

Vextra's Category 6A Cabling Solutions Bring Economical 10G Performance to LAN Installations

High-performance local area networks (LANs)—such as 10G networks—are possible only when those networks are built on high-performance structured cabling. Vextra's Category 6A infrastructure provides that performance in a smart, economical portfolio of solutions that can simplify new or upgraded LAN installations. For network designers, Vextra's made-in-the-USA solutions hit the perfect balance of cost and performance that can mean the difference between deploying this year—or waiting for budget next year.

Category 6A is the standard to meet

The Category 6 Ethernet standard was introduced in the early 2000s. Even two decades later, it's considered the minimum standard for new data installations, and is backward-compatible with older standards such as Category 5e for mixed infrastructure situations, which are quite common.

Category 6A, originally known as augmented Category 6, is an advanced standard published in 2008. Category 6A takes the near-universal applicability of Category 6 and layers in enhanced performance.

- Category 6A cabling is manufactured to tighter tolerances than Category 6. This means the copper is twisted more tightly and requires higher specification on patch panels, wall jacks and connectors.
- Category 6A cabling's minimum operating frequency is 500 MHz, enabling current-generation Wi-Fi 6 applications.
- Category 6A cabling is thermally balanced to support up to 100 watts for high-power power-over-Ethernet (PoE) applications, more power and longer distances than Category 6.
- Category 6A cabling is built from heavier copper conductors and jackets, which typically drives up the product cost and can pinch IT budgets in new installations.

Considering the increased bandwidth requirements in data center environments and LANs of all kinds—as well as the rapid proliferation of connected devices that require higher PoE power levels over longer distances—the only complicating factor is the cost of Category 6A cabling infrastructure relative to that of Category 6.

Simply put, Category 6A is considered table stakes for 10G Class E_A networks used in healthcare, education and industrial settings.

Conquering cost to unleash maximum performance

When pricing new or upgraded LAN structured cabling, Category 6A has a clear advantage in performance (and, concurrently, in future-readiness against tomorrow's growing network demand). Category 6A's relatively higher cost can put a premium on economizing in selection of solutions. It's not always easy, but designers can indeed identify the sweet spot where economy and performance meet. Consider these factors when choosing a solution:

- Low cost can indicate lower build quality; weigh the potential cost of corrective measures if a product fails to live up to specification.
- Poor quality control of thermal management can create serious problems with a LAN powering connected PoE devices; the reason Category 6A is rated to 100 watts is that its heavier construction permits better management of heat. Poor materials negate this advantage.
- When deploying in these days of disrupted supply chains, can you count on having all the product you need to complete installation? Many network cabling solutions are produced overseas, and—while they may be perfectly suitable products—that won't help you if they're stuck in a container on a ship somewhere.

Amazingly, it is possible to deploy a reliable, future-ready Category 6A Ethernet LAN that delivers every performance advantage it should, economically, without meeting any of these pitfalls. That's where the Vextra difference really matters.

Vextra solutions hit the sweet spot

Made in the USA, Vextra cabling is built to exacting standards, tested extensively for quality, and doesn't put your installation at the mercy of disrupted raw materials supply, shuttered overseas factories, congested ports, or any of the other procurement problems we're now all too familiar with—and which most experts expect to continue for months or even years.

Vextra Category 6A cabling solutions are priced smart so you can design smart—and deploy fast. Vextra understands that a hard-working LAN needs top quality and top performance—even as your stakeholders need top economy. More than ever, Vextra solutions hit the sweet spot between LAN performance and deployment cost.

In the years ahead, nothing less than Category 6A will do. With Vextra, you'll never have to make that choice.