



## 天线规格承认书Product Specifications for Approval

客户名称/Client's Name: 黎总

天线频段/Antenna frequency band: 2400-2500MHz

版本/Version: A0  
编号/Serial Number  
: FS-0086

制作日期Production Date: 2022-05-09

|                                                       |                     |                     |                     |
|-------------------------------------------------------|---------------------|---------------------|---------------------|
| 深圳市飞胜电子有限公司<br>SHENZHEN FEISHENG ELECTRONICS CO.,LTD. |                     |                     |                     |
| 结构/Structure:                                         | <u>郭曦/Guoxi</u>     | 射频/Radio Frequency: | <u>郭曦/Guoxi</u>     |
| 审核/Audit:                                             | <u>顾志飞/Guzhifei</u> | 批准/Approve:         | <u>顾志飞/Guzhifei</u> |
| 客户确认/Client Confirmation                              |                     |                     |                     |
| Customer Review:                                      |                     | Customer Approval:  |                     |

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## 产品特性规格表/Product Features Specifications

产品基本特性/Basic product features:

| 产 品 类 型 / Product Type: PCB Antenna |                  |
|-------------------------------------|------------------|
| DESCRIPTION                         | VALUE            |
| Frequency range (工作频段)              | 2400-2500MHz     |
| Impedance (特性阻抗)                    | 50 $\Omega$      |
| V.S.W.R (电压驻波比)                     | 对比波形             |
| Gain (增益)                           | 2dBi             |
| Radiation (方向性)                     | Omni-directional |
| Polarization (线化方式)                 | linear Vertical  |
| Admitted power (功率)                 | 1W               |
| Connector (接头型号)                    | IPEX CONN        |
| Operating temp (工作温度)               | -10℃~+70℃        |
| Storage temp (储存温度)                 | -10℃~+60℃        |

## 1. Summary 概要:

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

这份报告用以说明量测的天线的结果，该测量设置包括 S 参数的 电压驻波比及反射系数，为量测天线的数据表示及分析

## 2. S-Parameter Measurement S 参数的量测:

### A. Reflection coefficient 反射系数:

(a) Instrument (仪器): Network Analyzer (网络分析仪).

### (b) Setup 建立:

(1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.

仪器的校正通过 OSL 校准套件进行一个端口的校正.

(2) Connect the antenna under test to the Network Analyzer.

连接待测天线至网络分析仪.

(3) Measure the S11(reflection coefficient) shown in Fig. 1.

测量 S11 如图一所示.

(4) Generally, the S11 is less than  $-10\text{dB}$  to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

一般来说, S11 小于  $-10\text{dB}$  VSWR 小于 2.0: 1, 以确保 90% 的功率转换成天线和只有不到 10% 的功率反射回系统.

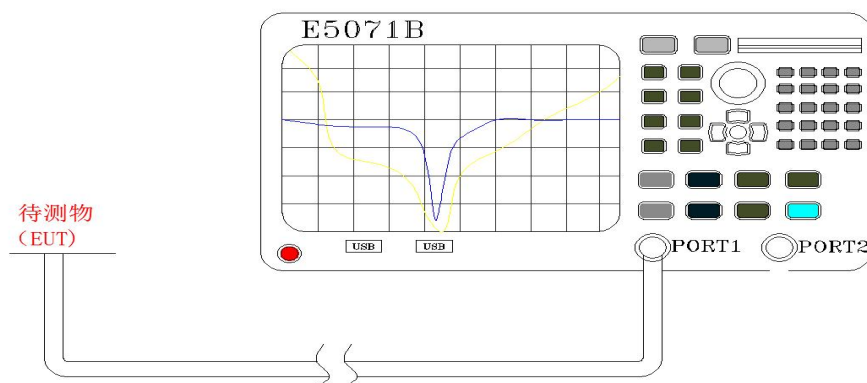


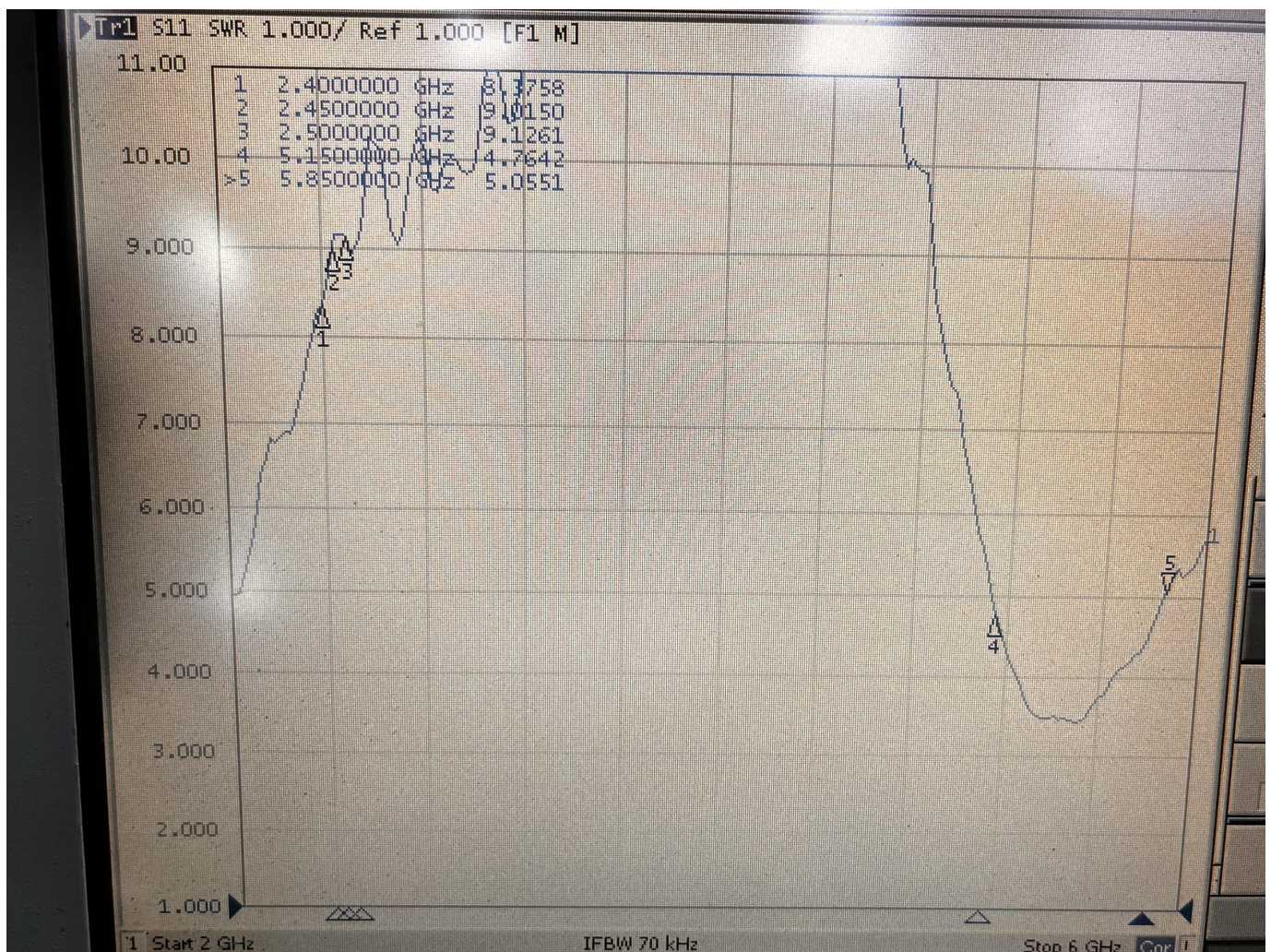
Fig.1 Antenna measured in Network Analyzer 图 1 天线测量网络分析仪

### 3. S-Parameter Measurement Result S 参数的量测结果:

S-Parameter test data S-参数量测数据:

| Frequency MHz<br>工作频段 | 2400 | 2450 | 2500 | 5150 | 5850 |
|-----------------------|------|------|------|------|------|
| V.S.W.R 驻波比           | 8.37 | 9.01 | 9.12 | 4.76 | 5.05 |

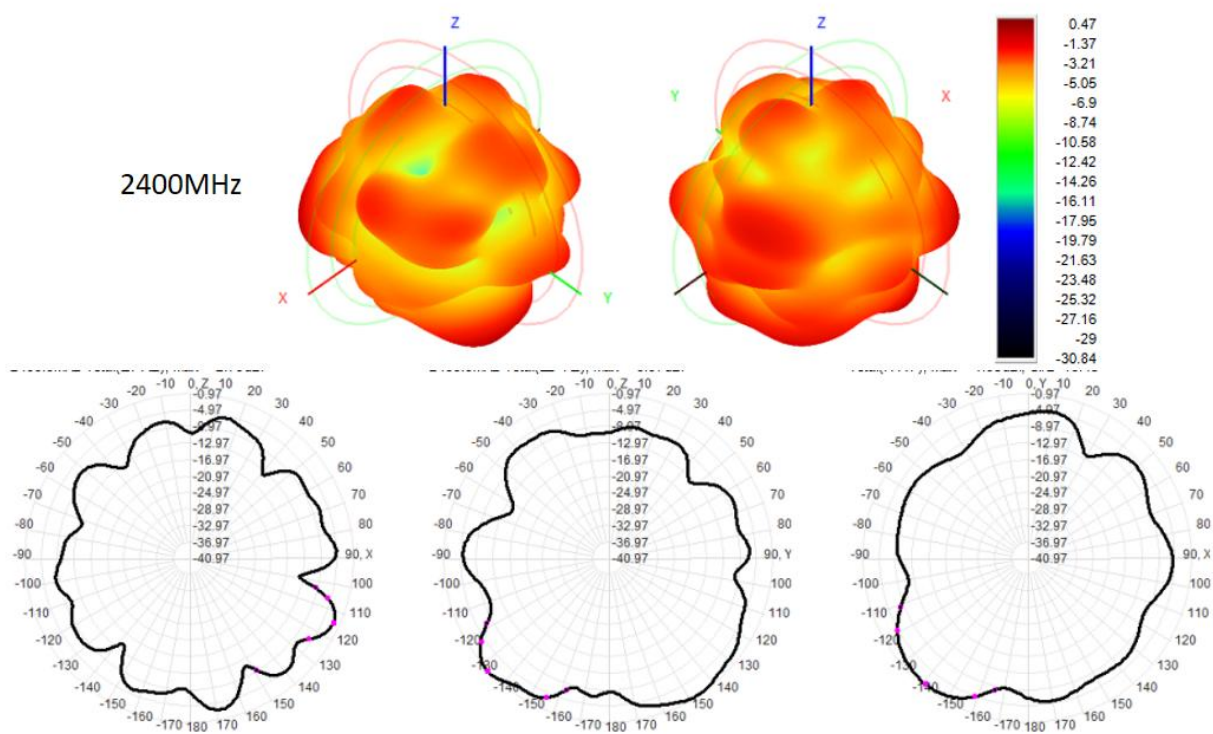
S-Parameter test image S-参数量测图片:



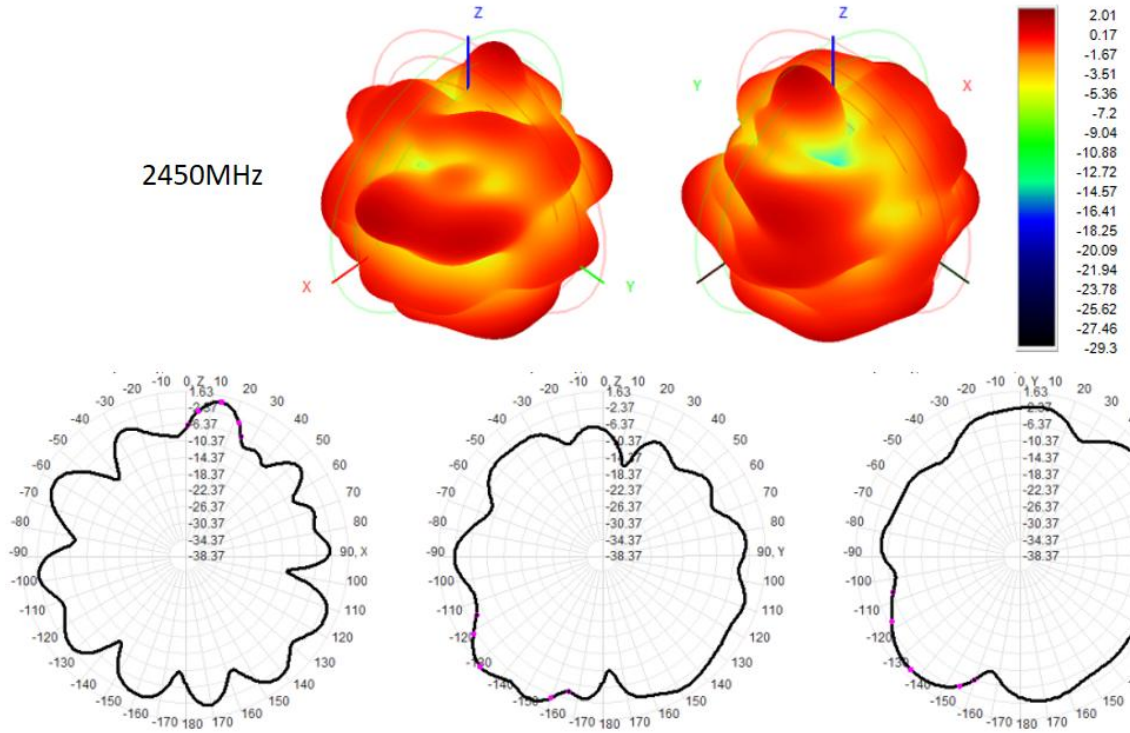
## 无源数据/Passive Data

| Frequency (MHz)<br>(工作频段) | Efficiency (%)<br>(效率) | Peak GAIN (dBi)<br>(增益) |
|---------------------------|------------------------|-------------------------|
| 2400                      | 30.42                  | 1.47                    |
| 2450                      | 43.37                  | 2.01                    |
| 2500                      | 41.53                  | 2.24                    |

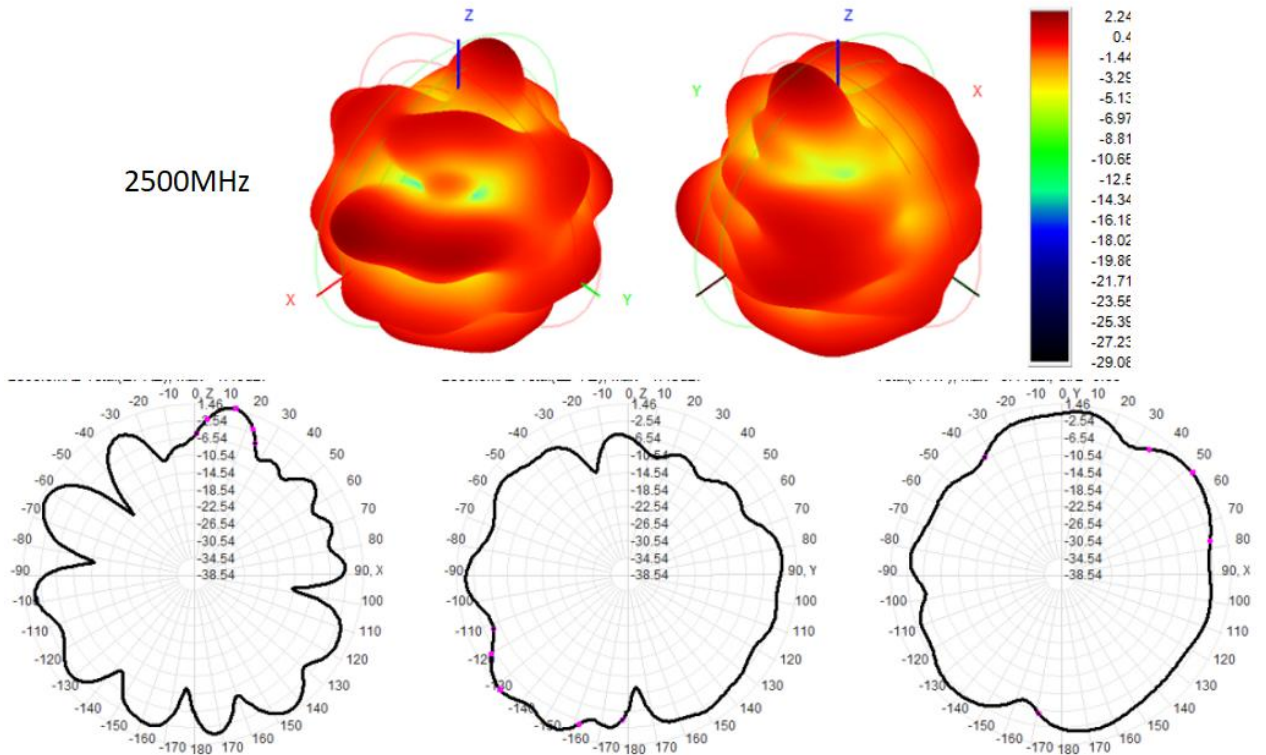
## 2D/3D 图-2D/3D Picture



2450MHz



2500MHz



## Antenna pattern

