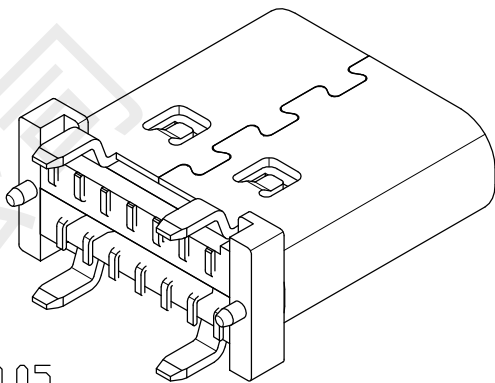


| 版次 | 工程变更单号 | 基本描述 | 日期 | 修订 |
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|    |        |      |    |    |
|    |        |      |    |    |



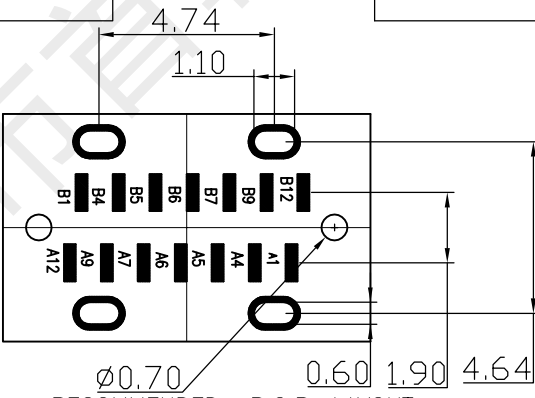
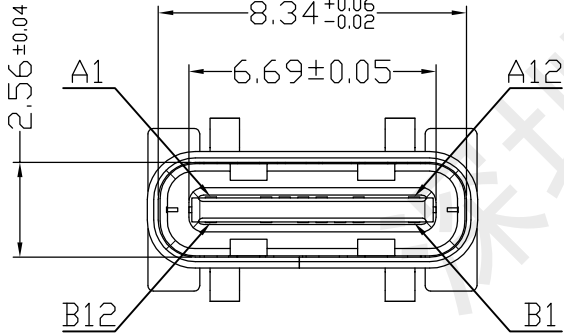
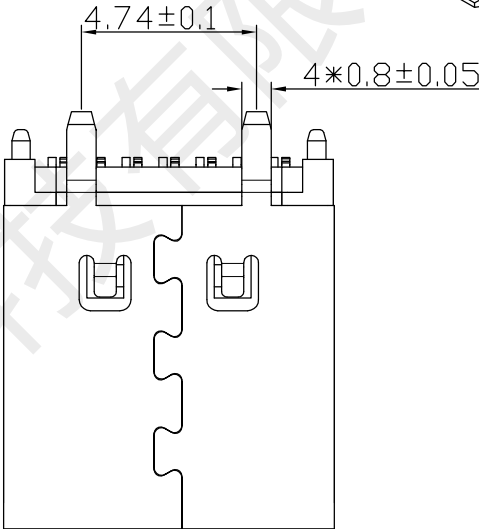
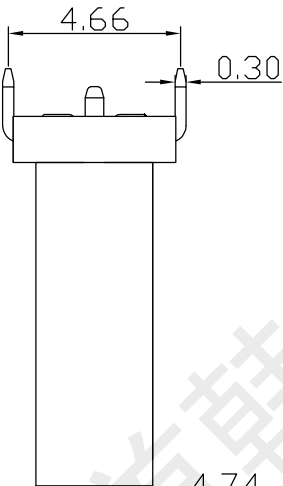
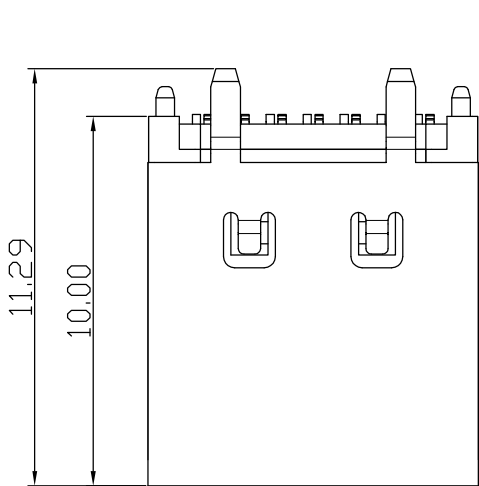
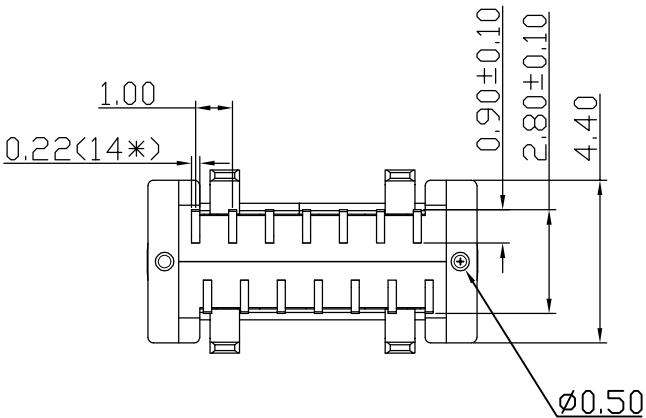
- 备注:
1. 材质:
    - 1.1 胶芯: LCP+30%G, F UL94V-0
    - 1.2 端子: 高导电C7025/C2680;
    - 1.3 外壳: SUS201/SUS304, T=0.30mm;
    - 1.4 中夹片: SUS301/SUS201;
  2. 主要特性:
    - 2.1 额定电流: 3A/5A
    - 2.2 接触阻抗: 40mΩ MAX (初始值)  
50mΩ MAX (测试后)
    - 2.3 绝缘阻抗: 100MΩ MIN
    - 2.4 耐压测试: 100V AC R.M.S.
    - 2.6 整体插入力: 5-20N 整体插入力: 5-20N (耐久后)  
整体拔出力: 8-20N 整体拔出力: 6-20N (耐久后)
    - 2.7 耐久: 10000次
    - 2.8 耐高温: SMT回流焊 (峰值260° ±5°), 塑胶不能有  
起泡, 融胶等不良, 变色, 翘曲变形在公差范围以内;
    - 2.9 产品须做焊锡测试, 粘锡面积达到95%以上;
    3. 0盐雾测试: 24H MIN
    - 3.1 工作温度: -30℃~+85℃

|     |             |     |             |
|-----|-------------|-----|-------------|
| A1  | GND         | B12 | GND         |
| A4  | VBUS        | B9  | VBUS        |
| A5  | CC1         | B8  | SBU2        |
| A6  | DP1         | B7  | DN2         |
| A7  | DN1         | B6  | DP2         |
| A8  | SBU1        | B5  | CC2         |
| A9  | VBUS        | B4  | VBUS        |
| A12 | GND         | B1  | GND         |
| PIN | SIGNAL NAME | PIN | SIGNAL NAME |



深圳市首韩科技有限公司

|  |                    |     |    |     |    |     |
|--|--------------------|-----|----|-----|----|-----|
| 品名规格   | TYPE-C 14P LTH10.0 |     |    |     | 设计 | 李春风 |
| 未注公差:<br>.000 ±0.10<br>.00 ±0.20<br>.0 ±0.30<br>角度 ±1° | 产品料号               |     |    |     | 审核 | 钟华华 |
|  | 图纸类型               | 成品图 | 比例 | 1:1 | 核准 | 罗孝金 |
|  | 视角                 |     | 版本 | A/0 |    |     |
|  |                    |     | 单位 | MM  |    |     |



RECOMMENDED P.C.B. LAYOUT  
TOLERANCE UNSPECIFIED ±0.05mm  
Product Edge



深圳市首韩科技有限公司

SHENZHEN SHOUHAN TECHNOLOGY CO., LTD

Tel: 0755-27597601 Fax: 0755-27597491

## 承 认 书

### SPECIFICATION FOR APPROVAL

产 品 编 码  
material code:

产品名称 Project:

TYPE-C


规格型号 Part No:

TYPE-C 14P LTH10.0

贵公司承认印 Approval signatures

| 料 号/Part No. | 签 章/Signatures |
|--------------|----------------|
|              |                |

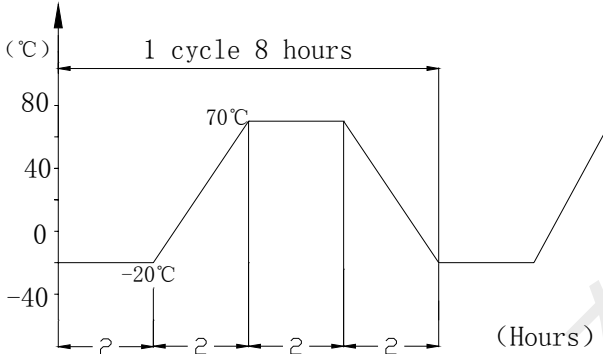
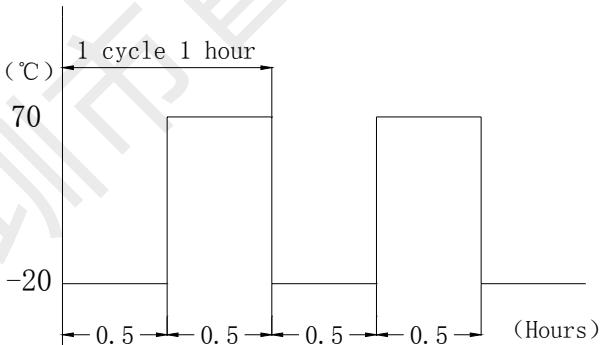
日期 Date:

|             |     |  |
|-------------|-----|--|
| 拟制/Drawn    | 李春风 |  |
| 审核/Check    | 钟华华 |  |
| 批准/Approved | 罗孝金 |  |

|  |                                 |  |   |
|--|---------------------------------|--|---|
| RATING（额定值）:                             |                                 | DC 5V  | 3 A   |
| PRACTICAL TEMPERATURE RANGE<br>使用温度范围    |                                 | -30~80° C<br>在-30° C~+80° C 温度内使用  |   |
| STANDARD ATMOSPHEIC CONDITIONS<br>测试标准状况 |                                 | UNLESS OTHERWISE SPECIFIED<br>THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS AND TESTS ARE AS FOLLOWS:<br>(1) BETWEEN BODY AND CONDUCTOR: 5° C TO 35° C<br>(2) BETWEEN CONDUCTORS NOT TO BE CONTACT: 45% TO 85%<br>(3) PRESSURE: 86Kpa TO 106Kpa<br>在没有指定的情况下测试温度、湿度、气压如下:<br>(1) 温度为 5° C~35° C<br>(2) 湿度为 45%~85%<br>(3) 气压为 86 Kpa~106Kpa |   |
| MECHANICAL（机械性能）                         |                                 |  |   |
| ITEM 项目                                  |                                 | TEST CONDITIONS 测试条件   | PERFORMANCE 规格  |
| 1  | CONNECTION FORCE<br>插入力度        | MEASUREMENT SHALL BE MADE AFTER CONNECTING AND DISCONNECTING USING STANDARD PLUG GAUGE 3 TIMES。<br>依据标准的 PLUG GAUGE 做第 3 次拔插后测定  | 0.5-2.0Kgf  |
|  | DISCONNECTI ON<br>FORCE<br>拔出力度 | MEASUREMENT SHALL BE MADE AFTER CONNECTING AND DISCONNECTING USING STANDARD PLUG GAUGE 3 TIMES。<br>依据标准的 PLUG GAUGE 做第 3 次拔插后测定  | 0.8-2.0Kgf  |
| 2  | TERMINAL STRENGTH<br>端子强度       | A STATIC LOAD OF 0.1N/m(1kgf/cm)SHALL BE APPLIED TO THE TIP OF THE TERMINAL FOR 1 MIN IN ANY DIRECTION<br>向排脚终端的任意一个方向加 1 分钟 0.1N/m(1kgf/cm)的力度。   | THERE SHALL BE NO DAMAGE TO THE TERMINAL SUCH AS CRACKS, LOOSENESS OR PLAY ELECTRICAL ,AND MECHANICAL CHARACTERISTICS SHALL BE SATISFIED<br>在排脚中没有裂开、松动等异常，满足于机械、电气性能 |
| ELECTRICAL（电气性能）                         |                                 |  |   |
| ITEM 项目                                  |                                 | TEST CONDITIONS 测试条件   | PERFORMANCE 规格  |
| 3.1                                      | CONTACT RESISTANCE<br>接触电阻      | MEASURED AT SMALL CURRENT（100m A OR LESS）1000Hz<br>在微小电流（100 m A）以下测试  | 30m Ω MAX   |
| 3.2                                      | INSULATION RESISTANCE<br>绝缘电阻   | APPLY A VOLTAGE OF 100V DC FOR 1 MIN TO FOLLOWING PORTIONS AFTER WHICH MEASUREMENT SHALL BE MADE:<br>(1) BETWEEN BODY AND CONDUCTOR<br>(2) BETWEEN CONDUCTORS NOT TO BE CONTACT<br>(3) BETWEEN CONDUCTORS NOT TO BE WHEN PLUG IS INSERTED DC100V 1 MIN<br>输入 100V DC 电压 1 分钟，按以下接触方法测试：<br>(1) 插座体与排脚之间<br>(2) 不接触的排脚之间<br>(3) 插头插入时不接触排脚之间                        | 100M Ω MIN  |

|                 |  |  |   |
|-----------------|--|--|---|
| 3.3             | DIELECTRIC STRENGTH<br>耐电压                 | <p>AC 100V 50~60Hz FOR 1 MIN TRIP CURRENT:0.5mA</p> <p>(1) BETWEEN BODY AND CONDUCTOR</p> <p>(2) BETWEEN CONDUCTORS NOT TO BE CONTACT</p> <p>(3) BETWEEN CONDUCTORS NOT TO BE WHEN PLUG IS INSERTED DC 100V 1 MIN</p> <p>输入 AC 100V (50Hz) /min 电压 1 分钟感度电流为 0.5mA, 按以下接触方法测试:</p> <p>(1) 插座体与排脚之间</p> <p>(2) 不接触的排脚之间</p> <p>(3) 插头插入时不接触排脚之间</p>   | <p>WITHOUT DAMAGE TO PARTS ARCING OR BREAKDOWN ETC</p> <p>没有绝缘破坏等异常</p>   |
| URABILITY (耐久性) |  |  |   |
|                 | ITEM 项目                                    | TEST CONDITIONS 测试条件   | PERFORMANCE 规格  |
| 4.1             | SOLDERABILITY TEST<br>可焊性试验                | <p>THE TOP OF THE TERMINALS SHALL BE DIPPED 1mm IN THE SOLDER BATH OF <math>250 \pm 5^{\circ}\text{C}</math> FOR <math>5 \pm 0.5</math> SECONDS</p> <p>端子顶部被浸入锡池中 1mm 深, 温度为 <math>250 \pm 5^{\circ}\text{C}</math>, 时间为 <math>5 \pm 0.5</math> 秒</p>  | <p>(1) SOLDER WETTING TIME SHALL BE 3 SEC OR LESS<br/>焊接时间应少于 3 秒</p> <p>(2) THE AREA OF SOLDERING SHOULD BE OVER 75%<br/>焊接面积应有 75% 以上</p>   |
| 4.2             | RESISTANCE TO SOLDERING HEAT TEST<br>耐焊性试验 | <p>REFLOW SOLDERING CONDITIONS:</p> <p>PREHEAT: TEMPERATURE ON THE COPPER FOIL SURFACE SHOULD REACH <math>180 \pm 120^{\circ}\text{S}</math> AFTER THE P.C.B ENTERED INTO THE SOLDERING EQUIPMENT.</p> <p>TALLEST TEMPERATURE: TEMPERATURE ON THE COPPER FOIL SURFACE SHOULD REACH THE PEAK TEMPERATURE OF <math>260 \pm 5</math> WITH IN 20 SECONDS.</p> <p>过回流焊条件:</p> <p>预热: 电镀层表面的温度应达到 <math>180^{\circ}\text{C}</math>, 120s 后电路板进入回流焊设备。</p> <p>最高温度: 电镀层表面温度最高为 <math>260 \pm 5^{\circ}\text{C}</math> 且停留不超过 20 秒。</p> <p>Temperature Profile</p> | <p>WITHOUT DEFORMATION OF CASE OR EXCESSIVE LOOSENESS OF TERMINALS ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED</p> <p>本体无变形, 满足于机械、电气性能</p> |

|      |  |   |  |
|------|--|---|--|
| 4. 2 | RESISTANCE TO SOLDERING HEAT TEST<br>耐焊性试验 | SOLDERING IRON METHOD:<br>BIT TEMPERATURE $330 \pm 5^{\circ}\text{C}$ APPLICATION TIME OF SOLDERING IRON $3 \pm 0.5 \text{ SEC}$<br>HOWEVER EXCESSIVE PRESSURE SHALL NOT BE APPLIED TO THE TERMINAL<br>手焊接的时候温度需控制在 $330 \pm 5^{\circ}\text{C}$ , 时间为 $3 \pm 0.5$ 秒, 但不能在排脚上施加异常压力。   | WITHOUT DEFORMATION OF CASE OR EXCESSIVE LOOSENESS OF TEMINALS ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED<br>本体无变形, 满足于机械、电气性能  |
| 4. 3 | HUMIDITY TEST<br>潮湿试验                      | THE JACK SHALL BE STORED AT A TEMPERATURE OF $40 \pm 2^{\circ}\text{C}$ AND A HUMIDITY OF 90% TO 96% FOR 96 Hr, THEN THE JACK SHALL BE MAINTAINED AT STANDARD ATMOSPHERIC CONDITION FOR 1 Hr FOR OTHER PROCEDURES<br>放置 $40 \pm 2^{\circ}\text{C}$ 的相应湿度为 90~96% Hr 环境中 96 小时后, 再将样板放在正常环境中 1 小时后进行测试   | THERE SHALL BE NO DAMAGE ON APPEARANCE.<br>MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED<br>外观无异常, 满足于机械、电气性能。  |
| 4.4  | HEAT TEST<br>耐热试验                          | THE JACK SHALL BE STORED AT A TEMPERATURE OF $70 \pm 2^{\circ}\text{C}$ FOR 96 HOURS, AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY MBASURBM<br>放置在温度 $70 \pm 2^{\circ}\text{C}$ 中测试 96 小时后, 再放置正常室温中 1 小时来测定   |  |
| 4. 5 | COLD TEST<br>耐寒试验                          | THE JACK SHALL BE STORED AT A TEMPERATURE OF $-25 \pm 3^{\circ}\text{C}$ FOR 96 HOURS AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH<br>放置在温度 $-25 \pm 3^{\circ}\text{C}$ 中 96 小时后, 再放置常温常湿中 1 小时来测定   | THERE SHALL BE NO DAMAGE ON APPEARANCE<br>MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED<br>外观无异常, 满足于机械、电气性能  |
| 4. 6 | LIFE TEST<br>寿命试验                          | WITHOUT LOAD<br>CONNECTION AND DISCONNECTION SHALL BE MADE WITH THE MATING PLUGS AND JACKS FOR 10000 CYCLES AT A SPEED OF 10 TO 25 CYCLES/MIN<br>无负荷<br>将结合了的标准 Plug (尽量要近于中心的) 在 1 分钟内以 10-25 的速度, 进行 10000 次插入, 拔出<br>LOAD:<br>AT RATING CONDITION (NON-INDUCTIVE LOAD)<br>CONNECTION AND DISCONNECTION SHALL BE MADE 10000 CYCLES AT A SPEED 10 TO 20 CYCLES / MIN<br>负荷<br>以定格状态 (无诱导负荷) 在 1 分钟内以 10-20 次的速度进行 10000 次插入、拔出 | (1) CONTACT RESISTANCE SHALL BE $\leq 0.1 \Omega$<br>(2) DISCONNECTION FORCE SHALL BE 0.8 TO 2.0N<br>(3) MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED<br>(1) 接触电阻 $\leq 0.1 \Omega$<br>(2) 拔出力是 0.8~2.0N<br>(3) 其它: 满足于机械、电气性能 |

|     |   |  |   |
|-----|---|--|---|
| 4.7 | <p>TEMPERATURE CYCLING TEST</p> <p>温度循环测试</p> | <p>THE JACK SHALL BE SUB JECTED TO 5 CYCLES OF THE FOLLOWING CONDITIONS SHOWED IN THE FIGURE,AND THEN SHALL RETURNED ALLOWED TO REMAIN IN ROOM AMBIENT CONDITION FOR 30 MINUTES</p> <p>将插座以下列条件作 5 个循环，然后放回室内环境 30 分钟</p> <p>Temp(°C)</p>  <p>(Hours)</p>       | <p>THERE SHALL BE NO DEFORMATION OR CRACKS IN MOLDED PART.</p> <p>INSERTION &amp; EXTRACTION FORCE:3 TO 20N</p> <p>CONTACT RESISTANCE:MAX.30MΩ</p> <p>INSULATION RESISTANCE: MIN.100 MΩ</p> <p>DIELECTRIC WITHSTANDING VOLTAGE: 100VAC/MIN(BETWEEN TERMINALS)</p> <p>产品不能变形与破裂</p> <p>插拔力: 3N 至 20N</p> <p>接触电阻: 最大 30mΩ</p> <p>绝缘电阻: 最小 100 MΩ</p> <p>绝缘耐压: 最小 100VAC (端子之间)</p> |
| 4.8 | <p>COLD&amp;HEAT SHOCK TEST</p> <p>冷热冲击测试</p> | <p>THE JACK SHALL BE SUBJECTED TO 5 CYCLES OF THE FOLLOWING CONDITIONS SHOWED IN THE FIGURE,AND THEN SHALL RETURNED AND ALLOWED TO REMAIN IN ROOM AMBIENT CONDITION FOR 30 MINUTES</p> <p>将插座以下列条件作 5 个循环，然后放回室内环境 30 分钟</p> <p>TEMP (°C)</p>  <p>(Hours)</p> | <p>THERE SHALL BE NO DEFORMATION OR CRACKS IN MOLDED PART.</p> <p>INSERTION &amp; EXTRACTION FORCE:3 TO 25N</p> <p>CONTACT RESISTANCE:MAX.30MΩ</p> <p>INSULATION RESISTANCE: MIN.100 MΩ</p> <p>DIELECTRIC WITHSTANDING VOLTAGE: 500VAC/MIN(BETWEEN TERMINALS)</p> <p>产品不能变形与破裂</p> <p>插拔力: 3N 至 25N</p> <p>接触电阻: 最大 30mΩ</p> <p>绝缘电阻: 最小 100 MΩ</p> <p>绝缘耐压: 最小 500VAC (端子之间)</p> |