



BACKPLANE CONNECTORS FOR TELECOM/DATACOM



Molex Orthogonal Direct Backplane Connectors Provide a Scalable, High Signal Integrity Solution that Helps Decrease System Level Applied Costs

By eliminating the chassis midplane, the connectors deliver a stable channel impedance that reduces reflections while decreasing PCB material and cooling expenses

BUSINESS CHALLENGE

Providing the telecom and data networking market with a scalable, “future-proof” backplane solution that remains cost-competitive.

Over the past decade, the rapid and widespread growth of broadband networks has been dramatic, opening up a world of communication options for consumers and businesses looking for high-speed Internet access whenever and wherever. Contributing to this growth is the increasing use of smart phones, social networking sites and Internet video.

Telecommunications and data networking companies looking to capitalize on these new opportunities must push the speed and density envelopes while remaining cost competitive. However, too often these systems are overdesigned to include unnecessary technology features that add expense but not value. When evaluating connector options it is easy to assume that more is better, especially when looking at criteria such as density, data rate and differential pairs. But the real consideration should be on identifying the right solution – one that operates at today’s data-rate and price, while providing a migration path for future enhancements.

Molex high-speed, high-density, high-signal-integrity backplane solutions provide users with an easy and cost-effective migration to faster data rates in a variety of applications including:

- Telecommunications: hubs, switches, routers, central office, cellular infrastructure and multi-platform service (DSL, cable, data)
- Data networking: servers and storage
- Test and measurement

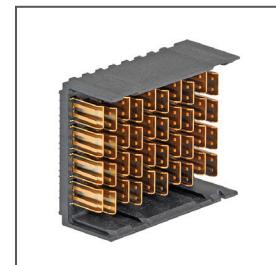
SOLUTION

Molex Impel™ and Impact™ Orthogonal Direct Backplane Connectors

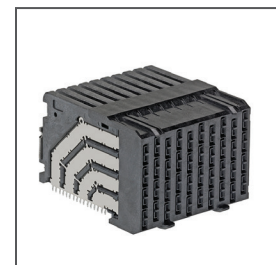
The orthogonal direct backplane connectors from Molex eliminate the midplane, creating an open air-flow architecture that helps electronic design engineers improve channel performance while providing significant chassis-level financial benefits through decreased PCB material and cooling expenses. Molex also helps customers realize these benefits by providing access to its team of experienced mechanical and signal integrity professionals for collaboration, simulation and evaluation needs. This ensures that customers implement the appropriate solution – one that meets today’s high performance needs while providing a clear path for future data-rate enhancements.

The Impact Orthogonal Direct Connector offers data rates up to 25 Gbps with 18 to 72 differential pairs per orthogonal node. It features a simple 2.225 by 1.35mm (.080 by .053”) grid on both backplane and daughtercard, increasing PCB routing flexibility while reducing complexity and costs

The Impel Orthogonal Direct Connector provides the footprint and interface that will enable customers to migrate to faster data rates (40 Gbps) without completely re-designing their architecture or replacing data center hardware. Equipment manufacturers have the flexibility to optimize their designs thanks to the two compliant-pin attach options and 18 to 72 differential pairs per orthogonal node.



Orthogonal Direct Backplane Connector



Orthogonal Direct Backplane Connector



BENEFITS AND ROI

Telecom and data networking providers benefit from a backplane product that precisely meets today's aggressive signal integrity needs, is scalable for the future and provides chassis level price performance benefits.

Orthogonal direct backplane connectors from Molex enable a quick realization of applied cost savings by eliminating the midplane while keeping in mind the customer's need for an upgrade path to next generation systems. The bottom line is a "future proof" solution that provides tangible cost and air-flow benefits when compared to the other orthogonal midplane solutions on the market today.

To learn more visit www.molex.com/ab/impelbackplane1611.html