

acknowledgement

APPROVAL SHEET

customer name

CUSTOMER NAME:

Product name W91 white antenna L=200mm +
2.4/5.8G
PRODUCT NAME: terminal

Customer

material

P/N:
number: CUS-

TOMER

Ubie electronic material number

Youbi P/N: UB02C200W3Da0a7A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:	Changxing.Liu	
DATE:	2023/3/30	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Sam	2023-3-30

Content

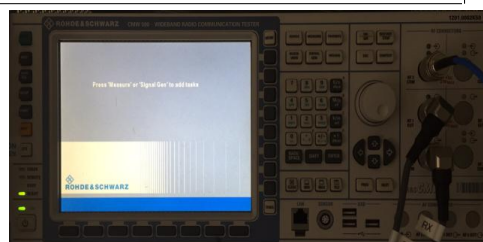
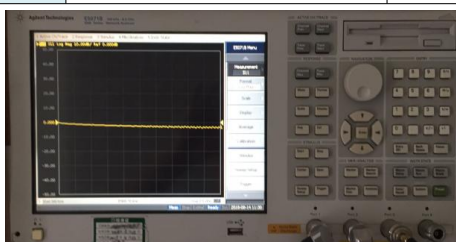
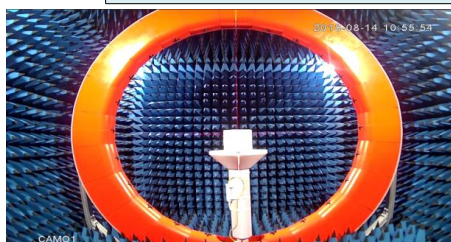
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	13x105,L225	mm
Frequency	2400-2500;5150-5850	MHz
Impedance	50	Ω
VSWR	≤ 2.5	
Polarization	Linear Polarization	
Gain	1.59@2.4G 4 REF@5.8G	dBi
Efficiency	>50	%
Connector Type	1.13 MHF-1-Plug	
Operating temperature	-20℃~+50℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

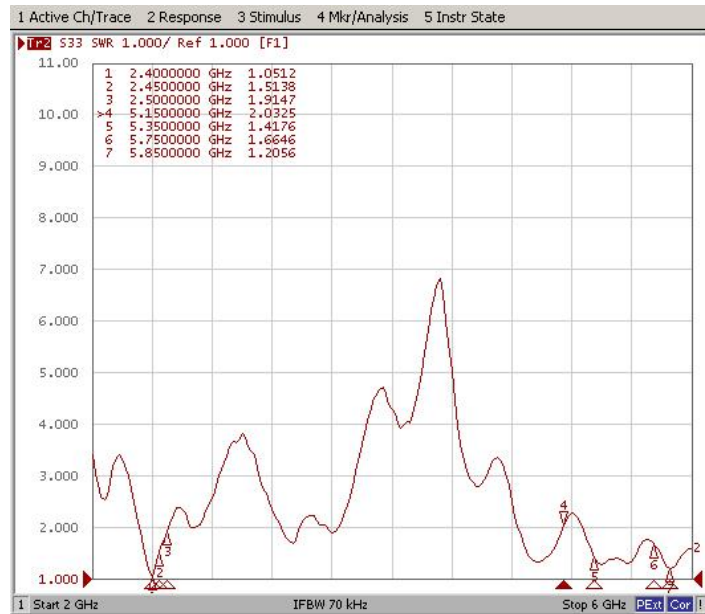
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5 m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

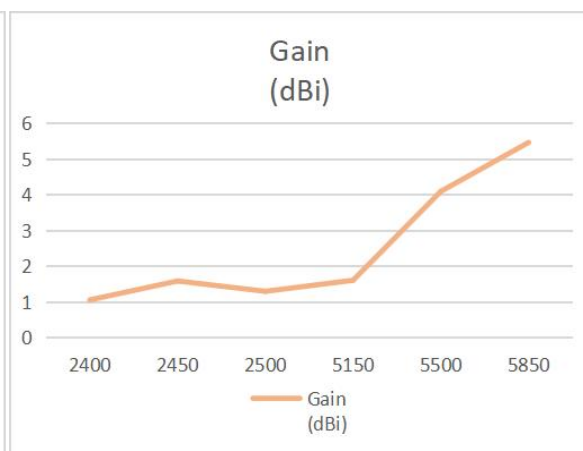
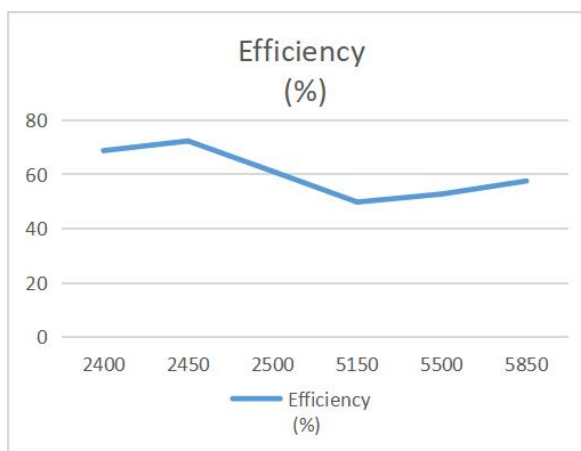
Frequency (MHz)	VSWR
2400	1.05
2450	1.51
2500	1.91
5150	2.03
5350	1.41
5750	1.66
5850	1.20

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



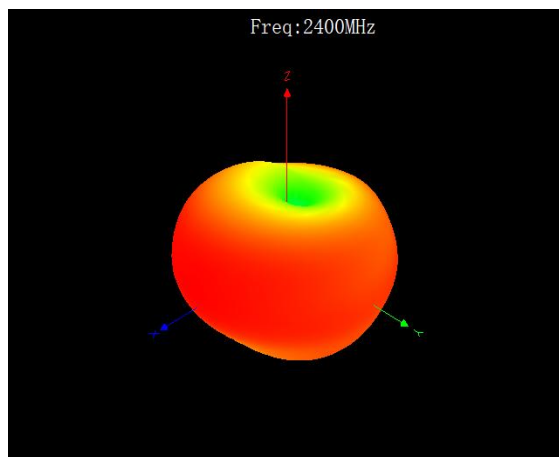
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	68.71	72.28	61.09	49.77	52.72	57.54
Gain (dBi)	1.06	1.59	1.3	1.61	4.1	5.47

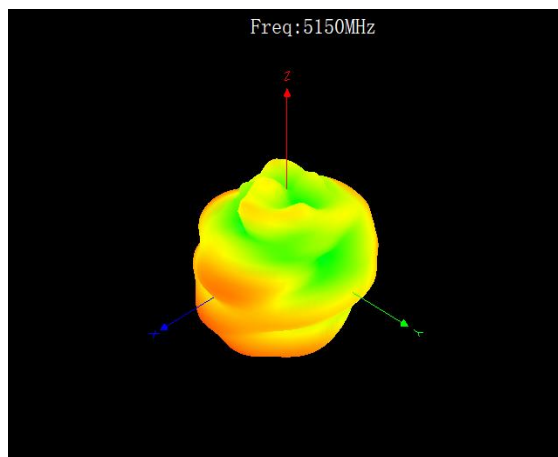


5. Radiation Pattern

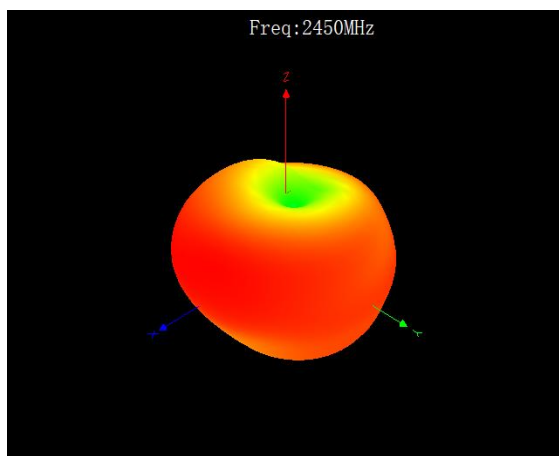
5-1 Antenna 3D Radiation Pattern



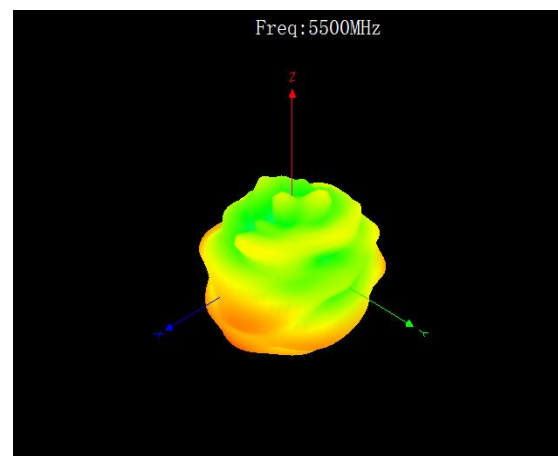
2400MHz- Max 1.06dBi



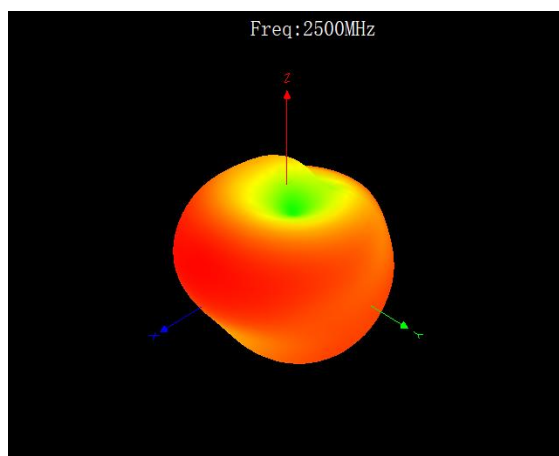
5150MHz-Max 1.61dBi



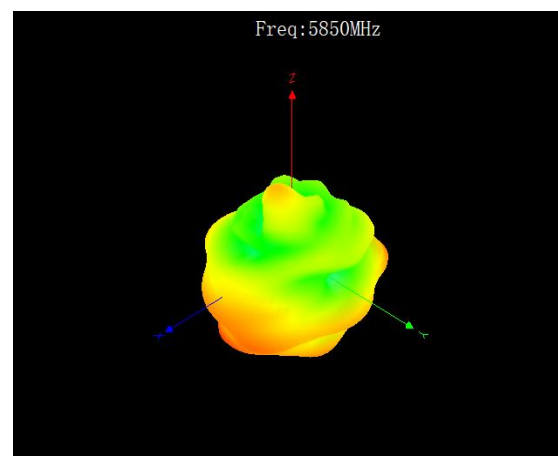
2450MHz-Max1.59dBi



5500MHz-4.1dBi

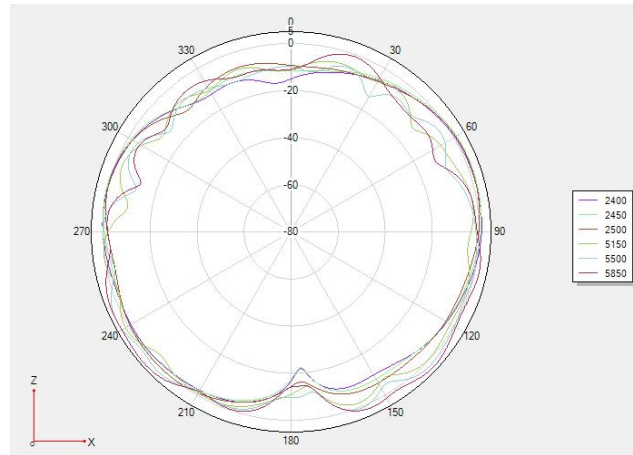


2500MHz-Max 1.3dBi

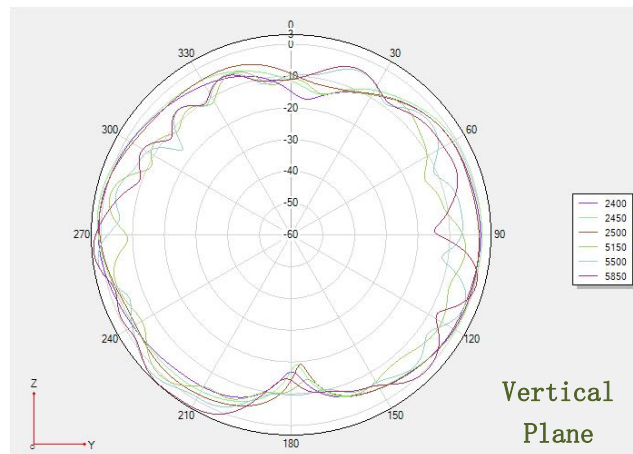


5850MHz-Max 5.47dBi

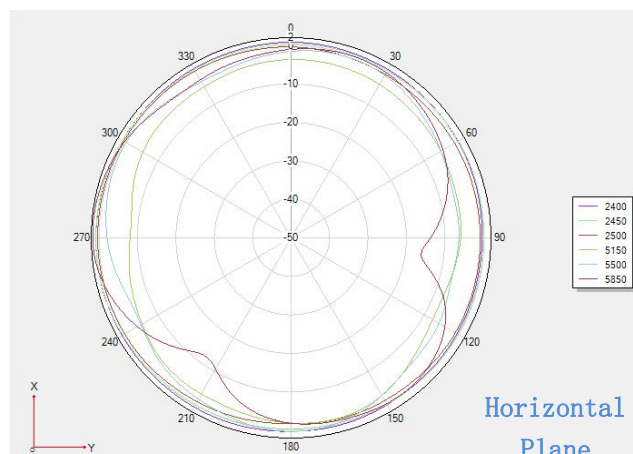
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D

6. Mechanical Specification:

[illegible]