

PRODUCT SPECIFICATION

(產品規格書)

Ordering information

9192-A 4 P02S02 P 1 1 A CB 30 D A

Series Female P02:Power N:W/O 1:Dim T=4.10mm A:Power Pitch CB:(Power)Contact D:Dip Type Tray
 R/A Contact Post 2:Dim T=3.20mm 14.50mm Au+Pd/Ni ,Dip Tin P:Press-Fit Package
 S02: Signal P:With 1: DIM Signal Pitch C:(Power) Selective Type
 Contact Post G(GAP)=2.8mm 8.50mm Gold Plated
 =5.0mm G:(Power)Gold
 Plated
 30: 30 μ”

A1:JAN.25/2016

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
BUSBAR Clip Power Connector (RoHS)	9192spec-A4P	A1(I800)	(歐品)
	Approved (核準)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Sunny Tsai	JAN.25/2016



PRODUCT SPECIFICATION OF OUPIIN

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>STORAGE AND OPERATING TEMPERATURE (儲存使用溫度)</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) -NA(不適用)</i>	4
5. PERFORMANCE AND TEST DESCRIPTION (性能及測試)	4
5.1. <i>REQUIREMENT (要求)</i>	4
5.2. <i>TEST CONDITION (測試條件)</i>	4
5.3. <i>SAMPLE SELECTION (樣品選擇)</i>	4
Table I: Test Requirements and Procedure	5-7
(附錄一: 測試要求)	
Table II: Material	8-11
(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 BUSBAR Clip Power Connector , 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 BUSBAR Clip Power Connector 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)
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: Power pin 16A. Rating voltage is 400V AC RMS.

額定電流: Power pin 16A. 額定電壓: 400V AC RMS.

3.7 STORAGE AND OPERATING TEMPERATURE 儲存與使用溫度

Temperature range: -40°C~+105°C, including terminal temperature rise for rating current.

Storage Temperature: 0°C~+40°C, Humidity: 80%RH under 焔Time limit is 18 months the products are stored

溫度範圍: -40°C~+105°C, 包含接觸端子的額定電流溫升。

儲存溫度: 0°C~+40°C, 濕度:80%RH以下, 產品限存時間為18個月。

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) --NA (不適用)

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)	Power pin: 5.0mΩ Max .initial. Signal pin: 20.0mΩ Max .initial. Power pin:5.0mΩ Max,(初始) Signal pin:20.0mΩ Max .(初始) 接觸電阻變化值: Power:Δ10 mΩ Max Signal: Δ15 mΩ Max	Subject mated contacts assembled in housing to closed circuit of 20mA 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 20 mA max，電壓 20 mV max.)
3. Insulation Resistance (絕緣阻抗)	Power pin: 5000mΩ Min. Signal pin: 1500mΩ Min. Power pin 最小 5000mΩ Signal pin:最小 1500mΩ	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阻) (400V DC±10%)
4. Dielectric Strength (耐電壓)	Power pin must withstand test potential of 1000VAC RMS for 1 min ,Due to exceed leakage current 0.2mA Max. Power pin 必須承受測試流 1000VAC, 時間 1 分鐘,漏電流不超過 0.2mA. Signal pin must withstand test potential of 1000VAC RMS for 1 min, Due to exceed leakage current 0.2mA Max Signal pin 必須承受測試流 1000VAC, 時間 1 分鐘,漏電流不超過 0.2mA.	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 (耐久性)	Contact resistance after test : Power:15.0mΩ Max Signal:35.0mΩ Max	The sample should be mounted the tester and fully mated and unmated 50 cycles specified at the rate of 25.4mm/min



PRODUCT SPECIFICATION OF OUPIIN

	測試後接觸阻抗 Power:15.0m Ω Max Signal:35.0m Ω Max	(重復進行配合產品 50 次插拔.)
6. Insertion / Separation Force (產品插拔力)	40N maximum engaging force 4.0N minimum separating force. 插入力: 40 N all pin pair Max. 拔出力: 4.0 N all pin pair Min.	At a speed of 25.4 \pm 3 mm/minute, apply axial insert the mating part into fully or pull out from the subject product (以 25.4 \pm 3mm/分鐘的速度，軸向完全插入對配插件到被測產品中或從被測產品中拔出)
7. Thermal shock (熱衝擊)	After testing, no damage, Contact Resistance : Power:15.0m Ω Max(After Testing) Signal:35.0m Ω Max(After Testing) (測試後,產品無損壞，接觸阻抗： Power:15.0m Ω 最大 Signal:35.0m Ω 最大)	Temperature range from -55°C to +105°C. Start from -55°C, after 30 minutes, change to +105°C; change time is no more than 5 minutes, total 25 cycles. IEC60512-11-4 (溫度變化範圍： -55°C ~ +105°C；從 -55°C 開始，30 分鐘後換到+105°C；轉換時間不超過 5 分鐘；共 25 個循環.)
8. Humidity Temperature Cycling (濕度/溫度循環)	After testing, no damage, Contact Resistance : Power:15.0m Ω Max(After Testing) Signal:35.0m Ω Max(After Testing) (測試後,產品無損壞，接觸阻抗： Power:15.0m Ω 最大 Signal:35.0m Ω 最大)	Subject product : Temperature between :+25 °C to +65 °C ,50-80% RH10 cycles. Each cycle lasted 24 hours IEC364-31B 產品置於 25~65°C;相對濕度 50-80%；循環 10 次, 24 小時循環一次,(適用 IEC364-31B)
9.High temperature (高溫)	After testing, no damage, Contact Resistance : Power:15.0m Ω Max(After Testing) Signal:35.0m Ω Max(After Testing) (測試後,產品無損壞，接觸阻抗： Power:15.0m Ω 最大 Signal:35.0m Ω 最大)	Subject product to 105°C for 72 hours, Two hours recovery time. continuously. EIA-364-17. (產品置於 105 \pm 2°C 連續 72 小時，恢復時間 2 小時,適用 EIA-364-17。)
10. Salt Spray (鹽霧)	After testing, no damage, Contact Resistance : Power:15.0m Ω Max(After Testing) Signal:35.0m Ω Max(After Testing) (測試後,產品無損壞，接觸阻抗： Power:15.0m Ω 最大 Signal:35.0m Ω 最大)	5 \pm 1% salt concentration 48 hours 35 \pm 2°C MIL-STD-202, Method 101 Condition B. (鹽水濃度（重量比）5 \pm 1%，時間 48 小時，溫度 35 \pm 2°C.)
11. Solder ability (可焊性)	Appearance of the specimen shall be inspected after the test with the	Soldering time: 3 to 5 Seconds (焊接時間：3~5 秒)



PRODUCT SPECIFICATION OF OUPIIN

	<p>assistance of a magnifier capable of giving a magnification of 10 X for any damage such as pinholes, void or rough surface.95% of immerasd area must show no vids, pin holes.</p> <p>(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；) 浸漬面積需 95%以上</p>	<p>Peak Temperature: 260±5°C. (最高溫度：260±5°C.)</p>
--	--	---



PRODUCT SPECIFICATION OF OUPIIN

Material Housing : 069-LCP(Black)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)

長春人造樹脂廠股份有限公司

台北市 10477 松江路三 0 一號七樓

CHANG CHUN PLASTICS CO.,LTD.

CABLE ADDRESS :
LONGLITE TAIPEI
TLX:22535 LONGLITE

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

TEL: (02)2503-8131 (REP)
FAX: (02)2503-3378

Technical Data

Liquid Crystalline Polymer Compound

LONGLITE® LCP 270B3G / 270N3G

LCP-270B(N)3G is liquid crystalline polymer which contains 30% glass fiber.

LCP-270B(N)3G has advantages of high heat resistance, strength and good flowability.

Physical Properties :

Items	Unit	Test Method	270B3G* 270N3G
Features	heat resistance/low warpage		
Filler	%	---	Glass Fiber
Filler Content		ASTM	30
Specific Gravity	---	D792	1.62
Water Absorption	%	D570	0.04
Shrinkage	MD	CCP method	0.19
	TD		0.39
Tensile Strength(RT)	MPa	D638	122
Tensile Elongation(RT)	%		1.8
Flexural Strength (RT)	MPa	D790	190
Flexural Modulus (RT)	GPa		12.5
Izod Impact (3.0t/w notched)	J/m	D256	110
HDT (264 psi)	°C	D648	270
Dielectric Strength	KV/mm	D149	19
Arc Resistance	sec	D495	150
UL-94(NC, BK)	Rating	UL94	V-0
Tracking Resistance (CTI)	V	D257	125
Dielectric Constant / Dk	---	10 ⁶ Hz (1 MHz)	4.5
Dielectric Tangent / Df	---	10 ⁶ Hz (1 MHz)	0.036

* Typical data : Not to be constructed as specification

LCP-270B(N)3G B : Black N : Natural color



PRODUCT SPECIFICATION OF OUPIIN

Material Housing :UL

UL iQ™ for Plastics

Page 1 of 1

Component - Plastics

E59481

CHANG CHUN PLASTICS CO LTD

7TH FL, 301 SONGKIANG RD, TAIPEI 104 TW

270(X1)3G

Liquid Crystal Polymer (LCP), "LONGLITE", furnished as pellets

Color	Min Thk (mm)	Flame Class	Flame		RTI		RTI Str
			HWI	HAI	Elec	Imp	
BK	0.3	V-0	4	0	130	130	130
	1.0	V-0	2	0	130	130	130
	3.0	V-0	0	0	130	130	130

Comparative Tracking Index (CTI): **4**

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10¹² ohm-cm) :-

High-Voltage Arc Tracking Rate
(HVTR): **2**

High Volt, Low Current Arc Resis (D495): **5**

Dimensional Stability (%): -

(X1) - Maybe replace by one letter N representing Natural color or B representing Black color

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:2013-07-12
Last Revised:2013-07-12

© 2013 UL LLC



IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness	
			Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.3	V-0 (BK)
			1.0	V-0 (BK)
			3.0	V-0 (BK)
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	-	-

© 2013 UL LLC

Material Power Pin : Copper Alloy (C18400)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)



INSPECTION REPORT

客戶名稱 CUSTOMER	弘振企業股份有限公司
------------------	------------

鎧 蔚 企 業 有 限 公 司
METALEX ENTERPRISE CO., LTD
 No.108-3, Sec. 1, Guangfu Rd., SanChong District,
 New Taipei City 24158, Taiwan
 TEL : +886-2-2278-1989 FAX : +886-2-2999-9687

品名 PRODUCT	C18400-R540	母料號碼 LOT NO	C09I12-1F	日期 DATE	2014/10/23
規格 SIZE	0.64 X 310	重量 QUANTITY	1454 KG	序號 NO.	131000015

化學成份 CHEMICAL COMPOSITION

成分符號 ELEMENT	Cu	CR	ZR						
規格 SPEC (%)	MIN	0.2	0.03						
	MAX	1.2	0.3						
分析值 ANALYSIS VALUE	99.2250	0.5686	0.1509						

機械特性試驗 MECHANICAL TESTING

項目 ITEM	抗拉強度 Tensile Strength N/mm ²	屈服強度 Yield Strength N/mm ²	伸長率 Elongation %	導電率 Electrical Conductivity %IACS	硬度 Hardness (for reference only) HV
規格 SPEC	MIN	540	500	4	83
	MAX	630			190
實測值 MEASURED VALUE	555	510	9.5	90.12	156

尺寸量測 GEOMETRICAL DIMENSIONS

項目 ITEM	厚度 Thickness (mm)	寬度 Width (mm)	粗糙度 Ra um		
規格 SPEC	MIN	0.610	309		
	MAX	0.670	311	0.15	
實測值 MEASURED VALUE	0.640	310	0.07-0.08		

備註 REMARKS

*厚度 ≤ 0.12T 以下者, 硬度僅供參考.

	責任者	品質擔當者





PRODUCT SPECIFICATION OF OUPIIN

Material Spring(彈片)&(U 型扣) : Metal (SUS-304)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)



WALSIN PRECISION TECHNOLOGY SDN BHD



MILL CERTIFICATE

CUSTOMER: GOLD CATLE DEVELOPMENT LTD
 ADDRESS: 1-108
 ORDER NO: DO041205-1
 ITEM: SUS304
 QUANTITY: 1/2H
 DATE: 2004.12.15

05. 1. 2号 X 79.

COIL NO	SIZE (MM)	WEIGHT KG	CHEMICAL COMPOSITION (%)								TENSILE TEST (JIS TEST PIECE)				STEEL MANUFACTURER
			ELEMENT	C	Si	Mn	P	S	Ni	Cr	HV	TS(N/mm ²)	YS(N/mm ²)	EL (%)	
			MIN	MAX	0.08	1.00	2.00	0.045	0.030	10.50	20.00	250-310	TENSILE ST.	YIELD ST.	
RESULT															
05000202	0.30x400xC	1221		0.047	0.48	1.07	0.024	0.001	8.18	18.34	263	931	592	20	NISSHIN STEEL
050005A1A2	0.40x400xC	2567		0.050	0.46	0.75	0.032	0.006	8.56	18.08	268	794	588	16	NISSHIN STEEL
050005A1	1.00x400xC	1565		0.047	0.48	1.07	0.024	0.001	8.18	18.34	271	886	607	20	NISSHIN STEEL
050005A4	0.20x400xC	1054		0.042	0.34	1.27	0.023	0.001	8.54	18.19	268	809	570	16	NISSHIN STEEL
050005A2	0.30x400xC	1461		0.052	0.54	1.07	0.026	0.001	8.19	18.25	263	830	675	20	NISSHIN STEEL
050005B2	0.40x400xC	933		0.050	0.54	0.80	0.027	0.010	8.56	18.14	256	822	645	30	NISSHIN STEEL
050005B2A	0.60x400xC	717		0.052	0.47	1.04	0.024	0.003	8.20	18.34	270	855	605	24	NISSHIN STEEL

REMARK: _____

QUALITY ASSURANCE DEPARTMENT

CONFIRMED BY: _____ AUTHORIZED BY: _____

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HERE IN HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION AND THE MATERIAL SATISFIES THE REQUIREMENTS