

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME: 梵 灯

产 品 名 称

PRODUCT NAME: 2.4G FPC 内置天线 L=90mm+端子

客 户 料 号

CUSTOMER P/N: /

优比电子料号

Youbi P/N: UB01C60F3D1628A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Mark. Liang 	
APPROVED BY:	Changxing. Liu	
DATE:	2022/10/20	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Mark.Liang	2022-10-20

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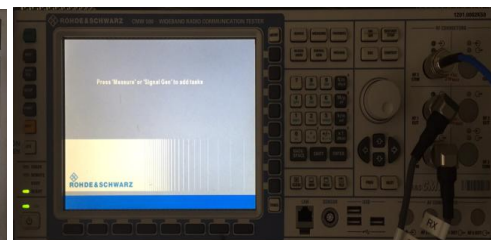
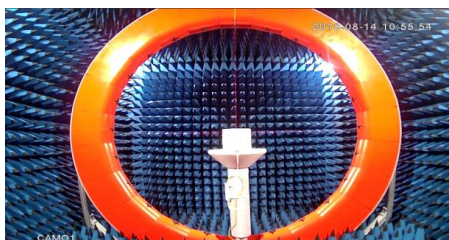
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1.Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	31.5 x 10.0,L90	mm
Frequency	2400~ 2500	MHz
Impedance	50	Ω
VSWR	1.92Max	
Polarization	Linear Polarization	
Peak Gain	2.26	dBi
Efficiency	>50	%
Connector Type	1.13 MHF-1-PLUG	
Operating temperature	-20℃~+70℃	
Storage Temp	-20℃~+50℃	

2.Test Items and Equipment

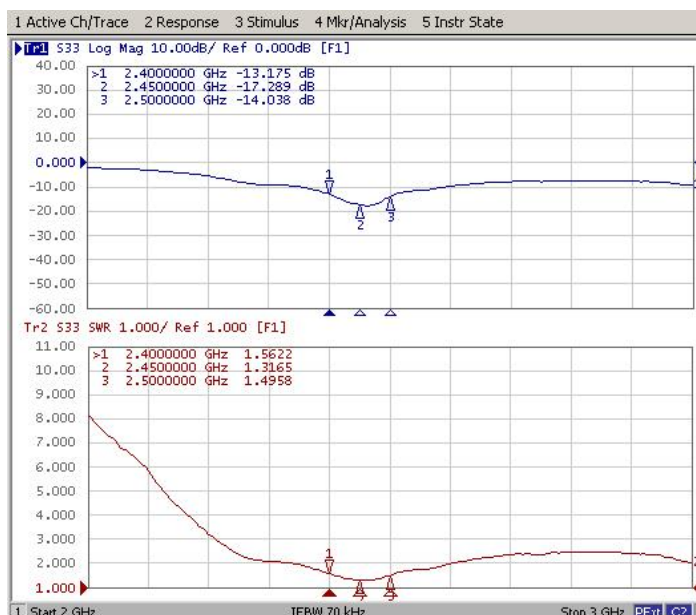
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

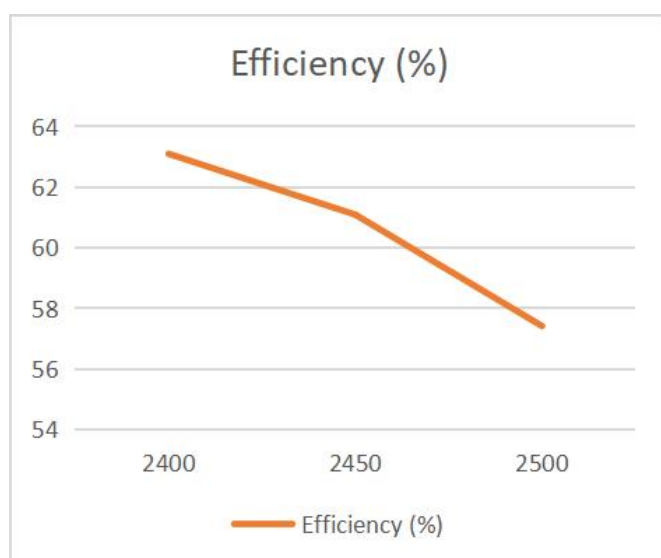
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-13.175	1.56
2450	-17.289	1.31
2500	-14.038	1.49

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



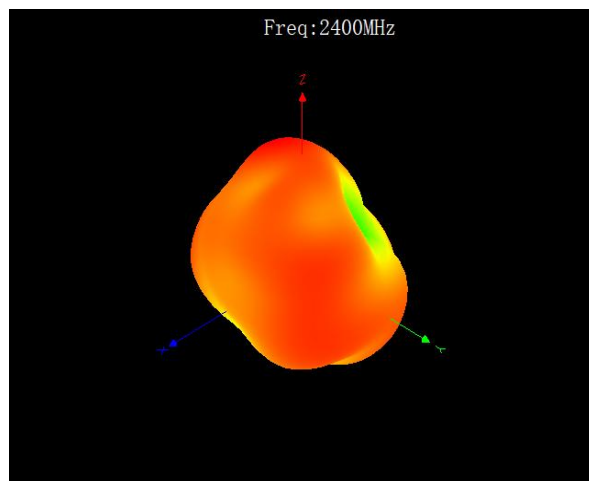
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	63.1	61.09	57.41
Gain (dBi)	1.94	1.94	2.26

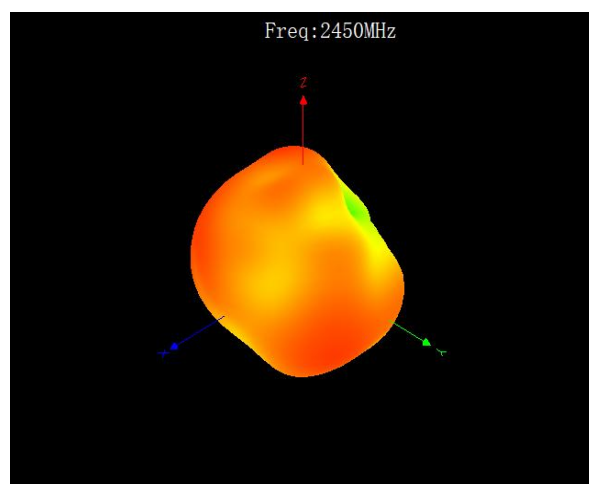


5. Radiation Pattern

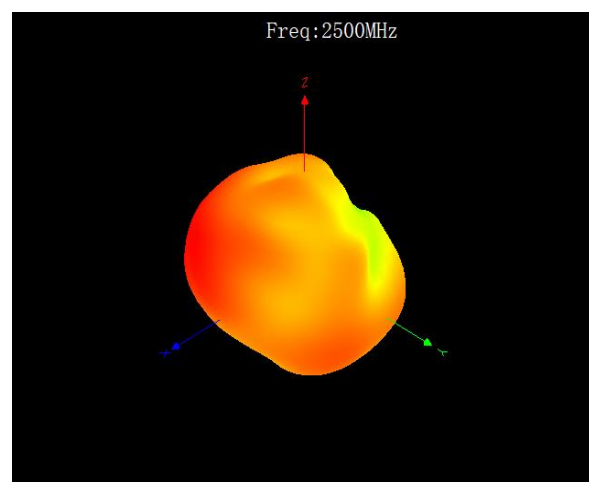
5-1 Antenna 3D Radiation Pattern



2400MHz

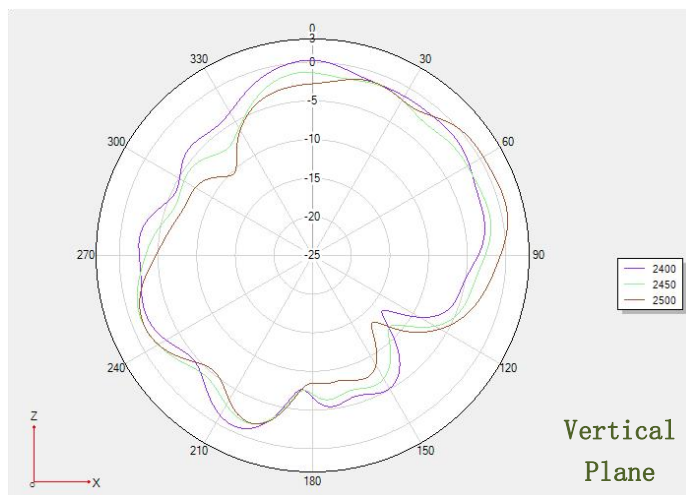


2450MHz

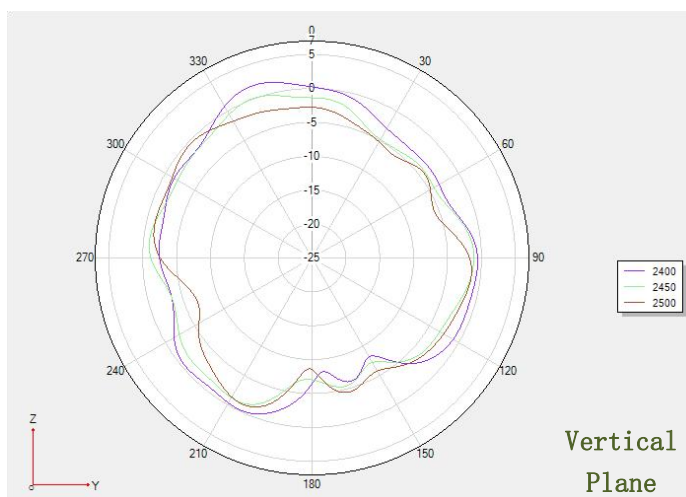


2500MHz

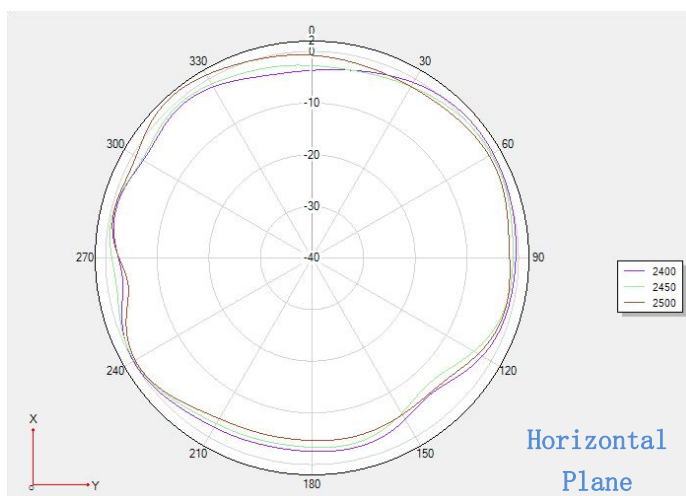
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



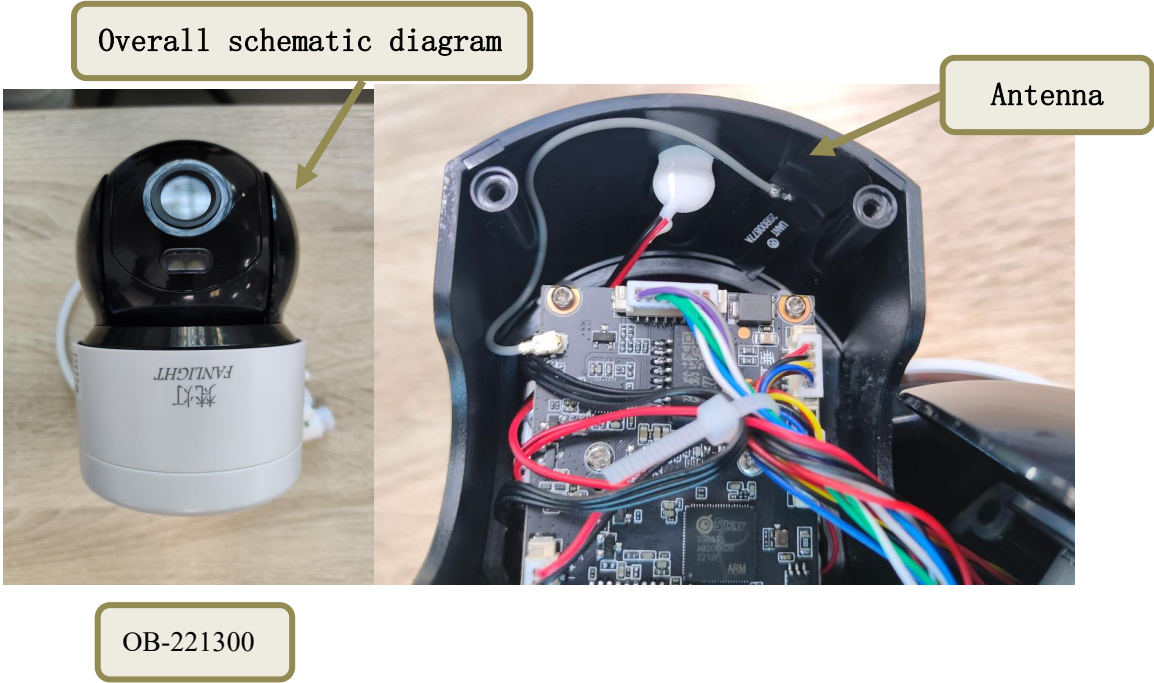
Theta 90 2D

6.Active test data

Antenna complete machine test

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Total
1	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	13.5
2	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	13.68
3	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	13.95
4	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-76.79
5	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	-79.48
6	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	-79.05

7. Antenna installation diagram:



8. Mechanical Specification:

