



PRODUCT SPECIFICATION

(產品規格書)

Ordering information

4472- 1* 15 H B
 Series 1: Single Row No. of H: Housing B: Bulk Package
 2: Double Row Pin Count

4472- PIN T 20K
 Series No. of Pin Count T: Tin Plated 20K Pins Per Reel

Wire Range : 28 to 32 AWG

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
Housing 1.0mm	4472spec-H	A1	(歐品)
Terminal	Approved (核準)	Checked (審核)	Prepared (製作)
(RoHS)	Q.A. Section Chief	Amy Chiu	AUG.18/2011



PRODUCT SPECIFICATION OF OUPIIN

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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 Housing & Terminal, 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 Housing & Terminal 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)
MIL-STD-202F	Test method for electrical components (電子零件測試方法)
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.
Products required carrier tape should meet the proper specification per purchase order. Connector



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container and the packaging specification is shown in package drawing.

(產品包裝可依客戶指定要求.本產品採用 Bulk Package / Tape & Reel Packag
包裝，具體見包裝圖面)

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

Rating current is 1.0A, rating voltage is 150V DC/AC RMS.

額定電流 1.0A，額定電壓 150V DC/AC RMS。

3.7 STORAGE AND OPERATING TEMPERATURE 儲存與使用溫度

Temperature range: -25°C~+85°C, including terminal temperature rise for rating current.

溫度範圍：-25°C~+85°C，包含接觸端子的額定電流溫升。

4. ENVIRONMENTAL (環境要求)

4.1. SOLDERABILITY (可焊性)

Connectors meet solder ability to MIL-STD-202F. Finish shall be free of contaminants.

(產品可焊性符合 MIL-STD-202F 標準規定的相關要求，表面不得有污染物.)

4.2. RESISTANCE TO SOLDER HEAT (耐焊接熱)

WAVE SOLDERING (波峰接)

Each cycle consists of three consecutive phases.

(每個焊接週期包括三個連續的階段)

1. Preheat (預熱)

2. Soldering (焊接)

3. Cool Down (冷卻)

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述的機械，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 (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)	Check the dimensions and functions per applicable product drawing in your eyes. (目視，尺寸及功能依產品圖面檢查)
2. Contact Resistance (接觸阻抗)	20 mΩ Max. initial (最大.初態)	Subject mated contacts assembled in housing to closed circuit of 100 mA max. at open circuit voltage of 10 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 100 mA，電壓 10 mV max.)
3. Insulation Resistance (絕緣阻抗)	100 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 (100 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)(100V DC±10%)
4. Dielectric Strength (耐電壓)	Connector must withstand test potential of 500 V AC for 1 minute. Current leakage must be 0.5mA max. (樣品必須承受測試電壓 500V AC，時間一分鐘，漏電流不大於 0.5mA.)	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。)



PRODUCT SPECIFICATION OF OUPIIN

Material Housing : 054-PBT (Black)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

SHINKONG SYNTHETIC FIBERS CO. 新光合成纖維股份有限公司

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CERTIFICATE OF ANALYSIS

GRADE (規格) :PBT D202G30 (NATURAL)

PRODUCT CODE (批號) : DF4806

ITEM 檢驗項目	UNIT 單位	TEST METHOD 檢驗方法	VALUE 檢驗值
ASH (灰份)	%	ASTM D2584	29.7
TENSILE STRENGTH (拉伸強度)	kg/cm ²	ASTM D638	1270
FLEXURAL STRENGTH (彎曲強度)	kg/cm ²	ASTM D790	1990
FLEXURAL MODULUS(彎曲模數)	kg/cm ²	ASTM D790	89200
IZOD IMPACT STRENGTH (衝擊強度)	kg-cm/cm	ASTM D256	11.6
SPECIFIC GRAVITY (比重)	-	ASTM D792	1.60

Batch No: M8575

GREEN PRODUCT (無毒材料)

ENPLA DIVISION

QA Manager : 廖志崑

Inspector : 鍾瑞蓮 2008年5月14日

成品單位:

送出日期:

CA\QA\材質證明



PRODUCT SPECIFICATION OF OUPIIN

Material Housing :UL

QMFZ2 Component - Plastics		Friday, October 24, 2003						E107536	
SHINKONG SYNTHETIC FIBERS CORP 223 YEN PING RD SEC 3 PIN CHENG TAOYUAN HSIEN 324 TW									
Material Designation: D202G30@									
Product Description: Polybutylene Terephthalate (PBT), glass reinforced, furnished as pellets.									
Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
NC, BK	0.3	V-0	4	0	75	75	75	-	-
ALL	0.71	V-0	3	0	140	120	140	-	-
	1.5	V-0	2	0	140	130	140	-	-
	3.0	V-0	0	0	140	130	140	-	-
CTI: 3	IEC CTI (V): -	HVTR: 4			D495: 6			IEC Ball Pressure (C): 200	
Dielectric Strength (kV/mm): - ISO Tensile Strength (MPa): - ISO Tensile Impact (kJ/m ²): -		Volume Resistivity (10 ⁹ ohm-cm): - ISO Flexural Strength (MPa): - ISO Izod Impact (kJ/m ²): -				Dimensional Stability(%): - ISO Heat Deflection (°C): - ISO Charpy Impact (kJ/m ²): -			
@	Ball pressure temperature of 200 deg. C, tested in accordance with IEC 695.10.2 and IEC 950 5.4.2								
Report Date: 7/13/1987			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 ULL.									



PRODUCT SPECIFICATION OF OUPIIN

Material Contact : Copper Alloy (Phosphor Bronze)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

REPORT OF MATERIAL TEST

DATE: DEC. 14, 2004



Customer: 名佳利金屬工業股份有限公司
 Commodity: C 5191 R PHOSPHOR BRONZE STRIP (H)
 Applied Standard: CNS 9503 Phosphor Bronze Sheets, Plates and Strips
 ISO 9002-4M8Y035-00
 台正字第 3345 號

Chemical Analysis Test

Work No.	Size of Product			P(%)	Sn(%)	Cu+Sn+P(%)			
	Thickness (mm)	Width (mm)	Length (mm)						
	Standard			0.030 - 0.350	5.50 - 7.00	min. 99.50			
99C220A	0.120	17.000		0.173	6.010	99.963			

Mechanical & Physical Test

Work No.	Size of Product			Dimension Test		Tension Test		Hardness Test HV	Grain Size (mm)	Electric Conductivity (%)
	Thickness (mm)	Width (mm)	Length (mm)	Thickness (mm)	Width (mm)	Tensile Strength (kgf/mm ²)	Elongation (%)			
	Standard			-	(-) 0.10 - (+) 0.00	-	-	min. 170	-	-
99C220A	0.120	17.000		0.000	0.000	63.14	20.42	197.0 - 198.0	-	13.8

MINCHALI METAL INDUSTRY CO., LTD.

51 Hsin Hsin Road, Chung Li City, Taiwan, R. O. C.

Tel: (886) 3422-1111, Fax: (886) 3422-1112

QC Supervisor

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MINCHALI METAL CO. LTD.

DEC-14-01 14:39