

承 认 书

APPROVAL SHEET

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 2.4G W21

客户料号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB02C250W3Da696A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Sam 	
APPROVED BY:	Changxing. Liu 	
DATE:	2023-04-17	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Sam	2023-04-17

Content

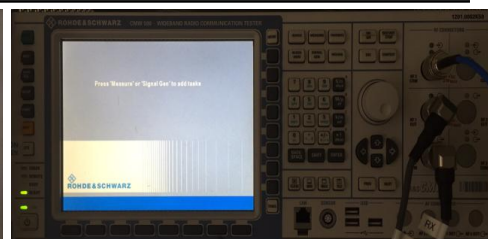
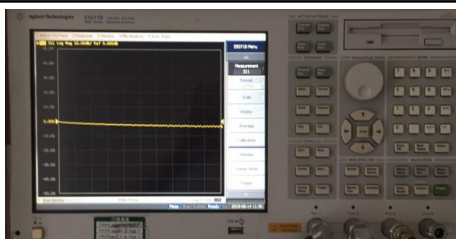
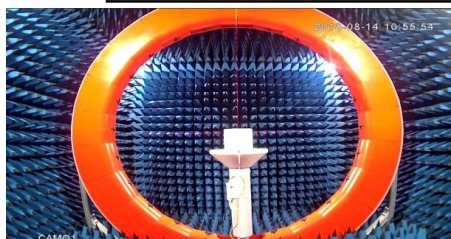
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	19.11x130.8,L250	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	≤ 1.92	
Polarization	Linear Polarization	
Gain	2.5±0.5	dBi
Efficiency	>60	%
Connector Type	MHF-1-Plug	
Operating temperature	-20℃~+70℃	
Storage Temp	-20℃~+70℃	

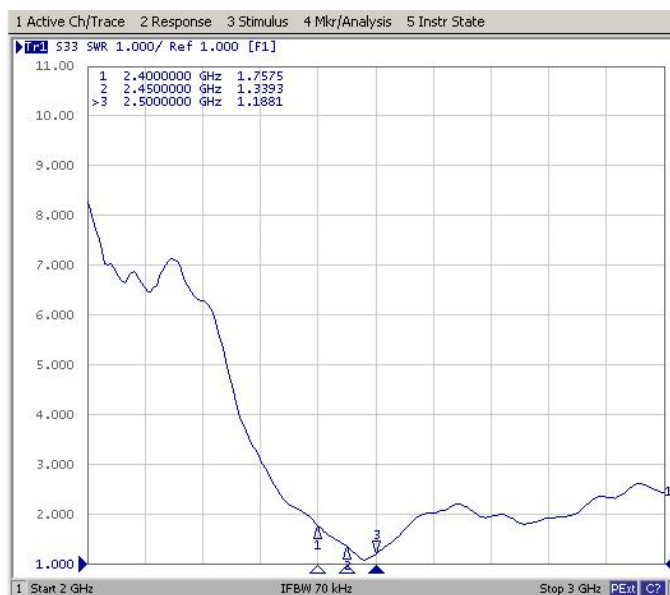
2. Test Items and Equipment

	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

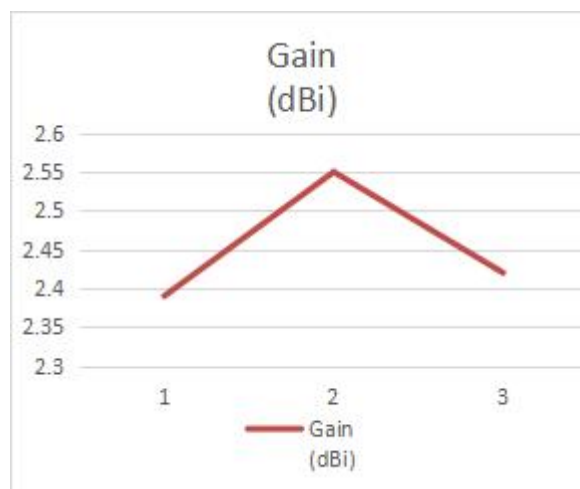
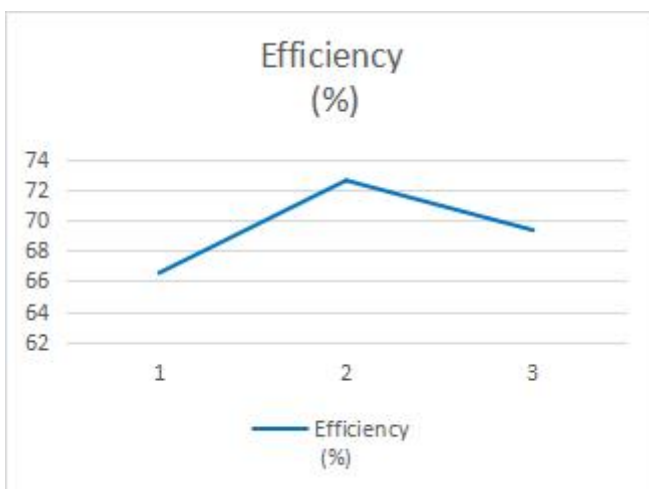
Frequency (MHz)	Return Loss (dB)	VSWR
2400	/	1.75
2450	/	1.33
2500	/	1.18



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

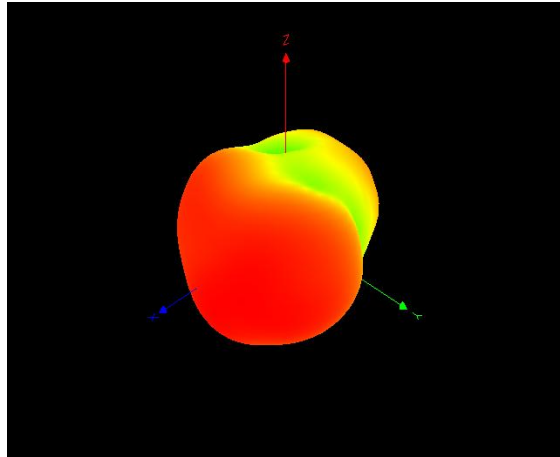
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	66.53	72.61	69.34
Gain (dBi)	2.39	2.55	2.42

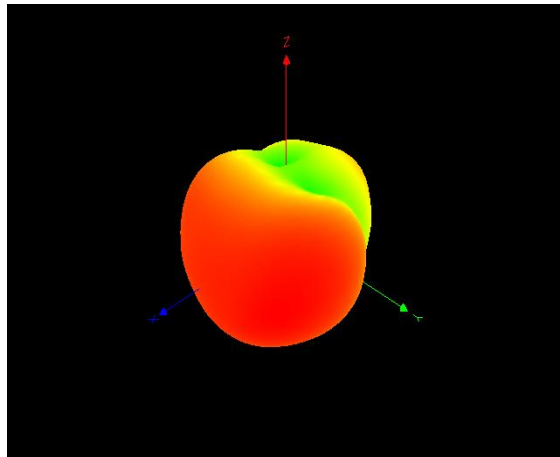


5. Radiation Pattern

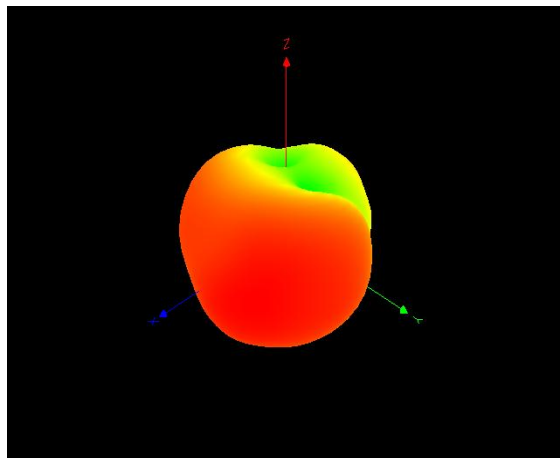
5-1 Antenna 3D Radiation Pattern



2400MHz

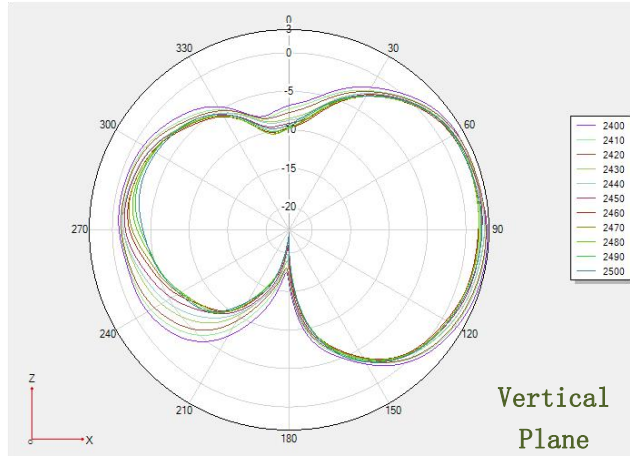


2450MHz

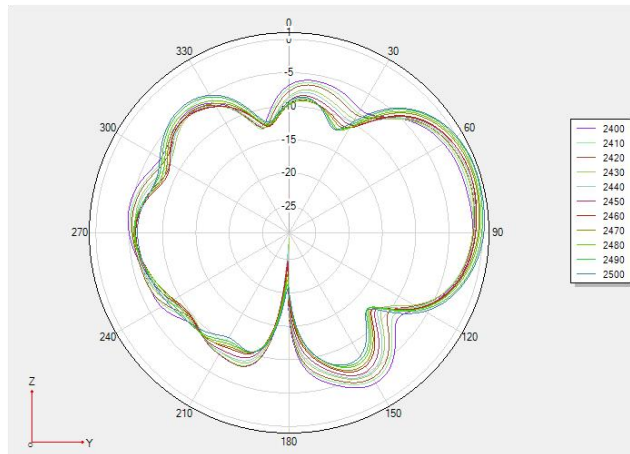


2500MHz

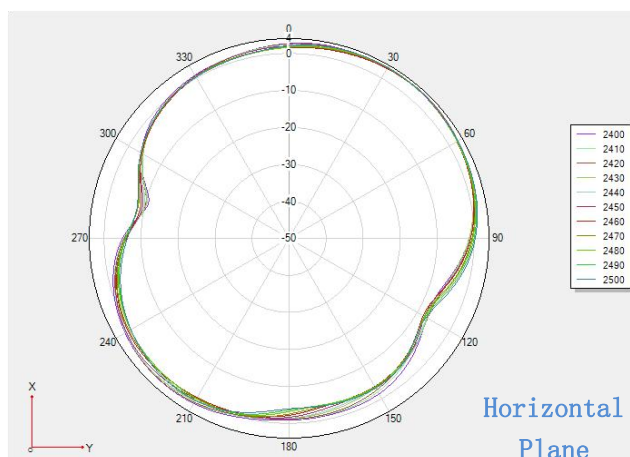
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D

