

# SPECIFICATION

Shenzhen Guandetong Electronic Limited

**Shenzhen Guandetong Electronics Co., LTD**

2.4G (2.38DB) pure white antenna with small buckle terminals

## Product specification book

|                             |            |                                   |                  |
|-----------------------------|------------|-----------------------------------|------------------|
| <b>Guest household</b>      |            | <b>Frequency segment</b>          | 2400MHz——2500MHz |
| <b>Name of wire</b>         |            | <b>Edition</b>                    | <b>A1</b>        |
| <b>Customer part number</b> |            | <b>Crown pass material number</b> |                  |
| <b>Guandetong number</b>    |            |                                   |                  |
| <b>R F design</b>           | Xiao Bin   | <b>Rf manager</b>                 | Liu Liang        |
| <b>Structural design</b>    | Wang Dong  | <b>Structure manager</b>          | Wang Hua         |
| <b>Technical director</b>   | Ye Dingkun | <b>Day period</b>                 | 2022-12-16       |

Customer confirmation:

Whether the assembly meets your company's requirements: ☐OK ☐NG

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## catalogue

### Sealing

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### 一、 Product picture



### 二、 Product parameter

| Product test parameter                |                         |                          |                  |
|---------------------------------------|-------------------------|--------------------------|------------------|
| Product name(Name)                    | 2.4G Glue stick antenna | 产品型号(Model Type)         | GDT-2.4G/1553    |
| 电 性 能 指 标 (Electrical Specifications) |                         |                          |                  |
| 频率范围 (Frequency Range)                | 2400MHz——2500MHz        | 极化方式 (Polarization)      | perpendicularity |
| 输入阻抗(Impedance)                       | 50 $\Omega$             | Radiation direction      | omnidirectional  |
| 驻波比 (VSWR)                            | $\leq 2.0$              | 功率容量(Power)              | 50W              |
| 增益(Gain)                              | 2.38dBi                 | 带宽 (Bandwidth)           | 100MHz           |
| 机 械 指 标 (Mechanical Specifications)   |                         |                          |                  |
| 尺寸 (Dimensions)                       | 108 $\pm$ 3mm           | 外壳颜色(Radome Color)       | 白色               |
| 连接器型号 (Connector)                     | IPEX 端子                 | 引线长度(Cable Length)       | 180 $\pm$ 3mm    |
| 外壳材料 Radome Material                  | ABS                     |                          |                  |
| 工作温度 (Working Temperature)            | -40°C-+85°C             | 存放温度 (Limit Temperature) | -40°C-+85°C      |

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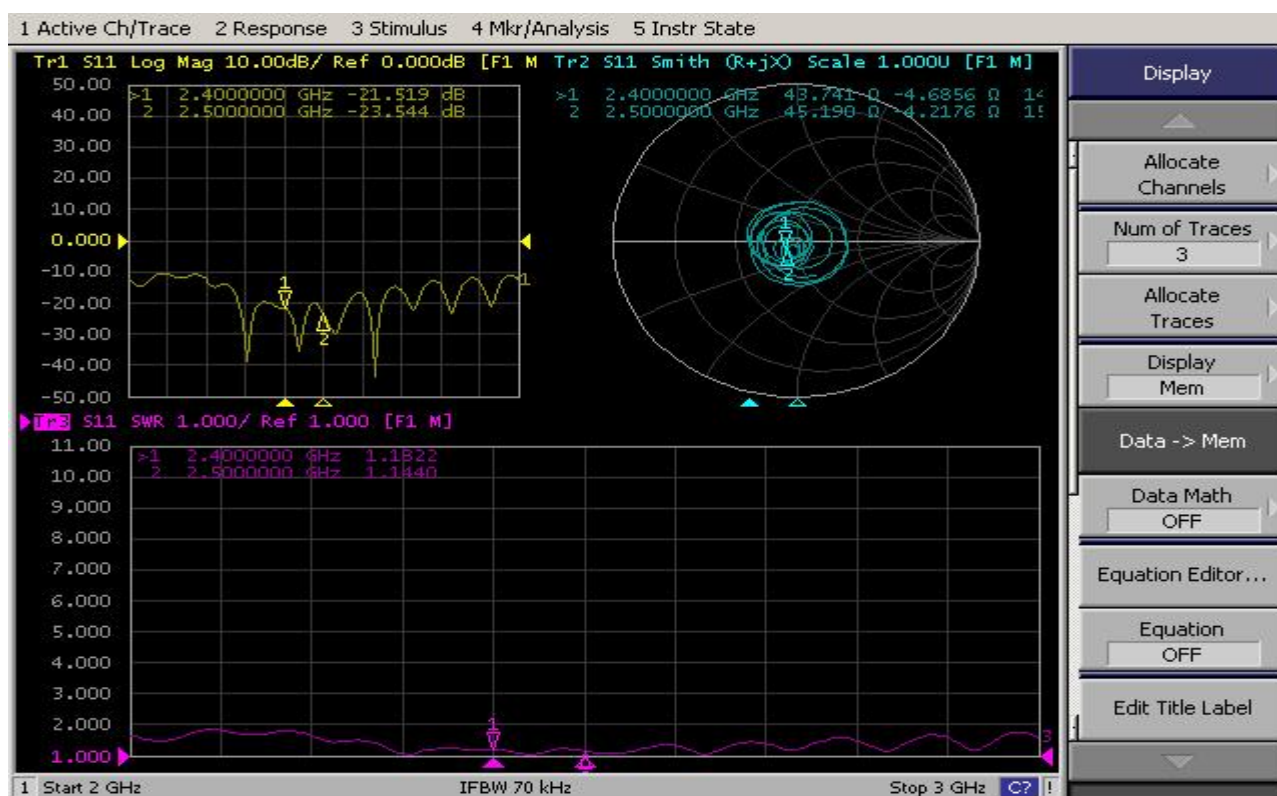
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### 三、S11 ( VSWR 、 Return loss 、 Smith) data



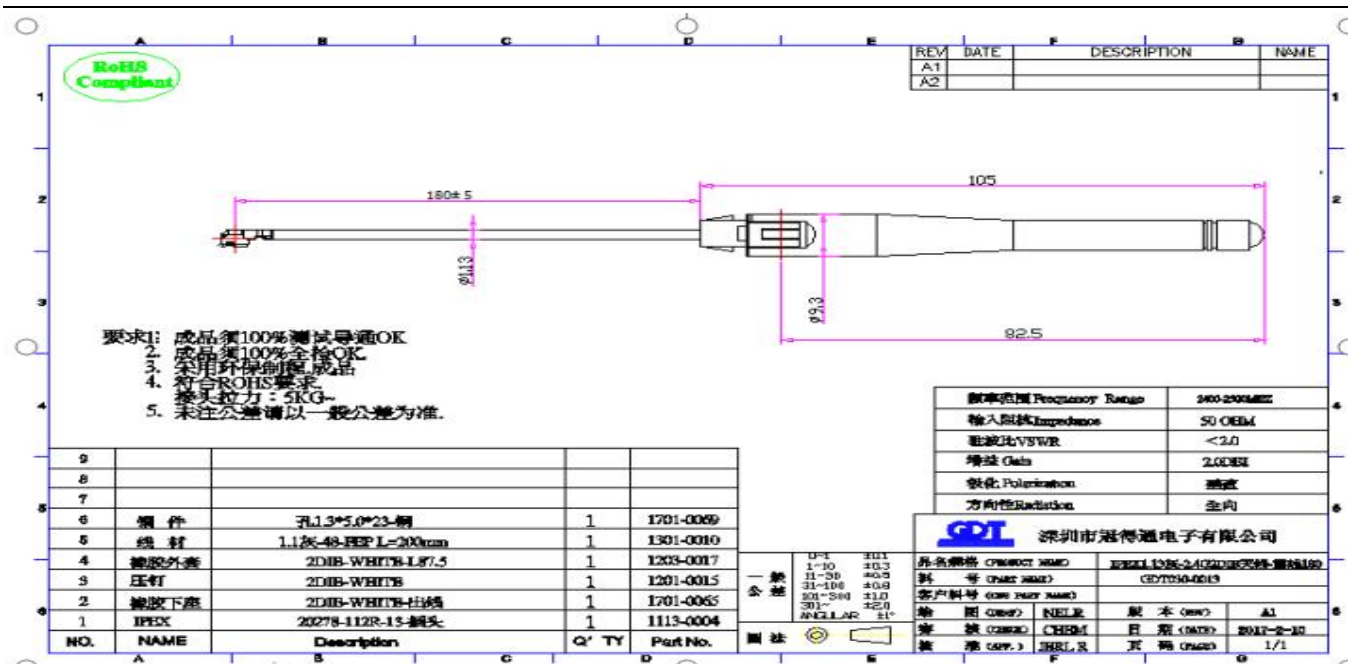
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## 四、Apple chart, direction chart

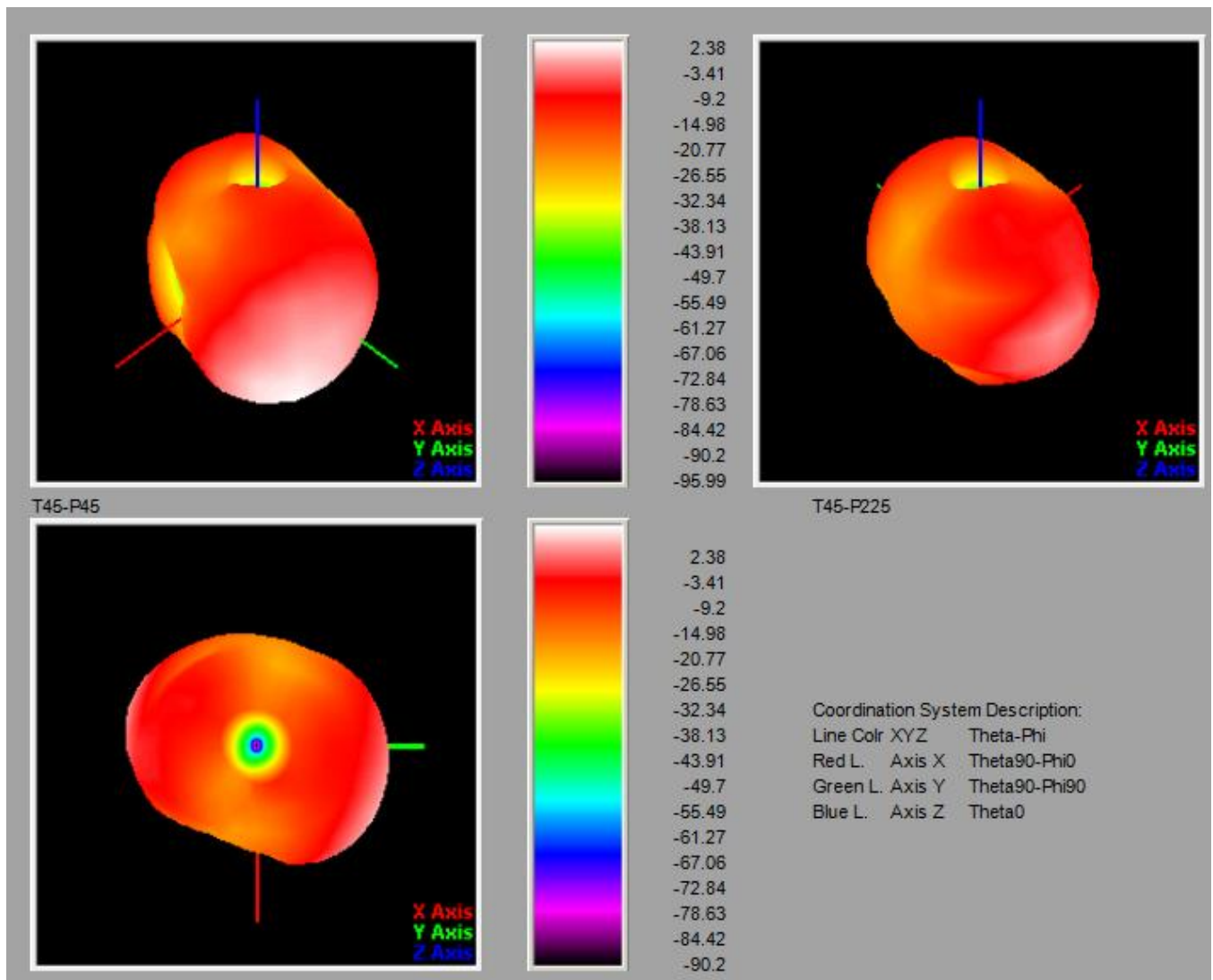
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| Test Point ID | Freq. (MHz) | TRP (dBm) | Gain (dBi) | Directivity (dBi) | Efficiency (%) | Efficiency (dB) | Max (dBm) | Theta of Max | Phi of Max | Min (dBm) | Theta of Min | Phi of Min | AVG (dBm) | Max/Min (dB) | Max/AVG (dB) | Min/AVG (dB) |
|---------------|-------------|-----------|------------|-------------------|----------------|-----------------|-----------|--------------|------------|-----------|--------------|------------|-----------|--------------|--------------|--------------|
| 1             | 2400.0      | 2400.00   | 1.05       | 5.20              | 38.5%          | -4.15           | 1.05      | 90           | 60         | -95.99    | 0            | 0          | -4.31     | 97.04        | 5.35         | -91.68       |
| 2             | 2410.0      | 2410.00   | 1.26       | 5.39              | 38.6%          | -4.14           | 1.26      | 90           | 60         | -95.99    | 0            | 0          | -4.11     | 97.25        | 5.36         | -91.88       |
| 3             | 2420.0      | 2420.00   | 1.60       | 5.68              | 40.0%          | -3.98           | 1.60      | 90           | 60         | -95.99    | 0            | 0          | -3.73     | 97.59        | 5.32         | -92.26       |
| 4             | 2430.0      | 2430.00   | 2.12       | 5.66              | 44.2%          | -3.54           | 2.12      | 90           | 60         | -95.99    | 0            | 0          | -3.17     | 98.11        | 5.29         | -92.82       |
| 5             | 2440.0      | 2440.00   | 1.86       | 5.59              | 42.3%          | -3.73           | 1.86      | 90           | 60         | -95.99    | 0            | 0          | -3.46     | 97.85        | 5.32         | -92.53       |
| 6             | 2450.0      | 2450.00   | 2.03       | 5.68              | 43.1%          | -3.66           | 2.03      | 105          | 60         | -95.99    | 0            | 0          | -3.42     | 98.02        | 5.45         | -92.57       |
| 7             | 2460.0      | 2460.00   | 2.33       | 5.84              | 44.6%          | -3.51           | 2.33      | 105          | 60         | -95.99    | 0            | 0          | -3.32     | 98.32        | 5.65         | -92.67       |
| 8             | 2470.0      | 2470.00   | 2.38       | 5.74              | 46.1%          | -3.36           | 2.38      | 105          | 60         | -95.99    | 0            | 0          | -3.41     | 98.37        | 5.79         | -92.58       |
| 9             | 2480.0      | 2480.00   | 2.08       | 5.36              | 46.9%          | -3.29           | 2.08      | 105          | 60         | -95.99    | 0            | 0          | -3.74     | 98.07        | 5.81         | -92.25       |
| 10            | 2490.0      | 2490.00   | 1.77       | 5.23              | 45.1%          | -3.46           | 1.77      | 105          | 60         | -95.99    | 0            | 0          | -4.01     | 97.76        | 5.78         | -91.98       |
| 11            | 2500.0      | 2500.00   | 1.75       | 5.14              | 45.8%          | -3.39           | 1.75      | 105          | 60         | -95.99    | 0            | 0          | -4.00     | 97.74        | 5.75         | -91.99       |

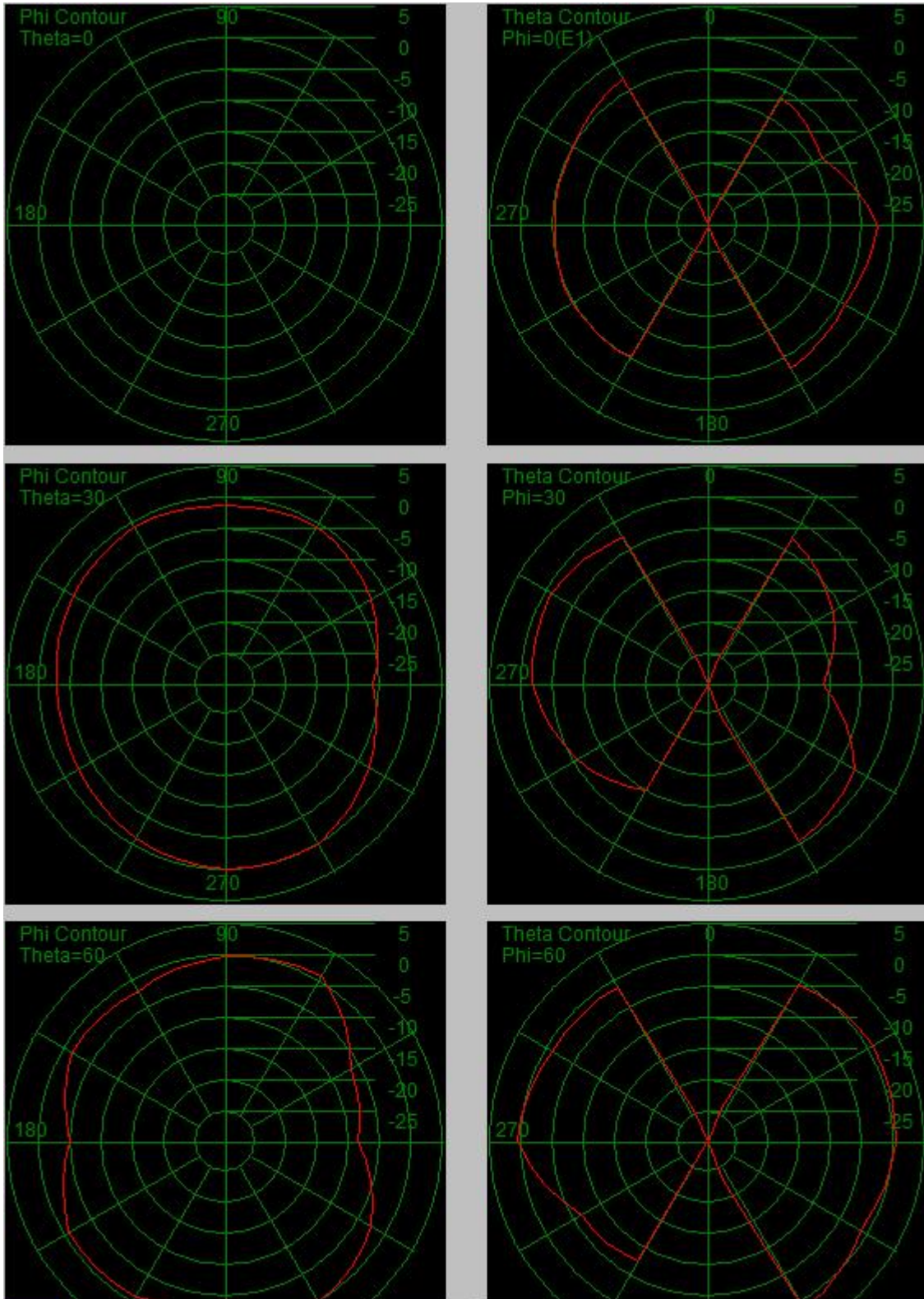
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### 五、Environmental performance test

| 项目<br>(Project)                                             | 测试条件<br>(Test conditions)                                                                                                                                                                                                                                                                                                                                                   | 规格<br>(Specifications)                                                                                                   |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 储存环境<br>(Storage environment)                               | 在没有指定的情况下测试温度、湿度、气压如下：<br>1. 温度为-30℃~+80℃<br>2. 相对湿度为45%-85%<br>3. 气压为86kpa-106kpa<br>(Test temperature, humidity, and air pressure without specifying as follows:<br>1. The temperature ranges from -30 °C to+80 °C<br>2. Relative humidity is 45% -85%<br>3. The air pressure ranges from 86kpa to 16kpa)                                                                 | 电气机械性能正常<br>(Normal electrical and mechanical performance)                                                               |
| 高低温试验<br>(High and low temperature test)                    | 在70℃与40℃之间进行5次循环，然后在正常条件下1-2H，检查外观质量。<br>(Perform 5 cycles between 70 °C and 40 °C, and then inspect the appearance quality under normal conditions for 1-2 hours.)                                                                                                                                                                                                         | 尺寸应满足规定并应满足满足<br>于机械、电气性能<br>(The size should meet the requirements and meet the mechanical and electrical performance.) |
| 耐恒定湿热<br>试验<br>(Constant humidity and heat resistance test) | 相对湿度95±3%，试验温度：40℃.持续2H作用后，试品取出后5min之内测定电气性能，试品在正常条件下1-2H，检查外观质量<br>(Relative humidity 95 ± 3%, test temperature: 40 °C. After 2 hours of continuous exposure, the electrical performance of the sample should be measured within 5 minutes after removal. The sample should be tested for 1-2 hours under normal conditions, and the appearance quality should be checked) | 尺寸应满足规定并应满足<br>于机械、电气性能<br>(The size should meet the requirements and meet the mechanical and electrical performance)    |
| 振动试验<br>(Vibration test)                                    | 振频范围10-55HZ，位移幅值：0.35MM，加速度幅值：50.0M/S，扫频循环次数：30次<br>(Vibration frequency range 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/s, frequency sweep cycle times: 30 times)                                                                                                                                                                             | 电气机械性能正常<br>(Normal electrical and mechanical performance)                                                               |
| 跌落试验<br>(Drop test)                                         | 1M高空按照互相垂直的轴方向自由跌落3次<br>(Free fall 3 times from a height of 1M along mutually perpendicular axes)                                                                                                                                                                                                                                                                           | 电气机械性能正常<br>(Normal electrical and mechanical performance)                                                               |

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