

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G FPC Antenna L=110mm+terminal

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C110F2D3551A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Eddy	
APPROVED BY:	Changxing. Liu	
DATE:	2023/2/3	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-2-3

Content

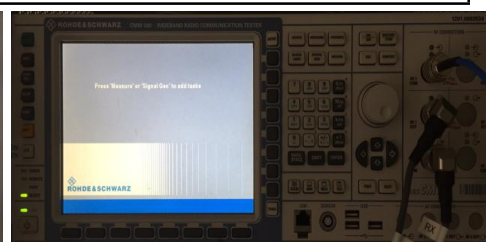
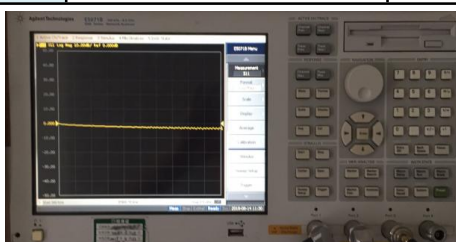
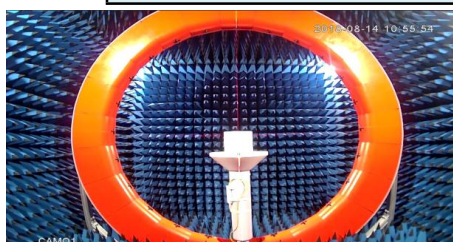
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
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7.-----	Antenna installation diagram
8.-----	Mechanical Specification
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	39x16.5,L110	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	4.71	dBi
Efficiency	>50	%
Connector Type	MHF-1-Plug	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2.Test Items and Equipment

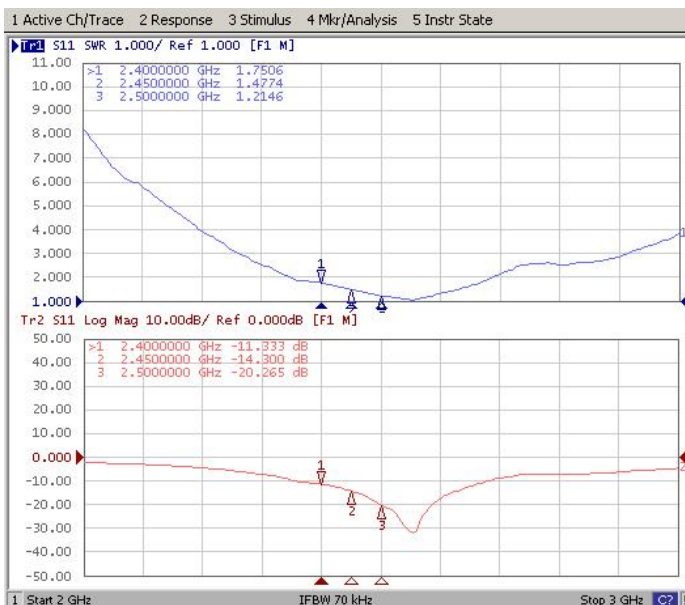
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

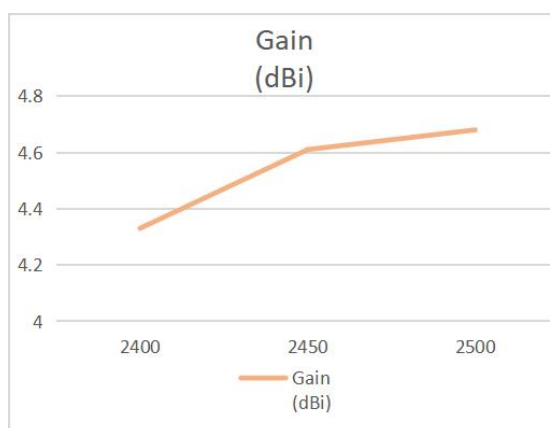
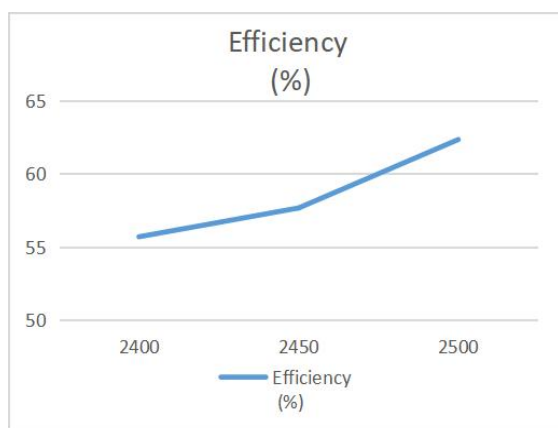
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-11.33	1.75
2450	-14.30	1.47
2500	-20.26	1.21

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



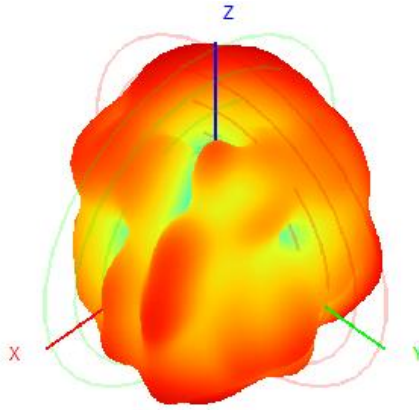
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	55.71	57.68	62.36
Gain (dBi)	4.33	4.61	4.71

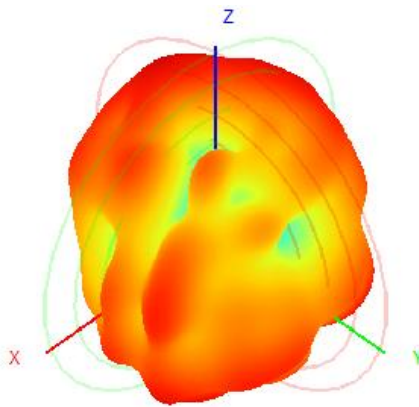


5. Radiation Pattern

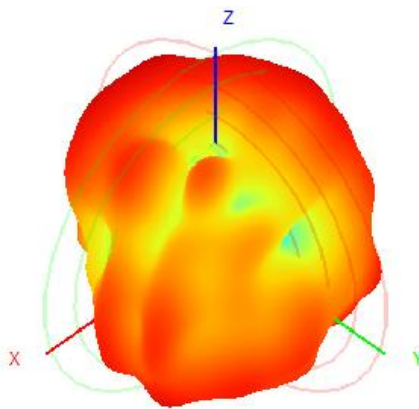
5-1 Antenna 3D Radiation Pattern



2400MHz

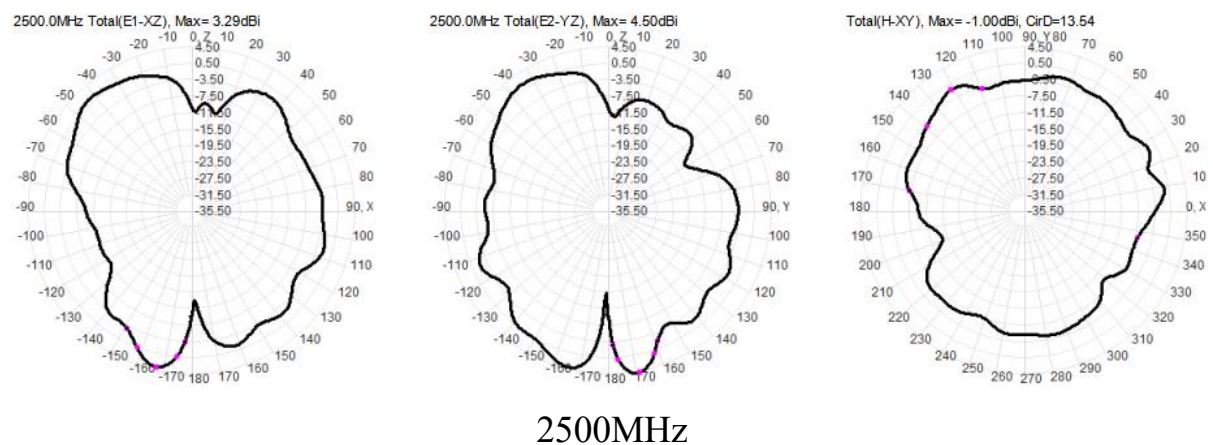
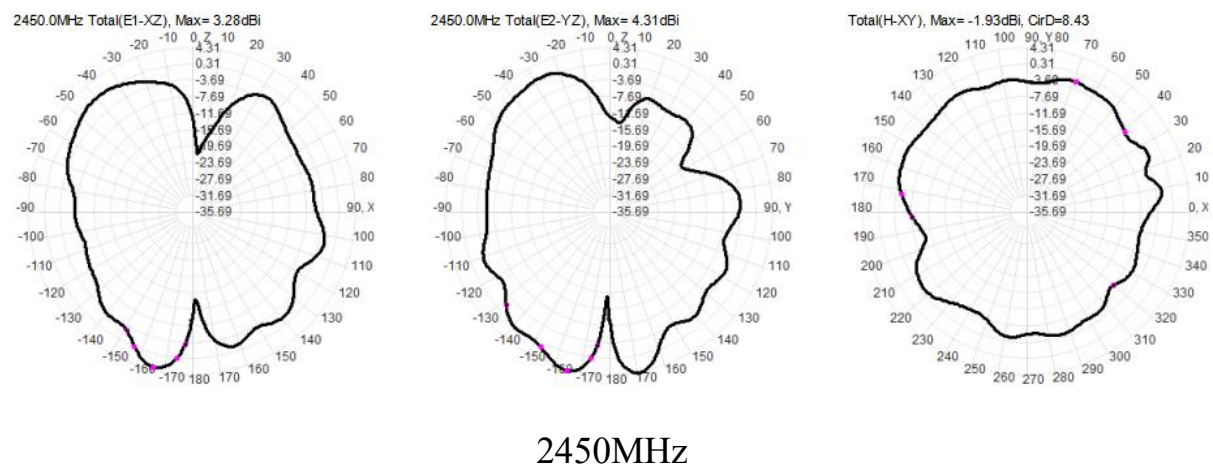
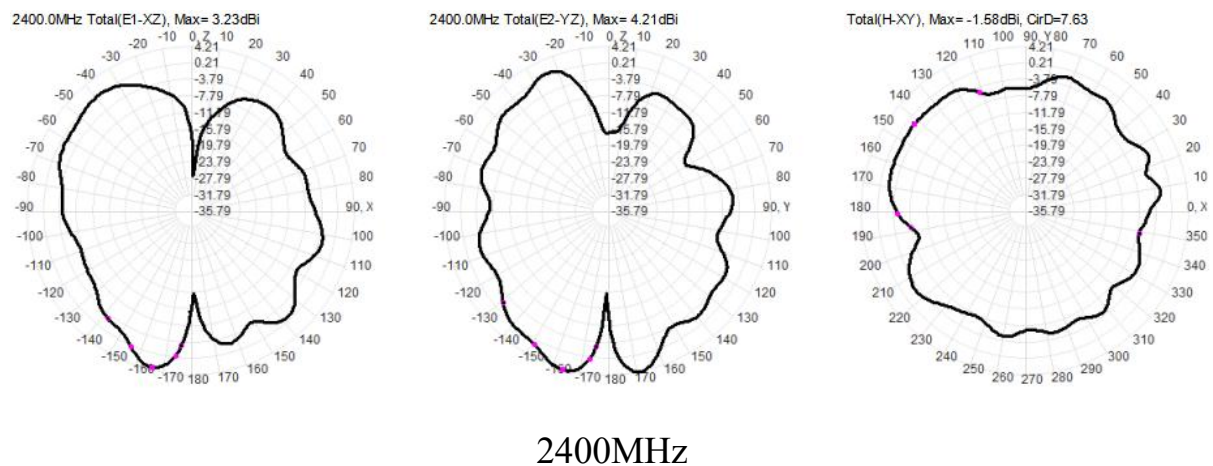


2450MHz



2500MHz

5-2 Antenna 2D Radiation Pattern



6. Active test data

802.11B		
Item	Measurement	Total
1	TRP	21
6	TRP	19.49
11	TRP	19.28
1	TIS(EIRP)	-84.41
6	TIS(EIRP)	-83.64
11	TIS(EIRP)	-86.24

802.11G		
Item	Measurement	Total
1	TRP	19.63
6	TRP	19.71
11	TRP	17.01
1	TIS(EIRP)	-69.86
6	TIS(EIRP)	-70.99
11	TIS(EIRP)	-71.01

802.11N		
Item	Measurement	Total
1	TRP	19.77
6	TRP	17.1
11	TRP	15.51
1	TIS(EIRP)	-66.39
6	TIS(EIRP)	-66.42
11	TIS(EIRP)	-66.24

7. Mechanical Specification

RoHS COMPLIANT		A		B		C		D		E		F		G	
REV.		DESCRIPTION		ECN NO.		DATE		DRAFTER							
A		First Sample		/		2023.2.3		Yongxin							

UANT®
20B01945A

*39.0±0.3

*16.5±0.3

*110±3

4.0

DETAIL A
SCALE: 2/1

Specification :

Frequency Rang:2400-2500MHz

GENERAL TOLERANCE:		CUST. P/N:	
LINEAR:		TITLE.:	
X.XX	±0.25	2.4G FPC内置天线L=110mm+端子	
X.	±0.3	P/N.: UB01C110F2D3551A	
XX.	±0.5	REV. A	
XXX.	±2.0	UNITS mm	
ANGLE:	±0.5°	SCALE 1:1	
		1:1	

3	FPC	FPC Antenna radiator ,Pl,Black	1	QTY
2	Cable	1.13 Coaxial cable,Gray	1	
1	Connector	WHF-1-Plug connector ,Phosphor brass gold plated	1	
ITEM	PART NAME	DESCRIPTION		

APPR.: Changxing.Liu		CHECK.: Dillon		DRAW.: Yongxin	
UANT® 东莞市优比电子有限公司 Dongguan Youbi Electronics Co., Ltd 群 天 线 · 便 安 装					