



喬訊電子工業股份有限公司
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Type Document	Product Specification	Revised /Edition	F
Date Issued	2007/12/27	Data Revised	2014/09/23
Subject : JS-2000H-TH/TL JS-2000WTH/TL JS-2000W JS-2000H JS-2000H-xxE Pitch : 6.20mm(Ø2.00mm) Wire to Wire Power Connector Series.			Issued By: Engineering Dept.

This specification is referred to Pitch : 6.20 mm(Ø2.00mm) series wire to wire Power connector.

本規格書內容係提供 Pitch : 6.20mm (公端子外徑 2.00mm)系列產品相關參考，其用途為電線端相接於電線端之動力電源連接器

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REV. (版次)	Revision Record (改版變更原因)	Date(日期)	ECN No
B	增加中文敘述 以及增加版次變更註記欄	2010/03/11	EC2010-03-009
C	鹽水噴霧週期以電鍍方式區隔為 8 小時與48 小時	2011/05/25	EC2011-05-059
D	1.刪除硫化氫 2.修正(EIA-364) 參考規範 3.增列額定電壓 4.增訂3.5項Storage of Package以及 3.6 項Floor Life 5.依據CSA C22.2 No.182.3 修訂6.2 項 Wire Pullout Force(Axial)	2014/04/24	EC2014-04-024
E	1 增訂 8.6 項 Cold(Low Temperature)耐寒試驗 , EIA-364-59A. 2. Insertion & Withdrawal Force 嵌入力與拔出力修訂為 Per Contact Insertion Force : 2.5 kg/f Max ; Per Contact Withdrawal Force :0.65 kg/f Min. 3.Crimp Terminal Retention Force(in Housing) 修訂為 Per Contact : 5.0kgf/Min.	2014/08/08	EC2014-08-008
F	1 增訂 6.1 項 Insertion Force 3.5 kg/f Max , Withdrawal Force :2.0 kg/f Min 2.增訂 6.4 項 Thumb Latch Yield Strength 卡榫降伏力	2014/09/23	EC2014-09-023



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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)
Female Crimp Terminal (With AWG #14~18 is applied)	JS-2000W-TH	
Female Crimp Terminal (With AWG #18~22 is applied)	JS-2000W-TL	
Male Crimp Terminal (With AWG #14~18 is applied)	JS-2000H-TH	
Male Crimp Terminal (With AWG #18~22 is applied)	JS-2000H-TL	
Plug (插頭)	JS-2000W-XX	
Receptacle with Ear (插座 有耳)	JS-2000H-XXE	
Receptacle without Ear (插座 無耳)	JS-2000H-XXX	

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)
Crimp Terminal (鍍壓端子)	Brass	Stamping after tin plated 先電鍍後衝壓
Receptacle (插座)	Nylon 66	UL 94V-2
Plug (插頭)		

3.0 Characteristic(產品特性):






Item(項目)		Standard(標準規範)						
3.1	額定電流 Rated Current	Conductor	AWG	14#	16#	18#	20#	22#
		Size	Area(mm ²)	2.077 mm ²	1.31 mm ²	0.865 mm ²	0.534 mm ²	0.342 mm ²
			Amp AC/DC	15A	10A	7A	5A	3A
3.2	額定電壓 Rated Voltage	300~600V 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. : -25°C~+85°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	適用電線 Applicable Wire	(金屬導體之型號) Conductor Construction Size: AWG #14~#22 (電線絕緣材質外徑) Wire Insulation O.D.: 1.6mm~3.50mm						
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°C~+40°C 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			

Note: 嵌合面板適用厚度 Applicable Panel Thickness: 0.8~2.0 mm



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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			
Female Crimp Terminal JS-2000W-TH JS-2000W-TL		Male Crimp Terminal JS-2000H-TH JS-2000H-TL	
Receptacle With Ear JS-2000H-XX		Receptacle Without Ear JS-2000H-XXE	
Plug JS-2000W-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	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. 連接器兩端動合，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) (Excluding Thumb Latch 不包含活動卡榫結合力)	單一接觸點插入力最大容許值: Per Contact Insertion Force : 3.5 kg/f Max 單一接觸點拔出力量最小容許值: Per Contact Withdrawal Force : 2.0 kg/f Min



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Item(項目)	Test Condition(測試條件)	Requirement(規格)
6.2 Wire Pullout Force(Axial) 電線脫離端子包覆之拔出力	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 (CSA C22.2 No.182.3)	AWG#14 size wire 11.34kgf/Min.(111N 牛頓)
		AWG#16 size wire 9.08kgf/Min.(89N 牛頓)
		AWG#18 size wire 9.08kgf/Min.(89N 牛頓)
		AWG#20 size wire 4.54kgf/Min.(44.5N 牛頓)
		AWG#22 size wire 3.63kgf/Min.(35.6N 牛頓)
6.3 Crimp Terminal Retention Force (in Housing) 鉗壓端子與膠座之間保持力	Axial pullout force on the terminal in the plug housing at the speed rate of 25.4 ± 3 mm per minute. (EIA364-05) 對於已經存在於膠座當中鉗線端子，施以每一分鐘 25.4 ± 3 mm 速率之軸向拔出力	單一接觸點 Per Contact 最小容許值 5.0kgf/Min.
6.4 Thumb Latch Yield Strength 卡榫降伏力	Mate connectors and pull apart until both lock break . record the maximum force. 將連接器組裝之後，再行卸除直到兩側卡榫脫離，並記錄其降伏力	最小容許值3.0kgf/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 (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) (Does not include wire resistance 不包含電線阻抗)	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 1000 megohms Min 最初容許值. 1000 兆歐姆
7.3 Withstanding Voltage 耐電壓	Apply 1500V 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. (EIA 364-20C) 對組合狀態下連接器，於其相鄰兩導體末端各施以電壓 1500V A/C(實效值) 時間 1 分鐘，且漏電流必須小於 0.5mA(毫安培)	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 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
8.2 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
8.3 Heat 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 III . Method A) Temperature(溫度) : 85±2°C. 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. . 經高溫老化試驗後接觸阻抗 : 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)
8.4 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>(EIA 364-31B Conditions III . Method A)</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>Temperature(溫度) : 40±2°C. Relative Humidity(相對濕度) : 90%~95% (RH). Period(週期) : 96 hours continuously. (持續 96 小時)</p>	<p>(After the test)</p> <p>Contact Resistance : 40 milliohms 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 : 500 Megohms Min. 經恆溫恆濕試驗後絕緣阻抗: 最小容許值. 500 兆歐姆</p> <p>經恆溫恆濕試驗後耐電壓: (After the test) Withstanding Voltage: 1500V 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: -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 Cold 耐寒試驗 (Low Temperature)	<p>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。</p> <p>(EIA 364-59A Procedure 4) Temperature(溫度): -25±3°C. Period(週期): 96 hours continuously . (持續 96 小時)</p>	<p>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</p>
8.7 Salt Spray 鹽水噴霧	<p>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。</p> <p>(EIA 364-26B Conditions B) Density(鹽水密度): 5 % in weight. Temperature(溫度): 35±2°C. Period(週期) : 8 小時</p>	<p>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</p>

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

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: J.M.Chang Approved: Peter Chang Verified: Indiana Huang