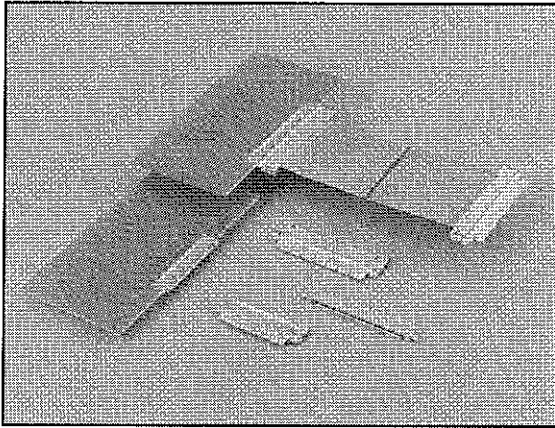


## FI-X SERIES CONNECTORS

### 1.00mm (.039") Contact Spacing, Connector for PCB-to-Cable



#### FEATURES

- Compatible with high-speed differential transmission and high-level impedance matching (90 to 100 ohms)
- Greatly improved ground condition which is directly related to EMI characteristics
- Bottom type structure provides 1.5mm (.059") connector height and 1mm (.039") height above the PCB
- 1mm (.039") contact pitch with impedance matching
- FPC provides stable grounding to the PCB
- Compatible with a variety of cables such as thin wire coaxial cables and flex circuitry
- Friction lock housing enables secure connections



The FI-X Series connectors are designed for thin LCD interface applications, and are compatible with high-speed differential transmissions. They are ideal for use in compact notebook PCs, and other applications where size and weight are critical considerations.

#### GENERAL SPECIFICATIONS

Number of Contacts	14, 20, 30, D7 14 (specifically designed for differential transmission/ 7 pairs)
Contact Spacing	1.0mm (.039")
Applicable FPC	0.14mm ± 0.03mm (.005" ± .001")
Current Rating	AC/DC 1 Amp per contact
Dielectric Withstanding Voltage	500 VAC r.m.s. (for one minute)
Insulation Resistance	100 megohms min.
Contact Resistance	40 milliohms max.
Operating Temperature	-40°C to +80°C
Voltage Rating	AC/DC 200V

#### MATERIALS AND FINISHES

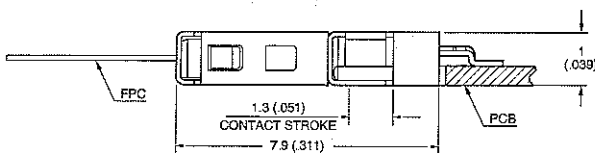
##### FI-XB\*\*S-HF10 (Board Connector)

Ground Plate	Copper Alloy / Tin plating
Insulator	Glass filled 4-6 Nylon (UL94V-0, Beige)
Shell	Copper Alloy/Tin plating
Contact	Copper Alloy/Gold plating over Nickel Terminal Area: Tin/Lead over Nickel

##### FI-X\*\*M (Cable Connector)

Ground Plate	Copper Alloy / Tin plating
Insulator	Glass filled 4-6 Nylon (UL94V-0, Beige)
Shell	Copper Alloy/Tin plating
Slider	Thermal Plasticity plating
Contact	Copper Alloy/Gold plating over Nickel Mating FPC Area: Tin/Lead over Nickel

Connector Profile (Ref.)



(Continued Next Page)

## FI-X SERIES CONNECTORS

**1.00mm (.039") Contact Spacing, Connector for PCB-to-Cable**

### MATERIALS AND FINISHES, *Cont.*

<b>FI-X**M(R) (Cable Connector, FPC Relay Type)</b>	
Ground Plate	Copper Alloy / Tin plating
Insulator	Glass filled 4-6 Nylon (UL94V-0, Beige)
Shell	Copper Alloy/Tin plating
Slider	Thermal Plasticity plating
Contact	Copper Alloy: Contact Portion: Gold plating over Nickel FPC Contact Portion: Tin-Lead plating over Nickel
<b>FI-XB**S(R) -HF, FI-X**S-HF (Board Connector)</b>	
Insulator	Glass filled 4-6 Nylon (UL94V-0, Beige)
Shell	Copper Alloy/Tin plating
Contact	Copper Alloy: Contact Portion: Gold plating over Nickel Terminal Portion: Tin-Lead plating over Nickel
<b>FI-XC3-1-15000 (Socket Contacts)</b>	
Contact	Copper Alloy: Contact Portion: Gold plating over Nickel Cable Crimping Portion: Tin plating

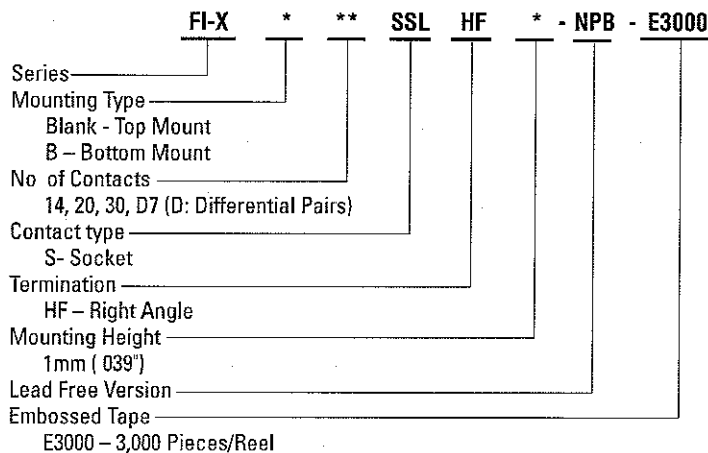
<b>FI-X**H (Cable, Crimp Housing)</b>	
Description	Materials/Finishes
Housing	Glass filled 4-6 Nylon
Shell	Copper Alloy/Tin plating (D7: Gold plating over Nickel on ground)

<b>FI-X**C (Cable Connector)</b>	
Ground Plate	Copper Alloy / Tin plating
Insulator	Glass filled 4-6 Nylon
Slider	Thermal Plasticity plating
Contact	Copper Alloy: Contact Area: Gold (0.1µm min.) over Nickel Terminal Area: Tin-Lead over Nickel

### TOOLING

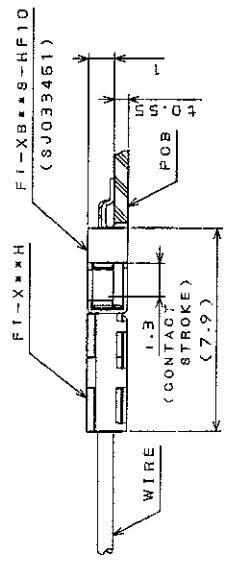
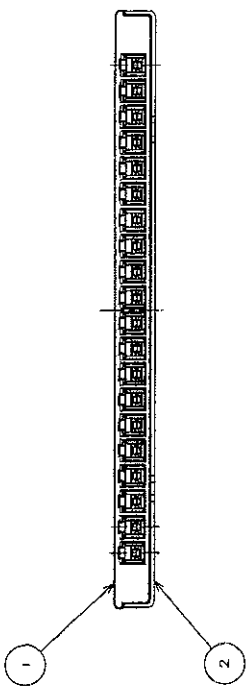
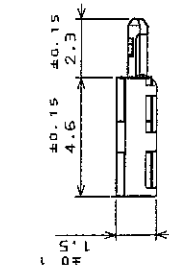
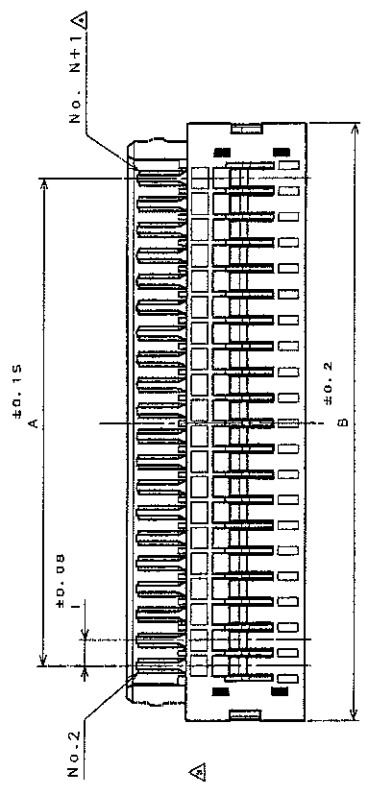
Description	Part Number
Hand Crimp Tool	CT150-4C-FIX
Press	CP215-4B
Applicator	350-FI-2B

### ORDERING INFORMATION



Dimensions and specifications subject to change without notice.

ELECTRONICS  
(ON-DRAWING) 各事項



MATED CONDITION (REF.)  
嵌合状態図(参考)

TABLE 1

NO. OF DIMENSION CONTAINED	A	B
14	13	17.3
20	19	23.3
30	29	33.3

A

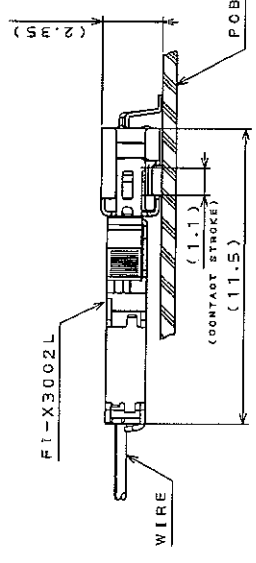
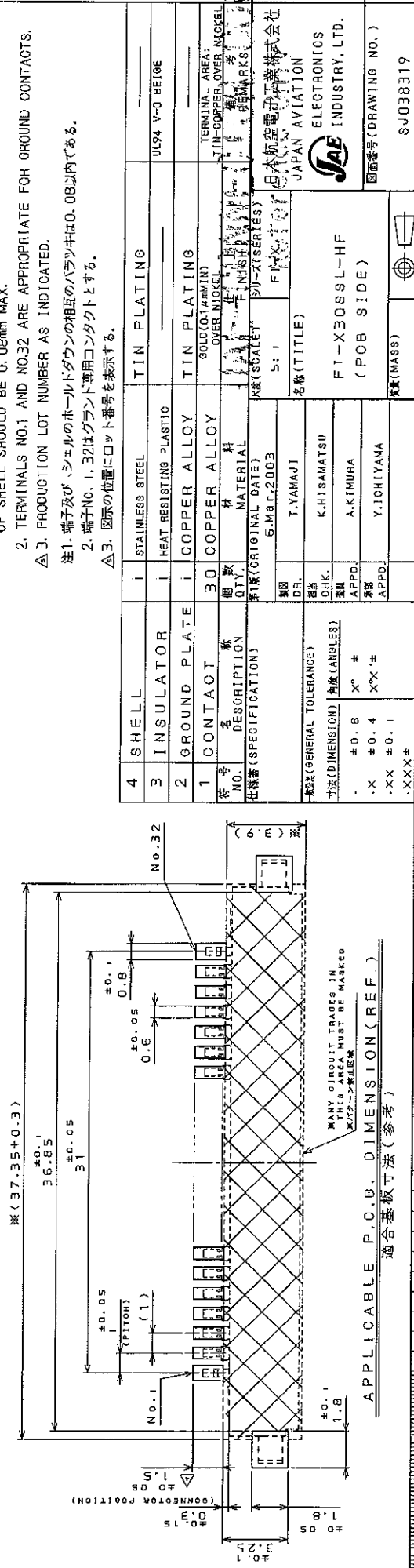
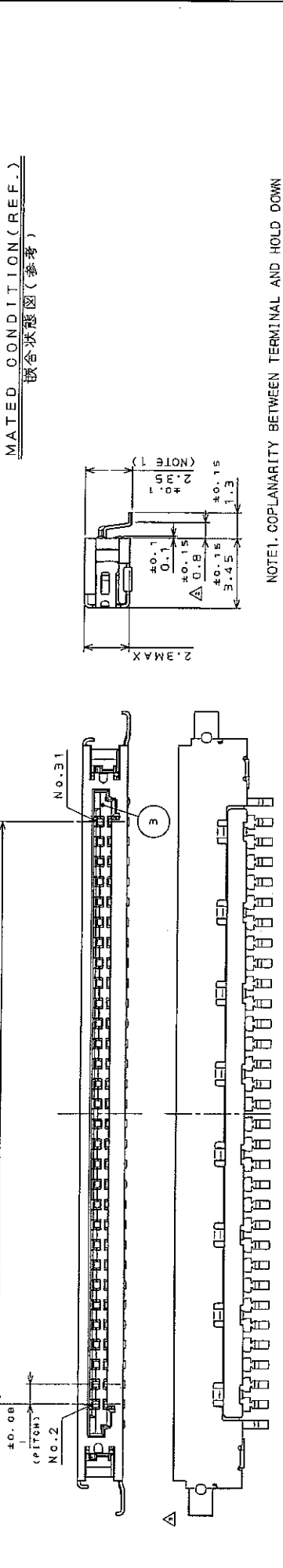
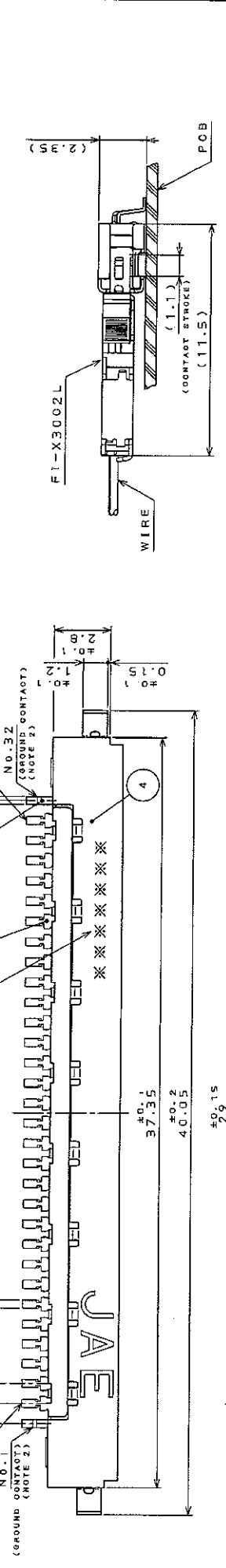
REV. NO.	DATE	DESCRIPTION	DR.	CHK.	APPD.
2	13.09.1999	ADDED ITEM	MABE	H.OBIKANE	H.AMEMIYA
3	23.Jun.2000	REVISED FORM		H.OBIKANE	H.AMEMIYA
4	13.Mar.2001	REVISED TERMINALS NO.	H.SAKURADA	H.OBIKANE	H.AMEMIYA

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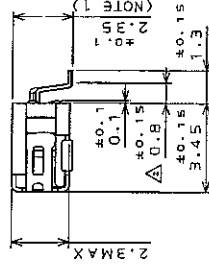
  

2 SHELL	1 COPPER ALLOY	TIN PLATING
1 HOUSING	1 GLASS FILLED 4-6NY	
NO. DESCRIPTION	材	
仕様書(SPECIFICATION)	数量 QTY.	
	原価(OBJECTIVE DATE)	
	2.APR.1999	
公差(GENERAL TOLERANCE)	DR.	
寸法(DIMENSION) 角度(ANGLES)	CHK.	
.X $\pm 0.8$	K.HAYASHI	
.XX $\pm 0.4$	APPD.	
.XXX $\pm 0.1$	K.HISATOMI	
	H.AMEMIYA	
	図面番号(DRAWING NO.)	
	重量(WEIGHT)	
		SJ033913
		4

61E800NS (CON. ONIMVU0) 各型図		年日 DATE	改訂 REV.	変更内容 DESCRIPTION	製図 DR.	担当 CHK.	承認 APP.	承認 APP.
		21.May.2003	2	52152 寸法追加	T.YAMAJI	K.HISAMATSU	A.KIMURA	Y.ICHIIYAMA
		14.Jul.2003	3	52482 寸法追加		K.HISAMATSU		Y.ICHIIYAMA
		11.Mar.2004	4	054603 寸法追加		K.HISAMATSU	M.SUZUKI	Y.ICHIIYAMA
		3.Aug.2006	5	050641 ロットNo.、注記追加	H.SAKURADA	T.SHITODA		K. Hisayoshi



MATED CONDITION (REF.)  
嵌合状態図 (参考)



NOTE1. COPLANARITY BETWEEN TERMINAL AND HOLD DOWN OF SHELL SHOULD BE 0.08mm MAX.

2. TERMINALS NO.1 AND NO.32 ARE APPROPRIATE FOR GROUND CONTACTS.

△ 3. PRODUCTION LOT NUMBER AS INDICATED.

注1. 端子及び、シエルのホルドダウンの相互のバラツキは0.08以内である。  
注2. 端子No. 1, 32はグラウンド専用コンタクトとする。  
注3. 図示の位置にロット番号を表示する。

4 SHELL	1 STAINLESS STEEL	TIN PLATING	UL94 V-0 BEI0E
3 INSULATOR	1 HEAT RESISTING PLASTIC		
2 GROUND PLATE	1 COPPER ALLOY	TIN PLATING	
1 CONTACT	30 COPPER ALLOY	TIN PLATING	
符号	個数	処理	端子位置
NO. 1	30	金	1
NO. 2	30	銅	2
NO. 31	30	銅	3
NO. 32	30	銅	4
仕番 (SPECIFICATION)	材料 (MATERIAL)	処理 (FINISH)	端子位置 (TERMINAL POSITION)
	5-MSC-2003	5-1	
製造 (GENERAL TOLERANCE)	製図 (DRAWING)	承認 (CHECK)	承認 (CHECK)
方法 (DIMENSION) 角度 (ANGLE)	T.YAMAJI	K.HISAMATSU	K.HISAMATSU
.X ±0.8 X° #		A.KIMURA	A.KIMURA
.XX ±0.4 XX° #		Y.ICHIIYAMA	Y.ICHIIYAMA
.XXX ±0.1 XXX° #			
名称 (TITLE)	図面番号 (DRAWING NO.)	承認 (CHECK)	承認 (CHECK)
FI-X30SSL-HF (POB SIDE)	SJ038319		
製造 (MANUFACTURE)	承認 (CHECK)		
JAE ELECTRONICS INDUSTRY, LTD.			
JAPAN AVIATION ELECTRONICS INDUSTRY, LTD.			
成数 (REV.)			5