DIN 41612 SIGNAL HEADERS & RECEPTACLES

2.54 mm Pitch

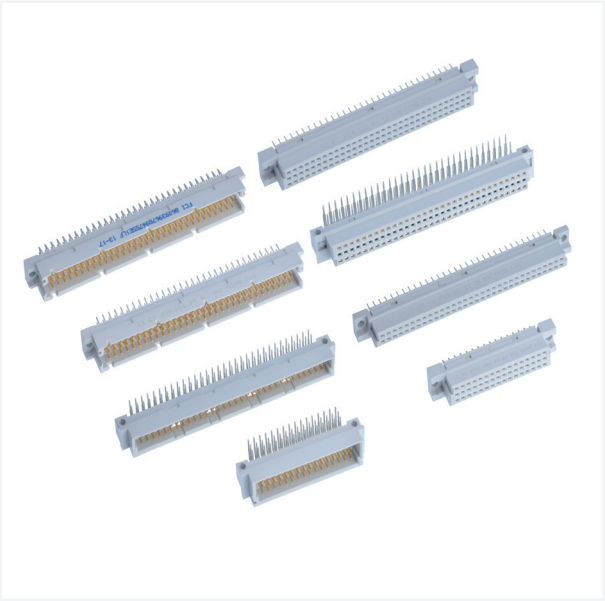
OVERVIEW

FCI offers a broad and a complete range of interconnection systems conforming to DIN 41612 and IEC 603-2 specifications. DIN 41612 connector systems are the most popular backplane interconnect systems due to the widespread standard adoption, easy availability, cost-effectiveness and durability.

The product design for Board-to-Board and I/O solutions involve two popular mating combination; Standard Mount and Reverse Mount.

These connectors are available in up to three rows and 96 positions with Solder, Press-fit and Pin-in Paste terminations. FCI offers three standard performance class options as follows: DIN class I (500 operations); DIN class II (400 operations); DIN class III (50 operations).

Primary market segments include Industrial, Telecom and Data.



FEATURES

- 2.54mm pitch
- Modular system
- Selective loading pattern for contacts
- FMLB/LMEB contacts
- Wide range of accessories (board-locks, latches, shrouds, hoods, keys)
- Rear plug up variants in press-fit applications

BENEFITS

- Adequate spacing for routing PCB traces
- Standardized and cost-effective solutions
- Improve creepage distance, allow custom loading
- Critical grounding option
- Enhances the connector suitability and flexibility
- Extended mating applications via shrouds on the rear side of the PCB

TECHNICAL INFORMATION

MATERIALS

- Insulator: Polyester Thermoplastic
- Housings can withstand exposure to lead free wave soldering temperature of 260°C to 265°C when used along with high temperature adhesive or protective metallic device for right angle connectors.
- Contact: Copper Alloy (Male & female contact)
- Plating: Lead-free version
- Male & Female contacts (DIN 41612 compliant)
  - Active contact areas selectively plated
  - Gold over Nickel or GXT™ over Nickel on mating surface
  - Tin over Nickel on solder termination

ELECTRICAL PERFORMANCE

- Current Rating at 20°C: 1.5A
- Maximum Current: 2A
- Contact Resistance: ≤ 20mΩ
- Insulation Resistance: ≥ 10^6MΩ
- Test Voltage (rms): 1000V
- Creepage and Clearance Distance: ≥ 1.2mm
- Wiping/Plug-in Direction: ≥ 1.8mm

MECHANICAL PERFORMANCE

- Mating Insertion Force per Contact: ≤ 0.94N
- Mating Extraction Force per Contact: ≥ 0.15N
- Contact Retention in Insulator: ≥ 20N
- Vibration: ≤ 1µs

  ≤ 40mΩ
- Shock: ≤ 1µs

  ≤ 40mΩ

SPECIFICATIONS

- DIN 41612
- IEC 603-2

ENVIRONMENTAL

- Temperature Range: -55°C to +125°C
- Damp Heat
  - Steady state 56 days: Class 1
  - Steady state 21 days: Class 2
  - Not applicable: Class 3

APPROVALS AND CERTIFICATIONS

- UL/CSA in progress

PACKAGING

- Tray
- Tube
- Carton

TARGET MARKET/ APPLICATIONS

- Industrial
  - Medical
  - Lighting
  - Process Control
  - Transportation
  - Instrumentation
  - Vehicle electronics
  - Energy transmission/distribution control
- Telecom
  - Switching/Routing
  - Enterprise
  - Transmission
  - Access – wired/wireless
- Data
  - Servers
  - Personal Computing
  - Peripheral devices
- Consumer
  - Home entertainment
  - White goods
  - Phones

For more information,
please contact: Communications@fci.com
or visit us at www.fci.com

PART NUMBERS

Style	Connector	Configuration	Rows Loaded	Termination	Part number
C	Right Angle Header	2 row / 64 pos.	a & c	Solder-to-board	860946471137*5ELF
				Press-fit	860946471947*5E1LF
		3 row / 96 pos.	a, b, c	Solder-to-board	860939671137*5ELF
				Press-fit	860939671947*5E1LF
	Straight Receptacle	2 row / 64 pos.	a & c	Solder-to-board	860946481147*5V1LF
				Press-fit	860946481947*5E3LF
		3 row / 96 pos.	a, b, c	Solder-to-board	860939681147*5V1LF
				Press-fit	860939681947*5E3LF
C/2	Right Angle Header	2 row / 32 pos.	a & c	Solder-to-board	860943273137*5ELF
		3 row / 48 pos.	a, b, c		860934873137*5ELF
	Straight Receptacle	2 row / 32 pos.	a & c		860943283147*5V1LF
		3 row / 48 pos.	a, b, c	Solder-to-board	860934883147*5V1LF
				Press-fit	860934883947*5E3LF
B	Right Angle Header	1 row / 32 pos.	a only	Solder-to-board	860913251137*5ELF
		2 row / 64 pos.	a & b		860926451137*5ELF
	Straight Receptacle	1 row / 32 pos.	a only		860913261147*5V1LF
		2 row / 64 pos.	a & b		860926461147*5V1LF
B/2	Right Angle Header	2 row / 32 pos.	a & b	Solder-to-board	860923253137*5ELF
	Straight Receptacle				860923263147*5E1LF
R	Straight Header	2 row / 64 pos.	a & c	Solder-to-board	860946478147*5ELF
				Press-fit	860946478947*5E1LF
		3 row / 96 pos.	a, b, c	Solder-to-board	860939678147*5ELF
				Press-fit	860939678947*5E1LF
	Right Angle Receptacle	2 row / 64 pos.	a & c	Solder-to-board	860946488137*5V1LF
				Press-fit	860946488947*5E3LF
		3 row / 96 pos.	a, b, c	Solder-to-board	860939688137*5V1LF
				Press-fit	860939688947*5E3LF
R/2	Straight Header	2 row / 32 pos.	a & c	Solder-to-board	860943276147*5ELF
		3 row / 48 pos.	a, b, c	Solder-to-board	860934876147*5ELF
				Press-fit	860934876947*5E1LF
	Right Angle Receptacle	2 row / 32 pos.	a & c	Solder-to-board	860943286137*5E1LF
		3 row / 48 pos.	a, b, c		860934886137*5E1LF
Q	Straight Header	2 row / 64 pos.	a & b	Solder-to-board	860926458147*5ELF

BPLDINSIGNAL1215EA4

Notes
Asterisk (*) in part number denotes Performance class: PN Code 6,5,4 for Class 1, 2 & 3 respectively. Custom loading and other options available on request.

Mouser Electronics

Authorized Distributor

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86094647113755ELF 86094648114755V1LF 86093967814755ELF 86093968114755V1LF 86094647814755ELF 86093967894755E1LF 86093968114745V1LF 86093968114765V1LF 86093968194765E3LF 86093968894755E3LF 86094648114745V1LF 86094648194755E3LF 86094648813765V1LF 86093968813755V1LF 86093967113755ELF 86092325313755ELF 86092326314755E1LF 86093487614755ELF 86093967113745ELF 86093967113765ELF 86093968813745V1LF 86094647113765ELF 86091326114755V1LF 86092646114755V1LF 86092646114765V1LF 86092326314765E1LF 86092326314745E1LF