

# 规格书

# Specification

**Customer Name** 客户名称:成都惠利特自动化科技有限公司

**Part No.** 产品名称:915Mhz胶棒天线\_SMA

**Customer P/N** 客户料号:

**Supplier Name** 供应商名称:中科伟业(成都)通信有限公司

**Supplier P/N** 供应商料号:673220600601

|                            |                       |                      |
|----------------------------|-----------------------|----------------------|
| <b>Made</b><br>制作          | <b>Check</b><br>审核    | <b>Approve</b><br>批准 |
| 林嵩皓                        | 代果                    | 刘伟                   |
| <b>Sample Date</b><br>送样日期 | <b>Version</b><br>版本号 |                      |
| 2025.06.05                 | V1                    |                      |

版本更改记录  
Revise Record

| 版本号<br>Version                          | 变更记录<br>Record of change | 拟制<br>Made | 批准<br>Approve | 日期<br>Date |
|-----------------------------------------|--------------------------|------------|---------------|------------|
| V1                                      | 首次发行                     | 林嵩皓        | 刘伟            | 2025.06.05 |
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|                                         |                          |            |               |            |
| 备注：<br>1、更改产品指标时，版本号需更换（V1 换为 V2、V3……）； |                          |            |               |            |

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## 2. Antenna Specification 天线规格

### 2.1. Electrical Specification 电气参数

| Electrical Specification 电气参数  |                       |
|--------------------------------|-----------------------|
| 频率范围 Operation Frequency (MHz) | 868-915               |
| 输入阻抗 Impedance (Ohms)          | 50                    |
| 驻波比 VSWR                       | 868-915 $\leq$ 2.0    |
| 效率 Efficiency (%)              | 868-915:69.76         |
| 峰值增益 Peak Gain (dBi)           | 868-915: 2.39         |
| 辐射方向 Radiation Properties      | Omnidirectional 全向    |
| 极化方式 Polarization              | Line Polarization 线极化 |
| 功率容量 Max input Power (Watts)   | 50                    |

## 2.2 Mechanical Parameter 机械参数

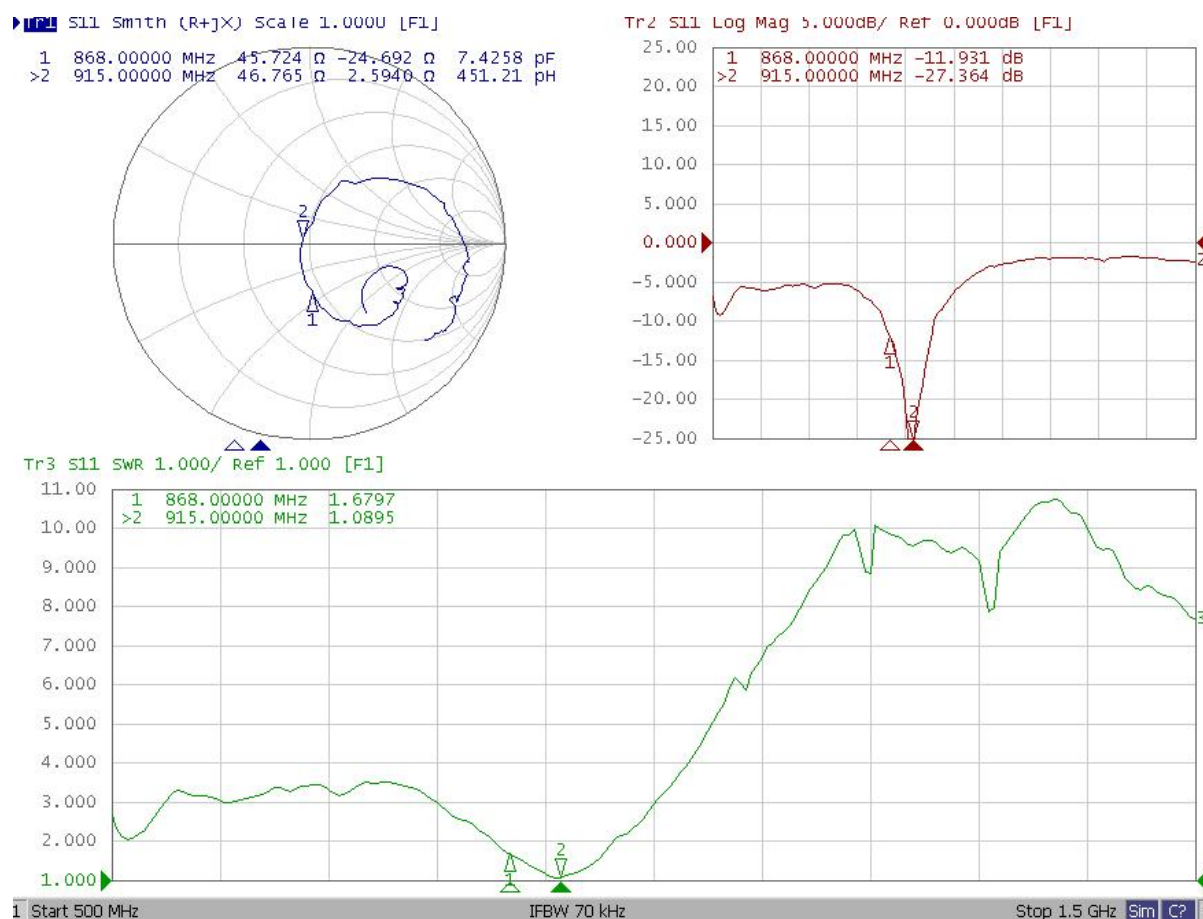
| Mechanical Parameter 机械参数 |                                |
|---------------------------|--------------------------------|
| Structure Type 结构方式       | SMA镀黑直公头公针                     |
| Dimension 尺寸              | L175MM, 杆子直径: 3.6MM, 接头直径:10mm |
| Material 材料               | 碳钢, 黑色                         |

## 2.3 Environment Specification 环境规格

| Environment Specification 环境规格 |               |
|--------------------------------|---------------|
| Operating temperature 工作温度     | -40°C ~ +80°C |
| Storage temperature 存储温度       | -40°C ~ +80°C |

### 3. Passive Test Data 无源测试数据

#### 3.1. VSWR / Smith chart / Return loss 驻波比/史密斯圆图/回波损耗

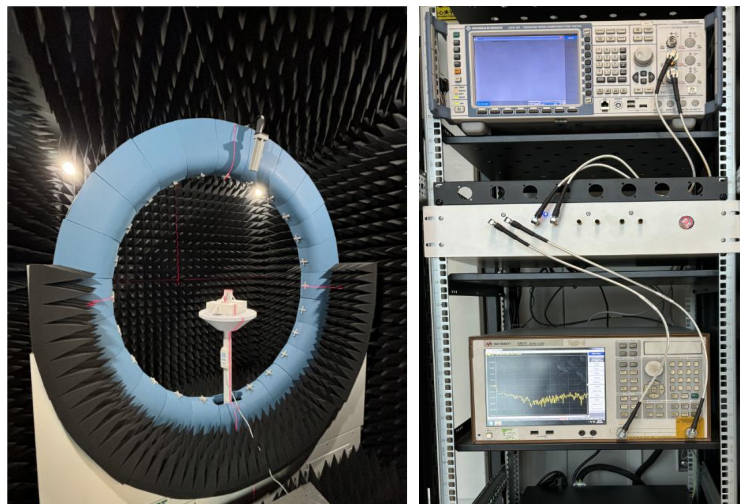


868MHz-915MHz

### 3.2 Test System 测试系统

Multi-probe spherical near-field anechoic chamber test system that meets the relevant international regulations such as CTIA and 3GPP, a multi-functional wireless test system with excellent performance in radio frequency, absorption, and mechanical structure. The system has high integration and reliability. It supports pendulum sampling frequency-doubling technology and can be adapt to the testing needs of small multi-lobed antennas. It is suitable for the wireless testing of small high-integration electronic devices such as IoT devices, drone modules, car machine modules, smart home devices, and mobile communication equipment. It can also meet the testing needs of ceiling antennas, miniature base stations, and embedded routers, etc., which have high dependence on the passive performance of antennas.

多探头球面近场空腔暗室测试系统，符合**CTIA**和**3GPP**等相关国际法规的多功能无线测试系统。该系统在射频、吸波和机械结构等有良好的表现，系统的集成度和可靠性较高。系统支持摇摆式采样倍频技术，可适应小型多副瓣天线的测试需求，适用于物联网、无人机、车机模块、智能家居、移动通信设备等小型高集成度电子设备的无线测试。同时也可满足吸顶天线、微型基站、嵌入式路由器等对天线无源性能依赖度高的无线设备测试。

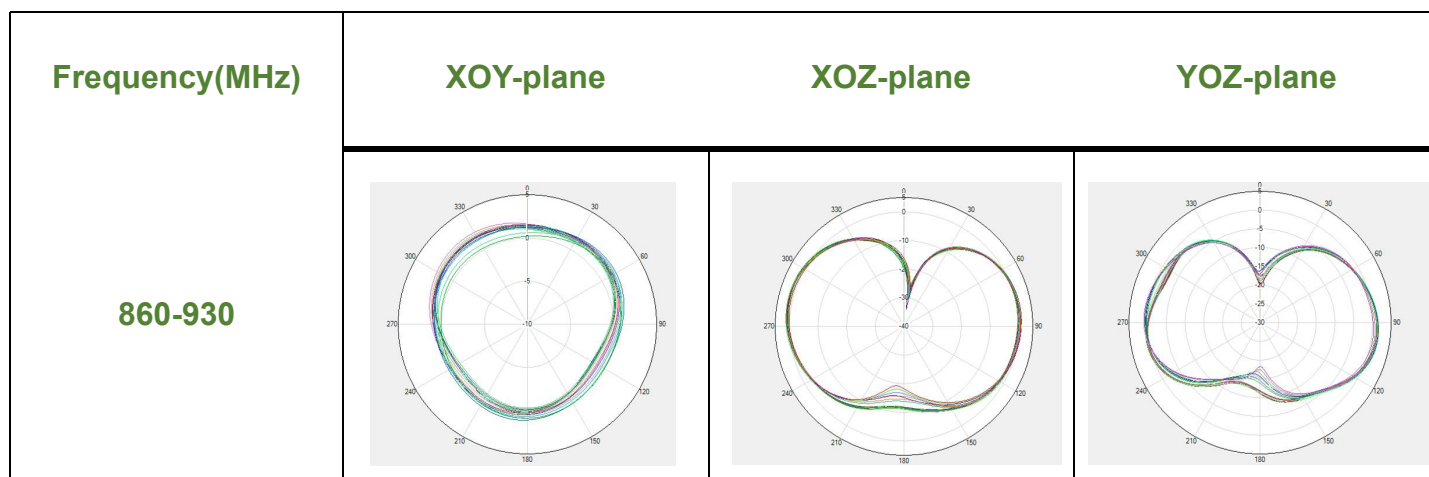


|                                |                                                                                                                             |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Supported Band</b><br>可支持频率 | <b>600MHz-9GHz (Expand. 12GHz)</b>                                                                                          |
| <b>Test Item</b><br>测试内容       | <b>Passive: Gain/Efficiency/2D/3D radiation/non-circularity(不圆度)/axial ratio(轴比) ...</b><br><b>Active: TRP/TIS/EIRP/EIS</b> |
| <b>Test Standard</b><br>测试制式   | <b>2G/3G/4G/5G/Wi-Fi b/g/n/a/ac/ax/蓝牙 /NB-IOT /Cat-M (eMTC)/GPS/BEIDOU/GLONASS/ZigBee/LoRa(Non-signaling 非信令)...</b>        |

### 3.3. Efficiency & Gain 效率&增益

| Frequency (MHz) | Efficiency (%) | Gain .dB    |
|-----------------|----------------|-------------|
| 860             | 71.94          | 1.76        |
| 862             | 71.45          | 1.77        |
| 864             | 70.96          | 1.80        |
| 866             | 71.12          | 1.77        |
| 868             | 71.61          | 1.66        |
| 870             | 70.79          | 1.47        |
| 872             | 72.11          | 1.66        |
| 874             | 65.92          | 1.82        |
| 876             | 66.07          | 1.96        |
| 878             | 67.30          | 2.13        |
| 880             | 69.98          | 2.39        |
| 900             | 69.34          | 1.84        |
| 905             | 69.66          | 1.71        |
| 910             | 70.15          | 1.72        |
| 915             | 70.31          | 1.77        |
| 920             | 70.79          | 1.91        |
| 925             | 68.55          | 1.52        |
| 930             | 67.61          | 1.33        |
| <b>AVG</b>      | <b>69.76</b>   | <b>1.78</b> |

### 3.4. 2D Radiation Model 2D辐射模型



### 3.5. 3D Radiation Model 3D辐射模型

