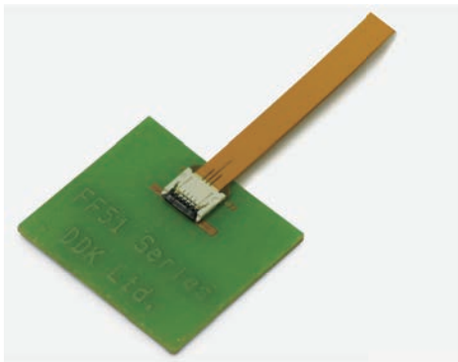
0.35 mm Pitch Ultra-low Profile FPC Back-lock Connector

RoHS2

FF51 Series 【Upper Contact】

Fujikura



OUTLINE

FF51 series is a connector with a cable lock mechanism to provide positive retention of the FPC. This LIF connector has an lower contacts to interface with the FPC at a 0.35mm pitch. The ultra-low profile connector has a 0.5mm height, making it one of the smallest board mounted FPC ZIF connectors on the market.

FEATURES

-The FF51 connector has an ultra-low height of 0.5mm.
-Original cam-type back-lock system provides reliable operation and ensures retention from inadvertent upward pulling of the FPC.
-The FF51 ZIF connector utilizes a cable lock mechanism to provide positive retention of the FPC.
-This connectors utilizes an upper connect.
-Back-lock mechanism ensures retention from inadvertent from upward pulling of the FPC.
-These ZIF connectors are delivered with the lock lever opened for maximum production efficiency.
-This connector is available with 4 contacts.
-Contacts utilize a nickel barrier to prevent solder wicking.
-High-temperature resin for lead free reflow process.
-FF51 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 the cable lock tabs electrically conductive on both ends, please do not use the cable lock tabs as ground tabs.

APPPLICATIONS

LCD Back-light module, Touch Panel, Accessary 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 MΩ min. at 250V DC
Contact Resistance	80m Ω max.

MATERIAL/FINISH

RoHS Compliant

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

Unit : mm

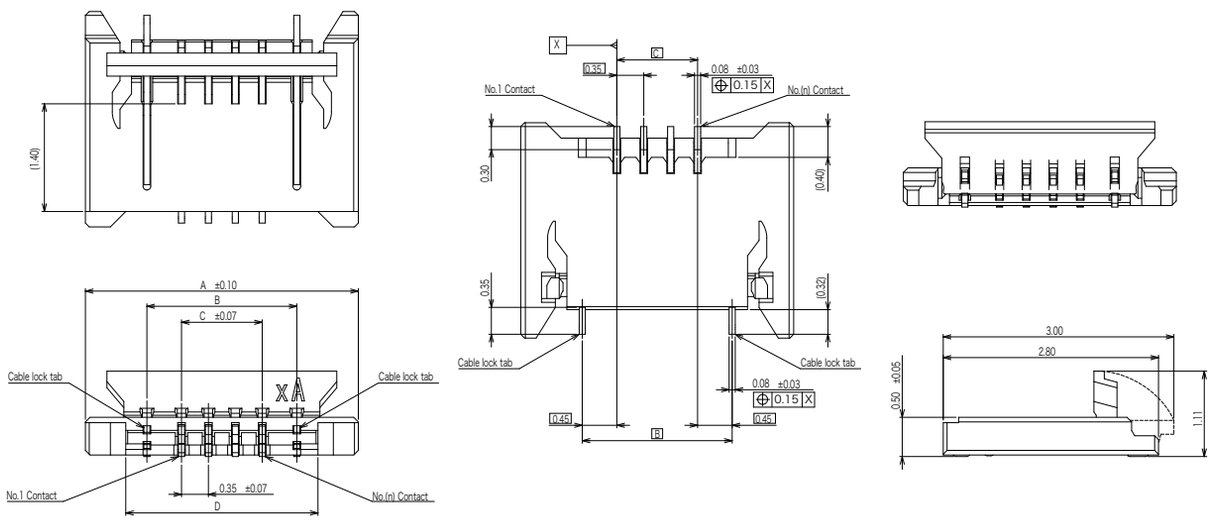
▶0.35mm Pitch FPC Connector【Upper Contact】

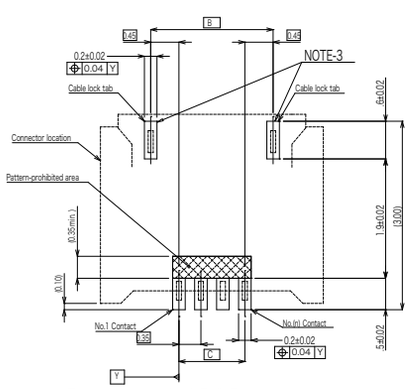
FF51- □□ A-R11A-3J

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

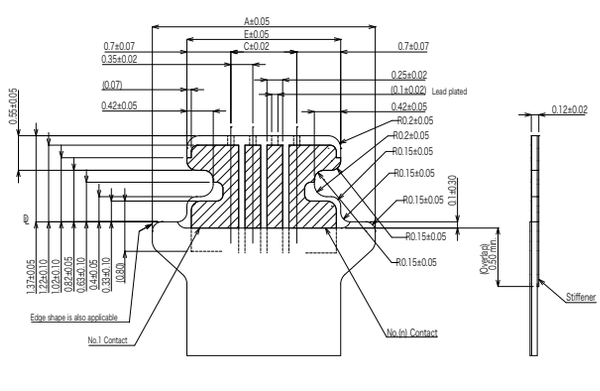
① Series	FF51
② Number of Contact	Refer to the table 1
③ Contact Position	A : Upper Contact, Applicable FPC Thickness : 0.12±0.02mm
④ Contact Style	R : Right Angle
⑤ Contact Tail Length	1 : 0.30mm
⑥ Contact Plating	1 : Au (Flash) over Ni
⑦ Lock Lever Style	A : Standard
⑧ Material	3J : Halogen-free,PFAS Free

Dimensions





Recommended P.C.B pattern lay-out



Applicable for FPC recommended dimension

Table−1

Part Number	Number of Contact	A	B	C	D	E
FF51- 4A-R11A-3J	4	3.55	1.95	1.05	2.50	2.45

◎ Specifications and/or dimenssions in this catalogue are subject to change without notice.
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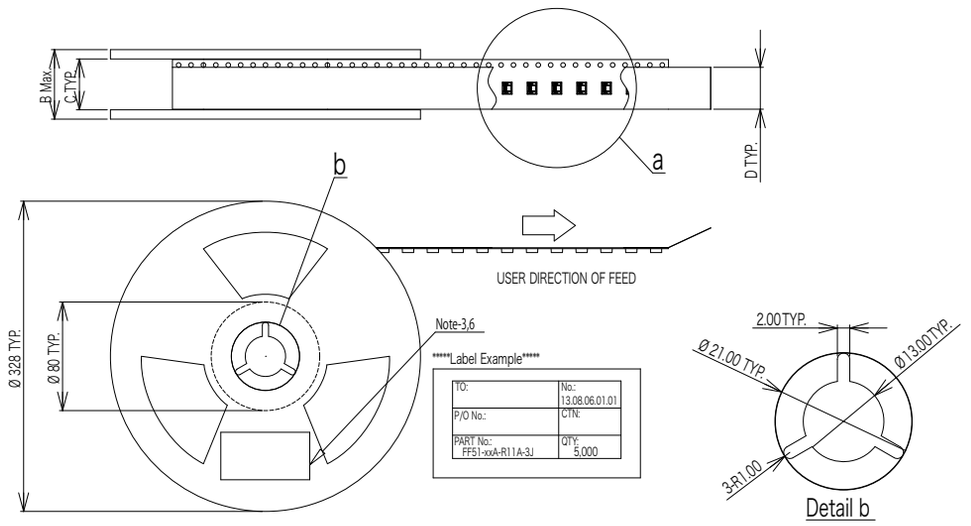
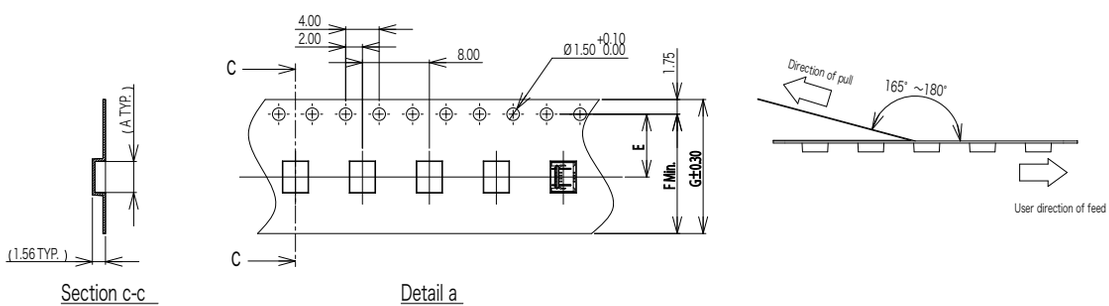
Unit : mm

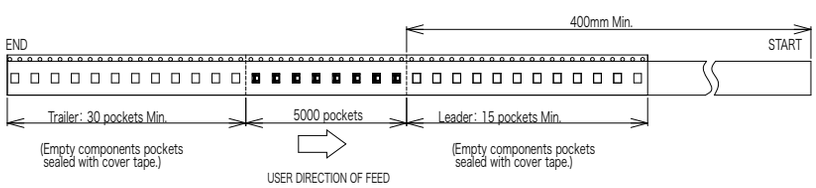
Packing Specifications

■ Reel Dimensions



■ Emboss Tape Dimensions





Part Number	Number of Contact	A	B	C	D	E	F	G
FF51- 4A-R11A-3J	4	3.70	22.4	16.4	13.5	7.5	14.3	16.0

■ Quantity : 5,000pcs./Reel

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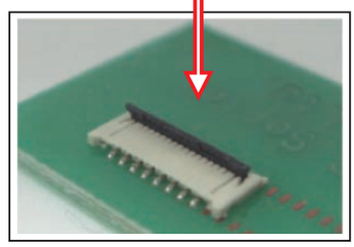
Unit：mm

▶ Operating Instruction and Cautions

1. Connector mounting Instruction

Lock lever is opened when delivery.

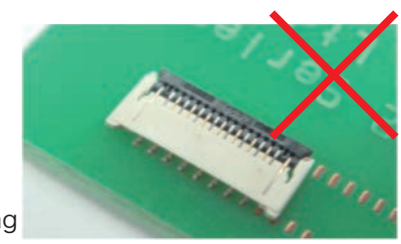


picture ①

・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)



Lock lever closed

no FPC inserting

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)
Otherwaise, the lock lever may be broken or contacts may be deformed.

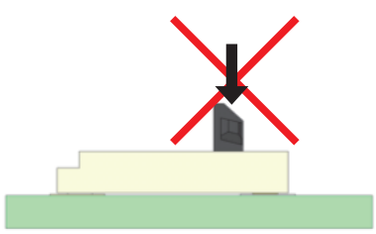


figure ①

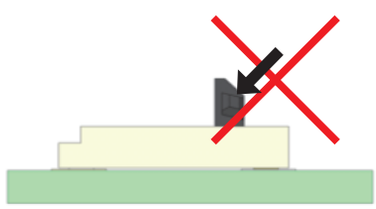


figure ②

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

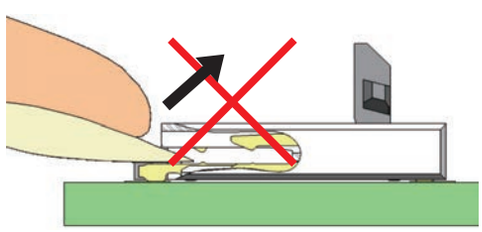


figure ③

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Unit：mm

▶ 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)

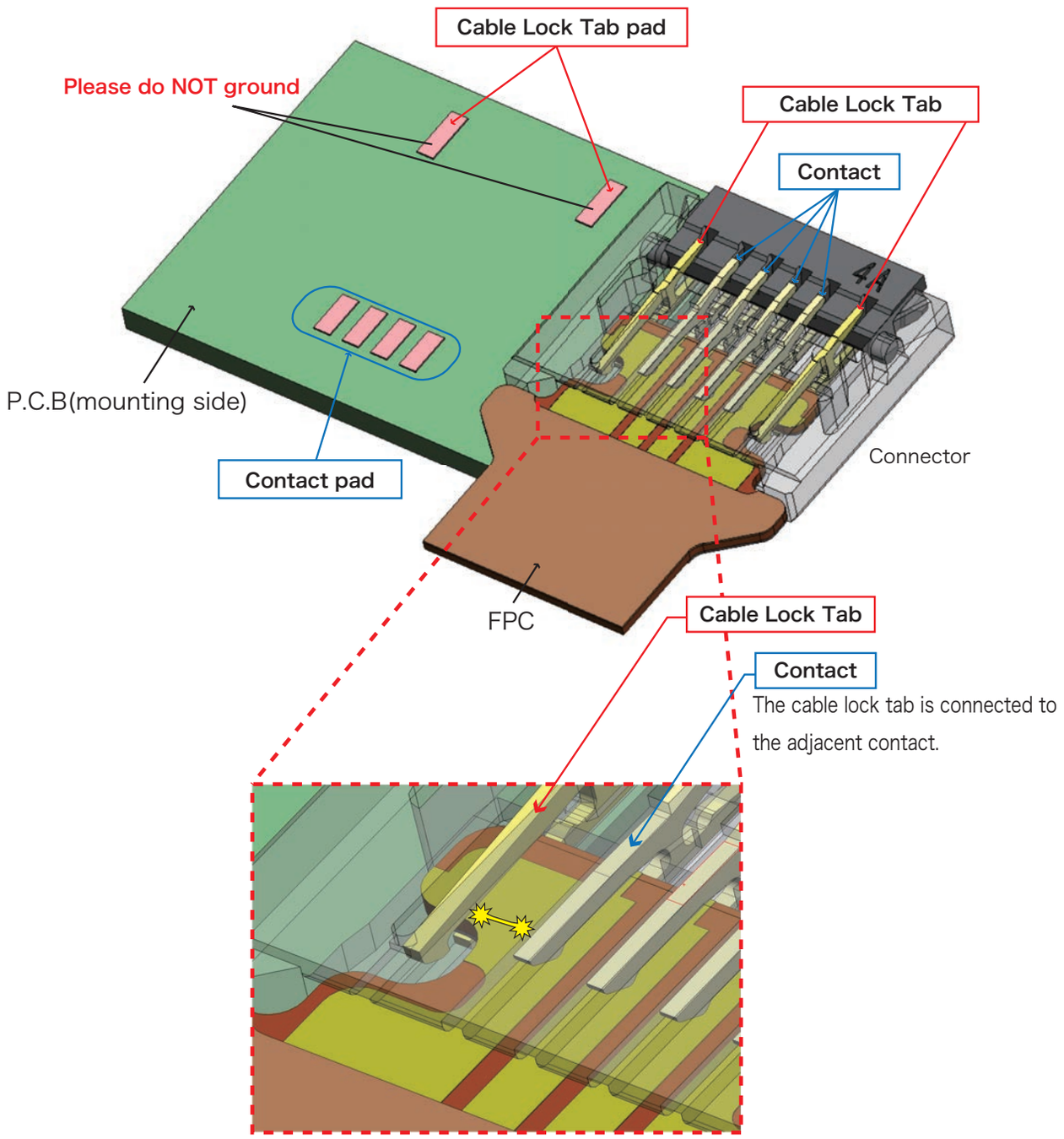

figure ④

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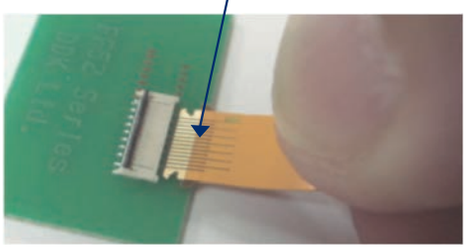
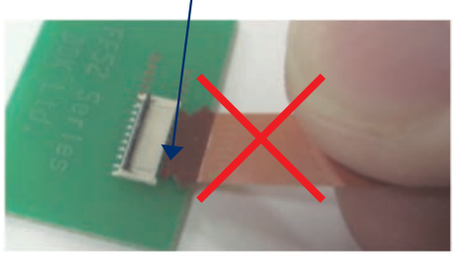
2. FPC Insertion

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

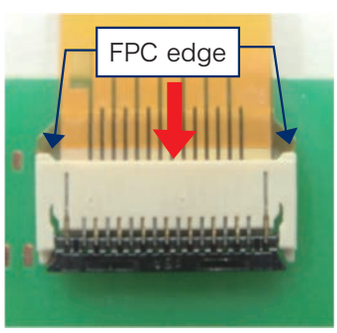


picture ③



picture ④

・Please insert the FPC straight into the connector.
Due to the semi-retaining mechnism, some insertion force is necessary when inserting FPC.
FPC insertion is completed when the edges of the FPC are touching connector frange. (picture ⑤)



picture ⑤

3. Correct FPC Insertion Position

・Check line enables a visual verification of the mating position.(figure ⑤) .
It prevents shallow and diagonal insertion. (picture ⑥、⑦、⑧)

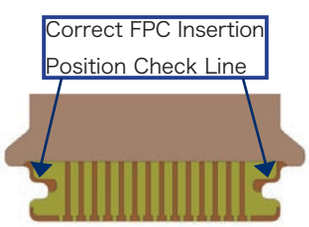
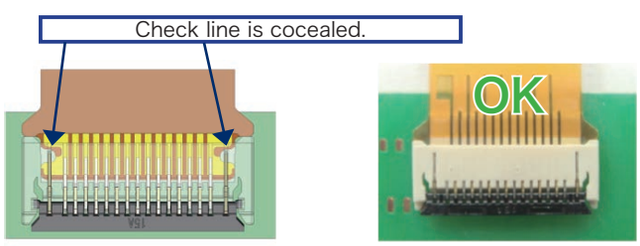
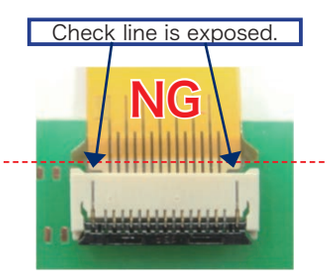


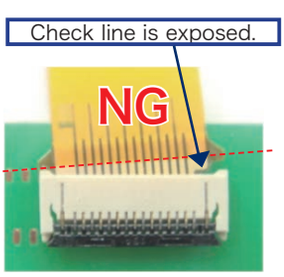
figure ⑤



picture ⑥：Standard insertion



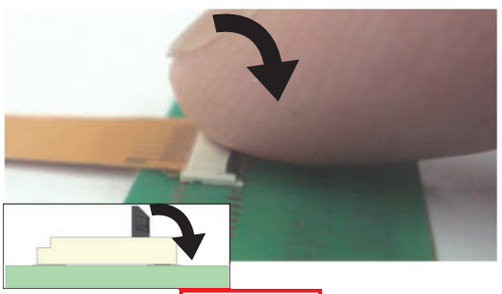
picture ⑦：Shallow insertion



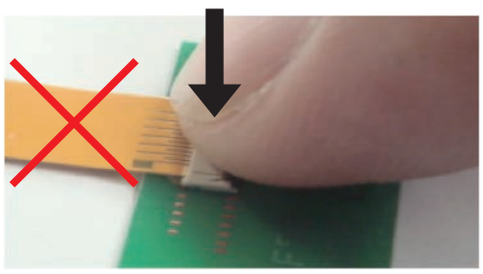
picture ⑧：Diagonal insertion

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)

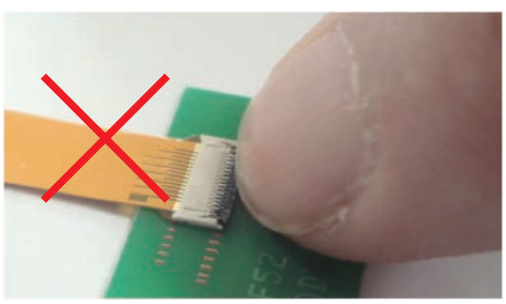


picture ⑨



picture ⑩

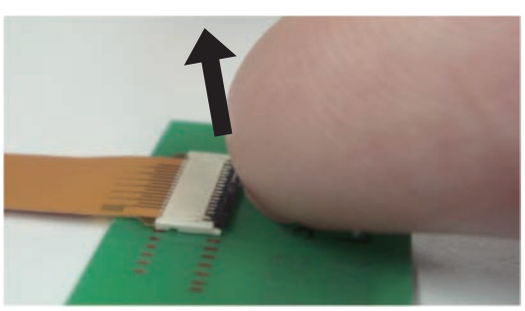
・Please do not close the lock lever by tip of finger nail. (picture ⑪)



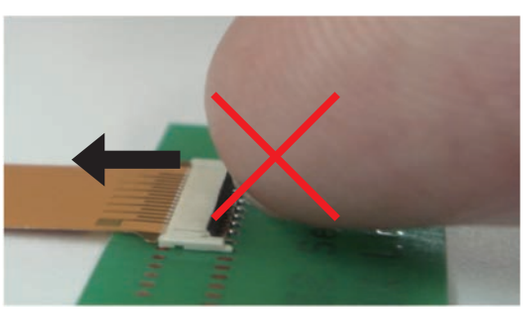
picture ⑪

5. Removing FPC

・Please lift the lock lever by 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 does not protect the circuit from ESD.

7. Disposal of connector

・Please dispose the connector as industrial waste.