AFL

DATACOM SOLUTIONS FOR UTILITIES

Fiber Optic Cable │ Fusion Splicers │ Field-Installable Connectors
Fiber Management │ Test & Inspection │ Cleaning

AFL Solutions for Electric Utilities

AFL delivers the right combination of fiber optic cable, connectivity and equipment products for today's utility service provider. Whether you are updating your SCADA or AMI systems, deploying a dark fiber or Fiber-to-the-Home network or building out a data center, AFL has a solution. With decades of experience supplying fiber optic cabling, accessories and components to the electric utility market, we understand the challenges of today's utilities and are uniquely positioned to provide end-to-end fiber solutions regardless of the application or environment. No other company manufactures every part of the passive optical infrastructure, with an eye on future-proofing product development and innovation.

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

Xpress Fiber Management® (XFM) 1RU Patch Panels

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).

XFM-1U

XFM-1U with panel door open

FEATURES

- Steel construction
- Textured black powder coat finish
- Universal WECO/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

DIMENSIONS

DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)	RACK UNITS	CAPACITY
15.5	17	1.7	1	(3) LGX 118

ORDERING INFORMATION

DESCRIPTION	MODEL NO.	AFL NO.
Xpress Fiber Management 1U Patch Panel, Black, Empty	XFM-1-U-B-0	FM002711-BE
Kit, Lock, for CON/CNS Panels	—	FM001318

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

Xpress Fiber Management® (XFM) 2RU Patch Panels

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).

XFM-2U

XFM-2U with panel door open

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

DIMENSIONS

DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)	RACK UNITS	CAPACITY
15.5	17	3.5	2	(6) LGX 118

ORDERING INFORMATION

DESCRIPTION	MODEL NO.	AFL NO.
Xpress Fiber Management 2U Patch Panel, Black, Empty	XFM-2-U-B-0	FM002712-BE
Kit, Lock, for CON/CNS Panels	—	FM001318

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

Xpress Fiber Management® (XFM) 4RU Patch Panels

The Xpress Fiber Management (XFM) 4RU patch panel is fully compatible with AFL's XFM Optical Cassette, Poli-MOD® and WDM solutions, offering enhanced management of densities up to 288 fibers 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.

XFM-4U

XFM-4U with cover open

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

DIMENSIONS

DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)	RACK UNITS	CAPACITY
15.5	17	7	4	(12) LGX 118

ORDERING INFORMATION

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
Kit, Lock, for CON/CNS Panels	—	FM001318

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

Wall-Mount Enclosures

AFL's wall mount interconnect enclosures provide a convenient convergence point for interconnecting and/or splicing in wall mount applications. Provisioned for up to two or 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. All WME series enclosures feature discrete access doors for provider and customer access which are independently lockable with a common pad-lock or tube-style keyed lock.

WME-02 shown empty

WME-04 shown empty

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 pigtails pre-installed
- LGX 118 compatible
- Optional splice tray and holder (ordered separately)
- All major connector types are supported

SPECIFICATIONS

- Solid steel construction
- Powder coat black textured finish
- Top or bottom cable entry with dust-resistant grommets
- Locking/security system (single-hasp, WME-01; dual-hasp, WME-02/WME-04; keyed, WME-12)
- WME-01
  12 to 24 fiber patch and splice density and one LGX mounting position
- WME-02
  12 to 24 fiber patch and splice density and two LGX mounting positions
- WME-04
  24 to 48 fiber patch and splice density and four LGX mounting positions
- WME-12
  Up to 288 fiber density and 12 LGX mounting positions

Wall-Mount Enclosures

ORDERING INFORMATION

DESCRIPTION	PHYSICAL DIMENSIONS	AFL NO.
Wall Mount Interconnect Enclosure (WME) with one (1) LGX mounting position	5.6"H x 7"W x 1.5"D	WME01E
Wall Mount Interconnect Enclosure (WME) with two (2) LGX mounting positions	12.0"H x 14.0"W x 2.5"D	WME02E
Wall Mount Interconnect Enclosure (WME) with four (4) LGX mounting positions	12.0"H x 16.0"W x 3.63"D	WME04E
Wall Mount Interconnect Enclosure (WME) with 12 LGX mounting positions	16.75"H x 20.0"W x 6.82"D	WME12E

OPTIONAL ACCESSORIES

DESCRIPTION	AFL NO.
WME01 Only—DIN Mount Kit, LGX 118 (Nylon DIN Clips and Screws)	FM003388

WME-01

WME01 with optional rear mounting clip for DIN rail

WME-12

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

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.
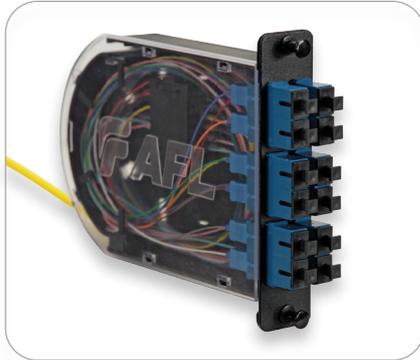
FEATURES

- 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
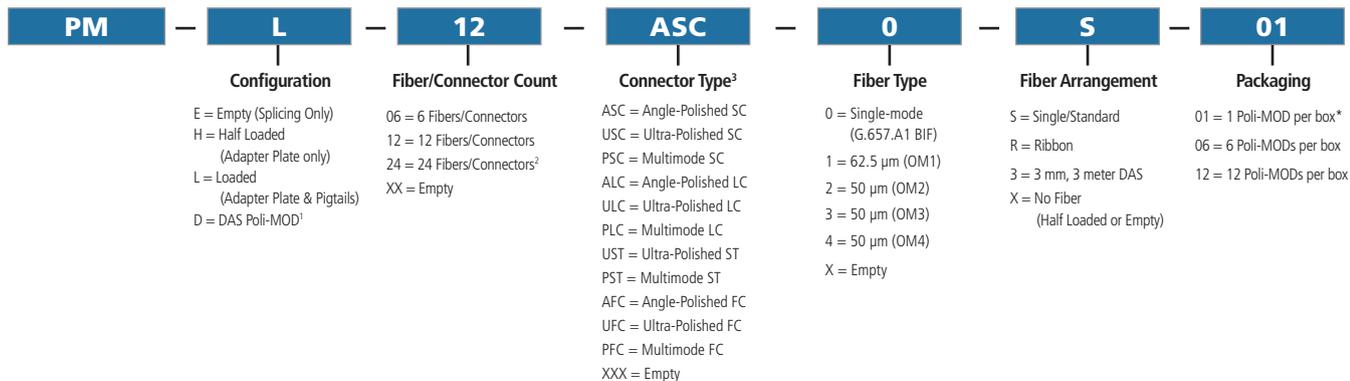- Multi-directional cable entry access

APPLICATIONS

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

Poli-MOD® Patch and Splice Module

ORDERING INFORMATION

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

PM	—	L	—	12	—	ASC	—	0	—	S	—	01

Configuration

E = Empty (Splicing Only)
H = Half Loaded
 (Adapter Plate only)
L = Loaded
 (Adapter Plate & Pigtails)
D = DAS Poli-MOD[1]

Fiber/Connector Count

06 = 6 Fibers/Connectors
12 = 12 Fibers/Connectors
24 = 24 Fibers/Connectors[2]
XX = Empty

Connector Type[3]

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

Fiber Type

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

Fiber Arrangement

S = Single/Standard
R = Ribbon
3 = 3 mm, 3 meter DAS
X = No Fiber
 (Half Loaded or Empty)

Packaging

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
Kit DIN mount, LGX 118	FM003394
Corning CCH and PCH 145 mm Adapter Bracket	FM001636

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

LS Series Patch and Splice Panels

The AFL Fiber Termination Patch and Splice Panels are 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 1, 2, 4 or 7 or rack unit height and is provisioned with up to 12 LGX® 118 compatible mounting positions that can accommodate adapter plates, XFM® optical cassettes, passive optical modules or any combination therein. Standard 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 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.

CON072P

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 (IN)	WIDTH (IN)	HEIGHT (IN)	RACK UNITS	FIBER CAPACITY
11.00	17.00	7.00	4	72/96/144

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

LS Series Patch and Splice Panels

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.

C211381	—	B	S	—	0010

W = White	E = Empty	0002 = 2 meters
B = Black	H = Half-loaded with adapters	0004 = 4 meters
	S = Preterminated with tight buffered CPC cable stub (Riser) (Patch only)	etc.
	R = Preterminated with OSP loose tube cable stub (Patch only)	

Ordering Information

CONFIGURATION	AFL NO.
CON072P—4 RU PATCH PANELS—72 FIBERS—LGX118	
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

## 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 Adapter Plates

LightLink Adapter Plates add versatility to the AFL's panel product line. Adapter plates are compatible with industry standard platforms allowing for easy upgrades of existing panels. Adapter Plates come preloaded and are available in 6, 8, 12 and 24 pack versions.

SC-6 Simplex
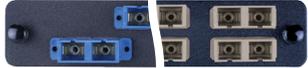
SC-3 Duplex   SC-6 Duplex

LC-3 Duplex   LC-12 Duplex

ST-6   ST-12

FC-6   FC-12

FEATURES

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

ORDERING INFORMATION

CAPACITY	ADAPTER COLOR	PLATE COLOR	AFL NO.
EMPTY			
Blank (LGX 118)	Empty	Black	FM003072
	Empty	Black	FM003434
LC ADAPTER PLATES			
12F (6 duplex)	Blue (SM, UPC)	Black	FM003465
	Green (SM, APC)	Black	FM003108
	Beige (MM, PC)	Black	FM003112
	Aqua (MM 10G, PC)	Black	FM001303
24F (12 duplex)	Blue (SM, UPC)	Black	FM003208
	Aqua (MM 10G, PC)	Black	FM003206

CAPACITY	ADAPTER COLOR	PLATE COLOR	AFL NO.
ST ADAPTER PLATES			
6F (6 duplex)	Chrome (SM ZR)	Black	FM003104
12F (12 simplex)	Chrome (SM, ZR)	Black	FM003126
SC ADAPTER PLATES			
6F (6 duplex)	Blue (SM, UPC)	Black	FM003100
	Green (SM, APC)	Black	FM003094
	Beige (MM, PC)	Black	FM003096
12F (6 duplex)	Blue (SM, UPC)	Black	FM003297
	Green (SM, APC)	Black	FM002633
	Beige (MM, PC)	Black	FM003293
	Aqua (MM 10G, PC)	Black	FM003295

Fanout Kits

Fanout kits route 250 µm fibers into 900 µm buffer tubes ready for termination. These kits require no special tools and accommodate input cables from 2.0-3.8 mm in diameter. Fanout kits feature a clear, removable cover which is VFL-compatible and does not require epoxy. Color-coded 900 µm buffer tubes allow for easy identification of individual fiber channels.

ORDERING INFORMATION

DESCRIPTION	INPUT CABLE SIZE	FIBER COUNT	LENGTH	AFL NO.
Fanout kit, 1 position base, 900 µm, 12 tubes, A, 1M	2.0 - 3.8 mm	12	1M	FAN1-9-012-A-01

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.

FEATURES

- Pre-stubbed, factory polished ferrule
- No epoxy required
- Precision mechanical alignment ensures low loss
- Fiber can be reseated

APPLICATIONS

- Premise environments
- Connections at the desk for LAN environments
- Patch panels
- Direct equipment termination

SPECIFICATIONS

| PARAMETERS | INSERTION LOSS | | RETURN LOSS AT ROOM TEMPERATURE | | OPERATING TEMPERATURE |
	AVERAGE (DB)	MAXIMUM (DB)	AVERAGE (DB)	MAXIMUM (DB)	
SM UPC	0.2	0.5	≤ -50	≤ -45	-40 to +75°C
SM APC	0.3	0.6	≤ -55	≤ -50	-40 to +75°C
MM PC	0.1	0.5	≤ -25	≤ -20	-40 to +75°C

FASTConnect® Field Installable Connectors

ORDERING INFORMATION

CONN. TYPE	FIBER TYPE	HOUSING COLOR	CABLE SIZE	AFL NO.	
				PACKAGE OF 6	PACKAGE OF 100
SC	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	Green		FAST-SC-SMAU-6	FAST-SC-SMAU-100
ST	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
LC	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

FUSEConnect® Fusion Spliced, Field Installable Connectors

Uniquely designed, 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 are compatible with Fujikura fusion splicers and most other fiber-holder-based fusion splicing platforms.

FEATURES

- Field installable splice on connector
- No adhesives, crimping or polishing
- True APC performance
- Compatible with most fusion splicers
- SM compliance to GR-326-CORE
- MM compliance to TIA/EIA568C.3

APPLICATIONS

- RF-overlay FTTP networks
- Cable TV backbone networks
- Outside plant
- FTTD (Desk)
- MDU FTTP cabling
- Data center installation
- Central office connector replacement

SPECIFICATIONS

PARAMETERS	INSERTION LOSS		RETURN LOSS AT ROOM TEMPERATURE (dB)	OPERATING TEMPERATURE
	AVERAGE (dB)	MAXIMUM (dB)		
SM UPC	0.15	0.25	≤ -55	-40 to +75°C
SM APC	0.15	0.25	≤ -65	-40 to +75°C
MM PC	0.10	0.25	≤ -35	-40 to +75°C

FUSEConnect® Fusion Spliced, Field Installable Connectors

ORDERING INFORMATION

CONN. TYPE	BOOT TYPE	AFL NO.*				
		UPC SM (Blue)	APC SM (Green)	PC 62.5 µm MM (Beige)	PC 50 µm MM (Black)	PC 50 µm LOMMF (AQUA) **
SC	900 µm	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
	4.8 mm	—	FUSE-SC-48SMA-6	—	—	—
LC	900 µm	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 µm	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 µm	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

Tool Kits for Field Installable Connectors

AFL's 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 FASTConnect and FUSEConnect Field Installable Connectors. Field Master Tool Kits come complete with all necessary tools and consumables for the professional installation of Field Master Connectors.

FUSEConnect Accessory Kit

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

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

ORDERING INFORMATION

DESCRIPTION	AFL NO.
FUSEConnect® Installation Kits	
FUSEConnect Tool Kit—includes Tool Case, Fiber Stripper, Kevlar Scissors, Lint-Free Wipes, Fiber Preparation Fluid, Permanent Marker, Cord Splitter Tool, FUSEConnect Accessory Kit	FUSE-TL-KT
FUSEConnect Accessory Kit—includes Utility Storage Box, Clamp for holding 3 mm Simplex Cordage, Clamp for holding 2 mm Simplex Cordage, 250 µm/900 µm Fiber Clamp, 3 mm FUSEConnect Fiber Holder, 2 mm FUSEConnect Fiber Holder, 900 µm FUSEConnect Fiber Holder, CLAMP-S70D Sheath Clamp, CLAMP-S31S Sheath Clamp	FUSE-AC-KT
FASTConnect® Installation Kits—Includes 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	
FASTConnect High Precision Tool Kit with CT50 Cleaver	CS001201
FASTConnect High Precision Tool Kit without cleaver	CS001201-NC
FASTConnect High Precision Tool Kit with CT16 Cleaver	CS010975

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning
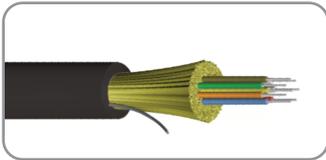
Premise Cables

Simple Cable
Includes plenum, riser and LSZH designs and are available in all standard diameters.

Zipcord and Dual-Link Cable
Offering the broadest selection of duplex cordage including plenum, riser and LSZH in all standard diameters. LSZH jacketed cables are OFNR listed.

Circular Premise Cable (CPC)
Used in applications requiring fiber counts of 4 to 144 fibers. Buffered to 900 µm, these cables can be directly terminated to connectors in loaded panels or in communications closets.
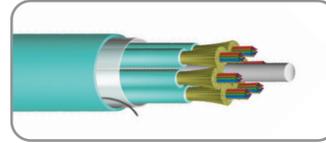
Sub-unitized Premise MicroCore® Cable
The sub-units consist of 12 and 24 colored bare fibers, ideal for MTP connectorization. Available in 12-288 fiber counts.
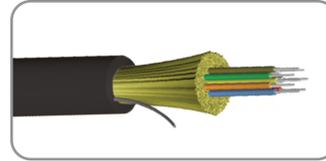
Indoor/Outdoor Tight Buffered Cable
Specified for campus network cabling between buildings where interbuilding lengths are short enough that the installer can recognize savings from the lower costs of terminating tight buffered cables. MSHA approved. Riser and Plenum in 2-72 fiber counts.
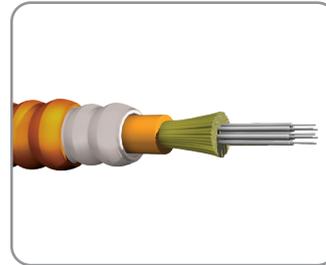
Armored Cabling
Armored cabling can be added to any of AFL's Premise Cables. Interlocking Armor options are available in almost any size. Riser, Plenum and LSZH jacketed armor can be ordered in a variety of colors. Plenum and Riser versions meet the requirements of NEC 770. Indoor/Outdoor grades are also available.

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

Indoor/Outdoor Plenum Distribution Cable

Indoor/Outdoor Plenum Distribution cables are specified for campus network cabling between buildings where interbuilding lengths are short enough that the installer can recognize savings from the lower costs of terminating tight buffered cables. For indoor applications the cable is OFNP listed. For outdoor applications the cable is manufactured with an outer jacket that incorporates a UV stabilizer for protection against exposure to the sun plus an anti-fungus protection for use in underground applications.
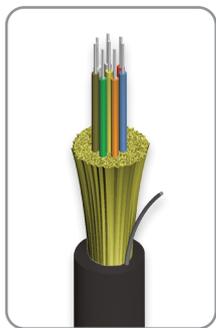
ORDERING INFORMATION

| AFL NO. | FIBER COUNT | NOMINAL DIAMETER | WEIGHT | TENSILE STRENGTH lbs (N) | | BENDING RADIUS inches (cm) | |
RISER		inches (mm)	lbs/1000ft (kg/km)	INSTALLATION	LONG TERM	INSTALLATION	LONG TERM
KQ002✱461801	2	0.18 (4.6)	15 (22)	150 (667)	45 (200)	2.7 (6.9)	1.8 (4.6)
KQ004✱561801	4	0.20 (5.0)	17 (26)	150 (667)	45 (200)	3.0 (7.5)	2.0 (5.0)
KQ006✱641801	6	0.21 (5.4)	20 (30)	150 (667)	45 (200)	3.2 (8.1)	2.1 (5.4)
KQ012✱701801	12	0.24 (6.1)	27 (40)	150 (667)	45 (200)	3.6 (9.1)	2.4 (6.1)
KQ024✱821801	24	0.31 (7.9)	46 (69)	150 (667)	45 (200)	4.7 (11.9)	3.1 (7.9)

Contact Customer Service for special fiber types/performance needs. Standard jacket color is black. Other colors available by request.

✱ Please specify fiber type when ordering (see below)

5 = 50/125 µm multimode GIGA-Link™ 600
6 = 62.5/125 µm multimode GIGA-Link™ 300
9 = 9/125 µm single-mode (ITU G.652.D/G.657.A1)
C = 50 Laser-Link™ 550 OM4 multimode
W = AFL Wideband OM5 multimode

APPLICATIONS

• ONFP inside plant and outside plant environments

• Underground applications

• Building Interconnections (Campus LAN)

Indoor/Outdoor Loose Tube Cables

Indoor/Outdoor cabling bridges the gap for applications where network routings include external pathways while providing the Flame Safety requirements for transitions into Campus Buildings. Exceptional mechanical and environmental performance are the hallmark of this cable family.
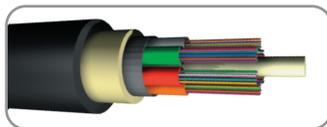
Indoor/Outdoor Loose Tube cable combines Dry-Core technology with S-Z strand designs to create a robust product compliant with applicable EIA/TIA, REA/RUS PE-90 and Telcordia GR-20 standards. Indoor-Outdoor Loose Tube cable is recommended for duct/conduit, lashed aerial and tray-based fiber management installation techniques.

Indoor/Outdoor Tight Buffered cable incorporates the advantages of 900 µm Tight Buffered fiber found in inside plant cable with the enhanced mechanical and environmental attributes found in cable suitable for outdoor deployments. Available in multiple constructions ranging from distribution style single-jacket cable to high fiber count designs, Indoor/Outdoor Tight Buffered cable reduces the need for transitions within the campus network.
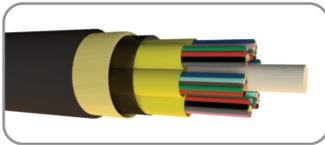
Plenum-rated Indoor/Outdoor Loose Tube

The LQ-Series I/O plenum-rated fiber optic loose tube cables are designed to reduce network cabling costs by eliminating the need to use different cables within a pathway that includes outside plant (OSP) and inside plant (ISP) segments.

Riser-rated Single-Jacket Indoor/Outdoor Loose Tube

Indoor/outdoor stranded loose tube combines the robust mechanical and environmental characteristics of an outside plant cable with the flexibility of an inside plant riser cable.

LQ-Series Plenum-rated Indoor/Outdoor Loose Tube

The LQ-Series I/O plenum-rated fiber optic loose tube cables are designed to reduce network cabling costs by eliminating the need to use different cables within a pathway that includes outside plant (OSP) and inside plant (ISP) segments. This dual rating allows for the LQ-Series cable to be transitioned from the OSP pathway and routed within the building space without the need to splice to a separate flame-rated cable installed in a protective conduit. This feature saves space, material costs and installation time. The cable construction consists of 12-fiber, gel-free buffer tubes stranded around a central strength member. The finished core is jacketed with a highly flame-retardant, UV-resistant thermoplastic. Available with 12 up to 144 single-mode or multimode fibers.

ORDERING INFORMATION

AFL NO.	FIBER COUNT	DIAMETER Inches (mm)	WEIGHT lbs/1000ft (kg/km)	SHORT TERM/INSTALLATION		LONG TERM-STATIC	
				MAX TENSILE LOAD lbs (N)	MIN BEND RADIUS inches (cm)	MAX TENSILE LOAD lbs (N)	MIN BEND RADIUS inches (cm)
LQ012✶3018XB:C4C	12	0.39 (10.0)	62 (92)	300 (1334)	5.9 (15)	90 (400)	3.9 (10)
LQ024✶3018XB:C4C	24	0.39 (10.0)	62 (93)	300 (1334)	5.9 (15)	90 (400)	3.9 (10)
LQ036✶3018XB:C4C	36	0.39 (10.0)	63 (94)	300 (1334)	5.9 (15)	90 (400)	3.9 (10)
LQ048✶3018XB:C4C	48	0.39 (10.0)	64 (95)	300 (1334)	5.9 (15)	90 (400)	3.9 (10)
LQ072✶3018XB:C6C	72	0.46 (11.8)	91 (135)	600 (2669)	7.0 (18)	180 (801)	4.6 (12)
LQ096✶3018XB:C8C	96	0.54 (13.6)	125 (185)	600 (2669)	8.0 (21)	180 (801)	5.4 (14)
LQ144✶3018XB:CCC	144	0.69 (17.5)	220 (315)	600 (2669)	10.4 (26)	180 (801)	6.9 (18)

Contact Customer Service for special fiber types/performance needs. Standard jacket color is black. Other colors available by request.

✶ Please specify fiber type when ordering (see below)

5 = 50/125 µm multimode GIGA-Link™ 600
6 = 62.5/125 µm multimode GIGA-Link™ 300
L = 50/125 µm multimode Laser-Link™ 300 for 10 Gigabit Ethernet
C = 50/125 µm multimode Laser-Link™ 550
9 = single-mode ((ITU G.652.D/G.657.A1)

APPLICATIONS

- Inter-building campus backbone connections
- Suitable for installing in OSP buried pathways or above-ground exposed cable trays
- OSP spaces and inside plant environments that require cables to be riser or plenum rated

LV Series Riser Single-Jacket Non-Armored Indoor/Outdoor Loose Tube
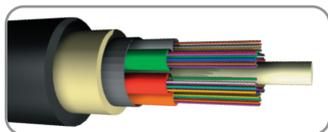
Indoor/outdoor stranded loose tube combines the robust mechanical and environmental characteristics of an outside plant cable with the flexibility of an inside plant riser cable. By installing an indoor/outdoor stranded loose tube, splice locations entering into a building are avoided, being routed directly from the outside plant to telecommunications closets, or main distribution frames (MDF) through the riser of a building and eliminating the "50-foot rule." Indoor/Outdoor Stranded Design loose tube cable is moisture and UV-resistant and is SZ stranded to allow slack for mid-span access, listed for OFNR use per UL standards, and can be used in both duct and lashed applications.

ORDERING INFORMATION – GEL-FREE

AFL NO.	FIBER COUNT	NUMBER OF TUBES/ FIBERS	DIAMETER	NOMINAL WEIGHT	MAX TENSILE LOAD lbs (N)		MIN BEND RADIUS inches (cm)	
			inches (mm)	lbs/1000ft (kg/km)	SHORT TERM	LONG TERM	INSTALLATION	LONG TERM
LV012✶C5101N1D	12	1/12 (4 fillers)	0.48 (12.3)	100 (148)	600 (2670)	180 (800)	9.7 (25)	7.2 (19)
LV024✶C5101N1D	24	2/12 (3 fillers)	0.48 (12.3)	99 (146)	600 (2670)	180 (800)	9.7 (25)	7.2 (19)
LV036✶C5101N1D	36	3/12 (2 fillers)	0.48 (12.3)	99 (147)	600 (2670)	180 (800)	9.7 (25)	7.2 (19)
LV048✶C5101N1D	48	4/12 (1 filler)	0.48 (12.3)	99 (147)	600 (2670)	180 (800)	9.7 (25)	7.2 (19)
LV060✶C5101N1D	60	5/12 (no fillers)	0.48 (12.3)	98 (146)	600 (2670)	180 (800)	9.7 (25)	7.2 (19)
LV072✶C6101N1D	72	6/12 (no fillers)	0.52 (13.1)	103 (154)	600 (2670)	180 (800)	10.3 (26)	7.8 (20)
LV096✶C8101N1D	96	8/12 (no fillers)	0.58 (14.7)	138 (205)	600 (2670)	180 (800)	11.6 (29)	8.7 (23)
LV144✶CC101N1D	144	12/12 (no fillers)	0.72 (18.2)	198 (295)	600 (2670)	180 (800)	14.3 (37)	10.8 (28)

Note: Diameter and weight subject to change without notice

✶ Please specify fiber type when ordering (see below)

5 = 50/125 µm multimode GIGA-Link™ 600
6 = 62.5/125 µm multimode GIGA-Link™ 300
L = 50/125 µm multimode Laser-Link™ 300 for 10 Gigabit Ethernet
C = 50/125 µm multimode Laser-Link™ 550
9 = single-mode ((ITU G.652.D/G.657.A1)

Fujikura Field Fusion Splicing Systems

AFL supplies and services the premier fusion splicing product line offered in North America—Fujikura's fusion splicing solutions. With exceptional quality and leading-edge innovation, Fujikura is the well-known leader of fusion splicing technology.

Fujikura is the world's best-selling brand of fusion splicers, known for their ruggedness and reliability. AFL complements this with unmatched levels of service and support. Our team understands the high cost of equipment downtime and we are staffed to provide our customers with one to two-day turnaround times in most cases. We also offer 24x7 technical support.

AFL offers an extensive lineup of fusion splicers for field splicing applications. From the world's smallest fusion splicer to the world's first fully ruggedized splicer, Fujikura has been the pioneer in fusion splicing technology since 1979. Current generation field models offer unmatched speed, ruggedness and reliability.

AFL has the capability to provide custom engineering services for special splicing or fiber preparation applications. These services may include custom hardware or software design, and process improvement consultation. Services may also include advanced splicer training and maintenance service agreements. Check out AFL's new Splicer Selection Tool at www.AFLglobal.com/Products/Fusion-Splicing/Field-Fusion-Splicing-Equipment.aspx.

90S+ Fusion Splicer Kits

Bluetooth

FEATURES

- Cleaver tracking and upkeep with wireless communication
- Automated wind protector, sheath clamps and splice operation
- Loose and tight buffer with same sheath clamp
- Lithium-ion battery with 300 splices/shrinks per charge
- Graphical User Interface with 5.0" Touchscreen
- PC software and 90S+ manual downloaded from splicer
- Multi-function transit case with integrated workstation

DESCRIPTION	AFL NO.
90S+ Fusion Splicer with bluetooth—ADC-20 AC Adapter, ACC-14 AC Cord, BTR-15 Battery, ELCT2-16B Spare Electrodes (pair), Sheath Clamps, SP-03 Fiber Holder Set Plates, USB-01 Cable, Alcohol Dispenser, Screwdriver, Splicer Carrying Strap, Quick Reference Guide, TS-03 Tripod Screw, Work Tray J-Plate, SS03 single fiber stripper, CC39 Transit Case with Carrying Strap and Two Year Warranty	S017519
90S+ Fusion Splicer without bluetooth plus accessories listed above	S017520
90S+ Splicer with bluetooth plus CT50 Cleaver	S017521

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

Field Fusion Splicing Systems

45S Fusion Splicer Kits—NEW!

FEATURES

- Simultaneous fiber preparation with newly patented sheath clamp design
- Sheath clamps automatically opened with the wind protector
- Automatic fiber placement correction
- Active Fusion Control for arc optimization with every splice

- Active Blade Management for cleave quality monitoring and correction
- Easy-access battery, screen position adjustments, and ergonomic adaptations
- Fully ruggedized for shock, moisture and dust resistance

DESCRIPTION	AFL NO.
Fujikura 45S Standard Kit — includes: CT-50 cleaver, SS-05 single fiber stripper, 1 pair each FH-70-250 and FH-70-900 fiber holders, SP-04 set plates, ELCT2-16B Spare Electrodes (Pair), ADC-21 AC Adapter, BTR-17 Battery Pack (installed), ACC-09 Power Cord, USB-01 USB Cable, AP-02 Alcohol Container, WT-10 work tray, ST-03 carrying case strap, TS-03 tripod screw, CC-45 Transit Case, 1 year factory warranty, and instruction manual downloaded from splicer	S018318
45S Fusion Splicer Kit without Cleaver—SS-05 single fiber stripper, 1 pair each FH-70-250 and FH-70-900 fiber holders, SP-04 set plates, ELCT2-16B Spare Electrodes (Pair), ADC-21 AC Adapter, BTR-17 Battery Pack (installed), ACC-09 Power Cord, USB-01 USB Cable, AP-02 Alcohol Container, WT-10 work tray, ST-03 carrying case strap, TS-03 tripod screw, CC-45 Transit Case, 1 year factory warranty, and instruction manual downloaded from splicer	S018319

Fiber Cleavers

CT50 Fiber Cleaver

FEATURES
- Motorized blade rotation
- Bluetooth communication
- Shock resistant including drops up to 30 inches
- Simple one-step operation
- 60,000 cleave blade life
- Field serviceable

CT16 Fiber Cleaver—NEW!

FEATURES
- Dual fiber adapter plate for single or two fiber cleaving
- Ambidextrous operation available
- Field replaceable fiber clamp pads and cleaver blade
- Shock resistant for drops up to 30″ in any of six different orientations
- Compact form factor and tool-less blade rotations

ORDERING INFORMATION

DESCRIPTION	APPLICATION	FIBER HANDLING SYSTEM	AFL NO.
CT50	Single or Ribbon Fiber	AD-10-M24 adapter plate for single fibers or fiber holders for ribbons	S017030
CT16 includes: FDB-06 scrap collector, AD-16A fiber adapter, HEX-01 hex wrench (1.5 mm), M-CT16-E instruction manual, CC-34 carrying case	Single Fibers (2): 900 µm for single fiber or 250 coating for two fibers, 125 µm cladding	Purchased separately FH-60 and FH-70 series (coating diameter dictated by specific fiber holder)	S018330

OTDR Selection Guide

Model	Point-to-Point Networks/Fiber Type — MMF/SMF — Data Center	LAN	SMF — Core	Metro	Access	FTTx PON — SMF — Dark	Live	Test To Splitter	Test Through Splitter	OTDR Performance — Wavelengths (nm)	Dynamic Range (dB)	Dead zone EDZ/ADZ (m)	SmartAuto®	Expert & Real-time	LinkMap®	FleXpress®	Trace View	MPO Switch Control	Integrated Peripherals — OLS	Broadband OPM	VFL	Reporting — FlexReports	iOS & Android FlexScan® App	Inspection
FlexScan FS300 Quad OTDR																								
FS300-325	◆	◆	◆	◆	◆	◆		◆	◆	850/1300/1310/1550	29/29/37/36	0.5/3.5	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆
FlexScan FS200 SM OTDR																								
FS200-60				◆	◆	◆	◆	◆	◆	1650	37	0.8/3.6	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆
FS200-100				◆	◆	◆		◆		1310/1550	32/30	0.8/3.6	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
FS200-300			◆	◆	◆	◆	◆	◆	◆	1310/1550	37/35	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
FS200-303			◆	◆	◆	◆	◆	◆	◆	1310/1550/1625	37/35/37	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
FS200-304			◆	◆	◆	◆	◆	◆	◆	1310/1550/1650	37/35/37	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

FlexScan® FS300 Quad OTDR

With SmartAuto multi-pulse acquisition, 37 dB dynamic range and best-in-class dead zones, FlexScan Quad OTDRs test multimode and single-mode networks – including FTTH PONs and POLANs up to 1:64 split ratio – while still detecting and measuring events <2 meters apart. After applying industry-standard or user-set pass/fail criteria, the network is displayed using FlexScan's intuitive, icon-based LinkMap view. Results may be printed to PDF and stored internally or externally. FlexScan automates test setup, shortens test time and simplifies results interpretation, improving test efficiency and cost.

FlexScan FS300

FEATURES

- Multimode and Single-mode OTDR, including PON test
- SmartAuto® 1-button automated testing for fast results
- Pocket-sized, weighs less than 1 pound, 12-hour battery
- LinkMap® color-coded icons for easy troubleshooting
- Integrated Source, Power Meter and VFL
- Robust reporting including Print-to-PDF

APPLICATIONS

- OTDR and Insertion Loss test and reporting
- Fast, accurate point-to-point and PON verification and troubleshooting
- Locate faults exceeding industry or user pass/fail thresholds
- Visually pinpoint location of macro-bends or breaks

SPECIFICATIONS

FIBER TYPE	OTDR PERFORMANCE					LINKMAP	OLS/OPM	BLUETOOTH WI-FI	AFL NO.
	WAVELENGTH (nm)	DYNAMIC RANGE (dB)	DEAD ZONE (m)						
			EVENT	ATTENUATION					
Single-Mode Multimode	1310/1550 ±20 nm 850/1300 ±20 nm	≥37/36 dB ≥29/29 dB	≤0.8 m typical ≤0.8 m typical	≤3.5 m ≤3.0 m		◆	◆	◆	FS300-325

FLEXSCAN FS300 is available in five kit configurations: Basic, Plus, PRO, BIPM and MPO (SM and MM).

For details, visit AFLglobal.com to download the FlexScan FS300 specification sheet.

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

FlexScan® FS200 Single-mode OTDR

The FlexScan FS200 OTDR is an all-in-one solution for detecting, identifying, locating, and resolving single-mode optical network issues. It is designed for both novice and expert technicians working in a range of environments, from FTTH PON to point-to-point networks. It applies industry-standard or user-set pass/fail criteria and displays results using LinkMap color-coded icons that immediately show the health of the network. The FlexScan FS200 automates test setup, shortens test time, and simplifies results interpretation improving efficiency and reducing costs.

FEATURES

- FleXpress® mode completes OTDR tests in <5 seconds
- Test up to 1:64 PON with 25 m PON dead zone
- Easy to understand LinkMap® results with pass/fail indications
- Single, dual or triple wavelength single-mode
- Single port for in- and out-of-service OTDR tests
- Integrated source, power meter, VFL (visual fault locator)

APPLICATIONS

- PON or point-to-point network verification or troubleshooting
- OTDR testing plus insertion loss and power measurements
- Locate faults exceeding industry or user pass/fail thresholds
- Visually pinpoint location of macro-bends or breaks

SPECIFICATIONS

WAVELENGTH (nm)	DYNAMIC RANGE (dB)	DEAD ZONE (m)		LINKMAP	FLEXPRESS	OLS/OPM	BLUETOOTH WI-FI	AFL NO.
		EVENT	ATTENUATION					
1550	28	1.0	6.0	◆	MPO Switch only		◆	FS200-50
1310/1550	32/30	0.8	3.6	◆		◆	◆	FS200-100
1310/1550	37/36	0.8	3.5	◆	◆	◆	◆	FS200-300
1310/1550/1625	37/36/37	0.8	3.5	◆	◆	◆	◆	FS200-303
1310/1550/1650	37/36/37	0.8	3.5	◆	◆	◆	◆	FS200-304

(Table header spanning: "OTDR PERFORMANCE" spans WAVELENGTH, DYNAMIC RANGE, DEAD ZONE columns)

FLEXSCAN FS200 is available in five kit configurations: Basic, Plus, PRO, BIPM and MPO. For details, visit AFLglobal.com to download the FlexScan FS200 specification sheet.

OTDR Fiber Rings

Measuring an insertion loss of the near-end and/or far-end connection of a fiber optic link with an OTDR requires a launch and/or receive test cable. A launch cable, which connects the OTDR to the link under test, reveals the insertion loss and reflectance of the near-end connection. A receive cable, which connects to the far-end of the link, reveals the insertion loss and reflectance of the far-end connection. Launch and receive test cables can range from 150 m to 1 km (or longer) in length. Because very long test cables are impractical to transport and use, AFL offers coiled lengths of 50 μm multimode, 62.5 μm multimode, or single-mode fiber packaged in compact rings. Fiber Rings of 150 m of fiber are ideal for premises fiber network test applications. Fiber Rings of 500 m and 1 km of single-mode fiber are designed for broadband, long haul fiber network test applications.

FR1-M6-150-SC-ST

FR1-SM-1000-SC-ST

ORDERING INFORMATION

CONFIGURATION	FIBER TYPE	FIBER LENGTH	AFL NO.
Standard, one fiber	Multimode, 50 μm, OM2	150 m (492 ft)	FR1-M5-150- x1- x2
Standard, one fiber, Laser Optimized	Multimode, 50 μm, OM3	150 m (492 ft)	FR1-OM3-150-x1-x2
Standard, one fiber, Laser Optimized	Multimode, 50 μm, OM4	150 m (492 ft)	FR1-OM4-150-x1-x2
Standard, one fiber	Multimode, 62.5 μm	150 m (492 ft)	FR1-M6-150- x1- x2
Standard, one fiber	Single-mode	150 m (492 ft)	FR1-SM-150-y1-y2
Standard, one fiber	Single-mode	500 m (1640 ft)	FR1-SM-500-y1-y2
Standard, one fiber	Single-mode	1000 m (3280 ft)	FR1-SM-1000-y1-y2
Standard, one fiber, Bend Insensitive	Single-mode, G.657.A2 BIF	150 m (492 ft)	FR1-BIF-150-y1-y2
Standard, one fiber, Bend Insensitive	Single-mode, G.657.A2 BIF	500 m (1640 ft)	FR1-BIF-500-y1-y2
Standard, one fiber, Bend Insensitive	Single-mode, G.657.A2 BIF	1000 m (3280 ft)	FR1-BIF-1000-y1-y2

x1, x2 — connectors for multimode cables, specify type [ST, SC, ASC (angled SC), FC, AFC (angled FC), LC]
y1, y2 — connectors for single-mode cables, specify type [ST, SC, ASC (angled SC), FC, AFC (angled FC), LC]
Other connector types, fiber types, and fiber lengths will be quoted upon request.

Optical Loss Test Kits

AFL offers a variety of light sources and power meters combined into multimode (MLP), single-mode (SLP) and single-mode/multimode (SMLP) test kits. Sources with Wave ID transmit two or more wavelengths simultaneously decreasing test time and reducing user errors when used with Wave ID power meter. Advanced kits add functionality including in-unit storage of test results and TRM® 2.0 reporting software, which enables technicians to organize test data, apply test rules for pass/fail analysis and build custom test reports using industry accepted templates.

5 YEAR WARRANTY

SMLP5-5 Optical Loss Test Kit

SPECIFICATIONS

FIBER TYPE	DYNAMIC RANGE (dB) @ λ (nm)	SET REF.	DATA SAVE	WAVE ID	PC S/W	METER	SOURCE	AFL NO.
MM	40 @ 850	◆				OPM4-1D	OLS1-1C	MLP4-1D
MM, SM	40 @ 850/1300, 22 @ 1300	◆	◆			OPM4-2D	OLS1-DUAL	MLP4-2D
MM, SM	40 @ 850/1300, 22 @ 1300	◆	◆		◆	OPM5-2D	OLS1-DUAL	MLP5-2D
SM	70 @ 1310/1550	◆	◆	◆		OPM4-3D	OLS2-DUAL	SLP4-6
SM	50 @ 1310/1550	◆	◆	◆		OPM4-4D	OLS2-DUAL	SLP4-6D
SM	45 @ 1310/1550/1625	◆	◆	◆		OPM4-4D	OLS7-3	SLP4-7
SM	45 @ 1310/1490/1550	◆	◆	◆		OPM4-4D	OLS7-FTTH	SLP4-FTTH
SM	70 @ 1310/1490/1625	◆	◆	◆		OPM4-3D	OLS7-FTTx	SLP4-FTTx
SM	70 @ 1310/1550	◆	◆	◆	◆	OPM5-3D	OLS2-DUAL	SLP5-6
SM	50 @ 1310/1550	◆	◆	◆	◆	OPM5-4D	OLS2-DUAL	SLP5-6D
SM	45 @ 1310/1550/1625	◆	◆	◆	◆	OPM5-4D	OLS7-3	SLP5-7
SM	45 @ 1310/1490/1550	◆	◆	◆	◆	OPM5-4D	OLS7-FTTH	SLP5-FTTH
SM	70 @ 1310/1490/1625	◆	◆	◆	◆	OPM5-3D	OLS7-FTTx	SLP5-FTTx
MM, SM	40 @ 850/1300, 60 @ 1310/1550	◆	◆	◆		OPM4-2D	OLS4	SMLP4-4
MM, SM	40 @ 850/1300, 60 @ 1310/1550	◆	◆	◆	◆	OPM5-2D	OLS4	SMLP5-5

Visual Fault Identifiers

AFL's compact VFI4 injects high-powered red-laser light to provide exceptional brightness and range for locating defects in single-mode and multimode fibers. During installation and activation, the VFI4 is used for quick continuity checks, fiber tracing, splice verification, and Pass/Fail validation for mechanical connectors. The VFI4 is also an essential troubleshooting tool to find sharp bends, breaks, faulty connectors, and other defects that "leak" light – enabling technicians to quickly spot them. The rugged VFI4 is designed for the rigors of real-life field testing. It has a range of up to 10 km, fits on a keychain, and features extensions that protect the red-laser port. It has both CW and pulsating modes and is powered by a single AA battery for up to 30 hours of operation.

SPECIFICATIONS

WAVELENGTH	OUTPUT POWER (into SMF)	EMITTER TYPE*	CONNECTOR	POWER
650 nm	<5 mW, 2 Hz, CW	Laser	Universal 2.5 mm	1 x AAA (16 hours)

* Safety: Class IIIR FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1:2007-03.

ORDERING INFORMATION

AFL NO.	DESCRIPTION
VFI4-01-0900PR	VFI4 with 2.5 mm and 1.25 mm adapters

Optical Fiber Identifiers

OFI-200 and OFI-400x Models

OFI-200 – Optical Fiber Identifier: Detects optical signals sent through single-mode fiber without disrupting traffic, differentiates traffic from 2 kHz tones, indicates traffic direction.

OFI-400 – Enhanced OFI: Adds LCD display of power. Designed for use with a wide range of single-mode fibers including 250 μm (bare) coated, 900 μm buffered and ribbon fibers or 2 mm and 3 mm jacketed fibers.

OFI-400C – Optimized for Jacketed Fiber: Functionally equivalent to the OFI-400 but designed specifically for use with 2 mm or 3 mm jacketed single-mode fibers.

OFI-400HP – High Power Applications: Designed for use where high levels of optical power are present. When display reaches +23 dBm (200 mW) or greater, the OFI-400HP displays "High" warning indication.

FIBER COATING TYPE	INSERTION LOSS (dB)		TONE (Hz)	POWER	AFL NO.
	@1310 (nm)	@1550 (nm)			
250 & 900 μm, ribbon, 2 & 3 mm jacketed	0.6	2.5	2 kHz	9V	OFI-200D
2 & 3 mm jacketed	1.0	2.8	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400C
250 & 900 μm, ribbon, 2 or 3 mm jacketed	0.6	2.5	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400
2 & 3 mm jacketed	0.2 - 0.5	0.8 - 1.3	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400HP

OFI-BIPMe

OFI-BIPMe: Determines if a fiber is live, the transmission direction, and the relative core power on standard and bend-insensitive single-mode and multimode fibers. Its positive-stop trigger mechanism provides the right amount of pressure every time to assure proper detection, while keeping loss to a minimum. This ensures that traffic will not be interrupted and the fiber will not be damaged.

FIBER COATING TYPE	DETECTABLE SIGNALS	POWER METER	POWER	AFL NO.
MM fiber, 0.25 mm SM and SM ribbon fiber (up to 12 ribbon fiber), 1.1 mm/1.5 mm/1.7 mm/ 2.0 mm/3.0 mm SM and jacketed fiber	CW, Traffic, 270 Hz/300 Hz/ 1 kHz/2 kHz	◆	(2) AA	OFI-BIPMe

FOCIS Flex Fiber Optic Connector Inspection System

Simple, fast and convenient, FOCIS Flex is the perfect connector inspection companion for your FlexScan® OTDR. Simply press the Capture button. In seconds, FOCIS Flex auto-focuses, captures and centers the image, completes pass/fail analysis to IEC 61300-3-35 or user-set criteria and wirelessly sends image and results to a Bluetooth-paired FLX380 or OFL280 FlexTester.

With integrated display, internal storage and rechargeable battery, FOCIS Flex can be used without tying up an OTDR or other display device. Or, pair it with your FLX380 or OFL280 to instantly display and optionally store results on your FlexTester OTDR.

FEATURES

- Auto-focus and auto-centering for fast, easy inspection
- Untethered operation simplifies access at patch panels
- Pass/fail analysis using IEC 61300-3-35 or user-defined criteria
- Self-contained, compact, hand-held inspection solution
- Use independently, or Bluetooth pair with FlexTester OTDR

APPLICATIONS

- Inspect connectors on patchcords or in bulkhead adapters
- Optical network installation, troubleshooting and maintenance
- Ensure critical fiber infrastructure performs properly
- Keep fiber connections working at optimal performance levels

ORDERING

DESCRIPTION	AFL NO.
FOCIS Flex, soft carry case/holster, AC charger, wrist strap, no tips	FOCIS-FLX-P4XN
FOCIS Flex, soft carry case/holster, AC charger, wrist strap, UPC bulkhead and UPC ferrule tips (1 ea), One-Click Cleaner	FOCIS-FLX-P4XU
FOCIS Flex, soft carry case/holster, AC charger, wrist strap, APC bulkhead and APC ferrule tips (1 ea), One-Click Cleaner	FOCIS-FLX-P4XA

Fiber Optic Cable | Fusion Splicers | Field-Installable Connectors | Fiber Management | Test & Inspection | Cleaning

FOCIS Lightning®2 Fiber Optic Connector Inspection System

FOCIS Lightning2 is a compact self-contained inspection probe that captures and displays the entire MPO end-face image in less than two seconds. One button provides auto-focusing, centering, and Pass/Fail analysis at the connector and individual fiber level. It can be used to inspect MPO-8, -12, -16, -24 and -32 connectors. Results can be easily shared via USB and Bluetooth®. Multi-fiber front-end adapter tips support single row and multi-row MPO connector inspection for a wide range of patch cords and bulkhead-mounted connectors having either PC/UPC or APC polished end-faces. See FOCIS Lightning2 specification sheet for more ordering information.

FEATURES

- Large, simple-to-use touch screen
- Self-contained, tether-free, compact, hand-held inspection solution
- Auto-focus and auto-centering for fast, easy inspection
- Up to 8x zoom for enhanced fiber end-face viewing
- Stores 10k images or easily shares data via USB or Bluetooth connectivity
- Wide variety of adapter tips for MPO and single-fiber connector types

APPLICATIONS

- Inspect multi-fiber and single-fiber connectors and adapters
- Data center fiber network installation, turn-up, and troubleshooting
- Inspect hardened connectors in FTTx network
- Verify proper connector cleaning practices
- Pair with OTDR for comprehensive reporting

ORDERING

DESCRIPTION	AFL NO.
FOCIS Lightning2 Kit, soft carry case, USB cable, with no tips or One-Click® cleaner	FOCIS-LT2-N
FOCIS Lightning2 Kit, soft carry case, USB cable, (1) UPC ferrule and bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LT2-U
FOCIS Lightning2 Kit, soft carry case, USB cable, (1) APC ferrule and bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LT2-A
FOCIS Lightning2 Kit, soft carry case, USB cable, (1) UPC and (1) APC ferrule and bulkhead adapter tips, (2) One-Click MPO cleaners	FOCIS-LT2-UA

Don't Scrub Your Data

The connectors entrusted to carry the critical information that passes through your network deserve far more than a wipe on a t-shirt. Don't risk losing the critical information that passes through your network every day by inspecting and cleaning fiber incorrectly. A one micron diameter speck of dust obscures 1% of a 10 micron fiber core, resulting in about 0.06 dB of additional optical return loss. AFL's industry-leading cleaning and inspection solutions enable optimal data center performance levels and minimal service disruptions.

Visit our Resource Hub to read the "New Does Not Equal Clean" blog for more reasons why cleaning is important to keep your networks running in optimal condition.

85% OF ALL **NETWORK FAILURES** ARE DUE TO **DIRTY CONNECTORS**
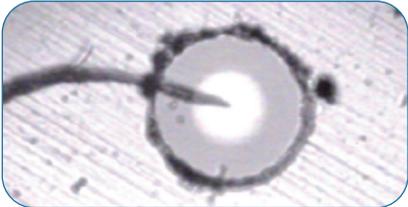
Fiber Optic Cleaning Solutions

AFL fiber optic cleaning products provide network technicians and other staff to safely and effectively clean fiber optic connectors, dramatically decreasing network outage and downtime. For details, visit AFLglobal.com for the One-Click® Cleaner or Cletop specification sheets.

One-Click Cleaners

Cletop –SB

DESCRIPTION	AFL NO.
One-Click Cleaner SC Pro (775+ cleans)	8500-05-PRO-SC
One-Click Cleaner LC Pro (775+ cleans)	8500-05-PRO-LC
One-Click Cleaner SC, ST, FC (500+ cleans)	8500-05-0001MZ
One-Click Cleaner LC/MU (500+ cleans)	8500-05-0002MZ
One-Click Cleaner Mini-100 SC, ST, FC (100+ cleans)	8500-05-0005MZ
One-Click Cleaner Mini-100 LC/MU (100+ cleans)	8500-05-0006MZ
One-Click Cleaner Mini-500 SC, ST, FC (500 cleans)	8500-05-0009MZ
One-Click Cleaner Mini-500 LC/MU (500 cleans)	8500-05-0010MZ
One-Click Cleaner Ultra 2.5 SC, ST, FC (enlarged cleaning)	8500-05-0007MZ
One-Click Cleaner ODC (outdoor connector)	8500-05-0004MZ
One-Click Cleaner D-LC, Duplex LC (500+ cleans X2)	8500-05-0008MZ
One-Click Cleaner MPO (500 cleans)	8500-05-0030MZ
One-Click Cleaner SC, ST, FC (box of 5 units)	8500-05-0021MZ
One-Click Cleaner LC/MU (box of 5 units)	8500-05-0022MZ
One-Click Cleaner Mini-100 SC, ST, FC (box of 5 units)	8500-05-0025MZ
One-Click Cleaner Mini-100 LC/MU (box of 5 units)	8500-05-0026MZ
One-Click Cleaner Ultra 2.5 SC, ST, FC (box of 5 units)	8500-05-0027MZ
Cletop –SB with White Tape	8500-10-0016MZ
Replacement Tape Type S – White	8500-10-0017MZ

Cleaning Kits

Cleaning saves time and money! Over 85% of network failures can be traced back to dirty and damaged connectors. The foolproof way to avoid these outages is to inspect and clean every connector, every time–without fail. You should even inspect new ones right out of the box. Proper fiber hygiene can extend the life of connectors and reduces replacement costs. FCP Cleaning Kits from AFL offer a complete selection of fiber optic cleaning products for field cleaning of connector end-faces in a convenient carry case.

FCP2 Kit

FCP1 WALL/RACK MOUNTABLE FIELD PORTABLE CLEANING KITS	AFL NO.	
CONTENTS / ITEMS DESCRIPTION	FCP1-00-0901	FCP1-00-0914
FCC2 Fiber Connector Cleaner And Preparation Fluid (Can)	◆	◆
CCTS-12 (for 1.25 mm ferrule) Connector Cleaning Tips		◆
CCTS-25 (for 2.5 mm ferrule) Connector Cleaning Tips	◆	◆
CCTP-25 (for all connectors) Connector Cleaning Tips	◆	◆
CCTX-MT (for MTP, MPO, MPX connectors) Connector Cleaning Tips		
Cletop-S, Type B with White Tape	◆	◆
Color-coded Instructions	◆	◆
Wall/Rack Mountable Carry Case	◆	◆

Cleaning Kits

FCP1 Kit

FCP2 Kit

FCP3 Kit

FCP2 FIELD PORTABLE DUFFLE BAG CLEANING KITS	AFL NO.	
CONTENTS / ITEMS DESCRIPTION	FCP2-10-0900	FCP2-00-0901
FCC2 Fiber Connector Cleaner and Preparation Fluid (Can)	◆	◆
FCC3 Debris Destroyer® Fiber Cleaning Pen	◆	◆
WFW FiberWipes™	◆	◆
Cletop-S, Type B with White Tape	◆	◆
One-Click Cleaner SC, ST, FC	◆	◆
One-Click Cleaner MU/LC	◆	◆
One-Click Cleaner MPO		◆
Field Portable Duffle Bag	◆	◆

FCP3 EASY-ACCESS CLEANING KITS	AFL NO.	
CONTENTS / ITEMS DESCRIPTION	FCP3-00-0900	FCP3-00-0901
FCC2 Fiber Connector Cleaner And Preparation Fluid (Can)	◆	◆
FCC3 Debris Destroyer® Fiber Cleaning Pen	◆	◆
CCTS-12 (for 1.25 mm ferrule) Connector Cleaning Tips	◆	◆
CCTS-25 (for 2.5 mm ferrule) Connector Cleaning Tips	◆	◆
Cletop-S, Type B with White Tape	◆	◆
One-Click Cleaner SC, ST, FC	◆	
One-Click Cleaner MU/LC	◆	◆
One-Click Cleaner Ultra 2.5 (enlarged cleaning) SC, ST, FC	◆	◆
One-Click Cleaner D-LC, Duplex LC		◆
One-Click Cleaner MPO	◆	◆
Soft Carry Case	◆	◆

DATACOM SOLUTIONS FOR UTILITIES

Fiber Optic Cable │ Fusion Splicers │ Field-Installable Connectors

Fiber Management │ Test & Inspection │ Cleaning

www.AFLglobal.com or (800) 235-3423