

**Achieve data rates up to 6.25 Gbps, significantly reduce crosstalk and improve PCB routing with Molex's VHDM® H-Series Backplane Connector System, ideal for telecom and datacom system upgrades without costly architecture redesigns**

The Very High Density Metric 'H' Series (VHDM® H-Series) connector system is designed for applications that require very high interconnect density and high-speed signal integrity. VHDM H-Series enables an installed base to perform at 6.25 Gbps, enabling system upgrades without costly architecture redesigns. With an identical mating interface and envelope, the VHDM H-Series is fully backwards compatible with existing VHDM slots. Designers can use VHDM H-Series to extend the life of existing platforms, reduce development costs and speed higher performance systems to market.

The signal portion of the VHDM H-Series connector system consists of modules in increments of 10 columns or 25 columns in either 6 rows or 8 rows. The daughter card connector consists of a metal stiffener that combines signal wafers, power modules and guidance modules to make one continuous connector that can be ordered with one custom part number. The maximum length of a single stiffener is 300mm (~12 inches). The power contacts can handle 10.0A of current per blade, efficiently delivering up to 120.0A per 25.00mm (.984") of board edge with multiple mating levels for hot plug applications. Metal guide pins and key slots provide excellent guidance for large PCBs and eliminate the possibility of plugging a daughter card into the wrong slot. For more information on Molex's VHDM product offering, visit: [www.molex.com/link/vhdm.html](http://www.molex.com/link/vhdm.html).

**FEATURES AND BENEFITS**

- Data rates up to 6.25 Gbps, the highest of all VHDM versions enable system upgrade scalability without costly architecture
- Mates with existing VHDM systems to enable backwards compatibility with existing VHDM slots, extends the life of existing platforms, reduces development costs and provides a high system speed to the market
- Ability to combine VHDM® L-Series (1 Gbps), VHDM® (3.125 Gbps), VHDM® H-Series (6.25 Gbps) and VHDM-HSD™ (5Gbps) wafers on the same metal stiffener reduces application costs while improving design flexibility
- Internal ground shields control impedance and minimize cross talk
- Small compliant-pin 0.45mm (.018") PCB hole size improves PCB routing and back drilling while reducing impedance discontinuities
- Modular construction maximizes design flexibility via custom configuration of signal, power and guide modules

\* Daughter card receptacles are custom configurable and part of the final assembly.

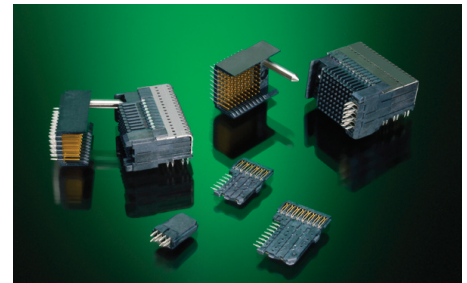
**VHDM® H-Series Backplane Connector System**

**6 Row Series**

- 76763 Backplane Header, Open
- 76761 Backplane Header, Signal End, Guide Left
- 76762 Backplane Header, Shield End, Guide Right
- 76760 Daughter Card Receptacle\*

**8 Row Series**

- 76134 Backplane Header, Open
- 76135 Backplane Header, Signal End, Guide Left
- 76136 Backplane Header, Shield End, Guide Right
- 76021 Daughter Card Receptacle\*



VHDM® H-Series Backplane System  
Backplane header, daughter card, power module, wafer construction

**SPECIFICATIONS**

**Reference Information**

Packaging: Trays  
 UL File No.: E29179  
 CSA File No: 152514 (LR19980)  
 Mates With:

|            |         |
|------------|---------|
| Receptacle | Headers |
| 76760      | 76761   |
|            | 76762   |
|            | 76763   |
|            | 76764   |
| 76021      | 76134   |
|            | 76135   |
|            | 76136   |
|            | 76137   |

Designed In: Millimeters

**Electrical**

Signal Contact: 1.0A  
 Shield Contact (6 Row): 2.0A  
 Shield Contact (8 Row): 3.0A  
 Power Blade: 10.0A

**Mechanical**

Mating Force:  
 Signal: 40g per signal pin  
 Shield: 25g per shield chevron  
 Power: 150g per blade  
 Durability: 200 cycles

Normal Force:  
 Signal: 50g min.  
 Power: 100g min.

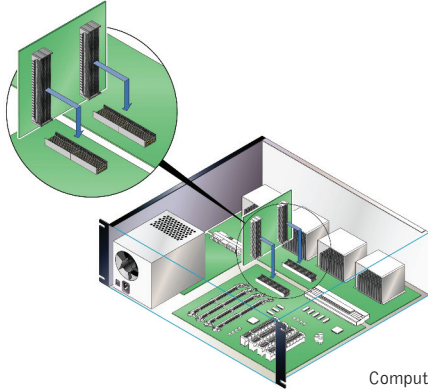
**Physical**

Housing: Liquid Crystal Polymer, UL 94V-0  
 Contact: Copper (Cu) Alloy  
 Plating:  
 Contact Area – 0.76µm (30µ") Gold (Au) min.  
 Solder Tail Area – Tin (Sn) or Tin/Lead (Sn/Pb)  
 Underplating – Nickel (Ni)  
 PCB Thickness: 1.60mm (.063") typical  
 Operating Temperature: -55 to +85°C

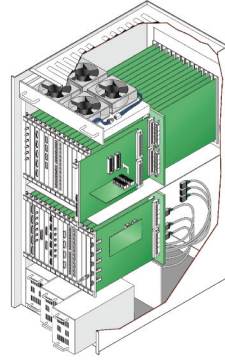
VHDM is a registered trademark of Amphenol TCS

## MARKETS AND APPLICATIONS

- Telecommunication equipment
- Hubs, switches, routers
- Central office, cellular infrastructure and multi-platform (DSL, Cable Data) systems
- Medical imaging
- Data networking equipment
- Storage
- Servers
- Test and measurement equipment
- Military



Computer Server



Telecom Router

## VHDM® H-Series Backplane Connector System

### 6 Row Series

- 76763 Backplane Header, Open
- 76761 Backplane Header, Signal End, Guide Left
- 76762 Backplane Header, Shield End, Guide Right
- 76760 Daughter Card Receptacle\*

### 8 Row Series

- 76134 Backplane Header, Open
- 76135 Backplane Header, Signal End, Guide Left
- 76136 Backplane Header, Shield End, Guide Right
- 76021 Daughter Card Receptacle\*

## ORDERING INFORMATION

| Components              | Configuration            | Circuits | Plating  | Order No.  |
|-------------------------|--------------------------|----------|----------|------------|
| 6 Row Backplane Headers | Signal End – Guide Left  | 60       | Tin/Lead | 76761-1001 |
|                         |                          | 150      | Tin/Lead | 76761-2501 |
|                         |                          | 60       | Tin      | 76761-9001 |
|                         |                          | 150      | Tin      | 76761-8501 |
|                         | Shield End – Guide Right | 60       | Tin/Lead | 76762-1001 |
|                         |                          | 150      | Tin/Lead | 76762-2501 |
|                         |                          | 60       | Tin      | 76762-9001 |
|                         |                          | 150      | Tin      | 76762-8501 |
|                         | Open                     | 60       | Tin/Lead | 76763-1001 |
|                         |                          | 150      | Tin/Lead | 76763-2501 |
|                         |                          | 60       | Tin      | 76763-9001 |
|                         |                          | 150      | Tin      | 76763-8501 |
| 6 Row Daughter Card     | Wafer                    | 6 Row    | Tin/Lead | 74031-3001 |
|                         |                          |          | Tin      | 74031-4001 |
| 8 Row Backplane Headers | Signal End – Guide Left  | 80       | Tin/Lead | 76135-1001 |
|                         |                          | 200      | Tin/Lead | 76135-2501 |
|                         |                          | 80       | Tin      | 76135-9001 |
|                         |                          | 200      | Tin      | 76135-8501 |
|                         | Shield End – Guide Right | 80       | Tin/Lead | 76136-1001 |
|                         |                          | 200      | Tin/Lead | 76136-2501 |
|                         |                          | 80       | Tin      | 76136-9001 |
|                         |                          | 200      | Tin      | 76136-8501 |
|                         | Open                     | 80       | Tin/Lead | 76134-1001 |
|                         |                          | 200      | Tin/Lead | 76134-2501 |
|                         |                          | 80       | Tin      | 76134-9001 |
|                         |                          | 200      | Tin      | 76134-8501 |
| 8 Row Daughter Card     | Wafer                    | 8 Row    | Tin/Lead | 74041-2001 |
|                         |                          |          | Tin      | 74041-3001 |

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**molex**

[www.molex.com/link/vhdm\\_h.html](http://www.molex.com/link/vhdm_h.html)