喬訊電子工業股份有限公司
CHYAO SHIUNN ELECTRONIC INDUSTRIAL LTD.
7FL., NO.17, LANE 3, SEC.1 CHUNG CHENG EAST RD.,
TAMSHUI, TAIPEI, TAIWAN, R.O.C.
TEL: 886-2-2629-9955 (REP) FAX: 886-2-2626-6677
http://www.chyaoshiunn.com.tw E-mail:cs@chyaoshiunn.com.tw

Certificate No:TS 622434 FM 587490

Type Document	Product Specification	Revised /Edition	L
Date Issued	2005/07/25	Data Revised	2020/12/16
Subject : JS-1137-XXW JS-1137B JS-1137B-TXX JS-1137R JS-1137R-TXX Pitch 2.50mm Series Board In Connector			Issued By: Engineering Dept.

This specification is referred to 2.50mm series Board In connector.

本規格書內容係提供 2.50 mm 系列產品相關參考，

其用途為電線端直接嵌入電路板連接器

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REV. (版次)	Revision Record (改版變更原因)	Date(日期)	ECN No
E	1.刪除硫化氫 2.修正(EIA-364) 參考規範 3. 增列額定電壓	2011/10/25	EC2011-10-018
F	增列電流與AWG對照	2012/01/11	EC2012-01-007
G	增列料號 JS-1137R-T 磷銅先鍍後衝 ；JS-1137R-TP 磷銅先衝後鍍	2013/08/19	EC2013-08-019
H	1 增訂Wave Peak Soldering In- Process Temperature Profile 2.修訂Solder Ability 附註Tin Plated : 95% / Gold Plated : 75% 3.修訂Wire Pullout Force(Axial)規格值	2013/12/13	EC2013/12/013
I	1.修訂8.8.1 項 Temperature Profile / 2增訂8.5 項Cold耐寒試驗 / 3增訂3.5項Storage of Package以及 3.6 項Floor Life	2015/02/12	EC2015-02-012
J	修改溫度範圍	2017/01/06	EC2017-01-006
K	1.更新BSI標示 2.增訂8.6項Salt Spray鹽水噴霧	2017/07/18	EC2017-07-018
L	修改8.8.1溫度曲線圖265度C為235度C	2020/12/16	EC2020-12-009

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1.0 Product Name/Part Number & Drawing Number(產品名稱 / 產品型號及圖面型號):

Product Name(產品名稱)		Part Number(零件型號)	Drawing Number(圖面型號)
Crimp Terminal (铆壓端子)	Straight (直立式)	JS-1137B-TBX / JS-1137B-TBP	
	Right Angle (臥式)	JS-1137R-TBX / JS-1137R-TBP	
		JS-1137R-TX / JS-1137R-TP	
Housing (膠座)	Straight (直立式)	JS-1137-XXW	
		JS-1137B-XX	
	Right Angle (臥式)	JS-1137R-XX	

Note: (xx) The number of the circuits. W : White

2.0 Construction/Dimensions/Material & Surface Finish(材質以及表面鍍層):

Part Name(零件名稱)	Material(材質)	Surface Finish(表面鍍層)
Crimp Terminal (铆壓端子)	Brass or Phosphor Bronze	Stamping after Plating 先電鍍後衝壓 (Surface Plating : Sn 80u"Min ; Under Plating: Ni 15u"Min)
		Stamping Before Plating 先衝壓後電鍍 (Surface Plating : Sn 120u"Min ; Under Plating: Ni 30 u"Min)
Housing (膠座)	Nylon 66	UL 94V-0

3.0 Characteristic(產品特性):

Item(項目)		Standard(標準規範)					
3.1	額定電流 Rated Current	Conductor Size	AWG	22#	24#	26#	28#
			Area(mm^2)	0.342 mm^2	0.220 mm^2	0.14 mm^2	0.089 mm^2
		Amp AC/DC		3 A	2 A	1 A	0.8 A
3.2	額定電壓 Rated Voltage	250V AC/DC					
3.3	Ambient Temperature Range 環境與操作溫度範圍	(操作使用溫度與濕度範圍) Operating Temp. : -40℃~+105℃ ; 85% R.H. Max. Including 30℃ Terminal Temperature Rise at rated Current , (包括定額電流內 , 端子所產生 30℃以下溫昇)					
3.4	Applicable Wire 適用電線	3.4.1	(金屬導體型號) Conductor Construction Size: AWG #22~#28				
		3.4.2	(電線絕緣材質外徑) Wire Insulation O.D.: 1.2mm~1.6mm				
3.5	Storage of Package 包裝未拆封之保存	Temperature and Humidity Condition 溫濕度條件		Temperature 溫度 : -10℃~+40℃ Percentage Humidity 相對濕度 : 70 % Max			
		Term 保存期限	Housing	2 Years			
			Crimp Terminal	1 Year			
3.6	Floor Life 拆封後使用期限	Crimp Terminal		3 Months			

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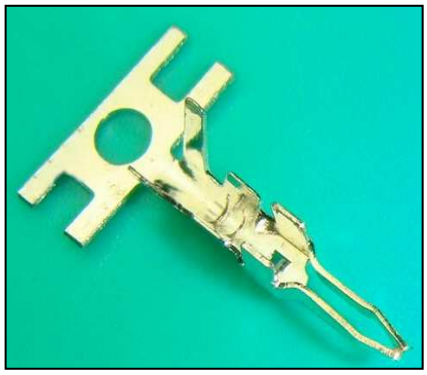
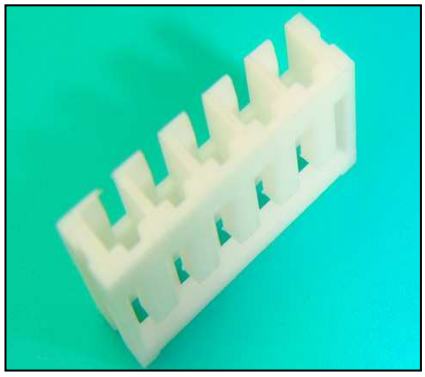
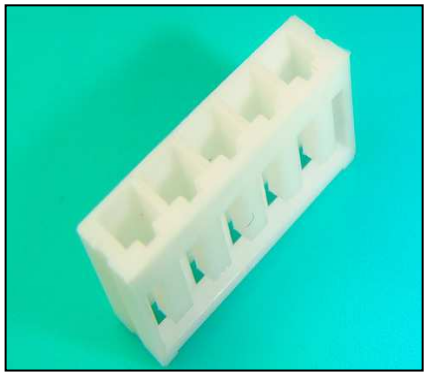
Note: 適用電路板厚度 **Applicable Printed Circuit Board Thickness: 1.2~1.6 mm**

4.0 Specimen(樣本圖示) :

Part Name / Part Number / Picture or Photograph 零件名稱 / 零件型號 / 樣本圖示			
Right Angle Crimp Terminal JS-1137R-TXX		**Straight Crimp Terminal JS-1137B-TXX**	
Right Angle Housing JS-1137R		**Straight Housing JS-1137-XXW JS-1137B-XX**	

5.0 Applicable Standards(適用規範):

ANSI/EIA 364 ; EIA/ECA 364 Testing method for electrical connectors.

電子連接器，所適用之 **ANSI/EIA 364 ; EIA/ECA 364** 測試規範

6.0 Mechanical Performance(機械性能):

Item(項目)		Test Condition(測試條件)		Requirement(規格)
6.1	Wire Pullout Force(Axial) 電線脫離端子包覆之拔出力(軸向)	Pull out the cable from with contact terminal at the speed rate of 25 .4± 3 mm/minute. 對端子所包覆電線，施以每一分鐘 25 .4± 3 mm 速率之軸向拔出力 (EIA 364-08B)	AWG#22 size wire	4.0kgf/Min.(39.2N 牛頓)
			AWG#24 size wire	3.0kgf/Min.(29.4N 牛頓)
			AWG#26 size wire	2.0kgf/Min.(19.6N 牛頓)
			AWG#28 size wire	1.0kgf/Min.(9.8N 牛頓)

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Item(項目)		Test Condition(測試條件)	Requirement(規格)
6.2	Crimp Terminal Retention Force (in Housing) 铆線端子與膠座之間拔出力	Axial pullout force on the terminal in the housing at the speed rate of 25.4 ± 3 mm per minute. 對於已經存在於膠座當中铆線端子，施以每一分鐘 25.4 ± 3 mm 速率之軸向拔出力 (EIA 364-05)	單一接觸點 Per Contact 最小容許值 1.5kgf/Min.
6.3	Crimp Terminal Insertion Force (into Housing)铆線端子與膠座之間嵌入力	Insert the crimped terminal into the housing, at the speed rate of 25.4 ± 3 mm per minute. 以每一分鐘 25.4 ± 3 mm 速率之軸向嵌入力,將端子嵌入膠座當中 (EIA 364-05)	單一接觸點 Per Contact 最小容許值 0.5kgf/Min.

7.0 Electrical Performance(電氣性能) :

Item(項目)		Test Condition(測試條件)	Requirement(規格)
7.1	Contact Resistance on Crimped portion 電線與铆壓端子之間接觸阻抗	Crimp the applicable wire on to the terminal, Measure by dry circuit , 20mV Max, 100mA 將適合規格的電線铆壓於端子當中，於其兩端施以最大測試電壓 20mV 以及最大測試電流 100mA (EIA/ECA 364-23C)	Initial Contact Resistance : 10 milliohms Max. 接觸阻抗最初容許值 10 毫歐姆
7.2	Insulation Resistance 絕緣阻抗	Apply 500V D/C for 1 minute between adjacent contacts to measure the insulation resistance. 對相鄰兩接觸導體，於一分鐘時間內施予 500V D/C 電壓，並量測其間絕緣阻抗值 (EIA 364-21C)	Insulation Resistance: Initial 1000 megohms Min 最初容許值. 1000 兆歐姆
7.3	Withstanding Voltage 耐電壓	Apply 800V A/C (rms) for 1 minute and the leakage current shall not exceed 0.5mA to the adjacent terminal and ground of the housing with terminated wires. 將電線包覆於端子然後嵌入膠座當中，於膠座相鄰兩導體末端各施以電壓 800V A/C(實效值) 時間 1 分鐘， 且漏電流必須小於 0.5mA(毫安培) (EIA 364-20C)	No breakdown or flashover. 無損毀或者產生火花

8.0 Environmental Performance(環境性能) :

Item(項目)		Test Condition(測試條件)	Requirement(規格)
8.1	Temperature Rise (Via Current Cycling) 溫度上昇 (經由電流循環操作)	Mate connector . measure the temperature rise of contact when the maximum rated current is passed 以組合狀態下連接器，通過最大容許電流 量測其導體溫度上昇值 (EIA 364-70B Conditions 1 . Method 1)	Mate connectors Temperature Rise: +30℃/Max. 組合狀態下之連接器溫度上昇最大容許值+30℃

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Item(項目)		Test Condition(測試條件)	Requirement(規格)
8.2	Humidity (Steady State) 恆溫恆濕	A mated connector shall be placed in a humidity chamber of the following conditions. After the test, leave the specimen at room temperature for 1~2 hours before the contact resistance, the insulation resistance and the dielectric withstanding voltage shall be measured. (EIA 364-31B Conditions II. Method A) 以組合狀態下連接器放置於恆定溫度與濕度的空間，依照隨附如下規格要求，進行恆溫恆濕試驗 ，經試驗過後將樣品置於室溫 1~2 小時，再量測其接觸阻抗、絕緣阻抗、以及耐電壓測試。 Temperature(溫度) : 40±2℃. Relative Humidity(相對濕度) : 90%~95% (RH). Period(週期) : 96 hours continuously. (持續 96 小時)	(After the test) Contact Resistance : 20milliohms Max. 經恆溫恆濕試驗後接觸阻抗 最大容許值. 20 毫歐姆 (After the test) Insulation Resistance : 500Megohms Min. 經恆溫恆濕試驗後絕緣阻 最小容許值. 500 兆歐姆 經恆溫恆濕試驗後測耐電壓 (After the test) Withstanding Voltage: 800V A/C for 1 minute
8.3	Thermal Shock 冷熱衝擊	A mated connector shall be subjected to a thermal shock test of the following conditions. After the test, eave the specimen at room temperature for 1~2 hours before the contact resistance, the insulation resistance and the dielectric withstanding voltage shall be measured. 以組合狀態下連接器作為試驗樣品，依照隨附如下規格要求，進行冷熱衝擊試驗 ，經試驗過後將樣品置於室溫 1~2 小時，再量測其接觸阻抗、絕緣阻抗、以及耐電壓測試。 (EIA/ECA 364-32D Conditions I . Method A) One Cycle Consists Of: -55℃+0/-3℃ for 30 minutes. → Room Temp. 5 minutes 85℃+3/-0℃ for 30 minutes. → Room Temp. 5 minutes Total Cycles: 5 Cycles. 以-55℃+0/-3℃溫度持續 30 分鐘，經室溫 5 分鐘，而後再以 85℃+3/-0℃溫度持續 30 分鐘，再經室溫 5 分鐘，構成一次冷熱循環，總計循環次數 5 次。	Same as paragraph 8.2 同 8.2 章節

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Item(項目)		Test Condition(測試條件)	Requirement(規格)
8.4	Thermal Aging 高溫老化試驗	A mated connector shall be placed in a heat oven of the following conditions. After the test, leave the specimen at room temperature for 1~2 hours before the contact resistance shall be measured. 以組合狀態下連接器放置於加熱烤箱當中，依照隨附如下規格要求，進行高溫老化試驗 ，經試驗過後將樣品置於室溫 1~2 小時，再量測其接觸阻抗。(EIA 364-17B Conditions 3 . Method A) Temperature(溫度) : 85±2℃ Period(週期): 96 hours continuously . (持續 96 小時)	Initial Contact Resistance : 10 milliohms Max. 接觸阻抗最初容許值 10 毫歐姆 (After the test) Contact Resistance : 20milliohms Max. 經高溫老化試驗後接觸阻抗 最大容許值.20 毫歐姆
8.5	Cold 耐寒試驗 (Low Temperature)	A mated connector shall be placed in a cold chamber of the following conditions. After the test, leave the specimen at room temperature for 1~2 hours before the contact resistance shall be measured. 以組合狀態下連接器放置於低溫空間內，依照隨附如下規格要求，進行耐寒試驗 ，經試驗過後將樣品置於室溫 1~2 小時,再量測其接觸阻抗。(EIA 364-59A Condition D ; Condition 4) Temperature(溫度) : -25±3℃. Period(週期): 96 hours continuously . (持續 96 小時)	Initial Contact Resistance : 10 milliohms Max. 接觸阻抗最初容許值 10 毫歐姆 (After the test) Contact Resistance : 20 milliohms Max. 經耐寒試驗後接觸阻抗 最大容許值. 20 毫歐姆
8.6	Salt Spray 鹽水噴霧	A mated connector shall be subjected to a Salt Spray test of the following conditions. After the test , the specimen shall be washed with running water and dried naturally before the measurement of contact resistance. 以組合狀態下連接器作為試驗樣品，依照隨附如下規格要求，進行鹽水噴霧試驗 ，試驗過後將樣品用清水沖洗並經過自然風乾 ，而後量測其接觸阻抗。(EIA 364-26B Conditions B) Density(鹽水密度): 5 % in weight. Temperature(溫度): 35±2℃. Period(週期): Terminal or contact (Stamping after tin plated for 8 hours) ; Terminal or contact (Stamping before tin plated for 48 hours) 端子或導體(先電鍍後沖壓 8 小時) ; 端子或導體 (先沖壓後電鍍 48 小時) Salt spray test only define the plating area,without plating area (as copper cross section) will not be defined. 鹽水噴霧測試只判定電鍍區域,無電鍍區域(如折斷面裸銅)則不做判定	Initial Contact Resistance : 10 milliohms Max. 接觸阻抗最初容許值 10 毫歐姆 (After the test) Contact Resistance : 20 milliohms Max. 經鹽水噴霧試驗後接觸阻抗 最大容許值. 20 毫歐姆

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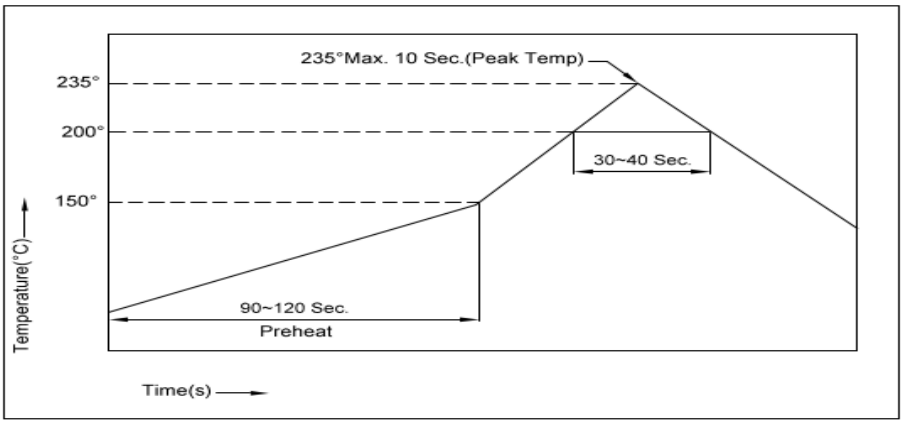
Item(項目)		Test Condition(測試條件)	Requirement(規格)
8.7	Solder Ability 焊錫性	Fluxed soldering section of header shall be dipped in solder of the following conditions. 將連接器 pin 針基板嵌入端，接觸熱溶狀錫料，依照隨附如下規格要求，進行焊錫性試驗 (EIA 364-52B) Solder Temperature (焊錫溫度) : 245 ± 5℃. Immersion Period (沉浸週期) : 3±0.5 Seconds (操作方式)：零件焊錫位置，距離铆線端子焊錫端 1.5mm Method : 1.5mm from crimp terminal solder tail.	Solder entirely 95% of immersed area must show no voids or pinholes. 焊料覆蓋面積必須達到 95%
8.8	Resistance to Soldering Heat 焊錫耐熱性	By Wave Soldering(波焊適用溫度範圍) : (EIA-364-71B) Refer to Temperature Profile 請參考 8.8.1 溫度曲線圖	No deformation or damage. 不可有變形或損壞

Notes : Flowing Mixed Gas (EIA 364-65A) shall be conduct by Customer request 混合流動氣體測試依照客戶需求

8.8.1 Temperature Profile(溫度曲線圖) / Wave Peak Soldering In- Lead-Free Process 波焊無鉛制程 :



9.0Remark(備註) : Any change or revision for the product specification will not be announced in advance.

Please contact our sales representative for the latest information.

有關規格書內容經變更或改版，如未能夠及時發佈與通知，煩請連絡我司業務人員以提供產品最新資訊

Reviewed: Tom Shih Approved: Tom Shih Verified: Erin Chou