

# 样品承认书

客户：

客户编号：

供应商：嘉兴佳利电子有限公司

产品型号：DAS1595R25Y14-70

产品描述：25\*25\*4.0mm/NITTO 5000NS/PIN3.0mm

备注：中性包装 1000pcs/箱



客户签名：

客户盖章：

公司签名：

公司盖章：

注：确认后请回传该页！

制作：

日期：

地址

浙江省嘉兴市塘汇经济开发区正原路 66 号

电话

0573-83651818

传真

0573-83651858

| 版本   | 日期         | 版本描述          | 拟制  | 审核 | 批准  |
|------|------------|---------------|-----|----|-----|
| V1.0 | 2017/06/07 | 最新发行          | 郁志强 | 高生 | 葛伟平 |
| V2.0 | 2018/01/09 | 增加增益图, 修改工作温度 | 郁志强 | 高生 | 葛伟平 |
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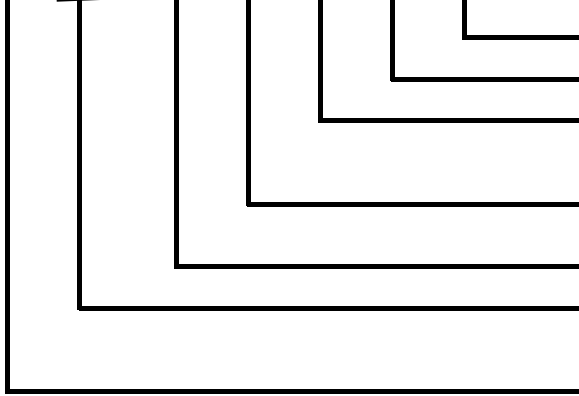
## 1. 概述 INTRODUCTION

"佳利"微波介质天线系列产品用于 GPS 和局域网产品中，采用右旋圆极化设计，扁平状小型结构，具有低反射损耗、轴比小、增益高的特点。

"GLEAD" microwave dielectric antenna elements and its series are designed to be used for GPS and WLAN. The patch antenna with compact size incorporates a rectangular micro-strip design for GPS C/A right-hand circular polarization wave reception, featuring low RL, low Axial Ratio but high gain, etc.

## 2. 型号 Part Number

DA S 1595 R 25 Y1 4 - 70 (test ground)



厚度 thickness: 4mm

中心频率 Center frequency: 1590Mhz

外形尺寸: 25mm×25mm

极化方式: R=右旋圆极化

polarization: R=Right-hand circular

特征频率 Character Frequency: 1595 MHz

结构 Structure:单偏 Single Deviation

正方形介质天线

Square Dielectric Antenna

|                 |                 |                 |  |           |
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### 3. 结构及材料 Structure and Material

表 1

| No. | Description       | 名称   | Structure and Material | 结构及材料 |
|-----|-------------------|------|------------------------|-------|
| 4.1 | Antenna Substrate | 天线基片 | Dielectric Ceramics    | 介质陶瓷  |
| 4.2 | Pin               | 引脚   | Copper and tinplated   | 铜镀锡合金 |
| 4.3 | Electrode         | 电极   | Ag Plated              | 镀银    |
| 4.4 | Ground Base       | 接地面  | Ag Plated              | 镀银    |
| 4.5 | Adhesive type     | 双面胶  | NITTO 5000NS           |       |

### 4. 外形尺寸 Dimension

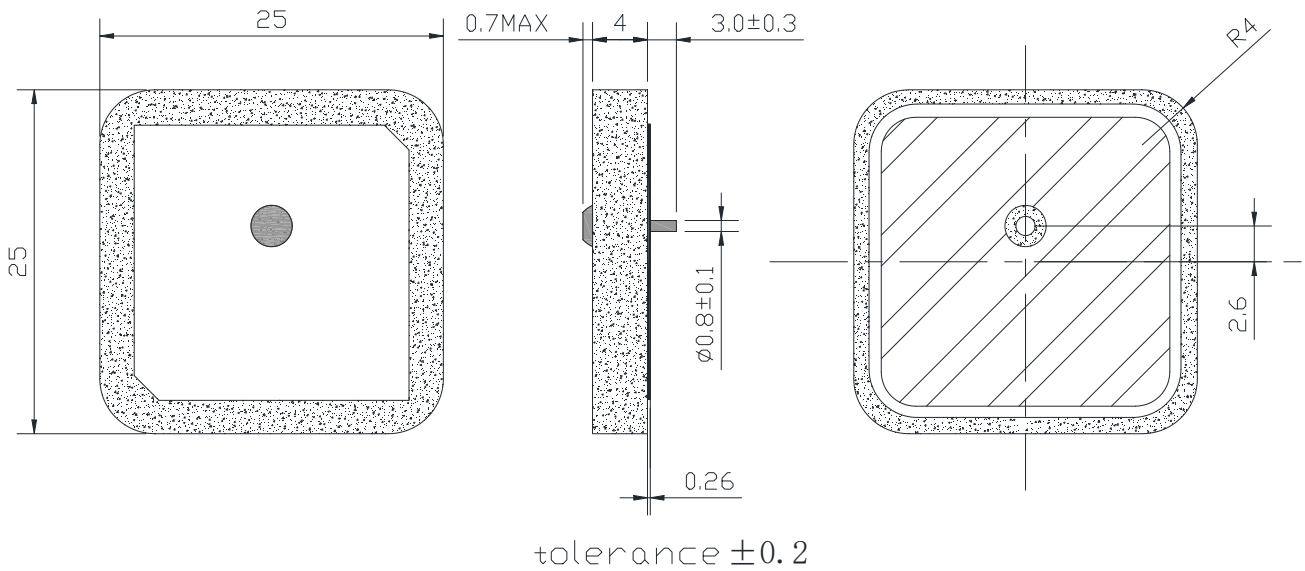


图 1 dimension

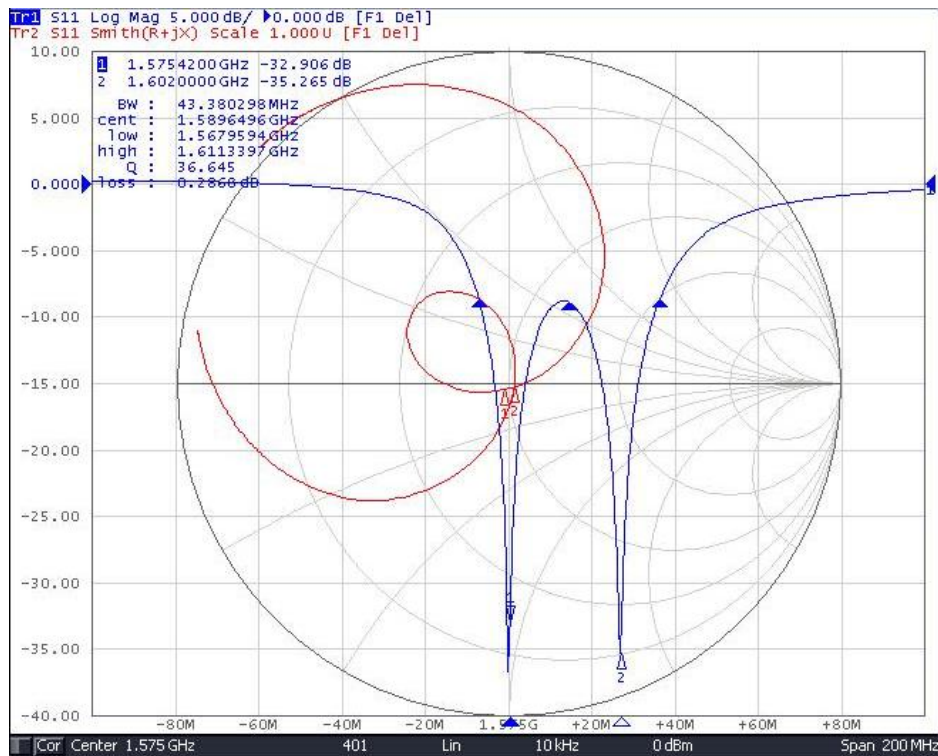
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## 5. 电气性能 Electrical Characteristics

表 2

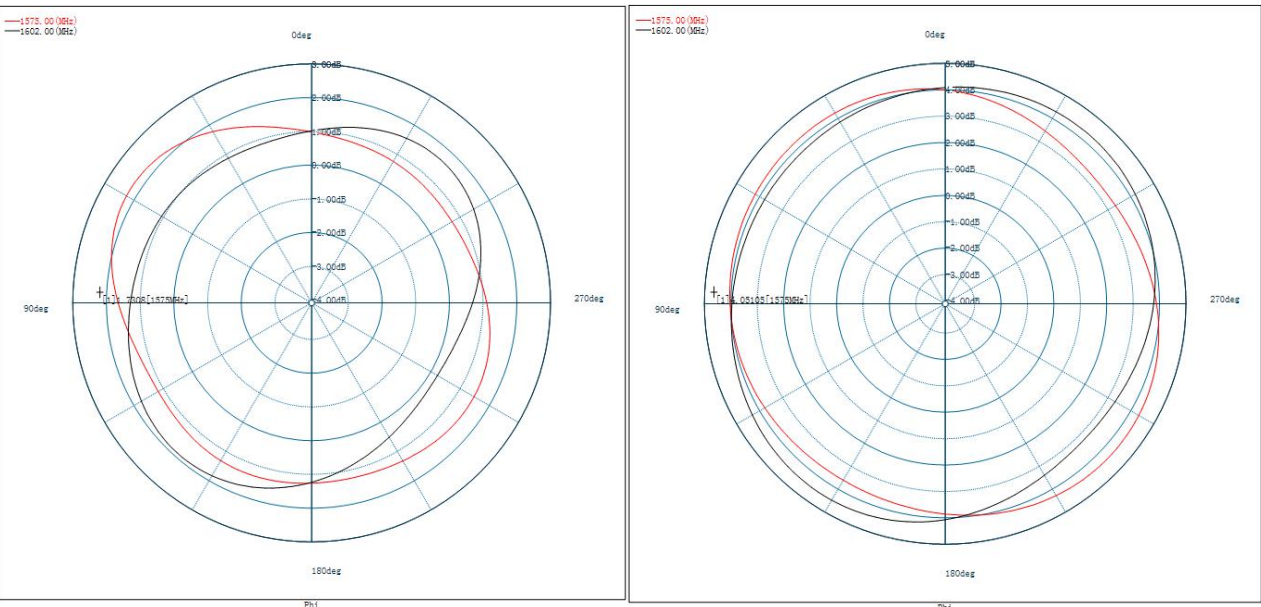
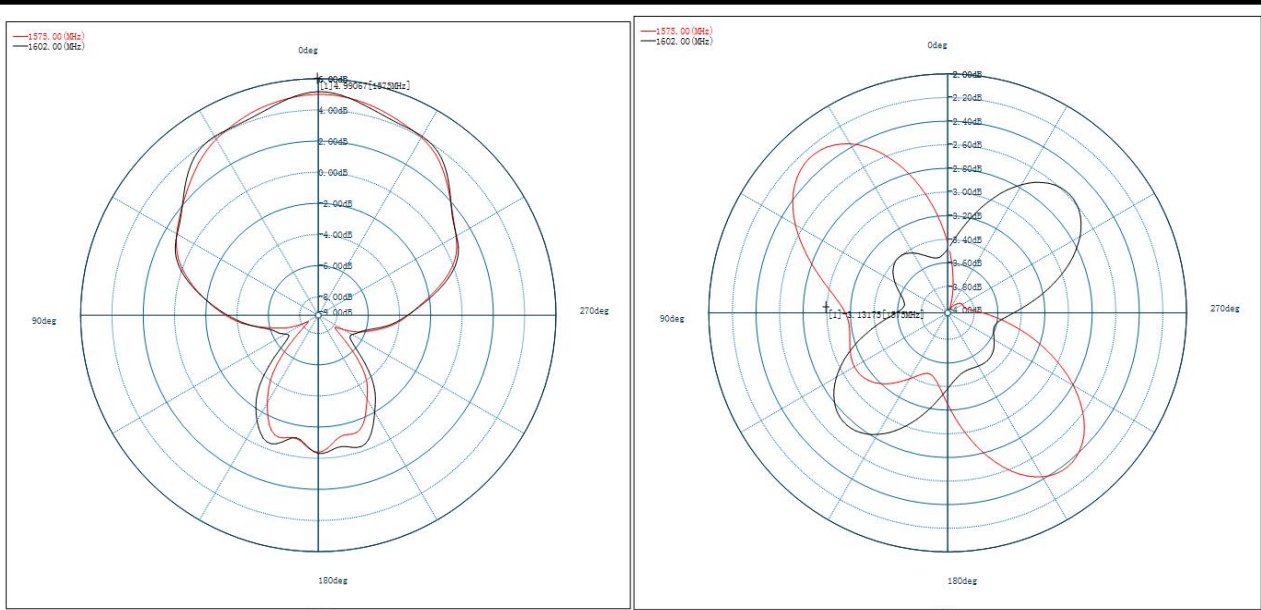
| No. | Item (项目)   | Specifications (特性)            | Post Environmental Tolerance (环境试验后允许误差) |
|-----|---|--------------------------------|--|
| 5.1 | 接收频率范围 (Mhz)<br>Range of Receiving Frequency            | GPS: 1575<br>GLONASS: 1602±5   | ±2.5                                     |
| 5.2 | 中心频率 Center Frequency (Mhz)<br>(with 70*70mm GND Plane) | 1590                           | ±3.0                                     |
| 5.3 | 带宽 Band With (Mhz)<br>(Return loss ≤-10dB)              | Each Bands ≥10MHZ              | ±0.5                                     |
| 5.4 | 增益 Gain(Zenith) (dBi typ)                               | 2.5dB typical                  | --                                       |
| 5.5 | 轴比 Axial Ratio  | 5dB max                        | ---                                      |
| 5.6 | 偏振方式 Polarization                                       | 右旋圆极化<br>Right-Handed Circular | ---                                      |
| 5.7 | 特性阻抗 Imedance (Ω)                                       | 50                             | ---                                      |
| 5.8 | 频率温度系数 (ppm/°C)<br>Frequency Temperature Coefficient    | 0±10                           | ---                                      |

## 6. 特性曲线 Characteristic curve



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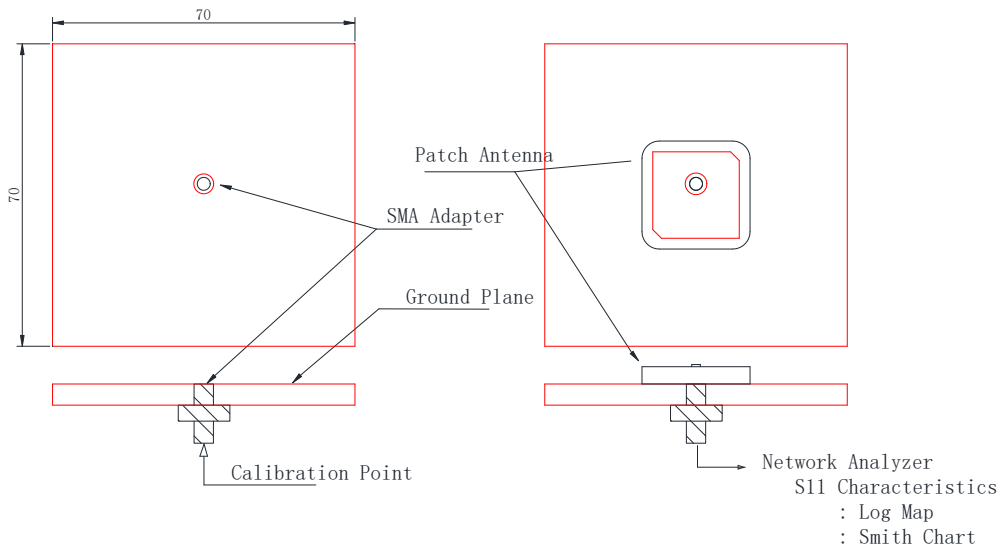
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|         | Gain    |
|---------|---------|
| 1575MHZ | 4.99dBi |
| 1602MHZ | 5.16dBi |

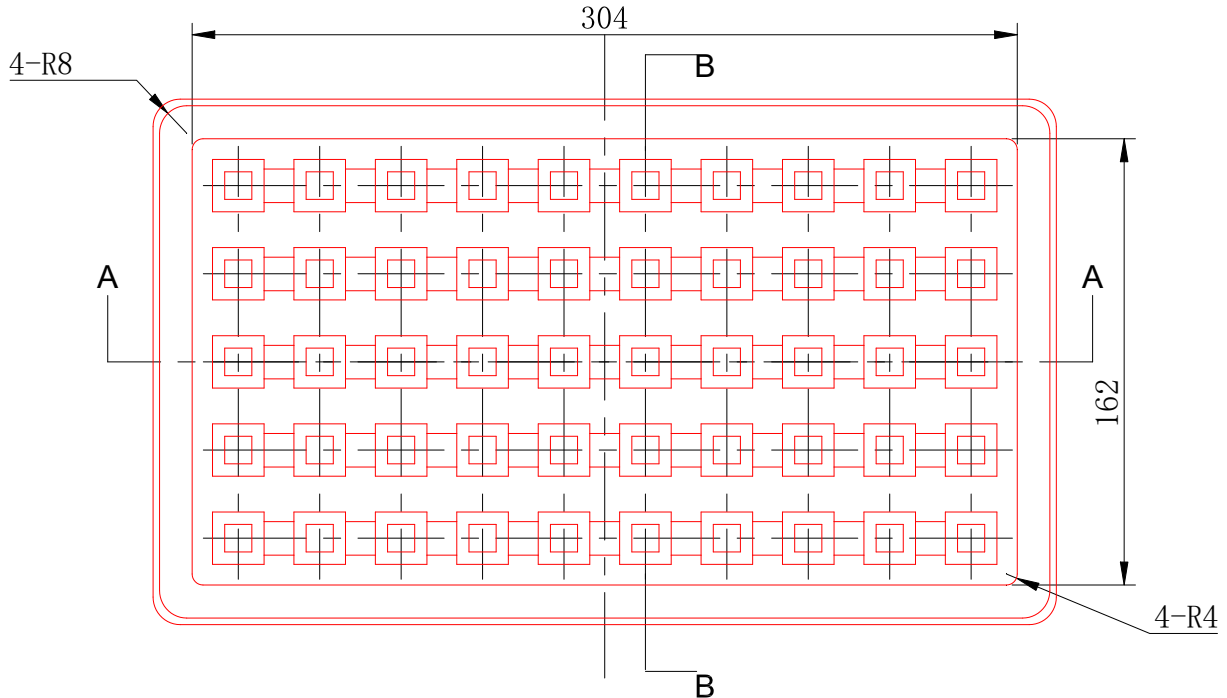
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## 7. 测试环境 Test environment



## 8. 包装 Package

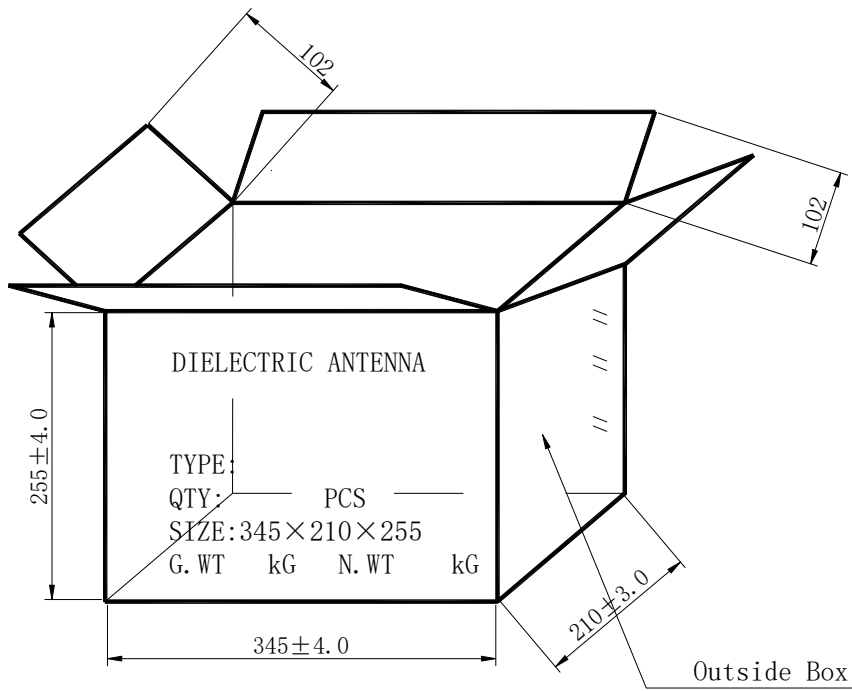
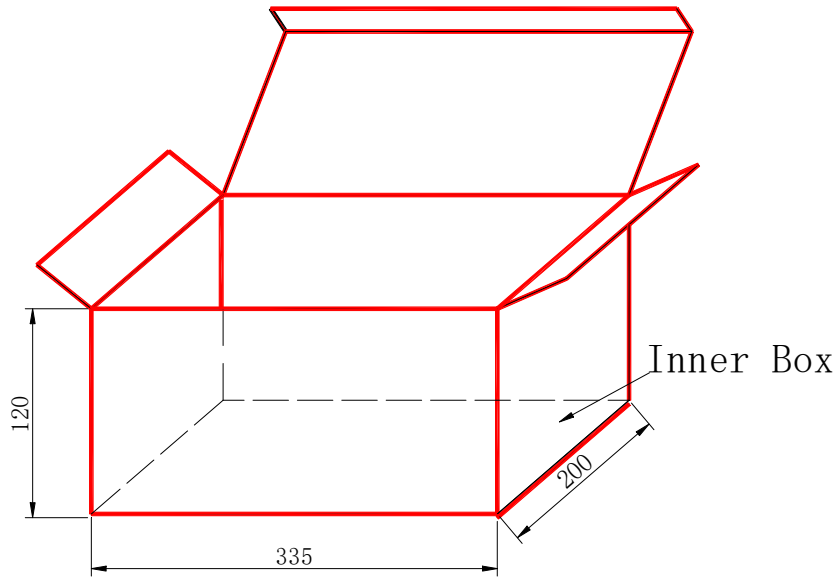
| 包装名称 Package Name | 包装数量 Quantity    |
|-------------------|------------------|
| 吸塑盒 Tray          | ( 50 ) pcs/tray  |
| 内装盒 Inner Box     | ( 500 ) pcs/box  |
| 外包装箱 Outer Box    | ( 1000 ) pcs/box |



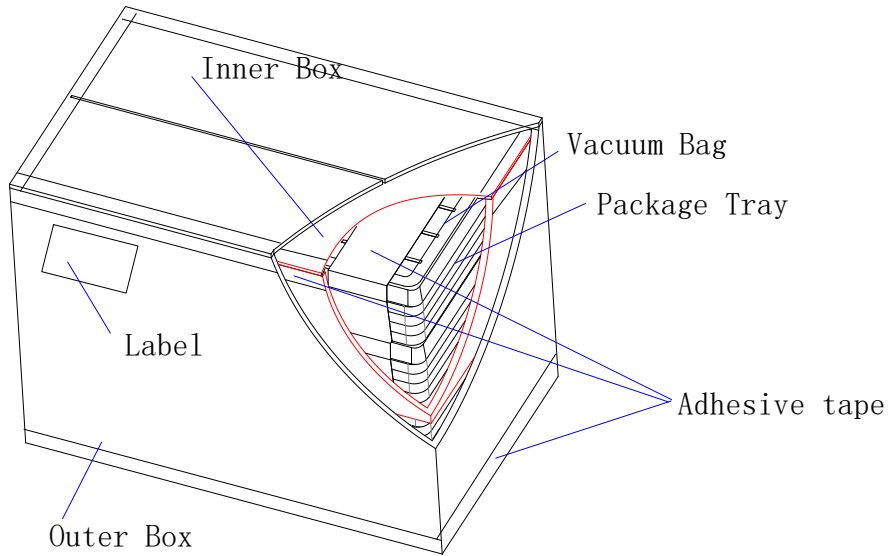
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## 9.环境试验 Environmental specifications

经环境试验后允许比起始读数偏差见表 2

Post Environmental Tolerance (Refer to the table 2)

|       |        |                             |   |
|-------|--------|-----------------------------|---|
| 基准条件: | 温度范围   | Temperature range           | $25 \pm 3^{\circ}\text{C}$                      |
|       | 相对湿度范围 | Relative Humidity range     | 55~75%RH  |
|       | 工作温度   | Operating Temperature range | $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ |
|       | 贮藏温度   | Storage Temperature range   | $-40^{\circ}\text{C} \sim +110^{\circ}\text{C}$ |

### 9.1 耐湿热特性 Moisture Proof

在温度为  $40 \pm 2^{\circ}\text{C}$ ，相对湿度 90~95% 的恒温湿箱中放置 96 小时，在常温中恢复 1~2 小时后测试，符合表 5.1~5.6 规定。

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to the temperature  $40 \pm 2^{\circ}\text{C}$  and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

### 9.2 耐振动 Vibration Resist

在振动频率为 10~55Hz 振幅为 1.5mm 沿 X.Y.Z 方向各振动 2 小时后测试符合表 5.1~5.6 规定。

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

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**9.3 耐跌落冲击 Drop Shock**

在 30cm 高度处按 X, Y, Z 三个面分别自由跌落在木制地板上共 3 次后测试符合表 5.1~5.6 规定。 The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

**9.4 高温特性 High Temperature Endurance**

在温度为  $80 \pm 5^\circ\text{C}$  的恒温箱中放置  $24 \pm 2$  小时, 在常温中恢复 1~2 小时后测试。符合表 5.1~5.6 规定。

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to temperature  $80 \pm 5^\circ\text{C}$  for  $24 \pm 2$  hours and 1~2 hours recovery time under normal temperature.

**9.5 低温特性 Low Temperature Endurance**

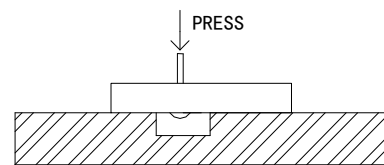
在温度为  $-40^\circ\text{C} \pm 5^\circ\text{C}$  低温箱中放置  $24 \pm 2$  小时后恢复 1~2 小时测试符合表 5.1~5.6 规定。

The device should also satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to the temperature  $-40^\circ\text{C} \pm 5^\circ\text{C}$  for  $24 \pm 2$  hours and to 2 hours recovery time under normal temperature.

**9.6 焊锡结合力 Adhesion Strength of Soldering**

用 2Kg 力在馈针轴向用力 10S, 保证外观不损伤, 满足 5.1~5.6 规定。

Force of 2kg is applied to each lead in axial direction for  $10s \pm 1$  s (see drawing). No visible damage and the device should also satisfy the electrical characteristics specified in paragraph 5.1~5.6.



**10. 注意事项 Note**

1. 本承认书保证我司产品作为一个单体时的质量情况。当我司产品被安装到贵公司产品上时, 请保证贵司的产品已根据贵司的规范进行了有效评价和确认。 This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.
2. 如果贵司对我司产品的使用已超过了本测试规范所界定的产品功能, 那么对于由此引发的失效, 我司将不予保证。 We cannot warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.
3. 对于正常使用过程中造成的失效, 在出厂之日起三个月内给予免费维修; 超过这个时限的维修我们将收取一定的材料成本和维修费用。 The product will get free warranty for three months since the date of purchase users operate in the correct way; users will have to pay cost of the materials and maintaining fee out of the condition.
4. 电子敏感元器件, 拿起时注意防静电。 Electrostatic sensitive device. Observe precautions for handling.
5. 产品易受潮, 拆封后需 24 小时内用完, 否则剩余部分需真空密封保存。

**This item is easy to be moisture. It should be used up within 24h after opening. Otherwise, the rest part needs to vacuum sealed.**

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