

NOVASTACK® 35-HDH

Plug Part No. 21003-0**E, Receptacle Part No. 21004-0**E

Instruction Manual

5	S24253	June 19, 2024	Y. Baba	-	S. Suzuki
4	S24182	May 16, 2024	Y. Baba	-	S. Suzuki
3	S23300	September 7, 2023	W. Lau	Y. Baba	Y. Hashimoto
2	S23202	August 9, 2023	W. Lau	Y. Baba	Y. Hashimoto
Rev.	ECN	Date	Prepared by	Checked by	Approved by

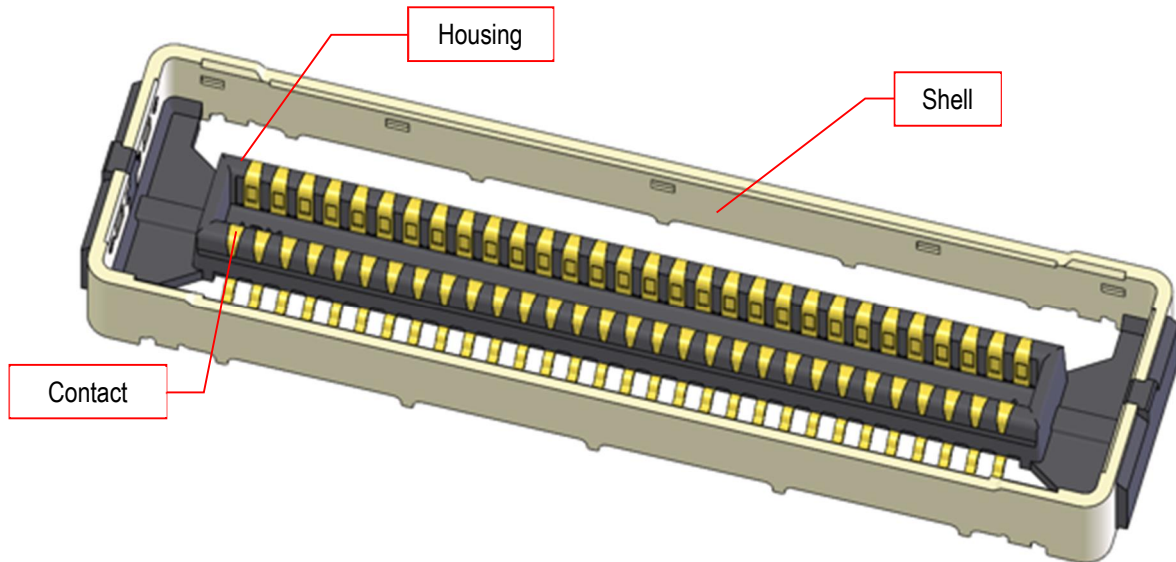
This manual provides the insertion & withdrawal methods and cautions to handle NOVASTACK 35-HDH connector properly.

1. Connector Name, Part number, Part name

1-1. Plug connector

Product Name: NOVASTACK 35-HDH PLUG ASSEMBLY

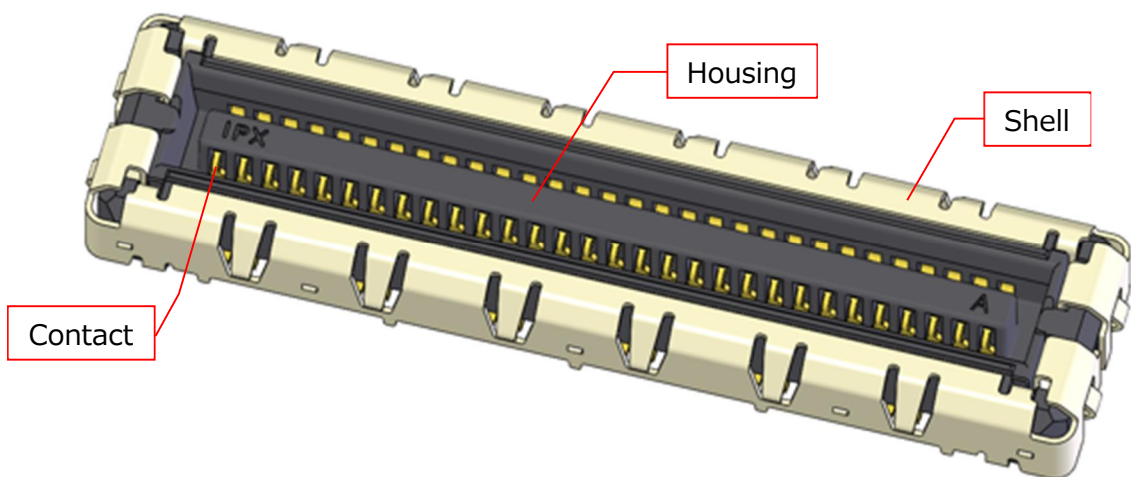
Part No.: 21003-0**E



1-2. Receptacle connector

Product Name: NOVASTACK 35-HDH RECEPTACLE ASSEMBLY

Part No.: 21004-0**E



2. Mounting

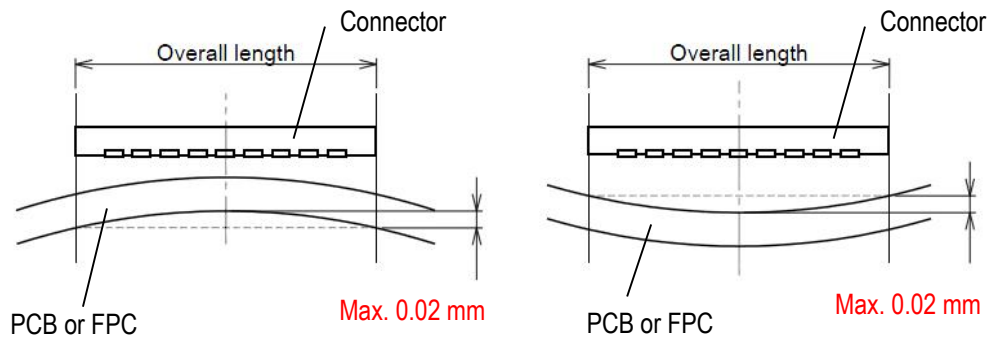
2-1. The recommended pattern dimensions are shown in the product drawing.

2-2. The recommended metal mask thickness and aperture ratio

Refer to the drawing 21003 (plug) and 21004 (receptacle).

2-3. Warp of PCB or FPC

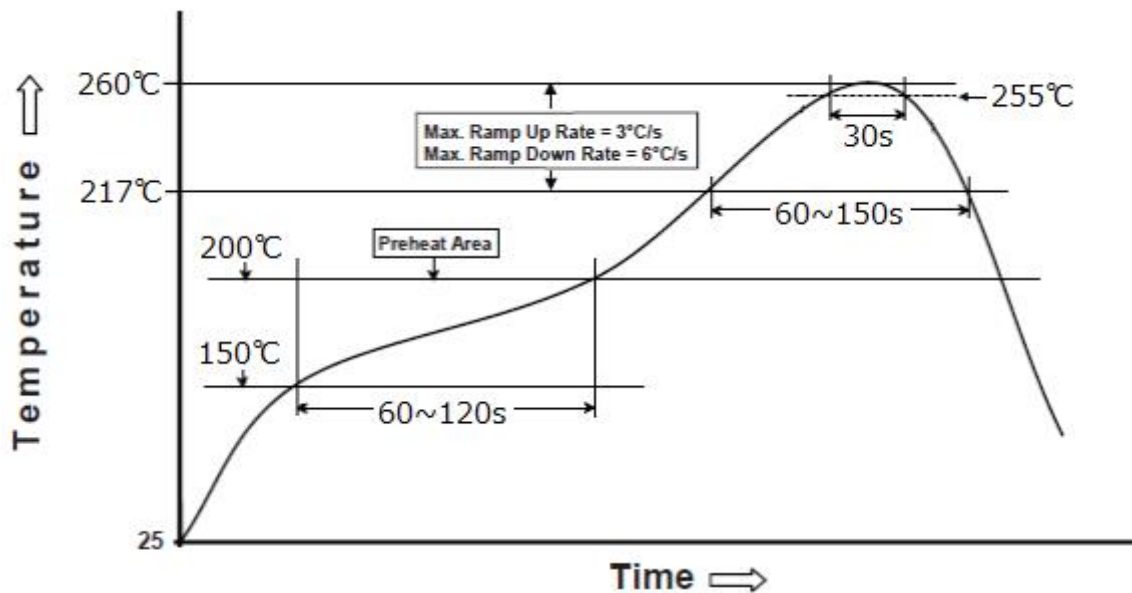
Please keep the warp of PCB or FPC on 0.02 mm or less for the overall length of the connector.



2-4. Reflow Temperature Profile

The peak reflow temperature profile is shown in Graph 1. (The temperature mentioned refers to the surface temperature of the printed circuit board near the connector terminal.)

Please refer to our product drawings for the recommended reflow temperature profile.

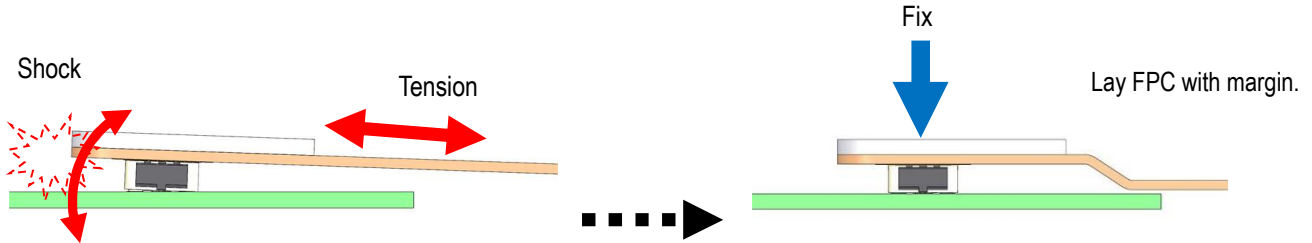


Graph 1 The Peak Reflow Temperature Profile

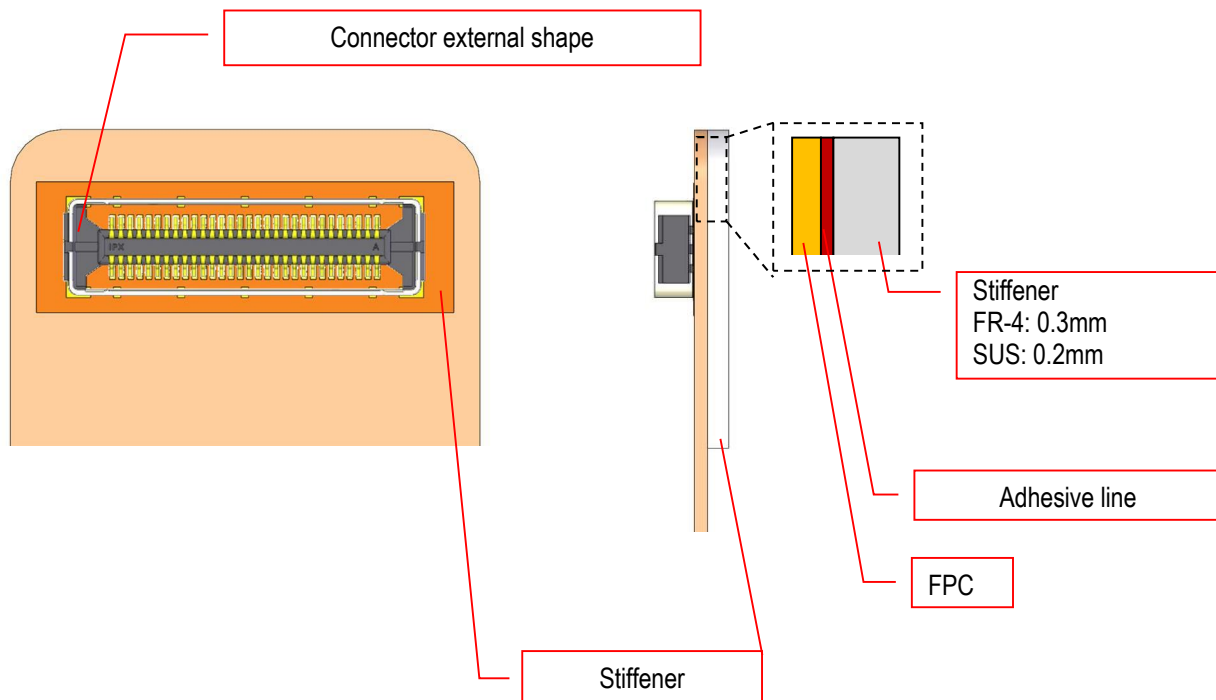
3. Cautions for Handling the Component

3-1. Using for board to FPC connection.

- ① FPC shall not be tensed to withstand in case of a shock or a tension is applied. The FPC shall be fixed toward the mating direction for the maintenance.

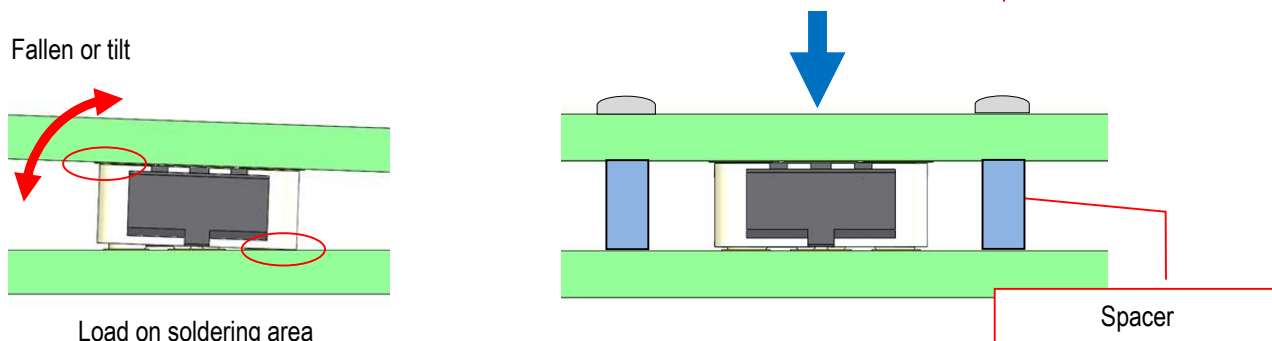


- ② FPC shall be used with the stiffener to prevent the connector on the FPC side from the breakage during insertion and extraction. Recommended stiffener size: Larger than the connector external shape including footprint pattern. Recommended thickness of the FPC and a stiffener: Thicker than 0.3mm or more

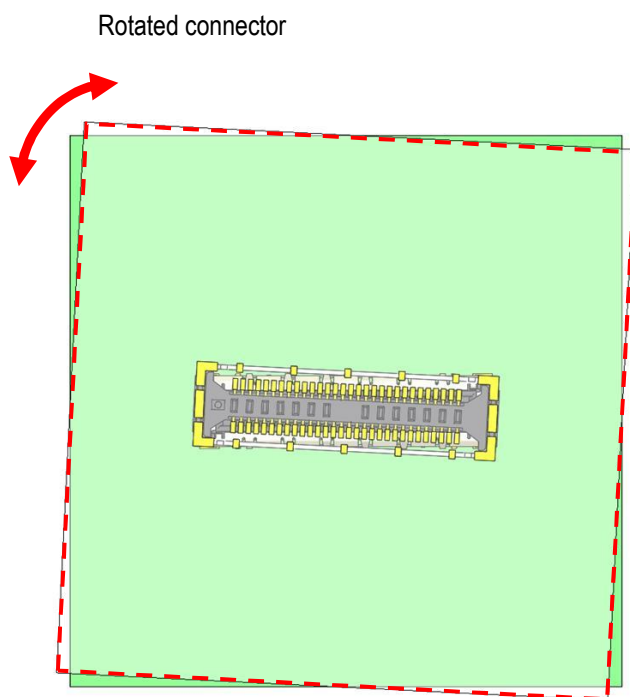


3-2. Using for board to board connection.

- ① To prevent the accidental removal or slant mating, spacers are recommended to fix the space in between the two circuit boards. These spacers will also help to prevent the damage to the connectors and to the soldered area which might have been caused by the too large printed circuit board or unbalanced shape printed circuit board



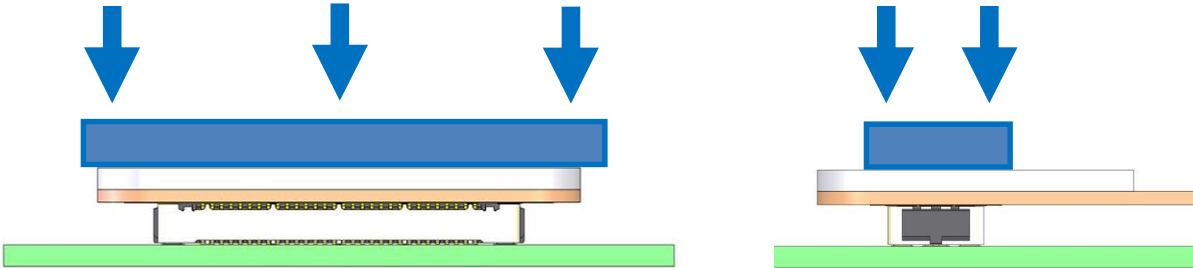
- ② Do not turn the connector on the printed circuit board in case of using a screw. If the printed circuit boards were fixed in a wrong position, the connectors may get damaged.



3-3. Press load

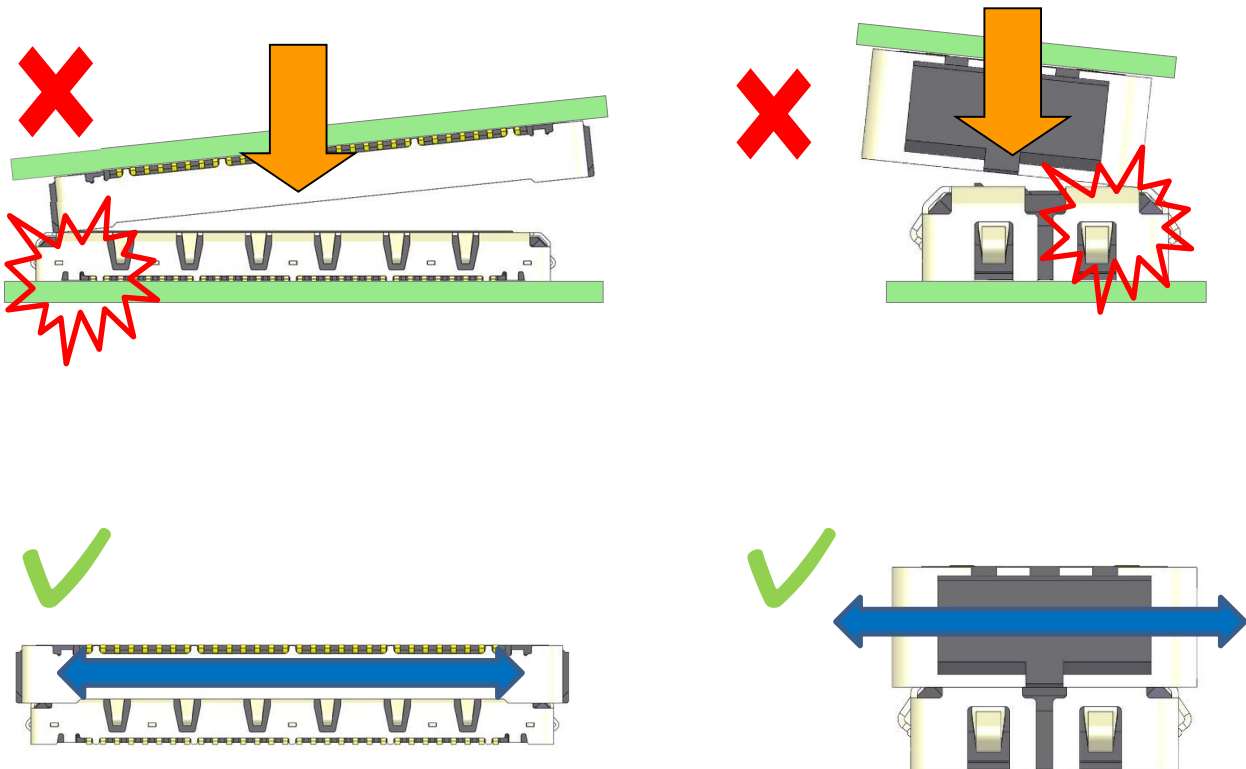
To prevent the coming off of the mated connectors (the load which a connector can apply), press the entire upper surface of the connector with the load calculated in below formula.

(Maximum Press load: number of pin×1.0N or under)

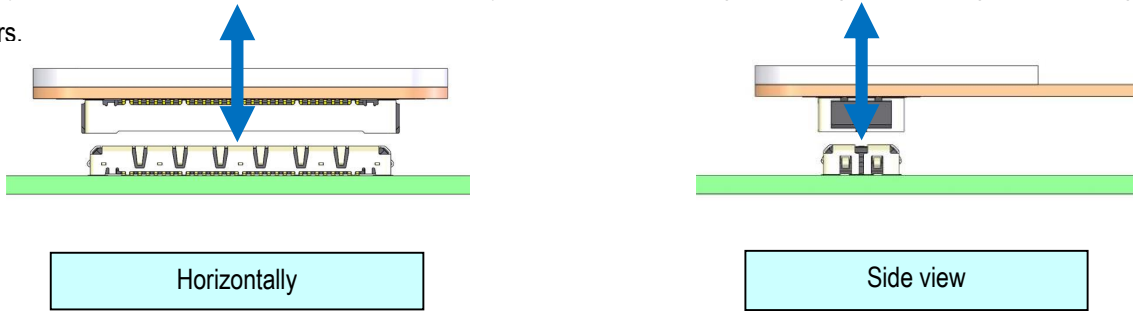


4. Mating and Unmating

4 -1. When aligning the mating position, do not push it into that place forcibly, but find the lead-in position. Pushing it into the place forcibly will cause the housing to be scraped or the shell to be deformed. Therefore, non-conductivity or solder peeling may occur.



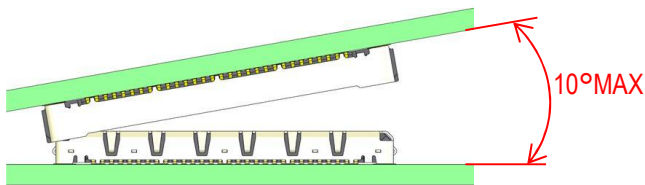
4 -2. Always mate and unmate the connectors horizontally. An excessive twisting or slanting when mating and unmating will damage the connectors.



4-3. Cautions

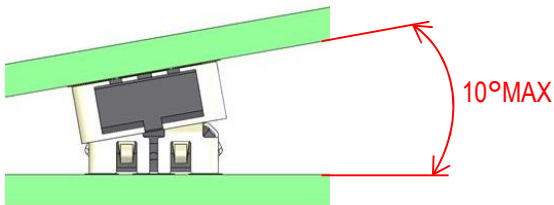
[Caution 1]

At starting the insertion, please keep the slant 10° or less in direction of width. By inserting with the slant more than 10° , deformation of the connector will occur.



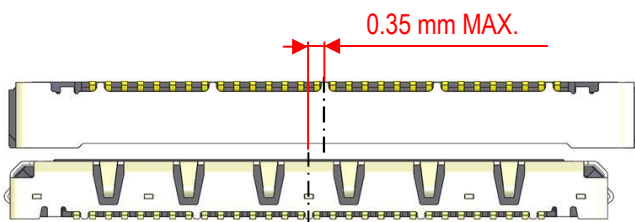
[Caution 2]

At starting the insertion, please keep the slant 10° or less in direction of depth. By inserting with the slant more than 10° , deformation of the connector will occur.



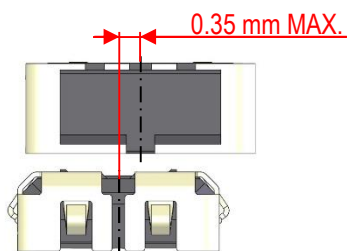
[Caution3]

At starting the insertion, please keep the offset 0.35mm or less in direction of width. By inserting with the offset more than 0.35mm, deformation of the connector will occur.



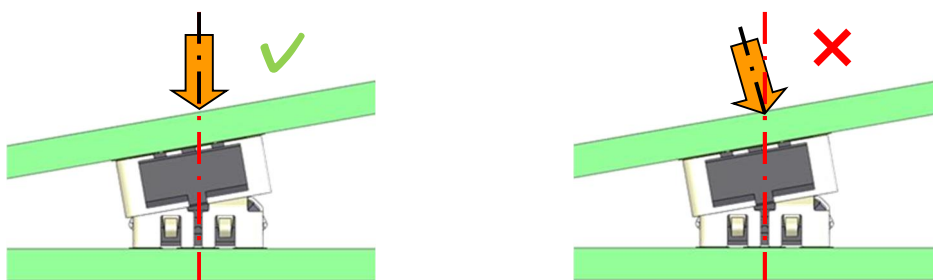
[Caution 4]

At starting the insertion, please keep the offset 0.35mm or less in direction of depth. By inserting with the offset more than 0.35mm, deformation of the connector will occur.



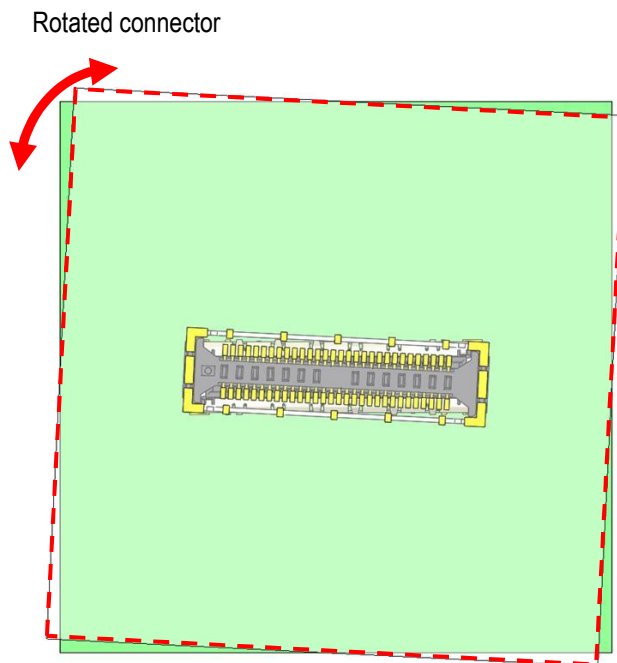
[Caution5]

Pressing straight from upper side, the posture becomes stable by guide function of connector. Do not insert forcibly from oblique direction.



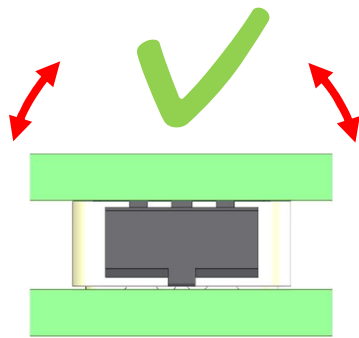
[Caution6]

Do not mate or unmate when the connector is turned around.

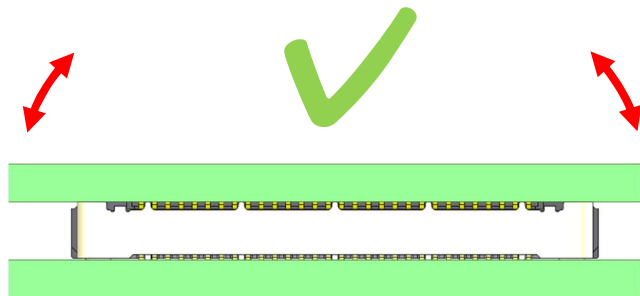


[Caution7]

If the connector cannot be removed in parallel, unmate it by lightly shaking it from side to side.

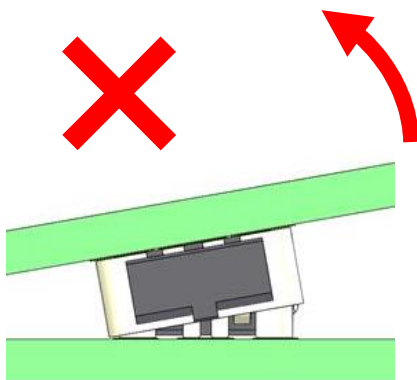


Side view

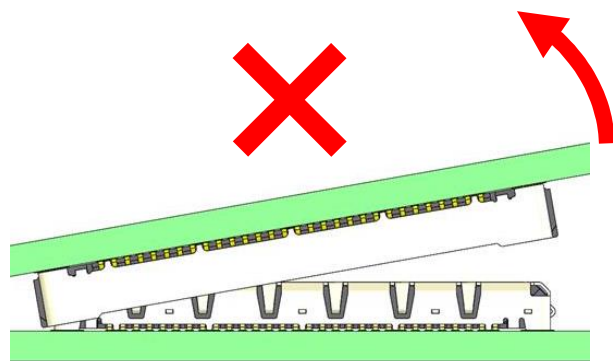


Horizontally

Do not unmate the connector at an angle, as it may cause damage to the connector.



Side view



Horizontally