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|   | Date Issued  | 2022-04-06  | Prepared by | Josephine |
|   | Date revised | 2022-11-23  | checked by  | Jay       |
| <b>Product Specification</b>  | Rev. No.     | 01          | Approved by | Mei Chen  |
| <b>Title : PCI Express 1.0 Pitch Connector</b>                                    |              |             |             |           |

## 1. SCOPE ( 适用范围 )

This specification covers the performance, tests and quality requirements for the **PCI Express 1.0 Pitch Connector** .(本规范涵盖了 **PCI Express 1.0 Pitch** 快速连接器的性能、测试和质量要求。)

## 2. PRODUCT DESCRIPTION ( 产品描述 )

| DESCRIPTION ( 描述 )                                 | Part Number ( 料号 ) |
|--|--------------------|
| PCI-E 连接器 90度双塑带定位柱,黑色NY9T金15U " 雾锡100u " 磷铜 脚长3.1 | X3091WR-36B-9TV15  |
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## 3. APPLICABLE DOCUMENT ( 适用文件 )

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence. ( 下列文件构成本规范的一部分，在此规定的范围内。本规范要求与产品图纸有冲突时，以产品图纸为准。如果本规范的要求与参考文件发生冲突，应以本规范为准。 )


## 4. REQUIREMENTS ( 要求 )

### 4.1. Design and Structure ( 设计和结构 )

Product shall be of the design, structure and physical dimensions specified on the applicable product drawing. ( 产品的设计、结构和物理尺寸参考所适用的产品图纸 )

### 4.2. Materials/ Finish (材料/表面处理)

Materials used in the structure of product shall be as specified on the applicable product drawing. (产品结构中使用的材料参考所适用的产品图纸)

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#### 4.3. Ratings ( 额定功率 )

| Item ( 项目 )                        | Standard ( 标准 )                                    |
|------------------------------------|--|
| Rated Voltage (Maximum) 额定电压       | 50VAC RMS  |
| Rated Current (Maximum) 额定电流       | 1.1A MAX.  |
| Operating temperature range 工作温度范围 | -40°C ~ +85°C<br>From -40 to +85 degree centigrade |
| Storage Temperature Range 储存温度范围   | -40°C ~ +85°C<br>From -40 to +85 degree centigrade |

#### 5. TEST STANDARD ( 测试条件 )

5.1 Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows ( 除另有说明外，用以进行测量和测试的标准环境条件范围如下 )

Ambient temperature ( 环境温度 ) : 5°C to 35°C

Normal humidity ( 正常湿度 ) : 45% to 85%


Air pressure ( 气压 ) : 86Kpa to 106Kpa

5.2 However if doubt arises on the decision based on the measured Values under the above-mentioned Conditions. The following conditions shall be employed: ( 但是在对判定产生疑问时,按下述状态实施 )

Temperature ( 温度 ) : 20±2°C

Relative humidity ( 相对湿度 ) : 65±5%

Air pressure ( 气压 ) : 86Kpa to 106Kpa

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## 6. PERFORMANCE AND TEST DESCRIPTION (性能和测试类型)

### 6.1 APPEARANCE (外观)


| ITEM | DESCRIPTION (类型)              | TEST CONDITION (测试条件)     | REQUIREMENT (要求)   |
|------|-------------------------------|---------------------------|--|
| 1    | Examination of Product (产品检验) | Visual inspection. (目视检验) | Meets requirements of product drawing. No physical damage. (符合产品图纸要求, 无损伤) |

### 6.2 ELECTRICAL (电气)

| ITEM | DESCRIPTION (类型)                      | TEST CONDITION (测试条件)  | REQUIREMENT (要求)  |
|------|---------------------------------------|--|---|
| 1    | Contact Resistance(接触电阻)              | Subject mated contacts assembled in housing to 20mV Max open circuit at 10mA Max. EIA-364-23. Refer to Fig.3<br>(装配塑胶内的端子触点施加电压 20mV 电流为 10mA 的电路下进行测试)                                    | [ 30 ] m Ohm Max(Initial)<br>(初始 30 mΩ最大)<br>[ 40 ] m Ohm Max(Final)<br>(测试后 40 mΩ最大)                     |
| 2    | Dielectric Withstanding Voltage (耐电压) | [ 500 ]VAC for 1minute<br>Test between adjacent circuits of unmated connector. EIA-364-20C<br>(在相互绝缘的所有接线端子之间及端子与金属外壳之间输入入电流 AC500V, 持续时间 1 分钟)  | No creeping discharge or flashover shall occur.<br>Current leakage: 0.5 mA MAX.(无放电或闪断不良的现象.漏电流 0.5mA 最大) |
| 3    | Insulation Resistance. (绝缘电阻)         | After 500 V DC for 1 minute, measure the insulation resistance between the adjacent contacts of unmated connector assemblies. EIA-364-21. (在相互绝缘的所有端子之间及端子与金属外壳 之间输入入电流 DC500V, 持续时间 1 分钟) | 1000MΩ Min.   |

### 6.3 MECHANICAL (机械)

| ITEM | DESCRIPTION (类型) | TEST CONDITION (测试条件) | REQUIREMENT (要求) |
|------|------------------|-----------------------|------------------|
|------|------------------|-----------------------|------------------|

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**Product Specification**

Title : **PCI Express 1.0 Pitch Connector**

|   |  |   |  |
|---|--|---|--|
| 1 | <b>Connector Mating force.</b> (插入力)   | <b>Operation Speed : [ 12.5 ] mm/min.</b><br><b>Measure the force required to mate connector. EIA-364-13</b> (依 12.5mm/分钟的速度测量配合连接器所需的力)  | <b>117g (1.15N)/Per pin Max. for 1.7t gauge.</b><br>( 117g (1.15N) /PIN 最大, 适用于 1.7t)                  |
| 2 | <b>Connector Unmating Force.</b> (拔出力) | <b>Operation Speed : [ 12.5 ] mm/min.</b><br><b>Measure the force required to mate connector. EIA-364-13</b> (依 12.5mm/分钟的速度测量配合连接器所需的力)  | <b>15.3g (0.15N)/Per pin Max. for 1.44t gauge.</b><br>( 15.3g (0.15N) /PIN 最大, 适用于 1.44t)              |
| 3 | <b>Durability</b> (耐久)                 | <b>Operation Speed : [ 500 ] cycles/hour.</b><br><b>Durability Cycles : 50 Cycles</b><br><b>EIA-364-09</b> (以 500 次/分钟的速度插拔, 耐久循环 50 次)   | <b>No physical damage.</b> (无物理损伤)   |
| 4 | <b>Contact Retention Force</b> (端子保持力) | <b>Measure the contact retention force with Tensile strength tester.</b> (用拉力计测量端子呆持力)  | <b>0.5 kgf /per pin Min.</b> (每 PIN 最小 0.5kgf)   |
| 5 | <b>Solder ability</b> (可焊性)            | <b>Steam Aging Preconditioning :</b><br><b>93+3/-5°C、100%HR、8hrs.</b> (蒸汽老化: 93+3/-5°C、100%HR, 8 小时)<br><b>&lt;J-STD-002 category 3 aging&gt;</b><br><b>Solder pot temperature: 245±5°C, 5sec</b><br>(沾锡锡炉温度: 245±5°C, 5 秒) | <b>The inspected area of each lead must have 95% solder coverage minimum.</b><br>( 每根引脚焊锡区焊料覆盖率至少 95%) |

#### 6.4 ENVIRONMENTAL (环境)

| ITEM | DESCRIPTION ( 类型 )                               | TEST CONDITION ( 测试条件 )                           | REQUIREMENT ( 要求 )                              |
|------|--|---|---|
| 1    | <b>Resistance to Wave Soldering Heat</b> (波峰焊)   | <b>Solder Temp ( 焊锡温度) .: 265±5°C, 10±0.5sec.</b> | <b>No physical damage shall Occur.</b> ( 无物理损伤) |
| 2    | <b>Resistance to Reflow Soldering Heat</b> (回流焊) | <b>Solder Temp ( 焊锡温度) .: 265±5°C, 10±0.5sec.</b> | <b>No physical damage shall Occur.</b> ( 无物理损伤) |

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| 3 | Salt Spray (盐雾) | <p>Subject mated connectors to <math>35\pm 2</math> °C and <math>5\pm 1\%</math> salt condition for 48hours.</p> <p>After test, rinse the sample with water and recondition the room temperature for 1 hour. EIA-364-26B. (配对连接器置于 (配对连接器置于 <math>35\pm 2</math> °C和盐水浓度为 <math>5\pm 1\%</math>之中, 测试后, 用水冲洗样品, 室温下放置 1 小时)</p> | <p>No detrimental corrosion allowed in contact area and base metal exposed. (无腐蚀现像)</p> |
|---|-----------------|---|---|

**7. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE 产品确认和再确认测试顺序：**

| TEST ITEM (测试项目)                        | TEST GROUP (测试分组) |     |     |     |     |
|---|-------------------|-----|-----|-----|-----|
|   | A                 | B   | C   | D   | E   |
|   | TEST SEQUENCE     |     |     |     |     |
| 1 Examination of Product (产品检验)         | 1,4               | 1,9 | 1,5 | 1,3 | 1,3 |
| 2 Contact Resistance (接触电阻)             |                   | 2,8 | 2,4 |     |     |
| 3 Dielectric withstanding Voltage (耐电压) | 3                 |     |     |     |     |
| 4 Insulation Resistance (绝缘电阻)          | 2                 |     |     |     |     |
| 5 Mating Force (插入力)                    |                   | 3,7 |     |     |     |
| 6 Unmating Force (拔出力)                  |                   | 4,6 |     |     |     |
| 7 Durability (耐久)                       |                   | 5   |     |     |     |
| 8 Contact Retention Force (保持力)         |                   |     |     | 4   |     |
| 9 Solderability (可焊性)                   |                   |     |     |     | 2   |
| 10 Resistance to Soldering Heat(耐焊性)    |                   |     |     | 2   |     |
| 11 Salt Spray (盐雾)                      |                   |     | 3   |     |     |

