

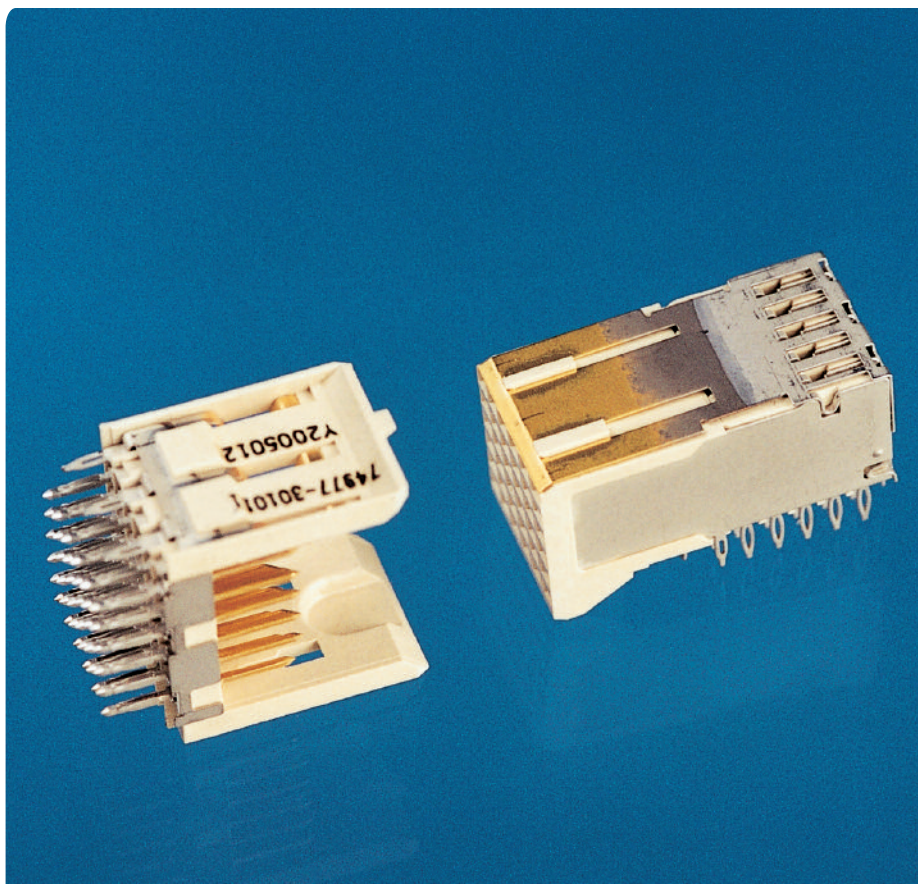
METRAL® 2000 SERIES

DESCRIPTION

FCI's Metral® 2000 Series is a high-speed 2 mm backpanel connector system consisting of right-angle receptacles and vertical headers. The 2000 Series features a unique stripline structure in both the receptacle and header. Apart from this stripline structure, it is similar to the FCI Standard Metral Connector. This stripline structure allows the Metral 2000 Series to have improved signal performance when routed in either a single-ended or a differential pair configuration.

The Metral 2000 Series is available in 5x6 and 8x12 module sizes for mid-plane applications. The system also features dedicated ground rows. For the 5-row connector, the dedicated ground row is the 3rd row. For the 8-row connector, the dedicated ground rows are the 3rd and 5th rows. Two-module monoblocks for the 5-row connector are available.

Metral 2000 Series connectors are designed to conveniently stack end-to-end with other FCI Metral products.



FEATURES & BENEFITS

- A shielded stripline transmission structure in both the header and receptacle
- Reduced crosstalk compared to the FCI Standard Metral Connector System
- Less than 2.5% multi-line active NEXT @ 200 ps rise time in differential applications
- Dual-beam receptacle contacts
- 200 mating cycles
- Available in 5- and 8-row configurations
- Rear plug up options
- Stackable end-to-end with other FCI Metral products
- Capability to provide customized select-load patterns in headers
- Press-fit headers and receptacles for easy installation with standard press tooling
- Repairable
- Lead-free and RoHS-compliant versions available

TARGET MARKETS / APPLICATIONS

- Communications
 - Transmission
 - Access
 - Switches
 - Routers
- Data
 - Servers
 - Storage Enclosures
- I & I
 - Rack-Based Systems

MATERIALS

- Housings: High-temperature, glass filled LCP, UL 94 V-0
- Receptacle contacts: Beryllium-copper
- Header pins: Phosphor-bronze
- Ground shields: Phosphor-bronze
- Plating:
 - Contact area: Selective gold over nickel
 - Press-fit tails: tin-lead or tin

MECHANICAL PERFORMANCE

- Mating force: 0.55 N max. per contact pair including ground and shield contacts
- Withdrawal force: 0.20 N min. per contact pair including ground and shield contacts
- Signal contact normal force: 0.39 N min. (EOL)

ELECTRICAL PERFORMANCE

- Operating temperature: -55°C to +105°C
- Current rating: 1 amp when all contacts are powered or 3 amps when one contact is powered at a 30°C max. temperature rise
- Contact resistance: 20 mΩ max.
- Insulation resistance: 1000 MΩ min.
- Signal integrity: Data and SPICE models are available at www.fciconnect.com/highspeed. Contact FCI Marketing for additional information.

PART NUMBERS

Header	Receptacle	Number of Rows & Positions	For Card Thickness
74977-XXX*	73981-XXX*	5-Row 5x6	1.27 mm (0.050") - 2.54 mm (0.100")
84809-XXX	84854-XXX	5-Row 5x6	2.54 mm (0.100") - 3.40 mm (0.134")
74978-XXX	74981-XXX	8-Row 8x12	1.27 mm (0.050") - 3.40 mm (0.134")

* Note: All Dash numbers, X's represent available options such as plating types, pin lengths (for headers). Lead-free and RoHS-compliant products are designated by the addition of LF as a suffix to the dash number. For detailed product information, visit our on-line catalog at www.fciconnect.com/metral.

SPECIFICATIONS

- Product
 - FCI Specification GS-12-110 for 5-row connector and GS-12-134 for 8-row connector
- Application
 - FCI Specification GS-20-010 for headers, BUS-20-071 for 5-row receptacles and BUS-20-072 for 8-row receptacles

APPROVALS & CERTIFICATIONS

- Recognized per UL/CSA
- Qualified per Bellcore
GR-1217-CORE,
November 1995, Central Office

PACKAGING

- Tubes