

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.

BPLMETRAL2K015EA4

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

FCI / Amphenol:

[74977-101050LF](#) [74978-102011LF](#) [74977-101001LF](#) [74978-102001LF](#) [55499-5003LF](#) [63741-101LF](#) [63741-102LF](#)
[63741-103LF](#) [63741-104LF](#) [63741-105LF](#) [74977-101002LF](#) [74977-101003LF](#) [74977-101012LF](#) [74977-101055LF](#)
[74977-101056LF](#) [74977-901001LF](#) [74977-901002LF](#) [74978-102012LF](#) [74978-102013LF](#) [74978-102050LF](#) [74978-](#)
[102053LF](#) [74978-102054LF](#) [84809-104001LF](#) [74977-101011LF](#) [74977-101013LF](#) [74977-101021LF](#) [74977-](#)
[101052LF](#) [74977-102001LF](#) [74977-103001LF](#) [74977-104002LF](#) [74977-104011LF](#) [74978-102006LF](#) [74978-](#)
[102051LF](#) [74978-502011LF](#) [84621-101LF](#) [84625-102LF](#) [84809-101001LF](#) [84809-101011LF](#) [84809-101050LF](#)
[84809-101051LF](#) [74977-101051LF](#) [74977-501011LF](#) [55499-1002LF](#) [58392-1002LF](#) [84620-101LF](#) [74977-201001LF](#)
[74977-201002LF](#) [74977-201011LF](#) [74977-201012LF](#) [74977-201013LF](#) [74977-201021LF](#) [74977-201050LF](#) [74977-](#)
[201051LF](#) [74977-201052LF](#) [74977-201056LF](#) [74977-202001LF](#) [74977-202057LF](#) [74977-203001LF](#) [74977-](#)
[204002LF](#) [74977-204011LF](#) [63741-201LF](#) [63741-202LF](#) [63741-203LF](#) [63741-204LF](#) [63741-205LF](#) [74978-](#)
[202001LF](#) [84809-201011LF](#) [84809-201050LF](#) [84809-201051LF](#) [74978-202006LF](#) [74978-202011LF](#) [74978-](#)
[202051LF](#) [84621-201LF](#) [84625-202LF](#) [84809-201001LF](#) [74977-201060LF](#) [74977-201061LF](#)