PRODUCT SPECIFICATION

(產品規格書)

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
Terminal Block Pitch 3.5mm	8933-C111158GAACDxxA	8933D02001
	8933-C111158GABCDxxA	8933D02008
	8933-C111158GAACAxxA	8933D02009

PRODUCT NAME (產品名稱)	**DOCUMENT No.:** (文件編號)	**Rev.** (版本)	**OUPIIN** (歐品)
Terminal Block Pitch 3.5mm	8933spec-C111	**B(I780)**	
	Approved (核準)	**Checked** (審核)	**Prepared** (製作)
	Q.A. Section Chief	Allen	08.09/2018

1. SCOPE （範圍）

This product specification defines the product performance and the test methods to ascertain the performance of the Terminal Block 3.5mm, 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 Terminal Block 3.5mm 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-202F	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. Products required carrier tape should meet the proper specification per purchase order. Connector container and the packaging specification is shown in package drawing.

(產品包裝可依客戶指定要求.本產品採用 Bulk Package / Box Package 包裝，具體見包裝圖面.)

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

Rating current is 10 A, rating voltage is 300V DC/AC RMS.
額定電流 10 A，額定電壓 300V DC/AC RMS。

3.7 STORAGE AND OPERATING TEMPERATURE *儲存與使用溫度*

Temperature range: -40°C~+115°C, including terminal temperature rise for rating current.
溫度範圍：-40°C~+115°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-202F. Finish shall be free of contaminants.
(產品可焊性符合 MIL-STD-202F 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）

WAVE SOLDERING （波峰接）

Each cycle consists of three consecutive phases.
(每個焊接週期包括三個連續的階段)

1. Preheat （預熱）

The steady temperature of the preheat zone is 90~125°C.
(預熱區最終溫度控制在90~125°C)

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 220~245°C for products with lead, or 235~250°C for lead-free products. The tin dip time is duration for 3~5 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220~245°C，無鉛產品控制在235~250°C。浸錫時間控制在3~5秒。)

3. Cool Down （冷卻）

Cool down shall not exceed 5℃ per second.
(冷卻速度不超過5℃/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；)

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. Insulation Resistance (絕緣阻抗)	1000 MΩ Min. (最小)	A voltage of 500V DC shall be applied to the terminals. After which measure ement shall be made. DC 500V (在端子之間用 DC 500V 測試)
3. Dielectric Strength (耐電壓)	Connector must withstand test potential of 1600 V AC for 1 minute. Current leakage must be 10 mA max. (樣品必須承受測試電壓 1600V AC，時間一分鐘，漏電流不大於 10 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。)
4. Soldering Test. (可焊性試驗)	A new uniform coating of solder shall cover a minimum of 95 of the surface being immerasd. 浸入的部份 95%以上表面將被錫覆蓋	The tip of the terminals shall be dipped 2mm in the solder bath at a temperature of 250±5°C for 3~5 sec. 端子頂部被浸入焊錫池 2mm 深,溫度 250±5°C 時間 3~5 秒

PRODUCT SPECIFICATION OF OUPIIN

Material Housing : 893x-PA66G(Green)

SGS Test Report Click here

如需 SGS 測試報告請點選此處

FRIANYL A3 RV0 NC 1102/Z

FRIANYL A 63 RV0 1102/Z

Nylon 6.6 for injection moulding, flame retardant, free of red phosphorus and halogenated flame retardants, rated UL94- V0.

Physical properties	Conditions	Testing standard	Unit	Values
Abbreviation	-	ISO 1043	-	-
Density	23°C	ISO 1183	g/cm³	1,15
Viscosity index	23°C	ISO 307	ml/g	140
Water absorption at saturation	23°C	ISO 62	%	6-7
Moisture absorption	23°C - 24 h	ISO 62	%	1,8-2,5
Shrinkage longitudinal	23°C	ISO 294-4 *	%	1,2-1,6
Shrinkage transversal	23°C	ISO 294-4 *	%	1,2-1,6
Flame behaviour	**Conditions**	**Testing standard**	**Unit**	**Values**
Flammability	3,2 (1,6) mm	UL-94	class	V-0 (V-0)
	0,8 (0,4) mm	UL-94	class	V-0 (V-0)
Burning behaviour of interior materials	1,0 mm	FMVSS 302	mm/min	-
Glow wire flammability index	3,2 (0,8) mm	IEC 60695-2-12	°C	960 (960)
Glow wire ignition temperature	3,2 (0,8) mm	IEC 60695-2-13	°C	775 (775)
Mechanical properties	**Conditions**	**Testing standard**	**Unit**	**Values**
Tensile modulus	23°C	ISO 527	MPa	3400
Tensile yield stress	23°C	ISO 527	MPa	80
Tensile strain (yield", break)	23°C	ISO 527	%	9
Flexural modulus	23°C	ISO 178	MPa	-
Flexural yield stress	23°C	ISO 178	MPa	-
Charpy impact	23°C	ISO 179/1eU	kJ/m²	NB
	-30°C	ISO 179/1eU	kJ/m²	NB
Charpy impact, notched	23°C	ISO 179/1eA	kJ/m²	3
	-30°C	ISO 179/1eA	kJ/m²	2,5
Izod impact strength notched	23°C	ISO 180/A	kJ/m²	-
	-30°C	ISO 180/A	kJ/m²	-
Surface hardness	23°C	ISO 2039-1	MPa	170
Thermal properties	**Conditions**	**Testing standard**	**Unit**	**Values**
Melting point	-	ISO 11357-1	°C	260
Distorsion temp. under load	1,8 MPa	ISO 75 - Meth. A	°C	85
	0,45 MPa	ISO 75 - Meth. B	°C	185
Continuous service temperature	20.000 h	IEC 60216-1	°C	130
Electrical properties	**Conditions**	**Testing standard**	**Unit**	**Values**
Volume resistivity	23°C	IEC 60093	Ohm x cm	1 E 15
Surface resistivity	23°C	IEC 60093	Ohm	-
Dielectric strength	2,0 mm	IEC 60243	kV/mm	-
CTI - Comparative tracking index	3,2 mm, sol. A	IEC 60112	V	600

Material Housing :UL

UL iQ™ for Plastics

Need more information? Click Here to go to the iQ™ for Plastics database

Component - Plastics E86034

NILIT PLASTICS EUROPE GMBH & CO KG

NIEDERMATT 11, UTZENFELD 79694 DE

A 63 V0

Polyamide 66 (PA66), "FRIANYL", furnished as granular material

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.38	V-0	4	0	125	90	115
	0.75	V-0	4	0	125	95	115
	1.5	V-0	2	0	125	95	120
	3.0	V-0	1	0	125	95	120

Comparative Tracking Index (CTI): 0 Dimensional Stability (%): -

High-Voltage Arc Tracking Rate (HVTR): - High Volt, Low Current Arc Resis (D495): -

Dielectric Strength (kV/mm): - Volume Resistivity (10^x ohm-cm): -

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: 1992-10-22

Last Revised: 2004-06-11

Underwriters Laboratories Inc®

IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.38	V-0 (ALL)
			0.75	V-0 (ALL)
			1.5	V-0 (ALL)
			3.0	V-0 (ALL)
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	-	-

Underwriters Laboratories Inc®

The materials covered in this database are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE PRODUCTS SUBMITTED TO UNDERWRITERS LABORATORIES INC.

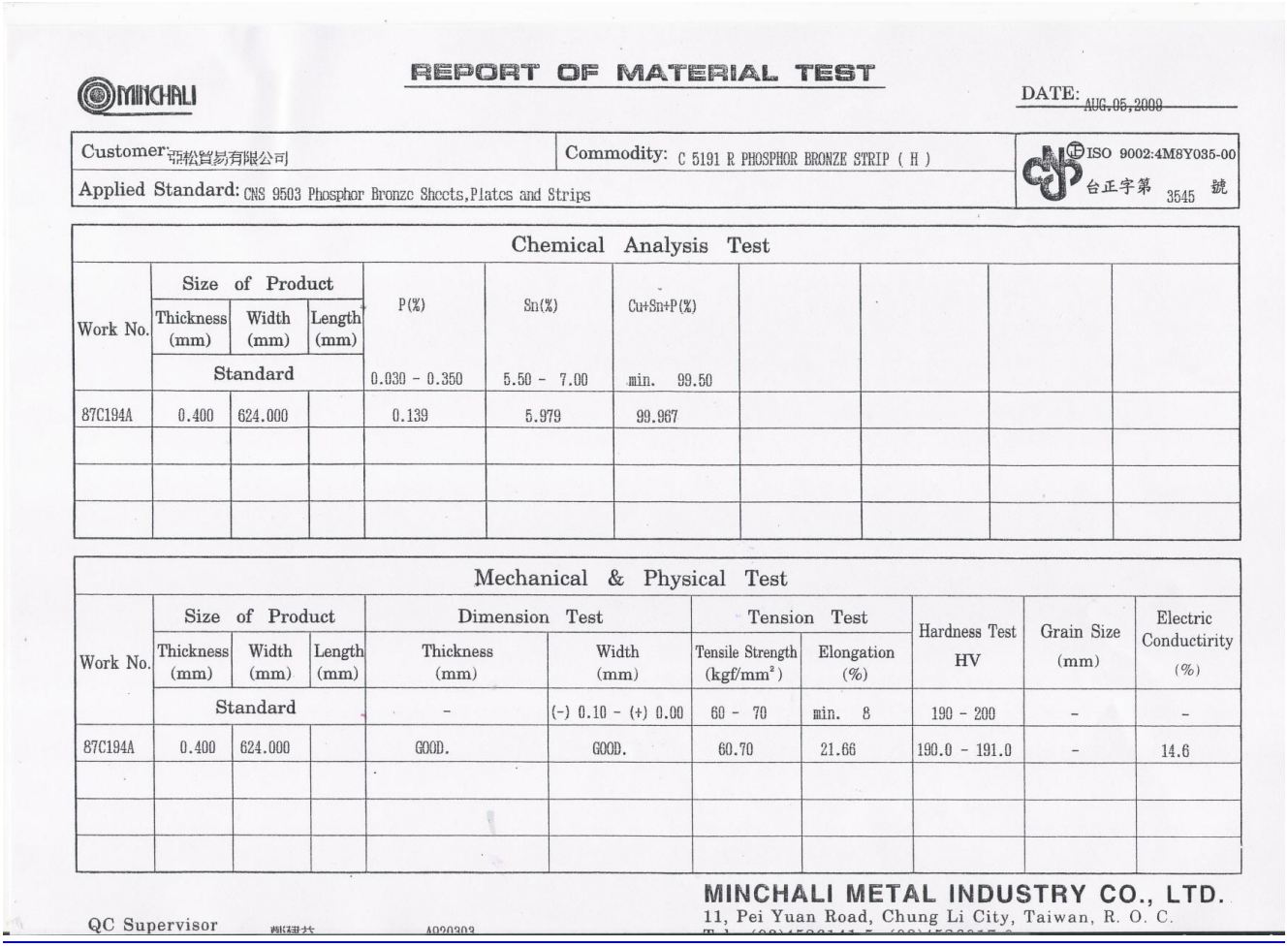
Notice of Disclaimer

PRODUCT SPECIFICATION OF OUPIIN

Material Female Contact : Copper Alloy (Tin Plated)

SGS Test Report Click here

如需 SGS 測試報告請點選此處



MINCHALI

REPORT OF MATERIAL TEST

DATE: AUG.05,2009

Customer: 弼松貿易有限公司 | Commodity: C 5191 R PHOSPHOR BRONZE STRIP (H)

Applied Standard: CNS 9503 Phosphor Bronze Sheets,Plates and Strips

ISO 9002:4M8Y035-00 台正字第 3545 號

Chemical Analysis Test

Work No.	Size of Product Thickness (mm)	Width (mm)	Length (mm)	P(%)	Sn(%)	Cu+Sn+P(%)				
	Standard			0.030 - 0.350	5.50 - 7.00	min. 99.50				
87C194A	0.400	624.000		0.139	5.979	99.967				

Mechanical & Physical Test

Work No.	Size of Product Thickness (mm)	Width (mm)	Length (mm)	Dimension Test Thickness (mm)	Width (mm)	Tension Test Tensile Strength (kgf/mm²)	Elongation (%)	Hardness Test HV	Grain Size (mm)	Electric Conductirity (%)
	Standard			-	(-) 0.10 - (+) 0.00	60 - 70	min. 8	190 - 200	-	-
87C194A	0.400	624.000		GOOD.	GOOD.	60.70	21.66	190.0 - 191.0	-	14.6

QC Supervisor A020303

MINCHALI METAL INDUSTRY CO., LTD.
11, Pei Yuan Road, Chung Li City, Taiwan, R. O. C.

Material Clamp: Copper Alloy (Brass: Ni Plated)

SGS Test Report Click here

如需 SGS 測試報告請點選此處

材 質 測 試 報 告
(Test Report)

客戶名稱 (Title of customer)			出貨日期 (Date of delivery)	2008/03/27
訂單號碼 (Number of order)		製造批號 (Manufacture No)		
材質名稱 (Spec.)		訂單規格 (Ordered Dimension)	容許公差 (Tolerance)	實際規格 (Measured Dimension)
JIS C2680 W	尺寸(mm) (Diameter)	1.08	+0 -0.02	1.08
			+ -	
	長度(mm) (Length)		+ -	

化學分析 (Chemical Analysis)

使用儀器 (Instrument)	光譜分析儀 (Spark Metal Analyser)							
元素名稱 (Element)	銅 (Cu)	鉛 (Pb)	鋅 (Zn)	鐵 (Fe)	錫 (Sn)	鐵+錫 (Fe)+(Sn)	鉍 (Bi)	鎘 (Cd)
標準規範 % (Specification)	64.0~68.0	≦0.05	Balance	≦0.05	—	—	—	
實際含量 % (Actual value)	65.3~66.5	≦0.03	Balance	≦0.03	—	—	—	

外觀及物理性質 (Exteriority Check And Physical Properties)

外觀 (Exteriority)	外觀檢驗 (Exter Appear)	OK	直度檢驗 (Camber)	OK
使用儀器 (Instrument)	材料試驗機 (Material test machine)		測試方法 (Method of test)	JIS Z 2201 NO.2
物理性質 (Physical character)	時期破裂試驗 (S.C.C. Test)	抗拉強度 (Tensile strength)	延伸率 (Elongation)	硬度 (Hardness)
標準規範 (Specification)	OK	— (N/mm²)	— %	— HV
實測數值 (Actual value)	OK	— (N/mm²)	— %	130~150 HV
單位主管 (Supervisor)	游秋道		檢驗員 (Operator)	胡桂系

此份測試報告僅供本材質參考

Reference Only , This report is uncertificated but referenced .

國晟工業股份有限公司 電話:03-3541306 傳眞:03-3542518

國 晟 工 業 股 份 有 限 公 司

GWO CHERN INDUSTRIAL CO., LTD.

PRODUCT SPECIFICATION OF OUPIIN

Material Screw : Steel Zinc Plated

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中國鋼鐵

品質證明書
TEST CERTIFICATE

中國鋼鐵股份有限公司
CHINA STEEL CORPORATION
中華民國高雄市小港區中鋼路1號
1 CHUNG KANG ROAD HSIAO KANG, K
TAIWAN, REPUBLIC OF CHINA
F01

客戶名稱 SOLD TO	永發鋼鐵工業股份有限公司 YUNG FA STEEL & IRON INDUSTRY CO., LTD.	產品名稱 PRODUCT	CR SHEET-COIL
規格名稱 SPEC	JIS G3141 SPCC-SD, OILED, (CQ2, UE) R-35	發票號碼 INVOICE NO.	RW67381406
	TW9463	客戶編號 CUSTOMER NO.	35489006
檢驗 INSP.	CSC MILL INSPECTION T/C 02	交運日期 SHIPPING DATE	JAN 02, 2007
		客戶訂單編號 CUST ORDER NO.	

證明書編號 CERTIFICATE NO. 96…
中鋼訂單編號 CSC ORDER NO. DC…
證明書日期 T/C ISSUE DATE JA…

項目 ITEM NO.	產品序號 LABEL NO.	厚度 THICK MM	寬度 WIDTH MM	長度 LENGTH MM	數量 QTY	質量 MASS KGS	爐號 HEAT NO.	鋼捲號碼 COIL NO.	試片編號 SAMPLE ID.	降伏 Y.S. N/MM2	拉伸 T.S.	伸長 EL %	*05 硬度 HRB	C X10²	Mn X10²	*P X10³	S X10³	Si X10²	Cu	Ni	Cr	Mo	T.Al X10³
018	F008384	0.40	1219	COIL	1	10,020	65205	331867	331867	165	322	44.3	97	4	17	11	7	1					41
	F009109	"	"	"	1	6,450	AQ345	082832	082832	171	320	43.6	96	3	16	11	6	0					41
	F009111	"	"	"	1	11,160	AQ345	082832	082832	171	320	43.6	96	"	"	"	"	"					"
	F009574	"	"	"	1	7,205	AQ345	0828302	0828302	146	290	46.9	93	"	"	"	"	"					"
	F009575	"	"	"	1	7,415	AQ345	0828302	0828302	146	290	46.9	93	"	"	"	"	"					"
	F878674	"	"	"	1	7,835	6S451	081385	081385	156	306	45.1	93	3	16	11	6	1					53
	F878675	"	"	"	1	7,810	6S451	081385	081385	156	306	45.1	93	"	"	"	"	"					"
	F878923	"	"	"	1	5,436	AQ344	082831	082831	157	310	44.6	96	3	15	10	9	1					56
	F878924	"	"	"	1	6,710	AQ344	082831	082831	157	310	44.6	96	"	"	"	"	"					"
			TOTAL:		9	70,150																	

拉伸試驗 *01 G.L.=50 MM

註釋 NOTES
*01 拉伸試驗 TENSILE TEST
*05 硬度試驗 HARDNESS TEST

KG/MM2 = N/MM2 / 9.80665
INF: FOR REFERENCE ONLY

SURVEYOR TO

證明本表所列產品，均依材料規格製造及試驗，並符合規格之要求。
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

YC Hwang
冶金技術處
GENERAL MANAGER METALLURGICAL …