

Conquer the broadband challenge With Corning by your side

Across America, Rural Electric Cooperatives (REC) are helping their communities conquer the digital divide, bringing access to a wider world, new opportunities, and a brighter future. If you're considering evolving your REC to include broadband, with our decades of expertise at your service it could be easier and more affordable than you might think.

RECs already bring affordable, reliable power to an estimated 42 million people in 47 states.* You have the network assets, skills, relationships, and determination you need to take on the digital challenge and win.

Find out how you can start putting broadband to work for your family, friends, and neighbors. Visit **corning.com/community-broadband**

*National Rural Electric Cooperative Association Fact Sheet, 1/31/17, https://www.electric.coop/electric-cooperative-fact-sheet/

FTTH: A natural extension of your fiber network



Central Office/Substation

The core of every network is the central office. It's the foundation needed to support the demand for new connectivity, capacity, and speed. Our hardware solutions simplify the design and deployment of your central office, with versatile product families that offer industry-leading density and flexibility and provide the lowest total cost of ownership. Several of our most popular product families are highlighted here to illustrate the breadth of our portfolio but these featured products are only a small representation of our complete FTTx offering. Connect with Corning to discuss your network objectives and priorities and we'll help you identify the product solution that best meets your needs.





Centrix[™] System

The Centrix system is a high-density fiber-management system that provides a balance of industry-leading density with innovative jumper routing.



2178 Closure Family

The Fiber Optic Splice Closure 2178 family is ideal for most FTTx applications (including aerial, buried, underground, vault, and building entrance) and cables (including loose tube, tight buffer, central tube, discrete fiber, ribbon fiber, armored, or dielectric).



Optical Splice Enclosures

Corning universal optical splice enclosures (OSE) are designed to manage the transition between outside plant cables and fire-retardant indoor riser cables in fiber optic networks. These rugged and versatile enclosures are ideal for use in equipment rooms, splicing vaults or as building entrance terminals.



Indoor/Outdoor Cables

These cables are designed to withstand the rigorous environment of the outdoors but they can also be routed indoors, where flame rating requirements apply. This type of cable eliminates the need for a "transition splice" to an indoor-rated cable when routing an outdoor cable into the building.



Splitter/WDM Splice Cassette

At the foundation of the Centrix system is a single, modular cassette that can be tailored to include a variety of optical devices (splitter, WDM, etc). The modular cassette provides flexibility and functionality within a single frame without sacrificing density. Each cassette contains up to either 24 SC or 36 LC connector adapters.



Cable Assemblies

Cable assemblies are an often-overlooked critical component of your inside plant connectivity portfolio. As the industry's leading supplier of cable assemblies, Corning's state-of-the-art manufacturing process ensures reliable connector performance with products that meet or exceed all industry standards for reflectance and insertion loss.

Feeder

The feeder segment of an FTTx network is where the outside plant cable originating at the central office transitions to feed small distribution areas throughout the community.





SLiC[®] Fiber Aerial Closures/Terminals

Corning[®] SLiC[®] fiber aerial closures protect fiber optics installed in above ground spaces. Available in both splice and preconn options, SLiC closures allow outdoor ambient air circulation, allowing for condensation to drain away from the splice while protecting fiber connections from direct sunlight and weather.



Fiber Optic Splice Closure 2178

The Fiber Optic Splice Closure 2178 family is ideal for most FTTx applications (including aerial, buried, underground, vault, and building entrance) and cables (including loose tube, tight buffer, central tube, discrete fiber, ribbon fiber, armored or dielectric). This closure family includes seven distinct models – XSB, XLB, S, SL, LS, LL and XL – in flame retardant and non-flame-retardant versions with flexibility built-in for growing networks.



ADSS Cable

Corning SOLO[®] ADSS optical cables are all-dielectric, self-supporting (ADSS) cables designed for easy-andeconomical one-step installation where metallic messengers cannot be used. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunicationsgrade optical fiber.



SCA Aerial Terminal

These innovative aerial terminals provide low-cost environmental protection and quick incremental connection of subscribers' drop cable with individual strain-relief, sealing of all cables and quick-release clamps for easy terminal re-entry. SCA terminals can be configured with hardened connector drop ports on the end caps, if desired.



Figure-8 Cable

Corning ALTOS^{*} figure-8 gel-free cables are self-supporting aerial cables designed for easy-and-economical onestep installation. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber. The gel-free design is fully waterblocked using craftfriendly water-swellable materials, making cable access simple and requiring no clean up.

ALTOS Cable

ALTOS[®] all-dielectric gel-free cables are designed for outdoor use in lashed aerial and duct installations. The loose tube gel-free design is fully waterblocked using craft-friendly, water-swellable materials, which means cable access is simple and no clean up is required. The flexible craft-friendly buffer tubes are easy to route in closures, and the SZ-stranded, loose tube design isolates fibers from installation and environmental rigors while allowing easy mid-span access.

Distribution

Deep in the distribution area of the network fibers become accessed more frequently to meet subscriber demands where they exist physically. This segment of the network is often where customers employ the use of preconnectorized terminal offerings to speed customer connection.





Closure Portfolio

Whether your fiber network design has closures in a below-ground or aerial environment, one thing remains the same: you need assured environmental protection and quick, incremental subscriber drops. Closure needs vary greatly so we offer many models and configurations, allowing you to expand your network with durable, future-ready solutions. Re-enterable designs bring additional ease of ongoing configuration to your outside plant design.



Optical Cables

Corning offers full lines of optical cables designed for both indoor and outdoor applications. As well as indoor/outdoor cables designed to withstand environmental stress from sun, wind and weather while also meeting flame-rating requirements for indoor routing. Cables for outdoor applications can be deployed aerially, in ducts or direct buried and are engineered to withstand the more demanding conditions seen outside, from environmental extremes to mechanical forces. Outdoor cables, therefore, feature rugged constructions to resist ultraviolet light and temperature fluctuations.



Multiport Terminal Family

This innovative family of terminals provides sealed Enabled by Pushlok[™] hardened connector technology, Evolv HC Terminals are among the smallest terminals environmental protection and fast, easy incremental connection available for FTTx networks. Available in both standard and of subscriber drop cables while increasing deployment velocity. integrated splitter terminal options, Evolv HC Terminals The multiport terminal family can accommodate an array of support various architecture types. Their small size opens input cable types ad well as both single-fiber and multifiber up a world of placement options: existing handholes or hardened connectors. Additionally, the versatile multiport family pedestals where space is paramount, on building facades, or includes a variety of design options and port counts (standard, in aerial networks (pole- or strand-mount). And streamlined stubbed, and stubless). aesthetics improve end-user adoption for façade applications.



MultiPort Splitter Terminal

The MultiPort Splitter Terminal is designed for use in Fiber Optic Closures BPEO support evolving fiber optic outside plant fiber access networks. This innovative terminal networks with modular solutions. Tool-less and fully provides fast, easy subscriber connections and splitter mechanical, BPEO closures are compatible with the functionality in one low-profile housing. By enabling External Cable Assembly Module (ECAM) system and can incremental subscriber connections, costs are deferred to be used with micro cable. Compatible with multiple drop environments and an excellent choice for wall-mountable better match revenue streams. Splitter functionality reduces the distribution cable fiber count requirement, lowering applications or manholes and handholes. initial cost. The terminal's reliability and flexibility make it the ideal choice for network access point terminals in allfiber access networks and fiber-to-the-x (FTTx) deployments.





Evolv[™] HC Terminals



BPEO Series Closures

Drop

Drop cable, as an important part of the FTTx network, forms the final external link to the subscriber. Selecting the right FTTx drop cable and connectivity solution will directly affect network reliability, operational flexibility, and the economics of FTTx deployment.





OptiTap® Drop Cable Assembly

Designed for use in the network access and drop cable environment, factory-terminated drops with either SC APC or environmentally hardened connectors like OptiTap or Pushlok connectors reduce the cost and time to deploy subscriber drops by eliminating field splicing.



SST-Drop ADSS Cables

SST-Drop[™] all-dielectric self-supporting (ADSS) cables offer the ease of installation of standard ALTOS[®] cable in an easy-access, single-tube design. The long-length ADSS version allows pole-to-pole span lengths ranging from 400 ft under NESC[®] heavy ice and wind loading conditions to 500 ft under NESC medium loading. There is no support or messenger wire required, allowing installation to be achieved in a single pass, dramatically reducing installation time and cost while delivering high-speed internet to rural areas. The cables are RDUP (RUS) listed and offer exceptional crush resistance.



OptiTap® Field-Installable Connector

OptiTap connectors have long been associated with industry-leading deployment speed of fiber to the people, and now these connectors are field-installable for fast emergency restoration. With proven field-installable connector technology, fiber terminations using the OptiSnap[®] connector system are fast, easy, and reliable. Corning high-precision mechanical splice technology enables fiber optic networks to be installed quickly and cost effectively.



OptiSnap[™] Connector Toolkit

With proven field-installable connector technology, fiber terminations using the OptiSnap connector toolkit are fast, easy, and reliable. Corning high-precision mechanical splice technology enables fiber optic networks to be installed quickly and cost effectively. The Corning go/ no-go feedback signal allows the installer to verify that the installation is performed right the first time, every time.



Fiber Transition Housing (FTH)

Corning fiber transition housing (FTH) provides an optical demarcation and interconnection point for fiber-to-the-premises (FTTP) applications. Suitable for indoor or outdoor locations, the FTH provides physical protection for the transition between provider and customer, and facilitates system testing.



NPC+ (No Polish Connector)

NPC+ (No Polish Connector) eliminates field polishing, loose parts, and termination tools. The innovative buffer clamp design eliminates rework by delivering superior twist and transmission with applied load (TWAL) mechanical performance. After fiber preparation and cleaving, installation is a simple three-step process: insert fiber, actuate splice, activate the buffer clamp. Faster than fusion splicing, the NPC+ delivers savings in installation expense and reduces overall complexity of termination.

Corning's Community Broadband Ecosystem

Access to affordable and reliable high-speed broadband is vital to a community's economic development and competitiveness. Much progress has been made toward expanding broadband access across the country, yet many communities remain underserved, or completely unserved. To fill the void, many electric co-ops are joining state and local governments to develop their own networks, to enable middle- and last-mile connectivity — a task that has its own unique set of challenges and obstacles, including funding, planning, development, state preemption, and operations. When planning for your build, don't go it alone — Corning is here to help. Our robust partner ecosystem offers a comprehensive set of solutions to get you over those critical hurdles.

Engineering Services and Professional Support

Whether you are maintaining your infrastructure to stay ahead of bandwidth demand or building your network from the ground up, you have scores of decisions to make – and every one of them can impact your bottom line. Before exploring specific connectivity products, connect with us for value that extends well beyond our product portfolio.

Your customers and users expect reliable connectivity, and we know it takes more than products to deliver on those expectations. From us, you can expect collaborative support for your network today to prepare it for emerging applications and services.

Connect with our network professionals at any phase of your project to take advantage of their training, experience, and equipment for a cost-effective, high-quality result. Our experts offer design and training services, technical assistance, and customer support resources.

You may be entering new territory but your application is something we've done before.

"We're here. We understand. We can help."

CORNING

Learn more at corning.com/community-broadband

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