



PRODUCT SPECIFICATION

(產品規格書)

Ordering information

8972-B	09	C	30	R	U	A
Series	Position	C: Selective Gold Plated	30:30 μ”	R:Right Angle	U : Blue	A: Tray Package

A1:DEC.22/2010.
A2:JUL.25/2014.(重整)

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
USB 3.0 B Type (RoHS)	8972spec-B	A2(I705)	(歐品)
	Approved (核準)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Amy Chiu	JUL.25/2014

1. SCOPE (範圍)	3
2. REFERENCE DOCUMENTS (參考文件)	3
3. FEATURE & DIMENSIONS (特徵及尺寸)	3
3.1. <i>PRODUCT DIMENSION (產品尺寸)</i>	3
3.2. <i>PCB/PANEL LAYOUT (印刷電路板佈局)</i>	3
3.3. <i>BILL OF MATERIAL (材料清單)</i>	3
3.4. <i>MECHANICAL & ELECTRICAL CHARACTERISTIC (機械及電器特性)</i>	3
3.5. <i>PACKAGING (包裝)</i>	3
3.6. <i>RATING CURRENT AND RATING VOLTAGE (額定電流與額定電壓)</i>	4
3.7. <i>OPERATING TEMPERATURE (使用溫度)</i>	4
4. Environmental (環境要求)	4
4.1. <i>SOLDERABILITY (可焊性)</i>	4
4.2. <i>RESISTANCE TO SOLDER HEAT (耐焊接熱)</i>	4
WAVE SOLDERING (波峰焊)	4
1.Preheat (預熱)	4
2.Soldering (焊接)	4
3.Cool Down (冷卻)	4
5. PERFORMANCE AND TEST DESCRIPTION (性能及測試)	5
5.1. <i>REQUIREMENT (要求)</i>	5
5.2. <i>TEST CONDITION (測試條件)</i>	5
5.3. <i>SAMPLE SELECTION (樣品選擇)</i>	5
Table I: Test Requirements and Procedure	6-7
(附錄一: 測試要求)	
Table II: Material	8-14
(附錄二: 材料證明)	

1. SCOPE (範圍)

This product specification defines the product performance and the test methods to ascertain the performance of the USB 3.0 B Type, 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 USB 3.0 B Type, 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, 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。) Tray Package包裝

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

Rating Current : 1.8A (Only Pin 1 and Pin 4) 額定電流

0.25A (For Other Pin) 額定電流

Rating Voltage is 30V DC/AC RMS. 額定電壓 30V DC/AC RMS。

3.7 OPERATING TEMPERATURE 使用溫度

Temperature range: -55°C~+85°C, including terminal temperature rise for rating current.

溫度範圍：-55°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 225~250°C for products with lead, or 235~260°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225~250°C，無鉛產品控制在235~260°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.)

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)	50 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)	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 100 V AC for 1 minute. Current leakage must be 0.5 mA max. (樣品必須承受測試電壓 100V 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: 50 mΩ Max. after testing. (測試後接觸阻抗最大 50mΩ)	The sample should be mounted the tester and fully mated and unmated 5000 cycles specified at the rate of 25mm/min (重復進行配合產品 5000 次插拔.)
6. Connector Mated / Unmated Force (產品插拔力)	Mated force : 2.5 kg max. Unmated force : 1.0~2.5 kg . 插入力: 2.5kg 最大 拔出力: 1.0~2.5 kg	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)



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7. Thermal shock (熱衝擊)	After testing, no damage, Contact Resistance 50 m Ω max.. (測試後,產品無損壞, 接觸阻抗: 50 m Ω 最大)	Temperature range from -55°C to +85°C .Start from -55°C, after 30 min. change to +80°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: -55°C ~ +85°C; 從 -55°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.)
8. Solderability (可焊性)	Appearance of the specimen shall be inspected after the test with the assistance of a magnifier capable of giving a magnification of 10 X for any damage such as pinholes, void or rough surface. (樣品在測試完成後, 在放大倍數為 10 倍的顯微鏡下, 檢查外觀損壞如: 小孔, 空焊, 外觀粗糙度;)	Soldering time: 3 to 5 Seconds (焊接時間: 3~5 秒) Peak Temperature: 245 \pm 5°C. (最高溫度: 245 \pm 5°C.)



PRODUCT SPECIFICATION OF OUPIIN

Material Housing : PBT(Blue)

[SGS Test Report Click here](#)

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長春人造樹脂廠股份有限公司

台北市松江路三〇一號七樓

CHANG CHUN PLASTICS CO., LTD.

NO.301, SONGKIANG ROAD, 7TH FL.,
TAIPEI, 10477 TAIWAN

TEL:886-2-25001883
FAX:886-2-25018018

CCP PBT 4830NCB PROPERTIES

MATERIAL : PBT4830NCB

VENDOR: CHANG CHUN PLASTICS CO., LTD.

TEST ITEM	TEST METHOD	UNIT	QC RANGE
比重 (SPECIFIC GRAVITY)	ASTM D-792		1.55-1.61
灰份 (ASH)		%	28-32
抗張強度 (TENSILE STRENGTH)	ASTM D-638	KG/CM ²	≥ 1000
伸長率 (ELONGATION)	CCP METHOD	%	≥ 2.5
抗折強度 (FLEXURAL STRENGTH)	ASTM D-790	KG/CM ²	≥ 1500
抗折模數 (MODULUS)	ASTM D-790	KG/CM ²	≥ 70000
衝擊強度 (IMPACT STRENGTH, NOTCHED)	ASTM D256	KG-CM/CM	≥ 8.0
熔融指數 (MELT INDEX)	ASTM D-1238	g/10MIN	10-18



PRODUCT SPECIFICATION OF OUPIIN

Material Housing :UL

QMFZ2 Component - Plastics

Wednesday, May 25, 2005

E59481

CHANG CHUN PLASTICS CO LTD

7TH FL 301 SONGKIANG RD TAIPEI TW

Material Designation: **PBT-4830**

Product Description: Polybutylene Terephthalate (PBT), glass reinforced, designated "LONGLITE" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	3.0-3.2	V-0	0	1	75	75	75	-	-

CTI: 3 IEC CTI (V): - HVTR: 2 D495: 7 IEC Ball Pressure (°C): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10¹²ohm-cm): -

Dimensional Stability(%): -

ISO Tensile Strength (MPa): -

ISO Flexural Strength (MPa): -

ISO Heat Deflection (°C): -

ISO Tensile Impact (kJ/m²): -

ISO Izod Impact (kJ/m²): -

ISO Charpy Impact (kJ/m²): -

Report Date: 9/1/1987

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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 ULI.



PRODUCT SPECIFICATION OF OUPIIN

Material Baffle : 007-U-PA66(Blue)

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耐特科技材料股份有限公司

FQC 檢驗報告

製表日期:10/09/02 10:16:01

頁次:1

料件編號: .MG-0034N-V W2

FQC 單號:FQ11050128

工單單號:F2C1050007

檢驗日期:10/05/10

品檢號碼:0508814

檢 驗 員:000116

序	檢驗項目	方法	實測數值
1 01	降伏抗張強度 Tensile Str.,Yield(Kg/cm ²)	ASTM D638	1247.0000
2 04	斷裂伸長率 Elongation Break(%)	ASTM D638	1.3000
3 05	抗折強度 Flexural Str.,(Kg/cm ²)	ASTM D790	1813.0000
4 06	抗折彈性係數 Flexural Modulus(Kg/cm ²)	ASTM D790	86329.0000
5 08	衝擊強度 RT 1/8" Impact Str.,(Kg-cm/cm)1/8"	ASTM D256	6.1000
6 20	填充物含量 (%) Filler Contents(%)	ASTM D2584	30.1000
7 23	熱變形溫度 264PSI(°C) H.D.T.(18.5Kgf/cm ²)(°C)	ASTM D648	242.3000
8 27	耐燃性 UL-94 1/16" Flammability	UL-94	V2
9 29	比重 Specific Gravity	ASTM D792	1.4190

主管簽核: 莊瑞記



PRODUCT SPECIFICATION OF OUPIIN

Material Housing :UL

UL iQ™ for Plastics

第 1 頁 , 共 1

Need more information? Click Here to go to the iQ™ for Plastics database

Component - Plastics

E135714

NYTEX COMPOSITES CO LTD

6 LANE 468 CHANGSUI RD, SEC 4, PEITOU HSIANG CHANGHUA HSIEN 523 TW

MG-0034N-V

Polyamide 66 (PA 66), 30% Glass Fiber, flame retardant, furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.8	V-2	-	-	65	65	65
	1.6-1.76	V-2	-	-	65	65	65

Comparative Tracking Index (CTI): -

Dimensional Stability (%): -

High-Voltage Arc Tracking Rate (HVTR): -

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

Dielectric Strength (kV/mm): -

Volume Resistivity (10⁸ ohm-cm): -

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: 1991-03-23

Last Revised: 2010-02-09

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.8	V-2 (ALL)
			1.6-1.76	V-2 (ALL)
Glow-Wire Flammability (GWI)	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	-	-

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The materials covered in this database are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE PRODUCTS SUBMITTED TO UNDERWRITERS LABORATORIES INC.

Notice of Disclaimer

<http://data.ul.com/link/plastics.aspx?PR=YDBFUOTDEKGPGGKLUORIMFBGAAOTQSEW>

2010

Material Contact : Copper Alloy (4P-Phosphor Bronze)

[SGS Test Report Click here](#)

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GUO CHING PRECISION CO., LTD

試驗成績表

REPORT OF MATERIAL TEST

客戶 : 歐品電子有限公司	國慶精密股份有限公司
Customer	桃園縣龜山鄉大崗村大湖路2-17號
品名 : C5191-H	尺寸 : 0.300x 28.0x C
Product	Size
料號 : 1020301020	日期 : 102/03/26
Lot No	Date
	TEL : 03-2115391~8
	FAX : 03-2115399

化學成份

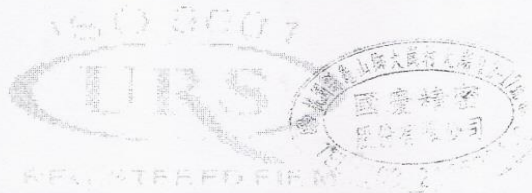
CHEMICAL COMPOSITION

元素 ELEMENT	Cu	P	Sn
規範 MAX	-	0.350	7.000
SPEC MIN	93.400	0.030	5.500
分析值 ANALYSIS VALUE	94.203	0.125	5.626

試驗

TEST RESULT

項目 ITEM	抗張 Tensile Strength kgf/mm2	伸長 Elongation %	硬度 Hardness Test o	結晶粒度 Grain Size µm	導電率 Electric Conductivity
規範 CONDITION	-	-	HV	-	-
SPEC MAX	70.000	-	200.000	-	-
SPEC MIN	58.000	8.000	180.000	-	-
測驗值 MEASURE-MENT VALUE	59.710	22.040	194.000	0.010	14.500



Approved by:



Checked by:



Material Contact : Copper Alloy (5P-Brass)

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GUO CHING PRECISION CO., LTD

試驗成績表

REPORT OF MATERIAL TEST

客戶: 弘振企業股份有限公司	國慶精密股份有限公司
Customer	桃園縣龜山鄉大崗村大湖路2-17號
品名: C2680-H	尺寸: 0.250x 230.0x C
Product	Size
料號: 950327030	日期: 96/03/14
Lot No	Date
	TEL: 03-2115391-8
	FAX: 03-2115399

化學成份

CHEMICAL COMPOSITION

元素 ELEMENT	Cu %	Fe	Pb
規範 MAX	68.000	0.050	0.090
SPEC MIN	64.000	-	-
分析值 ANALYSIS VALUE	64.714	0.010	0.004

試驗

TEST RESULT

項目 ITEM	抗張 Tensile Strength kgf/mm2	伸長 Elongation %	硬度 Hardness Test o	結晶粒度 Grain Size µm	導電率 Electric Conductivity
規範 CONDITION	-	-	HV	-	-
SPEC MAX	55.000	-	175.000	-	-
MIN	42.000	10.000	105.000	-	-
測驗值 MEASURE-MENT VALUE	48.740	17.920	150-152	-	25.300



Approved by:



Checked by:



Material Shell : Copper Alloy (Brass)

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GUO CHING PRECISION CO., LTD

試驗成績表

REPORT OF MATERIAL TEST

客戶: 弘振企業股份有限公司	國慶精密股份有限公司
Customer	桃園縣龜山鄉大崗村大湖路2-17號
品名: C2680-H	尺寸: 0.250x 230.0x C
Product	Size
料號: 950327030	日期: 96/03/14
Lot No	Date
	TEL: 03-2115391-8
	FAX: 03-2115399

化學成份

CHEMICAL COMPOSITION

元素 ELEMENT	Cu %	Fe	Pb
規範 MAX	68.000	0.050	0.090
SPEC MIN	64.000	-	-
分析值 ANALYSIS VALUE	64.714	0.010	0.004

試驗

TEST RESULT

項目 ITEM	抗張 Tensile Strength kgf/mm2	伸長 Elongation %	硬度 Hardness Test o	結晶粒度 Grain Size µm	導電率 Electric Conductivity
規範 CONDITION	-	-	HV	-	-
SPEC MAX	55.000	-	175.000	-	-
MIN	42.000	10.000	105.000	-	-
測驗值 MEASURE-MENT VALUE	48.740	17.920	150-152	-	25.300



Approved by:



Checked by:

