



# PRODUCT SPECIFICATION

## (產品規格書)

### Ordering information

|        |           |                 |               |           |                        |                 |
|--------|-----------|-----------------|---------------|-----------|------------------------|-----------------|
| 1001-  | 10        | C               | 00            | B         | 1                      | A               |
| Series | No. of    | C : Selective   | 00:Gold Flash | B : Black | 1 : With Strain Relief | A: Tray Package |
|        | Pin Count | Gold Plated     | 10:10 μ ”     | Y : Grey  | 2 : Without Strain     |                 |
|        |           | G : Gold Plated | 15:15 μ ”     |           | Relief                 |                 |
|        |           |                 | 30:30 μ ”     |           |                        |                 |

A1:MAR.31/2011.

A2:JUN.10/2013.(修改條件 3.5&3.7)

| PRODUCT NAME<br>(產品名稱)                          | DOCUMENT No.:<br>(文件編號) | Rev.<br>(版本)    | OUPIIN           |
|-------------------------------------------------|-------------------------|-----------------|------------------|
| I.D.C Socket<br><br>2.54mm*2.54mm<br><br>(RoHS) | 1001spec                | A2              | (歐品)             |
|                                                 | Approved<br>(核準)        | Checked<br>(審核) | Prepared<br>(製作) |
|                                                 | Q.A. Section Chief      | Amy Chiu        | JUN.10/2013      |

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## **1. SCOPE （範圍）**

This product specification defines the product performance and the test methods to ascertain the performance of the I.D.C SOCKET, which is designed and manufactured by Oupiin Electronic Co.,Ltd.

(本產品規格書規定了由歐品電子有限公司生產的 I.D.C SOCKET 型連接器,產品的特性及測試方法.)

## **2. REFERENCE DOCUMENTS （參考文件）**

|               |                                                     |
|---------------|-----------------------------------------------------|
| MIL-STD-1344A | Test method for electrical connector<br>(電子連接器測試方法) |
| MIL-STD-202F  | Test method for electrical components<br>(電子零件測試方法) |
| EIA 364       | Test method for electrical components<br>(電子零件測試方法) |

## **3. FEATURE & DIMENSIONS （特徵及尺寸）**

### **3.1. PRODUCT DIMENSION （產品尺寸）**

These connectors shall have the dimensions as shown in drawing.

(本產品的相關尺寸參考圖面.)

### **3.2. PCB/PANEL LAYOUT （印刷電路板佈局）**

The recommended PCB layout is shown in drawing.

(本產品適用的 PCB layout 參考圖面.)

### **3.3. BILL OF MATERIAL （材料清單）**

Harmful material control follow the requirement of RoHS. The bill of material and product number is described in drawing.

(有害物質控制符合RoHS指令要求.本產品使用的材料參考附件.)

### **3.4. MECHANICAL & ELECTRICAL CHARACTERISTIC （機械及電氣特性）**

The connector shall have the mechanical and electrical performance as described in drawing.

(本產品的機械及電氣特性見圖面：)

### **3.5. PACKAGING （包裝）**

Products shall be packaged according to requirements specified in purchase order for safe delivery, connector container and the packaging method are shown in package specification.

(產品可依客戶指定要求包裝，包裝材料與包裝方式參見產品包裝規範。)

**3.6 RATING CURRENT AND RATING VOLTAGE 額定電流與額定電壓**

Rating current is 1.0A, rating voltage is 250V DC/AC RMS.

額定電流 1.0A，額定電壓 250V DC/AC RMS。

**3.7 OPERATING TEMPERATURE 使用溫度**

Temperature range: -40°C~+105°C.

溫度範圍：-40°C~+105°C。

**4. ENVIRONMENTAL (環境要求)****4.1. SOLDERABILITY (可焊性)****4.2. RESISTANCE TO SOLDER HEAT (耐焊接熱)**

**WAVE SOLDERING (波峰接)**

**Note: (說明)**

Device temperature measurements are referenced from the top-center of the package outer surface.

(設備溫度量測時以從頂部中間位置測量為準。)

**5. PERFORMANCE AND TEST DESCRIPTION (性能及測試)****5.1. REQUIREMENT (要求)**

Product is designed to meet electrical, mechanical, and environmental performance requirements specified in **Table I**. (本產品設計符合附表一所列的機械，電氣及環境要求。)

**5.2. TEST CONDITION (測試條件)**

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

(除非特別注明，所有測試在室溫條件下完成；)

**5.3. SAMPLE SELECTION (樣品選擇)**

Test samples shall be selected at random from current production. No test samples shall be reused. Samples are pre-conditioned with 10cycles of durability. Each group shall be containing 5 test samples.

(測試樣品從現生產的產品中隨機抽取，所有測試過的樣品不得重複使用。樣品已預先插拔10次，每組測試有5個樣品；)

## Table I: Test Requirements and Procedures

(附錄一:測試要求)

| Items<br>(項目)                                      | Requirements<br>(要求)                                                                                                                                  | Test Methods<br>(檢測方法)                                                                                                                                                                                                                                 |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Confirmation of Product<br>(產品確認)               | Product shall be conforming to the requirements of applicable product drawing.<br>(產品必須滿足相關檔的規定)                                                      | Check the dimensions and functions per applicable product drawing in your eyes.<br>(目視，尺寸及功能依產品圖面檢查)                                                                                                                                                   |
| 2. Contact Resistance<br>(接觸阻抗)                    | 30 mΩ Max.<br>(最大.初態)                                                                                                                                 | Subject mated contacts assembled in housing to closed circuit of 100 mA max. at open circuit voltage of 20 mV max.<br>(所述固定在外殼裏的端子連結到一個封閉回路中測試：電流 100 mA，電壓 20 mV max.)                                                                                |
| 3. Insulation Resistance<br>(絕緣阻抗)                 | 1000 MΩ Min.<br>(最小)                                                                                                                                  | Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector.<br>MIL-STD-202, Method 302, Condition B (500 V DC±10%).<br>(測試產品端子間以及端子與接地間的電阻，適用：MIL-STD-202,方法 302，條件 B )(500V DC±10%) |
| 4. Dielectric Strength<br>(耐電壓)                    | Connector must withstand test potential of 500 V AC for 1 minute.<br>Current leakage must be 0.5 mA max.<br>(樣品必須承受測試電壓 500V AC，時間一分鐘，漏電流不大於 0.5 mA.) | Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. MIL-STD-202, Method 301.<br>(測試產品端子間以及端子與接地間的電壓，適用：MIL-STD-202，方法 301。)                                                  |
| 5. Mechanical Life<br>(使用壽命)                       | Contact Resistance: 50 mΩ Max. after testing.<br>(測試後接觸阻抗最大 50mΩ)                                                                                     | The sample should be mounted the tester and fully mated and unmated 300 cycles specified at the rate of 25mm/min<br>(重復進行配合產品 300 次插拔.)                                                                                                                |
| 6. Connector Insertion/Withdrawal Force<br>(產品插拔力) | Insertion force :<br>300 g max. per contact<br>Withdrawal force :<br>30g min. per contact<br>插入力: 300 g 最大<br>拔出力: 30 g 最小                            | Measure force necessary to unmated between the counterparts connectors..<br>(軸向力以 25±3mm/分的速度從塑膠本體對插後拔出)                                                                                                                                               |



## PRODUCT SPECIFICATION OF OUPIN

|                               |                                                                                                            |                                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Thermal shock<br>(熱衝擊)     | After testing, no damage, Contact Resistance 50 m $\Omega$ max..<br>(測試後,產品無損壞,<br>接觸阻抗: 50 m $\Omega$ 最大) | Temperature range from -40°C to +85°C .Start from -40°C, after 30 min. change to +85°C; change time is no more than 30 seconds. Total 5 cycles. MIL-STD-202, Method 107D, condition A.<br>(溫度變化範圍: -40°C~ +85°C; 從 -40°C 開始, 30 分鐘後換到+85°C; 轉換時間不超過 30 秒; 共 5 個循環.適用: MIL-STD-202, 方法 107D, 條件 A.) |
| 8. Temperature Life<br>(溫鍍老化) | After testing, no damage, Contact Resistance 50 m $\Omega$ max..<br>(測試後,產品無損壞,<br>接觸阻抗: 50 m $\Omega$ 最大) | Subject product to 105 $\pm$ 2°C for 96 hours continuously. MIL-STD-202, Method 108.<br>(產品置於 105 $\pm$ 2°C 連續 96 小時, 適用 MIL-STD-202, 方法 108。)                                                                                                                                                     |
| 9. Humidity<br>(恆溫恆濕)         | After testing, no damage, Contact Resistance 50 m $\Omega$ max..<br>(測試後,產品無損壞,<br>接觸阻抗: 50 m $\Omega$ 最大) | Temperature :40 $\pm$ 2°C 96 hours.<br>(溫度: 40 $\pm$ 2°C 96 小時)<br>Relative Humidity : 90-95%;<br>(相對濕度 : 90-95%; )<br>Duration :96 Hours. MIL-STD-202, Method 108,<br>(時間: 96 小時; MIL-STD-202, 方法 108。)                                                                                           |



## PRODUCT SPECIFICATION OF OUPIIN

Material Housing : 023-PBT (Black)

[SGS Test Report Click here\(如需 SGS 測試報告請點選此處\)](#)

Material Housing : 005-PBT (Grey)

[SGS Test Report Click here\(如需 SGS 測試報告請點選此處\)](#)

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#### CCP PBT 4830BK PROPERTIES

MATERIAL : PBT4830BK

VENDOR: CHANG CHUN PLASTICS CO., LTD.

| TEST ITEM                             | TEST METHOD | UNIT               | QC RANGE |
|---------------------------------------|-------------|--------------------|----------|
| 比重<br>(SPECIFIC GRAVITY)              | ASTM D-792  |                    | ≥ 1.57   |
| 灰份<br>(ASH)                           |             | %                  | 28-32    |
| 抗張強度<br>(TENSILE STRENGTH)            | ASTM D-638  | KG/CM <sup>2</sup> | ≥ 1000   |
| 伸長率<br>(ELONGATION)                   | CCP METHOD  | %                  | ≥ 3.0    |
| 抗折強度<br>(FLEXURAL STRENGTH)           | ASTM D-790  | KG/CM <sup>2</sup> | ≥ 1500   |
| 抗折模數<br>(MODULUS)                     | ASTM D-790  | KG/CM <sup>2</sup> | ≥ 70000  |
| 衝擊強度<br>(IMPACT STRENGTH,<br>NOTCHED) | ASTM D256   | KG-CM/CM           | ≥ 7.0    |
| 熔融指數<br>(MELT INDEX)                  | ASTM D-1238 | g/10MIN            | 14-26    |



## PRODUCT SPECIFICATION OF OUPIIN

Material Housing :UL

QMFZ2 Component - Plastics

Wednesday, May 25, 2005

E59481

CHANG CHUN PLASTICS CO LTD

7TH FL 301 SONGKIANG RD TAIPEI TW

Material Designation: **PBT-4830**

Product Description: Polybutylene Terephthalate (PBT), glass reinforced, designated "LONGLITE" furnished as pellets.

| Color                                      | Min. Thick.<br>(mm) | Flame<br>Class                            | HWI | HAI | RTI<br>Elec | RTI<br>Imp | RTI<br>Str | IEC<br>GWIT                               | IEC<br>GWFI |
|--------------------------------------------|---------------------|-------------------------------------------|-----|-----|-------------|------------|------------|-------------------------------------------|-------------|
| ALL                                        | 3.0-3.2             | V-0                                       | 0   | 1   | 75          | 75         | 75         | -                                         | -           |
| CTI: 3                                     | IEC CTI (V): -      | HVTR: 2                                   |     |     | D495: 7     |            |            | IEC Ball Pressure (°C): -                 |             |
| Dielectric Strength (kV/mm): -             |                     | Volume Resistivity ( $10^{12}$ ohm-cm): - |     |     |             |            |            | Dimensional Stability(%): -               |             |
| ISO Tensile Strength (MPa): -              |                     | ISO Flexural Strength (MPa): -            |     |     |             |            |            | ISO Heat Deflection (°C): -               |             |
| ISO Tensile Impact (kJ/m <sup>2</sup> ): - |                     | ISO Izod Impact (kJ/m <sup>2</sup> ): -   |     |     |             |            |            | ISO Charpy Impact (kJ/m <sup>2</sup> ): - |             |

Report Date: 9/1/1987

Underwriters Laboratories Inc®

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.



## PRODUCT SPECIFICATION OF OUPIIN

Material Contact : Copper Alloy (Phosphor Bronze)

[SGS Test Report Click here](#)

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### REPORT OF MATERIAL TEST

DATE: FEB.23,2005

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|                                                                      |                                                 |                                    |
|----------------------------------------------------------------------|-------------------------------------------------|------------------------------------|
| Customer: 歐品電子有限公司                                                   | Commodity: C 5191 R PHOSPHOR BRONZE STRIP ( H ) | ISO 9002:4M8Y035-00<br>台正字第 3545 號 |
| Applied Standard: CNS 9503 Phosphor Bronze Sheets, Plates and Strips |                                                 |                                    |

| Chemical Analysis Test |                 |            |             |               |             |            |  |  |             |
|------------------------|-----------------|------------|-------------|---------------|-------------|------------|--|--|-------------|
| Work No.               | Size of Product |            |             | P(%)          | Sn(%)       | Cu+Sn+P(%) |  |  | P.O. NUMBER |
|                        | Thickness (mm)  | Width (mm) | Length (mm) |               |             |            |  |  |             |
|                        | Standard        |            |             | 0.030 - 0.350 | 5.50 - 7.00 | min. 99.50 |  |  |             |
| 3CC195A                | 0.300           | 305.000    |             | 0.145         | 6.000       | 99.974     |  |  |             |
|                        |                 |            |             |               |             |            |  |  |             |
|                        |                 |            |             |               |             |            |  |  |             |
|                        |                 |            |             |               |             |            |  |  |             |

| Mechanical & Physical Test |                 |            |             |                |                     |                                         |                |               |            |                       |
|----------------------------|-----------------|------------|-------------|----------------|---------------------|-----------------------------------------|----------------|---------------|------------|-----------------------|
| Work No.                   | Size of Product |            |             | Dimension Test |                     | Tension Test                            |                | Hardness Test | Grain Size | Electric Conductivity |
|                            | Thickness (mm)  | Width (mm) | Length (mm) | Thickness (mm) | Width (mm)          | Tensile Strength (kgf/mm <sup>2</sup> ) | Elongation (%) | HV            | (mm)       | (%)                   |
|                            | Standard        |            |             | -              | (-) 0.10 - (+) 0.00 | min. 58                                 | -              | min. 170      | -          | -                     |
| 3CC195A                    | 0.300           | 305.000    |             | GOOD.          | GOOD.               | 63.57                                   | 21.38          | 201.0 - 203.0 | -          | 14.4                  |
|                            |                 |            |             |                |                     |                                         |                |               |            |                       |
|                            |                 |            |             |                |                     |                                         |                |               |            |                       |
|                            |                 |            |             |                |                     |                                         |                |               |            |                       |

QC Supervisor 鄭建益

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