

METRAL® 2000 SERIES

OVERVIEW

FCI's Metral® 2000 Series is a high speed 2mm backplane connector system of vertical headers. The 2000 Series features a unique stripline structure. 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 midplane 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, Three & Four-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 and are mateable with Metral® 1000/4000 Series Receptacles.



FEATURES

- Fully shielded strip-line transmission structure for Vertical Headers
- Stackable end-to-end with other FCI Metral® Products
- Dedicated Ground Row Contacts
- Available in 5 and 8-row configurations
- Press-fit Headers
- Various Header Loading Patterns available
- Rear Plug up Options
- 200 Mating Cycles
- RoHS Compliant

BENEFITS

- Reduced Cross Talk & Improved Signal Performance (Less than 2.5% multi-line active NEXT @ 200ps rise time in differential applications)
- No loss of Pitch and Adaptable to the Metral® Platform
- Improved Signal Integrity
- Flexibility of Connector Size
- Easy Application on Boards and Repair
- Customized Selection
- Midplane Application
- Better Durability
- Meet environmental, health and safety requirements





TECHNICAL INFORMATION

MATERIALS

- Housings: High-temperature, glass filled LCP, UL94V-0
- Header Pins: Copper Alloy
- Ground Shields: Copper Alloy
- Plating:
 - Contact Area: per Telcordia™ GR-1217-core for Central Office and Uncontrolled Environment
 - Press-fit Tails: Matt tin

ELECTRICAL PERFORMANCE

- Current Rating: 1A when all contacts are powered or 3A when one contact is powered at a 30°C max. temperature rise
- Contact Resistance: 20mΩ max.
- Insulation Resistance: 1000MΩ min.
- Signal Integrity: Data and SPICE models are available at www.fci.com.

ENVIRONMENTAL

- Operating Temperature: -65°C to +105°C

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

SPECIFICATIONS

- IEC 61076-4-104
- FCI Product Specifications
 - GS-12-110 for 5-row connectors
 - GS-12-134 for 8-row connectors
- FCI Application Specifications
 - GS-20-010 for headers and shrouds

SPECIFICATIONS

- Recognized per UL/CSA
- Qualified per Telcordia GR-1217-CORE, Central Office (CO) and Uncontrolled Environment (UE)

PACKAGING

- Tubes

TARGET MARKET / APPLICATIONS

- Communications
 - Transmission
 - Access
 - Switches
 - Routers
- Data
 - Servers
 - Storage Enclosures
- Industrial, Instrumentation and Medical
 - Rack-Based Systems

PART NUMBERS

Number of Rows & Positions	Header	Shroud
5-Row 5x6	74977-XXX	84621-XXX
5-Row 5x6	84809-XXX	84811-XXX
8-Row 8x12	74978-XXX	84625-XXX

Note: All Dash numbers - XXX represent available options such as plating types, tail lengths for headers. Lead-free and RoHS-compliant products are designed by the addition of LF as a suffix to the dash number.

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