

# Specifications

for  
2.4G antenna

**Part number:**

**YX-AP24-1089- Inner Screw**

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# 1. General matters

## 1.1 Scope of application

2.4G WIFI antenna

## 1.2 Operating temperature range

The temperature range of this product is  $-20 \sim +65 \text{ }^{\circ}\text{C}$

## 1.3 Storage temperature range

This product is stored at  $-30 \sim +75 \text{ }^{\circ}\text{C}$

# 2. General product specifications

NO.	ITEMS	DETAILS
1	model	WIFI
2	Frequency band	2400-2500MHz
3	VSWR	$\leq 2.0$
4	GAIN	3dBi
5	impedance	50 $\Omega$
6	Antenna type	monopole
7	Antenna implementation form	Glue stick
8	Antenna image	

### 3.Product Specification Details

#### 3.1 Product structure parameters

##### 3.1.1 Product Material Composition:

Serial number	material	Specification (MM)
1	Rubber sleeve	L: 110mm black
2	Joint	Male and female needles

##### 3.1.2 Appearance

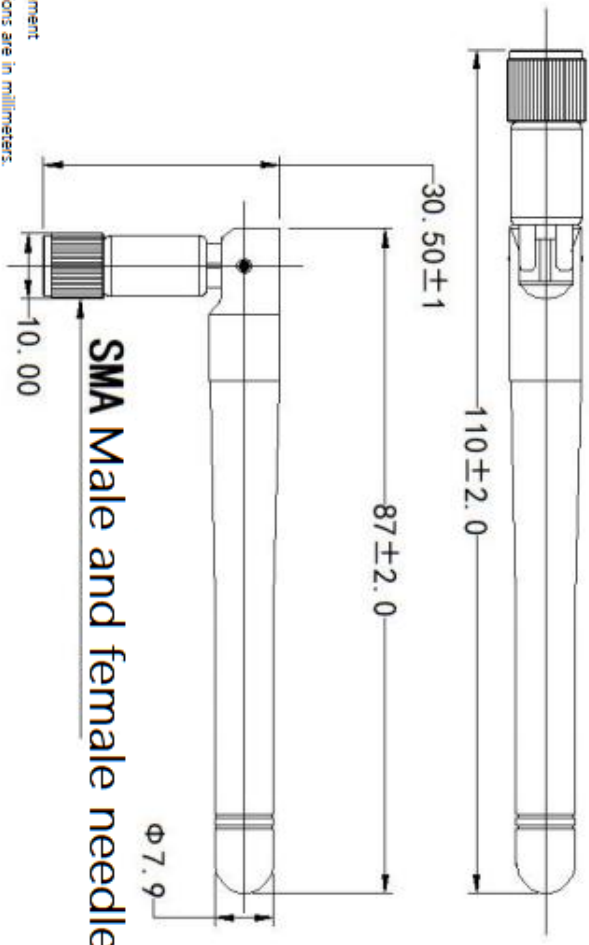
The product has a good appearance, without serious defects such as scars, sweat marks, protrusions, etc. that seriously affect the appearance.

##### 3.1.3 Structural dimensions

Reference product drawings:

REV	DESCRIPTION	DATE	APPD

GENERAL TOLERANCES	
ISO 2768	ASME Y14.5
0	0
0.1	0.125
0.2	0.25
0.5	0.5
1	1.25
2	2.5
4	5
8	10
15	20
30	40
60	80
120	160
250	320
500	640
1000	1280



**SMA Male and female needles**

- Technical requirement
1. All unit dimensions are in millimeters.
  2. Material: SMA, Male and female needles
  3. The surface is free of dirt, oil stains, scratches, etc.
  4. All dimensions with a \* symbol before them are controlled dimensions.

单位	比例	材料	合格	零件编号
mm	1:1			
数量	颜色	设计	检验	审核
1			LJL	
制图:		审核:		版本: A4

### 3.2 Product electrical performance test data

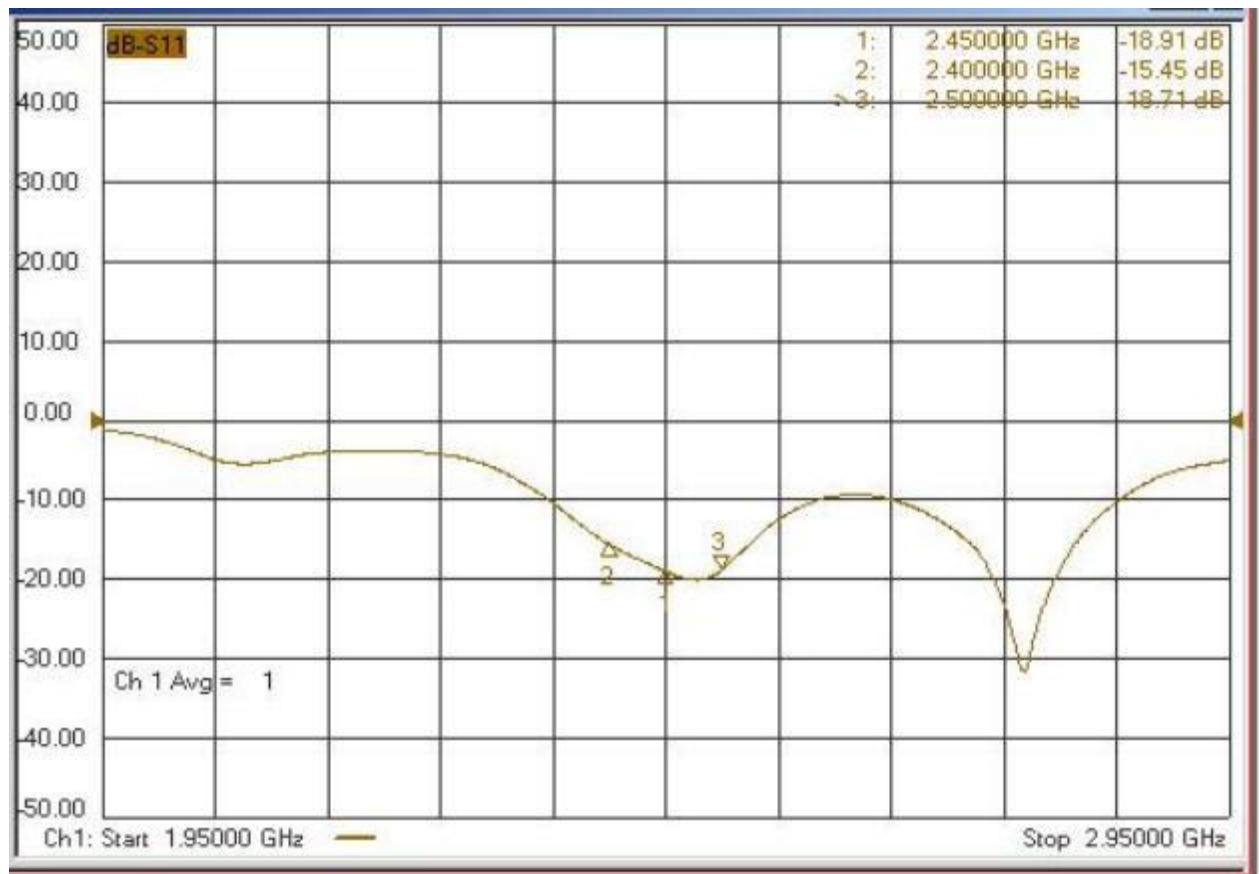
#### 3.2.1 Testing Environment and Instrument Equipment

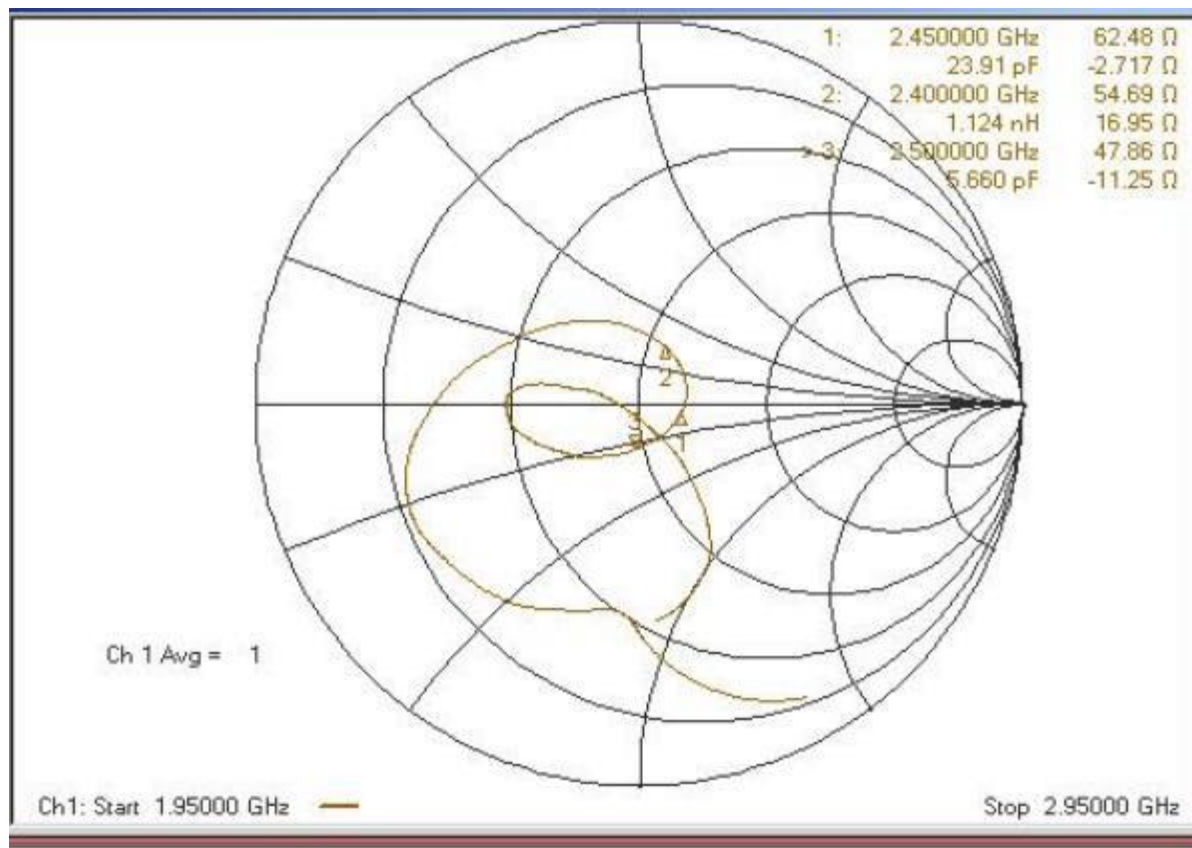
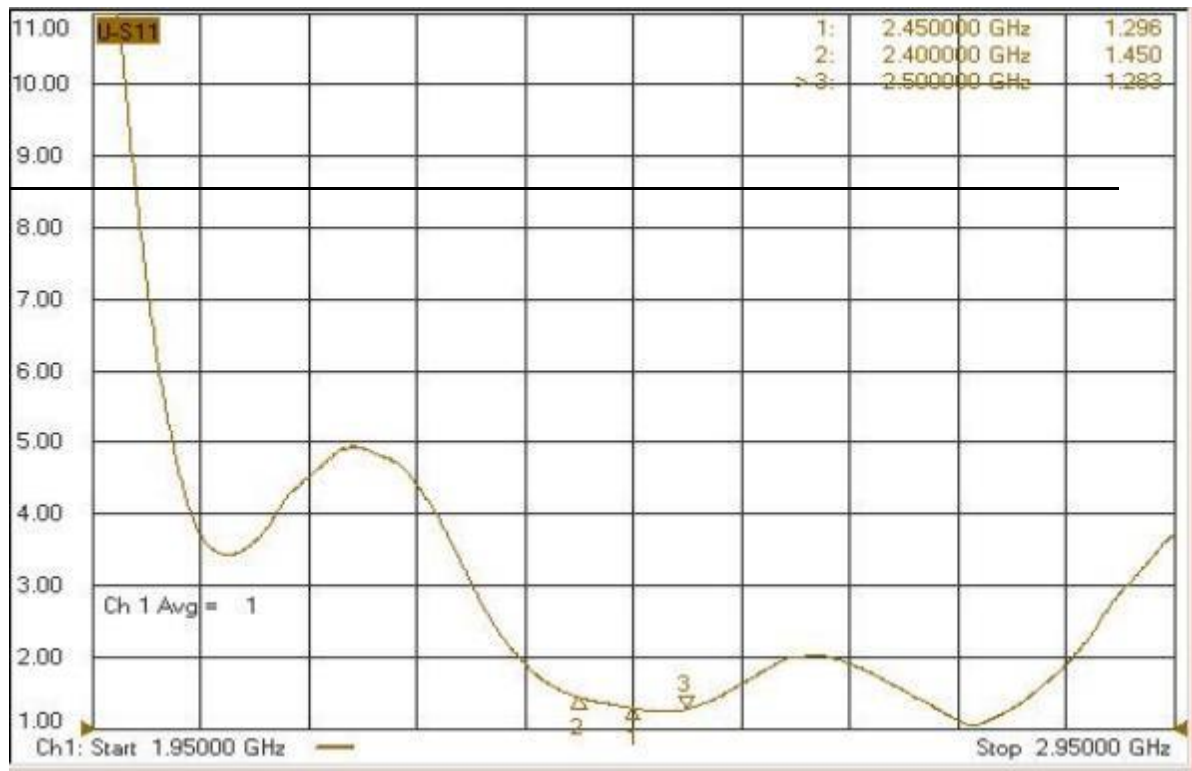
Test environment:	Test equipment:
Temperature: 10°C—+30°C	HP8753D Network Analyzer
Relative humidity: ≤80% (+40°C)	ETS microwave anechoic chamber
Atmospheric pressure: 750mmkg ±30mmkg	

#### 3.2.2 Product electrical performance test data:

S11 diagram of the product:

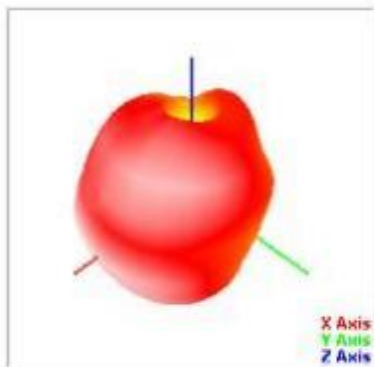
Marker	2400MHz	2450MHz	2500MHz
Returnloss	-15.5	-18.9	-18.7
VSWR	1.4	1.2	1.2



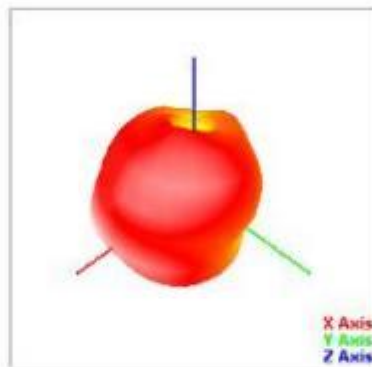


### 3.2.3 Gain, efficiency, and radiation pattern

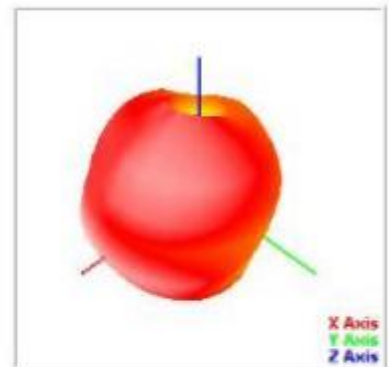
2400MHz



2450MHz

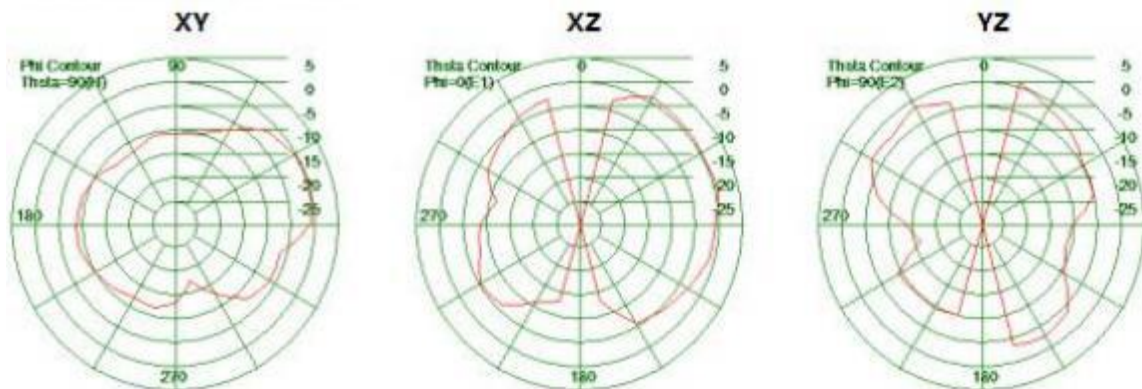


2500MHz



Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain (dBi)	2.84	2.89	2.95	3.11	3.26	3.32	3.37	3.51	3.52	3.66	3.53
Efficiency(%)	45.3%	45.9%	47.4%	49.3%	50.6%	51.7%	53.0%	48.0%	48.1%	47.2%	47.1%
Everage Gain (dB)	-1.00	-1.06	-0.98	-0.78	-0.84	-0.76	-0.59	-0.68	-0.89	-1.05	-1.04

#### Radiation Pattern 2450MHz



	Vertical	Horizontal	Total		Vertical	Horizontal	Total		Vertical	Horizontal	Total
Avg. Gain	-10.96	-15.83	-9.06	Avg. Gain	-4.02	-10.37	-2.86	Avg. Gain	-7.94	-10.83	-5.22
PeakGain	-0.41	-9.96	-0.40	PeakGain	-0.32	-3.32	1.02	PeakGain	-3.26	-1.48	0.73