



PRODUCT SPECIFICATION

產品規格書

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
4976 Series Housing & Terminal	4976-xXxxFHB&4976-PIN-MTx-10K	4976D02001

PRODUCT NAME 產品名稱	DOCUMENT No.: 文件編號	Rev. 版本	OUPIIN
4976 Series Housing & Terminal (RoHS)	Q4976-PSS-I003	A (I732)	歐品電子
	Approved 核准	Checked 審核	Prepared 製作
	Q.A. Section Chief	Ruru Chen	2022.12.20



PRODUCT SPECIFICATION OF OUPIIN

1. SCOPE 適用範圍

This product specification defines the product performance and the test methods to ascertain the performance of the 4976 Series Housing & Terminal, which is designed and manufactured by Oupiin Electronic Co., Ltd. This product specification is applicable but not only for those part numbers which be shown in the cover page.

本產品規格書規定了由歐品電子有限公司設計生產的 4976 Series Housing & Terminal 型連接器產品的特性及測試方法。本產品規格書適用於但不局限於封面所顯示的產品料號

2. REFERENCE DOCUMENTS 參考文件

EIA364 Test method for electrical components 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見圖面

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 參見圖面

3.3. BILL OF MATERIAL 材料清單

Harmful material controlling follows the requirements of RoHS. The bill of material 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見圖面

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參見圖面

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



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

Rating Current : 額定電流

Wire size	# 20	# 22	# 24	# 26	# 28	# 30
Ampere	5A	5A	4A	3A	2A	1A

Rating Voltage : 250V DC/AC

額定電壓 : 250V DC/AC

3.7 OPERATING TEMPERATURE 使用溫度

Temperature range: -25°C~+85°C.

溫度範圍 : -25°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 10 cycles of durability. Each group shall be containing 5 test samples at least.

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，每組測試至少有5個樣品



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Table I: Test Requirements and Methods

附表一：測試要求與方法

Items 項目	Requirements 要求	Test Methods 測試方法
1. Confirmation of Product 產品確認	Product shall be conforming to the requirements of applicable product drawing. 產品必須符合相關產品圖面的要求。	Visually, dimensions and functionally inspected per applicable product drawing. 依相關產品圖面，檢查產品的外觀、尺寸及功能。
2. Contact Resistance 接觸阻抗	Initial : 10 mΩ Max. 初始狀態：最大 10 mΩ	Subject mated contacts assembled in housing to closed circuit of 100 mA max. at open circuit voltage of 20 mV max. EIA-364-06 所述固定在外殼裡的端子連結到一個封閉回路中測試：電流 100 mA，電壓 20 mV max. 適用：EIA-364-06
3. Insulation Resistance 絕緣阻抗	1000 MΩ Min. 最小 1000 MΩ	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. (500 V DC±10%). Per EIA-364-21. 測試產品相鄰端子間以及端子與接地間的電阻 (500 V DC±10%). 適用：EIA-364-21。
4. Dielectric Withstanding Voltage 耐電壓	Connector must withstand test potential of 1500 V AC for 1 minute. 樣品必須承受測試電壓 1500V AC，時間一分鐘	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. EIA-364-20. 測試產品端子間以及端子與接地間的電壓 適用：EIA-364-20。
5. Durability 耐久性	Contact Resistance 20mΩ Max. after testing. 測試後，接觸阻抗最大 20 mΩ	Repeat mate and unmated for connector 30 cycles. EIA-364-09 重復進行配合產品 30 次插拔 適用：EIA-364-09



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<p>6. Thermal Shock 溫度沖擊</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. 測試後，產品無損壞，接觸阻抗最大 20mΩ</p>	<p>Temperature range from $-40\pm 3^{\circ}\text{C}$ to $+105\pm 2^{\circ}\text{C}$. Start from $-40\pm 3^{\circ}\text{C}$, after 30 minutes, change to $+105\pm 2^{\circ}\text{C}$; total 5 cycles. Per EIA-364-32. 溫度變化範圍：$-40\pm 3^{\circ}\text{C} \sim +105\pm 2^{\circ}\text{C}$。從 $-40\pm 3^{\circ}\text{C}$ 開始，30 分鐘後換到 $+105\pm 2^{\circ}\text{C}$，共 5 個循環。 適用：EIA-364-32</p>
<p>7. Humidity 恆溫恆濕</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 1000 MΩ Min. 測試後，產品無損壞，接觸阻抗最大 20mΩ；耐電壓測試 OK，絕緣阻抗最小 1000 MΩ。</p>	<p>Temperature: $40\pm 2^{\circ}\text{C}$. Relative Humidity: 90-95%. Duration: 96 Hours. Per EIA-364-31 溫度：$40\pm 2^{\circ}\text{C}$ 相對濕度：90-95% 持續時間：96 小時 適用：EIA-364-31</p>
<p>8. Salt Spray 鹽霧</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. 測試後，產品無損壞，接觸阻抗最大 20mΩ</p>	<p>$5\pm 1\%$ salt concentration ,12 hours ,$35\pm 2^{\circ}\text{C}$ Per EIA-364-26 鹽水濃度 $5\pm 1\%$，時間 12 小時，溫度 $35\pm 2^{\circ}\text{C}$。 適用：EIA-364-26</p>
<p>9. Solder-ability 可焊性</p>	<p>There shall have a solder coverage of 95% minimum。 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 焊接時間：3~5 秒 Soldering Temperature: $245\pm 5^{\circ}\text{C}$. 焊接溫度：$245\pm 5^{\circ}\text{C}$.</p>