



上海增信电子有限公司  
Signal Plus Technology Co., Ltd.

## 规格承认书

SPECIFICATION FOR APPROVAL

Type Omni

Manufacturer: Signal Plus Technology Co., Ltd.

Manufacturer Address: 603-605, Building 30, No.69 Gui Qing Road, Xuhui District, Shanghai PR China

日期  
DATE: 2023.12.29

版本  
REV.: A

客 户

CUSTOMER:

中磊电子股份有限公司

客 户 料 号

CUSTOMER P/N:

61723015SG

品 名

PART NAME:

外置白色玻璃钢天线 WiFi 2.4G&5G with N型接头内螺纹针

供 方 料 号

SUPPLIER P/N:

6124F00122

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 | 确认<br>Confirmed by |
|-------------------|------------------|--------------------|
|                   |                  |                    |

### 供方确认SUPPLIER SIGNATURE

| 核准<br>Approved by | 审核<br>Checked by | 拟制<br>Prepared by |
|-------------------|------------------|-------------------|
| Andy              |                  | Cindy             |

ZX-QT-RD-0011-A1

Add:上海市徐汇区桂箐路69号30栋603室 Tel:021-54266190 Fax:021-54266191

# Contents

| <i>Item</i> | <i>Description</i>  | <i>Page</i> |
|-------------|---------------------|-------------|
| 1. ....     | Cover               | ..... 1     |
| 2. ....     | Content             | ..... 2     |
| 3. ....     | Drawing             | ..... 3     |
| 4. ....     | Antenna Test Report | ..... 4~9   |

|   |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
|---|--|---|--|---|--|---|--|---|--|---|--|-----|--|------------|--|-------------|--|
|   |  | A |  | B |  | C |  | D |  | E |  | F   |  | G          |  |             |  |
|   |  |   |  |   |  |   |  |   |  |   |  | REV |  | DATE       |  | DESCRIPTION |  |
|   |  |   |  |   |  |   |  |   |  |   |  | X1  |  | 12/27-2023 |  | New Issue   |  |
|   |  |   |  |   |  |   |  |   |  |   |  | X2  |  | 12/29-2023 |  | 更新参数        |  |
| 1 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
| 2 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
| 3 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
| 4 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
| 5 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |
| 6 |  |   |  |   |  |   |  |   |  |   |  |     |  |            |  |             |  |

5/8"-24UNEF-2B

①

②

③

④

⑤

⑥

Ø22.9

Ø20

\*250±10

1. ELECTRICAL PROPERTIES:

1.1 Frequency Range.....2400-2500MHz&5150-5850MHz

1.2 Impendence.....50 Ohm Nominal

1.3 VSWR.....2.0(Max)

1.4 Gain.....5.0dBi@2400-2500MHz;

6.0dBi@5150-5850MHz;

2. These Products are in conformity with ROHS 2.0

3. With "\*"Is Important Dimension.

|   |                  |                                |   |  |
|---|------------------|--------------------------------|---|--|
| 6 | QC Labe          | Xiao Yin long                  | 1 |  |
| 5 | Product Labe     | Xiao Yin long                  | 1 |  |
| 4 | Atenna cap       | ABS, White                     | 1 |  |
| 3 | Shell            | Glass steel pipe, White, Ø20mm | 1 |  |
| 2 | Aluminium Sheath | Aluminium                      | 1 |  |
| 1 | Connector        | N-J, Nickel Plating            | 1 |  |

|    |             |  |       |        |
|----|-------------|--|-------|--------|
| NO | DESCRIPTION |  | Q' TY | REMARK |
|----|-------------|--|-------|--------|

CUSTOMER' S SINGATURE

XXX. ±3.0

XX. ±2.0

X. ±1.0

. X ±0.5

. XX ±0.2

APPROVED

CHECKED

DRAWING

sky

CUSTOMER:

PART NO:

PART NAME: Fiber-Glass Epoxy Antenna

Z&X P/NO: 6124F00122

REV X2

UNIT mm

FILE: SHEET: 1/1

上海增信电子有限公司

Signal Plus Technology Co., Ltd.



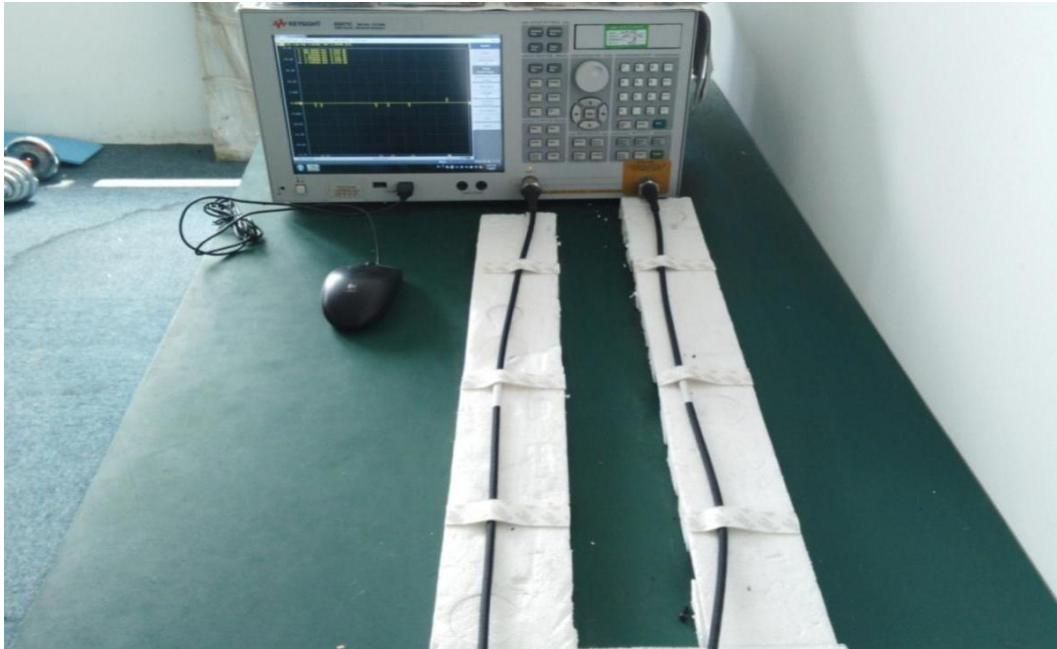
## Antenna Test Report

## 1. RF Fixture Experiment

### 1.1 Test Setup

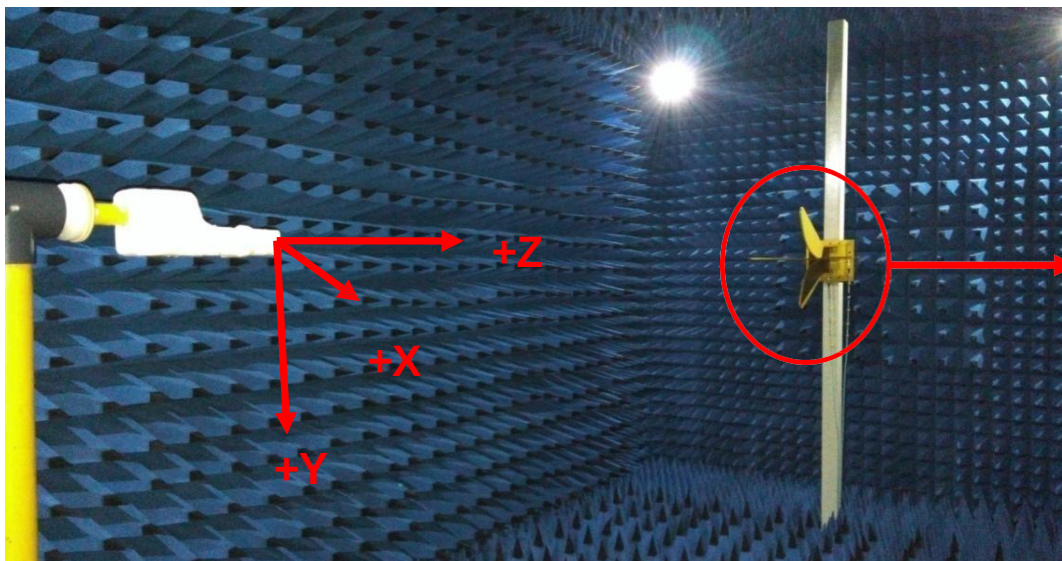
#### 1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S11) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

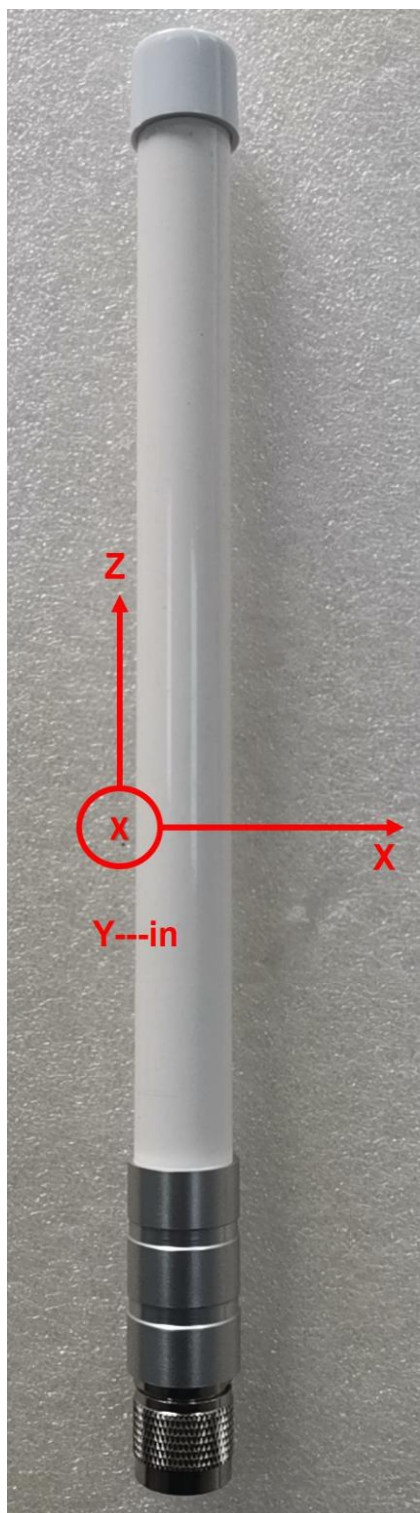


#### 1.1.2 Anechoic Chamber Test Setup

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 Solution



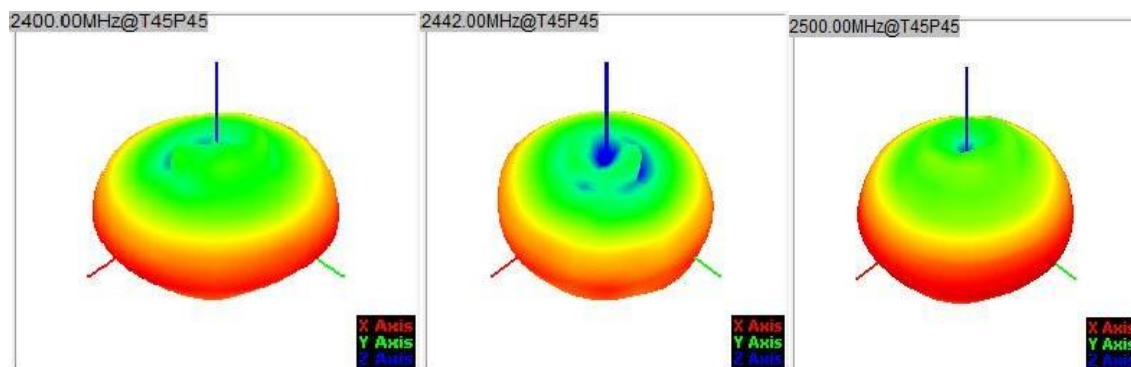
## Data Preview

| Freq.(MHz) | 2400  | 2442  | 2500  | 5150  | 5350  | 5500  | 5650  | 5750  | 5850  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| VSWR       | 1.59  | 1.23  | 1.25  | 1.78  | 1.32  | 1.16  | 1.59  | 1.73  | 1.58  |
| Gain(dBi)  | 5.58  | 5.65  | 5.57  | 5.79  | 6.33  | 6.18  | 6.05  | 6.09  | 5.71  |
| Eff.%      | 78.10 | 79.60 | 77.10 | 75.10 | 74.20 | 75.90 | 76.70 | 74.30 | 72.60 |

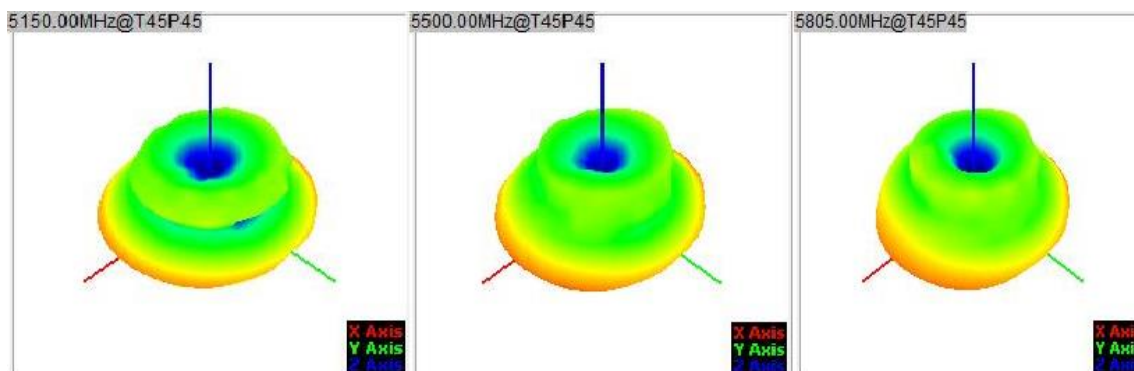
## S11



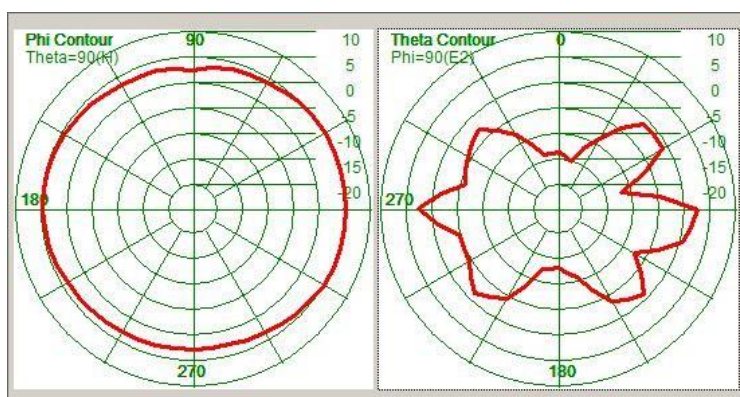
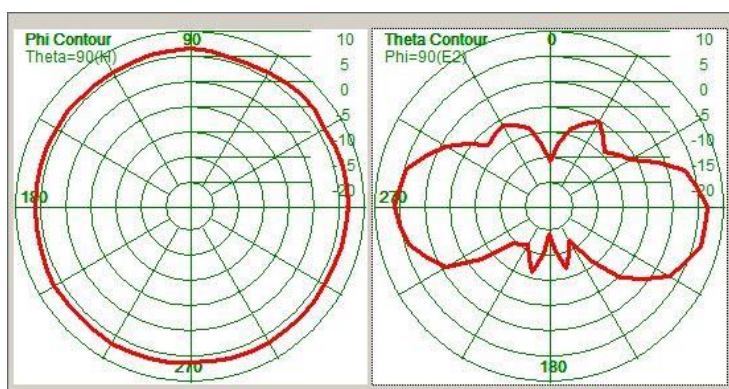
## Radiation patterns:3D(2400/2442/2500/5150/5550/5805MHz)







Radiation patterns:2D(2442/5150MHz)



Radiation patterns:2D(5500/5805MHz)

