CABLINE®-CAL

Part No. PLUG: 20728-0**T-#1, Receptacle: 20729-0**E-##

Instruction Manual

Rev.	ECN	Date	Prepared by	Checked by	Approved by
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4	S21049	February 3, 2021	S.Yamaguchi	T.Tanigawa	H.Ikari
3	S20613	November 25, 2020	T.Tanigawa	T.Kurachi	Y.Shimada
2	S20057	January 24, 2020	S.Yamaguchi	T.Kurachi	H.Ikari

This manual provides the insertion & withdrawal methods and cautions to handle CABLINE-CAL connector properly.

【Connector Name, Part number】

◆The cable side connector

Product Name： CABLINE-CAL Plug

Part No.： 20728-0**T-#1

◆The PCB side connector

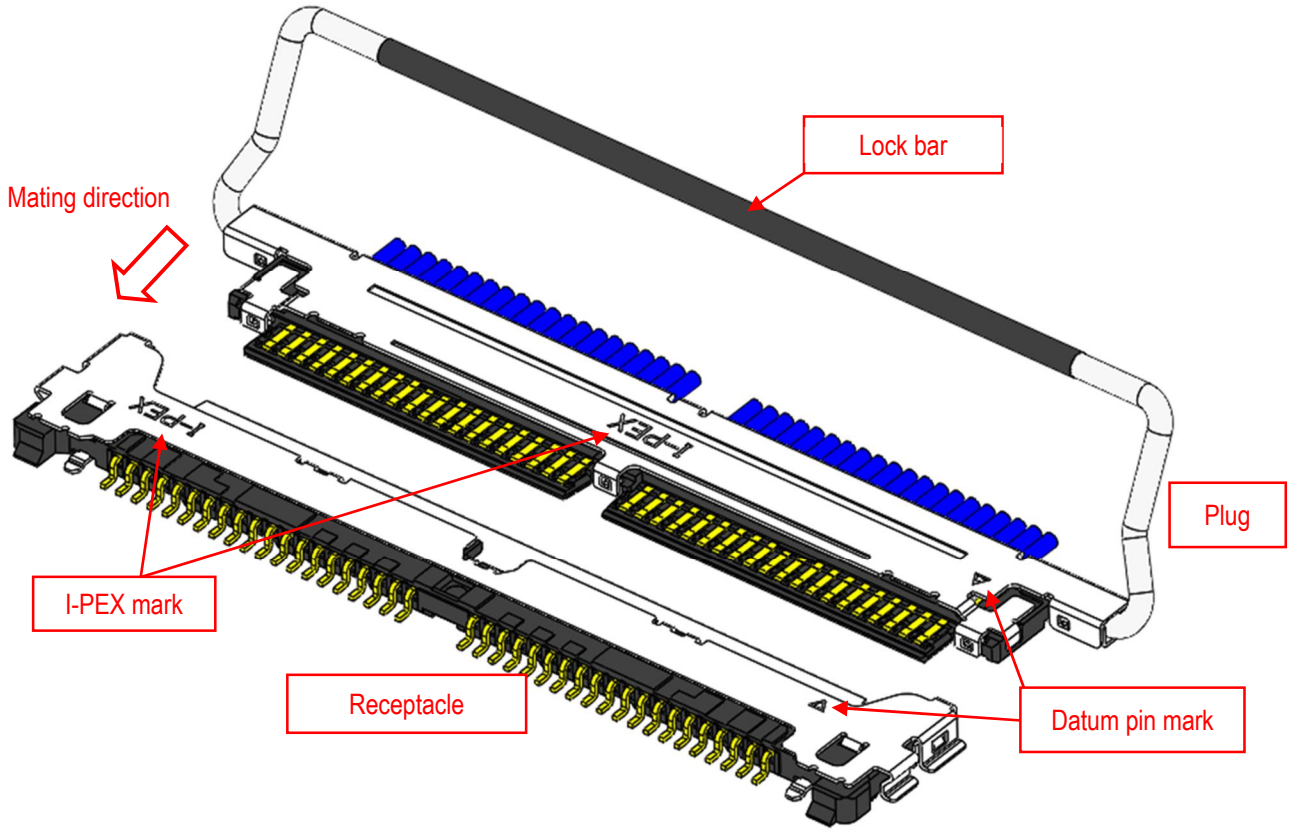
Product Name： CABLINE-CAL Receptacle

Part No.： 20729-0**E-##

" ** " part shows the number of the connector position.

" # " part shows the variation. Please refer to the drawing for details.

【Names of each part of the connector】



【Connector Insertion Method】

① Rotate the lock bar toward the I-PEX mark side of the plug connector. (Fig.1)

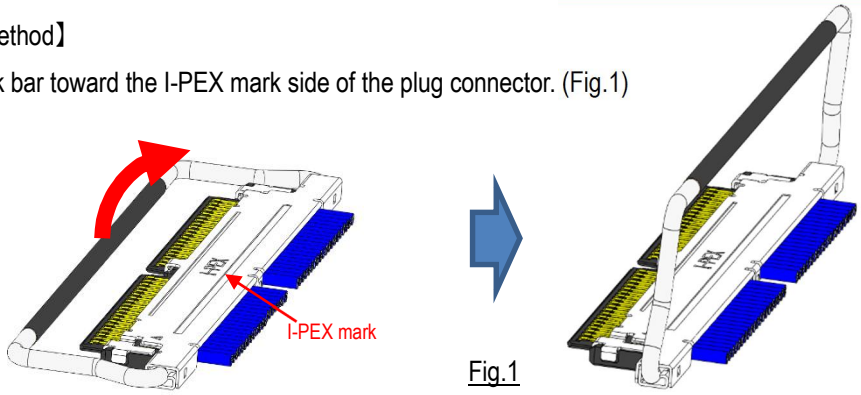


Fig.1

② Set the datum pin mark of the receptacle connector and the plug connector face each other.

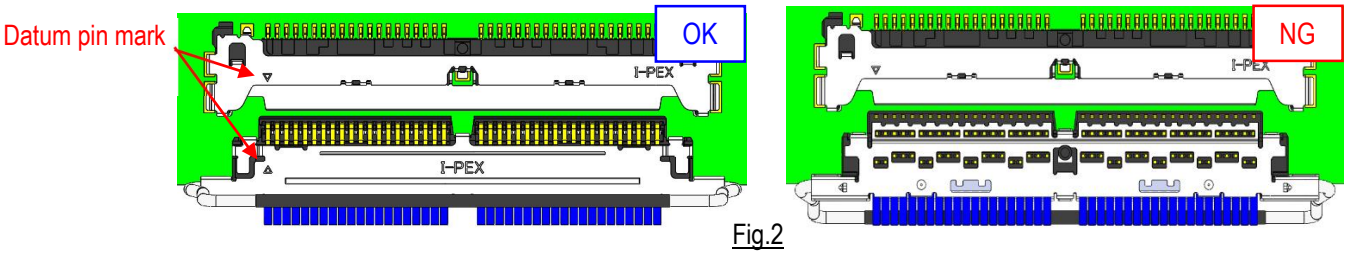


Fig.2

③ Pre-insert the plug connector into the receptacle connector.

The insertion angle in the height direction is within 8° as shown in Fig.3.

Pre-insert until the plug connector is parallel to the receptacle connector as shown in Fig.4

※Pre-insert without applying excessive load in the insertion direction until both sides of the plug connector overlap the receptacle connector.

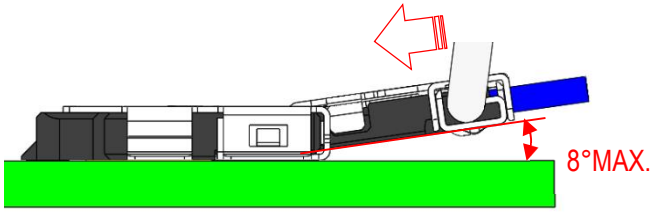


Fig.3

Pre-insert

Check both sides of the plug connector overlap the receptacle connector.

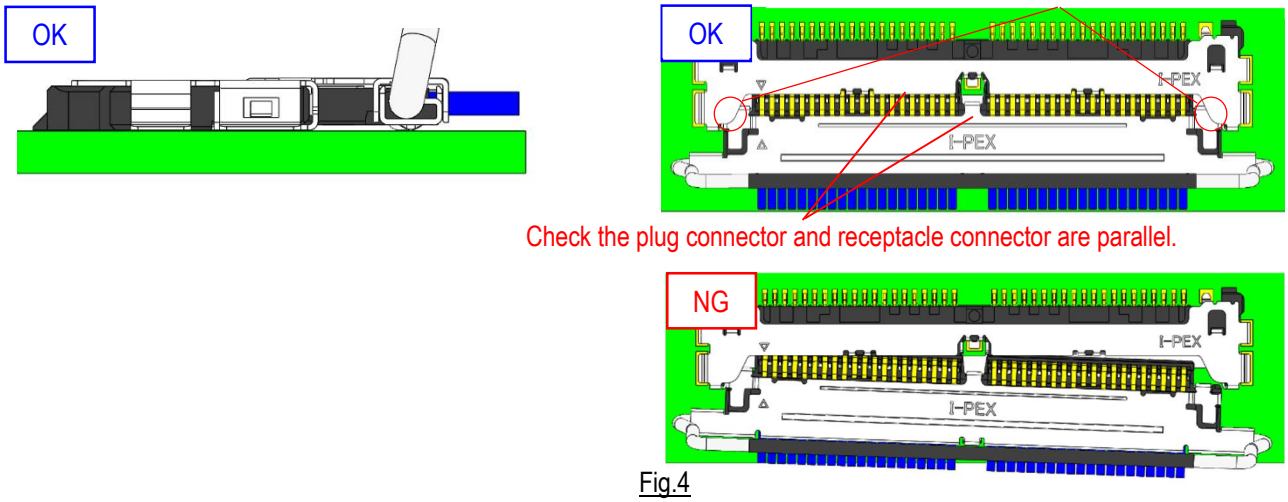


Fig.4

＜Caution 1＞

If Pre-insert is NG, repeat step ③.

④ Insert the plug connector into the receptacle connector.
Push both ends of plug connector horizontally as shown in Fig.5 and confirm there is no gap.

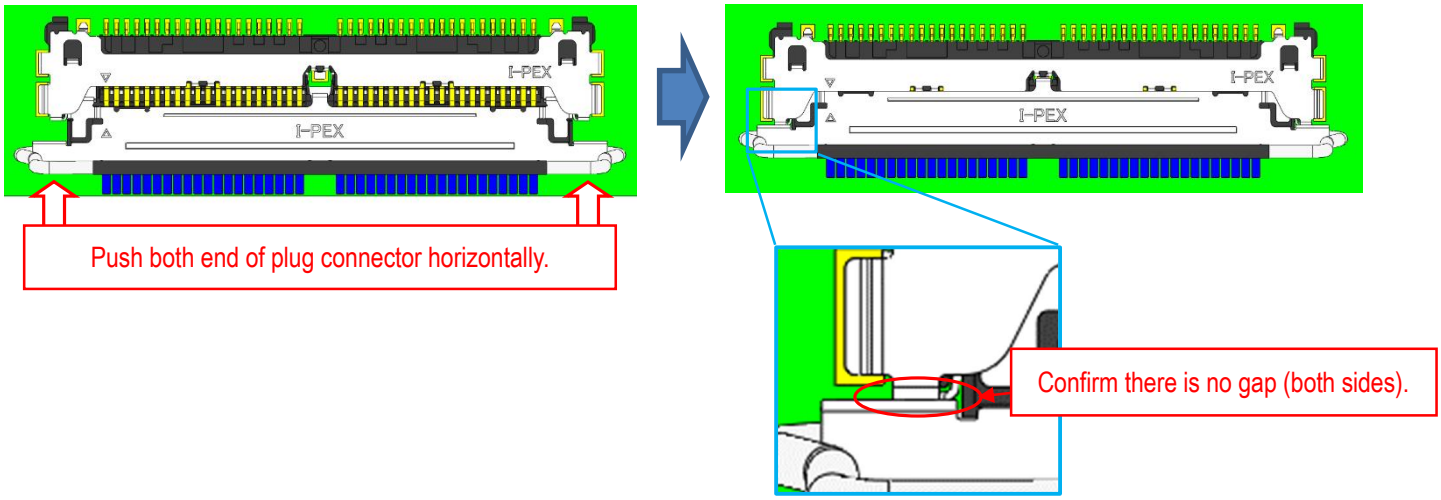


Fig.5

＜Caution 2＞

If connector is damaged as shown in Fig.6, no conductivity may be occurred.

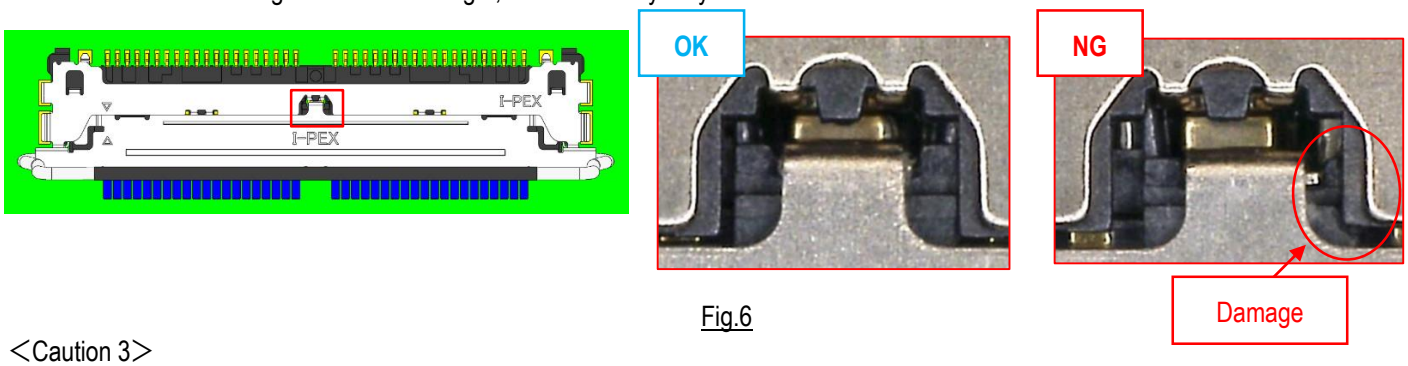


Fig.6

＜Caution 3＞

If you push one side, the mating may be incomplete as shown in Fig. 7.

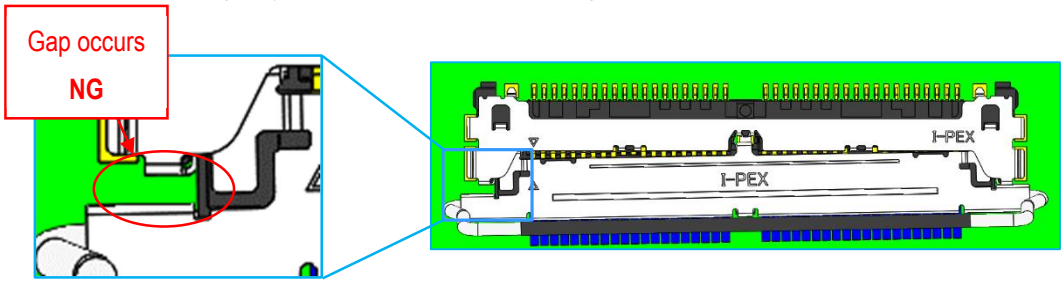


Fig.7

＜Caution 4＞

Don't insert the plug connector into the receptacle connector the state shown in Fig.8.
The connector may be damaged and no conductivity.

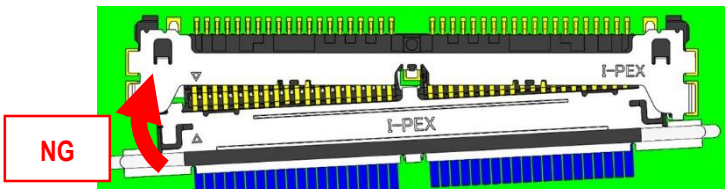


Fig.8

＜Caution 5＞

Don't insert the plug connector into the receptacle connector before it has not been pre-insert as shown in Fig.9
The connector may be damaged.

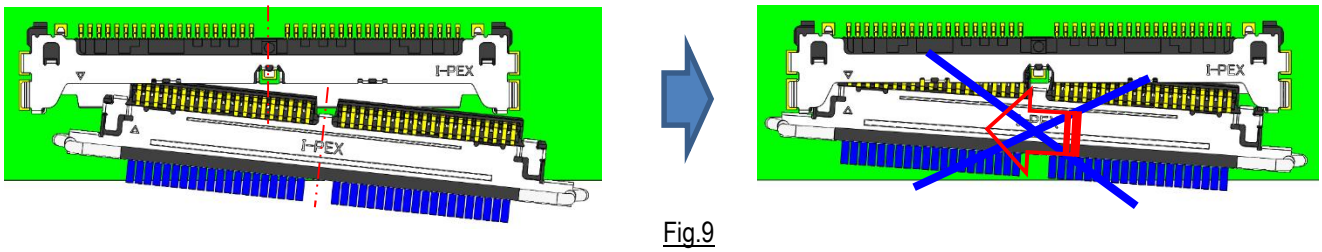


Fig.9

＜Caution 6＞

Please don't push Lock bar in mating the connector.
It may cause deformation of Lock bar and breakage of connector.

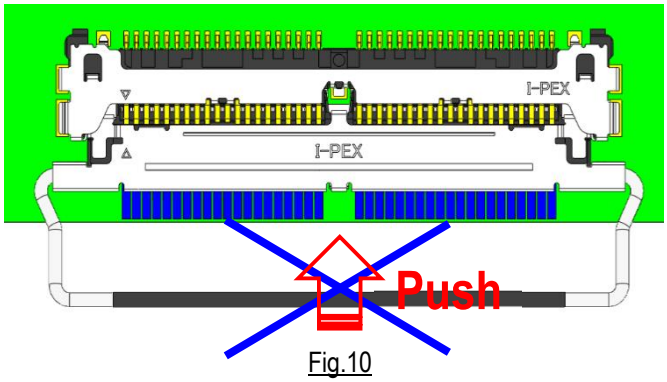


Fig.10

＜Caution 7＞

Please don't apply force toward the PCB side to the plug connector in insertion.
PCB will be damaged as shown in Fig.11 and it may cause the disconnection of the pattern or the short.

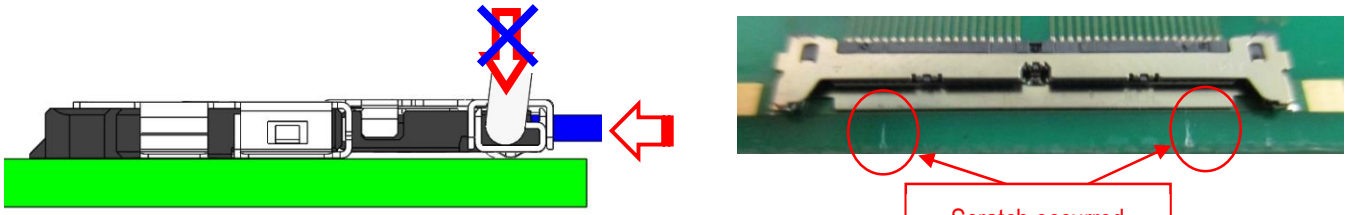


Fig.11

⑤ Rotate the lock bar and push the circled positions of the lock bar to the PCB side and lock it with shell of the receptacle.

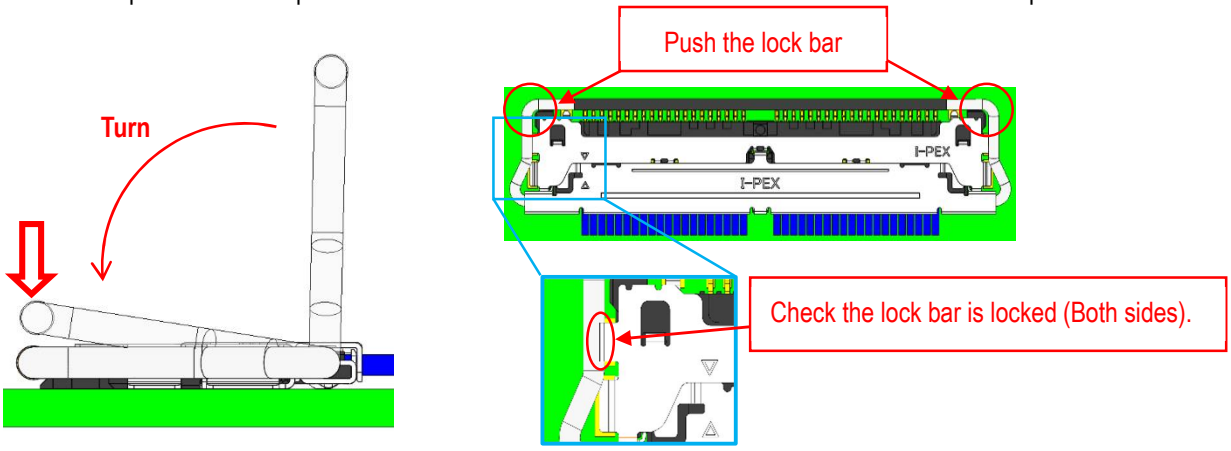


Fig.12

【Mating JIG】

When mating plug connector, if it is difficult to mating correctly, please use reference jig as shown in Fig.13.

< Shape of mating JIG (reference)>

(mm)	A	B	C	D	E	F
FOR 30P	19.00	13.00	18.20	19.50	21.50	14.00
FOR 40P	23.00	17.00	22.20	23.50	25.50	18.00

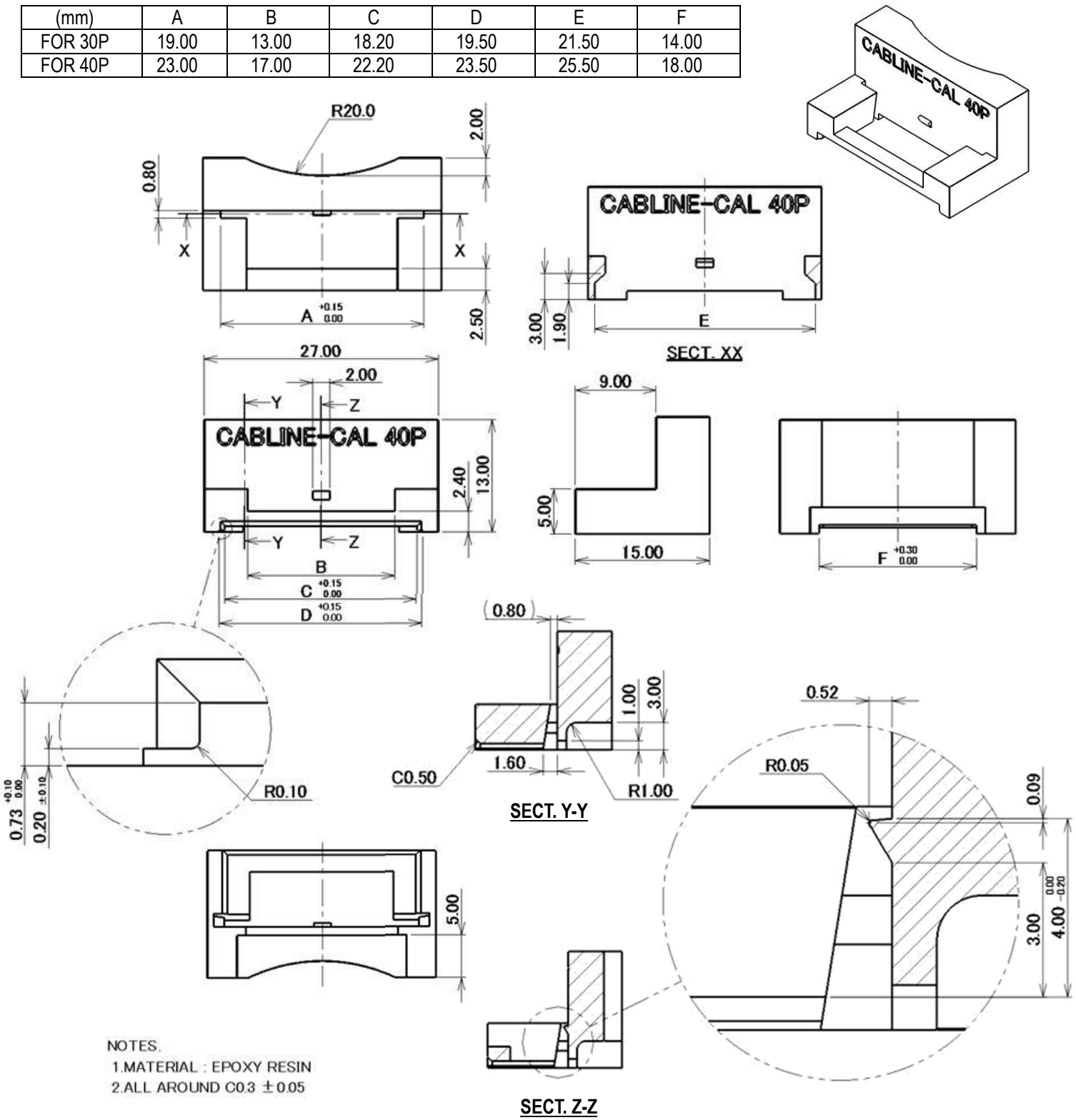


Fig.13

< How to use of mating JIG>

① Stand up the Lock bar vertically and fit the jig from above. (Fig.14)

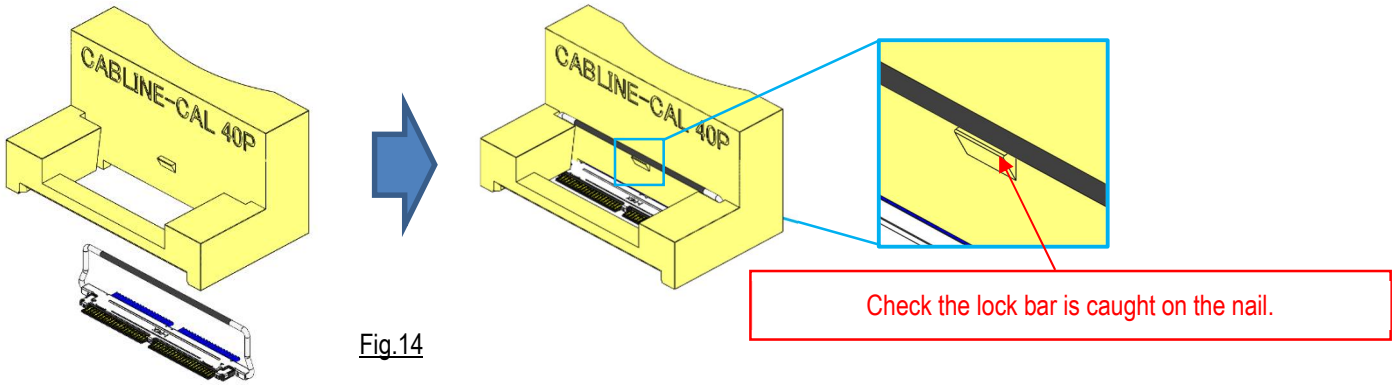


Fig.14

② Set the mating JIG with the plug connector attached as shown in Fig. 15.

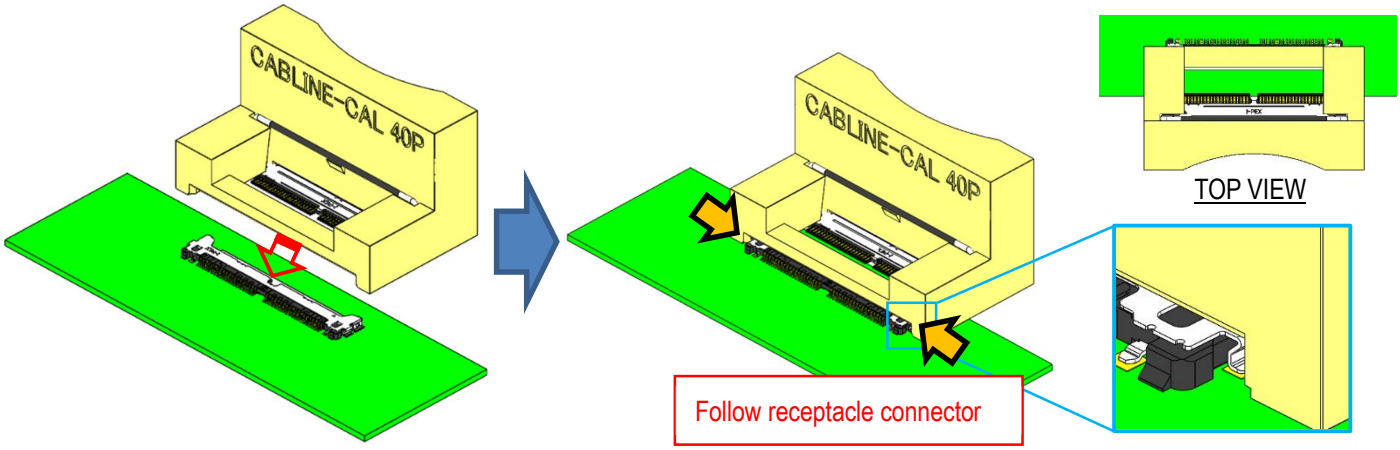


Fig.15

③ Pre-insert mating JIG horizontally, check the plug connector and receptacle connector are parallel, and then insert the plug connector. (Fig.16)

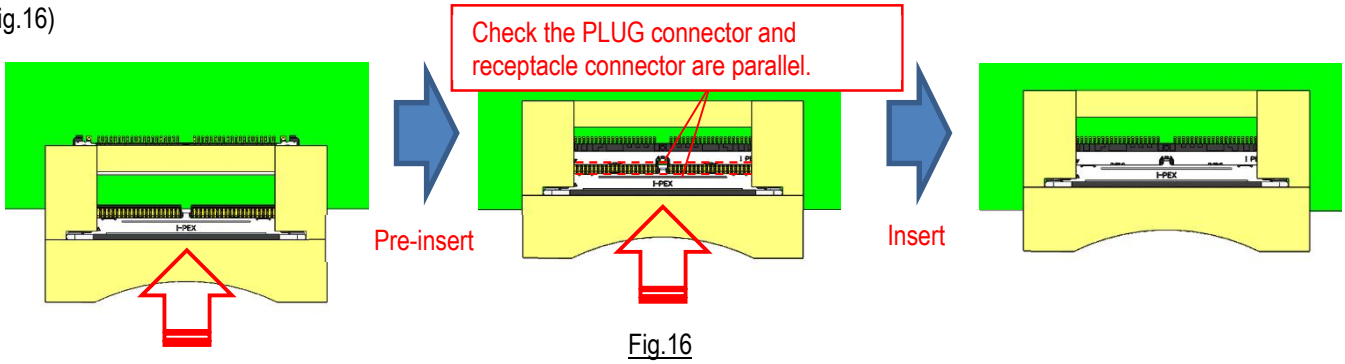


Fig.16

④ Remove the mating JIG vertically as shown in Fig.17.

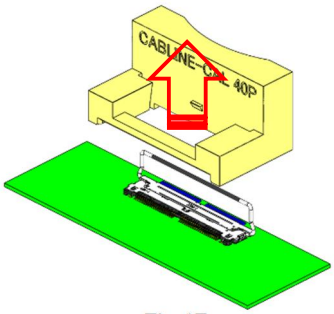


Fig.17

【Connector Withdrawal Method】

① Lift the circled positions of the lock bar upward to release the lock with the receptacle connector.
Then, turn lock bar as shown in Fig.18.

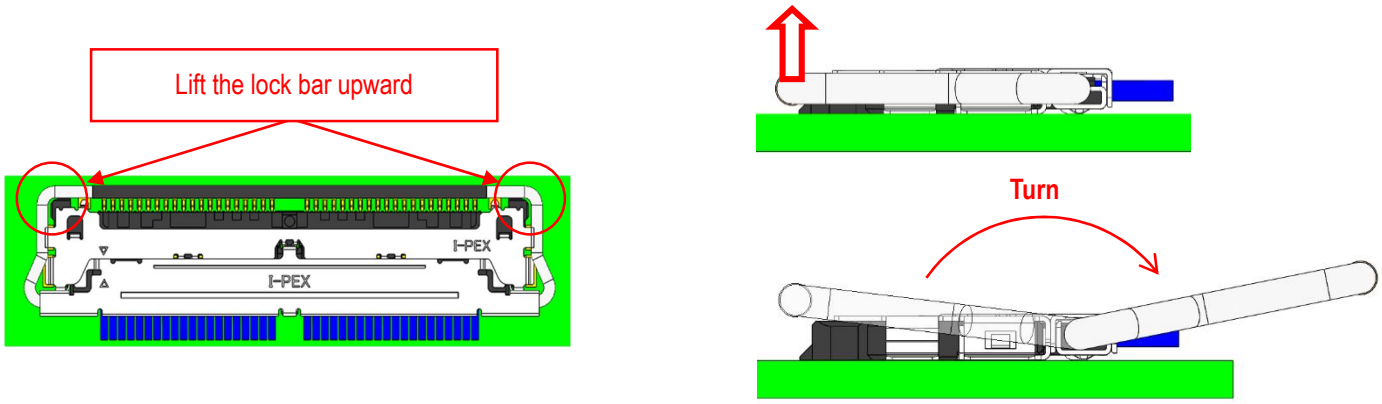


Fig.18

＜Caution 8＞

In releasing the lock, please do not use the insulation coated part of the lock bar.
The insulation coated part may be damaged and there is possibility to cause short between the receptacle connector's contact and the lock bar.
Moreover, please don't use for un-mating. If the insulating part of the lock bar is used for un-mating, the lock bar may be deformed.

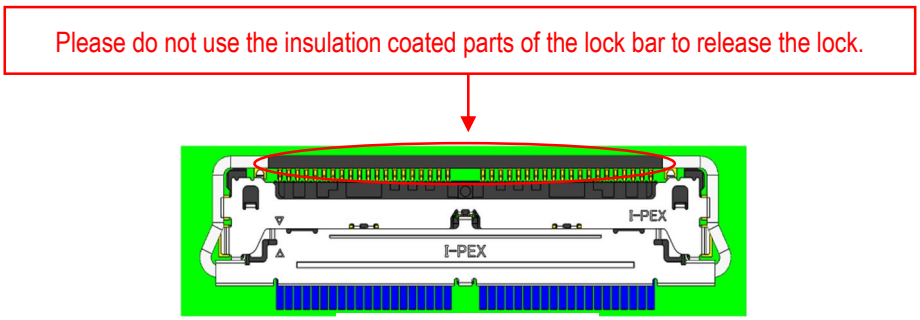


Fig.19

② When un-mating, pull both sides of the plug connector horizontally as shown in Fig.20.

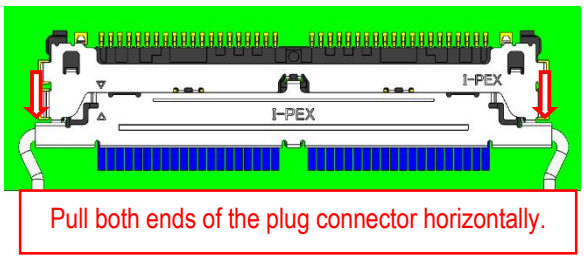


Fig.20

<Caution 9>

Please don't pull out the plug connector at an angle to the receptacle connector.

Please pull out both ends of the plug connector horizontally so that the plug connector does not become slanted during removal.

If you do not, the connector may be damaged.

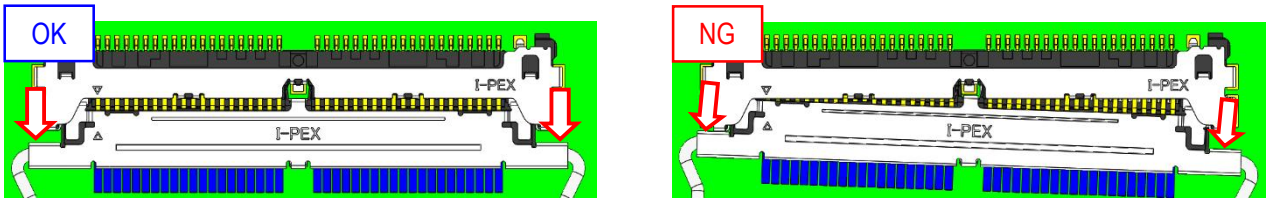


Fig.21

<Caution 10>

Please don't pull out the plug connector by pulling the cable. It may cause the cable damage.

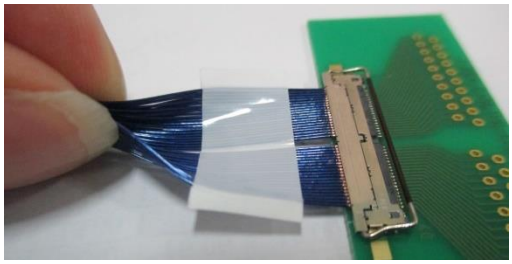


Fig.22

<Caution 11>

Please don't pull out the plug connector by pulling the lock bar. It may cause the lock bar and connector deformation.

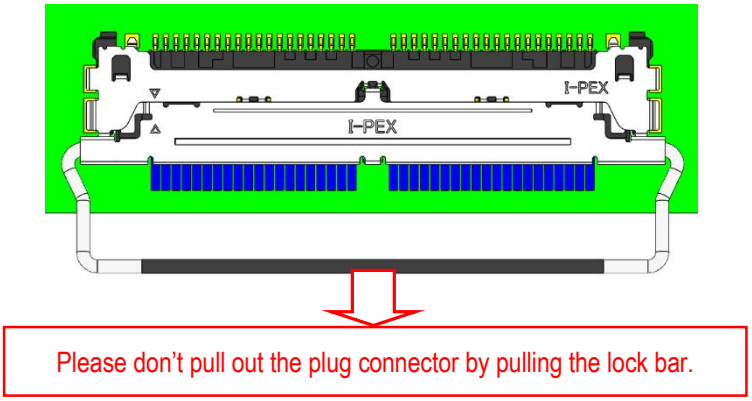


Fig.23

<Caution 12>

Please don't pull out the plug connector while applying force in the direction of the board.

PCB will be damaged like below and it may cause the disconnection of the pattern or the short.

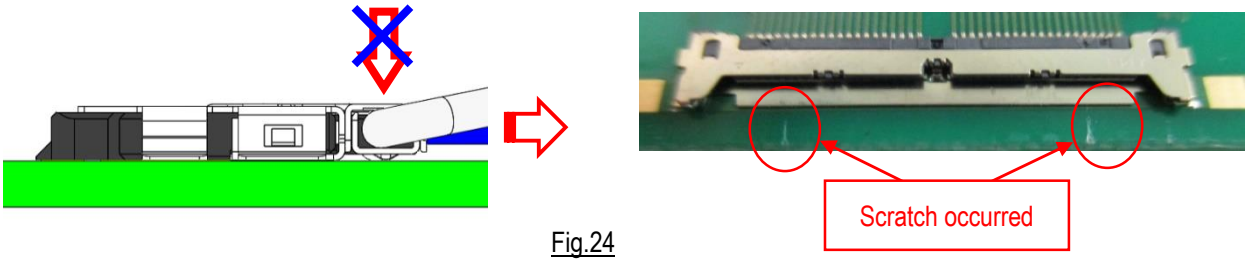


Fig.24

【Cautions in handling the connector】

① Please don't pull out the cable or the lock bar of the mated plug connector to the vertical direction.
It may cause the receptacle connector's deformation.

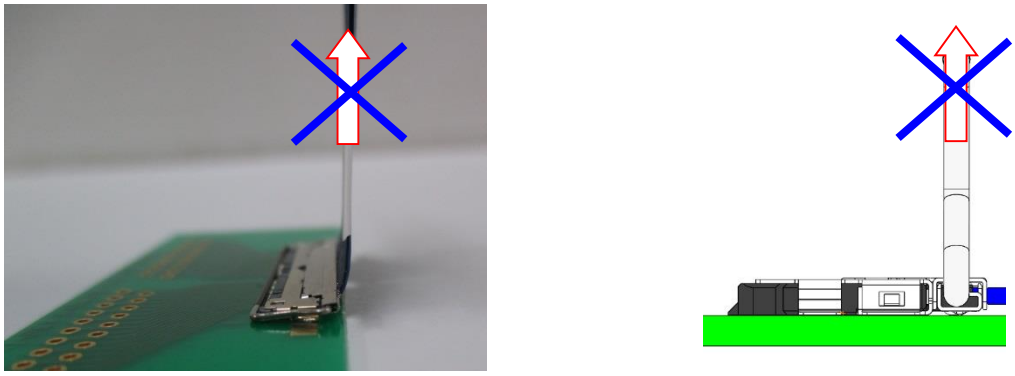


Fig.25

② In handling the cable, please pay attention not to apply excessive force to the connector or the cable.
It may cause the connector or the cable breakage.
Continuous stress to the connector should not remain after assembly.
It may cause the mating defect or the connector breakage.

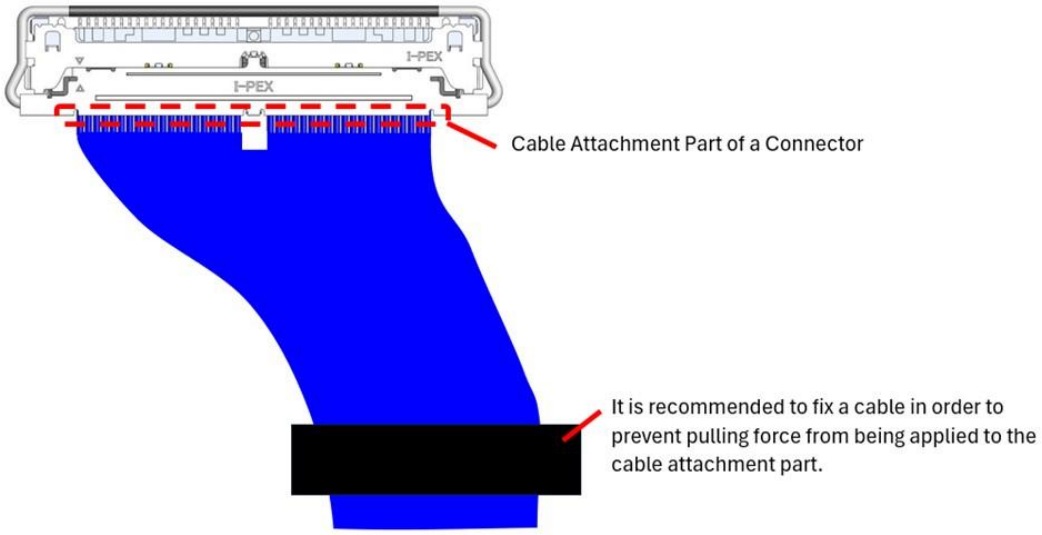


Fig.26