



# PRODUCT SPECIFICATION

## (產品規格書)

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
2332 Series Board to Board 0.5mm	2332-xxMG00DPTx-P	2332D01001
	2332 -xxFG00DPTx-P	2332D02001

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
2332 Series Board to Board 0.5mm (RoHS)	2332spec	B (1800)	(歐品)
	Approved (核準)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Ruru Chen	2021.09.06



# PRODUCT SPECIFICATION OF OUPIIN

## 1. SCOPE (範圍)

This product specification defines the product performance and the test methods to ascertain the performance of the Board to Board 0.50mm, 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 Board to Board 0.50mm 型連接器,產品的特性及測試方法.)

## 2. REFERENCE DOCUMENTS (參考文件)

MIL-STD-1344	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)

## 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.)



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

Rating current is 0.5 A, rating voltage is 50V DC/AC  
額定電流 0.5 A，額定電壓 50V DC/AC

### 3.7. STORAGE AND OPERATING TEMPERATURE (儲存與使用溫度)

Temperature range: -20°C~+105°C  
溫度範圍：-20°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.)



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**Table I: Test Requirements and Procedures**

(附表一: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)	40 mΩ Max. 最大	JIS C5402 5.4 Subject mated contacts assembled in housing to closed circuit of 10 mA max at dry circuit voltage of 20 mV max. 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 10 mA，電壓 20 mV max.
3. Insulation Resistance (絕緣阻抗)	100 MΩ Min. 最小	JIS C5402 5.2/MIL-STD-202 Method 302 Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. (125 V DC±10%). 測試產品端子間以及端子與接地間的電阻
4. Dielectric Strength (耐電壓)	Connector must withstand test potential of 500 V AC for 1 minute. After testing, no damage 樣品必須承受測試電壓 500V AC，時間一分鐘，測試後，產品無損壞	JIS C5402 5.1/MIL-STD-202 Method 301 Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. 測試產品端子間以及端子與接地間的電壓
5. Durability (Repeated Mating/Unmated) (耐久性)	After testing ,Contact Resistance: 60 mΩ Max. 測試後，接觸阻抗最大 60mΩ	Repeat mate and unmated for connector 30 cycles at a speed of 10 cycles / minute 重復進行配合產品 30 次插拔，速度每分鐘 10 次。
6. Mating/Un-mating Force (插入力/拔出力)	Mating force : (0.1x n ) kgf. MAX Un-mating force : (0.006 x n ) kgf MIN n = number of pin 插入力: (0.1x n ) kgf. 最大 拔出力: (0.006 x n ) kgf， 最小	Insertion/Separation is conducted between applicable connectors. 在適用的連接器之間進行插入或分離。



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<p>7. Thermal shock (溫度衝擊)</p>	<p>After testing, no damage, Contact Resistance 60 mΩ max.. 測試後，產品無損壞，接觸阻抗：60 mΩ最大</p>	<p>Temperature range from -55±3°C to +125±2°C . Start from -55±3°C, after 30 min. change to +125±2°C. Total 5 cycles. 溫度變化範圍： -55±3°C ~ +125±2°C；從 -55±3°C開始，30 分鐘後換到 125±2°C；共 5 個循環。</p>
<p>8.High Temperature Life (高溫老化)</p>	<p>After testing, no damage, Contact Resistance 80 mΩ max.. 測試後，產品無損壞，接觸阻抗：80 mΩ最大</p>	<p>MIL-STD-202, Method 108. Subject product to 125±2°C for 96 hours continuously. 產品置於 125±2°C 連續 96 小時，</p>
<p>9. Humidity (恆溫恆濕)</p>	<p>After testing, no damage, Contact Resistance 60 mΩ max. Dielectric Strength should be OK, Insulation Resistance should be 100 MΩ min. 測試後，產品無損壞，接觸阻抗：60 mΩ最大；耐電壓測試 OK，絕緣阻抗 100MΩ最小</p>	<p>MIL-STD-202, Method 103 Temperature : 40±2 °C 溫度：40±2 °C Relative Humidity : 90-95%; 相對濕度：90-95% Duration :96 Hours. 時間：96 小時</p>
<p>10. Salt Spray (鹽霧)</p>	<p>After testing, no physical damage, Contact Resistance 60 mΩ max.. 測試後，產品外觀無損壞，接觸阻抗：60 mΩ最大</p>	<p>MIL-STD-202, Method 101 5±1% salt concentration ,48±4 hours, 35±2°C 鹽水濃度（重量比）5±1%，時間 48±4 小時，溫度 35±2°C</p>
<p>11. 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±0.5 Seconds 焊接時間：3±0.5 秒 Soldering Temperature: 245±5°C. 焊接溫度：245±5°C.</p>

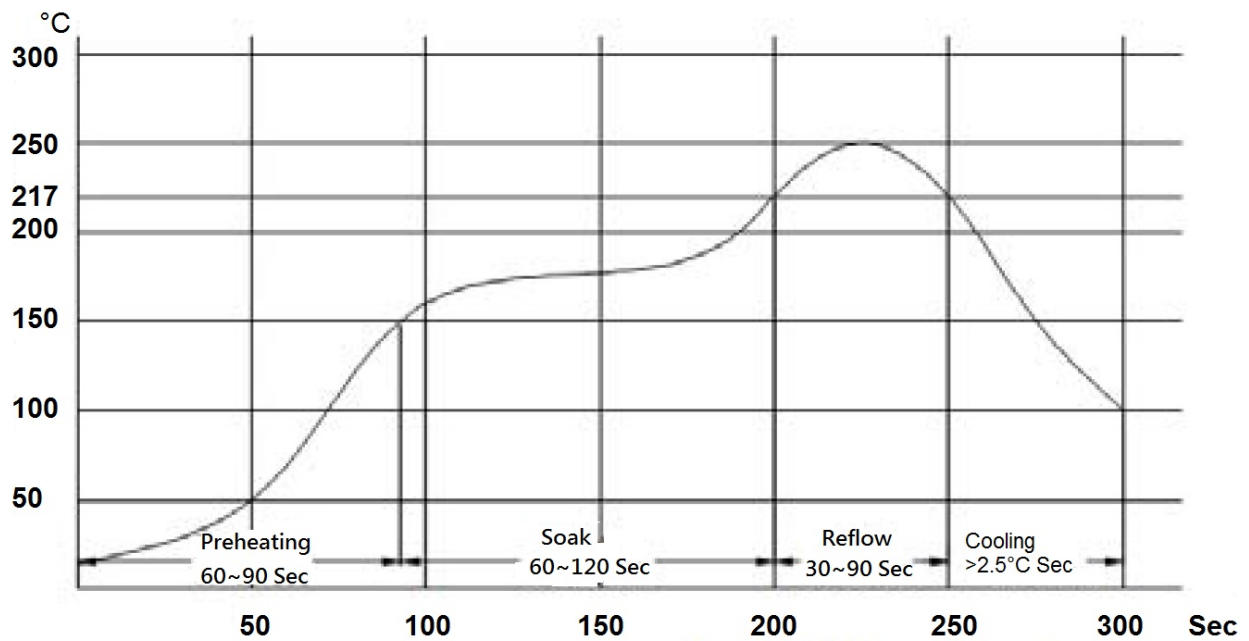


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### Table II: Reflow soldering profile

(附表二:回流焊接曲線圖)

Parameter 參數	Reference 參考	Specification 規格
Pre-heating	25°C ~150°C	60~90 sec
Soak zone	150~217°C	60~120 sec
Reflow zone	217°C	30~90 sec
Peak Temperature	250°C Max	



### Temperature Condition Graph



# PRODUCT SPECIFICATION OF OUPIIN

Material Housing: I662-PA9T GP2450NH

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

KURARAY CO. , LTD.

(KABUSIKI KAISHA KURARAY)

1-3, 1-CHOME, OTEMACHI, CHIYODA-KU, TOKYO, 100-8115, JAPAN

TELEPHONE 81-3-6701-1626

FACSIMILE 81-3-6701-1580

To whom It may concern;

Date ; APR. 23, 2018

We are pleased to submit the INSPECTION REPORT as follows;

## INSPECTION REPORT

GENESTAR  
Grade : GP2450NH  
Type : 2  
Color : BLACK  
Lot No. : 8329K81  
Quantity : 5,000 KG  
P/O No. : W-1301  
KR18017

Item	Test method	Unit	Test result
Tensile strength	ASTM-D638	MPa	143
Tensile elongation	ASTM-D638	%	3
Flexural strength	ASTM-D790	MPa	194
Flexural modulus	ASTM-D790	GPa	13.1
Notched izod impact strength	ASTM-D256	J/m	105.8
Specific gravity	ASTM-D792		1.54
Ash content	Kuraray method	%	47.4
MFR (320°C/2.16kg)	ASTM-D1238	g/10min.	41.0
Moisture Content (as packed)	KARL FISCHER	ppm	378

*Y. Fukunaga*

QUALITY ASSURANCE GROUP

GENESTAR DIVISION



# PRODUCT SPECIFICATION OF OUPIIN

## Material Housing :UL

iq.ul.com

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View additional material information including performance and processing data

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The information presented on the UL Prospector datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

Component - Plastics

E90350

Guide Information

### KURARAY CO LTD

GENESTAR DIV, OTE CENTER BLDG 1-1-3, OTEMACHI, CHIYODA-KU TOKYO 100-8115 JP

### GP2450NH(rr)

Polyamide 9T (PA9T) "Genestar", furnished as pellets

Color	Min. Thk (mm)	Flame Class	HWM	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.150	V-0	-	-	-	-	-
	0.40-0.44	V-0	3	3	140	90	130
	1.5	-	-	-	140	90	130
	3.0	-	-	-	140	100	140

Comparative Tracking Index (CTI): 0  
Dielectric Strength (KV/mm): -  
High-Voltage Arc Tracking Rate (HVTR): 0  
Dimensional Stability (%): -

Inclined Plane Tracking (IPT) kV: -  
Volume Resistivity (10<sup>8</sup> ohm-cm): -  
High Volt, Low Current Arc Resis (D495): 4

(rr) - Virgin and regrind up to 50% by weight have the same basic material characteristics.

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: 2009-10-28

Last Revised: 2016-12-18

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#### IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.150	V-0 (ALL)
			0.40-0.44	V-0 (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 <sup>2</sup>	-	-
ISO Izod Impact	ISO 180	kJ/m <sup>2</sup>	-	-
ISO Charpy Impact	ISO 179-2	kJ/m <sup>2</sup>	-	-





# PRODUCT SPECIFICATION OF OUPIIN

Material Contact : I662-C2680

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

BG118  
0.25\*29.7世鋒  
0.25\*30中樁



## REPORT OF MATERIAL TEST 材料測試報告

ISO 9001  
ISO/TS 16949  
IECQ QC080000  
ISO 14001  
OHSAS 18001 & TOSHMS

No.: 720801

DATE: FEB.21,2018

Customer 顧客名稱 : 國慶精密股份有限公司  
Commodity 商品名稱 : C 2680 R BRASS STRIP ( SH )  
Applied Standard 引用標準 : JIS H 3100 Copper and Copper alloy sheets, plates and strips

Manufacture No.	銅捲號	6CA423B	
(Specification)	產品規格	Standard	
Thickness (mm)	產品厚度	0.250	
Width (mm)	產品寬度	610.000	
Length (mm)	產品長度		
(Chemical Analysis Test)	化性測試		
Cu(%)	銅	64.000-68.000	65.483
Fe(%)	鐵	max. 0.050	0.016
Pb(%)	鉛	max. 0.0500	0.0009
Zn(%)	鋅	REM.	REM.
(Mechanical & Physical Test)	物性測試		
Thickness Test (mm)	厚度測試	-0.005 +0.005	0.252
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD
Tensile Strength (kgf/mm2)	抗拉強度	59.00 - 68.00	64.60
Elongation (%)	伸長率	-	6.12
Hardness Test (Hv)	硬度	180.0 - 190.0	189.0 - 190.0
Grain Size (mm)	結晶粒度	-	-
Electric Conductivity (%)	導電率	-	25.30
Bending Test (Good way)	折彎試驗	-	GOOD
Bending Test (Bad way)	折彎試驗	-	GOOD
Surface Roughness Ra (um)	表面粗度	-	0.11
(Other Information)	其他資訊		
Delivery No.	出貨單號	720303 2137	

QA Supervisor: 謝源鴻

A040405 D6C07516AF

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