



Type Document	Product Specification	Revised /Edition	C
Date Issued	2010/09/03	Data Revised	2011/12/23
Subject : JS-1194D-XXXX Pitch 0.30mm SMT Series (Easy on ; For single –sided FPC only)ZIF FPC Connector			Issued By: Engineering Dept.

*This specification is referred to Pitch 0.30mm SMT series
 (Easy on ; For single - sided FPC only)ZIF FPC connector.*

本規格書內容係提供 0.30 mm 間距 SMT 系列產品相關參考，
 其用途為軟板 相接於電路板端(易掀蓋；適用於單面軟性印刷電路板)零插入力連接器

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REV. (版次)	Revision Record (改版變更原因)	Date(日期)	EC No
B	增加漏電流小於0.5mA之偵測值	2011/06/03	EC2011-06-006
C	增列 For Single –Sided FPC only 唯一適用於單面軟性印刷電路板	2011/12/23	EC2011-12-008



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

Product Name(產品名稱)	Part Numbe(零件型號)	Drawing Number(圖面型號)
(Easy on)ZIF FPC (易掀蓋) 零插入力軟排線連接器	JS-1194D-XX(G)	JS-1194D-XX(G)
	JS-1194D-XX(G1)	JS-1194D-XX(G1)

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)
Solder Tab (固定片)	Phos.Phor Bronze	Sn 100u” , over Ni 50u” 表層鍍錫 100 u” , 底層鍍鎳 50u”
Contacts (導體)	JS-1194D-XX(G)	Au 3u” , over Ni 60u” 表層鍍金 3 u” , 底層鍍鎳 60u”
	JS-1194D-XX(G1)	Au 1~3u” , over Ni 60u” 表層鍍金 1~3 u” , 底層鍍鎳 60u”
Actuator (制動上蓋)	LCP	UL 94V-0
Base (膠座)	LCP	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	0.2A DC
3.2 額定電壓 Rated Voltage	30V AC
3.3 Ambient Temperature Range 環境與操作溫度範圍	(操作使用溫度範圍) Operating Temp. : -55℃~+85℃ 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) (置存於環境當中溫度範圍) Non – Operating Temp. : -55℃~+85℃
3.4 Applicable FPC/FFC Cable 適用軟板 / 軟性排線	3.4.1 FPC Thickness : 0.20mm±0.03 mm 軟性印刷電路板厚度 For Single –Sided FPC only 唯一適用於單面軟性印刷電路板
	3.4.2 Circuit Poles : 13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,45,49,51,57,61,71
3.5 Applicable Printed Circuit Board Layout 適用電路板佈局設計	3.5.1 Per Pitch : 0.30 ± 0.05 mm per Pitch 兩導體之間距離
	3.5.2 Side Entry SMT Layout : 0.65x0.30 mm & 0.80x0.30 mm for Contact 導體焊點面積
	3.5.3 Side Entry SMT Layout : 1.15x0.30 mm for Solder Tab 固定片焊點面積

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	
Top View	
Bottom View	



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5.0 Applicable Standards(適用規範):

MIL-STD-202 Testing methods for electronic connectors used in electronic equipment.

連接器使用於電器產品，所適用之 MIL-STD-202 測試規範

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 Retention Force 軟排線拔出力	Insert the actuator pull the FPC Cable at the speed rate of 25.4 ± 3 mm per minute. 將合適的軟板與連接器組合，並嵌入制動上蓋，然後以每一分鐘 25.4 ± 3mm 速率，將軟排線自連接器當中脫離	單一接觸點 最小容許值 Per Contact 0.015kgf/Min.
6.2 Pin Retention Force (in Base) Pin 針與膠座間拔出力	Axial pullout force on the 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 Pin 針，施以每一分鐘 25.4 ± 3mm 速率之軸向拔出力	單一接觸點 最小容許值 Per Contact 0.08kgf/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. 將軟板與連接器組合，於其兩端施以最大電壓 20mV 以及最大電流 10mA (EIA/ECA 364-23C)	Contact Resistance: 40 milliohms Max. 最大容許值. 40m 歐姆
7.3 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 50 Megohms Min 最初容許值. 50 M 歐姆
7.3 Withstanding Voltage 耐電壓	Apply 250V 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 250V 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 Durability 耐久性	Applicable FPC insertion and withdrawal actuator up to 20 cycles at the speed rate of less than 10 cycles /minute 將合適的軟板與連接器組合，然後以每一分鐘少於 10 次的速率，連續 20 次掀蓋作嵌入與拔出往返測試 (EIA/ECA 364-09C)	(After the test) Contact Resistance : 40 milliohms Max. . 經耐久性測試後接觸阻抗: 最大容許值. 40m 歐姆
8.2 Temperature Rise Via Current Cycling 溫昇 (經由電流循環操作)	Mate applicable FPC measure the temperature rise of contact when the maximum rated current is passed 將合適的軟板與連接器組合，通過最大容許電流，量測其導體溫度上升值 (EIA 364-70B Conditions 1 . Method 1)	Mate connectors Temperature Rise: +30°C/Max. 溫度上昇最大容許值+30°C
8.3 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. 將軟板嵌入連接器而後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 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. (每個軸向持續 2 小時)	Initial Contact Resistance : 40 milliohms Max. 接觸阻抗最初容許值: 40m 歐姆 (After the test) Contact Resistance: 60 milliohms Max. 經耐振動試驗後接觸阻抗 : 最大容許值 60m 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
8.4 Salt Spray 鹽水噴霧	A mated FPCconnector 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. 將軟板嵌入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。 Density(鹽水密度): 5 % in weight. Temperature(溫度): 35±2°C. Period(週期): 48 hours (EIA 364-26B Conditions B)	Initial Contact Resistance : 40 milliohms Max. 接觸阻抗最初容許值:40m 歐姆 (After the test) Contact Resistance: 60 milliohms Max. 經鹽水噴霧試驗後接觸阻抗 : 最大容許值. 60m 歐姆



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Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.5 Humidity (Steady State) 恆溫恆濕	<p>A mated FPC connector shall be placed in a humidity chamber of the following conditions. After the test, 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>將軟板嵌入連接器放置於恆定溫度的濕氣空間，依照隨附如下規格要求，進行恆溫恆濕試驗，並於試驗過後量測其接觸阻抗、絕緣阻抗、以及耐電壓測試。</p> <p>Temperature(溫度) : 40±2℃. 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: 60 milliohms Max. 經恆溫恆濕試驗後接觸阻抗： 最大容許值. 60m 歐姆</p> <p>(After the test)</p> <p>Insulation Resistance : 20 Megohms Min. 經恆溫恆濕試驗後絕緣阻抗： 最小容許值. 20 M 歐姆</p> <p>(After the test)</p> <p>Withstanding Voltage: 250V A/C for 1 minute 經恆溫恆濕試驗後測耐電壓：</p>
8.6 Heat Aging 高溫老化試驗	<p>A mated FPC connector shall be placed in a heat oven of the following conditions. After the test, contact resistance shall be measured. (EIA 364-17B Conditions III . Method A)</p> <p>將軟板嵌入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，並於試驗過後量測其接觸阻抗。</p> <p>Temperature(溫度) : 85±2℃. Period(週期): 96 hours continuously.(持續 96 小時)</p>	<p>Initial Contact Resistance : 40 milliohms Max. 接觸阻抗最初容許值: 40m 歐姆</p> <p>(After the test)</p> <p>Contact Resistance : 60 milliohms Max. . 經高溫老化試驗後接觸阻抗： 最大容許值. 60m 歐姆</p>



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Item(項目)	Test Condition(測試條件)	Requirement(規格)
8.7 Thermal Shock 冷熱衝擊	<p>A mated FPC connector shall be subjected to a thermal shock test of the following conditions. After the test, the contact resistance, the insulation resistance and the dielectric withstanding voltage shall be measured.</p> <p>將軟板嵌入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, 並於試驗過後量測其接觸阻抗、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 8.5</p> <p>同 8.5 章節</p>
8.8 Solder Ability 焊錫性	<p>Fluxed soldering section of header shall be dipped in solder of the following conditions. (EIA 364-52B)</p> <p>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</p> <p>Solder Temperature (焊錫溫度): 245 ± 5°C.</p> <p>Immersion Period (沉浸週期): 3±0.5 Seconds</p> <p>(操作方式): 零件焊錫位置, 距離導體以及固定片末端 0.1mm</p> <p>Method : 0.1mm From Terminal Tip and Solder Tab Tip</p>	<p>Solder entirely 95% of immersed area must show no voids or pinholes.</p> <p>焊錫覆蓋面積必須達到 95%, 而且不能產生氣孔或空隙</p>
8.9 Resistance To Soldering Heat 焊錫耐熱性	<p>By soldering iron 手工烙鐵焊錫適用溫度範圍 :</p> <p>370~400 ± 5°C 3±0.5 Seconds.</p> <p>(操作方式):</p> <p>零件焊錫位置, 距離導體以及固定片末端 0.2mm</p> <p>Method : 0.2mm From Terminal Tip and Solder Tab Tip</p> <p>(EIA/ECA 364-56C Procedure 3. Conditions A)</p>	<p>No deformation or damage.</p> <p>不可有變形或損壞</p>

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



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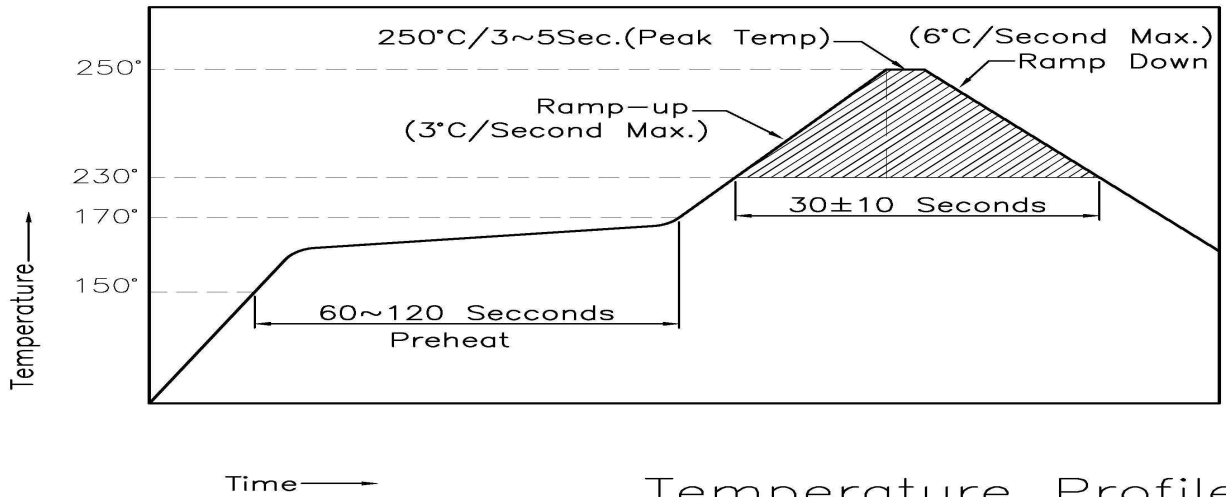


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8.9.1 By reflow soldering 迴焊適用溫度範圍 :

Temperature Profile(溫度曲線圖) :



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



Date Issued	2011/12/27	Revised /Edition	A
Title of Document	HANDLING MANUAL		Issued By: Engineering Dept.
Title Subject	Pitch 0.3mm FPC Connector JS-1194D-XX		

This manual describes important and required points of handling about FPC connector . Be sure to read this manual thoroughly before using FPC connector .

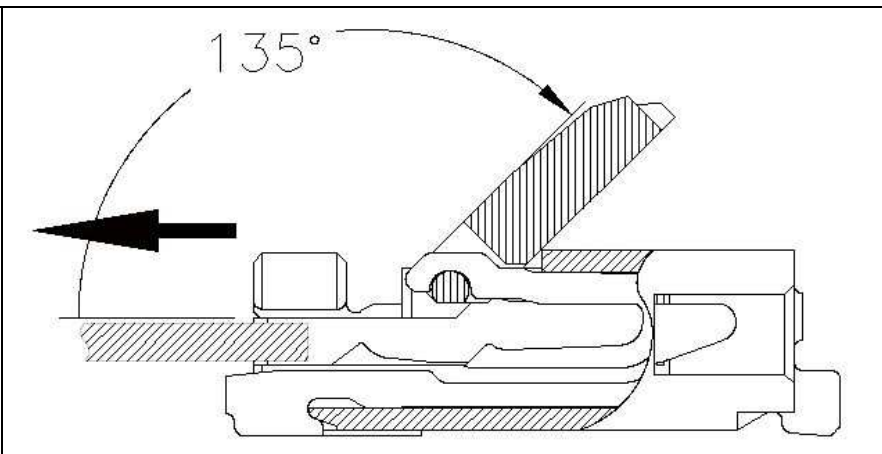
*此操作手冊係說明關於 FPC 連接器使用時必須注意的重點事項，
務必詳加閱讀內容之後再行使用本產品*

<p>步驟 1: Joining step 1 : 使用拇指或食指，將上蓋往上掀開。 Use the thumb or the forefinger, raise the top cover up.</p>	
<p>步驟 2: Joining step 2 : FPC 導電接觸面朝下，平行的嵌入連接器中。 FPC gets along with conductivity down. The parallel one inserts it in the connector .</p>	
<p>步驟 3: Joining step 3 : 輕壓上蓋往下旋轉至定位，直到 FPC 完全嵌入且沒有移動。 Press the top cover lightly and rotate down to make a reservation , until FPC is totally inserted and not moved .</p>	

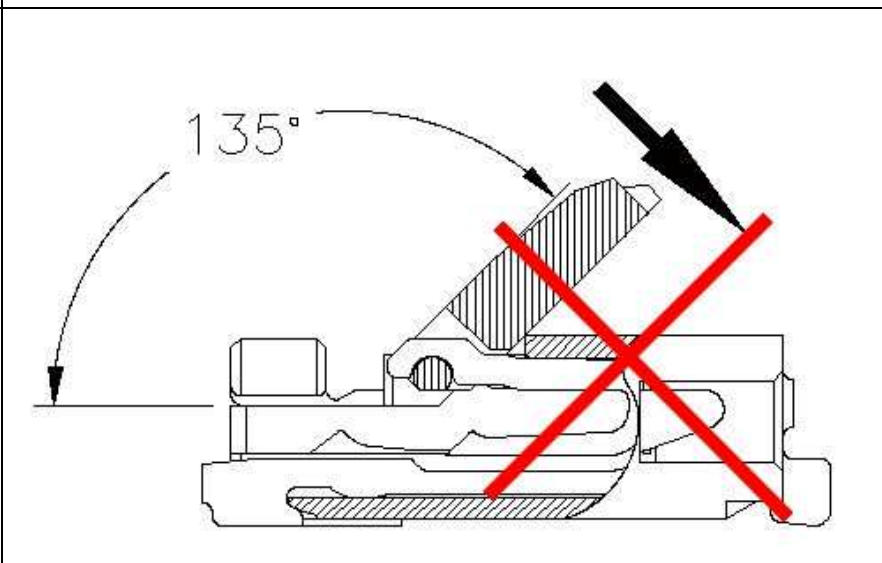


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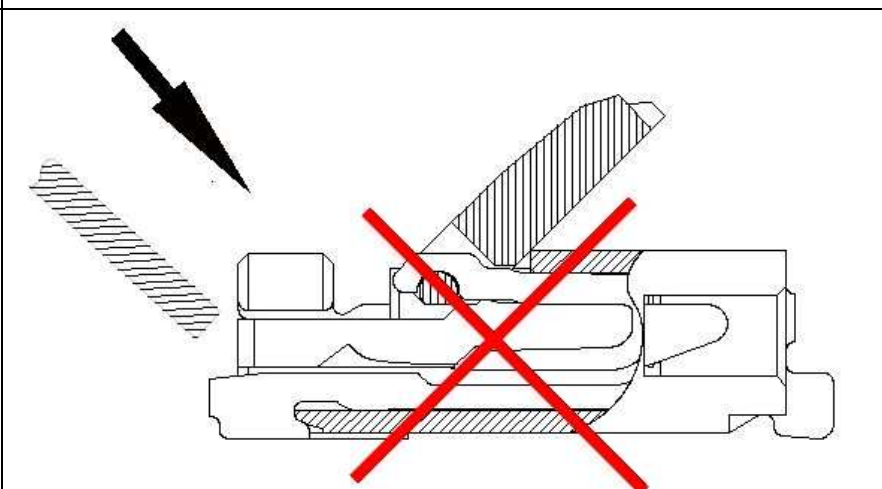
步驟 4:
Joining step 4 :
FPC removal FPC 退出
謹慎掀起上蓋，將 FPC 退出。
Lift the top cover carefully,
withdraw FPC from .



注意事項
Caution
旋轉的角度不可大於 135 度。
The whirling angle can't be greater than 135 degrees.



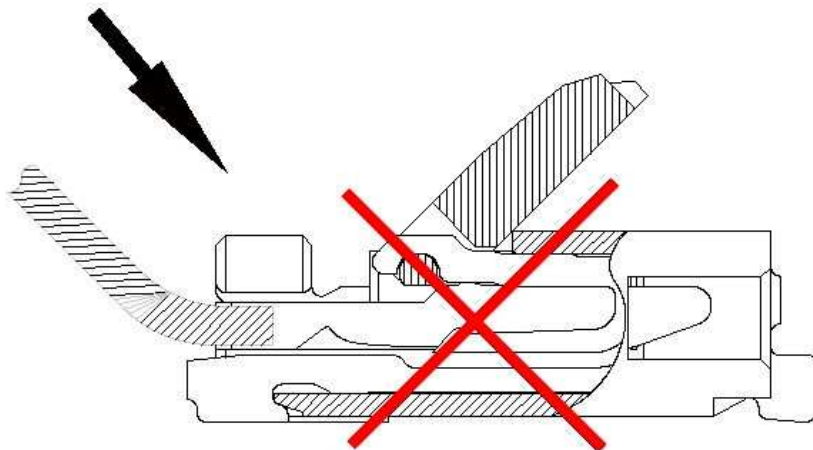
注意事項
Caution
當 FPC 嵌入的角度偏斜時，可能會引起導通不良。
When the angle that FPC inserts in is askew, may cause and lead openly and badly .



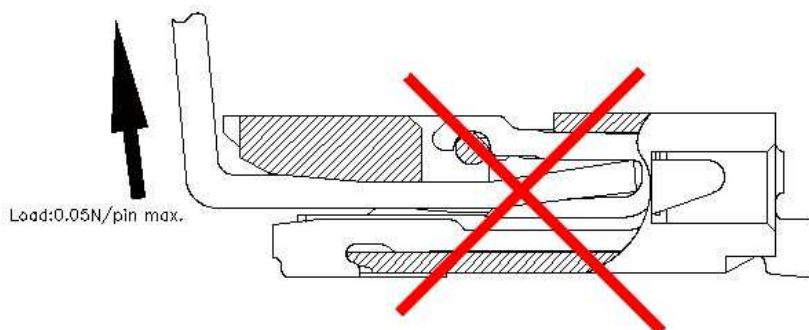


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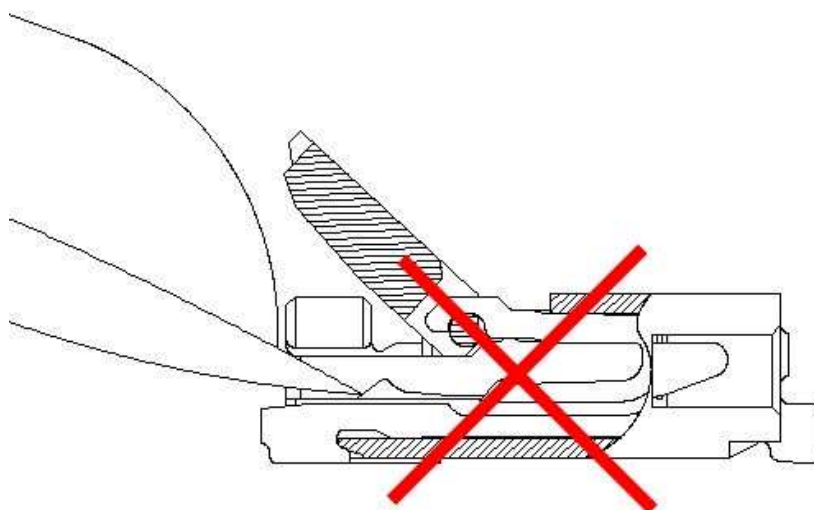
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Caution
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When the angle that FPC inserts in is askew, may cause and lead openly and badly .



注意事項
Caution
向上拉扯的力量不要超過 0.05N/pin max.
The strength of dragging upwards don't exceed 0.05N/pin max .



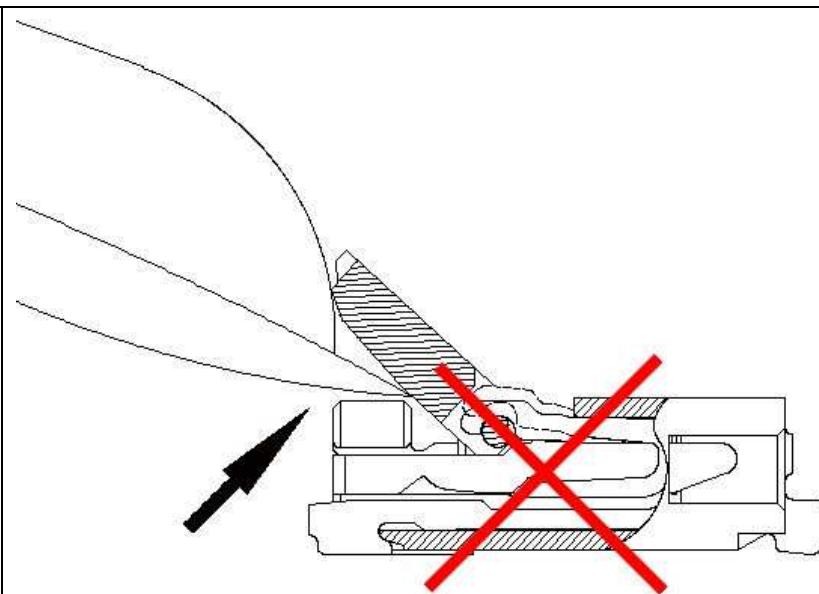
注意事項
Caution
開啓連接器掀蓋時，不要使用過度的力量及避免接觸到端子。
While opening the connector and lifting and covering , don't use excessive strength and avoid touching the end son .



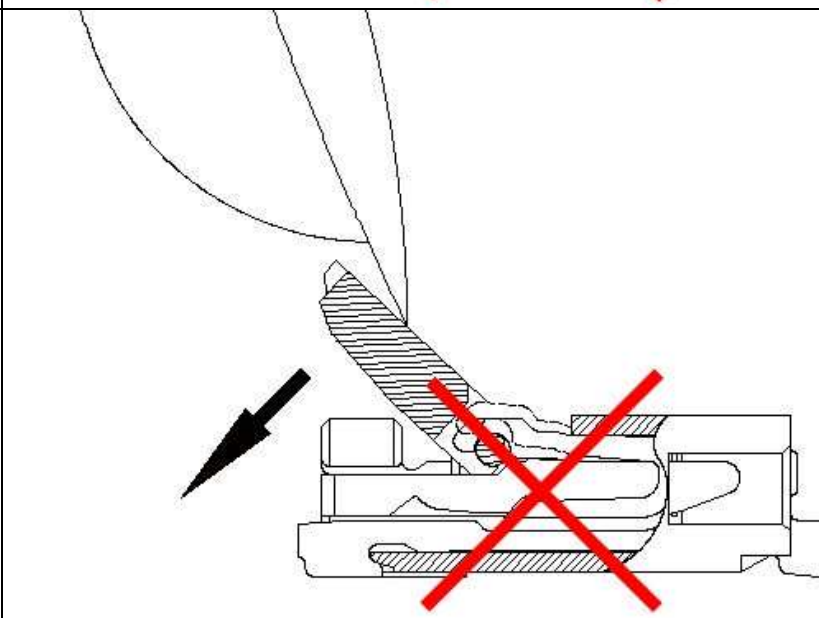


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注意事項
Caution
當在開啓 FPC 時，不要使用過度的力量及避免接觸到端子。
Don't use excessive strength and avoid touching the end son when open FPC.



注意事項
Caution
施壓的力量，應該要平均。
The strength of exerting pressure should be average.
如圖所示，不要試著做移動或重新確實位置。
As illustrated, do not attempt removal or re-positioning of the actuator.





喬訊電子工業股份有限公司
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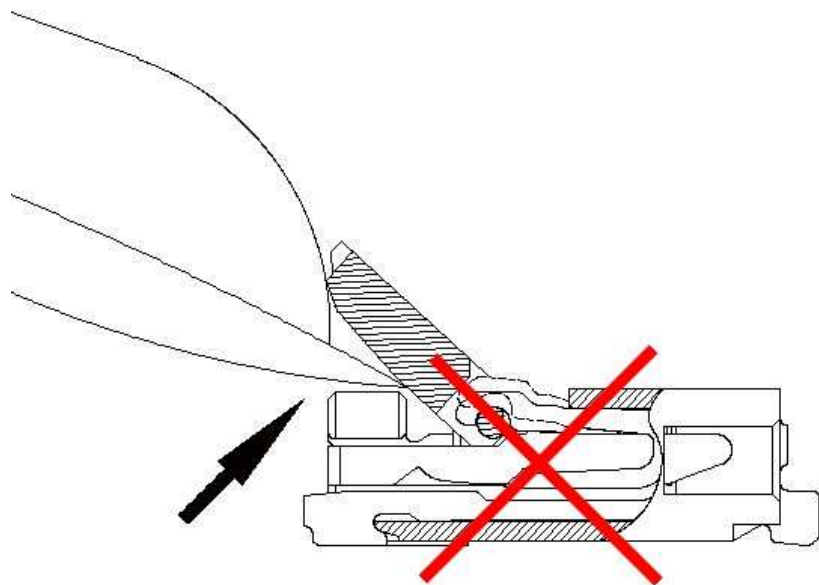
<http://www.chyaoshiunn.com.tw> E-mail: cs@chyaoshiunn.com.tw

Date Issued	2011/12/27	Revised /Edition	A
Title of Document	HANDLING MANUAL		Issued By: Engineering Dept.
Title Subject	Pitch 0.3mm FPC Connector JS-1194D-XX		

注意事項

Caution

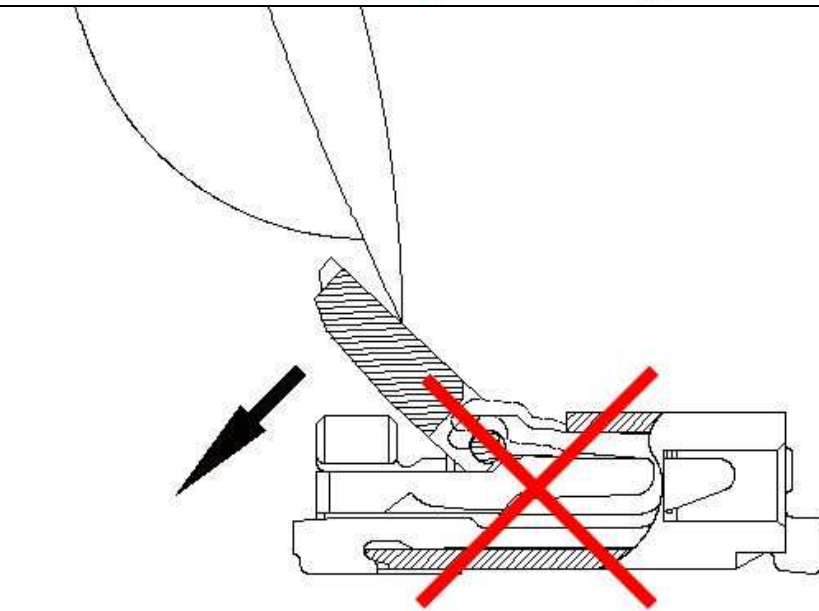
當在開啓 FPC 時，不要使用過度的力量及避免接觸到端子。
Don't use excessive strength and avoid touching the end son when open FPC.



注意事項

Caution

施壓的力量，應該要平均。
The strength of exerting pressure should be average.
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As illustrated, do not attempt removal or re-positioning of the actuator.





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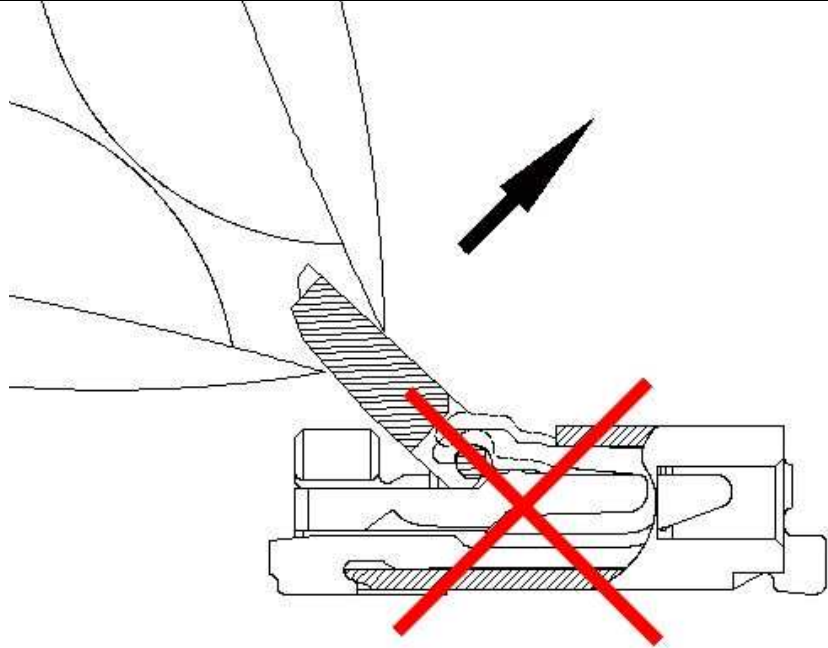
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注意事項

Caution

掀蓋的面積，應該要平均。
Lift the area overlayed, should be average.
如圖所示，不要試著做移動或重新確實位置。
As illustrated, do not attempt removal or re-positioning of the actuator.



注意事項

Caution

PCB 板平整度必須在 0.1mm max.
The roughness of PCB board must be in 0.1mm max.

