

承 认 书

Approval Sheet

客户 (Customer): /

客户料号 (Cus .P/N): /

华联威料号 (HLW P/N): 216104-1087-G63018

品名规格 (PronameSpec): FPC1.1间距0.5 10P

送样日期 (Delivery Date): 2022/07/27

承认日期 (Acknowledge Date): 2022/07/27

| | | | |
|---|------------------|---------------------------|--------------------|
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| | | | |
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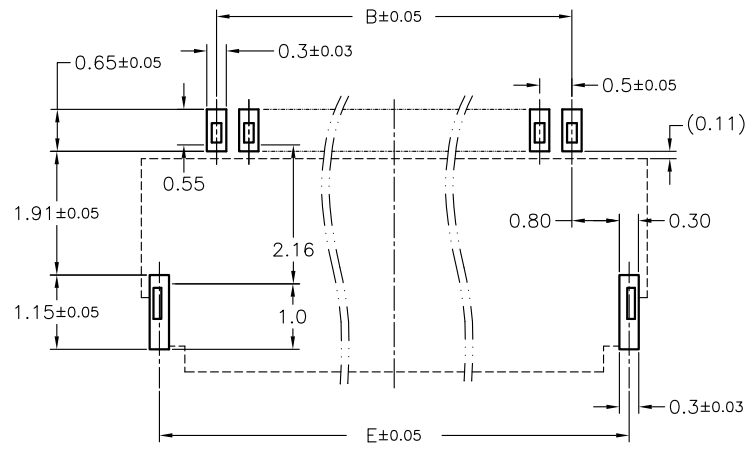
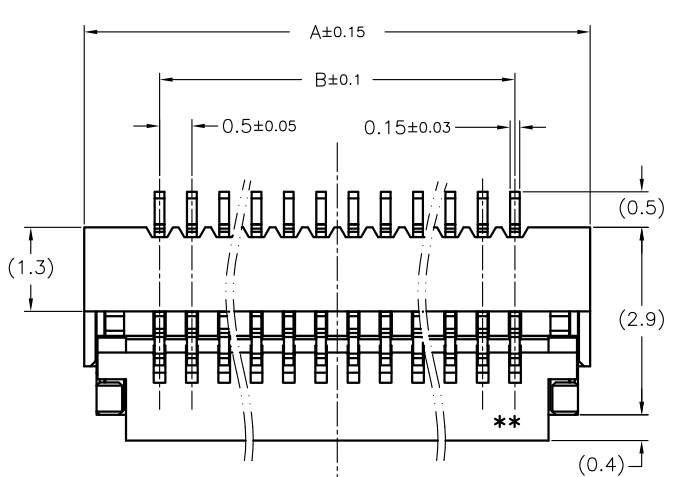
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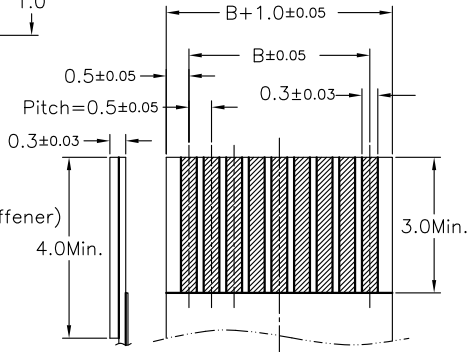
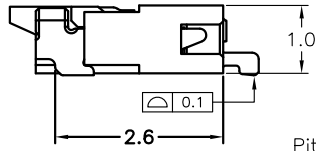
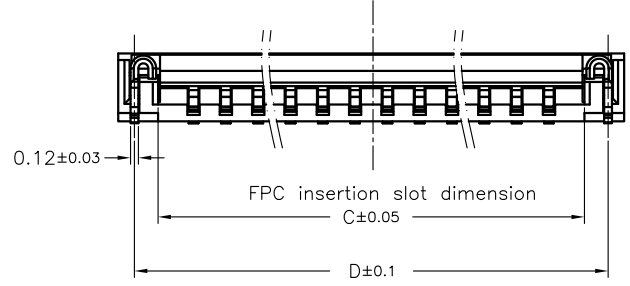
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| REV. | ECN.NO. | APPD. |
|------|------------|-------------|
| A | XXXXXXXXXX | yangguifeng |

| No. of Contacts | DIM. | | | | |
|-----------------|-------|------|------|-------|-------|
| | A | B | C | D | E |
| 4 | 3.83 | 1.5 | 2.6 | 3.33 | 3.27 |
| 5 | 4.33 | 2.0 | 3.1 | 3.83 | 3.77 |
| 6 | 4.83 | 2.5 | 3.6 | 4.33 | 4.27 |
| 7 | 5.33 | 3.0 | 4.1 | 4.83 | 4.77 |
| 8 | 5.83 | 3.5 | 4.6 | 5.33 | 5.27 |
| 9 | 6.33 | 4.0 | 5.1 | 5.83 | 5.77 |
| 10 | 6.83 | 4.5 | 5.6 | 6.33 | 6.27 |
| 11 | 7.33 | 5.0 | 6.1 | 6.83 | 6.77 |
| 12 | 7.83 | 5.5 | 6.6 | 7.33 | 7.27 |
| 13 | 8.33 | 6.0 | 7.1 | 7.83 | 7.77 |
| 14 | 8.83 | 6.5 | 7.6 | 8.33 | 8.27 |
| 15 | 9.33 | 7.0 | 8.1 | 8.83 | 8.77 |
| 16 | 9.83 | 7.5 | 8.6 | 9.33 | 9.27 |
| 17 | 10.33 | 8.0 | 9.1 | 9.83 | 9.77 |
| 18 | 10.83 | 8.5 | 9.6 | 10.33 | 10.27 |
| 19 | 11.33 | 9.0 | 10.1 | 10.83 | 10.77 |
| 20 | 11.83 | 9.5 | 10.6 | 11.33 | 11.27 |
| 21 | 12.33 | 10.0 | 11.1 | 11.83 | 11.77 |
| 22 | 12.83 | 10.5 | 11.6 | 12.33 | 12.27 |
| 23 | 13.33 | 11.0 | 12.1 | 12.83 | 12.77 |
| 24 | 13.83 | 11.5 | 12.6 | 13.33 | 13.27 |
| 25 | 14.33 | 12.0 | 13.1 | 13.83 | 13.77 |
| 26 | 14.83 | 12.5 | 13.6 | 14.33 | 14.27 |
| 27 | 15.33 | 13.0 | 14.1 | 14.83 | 14.77 |
| 28 | 15.83 | 13.5 | 14.6 | 15.33 | 15.27 |
| 29 | 16.33 | 14.0 | 15.1 | 15.83 | 15.77 |
| 30 | 16.83 | 14.5 | 15.6 | 16.33 | 16.27 |
| 31 | 17.33 | 15.0 | 16.1 | 16.83 | 16.77 |
| 32 | 17.83 | 15.5 | 16.6 | 17.33 | 17.27 |
| 33 | 18.33 | 16.0 | 17.1 | 17.83 | 17.77 |
| 34 | 18.83 | 16.5 | 17.6 | 18.33 | 18.27 |
| 35 | 19.33 | 17.0 | 18.1 | 18.83 | 18.77 |
| 36 | 19.83 | 17.5 | 18.6 | 19.33 | 19.27 |
| 37 | 20.33 | 18.0 | 19.1 | 19.83 | 19.77 |
| 38 | 20.83 | 18.5 | 19.6 | 20.33 | 20.27 |
| 39 | 21.33 | 19.0 | 20.1 | 20.83 | 20.77 |
| 40 | 21.83 | 19.5 | 20.6 | 21.33 | 21.27 |
| 41 | 22.33 | 20.0 | 21.1 | 21.83 | 21.77 |
| 42 | 22.83 | 20.5 | 21.6 | 22.33 | 22.27 |
| 43 | 23.33 | 21.0 | 22.1 | 22.83 | 22.77 |
| 44 | 23.83 | 21.5 | 22.6 | 23.33 | 23.27 |
| 45 | 24.33 | 22.0 | 23.1 | 23.83 | 23.77 |
| 46 | 24.83 | 22.5 | 23.6 | 24.33 | 24.27 |
| 47 | 25.33 | 23.0 | 24.1 | 24.83 | 24.77 |
| 48 | 25.83 | 23.5 | 24.6 | 25.33 | 25.27 |
| 49 | 26.33 | 24.0 | 25.1 | 25.83 | 25.77 |
| 50 | 26.83 | 24.5 | 25.6 | 26.33 | 26.27 |

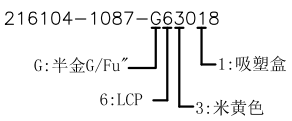
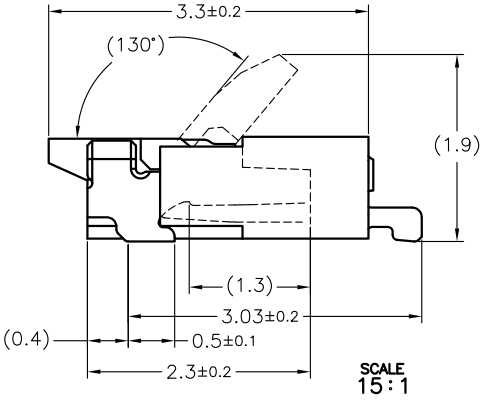


Recommended PCB Layout(Top View)
Recommended metal mask pattern(thickness 0.1mm)



Recomenend FPC Dim.

- 技术指标 (Technical Index) :
1. 工作温度 (Temperature range) : -25° C-85° C.
 2. 额定电压 (Rated voltage) : 250V DC/AC (rms)
 3. 额定电流 (Rated current) : 5A AC, DC
 4. 接触阻抗 (CONTACT Resistance) : ≤25MΩ
 5. 耐压值 (Withstanding voltage) : 1500V AC/minute
 6. 绝缘阻抗 (Insulation resistance) ≥1000MΩ



| | | | | | |
|--------------------------------------|-------------|---|--------------------|----------|--------|
| TOLERANCE UNLESS OTHERWISE SPECIFIED | | 深圳市华联威电子科技有限公司 HUA LIAN WEI TECHNOLOGY ELECTRONICS CO;LTD. | | | |
| .XXX ±0.10 | .XX ±0.20 | .X ±0.30 | X' ±3' | .XX' ±2' | |
| APPROVED | | PART NAME: | FPC1.1间距0.5 10P | | |
| CHECKED | | PART No: | 216104-1087-G63018 | C | |
| DRAWN | yangguifeng | PROJECTION: | UNIT: | SCALE: | SHEET: |
| DATE | 2021.12.01 | | mm | 1:1 | 1 OF 1 |
| | | | | | REV. A |

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针座系列产品SPEC

1. 适用范围 Scope of application

本规范适用于GH系列产品。 This specification is applicable to GH series products

2. 标准额定值 Standard rating

| 项目 project | 规格 specifications |
|------------------------------------|--|
| 额定电压 The rated voltage | 50V AC/DC |
| 额定电流 Rated current | 1.0A AC/DC |
| 使用温度范围 Operating temperature range | -40℃~+105℃ |
| 使用湿度范围 Operating humidity range | 相对湿度90%以下 Relative humidity is below 90% |

3. 环保 The environmental protection

产品符合ROHS环保要求。 Products in line with ROHS environmental protection requirements.

4. 包装 Packing

产品内包装详见包装要求，外包装为纸箱，产品在箱内密封，不晃动。

The inner packing of the product is joint and several, the outer packing is carton, the product is sealed in the box, do not shake.

5. 运输 transport

允许用任何方式运输，但需避免雨雪淋和阳光照射，不能有碰撞和挤压等机械损伤，运输环境温度为-20℃+50℃
It is allowed to be transported by any means, but it should avoid rain, snow and sunlight, no mechanical damage such as collision and extrusion, and the ambient temperature of transportation is -20℃+50℃

6. 贮存: Storage

包装完毕连接器应在环境温度为-20℃~+50℃，相对湿度不大于90%，周围空气中没有酸性，碱性及其它腐蚀性气体的仓库中贮存。

After packaging, the connector should be in the ambient temperature of -20℃~+50℃，the relative humidity should not be more than 90%, there is no acid, alkaline and other decay in the surrounding air Storage of corrosive gases in a warehouse.

7. 部件名称/部件规格型号/部件材质 Part name/part specification/part material

| 部件名称 Part name | 型号 model | 材质 The material |
|----------------|----------|--------------------------------------|
| 底座 base | GH | LCP |
| 插针 pin | GH | 黄铜/磷铜 Phosphor copper C5191/C2680 |
| 固定片 stator | GH | 黄铜/磷铜 Phosphor copper C5191/C2680 |
| 盖板 | GH | LCP |

8. 外观及尺寸 Appearance and size

8.1 外观 appearance

塑胶件表面应无明显疤痕、杂色、开裂、毛刺、飞边、缺料及影响使用的变形；金属件表面应光洁、无锈蚀、氧化、脱皮、发黑及明显的机械损伤等缺陷。

The surface of plastic parts shall be free of obvious scars, mottled, cracked, burr, flash, lack of material and deformation affecting the use; the surface of metal parts shall be smooth and clean No rust, oxidation, peeling, blackening and obvious mechanical damage.

8.2 尺寸 size

参照工程图 Reference engineering drawing

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9. 电气特性 Electrical characteristics

| 编号 number | 项目 project | 试验方法 Test method for | 性能要求 performance requirements |
|--------------|----------------------------------|--|---|
| 9.1 | 接触电阻 contact resistance | 将连接器插合，用接触电阻仪进行测试，测量连接器两个端子之间组成一个闭合的回路。 Plug in the connector and test it with a contact resistance meter to measure both terminals of the connector Form a closed loop between. | 20mΩ Max |
| 9.2 | 绝缘电阻 Insulation resistance | 将连接器插合，在相邻接触件之间和接触件与外壳之间施加100V DC电压，持续1分钟进行测试。 Plug in the connector and apply 100V DC voltage between the adjacent contacts and between the contacts and the enclosure for 1 minute. | 500MΩ Min |
| 9.3 | 耐电压 Withstand voltage | 将连接器插合，在相邻接触件之间和接触件与外壳之间施加500V AC电压，持续1分钟进行测试。 Plug in the connector and apply 500V AC voltage between the adjacent contacts and between the contacts and the enclosure for 1 minute. | 无击穿和飞弧现象 No breakdown and flashover |

10. 环境特性

| 编号 number | 项目 project | 试验方法 Test method for | 性能要求 performance requirements |
|--------------|---|---|--|
| 10.1 | 耐热试验 Heating test | 将插合连接器放在温度为+105℃±2℃的环境中96H,取出放在正常环境中1~2H后再进行测试。 Put the plug connector in the environment of +105℃±2℃ for 96H, take it out and put it in the normal environment for 1~2H before testing. | 外观：外观无损伤 Appearance: appearance without |
| | | | 接触电阻：60mΩ Max Contact resistance: 60mΩ Max |
| 10.2 | 耐冷试验 Cold tolerance test | 将插合连接器放在温度为-40℃±2℃的环境中96H,取出放在正常环境中1~2H后再进行测试。 The plug connector was placed in the environment with the temperature of -40℃±2℃ for 96H, and was taken out and placed in the normal environment for 1~2H before being tested. | 外观：外观无损伤 Appearance: appearance without damage |
| | | | 接触电阻：60mΩ Max Contact resistance: 60mΩ Max |
| 10.3 | 耐湿性试验 Moisture resistance test | 将插合连接器放在温度为40℃±2℃，相对湿度90~96%的环境中，持续96H,经试验后，取出放在正常环境中1~2H后再进行测试。 Place the plug connector in an environment with a temperature of 40℃±2℃ and relative humidity of 90~96%. Last for 96H, after the test, take it out and put it in the normal environment for 1~2H before the test. | 外观：外观无损伤 Appearance: appearance without |
| | | | 绝缘电阻：60MΩ MIN Insulation resistance: 60MΩ min |
| | | | 耐电压符合9.3要求 Withstand voltage meets 9.3 requirements |

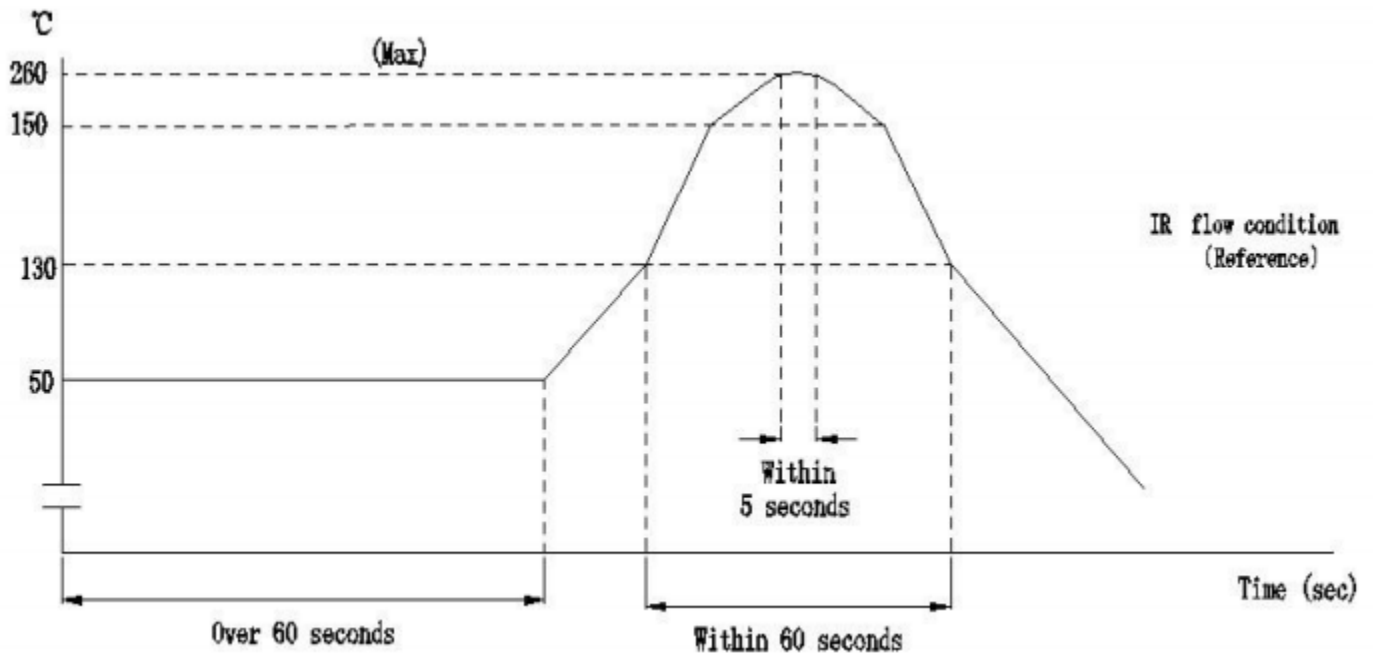
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针座系列产品SPEC

| 编号 number | 项目 project | 试验方法 Test method for | 性能要求 performance requirement |
|--------------|------------------------------|--|---|
| 10.4 | 温度循环 Temperature cycle | <p>把试验样品分别放入高低温试验箱，按下列步骤调试温度：</p> <p>a. 在$-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$的恒温条件下放置30分钟</p> <p>b. 在常温条件下放置1H</p> <p>C. 在$+105^{\circ}\text{C} \pm 2^{\circ}\text{C}$的恒温条件下放置30分钟</p> <p>D. 在常温条件下放置1H</p> <p>从a到d为一个循环周期，共进行5个循环，在正常环境中恢复2H后进行检查。</p> <p>Put the test samples into the high and low temperature test chamber, and adjust the temperature according to the following steps:</p> <p>A. Place for 30 minutes under the constant temperature of $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$</p> <p>B. Place at room temperature for 1 hour</p> <p>C. Place for 30 minutes at a constant temperature of $+105^{\circ}\text{C} \pm 2^{\circ}\text{C}$</p> <p>D. Place at room temperature for 1 hour</p> <p>From a to d is a cycle period, a total of 5 cycles are carried out, and 2H is recovered in the normal environment. Check later.</p> | <p>外观：无任何异状</p> <hr/> <p>接触电阻：60mΩ Max Contact resistance: 60mΩ Max</p> |
| 10.5 | 盐雾试验 Salt Spray Test | <p>将试验样品从试验箱顶悬挂下来，采用浓度为 (5 ± 1) %的氯化钠溶液，连续喷雾24H, 试验后用流动的蒸溜水轻轻洗去表面沉淀积物，在常温条件下恢复1~2H后再检查测量。</p> <p>The test sample was suspended from the top of the test box, and the concentration of (5 ± 1) % Sodium Chloride Solution was continuously sprayed with 24H. After testing, the surface precipitates were lightly washed with flowing steaming water, then the 1~2H was rechecked at normal temperature.</p> | <p>外观：无损伤、腐蚀 (五金件应无露出底金属的严重锈蚀；使用预镀好的型材，其落料面允许有不影响其性能的轻微腐蚀。</p> <p>Appearance: no damage or corrosion (hardware should not expose the bottom metal of serious corrosion: use pre-plating. The blanking surface is allowed to have a slight corrosion that does not affect its performance.</p> <hr/> <p>接触电阻：60mΩ Max Contact resistance: 60mΩ Max</p> |

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| 编号 number | 项目 project | 试验方法 Test method for | 性能要求 performance requirement |
|--------------|-----------------------------|--|---|
| 10.6 | 可焊性 weldability | 把试验样品需要焊接的部位浸入 $240 \pm 5^\circ\text{C}$ 的锡溶液中，保持 2.5 ± 0.5 秒。 Dip the welded part of the test sample into $240 \pm 5^\circ\text{C}$ tin solution and hold 2.5 ± 0.5 seconds. | 沾锡面积95%以上 Tin area above 95% |
| 10.7 | 耐焊性 Soldering resistance | 将连接器置于PCB板上，然后将产品通过 $260^\circ\text{C} \pm 5^\circ\text{C}$ 回流焊或波峰焊 $5 \pm 1\text{S}$ 进行测试。 Place the connector on the PCB, and then reflow the product through $260^\circ\text{C} \pm 5^\circ\text{C}$ Or wave soldering for $5 \pm 1\text{s}$. | 1. 塑胶件不得有明显变形损坏起泡。 2. 电气特性必须符合规格。 Plastic parts shall be free from obvious deformation, damage and blistering. 2. The electrical characteristics must meet the specifications. |



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11. 机械特性 mechanical properties

| 编号 number | 项目 project | 试验方法 Test method for | 性能要求 performance requirement | | | | |
|--------------|---|--|---|----------------------------|-------|--------------------------|----------------------------|
| 11.1 | PIN针固定力 Pin fixing force | 将针座固定在插拔力机上，在针脚前端施加力，以每分钟 $25 \pm 3\text{mm}$ 的速率，直到针退出针座的拔出力。 Fix the pin holder on the drawing machine and apply force on the front end of the pin at a rate of $25 \pm 3\text{mm}$ per minute until the pin is withdrawn from the pin holder. | 单一PIN针5N Min Single pin 5N min | | | | |
| 11.2 | 端子在塑胶件中保持力 Terminal retention in plastic parts | 端子与孔座配合，以每分钟 $25 \pm 3\text{mm}$ 的速率沿导线方向，将端子从孔座中拔出的力。 The terminal shall be matched with the hole seat, and at the rate of $25 \pm 3\text{mm}$ per minute along the conductor direction, theThe force that the terminal is pulled out of the socket. | 单一端子： 7N Min Single terminal: 7N min | | | | |
| 11.3 | 机械寿命 Mechanical life | 无通电状态下，10次/分钟的速度插拔30次。 Under no power on state, plug and unplug 30 times at the speed of 10 times / min. | 接触电阻： $80\text{m}\Omega$ Max Contact resistance: $80\text{m}\Omega$ Max | | | | |
| 11.5 | 插入力拔出力 Insertion pull out force | 试验方法：Test methods (1) 将孔座和端子配合好，与针座在同一轴线上进行插拔测试，测试时需将孔座锁扣去掉。（测试速度： $20 \pm 5\text{mm}$ ）minute (1) Fit the hole seat and the terminal, and conduct the insertion and removal test on the same axis with the needle seat. Remove the lock of the hole seat (test speed: $20 \pm 5\text{mm}$) minute during the test (2) 性能要求：Performance requirements | | | | | |
| | | 孔位 | 插入(N) insert (max) | 拔出(N) Pull out (min) | 孔位 | 插入(N) insert (max) | 拔出(N) Pull out (min) |
| | | 2PIN | 19.5 | 4.0 | 10PIN | 35.5 | 8.0 |
| | | 3PIN | 21.5 | 4.5 | 11PIN | 36.5 | 8.5 |
| | | 4PIN | 23.5 | 5.0 | 12PIN | 37.5 | 9.0 |
| | | 5PIN | 25.5 | 5.5 | 13PIN | 38.5 | 9.5 |
| | | 6PIN | 27.5 | 6.0 | 14PIN | 39.5 | 10.0 |
| | | 7PIN | 29.5 | 6.5 | 15PIN | 40.5 | 10.5 |
| | | 8PIN | 31.5 | 7.0 | 16PIN | 41.5 | 11.0 |
| | | 9PIN | 33.5 | 7.5 | | | |

| | | | | | | | | | | | |
|---|-----|-----------------------------|------|-----------|----|----|----|----|----|---|--|
| 7 | 耐久性 | 测试速度：每分钟15个循环，测试次数：100次循环最少 | 插拔力計 | 不得发生物理损坏。 | OK | OK | OK | OK | OK | V | |
|---|-----|-----------------------------|------|-----------|----|----|----|----|----|---|--|

三. 环境特性测试 ENVIRONMENTAL TEST

| 序號 NO | 測試項目 Testing Item | 測試條件 Testing Conditions | 測試設備 Testing Equipment | 規格 SPEC | 測試記錄Testing Result | | | | | 判定 Judge | |
|----------|----------------------|----------------------------------|---------------------------|------------|--------------------|----|----|----|----|-------------|----|
| | | | | | 1 | 2 | 3 | 4 | 5 | OK | NG |
| 9 | 冷热冲击 | 温度-40±3℃ 温度105±3℃ 持续时间0.5H | 高低温试验箱 | 不得发生物理损坏。 | OK | OK | OK | OK | OK | V | |
| 10 | 湿温循环 | 温度85℃±5℃， 持续时间:250H | 湿温循环机 | 最大接触阻抗20mΩ | OK | OK | OK | OK | OK | V | |
| 11 | 盐雾试验 | 温度:35±2℃ 12小时 | 盐雾试验箱 | 最大接触阻抗20mΩ | OK | OK | OK | OK | OK | V | |
| 12 | 可焊性 | 焊锡温度: 260±5℃ | 熔锡炉 | 沾锡面积达90%以上 | OK | OK | OK | OK | OK | V | |
| 13 | 焊接耐热试验 | 260±5℃ 10秒 | 工业烘烤箱 | 不得发生物理损坏 | OK | OK | OK | OK | OK | V | |
| | | | | | | | | | | | |

| | | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|--|
| 綜合判定 TEST JUDGMENT | <input checked="" type="checkbox"/> 合格 (Acceptable) <input type="checkbox"/> 不合格 (Reject) | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|--|

核准(Approver): 欠必鋒 測試(Tester): 但芬

檢驗報告

首件檢驗 入庫檢驗 出貨檢驗 客退檢驗 退料檢驗 其他

2022年07月27日 版次:A1

| | | | | | | | | |
|------------------------------------|--------------------|--|---|-----------------|---------|----------------|----------|---|
| 料號 | 216104-1087-G63018 | 制令單號 | / | 送檢單位 | 工程部 | 首件製作者 | 裝配 | |
| 品名 | FPC1.1间距0.5 10P | 客戶代號 | / | 批 量 | / | 送檢時間 | / | |
| | | | | 數 量 | 5PCS | 確認時間 | / | |
| 抽樣標準 | | <input checked="" type="checkbox"/> 單次 <input type="checkbox"/> 雙次 | | 抽樣數 (5PCS) | AQL | CRI:0 MAJ:0.40 | MIN:0.65 | |
| MIL-STD-105E(II) | | <input checked="" type="checkbox"/> 正常 <input type="checkbox"/> 加嚴 <input type="checkbox"/> 減量 | | | ACC/REJ | 0 | / | / |
| 不良數: CRI (/) MAJ (/) MIN (/) | | | | | | 不良率(%) | | / |

| NO. | 檢驗項目 單位:MM/G | 檢測 儀器 | 檢 驗 記 錄 | | | | | 品管判定 | | CRI | MAJ | MIN | 備注 |
|-----|-----------------|----------|---------|------|------|------|------|------|----|-----|-----|-----|----|
| | | | 1 | 2 | 3 | 4 | 5 | AC | RE | | | | |
| | 6.83±0.20 | D | 6.83 | 6.82 | 6.84 | 6.83 | 6.82 | √ | | | | | |
| | 4.5±0.1 | D | 4.52 | 4.51 | 4.50 | 4.51 | 4.52 | √ | | | | | |
| | 0.5±0.05 | D | 0.52 | 0.50 | 0.51 | 0.51 | 0.52 | √ | | | | | |
| | 0.15±0.03 | D | 0.15 | 0.16 | 0.15 | 0.16 | 0.15 | √ | | | | | |
| | 0.12±0.03 | D | 0.12 | 0.12 | 0.13 | 0.12 | 0.13 | √ | | | | | |
| | 5.6±0.05 | D | 5.62 | 5.60 | 5.62 | 5.60 | 5.61 | √ | | | | | |
| | 6.33±0.1 | D | 6.33 | 6.34 | 6.32 | 6.32 | 6.32 | √ | | | | | |
| | 3.3±0.20 | D | 3.34 | 3.35 | 3.32 | 3.32 | 3.34 | √ | | | | | |
| | 3.03±0.20 | D | 3.03 | 3.03 | 3.04 | 3.02 | 3.04 | √ | | | | | |
| | 0.5±0.1 | D | 0.51 | 0.52 | 0.52 | 0.53 | 0.52 | √ | | | | | |
| | 2.3±0.20 | D | 2.31 | 2.32 | 2.31 | 2.30 | 2.32 | √ | | | | | |
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檢驗依據: 《工程圖紙》 《檢驗規範》 《承認書》 樣品 其它

檢測儀器:A游標卡尺 B千分尺 C厚薄儀 D投影鏡 E放大鏡 F顯微鏡 G錫爐 H插拔力器 I間位尺 J其它

| | | | | | |
|------------|-----|------------|---|---------------|----|
| 品保判定: | | | | | |
| 核 准 APP | 欠必鋒 | 審 核 CHK | / | 檢驗員 INSPBY | 但芬 |

保存期限:三年 保存部門:品保部 QR-M-003

| | | | | | |
|--------------------------------|----------|---------|---------------|----------|----------|
| 品名:FPC1.1间距0.5 10P (端子) | | | | 版次:A.0 | |
| 电镀规格:Ni30u", Sn100u", Au G/Fu" | | | 日期:2022-07-04 | | 页次:1/1 |
| 厂商:同华 | | | | | |
| 测试设备:CMI X-射线膜厚测试仪 | | | | | |
| 1、底层电镀测试 (Ni) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 30u"MIN | 50.5u" | OK | 2022/7/4 | 10:20:15 |
| 2 | 30u"MIN | 56.3u" | OK | 2022/7/4 | 10:20:17 |
| 3 | 30u"MIN | 67.5u" | OK | 2022/7/4 | 10:20:19 |
| 4 | 30u"MIN | 62.4u" | OK | 2022/7/4 | 10:20:21 |
| 2、表层电镀测试 (Sn) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 100u"MIN | 105.3u" | OK | 2022/7/4 | 10:25:10 |
| 2 | 100u"MIN | 104.7u" | OK | 2022/7/4 | 10:25:12 |
| 3 | 100u"MIN | 105.9u" | OK | 2022/7/4 | 10:25:14 |
| 4 | 100u"MIN | 107.4u" | OK | 2022/7/4 | 10:25:16 |
| 3、表层电镀测试 (Au) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 0.5u"MIN | 0.52u" | OK | 2022/7/4 | 10:30:32 |
| 2 | 0.5u"MIN | 0.55u" | OK | 2022/7/4 | 10:30:34 |
| 3 | 0.5u"MIN | 0.53u" | OK | 2022/7/4 | 10:30:36 |
| 4 | 0.5u"MIN | 0.54u" | OK | 2022/7/4 | 10:30:38 |

核准: 欠必锋

审核: 李娟

检验员: 但芬

盐水喷雾实验报告

| | | | |
|--------|----------------------------------|--------|----------------------|
| 试验方法 | 盐水喷雾腐蚀试验法 | 参考资料 | MIL-STD-1216 |
| METHOD | NEUTRL SALT SPRAY CORROSION TEST | REF | |
| 客户 | / | 试验起始日期 | 2022年07月26日 20:00 时起 |
| | | DATE | 2022年07月27日 08:00 时止 |
| 样品名称 | 针FPC1.1间距0.5 10P | 试验数量 | 5PCS |
| P/N | 216104-1087-G63018 | QTY | |

试验条件 (TEST CONDITION)

- 1、盐水溶解 (SALT SOLUTION: 浓度 $50 \pm 10\text{g/L}$, PH值6.5-7.2).
- 2、试验室温度 (TEMP. IT THE SPRAY DHAMBR): $35 \pm 1^\circ\text{C}$.
- 3、盐水桶温度 (TEMP. OF SALE SOL' N TANK): $35 \pm 1^\circ\text{C}$.
- 4、压力桶温度 (TEMP. OF SAR SUPPLIERY): $47 \pm 1^\circ\text{C}$.
- 5、试验室相对湿度 (R. H IN THE CHAMBER) 85%.
- 6、压缩空气压力 (COMPRESSED AIR PRESSURE): $1.00 \pm 0.01\text{Kg/cm}^2$.
- 7、样品放置位置 (SPECIMEN SUPPORTED ANGLE): 尼龙绳吊挂 $70^\circ - 90^\circ$.
- 8、喷雾收集量 (COLLECT RATE OF SALT SOL' N) $1-2\text{mL}/(8 \text{ cm}^2\text{hr})$.
- 9、盐雾测试时间: 12小时 (H)

判定方法 (ADFUSGD METHOD)

试验后以20倍放大镜观察、无蓝、绿色腐蚀物之现象 (不包含折弯处), 即判定合格. (Inspext the ecimen at 20 xmagnification no blue or green corrosion products are acceptable)

| 样品序号 | 试验后现象 | 判定 |
|------|-----------------------|---------|
| | PHENOMENON AFTER TEST | COMMENT |
| 1 | 无蓝、绿色腐蚀物之现象 | OK |
| 2 | 无蓝、绿色腐蚀物之现象 | OK |
| 3 | 无蓝、绿色腐蚀物之现象 | OK |
| 4 | 无蓝、绿色腐蚀物之现象 | OK |
| 5 | 无蓝、绿色腐蚀物之现象 | OK |
| | | |
| | | |
| | | |

核准: 欠必锋

审核: 李娟

试验员: 但芬

鉅鼎銅材廠檢驗報告單

| | | | | | | | | | | |
|------------------------------|--------------------------|----------------------|--------------------------------|------------------------|-----------------------------------|-----------------------------|--------------------------------------|-----------------------|------|----|
| 公司名稱 Customer | 鉅鼎銅材廠檢驗報告單 | | | | 重量 Weight(kg) | 1078 | 出貨日期 Date | 2021/11/23 | | |
| 品名 Article | 標準 Standard No | | | | 尺寸 Dimension | | 狀態 Tenper | 銅卷編號 Coil No | | |
| C2680 | JISH3100:2017 | | | | 0.18*400 | | EH | 1021-C-08 | | |
| 化學成分Chemical Compositions(%) | | | | | | | | | | |
| 元素 Element | Cu % | Zn% | Pb% | Fe% | \ | \ | \ | \ | 化學成分 | 雜質 |
| 規範 Spec | 64.0-68.0 | 餘量 | <0.05 | <0.05 | \ | \ | \ | \ | 合格 | 合格 |
| 實測 Actual | 64.32 | 餘量 | 0.0036 | 0.0136 | \ | \ | \ | \ | 合格 | 合格 |
| 機械性質Mechanical Properties | | | | | | | | | | |
| 項目 Item | 結晶粒度 Grain Size Mm | 硬度 Hardness Hv | 抗拉強度 TensionStrength Mpa | 伸長度 Elongation % | 導電率 Electrical Conduc %IACS | 彎曲試驗 Bending Test 180 | 表面粗度 Surface Roughness Ra(u m) | 彎曲度 Camber mm/n | | |
| 規範MAX Spec | \ | 170-190 | 490-610 | \ | \ | \ | \ | \ | | |
| 實測 Actual | \ | 178 | 574 | 5 | \ | \ | \ | \ | | |

品質部



东莞市海嵘兴塑胶有限公司

LCP材质分析报告

| 品 名 | 比 例 | 用 途 |
|---------|-------|----------------|
| 杜邦LCP树脂 | 0.68 | 构成材料主要成份 |
| 抗氧剂 | 0.003 | 抗氧化 |
| 日本住友TAP | 0.002 | 润滑及增加流动性 |
| 大洋安定剂 | 0.005 | 稳定机械性能, 方便重复使用 |
| 玻纤 | 0.30 | 增强 |
| 色母 | 0.01 | 着色 |

注：以上数据真实可靠，但并非绝对值，并不做任何商业依据。

