



好天线 · 优比造

东莞市优比电子有限公司

Dongguan Youbi Electronics Co., Ltd

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G+5.8G 五金内置天线

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01NJ1D1480A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Eddy	
APPROVED BY:	 Changxing.Liu	
DATE:	2024/1/9	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-1-9

Content

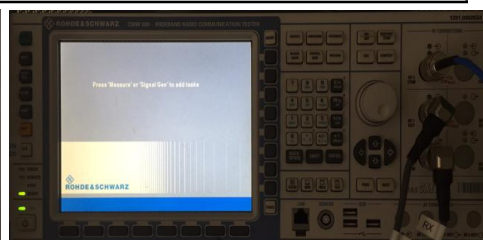
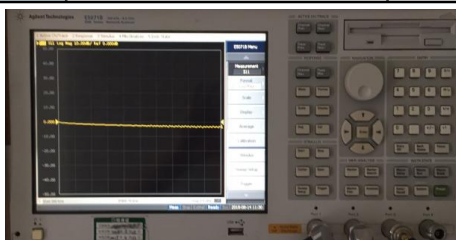
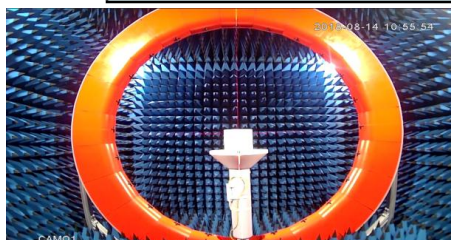
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter_TX
4.-----	Efficiency and Gain_TX
5.-----	Radiation Pattern_TX
6.-----	S Parameter_RX
7.-----	Efficiency and Gain_RX
8.-----	Radiation Pattern_RX
9.-----	Active test data
10.-----	Antenna installation diagram
11.-----	Mechanical Specification

1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	15x4.8x3.3,T0.3	mm
Frequency	2400-2500 / 5150-5850	MHz
Impedance	50	Ω
VSWR	≤ 2.5	
Polarization	Linear Polarization	
Gain	2 REF	dBi
Efficiency	> 50	%
Connector Type	DIP	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

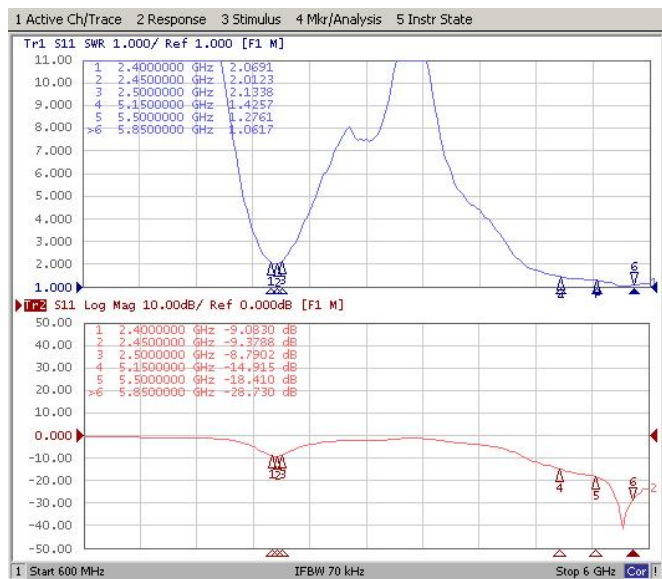
2.Test Items and Equipment

	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)



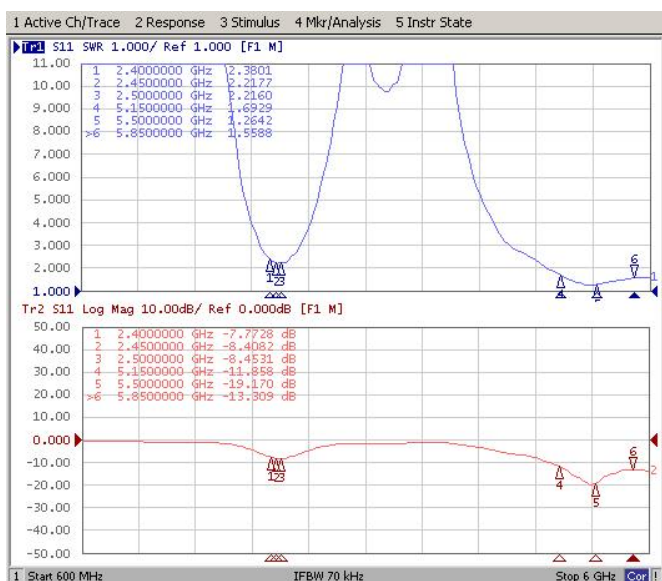
3. S Parameter_TX

Frequency (MHz)	Return Loss (dB)	VSWR
2400	-9.08	2.06
2450	-9.37	2.01
2500	-8.79	2.13
5150	-14.91	1.42
5500	-18.41	1.27
5850	-28.73	1.06



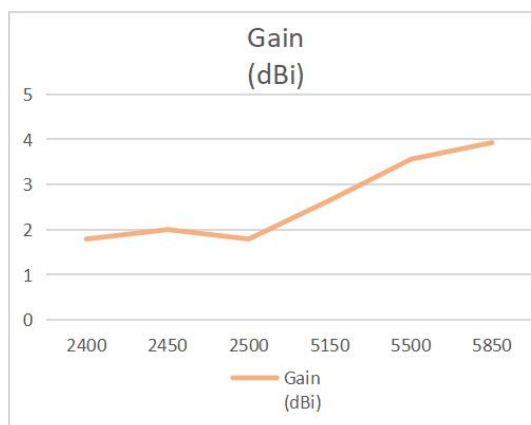
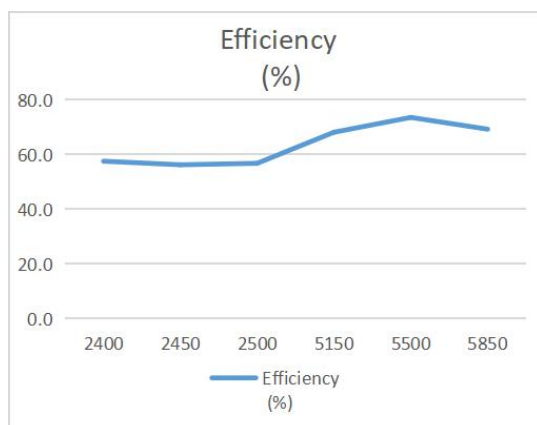
4. S Parameter_RX

Frequency (MHz)	Return Loss (dB)	VSWR
2400	-7.77	2.38
2450	-8.40	2.21
2500	-8.45	2.21
5150	-11.85	1.69
5500	-19.17	1.26
5850	-13.30	1.55



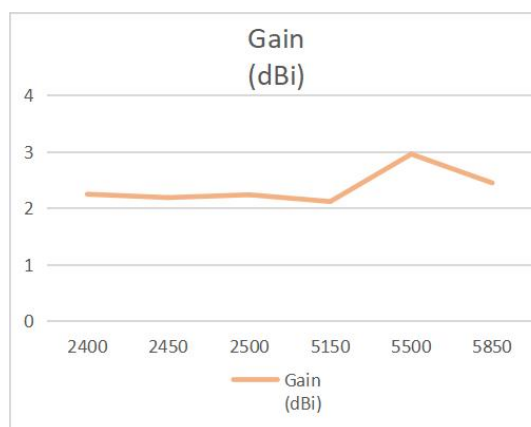
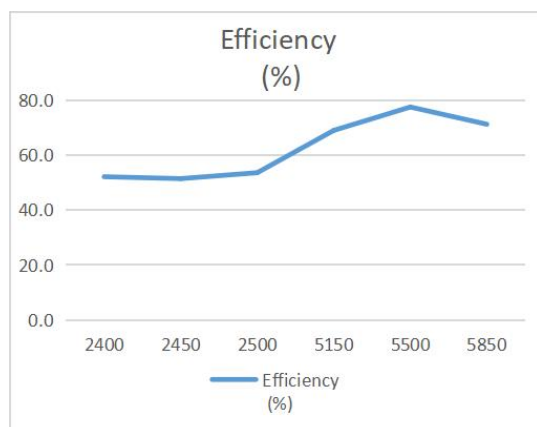
5. Efficiency and Gain_TX

Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	57.54	56.23	56.77	68.13	73.54	69.24
Gain (dBi)	1.79	2.00	1.79	2.65	3.56	3.93

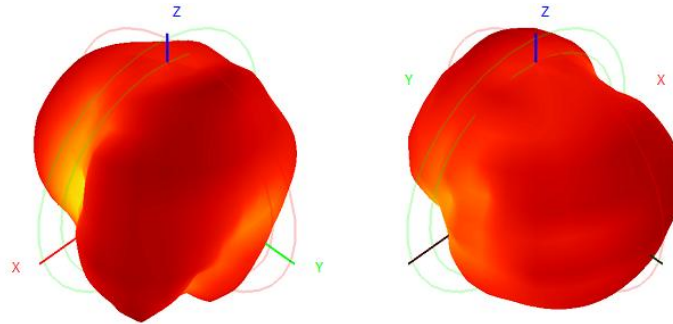


6. Efficiency and Gain_RX

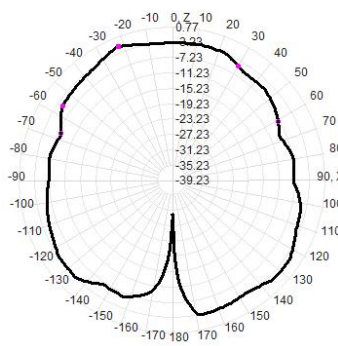
Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	52.10	51.40	53.56	68.96	77.47	71.20
Gain (dBi)	2.25	2.19	2.24	2.12	2.96	2.45



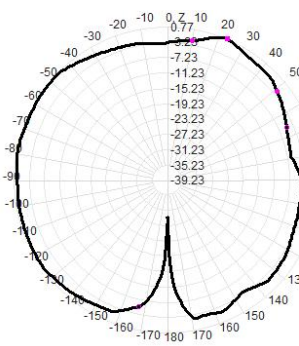
7. Radiation Pattern_TX



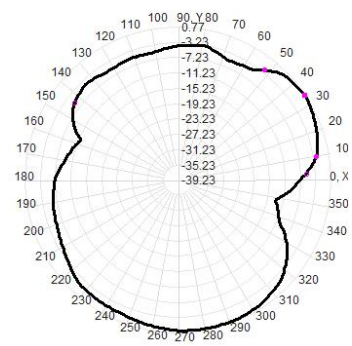
2450MHz



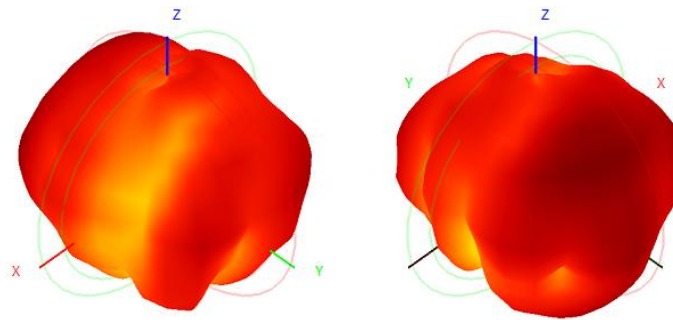
E1-XZ



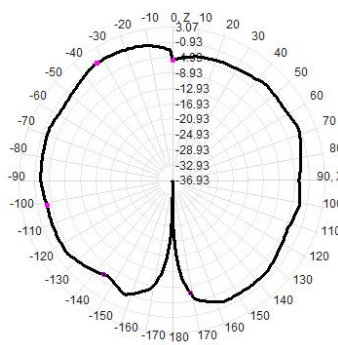
E2-YZ



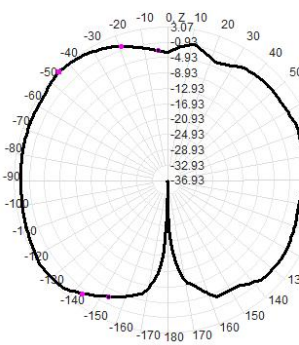
H-XY



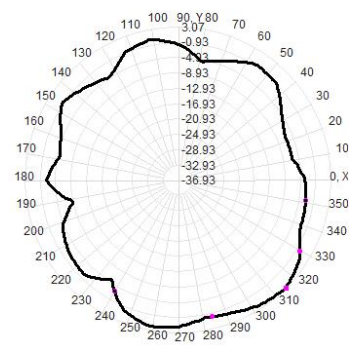
5500MHz



E1-XZ

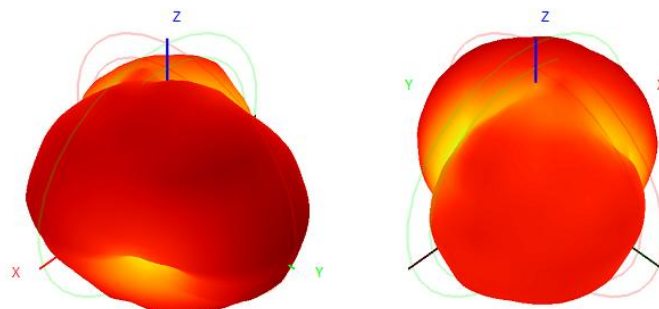


E2-YZ

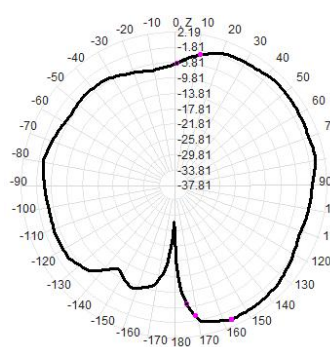


H-XY

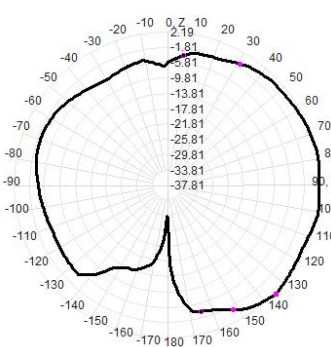
8. Radiation Pattern_RX



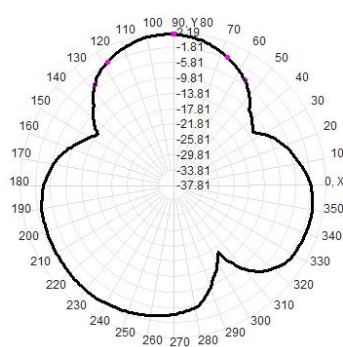
2450MHz



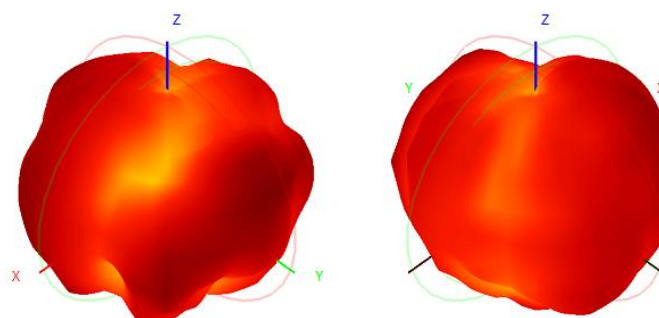
E1-XZ



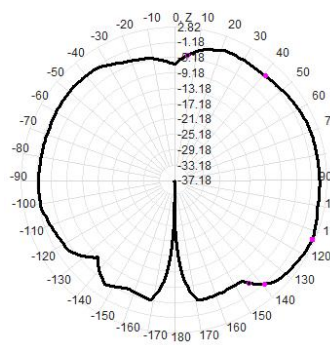
E2-YZ



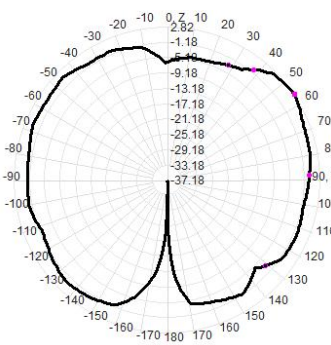
H-XY



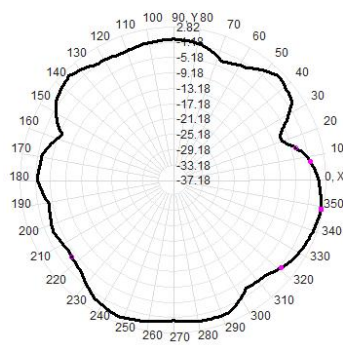
5500MHz



E1-XZ



E2-YZ



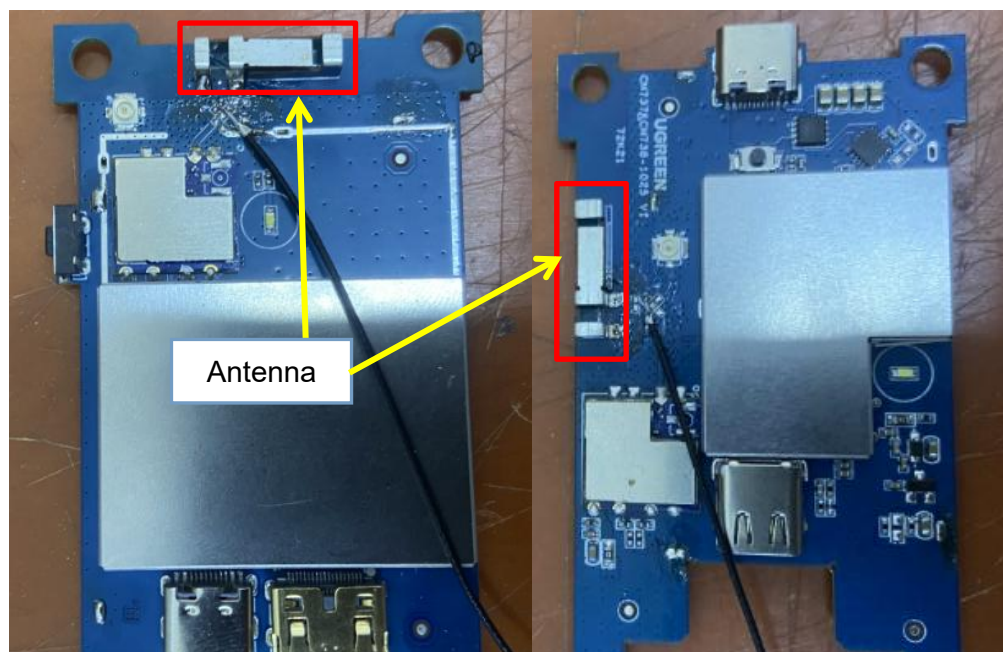
H-XY

9.Active test data

TX				
Mode	TestCase	Channel	DateRate (Mbps)	TestResults (dBm)
IEEE802. 11a	TRP	36	54	15.96
		149		16.33
		165		16.20
	TIS	36	54	-77.34
		149		-77.23
		165		-77.50
IEEE802. 11n	TRP	40	MCS7	14.97
		149		16.04
		161		16.99
	TIS	40	MCS7	-71.46
		149		-71.49
		161		-72.21

RX				
Mode	TestCase	Channel	DateRate (Mbps)	TestResults (dBm)
IEEE802. 11a	TRP	36	54	15.93
		149		17.28
		165		17.47
	TIS	36	54	-77.56
		149		-76.00
		165		-78.36
IEEE802. 11n	TRP	40	MCS7	15.91
		149		16.94
		161		18.45
	TIS	40	MCS7	-73.12
		149		-70.31
		161		-73.58

10. Antenna installation diagram



11.Mechanical Specification

