



# 承 认 书

## APPROVAL SHEET

|                                                                                                     |                                                                  |                |          |                |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------|----------|----------------|
| 客户名称<br>Customer                                                                                    |                                                                  |                |          |                |
| 客户料号<br>Customer P/N                                                                                |                                                                  |                |          |                |
| 项目名称<br>Project Name                                                                                | WiFi Dual-band SMA Male(Black)                                   |                |          |                |
| 供应商名称<br>Supplier                                                                                   | 上海圣丹纳无线科技有限公司<br>Shanghai Saintenna Wireless Technology Co.,LTD. |                |          |                |
| 圣丹纳物料型号<br>Saintenna P/N                                                                            | SAA31578A                                                        |                |          |                |
| 是否符合 RoHS<br>IF ROHS                                                                                | yes                                                              |                |          |                |
| 送样日期<br>Providing Date                                                                              | 2020. 07. 10                                                     |                |          |                |
| 供应商<br>Supplier                                                                                     | 制定<br>Prepared by                                                | 设计<br>Designer | 品质<br>QA | 批准<br>Approver |
|                                                                                                     | 马玉学                                                              | 钱锐             | 李光辉      | 余剑平            |
| 地址: 上海市宝山区宝祁路611号8号楼<br>Address: Building 8, No.611 Bao Qi Road, Bao Shan District, Shanghai, China |                                                                  |                |          |                |
| 电话/Tel: 086-021-36307272; 传真/Fax: 086-021-36307757                                                  |                                                                  |                |          |                |

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# 目录/Content

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| 四 图纸/Drawing.....            | <input checked="" type="checkbox"/> |
| 五 电性能报告/Electric Report..... | <input checked="" type="checkbox"/> |

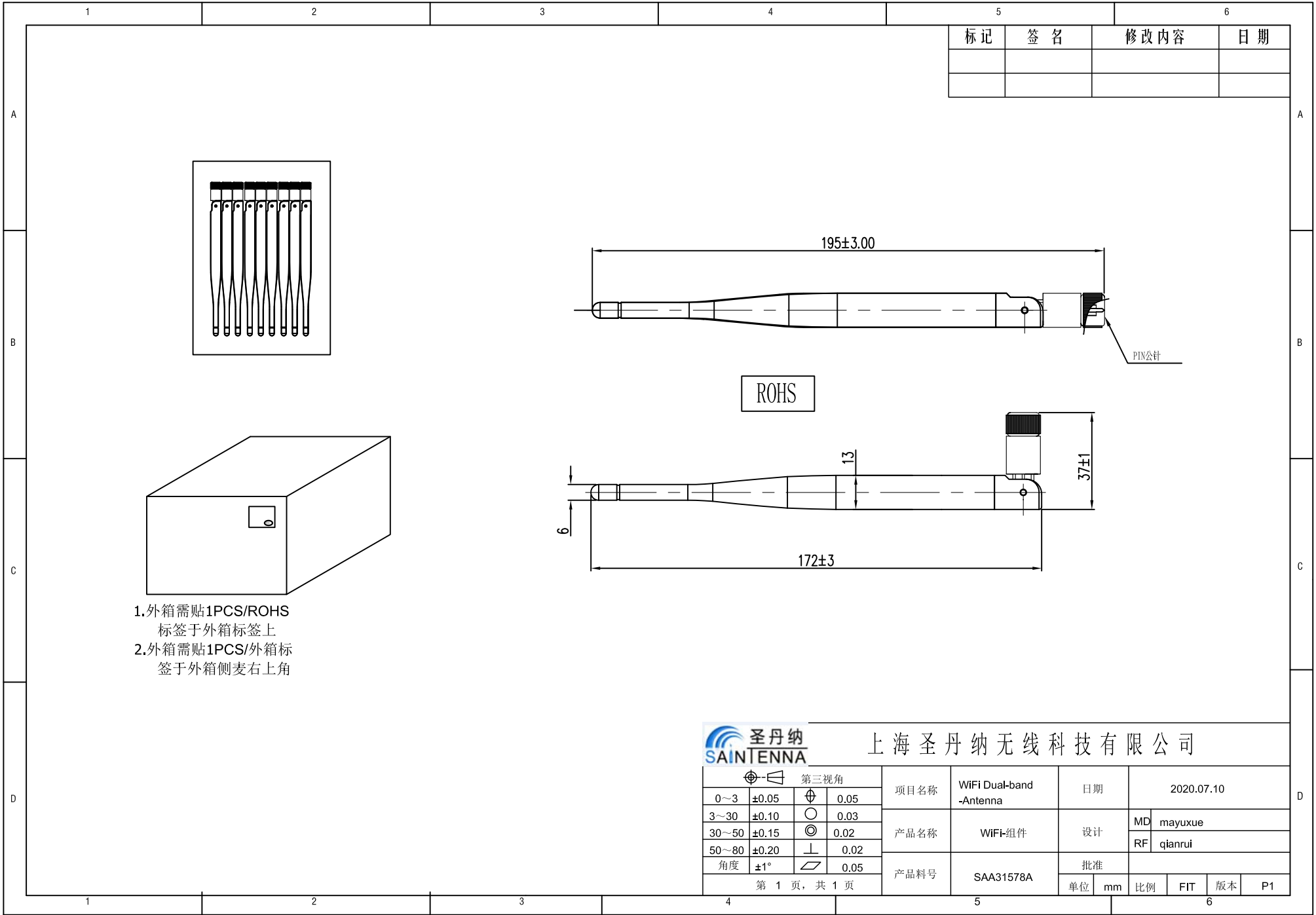
# 规格/Specification

## 1. 机械规格/Mechanical Specification

- 连接方式/Connect Type..... SMA-J
- 工作温度/Work Temperature.....  $-40\sim 85^{\circ}\text{C}$
- 存储温度/Storage Temperature.....  $-40\sim 85^{\circ}\text{C}$

## 2. 电性能参数/Electrical Specification

- 频段/Frequency Range.....  $2.4\sim 2.5\&5.15\sim 5.85\text{GHz}$
- 驻波比/VSWR.....  $<3$
- 增益/Peak Gain.....  $0\text{dBi}$
- 极化/Polarization..... Vertical
- 特性阻抗/Input Impedance.....  $50\ \Omega$
- 最大承载功率/Max Input Power.....  $5\text{W}$



上海圣丹纳无线科技有限公司

|                                                                                            |       |                                                                                       |      |      |                            |    |            |         |  |  |
|--------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|------|------|----------------------------|----|------------|---------|--|--|
|  第三视角 |       |                                                                                       |      | 项目名称 | WiFi Dual-band<br>-Antenna | 日期 | 2020.07.10 |         |  |  |
| 0~3                                                                                        | ±0.05 |  | 0.05 |      |                            |    |            |         |  |  |
| 3~30                                                                                       | ±0.10 |  | 0.03 | 产品名称 | WiFi-组件                    | 设计 | MD         | mayuxue |  |  |
| 30~50                                                                                      | ±0.15 |  | 0.02 |      |                            |    | RF         | qianrui |  |  |
| 50~80                                                                                      | ±0.20 |  | 0.02 |      |                            |    |            |         |  |  |
| 角度                                                                                         | ±1°   |  | 0.05 | 产品料号 | SAA31578A                  | 批准 |            |         |  |  |
| 第 1 页, 共 1 页                                                                               |       |                                                                                       |      |      |                            | 单位 | mm         |         |  |  |



# 0dBi双频WiFi天线调试报告

上海圣丹纳无线科技有限公司  
Shanghai Saintenna Wireless Technology Co.,LTD.

# Project Information

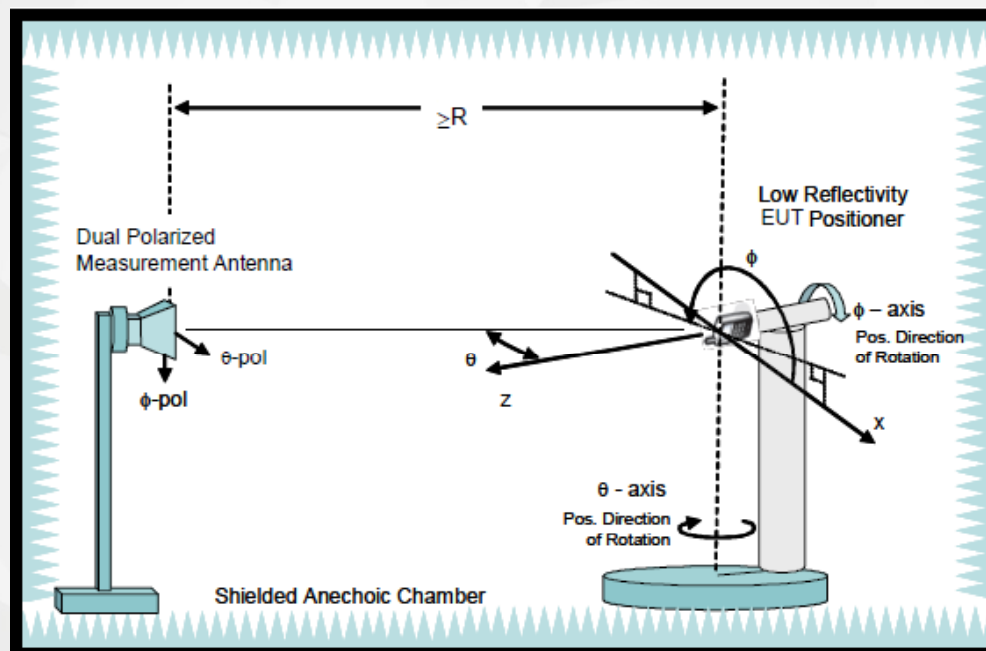
|                              |                                          |
|------------------------------|------------------------------------------|
| 客户名称<br>Customer Name        | NETPRISMA INC.                           |
| 项目名称<br>Project Name         | 0dBi Dual Band WiFi Antenna              |
| 工作频段/类型<br>Working Band/Type | Wlan2.4GHz/5GHz<br>Folded Dipole Antenna |
| 规格<br>Description            | SMA-Male                                 |
| 版本版本<br>Version              | V1.0                                     |
| 日期<br>Date                   | 2020-7-10                                |

# Tuning Instrument

|                  |                                            |
|------------------|--------------------------------------------|
| Network Analyzer | Agilent E5071C                             |
| Frequency Range  | 100KHz ~ 8.5GHz                            |
| Calibration date | 2020.03.03                                 |
| Test Item        | Return Loss/VSWR/Smith Chart<br>/Isolation |



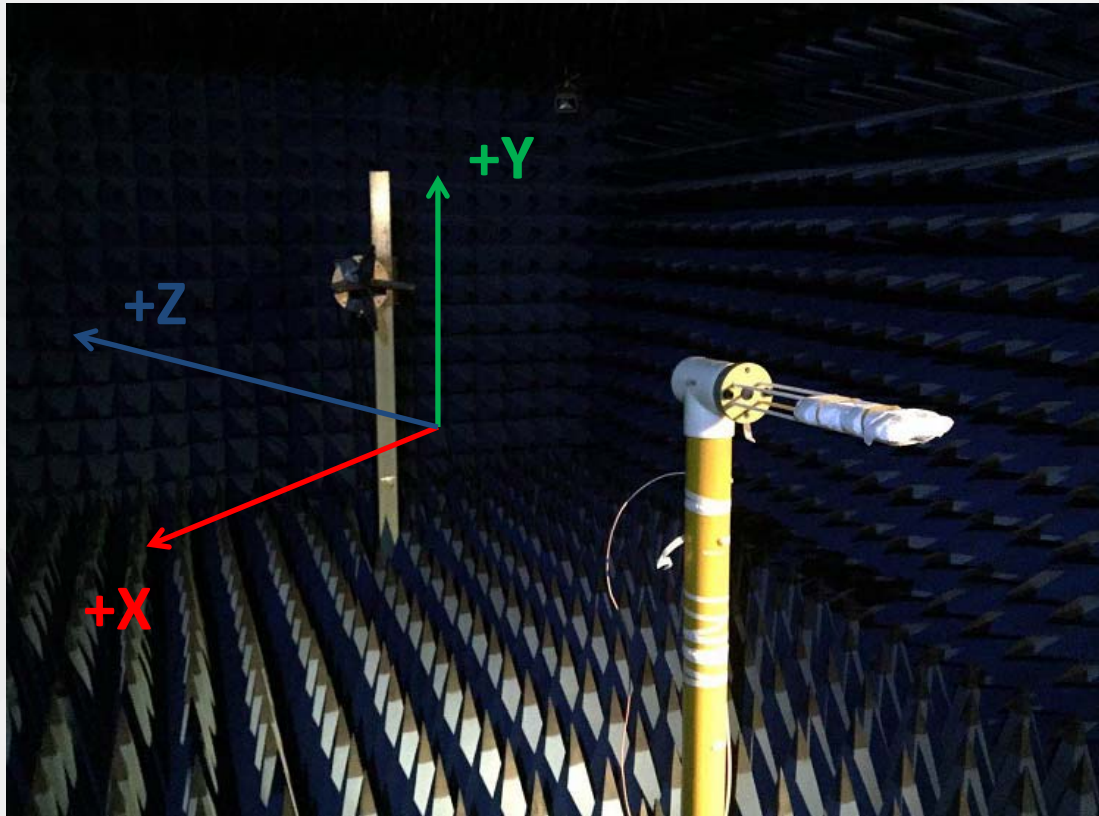
# Typical Setup for Test System



Combined-Axes System

Antenna Radiation Pattern Measurement Software Version: V3.1

# Anechoic Chamber



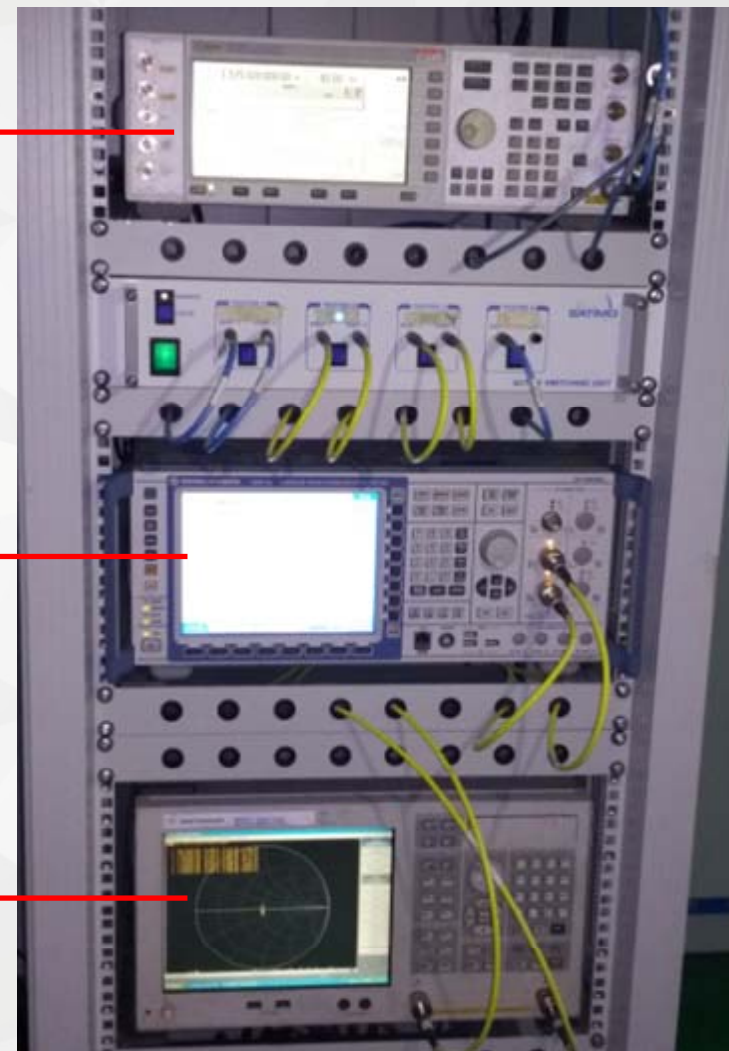
Combined-Axes System

# Test Instrument

|           |                |
|-----------|----------------|
| Generator | Agilent E4438C |
| Test Item | GPS            |

|                            |             |
|----------------------------|-------------|
| Radio Communication Tester | R&S CMW500  |
| Test Item                  | Active Test |

|                  |                |
|------------------|----------------|
| Network Analyzer | Agilent E5071C |
| Test Item        | Passive Test   |



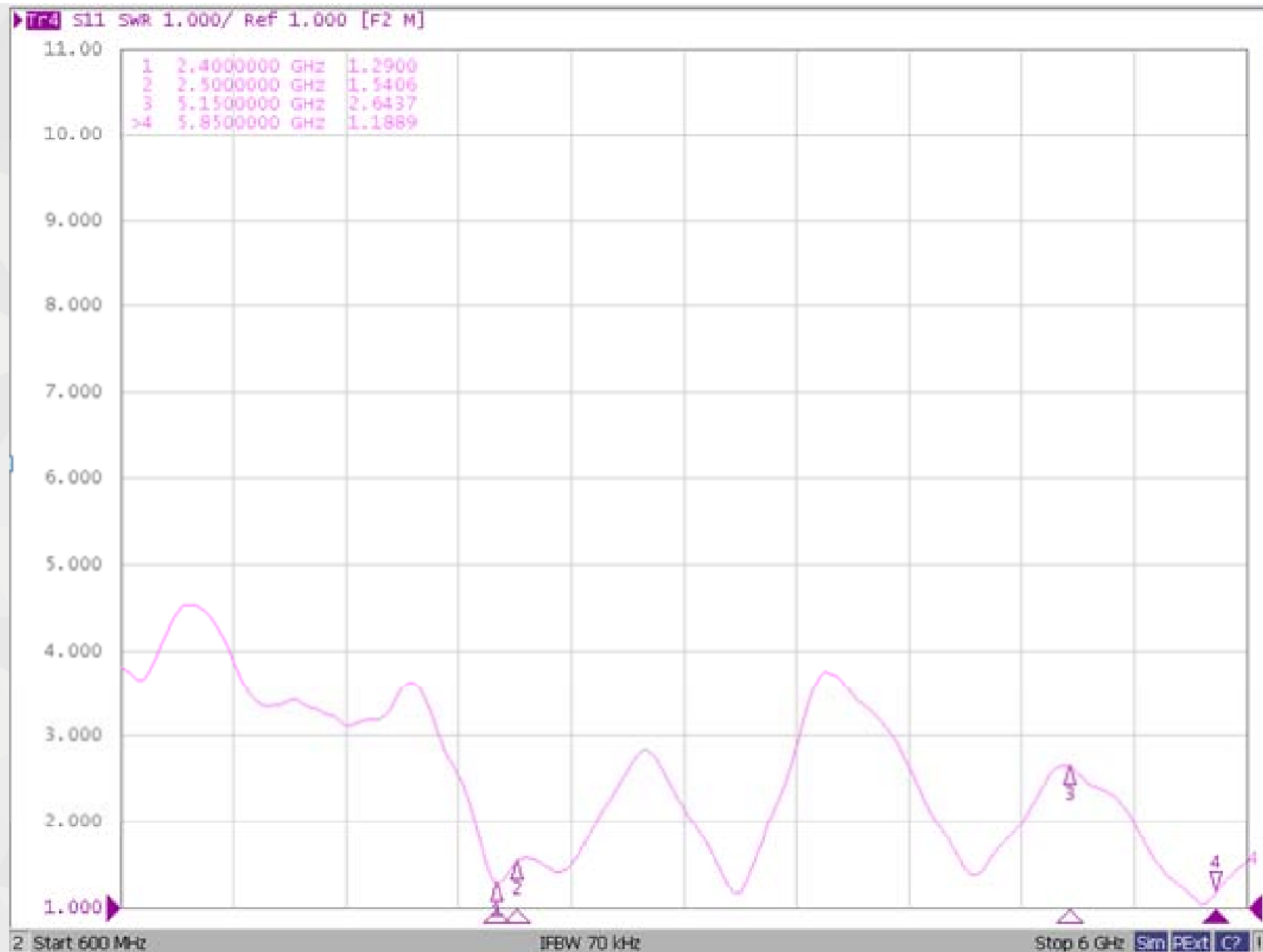
# Test Fixture



# S11 Return Loss



# S11 VSWR

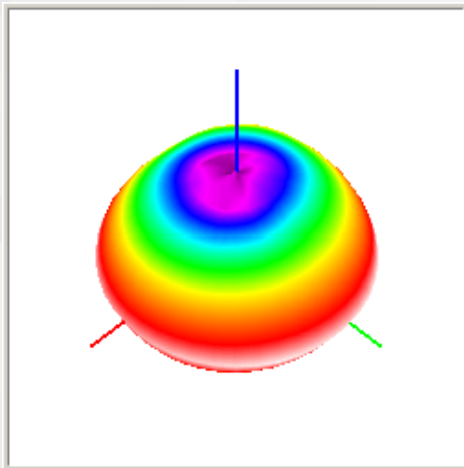


# Gain/Efficiency

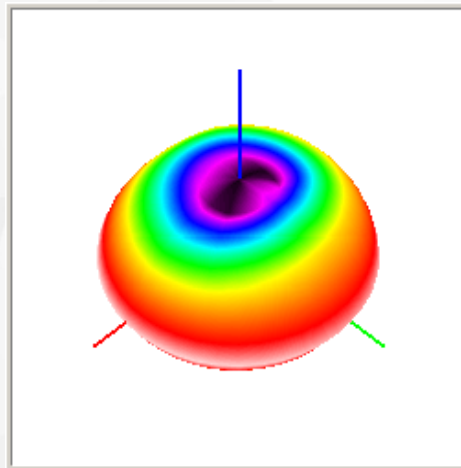
| Freq.(MHz) | Gain(dBi) | Efficiency | Freq.(MHz) | Gain(dBi) | Efficiency |
|------------|-----------|------------|------------|-----------|------------|
| 2400       | 0.25      | 51.60%     | 5150       | -0.91     | 30.80%     |
| 2410       | 0.47      | 51.80%     | 5200       | -0.69     | 40.60%     |
| 2420       | -0.02     | 49.00%     | 5250       | -0.67     | 41.30%     |
| 2430       | -0.12     | 46.60%     | 5300       | -0.19     | 44.20%     |
| 2440       | -0.04     | 46.50%     | 5350       | -0.92     | 36.70%     |
| 2450       | -0.55     | 45.60%     | 5400       | -0.02     | 43.40%     |
| 2460       | -0.34     | 45.00%     | 5450       | 0.49      | 43.50%     |
| 2470       | -0.11     | 44.70%     | 5500       | 0.65      | 41.00%     |
| 2480       | -0.02     | 43.80%     | 5550       | 0.39      | 35.80%     |
| 2490       | -0.11     | 43.40%     | 5600       | 1.09      | 42.70%     |
| 2500       | -0.24     | 43.50%     | 5650       | 1.28      | 45.70%     |
|            |           |            | 5700       | 0.48      | 37.10%     |
|            |           |            | 5750       | 0.16      | 32.10%     |
|            |           |            | 5800       | 1         | 36.40%     |
|            |           |            | 5850       | 1.1       | 38.80%     |

# Test Result

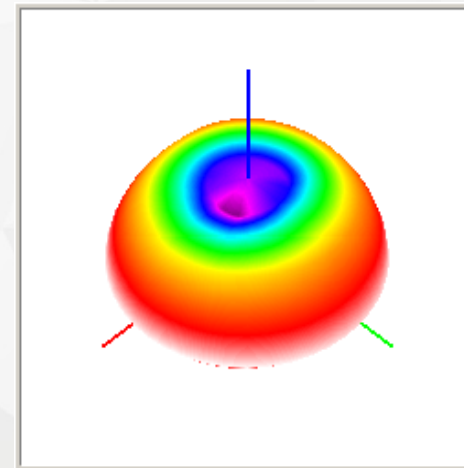
| Frequency(GHz) | 2.4  | 2.45  | 2.5   |
|----------------|------|-------|-------|
| VSWR           | 1.29 | 1.4   | 1.54  |
| Gain(dBi)      | 0.25 | -0.55 | -0.24 |



2.4GHz



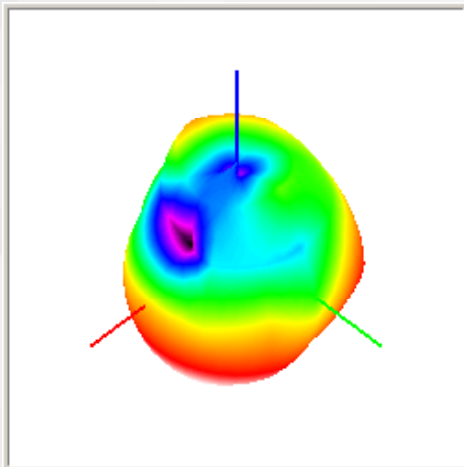
2.45GHz



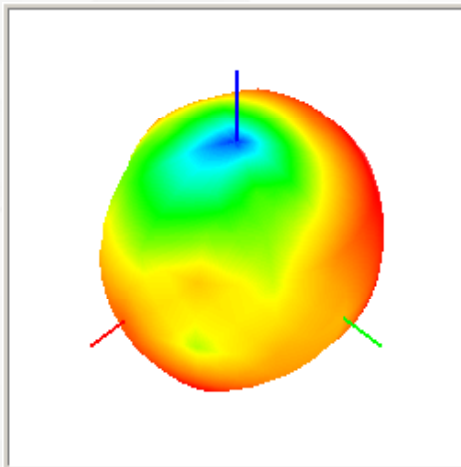
2.5GHz

# Test Result

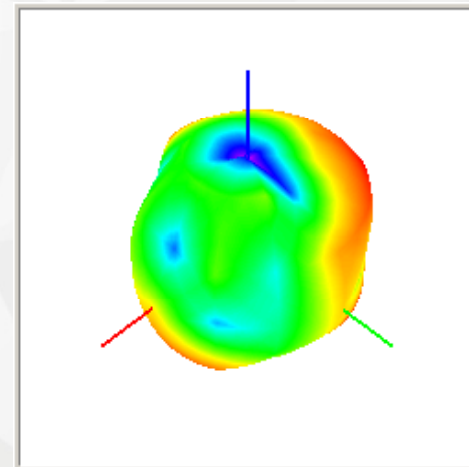
| Frequency(GHz) | 5.15  | 5.5  | 5.85 |
|----------------|-------|------|------|
| VSWR           | 2.64  | 1.8  | 1.18 |
| Gain(dBi)      | -0.91 | 0.65 | 1.1  |



5.15GHz



5.5GHz



5.85GHz