PRIZM® LightTurn® Parallel Optic Assemblies

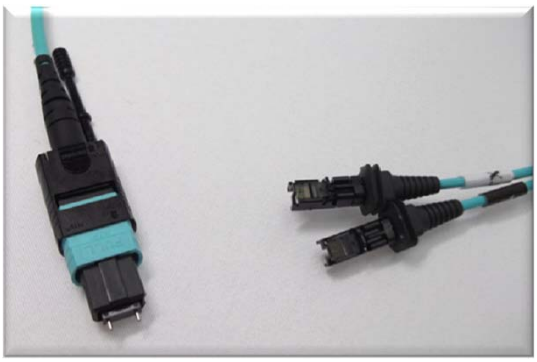
The trend of enormous increases bandwidth in telecommunication applications and data centers leading to high I/O density requirements for edge- mounted interfaces in the next generation. Computer Crafts launches the low profile design of the PRIZM® LightTurn® connector which is suited for Avago's MiniPod, optimizing airflow and cable management in the coming decade. This not only help to combines I/O and EMI/ESD but also raises signal integrity and density.

PRIZM® connector

PRIZM® round cable assembly

Designed as a miniature detachable connector for high speed board mounted parallel optic modules, the PRIZM® LightTurn® connector provides passive alignment and novel retention features allowing multiple re-matings perpendicular to the printed circuit board. The PRIZM® LightTurn® connector consists of a multi-fiber ferrule with a photonic turn TIR lens array accepting cleaved fibers with an accompanying connector housing. CCI's Expertise in connector termination process ensures reliability and repeatability of connectors performance and assembly integrity. Optical insertion tests are done on 100% on each connector. Prizm Light Turn Assemblies can be made with 24-, 36, 48-, and 72-fiber MT ferrules.

The use of the PRIZM® LightTurn® connector in combination with MTP® MPO style connector provides a significant increase in card edge port density compared to using SFP transceivers, conventional array transceivers, or parallel active optical cables on the card edge. The connector is suitable for use across multiple applications including telecom, datacom, and the emerging high speed computercom markets.



PRIZM® connector

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PRIZM® LightTurn® Parallel Optic Assemblies

Computer Crafts

Features

- TIR (total internal reflection) lens
- Wavelength independent optical grade material
- Bidirectional components
- Integrated alignment pins
- Housing protects TIR lens array
- Ferrule float within the connector
- Pre-alignment latches on connector housing
- Keyed for proper mating orientation
- Quick termination, no polishing
- Less than 1 minute light cure for epoxy
- Collimated light at optical interface

MTP® 48-fiber to 4x PRIZM® flat ribbon cable assembly

Applications

Networking

- Data communication centers
- High-speed computer applications
  Telecommunications/Data center
- Routers/switches
- Hubs
- Servers

Optical Parameters

- IL max < 2.0dB @ 850nm (for PRIZM® LightTurn® connector)

SPECIFICATIONS

Reference Information

12-Fiber Ribbon or 1.6 round Cable
Mates to:
- Avago MicroPOD† Modules
- Avago MiniPOD ‡ Modules

12-Fiber 1.6-1.80mm Round Jacketed Cable
Mates to:
- Avago MiniPOD Modules

Interface to Module:
- Prizm Light Turn ferrule with Total Internal Reflection (TIR) Lens
- Prizm Light Turn ferrule housing has integrated latches that secure the ferrule to the MicroPod and MiniPOD modules

Physical

Ribbon-Fiber PRIZM® LightTurn® connector:
5.70 by 7.40mm
1.80mm Jacketed Round PRIZM® LightTurn® Connector:
4.80 by 28.50mm
Number of Fibers per PRIZM® LightTurn® Connector: 12
Fiber Type: 50/125µm

Optical

Insertion Loss: 2.0 dB with Interposer

Environment

PRIZM® LightTurn® Cable qualified to operating temperature: -40 to +75°C
Mechanical
Designed for on-board cable routing
Proof test: 2.2N

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