

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

RoHS2

## FFA2 Series 【Upper Contact】

Fujikura

### OUTLINE

FFA2 series is an ultra-low profile FPC connector with 0.15mm pitch, depth 3.0 mm and 0.55 mm connector height. FFA2 connector mates with a FPC circuit of 0.12 mm thick. FFA2 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.
- FFA2 series has two terminals which can handle high currents and can allow current to flow up to 2A.
- FFA2 has a pitch of 0.15 mm and a mounting height of 0.55 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

Smartphone, Wearable devices, other Portable devices

### SPECIFICATIONS

Rated Voltage	50 V AC (r.m.s.)
Rated Current	0.2 A Signal contact 2.0 A Power contact
Dielectric Withstand Voltage	200V AC(r.m.s.) /1 minute
Insulation Resistance	50 M $\Omega$ min. at 250 V DC
Contact Resistance	100 m $\Omega$ max. Signal contact 40 m $\Omega$ 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
Hold Tab	Copper Alloy / Au over Ni

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Please verify the latest specifications with our drawings.

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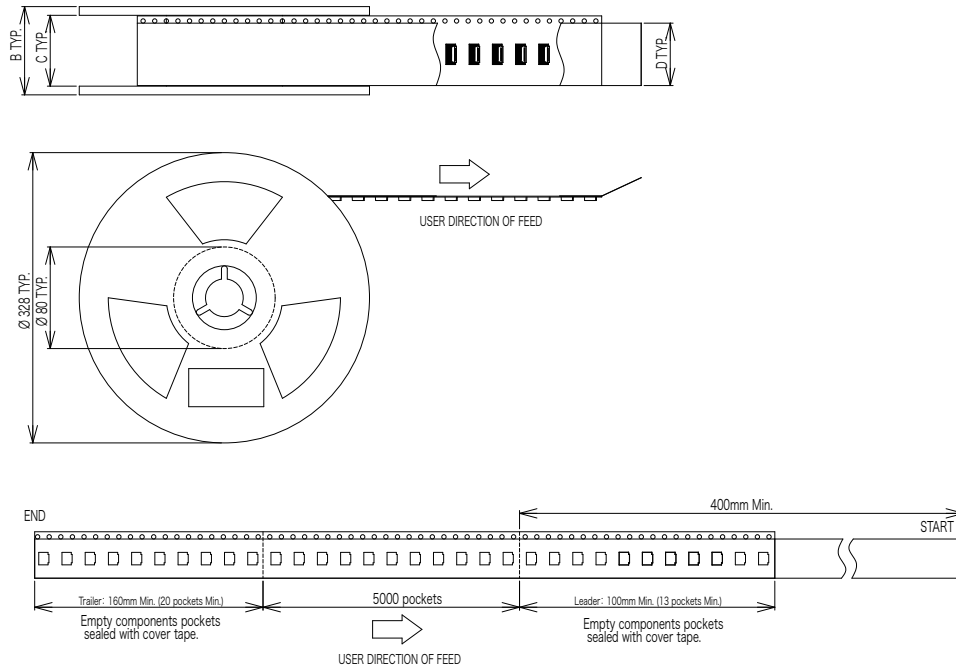
<https://www.connector.fujikura.com>



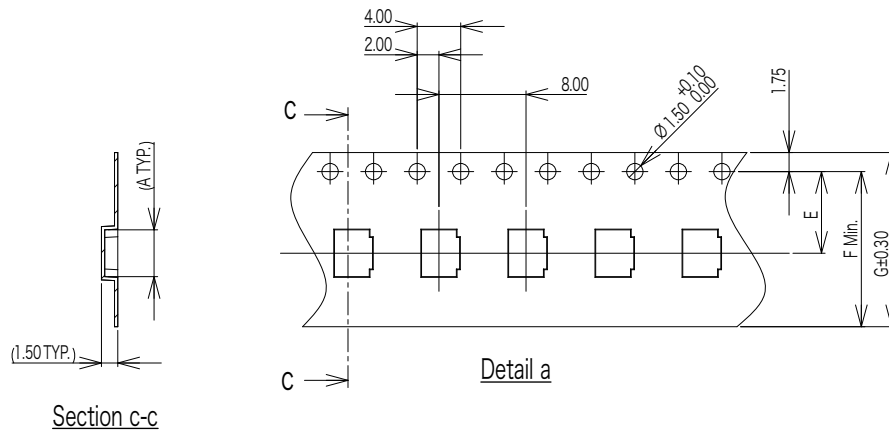


▶ Packing Specifications

■ Reel Dimensions



■ Emboss Tape Dimensions



Part Number	Number of Contacts	A	B	C	D	E	F	G
FFA2-6A-R21A-B-3J	6	3.0	22.4	16.4	13.3	7.5	14.25	16.0
FFA2-22A-R21A-B-3J	22	5.4						

■ Package Quantity : 5,000pcs./Reel

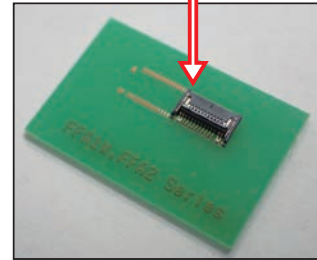
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▶ Operating Instruction and Cautions

# 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)

Lock lever is opened when delivery.



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.

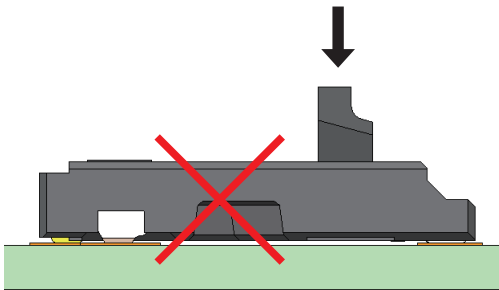


figure ①

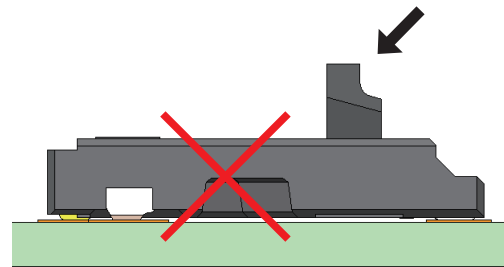


figure ②

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

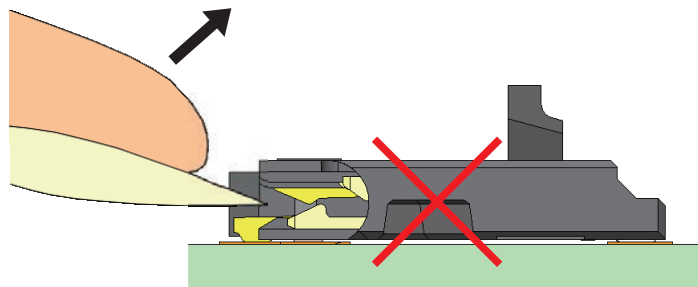


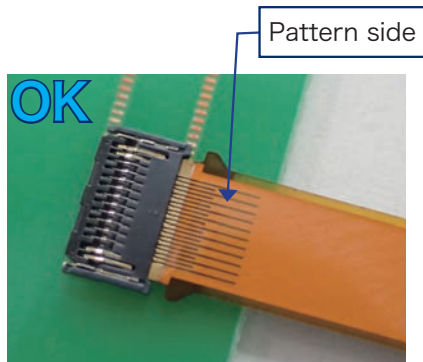
figure ③

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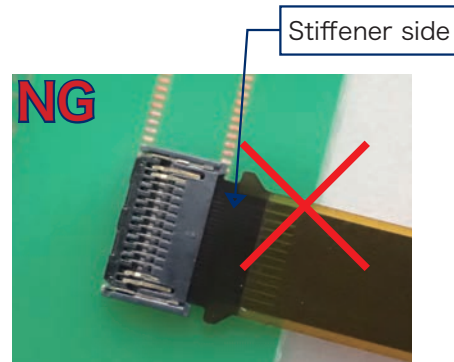
▶ Operating Instruction and Cautions

## 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)



picture ②



picture ③

## 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)

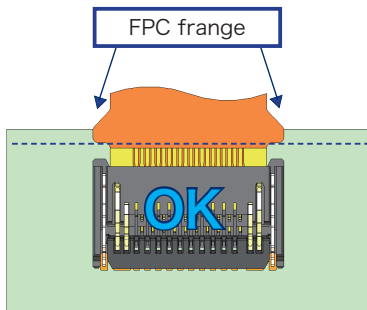


figure ④ : normal inserion

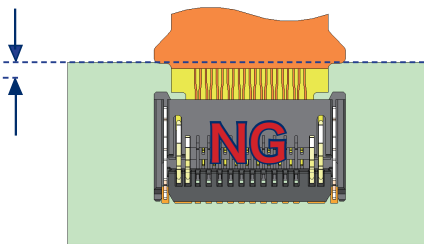


figure ⑤ : Shallow insertion

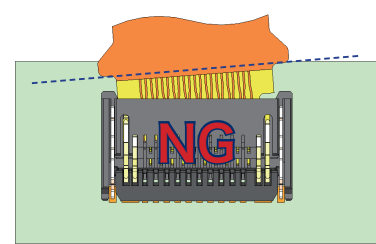


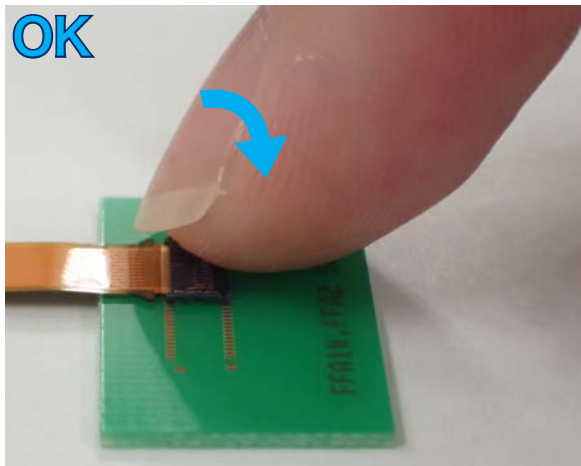
figure ⑥ : Diagonal insertion

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

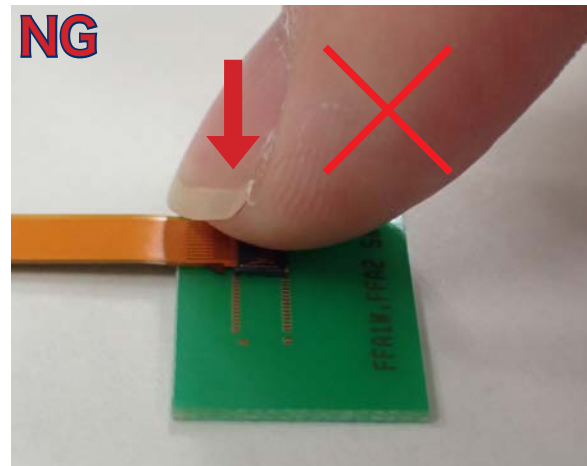
## ▶ Operating Instruction and Cautions

### 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 )

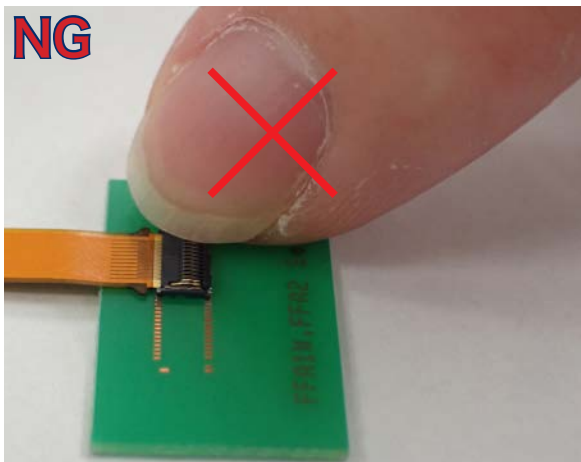


picture ④

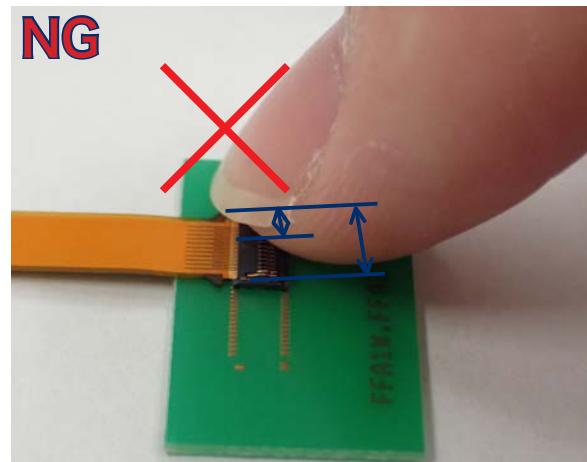


picture ⑤

- 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

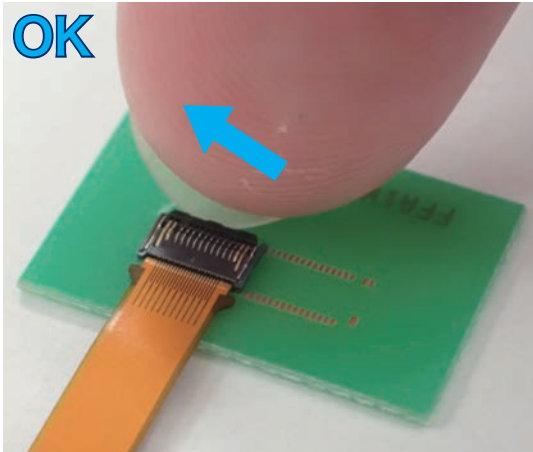


picture ⑦

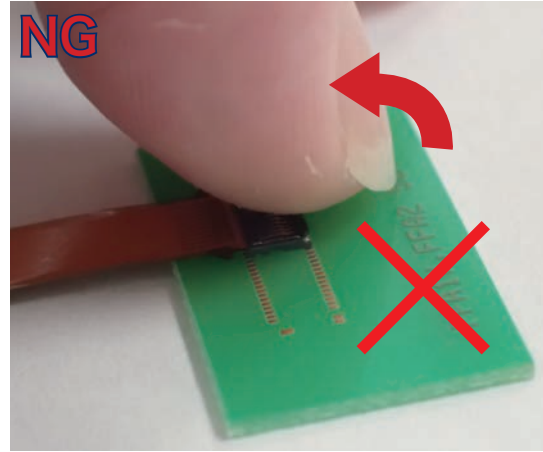
▶ Operating Instruction and Cautions

### 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)

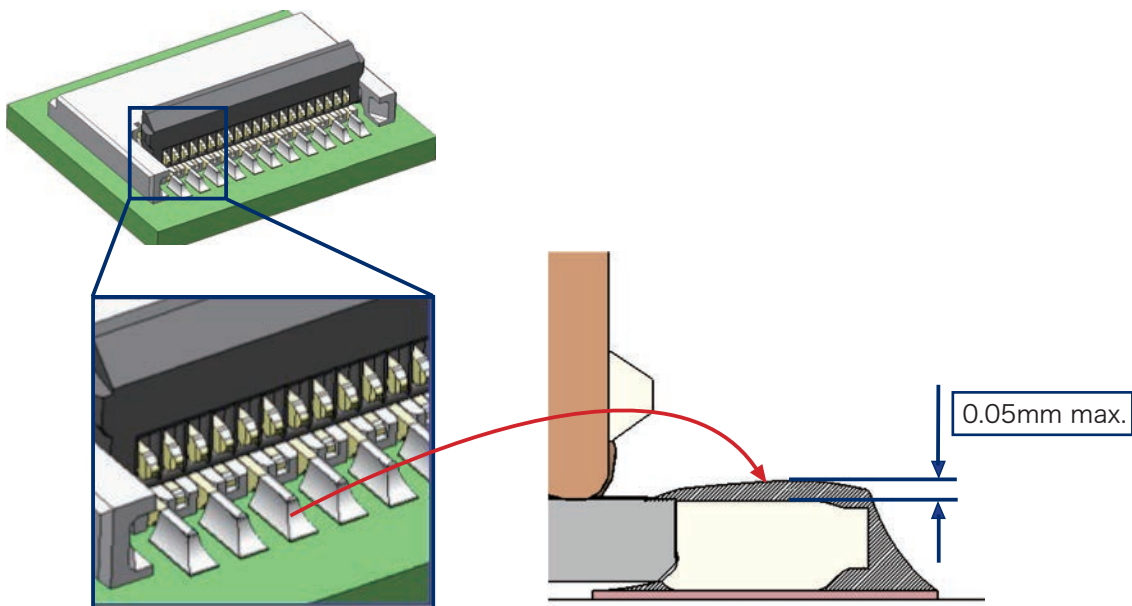


figure ⑦

### 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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