

## OPTICAL CONNECTIVITY

Rack Mount Panels | Optical Modules | Cable Assemblies | Components  
Sealed & Aerial Splice Closures | Fiber Demarcation | Fiber Enclosures

Founded in 1984, AFL is a global leader providing fiber optic products, equipment, and engineering services to the telecommunications, electric utility, wireless, energy, private network and OEM markets. AFL also serves a diverse mix of industry segments that include service providers, military and defense, mining, oil and gas, and biomedical.

AFL brings years of experience in developing solutions for customers, fostering a creative culture to drive and deploy innovative technologies that will improve communications for years to come. Our product line consists of fiber optic cable, transmission and substation accessories, outside plant equipment, connectors, fusion splicers, test equipment and training.

AFL's service portfolio includes market-leading positions with the foremost communications companies supporting inside plant central office, EF&I, outside plant, enterprise and wireless areas.

AFL is dedicated to bringing our customers a quality product as well as delivering superior value.



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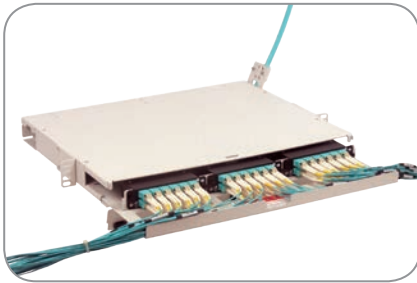
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## LightLink LANSystem 1RU Fiber Termination Patch/Splice Panel

The AFL 1RU Fiber Termination Patch/Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 36 fibers is desired. The panel design is based on a 1 rack unit height and is provisioned with three LGX® 118 compatible mounting positions that can accommodate adapter plates, XFM® optical cassettes, passive optical modules or any combination therein.

Standard 1RU Fiber Termination Patch Panels are available empty for complete field configuration, half loaded with adapter plates, or stubbed with a factory installed circular premise cable (CPC) or loose tube cable assembly.

Standard 1RU Fiber Patch and Splice Panels are available empty for complete field configuration, half loaded with adapter plates and splice trays, or loaded with pigtails, adapter plates and splice trays.

### Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- Modular design
- Slide-out tray with relief cut-outs for simplified connector access
- Optional splice tray kit for on site conversion to patch and splice panel
- Optional front door key lock for heightened protection of internal components

### Applications

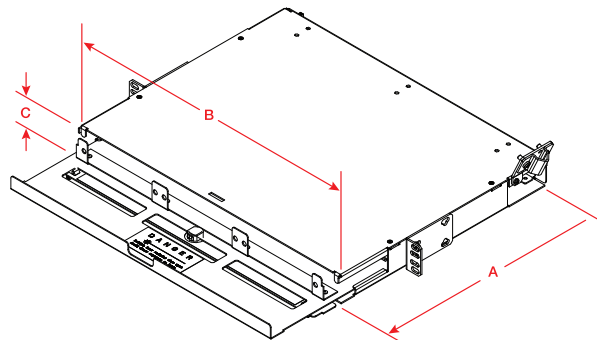
- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 18-fiber
- High density: up to 36-fiber
- LGX 118 compatible
- Standard cable stub location is right rear exiting upward
- 1RU Patch and Splice Panel holds up to three splice tray kits

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	CAPACITY	UNLOADED WEIGHT
13.51	17.00	1.75	1	18 / 36	4 lbs.



LGX is a registered trademark of Furukawa Electric North America, Inc.  
Telcordia is a registered trademark of Telcordia Technologies, Inc.

## LightLink LANSystem 1RU Fiber Termination Patch/Splice Panel

### Ordering Information

Select the seven digit AFL panel part number, specify the color, and choose the loading character desired.

When ordering stubbed (S), enter the cable stub length required in meters.

Note: Standard stub is Circular Premise Cable (CPC).

AFL NO.	Color	Loading Character	Cable Stub Length (M)
FM001344	B	S	0010
	W = White B = Black	E = Empty H = Half-loaded with adapters L = Loaded with adapters and pigtails (Patch and Splice only) S = Preterminated with tight buffered CPC cable stub (Riser) (Patch only) R = Preterminated with OSP loose tube cable stub (Patch only)	0002 = 2 meters 0004 = 4 meters etc.

**Example:** Order number for a panel Black in color, loaded with 12 PSC adapters (2 six packs), connectors and a cable stub 10 meters in length.

### Ordering Information

CONFIGURATION	AFL NO.
<b>CON012P—1 RU PATCH PANELS—12 FIBERS—LGX118</b>	
EMPTY	FM001038
12 PSC adapters (2 Six Packs)	FM001344
12 UST adapters (2 Six Packs)	FM001346
12 PST adapters (2 Six Packs)	FM001347
6 UDL (dup) adapters (2 Three Packs)	FM001353
6 PDL (dup) adapters (2 Three Packs)	FM001354
12 ASC adapters (2 Six Packs)	FM001352
12 UFC adapters (2 Six Packs)	FM001349
12 USC (ZR) adapters (2 Six Packs)	FM001351
12 AFC adapters (2 Six Packs)	FM001350
<b>CON024HD—1 RU HIGH DENSITY PATCH PANELS—24 FIBERS—LGX118</b>	
24 UST adapters (2 Twelve Packs)	FM001355
24 PST adapters (2 Twelve Packs)	FM001356
12 PDL (dup) adapters (2 Six Packs)	FM001348
12 USF (dup) adapters (2 Six Packs)	FM001357
12 ASF (dup) adapters (2 Six Packs)	FM001358
<b>CNS012P—1U PATCH AND SPLICE PANELS—12 FIBERS—LGX118</b>	
EMPTY	FM001328
12 PSC adapters (2 Six Packs), Splice Tray	FM001323
12 UST adapters (2 Six Packs), Splice Tray	FM001329
12 PST adapters (2 Six Packs), Splice Tray	FM001325
6 UDL (dup) adapters (2 Three Packs), Splice Tray	FM001334
6 PDL (dup) adapters (2 Three Packs), Splice Tray	FM001335
12 ASC adapters (2 Six Packs), Splice Tray	FM001333
12 UFC adapters (2 Six Packs), Splice Tray	FM001330
12 USC (ZR) adapters (2 Six Packs), Splice Tray	FM001332
12 AFC adapters (2 Six Packs), Splice Tray	FM001331
<b>CNS024HD—1 RU HIGH-DENSITY PATCH &amp; SPLICE PANELS—24 FIBERS—LGX118</b>	
24 UST adapters (2 Twelve Packs), Splice Tray	FM001336
24 PST adapters (2 Twelve Packs), Splice Tray	FM001337
12 USF (dup) adapters (2 Six Packs), Splice Tray	FM001338
12 ASF (dup) adapters (2 Six Packs), Splice Tray	FM001339

### Accessories

DESCRIPTION	AFL NO.
Splice Tray Kit: Single Fusion, 12 fiber, 1RU Patch Panel Standard Density (1 splice tray)	FM002826-1
Splice Tray Kit: Single Fusion, 12 fiber, 1RU Patch Panel High Density (2 splice trays)	FM002826-2
Ribbon Splice Tray Kit: Mass Fusion, 12 fiber, 1RU Patch Panel Standard Density (1 splice tray)	FM002826-1R
Ribbon Splice Tray Kit: Mass Fusion, 12 fiber, 1RU Patch Panel High Density (2 splice trays)	FM002826-2R
Kit, Lock, for CON/CNS Panels	FM001318

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM

#### Notes:

- 1) All MM cable is 62.5 μm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

## LightLink LANSystem 2RU Fiber Termination Patch/Splice Panel



The AFL 2RU Fiber Termination Patch/Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 72 fibers is desired. The panel design is based on a 2 rack unit height and is provisioned with three LGX® 118 compatible mounting positions that can accommodate adapter plates, XFM optical cassettes, passive optical modules or any combination therein.

Standard 2RU Fiber Termination Patch Panels are available empty for complete field configuration, half loaded with adapter plates, or stubbed with a factory installed circular premise cable (CPC) or loose tube cable assembly.

Standard 2RU Fiber Patch and Splice Panels are available empty for complete field configuration, half loaded with adapter plates and splice trays, or loaded with pigtails, adapter plates and splice trays.

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 36 fiber
- High density: up to 72 fiber
- LGX 118 compatible
- Standard cable stub location is right rear exiting upward
- 2RU Patch and Splice Panel holds up to four splice tray kits

### Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- Modular design
- Slide-out tray with relief cut-outs for simplified connector access
- Optional splice tray kit for on site conversion to patch and splice panel
- Optional front door key lock for height-ened protection of internal components

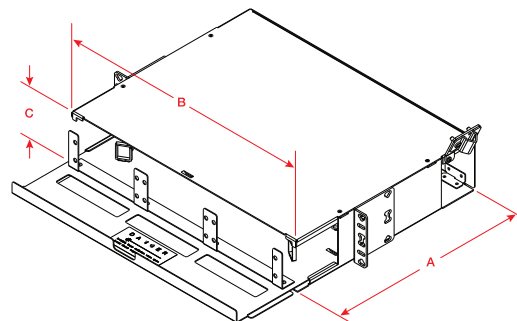
### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	CAPACITY	UNLOADED WEIGHT
13.51	17.00	3.50	2	36 / 72*	5 lbs.

\* 72 fiber capacity not available in Patch and Splice configuration.



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Telcordia is a registered trademark of Telcordia Technologies, Inc.

## LightLink LANSystem 2RU Fiber Termination Patch/Splice Panel

### Ordering Information

Select the seven digit AFL panel part number, specify the color, and choose the loading character desired.

When ordering stubbed (S), enter the cable stub length required in meters.

Note: Standard stub is Circular Premise Cable (CPC).

AFL NO.	Color	Loading Character	Cable Stub Length (M)
<b>FM001411</b>	<b>B</b>	<b>S</b>	<b>0010</b>
	W = White B = Black	E = Empty H = Half-loaded with adapters L = Loaded with adapters and pigtails (Patch and Splice only) S = Preterminated with tight buffered CPC cable stub (Riser) (Patch only) R = Preterminated with OSP loose tube cable stub (Patch only)	0002 = 2 meters 0004 = 4 meters etc.

**Example:** Order number for a panel Black in color, loaded with 24 PSC adapters (4 six packs), connectors and a cable stub 10 meters in length.

### Ordering Information

CONFIGURATION	AFL NO.
<b>CON024P—2 RU PATCH PANELS—24 FIBERS—LGX118</b>	
EMPTY	FM001029
24 PSC adapters (4 Six Packs) 118 LGX (Beige)	FM001433
24 UST adapters (4 Six Packs) 118 LGX	FM001434
24 PST adapters (4 Six Packs) 118 LGX	FM001435
12 UDL (dup) adapters (4 Three Packs) 118 LGX (Blue)	FM001441
12 PDL (dup) adapters (4 Three Packs) 118 LGX (Beige)	FM001442
24 ASC adapters (4 Six Packs) 118 LGX (Green)	FM001439
24 UFC adapters (4 Six Packs) 118 LGX	FM001436
24 USC (ZR) adapters (4 Six Packs) 118 LGX (Blue)	FM001438
24 AFC adapters (4 Six Packs) 118 LGX	FM001437

CNS024P—2U PATCH AND SPLICE PANELS—24 FIBERS—LGX118	AFL NO.
EMPTY	FM001414
24 PSC adapters (4 Six Packs) 118 LGX, Splice tray	FM001411
24 UST adapters (4 Six Packs) 118 LGX, Splice tray	FM001412
24 PST adapters (4 Six Packs) 118 LGX, Splice tray	FM001413
12 UDL (dup) adapters (4 three Packs) 118 LGX, Splice tray	FM001419
12 PDL (dup) adapters (4 three Packs) 118 LGX, Splice tray	FM001420
24 ASC adapters (4 Six Packs) 118 LGX, Splice tray	FM001418
24 UFC adapters (4 Six Packs) 118 LGX, Splice tray	FM001415
24 USC (ZR) adapters (4 Six Packs) 118 LGX, Splice tray	FM001417
24 AFC adapters (4 Six Packs) 118 LGX, Splice tray	FM001416

**Notes:**

- 1) All MM cable is 62.5 µm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

### Accessories

DESCRIPTION	AFL NO.
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04 (1 splice tray)	FM002827-1
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04 (2 splice trays)	FM002827-2
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04 (3 splice trays)	FM002827-3
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04 (4 splice trays)	FM002827-4
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04, Ribbon (1 splice tray)	FM002827-1R
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04, Ribbon (2 splice trays)	FM002827-2R
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04, Ribbon (3 splice trays)	FM002827-3R
Splice Tray Kit: Mass Fusion, 12 fiber, 2RU, WME02, WME04, Ribbon (4 splice trays)	FM002827-4R
Kit, Lock, for CON / CNS Panels	FM001318

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM

## LightLink LANSystem 3RU Fiber Termination Patch Panel



The AFL 3RU Fiber Termination Patch Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 96 fibers is desired. The panel design is based on a 3 rack unit height with a master plate that is provisioned with nine LGX® 118 compatible mounting positions that can accommodate adapter plates, XFM® optical cassettes, passive optical modules or any combination therein.

Standard 3RU Fiber Termination Patch Panels are available empty for complete field configuration, half loaded with adapter plates, or stubbed with a factory installed circular premise cable (CPC) or loose tube cable assembly.

### Specifications

- Telcordia® GR-63 NEBS Tested
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 48-fiber
- High density: up to 96-fiber
- LGX 118 compatible
- Standard cable stub location is right rear exiting upward

### Features

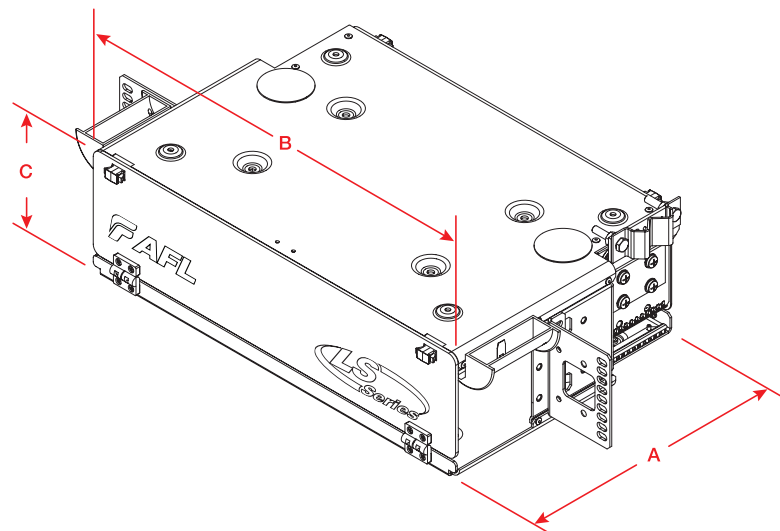
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate (118 mm)
- Modular design
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11.00	17.00	5.25	3	48/96	8.4 lbs.	2.03 mm



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Telcordia is a registered trademark of Telcordia Technologies, Inc.



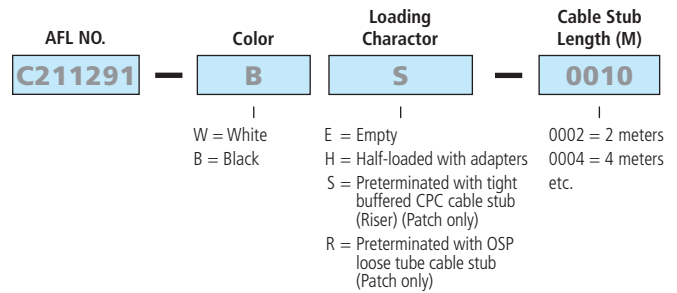
## LightLink LANSystem 3RU Fiber Termination Patch Panel

### Ordering Information

Select the seven digit AFL part number you need, specify black or white, and choose the loading character desired.

When ordering stubbed (S), enter the cable stub length required in meters.

Note: Standard stub is Circular Premise Cable (CPC).



**Example:** Order number for a panel Black in color, loaded with 48 PSC adapters (8 six packs), connectors and a cable stub 10 meters in length.

### Configuration Part Numbers

All cable clamps offered separately so that customers may choose the correct clamp for their application.

CONFIGURATION	AFL NO.
<b>CON048P—3 RU PATCH PANELS—48 FIBERS—LGX118</b>	
EMPTY	C211291
48 USC (PB) adapters (8 Six Packs)	C211300
48 PSC adapters (8 Six Packs)	C211309
48 UST adapters (8 Six Packs)	C211336
48 PST adapters (8 Six Packs)	C211345
24 UDL (dup) adapters (8 Three Packs)	FM000181
24 PDL (dup) adapters (8 Three Packs)	FM000182
48 ASC adapters (8 Six Packs)	C213928
48 UFC adapters (8 Six Packs)	C213916
48 USC (ZR) adapters (8 Six Packs)	C213923
48 AFC adapters (8 Six Packs)	C213919
48 ULC adapters (8 Six Packs)	C213934
24 PSF (dup) adapters (8 Three Packs)	FM000183
24 USF (dup) adapters (8 Three Packs)	FM000184
24 ASF (dup) adapters (8 Three Packs)	FM000185
48 MTRJ adapters (8 Six Packs)	FM000186
<b>CON096HD—3 RU HIGH DENSITY PATCH PANELS—96 FIBERS—LGX118</b>	
96 UST adapters (8 Twelve Packs)	FM000187
96 PST adapters (8 Twelve Packs)	FM000188
48 UDL (dup) adapters (8 Six Packs)	C211349
48 PSF (dup) adapters (8 Six Packs)	C211313
48 PDL (dup) adapters (8 Six Packs)	C211360
48 USF (dup) adapters (8 Six Packs)	FM000189
48 ASF (dup) adapters (8 Six Packs)	FM000190

#### Notes:

- 1) All MM cable is 62.5 µm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM

## LightLink LANSystem 4RU Fiber Termination Patch Panel



The AFL 4RU Fiber Termination Patch Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 144 fibers is desired. The panel design is based on a 4 rack unit height with a master plate that is provisioned with 12 LGX® 118 compatible mounting positions that can accommodate adapter plates, XFM® optical cassettes, passive optical modules or any combination therein.

Standard 4RU Fiber Termination Patch Panels are available empty for complete field configuration, half loaded with adapter plates, or stubbed with a factory installed circular premise cable (CPC) or loose tube cable assembly.

### Specifications

- Telcordia® GR-63 NEBS Tested
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 72-fiber
- High density: up to 144-fiber
- LGX 118 compatible
- Standard cable stub location is right rear exiting upward

### Features

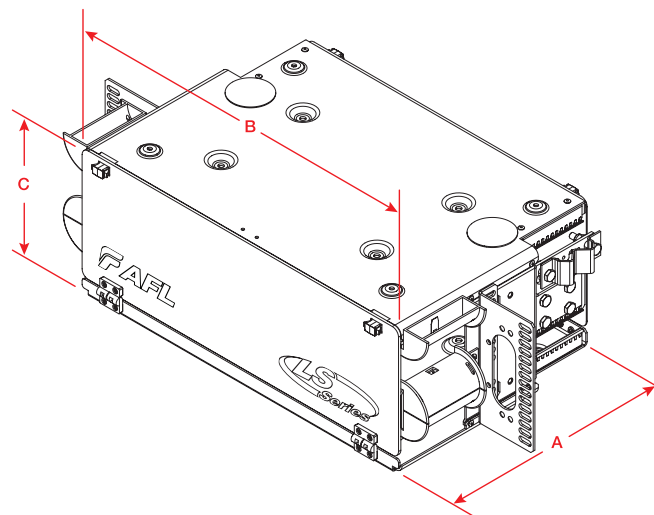
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate and footprint (118 mm)
- Modular design
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11.00	17.00	7.00	4	72/96/144	9 lbs.	2.03 mm



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Telcordia is a registered trademark of Telcordia Technologies, Inc.

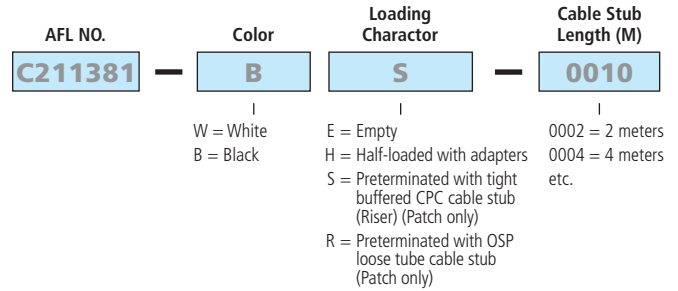
## LightLink LANSystem 4RU Fiber Termination Patch Panel

### Ordering Information

Select the seven digit AFL panel part number, specify the color, and choose the loading character desired.

When ordering stubbed (S), enter the cable stub length required in meters.

Note: Standard stub is Circular Premise Cable (CPC).



**Example:** Order number for a panel Black in color, loaded with 72 PSC adapters (12 six packs), connectors and a cable stub 10 meters in length.

### Ordering Information

CONFIGURATION	AFL NO.
<b>CON072P—4 RU PATCH PANELS—72 FIBERS—LGX118</b>	
EMPTY	C211372
72 USC (PB) adapters (12 Six Packs)	C211381
72 PSC adapters (12 Six Packs)	C211390
72 UST adapters (12 Six Packs)	C211417
72 PST adapters (12 Six Packs)	C211426
36 UDL (dup) adapters (12 Three Packs)	FM000191
36 PDL (dup) adapters (12 Three Packs)	FM000192
72 ASC adapters (12 Six Packs)	C213955
72 UFC adapters (12 Six Packs)	C213941
72 USC (ZR) adapters (12 Six Packs)	C213952
72 AFC adapters (12 Six Packs)	C213946
72 ULC adapters (12 Six Packs)	C213959
36 PSF (dup) adapters (12 Three Packs)	FM000193
36 USF (dup) adapters (12 Three Packs)	FM000136
36 ASF (dup) adapters (12 Three Packs)	FM000194
72 MTRJ adapters (12 Six Packs)	FM000195

CONFIGURATION	AFL NO.
<b>CON096P—4 RU PATCH PANELS—96 FIBERS—LGX118</b>	
EMPTY	FM000344
96 USC (PB) adapters (12 Eight Packs)	FM000202
96 PSC adapters (12 Eight Packs)	FM000203
96 UST adapters (12 Eight Packs)	C213964
96 PST adapters (12 Eight Packs)	FM000204
96 ASC adapters (12 Eight Packs)	C213982
96 UFC adapters (12 Eight Packs)	C213970
96 USC (ZR) adapters (12 Eight Packs)	C213977
96 AFC adapters (12 Eight Packs)	C213973
96 MTRJ adapters (12 Eight Packs)	FM000205

**Notes:**

- 1) All MM cable is 62.5 µm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

CONFIGURATION	AFL NO.
<b>CON144HD—4 RU HIGH DENSITY PATCH PANELS—144 FIBERS—LGX118</b>	
EMPTY	FM000344
72 UDL (dup) adapters (12 Six Packs)	C211432
72 ADL (dup) adapters (12 Six Packs)	FM000345
72 PSF (dup) adapters (12 Six Packs)	C211396
72 PDL (dup) adapters (12 Six Packs)	C211439
72 USF (dup) adapters (12 Six Packs)	FM000196
72 ASF (dup) adapters (12 Six Packs)	FM000197
144 UST adapters (12 Twelve Packs)	FM000198
144 PST adapters (12 Twelve Packs)	FM000199
144 UFC adapters (12 Twelve Packs)	FM000200
144 USC (PB) adapters (12 Twelve Packs)	FM000133
144 ASC adapters (12 Twelve Packs)	FM000201

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM

## LightLink LANSystem 5RU Fiber Termination Patch Panel



The AFL 5RU Fiber Termination Patch Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 288 fibers is desired. The panel design is based on a 5 rack unit height with a master plate that is provisioned with twelve LGX® 170 compatible mounting positions that can accommodate adapter plates, XFM® optical cassettes, passive optical modules or any combination therein.

Standard 5RU Fiber Termination Patch Panels are available empty for complete field configuration, half loaded with adapter plates, or stubbed with a factory installed circular premise cable (CPC) or loose tube cable assembly. High density panels utilize two 144 fiber stubs for 288 terminations.

### Specifications

- Telcordia® GR-63 NEBS Tested
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 144-fiber
- High density: up to 288-fiber
- LGX 170 compatible
- Standard cable stub location is right rear exiting upward

### Features

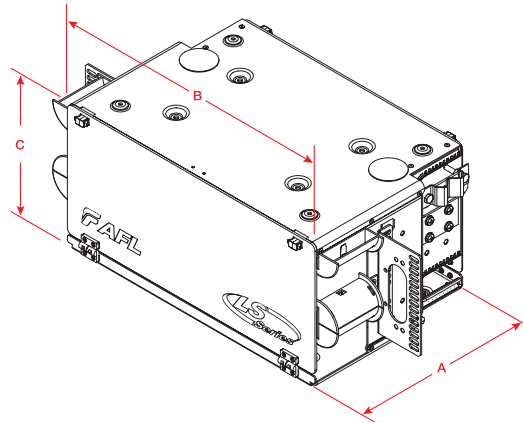
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate (170 mm)
- Modular design
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11.00	17.00	8.75	5	144/288	9 lbs.	2.03 mm



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Telcordia is a registered trademark of Telcordia Technologies, Inc.

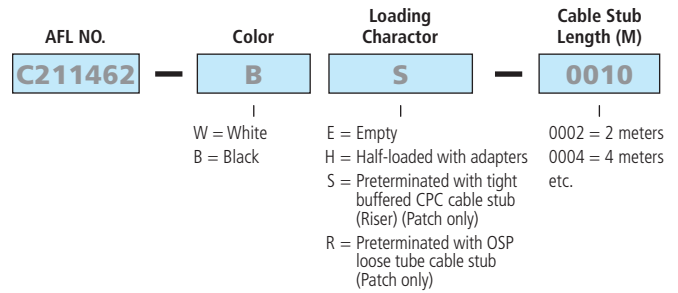
## LightLink LANSystem 5RU Fiber Termination Patch Panel

### Ordering Information

Select the seven digit AFL panel part number, specify the color, and choose the loading character desired.

When ordering stubbed (S), enter the cable stub length required in meters.

Note: Standard stub is Circular Premise Cable (CPC).



**Example:** Order number for a panel Black in color, loaded with 144 PSC adapters (12 six packs), connectors and a cable stub 10 meters in length.

### Ordering Information

CONFIGURATION	AFL NO.
<b>CON144P—5 RU PATCH PANELS—144 FIBERS—LGX170</b>	
EMPTY	C211453
144 USC (PB) adapters (12 Twelve Packs)	C211462
144 PSC adapters (12 Twelve Packs)	C211471
144 UST adapters (12 Twelve Packs)	C211498
144 PST adapters (12 Twelve Packs)	C211507
72 UDL (dup) adapters (12 Six Packs)	FM000206
72 PDL (dup) adapters (12 Six Packs)	FM000207
144 ASC adapters (12 Twelve Packs)	C214009
144 UFC adapters (12 Twelve Packs)	C213995
144 USC (ZR) adapters (12 Twelve Packs)	C214006
72 PSF (dup) adapters (12 Six Packs)	FM000208
72 USF (dup) adapters (12 Six Packs)	FM000209
72 ASF (dup) adapters (12 Six Packs)	FM000210
144 MTRJ adapters (12 Twelve Packs)	FM000211
<b>CON288HD—5 RU HIGH DENSITY PATCH PANELS (USES TWO 144 STUBS)—LGX170</b>	
144 UDL (dup) adapters (12 Twelve Packs)	C211511
144 ADL (dup) adapters (12 Twelve Packs)	FM000346
144 PDL (dup) adapters (12 Twelve Packs)	C211522
144 PSF (dup) adapters (12 Twelve Packs)	C211475
144 USF (dup) adapters (12 Twelve Packs)	FM000212
144 ASF (dup) adapters (12 Twelve Packs)	FM000213

**Notes:**

- 1) All MM cable is 62.5 μm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM





## LightLink LANSys™ 6RU Fiber Patch and Splice Panel

The AFL 6RU Fiber Patch and Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 96 fibers is desired. The two panel design is based on a 6-rack unit height comprised of a 3RU Termination Patch Panel and a 3RU Optical Splice Shelf. The 3RU Termination Patch Panel is provisioned with nine LGX® 118 compatible mounting positions. The 3RU Optical Splice Shelf utilizes two STF-48 telescoping splice drawers.

Standard 6RU Fiber Patch and Splice Panels are available empty for complete field configuration, half loaded with adapter plates and STF-48 telescoping splice trays, or loaded with pigtails, adapter plates and STF-48 telescoping splice trays.

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 48-fiber
- High density: up to 96-fiber
- Fiber storage capacity—one meter per spliced fiber (3 mm jacket)
- Uses two STF-48 telescoping splice drawers
- Two panel package—3U patch, 3U splice
- Nine LGX 118 mm positions

### Features

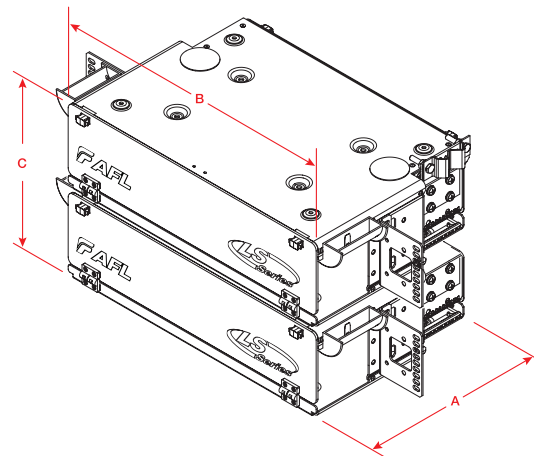
- Fits comfortably into new and existing interconnect, cross-connect, customer premise and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX-compatible master plate (118 mm)
- Modular design
- Compact and versatile method of organizing splicing and connectivity
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
11.00	17.00	10.5	6	48/96



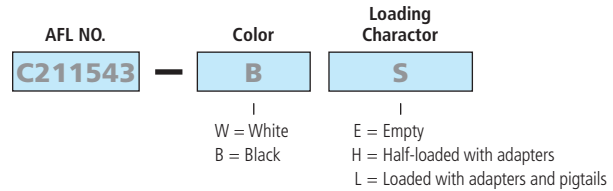
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## LightLink LANSystem 6RU Fiber Patch and Splice Panel

### Ordering Information

Select the seven-digit AFL panel part number, specify the color and choose the loading character desired.



**Example:** Order number for a panel Black in color, loaded with, master plate, adapter plates, 48 USC adapters (8 Six packs), splice drawer (48 and up), pigtails with connectors, hardware, cable clamp.

**Empty** - Includes master plate, mounting hardware, cable clamp.

**Unloaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), hardware, cable clamp.

**Loaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), pigtails with connectors, hardware, cable clamp.

### Configuration Part Numbers

CONFIGURATION	AFL NO.
<b>CNS048P—6U PATCH &amp; SPLICE PANELS</b> (1 EA. 3U PATCH, 3U SPLICE)— <b>LGX118</b>	
EMPTY	C211534
48 USC (PB) adapters (8 Six Packs) Splice Drawer (2-48 position)	C211543
48 PSC adapters (8 Six Packs) Splice Drawer (2-48 position)	C211552
48 UST adapters (8 Six Packs) Splice Drawer (2-48 position)	C211579
48 PST adapters (8 Six Packs) Splice Drawer (2-48 position)	C211588
24 UDL (dup) adapters (8 Three Packs) Splice Drawer (2-48 position)	FM000234
24 PDL (dup) adapters (8 Three Packs) Splice Drawer (2-48 position)	FM000235
48 ASC adapters (8 Six Packs) Splice Drawer (2-48 position)	C210928
48 UFC adapters (8 Six Packs) Splice Drawer (2-48 position)	C210913
48 USC (ZR) adapters (8 Six Packs) Splice Drawer (2-48 position)	C210922
AFC adapters (8 Six Packs) Splice Drawer (2-48 position)	C210917
ULC adapters (8 Six Packs) Splice Drawer (2-48 position)	C210931
24 PSF (dup) adapters (8 Three Packs) Splice Drawer (2-48 position)	FM000236
24 USF (dup) adapters (8 Three Packs) Splice Drawer (2-48 position)	FM000237
24 ASF (dup) adapters (8 Three Packs) Splice Drawer (2-48 position)	FM000238
48 MTRJ adapters (8 Six Packs) Splice Drawer (2-48 position)	FM000239
<b>CNS096HD—6U HIGH DENSITY PATCH &amp; SPLICE PANELS—LGX118</b>	
96 UST adapters (8 Twelve Packs) Splice Drawer 2-48 position)	FM000240
96 PST adapters (8 Twelve Packs) Splice Drawer (2-48 position)	FM000241
48 UDL (dup) adapters (8 Six Packs) Splice Drawer (2-48 position)	C211594
48 PSF (dup) adapters (8 Six Packs) Splice Drawer (2-48 position)	C211558
48 PDL (dup) adapters (8 Six Packs) Splice Drawer (2-48 position)	C211601
48 USF (dup) adapters (8 Six Packs) Splice Drawer (2-48 position)	FM000242
48 ASF (dup) adapters (8 Six Packs) Splice Drawer (2-48 position)	FM000243

#### Notes:

- 1) All MM cable is 62.5 μm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

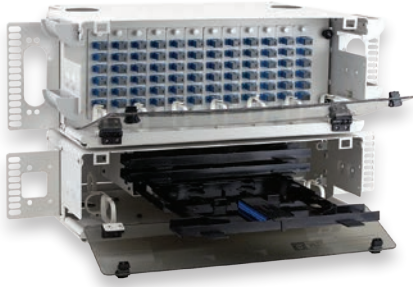
### Accessories

DESCRIPTION	AFL NO.
STF-48 Telescoping Splice Drawer	911442-00-00

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM

## LightLink LANSystem 7RU Fiber Patch and Splice Panel



The AFL 7RU Fiber Patch and Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 144 fibers is desired. The two panel design is based on a 7 rack unit height comprised of a 4RU Termination Patch Panel and a 3RU Optical Splice Shelf. The 4RU Termination Patch Panel includes a master plate that is provisioned with 12 LGX® 118 compatible mounting positions. The 3RU Optical Splice Shelf utilizes three STF-48 telescoping splice drawers.

Standard 7RU Fiber Patch and Splice Panels are available empty for complete field configuration, half loaded with adapter plates and STF-48 telescoping splice trays, or loaded with pigtails, adapter plates and STF-48 telescoping splice trays.

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 72-fiber
- High density: up to 144-fiber
- Fiber storage capacity—one meter per spliced fiber (3 mm jacket)
- Uses three STF-48 telescoping splice drawers
- Two panel package—4U patch and 3U splice
- 12 LGX 118 mm positions

### Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX-compatible master plate (118 mm)
- Modular design
- Compact and versatile method of organizing splicing and connectivity

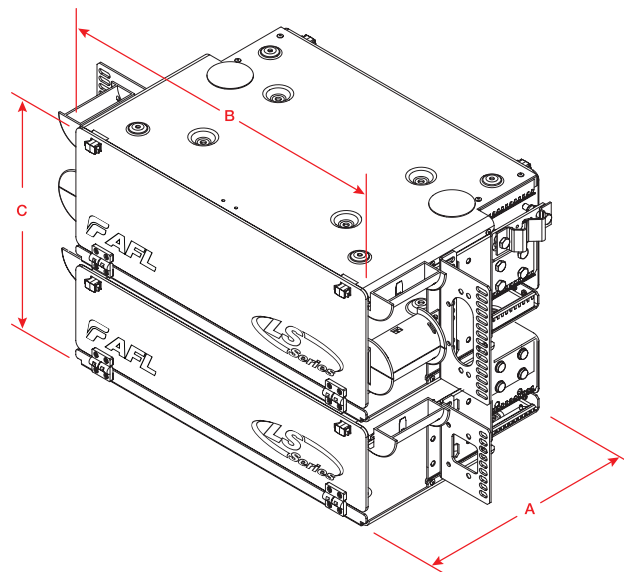
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
11.00	17.00	12.25	7	72/144



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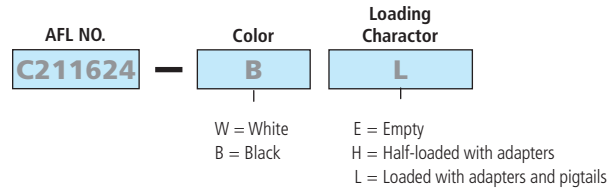
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## LightLink LANSystem 7RU Fiber Patch and Splice Panel

### Ordering Information

Select the seven-digit AFL number, specify the color and choose the loading character desired.

**Example:** Order number for a panel Black in color, loaded with master plate, adapter plates, 48 USC adapters (8 Six packs), splice drawer (48 and up), pigtailed with connectors, hardware, cable clamp.



**Empty** - Includes master plate, mounting hardware, cable clamp.

**Unloaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), hardware, cable clamp.

**Loaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), pigtailed with connectors, hardware, cable clamp.

### Ordering Information

CONFIGURATION	AFL NO.
<b>CNS072P—7U PATCH &amp; SPLICE PANELS</b> (1 EA. 4U PATCH, 3U SPLICE)— <b>LGX118</b>	
EMPTY	C211615
72 USC (PB) adapters (12 Six Packs)Splice Drawers (3-48 position)	C211624
72 PSC adapters (12 Six Packs)Splice Drawers (3-48 position)	C211633
72 UST adapters (12 Six Packs) Splice Drawers (3-48 position)	C211660
72 PST adapters (12 Six Packs)Splice Drawers (3-48 position)	C211669
36 UDL (dup) adapters (12 Three Packs)Splice Drawers (3-48 position)	FM000244
36 PDL (dup) adapters (12 Three Packs)Splice Drawers (3-48 position)	FM000245
72 ASC adapters (12 Six Packs)Splice Drawers (3-48 position)	C210958
72 UFC adapters (12 Six Packs)Splice Drawers (3-48 position)	C210946
72 USC (ZR) adapters (12 Six Packs)Splice Drawers (3-48 position)	C210953
72 AFC adapters (12 Six Packs) Splice Drawers (3-48 position)	C210949
72 ULC adapters (12 Six Packs) Splice Drawers (3-48 position)	C210964
36 PSF (dup) adapters (12 Three Packs)Splice Drawers (3-48 position)	FM000246
36 USF (dup) adapters (12 Three Packs)Splice Drawers (3-48 position)	FM000247
36 ASF (dup) adapters (12 Three Packs)Splice Drawers (3-48 position)	FM000248
72 MTRJ adapters (12 Six Packs)Splice Drawers (3-48 position)	FM000249

CONFIGURATION	AFL NO.
<b>CNS096P—7U PATCH &amp; SPLICE PANELS</b> (1 EA. 4U PATCH, 3U SPLICE)— <b>LGX118</b>	
EMPTY	C210967
96 UST adapters (12 Eight Packs) Splice Drawers (2-48 position)	C210971
96 UFC adapters (12 Eight Packs) Splice Drawers (2-48 position)	C210976
96 AFC adapters (12 Eight Packs) Splice Drawers (2-48 position)	C210982
96 USC (ZR) adapters (12 Eight Packs) Splice Drawers (2-48 position)	C210985
96 ASC adapters (12 Eight Packs) Splice Drawers (2-48 position)	C210989
96 MTRJ adapters (12 Eight Packs) Splice Drawers (2-48 position)	FM000257

**Notes:**

- 1) All MM cable is 62.5 μm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

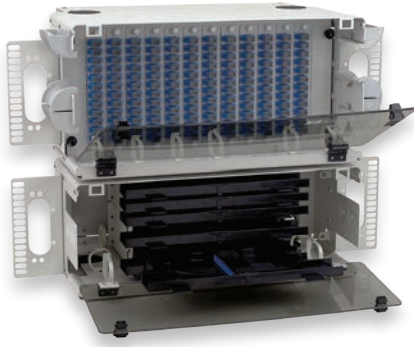
CONFIGURATION	AFL NO.
<b>CNS144HD—7RU HIGH DENSITY PATCH PANELS</b> (1 EA. 4U PATCH, 3U SPLICE)— <b>LGX118</b>	
72 UDL (dup) adapters (12 Six Packs)Splice Drawers (3-48 position)	C211673
72 PSF (dup) adapters (12 Six Packs)Splice Drawers (3-48 position)	C211637
72 PDL (dup) adapters (12 Six Packs)Splice Drawers (3-48 position)	C211684
72 USF (dup) adapters (12 Six Packs)Splice Drawers (3-48 position)	FM000250
72 ASF (dup) adapters (12 Six Packs)Splice Drawers (3-48 position)	FM000251
144 UST adapters (12 Twelve Packs)Splice Drawers (3-48 position)	FM000252
144 PST adapters (12 Twelve Packs)Splice Drawers (3-48 position)	FM000253
144 UFC adapters (12 Twelve Packs)Splice Drawers (3-48 position)	FM000254
144 USC adapters (12 Twelve Packs)Splice Drawers (3-48 position)	FM000255
144 ASC adapters (12 Twelve Packs)Splice Drawers (3-48 position)	FM000256

### Accessories

DESCRIPTION	AFL NO.
STF-48 Telescoping Splice Drawer	911442-00-00

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM



## LightLink LANSystem 8RU Fiber Patch and Splice Panel

The AFL 8RU Fiber Patch and Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 144 fibers is desired. The standard density, two panel design is based on an 8 rack unit height comprised of a 5RU Termination Patch Panel and a 3RU Optical Splice Shelf. The 5RU Termination Patch Panel includes a master plate that is provisioned with twelve LGX® 170 compatible mounting positions. The 3RU Optical Splice Shelf utilizes three STF-48 telescoping splice drawers.

Standard 8RU Fiber Patch and Splice Panels are available empty for complete field configuration, half loaded with adapter plates and STF-48 telescoping splice trays, or loaded with pigtails, adapter plates and STF-48 telescoping splice trays.

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility
- Standard density: up to 144-fiber
- Fiber storage capacity—one meter per spliced fiber (3 mm jacket)
- Uses three STF-48 telescoping splice drawers
- Two panel package Standard Density: 5U patch and 3U splice
- 12 LGX 170 mm positions

### Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate (170 mm)
- Modular design
- Compact and versatile method of organizing splicing and connectivity

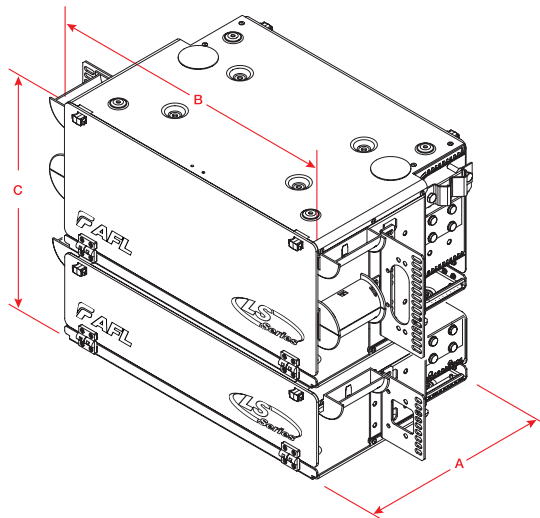
- Provides maximum protection of optical components

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Dimensions

PANEL VERSION	DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
Standard	11.00	17.00	14.00	8	144



LGX is a registered trademark of Furukawa Electric North America, Inc.

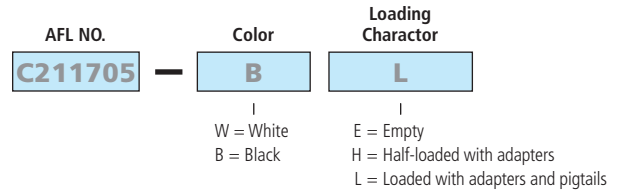
Telcordia is a registered trademark of Telcordia Technologies, Inc.



## LightLink LANSystem 8RU Fiber Patch and Splice Panel

### Ordering Information

Select the seven-digit AFL number, specify the color and choose the loading character desired.



**Example:** Order number for a panel Black in color, loaded with, master plate, adapter plates, 144 USC adapters (12 Twelve packs), splice drawer (48 and up), pigtails with connectors, hardware, cable clamp.

**Empty** - Includes master plate, mounting hardware, cable clamp.

**Unloaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), hardware, cable clamp.

**Loaded** - Includes master plate, adapter plates, adapters, splice drawer (48 & up), pigtails with connectors, hardware, cable clamp.

### Configuration Part Numbers

CONFIGURATION	AFL NO.
<b>CNS144P—8U PATCH &amp; SPLICE PANELS</b> (1 EA. 4U PATCH, 3U SPLICE)	<b>LGX170</b>
EMPTY	C211696
144 USC (PB) adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211705
144 PSC adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211714
144 UST adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211741
144 PST adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211750
72 UDL (dup) adapters (12 Six Packs) Splice Drawers (3-48 position)	FM000258
72 PDL (dup) adapters (12 Six Packs) Splice Drawers (3-48 position)	FM000259
144 ASC adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211021
144 UFC adapters (12 Twelve Packs) Splice Drawers (3-48 position)	C211007
144 USC (ZR) adapters (12 Twelve Packs) Splice Drawers (3-48 position)	FM000260
72 PSF (dup) adapters (12 Six Packs) Splice Drawers (3-48 position)	FM000261
72 USF (dup) adapters (12 Six Packs) Splice Drawers (3-48 position)	FM000262
72 ASF (dup) adapters (12 Six Packs) Splice Drawers (3-48 position)	FM000263
144 MTRJ adapters (12 Twelve Packs) Splice Drawers (3-48 position)	FM000264

#### Notes:

- 1) All MM cable is 62.5 µm unless otherwise specified.
- 2) When ordering Empty Termination Patch/Splice Panel, accessories are available for field configuration.

### Accessories

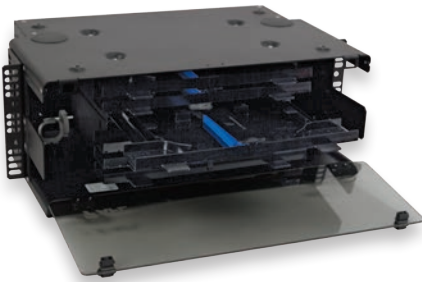
DESCRIPTION	AFL NO.
STF-48 Telescoping Splice Drawer	911442-00-00

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	SC—Angle Polish, Simplex, ZR sleeve, SM
ASF	SC—Angle Polish, Duplex, ZR sleeve, SM
PSC	SC—Physical Polish, Simplex, PB sleeve, MM
PSF	SC—Physical Polish, Duplex, PB sleeve, MM
USC (PB)	SC—Ultra Polish, Simplex, PB sleeve, SM
USC (ZR)	SC—Ultra Polish, Simplex, ZR sleeve, SM
USF	SC—Ultra Polish, Duplex, ZR sleeve, SM
PST	ST—Physical Polish, Simplex, PB sleeve, MM
UST	ST—Ultra Polish, Simplex, ZR sleeve, SM
AFC	FC—Angle Polish, Simplex, ZR sleeve, SM
PFC	FC—Physical Polish, Simplex, PB sleeve, MM
UFC	FC—Ultra Polish, Simplex, ZR sleeve, SM
ADL	LC—Angle Polish, Duplex, ZR sleeve, SM
PDL	LC—Physical Polish, Duplex, PB sleeve, MM
PLC	LC—Physical Polish, Simplex, PB sleeve, MM
UDL (ZR)	LC—Ultra Polish, Duplex, ZR sleeve, SM
UDL (PB)	LC—Ultra Polish, Duplex, PB sleeve, SM
ULC	LC—Ultra Polish, Simplex, ZR sleeve, SM



SPL3RU



SPL4RU

## LightLink LANSystem SPL3RU and SPL5RU—Optical Splice Shelf

The LightLink LANSystem Optical Splice Shelf is designed to provide a convenient in-rack splicing and interconnection point for Outside Plant (OSP) cable entering a Central Office (CO), Controlled Environmental Vault (CEV), Headend (HE) or customer location.

Units are available with three or six STF-48 Telescoping Splice Drawers. Each drawer is capable of handling up to 48 individual single-fused or up to 144 mass-fused fibers, with minimum bend radius routing and protection.

### Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Compatible with industry standard equipment frames
- For in-rack splicing of outside plant cable to connectorized pigtails or riser cable
- Drawers handle up to 48 single-fused or 144 mass-fused fibers
- Cable entry/exit grommet seals
- Durable and scratch resistant power coated antique white finish
- Hinged plexiglass front and rear door
- Spring loaded latches

### Applications

- Telecommunications closets
- Data Centers
- Customer Premise
- LAN / WAN Networks
- Central Offices / Headends
- Hubs / Cabinets / Remote Terminals
- FTTH / FTTB Networks

### Specifications

- Designed around Telcordia® GR-63NEBS
- Aluminum construction per ASTM B209
- Durable textured powder coat finish available in black or white
- Universal 19/23" EIA/TIA rack compatibility

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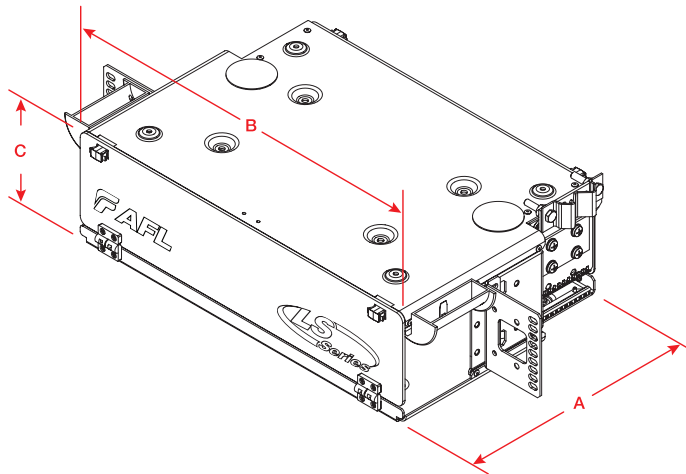


Telcordia is a registered trademark of Telcordia Technologies, Inc.

## LightLink LANSystem SPL3RU and SPL4RU—Optical Splice Shelf

### Dimensions

MODEL	NO. OF TRAYS	DEPTH (A) (INCHES)	WIDTH (B) (INCHES)	HEIGHT (C) (INCHES)	RACK UNITS	SPLICE CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
SPL3RU	3	11.00	17.00	5.25	3	144 single, 432 mass	8.4 lbs.	2.03 mm
SPL5RU	6	11.00	17.00	7.00	5	288 single, 864 mass	9.0 lbs.	2.03 mm



### Ordering Information

DESCRIPTION	AFL NO.
<b>SPL3RU</b>	
White, 3RU Optical Splice Shelf—EMPTY	C211777 - W
Black, 3RU Optical Splice Shelf—EMPTY	C211777 - B
White, 3RU Optical Splice Shelf—with 3 telescoping splice drawers	C211781 - W
Black, 3RU Optical Splice Shelf—with 3 telescoping splice drawers	C211781 - B
<b>SPL5RU</b>	
White, 5RU Optical Splice Shelf—EMPTY	C211795 - W
Black, 5RU Optical Splice Shelf—EMPTY	C211795 - B
White, 5RU Optical Splice Shelf—with 6 telescoping splice drawers	C211799 - W
Black, 5RU Optical Splice Shelf—with 6 telescoping splice drawers	C211799 - B

### Accessories

DESCRIPTION	AFL NO.
STF-48 Telescoping Splice Drawer, up to 48 single fused or 144 mass fused splices	911442-00-00
1x8 Universal Core Tube Fiber Routing Kit	FC000008
1x6 Universal Ribbon or Loose Tube Fiber Routing Kit	FC000070



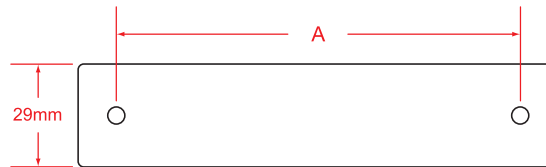
## LightLink Adapter Plates

LightLink Adapter Plates add versatility to AFL's panel product line. Adapter plates are compatible with industry standard platforms allowing for easy upgrades to existing panels. Adapter Plates come preloaded with adapters and are available in 6, 8, 12 and 24 pack versions for single-fiber adapters. Higher fiber counts are achievable with multi-fiber adapters. Blank plates are also available for unused space in panels.

### Features

- Metal Plate with Nylatches
- Polyurethane powder coated (white or black)
- LGX® compatible

### Specifications



DIMENSION A
118 mm LGX®
170 mm LGX®

### Ordering Information

AFL NO.	ADAPTER TYPE	SIMPLEX/DUPLEX/ QUAD	ADAPTER COLOR	FIBER COUNT	PLATE HEIGHT	PLATE COLOR
<b>BLANK</b>						
FM003072	BLANK	BLANK	NA	0	LGX (118)	BLACK
FM003462	BLANK	BLANK	NA	0	LGX (118)	WHITE
FM003434	BLANK	BLANK	NA	0	LGX (170)	BLACK
FM003433	BLANK	BLANK	NA	0	LGX (170)	WHITE
FM000343	BLANK	BLANK	NA	0	LGX (118)	SMOOTH BLACK
<b>SC</b>						
FM003295	SC	DUPLEX	AQUA	12F	LGX (118)	BLACK
FM002272	SC	DUPLEX	AQUA	12F	LGX (118)	WHITE
FM003287	SC	DUPLEX	AQUA	6F	LGX (118)	BLACK
FM003293	SC	DUPLEX	BEIGE	12F	LGX (118)	BLACK
FM002273	SC	DUPLEX	BEIGE	12F	LGX (118)	WHITE
FM000149	SC	DUPLEX	BEIGE	12F	LGX (170)	WHITE
FM000148	SC	DUPLEX	BEIGE	12F	LGX (170)	BLACK
FM003285	SC	DUPLEX	BEIGE	6F	LGX (118)	BLACK
FM003398	SC	DUPLEX	BEIGE	6F	LGX (118)	WHITE
FM003301	SC	DUPLEX	BLACK	12F	LGX (118)	BLACK
FM003299	SC	DUPLEX	BLACK	6F	LGX (118)	BLACK
FM003297	SC	DUPLEX	BLUE	12F	LGX (118)	BLACK
FM002271	SC	DUPLEX	BLUE	12F	LGX (118)	WHITE
FM000144	SC	DUPLEX	BLUE	12F	LGX (170)	BLACK
FM000145	SC	DUPLEX	BLUE	12F	LGX (170)	WHITE
FM003289	SC	DUPLEX	BLUE	6F	LGX (118)	BLACK
FM003458	SC	DUPLEX	BLUE	6F	LGX (118)	WHITE
FM002633	SC	DUPLEX	GREEN	12F	LGX (118)	BLACK
FM002634	SC	DUPLEX	GREEN	12F	LGX (118)	WHITE
FM000152	SC	DUPLEX	GREEN	12F	LGX (170)	BLACK
FM000153	SC	DUPLEX	GREEN	12F	LGX (170)	WHITE
FM003283	SC	DUPLEX	GREEN	6F	LGX (118)	BLACK
FM000115	SC	DUPLEX	GREEN	6F	LGX (118)	WHITE

LGX is a registered trademark of Furukawa Electric North America, Inc.

## LightLink Adapter Plates

### Ordering Information (cont.)

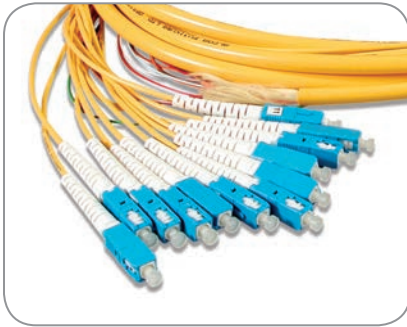
AFL NO.	ADAPTER TYPE	SIMPLEX/DUPLEX/ QUAD	ADAPTER COLOR	FIBER COUNT	PLATE HEIGHT	PLATE COLOR
<b>SC</b>						
FM003120	SC	SIMPLEX	AQUA	12F	LGX (118)	BLACK
FM003098	SC	SIMPLEX	AQUA	6F	LGX (118)	BLACK
FM003118	SC	SIMPLEX	BEIGE	12F	LGX (118)	BLACK
FM003411	SC	SIMPLEX	BEIGE	12F	LGX (170)	WHITE
FM003096	SC	SIMPLEX	BEIGE	6F	LGX (118)	BLACK
FM003403	SC	SIMPLEX	BEIGE	6F	LGX (118)	WHITE
FM003242	SC	SIMPLEX	BLACK	12F	LGX (118)	BLACK
FM003238	SC	SIMPLEX	BLACK	6F	LGX (118)	BLACK
FM003122	SC	SIMPLEX	BLUE	12F	LGX (118)	BLACK
FM002842-TW	SC	SIMPLEX	BLUE	12F	LGX (118)	WHITE
FM003409	SC	SIMPLEX	BLUE	12F	LGX (170)	BLACK
FM003407	SC	SIMPLEX	BLUE	12F	LGX (170)	WHITE
FM003100	SC	SIMPLEX	BLUE	6F	LGX (118)	BLACK
FM003467	SC	SIMPLEX	BLUE	6F	LGX (118)	WHITE
FM000156	SC	SIMPLEX	BLUE	8F	LGX (118)	BLACK
FM003435	SC	SIMPLEX	BLUE	8F	LGX (118)	WHITE
FM003116	SC	SIMPLEX	GREEN	12F	LGX (118)	BLACK
FM000800-TW	SC	SIMPLEX	GREEN	12F	LGX (118)	WHITE
FM003414	SC	SIMPLEX	GREEN	12F	LGX (170)	BLACK
FM003455	SC	SIMPLEX	GREEN	12F	LGX (170)	WHITE
FM003094	SC	SIMPLEX	GREEN	6F	LGX (118)	BLACK
FM000480	SC	SIMPLEX	GREEN	6F	LGX (118)	WHITE
FM002841	SC	SIMPLEX	GREEN	8F	LGX (118)	BLACK
FM000158	SC	SIMPLEX	GREEN	8F	LGX (118)	WHITE
<b>LC</b>						
FM000129	LC	DUPLEX	BLUE	24F	LGX (170)	WHITE
FM000130	LC	DUPLEX	BLUE	24F	LGX (170)	BLACK
FM000289	LC	DUPLEX	BLUE	6F	LGX (118)	WHITE
FM000293	LC	DUPLEX	GREEN	6F	LGX (118)	WHITE
FM000294	LC	DUPLEX	GREEN	6F	LGX (118)	BLACK
FM000297	LC	DUPLEX	BLUE	12F	LGX (170)	WHITE
FM000298	LC	DUPLEX	BLUE	12F	LGX (170)	BLACK
FM000301	LC	DUPLEX	GREEN	12F	LGX (170)	WHITE
FM000302	LC	DUPLEX	GREEN	12F	LGX (170)	BLACK
FM000338	LC	DUPLEX	GREEN	24F	LGX (170)	WHITE
FM000339	LC	DUPLEX	GREEN	24F	LGX (170)	BLACK
FM000348	LC	DUPLEX	BEIGE	24F	LGX (170)	WHITE
FM000349	LC	DUPLEX	BEIGE	24F	LGX (170)	BLACK
FM000838	LC	DUPLEX	BLUE	24F	LGX (118)	WHITE
FM000851	LC	DUPLEX	BEIGE	24F	LGX (118)	WHITE
FM000853	LC	DUPLEX	AQUA	24F	LGX (118)	WHITE
FM001004	LC	DUPLEX	GREEN	12F	LGX (118)	WHITE
FM001184	LC	QUAD	AQUA	24F	LGX (118)	BLACK
FM001185	LC	QUAD	AQUA	12F	LGX (118)	BLACK
FM001303	LC	DUPLEX	AQUA	12F	LGX (118)	WHITE
FM003069	LC	DUPLEX	GREEN	24F	LGX (118)	WHITE
FM003092	LC	DUPLEX	BLUE	6F	LGX (118)	BLACK
FM003108	LC	DUPLEX	GREEN	12F	LGX (118)	BLACK
FM003110	LC	DUPLEX	BEIGE	12F	LGX (118)	BLACK
FM003112	LC	DUPLEX	AQUA	12F	LGX (118)	BLACK



## LightLink Adapter Plates

### Ordering Information (cont.)

AFL NO.	ADAPTER TYPE	SIMPLEX/DUPLEX/ QUAD	ADAPTER COLOR	FIBER COUNT	PLATE HEIGHT	PLATE COLOR
<b>LC</b>						
FM003202	LC	DUPLEX	GREEN	24F	LGX (118)	BLACK
FM003204	LC	DUPLEX	BEIGE	24F	LGX (118)	BLACK
FM003206	LC	DUPLEX	AQUA	24F	LGX (118)	BLACK
FM003208	LC	DUPLEX	BLUE	24F	LGX (118)	BLACK
FM003240	LC	DUPLEX	BLACK	12F	LGX (118)	BLACK
FM003244	LC	DUPLEX	BLACK	24F	LGX (118)	BLACK
FM003425	LC	DUPLEX	BLUE	12F	LGX (118)	WHITE
FM003429	LC	DUPLEX	BEIGE	6F	LGX (118)	WHITE
FM003465	LC	DUPLEX	BLUE	12F	LGX (118)	BLACK
<b>ST</b>						
FM003124	ST	SIMPLEX	METAL MM	12F	LGX (118)	BLACK
FM003438	ST	SIMPLEX	METAL MM	12F	LGX (118)	WHITE
FM000124	ST	SIMPLEX	METAL MM	12F	LGX (170)	BLACK
FM000123	ST	SIMPLEX	METAL MM	12F	LGX (170)	WHITE
FM003457	ST	SIMPLEX	METAL MM	6F	LGX (118)	WHITE
FM003461	ST	SIMPLEX	METAL MM	8F	LGX (118)	BLACK
FM003440	ST	SIMPLEX	METAL MM	8F	LGX (118)	WHITE
FM003126	ST	SIMPLEX	METAL SM	12F	LGX (118)	BLACK
FM003456	ST	SIMPLEX	METAL SM	12F	LGX (118)	WHITE
FM000286	ST	SIMPLEX	METAL SM	12F	LGX (170)	BLACK
FM000285	ST	SIMPLEX	METAL SM	12F	LGX (170)	WHITE
FM003104	ST	SIMPLEX	METAL SM	6F	LGX (118)	BLACK
FM003422	ST	SIMPLEX	METAL SM	6F	LGX (118)	WHITE
FM003441	ST	SIMPLEX	METAL SM	8F	LGX (118)	BLACK
FM003439	ST	SIMPLEX	METAL SM	8F	LGX (118)	WHITE
FM003102	ST	SIMPLEX	METAL SM	6F	LGX (118)	BLACK
<b>FC</b>						
FM000284	FC	SIMPLEX	METAL	12F	LGX (118)	BLACK
FM000283	FC	SIMPLEX	METAL	12F	LGX (118)	WHITE
FM003447	FC	SIMPLEX	METAL	12F	LGX (170)	BLACK
FM003446	FC	SIMPLEX	METAL	12F	LGX (170)	WHITE
FM003420	FC	SIMPLEX	METAL, GREEN DUST CAP	6F	LGX (118)	BLACK
FM003419	FC	SIMPLEX	METAL, GREEN DUST CAP	6F	LGX (118)	WHITE
FM003443	FC	SIMPLEX	METAL	8F	LGX (118)	BLACK
FM003442	FC	SIMPLEX	METAL	8F	LGX (118)	WHITE
<b>MISC</b>						
FM001606	MTP	SIMPLEX	BLACK	72F	LGX (118)	BLACK
FM003005	MTP	SIMPLEX	BLACK	96F	LGX (118)	BLACK
FM003430	MTP	SIMPLEX	BLACK	36F	LGX (118)	BLACK
FM003437	SC-ST HYBRID	SIMPLEX	BLUE-METAL	6F	LGX (118)	WHITE
FM003210	HEYCO	SIMPLEX	BLACK	12	LGX (118)	BLACK
FM003212	HEYCO	SIMPLEX	BLACK	6	LGX (118)	BLACK



## Pigtail Assemblies for Patch and Splice Panels

AFL's pigtail assemblies help eliminate labor-intensive field termination, yet guarantee reliable performance. Featuring a unified construction allowing for easy fiber identification and rapid installation, these assemblies are built to exceed all TIA and Telcordia requirements.

### Splicer Connector Specifications

PARAMETER	VALUE
Cable Type	250 $\mu$ m, 900 $\mu$ m
Insertion Loss	< 0.15 dB
Return Loss	> 40 dB
Operating Temperature (900 $\mu$ m Fiber Coating)	
PVC	-40°C to 75°C
Nylon	0°C to 75°C
TPEE	-25°C to 75°C

### Ordering Information

POLISH	FIBER TYPE	CONNECTOR INTERFACE AFL NO.		
		SC	ST	LC
<b>CPC PIGTAIL KITS, 3 METER, 12-FIBER</b>				
APC	SMF	C152906-0003	—	CS007719-0003
UPC	SMF	C165943-0003	C152671-0003	C223369-0003
PC	62.5 $\mu$ m	C165463-0003	C223366-0003	C223373-0003
PC	50 $\mu$ m	CS007672-0003	CS007674-0003	CS007676-0003
PC	50 $\mu$ m LO	CS007673-0003	CS007675-0003	CS007677-0003

<b>900 <math>\mu</math>m TIGHT-BUFFERED PIGTAIL KITS, 3 METER, 12-FIBER</b>				
APC	SMF	C223312-0003	—	CS003981-0003
UPC	SMF	C223492-0003	CS003979-0003	CS001037-0003
PC	62.5 $\mu$ m	CS000386-0003	CS002150-0003	CS002067-0003
PC	50 $\mu$ m	CS001373-0003	CS002136-0003	CS002081-0003
PC	50 $\mu$ m LO	CS003056-0003	CS003980-0003	CS003058-0003

### Jumper Specifications

PARAMETER		VALUE						
		LC	SC	ST	FC	LC-APC	SC-APC	MT
Insertion Loss								
SM	max	0.3	0.3	0.5	0.3	0.3	0.5	0.75
MM	max	0.5	0.5	0.5	0.5			0.6
Return Loss								
SM	max	-55.0 dB	-55.0 dB	-55.0 dB	-55.0 dB	-65.0 dB	-65.0 dB	-55.0 dB
MM	max	-20.0 dB						-20.0 dB
Cable Bend Radius								
Standard	min	<30 mm						
Bend Insensitive	min	<15 mm						
Durability		200 cycles						
Operating Temperature		-40°C to +85°C						
Storage Temperature		-40°C to +85°C						

## Xpress Fiber Management® (XFM) 1RU Patch Panel



The Xpress Fiber Management (XFM) 1U patch panel is a rack mountable interconnect point specifically designed to manage dense fiber applications. Based on the LGX® intermateability platform, the panel is fully compatible with AFL's XFM Optical Cassette, Passive Optical Coupler Modules, and Poli-MOD® solutions. This panel offers enhanced management of densities up to 72 fibers using MTP-LC XFM Optical Cassettes (24 fibers).

### Features

- Steel construction
- Textured black powder coat finish
- Universal WECCO/TIA 19"/23" rack compatibility
- (3) LGX 118 adapter plate / module mounting positions
- Slide-out tray with relief cut-outs for simplified connector access
- Optional front door key lock for heightened protection of internal components

### Applications

- Data Centers
- Enterprise Networks
- Telecommunications Closets
- Central Offices / Headends

### Specifications

DEPTH (A) (inches)	WIDTH (B) (inches)	HEIGHT (C) (inches)	RACK UNITS	CAPACITY	UNLOADED WEIGHT
15.5	17	1.7	1	(3) LGX 118	13 lbs.

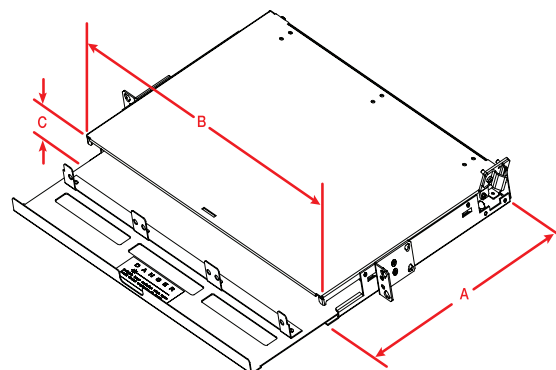
### Ordering Information

All cable clamps offered separately so that customers may choose the correct clamp for their application.

DESCRIPTION	MODEL NUMBER	AFL NO.
Xpress Fiber Management 1U Patch Panel, Black, Empty	XFM-1-U-B-0	FM002711-BE

### Accessories

DESCRIPTION	AFL NO.
Kit, Lock, for CON/CNS Panels	FM001318



Made in USA

LGX is a registered trademark of Furukawa Electric North America, Inc.

## Xpress Fiber Management® (XFM) 2RU Patch Panel



The Xpress Fiber Management (XFM) 2U patch panel is a rack mountable interconnect point specifically designed to manage dense fiber applications. Based on the LGX® intermateability platform, the panel is fully compatible with AFL's XFM Optical Cassette, Passive Optical Coupler Modules, and Poli-MOD® solutions. This panel offers enhanced management of densities up to 144 fibers using MTP-LC XFM Optical Cassettes (24 fibers).

### Features

- Steel construction
- Textured black powder coat finish
- Universal WECO/TIA 19"/23" rack compatibility
- (6) LGX 118 adapter plate / module mounting positions
- Slide-out tray with relief cut-outs for simplified connector access
- Optional front door key lock for heightened protection of internal components

### Applications

- Data Centers
- Enterprise Networks
- Telecommunications Closets
- Central Offices / Headends

### Specifications

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	CAPACITY	UNLOADED WEIGHT
15.5	17	3.5	2	(6) LGX 118	15 lbs.

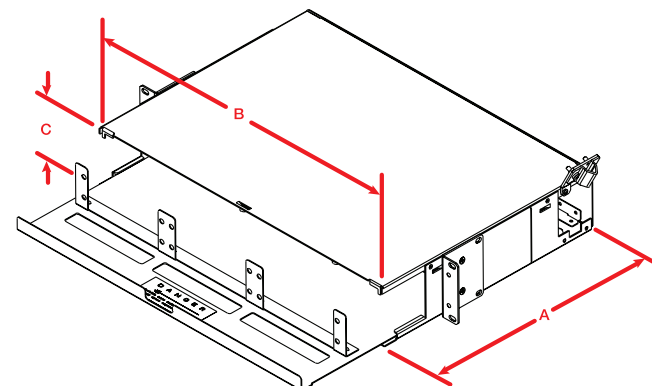
### Ordering Information

All cable clamps offered separately so that customers may choose the correct clamp for their application.

DESCRIPTION	MODEL NUMBER	AFL NO.
Xpress Fiber Management 2U Patch Panel, Black, Empty	XFM-2-U-B-0	FM002712-BE

### Accessories

DESCRIPTION	AFL NO.
Kit, Lock, for CON/CNS Panels	FM001318



 Made in USA

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## Xpress Fiber Management® (XFM®) 4RU Patch Panel



The Xpress Fiber Management (XFM) 4RU patch panel is a rack mountable interconnect point specifically designed to manage dense fiber applications. Based on the LGX® intermateability platform, the panel is fully compatible with AFL's XFM Optical Cassette, Poli-MOD® and WDM solutions, offering enhanced management of densities up to 288F using MTP/MPO, single fiber, or patch and splice methodologies. Routing rings on the top and bottom of the front panel provide enhanced cable routing allowing cable assemblies to exit comfortably. This panel can be provisioned with a key lock at the time of order for secure environments.

### Features

- Aluminum construction
- Textured black powder coat finish
- Universal WECO/TIA 19"/23" rack compatibility
- (12) LGX 118 adapter plate / module mounting positions
- Mounting depth adjustable from flush to 8" in 1" increments

### Applications

- Data Centers
- Enterprise Networks
- Telecommunications Closets
- Central Offices / Headends

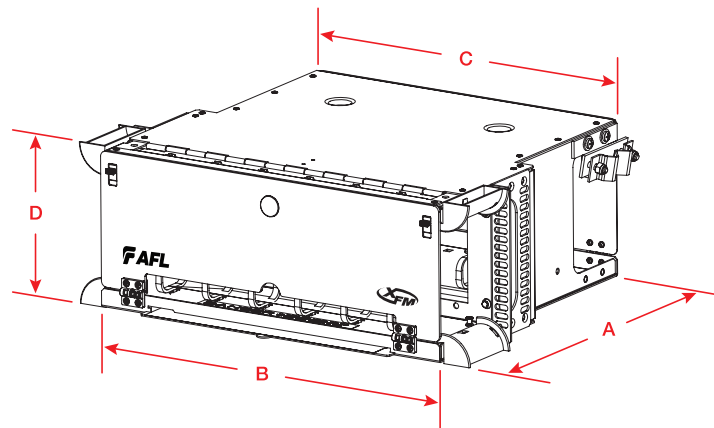
### Specifications

DEPTH (A) IN INCHES	FRONT WIDTH (B) IN INCHES	REAR WIDTH (C) IN INCHES	HEIGHT (D) IN INCHES	RACK UNITS	CAPACITY	UNLOADED WEIGHT
15.5	17	15	7	4	(12) LGX 118	9 lbs.

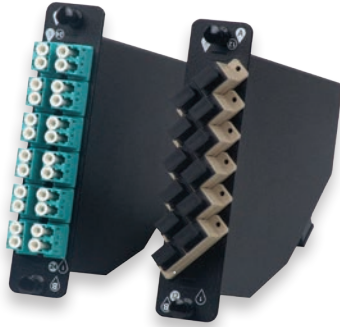
### Ordering Information

All cable clamps offered separately so that customers may choose the correct clamp for their application.

DESCRIPTION	MODEL NO.	AFL NO.
Xpress Fiber Management 4U Patch Panel, Black, Empty	XFM-4U-B-0	FM001090-B
Xpress Fiber Management 4U Patch Panel, Black, Empty, Key Lock	XFM-4U-B-K	FM001218-B



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## Xpress Fiber Management® (XFM) MPO Optical Cassettes

AFL's Xpress Fiber Management Optical Cassette product line is a family of preterminated fanout modules that streamline the deployment of optical network infrastructure. The primary function of these products is to break out multi-fiber ribbon connectors to simplex or duplex style connectors for connection to adjacent network elements.

The Xpress Fiber Management Optical Cassette solution features low-loss MPO style trunk cable assemblies. These cassettes are available in the industry standard LGX® footprint as well as a selection of Corning Cable Systems™ footprints to support embedded base installations. All modules feature a durable powder coat finish, and are compatible with all 1U-4U LANSysystem platforms. All modules are clearly labeled with a silk-screened "A" and "B" positioning reference to ensure proper polarity is maintained in the network, referenced to the polarity convention being deployed.

### Applications

- Data centers
- LAN, WAN and SAN
- Interoffice cross-connects
- Campus environments

### Features

- 12- and 24- port configurations
- ANSI/TIA/EIA-568-B.3 compliant
- Single-slot LGX packages
- Compatible with LANSysystem and WME hardware
- Available in black with rear MPO connection(s)
- SMF, 62.5 μm MMF and 50 μm MMF supported
- SC- and LC-MPO standard configurations
- ST- and FC-MPO configurations available on special order

### Optical Performance Data

PARAMETER	Single-mode Fiber (OS1)					Multimode Fiber (OM1, OM2 and 50 μm Laser Optimized)		
	LC - MPO	LCAPC - MPO	SC - MPO	SCAPC - MPO	ST - MPO	LC - MPO	SC - MPO	ST - MPO
Max IL (dB)	1.15	1.15	1.3	1.3	1.3	1.15	1.3	1.3
Typical IL (dB)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Reflectance (dB)	-55	-65	-55	-65	-55	-30	-30	-30

#### Notes:

1. Single-mode IL test wavelengths 1310 nm and 1550 nm
2. Multimode IL test wavelengths 850 nm and 1300 nm
3. Single-mode RL test wavelengths 1310 nm and 1550 nm
4. Multimode RL test wavelengths 850 nm and 1300 nm

#### Technical Specifications:

1. ANSI/TIA/EIA-568-B.3
2. Telcordia® GR-326-CORE compliant single fiber connectors
3. Telcordia GR-1435-CORE compliant multi-fiber connectors

### Ordering Information

FIBER COUNT, CONNECTOR OPTION	SINGLE-MODE		MULTIMODE	
	UPC - MPO (MALE, APC)	APC - MPO (Male, APC)	62.5 μm OM1 PC - MPO (Male, PC)	50 μm LOMMF OM4 PC - MPO (Male, PC)
12F, LC	FM000090-B	FM001477-B	FM000092-B	FM000273-B
24F, LC	FM000691-B	FM001653-B	FM000663-B	FM000692-B
12F, SC	FM000087-B	FM001465-B	FM000089-B	FM000272-B
12F, ST	FM000093-B	N/A	FM000095-B	FM000274-B

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Telcordia is a registered trademark of Telcordia Technologies, Inc.



## Xpress Fiber Management® (XFM) MPO Optical Cassettes

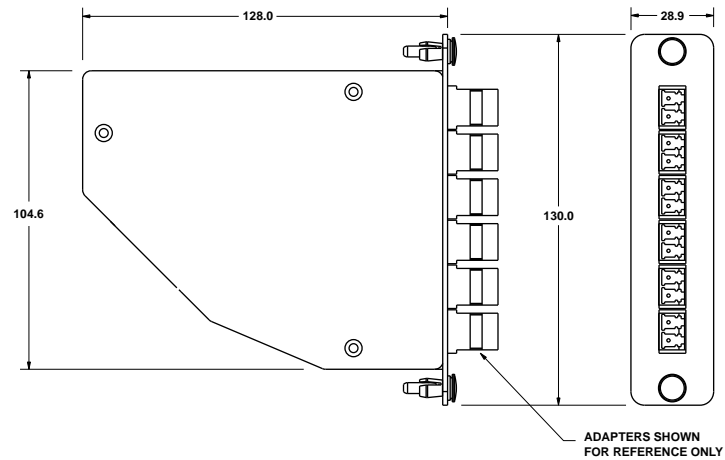


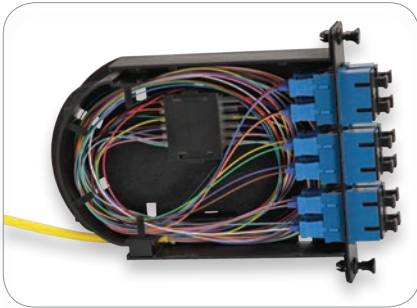
### Ordering Information – Accessories

DESCRIPTION	AFL NO.
145 mm Adapter Bracket	FM001636

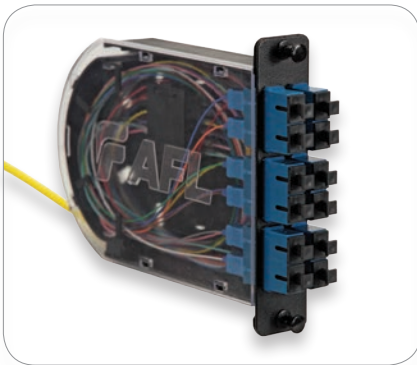
**NOTE:** Allows standard LGX modules, such as AFL's Poli-Mod Interconnect Module and the XFM Optical Cassette, to be mounted into existing Corning Cable Systems™ CCH series and PCH series racks and wall mount products.

### Dimensions





12-Fiber SCIUPC Configuration



DAS Poli-MOD



## Poli-MOD® Patch and Splice Module

AFL's new Poli-MOD is an innovative patch and splice module, which offers an inventive and effective means to accommodate up to 24 fiber interconnections in an industry-standard, single-slot LGX®118 footprint. The new Poli-MOD offers a unique and robust way to secure cable without the need for time-wasting, tie-wrap alternatives. Additionally, the module leverages a creative snap-in splice sleeve cradle to securely manage both single and ribbon fiber arrangements. These features provide the capacity to outfit a standard 4RU rack-mount panel with up to 288-fiber interconnections.

The Poli-MOD is also offered in an arrangement that supports the low loss budget requirements of Distributed Antenna System (DAS) networks. This is accomplished through the elimination of an interconnection point while providing a robust splicing environment for rack and wall-mount panel applications.

### Features

- 24-fiber interconnection capacity
- LGX 118 compatibility (single-slot module)
- Effective and time-saving cable mounting mechanism (no tie-wraps necessary)
- Inventive splice sleeve cradle
- Available in SC, LC, ST and FC connector arrangements
- Organized fiber routing
- Fixed solution, no moving parts
- Multi-directional cable entry access
- DIN rail mountable (with DIN Mount Kit)

### Applications

- Telecommunications Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hub Sites
- Cabinets
- Remote Terminals
- Distributed Antenna Systems (DAS)

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## Poli-MOD® Patch and Splice Module

### Ordering Information

Example: PM-L-12-ASC-0-S-01

PM	L	12	ASC	0	S	01
Configuration	Fiber/Connector Count	Connector Type <sup>3</sup>	Fiber Type	Fiber Arrangement	Packaging	
E = Empty (Splicing Only) H = Half Loaded (Adapter Plate only) L = Loaded (Adapter Plate & Pigtailed) D = DAS Poli-MOD <sup>1</sup>	06 = 6 Fibers/Connectors 12 = 12 Fibers/Connectors 24 = 24 Fibers/Connectors <sup>2</sup> XX = Empty	ASC = Angle-Polished SC USC = Ultra-Polished SC PSC = Multimode SC ALC = Angle-Polished LC ULC = Ultra-Polished LC PLC = Multimode LC UST = Ultra-Polished ST PST = Multimode ST AFC = Angle-Polished FC UFC = Ultra-Polished FC PFC = Multimode FC XXX = Empty	0 = Single-mode (G.657.A1 BIF) 1 = 62.5 μm (OM1) 2 = 50 μm (OM2) 3 = 50 μm (OM3) 4 = 50 μm (OM4) X = Empty	S = Single/Standard R = Ribbon 3 = 3 mm, 3 meter DAS X = No Fiber (Half Loaded or Empty)	01 = 1 Poli-MOD per box* 06 = 6 Poli-MODs per box 12 = 12 Poli-MODs per box	

1. DAS Poli-MOD requires specialty packaging and is packaged as "1 Poli-MOD per box" ONLY.  
2. 24 Fibers/Connectors are only available in a LC Duplex configuration.  
3. Angle and Ultra-Polished connector types are only available with single-mode fiber configurations.

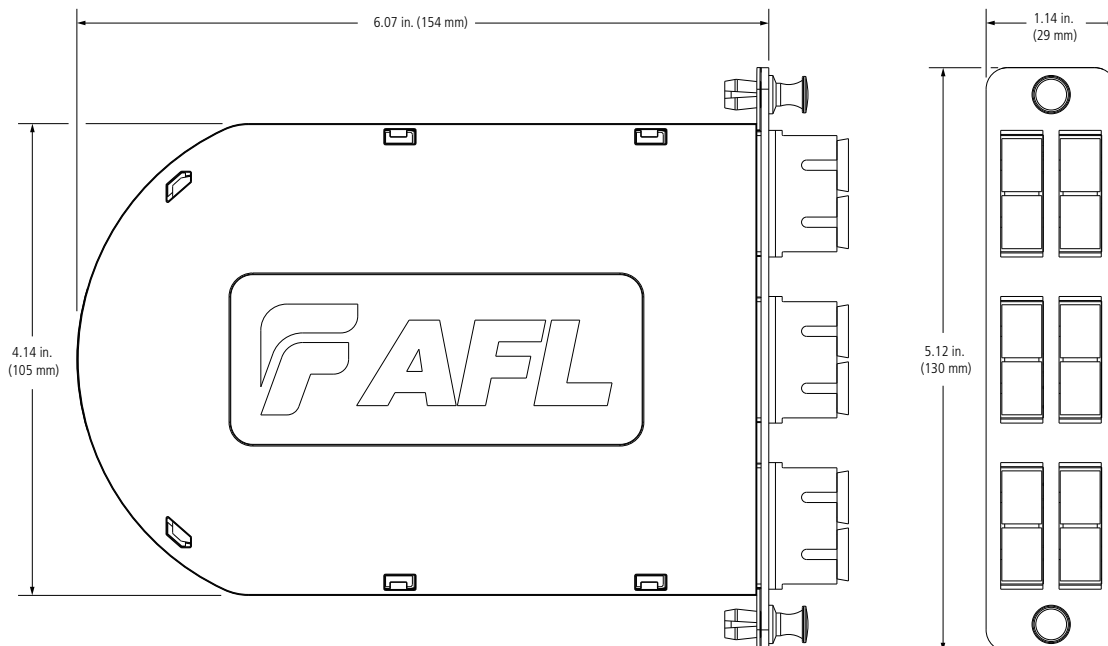
### Connector Color Codes

CONNECTOR	COLOR
APC (Angled Polish Connector)	Green
UPC (Ultra Polish Connector)	Blue
PC-OM1	Beige
PC-OM2	Black
PC-OM3 / PC-OM4	Aqua

### Poli-MOD Kits/Accessories

DESCRIPTION	AFL NO.
Poli-MOD Cable Mounting Clip Kit	FM003053
Poli-MOD Spiral Wrap Kit	FM003280
Fusion Splice Sleeve, FP-03, 40 mm	S000206
Adapter Bracket for Mounting Single Poli-MOD, angled	FM000948-B
Adapter Bracket for Mounting Single Poli-MOD, flat	FM003589-B
Corning CCH and PCH 145 mm Adapter Bracket	FM001636
DIN Mount Kit, LGX® 118	FM003394

### Dimensions



## Xpress Fiber Management® High Density Products (XFM®-HD)

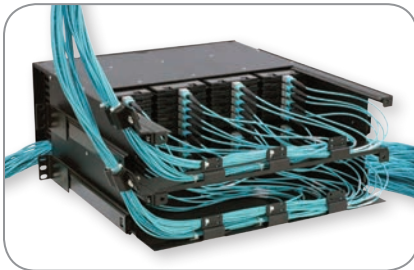
The XFM-HD family of products is designed to offer intuitive fiber management and unmatched fiber port accessibility in both the front and rear of the panel to extreme density applications in an optical interconnect environment. Readily supporting the management of densities up to 576 fibers in a traditional 4 rack-unit (4RU) space, the XFM-HD solution easily matches the highest port densities available in the market. The completely modular solution features low-loss MPO style trunk cable assemblies, Optical Fan-out cassettes with integrated fiber management and Uniboot 2.0 mm LC jumper assemblies. This combination of products cohesively equates to efficient moves, adds and changes and more accurate cost budgeting as there are no other products or accessories required to complete or modify an installation. A unique Uniboot LC connector allows for reversal of polarity in the field without requiring the use of any tools, easing assimilation into existing installations. Microcore trunk cables offer operators a reduced cable diameter which eases congestion in busy raceways, and feature an innovative protective pulling eye solution designed to add efficiency and security to moving the trunks through densely-packed ducts and conduits.



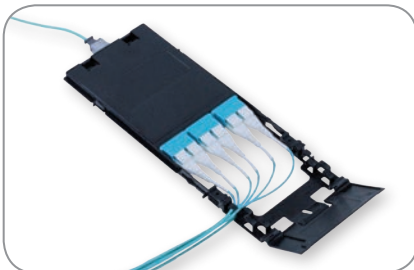
XFM-HD 1RU front view



XFM-HD 2RU front view with trays pulled out



XFM-HD 4RU rear view



XFM-HD Optical Cassette

### Components

- Cassettes
- Panels
- Trunk cable assemblies
- Patch cord assemblies

### Features

- Self contained fiber management
- Low loss MPO connectors
- High Density: 1RU/144F, 2RU/288F and 4RU/576F
- Uniboot LC assemblies with field-reversible polarity
- Reduced O.D. Microcore Trunk cable assemblies with enhanced pulling eye option
- Unsurpassed port density
- Simplified front and rear port access by design

## Xpress Fiber Management® High Density (XFM®-HD) Patch Panels



XFM-HD Patch Panels in Rack

 **Made in USA**

### Features

- Self contained fiber management
- Low loss MPO connectors
- High Density: 1RU/144F, 2RU/288F and 4RU/576F
- Uniboot LC assemblies with field-reversible polarity
- Reduced O.D. Microcore Trunk cable assemblies with enhanced pulling eye option
- Unsurpassed port density
- Simplified front and rear port access by design

AFL's XFM-HD patch panels are available in 1RU, 2RU and 4RU sizes with fully-loaded densities of 144 fiber, 288 fiber and 576 fiber, respectively. Designed to support incremental growth or a full-scale deployment in a self-contained manner, the XFM-HD panels consist of the XFM High Density Optical Cassette as a building block, which ensures that both front-side and back-side cabling is secured, protected and well managed.

All panels are 19/23" rack mountable and constructed using a heavy gauge steel with a durable black powder coat finish for an extended service life. The front doors consist of optional locks, are removable without tools, and hinge on the bottom of the panel. The unique sliding rail system locks into a standard rack mounting position yet also allows the user to place the panel into a service position allowing simplified access to "behind-the-wall" components. In tandem with the sliding rail system, the rear door and rear half of the panel lid are joined. When the rear door is removed for service, the rear section of the lid is also removed, enabling unobstructed access from the rear of the panel all the way to the MPO connector interfaces on the module plane.

The trunk cable management area (rear of the panel) features multiple tie-points and lances that are positioned to work well with a predefined trunk breakout length to securely manage slack sub-units while still allowing the modules to slide in/out for installation and service. The 4RU panel features a dual plane design which separates the back-side cabling into two separate 288 fiber groups to aid in installation and ease post-installation maintenance activities.

### Ordering Information

All cable clamps offered separately so that customers may choose the correct clamp for their application.

DESCRIPTION	AFL NO.
XFM-HD Panel, 1RU, Empty, 12 Cassette / 144F Capacity, Black	XFM-HD-1U
XFM-HD Panel, 2RU, Empty, 24 Cassette / 288F Capacity, Black	XFM-HD-2U
XFM-HD Panel, 4RU, Empty, 48 Cassette / 576F Capacity, Black	XFM-HD-4U

### Cable Clamps

Part Number	Color	Number of Cables	FIBER PER CABLE		TOTAL FIBER	
			Min	Max	Min	Max
FM003342-TB	Black	1	72	144	72	144
FM003342-TW	White	1	72	144	72	144
FM003345-TB	Black	2	18	144	36	288
FM003345-TW	White	2	18	144	36	288

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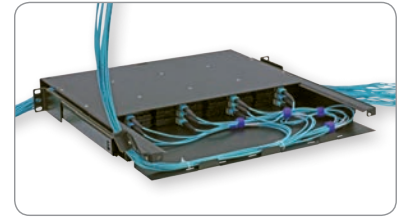
## Xpress Fiber Management® High Density (XFM®-HD) Patch Panels (cont.)



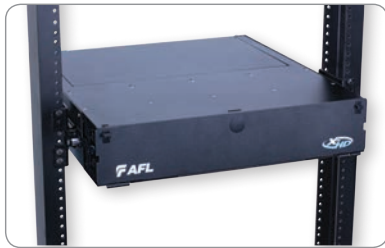
XFM-HD 1RU



XFM-HD 1RU front



XFM-HD 1RU rear



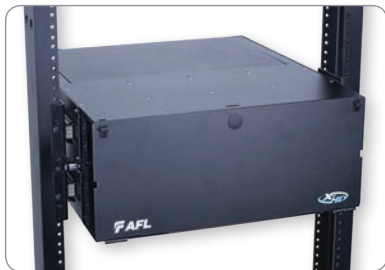
XFM-HD 2RU



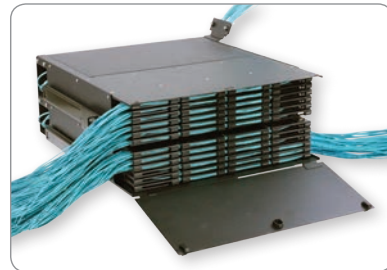
XFM-HD 2RU front



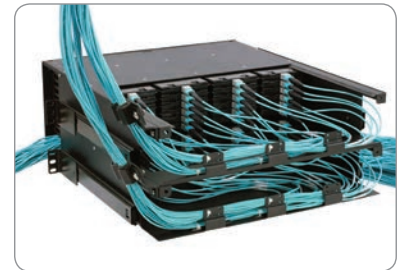
XFM-HD 2RU rear



XFM-HD 4RU



XFM-HD 4RU front



XFM-HD 4RU rear

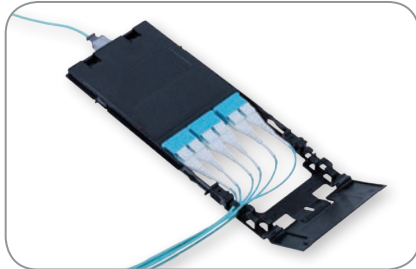
### Specifications

PARAMETER	MODEL		
	XFM-HD 1U	XFM-HD 2U	XFM-HD 4U
Rack Space Requirement	1 RU (1.75 in)	2 RU (3.50 in)	4 RU (7.00 in)
Managed Density	144F Front Side - 72 Micro-Dual 2F Assemblies Back Side - 12 x 12F trunk – 1 x 144F (any increment of 12F)	288F Front Side - 144 Micro-Dual 2F Assemblies Back Side - 24 x 12F trunk – 2 x 144F (any increment of 12F)	576F Front Side - 288 Dual-Link 2F Assemblies Back Side - 48 x 12F trunk – 4 x 144F (any increment of 12F)
Module Capacity	12 x 12 fiber	24 x 12 fiber	48 x 12 fiber
Dimensions* (HxWxD)	1.72 x 16.25 x 18.66 in	3.47 x 16.25 x 18.66 in	6.97 x 16.25 x 18.66 in
Shipping Dimensions (HxWxD)	24.5 x 21 x 5 in	24.5 x 21 x 6.8 in	24.5 x 21 x 10.3 in
Weight	18 lbs.	21 lbs.	34 lbs.
Color	Black	Black	Black
Material	Metal Components: 16 GA Steel per ASTM A366 Plastic Components: UL 94 V0 rated PBT	Metal Components: 16 GA Steel per ASTM A366 Plastic Components: UL 94 V0 rated PBT	Metal Components: 16 GA Steel per ASTM A366 Plastic Components: UL 94 V0 rated PBT

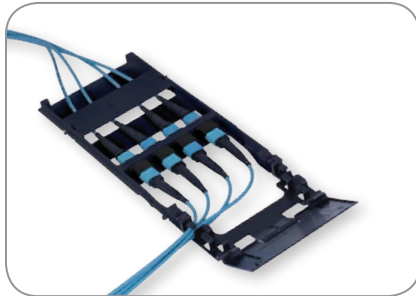
\* Not including mounting ears



## Xpress Fiber Management® High Density (XFM®-HD) Optical Cassettes



XFM-HD LC Module



XFM-HD MTP Module

### Features

- Self contained fiber management
- Low loss MPO connectors

AFL's XFM-HD Optical Cassettes are the building-blocks of the XFM-HD system. Optical Cassettes can be installed into all three XFM-HD panels from the front or rear and mount independently on an integral card guide rail system. This mounting system features a mechanical stop at the position where the connector / adapter mating point extends beyond the leading edge of the patch panel, preventing inadvertent removal of the module from the front side once installed. A self-contained fiber manager is incorporated into each cassette ensuring that the exiting cables are well-managed and organized, regardless of fiber exit direction. The fiber manager is reversible in the field to support both an Alpha and Beta module position, depending on the polarity management practice being employed.

Each cassette ships with a field-installable clip which links multiple cassettes together within a patch panel to form a shelf. This shelf slides inwards and outwards allowing access to each individual fiber connection while not disturbing any fiber connection in that shelf. These clips are field-removable at any time should the need arise to remove a module for service, to move a link, or to upgrade to a new fiber type.

XFM-HD Optical Cassettes are designed to function exclusively within the XFM-HD product line, and are compatible with all patch panels in the line.

### Specifications

PARAMETER	SINGLE-MODE FIBER (OS1) LC/UPC - MTP	MULTIMODE FIBER (OM4) LC/PC - MTP
Max IL	1.15 dB	1.15 dB
Typical IL	0.6 dB	0.6 dB
Reflectance	-55 dB	-30 dB
Shipping Dimensions	12 x 6 x 2 in.	12 x 6 x 2 in.
Weight	1.6 lbs.	1.6 lbs.

### Ordering Information

DESCRIPTION	AFL NO.
XFM-HD High Density Optical Cassette, 4 Position MPO	HDOC-MPO-4A
XFM-HD High Density Optical Cassette, 12F Single-mode, LC/UPC - MPO Connectors	HDOC-SM-ULC
XFM-HD High Density Optical Cassette, 12F 10G 50 μm MM, LC/PC - MPO Connector	HDOC-50-PLC

## Xpress Fiber Management® High Density (XFM®-HD) Trunk Cable Assemblies



XFM-HD trunk cable assemblies consist of sub-unitized MicroCore® fiber optic cable in fiber counts ranging from 12-144. This reduced diameter, high performance cable is comprised of multiple 12-fiber sub-unit tubes, each containing twelve 250 µm colored fibers enclosed by a high performance PVC jacket. The reduced diameter offers the installer many advantages over traditional tight-buffered cable options – higher tolerance to bends during and after installation; requires less space in cable trays, raceways, ducts and conduits; and enables more efficient airflow in congested, high density cabling applications.

Trunk cables are available in a variety of configurations to align with customer needs. High-precision MPO ferrules ensure that optical performance specifications are met without requiring components to be paired, offering customers the utmost in flexibility when consuming inventory or ordering new product. No transition is required on MPO-terminated trunk cables due to cable design. An epoxy-filled, reduced OD transition piece is standard on trunk cables terminated with single-fiber connectors. MPO-terminated trunk cable ends have a single, predefined breakout length, regardless of fiber count, which functions in perfect harmony with any XFM-HD patch panel, eliminating guesswork and virtually guaranteeing a clean and well-organized installation.

### Features

- Self contained fiber management
- Low loss MPO connectors
- Uniboot LC assemblies with field-reversible polarity
- Reduced O.D. Microcore Trunk cable assemblies with enhanced pulling eye option
- Unsurpassed port density

### Specifications

CONNECTOR	CONNECTOR ORDERING CODE	CONNECTOR HOUSING COLOR	BOOT COLOR	FIBER TYPE	CABLE JACKET COLOR	FLAME RATING	IL (TYPICAL dB)***	RL (TYPICAL dB)***
LC/UPC	UDL	Blue	White	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.15	-60
LC/PC	PDL	Beige	White	50 µm OM3, OM4	Aqua	Plenum	0.15	-35
Angled MTP (unpinned)	ATF	Green	Black	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.35	-65
Angled MTP (pinned)	ATM	Green	Black	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.35	-65
Angled MTP (unpinned), Low Loss	ETF	Green	Black	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.15	-65
Angled MTP (pinned), Low Loss	ETM	Green	Black	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.15	-65
MTP (unpinned), Low Loss	FTF	Aqua	Black	50 µm OM3, OM4	Aqua	Plenum	0.15	-30
MTP (pinned), Low Loss	FTM	Aqua	Black	50 µm OM3, OM4	Aqua	Plenum	0.15	-30

NOTES: Typical values based on equal quality connectors

Continued  
→

## Xpress Fiber Management® High Density (XFM®-HD) Trunk Cable Assemblies (cont.)

### Ordering Information

#### XFM-HD MTP Trunks

CONNECTOR	FIBER COUNT	APC SM	APC SM - ELITE	PC MM 50 µm OM3	PC MM 50 µm OM4
MTP (No Pins) - MTP (No Pins)	12	XFM000057-XXXX	XFM000071-XXXX	XFM000085-XXXX	XFM000099-XXXX
	24	XFM000058-XXXX	XFM000072-XXXX	XFM000086-XXXX	XFM000100-XXXX
	48	XFM000060-XXXX	XFM000074-XXXX	XFM000088-XXXX	XFM000102-XXXX
	72	XFM000061-XXXX	XFM000075-XXXX	XFM000089-XXXX	XFM000103-XXXX
	96	XFM000062-XXXX	XFM000076-XXXX	XFM000090-XXXX	XFM000104-XXXX
	144	XFM000063-XXXX	XFM000077-XXXX	XFM000091-XXXX	XFM000105-XXXX

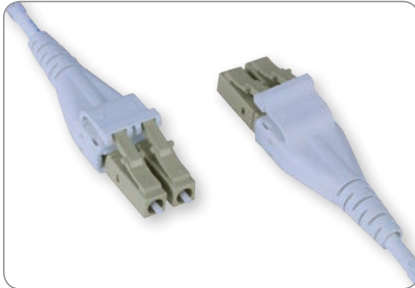
XXXX = length in meters and XXXXFT = length in feet

#### XFM-HD MTP Extender Trunks

CONNECTOR	FIBER COUNT	APC SM	APC SM - ELITE	PC MM 50 µm OM3	PC MM 50 µm OM4
MTP (No Pins) - MTP (Pins)	12	XFM000064-XXXX	XFM000078-XXXX	XFM000092-XXXX	XFM000106-XXXX
	24	XFM000065-XXXX	XFM000079-XXXX	XFM000093-XXXX	XFM000107-XXXX
	48	XFM000067-XXXX	XFM000081-XXXX	XFM000095-XXXX	XFM000109-XXXX
	72	XFM000068-XXXX	XFM000082-XXXX	XFM000096-XXXX	XFM000110-XXXX
	96	XFM000069-XXXX	XFM000083-XXXX	XFM000097-XXXX	XFM000111-XXXX
	144	XFM000070-XXXX	XFM000084-XXXX	XFM000098-XXXX	XFM000112-XXXX

XXXX = length in meters and XXXXFT = length in feet  
 XXXX = length in meters and XXXXFT = length in feet

## Xpress Fiber Management® High Density (XFM®-HD) Patch Cord Assemblies



XFM-HD patch cords are assembled with AFL's Micro-Dual (2-fiber) cable and are terminated with a unique, field-reversible LC Uniboot connector. This round cable design coupled with the Uniboot LC connector minimizes the front-side cabling footprint and reduces the impact on airflow up and down the rack, and between racks. A 2.0 mm and 2.4 mm OD option is available, enabling both 250 μm and 900 μm fiber coating options within the cable. Riser- and plenum-rated jackets are available and all major fiber types are supported.

In addition to being field-reversible, the Uniboot LC connector also supports both the SFP and Mini-SFP transceiver footprints. Virtually all polarity management methods and active component connections are supported, enabling the end user to utilize a single product across new, existing and acquired network installations.

### Features

- Self contained fiber management
- Low loss MPO connectors
- Uniboot LC assemblies with field-reversible polarity
- Reduced O.D. Microcore Trunk cable assemblies with enhanced pulling eye option
- Unsurpassed port density

### Specifications

CONNECTOR	CONNECTOR ORDERING CODE	CONNECTOR HOUSING COLOR	BOOT COLOR	FIBER TYPE	CABLE JACKET COLOR	FLAME RATING	IL	RL
LC/UPC	ULU <sup>1</sup>	Blue	White	Single-mode G.657.A1 (BIF)	Yellow	Plenum	0.3 dB	>55 dB
LC/PC	PLU <sup>2</sup>	Beige	White	50 μm OM3, OM4	Aqua	Plenum	0.5 dB	>30 dB

1 - Single-mode only

2 - Multimode only

### Ordering Information

#### MTP-LC Fanouts

CONNECTOR	FIBER COUNT	APC SM	PC MM 50 μm OM3	PC MM 50 μm OM4
MTP (Pins) - LC Duplex	12	CS009521-XXXX	CS011510-XXXX	CS009519-XXXX

XXXX = length in meters and XXXXFT = length in feet

#### LC Uniboot Assemblies

CONNECTOR	FIBER COUNT	UPC SM	PC MM 50 μm OM3	PC MM 50 μm OM4
LC Uniboot - LC Uniboot Assembly, 2.0 mm Plenum	2	CS011378-XXXX	CS010640-XXXX	CS011386-XXXX
LC Uniboot - LC Uniboot Assembly, 2.4 mm Plenum	2	CS011389-XXXX	CS011397-XXXX	CS011400-XXXX

XXXX = length in meters and XXXXFT = length in feet



WME-02



WME-02 shown empty



WME-02 shown fully loaded

## Wall Mount Interconnect Enclosure (WME) with Two LGX® Mounting Positions

AFL's wall mount interconnect enclosure (WME02) provides a convenient convergence point for interconnecting and/or splicing in wall mount applications. Provisioned for up to two LGX compatible adapter plates or optical modules, the enclosure features a well-engineered solution for fiber and cable management on both the ingress and egress openings of the enclosure. Robust steel construction ensures the highest level of protection for sensitive components while integrated roll-formed hinges eliminate possible fiber pinch points while deploying or servicing components within. The WME02 features discrete access doors for provider and customer access which are independently lockable with a common pad-lock or tube-style keyed lock.

### Features

- Fits comfortably into new and existing interconnect, cross-connect and co-location environments
- U-shaped cable entry eliminates the need to feed preconnectorized cables through an inconvenient access port
- Modular design fully compatible with Poli-MOD® products and XFM optical cassettes
- Dual doors with separate locking options for flexibility and security
- Available empty, with adapters, or with adapters, splice trays and pigtailed pre-installed
- LGX 118 compatible
- Optional splice tray and holder (ordered separately)
- All major connector types are supported

### Applications

- Co-Location sites
- Customer premise
- Hub/OTN sites
- Telecommunication closets
- Campus/enterprise environments

### Specifications

- Solid steel construction
- Powder coat black textured finish
- Top or bottom cable entry with dust resistant grommets
- Dual-hasp locking/security system
- 12 to 24 fiber patch and splice density
- Two LGX mounting positions
- Physical dimensions: 12.0"H x 14.0"W x 2.5"D
- Empty version weight: 10.65 lbs.

## Wall Mount Interconnect Enclosure (WME) with Two LGX® Mounting Positions

### Ordering Information

EMPTY	
DESCRIPTION	AFL NO.
WME02 Empty	WME02E

HALF LOADED: WME WITH ADAPTER PLATES AND ADAPTERS ONLY				
CONNECTOR TYPE	FIBER COUNT	AFL NO.		
		UPC SM (BLUE)	APC SM (GREEN)	PC MM (BEIGE)
SC	6	WME02AS-USCSM-006000	WME02AS-ASCSM-006000	WME02AS-PSCM6-006000
	12	WME02AS-USCSM-012000	WME02AS-ASCSM-012000	WME02AS-PSCM6-012000
	24	WME02AH-USFSM-024000	WME02AH-ASFSM-024000	WME02AH-PSFM6-024000
LC	6	WME02AS-UDLSM-006000	WME02AS-ADLSM-006000	WME02AS-PDLM6-006000
	12	WME02AS-UDLSM-012000	WME02AS-ADLSM-012000	WME02AS-PDLM6-012000
	24	WME02AH-UDLSM-024000	WME02AH-ADLSM-024000	WME02AH-PDLM6-024000
ST	6	WME02AS-USTSM-006000	—	WME02AS-PSTM6-006000
	12	WME02AS-USTSM-012000	—	WME02AS-PSTM6-012000
	24	WME02AH-USTSM-024000	—	WME02AH-PSTM6-024000
FC	6	WME02AS-UFCSM-006000	WME02AS-AFCSM-006000	WME02AS-PFCM5-006000
	12	WME02AS-UFCSM-012000	WME02AS-AFCSM-012000	WME02AS-PFCM5-012000
	24	WME02AH-UFCSM-024000	WME02AH-AFCSM-024000	WME02AH-PFCM5-024000

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	Angle Polish SC (ZR) sleeve-SM
ASF	Angle Polish SC Duplex (ZR) sleeve-SM
PSC	Physical Polish SC (PB) sleeve-MM
PSF	Physical Polish SC Duplex (PB) sleeve-MM
USC	Ultra Polish SC with (ZR) sleeve-SM
USF	Ultra Polish SC Duplex (ZR) sleeve-SM
PST	Physical Polish ST (PB) sleeve-MM
UST	Ultra Polish ST (ZR) sleeve-SM
AFC	Angle Polish FC (ZR) sleeve-SM
PFC	Physical Polish FC (PB) sleeve-MM
UFC	Ultra Polish FC (ZR) sleeve-SM
ADL	Angle Polish LC Duplex (ZR) sleeve-SM
PDL	Physical Polish LC Duplex (PB) sleeve-MM
PLC	Physical Polish LC (PB) sleeve-MM
UDL	Ultra Polish LC Duplex (ZR) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

LOADED: WME WITH ADAPTER PLATES/ADAPTERS/SPLICE TRAYS/PIGTAIL (900 µm TIGHT BUFFERED FIBERS 3 METERS IN LENGTH)					
CONNECTOR TYPE	FIBER COUNT	AFL NO.			
		UPC SM (BLUE)	APC SM (GREEN)	PC MM 62.5 µm (BEIGE)	PC MM 50 µm (BLACK)
SC	6	WME02FS-USCSM-006110	WME02FS-ASCSM-006110	WME02FS-PSCM6-006110	WME02FS-PSCM5-006110
	12	WME02FS-USCSM-012110	WME02FS-ASCSM-012110	WME02FS-PSCM6-012110	WME02FS-PSCM5-012110
	24	WME02FH-USFSM-024120	WME02FH-ASFSM-024120	WME02FH-PSFM6-024120	WME02FH-PSFM5-024120
LC	6	WME02FS-UDLSM-006110	WME02FS-ADLSM-006110	WME02FS-PDLM6-006110	WME02FS-PDLM5-006110
	12	WME02FS-UDLSM-012110	WME02FS-ADLSM-012110	WME02FS-PDLM6-012110	WME02FS-PDLM5-012110
	24	WME02FH-UDLSM-024120	WME02FH-ADLSM-024120	WME02FH-PDLM6-024120	WME02FH-PDLM5-024120
ST	6	WME02FS-USTSM-006110	—	WME02FS-PSTM6-006110	WME02FS-PSTM5-006110
	12	WME02FS-USTSM-012110	—	WME02FS-PSTM6-012110	WME02FS-PSTM5-012110
	24	WME02FH-USTSM-024120	—	WME02FH-PSTM6-024120	WME02FH-PSTM5-024120
FC	6	WME02FS-UFCSM-006110	WME02FS-AFCSM-006110	WME02FS-PFCM6-006110	WME02FS-PFCM5-006110
	12	WME02FS-UFCSM-012110	WME02FS-AFCSM-012110	WME02FS-PFCM6-012110	WME02FS-PFCM5-012110
	24	WME02FH-UFCSM-024120	WME02FH-AFCSM-024120	WME02FH-PFCM6-024120	WME02FH-PFCM5-024120

ACCESSORIES	
DESCRIPTION	AFL NO.
Splice Tray Kit: Single Fusion 12F, 2RU, WME02, WME04, 1 Splice Tray	FM002827-1
Splice Tray Kit: Single Fusion 12F, 2RU, WME02, WME04, 2 Splice Trays	FM002827-2





WME-04



WME-04 shown empty



WME-04 shown fully loaded

## Wall Mount Interconnect Enclosure (WME) with Four LGX® Mounting Positions

AFL's wall mount interconnect enclosure (WME04) provides a convenient convergence point for interconnecting and/or splicing in wall mount applications. Provisioned for up to four LGX compatible adapter plates or optical modules, the enclosure features a well-engineered solution for fiber and cable management on both the ingress and egress openings of the enclosure. Robust steel construction ensures the highest level of protection for sensitive components while integrated roll-formed hinges eliminate possible fiber pinch points while deploying or servicing components within. The WME04 features discrete access doors for provider and customer access which are independently lockable with a common pad-lock or tube-style keyed lock.

### Features

- Fits comfortably into new and existing interconnect, cross-connect and co-location environments
- U-shaped cable entry eliminates the need to feed preconnectorized cables through an inconvenient access port
- Modular design fully compatible with Poli-MOD® products and XFM optical cassettes
- Dual doors with separate locking options for flexibility and security
- Available empty, with adapters, or with adapters, splice trays and pigtailed pre-installed
- LGX 118 compatible
- Optional splice tray and holder (ordered separately)
- All major connector types are supported

### Applications

- Co-Location sites
- Customer premise
- Hub/OTN sites
- Telecommunication closets
- Campus/enterprise environments

### Specifications

- Solid steel construction
- Powder coat black textured finish
- Top or bottom cable entry with dust resistant grommets
- Dual-hasp locking/security system
- 24 to 48 fiber patch and splice density
- Four LGX mounting positions
- Physical dimensions: 12.0" H x 16.0" W x 3.63" D

## Wall Mount Interconnect Enclosure (WME) with Four LGX® Mounting Positions

### Ordering Information

EMPTY	
DESCRIPTION	AFL NO.
WME04 Empty	WME04E

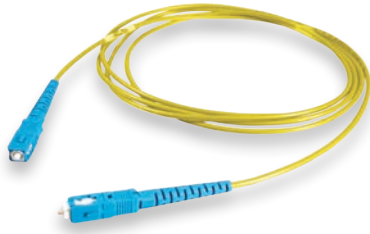
HALF LOADED: WME WITH ADAPTER PLATES AND ADAPTERS ONLY				
CONNECTOR TYPE	FIBER COUNT	AFL NO.		
		UPC SM (BLUE)	APC SM (GREEN)	PC MM (BEIGE)
SC	24	WME04AS-USCSM-024000	WME04AS-ASCSM-024000	WME04AS-PSCM6-024000
	48	WME04AH-USFSM-048000	WME04AH-ASFSM-048000	WME04AH-PSFM6-048000
LC	24	WME04AS-UDLSM-024000	WME04AS-ADLSM-024000	WME04AS-PDLM6-024000
	48	WME04AH-UDLSM-048000	WME04AH-ADLSM-048000	WME04AH-PDLM6-048000
ST	24	WME04AS-USTSM-024000	—	WME04AS-PSTM6-024000
	48	WME04AH-USTSM-048000	—	WME04AH-PSTM6-048000
FC	24	WME04AS-UFCSM-024000	WME04AS-AFCSM-024000	WME04AS-PFCM5-024000
	48	WME04AH-UFCSM-048000	WME04AH-AFCSM-048000	WME04AH-PFCM5-048000

### Connector/Adapter Key

TYPE	DESCRIPTION
ASC	Angle Polish SC (ZR) sleeve-SM
ASF	Angle Polish SC Duplex (ZR) sleeve-SM
PSC	Physical Polish SC (PB) sleeve-MM
PSF	Physical Polish SC Duplex (PB) sleeve-MM
USC	Ultra Polish SC with (ZR) sleeve-SM
USF	Ultra Polish SC Duplex (ZR) sleeve-SM
PST	Physical Polish ST (PB) sleeve-MM
UST	Ultra Polish ST (ZR) sleeve-SM
AFC	Angle Polish FC (ZR) sleeve-SM
PFC	Physical Polish FC (PB) sleeve-MM
UFC	Ultra Polish FC (ZR) sleeve-SM
ADL	Angle Polish LC Duplex (ZR) sleeve-SM
PDL	Physical Polish LC Duplex (PB) sleeve-MM
PLC	Physical Polish LC (PB) sleeve-MM
UDL	Ultra Polish LC Duplex (ZR) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

LOADED: WME WITH ADAPTER PLATES/ADAPTERS/SPLICE TRAYS/PIGTAIL (900 µm TIGHT BUFFERED FIBERS 3 METERS IN LENGTH)					
CONNECTOR TYPE	FIBER COUNT	AFL NO.			
		UPC SM (BLUE)	APC SM (GREEN)	PC MM 62.5 µm (BEIGE)	PC MM 50 µm (BLACK)
SC	24	WME04FS-USCSM-024120	WME04FS-ASCSM-024120	WME04FS-PSCM6-024120	WME04FS-PSCM5-024120
	48	WME04FH-USFSM-048140	WME04FH-ASFSM-048140	WME04FH-PSFM6-048140	WME04FH-PSFM5-048140
LC	24	WME04FS-UDLSM-024120	WME04FS-ADLSM-024120	WME04FS-PDLM6-024120	WME04FS-PDLM5-024120
	48	WME04FH-UDLSM-048140	WME04FH-ADLSM-048140	WME04FH-PDLM6-048140	WME04FH-PDLM5-048140
ST	24	WME04FS-USTSM-024120	—	WME04FS-PSTM6-024120	WME04FS-PSTM5-024120
	48	WME04FH-USTSM-048140	—	WME04FH-PSTM6-048140	WME04FH-PSTM5-048140
FC	24	WME04FS-UFCSM-024120	WME04FS-AFCSM-024120	WME04FS-PFCM6-024120	WME04FS-PFCM5-024120
	48	WME04FH-UFCSM-048140	WME04FH-AFCSM-048140	WME04FH-PFCM6-048140	WME04FH-PFCM5-048140

ACCESSORIES	
DESCRIPTION	AFL NO.
Splice Tray Kit: Single Fusion 12F, 2RU, WME02, WME04, 3 Splice Trays	FM002827-3
Splice Tray Kit: Single Fusion 12F, 2RU, WME02, WME04, 4 Splice Trays	FM002827-4



## Simplex Cable Assemblies

Simplex cable assemblies are offered with a variety of combinations. Connectors include SC, FC, ST, LC and MU. 3.0 mm, 2.0 mm, 1.6 mm, and 900 µm simplex cables in riser and plenum are available.

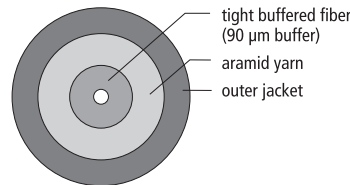
### Features

- 3.0 mm, 2.0 mm, 1.6 mm, and 900 µm cable diameter available
- RoHS compliant – Riser, Plenum, and LSZH rated cables available
- Cable compliant with Telcordia® GR-409
- Connectors compliant with Telcordia GR-326

### Applications

- Building interconnections (campus LAN)
- Trunking lines direct to telecommunications closet
- Fiber patch panels within communications closets
- Links between electronic equipment and fiber patch panels

### Cable Components



### Ordering Information

ASC	ASC	RS	001	Q	0010
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length (meters)
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC ALC = Angle LC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC UMA = Ultra MU UMJ = Ultra MU-J	<b>Single-mode</b> ASC = Angle SC AFC = Angle FC ALC = Angle LC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC UMA = Ultra MU UMJ = Ultra MU-J XXX = No connector	RS = 3.0 mm Riser PS = 3.0 mm Plenum RM = 1.6 m Riser PM = 1.6 mm Plenum RT = 2.0 mm Riser PT = 2.0 mm Plenum JH = 900 µm	001 = 1	Q = Single-mode R = Multimode 50/125 2 = Multimode 62.5/125 L = 10G Laser Link 300	0010 = 10 meters (specify length)
<b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM	<b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM XXX = No connector				

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## Two-Fiber Cable Assemblies

Zipcord, Dual-Link and Ribbon cables are used to meet the requirements for two-fiber cable assemblies, utilizing SC, FC, ST, LC, MU and MT-RJ connectors.



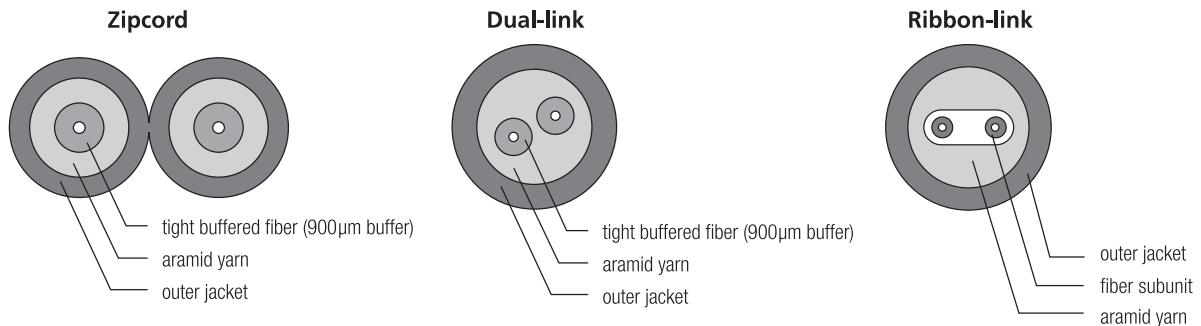
### Features

- Flexible, 2-fiber design
- RoHS compliant – Riser, Plenum and LSZH rated cables available
- Cable compliant with Telcordia® GR-409
- Connectors compliant with Telcordia GR-326

### Applications

- FDDI, 10 Gigabit Ethernet, ATM and Fiber Channel protocols
- Communications closet to wall outlet
- Wall outlet to desk
- Interconnect and cross-connect applications

### Cable Components



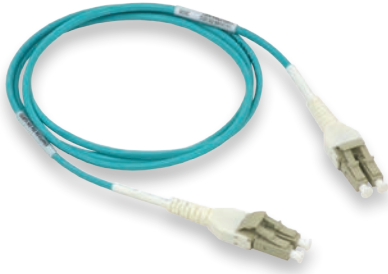
### Ordering Information

UST	UST	RD	002	Q	0010
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length (meters)
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC USF = Ultra SC Duplex UDL = Ultra LC Duplex SJF = MT-RJ Female SJM = MT-RJ Male	<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC USF = Ultra SC Duplex UDL = Ultra LC Duplex SJF = MT-RJ Female SJM = MT-RJ Male XXX = No connector	RZ = 3.0 mm Riser Zipcord PZ = 3.0 mm Plenum Zipcord R20Z = 2.0 mm Riser Zipcord P20Z = 2.0 mm Plenum Zipcord R16Z = 1.6 mm Riser Zipcord P16Z = 1.6 mm Plenum Zipcord RD = Riser Dual Link PD = Plenum Dual Link	002 = 2	Q = Single-mode ITU-T G.652D X = Single-mode ITU-T G.657A BIF 2 = Multimode 62.5/125 µm OM1 R = Multimode 50/125 µm OM2 L = Multimode 50/125 µm OM3/10G	XXXX (specify length) 0010 = 10 meters
<b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM PSF = SC Duplex MM PDL = LC Duplex MM PJF = MT-RJ Female MM PJM = MT-RJ Male MM	<b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM PSF = SC Duplex MM PDL = LC Duplex MM PJF = MT-RJ Female MM PJM = MT-RJ Male MM XXX = No connector				

NOTES: 1. Refer to Connector Specifications page.

\* Single connector options, quantity two per end. Duplex connectors are assembled with removable clip.

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## LC Uniboot Cable Assemblies

AFL's LC Uniboot terminated cable assemblies offer a more compact design when compared to traditional duplex zipcord assemblies. These assemblies contain two LC connectors encased in a common housing with one boot, terminated on a single, round, two-fiber cable. Utilizing AFL's DUAL-Link 2.8 mm premise cable, LC Uniboot assemblies condense the cable management to half the space used by regular zipcord assemblies. AFL's LC Uniboot cable assemblies offer the best solution for high-density applications.

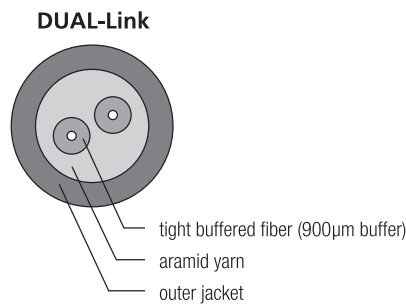
### Features

- LC duplex connector uses a single housing and single boot
- 2.8 mm DUAL-Link cable; Riser, Plenum, and LSZH rated cables available
- RoHS compliant
- Connectors compliant with Telcordia® GR-326, TIA/EIA-604-10A(FOCIS 10)
- Cable compliant with Telcordia GR-409

### Applications

- Private networks
- Data centers
- High density applications
- Interconnect and cross-connect
- Premise installations

### Cable Components



### Specifications

PARAMETER	VALUE
Insertion Loss (typical)	0.15 dB (SM/MM)
Return Loss (typical)	-55 dB (SM), -30 dB (MM)
Durability	500 cycles
Operating Temperature	-40°C to +85°C
Ferrule	Zirconia

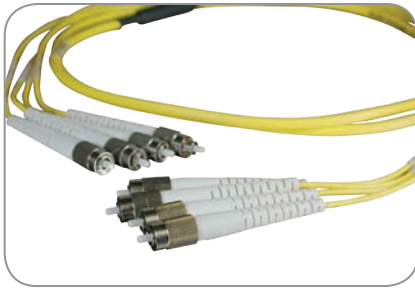
### Ordering Information:

#### LC Uniboot to LC Uniboot, 2.8 mm Riser DUAL-Link Cable

FIBER TYPE	AFL NO.
62.5/125 µm (OM1)	CS007814-XXXX
50/125 µm (OM2)	CS008116-XXXX
50/125 µm 10gig 300 (OM3)	CS007783-XXXX
50/125 µm 10gig 550 (OM4)	CS009233-XXXX
Single-mode	CS009234-XXXX

XXXX = Length (meters)  
Example: 0010 = 10

Contact AFL Customer Service for information regarding plenum and LSZH rated assemblies.



## Quad Cable Assemblies

Quad cable assemblies are available in a wide variety of configurations, to fit exact application needs. These assemblies are offered using four 900um coated fibers in one circular cable, featuring a 4.8mm outer diameter.

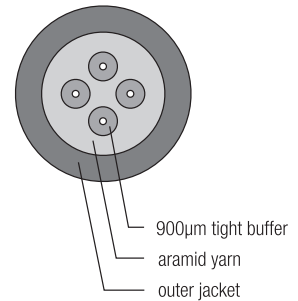
### Features

- 4.8mm cable diameter allows flexibility and easy routing
- RoHS compliant - Riser, Plenum, and LSZH rated cables available
- 900um tight buffered fibers allow direct termination (no furcation needed)
- Cable tested to meet or exceed EIA/TIA 568-A/GR-409-CORE
- Connectors compliant with Telcordia GR-326

### Applications

- Loaded Panels
- Communications cables with both send-and-receive in a single unit
- Routing between communications closets and equipment rooms
- Intra-building backbones

### Cable Components



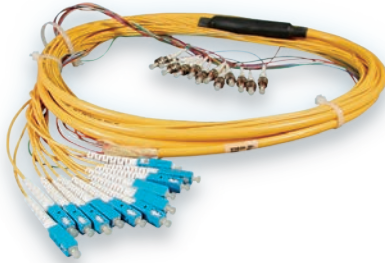
## Ordering Information

ASC	ASC	RQ	004	Q	0010	NF
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length (meters)	Leg Diameter
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC USF = Ultra SC Duplex UDL = Ultra LC Duplex SJF = MT-RJ Female SJM = MT-RJ Male  <b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM PSF = SC Duplex MM PDL = LC Duplex MM PJF = MT-RJ Female MM PJM = MT-RJ Male MM	<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC USF = Ultra SC Duplex UDL = Ultra LC Duplex SJF = MT-RJ Female SJM = MT-RJ Male XXX = No connector  <b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM PSF = SC Duplex MM PDL = LC Duplex MM PJF = MT-RJ Female MM PJM = MT-RJ Male MM XXX = No connector	RQ = Quad Riser PQ = Quad Plenum	004 = 4	Q = Single-mode ITU-T G.652D X = Single-mode ITU-T G.657A BIF 2 = Multimode 62.5/125µm OM1 R = Multimode 50/125µm OM2 L = Multimode 50/125µm OM3/10G	XXXX (specify length) 0010 = 10 meters	NN = Non-furcated, both ends 900µm FF = Furcated both ends NF = 900µm end A, Furcated end B

- NOTES:**
1. Refer to Connector Specifications page.
  2. Duplex connectors are assembled with removable clip.



## Circular Premise Cable (CPC) Assemblies



High-fiber count Circular Premise Cable (CPC) assemblies provide safe and cost effective installation for many applications. These assemblies help eliminate labor-intensive field termination, yet guarantee reliable performance. Featuring a unified construction for easy fiber identification and rapid installation, these assemblies are built to exceed all TIA and Telcordia® requirements.

### Features

- 6-144 fibers with aramid yarn reinforcement for rugged protection
- Highly flexible for ease of routing
- RoHS compliant - Riser, Plenum and LSZH rated cables available
- Pre-installed pulling eye kits available on certain products
- 1 meter standard breakout (other lengths are custom)
- 900 µm tight buffered fibers allows direct termination; 2.0 mm furcation available
- Cable tested to meet or exceed EIA/TIA 568-A/GR-409-CORE
- Telcordia GR-326 compliant connectors

### Applications

- Head-end termination to a fiber "backbone"
- Termination of fiber rack systems
- Multi-floor deployment where select fibers are used at each floor
- Intrabuilding "backbones"

### Ordering Information

ASC	ASC	RC	012	Q	0010	NN
<b>Connector End A</b>	<b>Connector End B</b>	<b>Cable Type</b>	<b>Fiber Count</b>	<b>Fiber Type</b>	<b>Cable Length (meters)</b>	<b>Leg Diameter</b>
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC  <b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM	<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC XXX = No connector  <b>Multimode</b> PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM XXX = No connector	RC = Riser (CPC) PC = Plenum (CPC)	006 = 6 012 = 12 024 = 24 036 = 36 048 = 48 072 = 72 096 = 96 144 = 144	Q = Single-mode ITU-T G.652D X = Single-mode ITU-T G.657A BIF 2 = Multimode 62.5/125 µm OM1 R = Multimode 50/125 µm OM2 L = Multimode 50/125 µm OM3/10G	XXXX (specify length) 0010 = 10 meters	N = 900 µm End A / XXX End B NN = 900 µm End A and B F = Furcated End A / XXX End B FF = Furcated Ends A and B FN = Furcated Ends A / 900 µm End B NF = 900 µm End A / Furcated Ends B

- NOTES:**
1. Refer to Connector Specifications page.
  2. Duplex SC and LC available

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## Sub-Unitized MicroCore® Trunk Cable Assemblies

Sub-unitized MicroCore trunk cable assemblies provide high performance for premise installations where space is a premium. The small diameter, sub-unitized design offers twelve 250 µm colored fibers per tube, with aramid strength members enclosed by a PVC jacket, enabling high density architecture. The cable allows quick and efficient termination of MTP connectors, as well as, breakout capability to single fiber connectors.

### Features

- Sub-unitized design, with (12) 250 µm colored fibers per tube
- 12, 24, and 72 fiber counts (SM or 50 µm LOMMF) with active part numbers
- Small diameter provides superior bend performance
- Standard 2.0 mm zipcord furcation for single fiber connectors
- One meter standard breakout
- Cable jackets & connector housings color-coded for easy identification
- Sub-unit legs identified for ease of channel routing/traceability
- Cable tested to meet or exceed EIA/TIA 568-A/GR-409-CORE
- Telcordia® GR-326 compliant connectors

### Applications

- Data center systems wiring
- MTP-MTP or MTP-Fanouts, and Single Fiber Connector Terminations
- Head-end termination to a fiber "backbone"
- Termination of fiber rack systems
- Multi-floor deployment where select fibers are used at each floor
- Intrabuilding "backbones"

### Specifications

PARAMETER	SINGLE-MODE ASSEMBLIES					MULTIMODE ASSEMBLIES		
	LC		SC		MTP	LC	SC	MTP (LOW LOSS)
	ULTRA	ANGLED	ULTRA	ANGLED	ANGLED			
Insertion Loss (Typical dB)***	0.15	0.15	0.15	0.15	0.35	0.15	0.15	0.15
Insertion Loss (Maximum dB)	0.3	0.3	0.3	0.3	0.75	0.5	0.5	0.2
Return Loss (Typical dB)***	-60	-70	-60	-70	-65	-35	-35	-30
Return Loss (Minimum dB)	-55	-65	-55	-65	-55	-30	-30	-20
Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +75	-40 to +85	-40 to +85	-40 to +75
Durability Cycles	500	500	500	500	200	500	500	200

\*\*\* Typical values based on equal quality connectors.

### Ordering Information – MTP-MTP Assemblies

(Female MTPs on both ends – no pins)

(Polarity: Key Up/Key Up, Straight Through)

FIBER COUNT	FIBER	PULLING EYE	AFL NO.
12	Single-mode	No	CS009980-XXXX
12	Single-mode	Yes	CS009981-XXXX
24	Single-mode	No	CS009984-XXXX
24	Single-mode	Yes	CS009985-XXXX
72	Single-mode	No	CS009996-XXXX
72	Single-mode	Yes	CS009997-XXXX
12	50 µm 10gig 300 (OM3)	No	CS010649-XXXX
12	50 µm 10gig 300 (OM3)	Yes	CS010650-XXXX
24	50 µm 10gig 300 (OM3)	No	CS003700-XXXX
24	50 µm 10gig 300 (OM3)	Yes	CS009912-XXXX
72	50 µm 10gig 300 (OM3)	No	CS003720-XXXX
72	50 µm 10gig 300 (OM3)	Yes	CS010016-XXXX
12	50 µm 10gig 550 (OM4)	No	CS008420-XXXX
12	50 µm 10gig 550 (OM4)	Yes	CS010165-XXXX
24	50 µm 10gig 550 (OM4)	No	CS010100-XXXX
24	50 µm 10gig 550 (OM4)	Yes	CS010066-XXXX
72	50 µm 10gig 550 (OM4)	No	CS010101-XXXX
72	50 µm 10gig 550 (OM4)	Yes	CS010067-XXXX

NOTE: XXXX is length in meters.

Contact AFL Customer Service for additional polarity schemes available.

continued on next page

## Sub-Unitized MicroCore® Trunk Cable Assemblies



### Ordering Information – MTP Fanout Assemblies (Male MTPs — Duplex Connectors)

FIBER COUNT	FIBER	PULLING EYE	AFL NO.	
			MALE MTP-LC DUPLEX	MALE MTP-SC DUPLEX
12	Single-mode	No	CS009521-XXXX	CS010020-XXXX
12	Single-mode	Yes	CS0010017-XXXX	CS010021-XXXX
24	Single-mode	No	CS003796-XXXX	CS010022-XXXX
24	Single-mode	Yes	CS010018-XXXX	CS010023-XXXX
72	Single-mode	No	CS003811-XXXX	CS010024-XXXX
72	Single-mode	Yes	CS010019-XXXX	CS010025-XXXX
12	50 µm 10gig 300 (OM3)	No	CS011510-XXXX	CS010030-XXXX
12	50 µm 10gig 300 (OM3)	Yes	CS010027-XXXX	CS010031-XXXX
24	50 µm 10gig 300 (OM3)	No	CS003795-XXXX	CS010032-XXXX
24	50 µm 10gig 300 (OM3)	Yes	CS010028-XXXX	CS010033-XXXX
72	50 µm 10gig 300 (OM3)	No	CS003810-XXXX	CS010034-XXXX
72	50 µm 10gig 300 (OM3)	Yes	CS010029-XXXX	CS010035-XXXX
12	50 µm 10gig 550 (OM4)	No	CS009519-XXXX	CS010073-XXXX
12	50 µm 10gig 550 (OM4)	Yes	CS010068-XXXX	CS010074-XXXX
24	50 µm 10gig 550 (OM4)	No	CS010069-XXXX	CS010075-XXXX
24	50 µm 10gig 550 (OM4)	Yes	CS010070-XXXX	CS010076-XXXX
72	50 µm 10gig 550 (OM4)	No	CS010071-XXXX	CS010077-XXXX
72	50 µm 10gig 550 (OM4)	Yes	CS010072-XXXX	CS010078-XXXX



### Ordering Information – LC and SC Trunk Assemblies (Duplex LC and SC Connectors)

FIBER COUNT	FIBER	PULLING EYE	AFL NO.		
			LC DUPLEX-LC DUPLEX	LC DUPLEX-SC DUPLEX	SC DUPLEX-SC DUPLEX
12	Single-mode	No	CS010036-XXXX	CS010038-XXXX	CS010042-XXXX
12	Single-mode	Yes	CS010037-XXXX	CS010039-XXXX	CS010043-XXXX
24	Single-mode	No	CS004602-XXXX	CS007203-XXXX	CS007201-XXXX
24	Single-mode	Yes	CS004603-XXXX	CS007204-XXXX	CS007202-XXXX
72	Single-mode	No	CS004618-XXXX	CS010040-XXXX	CS010044-XXXX
72	Single-mode	Yes	CS004619-XXXX	CS010041-XXXX	CS010045-XXXX
12	50 µm 10gig 300 (OM3)	No	CS010046-XXXX	CS010048-XXXX	CS010052-XXXX
12	50 µm 10gig 300 (OM3)	Yes	CS010047-XXXX	CS010049-XXXX	CS010053-XXXX
24	50 µm 10gig 300 (OM3)	No	CS004608-XXXX	CS007221-XXXX	CS007219-XXXX
24	50 µm 10gig 300 (OM3)	Yes	CS004609-XXXX	CS007222-XXXX	CS007220-XXXX
72	50 µm 10gig 300 (OM3)	No	CS004624-XXXX	CS010050-XXXX	CS010054-XXXX
72	50 µm 10gig 300 (OM3)	Yes	CS004625-XXXX	CS010051-XXXX	CS010055-XXXX
12	50 µm 10gig 550 (OM4)	No	CS010079-XXXX	CS010085-XXXX	CS010091-XXXX
12	50 µm 10gig 550 (OM4)	Yes	CS010080-XXXX	CS010086-XXXX	CS010092-XXXX
24	50 µm 10gig 550 (OM4)	No	CS010081-XXXX	CS010087-XXXX	CS010093-XXXX
24	50 µm 10gig 550 (OM4)	Yes	CS010082-XXXX	CS010088-XXXX	CS010094-XXXX
72	50 µm 10gig 550 (OM4)	No	CS010083-XXXX	CS010089-XXXX	CS010095-XXXX
72	50 µm 10gig 550 (OM4)	Yes	CS010084-XXXX	CS010090-XXXX	CS010096-XXXX

NOTE: XXXX is length in meters.



## Bend Insensitive Cable Assemblies

AFL's single-mode bend insensitive cable assemblies enable tight bend radii and routing to minimize signal loss due to high traffic and/or densely packed patch panel routing installations. Available in simplex, duplex, quad (4 fiber) and octo (8 fiber) cable configurations, either ultra or angled polished interfaces can be requested, thereby meeting low insertion loss and high return loss system requirements.

Various standard connector interface options are available and meet Telcordia® GR-326 performance requirements.

### Applications

- Service provider networks
- Central office and equipment buildings
- CATV carrier video systems

### Features

#### CONNECTORS

- Ceramic ferrule utilized for precision fiber alignment
- Ribbed boot design on SC insures protected cable bending
- 40 degree LC boot option allows guided cable routing in DMX and DMXtend system applications
- Meets connector interface specifications of EIA.TIA-455 (FOCIS)
- All component materials are compliant to UL94 V-0
- Premium performance at standard grade prices
- Color-coded blue cable jacket identifies enhanced performance
- Tested in accordance with Telcordia GR-326, issue 3 specifications

#### CABLE

- Fujikura fiber enables tight bend radius control and low loss
- Long term performance at a bend radius <15 mm
- Simplex, Duplex Dual-link, Quad and 8-fiber cable constructions are RoHS compliant
- Cable constructions meet or exceed Telcordia GR-409

### Specifications

PARAMETER		VALUE
Insertion Loss	max	0.25 dB
	typical	0.15 dB
Return Loss	max	-65 dB (APC), -55 dB (UPC)
	typical	-68 dB (APC), -58 dB (UPC)
Cable Bend Radius	minimum	< 15 mm
Durability		200 cycles
Operating Temperature		-40°C to +85°C
Storage Temperature		-40°C to +85°C

### Ordering Information

#### SIMPLEX CABLE ASSEMBLIES, 2 MM JACKET DIAMETER

DESCRIPTION	AFL NO.
USC-USC	C063770B-XXXX
ULC-ULC	C213707B-XXXX
ASC-ASC	C202687B-XXXX
UFC-UFC	C185200B-XXXX
AFC-AFC	C202691B-XXXX
USC-ULC	C213712B-XXXX
USC-ASC	C202702B-XXXX
USC-UFC	C167091B-XXXX
USC-AFC	C202705B-XXXX
ASC-AFC	C202696B-XXXX
USC-ULC (40° LC boot)	CS001104B-XXXX

XXXX = Length (meters)  
Example: 0010 = 10

#### DUPLEX DUAL-LINK CABLE ASSEMBLIES, 3.2 MM JACKET DIAMETER

DESCRIPTION	AFL NO.
USC-USC	C141246B-X
ULC-ULC	CS000813B-XXXX
USC-ULC	CS000812B-XXXX
USC-UFC	C124414B-XXXX

#### QUAD 4-FIBER CABLE ASSEMBLIES, 4.7 MM JACKET DIAMETER

DESCRIPTION	AFL NO.
USC-USC	C183518B-XXXX
ULC-ULC	CS000818B-XXXX
USC-ULC	CS000661B-XXXX
USC-UFC	C178379B-XXXX

#### OCTO 8-FIBER CABLE ASSEMBLIES, 5.2 MM JACKET DIAMETER

DESCRIPTION	AFL NO.
USC-USC	CS000619B-XXXX
ULC-ULC	CS00815B-XXXX
USC-ULC	CS000814B-XXXX



## SC Angled Pigtail Assemblies

AFL single-mode SC Angled Pigtail Assemblies are designed to meet stringent performance requirements of the latest FTTH (Fiber to the Home) applications. Available in either simplex (one fiber) or duplex zipcord (two fiber) construction, the SC angled connector guarantees the high performance return loss required of video signals. Assemblies are tested and qualified to Telcordia® GR-326, Issue 3 requirements and meet all EIA.TIA 455-3 (FOCIS 3) interface standards for SC connectors. The assemblies are provided in easy-to-install disposable packaging reels up to 300 feet, in 50-foot increments.

### Applications

- Multi-Dwelling Unit (MDU) drop cables for FTTH systems
- CATV Video systems
- LAN Networks

### Features

#### CONNECTORS:

- Tested in accordance with Telcordia GR-326, issue 3 specifications
- Meets SC interface specifications of EIA.TIA-455-3 (FOCIS 3)
- All component materials are compliant to UL94 V-0
- Ceramic ferrule utilized for precision fiber alignment
- Keyed push-pull latching mechanism
- Connector housings are color coded (Green) for APC identification and -65 dB return loss

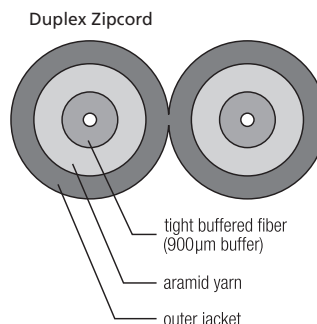
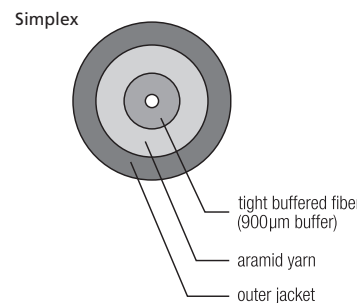
#### CABLE:

- Cable constructions meet or exceed Telcordia GR-409
- 3.0 mm cable diameter available in Riser and Plenum grade
- Simplex and Duplex zipcord cable construction, RoHS compliant
- Cable manufactured using Corning SMF-28e single-mode fiber

### Specification

PARAMETER	VALUE	
Insertion loss	maximum	0.25 dB
	typical	0.15 dB
Return Loss	maximum	-65 dB
	typical	-68 dB
Durability	200 cycles	
Operating Temperature	-40°C to + 85°C	
Storage Temperature	-40°C to + 85°C	

### Cable Components



### Ordering Information

#### RISER GRADE, SINGLE-ENDED, 3 MM

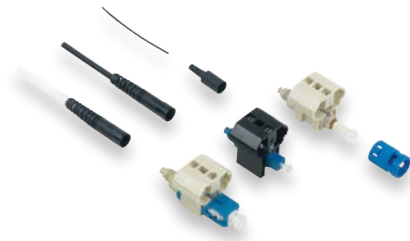
LENGTH (FEET)	AFL NO.	
	SIMPLEX	DUPLEX ZIPCORD
50	CS000686-0050	CS000688-0050
100	CS000686-0100	CS000688-0100
150	CS000686-0150	CS000688-0150
200	CS000686-0200	CS000688-0200
250	CS000686-0250	CS000688-0250
300	CS000686-0300	CS000688-0300

#### PLENUM GRADE, SINGLE-ENDED, 3 MM

LENGTH (FEET)	AFL NO.	
	SIMPLEX	DUPLEX ZIPCORD
50	CS000698-0050	CS000700-0050
100	CS000698-0100	CS000700-0100
150	CS000698-0150	CS000700-0150
200	CS000698-0200	CS000700-0200
250	CS000698-0250	CS000700-0250
300	CS000698-0300	CS000700-0300

#### PLENUM-RISER GRADE, SINGLE-ENDED, 3MM

LENGTH (FEET)	AFL NO.	
	SIMPLEX	DUPLEX ZIPCORD
50	CS000704-0050	CS000706-0050
100	CS000704-0100	CS000706-0100
150	CS000704-0150	CS000706-0150
200	CS000704-0200	CS000706-0200
250	CS000704-0250	CS000706-0250
300	CS000704-0300	CS000706-0300



## Features

- No Epoxy, No Polish
- Low Insertion Loss
- Fiber Can Be Reinserted up to Three Times
- 3.0 mm, 2.0 mm and 900 µm Cordage Compatibility
- VFI Accessory to Confirm Proper Installation

## Applications

- Premise/Enterprise Networks
- LAN/WAN Connections
- Patch Panels
- Equipment Termination
- FTTx Applications
- Field Repair/Replacement
- Equipment Test Leads

## FASTConnect® Field-Installable Connectors

FASTConnect are factory pre-polished, field-installable connectors that completely eliminate the need for hand polishing in the field. Proven mechanical splice technology ensuring precision fiber alignment, a factory pre-cleaved fiber stub and a proprietary index-matching gel combine to offer an immediate low loss termination to either single-mode or multimode optical fibers. FAST Connectors are compatible with 250 µm and 900 µm optical fibers, as well as 900 µm, 2 mm and 3 mm cordage. All primary fiber types are supported, and each connector is color coded per industry standard requirements to aide in identification during and after installation. A factory-installed wedge clip (included with each connector) is removed and discarded upon completion of the termination. Incorporated into this device is an innovative, translucent wedge enabling the use of a common VFI to provide a "pass/fail" signal once physical contact is achieved.

## Specifications

PARAMETER		VALUE
Insertion Loss:	Single-mode - UPC	Average: 0.2 dB, Maximum: 0.5 dB
	Single-mode - APC	Average: 0.3 dB, Maximum: 0.6 dB
	Multimode - PC	Average: 0.1 dB, Maximum: 0.5 dB
Return Loss at Room Temperature:	Single-mode - UPC	Average: -55 dB, Maximum: -45 dB
	Single-mode - APC-AU*	Average: -55 dB, Maximum: -50 dB
	Single-mode - APC-AA**	Average: -65 dB, Maximum: -60 dB
	Multimode	Average: -25 dB, Maximum: -20 dB
Operating Temperature		-40°C to +75°C

\*Angle/Flat Cleaves

\*\*Angle/Angle Cleaves

TIA/EIA-568-C.3 Compliant

TIA/EIA-604 (FOCIS) Compliant

## Ordering Information

FIBER TYPE	HOUSING COLOR	CABLE SIZE	AFL NO.	
			PACKAGE OF 6	PACKAGE OF 100
<b>FASTCONNECT SC</b>				
Multimode 62.5/125 µm, OM1	Beige	900 µm	FAST-SC-MM62.5-6	FAST-SC-MM62.5-100
Multimode 50/125 µm, OM2	Black		FAST-SC-MM50-6	FAST-SC-MM50-100
Multimode 50/125 µm, OM3/OM4 compatible	Aqua		FAST-SC-MM50L-6	FAST-SC-MM50L-100
Single-mode, UPC	Blue		FAST-SC-SM-6	FAST-SC-SM-100
Single-mode, APC-AU	Green		FAST-SC-SMAU-6	FAST-SC-SMAU-100
Single-mode, APC-AA	Green		FAST-SC-SMAA-6	FAST-SC-SMAA-100*
<b>FASTCONNECT ST</b>				
Multimode 62.5/125 µm, OM1	Beige	900 µm	FAST-ST-MM62.5-6	FAST-ST-MM62.5-100
Multimode 50/125 µm, OM2	Black		FAST-ST-MM50-6	FAST-ST-MM50-100
Multimode 50/125 µm, OM3/OM4 compatible	Aqua		FAST-ST-MM50L-6	FAST-ST-MM50L-100
Single-mode, UPC	Blue		FAST-ST-SM-6	FAST-ST-SM-100
<b>FASTCONNECT LC</b>				
Multimode 62.5/125 µm, OM1	Beige	900 µm	FAST-LC-MM62.5-6	FAST-LC-MM62.5-100
Multimode 50/125 µm, OM2	Black		FAST-LC-MM50-6	FAST-LC-MM50-100
Multimode 50/125 µm, OM3/OM4 compatible	Aqua		FAST-LC-MM50L-6	FAST-LC-MM50L-100
Single-mode, UPC	Blue		FAST-LC-SM-6	FAST-LC-SM-100

\* Requires FAST APC Tool Kit for installation

U.S. Patents: 5,963,699 / 5,984,532 / 6,179,482 / 7,003,208 / 7,258,496

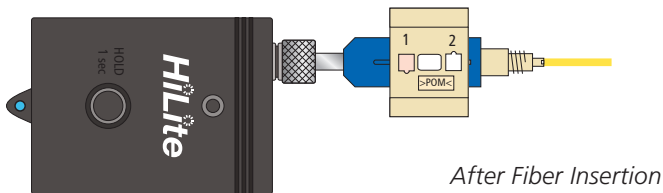
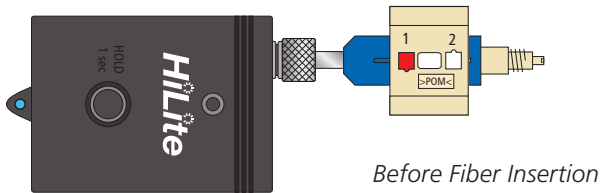


## FASTConnect® Field-Installable Connectors

### Accessories

DESCRIPTION			AFL NO.	AFL NO.
BOOT KITS FOR 2 MM AND 3 MM CORDAGE	COLOR	CABLE SIZE	PACK OF 6	PACK OF 100
2 mm Boot Kit, SC/LC/ST	Black	2 mm	FAST-BOOT-2MM-6	FAST-BOOT-2MM-100
3 mm Boot Kit, SC/LC/ST	Black	3 mm	FAST-BOOT-3MM-6	FAST-BOOT-3MM-100
DUPLEX CLIPS				
LC Duplex Clip (LC only)	Transparent		CS010437-06	CS010437-100
TOOL KITS				AFL NO.
FAST UPC Tool Kit	For all UPC style connectors and SC/ APC-AU (CT-30A Cleaver)		CS001201	
FAST UPC Tool Kit	For all UPC style connectors and SC/APC-AU (CT-06A Cleaver)		CS010975	
FAST APC Tool Kit	For SC/APC-AA connectors (OX-FAC-08 Cleaver)		CS012290	
VISUAL FAULT IDENTIFIERS				AFL NO.
AFL NOYES® VFI 2				VF12-00-0900
AFL NOYES HiLite				VF13-00-0900
1.25 mm Universal Adapter (LC Connectors)				2900-50-0010MR

### Testing





Tool Kit Contents

## FASTConnect® Universal Tool Kit

The FASTConnect Universal Tool Kits provide all the necessary installation tools required for fiber preparation of 250 μm or 900 μm fibers, or 900 μm, 2 mm or 3 mm cordage for AFL's pre-polished FASTConnect. Featuring either the CT-30A, CT-06A or OX-FAC-08 fiber cleaver, the FASTConnect Universal Tool Kit contains all the industry standard termination tools required for fiber preparation. Additionally, the carrying case has adequate storage for extra FASTConnect for on-site convenience.

### Applications

- Premise environments
- LAN Fiber to the Desk environments
- Patch panel/wiring closets
- FTTx applications
- Quick repair/replacement areas

### Features

- Industry standard fiber preparation tools
- Compact design, flexible yet rugged case
- Complete instructions provided



CT-30A Cleaver

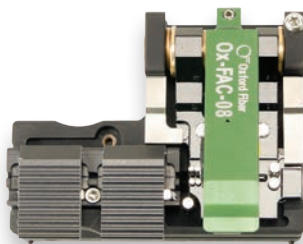
### Ordering Information

DESCRIPTION	AFL NO.
FASTConnect High Precision UPC/PC Tool Kit with CT-30A Cleaver	CS001201
FASTConnect High Precision UPC/PC Tool Kit with CT-06A Cleaver	CS010975
FASTConnect APC (Angle/Angle Connector) Tool Kit with OX-FAC-08	CS012290

Tool Kits include: Cleaver, FAST SC Assembly Tool, FAST LC Assembly Tool, 3 mm Cable Clamp, 2 mm Cable Clamp, 0.25/0.9 mm Cable Clamp, Fiber Stripper, Kevlar Scissors, Fiber Preparation Fluid, Lint-free Cloth Wipes, Marker Pen, Installation Instructions, Strip Length Template and a Carrying Case.



CT-06A Cleaver



OX-FAC-08 Cleaver

## Field Master® Field-Installable Connectors



Field Master Connectors, for field-termination of fiber optics, feature high-precision, high-reliability and low-applied connector cost. Durable metal components, industry-standard connector designs, and proven crimp technology give the customer peace-of-mind that their installed network is steady and reliable. Field Master Tool Kits come complete with all necessary tools and consumables for the professional installation of Field Master Connectors.

### Features

- High-precision ceramic ferrules ensure fiber alignment and repeatable performance
- Rugged metal connector bodies provide sturdy cable terminations
- Industry standard interfaces allow interoperability with media equipment
- Meets EIA/TIA 568B performance requirements
- Field proven crimp technology improves connector/cable tensile performance

### Applications

- Premise environments
- Desk for LAN environments
- Patch panels
- Direct equipment termination
- Fiber to the Subscriber (FTTx) applications
- Repair / replacement requirements

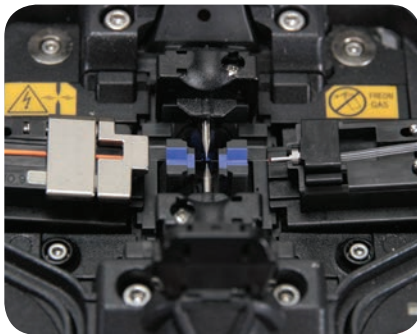
### Ordering Information

CONNECTOR	FIBER TYPE	BOOT COLOR	AFL NO.*
SC Field Master Connector (900 µm boot)	Multimode	Black	CS000308
SC Field Master Connector (3.0 mm boot)	Multimode	Beige	CS000309
SC Field Master Connector (900 µm & 3.0 mm boot)	Multimode	Black /Beige	CS005144
SC Field Master Connector (900 µm boot)	Single-mode	Blue	CS000310
SC Field Master Connector (3.0 mm boot)	Single-mode	Blue	CS000311
SC Field Master Connector (900 µm & 3.0 mm boot)	Single-mode	Blue	CS005145
ST Field Master Connector (900 µm boot)	Multimode	Black	CS000316
ST Field Master Connector (3.0 mm boot)	Multimode	Black	CS000317
ST Field Master Connector (900 µm & 3.0 mm boot)	Multimode	Black	CS005147
ST Field Master Connector (900 µm boot)	Single-mode	Blue	CS000318
ST Field Master Connector (3.0 mm boot)	Single-mode	Blue	CS000319
ST Field Master Connector (900 µm & 3.0 mm boot)	Single-mode	Blue	CS005148
LC Field Master Connector (900 µm boot)	Multimode	White	CS000320
LC Field Master Connector (2.0 mm boot)	Multimode	White	CS000321
LC Field Master Connector (900 µm boot)	Single-mode	Blue	CS000322
LC Field Master Connector (2.0 mm boot)	Single-mode	Blue	CS000323
LC Duplex Field Master Connector (2.0 mm boot)	Multimode	White	CS000467
LC Duplex Field Master Connector (2.0 mm boot)	Single-mode	Blue	CS000466

\* Packaged 100 pieces per bag.



FUSEConnect Connectors (SC, FC, LC, ST)



FUSEConnect in Fusion Splicer



FUSEConnect Kits—ST (blue), SC (green), LC (blue)

## FUSEConnect® Fusion-Spliced, Field-Installable Connectors

AFL's FUSEConnect fusion-spliced, field installable connectors are uniquely designed and feature only four to five components. The factory pre-polished ferrule eliminates the need for polishing, adhesives, and crimping in the field, which minimizes the potential for operator error and expensive connector scrap.

FUSEConnect utilizes a fusion splicer to terminate the connector in the field, addressing return loss concerns present in analog optical networks. This advanced process yields true APC performance for SC/APC and LC/APC configurations, and is compliant to GR-326-CORE. FUSEConnect is compatible with Fujikura fusion splicers and most other fiber holder-based fusion splicing platforms.

### Features

- Field installable
- No adhesives, crimping or polishing
- True APC performance
- MM compliant to TIA/EIA568C.3
- Compatible with most fusion splicers

### Applications

- Connectorization in:
  - RF-overlay FTTP networks
  - Cable TV backbone networks
  - Outside plant
  - FTTH
  - MDU FTTP Cabling
- Central office connector replacement
- Data center installation

### Specifications

PARAMETER	VALUE
Connector Type	SC, LC, FC, ST
Cable Type	900 $\mu$ m, 2 mm, 3 mm
Polish	APC, UPC, PC
Insertion Loss	SM: 0.15 dB (average), 0.3 dB (maximum) / MM: 0.10 dB (average), 0.3 dB (maximum)
Return Loss	SM: $\leq$ -65 dB (APC), $\leq$ -55 dB (UPC) / MM: $\leq$ -35 dB (PC)
Operating Temperature	-40°C to +75°C

### Ordering Information

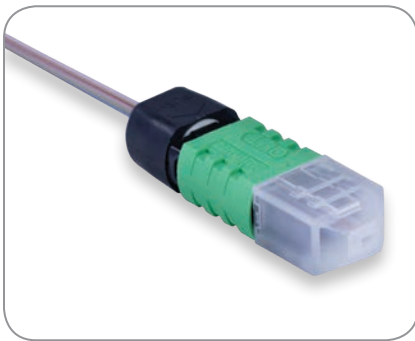
CONN. TYPE	BOOT TYPE	AFL NO.*				
		UPC SM (Blue)	APC SM (Green)	PC 62.5 $\mu$ m MM (Beige)	PC 50 $\mu$ m MM (Black)	PC 50 $\mu$ m LOMMF (AQUA)**
SC	900 $\mu$ m	FUSE-SC9SMU-6	FUSE-SC9SMA-6	FUSE-SC9M62-6	FUSE-SC9M50-6	FUSE-SC9M50L-6
	3 mm	FUSE-SC3SMU-6	FUSE-SC3SMA-6	FUSE-SC3M62-6	FUSE-SC3M50-6	FUSE-SC3M50L-6
LC	900 $\mu$ m	FUSE-LC9SMU-6	FUSE-LC9SMA-6	FUSE-LC9M62-6	FUSE-LC9M50-6	FUSE-LC9M50L-6
	2 mm	FUSE-LC2SMU-6	FUSE-LC2SMA-6	FUSE-LC2M62-6	FUSE-LC2M50-6	FUSE-LC2M50L-6
FC	900 $\mu$ m	FUSE-FC9SMU-6	—	FUSE-FC9M62-6	FUSE-FC9M50-6	FUSE-FC9M50L-6
	2 mm	FUSE-FC2SMU-6	—	FUSE-FC2M62-6	FUSE-FC2M50-6	FUSE-FC2M50L-6
	3 mm	FUSE-FC3SMU-6	—	FUSE-FC3M62-6	FUSE-FC3M50-6	FUSE-FC3M50L-6
ST	900 $\mu$ m	FUSE-ST9SMU-6	—	FUSE-ST9M62-6	FUSE-ST9M50-6	FUSE-ST9M50L-6
	2 mm	FUSE-ST2SMU-6	—	FUSE-ST2M62-6	FUSE-ST2M50-6	FUSE-ST2M50L-6
	3 mm	FUSE-ST3SMU-6	—	FUSE-ST3M62-6	FUSE-ST3M50-6	FUSE-ST3M50L-6

\* AFL NO. is for one pack of 6 pieces

\*\* Laser Optimized MM Fiber (LOMMF) compatible with OM3 and OM4 fibers



FUSEConnect MPO Connectors, Cable



FUSEConnect MPO Connectors, Ribbon

## FUSEConnect® MPO Fusion-Spliced, Field-Terminated Connectors

AFL's FUSEConnect MPO fusion-spliced, field-terminated connectors are uniquely designed and feature just six components. With a factory pre-polished ferrule, its innovative field-termination process eliminates polishing, adhesives and crimping in the field minimizing the potential for operator error and expensive connector scrap.

Designed to Fiber Optic Connector Intermateability Standard (FOCIS), Type MPO, FOCIS-5, TIA-604-5-C, AFL's FUSEConnect MPO performs as an equivalent to the standard factory terminated MPO/MTP® assemblies. Designed to utilize either ribbon or loose tube cable, this connector helps to minimize the complexity involved in the termination of a multi-fiber connection, allowing for a reliable and repeatable termination in field applications.

FUSEConnect MPO is part of the FUSEConnect series splice-on connector which includes the SC, LC, ST and FC that require a fusion splicer and accessories for installations. The AFL FUSEConnect MPO Termination Kit specifically provides all the necessary accessories required for field termination of the FUSEConnect MPO.

### Features

- Field installable splice-on connector
- Only six components
- No adhesives, crimping or polishing
- TIA-568-C.3, IEC-61754-7, and TIA/EIA-604-5 FOCIS 5 Compliant
- Field MPO polarity customization
- Include 3.0 mm round and optical fiber ribbon flat boots in each pack

### Applications

- Connectorization in:
  - RF-overlay FTTP networks
  - Cable TV backbone networks
  - Outside plant
  - MDU FTTP Cabling
- Connector restoration in the field
- Data center installation
- Patch cord customization in the field

### Specifications

PARAMETER		VALUE
Insertion Loss	Single-mode (OS1)	Average: 0.25 dB; Max: 0.75 dB
	62.5/125 (OM1)	Average: 0.10 dB; Max: 0.35 dB
	50/125 (OM2)	Average: 0.10 dB; Max: 0.35 dB
	50/125 LO (OM3)	Average: 0.10 dB; Max: 0.35 dB
Return Loss	Single-mode (OS1)	> 65 dB
	62.5/125 (OM1)	> 30 dB
	50/125 (OM2)	> 30 dB
	50/125 LO (OM3)	> 30 dB
Operating Temperature		-40°C to +75°C

continued on next page

## FUSEConnect® MPO Fusion-Spliced, Field-Terminated Connectors

### Ordering Information

AFL NO.*	CONNECTOR TYPE	FIBER TYPE	POLISH	CABLE SIZE		HOUSING COLOR
				ROUND	FLAT	
FUSEMPO-SMA-3-M-6	MPO, Male (guide pins)	Single-mode (OS1)	APC	3.0 mm	250 µm	Green
FUSEMPO-SMA-3-F-6	MPO, Female (No Guide Pins)	Single-mode (OS1)	APC	3.0 mm	250 µm	Green
FUSEMPO-MM6-3-M-6	MPO, Male (guide pins)	Multimode 62.5 µm (OM1)	PC	3.0 mm	250 µm	Beige
FUSEMPO-MM6-3-F-6	MPO, Female (no guide pins)	Multimode 62.5 µm (OM1)	PC	3.0 mm	250 µm	Beige
FUSEMPO-MM5-3-M-6	MPO, Male (guide pins)	Multimode 50 µm (OM2)	PC	3.0 mm	250 µm	Black
FUSEMPO-MM5-3-F-6	MPO, Female (no guide pins)	Multimode 50 µm (OM2)	PC	3.0 mm	250 µm	Black
FUSEMPO-MM5L-3-M-6	MPO, Male (guide pins)	Multimode 50 µm 10Gig (OM3)	PC	3.0 mm	250 µm	Aqua
FUSEMPO-MM5L-3-F-6	MPO, Female (no guide pins)	Multimode 50 µm 10Gig (OM3)	PC	3.0 mm	250 µm	Aqua

\*Pack of 6 pieces

### Ordering Information – Accessories

DESCRIPTION	AFL NO.
<b>TOOL KIT</b>	
FuseConnect MPO Tool Kit	FUSEMPO-TL-KT
<b>ACCESSORIES</b>	
FuseConnect Ribbonize Tool	FUSE-RB-TL
FuseConnect Stripping Tool (3.0 mm, 2.8 mm, 2.0 mm, and 1.6 mm)	FUSE-ST-TL
FuseConnect MPO Assembly Tool	FUSE-AS-TL



## SpliceConnect with Tool Kit

AFL's SpliceConnect is a mechanical splice that provides an inexpensive, quick alternative to mating fibers. Using V-groove technology, this splice maintains physical contact between the fibers. An assembly tool is used to ensure the fibers are mated correctly, resulting in <math><0.1\text{ dB}</math> insertion loss (typical for single-mode). The SpliceConnect secures both fiber and coating independently with the U-shaped sleeve, enhancing the strength against fiber twist.



### Features

- Quick splicing time
- Minimal tools
- 250  $\mu\text{m}$  and/or 900  $\mu\text{m}$  fiber capabilities
- Both fiber and coating are secured independently

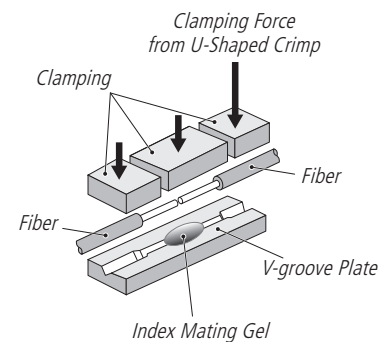
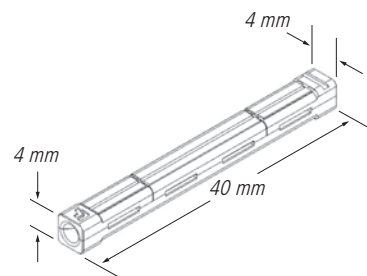
### Applications

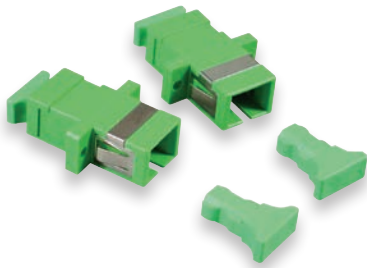
- Restoration
- Premise environments
- Fiber-to-the-Subscriber (FTTx) applications

### Ordering Information

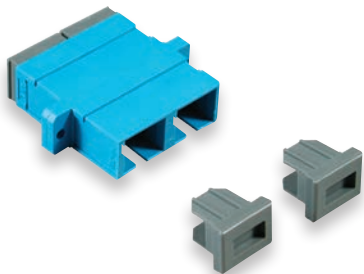
DESCRIPTION	AFL NO.
SpliceConnect Mechanical Splices (Bag of 6)	CS004154
SpliceConnect Mechanical Splice Tool Kit	CS004162
<i>Kit Includes:</i>	
SpliceConnect Mechanical Splicing Tool	CS004155
Fiber Holder, 250 $\mu\text{m}$ x2	CS004442
Fiber Holder, 900 $\mu\text{m}$ x2	CS004443
Instruction Manual	CS004159
Carrying Case	CS004161
Template, Strip/Cleave Length	CS004573
SpliceConnect Mechanical Splicing Tool	CS004155
Fiber Holder, 250 $\mu\text{m}$	CS004442
Fiber Holder, 900 $\mu\text{m}$	CS004443

### Dimensions and Structure





SC Simplex Adapters



SC Duplex Adapters

## SC Adapters

SC adapters are used to mate industry standard SC connectors. Adapters are available with metal and ceramic alignment sleeves, and are color coded for easy identification. The duplex adapters accept two simplex connectors or one duplex connection. Hybrids are available for special applications.

### SC Simplex Adapters

TYPE	MODE	DESCRIPTION	SLEEVE	COLOR	AFL NO.
SC Simplex	MM	Flangeless	Ceramic	Beige	CS013275
SC Simplex	SM	Flangeless	Ceramic	Blue	CS013274
SC Simplex	SM	Flangeless	Ceramic	Green	CS009394
SC Simplex	MM	Flangeless	Ceramic	Aqua	CS013426

### SC Duplex Adapters

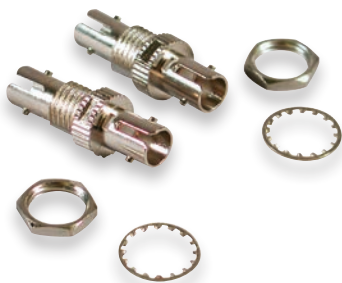
TYPE	MODE	DESCRIPTION	SLEEVE	COLOR	AFL NO.
SC Duplex	MM	Flangeless	Ceramic	Beige	CS013277
SC Duplex	SM	Flangeless	Ceramic	Blue	CS013278
SC Duplex	SM	Flangeless	Ceramic	Green	CS000470
SC Duplex	MM	Flangeless	Ceramic	Aqua	CS013279



## FC Adapters

FC adapters connect industry standard FC connectors and are available in Square-Mount, D-Mount and Flange-Mount versions. Our FC adapters feature a metal body for long life and are available with either ceramic or metallic sleeves. The FC D-Mount adapter easily installs into panel mount applications and conforms to JIS C5970. FC Square-Mount meets Bellcore GA326 and the angle polish versions meet the industry standard 2.0 mm key width. An assortment of hybrid configurations is available.

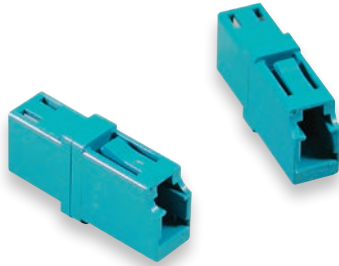
TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
FC Simplex	SM	D Mount	Ceramic	Metal	CS013316



## ST Adapters

ST adapters connect industry standard ST connectors and are available in D-Mount and Flange-Mount versions. ST adapters are available with ceramic or metallic sleeves, feature a metal body for long life, and easily install in panel mount applications.

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
ST Simplex	SM	D Mount	Ceramic	Metal	C094994
ST Simplex	MM	D Mount	Metallic	Metal	C096377



## LC Adapters

LC style adapters are used in high density applications and feature a quick plug in installation. Adapters are available in both simplex and duplex designs and utilize high quality zirconia and phosphorous bronze sleeves. The LC duplex adapter uses the same cutout as the copper RJ-45, resulting in less redesign work when retrofitting existing panels.

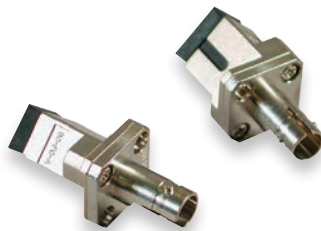
TYPE	MODE	INSERT	COLOR	AFL NO.
LC Duplex	SM	Ceramic	Blue	CS013283
LC Duplex	SM	Ceramic	Green	CS013195
LC Duplex	MM	Ceramic	Beige	CS013282
LC Duplex	MM	Ceramic	Aqua	CS001613
LC Simplex	SM	Ceramic	Blue	CS013424
LC Simplex	MM	Ceramic	Beige	CS013423



## MTP Adapters

The MTP adapter connects two industry standard MTP connectors. The compact MTP adapter measures 25 mm x 10 mm and is found in high density applications.

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
MTP	SM/MM	Flange Mount	—	Black	C057010
MTP (aligned keyway)	SM/MM	Flange Mount	—	Grey	CS000211



## Hybrid Adapters

Hybrid FC, SC and ST adapters are available to fit specific application needs.

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
FC - SC Simplex	SM	Square Mount	Metallic	Stainless Steel	C004127
FC - ST Simplex	SM	Square Mount	Metallic	Stainless Steel	C002401
FC - ST Simplex	SM	Square Mount	Ceramic	Stainless Steel	C032980
SC - FC Simplex	SM	Flat Mount	Metallic	Stainless Steel	C033022
SC - FC Simplex	SM	Square Mount	Ceramic	Stainless Steel	C002453
SC - FC Simplex	SM	Flat Mount	Ceramic	Stainless Steel	C033030
SC - ST Simplex	SM	Flat Mount	Metallic	Blue	C002499
SC - ST Simplex	SM	Flat Mount	Ceramic	Blue	C024392
SC - ST Simplex	SM	Flat Mount	Ceramic	Stainless Steel	C038733



## Buildout Attenuators

Buildout attenuators provide superior performance for all single-mode in-line attenuation requirements. Standard attenuation values are 5, 10, 15, and 20 dB, available in SC, FC, ST, and LC connector styles. Using no air gap, filters, or light path discontinuities, attenuation is achieved by controlled absorption of light energy. This results in a polarization insensitive device with high power handling capability, environmentally stable, and exceptionally responsive, across a wide bandpass range.

### Features

- SC, FC, ST, and LC connector styles (Ultra & Angled Polish)
- Long-term reliability
- Low ripple, wavelength independent attenuation
- Certified to >125 mW continuous power handling capability with no performance degradation
- Polarization insensitive
- Telcordia approved

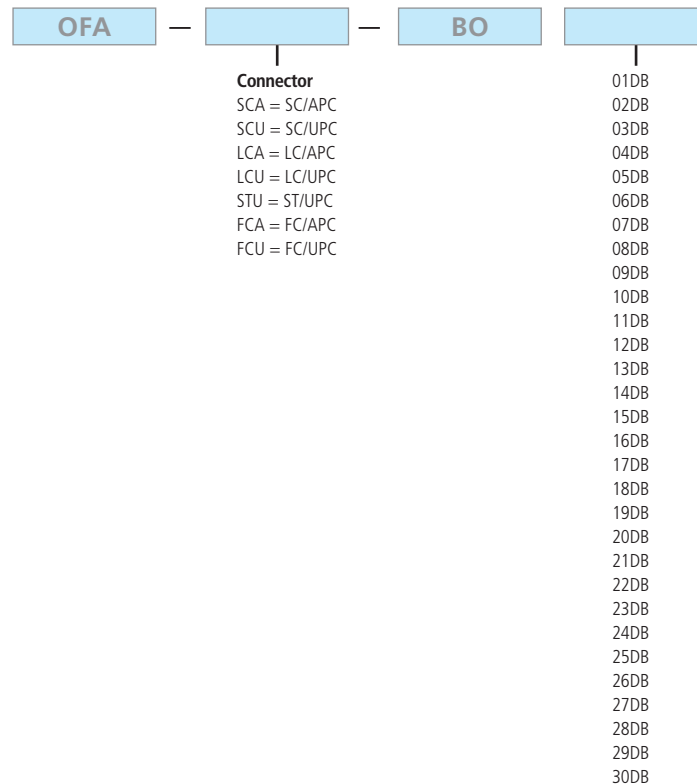
### Application

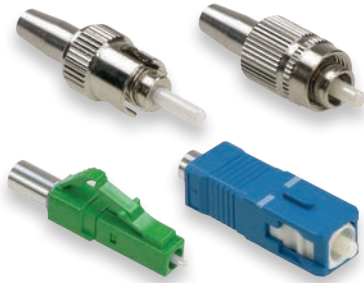
- Broadband Network
- Fiber in the Loop
- Local Area Networks (LAN)
- Long Haul Telecommunications (CLEC, CAPS)
- Network Testing
- Passive Optical Networks
- Telco

### Specifications

PARAMETER	VALUE
Standard Attenuation Values	5, 10, 15 and 20 dB
Attenuation Tolerance	Standard at 10%
Vibration resistance	<0.1X attenuation value
Operating Temperature Range:	-40°C to +75°C
Storage Temperature Range:	-40°C to +85°C

### Ordering Information





## Optical Terminators

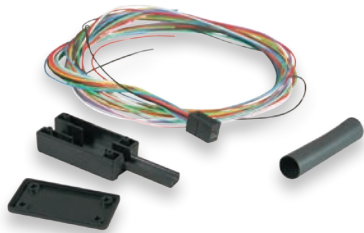
Optical terminators are used to terminate unused connector ports in fiber optic systems so that unwanted reflections are not introduced back into the system. All AFL optical terminators feature zirconia ferrules for long life and durability.

### Specifications

PARAMETER	VALUE
Reflectance	<-55 dB (ultra polish)
Reflectance	<-60 dB (angle polish)
Operating Temperature	-40°C to +85°C
Operating Wavelength	1260 nm to 1580 nm

### Ordering Information

DESCRIPTION	AFL NO.
SC/UP Terminator	C067393
SC/AP Terminator	C148828
FC/UP Terminator	C067407
FC/AP Terminator	C082562
ST/UP Terminator	C167083
LC/UP Terminator	CS000637
LC/AP Terminator	CS000638










## Fanout Kits

Fanout kits route 250  $\mu$ m fiber into 900  $\mu$ m tubes ready for connectorization. Easily installed in minutes, these kits require no special tools. Color-coded tubing allows easy identification. The furcation unit snaps together, eliminating epoxy. Loose tube fanout kits are available in 6 and 12 fiber configurations.

### Ordering Information

CABLE TYPE	FIBER COUNT	LENGTH	AFL NO.
Loose Tube Fanout Kit (for 3.0 mm tube)	6 Fibers	24 inches	C189826
Loose Tube Fanout Kit (for 3.0 mm tube)	12 Fibers	24 inches	C189818
Ribbon-Link® Fanout Kit	6 Fibers	36 inches	C189842
Ribbon-Link Fanout Kit	12 Fibers	36 inches	C189834
Uni-Tube Fanout Kit	6 Fibers	36 inches	C193114
Uni-Tube Fanout Kit	12 Fibers	36 inches	C193122

## Connector Specifications

PARAMETER	CONNECTOR													
	SC		FC		ST		LC		MTP		MT-RJ		MU	
<b>Single-mode Assemblies</b>														
Image														
	Ultra	Angle	Ultra	Angle	Ultra	Angle	Ultra	Angle	Flat	Angle	Ultra	Angle	Ultra	Angle
Insertion loss (dB)	0.2	0.25	0.2	0.25	0.2	—	0.2	0.25	—	0.75	0.5	—	0.25	—
Maximum	0.15	0.2	0.25	0.2	0.15	—	0.15	0.15	—	0.35	0.25	—	0.2	—
Typical														
Return Loss (dB)	-55 dB	-65 dB	-55 dB	-65 dB	-55 dB	—	-55 dB	-65 dB	—	-55 dB	-35 dB	—	-55 dB	—
Minimum														
Temp Range (°C)	-40 to +85		-40 to +85		-40 to +85		-40 to +85		-40 to +75		-40 to +75		-40 to +85	
Durability Cycles	500		500		500		500		200		200		500	

<b>Multimode Assemblies</b>														
Insertion loss (dB)	0.5	—	0.5	—	0.5	—	0.5	—	0.75	—	0.5	—	0.5	—
Maximum	0.25	—	0.25	—	0.25	—	0.25	—	0.35	—	0.25	—	0.25	—
Typical														
Return Loss (dB)	-30 dB	—	-30 dB	—	-30 dB	—	-30 dB	—	-30 dB	—	-20 dB	—	-20 dB	—
Minimum														
Temp Range (°C)	-40 to +85		-40 to +85		-40 to +85		-40 to +85		-40 to +75		-40 to +75		-40 to +85	
Durability Cycles	500		500		500		500		200		200		500	
Cable Options	Simplex/Duplex 900 µm 1.6 mm 2.0 mm 2.4 mm 3.0 mm		Simplex/Duplex 900 µm 1.6 mm 2.0 mm 2.4 mm 3.0 mm		Simplex/Duplex 900 µm 1.6 mm 2.0 mm 2.4 mm 3.0 mm		Simplex/Duplex 900 µm 1.6 mm 2.0 mm		Bare Ribbon Jacketed Ribbon 8-12 Fiber Count		Bare Ribbon Jacketed Ribbon Dual Link Zipcord		900 µm 2.0 mm	
Applications	Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN		Telephony CATV/Broadband Telco Backplanes LAN/WAN	





## Wideband Couplers

The dual window Wideband Couplers (WBC) split or couple optical power in two wavelength regions while maintaining a very broad operating bandwidth. Split and coupling ratios are available from 5% to 50%. WBCs are widely considered one of the most cost-effective solutions to optical power management. The WBC is an all-fiber device, based on AFL's fused biconic technology, and is designed and manufactured to meet military and Telcordia® requirements.

### Features

- Dual window wideband operation
- Low insertion loss over entire bandwidth and temperature (typical IL change  $<\pm 0.1$  dB)
- Ultra-low PDL and temperature sensitivity
- High directivity
- Compact design
- Environmentally stable, over 10 years of proven field reliability
- Standard operating temperature range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Fully tested to Telcordia 1209 and 1221 criteria

### Applications

- Telecommunications
- CATV
- LAN
- Monitoring of Networks

### Specifications

#### STANDARD AND PREMIUM GRADES

PARAMETER	VALUE
Operating Wavelength	1310 nm + 50 and 1550 nm + 50
Return Loss	55 dB
Directivity	55 dB
Package Dimension	3.2 mm (dia.) x 55 mm (L)
Operating Temperature	$-40^{\circ}$ to $+85^{\circ}\text{C}$
Storage Temperature	$-40^{\circ}$ to $+85^{\circ}\text{C}$

### Ordering Information

#### SINGLE-MODE PREMIUM GRADE SPECIFICATIONS (MAX. INSERTION LOSS AND MAX. PDL)

RATIO	SPECIFICATIONS (DB)		AFL NO.
	PRIMARY/SECONDARY PORT	PDL (DB)	
50/50	3.6/3.6	0.15	C198364-P
55/45	3.2/4.1	0.15	C198358-P
60/40	2.7/4.7	0.14	C198353-P
65/35	2.3/5.3	0.14	C198349-P
67/33	2.2/5.7	0.14	C198904-P
70/30	2.0/6.0	0.13	C198346-P
75/25	1.8/6.8	0.13	C198340-P
80/20	1.3/7.8	0.10	C198335-P
85/15	1.0/9.2	0.10	C198331-P
90/10	0.8/11.2	0.10	C198328-P
95/5	0.5/14.4	0.10	C198322-P

## Ruggedized Wideband Couplers



Enhancing AFL's wideband coupler offering are two package styles for ruggedized versions of these reliable, standardized couplers – 3 mm and 900 μm furcated pigtail options and a variety of connector styles are offered in both single-mode and multimode applications. All AFL couplers conform to stringent environmental and mechanical standards to provide high reliability in a variety of customer applications.



### Features

- Dual window wideband operation
- Low insertion loss
- Low PDL
- High Directivity
- Long term field application
- Environmentally stable over range of -40°C to +85°C

### Applications

- Telecommunications
- CATV
- LAN
- Fiber in the Loop
- Network monitoring

### Ordering Information

T	0102	50	S	ASC	01	ASC	01
<b>Package Type</b> T = 900 μm Diameter Leads 3 = 3 mm Diameter Leads	<b>Output Leads</b> 0102 = 1 x 2	<b>Split Ratio</b> 50 = 50/50% 45 = 45/55% 40 = 40/60% 35 = 35/65% 30 = 30/70% 25 = 25/75% 20 = 20/80% 15 = 15/85% 10 = 10/90% 5 = 5/95%	<b>Configuration</b> S = Single-mode M = Multimode	<b>Input Connector Options</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC SST = Super ST ULC = Ultra LC 000 = Non-connectorized	<b>Input Pigtail Length (M)</b> <i>(Examples)</i> 01 = 1 meter 02 = 2 meters	<b>Output Connector/Adapter</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC SST = Super ST ULC = Ultra LC 000 = Non-connectorized	<b>Output Pigtail Length (M)</b> <i>(Examples)</i> 01 = 1 meter 02 = 2 meters

## Planar Couplers

The Planar Coupler provides the uniform division of an optical signal by having one input port and multiple output ports. Compact packaging and stable optical parameters allow these couplers to be integrated into Telecommunications, Local Area Network (LAN), and Cable Television (CATV) networks.



### Features

- Low insertion loss
- Compact design
- Stable optical performance
- Dual Window (1310 & 1550 nm)
- Low insertion loss
- Low back reflection
- High output uniformity
- Telcordia® GR-1029 and GR-1221 qualified

### Applications

- Telecommunications Networks
- Datacom
- LAN & CATV Networks
- FTTH, FTTB, & FTTC

### Specifications

PARAMETER	VALUE			
	CM000034	CM000033	C198299	CS001470
Operating Wavelength (Grade)	1260-1360 nm and 1480-1580 nm (Standard)			
Optical Split Ratio	1 x 4	1 x 8	1 x 16	1 x 32
Maximum Insertion Loss (dB)	7.5	11.0	14.2	17.8
Typical Insertion Loss (dB)	7.3	10.8	13.9	17.5
Maximum Uniformity (dB)	1.0	1.0	1.5	2.0
Typical Uniformity (dB)	0.8	0.8	1.3	1.8
PDL (dB)	<0.3	<0.3	<0.4	<0.4
Return Loss (dB)	>55	>55	>55	>55
Directivity (dB)	>55	>55	>55	>55
Fiber Type	SMF28e 250 μm equivalent			
Input/Output Fiber Length	1 meter	1.5 meters	1.5 meters	1.5 meters
Operating Temperature	-40° to +85°C			
Package Dimensions (LxWxH) (mm)	40 x 4 x 4	40 x 4 x 4	40 x 4 x 4	50 x 6.5 x 4

## Optical Coupler Modules



The optical coupler module offers management of optical power and wavelength, packaged in the LGX® design. Each module is comprised of Telcordia®-compliant PLC or concatenated fused biconic components. Once assembled and terminated, the module is fully tested for environmental, mechanical, and optical integrity.

### Features

- Telcordia GR-1209 & GR-1221 compliant
- Telcordia GR-326 compliant connectors and adapters
- Telcordia GR-20 compliant singlemode optical fiber
- Optical bandpass: 1310 ± 40 nm / 1550 ± 40 nm
- RoHS compliant
- Packaged individually / tamper-proof seal

### Applications

- CATV
- Telco
- Wide Area Networks
- Fiber Monitoring Systems
- Military systems

### Specifications

PARAMETER	VALUE	
	Single-mode	
	Ultra	Angled
Return Loss (Minimum dB)	> -45	> -50
Directivity	> -55	
Operating Temperature/ Relative Humidity	-40 to +85°C / 90%	
Storage Temperature/ Relative Humidity	-40 to +85°C / 90%	

### Ordering Information

I/O PORTS	I/O CONN	AFL NO.	OUTPUT PORT COUPLING RATIO (PORT)		INSERTION LOSS (IL) PORT 01		INSERTION LOSS (IL) PORT 02	
			01	02	TYP	MAX	TYP	MAX
1 x 2	USC	CM000165	50	50	3.3	4.0	3.3	4.0
1 x 2	USC	CM000166	40	60	4.3	5.2	2.5	3.3
1 x 2	USC	CM000167	30	70	5.5	6.4	1.5	2.4
1 x 2	USC	CM000168	20	80	7.3	8.3	1.3	1.8
1 x 2	USC	CM000169	10	90	10.3	11.5	0.8	1.1
1 x 2	USC	CM000170	5	95	13.3	14.6	0.5	0.8
1 x 2	ASC	CM000171	50	50	3.3	4.0	3.3	4.0
1 x 2	ASC	CM000172	40	60	4.3	5.2	2.5	3.3
1 x 2	ASC	CM000173	30	70	5.5	6.4	1.5	2.4
1 x 2	ASC	CM000174	20	80	7.3	8.3	1.3	1.8
1 x 2	ASC	CM000175	10	90	10.3	11.5	0.8	1.1
1 x 2	ASC	CM000176	5	95	13.3	14.6	0.5	0.8
1 x 2	ULC	CM000315	50	50	3.3	4.0	3.3	4.0
1 x 2	ULC	CM000325	40	60	4.3	5.2	2.5	3.3
1 x 2	ULC	CM000323	30	70	5.5	6.4	1.5	2.4
1 x 2	ULC	CM000321	20	80	7.3	8.3	1.3	1.8
1 x 2	ULC	CM000319	10	90	10.3	11.5	0.8	1.1
1 x 2	ULC	CM000317	5	95	13.3	14.6	0.5	0.8
1 x 2	ALC	CM000310	50	50	3.3	4.0	3.3	4.0
1 x 2	ALC	CM000324	40	60	4.3	5.2	2.5	3.3
1 x 2	ALC	CM000322	30	70	5.5	6.4	1.5	2.4
1 x 2	ALC	CM000320	20	80	7.3	8.3	1.3	1.8
1 x 2	ALC	CM000318	10	90	10.3	11.5	0.8	1.1
1 x 2	ALC	CM000316	5	95	13.3	14.6	0.5	0.8

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Telcordia is a registered trademark of Telcordia Technologies, Inc.

## Optical Coupler Modules

### Ordering Information (cont.)

I/O PORTS	I/O CONN	AFL NO.	OUTPUT PORT COUPLING RATIO (PORT)			INSERTION LOSS					
			01	02	03	PORT 01		PORT 02		PORT 03	
						TYP	MAX	TYP	MAX	TYP	MAX
1 x 3	USC	CM000177	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ASC	CM000178	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ULC	CM000326	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ALC	CM000311	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2

I/O PORTS	I/O CONN	AFL NO.	OUTPUT PORT COUPLING RATIO (PORT)				INSERTION LOSS							
			01	02	03	04	PORT 01		PORT 02		PORT 03		PORT 04	
							TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
1 x 4	USC	CM000179	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ASC	CM000180	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ULC	CM000327	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ALC	CM000312	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7

I/O PORTS	I/O CONN	AFL NO.	OUTPUT PORT COUPLING RATIO (PORT)								INSERTION LOSS								
			01	02	03	04	05	06	07	08	PORT 01		PORT 02		PORT 03		PORT 04		
											TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
1 x 8	USC	CM000181	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ASC	CM000182	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ULC	CM000346	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ALC	CM000347	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4

I/O PORTS	I/O CONN	AFL NO.	OUTPUT PORT COUPLING RATIO (PORT)								INSERTION LOSS								
			01	02	03	04	05	06	07	08	PORT 05		PORT 06		PORT 07		PORT 08		
											TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
1 x 8	USC	CM000181	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ASC	CM000182	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ULC	CM000346	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ALC	CM000347	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4

Insertion loss (IL) includes connector loss and Polarization Dependent Loss (PDL) across operating temperature over the Optical Bandpass.

\*\*\* Additional split ratios available upon request.



## LGX® FTTx Splitter Modules

The PON / FTTx splitters provide a convenient in-rack solution to combine or split optical signals in an optical network. Based on PLC technology, these modules offer the network operator high port-to-port uniformity and low insertion loss, as well as a wide operating wavelength range to accommodate future growth needs with new and emerging optical technologies. These products are available in LGX compatible modules.

### Features

- Low excess loss
- Low polarization dependent loss
- Flexible LGX packaging options (\*see ordering information below for product size information)
- Telcordia® GR-1209 or GR-1221 compliant
- SC/APC Connectors

### Applications

- PON - FTTx Networks
- Access Networks
- CATV Links
- Wide Area Networks

### Performance Specifications

PARAMETER	1X4	1X8	1X16	1X32
Insertion Loss (dB) *	<7.4	<10.5	<13.9	<17.2
Uniformity (dB) *, **	<0.5	<0.8	<1.1	<1.5
PDL (dB) *, **	<0.3			
Return Loss (dB)	>55			
Directivity (dB)	>55			
Operating Temperature (°C)	-40 to +85			
Storage Temperature (°C)	-40 to +85			
Package	LGX, 1 Slot	LGX, 2 Slot	LGX, 3 Slot	LGX, 3 Slot

\*Operating wavelength range (1260-1650 nm) guaranteed by design. Test report provided at 1310 and 1550 nm.

\*\* Value does not include connector loss.

### Ordering Information

DESCRIPTION	AFL NO.
1x4 Optical Splitter Module, 1260~1650 nm, Single slot LGX, Black, SC/APC	CM000474
1x8 Optical Splitter Module, 1260~1650 nm, Dual slot LGX, Black, SC/APC	CM000475
1x16 Optical Splitter Module, 1260~1650 nm, Triple slot LGX, Black, SC/APC	CM000476
1x32 Optical Splitter Module, 1260~1650 nm, Triple slot LGX, Black, SC/APC	CM000477

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## Optical Splitter Shelf

The LightLink LanSystem™ Optical Splitter Shelf provides a convenient in-rack solution to combine/split optical signals in a passive optical network. With 1x16, 1x32 and 2x32 options available, the splitter shelf also features a Planar Lightwave Circuit (PLC) allowing a signal to be split into either 16 or 32 channels in a 1U rack-mountable housing. The 2x32 option provides a filter WDM concatenated to a PLC, which allows 1310/1490/1550 nm signal management evenly across 32 channels.



### Features

- Telcordia® GR-63 NEBS tested housing
- Aluminum Material per ASTM B209
- Universal Mounting Bracket WECO, EIA
- 19" and 23" Rack Mountable
- Rugged construction, ensuring environmental, mechanical and optical integrity
- WDM and PLC fully compliant to Telcordia GR-1209 and GR-1221
- Low Excess loss
- Low Polarization Dependent Loss

### Applications

- PON-FTTx Networks
- CATV links
- DWDM & CWDM systems
- Wide area networks
- Outside plant requirements

### Specifications

PARAMETER	1x16	1x32	2x32	
Insertion Loss	13.5 ~ 14.3 dB	17.5 - 18.5 dB	17.5 - 19 dB	
Uniformity	1.5 dB Typical	1.8 dB Typical	1.8 dB Typical	
PDL	≤ 0.3 dB	<0.45 dB	<0.45 dB	
Return Loss	≥ 55 dB	≥ 55 dB	≥ 40 dB	
Directivity	≥ 55 dB	≥ 55 dB	≥ 50 dB	
Fiber Type	SMF-28e	SMF-28e	SMF-28e	
Operating Temp	-40°C to +85°C	-40°C to +85°C	-40°C to +70°C	
Storage Temp	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	
Operating Bandwidth	1260 ~ 1650	1260 ~ 1650	1550 nm Band - Port 1 (Pass)	1550 - 1560 nm
			1310 + 1490 nm - Port 2 (Reflect)	1260-1360 nm & 1480-1500 nm

### Ordering Information

DESCRIPTION	AFL NO.
1x16 Optical Splitter Shelf, ASC inputs/outputs, 1U, textured White	FM001000
1x32 Optical Splitter Shelf, ASC inputs/outputs, 1U, textured White	FM000775
2x32 Optical Splitter Shelf, ASC inputs/outputs, 1U, textured White	FM000622



## Optical FTTx Coupler Module

AFL's Optical FTTx Coupler Module is designed to satisfy requirements utilizing 1550 nm bandwidths in FTTx applications and is specified for FTTx video installations. The module features a compact footprint with adapter ports consisting of SC/APC adapter outputs.



### Specifications

PARAMETER	VALUE
<b>Performance</b>	
Wavelength	1540-1560 nm
Insertion Loss	1550 < 3.9 dB
PDL	<0.2 dB
PMD	< 0.05 ps
Return Loss	> 55 dB
Directivity	> 55 dB
Operating Temperature	-40 to +75°C
Storage Temperature	-40 to +85 °C
Relative Humidity	0 to 90%
Optical Power	500 mW

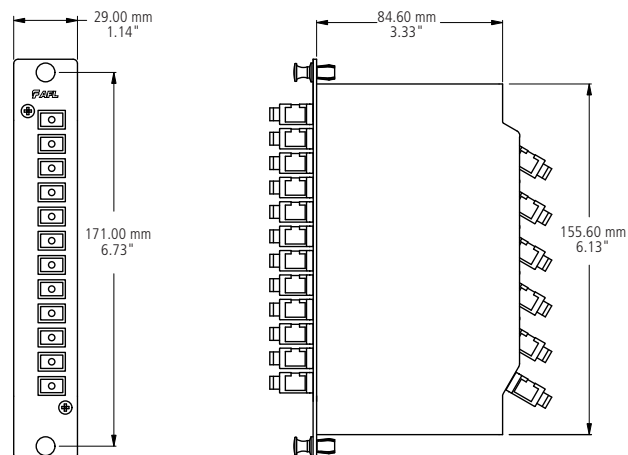
### PACKAGING

Packaging Size	Standard Single Width LGX® Rack Module
Fiber Type	Low-Water-Peak Non-Dispersion Shifted SMF-28e
Connector Type	All ports – SC/APC, Green

### Ordering Information

DESCRIPTION	AFL NO.
Optical FTTx Coupler Module	CM000072

### Dimensions



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## Optical FTTx WDM Module

The Optical FTTx WDM Module is designed to satisfy requirements utilizing 1310, 1490 and 1550 nm bandwidths in FTTx applications. The module features a compact footprint with adapter ports consisting of SC (UPC or APC) outputs.



### Specifications

PARAMETER	VALUE
1550 Band – Port 1 (Pass)	1550-1560 nm
1310 + 1490 Band – Port 2 (Reflect)	1260-1360 & 1480-1500 nm
Insertion Loss	1550 < 1.2 dB 1310 + 1490 < 1.2 dB
Isolation	1550 > 25 dB 1310 + 1490 > 20 dB
PDL	<0.2 dB
PMD	< 0.2 ps
Return Loss	> 50 dB
Directivity	> 50 dB
Operating Temperature	-40 to +75°C
Storage Temperature	-40 to +85°C
Relative Humidity	0 to 90%
Optical Power	500 mW

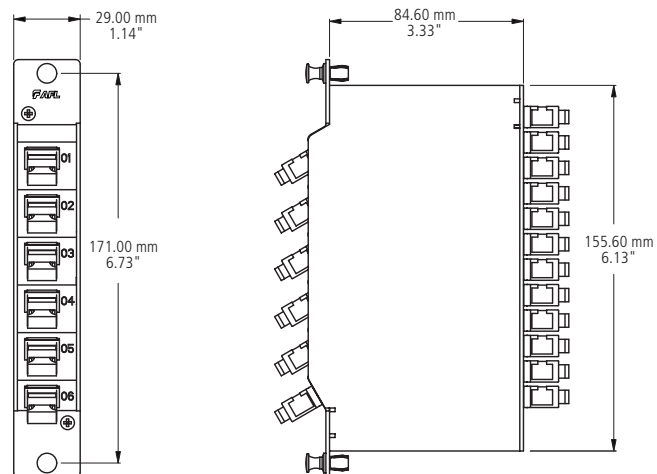
### PACKAGING

Packaging Size	Standard Single Width LGX® Rack Module
Fiber Type	Low-Water-Peak Non-Dispersion Shifted SMF-28e
Connector Type	Port 3 (Common) – SC/APC Port 1 (Data) – SC/JPC Port 2 (Video) – SC/APC

### Ordering Information

AFL NO.	DESCRIPTION
CM000043	Optical FTTx WDM Module

### Dimensions



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## LGX<sup>®</sup> FTTx WDM Modules

The FTTx WDM Modules are designed to satisfy 1310, 1490 and 1550 nm wavelength management requirements in FTTx passive optical networks. Based on proven thin-film filter technology, these modules offer low overall insertions loss, high wavelength thermal stability and high band isolation, all of which add to network reliability. These products are available in LGX compatible modules of scaling density to meet varying density objectives.

### Features

- Low excess loss
- Low polarization dependent loss
- Flexible LGX packaging options  
(\*see ordering information below for product size and density information)
- Telcordia<sup>®</sup> GR-1209 or GR-1221 compliant
- SC/APC Connectors

### Applications

- PON - FTTx Networks
- Access Networks
- CATV Links
- Wide Area Networks

### Performance Specifications

PARAMETER	UNIT	SPECIFICATION		
		MINIMUM	MAXIMUM	
Wavelength Range	1310 Band	nm	1260	1360
	1490 Band	nm	1480	1500
	1550 Band	nm	1550	1560
Insertion Loss	1310+1490 Port	dB		1.2
	1550 Port	dB		1.4
Band Isolation	1310/1490 Port @ 1550	dB	40	
	1550 @ 1310/1490 Port	dB	30	
Wavelength Thermal Stability	nm/°C			0.002
Directivity	dB	50		
PDL	dB			0.15
PMD	ps			0.1
Return Loss	dB	45		
Optical Power Level	mW	300		
Operation Temperature	°C			-5 to 70
Operation Humidity	%RH			5 to 90
Storage Temperature	°C			40 to 85
Storage Humidity	%RH			0 to 95

### Ordering Information

DESCRIPTION	AFL NO.
PON WDM Module, 1X, 1310/1490+1550, Single slot LGX, Black, SC/APC	CM000478
PON WDM Module, 2X, 1310/1490+1550, Single slot LGX, Black, SC/APC	CM000479
PON WDM Module, 4X, 1310/1490+1550, Dual slot LGX, Black, SC/APC	CM000480
PON WDM Module, 6X, 1310/1490+1550, Triple slot LGX, Black, SC/APC	CM000481

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## RFOG WDM Module

The RFOG WDM module is designed to satisfy wavelength management requirements where 1310, 1490, 1550, 1590 / 1610 nm wavelengths are used in passive optical network applications. This unit is available in traditional LGX® module packaging with virtually all connector options supported. Also available is a high density platform delivering unsurpassed ports per rack unit for applications requiring the most efficient use of available rack space.

### Features

- Flexible packaging options
- Low Excess Loss
- Low PDL
- Monitoring / Tap ports available
- RoHS compliant

### Applications

- PON - FTTx Networks
- Access Networks
- CATV Links

### Specifications

PARAMETER		UNIT	SPECIFICATION	
			MIN	MAX
Wavelength Range	1310 Band	nm	<b>1270</b>	<b>1350</b>
	1490 Band		1480	1500
	1550 Band		1540	1570
	1590/1610 Band		1584.5	1620
Insertion Loss	1310+1490 Port	dB	-	1.2
	1550 Port			1.4
	1590/1610 Port			1.5
Band Isolation	1310/1490 Port @ 1550	dB	40	
	1310/1490 Port @ 1590/1610		40	
	1550 Port @ 1310/1490		30	
	1550 Port @ 1590		15	
	1590/1610 Port @ 1310/1490/1550		35	
Wavelength Thermal Stability		nm/°C		0.002
Directivity		dB	50	
PDL		dB		0.15
PMD		ps		0.10
Return Loss		dB	45	
Optical Power Handling		mW	300	

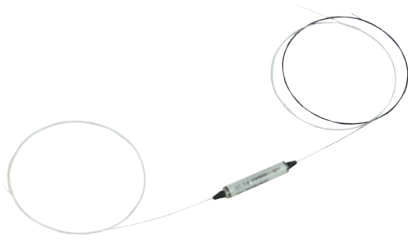
### Environmental Specifications

PARAMETER	UNIT	SPECIFICATION
Operation Temperature	°C	-5 ~ +70
Operation Humidity	%RH	5 ~ 95 not condensed
Storage Temperature	°C	-40 ~ +85
Storage Humidity	%RH	0 ~ 95 not condensed

### Ordering Information

DESCRIPTION	AFL NO.
FILTER WDM, 1310+1490/1550+1590/1610, SC/APC	CM000150
DUAL FILTER WDM, 1310+1490/1550+1590/1610, LC/APC	CM000151

\* Additional configuration available upon request. Contact AFL Customer Service.



## CWDM Single-channel OADM

The CWDM Single-channel OADM is designed to add/drop a single CWDM channel from an optical fiber. This product is hardened and designed to perform in OSP applications from -40° to +85° C, but can also be used in splice trays or similar structures in Inside Plant or similar environments. While 250 µm leads are most commonly desired, these products can also be supplied with color-coded 900 µm leads and terminated with virtually any common single-fiber optical connector.

### Features

- Hardened for OSP use
- Low Excess Loss
- Low PDL
- Color coded 900µm leads available
- RoHS Compliant

### Applications

- Metro Ethernet / Cellular Backhaul
- Access Networks
- CWDM Systems
- CATV Links

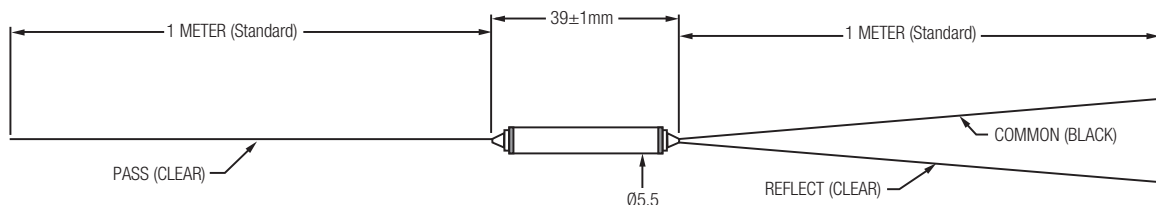
### Specifications

PARAMETER	UNIT	VALUE
Center Wavelength	nm	ITU-T Grid
Channel Passband	nm	ITU-T Grid ± 6.5
Passband Flatness	dB	< 0.5
Bandwidth (@ -5dB)	nm	>14
Insertion Loss (Pass Channel)	dB	< 1.0
Insertion Loss (Reflect Channel)	dB	< 0.6
Adjacent Channel Isolation	dB	> 30
Non-Adjacent Channel Isolation	dB	> 45
Isolation (Reflect Channel)	dB	> 13
Return Loss	dB	> 45
PDL	dB	< 0.1
Directivity	dB	> 50
IL Thermal Stability	dB/°C	< 0.005
Wavelength Thermal Stability	nm/°C	< 0.002
Operation Temperature	°C	-40 to +85
Operation Humidity	% RH	5 to 95 not condensed
Storage Temperature	°C	-40 to +85
Storage Humidity	% RH	0 to 95 not condensed

### Part Numbers

ITEM NUMBER	MODEL CODE	PASSBAND
CW000311-1431	CWDM TFF, 3-Port, 1431nm, 250µm leads, NC, OSP	1431
CW000311-1451	CWDM TFF, 3-Port, 1451nm, 250µm leads, NC, OSP	1451
CW000311-1471	CWDM TFF, 3-Port, 1471nm, 250µm leads, NC, OSP	1471
CW000311-1491	CWDM TFF, 3-Port, 1491nm, 250µm leads, NC, OSP	1491
CW000311-1511	CWDM TFF, 3-Port, 1511nm, 250µm leads, NC, OSP	1511
CW000311-1531	CWDM TFF, 3-Port, 1531nm, 250µm leads, NC, OSP	1531
CW000311-1551	CWDM TFF, 3-Port, 1551nm, 250µm leads, NC, OSP	1551
CW000311-1571	CWDM TFF, 3-Port, 1571nm, 250µm leads, NC, OSP	1571
CW000311-1591	CWDM TFF, 3-Port, 1591nm, 250µm leads, NC, OSP	1591
CW000311-1611	CWDM TFF, 3-Port, 1611nm, 250µm leads, NC, OSP	1611

\* Additional configuration available upon request. Contact AFL Customer Service.



## Coarse WDM Modules (CWDM)



Double-width LGX 118 package shown

AFL's Coarse WDM modules are designed using proven thin-film filter technology providing high isolation, 20nm channel separation and a high level of thermal stability. CWDM modules are available in 2, 4, 8, and 16 channel configurations and are factory assembled in a thin cassette or rugged LGX® cassette with industry standard connector options to meet varying system requirements. An optional 1310 nm Mux/Demux Upgrade Port is available to allow seamless integration of legacy voice, video, and data services.

### Specifications

PARAMETER	UNIT	VALUE			
Ports		2	4	8	16
Center Wavelength	nm	1271-1611			
Passband @ 0.5 dB	nm	> 14			
Passband	nm	± 6.5			
Passband Flatness	dB	< 0.5			
Insertion Loss (Typ.)	dB	1.4	1.6	1.8	4.3
Insertion Loss (Max.)	dB	1.8	2.0	2.5	5.0
Adjacent Channel Isolation	dB	> 30			
Non-Adjacent Channel Isolation	dB	> 45			
Wavelength Thermal Stability	nm/°C	< 0.002			
IL Thermal Stability	db/°C	< 0.005	< 0.005	< 0.007	< 0.008
Return Loss	dB	> 45			
PMD	ps	< 0.10	< 0.10	< 0.15	< 0.15
PDL	dB	< 0.10	< 0.15	< 0.20	< 0.25
Directivity	dB	> 50			
Operation Temperature	°C	-5 to +65			
Storage Temperature	°C	-40 to +85			
LGX 118 Package		Single-width	Single-width	Double-width	Triple-width
Thin Cassette Package	mm	88.9 x 50.8 x 8.3	120 x 80 x 13	130 x 87 x 13	150 x 115 x 13
Options		2% Tap, 1310 Upgrade			
1310 Channel Wavelength	nm	1260-1360			
1310 Channel Isolation	dB	40 minimum			
1310 Channel Insertion Loss	dB	1.3 maximum			

\* Includes Connectors

### Features

- Telcordia® qualified components
- 20 nm channel spacing
- 2, 4, 8, and 16 channel configurations
- Most industry standard connectors
- Low insertion loss
- High isolation
- Custom configurations upon request

### Applications

- CATV Systems
- Sensor Systems
- 10G Ethernet Systems
- Metro Optical Networks
- Metro Access Networks

### Ordering Information

CWDM	—	<b>04</b>	—	<b>5</b>	—	<b>1271</b>	—	<b>1331</b>	—	<b>B</b>	—	<b>ASC</b>	—	ISP
		<b>Channel Count</b>		<b>Package/Pigtail</b>		<b>Start Wavelength (nm)</b>		<b>End Wavelength (nm)</b>		<b>Options</b>		<b>Connectors</b>		
		02 = 2 Channel		1 = Thin Cassette,		1271		1291		U = 1310 Upgrade Port		ASC = SC/APC		
		04 = 4 Channel		1 Meter Pigtail		1291		1311		T = 2% Tap Port		USC = SC/U/PC		
		08 = 8 Channel		3 = Thin Cassette,		1311		1331		X = No Option		ALC = LC/APC		
		16 = 16 Channel		3 Meter Pigtail		1331		1351		B = 1310 Upgrade Port		ULC = LC/U/PC		
				5 = Thin Cassette,		1351		1371		and 2% Tap Port		X = No connectors		
				5 Meter Pigtail		1371		1391						
				L = LGX 118		1391		1411						
						1411		1431						
						1431		1451						
						1451		1471						
						1471		1491						
						1491		1511						
						1511		1531						
						1531		1551						
						1551		1571						
						1571		1591						
						1591		1611						

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## Dense WDM (DWDM) Modules



Double-width LGX 118 package shown

AFL's Dense WDM modules (DWDM) are designed using proven thin-film filter technology featuring low insertion loss, high isolation, and superior environmental stability. DWDM modules are available in 2, 4, 8, and 16 channel configurations, with 100 GHz and 200 GHz spaced central wavelength options on the ITU-T Grid in the C-Band (1528 nm-1568 nm) and L-Band (1568 nm-1610 nm). All DWDM modules are factory assembled in a thin cassette package or a rugged LGX® cassette with most common industry standard connector options to meet varying system requirements.

### Features

- Telcordia® qualified components
- 100 GHz & 200 GHz ITU-T channel spacing
- 2, 4, 8 and 16 channel configurations
- Most industry standard connectors
- Low insertion loss
- High isolation
- Epoxy-free optical path

### Applications

- CATV Systems
- Sensor Systems
- 10G Ethernet Systems
- Metro Optical Networks
- Metro Access Networks

## Specifications

PARAMETER	UNIT	VALUE							
		100 GHZ DWDM				200 GHZ DWDM			
Ports		2	4	8	16	2	4	8	16
Center Wavelength	nm	1531-1561 (CH. 20-58)				1530-1560 (CH. 21-59)			
Passband @ 0.5 dB	nm	>0.25				>0.6			
Passband	nm	±0.11				±0.25			
Passband Flatness	dB	<0.5				<0.5			
Insertion Loss (Typ.)	dB	1.4	1.6	2.6	3.8	1.4	1.6	2.6	3.8
Insertion Loss (Max.)	dB	1.8	2.0	3.2	4.5	1.8	2.0	3.2	4.5
Adjacent Channel Isolation	dB	>25				>25			
Non-Adjacent Channel Isolation	dB	>45				>45			
Wavelength Thermal Stability	nm/°C	<0.001				<0.002			
IL Thermal Stability	db/°C	<0.005	<0.005	<0.007	<0.007	<0.005	<0.005	<0.007	<0.007
Return Loss	dB	>45				>45			
PMD	ps	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	<0.15
PDL	dB	<0.10	<0.20	<0.20	<0.25	<0.10	<0.20	<0.20	<0.25
Directivity	dB	>50				>50			
Operation Temperature	°C	-5 to +65				-5 to +65			
Storage Temperature	°C	-40 to +85				-40 to +85			
LGX 118 Package		Single-width	Single-width	Double-width	Triple-width	Single-width	Single-width	Double-width	Triple-width
Thin Cassette Package	mm	88.9x50.8x8.3	120x80x13	130x87x13	150x115x13	88.9x50.8x8.3	120x80x13	130x87x13	150x115x13

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## Dense WDM (DWDM) Modules

### Ordering Information

DWDM	<b>04</b>	<b>5</b>	<b>1</b>	<b>20</b>	<b>24</b>	<b>ASC</b>	ISP
	<b>Channel Count</b>	<b>Package/Pigtail</b>	<b>Spacing</b>	<b>Start Channel</b>	<b>End Channel</b>	<b>Connectors</b>	
	02 = 2 Channel 04 = 4 Channel 08 = 8 Channel 16 = 16 Channel	1 = Thin Cassette, 1 Meter Pigtail 3 = Thin Cassette, 3 Meter Pigtail 5 = Thin Cassette, 5 Meter Pigtail L = LGX 118	1 = 100 GHz 2 = 200 GHz	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	ASC = SC/APC USC = SC/UPC ALC = LC/APC ULC = LC/UPC X = No connectors	



## LightGuard® Sealed Fiber Optic Splice Closures

AFL LightGuard Sealed Fiber Optic Splice Closures are designed to simplify splice management and maintenance. Intuitive engineering design reduces the installation time and complexity associated with fiber splicing in the field. No heat, adhesives, drills or powered equipment for installation or re-entry are required, just simply use a common 216 can wrench to access and install cable. LightGuard closures are durable, easy-to-install and will increase productivity, reduce labor expenses, and last the life of your plant.

### Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

### Specifications

DESCRIPTION	MODEL					
	LG-55-U-0	LG-150-U-0	LG-250-U-0	LG-350-U-0	350-AC	LG-350XL-U-0
Splice Capacity (Max.) - Single, Mass, Mechanical	24, n/a, n/a	48, 192, 48	144, 432, 48 <sup>1</sup>	480, 1152, 108 <sup>2</sup>	144, 432, 48	864, 2592, 288
Number of Splice Trays (Max.) - Single, Mass, Mechanical	1, n/a, n/a	4, 3, n/a	4, 2, 3	12, 8, 8	4, 3, n/a	9, 9, n/a
Cable Entrance Configuration	In-line / Butt	Butt	Butt	Butt	Butt	Butt
Cable Ports	2	5	5	5	2 (Express Grommets) 3 (4-Drop Grommets)	5 (7 using dual port grommet Express sides)
Cable Sizes (Max. O.D.)	2 @ 0.70" (splice)	5 @ 0.62"	5 @ 0.62"	3 @ 0.80" 2 @ 1.00"	2 @ 1.0" 12 @ 0.312" Flat or 0.250" Round	3 @ 1.08" 2 @ 1.18"
Testing						
- Cable Retention (100 lbs)	Passed	Passed	Passed	Passed	Passed	Passed
- Water Resistance (waterhead)	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.
- Impact Resistance (0-40 °C)	Passed	Passed	Passed	Passed	Passed	Passed
- Chemical Resistance	Passed	Passed	Passed	Passed	Passed	Passed
- Cable Flexing	Passed	Passed	Passed	Passed	Passed	Passed
Dimensions - (L x D) in. (cm)	14.00 x 4.00 (35.60 x 10.16)	18.25 x 8.75 (46.36 x 22.23)	19.00 x 8.75 (48.26 x 22.23)	28.00 x 10.00 (71.12 x 25.40)	20 x 10	31.00 x 12.00 (78.74 x 30.48)
Weight - lbs. (kg)	3.0 (1.36)	10.5 (4.76)	11.5 (5.23)	14 (6.35)	13 (5.89)	25 (11.34)

NOTES: 1. For the LG-250-U-0; 36 mechanical splices only using the LL-2448 splice tray.  
2. For the LG-350-U-0; 108 mechanical splices only using the LL-2448 splice tray.

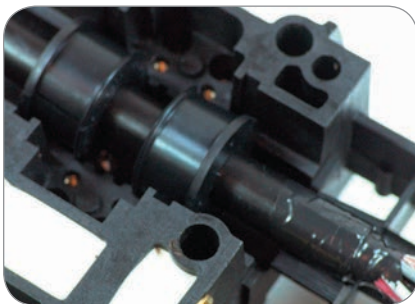
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Expandable to support various cable diameters



Ease of installation (no tapes, washers, or glue)



Multiple layers of sealing protection

## LightGuard® Peel and Seal Grommet Systems for Sealed Fiber Optic Closures

AFL's cable sealing grommet technology for the LightGuard (LG) Sealed Fiber Optic Closures improves sealing technology utilizing MULTICENTRIC® Grommets that do away with time consuming tasks such as installing washers and messy sealing tapes for cable entry. MULTICENTRIC® Grommets are designed to accept a wide range of cable diameters, eliminating the need to stock a variety of diameter-specific grommet kits.

Conversion kits for old LG-100, LG-200, and LG-300 closures allows for "Peel and Seal" grommet technology to be used without changing out the existing closure.

### Features

- All Peel and Seal Grommet Systems support loose tube, core tube, dielectric and armored cable designs
- Installation and re-entry using common hand tools
- Accepts a wide range of cable diameters
- Fast and easy to install
- Fits existing AFL LightGuard sealed closures
- Fully sealed to protect fiber and splices ensuring longevity
- Full conversion kits and dual cable entry port kits
- Designed and tested to Telcordia® GR-771 & RUS 515 closure requirements



Single



Dual



Quad

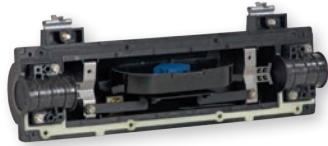
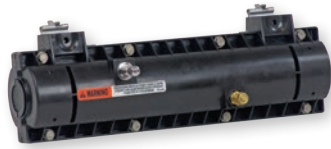
### Ordering information

#### SEALED CLOSURE FULL CONVERSION KITS (SINGLE AXIS CABLE ENTRY)

DESCRIPTION	AFL NO.
3 Port Drop Grommet (LG-150/250)	FC000655
Dual Express Grommets for LG-350	FC000337
Quad Express Grommets for LG-350	FC000421
Single Cable Grommet Kit, Drop Port	FC000628
4 Port Drop Grommet (LG-350 / LG-350-AC)	FC000422
LG-350 Express Single Cable Grommet Kit	FC000726
LG-350 Drop Single Cable Grommet Kit	FC000727

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## LightGuard® 55 Sealed Fiber Optic Splice Closure

Designed with versatility in mind, the LightGuard (LG) 55 sealed closure from AFL offers a variety of solutions including repair and distribution splicing, grounding for Fiber-in-the-Loop applications, and for use as an isolation gap with armored cables. This closure accepts stranded loose tube or ribbon fiber cables in either armored or dielectric configurations and can be utilized in a butt or in-line configuration.

The LG-55 closure incorporates a unique cable clamp design sealing the cable, allowing both of the cover halves to be removed without disturbing the contents. In addition, AFL's Peel & Seal Grommet System™ is incorporated to ensure a tight fit on various cable diameters, fully sealing the closure and protecting the fiber while eliminating cumbersome tape and washers—making installation fast and easy.

### Features

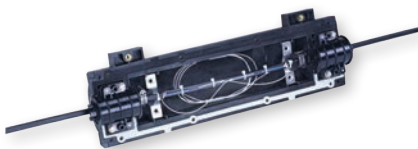
- Accommodates cables to 0.77" O.D. for splicing and grounding/bonding
- Incorporates the Peel and Seal Grommet System, fully sealing the closure
- Includes removable, integral central splicing module and individual cable retention clamps
- Requires only a common can wrench for installation

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	24, n/a, 24
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	1, n/a, 1
Cable Entrance Configuration	Butt or In-line
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(2) Express Ports</b>
Single in. (mm)	0.40" - 0.77" (10.0 - 25.4)
Double Express Port Only in. (mm)	0.26" - 0.44" (6.6 - 11.2)
<b>Additional Grommets</b>	
Quad Express Port Only in. (mm)	0.26" - 0.38" (6.6 - 9.7)
Dimensions—(L x D) in. (mm)	14.0" x 4.0" (343.0 x 101.6)
Weight—lbs. (kg)	3.0 (1.36)

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-55 FC000034-PS Fiber Optic Splice Closure—Stores up to 32 single fusion, includes 2 single cable grommets and 1 dual cable grommet kit for sealing/retention and 2 ground terminals. Splice tray and hanger brackets included. Not included: Cable Grounding Kits	LG55-U-1	FC000034-PS
LL-2425 Single Splice Tray—Stores (32) single fusion splices. Maximum of 1 trays in the LG55. Tray Included.	LL-2425	FC000053
LG-350 Single Grommet Kit (Min. 0.40" - Max. 1.00")—For use in LG-55 on Express Port side.	LG-350 Exp Single Kit	FC000726
LG-350 Dual Grommet Kit (Min. 0.26" - Max. 0.44")—For use in LG-55 on Express Port side.	LG-350 Exp Dual Kit	FC000337
LG-350 Quad Grommet Kit (Min. 0.26" - Max. 0.38")—For use in LG-55 on Express Port side.	LG-350 Exp Quad Kit	FC000421
LG-55 Grommet Kit (1) 3 flat drop grommet (flat drop 0.31" or round cable up to 0.25") and (1) dual grommet (Min. 0.26" - Max. 0.44").	LG-55 Drop Kit	FC000807
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089



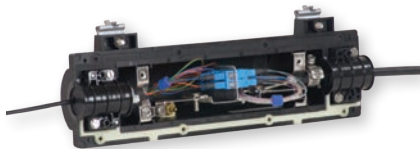
In-line Repair Closure (IRC) for repair of flat or round drop cables

## LightGuard® 55-SC Sealed Fiber Optic Splice Closure



AFL's LightGuard (LG) 55-SC sealed closure retains all the features of the LG-55, but includes a unique patching system that utilizes pre-terminated SC fiber assemblies or field installable connectors such as the FASTConnect® SC.

An innovative solution that can be used to facilitate a link between traffic control cabinets and entrance cables, the LG-55-SC closure allows for rapid restoration and minimal damage to a fiber optic cable should an impact disable the cabinet. A breakable tie wrap secures the pre-connectorized cable to one side of the closure (traffic control cabinet), while the main entrance cable is secured with a more rugged cable clamp, allowing the system to separate during a damaging impact.



### Specifications

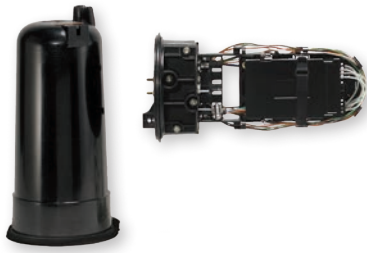
PARAMETER	VALUE
Cable Sizes (Min. O.D. - Max. O.D.)	0.4" - 0.7"
Maximum Cable Entry	2 ports (one each end)
Dimensions - (L x D) in. (mm)	14" x 4" (356.0 mm x 1022.0 mm)

### Features

- Durable cover assembly that provides protection for all internal components and acts as an interface / anchor to the cable clamps
- Unique cable clamp seal to anchor the cable to the cover assembly
- Movable sheath retention bracket keeps cable bends at a minimum
- Accommodates up to four SC/UPC connectors
- Utilizes AFL's Peel & Seal Grommet System™, ensuring a tight fit on various cable diameters while eliminating cumbersome tape and washers
- Requires only a common can wrench for installation

### Ordering Information

MODEL NO.	AFL NO.
LG-55-SC	FC000481-PS
Dual Cable Entry Port Kit—Allows two cables to enter closure from each cable port. Includes one dual port cable grommet to increase the closure to four ports.	FC000337
Cable Grounding Harness Kit—Includes (5) 8" long ground harnesses constructed of #6 AWG conductor.	CGK-5 FC001091



## LightGuard® 150 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 150 is a sealed dome closure designed for small count fiber splicing (up to 48 single or 192 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-150 is ideal for express or ring applications and requires only a common can wrench for installation.

### Features

- Supports stranded loose tube or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry requires only a common can wrench
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

### Specifications

PARAMETER	VALUE	
Splice Capacity (Max.)—Single, Mass, Mechanical	48, 192, 48	
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	4, 3, 4	
Cable Entrance Configuration	Butt	
Cables	5	
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets Single in. (mm)  Additional Grommets (3) Flat Drop Port Only in. (mm)	<b>(2) Express Ports</b> 0.26" - 0.62" (6.6 - 15.7)	<b>(3) Drop Ports</b> 0.26" - 0.62" (6.6 - 15.7)
	n/a	0.19" x 0.34" (4.8 x 8.6) or 0.25" round (6.4)
Dimensions—(L x D) in. (mm)	18.25" x 8.75" (463.6 x 222.3)	
Weight—lbs. (kg)	10.5 (4.76)	

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-150 Fiber Optic Splice Closure—Stores 48 single fusion or 192 mass fusion, includes (5) cable kits for sealing/retention and (2) ground terminals with removable bond. Not included: Splice Trays, Cable Grounding Kits or Hanger Brackets	LG-150-U-0	FC000001-PS
LL-2450 Single Splice Tray—Stores (12) single fusion splices. Maximum of 4 trays in the LG150	LL-2450	91957-00
LL-4850 Mass Splice Tray—Stores (8) mass fusion splices (96 F). Maximum of 4 trays in the LG-150	LL-4850	91958-00
LL-1248 Universal Splice Tray—Stores (12) single fusion splices or (8) mass fusion splices (96 F), or *Mechanical. Maximum of 4 trays in the LG-150.	LL-1248	911221-00-00
LG-150/250 Single Grommet Kit (Min. 0.26" - Max. 0.62")	LG-150/250 Single Kit	FC000704
LG-150/250 3 Flat Drop Grommet Kit (standard flat drop 0.31" or round cable up to 0.25")	LG-150/250 Drop Kit	FC000655
Universal Aerial Strand Hanger Kit—For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit—For use with LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket—For use with LG-150/250/350	PWK	FC000592
OPGW Dual Cable Bracket Kit for use only when installing closure on OPGW cable—For use with LG-150/250/350	OPGW Dual Bracket	FC000683
OPGW Quad Cable Bracket Kit—For use with LG-150/250	LG-150/250 OPGW Quad Bracket Sealed	FC000746
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
Closure Stand for Sealed Dome Closures	Sealed Closure Stand	FC001176
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
O-Ring and Lock Ring Kit—For use with LG-150/250	LG-150/250 Lock Ring Kit	FC000771

\* See Accessory Specifications.  
See Splice Tray Specifications.

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## LightGuard® 250 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 250 is a sealed dome closure designed for medium count fiber splicing (up to 144 single or 432 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-250 is ideal for express or ring applications and requires only a common can wrench for installation.

### Features

- Supports stranded loose tube or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry requires only a common can wrench
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

### Specifications

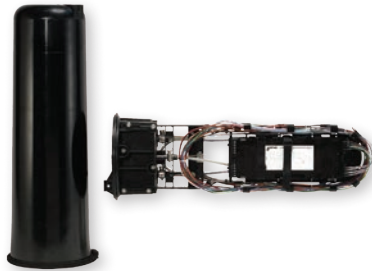
PARAMETER	VALUE	
Splice Capacity (Max.)—Single, Mass, Mechanical	144, 432, 48	
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	4, 3, 4	
Cable Entrance Configuration	Butt	
Cable Ports	5	
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(2) Express Ports</b>	<b>(3) Drop Ports</b>
Single in. (mm)	0.26" - 0.62" (6.6 - 15.7)	0.26" - 0.62" (6.6 - 15.7)
<b>Additional Grommets</b>		
(3) Flat Drop Port Only in. (mm)	n/a	0.19" x 0.34" (4.8 x 8.6) or 0.25" round (6.4)
Dimensions—(L x D) in. (mm)	18.25" x 8.75" (463.6 x 222.3)	
Weight—lbs. (kg)	10.5 (4.76)	

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-250 Fiber Optic Splice Closure—Stores 144 single fusion or 432 mass fusion, includes (5) cable kits for sealing/retention and (2) ground terminals with removable bond. Not included: Splice Trays, Cable Grounding Kits or Hanger Brackets	LG-250-U-0	FC000002-PS
LL-2400 Single Splice Tray—Stores (24) single fusion splices. Maximum of 4 trays in the LG-250.	LL-2400	91710-06
LL-2448 Universal Splice Tray—Stores (24) single fusion or (4) mass fusion splices (48 F). Maximum of 3 trays in the LG-250	LL-2448	911289-00-02
LL-4848 Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 3 trays in the LG-250	LL-4848	911437-00-02
LL-2448-48S Single Splice Tray—Stores (48) single fusion splices. Maximum of 3 trays in the LG-250	LL-2448-48S	FA000045
LG-150/250 Single Grommet Kit (Min. 0.26" - Max. 0.62")	LG-150/250 Single Kit	FC000704
LG-150/250 3 Flat Drop Grommet Kit (standard flat drop 0.31" or round cable up to 0.25")	LG-150/250 Drop Kit	FC000655
Universal Aerial Strand Hanger Kit—For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit—For use with LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket—For use with LG-150/250/350	PWK	FC000592
OPGW Dual Cable Bracket Kit—For use with LG-150/250/350	OPGW Dual Bracket	FC000683
OPGW Quad Cable Bracket Kit—For use with LG-150/250	LG-150/250 OPGW Quad Bracket Sealed	FC000746
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
Closure Stand for Sealed Dome Closures	Sealed Closure Stand	FC001176
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
O-Ring and Lock Ring Kit—For use with LG-150/250	LG-150/250 Lock Ring Kit	FC000771

\* See Accessory Specifications.  
See Splice Tray Specifications.





## LightGuard® 350 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 350 is a sealed dome closure designed for large count fiber splicing (up to 480 single or 1152 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-350 is ideal for express, ring or long haul applications and requires only a common can wrench for installation.

### Features

- Supports stranded loose tube or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry requires only a common can wrench
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

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### Specifications

PARAMETER	VALUE	
Splice Capacity (Max.)—Single, Mass, Mechanical	480, 1152, 108	
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	12, 8, 8	
Cable Entrance Configuration	Butt	
Cables	5 to 11	
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(2) Express Ports</b>	<b>(3) Drop Ports</b>
Single in. (mm)	0.40" - 1.00" (10.0 - 25.4)	0.26" - 0.80" (6.6 - 20.0)
<b>Additional Grommets</b>		
Dual Express Port Only in. (mm)	0.26" - 0.44" (6.6 - 11.2)	
Quad Express Port Only in. (mm)	0.26" - 0.38" (6.6 - 9.7)	
(4) Flat Drop Port Only in. (mm)		0.19" x 0.34" (4.8 x 8.6) or 0.25" round (6.4)
Dimensions—(L x D) in. (mm)	28.0" x 10.0" (710.0 x 254.0)	
Weight - lbs. (kg)	16 (7.26)	

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-350 Fiber Optic Splice Closure—Stores 480 single fusion or 1152 mass fusion, includes (5) cable kits for sealing/retention and (2) ground terminals with removable bond. Not included: Splice Trays, Cable Grounding Kits or Hanger Brackets	LG-350-U-0	FC000009-PS
LL-2400 Single Splice Tray—Stores (24) single fusion splices. Maximum of 12 trays in the LG-350	LL-2400	91710-06
LL-2448 Universal Splice Tray—Stores (24) single fusion or (4) mass fusion splices (48 F). Maximum of 8 trays in the LG-350	LL-2448	911289-00-02
LL-4848 Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 8 trays in the LG-350	LL-4848	911437-00-02
LL-2448-48S Single Splice Tray—Stores (48) single fusion splices. Maximum of 8 trays in the LG-350	LL-2448-48S	FA000045
LL-4896 Universal Splice Tray—Stores (96) single fusion splices or (24) mass fusion splices (288 F). Maximum of 5 trays in the LG-350	LL-4896	911676-00-02
LL-4896-R Mass Splice Tray—Stores (24) mass fusion splices (288 F). Maximum of 5 trays in the LG-350	LL-4896-R	FA000022
LL-4896-L Single Splice Tray—Stores (96) single fusion splices. Maximum of 5 trays in the LG-350	LL-4896-L	FA000023
LG-350 Single Grommet Kit (Min. 0.40" - Max. 1.00")—For use in LG-350/AC/SD on Express Port side	LG-350 Exp Single Kit	FC000726
LG-350 Dual Grommet Kit (Min. 0.26" - Max. 0.44")—For use in LG-350/AC/SD on Express Port side	LG-350 Exp Dual Kit	FC000337
LG-350 Quad Grommet Kit (Min. 0.26" - Max. 0.38")—For use in LG-350/AC/SD on Express Port side	LG-350 Exp Quad Kit	FC000421
LG-350 Single Grommet Kit (Min. 0.26" - Max. 0.80")—For use in LG-350/AC/SD on Drop Port side	LG-350 Drop Single Kit	FC000727
LG-350 Drop 4 Flat Drop Grommet Kit—For use with standard flat drop cable and round cable up to 0.25" O.D.	LG-350 Drop 4 Flat Kit	FC000422
Universal Aerial Strand Hanger Kit—For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit—For use with LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket—For use with LG-150/250/350	PWK	FC000592
OPGW Dual Cable Bracket Kit—For use with LG-150/250/350	OPGW Dual Bracket	FC000683
OPGW Quad Cable Bracket Kit for use when installing Sealed Closures—For use with LG-350	LG-350 OPGW Quad Bracket Sealed	FC000747
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
O-Ring and Lock Ring Kit—For use with LG-350/350AC/SD	LG-350 O-Ring Lock Ring Kit	FC000775

\* See Accessory Specifications. See Splice Tray Specifications.



## LightGuard® 350-AC Drop Access Sealed Fiber Optic Splice Closure

The LightGuard (LG) 350-AC is a sealed dome closure designed for medium count fiber splicing (up to 144 single or 432 mass) in a butt configuration where space may be limited. Utilized in aerial or underground environments where a sealed closure is required, the LG-350-AC is designed for "drop access" applications providing access for up to 12 drops. The LG-350-AC is ideal for Fiber-to-the-Home installations in small hand-hole application and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE	
Splice Capacity (Max.)—Single, Mass, Mechanical	144, 432, 48	
Number of Splice Trays (Max.) - Single, Mass, Mechanical*	4, 3, 4	
Cable Entrance Configuration	Butt	
Cables	2 to 8 Express with up to 12 Drop	
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(2) Express Ports</b>	<b>(3) Drop Ports</b>
Single in. (mm)	0.40" - 1.00" (10.0 - 25.4)	(4 port) 0.26" - 0.80" (6.6 - 20.0)
(4) Flat Drop Only in. (mm)		
<b>Additional Grommets</b>		0.19" x 0.34" (4.8 x 8.6) or 0.25" round (6.4)
Dual Express Port Only in. (mm)	0.26" - 0.44" (6.6 - 11.2)	
Quad Express Port Only in. (mm)	0.26" - 0.38" (6.6 - 9.7)	
(4) Flat Drop Port Only in. (mm)		
Dimensions - (L x D) in. (mm)	19.8" x 10.0" (503.0 x 254.0)	
Weight - lbs. (kg)	12.0 (5.44)	

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-350-AC Fiber Optic Splice Closure—Stores 144 single fusion or 432 mass fusion, includes (2) Express cable kits and (12) Drop cable kits for sealing/retention and (2) ground terminals with removable bond. Included: (1) LL-4808L Splice Tray Not included: Cable Grounding Kits, or Hanger Brackets	LG-350-AC	FC000412
LL-4808L-R Universal Splice Tray—Stores (36) single fusion splices or (12) mass fusion splices (144 F). Maximum of 4 trays in the LG-350-AC.	LL-4808L-R	FA000037
LL-4808-R Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 4 trays in the LG-350-AC	LL-4808-R	FA000020
LL-4808-L Single Splice Tray—Stores (36) single fusion splices. Maximum of 4 trays in the LG-350-AC	LL-4808-L	FA000021

### Features

- Less than 20" overall length; ideal for small hand-holes
- Supports stranded loose tube or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry requires only a common can wrench
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install two cables and up to 12 drops
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) listed

continued on next page

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## LightGuard® 350-AC Drop Access Sealed Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

DESCRIPTION	MODEL NO.	AFL NO.
LG-350 Single Grommet Kit (Min. 0.40" - Max. 1.00")—For use in LG-55/LG-350/LG-350-AC on Express Port side	LG-350 Exp Single Kit	FC000726
LG-350 Dual Grommet Kit (Min. 0.26" - Max. 0.44")—For use in LG-55/LG-350/LG-350-AC on Express Port side	LG-350 Exp Dual Kit	FC000337
LG-350 Quad Grommet Kit (Min. 0.26" - Max. 0.38")—For use in LG-55/LG-350/LG-350-AC on Express Port side	LG-350 Exp Quad Kit	FC000421
LG-350 Single Grommet Kit (Min. 0.26" - Max. 0.80")—For use in LG-350/AC/SD on Drop Port side	LG-350 Drop Single Kit	FC000727
LG-350-AC Single Grommet Kit (Min. 0.26"- Max. 0.80") with retention hardware—For use in LG-350-AC on Drop Port side	LG-350-AC Drop Single Kit	FC000628
LG-350 Drop 4 Flat Drop Grommet Kit—For use with standard flat drop cable and round cable up to 0.25" O.D.	LG-350 Drop 4 Flat Kit	FC000422
Universal Aerial Strand Hanger Kit—For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit—For use with LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket—For use with LG-150/250/350	PWK	FC000592
OPGW Dual Cable Bracket Kit—For use with LG-150/250/350	OPGW Dual Bracket	FC000683
Closure Stand for Sealed Dome Closures (LG-150, LG-250, LG-350, LG-350-AC, LG-350-SD, LG-350XL)	Sealed Closure Stand	FC001176
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
O-Ring and Lock Ring Kit—For use with LG-350/AC/SD	LG-350 O-Ring Lock Ring Kit	FC000775

\* See Accessory Specifications.  
See Splice Tray Specifications.



## LightGuard® 350XL Sealed Fiber Optic Splice Closure

The LightGuard (LG) 350XL is a sealed dome closure designed for large count fiber splicing (up to 864 single or 2592 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-350XL is ideal for high fiber count splicing and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE	
Splice Capacity (Max.)—Single, Mass, Mechanical	864, 2592, 288	
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	9, 9, 9	
Cable Entrance Configuration	Butt	
Cables	5 to 7	
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets Single in. (mm)	<b>(2) Express Ports</b> 0.40" - 1.18" (10.0 - 30.0)	<b>(3) Drop Ports</b> 0.30" - 1.08" (7.6 - 27.4)
<b>Additional Grommets</b> Dual Exp. Port Only in. (mm)	0.38" - 0.56" (9.7 - 14.2)	
Dimensions - (L x D) in. (mm)	31.0" x 12.00" (788.5 x 305.0)	
Weight - lbs. (kg)	25.0 (11.3)	

### Features

- Supports stranded loose tube or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry requires only a common can wrench
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Accommodates up to 7 cables
- Oversized basket allows multiple configurations of slack storage
- O-Ring and Locking Ring for increased protection
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-350XL Fiber Optic Splice Closure—Stores 864 single fusion or 2592 mass fusion, includes (5) cable kits for sealing/retention and (2) ground terminals with removable bond. Not included: Splice Trays, Cable Grounding Kits or Hanger Brackets	LG-300XL-U-0	FC00010-PS
LL-4896 Universal Splice Tray—Stores (96) single fusion splices or (24) mass fusion splices (288 F), *Mechanical. Maximum of 9 trays in the LG-350XL	LL-4896	911676-00-02
LL-4896-R Mass Splice Tray—Stores (24) mass fusion splices (288 F). Maximum of 9 trays in the LG-350XL	LL-4896-R	FA000022
LL-4896-L Single Splice Tray—Stores (96) single fusion splices. Maximum of 9 trays in the LG-350XL	LL-4896-L	FA000023
LG-350XL Single Grommet Kit (Min. 0.40" - Max. 1.18")—For use in LG-350-XL on Express Port side	LG-350-XL Exp Single Kit	FC000870
LG-350XL Dual Grommet Kit (Min. 0.38" - Max. 0.56")—For use in LG-350-XL on Express Port side	LG-350-XL Exp Dual Kit	FC000688
LG-350XL Single Grommet Kit (Min. 0.30" - Max. 1.08")—For use in LG-350XL on Drop Port side	LG-35-XL Drop Single Kit	FC000871
Strand Mount Hanger Bracket—For use with LG-350XL in strand or vault mounting	XL Hanger Bracket	912215-00-00
Closure Stand for Sealed Dome Closures	Sealed Closure Stand	FC001176
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
O-Ring and Lock Ring Kit—For use with LG-350XL	LG-350XL O-Ring Lock Ring Kit	FC001328

\* See LL-4896 Splice Tray Specifications.

## LightGuard® Sealed Splice Closure Accessories



### Closure Stand for Sealed Dome Closures

Table top closure stand to be used for the LG-150/250/350/350XL closures. Can be clamped or permanently fastened to a table top to hold the closure in place during installation or maintenance. The clamp pivots 180° to allow accessibility to both sides of the frame and all cable entry ports.

#### Ordering Information

DESCRIPTION	AFL NO.
Closure Stand for Sealed Dome Closures	FC001176



### Dual Express Grommets for LG-350XL

Used on the express side of the LG-350XL closure for installing additional branches. Use the drop ports for the express cable while the express ports may be used to introduce small branch cables. Minimum cable diameter is 0.380" - 0.560".

#### Ordering Information

DESCRIPTION	AFL NO.
Dual Express Grommets for LG-350XL	FC000688



### Dual and Quad Express Grommets for LG-350

Used on the express side of the LG-350 closure for installing additional branches. Use the drop ports for the express cable while the express ports may be used to introduce small branch cables. A 4-drop flat grommet may be used if drops are also required. Cable diameter for dual grommets is 0.26" - 0.44"; for quad, 0.24" - 0.382".

#### Ordering Information

DESCRIPTION	AFL NO.
Dual Express Grommets for LG-350	FC000337
Quad Express Grommets for LG-350	FC000421



### 4-Port Flat Drop Grommet Kit for LG-350/LG-350-AC

Used with the LG-350 and LG-350-AC Sealed Closures. Allows for quick addition of drop cables as required. Simply replace the drop port grommets with this grommet kit and install standard flat drop cable or round cable up to 0.25" in diameter.

#### Ordering Information

DESCRIPTION	AFL NO.
4-Port Flat Drop Grommet Kit for LG-350/LG-350-AC	FC000422

## LightGuard® Sealed Splice Closure Accessories (cont.)

### Single Cable and 3-Port Flat Drop Grommet Kit for LG-150/LG-250



Used with the LG-150 and LG-250 Sealed Closures. Allows for quick addition of drop cables as required. Simply replace the drop port grommets with this grommet kit. Both closures will accept standard flat drop cable or round cable up to 0.250" in diameter.

#### Ordering Information

DESCRIPTION	AFL NO.
Single Cable Grommet Kit for the LG-150/LG-250	FC000704
3-Port Flat Drop Grommet Kit for the LG-150/LG-250	FC000655

### Single Cable Grommet Kits for LG-350-AC and LG-350

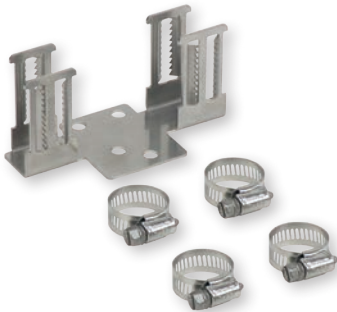


Used with the LG-350-AC when a branch cable is required with the drop cables. May also be used with the LG-350 as replacement grommets. Simply remove the flat drop grommet and replace with the single cable grommets.

#### Ordering Information

DESCRIPTION	AFL NO.
Single Cable Grommet Kit, Drop Port for LG-350-AC	FC000628
Express Single Cable Grommet Kit for LG-350	FC000726
Drop Single Cable Grommet Kit for LG-350	FC000727

### OPGW Cable Bracket for LG-150/LG-250/LG-350



Attaches to the outer grounding studs of the LG-150/LG-250 or LG-350 Sealed Closures. Stainless steel hose clamps secure the OPGW cable to the bracket preventing twisting or movement.

#### Ordering Information

DESCRIPTION	AFL NO.
OPGW Cable Bracket for the LG-150/LG-250/LG-350 for 2 cables.	FC000683
OPGW Cable Bracket Kit for use when installing Sealed Closures (LG-150/LG-250) to 4 OPGW Cables.	FC000746
OPGW Cable Bracket Kit for use when installing Sealed Closures (LG-350) to 4 OPGW Cables.	FC000747

### Pole/Wall Mount Bracket for LG-150/LG-250/LG-350



Used with the LG-150, LG-250, LG-350 and LG-350-AC to secure the closures onto poles or walls in a vertical orientation. Slots on the brackets allow for strapping onto steel or cement poles.

#### Ordering Information

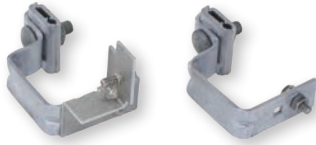
DESCRIPTION	AFL NO.
Pole/Wall Mount Bracket for LG-150/LG-250/LG-350/LG-350-AC	FC000592



## LightGuard® Sealed Splice Closure Accessories (cont.)

### Universal Aerial Bracket and Extended Offset Bracket

Used with the LG-150, LG-250, LG-350 and LG-350-AC for mounting on aerial or messengers.



#### Ordering Information

DESCRIPTION	AFL NO.
Universal Aerial Bracket for LG-150/LG-250/LG-350/LG-350-AC	FC000006
Extended Offset Bracket	FC000208



### Strand Mount Hanger Bracket for LG-350XL

Used with the LG-350XL.

#### Ordering Information

DESCRIPTION	AFL NO.
Strand Mount Hanger Bracket – For use with LG-350XL	912215-00-00

### Cable Ground Kits

Used with the LG-150, LG-250 and LG-350.



#### Ordering Information

DESCRIPTION	AFL NO.
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	FC000003
Cable Grounding Harness Kit – Includes (4) 8" ground harnesses constructed of #6 AWG conductor	FC000024
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	FC000040

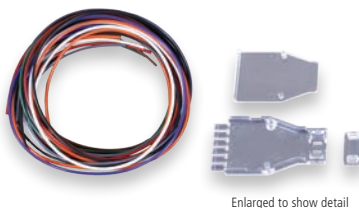
### O-Ring Replacement Kits

Used with the LG-150, LG-250, LG-350 and LG-350XL.



#### Ordering Information

DESCRIPTION	AFL NO.
O-Ring Replacement Kit – For use with LG-150/250	FC000004
O-Ring Replacement Kit – For use with LG-300XL	FC000016
O-Ring Replacement Kit – For use with LG-350.	912231-00-00



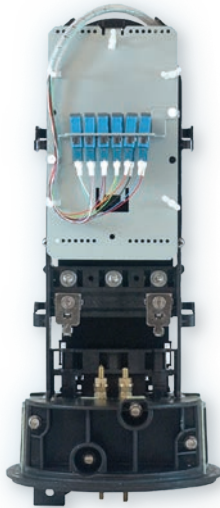
### 1x6 Cable Router Kit

Used with the LG-150, LG-250, LG-350 and LG-350-AC.

#### Ordering Information

DESCRIPTION	AFL NO.
1X6 Cable Router Kit	FC000070





LLAS-200-12SC



LLAS-300-24SC

## LightLink Fiber Optic Terminal Adapters for Sealed Fiber Optic Splice Closures

The LightLink Access Solution (LLAS) Terminal Adapters provide the interconnect and/or demarcation of optical fibers for Fiber-to-the-Node (FTTN), Fiber-to-the-Home (FTTH), Fiber-to-the-Premise (FTTP) and Fiber-to-the-Curb (FTTC) applications. The adapter plates are designed to be used in conjunction with AFL Sealed Fiber Optic Splice Closures and convert the standard closure design into an FTTX or demarcation type fiber optic splice closure. The adapter plates provide mounting positions ranging from six to 24 SC-style bulkheads (depending on the model). The interconnection and routing of 900 μm SC pigtailed with pre-connectorized SC drop cables is managed through routing rings on the terminal adapter. Three versions are available and are matched to the LG-150, LG-250 and LG-350 series sealed fiber optic splice closures.

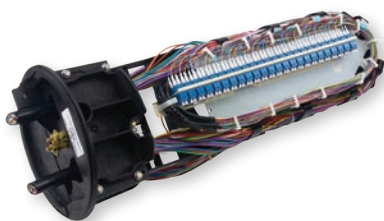
### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Terminal Adapter for LG-150/250 Sealed Splice Closure	LLAS-200-12SC	FC000068
Terminal Adapter for LG-350 Sealed Splice Closure	LLAS-300-24SC	FC000069
Terminal Adapter – Empty plate	LLAS-350-96-LC	FC000736
Terminal Adapter – with Installed SCAPC (48)	LLAS-350-96-LC	FC000737
Terminal Adapter – with Installed SCUPC (48)	LLAS-350-96-LC	FC000738
Terminal Adapter – with Installed LCUPC Duplex SC Foot Print (48)	LLAS-350-96-LC	FC000739
Terminal Adapter – with Installed LCAPC Duplex SC Foot Print (48)	LLAS-350-96-LC	FC000765

Blank bulkhead adapter plate and routing rings are included.  
SC bulkheads, SC pigtailed (900 μm) and SC pre-connectorized drop cable may be ordered separately.

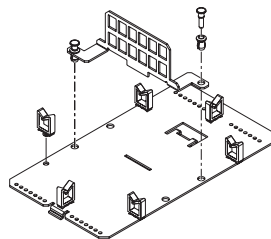
### Accessories Ordering

DESCRIPTION	AFL NO.
(1) Small Flange SC/UPC Bulkhead adapter (Blue)	C058475
(1) Small Flange SC/APC Bulkhead adapter (Green)	C147880
(1) Pigtail - SC/UPC Connector with (1) meter 900μm fiber	C146507-0001
(1) Pigtail - SC/APC Connector with (1) meter 900μm fiber	C203278-0001

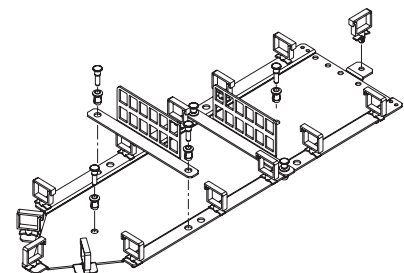


LLAS-350-96LC

### LLAS-200-12SC



### LLAS-300-24SC





## LightGuard® Aerial Weathertight Fiber Optic Splice Closures

The AFL family of Aerial Weathertight Splice Closures is designed to provide a cost-effective solution for your aerial splicing needs. Quality engineering reduces the installation time, training and complexity associated with fiber splicing in the field. The closures have all been designed to be installed without the need for special tools, heat, adhesives, drills or any powered equipment. Durable and easy to install, these closures will improve productivity, reduce labor expenses and last the life of the plant.

### Features

- Individual, patented, self-sizing cable grommets and strength member tie downs provide for cable additions without disturbing those previously installed
- Unique tongue-in-groove closure seal and back-to-back grommet design provides for a weathertight and insect seal
- Closures are re-enterable without the need for any re-entry kits and require only a common can wrench for installation
- Designed and tested to Telcordia® GR-771 aerial weathertight closure requirements
- Rural Utilities Service (RUS) Listed

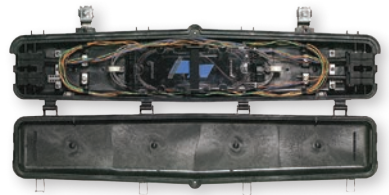
### Specifications

PARAMETER	LG-410-U-0	LG-420-U-0	LG-500-U-0	LG-600-U-0
Splice Capacity (Max.) - Single, Mass, Mechanical	144, 432, 36	12, 48, 12	144, 432, 36	384, 1152, 96
Splice Tray Capacity - Single, Mass	4, 2	n/a, n/a	4, 2	12, 8, 8
Cable Ports	4-8	4-6	4-8	6 (3 per end)
Cable Entrance	In-line, Butt	In-line (taut sheath)	In-line, Butt	In-line, Butt
Cable Sizes (O.D.)	4 @ 0.3-0.82" Up to 8 with Dual Grommet Kits 4 @ 0.27-0.53" 4 @ 0.38-0.70"	4 @ 0.3-0.82" Up to 6 with Dual Grommet Kits 2 @ 0.27-0.53" 2 @ 0.38-0.70"	4 @ 0.3-0.82" Up to 8 with Dual Grommet Kits 4 @ 0.27-0.53" 4 @ 0.38-0.70"	6 @ 0.44 - 1.0" Up to 12 with Dual Grommet Kits 6 @ 0.4-0.6" 6 @ 0.7-0.9"
CLOSURE TEST <sup>1,2</sup>				
Cable Retention (100 lbs.)	Passed	Passed	Passed	Passed
Impact Resistance (0-40 °C)	Passed	Passed	Passed	Passed
Chemical Resistance	Passed	Passed	Passed	Passed
Cable Flexing	Passed	Passed	Passed	Passed
Dust (Weather Tightness)	Passed	Passed	Passed	Passed
Driving Rain	Passed	Passed	Passed	Passed
Rodent Test	Passed	Passed	Passed	Passed
Dimensions (L x W x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)	27.00 x 8.25 x 4.00 (68.58 x 20.96 x 10.16)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight lbs. (kg)	8.5 (3.86)	8.5 (3.86)	6.4 (2.90)	18 (8.16)

Note 1: Tested to Telcordia GR-771-Core and Aerial Strand requirements

Note 2: Not all Telcordia tests are listed due to space constraints; All closures are designed and tested to appropriate aerial test requirements

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## LightGuard® 410 Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 410 Aerial Weathertight Fiber Optic Splice Closure is designed for medium count fiber splicing (up to 144 single or 432 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-410 provides additional fiber bundle storage with its extended length design and requires only a common can wrench for installation.

### Features

- Four individual, self-sizing grommeted cable ports (expandable to eight cable entrances)
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	144, 432, 36
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	4, 3, 4
Cable Entrance Configuration	Butt or In-line
Cables	4 to 8
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets Single in. (mm) <b>Additional Grommets</b> Dual Grommet in. (mm) 6-Port Multi-Drop Grommet in. (mm)	<b>(4) Cable Ports</b> 4 @ 0.38" - 0.82" (7.6 - 20.8) 0.27" to 0.53" - LG: 0.38" to 0.70" (6.9 - 13.5 / 9.5 - 17.8) 0.20" - 0.37" (5.1 - 9.4)
Dimensions—(L x W x D) in. (mm)	36.0" x 8.0" x 4.0" (914.0 x 203.0 x 102.0)
Weight - lbs. (kg)	8.5 (3.81)

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-410 Aerial Weathertight Fiber Optic Splice Closure—Stores 144 single fusion or 432 mass fusion, includes (4) cable kits for sealing/retention and (2) ground terminals with removable bond, and hanger brackets. Not included: Splice Trays or Cable Grounding Kits	LG-410-U-0	FC000022
LL-2400 Single Splice Tray—Stores (24) single fusion splices. Maximum of 4 trays in the LG-410.	LL-2400	91710-06
LL-2448 Universal Splice Tray—Stores (24) single fusion or (4) mass fusion splices (48 F). Maximum of 3 trays in the LG-410.	LL-2448	911289-00-02
LL-4848 Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 3 trays in the LG-410.	LL-4848	911437-00-02
LL-2448-48S Single Splice Tray—Stores (48) single fusion splices. Maximum of 3 trays in the LG-410.	LL-2448-48S	FA000045
Small Single Grommet Kit (10 pc grommet only) (Min 0.38" - Max 0.82")	Small Single Grommet Kit (10)	911496-00-00
Small Dual Grommet Kit—Includes: (2) small dual grommets and hardware (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit	911386-00-01
Small Dual Grommet Kit (10 pc grommet only) (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit (10)	911495-00-00
Small 6-Port Drop Cable Kit—2 grommets with tie wrap and foam Allows six cable entries (Min 0.20" - Max 0.365" and flat drop)	Small 6 Port Drop Kit	FC000573

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## LightGuard® 410 Aerial Weathertight Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

DESCRIPTION	MODEL NO.	AFL NO.
Large Single Grommet Kit with retention hardware (Min 0.44" - Max 1.04")	Large Single Grommet Kit	FC000623
Small 6-Port Drop Cable Kit (10 pc grommet only) (Min 0.20" - Max 0.365" and flat drop)	Small Drop Grommet Kit (10)	FC000644
Large Single Grommet Kit (10 pc grommet only) (Min 0.44" - Max 1.04")	Large Single Grommet Kit (10)	91918-00
Large Dual Grommet Expansion Kit—Includes: (2) Dual grommets and hardware (Min .40"-Max .70" and Min 0.60"- Max 0.90")	Large Dual Grommet Kit	911406-00-00
Large 6 Port Drop Cable Kit—2 Grommets with retention bracket. Allows six cable entries (Min 0.23" - Max 0.48" and flat drop)	Large 6 Port Drop Kit	FC000352
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Retention hardware for additional cables or replacement hardware—LG-400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes.	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
* Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory and Splice Tray Specifications.

## LightGuard® 420 Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 420 Aerial Weathertight Fiber Optic Splice Closure is designed for taut sheath (no slack) splicing (up to 24 single or 48 mass) in an in-line configuration. Utilized in aerial applications, the LG-420 is ideal for repairing cable sheath or fibers, providing mid-span access and requires only a common can wrench for installation.



### Features

- Four individual, self-sizing grommeted cable ports (expandable to eight cable entrances)
- Taut Sheath splice module accommodates up to twelve fusion splices
- Protective channel allowing taut fibers or bundles to pass through the closure
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Specifications

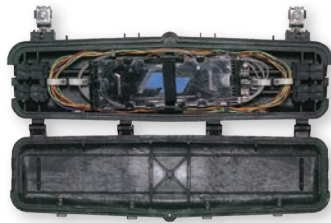
PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	24, 48, 12
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	Splice chips for 24F single fusion splice included
Cable Entrance Configuration	In-line (taut sheath)
Cables	4 to 8
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets	<b>(4) Cable Ports</b> 4 @ 0.38" - 0.82" (7.6 - 20.8)
Single Exp in. (mm)	
Additional Grommets	
Dual Grommet in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	Sm: 0.27" to 0.53" - LG: 0.38" to 0.70" (6.9 - 13.5 / 9.5 - 17.8) 0.20" - 0.37" (5.1 - 9.4)
Dimensions—(L x W x D) in. (mm)	36.0" x 8.0" x 4.0" (914.0 x 203.0 x 102.0)
Weight—lbs. (kg)	8.5 (3.81)

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-420 Aerial Weathertight Fiber Optic Splice Closure—Stores 12 single fusion or 48 mass fusion, includes (4) cable kits for sealing/retention and (2) ground terminals with removable bond, splice chips and hanger brackets. Not included: Cable Grounding Kits	LG-420-U-0	FC000023
Small Single Grommet Kit (10 pc grommet only) (Min 0.38" - Max 0.82")	Small Single Grommet Kit (10)	911496-00-00
Small Dual Grommet Kit—Includes: (2) small dual grommets and hardware (Min 0.27" - Max 0.53" and Min 0.38 - Max 0.70")	Small Dual Grommet Kit	911386-00-01
Small Dual Grommet Kit (10 pc grommet only) (Min 0.27" - Max 0.53" and Min 0.38 - Max 0.70")	Small Dual Grommet Kit (10)	911495-00-00
Small 6-Port Drop Cable Kit—2 grommets with tie wrap and foam. Allows six cable entries (Min 0.20" - Max 0.365" and flat drop)	Small 6 Port Drop Kit	FC000644
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Retention hardware for additional cables or replacement hardware—LG-400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory and Splice Tray Specifications.

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## LightGuard® 500 Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 500 Aerial Weathertight Fiber Optic Splice Closure is designed for medium count fiber splicing (up to 144 single or 432 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-500 is ideal for congested aerial construction due to its compact design and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	144, 432, 36
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	4, 3, 4
Cable Entrance Configuration	Butt or In-line
Cables	4 to 8
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(4) Cable Ports</b> 4 @ 0.38" - 0.82" (7.6 - 20.8)
Single in. (mm)	
<b>Additional Grommets</b>	
Dual Grommet in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	0.27" to 0.53" - LG: 0.38" to 0.70" (6.9 - 13.5 / 9.5 - 17.8)
	2 @ 0.20" - 0.37" (5.1 - 9.4)
Dimensions—(L x W x D) in. (mm)	27.0 x 8.3 x 4.0 (686.0 x 210.0 x 100.0)
Weight—lbs. (kg)	6.4 (2.90)

### Features

- Four individual, self-sizing grommeted cable ports (expandable up to eight cable entrances)
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-500 Aerial Weathertight Fiber Optic Splice Closure—Stores 144 single fusion or 432 mass fusion, includes (4) cable kits for sealing/retention and (2) ground terminals with removable bond, and hanger brackets. Not included: Splice Trays or Cable Grounding Kits	LG-500-U-0	FC000026
LL-2400 Single Splice Tray—Stores (24) single fusion splices. Maximum of 4 trays in the LG-500.	LL-2400	91710-06
LL-2448 Universal Splice Tray—Stores (24) single fusion or (4) mass fusion splices (48 F), *Mechanical. Maximum of 3 trays in the LG-500.	LL-2448	911289-00-02
LL-4848 Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 3 trays in the LG-500.	LL-4848	911437-00-02
LL-2448-48S Single Splice Tray—Stores (48) single fusion splices. Maximum of 3 trays in the LG-500.	LL-2448-48S	FA000045
Small Single Grommet Kit (10 pc grommet only) (Min 0.38" - Max 0.82")	Small Single Grommet Kit (10)	911496-00-00
Small Dual Grommet Kit—Includes: (2) small dual grommets and hardware (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit	911386-00-01
Small Dual Grommet Kit (10 pc grommet only) (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit (10)	911495-00-00



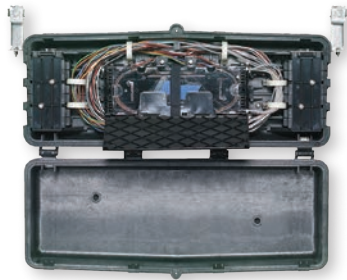
## LightGuard® 500 Aerial Weathertight Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

Small 6-Port Drop Cable Kit—2 grommets with tie wrap and foam Allows six cable entries (Min 0.20" - Max 0.365" and flat drop)	Small 6 Port Drop Kit	FC000573
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit for LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Retention hardware for additional cables or replacement hardware— LG-400/500/600 (no grommets)	Cable Retention Kit LG 400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes.	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp -On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory and Splice Tray Specifications.





## LightGuard® 600 Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 600 Aerial Weathertight Fiber Optic Splice Closure is designed for high count fiber splicing (up to 384 single or 1152 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-600 is an ideal cost-effective solution for high fiber count splicing and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	384, 1152, 36
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	12, 8, 8
Cable Entrance Configuration	Butt or In-line
Cables	6 to 24
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets	<b>(6) Cable Ports</b> 0.44" - 1.00" (11.2 - 25.4)
Single in. (mm)	
<b>Additional Grommets</b>	
Dual Grommet in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	Sm: 0.40" to 0.70" - LG: 0.60" - 0.90" (10.0 - 17.8 / 15.3 - 22.9) 0.30" - 0.48" (7.6 - 17.8)
Dimensions—(L x W x D) in. (mm)	27.0" x 11.3" x 7.5" (690.0 x 286.0 x 190.5)
Weight—lbs. (kg)	18.0 (8.16)

### Features

- Six individual, self-sizing grommeted cable ports (expandable to twelve cable entrances)
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Integrated grounding clamp through aerial hangers
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-600 Aerial Weathertight Fiber Optic Splice Closure—Stores 384 single fusion or 1152 mass fusion, includes (4) cable kits for sealing/retention and (2) ground terminals with removable bond and hanger brackets. Not included: Splice Trays or Cable Grounding Kits	LG-600-U-0	FC000029
LL-2400 Single Splice Tray—Stores (24) single fusion splices. Maximum of 12 trays in the LG-600.	LL-2400	91710-06
LL-2448 Universal Splice Tray—Stores (24) single fusion or (4) mass fusion splices (48 F). Maximum of 8 trays in the LG-600, *Mechanical	LL-2448	911289-00-02
LL-4848 Mass Splice Tray—Stores (12) mass fusion splices (144 F). Maximum of 8 trays in the LG-600	LL-4848	911437-00-02
LL-2448-48S Single Splice Tray—Stores (48) single fusion splices. Maximum of 8 trays in the LG-600	LL-2448-48S	FA000045
Large Single Grommet Kit with retention hardware (Min 0.44" - Max 1.00")	Large Single Grommet Kit	FC000623
Large Single Grommet Kit (10 pc grommet only) (Min 0.44" - Max 1.00")	Large Single Grommet Kit (10)	91918-00
Large Dual Grommet Expansion Kit—Includes: (2) Dual grommets and hardware (Min 0.40" - Max 0.70" and Min 0.60" - Max 0.90")	Large Dual Grommet Kit	911406-00-00
Large 6 Port Drop Cable Kit—2 Grommets with retention bracket. Allows six cable entries (Min 0.23" - Max 0.48" and flat drop)	Large 6 Port Drop Kit	FC000352
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00

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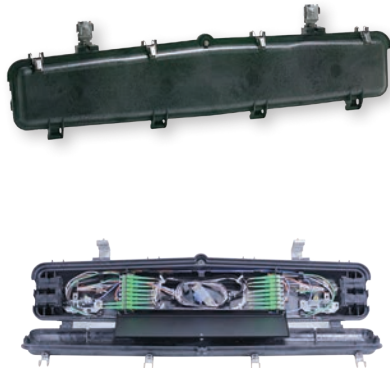
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## LightGuard® 600 Aerial Weathertight Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

DESCRIPTION	MODEL NO.	AFL NO.
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
SC adapter bracket for LG 600—Bulkheads not included (2 brackets per closure max)	Adapter Bracket (6 empty SC) LG-600	FM001212
Retention hardware for additional cables or replacement hardware—LG-400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp -On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory and Splice Tray Specifications.



## LightGuard® 420 FTTx Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 420 FTTx Aerial Weathertight Fiber Optic Splice Closure is designed for taut sheath (no slack) splicing (up to 32 single) in an in-line configuration. Utilized in aerial applications, the LG-420-FTTx is ideal for FTTx access networks by providing access for up to 12 drop cables and 16 connections, requiring only a common can wrench for installation.

### Features

- Four individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 2 multi-drop ports
- 12 drop cables and 16 connections
- Special multi-drop grommet and cable retention
- Special lock-out interior enclosure
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	32, n/a, 12
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	1, n/a, 1
Cable Entrance Configuration	In-line (taut sheath)
Cables	2 to 4 Express with up to 12 Drop
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets	<b>(4) Cable Ports</b> 2 @ 0.38" - 0.82" (7.6 - 20.8) 2 (6 port) @ 0.20" - 0.37" (5.1 - 9.4)
Single in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	
<b>Additional Grommets</b> Dual Grommet in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	Sm: 0.27" to 0.53" - LG: 0.38" to 0.70" (6.9 - 13.5 / 9.5 - 17.8) 0.20" - 0.37" (5.1 - 9.4)
Dimensions—(L x W x D) in. (mm)	36.0" x 8.0" x 4.0" (914.0 x 203.0 x 102.0)
Weight—lbs. (kg)	8.5 (3.81)

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
The AFL LightGuard (LG) 420 FTTx FC000099 Aerial Weathertight Fiber Optic Splice Closures are designed to allow taut sheath (no slack) or conventional splicing in aerial applications such as FTTx access networks. The LG-420 FTTx provides access for 1 to 16 connections and up to 12 subscriber drops and requires only a common can wrench for installation. Not included: Cable Grounding Kits. Includes: Hanger Brackets and Splice Tray.	LG-420-U-FTTx	FC000099
LL-2425 Single Splice Tray—Stores (32) single fusion splices. Maximum of 1 tray in the LG-420-FTTx.	LL-2425	FC000053
Small Single Grommet Kit of (10 pc grommet only) (Min .38" - Max .82")	Small Single Grommet Kit (10)	911496-00-00
Small Dual Grommet Kit—Includes: (2) small dual grommets and hardware (Min .27" - Max .53" and Min .38" - Max .70")	Small Dual Grommet Kit	911386-00-01
Small Dual Grommet Kit (10 pc grommet only) (Min .27" - Max .53" and Min .38" - Max .70")	Small Dual Grommet Kit (10)	911495-00-00
Small 6-Port Drop Cable Kit—2 grommets with tie wrap and foam. Allows six cable entries (Min 0.20" - Max 0.365" and flat drop)	Small 6 Port Drop Kit	FC000644

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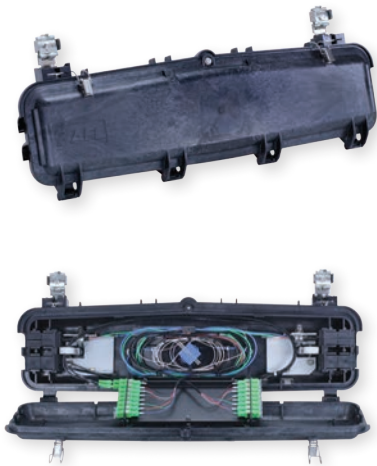
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## LightGuard® 420 FTTx Aerial Weathertight Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

DESCRIPTION	MODEL NO.	AFL NO.
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Retention hardware for additional cables or replacement hardware— LG-400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes.	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory Specifications.



## LightGuard® 500 FTTx Aerial Weathertight Fiber Optic Splice Closures

The LightGuard (LG) 500 FTTx Aerial Weathertight Fiber Optic Splice Closure is designed for small count fiber splicing (up to 32 single or 48 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-500-FTTx is ideal for FTTx access networks by providing cable entry and connectivity for up to 12 drop cables and 16 connections, requiring only a common can wrench for installation.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	32, 48, 12
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	1, 1, 1
Cable Entrance Configuration	Butt or In-line
Cables	2 to 4 Express with up to 12 Drop
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets	<b>(4) Cable Ports</b>
Single in. (mm)	4 @ 0.38" - 0.82" (7.6 - 20.8)
6-Port Multi-Drop Grommet in. (mm)	2 (6 port) @ 0.20" - 0.37" (5.1 - 9.4)
<b>Additional Grommets</b>	
Dual Grommet in. (mm)	Sm: 0.27" to 0.53" - LG: 0.38" to 0.70" (6.9 - 13.5 / 9.5 - 17.8)
6-Port Multi-Drop Grommet in. (mm)	0.20" - 0.37" (5.1 - 9.4)
Dimensions—(L x W x D) in. (mm)	27.0 x 8.3 x 4.0 (686.0 x 210.0 x 100.0)
Weight—lbs. (kg)	10.1 (4.58)

### Features

- Four individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 2 multi-drop ports
- 12 drop cables and 16 connections
- Special multi-drop grommet and cable retention
- Special lock-out interior enclosure
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS)-listed

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-500-FTTx Aerial Weathertight Fiber Optic Splice Closure—Stores 32 single fusion or 48 mass fusion, includes (4) cable kits for sealing/retention and (2) ground terminals with removable bond, (1) splice tray, and hanger brackets. Not included: Cable Grounding Kits	LG-500-FTTx	FC000899
LL-2425 Single Splice Tray—Stores (32) single fusion splices. Maximum of 1 tray in the LG-500-FTTx.	LL-2425	FC000053
Small Single Grommet Kit of (10 pc grommet only) (Min 0.38" - Max 0.82")	Small Single Grommet Kit (10)	911496-00-00
Small Dual Grommet Kit—Includes: (2) small dual grommets and hardware (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit	911386-00-01
Small Dual Grommet Kit (10 pc grommet only) (Min 0.27" - Max 0.53" and Min 0.38" - Max 0.70")	Small Dual Grommet Kit (10)	911495-00-00
Small 6-Port Drop Cable Kit—2 grommets with tie wrap and foam tape. Allows six cable entries (Min 0.20" - Max 0.37" and flat drop)	Small 6 Port Drop Kit	FC000573
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00

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## LightGuard® 500 FTTx Aerial Weathertight Fiber Optic Splice Closures (cont.)

### Ordering Information (cont.)

DESCRIPTION	MODEL NO.	AFL NO.
Retention hardware for additional cables or replacement hardware— LG-400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes.	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp -On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089



## LightGuard® 600 FTTx Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 600 FTTx Aerial Weathertight Fiber Optic Splice Closure is designed for small count fiber splicing (up to 48 single or 48 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-600-FTTx is ideal for express slack look fiber access splicing by providing cable entry and connectivity for up to 24 subscriber drops and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.)—Single, Mass, Mechanical	24, 48, 24
Number of Splice Trays (Max.)—Single, Mass, Mechanical*	2, 2, 2
Cable Entrance Configuration	Butt or In-line
Cable Ports	2 to 4 Express with up to 24 Drops
Cable Sizes (Min. O.D.—Max. O.D.) Included Grommets	<b>(6) Cable Ports</b>
Single in. (mm)	2 @ 0.44" - 1.00" (11.2 - 25.4)
6-Port Multi-Drop Grommet in. (mm)	4 @ 0.30" - 0.48" (7.6 - 17.8)
<b>Additional Grommets</b>	
Dual Grommet in. (mm)	Sm: 0.40" to 0.70" - LG: 0.60" - 0.90" (10.0 - 17.8 / 15.3 - 22.9)
Dimensions—(L x W x D) in. (mm)	27.00" x 11.25" x 7.50" (690.0 x 286.0 x 190.5)
Weight—lbs. (kg)	18.0 (8.16)

### Features

- Six individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 4 multi-drop ports
- Up to 12 adapters using the LG-600 expansion kit and SC 6-pack adapter brackets
- Special multi-drop grommets and cable retention
- Integrated aerial splicing work tray
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Integrated grounding clamp through aerial hangers
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

### Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-600-FTTx Aerial Weathertight Fiber Optic Splice Closure - Stores 24 single fusion or 48 mass fusion, includes (6) cable kits for sealing/retention and (2) ground terminals with removable bond, (2) splice tray, and hanger brackets. Not included: Cable Grounding Kits	LG600-FTTx	FC000291
LL-2450 Single Splice Tray—Stores (12) single fusion splices. Maximum of (2) trays in the LG-600-FTTx.	LL-2450	91957-00
LL-4850 Mass Splice Tray—Stores (8) mass fusion splices (96 F). Maximum of (2) trays in the LG-600-FTTx.	LL-4850	91958-00
LL-1248 Universal Splice Tray—Stores (12) single fusion splices or (8) mass fusion splices (96 F), *Mechanical. Maximum of 2 trays in the LG-600FTTx.	LL-1248	911221-00-00
Large Single Grommet Kit with retention hardware (Min 0.44" - Max 1.00")	Large Single Grommet Kit	FC000623
Large Single Grommet Kit (10 pc grommet only) (Min 0.44" - Max 1.00")	Large Single Grommet Kit (10)	91918-00
Large Dual Grommet Expansion Kit—Includes: (2) Dual grommets and hardware (Min 0.40" - Max 0.70" and Min 0.60" - Max 0.90")	Large Dual Grommet Kit	911406-00-00
Large 6 Port Drop Cable Kit—2 Grommets with retention bracket. Allows six cable entries (Min 0.23" - Max 0.48" and flat drop)	Large 6 Port Drop Kit	FC000352

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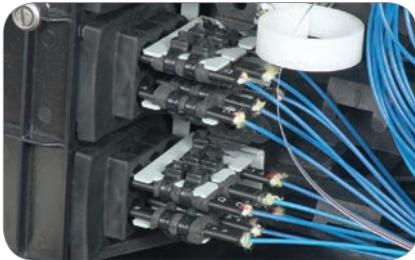


## LightGuard® 600 FTTx Aerial Weathertight Fiber Optic Splice Closure (cont.)

### Ordering Information (cont.)

Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00
Extended Offset Aerial Hanger Kit—LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Retention hardware for additional cables or replacement hardware— LG/400/500/600 (no grommets)	Cable Retention Kit LG-400/500/600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089
LG600 FTTx Expansion Kit—Includes (1) Stacker Module, (1) SC-6-Pack Bracket. Allows use of standard splice trays	LG600 FTTx Expansion Kit	FC000620

\* See Accessory and Splice Tray Specifications.





## LG-600 FTTx/32 Aerial Weathertight Fiber Optic Splice Closure

The LightGuard (LG) 600 FTTx/32 Aerial Weathertight Fiber Optic Splice Closure is designed for small count fiber splicing (up to 96 single or 288 mass) in a butt or in-line configuration. Utilized in aerial applications, the LG-600-FTTx/32 is ideal for accommodating up to 24 drop cables and 32 connections with AFL's slim LGX® 118 adapter plate by placing 16 simplex adapters at each end of the inner security enclosure. In addition, the closure can house 1x4, 1x8, 1x16, or 1x32 PLC splitter combinations and requires only a common can wrench for installation.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	96, 288, 48
Number of Splice Trays (Max.) Single, Mass, Mechanical*	2, 2, 2
Cable Entrance Configuration	Butt or In-line
Cable Ports	2 to 4 Express with up to 24 Drops
Cable Sizes (Min. O.D. - Max. O.D.) Included Grommets	<b>(6) Cable Ports</b> 2 @ 0.44" - 1.00" (11.2 - 25.4) 4 @ 0.30" - 0.48" (7.6 - 17.8) <b>Additional Grommets</b> Dual Grommet in. (mm) 5m: 0.40" to 0.70" - LG: 0.60" - 0.90" (10.0 - 17.8 / 15.3 - 22.9)
Single in. (mm)	
6-Port Multi-Drop Grommet in. (mm)	
Dual Grommet in. (mm)	
Dimensions - (L x W x D) in. (mm)	27.00" x 11.25" x 7.50" (690.0 x 286.0 x 190.5)
Weight - lbs. (kg)	22.2 (10.06)

### Features

- Six individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 4 multi-drop ports
- Up to 24 FTTx drops
- Up to 32 SC adapters with brackets
- Multi-drop grommets and drop retention for FTTx Drops
- Patented tongue-in-groove cover seal system
- Installation and re-entry only require a common can wrench
- Integrated grounding clamps through aerial hangers
- Cable retention clamps provide pullout rating required by Telcordia®
- Engineered thermoplastic meets or exceeds Telcordia® Specifications for Aerial Closures and UV Resistant
- Rural Utilities Service (RUS) Listed

### Ordering Information

DESCRIPTION	MODEL #	PART #
LG-600-FTTx/32 Aerial Weathertight Fiber Optic Splice Closure—Stores 96 single fusion or 288 mass fusion, includes (6) cable kits for sealing/retention and (2) ground terminals with removable bond, splice tray and hanger brackets. Not included: Cable Grounding Kits	LG-600-FTTx/32	FC000806
LL-2450 Single Splice Tray—Stores (12) single fusion splices. Maximum of 2 trays in the LG-600-FTTx/32.	LL-2450	91957-00
LL-4850 Mass Splice Tray—Stores (8) mass fusion splices (96 F). Maximum of 2 trays in the LG-600-FTTx/32.	LL-4850	91958-00
LL-1248 Universal Splice Tray—Stores (12) single fusion splices or (8) mass fusion splices (96 F), *Mechanical. Maximum of 2 trays in the LG-600-FTTx/32.	LL-1248	91121-00-00
Large Single Grommet Kit with retention hardware (Min 0.44" - Max 1.00")	Large Single Grommet Kit	FC000623
Large Single Grommet Kit of (10 pc grommet only) (Min 0.44" - Max 1.00")	Large Single Grommet Kit (10)	91918-00
Large Dual Grommet Expansion Kit—Includes: (2) Dual grommets and hardware (Min 0.40" - Max 0.70" and Min 0.60" - Max 0.90")	Large Dual Grommet Kit	911406-00-00
Large 6 Port Drop Cable Kit 2 Grommets with retention bracket—Allows six cable entries (Min 0.23" - Max 0.48" and flat drop)	Large 6 Port Drop Kit	FC000352
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	Adjustable Hanger LG-400/500/600	911497-00-00

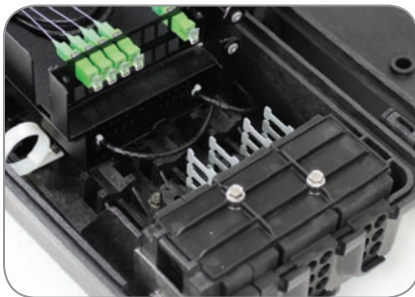
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## LG-600 FTTx/32 Aerial Weathertight Fiber Optic Splice Closure (cont.)

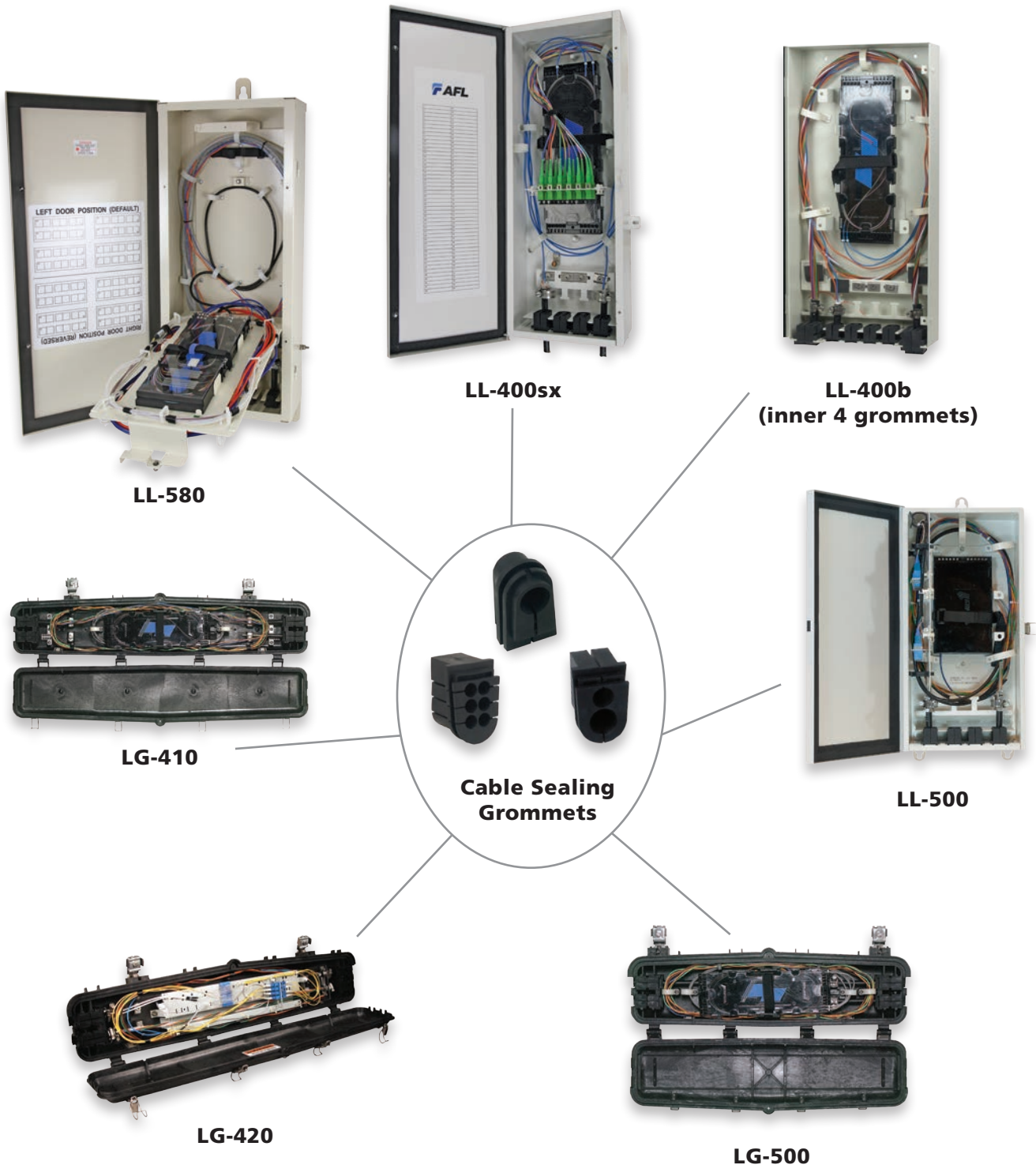
### Ordering Information (cont.)

DESCRIPTION	MODEL #	PART #
Extended Offset Aerial Hanger Kit LG-400/500/600	Offset Hanger LG-400/500/600	91990-00
Slim Adapter Plates with LGX-118 foot print—replacement plates 1 each (Max 4 included in closure)	Slim Adapter Plate LG600-FTTX-32	FC000849
Retention hardware for additional cables or replacement hardware—LG-400/500/600 (no grommets)	Cable Retention Kit LG 400\500\600	FC000356
Closure Extension Kit—Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	Closure Extension Kit LG-400/500/600	911499-00-00
1x6 Fiber Router Kit with furcation tubes.	1x6 Fiber Router	FC000070
Cable Grounding Kit (pack of 5)—Clamp-On Ground Cable Only	CGK-5	FC001091
*Mechanical Splice Kit. Includes 10 pieces of VHB tape. Used in all splice trays. Each piece holds 12 splices.	VHB Tape	FA000089

\* See Accessory and Splice Tray Specifications.



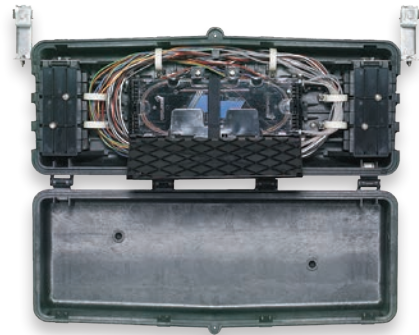
## Interchangeable Grommets for Fiber Optic Splice Closures and Fiber Enclosures



## Interchangeable Large Grommets for Fiber Optic Splice Closures and Fiber Enclosures



**LL-400b  
(outer 2 grommets)**

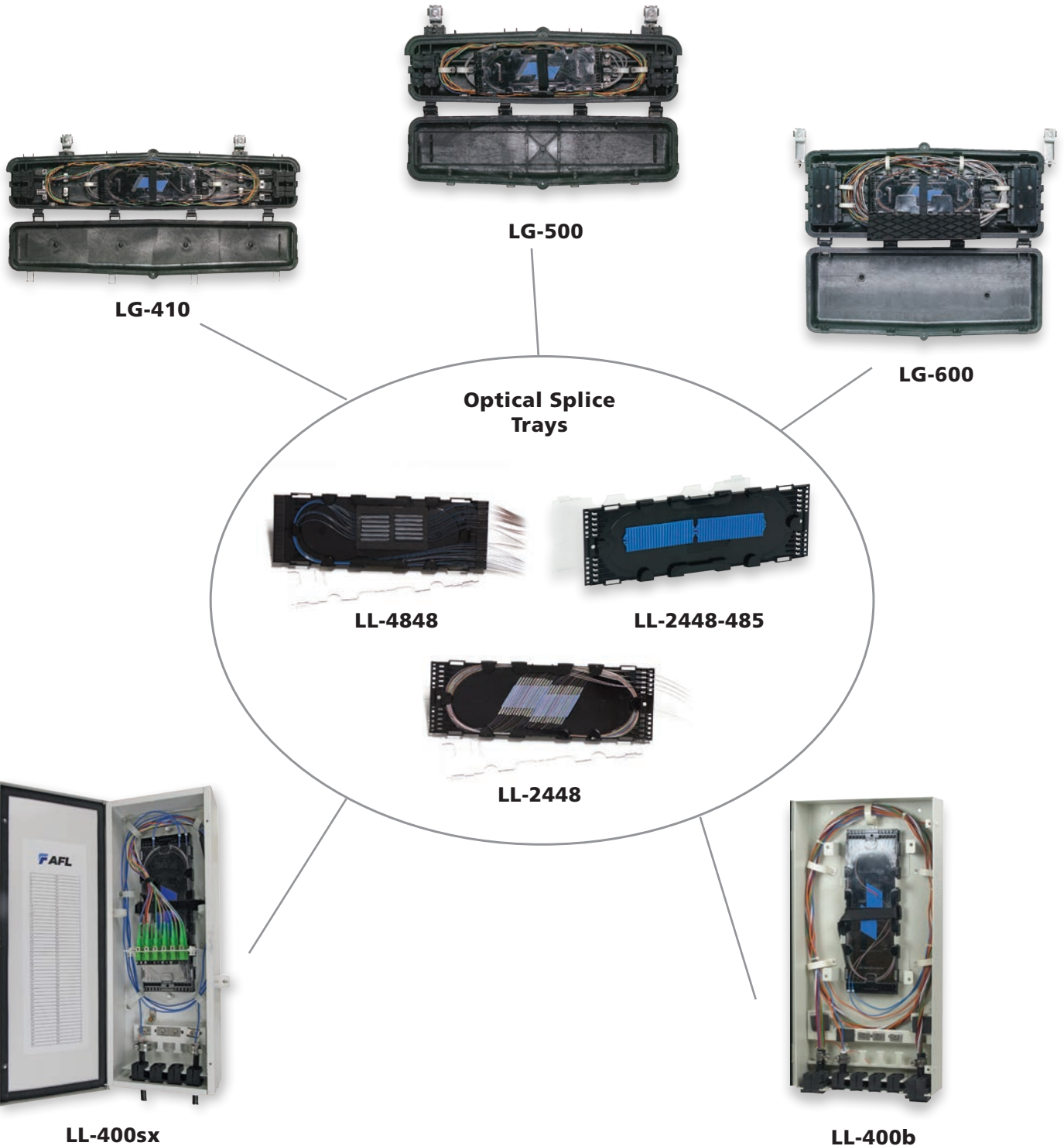


**LG-600**

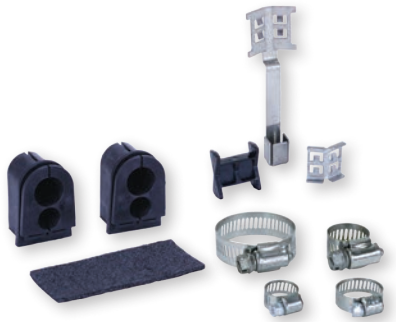




## Interchangeable Splice Trays for Fiber Optic Splice Closures and Fiber Enclosures



## LightGuard® Aerial Splice Closure Accessories



Dual-port Grommet Kit



Multi-port Grommet Kit

### Dual- and Multi-port Grommet Kits for LG-400/LG-500/LG-600

For use with the LG-600 Aerial Weathertight Closure. Remove the single-port grommet set from the closure and replace with the multi-port grommet set when drops are required. Retention hardware included.

#### Ordering Information

DESCRIPTION	AFL NO.
Dual-port Grommet Kit for LG-400/LG-500 Diameter for large port is 0.375" - 0.65"; small port, 0.27" - 0.5"	911386-00-01
Dual Grommet Expansion Kit - Includes: (2) Dual Grommets, (1) CSM retention clamp, cable retention clamp and cable spacer	911406-00-00
Dual Grommet Replacement Kit - Includes: (10) Dual Grommets for the LG-400 Series Closures. Diameter for large port is 0.375" - 0.65"; small port, 0.27" - 0.5"	911495-00-00
Grommet Replacement Kit, Kit - Includes: (10) Standard (single port) Grommets for the LG-400 Series Closures. Diameter from 0.3" - 0.82"	911496-00-00
Grommet Replacement Kit - Includes: (10) LG-600 Grommets Diameter from 0.5" - 1.0"	91918-00
Multi-port Grommet Kit for LG-400/LG-500. Diameter up to 0.365"	FC000573
Multi-port Grommet Kit for LG-600. Diameter from 0.67" to 0.475"	FC000352



### Single-port Grommet Kit for LG-600 FTTx

For use with the LG-600 Aerial Weathertight Closure. Remove the multi-port grommet set from the closure and replace with the single-port grommet set when installing a branch cable. Hardware included.

#### Ordering Information

DESCRIPTION	AFL NO.
Single-port Grommet Kit for LG-600 FTTx	FC000623
Single Cable Entry Grommet Kit LG-600 Hardware	FC000356



### Adjustable Aerial Hanger Brackets

For use with all Aerial Weathertight Closures (LG-410, LG-420, LG-420 FTTx, LG-500, LG-600 and LG-600 FTTx). This pair of hanger brackets is shipped from the factory with all weathertight closures. Purchase separately for closures installed over existing utilities.

#### Ordering Information

DESCRIPTION	AFL NO.
Adjustable Aerial Hanger Brackets	911497-00-00



## LightGuard® Aerial Splice Closure Accessories (cont.)

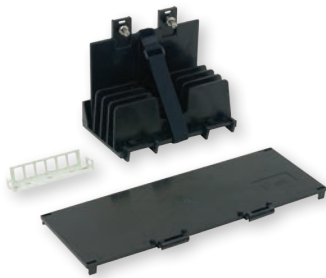


### SC 6-Pack Bracket for LG-600

Installs at each end of the stacker module in the LG-600. Allows up to (12) SC connectors or (24) LC connectors (using duplex connectors) to be installed in the closure. Snaps in place or use self-tapping screws to secure.

#### Ordering Information

DESCRIPTION	AFL NO.
SC 6-Pack Bracket Kit for LG-600	FM001294
SC 6-Pack Adapter Bracket	FM001212



### Expansion Kit for LG-600 FTTx

Expansion kit includes a Stacker Tray Module and one LG-600 SC-6-Pack Bracket to allow for up to six SC connections or 12 LC duplex connections. An additional bracket may be used to increase connectivity to 12 SC or 24 LC connections using duplex adapters. Allows increasing splices with LL-2400, LL-2448 and LL-2448-48S splice trays.

#### Ordering Information

DESCRIPTION	AFL NO.
Expansion Kit for LG-600 FTTx	FC000620

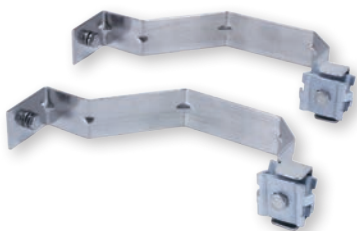


### Cable Grounding Harness

For use with all Aerial Weathertight Closures (LG-410, LG-420, LG-420 FTTx, LG-500, LG-600 and LG-600 FTTx).

#### Ordering Information

DESCRIPTION	AFL NO.
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	FC000024



### Aerial Hanger Kits

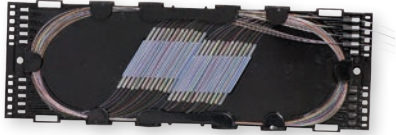
For use with all Aerial Weathertight Closures (LG-410, LG-420, LG-420 FTTx, LG-500, LG-600 and LG-600 FTTx).

#### Ordering Information

DESCRIPTION	AFL NO.
Extended Aerial Hanger Kit	911497-00-00
Extended Offset Aerial Hanger Kit	91990-00

## LightLink Fiber Optic Splice Trays

AFL's LightLink series of Fiber Optic Splice Trays offers a variety of unique and flexible splice and storage possibilities. They are available in industry standard configurations (single, mass).



### Features

- In-line or butt splice capability (see model descriptions)
- Pre-formed radiuses maintain bend requirements
- Interlocking base and cover provides tray stability without the use of a bolt
- Extended finger guides easily store and route loose fiber or ribbon

### Ordering Information—Splice Trays for Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-55-U	LG-150-U	LG-250-U	LG-350-U
Single Fuse: 32 Mass Fuse: N/A 6.300" (L) x 2.730" (W) x 0.829" (H) 	LL-2425	FC000053	<b>Max trays: 1</b> Single: 32 Mass: N/A	N/A	N/A	N/A
Single Fuse: 12 Mass Fuse: N/A 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-2450	91957-00	N/A	<b>Max Trays: 4</b> Single: 48 Mass: N/A	N/A	N/A
Single Fuse: N/A Mass Fuse: 8 (96 fiber) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-4850	91958-00	N/A	<b>Max Trays: 4</b> Single: N/A Mass: 32 (384 fiber)	N/A	N/A
Single Fuse: 12 Mass Fuse: 8 (96 fiber) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-1248	911221-00-00	N/A	<b>Max Trays: 4</b> Single: 48 Mass: 48 (384 fiber)	N/A	N/A
Single Fuse: 24 Mass Fuse: N/A 12.542" (L) x 4.042" (W) x 0.390" (H) 	LL-2400	91710-06	N/A	N/A	<b>Max Trays: 5</b> Single: 120 Mass: N/A	<b>Max Trays: 13</b> Single: 312 Mass: N/A


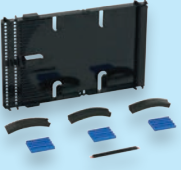

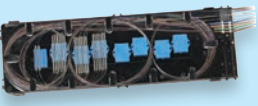
## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information—Splice Trays for Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-250-U	LG-350-U	LG-350-AC	LG-350XL-U
Single Fuse: 60 Mass Fuse: 12 (144 fiber) 12.000" (L) x 5.125" (W) x 0.485" (H) 	LL-7644	FA000044	N/A	<b>Max Trays: 6</b> Single: 360 Mass: 72 (864 fiber)	N/A	N/A
Single Fuse: 24 Mass Fuse: 4 (48 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448	911289-00-02	<b>Max Trays: 3</b> Single: 72 Mass: 12 (144 fiber) Mechanical: 36	<b>Max Trays: 8</b> Single: 192 Mass: 32 (384 fiber) Mechanical: 96	N/A	N/A
Single Fuse: 48 Mass Fuse: N/A 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448-48S	FA000045	<b>Max Trays: 3</b> Single: 144 Mass: N/A	<b>Max Trays: 8</b> Single: 384 Mass: N/A	N/A	N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4848	911437-00-02	<b>Max Trays: 3</b> Single: N/A Mass: 36 (432 fiber)	<b>Max Trays: 8</b> Single: N/A Mass: 96 (1152 fiber)	N/A	N/A
Single Fuse: 96 Mass Fuse: 24 (288 fiber) 15.950" (L) x 4.875" (W) x 0.485" (H) 	LL-4896	911676-00-02	N/A	<b>Max Trays: 5</b> Single: 480 Mass: 120 (1440 fiber)	N/A	<b>Max Trays: 9</b> Single: 864 Mass: 216 (2592 fiber)
Single Fuse: 60 Mass Fuse: N/A 12.000" (L) x 5.125" (W) x 0.485" (H) 	LL-7060	FA000042	N/A	<b>Max Trays: 6</b> Single: 360 Mass: N/A	N/A	N/A

## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information – Splice Trays for LG-350 and LG-350XL-U Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-350-U	LG-350-AC	LG-350XL-U
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.000" (L) x 5.125" (W) x 0.485" (H) 	LL-7144	FA000043	<b>Max Trays: 6</b> Single: 360 Mass: 72 (864 fiber)	N/A	N/A
Single Fuse: 36 Mass Fuse: 12 (144 fiber) 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808L-R	FA000037	N/A	<b>Max Trays: 4</b> Single: 144 Mass: 48 (576 fiber)	N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808 R	FA000020	N/A	<b>Max Trays: 4</b> Single: N/A Mass: 48 (576 fiber)	N/A
Single Fuse: 36 Mass Fuse: N/A 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808 L	FA000021	N/A	<b>Max Trays: 4</b> Single: 144 Mass: N/A	N/A
Single Fuse: N/A Mass Fuse: 24 (288 fiber) 15.950" (L) x 4.875" (W) x 0.485" (H) 	LL-4896 R	FA000022	<b>Max Trays: 5</b> Single: N/A Mass: 120 (1440 fiber)	N/A	<b>Max Trays: 9</b> Single: N/A Mass: 216 (2592 fiber)
Single Fuse: 96 Mass Fuse: N/A 15.950" (L) x 4.875" (W) x 0.485" (H) 	LL-4896 L	FA000023	<b>Max Trays: 5</b> Single: 480 Mass: N/A	N/A	<b>Max Trays: 9</b> Single: 864 Mass: N/A

## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information – Splice Trays for Aerial Weathertight Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-410-U	LG-420-U FTTx	LG-500-U	LG-500-U FTTx
Single Fuse: 24 Mass Fuse: N/A 12.542" (L) x 4.042" (W) x 0.390" (H) 	LL-2400	91710-06	<b>Max Trays: 4</b> Single: 96 Mass: N/A	N/A	<b>Max Trays: 4</b> Single: 96 Mass: N/A	N/A
Single Fuse: 32 Mass Fuse: N/A 6.300" (L) x 2.730" (W) x 0.829" (H) 	LL-2425	FC000053	N/A	<b>Max Trays: 1</b> Single: 32 Mass: N/A	N/A	<b>Max Trays: 1</b> Single: 32 Mass: N/A
Single Fuse: 24 Mass Fuse: 4 (48 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448	911289-00-02	<b>Max Trays: 3</b> Single: 72 Mass: 12 (144 fiber) Mechanical: 36	N/A	<b>Max Trays: 3</b> Single: 72 Mass: 12 (144 fiber) Mechanical: 36	N/A
Single Fuse: 12 Mass Fuse: N/A 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-2450	91957-00	N/A	N/A	N/A	N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4848	911437-00-02	<b>Max Trays: 3</b> Single: N/A Mass: 36 (432 fiber)	N/A	<b>Max Trays: 3</b> Single: N/A Mass: 36 (432 fiber)	N/A
Single Fuse: N/A Mass Fuse: 8 (96 fiber) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-4850	91958-00	N/A	N/A	N/A	N/A
Single Fuse: 12 Mass Fuse: 8 (96 fiber) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-1248	911221-00-00	N/A	N/A	N/A	N/A


## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information – Splice Trays for Aerial Weathertight Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-500-U-FTTx-ISO	LG-600-U	LG-600 FTTx	LG-600-U-FTTx-ISO
Single Fuse: 24 Mass Fuse: N/A 12.542" (L) x 4.042" (W) x 0.390" (H) 	LL-2400	91710-06	N/A	<b>Max Trays: 12</b> Single: 288 Mass: N/A	<b>Max Trays: 2</b> Single: 48 Mass: N/A	N/A
Single Fuse: 32 Mass Fuse: N/A 6.300" (L) x 2.730" (W) x 0.829" (H) 	LL-2425	FC000053	N/A	N/A	N/A	N/A
Single Fuse: 24 Mass Fuse: 4 (48 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448	911289-00-02	N/A	<b>Max Trays: 8</b> Single: 192 Mass: 32 (384 fiber) Mechanical: 12	N/A	N/A
Single Fuse: 12 Mass Fuse: N/A 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-2450	91957-00	<b>Max Trays: 1</b> Single: 12 Mass: N/A	N/A	N/A	<b>Max Trays: 2</b> Single: 24 Mass: N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4848	911437-00-02	N/A	<b>Max Trays: 8</b> Single: N/A Mass: 96 (1152 fiber)	N/A	N/A
Single Fuse: N/A Mass Fuse: 8 (96 fiber) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-4850	91958-00	<b>Max Trays: 1</b> Single: N/A Mass: 8 (96 fiber)	N/A	N/A	<b>Max Trays: 2</b> Single: N/A Mass: 16 (192 fiber)
Single Fuse: 12 Mass Fuse: 8 (96) 7.139" (L) x 4.294" (W) x 0.370" (H) 	LL-1248	911221-00-00	<b>Max Trays: 1</b> Single: 12 Mass: 8 (96 fiber)	N/A	N/A	<b>Max Trays: 2</b> Single: 24 Mass: 16 (192 fiber)

## LightLink Fiber Optic Splice Trays (cont.)

### Ordering information – Splice Trays for Aerial Weathertight Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-410-U	LG-500-U	LG-600-U
Single Fuse: N/A Mass Fuse: 4 (48 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4800	91711-07	<b>Max Trays: 3</b> Single: N/A Mass: 12 (144 fiber)	<b>Max Trays: 3</b> Single: N/A Mass: 12 (144 fiber)	<b>Max Trays: 8</b> Single: N/A Mass: 32 (384 fiber)

### Ordering Information—Splice Trays for Fiber Optic Enclosures

DESCRIPTION	MODEL NO.	AFL NO.	LL-400B WITH INTERCONNECT	LL-400B WITHOUT INTERCONNECT	LL-400SX WITH 2 LGX® PLATES	LL-400SX WITHOUT LGX PLATES
Single Fuse: 24 Mass Fuse: 4 (48 fiber) Mechanical : 12 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448	911289-00-02	<b>Max Trays: 4</b> Single: 96 Mass: 16 (192 fiber) Mechanical: 48	<b>Max Trays: 6</b> Single: 144 Mass: 24 (288 fiber) Mechanical: 72	<b>Max Trays: 3</b> Single: 72 Mass: 12 (144 fiber) Mechanical: 36	<b>Max Trays: 9</b> Single: 216 Mass: 36 (432 fiber) Mechanical: 108
Single Fuse: 48 Mass Fuse: N/A 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-2448-48S	FA000045	<b>Max Trays: 4</b> Single: 192 Mass: N/A	<b>Max Trays: 6</b> Single: 288 Mass: N/A	<b>Max Trays: 3</b> Single: 144 Mass: N/A	<b>Max Trays: 9</b> Single: 432 Mass: N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4848	911437-00-02	<b>Max Trays: 4</b> Single: N/A Mass: 48 (576 fiber)	<b>Max Trays: 6</b> Single: N/A Mass: 72 (864 fiber)	<b>Max Trays: 3</b> Single: N/A Mass: 36 (432 fiber)	<b>Max Trays: 9</b> Single: N/A Mass: 108 (1296 fiber)
Single Fuse: N/A Mass Fuse: 4 (48 fiber) 12.542" (L) x 4.270" (W) x 0.531" (H) 	LL-4800	91711-07	<b>Max Trays: 4</b> Single: N/A Mass: 16 (192 fiber)	<b>Max Trays: 6</b> Single: N/A Mass: 24 (288 fiber)	<b>Max Trays: 3</b> Single: N/A Mass: 12 (144 fiber)	<b>Max Trays: 9</b> Single: N/A Mass: 108 (1296 fiber)






## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information—Splice Trays for Fiber Optic Enclosures

DESCRIPTION	MODEL NO.	AFL NO.	LL-500 WITH 2 LGX PLATES	LL-500 WITHOUT LGX PLATES	LL-580
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 12.000" (L) x 5.125" (W) 0.485" (H) 	LL-7144	FA000043	N/A	N/A	<b>Max Trays: 2</b> Single: N/A Mass: 24 (288 fiber)
Single Fuse: 60 Mass Fuse: 12 (144) 12.000" (L) x 5.125" (W) 0.485" (H) 	LL-7644	FA000044	N/A	N/A	<b>Max Trays: 2</b> Single: 120 Mass: 24 (288 fiber)
Single Fuse: 36 Mass Fuse: N/A 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808 L	FA000021	<b>Max Trays: 3</b> Single: 108 Mass: N/A	<b>Max Trays: 7</b> Single: 252 Mass: N/A	N/A
Single Fuse: N/A Mass Fuse: 12 (144 fiber) 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808 R	FA000020	<b>Max Trays: 3</b> Single: N/A Mass: 36 (432 fiber)	<b>Max Trays: 7</b> Single: N/A Mass: 84 (1008 fiber)	N/A
Single Fuse: 36 Mass Fuse: 12 (144 fiber) 8.125" (L) x 4.875" (W) x 0.485" (H) 	LL-4808L-R	FA000037	<b>Max Trays: 3</b> Single: 108 Mass: 36 (432 fiber)	<b>Max Trays: 7</b> Single: 252 Mass: 84 (1008 fiber)	<b>Max Trays: 2</b> Single: 72 Mass: 24 (288 fiber)

## LightLink Fiber Optic Splice Trays (cont.)

### Ordering Information – Splice Tray for Splicing Cabinets and Shelves

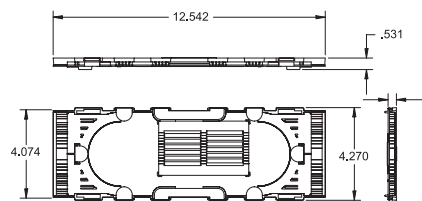
DESCRIPTION		MODEL NO.	AFL NO.
Telescoping Splice Tray - Stores up to 48 single fusion sleeves or 12 mass fusion sleeves (144 fibers). For use in the following products: LL-300, LL-288/576, LL-720/1440, OTSS-SYS1, OSS-SYS2 and OSS-SYS1.		STF-48	911442-00-00
FTTx Splice Tray - Stores up to 2 single fusion sleeves. For use in the following products: ONT-760XL, ONT-3000 and CG-1500		—	DM000445
Bare Fiber Splice Tray - Stores up to 24 single fusion fibers without sleeves. For use in the following products: Any product that accepts the LL-2400 splice tray		—	C184190

### Ordering Information—Splice Tray Accessories

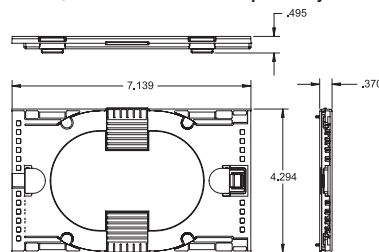
DESCRIPTION	AFL NO.
40 mm Fiber Protection Fusion Splice Sleeves, Telcordia® compliant (50 pcs. per bag)	S000206
60 mm Fiber Protection Fusion Splice Sleeves, Telcordia® compliant (50 pcs. per bag)	S000065
Single Fusion Splice Chip - 6 splices per chip. (10 pcs. per kit)	FA000034
Single Fusion Splice Chip - 12 splices per chip. (10 pcs. per kit)	FC000657
Single Fusion Splice Chip - 24 splices per chip. (10 pcs. per kit)	91745-02
Mass Fusion Splice Chip - 4 splices per chip. (10 pcs. per kit)	FA000088
Mechanical Fusion Splice Tape (10 pcs. per kit)	FA000089
Core Tube Cable Fiber Router for routing fiber up to 8 directions. For all central core tube sizes.	FC000008
Loose Tube or Ribbon Router for routing fiber up to 6 directions. For all Loose Tube and up to 12 fiber Ribbon.	FC000070

### Dimensions

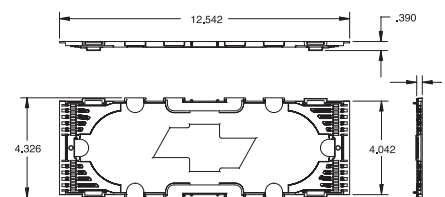
LL-2448 and LL-4848 Splice Trays



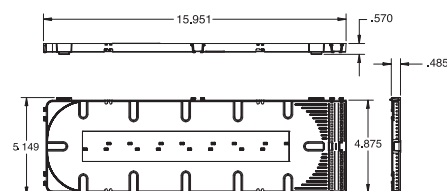
LL-1248, LL-2450 and LL-4850 Splice Trays



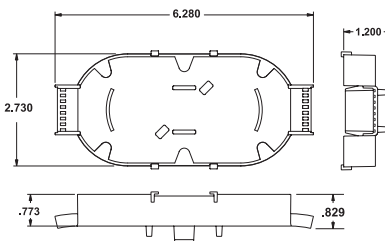
LL-2400 Splice Tray



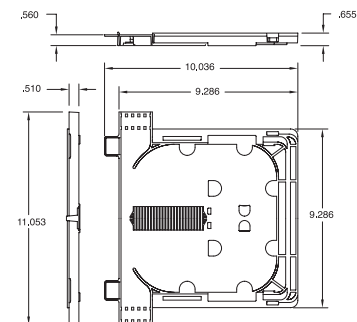
LL-4896 Splice Tray



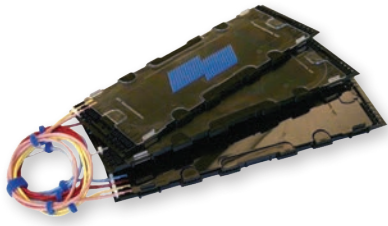
LL-2425 Splice Tray



OEE Splice Tray



Telcordia is a registered trademark of Telcordia Technologies, Inc.



## LightLink Splitter Trays

The LightLink Splitter Trays are a packaged system that include factory-preinstalled PLC splitters and splicing trays which easily fit within AFL's LG Series Closures, LL Series Wall Mount Cabinets and pedestals. These AFL splitter trays feature 1x4, 1x8, 1x16 or 1x32 planar technology with optical characteristics that include low insertion loss, high uniformity, and excellent environmental stability. The products are Telcordia® GR-1209 and GR-1221-CORE compliant ensuring longevity and durability in an Outside Plant application.

### Features

- Tamper-Proof Packaging
- Fits in all AFL enclosures
- No additional trays required
- Color-coded transportation tubing
- Telcordia GR-1209 and 1221-CORE Compliant

The splitter couplers are factory-preinstalled and secured within the AFL splice trays. The trays are tamper-proof to prevent unwanted entry. With the lengthy transition tubing preinstalled, the device fibers are routed into the splice trays (included as part of the package) to help complete installations in a timely manner. No additional trays are required reducing material costs.

### Optical Specifications

PARAMETER	VALUE			
	1 X 4	1 X 8	1 X 16	1 X 32
Wavelength Range	1260 - 1650 nm	1260 - 1650 nm	1260 - 1650 nm	1260 - 1650 nm
Max. Insertion Loss	7.5	10.7	14.0	17.4
Max. Uniformity	1.0	1.0	1.2	1.7
PDL (dB) Max.	0.3	0.3	0.3	0.3
Return Loss	50.0	50.0	50.0	50.0
Operating Temperature (°C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85

*This tray has capacity for up to 24 single fusion splices and are stackable with each other and other similar AFL splice trays.*

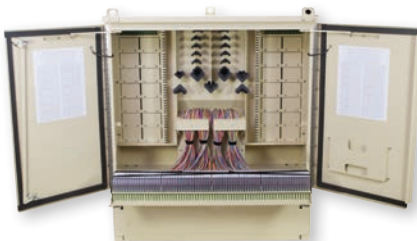
### Ordering Information

DESCRIPTION	AFL NO.	SIZE
LightLink Splitter	CM000799	Tray PKG 1x2
LightLink Splitter	FC000571	Tray PKG 1x4
LightLink Splitter	FC000539	Tray PKG 1x8
LightLink Splitter	FC000538	Tray PKG 1x16
LightLink Splitter	FC000537	Tray PKG 1x32

## IDEAA® (Integrated Distribution Enabling Access Apparatus)



288 Fiber (Closed)



864 Fiber (Open)

### IDEAA Exterior Distribution Cabinet

The IDEAA Exterior Distribution Cabinet (EDC) provides a convenient modular approach to centralized fiber distribution. All sizes of the EDC utilize the IDEAA splitter module to enable versatility across the platform. The EDC utilizes innovative jumper routing to enable efficient fiber management utilizing equal length pigtails for the entire cabinet.

#### Features

- Modular distribution platform allows for incremental deployment costs and immediate cost savings
- Small size is unobtrusive in residential deployments
- Enhanced fiber management provides simplified routing and termination
- Dual-door entry allows easy access to distribution and fiber management fields
- Flexible pad and pole mounting options allow for deployment in convenient locations
- Expandable feeder cables allow for point-to-point distribution (cross-connect)

#### Specifications

THROUGH PORTS	HEIGHT	WIDTH	DEPTH	SPLITTER CAPACITY	INPUT/PASS
Up to 288 Fiber	38"	20"	20"	9	24
432 Fiber	46"	20"	20"	14-15	24 (48 available)
576 and 864 Fiber	48"	42.5"	20"	28	144

#### Ordering Information

DESCRIPTION	AFL NO.
<b>PAD MOUNT WITH SKIRT AND 100 FOOT TAILS</b>	
IDEAA Exterior Distribution Cabinet - 72 Pad, 1 x 144 Fiber (72 Fibers Terminated) Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000307
IDEAA Exterior Distribution Cabinet - 144 Pad, 1 x 144 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000304
IDEAA Exterior Distribution Cabinet - 216 Pad, 1 x 216 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000305
IDEAA Exterior Distribution Cabinet - 288 Pad, 1 x 288 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000301
IDEAA Exterior Distribution Cabinet - 432 Pad, 2 x 216 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000321
IDEAA Exterior Distribution Cabinet - 864 Pad, 2 x 432 Fiber Distribution Cable (Ribbon), 2 x 72 Fiber Input Cable (Ribbon)	EA000765

<b>POLE MOUNT WITH BRACKET AND 100 FOOT TAILS</b>	
IDEAA Exterior Distribution Cabinet - 144 Pole, 1 x 144 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000314
IDEAA Exterior Distribution Cabinet - 288 Pole, 1 x 288 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000302
IDEAA Exterior Distribution Cabinet - 432 Pole, 2 x 216 Fiber Distribution Cable (Loose Tube), 1 x 24 Fiber Input Cable (Loose Tube)	EA000322



## IDEAA®

### Integrated Distribution Enabling Access Apparatus

AFL's Integrated Distribution Enabling Access Apparatus (IDEAA) product family revolutionizes the way passive optical splitters are deployed in the network. Utilizing a small modular design and leveraging planar waveguide technology to yield an ultra low polarization dependent loss, low insertion loss, and high port uniformity, the IDEAA product possesses the flexibility to be used in a wide variety of applications. The IDEAA module provides a lower cost and more versatile alternative to preexisting PON architecture arrangements. Rather than being confined to a traditional "splitter-in-cabinet" design, the IDEAA product family allows service providers to employ PON architecture across all areas of the network.

The IDEAA module's unique design enables customers to utilize a revolutionary stand-alone mounting capability. In addition to conforming to a number of different applications, each IDEAA module can be mounted as an independent distribution point. This unit can be neatly secured to a wall or even placed on an existing rack or cabinet.

### IDEAA SC and LC Modules

The IDEAA SC and LC modules come equipped with an internal PLC device which is factory terminated and tested. An integrated hinge provides easy access to the SC or LC adapter interface while reducing space when mounted. The SC and LC modules use APC connectors to meet the strict back reflection requirements of the latest PON architectures. A wide variety of PLC splitter configurations are available. A dual 1x16 module is available with SC APC outputs and LC APC inputs. Two SC APC to LC APC jumpers are included to connect to the EDC SC APC input ports.

### IDEAA MPO Module

The IDEAA MPO module is also outfitted with PLC technology that is factory terminated and tested. The use of MPO technology allows for mass deployment of PON distribution fibers in Multiple-Dwelling Unit (MDU) applications. Up to three (3) modules can be attached to each other to allow for a maximum deployment of 288 distribution fibers. A wide variety of PLC splitter configurations are available as well.

### Applications

- Direct Wall Mount
- Interior Wall Mount Enclosure / Pedestal
- Exterior Wall Mount Enclosure
- Exterior Distribution Enclosure / Pedestal
- Exterior Distribution Cabinet
- Splice Closure – Sealed
- Rack Mount Bracket

### Features

- SC and LC Module configurations can accommodate up to a 32 fiber distribution
- MPO Module configuration can accommodate up to a 96 fiber distribution
- Modular design allows for highly flexible and scalable deployments
- Durable hardened plastic exterior provides a rugged encasement
- Single and multi-package modules available
- Single-mode fiber compliant to IEC 60793 and ITU-T G.652.D

### Direct Wall Mount Capability

The IDEAA product can easily mount to an interior wall without needing any additional enclosures. Simply use the integrated hinge plate to install the module directly to a wall. The module contains port identification for each output fiber.

### Specifications

PARAMETER	VALUE			
	1 X 4	1 X 8	1 X 16	1 X 32
Wavelength Range (nm)	1280 - 1650			
Typical Insertion Loss (dB)	6.7	9.8	12.9	16.6
Max Insertion Loss (dB)	7.4	10.5	14	17.5
Max IL Uniformity (dB)	1	1	1.5	2
Return Loss (dB)	≥55			
Directivity (dB)	≥55			
Max PDL (dB)	0.3			

### Ordering Information

DESCRIPTION	AFL NO.
IDEAA MODULE, SC, 1X32	EA000102
IDEAA MODULE, SC, LC INPUT, DUAL 1x16	EA000583
IDEAA MODULE, SC, 1X16	EA000103
IDEAA MODULE, SC, 1X8	EA000104
IDEAA MODULE, SC, 1X4	EA000105
IDEAA MODULE, LC, 2X32	EA000547
IDEAA MODULE, MTP, 3X96	EA000101

## IDEAA® (Integrated Distribution Enabling Access Apparatus)



### LL-400sx Optical Splicing/Distribution Enclosure

The LightLink (LL) 400sx Fiber Optic Splicing and Distribution Enclosure provides for organizing, splicing, and interconnecting fibers in FTTx, broadband, distribution and building entrance applications. Each LL-400sx enclosure features a scratch resistant powder coated aluminum base and a fully gasketed cover. A unique self-sizing grommet design allows for express and preterminated cable installation. The LL-400sx is a butt-style enclosure equipped with four independent cable entry/exit grommets, used for outdoor pedestal or indoor building entrance and riser splicing applications. The unit supports a maximum storage and splicing capacity of up to 192 single or 576 mass-fused fibers.

The LL-400sx can also mount up to two LGX118® adapter plates (splicing capacity limited to 144 single fusion and 432 mass fusion splices when adapter plates are installed).

#### Features

- Independent cable strain relief system
- Cable entry/exit grommet seals
- Removable Hinged Front Cover
- Fiber routing system
- Splice tray support system
- 192 single fusion splices
- 576 mass fusion splices
- Grounding hardware kit included
- 1 1x32 IDEAA Module with LGX Mount Bracket

#### Specifications

PARAMETER	VALUE
Material	Chassis – aluminum
Coatings	Electrostatically applied, powder coat
Color	Antique white
Dimensions (H x W x D) in. (cm)	23.9 x 9.5 x 5.0 (58.4 x 24.13 x 12.7)
Weight lbs (kg)	5.0 (2.3)

#### Ordering Information

DESCRIPTION	AFL NO.
LL-400sx	EA000370
LL-4848 Mass Fusion Splice Tray	911437-00-02
LL-2448 Universal Splice Tray	911289-00-02
LL-2448-48S Single Fusion Splice Tray	FA000045
LL-2400 Single Fusion Splice Tray	91710-06
Channel MAH1010 Pedestal	FM000776
Channel MAH1212 Pedestal	FM000655
IDEAA® Module LGX Mount Bracket	EA000061
IDEAA Pigtail Kit	EA000166
IDEAA SC/APC 1x32 Splitter Module	EA000102
IDEAA SC/APC 1x16 Splitter Module	EA000103
IDEAA SC/APC 1x8 Splitter Module	EA000104
IDEAA SC/APC 1x4 Splitter Module	EA000105

#### Applications

- OSP Splicing
- MDU Splicing
- FTTx Distribution



### IDEAA® Rack Mount Bracket

The IDEAA RMB allows attachment of one (1) IDEAA module to easily mount to industry standard LGX® 118 fiber management rack panels. Simple push-pull pins allow the module to be easily installed and removed.

#### Features

- Metal plate with push/pull pins
- Powder coated black
- LGX compatible

#### Capacity

IDEAA MODULE	1RU PANEL	2RU PANEL	3RU PANEL	4RU PANEL
# of 118 Positions	3	6	9	12
1x32 SC	N/A	N/A	3	4
1x16 SC	N/A	3	3	6
1x8 and 1x4 SC	3	6	9	12
3x96 MPO	3	6	9	12

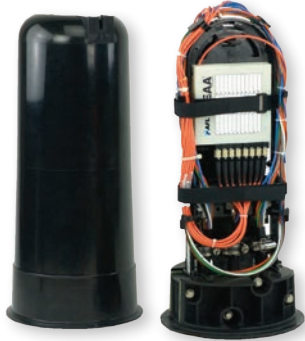
#### Ordering Information

DESCRIPTION	AFL NO.
Rack-mount Panel LGX®118 Bracket for SC/APC IDEAA Module	EA000654
Rack-mount Panel LGX®118 Bracket for MPO IDEAA Module	EA000655

LGX® is a registered trademark of Furukawa Electric North America, Inc.



## IDEAA® (Integrated Distribution Enabling Access Apparatus)



### Features

- Less than 20" overall length; ideal for small hand-holes
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices
- Fully kitted with all parts necessary for installation

### IDEAA® Splice Closure—Sealed

The IDEAA SCS is designed to mount either in buried or aerial applications. The splice closure comes equipped to install one (1) IDEAA module along with a tray to splice all input and output fiber cables. The splice closure is designed to handle multiple fiber cables.

### Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – single	36
Number of Splice Trays (Max.) – single	1
Cable Entrance Configuration	Butt
Cable Ports	5 Ports (14 cables total using flat-drop grommets)
Cable Sizes (O.D.)	Express Side – 2 (0.4"–1.0") Drop Side – 12 (0.31" flat-drop or 0.25" round)
Dimensions (L x D) – inches (cm)	19.8" x 10.0" (50.3 x 25.4)
Weight - lbs. (kg)	12 (5.44)

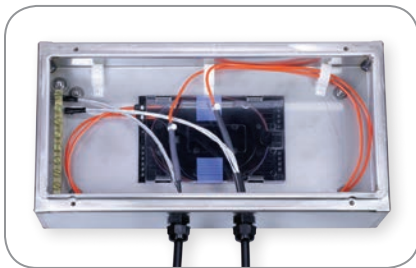
### Ordering Information

DESCRIPTION	AFL NO.
IDEAA SPLICE CLOSURE	EA000076
IDEAA Splice Closure Pigtail Kit	EA000168





LL-320 exterior



Interior with armored cables installed



1/2" water-tight cable ports

## LightLink 320 Optical Splicing and Distribution Enclosure

The LightLink LL-320 Optic Splicing and Distribution Enclosure provides for organizing, splicing, and interconnecting fibers in broadband, distribution, security, sensing, and building entrance applications. The enclosure features a stainless steel welded construction and a fully gasketed cover. Two 1/2" CableGrip or Myer's™ Hub fittings securely seal cables entering the enclosure and allows for express and pre-terminated cable installation. The LL-320 contains one LL-2450 splice trays for up to 12 single fusion splices. Additional LL-2450 trays can be added.

### Features

- All Stainless Steel Construction
- CableGrip Port Fittings for Water-Tight Cable Seal
- Routing Rings for Fiber Management
- NEMA 4 Rated (IP66)
- 8 Position Compression Type Ground Bar

### Specifications

PARAMETER	VALUE
Dimensions – (L x W X D) in. (cm)	16" x 8" x 5" (40.6 x 19.6 x 12.7)
Material	316 Stainless Steel

### Standard Configurations

MODEL NO.	AFL NO.
LL-320	FM002867
LL-320-SS with 1/2" CableGrip water-tight fittings	FM002867
LL-320-SS-CH1 for Crouse-Hinds ST1 fitting, 1/2"	FM002971
LL-320-SS-CH2 for Crouse-Hinds ST2 fitting, 3/4"	FM002972
LL-320-SS-CH3 for Crouse-Hinds ST3 fitting, 1"	FM002962
LL-2450 Splice Tray	91957-00

**NOTE:** ST# Fittings are not supplied with enclosure.



LL-400b shown with optional interconnect module



Hardware kit for external grounding (included)

## LightLink 400b Optical Splicing and Distribution Enclosure

The LightLink (LL) 400b Fiber Optic Splicing and Distribution Enclosure provides for organizing, splicing and interconnecting fibers in FTTx, broadband, distribution and building entrance applications. Each LL-400b enclosure features a scratch resistant powder coated aluminum base and a fully gasketed cover. A unique self-sizing grommet design allows for express and preterminated cable installation. The LL-400b is a butt-style enclosure equipped with 6 independent cable entry/exit grommets, used for outdoor pedestal or indoor building entrance and riser splicing applications. The unit supports a maximum storage and splicing capacity of up to 240 single or 432 mass-fused fibers.

When installed into an LL-400b, the Inteconnect Module supports connectivity when used with LGX-118 adapter plates (purchased separately). It is used in outdoor pedestals or building mounted LL-400b enclosures where interconnection is required.

### Features

- Independent cable strain relief system
- Cable entry/exit grommet seals
- Fiber routing system
- Splice tray support system
- Supports optional interconnect modules
- 240 single fusion splices
- 432 mass fusion splices
- Grounding hardware kit included
- UL® Listed

### Applications

- OSP Splicing
- MDU Splicing
- FTTx Distribution

### Specifications

PARAMETER	VALUE
Material	Chassis – aluminum
Coatings	Electrostatically applied, powder coat
Color	Antique white
Dimensions (H x W x D) in. (cm)	22.75 x 11.00 x 4.0 (57.79 x 27.94 x 10.16)
Weight lbs (kg)	6.5 (2.95)

### Ordering Information

DESCRIPTION	AFL NO.
LL-400b	91894-04
LL-400b In 1212 Pedestal	FM000636
LL-410 Interconnect Module, Supports Up To 2 LGX-118 Adapter Plates	911410-00-04
LL-2448 Universal Splice Tray	911289-00-02
LL-2448-48S Single Fusion Splice Tray	FA000045
LL-2400 Single Fusion Splice Tray	91710-06
LL-400 Security Kit	FM000787
LL-400b Large Dual-port Grommet Kit	911406-00-00
LL-400b Large Multi-port Grommet Kit	FC000352
LG-410/LG-500 Dual-port Grommet Kit	911386-00-01
LG410/LG500 Multi-port Grommet Kit	FC000573



LL-400sx



LL-400sx in 1010 pedestal

## LightLink 400sx Optical Splicing and Distribution Enclosure

The LightLink (LL) 400sx Fiber Optic Splicing and Distribution Enclosure provides for organizing, splicing, and interconnecting fibers in FTTx, broadband, distribution and building entrance applications. Each LL-400sx enclosure features a scratch resistant powder coated aluminum base and a fully gasketed cover. A unique self-sizing grommet design allows for express and preterminated cable installation. The LL-400sx is a butt-style enclosure equipped with four independent cable entry/exit grommets, used for outdoor pedestal or indoor building entrance and riser splicing applications. The unit supports a maximum storage and splicing capacity of up to 192 single or 576 mass-fused fibers. The LL-400sx can also mount up to two LGX118® adapter plates (splicing capacity limited to 144 single fusion and 432 mass fusion splices when adapter plates are installed).

### Features

- Independent cable strain relief system
- Cable entry/exit grommet seals
- Removable Hinged Front Cover
- Fiber routing system
- Splice tray support system
- 192 single fusion splices
- 576 mass fusion splices
- Grounding hardware kit included

### Applications

- OSP Splicing
- MDU Splicing
- FTTx Distribution

### Specifications

PARAMETER	VALUE
Material	Chassis – aluminum
Coatings	Electrostatically applied, powder coat
Color	Antique white
Dimensions (H x W x D) in. (cm)	23.9 x 9.5 x 5.0 (58.4 x 24.13 x 12.7)
Weight lbs (kg)	5.0 (2.3)

### Ordering Information

DESCRIPTION	AFL NO.
LL-400sx	EA000370
LL-4848 Mass Fusion Splice Tray	911437-00-02
LL-2448 Universal Splice Tray	911289-00-02
LL-2448-48S Single Fusion Splice Tray	FA000045
LL-2400 Single Fusion Splice Tray	91710-06
Channel MAH1010 Pedestal	FM000776
Channel MAH1212 Pedestal	FM000655
IDEAA® Module LGX Mount Bracket	EA000061
IDEAA Pigtail Kit	EA000166
IDEAA SC/APC 1x32 Splitter Module	EA000102
IDEAA SC/APC 1x16 Splitter Module	EA000103
IDEAA SC/APC 1x8 Splitter Module	EA000104
IDEAA SC/APC 1x4 Splitter Module	EA000105



LL-500 with interconnect kit installed



LL-500 with LL-2450 splice tray installed

## LightLink 500 Optical Splicing and Distribution Enclosure

The LightLink (LL) 500 Optic Splicing and Distribution Enclosure provides for organizing, splicing and interconnecting fibers in broadband, distribution and building entrance applications. The enclosure features a scratch and corrosion resistant powder paint coating base and a fully gasketed hinged cover. A unique self-sizing grommet design allows for express and pre-terminated cable installation. The LL-500 supports up to five LL-2450 splice trays for up to 60 single fusion splices or three LL-4850 splice trays (not included in base unit) and an optional 12 fiber, hinged Interconnect Module.

### Features

- NEMA 3 rated enclosure
- Independent cable strain relief system
- Cable entry/exit grommet seals
- Fiber routing system
- Splice tray support system
- Hinged cover
- Supports optional Interconnect Modules
- Interconnect Module supports up to 12 SC bulkhead adapters
- Secured with a standard padlock
- 4 cable ports with standard grommets
- 8 cable ports with optional expansion kits

### Specifications

PARAMETER	VALUE
Material	Steel
Coatings	Electrostatically applied, powder coat
Color	Antique white
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.77"  Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"
Dimensions (H x W x D) in. (cm)	17.5 x 9.0 x 4.0 (44.45 x 22.86 x 10.16)
Weight lbs. (kg)	6.5 (2.95)

### Ordering Information

DESCRIPTION	AFL NO.
LL-500-U-0	FM000326
LL-500 Interconnect Kit with SC UPC adapters	FM000385
LL-500 Interconnect Kit with SC APC adapters	FM000407
LL-500 Interconnect Kit without adapters	FM000408
LL-500 with Multi-port Grommets	FM000659
LL-2450 Single Fusion Splice Tray (stores 12 single fusion splices)	91957-00
LL-4850 Mass Fusion Splice Tray (stores 8 mass fusion sleeves - 96 fibers)	91958-00
LL-500 Multi-port Grommet Kit, 6 drop cable entry up to 0.37" OD	FC000573



## LightLink 580 Optical Splicing and Distribution Enclosure

The LightLink (LL) 580 Optical Splicing and Distribution Enclosure provides for organizing, splicing and interconnecting fibers in broadband, distribution and building entrance applications. The splice tray panel is equipped with LGX® 118 footprint snaps so various types of connectors may be installed. The enclosure features a scratch resistant powder coated base and a fully gasketed hinged cover. The cover was designed so that it may be installed on either side of the enclosure where there are space restrictions. The internal interconnect tray and back-plate may be removed from the enclosure and brought to a splicing table to complete splicing, fiber routing and fiber management. The cable entry base has four interchangeable configurations to allow the installation of cable through a grommet system, or through pre-installed conduit couplings.

### Features

#### Enclosure:

- Tested to meet to Telcordia® GR-2898
- NEMA 3 rated
- Independent cable strain-relief for flat drop cable and 2 mm / 3 mm drops
- Unique self-sealing grommet system
- Self-contained inner chassis frame with separate outer housing
- Dual telco can-wrench locking fasteners
- Hinged cover securable with standard padlock
- Internal, owner-accessible security screw
- Available with a variety of connector types and cable entrance choices

#### Interconnect Splice Tray Kit:

- Included: (2) Factory Pre-installed LL-7644 Universal Splice Tray with SC-UPC 900 µm pigtailed for up to 72 connections. LC-UPC Duplex adapters may be installed for up to 144 LC connections with mass fusion.
- Interconnect Tray may be purchased with either SCUPC adapters and pigtailed pre-installed or LC-UPC Duplex adapters and pigtailed pre-installed.

### Specifications

PARAMETER	VALUE
Material – Housing	16 Gauge Aluminum
Coating	Electrostatically applied powder paint
Color	Beige
Size (H x W x D in.)	27.5" x 13.0" x 5.625" (total length: 33.5" L x 13")
Weight (lbs)	15.2
Adapters	(72) SC or (72) LC Duplex
Splice	(2) LL-7644 up to 120 single fused fibers or 24 mass fusion sleeves (2) LL-4808 L-R up to 72 single fused fibers or 24 mass fusion sleeves

### Ordering Information

DESCRIPTION	AFL NO.
LL-580 Enclosure Base (No Bottom Plate or LGX® Tray)	FM002814
<b>Interconnect Trays</b>	
Kit, Splice/4x LGX® Interconnect Tray, with (2) LL-7644 Trays	FM002858-001
Kit, Splice/4x LGX® Interconnect Tray, 24 SCU, with (2) LL-7644 Trays	FM002858-SCU
Kit, Splice/4x LGX® Interconnect Tray, 24 SCA, with (2) LL-7644 Trays	FM002858-SCA
Kit, Splice/4x LGX® Interconnect Tray, 24 LCU, with (2) LL-7644 Trays	FM002858-LCU
<b>Splice Trays</b>	
LL-7644 Splice Tray used with LGX® Interconnect Tray	FA000044
LL-4808 L-R Splice Tray used with LGX® Interconnect Tray	FA000037
<b>Plate Kits</b>	
Plate Kit (2 – 2 in. NPT and 2 – 1 in. KO)	FM002653
Plate Kit (2 – Single Cable Grommets [L&R] and 2 – Multiport Grommets [Center])	FM001937
Plate Kit (2 – Single Cable Grommets [L&R])	FM003014
Plate Kit (1 – 2 in. NPT and 4 – 1 in. NPT)	FM001959
Plate Kit (3 – KO)	FM003023
<b>Grommet and NPT Kits</b>	
1 in. NPT Kit (2 – 1 in NPT Fittings and cable hardware to be used with FM002653)	FM003015
2 in. NPT Kit (2 – 2 in NPT Fittings and cable hardware to be used with FM003023)	FM003016
Dual Cable Grommet Kit (2/kit)	911386-00-01
<b>Accessories</b>	
Conduit Skirt	FM002895

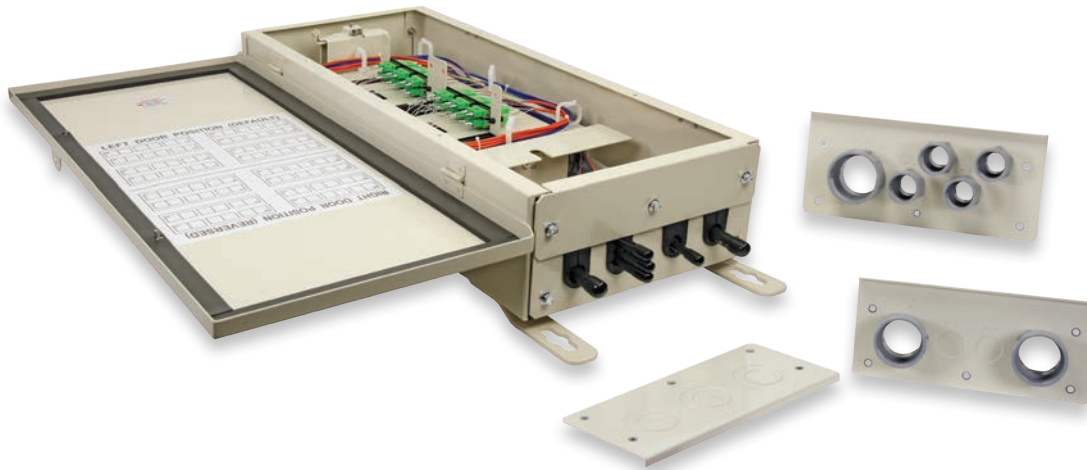
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# LightLink 580 Optical Splicing and Distribution Enclosure

## Ordering Information—Pre-configured Base Enclosures

DESCRIPTION	AFL NO.
Base Enclosures and Interconnect Tray	
LL-580, 24F SC/UPC Interconnect Kit, 24F SC/UPC Pigtail Kit, (2) LL-7644 Splice Trays, No Bottom Plate	FM003248
LL-580, 48F SC/UPC Interconnect Kit, 48F SC/UPC Pigtail Kit, (2) LL-7644 Splice Trays, No Bottom Plate	FM003249
LL-580, 72F SC/UPC Interconnect Kit, 72F SC/UPC Pigtail Kit, (2) LL-7644 Splice Trays, No Bottom Plate	FM003250
LL-580, Interconnect Kit, No Adapter Plates, No Pigtail Kit, (2) LL-7644 Splice Trays, No Bottom Plate	FM003251



LL-580 Enclosure shown with the Cable Grommet Bottom Plate installed. Other changable plates include (from top right): Cable NPT Bottom Plate with one 2" and four 1" fittings, Cable NPT Bottom Plate with two 2" fittings, and the Blank Bottom Plate. (NOTE: the Blank Bottom Plate and the Cable NPT Bottom Plate with two 2" fittings can be used in the top and/or bottom position.)



## LightLink 24 Slim-Line Pedestal

The LightLink (LL) 24 Pedestal provides a low cost solution for splicing underground fiber cable, branches and drops. The pedestal may be buried up to the burying guide lines located on the pedestal base.

It is designed to allow for splicing single fusion fibers from 24 to 144 splices with use of LL-2448 or 288 MF by adding additional splice trays as required to meet maximum splice capacity. One side of the pedestal may be used for splicing optical fibers while the opposite side may be used for copper splicing of branch or drop cables.

### Features

- Easily installed in traditional buried pedestal applications
- All cable routing, retention, mounting and grounding accessories included
- One (1) LL-24 splice tray included with the pedestal for up to 24 splices
- Fiber routing rings allow for easy storage and maintenance of the buffer tubes and using tie-wraps, copper pairs may be secured to the mounting plate
- Defer deployment cost – open buffer tubes when access to fibers is required
- Standard 216-tool or similar tool required to remove the dome

### Applications

- FTTx Networks
- Local Area Networks
- Outside Plant Requirements

### Ordering Information

DESCRIPTION	AFL NO.
LL-24 Pedestal	FE000086
LL-2448-48S Single Fused Fiber Optic Splice Tray (48 sf)	FA000045
LL-2400 Single Fused Fiber Optic Splice Tray (24 sf)	91710-06
LL-4848 MASS Fusion Tray	911437-00-02
LL-24-FTTx Slim FTTx to Device Pedestal: with 1x4 Splitter	FE000206
with 1x8 Splitter	FE000207



## OptiNID® 300 Series Optical Demarcation Slack Storage Closure

The OptiNID (OPN) 300 series are optical demarcation closures designed for use in either indoor or outdoor environments. Smaller to suit FTTH demarcation applications and versatile to suit Cat5 or coax connections, the OPN-327SS and the OPN-350SS are equipped to handle up to two adapters each. Configured with routing rings positioned to accommodate safe slack storage, the OPN-300 series closures can be either wall or pole-mounted for ease of use and accessibility.



OPN-327SS



OPN-350SS

### Features

- Weather-resistant thermoplastic alloy
- Self-latching, hinged cover design allows easy access without loose parts
- Routing rings positioned for safe slack storage
- Capacity for up to two adapters
- Ground stud provided in the OPN-350SS

### Specifications

PARAMETER	VALUES
Dielectric Strength	Minimum 2500 Vrms for 1 minute
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling with Humidity °F (°C)	150 day cycling from 40-140 (4.44-60) with 95% RH
Impact Test °F (°C)	-40 (-40), 5 ft/lbs on all external surfaces
Drop Test °F (°C)	-40 (-40), 5 ft onto concrete surface four times
Rain	24 hours at 10 psi
UV Resistance (Days Exposed)	60 per ASTM-G26-84
Salt Fog (Days Exposed)	60 per ASTM-BLL7-90
Flammability	UL94-5V
Chemical Resistance 30 Days at 100°F and 95% RH	Resists chipping and/or cracking when subject to house paint, wasp spray, sulfuric acid, kerosene and sodium hydroxide
Material	UL® listed flame retardant thermoplastic alloy
Dimensions (H x W x D) in. (cm)	6.3 x 7.8 x 2.0 (15.7 x 19.7 x 5.0)
Cable Entrance in. (cm) diameter - Input	1 x 3/4" NPT (1.130"), 2 x 1/2" NPT (0.875")
Covers	Standard, molded-in snap finger and "F" termination

### Ordering Information

DESCRIPTION	AFL NO.
<b>BASE PRODUCT</b> <sup>1,2</sup>	
OptiNID OPN-327SS Slack Storage Box, 1 x SC/APC Adapter	DM000720
OptiNID OPN-350SS Slack Storage Box, 1 x SC/APC Adapter, Splice Chip, Ground Stud	DM000795
<b>ACCESSORIES</b> <sup>3</sup>	
Heyco M3234 Compression Fitting, 18 mm to 11 mm Grip (includes 4) – Left Port Only	DM001171

#### Notes:

1. All standard OPN-300 Series configurations come equipped with a 3/4" NPT fitting, rubber grommet and Heyco M4519 compression fitting.
2. Contact AFL customer service for additional configurations.
3. See OptiNID Accessory Page for additional kits.

## OptiNID® 500 Optical Demarcation Closure

The OptiNID (OPN) 500 is an optical demarcation closure designed for use in either indoor or outdoor environments. Small form factor for FTTH demarcation applications, the closure is capable of housing up to six bulkhead adapters in one 118 LGX® compatible adapter plate, and is equipped with an integrated splice tray, which holds up to six single fusion splices. The OPN-500 can be either wall or pole-mounted.



### Features

- Weather-resistant thermoplastic alloy
- Self-latching, hinged cover design allows easy access without loose parts
- Capacity for one 118 LGX compatible adapter plate
- Provider override for customer lock
- 3/4" NPT conduit fitting, compression cable fittings or grommets entry ports

### Specifications

PARAMETER	VALUES
Dielectric Strength	Minimum 2500 Vrms for 1 minute
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling with Humidity °F (°C)	150 day cycling from 40-140 (4.44-60) with 95% RH
Impact Test °F (°C)	-40 (-40), 5 ft/lbs on all external surfaces
Drop Test °F (°C)	-40 (-40), 5 ft onto concrete surface four times
Rain	24 hours at 10 psi
UV Resistance (Days Exposed)	60 per ASTM-G26-84
Salt Fog (Days Exposed)	60 per ASTM-BLL7-90
Flammability	UL94-5V
Chemical Resistance 30 Days at 100°F and 95% RH	Resists chipping and/or cracking when subject to house paint, wasp spray, sulfuric acid, kerosene and sodium hydroxide
Material	UL® listed flame retardant thermoplastic alloy
Dimensions (H x W x D) in. (cm)	6.3 x 7.8 x 2.0 (15.7 x 19.7 x 5.0)
Cable Entrance in. (cm) diameter - Input	1 x 3/4" NPT (1.130"), 2 x 1/2" NPT (0.875")
Covers	Standard, molded-in snap finger and "F" termination



### Ordering Information

DESCRIPTION	AFL NO.
<b>BASE PRODUCT</b> <sup>1,2</sup>	
OptiNID OPN-500, No Adapters	DM001021
OptiNID OPN-500, 1 x SC/UPC Adapter	DM000550
OptiNID OPN-500, 1 x SC/APC Adapter	DM000766
OptiNID OPN-500, 6 x SC/UPC Adapters	DM000871
OptiNID OPN-500, 6 x SC/UPC Adapters, 6 x 1 m 900 µm Pigtailed	DM001109
<b>ACCESSORIES</b> <sup>3</sup>	
Heyco M3234 Compression Fitting, 18 mm to 11 mm Grip (includes 4) – Left Port Only	DM001171
Kit, Six-Position Splice Chip, (includes 10)	DM000870

### Notes:

1. All standard OPN-500 configurations come equipped with a 3/4" NPT fitting, rubber grommet and Heyco 3231 compression fitting, along with a splice chip for six single fusion splices.
2. Contact AFL customer service for additional configurations.
3. See OptiNID Accessory Page for additional kits.

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## OptiNID® 760XL Optical Demarcation Closure

The OptiNID (OPN) 760XL is an optical demarcation closure designed for use in either indoor or outdoor environments. It is capable of housing up to 24 bulkhead adapters in two 118 LGX® compatible adapter plates and is equipped with a splice tray (LL-2425), which holds up to 32 single fusion splices. The OPN-760XL can be either wall or pole-mounted.

### Features

- Capacity for up to two 118 LGX compatible adapter plates
- Rugged weather-resistant thermoplastic alloy
- Self-latching, hinged cover design allows easy access without loose parts
- Slip-in grommets allow pre-connectorized cable deployment
- Provider override is provided so that technician can override customer lock
- Security cover option available

### Specifications

PARAMETER	VALUES
Dielectric Strength	Minimum 2500 Vrms for 1 minute
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling with Humidity °F (°C)	150 day cycling from 40-140 (4.44-60) with 95% RH
Impact Test °F (°C)	-40 (-40), 5*/lbs on all external surfaces
Drop Test °F (°C)	-40 (-40), 5* (12.7 cm) onto concrete surface 4 times
Rain	24 hours at 10 psi
UV Resistance (Days Exposed)	60 per ASTM-G26-84
Salt Fog (Days Exposed)	60 per ASTM-BLL7-90
Flammability	UL94-5V
Chemical Resistance 30 Days at 100 °F and 95% RH Subject to:	Resists chipping and/or cracking when subject to: house paint, wasp spray, sulfuric acid, kerosene and sodium hydroxide
Material	UL® listed flame retardant thermoplastic alloy
Dimensions (H x W x D) in. (cm)	13 x 13 x 3.75 (32.5 x 32.5 x 9.5)
Cable Entrances in. (cm) diameter—Input	4 x 0.875 (2.2)—3/4" conduit
Covers	Standard – molded-in snap finger and 3/8" hex head fastener



OPN-760XL with optional security cover kit



OPN-760XL with 3/4" Pipe Fitting Transition Kit



3/4" Pipe Fitting Transition Kit

### Ordering Information

DESCRIPTION	AFL NO.
<b>BASE PRODUCT</b> <sup>1,2</sup>	
OptiNID OPN-760XL, No Adapters, No Security Cover	DM001000
OptiNID OPN-760XL, No Adapters, Security Cover	DM001022
<b>ACCESSORIES</b> <sup>3</sup>	
3/4" Pipe Fitting Transition Kit (includes 2)	DM001174
OPN-760XL Security Cover Kit	DM000923
OPN-760XL Pole Mounting Kit	DM000927

#### Notes:

1. All standard OPN-760XL configurations come equipped with four slip-in rubber grommets and a splice tray equipped for 32 single fusion splices.
2. Contact AFL customer service for additional configurations.
3. See OptiNID Accessory Page for additional kits.

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## OptiNID® 1224 Optical Demarcation Closure

The OptiNID-1224 is an optical demarcation closure designed for use in either indoor or outdoor environments. It is capable of housing up to 36 bulkhead adapters in three 118 LGX® compatible adapter plates and comes equipped with a splice tray (LL-2425), which holds up to 32 single fusion splices. The OPN-1224 can be either wall or pole-mounted.

### Features

- Capacity for up to three 118 LGX compatible adapter plates
- Weather-resistant thermoplastic alloy
- Self-latching, hinged cover design allows easy access without loose parts
- Self-sealing individual entrance ports prevent water and insects from entering
- Provider override is provided so that technician can override customer lock

### Specifications

PARAMETER	VALUES
Dielectric Strength	Minimum 2500 Vrms for 1 minute
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling with Humidity °F (°C)	150 day cycling from 40-140 (4.44-60) with 95% RH
Impact Test °F (°C)	-40 (-40), 5*/lbs on all external surfaces
Drop Test °F (°C)	-40 (-40), 5* (12.7 cm) onto concrete surface 4 times
Rain	24 hours at 10 psi
UV Resistance (Days Exposed)	60 per ASTM-G26-84
Salt Fog (Days Exposed)	60 per ASTM-BLL7-90
Flammability	UL94-5V
Chemical Resistance 30 Days at 100°F and 95% RH	Resists chipping and/or cracking when subject to: house paint, wasp spray, sulfuric acid, kerosene and sodium hydroxide
Material	UL® listed flame retardant thermoplastic alloy
Dimensions (H x W x D) in. (cm)	12.25 x 12 x 5.25 (22.80 x 22.80 x 7.60)
Cable Entrances in. (cm) diameter - Output	5 x 0.625 (1.5)
Cable Entrances in. (cm) diameter - Input	2 x 0.75 (1.5), 1 x 0.250 (0.6) (ground wire)
Covers	Standard - molded-in snap finger and "F" termination

### Ordering Information

DESCRIPTION	AFL NO.
OptiNID OPN-1224, Splice Tray, No Adapter Plate Or Adapters	DM000183

## OptiNID® Optical Demarcation Accessories

### Heyco Compression Fittings for OPN-300 Series and OPN-500



Used on the bottom entry ports of the OPN-300 Series and OPN-500 for a tight compression fitting. The Heyco M3234 fits into the larger left port and can compress from 18 mm to 11 mm in port size. The Heyco M3231 fits into the smaller middle and right ports and can compress from 11 mm to 4 mm. Kits include nylon locknuts.

#### Ordering Information

DESCRIPTION	AFL NO.
Heyco M3234 Compression Fitting, 18 mm to 11 mm Grip (includes 4). Left Port Only	DM001171
Heyco M3231 Compression Fitting, 11 mm to 4 mm Grip (includes 4). Middle and Right Port	DM000911

### NPT Conduit Fittings for OPN-300 Series and OPN-500



Used on the bottom entry ports of the OPN-300 series and OPN-500 as an open port or to accept NPT conduit. The 3/4" NPT fitting has a through-hole size of 0.71" and can accept 3/4" NPT conduit. The 1/2" NPT fitting has a through-hole size of 0.51" and can accept 1/2" NPT conduit. Kits include nylon locknuts.

#### Ordering Information

DESCRIPTION	AFL NO.
3/4" NPT Conduit Fitting (includes 4) – Left Port Only	DM001170
1/2" NPT Conduit Fitting (includes 4) – Middle and Right Port	DM000912

### Rubber Grommet for OPN-300 Series and OPN-500



Used on the middle and right entry ports of the OPN-300 series and OPN-500. The rubber grommets can be easily inserted to create a grommetted entry port or to seal an unused port.

#### Ordering Information

DESCRIPTION	AFL NO.
Rubber Grommet, 0.875" (includes 10)	DM001119



## Opti-NID® Optical Demarcation Accessories (cont.)



### Splice Chip Kit for OPN-500

Used on the OPN-500 to add an additional splice chip to the splice area to increase the splice capacity to 12 single fusion splices. The chip has an adhesive back, allowing it to adhere to multiple locations within the box.

#### Ordering Information

DESCRIPTION	AFL NO.
Kit, Six-Position Splice Chip (includes 10)	DM000870



### Pipe Transition Kit for OPN-760XL

Used on the OPN-760XL to create a 3/4" NPT transition fitting. The fitting slides into any of the four entry ports on the OPN-760XL and securely clips into place. The 3/4" NPT fitting has a through-hole size of 0.67" and can accept 3/4" NPT conduit.

#### Ordering Information

DESCRIPTION	AFL NO.
3/4" Pipe Fitting Transition Kit (includes 2)	DM001174



### Security Cover Kit for OPN-760XL

Used on the OPN-760XL to create a lockable security cover for provider access. The cover fits over the back portion of the OPN-760XL, covering the splice tray and provider side of the adapters and locks into place with a star head bolt.

#### Ordering Information

DESCRIPTION	AFL NO.
OPN-760XL Security Cover Kit	DM000923



### Pole Mounting Kit for OPN-760XL

Used on the OPN-760XL to provide an easy pole mounting solution. The plate mounts to the back of the OPN-760XL and provides arms for straps or bolts to adhere to a pole.

#### Ordering Information

DESCRIPTION	AFL NO.
OPN-760XL Pole Mounting Kit	DM000927

## Fiber Storage Units

AFL Fiber Storage Units (FSU) are used to conveniently and safely store an extra length of cable along the support strand for later use. Furnished as pairs (kit contains two Fiber Storage Units and two sets of hanger brackets), these FSU's are constructed from either aluminum with a baked acrylic enamel finish or dielectric polypropylene with a UV inhibitor. All basic hardware for attachment to the support strand is provided. Strand mount support brackets meet Telcordia® specifications. Galvanized strand clamping devices accommodate 1/4" to 7/16" strand and meet ASTM specifications A153 and B695.



### Features

- Small profile and side facing channel minimizes ice and leaf loading
- Metal versions feature an all aluminum construction with welded cross members and baked acrylic enamel paint finish with chromate pre-finish per MIL-6-5541-B
- Plastic versions feature thermoplastic polypropylene resin with carbon black UV inhibitor
- Basic hanging hardware (bolts, nuts, washers) and strand clamps all included
- Tie-wrap slots for securing cable from sliding
- Galvanized strand clamps accommodate 1/4" to 7/16" strand

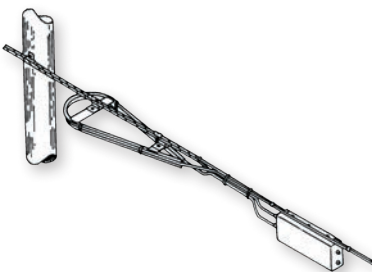


Reserve Cable Storage

### Specifications

PARAMETER	FSU-10	FSU-12	FSU-16	FSU-18	FSU-20	FSU-24
Nom. Channel Width in. (cm)	0.63 (1.60)	0.92 (2.34)	1.12 (2.84)	1.75 (4.45)	1.75 (4.45)	1.745 (4.5)
Min. Bend Diameter in. (cm)	10 (25.4)	12 (30.48)	16 (40.64)	18 (45.72)	20 (50.80)	24.125 (61.3)

PARAMETER	FOSP-12-TMK	FOSP-17-TMK
Nom. Channel Width in. (cm)	0.63 (1.59)	0.95 (2.41)
Min. Bend Diameter in. (cm)	12.13 (30.80)	17.5 (44.45)



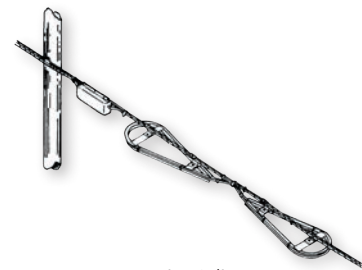
Butt Splice

### Ordering Information

DESCRIPTION	FSU-10	FSU-12	FSU-16	FSU-18	FSU-20	FSU-24
FSU Kit	911107-00	911108-00	911109-00	911110-00	911944-00-00	FA000095

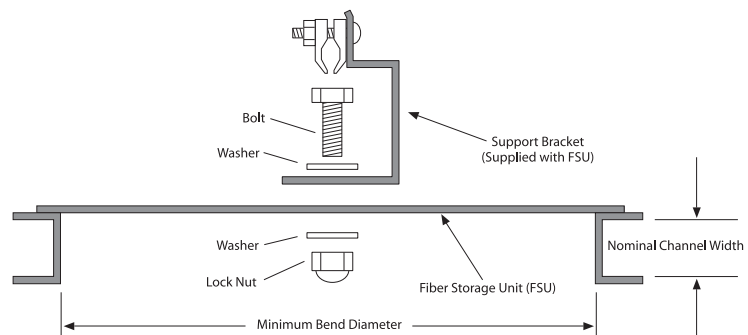
DESCRIPTION	FOSP-12-TMK	FOSP-17-TMK
FOSP Kit (Dielectric)	FA000004	FA000002

Kits contain one pair of either FSU or FOSP and four mount brackets.



In-Line Splice

### Hardware Diagram



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## Fiber Storage Units for ADSS Fiber Optic Cable



AFL Fiber Storage Units (FSU) are used to conveniently store an extra length of cable along the ADSS cable run for later use. Furnished as pairs (kit contains two Fiber Storage Units and two sets of hanger brackets), these FSUs are constructed from UV stabilized PPE thermoplastic. All basic hardware for attachment to the ADSS cable is provided. ADSS cable mount support brackets meet Telcordia® specifications. Epoxy coated clamping devices meet ASTM specifications A153 and B695.

### Features

- Small profile and side facing channel minimizes ice and leaf loading
- Constructed from UV stabilized PPE thermoplastic
- Basic hanging hardware (bolts, nuts, washers) and strand clamps all included
- Tie-wrap slots for securing cable
- Epoxy-coated strand clamps

The mounting bracket features an angled, tent-profile, epoxy-coated bracket for standard ADSS cable mounting.

### Specifications

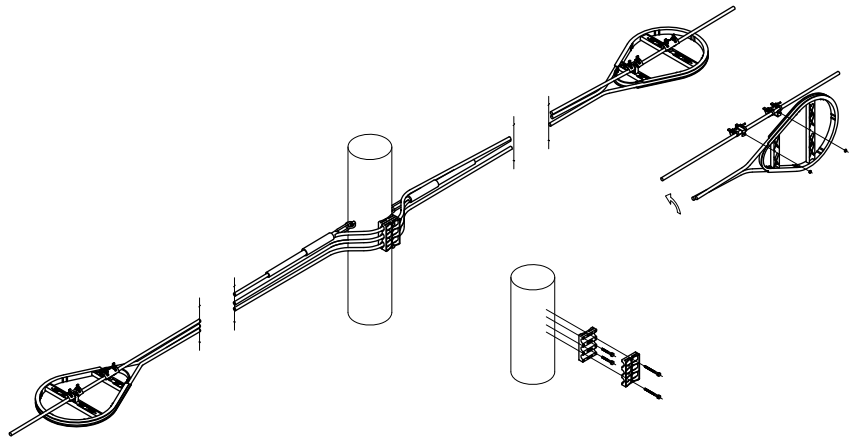
PARAMETER	FOSDA12ADSS	FOS17ADSS
Nominal Channel Width - in. (cm)	0.625	1.00
Minimum Bend Diameter - in. (cm)	12	17.5

### Ordering Information

DESCRIPTION	FOSDA12ADSS	FOS17ADSS
FOS ADSS Kit	FA000049	FA000050

Kits contain one pair of FOSP and two sets of hanger brackets.

### Typical Installation Diagram



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## Drop Cable Storage Unit (DCSU) for Fiber Optic Cable Drops



The AFL DCSU Fiber Storage Unit is designed to store and organize the slack from a fiber drop that is left at a fiber distribution terminal. The DCSU can also be used for the organization or storage of any unused multi-fiber drop in the placing of a multi-port terminal from VATS splices. In this way, cable left for future use is safely stored. The DCSU can manage up to 12 fiber drops when laid flat into the raceway, with minimal slack required at the terminal.

The AFL DCSU includes all hardware required for aerial strand mounting. Strand mount support brackets meet Telcordia® specifications. Galvanized strand clamping devices accommodate 1/4" to 7/16" strand and meet ASTM specifications A153 and B695. DCSUs are constructed from aluminum with a baked acrylic enamel finish.

### Features

- Weather-resistant, lightweight powder-coated aluminum
- Keyed bracket mount prevents twisting
- Mounting hardware for aerial, pole or wall mounting
- One tool, one bracket mounting
- Meets minimum bend radius requirements
- Flared ends prevent chaffing
- Allows length of reserve fiber to be adjusted
- Stackable if necessary using optional longer bolt
- Spring-type lockable fingers hold fiber drops and cable
- No tie-wraps required

### Specifications

PARAMETER	DCSU-8
Nominal Channel Width in. (cm)	1.25 (3.18)
Minimum Bend Diameter in. (cm)	8 (20.32)

### Ordering Information

DESCRIPTION	AFL NO.
FOSP-DROP Kit (Pair)	FA000047
DCSU Wall/Pole Mount Bracket	FA000067

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## Loose Tube and Riser Rated Indoor/Outdoor Loose Tube Cable Assemblies

High-fiber count, Loose Tube and Riser Rated Indoor/Outdoor Loose Tube Cable assemblies provide a safe and proven method of utilizing preterminated connector technology for outside plant applications. These assemblies help control cost by eliminating labor-intensive field termination and provide the same factory terminated reliability the industry has trusted for many years. Cable assemblies are available in Indoor/Outdoor Loose Tube, suitable for use in both indoor and outdoor applications. Each unit is manufactured to exceed all TIA and Telcordia requirements.

### Applications

- Outdoor Cabinets
- External-Building Runs
- Vaults
- CEVs

### Features

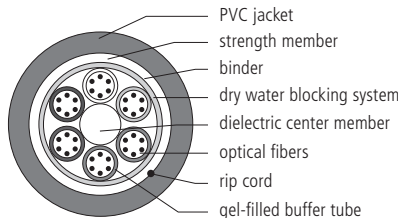
- Fiber counts from 6 to 144 fibers
- Available with ST, SC, FC, and LC connectors single-mode
- Pigtail assemblies, standard configuration (nonstandard configurations available)
- ST, SC, FC and LC connectors available in both single-mode and multimode
- Pre-installed pulling eye kits available
- 1 meter standard breakout length
- 2.4 mm standard furcation for SC, FC, and ST
- 1.6 mm standard furcation for LC
- UV resistant outer jacket
- Gel-filled loose buffer tubes (RL), Gel-filled Loose Tube (LT)
- Meets Telcordia® GR-20-CORE

### Specifications

#### Riser Rated Indoor/Outdoor Loose Tube

Riser Rated stranded design loose tube cable is moisture and U.V. resistant, S-Z stranded for easy mid-span access, UL® Listed type OFNR (UL1666) riser-rated, and can be used in both duct and lashed applications.

#### Cable Components



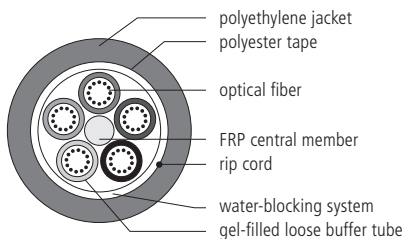
#### Temperature Range

PARAMETER	VALUE
Operating	-40°C to +70°C
Storage	-40°C to +75°C
Installation	0°C to +70°C

#### Loose Tube

Loose Tube stranded design cables feature fiber counts up to 432, compliance with EIA/TIA and REA/RUS PE-90, and are S-Z stranded for easy mid-span access.

#### Cable Components



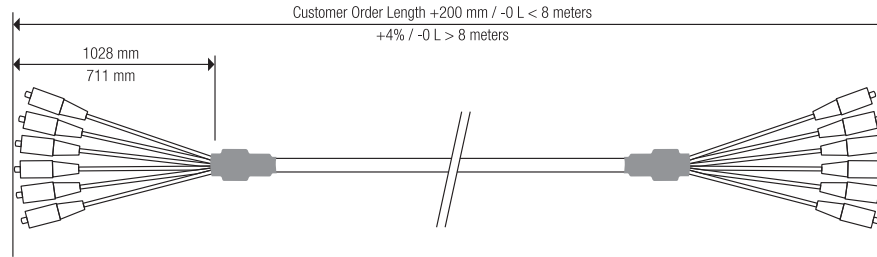
#### Temperature Range

PARAMETER	VALUE
Operating	-40°C to +70°C
Storage	-40°C to +75°C
Installation	-30°C to +70°C

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## Loose Tube and Riser Rated Indoor/Outdoor Loose Tube Cable Assemblies

### Dimensions



### Ordering Information

ASC	ASC	LT	024	Q	0010	NN
<b>Connector End A</b>	<b>Connector End B</b>	<b>Cable Type</b>	<b>Fiber Count</b>	<b>Fiber Type</b>	<b>Cable Length (meters)</b>	<b>Leg Diameter</b>
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC	<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC XXX = No connector	LT = Loose Tube RL = Riser Rated Indoor/ Outdoor Loose Tube	006 = 6 012 = 12 024 = 24 036 = 36 048 = 48 072 = 72 096 = 96 144 = 144	Q = Single-mode	XXXX (specify length) 0010 = 10 meters	N = 900 μm End A / XXX End B NN = 900 μm End A and B F = Furcated End A / XXX End B FF = Furcated Ends A and B FN = Furcated Ends A / 900 μm End B NF = 900 μm End A / Furcated Ends B

### Lengths Available

Cable lengths are dependent on fiber cable type and count. Consult customer service for maximum lengths available.



## Node Cable Assemblies

AFL's Node Cable Assemblies are factory tested to meet stringent installation performance demands. These assemblies make splicing from an optical node to a closure fast, easy and reliable. This connection is critical to the installation and requires an environmental seal between the cable and the node housing. AFL's assembly comes with node fitting pre-installed on the cable, featuring an anti-twist design enabling easy mounting without twisting the cable. The mounting thread is an industry standard size of 5/8-24 UNEF.

AFL's Node assemblies feature loose-tube outdoor cable with a water-blocked cable design. An assortment of industry standard connector styles are available such as SC/APC, SC/UPC, FC/APC, FC/UPC, LC/UPC, and MPO. Standard or custom breakout lengths are available with standard fiber counts of 1 thru 12 terminations (>12 fibers also available), with all fibers color coded for quick/easy fiber identification.

### Features

- Field proven, durable, connecting hardware
- High-quality optical terminations meet all geometric and optical performance requirements
- Ordering flexibility; available in standard and custom lengths and connector counts
- Mini-central core type cable ≤12 fibers; stranded cable >12 fibers
- Installed hard-line entry connector with anti-twist design
- Individualized serial numbers for easy identification
- SC/UPC, FC/UPC, SC/APC, FC/APC, LC/UPC, and MPO
- Rugged polyurethane riser-rated indoor/outdoor loose tube single-mode uniflex cable; armored polyethylene jacket or heavy duty polyurethane uniflex
- 900 μm or 2.0 mm / 3.0 mm upjacketed color-coded furcation, breakout length 1 meter

### Specifications

PARAMETER	VALUE
Operating Temperature °F (°C)	-40 to 158 (-40 to 70)
Storage Temperature °F (°C)	-58 to 158 (-50 to 70)
Crush Resistance lbs (kg)	1000 (453.5 kg)
Impact Resistance	25 lbs @ 2.2 lbs per foot (11.25 kg @ 0.99 kg)
Flexing	25 lbs @ 5 in. (11.25 kg @ 12.7 kg)
Fiber Core Diameter (microns)	8.3
Maximum Insertion Loss (dB)	0.25 (UPC), 0.35 (APC), 0.5 (MPO)
UPC Return Loss (dB)	-55
APC Return Loss (dB)	-65
Outer Jacket Material	Riser-rated PU / PE
Finish	Aluminium, Anodized
Cable Pullout Tensile Strength lbs (kg)	247 (112.04)
Entry Threads in.	0.625 x 24
Dimensions in. (cm)	4.25 long x 0.875 diameter (10.8 x 2.22)

### COLOR FURCATION - FIBER NUMBER REFERENCE

1	Blue	4	Brown	7	Red	10	Violet
2	Orange	5	Slate	8	Black	11	Rose
3	Green	6	White	9	Yellow	12	Aqua

### GROMMET SPECIFICATIONS - STANDARD D

Inner Diameter	0.375"
Active Pull Test	35 lbs
Overall length	45 mm
Hex Nut Size	7/8"
Length from Hex Nut to end of front body	6 mm
Material	Aluminum, Anodized

### Ordering Information

ASC	XXX	NC	012	Q	0010	N
<b>Connector End A</b>	<b>Connector End B</b>	<b>Cable Type</b>	<b>Fiber Count</b>	<b>Fiber Type</b>	<b>Cable Length (meters)</b>	<b>Leg Diameter</b>
<b>Single-mode</b> ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC MPO = Angle MPO	<b>Single-mode</b> XXX = No connector	NC = Uni-Flex AN = Armored PE HD = Heavy Duty Uniflex	002 = 2 MPO (only) 004 = 4 006 = 6 008 = 8 010 = 10 012 = 12 (Higher fiber counts available upon request)	Q = Single-mode	XXXX (specify length) 0010 = 10 meters	N = 900 μm End A F = 2.0 mm Furcated End A M = 3.0 mm Furcated End A







**Please contact your AFL Sales Representative for information about our other products or services.**

**FIBER OPTIC CABLE  
(OPGW, ADSS, Loose Tube)**



**TEST AND INSPECTION  
EQUIPMENT**



**FUSION SPLICING  
SYSTEMS AND ACCESSORIES**



**FIBER OUTSIDE PLANT  
EQUIPMENT**



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