PRODUCT SPECIFICATION

(產品規格書)

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
High Power and Signal Edge Card Connector	9305-4P12S14B7SAA01	9305-DP12S14-001

PRODUCT NAME (產品名稱)	**DOCUMENT No.** (文件編號)	**Rev.** (版本)	**OUPIIN** (歐品)
High Power and Signal Edge Card Connector **(RoHS)**	Q9305-PSS-001	B (I800)	
	Approved (核準)	**Checked** (審核)	**Prepared** (製作)
	Q.A. Section Chief	Pandy Wu	2021.04.15

1. SCOPE （範圍）

This product specification defines the product performance and the test methods to ascertain the performance of the High Power and Signal Edge Card 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High Power and Signal Edge Card Connector，型連接器, 產品的特性及測試方法.)

2. REFERENCE DOCUMENTS （參考文件）

EIA 364	Test method for electrical components （電子零件測試方法）
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)
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)
UL 1977	UL standard for safety of attachment plug and receptacle UL (安規要求標準)

3. FEATURE & DIMENSIONS （特徵及尺寸）

3.1. PRODUCT DIMENSION （產品尺寸）

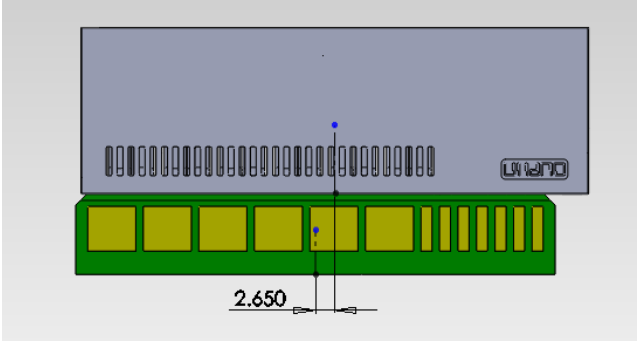
These connectors shall have the dimensions as shown in drawing.

(本產品的相關尺寸參考圖面.)

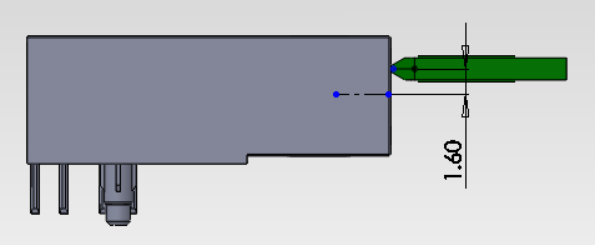
3.2. MALE AND FEMALE PRODUCT (公母產品裝配)

3.2.1. Perpendicular to engaging direction垂直插入方向

the design of the centering and guiding in the mpc of the free and fixed board connector modules shall accept a misalignment of 2.65mm in transverse and 1.60mm in longitudinal axes of the connector.
固定板連接器模件的Mpc裡，連接器設計中心線橫向可接受2.65mm和縱向可接受1.60mm的偏差。



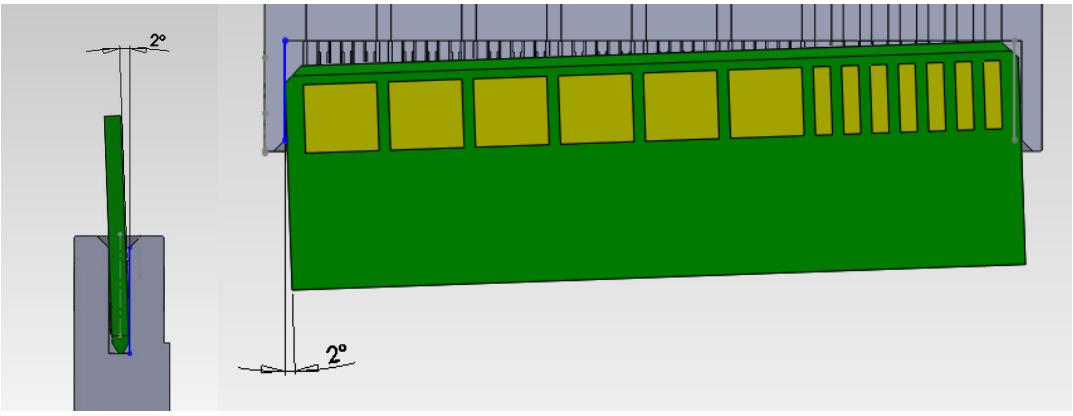
allowed misalignment in transverse axes在橫向方向允許對插偏差量



allowed misalignment in longitudinal axes在縱向方向允許對插偏差量

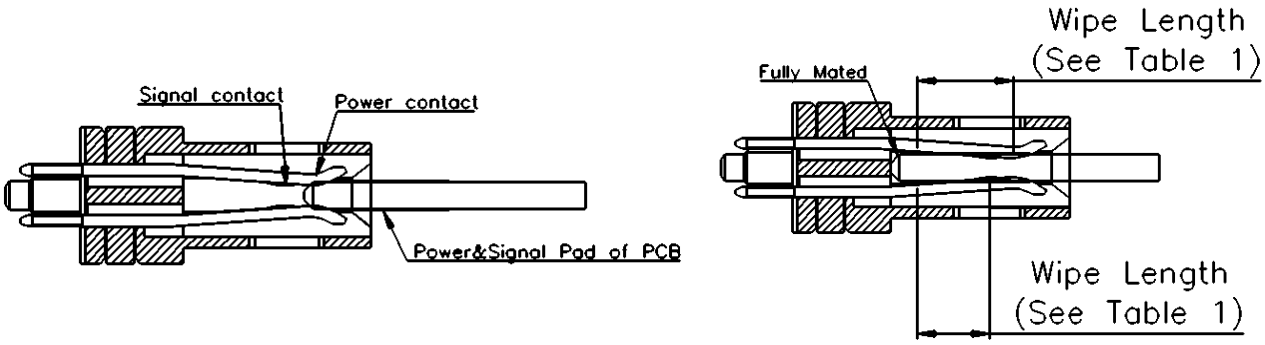
3.2.2 Inclination傾向

The center and guiding in the Mpc OF the free and the fixed boadr connector modules shall allow an initial angular misalignment of 2° Max in the transverse and longitudinal axes.
固定板連接器模件的在Mpc裡,連接器可接受橫向和縱向2° 的最大傾斜對插角度。



3.2.3 Capability for products wipe length

產品接觸長度等級



CONTACT	MATING LEVEL	WIPE LENGTH(MIN)
Power Pin	1	4.9mm
Signal Pin	1	3.4mm

3.3. 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。

3.4. 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.)

3.5. 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)

3.6. 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)

3.7. *RATING CURRENT AND RATING VOLTAGE (額定電流與額定電壓)*

Rating current: Power pin: 45A(UL), Signal pin:3A(UL).
額定電流: Power pin: 45A(UL)　Signal pin: 3A(UL)
Rating voltage：Power pin 250V　　Signal pin 30V
額定電壓 Power pin 250V　　Signal pin 30V

3.8. STORAGE AND OPERATING TEMPERATURE(*儲存與使用溫度)*

Temperature range: -55 °C~+105°C, including terminal temperature rise for rating current.
Storage Temperature :0°C~+40°C, Humidity: 80%RH under，Time limit is 18 months the products are stored。
溫度範圍：-55°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 EIA-364-52, and shall be free of contaminants.
產品可焊性符合EIA-364-52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。

4.2.2 WAVE SOLDER 波峰焊接.

Each cycle consists of three consecutive phases. as shown in Table IV.
每個焊接週期包括三個連續的階段,見附表四。

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准。

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.)

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)

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 Procedures

(附表一: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)	Power pin:0.6 mΩ Max.initial. Signal pin:25 mΩ Max.initial. Contact resistance change△10 mΩ Max Power pin 初始狀態 0.6mΩ Max, Signal pin 初始狀態 25mΩ Max, Signal pin 接觸電阻變化值 ∆10 mΩ Max	Subject mated contacts assembled in housing to closed circuit of 20 mA max. Per EIA-364-06 所述固定端子連結到一個封閉回路中測試,電流 20 mA max,電壓 20 mV max。適用：EIA -364-06
3. Insulation Resistance (絕緣阻抗)	Power pin: 5000 MΩ Min. Signal pin： 500 MΩ Min Power pin 最小 5000 MΩ. Signal pin 最小 500 MΩ	Measure by applying test potential between the adjacent contacts, and between the contacts anxd ground in the mated connector. (500 V DC±10%),Per EIA -364-21 . 測試產品相鄰端子間以及端子與接地間的電阻(500 VDC±10%),適用：EIA -364-21。
4.Dielectric Withstan Ding Voltage (耐電壓)	Power pin must withstand test potential of 1000 VDC RMS for 1 minute, current leakage must be 1.0mA Max Signal pin must withstand test potential of 500 VDC RMS for 1 minute, current leakage must be 1.0mA Max. Power pin 必須承受測試電壓 1000 VDC RMS，時間 1 分鐘，漏電流不大於 1.0 mA。 Signal pin 必須承受 測試電壓 500 VDC RMS，時間 1 分 鐘，漏電流不大於 1.0 mA。	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. Per 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)	Power contact resistance less than 0.6 mΩ and signal contact resistance change10 mΩ max. After testing. 測試後電源針接觸阻抗不超過 0.6 mΩ，信號針接觸阻抗比初始值增大不超過 10 mΩ。	Repeat mate and unmated for connector 200 cycles, at a speed of 25.4±3 mm per minute. Per EIA-364-09 重復進行配合產品 200 次插拔，速度 25.4±3 mm/分鐘。適用：EIA-364-09。
6. Contact Retention Force (端子保持力)	Signal pin: 5N/Pin. Min. Power pin: 32N/Pin. Min. Signal pin 每支最小 5N. Power pin 每支最小 32N	Apply axial pull out force at a speed of 25.4±3 mm/minute on the contact assembled in the housing. Per EIA-364-29. 以 25.4±3mm/分鐘的速度施加軸向拉力從塑膠本體上拔出端子。適用：EIA-364-29。
7. Mating/Un-mating Force (插入力/拔出力)	Power Pin： Mating force:20N /Pin Max. Un-mating force:2.5N /Pin Min Signal Pin： Mating force:1.5N /Pin Max. Un-mating force:0.36N /Pin Min Power Pin： 插入力最大: 20N /Pin Max。 拔出力最小: 2.5N /Pin Min。 Signal Pin： 插入力最大: 1.5N /Pin Max 。 拔出力最小: 0.36N /Pin Min	At a speed of 25.4±3 mm/minute, apply axial insert the mating part into fully or pull out from the subject product. Per 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。
8. Vibration (機械振動)	No electrical discontinuity less than1μs shall occur, Power contact resistance 0.6 mΩ max and signal contact resistance change10 mΩ max. After testing. 不允許出現超過 1 μs 的瞬間斷開，測試後電源針接觸 阻抗最大 0.6mΩ，信號針接觸阻抗比初始值增大不超過 10 mΩ。	Subject mated connector to 10-500 Hz traversed in 1 minute at 1.5mm amplitude, 2 hours each of 3 mutually perpendicular planes, 10 mA potential applied. Per EIA-364-28. 對測試產品，在頻率變化每分鐘從 10-500 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。
9. Thermal Shock (溫度沖擊)	After testing, no damage, Dielectric Strength should be OK; Power contact resistance 0.6mΩ max and signal contact resistance change10 mΩ max. 測試後產品 無損壞，電源針接觸阻抗最大 0.6mΩ，信號針接觸阻抗比初始值增大不超過 10 mΩ。	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 5 minutes, total 5 cycles. Per EIA-364-32. 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 5 分鐘，共 5 個循環。適用：EIA-364-32。

10. Mechanical shock (機械衝擊)	No electrical discontinuity less than1μs After testing, no damage. 不允許出現超過 1 μs 的瞬間斷開，測試後,產品無損壞	Accelerate Velocity:490m/s²; Waveform:Half-sine shock plus; Duration:11msec; 3drops each to normal and reversed directions of X,Y and Z axes; Per EIA-364-27. 速度 490m/s²; 半正弦波；持续 11 毫秒；±X, ±Y,±Z, 方向各 3 次; 適用：EIA-364-27。
11. Humidity Temperature Cycle (溫濕度循環)	After testing, no damage, Dielectric Strength should be OK，Power contact resistance 0.6 mΩ max and signal contact resistance change 10 mΩ max. 測試後產品無損壞，電源針接觸阻抗不超過 0.6 mΩ，信號針接觸阻抗比初始值增大不超過 10 mΩ。	Subject product to 25~65°C, 90-95%.R.H 10Cycles. Each cycle lasted 24 hours, Per EIA-364-31. 產品置於 25~65°C, 相對濕度：90-95%, 循環 10 次, 24 小時循環一次, 適用：EIA-364-31
12. Test temperature rise for rating current (溫升測試)	The test temperature above ambient shall not exceed RTI(130°C) for UL. 测试溫度不能超過 UL 标准的 RTI(130°C)值. Ambient conditions - Still air 25°C. 周圍環境溫度 25°C。	Subject mated contacts assembled in housing to closed circuit of Power Pin: 45A max. Signal Pin:3A max. Per EIA-364-70. 所述固定在外殼包的端子連結到一個封閉回路中測試，Power Pin:45A, Signal Pin: 3A。 適用：EIA-364-70。
13. Salt Spray (鹽霧)	After testing, no damage, Dielectric Strength should be OK. Power contact resistance 0.6 mΩ max and signal contact resistance change 10 mΩ max. 測試後產品無損壞，電源針接觸阻抗不超過 0.6 mΩ，信號針接觸阻抗比初始值增大不超過 10mΩ。	5±1% salt concentration(PH=7.0) ,48 hours 35±2°C: Per EIA-364-26. 鹽水濃度 5±1%(PH=7.0),時間 48 小時，溫度 35±2°C。適用：EIA-364-26。
14. High Temperature Life (高溫老化)	After testing, no damage, Dielectric Strength should be OK; Power contact resistance 0.6 mΩ max and signal contact resistance change10 mΩ max. 測試後產品無損壞，電源針接觸阻抗不超過 0.6 mΩ，信號針接觸阻抗比初始值增大不超過 10 mΩ。	Subject product to 105°C for 240 hours continuously. Per EIA-364-17. 產品置於 105°C 連續 240 小時。 適用：EIA-364-17。
15. Solderability 可焊性	There shall have a solder coverage of 95% minimum。 產品在測試完成後，焊接部位粘錫面積大於 95%。	Soldering time: 5 seconds. Temperature: 245±5°C. Per EIA-364-52. 焊接時間：5 秒。 溫度：245±5°C。 適用：EIA-364-52。

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	I	J
1. Conformation of Product 產品確認	1,7	1	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1
2. Contact Resistance 接觸阻抗	2,6		2,6	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	3,7	3,7	
4.Dielectric Withstanding Voltage 耐電壓	4		4,8	4,8	4,8	4,8	4,8	4,8	4,8	
5.Durability 耐久性	5									
6. Contact Retention Force 端子保持力		3								
7. Mating/Un-mating Force 插入/拔出力		2								
8. Vibration Sinusoidal Low Frequency 低頻正弦振動			5							
9. Thermal Shock 溫度衝擊				5						
10. Mechanical Shock 機械沖擊					5					
11. Humidity-Temperature Cycle 溫濕度循環						5				
12. Current rating 溫升測試							5			
13. Salt Spray 鹽霧								5		
14. High Temperature Life 高溫老化									5	
15. Solder-ability 可焊性										2

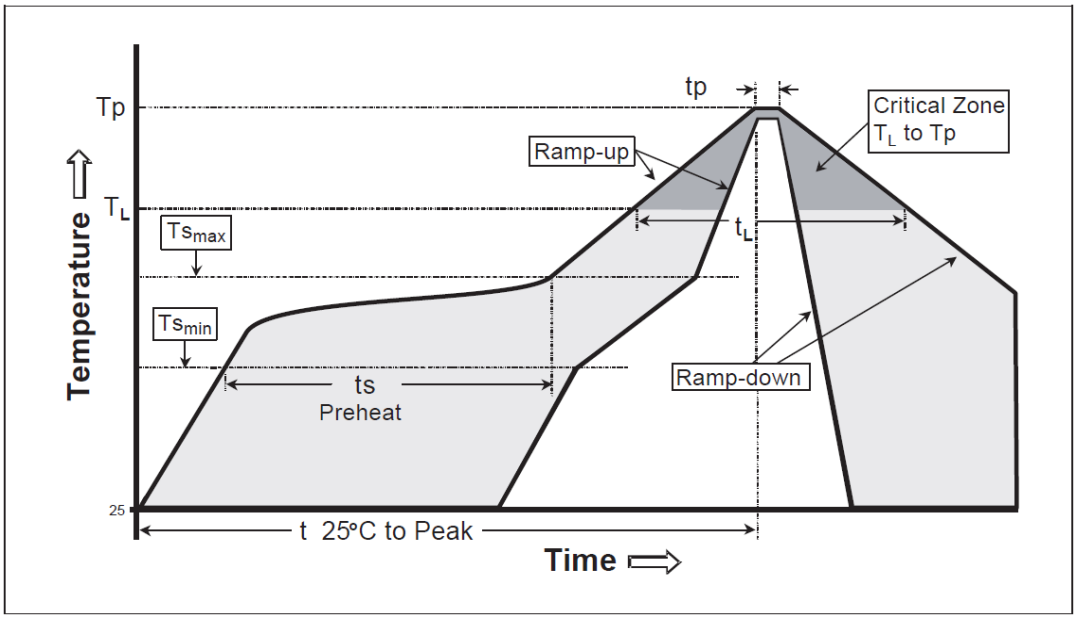
TableIII : Reflow Soldering Profile

附表三：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 規格
升溫區 Ramp-up	25℃ ~150℃	3°C /S Max
預熱區(Pre-heatimg) Temperature Min(Tsmin) Temperature Max(Tsmax) Time(Tsmin to tsmax)	150℃ ~200℃	60~180sec
Time maintained above(保持時間) Temperature(TL) Time(tL)	217℃	60~150sec
Time within 5°C of actual peak Temperature(tp)	260-/+5℃	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

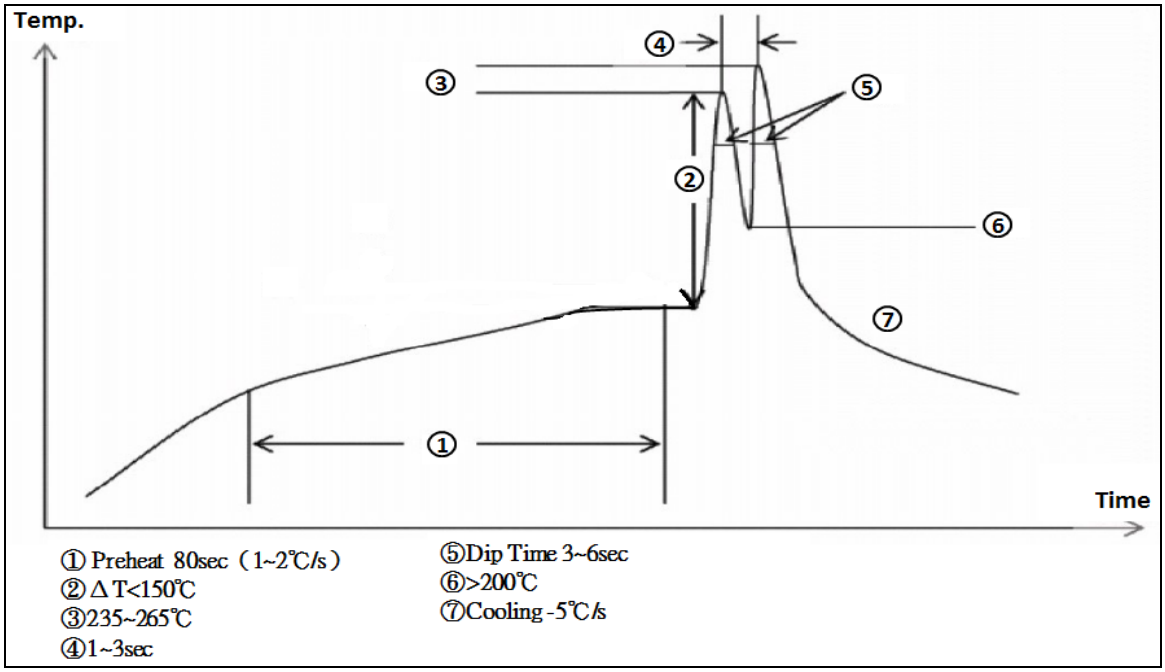


This profile is the minimum requirement for evaluating soldering heat resistance of components .Heat transfer method used for reflow soldering is hot air convection .The actual air temperatures used to achieve the specified profile largely dependent on the reflow equipment.

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。

TableⅣ : : Weld the curve graph in crest

附表四：波峰焊曲線圖



Material Housing : 074-LCP

SGS Test Report Click here

如需 SGS 測試報告請點選此處

江苏沃特特种材料制造有限公司
Jiangsu WOTE High Performance Materials Co., LTD.

WOTE

产品材质证明

Certificate Of Quality

No. 190970

客户名称 Customer	欧品电子（昆山）有限公司				
产品名称 Product	LCP	产品牌号 Grade	KC184BLM		
生产批号 Lot No.	190922A	产品颜色 Colour	黑色		
产品数量/KG Quantity	2000	生产日期 Date	2019.09.22		
性能 Property	单位 Units	测试标准 Test method	测试条件 Test condition	管控范围 Control range	检测结果 Value
相对密度 Relative Density	g/cm^3	ASTM D792	23℃	≥1.55	1.61
弯曲强度 Flexural Strength	MPa	ASTM D790	23℃ 3mm/min	≥160	177
弯曲应变 Flexural strain	%	ASTM D790	23℃ 3mm/min	≥1.5	1.6
弯曲模量 Flexural Modulus	GPa	ASTM D790	23℃ 3mm/min	≥11.5	14.2
热变形温度 Heat Deflection Temperature	℃	ASTM D648	120℃ /h, 1.82MPa	≥255	266

结论 Result:

合 格 PASS

检验人(Examiner):

确认人（ Confirmor）:

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 (10^x 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

IEC and ISO Test Methods

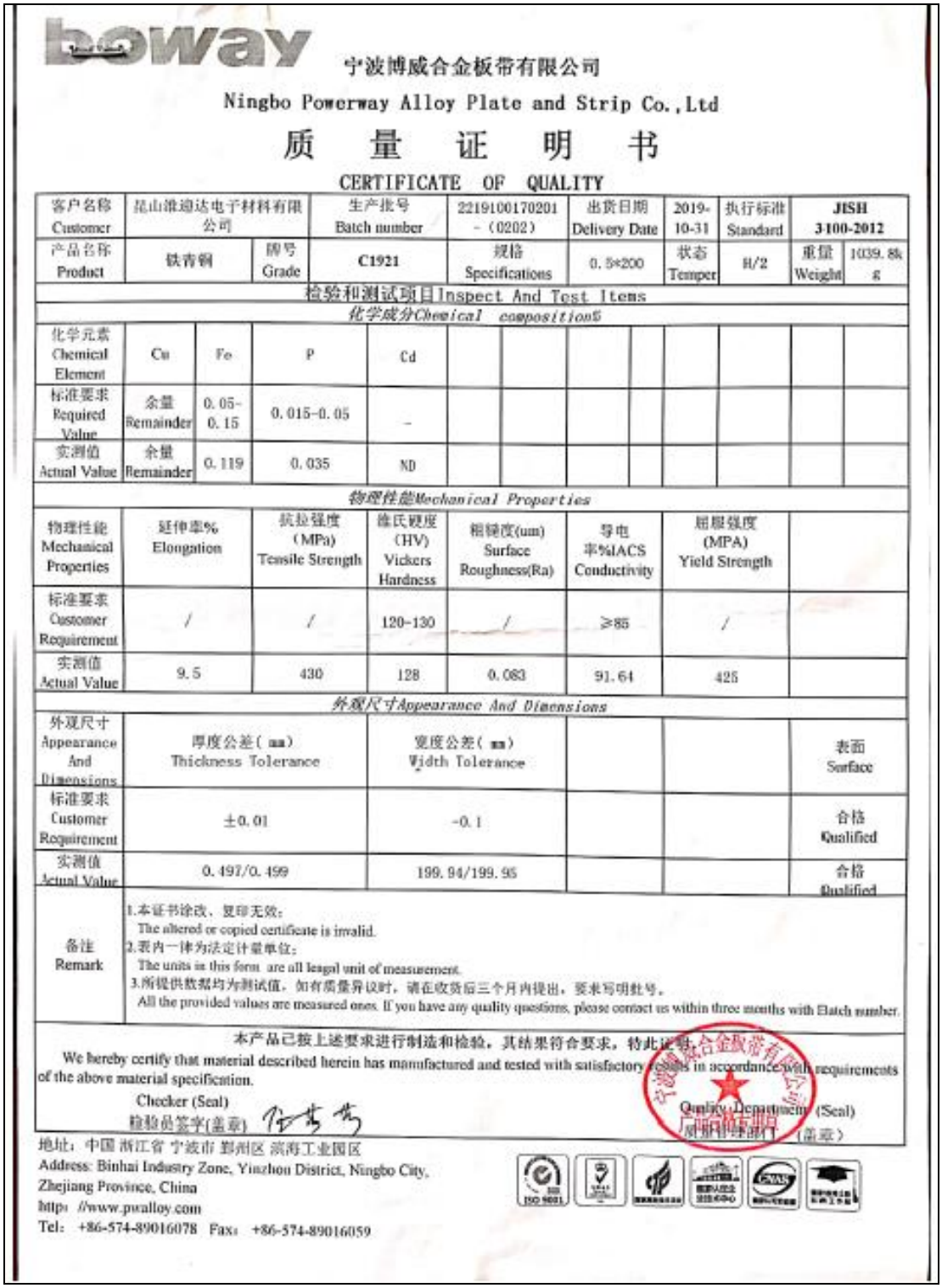
Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.3	V-0 (NC, BK)
			3.0	V-0 (NC, BK)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	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 Contacts : C19210

SGS Test Report Click here

如需 SGS 測試報告請點選此處



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宁波博威合金板带有限公司

Ningbo Powerway Alloy Plate and Strip Co.,Ltd

质 量 证 明 书

CERTIFICATE OF QUALITY

客户名称 Customer	昆山淮迪达电子材料有限公司		生产批号 Batch number	2219100170201-(0202)	出货日期 Delivery Date	2019-10-31	执行标准 Standard	JISH 3100-2012	
产品名称 Product	铁青铜	牌号 Grade	C1921	规格 Specifications	0.5*200	状态 Temper	H/2	重量 Weight	1039.8k g

检验和测试项目Inspect And Test Items

化学成分Chemical composition%

化学元素 Chemical Element	Cu	Fe	P	Cd								
标准要求 Required Value	余量 Remainder	0.05-0.15	0.015-0.05	-								
实测值 Actual Value	余量 Remainder	0.119	0.035	ND								

物理性能Mechanical Properties

物理性能 Mechanical Properties	延伸率% Elongation	抗拉强度 (MPa) Tensile Strength	维氏硬度 (HV) Vickers Hardness	粗糙度(um) Surface Roughness(Ra)	导电率%IACS Conductivity	屈服强度 (MPA) Yield Strength	
标准要求 Customer Requirement	/	/	120-130	/	≥85	/	
实测值 Actual Value	9.5	430	128	0.083	91.64	425	

外观尺寸Appearance And Dimensions

外观尺寸 Appearance And Dimensions	厚度公差(mm) Thickness Tolerance	宽度公差(mm) Width Tolerance			表面 Surface
标准要求 Customer Requirement	±0.01	-0.1			合格 Qualified
实测值 Actual Value	0.497/0.499	199.94/199.95			合格 Qualified

备注 Remark

1.本证书涂改、复印无效；
The altered or copied certificate is invalid.
2.表内一律为法定计量单位；
The units in this form are all legal unit of measurement.
3.所提供数据均为测试值，如有质量异议时，请在收货后三个月内提出，要求写明批号。
All the provided values are measured ones. If you have any quality questions, please contact us within three months with Batch number.

本产品已按上述要求进行制造和检验，其结果符合要求，特此证明。

We hereby certify that material described herein has manufactured and tested with satisfactory results in accordance with requirements of the above material specification.

Checker (Seal) 检验员签字(盖章)

Quality Department (Seal) 质量检验部门 (盖章)

地址：中国 浙江省 宁波市 鄞州区 滨海工业园区
Address: Binhai Industry Zone, Yinzhou District, Ningbo City, Zhejiang Province, China
http://www.pwalloy.com
Tel: +86-574-89016078 Fax: +86-574-89016059

Material Signal Contacts : C5191

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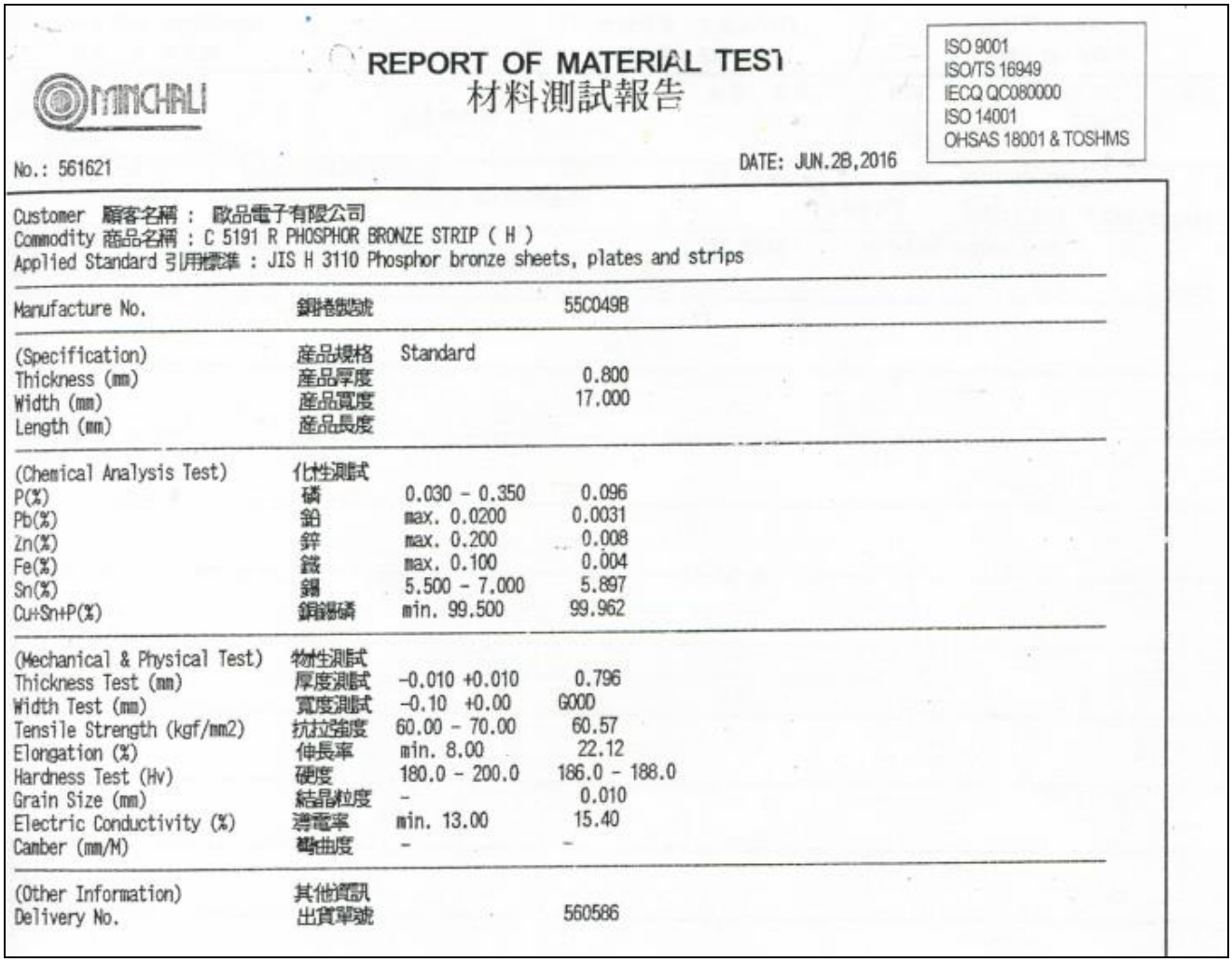

MINCHALI

REPORT OF MATERIAL TEST
材料測試報告

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

No.: 561621

DATE: JUN.28,2016

Customer 顧客名稱 : 歐品電子有限公司
Commodity 商品名稱 : C 5191 R PHOSPHOR BRONZE STRIP (H)
Applied Standard 引用標準 : JIS H 3110 Phosphor bronze sheets, plates and strips

Manufacture No.	銅捲號號		55C049B
(Specification)	產品規格	Standard	
Thickness (mm)	產品厚度		0.800
Width (mm)	產品寬度		17.000
Length (mm)	產品長度		
(Chemical Analysis Test)	化性測試		
P(%)	磷	0.030 - 0.350	0.096
Pb(%)	鉛	max. 0.0200	0.0031
Zn(%)	鋅	max. 0.200	0.008
Fe(%)	鐵	max. 0.100	0.004
Sn(%)	錫	5.500 - 7.000	5.897
Cu+Sn+P(%)	銅錫磷	min. 99.500	99.962
(Mechanical & Physical Test)	物性測試		
Thickness Test (mm)	厚度測試	-0.010 +0.010	0.796
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD
Tensile Strength (kgf/mm2)	抗拉強度	60.00 - 70.00	60.57
Elongation (%)	伸長率	min. 8.00	22.12
Hardness Test (Hv)	硬度	180.0 - 200.0	186.0 - 188.0
Grain Size (mm)	結晶粒度	-	0.010
Electric Conductivity (%)	導電率	min. 13.00	15.40
Camber (mm/M)	彎曲度	-	-
(Other Information)	其他資訊		
Delivery No.	出貨單號		560586