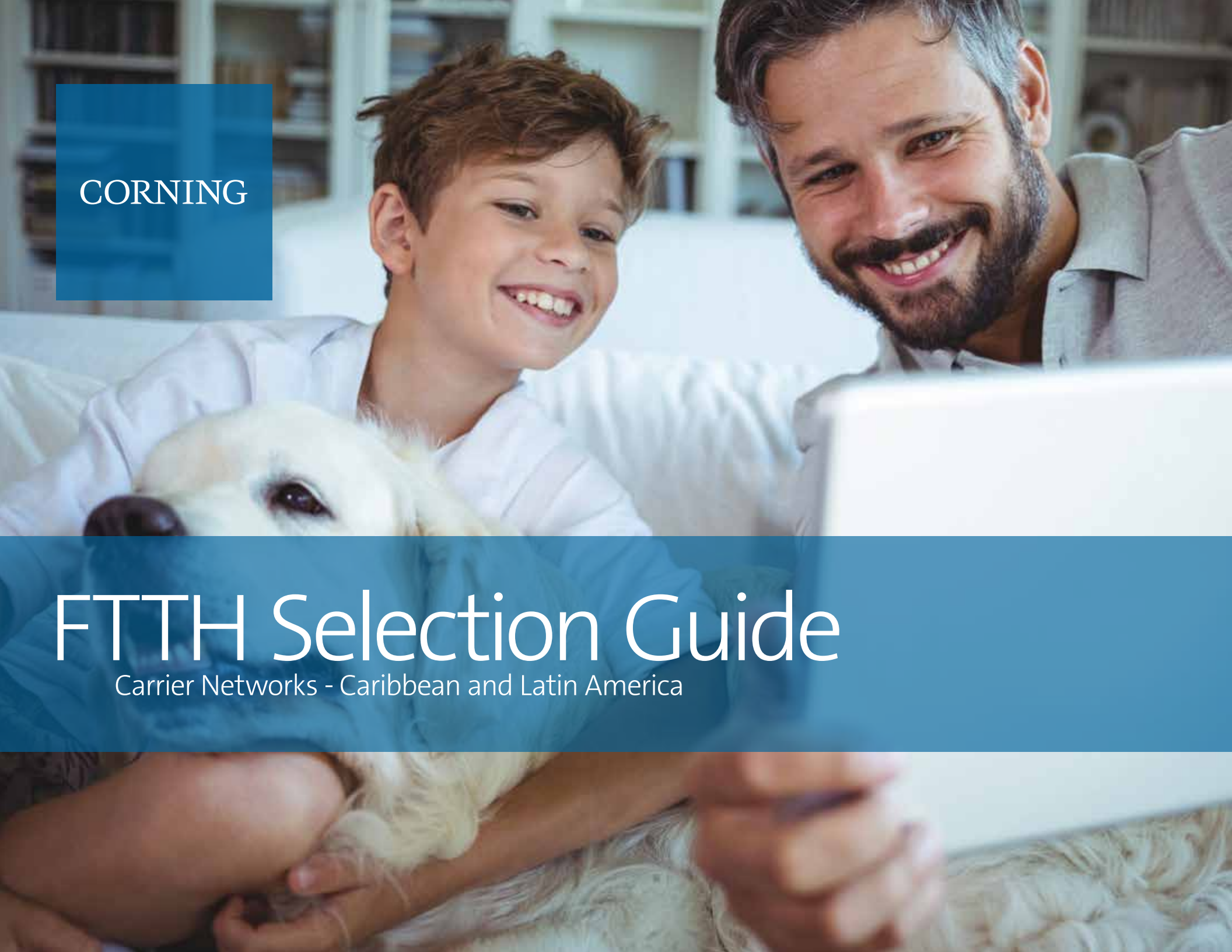


CORNING

FTTH Selection Guide

Carrier Networks - Caribbean and Latin America

Continual Innovation

1944

Corning established its first presence in Brazil in 1944 to meet the demands of Latin America by initially focusing on specialty glass market.

1970

Invented the first low-loss optical fiber for communication networks

1978

Developed loose tube fiber optic cable design

1988

Fibrlok® splice developed to offer high-level optical performance without high expense of fusion splicing

1990

Fiber optic splice closure 2178 created for buried, below-grade, aerial, and pole-mounted deployments

1998

Fiber closure BPEO: First introduction for series 1, series 2, and series 3, creating mechanical and tool-free external cable preparation

2000

Corning was one of three companies to set up the FTTH (Fiber Broadband Association)

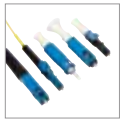
2004

Preterminated OptiTap® connector-enabled products became an industry standard and spurred OptiTip® connector and FlexNAP™ system development facilitating mass FTTH deployments

2005

SliC® aerial closure released as free-breathing, weather-resistant, single-piece closure for aerial applications

2006



No-polish connector – Combines FA and FAS connector splice technology with SC interface and bend-insensitive fiber

2007

ClearCurve® fiber revolutionized fiber installation in the most challenging environments

2012

Crimplok™+ connector – First-known, commercially available, field-mounted connector for FTTx indoor and outdoor use with no splice, gel, or adhesives

2013

Centrix™ system was developed to support high-density solutions for central office applications. Acquired Bargoa, allowing local development and manufacturing of adequate solutions for the Latin American market

2014

7 million homes passed with OptiTip® connectors

2015

Launched MiniXtend® cable with FastAccess® technology with industry-leading fiber density

2016

Clear Track fiber pathway answers demand for small-footprint, virtually invisible fiber deployment option

2017

Launched the FlexNAP™ multiuse system, the industry's first solution to offer a combination of multifiber and single-fiber connection points, making it easier to quickly deploy FTTx networks.

2018

Acquired substantially all of 3M's high-bandwidth products, expanding the optical solutions for our customers and improving access to broadband connectivity

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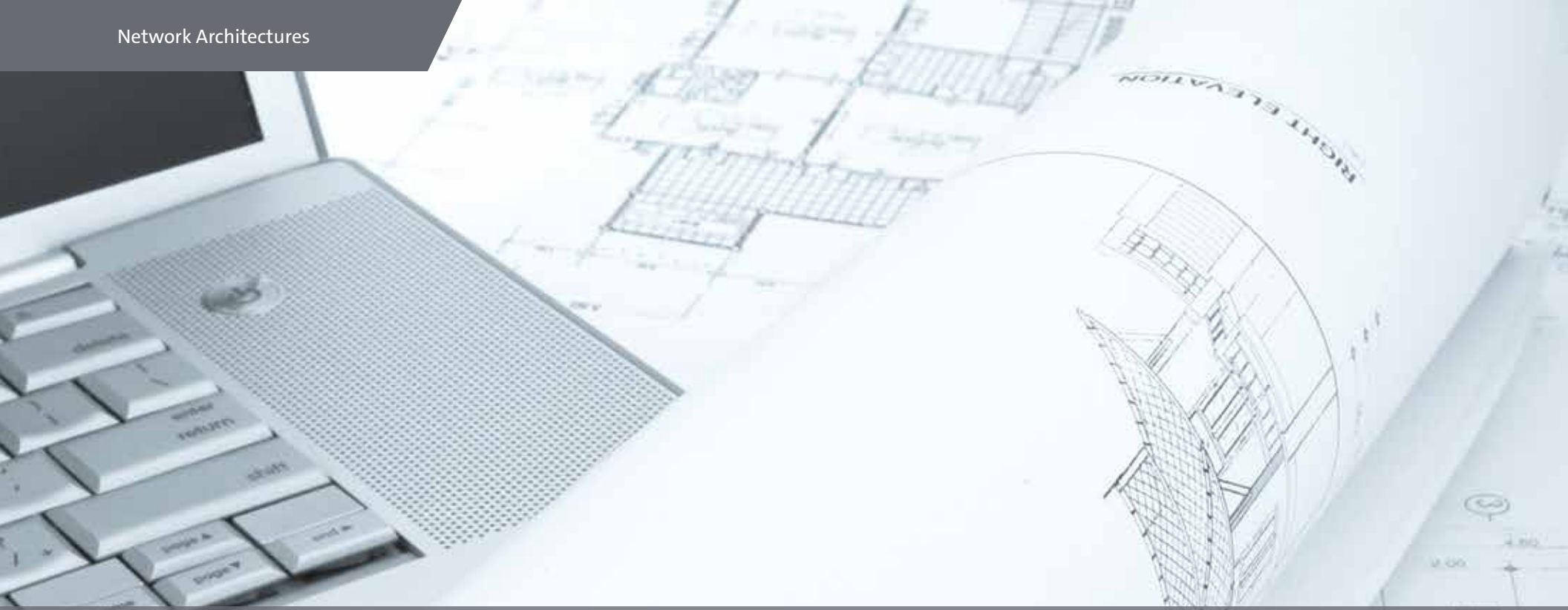
Connect to the Corning Advantage

Each fiber-to-the-home (FTTH) deployment presents unique challenges – and we can help. With over 15 years' experience passing more than 52 million homes, we've set the standard for innovative, field-proven FTTH solutions.

Our portfolio of products and engineering support is designed to address your specific challenges from speed of deployment, labor and cost considerations, performance requirements, future readiness, and more.

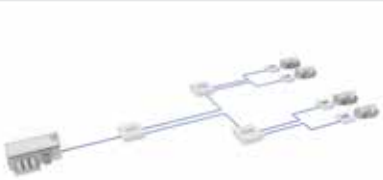
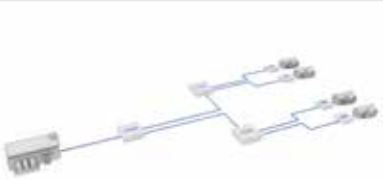
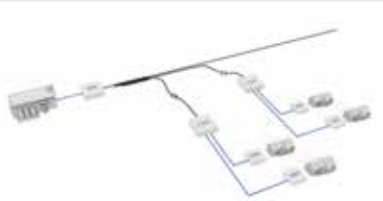
To get started, use this quick selection guide to help determine the right architecture, deployment method, and products you need to do the job right the first time.

Evolve your network. Transform the world.



Network Architectures

Connect to our experience passing over 52 million homes over the most prevalent architectures in all-fiber networks. Whether you're deploying RFoG, GPON, EPON, or looking to evolve to XGS-PON or NG-PON to technologies, we can help you find success with either a home run, centralized split, distributed split – or a blended architecture, if that's what's best for your unique environment. As a leader in global FTTH deployments and innovation, whichever deployment scenario you choose from the following table, we have a solution that will deliver value that's right for you.

CORNING	Preconnectorized NAP	Preconnectorized Multilevel	Distributed Tap	FlexNAP® System
				
Speed of Deployment (HP)	Slow	Moderate	Moderate	Fast
Subscriber Connection Speed (HC)	Fast	Fast	Fast	Fast
Preconnectorized	Yes, on subscriber drops	Yes, on terminals and drops	Yes, on terminals and drops	Yes, on terminals and drops
Splice count in the Field	High	Low	Low	Low to moderate
Labor Skill Level	High	Low	Low	Low
Installation Risk due to Labor Variability	High	Modetate	High	Low
Scalable for Mass Deployment	Low	Moderate	Moderate to high	High
Deferability of HP Investment	No	High	Low	High
Inventory Management	Low	Moderate	High	High
Easily Adaptable	High	Moderate	Low	High
Main Benefit	• Quick subscriber connection without opening the terminal	• Deployment cost deferral	• Plug & Play distribution network	• Deployment risk reduction
Main Challenge	• Requires skilled labor splicing for the HP	• Star network design can demand more cable	• Fault propagation	• Demands pre-engineering efforts

Central Office/Headend Solutions

Central Office/Headend Solutions

The core of every network is the central office or headend (CO/HE). It's the foundation needed to support the demand for new connectivity, capacity, and speed. To simplify the design and deployment of your CO/HE, we've developed versatile product families that deliver industry-leading density, enable improved scalability, and provide the lowest total cost of ownership. Use the following table to pinpoint the product set within our portfolio that will work best for your network.

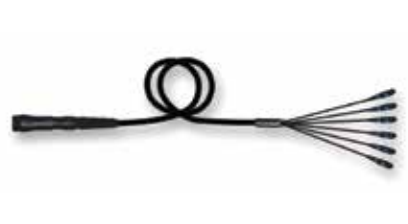
CORNING

	High Density		Medium Density			Splice Transition	
	Centrix™ System	EDGE™/EDGE8® Solutions	UNISUB Family	Closet Connector Housing (CCH)	Eclipse® Hardware	Optical Splice Enclosure	Splice Closure CEFO MAX
Application	Central office, headend	Central office, headend	ISP Central Office and OSP Street Cabinet	Remotes	Central office, headend, remotes		
Frame Configuration	19-in or 23-in with front and rear cable access	19-in or 23-in with rear cable access	Front Access	19-in or 23-in	19-in or 23-in		
Capacity in 7-ft Frame	2,880 SC/4,320 LC (3,840 with PON splitters)	5,760 LC	1440 ports	1,440 SC 2,880 with 24-port cassettes LC	1,440 (864 with PON splitters)		
Wall-Mountable Option	No	No	No	Yes	Yes		
Cable Type	**Loose Tube:** outdoor dielectric, indoor/outdoor, riser, and outdoor micro cables **Ribbon:** outdoor dielectric, indoor/outdoor, and riser cables	Preterminated assemblies with plenum non-armored or plenum armored cables	Loose Tube	**Loose Tube:** outdoor dielectric, indoor/outdoor, and riser cables **Ribbon:** outdoor dielectric, indoor/outdoor, and riser cables **Tight-buffered:** riser and plenum cables	**Loose Tube:** outdoor dielectric, outdoor armored, indoor/outdoor, and riser cables **Ribbon:** outdoor dielectric, outdoor armored, indoor/outdoor, riser and plenum cables **Tight-buffered:** riser and plenum cables		
Connector Type	SC, LC, MTP® connector	LC, MTP connector	SC, LC	SC, LC, FC, ST® Compatible, MTP connectors	SC, FC, LC		
Jumper Size	1.2, 1.6, 2.0 mm	1.6, 2.0 mm	2mm diameter	1.2, 1.6, 2.0 mm	1.2, 1.6, 2.0 mm		
Devices, CWDM, Triplexers, and Quadplexers	Yes	No	On demand	No	Yes		
Accommodate Splitters	Yes	Yes, 1x2 only	Yes	Yes	Yes		
Port Tapping	Yes	Yes	No	No	No		
On-Frame Splicing	Yes	Yes	On demand	Yes	Yes		
Removable Housing Cover	4U only	1U and 2U only	Yes	Yes	Yes		
Quick Facts	• GR-449 Issue 3 compliant • Scalable in features and function • Industry-leading cable and jumper management • Base-8 and Base-12 fiber applications • Enclosed 4U housing option available • Versatile cassettes/modules including staggered LC cassette for improved port access	• Base-8 and Base-12 fiber applications • Tip-to-tip solution for data centers and storage area networks (SANs) • Ideal for structured cabling in a data center	• Fix and swing-frames and 19" and ETSI frames • Holds 3.5 and 5 mm tubes and patch cord cables up to 3 mm cable diameter • Fiber and cable guides and radius control • Sturdy design • Available as empty or pre-equipped units with FRM splice trays and/or optical components such as splitters and filters • Cables and tubes can be strain relieved on the side bracket	• Variety of field-termination options • Platinum interior color maximizes visibility • Splice cassette for in-frame splicing in an easy-to-manage, compact footprint	• Integrated fiber management • Front-to-back jumper access • Splitter compatible with OptiTect® Gen III and LS series	• Wall, 23-in rack, and T-slot mountable • Seven watertight compression fittings • Heat-shrink, RTV, and mass fusion splice trays	• High splicing capacity: 720 16 bypass ports • Aerial or underground installation
						OSE-UD0-00-3 5,184 single-fiber/6,912 mass fusion ribbon splices	CEFO MAX T1-SC Splice capacity: 048 to 288"
						OSE-HD0-00-1 1,440 single-fiber/360 mass fusion ribbon splices (4,320 fibers)	CEFO MAX T1-SE Splice capacity: 048 to 288
						OSE-HD2-00-1 1,008 single-fiber splice	CEFO MAX T2-SC Splice capacity: 384 to 720
						OSE-LD0-00-1 576 single-fiber/144 mass fusion ribbon splices (1,728 fibers)	CEFO MAX T2-SE Splice capacity: 384 to 720

Cable Assemblies

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. Our ability to scale to meet your deployment needs is what sets us apart, along with the highest-quality fiber and factory-tested connectors. All assemblies undergo rigorous performance testing to ensure optimal quality in every connector. Constant process improvements offer a variety of options in fiber, cable, and connector types to meet your network's ever-evolving needs.

CORNING	Indoor Assemblies		Indoor/Outdoor Assemblies
			
	Single-Fiber Assemblies	Multifiber Assemblies	Small Cell Assembly
Subunit Size	1.2, 1.6, 2.0 mm	1.2, 1.6, 2.0 mm	17.8mm
Fiber Size	250 µm (for the 1.2 mm) 900 µm (for the 1.6 and 2.0 mm)	250 µm	250 µm
Assembly Type	Jumpers, pigtails	Jumpers, pigtails, harnesses, trunks	Harness
Cable Design	Round	Round	FREEDM LSZH Flat Drop cable
Application	Central office, headend, mobile switch center, remote	Central office, headend	FTTx
Solution Compatibility	Centrix™ system, CCH, and Eclipse® hardware	Centrix system, EDGE and EDGE8 solutions	FlexNAP and MF2 terminals
Fiber Count	1	8, 12, 24, increments up to 1,728	12
Fiber Type	*Bend-insensitive fibers* Single-Mode: Corning® SMF-28® Ultra fiber Corning® ClearCurve® LBL or ClearCurve ZBL fibers	*Bend-insensitive fibers* Single-Mode: SMF-28 Ultra fiber Multimode: ClearCurve OM3, OM4, and OM5 fiber	Single Mode
Connector Types	SC APC, SC UPC, LC APC, LC UPC, FC APC, FC UPC, ST® compatible PC connectors	SC APC, SC UPC, LC APC, LC UPC, MTP® connectors	LC UPC Single Mode Duplex
Packaging	Bag, box, or reel Jumper-in-a-box	Bag, box, or reel Jumper-in-a-box	Individual
Quick Facts	• Single-length management and simplified inventory with jumper-in-a-box for Centrix system-compatible assemblies (5 m)	• High-performance and quick connectivity with MTP connector-enabled assemblies • Manage polarity (type A or B) in conjunction with Corning's universal polarity EDGE systems	• Hardened, Multi-fiber connectivity and flame retardant drop cable allow fast, safe deployment in indoor/out-door space • Duplex LC connectors are compatible with most radios used in the Fiber To The Antenna application

Optical Cables

We invented the first low-loss optical fiber over 40 years ago, igniting the critical spark that began a communications revolution and forever changed the world. And today, after recently delivering our 1 billionth kilometer of fiber, we continue to lead the industry in product quality and innovation. With designs for every environment, our innovative cables solve your unique application challenges, from congested duct space and environmental extremes, to mechanical forces and cable entry concerns. Use the following table to identify the right cable for your FTTH network.

CORNING	Loose Tube Cables		Micro Cables	
	ALTOS® Loose Tube Cable	SOLO® All-Dielectric Self-Supporting (ADSS) Cable	MiniXtend® Cable	MiniXtend HD Cable
Fiber Size	250 µm	250 µm	250 µm	200 µm
Splicer Compatibility	Single-fiber splicers	Single-fiber splicers	Single-fiber splicers	Single-fiber splicers
FastAccess® Technology	Yes, up to 288 fibers in dielectric; armored up to 72 fibers	No	Yes, with binderless* FastAccess® technology	Yes, with binderless* FastAccess technology
Environment	Aerial lashed, duct, direct-buried (armored recommended for direct-buried and toning)	Aerial self-supporting, best near power lines or for long spans	Microduct	Microduct
Duct Requirements (inner diameter)	Dielectric and Lite armored cable: 1.25-in duct up to 432 fibers	Aerial only	8 mm microduct: 12-96 fibers 10 mm microduct: 144 fibers	12 mm microduct: 288 fibers
Armor Available	Yes	No	No	No
Flame-Rated Version	FREEDM® indoor/outdoor cable, riser LSZH™ cable	No, outdoor only	FREEDM indoor/outdoor cable	No
Fiber Count	12-432	12-288	12-144	144-432
Quick Facts	• Most widely deployed cable design globally	• Ideal when no strand is available to lash to and new strand is cost prohibitive	• FastAccess technology enables up to 70 percent faster cable access and 80 percent lower installation cost vs. standard cable jackets, reduces risk of damage to buffer tubes and fibers	• Utilizes Corning® SMF-28® Ultra 200 mm optical fiber to achieve the most dense cable

*Corning's proprietary binderless FastAccess® technology refers to the combination of a Corning FastAccess technology jacket with an innovative technology used to bind cable construction through the manufacturing process, eliminating the use of binder yarns and waterblocking tapes.

Local Convergence Point

The network you build today will serve your customers for many years, so we've designed our family of cabinets to serve them well. These cabinets, the cornerstone of our FTTH portfolio, enable quick subscriber turn-up and error-free, long-term management of your climbing take rates. See the following options to find your ideal balance of size, density, and features. All cabinets incorporate our innovative cable routing and splitter storage.

CORNING

	Local Convergence Cabinet, HD Series	Splice Closure CEFO MAX
Architecture	Centralized	FTTx aerial, underground
Capacity	288, 576, 896 fibers (scalable for each)	288 to 768 fibers
Prestubbed Feeder	No	No
Distribution Stub(s)	No	Yes, 8 circular ports for 5.5-20.0mm cables plus 8 circular ports for 5.5-13.5mm cables
Mounting Options	Pad or pole (large size only)	Pole, messenger, underground (see PCS in the catalog number, before STD)
Splitter	Dual 1x16 or 1x32	SE versions allow use of splitters
xWDM Capability	No	SE versions allow use of xWDMs
Splice	Yes	Yes
Splitter Compatibility	LS series splitters	SE versions allow use of splitters
Pass-Through Capability	Yes	No

Fiber in Single-Family Units (SFU)

A **Central Office/Headend** (pages 8 and 10)
Network electronics combine and disperse signals to a specified serving area.

B **Optical Feeder Cable** (page 12)
Fiber optic cables feed small distribution-serving areas.

C **Local Convergence Point** (page 15)
In centralized and distributed split architectures, the field splitters are managed in this consolidated splice point.

D **Optical Distribution Cable** (page 12 or 22)
Bulk or preterminated cable solutions extend into neighborhoods and along city streets to cover the desired serving area.

E **Network Access Point** (page 19 or 24)
Discrete locations along the cable path allow for subscriber access to the distribution cable through closures or terminals.

F **Subscriber Drop** (page 31 or 36)
The final piece connects the customer premise electronics to the assigned network access point.

Closures and Terminals

Whether your FTTH network design has closures in a buried or aerial environment, one thing remains the same: you need assured environmental protection and quick, incremental subscriber drops. From our experience in the field, we know that not all closures are the same. Our preconnectorized terminals are thoughtfully designed to incorporate individual strain-relief, sealing of all cables, and quick-release clamps for easy re-entry. With our expanded solution portfolio, we can help you choose the one that's best for your deployment from the following tables.

CORNING	Below and Above-Grade Closures				Above-Grade Closures	
	MPE	UCAO	2178	BPEO	Corning® SLiC™	CTO NG
Installation Environment	Vault, strand, pole, pedestal, façade	Vault, strand, pole, pedestal, façade	Vault, strand	Vault, pole, façade	Strand	Strand, pole, façade
Single-Fiber Splices – Loose Tube	144	24, 36, 48, 60	XSB: 48, XLB 96 S: 96 L: 288 XL: 576	Up to 576 splices with loose tube; up to 1,152 splices with single-fiber G657 fiber	Model 533-432 fibers Model 542-432 fibers Model 733-864 fibers	36F
Sealing Type	Mechanical	Mechanical	Mechanical	Mechanical	Free-breathing	Mechanical
Doubles as Terminal	Yes, spliced or via ports	Yes, spliced or via ports	Yes, small sizes support spliced drops	Yes	Yes, with OptiTap®, ECAM, or direct splice	Yes, spliced or via ports
Connector Type	None, splice only; OptiTip® or OptiTap® connectors	None, splice only; OptiTip® or OptiTap® connectors	None, splice only	Splice only or 12/16/24 SC bulkhead connectors	Splice, SC, or OptiTap connectors	None, splice only. Mini ECAM
Number of Distribution/ Drop Cables	2, 4	2, 4	Expandable kits available; port counts vary	Up to 25	24	2,4
Maximum Number Cable Ports	8 (4 per side)	8 (4 per side)	XS: 3 Butt only S: 2 per side L: 2 per side XL: 4 per side	Up to 29	28	Up to 16
Cable Entry Style	In-Line, butt	In-Line, butt	In-Line, butt	Butt	In-Line, butt	Butt
Slack	Yes	Yes	Yes	Yes	Yes	Yes
Accommodates Splitters and Optical Devices	Yes	Yes	Yes	Yes	Yes	Yes
IEC/GR or Specific Attribute	IP68	IP68, ANATEL – available for Brazil	GR-771	IP68 (buried) IP56 (aerial)	GR-771 (aerial)	IP55

FlexNAP™ System

Save time and money with our FlexNAP™ system, a pre-engineered factory-terminated network access point integrated into fiber optic distribution cables. Designed for FTTH networks, the factory-tested and factory-sealed system deploys up to 50 percent faster than traditional deployment methods. Depending on your network architecture, either the FlexNAP standard, single-fiber, or multiuse system will be your choice for this technician-friendly FTTH innovation.

CORNING	FlexNAP™ System			
	Flexnap SST	FlexNAP™ Standard System	FlexNAP Single-Fiber System	FlexNAP Multiuse System
Architecture	Distributed	Centralized, home run	Distributed	Combined home run, centralized, distributed
Maximum Fiber Count	12 fibers	**ALTOS® loose tube cable (dielectric, armored or figure-8):** 216 fibers	**ALTOS loose tube cable (dielectric or armor):** 216 fibers	**ALTOS loose tube cable (dielectric or armor):** 216 fibers
Aerial Self-Supporting Cable	Yes	Yes, with RPX ribbon or ALTOS figure-8 cable	Yes, with RPX ribbon cable	Yes, with RPX ribbon cable
Buried Environment	**SST Flat Drop Cable**	**Loose tube:** 1.25-in duct up to 72 fibers dielectric 2-in duct up to 216-fiber dielectric or 72-fiber armored cable	**Loose tube:** 1.25-in duct up to 72 fibers dielectric 2-in duct up to 216-fiber dielectric or 72-fiber armored cable	**RPX ribbon cable:** 2-in duct
Maximum Tethers per Tap	1	2, dual tap dual tether option available to access 48-fibers max per location	1	2, OptiTip and OptiTap tethers collocated at the same tap point
Multifiber Connector Tether Options	N/A	**Using OptiTip® Connectors:** **Loose tube:** 2, 4, 6, 8, or 12	N/A	**Using OptiTip Connectors:** **Loose Tube:** 2, 4, 6, 8, or 12
Single-Fiber Connector Tether Options	1, 2, or 4	N/A	**Using OptiTap® Connectors:** **Loose tube:** 1, 2, or 4 Tethers with more than 1 fiber have secondary furcation point	**Using OptiTap Connectors:** **Loose tube:** 1, 2, or 4 Tethers with more than 1 fiber have secondary furcation point
Supports Preterm Laterals	N/A	Yes, maximum 48 fiber per lateral	N/A	Yes, maximum 48 fiber per lateral
Pretermination Possible at Cabinet	No	No	No	Yes, maximum 48 fiber via dual tether dual tap with pretermination-enabled cabinet
Enables Converged Networks	No	Yes	Yes	Yes
OSP Terminal Compatibility	Supports 1:4 and 1:8 stubless splitter MTS and MSF terminals	Supports MTB and MPF terminals	Supports 1:4 and 1:8 stubless splitter MTS and MSF terminals	Supports MTB, MPF, MTS, and MSF terminals
MDU Terminal Compatibility	Supports OptiTap single-fiber connector-enabled splitter MDU and LPT terminals	Supports OptiTip multifiber connector-enabled MDU and LPT terminals	Supports OptiTap single-fiber connector-enabled splitter MDU and LPT terminals	Supports OptiTap and OptiTip connector-enabled MDU and LPT terminals

Outside Plant Terminals

Specifically designed for outside plant (OSP) fiber access networks, our multiport family delivers fully sealed environmental protection and fast, easy incremental connection for increased deployment velocity. For the greatest deployment acceleration, you can pair connector-enabled terminals with our FlexNAP™ system. Another best practice is to consolidate cable access points by routing several terminal stubs to a single-splice location, increasing workforce efficiency and reducing the total connection time for subscribers.

Through our extensive FTTH experience, we've designed these OSP terminals with flexible form factors and integrated splitters to adapt to your individual network. Look at the following table to see which combination of features is right for you.

CORNING	MultiPort Terminals			
	Multiport without splitter	MultiPort Splitter Terminated (MTS)	MultiPort Splitter Stubless (MTS)	MultiPort Splitter Stubless (MTD)
Architecture	Distributer Split	Distributed	Distributed	Cascading Tap (MTD)
Drop Capacity	12x OptiTap	4, 8 ports	4, 8 ports	4, 8 ports
Input Cable	SST-Drop cable (toneable or dielectric)	SST-Drop cable (toneable or dielectric)	None; OptiTap® drop assemblies serve as input cable	None; OptiTap® drop assemblies serve as input cable
Input Connector	1x 12f OptiTip	OptiTap single-fiber hardened connector (male) or OptiTip® multifiber hardened connector (with expansion port only)	OptiTap single-fiber hardened connector (female)	OptiTap single-fiber hardened connector (female)
Splitter	No	1x4 or 1x8	1x4 or 1x8	1x2 and/or 1x8
FlexNAP™ System Compatible	Yes	Yes	Yes	Yes
Expansion Port	No	Configurable	No	Yes

CORNING	Distribution Terminals				
	UltraNAP™ 4-Port Terminal (B1, S1)	UltraNAP 6-Port Terminal (B1, S1)	MF2 MultiPort Terminal	MF4 MultiPort Terminal	MF12 MultiPort Terminal
Architecture	Centralized	Centralized	Centralized, home run	Centralized, home run	Centralized, home run
Drop Capacity	12-fiber capacity: Four OptiTap® ports with two 4-fiber OptiTip® expansion ports	12-fiber capacity: Six OptiTap ports with one 6-fiber OptiTip expansion port	4-24 fiber capacity: 2, 3, 4, 6, 8, or 12 2-fiber OptiTip ports	4-48 fiber capacity: 2, 3, 4, 6, 8, or 12 4-fiber OptiTip ports	48-144 fiber capacity: 2, 3, 4, 6, 8, or 12 12-fiber OptiTip ports
Input Cable	SST-Drop cable (toneable or dielectric)	SST-Drop™ cable (toneable or dielectric)	SST-Drop cable (toneable or dielectric) MiniXtend® cable ALTOS® cable	SST-Drop cable (toneable or dielectric) MiniXtend cable ALTOS cable	ALTOS cable
Input Connector	None (stubbed) or OptiTip multifiber hardened connector	None (stubbed) or OptiTip multifiber hardened connector	None (stubbed) or OptiTip multifiber hardened connector (6 ports/12-fiber maximum for preconnectorized)	None (stubbed) or OptiTip multifiber hardened connector (3 ports/12-fiber maximum for preconnectorized)	None (stubbed)
Splitter	No	No	No	No	No
FlexNAP™ System Compatible	Yes	Yes	Yes	Yes	No
Expansion Port	Yes	Yes	No	No	No

Multidwelling (MDU) Terminals and NIDs

Whether you're servicing a business or a residence, there's no one-size-fits-all answer for your multidwelling or multitenant needs. You need a customized solution and a collaborator with the expertise to simplify your challenges, so you can focus on delivering the services and applications that your subscribers expect. Other variables like aesthetics, labor skill level, and rights-of-way access will factor into your architecture and product selection. Choose a supplier that knows your environment and has manufacturing expertise that can help you choose flexible, simplified product sets. What you will find on the following pages are a range of solutions that address the wide variety of environments you may encounter in the field, backed by the expertise we've gained in more than 15 years of global deployments.

CORNING	Multidwelling Unit Terminals				
	Building Access Terminal (BAT)	Splice Closure BPEO	Fiber Distribution Terminal (PBO Series)	Compact Fiber Distribution Terminal	Riser Distribution Terminal (RTW or RTC)
Architecture	Centralized, distributed	Centralized, distributed	Centralized, distributed, or home run	Centralized, distributed, or home run	Centralized, home run
Environment	Indoor/outdoor	Outdoor	Indoor/outdoor	Indoor	Indoor
Capacity	Configurable (up to 16 fibers)	8 and 16 fibers	Up to 12 fibers	Up to 12 fibers	12, 24 Fiber (by adding 12-F SC modules)
Prestubbed Feeder	RPDpass® riser cable assembly	No	N/A	N/A	MTP®-enabled
Compatible Solutions	RPDpass riser cable assembly	No	No	Window-cut riser cables or Clear Track micro-module cables	RPDpass®
Drop	MIC® cable, minicable, ROC™ drop cable, ClearCurve drop cable (2.9 to 4.8 mm)	Up to 7 mm round cable or 3x2 mm flat cable	Corning® ClearCurve® drop cable, SST-Drop™ or ROC™ Drop cables	Up to 4.8 mm drop cables	2.9 compact, 4.8 rugged, Clear Track, RPDpass horizontal
Splitter	Quad 1x4, quad 1x8, 1x16, and 1x32 available	1x8 or 1x16	Yes, up to 1x8	Yes, up to 1x16	No
Slack	No	No	Yes	Yes	No
Splice	Yes	Yes	Yes, to pigtails for preconnectorized drops or full splice directly to drops	Yes, splice riser to pigtails for preconnectorized drops or full splice directly to drops	No

CORNING	Network Interface Devices (NIDs)			
	Integrated Fiber NID	FTH-602	FTH-76S	FTH-NG1
Architecture	Centralized, home run	All	All	All
Environment	Outdoor	Indoor/outdoor	Indoor/outdoor	Indoor/outdoor
Capacity	1 or 2 Fibers	1-6 Fibers	1-6 Fibers (spliced) 1-2 Fibers (connectorized)	1-24 Fibers (connectorized)
Prestubbed Feeder	N/A	SC UPC/APC LC UPC/APC	SC APC OptiTap® adapter (1 fiber only)	SC UPC/APC LC UPC/APC
Compatible Solutions	No	Field-installable connectors	Field-installable connectors	Field-installable connectors
Drop	Up to 4.8 mm drop cables	Up to 4.8 mm drop cables	Up to 4.8 mm drop cables	Up to 4.8 mm drop cables
Splitter	No	No	No	No
Slack	Yes, up to 10 m of 4.8 mm	3 m	10 m	Repair loop only
Splice	Yes, to pigtails for preconnectorized drops or full splice directly to drops	Mechanical, fusion	Fusion	No splicing

Drop Assemblies

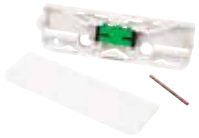
To reduce the cost and time of deploying drop cables in your optical access network, we factory terminate our drops with either SC APC or environmentally sealed hardened connectors. These innovative single-fiber drop cable assemblies enable quick, highly reliable customer connections – without field splicing. Available on a wide variety of cables, you can choose a design that's right for your application. Determine which product best fits your needs using the provided table.

CORNING	Outdoor Jumpers		Outdoor Drop	Outdoor/Indoor Drop
	ROC Jumper	SST-Drop In-Line Cable Assembly, Female OptiTap® Connector	Low Friction Compact Drop Cable Assembly	SST-Drop™ Cable Assembly
Connectorized	OptiTap® to OptiTap® Assembly or OptiTap® Jumper	Female OptiTap pigtail or female-to-male OptiTap assembly	OptiTap® to OptiTap® assembly or OptiTap pigtail	OptiTap® to SC APC assembly or OptiTap pigtail
Toneable/Dielectric	Both	Both	Toneable	Both
Buried/Aerial	Both	Both	Both	Both
Fiber Subunit	900 µm	250 µm	250 µm	250 µm
FastAccess® Technology	Yes	No	No	No
Flat/Round Cable	Flat	Flat	Flat	Flat
Indoor/Outdoor	Outdoor	Outdoor	Indoor/outdoor	Outdoor
Fiber Count	1	1-2	1	1
Fiber Type	SMF-28e+ fiber	SMF-28e+ fiber	G.657 A2	Corning® SMF-28e+® fiber
Pulling Grip	No	Available	No	Available
Quick Facts	• Compact outdoor drop allows for more slack to be managed at subscriber premise	• Ideal to branch off multiports and position at lot lines between subscriber premise	• Very compact design, together with low friction LSZH jacket makes it suitable for indoor and outdoor applications, including duct installation	• Robust flat drop cable for self-supporting or direct-buried applications

CORNING	Indoor Drops		In-Living Unit (ILU)
	Corning® ClearCurve® Rugged Drop Cable Assembly	ClearCurve Compact Drop Cable Assembly	SC APC Shuttered Jumper
Connectorized	SC APC or SC UPC (jumper or pigtail)	SC APC or SC UPC (jumper or pigtail)	SC APC shuttered
Outer Dimensions	4.8 mm	2.9 mm	3.0 mm
Fiber Size	900 µm	900 µm	900 µm
Cable Design	Round	Round	Round
Installation	Wall/trim	Wall/trim or conduit	N/A
Indoor/Outdoor	Indoor/outdoor	Indoor/outdoor	Indoor only
Fiber Count	1	1	1
Fiber Type	ClearCurve ZBL fiber	ClearCurve ZBL fiber	Ultra bend-insensitive (UBIF) fiber
Packaging	Bag or reel	Bag or reel	Bag
Pulling Grip	Available	No	No
Quick Facts	• Self-bend-limiting jacket allows for widest variation of installation methods including stapling	• Optimized for running inconspicuously under carpet and along door frames or molding. Also suitable for raceway and microduct installations	• Ideal connection from low-profile wall space with visual connection reference

Residential Hardware

Whether you're taking fiber to the living unit or fiber all the way in a living unit, Corning's variety of small transition boxes and outlets provide the optimal transition point for a variety of applications. With a number of different connector styles and mounting options, each solution offers a custom fit for your fiber deployment. All products are easy to deploy and can be used in both single-family and multifamily unit installations. As fiber progresses closer to subscribers, these transition points will become increasingly important in your network.

CORNING	Distribution	In-Living Unit (ILU)		
				
	Small Point-of-Entry (POE) Box	Micro Point-of-Entry Box	Low-Profile Wall Plate	Shuttered Wall Terminal (SWT)
Environment	Hallway	Hallway	In-Living unit	In-Living unit
Installation	N/A	N/A	Wall-mountable or outlet	Wall-mountable
Capacity	1 SC adapter inside	Pass-through	1 port	4 ports
Connectivity Type	12-F micro-module	N/A	SC	SC, LC
Cable Compatibility	1.5 m of 18 mm micro-module	900 µm	900 µm	All indoor drops
Slack	Holds 1 splice in lieu of adapter	N/A	1.5 m or 900 µm	0.3-0.9 m, depending on cable size
Quick Facts	▪ Supports mid-span access to separate and terminate individual subscriber fiber, allowing remaining fibers to pass through	▪ Conceals the hole from hallway into subscriber living unit while protecting subscriber drop	▪ Integrated shuttered SC APC port with visual indicator ensures safe subscriber connections with SC APC shuttered jumper	▪ Surface-mount configurable terminal to support up to 4 ports, flexible for business and residential environments

Bulk Drop Cables

Engineered to withstand demanding conditions, from environmental extremes to mechanical forces, our drop cables can be strung aerially along telephone poles, installed inside underground ducts, or buried directly below ground. We protect the integrity of our optical fibers with rugged constructions and resistance to ultraviolet light and temperature fluctuations. However you plan to deploy your subscriber drops, we've included a cable design for you on the next page.

CORNING

Flat Drop Cables

	SST-Drop™ Cables	ROC™ Drop 900 Cables	SST-Drop Indoor/Outdoor Cables	Long-Span Drop Cables	Clear Drop Cables	Drop Low Friction
Toneable/Dielectric	Both	Both	Both	Dielectric	Dielectric	Toneable
Cable Size	8.1 x 4.5 mm	6.6 x 3.0 mm	8.1 x 4.5 mm	N/A	2.5 x 4 mm	1.2 mm
Fiber Size	250 µm	900 µm	900 µm	250 µm	900 µm	250 µm
FastAccess® Technology	Yes	Yes	Yes	No	Yes	No
Installation	Aerial/buried (toneable recommended for buried)	Aerial/buried (toneable recommended for buried)	Aerial/buried (toneable recommended for buried)	Aerial (designed specifically for long-span aerial applications in NESC medium to heavy conditions)	Aerial, outdoor, and wall indoor	Aerial/Duct
Indoor/Outdoor	Outdoor	Outdoor	Indoor/outdoor	Outdoor	Indoor/outdoor	Indoor/Outdoor LSZH
Fiber Count	1-12	1	1-2	1-12	1	1 Fiber
Fiber Type	Corning® SMF-28e+® fiber	SMF-28e+ fiber, Corning® ClearCurve® LBL, or ClearCurve ZBL fibers	ClearCurve LBL or ClearCurve ZBL fiber	Corning® SMF-28® Ultra	Bend-insensitive or ClearCurve ZBL fiber	G657 -A2
Option to Preconnectorize	Yes, one or both ends with OptiTap® or SC APC connectors	Yes, one or both ends with OptiTap or SC APC connectors	Yes, one or both ends with OptiTap or SC APC connectors	No	Yes, one or both ends with SC APC	Yes, one or both ends with OptiTap® or SC APC connectors
Packaging	Bulk	Bulk	Bulk or reel in a box	Bulk	Bulk, reel in a box, or bag	Bulk
Quick Facts	• Offers exceptional crush resistance in an easy-access, single-tube design	• Reduced OD increases flexibility and improves slack storage as compared to standard flat drop cables	• Eliminate indoor ONT transitions with a flame-rated indoor subunit with OptiTap or SC APC connectors	• Enables span lengths up to 500 ft with no support or messenger wire required • Compatible with OptiSnap® and OptiTap field-installable connectors	• Clear Drop eliminates the need for termination hardware to transition from the outdoor environment to an indoor terminal, with a clear internal subunit for nearly invisible routing in living units	• Low Friction Cable

CORNING	Round Drop Cables			ClearTrack Fiber Pathways	
	DualDrop™ Round Drop Cables	Corning® ClearCurve® Rugged Drop Cables	ClearCurve Compact Drop Cables	Clear Track In-Living Unit (ILU)	Clear Track 12-Fiber Micro-Module Cable (Hallway)
Toneable/Dielectric	Dielectric	Dielectric	Dielectric	N/A	N/A
Fiber Size	900 µm	900 µm	900 µm	900 µm	1.8 mm
FastAccess® Technology	Yes	No	No	No	No
Installation	Aerial, facades, and duct	Wall/trim	Wall/trim or conduit	Wall with Clear Track in-living unit fiber pathway	Wall with Clear Track hallway fiber pathway
Indoor/Outdoor	Indoor/outdoor	Indoor/outdoor riser, indoor riser, indoor plenum	Indoor/outdoor	Indoor only	Indoor only
Fiber Count	1	1-2	1	1	12
Fiber Type	Corning® ClearCurve® ZBL fiber or ClearCurve LBL fiber	ClearCurve ZBL fiber or ClearCurve LBL fiber	ClearCurve ZBL fiber or ClearCurve LBL fiber	Ultra-bend-insensitive fiber	Ultra-bend-insensitive fiber
Option to Preconnectorize	Yes	Yes	Yes	No	Yes
Packaging	Bulk	Bulk or reel in a box	Bulk or reel in a box	Bulk or kit with ILU track	Bulk or kit with hallway track
Quick Facts	• DualDrop Cable eliminates the need for termination hardware to transition from the outdoor environment to an indoor terminal	• Self-bend-limiting jacket allows for widest variation of installation methods including stapling	• Optimized for running inconspicuously under carpet and along door frames or molding • Suitable for raceway and microduct installations	• Adhesive tape on the back of the pathway enables fast and easy installation on practically any surface • Optional cover provides additional durability with virtual invisibility	• Use with the Clear Track Hallway small point-of-entry box to terminate with a field-mounted mechanical connector or splice for connection to the living unit

Field-Installable Connectors

Field connectorization is fast and convenient whether you're looking for a fusion or mechanical splice. Corning offers both indoor and outdoor solutions in a variety of connector types and toolkits to support your application of choice. With high-optical performance of factory-polished connectors and immediate feedback on the quality of the connector installation, you can be assured of reliable connections. Evaluate the connectorization option that best suits your deployment and take advantage of the craft-friendly products throughout this section.

CORNING	Mechanical Connectors and Splices			Splice-and-Polish Connectors
	OptiSnap® Connectors	No Polish Connector (NPC)	Fibrlok™ Optical Fiber Splice 2529	Crimplok™
Fiber Compatibility	Single-mode/multimode	Single-mode/multimode	Single-mode/multimode	Single-mode/multimode
Cable Compatibility	250, 900 µm fibers 1.6, 2.0, 2.9 mm cables	250, 900 µm fibers 1.6, 2.0, 3.0 mm cables	250, 900 µm fibers 1.6, 2.0, 3.0, or 4.8 mm cables	250, 900 µm fibers
Fiber Subunit Compatibility	900, 250 µm	900, 250 µm	900, 250 µm	900, 250 µm
Environment	Indoor Outdoor in appropriate hardware or enclosures	Indoor Outdoor in appropriate hardware or enclosures	Indoor Outdoor in appropriate hardware or enclosures	Indoor Outdoor in appropriate hardware or enclosures
Connector Style	SC APC, SC UPC, LC APC, LC UPC, ST® compatible connectors	SC APC, SC UPC, LC APC, LC UPC, ST compatible connectors	N/A	SC APC, SC UPC
Toolkit Required	TKT-OPTISNAP-CF	Optional (8865, 8865-C)	2510 Fibrlok™ assembly tool	8765T-APC 8765T-UPC
Packaging	Individual connectors or convenience pack of 25	Individual connectors or convenience pack of 60	Convenience pack of 60	Individual connectors or convenience pack of 60
Quick Facts	• Designed for rapid terminations at the home in FTTH applications or in the central office headend	• Low cost of tooling, ideal for all FTTx installation	• High-quality field splice without the need for a fusion splicer	• Excellent optical performance for all indoor/outdoor environment

Fiber in Multidwelling Units (MDU)

A **Outside Demarcation Point** (page 15)
Most MDU scenarios feature a demarcation point outside the building. Multiple small MDUs are often fed by distribution cabinets in the outside plant.

B **Inside the Basement** (page 17 or 28)
Medium- to large-sized buildings often have a dedicated splitter cabinet supporting anywhere from 32 to 864 living units.

C **At the Floor** (page 28)
Riser cables feed terminals on the floor and serve as the transition point from riser to horizontal cabling. Some buildings require a dedicated terminal on each floor, whereas other buildings use one terminal serving several adjacent floors.

D **To the Living Unit** (pages 31, 34, and 36)
In medium- and large-sized MDUs, horizontal drop cables run down hallways providing an access point for subscribers to connect. In small MDUs, drop cables home run to the cabinet/splitter terminal.

LETS **CONNECT!**

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