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Type Document	***Product Specification***	***Revised /Edition***	***F***
Date Issued	***2009/09/25***	***Data Revised***	***2015/02/12***
Subject : JS-1155A JS-1155AS JS-1155AR JS-1155AR1 ***Pitch 1.25mm DIP Series NON-ZIF FPC Connector***			***Issued By:*** ***Engineering Dept.***

This specification is referred to 1.25mm DIP series (NON-ZIF) FFC/FPC connector.

本規格書內容係提供 1.25 mm DIP 系列產品相關參考，

其用途為軟性排線/軟板相接於電路板端(非零嵌入力)連接器

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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)
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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	2010/02/24	EC2010-02-014
C	新增產品JS-1155AR1 Lower Contact 下接觸導體	2010/07/22	EC2010-07-004
D	增加漏電流小於0.5mA之偵測值	2011/05/23	EC2011-05-043
E	1.增列額定電壓 2.刪除硫化氫 3.修正(EIA-364) 參考規範 4.增訂3.4項Storage of Package 以及 3.5項Floor Life 5.增列Wave Peak Soldering In- Process Temperature Profile 6. Solder Ability 附註Tin Plated : 95% / Gold Plated : 75% 7 Contact Pin Retention Force 修訂為0.3Kg/f 8. Operating Temp 修訂為 -25℃~+85℃ ; 85% R.H. Max	2014/05/02	EC2014-05-002
F	1.修訂8.8.1 項 Temperature Profile / 2增訂8.6 項Cold耐寒試驗	2015/02/012	EC2015-02-012

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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)
NON-ZIF FPC/FFC	Straight ; Standard Layout (直立式；標準電路板孔排序)		JS-1155AX-XX	
	Straight ; Special Layout (直立式；特殊電路板孔排序)		JS-1155AS-XX	
	Right Angle (臥式)	Upper Contact 上接觸導體	JS-1155ARX-XX	
		Lower Contact 下接觸導體	JS-1155AR1-XX	

Note: (xx) The number of the circuits.

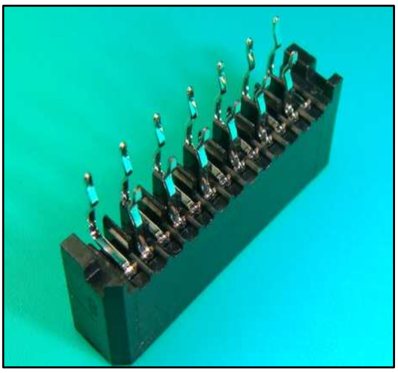
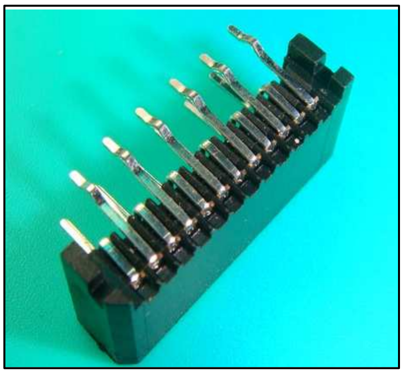
2.0 Construction/Dimensions/Material & Surface Finish(材質以及表面鍍層):

Part Name(零件名稱)		Material(材質)	Surface Finish(表面鍍層)
NON-ZIF FPC/FFC (非零嵌入力) 軟板 / 軟排線連接器	Contact Pin (金屬導體)	Phosphor Bronze	Tin Plated
	Base (膠座)	PBT	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	1A AC/DC	
3.2	額定電壓 Rated Voltage	200V 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℃~+85℃ ；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 FPC Cable 適用軟性排線	3.4.1	FPC Thickness : 0.30mm±0.05 mm 軟性排線厚度
		3.4.2	Circuit Poles : 4~30 電路極數
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	1 Year
3.6	Floor Life 拆封後使用期	3 Months	

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			
Straight JS-1155A JS-1155AS		Right Angle JS-1155AR JS-1155AR1	

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	FPC Cable Insertion & Withdrawal Force 軟排線與連接器之間，嵌入力與拔出力	Mate applicable FPC cable and insert and withdraw at the Speed rate of 25.4 ± 3 mm per minute. 將合適的軟排線與連接器組合，以每一分鐘 25.4± 3 mm 速率，作嵌入與拔出往返測試 (EIA/ECA 364-13D)	單一接觸點 Per Contact 嵌入力最大容許值： Insertion Force : 0.15 kg/f Max 拔出力最小容許值： Withdrawal Force : 0.04 kg/f Min
6.2	Contact Pin Retention Force (in Base) 金屬導體與膠座之間保持力	Axial pullout 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 ± 3 mm 速率之軸向拔出力(EIA 364-29C)	單一接觸點 Per Contact 最小容許值 0.3kgf/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 10mA are applied to the mate FPC connector. 將軟排線與連接器組合, 於其兩端施以最大電壓 20mV 及最大電流 10mA (EIA/ECA 364-23C)	Contact Resistance: 30 milliohms Max. 最大容許值. 30 毫歐姆

Item(項目)		Test Condition(測試條件)	Requirement(規格)
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 500 Megohms Min 最初容許值. 500 兆歐姆
7.3	Withstanding Voltage 耐電壓	Apply 500V A/C (rms) for 1 minute and the leakage current shall not exceed 0.5mA to the adjacent terminal and ground of the mated FPC/FFC connector. 將軟排線嵌入連接器, 於其相鄰兩導體末端各施以電壓 500V 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	Vibration 耐振動	A mated FPC 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. 將軟排線嵌入連接器而後焊接於電路板作爲試驗樣品,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 I) 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 : 30 milliohms Max. 接觸阻抗最初容許值 30 毫歐姆 (After the test) Contact Resistance: 50 milliohms Max. 經耐振動試驗後接觸阻抗 最大容許值 50 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

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 III . 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: 50 milliohms Max. 經恆溫恆濕試驗後接觸阻抗 最大容許值. 50 毫歐姆 (After the test) Insulation Resistance : 100 Megohms Min. 經恆溫恆濕試驗後絕緣阻抗 最小容許值. 100 兆歐姆 經恆溫恆濕試驗後測耐電壓 (After the test) Withstanding Voltage: 500V 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, 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作爲試驗樣品，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	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, 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 III . Method A) Temperature(溫度) : 85±2℃. Period(週期): 96 hours continuously . (持續 96 小時)	Initial Contact Resistance : 30 milliohms Max. 接觸阻抗最初容許值 30 毫歐姆 (After the test) Contact Resistance : 50 milliohms Max. . 經高溫老化試驗後接觸阻抗 最大容許值.50 毫歐姆
8.5	Salt Spray 鹽水噴霧	A mated FPC 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. 將軟排線嵌入連接器作爲試驗樣品，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): 8 hours	Initial Contact Resistance : 30 milliohms Max. 接觸阻抗最初容許值 30 毫歐姆 (After the test) Contact Resistance: 50 milliohms Max. 經鹽水噴霧試驗後接觸阻抗 最大容許值. 50 毫歐姆
8.6	Cold 耐寒試 (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 : 30 milliohms Max. 接觸阻抗最初容許值 30 毫歐姆 (After the test) Contact Resistance : 50 milliohms Max. . 經耐寒試驗後接觸阻抗 最大容許值. 50 毫歐姆

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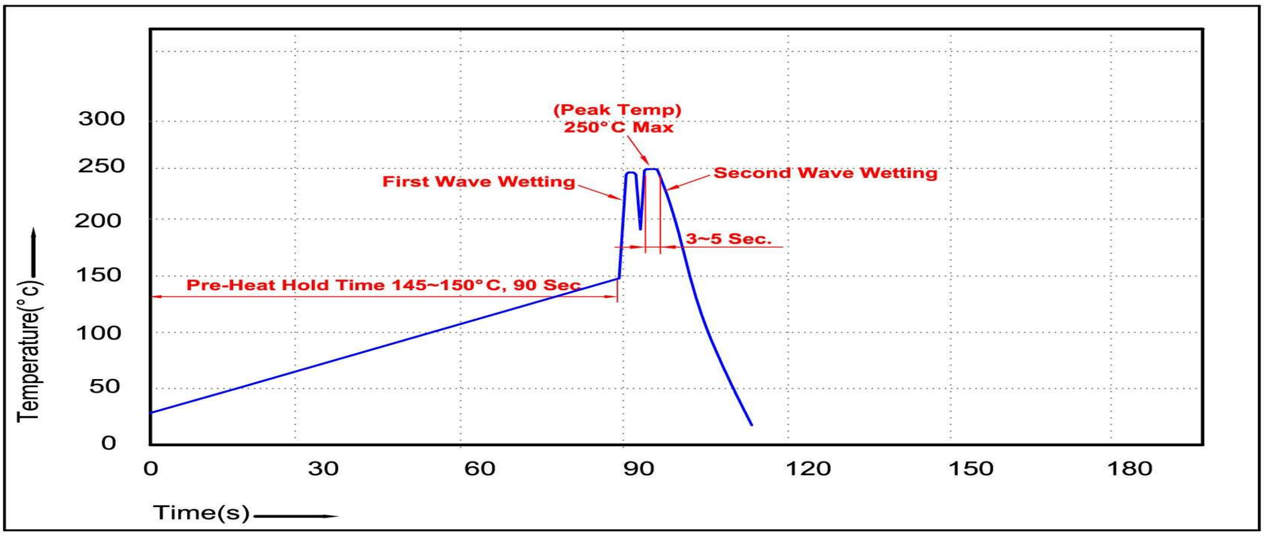
Item(項目)		Test Condition(測試條件)	Requirement(規格)
8.7	Solder Ability 焊錫性	Fluxed soldering section of header shall be dipped in solder of the following conditions. 將連接器 pin 針基板嵌入端，接觸熱溶狀錫料，依照隨附如下規格要求, 進行焊錫性試驗 Solder Temperature (焊錫溫度) : 245 ± 5℃. Immersion Period (沉浸週期) : 3 ±0.5 Seconds (操作方式) : 零件焊錫位置，距離導體末端 1.5mm Method : 1.5mm from square 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
8.8	Resistance to Soldering Heat 焊錫耐熱性	Resistance to soldering heat 焊錫耐熱範圍 : Refer to Temperature Profile 請參考 8.8.1.溫度曲線圖 By soldering iron 手工烙鐵焊錫適用溫度範圍 : 350 ± 5℃ 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 square 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

8.8.1 Temperature Profile(溫度曲線圖) / Wave Peak Soldering In- General Process 波焊一般制程



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