



Go the Distance with Corning Long-Reach Solutions

Providing Connectivity at the Edge

In today's world, campus-wide security cameras, blanket Wi-Fi, and perimeter access control prove essential for colleges and universities — but enabling these seemingly simple devices across a campus is often quite complex. These technologies often test the 100-meter distance limitation of copper cable networks, leading to maxed-out pathways, space constraints, and costly local power outlets. Fortunately, Corning's long-reach solutions can provide the cost-effective, "set it and forget it" connectivity you need at the edge.

What Long Reach Means For You

Connectivity isn't just for the classroom — safety and security depend on internet access at the far edges of your network. Whether you're powering a student's laptop or 24/7 blue light phones in a distant parking garage, speed and reliability are essential. When you need to go beyond the 100-meter distance limitations of traditional category cable, long-reach solutions help achieve connectivity up to 2,000 feet away without sacrificing bandwidth or power delivery.

Corning's portfolio of long-reach solutions includes the ActiFi® Hybrid Cable, the CIP (Corning Intelligent Power) Solution, and fiber-fed devices such as the 10G HPoE Media Converters or the end-to-end Touchless Networking Solution.

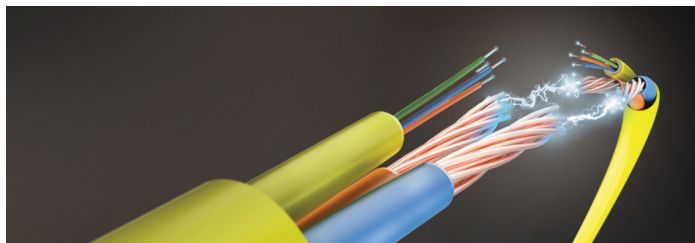
Corning's Long-Reach Network Architecture Key Components:

- Long-reach flexible cable infrastructure
- Intelligent remote power solutions
- Connectivity at the edge

Long-Reach Flexible Cable Infrastructure

ActiFi® Hybrid Cable

Achieve ultimate flexibility with Corning's ActiFi® Hybrid Cable, which delivers data and power to the very edge of your network by using both fiber and copper conductors under the same cable jacket. ActiFi is a Class-3 rated hybrid cable that supports low voltage (Class 2, 57 VDC/100 W) power. Because ActiFi can reach distances over 2,000 feet, this cabling choice is also ideal for long-reach or remote applications such as security cameras in a parking area or outdoor campus-wide Wi-Fi. Use this distance table to build the right end-to-end network for your project based on the specific power requirements at the edge.



ActiFi Composite Cable Distances 1 pair | Low voltage (57 VDC)

	30 Watts	60 Watts	75 Watts
20 AWG	590 ft.	295 ft.	235 ft.
18 AWG	940 ft.	470 ft.	375 ft.
16 AWG	1,500 ft.	750 ft.	600 ft.
14 AWG	>2,000 ft.	1,190 ft.	950 ft.
12 AWG	>2,000 ft.	1,895 ft.	1,500 ft.

Choose a Fast and Secure Campus Network

Corning's long-reach solutions offer cost-effective, reliable, and scalable connectivity that can enable the deployment of complex technologies across campuses. We offer a streamlined architecture that can adapt to future needs and grow with educational institutions. Contact us today to learn more about how our long-reach solutions can benefit your campus.

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Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC 28216 USA
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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Intelligent Remote Power Solution

Corning Intelligent Power (CIP)

The Corning Intelligent Power Units are compact, scalable, low-voltage power supplies (Class 2, 57 VDC/100 W) that achieve ultimate port density to deliver more power with less space. 1-, 16-, and 32-port options are available and can be aggregated to provide more power (up to 800 W to a single device) and redundancy at the edge. Step down converters support both 56 V and 24 V loads from the same power supply. Various mounting options are available to gain deployment flexibility.

Connectivity at the Edge

Media Converter

The media converter provides a cost-effective solution to extend individual ports to devices at the edge, as it is interoperable with existing copper or fiber switches and is compatible with Corning's end-to-end fiber, power hardware, and connectivity solutions. Corning's 10G HPoE Media Converter supports 10G speeds and is backward compatible to support 1G or 2.5G as well as 90W PoE++ (HPoE) and is backward compatible to support PoE, PoE+, PoE++ (60 W) / 802.3bt. Additionally, it allows for deployment flexibility with small-form-factor and DIN-rail mounting over a wide range of operating temperatures.

A key upgrade in this model is its support for both 1G and 10G transceivers, unlike the previous version which only supported 10G transceivers. Additionally, this new FMC features two dip switches on its face, introducing new functions. The "Watch Dog" dipswitch will reset the PoE power to the powered device (PD) if it stops transmitting data for more than 300 seconds.

The "Link Fault Pass-Through" (LFP) dipswitch provides link down status to the switch for both local and remote FMCs. If both dipswitches are turned off, the Gen 2 FMC will perform just like the Gen 1 version.

Touchless Networking Solution

Corning Touchless Networking is a self-provisioning fiber switch solution that leverages the benefits of a fiber- and power-deep architecture to enable simple, unmanaged applications in hard-to-reach places.