



Part Number  
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## Product List

Product Name	<b>FI-WE41P-HFE</b>
Series Name	FI Series
Contact spacing (mm)	1.25
Number of rows	2
Number of Contacts	41
Lead free	Yes
Connector type	Board side Receptacle
PCB mounting type	Standard type
PCB mounting method	Solder (SMT)
Wire termination method	-
Applicable wire	-
Finish of contact in connecting area	Gold over Nickel

Finish of contact in terminal area	-
Finish of contact in PCB mounting area	Tin/Tin-alloy over Nickel
Material of housing	Glass-filled PPS (UL94V-0)
PCB side connector styles	Right angle
PCB mounted height (mm)	3.7
Electro magnetic shield function	Yes
Remarks	
Related Documents	 114Kbytes
Pair	

## Notice:

1. The values specified in this web site are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.  
For purchase, a product specification must be agreed upon.
2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.
3. The products presented in this web site are designed for the uses recommended below. We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

- (i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:  
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster evention equipment, etc.
- (ii) We may separately give you our support with a quality assurance program that  
you specify, when you think of a use such as :

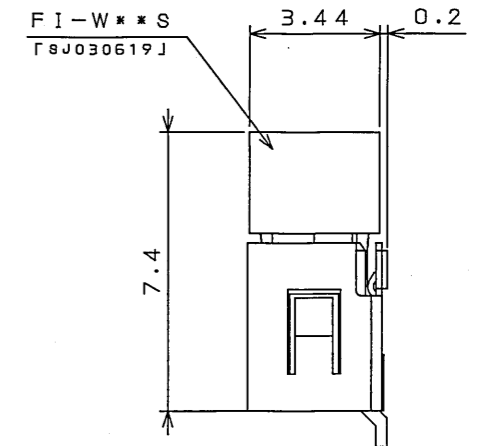
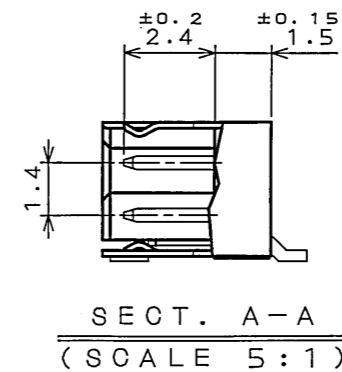
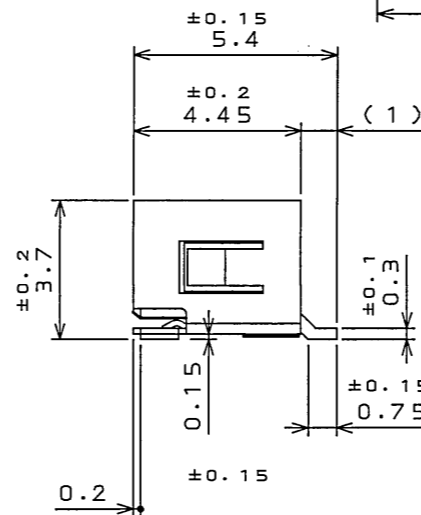
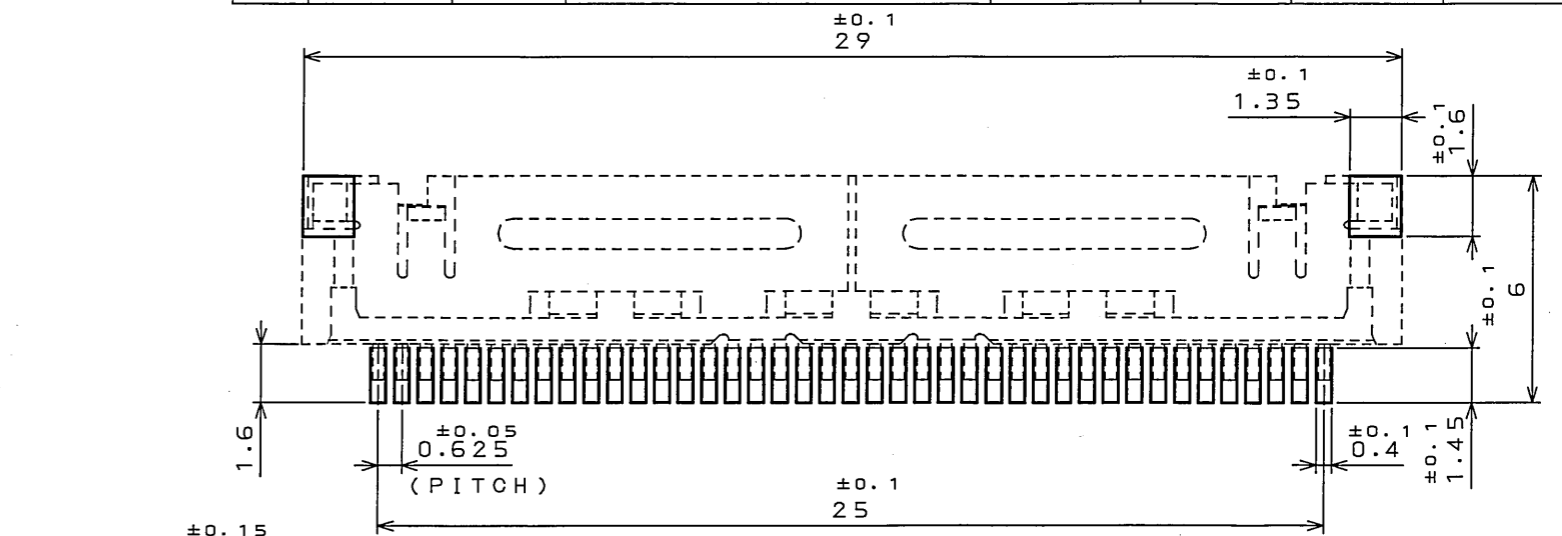
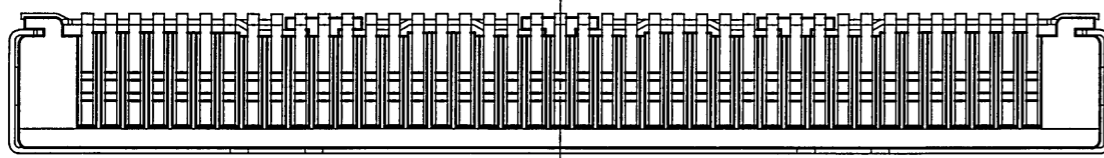
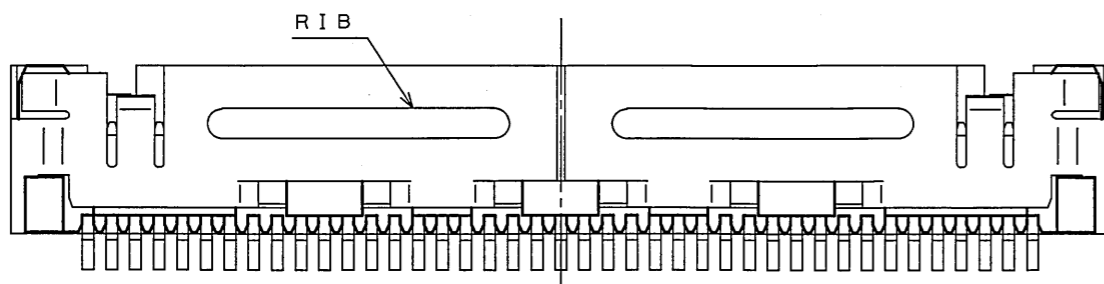
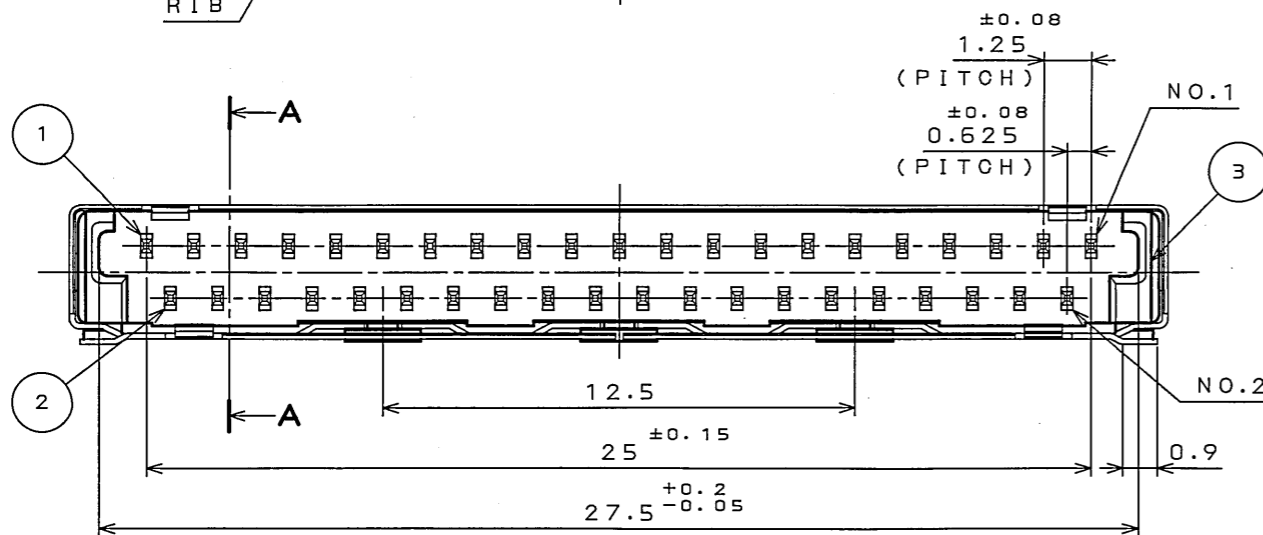
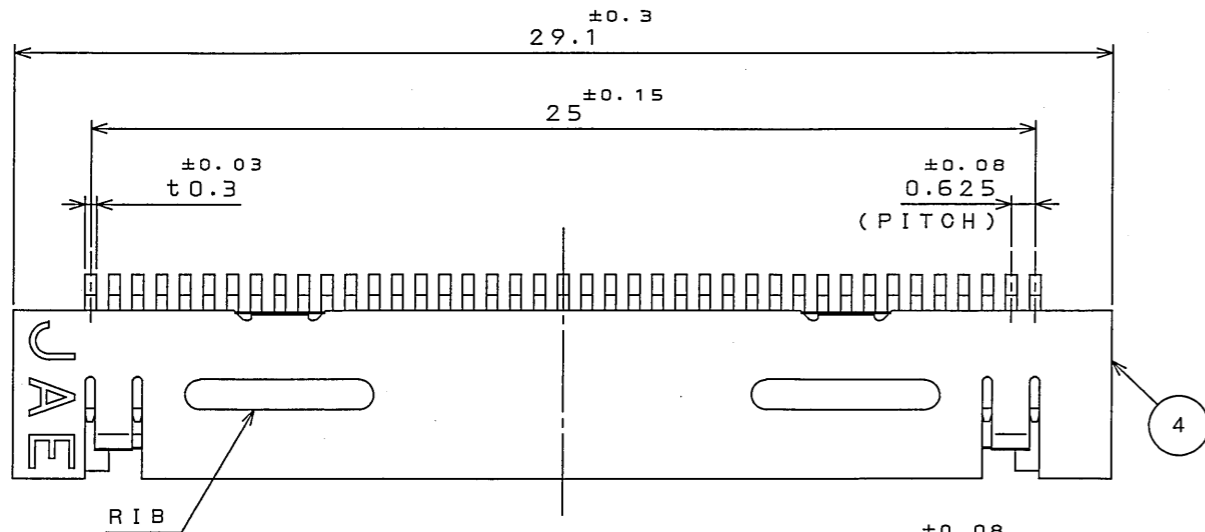
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc

709007S  
(DRAWING NO.)

版数 REV.	年月日 DATE	DCN NO.	変更内容 DESCRIPTION	製図 DR.	担当 CHK.	査閲 APPD.	承認 APPD.



(WITHOUT SHELL)  
COUNTERPART CONNECTOR  
(SCALE 5:1)  
相手側コネクタ

符号 NO.	名称 DESCRIPTION	個数 QTY.	材料 MATERIAL	仕上 FINISH	備考 REMARKS
4	SHELL	1	COPPER ALLOY	TIN OVER NICKEL	
3	INSULATOR	1	GLASS FILLED PPS		UL94V-0 BLACK
2	CONTACT2	20	COPPER ALLOY	GOLD OVER NICKEL	TERMINAL AREA: (LEAD FREE)TIN/TIN ALLOY
1	CONTACT1	21	COPPER ALLOY	GOLD OVER NICKEL	TERMINAL AREA: (LEAD FREE)TIN/TIN ALLOY

仕様書 (SPECIFICATION)		第1版 (ORIGINAL DATE) 22.Jan.2004		尺度 (SCALE) シリーズ (SERIES) JAE-CONNECTOR.COM	
公差 (GENERAL TOLERANCE)		製図 DR. H.YOKOO		名称 (TITLE) Reference Only	
寸法 (DIMENSION)	角度 (ANGLES)	担当 CHK. T.YAMAJI		JAPAN AVIATION ELECTRONICS INDUSTRY, LTD.	
. ±0.8	° ±	査閲 APPD. <i>m. Suzuki</i>		図面番号 (DRAWING NO.)	
.X ±0.4	°X ±	承認 APPD. <i>Y. Ishiyama</i>		SJ100607	
.XX ±0.1		重量 (WEIGHT)		版数 (REV.)	
.XXX ±				1	

DOF-0-212E(03.08)

0 10 20 30 40 50 60 70 80 90 100

LEAD FREE この製品は鉛フリー品です

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JAPAN AVIATION ELECTRONICS IND., LTD. CONNECTOR DIVISION 日本航空電子工業株式会社 コネクタ事業部		<b>SPECIFICATION TABLE</b> <b>製品規格表</b>		Connector Specification No. <b>JACS-1496-0</b>	
THIS SPECIFICATION TABLE CANNOT BE REPRODUCED WITHOUT WRITTEN CONSENT OF JAE. この製品規格表は日本航空電子工業株式会社の 許可のない限り複写を禁じます。				Connector Series Name 品名 <b>FI-WE*P-HF/-WE*M (with shell)</b>	
				Applicable Drawing No. 製品図面 <b>Pin header: SJ030616, 030869</b> <b>Terminal connector: SJ031026</b>	
				TK C	
Rev. 版数	Date 発行日	DCN No	Drawn by 担当	Checked by 査閲	Approved by 承認
1	7 Mar.1997	-	Hisamatsu, Abe	Ibaraki	Morino
5	24 Mar.2000	45809	Kikuchi	-	Morino
6	11 Mar.2003	51679	M. Kikuchi	A. Kimura	Y. Ichijima
<b>Standard data 定格</b>					
Applicable connector 適合コネクタ		Connector: FI-WE*P-HF/-WE*M			
Applicable wire 適合電線		FPC of which connecting area is 0.14 <sup>±0.03</sup> mm thick			
Rated current 電流		1A AC, DC per contact AC,DC 各 1A/1 端子当り			
Rated voltage 電圧		200V AC, DC AC,DC200V			
Operating temperature range 使用温度範囲		-40 °C to + 80 °C			
Note 備考 1: This specification covers the requirements for FPC terminal connector mated with pin header. 2: The Resistance to soldering heat, solder bath method and the Solderability is applied only for the pinheader. 3: The special jig should be applied to remove the slider.  1. 本コネクタ規格は、FPC中継用コネクタとピンヘッダとの嵌合について規定する。 2. 半田耐熱性、半田付性は、ピンヘッダのみの規定とする。 3. スライダの抜去(引き抜き)は、専用治具を使用のこと。					
<b>Item</b>		<b>Procedure 試験方法</b>		<b>Requirement 規定</b>	
<b>MECHANICAL 機械的性能</b>					
Examination of product 構造寸法表示				Meets requirements of product drawing. 図面と相違のないこと	
Material & Finish 材料仕上加工法				Meets requirements of product drawing. 図面と相違のないこと	
Connector mating force 総合挿入力		Measure force necessary to mate between the counterpart connectors. 適合コネクタ間にて挿入を行う。		1.96N x n (Max.) "n" = number of pins (n:芯数)	
Connector unmating force 総合抜去力		Measure force necessary to unmate between the counterpart connectors 適合コネクタ間にて抜去を行う。		0.245N x n (Min.) "n" = number of pins (n:芯数)	
Slider operating force スライダ操作力		Tuck the slider after applicable FPC is inserted. 適合 FPC を挿入後、スライダを押し込む		2.45N x n (Min.) "n" = number of pins (n:芯数)	

Item	Procedure 試験方法	Requirement 規定
Cable retention ケーブル保持力	Measure the FPC retention after tucking the slider after applicable FPC. 適合 FPC を挿入、スライダを押し込んだ後、FPC 保持力を測定。	0.39N x n (Min.) 0.39N x n 以上
Vibration 耐振性	Subject specimens to 10 <sup>-</sup> 55Hz at 1.5mm amplitude for 2hours each of 3axes, 6hours in total 全振巾 1.5mm 10~55Hz 各 2h 計 3 軸 6h	No electrical discontinuity more than 1 $\mu$ s. No damage. 1 $\mu$ s 以上の電氣的瞬断がないこと。 部品に機械的欠陥のないこと。
Shock 耐衝撃性	Applying an appropriate holder is allowed in Vibration test and Shock test. MIL-STD-202, METHOD 202, 490m/s <sup>2</sup> , 3axes 振動及び衝撃試験においては取付けに適当なホルダーを使用してもよい。	
Durability 寿命試験	Mate and unmate the connectors for 50 cycles. 50 回の挿抜を行う。	Contact resistance: 80m $\Omega$ (Max.) 接触抵抗: 80m $\Omega$ 以下
Contact retention コネクタ保持力	Measure the contact retention with Tensile strength tester. 引張試験機にてコンタクト保持力を測定。	4.9 N (Min.) 4.9 N 以上
<b>ELECTRICAL 電氣的性能</b>		
Voltage proof 耐電圧	Apply the specified voltage between adjacent contacts. 近接コネクタ間に規定電圧を印加	500V AC r.m.s. No breakdown caused for 1 minute. AC500Vr.m.s 1 分間異常のないこと
Insulation resistance 絶縁抵抗	Apply 100V DC between adjacent contacts and measure its resistance within 1 minute. 近接コネクタ間に 100V DC を印加、1 分以内で測定	100M $\Omega$ (Min.) 100M $\Omega$ 以上
Contact resistance 接触抵抗	Measure it with low voltage less than 20mV and 1mA. 低レベル 20mV 以下、1mA 以下で測定	40m $\Omega$ (Max.) 40m $\Omega$ 以下
<b>ENVIRONMENTAL 環境的性能</b>		
Rapid change of temperature 熱衝撃	Subject specimens to 5 cycles between -55°C and +85°C. 熱衝撃試験 -55°C ~ +85°C 連続 5 サイクル	Insulation resistance: 50M $\Omega$ (Min.) Voltage proof: 250V r.m.s. ,1 minute No breakdown. Contact resistance: 80m $\Omega$ (Max.) 絶縁抵抗 50M $\Omega$ 以上 耐電圧 250Vr.m.s. 1 分間異常のないこと 接触抵抗 80m $\Omega$ 以下
Damp heat, steady state 耐湿性	Subject specimens to 60°C at 90-95% RH for 96 hours. 湿度試験 60°C, 90~95%RH, 96h	
Corrosion, salt mist 耐腐食性	Subject specimens to 5% salt concentration at 35 °C for 48 hours. 塩水噴霧試験 塩水濃度: 5%, 35°C, 48h	There should be no corrosion detrimental to contact connection. Contact resistance: 80m $\Omega$ (Max.) コネクタの接触上有害な腐食が生じないこと。 接触抵抗: 80m $\Omega$ 以下
Resistance to soldering heat, solder bath method 半田耐熱性	Leave the connector in the 260 °C $\pm$ 5°C chamber for 2minutes. 260°C $\pm$ 5°C の恒温槽に 2 分間放置	No damage. 外観等、異常の無いこと
Solderability 半田付け性	After dipping in the flux for 5 to 10 seconds, dip in Sn:Pb=60:40 solder of 230 $\pm$ 5 °C for 3 $\pm$ 0.5 seconds. 適合フラックスに 5~10s 浸漬し Sn:Pb=60:40 半田 230 $\pm$ 5°C に 3 $\pm$ 0.5s 浸漬する	Wet Solder Coverage: 95% (Min.) 浸した部分の 95% 以上が半田で覆われていること

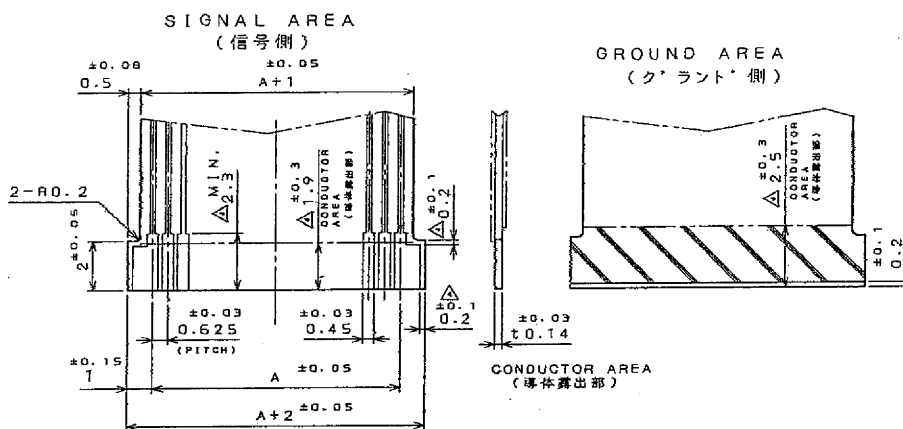


TABLE1.

NO. OF CONTACTS(N)	DIMENSION	A
21		12.5

F.P.C.PATTERN DIMENSION(REF.)

FPCパターン寸法(参考)

**Handling Care 取扱注意事項**

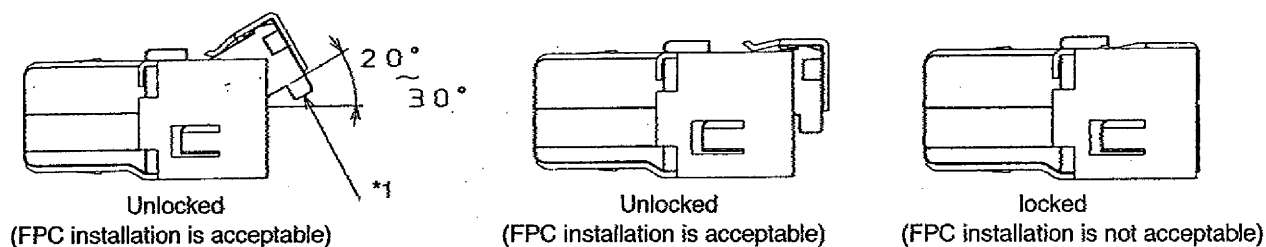
1. Confirmation in advance of installing the FPC

Confirm that the slider-lock is not locked before installing the FPC.

\*1 The projection part of a slider has 21 pins.

1. FPC挿入前のコネクタの状態

FPCを挿入する前にスライダロックを掛けてしまっていないか確認をしてください。



\* Projection at the slider is provided only for 21-position connector

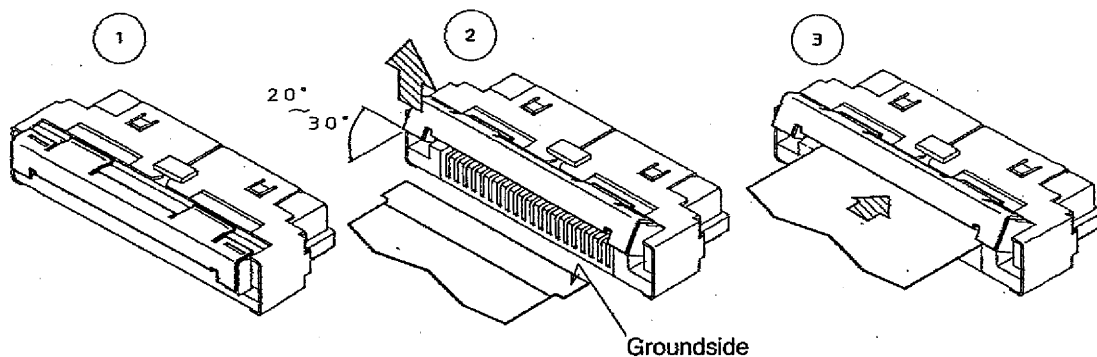
\* スライダー部の突起部は 21 芯のみである。

2. FPC installing method FPC挿入方法

If a slider stays horizontally, pull up the slider about 20 to 30 °C toward the direction shown in the following figure. And install the FPC.

FPC挿入方法はスライダが水平状態の場合、下図のようにスライダを矢印の方向へ 20~30 度上げてからFPCを挿入してください。

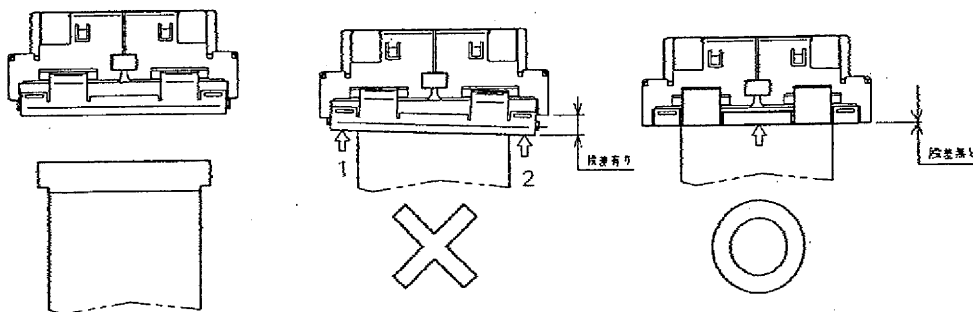
- \* The groundside of the FPC should be faced to the slider.
- \* FPC はグラウンド部をスライダ側に来るようにしてください。



3. Slider operation method スライダ操作方法

Avoid pushing the slider alternately. The appropriate jig is required to use.

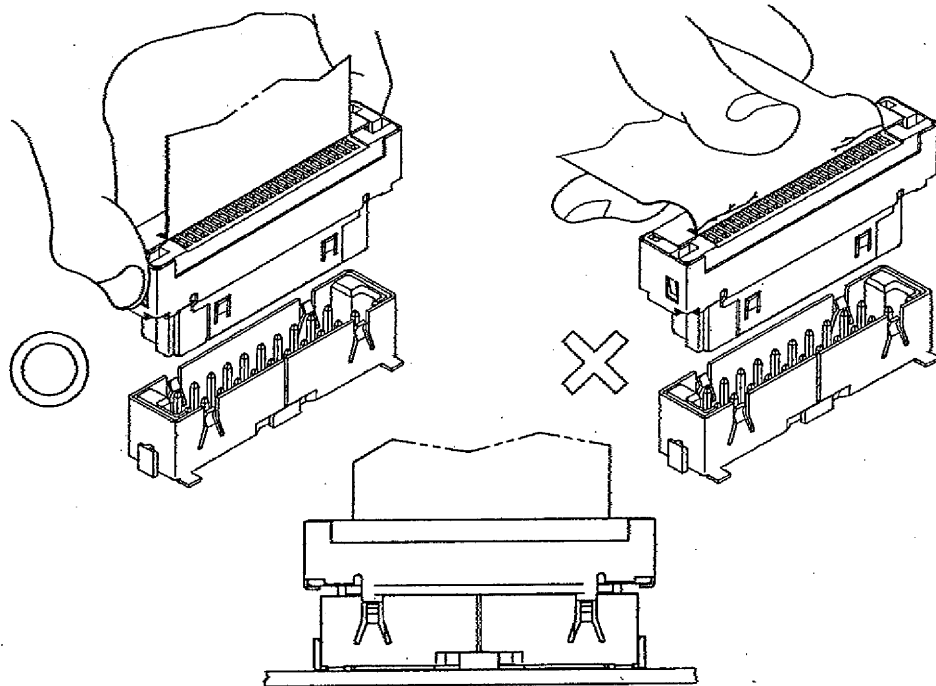
スライダの交互押しはできるだけ避けてロックしてください。また専用治具を使用してください。



#### 4. Installing the connector コネクタ挿入方法

Hold a main body of the connector and mate it paralleled to the pinheader. Do not push bent part of the FPC during mating operation. (It may cause damages on the FPC if it is pushed.)

コネクタの挿入はコネクタ本体を手で持って、ピンヘッダと水平に行ってください。FPCに負担をかけないためにもFPCを折り曲げた面を押しての嵌合はしないでください。

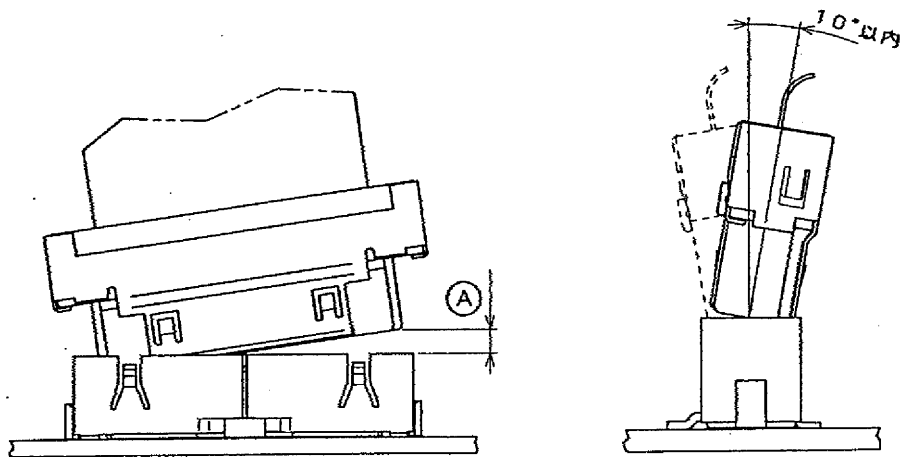


Do not try to mate the connector if there is a space ("A") in the opposite side.

Diagonal mating should be done within 10°.

コネクタの挿入は嵌合し始めたときに反対側に隙間"A"がある状態のまま挿入しないでください。

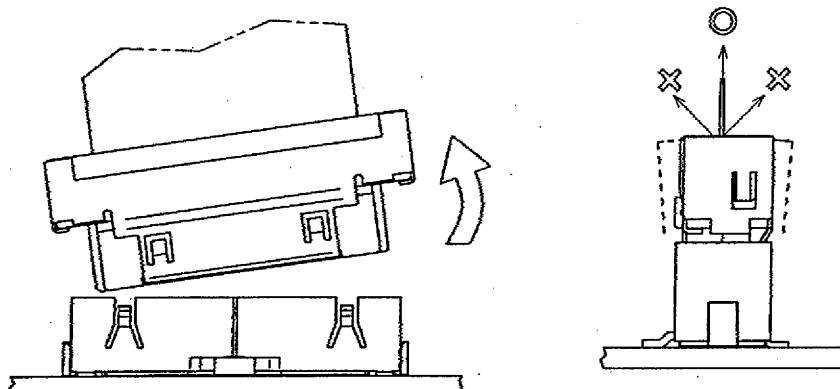
幅方向の斜め挿入は10度以内の範囲で挿入してください。



## 5. Removing the connector コネクタ抜去方法

Hold a main body of the connector and pull it out horizontally to the pinheader. Although the FPC can be pulled from the connector because the cable retention is specified bigger than the total unmating force, avoid pulling the FPC diagonally. (It may damage the FPC.)

コネクタの抜去はコネクタ本体を手で持ってピンヘッドと水平に行ってください。本コネクタのケーブル保持力が総合抜去力より大きくなるように設定しているため、FPCを引っ張ってコネクタを抜去できますが、FPCに負担をかけないためにもFPCを持つての斜め方向の抜去はしないでください。



Do not hold neither a corner of the connector nor the FPC as shown in the following figure. Separate them little by little as moving them left to right (within 5°) towards the pulling direction. 矢印の方向にコネクタ及びFPCの片端を持って回転させるように抜かないでください。通常は抜き方向に対して左右に少しずつ振りながら抜いてください。(5度以下)

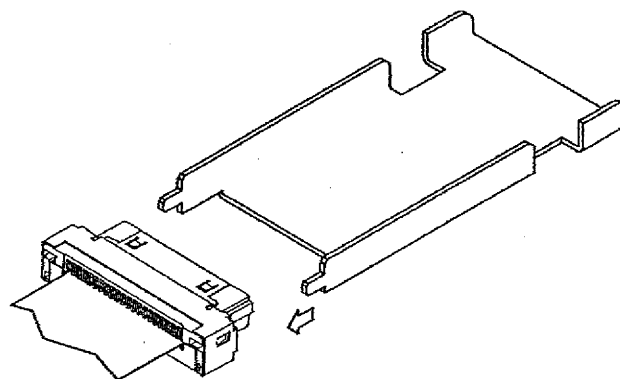
## 6. Others. その他

Do not reuse the connector again after removing the FPC.

FPC removing jig: Drawing No. SJ 714058-00

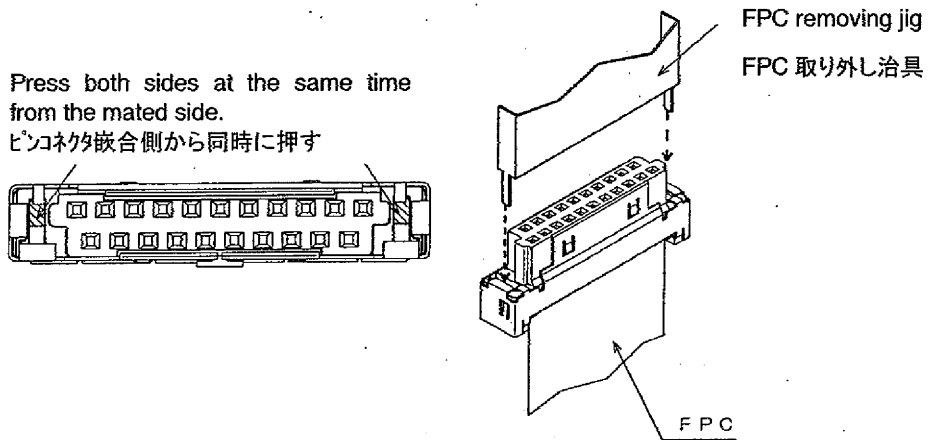
一度FPCを引き抜いたコネクタは再使用しないでください。

FPC取り外し専用治具 治具 No. SJ 714058-00

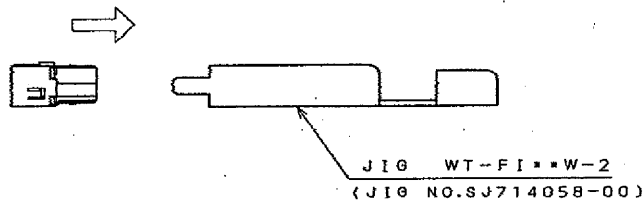


**7. Removing the FPC** FPC 取り外し方法

Apply the appropriate jig (fig.1) to remove the FPC. Push slash marks from the pin-connector mated direction to open the slider. Hold the jig with fingers and push the connector / the jig to the direction as shown in below. FPCの取り外し方法は斜線部分を専用治具(図 1)にて、下図に示すようにピンコネクタ嵌合方向から押してスライダを開いてください。



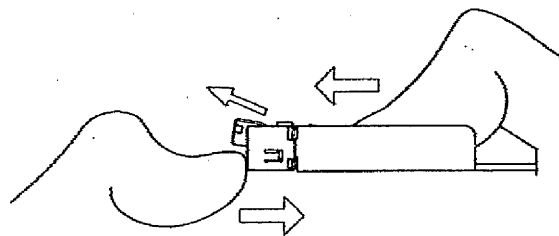
1)



2)



3)



Fix the jig with finger, and push the connector in the direction shown by the arrow. (or push the jig.)

治具を指で固定し、矢印の方向にコネクタを押す。(または治具を押す)

## Packing 梱包仕様

### Single tray 単品トレー品

#### 1. Packing materials 梱包材料

Tray トレー

Corrugated fiberboard shipping containers (Size:L280×W280×H) 外装箱 (内寸法:L280×W280×H)

Air cap エアキャップ

Gum tape (H:100、250、280) ガムテープ (H:100、250、280)

Identification tag 現品票

#### 2. Storage quantity (connectors) コネクタ収納数

50 connectors in per tier in a tray

各トレー 1段当りのコネクタ収納数は50個である。

#### 3. Storage quantity (Single tray) (As for a container its height is 280)

単品トレー収納数(外装箱高さ280の場合)

Maximum number of trays contained in a container is 20.

トレーの外装箱への最大収納数は20段である。

