PROTERIAL

TECHNOLOGY IN EDUCATION

Embracing Digital Revolution in Education

EDUCATION

Enhancing Connectivity for Tomorrow's Campus

As universities face increasing demands for fast and reliable data transfer, choosing the right cabling solutions for new or upgraded university data centers have become critical. Proterial Cable America specializes in manufacturing high-performance copper premise category cables and fiber optic cable solutions designed to surpass the bandwidth requirements of future-ready universities.

Importance of Reliable Connection

In 2024, the average college student owns 7 tech devices, including smartphones, laptops, tablets, and gaming systems. Because device numbers have increased by 3 devices over the past 10 years, universities must be able to handle the transfer requirements for seamless connectivity across their campuses. Good WIFI isn't just desirable; it's essential and supporting mobile devices should be a top priority in college technology spending. Failure to update and upgrade networks could result in overwhelmed networking systems and reputational damage as being behind the technology curve.

Ensure that your university is in the forefront of digital transformation by making informed networking decisions. Explore Proterial Cable America's extensive product range to find the perfect cable solution tailored to your university's needs. Whether you require high-speed data transfer or reliable connectivity, PCA offers both category cable and fiber optic cable solutions to suit your application, budget, and longevity requirements.

Different types of Category Cables

Transmission Speed: Cat 5e and Cat 6 supports 1Gbps (Gigabit Ethernet), while Cat 6A can handle up to 10Gbps (10Gig Ethernet), meeting the demands of modern applications.
Maximum Distance: Cat 5e, 6 and 6A can maintain throughput up to 328 ft (100 m).
Interference Mitigation: As data speeds increase, so does a cable's susceptibility to interference. Cat 6 and Cat 6A offer superior resistance to interference compared to Cat 5e, ensuring optimal performance and minimal data loss.

CATEGORY CABLES

Choosing the Right Category Cable

Proterial Cable America's Category 6A offers superior interference resistance, ideally suited for Wi-Fi 6 deployments. With transmission speeds of up to 10Gbps and support for IEEE standards, Cat 6A ensures optimal performance for modern applications.

Though many colleges and universities have their own standard for network infrastructure, these are generally all based on the ANSI/TIA 568-2.D Commercial Building Telecommunications Cabling Standard. Within that standard are products offering various levels of performance. The highest performing copper option in the current ANSI/TIA standard is Category 6A. A Category 6A infrastructure is designed to support 10 Gigabit Ethernet applications. In addition to 10 Gig, a Category 6A system is the recommended infrastructure for WIFI access points. More specifically, Category 6A cable is the only cable designed to support IEEE 802.3an Ethernet @ 10 Gbps, IEEE 802.11ac (Wi-Fi) @ 1.3 Gbps and the soon to be released IEEE 802.11 ax (Wi-Fi 6) @ 10Gbps.

Why Proterial for your Connected Network?

If planning new construction, adding to an existing building or doing a network upgrade, consider a cable infrastructure that delivers the high performance that today's students require. With a focus on quality, reliability, and customer satisfaction, we hope that you choose cables proudly manufactured by Proterial Cable America in Manchester, New Hampshire. If you're facilitating connections for thousands of students, faculty, and staff, count on Proterial to deliver seamless connectivity and ensure reliable network performance.

FIBER OPTIC CABLES

Advantages of Fiber Optic Cable

Fiber optic technology offers significant advantages for universities aiming to upgrade their network infrastructure. Unlike category cables, fiber optic cables provide higher bandwidth, facilitating the swift and efficient transfer of large data volumes. Proterial offers fiber optic cables tailored for various applications, from connecting data rooms within buildings to linking distant corners of campus. PCA cables are available in indoor/outdoor and armored designs, prioritizing safety and durability regardless of installation path. Featuring tight buffering and gel-free construction. Seamless transitions from indoor to -indoor/outdoor environments are guaranteed. We have both multimode and singlemode optical fiber constructions, including OM4 fiber capable of handling 10 Gbit Ethernet up to 550 meters and singlemode fiber for distances of up to 10,000 meters. Terminating these cables with fusion spliced connectors ensures optimal performance, making them ideal for long-distance installations.

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Performance Cable Division

603-669-4347   www.usa.proterial.com

900 Holt Ave Manchester, NH 03109