



# PRODUCT SPECIFICATION

## (產品規格書)

| 產品名稱 Description                                     | 產品料號 Part No.     | 圖號 Drawing No. |
|--|-------------------|----------------|
| 8949-H1 Series<br>Modular Jack Without LED<br>CAT 5e | 8949-H188-06Sx0BA | 8949D02117     |

| PRODUCT NAME<br>(產品名稱)   | DOCUMENT No.:<br>(文件編號) | Rev.<br>(版本)    | OUPIIN           |
|--|-------------------------|-----------------|------------------|
| 8949-H1 Series<br>Modular Jack Without LED<br>CAT 5e<br>(RoHS) | Q8949-PSS-002           | C (I563)        | (歐品)             |
|  | Approved<br>(核準)        | Checked<br>(審核) | Prepared<br>(製作) |
|  | Q.A. Section Chief      | Ruru Chen       | 2022.08.23       |



# PRODUCT SPECIFICATION OF OUPIIN

## 1. SCOPE 範圍

This product specification defines the product performance and the test methods to ascertain the performance of the 8949-H1 Series Modular Jack Without LED CAT 5e Type , 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 8949-H1 Series Modular Jack Without LED CAT 5e 型連接器,產品的特性及測試方法.

## 2. REFERENCE DOCUMENTS 參考文件

|          |   |
|----------|---|
| IEC60603 | Test method for electrical connector<br>(電子連接器設備測試方法) |
| IEC60512 | Test method for electrical connector<br>(電子連接器設備測試方法) |
| IEC60603 | Test method for electrical connector<br>(電子連接器設備測試方法) |
| IEC60068 | Test method for electrical connector<br>(電子連接器設備測試方法) |
| 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.



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### 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 1.5 A, rating voltage is 150 VAC .

額定電流 1.5 A，額定電壓 150 VAC

### 3.7. OPERATING TEMPERATURE 使用溫度

Operating Temperature range: -40°C~+85°C.

操作溫度範圍：-40°C~+85°C

## 4. PERFORMANCE AND TEST DESCRIPTION 性能及測試

### 4.1. 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。

### 4.2. TEST CONDITION 測試條件

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

除非特別註明，所有測試在室溫條件下完成。

### 4.3. 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。



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### Table I: Test Requirements and Procedures

#### (附表一: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>產品必須符合相關產品圖面的要求。                                | IEC60603-7<br>Visually, dimensions and functionally inspected per applicable product drawing.<br>依相關產品圖面，檢查產品的外觀、尺寸及功能。  |
| 2. Contact Resistance<br>(接觸阻抗)             | 30 mΩ Max.<br>最大 30 mΩ  | IEC60603-7 Figure 11<br>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)          | 500 MΩ Min.<br>最小 500 MΩ  | IEC60603-7<br>Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector.<br>(100 V DC±10%).<br>測試產品端子間以及端子與接地間的電阻 (100V DC±10%) |
| 4. Dielectric Withstanding Voltage<br>(耐電壓) | 1000 V DC/AC between adjacent contacts.<br>1500 V DC/AC between Shield and contacts.  | IEC60603-7<br>Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector.<br>測試產品端子間以及端子與接地間的電壓                                  |
| 5. Mated /Un-mating Force<br>(插拔力)          | Mated Force : 2.3Kgf Max<br>插入力：2.3Kgf Max  | IEC60512 13b<br>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  |
| 6. Durability<br>(耐久性)                      | After testing, no damage, Contact resistance: Rise in relation to initial values 20 mΩ Max.<br>測試後,產品無損壞，<br>接觸阻抗：比初始值增大不超過 20 mΩ | IEC60512 9a<br>Repeat mate and unmated for connector 750 cycles, at a speed of 10mm/s.<br>重復進行配合產品 750 次插拔，速度 10mm/s   |
| 7. Humidity-Temperature Cycle<br>(溫濕度循環)    | After testing, no damage, Contact resistance: Rise in relation to initial values 20 mΩ Max.<br>測試後,產品無損壞，<br>接觸阻抗：比初始值增大不超過 20 mΩ | IEC60068-2-38<br>Subject product to 25~65°C, 90-95%.R.H ,<br>21 Cycles.<br>產品置於-25~65°C,相對濕度：90-95%,循環 21 次  |



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|   |   |  |
|---|---|--|
| <p>8. Solder ability<br/>(可焊性)</p>  | <p>There shall have a solder coverage of 95% minimum。<br/>產品在測試完成後，焊接部位粘錫面積大於95%。</p>   | <p>Soldering time: 3 to 5 Seconds<br/>焊接時間：3~5 秒<br/>Soldering Temperature: 260±5°C.<br/>焊接溫度：260±5°C.</p>   |
| <p>9. Static pull, plug retention to jack, operational<br/>(插頭對插孔的靜態保持力)</p>  | <p>Subject specimens to specified force with plug mated in jack and latch engaged. Cable will pull at 45 degree angle from normal hanging axis. Force shall be applied and held for 60 seconds in each of 4 directions with force removed between each direction. Four directions will be toward latch, away from latch, and lateral to latch on each side. Plug used shall be 5.89mm (0.232 inch) overcrimped plug.<br/>EIA-364-98<br/>在插頭插入插孔並卡緊的情況下對樣品施加指定大小的力。該力將線纜由正常的懸垂軸拉至 45 度角位置，並在 4 個互不相鄰方向的每一方向上都分別保持 60 秒。這 4 個方向分別是朝向卡槽 (Latch) 方向、正對卡槽方向以及卡槽兩側方向。插頭規格為彈針壓入深度為 5.89 毫米 (0.232 英寸)</p>          | <p>1. 53.4 N [12 lbf] minimum.<br/>2. Show no evidence of physical damage to the jack, plug shall not disengage from the jack.<br/>3. Specimens shall be free of any traffic discontinuities during the test.<br/>1. 最小 53.4 牛頓 (12 磅力)<br/>2. 插孔無明顯機械損傷，插頭未脫離插孔<br/>3. 電氣上不能有超過 0.1 微秒斷訊的情形發生</p> |
| <p>10. Electrical Discontinuity Test<br/>(瞬斷測試)<br/>Dynamic pull, plug retention to jack, operational<br/>(插頭對插孔的動態保持力)</p> | <p>Subject specimens to specified force with plug mated in jack and latch engaged. Cable will pull at 45 degree angle from normal hanging axis. Weighted end of cable to be rotated through 360 degrees at a rate of 4 RPM for 3 total revolutions. Process will be repeated with 5.89mm (0.232 inch) overcrimped plug, then 6.02mm (0.237 inch) nominal plug, then 6.27mm (.247 inch) undercrimped plug.<br/>EIA-364-98<br/>在插頭插入插孔並卡緊的情況下對負重自然懸垂的樣品施加指定大小的力。該力將線纜由正常懸垂軸拉至 45 度角位置，並使負重線纜以 4RPM 的速率連續旋轉 360 度 3 圈。這一過程需分別採用彈針壓入深度為 5.89 毫米 (0.232 英寸)、6.02 毫米 (0.237 英寸) 和 6.27 毫米 (0.247 英寸) 的插頭重複實驗。</p> | <p>1. 33.34 N (7.5 lbf) min.<br/>2. Show no evidence of physical damage to the jack, plug shall not disengage from the jack<br/>3. Specimens shall be free of any traffic discontinuities during the test.<br/>1. 最小 33.34 牛頓 (7.5 磅力)<br/>2. 插孔無明顯機械損傷，插頭未脫離插孔<br/>3. 電氣上不能有超過 0.1 微秒斷訊的情形發生</p>  |