



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.
Edge Card Connector 2.0mm (0.0787") Pitch SMD Type	8216-2X20C30DPT-S	8216-D0000-001
	8216-2X20C30DP1T-S	8216-D0000-004

PRODUCT NAME 產品名稱	DOCUMENT No.: 文件編號	Rev. 版本	OUPIIN 歐品電子
Edge Card Connector 2.0mm (0.0787") Pitch SMD Type	8216spec	A	
	Approved 核准	Checked 審核	Prepared 制作
	QA. Chief	Joseph Yen	12.27/2017



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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 2.0mm (0.0787") 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 2.0mm (0.0787") 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 2.5A, rating voltage is 238VAC.
額定電流 2.5A · 額定電壓 238V AC。

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 II**.
每個焊接週期包括三個連續的階段 · 見附表二。

4.2.1.1. Preheat 預熱

Increase in temperature not to exceed 4°C per second.
溫度增加速度不超過 4°C /秒。

4.2.1.2. Soldering 焊接

Maximum allowable time above reflow temperature of 150°C is 120 seconds. Maximum temperature in this interval is 255°C, duration is 3~5 seconds. 回流焊溫度在150°C以上的時間最長不超過120秒 · 最高溫度255°C時間3~5秒。

4.2.1.3. Cool Down 冷卻

Cool down shall not exceed 5°C per second.
冷卻速度不超過5°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



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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 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	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	5.8 mΩ Max. initial. 初始狀態最大 5.8 mΩ。	Subject mated contacts assembled in housing to closed circuit of 100 mA max. 10 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 10 mV max。適用：MIL-STD-202，方法 307。
3. Insulation Resistance 絕緣阻抗	5000 MΩ Min. 最小 5000 MΩ。	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. EIA-364-21, Condition B (500 V DC). 測試產品相鄰端子間以及端子與接地間的電阻，適用：EIA-364-21，條件B(500 V DC)。
4. Dielectric Withstanding Voltage 耐電壓	Connector must withstand test potential of 500 VAC RMS for 1 minute, current leakage must be 0.2mA Max. 產品必須承受測試電壓 500 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. EIA-364-20 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：EIA-364-20。
5. Durability (Repeated Mating/Un-mating) 耐久性	Contact Resistance: 15 mΩ Max. after testing. 測試後接觸阻抗最大 15 mΩ。	Repeat mate and unmated for connector 100 cycles, EIA-364-23. 重復進行配合產品 100 次插拔，適用：EIA-364-23
6. Connector Pin Mating /Un-mating Force 單組插入力/拔出力	Mating force: 1.38N/group Max. Un-mating force: 0.45N/group Min. 每組插入力最大 1.38N，每組拔出 力最小 0.45N。	At a speed of 25.4±3 mm/minute, apply axial insert the mating part into fully or pull out from the subject product. EIA-364-13 以 25.4±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。適用：EIA-364-13.
7. Normal Force-Initial 正向力	0.886 N/Pin. Min. 每支最小 0.886 N。	Exert the axial pressure from carrying the plastics under the sub radian highest point at the speed of 25.4±3mm / minute. 以 25.4±3mm/分鐘的速度施加軸向壓力從端子弧度最高處下壓到塑膠面。



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<p>8. Vibration Sinusoidal Low Frequency 低頻正弦振動</p>	<p>No electrical discontinuity greater than 1 μs shall occur, Contact Resistance: 15 mΩ Max. 不允許出現超過 1 μs 的瞬間斷開 · 接觸阻抗最大 15 mΩ。</p>	<p>Subject mated connector to 10-55-10 Hz traversed in 1 minute at 1.5 mm amplitude, 2 hours each of 3 mutually perpendicular plane, 10 mA potential applied. EIA-364-28. 對測試產品 · 在頻率變化每分鐘從 10-55-10 Hz, 振幅 1.5 mm 條件下 · 在互相垂直的三個面上 · 每個面 2 小時下測量 · 電流 10 mA。 適用： EIA-364-28</p>
<p>9. Thermal Shock 熱衝擊</p>	<p>After testing, no damage, Contact Resistance 15 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 5000 MΩ Min. 測試後產品無損壞 · 接觸阻抗最大 15 mΩ ; 耐電壓測試 OK · 絕緣阻抗最小 5000 MΩ。</p>	<p>Temperature range from -55°C to +125°C. Start from -55°C, after 30 minutes, change to +125°C; change time is no more than 30 seconds, total 5 cycles. EIA-364-32. 溫度變化範圍： -55°C~ +125°C。從 -55°C 開始 30 分鐘後換到+125°C · 轉換時間不超過 30 秒 共 5 個循環。 適用： EIA-364-32。</p>
<p>10. Humidity (Steady State) 恆溫恆濕</p>	<p>After testing, no damage, Contact Resistance 15mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 5000 MΩ Min. 測試後產品無損壞 · 接觸阻抗最大 15 mΩ ; 耐電壓測試 OK · 絕緣阻抗最小 5000 MΩ。</p>	<p>Temperature: +25°C to +65°C Relative Humidity: 90-98%. Duration: 240 Hours. EIA-364-31, Method III, condition B. 溫度： +25° 到+65C°。相對濕度： 90-98%。持續時間： 240 小時。適用： EIA-364-31，方法 III，條件 B。</p>
<p>11. Solder-ability 可焊性</p>	<p>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。</p>	<p>Soldering time: 4 to 6 seconds. Temperature: 260\pm5°C. MIL-STD-202, Method 208. 焊接時間： 4~6 秒。 溫度： 260\pm5°C。 適用： MIL-STD-202 · 方法 208。</p>
<p>12. Salt Spray 鹽霧</p>	<p>After testing, no damage, Contact Resistance 15 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 5000 MΩ Min. 測試後產品無損壞 · 接觸阻抗最大 15 mΩ ; 耐電壓測試 OK · 絕緣阻抗最小 5000 MΩ。</p>	<p>5\pm1% salt concentration 48 hours 35\pm2°C MIL-STD-202, Method 101, condition B. 鹽水濃度 5\pm1% · 時間 48 小時 · 溫度 35\pm2°C。 適用： MIL-STD-202 · 方法 101 · 條件 B。</p>



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13.High Temperature Life 高溫老化	After testing, no damage, Contact Resistance 15 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 5000 MΩ Min. 測試後產品無損壞·接觸阻抗最大 15 mΩ ; 耐電壓測試 OK·絕緣阻抗最小 5000 MΩ。	Subject product to 105°C for 250 hours continuously. EIA-364-17, condition 4. 產品置於 105°C 連續 250 小時。 適用：EIA-364-17,條件 4。
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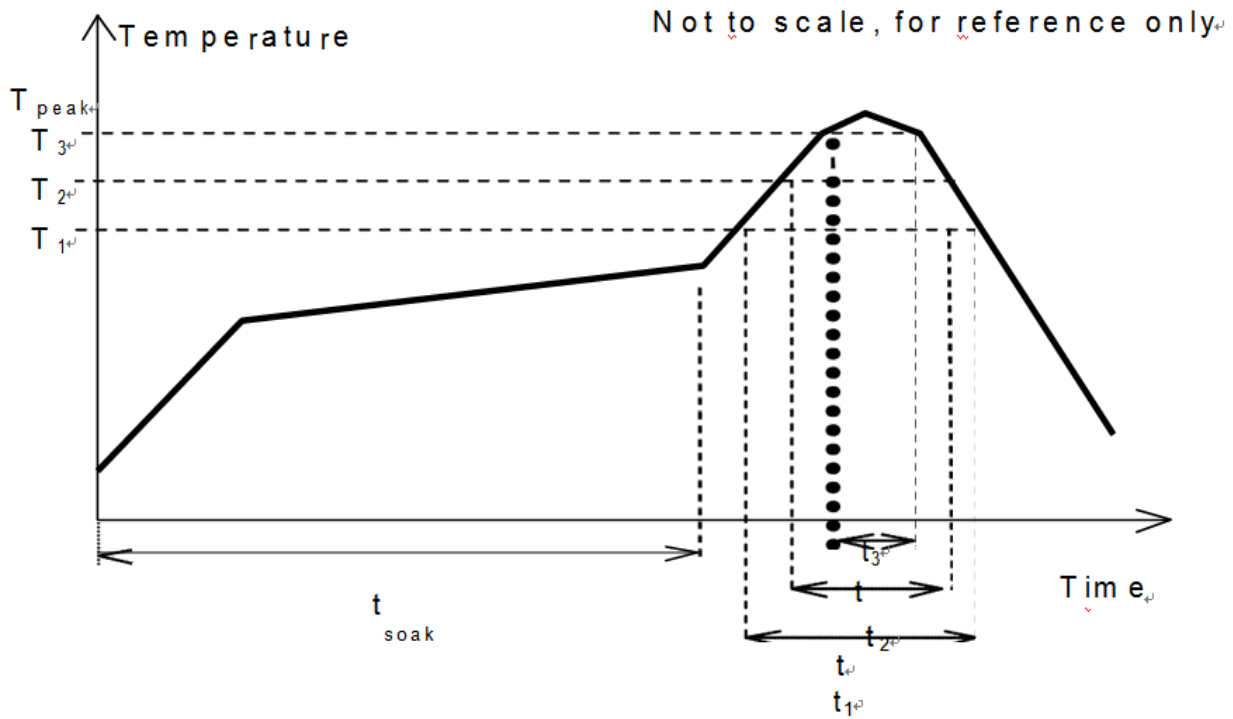
Table II: Reflow Soldering Profile

附表二：回流焊接曲線圖

Lead-free reflow profile requirements:

無鉛回流焊接曲線

Parameter 參數	Reference 參考	Specification
Average temperature gradient in preheating 平均預熱速度		2.5°C/s
Soak time 25~150°C	t_{soak}	60 Seconds (Max)
Time above 150°C	t_1	120 Seconds (Max)
Time above 200°C	t_2	50 Seconds (Max)
Time above 230°C	t_3	10 Seconds (Max)
Peak temperature in reflow 回流焊接中最高溫度	T_{peak}	250°C (-0/+5°C)
Temperature gradient in cooling 冷卻時溫度幅度		-5°C/s (Max)



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器件焊接抗熱的基本要求。應用在對流焊接中的熱傳遞方式是熱氣對流。達到特定曲線圖的實際溫度主要依賴於回流焊接設備。



PRODUCT SPECIFICATION OF Oupiin

Material Housing : 036-LCP MG350

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Nippon Petrochemicals Co. LTD.
Xydar Business Group

TYPICAL PROPERTIES OF XYDAR[®] MG-350PRL

Properties	Method	Unit	MG-350PRL
Tensile strength 引張強さ	ASTM D638	MPa	116
Elongation 引張破壊伸び	ASTM D638	%	3.0
Flexural strength 曲げ強さ	ASTM D790	MPa	160
Flexural modulus 曲げ弾性率	ASTM D790	GPa	13.3
Izod impact strength (unnotched) アイゾッド衝撃強度	ASTM D256	KJ/m ²	42
DTUL 荷重たわみ温度 18.5 kgf/cm ²	ASTM D648	°C	275
Oven Blister Test ¹⁾ オーブンブリスター試験 1mm dumbbell, 60min	NPCC original	°C	310
Mold Shrinkage ²⁾ 成形収縮率	NPCC original	%	MD: 0.06
			TD: 0.55

1) Minimum oven temperature of blister breaking out on the specimen.

2) Mold: size 100*100*1mm, film gate

The data shown in this paper are based on our laboratory data, and not always directly applicable to your products used under different conditions.

XYDAR[®] is a trademark of Solvay Advanced Polymers, L.L.C.



PRODUCT SPECIFICATION OF Oupiin

Material Housing :UL

UL iQ for Plastics Yellow Card

第 1 頁 , 共 1 頁



QMFZ2 Component - Plastics

Monday, February 09, 2004

E57552

SOLVAY ADVANCED POLYMERS L L C
4500 MCGINNIS FERRY RD ALPHARETTA GA 30005

Material Designation: **MG-350**

Product Description: Liquid Crystal Aromatic Polymer (LCAP), designated "Xydar" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
BK	0.5	V-0	4	4	-	-	-	-	-
NC, BK	0.75	V-0	4	4	240	240	240	-	-
	0.89	V-0	3	1	240	240	240	-	-
	1.5	V-0	1	1	240	240	240	-	-
	3.0	V-0	1	0	240	240	240	-	-

CTI: 3

IEC CTI: -

HVTR: 0

D495: 4

IEC Ball Pressure (°C): -

Dielectric Strength (kV/mm): 45

ISO Tensile Strength (MPa): -

ISO Tensile Impact (kJ/m²): -

Volume Resistivity (10⁹ohm-cm): 15

ISO Flexural Strength (MPa): -

ISO Izod Impact (kJ/m²): -

Dimensional Stability(%): 0

ISO Heat Deflection (°C): -

ISO Charpy Impact (kJ/m²): -

Report Date: 8/29/1990

Underwriters Laboratories Inc®

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 Contact : Copper Alloy (C7025)

[SGS Test Report Click here](#)

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INSPECTION REPORT

鎧蔚企業有限公司

METALEX ENTERPRISE CO., LTD

NO. 108-3 Sec. 1, Guangfu R.d., Sancong City,

Taipei County 24158, Taiwan

TEL : +886-2-2278-1989 FAX : +886-2-2999-9687

客戶名稱
CUSTOMER

歐品電子有限公司

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



PRODUCT SPECIFICATION OF Oupiin

Material Contact : Copper Alloy (Brass C2680)

[SGS Test Report Click here](#)

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REPORT OF MATERIAL TEST 材料測試報告

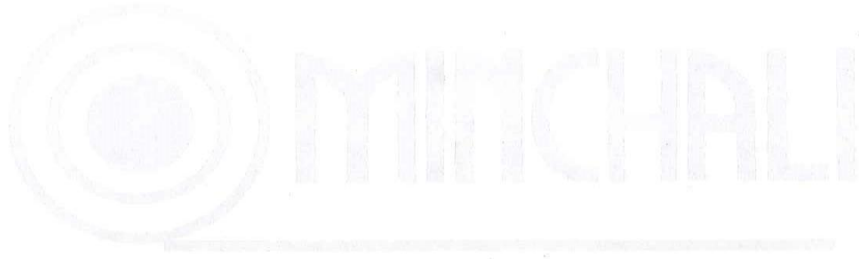
ISO 9001
ISO/TS 16949
IEC QC080000
ISO 14001
OHSAS 18001 & TOSHMS

No.: 3C1556

DATE: DEC.26,2014

Customer 顧客名稱 : 歐品電子有限公司
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.	銅卷製號	3AA046A	
(Specification)	產品規格	Standard	
Thickness (mm)	產品厚度	0.400	
Width (mm)	產品寬度	27.500	
Length (mm)	產品長度		
(Chemical Analysis Test)	化生測試		
Cu(%)	銅	64.000-68.000	64.947
Fe(%)	鐵	max. 0.050	0.013
Pb(%)	鉛	max. 0.0500	0.0003
Zn(%)	鋅	REM.	REM.
(Mechanical & Physical Test)	物生測試		
Thickness Test (mm)	厚度測試	-0.015 +0.010	0.394
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD
Tensile Strength (kgf/mm ²)	抗拉強度	42.00 - 55.00	51.06
Elongation (%)	伸長率	-	17.92
Hardness Test (Hv)	硬度	140.0 - 160.0	158.0 - 160.0
Grain Size (mm)	結晶粒度	-	0.015
Electric Conductivity (%)	導電率	-	26.20
(Other Information)	其他資訊		
Delivery No.	出貨單號	3CA079	
Customer Purchase Order	採購單號	PO.B02A14101603	



QA Supervisor: 周建偉

A980301 G3A00203AH

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