

Education

CONNECTIVITY SOLUTIONS FOR EDUCATION

Molex Connected Enterprise Solutions

molex

Providing the highest quality of teaching and facilities on a limited budget is the challenge facing today's education providers.

Education is evolving. Blended learning, remote tuition and virtual reality are changing the way we think about classrooms. Students expect to be able to connect wirelessly from all corners of campus, not just study areas. Modern technology, from the library to the laboratory, has become essential to the learning experience.

Education infrastructure must provide the reliable, cost-effective performance needed today, but without restricting what can be achieved tomorrow.



THE CHALLENGE

Networks must provide the performance and resilience needed today, without locking providers into an architecture that cannot adapt, and without forcing expenditure on hardware upgrades. Modularity, scalability and built-in flexibility are the key to keeping pace, while keeping an eye on costs.

Molex's rethink-reuse-recycle ethos is designed to create layered installations that maximize utilization of existing equipment and streamline future upgrades.



INCREASE NETWORK RESILIENCE

Your network's physical infrastructure underpins the performance of all your IT resources, from audiovisual teaching equipment to building management systems and pervasive campus-wide wireless. Meet your bandwidth and reliability requirements with our high performance solutions, designed to hold up in the most demanding environments.



ADAPT FOR TOMORROW'S TECHNOLOGIES

What does the classroom of the future look like? Streaming lectures, virtual reality and on-demand teaching are changing the way education providers think about how they utilize their physical space. Our products give you the flexibility to adapt your network and incorporate the next generation of teaching technologies.



ENABLE SAFER CAMPUSES

Ensure the safety of faculty and students across single buildings or multiple campuses, from video surveillance monitoring and fire detection to access control and building automation systems. Our PoE solutions enable easy connection of IoT-driven sensors and cameras.



SHIELDED SOLUTIONS

Preserve signal integrity across your network with our shielded cabling solutions, designed for exceptional reliability at high speeds with greater bandwidth and headroom. Our shielded solutions support growing data transmission requirements with less interference and offer a greater reach to help minimize costs.



NETWORK CONVERGENCE SOLUTIONS

Effective management system integration helps you manage converged connections. Our solutions help optimize performance and control across a range of education applications, including AV systems, security and safety automation, communication, wireless access, student studies/research and more. With color-coded connection systems, you can safely and easily identify connections for improved system-wide maintenance.



SECURED PRODUCTS

Safeguard your systems from disconnection with our range of lockable patch cords, panels and enclosures. These products maintain data transmission with reduced risk of interference and also help protect student data.



THE SOLUTION

Ensure seamless connectivity across your campus with solutions designed for high-bandwidth environments.

Our high-performance cabling ensures robust, reliable connectivity for lecture streaming, research equipment, site management and cross-campus wireless. Flexible zone cabling solutions enable you to adapt quickly whenever circumstances require with a minimum of disruption to on-site activities.

Our rethink-reuse-recycle ethos results in hard-wearing, durable products that can be used and reused, ensuring the maximum return on capital expenditure.





PRODUCT RANGE: CABLING

COPPER SOLUTIONS

With high performance and excellent reliability, our range of copper twisted-pair cabling is trusted by education organizations worldwide. Developed with the most demanding applications in mind, our range includes shielded and unshielded products from Cat6a to Cat7 for your education facility cabling infrastructure and PoE applications.

OPTICAL FIBER SOLUTIONS

The Molex fiber optic range provides a versatile end-to-end solution capable of running the most demanding network protocols. Robust and durable, our products will maximize your ROI in networks that will continue to perform for years. From backbones to fiber-to-the-desk to data centers, Molex optical fiber cable provides superior bandwidth, speed and security.

ZONE CABLING

The ability to rapidly reorganize work and study spaces starts with a dynamic network architecture. Molex zone cabling solution introduces a new dimension of flexibility to organizational facilities with easy connection and reconnection of devices and hardware, from desktop computers, door entry system to wireless access points and IoT devices.

PRODUCT RANGE: FLEXIBLE SOLUTION >

The simple and flexible architecture of zone cabling benefits classrooms, mixed use rooms, study areas, administration areas, site security and for the deployment of smart building technologies.

Ease of management

- Fast, easy deployment of new devices via spare outlet capacity in the zone enclosure. Shorter cable runs are cheaper and less disruptive to install and change
- Reduced cable numbers and lengths means an architecture that is easy to manage
- Changes are isolated to localized zones and shorter cabling links, reducing labor and material costs



Applications

- With easy additions and alterations, zone cabling is the ideal cabling infrastructure for IoT and smart building applications
- Ideal for PoE applications, to minimize degradation and potential for heat buildup

PRODUCT RANGE: OUTDOOR CONNECTIVITY SOLUTION

Protecting the connection between your outdoor wireless access point / security camera and the existing network cabling infrastructure from climatic conditions.

Outdoor Cat 6A shielded patch cord

- Designed to support high-speed 10GBASE-T networks and are backward compatible with 10/100/1000BASE-T networks
- Enclosed in a UV stabilized, flexible polyamide covering, protecting the patch cord against mechanical temperature extremes, shock, water and dust ingress
- Pre-terminated with shielded RJ45 plugs



Outdoor enclosure

- Designed to house the RJ45 jacks needed for the connection of outdoor WAP or security devices
- Protection from impact damage, dust and pressured jets of water
- Ingress protection to IP66

PRODUCT RANGE: SMART BUILDING SOLUTION

Connected by safe and flexible Power-over-Ethernet (PoE), CoreSync sensors, lighting and devices help maintain safety, optimize space utilization, and save energy.

Smart Education

- Integrated sensor technology to better understand work and study patterns and respond automatically to personal preferences
- Automatically controls lights and adjusts the color to resonate with natural human biorhythms
- Provide data on utilization of rooms and other equipment
- Single cable to provide both data and electrical connectivity to IP devices, lighting, WAPs and BMS.



Protect staff and students

- Integrate BioVitae antimicrobial lights to help protect against the spread of bacteria and viruses
- Emergency lighting guides occupants safely to exits in the event of an emergency
- Integrate and control PoE security systems.

PRODUCT RANGE: DATA CENTER SOLUTION >

Molex data center products deliver performance and security for high-density data center applications. High quality, robust manufacture ensures durability and long lifecycle through multiple installations

High Performance Communication

- Modular platform ideal for consolidation of data center and structure cabling components
- Inter-operability for speed of replacement
- Shielded platform ideal for data center implementation and horizontal implementation within tertiary education facilities
- Reuse - Rethink - Recycle product design philosophy – lifecycle extension and seamless integration – means less down time in data centers and education facilities
- Hybridized platform allows for quick interchange and spatial efficiency irrespective of Physical Layer topography



PRODUCT APPLICATION

Connectivity Support		Auditoria and Lecture Halls	Study Rooms	Libraries	Common Rooms/ Recreational facilities/ Waiting Areas	Research Facilities & Laboratories	Student Accommodation	University Administration/Student Records	Building Services	Food Preparation/ Kitchen, Food Hall	Data Center/ TR	Campus Grounds
		UHD 4K A/V or IP Projectors	IP Projector, WAP	Laptop/PC Connectivity, WAP	WAP	Laptop/PC Connectivity, WAP	WAP	Laptop/PC Connectivity, WAP	IP Cameras, Intelligent Lighting, Building Access Systems	PoS System, WAP	Physical Layer	Outdoor Communal Areas, WAP
Cat 6A Shielded Solution	Cat 6A Shielded Cable Indoor	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Cat 6A Shielded Patch Panels - Std or High Density			YES		YES	YES		YES	YES	YES	
	Cat 6A Shielded Jacks	YES	YES	YES		YES	YES	YES	YES	YES	YES	
	Cat 6A Shielded Patch Cords	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Cat 6A Shielded Patch Cords Locking	YES	YES	YES		YES	YES	YES	YES	YES	YES	
	Cat 6A Shielded 28AWG Patch Cords Slim	YES	YES	YES		YES	YES	YES	YES	YES	YES	
	Cat 6A Shielded Field Termination Plug	YES	YES	YES		YES	YES	YES	YES	YES		
Fiber Optic Solution	Fiber Optic Cables - Indoor			YES		YES		YES	YES		YES	
	Fiber Optic Cables - Outdoor			YES					YES		YES	
	Fiber Optic LC Adapters Connectors / Plates			YES		YES					YES	
	Fiber Optic Rack Enclosures - Multi-Function / Xtreme Density			YES		YES		YES			YES	
	Fiber Optic Wall Mount Enclosures			YES		YES		YES	YES			
	Fiber Optic Pre-terminated Cables - Small Form Factor			YES		YES		YES			YES	
	Fiber Optic Patch Cords/Cable Assemblies - Standard			YES		YES		YES	YES		YES	
	Fiber Optic Patch Cords/Cable Assemblies - 90°			YES		YES		YES	YES		YES	
	Fiber Optic Patch Cords/Cable Assemblies - Locking			YES		YES		YES	YES		YES	
	Fiber Optic Patch Cords/Cable Assemblies - Low Loss			YES		YES		YES	YES		YES	
	Fiber Optic Pre-polished Pre-Assembled Field Terminated Connectors			YES		YES		YES	YES		YES	
	Fiber Optic High Density MPO/MTP Adapter Plate			YES		YES					YES	
	Fiber Optic Modular Splice Cassettes			YES		YES					YES	
	Fiber Optic FTTD Solution			YES		YES		YES				
	Fiber Optic MTP Modlink Cassettes / cables			YES		YES					YES	
Fiber Optic MTP/Small Form Factor Modlink Trunk Cables			YES		YES					YES		
Fiber Optic PON						YES				YES		

PRODUCT APPLICATION

Connectivity Support		Auditoria and Lecture Halls	Study Rooms	Libraries	Common Rooms/ Recreational facilities/ Waiting Areas	Research Facilities & Laboratories	Student Accommodation	University Administration/Student Records	Building Services	Food Preparation/ Kitchen, Food Hall	Data Center/ TR	Campus Grounds
Connectivity Support		UHD 4K A/V or IP Projectors	IP Projector, WAP	Laptop/PC Connectivity, WAP	WAP	Laptop/PC Connectivity, WAP	WAP	Laptop/PC Connectivity, WAP	IP Cameras, Intelligent Lighting, Building Access Systems	PoS System, WAP	Physical Layer	Outdoor Communal Areas, WAP
Cable Management	Horizontal/Vertical Cable Management			YES		YES					YES	
	Cable Management Rings			YES		YES					YES	
	Zone Enclosure Underfloor	YES		YES		YES		YES	YES			
	Zone Enclosure In-Ceiling	YES		YES		YES		YES	YES			
Other	Surface Mount Boxes	YES	YES	YES		YES		YES	YES			
	Wall Plates and Bezels	YES	YES	YES		YES		YES				
Antimicrobial Solution	Antimicrobial Wall Plates					YES	YES					
	Antimicrobial C6A Shielded Patch Cords					YES	YES					
Ingress Protection (water, dust) Cat 6A Solution	IP67 Surface Boxes/Backboxes					YES				YES		
	IP67 Cat 6A Shielded Jack Shielded IP67					YES				YES		
	IP67 Cat 6A Shielded Patch Cords					YES				YES		
Outdoor Connectivity Solution	Outdoor Enclosure IP66 2P RJ45											YES
	Outdoor Category 6A Shielded Patch Cord											YES
	Outdoor Category 6A Shielded Cable											YES
CoreSync Smart Building Solution	PoE Lighting	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Emergency Lighting Bypass	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Occupancy Sensor	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	

FUTURE-READY CONNECTIVITY >

ABOUT MOLEX

Trusted by leading organizations worldwide, Molex is known for the quality and reliability of our products. We work with hand-selected, Molex-trained installers and consultants to ensure you receive the highest quality of service end-to-end. With exceptional build quality, our products are designed to be used and re-used, delivering reliable high performance every time.

SOME OF OUR GLOBAL EDUCATION CUSTOMERS...

- Australian National University, Australia
- Belfast Metropolitan College, UK
- BICSI, USA
- Chandigarh University, India
- Curtin University, Australia
- Dalnevostochny Federal University, Russia
- Depart of Education Queensland, Australia
- Hong Kong City University, China Hong Kong
- Indian Institute of Technology, India
- Kalinga Institute of Social Studies, India
- Kalinga Institute of Industrial Tech, India
- Politechnika Gdanska, Poland
- Politechnika Poznanska, Poland
- Shanghai Baoshan School Board, China
- Southern Cross University, Australia
- Stellenbosch University, South Africa
- University of California, USA
- University of Johannesburg, South Africa
- University of Manchester, UK
- University of Nottingham-Ningbo, China
- University of Southern Queensland, Australia
- Warsaw University of Life Sciences, Poland



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Our Approach

At Molex, we take a multidimensional, consultative approach to help you plan your educational network infrastructure and prepare for next-generation demands. With a broad portfolio of products and solutions designed to offer high performance and comply with industry standards, our global team of experts will work with you at every step to develop a comprehensive solution. Working with Molex can help you meet your current and future infrastructure requirements to serve the needs of students and staff at all hours of the day.

Find your ideal
education solution
today

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