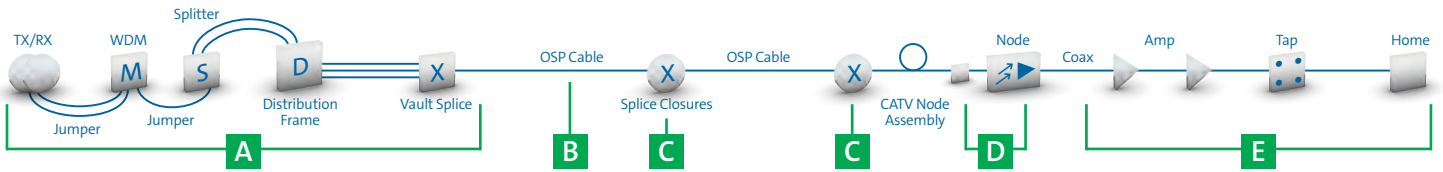# CORNING

CATV—Hybrid Fiber Coax
Solution Guide

What's your HFC migration path? You have choices.

Customer demand is pushing fiber deeper into the network. You have options in deployment methods. Whether you need an all-precon solution or an all-splice solution — Corning can help. We have an innovative product suite for all cable TV MSO networks.

Hybrid Fiber Coax (HFC)

TX/RX — WDM (M) — Splitter (S) — Distribution Frame (D) — Vault Splice (X) — OSP Cable — Splice Closures (X) — OSP Cable — CATV Node Assembly (X) — Node — Coax — Amp — Tap — Home

Jumper — Jumper

A (Distribution Frame to Vault Splice)
B (OSP Cable)
C (Splice Closures)
C (CATV Node Assembly)
D (Node)
E (Coax to Home)

A Headend

Corning's hardware solutions are specifically designed for FTTx and fiber-deep applications. Fiber hardware options for low- or high-density needs are available with a variety of splitter and WDM solutions that can be collocated within the same hardware frame.

B Fiber Optic Cable

Corning changed communications when we invented low-loss optical fiber, and we continue to lead the industry in product quality and innovation. Our outdoor cables are engineered to withstand your most challenging fiber optic applications, from environmental extremes to mechanical forces. Whether fiber deep or fiber to the home, Corning optical cable has the fiber count, quality, and reliability your network demands.

C Splice Closures

Corning offers a number of splice closure options to meet your needs. Our splice closures are designed for both aerial or buried applications. Fully sealed in-line or butt closures are available in configurations that can accommodate 24 to 576 single-fiber splices, or up to 1,296-fiber capacity mass fusion splicing. The 2178 Fiber Optic Splice Closure family allows for exceptional flexibility with its easily re-enterable design, while our BPEO Fiber Closures feature interchangeable trays to enable single-circuit management for loose tubes and micro cables.

D Node Assembly

The CATV node assembly is specifically designed to connect an HFC node to the fiber optic trunk cable. This unique design enables the end user to configure the system with preconnectorized cables dropped at the node location.

Fiber Distribution Hub

Corning OptiTect® sealed local convergence point enclosure (LCPE) is a sealed enclosure suitable for aerial, buried, pedestal, pole- or wall-mounted installations that eliminates right-of-way issues and minimizes the risk of damage from road accidents.

Terminals

The OptiSheath® multiport terminal is designed for use in outside plant fiber access networks. This innovative terminal provides sealed environmental protection and fast, easy incremental connection of subscriber drop cables while increasing deployment velocity.

E RF Connectivity Access

The Corning broadband trunk, distribution, and drop connectors offer the performance, ease of use, and reliability required in today's HFC networks. Corning's full line of connectors provides solutions for connecting your network's nodes, taps, and customer drops with the performance specifications demanded by fiber-deep HFC designs.

Fiber-to-the-Home Connectivity

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 deployment of drops from multiports to the house.

A Headend

Part Number	Description
Centrix™ Fiber Hardware	
CTX-SA-FRAME-7	Standard Rear Cable Access Frame, 7 ft
CTX-S4U	Centrix Housing, 4U, 12 cassette positions, empty
CTXCPP24-6C-2RH000	Centrix Splice Cassette, 24 SC APC adapters and single-mode pigtails, MIC® 900 µm standard single-mode pigtails
CX4U8P24-6C-2RH000	Centrix Splice Housing, 4U, 288 F, 12 cassettes each with 24 SC APC adapters and single-mode pigtails, MIC 900 µm standard single-mode pigtails
Eclipse® Fiber Hardware	
ECL-BAY-7	Bay, Eclipse frame, 7 ft with top and bottom shelves, 19-in wide
ECL-IBD-7-1	Interbay, Eclipse frame, interbay storage unit, dual sided with mandrels
ECL-EC-7	End Cap , Eclipse frame, 7-ft end cap for use with ECL-IBD-7-1
ECL-D4U-xx-yy	Eclipse Housing with adapters, four rack unit, housing only, 144-fiber capacity max, xx indicates fiber count, yy indicates connector type
SCF-ST-077	SCF Splice Trays, 48 heat-shrink single-fiber splices or six mass-fusion splices
2806031-01	Splice Protection, heat-shrink fusion splice protector parts, single fiber, 60 mm long
Jumpers, 2.0 mm	
444401G2131xxxF	Fiber Optic Jumper, 1 F, SC APC to SC APC, tight-buffered cable, riser, 2.0 mm bend-improved single-mode (OS2), xxx F
585801G2131xxxF	Fiber Optic Jumper, 1 F, SC UPC to SC UPC, tight-buffered cable, riser, 2.0 mm bend-improved single-mode (OS2), xxx F
020201G2131xxxF	Fiber Optic Jumper, 1 F, LC UPC to LC UPC, tight-buffered cable, riser, 2.0 mm bend-improved single-mode (OS2), xxx F
025801G2131xxxF	Fiber Optic Jumper, 1 F, LCUPC to SC UPC, tight-buffered cable, riser, 2.0 mm bend-improved single-mode (OS2), xxx F
Jumpers, 1.6 mm	
444401G3116xxxF	Fiber Optic Jumper, 1 F, SC APC to SC APC, tight-buffered cable, riser, 1.6 mm bend-improved single-mode (OS2), xxx F
585801G3116xxxF	Fiber Optic Jumper, 1 F, SC UPC to SC UPC, tight-buffered cable, riser, 1.6 mm bend-improved single-mode (OS2), xxx F
020201G3116xxxF	Fiber Optic Jumper, 1 F, LC UPC to LC UPC, tight-buffered cable, riser, 1.6 mm bend-improved single-mode (OS2), xxx F
025801G3116xxxF	Fiber Optic Jumper, 1 F, LC UPC to SC UPC, tight-buffered cable, riser, 1.6 mm bend-improved single-mode (OS2), xxx F
RF Connectivity	
GF-SFC-59-HEC	"F" Male Connectors, compression type to cable, fits series 59 headend cable, hex nut
GF-SFC-6-PL	"F" Male Connectors, compression type to cable, fits series 6 plenum cables, hex nut
GA-BNC-UR-59-HEC	BNC Male Connectors, compression type to cable, fits series 59 headend cables
GA-BNC-UR-6-PL	BNC Male Connectors, compression type to cable, fits series 6 plenum cables
GA-BNC-UR-59-PL	BNC Male Connectors, compression type to cable, fits series 59 plenum cables
GAF-UE-M	"F" Male Connectors, compression type to cable, mini series, dual-shield and tri-shield
GAF-UE-MQ	"F" Male Connectors, compression type to cable, mini series, quad-shield

xxx = length required, i.e. 6 feet is 006F

B Fiber Optic Cable

Part Number	Description
ALTOS® Loose Tube Cable	
xxxEU4-T4100D20	ALTOS® Loose Tube, Gel-Free Cable, .35/.35/.25 attenuation, single-mode (OS2), 12-288 F
xxxEU4-T4700D20	ALTOS Loose Tube, Gel-Free Cable with FastAccess® Technology, .35/.35/.25 attenuation, single-mode (OS2), 12-288 F
xxxZU4-T4F22D20	ALTOS Loose Tube, Gel-Free Cable with Binderless* FastAccess Technology, .35/.35/.25 attenuation, single-mode, 12-72 F
xxxEUC-T4100D20	ALTOS Lite Single-Jacket, Single-Armored Loose Tube, Gel-Free Cable, .35/.35/.25 attenuation, single-mode (OS2), 12-288 F
Micro Cable	
xxxZM4-T4F22A20	MiniXtend® Cable with Binderless* FastAccess Technology, SMF-28e+® fiber (012-144 fibers)
xxxZM4-T4F22A20	MiniXtend Cable with Binderless FastAccess Technology, SMF-28® Ultra fiber (012-144 fibers)
xxxZH4-Y4140A20	MiniXtend HD Cable, SMF-28 Ultra 200 fiber (144-288 fibers)
Ribbon Cable	
xxxZC5-14100D53	SST-Ribbon™ Gel-Free, Armored Cable, SMF-28 Ultra fiber, (144-864 fibers)
xxxEC4-14100D53	SST-Ribbon Gel-Free, All-Dielectric, Non-Armored Cable, SMF-28e+ (012-216 fibers)
xxxEC5-14100D53	SST-Ribbon Gel-Free, Single-Jacket/Single-Armor Cable, SMF-28e+ (012-216 fibers)
xxxEV4-14100D53	SST-UltraRibbon™ Gel-Free, All-Dielectric, Non-Armored Cable, SMF-28e+ (288-864 fibers)
xxxEV5-14100D53	SST-UltraRibbon Gel-Free, Single-Jacket/Single-Armor Cable, SMF-28e+ (288-864 fibers)
xxxZC5-14100D53	SST-Ribbon Gel-Free, Armored Cable, SMF-28 Ultra fiber (144-864 fibers)

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.

C Splice Closures

Part Number	Description
Butt Closures	
SCF-6C28-01-F	Splice Closure, 192 single-fiber or 384 ribbon fiber splice capacity, 6-in diameter, 28-in dome length, four drop ports (holds four SCF-ST-077 trays not included)
SCF-ST-077	Dual Purpose Splice Tray for use in SCF closure
2178-MLS	Fiber Optic Splice Closure, 576 single fiber or 1,728 ribbon fiber splice capacity
In-Line Closures	
FQ-1000-8222-8	Fiber Terminal Closure BPEO-S0-FDP-DROP, fiber distribution point for up to 12 drop cable and two branch cables
FQ-1000-8083-4	Fiber Terminal Closure BPEO-S1-FDP-DROP, fiber distribution point for up to 16 drop cables
UCAO-05	UCAO Splice Closure, five tray capacity, 60 single-fiber splices
UCA4-06SCDM-W-06B	UCA for Round Drop, with SC APC panel, six drop extension kits, six upgrade port plugs, six adapters and pigtails, 2x24 F MFT splice trays
In-Line Preconnectorized Closures	
UCA4-xx6CP-W	OptiSheath® Sealed Terminal, xx indicates number of OptiTap® adapters (02, 04, 06, or 08)
SCA-9T24-06CPL-SR	OptiSheath Aerial Terminal, SCA-9T series, 24-in length, six OptiTap connector adapters with single-fiber pigtails in left end cap, standard right end cap (for eight flat drop cables)

D Fiber Distribution Hub

Part Number	Description
LCPE with Splice Capability	
EDBS00BBSC00BBS00P	LCPE Loose Tube Cable, 144-F with splice capability, PLP closure
EDAS00AASC00AAS00P	LCPE Ribbon Cable, 144-F with splice capability, PLP closure
Accessories	
Optical Splitters	
UAB1CC6CZ6CZ2116	Dual 1x16 Splitter Module for LCPE, SC APC
UAB1CC6CZ6CZ1132	1x32 Splitter Module for LCPE, SC APC
CWDM	
CUX6CD4BE-ZZUN	LCPE CWDM Module, mux or demux, 4-channel 1470-1530
CUX6CD8BJ-ZZUN	LCPE CWDM Module, mux or demux, 8-channel 1470-1610
CUX6CA8KJ-ZZUN	LCPE CWDM Module, mux or demux, 18-channel 1270-1610

Node Assembly*

Part Number	Description
SC UPC Cable Assemblies	
58Q1212AGF0xxxx	CATV Node Assembly, 12-fiber, 2 mm, 36-in legs with (12) SC UPC connectors on ALTOS® gel-free dielectric cable xxxx ft
58Q1212AGL0xxxx	CATV Node Assembly, 12-fiber, 2 mm, 36-in legs with (12) SC UPC connectors on ALTOS gel-free armored cable xxxx ft
SC APC Cable Assemblies	
44Q1212AGF0xxxx	CATV Node Assembly, 12-fiber, 2 mm, 36-in legs with (12) SC APC connectors on ALTOS gel-free dielectric cable xxxx ft
44Q1212AGL0xxxx	CATV Node Assembly, 12-fiber, 2 mm, 36-in legs with (12) SC APC connectors on ALTOS gel-free armored cable xxxx ft
SC/LC Hybrid Cable Assemblies	
37R02449068-xxxF	CATV Node Assembly, 2 mm, 36-in legs with 8-fiber (4) SC APC (4) LC UPC gel-free dielectric xxx ft
37R02449077-xxxF	CATV Node Assembly, 2 mm, 36-in legs with 8-fiber (4) SC APC (4) LC UPC gel-filled armored xxx ft

*Available in 90-degree and/or with OptiTip® connector

Terminals

Part Number	Description
OptiSheath® MultiPort Terminals	
MOB-xx44FDxxxFW-P	OptiSheath® MultiPort Terminal, single-tube gel-filled cable, stubbed, xx port single-mode (OS2), xxx ft**

**Note: xx = Port counts (02, 04, 06, 08, 12), xxx = Length

E RF Connectivity Access

Part Number	Description	Part Number	Description
Trunk and Distribution Connectors			
Three-Piece Hardline Pin Connector to Cable		**Two-Piece Hardline Pin Connector to Cable**	
GRS-500-CH-DU-03-T	Fits .500 CommScope P3 and Times T10	GCC-500-CH-P3	Fits .500 CommScope P3 and Times T10
GRS-625-CH-DU-02-T	Fits .625 CommScope P3 and Times T10	GCC-625-CH-P3	Fits .625 CommScope P3 and Times T10
GRS-750-CH-DU-01-T	Fits .750 CommScope P3 and Times T10	GCC-750-CH-P3	Fits .750 CommScope P3 and Times T10
GRS-875-CH-DU-02-T	Fits .875 CommScope P3 and Times T10	GCC-875-CH-P3	Fits .875 CommScope P3 and Times T10
Three-Piece Hardline Splice Connector		**Two-Piece Hardline Splice Connector**	
GRS-500-SP-DU-03	Fits .500 CommScope P3 and Times T10	GCC-500-SP-P3	Fits .500 CommScope P3 and Times T10
GRS-625-SP-DU-02	Fits .625 CommScope P3 and Times T10	GCC-625-SP-P3	Fits .625 CommScope P3 and Times T10
GRS-750-SP-DU-01	Fits .750 CommScope P3 and Times T10	GCC-750-SP-P3	Fits .750 CommScope P3 and Times T10
GRS-875-SP-DU-02	Fits .875 CommScope P3 and Times T10	GCC-875-SP-P3	Fits .875 CommScope P3 and Times T10
Trunk and Distribution Adapters			
GP-90-T	90-Degree Adapter, seizure screw	G-KS-KS-FS	KS Female/KS Female/KS Female, socket contact
G-KS-KS-MLK-T	Housing-to-Housing Adapter, locking rotational	G-EXT-3-SC-T	Extension Adapter, socket contact, 3-in overall length
Drop Connectors			
SCF Drop Connectors			
GF-SFC-6	"F" Male, fits all series 6 cables, hex nut	GF-SFC-6-K	"F" Male, fits all series 6 cables, hex/knurled nut
GF-SFC-6-SR	"F" Male, fits all series 6 cables, hex nut with factory-installed seal ring	GF-SFC-6-K-SR	"F" Male, fits all series 6 cables, hex/knurled nut with factory-installed seal ring
GF-SFC-6-PL	"F" Male, fits series 6 plenum cables, hex nut		
EFC Drop Connectors			
GF-EFC-6	Compression Type, fits all series 6 cables, hex nut	GF-EFC-6-K	Compression Type, fits all series 6 cables, hex/knurled nut
GF-EFC-6-SR	Compression Type, fits all series 6 cables, hex nut with factory-installed seal ring	GF-EFC-6-K-SR	Compression Type, fits all series 6 cables, hex/knurled nut with factory-installed seal ring
C3 Drop Connectors			
GAF-URS-11-MH	Compression Type, fits all series 11 cables, dual hex nut, integral pin	GAF-URS-11-MH-SR	Compression Type, fits all series 11 cables, dual hex nut, integral pin, factory-installed seal ring
EFC Continuity Connectors			
GF-EFC-6	"F" Male Continuity Connector, compression type, fits all series 6 cables, hex nut	GF-EFC-6-K	"F" Male Continuity Connector, compression type, fits all series 6 cables, hex/knurled nut
GF-EFC-6-SR	"F" Male Continuity Connector, compression type, fits all series 6 cables, hex nut with factory-installed seal ring	GF-EFC-6-K-SR	"F" Male Continuity Connector, compression type, fits all series 6 cables, hex/knurled nut with factory-installed seal ring
SFC Standard Drop Connectors			
GF-SFC-6	"F" Male Standard Connector, fits all series 6 cables, hex nut	GF-SFC-6-K	"F" Male Standard Connector, fits all series 6 cables, hex/knurled nut
GF-SFC-6-SR	"F" Male Standard Connector, fits all series 6 cables, hex nut with factory-installed seal ring	GF-SFC-6-K-SR	"F" Male Standard Connector, fits all series 6 cables, hex/knurled nut with factory-installed seal ring
GF-SFC-6-PL	"F" Male Standard Connector, fits series 6 plenum cables, hex nut		
RG-11 Connectors			
GAF-URS-11-MH	"F" Male Continuity Connector, compression type, fits all series 11 cables, dual hex nut, integral pin	GAF-UR-11-MH	"F" Male Standard Connector, compression type, fits all series 11 cables, dual hex nut, integral pin
GAF-URS-11-MH-SR	"F" Male Continuity Connector, compression type, fits all series 11 cables, dual hex nut, integral pin, factory-installed seal ring	GAF-UR-11-MH-SR	"F" Male Standard Connector, compression type, fits all series 11 cables, dual hex nut, integral pin, factory-installed seal ring

Corning's connectors and adapters shown above are just a sampling of the broad portfolio available. Visit www.corning.com/mso for more information.

Fiber-to-the-Home Connectivity

Part Number	Description
OptiSnap® Field-Installable Tools and Connectors	
TKT-FIOT-ROC-CF	Comprehensive Kit with OptiSnap CF components (ROC™ cable only)
OSNP-FIOT-ROC-Z	25-Pack Connectors and Assemblies (ROC cable only)
OSNP-SCU-900-Z	25-Pack Connectors and Assemblies, SC UPC

Customers' demand for excellent user experience is driving bandwidth higher and higher. No matter your path for network evolution, this level of service requires a collaborative approach with a team you can trust. Maybe it's time to talk to Corning.

We're here to help: msosegment@corning.com and www.corning.com/CATV

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