1.85 by 1.85mm (.073 by .073") Pitch GbX® Module-to-Backplane Connector System In 4- and 5-Pair Columns

75220, 75360 Daughtercard Assemblies

75235, 75237 Backplane Signal Headers

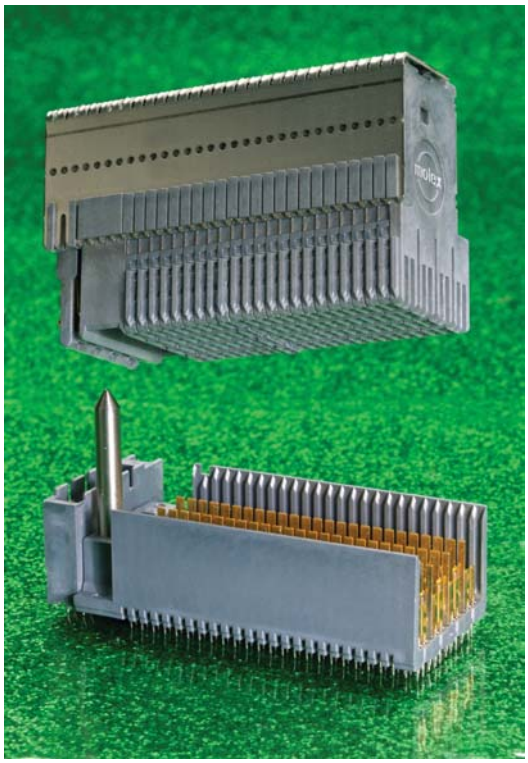
75341, 75510 Backplane Power

The GbX Backplane Interconnect System Delivers Speeds Beyond 6.0Gbps and High Density With Up To 69 Mated Differential Channels Per Inch

The GbX connector system provides the speed, density, and low applied cost required by leading-edge backplane applications. It is especially suited for designs that require future speed upgrades by daughtercard replacement into an existing backplane. With a native differential signaling speed of 6.0Gbps, the system is well suited for existing and future generations of XAUI (10 Gigabit Attachment Unit Interface) and InfiniBand* based systems, in addition to those based on ATCA** (Advanced Telecom Computing Architecture) and OIF (Optical Internetworking Forum) chip protocols.

Internetworking and telecommunication equipment engineers will benefit by the GbX connector's ability to provide not only a high-density, low applied-cost solution in the near term, but also by its electrical performance in upgradeable systems. Speeds of 10.0Gbps and beyond have been demonstrated with appropriate SERDES (Serializer / Deserializer) devices and board-material selection. This allows system architects freedom-of-design for faster future systems without the worry of backwards compatibility, along with the economy of a common backplane for two generations of equipment.

In addition, the GbX L-Series system provides a complimentary high-density open pin field for cost-effective design of slower speed circuits along the same stiffener as the standard, high-speed GbX wafers.



Features and Benefits

- Up to 69 real differential pairs per linear inch (27 real differential pairs per 10mm) provide higher density than VHDM-HSD®
- Bifurcated contact beams in daughtercard receptacle allow greater reliability with two points of contact to header pin
- Modular daughtercard components with GbX L-Series available as custom, cost-effective receptacle assemblies
- Optimized differential pair contacts allow easier board trace routing
- Data rate options up to 10.0Gbps to support future daughtercard speed upgrades

SPECIFICATIONS

Reference Information

Packaging:
- Daughtercard Assemblies – Tube
- Headers -- Tray

UL File No.: Pending
CSA File No.: Pending
Designed In: mm

Electrical

Signal/Shield Contact Current Rating: 1.0A
Contact to Plated-Through-Hole Resistance: 1.0 milliohm max.
Power Blade Contact Resistance: 3.0 milliohms max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 10,000 Megohms min.

Mechanical

Contact Insertion Force: 44.48N (10.00 lb) typical per contact
Contact Retention Force: 8.90N (2.00 lb) min. per contact
Mating Force: 0.59N (0.13 lb) max. per contact
Unmating Force: 0.29N (0.07 lb) min. per contact
Durability: 250 cycles max.

Physical

Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating:
- Contact Area – 0.76um (30µ") Gold (Au) min.
- Solder Tail Area – Tin (Sn)
- Underplating – Nickel (Ni)

PCB Thickness: 1.60mm (.062") typical
Operating Temperature: -55 to 105 degrees C

Notes:
GbX and VHDM-HSD are registered trademarks of Teradyne, Inc.
*InfiniBand is a registered trademark of the InfiniBand Trade Association
**ATCA is a trademark of the PCI Industrial Manufacturers Group

APPLICATIONS

- Internetworking Equipment:
  - Servers, Hubs, and Routers
- Telecommunications Equipment:
  - Central Office, Cellular Infrastructure and Multi-platform Service (DSL, Cable Data) systems
- Medical Diagnostic Equipment
- Test and Measurement Equipment

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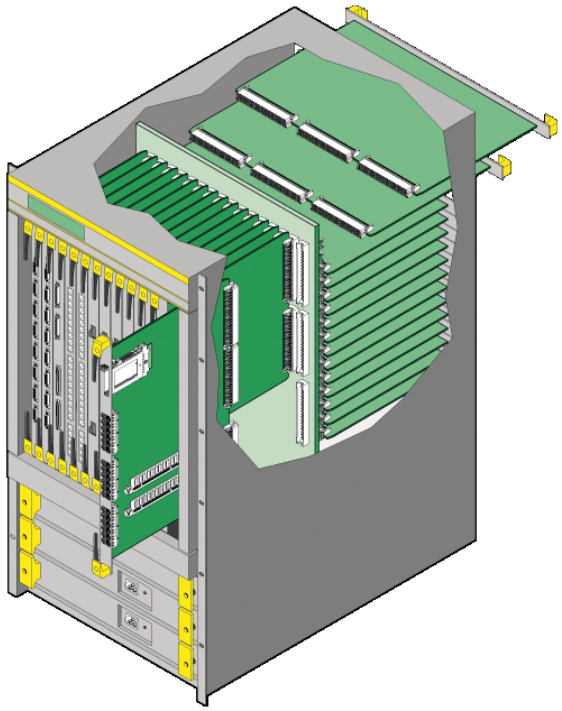

ORDERING INFORMATION

Daughtercard Assembly	4-Pair	5-Pair
Signal wafers, power modules and guide modules sequentially assigned by application	75220-XXXX (Wafer 75221-0001 for reference information only)	75360-XXXX (Wafer 75361-0001 for reference information only)

Backplane Signal Header	4-Pair (8 Circuits per Column)*		5-Pair (10 Circuits per Column)*	
	Order No.	Circuits	Order No.	Circuits
10-Column Open	75235-0104	80	75237-0104	100
25-Column Open	75235-0204	200	75237-0204	250
10-Column Guide Left	75235-2104	80	75237-2104	100
25-Column Guide Left	75235-2204	200	75237-2204	250
10-Column Guide Right	75235-4104	80	75237-4104	100
25-Column Guide Right	75235-4204	200	75237-4204	250

Backplane Power and Guide Components	4-Pair		5-Pair	
	Order No.	Circuits	Order No.	Circuits
Power	75341-4444	8	75510-4444	10
Stand-Alone Guide Pin	75234-0469		75234-0469	

*Note: Multiple keying options available. Contact Molex for details.

Americas Headquarters
Lisle, Illinois 60532 U.S.A.
1-800-78MOLEX
amerinfo@molex.com

Far East North Headquarters
Yamato, Kanagawa, Japan
81-462-65-2324
feninfo@molex.com

Far East South Headquarters
Jurong, Singapore
65-6-268-6868
fesinfo@molex.com

European Headquarters
Munich, Germany
49-89-413092-0
eurinfo@molex.com

Corporate Headquarters
2222 Wellington Ct.
Lisle, IL 60532 U.S.A.
630-969-4550
Fax:630-969-1352

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Printed in USA/2.5K/JI/JI/2004.07