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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

Creates high-density front-panel solutions with re-packaged I/O transceivers or onboard optic channels
Optimized board layouts reduce optical footprints

Provides optical shuffles by blending optical modules for complex interconnects
Complex shuffling/optimized Tx and Rx signals

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

Reduces link budget loss
Specialty interconnect boxes are available with customed interconnect tails; outer jacketing solutions provided

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

Extends legacy systems by adding additional switch capabilities
Future-proofs systems by creating space within rack

Maximizes optical lanes of traffic through connectivity aggregation
Ganged SFP (LC) or QSFP (MPO) interconnects reduce the number of patch-cords or trunks

Provides clean and compact switching for input and output connectivity
High-density passive switch boxes

Reduces cable density
Allows for smaller RU box designs and creates more value in limited rack space

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

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

Re-configures optical ports for 100G/400G/800G applications within QSFP, QSFP-DD and OSFP transceivers
Transport architecture

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

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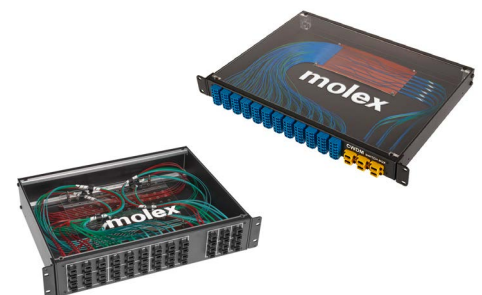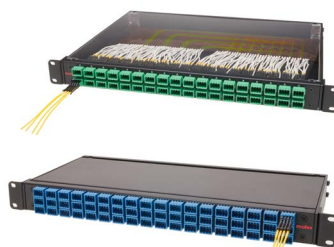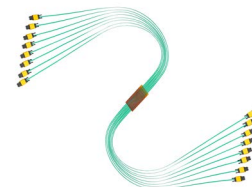Complex port mapping achieved with FlexPlane optical circuitry

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

Supports many connector densities such as LC, CS, MDC, SN, MPO/MTP, MMC and SN MT
Custom front panel with diverse connectivity

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APPLICATIONS

**Server & Storage
and Telecommunications**
Network systems
High-density passive switching
Optimized cable management
Core-routing solutions
Edge computing

High-Volume Telecommunications Providers, Enterprises and Hyperscale Data Centers

SPECIFICATIONS

LC, CS, SN and MDC Connectors

Reference Information
UL File No.: Plastics used are UL 94-V0
Designed In: Millimeters
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, SN MT and MMC CONNECTORS

Reference Information
UDesigned In: Millimeters
RoHS: Yes

Connector
MMC Female, green for single mode
SN MT Female, green for single mode
MPO Female, aqua for multimode
MPO Female, green for single mode

Fiber
Multimode:
50/125 µm OM3 bend-insensitive
50/125 µm OM4 bend-insensitive
Single Mode:
OS2 ITU-T G.657.A1 bend-insensitive

Mechanical
Fiber Count: 12-, 16-, 24-, 32- and 48-fiber options
Mating Force: 16- and 32-fiber options: 20N spring
Mating Force: 24-fiber low-loss options: 20N spring
Mating Force: Other options: 10N spring
Durability (min) : 50 mates and de-mates

www.molex.com/en-us/products/optical-solutions/fiber-optic-connectors-and-adapters