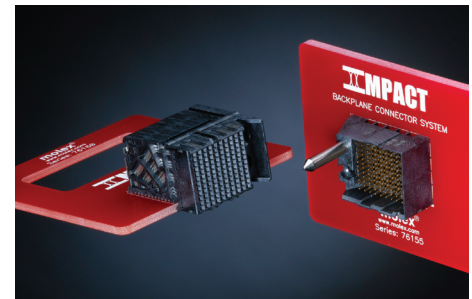




**1.90 by 1.35mm  
(.075" by .053") Pitch  
Impact™  
Backplane Connector System  
4 Pair**

**76155 Backplane  
Signal Headers**

**76160 Daughtercard  
Connectors**



Impact 4 Pair by 10 Column Red Card Demo

*Molex's Impact backplane connector system pushes the speed and density envelope to meet the growing demands of next generation telecommunication and data networking equipment*

The Impact backplane connector system provides data rates over 20 Gbps and superior signal density up to 80 differential pairs per inch. The Impact System's broad-edge-coupled technology enables low cross-talk and high signal bandwidth while minimizing channel performance variation across every differential pair within the system.

Molex's Impact System offers multiple compliant-pin design options on both the daughtercard and backplane connectors, providing customers ultimate flexibility to optimize their designs for superior mechanical and electrical performance. The Impact system's mating interface provides inline-staggered, bifurcated contacts that provide 2 points of contact for long-term reliability

performance and built-in ground-signal sequencing. This reduces the average mating force per connector to improve the mechanical mating performance of the system.

The Impact backplane connector system is designed for traditional backplane and/or midplane architectures to meet the growing demands of next-generation telecommunication and data networking equipment manufacturers. The Impact connector system is offered in 3-, 4-, 5- and 6-pair versions, with a complete range of guidance and power-solution options. For more information on Molex's Impact backplane connector system, contact [impact@molex.com](mailto:impact@molex.com)

**Features and Benefits**

- Data rates over 20 Gbps support future system performance upgrades
- Broad-edge-coupled, differential-pair system for superior density, low cross-talk, low insertion loss and minimal performance variation across all high-speed channels
- Differential pair density up to 80 pairs per linear inch provides the highest speed, highest differential pair density per square inch in the industry
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant channel performance demonstrates end-to-end channel performance compliance
- PCB routing flexibility provides simple 1.90 by 1.35mm (.075 by .053") grid on both backplane and daughtercard reduces PCB routing complexity and costs
- Two compliant-pin attach options provide customers ultimate flexibility to optimize their designs for superior mechanical and electrical performance
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing

**SPECIFICATIONS**

**Reference Information**

Packaging: Trays  
UL File No.: Pending  
CSA File No.: Pending  
Designed In: Millimeters

**Electrical**

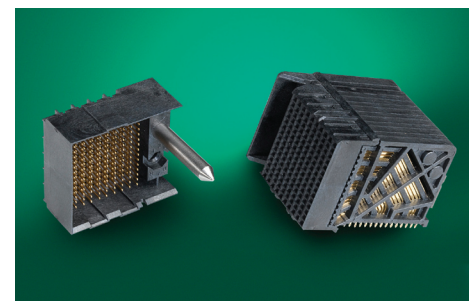
Signal Contact Current Rating: 1.0A  
Contact to Plated Through-Hole Resistance:  
1.0 milliohm max.  
Dielectric Withstanding Voltage: 750V RMS  
Insulation Resistance: 10,000 Megohms min.

**Mechanical**

Contact Insertion Force:  
35.6N (8 lb) per contact.  
Contact Retention Force:  
4.45N (1.0 lb) min. per contact  
Mating Force: 0.69N (0.15 lb) max. per contact  
Durability: 200 cycles

**Physical**

Housing: Liquid Crystal Polymer, UL 94V-0  
Contact: High Performance Copper (Cu) Alloy  
Plating:  
Contact Area — 0.76µm (30µ") Gold (Au) min.  
Termination Area — Tin (Sn) or Tin/Lead (Sn/Pb)  
Underplating – Nickel (Ni)  
PCB Thickness: 1.60mm (.062") typical  
Operating Temperature: -55 to +85°C max.



Impact 4 Pair by 10 Column Guide Left

APPLICATIONS



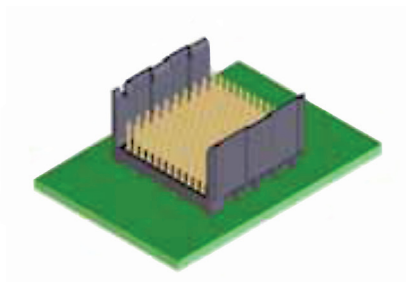
**1.90 by 1.35mm  
(.075" by .053") Pitch  
Impact™  
Backplane Connector System  
4 Pair**

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

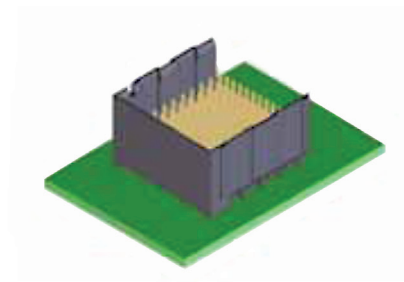


**76155 Backplane  
Signal Headers**  
**76160 Daughtercard  
Connectors**

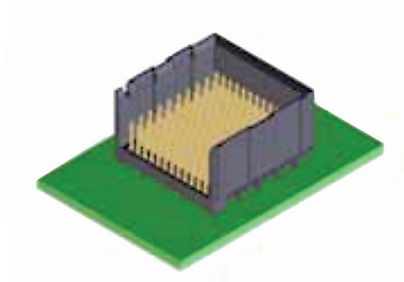
*Backplane Header Module Types*



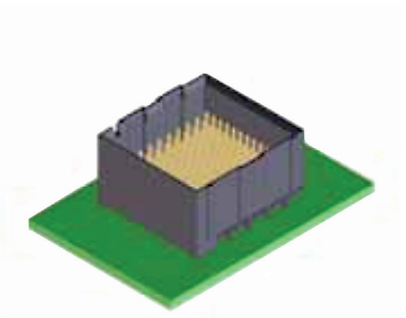
Open



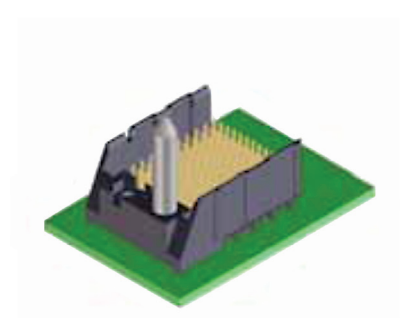
Left endwall, right open



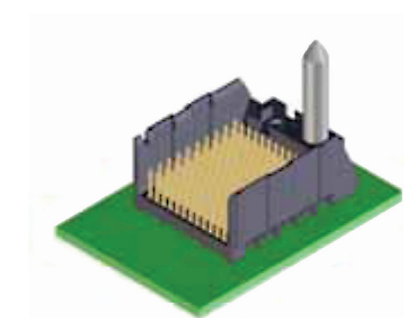
Right endwall, left open



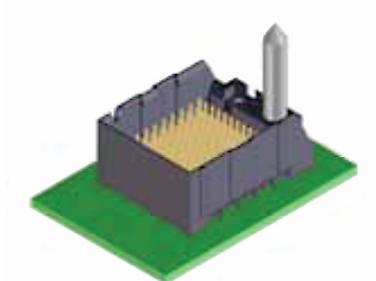
Dual endwall



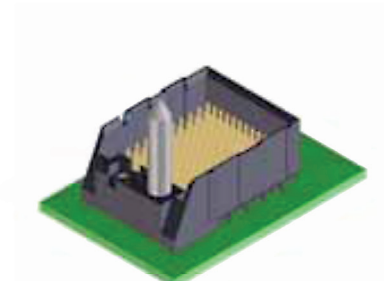
Left guide, right open



Left open, right guide



Left endwall, right guide



Left guide, right endwall

**ORDERING INFORMATION**
*Backplane Signal Headers*

**Impact™  
Backplane Connector System**

Order No.	Module Type	Pin Length	Key Position	Columns	Plated Through Hole Diameter
76155-0104	Open, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-0107	Open, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-1104	Open, Lead-Free	4.90mm	No Key	10	0.46mm
76155-1107	Open, Lead-Free	4.90mm	No Key	10	0.37mm
76155-0105	Open, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-0108	Open, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-1105	Open, Lead-Free	5.50mm	No Key	10	0.46mm
76155-1108	Open, Lead-Free	5.50mm	No Key	10	0.37mm
76155-0124	Dual Endwall, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-0127	Dual Endwall, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-1124	Dual Endwall, Lead-Free	4.90mm	No Key	10	0.46mm
76155-1127	Dual Endwall, Lead-Free	4.90mm	No Key	10	0.37mm
76155-0125	Dual Endwall, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-0128	Dual Endwall, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-1125	Dual Endwall, Lead-Free	5.50mm	No Key	10	0.46mm
76155-1128	Dual Endwall, Lead-Free	5.50mm	No Key	10	0.37mm
76155-6104	Guide Left, Endwall, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-6107	Guide Left, Endwall, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-7104	Guide Left, Endwall, Lead-Free	4.90mm	No Key	10	0.46mm
76155-7107	Guide Left, Endwall, Lead-Free	4.90mm	No Key	10	0.37mm
76155-6105	Guide Left, Endwall, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-6108	Guide Left, Endwall, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-7105	Guide Left, Endwall, Lead-Free	5.50mm	No Key	10	0.46mm
76155-7108	Guide Left, Endwall, Lead-Free	5.50mm	No Key	10	0.37mm
76155-8104	Guide Right, Endwall, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-8107	Guide Right, Endwall, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-9104	Guide Right, Endwall, Lead-Free	4.90mm	No Key	10	0.46mm
76155-9107	Guide Right, Endwall, Lead-Free	4.90mm	No Key	10	0.37mm
76155-8105	Guide Right, Endwall, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-8108	Guide Right, Endwall, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-9105	Guide Right, Endwall, Lead-Free	5.50mm	No Key	10	0.46mm
76155-9108	Guide Right, Endwall, Lead-Free	5.50mm	No Key	10	0.37mm
76155-0114	Left Endwall, Right Open, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-0117	Left Endwall, Right Open, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-1114	Left Endwall, Right Open, Lead-Free	4.90mm	No Key	10	0.46mm
76155-1117	Left Endwall, Right Open, Lead-Free	4.90mm	No Key	10	0.37mm
76155-0115	Left Endwall, Right Open, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-0118	Left Endwall, Right Open, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-1115	Left Endwall, Right Open, Lead-Free	5.50mm	No Key	10	0.46mm
76155-1118	Left Endwall, Right Open, Lead-Free	5.50mm	No Key	10	0.37mm
76155-0134	Right Endwall, Left Open, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-0137	Right Endwall, Left Open, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-1134	Right Endwall, Left Open, Lead-Free	4.90mm	No Key	10	0.46mm
76155-1137	Right Endwall, Left Open, Lead-Free	4.90mm	No Key	10	0.37mm
76155-0135	Right Endwall, Left Open, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-0138	Right Endwall, Left Open, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-1135	Right Endwall, Left Open, Lead-Free	5.50mm	No Key	10	0.46mm
76155-1138	Right Endwall, Left Open, Lead-Free	5.50mm	No Key	10	0.37mm

**ORDERING INFORMATION**
**Backplane Signal Headers (continued)**

**Impact™  
Backplane Connector System**

Order No.	Module Type	Pin Length	Key Position	Columns	Plated Through Hole Diameter
76155-2104	Guide Left, Open, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-2107	Guide Left, Open, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-3104	Guide Left, Open, Lead-Free	4.90mm	No Key	10	0.46mm
76155-3107	Guide Left, Open, Lead-Free	4.90mm	No Key	10	0.37mm
76155-2105	Guide Left, Open, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-2108	Guide Left, Open, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-3105	Guide Left, Open, Lead-Free	5.50mm	No Key	10	0.46mm
76155-3108	Guide Left, Open, Lead-Free	5.50mm	No Key	10	0.37mm
76155-4104	Guide Right, Open, Tin-Lead	4.90mm	No Key	10	0.46mm
76155-4107	Guide Right, Open, Tin-Lead	4.90mm	No Key	10	0.37mm
76155-5104	Guide Right, Open, Lead-Free	4.90mm	No Key	10	0.46mm
76155-5107	Guide Right, Open, Lead-Free	4.90mm	No Key	10	0.37mm
76155-4105	Guide Right, Open, Tin-Lead	5.50mm	No Key	10	0.46mm
76155-4108	Guide Right, Open, Tin-Lead	5.50mm	No Key	10	0.37mm
76155-5105	Guide Right, Open, Lead-Free	5.50mm	No Key	10	0.46mm
76155-5108	Guide Right, Open, Lead-Free	5.50mm	No Key	10	0.37mm
76155-0604	Open, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-0607	Open, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-1604	Open, Lead-Free	4.90mm	No Key	16	0.46mm
76155-1607	Open, Lead-Free	4.90mm	No Key	16	0.37mm
76155-0605	Open, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-0608	Open, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-1605	Open, Lead-Free	5.50mm	No Key	16	0.46mm
76155-1608	Open, Lead-Free	5.50mm	No Key	16	0.37mm
76155-0624	Dual Endwall, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-0627	Dual Endwall, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-1624	Dual Endwall, Lead-Free	4.90mm	No Key	16	0.46mm
76155-1627	Dual Endwall, Lead-Free	4.90mm	No Key	16	0.37mm
76155-0625	Dual Endwall, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-0628	Dual Endwall, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-1625	Dual Endwall, Lead-Free	5.50mm	No Key	16	0.46mm
76155-1628	Dual Endwall, Lead-Free	5.50mm	No Key	16	0.37mm
76155-6604	Guide Left, Endwall, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-6607	Guide Left, Endwall, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-7604	Guide Left, Endwall, Lead-Free	4.90mm	No Key	16	0.46mm
76155-7607	Guide Left, Endwall, Lead-Free	4.90mm	No Key	16	0.37mm
76155-6605	Guide Left, Endwall, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-6608	Guide Left, Endwall, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-7605	Guide Left, Endwall, Lead-Free	5.50mm	No Key	16	0.46mm
76155-7608	Guide Left, Endwall, Lead-Free	5.50mm	No Key	16	0.37mm
76155-8604	Guide Right, Endwall, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-8607	Guide Right, Endwall, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-9604	Guide Right, Endwall, Lead-Free	4.90mm	No Key	16	0.46mm
76155-9607	Guide Right, Endwall, Lead-Free	4.90mm	No Key	16	0.37mm
76155-8605	Guide Right, Endwall, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-8608	Guide Right, Endwall, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-9605	Guide Right, Endwall, Lead-Free	5.50mm	No Key	16	0.46mm
76155-9608	Guide Right, Endwall, Lead-Free	5.50mm	No Key	16	0.37mm

**ORDERING INFORMATION**
**Impact™  
Backplane Connector System**
*Backplane Signal Headers (continued)*

Order No.	Module Type	Pin Length	Key Position	Columns	Plated Through Hole Diameter
76155-0614	Left Endwall, Right Open, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-0617	Left Endwall, Right Open, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-1614	Left Endwall, Right Open, Lead-Free	4.90mm	No Key	16	0.46mm
76155-1617	Left Endwall, Right Open, Lead-Free	4.90mm	No Key	16	0.37mm
76155-0615	Left Endwall, Right Open, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-0618	Left Endwall, Right Open, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-1615	Left Endwall, Right Open, Lead-Free	5.50mm	No Key	16	0.46mm
76155-1618	Left Endwall, Right Open, Lead-Free	5.50mm	No Key	16	0.37mm
76155-0634	Right Endwall, Left Open, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-0637	Right Endwall, Left Open, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-1634	Right Endwall, Left Open, Lead-Free	4.90mm	No Key	16	0.46mm
76155-1637	Right Endwall, Left Open, Lead-Free	4.90mm	No Key	16	0.37mm
76155-0635	Right Endwall, Left Open, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-0638	Right Endwall, Left Open, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-1635	Right Endwall, Left Open, Lead-Free	5.50mm	No Key	16	0.46mm
76155-1638	Right Endwall, Left Open, Lead-Free	5.50mm	No Key	16	0.37mm
76155-2604	Guide Left, Open, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-2607	Guide Left, Open, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-3604	Guide Left, Open, Lead-Free	4.90mm	No Key	16	0.46mm
76155-3607	Guide Left, Open, Lead-Free	4.90mm	No Key	16	0.37mm
76155-2605	Guide Left, Open, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-2608	Guide Left, Open, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-3605	Guide Left, Open, Lead-Free	5.50mm	No Key	16	0.46mm
76155-3608	Guide Left, Open, Lead-Free	5.50mm	No Key	16	0.37mm
76155-4604	Guide Right, Open, Tin-Lead	4.90mm	No Key	16	0.46mm
76155-4607	Guide Right, Open, Tin-Lead	4.90mm	No Key	16	0.37mm
76155-5604	Guide Right, Open, Lead-Free	4.90mm	No Key	16	0.46mm
76155-5607	Guide Right, Open, Lead-Free	4.90mm	No Key	16	0.37mm
76155-4605	Guide Right, Open, Tin-Lead	5.50mm	No Key	16	0.46mm
76155-4608	Guide Right, Open, Tin-Lead	5.50mm	No Key	16	0.37mm
76155-5605	Guide Right, Open, Lead-Free	5.50mm	No Key	16	0.46mm
76155-5608	Guide Right, Open, Lead-Free	5.50mm	No Key	16	0.37mm

**ORDERING INFORMATION****Impact™  
Backplane Connector System****Daughtercard Connectors**

Order No.	Module Type	Plating	Key Position	Columns	Plated Through Hole Diameter
76160-0010	Open	Tin-Lead	No Key	10	0.46mm
76160-1010	Open	Lead-Free	No Key	10	0.46mm
76160-0020	Open	Tin-Lead	No key	10	0.37mm
76160-1020	Open	Lead-Free	No Key	10	0.37mm
76160-2010	Guide Left	Tin-Lead	No Key	10	0.46mm
76160-3010	Guide Left	Lead-Free	No Key	10	0.46mm
76160-2020	Guide Left	Tin-Lead	No key	10	0.37mm
76160-3020	Guide Left	Lead-Free	No Key	10	0.37mm
76160-4010	Guide Right	Tin-Lead	No Key	10	0.46mm
76160-5010	Guide Right	Lead-Free	No Key	10	0.46mm
76160-4020	Guide Right	Tin-Lead	No key	10	0.37mm
76160-5020	Guide Right	Lead-Free	No Key	10	0.37mm
76160-0016	Open	Tin-Lead	No Key	16	0.46mm
76160-1016	Open	Lead-Free	No Key	16	0.46mm
76160-0026	Open	Tin-Lead	No key	16	0.37mm
76160-1026	Open	Lead-Free	No Key	16	0.37mm
76160-2016	Guide Left	Tin-Lead	No Key	16	0.46mm
76160-3016	Guide Left	Lead-Free	No Key	16	0.46mm
76160-2026	Guide Left	Tin-Lead	No key	16	0.37mm
76160-3026	Guide Left	Lead-Free	No Key	16	0.37mm
76160-4016	Guide Right	Tin-Lead	No Key	16	0.46mm
76160-5016	Guide Right	Lead-Free	No Key	16	0.46mm
76160-4026	Guide Right	Tin-Lead	No key	16	0.37mm
76160-5026	Guide Right	Lead-Free	No Key	16	0.37mm

[www.molex.com/link/Impact.html](http://www.molex.com/link/Impact.html)

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