

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

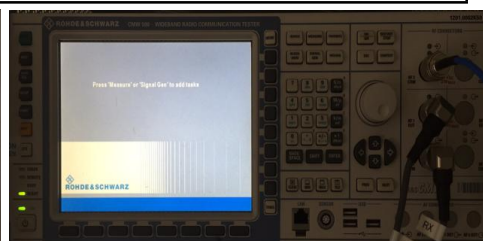
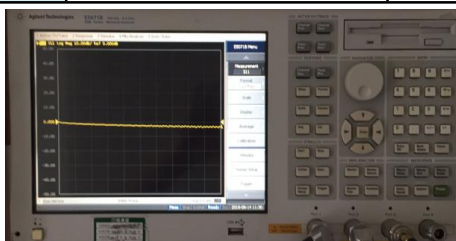
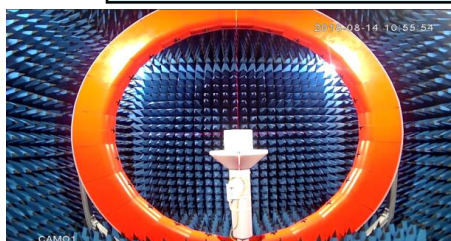
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification

1. Electrical Specification:

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

2. Test Items and Equipment

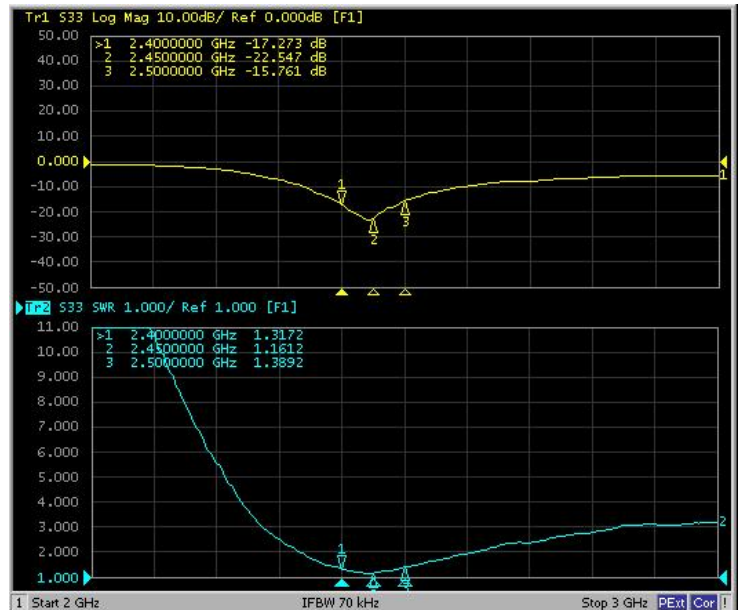
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

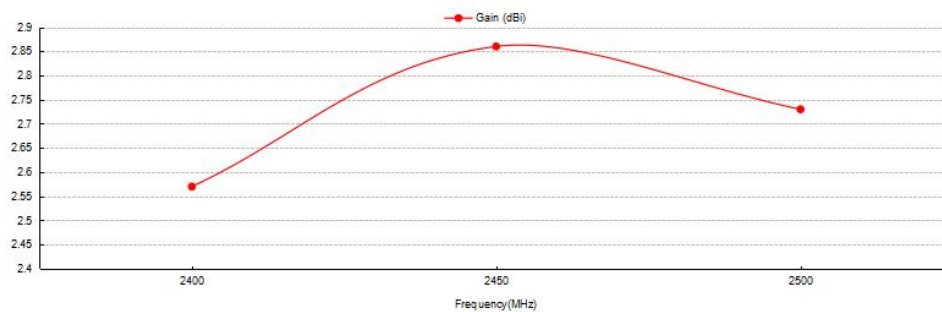
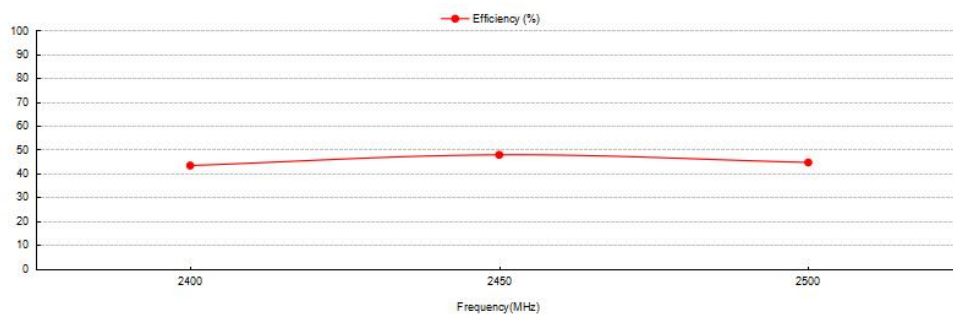
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-17.27	1.31
2450	-22.54	1.16
2500	-15.76	1.38

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



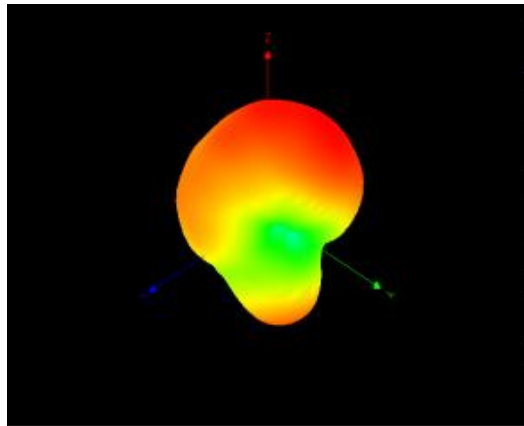
4. Efficiency and Gain

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

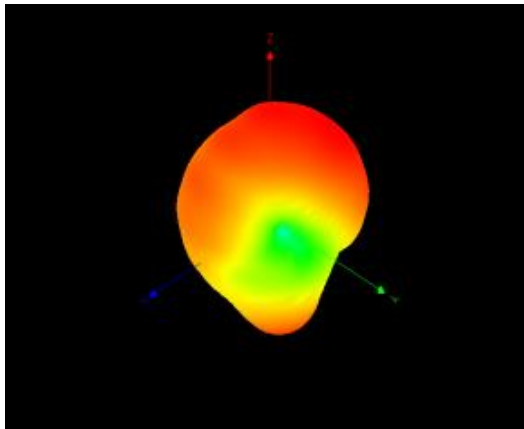


5. Radiation Pattern

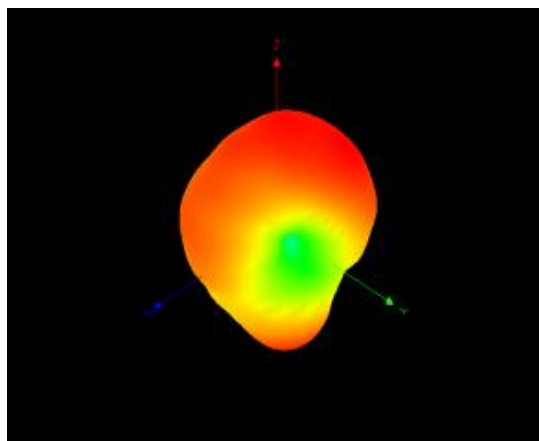
5-1 Antenna 3D Radiation Pattern



2400MHz

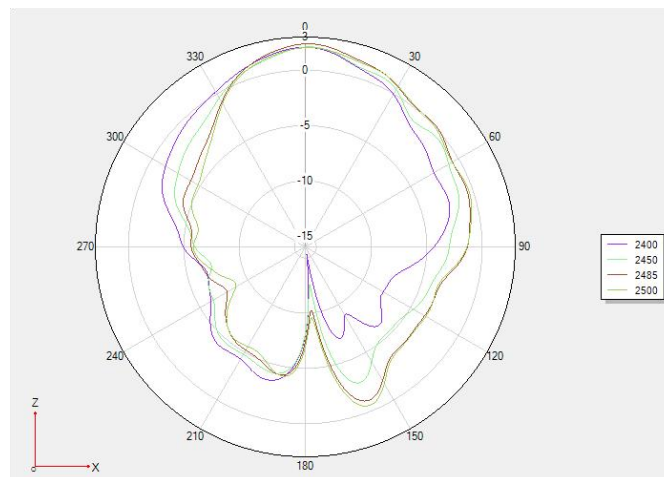


2450MHZ

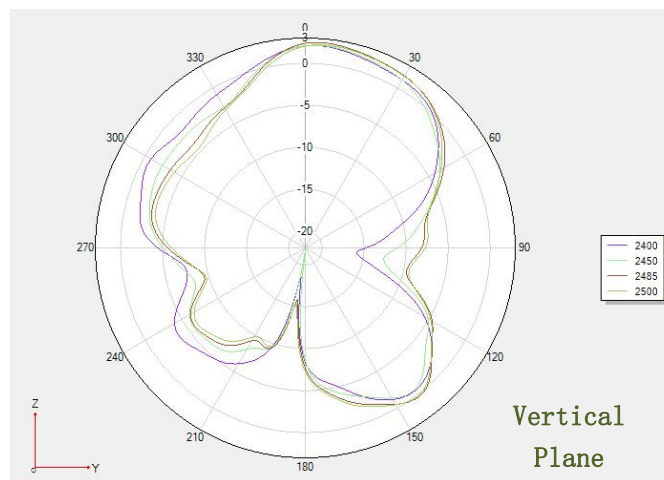


2500MHZ

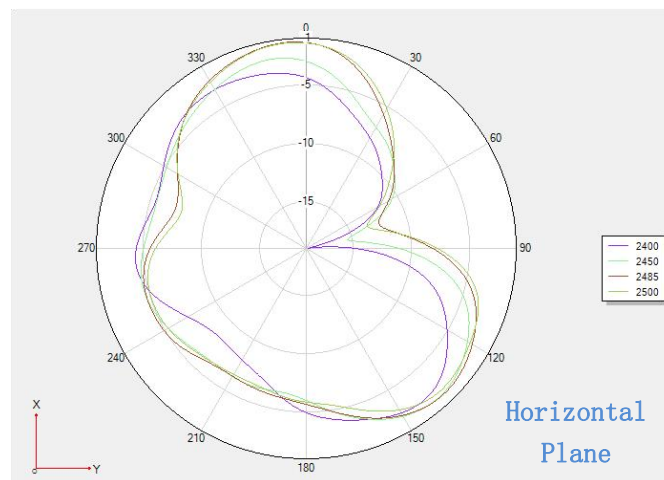
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D

6. Mechanical Specification:

