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| <b>Product Specification [产品规格书]:</b>                                    | ISSUED BY: Engineering Dept |            |
| <b>Subject [主题]:</b><br>1.27mm Pitch 9127 Series Connector Specification | Date Issued                 | 2013/07/26 |
|  | Date Revised                | 2014/01/09 |

This specification is referred to the 1.27mm series IDC connector

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**【1.适用范围 Scope】**

此种规格包括 1.27mm Pitch 9127 Series 连接器规格说明。

This Specification Covers the 1.27mm Pitch 9127 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 |
|-----------------------|--------------------------------------|----------------------------|
| 胶壳/Housing            | 9127HI-XXX-XXXX                      | NONE                       |
| 针座/Wafer              | 9127WV-XXXX-XXXX<br>9127WR-XXXX-XXXX | 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 |
|-----------------------|-----------------|-----------------------------|
| 线端/Housing            | Terminal        | 黄铜/Brass                    |
|                       | Base            | PBT                         |
| 针座/Wafer              | Base            | High Temperature Plastic    |
|                       | PIN             | 磷铜/Phosphor Bronze          |

(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】                                |         |
|-------------------------------------|---|---------|
| 额定电压 Rated Voltage (Max.)           | 500V  | [AC/DC] |
| 额定电流 Rated Current (Max.)           | 1A  |         |
| 使用温度范围 Ambient temperature Range    | -40℃ ~ +105℃                                |         |
| 适用线径 Applicable wire insulation O.D | UL2651 AWG 28# Insulation O.D. 0.80mm(Max.) |         |

【 \*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<br>连接器 A~B 区.<br>Mate connectors, measure by dry circuit, 20mV<br>MAX, 10mA.<br>(Based upon EIA-364-06A).  | Initial:<br>20 milliohms Max.<br>After Test:<br>30 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<br>100V 的直流电,检测连接器.<br>Mate connectors, apply 100V DC between<br>adjacent terminal or ground.<br>(Based upon EIA-364-21B / MIL-STD-202<br>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<br>1000V 的交流电 1 分锺,检测连接器.<br>Mate connectors, apply 1000V AC for 1 minute<br>between adjacent terminal or ground.<br>(Based upon EIA-364-20A / MIL-STD-202<br>Method 301) | 不出现中断等情况<br>No Breakdown<br>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<br>插拔力<br>Insertion<br>& Retention<br>Force | 以每分锺 25.4±3mm 的速率插入和拔出.<br>Insert and withdraw Connectors at the<br>speed rate of 25.4±3mm/minute.              | 参照第 6 项<br>Refer to paragraph 6 |
| 5-2-2<br>Pin<br>针保持力<br>Pin Retention<br>Force    | 以每分 25.4±3mm 的速率,将 PIN 针从<br>Wafer 内轴向拔出的力量.<br>Apply axial push force at the speed rate<br>of 25.4±3mm/minute. | 9.8N {1.0kgf} min.              |

**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<br>重复插拔<br>Repeated<br>Insertion/<br>Withdrawal | 以每分锺不超过 10 次的速率,将公母插拔<br>50 次.<br>When mated up to 50 cycles repeatedly<br>by the rate of 10 cycles per minute. | 接触阻抗<br>Contact<br>Resistance | 30 milliohms<br>Max. |
| 5-3-2<br>温升测试<br>Temperature<br>Rise                  | 公母对插后,在通过额定电流下,所测定的<br>温度.<br>Carrying rated current load. (UL 1977)  | 温升测试<br>Temperature<br>rise   | 30°C Max.            |



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| 项目<br>【Item】 |                        | 条件<br>【Test Condition】  | 规格<br>【Requirement】           |                        |
|--------------|------------------------|---|-------------------------------|------------------------|
| 5-3-3        | 耐振动性<br>Vibration      | 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.<br>(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    | 30 milliohms<br>Max.   |
|              |                        |   | 瞬断<br>Discontinuity           | 1 micro-second<br>Max. |
| 5-3-4        | 耐冲击性<br>Shock          | 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    | 30 milliohms<br>Max.   |
|              |                        |   | 瞬断<br>Discontinuity           | 1 micro-second<br>Max. |
| 5-3-5        | 耐热性<br>Heat Resistance | 85±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<br>Max.   |
| 5-3-6        | 耐寒性<br>Cold Resistance | -25±5°C,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°C<br>湿度: 90~95%(RH)<br>持续时间: 96 hours<br>Temperature: 40±2°C<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.    |



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| 项目<br>【Item】 |                                | 条件<br>【Test Condition】   | 规格<br>【Requirement】           |  |
|--------------|--------------------------------|--|-------------------------------|--|
| 5-3-8        | 温度变化<br>Temperature<br>Cycling | 从-55℃持续 30 分钟升至+85℃持续 30 分钟,循环 5 次.<br>5 cycles of: a) -55℃ 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<br>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<br>Resistance | 30 milliohms<br>Max.   |
| 5-3-10       | 焊锡附着性<br>Solder-<br>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<br>95%以上<br>95% of<br>immersed<br>area must<br>show no<br>voids, pin<br>holes. |
| 5-3-11       | 焊锡耐热性<br>Solder-<br>Resistance | 焊接时间: 3~5 秒.<br>焊接温度: 260+5/-5℃.<br>Soldering time:3~5 sec solder.<br>Temperature:260+5/-5℃.<br>(Based upon EIA-364-56A)   | 外观<br>Appearance              | 无异状<br>No Damage   |

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**【6.综合插入力及拔出力 INSERTION/WITHDRAWAL FORCE】 <Connector mating force>**

| PIN 数<br>No. of<br>CKT | 初次插入力(最大值)<br>First Insertion<br>(kgf Max.) | 30 次拔出力(最小值)<br>30 <sup>th</sup> Withdrawal<br>(kgf Min.) | PIN 数<br>No. of<br>CKT | 初次插入力(最大值)<br>First Insertion<br>(kgf Max.) | 30 次拔出力(最小值)<br>30 <sup>th</sup> Withdrawal<br>(kgf Min.) |
|------------------------|---|---|------------------------|---|---|
| 04                     | 2.00  | 0.40  | 16                     | 8.00  | 1.60  |
| 06                     | 3.00  | 0.60  | 18                     | 9.00  | 1.80  |
| 08                     | 4.00  | 0.80  | 20                     | 10.00                                       | 2.00  |
| 10                     | 5.00  | 1.00  | 22                     | 11.00                                       | 2.20  |
| 12                     | 6.00  | 1.20  | 24                     | 12.00                                       | 2.40  |
| 14                     | 7.00  | 1.40  |                        |   |   |

注：以上插拔次数为 30 次

Note: Insertion and Withdrawal for 30Cycles