

# 0.25 mm Pitch Ultra-low Profile FPC Back-lock Connector

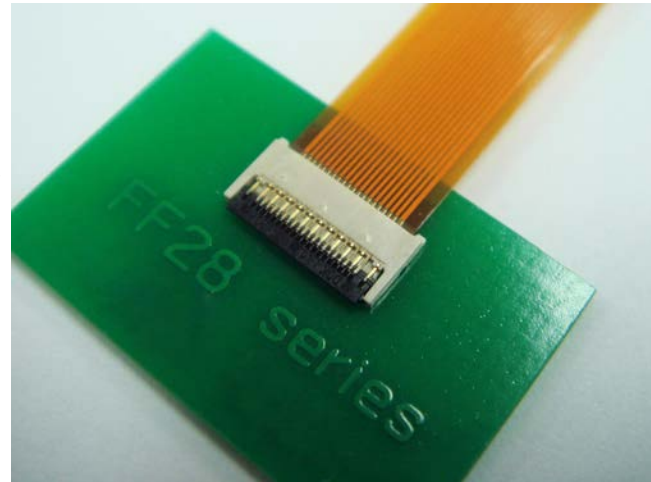
RoHS2

## FF28 Series [Upper Contact]

Fujikura

### OUTLINE

The FF28 connector series utilizes a cable lock mechanism to provide positive retention of the FPC. This ZIF connector has a dedicated upper contact to interface with the FPC at a 0.25mm pitch. The ultra-low profile connector has a 0.66mm height, making it one of the smallest board mounted FPC ZIF connectors on the market.



### FEATURE

- Original cam-type back-lock system provides reliable operation and ensures retention from inadvertent upward pulling of the FPC.
- The FF28 connector has an ultra-low height of 0.66mm.
- Each individual contact is rated to 0.2A current.
- The FPC is mechanically retained within the FF28 with Original cable-lock design.
- These ZIF connectors are delivered with the lock lever opened for maximum production efficiency.
- Contacts utilize a nickel barrier to prevent solder wicking.
- The housing and lock lever are made of heat-resistant resin making possible lead-free reflow soldering.
- FF28 ZIF connectors are delivered in a tape and reel package for automated machine processes.

Note : Please do not close the lock lever without inserting the FPC.

Since cable lock tabs electrify next contacts, please do not use the cable lock tabs as ground tabs.

### APPLICATIONS

Mobile phone, notebook PC, PDA, other Portable devices

### SPECIFICATIONS

Rated Voltage	50V AC (r.m.s.)
Rated Current	0.2A / Contact
Dielectric Withstand Voltage	200V AC (r.m.s.) / 1 minute
Insulation Resistance	50 M $\Omega$ min. at 250V DC
Contact Resistance	80m $\Omega$ max.

### MATERIAL/FINISH



Item	Material / Finish
Conatct	Copper Alloy / Au (Flash) over Ni
Housing	LCP Resin (UL94V-0) / Black
Lock lever	PPS Resin (UL94V-0) / Black

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Please verify the latest specifications with our drawings.

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<https://www.connector.fujikura.com>

▶ 0.25mm Pitch FPC Connector [Upper Contact]

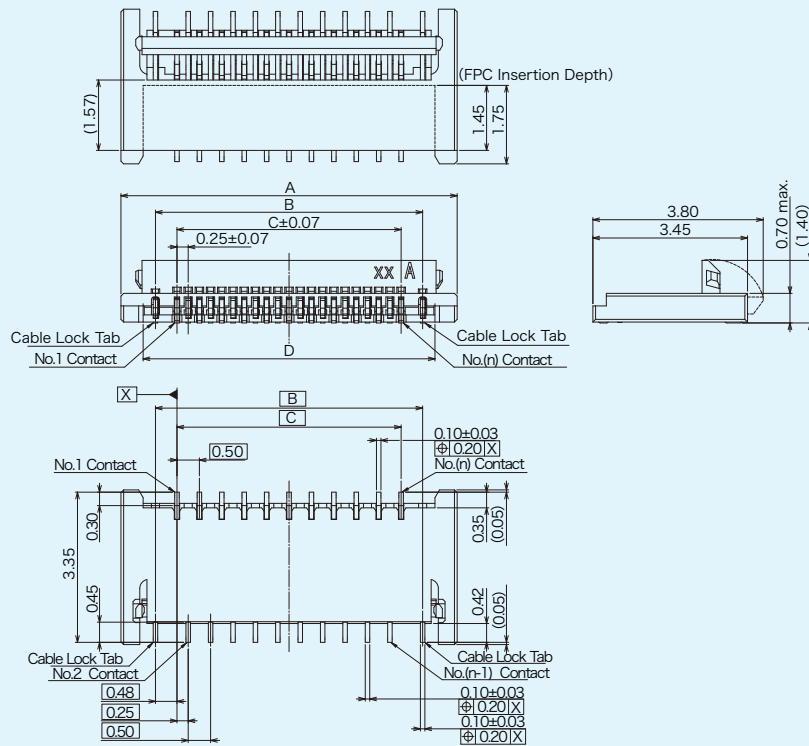
FF28- □□ A-R11A-B-3J

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series	FF28
② Number of Contact	Refer to th table 1
③ Contact Position	A : Upper Contact Applicable PCB Thickness : 0.12±0.03mm
④ Contact Style	R : Right Angle
⑤ Contact Tail Length	1 : 0.45mm / 0.3mm
⑥ Contact Plating	1 : Au (Flash) over Ni
⑦ Lock Lever Style	A : Standard
⑧ Housing Color	B : Black
⑨ Material	3J : Halogen-free,PFAS Free

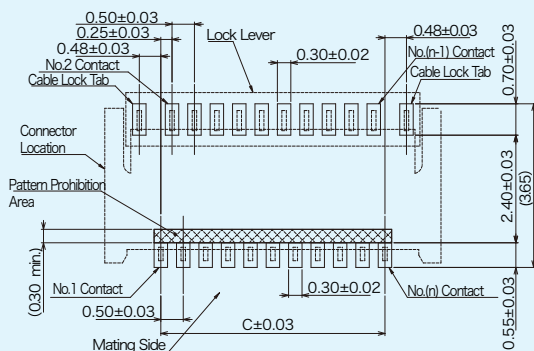
Dimensions

Odd Number of Contact

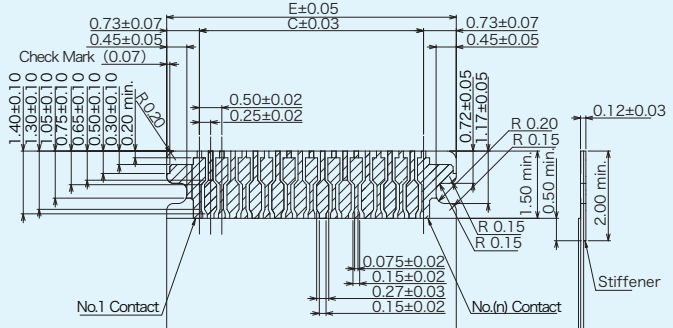


Recommended PCB Mounting Dimensions

Contacts are arranged zigzag on from No.1 contact.



Recommended FPC Dimensions



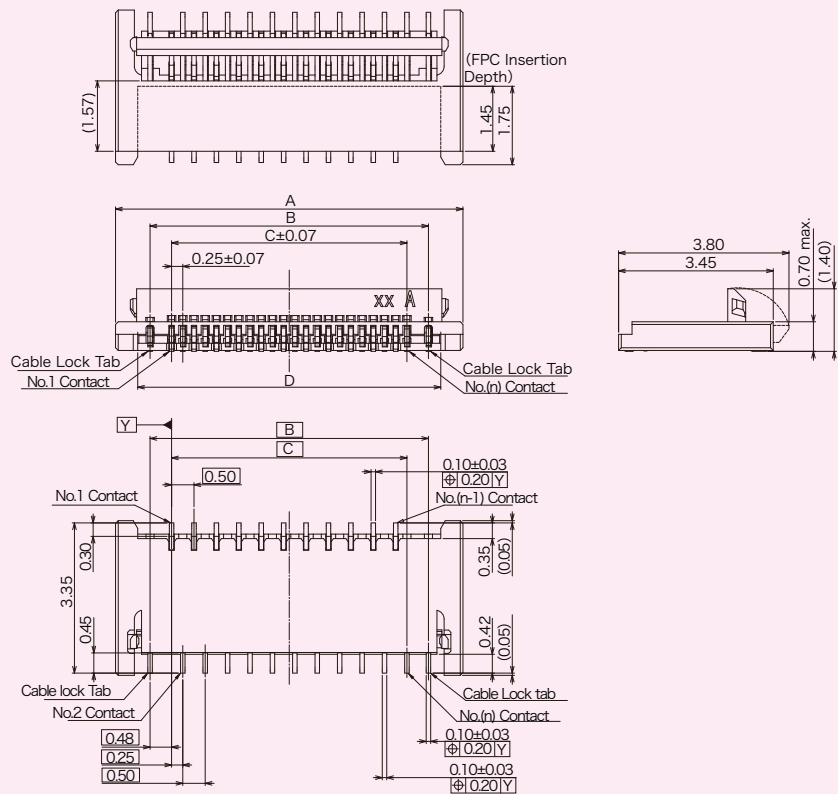
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▶ 0.25mm Pitch FPC Connector [Upper Contact]

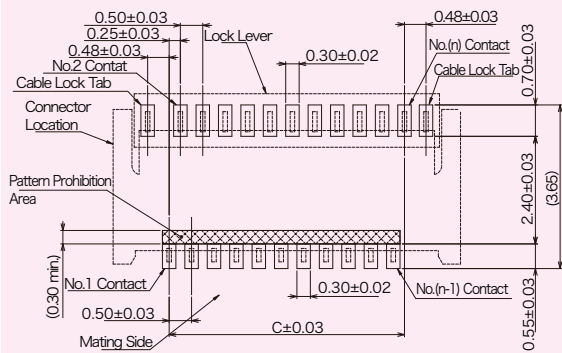
Dimensions

Even Number of Contacts



Recommended PCB Mounting Dimensions

Contacts are arranged zigzag from No.1 contact.



Recommended FPC Dimensions

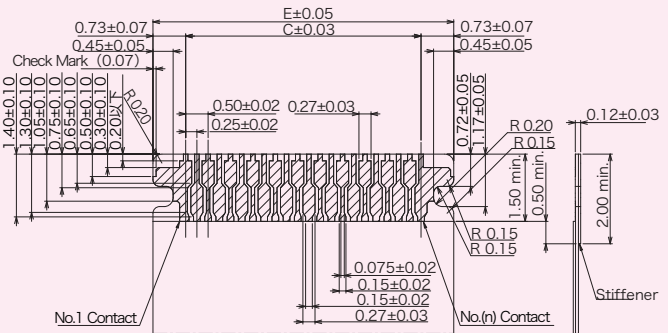


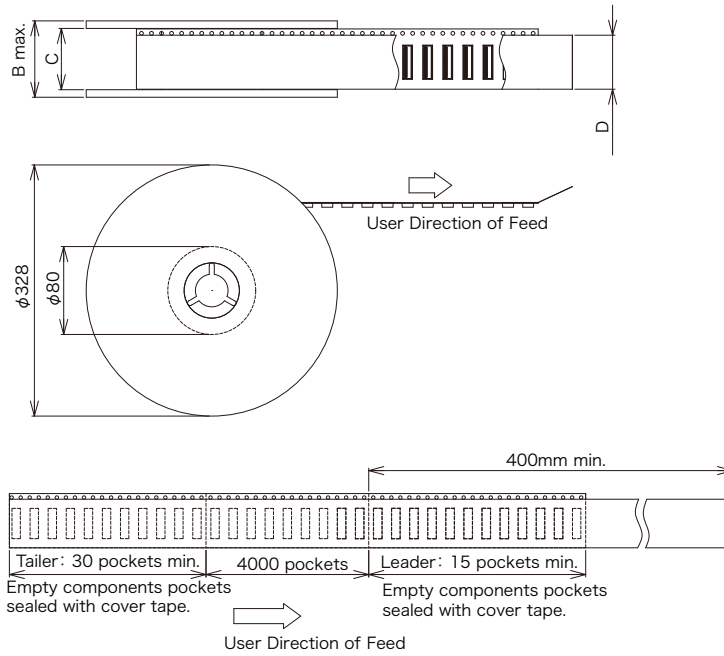
Table-1

Part Number	Number of Contact	A	B	C	D	E
FF28- 8A-R11A-B-3J	8	4.25	2.71	1.75	3.26	3.21
FF28-12A-R11A-B-3J	12	5.25	3.71	2.75	4.26	4.21
FF28-30A-R11A-B-3J	30	9.75	8.21	7.25	8.76	8.71
FF28-35A-R11A-B-3J	35	11.00	9.46	8.50	10.01	9.96
FF28-41A-R11A-B-3J	41	12.50	10.96	10.00	11.51	11.46
FF28-45A-R11A-B-3J	45	13.50	11.96	11.00	12.51	12.46

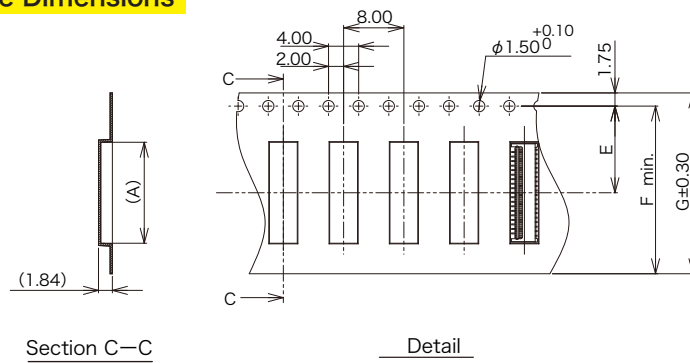
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▶ Packing Specifications

■ Reel Dimensions



■ Emboss Tape Dimensions



Part Number	Number of Contact	A	B	C	D	E	F	G
FF28- 8A-R11A-B-3J	8	4.55	22.4	16.4	13.5	7.5	14.25	16.0
FF28-12A-R11A-B-3J	12	5.55						
FF28-30A-R11A-B-3J	30	10.05	30.4	24.4	21.5	11.5	22.25	24.0
FF28-35A-R11A-B-3J	35	11.30						
FF28-41A-R11A-B-3J	41	12.80						
FF28-45A-R11A-B-3J	45	13.80						

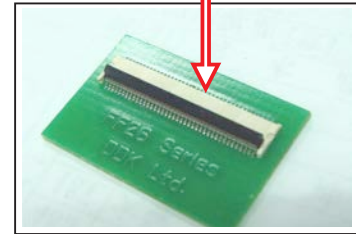
■ Quantity : 4000pcs. / Reel

▶ Operating Instruction and Cautions

# 1. Connector mounting Instruction

- Connectors are delivered with the lock lever opened. You do not have to operate the lock lever before inserting FPC. (picture ①)
- Please do not re-flow with the lock lever in the closed condition.
- Please do not close the lock lever without inserting FPC. Otherwise, the contact gap will become narrower and FPC insertion force will rise. (picture ②)
- Please do not load from the top of the lock lever. (figure ①) And please do not load toward the opposite direction of the lock lever. (figure ②) Otherwise, the lock lever may be broken or contacts may be deformed.

Lock lever is opened when delivery.



picture ①

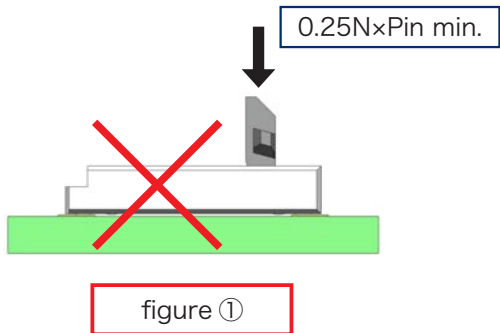


figure ①

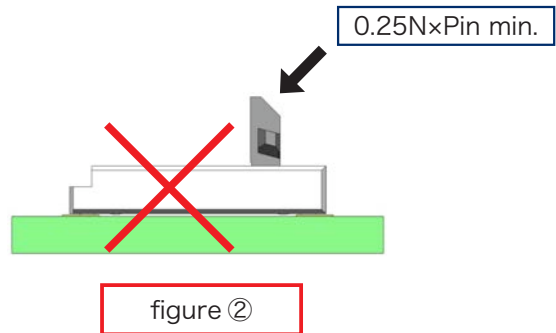


figure ②

- Please do not insert finger nail into the entry as it may damage the connector (figure ③)

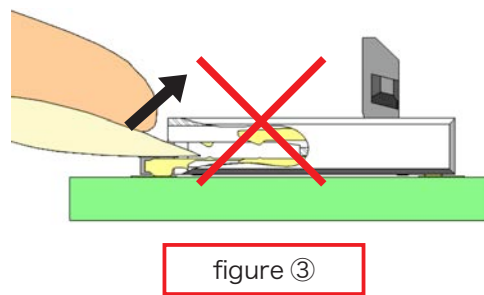


figure ③

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▶ Operating Instructions and Cautions

Cable lock tabs conduct to both ends of contacts.  
 Please do not ground the cable lock tab pad on the mounting board. (figure ④)

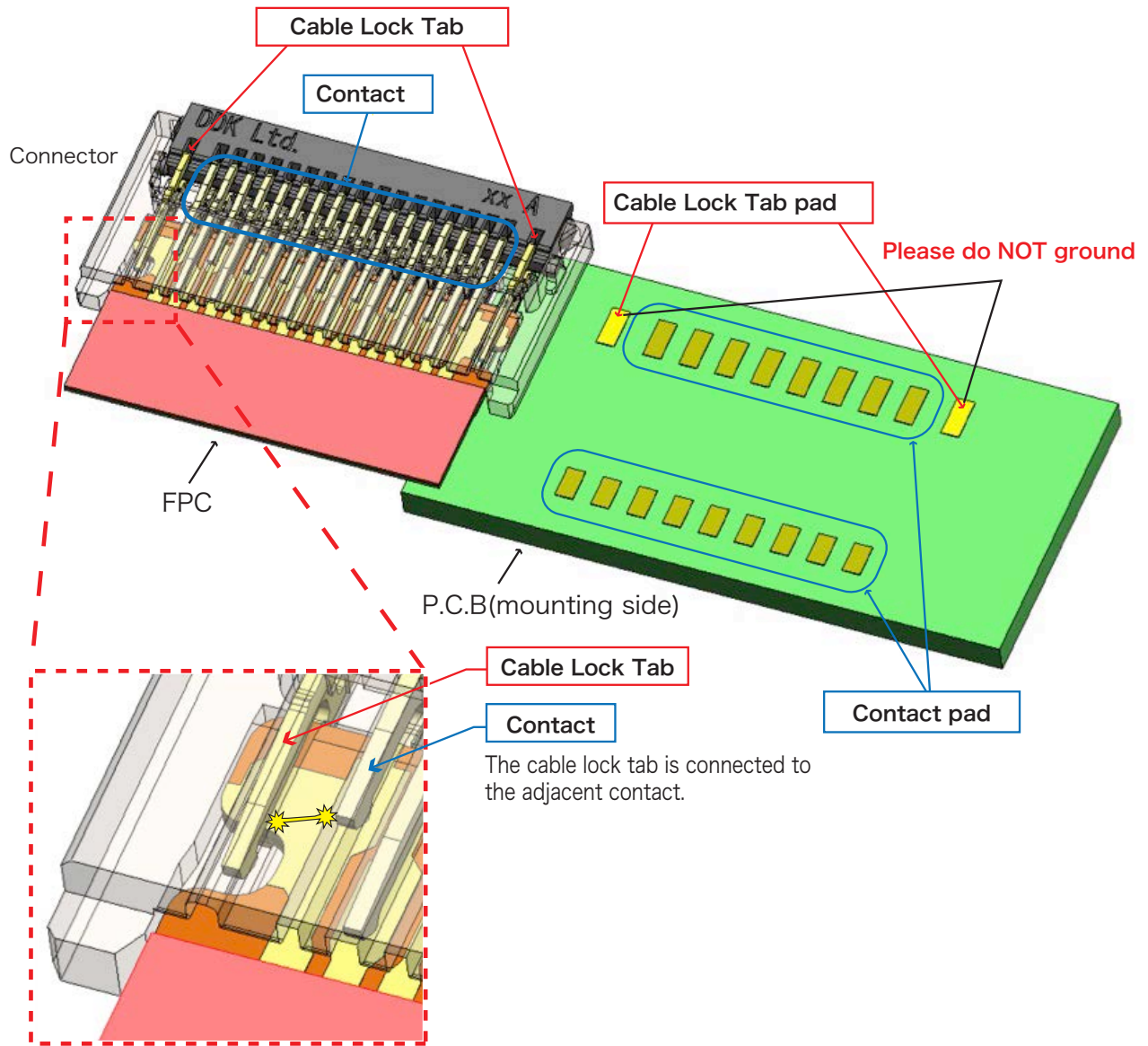


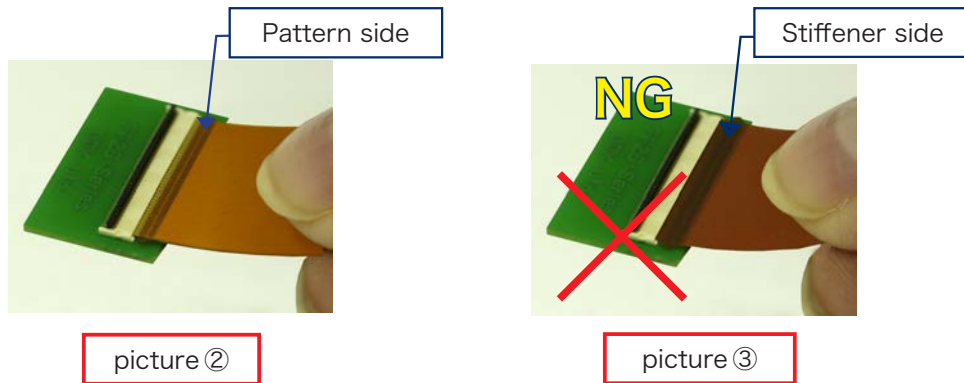
figure ④

▶ Operating Instruction and Cautions

## 2. FPC Insertion

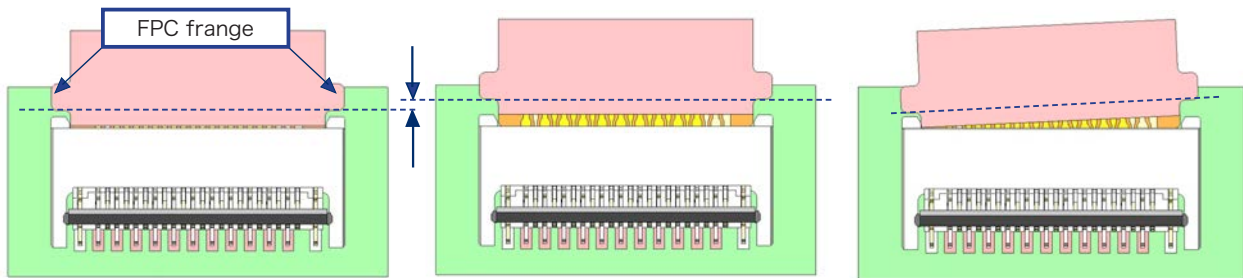
Please insert the FPC with the pattern side up.(correct: picture ② , wrong : picture ③)

- Please insert the FPC straight into the connector.  
Due to the semi-retaining mechanism, some insertion force is necessary when inserting FPC.  
FPC insertion is completed when the edges of the FPC are touching connector frange.



## 3. Correct FPC Insertion Position

- Check line enables a visual verification of the mating position.  
It prevents shallow and diagonal insertion. (picture ⑤、⑥、⑦)



picture ⑤ : Standard insertion

picture ⑥ : Shallow insertion

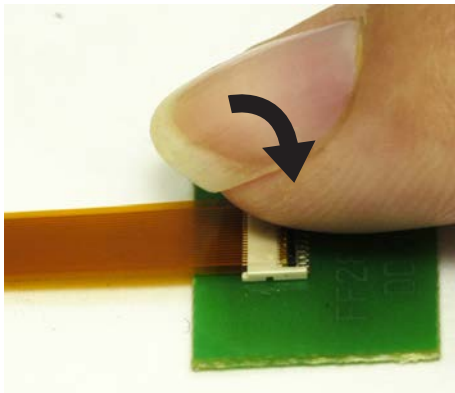
picture ⑦ : Diagonal insertion

- If cable lock tabs catch the FPC correctly, FPC patterns are not dislocated from contacts.

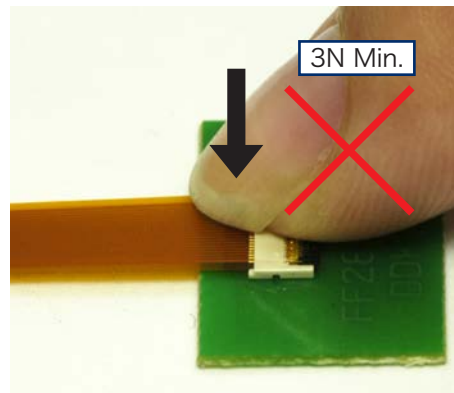
## ▶ Operating Instruction and Cautions

### 4. Closing Lock Lever

- Please rotate down the lock lever until firmly closed.(picture ④)
- ✂ Please do not load excessive force on the housing.(picture ⑤)

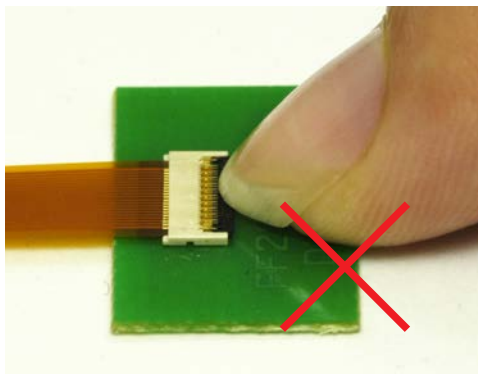


picture ④

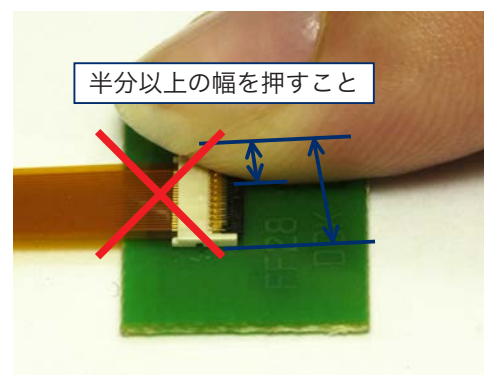


picture ⑤

- Please do not close the lock lever by tip of finger nail. (picture ⑥)
- Please hold the lock lever at least half width of it. (picture ⑦)



picture ⑥

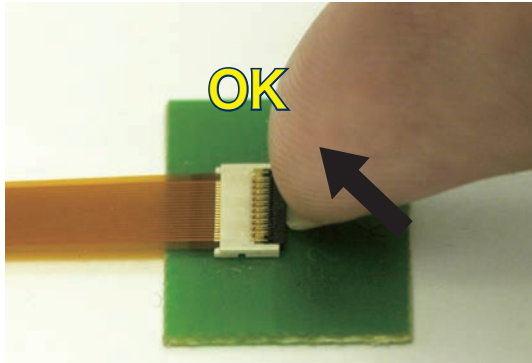


picture ⑦

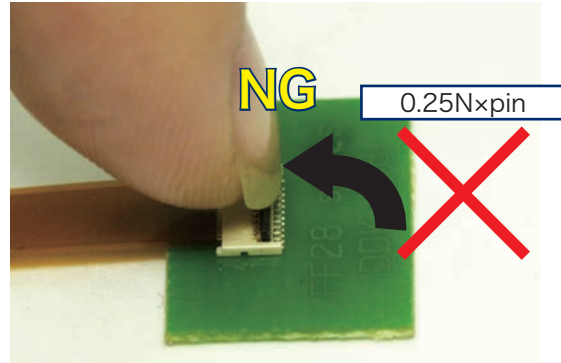
## ▶ Operating Instruction and Cautions

### 5. Removing FPC

- Please lift the lock lever by flipping up in the direction of arrow. (picture ⑧)
- Please do not load excessive force on the lock lever.(picture ⑨)



picture ⑧



picture ⑨

### 6. Others

- In case of hand soldering, please do not heap excessive solder on the contact tails. (above terminal 0.05mm max.)(figure ⑧)

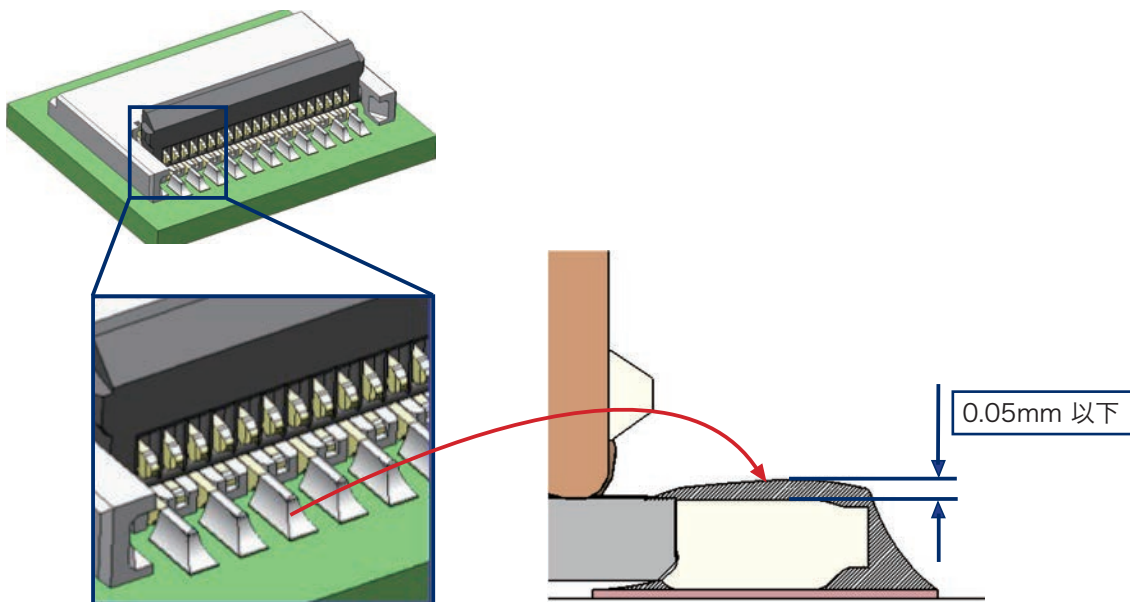


figure ⑧

### 7. ESD(Electrostatic Discharge)

- This connector does not protect the circuit from ESD.

### 8. Disposal of connector

- Please dispose the connector as industrial waste.