CORNING

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BUY AMERICA
BEAD COMPLIANT

BRING BROADBAND HOME

Optical Tap Architecture Guide

Whether your deployment is centralized split, distributed split, or optical tap, you can count on our fiber-to-the-home expertise. Optical tap architectures are the most fiber lean. Asymmetric/uneven split terminals allow for single-fiber distribution of concatenated terminals. Routes are custom configured to optimize link loss. We've compiled the most commonly used preconnectorized products for optical tap. This document outlines two methods of deploying the distribution portion of the network depending on the level of connectivity used.

Our broad portfolio of products addresses your specific challenges from speed of deployment, labor and cost considerations, performance requirements, future-readiness, and more.

Select your options across these areas of the network:

(A) Central Office (CO)
(B) Feeder Cable
(C) Fiber Distribution Hub (FDH)
(D & E) Distribution Segment
(F) Customer Premises

Cost Components Comparison

Labor Effort
Level of connectorization impacts crew & size

Full Splice

Spliced Terminals

Full Preconnectorized

Material Cost
Level of connectorization impacts upfront cost

Full Splice
$

Spliced Terminals
$ $

Full Preconnectorized
$ $ $ $

Total Cost
Labor effort and material cost drive total cost

Full Splice

Spliced Terminals

Full Preconnectorized

Connectivity for the Win!

We are willing to bet on connectivity for your build. Decades of experience with connectivity have proven a wise investment for network operators around the world.

Your next deployment's fully connectorized design is on us.

Reach out to our subject matter experts to get your consultation started at **connect@corning.com.**

Optical Tap Option 1

Spliced Closures

The optical tap option shown on this page highlights a spliced design. Note: Optical tap networks may employ leading splitters that traditionally would be spliced in at a closure.

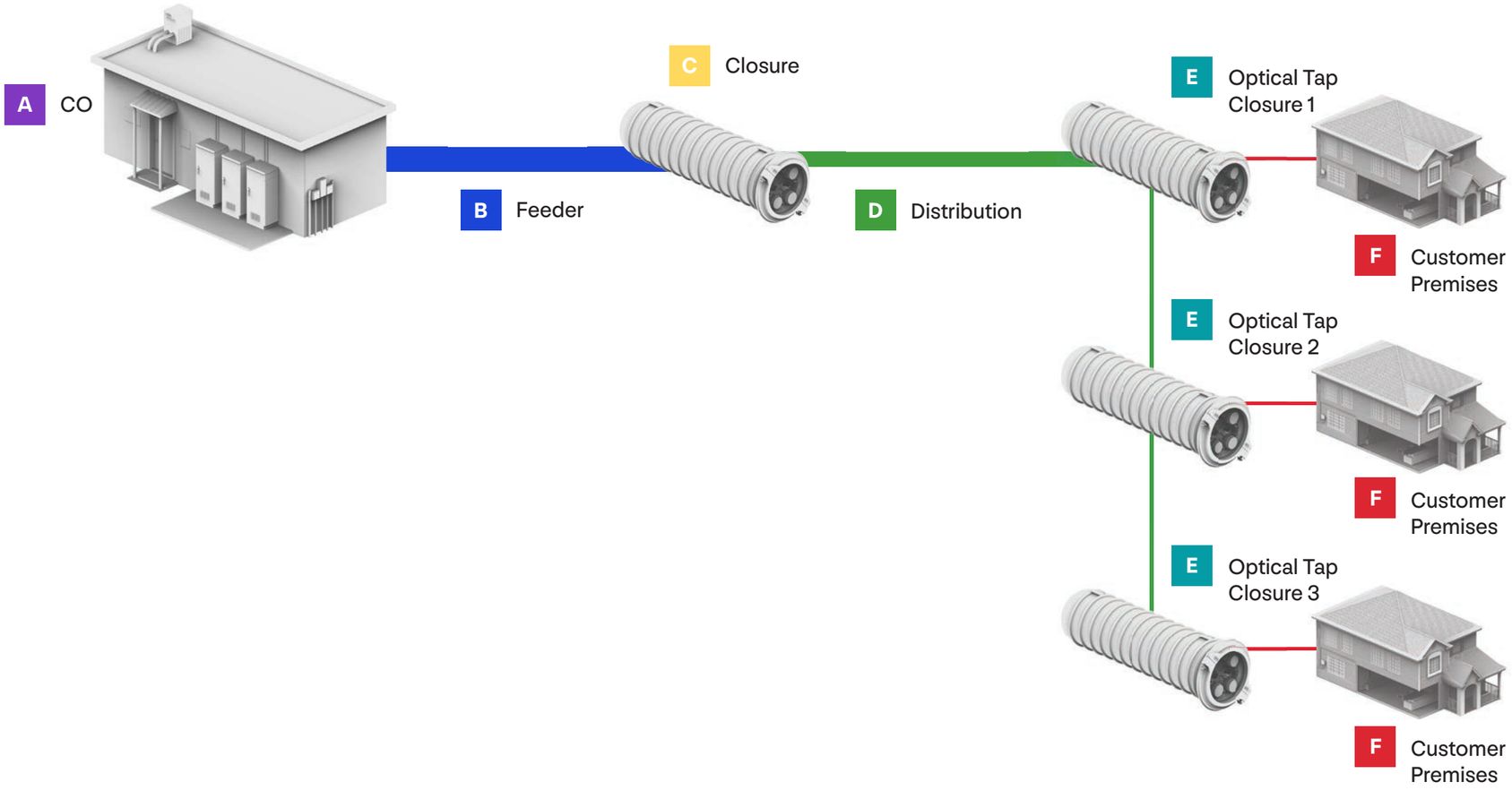
Cost Components Comparison

Labor Effort
Eliminates splice events downstream of splitter cabinet

Material Cost
Pre-installed connectors along distribution cable increase material cost

$ $

Total Cost
Savings result from reduction of splice events and cable placement labor



A Central Office (CO)

The Centrix™ hardware system is a pay-as-you-grow solution where you can choose to order fully loaded racks/frames on day one, or simply start with a cassette in a housing. The core of the solution is a single, modular cassette that can be tailored to include a variety of optical devices and can contain up to 36 LC connector adapters.

B Feeder Cable

Whether aerial or buried, we have the fiber count, quality, and reliability your network demands. For higher fiber counts, ribbon cable may be a good option for you! For below-grade applications, consider using an armored cable. If you are looking for a solution to place in congested ducts with microducts, MiniXtend® cable may be the right fit.

C Closure

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. Our preconnectorized terminals are thoughtfully designed to incorporate individual strain-relief, sealing of all cables, and quick-release clamps for easy re-entry.

D Distribution

Depending on your deployment method and architecture type, cable attributes may vary from self-support to armored or even microduct suitable cables. In the distribution, cables chosen may or may not be identical to the feeder depending on the serving area's needs.

E Optical Tap Closures

By combining two splitters in each closure, one asymmetric 1x2 and one even 2- 4- or 8-way splitter, the entire optical tap chain becomes plug and play.

F Customer Premises

Corning's drop cable portfolio and associated assemblies allow for full plug-and-play at the subscriber premises and also support field-installable terminations.

Optical Tap Option 2

Full Preconnectorized

The optical tap option shown on this page highlights a full preconnectorized design. Note: Optical tap networks may employ leading splitters that traditionally would be spliced in at a closure.

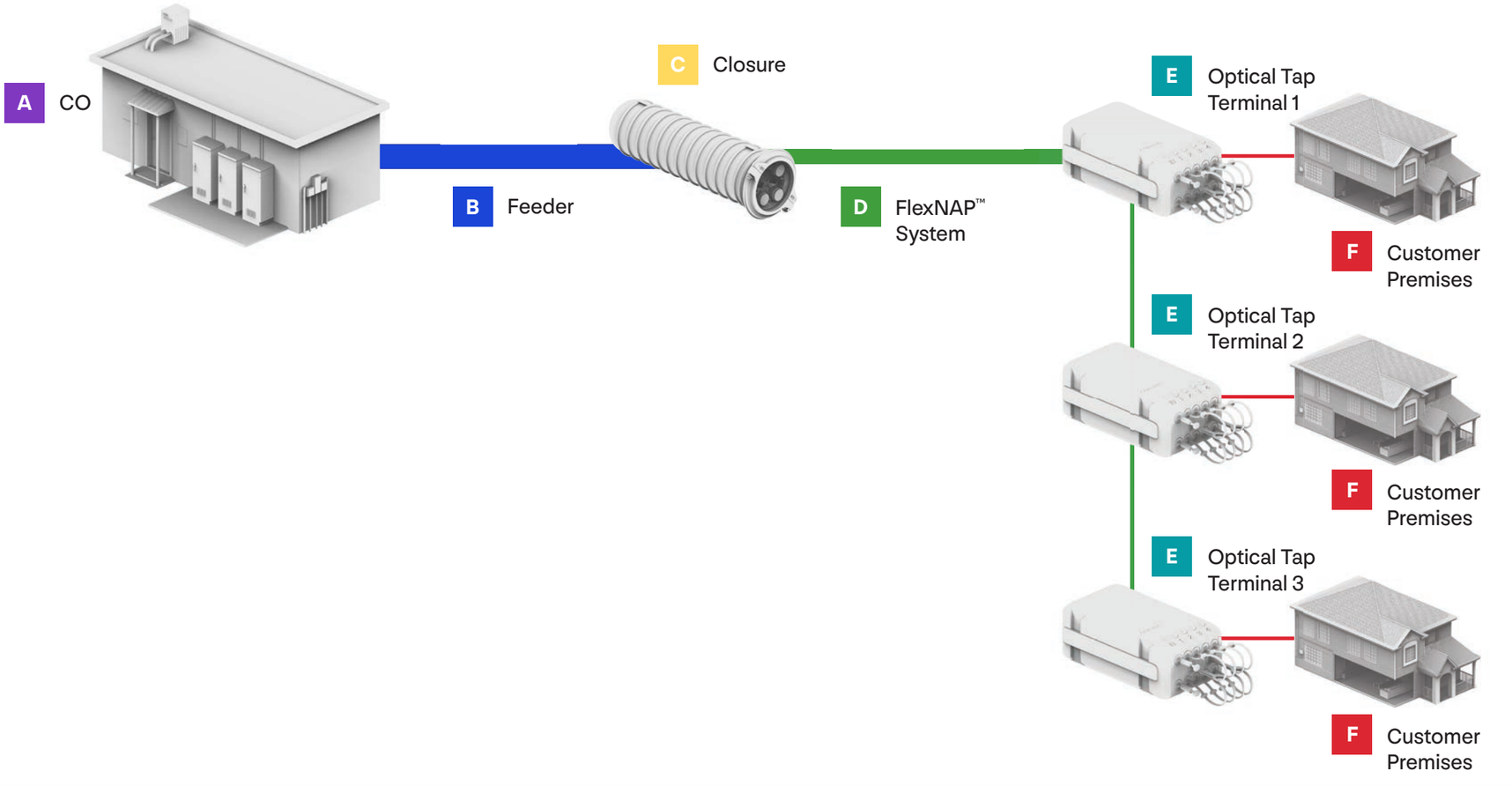
Cost Components Comparison

Labor Effort
Eliminates splice events downstream of splitter cabinet

Material Cost
Pre-installed connectors along distribution cable increase material cost

$ $ $ $

Total Cost
Savings result from reduction of splice events and cable placement labor



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The Centrix™ hardware system is a pay-as-you-grow solution where you can choose to order fully loaded racks/frames on day one, or simply start with a cassette in a housing. The core of the solution is a single, modular cassette that can be tailored to include a variety of optical devices and can contain up to 36 LC connector adapters.

B Feeder Cable

Whether aerial or buried, we have the fiber count, quality, and reliability your network demands. For higher fiber counts, ribbon cable may be a good option for you! For below-grade applications, consider using an armored cable. If you are looking for a solution to place in congested ducts with microducts, MiniXtend® cable may be the right fit.

C Closure

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. Our preconnectorized terminals are thoughtfully designed to incorporate individual strain-relief, sealing of all cables, and quick-release clamps for easy re-entry.

D FlexNAP System

The FlexNAP system utilizes optical fiber cables upon which network access points are pre-installed at customer-specified locations along the length of the cable. In this design, the FlexNAP system has single-fiber Pushlok™ tethers that begin an optical tap chain of terminals.

E Optical Tap Terminals

By combining two splitters in each terminal, one asymmetric 1x2 and one even 2- 4- or 8-way splitter, the entire optical tap chain becomes plug and play.

F Customer Premises

Corning's drop cable portfolio and associated assemblies allow for full plug-and-play at the subscriber premises and also support field-installable terminations.

Product Ordering Information

A Central Office (CO)

Part Number	Description
Frame	■
CTX-SA-FRAME-7	Standard Rear Cable Access Frame, 7 ft
Housings	■
CTX-S4U	Centrix™ Housing, 4U, 12 cassette positions, empty
CX4WWP36-B3-2RJ000	432F Centrix 4U Splice Housing, 36F LCA cassettes
CX4U831246C-xx002B	288F Centrix 4U Stubbed Housing, 24F SCA cassettes, 31-m stub, xx cable
Cassettes	● ■
CTXCMA00-6C-SP8102	Centrix Splitter Cassette, 1x2 splitter, SC APC ●
CTXCMA00-B3-SP1132	Centrix Splitter Cassette, 1x32 splitter, LC APC ●
CTX360236A9-D9893B	Centrix Stubbed Cassette, 36 LCU to 3 MTP®, 2 m ■
CTXCPP24-6C-2RH000	Centrix Pigtail Cassette, 24 SC APC ■
CTXCA36-B3B	Centrix Patch Cassette, 36 LC APC ■
Jumpers	✓
444401G3116004M	Jumper, SC APC to SC APC, 4-m long, 1.6-mm OD
585801G3116004M	Jumper, SC UPC to SC UPC, 4-m long, 1.6-mm OD
222201G3116004M	Jumper, LC APC to LC APC, 4-m long, 1.6-mm OD
020201G3116004M	Jumper, LC UPC to LC UPC, 4-m long, 1.6-mm OD

B Feeder Cable

Part Number	Description
Ribbon Cables	✓
xxxZC5-14100D53	SST-Ribbon™ Armored Cable (144-864 fibers)
xxxEC4-14100D53	SST-Ribbon All-Dielectric, Non-Armored (012-216 fibers)
xxxEV4-14100D53	SST-UltraRibbon™ All-Dielectric, Non-Armored (288-864 fibers)
xxxEV4-44101D53	RPX® All-Dielectric Self-Supporting Cable (024-144 fibers)
Loose Tube Cables	✓
xxxZU4-T4F22D20	ALTOS® Loose Tube Cable (012-288 fibers)
xxxZUC-T4F22D20	ALTOS Lite Single-Jacket, Armored (012-288 fibers)
Microduct Cables	✓
xxxZM4-T4F22A20	MiniXtend® Cable (012-144 fibers)
xxxZH4-Y4F40A20	MiniXtend HD Cable (144-288 fibers)
xxxZH4-S4F40A20	MiniXtend HD Cable (288-432 fibers)

C Fiber Distribution Hub (FDH)

Part Number	Description
Closures	✓
FDC-08M-G-N0N-01Q-A-00-U	Fiber Dome Closure, 8 S12 ports, 1 2543-D-XSB tray, 4 single fusion splice holder (48 SF), 2 RF splice holder (144 RF), 1 ground, 2 trays max
FDC-08S-G-N0N-01R-A-00-U	Fiber Dome Closure, 8 S12 ports, 1 2543-D tray, 8 single fusion splice holder (96 SF), 4 RF splice holder (288 RF), 1 ground, 2 trays max
SCA-9T24-LRS-U	SCA Aerial Terminal, SNAP-9T24, standard end caps, direct fusion splicing, 16 drop ports

D Option 1: Distribution Cable

Part Number	Description
Ribbon Cables	✓
xxxZC5-14100D53	SST-Ribbon Armored (144-864 fibers)
xxxEC4-14100D53	SST-Ribbon Dielectric, Non-Armored (012-216 fibers)
Loose Tube Cables	✓
xxxZU4-T4F22D20	ALTOS Loose Tube Cable (012-288 fibers)
xxxZUC-T4F22D20	ALTOS Lite Armored Loose Tube Cable (012-288 fibers)
Microduct Cables	✓
xxxZM4-T4F22A20	MiniXtend Cable (012-144 fibers)
xxxZH4-Y4F40A20	MiniXtend HD Cable (144-288 fibers)

D Option 2: FlexNAP™ System

Part Number	Description
FlexNAP Trunk Cables	✓
FNAP-CBL-xxxEU4	FlexNAP Distribution Trunk Cable, ALTOS loose tube cable, dielectric, xxx fibers (012 -432 fibers)
FNAP-CBL-xxxEUC	FlexNAP Distribution Trunk Cable, ALTOS loose tube cable, armored, xxx fibers (012-432 fibers)
FlexNAP Tether Attachment Points	✓
FSD4AxxD1TN010F	FlexNAP Tether Attachment Point, ALTOS loose tube cable, dielectric, Pushlok connector, aerial, xx tether count (01 = single tether or 02 = dual tether)
FSD4CxxD1RN015F	FlexNAP Tether Attachment Point, ALTOS loose tube cable, dielectric, low-profile (up to 72-fiber only), below grade, xx tether count (01 = single tether or 02 = dual tether)
FSDCAxxD1RN015F	FlexNAP Tether Attachment Point, ALTOS loose tube cable, armored, Pushlok connector, aerial, xx tether count (01 = single tether or 02 = dual tether)

E Option 1: Optical Tap Closures

Part Number	Description
Splice Closures*	✓ ■
BPEO-S15-AMX-U	BPEO Splice Closure Size 1.5, MiniXtend ✓
BPEO-DTP-1-832-43xx-3ZZC1*	BPEO 2-port Optical Tap Tray with SC APC ■
BPEO-DTP-1-832-45xx-3ZZC1*	BPEO 4-port Optical Tap Tray with SC APC ■
BPEO-DTP-1-832-49xx-3ZZC1*	BPEO 8-port Optical Tap Tray with SC APC ■

*xx indicates asymmetric split ratio

E Option 2: Optical Tap Terminals

Part Number	Description
2-port Terminals	✓
DTA4X21500NC00S0P-U	Evolv® Optical Tap Terminal, 2-port, 90/10 power split
DTA4X21300NC00S0P-U	Evolv Optical Tap Terminal, 2-port, 85/15 power split
DTA4X21100NC00S0P-U	Evolv Optical Tap Terminal, 2-port, 80/20 power split
DTA4X20900NC00S0P-U	Evolv Optical Tap Terminal, 2-port, 70/30 power split
DTA4X20800NC00S0P-U	Evolv Optical Tap Terminal, 2-port, 60/40 power split
DTA4X20400NC00S0P-U	Evolv Optical Tap Terminal, 2-port, 00/00 power split
4-port Terminals	✓
DTA8X41700NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 90/10 power split
DTA8X41600NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 85/15 power split
DTA8X41500NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 80/20 power split
DTA8X41200NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 70/30 power split
DTA8X41100NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 60/40 power split
DTA8X40700NC00S0P-U	Evolv Optical Tap Terminal, 4-port, 00/00 power split
8-port Terminals	✓
DTB4X82000NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 90/10 power split
DTB4X81800NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 85/15 power split
DTB4X81700NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 80/20 power split,
DTB4X81500NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 70/30 power split
DTB4X81400NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 60/40 power split
DTB4X81000NC00S0P-U	Evolv Optical Tap Terminal, 8-port, 00/00 power split
Terminal Jumpers	✓
D1D101EB49RxxxF-P-U	ROC™ Drop Cable, Pushlok® Jumper, dielectric, xxx feet
D1D101EB19RxxxF-P-U	ROC Drop Cable, Pushlok Jumper, toneable, xxx feet

F Customer Premises

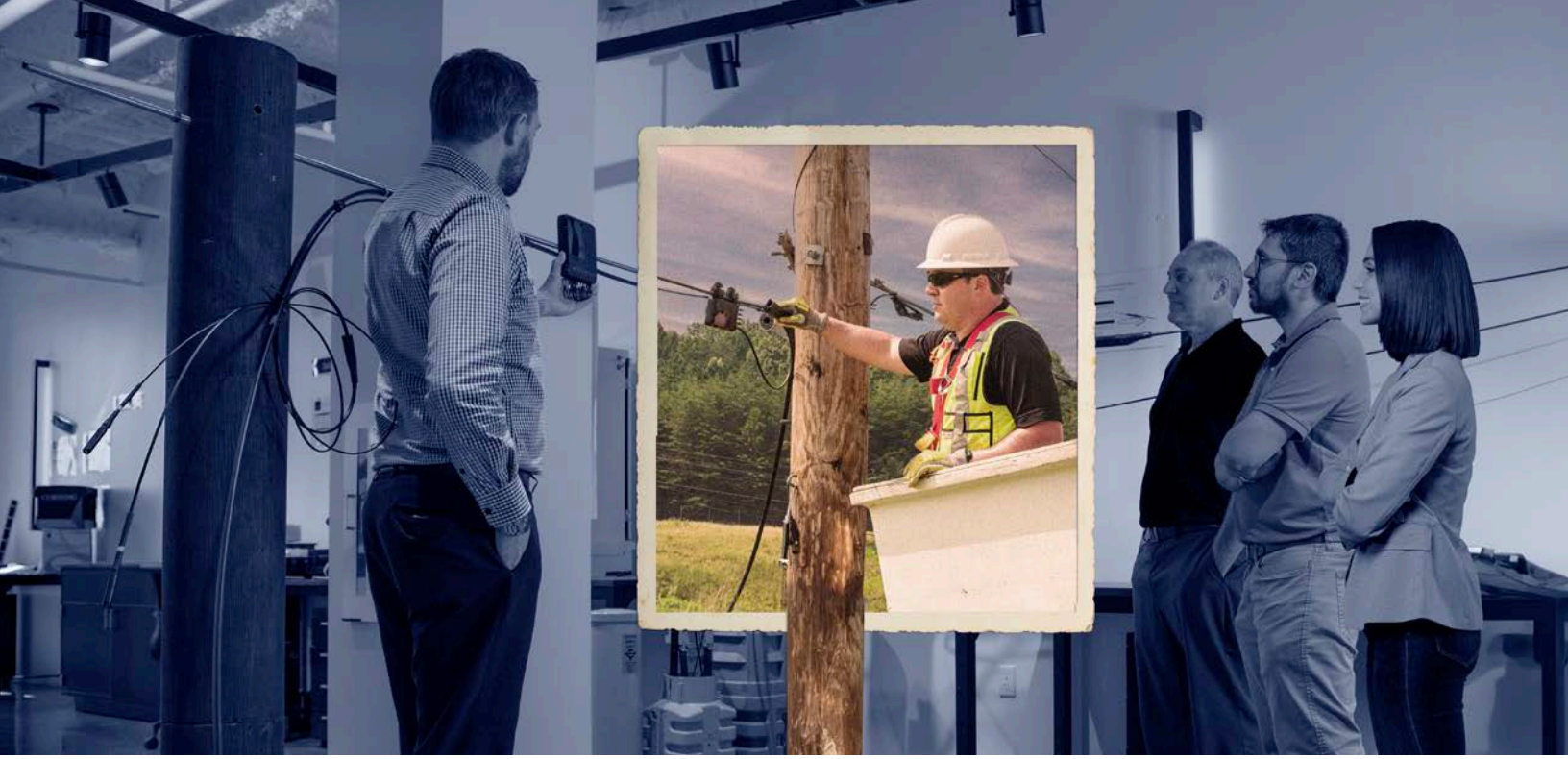
Part Number	Description
Drops	✓
00D101EB49RxxxF-P-U	ROC Drop Cable, Pushlok to Pigtail, dielectric, xxx feet
00D101EB19RxxxF-P-U	ROC Drop Cable, Pushlok to Pigtail, toneable, xxx feet
D14401EB4R3xxxF-P-U	ROC Drop Cable, Pushlok to SC, dielectric, xxx feet
D14401EB1R3xxxF-P-U	ROC Drop Cable, Pushlok to SC, toneable, xxx feet
00D101UB4JRxxxF-P-U	Round ROC Drop Cable, below-grade jetting/duct, Pushlok to pigtail, xxx feet
Field-Installable Connectors	● ■
OSNP-SCA-900-Z	OptiSnap® Field-Installable Connector, SC APC, Qty 25 ●
NPCP-SCA-48	NPC+ (No Polish Connector), field-installable SC APC, compatible with 250 µm and 900 µm fiber, no toolkit required, package of 48 connectors ●
TKT-OPTISNAP-CF	OptiSnap Connector Installation Toolkit with flat cleaver (FBC-009), fiber prep and cleaning supplies, gray case ■
TKT-NPCP-FBC007	FBC-007 precision cleaver plus accessories for NPC+ ■
Fiber Transition Housing	✓
FTH-602-A1100-U	Fiber Transition Housing, 1 SC APC simplex adapter, ground post for toning, hex security screw, 3-m slack storage
FTH-602-A0100-U	Fiber Transition Housing, 1 SC APC simplex adapter, hex security screw, 3-m slack storage

Build America, Buy America Act (BABAA) Compliance

✓ **Produced in the United States:** Meets requirements of the Build America, Buy America Act (BABAA), and 2 C.F.R. 184. All fiber, cable, and preform manufacturing occurs in the United States. For each manufactured product, at least 55% of the content is produced in the United States.

● **Waived:** Meets requirements of NTIA's Limited General Applicability, Nonavailability Waiver of the Buy America Domestic Content Procurement Preference as Applied to the BEAD Program.

■ **Suggested de Minimis:** Minor hardware that Corning believes will not exceed the thresholds under the de minimis waiver. De minimis products may cumulatively comprise up to the lesser of 5% of the total applicable project costs, or $1,000,000.



To meet your requirements, we've nurtured long-term relationships with authorized distributors who stock our products and further support your needs including training, customer needs assessment, logistics, and equipment. Whether you are an end user, contractor, or installer, connect with our authorized distributors to purchase your Corning solution today.

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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