



**PRETEK**

# APPROVAL SHEET

**CUSTOMER NAME :**

**ITME : 3PIN 电池连接器**

**MODEL : BC-3.1-3CG3SMT**

**MATERIEL NO :**

**DATE : 8/12/2007**

**APPROVED BY:**

**深圳市普瑞泰电子有限公司**

**地址: 深圳市福田区深南中路南光捷佳大厦2121室**

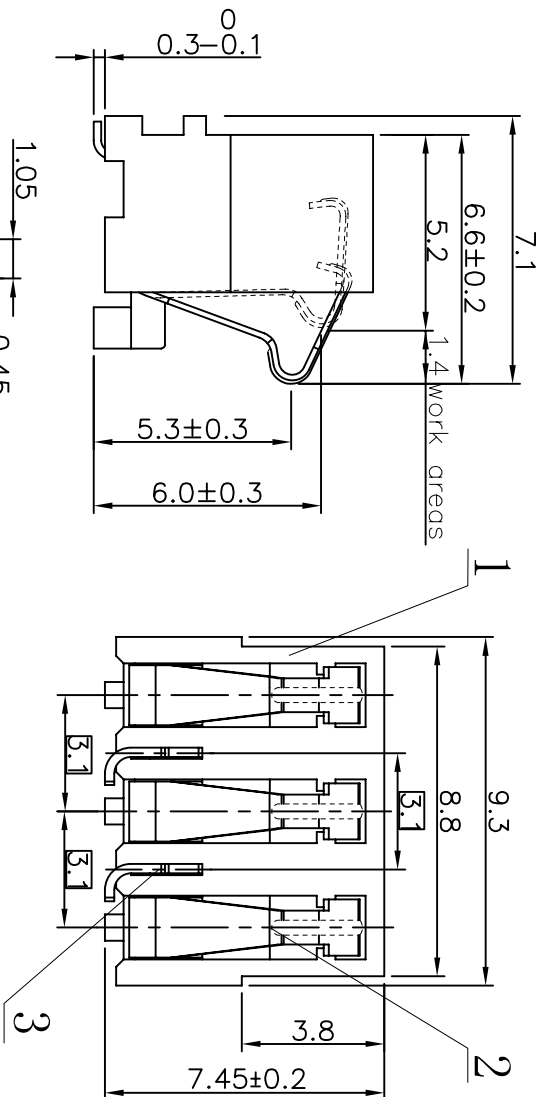
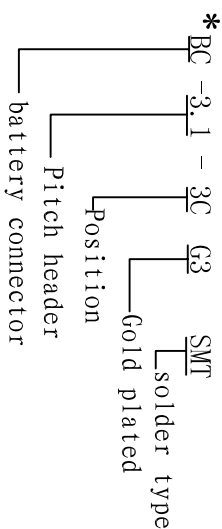
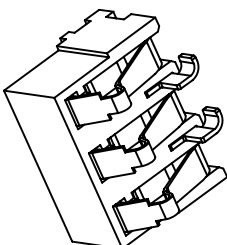
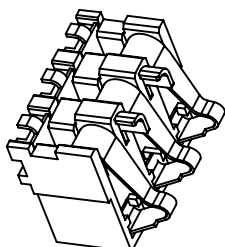
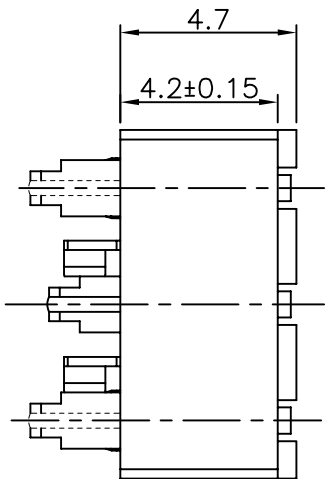
**电话: 0755-83981317 83983895**

**传真: 0755-83981375**

**网址: [www.szpretek.com](http://www.szpretek.com)**

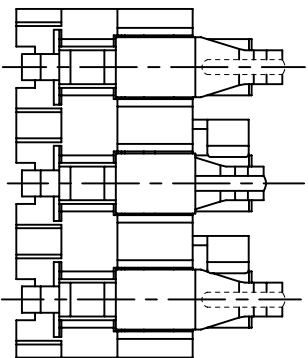
**邮箱: [liubinwu@szpretek.com](mailto:liubinwu@szpretek.com), [wj@szpretek.com](mailto:wj@szpretek.com)**

| REV. | ECN NO. | LOCATION | DESCRIPTION | DATE     | DESIGN |
|------|---------|----------|-------------|----------|--------|
| VO.1 |         |          | 初版发行        | 20070907 |        |



#### NOTES:

1. Material and finishing see table.
2. All dimensions are in millimeters.
3. Electrical performances  
Rating: AC 30V 2.0A MAX  
Contact resistant: 20mΩ MAX  
Insulation resistant: 100MΩ  
Withstand voltage: AC 250V 1min
4. Mechanical performances  
Range: -40 ~85℃  
Operation force: 40gf min  
Lift test: 5000 cycles



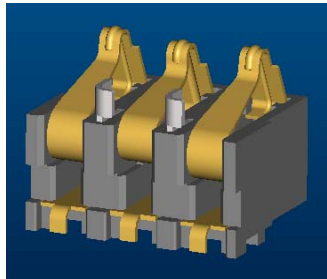
|    |         |      |                                                 |    |    |
|----|---------|------|-------------------------------------------------|----|----|
| 3  | 7300013 | 固定片  | H62黄铜半硬 镀镍100U"                                 | 2  |    |
| 2  | 5110029 | 接触簧片 | QSN6.5-0.1 1/21半硬 底层镀镍100U", 接触区域镀金15U", 其余11U" | 3  |    |
| 1  | 6010035 | 基座   | LCP, ULV94=0, BLACK COLOR                       | 1  |    |
| 序号 | 代码      | 名称   | 材料及表面处理                                         | 数量 | 备注 |

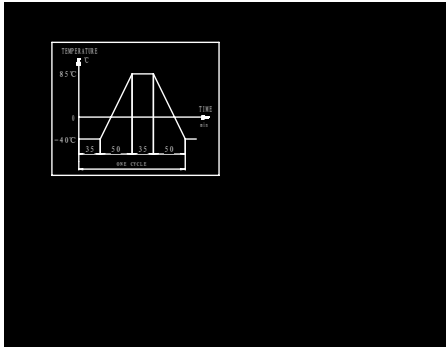
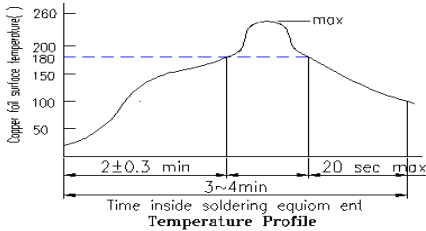
深圳市普瑞泰电子有限公司



| DIM  | TOL   | DIM  | TOL | FILE NO. | DATE    | TITLE:            | P/N:           | SHEET: | SCALE: | UNIT: |
|------|-------|------|-----|----------|---------|-------------------|----------------|--------|--------|-------|
| x    | ±0.20 | x    | ±2° | DRAW NO. | DESIGN: | BATTERY CONNECTOR | BC-3.1-3CG3SMT | 1/1    | 1:1    | mm    |
| .x   | ±0.15 | x    |     | CHECK:   |         |                   |                |        |        |       |
| .xx  | ±0.05 | .xx  |     | REV.     | VO.1    | APPROVAL:         |                |        |        |       |
| .xxx |       | .xxx |     |          |         |                   |                |        |        |       |

RECOMMENDED PCB LAYOUT

| 规 格 书                                                                                                                    |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 系列类型                                                                                                                     | BATTERY CONNECTOR          | 编写 WRTN BY:                                                                                                                                                                   | 审核 CHECKED BY                                                                       | 批准 APPROVED BY                                                       |
| 型号                                                                                                                       | BC-3. 1-3CG3SMT            | Wei Ming                                                                                                                                                                      | Zhang BO                                                                            | Wang Wei                                                             |
| VERSION 版本:                                                                                                              | V0.1                       |                                                                                                                                                                               |                                                                                     |                                                                      |
| DATE 日期:                                                                                                                 | 2007.10.16                 | 2007.10.16                                                                                                                                                                    | 2007.10.16                                                                          | 2007.10.16                                                           |
| 1. SCOPE 适用范围<br>This specification covers the requirements for: “BATTERY CONNECTOR”<br>本规格书适用: “BATTERY CONNECTOR” 系列   |                            |                                                                                                                                                                               |  |                                                                      |
| 2. Rating 额定值: DC 12V 2.0A                                                                                               |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 3. CONSTRUCTION 构造                                                                                                       |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 3.1 Shape and dimensions are subject to drawing.<br>形状.尺寸根据图面确定.                                                         |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 3.2 All part not allowed to exist rust 、 crack and poor planting.<br>各部分无生锈、裂痕、电镀不良现象.                                   |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 4. Standard test conditions shall be 5 to 35℃ in temperature and 45 TO 85% in humidity.<br>温度 5~35℃ , 湿度 45~85% 标准状态下测试。 |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 5. Electronical performance 电气性能                                                                                         |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| Item 项目                                                                                                                  |                            | Test condiction 测试条件                                                                                                                                                          |                                                                                     | Performance 规格                                                       |
| 5.1                                                                                                                      | Contact resistance 接触阻抗    | Being measured at 1 KHz small current contact resistance meter.<br>在 1kHz 小电流下测量。                                                                                             |                                                                                     | 20mΩ max.<br>20 毫欧 以下。                                               |
| 5.2                                                                                                                      | Insulation resistance 绝缘阻抗 | Measurements shall be made following application of DC 500 V potential across terminals and across terminals and frame for 1 minute.<br>在端子之间和端子与壳之间加 DC 500 V 条件下,持续 1 分钟测量。 |                                                                                     | 100MΩ min.<br>100 兆欧 以上。                                             |
| 5.3                                                                                                                      | Withstand voltage 耐电压      | AC 250 V(50Hz or 60 Hz)shall be applied across terminals and across terminals and frame for one minute.<br>在端子之间和端子与壳之间加 AC 250 V (50Hz 或 60Hz)条件下,持续 1 分钟测量。                 |                                                                                     | There shall be no breakdown<br>无击穿现象出现.                              |
| 6. Mechanical performance 机械性能                                                                                           |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 6.1                                                                                                                      | Contact force 接触压力         | 1mm compression<br>用工具压簧片(单片)1.95mm,测量压力。                                                                                                                                     |                                                                                     | contact force:<br>0.6~1.6N                                           |
| 6.2                                                                                                                      | Range 使用温度范围               | Operation temperature<br>在-40~+85℃温度内使用                                                                                                                                       |                                                                                     |                                                                      |
| 7. Durability 耐久性                                                                                                        |                            |                                                                                                                                                                               |                                                                                     |                                                                      |
| 7.1                                                                                                                      | Lift test 寿命试验             | 5,000 cycles of operation at a rate of 10-20 cycles per minute with unloading 在无负载条件下,以每分钟 10—20 次的速度操作 10,000 次。                                                             |                                                                                     | (1) Contact resistance 接触阻抗 100m Ω max.100 毫欧 以下<br>(2) 其它满足机械,电气性能. |
| 7.2                                                                                                                      | Heat test 耐热试验             | 85±3℃ for 96 hours, test after keeping in normal condition for 60 minutes.<br>在 85±3℃环境中放 96 小时,再放在正常环境中,60 分钟后进行测试。                                                          |                                                                                     | Insulation resistance 50M Ω min.<br>50 兆欧以上, 其它满足机械,电气性能.            |

|     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |
|-----|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.3 | Humidity test<br>耐湿试验                      | <p>40 ± 3 °C 90-95%RH for 96 hours, test after keeping in normal condition for 60 min.</p> <p>在 40±3°C 90—95%RH 环境中放 96 小时,再放在正常环境中,60 分钟后进行测试。</p>                                                                                                                                                                                                                                                                                                                                                                                                              | <p>Insulation resistance 50M Ω min.</p> <p>50 兆欧以上,其它满足机械,电气性能.</p>                                                                             |
| 7.4 | Cold test<br>耐冷试验                          | <p>At -40 ± 3 °C for 96 hours, test after keeping in normal condition for 30 min.</p> <p>在 -40±3°C 环境中放 96 小时,再放在正常环境中,30 分钟后进行测试。</p>                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>There shall be no sign of damage mechaniclly and electrically</p> <p>无任何迹象显示机械及电气性能损坏。</p>                                                   |
| 7.5 | Temperatur e cycling test<br>温度交变试验        | <p>In FIG. For 5 cycles, test after keeping in normal condition for 60 min.</p> <p>如图示之环境中,循环 5 次后,再置于正常环境中,60 分钟后进行测试。</p>                                                                                                                                                                                                                                                                                                                                                     | <p>Insulation resistance 50M Ω min.</p> <p>50 兆欧以上,其它满足机械,电气性能.</p>                                                                             |
| 7.6 | Soldering test<br>可焊性试验                    | <p>The sort of dip solder terminal: The foot of the spring shall be dipped 2mm in the solder bath at a temperature of 230 ± 5 °C for 3 ± 0.5 sec.</p> <p>将簧片焊脚部浸入焊锡池 2mm 深,温度 230±5°C 时间 3±0.5 秒。</p>                                                                                                                                                                                                                                                                                                                                                            | <p>A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.</p> <p>浸入部分 95% 以上表面被锡覆盖。</p>                    |
| 7.5 | 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 180°C.2 ± 0.3minutes after the P.W.B entered into the soldering equioment.</p> <p>Soldering heat:Temperature on the copper foil surface should reach the peak temperature of 260°C with in 10 seconds after the P.W.B enter into soldering heat zone.</p> <p>过回流焊条件:</p> <p>预热:电镀层表面的温度应达到 180°C,2±0.3 分钟,后电路板进入回流焊设备. 回流焊温度:电镀层表面温度最高为 260°C 且停留不超过 10 秒后电路板进入低温焊接处.</p>  | <p>Without deformation of case or excessive looseness of terminals electrical characteristics shall be satisfied.</p> <p>本体无变形,能满足于机械、电气性能。</p> |
| 8.  | Others                                     | <p>When the amendment of this specification comes into necessity,the amendment must be made by the nutual consolation and agreement between manufacturer and customer.</p> <p>当规格书需要修正时,需客户同厂方共同确认</p>                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                 |