



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.
HYBRID POWER CARD EDGE PRESS FIT LOW PROFILE	9394-4A1P11ACB30-CB30A	9394-D0000-001
	9394-4A1P111ACB30PA	9394-D0000-007
	9394-4A3P111ACB30DA	9394-D0000-009

PRODUCT NAME 產品名稱	DOCUMENT No.: 文件編號	Rev. 版本	OUPIIN
HYBRID POWER CARD EDGE LOW PROFILE connector	9394spec-4A	D1	歐品電子
	Approved 核准	Checked 審核	Prepared 制作
	Q.A. Section Chief	Allen	08.27/2018



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1. SCOPE 適用範圍

This product specification defines the product performance and the test methods to ascertain the performance of the HYBRID POWER CARD EDGE LOW PROFILE connector, which is designed and manufactured by Oupiin Electronic Co., Ltd. This product specification is applicable but not only for those part numbers which be shown in the cover page.

本產品規格書規定了由歐品電子有限公司設計生產的 HYBRID POWER CARD EDGE LOW PROFILE connector 型連接器產品的特性及測試方法。本產品規格書適用於但不局限於封面所顯示的產品料號。

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
EIA364	Test method for electrical components 電子零件測試方法
JIS C 0051	Test method for electrical components 電子零件測試方法
MIL-G-45204C	Specification for gold plating 鍍金規格
IEC-512-3	IEC standard for current carrying capacity tests IEC 電流測試標準
QQ-N-290A	Specification for nickel plating 鍍鎳規格
MIL-P-81728A	Specification for tin/lead plating 鍍錫鉛規格
MIL-T-10727B	Specification for tin plating 鍍錫規格
UL1977	UL standard for safety of attachment plug and receptacle UL 安規要求標準
EN/ISO5961	Determination of total lead & cadmium content 總鉛和總鎘含量測定
EN1122	Determination of total lead & cadmium content 總鉛和總鎘含量測定
EN13346	Determination of heavy metals content 重金屬含量測定
EPA3052	Determination of total lead & cadmium content 總鉛和總鎘含量測定

3. FEATURE & DIMENSIONS 特征及尺寸

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見圖面。

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 參見圖面。

3.3. BILL OF MATERIAL 材料清單

Harmful material controlling follows the requirements of RoHS. The bill of material 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見圖面。

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.



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本產品的機械及電氣特性參見圖面。

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: AC Power pin18A, DC Power pin60A, Signal pin 1A

額定電流: AC Power pin18A, DC Power pin60A, Signal pin 1A

Rating voltage is 300V AC RMS. 60V DC RMS.

額定電壓 300V AC RMS, 60V DC RMS.

3.7 STORAGE AND OPERATING TEMPERATURE 存貯與使用溫度

Temperature range: $-40^{\circ}\text{C}\sim+95^{\circ}\text{C}$, including terminal temperature rise for rating current.

Storage Temperature : $-40^{\circ}\text{C}\sim+95^{\circ}\text{C}$, Humidity: 95%RH under。

溫度範圍： $-40^{\circ}\text{C}\sim+95^{\circ}\text{C}$, 包含接觸端子的額定電流溫升。

儲存溫度： $-40^{\circ}\text{C}\sim+95^{\circ}\text{C}$ ，濕度：95%RH 以下。

4. Environmental 環境要求

4.1. SOLDERABILITY 可焊性

Connectors meet solder-ability to MIL-STD-202, and 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

4.1. WAVE SOLDER 波峰焊接

Each cycle consists of three consecutive phases. as shown in **Table II**.

每個焊接週期包括三個連續的階段，見附表二。

4.1.1. Preheat 預熱

The steady temperature of the preheat zone is $90\sim125^{\circ}\text{C}$.

預熱區最終溫度控制在 $90\sim125^{\circ}\text{C}$ 。



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4.1.2. 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 230~255°C for products with lead, or 255~270°C for lead-free products. The tin dip time is duration for 3~10 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 230~255°C，無鉛產品控制在 255~270°C。浸錫時間控制在 3~10 秒。

4.1.3. 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。

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 at least.

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，每組測試至少有 5 個樣品。



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Table I: Test Requirements and Methods

附表一：測試要求與方法

Items 項目	Requirements 要求	Test Methods 測試方法
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	DC Power pin:1 mΩ Max. AC Power pin:5 mΩ Max. Signal pin:25 mΩ Max.initial. Contact resistance change Δ 15 mΩ Max DC Power pin 1 mΩ Max, AC Power pin 5 mΩ Max,Signal pin 初始狀態 25mΩ Max, 接觸電阻變化值 Δ 15 mΩ Max	Subject specimens to 100 milliamperes maximum and 20 millivolts maximum open circuit voltage. IEC 60512-2-1. Test 2a 所述固定端子連結到一個封閉回路中測試,電流 100 mA max,電壓 20 mV max。適用：IEC 60512-2-1. Test 2a
3. Insulation Resistance 絕緣阻抗	Power pin: 5000 MΩ Min. Power pin 最小 5000 MΩ. Signal pin: 500 MΩ Min. Signal pin 最小 500 MΩ. Power pin: 500 MΩ Min. after moisture Power pin 最小 500 MΩ. 潮濕環境下 Signal pin: 100 MΩ Min. after moisture Signal pin 最小 100 MΩ. 潮濕環境下	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. IEC 60512-3-1. (500 V DC \pm 10%). 測試產品相鄰端子間以及端子與接地間的電阻 適用：IEC 60512-3-1. (500 V DC \pm 10%)。
4. Dielectric Withstanding Voltage 耐電壓	DC Power pin must withstand test potential of 1500 VAC RMS for 1 min AC Power pin must withstand test potential of 2000 VAC RMS for 1 minute, Signal pin must withstand test potential of 100 VAC RMS for 1 minute, DC Power pin 必須承受測試電壓 1500 VAC RMS · 時間 1 分鐘。 AC Power pin 必須承受測試電壓 2000 VAC RMS · 時間 1 分鐘。 Signal pin 必須承受測試電壓 100 VAC RMS · 時間 1 分鐘。	One minute hold with no breakdown or flashover.IEC 60512-4-1. 一分鐘不得有損傷或閃電。適用：IEC 60512-4-1.



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<p>5. Durability (Repeated Mating/Un-mating) 耐久性</p>	<p>Contact Resistance: Rise in relation to initial values 10 mΩ max(power pin). After testing. Rise in relation to initial values 15mΩ max(signal pin). After testing. Power pin 測試後接觸阻抗比初始值增大不超過 10 mΩ。 Signal pin 測試後接觸阻抗比初始值增大不超過 15mΩ。</p>	<p>Repeat mate and unmated for connector 250 cycles, at a speed of 25.4 mm per minute. 重復進行配合產品 250 次插拔·速度 25.4mm/分鐘。</p>
<p>6. Compliant Pin Insertion Force 压接力 Compliant Pin Retention Force 压接保持力</p>	<p>Into PCB Hold Force Per Power Pin: 40N Max Into PCB Hold Force Per Signal Pin: 50N Max 单 Power pin 压入 PCB 的力: 40N Max 单 Signal pin 压入 PCB 的力: 50N Max Per Power Pin Retention Force in PCB: 10N Min 单 Power Pin 在 PCB 中的保持力: 10N Min Per Signal Pin Retention Force in PCB: 15N Min 单 Signal Pin 在 PCB 中的保持力: 15N Min</p>	<p>At a speed of 12.7 mm/minute, Apply axial press in PCB to right position .EIA-364-5 以 12.7mm/分鐘的速度·施加軸向壓力將端子壓入 PCB 板上·EIA-364-5 at a speed of 12.7 mm/minute, Apply axial pull out from PCB to right position . EIA-364-5 以 12.7mm/分鐘的速度施加軸向拉力從 PCB 板上拔出端子·EIA-364-5</p>
<p>7. Mating /Un-mating Force 插入力/拔出力</p>	<p>80N maximum engaging force 40N maximum separating force 5N minimum separating force 插入力最大: 80N all pin pair Max 拔出力最大: 40N all pin pair Max 拔出力最小:5N all pin pair Min</p>	<p>At a speed of 12.5 mm/minute, apply axial insert the mating part into fully or pull out from the subject product. IEC 60512-13-1 以 12.7 mm/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·IEC 60512-13-1</p>
<p>8. Vibration Sinusoidal Low Frequency 低頻正弦振動</p>	<p>No electrical discontinuity less than 1μs shall occur, Contact resistance: 不允許出現超過 1 μs 的瞬間斷開</p>	<p>Subject mated connector to 10-500 Hz traversed in 1 minute at 0.35mm amplitude, 8 hours each of 3 mutually perpendicular planes, potential applied. IEC 60512-6-4。 10-500 Hz, 振幅 0.35 mm 條件下·在互相垂直的三個面上·每個面 8 小時下測量電流·適用: IEC 60512-6-4。</p>
<p>9. Thermal Shock 溫度沖擊</p>	<p>After testing, no damage, Contact Resistance: Rise in relation to initial values 10 mΩ max(power pin). After</p>	<p>Temperature range from -55°C to +125°C. Start from -50°C, after 30 minutes, change to +125°C; change time is no more than 1</p>



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	<p>testing. Rise in relation to initial values 15mΩ max(signal pin). After testing. 測試後產品無損壞 · Power pin 測試後接觸阻抗比初始值增大不超過 10 mΩ · Signal pin 測試後接觸阻抗比初始值增大不超過 15mΩ ·</p>	<p>minutes, total 50 cycles. EIA 364-32 Test Condition I 溫度變化範圍： -50°C~ +125°C · 從 -55°C 開始 · 30 分鐘後換到+125°C · 轉換時間不超過 1 分鐘 · 共 50 個循環 · 適用：EIA 364-32 Test Condition I</p>
<p>10. Humidity-Temperature Cycle 溫濕度循環</p>	<p>After testing, no damage, Contact Resistance: Rise in relation to initial values 10 mΩ max(power pin). After testing. Rise in relation to initial values 15mΩ max(signal pin). After testing. 測試後產品無損壞 · Power pin 測試後接觸阻抗比初始值增大不超過 10 mΩ · Signal pin 測試後接觸阻抗比初始值增大不超過 15mΩ ·</p>	<p>Subject product : temperature between 40±2°C at 90to 95 %RH. R.H 21Cycles. Each cycle lasted 24 hours Duration: 504 Hours. EIA-364-31B Method 3 產品置於 40±2°C,相對濕度： 90-95%,循環 21 次,24 小時循環一次適用：EIA-364-31B Method 3</p>
<p>11. Test temperature rise for rating current 溫升測試</p>	<p>The temperature rise above ambient shall not exceed 30 °C · 溫度不能超過 30 °C ·</p>	<p>Subject mated contacts assembled in housing to closed circuit of AC Power Pin: 18A max, DC Power Pin: 60A max, Signal Pin: 1A max, Test Specification IEC 60512-5-1 所述固定在外殼包的端子連結到一個封閉回路中測試 · AC Power Pin: 18A max, DC Power Pin: 60A max, Signal Pin: 1A max, · 參考規範： IEC 60512-5-1</p>
<p>12. Salt Spray 鹽霧</p>	<p>After testing, no damage, Contact Resistance: Rise in relation to initial values 10 mΩ max(power pin). After testing. Rise in relation to initial values 15mΩ max(signal pin). After testing. Power pin 測試後接觸阻抗比初始值增大不超過 10 mΩ · Signal pin 測試後接觸阻抗比初始值增大不超過 15mΩ ·</p>	<p>5±1% salt concentration(PH=7.0) ,48 hours 35±2°C:MIL-STD-202, Method 101, condition B. 鹽水濃度 5±1%(PH=7.0),時間 48 小時 · 溫度 35±2°C · 適用： MIL-STD-202 · 方法 101 · 條件 B ·</p>



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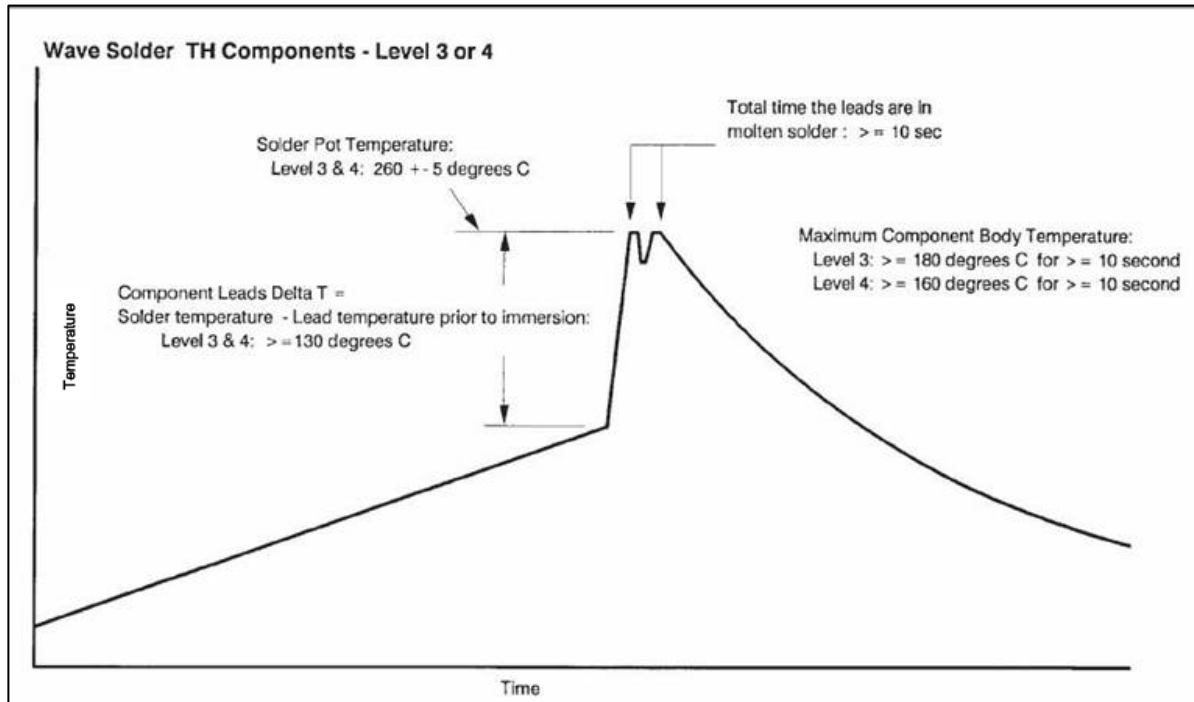
<p>13.High Temperature Life 高溫老化</p>	<p>After testing, no damage, Contact Resistance: Rise in relation to initial values 10 mΩ max(power pin). After testing. Rise in relation to initial values 15mΩ max(signal pin). After testing.</p> <p>測試後產品無損壞 · Power pin 測試後接觸阻抗比初始值增大不超過 10 mΩ · Signal pin 測試後接觸阻抗比初始值增大不超過 15mΩ ·</p>	<p>Subject product to 105°C for 500 hours · Two hours recovery time. continuously. EIA-364-17 產品置於 105°C 連續 500 小時 · 恢復時間 2 小時 適用 : EIA-364-17</p>



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Table II : Weld the curve graph in crest

附表二：波峰焊曲線圖





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Material Housing : 074-LCP(Black)

[SGS Test Report Click here](#)

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产品数据表

沃特特种工程塑料



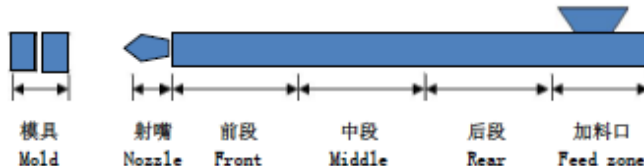
SELCION® KC184BLM

SELCION® LCP KC184BLM is a 40% glass fiber and mineral reinforced LCP for great dimensional stability
SELCION® LCP KC184BLM 是含有 40% 玻纤与矿纤增强的具有优异尺寸稳定性能的 LCP。

性能	PROPERTIES	典型数值 VALUE	单位 UNIT	测试标准 TEST METHOD
机械性能 MECHANICAL				
拉伸强度	Tensile Strength@break	132	MPa	ASTM D638
断裂伸长率	Tensile Elongation@break	1.94	%	ASTM D638
弯曲强度	Flexural Strength	180	MPa	ASTM D790
弯曲模量	Flexural Modulus	14.4	GPa	ASTM D790
IZOD 无缺口冲击强度	IZOD un-notched impact strength	395	J/m	
热性能 THERMAL				
热变形温度	Heat distortion temperature 18.5kgf/cm ²	283	°C	ASTM D648
物理性能 PHYSICAL				
比重	Specific Gravity	1.68		ASTM D792
成型收缩率	MD / TD	0.1 / 0.3	%	In house
烤炉起泡	270°C, 10min	OK		In house
难燃性能	Flame Retardancy	V-0 (0.3 mm)		UL-94

加工性能	PROCESSING CONDITIONS	典型数值 VALUE	单位 UNIT	备注 REMARK
射嘴温度	Nozzle Temp.	345-365	°C	355 is recommended
前段温度	Front Temp.	350-370	°C	360 is recommended
中段温度	Middle Temp.	345-365	°C	355 is recommended
后段温度	Rear Temp.	320-340	°C	330 is recommended
加料口温度	Feed zone Temp.	50-70	°C	60 is recommended
模具温度	Mold Temp.	80-120	°C	100 is recommended
干燥温度	Drying Temperature	140-160	°C	150 is recommended
干燥时间	Drying Time	4-8	h	6 Hr is recommended

※ 成型条件根据不同的机构和操作环境而不同



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Material Housing :UL

iq.ul.com

Component - Plastics [\[guide info\]](#)

E478701

Jiangsu Wote High Performance Materials Co Ltd

No. 6-3, Weijiu RD, Economic development zone, Dongtai CN

KC184(@)

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

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

Comparative Tracking Index (CTI): 3

Dielectric Strength (kV/mm): -

High-Voltage Arc Tracking Rate (HVTR): 1

Dimensional Stability (%): -

Inclined Plane Tracking (IPT): -

Volume Resistivity (10⁴ ohm-cm): -

High Volt, Low Current Arc Resis (D495): 4

(@) - Represented by one, two or three numbers or letters.

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: 2006-12-13

Last Revised: 2016-02-26

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60895-11-10	Class (color)	0.3	V-0 (NC, BK)
			3.0	V-0 (NC, BK)
Glow-Wire Flammability (GWFI)	IEC 60895-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60895-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60895-10-2	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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Material Housing : 076-LCP(Nature color)

[SGS Test Report Click here](#)

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产品数据表
沃特特种工程塑料



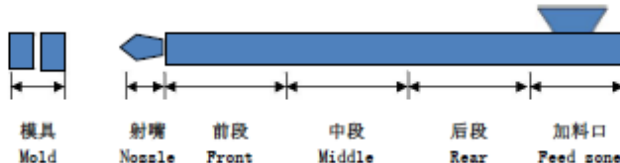
SELCION® KC184BLM/NLM

SELCION® LCP KC184BLM/NLM is a 40% glass fiber/mineral reinforced LCP for great dimensional stability
SELCION® LCP KC184BLM/NLM 是含有 40% 玻纤与矿纤增强的具有优异尺寸稳定性能的 LCP。

性能	PROPERTIES	典型数值 VALUE	单位 UNIT	测试标准 TEST METHOD
机械性能 MECHANICAL				
拉伸强度	Tensile Strength@break	125	MPa	ASTM D638
断裂伸长率	Tensile Elongation@break	1.8	%	ASTM D638
弯曲强度	Flexural Strength	180	MPa	ASTM D790
弯曲模量	Flexural Modulus	13.5	GPa	ASTM D790
IZOD 无缺口冲击强度	IZOD un-notched impact strength	400	J/m	
热性能 THERMAL				
热变形温度	Heat distortion temperature 18.5kgf/cm ²	265	°C	ASTM D648
物理性能 PHYSICAL				
比重	Specific Gravity	1.70		ASTM D792
成型收缩率	MD / TD	0.12 / 0.65	%	In house
烤炉起泡	270°C, 10min	OK		In house
介电常数	Dielectric Constant	3.4		1 GHz
		3.5		5 GHz
		4.0		10 GHz
难燃性能	Flame Retardancy	V-0 (0.3 mm)		UL-94

加工性能	PROCESSING CONDITIONS	典型数值 VALUE	单位 UNIT	备注 REMARK
喷嘴温度	Nozzle Temp.	345-365	°C	355 is recommended
前段温度	Front Temp.	350-370	°C	360 is recommended
中段温度	Middle Temp.	345-365	°C	355 is recommended
后段温度	Rear Temp.	320-340	°C	330 is recommended
加料口温度	Feed zone Temp.	50-70	°C	60 is recommended
模具温度	Mold Temp.	80-120	°C	100 is recommended
干燥温度	Drying Temperature	140-160	°C	150 is recommended
干燥时间	Drying Time	4-8	h	6 Hr is recommended

※ 成型条件根据不同的机构和操作环境而不同



江苏沃特特种材料制造有限公司
江苏省东台市经济开发区纬九路6-3号
DONGTAI, JIANGSU, CHINA
Tel: 0515-85390662
Fax: 0515-85390660



PRODUCT SPECIFICATION OF Oupiin

Material Housing :UL

iq.ul.com

Component - Plastics [\[guide info\]](#)

E478701

Jiangsu Wote High Performance Materials Co Ltd

No. 6-3, Weijiu RD, Economic development zone, Dongtai CN

KC184(@)

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

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

Comparative Tracking Index (CTI): 3

Inclined Plane Tracking (IPT): -

Dielectric Strength (KV/mm): -

Volume Resistivity (10⁸ ohm-cm): -

High-Voltage Arc Tracking Rate (HVTR): 1

High Volt, Low Current Arc Resis (D495): 4

Dimensional Stability (%): -

(@) - Represented by one, two or three numbers or letters.

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: 2006-12-13

Last Revised: 2016-02-26

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.3	V-0 (NC, BK)
			3.0	V-0 (NC, 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	-	-



PRODUCT SPECIFICATION OF Oupiin

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
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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

Theresa
2014.10.23
黃秀玲

柯智鴻
10/23

黃
2014-10-28
筱微



PRODUCT SPECIFICATION OF Oupiin

Material : Copper Alloy (Phosphor Bronze C5191)


[SGS Test Report Click here](#)

如需 SGS 測試報告請點選此處



REPORT OF MATERIAL TEST

DATE: AUG.05,2000

Customer: 亞松貿易有限公司	Commodity: C 5191 R PHOSPHOR BRONZE STRIP (H)	 ISO 9002:4M8Y035-00 台正字第 3545 號
Applied Standard: CNS 9503 Phosphor Bronze Sheets, Plates and Strips		

Chemical Analysis Test

Work No.	Size of Product			P (%)	Sn (%)	Cu+Sn+P (%)				
	Thickness (mm)	Width (mm)	Length (mm)							
	Standard									
87C194A	0.400	624.000		0.139	5.979	99.967				

Mechanical & Physical Test

Work No.	Size of Product			Dimension Test		Tension Test		Hardness Test HV	Grain Size (mm)	Electric Conductivity (%)
	Thickness (mm)	Width (mm)	Length (mm)	Thickness (mm)	Width (mm)	Tensile Strength (kgf/mm ²)	Elongation (%)			
	Standard			-	(-) 0.10 - (+) 0.00	60 - 70	min. 8			
87C194A	0.400	624.000		GOOD.	GOOD.	60.70	21.66	190.0 - 191.0	-	14.6

MINCHALI METAL INDUSTRY CO., LTD.

11, Pei Yuan Road, Chung Li City, Taiwan, R. O. C.

QC Supervisor

鄭理廷

A020303