



Shenzhen Shuodian Electronic Technology Co.,Ltd

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# Specifications

for

**RollerShade antenna**

**Woan Technology (Shenzhen) Co., Ltd.**

客户料号

本公司料号

**WA-RollerShade-metal**

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Date: 2024. 04. 19

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## 2.General

### 2.1 Scope of application

This specification is only applicable to the RollerShade antenna of Woan Technology

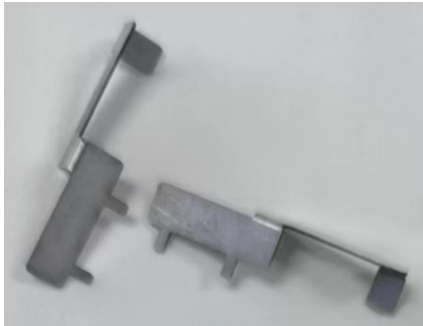
### 2.2 Operating temperature range

**The operating temperature range of this product is -20 ~ +65 °C**

### 2.3 Storage temperature range

This product is stored in -30 ~ +75 °C

## 3.Product General Specifications

| NO. | ITEMS                  | DETAILS                                                                              |
|-----|------------------------|--------------------------------------------------------------------------------------|
| 1   | model                  | <b>RollerShade</b>                                                                   |
| 2   | Frequency band         | <b>2400-2500MHz</b>                                                                  |
| 3   | VSWR                   | <b><math>\leq 2.0</math></b>                                                         |
| 4   | impedance              | <b>50 <math>\Omega</math></b>                                                        |
| 5   | Antenna Type           | <b>PIFA</b>                                                                          |
| 6   | Antenna Implementation | Metal sheets                                                                         |
| 7   | Antenna Pictures       |  |



## 4.Product Specifications

### 4.1 Product structure parameters

#### 4.11 Product material composition:

| Serial number | Material      | Specifications (mm) |
|---------------|---------------|---------------------|
| 1             | Nickel Silver | 22.4*6.2*6.2        |

#### 4.12 Exterior

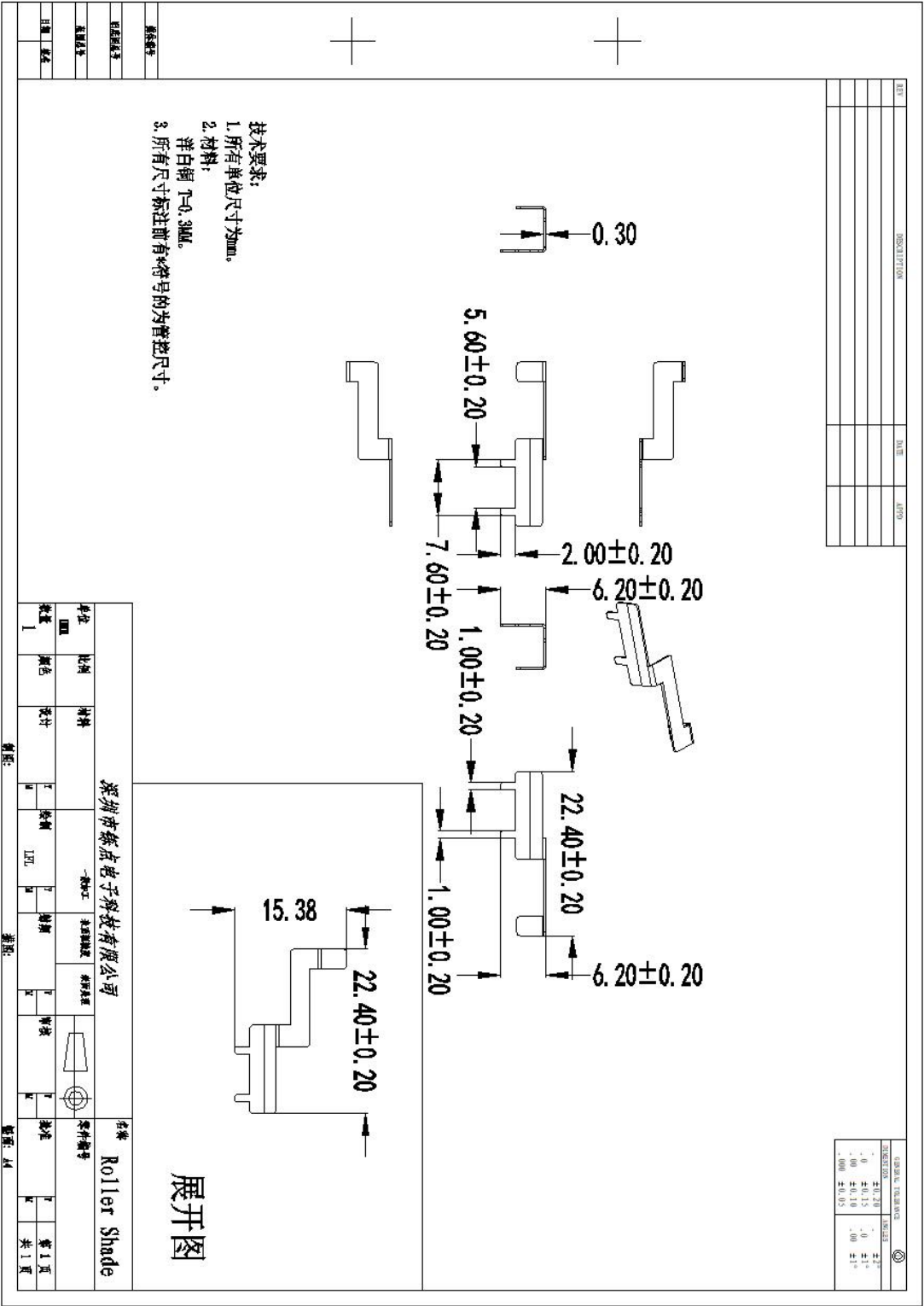
The product has a good appearance, without scratches, sweat marks, protrusions or other defects that seriously affect the appearance.

#### 4.13 structure size

Reference product drawings:



产品图纸:





## 4.2 Product electrical performance test data

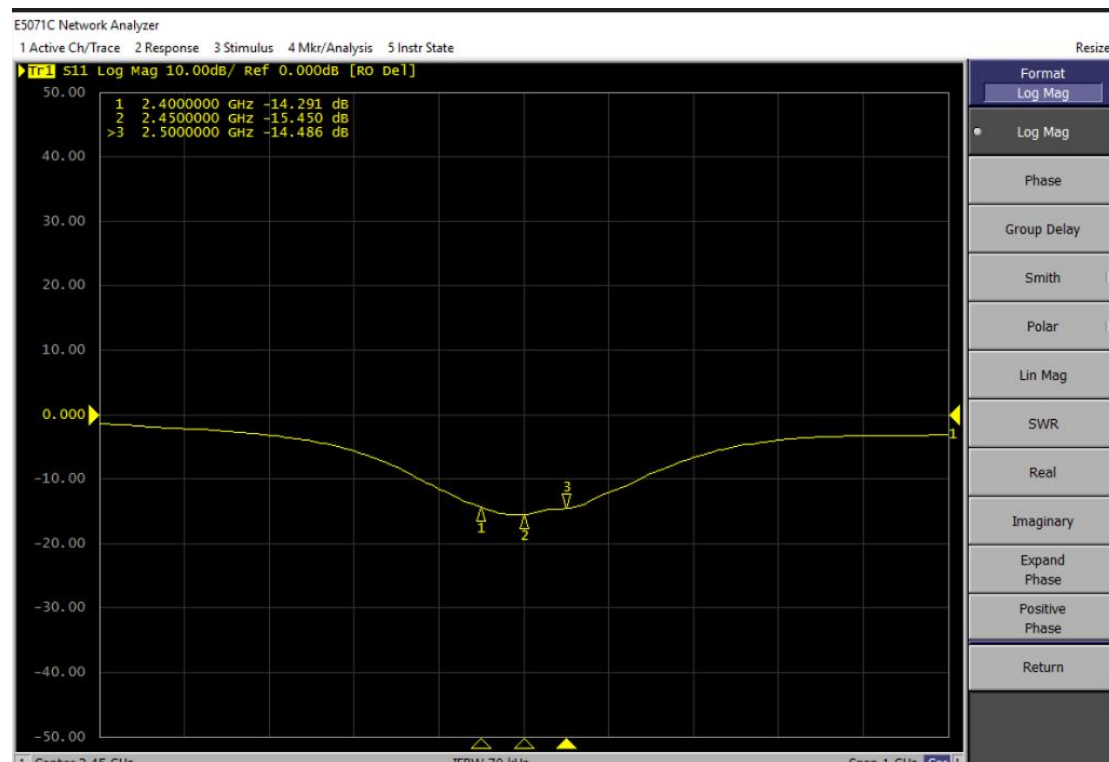
### 4.21 Test environment and equipment

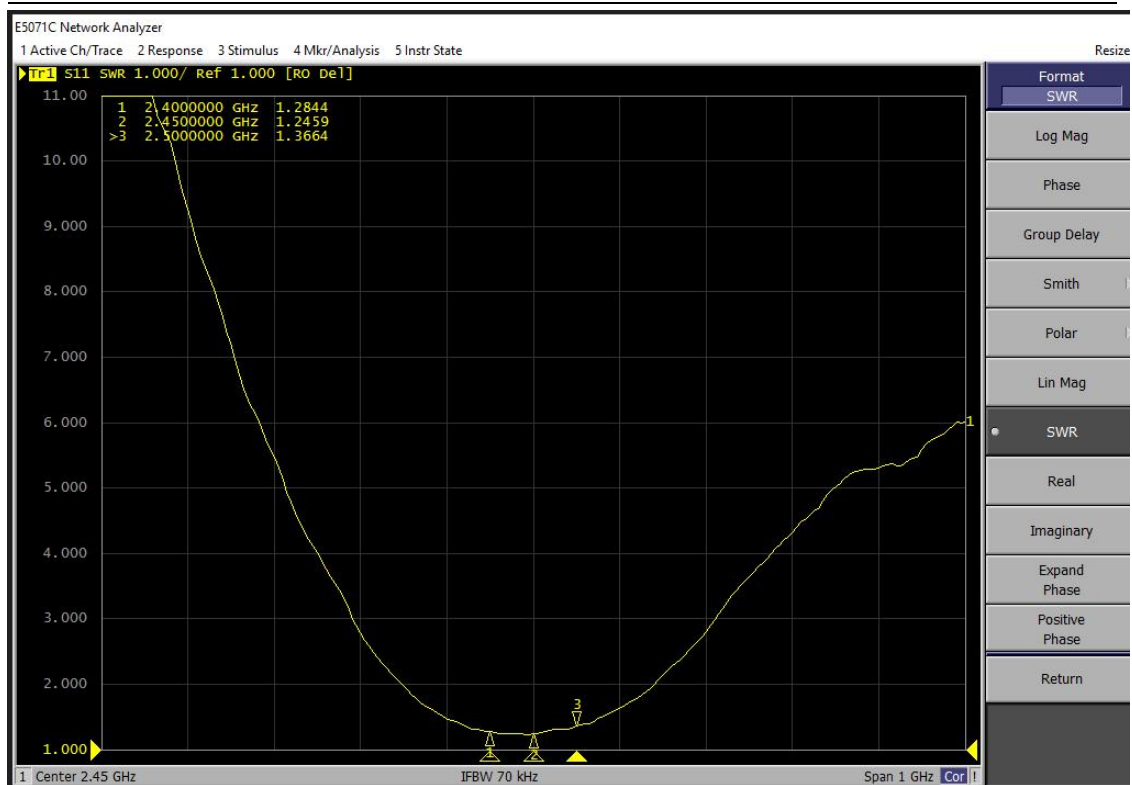
|                                      |                                        |
|--------------------------------------|----------------------------------------|
| test environment:                    | Test Equipment:                        |
| temperature: 10℃——+30℃               | Network Analyzer                       |
| Relative humidity: ≤80% (+40℃)       | KEYSIGHT E5071C                        |
| Atmospheric pressure: 750mmkg±30mmkg | Multi-probe microwave anechoic chamber |

### 4.22 Product electrical performance test data:

#### 4.22.1 Product S11 Image:

| Marker     | 2400MHz | 2450MHz | 2500MHz |
|------------|---------|---------|---------|
| Returnloss | -14.2   | -15.4   | -14.4   |
| VSWR       | 1.28    | 1.24    | 1.36    |





#### 4.22.2 Gain, efficiency and radiation pattern

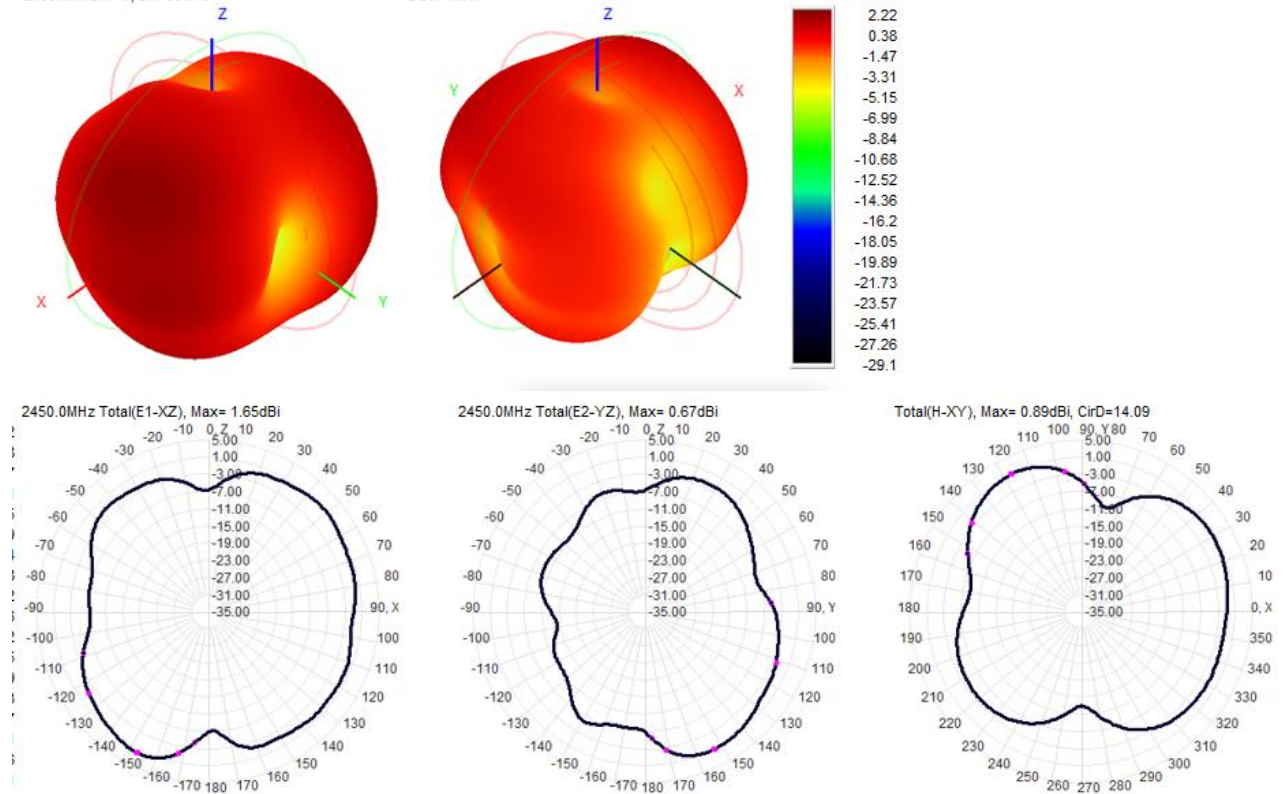
| Fre (MHz)      | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Gain (dBi)     | 2.81   | 2.66   | 2.33   | 2.02   | 1.89   | 2.22   | 2.44   | 2.63   | 2.43   | 2.24   | 2.21   |
| Efficiency (%) | 63.8   | 63.0   | 61.3   | 61.1   | 62.4   | 63.9   | 64.0   | 64.2   | 62.1   | 60.7   | 60.2   |



Radiation pattern@2450MHz

2450.0MHz H+V, Eff: 63.9%

Back View





## 5. Product Packaging

Packing:

Packed in ziplock bags, 200pcs per bag.

## 6. Document History

|              |            |
|--------------|------------|
| File No      |            |
| Document No. |            |
| date         |            |
| Release Date | 2024/04/19 |
| prepared by  |            |
| Author       | Hungjie    |
| Review       |            |
| Review       | WH         |

### File History Table

#### Revised History

| Date       | Version | Revised Record |
|------------|---------|----------------|
| 2024/04/19 | 1.00    | New Project    |
|            |         |                |