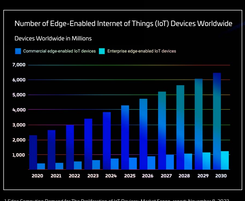
SYSTIMAX®
COMMSCOPE

Expanding networks require extended reach



1 Edge Computing Demand for The Proliferation of IoT Devices, Market Scoop, report: November 8, 2023

Today's enterprise network must support IT and OT devices with connectivity and power.

More mission-critical devices are needed at the edge.

The number of edge-enabled devices is expected to reach **7.7b** by **2030.**[1]

Some devices are located farther than 100 meters from the nearest telecommunications room.

That's a problem.

The 100-meter barrier

The maximum supported length for a Category 6 or 6A Ethernet cable is 100 meters. The 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. Based on these performance parameters, the industry standardized on the 100-meter distance.

How do you power and connect devices beyond 100 meters with the reliability of a standards-based connection?

Extended reach options

Options exist to extend your structured cabling beyond 100 meters. Each has its pros and cons.

ADD ANOTHER TELECOM ROOM

- Standards-compliant, potential to house additional equipment
- Sacrifices space, costly, disruptive construction, more failure points and repair costs

ADD POE EXTENDERS

- 2X the channel length with longer spans possible with daisy-chaining, relatively easy to deploy
- PoE bandwidth limitations, more failure costs

REPLACE COPPER WITH FIBER

- Span up to several kilometers and deliver far more data
- Requires optical transmission equipment and media converters, needs separate power costs

TRY AN EXTENDED-REACH POE CABLE

- Claims to support PoE > 100 m and is fast and easy to deploy
- Performance depends on chip type; cannot rely on extended reach performance

How much risk is too much?

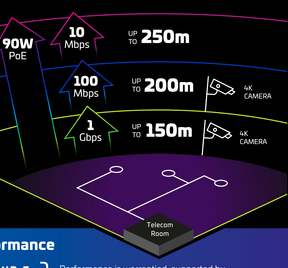
Each option for extending the structured cabling network involves risk. With relatively few devices needing support beyond the 100-meter limit, how much risk are you willing to assume?

GigaREACH™ XL

Extend your reach, not your risk.

GigaREACH XL, the first Cat 6, UTP solution to ensure support for 100 Mbps/90 W up to 200 m, 1 Gbps/90 W up to 150 meters and 10 Mbps/90 W up to 250 m.

Performance is warrantied through our **SYSTIMAX Applications Assurance**.



Warrantied performance

- **100 Mbps—200 m—90 W PoE**
- **1 Gbps—150 m—90 W PoE**
- **10 Mbps—250 m—90 W PoE**

Performance is warrantied, supported by CommScope's **SYSTIMAX Assurance** and backed by our **25-Year Extended Product Warranty**

It's all in the twist

Proprietary twist technology enables use of the industry's largest gauge/lowest loss conductor, whose DC resistance (4.69 ohms/100m) is half that of standard Cat-6 cables.

Thinner insulation and "tape-pair-separator" maintain 100-ohm impedance and enable the use of 21 AWG conductors with the same size as standard 23 AWG.

The result: Voltage drop over distance · Energy savings · Sustainability · Power budget · Link distance

Simplify the network

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

Accelerated deployment and turn-up of new services

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

Fits almost any structured cabling architecture to support application convergence

Increase sustainability

Reduce the need for telecom rooms and their environmental cost

Reduce power energy losses, gain potential energy savings over multiple devices

Reduce points of failure, along with truck rolls, fuel use and GHGe

Get a world of support

GigaREACH XL is covered by **SYSTIMAX Assurance** (including all legacy SYSTIMAX support like our 25-Year Extended Warranty and Application Assurance) and is supported by **over 80 systems engineering teams** and **over 10,000 SYSTIMAX-certified partners** around the world.

Contact your SYSTIMAX representative to find out more

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Visit our website or contact your local CommScope representative for more information.

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