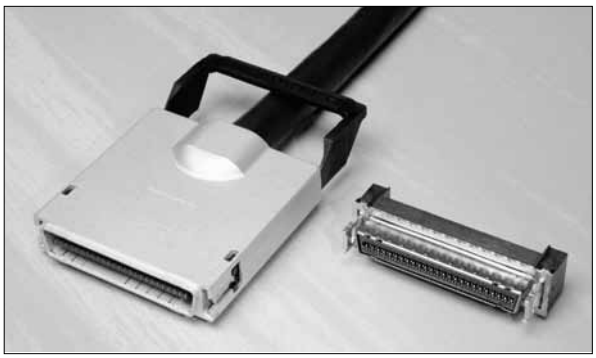
FUJITSU

# DIFFERENTIAL CONNECTOR

## FCN-260(D) Series microGiGaCN™

**RoHS Compliant**

INFINIBAND™
TRADE ASSOCIATION



### ■ FEATURES

- I/O Connector designed for high speed differential signal applications.
- Matched Impedance (100 ohms ±10%)
- Low insertion loss
- Low cross talk
- Adopted by InfiniBand as 10G Ethernet, SAS, & sATA for 4x/12x Interface

### ■ SPECIFICATIONS

| Item | Specifications |
|---|---|
| Operating temperature range | -55˚ C to +105˚ C |
| Current rating | AC 0.5A (signal)<br>AC 1A (ground) |
| Voltage rating | AC 30V |
| Contact resistance (with conductor resistance) | 80 m ohms max. (signal)<br>35 m ohms max.(ground |
| Insulation resistance | 1000M ohms minimum |
| Dielectric withstanding voltage | AC 500V for 1 minute |
| Durability | 250 cycles |
| Insertion force | 30 N max. (8 pair)<br>60 N max. (24 pair) |
| Withdrawl force | 7 N min. (8 pair)<br>10.5 N min. (24 pair) |

### ■ MATERIALS

| Item | Materials |
|---|---|
| Insulator | LCP Resin (UL94V-0) |
| Conductor | Copper Alloy |
| Plating | Contact: Gold Plating (PAGOS)<br>Terminal: Gold coat over Pd-Ni plating<br>Cover: Zinc |

*Product Specification are subject to change, please check our website (www.fcai.fujitsu.com) for the latest specifications.*

The MicroGigaCN offers a cost-effective I/O solution for high-speed applications in data and telecommunications convergence (voice, data, video and storage). It offers four or twelve link widths, offering a scalable performance range of 500Mbps to 6Gbps per link to meet the needs of entry-level and high-end enterprise systems. Forward crosstalk is less than 4% at 100 pico second pulse-rise time (four-pair switching).
Fujitsu Components designed the MicroGiGaCN to specifically address the requirements for a high speed differential signal I/O connector.

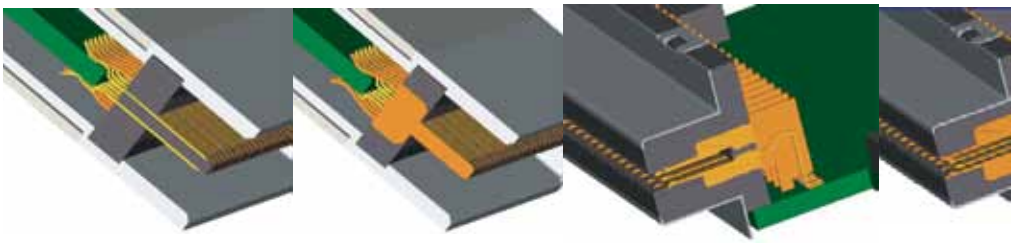
The MicroGiGaCN offers a unique solution to LVDS, InfiniBand, 10G Ethernet, 3G/6G SAS & SATA, and other high speed I/O applications. InfiniBand, IEEE802.3AR, SAS, & SATA have selected Fujitsu's connector for the 4x and 12x I/O connector interface.
The performance requirements of the connector system were tested with cable to simulate the actual requirements of an OEM System manufacturer. Our test data includes the parasitic effects of the PCB, along with measurements of a completed I/O cable assembly.

Electrical Performance in out testing:

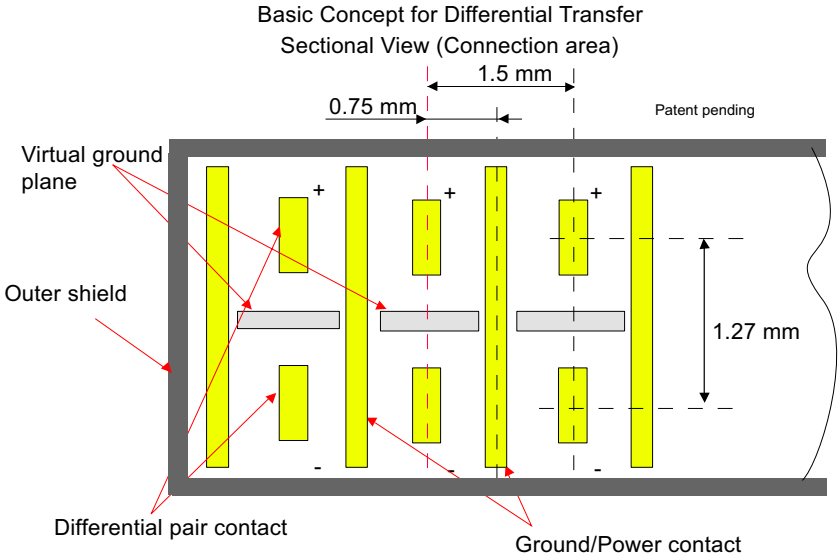
- Matched Impedance: 93.6 to 109.9 ohms @ 100 ps Trise
- Low Cross Talk: NEXT 3.8% @ 100pc Trise (4 pairs switching, 2 connectors and 10 meters of cable)
- Low Insertion Loss: 2.3dB @ 2.5Gb/s (1.25GHz, 1 Meter Cable Assembly)
- Skew within Differential Pair: 14.4ps (2 connectors and 2 meter of cable)
- Skew pair to pair: 21.2ps (2 connectors and 2 meter of cable)

Product Specification are subject to change, please check our website (http://us.fujitsu.com/connectors) for the latest specifications.

## Connector Internal Struture



## Basic Concept for Differential Transfer




Product Specification are subject to change, please check our website (http://us.fujitsu.com/connectors) for the latest specifications.

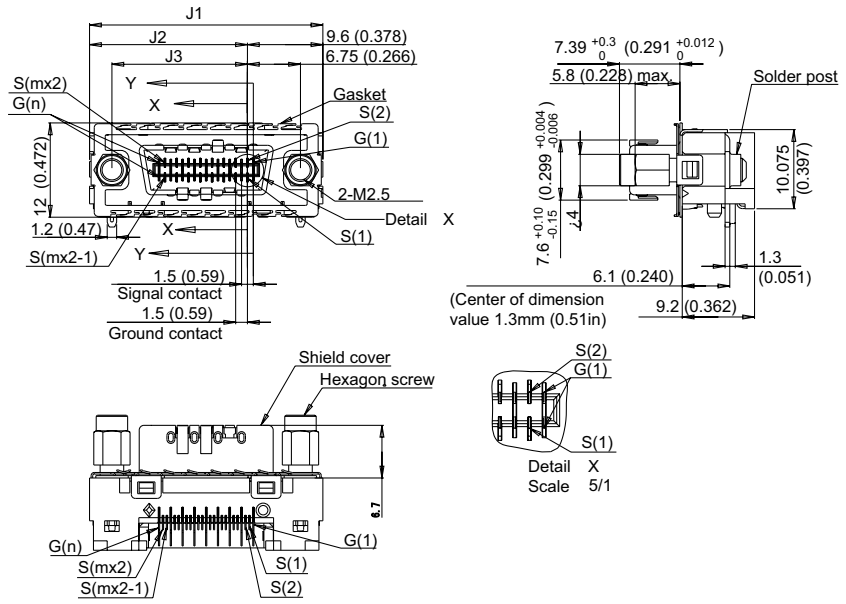
Fujitsu Components has designed the mechanical features of the connector to provide space saving footprint that will allow for 3 4x I/O connectors to mount onto a PCI form, or 2 12x. As RFI/EMI are critical elements in high performance cable assemblies, Fujitsu Components provides the surface mount sockets with an EMI Ground Spring on the face of the connector, to insure that the metal surface of the connector makes sufficient contact with the metal face of the card bracket.

The latching mechanism of the backshell offers a lanyard system for ease of un-mating the I/O plug connector/cable assembly from the SMT I/O socket. The die cast backshell offers excellent RFI/EMI characteristics. The backshell uses a ferrule and unique ground spring system to provide 360 degree contact of the cable shield to the backshell, which, combined with the solid interconnect of the socket to faceplate, offers low AC coupling termination.

The current version of the I/O plug comes with an attached paddlecard for wire termination. Fujitsu offers the paddlecard in either an equalized or un-equalized version (see factory for details of the equalized version). Standard product offering will be un-equalized. As there are multiple applications for the paddlecard, with industry and customer specific wire termination, Fujitsu Components offers options to customers of providing the I/O plug connector with custom paddlecards (consult factory).

## CABLE I/O JACK SCREW LOCK TYPE

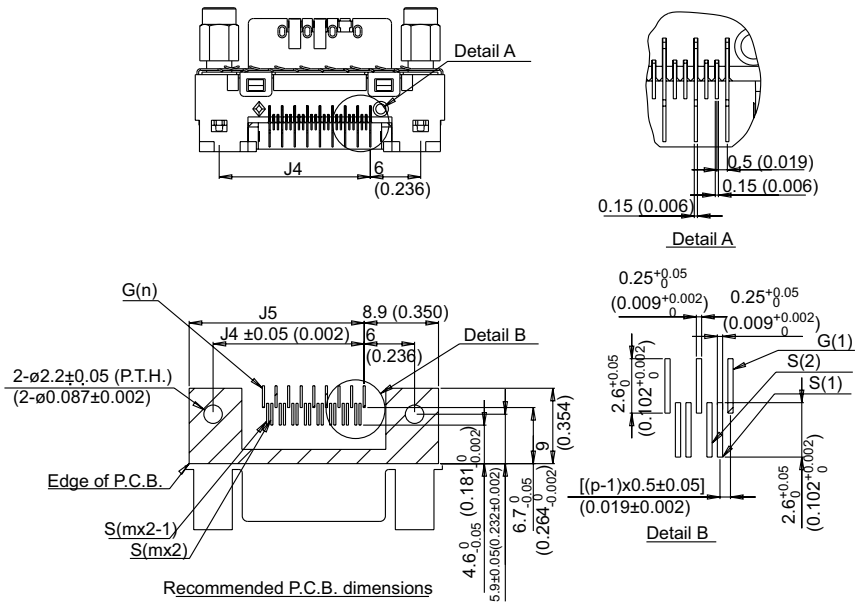
### ■ DIMENSIONS




Unit: mm (in.)

## CABLE I/O JACK SCREW LOCK TYPE
## FCN-268D0**-G/0*
## NO MOLD PIN

### ■ DIMENSIONS

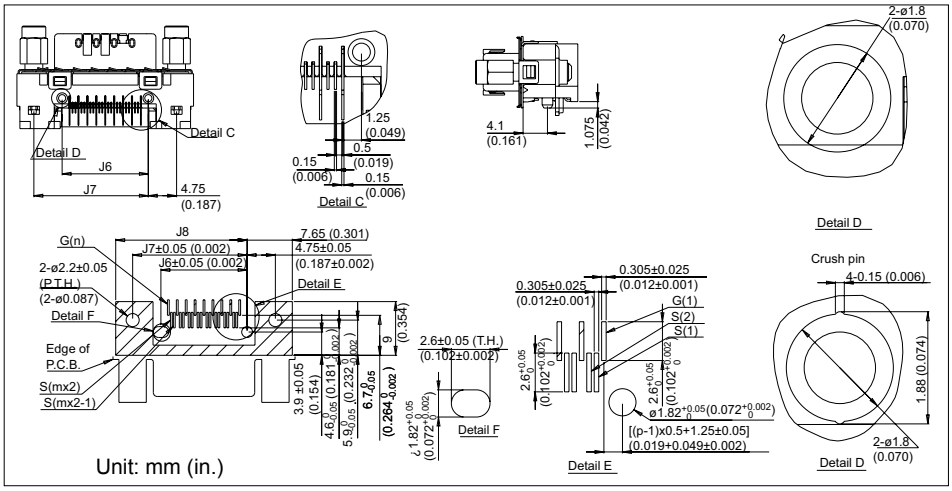



Unit: mm (in.)

| Part Number | m | n | p | J1 | J2 | J3 | J4 | J5 |
|---|---|---|---|---|---|---|---|---|
| FCN-268D008-G/0* | 1-8 | 1-9 | 1-25 | 29.8 (1.173) | 20.15 (0.793) | 17.25 (0.679) | 18 (0.709) | 20.9 (0.823) |
| FCN-268D024-G/0* | 1-24 | 1-25 | 1-73 | 53.8 (2.118) | 44.15 (1.738) | 41.25 (1.624) | 42 (1.654) | 44.9 (1.768) |

## CABLE I/O JACK SCREW LOCK TYPE
## FCN-268D0**-G/1* WITH ALIGNMENT PIN
## FCN-268D0**-G/2* WITH CRUSH PIN

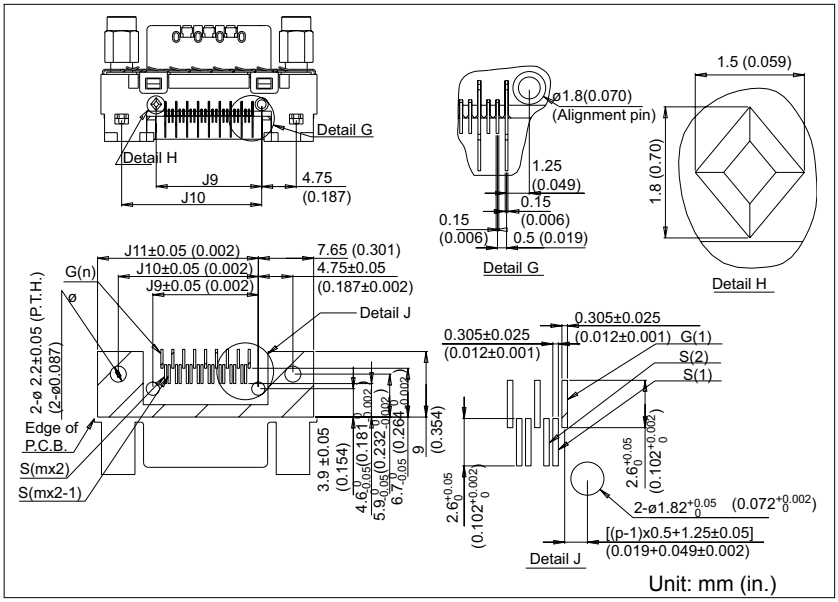
■ DIMENSIONS




| Part Number | m | n | p | J6 | J7 | J8 |
|---|---|---|---|---|---|---|
| FCN-268D008-G/1*<br>FCN-268D008-G/2* | 1-8 | 1-9 | 1-25 | 14.5<br>(0.571) | 19.25<br>(0.758) | 22.15<br>(0.872) |
| FCN-268D024-G/1*<br>FCN-268D024-G/2* | 1-24 | 1-25 | 1-73 | 38.1<br>(1.516) | 43.25<br>(1.703) | 46.15<br>(1.817) |

## CABLE I/O JACK SCREW LOCK TYPE
## FCN-268D0**-G/3* WITH DIAMOND PIN

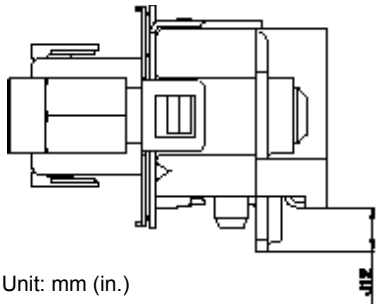
■ DIMENSIONS




| Part Number | m | n | p | J9 | J10 | J11 |
|---|---|---|---|---|---|---|
| FCN-268D008-G/3* | 1-8 | 1-9 | 1-25 | 14.5 (0.571) | 19.25 (0.758) | 22.15 (0.872) |
| FCN-268D024-G/3* | 1-24 | 1-25 | 1-73 | 38.1 (1.516) | 43.25 (1.703) | 46.15 (1.817) |

## CABLE I/O JACK SCREW LOCK TYPE
## FCN-268D0**-G/ ** SOLDER POST LENGTH

■ DIMENSIONS

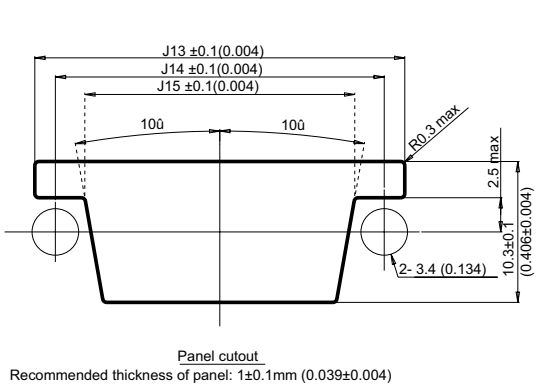


Unit: mm (in.)

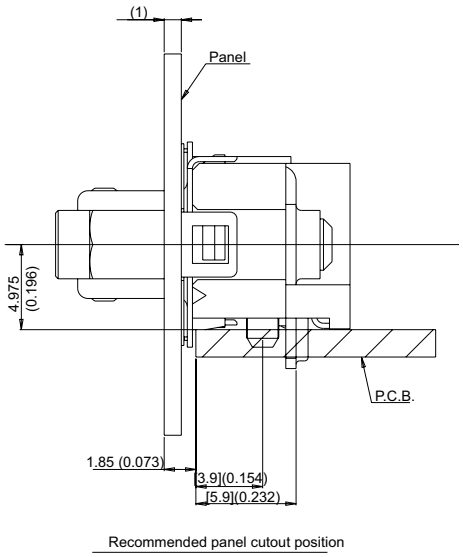
| Part Number | P.C.B. thickness | J12 |
|---|---|---|
| FCN-268D0**-G/*0 | 1.6<br>(0.063) | 2.352<br>(0.092) |
| FCN-268D0**-G/*1 | 2.4<br>(0.0940) | 3.125<br>(0.123) |
| fcn-268d0**-G/*3 | 4.0<br>(0.157) | 4.725<br>(0.186) |

## CABLE I/O JACK SCREW LOCK TYPE
## FCN-268D0**-G/ * * PANEL CUTOUT (REFERENCE)

### ■ DIMENSIONS




Panel cutout
Recommended thickness of panel: 1±0.1mm (0.039±0.004)



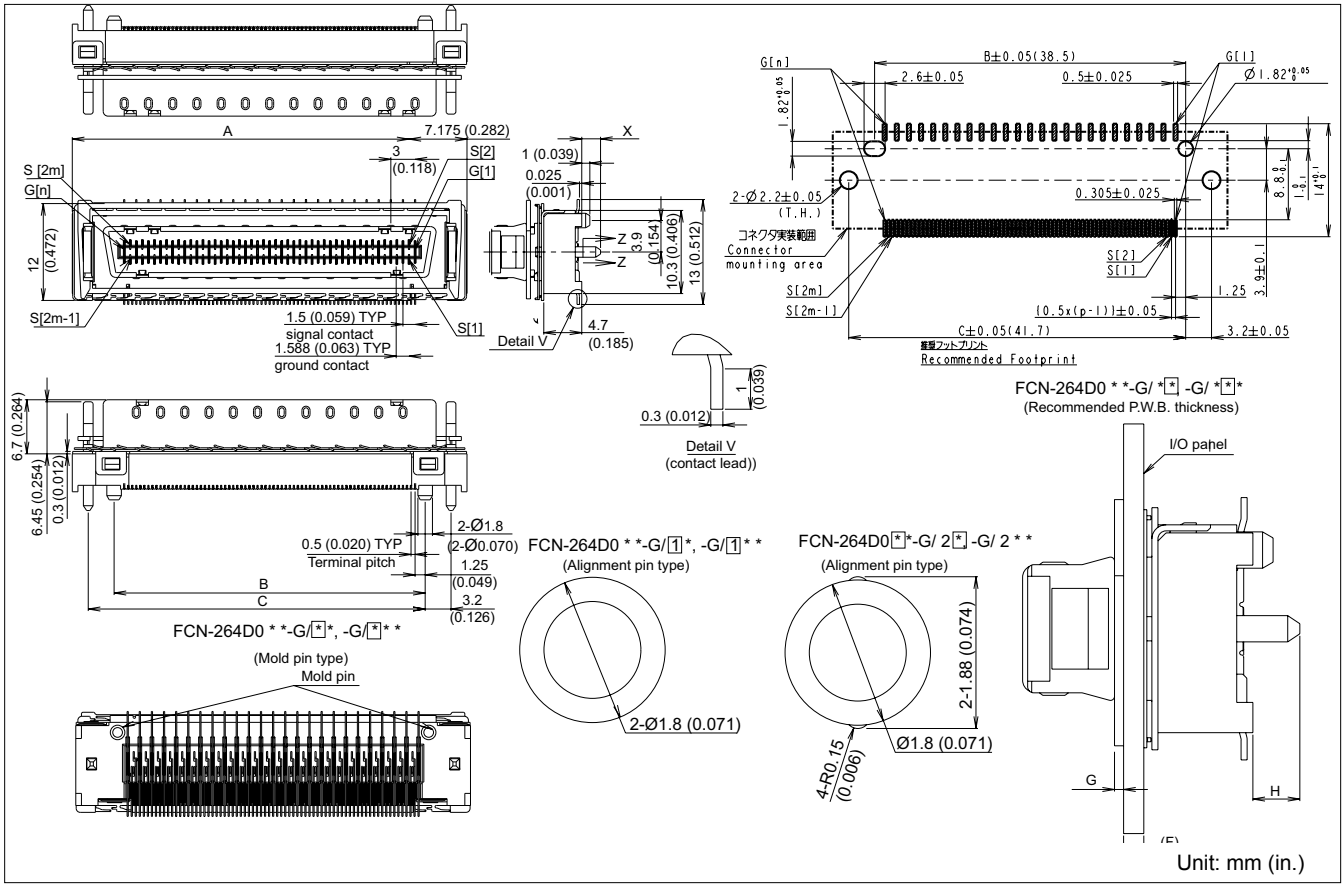

Recommended panel cutout position

Unit: mm (in.)

| Part Number | m | n | J13 | J14 | J15 |
|---|---|---|---|---|---|
| FCN-268D008-G/** | 1-8 | 1-9 | 27 (1.063) | 24 (0.945) | 19.7 (0.776) |
| FCN-268D024-G/** | 1-24 | 1-25 | 51 (2.008) | 48 (1.890) | 43.7 (1.720) |

## FCN-264D - VERTICAL MOUNT SOCKETS, LATCH STYLE

### ■ DIMENSIONS




Unit: mm (in.)

### ■ PART NUMBERS

| Part Number | Pair | m | n | p | A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|
| FCN-264D008-G/**<br>FCN-264D008-G/*** | 8 | 1-8 | 1-9 | 1-25 | 17.675<br>(0.696) | 14.5<br>(0.571) | 17.7<br>(0.697) | 22.7<br>(0.894) | 19.7<br>(0.776) |
| FCN-264D024-G/**<br>FCN-264D024-G/*** | 24 | 1-24 | 1-24 | 1-73 | 41.675<br>(1.641) | 38.5<br>(1.516) | 41.7<br>(1.642) | 46.7<br>(1.839) | 43.7<br>(1.720) |

Lock Plate Thickness:

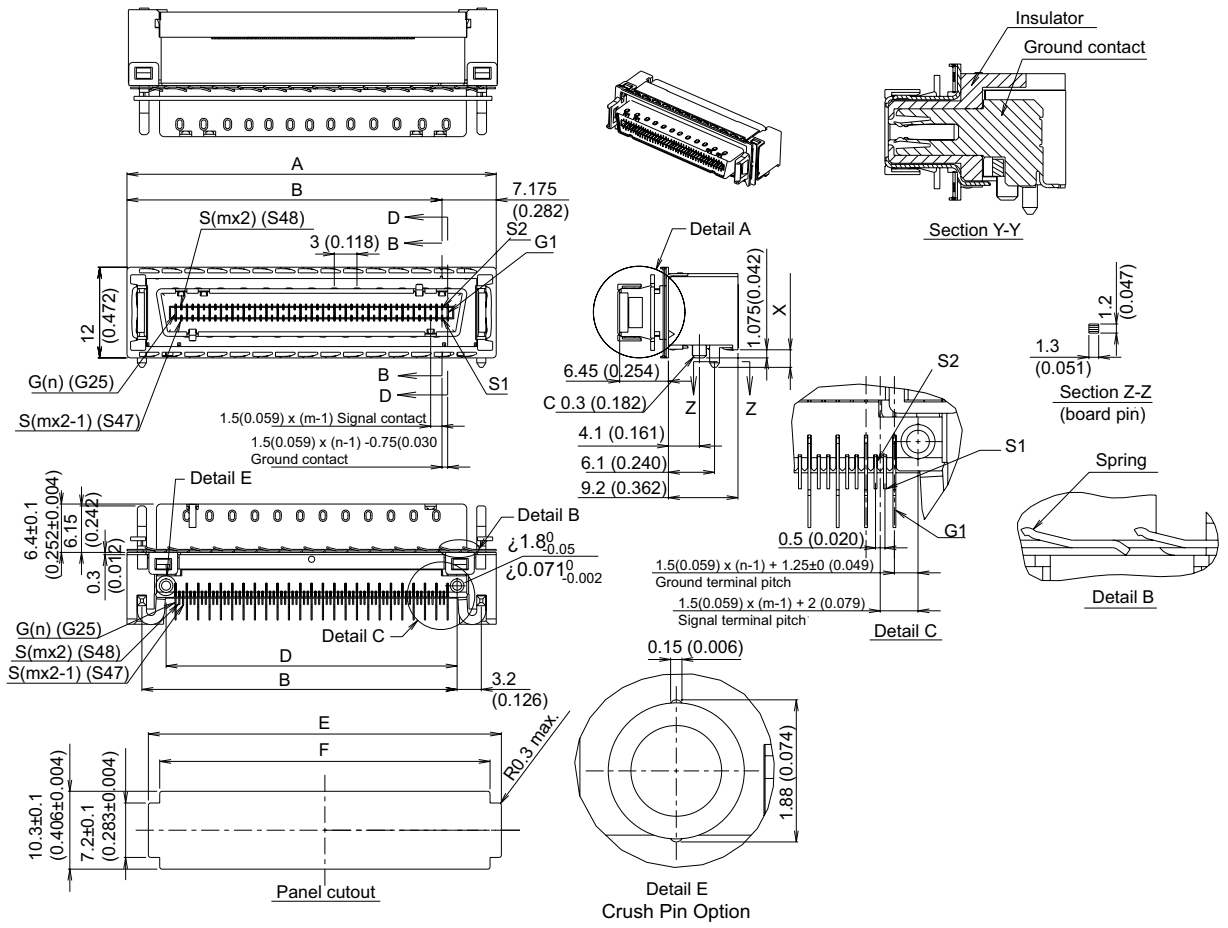
| Part Number | F: Panel Thickness | G: Lock Plate Thickness |
|---|---|---|
| FCN-264D008-G/**<br>FCN-264D024-G/** | 1.0 | 0.5: FCN-260A622<br>FCN-260A626 |
| FCN-264D008-G/**1<br>FCN-264D024-G/**1 | 1.2 | 0.3: FCN-260A632<br>FCN-260A636 |

Solder Post Length:

| Part Number | P.W.B. Thickness | H |
|---|---|---|
| FCN-264D0**-G/*D<br>FCN-264D0**-G/*D1 | 1.6 | 2.325 |
| FCN-264D0**-G/*F<br>FCN-264D0**-G/*F1 | 2.4 | 3.125 |
| FCN-264D0**-G/*K<br>FCN-264D0**-G/*K1 | 4.0 | 4.725 |

## 4X / 12X RIGHT ANGLE MOUNT SOCKETS WITH LATCHES

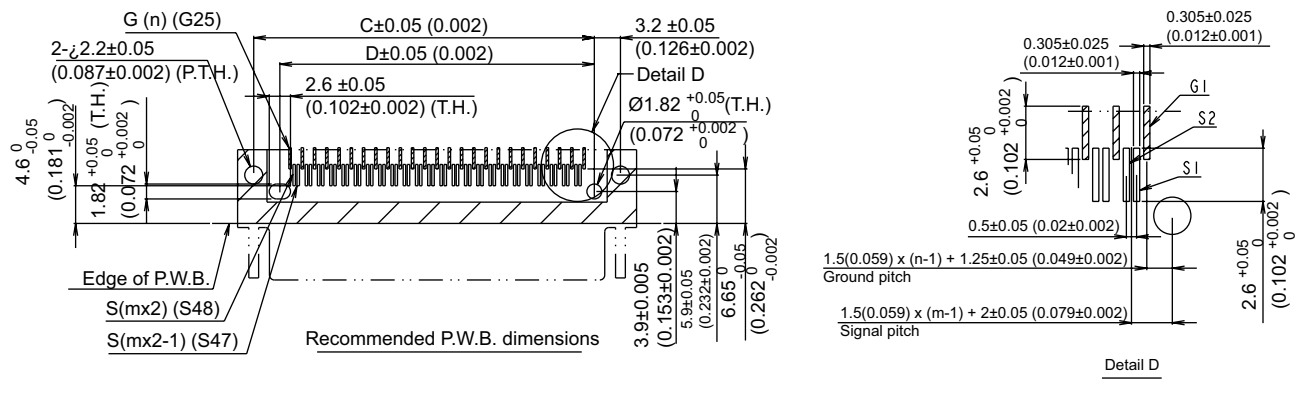
### ■ DIMENSIONS




Unless otherwise specified, dimensions are in millimeters (inches) and tolerances are ±0.5mm (±0.020 inches).Ê
Copolarity shall be less than 0.1mm (0.004 in.)
This drawing shows FCN-268D024-G/2F

Unit: mm (in.)

### ■ DIMENSIONS




Unit: mm (in.)

## 4X / 12X RIGHT ANGLE MOUNT SOCKETS WITH LATCHES WITH ALIGNMENT POST OR CRUSH PIN OPTION

### ■ PART NUMBERS

| | Pair | P.W.B. thick ness | X | m | n | A | B | C | D | E | F | Crush Pin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FCN-268D008-G/1D | 8 | 1.6 (0.063) | 2.4 (0.094) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | no |
| FCN-268D008-G/2D | 8 | 1.6 (0.063) | 2.4 (0.094) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | yes |
| FCN-268D008-G/1F | 8 | 2.4 (0.094) | 3.2 (0.126) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | no |
| FCN-268D008-G/2F | 8 | 2.4 (0.094) | 3.2 (0.126) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | yes |
| FCN-268D008-G/1K | 8 | 4.0 (0.157) | 4.8 (0.189) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | no |
| FCN-268D008-G/2K | 8 | 4.0 (0.157) | 4.8 (0.189) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 17.7 (0.697) | 14.5 (0.571) | 22.7±0.1 (.894±.004) | 19.7±0.1 (.776±.004) | yes |
| FCN-268D024-G/1D | 24 | 1.6 (0.063) | 2.4 (0.094) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | no |
| FCN-268D024-G/2D | 24 | 1.6 (0.063) | 2.4 (0.094) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | yes |
| FCN-268D024-G/1F | 24 | 2.4 (0.094) | 3.2 (0.126) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | no |
| FCN-268D024-G/2F | 24 | 2.4 (0.094) | 3.2 (0.126) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | yes |
| FCN-268D024-G/1K | 24 | 4.0 (0.157) | 4.8 (0.189) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | no |
| FCN-268D024-G/2K | 24 | 4.0 (0.157) | 4.8 (0.189) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 41.7 (1.642) | 38.5 (1.516) | 46.7±0.1 (1.839±.004) | 43.7±0.1 (1.720±.004) | yes |

*Fujitsu has developed 3 different versions of the board mount connector to meet various mounting processes:*

**FCN-268D0xx-G/1*** **Added alignment post for robotic placement (recommended)**

**FCN-268D0xx-G/2*** **Added crush pin feature - for manual placement (recommended)**

*FCN-268D0xx-G/0** *Original Design for optical robotic placement to the PCB*

### Retention Clip Hand Tool

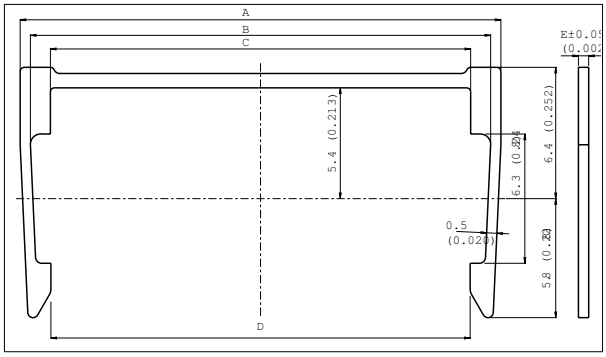
FCN-268T-T514/H

For Assembly instructions, please see the Lock Plate Hand Tool Instruction Manual

### ■ PART NUMBERS

| Type | Part No. | Thickness of I/O panel | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| 4X | FCN-260A622 | 1.0 (0.039) | 23.44 (0.923) | 22.45 (0.884) | 20.50 (0.807) | 20.45 (0.805) | 0.5 (0.02) |
| | FCN-260A632 | 1.2 (0.047) | | | | | 0.3 (0.12) |
| 12X | FCN-260A626 | 1.0 (0.039) | 47.45 (1.868) | 46.45 (1.829) | 44.50 (1.752) | 44.45 (1.75) | 0.5 (0.02) |
| | FCN-260A636 | 1.2 (0.047) | | | | | 0.3 (0.12) |

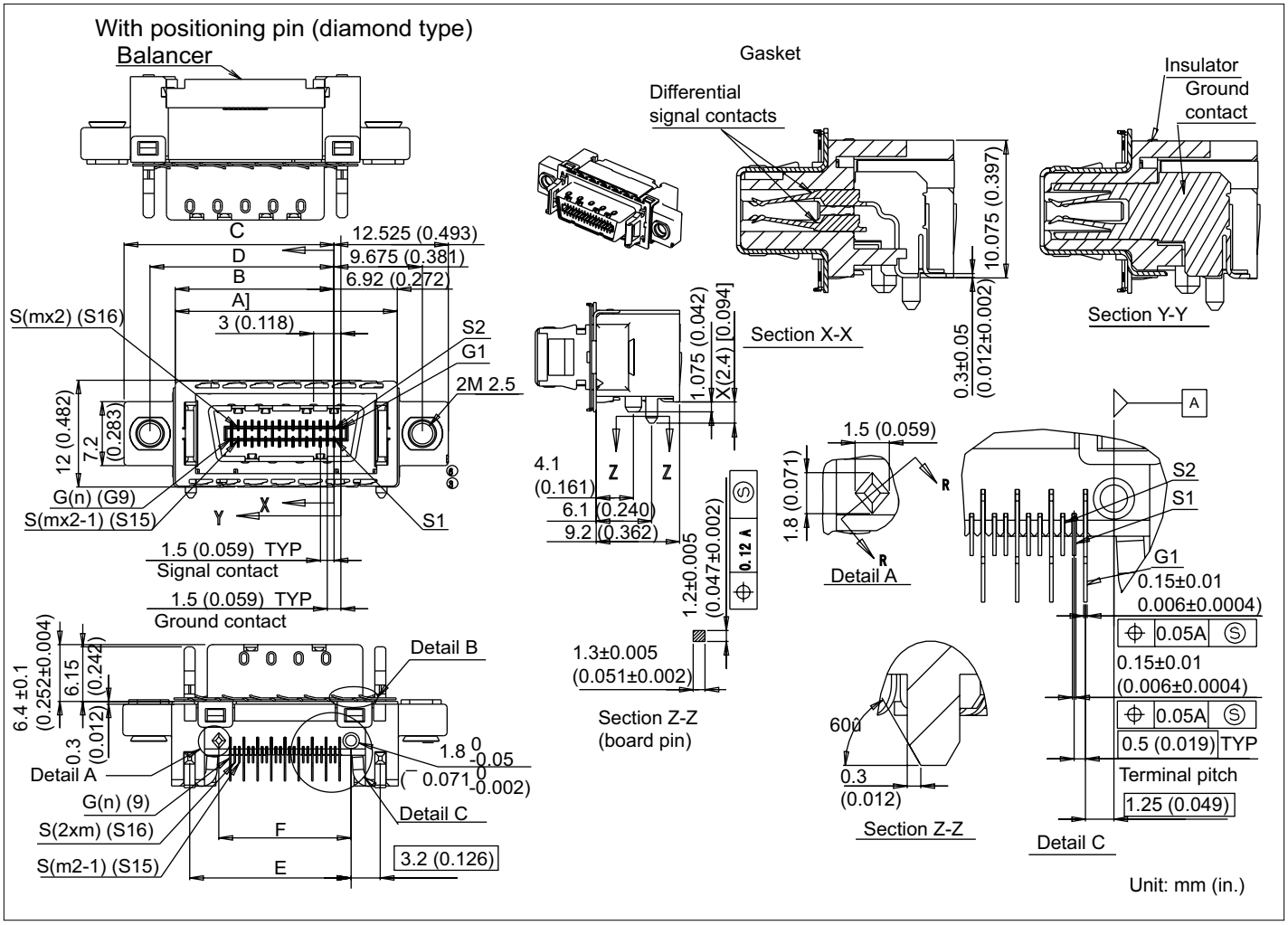
### Retention Clip




Each connector is shipped with 1 piece of FCN-260A622 retention clip. To order connector and retention clip separately, please contact factory for part number.

## 4X / 12X RIGHT ANGLE MOUNT CONNECTOR SOCKET WITH LATCHES WITH MOUNTING EARS

### ■ DIMENSIONS

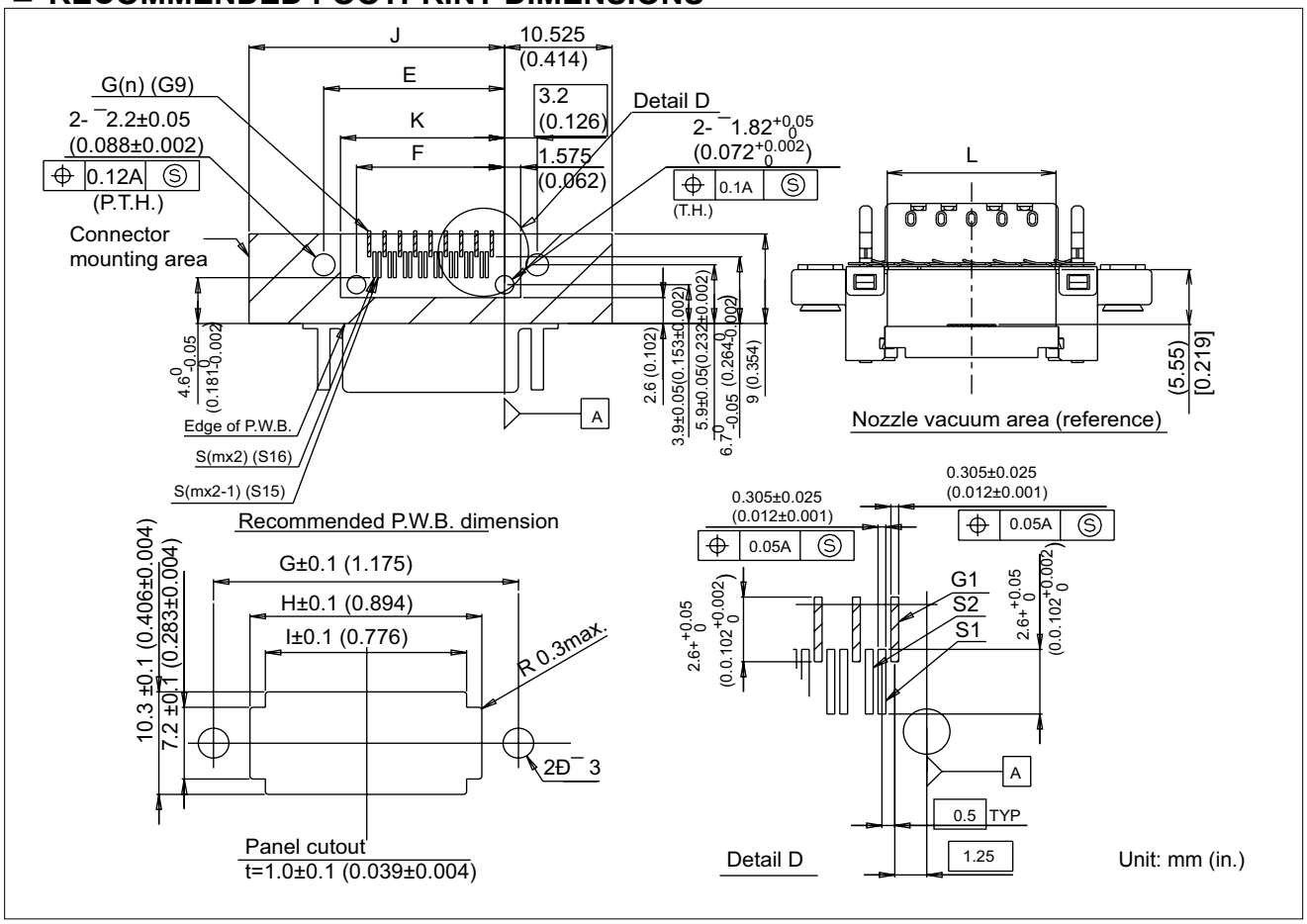



### ■ PART NUMBERS

| Partnumber | Pair | P.W.B. thick-ness | X | m | n | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FCN-268D008-G/3L-R | 8 | 1.6 (0.063) | 2.4 (0.094) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 23.025 (0.906) | 20.175 (0.794) | 17.7 (0.673) | 14.5 (0.571) |
| FCN-268D008-G/3M-R | 8 | 2.4 (0.094) | 3.2 (0.126) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 23.025 (0.906) | 20.175 (0.794) | 17.7 (0.673) | 14.5 (0.571) |
| FCN-268D008-G/3P-R | 8 | 4.0 (0.157) | 4.8 (0.189) | 1-8 | 1-9 | 24.85 (0.978) | 17.675 (0.696) | 23.025 (0.906) | 20.175 (0.794) | 17.7 (0.673) | 14.5 (0.571) |
| FCN-268D024-G/3L-R | 24 | 1.6 (0.063) | 2.4 (0.094) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 47.025 (1.851) | 44.175 (1.739) | 41.7 (1.642) | 38.5 (1.516) |
| FCN-268D024-G/3M-R | 24 | 2.4 (0.094) | 3.2 (0.126) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 47.025 (1.851) | 44.175 (1.739) | 41.7 (1.642) | 38.5 (1.516) |
| FCN-268D024-G/3P-R | 24 | 4.0 (0.157) | 4.8 (0.189) | 1-24 | 1-25 | 48.85 (1.923) | 41.675 (1.641) | 47.025 (1.851) | 44.175 (1.739) | 41.7 (1.642) | 38.5 (1.516) |

## 4X / 12X RIGHT ANGLE MOUNT CONNECTOR SOCKET WITH LATCHES, WITH MOUNTING EARS

### ■ RECOMMENDED FOOTPRINT DIMENSIONS



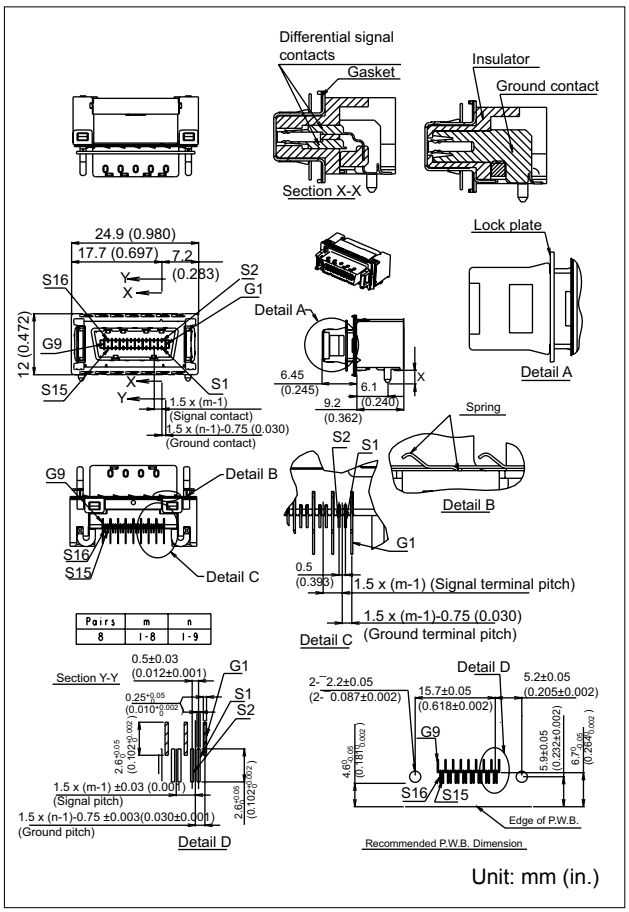

### ■ PART NUMBERS

| Partnumber | Pair | P.W.B. thick-ness | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|
| FCN-268D008-G/3L-R | 8 | 1.6 (0.063) | 29.85 (1.175) | 22.7 (0.894) | 19.7 (0.776) | 25.025 (0.895) | 16.075 (0.633) | 16.65 (0.656) |
| FCN-268D008-G/3M-R | 8 | 2.4 (0.094) | 29.85 (1.175) | 22.7 (0.894) | 19.7 (0.776) | 25.025 (0.895) | 16.075 (0.633) | 16.65 (0.656) |
| FCN-268D008-G/3P-R | 8 | 4.0 (0.157) | 29.85 (1.175) | 22.7 (0.894) | 19.7 (0.776) | 25.025 (0.895) | 16.075 (0.633) | 16.65 (0.656) |
| FCN-268D024-G/3L-R | 24 | 1.6 (0.063) | 53.85 (2.095) | 46.7 (1.839) | 43.7 (1.720) | 49.025 (1.930) | 38.075 (1.499) | 40.65 (1.600) |
| FCN-268D024-G/3M-R | 24 | 2.4 (0.094) | 53.85 (2.095) | 46.7 (1.839) | 43.7 (1.720) | 49.025 (1.930) | 38.075 (1.499) | 40.65 (1.600) |
| FCN-268D024-G/3P-R | 24 | 4.0 (0.157) | 53.85 (2.095) | 46.7 (1.839) | 43.7 (1.720) | 49.025 (1.930) | 38.075 (1.499) | 40.65 (1.600) |

## 4X / 12X SOCKETS WITH LATCHES

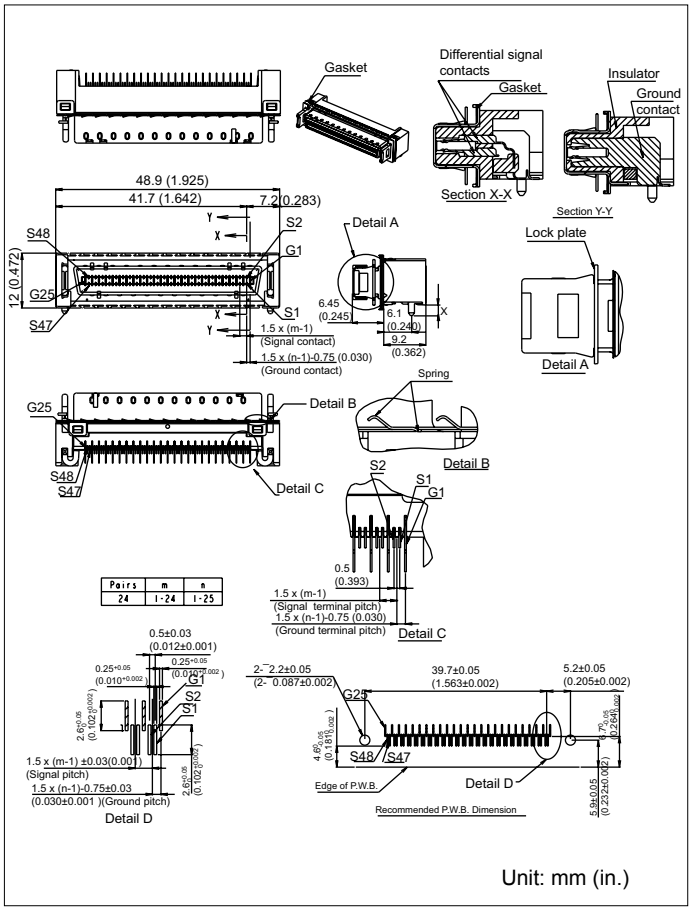
### 4X I/O CONNECTOR SOCKET

### ■ DIMENSIONS




### 12X I/O CONNECTOR SOCKET

### ■ DIMENSIONS




### ■ PART NUMBERS

| Part Number | X | Recommended PCB Thickness |
|---|---|---|
| FCN-268D008-G/0D | 2.4 | 1.6 |
| FCN-268D008-G/0F | 3.2 | 2.4 |
| FCN-268D008-G/0K | 4.8 | 4.0 |

### ■ PART NUMBER

| Part Number | X | Recommended PCB Thickness |
|---|---|---|
| FCN-268D024-G/0D | 2.4 | 1.6 |
| FCN-268D024-G/0F | 3.2 | 2.4 |
| FCN-268D024-G/0K | 4.8 | 4.0 |

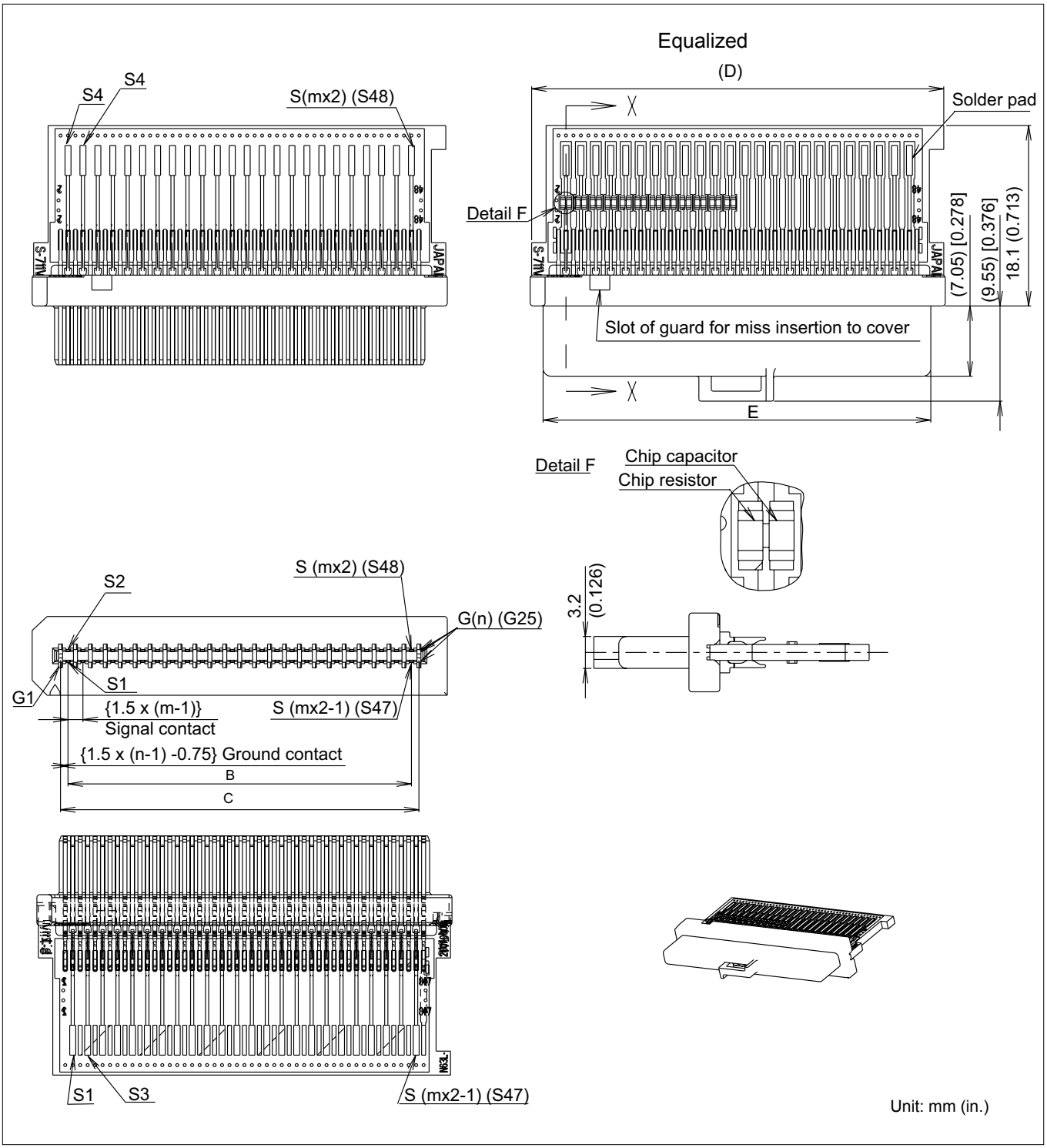
*Fujitsu has developed 3 different versions of the board mount connector to meet various mounting processes:*

FCN-268D0xx-G/1* Added alignment post for robotic placement (recommended)
FCN-268D0xx-G/2* Added crush pin feature - for manual placement (recommended)
*FCN-268D0xx-G/0* Original Design for optical robotic placement to the PCB*

*Product Specification are subject to change, please check our website (www.fcai.fujitsu.com) for the latest specifications.*

## 4X / 12X PLUG CONNECTOR WITH INFINIBAND STYLE PCB

### ■ REFERENCE



## 4X / 12X PLUG CONNECTOR WITH INFINIBAND STYLE PCB (CABLE MOUNT)

### ■ PART NUMBERS

**Non-Equalized Plug Kits**

| Uses Leaded Solder | RoHS 6/6 (lead free solder) | Data Speeds |
|---|---|---|
| FCN-261R008-G/0 | FCN-261R008-G/0L | 4x up to 3.2Gbps |
| FCN-261R008-G/5 | FCN-261R008-G/5L | 4x up to 7Gbps |
| FCN-261R024-G/0 | FCN-261R024-G/0L | 12x up to 3.2Gbps |
| FCN-261R024-G/5 | FCN-261R024-G/5L | 12x up to 7Gbps |

**Equalized Plug Kits**

**4x Plug Kits - Equalized**

| Uses Leaded Solder | RoHS 6/6 (lead free solder) | Data Speeds | Equalized Pair |
|---|---|---|---|
| FCN-261R008-G/3#08 | FCN-261R008-G/3L#08 | IB SDR 8 meter, 24AWG | 1-4 |
| FCN-261R008-G/3#10 | FCN-261R008-G/3L#10 | IB SDR 10 meter, 24AWG | 1-4 |
| FCN-261R008-G/3#12 | FCN-261R008-G/3L#12 | IB SDR 12 meter, 24AWG | 1-4 |
| FCN-261R008-G/3A#08 | FCN-261R008-G/3AL#08 | IB SDR 8 meter, 26AWG | 1-4 |
| FCN-261R008-G/3A#10 | FCN-261R008-G/3AL#10 | IB SDR 10 meter, 26AWG | 1-4 |
| FCN-261R008-G/3A#12 | FCN-261R008-G/3AL#12 | IB SDR 12 meter, 26AWG | 1-4 |
| FCN-261R008-G/6#08 | FCN-261R008-G/6L#08 | IB DDR 8 meter, 24AWG | 1-4 |
| FCN-261R008-G/6#10 | FCN-261R008-G/6L#10 | IB DDR 10 meter, 24AWG | 1-4 |
| FCN-261R008-G/6#12 | FCN-261R008-G/6L#12 | IB DDR 12 meter, 24AWG | 1-4 |
| FCN-261R008-G/6A#08 | FCN-261R008-G/6AL#08 | IB DDR 8 meter, 26AWG | 1-4 |
| FCN-261R008-G/6A#10 | FCN-261R008-G/6AL#10 | IB DDR 8 meter, 26AWG | 1-4 |

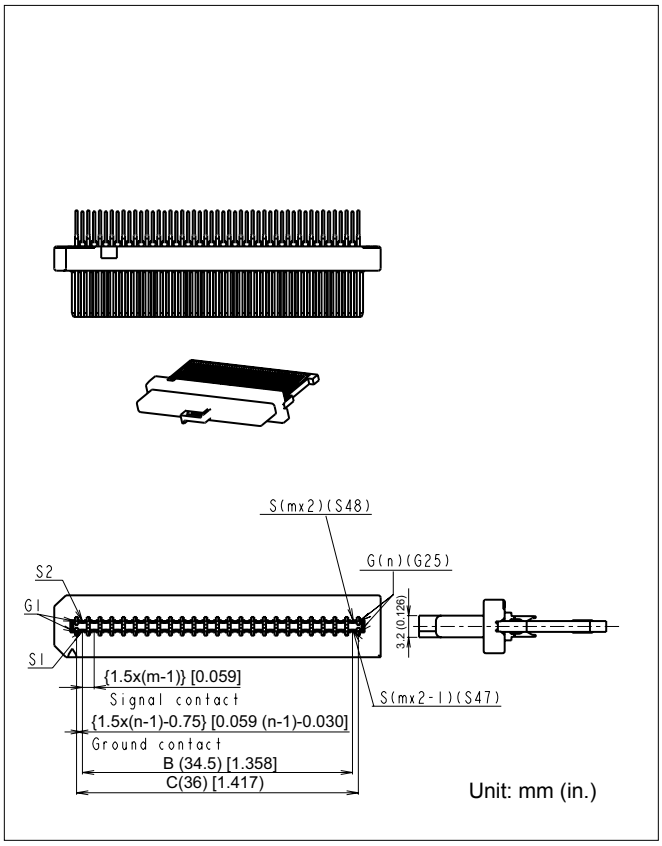
**12x Plug Kits - Equalized**

| Uses Leaded Solder | RoHS 6/6 (lead free solder) | Data Speeds | Equalized Pair |
|---|---|---|---|
| FCN-261R024-G/3#08 | FCN-261R024-G/3L#08 | 12x IB SDR 8 meter, 24AWG | 1-12 |
| FCN-261R024-G/3#10 | FCN-261R024-G/3L#10 | 12x IB SDR 10 meter, 24AWG | 1-12 |
| FCN-261R024-G/3#12 | FCN-261R024-G/3L#12 | 12x IB SDR 12 meter, 24AWG | 1-12 |
| FCN-261R024-G/3A#08 | FCN-261R024-G/3AL#08 | 12x IB SDR 8 meter, 26AWG | 1-12 |
| FCN-261R024-G/3A#10 | FCN-261R024-G/3AL#10 | 12x IB SDR 10 meter, 26AWG | 1-12 |
| FCN-261R024-G/3A#12 | FCN-261R024-G/3AL#12 | 12x IB SDR 12 meter, 26AWG | 1-12 |
| FCN-261R024-G/6#08 | FCN-261R024-G/6L#08 | 12x IB DDR 8 meter, 24AWG | 1-12 |
| FCN-261R024-G/6#10 | FCN-261R024-G/6L#10 | 12x IB DDR 10 meter, 24AWG | 1-12 |
| FCN-261R024-G/6#12 | FCN-261R024-G/6L#12 | 12x IB DDR 12 meter, 24AWG | 1-12 |
| FCN-261R024-G/6A#08 | FCN-261R024-G/6AL#08 | 12x IB DDR 8 meter, 26AWG | 1-12 |
| FCN-261R024-G/6A#10 | FCN-261R024-G/6AL#10 | 12x IB DDR 8 meter, 26AWG | 1-12 |

IB SDR = InfiniBand Single Data rate - 2.5Gbps
IB DDR = InfiniBand Double Data rate - 5Gbps
Equalized circuits are optimized for cable length / wire AWG

## 4X / 12X PLUG CONNECTOR WITHOUT PCB
## RECOMMENDED PADDLE CARD OUTLINE

### ■ DIMENSIONS

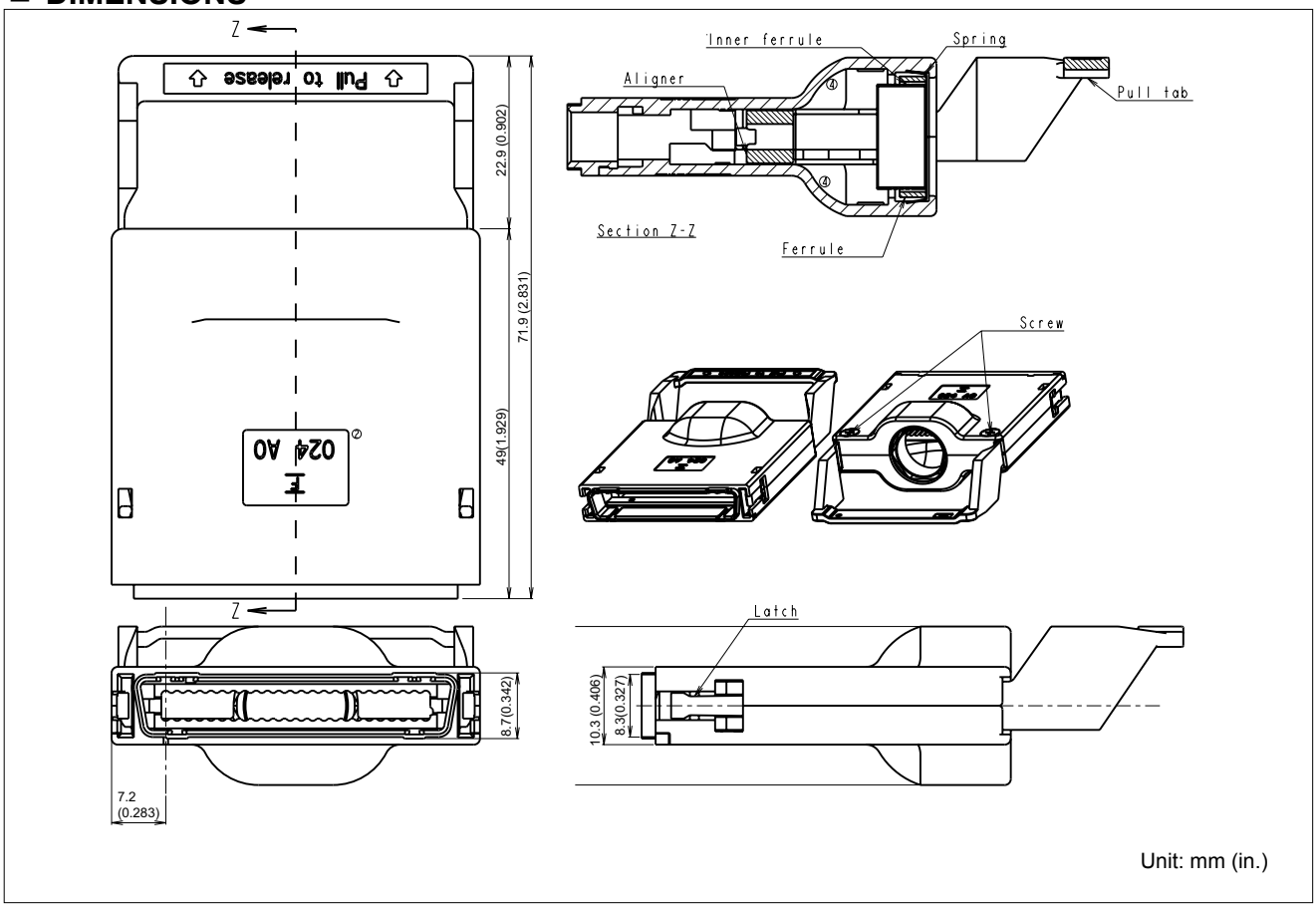



### ■ PART NUMBERS

| Part Number | Pair | m | n | B | C |
|---|---|---|---|---|---|
| FCN-261R008-G/A | 8 | 1-8 | 1-9 | 10.5 (0.413) | 12.0 (0.472) |
| FCN-261R024-G/A | 12 | 1-24 | 1-25 | 34.5 (1.358) | 36.0 (1.417) |

## 4X / 12X BACKSHELL KITS, WITH LATCHES
## CABLE I/O PLUG COVER

### ■ DIMENSIONS




### ■ PART NUMBERS

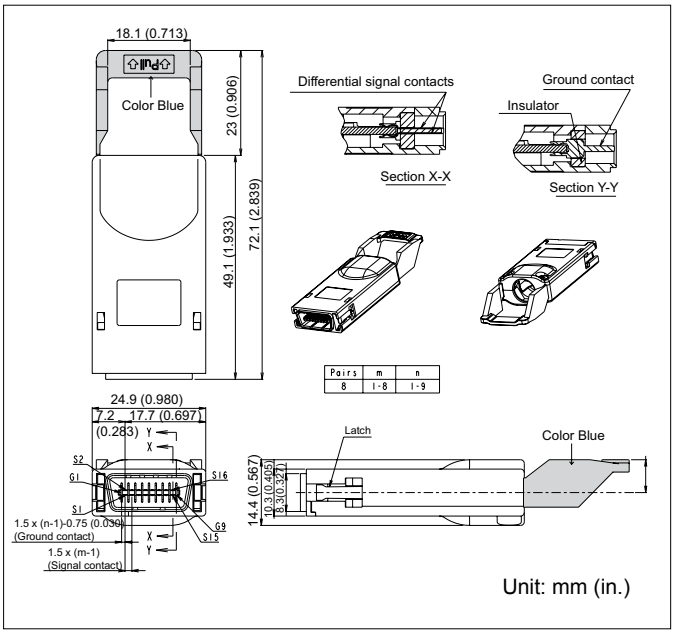
| Standard Backshell Kit | Backshell Kit w/Pull Tab |
|---|---|
| FCN-260C008-A/L0 | FCN-260C008-A/LA |
| FCN-260C008-C/L0 | FCN-260C008-C/LA |

| | |
|---|---|
| FCN-260C024-A/L0 | FCN-260C024-A/LA |
| FCN-260C024-C/L0 | FCN-260C024-C/LA |

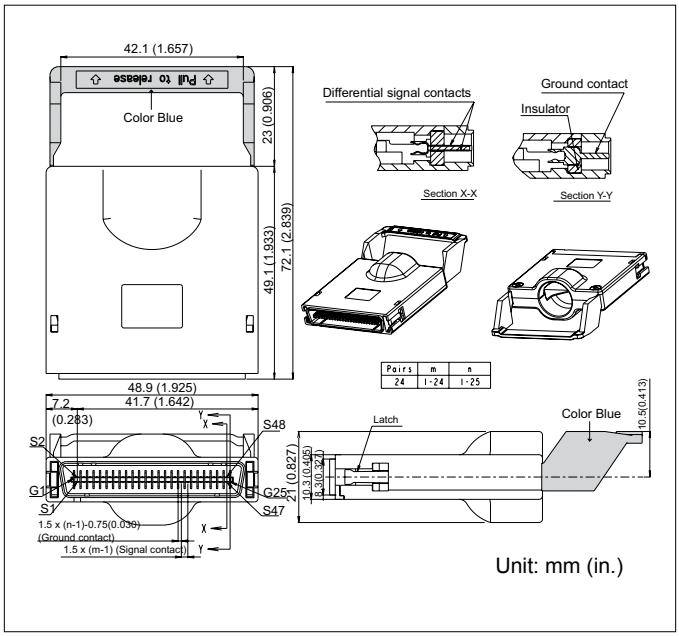
4x pull tab = FCN-260A905
12x pull tabl = FCN-260A902

Backshell key plug = FCN-260A802

## REFERENCE
## 4X CABLE MOUNT PLUG WITH BACKSHELL
## ■ DIMENSIONS




## REFERENCE
## 12X CABLE MOUNT PLUG WITH BACKSHELL
## ■ DIMENSIONS




## ■ PART NUMBER

Plug: FCN-261R008-G/0x

Backshell Kit: FCN-260C008-A/L0

## ■ PART NUMBER

Plug: FCN-261R024-G/x

Backshell Kit: FCN-260C024-A/L0

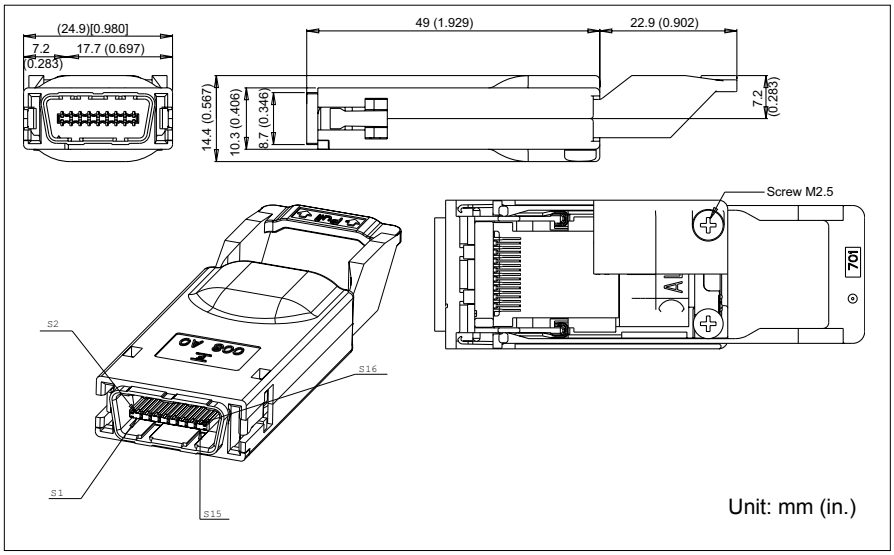
Drawing reflects plug and backshell together.
Backshell Kit is backshell and hardware only. Plug is not included and must be ordered separately.

Notes: * FCN-261R0xx-G/x is shipped with protective pastic cover over mating face of connector to protect contacts during shipping and cable assembly process.
* Equalization available - please consult factory.

*Product Specification are subject to change, please check our website (www.fcai.fujitsu.com) for the latest specifications.*

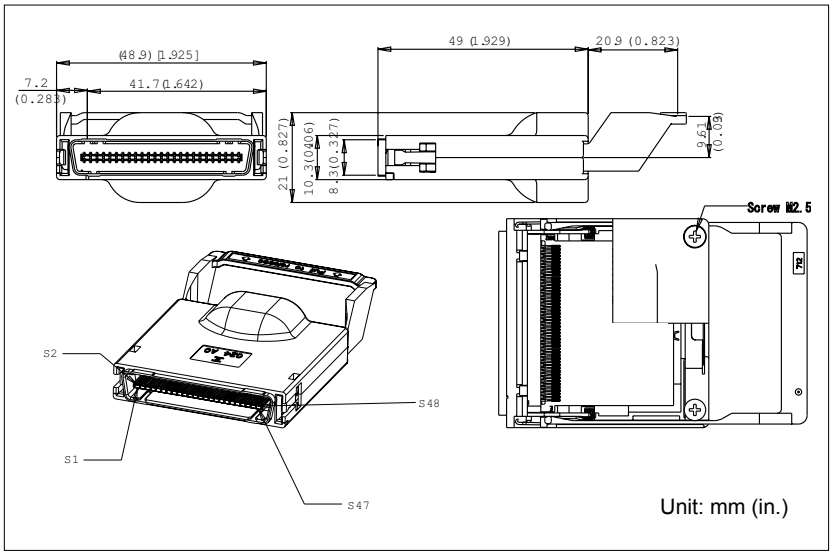
## 4X LOOPBACK MODULE - 8 PAIRS
**FCN-261Z008 (ROHS 5/6) -** discontinued, replaced by:
**FCN-261Z008L (ROHS 6/6)**

### ■ DIMENSIONS



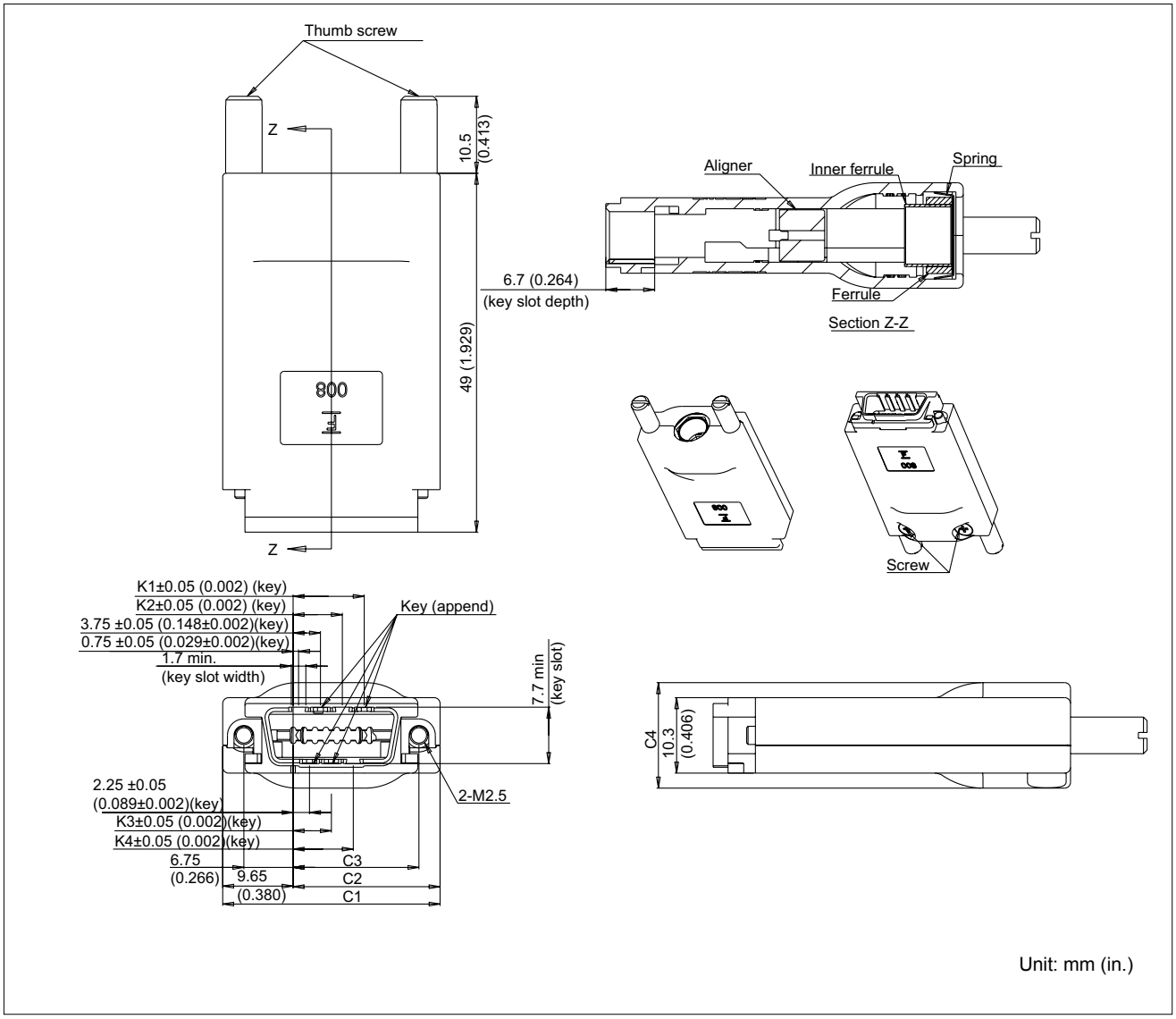

## 12X LOOPBACK MODULE - 8 PAIRS
**FCN-261Z024 (ROHS 5/6)-** discontinued, replaced by:
**FCN-261Z024L (ROHS 6/6)**

### ■ DIMENSIONS



## 4X / 12X BACKSHELL KIT, THUMBSCREWS

### ■ DIMENSIONS

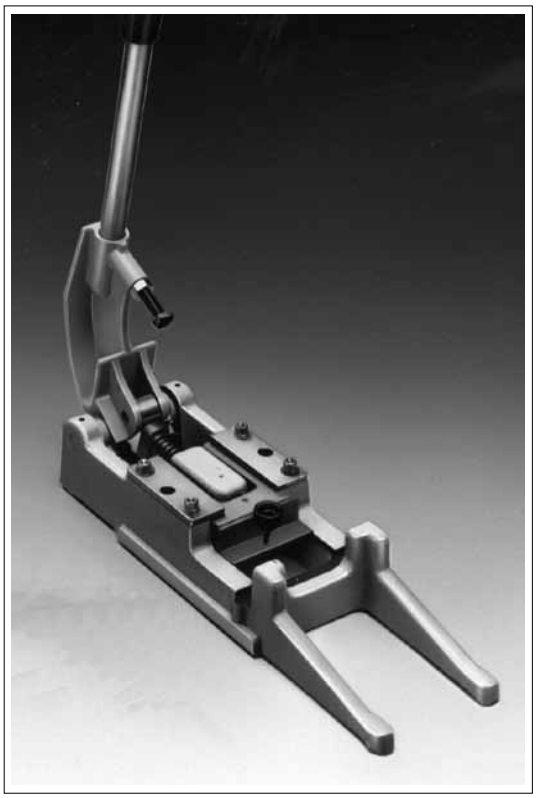



Unit: mm (in.)

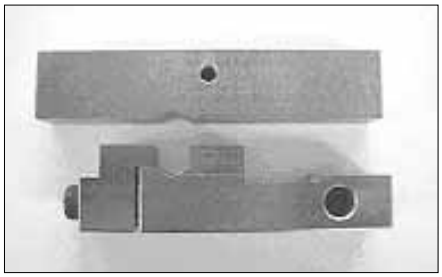
### ■ PART NUMBERS

| Part Number | Pair No. | C1 | C2 | C3 | C4 | K1 | K2 | K3 | K4 |
|---|---|---|---|---|---|---|---|---|---|
| FCN-260C008-A/S3 | 8 | 29.8 (1.173) | 20.15 (0.793) | 17.25 (0.679) | 14.4 (0.567) | 9.75 (0.384) | 6.75 (0.266) | 5.25 (0.207) | 8.25 (0.325) |
| FCN-260C024-A/S3 | 24 | 53.8 (2.118) | 44.15 (1.738) | 41.25 (1.624) | 21.0 (0.827) | 33.75 (1.329) | 30.75 (1.211) | 29.25 (1.152) | 32.25 (1.270) |

## ■ ASSEMBLY TOOLS



FCN-237T-T109/H
Hand Press



Ferrule Crimp Dies

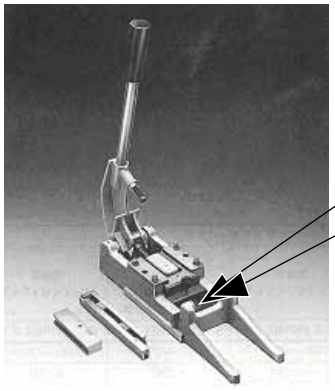
### Ferrule Crimp Dies

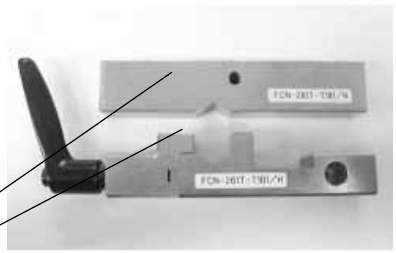
| Part Number | Applicable Backshell | Applicable Cable OD | Notes |
|---|---|---|---|
| FCN-261T-T002/H | FCN-260C008-A/L0<br>FCN-260C008-A/S3 | 9.53±0.4<br>0.375±0.015 | Normally 8 pair, 24AWG |
| FCN-261T-T103/H | FCN-260C008-C/L0<br>FCN-260C008-C/S3 | 8.38±0.4<br>0.330±0.015 | Normally 8 pair, 26AWG or 28AWG |
| FCN-261T-T101/H | FCN260C024-C/L1<br>FCN260C024-C/L1S<br>FCN260C024-C/R1S<br>FCN260C024-C/4 | 12.32±0.04<br>0.485±0.015 | Normally 24 pair, 26AWG |
| | FCN260C024-E/L1 | 10.287±0.4<br>0.405±0.015 | Normally 22 pair, 28AWG |
| | FCN260C024-E/L0 | 11.05±0.4<br>0.435±0.015 | Normally 24 pair, 28AWG |
| FCN-261T-T103/H | FCN-260C024-C/L2<br>FCN-260C024-C/L5 | | |
| FCN-261T-T105/H | FCN-260C024-A/L0<br>FCN-260C024-A/S3<br>FCN-260C024-A/LA | 15.49±0.4<br>0.610±0.015 | Normally 24 pair, 24AWG |

Both the press and ferrule crimp tool are required for the ferrule crimp process.
Note that additional tooling will be added to cover smaller wire bundle O.D.s. Please check with factory.

## ■ INSTRUCTIONS FOR CABLE ASSEMBLY

1. Set the crimping dies onto the hand press

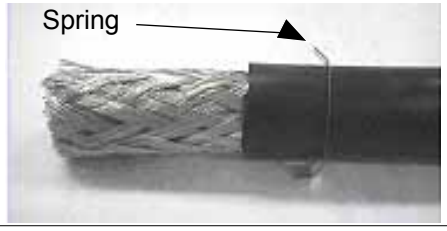




After a set is completed

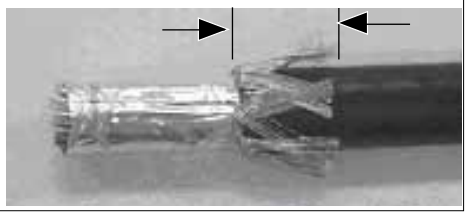
2. A ferrule and a spring are put on the cable.

a. Strip the cable insulator and put the spring, which shall be moved at the position where it does not interfere with assembly process.



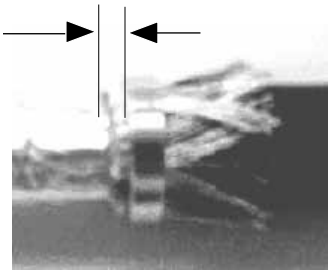

b. The shield braid is turnd back and cut the length of 13mm (0.512 in.)

13mm (0.512 in.)



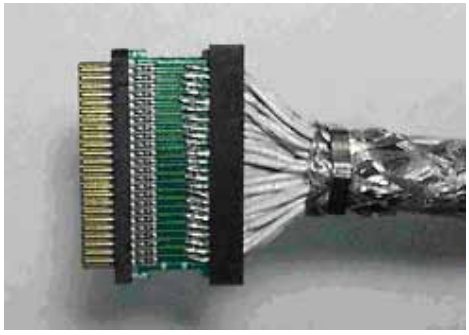
c. A ferrule is put on the position of 2mm from the end of the jacket

2mm (0.079 in.)



d. Strip the shield pair of wires (27mm [1.063in.] from the ring edge) and then wire insulation (27.5mm [1.082 in.]).

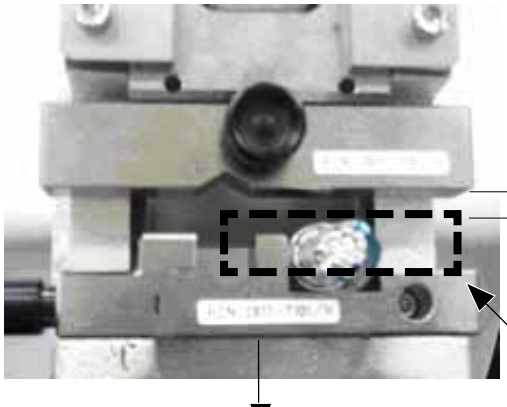
e. A shield of pair wires passed through the aligner, and solder the wires onto the paddle card.



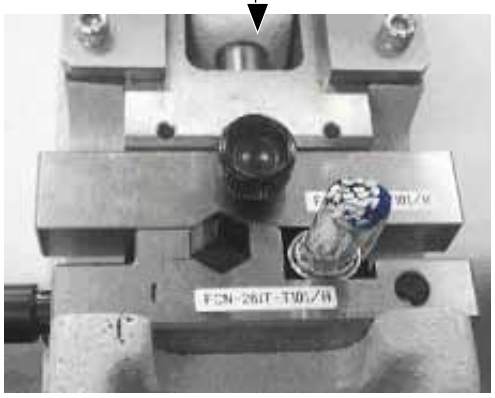
3. Ferrule crimping:

To explain the process clearly, the following photos do not have a paddle card.

a. Set the cable onto right side of the jig, and end of the jig, ferrule edges are made to become parallel, and surface of provisional crimp and the connector made to parallel, pre-crimp the ferrule until part A, D hit parts B, E. (The ferrule becomes an eclipse).



| Cable | | X (mm) [in.] |
|---|---|---|
| Pair | AWG | |
| 8 | 24 | 10.5 [0.413] |
| 24 | 24 | 15.60 [0.614] |

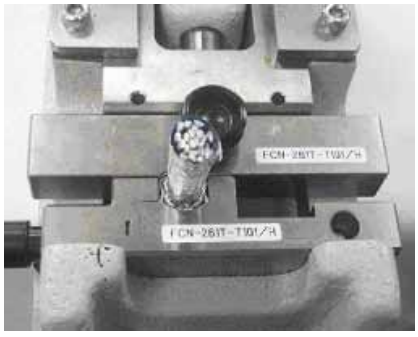


b. Confirm that lever is tightened hardly. If it isn't, a lever shall be pulled to the front and tightened.

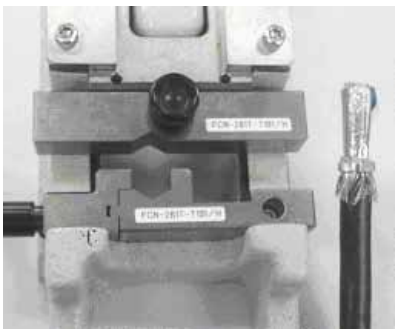
c. Set the cable at the table cavity at the left side. (The ferrule edge/end face shall be parallel to the jig).

If a ring is not able to be inserted into the hollow, loosen with the lever, and insert the ferrule again. Then tighten with the lever.

d. Crimp ferrule until parts A, D hit parts B, E.

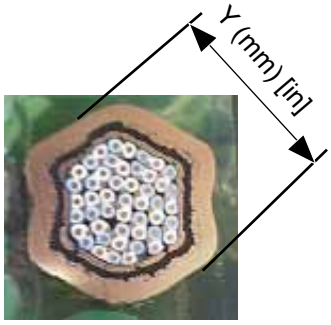


e. Hand press is returned to the original position, and loosened with the lever pulling forward.



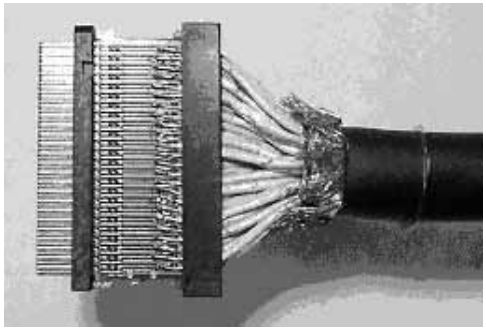
f. Crimp completion.

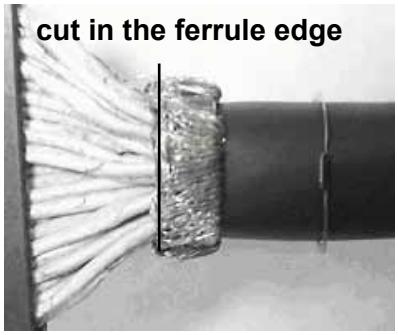
Check Y dimension:




| Cable | | Y (mm) [in.] |
|---|---|---|
| Pair | AWG | |
| 8 | 24 | 10.8 [0.425] |
| 24 | 24 | 16.00 [0.630] |

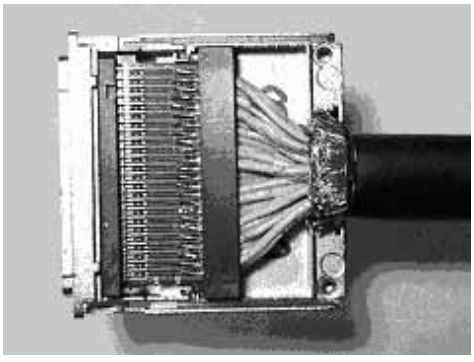
4. Turn back the jacket and cut in the ferrule edge.

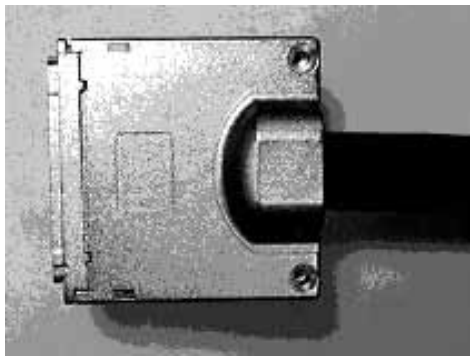





5. Installation of cover:

g. Set the cable and soldered with the paddle card into the outer cover. (#1 pin position side of the connector shall be on top) and put another cover, and set the spring, which is initially put on the cable, at the edge of the ferrule and install it inside and then fix the covers with the screws.





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Наши преимущества:

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
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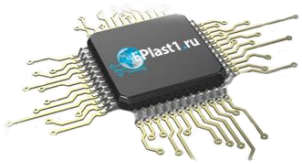
- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

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