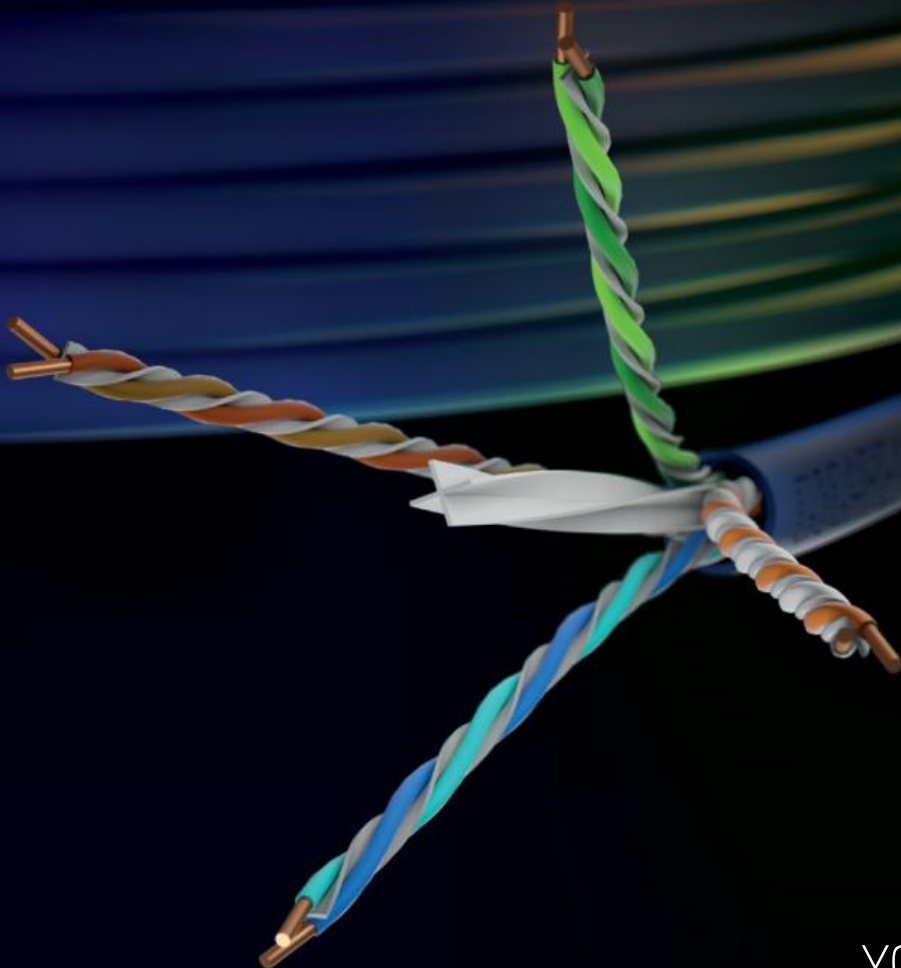


**SYSTEMAX**<sup>®</sup>  
COMMSCOPE

GigaREACH™ XL Extended Reach Category 6

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**Endless Innovation**



YOUR NETWORK  

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YOUR FUTURE



# Extend your network's reach, **not your risk**

The transformation of enterprise networks has been rapid and disruptive. No longer IT-specific, today's network is expected to connect and power all operational systems and devices. Not a problem, assuming the device is less than 100 meters from the nearest telecommunications room.

But more mission-critical devices—security cameras, access control panels, wireless access points, etc.—are needed at the edge, with some exceeding the 100-meter limit set by the standards. That's a problem. How can you support a device beyond the 100-meter threshold while ensuring the reliable performance of a standards-based connection? CommScope's SYSTIMAX GigaREACH XL solution. Now you can extend your network's reach with confidence.

## What's behind the 100-meter barrier?

According to commercial building cabling standards, including ANSI/TIA-568 and ISO 11801, the maximum supported length for a Category 6 or 6A cable is 100 meters. This limitation is based on the electrical characteristics of twisted-pair copper cabling. As the signal travels along the cable, its strength decreases, primarily due to insertion loss. The longer the cable, the greater the insertion loss.

## Conventional options for extending the network

When it comes to extending the reach of your structured cabling network beyond the 100-meter barrier, you have some options. Each has pros and cons.

**Add another telecommunications room:** In terms of space, cost and maintenance, this is the most expensive approach. If you're supporting many devices, it can be worth the cost and disruption. Or you can downsize to a single cabinet with a switch and panel. This is less costly and invasive, but you still need to run power to the cabinet.

**Use a PoE extender:** A PoE extender can essentially double the length of the channel, and some enable daisy-chaining for even longer lengths. To operate, however, it siphons off some of the incoming voltage, leaving less power for the device. It is also subject to the power and bandwidth restrictions of the PoE technology used.

**Switch from copper to fiber:** Switching to fiber eliminates the distance limitation but adds cost and complexity. Costs include optical transmission equipment and media converters at the far end. A separate power line will also be needed.

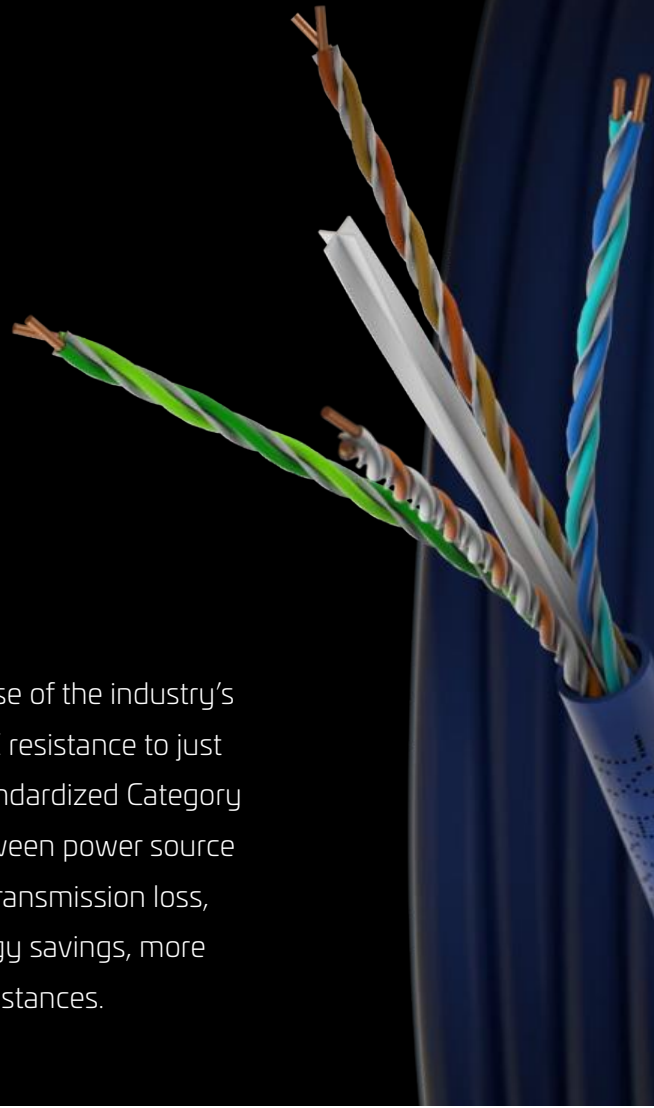
**Use extended reach cabling:** Currently, there are a couple of extended reach PoE cabling solutions that claim to support PoE applications like 100 Mbps/90 W and 1 Gbps/90 W beyond the 100-meter barrier. However, these solutions come with multiple qualifiers and disclaimers regarding the specific circumstances under which the extended reach claims can be supported.

While the above options are viable solutions, each comes with a cost and a certain amount of risk. Considering how few devices may need data and power over more than 100 m, the cost and risks are difficult to justify. Network and facility managers need a simple, non-invasive solution that can provide reliable data and power support over extended distances. Now, they have it.

# Meet SYSTIMAX GigaREACH XL

GigaREACH XL is the first extended reach Category 6 UTP solution that supports 100 Mbps/90 W up to 200 m, 1 Gbps/90 W up to 150 m, and 10 Mbps/90 W up to 250 m while cutting DC resistance per meter in half, compared to standard Category 6 cables. More than a claim, CommScope warrants this performance through our SYSTIMAX Applications Assurance warranty.

An innovative and proprietary twist technology enables use of the industry's lowest loss conductor. The 21 AWG conductor reduces DC resistance to just 4.69 ohms/100 m—half the DC resistance allowed for standardized Category 6 cables. So you can reduce power transmission loss between power source and device by 50%, or double the distance for the same transmission loss, or some combination of both. That means improved energy savings, more sustainability and/or a higher power budget over longer distances.



## A simplified network, stronger support

Available as plenum, LSZH, riser-rated, and outdoor solutions, GigaREACH XL cables are suitable for most environments. A single uninterrupted run from the telecommunications room to the device eliminates the need for additional telecommunications rooms, PoE extenders, extra patch panels, optical transceivers, booster boxes, media converters or supplemental local power at the far end. Fewer components means fewer points of failure, lower OpEx and a simplified network that's faster to deploy, more reliable and easier to manage.

GigaREACH XL cables and channels meet all your Category 6 requirements. So they easily integrate into your structured cabling architecture and use the same installation tools, procedures, panels and jacks as the SYSTIMAX family of GigaSPEED solutions. CommScope will also offer a male plug that can be terminated directly on the GigaREACH XL cables to create Cat-6 compliant and testable Modular Plug Terminated Links (MPTL).

The GigaREACH XL solution and its performance is not only warranted; it's covered by our proactive and comprehensive support program: SYSTIMAX Assurance.

It includes the SYSTIMAX 25-year Extended Warranty, Application Assurance Warranty and a full suite of technical support, training, education and resources available both online and onsite.

With GigaREACH XL, you have a fast, simple and non-invasive UTP solution that connects and powers devices your existing structured cabling network can't reach. Assured, warranted and backed by CommScope's unrelenting commitment to your success.

# Extended reach = expanded options



## EXTENDED DISTANCES—WARRANTIED PERFORMANCE

Supports 100 Mbps/90 W up to 200 m, 1 Gbps/90 W up to 150 m, and 10 Mbps/90 W up to 250 m

Data/PoE performance is warrantied under CommScope Application Assurance

Low-loss power conductor, enabled by CommScope's patented twisting technology, cuts DC resistance in half versus standard Category 6 cabling.

Reduced voltage drop over distance provides extra power at the device



## NETWORK SIMPLIFICATION

Fewer PoE extenders, media converters and booster boxes and a more secure network

Less equipment, fewer potential points of failure, reduced repair costs

Accelerated deployment and turn-up of new services

Fits any structured cabling architecture to support application convergence



## INCREASED SUSTAINABILITY

50% lower power transmission loss, reducing energy consumption over multiple devices

Fewer telecommunication rooms, lower environmental impact

Fewer points of failure means fewer truck rolls, lower fuel use and reduced GHGe



## TOTAL PEACE OF MIND

All legacy SYSTIMAX support, including 25-Year Extended Warranty and Application Assurance, plus:

Training for technical staff

Monthly newsletters and webinars

Assistance with designs and BOMs

New engineering tools

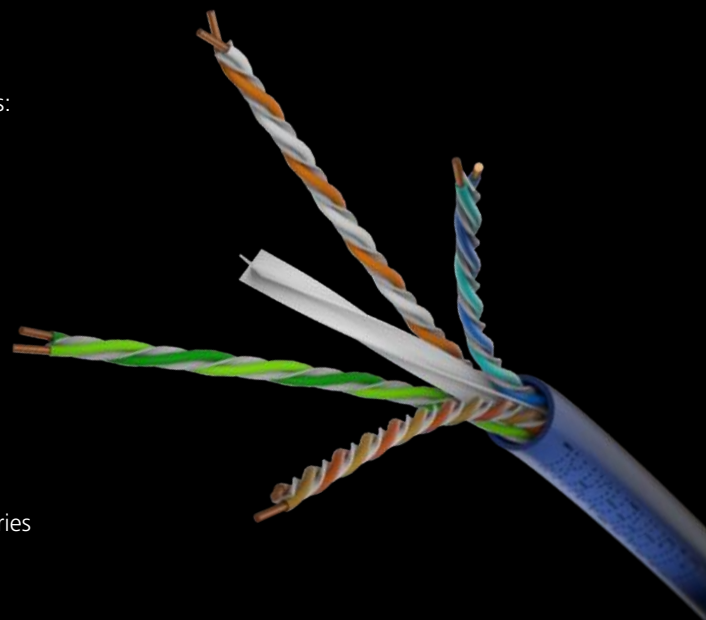
Management and design software trials

Onsite installation walkthroughs

Onsite support

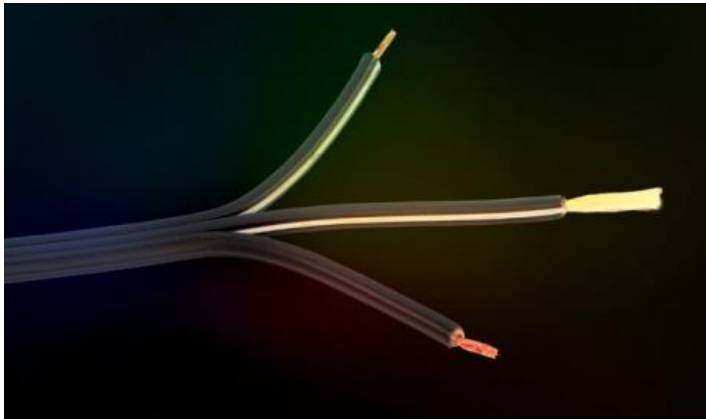
80+ systems engineering teams around the world

10,000+ SYSTIMAX-certified partners in 130 countries



## Part of the SYSTIMAX extended reach portfolio

The GigaREACH XL solution is the latest addition to the growing portfolio of CommScope SYSTIMAX extended reach solutions. Together these innovative solutions are enabling tomorrow's hyperconnected, edge-based enterprise networks.



### POWERED FIBER SYSTEM

Powered fiber cabling combines high-performance, low-latency fiber-optic data connectivity with a copper low-voltage DC power connection. This enables you to connect any number of powered remote devices up to three kilometers away. No new conduit, bulky extra cable runs or licensed electricians required. Powered fiber is an easy-to-deploy, streamlined solution that supports applications such as optical LAN, emergency phones, HD security cameras, digital signage, Wi-Fi access points, small cells and more.



### CONSTELLATION

The Constellation® platform is a highly innovative and adaptable power/data infrastructure solution specifically designed for today's hyperconnected, edge-based enterprise. It combines fault managed power, hybrid power/data fiber, and ceiling-based Constellation points in an easy-to-deploy star topology. The result is a high-efficiency and sustainable solution that delivers up to 1 kW and all the bandwidth needed across distances up to 500 meters.

## Go further with more extended reach options from CommScope

Best of all, GigaREACH XL extended reach PoE is designed, engineered and fully supported by CommScope, the industry leader in structured cabling solutions. With manufacturing, distribution and support facilities around the world, CommScope has the global strength and presence to match our 40+ years of experience, expertise and innovation. It's a powerful combination that's reflected in all our SYSTIMAX solutions. GigaREACH XL is no exception.

**For more information about our SYSTIMAX GigaREACH XL extended reach Category 6 PoE solution, contact your CommScope representative or visit [www.systimax.com](http://www.systimax.com).**

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement.

We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow.

For more information, visit the SYSTIMAX 2.0 solutions page  
[www.systimax.com](http://www.systimax.com)



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[systimax.com](http://systimax.com)

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