First-to-market optical coplanar interconnect allows quick and reliable front blade service or upgrade without disrupting backplane cabling systems

Molex’s new coplanar connector allows front cards to be replaced without disrupting cabling at the rear of the chassis, resulting in maintenance flexibility and minimal service interruption. The MTP*-CPI (coplanar interconnect) provides a smooth transition from the front blade active devices (LEDs, lasers and receivers) to the rear transition module (RTM).

Molex developed the MTP-CPI to meet the dimensional requirements of the Advanced Telecom Computing Architectures (Advanced TCA or ATCA), zone 3, connector specification. ATCA is an emerging standard focused on developing a new blade (board) and chassis (shelf) form factor optimized for high-speed communication systems. The principal objective is to provide standardized platform architecture for central office or service provider applications. For more information on ATCA, please reference page 4 of this product release, or visit www.picmg.org.

Molex selected the MTP connector interface for use in the ATCA midplane application because of its optical density and interoperability between vendors. The MTP connector is the industry standard connector system for multi-fiber and parallel optical transceiver applications.

The MTP-CPI is not limited to ATCA applications and may be used in any coplanar application. The new MTP-CPI is easy to design-in; it is mounted directly to the card with a simple pass-through cutout in the backplane. The MTP-CPI is a hermaphroditic design, which simplifies the procurement for the customer. With the use of the MT ferrule in the MTP connector, fiber counts from 8 to 72 fibers can be achieved. Molex’s MTP cable assemblies are sold separately.

Features and Benefits

- Hermaphroditic design allows the same interconnect housing to be used on front and rear blades simplifying procurement and inventory
- Inner housing is spring loaded providing generous Z-float which compensates for card tolerances
- No mating frame required in the backplane simplifies design and assembly for the customer
- MTP connector optical interface meets industry standard interface specifications for multi-fiber and parallel optical transceiver applications

Applications

- Internetworking Equipment
  - Routers
  - Hubs
  - Servers
- Telecommunication Equipment
  - Central office
  - Wireless infrastructure
  - Multi-platform service systems (DSL, cable data)
- Test and Measurement Equipment

*ATCA is a registered trademark of US Conec LTD*
MTP-CPI
(Coplanar Interconnect) 106088

Specifications

REFERENCE INFORMATION
Packaging: Individual Packed
Mates With:
- The MTP-CPI is hermaphroditic
- MTP cable assemblies are sold separately (MTP specifications can be found on the Molex website at: www.molex.com/fiber/mtpca.html)

OPTICAL
Insertion Loss (IL):
Dependent on the fiber type and performance requirements (MTP specifications can be found on the Molex website at: www.molex.com/fiber/mtpca.html)

MECHANICAL
Mating Force: 10.0 lbf (44.48N)
Durability: 200 mates

PHYSICAL
Housing: Thermoplastic Polyphenylene Sulphide (PPS)
Operating Temperature: -40 to +80°C
RoHS Compliant

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Component</th>
<th>Mounting Style</th>
<th>Dimension (L x W x H)</th>
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<tbody>
<tr>
<td>106088-0100</td>
<td>Connector</td>
<td>Rear-Mount</td>
<td>21.57mm (.849&quot;) x 21.31mm (.839&quot;) x 17.64mm (.694&quot;)</td>
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<tr>
<td>106088-0200</td>
<td>Connector</td>
<td>Side-Mount</td>
<td>14.35mm (.565&quot;) x 32.24mm (1.269&quot;) x 17.64 (.694&quot;)</td>
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<tr>
<td>106088-0800</td>
<td>Removal Clip</td>
<td>N/A</td>
<td>N/A</td>
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www.molex.com/iber/mtpca.html