



PRODUCT SPECIFICATION

(產品規格書)

Ordering information

8973- AB 10 G 30 D1 T
Series Style Position G:Gold Plated 30:30μ ” D1:SMD Type T:Tape & Reel
D2:SMD Post Package
Dip

A1:DEC.18/2015.

PRODUCT NAME (產品名稱)	DOCUMENT No.: (文件編號)	Rev. (版本)	OUPIIN
Micro USB 3.0 AB Type (RoHS)	8973spec-ABD2	A1(I705)	(歐品)
	Approved (核準)	Checked (審核)	Prepared (製作)
	Q.A. Section Chief	Sunny Tsai	DEC.16/2015

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1. SCOPE (範圍)

This product specification defines the product performance and the test methods to ascertain the performance of the Micro USB 3.0 AB 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Micro USB 3.0 AB 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-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 CURRENT RATING AND VOLTAGE RATING 額定電流與額定電壓

Rating current : 1.8A for pin 1 and pin 5

額定電流 0.25A for other pin.

3.7 OPERATING AND STORAGE TEMPERATURE 操作與儲存溫度

Operating Temperature : -55°C~+85°C, 操作溫度範圍

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)

INFRARED REFLOW (紅外線回流焊接)

Three cycles. Each cycle consisting of three consecutive phased.

(三個週期，每個週期包括三個連續的階段完成；)

1. Preheat (預熱)

Increase in temperature not to exceed 4°C per second.

(溫度增加不超過 4°C /秒,)

2. Soldering (焊接)

Maximum allowable time above reflow temperature of 150~200°C is 90~120 seconds.

Maximum temperature in this interval is 260°C, not to exceed 5 seconds.

(回流焊溫度150~200°C時最長不超過90~120秒。最高溫度260°C時間不超過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)	Initial:30 mΩ Max. (初態:30 mΩ 最大)	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 (耐久性)	Contact Resistance: 30 mΩ Max. after testing. (測試後接觸阻抗最大 30mΩ)	The sample should be mounted the tester and fully mated and unmated 10,000 cycles specified at the rate of 200 cycles per hour. (重復進行配合產品 10,000 次插拔.)
6. Connector Mated / Unmated Force (產品插拔力)	Mated force : 35N max. Unmated force : 8N min. 插入力: 35N 最大 拔出力: 8N 最小	Measure force necessary to unmated between the counterparts connectors.. (軸向力以 12.5±3mm/分的速度從塑膠本體對插後拔出)



PRODUCT SPECIFICATION OF OUPIIN

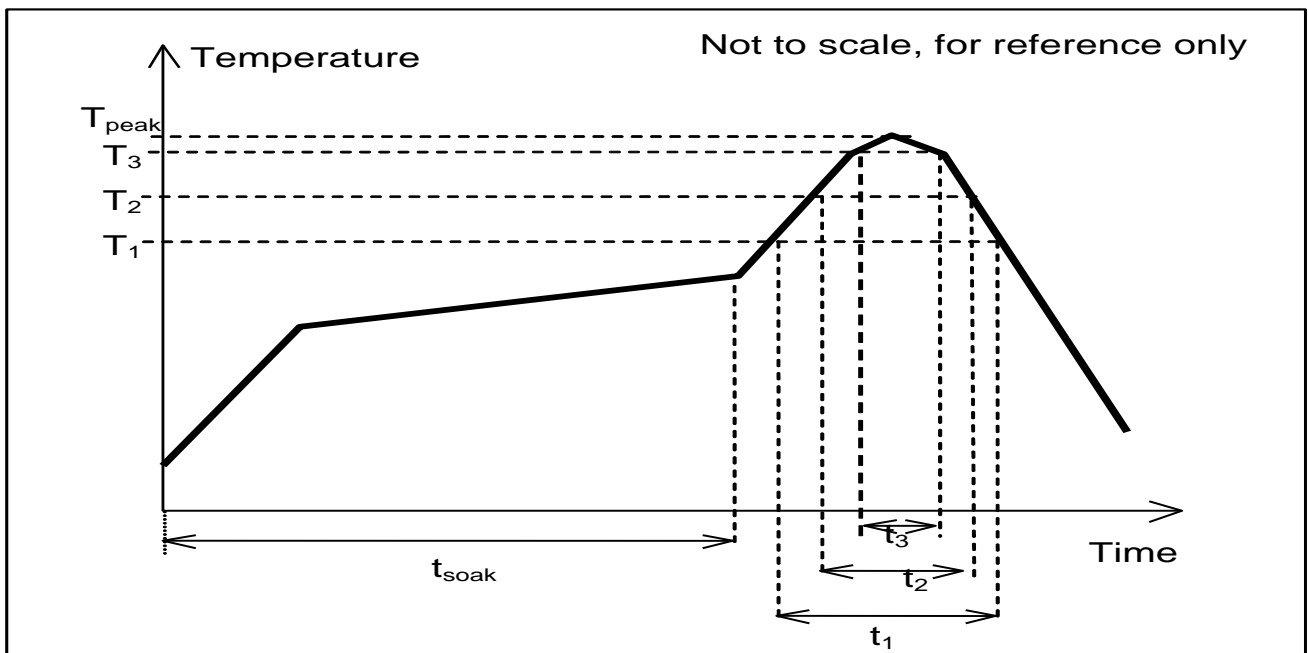
7. Thermal shock (熱衝擊)	After testing, no damage, Contact Resistance 30 mΩ max.. (測試後,產品無損壞,接觸阻抗: 30 mΩ最大)	Temperature range from -55°C to +85°C .Start from -55°C, after 30 min. change to +85°C; change time is no more than 30 seconds. Total 5 cycles. MIL-STD-202, Method 107D, condition A. (溫度變化範圍: -55°C ~ +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. Humidity (恆溫恆濕)	After testing, no damage, Contact Resistance 30mΩ max. (測試後,產品無損壞,接觸阻抗: 30 mΩ最大)	Temperature :40±2°C 96 hours. (溫度: 40±2°C 96 小時) Relative Humidity : 90-95%; (相對濕度 : 90-95%;) Duration :96 Hours. MIL-STD-202, Method 108, (時間: 96 小時; MIL-STD-202, 方法 108。)
9. Salt Spray (鹽霧)	After the test 20 times magnifying glass observation, blue green corrosion phenomenon, Determining eligibility. 試驗後以 20 倍放大鏡觀察,無藍綠色腐蝕之現象,則判定合格. Test shell plating and terminal gilded oxidation, corrosion, no blistering. Loss and other phenomena, etermining eligibility. 試驗後外殼鍍層及端子鍍金無氧化,腐蝕,無起泡,脫落等現象,則判定合格.	5±1% salt concentration 24±1 hours 35±2°C MIL-STD-202, Method 101 Condition B. (鹽水濃度(重量比) 5±1%, 時間 24±1 小時, 溫度 35±2°C; MIL-STD-202, 方法 101 條件 B.)
10. 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. (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: 255±5°C. (最高溫度: 255±5°C.)

Table II: Reflow soldering profile

(附錄二:回流焊接曲線圖)

Pb-free reflow profile requirements: (無鉛回流焊接曲線)

Parameter (參數)	Reference (參考)	Specification (規格)
Average Temperature Gradient in Preheating (平均預熱溫度)		2.5°C/s
Soak Time 25~150°C	T_{soak}	60 Seconds (max)
Time Above 150~200°C	t_1	120 Seconds (max)
Time Above 200~230°C	t_2	50 Seconds (max)
Time Above 230~255°C	t_3	3 Seconds (max)
Peak temperature in reflow (回流焊接中最高溫度)	T_{peak}	260°C (-5/+0°C)
Temperature Gradient in Cooling (冷卻時溫度幅度)		Max -5°C/s



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.

(這個曲線圖是評估原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 : 049-LCP(Black)

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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⁾ オープンブリスター試験 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

QMFZ2 Component - Plastics Monday, March 20, 2006 E91944

NIPPON OIL CORP

3-1 YAKO 2-CHOME KAWASAKI-KU KAWASAKI-SHI KANAGAWA 210-8545 JP

Material Designation: **MG-350(r3), LCP MG-350(r3)**

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	0.17	V-0	-	-	130	130	130	-	-
NC	0.3	V-0	-	-	130	130	130	-	-
	0.5	V-0	2	2	130	130	130	-	-
	0.89	V-0	3	0	240	220	240	-	-
	1.5	V-0	1	1	240	240	240	-	-
	3	V-0	1	0	240	240	240	-	-

CTI: 3 IEC CTI (V): - HVTR: 0 D495: 4 IEC Ball Pressure (C): -

Dielectric Strength (kV/mm): 45 Volume Resistivity (10⁹ohm-cm): 12 Dimensional Stability (%): 0

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): -

r3 Virgin and Regrind from 26-50% by weight inclusive have the same Flame and Tensile Impact characteristics.

Report Date: 1/5/1990 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.

Material Contact : Copper Alloy (Phosphor Bronze: Gold Plated)

[SGS Test Report Click here](#)

[如需 SGS 測試報告請點選此處](#)



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 : C5210-H	尺寸 : 0.200x 19.0x C
Product	Size
料號 : 1020819015	日期 : 103/02/12
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	99.700	0.350	9.000
SPEC MIN	-	0.030	7.000
分析值 ANALYSIS VALUE	91.942	0.144	7.848

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	72.000	-	210.000	-	-
MIN	60.000	20.000	190.000	-	-
測驗值 MEASUREMENT VALUE	60.310	37.060	191.000	0.010	13.900



Approved by:



Checked by:





PRODUCT SPECIFICATION OF OUPIIN

Material Shell : Metal (SUS304:Ni Plated)

[SGS Test Report Click here](#)

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昆山中茂
MESRS.
产品名称
SUS304CSP-1/2H-DM
尺寸
0.300X27.00XL
规格
SPECIFICATION

试验成绩书 INSPECTION CERTIFICATE

发行日
2010年11月09日
纳品书番号
1011-353
客户订单号
ZM-20101106-01A
订单号码
020498-001

日矿金属(苏州)有限公司
Nippon Mining & Metals (Suzhou) Co.Ltd
中国苏州工业园区舜亭大道536号
536, fengting Road, Suzhou Industrial Park, PRC.
邮政编码: 215122
POST CODE
TEL: 0512-62750188
品质管理责任者
MANAGER OF QUALITY
ASSURANCE SECTION

Y. Ozeki

化学成分 CHEMICAL COMPOSITIONS

规格 SPECIFICATION	C %	Si %	Mn %	P %	S %	Ni %	Cr %							质量 MASS (KG)
制造番号 MIN						8.00	18.00							
LOT NO. MAX	0.080	1.00	2.00	0.045	0.030	10.50	20.00							
S17275-00	0.048	0.52	1.08	0.034	0.002	8.04	18.22							1016.10

机械以及物理性质 MECHANICAL AND PHYSICAL PROPERTIES

规格 SPECIFICATION	Thickness mm	TS Tensile Strength N/mm2	El Elongation %	Hv Hardness Vickers	YS Yield Strength N/mm2							尺寸检查 DIMENSIONAL INSPECTIONS	GOOD
制造番号 MIN	0.293	780.0	6.0	250.0	470.0							外观检查 SURFACE INSPECTION	GOOD
LOT NO. MAX	0.307			280.0									
S17275-00	0.300	910.0	37.1	268.0	632.0							备注 REMARKS.	

本公司从质量管理计划实施制造、检查、试验、特此证明符合规格。本产品符合RoHS要求。
CERTIFY THAT THE PRODUCTS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION AND O.C. PROGRAM RoHS COMPLIANT.

