



QUAD ROUTE FOR TELECOM

Molex Impel™ Quad-Route Connectors Reduce Backplane Layer Count to Help Lower the Chassis Level Cost

By stretching to a 3.00mm pitch, the connectors cut PCB material up to 40 percent while reducing compliant pin ratio for superior mechanical and electrical performance

BUSINESS CHALLENGE

Provide the telecom and data networking market with a connector solution for high-end system architectures that will allow customers to reduce layer counts

As global Internet traffic continues to expand, telecommunications and networking companies are racing to keep up with the high-speed, high-capacity demands from consumers and businesses. At the same time, providers face growing concerns that the financial investment in equipment will have a negative impact on the bottom line. The question becomes how to deliver on today's data-rate needs while planning to cost-effectively increase enterprise network capacity in order to meet future network demands.

One way equipment manufacturers can decrease costs without sacrificing performance is to reduce the amount of material needed for expensive backplane printed circuit boards (PCBs). Through simple layer reduction, hardware designers can lower the applied cost of the chassis while continuing to deliver superior electrical performance 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

SOLUTION

Molex Impel Quad-Route Connectors

The Impel Quad-Route Connectors stretch the standard pitch from 1.90mm to 3.00mm, offering PCB designers the flexibility to quad route the signal traces (2 pairs per layer) and reduce the PCB layer count for a cost savings of up to 40 percent.

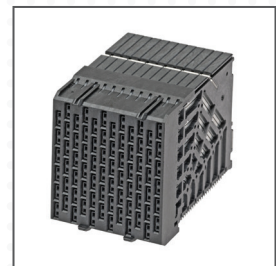
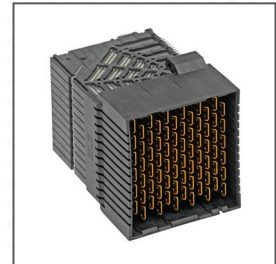
By decreasing backplane layer counts the Impel Quad-Route also provides a better aspect ratio, enabling users to reduce the compliant-pin in the connector from .46 to .36 for better overall impedance and cross-talk performance. Not only does this improve the signal integrity (SI) but it provides additional cost savings by further reducing the PCB material expense.

The Quad-Route is ideal for applications where the customer has additional space on the daughtercard and backplane to accommodate the longer design.

BENEFITS AND ROI

Telecom and data networking providers benefit from a system that can help in lowering system level applied costs by eliminating PCB layers

Impel Quad-Route connectors from Molex provide a chassis applied cost savings by reducing the backplane layer count and in some cases is allowing customers the ability to use the smaller compliant-pin size to help with channel SI margin.



To learn more www.molex.com/link/impel.html