



# PRODUCT SPECIFICATION

## (產品規格書)

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
8975WP Series USB C 3.1 R/A Solder+SMD Type Waterproof	8975WP-C24CxxRDB2PT	S1620191212-01

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
8975WP Series USB C 3.1 R/A Solder+SMD Type Waterproof (RoHS)	Q8975-PSS-I003	A (I614)	(歐品)
	Approved (核准)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Ruru Chen	2022.11.17



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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 8975WP Series USB C 3.1 R/A Solder+SMD Type Waterproof , 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生產的 8975WP Series USB C 3.1 R/A Solder+SMD Type Waterproof 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 額定電流

Rating current is 5A for VBUS and GND(PIN A1,A4,A9,A12,B1,B4,B9,B12) ; 1.25A for Vcoon PIN ; 0.25A for other PINS.

### 3.7. OPERATING TEMPERATURE 使用溫度

Operating Temperature range: -40°C~+85°C  
操作溫度：-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述的機械，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：測試要求與方法**

Items (項目)	Requirements (要求)	Test Methods (檢測方法)
1. Confirmation of Product 產品確認	Product shall be conforming to the requirements of applicable product drawing. 產品必須滿足相關檔的規定	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	40 mΩ Max for VBUS&GND PINS and other PINS. initial. 電源 PIN、接地 PIN 及其他 PIN 的接觸阻抗初始值最大 40 mΩ	Subject mated contacts assembled in housing to open circuit of 100 mA max. 20 mV max. Per EIA-364-23 所述固定在外殼裡的端子連結到一個斷路回路中測試，電流 100 mA max，電壓 20 mV max 適用：EIA-364-23
3. Insulation Resistance 絕緣阻抗	100 MΩ Min. 最小 100 MΩ	Apply 100 V DC between the adjacent contacts. Per EIA-364-21 施加 100 V DC 在產品相鄰的端子間。 適用：EIA-364-21
4. Dielectric Withstanding Voltage 耐電壓	No breakdown shall occur. 產品無損壞現象	Connector must withstand test potential of 100 VAC for 1 minute Per EIA-364-20 產品必須承受測試電壓 100 VAC，時間 1 分鐘 適用：EIA-364-20.
5. Mating/Un-mating Force 插入力/拔出力	Mating force : 5~20N Un-mating force : 8~20N (1~10000 cycle) 6~20N (10001~ cycle) 插入力最大 5~20N 拔出力最小 8~20N (1~10000 cycle) 6~20N (10001 cycle)	At a speed of 12.5 mm/minute, apply axial insert the mating part into fully or pull out from the subject product. Per EIA-364-13 以 12.5mm/分鐘的速度，軸向完全插入對配外掛程式到被測產品中或從被測產品中拔出 適用：EIA-364-13



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<p>6. Durability 耐久性</p>	<p>After testing, no physical damage. Contact Resistance change 10 mΩ max. 測試後，產品外觀無損壞，接觸阻抗最大變化 10 mΩ。</p>	<p>Repeat mate and unmated for connector 10000 cycles, at a speed of 500±50 cycles per hour. Per EIA-364-09 重復進行配合產品 10000 次插拔，速度每小時 500 ±50 次 適用：EIA-364-09</p>
<p>7. Vibration 機械振動</p>	<p>After testing, no physical damage. No electrical discontinuity greater than 1μs shall occur. 測試後，產品外觀無損壞，不允許出現超過 1 μs 的瞬間斷開</p>	<p>Duration : 15 minutes in each (Total of 45 minutes) X, Y, Z axis. Amplitude : 1.52mm P-P or 147m/s<sup>2</sup> {15G} Sweep time: 50-500-50Hz in 15 minutes. Per EIA-364-28. 持續時間：15分鐘,X,Y,Z軸(共45分鐘) 振幅：1.52mm P-P or 147m/s<sup>2</sup> {15G} 掃描時間：50-500-50Hz, 15分鐘 適用：EIA-364-28</p>
<p>8. Humidity- Temperature Cycle 恆濕恆溫</p>	<p>After testing, no damage, Contact Resistance change 10 mΩ max. Dielectric Withstanding Voltage should be OK, Insulation Resistance should be 100 MΩ Min. 測試後，產品無損壞，接觸阻抗最大變化 10 mΩ；耐電壓測試 OK；絕緣阻抗最小 100 MΩ</p>	<p>Subject product to 25±3°C, 80±3%.R.H and 65±3°C, 50±3%.R.H. Ramp times should be 0.5 hour and dwell times should be 1.0 hour. 24 Cycles. Per EIA-364-31 產品置於 25±3°C，相對濕度：80±3%，及 65±3°C，相對濕度：50±3%，溫濕度變化時間為 0.5 小時，穩定溫度後需保持 1 小時，循環 24 次。 適用：EIA-364-31</p>
<p>9. Thermal Shock 溫度沖擊</p>	<p>After testing, no damage, Contact Resistance change 10 mΩ max. Dielectric Withstanding Voltage should be OK, Insulation Resistance should be 100 MΩ Min. 測試後，產品無損壞，接觸阻抗最大變化 10 mΩ；耐電壓測試 OK；絕緣阻抗最小 100 MΩ</p>	<p>Temperature range from -55°C to +85°C. Start from -55°C, after 30 minutes, change to +85°C ; change time is no more than 5 minutes, total 5 cycles. Per EIA-364-32 溫度變化範圍：-55°C~ +85°C。從-55°C開始，30分鐘後換到+85°C，轉換時間不超過 5 分鐘，共 5 個循環 適用：EIA-364-32</p>
<p>10. High Temperature Life 高溫老化</p>	<p>After testing, no physical damage. 測試後，產品外觀無損壞</p>	<p>Subject product to 105°C for 120 hours continuously. Per EIA-364-17 產品置於 105°C，連續 120 小時 適用：EIA-364-17</p>



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11. Salt Spray (鹽霧)	After testing, no detrimental corrosion allowed in contact area and base metal exposed. 測試後，產品外觀良好，端子及外殼金屬無生鏽、腐蝕及漏底材不良	5±1% salt concentration(PH=7.0), 24 hours, 35±2°C Per EIA-364-26 鹽水濃度 5±1%(PH=7.0)，時間 24 小時，溫度 35±2°C 適用：EIA-364-26
12. Solder ability (可焊性)	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%	Soldering time: 3-5 seconds. Temperature: 250±5°C. Per EIA-364-52 焊接時間：3-5 秒 溫度：250±5°C 適用：EIA-364-52