

CABLINE®-UX II Connector

Plug: 20531 Receptacle: 20533

Instruction Manual

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This manual provides the insertion & withdrawal methods and cautions to handle CABLINE-UX II connector plug with cable properly.

## 【Connector Insertion Method】

### 1 . How to Hold the Cable Connector

Hold the cable of connector as shown in Fig.1. (Do not hold the connector as shown in Fig.2.)

Such connector handling can give damages to cable by applying excessive force.)

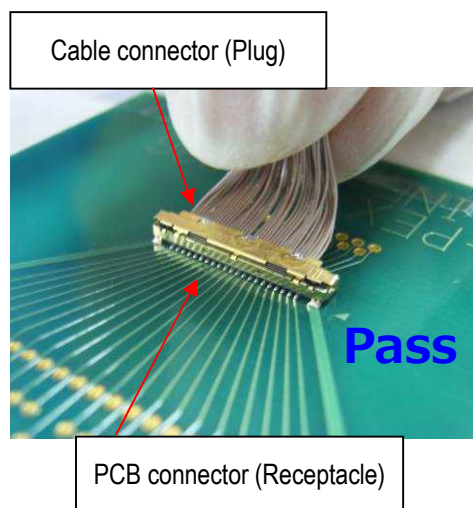
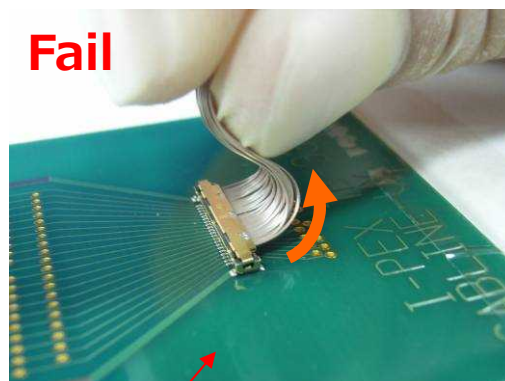


Fig. 1



Fail: Excessive force will be applied to cable and damage it.

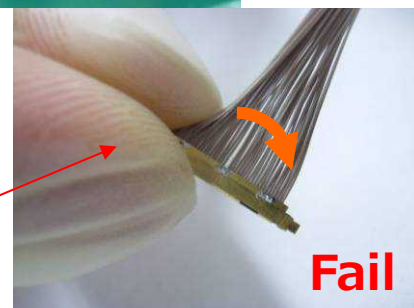


Fig. 2

### 2 . How to Set the Cable Connector

As shown in Fig.3 and 4, Cable connector should be inserted into PCB connector so that the cable locates on the opposite side of datum pin of the PCB connector.

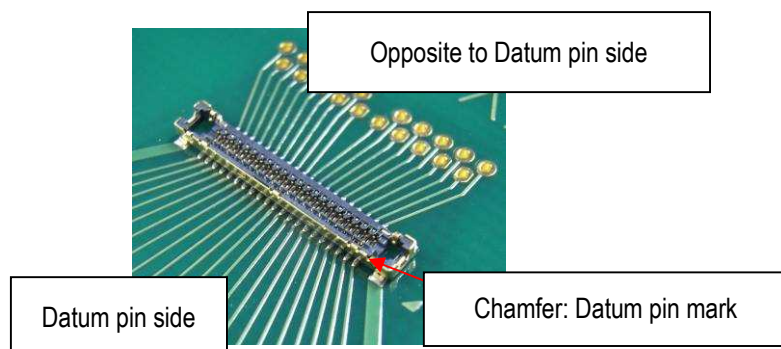


Fig. 3 Receptacle

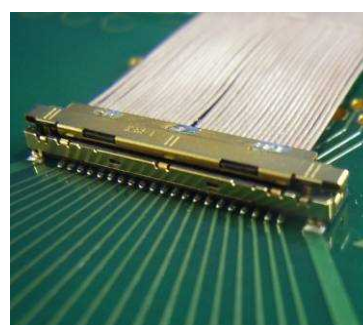


Fig. 4 Correct Connector Mating View

How to Set the Connector

Insert tentatively Mating mark of the Metal Cover matched to the Receptacle Shell spring.  
(\*Insert straight from this condition, both ends are guided at a time.)

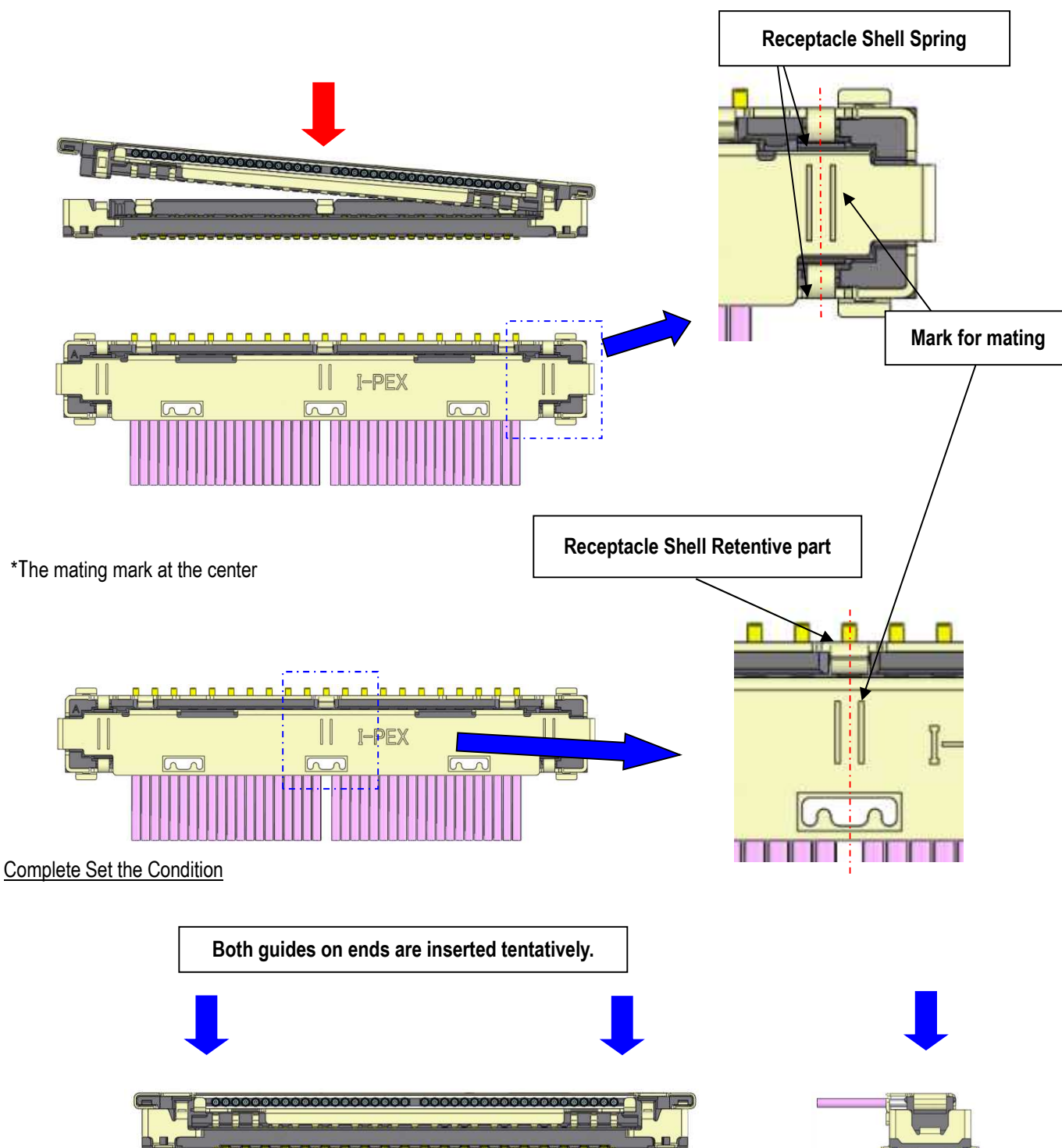


Fig. 5 How to Set the Connector

## 3. How to Mate

As shown in Fig.6, push both ends of plug vertically with nail until plug surface became level with receptacle.

If not leveled, please push the floating point with nail until plug surface became level with receptacle.

**Do not push near the center of plug with finger cushion. (Fig.7.)**

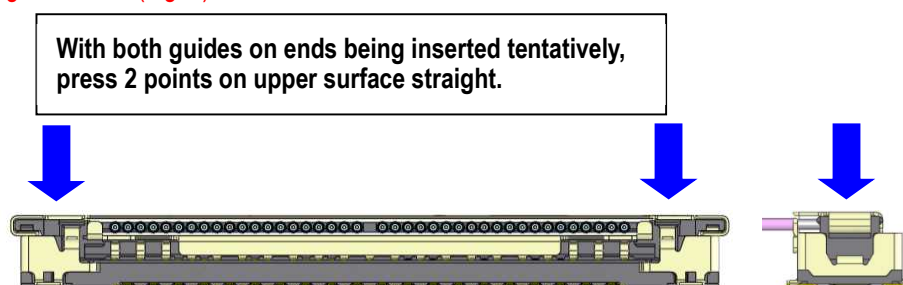
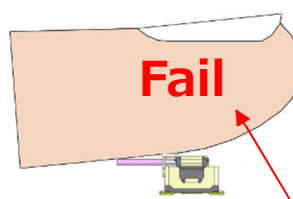


Fig.6 Normal Mating Situation



**Posture is not steady when pushing in the plug with finger cushion.**

Fig. 7 Fail : Abnormal Mating Situation

**Acceptable angle at start**

**Pressing straight from upper side, the posture becomes stable by guide function of connector.**

**DO NOT insert forcibly from oblique direction.**

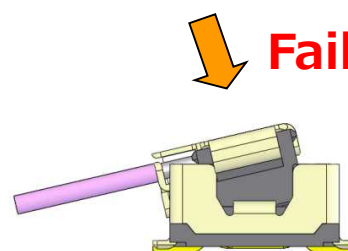
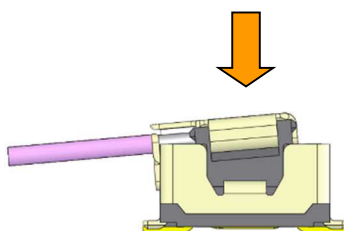
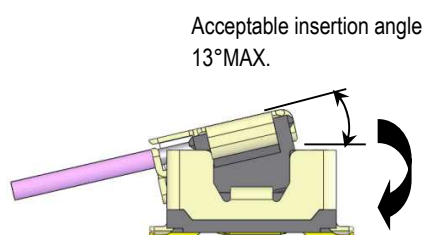
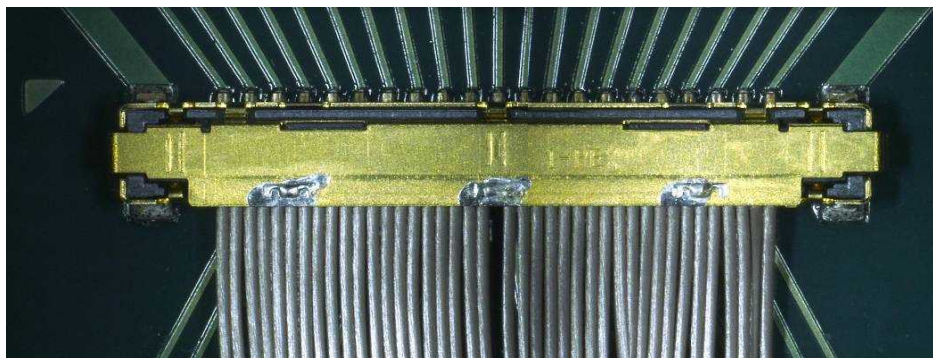


Fig. 8 Cautions in Mating

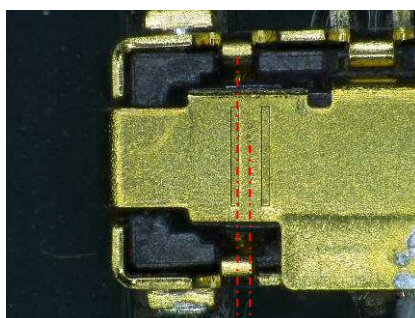
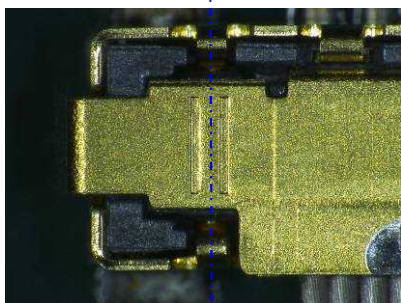


### Mating Situation Confirmation

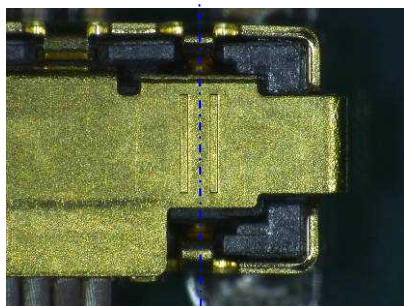


Mating Situation

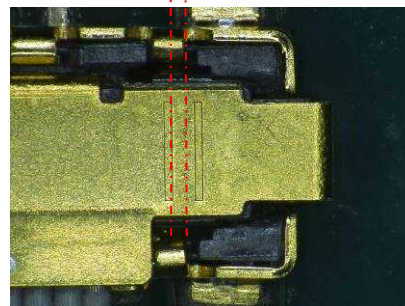
### Pitch Direction



Gap

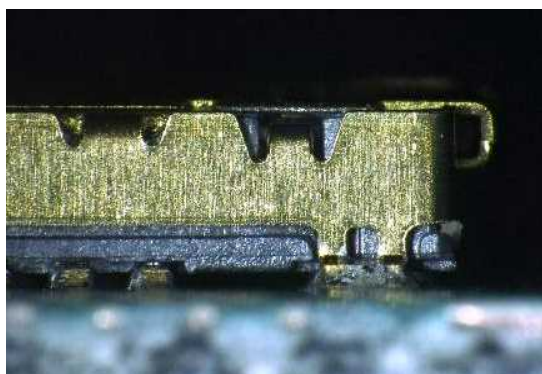


Normal Mating Situation

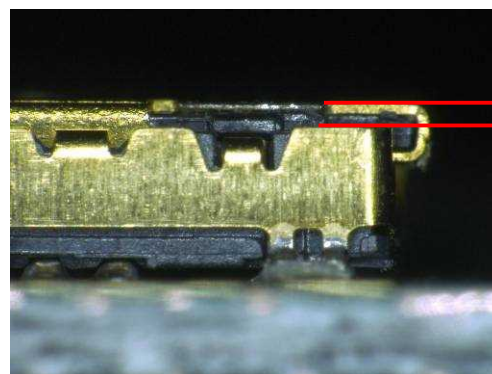


Fail : Abnormal Mating Situation

### Height Direction



Normal Mating Situation



Gap

Fail : Abnormal Mating Situation

**One Side Mate**

- For acceptable insertion angles of the plug connector, see Fig. 9.

Do not press the plug connector too strongly if the insertion angle exceeds the acceptable range.

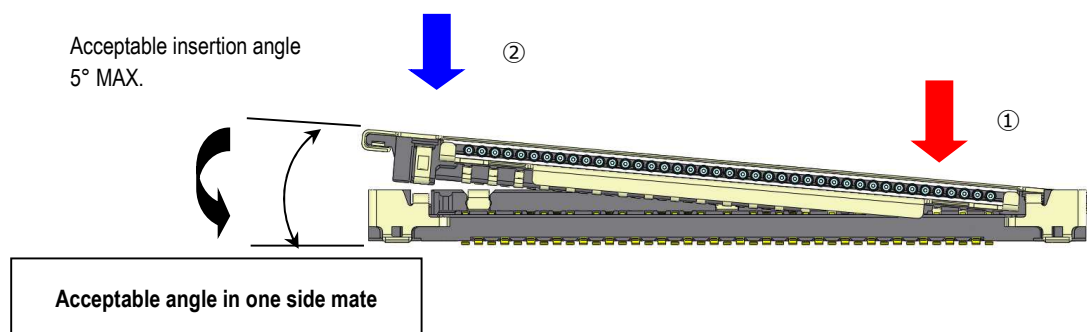


Fig. 9 Cautions in One Side Mating (Acceptable Insertion Angle)



Fig. 10 Complete Mating Condition

**CAUTION**

- Under the PCB, a support shall be set in order to prevent PCB's bend when a plug connector is pressed for insertion.
- When you mate the cable connector with jig, please press whole upper surface of connector with the load below (Table. 1).

Table. 1 Mating Load

Pos.	Load (N)	Upper Area (mm <sup>2</sup> )
30P	26.4~50.0N	20.1
34P	27.6~50.0N	21.8
40P	29.4~50.0N	24.4
50P	32.4~50.0N	28.7

**【Withdrawal JIG】**

When withdrawing, to avoid excessive stress to cable connection points, using the special jig as shown in Fig.12 is recommended. The cable connector has hooks designed for this "withdrawal jig". (see Fig.11)

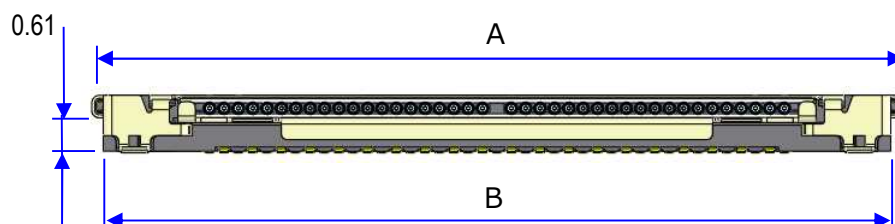


Fig. 11 Hook Positions for Withdrawal JIG

Table. 2

Pos.	A	B
30P	11.6	11.2
34P	12.6	12.2
40P	14.1	13.7
50P	16.6	16.2

## 【Withdrawal Jig for One Side Un-mate】

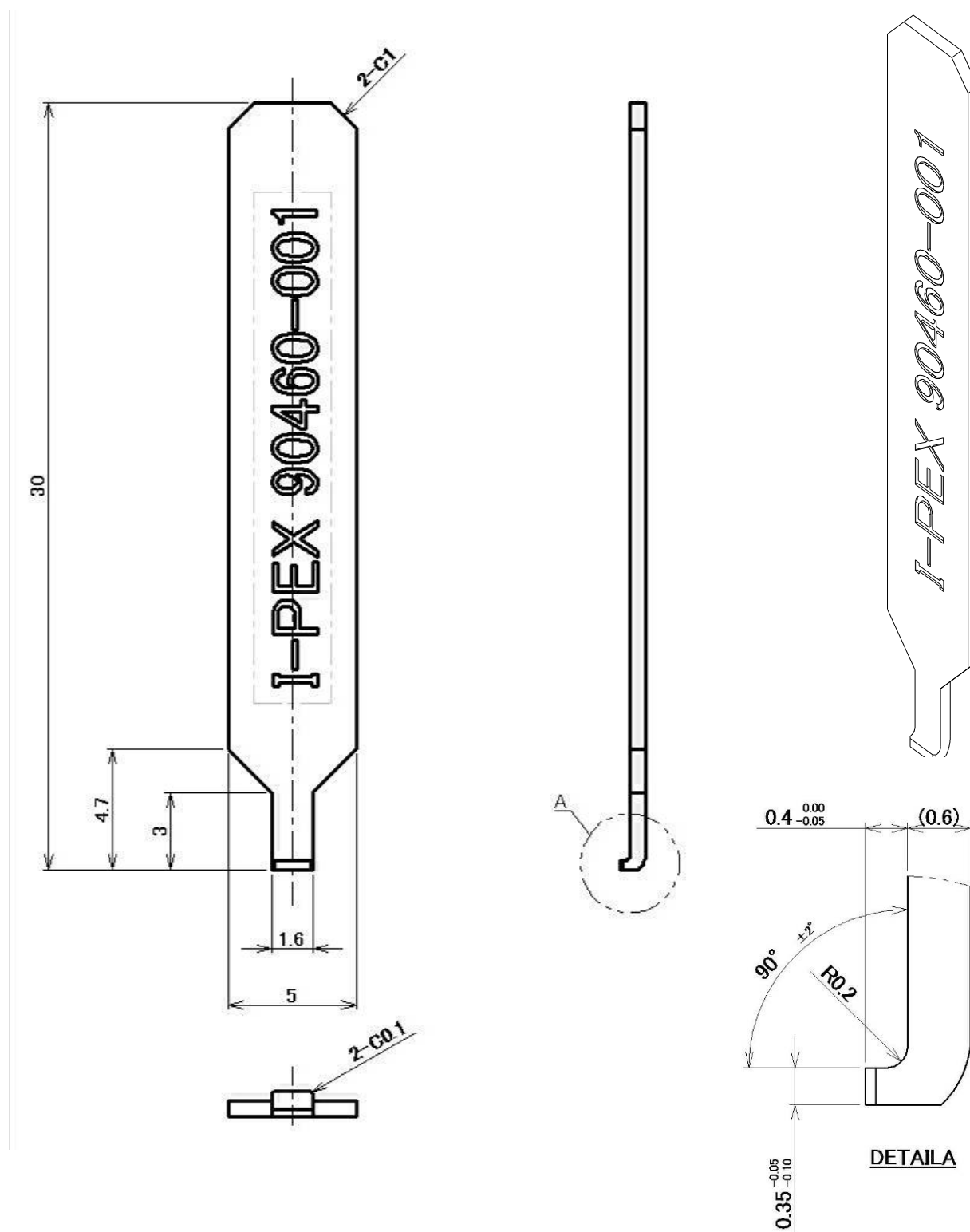


Fig. 12 Withdrawal Jig (P/N:90460-001)

**【Method of Withdrawing Plug Connectors】****(1) Step 1**

- ① Slide the "Withdrawal JIG" from the connector side of the plug connector in parallel with PCB and set it to the plug connector.  
(See Fig.13a)
- ② Lift the "Withdrawal JIG" vertically from the PCB surface so that one side of the connector becomes lifted.  
(See Fig.13b)

**(2) Step 2 (If the lock of opposite side does not become released)**

- ③ In the same way of ①, slide the "Withdrawal JIG" from the opposite side of the plug connector and set it to the cable connector.  
(See Fig.13c)
- ④ In the same way of ②, lift the "Withdrawal JIG" vertically from the PCB surface so that the side becomes lifted.  
(see Fig.13c)

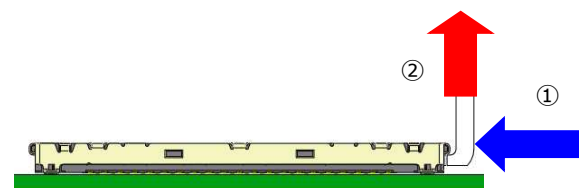
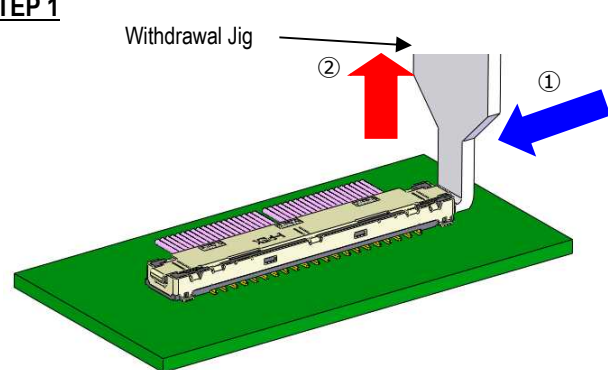
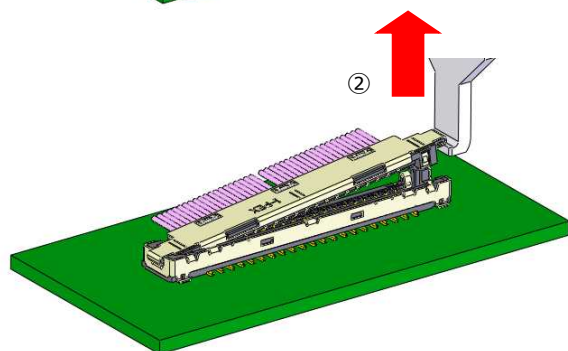
**STEP 1**

Fig.13 a



After one lock is released, withdraw the other side in the same way.



**DO NOT** lift one side too high or un-mate by only one side. Also, **DO NOT** hold the other end in withdrawing.

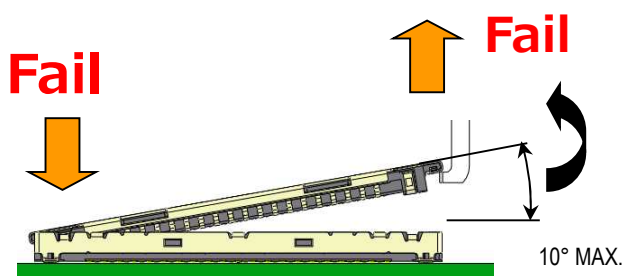


Fig.13 b

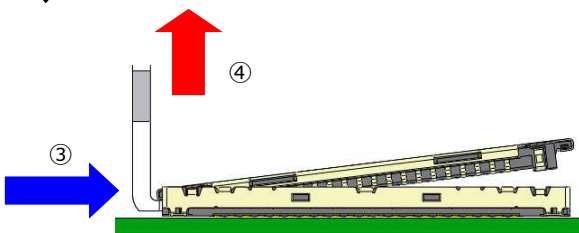
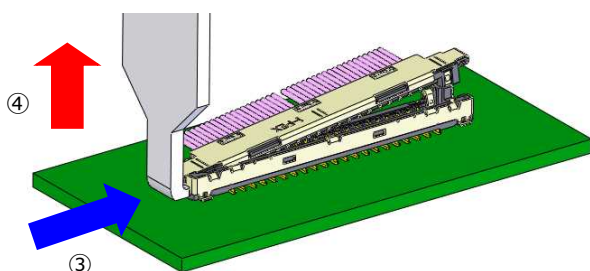
**STEP 2**

Fig.13 c



### 【Caution in Cable Connector Handling】

- Do not pull up the cable to withdraw the plug connector as shown in Fig. 14.
- “Withdrawal JIG” must be lifted vertically from PCB surface.
- Do not hold the plug connector during withdrawal of the plug connector.
- In case you have to withdraw the plug connector without JIG, please use your nail as JIG and withdraw the connector in accordance with the method using “Withdrawal JIG”.

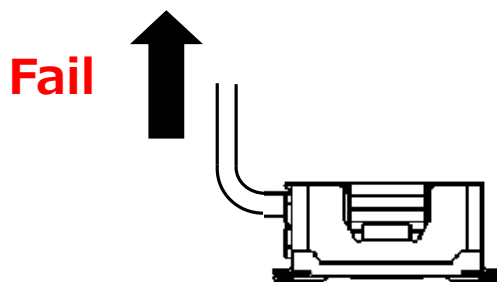


Fig. 14

- In cable harnessing work, be careful NOT to apply the pulling force to specific cables.
- Be careful NOT to apply the pulling force or repeated bending force to the cable attachment part of a cable connector.

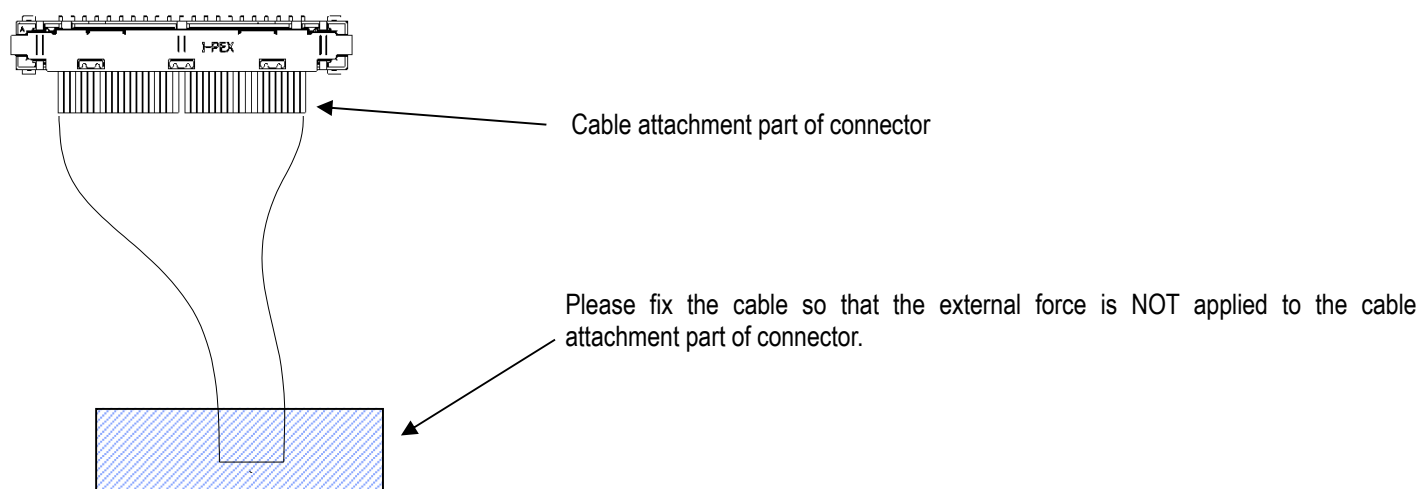


Fig. 15

- Continuous force of the direction shown in black arrow in Fig.16 can damage connectors or cause the coming off from receptacle connector. Please be careful NOT to apply such force.

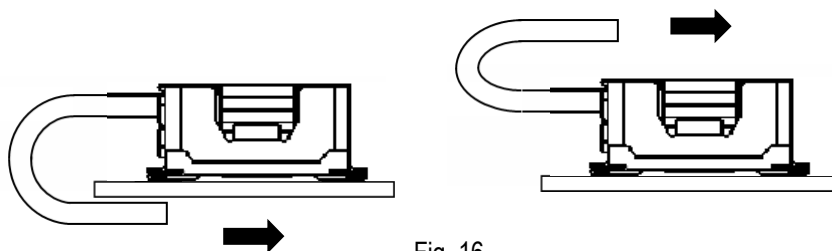


Fig. 16

- For the load to prevent the coming off of mated plug connector (the load which a stopper can apply), please see the condition below and press whole upper surface of the connector.

Press load : 0.5N / Pin MAX.

Table 3 Press Load

Pos.	Load (N)	Upper Area (mm <sup>2</sup> )
30P	15.0N MAX	20.1
34P	17.0N MAX	21.8
40P	20.0N MAX	24.4
50P	25.0N MAX	28.7

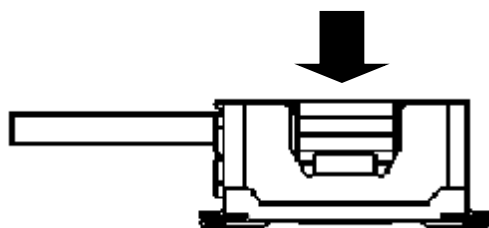
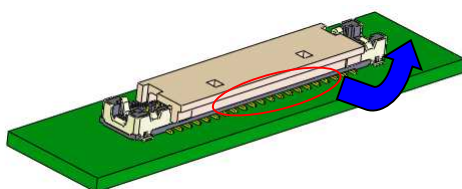
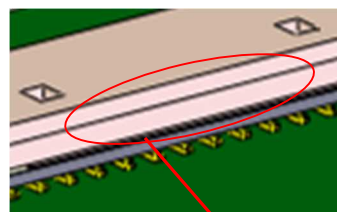


Fig. 17 Press Load for Mated Connector

- As shown in fig.18, pull up to different in level of Vacuum Clip.



Please pull up to difference in level of Vacuum Clip.



Difference in level of Vacuum Clip

Fig. 18 How to Take off Vacuum Clip

### 【Cautions and Methods in Opening and Closing the Package】

**\* There is possibility to cause damage to products. Please pay attention.**

- ① Unfold the folded AIR BUBBLE SHEET at the top.



- ② Pull up AIR BUBBLE SHEET to take out from the carton.

Hold the carton by one hand.



- ③ How to Take Out from the Carton



**Pass**

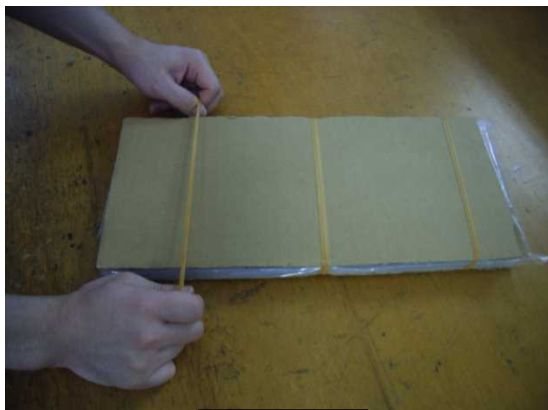
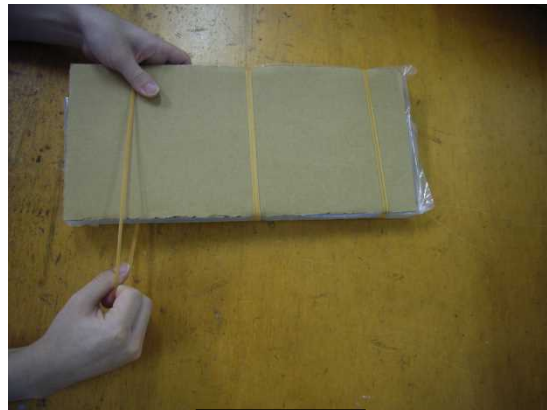


**Fail**

\*When opening the package, please pay attention not to apply load in the tray-thickness-direction.

\*When returning the tray into the carton, please return the cushioning material to the original condition.

## ④ How to Remove the Rubber Band

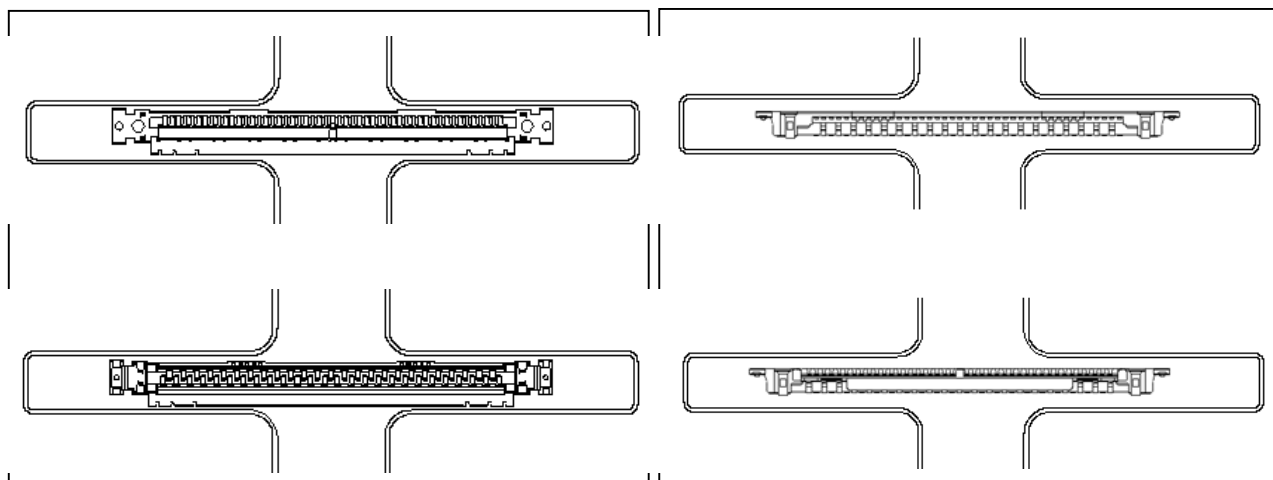
**Pass****Fail**

\*When opening the package, please pay attention not to apply shock to products by rubber band.

Cautions in Closing the Package

When piling a tray on another tray, please check the direction of the products in the lower tray.

(Please check they are correctly packed in pockets.)

**Pass****Fail**