OptoConnect Aggregation Fiber Shuffle Boxes

Available in many RU sizes, fully tested and ready for installation, OptoConnect Aggregation Fiber Shuffle Boxes support simple-to-complex fiber routing using an automated FlexPlane fiber process that provides compact, repeatable and accurate signal shuffling, aggregate Tx/Rx signals and new connectivity packages.

**Features and Advantages**

- **Complex shuffling/optimized Tx and Rx signals**
  - Creates high-density front-panel solutions with re-packaged I/O transceivers or onboard optic channels
  - Provides optical shuffles by blending optical modules for complex interconnects
  - Reduces optical footprints via optimized board layouts

- **High-density passive switch boxes**
  - Provides clean and compact switching for input and output connectivity
  - Reduces cable density, which allows for smaller RU box designs and creates more value in limited rack space
  - Extends legacy systems by adding additional switch capabilities
  - Future-proofs systems by creating space within rack

- **Custom-designed RU sizes, from 1 to 6 RU**
  - Provides aggregation solutions for a range of needs and applications

- **Network loopbacks or controlled fiber routing lengths**
  - Provides testing and redundancy signal

- **Specialty interconnect boxes**
  - Available with customized interconnect tails.
  - Reduces link budget loss. Outer jacketing solutions provided

- **Fiber management for all box sizes**
  - Maximizes fiber efficiency and space from 1 to 6 RU enclosure, from 72 up to 6,400 fibers

- **Reduction patch-cord management**
  - Ganged SFP (LC) or QSFP (MPO) interconnects to reduce the number of patch-cords or trunks, maximizing optical lanes of traffic

- **Single source for design, manufacturing, assembly and testing**
  - Ensures an end-to-end solution with full optical testing for easy field deployment

- **Custom configurations can integrate user-specific components (splitters, isolators, taps, monitors) into the optical connection topology**
  - Reduces connection points, system footprint and overall system packaging complexity. Improves overall system performance and reliability with fewer connections

- **Complex port mapping achieved with FlexPlane optical circuitry**
  - Solves intricate port-mapping issues with an automated manufacturing process. Delivers shuffle and point-to-point logical routings

- **Rack-mountable and custom packaging options**
  - Allows system integration for OEM-specific applications.

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## OptoConnect Aggregation
### Fiber Shuffle Boxes

### Markets and Applications

- Data Center Solutions and Telecommunications/Networking
  - High-density passive switching
  - Optimized cable management
  - Core-routing solutions
  - Edge computing

### Specifications

#### LC CONNECTORS

**REFERENCE INFORMATION**
- UL File No.: Plastics used are UL 94-V0
- Designed In: Meters
- RoHS: Yes
- Halogen Free: Yes

**MECHANICAL**
- Mating Force: 8.9N
- Durability (min.): 250 mates and de-mates

**PHYSICAL**
- Connector Ferrule: Zirconia ceramic
- Housing: Plastic (Ultem) and metal (Zinc) for EMI versions
- Alignment Sleeve: Phosphor Bronze or zirconia ceramic
- Plating: Electroless Nickel is used on EMI adapters for plating
- Operating Temperature: -40 to +85°C

#### MTP/MPO CONNECTORS

**REFERENCE INFORMATION**
- Designed In: Meters
- RoHS: Yes

**FIBER**
- Multimode:
  - 50/125 µm OM3 bend-insensitive
  - 50/125 µm OM4 bend-insensitive
- Single Mode:

**CONNECTOR:**
- MPO Female, aqua for multimode
- MPO Female, green for single mode

**MECHANICAL**
- Fiber Count: 12 and 24 fiber options
- Cable Diameter:
  - 12F = 4.50/3.00mm
  - 24F = 660N
- Bend Radius (min.):
  - 12F = 68.00mm
  - 24F = 89.00mm
- 24F and Low-Loss Options: 20N MTP Spring

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www.molex.com/link/optoconnectshuffleboxes.html

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