

PRODUCT OVERVIEW

# LIGHTBAND FIBER OPTIC SOLUTIONS

INCLUDING MODLINK PLUG & PLAY



**molex**





## PERFORMANCE, RELIABILITY SECURITY >

Increasing demand for rapid, low-latency and high-volume communication to homes and businesses has made economical, high-speed connectivity vital.

From backbones to fiber-to-the-desk to data centers, Molex optical fiber cable provides superior bandwidth, speed and security.

### LIGHTBAND FIBER OPTIC SOLUTIONS

The Molex Lightband range has been developed based on years of experience and feedback from our global network of installers. Designed for maximum versatility, Lightband provides flexible end-to-end solutions capable of running the most demanding optical fiber current network protocols. Lightband products are robust and durable, maximizing your ROI in networks that will continue to perform for years.

The Lightband range includes some of the most comprehensive fiber systems in the structured cabling market, incorporating a variety of connector technologies such as MTP, ST, Duplex SC and LC. The Lightband range includes outdoor and indoor backbone cabling, management panels, enclosures, adaptors, preterminated solution, patch cords, splicing equipment, field termination connectors, tool kits and testers.

### FIBER OPTIC PERFORMANCE DELIVERED TO THE DESK

Molex Passive Optical Network (PON) technology delivers the performance and security of fiber right to the desk. This versatile modular range has been designed on a universal platform that supports both traditional and passive networks for simple network updates. Elegant, low-profile wallplates feature the unique Molex 'shuttered' technology which protects users from harmful light emissions.

### MISSION CRITICAL APPLICATIONS

Data centers and storage area networks are environments where fast installation is paramount and free space is minimal. Lightband products are designed to streamline cable management in areas where moves, adds and changes are frequent or managed in house. These products combine premium, factory-controlled optical performance with innovations such as the ModLink plug-and-play system and the Xtreme Density rack mount system.

### LONG TERM SYSTEM RELIABILITY

Lightband has been engineered for reliability and durability. Stringently tested to ensure optimum network performance, our products are manufactured using state-of-the-art technology for seamless network operations.

All Molex products are tested to meet or exceed all relevant standards. Our fiber optic products adhere to a range of standards including ANSI/TIA-568, ISO/IEC 11801, ANSI/TIA/EIA-492 and TELECORDIA GR-409.

# CONNECTED ENTERPRISE SOLUTIONS >

Part of the Molex Group, Molex Connected Enterprise Solutions has delivered connectivity for organizations and campuses for over 30 years. We have design and manufacturing facilities around the world and trade directly into more than 100 countries.

We insist on high standards, both in product manufacture and in the quality of work provided by our global network of Molex Certified Installers. That's why we offer a 25-year System Performance and Application Assurance Warranty – providing you with confidence our systems will continue to deliver the technical excellence you demand for your business.

As a responsible corporate citizen, we are committed to using environmentally conscious practices during the design and manufacture of our products. These environmental practices are designed to ensure that Molex is developing sustainability through environmental preservation activities.

## THE BENEFITS:

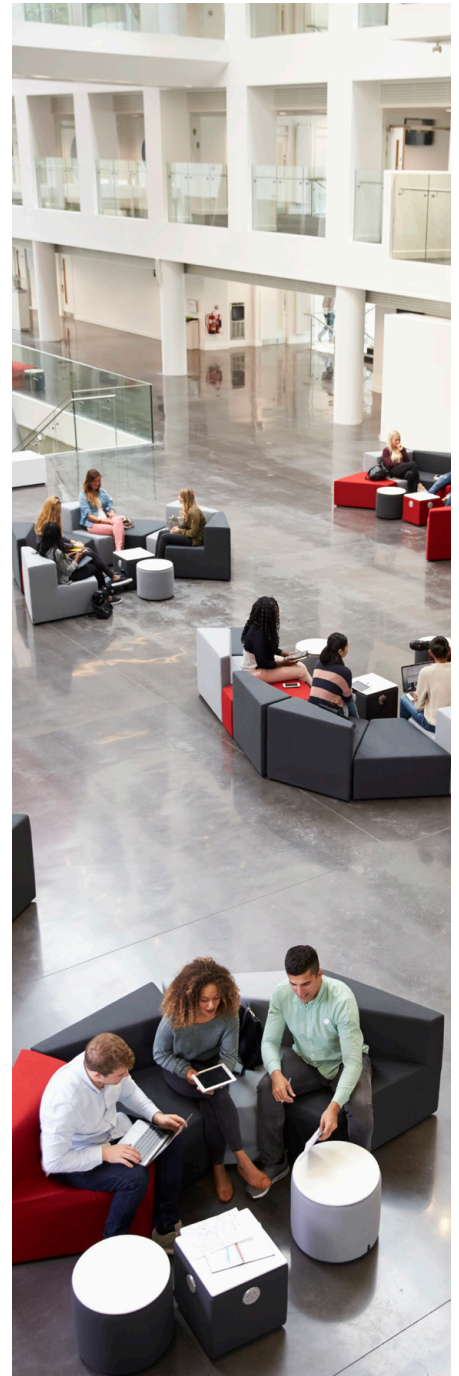
- Reliable high performance products built to be used and re-used
- Comprehensive range covering data center, FTTx, PON and backbone applications
- Technical support teams around the world to support you throughout the life of the installation
- Versatile solutions designed to make upgrades and alterations straightforward
- Hand-selected, Molex-certified installers and consultants ensure quality of service end to end
- 25-year System Performance and Application Assurance Warranty
- Developing high quality business connectivity solutions for over 50 years

## MORE INFORMATION

For downloadable datasheets with full specifications, use the product search at [molexces.com](https://molexces.com).

Full product catalogs are available from your local sales team - find your contact here: [molexces.com/contact-us/sales-team](https://molexces.com/contact-us/sales-team).

**Please note** not all products are available in all regions.



# LIGHTBAND BACKBONE CABLING >

Optical fiber is an essential medium for modern cabling networks. Its bandwidth capabilities, resistance to interference and consistent performance over long distances make it the ideal choice for facility or campus backbones.

Molex Lightband backbone cabling is designed for performance and engineered to last. This range of indoor, outdoor, plenum and riser cables delivers the bandwidth to support your business as it grows.

## Outdoor Cable:

Tough, weatherproof cable designed for outdoor applications. Available in non-metallic construction for campus applications, or with steel-taped armoring for direct burial.

## Indoor/Outdoor Riser Cable:

Versatile design allows installation both indoors and outdoors without mechanical or optical compromise. No transition required from outside to inside, resulting in material and labor cost savings.

## Indoor Riser

An internal/duct grade, tight buffered cable with LS0H sheath and ONFR-rating.

## Indoor CPR Rated

Committed to fire prevention and adheres to the Construction Products Regulation (CPR) guidance.

## Advanced Building Distribution Plenum Cable

Flexible, small diameter cable with high tensile strength ideal for plenum installation.

## Inter-locking Armored Indoor Cable

Small OD, single-pull and cost-effective alternative to inner duct or conduit cable, permitting significant installation and material cost savings.

## Advanced Fiber Optic Building Cable

Flexible, small diameter cable with high tensile strength for cable routing and construction. All-dielectric construction ensures no bonding is required.

## Hybrid Cable

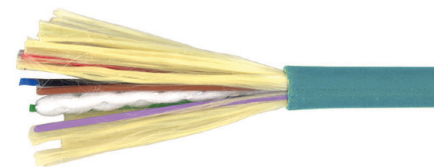
Rugged, easy to use hybrid cable for applications requiring low voltage power and high speed communications. An efficient single-installation option.



*Inter-Locking Armored Indoor Tight Buffered Cable*



*Outdoor Armored Loose Tube Water Blocked Cable*



*Indoor Tight Buffered Riser Cable*



*Outdoor Armored Unitube Cable*



# PATCH CORDS, CONNECTORS AND ADAPTERS >

## Patch Cords & Pigtails

Our comprehensive range of fiber optic patch cords and pigtails deliver ruggedized cable construction and insertion loss better than 0.30dB. Advanced manufacturing processes provide exceptional performance, and Molex maintains strict control over ferrule endface surfaces to ensure high performance and long-term reliability of all terminations.

Customized lengths can be ordered for both patch cords and pigtails.

## Connectors

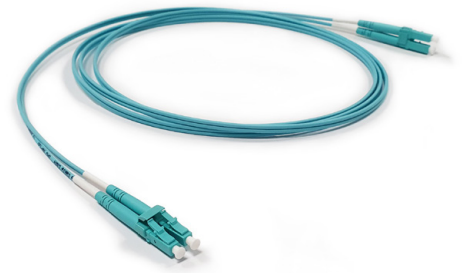
Molex Lightband connectors are available in both Multimode and Singlemode variants. Designed to the highest performance specifications, meeting international standards and providing low insertion loss, they are available as heat-cured, cold cured and field terminable variants.

## Adapters

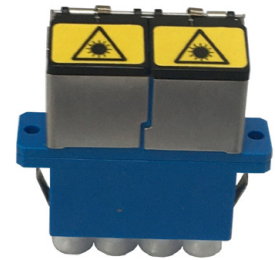
Our robust, high-quality Singlemode and Multimode adapters are designed to be installed with no tooling required. Designed for a variety of applications, a unique shuttered feature protects users from harmful light emissions.

## Adapter Plates

Molex makes it easy to field configure its fiber optic products with an extensive line of adapter plates. The 6-PAK plates are loaded with high quality adapters and require no tools - the plates install with a simple snap rivet, making installation and/or changes simple. Lightband adapter plates are available in 6, 12 or 24 fibers or in high-density MPO/MTP.



Fiber Optic Patch Cord



LC Adapter



Fiber Adapter Plates

# LIGHTBAND ENCLOSURES

Lightband features a robust range of robust rack mounts and wall mounted enclosures, designed to protect and terminate fiber optic cable and accommodate a variety of different Molex adapter plates, cassettes or splice trays.

## Xtreme Density System

A configurable rack mount system for high density applications. Robust, modular and scalable, the Xtreme Density system is ideal for network consolidation in applications such as data centers, storage area networks and central offices.

## 1U Multi-Function Fiber Enclosures

These configurable rack mount units are designed to accommodate a variety of termination types and adapter configurations. The interchangeable front plate facilitates upgrades as required, while the floor allows maximum flexibility in routing fibers. An extensive range of accessories and adapter plates is available.

## Specification Grade Fiber Enclosures

These configurable rack mount units are designed to accommodate both the needs of the installer for the initial assembly and the end user for access, maintenance and fiber protection. Lockable and removable aluminum hinged front and rear doors provide security.

## Swing-Out Plastic Patch Panel

A lightweight, robust fiber optic patch panel designed for installation of up to 48 fibers. An economic alternative to metal fibre enclosures, easy access to pre-formed fiber and splice management areas facilitates cable dressing and installation.

## Zone Enclosure

Zone Enclosures are a cost effective, robust, and versatile product designed to support moves, adds and changes in frequently changing enterprise and education environments. Accepts copper or fiber cabling via the deployment of interchangeable mounting plates.

## DIN Rail Enclosures

An effective solution for industrial networks inside control panels and distribution cabinets where DIN mounted equipment is used. Designed to protect the fiber bend radius in shallow enclosures where space is a premium and can be side stackable to grow with your networking changes.



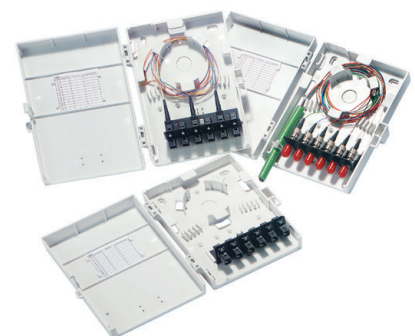
*Xtreme Density Enclosure*



*DIN Rail Enclosure*



*Multi-Function Fiber Enclosure*



*601 Fiber Enclosure*

# LIGHTBAND FIBER-TO-THE-DESK >

Passive Optical Networks deliver the performance and security of fiber across the length of your network. Unlike active Ethernet, upgrading a PON requires no changes outside the plant, making it a low-maintenance and scalable solution.

Molex PON products deliver high performance and ease of use for maximum flexibility. They are designed on a universal platform that supports both traditional and passive networks for simple network architecture updates.

## Attenuators

The Molex fixed attenuator family delivers excellent performance with variously fixed attenuation values for industry standard connectors. With a wide operation range, low return loss, polarization insensitivity and reliability, Molex attenuators provide flexibility in all PON applications.

## Splitters

Molex Splitters offers premium factory controlled optical performance on a variety of connectors that enable fast, economical installation. Compactly sized, they operate in a wide wavelength range and provide excellent Channel IL uniformity.

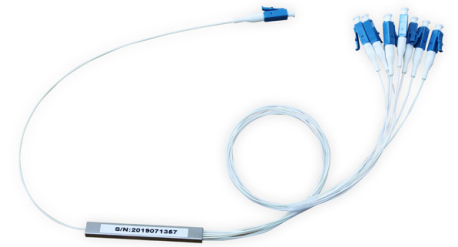
## Fiber Management Backbox

The Fiber Management Backbox provides enough space for direct termination or splicing of up to eight fibers and is designed to maintain the minimum bend radius requirements for fiber optic cable when used in conjunction with Euromod Angled Modules. It is also suitable for applications which require copper modules.

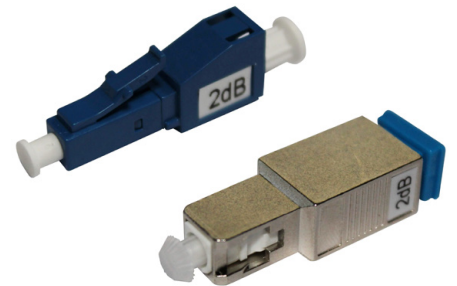
## Fiber to the Desk Modules

With an elegant, low profile and versatile modular construction, Lightband Fiber to the Desk Modules allow the user to easily expand the network as it grows. Suitable for both Singlemode and Multimode installations, modules include the unique Molex 'shuttered' technology which protects the user from harmful light emissions.

[More about Molex PON Solutions](#)



PLC Splitter



Attenuators



Modular Splitter Box



Inline-Type Outdoor Splice Enclosure

# MODLINK & PRE-TERMINATED SOLUTIONS ➤

Pre-terminated solutions offer faster deployment and guaranteed performance while minimizing the need for on-site testing. Each connector is pre-wired into an MTP/MPO interface and tested in-house to ensure the correct bend radius and that each connector provides optimum performance.

Pre-terminated solutions are ideal for high-density installations where quality and speed of implementation are paramount such as data centers, storage area networks (SANs) and server rooms.

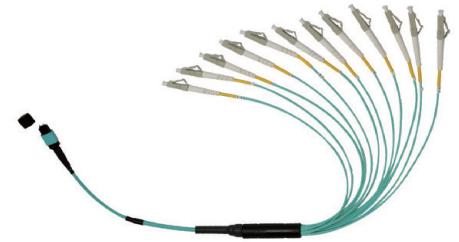
The Molex ModLink range emphasizes simplicity and durability for error-free use time and again. Available to support MTP, MPO, LC, SC etc connectivity in Multimode or Singlemode applications.

## ModLink Cassettes

ModLink Cassettes are a cost-effective, quick and easy fiber system providing factory-controlled optical performance. Simply plug the cable into the rear of the unit and the link is operational – an excellent solution for fast-track installations. Up to 96 fiber connection through LC connectors are provided in a 1U rack space.

## ModLink Cables

ModLink Cables provide premium, factory-controlled performance with a variety of connectors and are available in pre-terminated, hybrid pre-terminated assemblies and ModLink cable. Cables utilize OFNP, OFNR, LSOH or CPR rated round loose tube cabling with a flexible outer jacket that is easy to bend, route and install.



*Hybrid Pre-Terminated Cable Assembly*



*ModLink Cassettes*



*ModLink Cable*



## Related Links

[Jetted Fiber](#)

[Data Center Solutions](#)

[Passive Optical Networks](#)

[OM5](#)

[› www.molexces.com](http://www.molexces.com)

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