



Dongguan Youbi Electronics Co.,Ltd

APPROVAL SHEET

CUSTOMER NAME:

PRODUCT NAME: 2.4G PCB A N T

CUSTOMER P/N:

Youbi P/N: UB01NP3D1A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Eddy	
APPROVED BY:	 Changxing.Liu	
DATE:	2023/8/15	



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Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-8-15



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Content

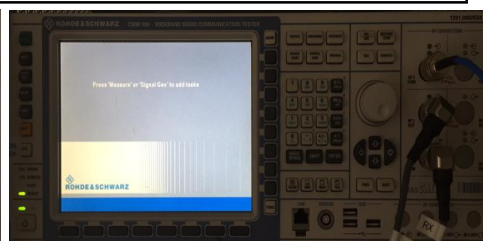
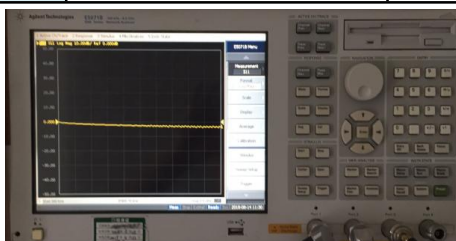
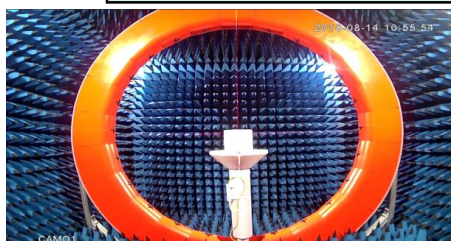
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Antenna installation diagram
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1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	13x10.9x0.6	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 3	
Polarization	Linear Polarization	
Gain	1.74	dBi
Efficiency	>40	%
Connector Type	RF 2	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

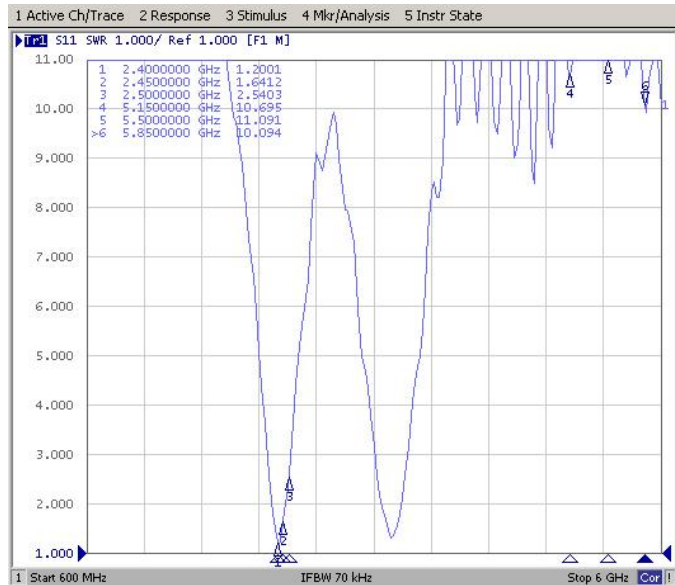
2. Test Items and Equipment

	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

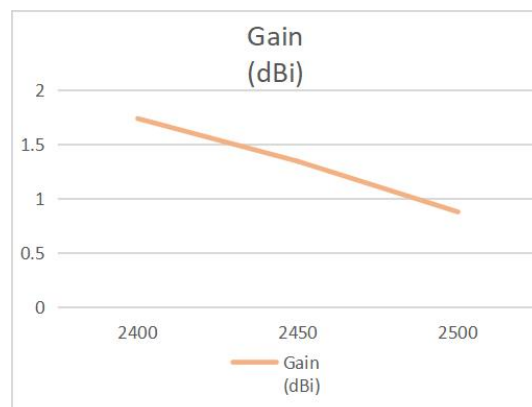
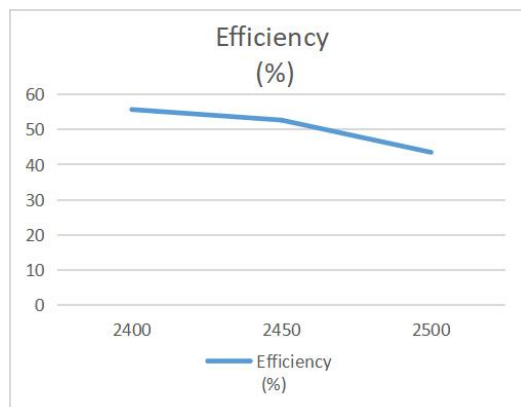
Frequency (MHz)	VSWR
2400	1.20
2450	1.64
2500	2.54



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

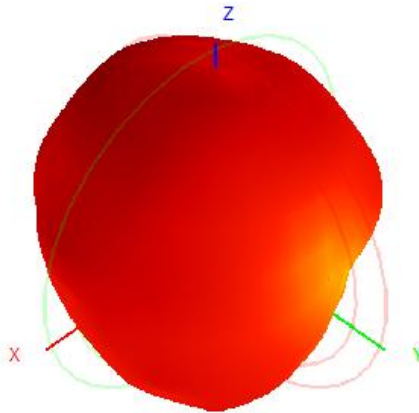
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	55.69	52.67	43.48
Gain (dBi)	1.74	1.35	0.88

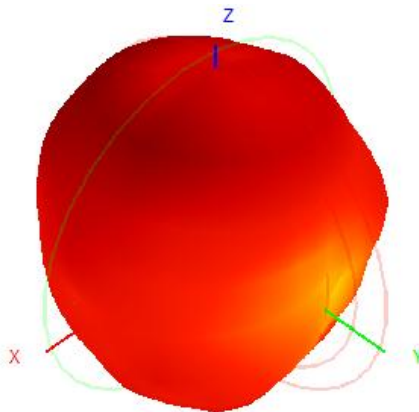


5. Radiation Pattern

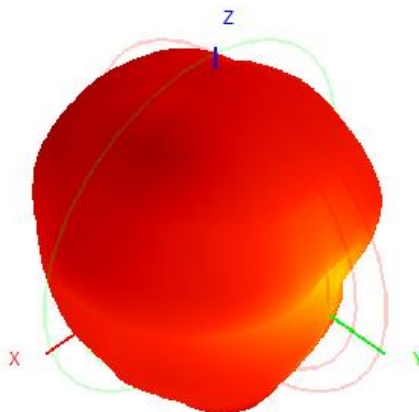
5-1 Antenna 3D Radiation Pattern



2400MHz

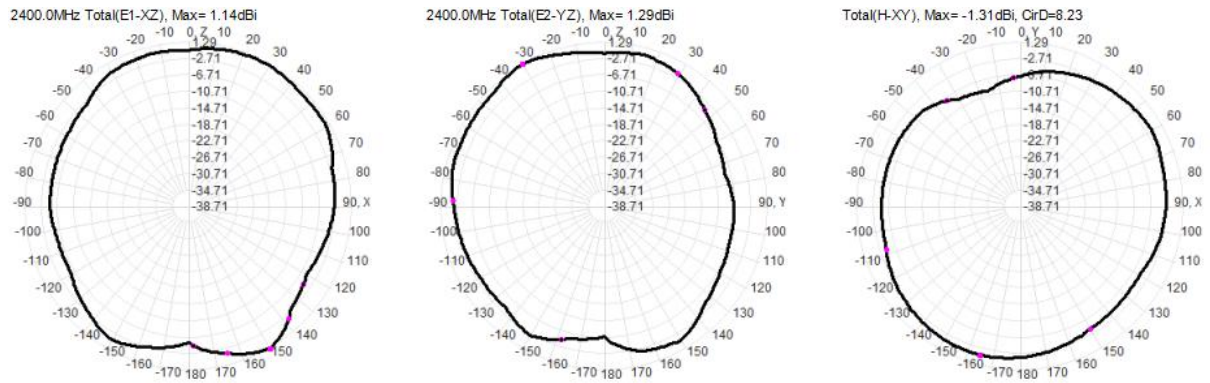


2450MHz

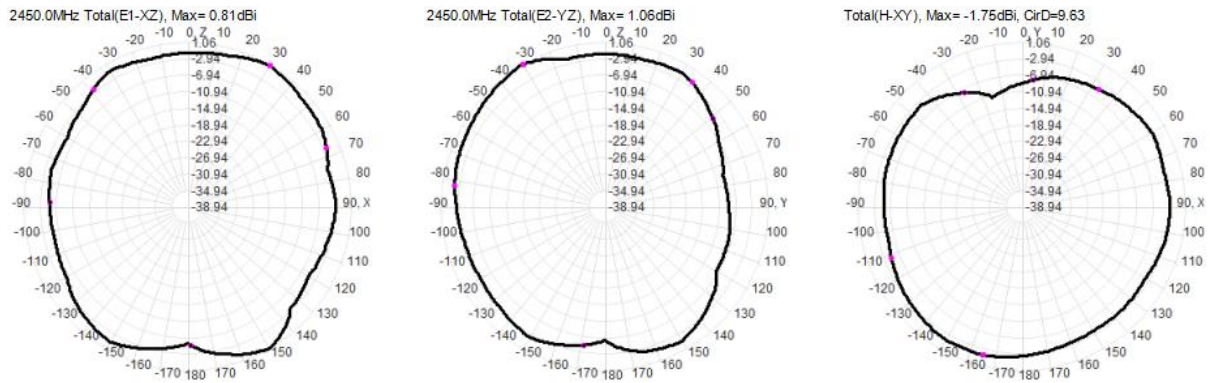


2500MHz

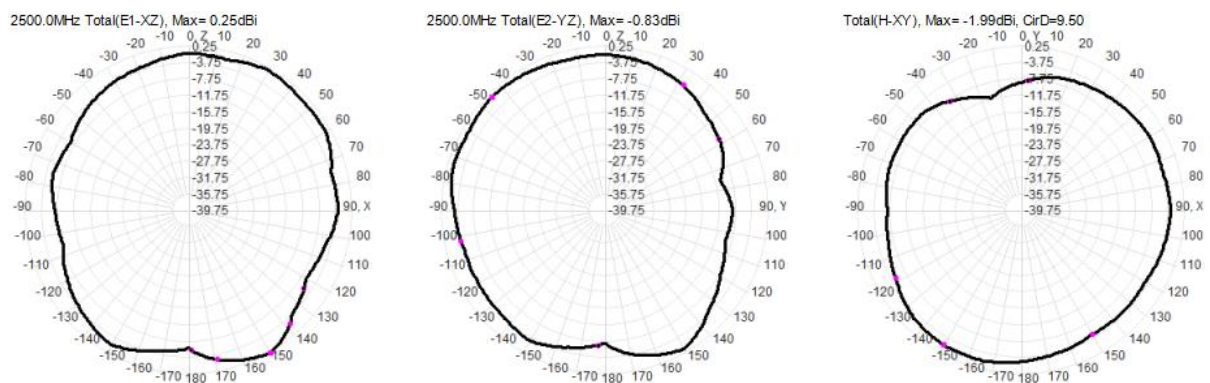
5-2 Antenna 2D Radiation Pattern



2400MHz

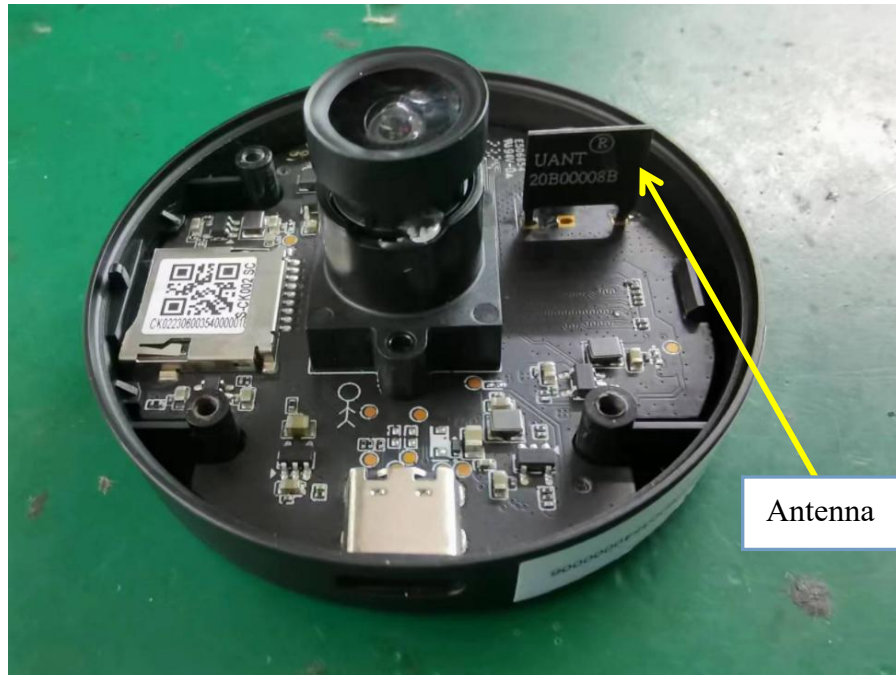


2450MHz



2500MHz

6. Antenna installation diagram



7. Mechanical Specification

