PRODUCT SPECIFICATION

(產品規格書)

Ordering information

4072-	1X	40	H	B(WB)
Series	1：Single Row 2：Double Row	No. of Position	H：Housing	B：Bulk Package WB：With Polarizing Bump

4072-	PIN	-T	-10K
Series	PIN	T：Tin Plated	10K Pins Per Reel

A3:AUG.03/2012
A4:NOV.17/2015(加 WB 選項)

PRODUCT NAME (產品名稱)	**DOCUMENT No.:** (文件編號)	**Rev.** (版本)	**OUPIIN** (歐品)
Housing 2.54mm	4072spec	A4(I704)	
Terminal	**Approved** (核準)	**Checked** (審核)	**Prepared** (製作)
(RoHS)	Q.A. Section Chief	Amy Chiu	NOV.17/2015

1. SCOPE （範圍）

This product specification defines the product performance and the test methods to ascertain the performance of the Housing 2.54 mm & 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 2.54 mm & 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-202	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, 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 3.0A, rating voltage is 250V DC/AC RMS.
額定電流 3.0A，額定電壓 250V 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-202. Finish shall be free of contaminants.
(產品可焊性符合 MIL-STD-202 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）

Three cycles. Each cycle consisting of three consecutive phased.
(三個週期，每個週期包括三個連續的階段完成；)

1. Preheat （預熱）

Increase in temperature not to exceed 4℃ per second.
(溫度增加不超過 4℃ /秒,)

2. Soldering （焊接）

Maximum allowable time wave soldering temperature of 150℃ is 90~120 seconds. Temperature in this interval is 245℃, not to exceed 5 seconds.
(波峰焊溫度150℃時最長不超過90~120秒. 最高溫度245℃時間不超過5秒.)

3. Cool Down （冷卻）

Cool down shall not exceed 6℃ per second.
(冷卻速度不超過6℃/秒.)

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

（性能及测試）

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**所列的機械，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 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 100 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 800 V AC for 1 minute. Current leakage must be 0.5 mA max. (樣品必須承受測試電壓 800V 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. Thermal shock (熱衝擊)	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：20 mΩ最大；耐電壓測試 OK, 絕緣阻抗 1000MΩ最小;)	Temperature range from -25°C to +85°C .Start from -25°C, after 30 min. change to +85°C; change time is no more than 30 seconds. Total 5 cycles. MIL-STD-202, Method 107D, condition A. (溫度變化範圍： -25°C ~ +85°C；從 -25°C 開始，30 分鐘後換到+85°C；轉換時間不超過 30 秒；共 5 個循環.適用：MIL-STD-202，方法 107D，條件 A.)

Material Housing : I704-Noryl (UL94V-1)

SGS Test Report Click here

如需 SGS 測試報告請點選此處

NORYL™ Resin SE100V
Asia Pacific: LIMITED USE

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	430	kgf/cm²	SABIC - Japan Method
Tensile Strain, break	55 - 55	%	SABIC - Japan Method
Flexural Stress	730	kgf/cm²	ASTM D 790
Flexural Modulus	22900	kgf/cm²	ASTM D 790
Hardness, Rockwell R	115	-	ASTM D 785
IMPACT			
Izod Impact, notched, 23°C	25	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	100	°C	ASTM D 648
CTE, -30°C to 30°C	7.E-05 - 7.E-05	1/°C	TMA
PHYSICAL			
Specific Gravity	1.1	-	ASTM D 792
Water Absorption, 24hours	0.07	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
ELECTRICAL			
Surface Resistivity	1.E+16	Ohm	ASTM D 257
Relative Permittivity, 50/60 Hz	2.65	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	0.71	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2.8	mm	UL 94

(1) Typical values only. [illegible]

(2) Only typical data for selection purposes. [illegible]
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) [illegible]
(5) [illegible]
(6) [illegible]

Source [illegible]

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

Material Housing :UL

Component - Plastics [guide info] **E45587**

SABIC JAPAN L L C

Moka Jp - Resin, 2-2 Kinugaoka, Moka-Shi Tochigi-Ken 321-4392 JP

SE100V

PPE+PS, "Noryl", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.71	HB	3	1	65	65	65
	1.5	V-1	2	1	95	80	95
	2.3	V-1	2	1	95	80	95
	2.8	V-1, 5VB	2	1	95	80	95
	3.0	V-1, 5VB	2	1	95	80	95
	6.0	V-1, 5VB	2	0	95	80	95

Comparative Tracking Index (CTI): 1

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): 35

Volume Resistivity (10^X ohm-cm): 15

High-Voltage Arc Tracking Rate (HVTR): 4

High Volt, Low Current Arc Resis (D495): 6

Dimensional Stability (%): 0

NOTE - Material designations may be followed by a color nomenclature consisting of either an alpha/numeric or a numeric/alpha combination.

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: 1970-10-01

Last Revised: 2012-04-13

IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10, IEC 60695-11-20	Class (color)	0.71	HB75 (ALL)
			1.5	V-1 (ALL)
			2.3	V-1 (ALL)
			2.8	V-1, 5VB (ALL)
			3.0	V-1, 5VB (ALL)
			6.0	V-1, 5VB (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	-	-

Material Contact : Copper Alloy (Brass)

SGS Test Report Click here

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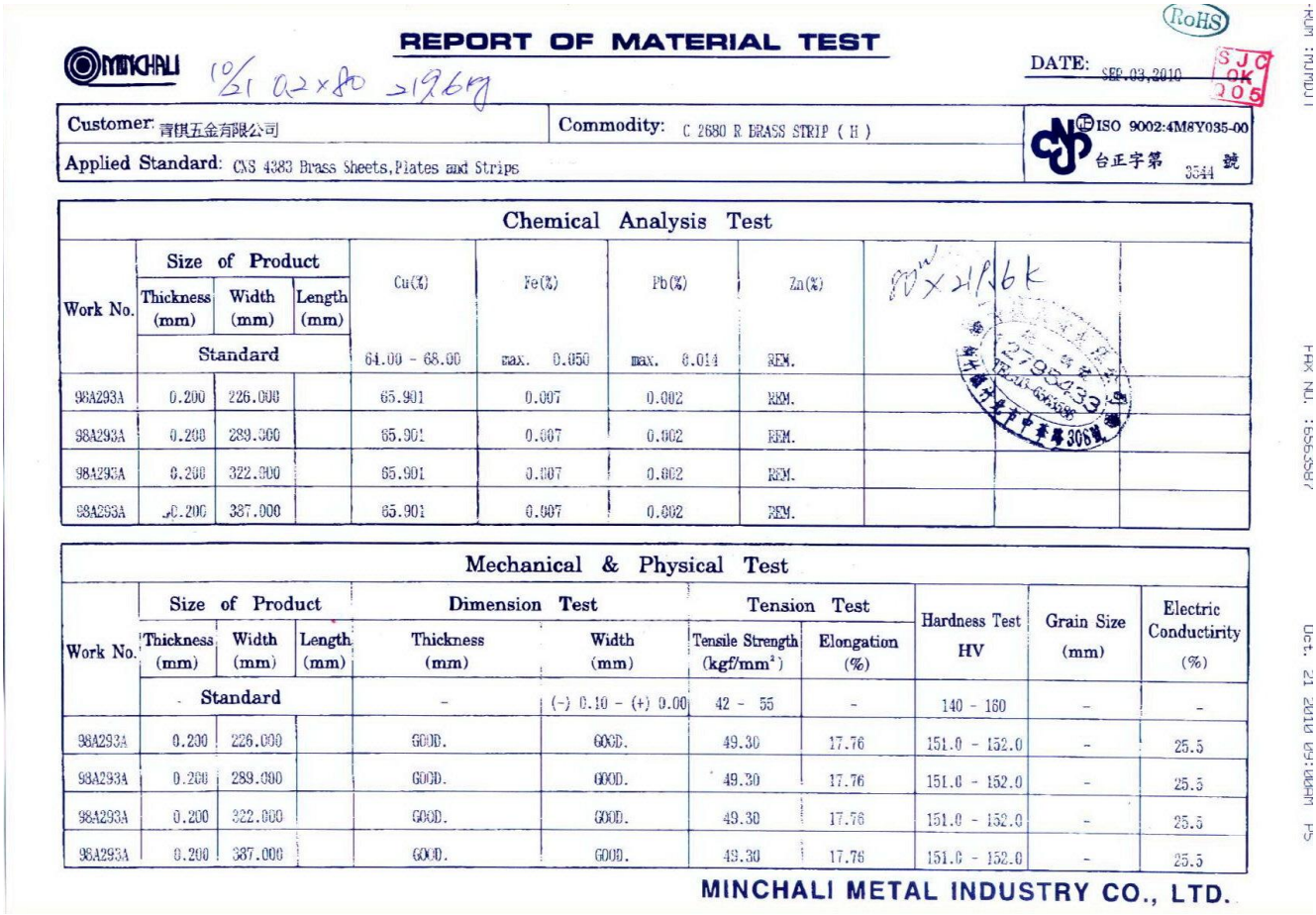

REPORT OF MATERIAL TEST

MINCHALI

DATE: SEP.03,2010

Customer: 青棋五金有限公司

Commodity: C 2680 R BRASS STRIP (H)

Applied Standard: CNS 4383 Brass Sheets, Plates and Strips

ISO 9002:4M8Y035-00 台正字第 3544 號

Chemical Analysis Test

Work No.	Size of Product Thickness (mm)	Width (mm)	Length (mm)	Cu(%)	Fe(%)	Pb(%)	Zn(%)
	Standard			64.00 - 68.00	max. 0.050	max. 0.014	REM.
98A293A	0.200	226.000		65.901	0.007	0.002	REM.
98A293A	0.200	289.000		65.901	0.007	0.002	REM.
98A293A	0.200	322.000		65.901	0.007	0.002	REM.
98A293A	0.200	387.000		65.901	0.007	0.002	REM.

Mechanical & Physical Test

Work No.	Size of Product Thickness (mm)	Width (mm)	Length (mm)	Dimension Test Thickness (mm)	Width (mm)	Tension Test Tensile Strength (kgf/mm²)	Elongation (%)	Hardness Test HV	Grain Size (mm)	Electric Conductivity (%)
	Standard			-	(-) 0.10 - (+) 0.00	42 - 55	-	140 - 160	-	-
98A293A	0.200	226.000		GOOD.	GOOD.	49.30	17.76	151.0 - 152.0	-	25.5
98A293A	0.200	289.000		GOOD.	GOOD.	49.30	17.76	151.0 - 152.0	-	25.5
98A293A	0.200	322.000		GOOD.	GOOD.	49.30	17.76	151.0 - 152.0	-	25.5
98A293A	0.200	387.000		GOOD.	GOOD.	49.30	17.76	151.0 - 152.0	-	25.5

MINCHALI METAL INDUSTRY CO., LTD.