



**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.
Modular Jack	8949-F11010-06SBNA	8949D02186

<b>PRODUCT NAME</b> (產品名稱)	<b>DOCUMENT No.:</b> (文件編號)	<b>Rev.</b> (版本)	<b>OUPIIN</b>
Modular Jack  (RoHS)	8949spec-F-SBNA	A(I563)	(歐品)
	<b>Approved</b> (核準)	<b>Checked</b> (審核)	<b>Prepared</b> (製作)
	Q.A. Section Chief	Jack Hsing	2020.02.24



# **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 Modular Jack, 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 Modular Jack 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,



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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 1.5 A, rating voltage is 150V AC RMS.

額定電流 1.5 A，額定電壓 150V AC RMS。

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

Temperature range: -40°C~+85°C, including terminal temperature rise for rating current.

溫度範圍：-40°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)**

The steady temperature of the preheat zone is 90~125°C.

(預熱區最終溫度控制在90~125°C)

#### **2. Soldering (焊接)**

To avoid the secondary tin-melting, the temperature on PCB upper surface is 160°C Max. for products with lead, or 200°C Max. for lead-free products. The temperature of the PCB bottom surface shall not be exceed 100°C more than the temperature of the PCB upper surface. The peak temperature is during 220~240°C for products with lead, or 230~245°C for lead-free products. The tin dip time is duration for 3~5 seconds.

(有鉛產品板面溫度不得超過160°C，無鉛產品板面溫度不得超過200°C，以防止貼片零件二次熔錫。板面溫度與板底的溫度溫差不得超過100°C。板下溫度峰值有鉛產品維持在220~240°C，無鉛產品控制在230~245°C。浸錫時間控制在3~5秒。)

#### **3. Cool Down (冷卻)**

Cool down shall not exceed 6°C per second.

(冷卻速度不超過6°C/秒。)



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**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；)



## PRODUCT SPECIFICATION OF OUPIIN

**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)	30 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)	500 MΩ Min. (最小)	Test between adjacent contacts of unmated connector for 1 minute. Impressed voltage 500 VDC ; EIA-364-21C. (在未配對連接器的相鄰觸點之間測試 1 分鐘。施加的電壓為 500 VDC ; EIA-364-21C)
4. Dielectric Withstanding Voltage (介電耐壓)	1KVrms at 60Hz , 1 minute between adjacent contacts. 1.5KVrms at 60Hz , 1 minute between shield and contacts. No creeping discharge or flashover shall occur. Current leakage: 0.5 mA Max. 60KHz 時為 1KVrms，相鄰觸點之間為 1 分鐘。60Hz 時為 1.5KVrms，屏蔽層與觸點之間為 1 分鐘。 不會出現蠕變放電或閃絡。漏電流：最大 0.5 mA。	Test between adjacent circuits of unmated connector. (EIA-364-20B) (在未配對連接器的相鄰電路之間進行測試。適用：EIA-364-20B)
5. Durability (耐久性)	After testing, no damage (測試後產品無損壞)	The sample should be mounted the tester and fully mated and unmated 750 cycles specified at the rate of 25mm/min (重復進行配合產品 750 次插拔.)



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6. Connector Mated Force (產品插入力)	2 contacts -----1.6Kgf Max. 4 contacts -----1.8Kgf Max. 6 contacts -----2.1Kgf Max. 8 contacts -----2.3Kgf Max. 10 contacts -----2.5Kgf Max.	Measure force necessary to unmated between the counterparts connectors.. (軸向力以 25±3mm/分的速度從塑膠本體對插後拔出)
7. Humidity (恆溫恆濕)	After testing, no damage (測試後產品無損壞)	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. ELA-364-31B (時間：96 小時；ELA-364-31B)
8. Salt Spray (鹽水)	After testing, no damage (測試後產品無損壞)	5±1% salt concentration 48 hours 35±2°C EAI-364-26B (鹽水濃度(重量比) 5±1%，時間 48 小時，溫度 35±2°C；EAI-364-26B)
9. Temperature Life (溫度壽命)	After testing, no damage (測試後產品無損壞)	Exposing in a heat chamber at a temperature of 65°C±2°C for 96 hours.； EIA-364-17B (在65°C±2°C的熱室中暴露96小時；EIA-364-17B)
10. Solderability (可焊性)	Tin coverage : 95% min. of immersed area (錫覆蓋率：至少 95%。浸入面積)	Soldering time: 5±0.5sec. (焊接時間：5±0.5 秒) Solder pot temperature: 245±0.5°C. (焊接溫度：245±0.5°C.)
11. Contact Normal Force (接觸壓力)	0.1kgf Min. (最小)	Individually pin of contact area； EIA-364-04A (接觸區單獨銷； EIA-364-04A)



## PRODUCT SPECIFICATION OF OUPIIN

Material Housing : I563-PBT E202G30BK

SGS Test Report [Click here](#)

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### 新光合成纖維股份有限公司 中壢廠 臺灣

8th Fl., 123, Sec.2, Nanking East Road, Taipei, Taiwan  
Tel: 886-2-2507-0131 886-2-2507-1251(30Lines) 886-3-4932131  
Fax:886-2-2506-8047 886-3-491-5763

### 產品材質證明

新耐特 (SHINITE) PBT

規格(GRADE) : E202G30

新耐特 (SHINITE) PBT 為新光合成纖維股份有限公司，所產製的工程塑膠系列之一，經由混練程序製得。具有優越的機械性、高剛性、尺寸安定性、耐熱老化性和化學性質。

此外新耐特 (SHINITE) PBT E202G30

製品 組成如下：

組成 CHEMICAL NAME	GRADE 規格
	E202G30
Polybutylene Terephthalate ( PBT ) 樹脂 CAS NO: 30965-26-5	40~60%
Flame Retardant 耐燃劑 CAS NO: 68928-70-1+1309-64-4	7~22% (6~16% +1~6%)
Glass Fiber 玻璃纖維 CAS NO: 65997-17-3	27~33%
Additives 添加劑 CAS NO: N.A.	1~10%

GREEN PRODUCT (無毒材料) 符合 RoHS 、REACH(SVHC)

如有任何的問題及意見，歡迎撥空指教，謝謝。

ENPLA DIVISION

送出日期：October 16, 2012



# PRODUCT SPECIFICATION OF OUPIIN

Material Housing : I563-PBT E202G30BK

Component - Plastics

E107536

SHINKONG SYNTHETIC FIBERS CORP

223 YEN PING RD SEC 3, PIH CHEIG TAOYUAN HSIEN 324 TW

E202G30

Polybutylene Terephthalate (PBT), glass reinforced, furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.75	V-0	3	0	130	110	120
	1.5	V-0	2	0	130	110	120
	3.0	V-0	2	0	130	120	130

Comparative Tracking Index (CTI): 2

Dimensional Stability (%): -

High-Voltage Arc Tracking Rate (HVTR): 4

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

Dielectric Strength (kV/mm): 33

Volume Resistivity (10<sup>8</sup> ohm-cm): 16

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: 2000-06-24

Last Revised: 2008-09-17

Underwriters Laboratories Inc®





# PRODUCT SPECIFICATION OF OUPIIN



## REPORT OF MATERIAL TEST 材料測試報告

ISO 9001  
IATF 16949  
IECQ QC080000  
ISO 14001  
OHSAS 18001 & TOSHMS

No.: 810802

DATE: JAN.15,2019

Customer 顧客名稱: 召弟有限公司

Commodity 商品名稱: C 2680 R BRASS STRIP (H)

Applied Standard 引用標準: JIS H 3100 Copper and Copper alloy sheets, plates and strips

Manufacture No.	銅捲號		7CA347A
(Specification)	產品規格	Standard	
Thickness (mm)	產品厚度		0.200
Width (mm)	產品寬度		355.000
Length (mm)	產品長度		
(Chemical Analysis Test)	化性測試		
Cu(%)	銅	64.000-68.000	65.710
Fe(%)	鐵	max. 0.050	0.008
Pb(%)	鉛	max. 0.0500	0.0014
Zn(%)	鋅	REM.	REM.
(Mechanical & Physical Test)	物性測試		
Thickness Test (mm)	厚度測試	-0.010 +0.000	0.197
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD
Tensile Strength (kgf/mm <sup>2</sup> )	抗拉強度	42.00 - 55.00	49.74
Elongation (%)	伸長率	-	21.32
Hardness Test (Hv)	硬度	140.0 - 150.0	147.0 - 149.0
Grain Size (mm)	結晶粒度	-	-
Electric Conductivity (%)	導電率	-	25.40
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	-	0.12
(Other Information)	其他資訊		
Delivery No.	出貨單號		810354



# PRODUCT SPECIFICATION OF OUPIIN

Material Contact : I563-Ni (C2680)

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## REPORT OF MATERIAL TEST 材料測試報告

ISO 9001  
IATF 16949  
IECQ QC080000  
ISO 14001  
OHSAS 18001 & TOSHMS

No.: 810802

DATE: JAN.15,2019

Customer 顧客名稱 : 召翊有限公司  
Commodity 商品名稱 : C 2680 R BRASS STRIP ( H )  
Applied Standard 引用標準 : JIS H 3100 Copper and Copper alloy sheets, plates and strips

Manufacture No.	銅捲號		7CA347A
(Specification)	產品規格	Standard	
Thickness (mm)	產品厚度		0.200
Width (mm)	產品寬度		355.000
Length (mm)	產品長度		
(Chemical Analysis Test)	化性測試		
Cu(%)	銅	64.000-68.000	65.710
Fe(%)	鐵	max. 0.050	0.008
Pb(%)	鉛	max. 0.0500	0.0014
Zn(%)	鋅	REM.	REM.
(Mechanical & Physical Test)	物性測試		
Thickness Test (mm)	厚度測試	-0.010 +0.000	0.197
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD
Tensile Strength (kgf/mm2)	抗拉強度	42.00 - 55.00	49.74
Elongation (%)	伸長率	-	21.32
Hardness Test (Hv)	硬度	140.0 - 150.0	147.0 - 149.0
Grain Size (mm)	結晶粒度	-	-
Electric Conductivity (%)	導電率	-	25.40
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	-	0.12
(Other Information)	其他資訊		
Delivery No.	出貨單號		810354



# PRODUCT SPECIFICATION OF OUPIIN

Material Contact : I563- Ni 、 Gold(C51000)

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## CERTIFICATE OF MATERIAL

Invoice No. : YL-FE191023-55  
 Date : OCT. 23, 2019  
 Customer : FORETECH ELECTRONICS CO., LTD  
 Commodity: PHOSPHOR BRONZE WIRE UNS C51000 (JIS C5102)

YOUNGLIM ELECTRONICS COMPANY  
 71-1, YANGBEOL-RI, OPO-EUP  
 GWANGJU-SI, GYUNGGI-DO, KOREA  
 TEL:82-31-7660270

ITEM	Nominal Dimension		Quantity		Test				Inspection Result		
	Size(mm)	O.D(mm) +0.005	Reel	Weight(kg)	T,S(N/mm) 950-1100	E.L(%) ≥3	Bend(90°) 7-8	Resistance (mΩ/4cm) 22-25	Dimension	Surface	
UNS C51000 (JIS C5102)	0.45	0.451	40	1600	960.7	3.62	8	24.1	OK	OK	
Chemical	Element	Cu	Zn	Ni	Fe	Pb	Sn	P	Cu+Sn+P		
	Spec	Min %	Rem	-	-	-	-	4.50	0.03	99.5	
		Max %		0.20	-	0.10	0.02	5.50	0.35	-	
	UNS C51000 (JIS C5102)	95.12300	0.00810	0.00510	0.00310	0.00460	4.72580	0.11990	99.96870		

Remarks : We here by certify that above material has been tested to comply with the specification

Manager of Quality dept : JUNG YEON\_MO



YOUNGLIM ELECTRONICS COMPANY

*Park Young Chul*

YOUNG CHUL PARK / PRESIDENT