

Freedom of Choice for Designers—from Molex, Leader in Backplane Solutions

Build a versatile interconnect solution with the new I-Trac™ backplane system, or optimize designs for future system upgradeability with the Impact™ backplane product family.

I-Trac™: The Ultimate in Design Flexibility

For designs that require a versatile solution, the new I-Trac™ Backplane Connector System combines design flexibility and superior mechanical robustness at data rates up to 12.5 Gb/s.

The I-Trac system's open-pin field design allows customers the flexibility to assign high-speed differential pairs, low-speed signals, power, and ground contacts anywhere within the pin field. The broadside-coupling design allows the entire pin field to be utilized for high-speed signals. The unique I-Trac backplane header design utilizes the same part numbers to support both standard and orthogonal architectures.

With data rates scalable up to 12.5 Gb/s, the I-Trac broadside-coupled, skew-equalized design provides multiple benefits, including superior impedance control, lower crosstalk, and lower insertion loss versus other open-pin field backplane products. I-Trac is a quad route-enabled product, allowing customers the flexibility to optimize their channel performance while minimizing pcb layer count.

I-Trac effectively balances electrical performance, differential-pair density, mechanical robustness, and cost savings to meet customers' current and future application needs. I-Trac enables the design of low-cost platforms with performance headroom for multiple system upgrades.

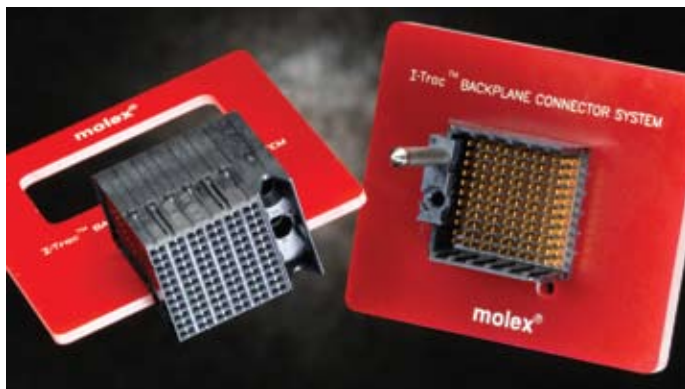


Figure 1. Only Molex offers a full complement of traditional backplane and orthogonal midplane solutions

I-TRAC FEATURES:

- Data rates up to 12.5 Gb/s
- Broadside-coupled, skew-equalized, open-pin field design
- Allows quad-trace routing to reduce pcb layer count
- Designed for both traditional and orthogonal architectures
- Available in 7-, 11-, and 15-row versions
- Integrated guidance and keying
- Co-planar, inverted right-angle-male-to-right-angle-female, and power solutions available

Impact™: Superior Density and Bandwidth

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



Figure 2. Molex backplane and orthogonal midplane solutions meet current and future needs for increased network bandwidth and scalability

Multiple compliant-pin design options on both the daughtercard and backplane connectors of Molex's Impact system provide customers with ultimate flexibility to optimize their designs for superior performance. The Impact system's mating interface provides inline-staggered, bifurcated contacts that have 2 points of contact for long-term reliability of 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 effectively balances electrical and mechanical performance needs for your current and future application requirements. It is currently offered in three-, four-, five-, and six-pair versions, with a full range of guidance and power-solution options. A two-pair product family, complete with co-planar, mezzanine, and cable solutions, will soon be available.

IMPACT FEATURES:

- Data rates up to 20+ Gb/s
- Broadside coupling and hybrid shielding, providing superior electrical performance
- Differential pair density up to 80 pairs per linear inch in less than a 29 mm slot pitch
- Two compliant pin options for BP and DC connectors, balancing electrical and mechanical performance needs
- Inline-staggered, bifurcated contact system, reducing mating forces
- Available in 3-pair, 4-pair, 5-pair, and 6-pair versions
- Integrated guidance and keying options
- Co-planar, mezzanine, and cable solutions coming soon