

CABLIN[®]-SS Connector

Part No. Plug: 20380-***T-** Receptacle: 20374-***E-**-*

Instruction Manual

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Rev.	ECN	Date	Prepared by	Checked by	Approved by

This manual is to explain the insertion & withdrawal methods and important points in handling of CABLINE-SS connector plug with cable for the purpose of proper use.

【Pull Jig】

To avoid excessive stress to cable connection points, it is recommended to use special jig as show in Fig.1.
The cable connector has a design feature to hook this “pull jig”.

pos.	A	B
10P	8.8	13.0
14P	10.4	14.6
20P	12.8	17.0
30P	16.8	21.0
32P	17.6	21.8
35P	18.8	23.0
40P	20.8	25.0
50P	24.8	29.0

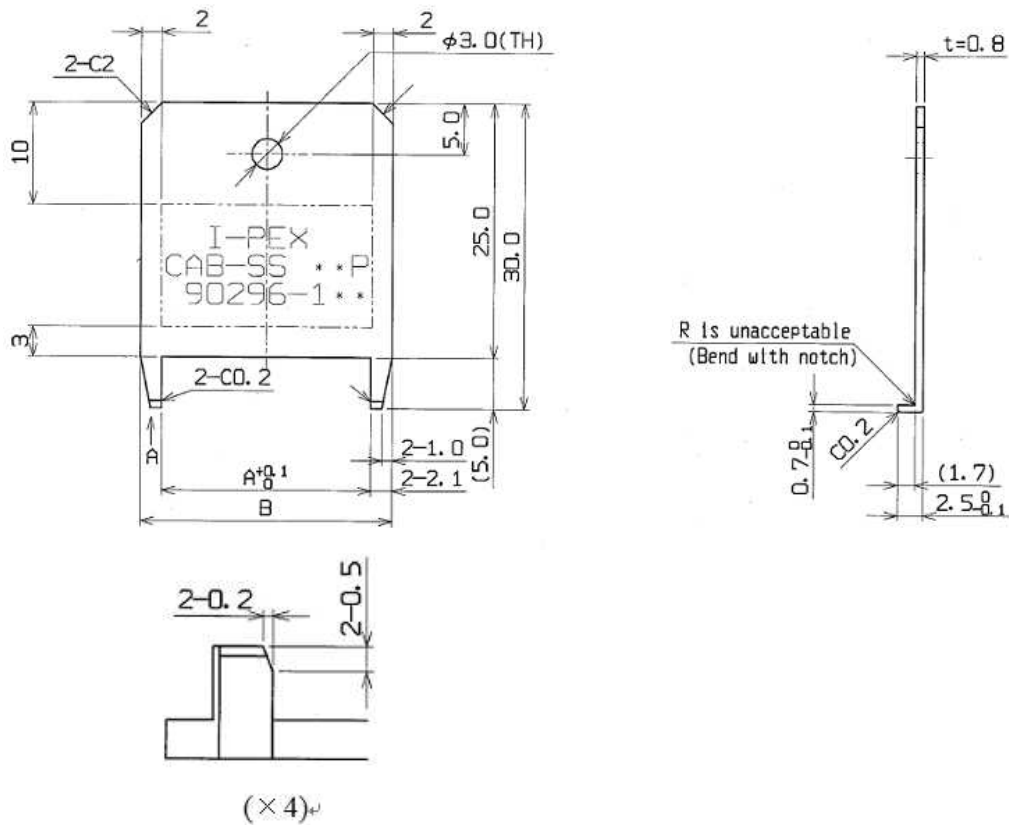


Fig.1 Recommendation : Plug Pull Jig

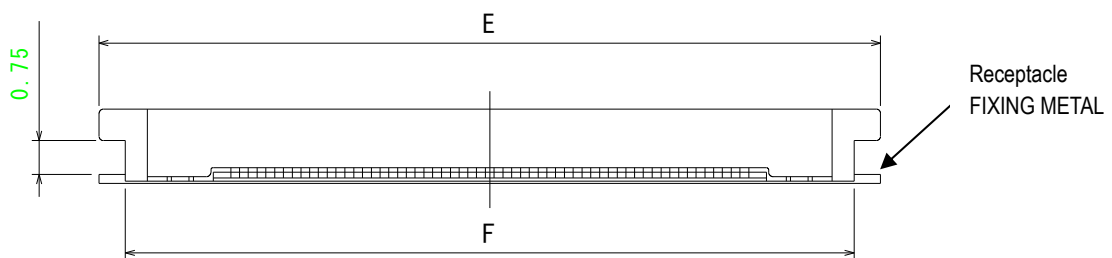


Fig.2 Plug Connector Design Feature to Hook Pull Jig

【Connector Insertion Manual】

Hold the both ends of cable connector as show in Fig.3.

(Do not hold the connector as show in Fig.4 to prevent applying excessive force to the cable connector.)

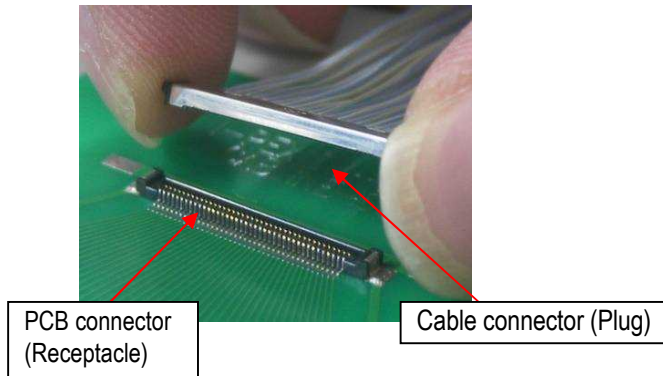


Fig.3

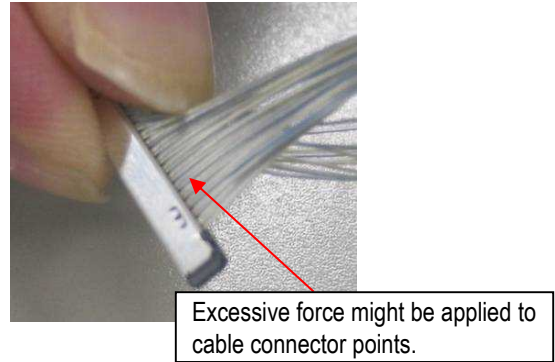


Fig.4

2. Which direction to mate

As shown in Fig.6, cable connector shall insert into PCB connector so that the cable location is opposite side to soldered tails of the PCB connector.

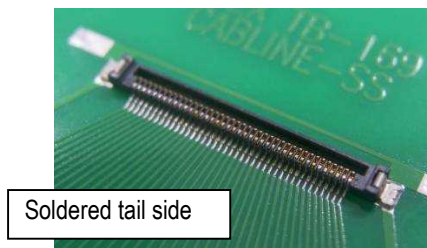


Fig.5

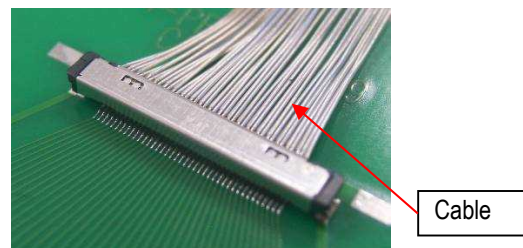


Fig.6 Correct Connector Mating View

3. How to Mate

Push the center of cable connector vertically as show in Fig.8.

The connector mating will be completed as click sound can be heard.

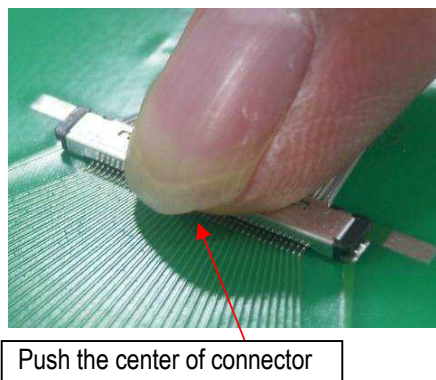


Fig.7

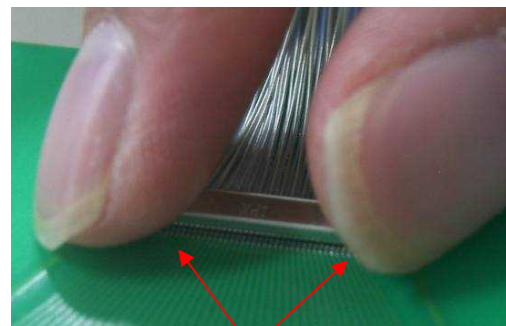


Fig.8

CAUTION

- A support shall be designed and placed under PCB in order to prevent PCB from being deformed when cable connector is inserted with a pressing.
- The connector insertion angle allowance is given in Fig.9.
Do not force to press cable connector when the insertion angle is out of this allowance angle.

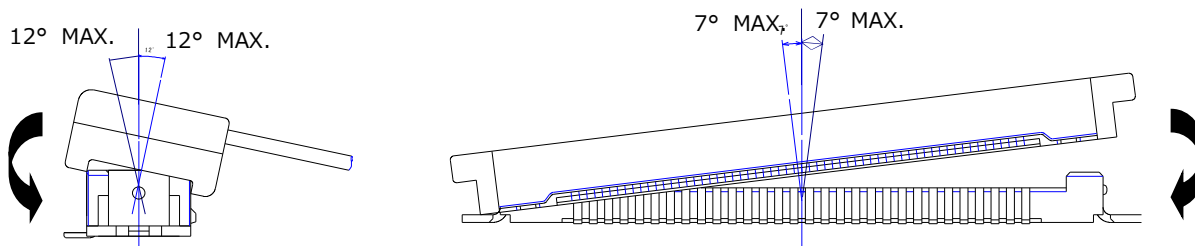


Fig.9 When one connector end is fully mated (Insertion angle allowance)

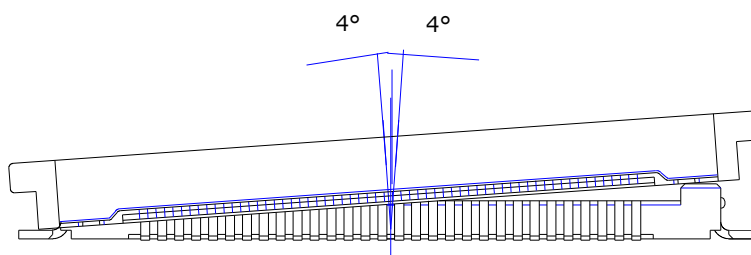


Fig.10 When one connector end is fully mated (Insertion angle allowance)

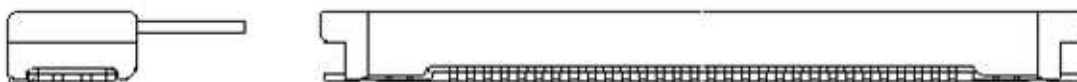
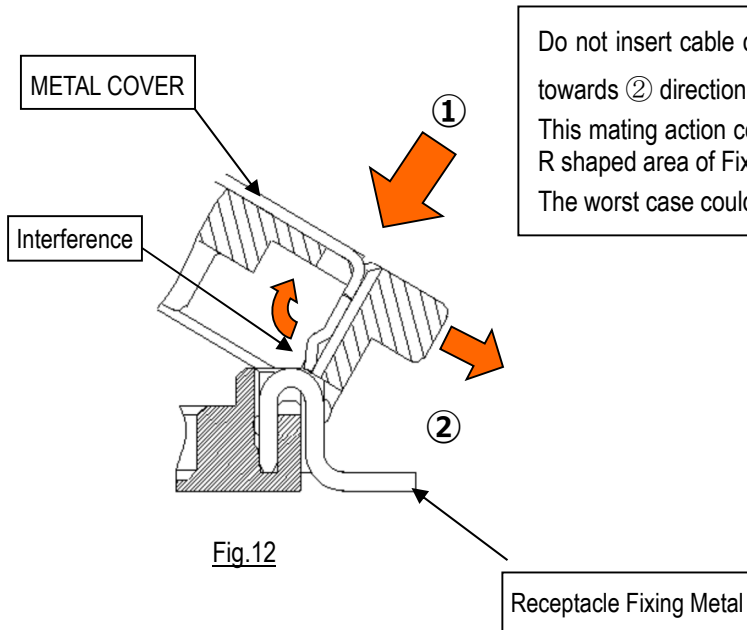
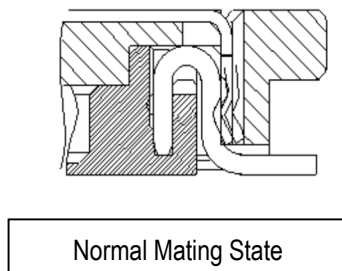


Fig.11 Complete Mating State

注意事項 CAUTION

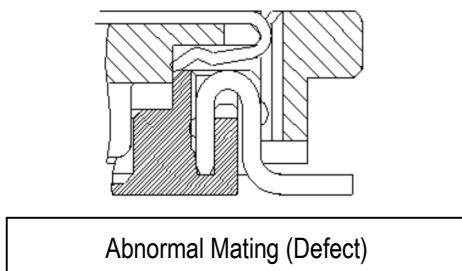


Do not insert cable connector with a slanting condition in ① direction while moving it towards ② direction.
This mating action could cause interference between the tip of metal cover spring and R shaped area of Fixing metal.
The worst case could cause the deformation of metal cover spring.



Normal Mating State

Fig.13



Abnormal Mating (Defect)

Fig.14

* Cable connector cannot be locked.
Because of insufficient mating depth which was caused by crashed metal cover spring.

【How to Withdraw Cable Connector】

- ① Slide the “pull jig” from the opposite side of a cable and attach to the cable connector.(see Fig.15-a)
- ② The jig shall be moved until it reach a stopper just as it hold the cable connector .(see Fig.15-b)
- ③ Lift up the jig vertically to the PCB surface.(see Fig.15-c)

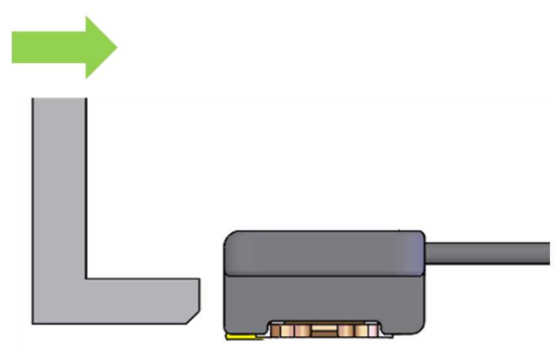


Fig.15-a

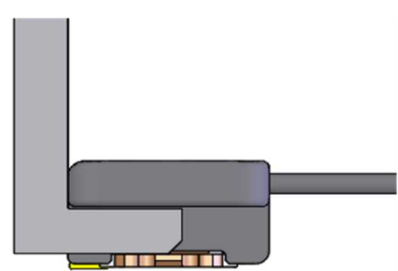


Fig.15-b

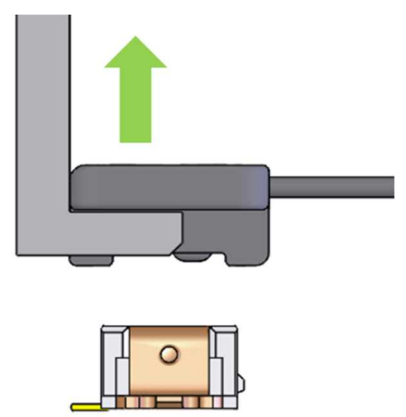


Fig.15-c

CAUTION

- Do not unmate a cable connector by pulling cable.
- Pull jig shall be lifted up vertically from PCB surface. Do not apply force to the upper surface of the connector if one side of the connector (the direction of cable pitch) is withdrawn first.
- Allowable mating angle is shown in Fig.16. When the jig is lifted up to un-mate the cable connector, The unmating angle must be within this tolerance.
- In case you withdraw the cable connector by hand, You must lift it up vertically by holding the hook area which is located at both connector ends.

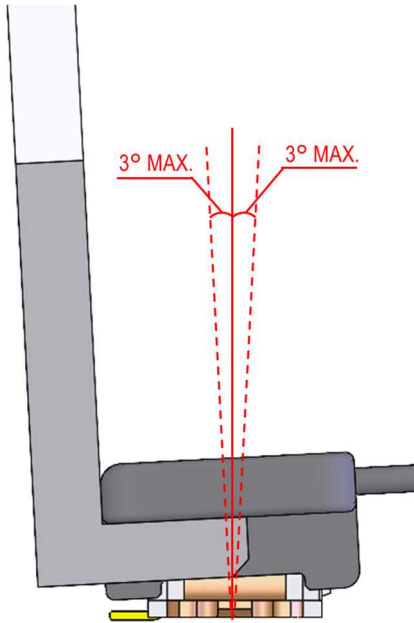


Fig16. Allowance connector mating angle

Do not apply force to the upper surface of the connector if one side of the connector is withdrawn first.

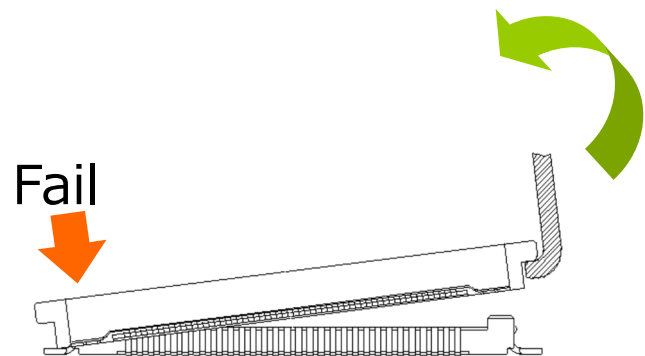
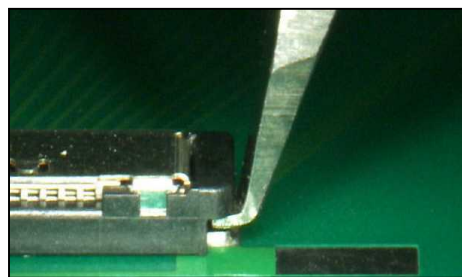


Fig.17 Caution for Withdrawing One Side of Connector



【Reference】 The Tip of Pull Jig
(For withdrawing the one side of connector)



【Reference】 Pull Jig and Connector
(For withdrawing one side of connector)

【Caution in Cable Connector Handling】

- Handle the cable connector carefully in cable harnessing work so that pulling force is NOT applied to specific cables.
- Be careful so that pulling force and/or repeated bending force is NOT applied to the cable attachment part of a cable connector

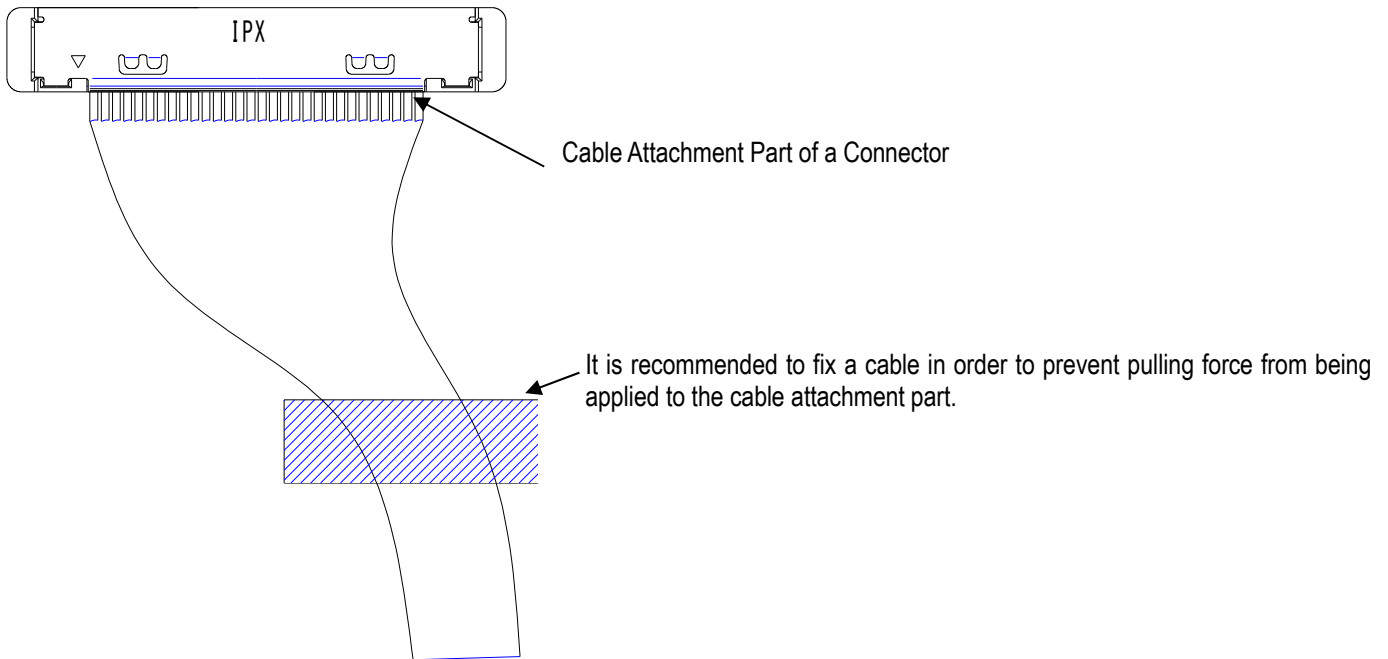


Fig.18

- In the case of figure 19, it has possibility to damage to the housing and come off from receptacle connector. Especially when operator give continuous force to the direction (black arrow), the tendency become higher. So please take care of handling of harness.

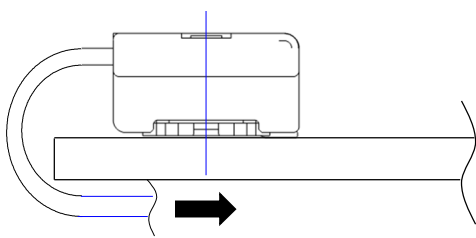


Fig.19-1

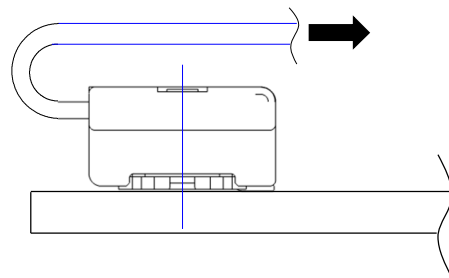


Fig.19-2

• You may put a stopper above the mated cable connector to prevent it from coming out. Use recommended that the load to be applied to a stopper must be connector whose top surface in accordance with the following condition.

Pos.	Load (gf)	Upper Area (mm ²)
10P	100gf MAX.	29.4 mm ²
14P	140gf MAX.	34.2 mm ²
20P	200gf MAX.	41.4 mm ²
30P	300gf MAX.	53.4 mm ²
32P	320gf MAX.	55.8 mm ²
35P	350gf MAX.	59.4 mm ²
40P	400gf MAX.	65.4 mm ²
50P	500gf MAX.	77.4 mm ²

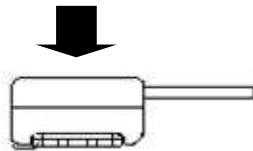


Fig.20 Load to be applied to a stopper

【Procedures for Removing a Vacuum Cap】

- To remove a vacuum cap from receptacle connector, pull up the opposite side of the lead or the both edges of a vacuum cap as shown in Fig.21.

Removing from the lead side will damage the housing as shown in Fig.22 because the lock is located at the vacuum cap. Remove only from the opposite side of the lead.

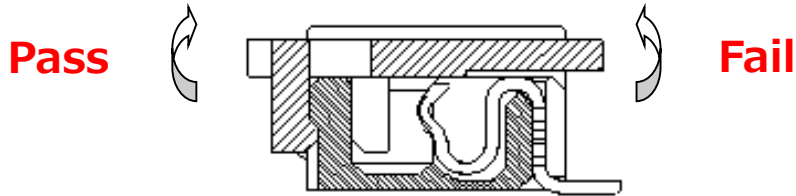


Fig.21

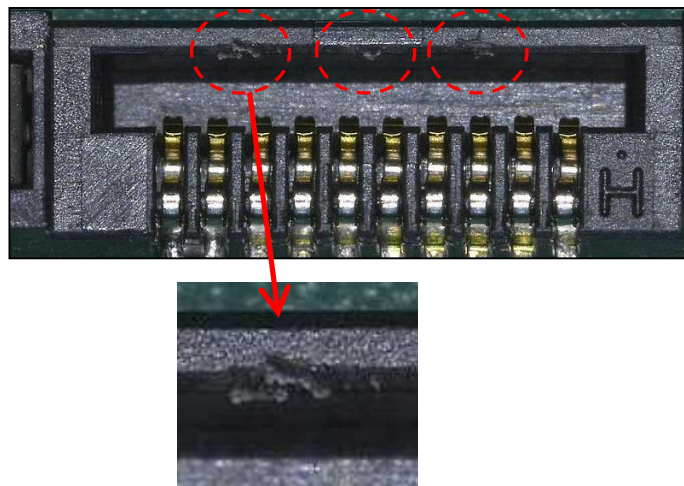
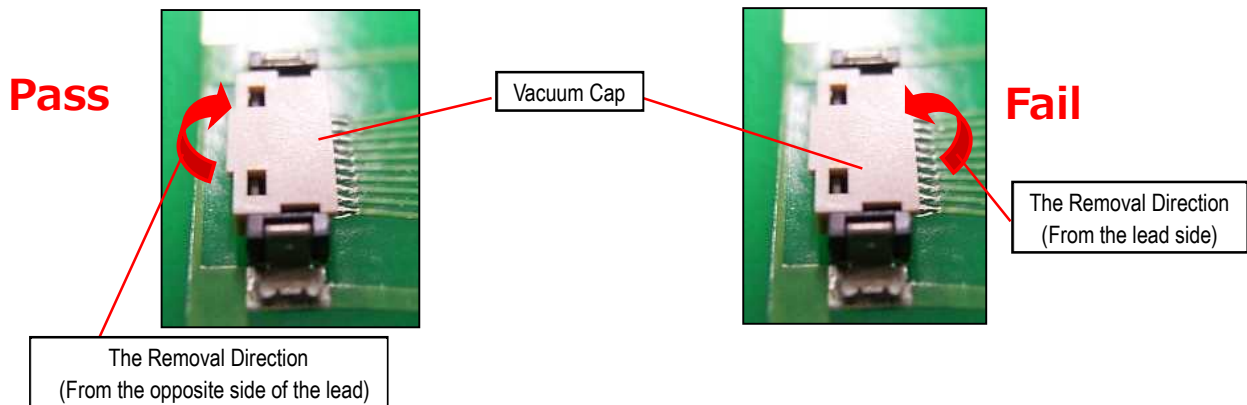


Fig.22