



上海增信电子有限公司

ShangHai Signal Plus Technology Co.,Ltd.

# 规格承认书

SPECIFICATION FOR APPROVAL

日期  
DATE: 2024.07.29

版本  
REV.: A

客户  
CUSTOMER: 上海安威士

客户料号  
CUSTOMER P/N:

品名  
PART NAME: 内置2.4G FPC天线 0.81黑色线L=80mm with RF CONN for Saas Camera

供方料号  
SUPPLIER P/N: 6354F00002

送样日期Date: 送样数量Q'TY: Pcs

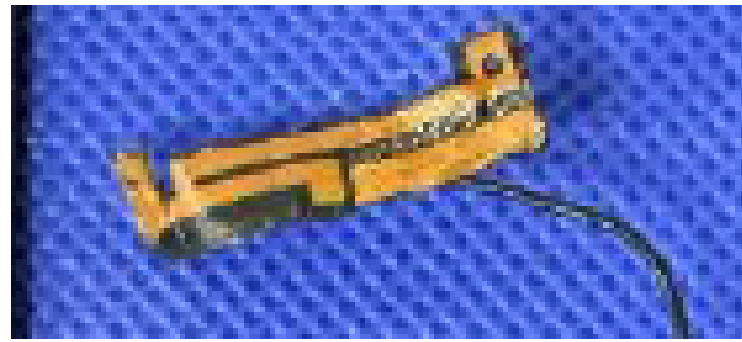
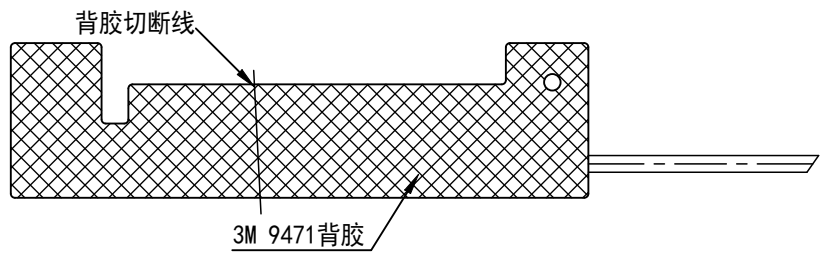
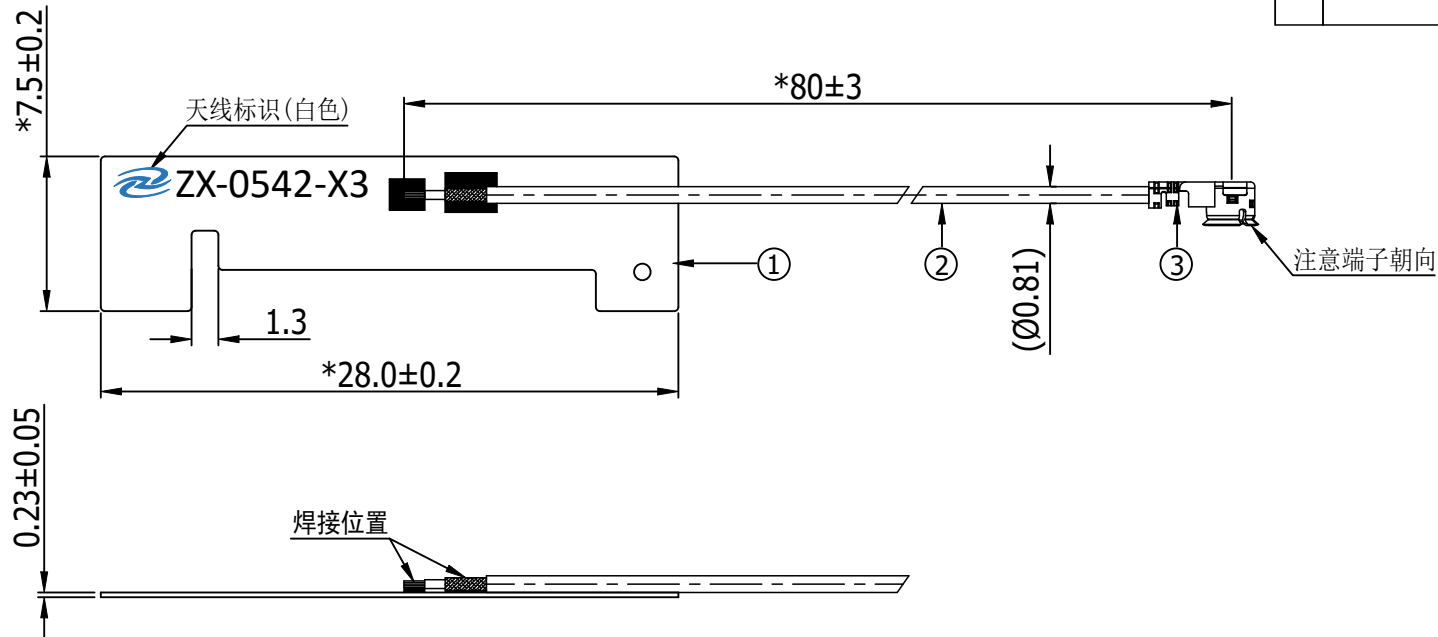
| 客户确认CUSTOMER APPROVED BY |                  |                   |
|--------------------------|------------------|-------------------|
| 核准<br>Approved by        | 审核<br>Checked by | 拟制<br>Prepared by |
|                          |                  |                   |

| 供方确认SUPPLIER SIGNATURE |                  |                   |
|------------------------|------------------|-------------------|
| 核准<br>Approved by      | 审核<br>Checked by | 拟制<br>Prepared by |
| Jack                   |                  | andy              |

ZX-QT-RD-0011-A1

Add:Room 603, Building 30, No. 69, Guiqing Road, Xuhui District, Shanghai  
Tel:021-54266190 Fax:021-54266191

| F   |            | G           |
|-----|------------|-------------|
| REV | DATE       | DESCRIPTION |
| X1  | 07/29-2024 | New Issue   |
|     |            |             |



1. ELECTRICAL PROPERTIES:
- 1.1 Frequency Range.....2400-2500MHz
  - 1.2 Impedance.....50 Ohm Nominal
2. These Products are in conformity with ROHS2.0
3. Strict size is marked with "\*", and () for reference.

| 3  | Connector   | IPEX-1 compatible;Gold-Plated      | 1    |               |
|----|-------------|------------------------------------|------|---------------|
| 2  | Cable       | 0.81 Coaxial cable;Color:Black(黑色) | 1    |               |
| 1  | Antenna     | FPC board,Black solder resist ink  | 1    | 502-1-0542-X3 |
| NO | DESCRIPTION |                                    | Q'TY | REMARK        |

| CUSTOMER'S SIGNATURE |  | XXX. | $\pm 2.0$ | APPROVED | CUSTOMER:                               |      |            |
|----------------------|--|------|-----------|----------|-----------------------------------------|------|------------|
|                      |  | XX.  | $\pm 1.0$ |          | PART NO:                                |      |            |
|                      |  | X.   | $\pm 0.5$ | CHECKED  | PART NAME: 2.4G Antenna for Saas Camera |      |            |
|                      |  | .X   | $\pm 0.3$ |          | Z&X P/NO: 6354F00002                    |      |            |
|                      |  | .XX  | $\pm 0.2$ | DRAWING  | REV                                     | UNIT | FILE:      |
|                      |  |      |           |          | X1                                      | mm   | SHEET: 1/1 |





## Antenna Test Report

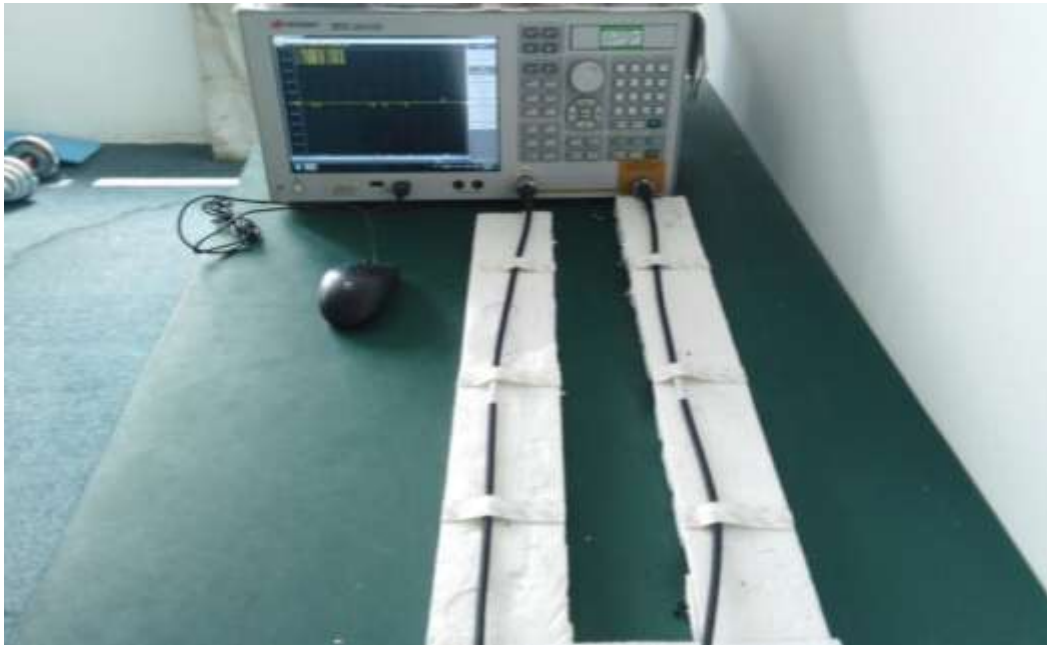
WIFI: 2.4G-2.5G

## 1. RF Fixture Experiment

### 1.1 Test Setup

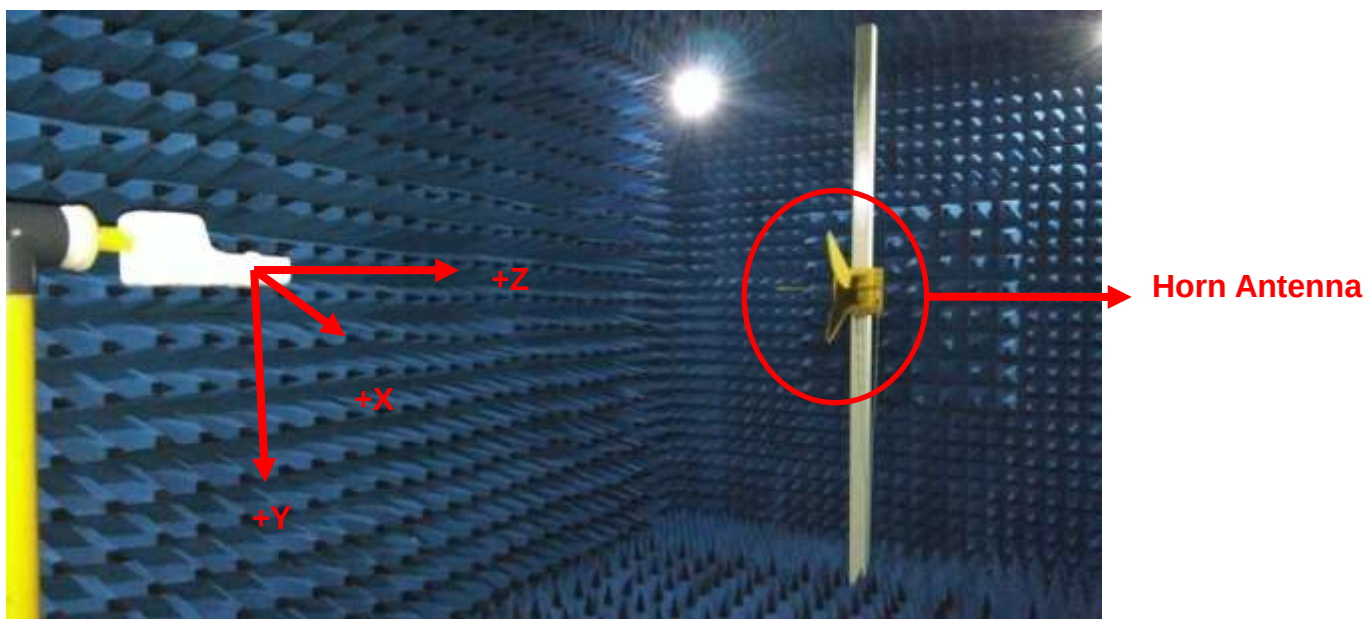
#### 1.1.1 VNA Test Setup

VSWR and Return Loss measurements ( $S_{11}$ ) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.



#### 1.1.2 Anechoic Chamber Test Setup

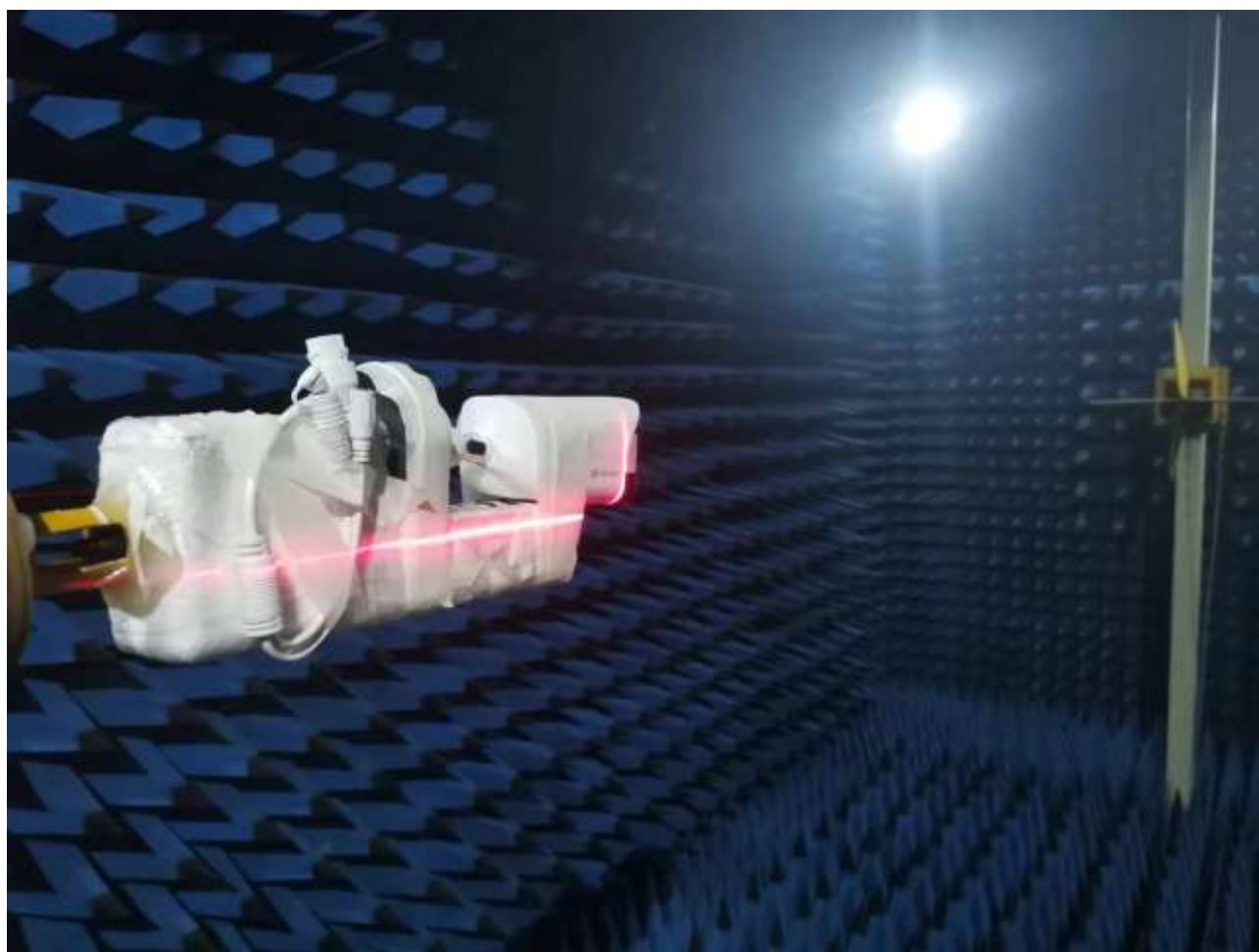
The gain of the antenna was measured in the anechoic chamber. The chamber provides less than  $-30$  dB reflectivity from 400 MHz through 6 GHz. The chamber size is: 7m\*4m\*3m. The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



## 2. Antenna Picture



2.4G WIFI



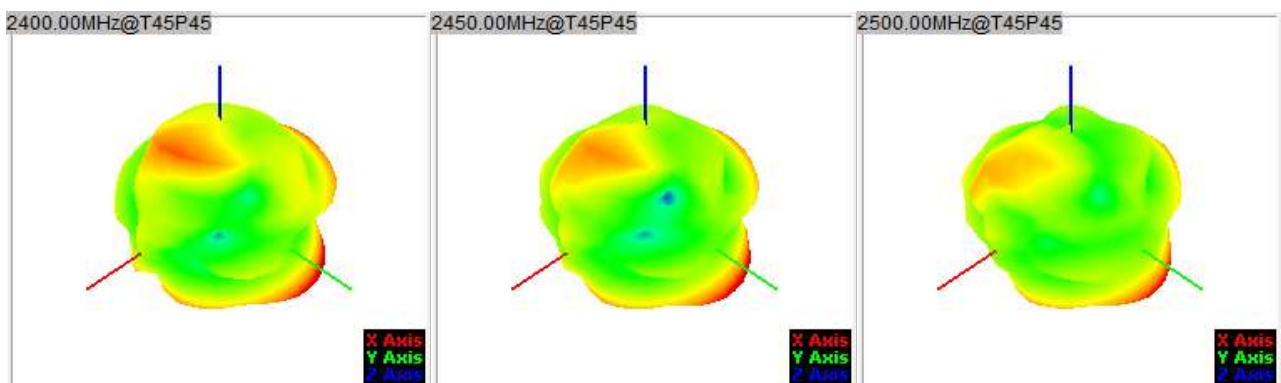
Data Preview

| Freq.(MHz) | 2400  | 2450 | 2500 |
|------------|-------|------|------|
| VSWR       | 1.61  | 1.53 | 1.46 |
| Gain(dBi)  | 3.86  | 3.71 | 3.01 |
| Eff.%      | 53.20 | 52.1 | 50.9 |

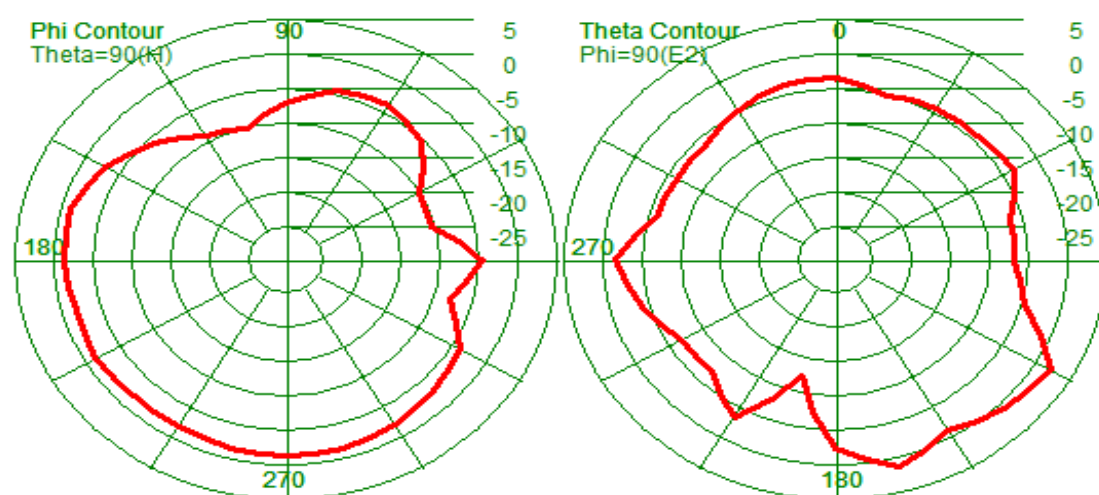
S11



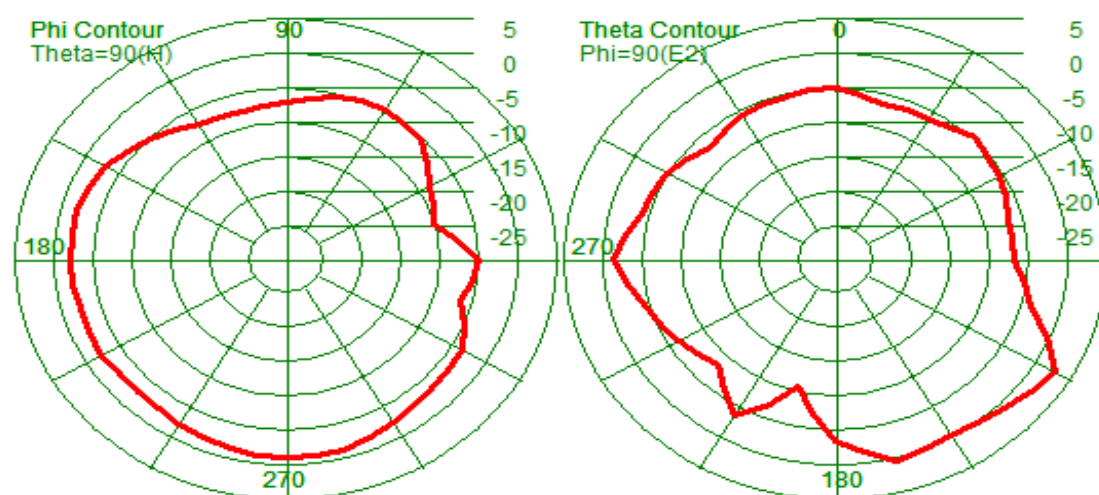
Radiation patterns:3D ( 2400MHZ/2450MHZ/2500MHZ )



### Radiation patterns:2D ( 2400MHZ )



### Radiation patterns:2D ( 2450MHZ )



### Radiation patterns:2D ( 2500MHZ )

