

Declaration

APPROVAL SHEET

CUSTOMER NAME:

PRODUCT NAME: SMA male to female antenna

2.4G - 5dBi - black antenna

CUSTOMER P/N: 3.20.05.1000074

Youbi P/N: UB02S65B5D469A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Mark. Liang 	
APPROVED BY:	Changxing. Liu	
DATE:	2021/08/13	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2021-08-13

Content

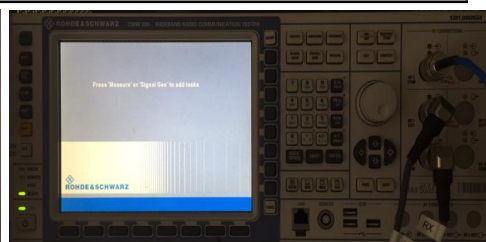
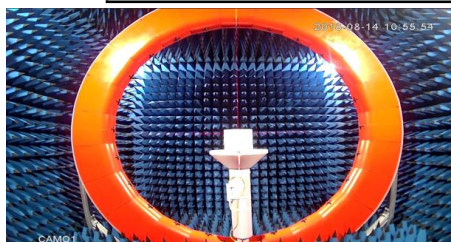
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification
7.-----	Packaging

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	Ø13x195	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	≤ 2.0	
Polarization	Linear Polarization	
Gain	5.0±0.5	dBi
Efficiency	>60	%
Connector Type	RP-SMA Male (center receptacle)	
Operating temperature	-20℃~+70℃	
Storage Temp	-20℃~+50℃	

2.Test Items and Equipment

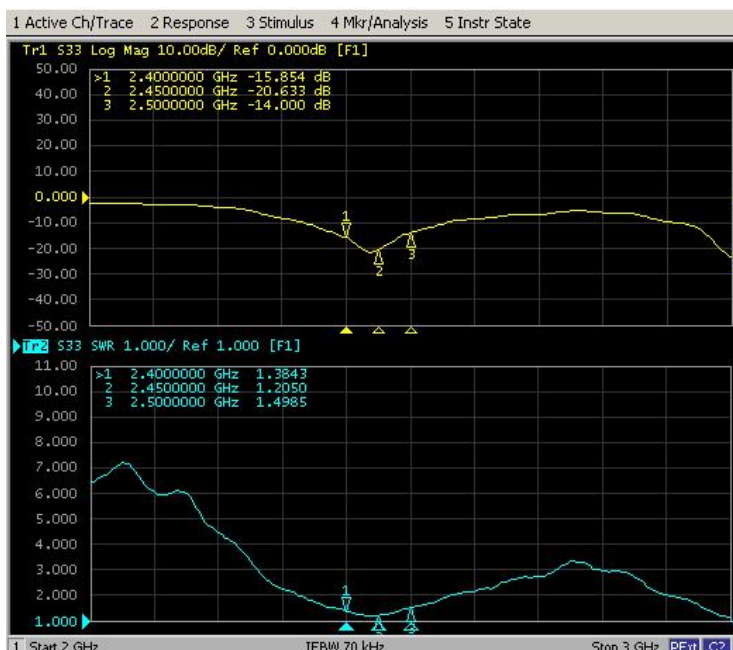
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

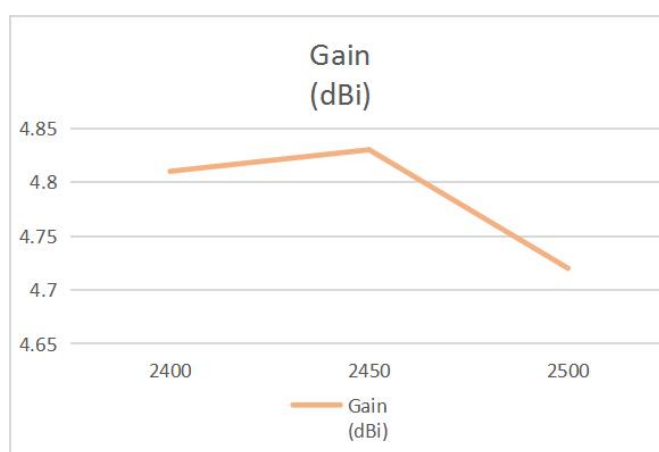
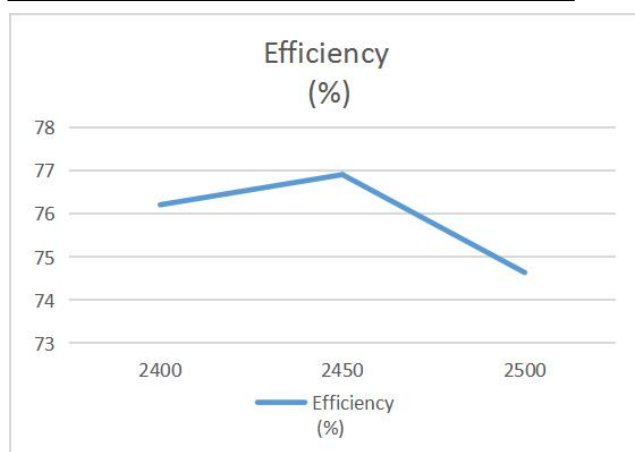
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-15.85	1.38
2450	-20.63	1.20
2500	-14.00	1.49

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



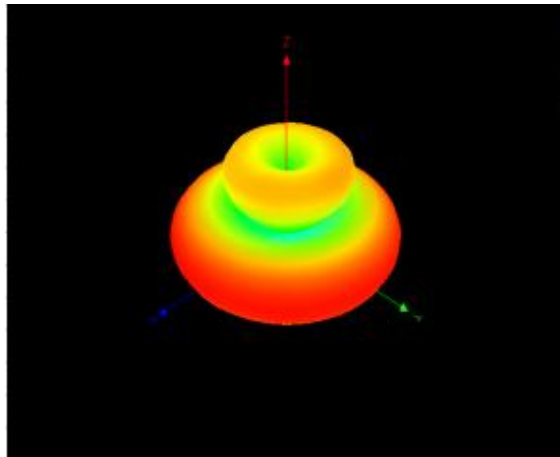
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	76.21	76.91	74.64
Gain (dBi)	4.81	5.0	4.72

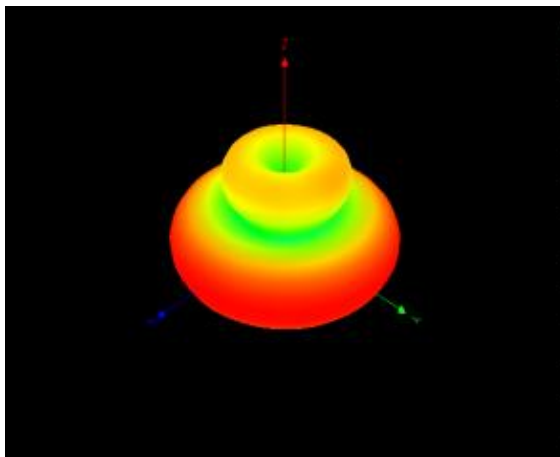


5. Radiation Pattern

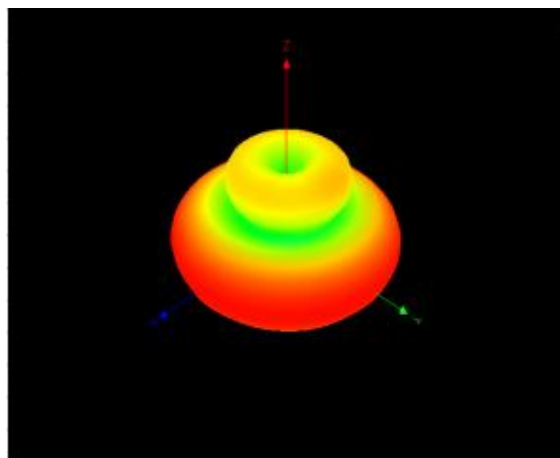
5-1 Antenna 3D Radiation Pattern



2400MHz

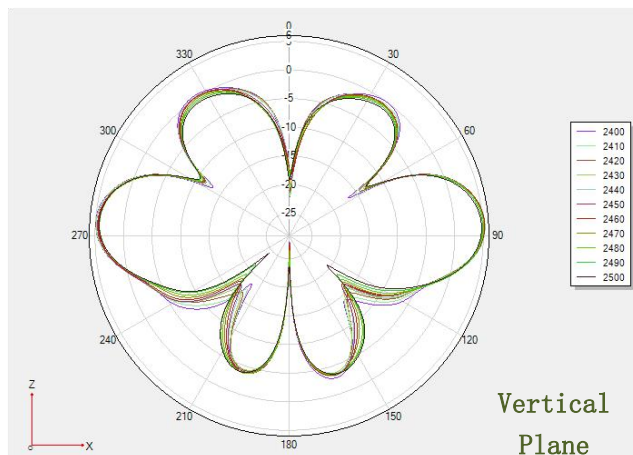


2450MHZ

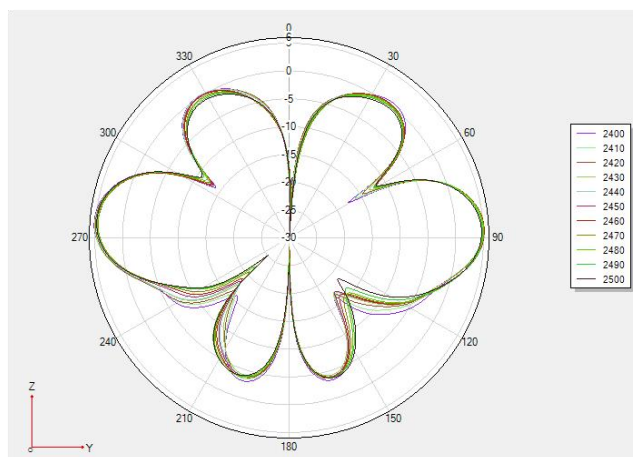


2500MHZ

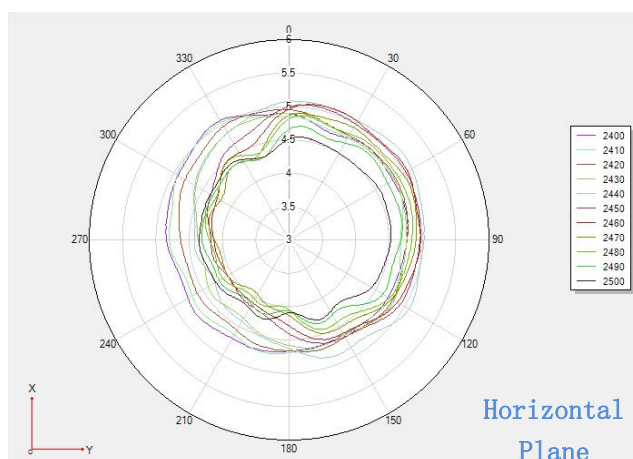
5-2 Antenna 2D Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D

6. Mechanical Specification:

