



PRODUCT SPECIFICATION OF OUPIIN

PRODUCT SPECIFICATION

(產品規格書)

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.	
4973 Series 4.2mm Connector Male&Female Housing	4973-xxMHxB	4973H01001	
	4973-xxFHB	4973H02001	
	4973-1XxxMHxB	4973H01002	
	4973-1XxxFHxB	4973H02002	
PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
4973 Series 4.2mm Connector Male &Female Housing	4973spec-H	A(I667)	(歐品)
	Approved (核準)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Jack Hsung	11.11/2019



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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 4973 Series 4.2mm Connector Male&Female Housing, 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4973 Series 4.2mm Connector Male&Female Housing 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 (電子連接器測試方法)
EIA 364	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--Bulk Package)



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3.6 RATING VOLTAGE 額定電壓

rating voltage is 600V(R.M.S.)
額定電壓 600V (R.M.S.)。

3.7 OPERATING TEMPERATURE 使用溫度

Temperature: -40°C ~+105°C
(溫度: -40°C ~+105°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.
(除非特別注明，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；)

Table I: Test Requirements and Procedures

(附錄一:測試要求)

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)	10 mΩ Max. initial (最大.初態)	Subject mated contacts assembled in housing to closed circuit of 10 mA max. at open circuit voltage of 20 mV max. (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 10 mA，電壓 20 mV max.)
3. Insulation Resistance (絕緣阻抗)	1000 MΩ Min. (最小)	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. MIL-STD-202, Method 302, Condition B (500 V DC±10%). (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 (耐電壓)	Connector must withstand test potential of 1500 V AC for 1 minute. Current leakage must be 0.5 mA max. (樣品必須承受測試電壓 1500V 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. (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. Durability (Repeated Mating/Unmated) (耐久性)	Contact Resistance: 20 mΩ Max. after testing. (測試後接觸阻抗最大 20mΩ)	The sample should be mounted the tester and fully mated and unmated 30 cycles specified at the rate of 25mm/min (重復進行配合產品 30 次插拔.)



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<p>6. Humidity (恆溫恆濕)</p>	<p>After testing, no damage, Contact Resistance 20mΩ max.. (測試後,產品無損壞, 接觸阻抗: 20 mΩ 最大)</p>	<p>Temperature :40±2 °C 96 hours. (溫度: 40±2 °C 96 小時) Relative Humidity : 90-95%; (相對濕度 : 90-95%;) Duration :96 Hours. MIL-STD-202, Method 108, (時間: 96 小時; MIL-STD-202, 方法 108。)</p>
<p>7. 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: 20 mΩ 最大)</p>	<p>5% salt concentration 8±1 hours 35±2°C MIL-STD-202, Method 101 Condition B. (鹽水濃度 (重量比) 5%, 時間 12 小時, 溫度 35±2°C; MIL-STD-202, 方法 101 條件 B.) IEC-364-26A</p>
<p>8. Thermal shock (熱衝擊)</p>	<p>After testing, no damage, Contact Resistance 20 mΩ max.. (測試後,產品無損壞, 接觸阻抗: 20 mΩ 最大;)</p>	<p>Temperature range from -40°C to +105°C .Start from -40±3°C, after 30 min. change to +105±2°C; change time is no more than 30 seconds. Total 30 cycles. MIL-STD-202, Method 107D, condition A. (溫度變化範圍: -40°C ~ +105°C; 從 -40±3°C 開始, 30 分鐘後換到+105±2°C; 轉換時間不超過 30 秒; 共 30 個循環.適用: MIL-STD-202, 方法 107D, 條件 A.)</p>
<p>9. Vibration (機械振動)</p>	<p>No electrical discontinuity less than 1μs shall occur, Power contact resistance 20 mΩ max 不允許出現超過 1 μs 的瞬間斷開, 測試後電源針接觸 阻抗最大 20mΩ max</p>	<p>Subject mated connector to 10-500-10 Hz traversed in 1 minute at 1.52mm amplitude, 2 hours each of 3 mutually perpendicular planes, 10 mA potential applied. Per EIA-364-28. 對測試產品, 在頻率變化每分鐘從 10-500-10 Hz, 振幅 1.52 mm 條件下, 在互相 垂直的三個面上, 每個面 2 小時下測量, 電流 10 mA。適用: EIA-364-28。</p>



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Material Housing : 016-PA66 (Nylon UL94V-2)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

化学品安全技术说明书		
TECHNYL A 205F NATURAL		
修订: 5.01 CN (ZH)	发行日期: 2014-01-03	

部分 9: 理化特性

9.1 基本理化特性信息

外观与性状	: 形状: 细粒 物态: 固体 颜色: 天然色
气味	: 无味至很轻微味。
气味阈值	: 无数据资料
pH值	: 无数据资料
熔点/熔点范围	: 250 - 270 ° C
闪点	: > 400 ° C 闭杯
蒸发速率 (Butylacetate = 1)	: 无数据资料
燃烧性 (固体、气体)	: 无数据资料
易燃 (液体)	: 无数据资料
可燃性/爆炸极限	: 无数据资料
自燃温度	: > 450 ° C 固体的相应自燃温度 方法: OECD试验指南A16
蒸气压	: 无数据资料
蒸气密度	: 无数据资料
密度	: 无数据资料
溶解性	: 水溶性: 几乎不溶 在其它溶剂中的溶解度: 普通有机溶剂: 不溶
正辛醇/水分配系数	: 无数据资料
热分解	: > 350 ° C
粘度	: 无数据资料
爆炸性	: 无数据资料
氧化性	: 未考虑为氧化物



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Material Housing :UL

Component - Plastics [\[guide info\]](#)

E44716

SOLVAY ENGINEERING PLASTICS GBU

QUARTIER BELLE-ETOILE, AVE RAMBOZ, BOITE POSTALE 64, ST FONS CEDEX 69192 FR

A 205F(r4)

Polyamide 66 (PA66), unfilled, "Technyl", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.38	V-2	4	0	105	65	65
	0.75	V-2	4	0	110	75	85
	1.5	V-2	3	0	115	75	85
	3.0	V-2	2	0	120	75	85

Comparative Tracking Index (CTI): 0

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10^X ohm-cm): -

High-Voltage Arc Tracking Rate (HVTR): 0

High Volt, Low Current Arc Resis (D495): 5

Dimensional Stability (%): -

(r4) - Virgin and regrind up to 50% by weight inclusive have the same basic material characteristics with respect to flammability, HDT, and RTI

NOTE - Materials designated "Technyl" may be prefixed by the letters "TY".

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

Report Date: 1992-09-17

Last Revised: 2011-03-14

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.38	V-2 (ALL)
			0.75	V-2 (ALL)
			1.5	V-2 (ALL)
			3.0	V-2 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m ²	-	-
ISO Izod Impact	ISO 180	kJ/m ²	-	-
ISO Charpy Impact	ISO 179-2	kJ/m ²	-	-