

CABLINE®-CA IIF PLUS

Part No. 20901-060T-01

Assembly Manual

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Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Purpose

This manual explains how to assemble FPC to CABLINE-CA IIF PLUS connector.

2. Connector Name and Part Number

Name: CABLINE-CA IIF PLUS plug shell assembly

Parts Number: 20901-060T-01

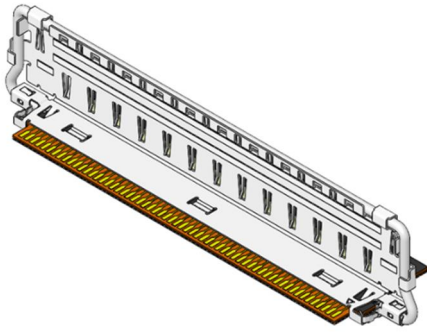


Fig 1. Opened Shell Assembly with FPC

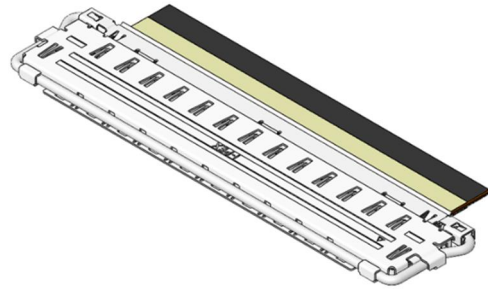


Fig 2. Closed Shell Assembly with FPC

3. Connector Delivery Package

Carrier cut shell assemblies are delivered in a tray.



Photo. 1. Shell Assemblies in Tray

4. How to Assemble the FPC into the Shell Assembly

4-1. Ensure that the lock bar assembly is opened.

Then, position the FPC with its signal conductive side facing upward and horizontally insert into the shell.

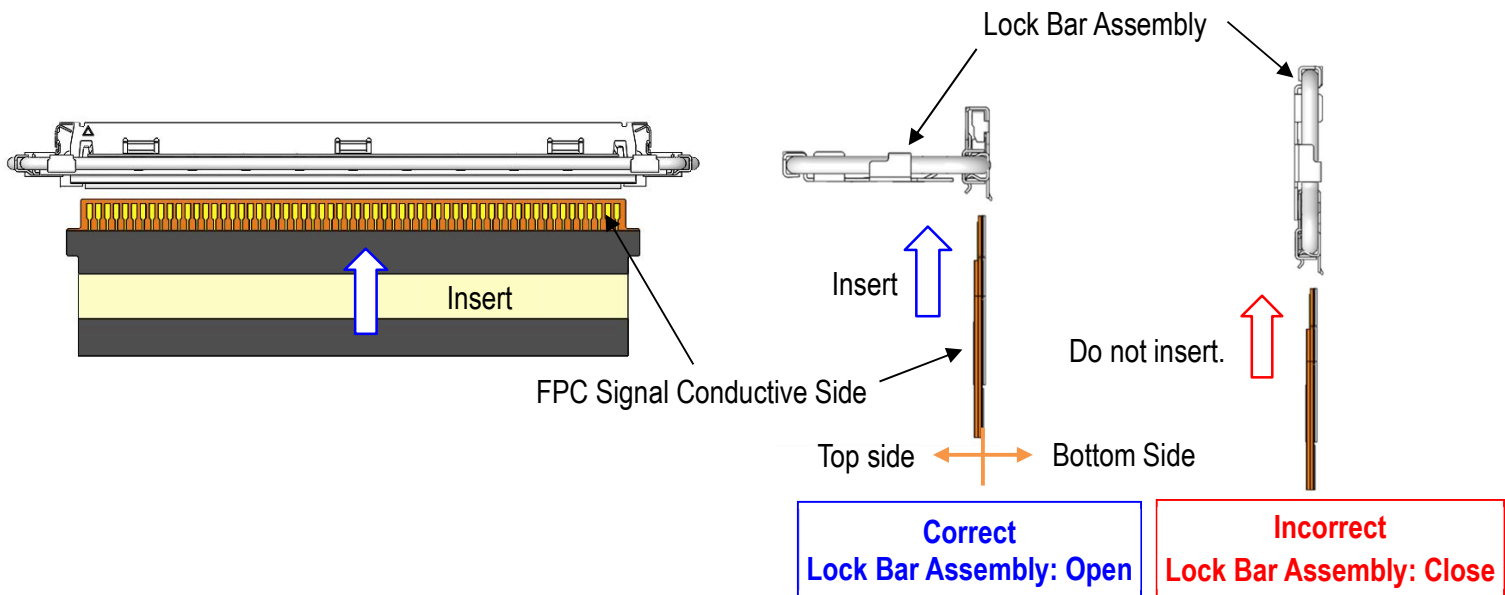


Fig. 3 FPC and Lock Bar Assembly Positions

Caution 1

Do not insert the FPC with the lock bar assembly closed.

Inserting the FPC with the lock bar assembly closed may cause the interference between the FPC and the lock bar assembly.

It may damage products and result in improper assembly.

Do not insert the FPC with the ground conductive side facing upward.

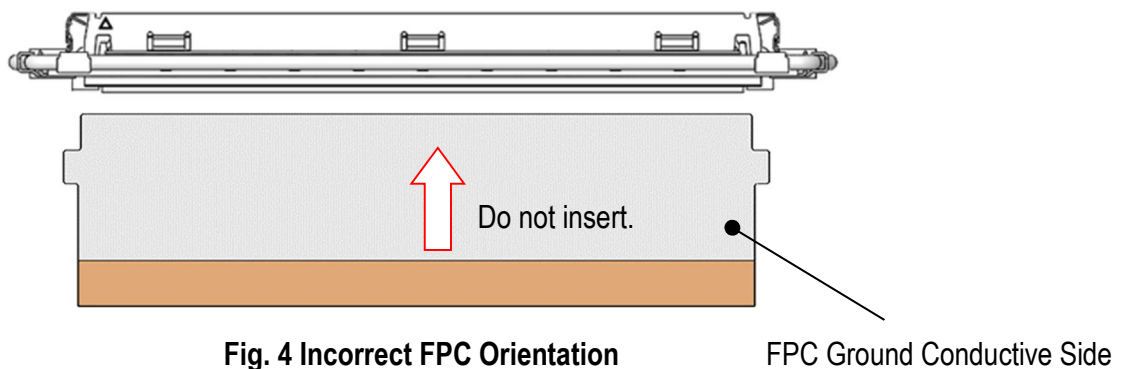


Fig. 4 Incorrect FPC Orientation

4-2. Pre-insert the FPC until its tabs contact the shell locks to ensure the correct insert position, then insert the FPC horizontally along the bottom side of the shell.

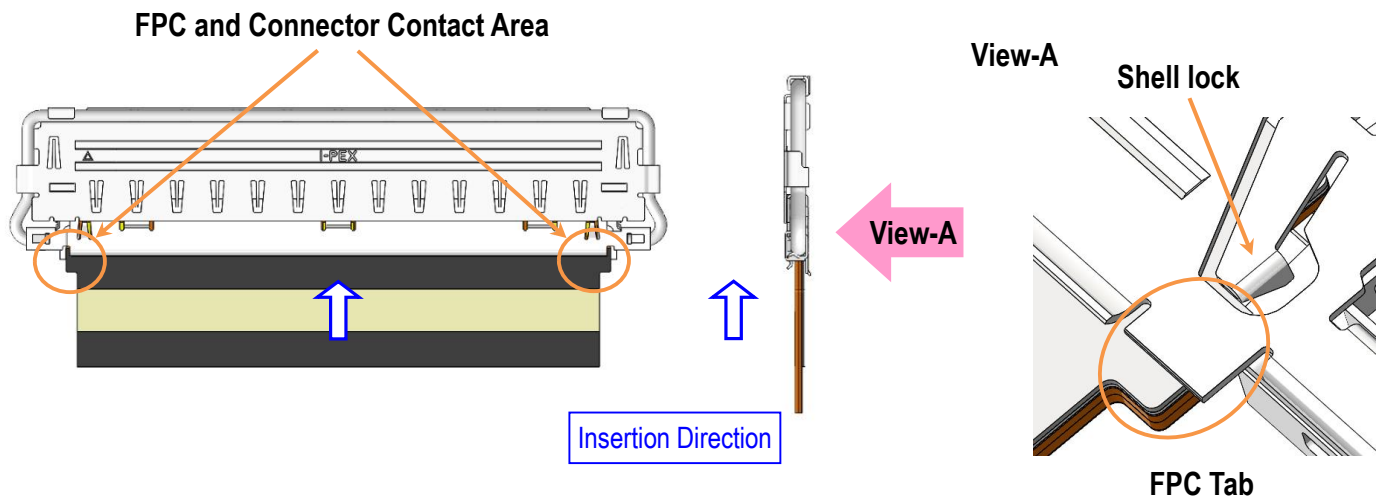


Fig. 5 FPC Insertion

Caution 2

Do not insert the FPC at an angle as it may result in the FPC deformation or damage.



Fig. 6 Incorrect FPC Insertion

4-3. After inserting the FPC, ensure that the shell spring is correctly positioned as indicated below.

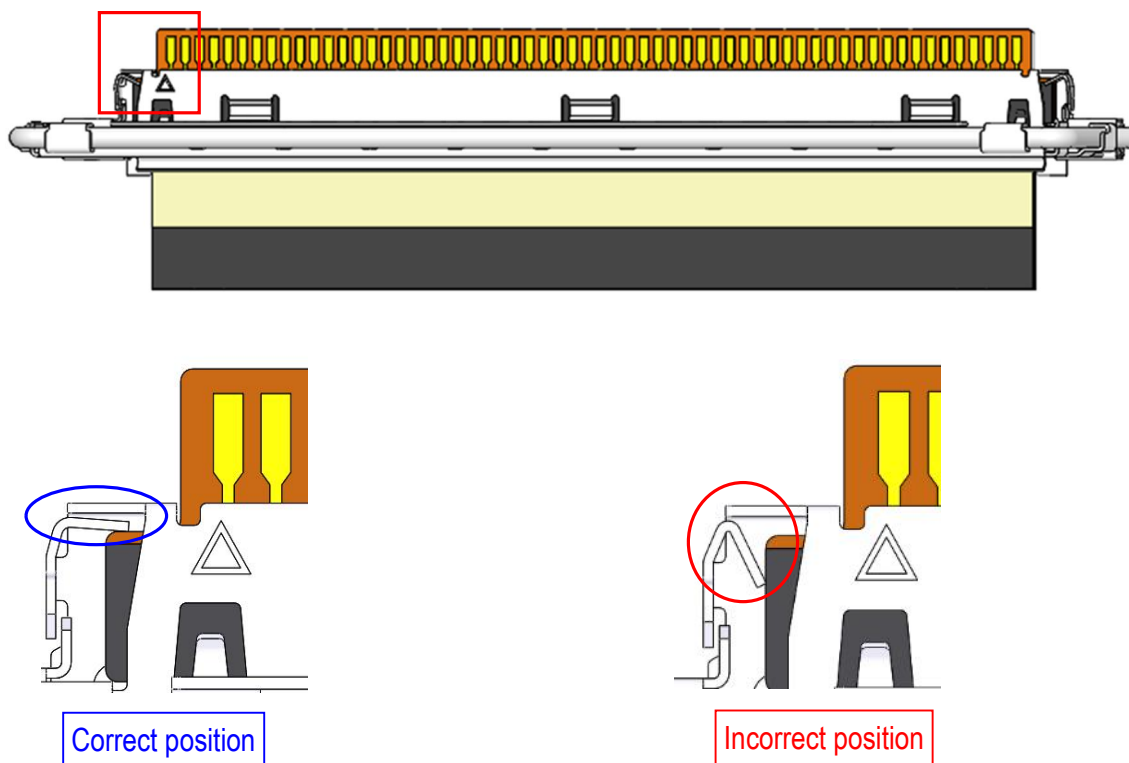
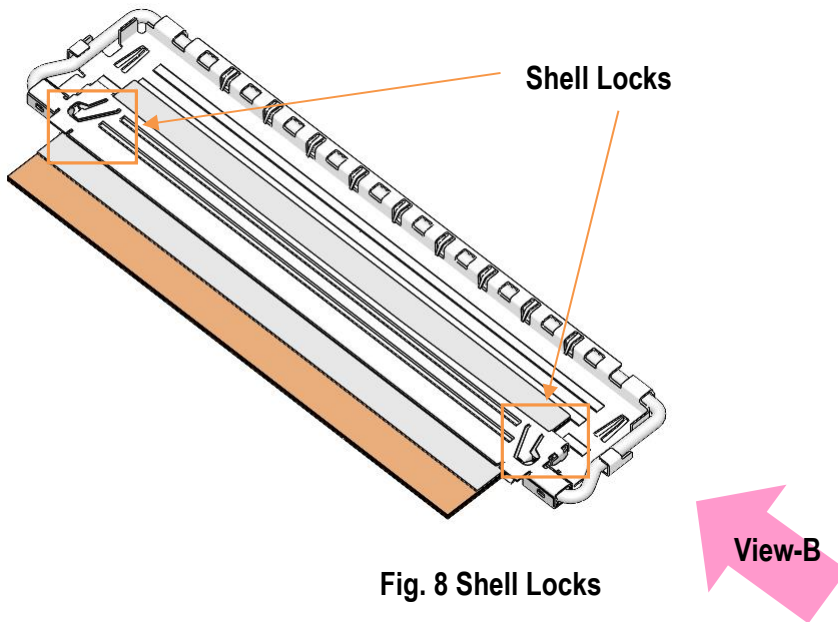
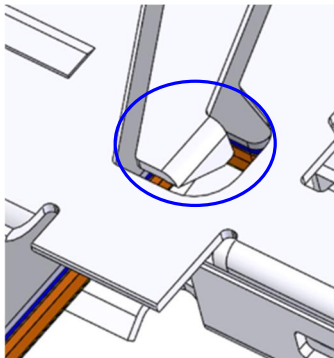


Fig. 7 Shell Spring Position

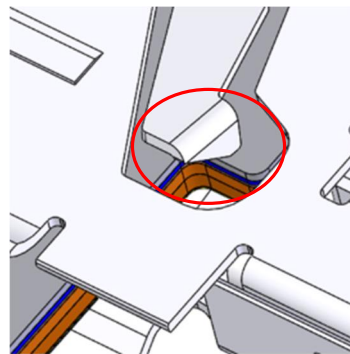
4-4. Ensure that both shell locks are locking FPC properly.



Enlarged View of Shell Lock



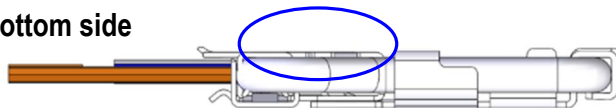
Locked



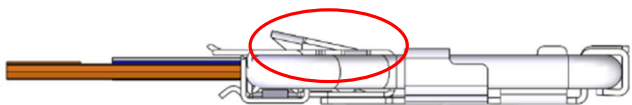
Unlocked

View-B

Bottom side



Locked



Unlocked

Fig. 9 Shell Lock Details

5. Soldering FPC and Shell

FPC Preparation:

Ensure that the solderable areas on both the top and bottom surfaces of the FPC are ready for soldering.
Refer to the product drawing for FPC details.

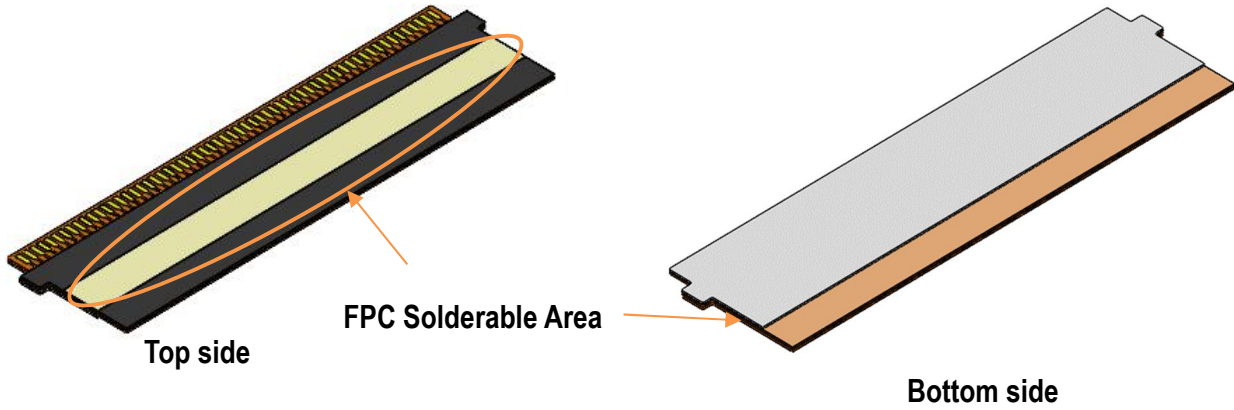


Fig. 10 FPC Soldering Area

Holding Jig Setup:

Prepare a holding jig to secure the connector shell's top and bottom surfaces during soldering to prevent warping.

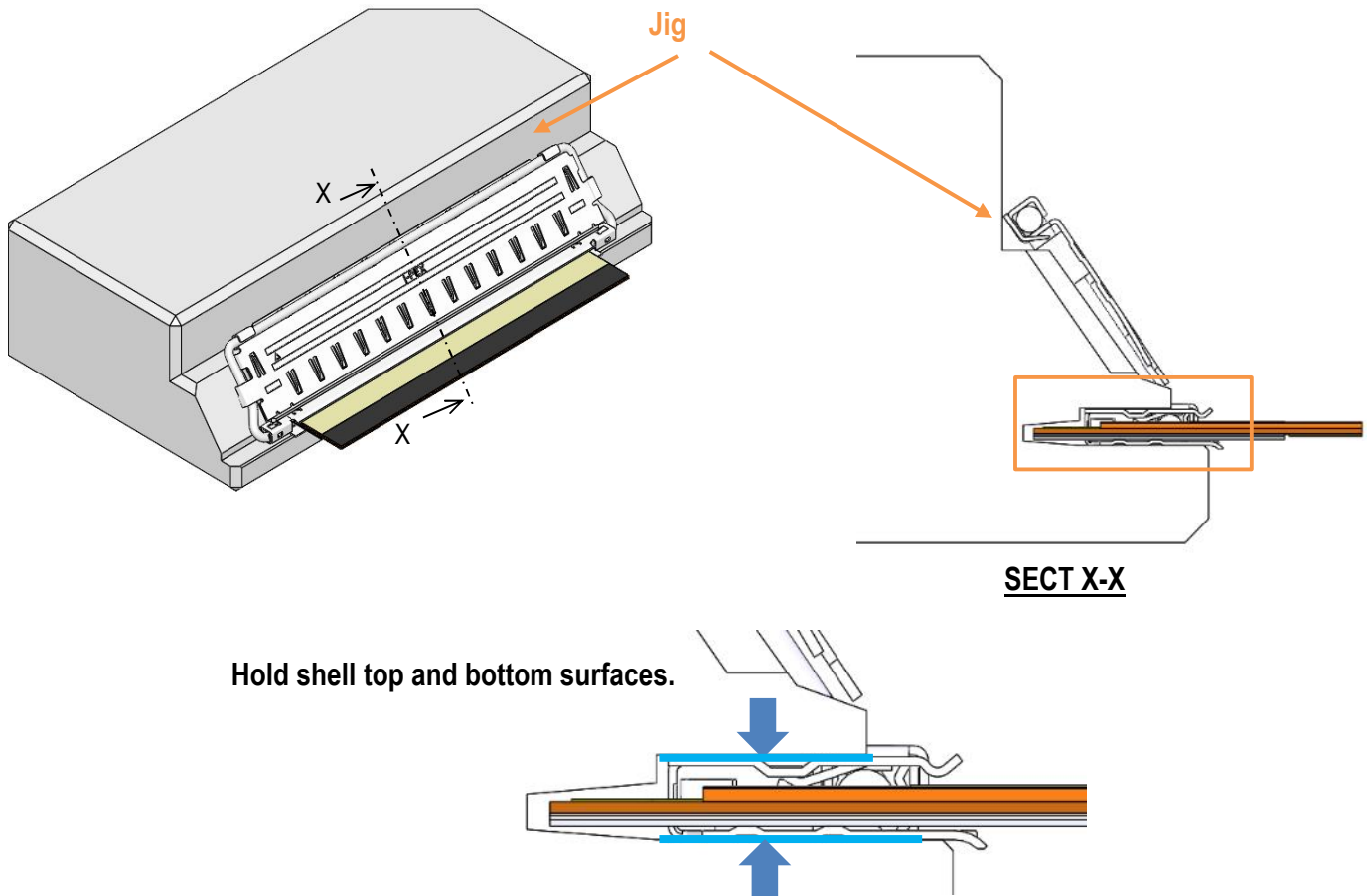
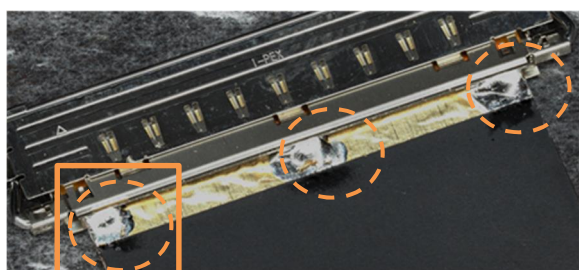
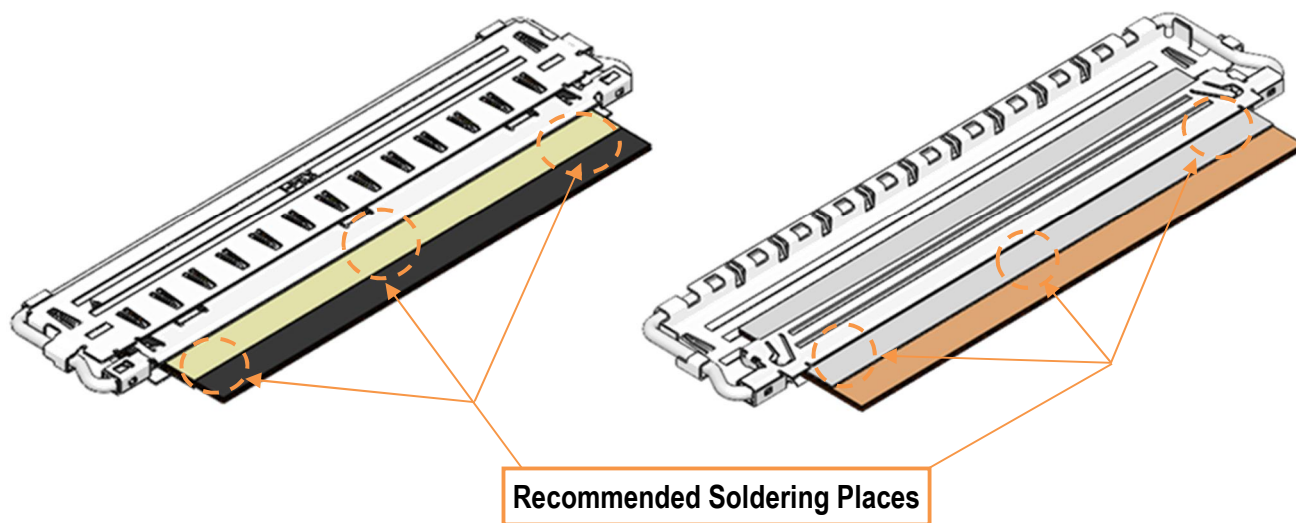
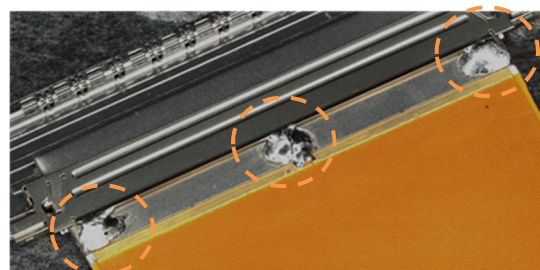


Fig. 11 Jig Example

5-1. Solder the FPC and the shell. I-PEX recommends soldering at three places on the top and bottom surfaces.



Top side

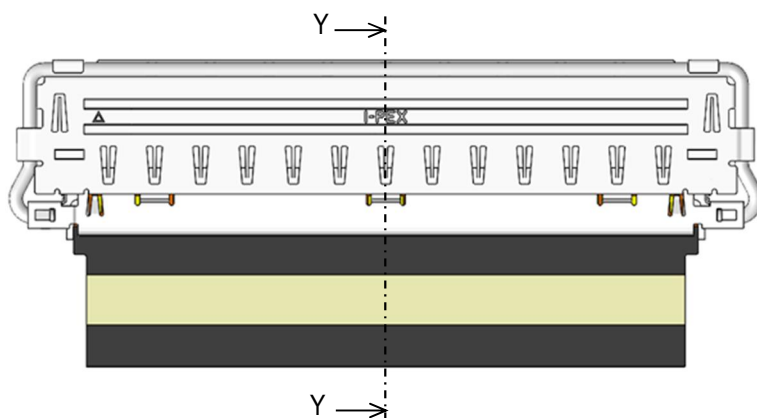


Bottom side

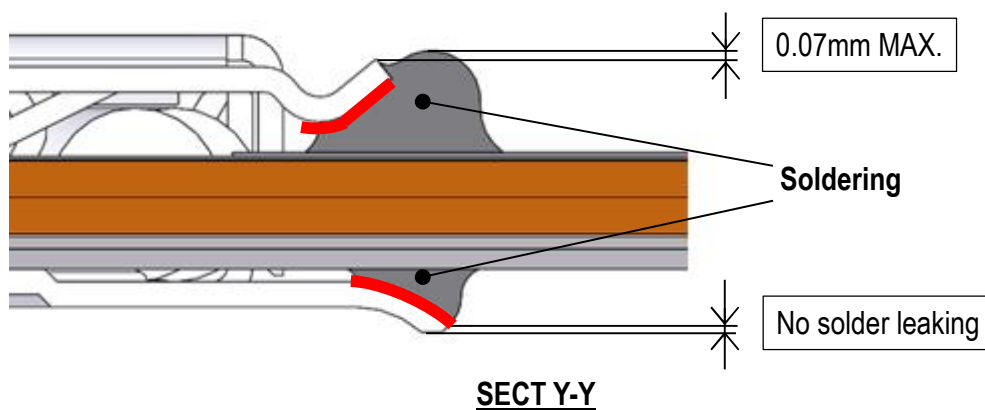


Fig. 12 FPC Soldering Examples

5-2. Solder the area indicated by the red line with the appropriate amount of solder to connect the FPC to the shell.



Sufficient solder amount



Insufficient soldering amount

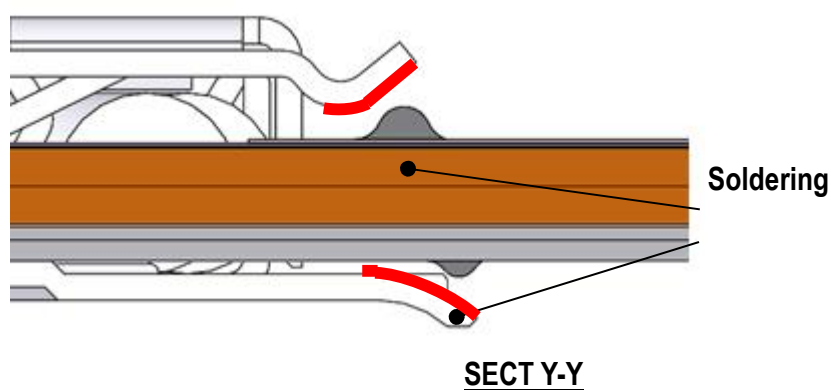


Fig. 13 Solder Amount

Cautions 3

The shell is thin and may warp during the FPC insertion.

Hold the shell top and bottom surfaces with a jig before soldering to avoid mating failure.