

0.3 mm Pitch Ultra-low Profile FPC Back-lock Connector

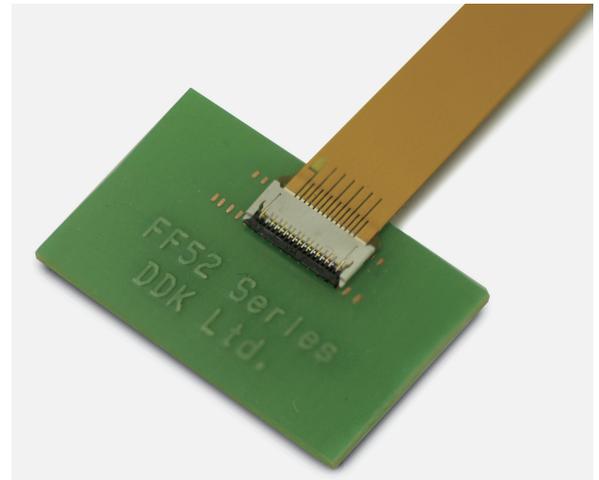
FF52 Series [Upper Contact]

DDK Ltd.

OUTLINE

FF52 series is 0.30mm pitch, depth 3.00mm and 0.5mm mounting height of ultra-low profile FPC connector.

It has cable lock mechanism to maximize retention and alignment of the FPC material. FF52 series is upper contact connector.



FEATURES

- It is achieved the mounting height 0.5mm and the lowest profile FPC connector in this industry.
- DDK's original rotate oval cam lock mechanism; "Back-lock" system ensure the reliable connection.
- DDK's cable lock mechanism provides positive retention of FPC.
- The contact position is upper contact.
- Back-lock structure ensures retention from inadvertent from upward pulling of the FPC
- Connectors deliver with the lock lever opened. Time saving for FPC inserting operation.
- Nickel barrier prevents solder wicking.
- Halogen Free

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

LCD Back-light module, Touch Panel, Accessory module

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 Ω min. at 250V DC
Contact Resistance	80m Ω max.

MATERIAL/FINISH



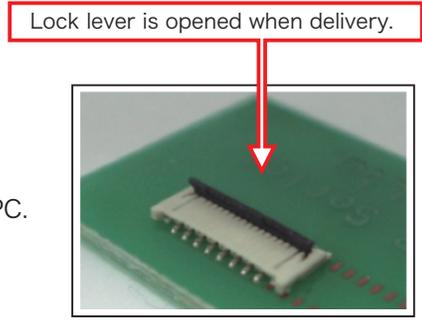
Item	Material / Finish
Contact	Copper Alloy / Au (Flash) over Ni
Housing	LCP Resin (UL94V-0) / Ivory
Lock Lever	PPS Resin (UL94V-0) / Black

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▶ Operating Instruction and Cautions

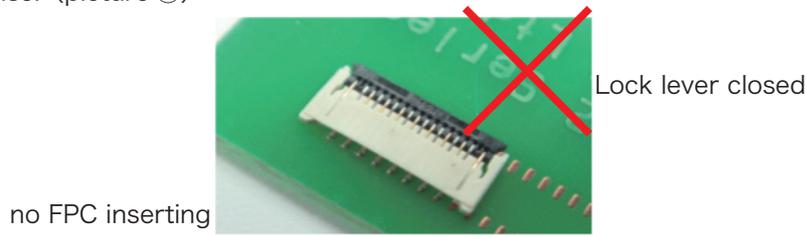
1. Connector mounting Instruction

- Connectors are delivered with a lock lever opened.
- You do not have to operate the lock lever before inserting FPC. (picture ①)



picture ①

- Please do not re-flow with the lock lever closed condition.
- Please do not close the lock lever without inserting FPC. Otherwise, the contact gap become narrower and FPC insertion force will rise. (picture ②)



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.

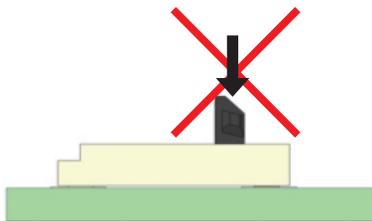


figure ①

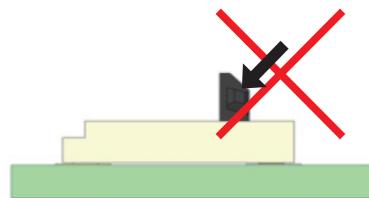


figure ②

- Please do not hook the tip of finger nail on the entry. Otherwise it causes breakage of connector (figure ③)

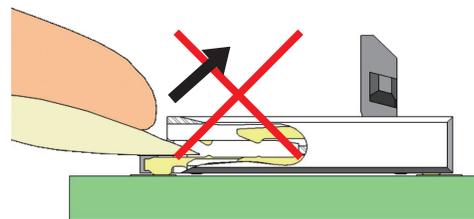


figure ③

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While FPC mated with connector, cable lock tabs conduct to both ends of contacts.
Please do not ground the cable lock tab pad on the mounting board. (figure ④)

Please do NOT ground

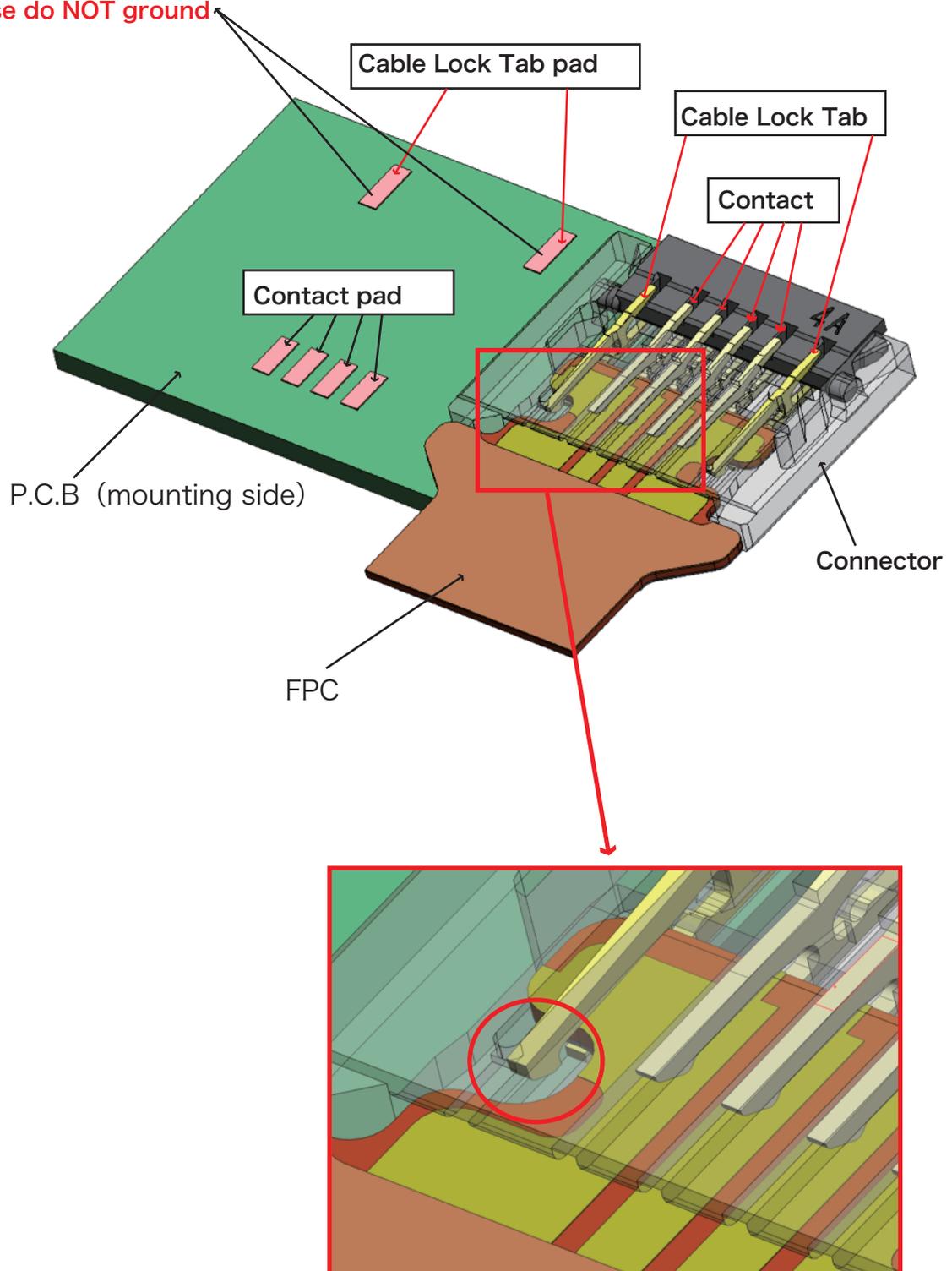


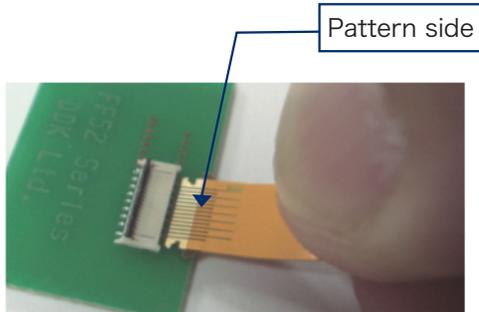
figure ④

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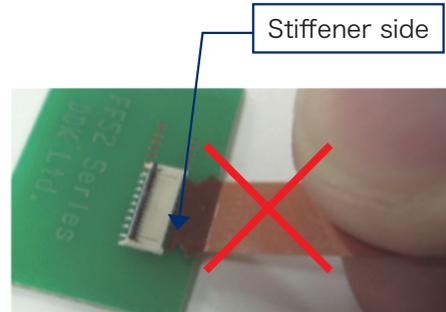
▶ Operating Instruction and Cautions

2. FPC Insertion

- Please insert FPC to the pattern side up.(correct: picture ③ , wrong : picture ④)

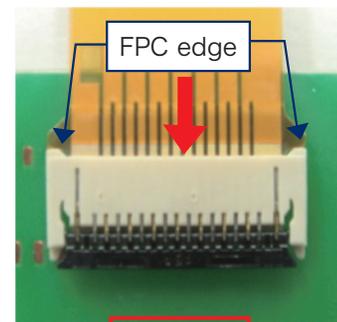


picture ③



picture ④

- Please insert FPC straight to the connector.
Due to the semi-retaining mechanism, some insertion force is necessary when inserting FPC.
FPC insertion is completed when touching connector frange with FPC edge. (picture ⑤)



picture ⑤

3. Correct FPC Insertion Position

- Check line enables to check the mating position.(figure ⑤) .
It prevents shallow and diagonal insertion. (picture ⑥、⑦、⑧)

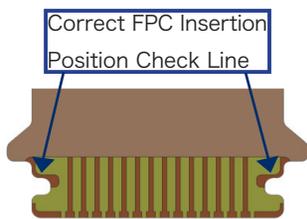
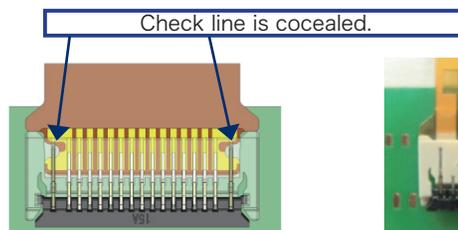
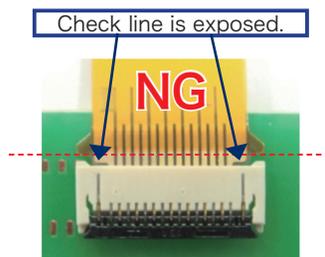


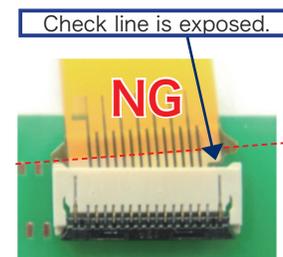
figure ⑤



picture ⑥ : Standard insertion



picture ⑦ : Shallow insertion

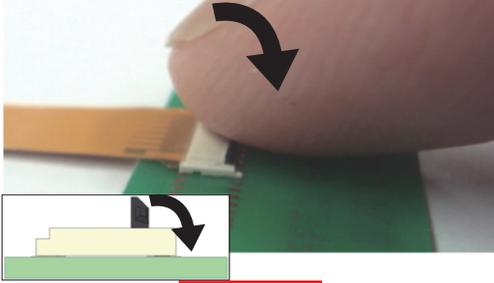


picture ⑧ : Diagonal insertion

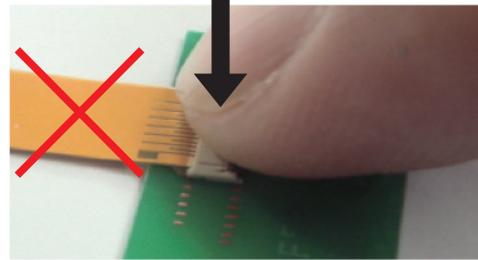
▶ Operating Instruction and Cautions

4. Closing Lock Lever

- Please rotate down the lock lever until firmly closed.(picture ⑨)
Please do not load excessive force on the housing.(picture ⑩)

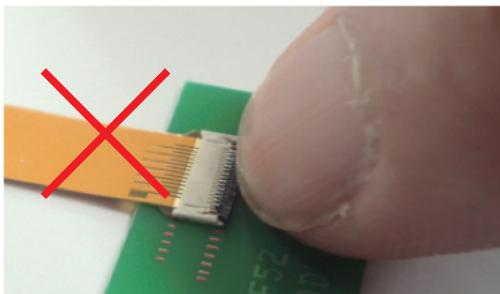


picture ⑨



picture ⑩

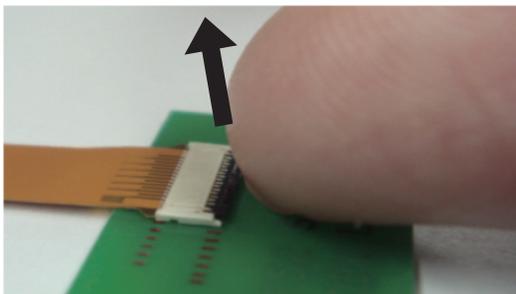
- Please do not close the lock lever by tip of finger nail. (picture ⑪)



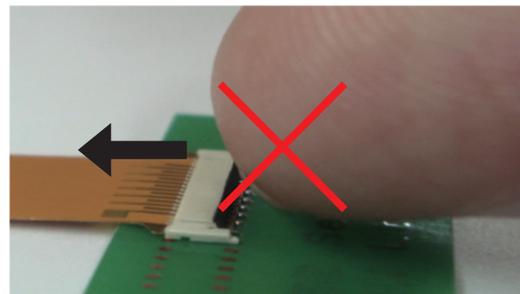
picture ⑪

5. Removing FPC

- Please lift the lock lever like flipping up in the direction of arrow.(picture ⑫)
Please do not load excessive force on the lock lever.(picture ⑬)



picture ⑫



picture ⑬

6. ESD(Electrostatic Discharge)

- This connector is not taken ESD measure.

7. Disposal of connector

- Please dispose the connector as industrial waste.