



PRODUCT SPECIFICATION

產品規格書

產品名稱 Description	產品料號 Part No.	圖號 Dwg. No.
Edge Card Connector 1.27mm(0.05") Pitch SMD Type	8236-2X40C7DP1xT-S	8236-D0000-001

PRODUCT NAME 產品名稱	DOCUMENT No.: 文件編號	Rev. 版本	OUPIIN 歐品電子
Edge Card Connector 1.27mm(0.05") Pitch SMD Type	Q8236-PSS-001	A	
	Approved 核准	Checked 審核	Prepared 制作
			LQ 02/06'18



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1. COPE 適用範圍

This product specification defines the product performance and the test methods to ascertain the performance of the Edge Card Connector 1.27mm(0.05") pitch SMD type, 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 Edge Card Connector 1.27mm(0.05") pitch SMD Type 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

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.
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。



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

Rating current is 3.5A(One pin powered per row), rating voltage is 280VAC/DC.
額定電流 3.5A · 額定電壓 280V AC/DC。

3.7 STORAGE AND OPERATING TEMPERATURE 存貯與使用溫度

Temperature range: -55°C~+125°C, including terminal temperature rise for rating current.
溫度範圍：-55°C~+125°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-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

4.2.1. INFRARED REFLOW 紅外線回流焊接

Each cycle consists of three consecutive phases, as shown in **Table III**.
每個焊接週期包括三個連續的階段 · 見附表三。

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。



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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 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。

5.4. TEST SEQUENCE 測試順序

Product qualification test sequence as shown in **Table II**.
產品品質測試順序見附表二。

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	15 mΩ Max. initial. 初始狀態最大 15 mΩ。	Subject mated contacts assembled in housing to closed circuit of 100 mA max. 30 mV max. MIL-STD-202, Method 307. 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 max，電壓 30 mV max。適用：MIL-STD-202，方法 307。
3. Insulation Resistance 絕緣阻抗	10000 MΩ Min. 最小 10000 MΩ。	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 (250 V DC±10%).



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		測試產品相鄰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 (250 V DC±10%)。
4. Dielectric Withstanding Voltage 耐電壓	Connector must withstand test potential of 840 VAC RMS for 1 minute, current leakage must be 0.2mA Max. 產品必須承受測試電壓 840 VAC RMS·時間 1 分鐘·漏電流不大於 0.2 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. 對產品相鄰端子間以及端子與接地間加載電壓，並測試其漏電流。適用：MIL-STD-202·方法 301。
5. Durability (Repeated Mating/Un-mating) 耐久性	Contact Resistance: Δ 15 m Ω Max. after testing. 測試後接觸阻抗最大 Δ 15 m Ω 。	Repeat mate and unmated for connector 100 cycles, At a speed of 25±3 mm/minute. 重復進行配合產品 100 次插拔·25±3 mm/分鐘的速度。
6. Connector Pin Mating /Un-mating Force 單組插入力/拔出力	Mating force: 1.25N/group Max. Un-mating force: 0.10N/group Min. 每組插入力最大 1.25N·每組拔出力最小 0.10N。	At a speed of 25±3 mm/minute, apply axial insert the mating part into fully or pull out from the subject product. 以 25±3 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。
7. Contact Retention Force 端子保持力	Contact: 1.5N/Pin .Min 端子：每支最小 1.5N。	Apply axial pull out (push) force at a speed of 25.4±3 mm/minute on the contact assembled in the housing.以 25.4±3mm/分鐘的速度施加軸向拉（推）力從塑膠本體上拔出(頂退)端子。
8. Vibration Sinusoidal Low Frequency 低頻正弦振動	No electrical discontinuity greater than 1 μ s shall occur, Contact Resistance: Δ 15 m Ω Max. 不允許出現超過 1 μ s 的瞬間斷開·接觸阻抗最大 Δ 15 m Ω 。	Subject mated connector to 10-500-10 Hz traversed in 1 minute at 1.5 mm amplitude, 4 hours each of 3 mutually perpendicular plane, 10 mA potential applied. MIL-STD-202, Method 201. 對測試產品·在頻率變化每分鐘從 10-500-10 Hz,振幅 1.5 mm 條件下·在互相垂直的三個面上·每個面 4 小時下測量·電流 10 mA。適用：MIL-STD-202·方法 201。
9. Thermal Shock 熱衝擊	After testing, no damage, Contact Resistance Δ 15m Ω Max. Dielectric Strength should be OK, Insulation Resistance should be 10000 M Ω Min. 測試後產品無損壞·接觸阻抗最大 Δ 15 m Ω ；耐電壓測試 OK·絕緣阻抗最小 10000 M Ω 。	Temperature range from -55°C to +85°C. Start from -55°C, after 30 minutes, change to +85°C; change time is no more than 30 seconds, total 100 cycles. MIL-STD-202, Method 107, 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·100 個循環。適用：MIL-STD-202·方法 107·條件 A。
10. Humidity (Steady State)	After testing, no damage, Contact Resistance Δ 15m Ω Max. Dielectric	Temperature: +25°C to +65°C Relative Humidity: 90-95%.



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恆溫恆濕 	Strength should be OK, Insulation Resistance should be 10000 MΩ Min. 測試後產品無損壞，接觸阻抗最大 $\Delta 15\text{ m}\Omega$ ；耐電壓測試 OK，絕緣阻抗最小 10000 MΩ。	Duration: 240 Hours. MIL-STD-202, Method 103, condition B. 溫度： $+25^{\circ}\text{C}$ 到 $+65^{\circ}\text{C}$ 。相對濕度：90-95%。持續時間：240 小時。適用：MIL-STD-202，方法 103，條件 B。
11. Solder-ability 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. 產品在測試完成後，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: 4 to 6 seconds. Temperature: $245\pm 5^{\circ}\text{C}$. MIL-STD-202, Method 208. 焊接時間：4~6 秒。溫度： $245\pm 5^{\circ}\text{C}$ 。 適用：MIL-STD-202，方法 208。
12. Salt Spray 鹽霧	After testing, no damage, Contact Resistance $\Delta 15\text{ m}\Omega$ Max. Dielectric Strength should be OK, Insulation Resistance should be 10000 MΩ Min. 測試後產品無損壞，接觸阻抗最大 $\Delta 15\text{ m}\Omega$ ；耐電壓測試 OK，絕緣阻抗最小 10000 MΩ。	$5\pm 1\%$ salt concentration 48 hours $35\pm 2^{\circ}\text{C}$ MIL-STD-202, Method 101, condition B. 鹽水濃度 $5\pm 1\%$ ，時間 48 小時，溫度 $35\pm 2^{\circ}\text{C}$ 。 適用：MIL-STD-202，方法 101，條件 B。
13. High Temperature Life 高溫老化	After testing, no damage, Contact Resistance $\Delta 15\text{ m}\Omega$ Max. Dielectric Strength should be OK, Insulation Resistance should be 10000 MΩ Min. 測試後產品無損壞，接觸阻抗最大 $\Delta 15\text{ m}\Omega$ ；耐電壓測試 OK，絕緣阻抗最小 10000 MΩ。	Subject product to 105°C for 250 hours continuously. MIL-STD-202, Method 108, condition A. 產品置於 105°C 連續 250 小時。 適用：MIL-STD-202，方法 108，條件 A。
14. Impedance (single-ended) 單線特性阻抗	$50 \pm 10\%$ ohms $50\pm 10\%$ 歐姆	Mate connectors: rise time of 1 ns 配對組連接器：1 ns 的上升時間
15. Impedance (differential pair) 差分特性阻抗	$100 \pm 10\%$ ohms $100\pm 10\%$ 歐姆	Mate connectors: rise time of 150 ps。 配對組連接器：150 ps 的上升時間
16. Differential Insertion Loss (differential pair) 差分插損	Average: 10.5GHz 平均：10.5GHz	Mate connectors: -3db 配對組連接器：-3db
17. Differential Insertion Loss (single-ended) 單線插損	Average: 8GHz 平均：8GHz	Mate connectors: -3db 配對組連接器：-3db



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Table II: Product Qualification Test Sequence

附表二：產品測試順序

Test Description 測試描述	Test Group 測試分組							
	A	B	C	D	E	F	G	H
1. Conformation of Product 產品確認	1,7	1,4	1,9	1,9	1,9	1,3	1,9	1,9
2. Contact Resistance 接觸阻抗	2,6		2,6	2,6	2,6		2,6	2,6
3. Insulation Resistance 絕緣阻抗	3		3,7	3,7	3,7		3,7	3,7
4. Dielectric Withstanding Voltage 耐電壓	4		4,8	4,8	4,8		4,8	4,8
5. Durability (Repeated Mating/Un-mating) 耐久性	5							
6. Connector Pin Mating/Un-mating Force 單支端子插入/拔出力		2						
7. Contact Retention Force 端子保持力		3						
8. Vibration Sinusoidal Low Frequency 低頻正弦振動			5					
9. Thermal Shock 熱衝擊				5				
10. Humidity (Steady State) 恆溫恆濕					5			
11. Solder-ability 可焊性						2		
12. Salt Spray 鹽霧							5	
13. High Temperature Life 高溫老化								5



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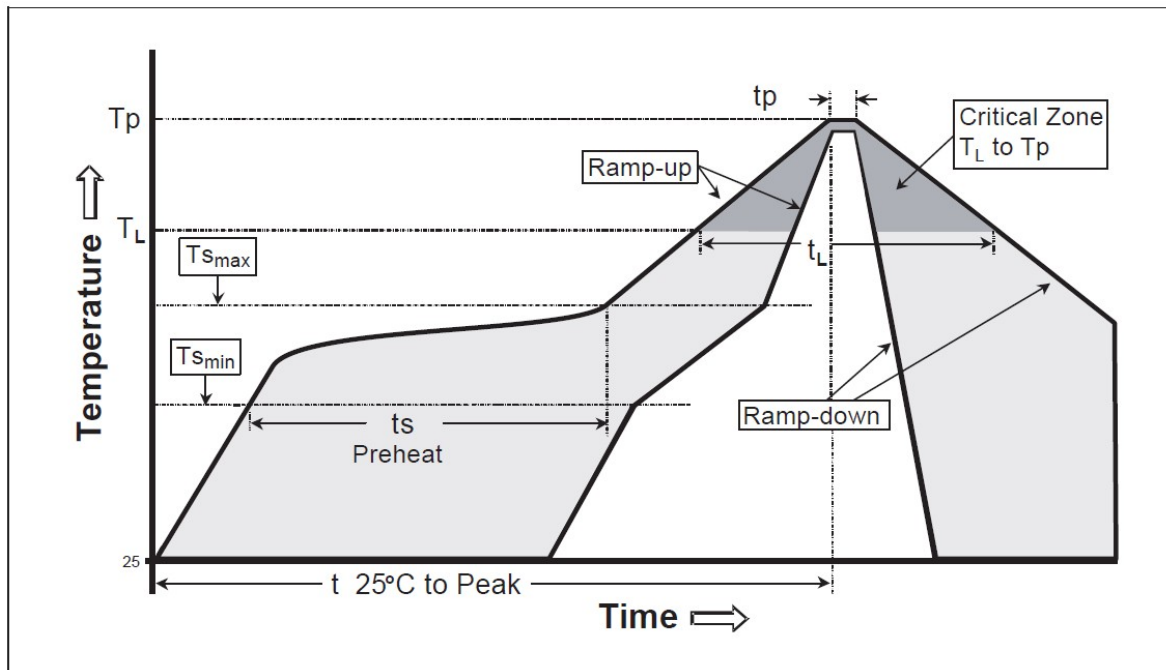
Table III: Reflow Soldering Profile

附表三：回流焊曲線圖

Lead-free reflow profile requirements:

無鉛回流焊接曲線

Parameter 参数	Reference 参考	Specification 规格
升溫區 Ramp-up	25°C ~150°C	3°C /S Max
預熱區(Pre-heating) Temperature Min($T_{s_{min}}$) Temperature Max($T_{s_{max}}$) Time($T_{s_{min}}$ to $t_{s_{max}}$)	150°C ~200°C	60~180sec
Time maintained above(保持时间) Temperature(T_L) Time(t_L)	217°C	60~150sec
Time within 5°C of actual peak Temperature(t_p)	260-/±5°C	20~40sec
冷卻區 Cooling	Ramp-Down Rate	6°C /S(Max)
Time 25°C to Peak Temperature	25°C ~ Peak Temp.	8 minutes maximum



This profile is the minimum requirement for evaluating soldering heat resistance of components. Heat transfer method used for reflow soldering is hot air convection. The actual air temperatures used to achieve the specified profile largely dependent on the reflow equipment.

這個曲線圖是評估元件器件焊接抗熱的基本要求。應用在對焊接中的熱傳遞方式是熱氣對流。達到特定曲線圖地實際溫度主要依賴與回流焊接設備。

Material Housing : 074-LCP(Black)

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产品数据表
沃特特种工程塑料



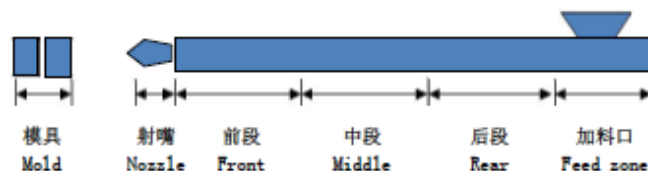
SELCION® KC184BLM

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
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种和操作环境而不同



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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, Weiju 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 (10¹¹ 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 6256	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 Contact : Copper Alloy (C7025)

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INSPECTION REPORT

客戶名稱 CUSTOMER	歐品電子有限公司
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鎧蔚企業有限公司
METALEX ENTERPRISE CO., LTD
 NO. 108-3 Sec. 1, Guangfu R.d., Sanzhong City,
 Taipei County 24158, Taiwan
 TEL : +886-2-2278-1989 FAX : +886-2-2999-9687

品名 PRODUCT	C7025-TM03	母料號碼 LOT NO	A121120	日期 DATE	2012/11/20
規格 SIZE	0.2X11.5	重量 QUANTITY	297.7 KG	序號	121100019

化學成份 CHEMICAL COMPOSITION

成分符號 ELEMENT	Cu	FE	PB	MG	NI	ZN	MN	SI			
規格 SPEC (%)	MIN			0.05	2.2			0.25			
	MAX		0.2	0.05	0.3	4.2	1	0.1	1.2		
分析值 ANALYSIS VALUE	balance	0.0058	0.0025	0.075	2.544	0.0186	0.0021	0.516			

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	690	655	5	40
	MAX	800			260
實測值 MEASURED VALUE	743-761	701-718	11.0-11.3	45	237-245

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	0.190	11.4		
	MAX	0.210	11.5	0.15	
實測值 MEASURED VALUE	0.201-0.202	11.44	0.09		

備註 REMARKS

	責任者	品質擔當者
	郭怡菁	Ricky 2012.12.25 康建邦