

Specifications

for

2.4G WIFI PCB Antenna

Customer Part Number

Our company's part number

HY-ZLY001-2.4G-WIFI-PCB

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Date: 2024.03.26

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Shenzhen Shuodian Electronic Technology Co.,Ltd

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1. Both parties confirm**1.1 Customer confirmation signature****client:**

Client Department/Position	Signature of confirmer	Confirm Date
Hardware/RF		
structure		
Project Manager		
Business/Purchasing		
Audit		

1.2 Hongying Communication confirms the signature

Department/Position	Signature of confirmer	Confirm Date
Antenna Engineer		
Structural Engineer		
Project Manager		
QA		
Audit		

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2. General matters

2.1 Scope of application

2.4G WIFI Antenna

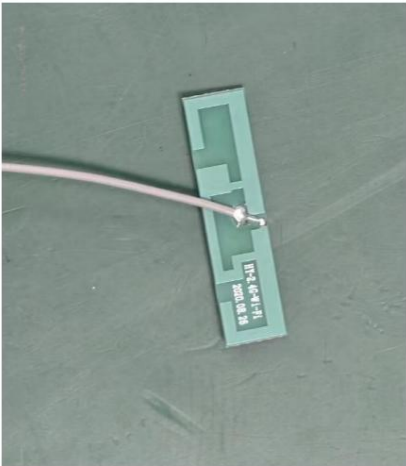
2.2 Operating temperature range

The operating temperature range of this product is -40 ~ +105 ℃

2.3 Storage temperature range

This product is stored at -40 ~ +75 ℃

3. General product specifications

NO.	ITEMS	DETAILS
1	model	HY-ZLY001 2.4GWIFI
2	Frequency band	2400-2500MHZ
3	VSWR	≤2.0
4	Gain	2.0dBi
5	Radiation Efficiency	≥50%
6	impedance	50Ω
7	Antenna Type	Dipole
8	Antenna Implementation	PCB+1.13 coaxial cable
9	Antenna Pictures	

4. Product specifications

4.1 Product structure parameters

4.11 Product material composition:

Serial number	Material	Specifications (mm)
1	PCB	XXmm Green
2	Coaxial Cable	First generation terminal Ø1.13 exposed length 300MM black

4.12 Appearance

The product has a good appearance, without scratches, sweat marks, protrusions or other defects that seriously affect the appearance.

4.13 Structural dimensions

4.2 Product electrical performance test data

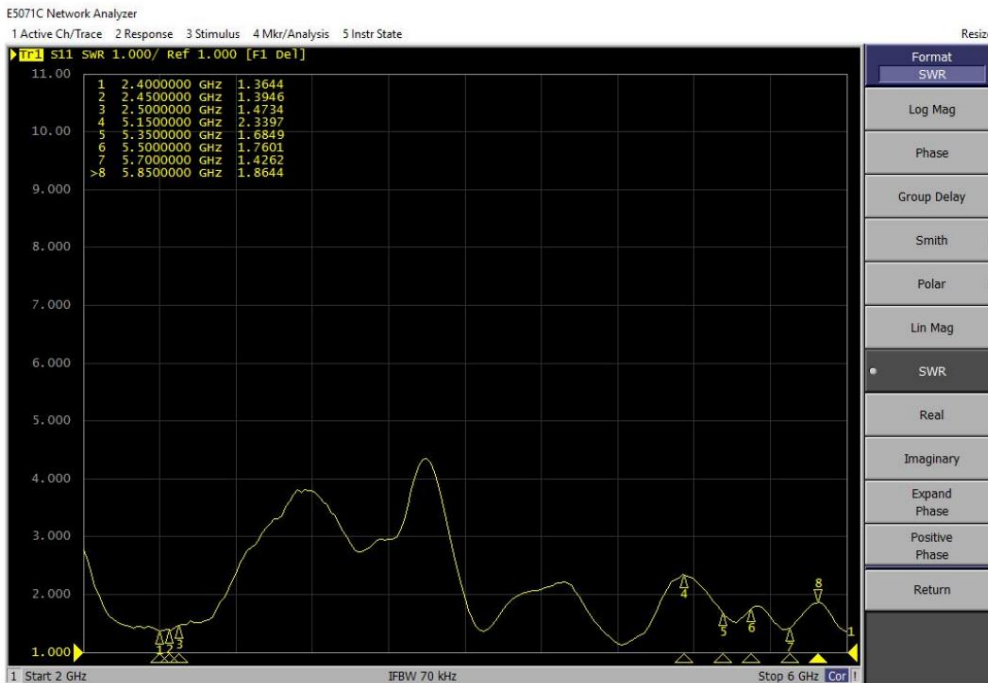
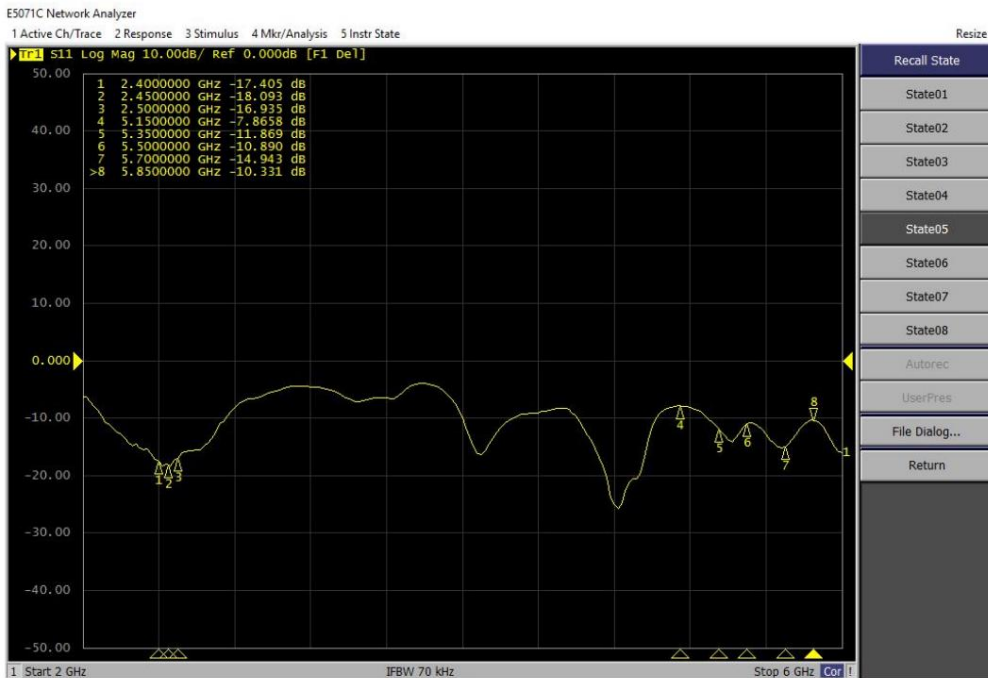
4.21 Test environment and equipment

Test environment: Temperature: 10ÿ——+30ÿ Relative humidity: ÿ80% (+40ÿ) Atmospheric pressure: 750mmkg±30mmkg	Test equipment: Network Analyzer KEYSIGHT E5071C Multi-probe microwave anechoic chamber
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4.22.1 Product electrical performance test data:

S11 diagram of the antenna :

Marker(MH WITH)	2400	2450	2500	5150	5350	5500	5700	5850
Returns s	-17.40	-18.09	-16.93	-7.86	-11.86	-10.89	-14.94	-10.33
VSWR	1.66	1.79	2.00	1.93	1.68	1.76	1.42	1.86



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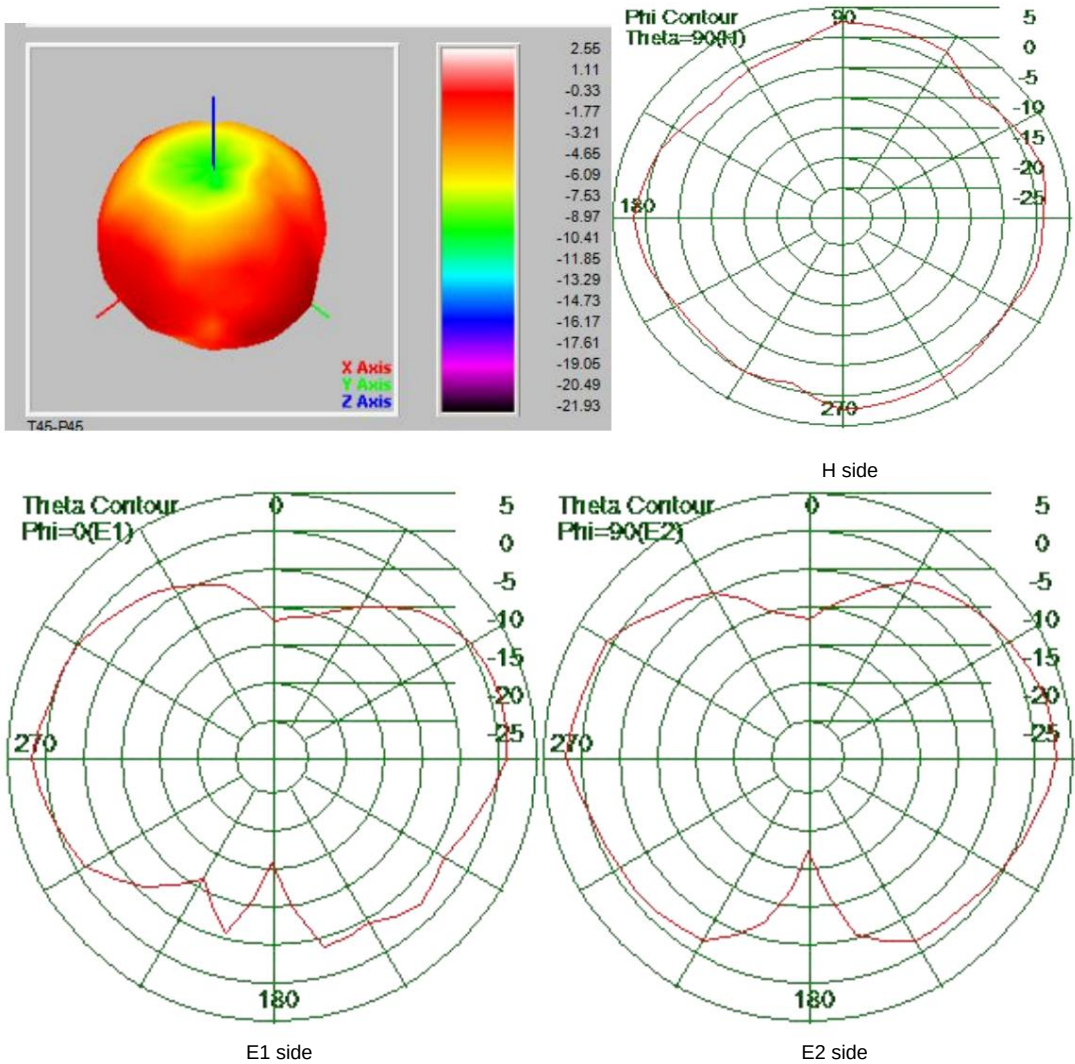
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4.22.2 Antenna gain efficiency:

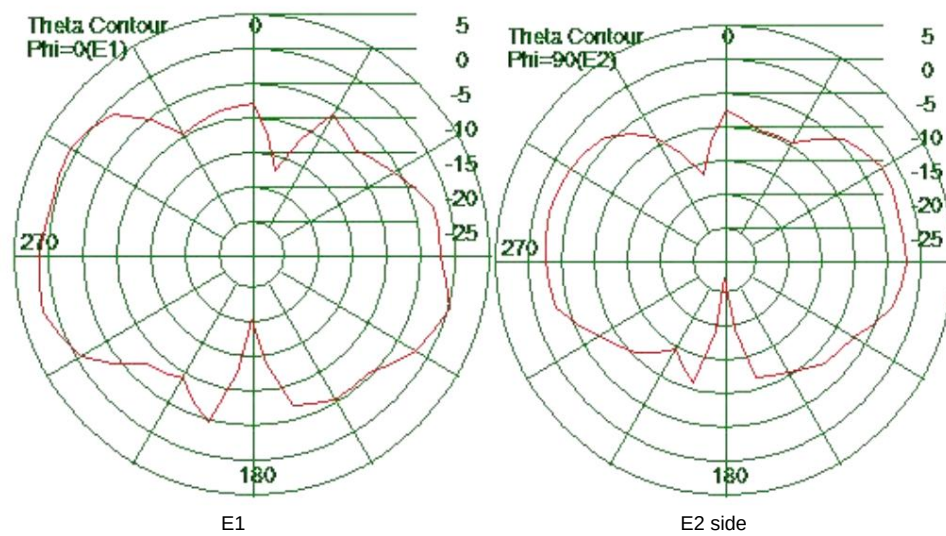
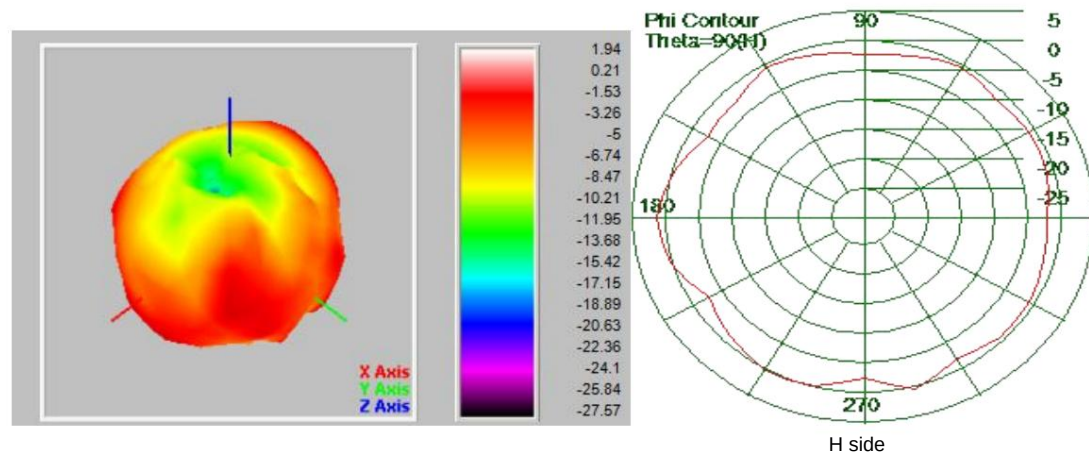
Marker ƳMHzƳ	2400	2450	2500	5150	5350	5700	5750	5800	5850
GainƳdBƳ	2.28	2.55	2.07	1.94	2.90	2.91	2.64	2.84	2.73
Efficiency Ƴ%Ƴ	70.7%	73.0%	69.8%	53.6%	57.5%	61.7%	54.5%	53.8%	54.3%

4.22.3 Radiation pattern of antenna:

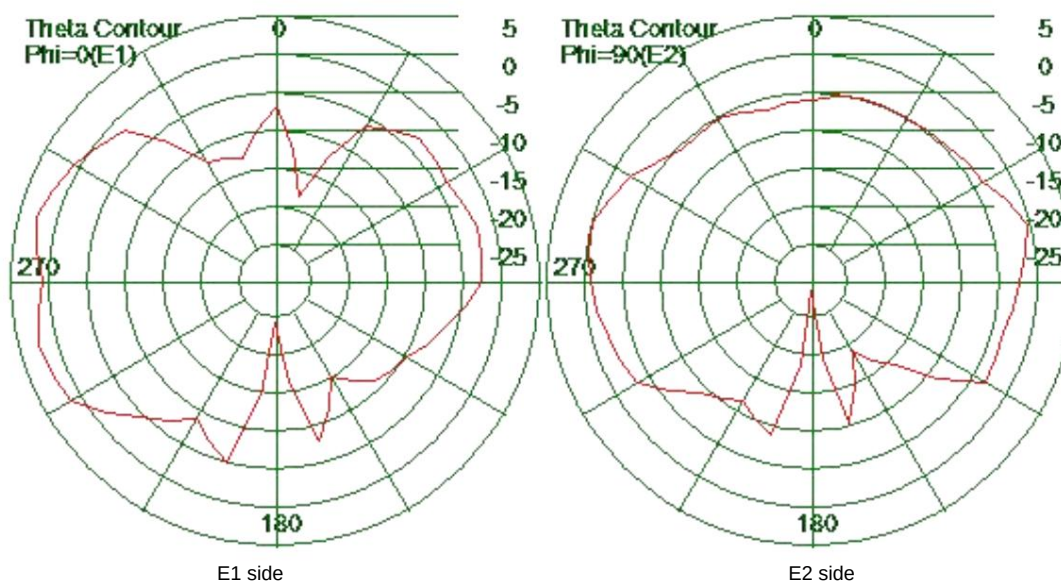
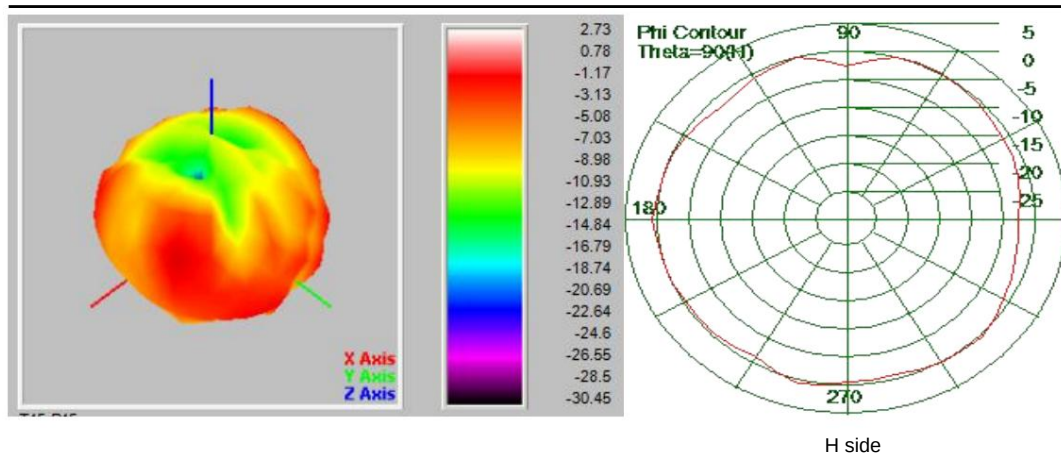
Frequency: 2450MHz



Frequency: 5150MHz



frequency: 5850MHz



5. Product packaging

Packing: Ziplock bag, 200pcs per bag.
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6. Documentation

Document number Document No.	
date Release Date	2025/03/26
prepared by Author	Hungjie
Review Review	WH

File History Table

Revised History

Date	Version	Revised Record
2025/03/26	1.00	New Project