

PRODUCT OVERVIEW

MOLEX STRUCTURED CABLING SOLUTIONS >

HIGH PERFORMANCE COPPER AND FIBER OPTICS



molex

CONNECTED ENTERPRISE SOLUTIONS >

Part of the Molex Group, Molex Connected Enterprise Solutions has delivered connectivity for organizations and campuses for over 35 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.

THE BENEFITS:

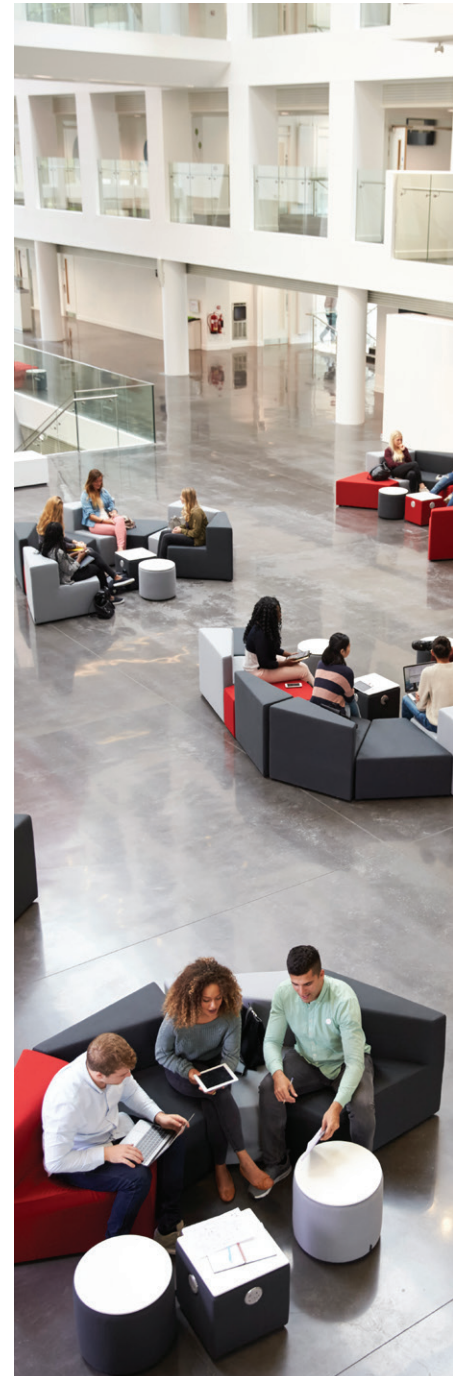
- Reliable high performance products built to be used and re-used
- Comprehensive range of copper and fiber, including products designed for specific applications
- Technical support teams around the world to support you throughout the life of the installation
- Versatile solutions designed to make upgrades 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.

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

Please note not all products are available in all regions.





POWERCAT 6A >

The latest applications for data and low-voltage power connectivity require high performance cabling. The Category 6 Augmented cable standard, or Cat 6A, was created to further improve the performance of Cat 6 Ethernet cables. Using Cat 6A enables 10 Gigabit Ethernet data rates over a single cable run up to 328 feet at bandwidths up to 500MHz. Additional insulation reduces crosstalk, even in unshielded cables.

Installing Cat 6A helps to future-proof a network against changes such as increasingly bandwidth-heavy applications, new technologies, or increased number of users or access points. For these reasons Cat 6A is required or recommended for new installations in healthcare and education facilities.

Cat 6A can handle higher levels of power in Power over Ethernet (PoE) installations without any degradation in performance. The thicker conductors of Cat 6A help dissipate heat, reducing loss.

Cat 6 and Cat 5e solutions are also available.

MOLEX POWERCAT 6A AT A GLANCE

- Designed to support high speed 10GBASE-T networks
- Backward compatible with 10/100/1000BASE-T networks.
- 10G Performance when installed as a complete Cat 6A Shielded System
- Ideal for IEE 802.3bt Type 4 “4PPoE”/“PoE++” applications
- Full end-to-end range of cables, patch cords, patch panels and adapter plates, jacks and plugs, outlets and enclosures
- Shielded (S/FTP, U/FTP and F/UTP) and unshielded options
- 25-year system performance and application warranty available to qualifying installations (see website for full details)

View the full range at

molexces.com/products/copper/cat6A

PoE

Cat 6A offers enhanced performance for Power over Ethernet installations. For high-power PoE (type 3 / Class 5 / 60W or above) we recommend Cat 6A. See page 4 for more.

AV Solutions

HD Base-T and SDVoE enable AV signals to be carried over twisted-pair cabling. Twisted-pair cabling can carry high resolution video, sound and images over greater distances. It is also lighter, cheaper, and easier to work with than dedicated AV cables.

For full 10G Base-T / UHD functionality, both HD Base-T and SDVoE require Cat 6A cabling.

See molexces.com/solutions-overview/audio-visual/ for more.





POWER OVER ETHERNET >

PoE has revolutionized the way modern networking infrastructures operate. A convenient and cost-effective approach to delivering both power and data connectivity over a single connection, PoE is also the ideal infrastructure for smart building / IoT installations.

Reliable: PoE comes from a central and universally compatible source, rather than a collection of distributed wall adapters. It can be backed-up through uninterruptible power supply, or controlled to easily disable or reset devices.

Safe: The PoE standard incorporates measures to ensure its safe operation, both to protect legacy equipment from damage and to protect users from the hazards of electrical power.

Cost effective: Reduce the time and expense of having electrical power cabling installed. PoE networks are easy to alter and upgrade for existing IT or facilities teams.

Multi-purpose: The latest PoE Standards allow for up to 100W to be delivered - more than enough for applications like PTZ cameras, access points, information screens, air filters, IoT devices and AV equipment.

DID YOU KNOW?

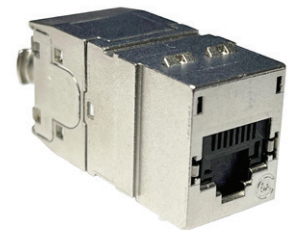
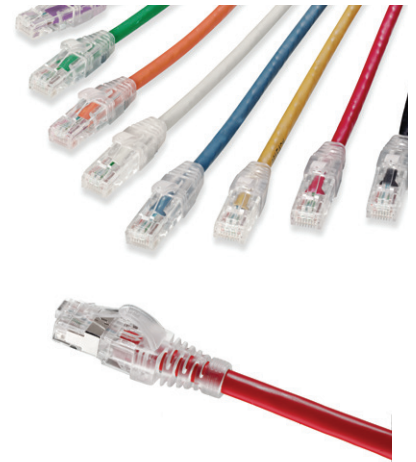
When it comes to carrying power, the cable gauge (AWG) is more important than Category. The thicker the cable (lower AWG), the less resistance there is to the flow of power.

The system Category is important to consider if your PoE application requires high data rates, such as AV or thin client applications.

Shielded systems, such as FTP, STP or Category 6A, can also be beneficial for high power applications as the shielding helps to dissipate heat.

Read more: [6 mistakes to avoid when designing a PoE cabling system](#)

[More about PoE solutions from Molex](#)





ZONE ENCLOSURES & CABLE MANAGEMENT >

Proper cable management is an essential part of any installation. Molex’s range of products enable easy management with minimal effort for long term managability.

Zone cabling provides flexibility and scalability to network cabling designs. It is ideal for a range of environments, including high churn open offices, educational facilities, multi-tenant workspaces, PoR networks and smart building installations.

ZONE ENCLOSURES

Optimizes space

Provides floor-level MACs and enables easy location, management and maintenance of network

Two options: in-ceiling and under-floor. Both fit within a standard 2x2' / 600x600mm suspended ceiling or raised floor grid space

Cost-effective, robust and versatile

Manage multiple copper ports, fiber splices, MTP/MPO fibers and active equipment in one enclosure

In-ceiling version can be locked for additional security and can accommodate a fan for efficient cooling



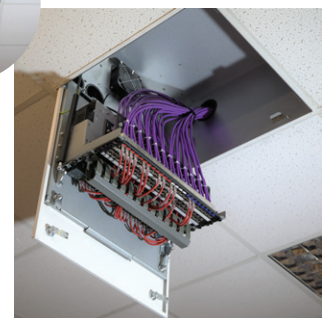
CABLE MANAGEMENT

Robust construction ensures durability even with repeated handling

Available in 1U and 2U and different ring sizes for different densities

Flexible rings for convenient operation

Designed to manage high-volume, high-density patching



Find and download the product catalogue for your region at molexces.com/resource-library/literature/



IP RATED & APPLICATION SPECIFIC PRODUCTS >

The need for a Category 6A connectivity solution designed for areas outside the normal office environment is growing. Data transmission is now ubiquitous in laboratories, food processing plants, kitchens and healthcare environments where connections require additional protection.

IP RATED PRODUCTS

Protects vulnerable network connection from tough environmental conditions

IP67

Cat 6A shielded jack, backbox & patch cord designed for use in work areas subject to heat, fluid, dust and humidity

IP66

Cat 6A shielded patch cord and enclosure designed to protect connections in outdoor environments such as outdoor wireless access points and security cameras

IP65

Medical grade, Cat 6A shielded patch cord, jack and wallplate with an easy-to-clean design to assist in control of microbes

ANTIMICROBIAL PRODUCTS

Molex Medical Grade products have been created by incorporating an antibacterial agent (biocide) that can assist in suppressing the growth of bacteria on the surfaces of products when conditions exist where growth can occur.

Modular wallplate footprint allows for Cat 6, Cat 6A and optical fiber fitout

Cat 6A shielded patch cord

Find your regional sales contacts at

molexces.com/contact-us/sales-team/





LIGHTBAND FIBER OPTICS >

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.

PERFORMANCE, RELIABILITY, SECURITY

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.

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

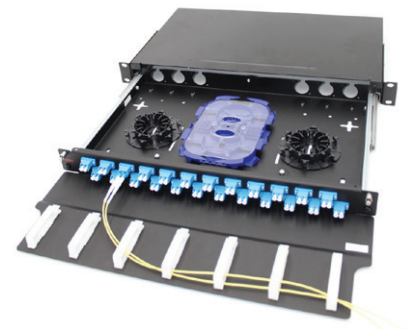
An effective solution for industrial networks inside control panels and distribution cabinets where DIN mounted equipment is used. Designed to protect the fiber bend radius in shallow enclosures where space is a premium and can be side stackable to grow with your networking changes.



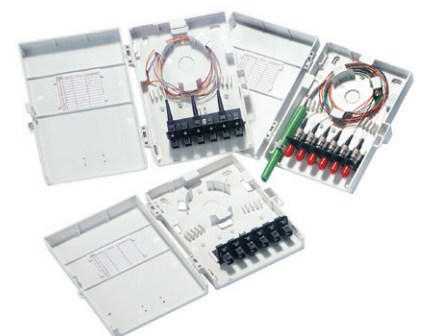
Xtreme Density Enclosure



DIN Rail Enclosure



Multi-Function Fiber Enclosure



601 Fiber Enclosure

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, LS0H or CPR rated round loose tube cabling with a flexible outer jacket that is easy to bend, route and install.

OTHER PRODUCTS >

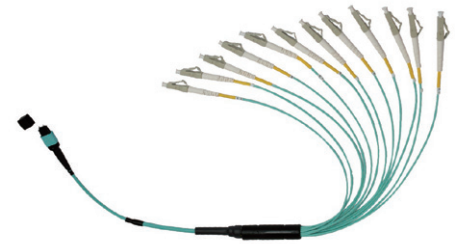
Other products in the Molex Lightband range include:

Fiber Optic cables: Available in multiple cores, a variety of constructions, fiber types and colors. Fiber cables can be used in different industries and applications such as harsh outdoor environments, campus applications and telecom access lines.

Patch cords and pigtails: Molex's advanced manufacturing process provides exceptional performance in patch cord assemblies. Molex maintains strict control over the ferrule endface surface, ensuring high performance and long-term reliability of all terminations.

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.



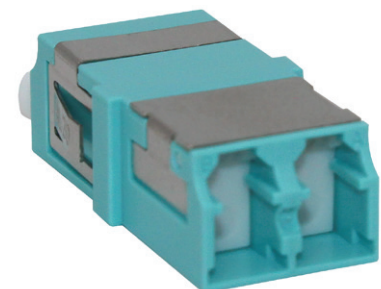
Hybrid Pre-Terminated Cable Assembly



ModLink Cassettes



ModLink Cable



Internal Shuttered Adapter

Related Links

[Molex PoE Solutions](#)

[Product catalogues and other downloads](#)

[**> www.molexces.com**](http://www.molexces.com)

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