

CABLINE® -VSF

Part No. 20645-0**T-01, 3049-0**1

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-CAF connector.

2. Applicable Connector

Name/ Parts Number:

CABLINE-VSF plug shell assembly/ 20645-0**T-01

CABLINE-VSF plug shell / 3049-0**1

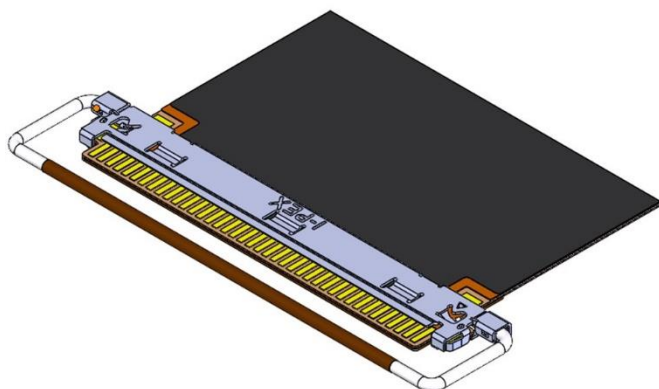


Fig 1. Plug shell assembly with FPC

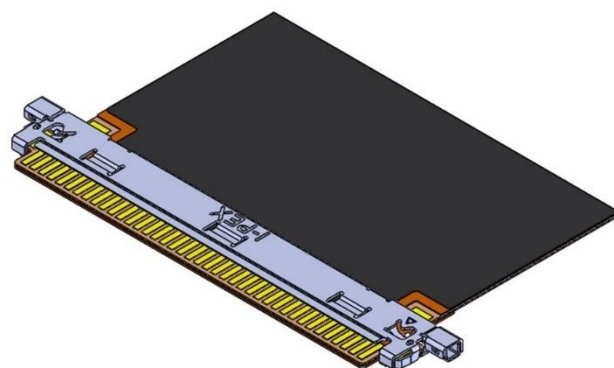


Fig 2. Plug shell with FPC

3. Connector Delivery Package

• Plug shell assembly

Carrier cut shell assemblies are delivered in a tray.



Photo 1. Shell assemblies in Tray

• Plug shell

Plug shell are delivered in the reel with a carrier.



Photo 2. Shell with carrier (part of reel)

4. How to Assemble the FPC into the Shell Assembly

• Plug shell only *Preparation to FPC assembly process

4-1. Cut the carrier to each pieces using a scissors for metal.

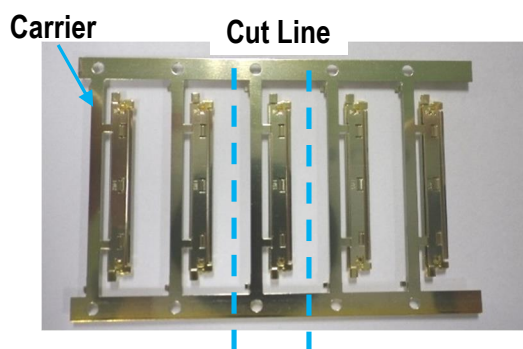
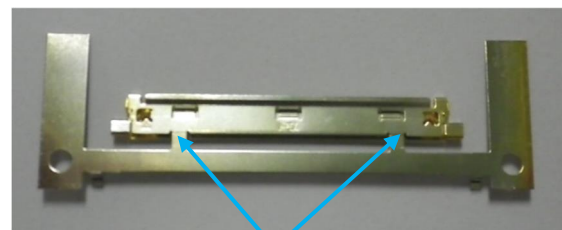


Photo 3. Before cut



Notch

Photo 4. After cut

4-2. Hold the center of shell and bend the up and down within 45 degrees range to separate it from the Notch section.

If it does not separate from carrier, repeat bending motion until it separates.

After separation, verify that it is no burr on the Notch removal section.

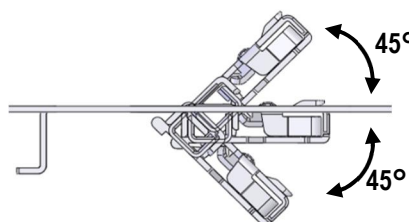
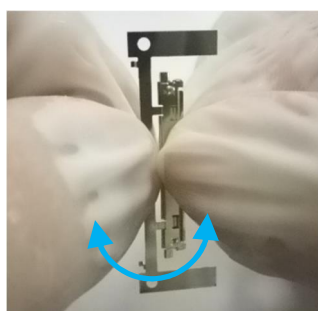


Photo 5. Cut condition

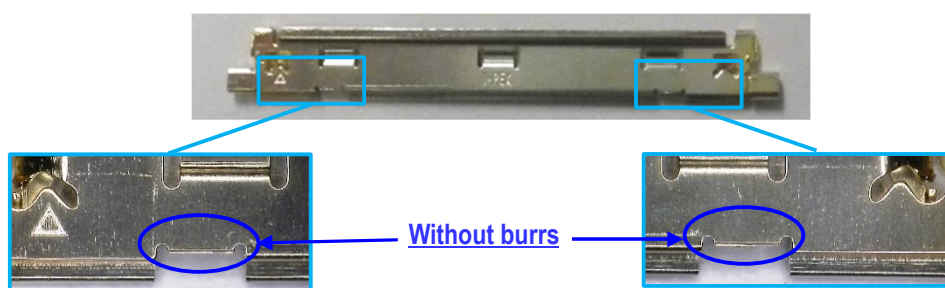


Photo 6. After cut

Caution 1

Do not pull the shell horizontally against the carrier, it may result in the shell burr or deformation.

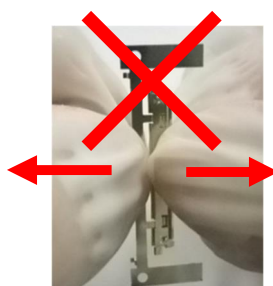


Photo 7. Incorrect plug shell separation

• Plug shell assembly and plug shell *FPC assembly process

4-3. Position the FPC with its signal conductive side facing upward and horizontally insert into the shell.

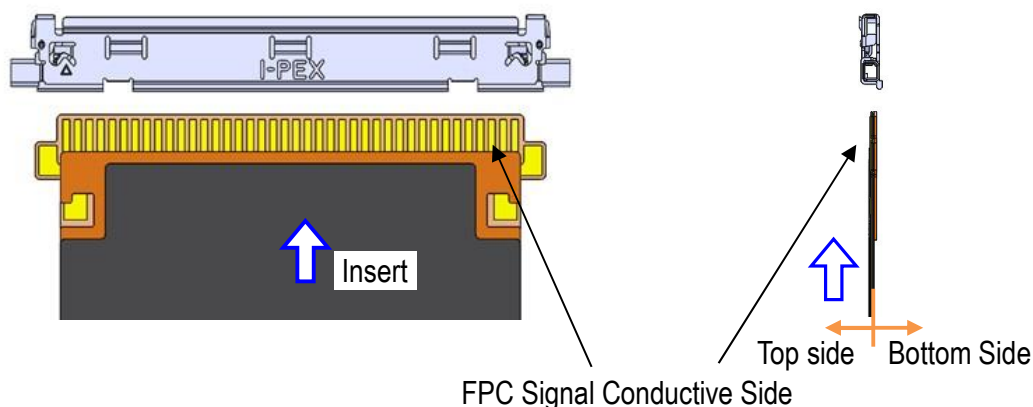


Fig 3. FPC and Shell Positions

Caution 2

Do not insert the FPC with the no conductive side facing upward.

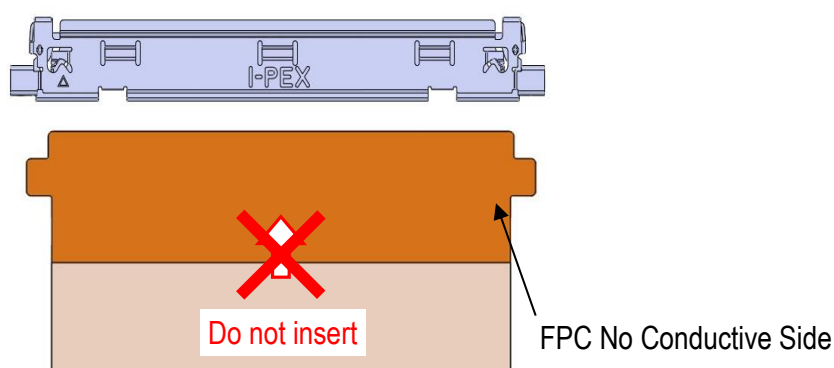


Fig 4. Incorrect FPC Orientation

4-4. 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.

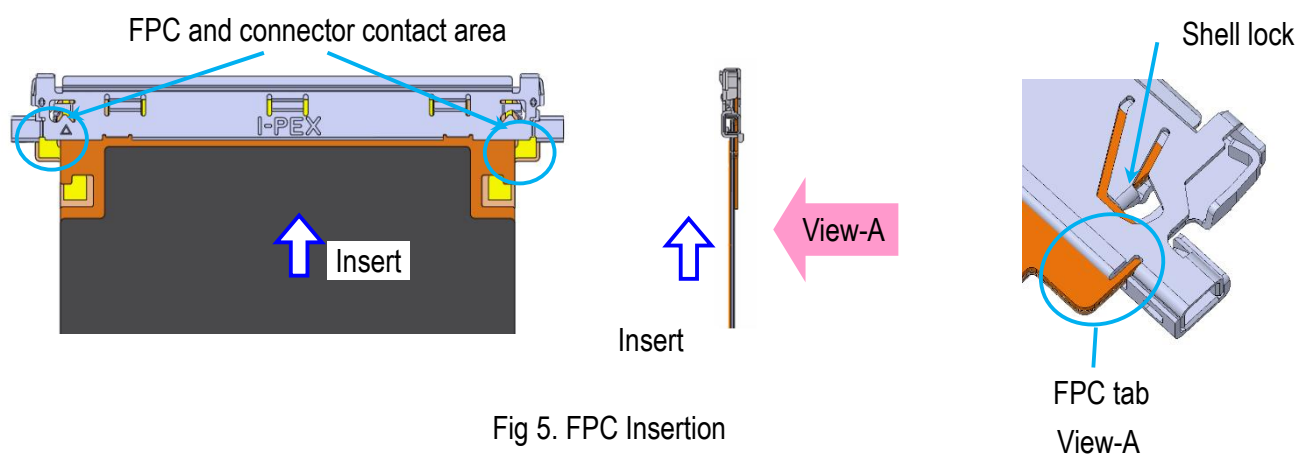


Fig 5. FPC Insertion

Caution 3

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

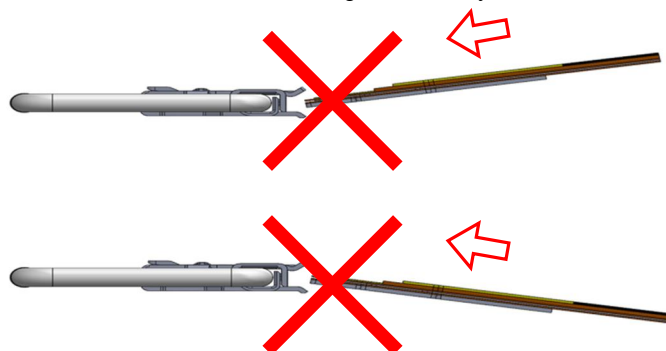
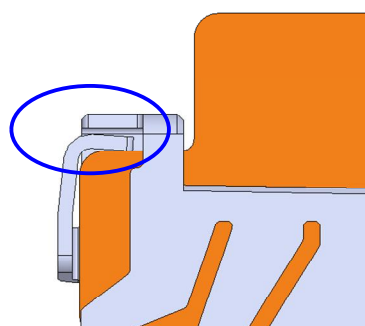
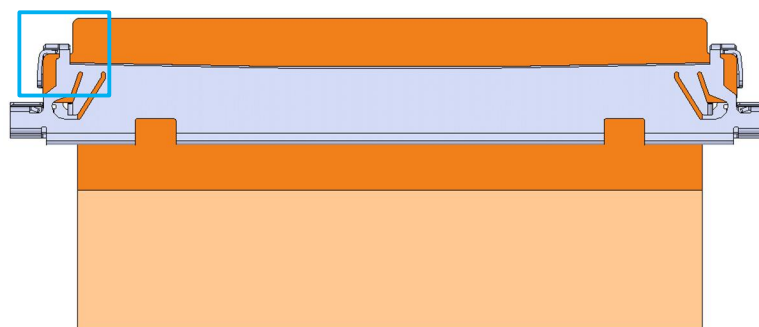


Fig 6. Incorrect FPC Insertion

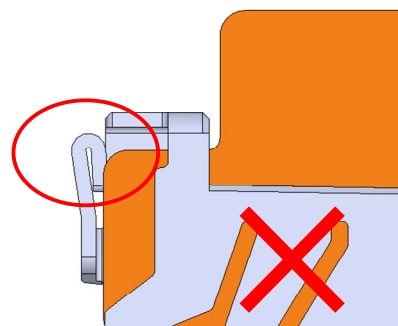


Photo 8. Incorrect FPC condition

4-5. After inserting the FPC, ensure that the shell spring is correctly positioned as indicated below.



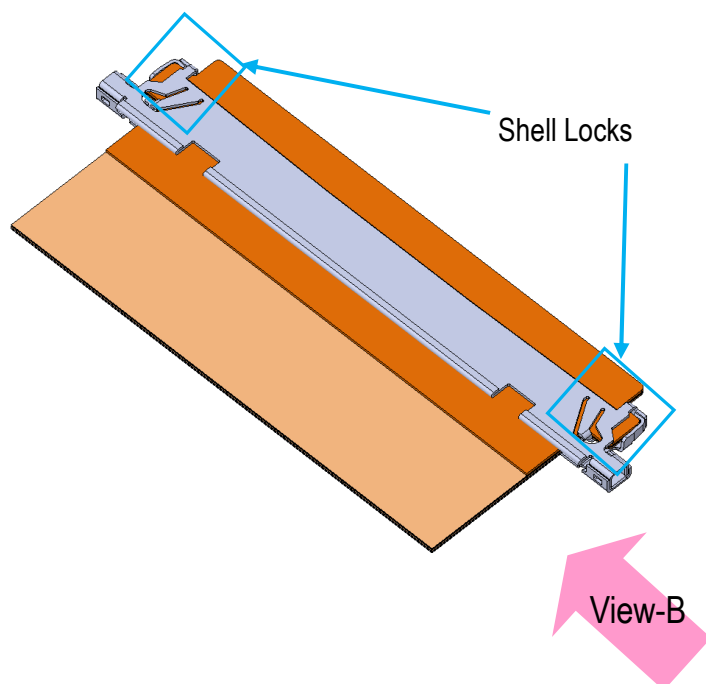
Correct position



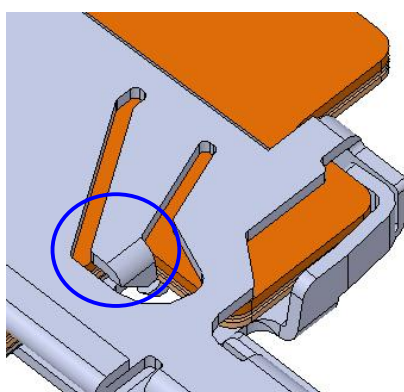
Incorrect position

Fig 7. Shell Spring Position

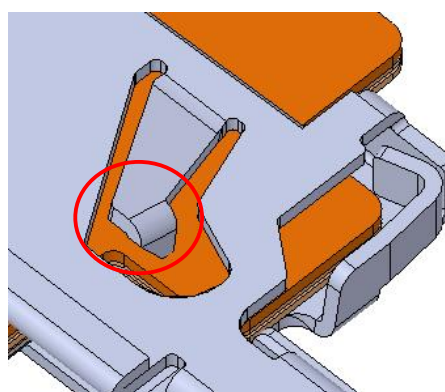
4-6. Ensure that both shell locks are locking FPC properly.



Enlarged View of Shell Lock

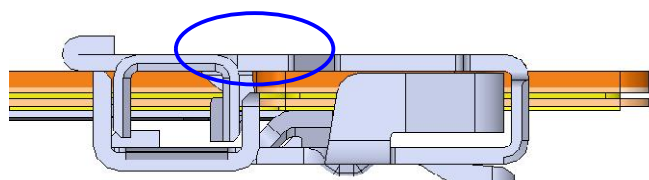


Locked

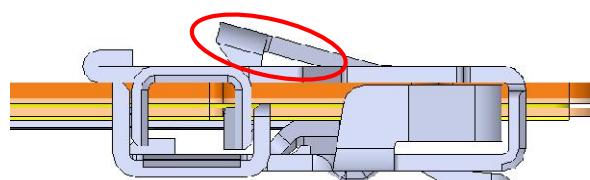


Unlocked

Bottom side



Locked



Unlocked

View-B

Fig 8. Shell Lock Details

5. Soldering FPC and Shell

*FPC soldering is option.

If it need to increase the FPC holding force from plug shell, solder the FPC following process.

FPC Preparation

Ensure that the solderable areas on the top surface of the FPC is ready for soldering.

Refer to the product drawing for FPC details.

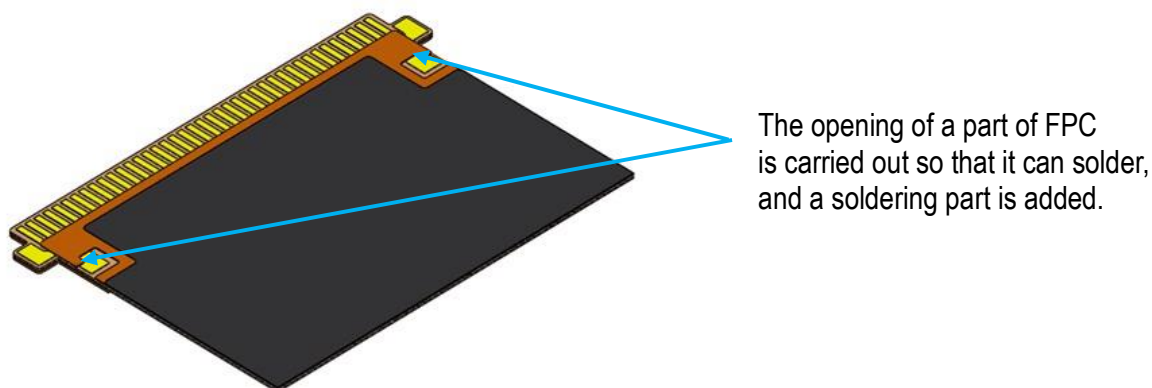
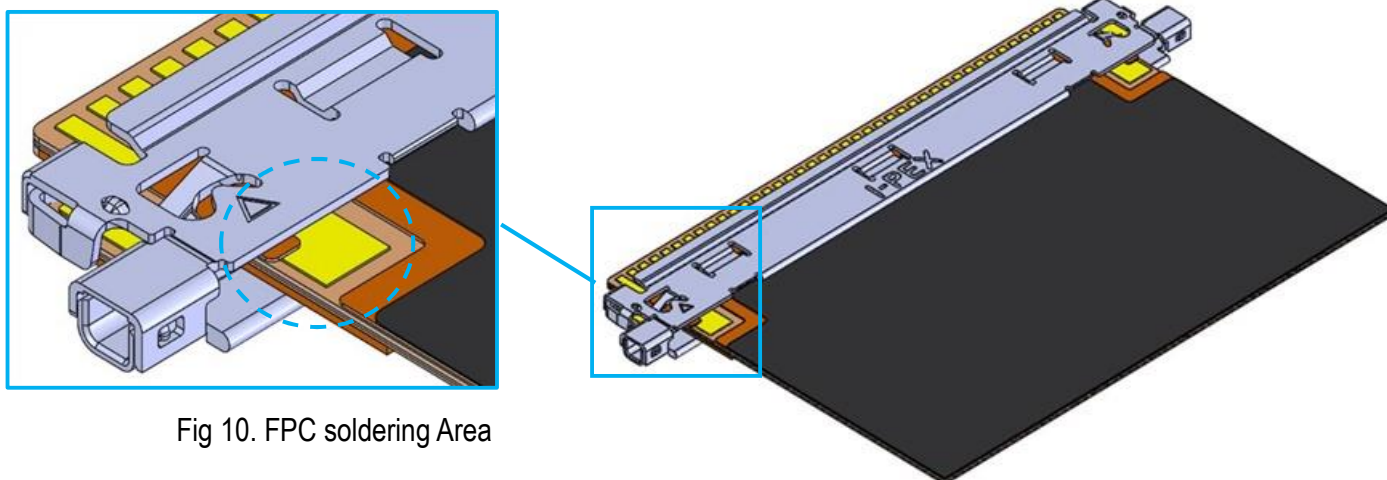


Fig 9. FPC Soldering Area

5-1. Solder the FPC and the shell.

I-PEX recommends soldering at two places on the top surface.



Solder plug shell and FPC.

Photo 9. Soldering example

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

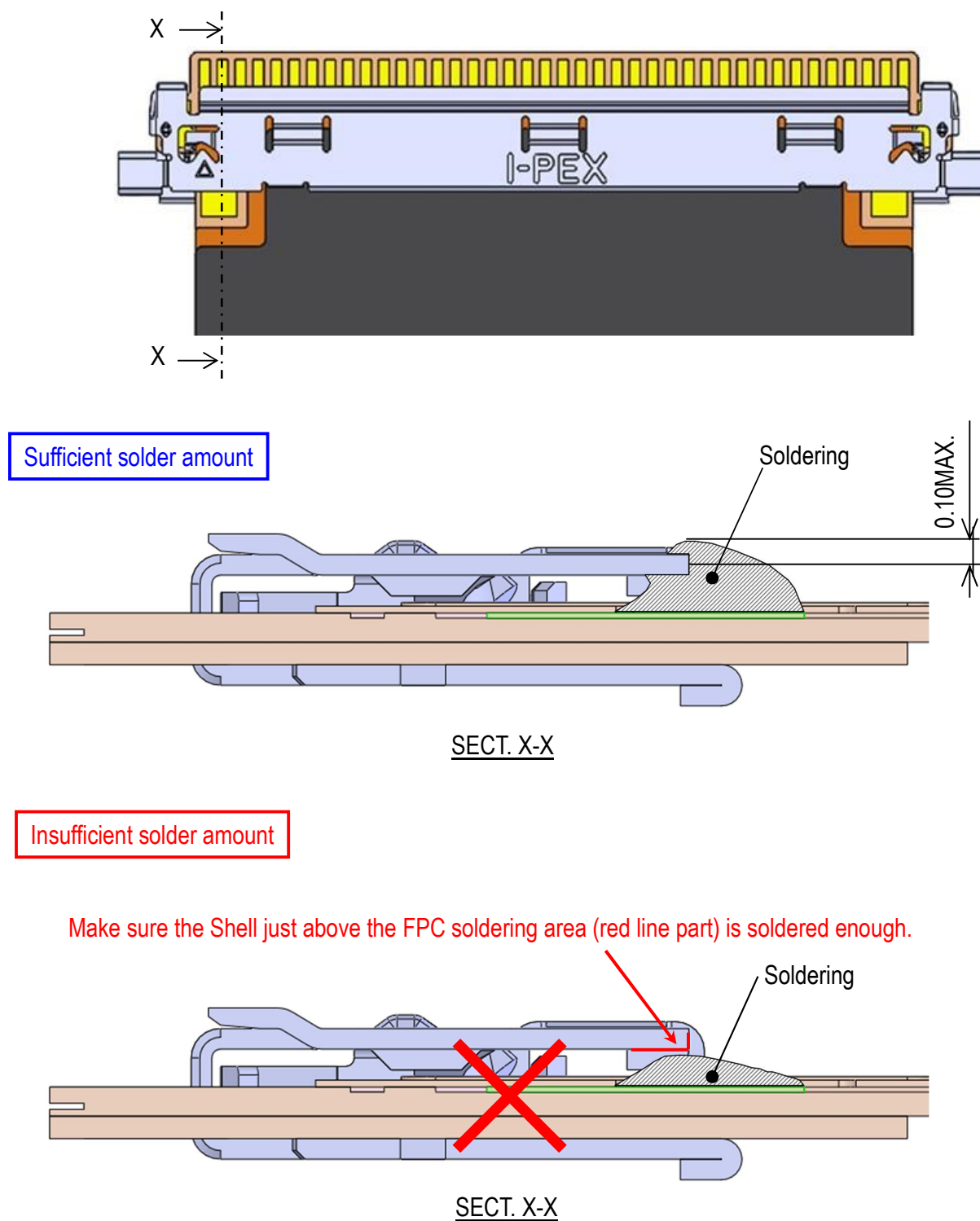


Fig11. Solder amount

Caution 4

Do not open the lock bar sideways or push it toward the shell. Doing so may cause the lock bar to detach.

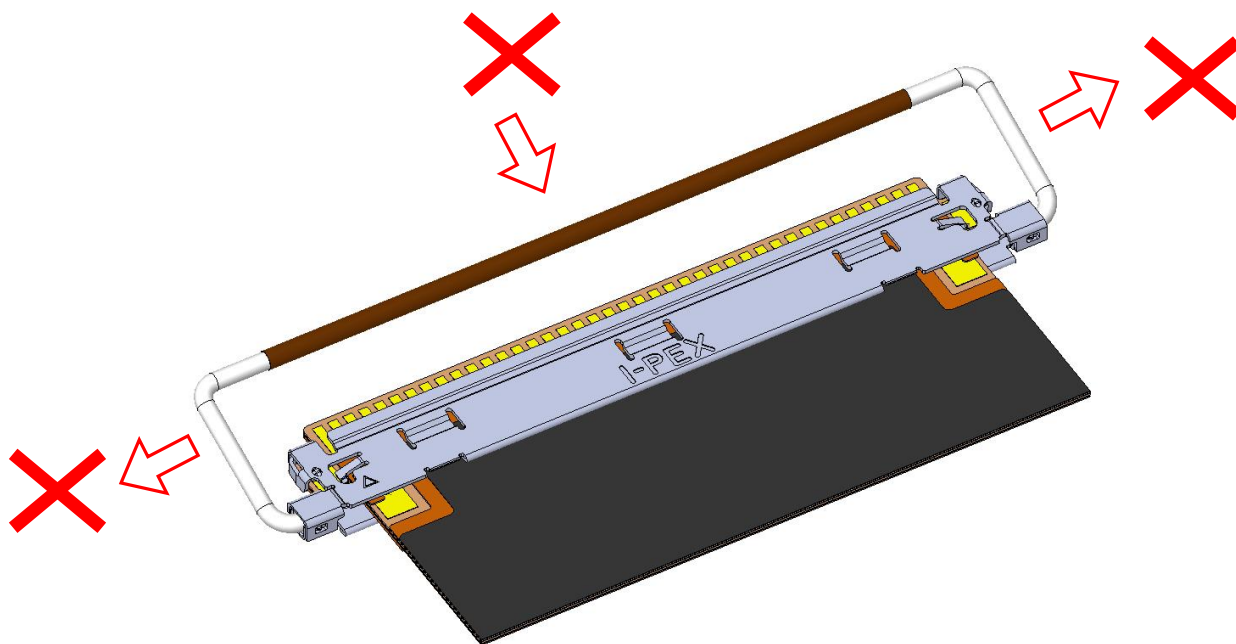


Fig12. Incorrect lock bar handling

Caution 5

Do not reinstall or use the lock bar once it has detached, as it may result in deformation of the lock bar.

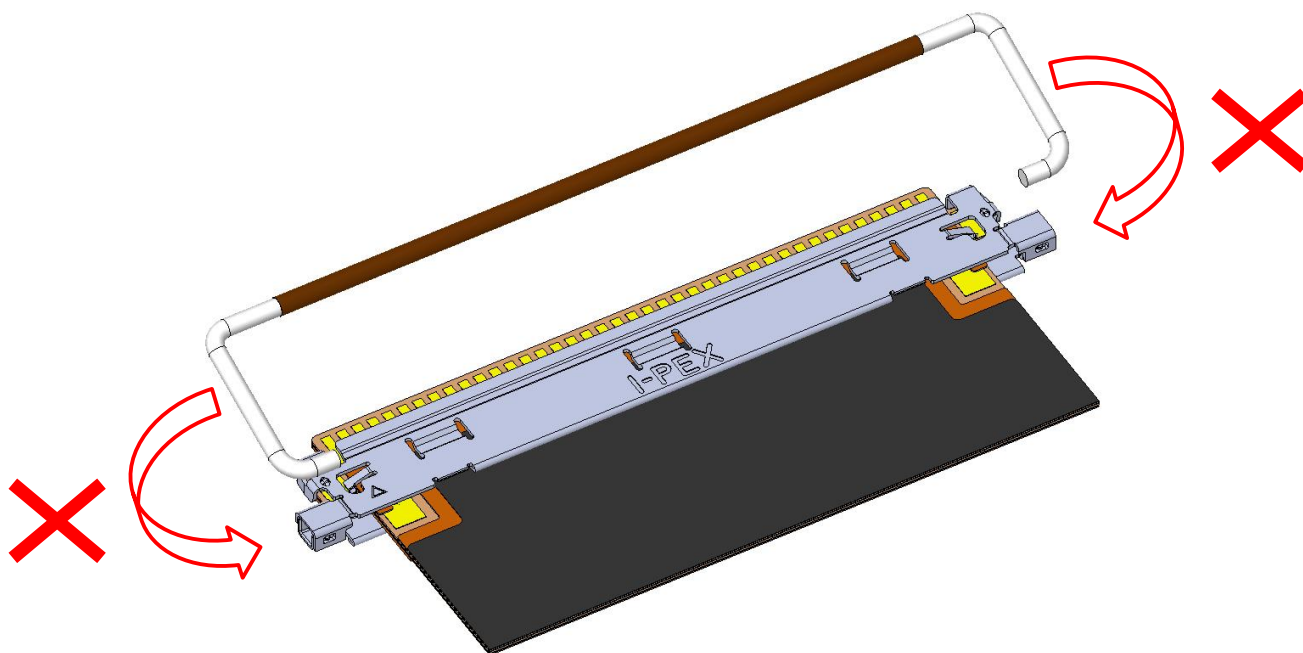


Fig13. Prohibition to reinstall lock bar