

Declaration

APPROVAL SHEET

CUSTOMER NAME:

PRODUCT NAME: 2.4G 5.8G FPC built-in antenna L=90mm terminal

CUSTOMER P/N: 1015020039

Youbi P/N: UB01C90F2D4330A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy	
APPROVED BY:	 Changxing.Liu	
DATE:	2023/12/1	



Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-12-1

Content

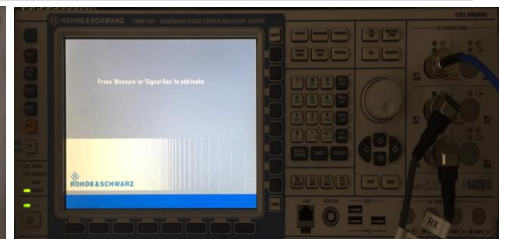
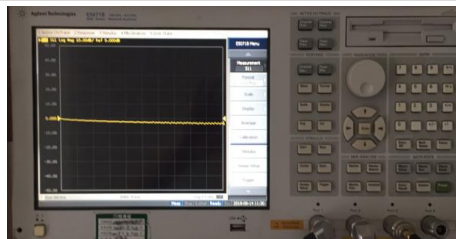
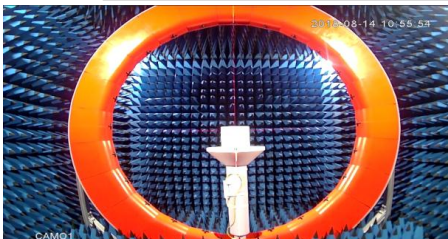
<i>Item</i>	<i>Description</i>
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1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	28.3x26.1,L90	mm
Frequency	2400-2500 / 5150-5850	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	2.0 $\pm$ 0.5 @2.4G 3.0 REF @5.8G	dBi
Efficiency	>40	%
Connector Type	RF 1	
Operating temperature	-20 $^{\circ}$ C~+85 $^{\circ}$ C	
Storage Temp	-20 $^{\circ}$ C~+85 $^{\circ}$ 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

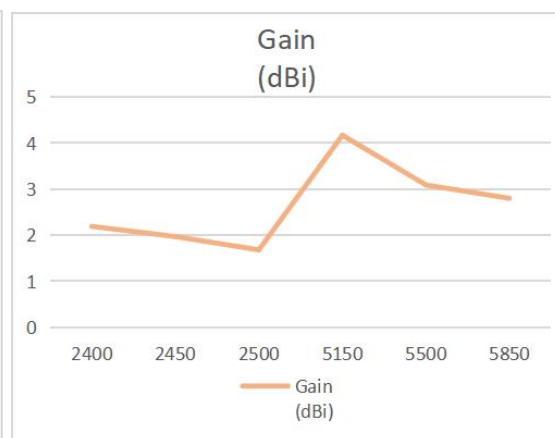
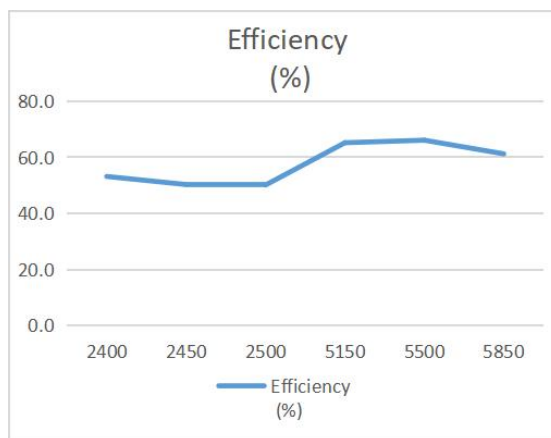
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-14.65	1.43
2450	-13.09	1.56
2500	-10.38	1.86
5150	-15.34	1.40
5500	-19.08	1.25
5850	-15.66	1.40

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



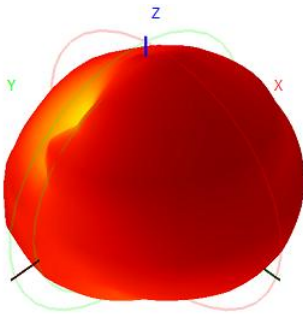
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	53.12	50.24	50.07	65.14	66.04	61.18
Gain (dBi)	2.19	1.97	1.68	4.17	3.09	2.80

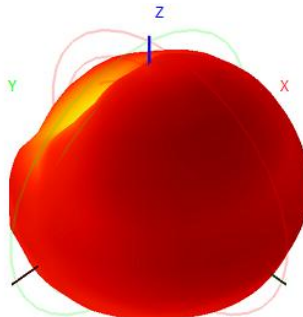


5. Radiation Pattern

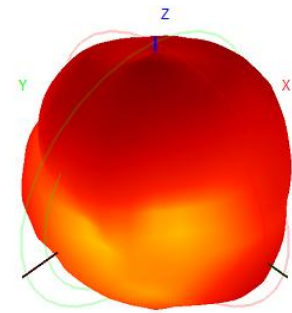
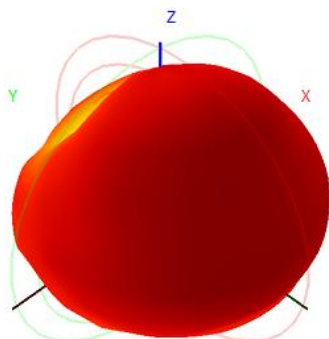
5-1 Antenna 3D Radiation Pattern



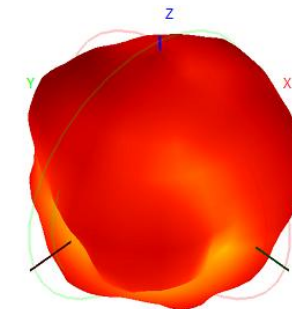
2400MHz



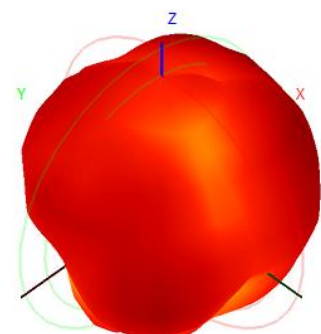
2450MHz



5150MHz

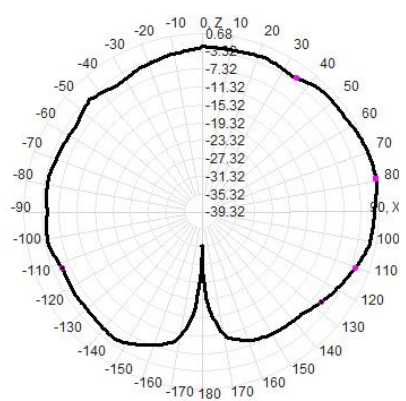


5500MHz

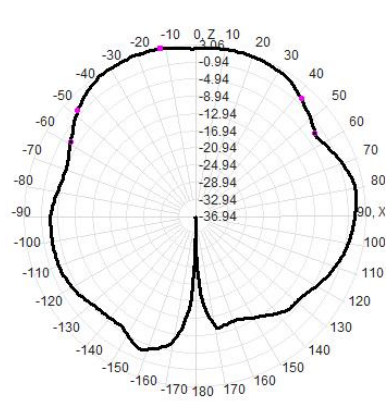


5850MHz

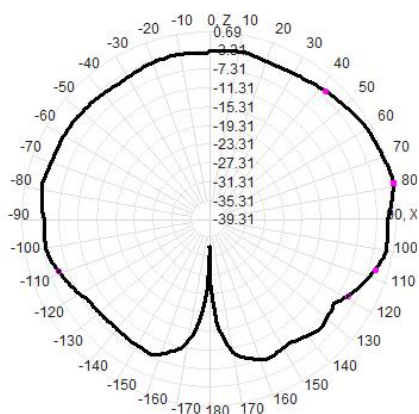
5-2 Antenna 2D Radiation Pattern



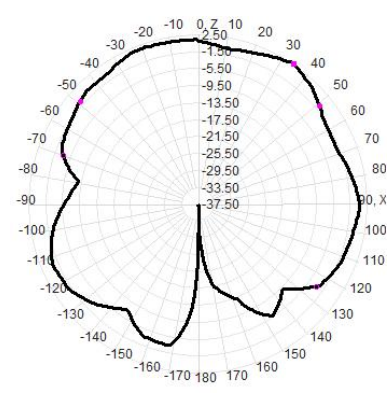
2400MHz



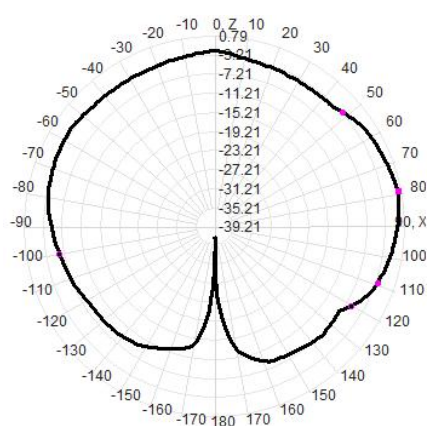
5150MHz



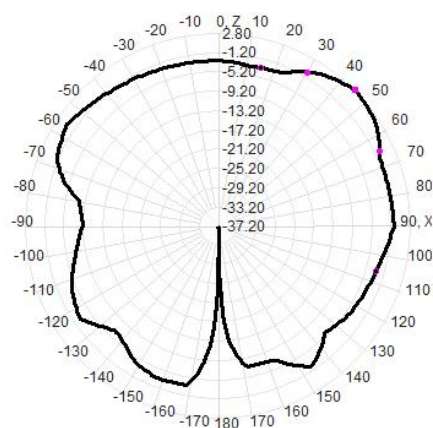
2450MHz



5500MHz



2500MHz



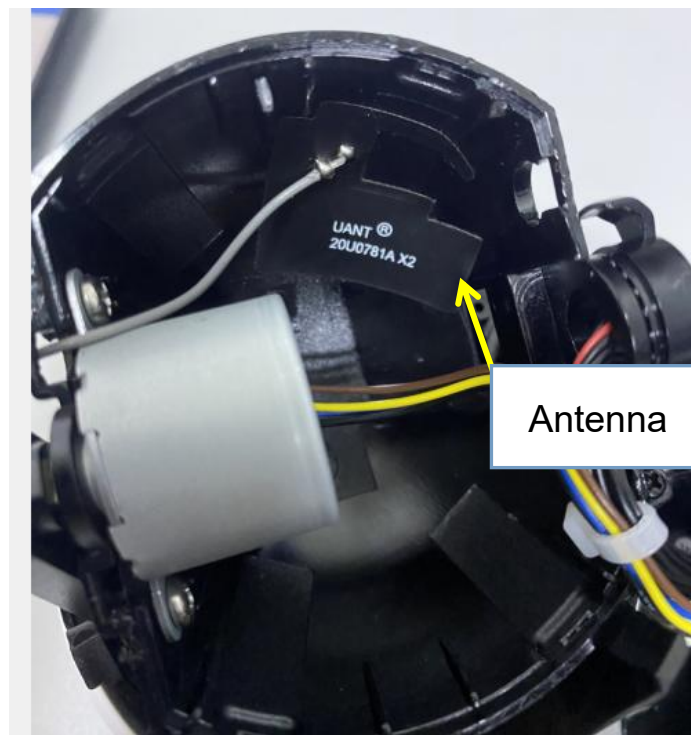
5850MHz

6.Active test data

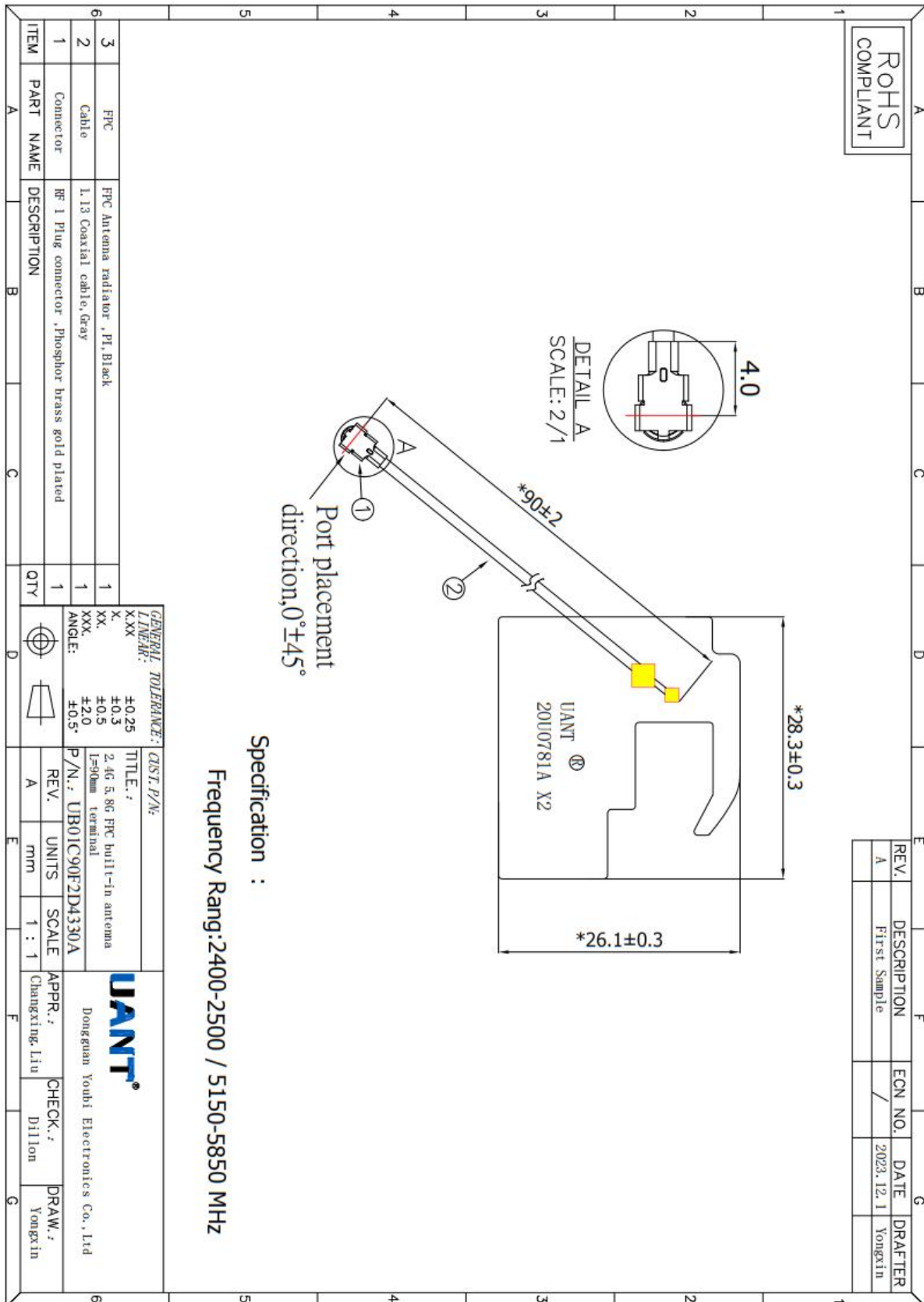
Channel	Measurement	Total
1	TRP	16.34
6	TRP	16.32
11	TRP	16.58
1	TIS(EIRP)	-86.30
6	TIS(EIRP)	-86.66
11	TIS(EIRP)	-87.52

Channel	Measurement	Total
36	TRP	14.45
149	TRP	15.50
165	TRP	15.42
36	TIS(EIRP)	-74.21
149	TIS(EIRP)	-74.55
165	TIS(EIRP)	-75.03

7. Antenna installation diagram



8. Mechanical Specification



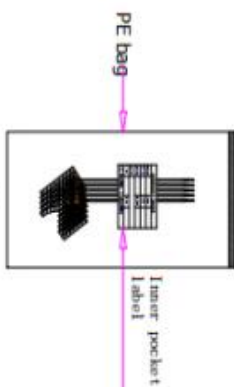
9. Packaging

Built in -
outing series

Single product



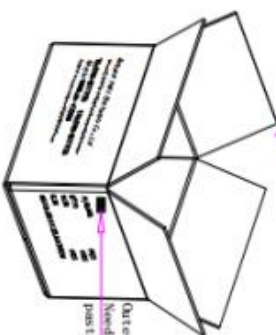
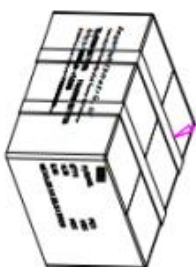
- Inner bag packaging instructions:
1. Each bag contains 200pcs of products.
 2. The PE bag is sealed.
 3. Each bag to be pasted with 1pcs of inner bag label in the middle of the PE bag.
 4. PE bag size: length 150mm 150mm thickness 0.08mm.



Dongguan Youbi Electronics Co., Ltd.	
Customer code:	Product code:
Customer part:	Order to be made:
Product name:	Production date:
Product specification:	Product quantity:
Product drawing:	Product weight:
Product price:	Product status:
Product type:	Product category:
Product address:	Product phone:
Product email:	Product fax:

Outer box packaging

Carton sealing standard:
First seal it with tape, then
secure it with 3 strapping belts.



Dongguan Youbi Electronics Co., Ltd.	
Customer code:	Product code:
Customer part:	Order to be made:
Product name:	Production date:
Product specification:	Product quantity:
Product drawing:	Product weight:
Product price:	Product status:
Product type:	Product category:
Product address:	Product phone:
Product email:	Product fax:

Note: This packaging specification is applicable to FPC, PCB antenna type products with a total length of wire < 90mm with and without ip, which belongs to the general type. 1. Medium-sized carton contains 10,000 pieces of products per box.