



Dongguan Youbi Electronics Co., LTD

Declaration

APPROVAL SHEET

CUSTOMER NAME:

PRODUCT NAME: 2.4G W71 white antenna L=320mm terminal heat shrink tubing

CUSTOMER P/N: 4071300000051

Youbi P/N: UB02C330W3D4956A REV: B

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Lina 	
APPROVED BY:	Ouyang Yanxiang	
DATE:	2026-09-01	



Modification History

Version	Content Revision	Issued by	Date
A	Original version	Sam	2023-09-19
B	Add antenna types	Lina	2026-09-01

Content

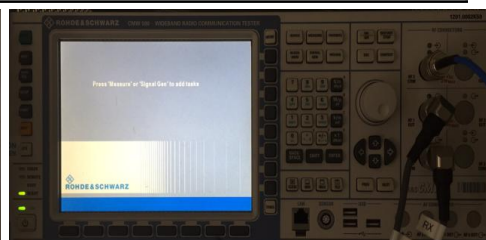
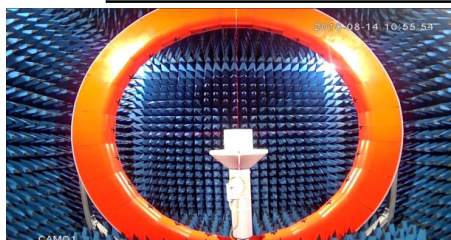
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification
7.-----	Packaging

1. Electrical Specification:

Characteristics	Specifications	Unit
Antenna Type	External antenna	
Outline Dimensions	12.9x105,L=320	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	≤ 2.0	
Polarization	Linear Polarization	
Gain	3.0 $\pm$ 0.5	dBi
Efficiency	>60	%
Connector Type	1.13 MHF-1-Plug	
Operating temperature	-20 $^{\circ}$ C~+65 $^{\circ}$ C	
Storage Temp	-20 $^{\circ}$ C~+50 $^{\circ}$ C	

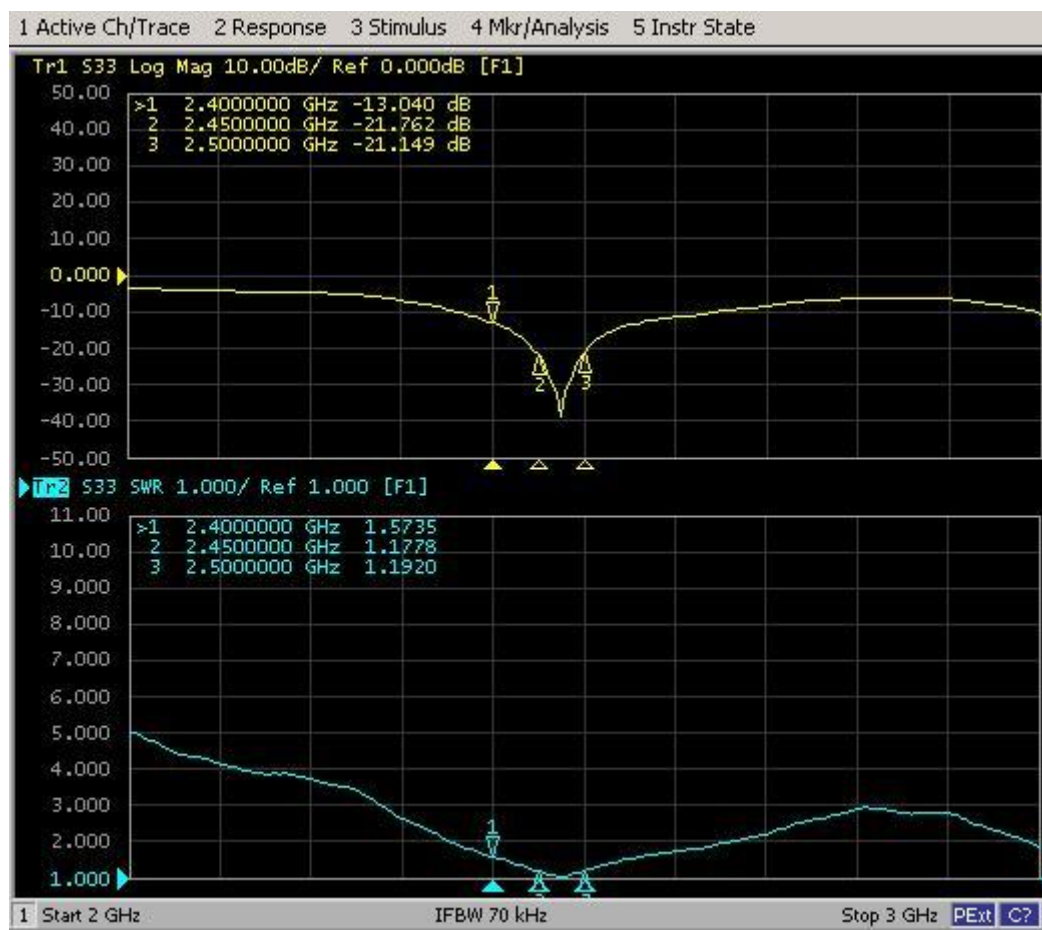
2.Test Items and Equipment

	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)	VSWR
2400	-13.04	1.57
2450	-21.76	1.17
2500	-21.14	1.19



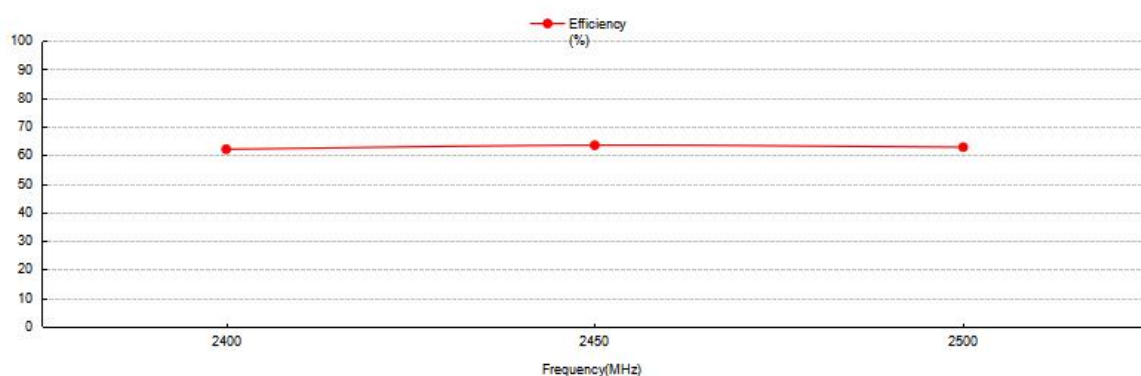
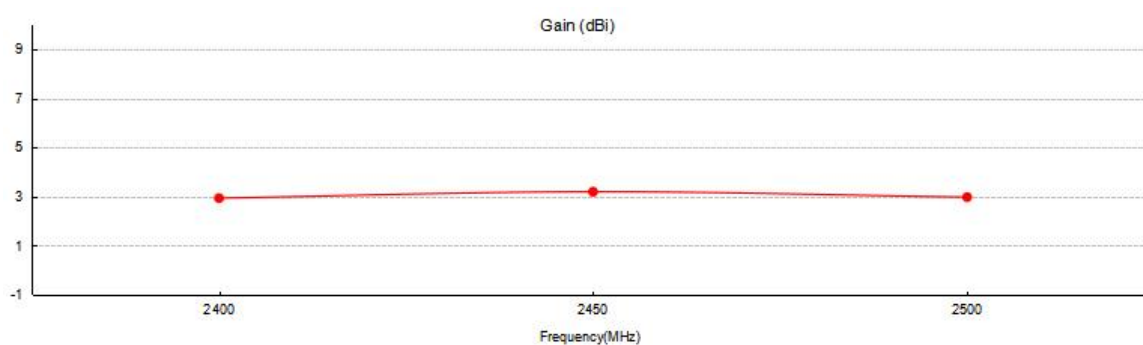
* Voltage Standing Wave Ratio(VSWR)

Return Loss(RL)

$$RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$$

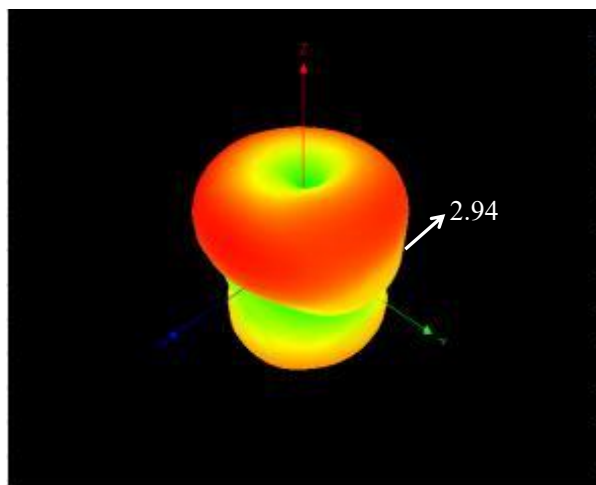
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	62.04	63.45	62.76
Gain (dBi)	2.94	3.2	2.98

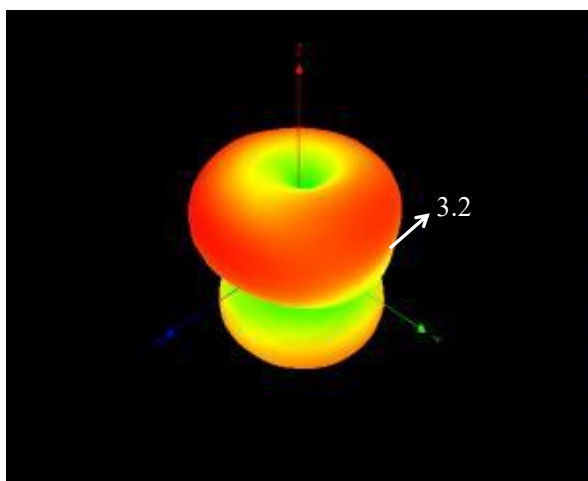


5. Radiation Pattern

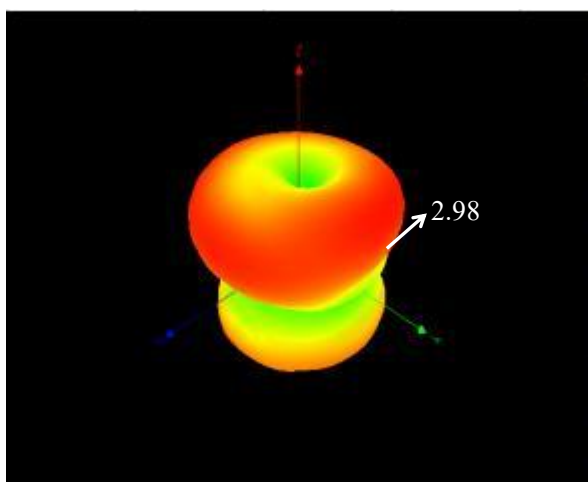
5-1 Antenna 3D Radiation Pattern



2400MHz

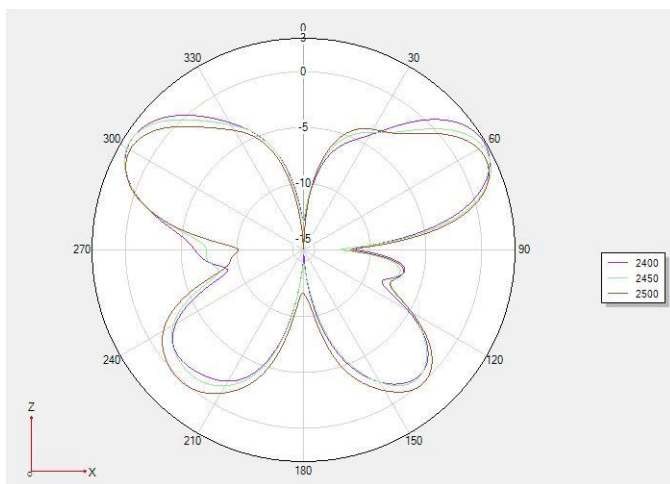


2450MHz

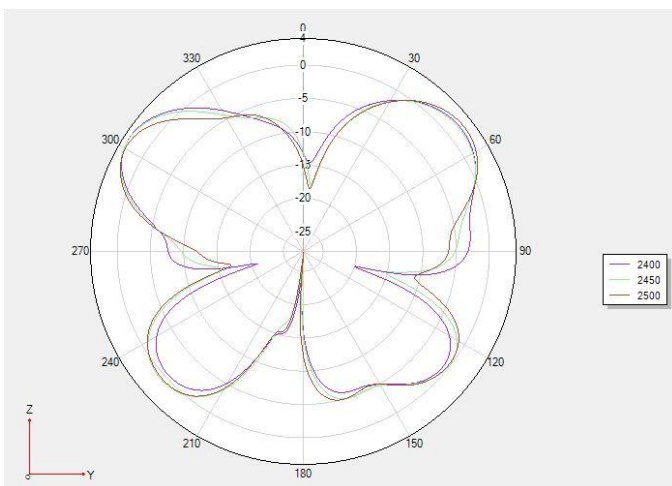


2500MHz

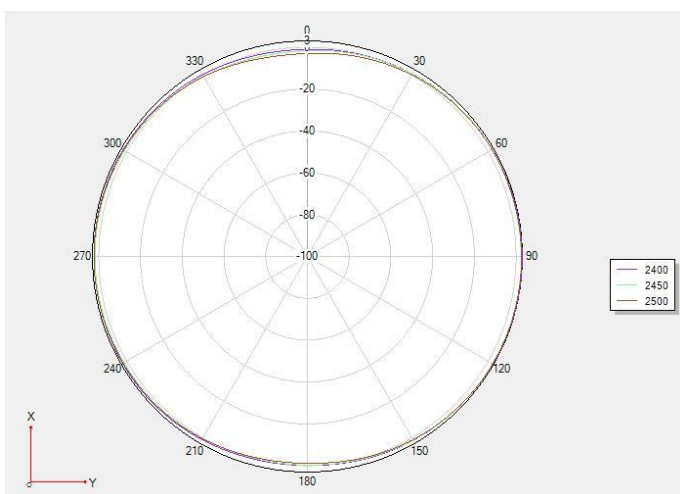
5-2 Antenna 2D Radiation Pattern



Phi 0 2D

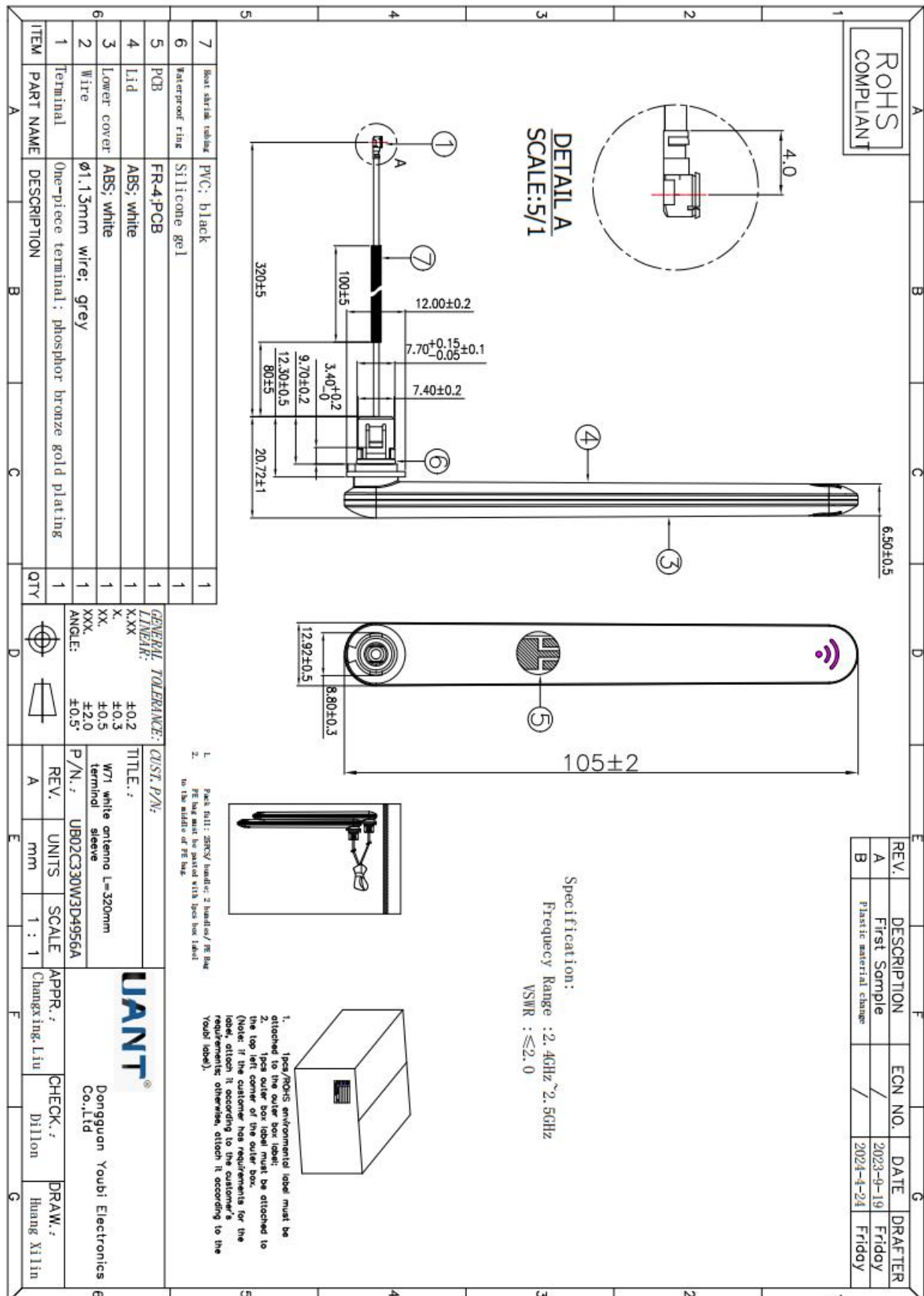


Phi 90 2D



Theta 90 2D

6. Mechanical Specification:



7. Packaging

