

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

RoHS2

## FF29B Series 【Upper Contact】

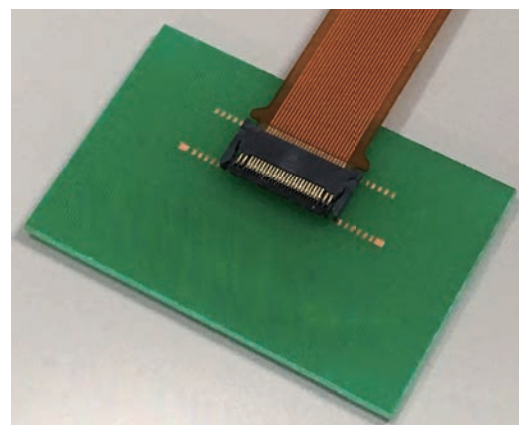
Fujikura

### OUTLINE

FF29B series is an ultra-low profile FPC connector with 0.175mm pitch, depth 3.0 mm and 0.66 mm connector height.

FF29B connector mates with a FPC circuit of 0.12 mm thick.

FF29B series has two terminals which can handle high currents and can also be used as a power supply terminal.



### FEATURES

- Original cam-type "Back-lock" system ensures a reliable connection and continued retention from inadvertent upward pulling of the FPC.
- FF29B series has two terminals which can handle high currents and can allow current to flow up to 2A.
- FF29B has a pitch of 0.175 mm and a mounting height of 0.66 mm.
- The upper contact is used for electrical contact with the FPC circuit.
- Connectors are delivered unlocked so the lock lever does not need to be opened before operation.
- Supplied with emboss tape for automatic mounting
- Nickel barrier prevents solder wicking.
- Halogen Free
- The housing and the lock lever are made of heat-resistant resin making the FPC connector compatible with lead-free reflow soldering.

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

### APPLICATIONS

Mobile phones, PDA, Wearable devices, other Portable devices

### SPECIFICATIONS

Rated Voltage	50 V AC (r.m.s.)
Rated Current	0.3 A Signal contact 2.0 A Power contact
Dielectric Withstand Voltage	200V AC(r.m.s.) /1 minute
Insulation Resistance	50 MΩ min. at 250 V DC
Contact Resistance	100 mΩ max. Signal contact 40 mΩ max. Power contact

### MATERIAL/FINISH



Item	Material / Finish
Contact	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.

## ▶ 0.175mm pitch FPC connector

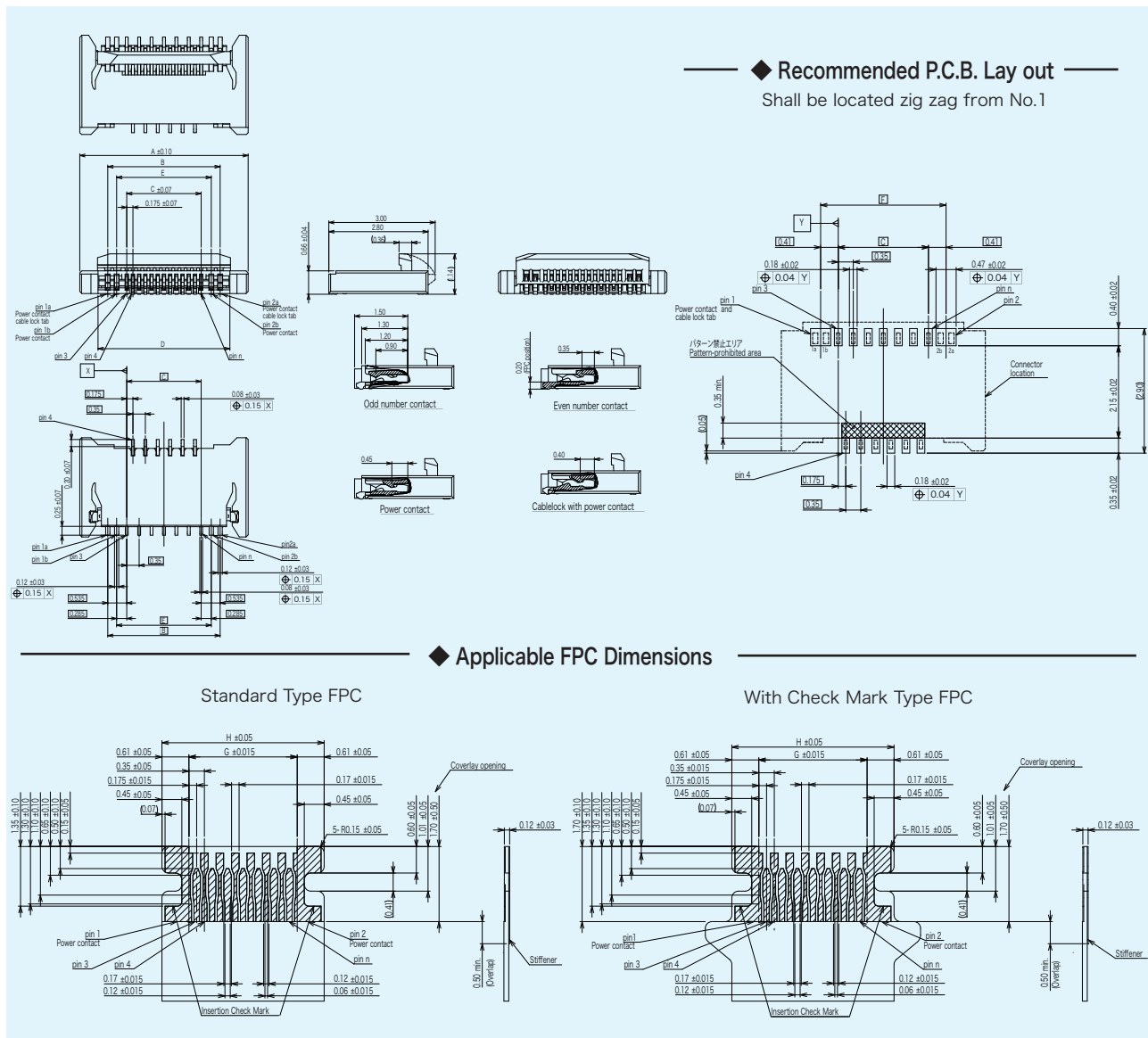
FF29B-       A-R21A-B-3J

①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨

## ◆ Dimensions

Odd number  
of contacts

① Series	FF29B
② Number of Contacts	Refer to Table-1
③ Contact Position	A : Upper contact Applicable FPC : 0.12±0.02 mm
④ Connector Style	R : Right Angle
⑤ Contact Material	2 : Corson Copper Alloy
⑥ Contact Plating/Finish	1 : Au(Flash) over Ni plating
⑦ Lock Lever	A : Standard
⑧ Housing	B : Black
⑨ Material	3J : Halogen-free, PFAS Free



# ▶ 0.175mm pitch FPC connector

## ◆ Dimensions

Even number  
of contacts

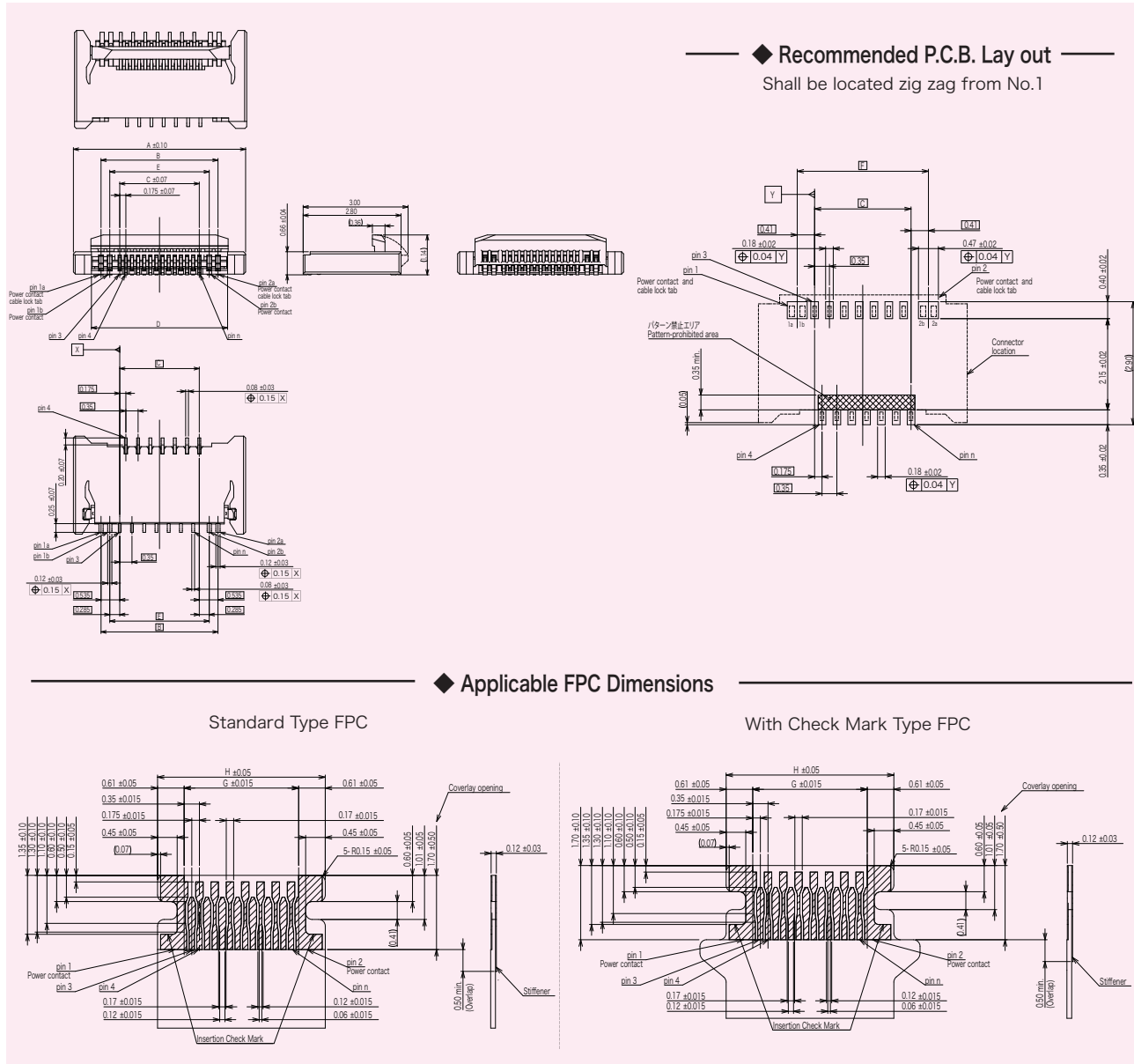


Table-1

Part Number	Number of Contacts	A	B	C	D	E	F	G	H
FF29B-16A-R21A-B-3J	16	4.925	3.345	2.275	3.895	2.845	3.095	2.625	3.845
FF29B-20A-R21A-B-3J	20	5.625	4.045	2.975	4.595	3.545	3.795	3.325	4.545
FF29B-22A-R21A-B-3J	22	5.975	4.395	3.325	4.945	3.895	4.145	3.675	4.895
FF29B-25A-R21A-B-3J	25	6.500	4.920	3.850	5.470	4.420	4.670	4.200	5.420

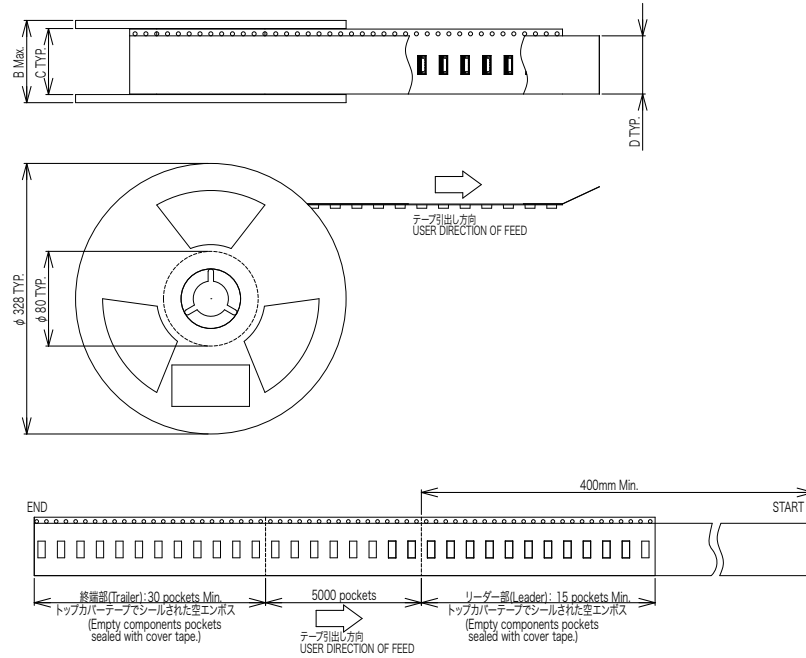
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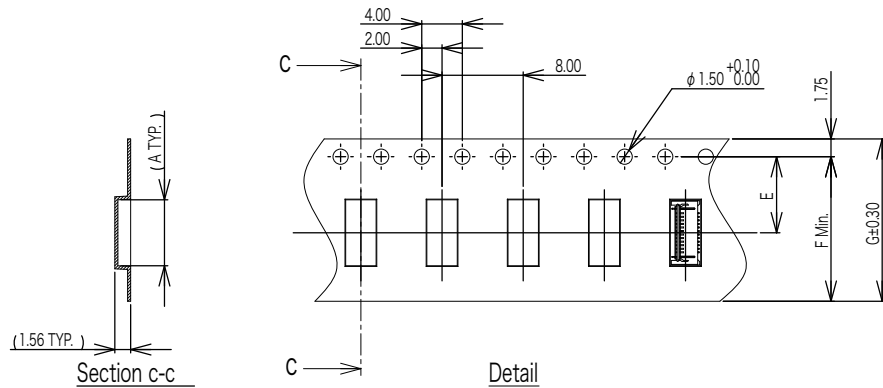
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## ▶ Packing Specifications

### ■ Reel Dimensions



### ■ Emboss Tape Dimensions



Part Number	Number of Contact	A	B	C	D	E	F	G
FF29B-16A-R21A-B-3J	16	5.08	22.4	16.4	13.5	7.5	14.3	16.0
FF29B-20A-R21A-B-3J	20	5.78						
FF29B-22A-R21A-B-3J	22	6.13						
FF29B-25A-R21A-B-3J	25	6.65						

### ■ Package Quantity : 5,000pcs./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.

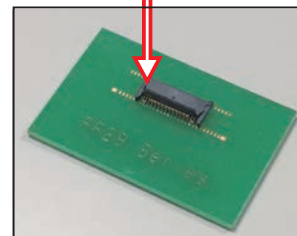
Otherwise, the contact gap will become narrower and FPC insertion force will rise.

- 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

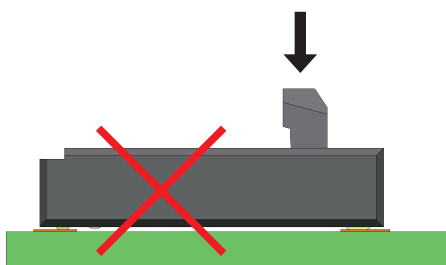


figure ①

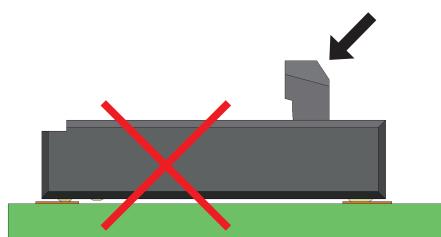


figure ②

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

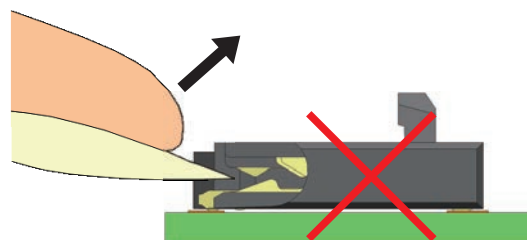
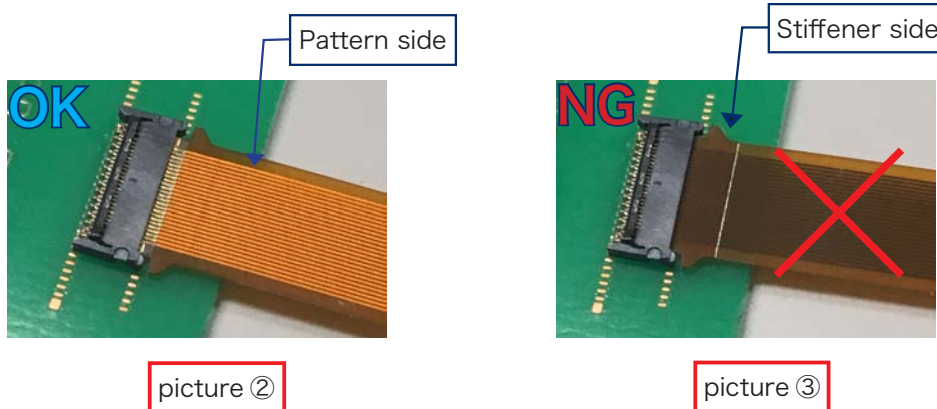


figure ③

## ▶ 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 ouching connector frange.( picture ⑤)



### 3. Correct FPC Insertion Position

- The frange position enables a visual verification of the mating position.(figure ④) .  
It prevents shallow and diagonal insertion. ( picture ⑤、⑥)

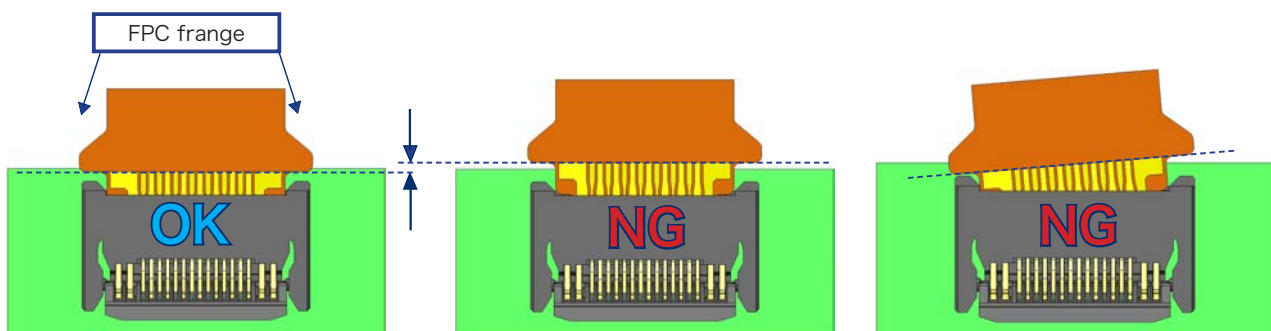


figure ④ : normal insersion

figure ⑤ : Shallow insertion

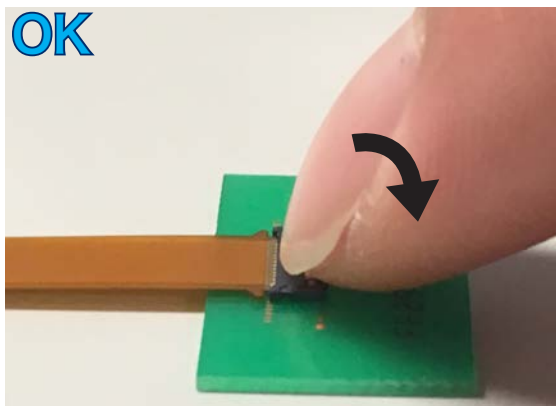
figure ⑥ : Diagonal insertion

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

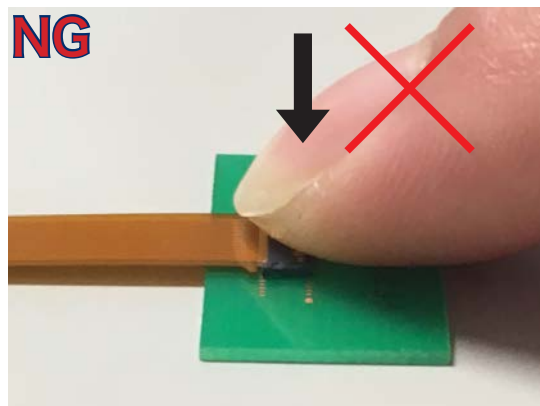
## ▶ Operating Instruction and Cautions

### 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 )

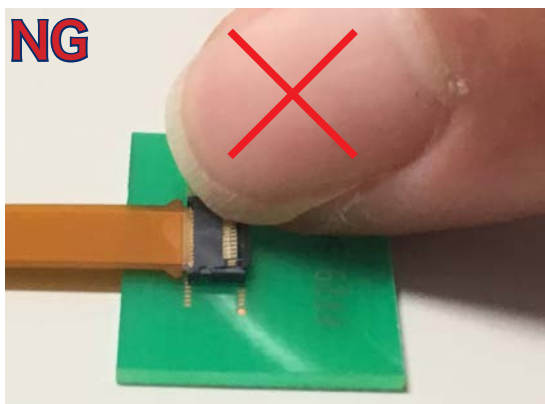


picture ④

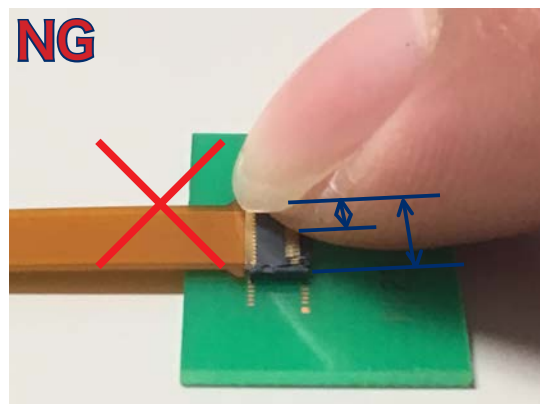


picture ⑤

- 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



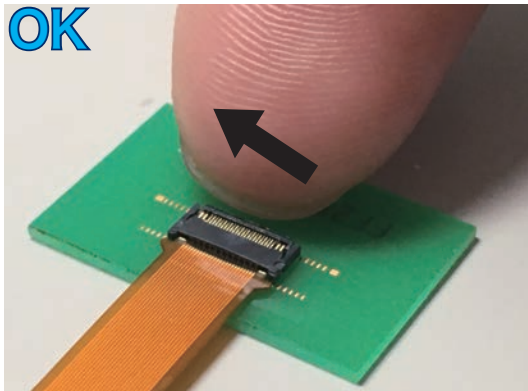
picture ⑦



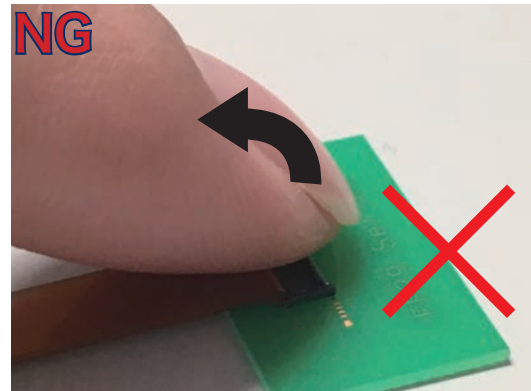
## ▶ Operating Instruction and Cautions

### 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 ⑦)

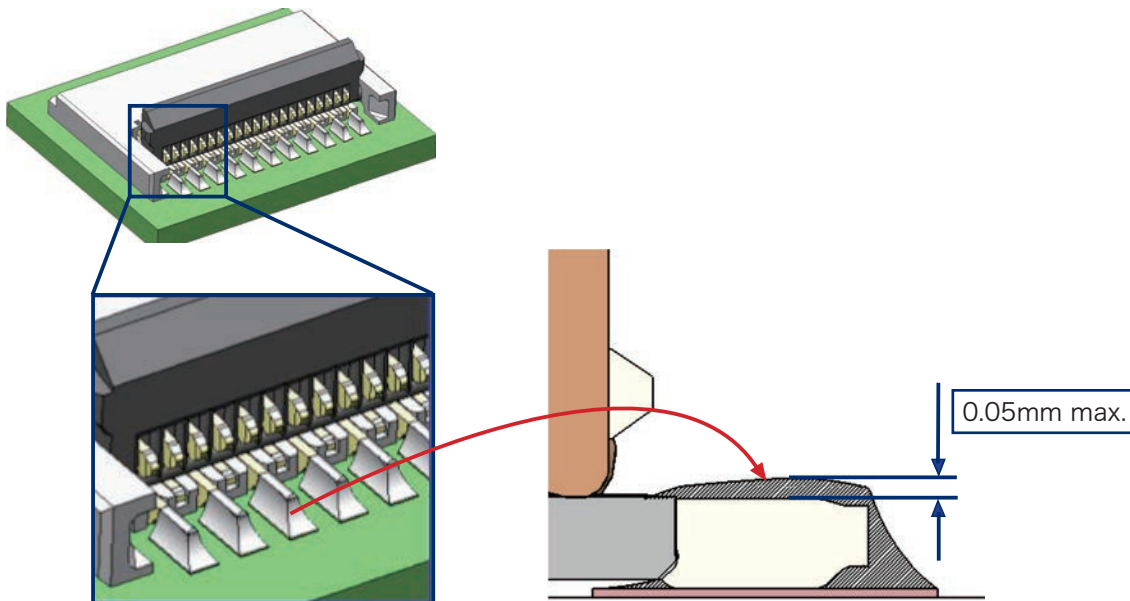


figure ⑦

### 7. ESD(Electrostatic Discharge)

This connector does not protect the circuit from ESD.

### 8. Disposal of connector

Please dispose the connector as industrial waste.

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