

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G FPC 内置天线 L=80mm+端子

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C70F4D4840A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Eddy	
APPROVED BY:	Huang	
DATE:	2025/1/10	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-12-6
B	变更线长	Eddy	2025-1-10

Content

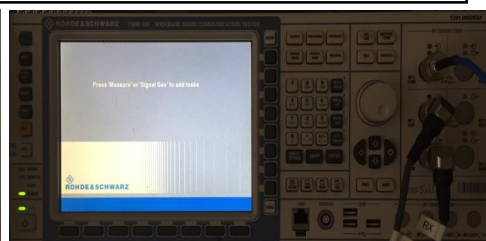
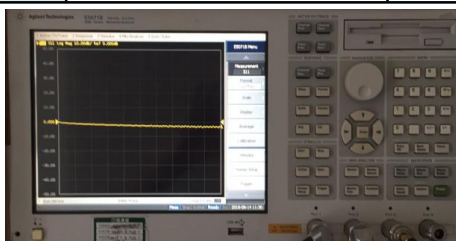
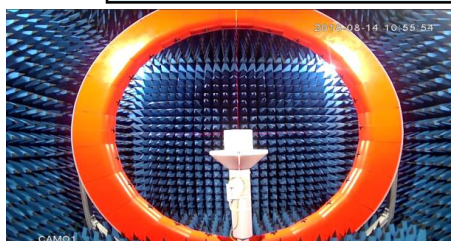
<i>Item</i>	<i>Description</i>
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1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	29.2x19,L80	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	2.5 ± 0.8	dBi
Efficiency	>50	%
Connector Type	MHF-1-Plug	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

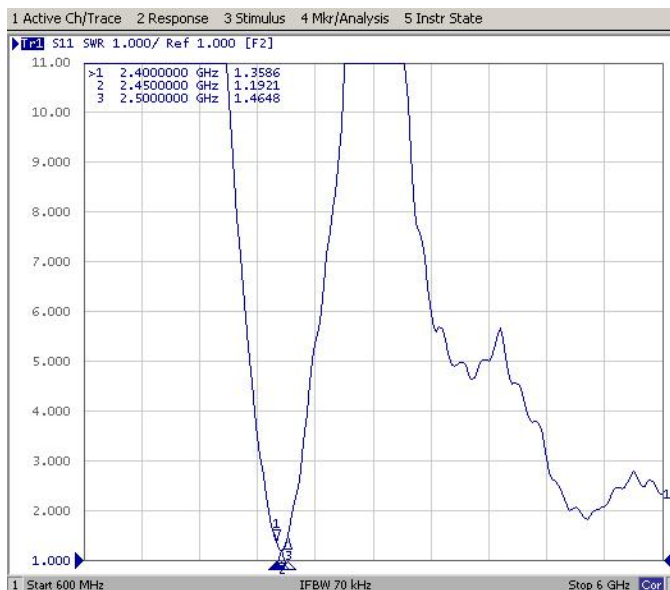
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave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



3. S Parameter

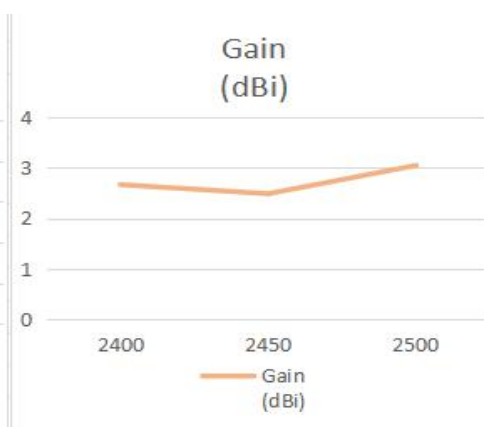
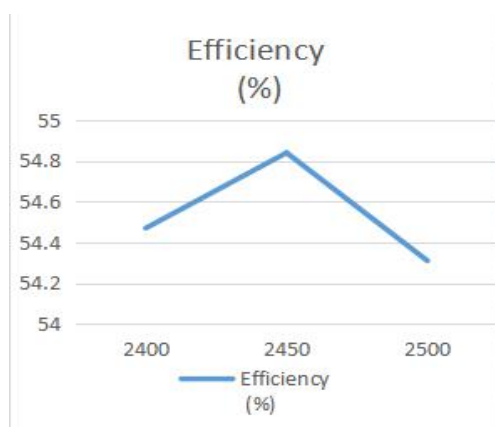
Frequency (MHz)	VSWR
2400	1.35
2450	1.19
2500	1.46

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



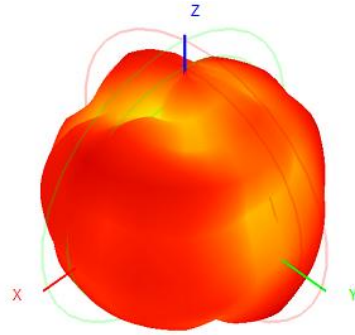
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	54.47	54.84	54.31
Gain (dBi)	2.67	2.49	3.05

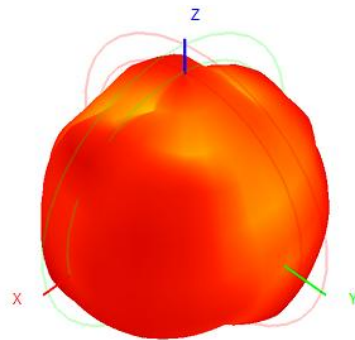


5. Radiation Pattern

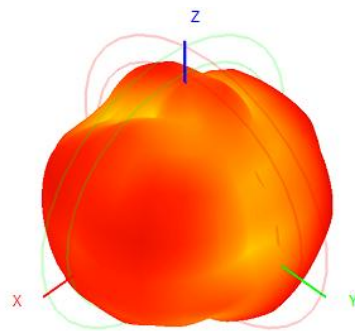
5-1 Antenna 3D Radiation Pattern



2400MHz

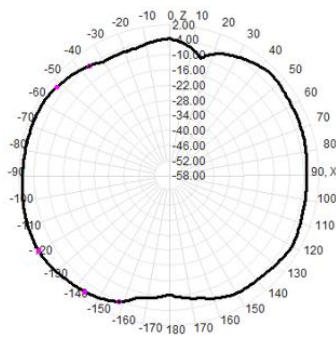


2450MHz

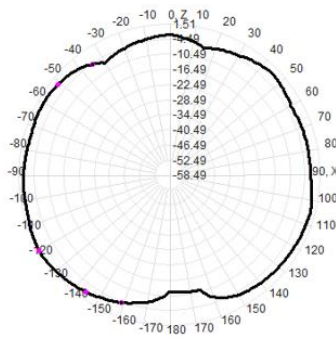
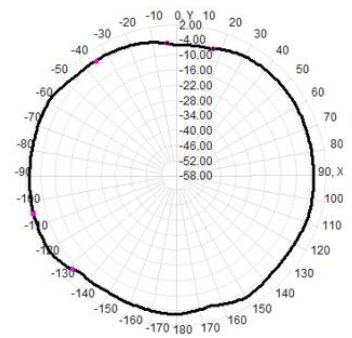
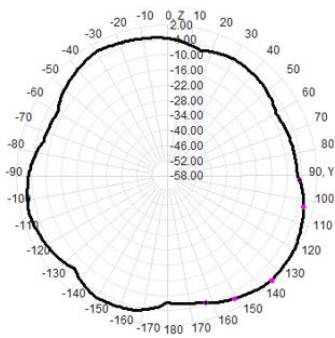


2500MHz

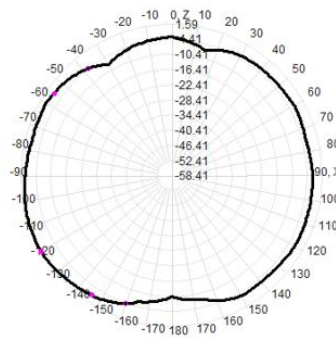
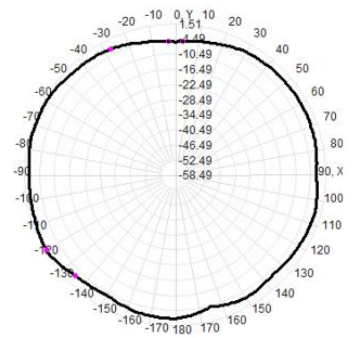
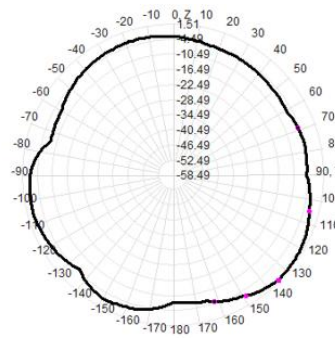
5-2 Antenna 2D Radiation Pattern



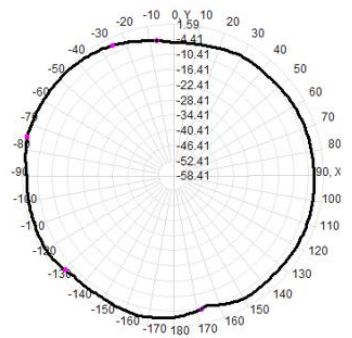
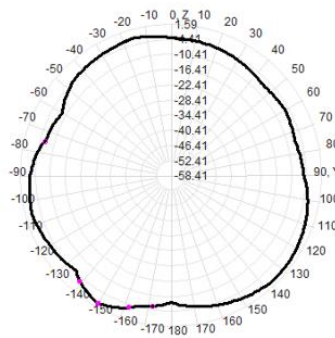
2400Mhz



2450Mhz



2500Mhz



6. Active test data

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Max	Min	Total
1	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	25.87	1.33	19.69
2	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-68.52	-94.57	-86.52
3	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	25.34	-6.55	19.6
4	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	-60.2	-94.34	-86.28
5	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	24.89	-0.69	19.4
6	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	-67.33	-95.22	-87.38
7	TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	1	2412	24.14	0.99	18.22
8	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	1	2412	-55.1	-80.39	-73.38
9	TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	6	2437	23.14	-5.6	17.99
10	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	6	2437	-50.21	-80.33	-73.34
11	TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	11	2462	24.6	-3.03	18.37
12	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	11	2462	-54.12	-80.01	-73.14
13	TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:1		2412	23.3	-0.25	17.25
14	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:1		2412	-47.32	-75.32	-68.22
15	TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:6		2437	21.32	-6.85	16.97
16	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:6		2437	-42.21	-74.14	-68.32
17	TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:11		2462	23.14	-2.3	17.63
18	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6:11		2462	-52.1	-76.38	-69.32

7. Antenna installation diagram



8.Mechanical Specification

