

# 承 认 书

## APPROVAL SHEET

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 2.4G 内置 FPC 天线

客户料号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01NJ3D496A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:	Changxing. Liu	
DATE:	2023/6/1	

### Modification History

Version	Content Revision	Issued by	Date
A	Original version	lina	2023-6-1

## *Content*

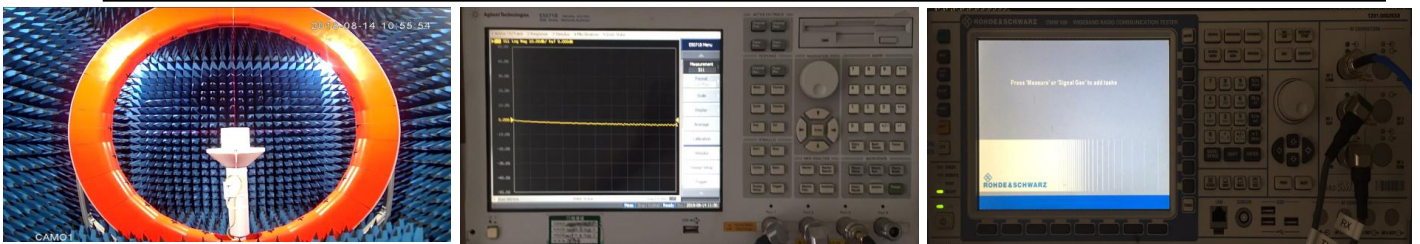
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification

## 1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	25.3*16.8	mm
Frequency	2400~2500	MHz
Impedance	50	$\Omega$
VSWR	$\leq 1.92$	
Polarization	Linear	
Gain	3.0 $\pm$ 0.5	dBi
Efficiency	>40	%
Connector Type	/	
Operating temperature	-40 $^{\circ}$ C~+85 $^{\circ}$ C	
Storage Temp	-40 $^{\circ}$ C~+85 $^{\circ}$ C	

## 2. Test Items and Equipment

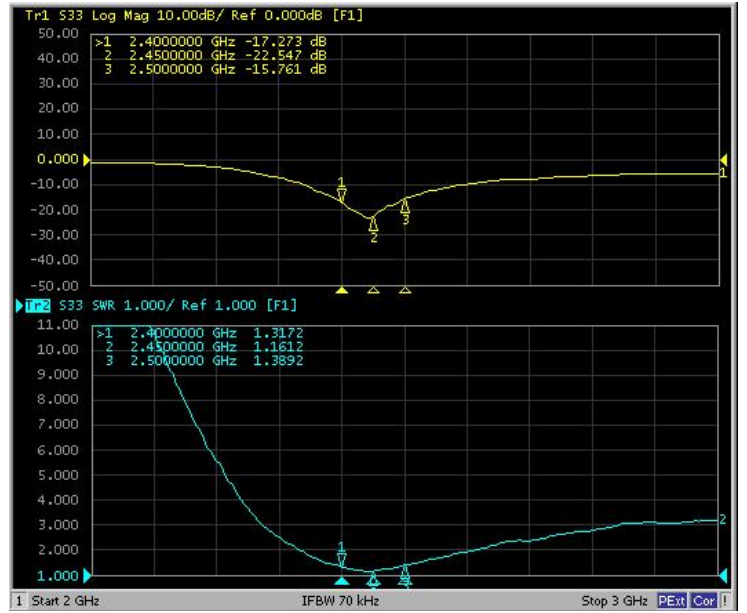
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



### 3. S Parameter

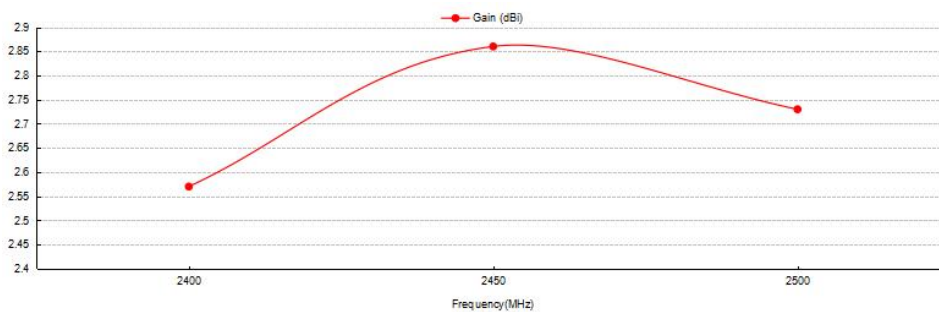
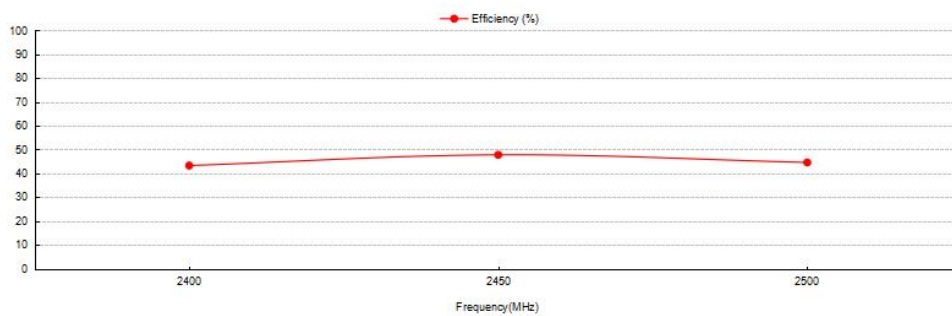
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-17.27	1.31
2450	-22.54	1.16
2500	-15.76	1.38

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



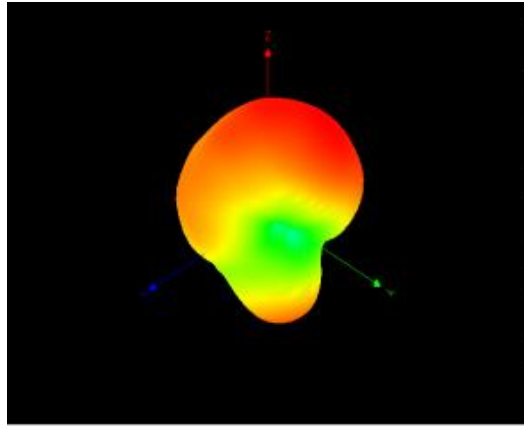
### 4. Efficiency and Gain

Frequency (MHz)	Frequency (MHz)	2400	2450	2500
Efficiency (%)	Gain (dBi)	2.57	2.86	2.73
Gain (dBi)	Efficiency (%)	43.3	47.8	44.6

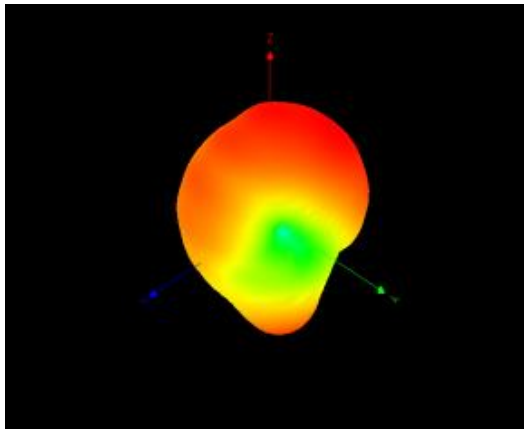


## 5. Radiation Pattern

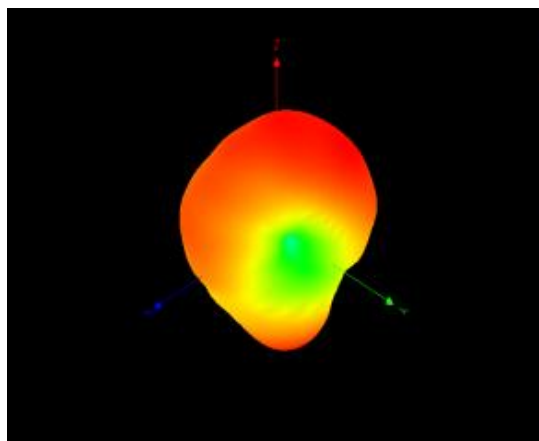
### 5-1 Antenna 3D Radiation Pattern



2400MHz

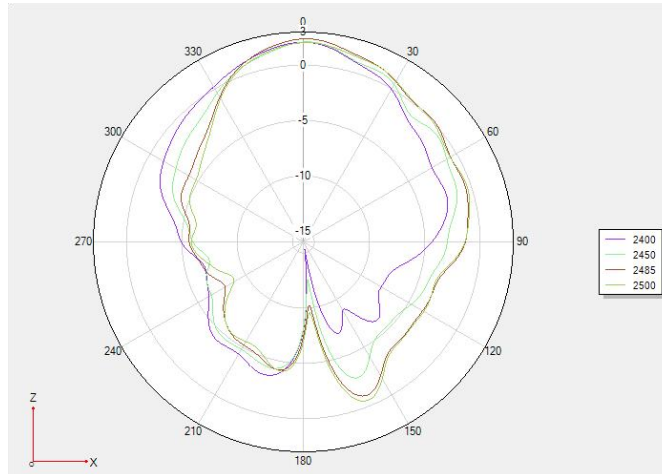


2450MHZ

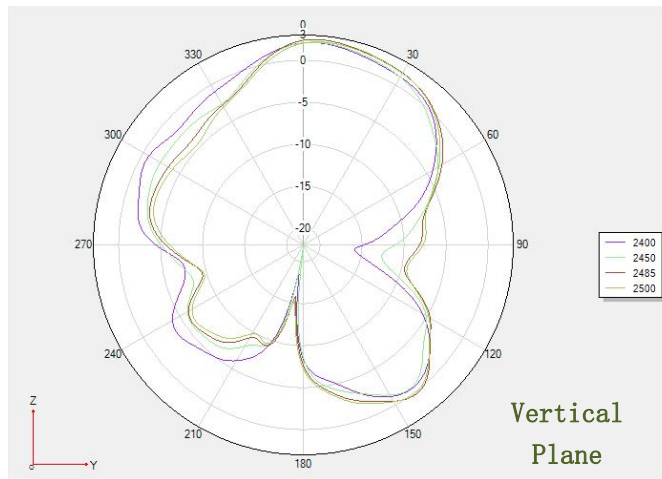


2500MHZ

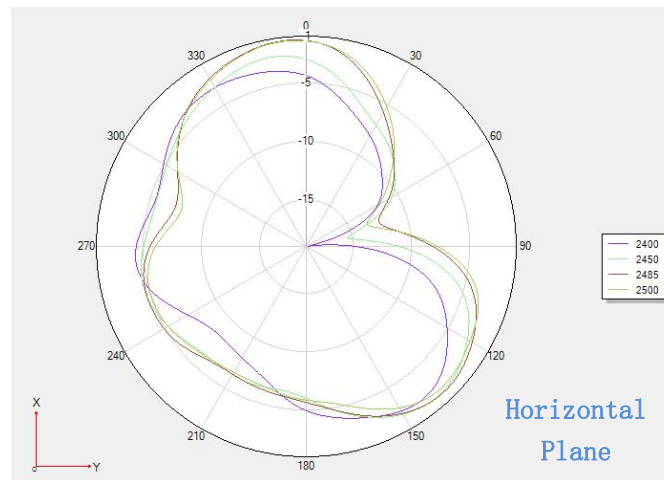
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D



## 6. Mechanical Specification:

