



# SPECIFICATION

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## 深圳市骏晔科技有限公司

*Shenzhen DreamLNK Technology Co., Ltd.*

### 910MHZ(弹簧)天线

910MHZ aerial Datasheet

|                            |            |                                 |            |
|----------------------------|------------|---------------------------------|------------|
| 客 户                        |            | 频 段<br>frequency range          | 910MHz     |
| 线材名称<br>Wire name          |            | 版 本<br>version                  | A1         |
| R F 设计<br>RF design        | James wang | 射频经理<br>Radio frequency manager | Knight Ai  |
| 结构设计<br>Structure design   |            | 结构经理<br>Structure manager       |            |
| 技术总监<br>Technical Director |            | 日 期<br>date                     | 2017-05-22 |

客户确认 (Customer confirmation ):

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## 一、产品图片 product picture

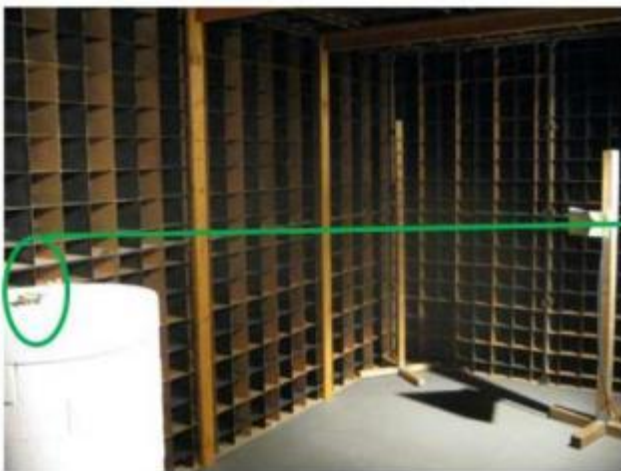
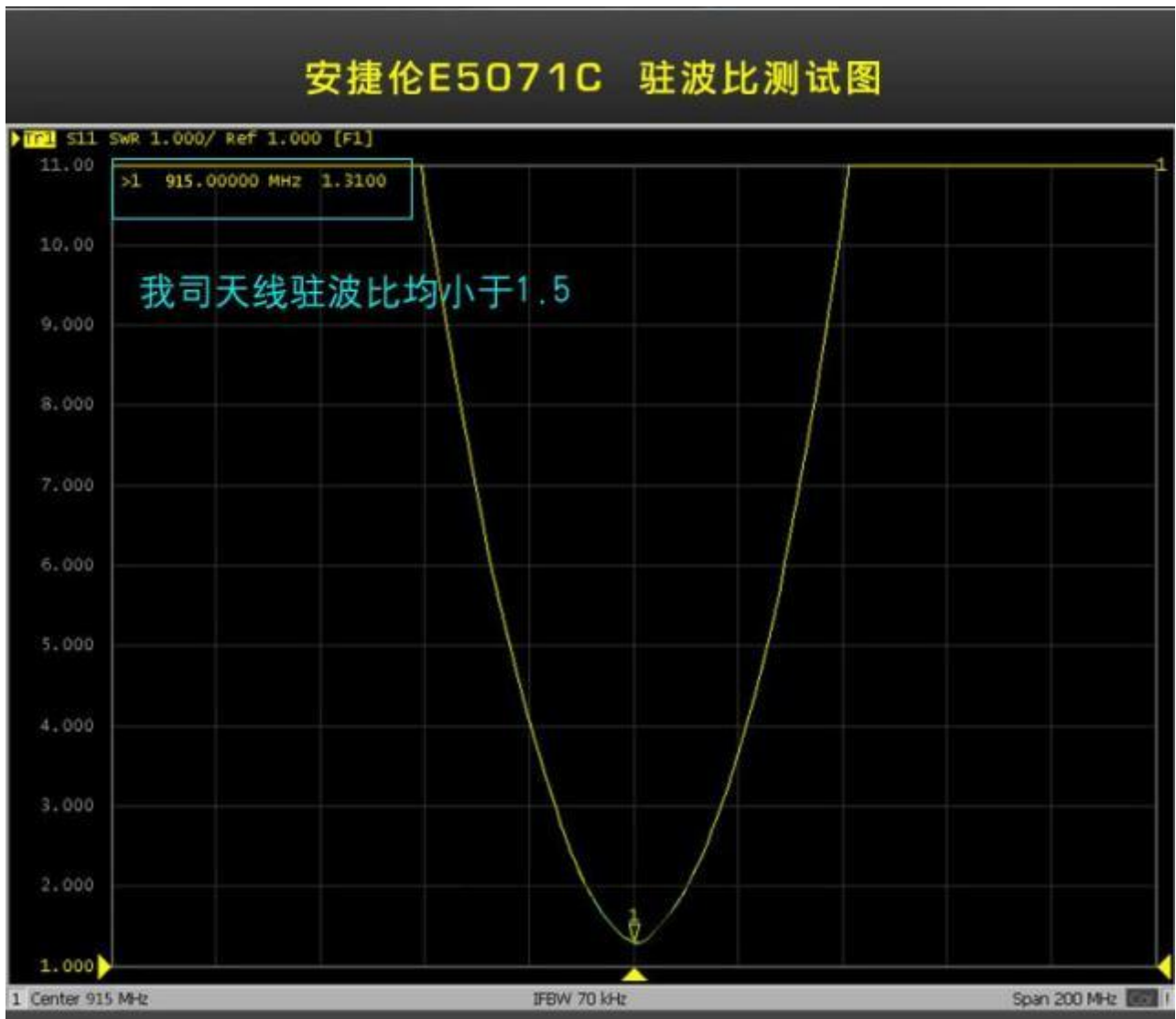


## 二、产品参数 Product Parameter

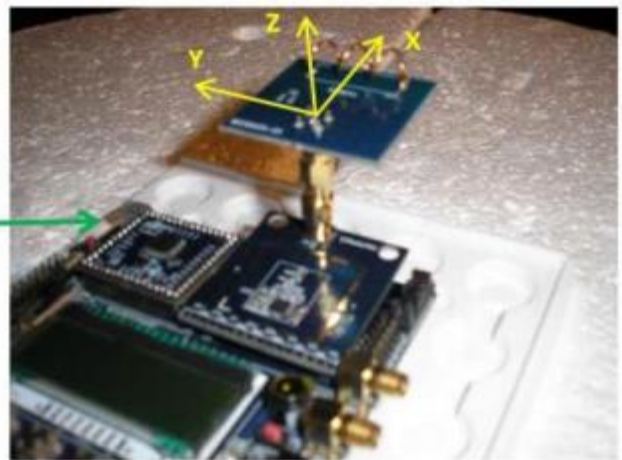
| 产品测试参数                                |                                |                               |                |
|---------------------------------------|--------------------------------|-------------------------------|----------------|
| 产品名称(Name)                            | 910M aerial                    | 产品型号(Model Type)              | T1             |
| 电 性 能 指 标 (Electrical Specifications) |                                |                               |                |
| 频率范围 (Frequency Range)                | 915MHz                         | 极化方式 (Polarization)           | 垂直 verticality |
| 输入阻抗(Impedance)                       | 50 $\Omega$                    | 辐射方向<br>(radiation direction) | 全向 omnibearing |
| 驻波比 (VSWR)                            | $\leq 1.5$                     | 功率容量(Power)                   | 50W            |
| 增益(Gain)                              | 3dBi                           | 带宽 (Bandwidth)                | /              |
| 机 械 指 标 (Mechanical Specifications)   |                                |                               |                |
| 尺寸 (Dimensions)                       | 17.5mm                         | 天线颜色(Chassis Color)           | 金色 aureate     |
| 天线材料 (Chassis Material)               | 磷铜镀金 Phosphorus<br>copper gilt |                               |                |
| 工作温度<br>(Working Temperature)         | -40℃-+85℃                      | 存放温度<br>(Limit Temperature)   | -40℃-+85℃      |

We statement all measurements were performed radiated and therefore additional antenna gain documentation is not required.

### 三、S11 (VSWR 、 Return loss 、 Smith) 数据

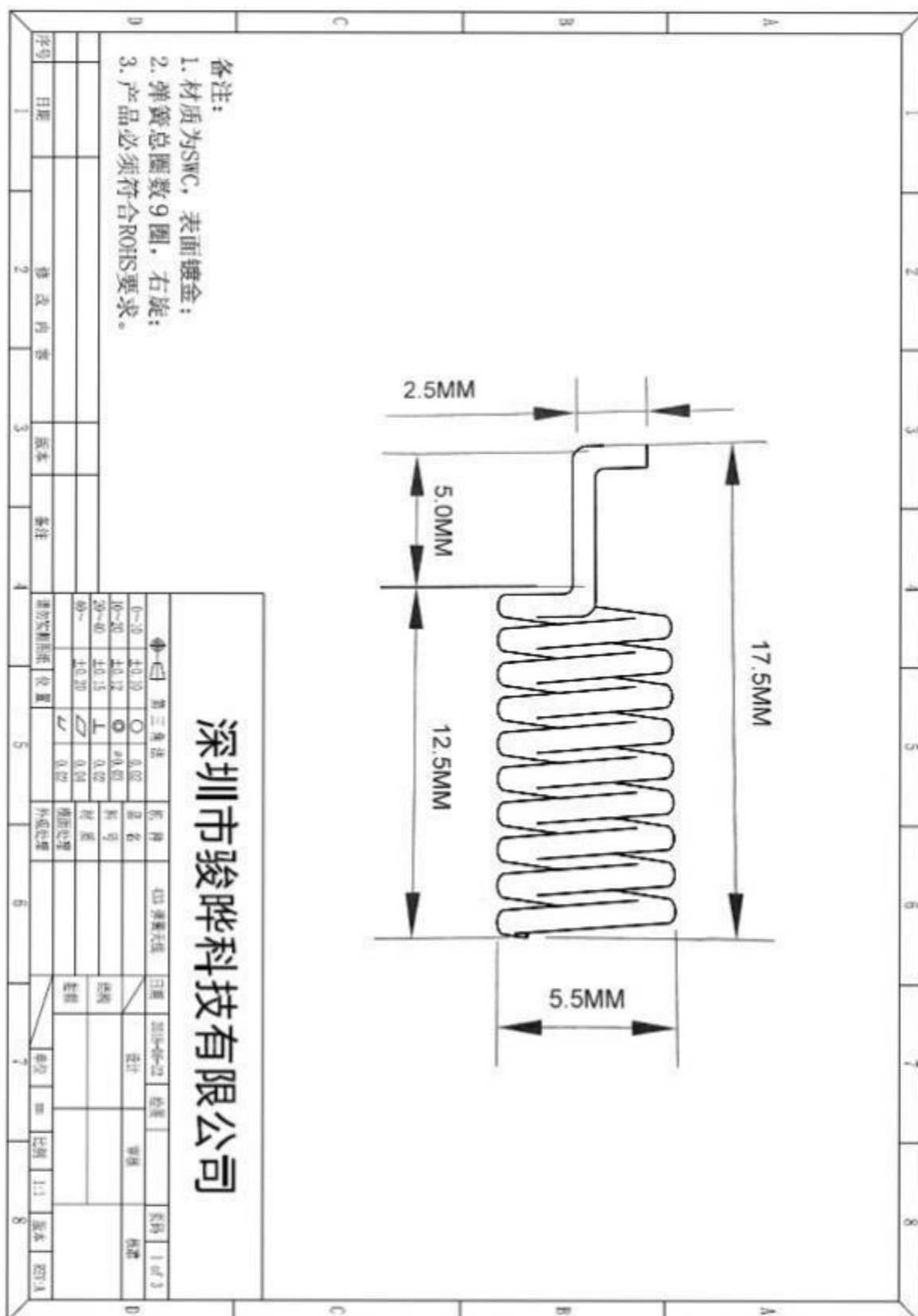


暗室测试

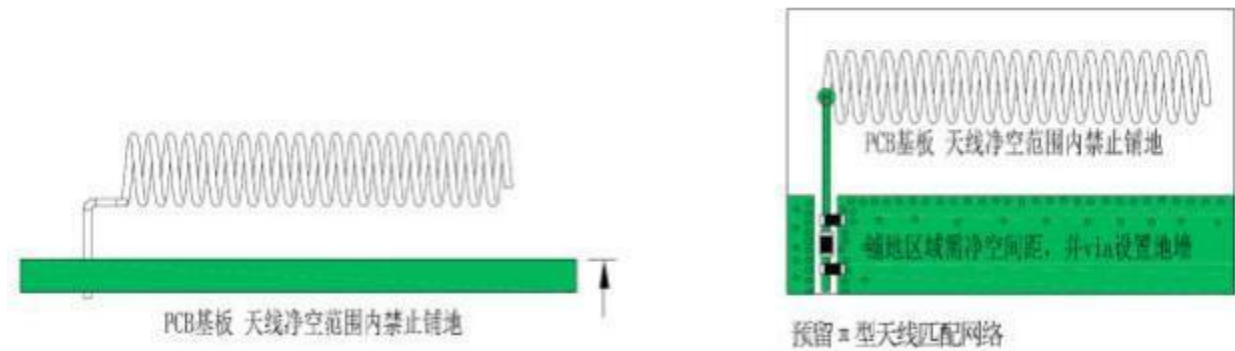


XYZ方向测试

#### 四、结构图纸 structural drawings



五、天线应用设计指导Antenna application design guidance



**Note:** In the process of antenna design, the spring antenna is required to determine the position of the product, the Angle, the structure of the product, the product, the position of the input and output interface, and the position of the interference source inside the product. The  $\pi$ -type network is reserved to match the antenna. When debugging the antenna, please provide the whole product shell and the internal pcba function board, and calculate the external interference source and parasitic capacitance into the match, so that the antenna can achieve the best performance index and working efficiency. The left image shows the side view, and the right image shows the top view. The pcb routing of the matching network is 0.5mm line width, and 0.35mm spacing is laid on both sides of the network to maintain good impedance characteristics.

六、环境性能测试 Environmental performance test

| 项目<br>project                               | 测试条件test condition                                                                                                                                                                                                                           | 规格specifications |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 储存环境<br>Storage environment                 | The test temperature, humidity and air pressure are as follows: 1. The temperature is-30℃ ~80℃ 2. Relative humidity is 45% -85% 3. Air pressure is 86 kpa-106 kpa                                                                            | PASS             |
| 高低温试验<br>thermocycling                      | Five cycles were performed between 70℃ and 40 and then checked for 1-2h under normal conditions. 。                                                                                                                                           | PASS             |
| 耐恒定湿热试验<br>Constant humidity and heat trial | Relative humidity: 95 ± 3%, test temperature: 40℃. After a continuous 2-h treatment, Measure the electrical performance of the test article within 5min after its removal, and check the appearance quality for 1-2h under normal conditions | PASS             |
| 振动试验<br>vibration test                      | Dynamic frequency range of 10-55 hz, displacement amplitude: 0.35mm, acceleration amplitude: 50.0m/s, sweep cycle times: 30 times                                                                                                            | PASS             |