

承 认 书

APPROVAL SHEET

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 2.4G FPC 内置天线 L=50mm+端子

客户料号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C50F2D4238A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy 	
APPROVED BY:	工程专用章 Changxing. Liu	
DATE:	2023/10/16	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-10-16

Content

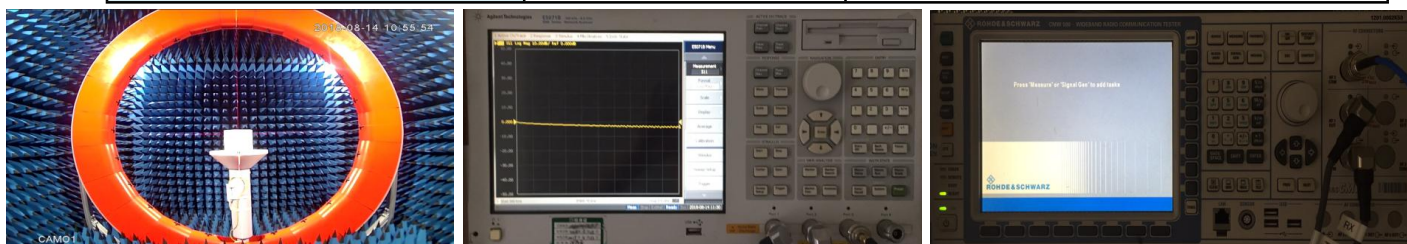
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Active test data
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	24.9x21,L50	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	2 REF	dBi
Efficiency	>40	%
Connector Type	RF1	
Operating temperature	-20 $^{\circ}$ C~+85 $^{\circ}$ C	
Storage Temp	-20 $^{\circ}$ C~+50 $^{\circ}$ C	

2. Test Items and Equipment

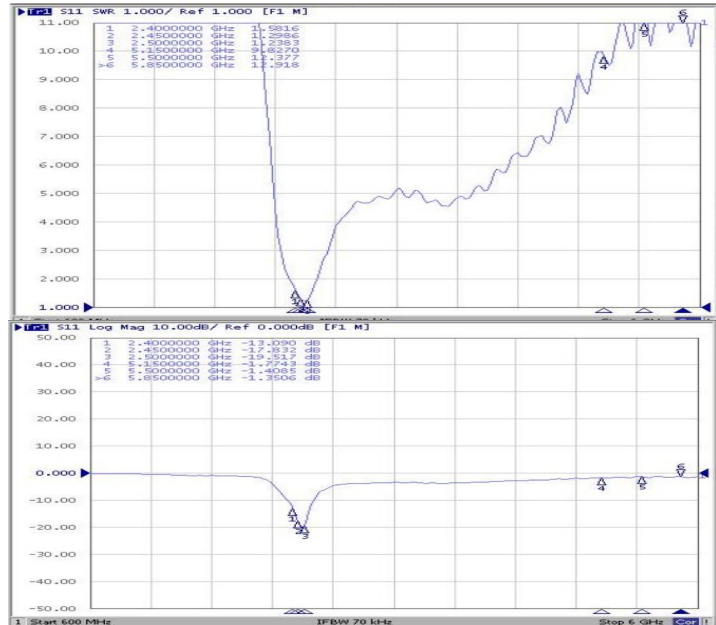
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

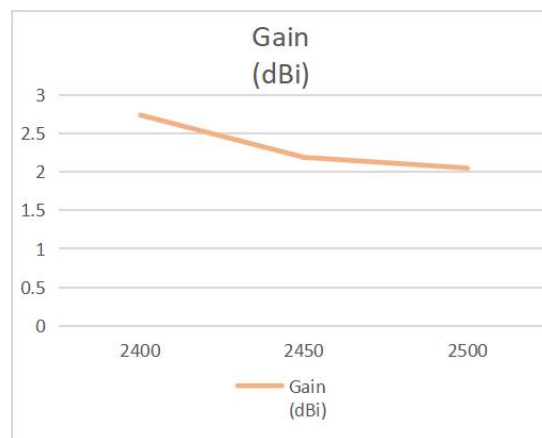
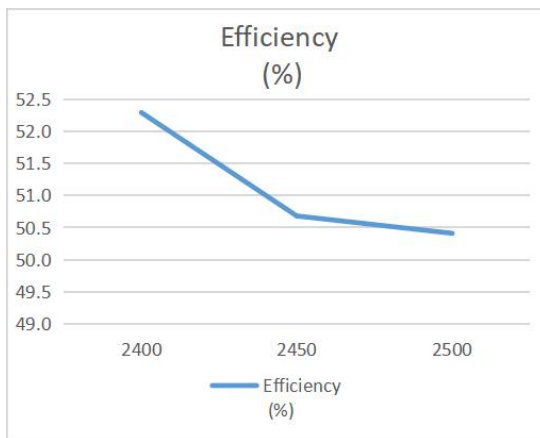
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-13.09	1.58
2450	-17.83	1.29
2500	-19.51	1.23

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

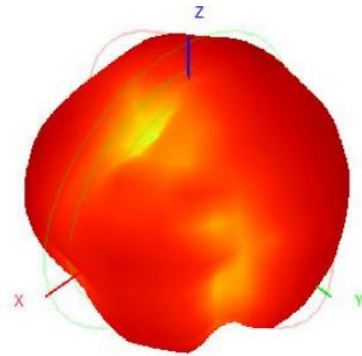


4. Efficiency and Gain

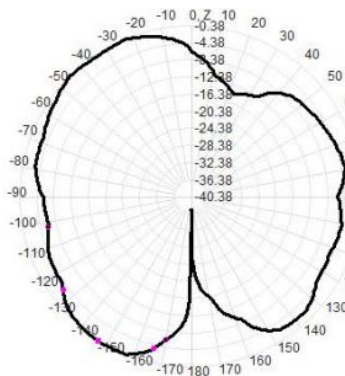
Frequency (MHz)	2400	2450	2500
Efficiency (%)	52.29	50.68	50.41
Gain (dBi)	2.74	2.19	2.05



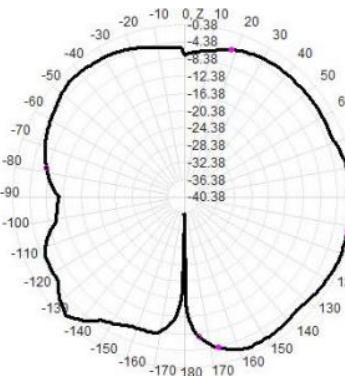
5. Radiation Pattern



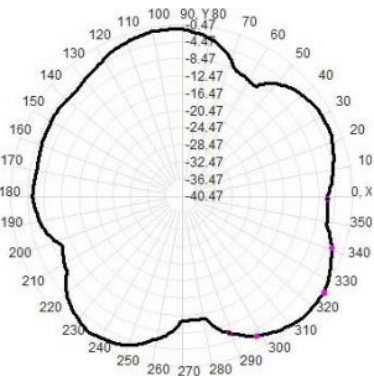
2450MHz



Phi 0 2D



Phi 90 2D



Theta 90 2D

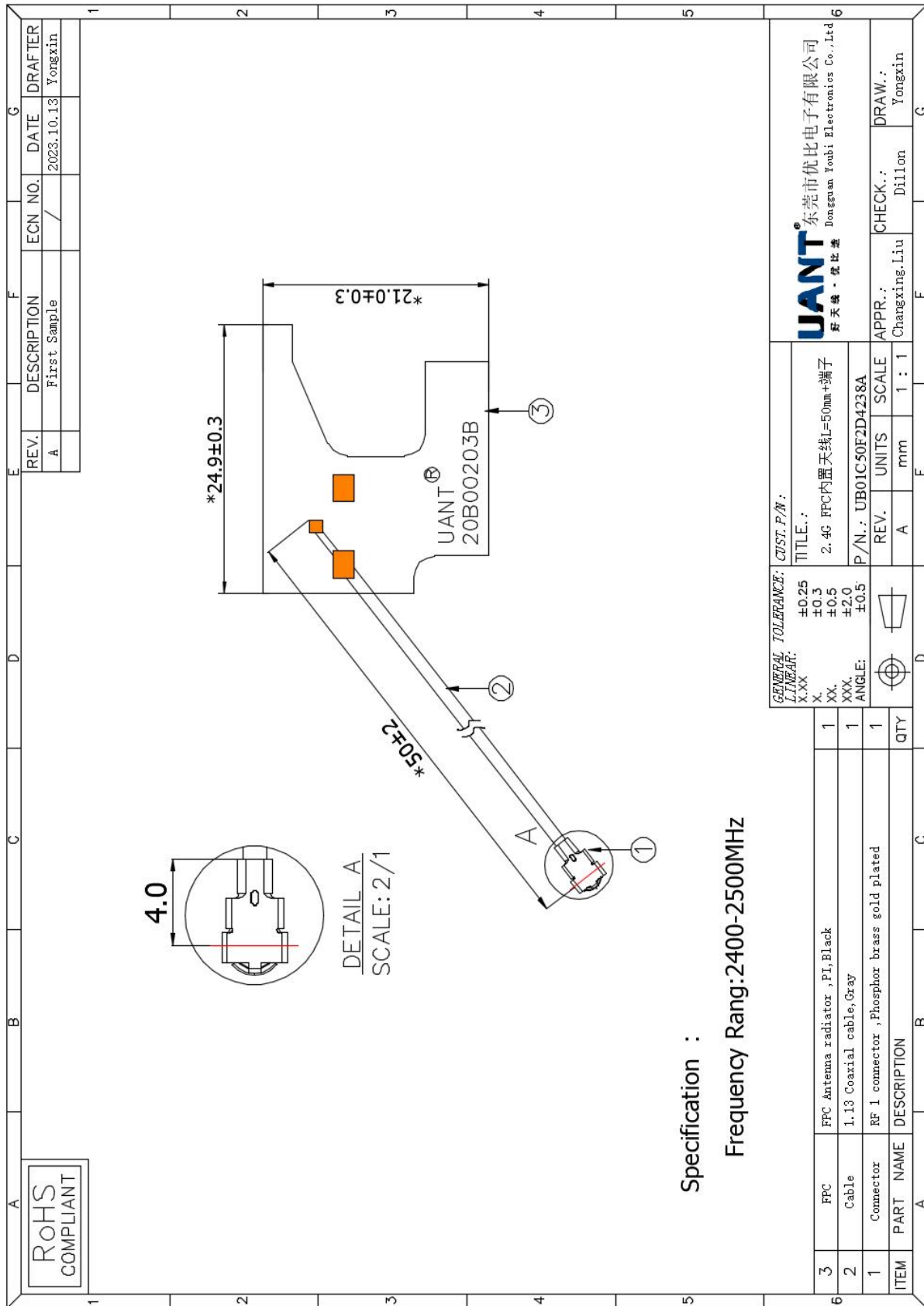
6. Active test data

Channel	Measurement	Total
1	TRP	15.29
6	TRP	15.18
11	TRP	15.17
1	TIS(EIRP)	-81.47
6	TIS(EIRP)	-81.51
11	TIS(EIRP)	-80.89

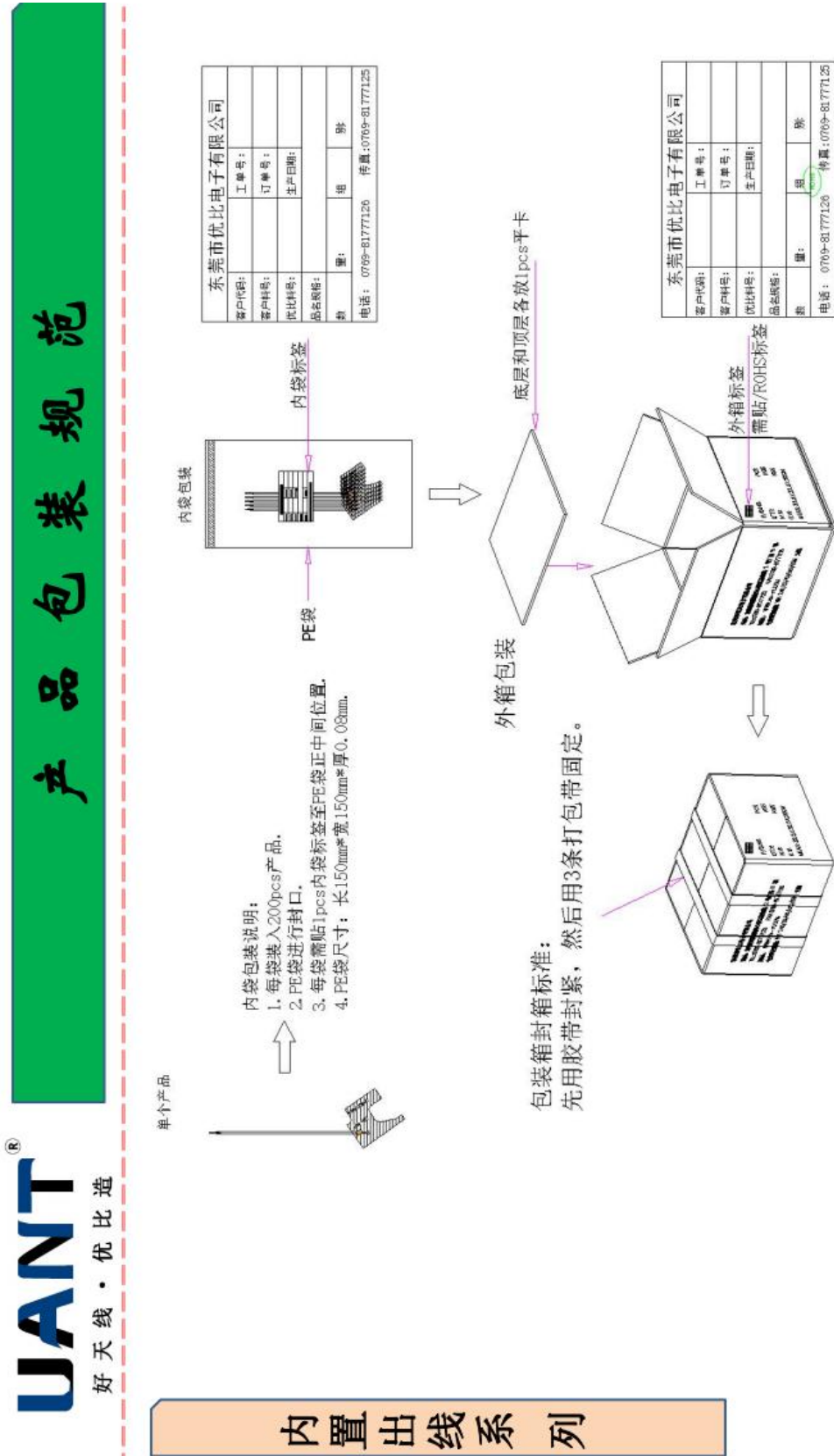
7. Antenna installation diagram



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<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.