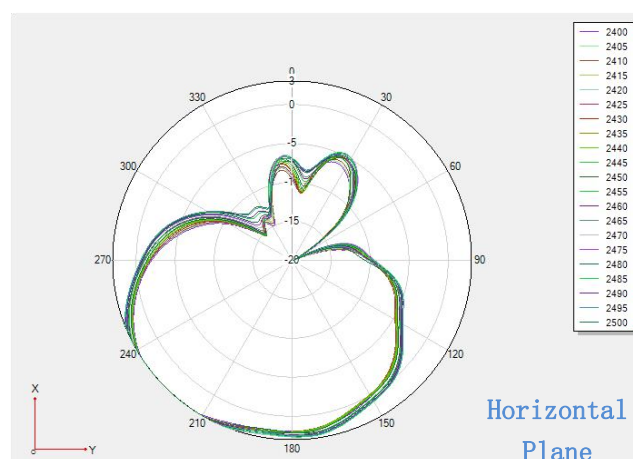
5-2 Antenna 2D Radiation Pattern



Phi 0 2D

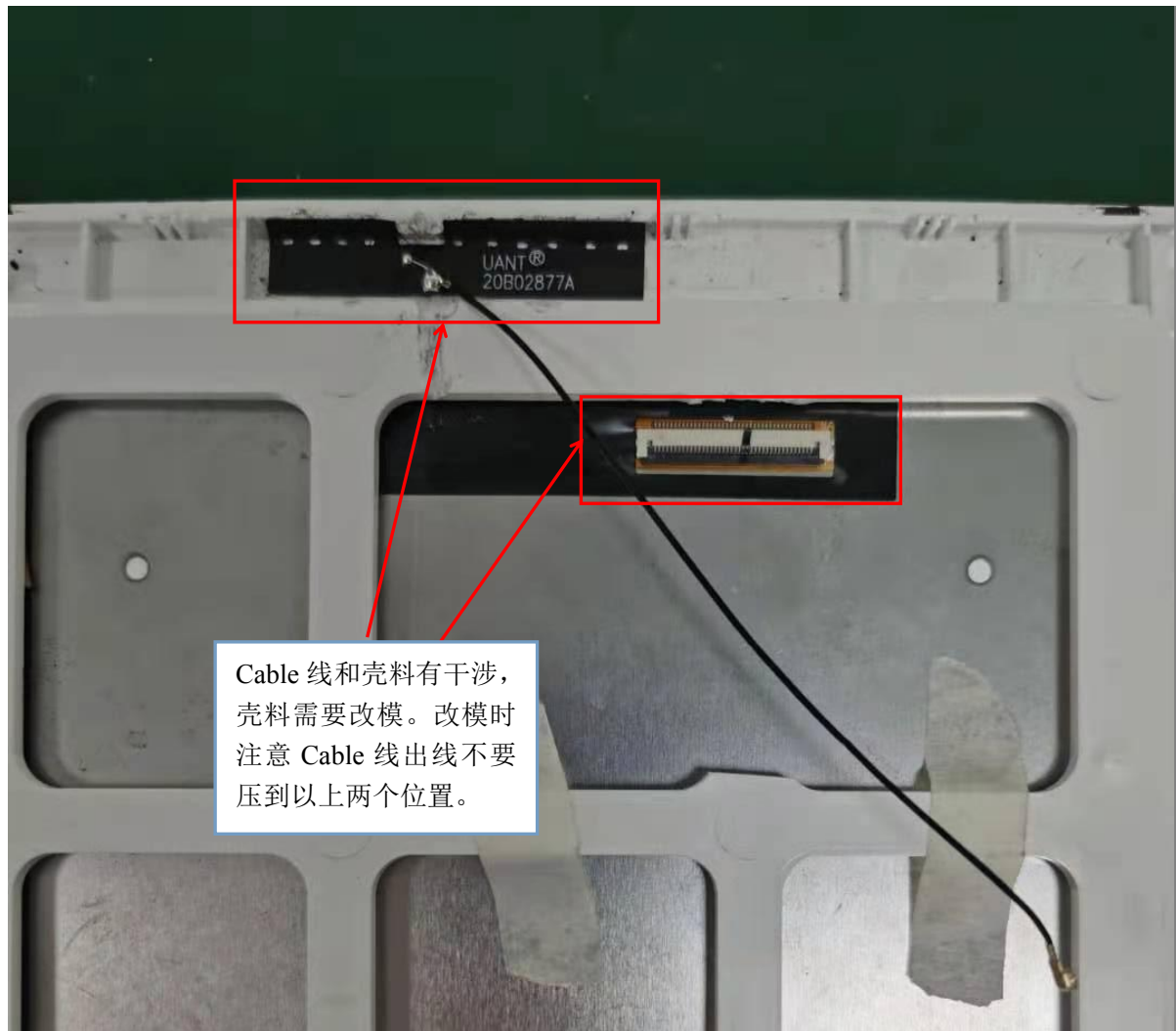


Phi 90 2D

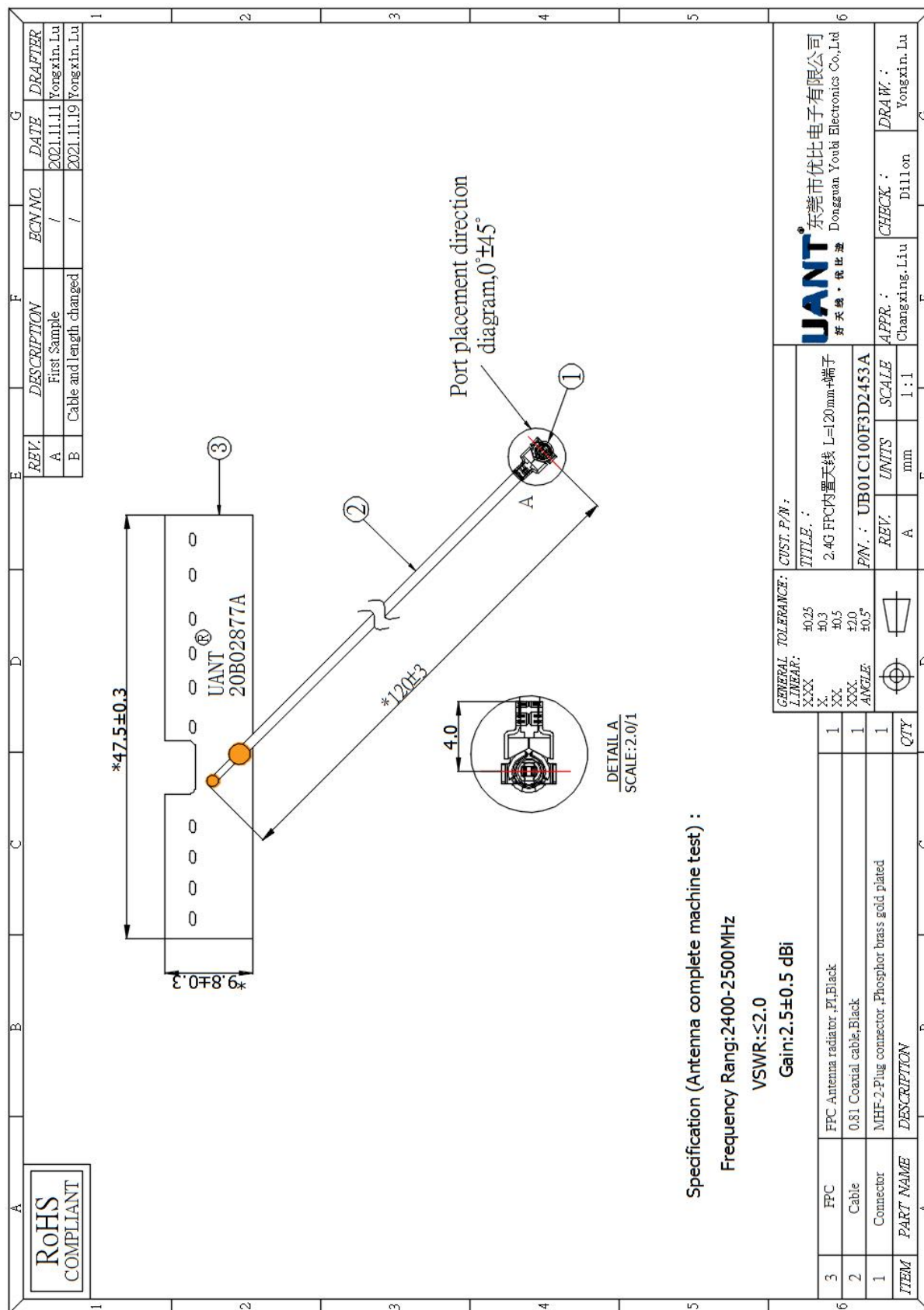


Theta 90 2D

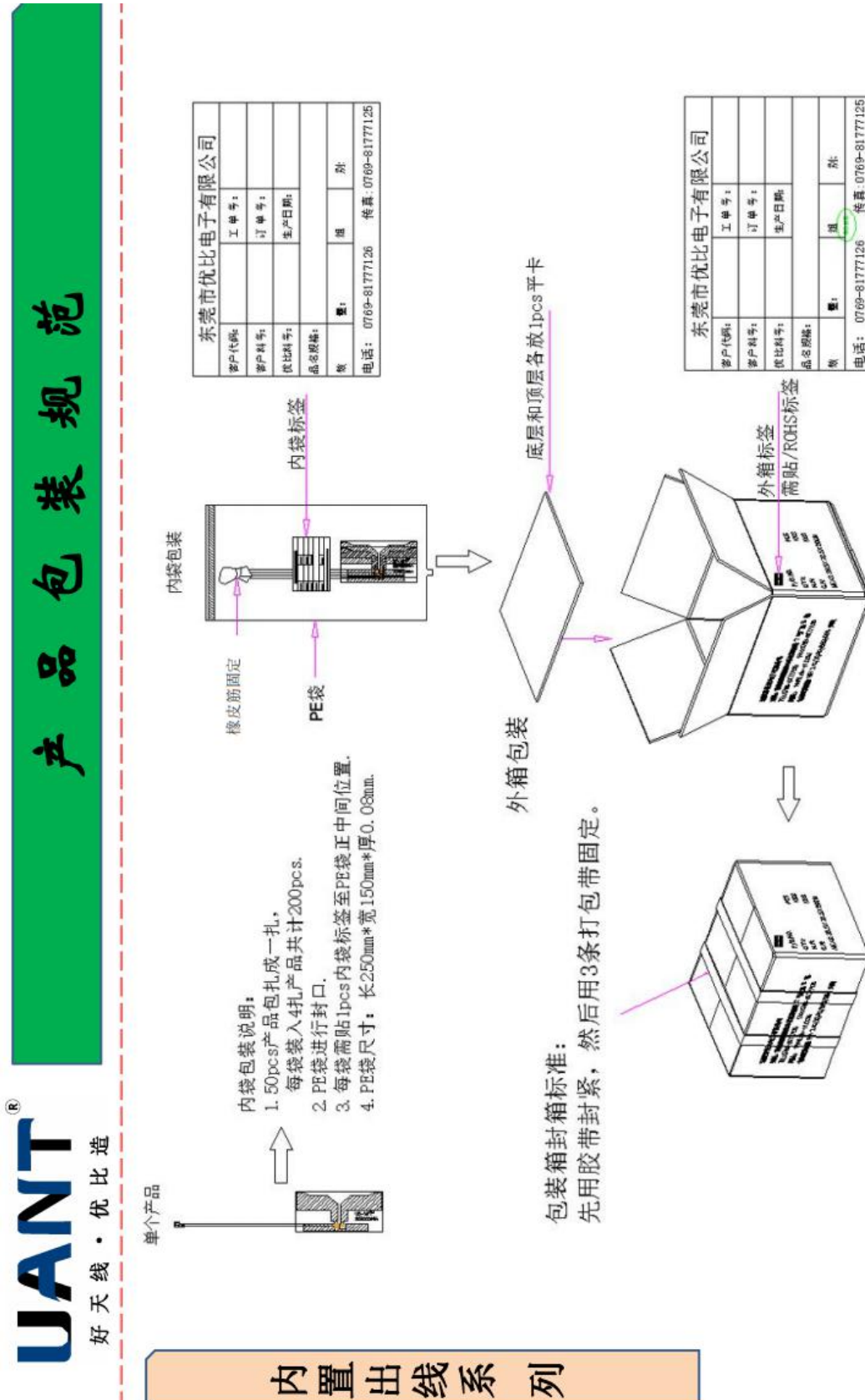
6. Antenna installation diagram:



7. Mechanical Specification:



8. 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.