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| <b>Product Specification [产品规格书]:</b>                                        |  | ISSUED BY: Engineering Dept |            |
| <b>Subject [主题]:</b><br>2.50mm Pitch HRS-2524 Series Connector Specification |  | Date Issued                 | 2019/04/20 |
|                                                                              |  | Date Revised                | 2019/04/20 |
|                                                                              |  | Version                     | X0         |

This specification is referred to the 2.50mm Pitch  
HRS-2524 Series connector

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### 【1.适用范围 Scope】

此种规格包括 2.50mm Pitch HRS-2524 Series 连接器规格说明.

This Specification Covers the 2.5mm Pitch HRS-2524 Series Connector Specification

### 【2.规格与料号 Spec and Part number】

| 规格内容<br>Specification | 产品料号<br>Production No.       | 产品图示<br>Picture of Product |
|-----------------------|------------------------------|----------------------------|
| 四方针/Square Pin        | HRS-2524TFV-B04S-01Q         | NONE                       |
| 端子/Terminal           | HRS-2524PFV-B04S-01Q         | NONE                       |
| 胶壳/Housing            | HRS-2524WV-1x24-PTBB03TR001Q | NONE                       |

### 【3.材质与表面处理 Disposal of Material and surface】

| 规格内容<br>Specification | 材 质<br>Materials | 表面处理<br>Disposal of Surface       |
|-----------------------|------------------|-----------------------------------|
| 四方针/Square Pin        | 黄铜/Brass         | 锡/ Tin: 100~180μ" ;镍/Ni 40~80μ"   |
| 端子/Terminal           | 黄铜/Brass         | 锡/ Tin: 100~180μ" ;镍/Ni 40~80μ" . |
| 胶壳/Housing            | PBT+30% 黑色/BK    | UL 94V-0                          |

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

### 【4. 额定等级 Ratings and applicable wires】

| 项 目【Item】 |                                  | 规 格【Standard】 |         |
|-----------|----------------------------------|---------------|---------|
| 4-1.      | 额定电压 Rated Voltage (Max.)        | 125V          | [AC/DC] |
| 4-2.      | 额定电流 Rated Current (Max.)        | 3A            |         |
| 4-3.      | 使用温度范围 Ambient temperature Range | -40℃~+105℃    |         |

【 \*升温时含端子.Including terminal temperature rise. 】

|                                                                              |  |                             |            |
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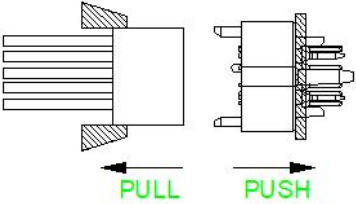
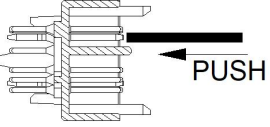
## 【5.性能 PERFORMANCE】

### 5-1. 电气的性能 Electrical Performance.

| 项 目<br>【Item】 |                               | 条 件<br>【Test Condition】                                                                                                                                                              | 规 格<br>【Requirement】                                              |
|---------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 5-1-1         | 接触阻抗<br>Contact Resistance    | 公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区.<br>Mate connectors, measure by dry circuit, 20mV MAX, 10mA.<br>(Based upon EIA-364-06A).                                                      | Initial:<br>10 milliohms Max.<br>After Test:<br>20 milliohms Max. |
| 5-1-2         | 绝缘阻抗<br>Insulation Resistance | 公母配合,在相邻端子,端子与地片之间,使用 500V 的直流电,检测连接器.<br>Mate connectors, apply 500V DC between adjacent terminal or ground.<br>(Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)            | 1000 Megohms Min.                                                 |
| 5-1-3         | 耐电压<br>Dielectric Strength    | 公母配合,在相邻端子,端子与地片之间,使用 500V 的交流电 1 分锺,检测连接器.<br>Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground.<br>(Based upon EIA-364-20A / MIL-STD-202 Method 301) | 外观无损伤, 无跳火<br>No Breakdown and Flashover                          |

|                                                                              |  |                             |            |
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## 5-2. 机械的性能 Mechanical Performance.

| 项 目<br>【Item】 |                                         | 条 件<br>【Test Condition】                                                                                                              | 规 格<br>【Requirement】 |
|---------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 5-2-1         | 插拔力<br>Insertion<br>& Withdraw<br>Force | 以每分钟 $25.4 \pm 3\text{mm}$ 的速率插入和拔出。<br>Insert and withdraw Connectors at the speed rate of $25.4 \pm 3\text{mm/minute}$ .           |                      |
|               |                                         |                                                     |                      |
| 5-2-2         | Pin<br>针保持力<br>Pin Retention<br>Force   | 以每分 $25.4 \pm 3\text{mm}$ 的速率,将 PIN 针从 Wafer 内轴向拔出的力量。<br>Apply axial push force at the speed rate of $25.4 \pm 3\text{mm/minute}$ . | 55N {5.62kgf} min.   |
|               |                                         |                                                   |                      |

|                                                                              |                             |            |
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### 5-3. 环境性能及其它 **Environmental Performance and Others.**

| 项 目<br>【Item】 |                                           | 条 件<br>【Test Condition】                                                                                                                                                                                                          | 规 格<br>【Requirement】       |                     |
|---------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------|
| 5-3-1         | 重复插拔<br>Repeated Insertion/<br>Withdrawal | 以每分钟不超过 10 次的速率,将公母插拔 30 次.<br>When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.                                                                                                                        | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
| 5-3-2         | 温升测试<br>Temperature Rise                  | 公母对插后,在通过额定电流下,所测定的温度.<br>Carrying rated current load. (UL 1977)                                                                                                                                                                 | 温升测试<br>Temperature rise   | 30°C Max.           |
| 5-3-3         | 振动测试<br>Vibration test                    | 振幅: 1.5mm P-P<br>时间: 10~55~10 HZ in 1 minute<br>持续时间: 每轴向 2 小时<br>Amplitude: 1.5mm P-P<br>Sweep time: 10~55~10 HZ in 1 minute<br>Duration: 2 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A) | 外观<br>Appearance           | 无异状<br>No Damage    |
|               |                                           |                                                                                                                                                                                                                                  | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|               |                                           |                                                                                                                                                                                                                                  | 瞬断<br>Discontinuity        | 1 micro-second Max. |
| 5-3-4         | 冲击测试<br>Shock test                        | 在 X.Y.Z 上 6 个方向上,以 490m/s <sup>2</sup> (50g 的力量)冲击下各 3 回.490m/s <sup>2</sup> {50G}, 3 strokes in each X.Y.Z. axes.<br>(Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)                                                    | 外观<br>Appearance           | 无异状<br>No Damage    |
|               |                                           |                                                                                                                                                                                                                                  | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|               |                                           |                                                                                                                                                                                                                                  | 瞬断<br>Discontinuity        | 1 micro-second Max. |
| 5-3-5         | 耐热性<br>Heat Resistance                    | 105±2°C,96 hours.<br>(Based upon MIL-STD-202 Method 108A Cond.A)                                                                                                                                                                 | 外观<br>Appearance           | 无异状<br>No Damage    |
|               |                                           |                                                                                                                                                                                                                                  | 接触阻抗<br>Contact Resistance | 30 milliohms Max.   |

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| 项 目<br>【Item】                                                         | 条 件<br>【Test Condition】     | 规 格<br>【Requirement】                                                                                                                                                              |                               |                                                                    |
| 5-3-6                                                                 | 耐寒性<br>Cold Resistance      | -25±5℃,96 hours.<br>( Based upon EIA-364-105)                                                                                                                                     | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|                                                                       |                             |                                                                                                                                                                                   | 接触阻抗<br>Contact Resistance    | 30 milliohms<br>Max.                                               |
| 5-3-7                                                                 | 耐湿性<br>Humidity             | 温度: 40±2℃<br>湿度: 90~95%(RH)<br>持续时间: 96 hours<br>Temperature: 40±2℃<br>Relative Humidity: 90~95%<br>Duration: 96 hours<br>(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B) | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|                                                                       |                             |                                                                                                                                                                                   | 接触阻抗<br>Contact Resistance    | 30 milliohms<br>Max.                                               |
|                                                                       |                             |                                                                                                                                                                                   | 耐电压<br>Dielectric Strength    | Must meet<br>5-1-3                                                 |
|                                                                       |                             |                                                                                                                                                                                   | 绝缘阻抗<br>Insulation Resistance | 500 Megohms<br>Min.                                                |
| 5-3-8                                                                 | 温度变化<br>Temperature Cycling | 从-25℃持续 30 分钟升至+85℃持续 30 分钟,循环 5 次.<br>5 cycles of: a) -25℃ 30 minutes.<br>b) +85℃ 30 minutes.<br>(Based upon EIA-364-32B)                                                        | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|                                                                       |                             |                                                                                                                                                                                   | 接触阻抗<br>Contact Resistance    | 30 milliohms<br>Max.                                               |
| 5-3-9                                                                 | 盐水喷雾<br>Salt Spray          | 在温度 35±2℃,盐水浓度 5±1%下,盐水喷雾 24±1 小时.<br>24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃.<br>(Based upon EIA-364-26B/MIL-STD-202 Method 101D Cond.B).            | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|                                                                       |                             |                                                                                                                                                                                   | 接触阻抗<br>Contact Resistance    | 30 milliohms<br>Max.                                               |
| 5-3-10                                                                | 焊锡附着性<br>Solder-ability     | 焊接时间: 3~5 秒.<br>焊接温度: 245±5℃.<br>Soldering Time: 3~5second.<br>Solder Temperature: 245±5℃.<br>(Based upon EIA-364-52)                                                             | Solder Wetting                | 浸渍面积需 95%以上<br>95% of immersed area must show no voids, pin holes. |
| 5-3-11                                                                | 焊锡耐热性<br>Solder-Resistance  | 焊接时间: 5~10 秒.<br>焊接温度: 255+5/-5℃.<br>Soldering time:5~10 sec solder.<br>Temperature:255+5/-5℃.<br>(Based upon EIA-364-56A)                                                        | 外观<br>Appearance              | 无异状<br>No Damage                                                   |