



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.
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Type Document	Product Specification	Revised /Edition	F
Date Issued	2010/02/25	Data Revised	2015/02/24
Subject : JS-5005A-XXS JS-5005A-XXR JS-5006A-XXDR Pitch : 2.54mm Board to Board Connector Series.			Issued By: Engineering Dept.

This specification is referred to 2.54mm DIP series board to board connector.

本規格書內容係提供 2.54 mm DIP 系列產品相關參考，
其用途為電路板端相接於電路板端連接器

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REV. (版本)	Revision Record (改版變更原因)	Date(日期)	ECN No.
B	增列漏電流小於0.5mA偵測值	2011/05/27	ECN2011/05/073
C	1.增加耐久性 2.刪除硫化氫 3.修正(EIA-364) 參考規範	2013/09/27	ECN2013/09/027
D	1.增列額定電壓 250V AC/DC 2.原 Per Contact Insertion Force : 0.20kg/f Max 修訂為 0.35kg/f Max	2013/10/14	ECN2013/10/014
E	1.增訂3.4項Storage of Package以及 3.5 項Floor Life 2.增訂Wave Peak Soldering In- Process Temperature Profile 3.修訂Solder Ability 附註Tin Plated : 95% / Gold Plated : 75%	2014/04/22	ECN2014/04/022
F	1.修訂8.10.1 項 Temperature Profile 2增訂8.7項Cold(Low Temperature)耐寒試驗， EIA-364-59A	2015/02/24	ECN2015/02/024



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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(產品型號)	Drawing Number(圖面型號)
(Solid PCB Tail)	Top Entry (直立式)	JS-5005A-XXS	
Wafer	Side Entry (臥式)	JS-5005A-XXR	
(板對板) 基座板端連接器	Bottom Entry (臥式底部嵌合)	JS-5006A-XXDR	

Note: (xx) The number of the circuits.

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)
Wafer	Contact Pin (金屬導體)	Brass	Tin-Plated
	Base(膠座)	Nylon 66	UL 94V-2

3.0 Characteristic (產品特性):

Item(項目)		Standard(標準規範)	
3.1	額定電流 Rated Current	2.5A AC/DC	
3.2	額定電壓 Rated Voltage	250 V 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°C~+105°C ; 85% R.H. Max Including 30°C Terminal Temperature Rise at rated Current , (包括定額電流內, 端子所產生 30°C以下溫昇)	
3.4	Storage of Package 包裝未拆封之保存	Temperature and Humidity Condition 溫濕度條件	Temperature 溫度 : -10°C~+40°C Percentage Humidity 相對濕度 : 70 % Max
		Term 保存期限	1 Year
3.5	Floor Life 拆封後使用期限	3 Months	



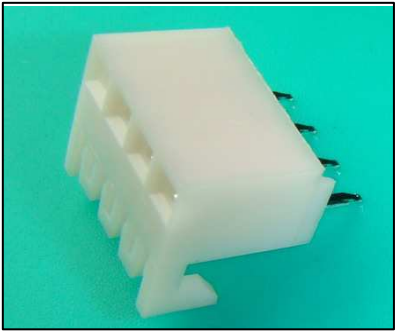
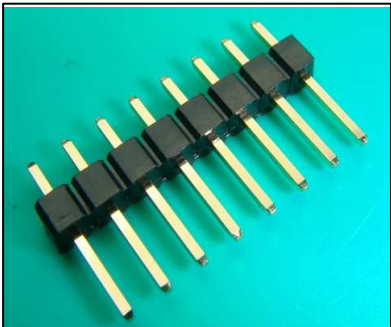
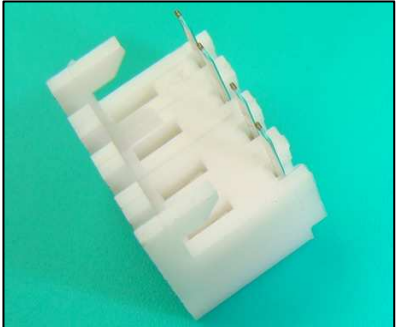
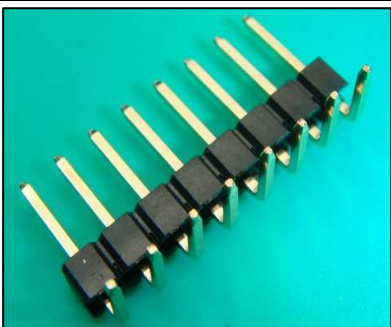
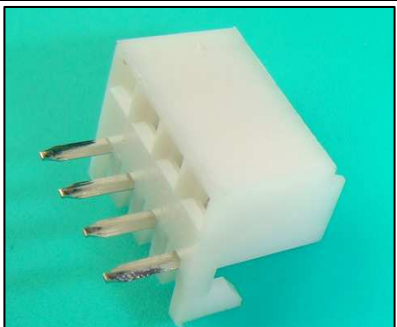
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4.0 Specimen(樣本圖示) :

Part Name / Part Number / Picture or Photograph 零件名稱 / 零件型號 / 樣本圖示			
		<p>Wafer Top Entry JS-5005A-XXS</p>	
<p>Mate with : Pin Header Straight JS-1109</p>		<p>Wafer Side Entry JS-5005A-XXR</p>	
<p>Mate with : Pin Header Right Angle JS-1110</p>		<p>Wafer Bottom Entry JS-5006A-XXDR</p>	

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



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6.0 Mechanical Performance(機械性能):

Item(項目)	Test Condition(測試條件)	Requirement(規格)
6.1 Insertion & Withdrawal Force 插入力與拔出力	Insert and withdrawal with connectors at the speed rate of 25.4 ± 3 mm /minute. 連接器兩端勳合，以每一分鐘 25.4 ± 3mm 的速率，作插入與拔出往返測試 (EIA/ECA 364-13D)	單一接觸點 Per Contact 插入力最大容許值： Insertion Force : 0.35kg/f Max 拔出力最小容許值： Withdrawal Force : 0.06kg/f Min
6.2 Contact Retention Force (in Base) 金屬導體與膠座之間 保持力	Axial pull out force on the contact pin in the base at the speed rate of 25.4 ± 3 mm per minute. 對於已經存在於膠座當中金屬導體，施以每一分鐘 25.4 ± 3mm 速率之軸向拔出 力 (EIA 364-29C)	單一接觸點 Per Contact 最小容許值 1.82kgf/Min.

7.0 Electrical Performance(電氣性能):

Item(項目)	Test Condition(測試條件)	Requirement(規格)
7.1 (Low –Signal Level) Contact Resistance (低階信號) 接觸阻抗	A maximum voltage of 20mV and a maximum current of 100mA are applied to the mate connector. 對組合狀態下連接器，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)	Contact Resistance: 20 milliohms Max. 最大容許值. 20 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 1000megohms Min 最初容許值. 1000 兆歐姆
7.3 Withstanding Voltage 耐電壓	Apply 1000 A/C (rms) for 1 minute and the leakage current shall not exceed 0.5mA to the adjacent terminal and ground of the mate connectors. 對組合狀態下連接器，於其相鄰兩導體末端各施以電壓 1000 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



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8.0 Environmental Performance(環境性能) :

Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.1 Durability 耐久性	Mate Connectors up 25 Cycles at a Maximun rate of 10 cycles Per minute prior to environmental test 以組合狀態下連接器且未經環境測試，依每分鐘內進行 10 次嵌入與拔出之最大速率，連續 25 次嵌入與拔出往返測試 (EIA/ECA 364-09C)	(After the test) Contact resistance : 40 mΩ Max 經耐久性試驗後接觸阻抗 最大容許值 40 毫歐姆
8.2 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°C/Max. 組合狀態下之連接器溫度 上昇最大容許值+30°C
8.3 Vibration 耐振動	A mated connector shall be mounted on a printed Circuit board and subjected to a vibration test of the following conditions. During the test, test current continuity shall be checked. After the test, contact resistance shall be measured. 以組合狀態下連接器焊接於電路板作為試驗樣品,依照隨附如下規格要求,進行耐振動試驗，試驗過程中確認是否產生不連續電流(斷電)現象，並於試驗過後量測其接觸阻抗。 (EIA/ECA 364-28E-Condition 1) Frequency(頻率) : 10~55~10 Hz/minute. Amplitude (振幅) : 1.5 mm P-P Direction (方向) :1. Axis of up and down.上下軸向(Y 軸) 2. Axis of right the left. 左右軸向(X 軸) 3. Axis of front and back.前後軸向(Z 軸) Period(週期) : 2 hours for each direction. (每一個軸向持續 2 小時)	Initial Contact Resistance : 20 milliohms Max. 接觸阻抗最初容許值 20 毫歐姆 (After the test) Contact Resistance: 40 milliohms Max. 經耐振動試驗後接觸阻抗: 最大容許值 40 毫歐姆 No discontinuity current is longer than 1 microsecond. 電流中斷現象， 時間不可多於1微秒



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Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.4 Humidity (Steady State) 恆溫恆濕	<p>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.</p> <p>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。</p> <p>(EIA 364-31B Conditions II. Method A)</p> <p>Temperature(溫度) : 40±2°C.</p> <p>Relative Humidity(相對濕度) : 90%~95% (RH).</p> <p>Period(週期) : 96 hours continuously. (持續 96 小時)</p>	<p>(After the test)</p> <p>Contact Resistance: 40milliohms Max. 經恆溫恆濕試驗後接觸阻抗 最大容許值. 40 毫歐姆</p> <p>(After the test)</p> <p>Insulation Resistance : 100Megohms Min. 經恆溫恆濕試驗後絕緣阻抗 最小容許值. 100 兆歐姆</p> <p>經恆溫恆濕試驗後測耐電壓 :</p> <p>(After the test)</p> <p>Withstanding Voltage: 1000V A/C for 1 minute</p>
8.5 Thermal Shock 冷熱衝擊	<p>A mated connector shall be subjected to a thermal shock test 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.</p> <p>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。</p> <p>(EIA/ECA 364-32D Conditions I. Method A)</p> <p>One Cycle Consists Of:</p> <p>-55°C+0/-3°C for 30 minutes. → Room Temp. 5 minutes 85°C+3/-0°C for 30 minutes. → Room Temp. 5 minutes</p> <p>Total Cycles: 5 Cycles.</p> <p>以-55°C+0/-3°C溫度持續 30 分鐘，經室溫 5 分鐘，而後再以 85°C+3/-0°C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。</p>	<p>Same as paragraph 8.4 同 8.4 章節</p>



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Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.6 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, the insulation resistance and the dielectric withstanding voltage 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 4 . Method A) Temperature(溫度): 105±2℃. Period(週期): 96 hours continuously . (持續 96 小時)	Initial Contact Resistance : 20 milliohms Max. 接觸阻抗最初容許值 20 毫歐姆 (After the test) Contact Resistance : 40milliohms Max. . 經高溫老化試驗後接觸阻抗 最大容許值.40 毫歐姆
8.7 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 Procedure 3) Temperature(溫度): -40±3℃. Period(週期): 96 hours continuously . (持續 96 小時)	Initial Contact Resistance : 20 milliohms Max. 接觸阻抗最初容許值 20 毫歐姆 (After the test) Contact Resistance : 40 milliohms Max. . 經耐寒試驗後接觸阻抗 最大容許值. 40 毫歐姆
8.8 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): 48 hours	Initial Contact Resistance : 20 milliohms Max. 接觸阻抗最初容許值 20 毫歐姆 (After the test) Contact Resistance: 40 milliohms Max. 經鹽水噴霧試驗後接觸阻抗 最大容許值. 40 毫歐姆



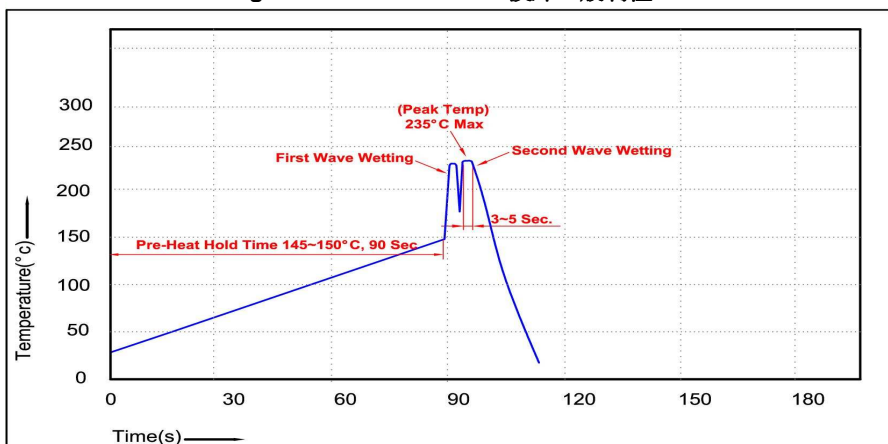
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Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.9 Solder Ability 焊錫性	Fluxed soldering section of header shall be dipped in solder of the following conditions. 將連接器 pin 針基板嵌入端，接觸熟溶狀錫料，依照隨附如下規格要求，進行焊錫性試驗 Solder Temperature (焊錫溫度) : 245 ± 5°C Immersion Period (沉浸週期) : 3±0.5 Seconds (操作方式) : 零件焊錫位置，距離導體末端 1.5mm Method : 1.5mm from contact pin tip (EIA 364-52B)	Solder entirely (Tin Plated : 95% / Gold Plated : 75%) of immersed area must show no voids or pinholes. 焊料覆蓋面積必須達到 (鍍錫 95% / 鍍金 75%)，而且不能產生氣孔或空隙
8.10 Resistance to Soldering Heat 焊錫耐熱性	By Wave Soldering(波焊適用溫度範圍) : Refer to Temperature Profile 請參考 8.10.1 溫度曲線圖 by soldering iron 手工烙鐵焊錫適用溫度範圍 : 350 ± 5°C 3±0.5 Seconds. (操作方式) : 零件焊錫位置，距離導體末端 1.5mm Method : 1.5mm from contact pin tip (EIA/ECA 364-56C Procedure 3. Conditions A)	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

8.10.1 Temperature Profile(溫度曲線圖) :

Wave Peak Soldering In- General Process 波焊一般制程



9.0 Remark(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: J.M.Chang **Approved:** Peter Chang **Verified:** Indiana Huang