

# Evolv<sup>®</sup> Solution with Pushlok<sup>®</sup> Technology



Pushlok<sup>®</sup> hardened connector technology is the key component enabling smaller terminals and drops for FTTx networks than ever before. Designed for use in nearly every access network environment, the terminal is small enough to be placed in existing handholes or pedestals where space is paramount, on building façades, or in aerial networks (pole- or strand-mount). Improved aesthetics improve end-user adoption for façade applications.

Features	Benefits
Reduced diameter	Single-fiber and multifiber Pushlok connectors are a fraction of the size of their predecessors allowing for savings across the build – including shipping, warehousing, and installation.
Backward compatibility	Accessories and converters allow Pushlok assemblies and terminals to intermate with existing OptiTap <sup>®</sup> - or OptiTip <sup>®</sup> -based solutions.
“Stick-and-click” mating	Field-friendly connector mating allows technicians to push, click, and connect without fear of over- or under-tightening traditional threaded ports in a fraction of the time.
Future-ready	Beyond traditional buried or aerial deployments, the terminals can be placed on street furniture, inside lamppost monopoles, on building façades, and more where traditional terminals wouldn’t fit or be aesthetically appealing.
Durability	<p>Tested to Telcordia GR-3120, which includes freeze/thaw, immersion, crush, humidity, and sealing tests, among others, to subject the connector to virtually any-and-all challenges it may face in a real-world deployment.</p> <p>It is also rated to IP68, defined by the IEC and used by the National Electrical Manufacturers Association (NEMA) to indicate its uninterrupted performance in high-pressure immersion environments.</p>

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# Evolv<sup>®</sup> Terminals with Pushlok<sup>®</sup> Technology



There are two styles of terminals designed to meet various space and density requirements: terminals with one row of adapter ports and terminals with two rows of adapter ports. For terminals with one row of adapter ports, the ports are aligned in a single row with the input stub on the left and 2-, 4-, 6-, 8-, or 12-distribution ports on the right. For terminals with two rows of ports, the input stub is on the front left of the terminal, and there are 6-, 8-, 12-, or 16-distribution ports. Each port’s corresponding release button is actuated to remove the dust cap or drop. When installing drops, the keyed ports provide an audible and physical positive feedback minimizing technician variation and potential damage due to mishandling.

Features	Benefits
Pushlok <sup>®</sup> cable assembly connector ports for customer drop terminations	Lowers installation cost and increase speed of connection.
Standard and integrated splitter terminal options	Solution supports various architecture types.
Split or unsplit configurations	Adaptable to a variety of network architectures.
Available stubless, stubbed, or preterminated	Compatible with existing FlexNAP <sup>™</sup> system installations.
Small-form-factor optimizes space in pedestals/handholes	Lower profile overall with drop entry ports on bottom.
Ultrasonically welded housing	Eliminates water ingress potential and prevents unwanted entry in the field.
Factory-terminated polished connectors	Eliminates loss associated with excess fusion splices.

Standards	
Telcordia	Designed to Telcordia GR-771-CORE, Issue 1

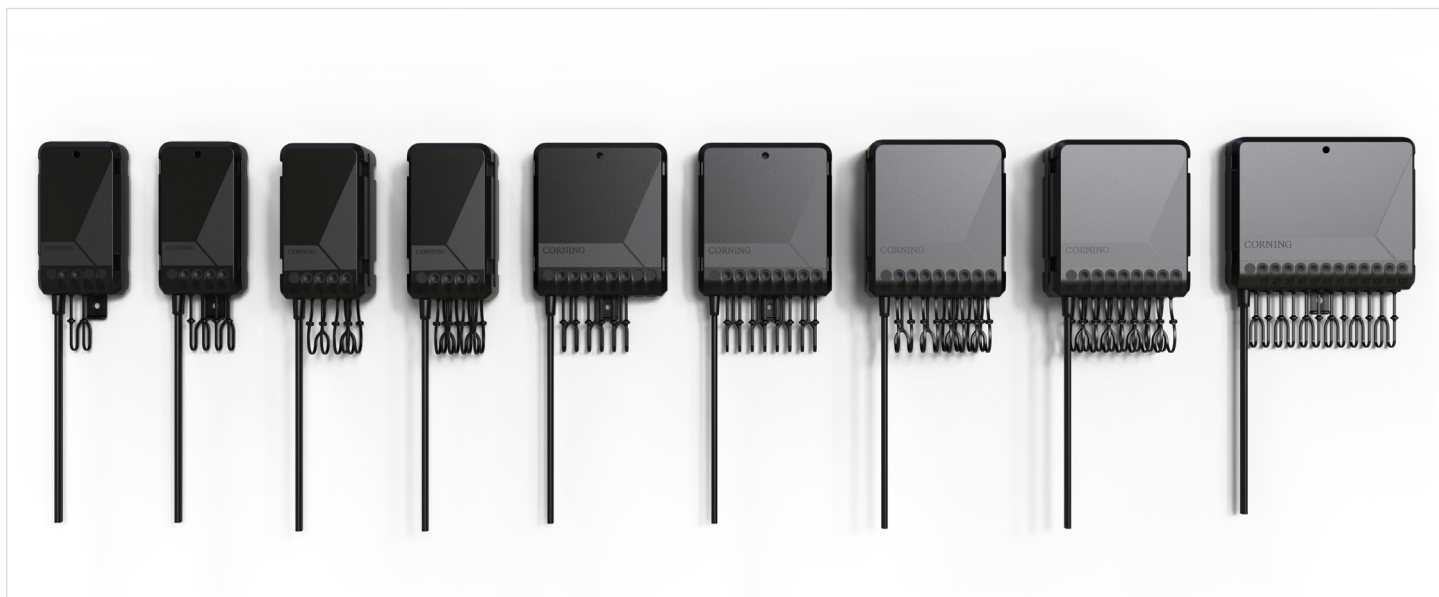
Mechanical Specifications		
Terminal Type	Dimensions (L x W x H)	Weight
2-Distribution Port Terminal (one row of 4 ports, 2 filled)	15.4 x 8.4 x 3.0 cm (6.06 x 3.29 x 1.18 in)	0.195 kg (0.43 lb)
4-Distribution Port Terminal (one row of 4 ports)	15.4 x 8.4 x 3.0 cm (6.06 x 3.29 x 1.18 in)	0.195 kg (0.43 lb)
6-Distribution Port Terminal (one row of 8 ports, 2 filled)	15.4 x 13.4 x 3.0 cm (6.06 x 5.29 x 1.18 in)	0.390 kg (0.86 lb)
6-Distribution Port Terminal (two rows of 4 ports, 2 filled)	15.4 x 8.4 x 5.8 cm (6.06 x 3.29 x 2.30 in)	0.400 kg (0.88 lb)
8-Distribution Port Terminal (one row of 8 ports)	15.4 x 13.4 x 3.0 cm (6.06 x 5.29 x 1.18 in)	0.390 kg (0.86 lb)
8-Distribution Port Terminal (two rows of 4 ports)	15.4 x 8.4 x 5.8 cm (6.06 x 3.29 x 2.30 in)	0.400 kg (0.88 lb)
12-Distribution Port Terminal (one row of 12 ports)	15.4 x 18.5 x 3.0 cm (6.06 x 7.29 x 1.18 in)	0.475 kg (1.05 lb)
12-Distribution Port Terminal (two rows of 8 ports, 4 filled)	15.4 x 13.4 x 5.8 cm (6.06 x 5.29 x 2.30 in)	0.600 kg (1.32 lb)
16-Distribution Port Terminal (two rows of 8 ports)	15.4 x 13.4 x 5.8 cm (6.06 x 5.29 x 2.30 in)	0.600 kg (1.32 lb)

Optical Specifications				
Connector Type	Fiber Type	Insertion Loss, Maximum	Insertion Loss, Typical	Reflectance, Maximum
Pushlok® Connector	Single-mode (OS2)	0.40 dB	0.15 dB	-65 dB
Multifiber Pushlok Connector	Single-mode (OS2)	0.35 dB	0.15 dB	-65 dB
OptiTip® Multifiber Connector	Single-mode (OS2)	0.50 dB	0.35 dB	-65 dB

Packaging		
Cable Stub Length	Dimensions (L x W x H)	Packaging Method
Cables ≤ 650 ft	152 x 762 x 762 mm (6 x 30 x 30 in)	Box
Cables > 650 ft	846 x 178 x 846 mm (33 x 7 x 33 in)	Reel

Terminal Cable Stub Information	
SST-Drop™ Cable Stub	
Application	SST-Drop cable offers the ease of installation of standard ALTOS® cable in an easy-access, single-tube design. The toneable version allows for effortless detection of buried cable with a toning conductor that can be separated. The dielectric version eliminates any bonding and grounding requirements.
Cable Specification Reference Materials	1-12F SST Toneable Cable: <a href="#">Family Spec Sheet 0336_NAFTA_AEN</a> 12F SST Dielectric Cable: <a href="#">Product Specification 012EB4-14701A20_NAFTA_AEN</a>
MiniXtend® Cable Stub	
Application	MiniXtend cable with Binderless FastAccess® Technology is an all-dielectric loose tube cable designed for microduct applications. The outer diameter of the 12-72F cable is 5.4 mm (0.21 in).
Cable Specification Reference Materials	<a href="#">Family Spec Sheet 0136_NAFTA_AEN</a>
Long-Span SST Cable Stub	
Application	Long-Span SST cable is ideal for rural, aerial environments where longer cable distances are required. The cable supports pole-to-pole span lengths ranging from 400 ft (NESC Heavy) to 500 ft (NESC Medium).

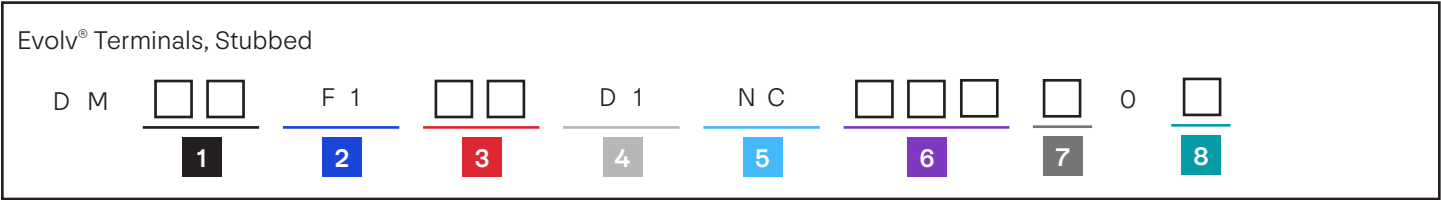
## Evolv® Stubbed Terminals with Pushlok® Technology



### Stubbed Terminals — See Additional Configurations on Page 7

Part Number	Product Description
DMA2F1TDD1NC010F0P	Evolv® Terminal with Pushlok® Technology, 2 port, stubbed, SST toneable, 10 ft
DMA4F1FDD1NC050F0P	Evolv Terminal with Pushlok Technology, 4 port, stubbed, SST dielectric, 50 ft
DMA6F1TDD1NC100F0P	Evolv Terminal with Pushlok Technology, 6 port, stubbed, SST toneable, 100 ft
DMB3F1TDD1NC150F0P	Evolv Terminal with Pushlok Technology, 6 port, 2 rows of 4 ports (2 filled), stubbed, SST toneable, 150 ft
DMA8F1FDD1NC500F0P	Evolv Terminal with Pushlok Technology, 8 port, stubbed, SST dielectric, 500 ft
DMB4F1TDD1NC010F0P	Evolv Terminal with Pushlok Technology, 8 port, 2 rows of 4 ports, stubbed, SST toneable, 10 ft
DMATF1FDD1NC050F0P	Evolv Terminal with Pushlok Technology, 12 port, stubbed, SST dielectric, 50 ft
DMB6F1FDD1NC050F0P	Evolv Terminal with Pushlok Technology, 12 port, 2 rows of 8 ports (4 filled), stubbed, SST dielectric, 50 ft
DMB8F1FDD1NC100F0P	Evolv Terminal with Pushlok Technology, 16 port, 2 rows of 8 ports, stubbed, SST dielectric, 100 ft
DMA2F1MLD1NC010F0P	Evolv Terminal with Pushlok Technology, 2 port, stubbed, MiniXtend®, 10 ft
DMA4F1MLD1NC050F0P	Evolv Terminal with Pushlok Technology, 4 port, stubbed, MiniXtend, 50 ft
DMA6F1MLD1NC100F0P	Evolv Terminal with Pushlok Technology, 6 port, stubbed, MiniXtend, 100 ft
DMB3F1MLD1NC200F0P	Evolv Terminal with Pushlok Technology, 6 port, 2 rows of 4 ports (2 filled), stubbed, MiniXtend, 200 ft
DMA8F1MLD1NC500F0P	Evolv Terminal with Pushlok Technology, 8 port, stubbed, MiniXtend, 500 ft
DMB4F1MLD1NC010F0P	Evolv Terminal with Pushlok Technology, 8 port, 2 rows of 4 ports, stubbed, MiniXtend, 10 ft
DMATF1MLD1NC050F0P	Evolv Terminal with Pushlok Technology, 12 port, stubbed, MiniXtend, 50 ft
DMB6F1MLD1NC050F0P	Evolv Terminal with Pushlok Technology, 12 port, 2 rows of 8 ports (4 filled), stubbed, MiniXtend, 50 ft
DMB8F1MLD1NC100F0P	Evolv Terminal with Pushlok Technology, 16 port, 2 rows of 8 ports, stubbed, MiniXtend, 100 ft
DMA8F1LSD1NC250F0P	Evolv Terminal with Pushlok Technology, 8 port, stubbed, Long-Span SST, dielectric, 250 ft
DMATF1LSD1NC500F0P	Evolv Terminal with Pushlok Technology, 12 port, stubbed, Long-Span SST, dielectric, 500 ft

# Evolv® Stubbed Terminal Ordering Information



- 1** Select number of Pushlok® single-fiber connector ports.
- A2 = 2 ports      B3 = 6 ports (2 rows of 4 ports, 2 filled)  
A4 = 4 ports      B4 = 8 ports (2 rows of 4 ports)  
A6 = 6 ports      B6 = 12 ports (2 rows of 8 ports, 4 filled)  
A8 = 8 ports      B8 = 16 ports (2 rows of 8 ports)\*  
AT = 12 ports      \*only available with MiniXtend® stub

- 2** Defines connector type.
- F1 = Single-fiber per port

- 3** Select cable type.
- FD = SST flat dielectric drop cable  
TD = SST flat toneable drop cable  
ML = MiniXtend® loose tube cable  
LS = Long-span SST dielectric drop cable

- 4** Defines port connector type.
- D1 = Single-fiber Pushlok SC APC

- 5** Defines tail connector type.
- NC = Not connectorized

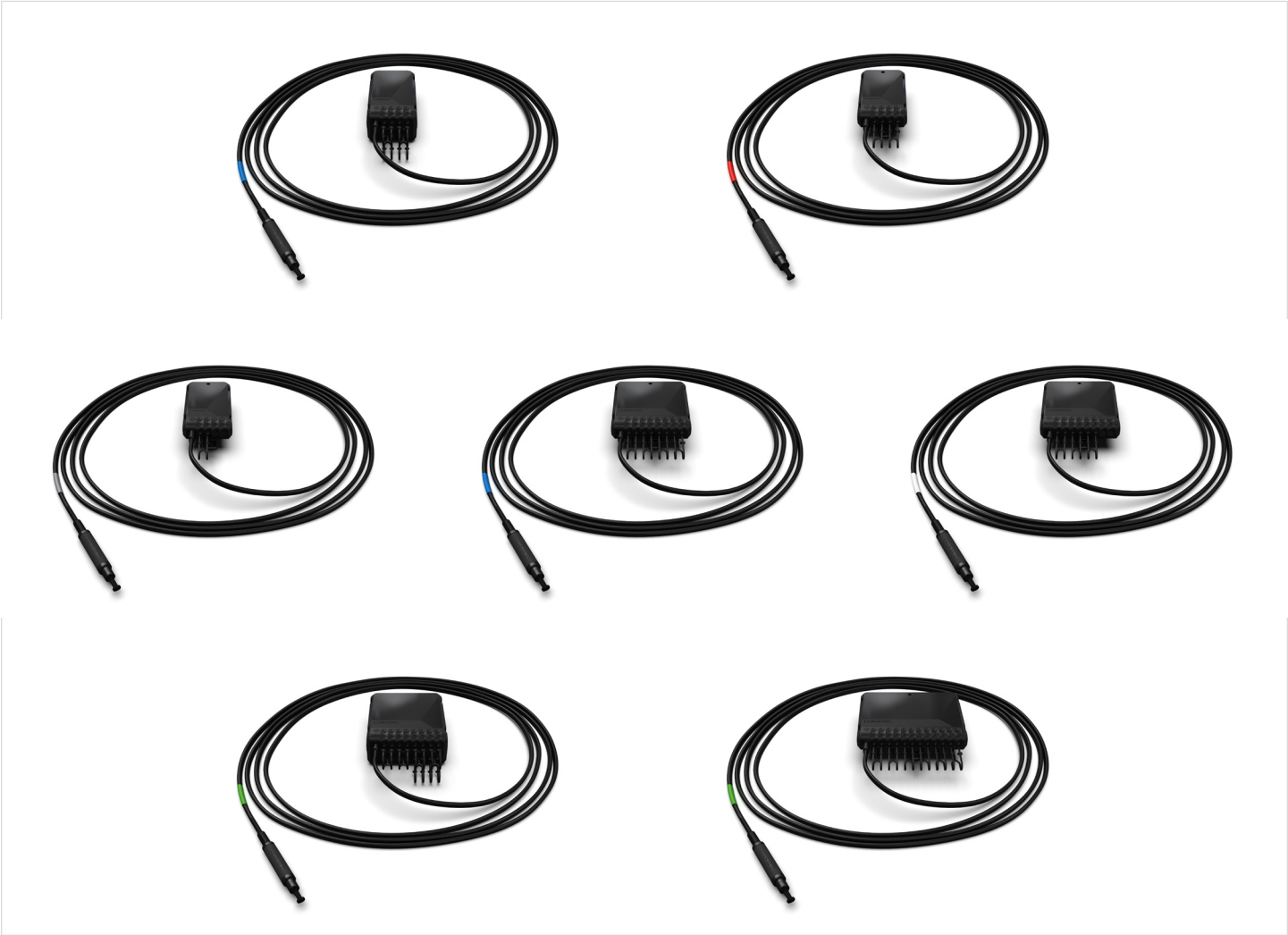
- 6** Select cable stub length.
- 10 ft increments up to 3,400 ft available.  
See Table A for lengths ≥ 1,000 ft.

- 7** Select unit length.
- F = Feet  
M = Meters

- 8** Select packaging.
- P = Standard spool — individual packaging  
Z = Reverse spool — individual packaging  
B = Bulk packaging

Table A: Alpha codes for lengths ≥ 1,000 ft			
A00 = 1,000	H00 = 1,700	Q00 = 2,400	X00 = 3,100
B00 = 1,100	J00 = 1,800	R00 = 2,500	Y00 = 3,200
C00 = 1,200	K00 = 1,900	S00 = 2,600	Z00 = 3,300
D00 = 1,300	L00 = 2,000	T00 = 2,700	
E00 = 1,400	M00 = 2,100	U00 = 2,800	
F00 = 1,500	N00 = 2,200	V00 = 2,900	
G00 = 1,600	P00 = 2,300	W00 = 3,000	

Evolv® Stubbed Terminals for FlexNAP™ Systems



Stubbed Terminals for FlexNAP™ Systems	
Part Number	Product Description
DFA2F1FDD1T1010F0P	Evolv® Terminal with Pushlok® Technology, 2 port, preconnectorized Multifiber Pushlok stub, SST dielectric, 10 ft
DFA2F1TDD1T1025F0P	Evolv Terminal with Pushlok Technology, 2 port, preconnectorized Multifiber Pushlok stub, SST toneable, 25 ft
DFA4F1FDD1T1010F0P	Evolv Terminal with Pushlok Technology, 4 port, preconnectorized Multifiber Pushlok stub, SST dielectric, 10 ft
DFA4F1TDD1T1025F0P	Evolv Terminal with Pushlok Technology, 4 port, preconnectorized Multifiber Pushlok stub, SST toneable, 25 ft
DFA6F1FDD1T1010F0P	Evolv Terminal with Pushlok Technology, 6 port, preconnectorized Multifiber Pushlok stub, SST dielectric, 10 ft
DFA6F1TDD1T1025F0P	Evolv Terminal with Pushlok Technology, 6 port, preconnectorized Multifiber Pushlok stub, SST toneable, 25 ft
DFA8F1FDD1T1010F0P	Evolv Terminal with Pushlok Technology, 8 port, preconnectorized Multifiber Pushlok stub, SST dielectric, 10 ft
DFA8F1TDD1T1025F0P	Evolv Terminal with Pushlok Technology, 8 port, preconnectorized Multifiber Pushlok stub, SST toneable, 25 ft
DFATF1FDD1T1010F0P	Evolv Terminal with Pushlok Technology, 12 port, preconnectorized Multifiber Pushlok stub, SST dielectric, 10 ft
DFATF1TDD1T1025F0P	Evolv Terminal with Pushlok Technology, 12 port, preconnectorized Multifiber Pushlok stub, SST toneable, 25 ft

Ordering Information

Evolv® Terminals, Stubbed for Standard FlexNAP™ Systems

D

F

1

F

1

3

D

1

6

0

8

**1** Select number of Pushlok® single-fiber connector ports.

A2 = 2 ports      B3 = 6 ports (2 rows of 4 ports, 2 filled)  
A4 = 4 ports      B4 = 8 ports (2 rows of 4 ports)  
A6 = 6 ports      B6 = 12 ports (2 rows of 8 ports, 4 filled)  
A8 = 8 ports  
AT = 12 ports

**2** Defines output port fiber count

F1 = Single-fiber per port

**3** Select cable type.

FD = SST flat dielectric drop cable  
TD = SST flat toneable drop cable

**4** Defines output port type.

D1 = Single-fiber Pushlok SC APC

**5** Defines tail connector type.

T1 = Multifiber Pushlok Connector (female)  
M1 = OptiTip® connector

**6** Select cable stub length.

10 ft increments up to 3,400 ft available.  
See Table A for lengths ≥ 1,000 ft.

**7** Select unit length.

F = Feet  
M = Meters

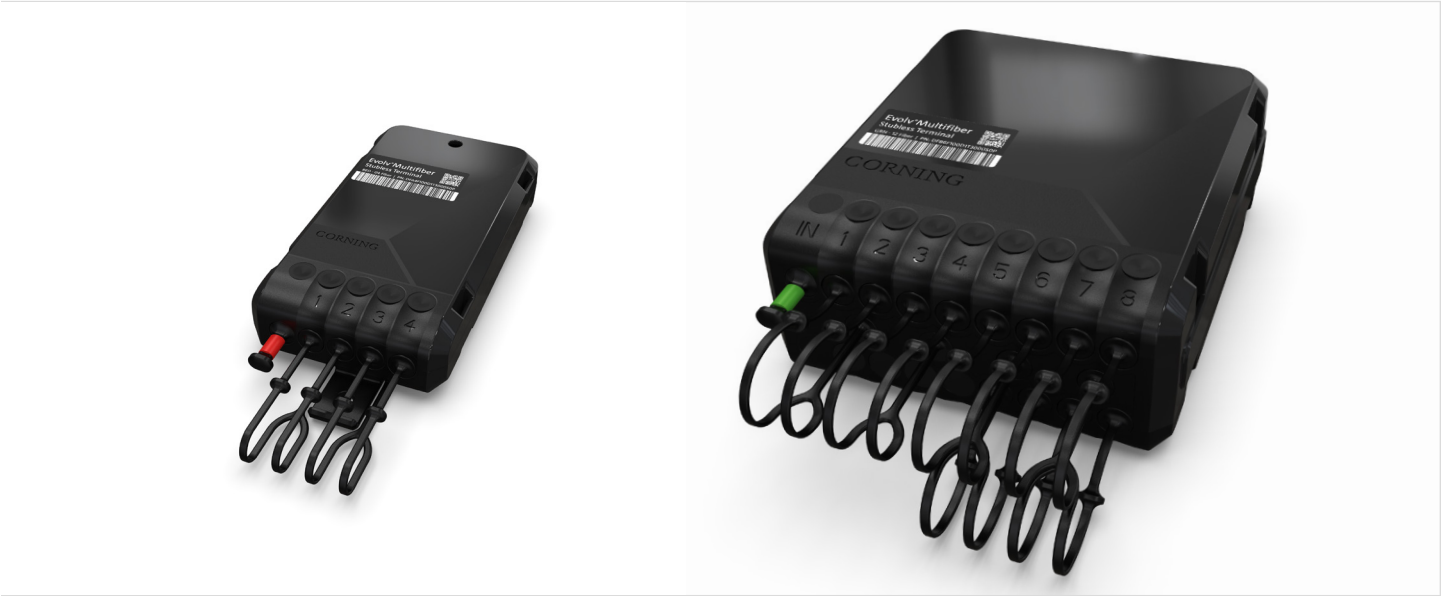
**8** Select packaging.

P = Standard spool – individual packaging  
Z = Reverse spool – individual packaging  
B = Bulk packaging

Table A: Alpha codes for lengths ≥ 1,000 ft			
A00 = 1,000	H00 = 1,700	Q00 = 2,400	X00 = 3,100
B00 = 1,100	J00 = 1,800	R00 = 2,500	Y00 = 3,200
C00 = 1,200	K00 = 1,900	S00 = 2,600	Z00 = 3,300
D00 = 1,300	L00 = 2,000	T00 = 2,700	
E00 = 1,400	M00 = 2,100	U00 = 2,800	
F00 = 1,500	N00 = 2,200	V00 = 2,900	
G00 = 1,600	P00 = 2,300	W00 = 3,000	



Evolv® Stubless Terminals with Multifiber Pushlok® Technology



Stubless Terminals for FlexNAP™ Systems and Multifiber Drop Cable Assemblies	
Part Number	Product Description
DFA2F100D1T3000S0P	Evolv Pushlok 2-Ports, 2 Fibers, Single row of ports, Multifiber Pushlok Stubless Terminal
DFA4F100D1T3000S0P	Evolv Pushlok 4-Ports, 4 Fibers, Single row of ports, Multifiber Pushlok Stubless Terminal
DFA6F100D1T3000S0P	Evolv Pushlok 6-Ports, 6 Fibers, Single row of ports, Multifiber Pushlok Stubless Terminal
DFA8F100D1T3000S0P	Evolv Pushlok 8-Ports, 8 Fibers, Single row of ports, Multifiber Pushlok Stubless Terminal
DFATF100D1T3000S0P	Evolv Pushlok 12-Ports, 12 Fibers, Single row of ports, Multifiber Pushlok Stubless Terminal
DFB3F100D1T3000S0P	Evolv Pushlok 6-Ports, 6 Fibers, Two rows of ports, Multifiber Pushlok Stubless Terminal
DFB4F100D1T3000S0P	Evolv Pushlok 8-Ports, 8 Fibers, Two rows of ports, Multifiber Pushlok Stubless Terminal
DFB6F100D1T3000S0P	Evolv Pushlok 12-Ports, 12 Fibers, Two rows of ports, Multifiber Pushlok Stubless Terminal

# Ordering Information

Evolv® Stubless Terminals with Multifiber Pushlok® Technology

D F

F 1

O O

D 1

T 3

O O O

S

O

1

2

3

4

5

6

1

Select number of Pushlok® single-fiber connector ports.

A2 = 2 ports      B3 = 6 ports (2 rows of 4 ports, 2 filled)  
A4 = 4 ports      B4 = 8 ports (2 rows of 4 ports)  
A6 = 6 ports      B6 = 12 ports (2 rows of 8 ports, 4 filled)  
A8 = 8 ports  
AT = 12 ports

2

Defines output port fiber count

F1 = Single-fiber per port

3

Defines output port type.

D1 = Single-fiber Pushlok SC APC

4

Defines tail connector type.

T3 = Multifiber Pushlok Input Port

5

Select unit length.

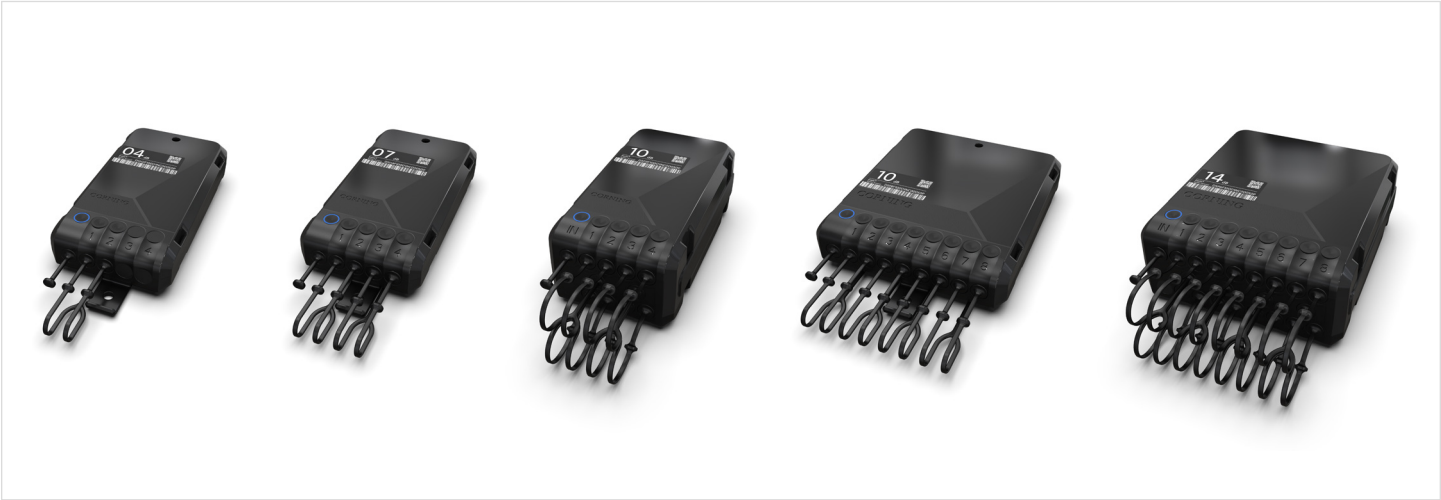
S = Stubless Terminal

6

Select packaging.

P = Individual packaging  
B = Bulk packaging

Evolv® Splitter Terminals with Pushlok® Technology



Splitter Terminals			
Part Number	Product Description		
DSH2F100D1NC000S0P	Evolv® Splitter Terminal with Pushlok® Technology, 2 port, unstubbed, 1x2 splitter		
DSH4F100D1NC000S0P	Evolv Splitter Terminal with Pushlok Technology, 4 port, unstubbed, 1x4 splitter		
DSF9F100D1NC000S0P	Evolv Splitter Terminal with Pushlok Technology, 8 port, unstubbed, 1x8 splitter, 2 rows of 4 ports		
DSF8F100D1NC000S0P	Evolv Splitter Terminal with Pushlok Technology, 8 port, unstubbed, 1x8 splitter		
DSP6F100D1NC000S0P	Evolv Splitter Terminal with Pushlok Technology, 16 port, unstubbed, 1x16 splitter, 2 rows of 8 ports		
Splitter Type	Insertion Loss, Max	Insertion Loss, Typical	Reflectance, Typical
1x2 Splitter	4.20 dB	3.60 dB	-55 dB
1x4 Splitter	7.50 dB	6.80 dB	-55 dB
1x8 Splitter	10.90dB	10.00 dB	-55 dB
1x16 Splitter	14.00 dB	13.20 dB	-55 dB

Ordering Information

Evolv Terminals, Splitter

D S

1

F 1

2

O O

D 1

3

N C

4

O O O S O P

- 1

Select number of Pushlok single-fiber connector ports.

H2 = 2 ports

H4 = 4 ports

F8 = 8 ports

F9 = 8 ports (2 rows of 4 ports)

P6 = 16 ports (2 rows of 8 ports)
- 2

Defines connector type.

F1 = Single-fiber per port
- 3

Defines output port type.

D1 = Single-fiber Pushlok SC APC
- 4

Defines tail connector type.

NC = Not connectorized

Evolv® Optical Tap Terminals with Pushlok® Technology



1x2 Optical Tap Terminal, 90/10 Power Split      1x4 Optical Tap Terminal, 90/10 Power Split      1x8 Optical Tap Terminal, 90/10 Power Split

Optical distributed taps, also known as uneven-split or asymmetric terminals, are most appropriate for short-length, dense environments, or rural FTTx applications where lean distribution runs are desired. Each run supports 32 or 64 subscriber ONTs with cascaded multiport terminals utilizing preconnectorized single-fiber assemblies in the distribution. The fully preconnectorized system reduces installation costs while increasing the speed of deployment.

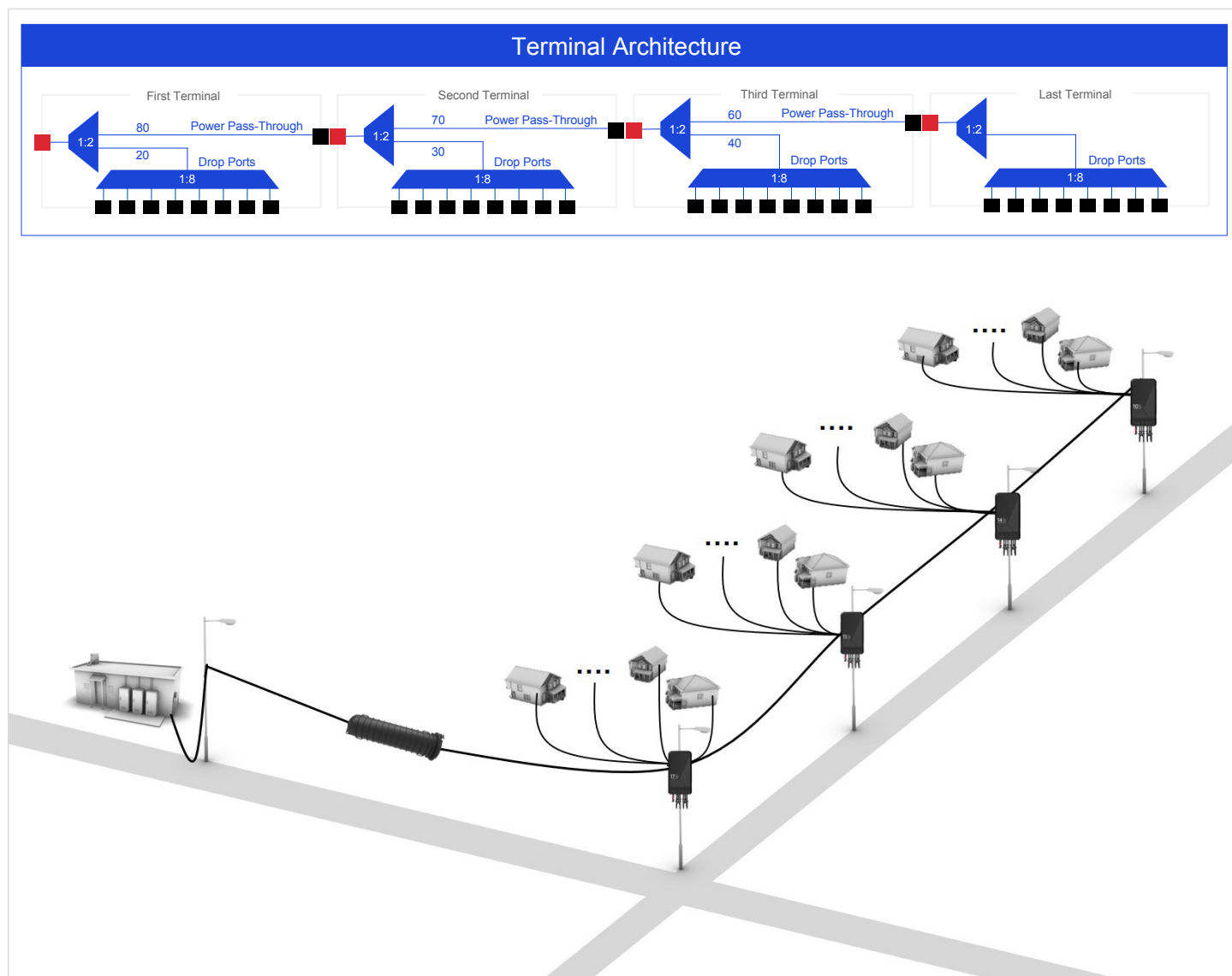
This solution is comprised of an array of power-split ratios to customize each run for optimal signal reach. Tap splits of 90/10, 85/15, 80/20, 70/30, and 60/40 split ratios can be cascaded, or daisy-chained, to accommodate a wide variety of deployment scenarios.

Each multiport terminal includes the uneven, asymmetric splitter, a standard 1x2, 1x4, or 1x8 splitter to support customer connections, as well as a pass-through port feeding subsequent terminals in the run in a single form factor. The number of terminals in an individual run and the variation of multiport terminals used is dependent upon the distances between terminals and subscribers to maintain an acceptable link-loss budget. By limiting the number of terminal options and utilizing preconnectorized Pushlok® drop cables, FTTx designs and material inventories can be simplified.

Features	Benefits
Pushlok Connector Ports for Drop Termination	Lower installation cost and increased speed of interconnection.
Stubless Multiport Terminal System	Reduces distribution cable fiber count; allows full plug-and-play distribution deployment, without requiring splicing.
Full Preconnectorized Single-Fiber Architecture	A cost-effective solution that diverts a portion of power to support a typical run of 32 to 64 ONTs.
Factory-Installed and Tested Connectors	Connector design provides stability, reliability, and durability.
Supports Various Power Split Ratios	Solutions available to accommodate numerous combinations of power split ratio designs.
Rapid Repair/Restoration	Damaged single-fiber preconnectorized drops can be repaired quickly with low-skill technicians to restore subscriber services.
Dual-Ended ROC™ Drop Cable Assembly	ROC drop assemblies terminated with Pushlok connectors on both ends provide quick and efficient connectivity between terminals.

The optical distributed tap architecture leverages a cascaded network of uneven-split, or asymmetric split, multiport terminals to ensure sufficient signal reaches subscribers along the route. As the first terminal is closest to the signal source (OLT), a lower amount of signal is needed to feed the subscribers served from the 1x2, 1x4, or 1x8 splitter.

In many cases, the first multiport terminal will utilize a 90/10 power split where the 10% feeds the subscriber ports and the 90% passes on to feed subsequent terminals downstream. Subsequent terminals in the chain either maintain a similar uneven-split ratio or a higher ratio of local power depending upon the distances between terminals and the total link budget. In higher density environments with short distances between terminals, operators may serve more than the standard 32 or 64 subscribers. However, in low-density rural runs spanning long distances, operators may serve fewer subscribers per route as this is heavily dependent upon the link budget.



Optical Tap Network Architecture Example Illustration (8-Port Evolv® Terminals Shown)

Mechanical Specifications	
Application	Aerial, duct, direct-buried
Dimensions (L x W x H)	2-Port Evolv® Terminal: 15.4 x 8.4 x 3.0 cm (6.06 x 3.29 x 1.18 in) 4-Port Evolv Terminal: 15.4 x 13.4 x 3.0 cm (6.06 x 5.29 x 1.18 in) 8-Port Evolv Terminal: 15.4 x 8.4 x 5.8 cm (6.06 x 3.29 x 2.30 in)
Weight	2-Port Evolv Terminal: 0.195 kg (0.43 lb) 4-Port Evolv Terminal: 0.390 kg (0.86 lb) 8-Port Evolv Terminal: 0.400 kg (0.88 lb)
Packaging	Individual packaging
Termination	Pushlok® connector assemblies
Axial Pull, Plug to Adapter	50 lbs
Axial Pull, Plug to Cable	100 lbs in axial pull with load applied to the dust cap
Cold Mate/Demate	-20°C mechanical testing

2-Port Evolv Terminal Optical Specifications			
Splitter Type	Insertion Loss, Max	Insertion Loss, Typical	Reflectance, Typical
Pass-Through Port (90)	1.20 dB	1.00 dB	-55 dB
Drop Port (10)	15.40 dB	14.50 dB	-55 dB
Pass-Through Port (85)	1.50 dB	1.20 dB	-55 dB
Drop Port (15)	13.20 dB	12.60 dB	-55 dB
Pass-Through Port (80)	1.80 dB	1.40 dB	-55 dB
Drop Port (20)	11.80 dB	11.20 dB	-55 dB
Pass-Through Port (70)	2.40 dB	2.00 dB	-55 dB
Drop Port (30)	10.00 dB	9.40 dB	-55 dB
Pass-Through Port (60)	3.10 dB	2.80 dB	-55 dB
Drop Port (40)	8.70 dB	8.00 dB	-55 dB
Pass-Through Port (00)	N/A	N/A	N/A
Drop Port (00)	4.20 dB	3.60 dB	-55 dB

## 4-Port Evolv® Terminal Optical Specifications

Splitter Type	Insertion Loss, Max	Insertion Loss, Typical	Reflectance, Typical
Pass-Through Port (90)	1.20 dB	1.00 dB	-55 dB
Drop Port (10)	19.30 dB	17.20 dB	-55 dB
Pass-Through Port (85)	1.50 dB	1.20 dB	-55 dB
Drop Port (15)	17.00 dB	15.50 dB	-55 dB
Pass-Through Port (80)	1.80 dB	1.40 dB	-55 dB
Drop Port (20)	16.00 dB	14.50 dB	-55 dB
Pass-Through Port (70)	2.40 dB	2.00 dB	-55 dB
Drop Port (30)	13.60 dB	12.20 dB	-55 dB
Pass-Through Port (60)	3.10 dB	2.80 dB	-55 dB
Drop Port (40)	12.30 dB	11.00 dB	-55 dB
Pass-Through Port (00)	N/A	N/A	N/A
Drop Port (00)	7.50 dB	6.10 dB	-55 dB

8-Port Multiport Optical Specifications

Splitter Type	Insertion Loss, Max	Insertion Loss, Typical	Reflectance, Typical
Pass-Through Port (90)	1.20 dB	1.00 dB	-55 dB
Drop Port (10)	21.74 dB	20.42 dB	-55 dB
Pass-Through Port	1.50 dB	1.20 dB	-55 dB
Drop Port (15)	20.98 dB	18.60 dB	-55 dB
Pass-Through Port (80)	1.80 dB	1.40 dB	-55 dB
Drop Port (20)	18.45 dB	17.50 dB	-55 dB
Pass-Through Port (70)	2.40 dB	2.00 dB	-55 dB
Drop Port (30)	16.71 dB	15.40 dB	-55 dB
Pass-Through Port (60)	3.10 dB	2.80 dB	-55 dB
Drop Port (40)	15.52 dB	14.20 dB	-55 dB
Drop Port (00)	10.90 dB	10.00 dB	-55 dB

Environmental Characteristics

Characteristics Temperature Rating	-40°C to 85°C (-40°F to 185°F)
RoHS	Free of hazardous substances according to RoHS 2011/65/EU

Standards

Telcordia	Designed to Telcordia GR-771-CORE, Issue 1
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Product Design

Red Connector Port	Input Connector Port
Blue Connector Port	Cascade/Next Hop Connector Port



Optical Tap Evolv® Terminal Family (8-Port Evolv Terminals Shown)



Ordering Information

Evolv® Terminals, Optical Tap

D T

1

2

O O N C O O O S O

3

- 1

Defines number of terminal ports.

A4X2 = 4-port terminal,  
2 subscribers

A8X4 = 8-port terminal,  
4 subscribers

B4X8 = 8-port terminal,  
8 subscribers
- 2

Defines power split ratio.

2 Subscriber Port Terminals

15 = 90/10 Power Split

13 = 85/15 Power Split

11 = 80/20 Power Split

09 = 70/30 Power Split

08 = 60/40 Power Split

04 = 00/00 Power Split

4 Subscriber Port Terminals

17 = 90/10 Power Split

16 = 85/15 Power Split

15 = 80/20 Power Split

12 = 70/30 Power Split

11 = 60/40 Power Split

07 = 00/00 Power Split

8 Subscriber Port Terminals

20 = 90/10 Power Split

18 = 85/15 Power Split

17 = 80/20 Power Split

15 = 70/30 Power Split

14 = 60/40 Power Split

10 = 00/00 Power Split
- 3

Select packaging.

P = Individual packaging

B = Bulk packaging

Part Number Examples		
Part Number	Product Description	Units per Delivery
DTA4X21500NC000S0P	Optical Tap Evolv Terminal, 90/10 power distribution, 2 port, stubless	1
DTA8X41700NC000S0P	Optical Tap Evolv Terminal, 90/10 power distribution, 4 port, stubless	1
DTB4X82000NC000S0P	Optical Tap Evolv Terminal, 90/10 power distribution, 8 port, stubless	1

# Evolv® BPEO Closure with Pushlok® Technology



Pushlok® connectors are the key component enabling smaller terminals for FTTx networks. The Evolv® BPEO Closure with Pushlok technology is ideally suited for applications where re-enterable splice enclosures with mid-span feeder capability are needed. This closure is equipped with pre-installed adapters that convert the existing hexagonal ports in BPEO closures size 0, 1, and 1.5 to Pushlok-compatible ports. Subscriber drop ports on the base contain a standard SC APC bulkhead just inside the closure. The connector mating and closure sealing is secured with a converter applied to the standard Pushlok connector on a ROC™ Drop cable assembly. With Pushlok technology, the drop cables can be connected without the need to open the closure. For initial installation, the double-entry port allows for an uncut feeder cable to be prepped outside of the closure and subsequently routed cleanly inside.

Evolv BPEO closures are available in three terminal body sizes (0, 1 and 1.5). Size 0 (S0) is available configured with 4 or 8 ports pre-equipped with SC APC couplings and pigtails, while size 1 (S1) and 1.5 (S1.5) accommodate 8 and 12 ports, respectively. These ports are ready for a direct and simple push/pull connection with a Pushlok drop cable prepared with the converter kit.

Features	Benefits
Kit to convert Pushlok drop cable	Agility to integrate Evolv® BPEO closure with Pushlok technology into an existing network of Evolv Terminals by standardizing on one drop configuration.
Mechanical assembly of components	Convert standard ROC™ drop cables with Pushlok to mate to BPEO Pushlok ports easily without needing special tools.
O-ring sealing of closure port	Pushlok drop kit adapter ensures water tightness is maintained as subscriber drops are connected.
Storage area for uncut buffer tubes from feeder cable	Enable express cable of mid-span applications.
Adapted to micro cables and standard loose tube cables	Enable use of MiniXtend®, ALTOS®, ADSS cables.
External cable feeder sealing	Cable prep outside the closure.

Evolv BPEO Closure with Pushlok Technology	
Part Number	Product Description
B0-04P-D00-02A-PG04	4 Port, Size 0, 2 splice trays, 4 SC APC adapters
B0-08P-D00-02A-PG08	8 Port, Size 0, 2 splice trays, 8 SC APC adapters
B1-08P-D00-02A-PG08	8 Port, Size 1.5, 2 splice trays, 8 SC APC adapters
BH-12P-D00-03A-PG12	8 Port, Size 1.5, 2 splice trays, 8 SC APC adapters

## Evolv® BPEO ECAM Converter for Pushlok® Technology on ROC™ Drop Cable



Features	Benefits
One standardized drop configuration	Ability to integrate the Evolv® BPEO closure with Pushlok® technology into an existing network of Evolv Terminals.
Mechanical assembly of components	Convert standard ROC™ drop cables with Pushlok to mate to BPEO Pushlok ports easily without needing special tools.
O-ring sealing of closure port	Pushlok drop kit adapter ensures water tightness is maintained as subscriber drops are connected.

General Specifications	
Application	Aerial/Manhole
Cable type	ROC dielectric
Brand	Evolv
Standards according to RoHS 2011/65/EU	Free of hazardous substances according to RoHS 2011/65/EU

Environmental Conditions	
Temperature Range, Operation	-40°C to 65°C

Design	
Colored trays	No
Working environment	Aerial/manhole
Housing material	Plastic Resin

Design Connector	
Color	Black

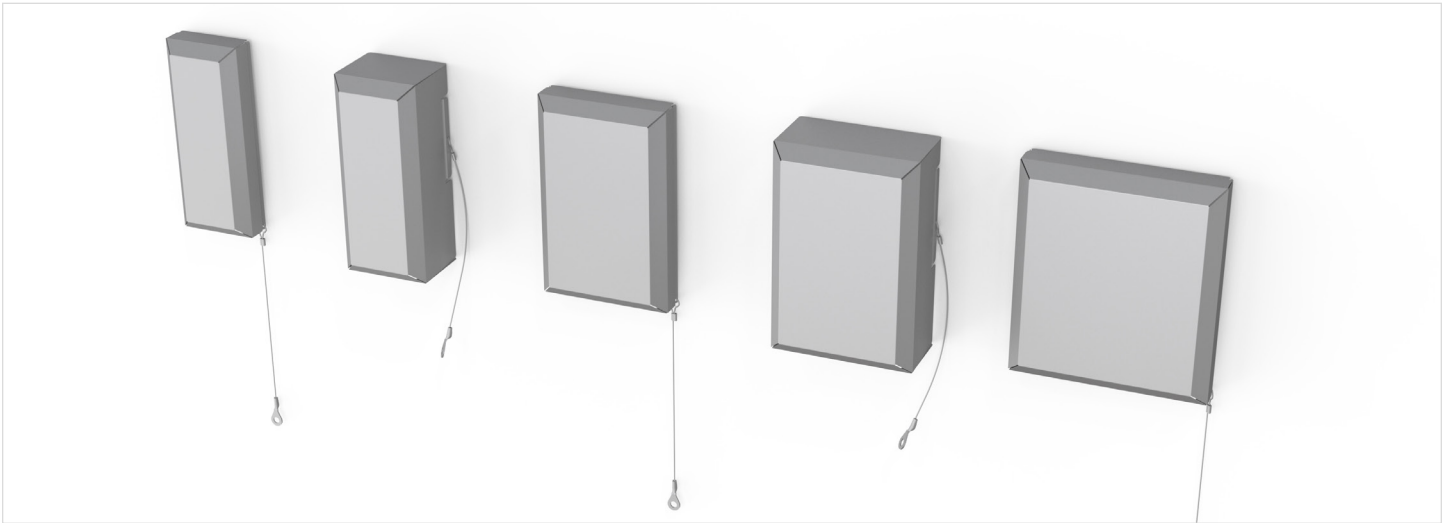
Design Adapter	
Housing Color	Black
Adapter Type	Evolv Pushlok
Shuttered adapter	Yes

Evolv BPEO ECAM Converter for Pushlok Technology on ROC™ Drop Cable	
Part Number	Product Description
KT-PL-ECAM-CONV	Evolv ECAM Converter for Pushlok connector on ROC Drop Cable.

# Evolv® Terminal Accessories



Evolv® Terminal Brackets	
Part Number	Product Description
EHC-BKT-Wall	Evolv Wall- and Pole-Mount Terminal Bracket, compatible with 8-, 12-, and 16-port terminals (2 rows of ports)
EHC-BKT-HH	Evolv Handhole-Mount Terminal Bracket, compatible with all Evolv terminals (2, 4, 6, 8, 12 and 16 port)
EHC-BKT-Strand	Evolv Strand-Mount Terminal Bracket, compatible with all Evolv terminals (2, 4, 6, 8, 12 and 16 port)



Evolv Terminal Covers	
Part Number	Product Description
EHC-CVR-A4-GRAY	Evolv 2- and 4-Port Terminal Cover
EHC-CVR-A8-GRAY	Evolv 6- and 8-Port Terminal Cover
EHC-CVR-B4-GRAY	Evolv 6- and 8-Port Terminal Cover, 2 rows of 4 ports
EHC-CVR-B8-GRAY	Evolv 12- and 16-Port Terminal Cover, 2 rows of 8 ports
EHC-CVR-AT-GRAY	Evolv 12-Port Terminal Cover, 1 row of 12 ports



## Evolv® Reflector with Pushlok® Technology

Part Number	Product Description
07-058064-002	The Evolv Reflector with Pushlok Technology was designed to create a demarcation point in the network through a reflective event on OTDR equipment. This event allows users to validate connectivity to that point within the network. The reflector consumes a fiber connection port within an Evolv terminal in order to measure connectivity.

Passive Optical Networks have always presented an inherent challenge for OTDR-based testing, and the industry has responded with the introduction of intelligent and automated solutions for continuous monitoring and event-based diagnostics. These advanced systems invariably rely on reflective devices installed at strategic points in the network, which the test equipment uses for trace characterization. One of the many advantages of hardened connectorized solutions is that the terminal's position is ideal for locating these reflective devices.

The Evolv Reflector with Pushlok Technology is a stubbed connector containing an optical filter that provides a highly reflective signature at 1,650 nm on which the latest intelligent OTDR solutions depend. This stand-alone pluggable device fits into any Evolv terminal port to enable remote monitoring of the terminal, which provides the test equipment with the information it needs for terminal identification. In many applications, each terminal has a reflector in one port when it is initially installed and like any connector, the reflector can be easily removed from the port.

All Evolv connectors, including the reflector, can be used on any OptiTap® port using the Evolv Reflector with OptiTap converter.

Features	Benefits
Pushlok and OptiTap connector technology	Industry standard for new and existing FTTx installations
Reflector with OptiTap converter	One component for both connector formats
Pluggable device	Easy removal for optical characterization
1,650 nm reflective wavelength	Compatible with intelligent OTDR systems

## Ordering Information

Part Number	Description	Minimum Order Quantity (MOQ)	Ordering Quantity
07-058064-002	Evolv Reflector with Pushlok Technology	25 pieces	Multiples of 25 pcs only

# Evolv<sup>®</sup> Assemblies with Pushlok<sup>®</sup> Technology



Multifiber Pushlok Tether Extender



Multifiber Pushlok Harness Assembly



ADSS ROC™ Drop Cable Assembly



1F ROC Drop, Pushlok to Pigtail



1F Round ROC Drop, Pushlok to Pigtail

Pushlok<sup>®</sup> hardened connector technology is the key component enabling smaller terminals and drops for FTTx networks than ever before. Designed for use in nearly every access network environment, the terminal is small enough to be placed in existing handholes or pedestals where space is paramount, on building façades, or in aerial networks (pole- or strand-mount). Improved aesthetics improve end-user adoption for façade applications.

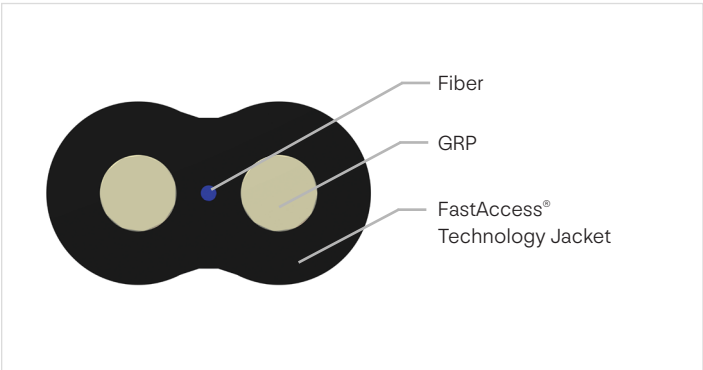
To supplement the new Evolv<sup>®</sup> Terminal portfolio, the Evolv assemblies will also feature Pushlok technology. A suite of 1- to 12-fiber assemblies are available including FlexNAP™ tether extenders, drop cables, specialty assemblies, and their associated accessories.

Features	Benefits
Hardened connector technology	Reduced-diameter single-fiber and multifiber Pushlok connector.
Flexible connector offerings	Dual-ended or pigtailed versions to accommodate any ONT interface. Hybrid assemblies with hardened connector (terminal) to SC APC (ONT). 1F & 2F small-cell variants with Pushlok connectors to LC or Uniboot connectors. Multifiber assemblies with SC, LC or MTP <sup>®</sup> connectors for outdoor and indoor applications.
Versatile installation environments	Flat and round cable variants for aerial (dielectric), direct-buried (toneable), duct, and MDU applications.
Backward compatibility	Accessories and converters allow Pushlok assemblies and drops to intermate with existing OptiTap <sup>®</sup> - or OptiTip <sup>®</sup> -based solutions.

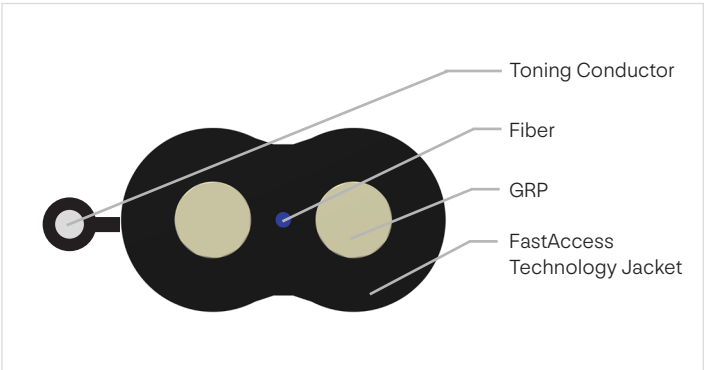
ROC™ Drop Cable Assembly

Outdoor, flat cable design, dielectric or toneable

Dielectric



Toneable



As an industry leader in optical connectivity products, Corning designs and manufactures the ROC™ drop cable assembly with factory-terminated, environmentally sealed and hardened connectors to reduce the cost and time of drop cable deployment. Corning hardened connectors provide superior durability and reliability in the drop segment of the network. This assembly also offers significant improvements in cable management.

By featuring the ROC drop cable design, issues of slack storage capacity are virtually eliminated. The ROC drop cable minimum bend radius is half the size of legacy drop cable. The outer dimensions of the cable have been reduced by more than 50%. ROC drop cables are more flexible, allowing for easier routing at the ONT. Installers will see a reduction in truck storage space requirements with this new design.

Features	Benefits
Hardened connector technology	OptiTap® connector, industry standard for existing FTTx networks, or reduced-diameter Pushlok® connector.
Reduced optimized cable cross-section	Smaller profile and bend radius. Flexibility allows for increased slack-storage capacity in existing optical network terminals (ONTs), pedestals, and handholes.
Robust design	Designed for rapid connection to external flush-mounted bulkhead adapters on terminals or closures.
Flexible connector offerings	Dual-ended or pigtailed versions to accommodate any ONT interface. Hybrid assemblies with hardened connector (terminal) to SC APC (ONT) are available with both OptiTap and Pushlok variants. Small cell variants with Pushlok connectors to LC or Uniboot connectors.
Versatile installation environments	Aerial: dielectric, self-supporting at 40 lbs installation tension at 150 ft (NESC Heavy), 255 ft (NESC Medium) or 330 ft (NESC Light).  Direct-buried: toneable for easy locating.  Duct: integral pulling eye/connector cap designed for 100 lb maximum pulling tension; OptiTap connector is suitable for 1.25-in conduit; Pushlok connector is suitable for 13-mm inner diameter duct.

Standards	
Design and Test Criteria	GR-3120, GR-20

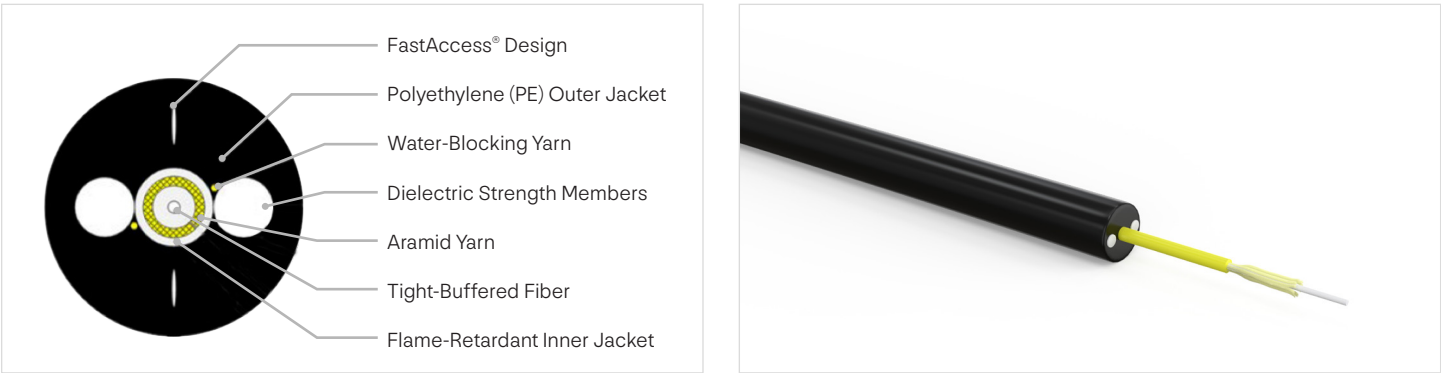
Insertion Loss, typical	0.15 dB
Reflectance, typical	≤ -65 dB
Outer diameter dimensions	12.3 mm (0.48 in) with dust cap; minimum recommended duct size is 0.75 in

Axial Pull, plug-to-adapter coupling strength	50.0 lb
Axial Pull, plug-to-cable through the dust cap	100.0 lb
Cold mate/demate	-40°C mechanical testing



Round ROC™ Drop Cable Assembly

Indoor/Outdoor, round cable design, dielectric



Drop cables are designed for rugged outdoor environments while compact drop cables are designed for challenging indoor bend environments. The Evolv® Round ROC™ drop cable design is gel-free, fully water-blocked, and UV resistant. Designed to meet industry standard requirements for indoor and outdoor drop cables, the product eliminates the need for termination to transition from the outdoor environment to an indoor ONT. This dielectric version eliminates any bonding and grounding requirements and is suitable for aerial, direct-buried, and duct installation.

Features	Benefits
Pushlok® Technology	Leading technology for FTTx installations
FastAccess Technology	Saves time and reduces complexity
Jettable	Can be used for pull or jet installs
Dielectric	Eliminates bonding and grounding requirements
Round cable with GRP strength members	Optimizes performance in ducts; cable design avoids kinking in duct bends
Bend-insensitive single-mode fiber	Enables installers to route the subunit around tight corners down to 5 mm (0.2 in) radius inside the home
Crush resistance	Fiber protection and signal integrity
Indoor subunit in a rugged outdoor cable	Eliminates the need for termination transition in indoor ONT and allows ease of installation in space-constrained areas

Standards	
Design and Test Criteria	Telcordia GR-3120, GR-20
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
NESC Heavy	150 ft

Pushlok® Connector Specifications	
Insertion Loss, typical	0.15 dB
Reflectance, typical	≤ -65 dB
Outer diameter dimensions	12.3 mm (0.48 in) with dust cap; minimum recommended duct size is 0.75 in

Cable Specifications	
Axial Pull, plug-to-adapter coupling strength	50.0 lb
Axial Pull, plug-to-cable, through the dust cap	100.0 lb
Cold mate/demate	-40°C mechanical testing

General Specifications	
Fiber type	Single-mode
Fiber Category	Corning® ClearCurve® ZBL
Environment	Indoor/Outdoor
Application	FTTx: Duct, Jetting, General Purpose Horizontal, Vertical Riser, Aerial
Cable Type	ROC™ Dielectric Drop
Connector Assembly Type	Pigtail to Pushlok®
Assembly Insertion Loss	0.15 dB

## Ordering Information

<div><div></div><div></div></div> <div>1</div>	D 1	O 1 U B 4 J R	<div><div></div><div></div><div></div></div> <div>3</div>	<div><div></div></div> <div>4</div>	-	<div><div></div></div> <div>5</div>
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- Select end one connector.  
00 = No Connector  
D1 = Pushlok Connector  
D3 = Pushlok Connector, includes OptiTap converter
- Defines input.  
D1 = Pushlok Connector  
D3 = Pushlok Connector, includes OptiTap converter
- Select cable assembly length (three-digit length) for lengths under 999 ft. *See Table A for lengths ≥ 1,000 ft.*  
**Lengths**  
Minimum: 2 m/6 ft  
**Meters lengths**  
2-, 3-, 5-, then 5-m increments up to 600 m  
**Foot lengths**  
6-, 10-, then 10- or 25-ft increments up to 2,000 ft  
*Note: Contact customer care for extended length offerings.*

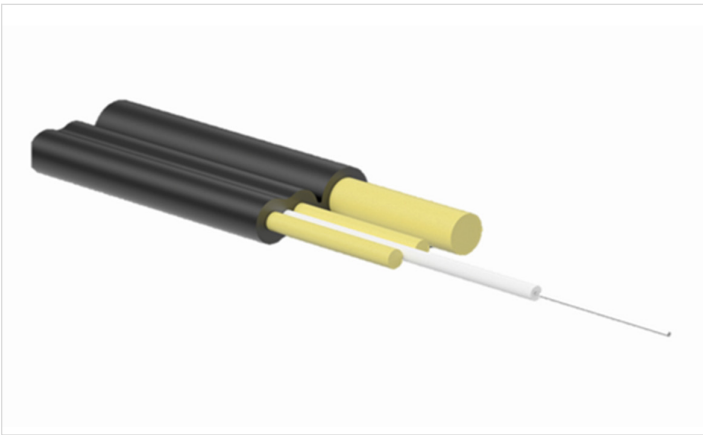
- Select cable assembly unit of length.  
F = Feet  
M = Meters
- Defines packaging.  
*\*Orders arrive in bulk packaging unless specified. To order individual packaging, please add '-P' to end of part number.*  
**Bulk packaging**  
Multiple units coiled in a box up to 1,500 ft/455 m.  
Greater than 1,501 ft/460 m ships on a reel.  
**Individual packaging**  
Individual units coiled in a box up to 500 ft/150 m.  
Greater than 500 ft/155 m ships on a reel.

Table A: Alpha codes for lengths ≥ 1,000 ft

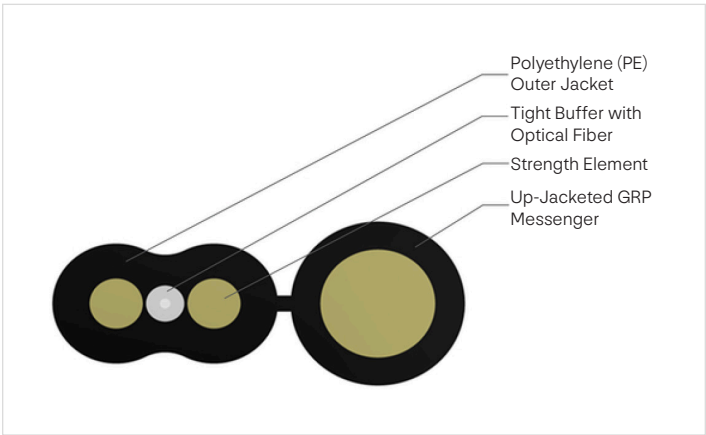
A00 = 1,000	C00 = 1,200	F00 = 1,500	J00 = 1,800
B00 = 1,100	D00 = 1,300	G00 = 1,600	K00 = 1,900
	E00 = 1,400	H00 = 1,700	L00 = 2,000

# Long-Span ROC™ Drop All-Dielectric Self-Supporting (ADSS) Cable Assembly

Outdoor, flat cable design, dielectric only



Long-Span ROC Drop, 1 F, SMF-28® Ultra fiber, Single-mode (OS2)



Long-Span ROC Drop, 1 F, SMF-28 Ultra fiber, Single-mode (OS2)

Long-Span ROC™ Drop All-Dielectric Self-Supporting (ADSS) cable assemblies provide preterminated drop capabilities for span distances not achievable with traditional cable construction. The long-length ADSS version allows pole-to-pole span lengths ranging from 400 ft to 650 ft under NESC® wind loading conditions. 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.

The Evolv® Long-Span ROC drop cable design is gel-free, fully water-blocked, and UV resistant. Its robust design and added GRP is designed to meet industry standard requirements for outdoor drop cables. This dielectric assembly eliminates any bonding or grounding requirements and is suitable for aerial, direct-buried, and duct installation.

Features	Benefits
Pushlok® Technology	Leading technology for FTTx installations
Dielectric	Eliminates bonding and grounding requirements
Larger GRP strength members	Enables NESC Heavy 400-ft pole spans
Crush resistance (RDUP/RUS Listed)	Fiber protection and signal integrity
Self-supporting	No support or messenger wire required

Standards	
Design and Test Criteria	Telcordia GR-3120, GR-20
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
*NESC Loading	400 ft to 650 ft

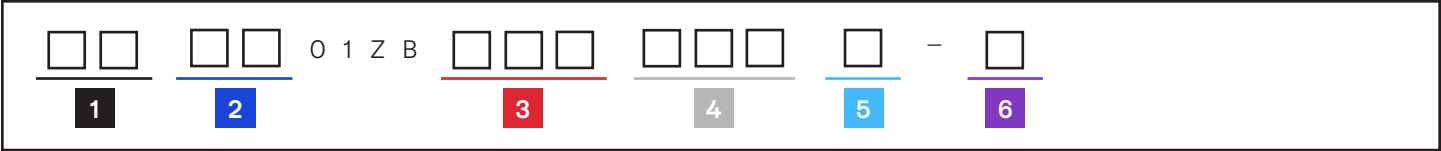
\*Consult NESC guidelines for ground clearance requirements.

Pushlok® Connector Specifications	
Insertion Loss, typical	0.15 dB
Insertion Loss, maximum	0.40 dB
Reflectance, typical	≤ -65 dB
Outer diameter dimensions	12.3 mm (0.48 in) with dust cap; minimum recommended duct size is 0.75 in

Cable Assembly Specifications	
Environment	Outdoor
Application	FTTx
Cable Type	Long-Span ROC™ Dielectric Cable
Fiber Category	Ultra fiber
Fiber Count	1
Connector Assembly Type	Pushlok-Pushlok; Pushlok-SC APC, Pushlok-Pigtail, and SC APC-Pigtail
Assembly Insertion Loss	Pushlok-Pushlok and Pushlok-SC APC, and SC APC-Pigtail: 0.5 dB Pushlok-Pigtail: 0.4 dB

Accessories	
Recommended Clamps (Both have been tested with favorable results)	AB2106 (Can be ordered through Corning or directly through Allied Bolt) S1 0978 (Can be ordered through MSI)
Jacket Removal RDST Tool	RDST-000
Lobe Removal Tool	ROC-LS-RT

Ordering Information



**1** Select end one connector.

00 = No Connector  
D1 = Pushlok® Connector  
D3 = Pushlok Connector, includes OptiTap® converter

**2** Select end two connector.

D1 = Pushlok Connector  
D3 = Pushlok Connector, includes OptiTap converter  
44 = SC APC Connector, simplex

**3** Select input.

L9R = Long-Span ROC™ assembly  
LFR = Long-Span ROC assembly with pulling grip

**4** Select cable assembly length (three-digit length) for lengths under 999 ft. *See Table A for lengths ≥ 1,000 ft.*

**5** Select cable assembly unit of length.

F = Feet  
M = Meters

**6** Defines packaging.

*\*Orders arrive in bulk packaging unless specified. To order individual packaging, please add '-P' to end of part number.*

Table A: Alpha codes for lengths ≥ 1,000 ft			
A00 = 1,000	D00 = 1,300	G00 = 1,600	K00 = 1,900
B00 = 1,100	E00 = 1,400	H00 = 1,700	L00 = 2,000
C00 = 1,200	F00 = 1,500	J00 = 1,800	

## Evolv® FlexNAP™ System with Multifiber Tethers



Pushlok Multifiber Assembly (Male to Male)

Pushlok Multifiber Extender

Pushlok Multifiber Harness Assembly  
(Female Pushlok to LC UPC connectors)

### Pushlok® Multifiber Assembly

Pushlok® Multifiber Assemblies can be configured as jumpers with either male or female multifiber Pushlok connectors on either end or as pigtailed assemblies depending on the application. As an example, male to male Pushlok assemblies can be leveraged when daisy-chaining terminals together.

### Pushlok Multifiber Extender

The Pushlok Multifiber Extender is an outdoor or indoor/outdoor cable factory terminated with a female Pushlok Multifiber Connector on one end and a male Pushlok Multifiber Connector on the other end. Each connector is protected from dust and water ingress by either a dust plug (female) or dust cap (male) with integrated pulling eye.

### Pushlok Multifiber Harness Assembly

The Pushlok Multifiber Harness Assembly is an outdoor or indoor/outdoor cable factory terminated with a Pushlok Multifiber connector on one end and a furcation and breakout to LC or SC single-fiber connectors or an MTP® multifiber connector on the other end. Single fiber connectors are terminated on 24-in long, 2.0-mm jacketed furcation legs. The MTP connector is terminated on a 24-in long, 2.9-mm round furcation leg.

## Connector Specifications

Multifiber Pushlok® Connectors	
Operation	-40°C to 70°C (-40°F to 158°F)
Length	SST-Drop™ Cable 4.70 in (120 mm) Multifiber Pushlok in-line connector, tip to end of boot; 5.53 in (141 mm) with dust plug installed, Round Cable 7.00 in (178 mm) Multifiber Pushlok in-line connector, tip to end of boot; 7.82 in (199 mm) with dust plug installed, SST Cable 7.00 in (178 mm) Multifiber Pushlok connector, tip to end of boot; 7.74 in (197 mm) with dust cap installed, Round Cable 5.56 in (142 mm) Multifiber Pushlok connector, tip to end of boot; 6.27 in (160 mm) with dust cap
Maximum Outer Diameter	Multifiber Pushlok connector 0.48 in; minimum recommended duct size is 0.75 in
Maximum Outer Diameter Multifiber Pushlok (Male)	Multifiber Pushlok connector 12.3 mm (0.48 in); minimum recommended duct size is 0.75 in
Maximum Outer Diameter Multifiber In-Line (Female)	Multifiber Pushlok connector 17.4 mm (0.69 in); minimum recommended duct size is 1.0 in
Qualification	EIA/TIA 568-B.3, GR-3152, IP69K and IP68
Reflectance	Single-mode OS2: ≤ -65 dB
Tensile Strength	50 lb when factory installed on SST-Drop or FREEDM® Flat-Drop Cable and 25 lb when installed on Evolv® Multifiber Round Cable
Insertion Loss, Maximum	0.35 dB maximum per fiber
Insertion Loss, Typical	0.15 dB typical per fiber

\*Full specifications for environmental hardiness are available upon request: Gen. Spec doc. PGS115(108)

LC and SC Compatible Connectors	
Operation	-40°C to 70°C (-40°F to 158°F)
Intermateability	TIA/EIA-568-B.3, FOCIS - TIA/EIA-604-10 (LC), TIA/EIA-604-3 (SC)
Qualification	EIA/TIA 568-B.3
Reflectance	Single-mode OS2: ≤ -55 dB
Insertion Loss, Maximum	0.5 dB maximum per fiber, 0.2 dB typical
Tensile Strength	≤ 0.2 dB change, 15 lb FOTP-6

## Cable Specifications

SST-Drop™ Outdoor Cable	
Installation	-22°F to 158°F (-30°C to 70°C)
Operation	-40°F to 158°F (-40°C to 70°C)
Qualification	GR-20, EIA/TIA 568-B.3, RDUP listed
Weight	20 lbs/1,000 ft (30 kg/km)
Outside Diameter	0.32 in (8.1 mm)
Tensile Strength	300 lbs (1350N)
Compressive Loading	125 lb/in (220N/cm)

Note: Full specifications for environmental hardiness are available upon request: Gen. Spec doc. PGS115(108)

FREEDM® LSZH™ Flat-Drop Indoor/Outdoor Cable	
Installation	-22°F to 158°F (-30°C to 70°C)
Operation	-40°F to 158°F (-40°C to 70°C)
Qualification	GR-20, EIA/TIA 568-B.3, RDUP listed
Weight	20 lbs/1,000 ft (30 kg/km)
Outside Diameter	0.32 in (8.1 mm)
Tensile Strength	300 lbs (1350N)
Compressive Loading	125 lb/in (220N/cm)

Note: Full specifications for environmental hardiness are available upon request: Gen. Spec doc. PGS115(108)

Multifiber Round Cable	
Installation	23°F to 122°F (-5°C to 50°C)
Operation	-13°F to 140°F (-25°C to 60°C)
Qualification	GR-20, EIA/TIA 568-B.3, RDUP listed
Weight	12 lbs/1,000 ft (18 kg/km)
Outside Diameter	0.18 in (4.6 mm)
Tensile Strength	300 lbs (1350N)
Compressive Loading	125 lb/in (220N/cm)

Note: Full specifications for environmental hardiness are available upon request: Gen. Spec doc. PGS115(108)



## Ordering Information

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1	2	3	4	5	6	7	8				

### 1 Select connector type 1.

00 = Stub end  
 T1 = Multifiber Pushlok® Connector (female)  
 T2 = Multifiber Pushlok Connector (male)

### 2 Select connector type 2.

T1 = Multifiber Pushlok Connector (female)  
 T2 = Multifiber Pushlok Connector (male)  
 M1 = OptiTip®, non-pinned  
 M2 = OptiTip, pinned  
 02 = LC UPC  
 44 = SC APC  
 58 = SC UPC  
 90 = MTP®

### 3 Select cable type.

02 = 2 fibers  
 04 = 4 fibers  
 06 = 6 fibers  
 08 = 8 fibers  
 12 = 12 fibers

### 4 Defines fiber type.

Z = Single-mode

### 5 Select cable type.

B4D1E = SST-Drop™ Dielectric Cable  
 B1D1E = SST-Drop Toneable Cable (single-mode only)  
 BZD1X = FREEDM® LSZH™ Flat Drop Cable  
 B4D3E = Evolv® Multifiber Round Cable†

### 6 Select length.

003 = 3 ft\*  
 050 = 50 ft  
 100 = 100 ft  
 A00 = 1,000 ft

### 7 Select unit of measure.

F = Feet  
 M = Meters

### 8 Defines packaging.

P = Individual packaging

#### Notes:

For lengths greater than 100 ft (30 m), contact Customer Care.

Minimum length is 10 ft (3 m). All other lengths must be ordered in 10- or 25-ft increments of 5 ft.

\*3 ft option only available for maintenance extender combining T1/T2 connector code with M1/M2 connector code.

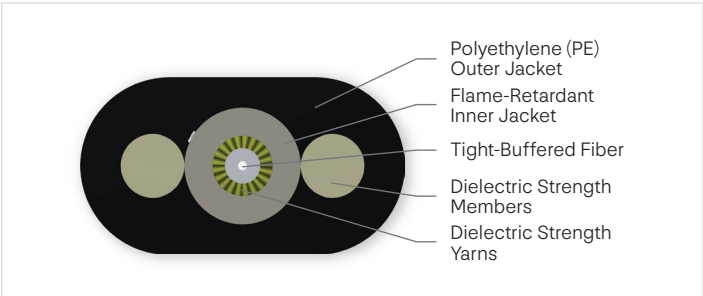
†M1 and M2 connector types are not available with the B4D3E option for Evolv Multifiber Round Cable.

2- and 4-Fiber SST-Drop™ Cable Assembly

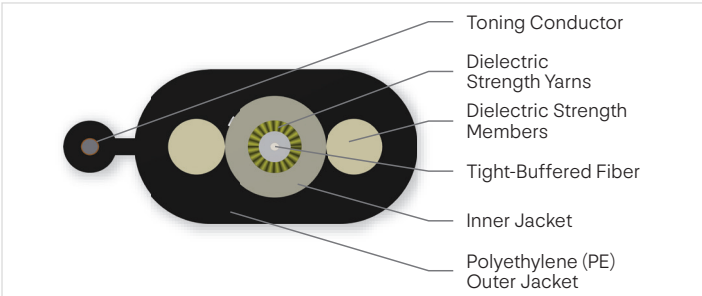
Standard Outdoor or Indoor/Outdoor, flat cable design, dielectric or toneable

SST-Drop Indoor/Outdoor Cable

Dielectric

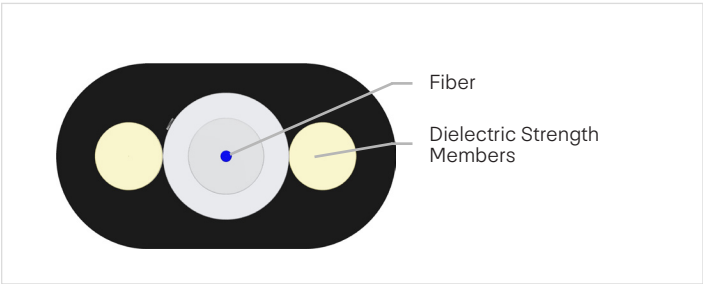


Toneable

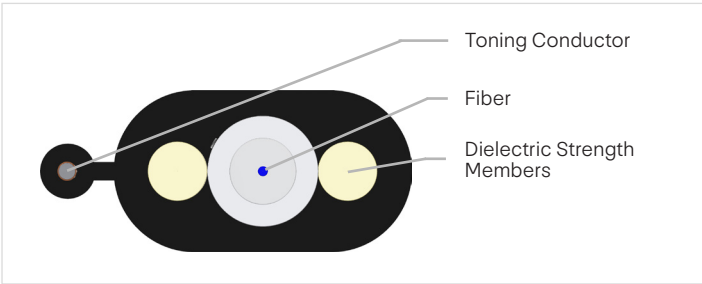


SST-Drop Outdoor Cable

Dielectric



Toneable



As an industry leader in optical connectivity products, Corning designs and manufactures the SST-Drop™ cable assembly with factory-terminated, environmentally sealed and hardened connectors to reduce the cost and the time of drop cable deployment in optical access networks. The Pushlok® drop cable assembly is specifically designed to significantly reduce required drop cable installation.

Features	Benefits
Hardened connector technology	Reduced-diameter Pushlok connector.
Indoor/outdoor drop has flame-retardant inner jacket	Indoor/Outdoor SST-Drop can be leveraged for indoor & outdoor applications.
Flexible connector offerings	2 and 4 multifiber drops including pigtail and in-line variants. 2F small-cell variants with Pushlok hardened connectors to LC or Uniboot connectors.
Versatile installation environments	Aerial: dielectric, self-supporting at 40 lbs installation tension at 150 ft (NESC Heavy), 255 ft (NESC Medium) or 330 ft (NESC Light). Direct-buried: toneable for easy locating.

Standards	
Design and Test Criteria	GR-3120

Pushlok® Connector Specifications	
Insertion Loss, typical	0.15 dB
Reflectance, typical	≤ -65 dB
Outer diameter dimensions	12.3 mm (0.48 in) with dust cap; minimum recommended duct size is 0.75 in

Ordering Information



**1** Select end one connector.

D1 = Pushlok® Connector  
D3 = Pushlok Connector, includes OptiTap converter

**2** Select input.

44 = SC APC connector  
48 = In-line OptiTap® (SCA) connector  
D1 = Pushlok connector  
D3 = Pushlok Connector, includes OptiTap converter

**3** Select fiber count.

02 = 2 fibers  
04 = 4 fibers

**4** Select cable type.

JB4DD = SST-Drop™, dielectric, LBL fiber  
JBP4F = SST-Drop, dielectric, LBL fiber, with pulling grip  
JBPDD = SST-Drop, toneable, LBL fiber, with pulling grip

**5** Select cable assembly length (three-digit length) for lengths under 999 ft. *See Table A for lengths ≥ 1,000 ft.*

**Lengths**  
Minimum: 10 m / 25 ft

**Meters lengths**  
5-m increments up to 600 m

**Foot lengths**  
10- or 25-ft increments up to 2,000 ft

*Note: Contact customer care for extended length offerings.*

**6** Select cable assembly unit of length.

F = Feet  
M = Meters

**7** Defines packaging.\*

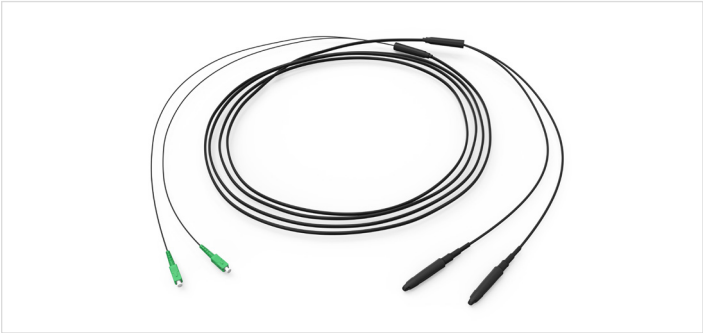
*\*Orders arrive in bulk packaging unless specified. To order individual packaging, please add ‘-P’ to end of part number.*

**Bulk packaging**  
Multiple units coiled in a box up to 1,500 ft/455 m.  
Greater than 1,501 ft/460 m ships on a reel.

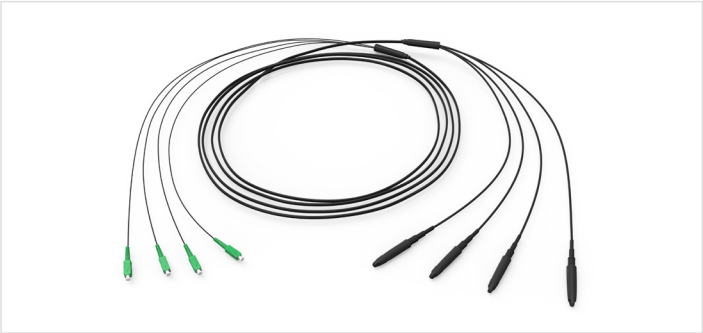
**Individual packaging**  
Individual units coiled in a box up to 500 ft/150 m.  
Greater than 500 ft/155 m ships on a reel.

Table A: Alpha codes for lengths ≥ 1,000 ft			
A00 = 1,000	C00 = 1,200	F00 = 1,500	J00 = 1,800
B00 = 1,100	D00 = 1,300	G00 = 1,600	K00 = 1,900
	E00 = 1,400	H00 = 1,700	L00 = 2,000

2F Cable Assembly with Pushlok Technology



4F Cable Assembly with Pushlok Technology



Evolv® 1- and 2-Fiber Small Cell Cable Assemblies

Outdoor, Indoor/Outdoor, ROC™ or SST cable offerings, dielectric



1F ROC™ Drop, Pushlok® to LC



1F SST-Drop™, Pushlok to Uniboot



2F SST-Drop, Outdoor, Pushlok to LC Duplex



2F SST-Drop, Outdoor, Pushlok to Uniboot

Corning’s 1F small cell assemblies are available with Pushlok® to LC simplex on the ROC™ Drop cable and LC Uniboot on the SST-Drop™. The 2F small cell assemblies are available as Pushlok to LC Duplex or LC Uniboot.

Features	Benefits
Pushlok Technology	Reduced-diameter connector, leading technology for FTTx installations
Reduced optimized cable cross-section	Smaller profile and bend radius, flexibility allows for increased slack storage capacity in existing optical network terminals (ONTs), pedestals, and handholes
Robust design	Designed for rapid connection to external flush-mounted bulkhead adapters on terminals or closures
Flexible Connector Offerings	1F small cell variants with a Pushlok connector to LC or Uniboot. 2F small cell variants with Pushlok to LC Duplex or LC Uniboot.
Versatile installation environments	Dielectric variants available

## Connector Specifications

Connector Types	Pushlok®, LC Simplex, LC Duplex, LC Uniboot
Insertion loss, typical	0.15 dB
Reflectance	≤ -65 dB

## Small Cell Drop Cable Assembly Specifications

Assembly types	ROC™ and SST-Drop™ Small Cell Assemblies
Assembly Insertion Loss	0.4 dB
Connector Assembly Type	Pushlok LC Simplex

## Small Cell Drop Cable Assembly Specifications

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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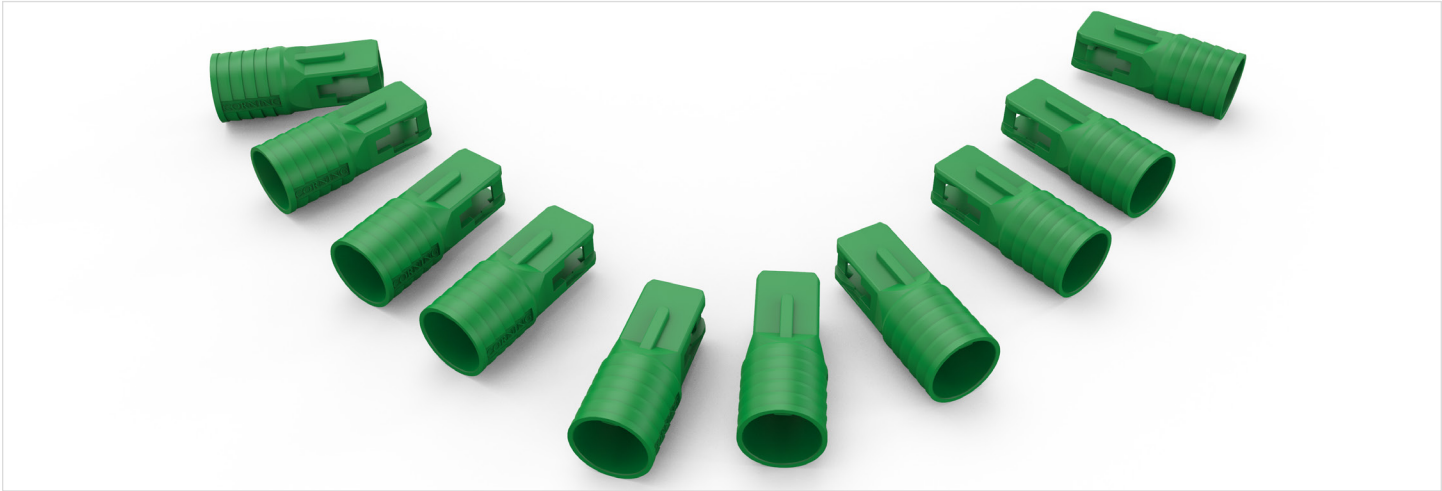
## Ordering Information

Diagram illustrating the steps of long division:

1. Divide (D 1)
2. Multiply (x)
3. Subtract (−)
4. Bring down (↓)
5. Repeat (↺)

- |   |  |
|---|--|
| <p><b>1</b> Defines end one connector.</p> <p>D1 = Single-Fiber Pushlok® Connector</p> <p><b>2</b> Select input.</p> <p>0201JB49R = 1F LC Connector, simplex, on ROC™ Drop cable<br/>7801JB4FD = 1F LC Uniboot connector, simplex, on SST-Drop cable<br/>0402JB4FD = 2F LC Connector, duplex, on SST-Drop cable<br/>7802JB4FD = 2F LC Uniboot connector, SST-Drop cable</p> <p><b>3</b> Select cable assembly length (three-digit length) for lengths under 999 ft. <i>See Table A for lengths ≥ 1,000 ft.</i></p> <p>Lengths<br/>Minimum: 2 m / 6 ft<br/>Maximum: 600 m / 2,000 ft</p> | <p><b>4</b> Select cable assembly unit of length.</p> <p>F = Feet<br/>M = Meters</p> <p><b>5</b> Defines packaging.*</p> <p><i>*Orders arrive in bulk packaging unless specified.<br/>To order individual packaging, please add ‘P’ to end of part number.</i></p> <p><b>Bulk packaging</b><br/>Multiple units coiled in a box up to 1,500 ft/455 m.<br/>Greater than 1,501 ft/460 m ships on a reel.</p> <p><b>Individual packaging</b><br/>Individual units coiled in a box up to 500 ft/150 m.<br/>Greater than 500 ft/155 m ships on a reel.</p> |
|---|--|

# Evolv<sup>®</sup> Assembly Accessories

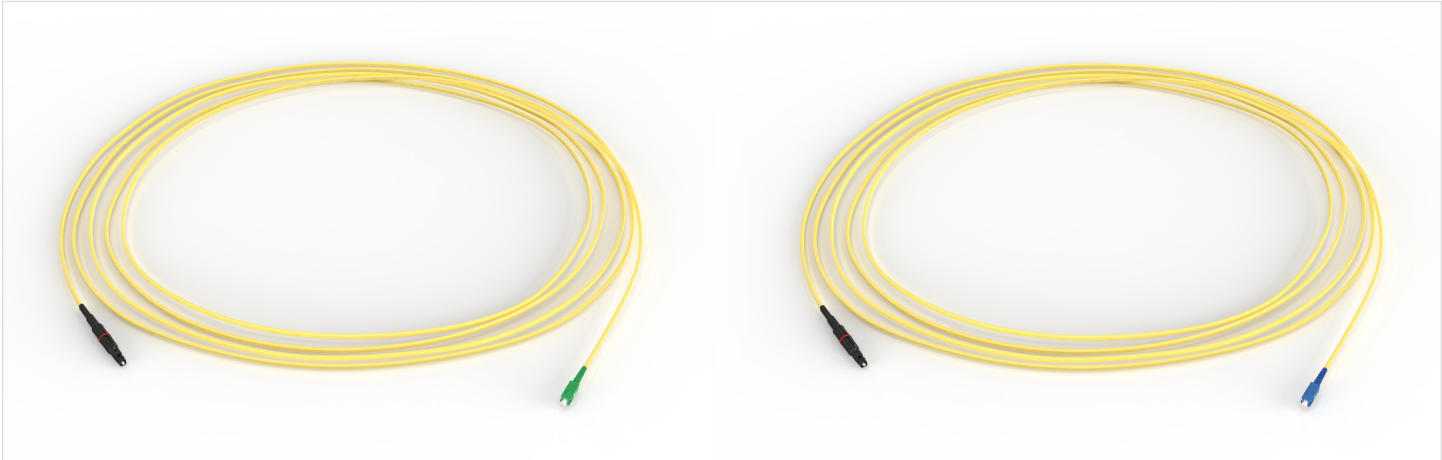


Pushlok <sup>®</sup> Drop Cable Assembly Accessory Information	
Evolv <sup>®</sup> SC Converter with Pushlok <sup>®</sup> Technology	
Part Number	KT-PL-SHROUD-SC
Description	SC APC shroud for converting Pushlok drop connectors to an SC form factor
Minimum Order Quantity (MOQ)	10



Pushlok Drop Cable Assembly Accessory Information	
Evolv OptiTap <sup>®</sup> Converter with Pushlok Technology	
Part Number	KT-PL-OPT-CONV
Description	OptiTap housing for converting Pushlok drop connectors to an OptiTap form factor
Minimum Order Quantity (MOQ)	10

# Test Jumpers with Pushlok® Technology



Accessory Information	
SC APC Test Jumper	
Part Number	D14401E31AJ003M
Description	Evolv® Test Jumper with Pushlok® Technology, 1F Pushlok to SC APC simplex, 3 m
SC APC Test Jumper	
Part Number	D15801E31AJ003M
Description	Evolv Test Jumper with Pushlok Technology, 1F Pushlok to SC UPC simplex, 3 m

# Maintenance Extenders In-Line with Pushlok Technology



1-ft part number: D14801EB49R001F-P.



7-ft part number: D14801EB49R007F-P.

Accessory Information	
Evolv Maintenance Extender In-Line	
Part Number – 1-ft extender	D14801EB49R001F-P, available in both individual and bulk packaging
Part Number – 7-ft extender	D14801EB49R007F-P, available in both individual and bulk packaging
Description	Evolv Maintenance Extenders In-Line with Pushlok Technology, 1F Pushlok to 1F in-line, dielectric, 1-ft and 7-ft options, individual packaging. For customers who are replacing existing multiport terminals in the field with Evolv Terminals with Pushlok Technology, maintenance extenders can be used to convert existing OptiTap® drops to Pushlok drops. The in-line will connect to the installed OptiTap drop, and the Pushlok connector will plug into the new Evolv terminal port.

Port Cleaners



Single-Fiber Cleaner with Pushlok® Technology

Part Number	CLEANER-PUSHLOK
Description	The Evolv Port Cleaner with Pushlok Technology is compatible with both Pushlok and OptiTap® connectors and Evolv terminals and multiports. Single-fiber port cleaner accessories are proven effective for removing the following from connector end faces: skin oil, hand lotion, Arizona road dust, pre- and post-mate graphite, salt, isopropyl alcohol residue, and distilled water residue. These cleaners are easy to use and offer over 525 cleanings.
Standards	Free of hazardous substances according to RoHs 2011/65/EU

Multifiber Cleaner with Pushlok Technology

Part Number	CLEANER-PUSHLOK-MF
Description	The Evolv Port Cleaner with Pushlok Technology is compatible with multi-fiber Pushlok connectors and Evolv terminals and multiports. Multi-fiber cleaner accessories are proven effective for removing the following from connector end faces: skin oil, hand lotion, Arizona road dust, pre- and post-mate graphite, salt, isopropyl alcohol residue, and distilled water residue. These cleaners are easy to use and offer over 525 cleanings..
Standards	Free of hazardous substances according to RoHs 2011/65/EU



# 1-Fiber Pushlok® Adapter



Accessory Information	
Part Number	Adapter-Pushlok-SF
Description	This adapter allows users to connect 2 Pushlok drop cable 1F assemblies together. This may be used in instances where a drop cable assembly is too short to reach a final destination and needs to be extended.

CORNING