

APPROVAL SHEET

PRODUCT NAME: 2.4G FPC Antenna L=85mm+Terminal

Youbi P/N: UB01C85F2D2356A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Yongxin Lu	
APPROVED BY:	Changxing Liu	
DATE:	2021/10/12	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2021-10-12

Content

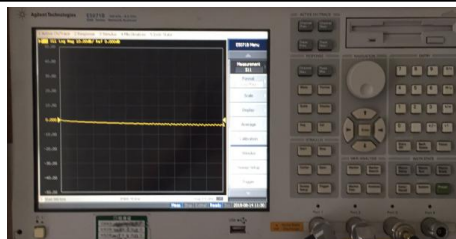
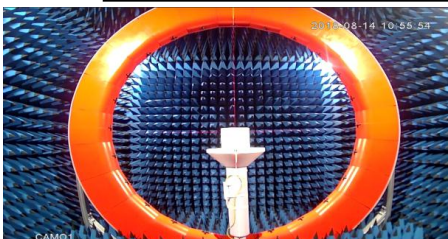
<i>Item</i>	<i>Description</i>
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	24.2x23.3,L85	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
Return Loss	-10 MAX	dB
Polarization	Linear Polarization	
Gain	4.0 $\pm$ 0.5	dBi
Efficiency	> 50	%
Connector Type	1.13 MHF-1-Plug	
Operating temperature	-20 $^{\circ}$ C~+65 $^{\circ}$ C	
Storage Temp	-20 $^{\circ}$ C~+50 $^{\circ}$ C	

2. Test Items and Equipment

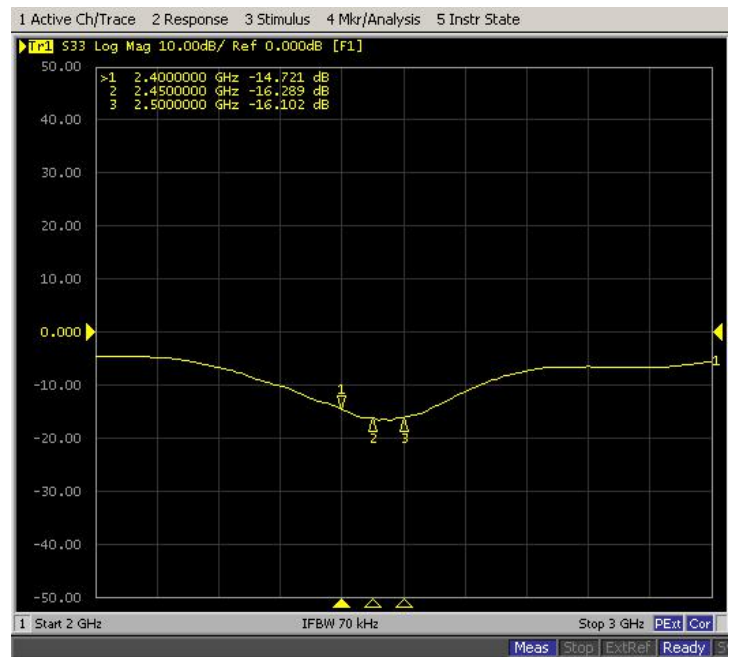
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

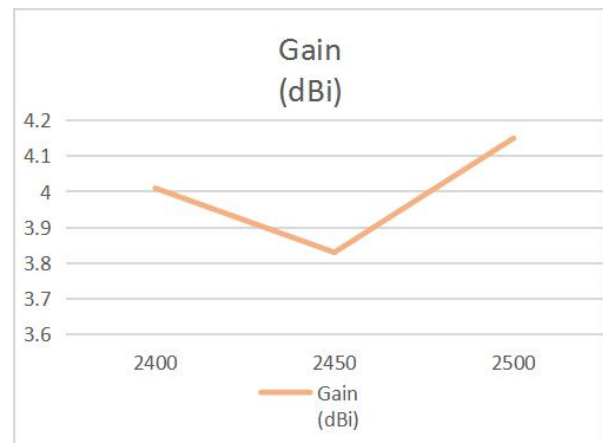
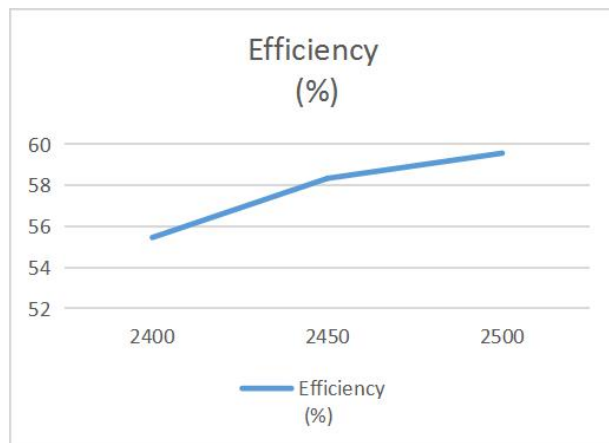
Frequency (MHz)	Return Loss (dB)
2400	-14.72
2450	-16.28
2500	-16.10

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



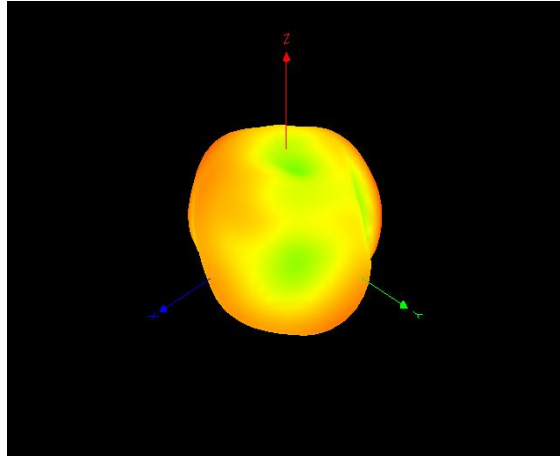
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	55.46	58.34	59.57
Gain (dBi)	4.01	3.83	4.15

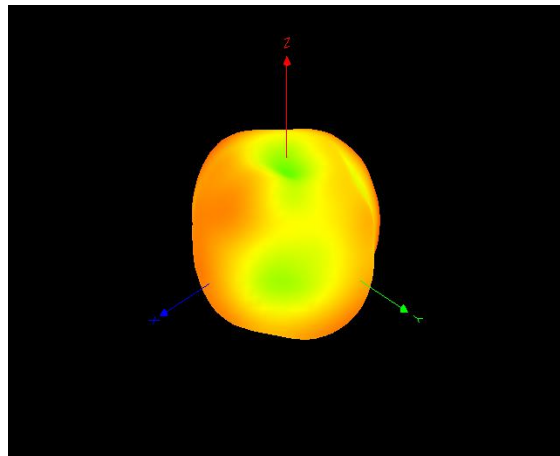


5. Radiation Pattern

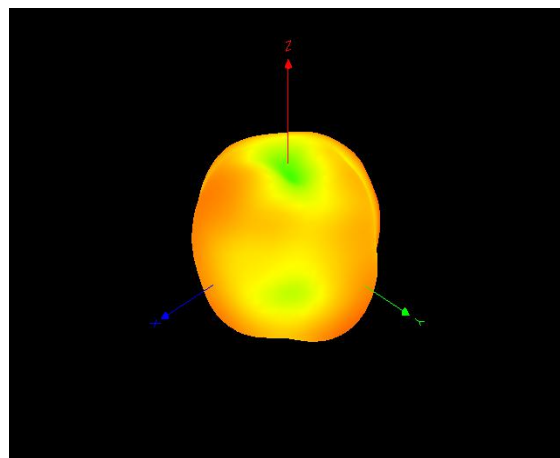
5-1 Antenna 3D Radiation Pattern



2400MHz

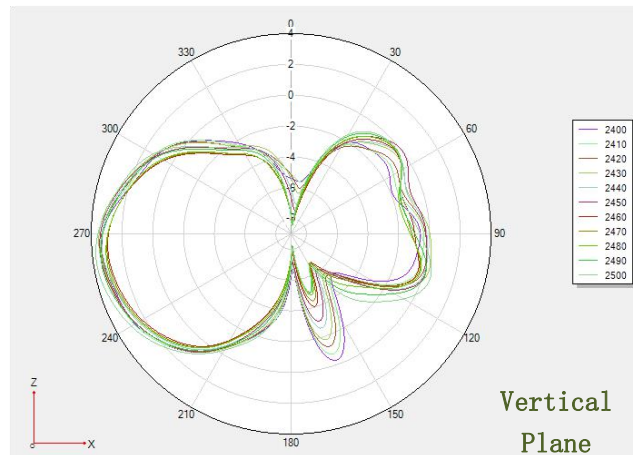


2450MHZ

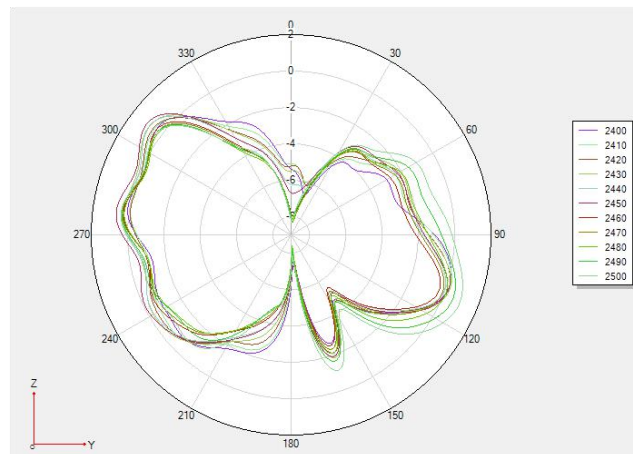


2500MHZ

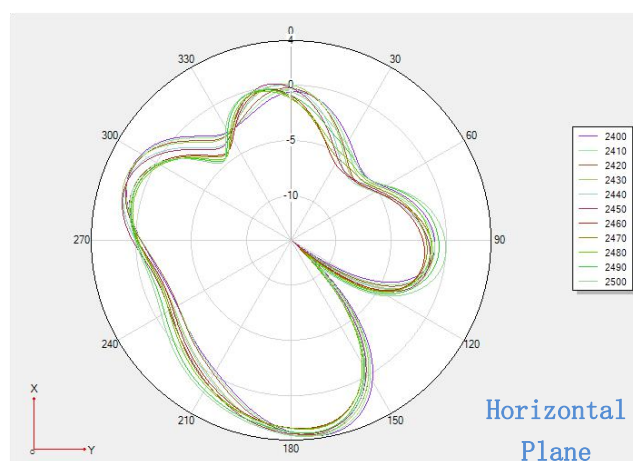
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



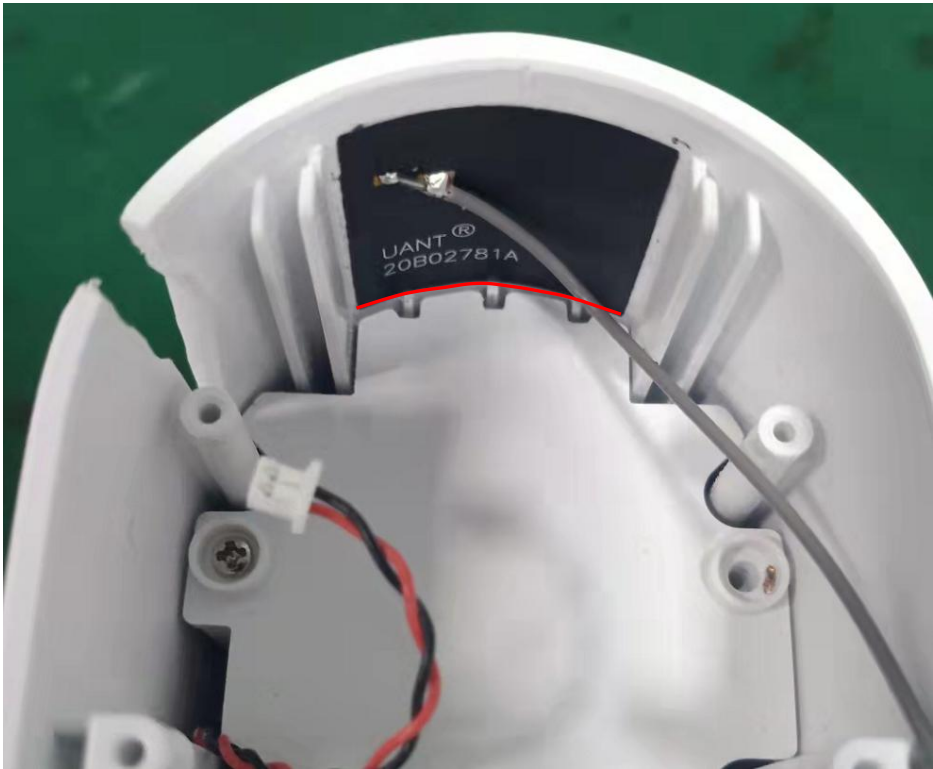
Theta 90 2D

6.Active test data

Antenna complete machine test

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Total
1	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	88.74(15.41)
2	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	89.06(15.33)
3	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	89.69(16.02)

7. Antenna installation diagram:



8. Mechanical Specification:

