# 深圳市顺达成科技有限公司
SHUN DA CHENG TECHNOLOGY CO., LTD

# 承　　认　　书
# SPECIFICATION FOR APPROVAL

| | | | |
|---|---|---|---|
| 客户名称<br>Customer Name | 昱科 | | |
| 客户项目名 Customer Project Name | G1521N | 顺达成项目名<br>SDC Project Name | G1521N |
| 客户编码<br>Customer P/N | | 顺达成料号<br>SDC P/N | WF029-0813R-327 |
| 频段<br>Band | WIFI2.4G/BT | | |
| 版本号<br>Version | A0 | | |
| 设计人信息/Designer Information | | | |
| 射频工程师<br>RF Engineer | 符学荣 | 研发主管<br>R&D Diretor | 夏承磊 |
| 结构工程师<br>ME Engineer | 黄宗宝 | | |

| 审批/ Approval | | | | 客户批准/Customer Approval | |
|---|---|---|---|---|---|
| | 制作<br>Prepared By | 审核<br>Checked By | 批准<br>Approval By | 审核<br>Checked By | 批准<br>Approval By |
| 签章<br>Signature | 李瑶娜 | 夏承磊 | 陈华明 | | |
| 日期<br>Date | 2023.09.07 | 2023.09.07 | 2023.09.07 | | |

| 修订履历/Change Log | | | | |
|---|---|---|---|---|
| 版本<br>Version | 修订内容<br>Change Description | 责任人<br>Person in Charge | 核准<br>Approval By | 日期<br>Date |
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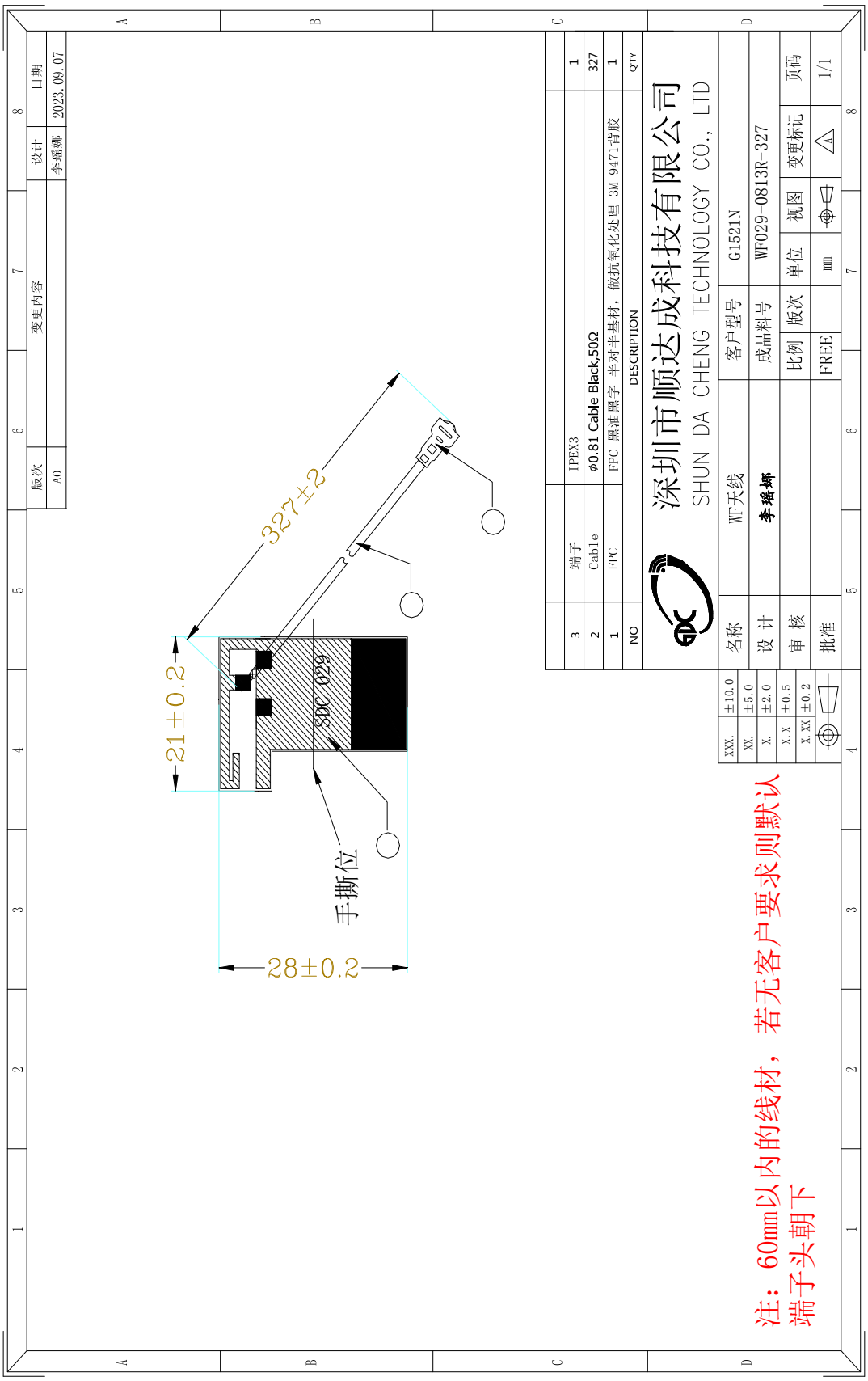
# 目录/Catalogue

产品图纸或实物图片

Drawing or Product Image



# 射频性能测量报告

## RF Performance Test Report

### 天线测试设备简介

Antenna Test Equipment Introduction

测试天线输入特性使用 **Agilent E5071C and Agilent 5062A** 矢量网络分析仪；辐射特性利用广屏三维近场暗室进行测试，并分别使用 8960 E5515 和 Agilent E4438C 进行了分析。暗房的测试坐标如下:

Test of antenna input characteristics using **Agilent E5071C and Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the guangping 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

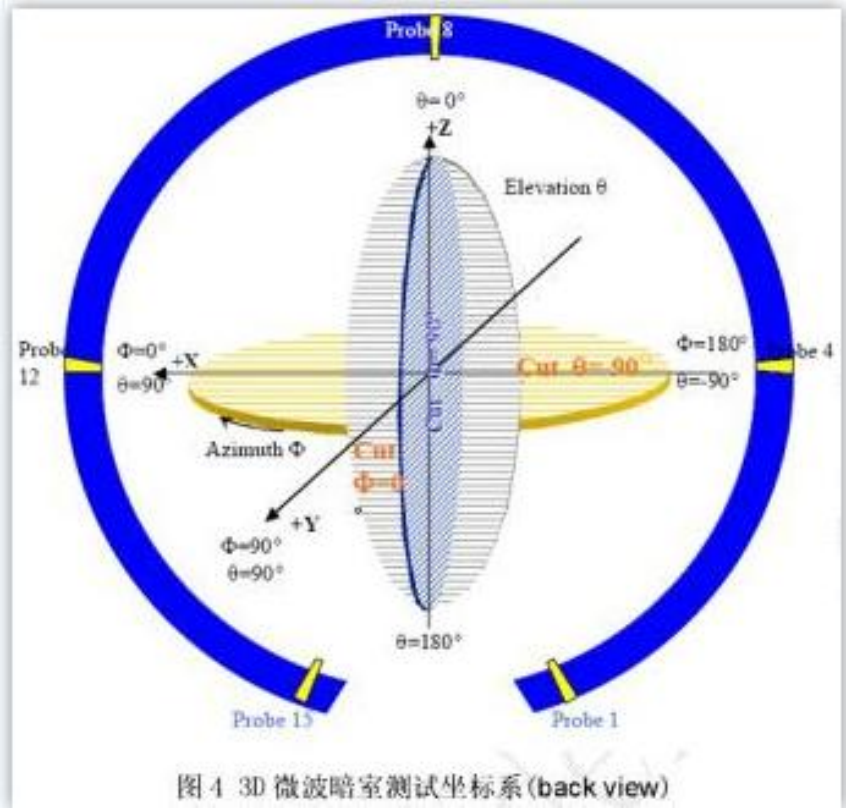


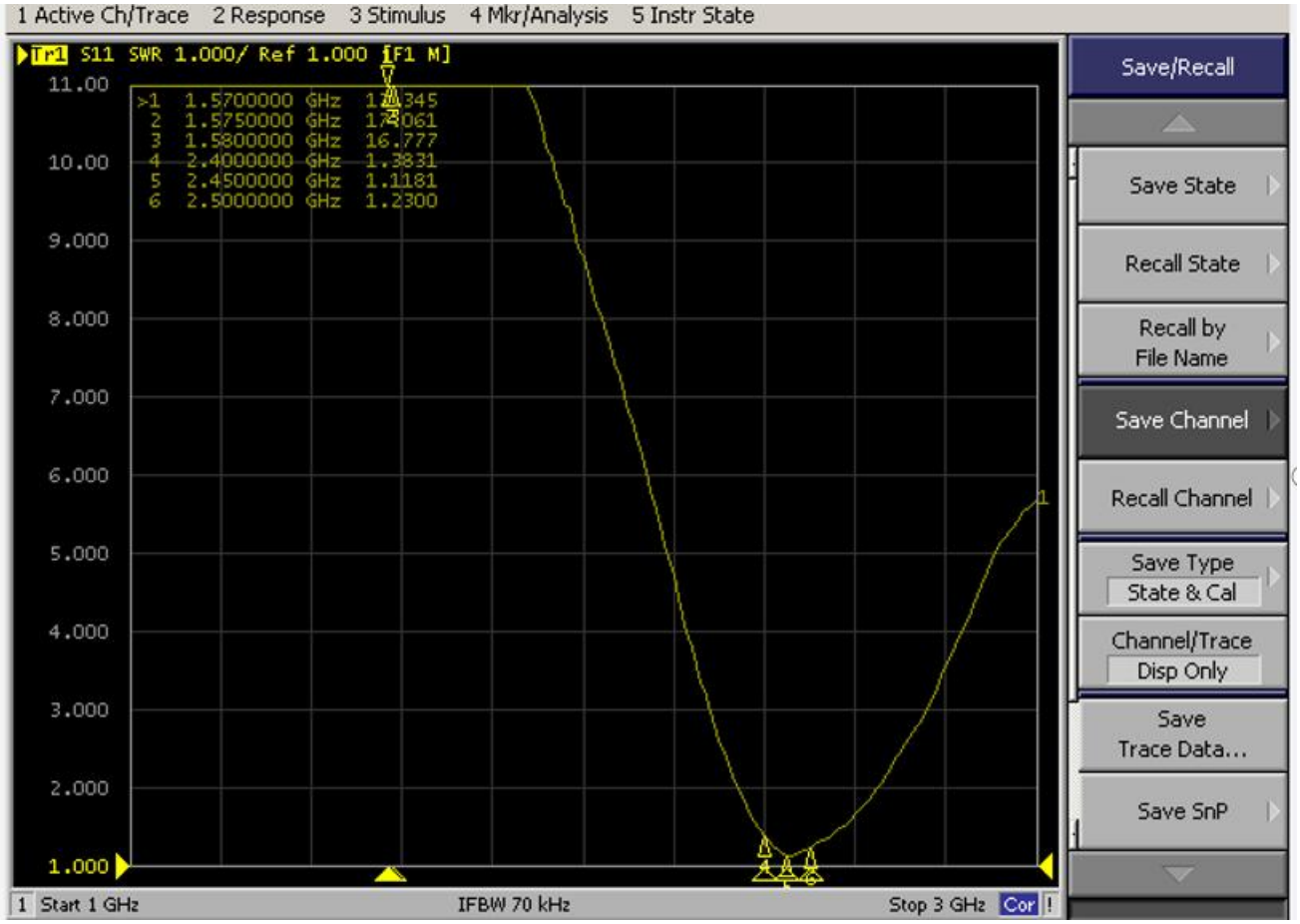

图 4 3D 微波暗室测试坐标系(back view)

### 1. S11 参数测量/*S11 Parameter-VSWR*

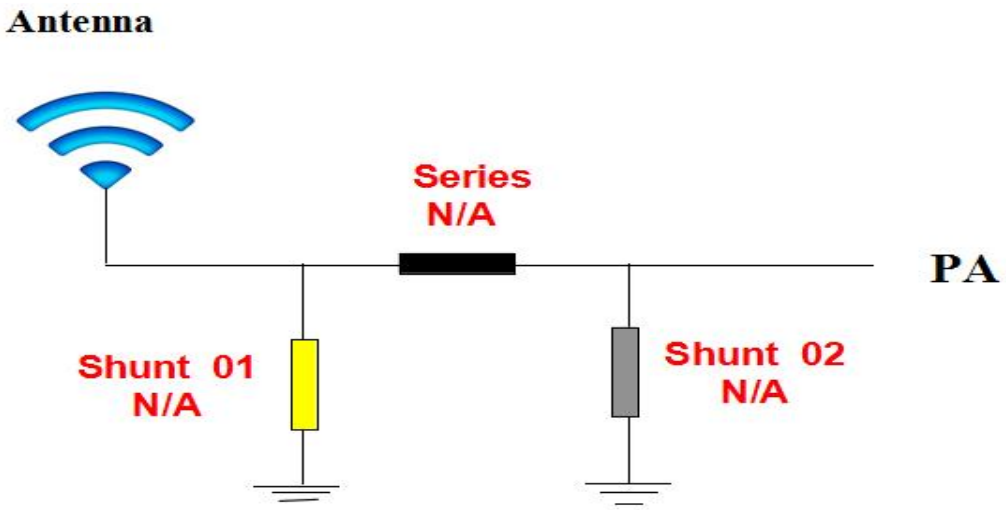
使用一根 50Ω同轴电缆连接到天线，然后该电缆连接到网络分析仪测量 S11 参数，被测量产品远离金属至少 20 厘米。

Measuring Method is a 50Ωcoaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

***S11 Parameter-VSWR***



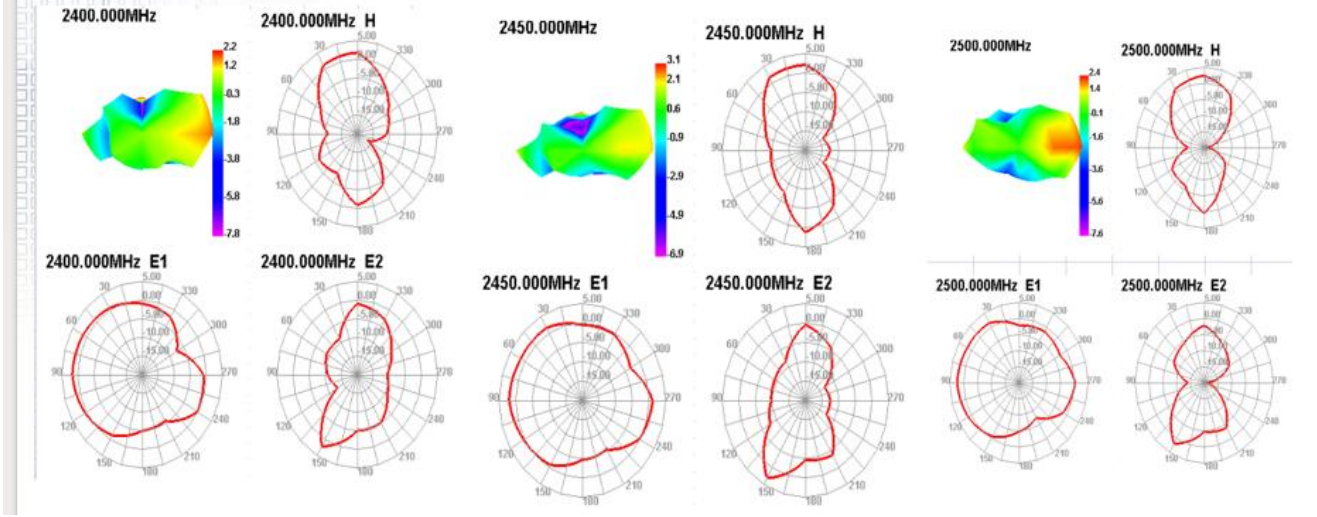

2. 天线匹配网络/**Antenna Matching Network**



## 3.Gain & Efficiency

Passive Test For WIFI 2.4

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) | UHIS (%) | DHIS (%) | Max (dB) | Min (dB) | irectivit (dBi) | Beamwidth (3dB) | AttH (dB) | AttV (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2400 | 49.04 | -3.09 | 2.21 | 0.06 | 0 | 0 | 2.21 | -16.36 | 3.09 | 120 | 48.23 | 48.39 |
| 2425 | 53.86 | -2.69 | 3.59 | 1.44 | 0 | 0 | 3.59 | -16.21 | 2.69 | 150 | 48.33 | 48.46 |
| 2450 | 53.22 | -2.74 | 3.13 | 0.98 | 0 | 0 | 3.13 | -13.92 | 2.74 | 180 | 48.74 | 48.76 |
| 2475 | 48.68 | -3.13 | 2.28 | 0.13 | 0 | 0 | 2.28 | -16.9 | 3.13 | 90 | 48.36 | 48.29 |
| 2500 | 50.59 | -2.96 | 2.38 | 0.23 | 0 | 0 | 2.38 | -20.25 | 2.96 | 90 | 48.38 | 48.29 |




## 4. WIFI OTA Data

| 2.4G | 802.11b, (2.4G)11M | | |
|---|---|---|---|
| Channel | CH1 | CH6 | CH11 |
| TRP | 12.78 | 12.63 | 12.02 |
| TIS | -80.89 | -80.75 | -81.2 |