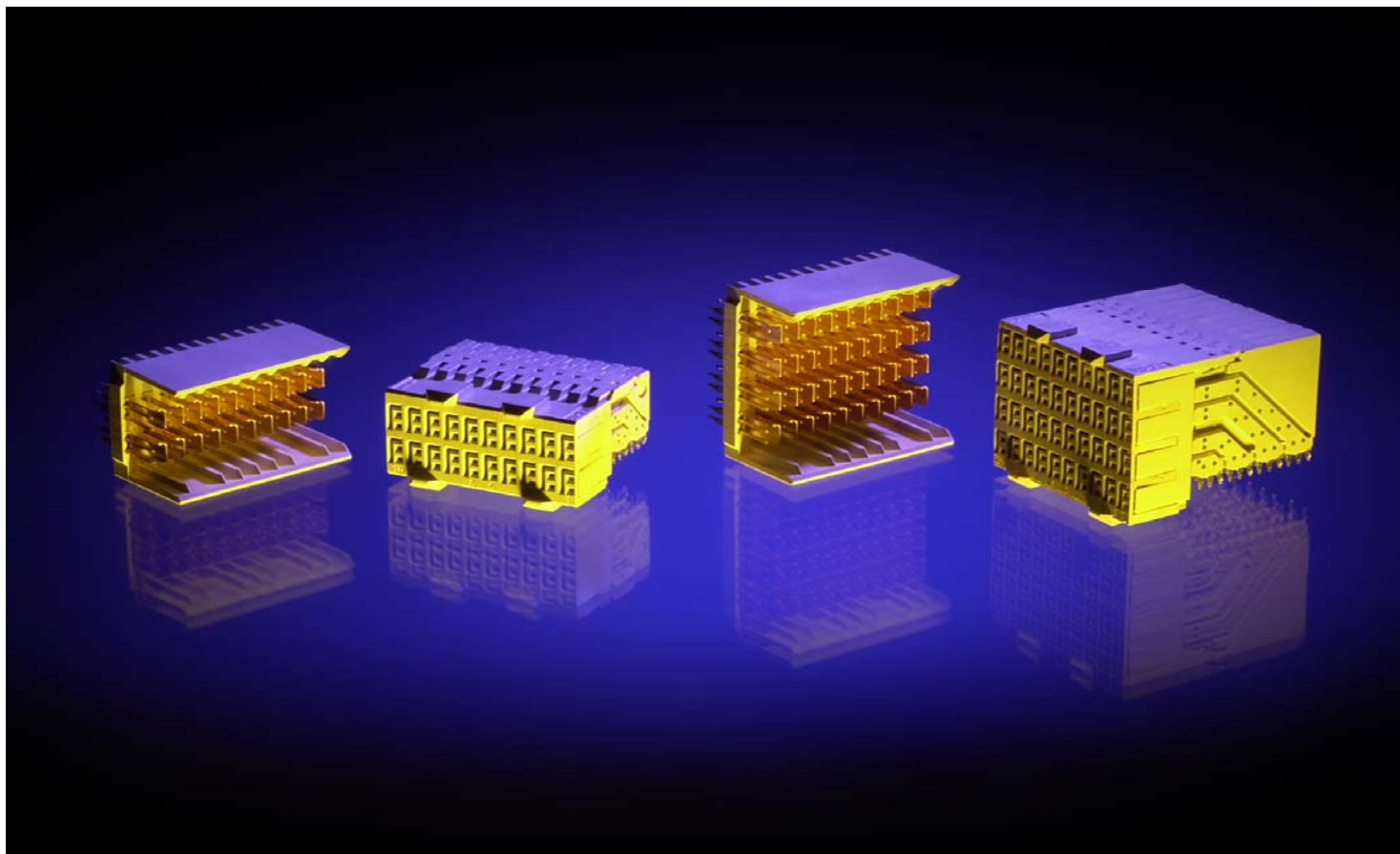


Z-PACK HM-Zd Product



Application

Backplane to Daughtercard Interconnection



Primary Market

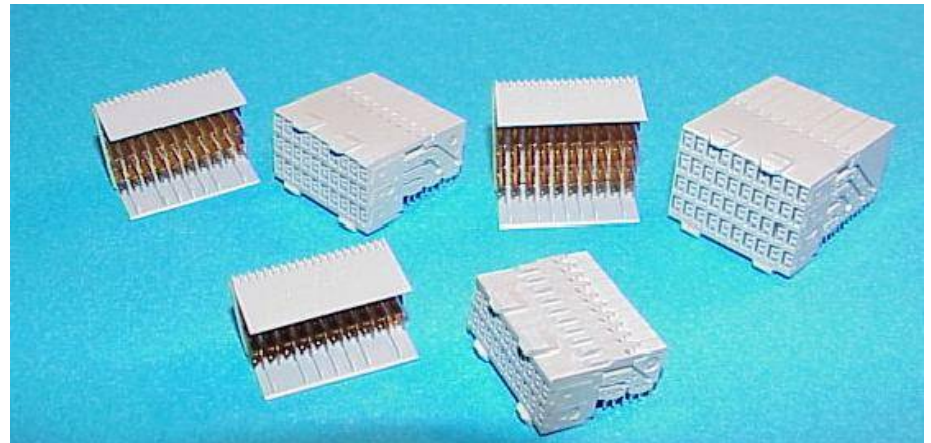
- Backplane interconnect for multi-gigabit applications
 - Conventional perpendicular configuration
 - Mid-plane configuration
- Data rates from 2.5 Gb/s to up to 10+ Gb/s
- Move toward serial architectures requires differential pair connector systems

Primary Market (continued)

- Standards convergence at 10 Gb/s performance level
- Connector footprint is a crucial consideration for signal integrity at data rates above 2.5 Gb/s
- PCB materials and manufacturing methods impact system performance, new solutions on horizon

Product Line Overview

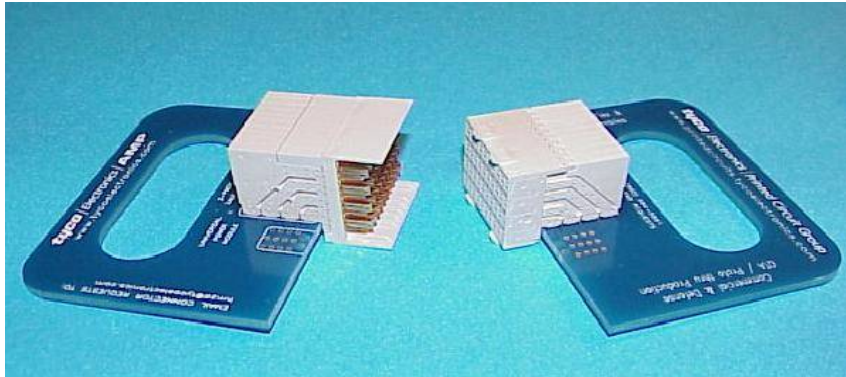
- Standard Product Configurations
 - Vertical pin header (backplane)
 - Right angle receptacle (daughter card)
 - 2, 3 & 4 pair (per column) versions
- Density (100% available for HS signal)
 - 40 pins/inch (2 pair)
 - 60 pins/inch (3 pair)
 - 80 pins/inch (4 pair)



Product Line Overview (continued)

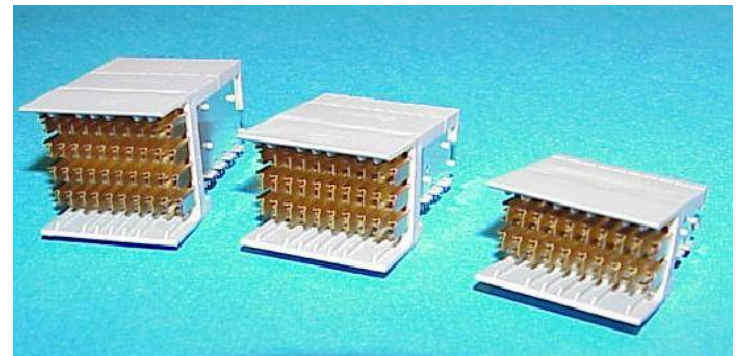
- Compatible with Common Card Pitches
 - 0.8" ---> 2 pair and 3 pair
 - 1.0" ---> 4 pair
- Modular System
 - 25mm standard module length (10 columns)
 - Up to 20 columns (50mm) possible
- PCB Footprint optimized for density and performance
- Migration path for 2mm HM and CompactPCI users
- Telcordia (Belcore) Central Office compliant

Product Line Overview (continued)

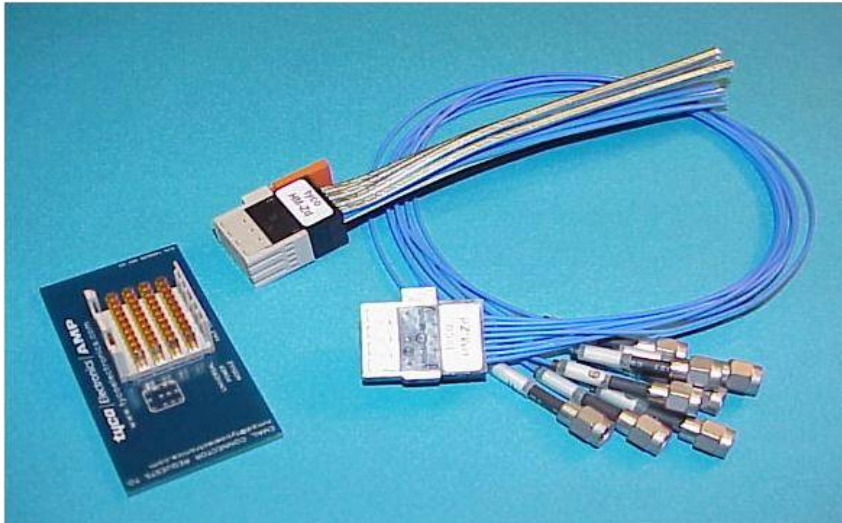


Right angle pin headers for coplanar board and card extender applications

Available in 2 pair, 3 pair and 4 pair versions



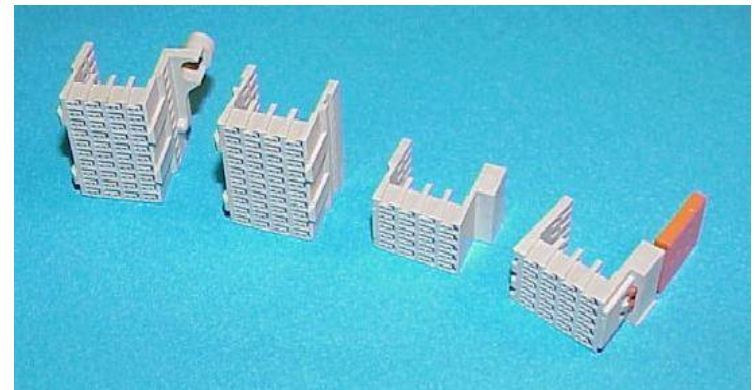
Product Line Overview (continued)



High speed cable assemblies & headers

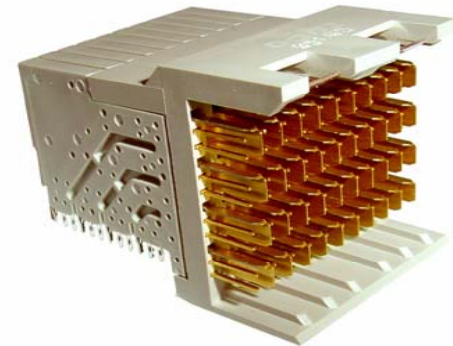
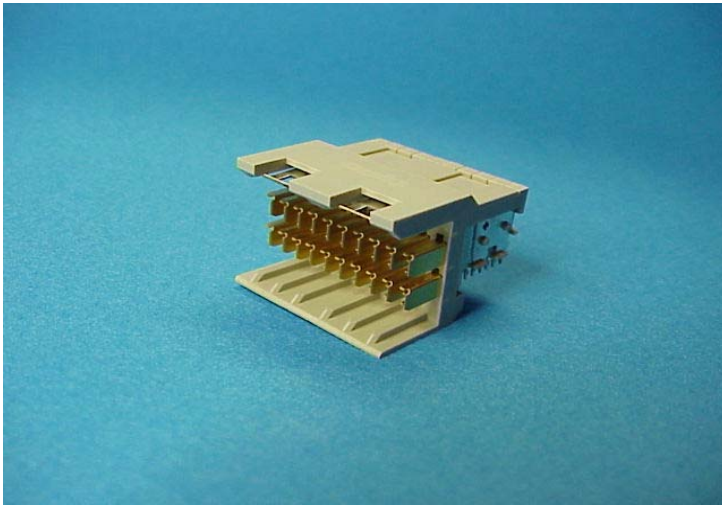
- 2 and 4 pair assemblies
- 2 and 4 pair vertical latching headers
- 2 and 4 pair right angle latching headers

Various cable connector options for a wide variety of customer applications



Product Line Overview (continued)

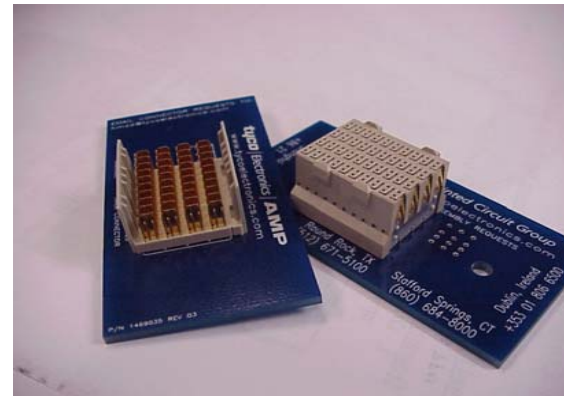
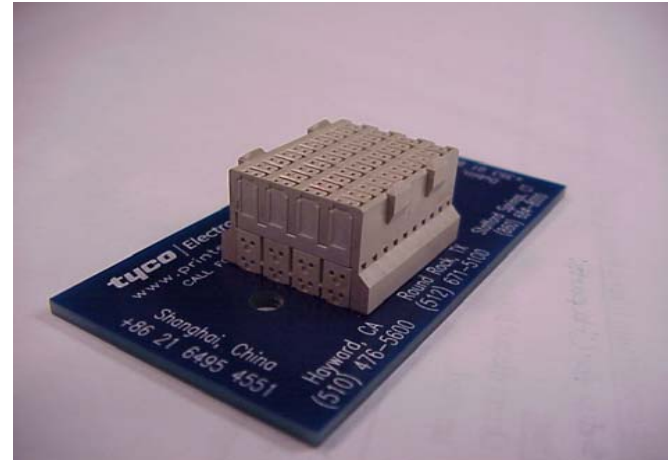
Right angle cable headers, available in 2 and 4 pair versions



Product Line Overview (continued)

Vertical Receptacle

- 4 pair x 10 column module
- 18mm stack height



Product Line Overview (continued)

Feature

Modular sizes & types

L-Shield interface

1.5mm x 2.5mm footprint

Breadth of product

Credible second source

Benefit

Design flexibility for customer

Electrically quiet

Electrically quiet, easily routed, wide signal channels

Design flexibility for customer

Customer confidence

Product Line Overview (continued)

Feature

Z-PACK 2mm HM product compatible

Press fit

“Flat rock” tooling

Standards approved

Benefit

Large existing Z-PACK 2mm HM prod. customer base

Low applied cost, familiar technology

Ease of application

Customer confidence, broadens customer base

Product Specifications

- High Speed Differential Applications
 - Up to 6.4 Gb/s data rates using common PCB materials and processes
 - Up to 10 Gb/s data rates with emerging chip technologies and board processing techniques
- 2mm HM equipment practice compatible
- Supported by Industry Standards
 - ATCA (PICMG 3.X Series of Standards)
 - XAUI Interoperability Platform (3.125 Gb/s standard)
 - OIF Activities (10 Gb/s standard)

Product Specifications (continued)

- Differential Impedance - 50 ps risetime (20-80%):
 - 100 ohms +/- 10%
- Crosstalk – full density multiple aggressors:
 - NEN < 3% @ 100 ps
 - FEN < 3% @ 100 ps
- Insertion Loss: < 1dB @ 3 GHz

Support Materials

- Product website: ***www.hmzd.tycoelectronics.com***
- High Speed catalog: # 1773095
- High Speed Backplane Interconnect Solutions Brochure: # 1654263-1
- Product Specification: 108-2055
- Qualification Test Report: 501-568
- Application Specification: 114-13059
- Performance Reports (all on website):
 - Electrical Performance: Report #20GC014
 - Footprint Optimization: Report #20GC015-1
 - XAUI Noise Analysis: Report #21GC009

Support Materials (continued)

- Various sample kits available for 2 pair, 3 pair, 4 pair and combinations with Z-PACK 2mm HM Product



- US sample room stocked with most common part numbers

Support Materials (continued)

- 3D mechanical models (IGES and Pro/E) available through email address:
 - tycoCAD@tycoelectronics.com
- Electrical models (single line and multi-line) available through email address:
 - modeling@tycoelectronics.comor website:
 - www.tycoelectronics.com/products/simulation

Support Materials – Suggested Samples

- 4 Pair

- 1469001-1 Daughtercard Connector (Receptacle)
- 1469002-1 Backplane Connector (Pin Header)
- 1469048-1 Right Angle Header (Coplanar)
- 1469362-1 Vertical Receptacle (Mezzanine)

- 3 Pair

- 1469081-1 Daughtercard Connector (Receptacle)
- 1469083-1 Backplane Connector (Pin Header)

- 2 Pair

- 1469028-1 Daughtercard Connector (Receptacle)
- 1469025-1 Backplane Connector (Pin Header)