AFL Telecommunications
A Fujikura Business

Rural Utilities Service (RUS)
Listed Products

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Fiber Optic Cable

Fiber Outside Plant

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Aerial Drop Cable

Aerial Drop Cable is specifically designed for Fiber-to-the-Subscriber applications. It is a round, all dielectric cable ideally suited for self-supporting drop-type installations as well as in lashed or conduit builds.

Features

- Designed for use with inexpensive attachment hardware
- Compatible with standard splice closures
- Self-supporting - no messenger needed
- Small cross section for maximum density in closures and conduit

6-Fiber Design

Typical Spans with 2.0% Installation Sag:

- NESC Heavy 150 ft   (46 meters)
- NESC Medium 275 ft   (84 meters)
- NESC Light 550 ft   (168 meters)

12-Fiber Design

Typical Spans with 1.5% Installation Sag:

- NESC Heavy 220 ft   (67 meters)
- NESC Medium 400 ft   (122 meters)
- NESC Light 675 ft   (206 meters)

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 50ºC to + 70ºC

Installation - 30ºC to + 70ºC

Cable Components

- polyethylene outer jacket
- gel-filled buffer tube
- optical fibers
- strength elements
- water-blocking system
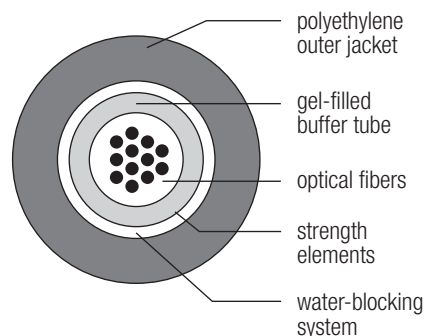
Mechanical Data

FIBER COUNT	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM LENGTHS*			
					SINGLE-MODE		MULTIMODE	
	INCHES	MM	LBS/1000'	KG/KM	FEET	METERS	FEET	METERS
1 - 6	.256	6.5	23	34	32,800	10,000	26,250	8,000
7 - 12	.307	7.8	34	50	27,500	8,400	26,250	8,000

* Longer lengths may be available upon request.

Installation Information

FIBER COUNT	MAXIMUM LOADING OPERATING TENSION		MINIMUM BENDING RADIUS (DYNAMIC)		MINIMUM BENDING RADIUS (STATIC)	
	LBS	N	INCHES	CM	INCHES	CM
1 - 6	361	1606	5	13	2.5	6.5
7 - 12	589	2621	6	16	3	8

NOTE: AFL Recommends coiling a minimum of 12 feet (3.6 meters) into 6 inch (0.15meters) loops at the entrance to all splice closures.

Ordering Information

FIBER COUNT	FIBER TYPE	PART NUMBER	MAXIMUM ATTENUATION (DB/KM)			BANDWIDTH (MHZ•KM)	
			850NM	1300NM	1550NM	850 NM	1300 NM
1 - 6	62.5/125 Giga-Link™ 300	AE00666110AA9	3.5	1.2	N/A	200	600
7 - 12		AE0126C110AC1					
1 - 6	50/125 Giga-Link™ 600	AE00656110AA9	3.5	1.2	N/A	500	500
7 - 12		AE0125C110AC1					
1 - 6	Single-mode	AE00696110AA9	N/A	0.4	0.3	N/A	N/A
7 - 12		AE0129C110AC1					
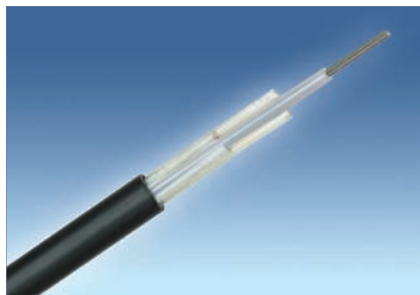
Flat Drop Cable

Designed for quick installation and ease in handling, AFL Flat-Span Drop Cable serves as the last link for the FTTx networks of today. The design is constructed utilizing proven buffer tube technology with a single tube containing up to twelve fibers. Two diametrically opposed dielectric rods are placed alongside the buffer tube to provide the mechanical properties of the cable. The finished product, with its compact flat profile, acts as a self-supporting aerial solution for those last mile drops to the customer's home or office.

Cable Components

Strength Member
Water-Blocking Material
Outer Jacket
Gel-Filled Buffer Tube
Ripcord
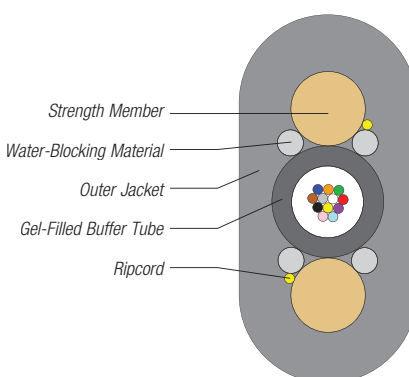
Typical Lengths

REEL SIZE	MAXIMUM LENGTHS (Single-mode)	
	FEET	METERS
30" x 12"	4300	1300
24" x 12"	2600	800

Fiber Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)	
	1310nm	1550nm
Single-mode	0.40	0.30

Mechanical Data

PARAMETER	U.S.	METRIC
Fiber Count (max.)	12	12
Cable Dimensions:	.20" x .33"	5.0 mm x 8.5 mm
Linear Weight:	.026 lbs/ft	39 kg/km
Installation Load	300 lbs	1,336 N
Bend Radius, installation	5.9"	15 cm
Bend Radius, post-installation	3.9"	10 cm

Operational/Installation Data

PARAMETER	VALUE		
Operation / Installation Temperature	-40°C to +70°C		
Storage Temperature	-40°C to +75°C		
Loading	NESC		
	Light	Medium	Heavy
Maximum Span Lengths (ft)	400	250	150
Maximum Span Lengths (meters)	122	76	46
Minimum Installation Sag (% of span)	1%	1%	1%

Note: Larger spans can be achieved if necessary with installation sags larger than 1% of span.

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 an FDT. The DCSU can also to 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 comes with all hardware required for mounting on aerial strand, pole or below-grade hand holes. 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. DCSU's are constructed from aluminum with a baked acrylic enamel finish.

Features

- Weather-resistant lightweight aluminum
- Keyed bracket mount prevents twisting
- Mounting hardware for aerial, pole or below-grade hand holes
- 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 ty-wraps required
- Patented design

Specifications

PARAMETER	FSU-10
Nom. Channel Width in. (cm)	1.25 (3.18)
Min. Bend Diameter in. (cm)	8 (20.32)

Ordering Information

DESCRIPTION	PART NO.
FOSP-DROP Kit	FA000047

Kits contain one pair of DCSU and four mount brackets.

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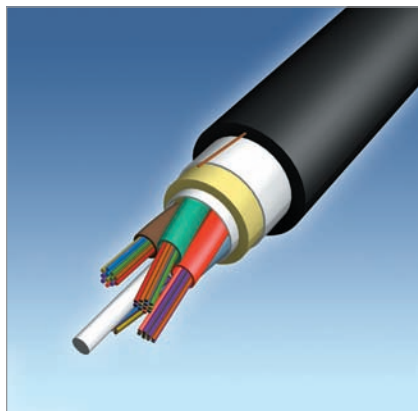
Mini-Span® ADSS Cable

AFL Mini-Span All-Dielectric Self-Supporting (ADSS) cable is designed for outside plant aerial and duct applications in local and campus network loop architectures. From pole-to-build to town-town installations, the Mini-Span cabling system, which includes cables, suspension, dead end and termination enclosures, offers a comprehensive transmission circuit infrastructure with proven, high-reliability performance. As the ADSS cabling concept implies, a separate messenger support wire hanging system is not required, greatly reducing installation time and improving upfront and maintenance labor costs.

Mini-Span includes fiber counts up to 144 optical fibers and any type or combination of single-mode and laser-optimized multimode fibers with the cable. Pole-to-Pole span lengths range from 50 feet to over 1000 feet. Custom ADSS design options allow span span lengths of over one mile (5,280 feet).

Mechanical Data

CABLE	FIBER COUNT	NOMINAL DIAMETER INCHES	MM	NOMINAL WEIGHT LBS/1000'	KG/KM	MAXIMUM LENGTHS* SINGLE-MODE FEET	METERS	MULTIMODE FEET	METERS
Mini-Span 323	2-24	0.323	8.2	35	53	32,800	10,000	26,250	8,000
Mini-Span 383	2-48	0.383	9.7	49	72	32,800	10,000	26,250	8,000
Mini-Span 424	2-60	0.424	10.8	57	84	32,800	10,000	26,250	8,000
Mini-Span 484	2-90	0.484	12.3	77	115	32,800	10,000	26,250	8,000
Mini-Span 535	2-96	0.535	13.6	100	148	32,800	10,000	26,250	8,000
Mini-Span 693	2-144	0.693	17.6	151	224	23,000	7,000	23,000	7,000

Longer lengths may be available upon request.

Installation Information

CABLE	NESC SPANS (@ 1% INITIAL SAG) FEET (METERS) LIGHT	MEDIUM	HEAVY	MAX. SAGGING TENSION LBS	N	MAX. LOADING OPERATING TENSION LBS	N	MIN. BENDING RADIUS (DYNAMIC) INCHES	CM	MIN. BENDING RADIUS (STATIC) INCHES	CM
Mini-Span 323	500 (152)	300 (91)	175 (53)	147	654	374	1668	7	17	3.5	8.5
Mini-Span 383	450 (137)	300 (91)	180 (55)	183	814	402	1,785	8	20	4	10
Mini-Span 424	600 (183)	450 (137)	275 (84)	424	1886	707	3145	9	22	4	11
Mini-Span 484	525 (160)	400 (122)	275 (84)	531	2363	840	3738	10	25	5	13
Mini-Span 535	1050 (320)	850 (259)	575 (175)	1,306	5,809	1,783	7,936	13	27	5	14
Mini-Span 693	750 (229)	600 (183)	500 (152)	1,411	6,278	1,856	8,260	14	36	7	18

Optical Information

CABLE	MAXIMUM ATTENUATION (db/km) SINGLE-MODE (1310nm/1550nm)	MULTIMODE *62.5/125µm (850nm/1300nm)	MULTIMODE 50/125µm (850nm/1300nm)	BANDWIDTH (MHz•km) SINGLE-MODE (1310nm/1550nm)	MULTIMODE *62.5/125µm (850nm/1300nm)	MULTIMODE 50/125µm (850nm/1300nm)
Mini-Span 323	0.40/0.30	3.5/1.2	3.5/1.2			
Mini-Span 383						
Mini-Span 424						
Mini-Span 484	0.35/0.25	3.5/1.2	2.9/0.9	n/a	200/600	500/500
Mini-Span 535						
Mini-Span 693						

* All 62.5/125 µm multimode ADSS cable transmission performances meet or exceed FDDI requirements.
Premium transmission performance fibers available on request.

www.AFLtele.com or 1.800.235.3423

Mini-Span® ADSS Cable

Ordering Information

CABLE	FIBER COUNT	FIBERS PER TUBE	NUMBER OF TUBES / FIBERS	PART NUMBER SINGLE-MODE	MULTIMODE 62.5/125	MULTIMODE 50/125
Mini-Span 323	6	6	1 w/6	AE00696420AA1	AE00666420AA1	AE00656420AA1
	12	6	2 w/6	AE01296420AA1	AE01266420AA1	AE01256420AA1
	18	6	3 w/6	AE01896420AA1	AE01866420AA1	AE01856420AA1
	24	6	4 w/6	AE02496420AA1	AE02466420AA1	AE02456420AA1
Mini-Span 383	6	6	1 w/6 (3 fillers)	AE0069C420AA0	AE0066C420AA0	AE0065C420AA0
	12	12	1 w/12 (3 fillers)	AE0129C420AA0	AE0126C420AA0	AE0125C420AA0
	18	12	1 w/12, 1 w/6 (2 fillers)	AE0189C420AA0	AE0186C420AA0	AE0185C420AA0
	24	12	2 w/12 (2 fillers)	AE0249C420AA0	AE0246C420AA0	AE0245C420AA0
	30	12	2 w/12, 1 w/6 (1 filler)	AE0309C420AA0	AE0306C420AA0	AE0305C420AA0
	36	12	3 w/12 (1 filler)	AE0369C420AA0	AE0366C420AA0	AE0365C420AA0
	48	12	4 w/12	AE0489C420AA0	AE0486C420AA0	AE0485C420AA0
Mini-Span 424	6	6	1 w/6 (4 fillers)	AE0069C520AA4	AE0066C520AA4	AE0065C520AA4
	12	12	1 w/12 (4 fillers)	AE0129C520AA4	AE0126C520AA4	AE0125C520AA4
	18	12	1 w/12, 1 w/6 (3 fillers)	AE0189C520AA4	AE0186C520AA4	AE0185C520AA4
	24	12	2 w/12 (3 fillers)	AE0249C520AA4	AE0246C520AA4	AE0245C520AA4
	30	12	2 w/12, 1 w/6 (2 fillers)	AE0309C520AA4	AE0306C520AA4	AE0305C520AA4
	36	12	3 w/12 (2 fillers)	AE0369C520AA4	AE0366C520AA4	AE0365C520AA4
	48	12	4 w/12 (1 filler)	AE0489C520AA4	AE0486C520AA4	AE0485C520AA4
	60	12	5 w/12 (no fillers)	AE0609C520AA4	AE0606C520AA4	AE0605C520AA4
Mini-Span 484	6	6	1 w/6 (4 fillers)	AE0069I520EA1	AE0066I520EA1	AE0065I520EA1
	12	12	1 w/12 (4 fillers)	AE0129I520EA1	AE0126I520EA1	AE0125I520EA1
	18	12	1 w/12, 1 w/6 (3 fillers)	AE0189I520EA1	AE0186I520EA1	AE0185I520EA1
	24	12	2 w/12 (3 fillers)	AE0249I520EA1	AE0246I520EA1	AE0245I520EA1
	30	12	2 w/12, 1 w/6 (2 fillers)	AE0309I520EA1	AE0306I520EA1	AE0305I520EA1
	36	12	3 w/12 (2 fillers)	AE0369I520EA1	AE0366I520EA1	AE0365I520EA1
	48	12	4 w/12 (1 filler	AE0489I520EA1	AE0486I520EA1	AE0485I520EA1
	60	12	5 w/12 (no fillers)	AE0609I520EA1	AE0606I520EA1	AE0605I520EA1
	72	18	4 w/18 (1 filler	AE0729I520EA1	AE0726I520EA1	AE0725I520EA1
	84	18	4 w/18, 1 w/12 (no fillers)	AE0849I520EA1	AE0846I520EA1	AE0845I520EA1
	90	18	5 w/18 (no fillers)	AE0909I520EA1	AE0906I520EA1	AE0905I520EA1
Mini-Span 535	6	6	1 w/6 (7 fillers)	AE0069C820EA7	AE0066C820EA7	AE0065C820EA7
	12	12	1 w/12 (7 fillers)	AE0129C820EA7	AE0126C820EA7	AE0125C820EA7
	18	12	1 w/12, 1 w/6 (6 fillers)	AE0189C820EA7	AE0186C820EA7	AE0185C820EA7
	24	12	2 w/12 (6 fillers)	AE0249C820EA7	AE0246C820EA7	AE0245C820EA7
	30	12	2 w/12, 1 w/6 (5 fillers)	AE0309C820EA7	AE0306C820EA7	AE0305C820EA7
	36	12	3 w/12 (5 fillers)	AE0369C820EA7	AE0366C820EA7	AE0365C820EA7
	48	12	4 w/12 (4 fillers)	AE0489C820EA7	AE0486C820EA7	AE0485C820EA7
	60	12	5 w/12 (3 fillers)	AE0609C820EA7	AE0606C820EA7	AE0605C820EA7
	72	12	6 w/12 (2 fillers)	AE0729C820EA7	AE0726C820EA7	AE0725C820EA7
	84	12	7 w/12 (1 filler)	AE0849C820EA7	AE0846C820EA7	AE0845C820EA7
	96	12	8 w/12 (no fillers)	AE0969C820EA7	AE0966C820EA7	AE0965C820EA7
Mini-Span 693	12	12	1 w/12 (11 fillers)	AE0129CC20EA0	AE0126CC20EA0	AE0125CC20EA0
	24	12	2 w/12 (10 fillers)	AE0249CC20EA0	AE0246CC20EA0	AE0245CC20EA0
	36	12	3 w/12 (9 fillers)	AE0369CC20EA0	AE0366CC20EA0	AE0365CC20EA0
	48	12	4 w/12 (8 fillers)	AE0489CC20EA0	AE0486CC20EA0	AE0485CC20EA0
	60	12	5 w/12 (7 fillers)	AE0609CC20EA0	AE0606CC20EA0	AE0605CC20EA0
	72	12	6 w/12 (6 fillers)	AE0729CC20EA0	AE0726CC20EA0	AE0725CC20EA0
	84	12	7 w/12 (5 fillers)	AE0849CC20EA0	AE0846CC20EA0	AE0845CC20EA0
	96	12	8 w/12 (4 fillers)	AE0969CC20EA0	AE0966CC20EA0	AE0965CC20EA0
	108	12	9 w/12 (3 fillers)	AE1089CC20EA0	AE1086CC20EA0	AE1085CC20EA0
	120	12	10 w/12 (2 fillers)	AE1209CC20EA0	AE1206CC20EA0	AE1205CC20EA0
	132	12	11 w/12 (1 filler)	AE1329CC20EA0	AE1326CC20EA0	AE1325CC20EA0
	144	12	12 w/12 (no fillers)	AE1449CC20EA0	AE1446CC20EA0	AE1445CC20EA0

Contact customer service for price and availability. Non-zero dispersion-shifted fibers are also available.

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Mini-Span® ADSS Cable

Reel Information

REEL SPECS	REEL A		REEL B		REEL C		REEL D		REEL E	
ITEM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight with Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg
MAXIMUM CABLE LENGTH (feet/meters)										
Mini-Span 323	15,256 ft	4,650 m	32,800 ft	10,000 m	—	—	—	—	—	—
Mini-Span 383	10,827 ft	3,300 m	25,202 ft	7,700 m	32,800 ft	10,000 m	—	—	—	—
Mini-Span 424	8,850 ft	2,700 m	20,250 ft	6,200 m	26,250 ft	8,000 m	32,800 ft	10,000 m	—	—
Mini-Span 484	6,500 ft	2,000 m	15,750 ft	4,800 m	21,000 ft	6,450 m	32,800 ft	10,000 m	—	—
Mini-Span 535	5,500 ft	1,675 m	12,800 ft	3,900 m	17,225 ft	5,250 m	22,700 ft	6,920 m	—	—
Mini-Span 693	—	—	9,300 ft	2,835 m	12,500 ft	3,810 m	16,330 ft	4,975 m	23,000 ft	7,000 m

AFL provides ADSS cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available on request.

Typical Cable Components
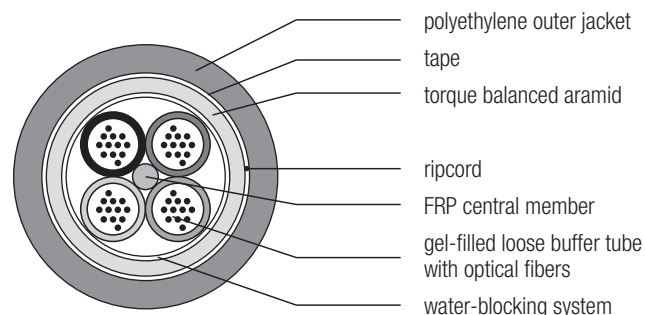
polyethylene outer jacket

tape

torque balanced aramid

ripcord

FRP central member

gel-filled loose buffer tube with optical fibers

water-blocking system

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 50ºC to + 70ºC

Installation - 30ºC to + 70ºC

For sag and tension information, go to www.AFLtele.com
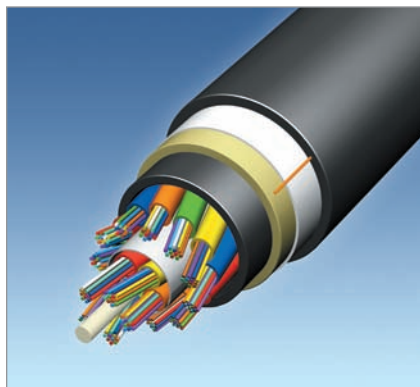
Standard ADSS Fiber Optic Cable

AFL-ADSS® (All-Dielectric Self-Supporting) cable is ideal for installation in distribution as well as transmission environments, even when live-line installations are required. As its name indicates, there is no support or messenger wire required, so installation is achieved in a single pass, making ADSS an economical and simple means of achieving a fiber optic network. AFL manufactures its own line of attachment hardware as well as supplies formed wire fittings when preferred.

Features

- Suitable for use on distribution and high voltage transmission lines
- Track-resistant outer jacket available for installations on high voltage lines where space potentials reach up to 25kV
- Gel-filled buffer tubes are S-Z stranded for easy mid-span access
- Cable is water-blocked using dry core technology, therefore no messy flooding compounds
- Design details listed below for span lengths up to 1500ft (457m) and fiber counts up to 432
- Custom designs available for larger span lengths or other fiber counts

Temperature Range

Operating - 40ºC to + 70ºC

Storage - 50ºC to + 70ºC

Installation - 30ºC to + 70ºC

Typical Maximum Lengths

CABLE DIAMETER	REEL CAPACITY	
	FEET	METERS
≤ 0.85" (21.6mm)	23,000	7,000
> 0.85" (21.6mm)	10,000	3,000

NOTE: Longer lengths may be available upon request. Lengths shown may require non-standard reel sizes/types.

Cable Components

polyethylene or track resistant outer jacket
polyethylene inner jacket
non-hygroscopic core wrap
torque-balanced aramid yarns
non-hygroscopic core wrap
ripcords
gel-filled loose buffer tube (4-24 optical fibers / tube)
FRP central member
water-blocking binder

Ordering Information

A - XXX - XXXX - X - X - X

Fiber Count
002 = 2 fibers
432 = 432 fibers

Span Length
0100 = 100
1500 = 1500

Unit of Measure
F = Feet
M = Meters

NESC Loading Condition
L = Light
M = Medium
H = Heavy

Fiber Code
6 = 62.5/125 GIGA-Link™ 300
8 = 62.5/125 GIGA-Link™ 1000
5 = 50/125 GIGA-Link™ 600
7 = 50/125 GIGA-Link™ 2000
L = 50 Laser-Link 300
9 = Single-mode
Q = Non-zero Dispersion-shifted Single-mode
K = SM Futureguide SR-15e Bend Insensitive

NOTE: *The designs listed are only a sampling of the options available from AFL. Contact customer service for a cable designed to your exact specifications.*

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Standard ADSS Fiber Optic Cable

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50 Laser-Link 300	3.5	1.2	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	167.6	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight with Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	311 kg	950 lbs	431 kg

AFL provides ADSS cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.

For sag and tension information, go to www.AFLtele.com

Mini-Dead Ends

The Mini-Dead Ends are designed for fast and easy installation of your ADSS Mini-Span® cable. The Mini-Dead End is ideal in crowded distribution environments where its shorter length allows for efficient installation. This unique low-cost product is used in typical spans with 1% or 1.5% installation sag.

ADESDFW2-256 & 307

ADELD2E-323T & 383T

ADELD2E-424005TE
shown with optional thimble eye

ADEMS484

ADEW10J1-AL535

ADEW16J1-AL693
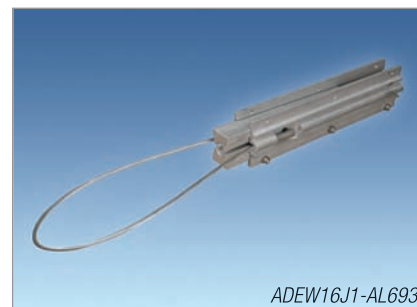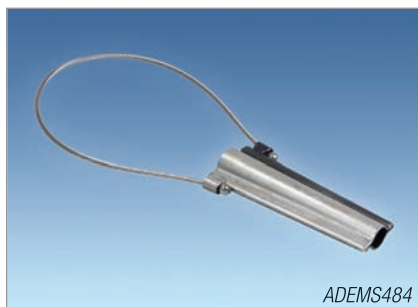
Features

- Easy and quick installation
- No special tools or hardware required for installation
- Small, requiring less storage space

Ordering Information

APPLICATION & DESCRIPTION	PART #
Aerial Drop 256 150 ft NESC heavy, 275 ft NESC medium, 550 ft NESC light	ADESDFW2-256
Aerial Drop 307 220 ft NESC heavy, 400 ft NESC medium, 675 ft NESC light	ADESDFW2-307
ADSS Mini-Span 323 175 ft NESC heavy, 300 ft NESC medium, 500 ft NESC light	ADELD2E-323T
ADSS Mini-Span 383 180 ft NESC heavy, 300 ft NESC medium, 450 ft NESC light	ADELD2E-383T
ADSS Mini-Span 424 275 ft NESC heavy, 450 ft NESC medium, 600 ft NESC light	ADELD2E-424005
ADSS Mini-Span 484 275 ft NESC heavy, 400 ft NESC medium, 525 ft NESC light	ADEMS484
ADSS Mini-Span 535 500 ft NESC heavy, 700 ft NESC medium, 875 ft NESC light Maximum loading capability is 1500 lbs.	ADEW10J1-AL535
ADSS Mini-Span 693 500 ft NESC heavy, 600 ft NESC medium, 750 ft NESC light Maximum loading capability is 1500 lbs.	ADEW16J1-AL693

NOTE: Part numbers ADEMS484, ADEW10J1-AL535, and ADEW16J1-AL693 attach to structure via common pole hardware sold separately such as thimble eye, ram's head, guy hooks, etc.

For spans greater than the span lengths above, contact Customer Service.
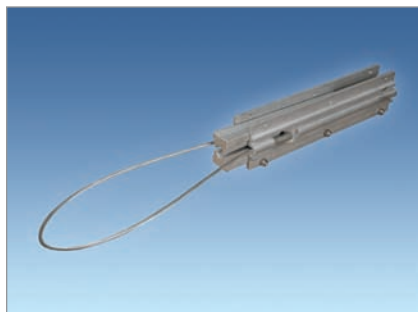
Wedge Dead End

(to be used only on Standard ADSS Cable up to 0.780" diameter, 144 fibers)

AFL Telecommunications offers wedge dead ends that ease and speed ADSS cable installation. The ADSS Wedge Dead End is ideal in crowded distribution environments because its shorter length allows for safer and efficient installation. The Wedge Dead End comes with all parts assembled. The side plates are properly aligned with spacers and self-locking hex bolts, as well as retainers. Lubricated wedges are pre-installed inside the body of the dead end. The bail is assembled with stainless steel swaged fittings and locking disc.

Features

- Easier and faster installation
- Lower total system costs
- No special tools or hardware required for installation
- Wedge-type design is safer than spiral wrap style dead ends
- Fewer parts, smaller and easier to store
- Attaches to structure via common pole hardware sold separately (thimble eye, ram's head, etc.)

Load Rating

- 1500 lbs for 10 inch wedge dead ends (10 inch wedge dead ends used for single jacket only)
- 3000 lbs for 16 inch dead ends

Caution: The load ratings shown here are based on performance results of certain cable configurations and may not be representative of all manufacturers' ADSS cable designs. ACA strongly recommends that before using this product, you contact ACA to obtain the recommended load rating and to verify that the wedge dead end has been qualified for use with the proposed cable. ACA will perform a qualification test at no charge.

Specifications

PARAMETER	VALUE
Wedge Length	10" or 16" depending on cable characteristics
Cable O.D.	0.512" to 0.780" (13 mm to 19.8 mm)
Hold Strength	100% of Maximum Rated Cable Load (MRCL)
Maximum Attenuation Change	0.05 dB at 100% MRCL $\leq$ 3000 lbs.

Ordering Information
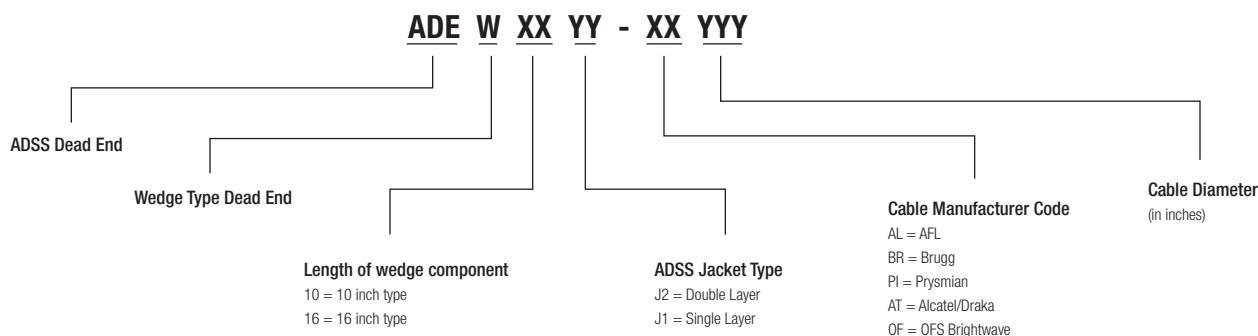
ADE W XX YY - XX YYY

ADSS Dead End

Wedge Type Dead End

Length of wedge component
10 = 10 inch type
16 = 16 inch type

ADSS Jacket Type
J2 = Double Layer
J1 = Single Layer

Cable Manufacturer Code
AL = AFL
BR = Brugg
PI = Prysmian
AT = Alcatel/Draka
OF = OFS Brightwave

Cable Diameter
(in inches)

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. AFL fiber optic cable and related hardware are designed to work as a system. Dead ends may not be available for cable from other manufacturers.

AFL Telecommunications
A Fujikura Business
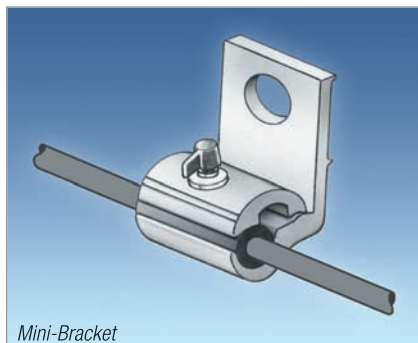
Mini-Bracket

Mini-Bracket

Mini Brackets are used for short and medium spans of ADSS fiber optic cable as well as Aerial Drop cables. Mini Brackets are sized to fit specific ADSS diameters. Standard Mini Brackets are employed with fitted bushings to provide a good support/groove fit and to prevent the support from damaging the cable. The bolted supports are supplied with aluminum captive bolts to simplify installation with no loose parts.

Ordering Information

DESCRIPTION	PART #
Aerial Drop 256 maximum line angle =17°(150 ft NESC heavy, 275 ft NESC medium, 550 ft NESC light)	AMBB 256
Aerial Drop 307 maximum line angle =17°(220 ft NESC heavy, 400 ft NESC medium, 675 ft NESC light)	AMBB 307
ADSS Mini-Span 424 maximum line angle =17°(275 ft NESC heavy, 450 ft NESC medium, 600 ft NESC light)	AMBB 424
ADSS Mini-Span 484 maximum line angle =17°(275 ft NESC heavy, 400 ft NESC medium, 525 ft NESC light)	AMBB 484-535
ADSS Mini-Span 535 maximum line angle =17°(350 ft NESC heavy, 550 ft NESC medium, 675 ft NESC light)	AMBB 484-535
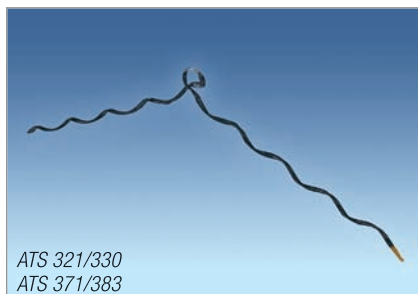
ATS 321/330
ATS 371/383

Mini Formed Wire Tangent Support (FTS)

Formed Wire Tangent Supports (FTS) are used with ADSS Mini-Span® 323 and Mini-Span® 383 for short span applications. Tangent supports provide a method of attaching AFL's smallest ADSS Mini-Span® designs with excellent unbalanced load capability and bend relief support. This product is designed to connect directly to J-hooks on wood poles for an economical solution.

Ordering Information

DESCRIPTION	PART #
ADSS Mini-Span® 323 maximum line angle = 20°(175 ft NESC heavy, 300 ft NESC medium, 500 ft NESC light)	ATS 321/330
ADSS Mini-Span® 383 maximum line angle = 20°(180 ft NESC heavy, 300 ft NESC medium, 450 ft NESC light)	ATS 371/383

Download Clamp shown with Adapter B

Features

- Slip strength: >100 lbs.
- Lattice adapters provided with break-away bolts for precise torque during installation
- Steel tower guide clamps available with adapters to eliminate the need for drilling
- Banding adapters available

Downlead Clamp for ADSS
(with or without Unequal Diameters)

The AFL Download Clamps are used to guide ADSS wire from the top of the structure to the splice box. Our clamps install easily and provide proper spacing and hold strength without damage to the cable. From poles to towers, we offer a full line of ADSS Downlead Clamps to meet the needs of any application.

Ordering Information – Downlead Clamp & Adapter

BUSHING DESIGNATION	DIAMETER (INCHES)	COLOR CODE
B4	0.350 - 0.500	red
B5	0.501 - 0.600	green
B6	0.601 - 0.700	yellow
B7	0.701 - 0.800	blue
B8	0.801 - 0.900	white
B9	0.901 - 1.000	black
B10	1.001 - 1.100	orange

ADAPTER FOR DOWNLEAD CLAMP	SUFFIX
Banding Adapter	A
Lattice Adapter (up to 0.72" tower leg thickness)	B
Lattice Adapter (up to 1.25" tower leg thickness)	C
3/8" Diameter x 3.00 Lag Bolt	D

FD	OA	XX	YY	Z	M
Fiber Download	OPGW and ADSS	Bushing Designation (Smaller Dia.)	Bushing Designation (Larger Dia.)	Adapter Choice (A, B, C or D) Omit if none is desired.	M for Metric Hardware

Example: For .528" dia. OPGW and .484 ADSS with pole banding (Type A), order as FDOA-B4B5A.
If metric hardware is desired, add a "M" suffix to the end.

See next page for optional downlead clamp adapters.

Downlead Clamp and Optional Downlead Clamp Adapters

Figure 1

.50"
1.78"
4.34"
2.38"

Figure 2

.50"
2.44"
3.69"
4.34"
2.38"
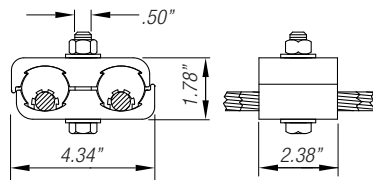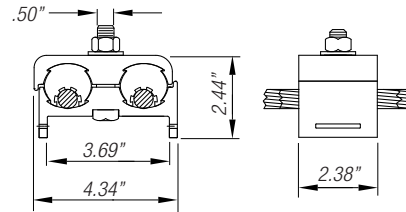
FDOA XXYY

No Adapter

Optional Adapters

Band to be supplied
by customer
Fig. 2

.50" Dia.

2.44"

FDOA XXYYA

*Type A Adapter
With Figure 2
Banding Configuration
(Est. Weight: .96 lbs.)*

Fig. 1

3.25"

.75"
Ref.

Break-away bolt

.75" 1.06"
Tower steel range .25" - .72"

FDOA XXYYB

*Type B Adapter
With Figure 1
(Est. Weight: 1.98 lbs.)*

Fig. 1

3.25"

1.38"

Break-away bolt

.75" 1.50"
Tower steel range .72" - 1.25"

FDOA XXYYC

*Type C Adapter
With Figure 1
(Est. Weight: 2.20 lbs.)*

Fig. 1

3/8" Dia. x 3" Lag Bolt

FDOA XXYYD

*Type D Adapter
With Figure 1
(Est. Weight: .96 lbs.)*

Temporary Grip

Temporary Grips are used in stringing the ADSS during sagging and where it is necessary to make short term catch on the ADSS.

The Temporary grip for ADSS is a high strength aluminum body designed to hold 2,500 pounds or 50% of MRCL of the cable.

Application Notes:
1. Mechanical Grip for Use with Polyethylene Outer Jackets Only

Vise Screw

Vise Body

Vise Plate

Approx. 19.0"
(483 mm)

1.58"
(40.1 mm)

17.00"
(432 mm)

3.00"
(76.2 mm)
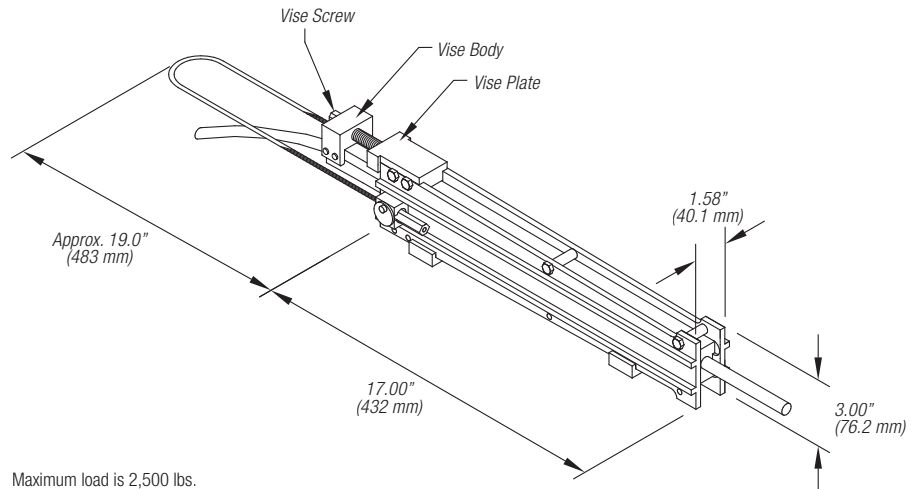
Maximum load is 2,500 lbs.

Thimble Clevis is included to attach temporary grip bail to chain hoist.

Ordering Information

A	TG	MEM	XXX	A
ADSS	Temporary Grip		ADSS Cable Diameter (in Decimal Inches)	

Ordering Information for Additional Wedges

A	TG	MEM	XXX
ADSS	Temporary Grip	Wedge Set	Cable O.D. in Inches x 1000 (Max Cable Dia. = .890")

CAUTION: The AFL Temporary Grip is only to be used for AFL ADSS cables with standard polyethylene jackets with a maximum O.D. of .890 or less.

Formed Wire Dead End for ADSS Cable

Eye Nut

Thimble Clevis

Deadend Component

14" Extension Link
(356 mm)

Structural
Reinforcing
Rods

ADSS Cable

Thimble Clevis, Extension Link and Eye Nut included
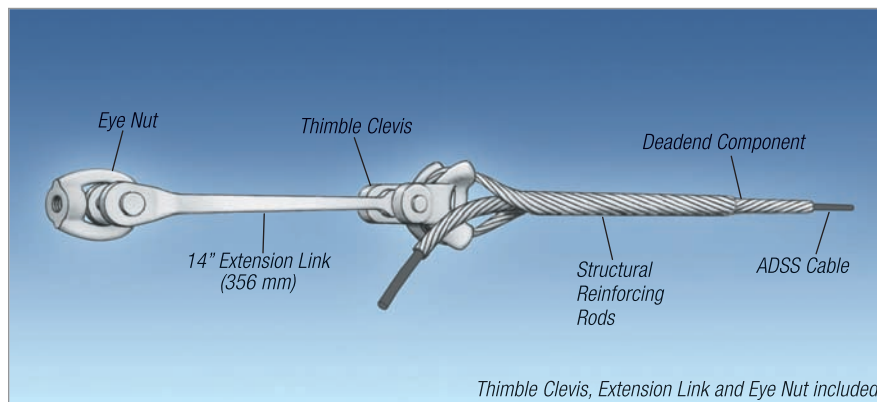
Ordering Information

"S" Deadends
(maximum loaded tension < 2500 lbs.)

CABLE O.D.				PART #
(IN)		(MM)		
0.400	0.424	10.2	10.8	ADESE400/424C
0.425	0.451	10.8	11.5	ADESE425/451C
0.452	0.481	11.5	12.2	ADESE452/481C
0.482	0.51	12.2	13.0	ADESE482/510C
0.511	0.542	13.0	13.8	ADESE511/542C
0.543	0.577	13.8	14.7	ADESE543/577C
0.578	0.613	14.7	15.6	ADESE578/613C
0.614	0.651	15.6	16.5	ADESE614/651C
0.652	0.692	16.6	17.6	ADESE652/692C
0.693	0.737	17.6	18.7	ADESE693/737C
0.738	0.784	18.7	19.9	ADESE738/784C
0.785	0.834	19.9	21.2	ADESE785/834C
0.835	0.889	21.2	22.6	ADESE835/889C
0.89	0.945	22.6	24.0	ADESE890/945C
0.946	1.007	24.0	25.6	ADESE946/1007C
1.008	1.073	25.6	27.3	ADESE1008/1073C
1.074	1.14	27.3	29.0	ADESE1074/1140C
1.141	1.212	29.0	30.8	ADESE1141/1212C
1.213	1.288	30.8	32.7	ADESE1213/1288C

"M" Deadends
(maximum loaded tension < 4000 lbs.)

CABLE O.D.				PART #
(IN)		(MM)		
0.511	0.542	13.0	13.8	ADEME511/542C
0.543	0.577	13.8	14.7	ADEME543/577C
0.578	0.613	14.7	15.6	ADEME578/613C
0.614	0.651	15.6	16.5	ADEME614/651C
0.652	0.692	16.6	17.6	ADEME652/692C
0.693	0.737	17.6	18.7	ADEME693/737C
0.738	0.784	18.7	19.9	ADEME738/784C
0.785	0.834	19.9	21.2	ADEME785/834C
0.835	0.889	21.2	22.6	ADEME835/889C
0.89	0.945	22.6	24.0	ADEME890/945C
0.946	1.007	24.0	25.6	ADEME946/1007C
1.008	1.073	25.6	27.3	ADEME1008/1073C
1.074	1.14	27.3	29.0	ADEME1074/1140C
1.141	1.212	29.0	30.8	ADEME1141/1212C
1.213	1.288	30.8	32.7	ADEME1213/1288C

"L" Deadends
(maximum loaded tension < 7200 lbs.)

CABLE O.D.				PART #
(IN)		(MM)		
0.511	0.542	13.0	13.8	ADELE511/542C
0.543	0.577	13.8	14.7	ADELE543/577C
0.578	0.613	14.7	15.6	ADELE578/613C
0.614	0.651	15.6	16.5	ADELE614/651C
0.652	0.692	16.6	17.6	ADELE652/692C
0.693	0.737	17.6	18.7	ADELE693/737C
0.738	0.784	18.7	19.9	ADELE738/784C
0.785	0.834	19.9	21.2	ADELE785/834C
0.835	0.889	21.2	22.6	ADELE835/889C
0.89	0.945	22.6	24.0	ADELE890/945C
0.946	1.007	24.0	25.6	ADELE946/1007C
1.008	1.073	25.6	27.3	ADELE1008/1073C
1.074	1.14	27.3	29.0	ADELE1074/1140C
1.141	1.212	29.0	30.8	ADELE1141/1212C
1.213	1.288	30.8	32.7	ADELE1213/1288C

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. For line or elevation angle changes greater than 30º.

Formed Wire Suspension for ADSS Cable
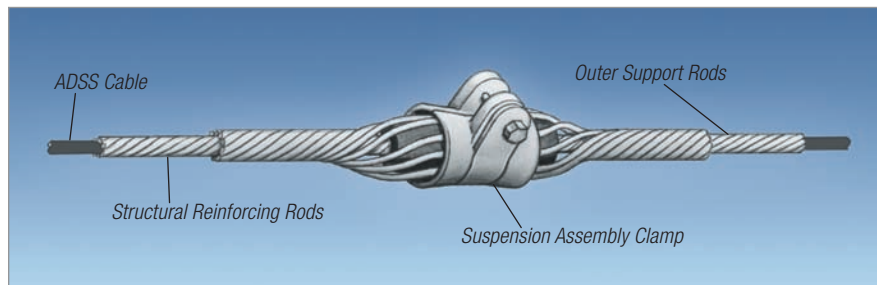
ADSS Cable

Outer Support Rods

Structural Reinforcing Rods

Suspension Assembly Clamp

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. For line or elevation angle changes less than 30º.

Ordering Information

CABLE O.D. RANGE	STRUCTURAL REINFORCEMENT RODS				OUTER RODS				PART NO.
	LENGTH (INCHES)	ROD DIA. (INCHES)	RODS PER SET	COLOR CODE	LENGTH (INCHES)	ROD DIA. (INCHES)	RODS PER SET	COLOR CODE	
0.399" - 0.418"	80	.146	10	Yellow	42	.204	11	Yellow	ASU 399/418
0.419" - 0.439"	80	.146	10	Black	42	.204	11	Black	ASU 419/439
0.440" - 0.458"	81	.146	11	White	43	.204	11	White	ASU 440/458
0.459" - 0.461"	84	.167	10	Purple	46	.250	10	Orange	ASU 459/461
0.462" - 0.476"	84	.167	10	Purple	46	.250	10	Purple	ASU 462/476
0.477" - 0.503"	84	.146	12	Orange	46	.250	10	Orange	ASU 477/503
0.504" - 0.511"	84	.146	12	Red	46	.250	10	Purple	ASU 504/511
0.512" - 0.536"	87	.167	11	Blue	49	.250	11	Blue	ASU 512/536
0.537" - 0.559"	87	.167	11	Green	49	.250	11	Green	ASU 537/559
0.560" - 0.565"	87	.167	11	Green	49	.250	11	Green	ASU 560/565
0.566" - 0.573"	92	.182	11	Black	54	.250	12	Black	ASU 566/573
0.574" - 0.598"	92	.182	11	Black	54	.250	12	White	ASU 574/598
0.599" - 0.625"	92	.182	12	Brown	54	.310	12	Brown	ASU 599/625
0.626" - 0.632"	102	.204	11	Red	63	.310	11	Red	ASU 626/632
0.633" - 0.666"	102	.204	11	Red	63	.310	11	Blue	ASU 633/666
0.667" - 0.682"	102	.204	12	Yellow	63	.310	11	Green	ASU 667/682
0.683" - 0.710"	102	.204	12	Yellow	63	.310	11	Yellow	ASU 683/710
0.711" - 0.728"	102	.204	12	White	63	.310	12	Black	ASU 711/728
0.729" - 0.744"	102	.204	12	White	63	.310	12	White	ASU 729/744
0.745" - 0.750"	102	.204	12	White	63	.310	12	White	ASU 745/750
0.751" - 0.786"	102	.204	13	White	63	.310	12	Brown	ASU 751/786
0.787" - 0.814"	111	.250	11	Green	72	.365	11	Green	ASU 787/814
0.815" - 0.845"	111	.250	12	Yellow	72	.365	11	Yellow	ASU 815/845
0.846" - 0.855"	111	.250	12	Green	72	.365	12	Blue	ASU 846/855
0.856" - 0.894"	119	.250	12	Black	80	.365	12	Black	ASU 856/894
0.895" - 0.907"	119	.250	12	White	80	.365	12	White	ASU 895/907
0.908" - 0.916"	119	.250	13	Purple	80	.365	12	Purple	ASU 908/916
0.917" - 0.929"	119	.250	13	Brown	80	.365	12	Brown	ASU 917/929
0.930" - 0.942"	119	.250	13	Red	80	.365	12	Red	ASU 930/942
0.943" - 0.977"	119	.250	13	Orange	80	.365	13	Orange	ASU 943/977

Trunnion Assemblies

AFL offers Trunnion Assemblies with various mounting capabilities: bolted, banded, or standoff. Trunnions reduce installation costs by functioning as a pull-through during installation (maximum line angle for stringing is 15° total, 7.5° per side, number of structures not to exceed 30). No block or pulley is needed provided these conditions are met.

Features

- May be used as a pull-through by removing the bushing inserts
- High-strength Aluminum
- Smaller and more compact design
- Facilitates faster installation
- Color-coded range taking inserts for easy identification
- Versatile mounting styles to fit different structure types: bolted, banded or standoff
- Banding and pole hardware supplied by customer
- Lowers the total cost of installation

Ordering Information

CABLE O.D. RANGE	BUSHING COLOR	PART #
0.475" - 0.525"	Blue	ATGN475/525
0.526" - 0.575"	Orange	ATGN 526/575
0.576" - 0.625"	Brown	ATGN 576/625
0.626" - 0.675"	Green	ATGN 626/675
0.676" - 0.725"	White	ATGN 676/725
0.726" - 0.775"	Red	ATGN 726/775
0.776" - 0.825"	Purple	ATGN 776/825
0.826" - 0.875"	Yellow	ATGN 826/875
0.876" - 0.925"	Pink	ATGN 876/925

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. As a stringing block:
    Maximum line angle = 15º (7.5º per side)
    Maximum number of structures = 30
3. For final installation:
    Maximum line angle = 22º (11º per side)

![AFL Telecommunications logo - A Fujikura Business]
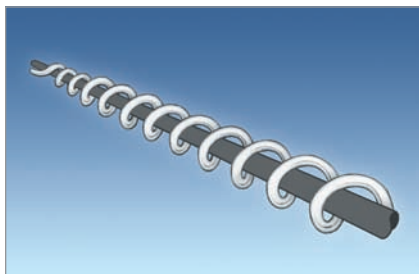
Spiral Vibration Damper for ADSS Cable

Spiral Vibration Dampers have a helically formed damping section sized for interplay of damper and cable to provide the action/reaction motion that opposed the natural vibration wave. A smaller gripping section gently grips the cable so that cable and fiber are not damaged or distorted and there is no optical signal loss. Spiral dampers are recommended for the ADSS cable when the combination of span length and tension indicate by vibration review that external vibration protection is required.

Ordering Information

Mini-Span®, Standard ADSS Designs

CABLE O.D. RANGE	PART #
0.250" - 0.326"	AVD 250/326
0.327" - 0.461"	AVD 327/461
0.462" - 0.563"	AVD 462/563
0.564" - 0.770"	AVD 564/770
0.771" - 0.876"	AVD 771/876
0.877" - 1.000"	AVD 877/1000
1.000" - 1.210"	AVD 1000/1210

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 FSU's 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.

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

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

Specifications

PARAMETER	FOSP-12-ADSS-TP	FOSP-17-ADSS-TP
Nominal Channel Width - in. (cm)	0.625	1.00
Minimum Bend Diameter - in. (cm)	12	17.5

Ordering Information

DESCRIPTION	FOSP-12-ADSS-TP	FOSP-17-ADSS-TP
FOSP ADSS Kit	FA000049	FA000050

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

Typical Installation Diagram

19
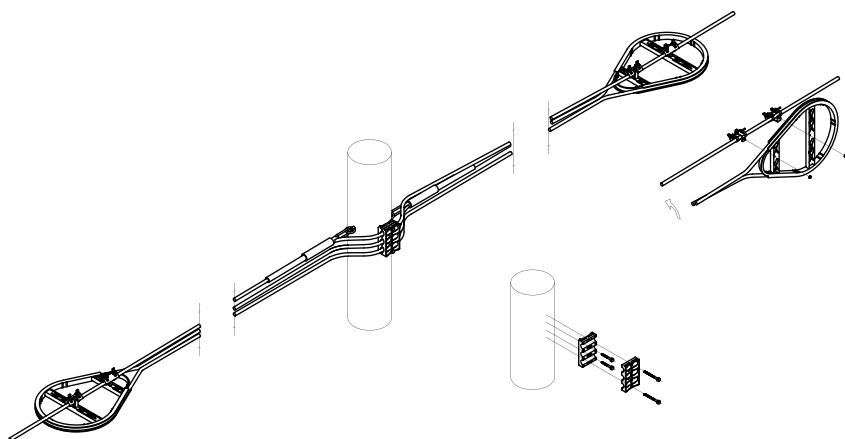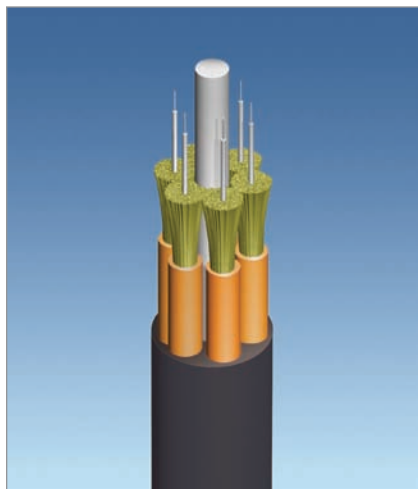
Indoor/Outdoor Breakout Cable

AFL Telecommunications' Indoor/Outdoor Breakout Cables are perfectly suited for rugged applications and installations requiring increased performance. Available in 2 to 12 fiber counts, these cables feature a UV- and fungal-resistant semi-pressure extruded outer jacket. The individual sub-units measure 2.5mm, allowing for ease of field termination, and use water-blocking aramid which further protects the tight-buffered fiber.

Features

- Fungus, water and UV-resistant PVC jacket featuring SP extrusion technology
- Riser-rated with water-blocked sub-units
- Sub-units and tight buffer available in a variety of colors
- Tested to meet or exceed GR-409-CORE and ICEA-S-104-696
- Compliant to Directive 2002/95/EC (RoHS)
- MSHA approved for mining applications

Applications

- Harsh Environment
- Mining
- Industrial
- Campus Environment

Cable Components

2-Fiber
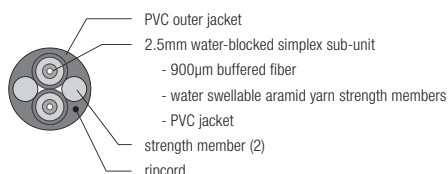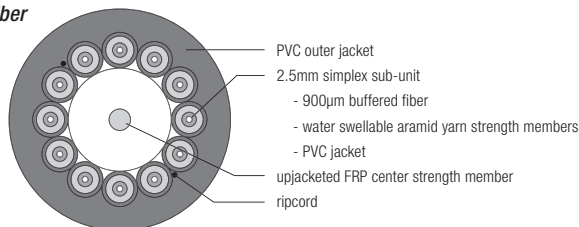
PVC outer jacket
2.5mm water-blocked simplex sub-unit
  - 900µm buffered fiber
  - water swellable aramid yarn strength members
  - PVC jacket
strength member (2)
ripcord

12-Fiber

PVC outer jacket
2.5mm simplex sub-unit
  - 900µm buffered fiber
  - water swellable aramid yarn strength members
  - PVC jacket
upjacketed FRP center strength member
ripcord

Mechanical Data

PART NUMBER	FIBER COUNT	NOMINAL DIAMETER	WEIGHT	TENSION LBS (N)		BENDING RADIUS INCHES (CM)	
		INCHES (MM)	LBS/1000FT (KG/KM)	INSTALLATION	LONG TERM	INSTALLATION	LONG TERM
BX002✶251801	2	0.30 (7.5)	32 (49)	300 (1335)	150 (667)	3.8 (9.6)	2.5 (6.4)
BX004✶251801	4	0.32 (8.2)	37 (55)	450 (2000)	185 (825)	3.9 (9.9)	3.2 (8.1)
BX006✶251801	6	0.38 (9.6)	54 (80)	750 (3360)	375 (1680)	4.8 (12.2)	3.8 (9.7)
BX008✶251801	8	0.44 (11.1)	75 (111)	1000 (4450)	425 (1750)	6.6 (16.8)	4.4 (11.2)
BX012✶251801	12	0.57 (14.5)	165 (245)	1425 (6360)	570 (2535)	8.5 (21.6)	5.7 (14.5)

2.9mm sub-units are also available.

✶ Please specify fiber type when ordering (see below)

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = 9/125µm single-mode
L = 50/125µm multimode Laser-Link 300 for 10 Gigabit Ethernet
K = Single-mode Futureguide SR-15e Bend Insensitive

Contact Customer Service for special fiber types/performance needs.

Temperature Specifications

PARAMETER	VALUE
Storage	-40°C to +70°C
Operating	-40°C to +70°C
Installation	-20°C to +70°C

Indoor/Outdoor Breakout Cable

Specifications

CORE SIZE/ FIBER TYPE	MAXIMUM ATTENUATION (DB/KM)			OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		EMB_C (MHZ•KM)	GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)		10 GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850NM	1300NM	1550NM	850NM	1300NM		850NM	1300NM	850NM	1300NM
(6) 62.5 Giga-Link™ 300	3.5	1.2	N/A	200	600	N/A	300	550	32	—
(8) 62.5 Giga-Link™ 1000	3.5	1.2	N/A	350	600	N/A	500	1000	65	—
(5) 50 Giga-Link™ 600	3.5	1.5	N/A	500	500	N/A	600	600	82	—
(7) 50 Giga-Link™ 2000	3.5	1.2	N/A	500	800	N/A	750	2000	110	—
(A) 50 Laser-Link 150	3.0	1.2	N/A	700	500	950	800	550	150	—
(L) 50 Laser-Link 300	3.0	1.2	N/A	1500	500	2000	1000	550	300	—
(C) 50 Laser-Link 550	3.0	1.2	N/A	3500	550	4700	1040	550	550	—
(K) SM Futureguide SR-15e Bend Insensitive (ITU G.657.A)	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5000	N/A	10,000
(9) SM	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5,000	N/A	10,000
(1) 100/140 Multimode	5.5	3.5	N/A	100	100	N/A	N/A	N/A	N/A	N/A

Tested to meet or exceed EIA/TIA 568-B3 / Telcordia GR-409-CORE

Cable Length - Reel Size

ITEM	REEL F
Reel Height (inches)	42
Reel Outside Width (inches)	36
Drum Diameter (inches)	23
Reel Weight (lbs)	148
CAPACITY: meters (feet)	
4 Fiber Breakout	2,500 / (8,200)
6 Fiber Breakout	2,500 / (8,200)
8 Fiber Breakout	2,500 / (8,200)
12 Fiber Breakout	1,600 / (5,250)

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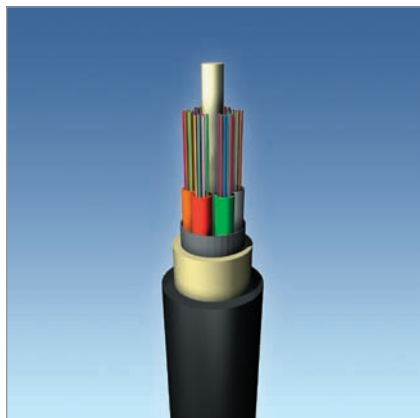
Indoor/Outdoor Loose Tube Cable

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 indoor/outdoor stranded loose tube, costly 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 U.V. resistant, S-Z stranded for easy mid-span access, listed for OFNR use per UL standards, and can be used in both duct and lashed applications.

Cable Components

- PVC jacket
- strength elements
- binder
- water blocking system
- FRP central member
- optical fiber
- rip cord
- gel-filled loose buffer tube

Applications

- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones
- MSHA Approved for Mining Applications

Temperature Range

Operating	- 40ºC to + 70ºC
Storage	- 40ºC to + 75ºC
Installation	- 30ºC to + 70ºC
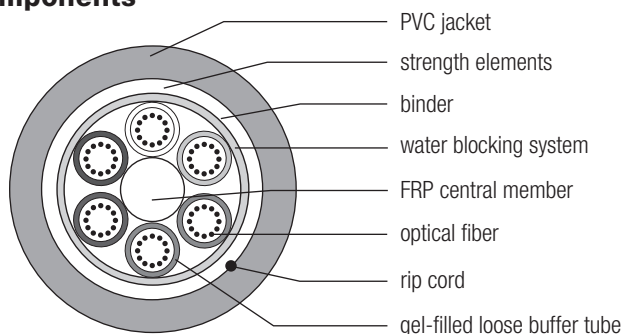
Typical Lengths

MAXIMUM LENGTHS*				
	SINGLE-MODE		MULTIMODE	
FIBER COUNT	feet	meters	feet	meters
6 - 144	22,900	7,000	22,900	7,000

* Longer lengths may be available.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive (ITU G.657.A)	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

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Indoor/Outdoor Loose Tube Cable

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER INCHES (MM)	NOMINAL WEIGHT LBS/1,000FT (KG/KM)	MAXIMUM TENSILE LOAD LBS. (N)		MINIMUM BEND RADIUS INCHES (CM)	
					SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LV006✶C5101N1	6	1w/6 (4 fillers)	0.51 (12.9)	107 (159)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV012✶C5101N1	12	1w/12 (4 fillers)	0.51 (12.9)	108 (160)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV018✶C5101N1	18	1w/12, 1w/6 (3 fillers)	0.51 (12.9)	108 (161)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV024✶C5101N1	24	2w/12 (3 fillers)	0.51 (12.9)	108 (161)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV030✶C5101N1	30	2w/12, 1w/6 (2 fillers)	0.51 (12.9)	109 (162)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV036✶C5101N1	36	3w/12 (2 fillers)	0.51 (12.9)	109 (162)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV048✶C5101N1	48	4w/12 (1 filler)	0.51 (12.9)	110 (164)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV060✶C5101N1	60	5w/12 (No fillers)	0.51 (12.9)	111 (165)	600 (2700)	200 (890)	10.2 (26)	5.1 (13)
LV072✶C6101N1	72	6w/12 (No fillers)	0.54 (13.7)	128 (190)	600 (2700)	200 (890)	10.8 (28)	5.4 (14)
LV084✶C8101N1	84	7w/12 (1 filler)	0.61 (15.5)	158 (236)	600 (2700)	200 (890)	12.2 (31)	6.1 (16)
LV096✶C8101N1	96	8w/12 (No fillers)	0.61 (15.5)	159 (237)	600 (2700)	200 (890)	12.2 (31)	6.1 (16)
LV108✶CA101N1	108	9w/12 (1 filler)	0.69 (17.4)	197 (294)	600 (2700)	200 (890)	14.0 (35)	7.0 (18)
LV120✶CA101N1	120	10w/12 (No fillers)	0.69 (17.4)	198 (295)	600 (2700)	200 (890)	14.0 (35)	7.0 (18)
LV132✶CC101N1	132	11w/12 (1 filler)	0.76 (19.3)	242 (360)	600 (2700)	200 (890)	15.2 (39)	7.6 (20)
LV144✶CC101N1	144	12w/12 (No fillers)	0.76 (19.3)	243 (361)	600 (2700)	200 (890)	15.2 (39)	7.6 (20)

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

Reel Information

ITEM	REEL A inches	REEL A cm	REEL B inches	REEL B cm	REEL C inches	REEL C cm	REEL D INCHES	REEL D CM	REEL E INCHES	REEL E CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

Unif ex® Indoor/Outdoor Loose Tube Cable

Single tube products allow for installations that require a high degree of flexibility combined with a small cable diameter. AFL Telecommunications has designed a cable that has all the characteristics of stranded loose tube cables from a mechanical and environmental standpoint, combined with the high flexibility and small diameter requirements of real world installations. This cable is the ultimate solution for flexible, connectorized applications, as well as crowded ducts in existing fiber applications, and can be lashed to an aerial messenger. Uniflex Indoor/Outdoor cable not only services the outside plant environment, but also qualifies as an Indoor/Outdoor cable, allowing potential cost savings with fewer splice points. Uniflex Indoor/Outdoor complies with EIA/TIA standards and is listed for OFNR use per UL standards.

Cable Components

- outer jacket
- strength elements
- buffer tube
- optical fiber
- water blocking gel
- ripcord

Product Applications

- OFNR
- Service (Drop) Cables
- Building Interconnections (Campus LAN)
- Connectorized Trunking Cables
- Distance Learning
- Distribution
- MSHA Approved for Mining Applications

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 70ºC
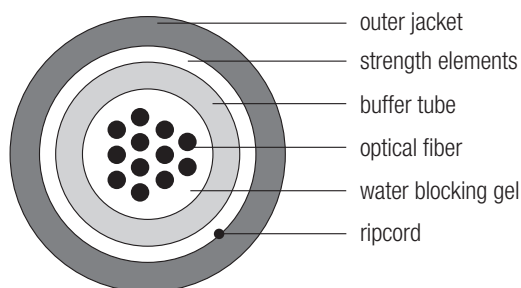
Maximum Lengths

NOMINAL DIAMETER	REEL A (42 x 36 x 23)		REEL B (58 x 36 x 28)	
mm	feet	meters	feet	meters
8.4	16,400	4,995	27,500	8,400

Ordering Information

PART NUMBER	FIBER COUNT	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
		INCHES	(MM)	LBS/1000FT	(KG/KM)	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LV002✶21100N1	2	0.33	(8.4)	50	(75)	600 (2670)	200 (890)	6.7 (17.0)	3.5 (9.0)
LV004✶41100N1	4								
LV006✶61100N1	6								
LV008✶81100N1	8								
LV010✶A1100N1	10								
LV012✶C1100N1	12								

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

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Heavy Duty Unif ex® Loose Tube Cable

AFL's Heavy Duty Uniflex loose tube cable features a central tube design and thicker-walled jacket. Often used in connectorized cable assemblies, it holds up to 12 fibers.

Product Applications

- Service (Drop) Cables
- Building Interconnections (Campus LAN)
- Connectorized Trunking Cables
- Distance Learning
- Distribution

Cable Components

- polyn
- outer jacket
- strength elements
- buffer tube
- optical fiber
- ripcord
- water blocking gel

Temperature Range

Operating . . . .- 40ºC to +70ºC

Storage. . . . .- 40ºC to +75ºC

Installation. . . . .- 30ºC to +70ºC

Ordering Information

PART NUMBER	FIBER COUNT	NOMINAL DIAMETER inches (mm)	NOMINAL WEIGHT lbs/1,000ft (kg/km)	MAXIMUM TENSILE LOAD lbs. (N)		MINIMUM BEND RADIUS inches (cm)	
				Short Term	Long Term	Short Term	Long Term
LU002✶21200N1	2						
LU004✶41200N1	4						
LU006✶61200N1	6	0.366 (9.3)	40 (65)	600 (2670)	200 (890)	7.5 (19.0)	3.7 (9.5)
LU008✶81200N1	8						
LU010✶A1200N1	10						
LU012✶C1200N1	12						

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
6 = 62.5/125µm multimode GIGA-Link™ 300
7 = 50/125µm multimode GIGA-Link™ 2000
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

Maximum Lengths

NOMINAL DIAMETER mm	REEL A (42 x 36 x 23) feet	meters	REEL B (58 x 36 x 28) feet	meters
7.8	19,000	5,790	27,500	8,400
9.3	13,300	4,050	27,500	8,400
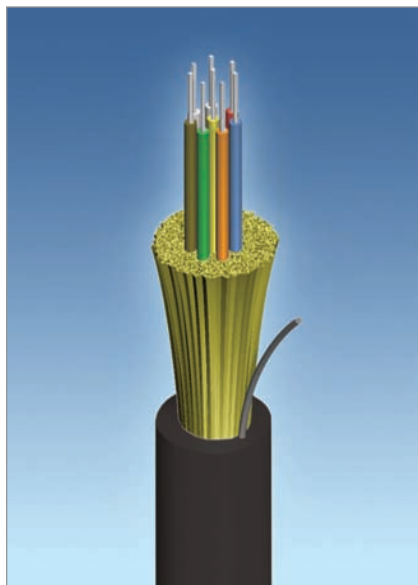
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www.AFLtele.com or 1.800.235.3423

AFL Telecommunications
A Fujikura Business

Indoor/Outdoor
Riser Tight Buffered Cable

Indoor/Outdoor Tight Buffered 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 OFNR 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.

Features

- Cables are water blocked and meet water penetration requirements of GR-20-CORE (this helps ensure that any damage to cable is restricted to a repairable length of several meters)
- Outer jacket is moisture-resistant, fungus-resistent and UV resistant for outdoor use
- With a Riser rating, this cable can be used in all environments: Riser, general inside plant and outside plant
- Tested to meet or exceed EIA/TIA 568-A / GR-409-CORE and ICEA-S-104-696
- MSHA approved for mining applications
- Compliant to Directive 2002/95/EC (RoHS)

Cable Components

900µm tight buffered fiber
aramid yarn
outer jacket
ripcord

Mechanical Data

CABLE TYPE	PART NUMBER / RISER	FIBER COUNT	NOMINAL DIAMETER / INCHES (MM)	WEIGHT / LBS/1000FT (KG/KM)	TENSION LBS (N) INSTALLATION	TENSION LBS (N) LONG TERM	BENDING RADIUS INCHES (CM) INSTALLATION	BENDING RADIUS INCHES (CM) LONG TERM
Indoor/Outdoor Tight Buffered Cable	KR002✶481001	2	0.19 (4.8)	14 (21)	303 (1350)	90 (400)	2.8 (7.2)	1.9 (4.8)
	KR004✶481001	4	0.19 (4.8)	15 (23)	303 (1350)	90 (400)	2.8 (7.2)	1.9 (4.8)
	KR006✶531001	6	0.21 (5.3)	19 (28)	303 (1350)	90 (400)	3.1 (8.0)	2.1 (5.3)
	KR008✶561001	8	0.22 (5.6)	23 (33)	303 (1350)	90 (400)	3.3 (8.4)	2.2 (5.6)
	KR012✶651001	12	0.26 (6.5)	26 (38)	303 (1350)	90 (400)	3.5 (9.0)	2.6 (6.5)
	KR018✶801001	18	0.31 (8.0)	40 (59)	600 (2670)	180 (800)	4.7 (12.0)	3.1 (8.0)
	KR024✶871001	24	0.33 (8.7)	46 (69)	600 (2670)	180 (800)	5.2 (13.1)	3.4 (8.7)

✶ Please specify fiber type when ordering (see below)

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = 9/125µm single-mode
L = 50/125µm multimode Laser-Link 300 for 10 Gigabit Ethernet
K = Single-mode Futureguide SR-15e Bend Insensitive

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

Temperature Specifications

TEMPERATURE RANGE		
OPERATING	INSTALLATION	STORAGE
-40°C to +75°C	-20°C to +75°C	-40°C to +75°C

Indoor/Outdoor
Riser Tight Buffered Cable

Specifications

CORE SIZE/ FIBER TYPE	MAXIMUM ATTENUATION (DB/KM)			OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		EMB$_C$ (MHZ•KM)	GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)		10 GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850NM	1300NM	1550NM	850NM	1300NM		850NM	1300NM	850NM	1300NM
(6) 62.5 Giga-Link™ 300	3.5	1.2	N/A	200	600	N/A	300	550	32	—
(8) 62.5 Giga-Link™ 1000	3.5	1.2	N/A	350	600	N/A	500	1000	65	—
(5) 50 Giga-Link™ 600	3.5	1.5	N/A	500	500	N/A	600	600	82	—
(7) 50 Giga-Link™ 2000	3.5	1.2	N/A	500	800	N/A	750	2000	110	—
(A) 50 Laser-Link 150	3.0	1.2	N/A	700	500	950	800	550	150	—
(L) 50 Laser-Link 300	3.0	1.2	N/A	1500	500	2000	1000	550	300	—
(C) 50 Laser-Link 550	3.0	1.2	N/A	3500	550	4700	1040	550	550	—
(K) SM Futureguide SR-15e Bend Insensitive (ITU G.657.A)	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5000	N/A	10,000
(9) SM	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5,000	N/A	10,000
(1) 100/140 Multimode	5.5	3.5	N/A	100	100	N/A	N/A	N/A	N/A	N/A

Tested to meet or exceed EIA/TIA 568-B3 / Telcordia GR-409-CORE

Maximum Cable Length - Reel Size

ITEM	FIBER BOX*	REEL A	REEL B	REEL C	REEL D	REEL E
Reel/Box Height (inches)	15.13	16	24	30	34	34
Reel/Box Outside Width (inches)	13.0	15	17	15.25	21.25	20
Drum Diameter (inches)	8.0	8	12	12	12	24
Reel Weight (lbs)	6.0	10	23	34	44	48
CAPACITY: METERS (FEET)						
2 Fiber	305 (1,000)	1,000 (3,281)	3,200 (10,500)	5,000 (16,404)	—	—
4 Fiber	305 (1,000)	1,000 (3,281)	3,200 (10,500)	5,000 (16,404)	—	—
6 Fiber	305 (1,000)	—	2,000 (6,561)	3,400 (11,154)	5,000 (16,404)	—
8 Fiber	—	—	1,700 (5,577)	4,000 (9,514)	5,000 (16,404)	—
12 Fiber	—	—	1,250 (4,100)	2,100 (6,890)	—	—
18 Fiber	—	—	—	—	—	1,500 (4,921)
24 Fiber	—	—	—	—	—	1,500 (4,921)

* Add suffix "–XMFBOX" to cable part number to specify "Fiber-In-A-Box" solution. "X" indicates length of cable in thousands of feet. Only available in standard lengths as indicated in chart above.

EXAMPLE: KR0029481001–3MFBOX

Would be the resulting part number for 3,000 feet of KR002*481001 cable with 9/125µm single-mode fiber and the Fiber-In-A-Box solution. Refer to Fiber-In-A-Box data at front of catalog.
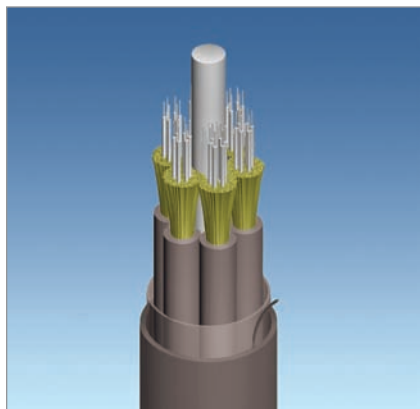
Indoor/Outdoor Multi-unit Riser Tight Buffered Cable

AFL now offers high fiber count Indoor/Outdoor Riser Cables. Waterblocked 12-fiber sub-units are helically stranded to provide sub-unitized cables ranging from 24 to 72 fiber counts. These cables are OFNR listed for indoor applications. Both the sub-unit jackets and outer sheath contain a UV stabilizer and anti-fungus protection for use in outdoor applications. Sub-units contain a water-swellable aramid and 12 tight buffered fibers.

Features

- Sub-units are water blocked and meet water penetration requirements of GR-20-CORE (this helps ensure that any damage to cable is restricted to a repairable length of several meters)
- Outer jacket is moisture-resistant, fungus-resistent and UV resistant for outdoor use
- With a Riser rating, this cable can be used in all environments: Riser, general inside plant and outside plant
- Sub-units are tested to meet or exceed EIA/TIA 568-A / GR-409-CORE and ICEA-S-104-696
- Compliant to Directive 2002/95/EC (RoHS)
- MSHA approved for mining applications

Cable Components

- fiber subunit
- tight buffered fiber
- aramid yarn
- PVC jacket
- ripcord
- central member
- binder
- outer jacket
- ripcord
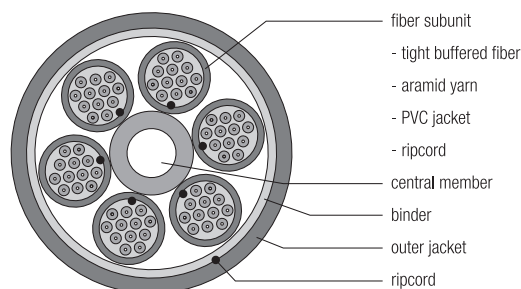
Mechanical Data

CABLE TYPE	PART NUMBER	FIBER COUNT	NOMINAL DIAMETER	WEIGHT	TENSION LBS (N)		BENDING RADIUS INCHES (CM)	
	RISER		INCHES (MM)	LBS/1000FT (KG/KM)	INSTALLATION	LONG TERM	INSTALLATION	LONG TERM
Indoor/Outdoor Tight Buffered Cable	KR024✱601001	24	0.67 (16.9)	169 (252)	1078 (4800)	525 (2335)	10.0 (25.3)	6.7 (16.9)
	KR036✱601001	36	0.67 (16.9)	178 (265)	1348 (6000)	556 (2475)	10.0 (25.3)	6.7 (16.9)
	KR048✱601001	48	0.67 (16.9)	187 (278)	1618 (7200)	584 (2600)	10.0 (25.3)	6.7 (16.9)
	KR060✱601001	60	0.76 (19.2)	197 (293)	2023 (9000)	747 (3325)	11.3 (28.8)	7.6 (19.2)
	KR072✱601001	72	0.81 (20.7)	233 (346)	2360 (10,500)	876 (3900)	12.2 (31.0)	8.1 (20.7)

✱ Please specify fiber type when ordering (see below)

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = 9/125µm single-mode
L = 50/125µm multimode Laser-Link 300 for 10 Gigabit Ethernet
K = Single-mode Futureguide SR-15e Bend Insensitive

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

Temperature Specifications

TEMPERATURE RANGE		
OPERATING	INSTALLATION	STORAGE
-40°C to +75°C	-20°C to +75°C	-40°C to +75°C

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Indoor/Outdoor Multi-unit
Riser Tight Buffered Cable

Specifications

CORE SIZE/ FIBER TYPE	MAXIMUM ATTENUATION (DB/KM)			OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		EMB$_C$ (MHZ•KM)	GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)		10 GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850NM	1300NM	1550NM	850NM	1300NM		850NM	1300NM	850NM	1300NM
(6) 62.5 Giga-Link™ 300	3.5	1.2	N/A	200	600	N/A	300	550	32	—
(8) 62.5 Giga-Link™ 1000	3.5	1.2	N/A	350	600	N/A	500	1000	65	—
(5) 50 Giga-Link™ 600	3.5	1.5	N/A	500	500	N/A	600	600	82	—
(7) 50 Giga-Link™ 2000	3.5	1.2	N/A	500	800	N/A	750	2000	110	—
(A) 50 Laser-Link 150	3.0	1.2	N/A	700	500	950	800	550	150	—
(L) 50 Laser-Link 300	3.0	1.2	N/A	1500	500	2000	1000	550	300	—
(C) 50 Laser-Link 550	3.0	1.2	N/A	3500	550	4700	1040	550	550	—
(K) SM Futureguide SR-15e Bend Insensitive (ITU G.657.A)	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5000	N/A	10,000
(9) SM	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5,000	N/A	10,000
(1) 100/140 Multimode	5.5	3.5	N/A	100	100	N/A	N/A	N/A	N/A	N/A

Tested to meet or exceed EIA/TIA 568-B3 / Telcordia GR-409-CORE

Cable Length - Reel Size

ITEM	REEL F	REEL G
Reel Height (inches)	42	60
Reel Outside Width (inches)	36	36
Drum Diameter (inches)	23	30
Reel Weight (lbs)	148	287
CAPACITY: METERS (FEET)		
18 Fibers	2,300 (7,546)	2,500 / (8,200)
24 Fibers	2,300 (7,546)	2,500 / (8,200)
36 Fibers	1,600 (5,250)	2,500 / (8,200)
48 Fibers	1,500 (4,921)	—
60 Fibers	1,250 (4,100)	1,500 / (4,921)
72 Fibers	1,000 (3,280)	1,500 / (4,921)

Indoor/Outdoor
Plenum Tight Buffered Cable

Indoor/Outdoor Tight Buffered 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.

Features

- Cables are water blocked and meet water penetration requirements of GR-20-CORE (this helps ensure that any damage to cable is restricted to a repairable length of several meters and minimizes the likelihood of having to replace the entire cable)
- Outer jacket is moisture-resistent, fungus-resistent and UV resistant for outdoor use
- With a plenum rating, this cable can be used in all environments: plenum, riser, general inside plant and outside plant
- Tested to meet or exceed EIA/TIA 568-A / GR-409-CORE
- Compliant to Directive 2002/95/EC (RoHS)

Cable Components

water-blocking strength member
UV and fungus resistant jacket
900µm tight buffered fiber

Mechanical Data

CABLE TYPE	PART NUMBER PLENUM	FIBER COUNT	NOMINAL DIAMETER INCHES (MM)	WEIGHT LBS/1000FT (KG/KM)	TENSION LBS (N) INSTALLATION	TENSION LBS (N) LONG TERM	BENDING RADIUS INCHES (CM) INSTALLATION	BENDING RADIUS INCHES (CM) LONG TERM
Indoor/Outdoor Tight Buffered Cable	KP002✱481001	2	0.19 (4.8)	18 (27)	243 (1082)	121 (541)	3.8 (9.6)	1.9 (4.8)
	KP004✱481001	4	0.19 (4.8)	18 (27)	243 (1082)	121 (541)	3.8 (96)	1.9 (4.8)
	KP006✱551001	6	0.22 (5.5)	22 (33)	243 (1082)	121 (541)	4.3 (11.0)	2.2 (5.5)
	KP008✱601001	8	0.24 (6.0)	26 (38)	388 (1726)	194 (863)	4.7 (12.0)	2.4 (6.0)
	KP012✱701001	12	0.26 (7.0)	34 (50)	388 (1726)	194 (863)	5.5 (14.0)	2.8 (7.0)
	KP018✱781001	18	0.28 (7.8)	40 (60)	398 (1774)	199 (887)	6.1 (15.6)	3.1 (7.8)
	KP024✱851001	24	0.33 (8.5)	54 (80)	398 (1774)	199 (887)	6.7 (17.0)	3.4 (8.5)

✱ Please specify fiber type when ordering (see below)

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = 9/125µm single-mode
L = 50/125µm multimode Laser-Link 300 for 10 Gigabit Ethernet
K = Single-mode Futureguide SR-15e Bend Insensitive

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

Temperature Specifications

TEMPERATURE RANGE		
OPERATING	INSTALLATION	STORAGE
-20°C to +70°C	0°C to +70°C	-40°C to +75°C

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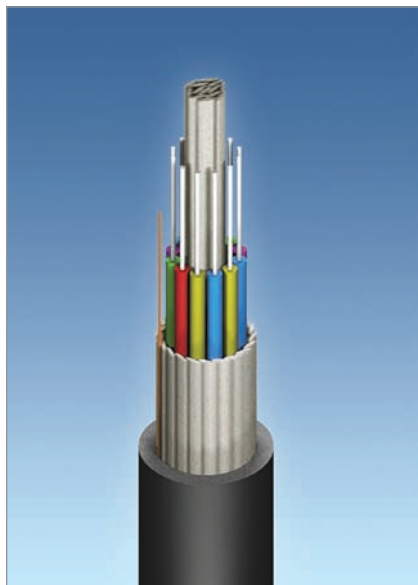# Indoor/Outdoor Plenum Tight Buffered Cable

Specifications

CORE SIZE/ FIBER TYPE	MAXIMUM ATTENUATION (DB/KM)			OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		EMB$_C$ (MHZ•KM)	GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)		10 GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850NM	1300NM	1550NM	850NM	1300NM		850NM	1300NM	850NM	1300NM
(6) 62.5 Giga-Link™ 300	3.5	1.2	N/A	200	600	N/A	300	550	32	—
(8) 62.5 Giga-Link™ 1000	3.5	1.2	N/A	350	600	N/A	500	1000	65	—
(5) 50 Giga-Link™ 600	3.5	1.5	N/A	500	500	N/A	600	600	82	—
(7) 50 Giga-Link™ 2000	3.5	1.2	N/A	500	800	N/A	750	2000	110	—
(A) 50 Laser-Link 150	3.0	1.2	N/A	700	500	950	800	550	150	—
(L) 50 Laser-Link 300	3.0	1.2	N/A	1500	500	2000	1000	550	300	—
(C) 50 Laser-Link 550	3.0	1.2	N/A	3500	550	4700	1040	550	550	—
(K) SM Futureguide SR-15e Bend Insensitive (ITU G.657.A)	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5000	N/A	10,000
(9) SM	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5,000	N/A	10,000
(1) 100/140 Multimode	5.5	3.5	N/A	100	100	N/A	N/A	N/A	N/A	N/A

Tested to meet or exceed EIA/TIA 568-B3 / Telcordia GR-409-CORE

Maximum Cable Length - Reel Size

ITEM	FIBER BOX*	REEL A	REEL B	REEL C	REEL D	REEL E
Reel/Box Height (inches)	15.13	16	24	30	34	34
Reel/Box Outside Width (inches)	13.0	15	17	15.25	21.25	20
Drum Diameter (inches)	8.0	8	12	12	12	24
Reel Weight (lbs)	6.0	10	23	34	44	48
CAPACITY: METERS (FEET)						
2 Fiber	305 (1,000)	1,000 (3,281)	3,200 (10,500)	5,000 (16,404)	—	—
4 Fiber	305 (1,000)	1,000 (3,281)	3,200 (10,500)	5,000 (16,404)	—	—
6 Fiber	305 (1,000)	—	2,400 (7,874)	4,000 (13,123)	5,000 (16,404)	—
8 Fiber	—	—	2,400 (7,874)	4,000 (13,123)	5,000 (16,404)	—
12 Fiber	—	—	1,300 (4,265)	2,100 (6,890)	3,900 (12,795)	—
18 Fiber	—	—	—	—	—	1,500 (4,921)
24 Fiber	—	—	—	—	—	1,500 (4,921)

* Add suffix "−XMFBOX" to cable part number to specify "Fiber-In-A-Box" solution. "X" indicates length of cable in thousands of feet. Only available in standard lengths as indicated in chart above.

    EXAMPLE: KP0029481001−3MFBOX

    Would be the resulting part number for 3,000 feet of KP002*481001 cable with 9/125μm single-mode fiber and the Fiber-In-A-Box solution. Refer to Fiber-In-A-Box data at front of catalog.

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Tactical Tight Buffered Cable

AFL Tactical Tight Buffered Cables are ideal for use in installations where extreme environmental conditions are present. Designed to be deployed and retrieved in the field, AFL's Tactical Tight Buffered Cables are highly resistant to damage caused by repeated impacts or harsh conditions.

Applications

- Field deployment in abusive environments
- Temporary installation of critical communications lines where quick retrieval and re-use is necessary
- High Traffic areas
- Security and Sensing applications
- Broadcast deployments
- Installations in harsh environments

Features

- Cut resistant, Flame Retardant Polyurethane outer jacket
- Highly flexible construction allows for multiple deployments
- All aramid strength members
- Performance in wide temperature range
- High impact and crush resistance
- Durable in high traffic areas
- MIL-PRF-46291 qualified fiber available (-RH designation)
- Tested to meet or exceed EIA/TIA 568-B3, Telecordia GR-409-CORE, ANSI/ICEA S-83-596, ANSI/ICEA S-104
- Two and four-fiber cables designed to meet MIL-PRF-85045

Cable Components

polyurethane outer jacket
aramid strength member
250 µm or 500 µm optical fiber
900µm Elastomeric Tight Buffer

Temperature Range

Operating   - 56ºC to + 85ºC

Installation - 20ºC to + 85ºC

Specifications

CHARACTERISTIC	TEST PROCEDURE	PERFORMANCE
Tensile and elongation	EIA/TIA-455-33	
Operating tensile strength	EIA/TIA-455-33	
Low-temp flexibility	EIA/TIA-455-37	
Cyclic flexing	EIA/TIA-455-104	2000
Crush resistance	EIA/TIA-455-41	2000 N/cm
Impact	EIA/TIA-455-25	200
Temperature cycling	EIA/TIA-455-3	-46°C to 85°C
Temperature/humidity cycling	EIA/TIA-455-5 Method B	
Life aging	EIA/TIA-455-4	
Freezing water immersion	EIA/TIA-455-98	

Ordering Information

PART NUMBER	FIBER COUNT	NOMINAL DIA.		NOMINAL WT.		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
		INCHES	(MM)	LBS/1000FT	(KG/KM)	INSTALLATION	LONG TERM	INSTALLATION	LONG TERM
XU001✶29180◆	1	0.12	(2.9)	5.4	(8)	250 (1112)	75 (334)	1.5 (3.8)	1.25 (3.2)
XU001✶58180◆	1	0.16	(4.0)	10.1	(15)	275 (1223)	90 (400)	1.75 (4.4)	1.50 (3.8)
XU001✶58180◆	1	0.18	(4.5)	11.4	(17)	275 (1223)	90 (400)	2.5 (6.4)	1.75 (4.4)
XU002✶58180◆	2	0.23	(5.8)	21.5	(32)	375 (1668)	150 (667)	3.25 (8.3)	2.25 (5.7)
XU004✶58180◆	4	0.23	(5.8)	21.5	(32)	375 (1668)	150 (667)	3.25 (8.3)	2.25 (5.7)

Note: Diameter and weight subject to change without notice

Replace asterisk (✶) in part number with number corresponding below.

5 = 50/125µm multimode GIGA-Link™ 600
6 = 62.5/125µm multimode GIGA-Link™ 300
9 = Single-mode
K = SM Futureguide SR-15e Bend Insensitive

Replace diamond (◆) in part number with number corresponding to desired fiber type to desired tight buffer below.

G = Elastomer over 500µm
H = Elastomer over 250µm
U = 500µm Bare Fiber
– RH = Indicates Radiation Hardened Fiber
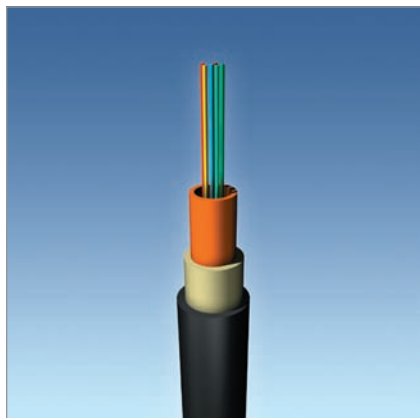
Unif ex® Non-Armored Loose Tube Cable

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 indoor/outdoor stranded loose tube, costly 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 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.
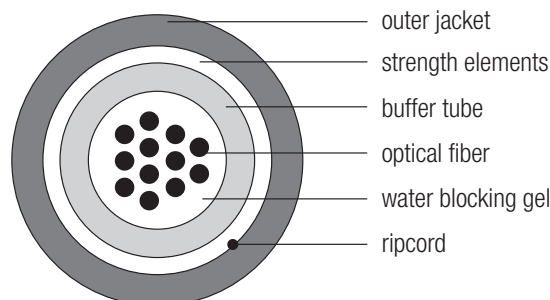
Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 70ºC

Product Applications

- Service (Drop) Cables
- Building Interconnections (Campus LAN)
- Connectorized Trunking Cables
- Distance Learning
- Distribution

Cable Components

outer jacket
strength elements
buffer tube
optical fiber
water blocking gel
ripcord

Maximum Lengths

NOMINAL DIAMETER	REEL A (42 x 32 x 23)		REEL B (58 x 32 x 28)	
mm	feet	meters	feet	meters
7.8	19,000	5,790	27,500	8,400

Ordering Information

PART NUMBER	FIBER COUNT	NOMINAL DIAMETER INCHES (MM)	NOMINAL WEIGHT LBS/1,000FT (KG/KM)	MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
				SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LE002✱21100N1	2						
LE004✱41100N1	4						
LE006✱61100N1	6	0.31 (7.8)	34 (50)	600 (2670)	200 (890)	6.3 (16.0)	3.1 (8.0)
LE008✱81100N1	8						
LE010✱A1100N1	10						
LE012✱C1100N1	12						

Note: Diameter and weight subject to change without notice

✱ Fiber Types – Replace asterisk (✱) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

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Non-Armored Loose Tube Cable – Single Jacket

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Non-Armored Loose Tube fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations. With fiber counts up to 576 and S-Z strand designs for easy mid-span access, AFL's cables comply with EIA/TIA, REA/RUS PE-90 and GR-20. Industry standard designs combined with innovative technologies, such as a dry core product, yield a world class cable that will support today's and tomorrow's technological needs.

Product Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

Temperature Range

Operating . . . .-40ºC to +70ºC

Storage. . . . .-40ºC to +75ºC

Installation. . . . .-30ºC to +70ºC

Cable Components

polyethylene jacket
polyester tape
optical fiber
FRP central member
rip cord
water-blocking system
gel-filled loose buffer tube

Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	SINGLE-MODE		MULTIMODE	
	FEET	METERS	FEET	METERS
6 - 60	22,900	7,000	22,900	7,000
72 - 96	22,900	7,000	22,900	7,000
108 -120	22,900	7,000	22,900	7,000
132 - 144	22,900	7,000	22,900	7,000
146 - 216	22,900	7,000	22,900	7,000
218 - 288	16,400	5,000	16,400	5,000
290 - 432	14,100	4,300	14,000	4,300
434 - 576	10,800	3,300	11,000	3,300

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

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Non-Armored Loose Tube Cable – Single Jacket

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
			INCHES	MM	LBS/1,000FT	KG/KM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LE006✶C5101N1	6	1w/6 (4 fillers)	0.41	10.5	56	83	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE012✶C5101N1	12	1w/12 (4 fillers)	0.41	10.5	56	84	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE018✶C5101N1	18	1w/12,1w/6 (3 fillers)	0.41	10.5	57	85	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE024✶C5101N1	24	2w/12 (3 fillers)	0.41	10.5	57	85	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE030✶C5101N1	30	2w/12,1w/6 (2 fillers)	0.41	10.5	58	86	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE036✶C5101N1	36	3w/12 (2 fillers)	0.41	10.5	58	86	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE048✶C5101N1	48	4w/12 (1 filler)	0.41	10.5	59	87	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE060✶C5101N1	60	5w/12 (no fillers)	0.41	10.5	60	89	600 (2670)	200 (890)	8.2 (21)	4.1 (11)
LE072✶C6101N1	72	6w/12 (no fillers)	0.45	11.5	71	106	600 (2670)	200 (890)	9.0 (22)	4.5 (11.5)
LE084✶C8101N1	84	7w/12 (1 filler)	0.52	13.3	90	135	600 (2670)	200 (890)	10.4 (27)	5.2 (14)
LE096✶C8101N1	96	8w/12 (no fillers)	0.52	13.3	91	136	600 (2670)	200 (890)	10.4 (27)	5.2 (14)
LE108✶CA101N1	108	9w/12 (1 filler)	0.59	15.1	117	174	600 (2670)	200 (890)	11.8 (31)	5.9 (16)
LE120✶CA101N1	120	l0w/12 (no fillers)	0.59	15.1	118	175	600 (2670)	200 (890)	11.8 (31)	5.9 (16)
LE132✶CC101N1	132	11w/12 (1 filler)	0.67	17.0	147	219	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LE144✶CC101N1	144	12w/12 (no fillers)	0.67	17.0	148	220	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LE216✶CI301N1	216	18w/12 (no fillers)	0.69	17.4	150	224	600 (2670)	200 (890)	14.0 (35)	6.9 (18)
LE288✶CO301N1	288	24w/12 (no fillers)	0.79	20.1	202	301	600 (2670)	200 (890)	17.3 (41)	7.9 (21)
LE432✶IO301N1	432	24w/18 (no fillers)	0.87	22.0	242	360	600 (2670)	200 (890)	17.4 (44)	8.7 (22)
LE576✶OO301N1	576	24w/24 (no fillers)	1.00	25.3	319	475	600 (2670)	200 (890)	20.1 (51)	10.2 (26)

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125μm multimode GIGA-Link™ 600
7 = 50/125μm multimode GIGA-Link™ 2000
6 = 62.5/125μm multimode GIGA-Link™ 300
8 = 62.5/125μm multimode GIGA-Link™ 1000
9 = Single-mode
L = 50/125μm multimode Laser-Link™ 300
K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

AFL Telecommunications
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Non-Armored Loose Tube Cable – Double Jacket

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Non-Armored Double Jacket Loose Tube fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations while incorporating a second jacket when extra mechanical protection is desired. With fiber counts up to 576 and S-Z strand designs for easy mid-span access, AFL's cables comply with EIA/TIA, REA/RUS PE-90 and GR-20. Industry standard designs combined with innovative technologies, such as a dry core product, yield a world class cable that will support today's and tomorrow's technological needs.

Product Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
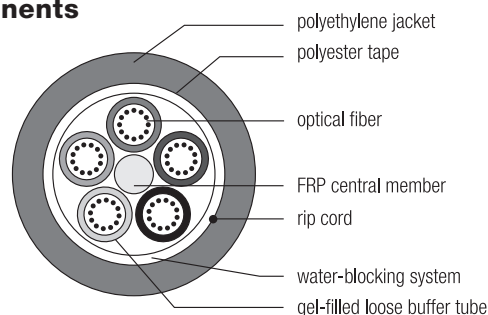- Intrabuilding Backbones

Temperature Range

Operating . . . .-40ºC to +70ºC

Storage. . . . .-40ºC to +75ºC

Installation. . . . .-30ºC to +70ºC

Cable Components

polyethylene jackets
polyester tape
optical fiber
FRP central member
strength elements
ripcords
water-blocking system
gel-filled loose buffer tube

Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	**SINGLE-MODE**		**MULTIMODE**	
	feet	meters	feet	meters
6 - 60	22,900	7,000	22,900	7,000
72 - 96	22,900	7,000	22,900	7,000
108 -120	22,900	7,000	22,900	7,000
132 - 144	22,900	7,000	22,900	7,000
146 - 216	17,000	5,200	17,000	5,200
218 - 288	15,000	4,600	15,000	4,600
290 - 432	10,800	3,300	10,800	3,300
434 - 576	6,500	2,000	6,500	2,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Non-Armored Loose Tube Cable – Double Jacket

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
			INCHES	MM	LBS/1,000FT	KG/KM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LE006✶C5111N1	6	1w/6 (4 fillers)	0.49	12.5	79	118	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE012✶C5111N1	12	1w/12 (4 fillers)	0.49	12.5	80	119	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE018✶C5111N1	18	1w/12,1w/6 (3 fillers)	0.49	12.5	81	120	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE024✶C5111N1	24	2w/12 (3 fillers)	0.49	12.5	81	120	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE030✶C5111N1	30	2w/12,1w/6 (2 fillers)	0.49	12.5	82	121	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE036✶C5111N1	36	3w/12 (2 fillers)	0.49	12.5	82	121	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE048✶C5111N1	48	4w/12 (1 filler)	0.49	12.5	83	123	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE060✶C5111N1	60	5w/12 (no fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LE072✶C6111N1	72	6w/12 (no fillers)	0.53	13.4	97	144	600 (2670)	200 (890)	10.6 (27)	5.3 (14)
LE084✶C8111N1	84	7w/12 (1 filler)	0.60	15.2	120	178	600 (2670)	200 (890)	12.0 (31)	6.0 (16)
LE096✶C8111N1	96	8w/12 (no fillers)	0.60	15.2	121	180	600 (2670)	200 (890)	12.0 (31)	6.0 (16)
LE108✶CA111N1	108	9w/12 (1 filler)	0.67	17.1	150	222	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LE120✶CA111N1	120	10w/12 (no fillers)	0.67	17.1	151	224	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LE132✶CC111N1	132	11w/12 (1 filler)	0.75	19.0	184	273	600 (2670)	200 (890)	15.0 (38)	7.5 (19)
LE144✶CC111N1	144	12w/12 (no fillers)	0.75	19.0	185	275	600 (2670)	200 (890)	15.0 (38)	7.5 (19)
LE216✶CI311N1	216	18w/12 (no fillers)	0.76	19.3	188	280	600 (2670)	200 (890)	15.2 (39)	7.6 (20)
LE288✶CO311N1	288	24w/12 (no fillers)	0.87	22.0	245	365	600 (2670)	200 (890)	17.4 (44)	8.7 (22)
LE432✶IO311N1	432	24w/18 (no fillers)	0.94	23.9	289	430	600 (2670)	200 (890)	18.8 (48)	9.4 (24)
LE576✶OO311N1	576	24w/24 (no fillers)	1.08	27.3	372	554	600 (2670)	200 (890)	21.4 (55)	10.7 (28)

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125μm multimode GIGA-Link™ 600
7 = 50/125μm multimode GIGA-Link™ 2000
6 = 62.5/125μm multimode GIGA-Link™ 300
8 = 62.5/125μm multimode GIGA-Link™ 1000
L = 50/125μm multimode Laser-Link™ 300
9 = Single-mode
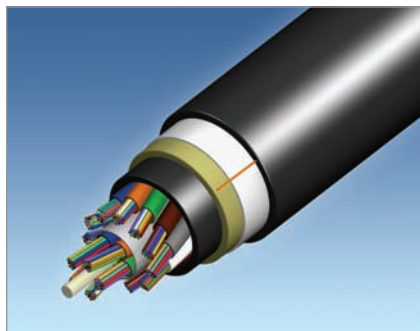K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

Armored Loose Tube Cable –
Single Jacket/Single Armor

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Armored Loose Tube Single Jacket/Single Armor fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations, including direct buried. With fiber counts up to 144 and S-Z strand designs for easy mid-span access, AFL's cables comply with EIA/TIA, REA/RUS PE-90 and GR-20. Industry standard designs combined with innovative technologies, such as a dry core product, yield a world class cable that will support today's and tomorrow's technological needs.

Product Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 70ºC

Cable Components

polyethylene jacket
optical fiber
gel-filled loose buffer tube
corrugated steel armoring
FRP central member
rip cord
water blocking system

Typical Lengths

MAXIMUM LENGTHS*				
	SINGLE-MODE		MULTIMODE	
FIBER COUNT	FEET	METERS	FEET	METERS
6 - 144	19,686	6,000	19,686	6,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Armored Loose Tube Cable – Single Jacket/Single Armor

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
			INCHES	MM	LBS/1,000FT	KG/KM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LE006✶C5201S1	6	1w/6 (4 fillers)	0.52	13.3	102	152	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE012✶C5201S1	12	1w/12 (4 fillers)	0.52	13.3	102	152	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE018✶C5201S1	18	1w/12,1w/6 (3 fillers)	0.52	13.3	103	153	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE024✶C5201S1	24	2w/12 (3 fillers)	0.52	13.3	103	154	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE030✶C5201S1	30	2w/12,1w/6 (2 fillers)	0.52	13.3	104	155	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE036✶C5201S1	36	3w/12 (2 fillers)	0.52	13.3	104	155	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE048✶C5201S1	48	4w/12 (1 filler)	0.52	13.3	105	157	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE060✶C5201S1	60	5w/12 (no fillers)	0.52	13.3	106	158	600 (2670)	200 (890)	10.7 (28)	5.4 (14)
LE072✶C6201S1	72	6w/12 (no fillers)	0.56	14.2	120	179	600 (2670)	200 (890)	11.4 (29)	5.7 (15)
LE084✶C8201S1	84	7w/12 (1 filler)	0.63	16.0	146	218	600 (2670)	200 (890)	12.8 (33)	6.4 (16.3)
LE096✶C8201S1	96	8w/12 (no fillers)	0.63	16.0	147	219	600 (2670)	200 (890)	12.8 (33)	6.4 (16.3)
LE108✶CA201S1	108	9w/12 (1 filler)	0.70	17.8	176	262	600 (2670)	200 (890)	14.2 (37)	7.1 (18)
LE120✶CA201S1	120	10w/12 (no fillers)	0.70	17.8	177	264	600 (2670)	200 (890)	14.2 (37)	7.1 (18)
LE132✶CC201S1	132	11w/12 (1 filler)	0.78	19.7	213	317	600 (2670)	200 (890)	15.7 (40)	7.9 (20)
LE144✶CC201S1	144	12w/12 (no fillers)	0.78	19.7	214	319	600 (2670)	200 (890)	15.7 (40)	7.9 (20)

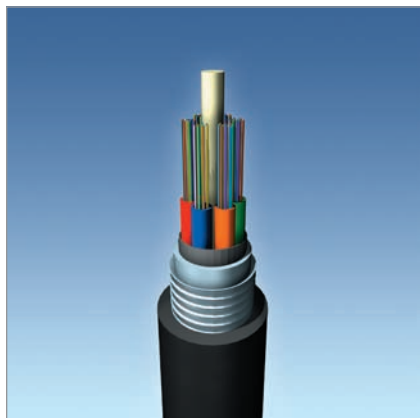Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

AFL Telecommunications
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Armored Loose Tube Cable –
Double Jacket/Single Armor

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Armored Loose Tube Double Jacket/Single Armor fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations, including direct buried. With fiber counts up to 144 and S-Z strand designs for easy mid-span access, AFL's cables comply with EIA/TIA, REA/RUS PE-90 and GR-20. Industry standard designs combined with innovative technologies, such as a dry core product, yield a world class cable that will support today's and tomorrow's technological needs.

Product Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 70ºC

Cable Components

- polyethylene outer jacket
- corrugated steel armoring
- optical fiber
- gel-filled loose buffer tube
- polyethylene inner jacket
- FRP central member
- rip cords
- water blocking system

Typical Lengths

MAXIMUM LENGTHS*				
	SINGLE-MODE		MULTIMODE	
FIBER COUNT	feet	meters	feet	meters
6 - 72	19,686	6,000	19,686	6,000
84 - 96	14,700	4,500	14,700	4,500
108 -120	13,000	4,000	13,000	4,000
132 - 144	11,100	3,400	11,100	3,400

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Armored Loose Tube Cable –
Double Jacket/Single Armor

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD lbs (N)		MINIMUM BEND RADIUS inches (cm)	
			inches	mm	lbs/1,000ft	kg/km	Short Term	Long Term	Short Term	Long Term
LE006✶C5111S1	6	1w/6 (4 fillers)	0.60	15.2	129	192	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE012✶C5111S1	12	1w/12 (4 fillers)	0.60	15.2	131	194	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE018✶C5111S1	18	1w/12,1w/6 (3 fillers)	0.60	15.2	132	196	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE024✶C5111S1	24	2w/12 (3 fillers)	0.60	15.2	132	196	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE030✶C5111S1	30	2w/12,1w/6 (2 fillers)	0.60	15.2	132	196	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE036✶C5111S1	36	3w/12 (2 fillers)	0.60	15.2	132	196	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE048✶C5111S1	48	4w/12 (1 filler)	0.60	15.2	132	197	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE060✶C5111S1	60	5w/12 (no fillers)	0.60	15.2	132	198	600 (2670)	200 (890)	12.4 (32)	6.2 (16)
LE072✶C6111S1	72	6w/12 (no fillers)	0.63	16.1	153	228	600 (2670)	200 (890)	13.0 (33)	6.5 (17)
LE084✶C8111S1	84	7w/12 (1 filler)	0.71	17.9	180	267	600 (2670)	200 (890)	14.4 (37)	7.2 (18)
LE096✶C8111S1	96	8w/12 (no fillers)	0.71	17.9	181	269	600 (2670)	200 (890)	14.4 (37)	7.2 (18)
LE108✶CA111S1	108	9w/12 (1 filler)	0.78	19.8	216	321	600 (2670)	200 (890)	15.8 (40)	7.9 (21)
LE120✶CA111S1	120	10w/12 (no fillers)	0.78	19.8	217	323	600 (2670)	200 (890)	15.8 (40)	7.9 (21)
LE132✶CC111S1	132	11w/12 (1 filler)	0.85	21.7	258	383	600 (2670)	200 (890)	18.0 (46)	9.0 (23)
LE144✶CC111S1	144	12w/12 (no fillers)	0.85	21.7	259	385	600 (2670)	200 (890)	18.0 (46)	9.0 (23)

Note: Diameter and weight subject to change without notice.

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode

Reel Information

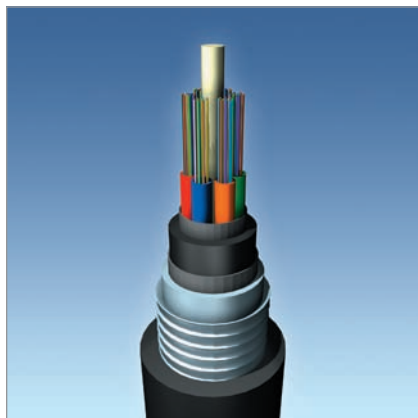| ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	inches	cm	inches	cm	inches	cm	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

Armored Loose Tube Cable – Triple Jacket/Double Armor

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL Telecommunications' Armored Loose Tube Triple Jacket/Double Armor fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations, including direct buried. With fiber counts up to 144 and S-Z strand designs for easy mid-span access, AFL Telecommunications' cables comply with EIA/TIA, REA/RUS PE-90 and GR-20. Industry standard designs combined with innovative technologies, such as a dry core product, yield a world class cable that will support today's and tomorrow's technological needs.

Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

Temperature Range

PARAMETER	VALUE
Operating	-40ºC to +70ºC
Storage	-40ºC to +75ºC
Installation	-30ºC to +60ºC
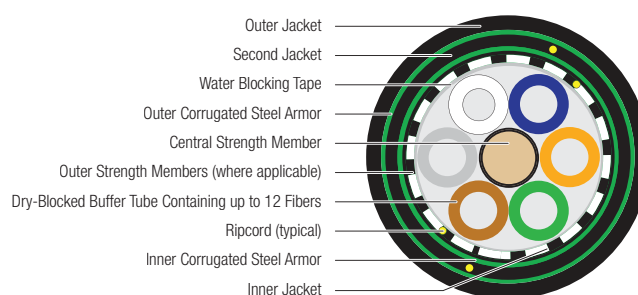
Cable Components

Outer Jacket
Second Jacket
Water Blocking Tape
Outer Corrugated Steel Armor
Central Strength Member
Outer Strength Members (where applicable)
Dry-Blocked Buffer Tube Containing up to 12 Fibers
Ripcord (typical)
Inner Corrugated Steel Armor
Inner Jacket

Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	SINGLE-MODE		MULTIMODE	
	feet	meters	feet	meters
6 - 72	20,000	6,000	20,000	6,000
84 - 96	14,700	4,500	14,700	4,500
108 - 120	13,000	4,000	13,000	4,000
132 - 144	11,100	3,400	11,100	3,400

* Longer lengths may be available upon request.

AFL Telecommunications
A Fujikura Business

Armored Loose Tube Cable –
Triple Jacket/Double Armor

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	N/A

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD lbs (N)		MINIMUM BEND RADIUS inches (cm)	
			inches	mm	lbs/1,000ft	kg/km	Short Term	Long Term	Short Term	Long Term
LE006✴C5421S1	6	1w/6 (4 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE012✴C5421S1	12	1w/12 (4 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE018✴C5421S1	18	1w/12,1w/6 (3 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE024✴C5421S1	24	2w/12 (3 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE030✴C5421S1	30	2w/12,1w/6 (2 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE036✴C5421S1	36	3w/12 (2 fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE048✴C5421S1	48	4w/12 (1 filler)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE060✴C5421S1	60	5w/12 (no fillers)	0.78	19.7	243	362	600 (2670)	180 (800)	15.6 (39.4)	7.8 (19.7)
LE072✴C6421S1	72	6w/12 (no fillers)	0.81	20.6	262	390	600 (2670)	180 (800)	16.2 (41.2)	8.1 (20.6)
LE084✴C8421S1	84	7w/12 (1 filler)	0.88	22.3	302	450	600 (2670)	180 (800)	16.6 (44.3)	8.8 (22.3)
LE096✴C8421S1	96	8w/12 (no fillers)	0.88	22.3	302	450	600 (2670)	180 (800)	16.6 (44.3)	8.8 (22.3)
LE108✴CA421S1	108	9w/12 (1 filler)	0.94	24.0	346	515	600 (2670)	180 (800)	18.8 (48.0)	9.4 (24.0)
LE120✴CA421S1	120	10w/12 (no fillers)	0.94	24.0	346	515	600 (2670)	180 (800)	18.8 (48.0)	9.4 (24.0)
LE132✴CC421S1	132	11w/12 (1 filler)	1.02	25.9	392	585	600 (2670)	180 (800)	20.4 (51.8)	10.2 (25.9)
LE144✴CC421S1	144	12w/12 (no fillers)	1.02	25.9	392	585	600 (2670)	180 (800)	20.4 (51.8)	10.2 (25.9)

Note: Diameter and weight subject to change without notice

✴ Fiber Types – Replace asterisk (✴) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode

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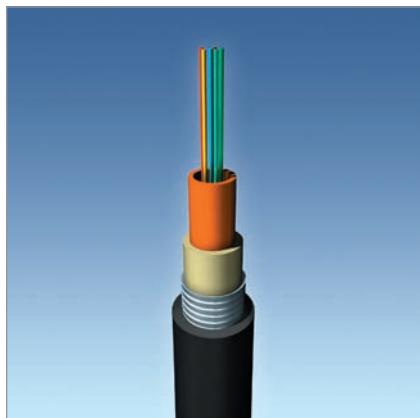
Unif ex® Armored Loose Tube Cable

AFL's Armored Uniflex cable is a central tube, loose tube product used in various outside plant applications. Its compact design holds up to 12 fibers.

Product Applications

- Service (Drop) Cables
- Building Interconnections (Campus LAN)
- Connectorized Trunking Cables
- Distance Learning
- Distribution

Cable Components

outer jacket
strength elements
buffer tube
optical fiber
water blocking gel
ripcord
corrugated steel armoring

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 70ºC

Maximum Lengths

NOMINAL DIAMETER	REEL A (42 x 32 x 23)		REEL B (58 x 32 x 28)		REEL C (66 x 36 x 36)	
mm	feet	meters	feet	meters	feet	meters
12.2	7,700	2,345	18,250	5,560	24,400	7,435

* Maximum lengthof 27,500 feet available on larger reels.

Ordering Information

PART NUMBER	FIBER COUNT	NOMINAL DIAMETER INCHES (MM)	NOMINAL WEIGHT LBS/1,000FT (KG/KM)	MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
				SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LE002✶21200S1	2						
LE004✶41200S1	4						
LE006✶61200S1	6	0.48 (12.2)	95 (140)	600 (2670)	200 (890)	9.6 (25.0)	4.8 (13.0)
LE008✶81200S1	8						
LE010✶A1200S1	10						
LE012✶C1200S1	12						

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
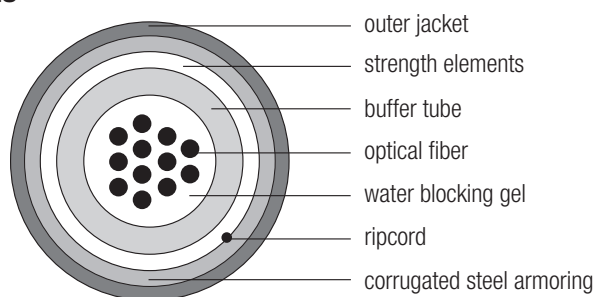9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

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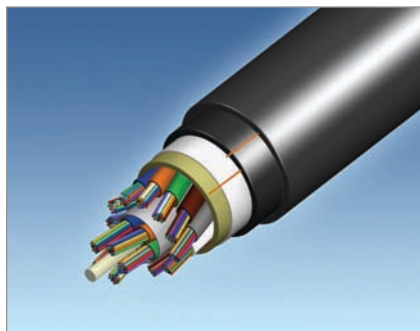
Rodent-Resistant Loose Tube Cable – Double Jacket

AFL's All-dielectric Rodent-Resistance cable is designed specifically for environments that have an increased risk of rodent infestation and disturbance. The LN-series product line covers the range of fiber-counts of up to 576 fibers. The ultra-hard, non-metallic outer polymer shell reduces risk of transmission interruptions in vital OSP network interconnections. In addition, the cable line meets all applicable RUS, GR-20 and IEC and TIA related design and performance guidelines.

Applications

- Long Haul Networking
- Building Interconnections (Campus LAN)
- Steam-tunnel Substreet Drainage Networks
- Local Loop
- Airport (FAA-E-2761c, Type B)

Temperature Range

Operating . . . .-40ºC to +70ºC

Storage. . . . .-40ºC to +75ºC

Installation. . . . .-30ºC to +70ºC

Cable Components

- rodent-resistant, low-friction, outer jacket
- polyethylene inner jacket
- optical fibers
- FRP central member
- ripcords
- water-blocking system
- gel-filled loose buffer tube
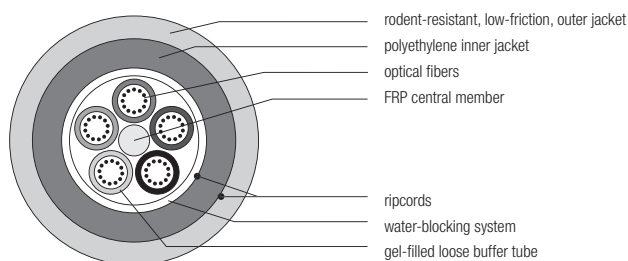
Typical Lengths

MAXIMUM LENGTHS*				
	SINGLE-MODE		MULTIMODE	
FIBER COUNT	feet	meters	feet	meters
6 - 60	26,200	8,000	26,200	8,000
72 - 96	26,200	8,000	26,200	8,000
108 -120	26,200	8,000	26,200	8,000
132 - 144	22,600	6,900	22,600	6,900
146 - 216	17,000	5,200	17,000	5,200
218 - 288	15,000	4,600	15,000	4,600
290 - 432	10,800	3,300	10,800	3,300
434 - 576	6,500	2,000	6,500	2,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.2	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.2	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

Rodent-Resistant Loose Tube Cable – Double Jacket

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILN LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
			INCHES	MM	LBS/1,000FT	KG/KM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LN006✱C5111N1	6	1w/6 (4 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN012✱C5111N1	12	1w/12 (4 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN018✱C5111N1	18	1w/12,1w/6 (3 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN024✱C5111N1	24	2w/12 (3 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN030✱C5111N1	30	2w/12,1w/6 (2 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN036✱C5111N1	36	3w/12 (2 fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN048✱C5111N1	48	4w/12 (1 filler)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN060✱C5111N1	60	5w/12 (no fillers)	0.49	12.5	84	125	600 (2670)	200 (890)	9.8 (25)	4.9 (13)
LN072✱C6111N1	72	6w/12 (no fillers)	0.53	13.4	97	144	600 (2670)	200 (890)	10.6 (27)	5.3 (14)
LN084✱C8111N1	84	7w/12 (1 filler)	0.60	15.2	121	180	600 (2670)	200 (890)	12.0 (31)	6.0 (16)
LN096✱C8111N1	96	8w/12 (no fillers)	0.60	15.2	121	180	600 (2670)	200 (890)	12.0 (31)	6.0 (16)
LN108✱CA111N1	108	9w/12 (1 filler)	0.67	17.1	151	224	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LN120✱CA111N1	120	10w/12 (no fillers)	0.67	17.1	151	224	600 (2670)	200 (890)	13.4 (34)	6.7 (17)
LN132✱CC111N1	132	11w/12 (1 filler)	0.75	19.0	184	274	600 (2670)	200 (890)	15.0 (38)	7.5 (19)
LN144✱CC111N1	144	12w/12 (no fillers)	0.75	19.0	184	274	600 (2670)	200 (890)	15.0 (38)	7.5 (19)
LN216✱CI311N1	216	18w/12 (no fillers)	0.76	19.3	187	278	600 (2670)	200 (890)	15.2 (39)	7.6 (20)
LN288✱CO311N1	288	24w/12 (no fillers)	0.87	22.0	234	348	600 (2670)	200 (890)	17.4 (44)	8.7 (22)
LN432✱IO311N1	432	24w/18 (no fillers)	0.94	23.9	273	406	600 (2670)	200 (890)	18.8 (48)	9.4 (24)
LN576✱OO311N1	576	24w/24 (no filLNrs)	1.07	27.3	363	540	600 (2670)	200 (890)	21.4 (55)	10.7 (28)

Note: Diameter and weight subject to change without notice

✱ Fiber Types – Replace asterisk (✱) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.

Larger reel sizes may be required to accomodate long cable lengths.

FAA-Compliant Loose Tube Cable – Double Jacket

The AFL family of FAA-compliant fiber optic loose tube cables is specifically designed for airport and related installations that must comply with meet U.S. Department of Transportation Federal Aviation Administration (FAA) requirements. AFL FAA-compliant loose tube cables incorporate a highly chemical resistant PVDF-PE jacketing system that is ideally suited for use in pathways exposed to hydrocarbon liquids, de-icing fluids, cleaning solvents, jet fuels and other outside-plant networking applications that are typical at these facilities. AFL FAA-compliant cables are available with a variety of fiber-types including; Singlemode, multimode, bend-insensitive and hybrid (SM and MM) optical fibers.

Applications

- Runway communication, lighting and control
- Control tower - remote location networking
- Inter-terminal network connections
- Pathways exposed to corrosive solutions
- Direct burial in suitable trenched pathways

Standards

- FAA-E-2761, Type B
- GR-20-CORE
- TIA/EIA-568-B

Temperature Range

Operating . . . .-40ºC to +70ºC

Storage. . . . .-40ºC to +75ºC

Installation. . . . .-10ºC to +70ºC

Cable Components

PVDF-FR outer jacket
PE inner jacket
polyester tape
optical fibers
FRP central member
rip cord
water-blocking system
gel-filled loose buffer tube
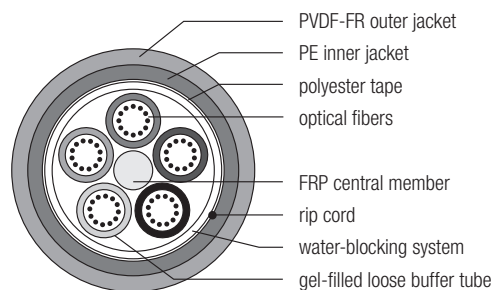
Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	SINGLE-MODE		MULTIMODE	
	FEET	METERS	FEET	METERS
6 - 60	39,370	12,000	26,200	8,000
72 - 96	32,800	10,000	26,200	8,000
108 -120	31,100	9,500	26,200	8,000
132 - 144	22,900	7,000	23,000	7,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

AFL Telecommunications
A Fujikura Business

FAA-Compliant Loose Tube Cable –
Double Jacket

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD		MINIMUM BEND RADIUS	
							LBS (N)		INCHES (CM)	
			INCHES	MM	LBS/1,000FT	KG/KM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LG006✶C5101N1	6	1w/6 (4 fillers)	0.46	11.8	92	137	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG012✶C5101N1	12	1w/12 (4 fillers)	0.46	11.8	92	137	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG018✶C5101N1	18	1w/12,1w/6 (3 fillers)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG024✶C5101N1	24	2w/12 (3 fillers)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG030✶C5101N1	30	2w/12,1w/6 (2 fillers)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG036✶C5101N1	36	3w/12 (2 fillers)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG048✶C5101N1	48	4w/12 (1 filler)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG060✶C5101N1	60	5w/12 (no fillers)	0.46	11.8	96	143	600 (2670)	200 (890)	9.2 (23.6)	4.6 (11.8)
LG072✶C6101N1	72	6w/12 (no fillers)	0.50	12.8	110	163	600 (2670)	200 (890)	10.0 (25.6)	5.0 (12.8)
LG084✶C8101N1	84	7w/12 (1 filler)	0.57	14.6	129	191	600 (2670)	200 (890)	11.4 (29.2)	5.7 (14.6)
LG096✶C8101N1	96	8w/12 (no fillers)	0.57	14.6	129	191	600 (2670)	200 (890)	11.4 (29.2)	5.7 (14.6)
LG108✶CA101N1	108	9w/12 (1 filler)	0.64	16.3	149	221	600 (2670)	200 (890)	12.8 (32.6)	6.4 (16.3)
LG120✶CA101N1	120	l0w/12 (no fillers)	0.64	16.3	149	221	600 (2670)	200 (890)	12.8 (32.6)	6.4 (16.3)
LG132✶CC101N1	132	11w/12 (1 filler)	0.72	18.3	204	303	600 (2670)	200 (890)	14.4 (36.6)	7.2 (18.3)
LG144✶CC101N1	144	12w/12 (no fillers)	0.72	18.3	204	303	600 (2670)	200 (890)	14.4 (36.6)	7.2 (18.3)

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = Single-mode
L = 50/125µm multimode Laser-Link™ 300
K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.
Larger reel sizes may be required to accomodate long cable lengths.

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Applications

- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

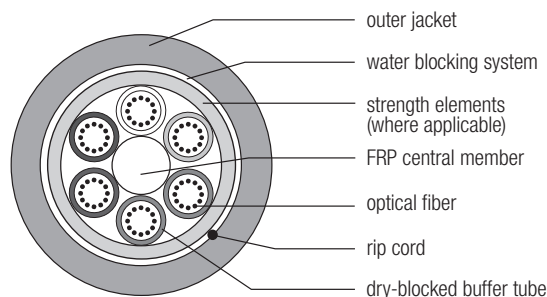## Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 60ºC

Non-Armored Single Jacket Dry Loose Tube Cable

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Non-Armored Dry Loose Tube fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations. Our dry buffer tube cables feature fiber counts up to 216, compliance with EIA/TIA and REA/RUS PE-90, and are S-Z stranded for easy mid-span access. The dry buffer tube and core permit rapid cable preparation and termination. Water blocking materials are easily removed. Industry standard designs combined with innovative technologies, such as a dry core and dry tube product, yield a world class cable that will support today's and tomorrow's technological needs.

Cable Components

outer jacket

water blocking system

strength elements (where applicable)

FRP central member

optical fiber

rip cord

dry-blocked buffer tube

Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	SINGLE-MODE		MULTIMODE	
	FEET	METERS	FEET	METERS
6 - 60	39,370	12,000	26,200	8,000
72 - 96	32,800	10,000	26,200	8,000
108 -120	31,100	9,500	26,200	8,000
132 - 144	22,900	7,000	22,900	7,000
146 - 216	22,900	7,000	—	—

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

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Non-Armored Single Jacket
Dry Loose Tube Cable

Ordering Information

ITEM NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER	NOMINAL WEIGHT	MAXIMUM TENSILE LOAD		MINIMUM BEND RADIUS	
					LBS. (N)		INCHES (CM)	
			INCHES (MM)	LBS/1,000FT (KG/KM)	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LD006✶C5101N1	6	1w/6 (4 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD012✶C5101N1	12	1w/12 (4 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD018✶C5101N1	18	1w/12, 1w/6 (3 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD024✶C5101N1	24	2w/12 (3 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD030✶C5101N1	30	2w/12, 1w/6 (2 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD036✶C5101N1	36	3w/12 (2 fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD048✶C5101N1	48	4w/12 (1 filler)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD060✶C5101N1	60	5w/12 (No fillers)	0.45 (11.4)	53.8 (80.2)	600 (2700)	200 (890)	9.0 (22.8)	4.5 (11.4)
LD072✶C6101N1	72	6w/12 (No fillers)	0.49 (12.4)	62.6 (93.4)	600 (2700)	200 (890)	9.8 (24.8)	4.9 (12.4)
LD084✶C8101N1	84	7w/12 (1 filler)	0.56 (14.2)	80.9 (120.7)	600 (2700)	200 (890)	11.2 (28.4)	5.6 (14.2)
LD096✶C8101N1	96	8w/12 (No fillers)	0.56 (14.2)	80.9 (120.7)	600 (2700)	200 (890)	11.2 (28.4)	5.6 (14.2)
LD108✶CA101N1	108	9w/12 (1 filler)	0.63 (15.9)	101.5 (151.4)	600 (2700)	200 (890)	12.6 (31.8)	6.3 (15.9)
LD120✶CA101N1	120	10w/12 (No fillers)	0.63 (15.9)	101.5 (151.4)	600 (2700)	200 (890)	12.6 (31.8)	6.3 (15.9)
LD132✶CC101N1	132	11w/12 (1 filler)	0.70 (17.8)	127.5 (190.1)	600 (2700)	200 (890)	14.0 (35.6)	7.0 (17.8)
LD144✶CC101N1	144	12w/12 (No fillers)	0.70 (17.8)	127.5 (190.1)	600 (2700)	200 (890)	14.0 (35.6)	7.0 (17.8)
LD216✶CI301N1	216	18w/12 (No fillers)	0.71 (18.0)	116.1 (173.1)	600 (2700)	200 (890)	14.2 (36.0)	7.1 (18.0)

Note: Diameter and weight subject to change without notice

✶ Fiber Types – Replace asterisk (✶) in part number with number corresponding to desired fiber type below.
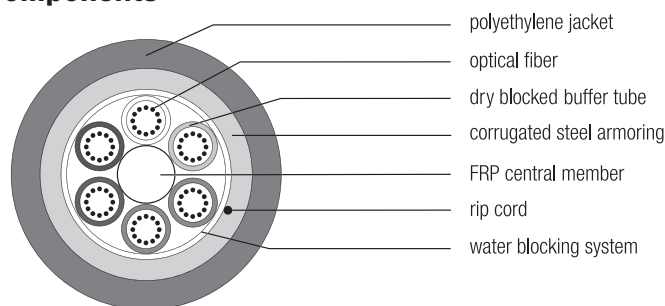
5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
9 = Single-mode
L = 50/125µm multimode Laser-Link™ 300
K = SM Futureguide SR-15e Bend Insensitive
Q = Non-zero dispersion-shifted single-mode

www.AFLtele.com or 1.800.235.3423

Armored Single Jacket/Single Armor Dry Loose Tube Cable

Acting as the backbone for most of today's fiber based systems, stranded fiber optic cables play a critical role in the high speed network. AFL's Armored Dry Loose Tube Single Jacket/Single Armor fiber optic cables are designed to provide high fiber counts with the flexibility and versatility required for today's most demanding installations, including direct buried. Our dry buffer tube cables feature fiber counts up to 144, compliance with EIA/TIA and REA/RUS PE-90, and are S-Z stranded for easy mid-span access. The dry buffer tube and core permit rapid cable preparation and termination. Water blocking materials are easily removed. Industry standard designs combined with innovative technologies, such as a dry core and dry tube product, yield a world class cable that will support today's and tomorrow's technological needs.

Cable Components

- polyethylene jacket
- optical fiber
- dry blocked buffer tube
- corrugated steel armoring
- FRP central member
- rip cord
- water blocking system

Applications

- Building Interconnections (Campus LAN)
- Trunking Lines Direct to Telecommunications Closet
- Local Loop
- Distance Learning
- Distribution
- Intrabuilding Backbones

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation - 30ºC to + 60ºC

Typical Lengths

MAXIMUM LENGTHS*				
FIBER COUNT	SINGLE-MODE		MULTIMODE	
	FEET	METERS	FEET	METERS
6 - 60	39,370	12,000	26,200	8,000
72 - 96	32,800	10,000	26,200	8,000
108 -120	31,100	9,500	26,200	8,000
132 - 144	22,900	7,000	22,900	7,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.5	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

www.AFLtele.com or 1.800.235.3423
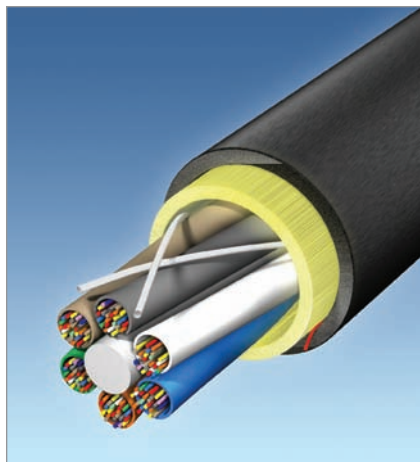
Armored Single Jacket/Single Armor Dry Loose Tube Cable

Ordering Information

ITEM NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER	NOMINAL WEIGHT	MAXIMUM TENSILE LOAD LBS. (N)		MINIMUM BEND RADIUS INCHES (CM)	
			INCHES (MM)	LBS/1,000FT (KG/KM)	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
LD006✶C5201S1	6	1w/6 (4 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD012✶C5201S1	12	1w/12 (4 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD018✶C5201S1	18	1w/12, 1w/6 (3 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD024✶C5201S1	24	2w/12 (3 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD030✶C5201S1	30	2w/12, 1w/6 (2 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD036✶C5201S1	36	3w/12 (2 fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD048✶C5201S1	48	4w/12 (1 filler)	0.52 (13.2)	94 (140))	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD060✶C5201S1	60	5w/12 (No fillers)	0.52 (13.2)	94 (140)	600 (2700)	180 (800)	10.4 (26.4)	5.2 (13.2)
LD072✶C6201S1	72	6w/12 (No fillers)	0.55 (14.0)	108 (161)	600 (2700)	180 (800)	11.0 (28.0)	5.5 (14.0)
LD084✶C8201S1	84	7w/12 (1 filler)	0.62 (15.8)	130 (193)	600 (2700)	180 (800)	12.4 (31.6)	6.2 (15.8)
LD096✶C8201S1	96	8w/12 (No fillers)	0.62 (15.8)	130 (193)	600 (2700)	180 (800)	12.4 (31.6)	6.2 (15.8)
LD108✶CA201S1	108	9w/12 (1 filler)	0.70 (17.7)	159 (237)	600 (2700)	180 (800)	14.0 (35.4)	7.0 (17.7)
LD120✶CA201S1	120	10w/12 (No fillers)	0.70 (17.7)	159 (237)	600 (2700)	180 (800)	14.0 (35.4)	7.0 (17.7)
LD132✶CC201S1	132	11w/12 (1 filler)	0.77 (19.6)	192 (285)	600 (2700)	180 (800)	15.4 (39.2)	7.7 (19.6)
LD144✶CC201S1	144	12w/12 (No fillers)	0.77 (19.6)	192 (285)	600 (2700)	180 (800)	15.4 (39.2)	7.7 (19.6)

Note: Diameter and weight subject to change without notice

✶ Fiber Types — Replace asterisk (✶) in part number with number corresponding to desired fiber type below.

5 = 50/125μm multimode GIGA-Link™ 600
7 = 50/125μm multimode GIGA-Link™ 2000
6 = 62.5/125μm multimode GIGA-Link™ 300
8 = 62.5/125μm multimode GIGA-Link™ 1000
9 = Single-mode
L = 50/125μm multimode Laser-Link™ 300
K = SM Futureguide SR-15e Bend Insensitive
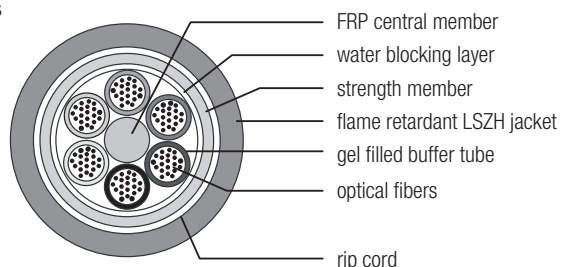Q = Non-zero dispersion-shifted single-mode

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Low Smoke Zero Halogen Loose Tube Cable OFN-LS Listed and Non-Listed

AFL's Low Smoke Zero Halogen (LSZH) Loose Tube cable is designed for use in outdoor aerial and indoor duct appplications including subways and tunnels with requirements for limited smoke and zero halogen. Optical fibers are located within S-Z strandard buffer tubes, providing stable and reliable long-term performance. The cable is dry-blocked (no messy gel flooding the core) to prevent axial flow of moisture and utilizes a flame-retardant, non-halogenated UV-resistant outer jacket.

AFL's Low Smoke Zero Halogen (LSZH) loose tube cable group includes OFN-LS Listed as well as non-listed designs. The OFN-LS listed loose tube cable line (LL-Series) is specially engineered for applications that require UL/NEC compliant cables intended for inside-building applications and must meet minimum flame and smoke generation guideline.The Non-Listed cables are also constructed with LSZH materials and are intended for OSP installations where NFPA/NEC listing is not required.

Temperature Range

Operating   - 40ºC to + 70ºC

Storage   - 40ºC to + 75ºC

Installation   - 20ºC to + 60ºC

Cable Components

- FRP central member
- water blocking layer
- strength member
- flame retardant LSZH jacket
- gel filled buffer tube
- optical fibers
- rip cord

Typical Lengths

MAXIMUM LENGTHS*				
	SINGLE-MODE		MULTIMODE	
FIBER COUNT	feet	meters	feet	meters
2 - 12	39,370	12,000	20,200	6,100
18 - 96	32,800	10,000	26,200	8,000
108 -120	31,100	9,500	26,200	8,000
132 - 144	22,900	7,000	26,200	8,000

* Longer lengths may be available upon request.

Optical Information

FIBER TYPE	MAXIMUM ATTENUATION (dB/km)				OVERFILL LAUNCH MIN. BANDWIDTH (MHz•km)		GIGABIT ETHERNET MINIMUM LINK DISTANCE (meters)	
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	850nm	1300nm
(6) 62.5/125 GIGA-Link™ 300	3.2	1.2	N/A	N/A	200	600	300	550
(8) 62.5/125 GIGA-Link™ 1000	3.2	1.2	N/A	N/A	350	600	500	1000
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(7) 50/125 GIGA-Link™ 2000	2.9	0.9	N/A	N/A	500	800	750	2000
(L) 50/125 Laser-Link 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(K) SM Futureguide SR-15e Bend Insensitive	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints.
Actual link distances may be constrained by attenuation, depending on specific loss budget.

AFL Telecommunications
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Low Smoke Zero Halogen
Loose Tube Cable
OFN-LS Listed and Non-Listed

Ordering Information

PART NUMBER	FIBER COUNT	NUMBER OF TUBES/FIBERS	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD lbs (N)		MINIMUM BEND RADIUS inches (cm)	
			inches	mm	lbs/1,000 ft	kg/km	Short Term	Long Term	Short Term	Long Term
NON-ARMORED, SINGLE JACKET, OFN-LS LISTED										
LL006✱C5101N1	6	1w/6 (4 fillers)	0.47	11.9	92	137	600 (2670)	180 (800)	9.4 (24)	4.7 (12)
LL012✱C5101N1	12	1w/12 (4 fillers)	0.47	11.9	92	137	600 (2670)	180 (800)	9.4 (24)	4.7 (12)
LL024✱C5101N1	24	2w/12 (3 fillers)	0.47	11.9	91	136	600 (2670)	180 (800)	9.4 (24)	4.7 (12)
LL036✱C5101N1	36	3w/12 (2 fillers)	0.47	11.9	91	136	600 (2670)	180 (800)	9.4 (24)	4.7 (12)
LL048✱C5101N1	48	4w/12 (1 filler)	0.47	11.9	90	134	600 (2670)	180 (800)	9.4 (24)	4.7 (12)
LL072✱C6101N1	72	6w/12 (no fillers)	0.510	12.8	92	137	600 (2670)	180 (800)	10.2 (26)	5.1 (13)
LL096✱C8101N1	96	8w/12 (no fillers)	0.571	14.5	118	175	600 (2670)	180 (800)	11.4 (29)	5.7 (15)
LL144✱CC101N1	144	12w/12 (no fillers)	0.720	18.3	185	275	600 (2670)	180 (800)	14.4 (37)	7.2 (19)
NON-ARMORED, SINGLE JACKET, NON- LISTED										
LF006✱C5101N1	6	1w/6 (4 fillers)	0.469	11.9	103	154	600 (2670)	180 (800)	9.4 (23.8)	4.7 (11.9)
LF012✱C5101N1	12	1w/12 (4 fillers)	0.469	11.9	103	154	600 (2670)	180 (800)	9.4 (23.8)	4.7 (11.9)
LF024✱C5101N1	24	2w/12 (3 fillers)	0.469	11.9	102	152	600 (2670)	180 (800)	9.4 (23.8)	4.7 (11.9)
LF036✱C5101N1	36	3w/12 (2 fillers)	0.469	11.9	101	150	600 (2670)	180 (800)	9.4 (23.8)	4.7 (11.9)
LF048✱C5101N1	48	4w/12 (1 filler)	0.469	11.9	99	148	600 (2670)	180 (800)	9.4 (23.8)	4.7 (11.9)
LF072✱C6101N1	72	6w/12 (no fillers)	0.500	12.7	111	166	600 (2670)	180 (800)	10.0 (25.4)	5.0 (12.7)
LF096✱C8101N1	96	8w/12 (no fillers)	0.571	14.5	143	212	600 (2670)	180 (800)	11.4 (29.0)	5.7 (14.5)
LF144✱CC101N1	144	12w/12 (no fillers)	0.720	18.3	227	338	600 (2670)	180 (800)	14.4 (36.6)	7.2 (18.3)

NOTES:

1. Diameter and weight subject to change without notice.

2. For other types of LSZH Cables: Double Jacket, Non-Armored; Single Jacket, Single Armor; Double Jacket, Single Armor and higher fiber counts in non-armored, please contact your AFL Telecommunications' Representative.

✱ Fiber Types-Replace asterisk (✱) in part number with number corresponding to desired fiber type below

5 = 50/125µm multimode GIGA-Link™ 600
7 = 50/125µm multimode GIGA-Link™ 2000
6 = 62.5/125µm multimode GIGA-Link™ 300
8 = 62.5/125µm multimode GIGA-Link™ 1000
L = 50/125µm multimode Laser-Link™ 300
9 = Single-mode
Q = Non-zero dispersion-shifted single-mode
K = SM Futureguide SR-15e Bend Insensitive

Reel Information

ITEM	REEL A		REEL B		REEL C		REEL D		REEL E	
	inches	cm	inches	cm	inches	cm	INCHES	CM	INCHES	CM
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight With Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg

AFL Telecommunications typically provides Loose Tube cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available upon request.

Larger reel sizes may be required to accomodate long cable lengths.

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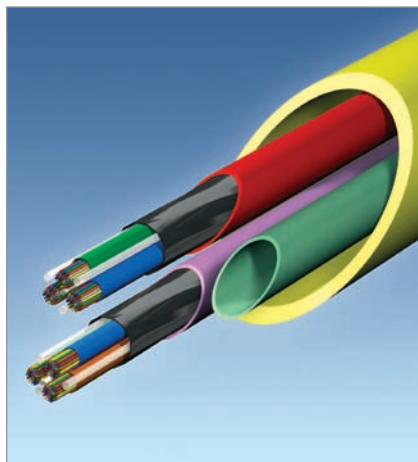
MicroCore® Blown Fiber Optic Cable

AFL MicroCore® is an advanced Blown Fiber Optic Cable system for underground duct cables. The MicroCore product line is a complete solution with designs suitable for many applications and needs from backbone networks to FTTx. Whether the need is for high Fiber density or small cable diameter, the MicroCore range has the solution. Designs are always based on minimal cable and duct diameters for cost effective installation and materials.

MicroCore cables are jetted through a network of microducts using compressed air. Conduit systems can be laid and microducts and cable can be blown in as and when required, giving installers the flexibility of deploying fiber only when needed and reducing initial investment costs. Making provisions for future installations also means that only the very latest fiber optic technology is used and therefore scaled to changing market demands.

The MicroCore system can be used for overriding existing networks and conduits, which reduces network disruption and expensive excavation costs and permits during installation. MicroCore cable is lightweight and flexible made with a specially designed low friction jacket to enable greater jetting lengths to reduce time and cost.
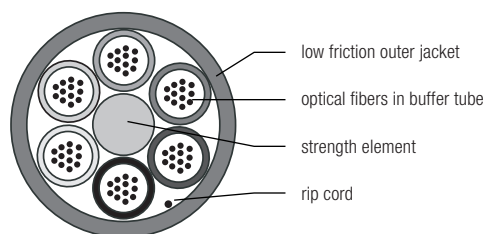
Conventional duct
288 Fiber
53.6% Fill

Subduct
360 Fiber
52.9% fill

Features

- Scalable deployment
- Rapid cost effective installation
- Fiber counts up to 144
- Range of cable designs and sizes to suit a variety of duct size
- No EMI or earth bonding limitations
- Fiber arranged in buffer tubes some designs suitable for 12-Fiber management

- Suitable for microducts supplied by all manufacturers
- Installation speeds of up to 120m/min. & over 2.5km lengths at a time
- Robust for handling in the field
- High level bend capacity
- Low friction jacket design
- Easy access and breakout of Fibers

Cable Components

Multi-tube Design (4-8 tubes)

low friction outer jacket

optical fibers in buffer tube

strength element

rip cord

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MicroCore® Blown Fiber Optic Cable

Mechanical Data

PART NUMBER (n=number of fibers)	MAX. FIBERS	NO. OF TUBES	OUTSIDE DIAMETER mm (inches)	UNIT WEIGHT kg/km (lbs/1000ft)	STORAGE TEMP. °C	OPERATING TEMP. °C	MAX. INSTALLATION TENSILE LOAD kN (lbs)	MIN. BEND RADIUS mm (inches)	CABLE MARKING	SUITABLE SUB-DUCT SIZE ID mm (inches)
MCnnDA4-4.2	24	4	4.2 ± 0.1 (0.16)	16 ± 1 (11)	-20 to +65	-20 to +65	0.25 (56)	90 (3.5)	yes	5.5 (0.21)
MCnnDA4-6.1	72	4	6.1 ± 0.1 (0.24)	30 ± 1 (20)	-30 to +85	-30 to +85	0.3 (67)	130 (5.1)	yes	8 (0.31)
MCnnDA4-7.4	96	4	7.4 ± 0.1 (0.29)	44 ± 1 (30)	-20 to +65	-20 to +65	0.35 (79)	150 (5.9)	yes	10 (0.39)
MCnnDA6-6.1	72	6	6.1 ± 0.1 (0.24)	30±1 (20)	-40 to +85	-40 to +85	0.35 (79)	130 (5.1)	yes	8 (0.31)
MCnnDA6-7.4	96	6	7.4 ± 0.1 (0.29)	43 ± 1 (29)	-20 to +65	-20 to +65	1.2 (270)	150 (5.9)	yes	10 (0.39)
MCnnDA6-7.9	144	6	7.9 ± 0.1 (0.31)	43 ± 1 (29)	-30 to +65	-30 to +65	0.3 (67)	135 (5.3)	yes	10 (0.39)
MCnnDA6-9.2	144	6	9.2 ± 0.1 (0.36)	65 ± 1 (44)	-40 to +85	-40 to +85	1.5 (337)	190 (7.5)	yes	12 (0.47)
MCnnDA8-6.6	96	8	6.6 ± 0.1 (0.25)	33 ± 1 (22)	-40 to +65	-40 to +65	0.2 (45)	130 (5.1)	yes	8 (0.31)
MCnnDA8-7.6	96	8	7.6 ± 0.1 (0.29)	53 ± 1 (36)	-40 to +85	-40 to +85	0.6 (135)	150 (5.9)	yes	10 (0.39)

NOTES:
1. All cable designs are available with all fibre types including; low bend, low water peak, MM, SMF.
2. All cable designs are available with tube or jacket colours to EIA 598 or customer specification
3. All cable designs are available with fibre colours to EIA 598 or customer specification
4. Cable markings are available to customer specification on highlighted designs

Fiber Specifications

FIBER TYPE	INCOMING ATTENUATION (DB/KM)					
	850nm	1300nm	1310nm	1383nm	1550nm	1625nm
Single-Mode	—	—	0.35	0.35	0.24	0.20
Non Zero Dispersion Shifted	—	—	—	—	0.25	0.25
Low Bend	—	—	0.35	0.35	0.20	0.23
Multi-mode 50/125	2.5	0.8	—	—	—	—
Multi-mode 62.5/125	3.0	0.7	—	—	—	—

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Sealed Fiber Optic Splice Closures

The AFL Telecommunications' family of Sealed Fiber Optic Splice Closures is designed to simplify splice management. Quality engineering reduces the installation time, training and complexity associated with fiber splicing in the field. No heat, adhesives, drills or powered equipment for installation or re-entry are required. These durable, easy to install closures 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
- Installation and re-entry using common hand tools
- 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

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, 144, n/a	96, 288, 36[1]	384, 1152, 72[2]	144, 288	864, 2592, n/a
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	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 @ 0.60" (splice) 2 @ 0.77" (ground / bond)	5 @ 0.62"	5 @ 0.62"	3 @ 0.80" 2 @ 1.00"	2 @ 1.0" 12 @ 0.312" Flat or 0.250" Round	3 @ 1.25" 2 @ 1.35"
Testing - Cable Retention (100 lbs) - Water Resistance (waterhead) - Impact Resistance (0-40 °C) - Chemical Resistance - Cable Flexing	Passed 20 ft. Passed Passed Passed	Passed 20 ft. Passed Passed Passed	Passed 20 ft. Passed Passed Passed	Passed 20 ft. Passed Passed Passed	Passed 20 ft. Passed Passed Passed	Passed 20 ft. 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; 72 mechanical splices only using the LL-448 splice tray.

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LG-55 Sealed Fiber Optic Splice Closure

Designed with versatility in mind, the LG-55 sealed closure from AFL Telecommunications 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, Uniflex® 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 Telecommunications' 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.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	24, n/a, n/a
Number of Splice Trays (Max.) – Single, Mass, Mechanical	1, n/a, n/a
Cable Entrance Configuration	In-line / Butt
Cable Ports	2 (3 using dual cable entry port kit)
Cable Sizes (Max. O.D.)	2 @ 0.60" (for in-line splice configuration) 2 @ 0.77" (for in-line ground / bond configuration) 2 @ 0.45" (for butt splice configuration)
Dimensions – (L x D) in. (cm)	14 x 4 (34.30 x 10.16)
Weight – lbs. (kg)	3.0 (1.36)

Features

- Accommodates cables to 0.77" O.D. for splicing and grounding / bonding
- Incorporates the Peel & Seal Grommet System, fully sealing the closure
- Includes removable, integral central splicing module and individual cable retention clamps
- Optional 24 single fiber splice tray available

Ordering Information

DESCRIPTION	MODEL #	PART #
LG-55 Sealed Fiber Optic Splice Closure – 24 fusion splice capable and includes (2) cable kits for sealing / retention, (2) Cable Grounding Kits, (1) Dual Cable Entry Port Kit and a grounding terminal. Splice tray not included.	LG-55-U-0	FC000034-PS
LG-55 Splice Tray – Stores 24 single fusion splices and includes base, cover, (3) eight-position splice holders and tie-wraps. Maximum of (1) tray in the LG-55.	LL-2425	FC000053
Dual Cable Entry Port Kit – Allows two cables to enter closure from each cable port.	Dual Cable Entry Port Kit	FC000062
Cable Grounding Kit – Includes harness and hose clamp (one kit required per cable entry)	CGH-1	FC000003
Cable Grounding Harness Kit – Includes (4) 8" long ground harnesses constructed of #6 AWG conductor.	CGH-4	FC000024

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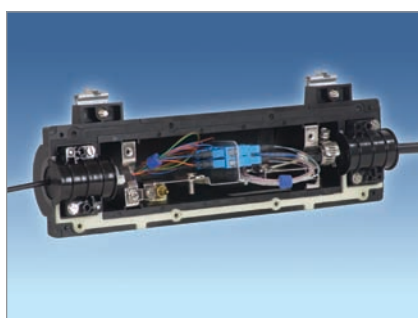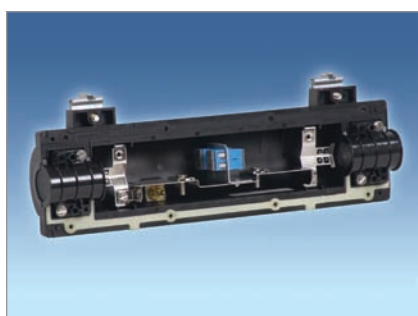
LG-55-SC
Sealed Fiber Optic Splice Closure

AFL Telecommunications' 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 FAST™ 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.

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 Telecommunications' Peel & Seal Grommet System™, ensuring a tight fit on various cable diameters while eliminating cumbersome tape and washers

Specifications

PARAMETER	VALUE
Maximum Cable Diameter	0.65"
Minimum Cable Diameter	0.30"
Maximum Cable Entry	2 ports (one each end)
Overall Dimensions	14" Length x 4" Diameter

Ordering Information

MODEL #	PART #
LG-55-SC	FC000481-PS

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LG-150 Sealed Fiber Optic Splice Closure

The LG-150 is a sealed dome closure designed for small count fiber splicing ($\leq$ 48 single or 144 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 no tools for re-entry.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- 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, 144, n/a
Number of Splice Trays (Max.) – Single, Mass, Mechanical	4, 3, n/a
Cable Entrance Configuration	Butt
Cable Ports	5
Cable Sizes (Max. O.D. - Min. O.D.)	5 (0.62" - 0.30")
Dimensions – (L x D) in. (cm)	18.25 x 8.75 (46.36 x 22.23)
Weight – lbs. (kg)	10.5 (4.76)

Ordering Information

DESCRIPTION	MODEL #	PART #
LG-150 Sealed Fiber Optic Splice Closure – 36 Single or 144 mass fusion capable, includes (5) cable kits for sealing / retention and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-150-U-0	FC000001-PS
LL-2450 Splice Tray – Stores (12) single fusion splices, includes base, cover, (2) six position single splice holders and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-2450	91957-00
LL-4850 Splice Tray – Stores (8) mass fusion splices, includes base, cover, (2) four position ribbon splice holders and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-4850	91958-00
LL-1248 Splice Tray – Stores (12) single fusion splices or (4) mass fusion splices, includes base, cover, (2) six position single splice holders, (1) four position ribbon splice holder and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-1248	911221-00-00
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
O-Ring Replacement Kit – For use with LG-150/250.	O-Ring Replacement	FC000004
Universal Aerial Offset 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	FC000209
1X6 Cable Splitter Kit	Splitter	FC000070
Pole or Wall Mount Bracket – For use with LG-150/250/350.	PWK	FC000592
OPGW Cable Bracket Kit	OPGW Bracket	FC000685
LLAS-200-12SC Terminal Adapter	LLAS-200-12SC	FC000068

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Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- 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

LG-250 Sealed Fiber Optic Splice Closure

The LG-250 is a sealed dome closure designed for medium count fiber splicing (< 96 single or 288 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 no tools for re-entry.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	96, 288, 36
Number of Splice Trays (Max.) – Single, Mass, Mechanical	4, 2, 3
Cable Entrance Configuration	Butt
Cable Ports	5
Cable Sizes (Max. O.D. - Min. O.D.)	5 (0.62" - 0.30")
Dimensions – (L x D) in. (cm)	19 x 8.75 (48.26 x 22.23)
Weight – lbs. (kg)	11.5 (5.23)

Ordering Information

DESCRIPTION	MODEL #	PART #
LG-250 Sealed Fiber Optic Splice Closure – 96 Single or 144 mass fusion capable, includes (5) cable kits for sealing / retention and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-250-U-0	FC000002-PS
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (4) trays in the LG-250.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (3) trays in the LG-250.	LL-2448	911289-00-02
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (1) tray in the LG-250.	LL-4848	911437-00-02
Single Fusion Splice Tray for 48 Single Fused Fiber	LL-2448-48S	FA000045
OPL-W Cable Bracket Kit	OPGW Bracket	FC000683
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
O-Ring Replacement Kit – For use with LG-150/250	O-Ring Replacement	FC000004
Universal Aerial Offset 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	FC000209
1X6 Cable Splitter Kit	Splitter	FC000070
Pole or Wall Mount Bracket – For use with LG-150/250/350	PWK	FC000592
LG-200 Slack Basket for storing excess ribbon slack	LG-200-SL-BSKT	911575-00-00
Terminal Adapter – Houses 12 SC bulkhead adapters, for use with LG-250	LLAS-200-12SC	FC000068

* NOTE: When using LL-2448-48S capacity increases to 144 single splices.

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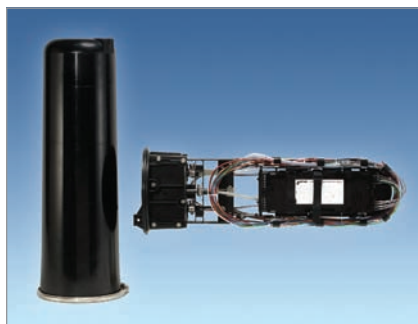
LG-350 Sealed Fiber Optic Splice Closure

The LG-350 is a sealed dome closure designed for large count fiber splicing ($\leq$ 384 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 no tools for re-entry.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- 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	384, 1152, 108
Number of Splice Trays (Max.) – Single, Mass, Mechanical	12, 8, 8
Cable Entrance Configuration	Butt
Cable Ports / Cable Sizes (Max. O.D. - Min. O.D.)	5 / 7 (using dual cable configuration for Express ports) 2 Express (1.00" - 0.40") 3 Drop (0.80" - 0.30")
Dimensions – (L x D) in. (cm) / Weight - lbs. (kg)	28.0" x 10.0" (71.12 x 25.40) / 14 (6.35)

Ordering Information

DESCRIPTION	MODEL #	PART #
LG-350 Sealed Fiber Optic Splice Closure – 384 single fusion or 1152 mass fusion capable, includes (5) cable kits for sealing / retention (single and dual calbe configurations for express ports) and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-350-U-0	FC000009-PS
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (12) trays in the LG-350.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (8) trays in the LG-350.	LL-2448	911289-00-02
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (6) trays in the LG-350.	LL-4848	911437-00-02
LL-4896 Splice Tray – Stores (96) single fusion splices or (24) mass fusion splices, includes base, cover, (16) six position single splice holders, (6) four position ribbon splice holders and tie-wraps. Maximum of (4) trays using single fusion or (5) trays using mass fusion in the LG-350.	LL-4896	911676-00-02
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
O-Ring Replacement Kit – For use with LG-350.	O-Ring LG-300	FC000015
Universal Aerial Offset 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	FC000209
1X6 Cable Splitter Kit	Splitter	FC000070
Pole or Wall Mount Bracket – For use with LG-150/250/350.	PWK	FC000592
Terminal Adapter – Houses 24 SC bulkhead adapters, for use with LG-350	LLAS-300-24SC	FC000069
Terminal Adapter – Houses 48 SC bulkhead adapters, for use with LG-350	LLAS-350-48SC	FC000646
Flat Drop Grommet Kit – For use with standard flat drop cable and round cable up to 0.256" O.D.	Flat Drop Grommet Kit	FC000422
OPGW Cable Bracket Kit	OPGW Bracket	FC000683
LL-2448-48S Splice Tray – Stores (24) single fusion splices. May be installed in the LG-250, LG-350, LG-350-XL, LG-410, LG-500, LG-600 Splice Closures, the LL-400B and LL-400S Distribution Enclosures and the LL-2400 Pedestal.	LL-2448-48S	FA000045
LL-7060 Splice Tray – Stores (60) single fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7060	FA000042
LL-7144 Splice Trayy – Stores (288) mass fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7144	FA000043
LL-7644 Universal Splice Tray – Stores (60) single fusion splices or (288) mass fusion splices or a combination of both in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7644	FA000044

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LG-350-AC Drop Access
Sealed Fiber Optic Splice Closure

AFL Telecommunications' LG-350-AC sealed dome closure is intended for utilization in aerial or underground environments where a sealed closure is required and space may be limited. Designed for "drop access" applications providing access for up to 12 drops, this closure is also versatile enough to be used for splicing up to 144 single splices in a butt configuration. Ideal for Fiber-to-the-Home installations in small hand-hole applications, the LG-350-AC requires no special tools or extra kits for re-entry.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – single, mass	144, 432
Number of Splice Trays (Max.) – single, mass	4, 3
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	MODEL #	PART #
Dome Closure, 144 single fusion capable (with additional trays), 5 cable entry kits for sealing and retention (2-single port for express and 3-quad port for drop), ground terminal, (1) LL-4808L splice tray. No cable grounding or hanger brackets are included.	LG-350-AC	FC000412
Single Fusion Splice Tray - Stores up to 36 single fused fibers (maximum of 4 trays in LG-350-AC)	LL-4808L	FA000021
Mass Fusion Splice Tray - Stores up to 144 mass fused fibers (maximum of 3 trays in LG-350-AC)	LL-4808R	FA000020
Cable Grounding Kit - For LG-150/250/350	CGH-1	FC000003
5 Cable Grounding Kits - For LG-150/250/350	CGH-5	FC000040
O-Ring Replacement Kit for the LG-350	O-Ring LG-300	FC000015
Universal Aerial Offset Strand Hanger kit - For LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit - For LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket - For LG-150/250/350	Pole/Wall Mount Brkt	FC00592
Single Cable Branch Grommet Kit	Branch Grommet Kit	FC000628
Pole or Wall MT Bracket for use with LG150/250/350	PWK	FC000592
OPGW Cable Bracket Kit	OPGW Bracket	FC000683

Unit available for Mass/Ribbon utilization. Consult customer service for details.

Features

- Less than 20" overall length; ideal for small hand-holes
- Supports standard loose tube, outside plant ribbon and Uniflex® fiber optic cables in both dielectric and armored configurations
- Installation and re-entry using common hand tools
- 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

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LG-350XL
Sealed Fiber Optic Splice Closure

The 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 requires no tools for re-entry.

Specifications

PARAMETER	VALUE	
Splice Capacity (Max.) – Single, Mass, Mechanical	864, 2592, n/a	
Number of Splice Trays (Max.) – Single, Mass, Mechanical	9, 9, n/a	
Cable Entrance Configuration	Butt	
Cable Ports / Cable Sizes (Max. O.D.)	5 ports / 7 with Dual Express Grommet	
	Express Port Single 1.18" - 0.40" Double 0.56" - 0.44"	Drop Port Single 1.08" - 0.30"
Dimensions - (L x D) in. (cm) / Weight - lbs. (kg)	31.0" x 12.0 (78.74 x 30.48) / 25 lbs. (11.3 kg)	

Features

- Can accommodate up to 10 cables
- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Flanged O-ring and T-bolt V-band for increased protection at 20' waterhead
- Oversized basket allows multiple configurations of slack storage
- Holds Pirelli™ 1152 fiber count cable at a diameter of 1.35"

Ordering Information

DESCRIPTION	MODEL #	PART #
LG-350XL Sealed Fiber Optic Splice Closure – 864 single fusion or 2592 mass fusion capable, includes (5) cable kits for sealing / retention (single and dual cable configurations) and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included	LG-300XL-U-0	FC000010-PS
LL-4896 Splice Tray – Stores (96) single fusion splices or (24) 288 mass fusion splices, includes base, cover, (16) six position single splice holders, (6) four position ribbon splice holders and tie-wraps. Maximum of (9) trays in the LG-350XL	LL-4896	911676-00-02
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-350XL	Single Cable Bonding Kit - 300XL	FC000011
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-350XL	Cable Bonding Kit - 300XL	FC000041
O-Ring Replacement Kit – For use with LG-300XL	O Ring - 300XL	FC000016
Universal Hangar Bracket – For use with LG-300XL	XL Hangar Bracket	912215-00-00
1X6 Cable Splitter Kit	Splitter	FC000070
LG-350XL Dual Axis Express Grommet	Dual Axis Exp	FC000664
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (12) trays in the LG-350.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (8) trays in the LG-350.	LL-2448	911289-00-02
LL-4800 Splice Tray – Stores (4) mass fusion splices, includes base, cover, (1) four position ribbon splice holder and tie-wraps. Maximum of (10) trays in the LG-300XL.	LL-4800	91711-07
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (6) trays in the LG-350.	LL-4848	911437-00-02
LL-4896 Splice Tray – Stores (96) single fusion splices or (288) mass fusion splices, includes base, cover, (16) six position single splice holders, (6) four position ribbon splice holders and tie-wraps. Maximum of (4) trays using single fusion or (5) trays using mass fusion in the LG-350.	LL-4896	911676-00-02
LL-2448-48S Splice Tray – Stores (24) single fusion splices. May be installed in the LG-250, LG-350, LG-350-XL, LG-410, LG-500, LG-600 Splice Closures, the LL-400B and LL-400S Distribution Enclosures and the LL-2400 Pedestal.	LL-2448-48S	FA000045
LL-7060 Splice Tray – Stores (60) single fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7060	FA000042
LL-7144 Splice Trayy – Stores (288) mass fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7144	FA000043
LL-7644 Universal Splice Tray – Stores (60) single fusion splices or (288) mass fusion splices or a combination of both in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7644	FA000044

Expandable to Support Various Cable Diameters

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

Multiple Layers of Sealing Protection

Peel and Seal Grommet Systems™
for Sealed Fiber Optic Closures

AFL Telecommunications in conjunction with Mar-Don Corporation has developed a new cable sealing grommet technology for the AFL Sealed Fiber Optic Closures called "Peel and Seal". This improved sealing technology utilitizes 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 the standard LG100, LG200, and LG300 closures allow this exciting new grommet technology to be used without changing out the existing closure.

New closure models, LG-150, LG-250, and LG-350 are equipped from the factory with the "Peel and Seal" grommet system.

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 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)

PART #	DESCRIPTION
FC000322	Grommet Kit for LG100 or LG200. (Single cable axis) Cable Diameter Range 0.25" min. to 0.65" max Kit includes sealing grommets, cable retention grommets, band mic and lubricant for five ports
FC000333	Grommet Kit for LG300. (Single cable axis) Express Cable Port Diameter Range 0.38" min. to 1.00" max Drop Cable Port Diameter Range 0.25" min. to 0.83" max Kit includes sealing grommets, cable retention grommets, band mic and lubricant for five ports
FC000001-PS	LG-150 Sealed Closure with new Peel & Seal Grommet Kit
FC000002-PS	LG-250 Sealed Closure with new Peel & Seal Grommet Kit
FC000009-PS	LG-350 Sealed Closure with new Peel & Seal Grommet Kit
FC000421	LG-350 Express Side Quad Grommet Kit
FC000337	LG-350 Express Side Dual Grommet Kit
FC000422	4 Port Drop Grommet (LG-350 / LG-350-AC)
FC000655	3 Port Drop Grommet (LG-150/250)

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LLAS-200-12SC

LLAS-300-24SC
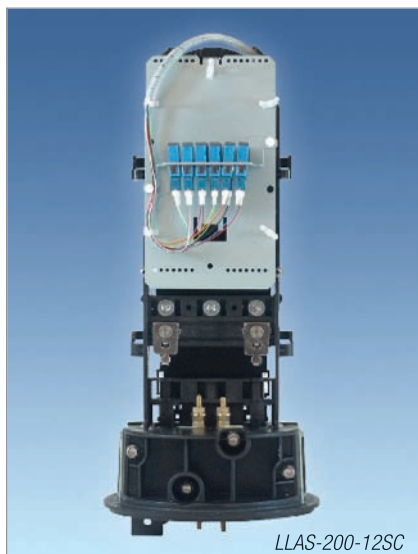
# Fiber Optic Terminal Adapters for Sealed Fiber Optic Splice Closures

The LightLink Access Solution (LLAS) Terminal Adaptors 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 adaptor 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 adaptor plates provide mounting positions ranging from six to twenty-four SC-style bulkheads (depending on the model). The interconnection and routing of 900µm SC pigtails with pre-connectorized SC drop cables is managed through routing rings on the terminal adaptor. Three versions are available and are matched to the LG150, LG250 and LG350 series sealed fiber optic splice closures.

Ordering Information

MODEL #	PART #	DESCRIPTION
LLAS-200-12SC	FC000068	Terminal Adapter for LG-250 Sealed Splice Closure.
LLAS-300-24SC	FC000069	Terminal Adapter for LG-350 Sealed Splice Closure.
LLAS-350-48SC	FC000646	Terminal Adapter for LG-350 Sealed Splice Closure.

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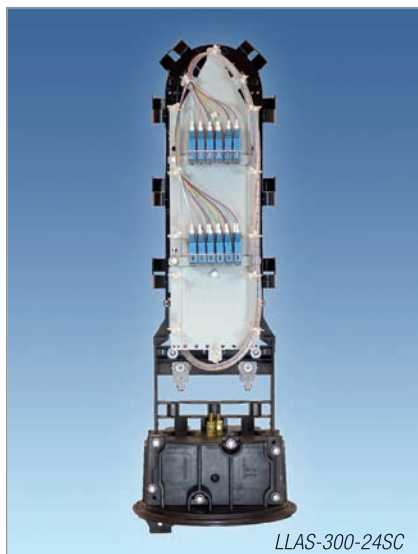
Accessories Ordering

PART #	DESCRIPTION
C058475	(1) Small Flange SC/UPC Bulkhead adapter (Blue)
C147880	(1) Small Flange SC/APC Bulkhead adapter (Green)
C146507-0001	(1) Pigtail - SC/UPC Connector with (1) meter 900µm fiber
C203278-0001	(1) Pigtail - SC/APC Connector with (1) meter 900µm fiber

LLAS-200-12SC
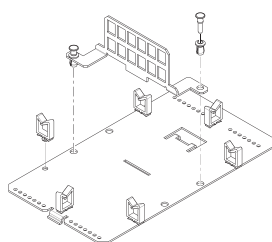
LLAS-300-24SC

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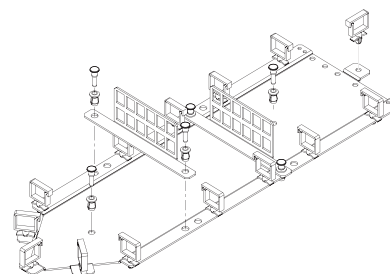
Aerial Weathertight Fiber Optic Splice Closures

The AFL Telecommunications' 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, special tools or sealants
- 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	72, 288	12, 48	72, 288	288, 1152
Splice Tray Capacity - Single, Mass	3, 2	n/a, n/a	3, 2	12, 8
Cable Ports	4-8	4-6	4-8	6-12 (6 per end)
Cable Entrance	In-line, Butt	In-line (taut sheath)	In-line, Butt	In-line, Butt
Cable Sizes (O.D.)	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"	4 @ 0.3-0.8" Up to 6 with Dual Grommet Kits 2 @ 0.3-0.77" 2 @ 0.3-0.65" 2 @ 0.3-0.5"	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"	6 @ 0.4-0.87" Up to 12 with Dual Grommet Kits 6 @ 0.4-0.87" 6 @ 0.5"
CLOSURE TEST [1,2] Cable Retention (100 lbs.) Impact Resistance (0-40 °C) Chemical Resistance Cable Flexing Dust (Weather Tightness) Driving Rain Rodent Test	Passed Passed Passed Passed Passed Passed Passed	Passed Passed Passed Passed Passed Passed Passed	Passed Passed Passed Passed Passed Passed Passed	Passed Passed Passed 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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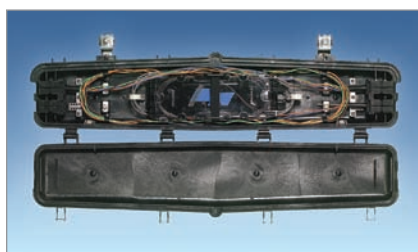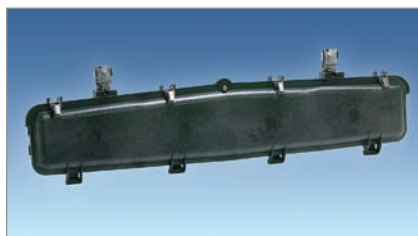
LG-410 Aerial Weathertight
Fiber Optic Splice Closure

The AFL LG-410 Aerial Weathertight Fiber Optic Splice Closure is designed for small to medium count fiber splicing (< 72 single or 288 mass) in aerial applications and provides additional fiber bundle storage with its extended length design.

Specifications

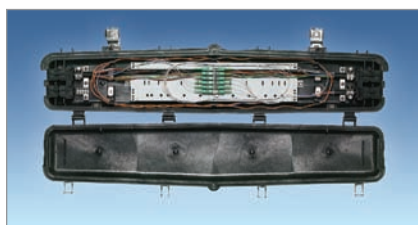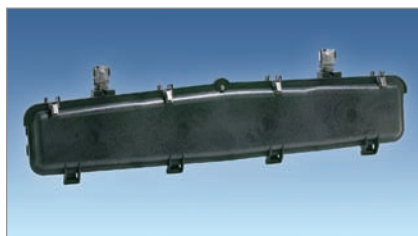| PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	72, 288
Number of Splice Trays (Max.) - Single, Mass	3, 2
Cable Entrance Configuration	In-line, Butt
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Features

- Four individual, self-sizing grommeted cable ports (expandable to eight cable entrances)
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- 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 #	PART #
Aerial Weathertight Universal Fiber Optic Splice Closure, up to 72 Single fusion splices, 4 cable ports expandable to 8. Equipped w/ 4 self sealing ports, (2) grounding terminals and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-410-U-0	FC000022
Single Fusion Splice Tray - Stores 24 Single fused fibers (maximum of 3 trays in LG-410)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single fusion or 4 Mass fusion sleeves/48 Fibers (maximum of 2 trays in LG-410)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion sleeves/48 fibers (maximum of 2 trays in LG-410)	LL-4800	91711-07
Single Fusion Splice Tray Stores 48 Single Fused Fibers	LL-2448-48S	FA000045
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Dual Grommet Cable Expansion Kit - Includes (2) LG-400 Dual Grommets and Cable Hardware	LG-400-DCEK	911386-00-01
Dual Grommet Replacement Kit - Includes; (10) Dual Grommets for the LG-400 Series Closures	LG-400-Dual-Kit	911495-00-00
Grommet Replacement Kit, Kit - Includes; (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
Adjustable Aerial Hanger Bracket Kit	LG-400/500/600	FC000572

LG-420 Aerial Weathertight Fiber Optic Splice Closure

The AFL LG-420 Aerial Weathertight Fiber Optic Splice Closure is designed to allow for Taut Sheath (no slack) splicing in aerial applications such as repairing cable sheath and fibers or providing mid-span access.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	12, 48
Number of Splice Trays (Max.) - Single, Mass	n/a, n/a
Cable Entrance Configuration	In-line (taut sheath)
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.8" Up to 6 with Dual Grommet Kits 2 @ 0.3-0.8" 2 @ 0.3-0.65" 2 @ 0.3-0.5"
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Features

- Four individual, self-sizing grommeted cable ports (expandable to six cable entrances)
- Taut Sheath splice module accommodates up to twelve fusion splices and supports storage of up to twelve optical connector adapters
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia™
- Engineered thermoplastic to meet Telcordia™ aerial and UV resistance requirements
- Protective channel allowing taut fibers or bundles to pass through the closure
- Rural Utilities Service (RUS) Listed

Ordering Information

DESCRIPTION	MODEL #	PART #
Aerial Weathertight Universal Taut Sheath Splice Closure - Includes; (2) 6 fiber single fusion splice organizers, (2) Blank 6 adapter bulkeads (SC style), (2) grounding terminals and 4 individual self sealing ports. Expandable to 8 cable ports. Does not include cable grounding kits.	LG-420-U-0	FC000023
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Dual Grommet Cable Expansion Kit - Includes (2) LG-400 Dual Grommets and Cable Hardware	LG-400-DCEK	911386-00-01
Dual Grommet Kit - Includes; LG-400 Series Closures	LG-400-Dual-Kit	911495-00-00
Grommet Replacement Kit, Kit - Includes; (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
Adjustable Aerial Hangar Brachet Kit	LG-400/500/600	FC000572

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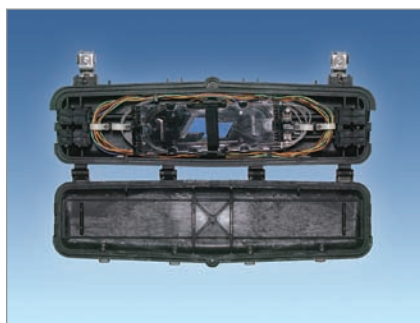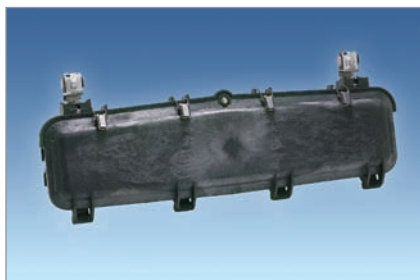
LG-500 Aerial Weathertight Fiber Optic Splice Closure

The AFL LG-500 Aerial Weathertight Fiber Optic Splice Closure is designed for small to medium count fiber splicing ($\leq$ 96 single, 144 using LL-2448-48S splice tray or 288 mass) in aerial applications. Compact in design for congested aerial construction.

Specifications

| PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	144, 288
Number of Splice Trays (Max.) - Single, Mass	3, 2
Cable Entrance Configuration	In-line, Butt
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 - (L x D) in. (cm)	27.00 x 8.25 x 4.00 (65.58 x 20.96 x 10.16)
Weight - lbs. (kg)	6.4 (2.90)

Features

- Four individual, self-sizing grommeted cable ports
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- 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 #	PART #
Aerial Weathertight Universal Compact Splice Closure - includes; (4) cable retention kits, (2) grounding terminals, (4) self sealing ports and standard aerial hangars. Does not include splice trays or cable grounding kits.	LG-500-U-0	FC000026
Single Fusion Splice Tray - Stores 24 single fused fibers (maximum of 3 trays in LG-500)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single Fusion, 4 Mass fusion sleeves/48 fibers or 12 Mechanical (maximum of 2 trays in LG-500)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion sleeves/48 fibers (maximum of 2 trays in LG-500)	LL-4800	91711-07
Mass Fusion Splice Tray - Stores 12 Mass fusion sleeves/144 fibers (maximum of 2 trays in LG-500)	LL-4848	911437-00-02
Single Fusion Splice Tray - Stores 48 Single Fused Fibers	LL-2448-48S	FA000045
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Dual Grommet Kit - Includes; (2) small grommets and hardware)	Dual Grommet Kit	911386-00-01
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
LG-500 6-Port Drop Cable Kit	6-Port Drop Kit	FC000535
Adjustable Aerial Hanger Kit Bracket Kit	LG-400/500/600	FC000572

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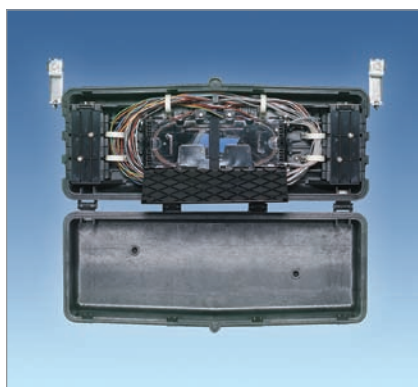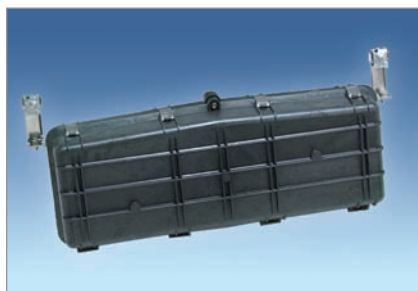
LG-600 Aerial Weathertight Fiber Optic Splice Closure

The AFL LG-600 Aerial Weathertight Fiber Optic Splice Closure is designed for high count fiber splicing ($\leq$ 288 single or 1152 mass) in aerial applications where a cost-effective high cable entry closure is desired.
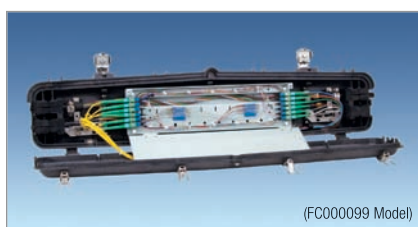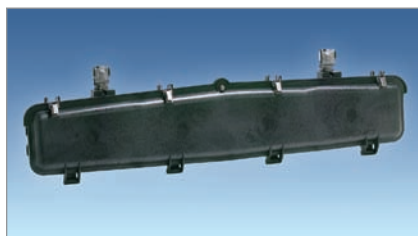
Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	288, 1152, 96
Number of Splice Trays (Max.) - Single, Mass, Mechanical	12, 8, 8
Cable Entrance Configuration	In-line, Butt
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	6 @ 0.4-0.87" Up to 12 with Dual Grommet Kits 6 @ 0.4-0.87" 6 @ 0.5"
Dimensions - (L x D) in. (cm)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight - lbs. (kg)	18 (8.16)

Features

- Six individual, self-sizing grommeted cable ports (expandable to twelve cable entrances)
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- 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 #	PART #
Aerial Weathertight Universal High Capacity Splice Closure - Includes; (4) cable retention kits, (2) gounding terminals, (6) self sealing ports and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-600-U-0	FC000029
Single Fusion Splice Tray - Stores 24 Single fused fibers (maximum of 12 trays in LG-600)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single Fusion or 4 Mass fusion sleeves/48 fibers (maximum of 8 trays in LG-600)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion Sleeves/48 fibers) (maximum of 8 trays in LG-600)	LL-4800	91711-07
Mass Fusion Splice Tray - Stores 12 Mass fusion sleeves /144 fibers (maximum of 6 trays in LG-300)	LL-4848	911437-00-02
Single Fusion Splice Tray to Accommodate 48 Splices	LL-2448-48S	FA000045
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Dual Grommet Expansion Kit - Includes; (2) Dual Grommets, (1) CSM retention clamp, cable retention clamp and cable spacer	LG-600-DCEK	911406-00-00
Multi-drop Cable Entry Kit - Allows six cable entries 0.23-0.48"	MDG-600	FC000352
Grommet Replacement Kit - Includes; (10) LG-600 Grommets	LG-600-S-Kit	91918-00
Extended Offset Aerial Hanger Kit	LG-600	91990-00
Adjustable Aerial Hanger Bracket Kit	LG-400/500/600	FC000572

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(FC000099 Model)

LG-420 FTTx Aerial Weathertight Fiber Optic Splice Closures

The AFL LG-420 FTTx Aerial Weathertight Fiber Optic Splice Closures are designed to allow for Taut Sheath (no slack) splicing in aerial applications such as FTTx access networks. The LG-420 FTTx provide access for 4 to 12 subscriber drops.
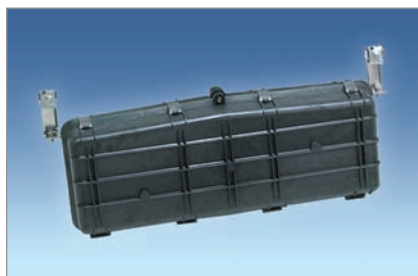
Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	12, 48
Number of Splice Trays (Max.) - Single, Mass	n/a, n/a
Cable Entrance Configuration	In-line (taut sheath)
Cable Ports	2 - express 2- drop
Cable Sizes (Max. O.D. – Min. O.D.)	2 @ 0.3-0.77" express 12 @ 0.22-0.38" drop
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Features

- Four individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 2 drop ports
- Up to twelve FTTx drop connections
- Special multi-drop grommet & cable retention
- Special lock-out interior enclosure
- (2) blank adapter plates (with 6 adapter slots on each)
- Taut Sheath splice module accommodates up to twelve fusion splices and supports storage of up to twelve optical connector adapters
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia™
- Engineered thermoplastic to meet Telcordia™ aerial and UV resistance requirements
- Protective channel allowing taut fibers or bundles to pass through the closure
- Rural Utilities Service (RUS) Listed

Ordering Information

DESCRIPTION	MODEL #	PART #
Aerial Weathertight Universal Taut Sheath Splice Closure - Includes: (2) 6-fiber single fusion splice organizers, (2) Blank 6 adapter bulkeads (SC style), (2) grounding terminals and 4 individual self sealing ports. Connects up to (12) FTTx subscriber drop either connectorized or direct spliced. Special interior lock out protective enclosure. Does not include cable grounding kits.	LG-420-U-FTTx	FC000099
Aerial Weathertight Universal Taut Sheath Splice Closure - Includes: (2) 6-fiber single fusion splice or (1) ribbon splice organizers, (2) blank 6 adaptor bulkheads (SC style), (2) grounding terminals and (4) individual self-sealing ports. Connect up to (12) FTTx subscriber drops either connectorized or direct spliced. Standard taut sheath plate. Does not include cable grounding kits.	LG-420-FTTx	FC000206
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Grommet Replacement Kit, Kit - Includes; (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/LG-500	911499-00-00
Extended Aerial Hanger Kit	LG-400/LG-500	911497-00-00

LG-600 FTTx Aerial Weathertight Fiber Optic Splice Closure

The AFL LG-600 FTTx Aerial Weathertight Fiber Optic Splice Closure is designed for express slack loop fiber access splicing in aerial applications where up to 24 customer fiber drops is required.

Specifications

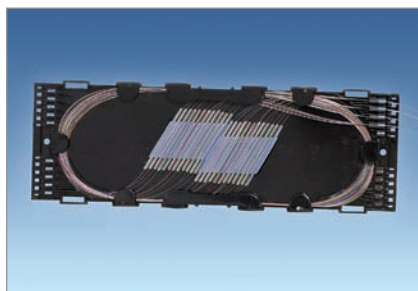| PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	24, 48
Number of Splice Trays (Max.) - Single, Mass, Mechanical	2, 2, 2
Cable Entrance Configuration	In-line, Butt
Cable Ports	6
Cable Sizes (Max. O.D. – Min. O.D.)	2 @ 0.4-0.87" 24 @ 0.23-0.48"
Dimensions - (L x D) in. (cm)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight - lbs. (kg)	18 (8.16)

Features

- Six individual, self-sizing grommeted cable ports; 2 express ports, 4 drop ports
- Up to 24 FTTx drops
- Up to 12 adapters with bracket
- Special multi-drop grommets and cable retention
- Integrated aerial splicing work tray
- Splice trays available for single or mass splicing
- Patented tongue-in-groove cover seal system
- 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 #	PART #
Aerial Weathertight Universal High Capacity FTTx Splice Closure - Includes; (6) cable retention kits, (2) grounding terminals, (6) self sealing ports and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-600-FTTX	FC000291
Single Fusion Splice Tray - Stores 12 Single fused fibers	LL-2450	91957-00
Universal Splice Tray - Stores 12 Single Fusion or 4 Mass fusion sleeves/48 fibers	LL-1248	911221-00-00
Mass Fusion Splice Tray - Stores 4 Mass fusion Sleeves/48 fibers)	LL-4850	91958-00-00
Cable Grounding Harness - Includes; (4) Harness 8" #6 AWG	CGH-4	FC000024
Dual Grommet Expansion Kit - Includes; (2) Dual Grommets, (1) CSM retention clamp, cable retention clamp and cable spacer	LG-600-DCEK	911406-00-00
Extended Offset Aerial Hanger Kit	LG-600	91990-00
Single Cable Entry Grommet Kit	SEG-600	FC000356
Multi-drop Cable Entry Kit - Allows six cable entries 0.23-0.48"	MDG-600	FC000352
SC 6-Pack Adapter Bracket	LG-600	FM001212
FTTx Expansion Kit - Includes; Stacker Module (1) LG-600 SC-6-Pack Bracket	LG-600	FC000620
Single Port Grommet Kit - 2 Grommets & LSM Hardware	SEG-600-1	FC000623

LightLink™ Fiber Optic Splice Trays

AFL's 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

PART #	MODEL #	DESCRIPTION	LG-55-U	LG-150-U	LG-250-U	LG-350-U	LG-350-AC	LG-350XL-U
FC000053	LL-2425	For LG-55 only - Stores 24 single fused fibers, base, cover, (3) eight position splice holders, tie-wraps	(1 tray max.) 24 Single	N/A	N/A	N/A	N/A	N/A
91957-00	LL-2450	Stores 12 single fused fibers, base, cover, (2) six position splice holders, tie-wraps.	N/A	(3 trays max.) 36 Single	N/A	N/A	N/A	N/A
91958-00	LL4850	Stores 8 mass fusion sleeves, base, deep cover, (2) four position ribbon sleeve holders, tie-wraps.	N/A	(3 trays max.) 144 Mass	N/A	N/A	N/A	N/A
911221-00-00	LL-1248	Stores 12 single fused fibers or 4 mass fusion sleeves (48 fibers), base, cover, sleeve holders, tie-wraps.	N/A	(3 trays max.) 36 Single or 48 Mass	N/A	N/A	N/A	N/A
91710-06	LL-2400	Stores 24 single fused fibers, base, cover, (1) twenty-four position sleeve holder, base, cover, tie-wraps.	N/A	N/A	(4 trays max.) 96 Single	(12 trays max.) 288 Single	N/A	(16 trays max.) 384 Single
FA000037	LL-4808L-R	Stores 36 single fused fibers or 12 mass fusion sleeves (144 Fibers), sleeve holders, base, cover, tie-wraps.	N/A	N/A	N/A	N/A	(4 trays max.) 144 Single (3 trays max.) 432 Mass	N/A
911289-00-02	LL-2448	Stores 24 single fused fibers, 4 mass fusion sleeves (48 Fibers) or 12 mechanical splices, base, deep cover, tie-wraps).	N/A	N/A	(3 trays max.) 72 Single or 144 Mass	(8 trays max.) 192 Singl or 384 Mass	N/A	(10 trays max.) 240 Single or 480 Mass
FA000045	LL-2448-48S	High density. Stores 48 single fused fibers, base, cover, (2) twenty-four position sleeve holders, tie-wraps.	N/A	N/A	(2 trays max.) 96 Single	(6 trays max.) 288 Single	N/A	(18 trays max.) 864 Single
911437-00-02	LL-4848	Stores 12 mass fusion sleeves (144 fibers), base, deep cover, (1) 12 position sleeve holder, tie-wraps.	N/A	N/A	(2 trays max.) 288 Mass*	(8 trays max.) 1152 Mass	N/A	(10 trays max.) 1440 Mass
911676-00-02	LL-4896	High Density. Stores 96 single fused fibers or 24 mass fusion sleeves (288 Fibers), base, cover, (16) six position sleeve holders, (6) four position mass sleeve holders, tie-wraps.	N/A	N/A	N/A	(4 trays max.) 384 Single or 576 Mass** (5 trays max.) 480 Single 720 Mass***	N/A	(9 trays max.) 864 Single or 2592 Mass**
FA000042	LL-7060	Stores 60 single fused fibers, base, cover, (10) splice holders, tie-wraps.	N/A	N/A	N/A	(5 trays max.) 288 Single	N/A	(15 trays max.) 864 Single
FA000043	LL-7144	Stores 12 mass fusion sleeves (144 fibers), base, cover, mass splice holders, tie-wraps.	N/A	N/A	N/A	(2 trays max.) 288 Mass	N/A	(9 trays max.) 1296 Mass
FA000044	LL-7644	Stores 60 single fused fibers or 12 mass fusion sleeves (144 fibers) or in combination, base, cover, splice holders, tie-wraps.	N/A	N/A	N/A	(5 trays max.) 288 Single (2 trays max.) 288 Mass	N/A	(15 trays max.) 864 Single (9 trays max.) 1296 Mass

NOTES:
* Recommended no more than two trays in the LG-250 due to unique ribbon to ribbon application.
** This tray designed for LG-350 and LG-350XL only. The LG-350 requires special tray support bracket (either 911975 Standard or 911974 High Capacitiy)
*** Five trays can be installed in the LG-350 but it requires a 911974 High Capacity Support Bracket to allow for stacking all trays and not interfering with the dome.

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LightLink™ Fiber Optic Splice Trays

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

PART #	MODEL #	DESCRIPTION	LG-410-U	LG-420-U	LG-500-U	LG-600-U
91710-06	LL-2400	Single Fusion Splice Tray - Stores 24 single fused fibers, base, cover, (1) twenty-four position fusion splice holder, tie-wraps.	(3 trays max.) 96 Single	N/A	(3 trays max.) 72 Single	(12 trays max.) 288 Single
911289-00-02	LL-2448	Universal Splice Tray - Stores 24 single fused fibers or 4 mass fusion sleeves (48 fibers), base, deep cover, tie-wraps).	(2 trays max.) 48 Single or 96 Mass	N/A	(2 trays max.) 48 Single or 96 Mass	(8 trays max.) 192 Single or 384 Mass
911437-00-02	LL-4848	Mass Fusion Splice Tray - Stores 12 mass fusion sleeves (144 fibers) Base, deep cover, (1) 12 position mass sleeve holder, tie-wraps.	(2 trays max.) 288 Mass	N/A	(2 trays max.) 288 Mass	(8 trays max.) 1152 Mass

Ordering Information – Splice Tray for Splicing Cabinets and Shelves

DESCRIPTION	MODEL #	PART #
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

Ordering Information – Splice Tray Accessories

DESCRIPTION	MODEL #	PART #
40mm Fiber Protection Fusion Splice Sleeves, Telcordia™ compliant (50 pcs. per bag)	FP-03(40)	S000206
60mm Fiber Protection Fusion Splice Sleeves, Telcordia™ compliant (50 pcs. per bag)	FP-03	S000065
Core Tube Cable Fiber Router for routing fiber up to 8 directions. For all central core tube sizes.	1X8-CTR	911167-02
Loose Tube or Ribbon Router for routing fiber up to 6 directions. For all Loose Tube and up to 12 fiber Ribbon.	1X6-LRR	912085-00-00

Dimensions

LL-2448 and LL-4848 Splice Trays
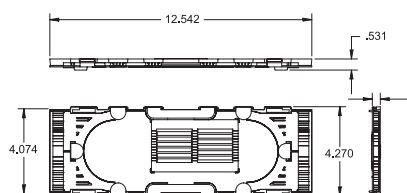
LL-2400 Splice Tray
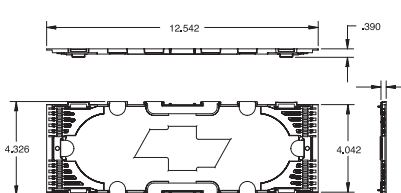
LL-4896 Splice Tray
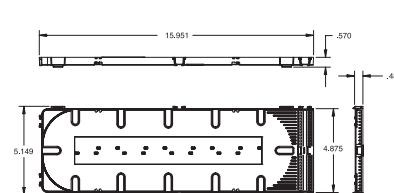
LL-1248, LL-2450 and LL-4850 Splice Trays
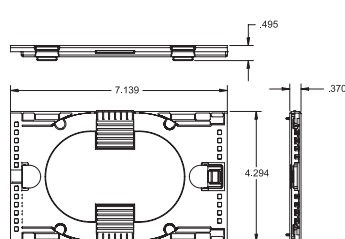
OEE Splice Tray

LL-2425 Splice Tray

www.AFLtele.com or 1.800.235.3423
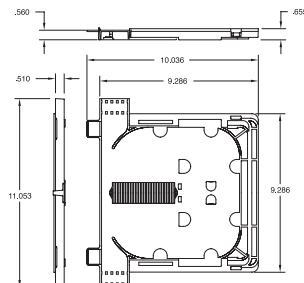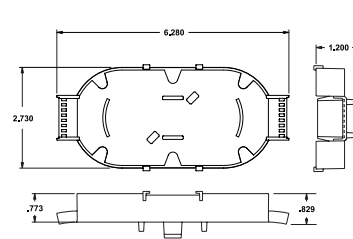
LightLink™ Fiber Optic Splice Trays

LL-2425

Splice Tray for use in the LG-55 Sealed Closure. Stores 24 single fusion sleeves.

LL-2450

Splice Tray for use in the LG-150 Sealed Closure. Stores 12 single fusion sleeves.
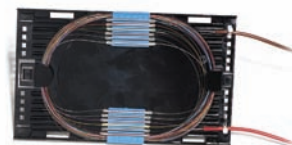
LL-4850

Splice Tray for use in the LG-150 Sealed Closure. Stores 8 mass fusion sleeves (96 fibers).

LL-1248

Universal Splice Tray for use in the LG-150 Sealed Closure. Stores 12 single fusion sleeves or 4 mass fusion sleeves (48 fibers).

LL-4808L-R

Universal Splice Tray for use in the LG-350-AC and LL-500-DS. Stores 36 single fusion sleeves or 12 mass fusion sleeves (144).

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LightLink™ Fiber Optic Splice Trays

LL-2400

Splice Tray for storage of 24 single fusion sleeves.
(used in the LG-250, LG-350, LG-350, LL-400B, LL-400S and LL-2400 pedestal)
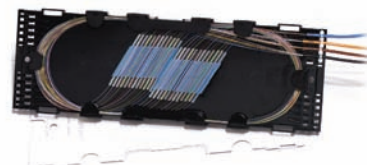
LL-2448

Splice Tray for storage of 24 single fusion sleeves or 4 mass fusion sleeves (48 fibers).
(used in the LG-250, LG-350, LG-350, LL-400B, LL-400S and LL-2400 pedestal)
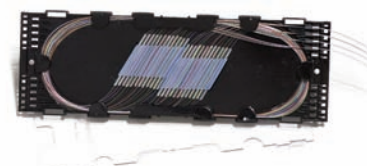
LL-2448-48S

Splice Tray for storage of 48 single fusion sleeves.
(used in the LG-250, LG-350, LG-350, LL-400B, LL-400S and LL-2400 pedestal)

LL-4848

Splice Tray for storage of 12 mass fusion sleeves (144 fibers).
(used in the LG-250, LG-350, LG-350, LL-400B, LL-400S and LL-2400 pedestal)

LL-4896

Splice Tray for storage of 96 single fusion sleeves or up to 24 mass fusion sleeves (288 fibers).
(used in the LG-350XL)

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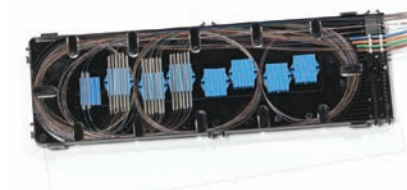
LightLink™ Fiber Optic Splice Trays

LL-7060

Splice Tray for use in the LG-350 and LG-350XL Sealed Closures. Extra deep tray stores up to 60 single fusion sleeves.

LL-7144

Splice Tray for use in the LG-350 and LG-350XL Sealed Closures. Extra deep tray stores up to 12 mass fusion sleeves (144 fibers).

LL-7644

Splice Tray for use in the LG-350 and LG-350XL Sealed Closures. Extra deep tray stores up to 60 single fusion sleeves or 12 mass fusion sleeves (144 fibers) or in combination.
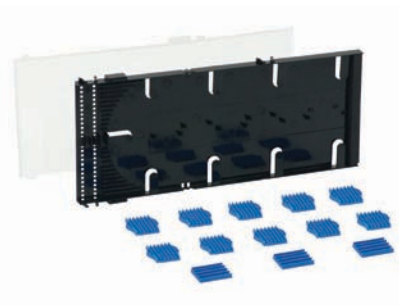
OEE Telescoping Splice Tray

OEE telescoping splice tray stores up to 48 single fusion sleeves or 12 mass fusion sleeves (144 fibers). Used in the following products: OEE-288/576, OEE-720/1440, Patch and Splice Panels

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www.AFLtele.com or 1.800.235.3423

LightLink™ Optical Entrance Enclosures

The Optical Entrance Enclosures (OEE) are designed to provide a convenient splicing and interconnection location for outside plant cabling entering a Central Office (CO), Controlled Environmental Vault (CEV), or customer location. Each unit is designed to allow the entrance and management of up to 60 cables for splicing and interconnecting. Cables from termination locations and the outside plant are easily installed and managed. Access to individual fiber splices and fiber bundles are made easy by splice tray and fiber management designs.

Features

- Manages multiple cable enter and exit facilities
- Each splice tray handles up to 48 single fusion or 144 mass fusion splices
- Enclosures for indoor or outdoor NEMA 3 applications
- Internal ground bar and pass through ground lugs
- Rated NEMA Type 3

Specifications

PARAMETER	VALUE
Material	Aluminum or steel
Coatings	Electrostatically applied, powder coat
Color	Granite
Dimensions	See Detail Drawings

Accessories - Shingle Kits
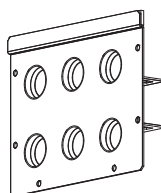
Standard Footprint 6 Ports
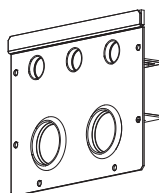
Standard Footprint 5 Ports
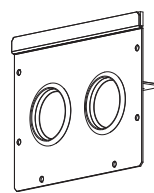
Standard Footprint 2 Ports – XL

Standard Footprint 2 Ports – XXL

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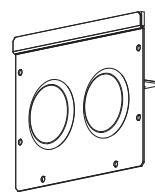
LightLink™ Optical Entrance Enclosures

Ordering Information

DESCRIPTION	MODEL #	PART #

OPTICAL ENTRANCE ENCLOSURE
576 Single Fusion or 1728 Mass Fused Splice Capacity, up to 60 Cable Entry Ports
    Includes:
    (2) 6-Port Standard Shingles (Each port Accepts a 0.472-0.7089" Cable)
    (1) 5-Port Shingles (2 Port Accepts a 0.708-0.988" Cable, and 3 small Ports Accepting a Cable 0.236-0.473")
    (4) Medium Sealing and Retention Kits (each supporting a 0.472-0.708" Cable)
    (1) Large Sealing and Retention Kit (Each Supporting a 0.708-0.988" Cable)
    (3) Metallic Cable Bonding Kits
    (1) Wall-Mount Hardware
    (1) OEE Locking Key
	OEE-288/576	911309-00-05

OPTICAL ENTRANCE ENCLOSURE
720 Single Fusion or 4320 Mass Fused Splice Capacity, up to 60 Cable Entry Ports
    Includes:
    (2) 6-Port Standard Shingles (Each port Accepts a 0.472-0.7089" Cable)
    (1) 5-Port Shingles (2 Port Accepts a 0.708-0.988" Cable, and 3 small Ports Accepting a Cable 0.236-0.473")
    (4) Medium Sealing and Retention Kits (each supporting a 0.472-0.708" Cable)
    (1) Large Sealing and Retention Kit (Each Supporting a 0.708-0.988" Cable)
    (3) Metallic Cable Bonding Kits
    (1) Wall-Mount Hardware
    (1) OEE Locking Key
	OEE-720/1440	911275-00-05

OEE 288/576
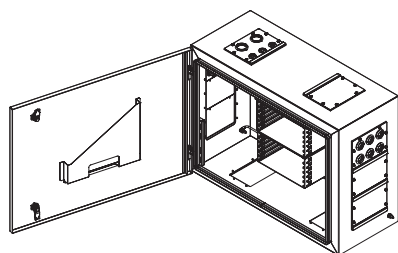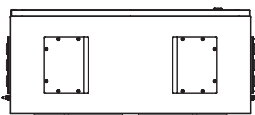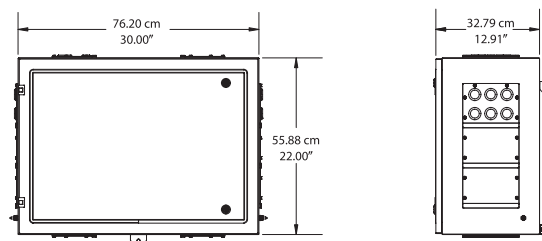
OEE 720/1440
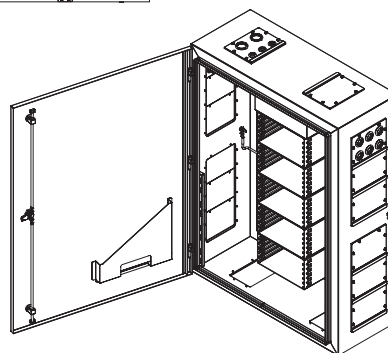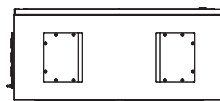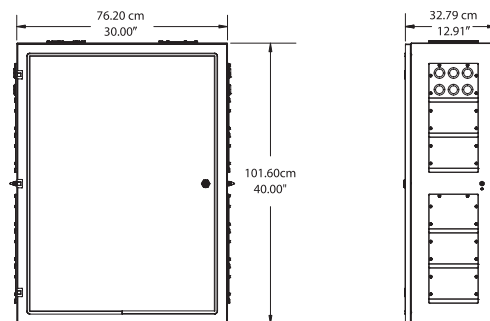
LightLink™ Optical Entrance Enclosures

Accessories

DESCRIPTION	MODEL #	PART #
OEE Fiber Splice Tray	STF-48	911442-00-00
Metallic Cable Bonding Kit	MBK-1	911260-00-01
Work Shelf	OEE-WS	911262-00
Cable Retention and Sealing Kit – Small (Accepts 0.236-0.473" O.D. Cable)	CRSK236-473	911310-00-00
Cable Retention and Sealing Kit – Medium (Accepts 0.472-0.708" O.D. Cable, four included with OEE)	CRSK472-708	911310-01-00
Cable Retention and Sealing Kit – Large (Accepts 0.708-0.988" O.D. Cable, one included with OEE)	CRSK708-988	911310-02-00
Cable Retention and Sealing Kit – XLarge (Accepts 0.866-1.25" O.D. Cable)	CRSK866-1250	911310-03-00
Cable Retention and Sealing Kit – XXLarge (Accepts 1.25-1.49" O.D. Cable)	CRSK1250-1490	911310-04-00
Shingle Kit – Standard, 6-Ports (Accepts Six Cables From 0.472-0.708" O.D., two included with OEE)	SK-STD	911261-00-00
Shingle Kit – Standard, 5-Ports (2) Large (0.708-0.988" O.D. Cable Ports) (3) Small (0.236-0.472" O.D. Cable Ports) (One Included with OEE)	SK-LS	911261-01-00
Shingle Kit, Two X-Large, (2) Cable Ports (0.866-1.25" O.D.)	SK-XL	911261-02-00
Shingle Kit, Two XX-Large, (2) Cable Ports (1.25-1.49" O.D.)	SK-XXL	911261-03-00

Cable Bonding Kit

Cable Retention and Sealing Kit

Work Shelf
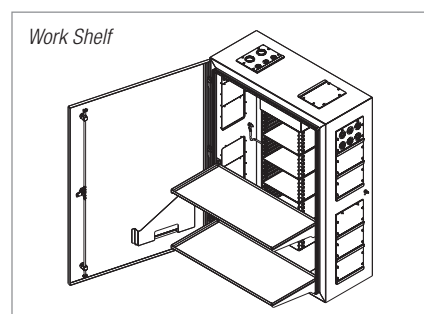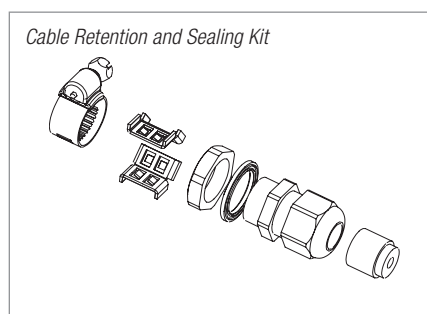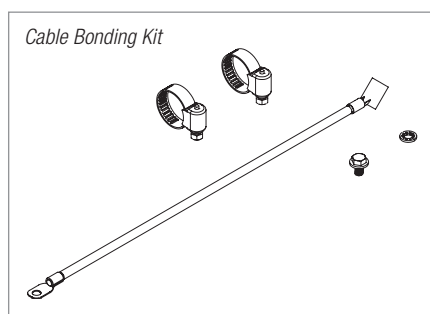
288 Max Fiber Capacity Unit

432 Max Fiber Capacity Unit

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 for deployment in the convenient location

Future Access™ FDH-700 Fiber Distribution Hub

The Future Access™ Fiber Distribution Hub (FDH-700) is designed to provide a local convergence point in the Outside Plant environment, housing optical splitters that link feeder cables from the CO to distribution cables serving customer premises. Its compact size and modular-based platform aid in installation efficiency, while keeping initial deployment costs down. This modular approach allows a service provider to incrementally grow the FDH as their take rate increases. Distribution modules are available in 72-port configurations, providing the option of incrementally populating the FDH at the onset of deployment. This results in immediate cost savings to the service provider since distribution and splitter modules can be installed as paying customers take the offered services.

The ruggedly constructed enclosure features a unique, patent-pending, dual entry door system, providing unobstructed front and side access to the inside of the enclosure without additional movement. A Telcordia GR-3125 compliant design and powder coated 1/8" Aluminum construction guarantee durability and reliability, even in the harshest environmental conditions.

Intuitive fiber management is a key element of the Future Access™ FDH. The routing scheme minimizes training requirements, and allows for the initial deployment (and any unforeseen repositioning of previously deployed fibers) to be executed with the efficiency.

Each Future Access™ FDH features a self-locking internal swinging frame, which houses the distribution field and provides management of all jumper cordage installed into the FDH. In conjunction with the dual-door enclosure, this aids in providing unobstructed rear connector access for future maintenance requirements. Central to the functionality of the Future Access™ FDH is the splitter module. This splitter module is universal to all Future Access™ Fiber Distribution Hubs, resulting in shorter lead times and less inventory for the provider to manage. They feature AFL's Bend Insensitive fiber, minimizing the chance of signal loss due to high traffic/densely packed patch panel routing installations. A self-locking latch mechanism securely holds the module into the FDH, and increases efficiency with a tool-less installation.

Specifications

PARAMETER	VALUE	
	72 / 144 / 216 / 288 FIBER	360 / 432 FIBER
Configuration	Pad, Pole, or Post* Mount	Pad, Pole, or Post* Mount
Height (pole mount)	26"	33"
Height (pad mount)	38"	45"
Dimension (W x D)	20" x 20"	20" x 20"
Connector Type	SC-APC	SC-APC
Cable Type	Loose Tube or Ribbon	Loose Tube or Ribbon
Number of Input Fibers	24	36
Splitter Module Capacity	9	14
Parking Lot Capacity	64	128
Color	Beige	Beige

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Future Access™ FDH-700 Fiber Distribution Hub

Interior Access
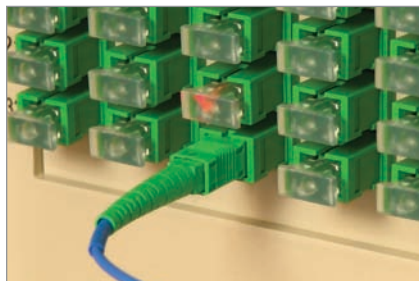
Transluscent Adapter Caps

Fiber Management Area

Ordering Information - FDH Cabinet

PART #	DESCRIPTION
FD000707	FDH Cabinet, 72F (1 X 72), Pad Mount, 100' Input/Output, with Skirt
FD000712	FDH Cabinet, 72F (1 X 72), Pole Mount, 100' Input/Output, Mount Bracket
FD000733	FDH Cabinet, 144F Ribbon (1 X 144), Pad Mount, 100' Input/Output, with Skirt
FD000704	FDH Cabinet, 144F (1 X 144), Pad Mount, 100' Input/Output, with Skirt
FD000714	FDH Cabinet, 144F (1 X 144), Pole Mount, 100' Input/Output, Mount Bracket
FD000706	FDH Cabinet, 144F (2 X 72), Pad Mount, 100' Input/Output, with Skirt
FD000713	FDH Cabinet, 144F (2 X 72), Pole Mount, 100' Input/Output, Mount Bracket
FD000720	FDH Cabinet, 144F (2 X 72), Pole Mount, with 100' w/ Bottom Cable Entry, Mount Bracket
FD000719	FDH Cabinet, 144F (72 + 3 x 24 Armored), Pad Mount, 100' Input/Output, with Skirt
FD000705	FDH Cabinet, 216F (1 X 216), Pad Mount, 100' Input/Output, with Skirt
FD000716	FDH Cabinet, 216F (1 X 216), Pole Mount, 100' Input/Output, Mount Bracket
FD000709	FDH Cabinet, 216F (144 + 72), Pad Mount, 100' Input/Output, with Skirt
FD000715	FDH Cabinet, 216F (144a + 72b), Pole Mount, 100' Input/Output, Mount Bracket
FD000708	FDH Cabinet, 216F (3 X 72), Pad Mount, 100' Input/Output, with Skirt
FD000701	FDH Cabinet, 288F (1 X 288), Pad Mount, 100' Input/Output, with Skirt
FD000732	FDH Cabinet, 288F (1 X 288), Pad Mount, Show Unit, with Skirt
FD000718	FDH Cabinet, 288F (1 X 288), Pole Mount, 100' Bottom In/Output, Mount Bracket
FD000702	FDH Cabinet, 288F (1 X 288), Pole Mount, 100' Input/Output, Mount Bracket
FD000711	FDH Cabinet, 288F (2 X 144), Pad Mount, 100' Input/Output, with Skirt
FD000740	FDH Cabinet, 288F Ribbon, (2 X 144), Pole Mount, 100' Input/Output, Mount Bracket
FD000717	FDH Cabinet, 288F (2 X 144), Pole Mount, 100' Input/Output, Mount Bracket
FD000703	FDH Cabinet, 288F (2 X 72 + 144), Pad Mount, 100' Input/Output, with Skirt
FD000710	FDH Cabinet, 288F (4 X 72), Pad Mount, 100' Input/Output, with Skirt
FD000729	FDH Cabinet, 288F in 432 Chassis, (1 X 288), Pad Mount, 100' Input/Output, with Skirt
FD000723	FDH Cabinet, 360F (144a + 72b + 144c), Pad Mount, 100' Input/Output, with Skirt
FD000730	FDH Cabinet, 360F (216a + 144b), Pad Mount, 100' Input/Output, with Skirt
FD000726	FDH Cabinet, 360F (216a + 144b), Pole Mount, 100' Input/Output, Mount Bracket
FD000724	FDH Cabinet, 360F (5 X 72), Pad Mount, 100' Input/Output, with Skirt
FD000727	FDH Cabinet, 432F (144a + 288b), Pad Mount, 100' Input/Output, with Skirt
FD000731	FDH Cabinet, 432F (2 X 216), 96 Input (12 + 84), Pad Mount, 100' In/Out, with Skirt
FD000721	FDH Cabinet, 432F (2 X 216), Pad Mount, 100' Input/Output, with Skirt
FD000722	FDH Cabinet, 432F (2 X 216), Pole Mount, 100' Input/Output, Mount Bracket
FD000728	FDH Cabinet, 432F (288a + 144b), Pole Mount, 100' Input/Output, Mount Bracket
FD000725	FDH Cabinet, 432F (3 X 144), Pad Mount, 100' Input/Output, with Skirt

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Future Access™ FDH-700 Fiber Distribution Hub

Door Latch Closed

Multiple Cable Entry Ports

Rear Grounding Block

Ordering Information – Accessories

PART #	DESCRIPTION
FD000644	Additional 12" Mounting Skirt for Pad Mount FDH (All Cabinet Sizes)
FD000158	Hand-hole, Split lid design, 60"L x 36"W x 24"D, HDPE Structural Foam, Stainless Hardware, Green (Percell)
FD000525	Hand-hole, Split lid design, 26"L x 24"W x 24"D, HDPE Thermoplastic, Green (Channell)
FD000523	Hand-hole, Split lid design, 48"L x 30"W x 24"D, Polymer Concrete (Quazite), (Hubell)
FC000524	Hand-hole, Split lid design, 60"L x 36"W x 30"D, Polymer Concrete (Quazite), (Hubell)
FD000231	Kit, FDH 72 Fiber Distribution, with 100 Foot Stub (FDH-100 series only)
FD000525	Channell Hand Hole Box (SGLB2436170001008), Green

Future Access™ Splitter Module

Specifications

PARAMETER	VALUE	
	1 X 16	**1 X 32**
Wavelength Range	1280nm-1650nm	1280nm-1650nm
Typical Insertion Loss	12.9	16.6
Max Insertion Loss	14.0	17.5
Typical Uniformity	1.2	1.5
Max Uniformity	1.5	2.0
Return Loss	>55	>55
Directivity	>55	>55
PDL	0.20	0.20
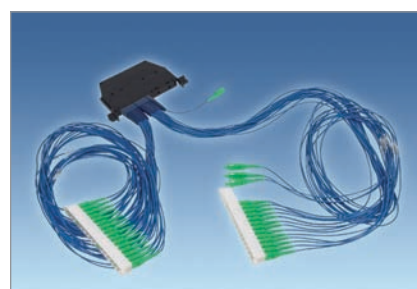
Future Access Splitter Module

Ordering Information – Future Access Splitter Modules

PART #	DESCRIPTION
FD000039	1x32 Future Access Splitter Module, Bend Insensitive Pigtails, Parking Lots, SC-APC connectors
FD000160	1x16 Future Access Splitter Module, Bend Insensitive Pigtails, Parking Lots, SC-APC connectors
FD000161	2x16 Future Access Splitter Module, Bend Insensitive Pigtails, Parking Lots, SC-APC connectors
FD000162	Dual 1x16 Future Access Splitter Module, Bend Insensitive Pigtails, Parking Lots, SC-APC connectors

Features

- One common splitter for all FDH
- Preconnectorized SC-APC inputs mean efficient, no-splice installation
- Bend radius protection to 15mm in a 2.0mm pigtail using SR-15e fiber
- Glass-reinforced thermoplastic housing
- Easy retrofit into previously deployed hubs

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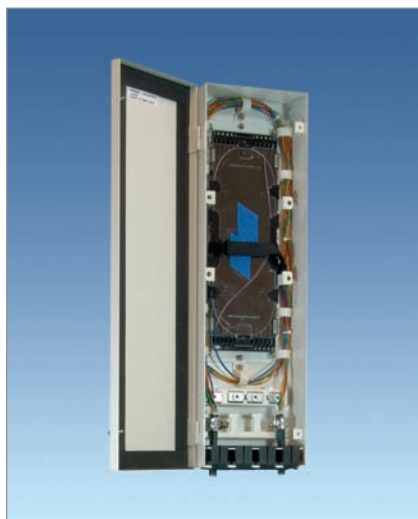
LL-400s

LL-400s in 1010 pedestal

Hardware kit for external grounding (included)

LightLink™ LL-400s
Optical Splicing and Distribution Enclosure

The LL-400s Fiber Optic Splicing and Distribution Enclosure provides for organizing, splicing, and interconnecting fibers in FTTx, broadband, distribution, and building entrance applications. Each LL-400s 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-400s 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 72 single or 288 mass-fused fibers.

Features

- Independent cable strain relief system
- Cable entry/exit grommet seals
- Removable Hinged Front Cover
- Fiber routing system
- Splice tray support system
- 72 single fusion splices
- 288 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)	21.63 x 6.63 x 3.25 (54.94 x 16.84 x 8.26)
Weight lbs. (kg)	4.74 (1.77)

Ordering Information

DESCRIPTION	PART #
LL-400s	FM000639
LL-400s with (2) multi-drop grommets	FM000618
LL-400s in 1010 Pedestal	FM000777

Accessories

DESCRIPTION	PART #
LL-400b Pedestal Spacer Mount Kit	911740-00-00
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
LL-400 Security Kit	FM000787

LL-400b shown with optional interconnect module

LL-400b in 1212 Pedestal

Hardware kit for external grounding (included)

LightLink™ LL-400b
Optical Splicing and Distribution Enclosure

The 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 the interconnection of up to 24 SC optical bulkheads. 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	PART #
LL-400b	91894-04
LL-400b In 1212 Pedestal	FM000636

Ordering – Accessories

DESCRIPTION	PART #
LL-410 Interconnect Module, Enclosure with 4 SC Blank Adapter Panels	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 FDH

LL-400b FDH in 1212 Pedestal

LL-400b FDH with 1x32 Splitter

LightLink™ LL-400b FDH
Fiber Distribution Hub

The LL-400b FDH Fiber Distribution Hub is designed to provide a local convergence point in the outside plant environment, housing an optical splitter that links feeder cables from the central office to distribution cables serving customer premises. The LL-400b FDH offers an alternative solution to the traditional FDH cabinet. The LL-400b FDH is smaller in size and less obstructive, allowing installation deeper into the FTTH architecture and eliminating the cost of digging and pouring concrete. More economical to deploy, the pedestal is direct buried requiring only one craft person for installation.

The LL-400b FDH features 4-fiber feeder ports and 32-fiber distribution ports with a preterminated SC/APC 50 foot dielectric loose tube cable. The LL-400b FDH is available empty, pedestal-mounted or loaded with 1x32 Future Access™ Splitter Module.

Features

- Independent cable strain relief system
- Cable entry/exit grommet seals
- Compact size less obstructive in residential deployments
- Installed in outdoor pedestal or indoor building entrances
- Preterminated fiber cable for distribution and feeder
- Direct buried application

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

PART #	DESCRIPTION
FD000564	LL-400b FDH (empty)
FD000608	LL-400b FDH (empty) in 1212 Pedestal
FD000609	LL-400b FDH with 1x32 Future Access™ Splitter Module

NOTE: When using LL-2448-485 crease capacity to 480 SF splicer

Ordering – Accessories

PART #	DESCRIPTION
FD000039	1x32 Future Access™ Splitter Module, Bend Insensitive Pigtails, Parking Lot, SC/APC Connectors
FM000787	LL-400 Security Kit
FA000045	LL-2448-485

LL-500

LL-500 with LL-2450 installed

LightLink™ LL-500
Optical Splicing and Distribution Enclosure

The 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
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	PART #
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

Accessories

DESCRIPTION	PART #
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
Dual Cable Expansion Kit (includes dual grommet and hardware)	FM002636

LightLink™ LL-500-DS
MDU Splice and Distribution Enclosure

The LL-500-DS is used in MDU applications where FTTP services are to be provisioned using indoor single family unit (SFU) ONTs. This enclosure is to be used for mounting on the outside of an MDU building. It allows splicing and distribution for up to 12 SFU dwellings in 4-fiber increments. The use of the 4-Fiber HFOC Drop Cable allows quick and easy installation from the preinstalled HFOC terminal to the side of the MDU building. The output of the 4-Fiber HFOC Drop Cable is spliced inside the LL-500-DS to (4) 2mm pigtails which than terminate to SC-APC adapters. The output fibers will be standard MDU drop cables running to each individual dwelling unit inside the building.

Features:

- Tested to Telcordia GR-771
- NEMA 3 rated enclosure
- Independent cable strain-relief for flat drop cables as well as 2mm and 3mm drops
- Unique self-sealing grommet entry system
- Self-contained inner chassis frame with separable outer housing
- Dual telco can-wrench locking fasteners
- Hinged cover securable with standard padlock
- Included splice tray, (4) SC/APC adapters, (4) SC/APC 2mm pigtails

Specifications

PARAMETER	VALUE
Material – Housing	Aluminum .064" thick
Coating	Electrostatically applied powder paint
Color	Beige
Size (H x W x D in.)	17.5" x 9.8" x 4.6"
Weight (lbs)	7.5
Capacity	12 drop cables (flat or round), up to three FA000021 Splice Trays

Ordering Information

DESCRIPTION	PART #
LL-500-DS Enclosure	FC000570

Accessories

DESCRIPTION	PART #
LL-500-DS Expansion Kit (allows additional 4-fiber splices and terminations)	FC000574
4-Fiber HFOC Drop Cable – 200 Feet Dielectric	CS004232-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Dielectric	CS004232-0500FT
4-Fiber HFOC Drop Cable – 200 Feet Toneable	CS004233-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Toneable	CS004233-0500FT

1642XL Fiber Repair Closure

The 1642XL Fiber Repair Closure is a cost-effective and easy-to-use solution for repairing fibers in a variety of outside plant applications. The 1642XL comes equipped with a single splice tray accommodating up to four splices. Either pole or strand mounted, the closure will accept up to three splice trays for a total splice capacity of twelve fibers.

The 1642XL features two grommeted areas. The upper grommets, located on either end, allow damaged cable to be routed through the unit. The lower grommets allow drops to be routed out of the repair. The two stainless steel lashing rings attached to the bottom of the closure are used to secure drip loops for the drops.

Features

- Corrosion-resistant and weather-proof
- Pole or strand-mountable
- Impact and chemical-resistant engineered thermoplastic
- Quarter-turn stainless steel cover fastener
- Splice tray included accomodating up to four splices
- Three tray capacity for up to twelve total splices
- Entry/exit grommets for damaged cable
- Eight grommeted drop exit ports
- Stainless steel lashing rings for drip loops
- Dimensions: 10.64"W x 6.6"H x 2.0"D

Ordering Information

DESCRIPTION	PART #
1642XL Fiber Repair Closure (includes one splice tray with three splice capacity)	FC000530
Additional Splice Tray	DM000110

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LL-2400 Pedestal

The LL-2400 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 96 splices 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-2400 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	PART #
LL-2400 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

Future Access™
4-Fiber HFOC Drop Cable for the
MDU Splice and Distribution Enclosure

The Future Access™ 4-Fiber HFOC (Hardened Fiber Optic Connector) Drop Cable is used in MDU application where FTTP services are to be provisioned using indoor single family unit (SFU) ONTs. The use of the 4-Fiber HFOC Drop Cable allows quick and easy installation from the preinstalled HFOC terminal usually residing on a pole, pedestal or hand-hole run to the side of the MDU building. Used in conjunction with the LightLink™ LL-500-DS MDU Splice and Distribution Enclosure, the output of the 4-Fiber HFOC Drop Cable is spliced inside the LL-500-DS to (4) 2mm pigtails which than terminate to SC-APC adapters. The output fibers will be standard MDU drop cables running to each individual dwelling unit inside the building. This enclosure is mounted on the outside of an MDU building allowing splicing and distribution for up to 12 SFU dwellings in 4-fiber increments.

Features

- Four environmentally sealed SC/APC connectors
- Each connector marked for fiber identification and equipped with protective cap
- Fully sealed transition fan-out into individual 48" long single fiber HFOC tethers
- Tested to Telcordia GR-3120 and GR-771 requirements
- Available in dielectric or toneable flat drop cable
- Available in 200 or 500 foot lengths

Specifications

PARAMETER	VALUE
Connector Type	SC/APC
Max. Insertion Loss	<0.35 dB
Min. Return Loss	-65 dB

Ordering Information

DESCRIPTION	PART #
4-Fiber HFOC Drop Cable – 200 Feet Dielectric	CS004232-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Dielectric	CS004232-0500FT
4-Fiber HFOC Drop Cable – 200 Feet Toneable	CS004233-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Toneable	CS004233-0500FT

Accessories

DESCRIPTION	PART #
LL-500-DS Enclosure	FC000570
LL-500-DS Expansion Kit (allows additional 4-fiber splices and terminations)	FC000574

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Future Access™
4-Fiber HFOC Drop Cable for the
MDU Splice and Distribution Enclosure

Application

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LightLink™ OptiNID OPN-500
Optical Demarcation Closure

The OptiNID OPN-500 is an optical demarcation closure designed for use in either indoor or outdoor environments. Smaller to suit FTTH demarcation applications and versatile to suit Cat5 or coax connections, the closure is capable of housing up to six bulkhead adapters in one 118 LGX® compatible adapter plate. Equipped with an integrated splice tray, which holds up to six single fusion splices, the OPN-500 can be either wall or pole-mounted for ease of use and accessibility.

Features

- 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
- Capacity for one 118 LGX compatible adapter plate
- Keystone adapter plate available
- Provider override for customer lock
- 1/2" or 3/4" NPT conduit fitting, compression cable fittings or grommeted entry ports
- Locations available on front cover for custom logos

Keystone adapter plate shown with a variety of fiber and copper connector adapters

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	U.L.® 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 - diameter	3 x 1/2" NPT (0.875")
Covers	Standard, molded-in snap finger and "F" termination

Ordering Information

DESCRIPTION	MODEL #	PART #
OptiNID OPN-500 ¾" NPT, Plug, Heyco 3231, LGX 118 Black, 1 x SC/UPC Adapter	OPN-500	DM000550
OptiNID OPN-500 ½" NPT, Plug, Grommet, LGX 118 Black, 1 x SC/APC Adapter	OPN-500	DM000614

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

www.AFLtele.com or 1.800.235.3423

LightLink™ OptiNID
OPN-760XL Optical Demarcation Closure

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

Features

- Capacity for up to two 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
- Location available on front cover for custom logos
- 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	U.L.® 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)
Covers	Standard – molded-in snap finger and 3/8" hex head fastener

Ordering Information

DESCRIPTION	MODEL #	PART #
OptiNID OPN-760XL optioned for up to two 118 LGX® compatible adapter plates. (includes splice tray, does not include adapters plates or adapters)	OPN-760XL	TBD
Security Cover Kit	OPN-760XL Security Cover	DM000923
LL-2425 Splice Tray	LL-2425	FC000053

OPN-760XL with optional security cover kit

LightLink™ OptiNID
OPN-760XL Optical Demarcation Closure
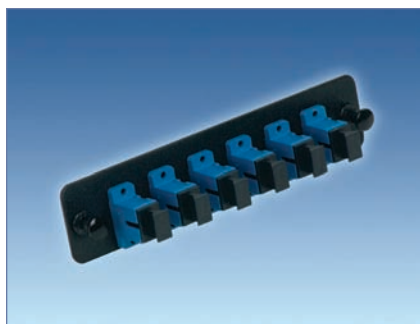
6-pack adapter plate
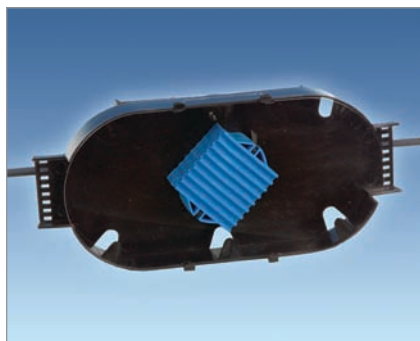
LL-2425 splice tray

Ordering Information – Adapter Plates

DESCRIPTION			LGX 118 - BLACK
Blank Filler Panel			C215507
SINGLE-MODE (CERAMIC)			
SCU	6-pack	simplex	C215611
SCA	6-pack	simplex	C215644
STU	6-pack	simplex	C215971
SCU	6-pack	duplex (12 fiber)	C220853
LCU	6-pack	duplex (12 fiber)	C215993
MULTI MODE (BRONZE)			
SC	6-pack	simplex	C215633
ST	6-pack	simplex	C215975
SC	6-pack	duplex (12 fiber)	C219598
LC	6-pack	duplex (12 fiber)	C216004

Adapter color: UPC = Blue   Multimode = Beige   APC = Green

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www.AFLtele.com or 1.800.235.3423

FPB-201 Fiber Demarcation Box

AFL has designed a cost effective solution for a protecting the passive demarcation of premise fibers. The FPB-201 is injection molded with an integral fiber retention system allowing for quick installation and a positive lock strain relief for most premise fiber cable. This device allows for the indoor and protected outdoors interconnect of up to 2 standard SC adapters in a protected white plastic enclosure to blend in most premise environments.

Features and Benefits

- Compact size takes up less wall space for installation
- Thin profile prevents accidental damage in congested installations
- Molded inner slack storage area insures minimum bend radius preventing micro bends and unnecessary loss or fiber damage
- No additional tie wraps or clamps needed due to integral positive lock strain relief
- Inner tray retains up to two fusion or mechanical splice sleeves
- Accepts standard SC connectors SCA or SCU
- Protects fiber connection from accidental contamination or movement allowing long term preservation of connection in hostile environments
- Cost effective passive solution protects each connection without driving project over budget
- Key-hole, three screw mounting allows two of three screws to be leveled and pre installed
- Two locations available for splice and connector to reside allows flexible installation and up to two splices if needed
- Removable sliding cover for easy access to complete box in congested locations

Specifications

PARAMETER	VALUE
Dimensions (mm)	7.9" x 4.5"W x 1.2"D (200 × 115 × 30)
Weight (g)	7 oz (200)
Cable count	2 max.
Cable Types	Most premise (floor) cables
Connection Type	Fusion splice, mechanical splice or SC connector

Ordering Information

DESCRIPTION	MODEL #	PART #
Injection molded fiber demarcation box for up to 2 fibers.	FPB-201	DM000108
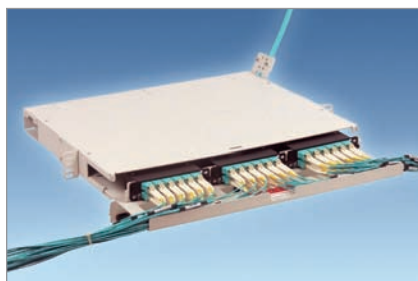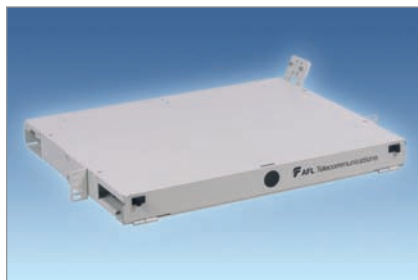
LightLink™ LANSystem™
1RU Fiber Termination Patch/Splice Panel

The AFL Telecommunications' 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 panels are available empty for complete field configuration, half-loaded with adapter plates for field termination and cable assembly installation, or stubbed with a factory-installed cable assembly of a user specified length.

Applications

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

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

Specifications

- Aluminum Construction per ASTMB209
- 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

Dimensions

DEPTH (A) (inches)	WIDTH (B) (inches)	HEIGHT (C) (inches)	RACK UNITS	CAPACITY	UNLOADED WEIGHT
13.51	17.00	1.75	1	18 / 36	4 lbs.
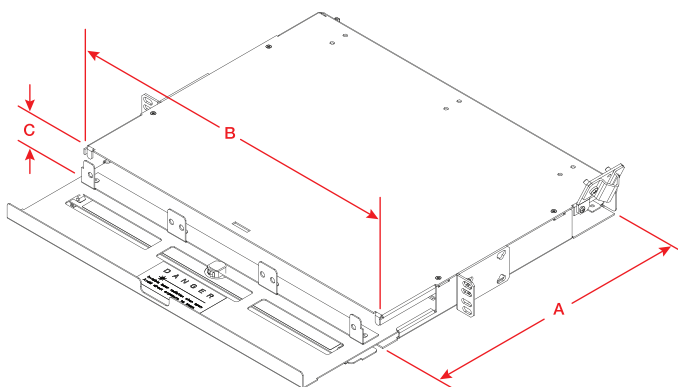
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LightLink™ LANSystem™
1RU Fiber Termination Patch/Splice Panel

Configuration Part Numbers

PART NO.	CONFIGURATION
1 RU PATCH PANELS - 12 FIBERS	
FM001038	CON012P – EMPTY
FM001344	CON012P w/ 12 PSC adapters (2 Six Packs) 118 LGX (Beige)
FM001346	CON012P w/ 12 UST adapters (2 Six Packs) 118 LGX
FM001347	CON012P w/ 12 PST adapters (2 Six Packs) 118 LGX
FM001353	CON012P w/ 6 UDL (dup) adapters (2 Three Packs) 118 LGX (Blue)
FM001354	CON012P w/ 6 PDL (dup) adapters (2 Three Packs) 118 LGX (Beige)
FM001352	CON012P w/ 12 ASC adapters (2 Six Packs) 118 LGX (Green)
FM001349	CON012P w/ 12 UFC adapters (2 Six Packs) 118 LGX
FM001351	CON012P w/ 12 USC (ZR) adapters (2 Six Packs) 118 LGX (Blue)
FM001350	CON012P w/ 12 AFC adapters (2 Six Packs) 118 LGX
1 RU HIGH DENSITY PATCH PANELS - 24 FIBERS	
FM001355	CON024HD w/ 24 UST adapters (2 Twelve Packs) 118 LGX 24 Fibers
FM001356	CON024HD w/ 24 PST adapters (2 Twelve Packs) 118 LGX 24 Fibers
FM001348	CON024HD w/ 12 PDL (dup) adapters (2 Six Packs) 118 LGX 24 Fibers
FM001357	CON024HD w/ 12 USF (dup) adapters (2 Six Packs) 118 LGX 24 Fibers
FM001358	CON024HD w/ 12 ASF (dup) adapters (2 Six Packs) 118 LGX 24 Fibers
1U PATCH AND SPLICE PANELS - 12 FIBERS	
FM001328	CNS012P – EMPTY
FM001323	CNS012P w/ 12 PSC adapters (2 Six Packs)118 LGX, Splice Tray
FM001329	CNS012P w/ 12 UST adapters (2 Six Packs)118 LGX, Splice Tray
FM001325	CNS012P w/ 12 PST adapters (2 Six Packs)118 LGX, Splice Tray
FM001334	CNS012P w/ 6 UDL (dup) adapters (2 Three Packs) 118 LGX, Splice Tray (Blue)
FM001335	CNS012P w/ 6 PDL (dup) adapters (2 Three Packs) 118 LGX, Splice Tray (Beige)
FM001333	CNS012P w/ 12 ASC adapters (2 Six Packs)118 LGX, Splice Tray
FM001330	CNS012P w/ 12 UFC adapters (2 Six Packs)118 LGX, Splice Tray
FM001332	CNS012P w/ 12 USC (ZR) adapters (2 Six Packs)118 LGX, Splice Tray
FM001331	CNS012P w/ AFC adapters (2 Six Packs) 118 LGX, Splice Tray
1U HIGH DENSITY PATCH AND SPLICE PANELS - 24 FIBERS	
FM001336	CNS024HD w/ 24 UST adapters (2 Twelve Packs)118 LGX, Splice Tray
FM001337	CNS024HD w/ 24 PST adapters (2 Twelve Packs)118 LGX, Splice Tray
FM001338	CNS024HD w/ 12 USF (dup) adapters (2 Six Packs)118 LGX, Splice Tray
FM001339	CNS024HD w/ 12 ASF (dup) adapters (2 Six Packs)118 LGX, Splice Tray

Accessories

PART NO.	DESCRIPTION
FM001313	Splice Tray Kit: Single Fusion, 1RU Patch Panels, Standard Density (1 splice tray)
FM001314	Splice Tray Kit: Single Fusion, 1RU Patch Panels, High Density (2 splice trays)
FM001318	Kit, Lock, for CON / CNS Panels

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired. When ordering stubbed (S), enter the cable stub length required in meters. Standard stub is Circular Premise Cable (CPC).

Part Number	Color	Loading Charactor	Cable Stub Length (M)
FM001344	B	S	0010

Color:
W = C.O. White
B = Black

Loading Charactor:
E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails (N/A on Patch)
S = Preterminated with tight buffered CPC cable stub (Riser) (N/A on Patch & Splice)
R = Preterminated with an OSP loose tube cable stub (N/A on Patch & Splice)

Cable Stub Length (M):
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.
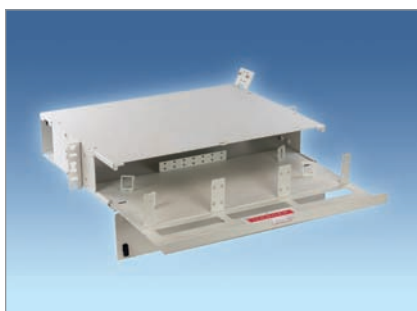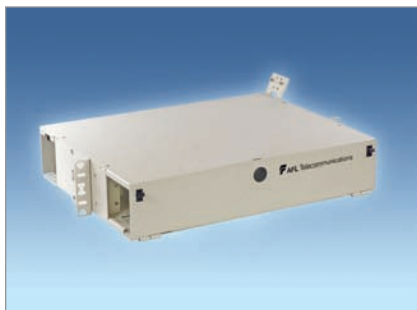
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LightLink™ LANSystem™
2RU Fiber Termination Patch/Splice Panel

The AFL Telecommunications' 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 six LGX 118 compatible mounting positions that can accommodate adapter plates, XFM optical cassettes, passive optical modules or any combination therein. Standard panels are available empty for complete field configuration, half-loaded with adapter plates for field termination and cable assembly installation, or stubbed with a factory-installed cable assembly of a user specified length.

Applications

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

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

Specifications

- Aluminum Construction per ASTMB209
- 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

Dimensions

DEPTH (A) (inches)	WIDTH (B) (inches)	HEIGHT (C) (inches)	RACK UNITS	CAPACITY	UNLOADED WEIGHT
13.51	17.00	3.5	2	36 / 72*	5 lbs.

* 72 fiber capacity not available in Patch and Splice configuration.
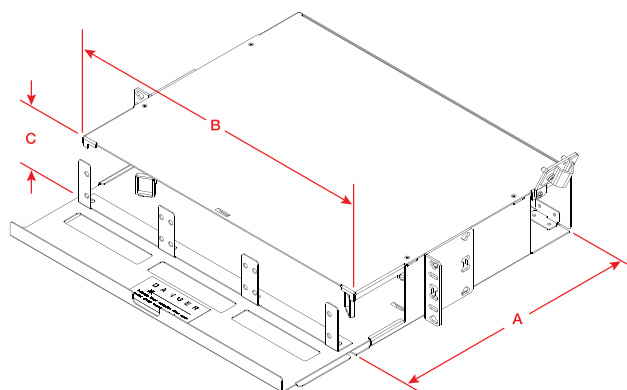
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LightLink™ LANSystem™
2RU Fiber Termination Patch/Splice Panel

Configuration Part Numbers

PART NO.	CONFIGURATION
2 RU PATCH PANELS - 24 FIBERS	
FM001029	CNS024P – EMPTY
FM001433	CON024P with 24 PSC adapters (4 Six Packs) 118 LGX (Beige)
FM001434	CON024P with 24 UST adapters (4 Six Packs) 118 LGX
FM001435	CON024P with 24 PST adapters (4 Six Packs) 118 LGX
FM001441	CON024P with12 UDL (dup) adapters (4 Three Packs) 118 LGX (Blue)
FM001442	CON024P with 12 PDL (dup) adapters (4 Three Packs) 118 LGX (Beige)
FM001439	CON024P with 24 ASC adapters (4 Six Packs) 118 LGX (Green)
FM001436	CON024P with 24 UFC adapters (4 Six Packs) 118 LGX
FM001438	CON024P with 24 USC (ZR) adapters (4 Six Packs) 118 LGX (Blue)
FM001437	CON024P with 24 AFC adapters (4 Six Packs) 118 LGX
2U PATCH AND SPLICE PANELS - 24 FIBERS	
FM001414	CNS024P – EMPTY
FM001411	CNS024P with 24 PSC adapters (4 Six Packs) 118 LGX, Splice tray
FM001412	CNS024P with 24 UST adapters (4 Six Packs) 118 LGX, Splice tray
FM001413	CNS024P with 24 PST adapters (4 Six Packs) 118 LGX, Splice tray
FM001419	CNS024P with 12 UDL (dup) adapters (4 three Packs)118 LGX , Splice tray
FM001420	CNS024P with 12 PDL (dup) adapters (4 three Packs)118 LGX , Splice tray
FM001418	CNS024P with 24 ASC adapters (4 Six Packs) 118 LGX, Splice tray
FM001415	CNS024P with 24 UFC adapters (4 Six Packs) 118 LGX, Splice tray
FM001417	CNS024P with 24 USC (ZR) adapters (4 Six Packs) 118 LGX, Splice tray
FM001416	CNS024P with 24 AFC adapters (4 Six Packs) 118 LGX, Splice tray

Note: All MM cable is 62.5µm unless otherwise specified.

Accessories

| PART NO.	DESCRIPTION
FM001315	Splice Tray Kit: Single Fusion, 2RU Patch Panels, Standard Density (3 splice tray)
FM001316	Splice Tray Kit: Single Fusion, 2RU Patch Panels, High Density (4 splice trays)
FM001318	Kit, Lock, for CON / CNS Panels

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.
When ordering stubbed (S), enter the cable stub length required in meters.

Part Number	Color	Loading Charactor	Cable Stub Length (M)
FM001411	B	S	0010

Color
W = C.O. White
B = Black

Loading Charactor
E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails (N/A on Patch)
S = Preterminated with tight buffered CPC cable stub (Riser) (N/A on Patch & Splice)
R = Preterminated with an OSP loose tube cable stub (N/A on Patch & Splice)

Cable Stub Length (M)
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.

LightLink™ LANSystem™
CNS048P - 48 Fiber Patch and Splice Panel

The CNS048P is a rack mountable fiber patch and splice panel designed to accomodate up to 48 fiber terminations (standard density) or 96 fiber terminations (high density) and up to 144 single fusion splices with optional STF-48 splice drawer. The CNS048P provides a compact and versatile method of splicing and connectivity. Standard panels are available in empty, loaded and unloaded versions. Unloaded panels include six packs, adapters and splice drawers. Loaded panels also include pigtails (<3 Meters).

Specifications

- Telcordia GR-63 NEBS tested
- Aluminum material per ASTMB209
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket - WECO, EIA
- 19" and 23" rack compatible
- Fiber storage capacity - one meter per spliced fiber (3mm jacket)
- Uses two STF-48 splice drawers
- Two panel package - 3U patch, 3U splice
- Nine 118mm LGX® positions

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
11	17	10.5	6	48/96

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

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

www.AFLtele.com or 1.800.235.3423

LightLink™ LANSystem™
CNS048P - 48 Fiber Patch and Splice Panel

Ordering Information

PART NO.	CONFIGURATION
6U PATCH AND SPLICE PANELS (1 - 3U PATCH, 1 - 3U SPLICE)	
C211534	CNS048P – EMPTY
C211543	CNS048P with 48 USC (PB) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C211552	CNS048P with 48 PSC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C211579	CNS048P with 48 UST adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C211588	CNS048P with 48 PST adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000234	CNS048P with 24 UDL (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000235	CNS048P with 24 PDL (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX
C210928	CNS048P with 48 ASC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C210913	CNS048P with 48 UFC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C210922	CNS048P with 48 USC (ZR) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C210917	CNS048P with AFC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C210931	CNS048P with ULC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000236	CNS048P with 24 PSF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000237	CNS048P with 24 USF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000238	CNS048P with 24 ASF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000239	CNS048P with 48 MTRJ adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
6U HIGH DENSITY PATCH AND SPLICE PANELS	
FM000240	CNS096HD with 96 UST adapters (8 Twelve Packs) Splice Drawer 2 - 48 position) 118 LGX
FM000241	CNS096HD with 96 PST adapters (8 Twelve Packs) Splice Drawer (2 - 48 position) 118 LGX
C211594	CNS096HD with 48 UDL (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C211558	CNS096HD with 48 PSF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
C211601	CNS096HD with 48 PDL (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000242	CNS096HD with 48 USF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX
FM000243	CNS096HD with 48 ASF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX

Note: All MM cable is 62.5μm unless otherwise specified.

Accessories

PART NO.	DESCRIPTION
911442-00-00	Telescoping Splice Drawer

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.

Part Number		Color	Loading Charactor
C211543	——	B	L

W = C.O. White
B = Black

E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails

Example: Order number for a panel Black in color, loaded with, master plate, adapter plates, 48 USC adapters (8 six packs), splice drawer (48 & 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.

LightLink™ LANSystem™
CNS072P - 72 Fiber Patch and Splice Panel

The CNS072P is a rack mountable fiber patch and splice panel designed to accomodate up to 72 fiber terminations (standard density) or 144 fiber terminations (high density) and up to 144 single fusion splices. The CNS072P provides a compact and versatile method of splicing and connectivity. Standard panels are available in empty, loaded and unloaded versions. Unloaded panels include adapter plates, adapters and splice drawers. Loaded panels also include pigtails (<3 Meters).

Specifications

- Telcordia GR-63 NEBS tested
- Aluminum Material per ASTMB209
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket - WECO, EIA
- 19" and 23" rack compatible
- Fiber storage capacity - one meter per spliced fiber (3mm jacket)
- Uses three STF-48 splice drawers
- Two panel package - 4U patch, 3U splice
- Twelve 118mm LGX® positions
- 144 fiber (high density) version uses 130mm master plate

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
11	17	12.25	7	72/144

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

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

LightLink™ LANSystem™
CNS072P - 72 Fiber Patch and Splice Panel

Standard Panel Ordering Information

PART NO.	CONFIGURATION
7U PATCH AND SPLICE PANELS (1 - 4U PATCH, 1 - 3U SPLICE)	
C211615	CNS072P – EMPTY 118 LGX
C210967	CNS072/96P – EMPTY 130 LGX
C211624	CNS072P with 72 USC (PB) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C211633	CNS072P with 72 PSC adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C211660	CNS072P with 72 UST adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C211669	CNS072P with 72 PST adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000244	CNS072P with 36 UDL (dup) adapters (12 Three Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000245	CNS072P with 36 PDL (dup) adapters (12 Three Packs) Splice Drawers (3 - 48 position) 118 LGX
C210958	CNS072P with 72 ASC adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C210946	CNS072P with 72 UFC adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C210953	CNS072P with 72 USC (ZR) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C210949	CNS072P with 72 AFC adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
C210964	CNS072P with 72 ULC adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000246	CNS072P with 36 PSF (dup) adapters (12 Three Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000247	CNS072P with 36 USF (dup) adapters (12 Three Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000248	CNS072P with 36 ASF (dup) adapters (12 Three Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000249	CNS072P with 72 MTRJ adapters (12 Six Packs) Splice Drawers (3 - 48 position) 118 LGX
7U HIGH DENSITY PATCH AND SPLICE PANELS (1 - 4U PATCH, 1 - 3U SPLICE)	
C211673	CNS144HD with 72 UDL (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 130 LGX
C211637	CNS144HD with 72 PSF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 130 LGX
C211684	CNS144HD with 72 PDL (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 130 LGX
FM000250	CNS144HD with 72 USF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 130 LGX
FM000251	CNS144HD with 72 ASF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 130 LGX
FM000252	CNS144HD with 144 UST adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000253	CNS144HD with 144 PST adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000254	CNS144HD with 144 UFC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 118 LGX
FM000255	CNS144HD with 144 USC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 130 LGX
FM000256	CNS144HD with 144 ASC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 130 LGX

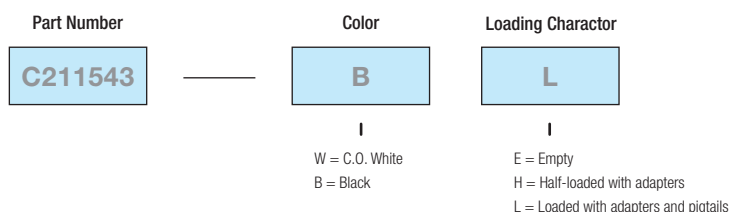**Note:** All MM cable is 62.5μm unless otherwise specified.

Accessories

PART NO.	DESCRIPTION
911442-00-00	Telescoping Splice Drawer

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.

Part Number		Color	Loading Charactor
C211624	———	B	L

W = C.O. White
B = Black

E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails

Example: Order number for a panel Black in color, loaded with, master plate, adapter plates, 72 USC adapters (12 six packs), splice drawer (48 & 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.

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www.AFLtele.com or 1.800.235.3423

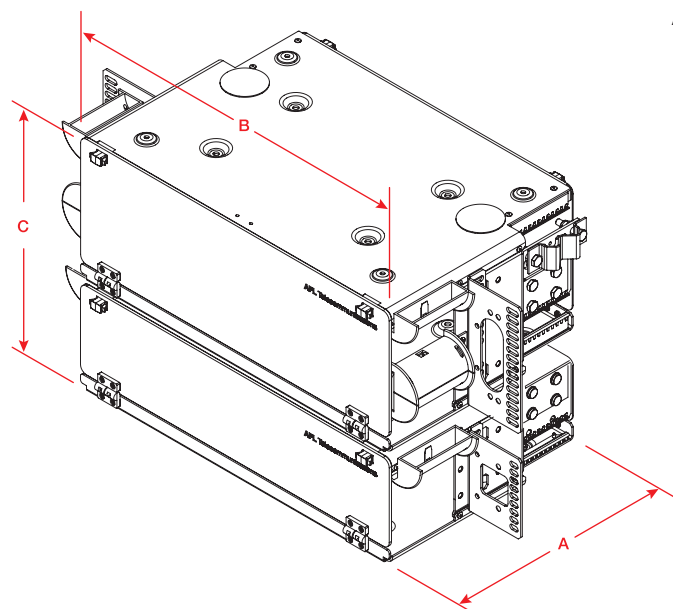# LightLink™ LANSystem™
CNS096P - 96 Fiber Patch and Splice Panel

The CNS096P is a rack mountable fiber patch and splice panel designed to accomodate up to 96 fiber terminations (standard density) or 144 fiber terminations (high density) and up to 144 single fusion splices. The CNS096P provides a compact and versatile method of splicing and connectivity. Standard panels are available in empty, loaded and unloaded versions. Unloaded panels include adapter plates, adapters and splice drawers. Loaded panels also include pigtails (<3 Meters).

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
11	17	12.25	7	96

Specifications

- Telcordia GR-63 NEBS tested
- Aluminum Material per ASTMB209
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket - WECO, EIA
- 19" and 23" rack compatible
- Fiber storage capacity - one meter per spliced fiber (3mm jacket)
- Uses two STF-48 splice drawers
- Two panel package - 4U patch, 3U splice
- Twelve 130mm LGX® positions
- Twelve 8-packs

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

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

www.AFLtele.com or 1.800.235.3423

LightLink™ LANSystem™
CNS096P - 96 Fiber Patch and Splice Panel

Standard Panel Ordering Information

PART NO.	CONFIGURATION
7U PATCH AND SPLICE PANELS (1 - 4U PATCH, 1 - 3U SPLICE)	
C210967	CNS072/96P – EMPTY 130 LGX
C210971	CNS096P with 96 UST adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX
C210976	CNS096P with 96 UFC adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX
C210982	CNS096P with 96 AFC adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX
C210985	CNS096P with 96 USC (ZR) adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX
C210989	CNS096P with 96 ASC adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX
FM000257	CNS096P with 96 MTRJ adapters (12 Eight Packs) Splice Drawers (2 - 48 position) 130 LGX

Note: All MM cable is 62.5µm unless otherwise specified.

Accessories

PART NO.	DESCRIPTION
911442-00-00	Telescoping Splice Drawer

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.

Part Number	Color	Loading Charactor
C210989	B	L

W = C.O. White
B = Black

E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails

Example: Order number for a panel Black in color, loaded with, master plate, adapter plates, 96 ASC adapters (12 eight packs), splice drawer (48 & 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.

LightLink™ LANSystem™
CNS144P - 144 Fiber Patch and Splice Panel

The CNS144P is a rack mountable fiber patch and splice panel designed to accomodate up to 144 fiber terminations (standard density) or 288 fiber terminations (high density) and up to 288 single fusion splices using double density splice trays. The CNS144P provides a compact and versatile method of splicing and connectivity. Standard panels are available in empty, loaded and unloaded versions. Unloaded panels include adapter plates, adapters and splice drawers. Loaded panels also include pigtails (<3 Meters).

Specifications

- Telcordia GR-63 NEBS tested
- Aluminum Material per ASTMB209, Standard Front Cover Lexan
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket - WECO, EIA
- 19" and 23" rack compatible
- Fiber storage capacity - one meter per spliced fiber (3mm jacket)
- Uses six STF-48 splice drawers
- Two pane package - 5U patch, 3U splice (4U splice panel with High Density version)
- Twelve 170mm LGX® positions

Dimensions

PANEL VERSION	DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY
Standard	11	17	14	8	144
High Density	11	17	15.75	9	288

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

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

LightLink™ LANSystem™
CNS144P - 144 Fiber Patch and Splice Panel

Standard Panel Ordering Information

PART NO.	CONFIGURATION
8U PATCH AND SPLICE PANELS (1 - 5U PATCH, 1 - 3U SPLICE)	
C211696	CNS144P – EMPTY
C211705	CNS144P with 144 USC (PB) adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
C211714	CNS144P with 144 PSC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
C211741	CNS144P with 144 UST adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
C211750	CNS144P with 144 PST adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000258	CNS144P with 72 UDL (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000259	CNS144P with 72 PDL (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 170 LGX
C211021	CNS144P with 144 ASC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
C211007	CNS144P with 144 UFC adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000260	CNS144P with 144 USC (ZR) adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000261	CNS144P with 72 PSF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000262	CNS144P with 72 USF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000263	CNS144P with 72 ASF (dup) adapters (12 Six Packs) Splice Drawers (3 - 48 position) 170 LGX
FM000264	CNS144P with 144 MTRJ adapters (12 Twelve Packs) Splice Drawers (3 - 48 position) 170 LGX
9U HIGH DENSITY PATCH AND SPLICE PANELS (1 - 5U PATCH, 1 - 4U SPLICE)	
C211756	CNS288HD with 144 UDL (dup) adapters (12 Twelve Packs) Splice Drawers (6 - 48 position) 170 LGX
C211763	CNS288HD with 144 PDL (dup) adapters (12 Twelve Packs) Splice Drawers (6 - 48 position) 170 LGX
C211720	CNS288HD with 144 PSF (dup) adapters (12 Twelve Packs) Splice Drawers (6 - 48 position) 170 LGX
FM000265	CNS288HD with 144 USF (dup) adapters (12 Twelve Packs) Splice Drawers (6 - 48 position) 170 LGX
FM000266	CNS288HD with 144 ASF (dup) adapters (12 Twelve Packs) Splice Drawers (6 - 48 position) 170 LGX

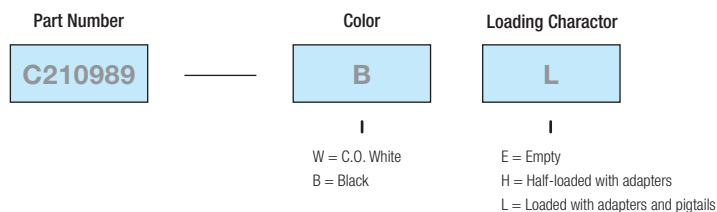**Note:** All MM cable is 62.5μm unless otherwise specified.

Accessories

PART NO.	DESCRIPTION
911442-00-00	Telescoping Splice Drawer

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.

Part Number		Color	Loading Charactor
C211705	——	B	L

W = C.O. White
B = Black

E = Empty
H = Half-loaded with adapters
L = Loaded with adapters and pigtails

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

Empty - Includes master plate, mounting hardware, cable clamp.
Unloaded - Includes master plate, adapter plates, adapters, splice tray (12, 24) / drawer (48 & up), hardware, cable clamp.
Loaded - Includes master plate, adapter plates, adapters, splice drawer (48 & up), pigtails with connectors, hardware, cable clamp.

![AFL Telecommunications - A Fujikura Business]

LightLink™ LANSystem™
CON048P Fiber Termination Patch Panel

The CON048P Fiber Termination Panel is used where termination and connectivity of up to 48 fibers (standard density) or 96 fibers (high density) is desired. The panel design is based on a 3 rack unit height with a master plate to accommodate 9 LGX® compatible adapter plates or modules. Standard panels are available in empty, loaded and preterminated versions. Loaded panels include adapters and adapter plates. Preterminated panels include adapters, adapter plates and standard 48 fiber OFNR cable. The fiber stub for preterminated panels exits the right rear of the unit facing up.

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11	17	5.25	3	54/108	8.4 lbs.	2.03 mm
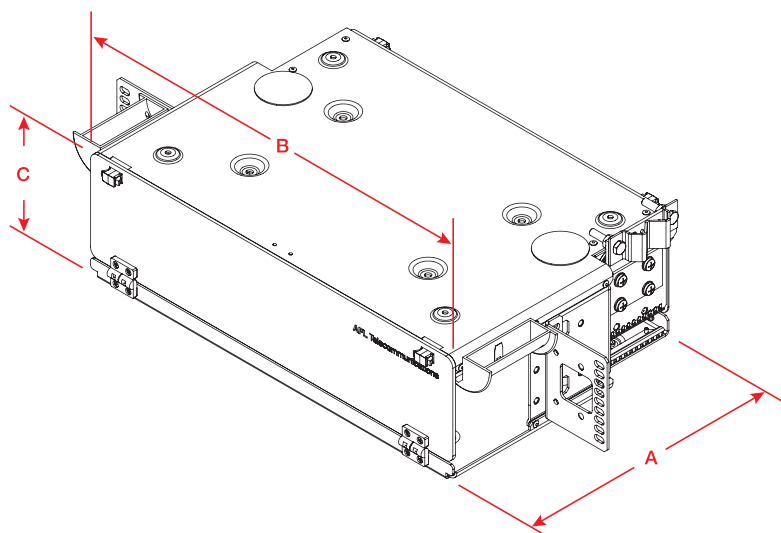
Features
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles and types available
- Compatible with industry standard equipment frames
- LGX® compatible master plate (118mm)
- Modular design
- Provides maximum protection of optical components

Applications
- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

Specifications
- Telcordia GR-63 NEBS Tested
- Aluminum Material per ASTMB209
- Black or White Texture Powder Coated
- Universal Mounting Bracket WECO, EIA
- 19"and 23" Rack Compatible

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

www.AFLtele.com or 1.800.235.3423

LightLink™ LANSystem™
CON048P Fiber Termination Patch Panel

Ordering Information

PART NUMBER	CONFIGURATION
3 RU PATCH PATCH PANELS	
C211291	CON048P – EMPTY
C211300	CON048P with 48 USC (PB) adapters (8 Six Packs) 118 LGX (Blue)
C211309	CON048P with 48 PSC adapters (8 Six Packs) 118 LGX (Beige)
C211336	CON048P with 48 UST adapters (8 Six Packs) 118 LGX
C211345	CON048P with 48 PST adapters (8 Six Packs) 118 LGX
FM000181	CON048P with 24 UDL (dup) adapters (8 Three Packs) 118 LGX (Blue)
FM000182	CON048P with 24 PDL (dup) adapters (8 Three Packs) 118 LGX (Beige)
C213928	CON048P with 48 ASC adapters (8 Six Packs) 118 LGX (Green)
C213916	CON048P with 48 UFC adapters (8 Six Packs) 118 LGX
C213923	CON048P with 48 USC (ZR) adapters (8 Six Packs) 118 LGX (Blue)
C213919	CON048P with 48 AFC adapters (8 Six Packs) 118 LGX
C213934	CON048P with 48 ULC adapters (8 Six Packs) 118 LGX
FM000183	CON048P with 24 PSF (dup) adapters (8 Three Packs) 118 LGX (Beige)
FM000184	CON048P with 24 USF (dup) adapters (8 Three Packs) 118 LGX (Blue)
FM000185	CON048P with 24 ASF (dup) adapters (8 Three Packs) 118 LGX (Green)
FM000186	CON048P with 48 MTRJ adapters (8 Six Packs) 118 LGX (Blue)
3 RU HIGH DENSITY PATCH PANELS	
FM000187	CON096HD with 96 UST adapters (8 Twelve Packs) 118 LGX 96 Fibers
FM000188	CON096HD with 96 PST adapters (8 Twelve Packs) 118 LGX 96 Fibers
C211349	CON096HD with 48 UDL (dup) adapters (8 Six Packs) 118 LGX 96 Fibers
C211313	CON096HD with 48 PSF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers
C211360	CON096HD with 48 PDL (dup) adapters (8 Six Packs) 118 LGX 96 Fibers
FM000189	CON096HD with 48 USF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers
FM000190	CON096HD with 48 ASF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers

Note: All MM cable is 62.5µm unless otherwise specified.

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.
When ordering stubbed (S), enter the cable stub length required in meters.

Part Number	Color	Loading Charactor	Cable Stub Length (M)
C211291	B	S	0010

Color
W = C.O. White
B = Black

Loading Charactor
E = Empty
H = Half-loaded with adapters
S = Preterminated with tight buffered CPC cable stub (Riser)
R = Preterminated with an OSP loose tube cable stub

Cable Stub Length (M)
0002 = 2 meters
0004 = 4 meters
etc.

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

LightLink™ LANSystem™
CON072P Fiber Termination Patch Panel

Features
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles and types available
- Compatible with industry standard equipment frames
- LGX® compatible master plate and footprint (118mm or 130mm)
- Modular design
- Provides maximum protection of optical components
- Available with I/O loose tube stub

Applications
- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

Specifications
- Telcordia GR-63 NEBS Tested
- Aluminum Material per ASTMB209
- White or Black Texture Powder Coated
- Universal Mounting Bracket WECO, EIA
- 19"and 23" Rack Compatible
- 144 fiber (high density) version uses 130mm master plate

The CON072P Fiber Termination Panel is used where termination and connectivity of up to 72 fibers (standard densiy) or 144 fibers (high density) is desired. The panel design is based on a 4 rack unit height with a master plate to accommodate 12 LGX® compatible adapter plates or modules. Standard panels are available in empty, loaded and preterminated versions. Loaded panels include adapters and adapter plates. Preterminated panels include adapters, adapter plates and standard 72 fiber OFNR cable. The fiber stub for preterminated panels exits the right rear of the unit facing up.

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11	17	7	4	72/144	9 lbs.	2.03 mm

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

LightLink™ LANSystem™
CON072P Fiber Termination Patch Panel

Ordering Information

PART NUMBER	CONFIGURATION
4 RU PATCH PANELS	
C211372	CON072P – EMPTY 118 LGX
FM000344	CON072/96P – EMPTY 130 LGX
C211381	CON072P with 72 USC (PB) adapters (12 Six Packs) 118 LGX (Blue)
C211390	CON072P with 72 PSC adapters (12 Six Packs) 118 LGX (Beige)
C211417	CON072P with 72 UST adapters (12 Six Packs) 118 LGX
C211426	CON072P with 72 PST adapters (12 Six Packs) 118 LGX
FM000191	CON072P with 36 UDL (dup) adapters (12 Three Packs) 118 LGX (Blue)
FM000192	CON072P with 36 PDL (dup) adapters (12 Three Packs) 118 LGX (Beige)
C213955	CON072P with 72 ASC adapters (12 Six Packs) 118 LGX (Green)
C213941	CON072P with 72 UFC adapters (12 Six Packs) 118 LGX
C213952	CON072P with 72 USC (ZR) adapters (12 Six Packs) 118 LGX (Blue)
C213946	CON072P with 72 AFC adapters (12 Six Packs) 118 LGX
C213959	CON072P with 72 ULC adapters (12 Six Packs) 118 LGX
FM000193	CON072P with 36 PSF (dup) adapters (12 Three Packs) 118 LGX (Beige)
FM000136	CON072P with 36 USF (dup) adapters (12 Three Packs) 118 LGX (Blue)
FM000194	CON072P with 36 ASF (dup) adapters (12 Three Packs) 118 LGX (Green)
FM000195	CON072P with 72 MTRJ adapters (12 Six Packs) 118 LGX
4 RU HIGH DENSITY PATCH PANELS	
C211432	CON144HD with 72 UDL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
FM000345	CON144HD with 72 ADL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
C211396	CON144HD with 72 PSF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
C211439	CON144HD with 72 PDL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
FM000196	CON144HD with 72 USF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
FM000197	CON144HD with 72 ASF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers
FM000198	CON144HD with 144 UST adapters (12 Twelve Packs) 118 LGX 144 Fibers
FM000199	CON144HD with 144 PST adapters (12 Twelve Packs) 118 LGX 144 Fibers
FM000200	CON144HD with 144 UFC adapters (12 Twelve Packs) 118 LGX 144 Fibers
FM000133	CON144HD with 144 USC (PB) adapters (12 Twelve Packs) 130 LGX 144 Fibers
FM000201	CON144HD with 144 ASC adapters (12 Twelve Packs) 130 LGX 144 Fibers

Note: All MM cable is 62.5μm unless otherwise specified.

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired. When ordering stubbed (S), enter the cable stub length required in meters.

Part Number		Color	Loading Charactor		Cable Stub Length (M)
C211381	—	**B**	**S**	—	**0010**

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

Example: Order number for a panel Black in color, loaded with 72 USC adapters (12 six packs), connectors and a cable stub 10 meters in length.
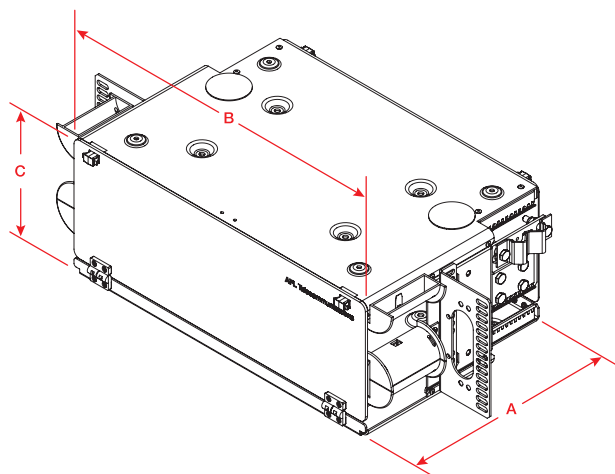
LightLink™ LANSystem™
CON096P Fiber Termination Patch Panel

The CON096P Fiber Termination Panel is used where termination and connectivity of up to 96 fibers is desired. The panel design is based on a 4 rack unit height with a master plate to accommodate 12 LGX® compatible adapter plates or modules. Standard panels are available in empty, loaded and preterminated versions. Loaded panels include adapters and adapter plates. Preterminated panels include adapters, adapter plates and standard 96 fiber OFNR cable. The fiber stub for preterminated panels exits the right rear of the unit facing up.

Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles and types available
- Compatible with industry standard equipment frames
- LGX® compatible master plate and footprint (130mm)
- Modular design
- Provides maximum protection of optical components
- Utilizes (12) 8-packs
- Available with I/O loose tube stub

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11	17	7	4	96	9 lbs.	2.03 mm

Specifications

- Telcordia GR-63 NEBS Tested
- Aluminum Material per ASTMB209
- White or Black Texture Powder Coated
- Universal Mounting Bracket WECO, EIA
- 19"and 23" Rack Compatible

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

LightLink™ LANSystem™
CON096P Fiber Termination Patch Panel

Ordering Information

PART NUMBER	CONFIGURATION
4 RU PATCH PANELS	
FM000344	CON072/96P – EMPTY 130 LGX
FM000202	CON096P with 96 USC (PB) adapters (12 Eight Packs) 4U Housing 130 LGX
FM000203	CON096P with 96 PSC adapters (12 Eight Packs) 4U Housing 130 LGX
C213964	CON096P with 96 UST adapters (12 Eight Packs) 4U Housing 130 LGX
FM000204	CON096P with 96 PST adapters (12 Eight Packs) 4U Housing 130 LGX
C213982	CON096P with 96 ASC adapters (12 Eight Packs) 4U Housing 130 LGX
C213970	CON096P with 96 UFC adapters (12 Eight Packs) 4U Housing 130 LGX
C213977	CON096P with 96 USC (ZR) adapters (12 Eight Packs) 4U Housing 130 LGX
C213973	CON096P with 96 AFC adapters (12 Eight Packs) 4U Housing 130 LGX
FM000205	CON096P with 96 MTRJ adapters (12 Eight Packs) 4U Housing 130 LGX

Note: All MM cable is 62.5µm unless otherwise specified.

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.
When ordering stubbed (S), enter the cable stub length required in meters.

Part Number	Color	Loading Charactor	Cable Stub Length (M)
C211381	B	S	0010

W = C.O. White
B = Black

E = Empty
H = Half-loaded with adapters
S = Preterminated with tight buffered CPC cable stub (Riser)
R = Preterminated with an OSP loose tube cable stub

0002 = 2 meters
0004 = 4 meters
etc.

Example: Order number for a panel Black in color, loaded with 72 USC adapters (12 six packs), connectors and a cable stub 10 meters in length.
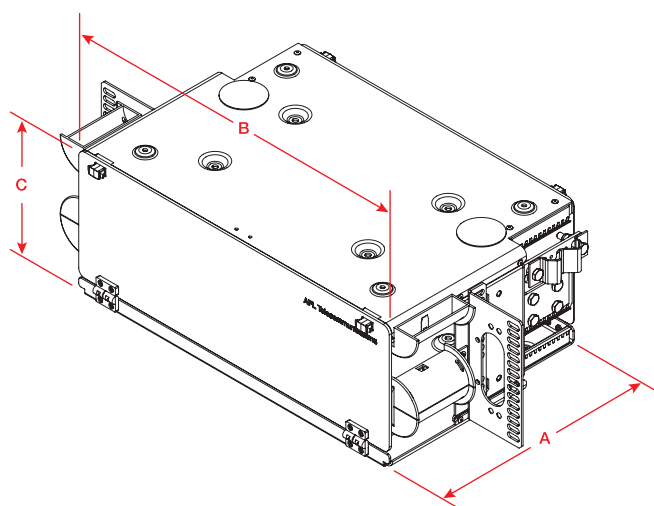
115

LightLink™ LANSystem™
CON144P Fiber Termination Patch Panel

Features

- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles & types available
- Compatible with industry standard equipment frames
- LGX® compatible master plate (170mm)
- Modular design
- Provides maximum protection of optical components
- Available with I/O loose tube stub

Applications

- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

The CON144P Fiber Termination Panel is used where termination and connectivity of up to 144 fibers (standard density) or 288 (high density) is desired. The panel design is based on a 5 rack unit height with a master plate to accommodate 12 LGX® (170 mm) compatible adapter plates. Standard panels are available in empty, loaded and preterminated versions. Loaded panels include adapters and adapter plates. Preterminated panels include adapters, adapter plates and standard 144 fiber OFNR cable. The fiber stub for preterminated panels exits the right rear of the unit facing up. High density panels use two 144 fiber stubs for 288 terminations.

Specifications

- Telcordia GR-63 NEBS Tested
- Aluminum Material per ASTMB209, Standard Front Cover Lexan
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket WECO, EIA
- 19"and 23" Rack Compatable

Dimensions

DEPTH (A) IN INCHES	WIDTH (B) IN INCHES	HEIGHT (C) IN INCHES	RACK UNITS	FIBER CAPACITY	UNLOADED WEIGHT	MATERIAL GAUGE
11	17	8.75	5	144/288	9 lbs.	2.03 mm

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

LightLink™ LANSystem™
CON144P Fiber Termination Patch Panel

Ordering Information

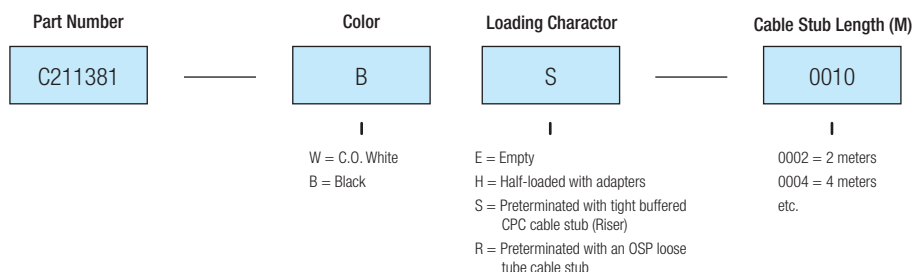| PART NUMBER	CONFIGURATION
5 RU PATCH PANELS	
C211453	CON144P – EMPTY 170 LGX
C211462	CON144P with 144 USC (PB) adapters (12 Twelve Packs) 170 LGX (Blue)
C211471	CON144P with 144 PSC adapters (12 Twelve Packs) 170 LGX (Beige)
C211498	CON144P with 144 UST adapters (12 Twelve Packs) 170 LGX
C211507	CON144P with 144 PST adapters (12 Twelve Packs) 170 LGX
FM000206	CON144P with 72 UDL (dup) adapters (12 Six Packs) 170 LGX (Blue)
FM000207	CON144P with 72 PDL (dup) adapters (12 Six Packs) 170 LGX (Beige)
C214009	CON144P with 144 ASC adapters (12 Twelve Packs) 170 LGX (Green)
C213995	CON144P with 144 UFC adapters (12 Twelve Packs) 170 LGX
C214006	CON144P with 144 USC (ZR) adapters (12 Twelve Packs) 170 LGX (Blue)
FM000208	CON144P with 72 PSF (dup) adapters (12 Six Packs) 170 LGX (Beige)
FM000209	CON144P with 72 USF (dup) adapters (12 Six Packs) 170 LGX (Blue)
FM000210	CON144P with 72 ASF (dup) adapters (12 Six Packs) 170 LGX (Green)
FM000211	CON144P with 144 MTRJ adapters (12 Twelve Packs) 170 LGX
5 RU HIGH DENSITY PATCH PANELS (USES TWO 144 STUBS)	
C211511	CON288HD with 144 UDL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers
FM000346	CON288HD with 144 ADL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers
C211522	CON288HD with 144 PDL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers
C211475	CON288HD with 144 PSF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers
FM000212	CON288HD with 144 USF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers
FM000213	CON288HD with 144 ASF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers

Note: All MM cable is 62.5µm unless otherwise specified.

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 (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	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 (ZR)	Ultra Polish LC Duplex (ZR) sleeve-SM
UDL (PB)	Ultra Polish LC Duplex (PB) sleeve-SM
ULC	Ultra Polish LC (ZR) sleeve-SM

Ordering Information

Select the seven digit part number of the panel you need, specify black or C.O. white, and choose the loading character desired.
When ordering stubbed (S), enter the cable stub length required in meters.

Part Number		Color	Loading Charactor		Cable Stub Length (M)
C211462	———	B	S	———	0010

Color:
W = C.O. White
B = Black

Loading Charactor:
E = Empty
H = Half-loaded with adapters
S = Preterminated with tight buffered CPC cable stub (Riser)
R = Preterminated with an OSP loose tube cable stub

Cable Stub Length (M):
0002 = 2 meters
0004 = 4 meters
etc.

Example: Order number for a panel Black in color, loaded with 144 USC adapters (12 twelve packs), connectors and a cable stub 10 meters in length.
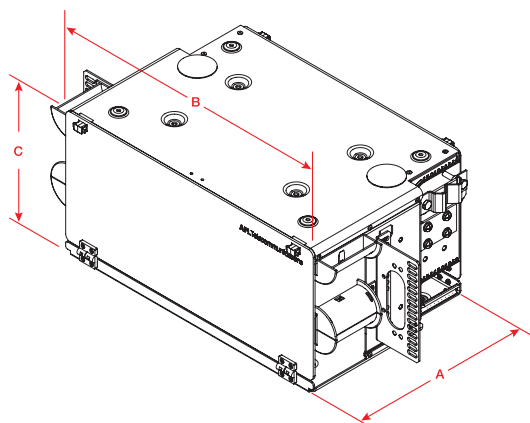
LightLink™ LANSystem™
SPL3RU and SPL4RU - Optical Splice Shelf

SPL3RU

SPL4RU
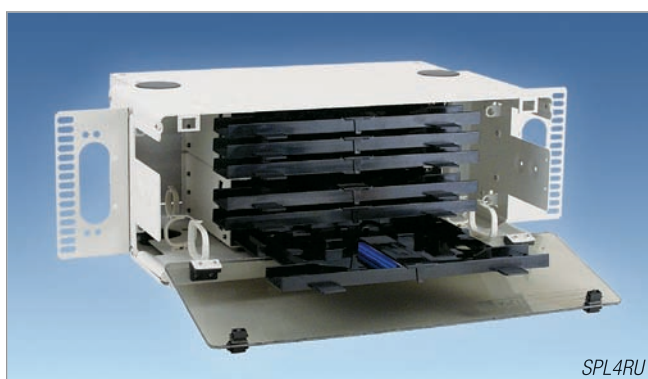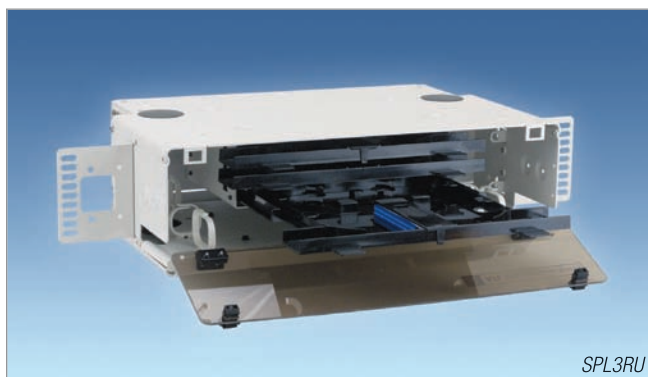
The LightLink™ LANSystem™ Optical Splice Shelf is designed to provide a convenient in-rack splicing and interconnection point for Outside Plant (OSP) cable entering a Central Office (CO), Controlled Environmental Vault (CEV), Headend (HE), or customer location. Units are available with three or six sliding, telescoping drawer assemblies. 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

Specifications
- Telcordia GR-63 NEBS tested
- Aluminum Material per ASTMB209
- Central Office White, Black, Texture Powder Coated
- Universal Mounting Bracket - WECO, EIA
- 19" and 23" rack compatible

Applications
- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

![AFL Telecommunications - A Fujikura Business]
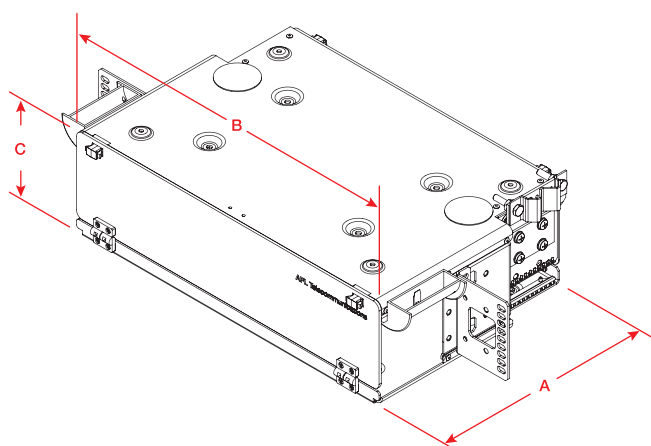
LightLink™ LANSystem™
SPL3RU and SPL4RU - Optical Splice Shelf

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	17	5.25	3	144 single, 432 mass	8.4 lbs.	2.03mm
SPL4RU	6	11	17	7.00	4	288 single, 864 mass	9.0 lbs.	2.03mm

Ordering Information

PART NUMBER	DESCRIPTION
SPL3RU	
C211777 - W	CO White, 3RU (5.25") Optical Splice Shelf - Empty
C211777 - B	Black, 3RU (5.25") Optical Splice Shelf - Empty
C211781 - W	CO White, 3RU (5.25") Optical Splice Shelf - with 3 telescoping splice drawers
C211781 - B	Black, 3RU (5.25") Optical Splice Shelf - with 3 telescoping splice drawers
SPL4RU	
C211795 - W	CO White, 4RU (7.00") Optical Splice Shelf - Empty
C211795 - B	Black, 4RU (7.00") Optical Splice Shelf - Empty
C211799 - W	CO White, 4RU (7.00") Optical Splice Shelf - with 6 telescoping splice drawers
C211799 - B	Black, 4RU (7.00") Optical Splice Shelf - with 6 telescoping splice drawers

Accessories

PART NUMBER	MODEL	DESCRIPTION
911442-00-00	STF-48	Telescoping Splice Drawer, up to 48 single fused or 144 mass fused splices
FC000008	1x8-UCT-FR-Kit	1x8 Universal Core Tube Fiber Routing Kit
FC000070	1x6-URL-FR-Kit	1x6 Universal Ribbon or Loose Tube Fiber Routing Kit

www.AFLtele.com or 1.800.235.3423

LightLink™ Poli-MOD
Pigtailed Optical LightLink Interconnect Module
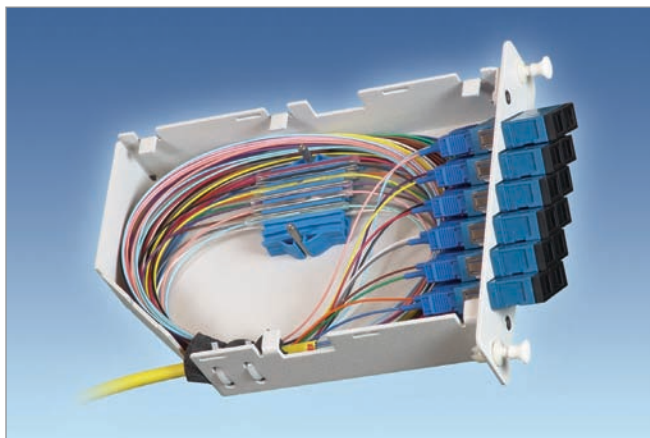
The LightLink™ Poli-MOD is an innovative Patch and Splice Module, which allows for increased patch and splice densities in an incremental growth platform. Based on the LGX® 118 foot-print, this product is capable of supporting up to 144 patch and splices in a standard 4U panel, resulting in 1296 patch and splices within a seven foot rack (38RU). Other features include front and rear accessibility, secured environment for the spliced fiber and easy fiber identification. Available in single-slot (up to 24-Fiber Patch and Splice) and double slot (up to 18-Fiber Patch & Splice) configurations, the Poli-MOD system allows for ease in incremental expansion without concerns of damaging or disturbing existing components.
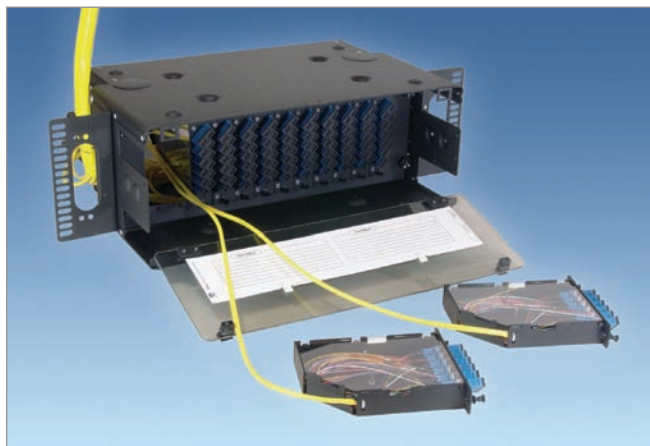
Features

- Up to 24-port configurations
- Single-slot and double-slot
- LGX® 118 compatible
- Available in SC, ST and LC (additional configurations available upon request)
- Compatible with all LanSystem™ Patch Panels
- Includes module, cover, adapters, pigtails, splice sleeves, and all required hardware for installation
- Available in white or black, and single-mode or multimode
- Organized fiber routing
- Fixed solution, no moving parts
- Ease of splice identification
- Front and rear access

Applications

- Telecommunications Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hub Sites
- Cabinets
- Remote Terminals

Rear view of 4RU panel with (12) Poli-MOD modules

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

www.AFLtele.com or 1.800.235.3423

LightLink™ Poli-MOD
Pigtailed Optical LightLink Interconnect Module

Ordering Information

LOADED WITH ADAPTERS AND PIGTAILS

Connector	Fiber Count	Color	UPC SM	APC SM	PC MM 62.5µm (Beige)	PC MM 50µm (Beige)	PC MM 50µm (Aqua)*
SC	6 Fiber	White	FM000705	FM000711	FM000706	FM001384	FM001380
		Black	FM000748	FM000751	FM000749	FM001383	FM001379
	12 Fiber	White	FM000631	FM000712	FM000700	FM000801	FM001365
		Black	FM000742	FM000752	FM000743	FM001022	FM001366
	18 Fiber	White	FM000666	FM000713	FM000701	FM001374	FM001372
		Black	FM000744	FM000753	FM000745	FM001373	FM001371
LC	12 Fiber	White	FM000699	FM001107	FM000826	FM000828	FM001364
		Black	FM000750	FM001106	FM000825	FM000827	FM001363
	24 Fiber	White	FM000935	FM000993	FM000938	FM000942*	FM000940
		Black	FM000936	FM000994	FM000937	FM000941*	FM000939
ST	6 Fiber	White	FM001156	NA	FM001164	FM001160	NA
		Black	FM001155	NA	FM001163	FM001159	NA
	12 Fiber	White	FM001154	NA	FM001162	FM001158	NA
		Black	FM001153	NA	FM001161	FM001157	NA

LOADED WITH ADAPTERS ONLY

Connector	Fiber Count	Color	UPC SM	APC SM	PC MM (Beige)	PC MM (Aqua)
SC	6 Fiber	White	FM001125	FM001123	FM001385	FM001381
		Black	FM001124	FM001122	FM001386	FM001382
	12 Fiber	White	FM000911	FM001113	FM000913	FM000915
		Black	FM000910	FM001112	FM000912	FM000914
	18 Fiber	White	FM001137	FM001135	NA	NA
		Black	FM001136	FM001134	NA	NA
LC	12 Fiber	White	FM001111	FM001109	FM001370	FM001368
		Black	FM001110	FM001108	FM001369	FM001367
	24 Fiber	White	FM001141	FM001139	FM001378	FM001376
		Black	FM001140	FM001138	FM001377	FM001375
ST	6 Fiber	White	FM001168	NA	FM001176	NA
		Black	FM001167	NA	FM001175	NA
	12 Fiber	White	FM001166	NA	FM001174	NA
		Black	FM001165	NA	FM001173	NA

ACCESSORIES AND REPLACEMENT PARTS

PART NO.	DESCRIPTION
C204455-0250	#4-40 x 1/4", Stainless Steel Faceplate Screw
FM000632	Replacement Module Cover
CS000470	Replacement Adapter, SC/APC, Duplex, Green
CS000475	Replacement Adapter, SC/UPC, Duplex, Blue
CS000476	Replacement Adapter, SC MM, Duplex, Beige
C178298	Replacement Adapter, LC/UPC, Simplex, Blue
C058475	Replacement Adapter, SC/UPC, Simplex, Blue
C209560	Replacement Adapter, SC MM, Simplex, Beige
C147880	Replacement Adapter, SC/APC, Simplex, Green
S000206	Fusion Splice Sleeve, FP-03, 40mm
FC000052	Splice Sleeve Holder, 8-Position
FM000948-B	Adapter Bracket for mounting single Poli-Mod
FM001636	Corning™ CCH and PCH 145mm Adapter Bracket

* MM 50µm Giga-Link 2000 fibers
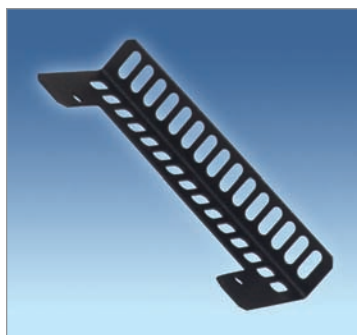
FM000948-B bracket is used to mount a single Poli-Mod to a 19" or 23" equipment rack or into limited space applications (e.g. traffic control cabinets)

FM001636 bracket allows standard LGX modules to be mounted into existing Corning Cable Systems™ CCH series and PCH series racks and wall mount products.

AFL Telecommunications
A Fujikura Business

Xpress Fiber Management™ (XFM) Optical Cassettes

AFL Telecommunications' 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 breakout multi-fiber ribbon connectors to simplex or duplex style connectors for connection to adjacent network elements. These cassettes are available in the industry standard LGX® footprint as well as select Corning Cable Systems™ footprints to support embedded base installations. All modules feature a durable powder coat finish, and are compatible with all 1U-4U LanSystem™ 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 Method A and Method C compliant. Method B available on special order.
- Single-slot LGX® packages
- Compatible with LanSystem and CPS hardware
- Available in black with rear MTP connection(s)
- SMF, 62.5um MMF, and 50um MMF supported
- SC- and LC-MTP standard configurations
- ST- and FC-MTP configurations available on special order

Optical Performance Data

PARAMETER	Single-mode Fiber (OS1)				Multimode Fiber (OM2 and OM3)		
	LC - MTP	LCAPC - MTP	SC - MTP	ST - MTP	LC - MTP	SC - MTP	ST - MTP
Max IL (dB)	1.15	1.15	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
Reflectance (dB)	-55	-65	-55	-55	-30	-30	-30

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

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

CONNECTOR OPTION	CONFIGURATION					
	12F Single-mode	12F Multimode 62.5µm	12F Multimode 50µm	24F Single-mode	24F Multimode 62.5µm	24F Multimode 50µm
LC-MTP	FM000090-B	FM000092-B	FM000273-B	FM000691-B	FM000663-B	FM000692-B
LCAPC-MTP	FM001477-B	—	—	FM001653-B	—	—
SC-MTP	FM000087-B	FM000089-B	FM000272-B	—	—	—
ST-MTP	FM000093-B	FM000095-B	FM000274-B	—	—	—

www.AFLtele.com or 1.800.235.3423

Xpress Fiber Management™ (XFM)
Optical Cassettes

Ordering Information – Accessories

PART NO.	DESCRIPTION
FM001636	145mm Adapter Bracket – 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

128.0

28.9

104.6

130.0

ADAPTERS SHOWN
FOR REFERENCE ONLY

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

![AFL Telecommunications - A Fujikura Business]
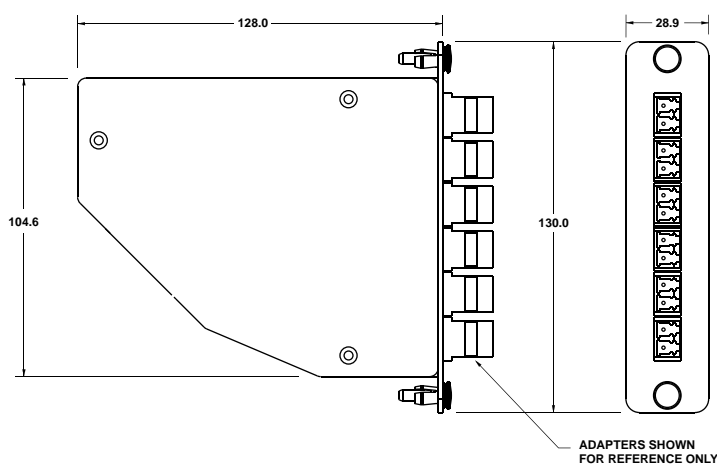
LightLink™ Customer Premise System
CPS012 Interconnect Enclosure

CPS012 shown in white

CPS012 shown in empty configuration

CPS012 shown fully loaded with optional cable clamp

The CPS012 enclosure provides a compact convergence point for interconnecting and splicing in wall mount applications while offering ample space for fiber management. The enclosure is provisioned for up to two LGX® compatible adapter panels or optical modules, and an optional 24 fiber splice tray kit. Robust steel construction ensures the highest level of protection for sensitive components while providing adequate management area for densities of up to 24 fibers. A superior strain relief system for incoming and outgoing cables and clamping/grounding hardware round out the full standard feature set.

Features
- Fits comfortably into new and existing interconnect, cross-connect and co-location environments
- Optional splice tray and holder (ordered separately)
- Available empty, with adapters, or with adapters, splice trays and pigtails preinstalled
- Various connector styles and types available
- LGX® compatible (LGX® 118)
- Modular design
- Provides maximum protection of sensitive components
- Dual doors with separate locking options for flexibility and security
- Optional 5-position Keystone® adapter panel for use with copper interconnects

Applications
- Co-Location/Customer Premise
- Remote Terminals
- Hubs/OTN sites
- Telecommunication Closets

Specifications
- Solid steel construction
- Central office white or black powder coat
- Top or bottom cable entry with dust resistant grommets
- Physical dimensions: 9.4"H x 15.0"W x 3.3"D

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

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LightLink™ Customer Premise System
CPS012 Fiber Termination Patch Panel

Ordering

EMPTY PANELS

PANEL	CONN. TYPE	FIBER COUNT	COLOR	PART NO.
CPS012	—	—	White	FE000040-WE
			Black	FE000040-BE

FACTORY HALF LOADED PANELS (includes adapters and adapter plates)

PANEL	CONN. TYPE	FIBER COUNT	COLOR	UPC SM (BLUE)	APC SM (GREEN)	PC MM (BEIGE)
CPS012	SC	12 Fiber	White	FE000092-WU	FE000093-WU	FE000094-WU
			Black	FE000092-BU	FE000093-BU	FE000094-BU
		24 Fiber	White	FE000100-WU	FE000101-WU	FE000102-WU
			Black	FE000100-BU	FE000101-BU	FE000102-BU
	LC	12 Fiber	White	FE000097-WU	FE000098-WU	FE000099-WU
			Black	FE000097-BU	FE000098-BU	FE000099-BU
		24 Fiber	White	FE000105-WU	FE000106-WU	FE000107-WU
			Black	FE000105-BU	FE000106-BU	FE000107-BU
	ST	12 Fiber	White	FE000095-WU	—	FE000096-WU
			Black	FE000095-BU	—	FE000096-BU
		24 Fiber	White	FE000103-WU	—	FE000104-WU
			Black	FE000103-BU	—	FE000104-BU
	FC	12 Fiber	White	FE000178-WU	FE000180-WU	FE000182-WU
			Black	FE000178-BU	FE000180-BU	FE000182-BU
		24 Fiber	White	FE000179-WU	FE000181-WU	FE000183-WU
			Black	FE000179-BU	FE000181-BU	FE000183-BU

FACTORY FULLY LOADED PANELS (includes adapters, adapter plates, pigtails*, and splice trays)

PANEL	CONN. TYPE	FIBER COUNT	COLOR	UPC SM (BLUE)	APC SM (GREEN)	PC 62.5µM MM (BEIGE)	PC 50µM MM (BEIGE)
CPS012	SC	12 Fiber	White	FE000092-WL	FE000093-WL	FE000094-WL	FE000108-WL
			Black	FE000092-BL	FE000093-BL	FE000094-BL	FE000108-BL
		24 Fiber	White	FE000100-WL	FE000101-WL	FE000102-WL	FE000111-WL
			Black	FE000100-BL	FE000101-BL	FE000102-BL	FE000111-BL
	LC	12 Fiber	White	FE000097-WL	FE000098-WL	FE000099-WL	FE000110-WL
			Black	FE000097-BL	FE000098-BL	FE000099-BL	FE000110-BL
		24 Fiber	White	FE000105-WL	FE000106-WL	FE000107-WL	FE000113-WL
			Black	FE000105-BL	FE000106-BL	FE000107-BL	FE000113-BL
	ST	12 Fiber	White	FE000095-WL	—	FE000096-WL	FE000109-WL
			Black	FE000095-BL	—	FE000096-BL	FE000109-BL
		24 Fiber	White	FE000103-WL	—	FE000104-WL	FE000112-WL
			Black	FE000103-BL	—	FE000104-BL	FE000112-BL
	FC	12 Fiber	White	FE000178-WL	FE000180-WL	FE000184-WL	FE000182-WL
			Black	FE000178-BL	FE000180-BL	FE000184-BL	FE000182-BL
		24 Fiber	White	FE000179-WL	FE000181-WL	FE000185-WL	FE000183-WL
			Black	FE000179-BL	FE000181-BL	FE000185-BL	FE000183-BL

* three meter, 900um buffered fiber

ACCESSORIES

PART NO.	DESCRIPTION
FE000169	CPS012 Keyed Lock Kit
FE000080-B	CPS012 Standard and High Density Splice Tray Kit (includes mounting bracket and splice tray)
C211889	Cable Clamp, grounding/bonding kit

CONNECTOR/ADAPTER KEY

TYPE	DESCRIPTION
ASC	Angle Polish SC (ZR) sleeve-SM
PSC	Physical Polish SC (PB) sleeve-MM
USC (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	Ultra Polish SC with (ZR) sleeve-SM
PST	Physical Polish ST (PB) sleeve-MM
UST	Ultra Polish ST (ZR) sleeve-SM
PLC	Physical Polish LC (PB) sleeve-MM Duplex
ULC	Ultra Polish LC (ZR) sleeve-SM Duplex
ALC	Angle Polish LC - SM Duplex

Other adaptor types and configurations available upon request.

LightLink™ Customer Premise System
CPS-24 Interconnect Enclosure

CPS024 shown in white

CPS024 shown in empty configuration

CPS024 shown fully loaded with optional cable clamp

The CPS-24 enclosure provides a compact convergence point for interconnecting and splicing in wall mount applications while offering ample space for fiber management. The enclosure is provisioned for up to four LGX® compatible adapter panels or optical modules, and optional 24 and 48 fiber splice tray kits. Robust steel construction ensures the highest level of protection for sensitive components while providing adequate management area for densities of up to 48 fibers. A superior strain relief system for incoming and outgoing cables and clamping/grounding hardware round out the full standard feature set.

Features
- Fits comfortably into new and existing interconnect, cross-connect and co-location environments
- Optional splice tray and holder (ordered separately)
- Available empty, with adapters, or with adapters, splice trays and pigtails preinstalled
- Various connector styles and types available
- LGX® compatible (LGX® 118)
- Modular design
- Provides maximum protection of sensitive components
- Dual doors with separate locking options for flexibility and security
- Optional 5-position Keystone® adapter panel for use with copper interconnects

Applications
- Co-Location/Customer Premise
- Remote Terminals
- Hubs/OTN sites
- Telecommunication Closets

Specifications
- Solid steel construction
- Central office white or black powder coat
- Top or bottom cable entry with dust resistant grommets
- Physical dimensions: 13.88"H x 16.00"W x 3.28"D

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

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LightLink™ Customer Premise System
CPS024 Fiber Termination Patch Panel

Ordering

EMPTY PANELS

PANEL	CONN. TYPE	FIBER COUNT	COLOR	PART NO.
CPS024	—	—	White	FE000114-WE
			Black	FE000114-BE

EMPTY PANELS

PART NO.	DESCRIPTION
FE000173	CPS024 Keyed Lock Kit
FE000174-B	CPS024 Standard Density Splice Tray Kit (includes mounting bracket and two 12F splice trays)
FE000175-B	CPS024 High Density Splice Tray Kit (includes mounting bracket and four 12F splice trays)
C211889	Cable Clamp, grounding/bonding kit

FACTORY HALF LOADED PANELS (includes adapters and adapter plates)

PANEL	CONN. TYPE	FIBER COUNT	COLOR	PART NO. UPC SM (Blue)	APC SM (Green)	PC MM (Beige)
CPS024	SC	24 Fiber	White	FE000118-WU	FE000119-WU	FE000120-WU
			Black	FE000118-BU	FE000119-BU	FE000120-BU
		48 Fiber	White	FE000126-WU	FE000127-WU	FE000128-WU
			Black	FE000126-BU	FE000127-BU	FE000128-BU
	LC	24 Fiber	White	FE000123-WU	FE000124-WU	FE000125-WU
			Black	FE000123-BU	FE000124-BU	FE000125-BU
		48 Fiber	White	FE000131-WU	FE000132-WU	FE000133-WU
			Black	FE000131-BU	FE000132-BU	FE000133-BU
	ST	24 Fiber	White	FE000121-WU	—	FE000122-WU
			Black	FE000121-BU	—	FE000122-BU
		48 Fiber	White	FE000129-WU	—	FE000130-WU
			Black	FE000129-BU	—	FE000130-BU
	FC	24 Fiber	White	FE000186-WU	FE000188-WU	FE000190-WU
			Black	FE000186-BU	FE000188-BU	FE000190-BU
		48 Fiber	White	FE000187-WU	FE000189-WU	FE000191-WU
			Black	FE000187-BU	FE000189-BU	FE000191-BU

CONNECTOR/ADAPTER KEY

TYPE	DESCRIPTION
ASC	Angle Polish SC (ZR) sleeve-SM
PSC	Physical Polish SC (PB) sleeve-MM
USC (PB)	Ultra Polish SC wih (PB) sleeve-SM
USC (ZR)	Ultra Polish SC with (ZR) sleeve-SM
PST	Physical Polish ST (PB) sleeve-MM
UST	Ultra Polish ST (ZR) sleeve-SM
PLC	Physical Polish LC (PB) sleeve-MM Duplex
ULC	Ultra Polish LC (ZR) sleeve-SM Duplex
ALC	Angle Polish LC - SM Duplex

Other adaptor types and configurations available upon request.

FACTORY FULLY LOADED PANELS (includes adapters, adapter plates, pigtails*, and splice trays)

PANEL	CONN. TYPE	FIBER COUNT	COLOR	PART NO. UPC SM (Blue)	APC SM (Green)	PC 62.5µM MM (Beige)	PC 50µM MM (Beige)
CPS024	SC	24 Fiber	White	FE000118-WL	FE000119-WL	FE000120-WL	FE000134-WL
			Black	FE000118-BL	FE000119-BL	FE000120-BL	FE000134-BL
		48 Fiber	White	FE000126-WL	FE000127-WL	FE000128-WL	FE000137-WL
			Black	FE000126-BL	FE000127-BL	FE000128-BL	FE000137-BL
	LC	24 Fiber	White	FE000123-WL	FE000124-WL	FE000125-WL	FE000136-WL
			Black	FE000123-BL	FE000124-BL	FE000125-BL	FE000136-BL
		48 Fiber	White	FE000131-WL	FE000132-WL	FE000133-WL	FE000139-WL
			Black	FE000131-BL	FE000132-BL	FE000133-BL	FE000139-BL
	ST	24 Fiber	White	FE000121-WL	—	FE000122-WL	FE000135-WL
			Black	FE000121-BL	—	FE000122-BL	FE000135-BL
		48 Fiber	White	FE000129-WL	—	FE000130-WL	FE000138-WL
			Black	FE000129-BL	—	FE000130-BL	FE000138-BL
	FC	24 Fiber	White	FE000186-WL	FE000188-WL	FE000192-WL	FE000190-WL
			Black	FE000186-BL	FE000188-BL	FE000192-BL	FE000190-BL
		48 Fiber	White	FE000187-WL	FE000189-WL	FE000193-WL	FE000191-WL
			Black	FE000187-BL	FE000189-BL	FE000193-BL	FE000191-BL

* three meter, 900um buffered fiber

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FAST™ Connectors

FAST Connectors 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 250µm and 900µm optical fibers, as well as 900µm, 2mm, and 3mm 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 insures low loss
- Fiber can be reseated
- 3.0mm, 2.0mm, and 900µm boot provided with each connector
- VFI can be used to confirm fiber is installed properly
- Meets TIA/EIA 568A performance requirements
- Meets TIA/EIA 604 (FOCIS) connector interface requirements

Applications

- Premise environments
- Connections at the desk for LAN environments
- Patch panels
- Direct equipment termination
- Fiber to the Subscriber (FTTx) applications
- Repair/replacement requirements
- Equipment test leads

Testing

Before Fiber Insertion   *After Fiber Insertion*

Specifications

PARAMETER		VALUE
Insertion Loss:	Single-mode	Average: 0.2dB, Maximum: 0.5 dB
	Multimode	Average: 0.1dB, Maximum: 0.5 dB
Return Loss @ Room Temperature (Single-mode)		Average: 56.4 dB, Maximum: 45 dB
Operating Temperature		−40°C to +75°C

Ordering Information

PART NUMBER	FIBER TYPE	HOUSING COLOR	CABLE SIZE
FAST™ SC Connector (packaged 12 per bag)			
CS007611-12	Multimode 50/125	Black	
CS007610-12	Multimode 62.5/125	Beige	3.0mm, 2.0mm, 900µm, 250µm
CS007609-12	Single-mode	Blue	
CS007612-12	Multimode 50/125 OM3 (10 gig)	Aqua	
FAST™ ST Connector (packaged 12 per bag)			
CS008481-12	Multimode 50/125	Black	
CS008480-12	Multimode 62.5/125	Beige	3.0mm, 2.0mm, 900µm, 250µm
CS008479-12	Single-mode	Blue	
CS008482-12	Multimode 50/125 OM3 (10 gig)	Aqua	
FAST™ LC Connector (packaged 12 per bag)			
CS007615-12	Multimode 50/125	Black	
CS007614-12	Multimode 62.5/125	Beige	3.0mm, 2.0mm, 900µm, 250µm
CS007613-12	Single-mode	Blue	
CS007616 -12	Multimode 50/125 OM3 (10 gig)	Aqua	

PART NUMBER	DESCRIPTION
VISUAL FAULT IDENTIFIERS	
VFI2-00-0900	AFL Noyes VFI 2
VFI3-00-0900	AFL Noyes HiLite
2900-50-0010MR	1.25mm Universal Adapter

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

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FAST™ Connector Universal Tool Kit

The FAST Connector Universal Tool Kit provides all the necessary installation tools required for fiber preparation of 250µm or 900µm fibers, or 900µm, 2mm, or 3mm cordage for AFL's pre-polished FAST connectors. Included in the kit is the CT-30A universal multimode/single-mode cleaver, AFL's premier cleaver with a 16-position blade and built-in fiber scrap collector. The FAST Connector Universal Tool Kit carrying case contains all the industry standard termination tools required for fiber preparation, as well as, adequate storage for carrying extra FAST connectors for on-site convenience.

CT-30A Universal Cleaver (included)

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	PART #
FAST™ Connector Universal Tool Kit	CS001201

Kit includes:

CT-30A Universal Cleaver	S014080
FAST Assembly Tool	CS009494
3mm Cable Clamp	S014704
2mm Cable Clamp	S014705
0.25/0.9mm Cable Clamp	CS004442
Fiber Stripper	CS001205
Kevlar Scissors	C095257
Fiber Preperation Fluid	FPF1-00-0900
Lint-free Cloth Wipes	FM000413
Marker Pen	C015830
Installation Instructions	CS007701
Strip Length Template	CS001203
Assembly Video (CD)	CS001204
Carrying Case	CS001202

FuseConnect™ SC Connecter

FuseConnect™ LC Connecter

FuseConnect™ Packaging

FuseConnect™ Installation Kit

FuseConnect™ in Fusion Splicer

FuseConnect™

AFL's FuseConnect™ fusion-spliced, field-terminated connectors are uniquely designed and feature just four components. With a factory pre-polished ferrule, its innovative field-termination process eliminates polishing, adhesives, and crimping in the field.

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 of >65dB return loss in an SC/APC configuration and SC single-mode is compliant to GR-326-CORE. Designed to work with an industry standard 10mm cleave length and splicers utilizing a fiber holder system, FuseConnect™ is compatible not only with Fujikura's fusion splicers, but also with most other fiber holder-based fusion splicing platforms currently available in the industry.

The innovative four-component structure of FuseConnect™ eliminates the complexity of additional crimp ring parts, virtually eliminating the crimping operation. The simplified field installation minimizes the potential for operator error and expensive connector scrap, even in difficult field environments or in exposed conditions at remote site locations.

Features

- Field installable
- Only four components
- 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
  - FTTDesk
  - MDU FTTP Cabling
- Central office connector replacement
- Data center installation

Specifications

PARAMETER	VALUE
Connector Type	SC [TIA/EIA-604-3 (FOCIS 3)] / LC [TIA/EIA-604-10A (FOCIS 10)]
Cable Type	900µm, 2mm, 3mm
Polish	APC, UPC, PC
Insertion Loss	SM: 0.15dB (average), 0.3dB (maximum) / MM: 0.10dB (average), 0.3dB (maximum)
Return loss	SM = > 65dB (APC), > 55dB (UPC) / MM = > 30dB (PC)
Operating Temperature	−40°C to +75°C

Ordering Information

CONN. TYPE	BOOT TYPE	PART NUMBER*				
		UPC SM (Blue)	APC SM (Green)	PC 62.5µm MM (Beige)	PC 50.0µm MM (Black)	PC 50.0µm 10GIG MM (Aqua)
SC	900µm	CS004520	CS004517	CS007795	CS007801	CS007807
	2mm	CS004519	CS004516	CS007794	CS007800	CS007806
	3mm	CS004518	CS004515	CS007793	CS007799	CS007805
LC	900µm	CS008237	—	CS008243	CS008241	CS008239
	2mm	CS008248	—	CS008254	CS008252	CS008250

* Part number is for a single unit

PART NUMBER	DESCRIPTION
S014492	FuseConnect™ Installation Kit for: FSM-17S-FH, FSM-17R, FSM-18S, FSM-18R, FSM-50R12, FSM-60S, FSM-60R12
S014516	FuseConnect™ Installation Kit for: FSM-11R, FSM-11S (SpliceMate™)

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Field Master® 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 insure 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	PART NO.*
SC Field Master Connector (900µm boot)	Multimode	Black	CS000308
SC Field Master Connector (3.0mm boot)	Multimode	Beige	CS000309
SC Field Master Connector (900µm & 3.0mm boot)	Multimode	Black /Beige	CS005144
SC Field Master Connector (900µm boot)	Single-mode	Blue	CS000310
SC Field Master Connector (3.0mm boot)	Single-mode	Blue	CS000311
SC Field Master Connector (900µm & 3.0mm boot)	Single-mode	Blue	CS005145
Angled SC Field Master Connector (900µm boot)	Single-mode	Green	CS000560
Angled SC Field Master Connector (3.0mm boot)	Single-mode	Green	CS000561
Angled SC Field Master Connector (900µm & 3.0mm boot)	Single-mode	Green	CS005146
ST Field Master Connector (900µm boot)	Multimode	Black	CS000316
ST Field Master Connector (3.0mm boot)	Multimode	Black	CS000317
ST Field Master Connector (900µm & 3.0mm boot)	Multimode	Black	CS005147
ST Field Master Connector (900µm boot)	Single-mode	Yellow	CS000318
ST Field Master Connector (3.0mm boot)	Single-mode	Yellow	CS000319
ST Field Master Connector (900µm & 3.0mm boot)	Single-mode	Yellow	CS005148
LC Field Master Connector (900µm boot)	Multimode	White	CS000320
LC Field Master Connector (2.0mm boot)	Multimode	White	CS000321
LC Field Master Connector (900µm boot)	Single-mode	Blue	CS000322
LC Field Master Connector (2.0mm boot)	Single-mode	Blue	CS000323
LC Duplex Field Master Connector (2.0mm boot)	Multimode	White	CS000467
LC Duplex Field Master Connector (2.0mm boot)	Single-mode	Blue	CS000466

* Packaged 100 pieces per bag.

Field Master® Tool Kit

Field Master® Tool Kit comes with tools and consumables to professionally install Field Master® connectors. Crimp Tool sold separately.

Ordering Information

DESCRIPTION	PART NUMBER
Field Master Tool Kit	FM000065
Kit includes: Strip Template	CS000868
Film, Lap, 5 inch disc, AL203, 3µm (10 per pack)	CS004881-10
Film, Lap, 5 inch disc, AL203, 1µm (10 per pack)	CS004882-10
Film, Lap, 5 inch disc, Diamond, 3µm (1 per pack)	CS004883-01
Rubber Polishing Pad (5")	C015407
Sharpie® Permanent Marker	C015830
Fiber Stripper	CS01205
Kevlar Scissors	C095257
Scribe Tool	C182635
Polishing Puck - SC, ST	CS000446
Polishing Puck - LC	CS000338
Cletop Stick Cleaner	C008812
Fiber Preparation Fluid (3 oz)	FPF1-00-0900
Applicator Tips for Adhesive	C006037
Water Bottle (1 oz)	C015849
Field Installable Adhesive with MSDS (1.75 oz)	C180691
Field Installable Primer with MSDS (1.75 oz)	C181310
Lint Free Cloth Wipes	FM000413
Installation Instructions (SC, ST, LC)	CS004389
Carrying Case	C199528

Features

- Quick and easy to use
- Compact
- Complete instructions included
- For use with SC, ST, and LC Field Master® Connectors

Crimp Tool for Field Master® Connectors

ITEM DESCRIPTION	PART NUMBER
Crimp Tool with Die Set (SC, ST & LC) (Crimp diameters: 0.128" hex, 0.151" hex, 0.178" hex, 0.197" hex, 0.215" hex)	CS000337

SNI®-730 Network Interface Device

The SNI-730 is designed to meet requirements for one to three line outdoor residential NIDs. This unit can be equipped with three individual line modules and three station protectors.

Features

- Compatible with Corning Cable Systems CAC®-7600
- Replacement for Tyco RAYNID
- Field upgradeable individual line modules
- Optional individual subscriber security covers
- Remote testing electronics and RFI filters
- Rugged, weatherproof thermoplastic alloy housing
- Grommeted entrances
- Designed and tested to Telcordia™ GR-49-CORE
- UL® Listed

S Footprint Adapter for K Footprint Line Modules

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Wire Installation Spacings	1" for drop wire, 1⁄4" for inside wire
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to +140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from +40 to +140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	6.50 x 8.63 x 3.00 (16.51 x 21.92 x 7.62)

SNI®-730 Network Interface Device

Ordering Information – Standard Configurations

MODEL #	AFL PART #
SNI - 730 - 1J - 1 - 1 - 90 - H	DM000653
S-Footprint adapter for K-Footprint Modules available.	DM000717

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Lightning Protection	Telco Cover Fastener	Optional Features
SNI-730	1	J	2	3	37	H	CLM-5C-1

SNI-730	1 = Without individual subscriber security covers	J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)	1 = Interface Module only	1 = 1 (Up to 3)	37 = 125	H = 3/8" Hex Head Screw	CLM-5C-1 = Single Line Coax Demarcation Module
	2 = With individual subscriber security covers	D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)	2 = Half Ringer Equivalence		57 = 356	S = Pin-In-Hex Security Screw (for use with KS-19192 tool)	
			4 = RFI Filter (Radio Frequency Interference)		90 = 455		
					N = NONE		

EXAMPLE: SNI-730 – 1 – J – 2 – 3 – 37 – H – CLM-5C-1

This model number indicates that the following has been ordered:
SNI-730 housing, supplied without individual subscriber security covers, line module includes; 4 screws, 2 wire RJ-11 interface, Half Ringer equivalence, three line capacity, 125EW lightning protection, 3/8" Hex Head screw for telco cover fastener, and an optional single line coax demarcation module.

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SNI®-760 Network Interface Device

The SNI-760 is designed to meet requirements for one to six line outdoor residential NIDs. This unit can be equipped with six individual line modules and six station protectors.

Features

- Compatible with Corning Cable Systems CAC®-7600
- Replacement for Tyco RAYNID
- Field upgradeable individual line modules
- Optional individual subscriber security covers
- Remote testing electronics and RFI filters
- Rugged, weatherproof thermoplastic alloy housing
- Grommeted entrances
- Designed and tested to Telcordia™ GR-49-CORE
- UL® Listed

S Footprint Adapter for K Footprint Line Modules

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Wire Installation Spacings	1" for drop wire, 1/4" for inside wire
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to +140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from +40 to +140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	10.00 x 8.37 x 3.00 (25.40 x 21.92 x 7.62)
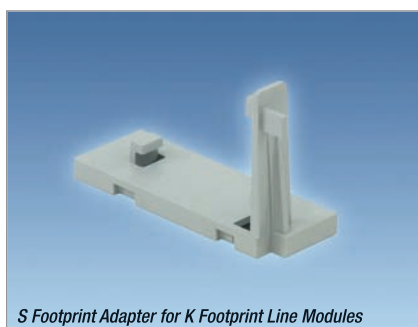
www.AFLtele.com or 1.800.235.3423

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SNI®-760 Network Interface Device

Ordering Information – Standard Configurations

MODEL #	AFL PART #
SNI - 760 - 1J - 1 - 1 - 90 - H	DM000654
S-Footprint adapter for K-Footprint Modules available.	DM000717

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Lightning Protection	Telco Cover Fastener	Optional Features
SNI-760	**1**	**J**	**2**	**3**	**37**	**H**	**CLM-5C-1**

SNI-760	1 = Without individual subscriber security covers	J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)	1 = Interface Module only	1 = 1 (Up to 6)	37 = 125	H = 3/8" Hex Head Screw	CLM-5C-1 = Single Line Coax Demarcation Module
	2 = With individual subscriber security covers	D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)	2 = Half Ringer Equivalence		57 = 356	S = Pin-In-Hex Security Screw (for use with KS-19192 tool)	
			4 = RFI Filter (Radio Frequency Interference)		90 = 455		
					N = NONE		

EXAMPLE: SNI-760 – 1 – J – 2 – 3 – 37 – H – CLM-5C-1

This model number indicates that the following has been ordered:
SNI-760 housing, supplied without individual subscriber security covers, line module includes; 4 screws, 2 wire RJ-11 interface, Half Ringer equivalence, three line capacity, 125EW lightning protection, 3/8" Hex Head screw for telco cover fastener, and an optional single line coax demarcation module.

Grommeted Entrances

SNI®-4300 Network Interface Device

The SNI®-4300 is designed to meet requirements for one to three line outdoor residential NIDs. This unit can be equipped with three line modules and three solid state or gas tube protectors. A single or dual coax line module can be installed with up to two voice line modules, both of which have common ground connection capability. The coax line module allows handoff to the subscriber coax termination using standard "F" connectors.

Features

- Field upgradeable individual line modules
- Optional individual subscriber security covers
- Optional coax demarc line module
- Remote testing electronics and RFI filters
- Rugged, weatherproof thermoplastic alloy housing
- Grommeted entrances
- Designed and tested to Telcordia™ GR-49-CORE

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Wire Installation Spacings	1" for drop wire, 1⁄4" for inside wire
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to +140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from +40 to +140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	6.25 x 8.00 x 3.00 (16.26 x 20.32 x 7.62)

![AFL Telecommunications - A Fujikura Business]

SNI®-4300 Network Interface Device
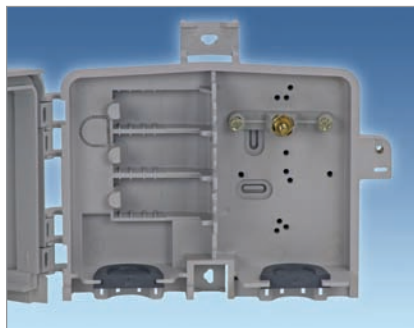
Recessed Pockets/Rear Entry Port

Recessed pockets have been added below the subscriber line modules to tuck away electronic packages, keeping the main compartment uncongested. In addition, three optional grommeted entry ports have been added to the back of the unit, allowing I/W to pass directly from the home to the subscriber wiring bridge.

Lock Staple/Telco Override

A view of both the telco and subscriber locking mechanisms. The subscriber can access the unit with a standard screwdriver and a stainless steel lock staple is provided for individual security. Telco override is provided and can be accessed with a standard 216 tool (security fastener option also available).

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Lightning Protection	Telco Cover Fastener	Optional Features
SNI-4300	**1**	**BT**	**2**	**2**	**37**	**H**	**CLM-5-1**

SNI-4300

1 = Without individual subscriber security covers

2 = With individual subscriber security covers

A = 2 Screw, 2 Wire, RJ-11 interface

B = 4 Screw, 2 Wire, RJ-11 Interface (Green and Red electrically active)

C = 6 screw, 2 wire, Bridging Module

D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)

F = 2 screw, 8 position, 2 Wire Interface (Special Services)

J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)

T = Sealed RJ-11 ETO "Jumping Jack" (n/a with C, D or F termination above)

1 = Interface Module only

2 = Half Ringer Equivalence

4 = RFI Filter (Radio Frequency Interference)

1 = 1 (Up to 3)

37 = 125
57 = 356
90 = 455
N = NONE

H = 3/8" Hex Head Screw

S = Pin-In-Hex Security Screw (for use with KS-19192 tool)

CLM-5-1 = Single Line Coax Demarcation Module

EXAMPLE: SNI-4300 – 1 – BT – 2 – 2 – 43 – H – CLM-5-1
SNI-4300 – 1B – 1 – 3 – 21 – H 91977 – 00
SNI-4300 – 1 – BPX – 1 – 1 –21 – H 91925 – 00

This model number indicates that the following has been ordered:
SNI-4300 housing, supplied without individual subscriber security covers, line module includes; 4 screws, 2 wire RJ-11 interface and a sealed RJ-11 ETO "Jumping Jack", Half Ringer equivalence, two line capacity, 125EW lightning protection, 3/8" Hex Head screw for telco cover fastener, optional single line coax demarcation module.

SNI®-4600 Network Interface Device

The SNI-4600 is designed to meet requirements for one to six line outdoor residential NIDs. This unit can be equipped with six Keptel line modules and six solid state or gas tube protectors. A single or dual coax line module can be installed with up to five voice line modules, both of which have common ground connection capability. The coax line module allows handoff to the subscriber coax termination using standard "F" connectors.

Features

- Field upgradeable individual line modules
- Optional individual subscriber security covers
- Optional coax demarc line module
- Remote testing electronics and RFI filters
- Rugged, weatherproof thermoplastic alloy housing
- Grommeted entrances
- Designed and tested to Telcordia™ GR-49-CORE

Grommeted Entrances

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Wire Installation Spacings	1" for drop wire, 1⁄4" for inside wire
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to +140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from +40 to +140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	8.00 x 8.63 x 3.00 (20.32 x 21.92 x 7.62)

SNI®-4600 Network Interface Device
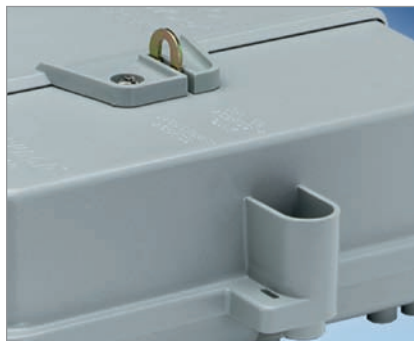
Lock Staple/Telco Override
A view of both the telco and subscriber locking mechanisms. The subscriber can access the unit with a standard screwdriver and a stainless steel lock staple is provided for individual security. Telco override is provided and can be accessed with a standard 216 tool (security fastener option also available).

Standard Configurations

MODEL #	AFL PART #
SNI-4600 - 1 - J - 1 - 1 - 90 - H	DM000116
SNI-4600 - 1 - B - 1 - 2 - 21 - H	911647-00-00
SNI-4600 - 1 - B - 1 - 6 - 21 - H	91627-00
SNI-4600 - 1 - B - 1 - 1 - 37 - H	DM000002
SNI-4600 - 1 - B - 1 - 2 - 37 - H	911226-00-00
SNI-4600 - 1 - B - 1 - 6 - 37 - H	911142-00
SNI-4600 - 1 - B - 1 - 1 - 21 - H	911306-00-00
SNI-4600 - 1A - 1 - 1 - 37 - H - CLM - S - 1	912436-00-00

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Lightning Protection	Telco Cover Fastener	Optional Features
SNI-4600	1	BT	2	3	37	H	CLM-5-1

SNI-4600	1 = Without individual subscriber security covers 2 = With individual subscriber security covers	A = 2 Screw, 2 Wire, RJ-11 interface B = 4 Screw, 2 Wire, RJ-11 Interface (Green and Red electrically active) C = 6 screw, 2 wire, Bridging Module D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active) F = 2 screw, 8 position, 2 Wire Interface (Special Services) J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active) T = Sealed RJ-11 ETO "Jumping Jack" (n/a with C, D or F termination above)	1 = Interface Module only 2 = Half Ringer Equivalence 4 = RFI Filter (Radio Frequency Interference)	1 = 1 (Up to 6)	37 = 125 57 = 356 90 = 455 N = NONE	H = 3/8" Hex Head Screw S = Pin-In-Hex Security Screw (for use with KS-19192 tool)	CLM-5-1 = Single Line Coax Demarcation Module

EXAMPLE: SNI-4600 – 1 – BT – 2 – 3 – 43 – H – CLM-5-1

This model number indicates that the following has been ordered:
SNI-4600 housing, supplied without individual subscriber security covers, line module includes; 4 screws, 2 wire RJ-11 interface and a sealed RJ-11 ETO "Jumping Jack", Half Ringer equivalence, three line capacity, 125EW lightning protection, 3/8" Hex Head screw for telco cover fastener, optional single line coax demarcation module.

SNI®-2900 Network Interface Device

The SNI-290 is designed to meet requirements for one to two line outdoor residential NIDs. This unit can be equipped with two individual line modules and two station protectors.

Features

- Field upgradeable individual line modules
- Optional individual subscriber security covers
- Remote testing electronics and RFI filters
- Rugged, weatherproof thermoplastic alloy housing
- Grommeted entrances
- Designed and tested to Telcordia™ GR-49-CORE
- UL® Listed

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Cable Entrances	1 @ 0.88 in.
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to +140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from +40 to +140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	3.5 x 5.75 x 2.19 (8.89 x 14.61 x 5.56)

SNI®-2900 Network Interface Device

Standard Configurations

MODEL #	AFL PART #
SNI-2900 - 1J - 1 - 1 - 90 - H	DM000652
S-Footprint adapter for K-Footprint Modules available.	DM000717

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Lightning Protection	Telco Cover Fastener
SNI-2900	**1**	**J**	**2**	**2**	**11**	**S**

SNI-2900

1 = Without individual subscriber security covers

2 = With individual subscriber security covers

J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)

D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)

1 = Interface Module only

2 = Half Ringer Equivalence

4 = RFI Filter (Radio Frequency Interference)

1 = 1 (Up to 2)

57 = 356

37 = 125

90 = 455

N = NONE

ONLY = Pin-In-Hex Security Screw (for use with KS-19192 tool)

EXAMPLE: SNI-2900 – 1 – J – 2 – 2 – 11 – S

This model number indicates that the following has been ordered:
SNI-2900 housing, supplied without individual subscriber security covers, line module includes; 4 screws, 2 wire RJ-11 interface with dual Green and Red screws, Half Ringer equivalence, two line capacity, 355L lightning protection and a Pin-In-Hex security screw for telco cover fastener.

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Terminal Access™
TA™-230 Demarcation Enclosure

AFL's Terminal Access TA-230 provides two standard line module positions and a single pair wire terminal. Mounting hardware and terminal studs are included. The TA-230 can be used as an adjunct box when the network interface is fully loaded. The enclosure features grommeted openings and a provision for a security device.

Features

- Corrosion proof and environmentally protected
- Pole or wall mountable
- Secure hinged cover design
- Grommeted cable entry/exit ports
- Impact and chemical resistant engineered thermoplastic

TA-230

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 milliΩ @ ± 200 V dc
Series Resistance	100 mΩ maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Cable Entrances	0.5" input, 0.5" output
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to 140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from 40 to 140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	U.L.® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 flame test
Chemical Resistance 30 Days at 100 °F and 95% RH Subject to:	CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	3.13 x 3.63 x 2.5 (7.95 x 9.22 x 6.35)

Ordering Information

MODEL #	DESCRIPTION	AFL PART #
TA-230	Two line module positions, one pair terminal closure	DM000647

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ML-6 Indoor Network Interface Device

The ML-6 is a compact six-line Indoor Network Interface Device. The ML-6 incorporates the standard Line Module footprint. The ML-6 is decorative in styling, allowing it to be placed in the open rather than hidden inside a closet. The ML-6 features telco and subscriber grommeted cable ports, areas for recording subscriber phone numbers and operating instructions engraved into the covers of the unit. The ML-6 comes equipped with four grommeted ports in the subscriber compartment for convenient wire routing. Three grommeted ports are provided in the telco compartment as well. This feature allows the units to be stacked vertically, ideal for those occasions where space is limited.

Features

- One to six lines, field upgradeable
- Utilizes Keptel patented standard line module footprint
- Integral network wiring bridge with optional stub cable
- Stackable design
- Side entry grommets for telco and subscriber wiring
- Decorative contoured styling

Three Line Configuration

Subscriber Compartment Grommets

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 Megohms @ ± 200 V dc
Series Resistance	100 milliohms maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Wire Installation Spacings	1" for drop wire, 1/4" for inside wire
Wiring	Network wire-24 AWG solid, plug cable wire-26 AWG stranded
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	7 days at 158 (70)
Temperature Cycling °F (°C)	30 day cycling from -40 to 120 (-40 to 48.88)
Temperature Cycling with Humidity °F (°C)	30 day cycling from 40 to 140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	77 (25)
Drop Test °F (°C)	77 (25)
Rain	UL® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 inch flame test
Chemical Resistance	30 Days at 100 °F and 95% RH, subject to: CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Paint Intrusion	NID shall not be susceptible to paint intrusion
Dimensions (H x W x D) in. (cm)	7 x 6 x 2.5 (17.78 x 15.24 x 6.35)

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ML-6 Indoor Network Interface Device

Standard Configurations

MODEL #	AFL PART #
ML-6 - 1 - B - 1 - 1 - H	912047-00-00

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Subscriber Termination	Type of Electronics	Number of Lines Equipped	Telco Cover Fastener
ML-6	2	BT	1	6	H

ML-6

1 = Without individual subscriber security covers

2 = With individual subscriber security covers

A = 2 Screw, 2 Wire, RJ-11 interface

B = 4 Screw, 2 Wire, RJ-11 Interface (Green and Red electrically active)

C = 6 screw, 2 wire, Bridging Module

D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)

F = 2 screw, 8 position, 2 Wire Interface (Special Services)

J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)

T = Sealed RJ-11 ETO "Jumping Jack" (n/a with C, D or F termination above)

1 = Interface Module only

2 = Half Ringer Equivalence

4 = RFI Filter (Radio Frequency Interference)

1 = 1 to 6

H = 3/8" Hex Head Screw

S = Pin-In-Hex Security Screw (for use with KS-19192 tool)

EXAMPLE: ML-6 – 2– BT – 1 – 6 – H

This model number indicates that the following has been ordered:
ML-6 unit, supplied with individual subscriber security covers, 4 screws, 2-wire RJ-11 interface and a sealed RJ-11 ETO "Jumping Jack" interface circuit module (interface only), six line capacity, 3/8" hex head screw for telco cover fastener.
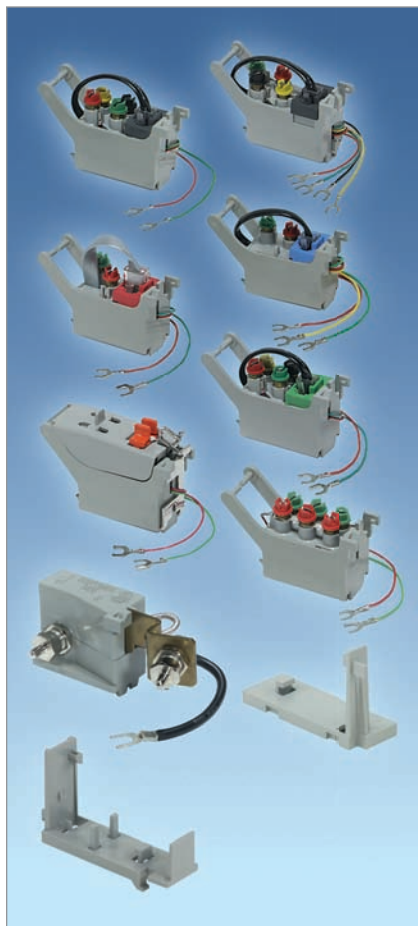
Line Modules
for Network Interface Devices

The strength of the Network Interface Device (NID) product line lies in our versatile family of Line Interface Modules. The standard Line Interface Module footprint has been an integral part of the NID market for years with millions of NIDs have been deployed throughout the country.

Features

- Field upgradeable
- Standard line module footprint
- Self-contained, simply press in place
- Available with half ringers and RFI filters
- Line modules used in: SNI®-4600, SNI®-4300, SNI®-4600XL, ML-6 and SNI®-1212
- Optional individual subscriber security cover available
- UL® Listed in Keptel® Network Interface Systems and Closures

Specifications

PARAMETER	VALUE
Contact Construction	50 micro inches hard gold / 100 micro inches nickel plated phosphor bronze
Contact Force	Minimum 100 grams
Temperature Cycling with Humidity	30 day cycling from 40 to 120°F (4.44 to 48.88°C) with 90% RH
SEALED LINE MODULE Immersion (Flooded Conditions)	RJ-11 jack immersed in a solution of 1% weight sodium chloride (NaCl) and distilled deionized water, placed at a depth of 12 inches, or at a temperature of 77 °F for a period of three days. A bias of -48 V dc was applied between tip and ring of the jack during immersion
COAX MODULE Impedance	75 ohms
Insertion Loss	$\leq$ 0.12 dB maximum, 5 MHz-1 GHz
Return Loss	$\leq$ 21 dB minimum, 5 MHz-1 GHz
"F" Connector	Meets SCTE specification IPS-SP-400
Coax Cable	Conforms to MIL-C-17/94F specification
RF Shielding	100 dB, 5 MHz to 1 GHz, tested per MIS-20097D

Standard Configurations

MODEL #	AFL PART #
Kit, Upgrade 1B-1 / 125 Protector	DM000003
Kit, Upgrade 1B-1 / 355 Protector	DM000004
Kit, Upgrade 1B-1	90829
Kit, Bunch Block	911322-00-00
CLM-5 Coax Line Module	91979-01

Line Modules
for Network Interface Devices

Typical Configurations

2BT-1 Module
(Sealed Module)

1A-4 Module
(RFI Filter Module)

2B-1 Module
(Security Cover)

1D-1 Module
(RJ-14 Module)

1C-1 Module
(Bunch Block)

CLM-5-1 Module
(Coax Module)

Consult customer service for ordering information.
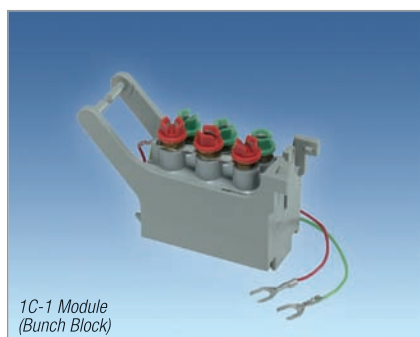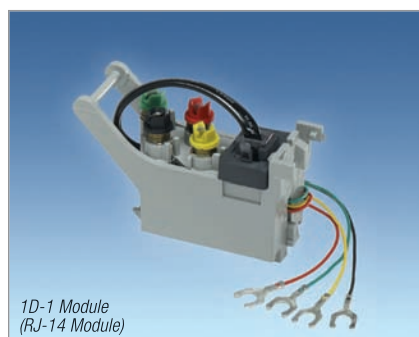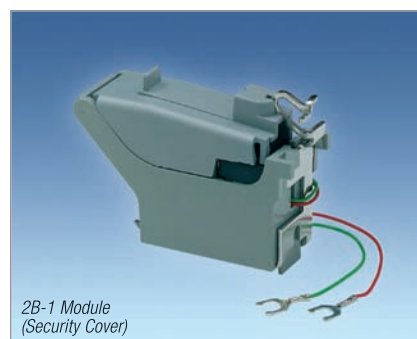
Custom Order Matrix (consult customer service for availability)

Line Module Security		Subscriber Termination		Type of Electronics		Lightning Protection
2	—	**BT**	—	**1**	—	**37**

1 = Without individual subscriber security covers

2 = With individual subscriber security covers

A = 2 Screw, 2 Wire, RJ-11 interface

B = 4 Screw, 2 Wire, RJ-11 Interface (Green and Red electrically active)

C = 6 screw, 2 wire, Bridging Module

D = 4 screw, 4 wire, RJ-14 Interface (Green, Yellow, Red and Black are electrically active)

F = 2 screw, 8 position, 2 Wire Interface (Special Services)

J = 4 Screw, 2 Wire, RJ-11 Interface (Dual Green and Red screws electrically active)

T = Sealed RJ-11 ETO "Jumping Jack" (n/a with C, D or F termination above)

1 = Interface Module only

2 = Half Ringer Equivalence

4 = RFI Filter (Radio Frequency Interference)

37 = 125
57 = 356
90 = 455
N = NONE

EXAMPLE: 2 – BT – 1 – 37

This model number indicates that the following has been ordered:
A line module, supplied with an individual subscriber security cover, 4 screws, 2-wire RJ-11 interface and a sealed RJ-11 ETO "Jumping Jack" interface circuit module (interface only) and is supplied with a 125EW lightning protector.

1-JC-1 Customer Bridge Module
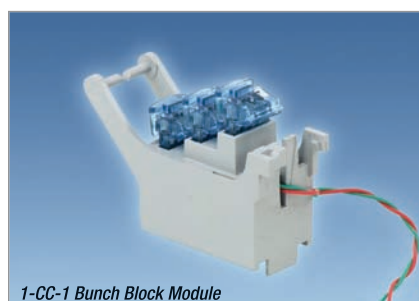
1-CC-1 Bunch Block Module
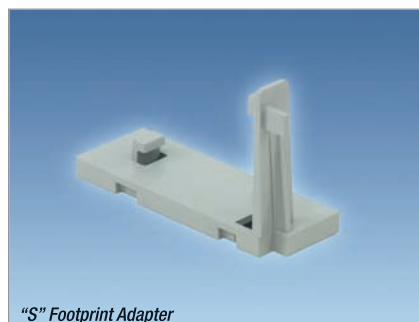
"S" Footprint Adapter

PTD Adapter

IDC Line Modules
for Network Interface Devices

Gel-filled Insulation Displacement Connector (IDC) line modules build on AFL's tradition of providing the most versatile selection of line modules. Based on the standard "K" footprint, IDC line modules provide the extra protection for connections in the most demanding conditions.

Features

- Field upgradeable
- Standard "K" footprint for use in SNI®-4300, SNI-4600, SNI-4600XL, ML-6, and SNI-1600
- Adapter DM000484 available for "S" footprint, SNI-730, SNI-760, and SNI-2900
- Self contained; simply press in place
- Available with half ringers and RFI filters
- UL® listed for AFL systems and closures

Specifications

PARAMETER	VALUE
Contact Construction	50 micro inches hard gold / 100 micro inches nickel plated phosphor bronze
Contact Force	Minimum 100 grams
Temperature Cycling with Humidity	30 day cycling from 40-120°F (4.44-48.88°C) with 90% RH
SEALED LINE MODULE Immersion (Flooded Conditions)	RJ-11 jack immersed in a solution of 1% weight sodium chloride (NaCl) and distilled deionized water, placed at a depth of 12 inches, or at a temperature of 77 °F for a period of three days. A bias of -48 VDC was applied between tip and ring of the jack during immersion

Standard Configurations

MODEL #	AFL PART #
1-JC-1, Customer Bridge Module	DM000594
1-CC-1, Bunch Block Module	DM000600
Adapter for "S" footprint NIDs (SNI-730, SNI-760 & SNI-2900)	DM000484
Adapter for PTD NIDSE	DM000717

148

SNI®-2125
25-Pair Network Interface Device

The SNI-2125 is a compact Network Interface Device (NID) designed for 25-pair indoor applications. Constructed of a thermoplastic alloy and the highest quality components, the SNI-2125 is designed to provide years of uninterrupted service. The SNI-2125 is provided with a male 50-pin connector for the network connection (66-type punchdown clips are optional) and press-fit wiring bridges featuring multi-washer screws on the subscriber side. The SNI-2125 can be stacked vertically for greater than 25-pair applications. The unit is available without the subscriber wiring bridges for use as a 50-pin to RJ-11 adapter or patch block.

Specifications

PARAMETER	VALUE
Construction	Precision injection-molded from rugged engineering thermoplastic
Plugs and Jacks	50 micro inches of hard gold over 100 micro inches of nickel-plated phosphor bronze
Terminal Screws	Plastic head, stainless steel 1⁄4" hex-slotted multi-washer (brass) screws
Mounting	Wall or backboard via mounting feet
Dimensions (H x W x D)	16.25" x 5.13" x 1.63"

Standard Configurations

MODEL #	AFL PART #
SNI-2125	Consult customer service

Custom Order Matrix   (consult customer service for availability)

Basic unit	Termination	Type of Electronics
SNI-2125	**1**	**1**

SNI-2125

1 = Male 50-Pin Connector on Network Side, Screw Terminals on Subscriber Side

2H = 66 Clips on Network Side (3/8" Cover Fastener), Screw Terminals on Subscriber Side

2S = 66 Clips on Network Side (Security Cover Fastener), Screw Terminals on Subscriber Side

5 = Male 50-Pin Connector on Network Side, No wiring Bridge on Subscriber Side

1 = Interface Module only

2 = Half Ringer Equivalence

EXAMPLE: SNI-2125 – 1 – 1

This model number indicates that the following has been ordered: SNI-2125 Multiline Network Interface Device, Male 50-pin connector on network side, screw terminals on subscriber side, Interface only.
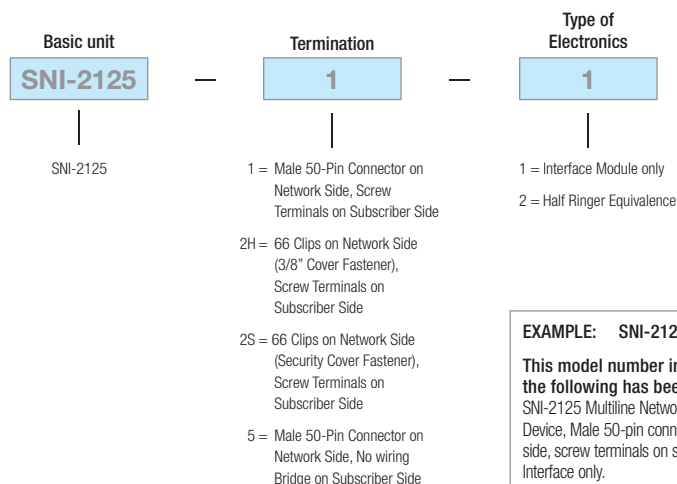
Benefits

- 25-pair network interface
- Optional remote half ringer electronics
- Rugged thermoplastic alloy housing
- 50-pin connector or optional 66-type punchdown on network side
- Multi-washer screws on subsciber side
- Field replaceable wiring bridges
- Stack units vertically

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25-Pair Rear Connector

SNI®-8925
Multiline Network Interface Device

The SNI®-8925 is a patented, ultra-compact, economical, Network Interface Device (NID) designed for 25-pair multiline applications. Twenty-five individual RJ-11 jacks provide the interface at the demarcation point as specified in FCC Part 68 requirements, allowing testing at the subscriber's location for each individual feeder pair provided. This line testing feature could reduce T&M charges on maintenance calls, since the subscriber would now be able to test their own individual lines to determine which side of demarc the fault resides before calling for service.

Benefits

- Mounts anywhere a 66M block would
- Compact 25-pair network interface
- Optional remote half ringer test electronics
- Rugged thermoplastic alloy housing
- Telco termination: 50-pin or AT&T 710 connector on back
- Subscriber termination: screw, IDC, 66-clip
- Mounts to 89B or 89D bracket
- Optional weatherable version for use in BET/NIDs
- UL® listed and patented (No. 4,932,051)/Telcordia™ tested
- Integral I/W strain relief for each individual pair

Specifications

PARAMETER	VALUE
Construction	Precision injection-molded from rugged engineering thermoplastic
Plugs and Jacks	50 micro inches of hard gold over 100 micro inches of nickel-plated phosphor bronze
Terminal Screws	Plastic head, stainless steel 1⁄4" hex-slotted multi-washer (brass) screws
Insulation Displacement Connectors (66 clip and Snap-lock IDC)	Tin plated over phosphor bronze
Mounting	Frame, wall or backboard using attached standard 89D or 89B brackets (order without mounting bracket if bracket exists)

Standard Configurations

MODEL #	AFL PART #
SNI®-8925 - 1 - 1 - 1	90365-02
SNI®-8925 - 7 - 1 - 2	91669-00

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www.AFLtele.com or 1.800.235.3423

SNI®-8925 Multiline Network Interface Device

Multi-Washer Screws

Snap-Lock IDC

66 Style Clip

MPOP Rack

Multi-Washer Screws

- Two screws with four washers each allow the termination of up to four wires per screw
- Plastic 1⁄4" slotted hex heads prevent accidental casual contact from the subscriber
- Optional weather resistant rubber boots cover RJ-11 jacks for outdoor applications

Snap-Lock IDC

- Individual pairs can be terminated to the SNI-8925 without the use of hand tools
- Swinging cover makes the connection when closed by pushing conductors into contacts
- The Snap-Lock IDC is for indoor use only

66 style clip

- Dual 66-clips allow termination of up to two wires per clip
- Uses the same tool as traditional 66 style blocks
- Recommended for quick cross-connect capability when used with 66 blocks
- The 66 style clip is recommended for indoor use only

MPOP demarcation system

- Mounted on quick connect type racks
- 300-2400 pair applications requiring demarcation located at minimum point of penetration
- Anywhere floor and wall space are a premium
- Preterminated stub cables on network side reduce installation time by as much as 50%
- Each system 100% pretested to eliminate troubleshooting on the job site

Custom Order Matrix (consult customer service for availability)

Basic unit	Line Module Security	Type of Electronics	Attachments
SNI-8925	1	1	1

SNI-8925

1 = Male 50-Pin Connector, Network Side, Screw Terminals, Subscriber Side

2 = Male 50-Pin Connector, Network Side, 66 Clips Subscriber Side

3 = Male 50-Pin Connector, Network Side, No Wiring Bridges, Subscriber Side

4 = N/A (Discontinued Option)

5 = Male 50-Pin Connector, Network Side, Snap-Lock IDC, Subscriber Side

6 = AT&T 710 Connector, Network Side, Screw Terminals, Subscriber Side

7 = AT&T 710 Connector, Network Side, Screw Terminals, Subscriber Side, Weather Resistant Rubber Boots Covering RJ-11 Jacks

1 = Interface Module only

2 = Half Ringer Equivalence

1 = With 89D Mounting Bracket

2 = Without Mounting Bracket Supplied

3 = With 89B Mounting Bracket

EXAMPLE: SNI-8925 – 1– 1 – 1

This model number indicates that the following has been ordered:
SNI-8925 Multiline Network Interface Device, Male 50-pin connector on network side, screw terminals on subscriber side, Interface only, with 89D mounting bracket.

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1642 Termination Enclosure

The 1642 termination enclosure can be outfitted with heavy plated steel hangers designed to grip the support strand and prevent rotation. Internal punch-out holes allow for wall or pole mounting. Stainless steel lashing straps can be mounted through punch-outs for pole, post or piling mounting.

Features

- An alternative to the 116 or 104 closure
- Corrosion and weatherproof
- Pole or wall mountable
- Quarter-turn stainless steel cover fastener
- Eight grommeted cable entry/exit ports
- Houses 142 and 57 style protectors
- Accepts AFL, AT&T and Reliable terminal blocks
- Available with binding post, IDC or gas tube protection.
- Impact and chemical resistant engineered thermoplastic

Ordering Information

DESCRIPTION	MODEL #	PART #
1642 Enclosure with #90313 Terminal Block (6-Pair)	1642-1-34	90379
1642 Enclosure with six 125-style Gas Tube Protectors	1642-1-37	DM000124
1642 Hanging Hardware Kit (for 5/16" to 7/16" strand)	1642 Hanging Hardware	90323

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1642 IDC Terminal Enclosure

The 1642 IDC Terminal Enclosure is a 6-pair sealed termination device for copper conductors. It can be used in aerial, pole or wall mount applications and is equipped with six (6) pre-installed individual IDC termination modules mounted onto a single common ground bus bracket. The bus bracket also allows common bonding of ground wire, sheath armor and/or strand wire.

The 1642 IDC Terminal Enclosure is uniquely designed to withstand harsh environments, such as high moisture and coastal areas. The enclosure meets all Telcordia requirements stipulated in GR-975 for sealing and GR-1195 for IDC Cross-connect and Terminal Blocks.

The IDC termination modules require no stripping of the copper wire insulation prior to connection. In addition, each module has two (2) ports for small gauge (22-24 AWG) wire terminations and two (2) ports that accept large gauge (18-19 AWG) or small gauge (22-24 AWG) wire for tip/ring connections. The ports are color coded for easy tip/ring identification.

The 1642 IDC Terminal Enclosure also features eight (8) individually grommeted entry/exit ports for multiple drop wire installations. The unit features a ¼ turn fastener for easy open/close access using a 216 tool (can wrench). Labelling inside the cover allows for line identification of each IDC termination module along with illustrated installation instructions.

Features

- Individual gel-sealed IDC termination modules pre-installed
- 18-24 AWG copper wire termination
- Thermoplastic weatherproof enclosure
- UV resistant
- Impact resistant
- Chemical resistant
- Flame retardant
- Quarter-turn 216 locking fastener
- Eight individual entry/exit ports
- Aerial, wall or pole mount applications
- Optional strand hanger brackets
- UL listed
- Craft-friendly design

Ordering Information

DESCRIPTION	MODEL #	PART #
1642 IDC Terminal Enclosure	1642 IDC	DM000254
1642 Hanger Bracket Kit (for 5/16" to 7/16" strand)	1642 Hanging Hardware Kit	90323

1642XL Termination Enclosure

The 1642XL termination enclosure can be outfitted with heavy plated steel hangers designed to grip the support strand and prevent rotation. Internal punch-out holes allow for wall or pole mounting. Stainless steel lashing straps can be mounted through punch-outs for pole, post or piling mounting.

Features

- An alternative to the 116 or 104 closure
- Corrosion and weatherproof
- Pole or wall mountable
- Quarter-turn stainless steel cover fastener
- Eight grommeted cable entry/exit ports
- Houses 142 and 57 style protectors
- Accepts AFL, AT&T and Reliable terminal blocks
- Impact and chemical resistant engineered thermoplastic

Ordering Information

DESCRIPTION	MODEL #	AFL PART #
1642XL enclosure, empty, no strand hanging hardware included	1642XL	912809-00-00
1642 Hanging Hardware Kit (for 5/15" to 7/16" strand)	1642 Hanging Hardware Kit	90323

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Terminal Access™
TA™-200/205 Terminal Enclosure

The TA-200/205 is a secure environmentally protected two-pair terminal enclosure. Mounting hardware and terminal studs are included. The TA-200 enclosure features grommeted openings and a provision for a security device.

Features

- Corrosion proof and environmentally protected
- Pole or wall mountable
- Secure hinged cover design
- Grommeted cable entry/exit ports
- Impact and chemical resistant engineered thermoplastic
- Available in two configurations

TA-200

Specifications

PARAMETER	VALUE
Insulation Resistance	Minimum of 100 milliΩ @ ± 200 V dc
Series Resistance	100 mΩ maximum with jacks mated
Dielectric Withstand	1000 Vrms for 1 minute
Dielectric Withstand to Mounting Surfaces	Minimum 2500 Vrms
High Current Capacity	5 amp current for 15 minutes
Cable Entrances	0.5" input, 0.5" output
Torque	20 in./lbs.
High Temperature Storage/Mold Stress °F (°C)	14 days at 159 (70.55)
Temperature Cycling °F (°C)	30 day cycling from -40 to 140 (-40 to 60)
Temperature Cycling with Humidity °F (°C)	30 day cycling from 40 to 140 (4.44 to 60) with 95% RH
Impact Test °F (°C)	-40 (-40)
Drop Test °F (°C)	-40 (-40)
Rain	U.L.® 1863 for 24 hours at 10 psi
Salt Fog (Days Exposed)	30
Sunshine (Days Exposed)	60
Fungus Resistance	ASTM G-21 rating of 0
Flammability	Oxygen index of 28%, UL746C 5 flame test
Chemical Resistance 30 Days at 100 °F and 95% RH Subject to:	CRC226 water displacement lubricant, WD40 water displacement lubricant, 4353 ant and wasp spray, 3% H_2SO_4, 0.2N NaOH, Kerosene, 10% Igepal CO-630
Dimensions (H x W x D) in. (cm)	3.13 x 3.63 x 2.5 (7.95 x 9.22 x 6.35)

Ordering Information

MODEL #	DESCRIPTION	AFL PART #
TA-200	Two pair terminal closure	911188-04
TA-205	Two pair terminal closure - with ground stud	911283-00-01

TA-205

EOC Splitters

Ethernet Over Coax Splitters provide dual use of your home coax network. By allowing for extended operation below 5MHz, EOC splitters can be used to operate home Ethernet-based networks such as HPNA, while allowing for regular CATV service.

Features

- Standard F connector 3/8"-32 UNF
- Rugged die-cast construction with universal screw mounting points
- Available in 1x2, 1x3, 1x4, and 1x6 port configurations (in x out)
- Pass TVRF frequencies between 600-700MHz with less than 17dB insertion loss between any two ports
- Shielded encasements with capacity to provide >110dB EMI isolation
- Port-to-port insertion loss from 100kHz to 200MHz <8dB for a 1x2; 10dB for a 1x3; 12dB for a 1x4; or 15dB for a 1x6 configuration
- Designed to handle average full-band signal levels of 0dBm/Hz, and peak signal level of +10dBm/Hz without component saturation or distortion
- Packaged in an EMI shielded case with 110dB EMI isolation against signal ingress

Specifications

PARAMETER	VALUE
DC Power	0.25W Maximum
Pass Frequencies	100kHz to 700 MHz with a flat port-to-port insertion loss profile (±10% from 100kHz to 200 MHz; ±20% above or below this band)
Port Impedance	60 ± 5 Ohms
Return Loss	> 12dB from 100kHz to 200 MHz > 10dB from 200MHz to 700MHz
Operating Environment (system ambient)	Temperature: -20°C to 85°C Altitude: -197 to 7000 feet Relative Humidity: 5% to 100% non-condensing MWB: 23°C
Shipping and Storage Environment	Temperature: -20°C to 85°C Relative Humidity: 5% to 100% MWB: 29°C

Ordering Information

MODEL #	AFL PART #
1x2 EOC Splitter	DM000372
1x3 EOC Splitter	DM000373
1x4 EOC Splitter	DM000374
1x6 EOC Splitter	DM000375
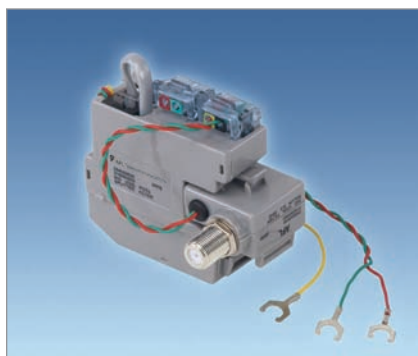
SLM-100 Splitter/Filter with Balun Installed
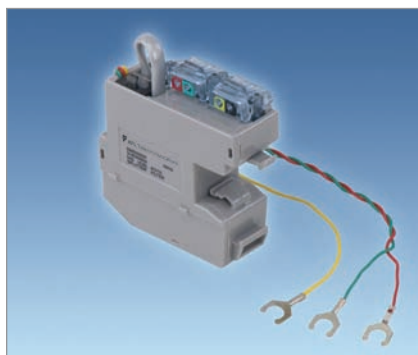
SLM-100 Splitter/Filter Line Module

SLM-100 Balun with F Connector
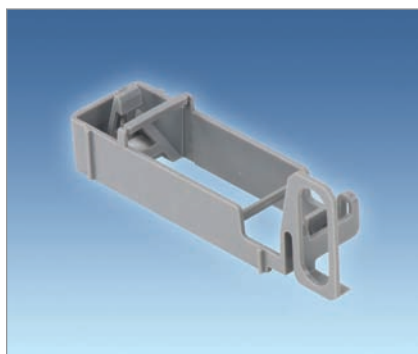
Optional Module Adapter

SLM-100 Splitter/Filter
Line Module for Network Interface Devices

AFL's SLM-100 Splitter/Filter Module for Network Interface Devices provides the clearest split between PSTN and ADSL2/ADSL2+/VDSL/VDSL2 available in the market today. The SLM-100 Splitter/Filter Module is specifically designed to meet the stringent requirements of IPTV video services. Through the use of extreme isolation, the SLM-100 works to suppress impulse noise issues and radio frequency interference (RFI) entering the subscriber's premises. The SLM-100 Balun allows for the easy distribution of services over existing coax wiring in the home.

Features

- Optional Balun allows for use of existing coax distribution within the home
- Standard test jack module format for PSTN
- Standard Keptel® line module footprint
- Self-contained
- Can be used in the following AFL NIDS: SNI®-4600, SNI-4300, SNI-4600XL, ML-6, and SNI-1212, plus many other NIDS using the Keptel line module footprint or with adapters

Specifications

| PARAMETER	VALUE
Twisted Pair	
Impedance.	100 ohms
DC Loop Current	100mA
Isolation.	>60dB below in-band frequency
Pass band Ripple	<0.2dB
Return Loss	>12dB
VDSL Attenuation	<3dB
Coax	
Impedance.	75 ohms
Insertion Loss	$\leq$ = 0.12 dB maximum, 25kHz to 8.5MHz
Return Loss	$\leq$ = 21 dB minimum, 25kHz to 8.5MHz
F Connector	Meets SCTE specification IPS-SP-400
Coax Cable	Conforms to MIL-C-17/94F specification
RF Shielding	100dB, 5 MHz to 1 GHz, tested per MIS-20097D
Operating Temperature	−40°C to +85°C
POTS	DC to 4KHz to the IDC with dial tone
Standards	Complies with: ANSI T1.413-1998 Issue 2 Annex E, ANSI T1.424, ITU-T G.992.1 E.2, G.992.3 G.992.5 TR-57

Ordering Information – Standard Configurations

DESCRIPTION	VDSL BAND PASS	MODEL #	AFL PART #
SLM-100 Splitter/Filter Line Module 8.5 MHz	25KHz to 8.5MHz	SLM-100	DM000535
SLM Balun with F Connector	25KHz to 8.5MHz	SLM-100 Balun	DM000536
Optional Module Adapter	—	—	DM000513

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SVM-1000 Switchable Voice Module
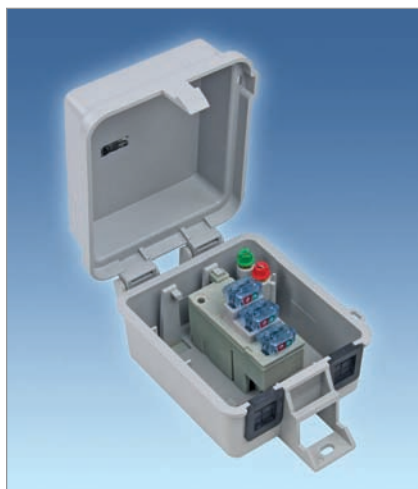
SVM-1000 in a TA-230 Demarcation Enclosure

Switchable Voice Module

AFL's SVM-1000 Switchable Voice Module provides seamless switching from Telco (POTS) service to digital phone service. Designed as a single switched module with reset button, the module provides a flexible design solution, meeting the customer's individual needs. The SVM-1000 utilizes gel-sealed insulation displacement connections (IDCs) that provide reliable connectivity in all weather conditions.

Features

- Compact, craft-friendly design with no tools required for terminations
- Provides POTS service during number porting process
- Eliminates additional costs by automatically switching service provider connections when ring signals are detected from the VoIP service
- Allows seamless switching to digital phone service initiated by ring voltage
- Contains reset feature allowing restoration to original configuration
- Mounts easily in existing CATV enclosures or customer side of NID
- Accepts 26 – 22 gauge solid conductor wire sizes
- UL-1089 listed

Ordering Information

DESCRIPTION	MODEL #	PART #
SVM-1000 Switchable Voice Module	SVM-1000	DM000630
SVM-1000 Switchable Voice Module in TA-230 Demarcation Enclosure	SVM-1000/TA-230	DM000659

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LPF-200 Series ADSL POTS Splitters

AFL's line of ADSL NID POTS Splitter solutions meets most indoor and outdoor requirements for single-line applications. Packaged in the standard Line Module footprint, we have developed a solution that easily fits into most NIDs as a CPE device. The module occupies only one position within the NID and is housed in a plastic shell and encapsulated to provide an environmentally sealed product. All direct inside wiring connections to the module interface to colored, plastic coated washer screws.

CAC Line Module Adapter

Features

- Single width line module footprint is space efficient
- Environmentally sealed
- Same splitter used with adjunct box applications reduces inventory
- Installs in a variety of NIDs
- Quick mounting capability in front of or behind existing indoor wall jacks without drilling mounting holes or replacing existing phone jack
- Low voice band insertion loss and flat voice band attenuation distortion
- Compatible with both CAP and DMT
- Meets the ANSI T1.413 Annex E, ITU-T 992.1 Type 2 North American and Telcordia™ requirements
- UL® 1863 Listed

Specifications

PARAMETER	VALUE
DC Loop Current (mA)	0-10
DC Resistance (ohms)	≤ 19
Insertion Loss (1004 Hz)	0.5 dB maximum; 0.2 dB typical (ZTc @ 900, ZTr @ 600)
Attenuation Distortion	±0.2 dB; 200-3400 Hz (ZTc @ 900, ZTr @ 600)
(Relative to Loss @ 1004 Hz)	±0.3 dB; 200-4000 Hz (ZTc @ 900, ZTr @ 600)
Delay Distortion	< 85 mSec from 200-4000 Hz
Return Loss (Voice Band)	13 dB ERL; 10 dB SRL-Low; 14 dB SRL-High
Longitudinal Balance; Two Port Technique	> 80 dB; 200-2 kHz , 0-30 mA > 60 dB; 2-4 kHz , 0-30 mA
Tip-to-Ring Capacitance (POTS Port)	< 100 nF; 20-30 Hz
ADSL Band Attenuation	> 65 dB; 25-1104 kHz
Input Impedance (ADSL Band Signal Path Loading)	0.1 dB from 30-1104 kHz
Operating Temperature °F (°C) LPF-200, LPF-200D LPF-200W, LPF-200F	 -40 to 158 (-40 to 70) 32 to 158 (0 to 70)
Relative Humidity (Non condensing)	0-95%
Fault Current Immunity	Complies to GR-1089 levels I & II Surge and Power Cross
Dimensions (H x W x D) in. (cm) LPF-200 LPF-200D TA-230	 2.05 x 0.98 x 2.20 (5.21 x 2.49 x 5.59) 0.83 x 1.35 x 1.80 (2.11 x 3.43 x 4.57) 2.50 x 3.82 x 5.45 (6.35 x 9.70 x 13.84)
Weight lbs. (kg) LPF-200 LPF-200D TA-230	 0.16 (0.07) 0.13 (0.58) 0.30 (0.14)

NOTE: In-line Micro Filter and Central Office POTS Splitters are available; Contact your sales representative for ordering information

Ordering Information – Standard Configurations

DESCRIPTION	AFL PART #
LPF-200 ADSL POTS Splitter	911929-00-01
TA-230 Adjunct Box w/ LPF-200 POTS Splitter	911986-00-02
CAC Line Module Adapter (100 per bag)	911996-00-01

LPF-200 Series ADSL POTS Splitters

LPF-200
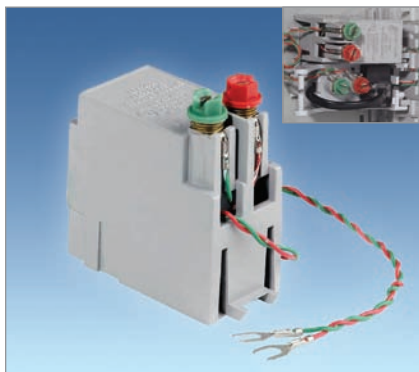
- For installation on the CPE side of NID - single width line module package
- Flying leads permit universal connection to any style line module
- Multiple home runs are terminated through four washer screw handoffs
- Fits into SNI®-4300, SNI®-4600, ML-6, TA-230 and Siecor® CAC-7600 NIDs
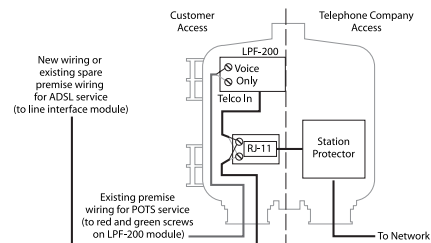
LPF-200D (consult customer service for availability)

- For installation on the CPE side of NID - single width line module package
- RJ-11 terminated cable interfaces for quick installations; simple enough for a customer to complete installation
- I/W homeruns remain undisturbed on the line module terminal screws during installation or removal
- Fits into SNI®-4300, SNI®-4600, ML-6, TA-230 and Siecor® CAC-7600 NIDs
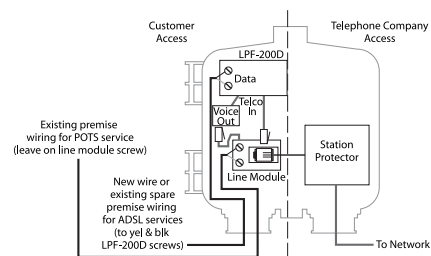
TA-230 adjunct box
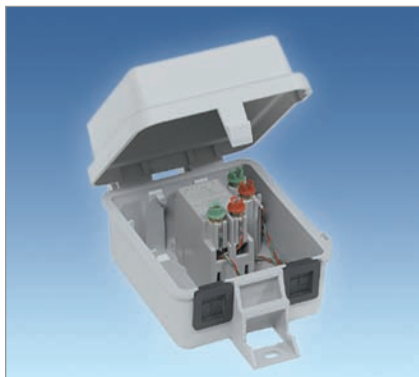
- Weathertight enclosure used when no open positions are available in NID
- Supports LPF-200 or LPF-200D POTS Splitter Module, eliminates need to inventory unique Adjunct Box Splitter

- Wall or Pole mountable
- Available empty or with the LPF-200/ LPF-200D Module installed and terminated to screw bosses

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Radio Frequency Interference Filter (RFI)

The Radio Frequency Interference Filter (RFI-P) is customer premise installed inside the Station Network Interface. It is designed to block unwanted RF energy as well as bypass RF energy to earth ground, while remaining transparent to normal loop signaling and test voltages. Using the earth ground connection, this filter acts like a drain: providing a path to ground for the RF energy to bleed off the phone line from both the network and customer side of the network interface. It effectively eliminates all common mode and differential mode RF interference induced on the phone line in the vicinity of the RFI-P filter.

Laboratory Testing

Laboratory results presented here demonstrate that the RFI-P Filter introduces greater attenuation over a broader bandwidth when compared to the Telcordia™ requirement

Features

- Suppresses RF interference across AM, FM, CB, VHF, TV, Amateur and UHF band
- Maximum suppression occurs in the AM band
- Bypasses unwanted RF energy to earth ground
- Excellent balance between Tip and Ring
- Eliminates all common mode and differential mode RF interference
- Designed for use in outdoor or indoor Network Interface Devices at the customer premise
- Transparent to normal loop signaling and test voltages

Block Diagram / Connections / Dimensions
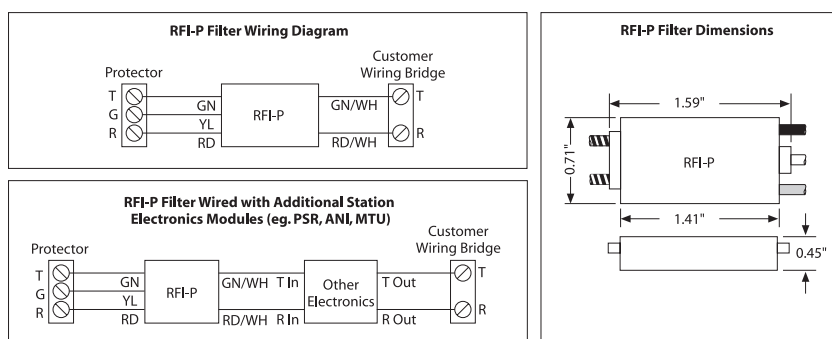
Ordering Information

DESCRIPTION	MODEL #	AFL PART #
RFI Circuit – Environmentally encapsulated with spade ended wire leads	RFI-P	90931

HR-100
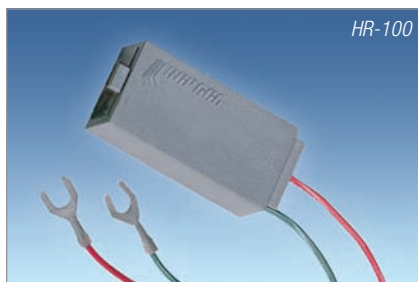
Half Ringer Equivalent Circuit

The Half Ringer Equivalant Circuit allows automatic or manual testing to be performed from the central office without interrupting service to the customer. The Half Ringer, when connected in parallel with the phone line, poses a 0.5 REN load. The Half Ringer is available in three different packages for both indoor and outdoor use and can be used in a variety of applications. Factory installation in a number of Network Interfaces Devices is available, please consult Customer Service for specifics.

1B-2 Module

Features

- Available in a variety of packaging
- 0.5 Ringer Equivalance
- Installed parallel to the line
- Versions available for indoor or outdoor (ruggedized) use

Ordering Information

DESCRIPTION	MODEL #	AFL PART #
Half Ringer installed in a ruggedized thermoplastic shell, installs easliy in Network Interface units for outdoor use	HR-100	90462
Half Ringer installed in a standard footprint two-wire line module for use in Network Interface Devices	1B-2	90830-01
Half Ringer packaged to retrofit onto a 66-type punchdown block, provides bridged test points	HR-66T	911338-00-00

HR-66T

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Portable Workstation

SpliceMate shown with Portable Workstation
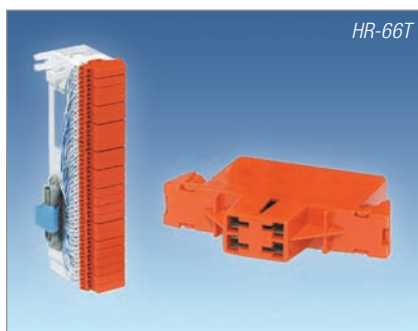
SpliceMate™
FSM-11S Fusion Splicer

SpliceMate (FSM-11) is the world's smallest and most portable fusion splicer and is designed to meet the challenges posed by today's fiber networks. SpliceMate fits in the palm of your hand, yet it's smart and reliable enough to be used with confidence by inexperienced operators.

SpliceMate's advanced intelligence features include two-camera fiber inspection to insure the splice is right and Auto Arc Calibration...an industry first. It's easy to operate and quickly makes low loss splices with all common types of optical fibers. SpliceMate is available with a variety of powering options including a battery pack and adapters to work with AC or DC power sources.

A workstation, specifically designed for the SpliceMate, is available for simplified splicing in the field. Whether splicing on a pole, in a bucket, or in a neighborhood...SpliceMate is the friend to have along on the job!
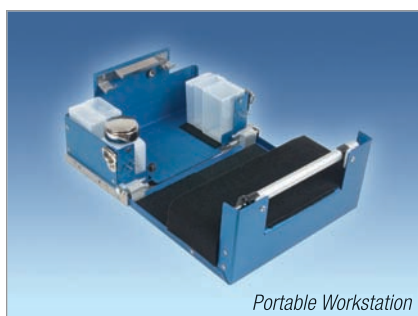
Features

- Highly portable
- Dual camera inspection
- 3.5" dual direction monitor
- 40 second tube heater
- Auto arc calibration
- 30 mph wind protector

Specifications

PARAMETER	VALUE
Model	FSM-11S Fusion Splicer
Applicable Fibers	SMF, MMF, NZ-DSF, DSF
Number of Fiber	Single fiber
Cladding Diameter	125µm
Coating Diameter	250µm and 900µm
Typical Average Splice Loss	SMF = 0.05dB / MMF = 0.02dB
Splicing Time	15 seconds
Arc Calibration Method	Automatic and manual methods
Splicing Modes (40)	Auto SM / NZ / DS Auto MM SM, MM, NZ-DSF, DSF
Splice Loss Estimate	Based on dual camera inspection
Monitor	3.5", adjustable monitor angle (front or top selectable)
Tube Heating Time	40 seconds
Number of Splice / Heat with Battery	30
Power Supply	AC, DC, Battery
Terminals	USB
Wind Protection	30 mph
Dimensions	110W x 80D x 100H (mm) / 4.33W x 3.14D x 3.94H (inches)
Weight with Battery	0.80kg / 1.76 lbs.

SpliceMate™
HANDHELD FUSION SPLICER

www.AFLtele.com or 1.800.235.3423

SpliceMate™
FSM-11S Fusion Splicer

Ordering Information

ITEM NUMBER	DESCRIPTION	ITEMS INCLUDED
S013956	FSM-11S Fusion Splicer Kit	- FSM-11S Fusion Splicer - FH-50-250 Fiber Holders - BTC-04 Battery Charger - BTR-07 Battery - ADC-10 Adapter (for BTC-04) - ACC-09 Power Cord (for ADC-10) - Spare Electrodes (Pair) - Operation Manual - Transit Case
S013988	FSM-11S Fusion Splicer Kit with Cleaver	- FSM-11S Fusion Splicer - CT-30 Cleaver - FH-50-250 Fiber Holders - BTC-04 Battery Charger - BTR-07 Battery - ADC-10 Adapter (for BTC-04) - ACC-09 Power Cord (for ADC-10) - Spare Electrodes (Pair) - Operation Manual - Transit Case

Accessories & Supplies

CLEAVERS	
S014076	CT-30 Cleaver
S014092	FC-02 Fiber Collector
S014104	FDB-02 Fiber Collector Scrap Box
S014483	FDB-03 Large Fiber Collector Scrap Box

POWER AND CORDS	
S014000	BTC-04 Battery Charger for SpliceMate (charges BTR-07)
S014004	BTR-07 Battery for SpliceMate
S014390	ACC-09 Power Cord (for ADC-10)
S014008	DCA-02 DC Adaptor for SpliceMate (needed for AC operation)
S012548	ADC-10 AC Adapter (for BTC-04)

MISCELLANEOUS	
S013800	FH-50-250 Fiber Holders (250µm single fiber)
S013804	FH-50-900 Fiber Holders (900µm single fiber)
S014052	SpliceMate Portable Workstation
S014108	NID Mounting Kit
S014024	LC-01 Leather Case for SpliceMate
S014028	Electrodes: FSM-11S/R
S014415	Data Download Software

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SpliceMate™
FSM-11R D900 Fusion Splicer

The SpliceMate D900 has a unique design that is ideally suited for tactical fiber optic cable assembly (TFOCA) repair needs. The D900 is the industry-standard for simultaneously splicing two 900µm jacketed optical fibers. Its user-friendly graphical interface and automated features make it suitable for those with limited splicing experience.

Portable Workstation

SpliceMate shown with Portable Workstation

Features

- Optimized for dual-fiber splicing for TFOCA cable applications
- Extremely lightweight – less than two pounds
- Small package design – four inch by three inch footprint
- Automatic arc calibration – minimizes maintenance requirements
- Dual camera inspection – minimizes splice loss
- Dual direction monitor – provides viewing versatility
- 30 mph wind protector – expands field applications
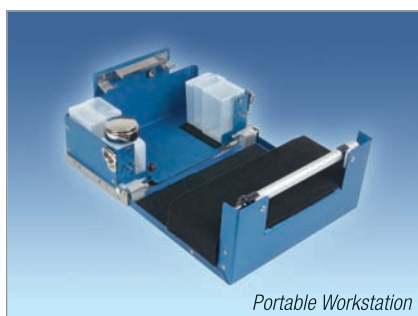
Specifications

PARAMETER	VALUE
Model	FSM-11R D900 Fusion Splicer
Applicable Fibers	SMF, MMF, NZ-DSF, DSF
Cladding Diameter	125µm
Typical Average Splice Loss	SMF = 0.05dB / MMF = 0.02dB
Splicing Time	20 seconds
Arc Calibration Method	Automatic and manual methods
Splicing Modes	Auto / SM / MM / NZ / DS
Splice Loss Estimate	Based on dual camera inspection
Monitor	3.5" LCD, adjustable monitor angle (front or top selectable)
Tube Heating Time	40 seconds
Number of Splice / Heat with Battery	30
Power Supply	AC, DC, Battery
Terminals	USB
Wind Protection	30 mph
Dimensions	110W x 80D x 100H (mm) / 4.33W x 3.14D x 3.94H (inches)
Weight with Battery	0.80kg / 1.76 lbs.

Ordering Information

DESCRIPTION	PART NUMBER
FSM-11R D900 Fusion Splicer	S014112
FSM-11R D900 Fusion Splicer Kit	S014116

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SpliceMate™
FSM-11R D900 Fusion Splicer

Ordering Information

FSM-11R D900 SPLICER

ITEM NUMBER	DESCRIPTION
S014112	FSM-11R D900 Fusion Splicer
(Included with the Splicer)	- FSM-11R D900 Fusion Splicer - FH-50-D900 Fiber Holders (Dual 900µm Fiber) - BTC-04 Battery Charger - BTR-07 Battery - Spare Electrodes (Pair) - Operation Manual - Transit Case

FSM-11R D900 SPLICER KIT

ITEM NUMBER	DESCRIPTION
S014116	FSM-11R D900 Fusion Splicer Kit
(Included in the kit)	- FSM-11R D900 Fusion Splicer - FH-50-D900 Fiber Holders (Dual 900µm Fiber) - BTC-04 Battery Charger - BTR-07 Battery - Spare Electrodes (Pair) - Operation Manual - Transit Case - CT-30 Cleaver - HJS-03-D900 Battery Powered Hot Jacket Stripper

Accessories & Supplies

CLEAVERS

S014076	CT-30 Cleaver
S014092	FC-02 Fiber Collector
S014104	FDB-02 Fiber Collector Scrap Box
S014483	FDB-03 Large Fiber Collector Scrap Box

POWER AND CORDS

S014000	BTC-04 Battery Charger for SpliceMate (charges BTR-07)
S014004	BTR-07 Battery for SpliceMate
S014008	DCA-02 DC Adapter for SpliceMate (needed for AC operation)
S012548	ADC-10 AC Adapter (for BTC-04)
S014390	ACC-09 Power Cord (for ADC-10)

MISCELLANEOUS

S014321	FH-50-D900 Fiber Holders (dual 900µm fibers)
S014413	FP-D900 (40) Dual Splice Sleeve
S014052	SpliceMate Portable Workstation
S014108	NID Mounting Kit
S014427	HJS-03-D900 Battery Powered Hot Jacket Stripper (includes DCC-11 cord)
S014024	LC-01 Leather Case for SpliceMate
S014028	Electrodes: FSM-11R

SpliceMate™
HANDHELD FUSION SPLICER

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FSM-18S

Detachable Work Table

FSM-18S Fusion Splicer

The FSM-18S Fusion Splicer is a low cost, fixed V-groove, single fiber fusion splicer with the same robust features offered in other high end models. The new rugged construction adds improved reliability by resisting shock, dust, and rain, and withstands a 30" drop test.

New features such as automatic tube heater operation, user-selectable clamping method (sheath clamp or fiber holder system), automated monitor image orientation, and battery charge capability during splicer operation provide the end user a reliable productivity tool. New software is included with each splicer and provides the user with the ability to download splice data to a PC for splice data reporting, download splicer operating software via the internet to maintain peak performance, and download video images from the splicer to enhance technical support.

Features

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration
- User-selectable fiber clamping method – sheath clamp or fiber holders
- Auto-start tube heater
- Color LCD display and anti-reflective coating for excellent visibility in bright sunlight
- Simultaneous battery charge and splicer operation
- Long life battery (up to 150 splice/heat cycles per charge)
- Detachable work table incorporated into the transit case
- Data and video download software and splicer upgrade software included; software upgrades through PC application via the internet
- Green friendly – RoHS & WEEE compliant

Ordering Information

DESCRIPTION	PART #
FSM-18S Fusion Splicer (machine only) *Includes:* ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014527
FSM-18S Fusion Splicer Kit (with cleaver) *Includes:* CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014528
FSM-18S Fusion Splicer Kit (with cleaver, battery and cord) *Includes:* BTR-08 Battery, DCC-14 Battery Charge Cord, CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014560

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FSM-18S Fusion Splicer

Accessories Recommended for the FSM-18S

DESCRIPTION	PART #
Cleavers	
CT-30A Cleaver	S014080
Fiber Holders (pairs)	
FH-60-250 Fiber Holder	S014548
FH-60-900 Fiber Holder	S014549
Batteries and Power Cords	
ADC-13 AC Adapter	S014535
BTR-08 Battery	S014540
DCC-14 Battery Charge Cord (BTR-08)	S014541
DCC-12 Power Cord (connects ADC-13 to cigarette lighter socket)	S013552
DCC-13 Power Cord (connects ADC-13 to power source via alligator clips)	S013556

DESCRIPTION	PART #
Miscellaneous	
ELCT2-20A Electrodes	S013532
ASW-02 Splicing Workstation	S010532
JP-05 Splice Sleeve Cooling Tray	S014537
CLAMP-S60A Sheath Clamp (8mm min. cleave for 250µm, 16mm min. cleave for 900µm)	S014550
CLAMP-S60B Sheath Clamp (8mm min. cleave for 250µm and 900µm)	S014551
CLAMP-S60C Sheath Clamp (For 900µm loose tube fiber)	S014552
CC-24-18S Transit Case (fits only FSM-18S)	S014557
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000

Specifications

PARAMETER	VALUE
Model	FSM-18S Fusion Splicer
Applicable Fibers	Single-mode (ITU-T G.652), multimode (ITU-T G.651), DS (ITU -T G.653), NZDS (ITU-T G.655)
Cladding Diameter	125µm
Coating Diameter	100µm to 1000µm
Fiber Cleave Length	8 to 16mm with 250µm coating diameter, 16mm with 900µm coating diameter
Typical Average Splice Loss	0.05dB with SM, 0.02dB with MM, 0.08dB with DS, 0.08dB with NZDS, measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 11 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time by using results of previous splice when in AUTO mode; manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss Estimate	Based upon dual camera cladding axis alignment data
Storage of Splice Result	Last 2000 results to be stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously; front or rear monitor display options with automated image orientation
Magnification	300X for single X or Y view, or 187X for X and Y view
Viewing Method	Dual cameras with 4.1 inch TFT color LCD monitor with anti-reflective coating
Operating Condition	0 to 3,660m above sea level, 0 to 95% RH, -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 30 seconds with FP-03 sleeve, 35 seconds with FP3 (40), 35-55 seconds with Fujikura micro sleeves
Protection Sleeve Length	60mm, 40mm, micro
Splice/Heat with Battery	Typical 150 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-1, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication, Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s. (34 mph)
Dimensions	136W x 161D x 143H (mm) / 5.3W x 6.3D x 5.6H (inches)
Weight	2.1 kg (4.6 lbs) with AC adapter ADC-11; 2.5kg (5.5 lbs) with BTR-08 battery

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FSM-60S

Detachable Work Table

FSM-60S Fusion Splicer

The FSM-60S fusion splicer sets the standard for core alignment fusion splicing by incorporating a user-friendly interface with enhanced features to provide the most rugged and reliable fusion splicer in the market today. The new rugged construction adds improved reliability by resisting shock, dust, and rain, and can withstand a 30" drop test.

The FSM-60S splices a fiber in 9 seconds and heats a 60mm splice sleeve in 30 seconds, for a total cycle time of only 39 seconds. New features, such as automatic tube heater operation, user-selectable clamping method (sheath clamp or fiber holder system), automated monitor image orientation, and battery charge capability during splicer operation provide the end user a productivity tool they can count on.

New software included provides the ability to download splice data to a PC for splice data reporting, download splicer operating software via the internet to maintain peak performance, and download video images from the splicer to enhance technical support.

Features

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration and fiber identification
- User-selectable fiber clamping method – sheath clamp or fiber holders
- Auto-start tube heater feature
- Color LCD display with anti-reflective coating for excellent visibility in bright sunlight
- Simultaneous battery charge and splicer operation
- Long life battery (up to 160 splice/heat cycles per charge)
- Detachable work table incorporated into the transit case
- Data and video download software and splicer upgrade software included; software upgrades through PC application via the internet
- Green friendly – RoHS & WEEE compliant

Ordering Information

DESCRIPTION	PART #
FSM-60S Fusion Splicer (machine only) *Includes:* ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014531
FSM-60S Fusion Splicer Kit (with cleaver) *Includes:* CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014532
FSM-60S Fusion Splicer Kit (with cleaver, battery and cord) *Includes:* BTR-08 Battery, DCC-14 Battery Charge Cord, CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	S014562

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FSM-60S Fusion Splicer

Accessories Recommended for the FSM-60S

DESCRIPTION	PART #
Cleavers	
CT-30A Cleaver	S014080
Fiber Holders (pairs)	
FH-60-250 Fiber Holder	S014548
FH-60-900 Fiber Holder	S014549
Batteries and Power Cords	
ADC-13 AC Adapter	S014535
BTR-08 Battery (160 splice/heat cycles)	S014540
DCC-14 Battery Charge Cord (BTR-08)	S014541
DCC-12 Power Cord (connects ADC-13 to cigarette lighter socket)	S013552
DCC-13 Power Cord (connects ADC-13 to power source via alligator clips)	S013556

DESCRIPTION	PART #
Miscellaneous	
ELCT2-20A Electrodes	S013532
ASW-02 Splicing Workstation	S010532
JP-05 Splice Sleeve Cooling Tray	S014537
CLAMP-S60A Sheath Clamp (8mm min. cleave for 250µm, 16mm min. cleave for 900µm)	S014550
CLAMP-S60B Sheath Clamp (8mm min. cleave for 250µm and 900µm)	S014551
CLAMP-S60C Sheath Clamp (for 900µm loose tube fiber)	S014552
CC-24-60S Transit Case (fits only FSM-60S)	S014559
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000

Specifications

PARAMETER	VALUE
Model	FSM-60S Fusion Splicer
Applicable Fibers	Single-mode (ITU-T G.652), Multimode (ITU-T G.651), DS (ITU -T G.653), NZDS (ITU-T G.655)
Cladding Diameter	80µm to150µm
Coating Diameter	100µm to 1,000µm
Fiber Cleave Length	8 to 16mm with 250µm coating diameter, 16mm with 900µm coating diameter
Typical Average Splice Loss	0.02dB with SM, 0.01dB with MM, 0.04dB with DS, 0.04dB with NZDS
	Measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 9 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time and by using results of previous splice when in AUTO mode, manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss Estimate	Based upon dual camera core alignment data
Storage of Splice Result	Last 2000 results to be stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously. Front or rear monitor display options with automated image orientation
Magnification	300X for single X or Y view, or 187X for X and Y view
Viewing Method	Dual cameras with 4.1 inch TFT color LCD monitor
Operating Condition	0 to 5,000m above sea level, 0 to 95%RH and -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 30 seconds with FP-03 sleeve, 35 seconds with FP3 (40), 35-55 seconds with Fujikura micro sleeves
Protection Sleeve Length	60mm, 40mm, micro
Splice/Heat Cycles with Battery	Typical 160 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-11, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication. Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s. (34 mph)
Dimensions	136W x 161D x 143H (mm) / 5.3W x 6.3D x 5.6H (inches)
Weight	2.3 kg (5.1 lbs) with AC adapter ADC-11; 2.7kg (5.9 lbs) with BTR-08 battery

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SpliceMate™
FSM-11R Fusion Splicer

SpliceMate (FSM-11) is the world's smallest and most portable fusion splicer and is designed to meet the challenges posed by today's fiber networks. SpliceMate fits in the palm of your hand, yet it's smart and reliable enough to be used with confidence by inexperienced operators.

SpliceMate's advanced intelligence features include two-camera fiber inspection to insure the splice is right and Auto Arc Calibration...an industry first. It's easy to operate and quickly makes low loss splices with all common types of optical fibers up to 4-fiber ribbons. SpliceMate is available with a variety of powering options including a battery pack and adapters to work with AC or DC power sources.

A workstation, specifically designed for the SpliceMate, is available for simplified splicing in the field. Whether splicing on a pole, in a bucket, or in a neighborhood...SpliceMate is the friend to have along on the job!

Portable Workstation

SpliceMate shown with Portable Workstation
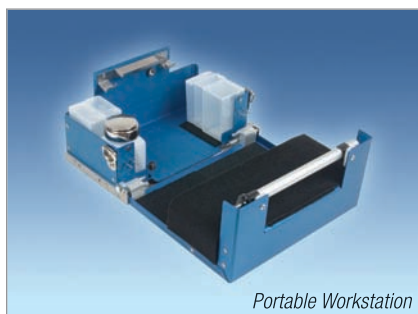
Features

- Highly portable
- Dual camera inspection
- 3.5" dual direction monitor
- 40 second tube heater
- Auto arc calibration
- 30 mph wind protector

Specifications

PARAMETER	VALUE
Model	FSM-11R Fusion Splicer
Applicable Fibers	SMF, MMF, NZ-DSF, DSF
Number of Fiber	Up to 4-fiber ribbon
Cladding Diameter	125μm
Typical Average Splice Loss	SMF = 0.05dB / MMF = 0.02dB
Splicing Time	20 seconds
Arc Calibration Method	Automatic and manual methods
Splicing Modes (40)	Auto SM / NZ / DS Auto MM SM, MM, NZ-DSF, DSF
Splice Loss Estimate	Based on dual camera inspection
Monitor	3.5", adjustable monitor angle (front or top selectable)
Tube Heating Time	40 seconds
Number of Splice / Heat with Battery	30
Power Supply	AC, DC, Battery
Terminals	USB
Wind Protection	30 mph
Dimensions	110W x 80D x 100H (mm) / 4.33W x 3.14D x 3.94H (inches)
Weight with Battery	0.80kg / 1.76 lbs.

SpliceMate™
HANDHELD FUSION SPLICER

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SpliceMate™
FSM-11R Fusion Splicer

Ordering Information

ITEM NUMBER	DESCRIPTION	ITEMS INCLUDED
S013960*	FSM-11R Fusion Splicer Kit	- FSM-11R Fusion Splicer - FH-50-4 Fiber Holders - BTC-04 Battery Charger - BTR-07 Battery - ADC-10 Adapter (for BTC-04) - ACC-09 Power Cord (for ADC-10) - Spare Electrodes (Pair) - Operation Manual - Transit Case
S013992*	FSM-11R Fusion Splicer Kit with Cleaver	- FSM-11R Fusion Splicer - CT-30 Cleaver - FH-50-4 Fiber Holders - BTC-04 Battery Charger - BTR-07 Battery - ADC-10 Adapter (for BTC-04) - ACC-09 Power Cord (for ADC-10) - Spare Electrodes (Pair) - Operation Manual - Transit Case - HJS-03 Battery Powered Hot Jacket Stripper

* The DCA-02 is required for AC operation and can be purchased separately.

Accessories & Supplies

CLEAVERS	
S014076	CT-30 Cleaver
S014092	FC-02 Fiber Collector
S014104	FDB-02 Fiber Collector Scrap Box
S014483	FDB-03 Large Fiber Collector Scrap Box

POWER AND CORDS	
S014000	BTC-04 Battery Charger for SpliceMate (charges BTR-07)
S014004	BTR-07 Battery for SpliceMate
S014008	DCA-02 DC Adaptor for SpliceMate (needed for AC operation)
S012548	ADC-10 AC Adapter (for BTC-04)
S014390	ACC-09 Power Cord (for ADC-10)

MISCELLANEOUS	
S013800	FH-50-250 Fiber Holders (250µm single fiber)
S013804	FH-50-900 Fiber Holders (900µm single fiber)
S013812	FH-50-4 Fiber Holders
S013808	FH-50-2 Fiber Holders
S014052	SpliceMate Portable Workstation
S014108	NID Mounting Kit
S013996	HJS-03 Battery Powered Hot Jacket Stripper
S014024	LC-01 Leather Case for SpliceMate
S014028	Electrodes: FSM-11S/R
S002111	FAT-02 Fiber Arrangement Tool
S010212	FAT-04 Fiber Arrangement Tool
S008720	FAA-03 Ribbon Forming Adhesive (4 oz. bottle)
S008622	FAA-03 Ribbon Forming Adhesive (0.5 liter bottle)
S014415	Data Download Software

SpliceMate™
HANDHELD FUSION SPLICER

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FSM-18R

Detachable Work Table

FSM-18R Fusion Splicer

The FSM-18R fusion splicer is a 4-fiber ribbon splicer with similar versatility and robust nature of the Fujikura 12-fiber ribbon splicer. Well-suited for FTTx or LAN applications, the FSM-18R fusion splicer can splice up to 4 fibers, as well as, single fibers. The enhanced robust features provide resistance to shock, dust, and rain to minimize downtime and improve operational performance and withstands a 30" drop test.

Automated features such as auto-start splicing, auto-start tube heater operation, automatic ribbon fiber identification, and auto-arc calibration reduce operational steps and improve splicing performance. Additional improvements include automatic image orientation when switching the dual position monitor, a large capacity battery option and the ability to charge the battery during splicer operation.

New software included with each splicer provides the ability to download splice data to a PC for splice data reporting, download splicer operating software via the internet to maintain peak performance, and download video images from the splicer to enhance technical support.

Features

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration and ribbon fiber identification
- Auto-start tube heater
- Color LCD display and anti-reflective coating for excellent visibility in bright sunlight
- Simultaneous battery charge and splicer operation
- Long life battery (up to 90 splice/heat cycles per charge)
- Detachable work table incorporated into the transit case
- Data and video download software and splicer upgrade software included; software upgrades through PC application via the internet
- Green friendly – RoHS & WEEE compliant

Ordering Information

DESCRIPTION	PART #
FSM-18R Fusion Splicer (machine only) *Includes:* FH-50-4 Fiber Holders (pair), ADC-13 AC Adapter, ACC-14 AC Cord, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014529
FSM-18R Fusion Splicer Kit (with cleaver and stripper) *Includes:* CT-30 Cleaver, HJS-02 Hot Jacket Stripper, FH-50-4 Fiber Holders (pair), ADC-13 AC Adapter, ACC-14 AC Cord, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014530
FSM-18R Fusion Splicer Kit (with cleaver, stripper, battery and cord) *Includes:* CT-30 Cleaver, HJS-02 Hot Jacket Stripper, FH-50-4 Fiber Holders (pair), BTR-08 Battery, DCC-14 Battery Charge Cord, ADC-13 AC Adapter, ACC-14 AC Cord, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014561

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FSM-18R Fusion Splicer

Accessories Recommended for the FSM-18R

DESCRIPTION	PART #
Cleavers and Strippers	
CT-30 Cleaver	S014076
HJS-02 Hot Jacket Stripper	S010340
Fiber Holders (pairs)	
FH-50-4	S013812
FH-50-2	S013808
FH-50-250 (250µm coated single fiber)	S013800
FH-50-900 (900µm jacketed single fiber)	S013804
Batteries and Power Cords	
ADC-13 AC Adapter	S014535
BTR-08 Battery	S014540
DCC-14 Battery Charge Cord (BTR-08)	S014541
DCC-12 Power Cord (connects ADC-13 to cigarette lighter socket)	S013552
DCC-13 Power Cord (connects ADC-13 to power source via alligator clips)	S013556

DESCRIPTION	PART #
Miscellaneous	
ELCT2-20A Electrodes	S013532
ASW-02 Splicing Workstation	S010532
JP-05 Splice Sleeve Cooling Tray	S014537
MGS-06 Magnifier (with bracket)	S014555
FAT-04 Fiber Arrangement Tool	S010212
FAA-03 Ribbon Forming Adhesive (4 oz. bottle)	S008720
FAA-03 Ribbon Forming Adhesive (0.5 liter bottle)	S008622
CC-24-18R Transit Case (fits only FSM-18R)	S014556
One year extended warranty	S012996
Two year extended warranty	S013000

Specifications

PARAMETER	VALUE
Model	FSM-18R Fusion Splicer
Applicable Fibers	Single-mode (ITU-T G.652), multimode (ITU-T G.651), DS (ITU -T G.653), NZDS (ITU-T G.655)
Fiber Count	Single, 2, 4
Cladding Diameter	125µm
Coating Diameter	Ribbon: 0.25mm to 0.4mm; Single: 250µm and 900µm
Fiber Cleave Length	10mm
Typical Average Splice Loss	0.05dB with SM, 0.02dB with MM, 0.08dB with DS, 0.08dB with NZDS, measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 20 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time by using results of previous splice when in AUTO mode, manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss Estimate	Based upon dual camera cladding alignment data
Storage of Splice Result	Last 2000 splice results stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously; front or rear monitor display options with automatic image orientation
Magnification	90X
Viewing Method	Dual cameras with 4.1 inch TFT color LCD monitor with anti-reflective coating
Operating Condition	0 to 5,000m above sea level, 0 to 95% RH, -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 50 seconds with FP-5 sleeve, 40 seconds with FP3 (40), 35-55 seconds with Fujikura micro sleeves
Protection Sleeve Length	60mm, 40mm, micro
Splice/Heat with Battery	Typical 90 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-13, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication, Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s. (34 mph)
Dimensions	136W x 161D x 143H (mm) / 5.3W x 6.3D x 5.6H (inches)
Weight	2.1 kg (4.6 lbs) with AC adapter ADC-13; 2.5kg (5.5 lbs) with BTR-08 battery

www.AFLtele.com or 1.800.235.3423

FSM-60R12 Fusion Splicer

FSM-60R12

Detachable Work Table

The FSM-60R12 Fusion Splicer offers unmatched versatility and reliability. The new ribbon splicer withstands a drop test of up to 30" and continues to splice. And enhanced, robust features enable the FSM-60R12 to resist shock, dust, and rain so that unfortunate environmental conditions do not negatively impact productivity.

Equipped with a user-friendly interface and precision fixed V-groove, the FSM-60R12 offers 2 to 12 fiber ribbon splicing, as well as, single fiber splicing capability. Automated features such as auto-start splicing, auto-start tube heater operation, automatic ribbon fiber identification, and auto-arc calibration reduce operational steps and improve splicing performance. Additional improvements include automatic image orientation when switching the dual position monitor, a large capacity battery option and the ability to charge the battery during splicer operation.

New software included provides the ability to download splice data to a PC for splice data reporting, download splicer operating software via the internet to maintain peak performance, and download video images from the splicer to enhance technical support.

Features

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration and ribbon fiber identification
- Auto-start tube heater
- Color LCD display with anti-reflective coating for excellent visibility in bright sunlight
- Simultaneous battery charge and splicer operation
- Long life battery (up to 90 splice/heat cycles per charge)
- Detachable work table incorporated into the transit case
- Data and video download software and splicer upgrade software included; software upgrades through PC application via the internet
- Green friendly – RoHS & WEEE compliant

Ordering Information

DESCRIPTION	PART #
FSM-60R12 Fusion Splicer (machine only) *Includes:* FH-50-12 Fiber Holders (pair), ADC-13 AC Adapter, ACC-14 AC Cord, Magnifier, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014533
FSM-60R12 Fusion Splicer Kit (with cleaver and stripper) *Includes:* CT-30 Cleaver, HJS-02 Hot Jacket Stripper, FH-50-12 Fiber Holders (pair), ADC-13 AC Adapter, ACC-14 AC Cord, Magnifier, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014534
FSM-60R12 Fusion Splicer Kit (with cleaver, stripper, battery and cord) *Includes:* CT-30 Cleaver, HJS-02 Hot Jacket Stripper, FH-50-12 Fiber Holders (pair), BTR-08 Battery, DCC-14 Battery Charge Cord, ADC-13 AC Adapter, ACC-14 AC Cord, Magnifier, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with Carrying Strap	S014563

FSM-60R12 Fusion Splicer

Accessories Recommended for the FSM-60R12

DESCRIPTION	PART #
Cleavers and Strippers	
CT-30 Cleaver	S014076
HJS-02 Hot Jacket Stripper	S010340
Batteries and Power Cords	
ADC-13 AC Adapter	S014535
BTR-08 Battery	S014540
DCC-14 Battery Charge Cord (BTR-08)	S014541
DCC-12 Power Cord (connects ADC-13 to cigarette lighter socket)	S013552
DCC-13 Power Cord (connects ADC-13 to power source via alligator clips)	S013556
Fiber Holders (pairs)	
FH-50-12	S013828
FH-50-10	S013824
FH-50-8	S013820
FH-50-6	S013816
FH-50-4	S013812

DESCRIPTION	PART #
Fiber Holders (pairs) – continued	
FH-50-2	S013808
FH-50-250 (250µm coated single fiber)	S013800
FH-50-900 (900µm jacketed single fiber)	S013804
Miscellaneous	
ELCT2-20A Electrodes	S013532
ASW-02 Splicing Workstation	S010532
JP-05 Splice Sleeve Cooling Tray	S014537
MGS-06 Magnifier (with bracket)	S014555
FST-12 Fiber Separation Tool	S014012
FAT-04 Fiber Arrangement Tool	S010212
FAA-03 Ribbon Forming Adhesive (4 oz. bottle)	S008720
FAA-03 Ribbon Forming Adhesive (0.5 liter bottle)	S008622
CC-24-60R Transit Case (fits FSM-60R12 only)	S014558
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000

Specifications

PARAMETER	VALUE
Model	FSM-60R12 Fusion Splicer
Applicable Fibers	Single-mode (ITU-T G.652), Multimode (ITU-T G.651), DS (ITU -T G.653), NZDS (ITU-T G.655)
Fiber Count	Single, 2, 4, 5, 6, 8, 10, 12
Cladding Diameter	125µm
Coating Diameter	Ribbon: 0.25mm to 0.4mm, Single: 250µm and 900µm
Fiber Cleave Length	10mm
Typical Average Splice Loss	0.05dB with SM, 0.02dB with MM, 0.08dB with DS, 0.08dB with NZDS; measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 20 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time by using results of previous splice when in AUTO mode; manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss Estimate	Based upon dual camera cladding alignment data
Storage of Splice Result	Last 2000 splice results stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously; front or rear monitor display options with automatic image orientation
Magnification	35X to 90X
Viewing Method	Dual cameras with 4.1 inch TFT color LCD monitor with anti-reflective coating
Operating Condition	0 to 3,660m above sea level, 0 to 95% RH, and -10 to 50°C respectively.
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 50 seconds with FP-5 sleeve, 40 seconds with FP3 (40), 35-55 seconds with Fujikura micro sleeves
Protection Sleeve Length	60mm, 40mm, Micro
Splice/Heat Cycles with Battery	Typical 90 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-13, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication, Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s. (34 mph)
Dimensions	136W x 161D x 143H (mm) / 5.3W x 6.3D x 5.6H (inches)
Weight	2.1 kg (4.6 lbs) with AC adapter ADC-13; 2.5kg (5.5 lbs) with BTR-08 battery

CT-30 Series Fiber Cleaver

The CT-30 Cleaver sets the standard for portability, reliability and ease of use. Available for either single fiber or ribbon splicing (up to 12 fiber ribbons) applications, the CT-30 Cleavers are compatible with all AFL Telecommunications fusion splicers. The improved version offers a larger base for a more stable platform, improved visibility when placing the fiber, and three scrap collection options. Designed for excellent portability, the CT-30 is equally at home in a splicing van or in a bucket truck and is ideal for FTTx applications. The 16-position blade yields 48,000 single-fiber cleaves, or 4,000 12-fiber ribbon cleaves before requiring replacement, and the built-in scrap collector conveniently stores fiber shards until they can be safely discarded.

The CT-30 Cleaver is packaged with three scrap collection options that allow the user to tailor it to their cleaving preferences. The CT30 is delivered with the SC-01 Side Cover installed for users that prefer not to use an automated scrap collection system. For those that prefer an automated scrap collection system, the FC-02 Fiber Collector and two scrap box options are included. The FDB-02 Scrap Box is a smaller bin for users seeking a compact profile. The FDB-03 Scrap Box is a larger bin with sweeping brush and static resistant surfaces for those users seeking to maximize scrap capacity. All scrap options are easily configured by the user.

Delivered as shown

Specifications

PARAMETER	VALUE
Dimensions (W x D x H)	69mm x 82mm x 41mm (2.7" x 3.2" x 1.6")
Weight	180g (0.4 lbs)
Blade lifetime	48,000 fiber cleaves (4,000 12-fiber cleaves)
Cleave angle capability	typically <0.5˚

Ordering Information

MODEL NO.	APPLICATION	FIBER HANDLING SYSTEM	CLEAVE LENGTH	PART NO.
CT-30	Fiber Ribbons (up to 12 fibers)	Fiber Holders for the following: FSM-50R, FSM-17S-FH, FSM-30R, FSM-40R	10mm	S014076
CT-30A	Single Fibers: 250-900µm coating, 125µm cladding	AD-30A Adapter Plate	900µm: 10-20mm 250µm: 6-20mm	S014080

Included with Cleaver:

- AD-30A Adapter Plate (CT30A only)
- FC-02 Fiber Collector
- FDB-02 Scrap Box (small)
- FDB-03 Scrap Box (large)
- SC-01 Side Cover (installed)
- CC-21 Carrying Case
- Hex Wrench (1.5mm)
- Instruction Manual

Accessories

DESCRIPTION	PART #
Replacement Blade for CT-30 Series Cleavers	S012828
FC-02 Fiber Collector	S014092
AD-30A Adapter Plate	S014096
AD-30B Adapter Plate	S014100
FDB-02 Fiber Collector Scrap Box	S014104
FDB-03 Large Fiber Collector Scrap Box	S014483
SC-01 Side Cover	S014353
HBA-01 Fiber Holder Base Attachment	S014388
CC-21 Carrying Case for CT-30 Series Cleaver	S014484

CT-02 Pocket Cleaver

The CT-02 Pocket Cleaver is the ideal, low cost, solution for mechanical splicing and temporary terminations that don't require the precision of a high end cleaver. The new and improved version now includes a graduated scale for measuring cleave lengths from 6 - 19 mm in both 1 mm steps and 2 mm steps. The CT-02 is not recommended for cleaving single-mode fibers prior to fusion splicing.

Specifications

PARAMETER	VALUE
Fiber count	Single
Fiber type	Silica fiber
Coating diameter	200 to 1000µm
Cladding diameter	125µm
Cleaving length	19mm
Cleaving angle	Typical 1.0 degree
Blade life	1000 times
Dimensions	100mm (W) x 20mm (D) x 35mm (H)
Weight	75g

Ordering Information

CLEAVE LENGTH	PART #
CT-02 (6-19mm)	S009836

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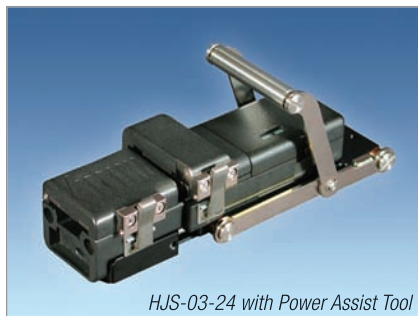
HJS-02

HJS-03

HJS-03-24 with Power Assist Tool

Hot Jacket Strippers

The HJS-02, HJS-03 and HJS-03-24 hot jacket strippers provide superior ribbon and field-ribbonized stripping performance. They conserve power for field stripping when operating under battery power. A temperature selection switch is also provided for easy optimization in the field for different fibers or operating conditions. An optional single-fiber adapter may be used to provide easy single-fiber capability for difficult-to-strip fibers. These strippers also accept the fiber holders of the FSM-40F/PM and FSM-45F/PM factory/lab splicers. The HJS-03 is a battery powered hot jacket stripper specifically designed for use with the SpliceMate fusion splicer but it can be used in other applications. The HJS-03-24 hot jacket stripper is designed for smooth and controlled stripping of 24-fiber ribbon.

Specifications

MODEL	HJS-02, HJS-03	HJS-03-24
Applicable Fiber Count	1 to 12 Fiber Ribbon	1 to 24 Fiber Ribbon
Ribbon Thickness	250µm to 400µm	250µm to 400µm
Stripping Length	35mm maximum	35mm maximum
Typical Heating Time	3 second Normal Mode 8 second Power Save Mode	3 second Normal Mode 30 second Power Save Mode
Standard Heating Temperature	100ºC	100ºC
Dimensions (W x D x H)	107mm x 40mm x 29mm	149mm x 58mm x 36mm
Weight	195g (0.43lb)	300g (0.66lb)
Power Supply	12VDC	12VDC
Operating Conditions	-10ºC to 50ºC	-10º C to 50ºC
Storage Conditions	-40ºC to 80ºC	-40º C to 80ºC

Ordering Information

DESCRIPTION	PART #
HJS-02 Hot Jacket Stripper (12 fibers max.)	S010340
HJS-02-80 Hot Jacket Stripper (80µm cladding)	S013264
HJS-03 Battery Powered Hot Jacket Stripper	S013996
HJS-03-24 Hot Jacket Stripper (24 fibers max.)	S012960
HJS-03-24PA Power Assist Tool for HJS-03-24	S012964
ADC-09 AC Adapter (for HJS-02, HJS-03 and HJS-03-24)	S014389
ACC-09 AC Power Cord (for ADC-09)	S014390
SAD-01 Single Fiber Adapter for HJS-02	S010428
DCC-11 DC Power Cord for HJS-02/HJS-03 (for FSM-17R/50R/18R/60R)	S013852
DCC-03 DC Power Cord for HJS-02/HJS-03 (for FSM-30R/40R24)	S006126

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FST-12 Fiber Separation Tool

The FST-12 Fiber Separation Tool is used to quickly, accurately and reliably split ribbons into sub-groups or individual fibers. The ergonomic FST-12 design enables safe and reliable, one-handed operation for use in diverse fiber deployment environments, such as aerial and remote-site applications.

Features and Benefits

- Enables separation of groups of fibers or single fibers and is not limited to only even-numbered groupings.
- One-handed operation allows the operator's other hand to guide and control the ribbon at all times, minimizing the potential for accidental damage to the fibers or ribbon.
- Hand-held method eliminates the need to utilize valuable work surface space for operation and is the ideal solution for remote-site and aerial operations such as bucket truck or ladder-sling applications.
- Performing two overlapping separations of the ribbon allows any single fiber or any sub-group of fibers to be extracted from the ribbon, even in mid-span taut-sheath operations where minimal ribbon length is available.
- Standard tool designed for fiber counts up to 12-fiber ribbon.

Specifications

PARAMETER		VALUE
Ribbon Thickness		250 to 360 micron
Ribbon Width		3.2mm (12-fiber)
Fiber Pitch		250 micron
Fiber Coating Material		UV cured resin
Separation Ratios:	12-fiber Ribbon	1:11, 2:10, 3:9, 4:8, 5:7, 6:6
Environmental Conditions:	Operating Temperature	-10° to +40°C, 0 to 95% RH (non-dew)
	Storage Temperature	-40° to +80°C, 0 to 95% RH (non-dew)
Dimensions		157L x 27W x 124H (mm) / 6.18L x 1.06W x 4.88H (in.)
Weight		220g / 7.76 oz.

Ordering Information

DESCRIPTION	PART #
FST-12 Fiber Separation Tool Includes: 12-fiber ribbon jaw set, instructional manual and color coded quick reference guide	S014012

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Fiber Arrangement Tools

The FAT-04 features an easy-to-use fiber arrangement method utilizing linear travel. The FAT-04 includes a spare paste applicator to allow ribbon making to continue even if one of the paste applicators needs cleaning.

The FAT-02 Fiber Arrangement Tool is an industry standard tool for forming individual 250µm coated fibers into ribbons. The fiber arrangement method uses an arrangement spring. The fibers are placed into the proper position within the spring, eliminating the need to pre-sort the fibers and place them into the tool in numerical sequence.
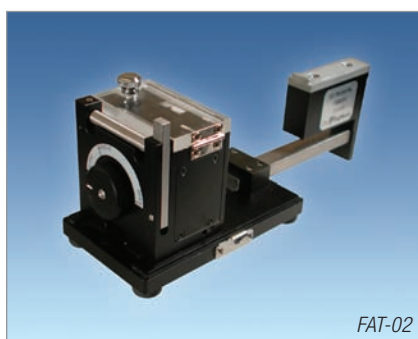
FAT-04

FAT-02

Ordering Information

MODEL	PART #
FAT-04 Fiber Arrangement Tool*	S010212
FAT-02 Fiber Arrangement Tool*	S002111
FMP-01 Foam Pads for FAT-04 (One set = 5 sheets of 25 pads each)	S009016
Paste Applicator Blocks (2 pieces)	S010952

*Tools include 4 oz. FAA-03 ribbon forming adhesive

Ribbon Forming Adhesive

A key advantage of both fiber arrangement tools is the use of the ribbon forming adhesive. Ribbons formed with this adhesive have excellent stripability, especially compared to ribbonizing methods using tape. Unlike tape methods, the paste does not "gum-up" the stripping tool and cause broken fibers. The paste holds the stripped coating residue into a single piece of debris that is easily cleaned from the stripper. If needed, the ribbon can be easily separated into individual fibers using alcohol.

FAA-03

Ordering Information

MODEL	PART #
FAA-03 ribbon-forming adhesive (0.5 liter bottle)	S008622
FAA-03 ribbon-forming adhesive (4 oz. dispensing bottle)	S008720

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Splice Protection Sleeves

AFL Telecommunications offers a wide selection of fiber protection sleeves to meet any application. The FP-03 series is the industry standard for durable and lasting protection of single fiber splices in field installations, while the FP-04(T)/05 provide these same performance levels for 8/12 fiber ribbon respectively.

The FPS01 and FPS04 series are specially designed for optical components, where small packaging is a priority. These micro sleeves provide the known reliability of Fujikura sleeves in the smallest possible lengths. This easy and cost effective method is a great alternative to recoating. The FPS01 and FPS04 series offer a wide range of options to accommodate various coating sizes, and are manufactured in a variety of lengths. This gives great flexibility in designing optical modules.

Micro Sleeves: Dimensions & Applicable Fiber

FPS01-400 SERIES FOR SINGLE FIBERS UP TO 400 MICRON FIBER

MODEL	SLEEVE LENGTH	FIBER CLEAVE LENGTH	SLEEVE DIAMETER AFTER SHRINK
FPS01-400-12	12mm	4mm	1.5mm
FPS01-400-15	15mm	4mm	1.5mm
FPS01-400-20	20mm	8mm	1.5mm
FPS01-400-25	25mm	10mm	1.5mm
FPS01-400-34	34mm	15mm	1.5mm
FPS01-400-40	40mm	16mm	1.5mm

FPS01-900 SERIES FOR SINGLE FIBERS UP TO 900 MICRON FIBER

MODEL	SLEEVE LENGTH	FIBER CLEAVE LENGTH	SLEEVE DIAMETER AFTER SHRINK
FPS01-900-15	15mm	4mm	2.3mm
FPS01-900-20	20mm	6mm	2.3mm
FPS01-900-25	25mm	6mm	2.3mm
FPS01-900-34	34mm	13mm	2.3mm
FPS01-900-45	45mm	16mm	2.3mm

SLEEVES DESIGNED SPECIFICALLY FOR RIBBON FIBERS

MODEL	FIBER COUNT	SLEEVE LENGTH	FIBER CLEAVE LENGTH	SLEEVE DIAMETER AFTER SHRINK
FP-04(T)	Up to 8 fibers	40mm	10mm	4.1mm (max.)
FP-05	Up to 12 fibers	40mm	10mm	4.5mm (max.)
FPS04-30	Up to 4 fibers	30mm	10mm	2.4mm (max.)
FPS08-28	Up to 8 fibers	28mm	10mm	3.4mm (max.)
FPS24-40	Up to 24 fibers	40mm	10mm	8mm (max.)

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Splice Protection Sleeves

Standard Sleeves: Dimensions & Applicable Fiber

FP-03 AND FP-03 (L=40) FOR SINGLE FIBERS UP TO 900 MICRONS

MODEL	SLEEVE LENGTH	FIBER CLEAVE LENGTH	SLEEVE DIAMETER AFTER SHRINK
FP-03	60mm	16mm	3.1mm (max.)
FP-03(40)	40mm	10mm	3.1mm (max.)

FP-04(T) AND FP-05 FOR RIBBON FIBER (COATING THICKNESS OF 0.4MM OR LESS)

MODEL	FIBER COUNT	SLEEVE LENGTH	FIBER CLEAVE LENGTH	SLEEVE DIAMETER AFTER SHRINK
FP-04(T)	Up to 8 fibers	40mm	10mm	4.1mm (max.)
FP-05	Up to 12 fibers	40mm	10mm	4.5mm (max.)
FPS24-40	Up to 24 fibers	40mm	10mm	8mm (max.)

Specifications

PARAMETER	MODEL	VALUE
Outer tube	FP-03 series / FPS01 series / FPS04-30 FP-04(T) / FP-05	Poliolefin based on Polyethylene Ethylene-Vinyl Acetate (Polyolefin Copolymer)
Inner tube		Ethylene-Vinyl Acetate (Polyolefin Copolymer)
Strength member	FP-03 series / FPS01 series FP-04(T) / FP-05 FPS04-30 / FPS08-28	Stainless steel Quartz glass Quartz glass
Operation condition (after shrink)		-10 to 50 degree C, 0 to 95%RH(Non dew)
Storage condition (before shrink)		-40 to 60 degree C, Non dew

Ordering Information

MODEL	PART #
FPS01-400-12 (12mm length, for 400µm coatings)	S014088
FPS01-400-15 (15mm length, for 400µm coatings)	S012668
FPS01-400-20 (20mm length, for 400µm coatings)	S012672
FPS01-400-25 (25mm length, for 400µm coatings)	S012676
FPS01-400-34 (34mm length, for 400µm coatings)	S012680
FPS01-400-40 (40mm length, for 400µm coatings)	S011914
FPS01-900-15 (15mm length, for 900µm coatings)	S012684
FPS01-900-20 (20mm length, for 900µm coatings)	S012688
FPS01-900-25 (25mm length, for 900µm coatings)	S011954
FPS01-900-34 (34mm length, for 900µm coatings)	S012692
FPS01-900-45 (45mm length, for 900µm coatings)	S012696

MODEL	PART #
FP-03	S000065
FP-03M	S000066
FP-03(34)	S000453
FP-03(40)	S000206
FP-04(T)	S002105
FPS04-30	S010848
FP-05	S003027
FPS08-28	S013560
FPS24-40	S013004

Pole Mount

Tripod Mount

ASW-02 Splicing Workstation

The ASW-02 Splicing Workstation can be used with a fusion splicer and cleaver in aerial or terrestrial splicing applications. The ASW-02 provides a stable work surface and secure mounting of the splicer and cleaver to prevent accidental drops and equipment damage in challenging splicing locations.

The ASW-02 Splicing Workstation consists of the work tray, a convenient pivoting cleaver mounting arm, a post for attachment to bucket or ladder mounting accessories, a tripod mount, and dual safety straps. An aerial mounting system is available for direct attachment of the workstation to a telephone pole, or for suspending the workstation from an aerial cable strand. The strand mounting system is fully adjustable to provide for optimal location of the workstation when minimal slack fiber is available, such as in a taut-sheath cable access scenario.

In the aerial environment, the safety straps may be secured to the cable strand to provide security and aid with workstation position adjustment. The safety straps are also used to secure the workstation to the pole, and may be used to raise or lower the workstation.

Features

- Provides direct to pole mounting as well as direct adjustable attachment to aerial strand
- Mounting post provided for attachment to bucket and ladder mounting accessories (utilizing any popular copper splicer-head mounting rigs)
- Tripod mount allows for placement in tight FTTH splicing applications
- Includes cable tie locations to secure cables during splicing
- Optimized to simplify taut sheath splicing applications
- Cleaver mount securely captures cleaver and allows operator to rotate it in and out of the workspace as needed
- Matte finish minimizes glare

Ordering Information

DESCRIPTION	PART NUMBER
ASW-02 Splicing Workstation (Full kit with aerial mounting system) Use for FSM-17S, FSM-50S, FSM-17R and FSM-50R splicers. Includes aerial mounting system to provide strand and pole mounting capability, a post for attachment to bucket or ladder mount accessories, a receptacle for tripod mounting, and safety straps.	S010532
ASW-02 Splicing Workstation (Without aerial mounting system) Use for FSM-17S, FSM-50S, FSM-17R and FSM-50R splicers. Includes a post for attach-ment to bucket or ladder mount accessories, a receptacle for tripod mounting, and safety straps.	S013620
Mounting Adapter Kit for FSM-40S Splicers Consists of modified bottom plate with tripod mount, four spacer washers, four screws and a taller Cleaver Mounting Swing-Arm to compensate for the greater height of the FSM-40S splicer.	S011754

Portable Tripod Workstation

Portable Tripod Workstation Kit (splicer & cleaver not included)

Cleaver mount assembly swings into and out of the work space
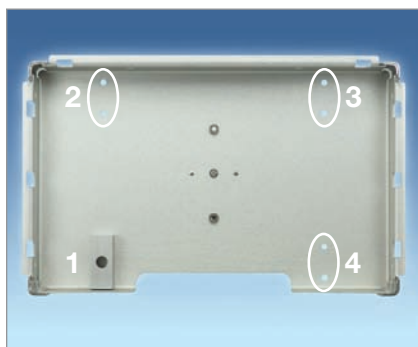
Portable Work Tray showing the four mounting positions of the cleaver mount assembly (delivered as shown)

As splicing requirements have migrated from aerial to ground level locations, a sturdy splicing workstation with the ability to adjust for uneven ground surfaces has been missing from the splicing marketplace. That problem is solved with AFL's Portable Tripod Workstation – the critical missing link in splicing productivity.

The Portable Tripod Workstation offers both a sturdy work tray to support the splicer, cleaver and accessories, and a tripod to support the work tray. The two can be purchased together as a kit or separately for those users who prefer to use their own tripod or mounting mechanism.

The work tray incorporates a unique cleaver mounting system that offers flexibility and convenience for the user. The cleaver mounting arm pivots into and out of the work space, as needed, and securely captures the CT-30, CT-20 and CT-04 style cleavers. The base of the cleaver mounting assembly can be moved to any one of four positions on the tray to accommodate user preferences.

The tripod is solidly constructed but lightweight, weighing less than six pounds, and collapses to a length of only twenty-five inches. The telescoping legs offer flexible height adjustments from thirteen inches to sixty-one inches and the leg angle can be increased for unusual surfaces.

Features

- Sturdy work tray supports the splicer, cleaver and accessories
- Tripod supports a load capacity of up to eleven pounds
- Independent telescoping tripod legs support uneven work surfaces
- Leveraged handles securely lock work tray into position
- Cleaver mount assembly swings cleaver into and out of the work space
- Optional cleaver mounting positions accommodate user preferences
- Compatible with all FSM-17, FSM-18, FSM-50 and FSM-60 model splicers

Ordering Information

DESCRIPTION	PART NUMBER
Portable Tripod Workstation Kit – Includes: Tripod with pan head and quick release platform (make and model of tripod may change without notice), portable work tray with cleaver mount assembly and canvas carrying case	S014773
Portable Work Tray – Includes: Portable work tray with cleaver mount assembly and canvas carrying case	S014753
Tripod – Includes: Tripod with pan head and quick release platform (make and model of tripod may change without notice)	S014751

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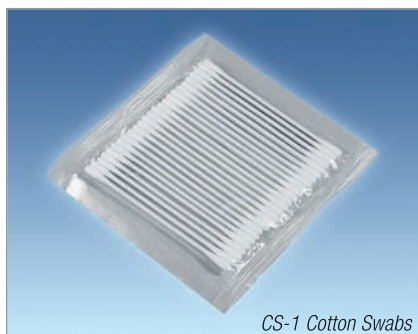
Splicer V-Groove Cleaning Kit

Today's splicing equipment is fast, efficient, and requires minimal maintenance due to advances in splicing technology. However, contamination in the v-groove of the splicer is still a primary source of trouble for the splicing technician. This is especially problematic when splicing with a fixed v-groove fusion splicer. Environmental contamination, such as dust, dirt, and fiber coating debris, as well as, the silica deposits generated during the fusion process eventually find their way to the surface of the v-groove. This contamination will offset the fibers and degrade performance. To help control this problem, a disciplined cleaning regimen and specific tooling is required to ensure the splice is right the first time.

To solve cleaning needs, AFL Telecommunications offers the Splicer V-Groove Cleaning Kit. This product integrates eight components into an affordable and effective inspection and cleaning solution for any fusion splicer. Small and lightweight, it fits easily into the Fujikura splicer transit case or it can be carried separately in its own carrying case.

Kit Includes

- Scrubber Brush with stiff tapered nylon bristles
- Sweeper Brush with soft nylon bristles
- Eye Loupe with 3X to 12X magnification
- LED Pen Light with momentary or constant on switching
- Cleaning Fluid that is nonflammable and environmentally safe
- Lint-free Cotton Swabs
- Instruction Sheet with illustrations
- Canvas Carrying Case

Refill Kit Includes

To replenish the consumables within the kit, AFL provides a refill kit that includes the following components:

- One can of FPF1 Cleaning Fluid
- One Scrubber Brush
- One Sweeper Brush
- Ten packs CS-1 Cotton Swabs (250 swabs)

Splicer V-Groove Cleaning Refill Kit

CS-1 Cotton Swabs

Ordering Information

PART NO.	DESCRIPTION
S014397	Splicer V-Groove Cleaning Kit
S014416	Splicer V-Groove Cleaning Refill Kit
S003719	CS-1 Cotton Swabs (pack of 25 swabs)

M700 Series OTDRs

The Noyes M700 from AFL Telecommunications is a compact, full-featured OTDR with an integrated Visual Fault Locator (VFL), an Optical Power Meter (OPM) capable of displaying up to three wavelengths simultaneously, and a large transflective touch screen display suitable for both indoor and outdoor operation. The M700 is offered in four models: 1310/1550 nm single-mode OTDR, 1310/1550/1625 nm single-mode OTDR, 850/1300/1310/1550 nm QUAD OTDR, and 850/1300/1310/1550nm Long Range QUAD OTDR.

The M700 OTDR supports Full Auto, Expert (manual), and Real-Time test modes, precision event analysis, dual-wavelength testing, rich file naming, and an intuitive job setup functionality. In addition to OTDR event analysis, pass/fail acceptance values can be set to alert the test operator of failing or marginal events. Using one of the Least Squares Approximation (LSA) loss methods, events may be added or deleted manually.

Thousands of OTDR and OPM test results can be stored internally or on the supplied USB drive, and are transferable via a USB cable or drive to a computer for viewing, printing and analyzing with supplied Windows® compatible software. Saved OPM loss values for a cable in one or two directions can be displayed in a table on the M700 for evaluation and comparison.

NOYES
Test & Inspection

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Features

- Integrated OPM and VFL (650 nm)
- Full Auto, Expert, and Real-Time OTDR test modes
- Pass/Fail Event and Link Thresholds settings
- 6.5-inch transflective (indoor/outdoor) touch screen display
- Tool-free, switchable test port adapters
- Rechargeable Li-Ion battery (> 8 hours) or AC power
- USB host and function ports
- Bellcore (GR-196) .SOR file format
- Internal (1000s test results) and USB storage
- Windows® compatible software

Applications

- Tier 1 and 2 testing of premise networks
- Metro, FTTx, and Service Provider networks testing
- Interoffice networks
- Loss or power measurement storage
- Fault location with integrated VFL
- Splice verification
- Network documentation including Pass/Fail event analysis

M700 Series OTDRs

Specifications (All specifications valid at 25°C unless otherwise specified)

OTDR	SINGLE-MODE OTDR		LONG RANGE QUAD OTDR		QUAD OTDR	
	DUAL-WAVE	TRIPLE-WAVE	MULTIMODE	SINGLE-MODE	MULTIMODE	SINGLE-MODE
Emitter Type	Laser					
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03					
Center Wavelengths	1310/1550 nm	1310/1550/1625 nm	850/1300 nm	1310/1550 nm	850/1300 nm	1310/1550 nm
Wavelength Tolerance	± 25/25 nm	± 25/25/10 nm	± 25/25 nm	± 25/25 nm	± 20/30 nm	± 20/30 nm
Dynamic Range (SNR = 1)	40/38 dB	40/38/38 dB	24/24 dB [1]	39/37 dB	22 dB [1]	26 dB
Event Dead Zone	0.8 m [2]	0.8 m [2]	0.9 m [2]	0.9 m [2]	1.5 m [4]	1.5 m [4]
Attenuation Dead Zone	4.5 m [3]	4.5 m [3]	4.5 m [3]	4.5 m [3]	9 m [5]	9 m [5]
Pulse Widths	5, 10, 30, 100, 300 ns; 1, 3, 10, 20 µs		5,10, 30, 100, 300 ns; 1µs	5,10, 30, 100, 300 ns; 1, 3, 10, 20 µs	10, 30, 100, 300 ns; 1 µs	10, 30, 100, 300 ns; 1, 3, 10 µs
Range Settings	250 m to 256 km		250 m to 64 km	250 m to 256 km	250 m to 64 km	250 m to 208 km
Sampling Points	Max. 64,000 points		Max. 64,000 points		Max. 16,000 points	
Minimum Data Point Spacing	0.125 m		0.125 m		0.25 m	
Group Index of Refraction (GIR)	1.4000 to 1.6000		1.4000 to 1.6000		1.4000 to 1.6000	
Distance Uncertainty (m) [6]	± (1 + 0.0005% x distance + data point spacing)				± (1 + 0.005% x distance + data point spacing)	
Linearity [7]	± 0.05 dB/dB		± 0.05 dB/dB		± 0.05 dB/dB	
Trace File Format	SR-4731 (GR-196-CORE Appendix A & B and SR-4731)					
Trace File Storage Media	Internal flash memory					
	USB flash drive (2 USB host ports)					
	Downloadable from OTDR directly to PC					
Trace File Storage Capacity	Internal 1000 fibers					
Data Transfer to PC	USB					
OTDR Modes	Full Auto, Real Time, Expert					
Tool Free Adapters	SC/ST/FC/LC					

1 62.5µm fiber.
2 Typical distance between the two points 1.5 dB down each side of an event with reflection < -45 dB for SM and <-40 dB (unsaturated) for MM using a 5 ns pulse width.
3 Typical distance from event location to point where trace is within 0.5 dB of backscatter caused by an event with reflection < -45 dB for SM and <-40 dB (unsaturated) for MM using a 5 ns pulse width.
4 Typical distance between the two points 1.5 dB down each side of an event with reflection < -45 dB for SM and <-40 dB (unsaturated) for MM using a 10 ns pulse width.
5 Typical distance from event location to point where trace is within 0.5 dB of backscatter caused by an event with reflection < -45 dB for SM and <-40 dB (unsaturated) for MM using a 10 ns pulse width.
6 Does not include GIR uncertainty.
7 Typical.

NOYES
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M700 Series OTDRs

Specifications (All specifications valid at 25°C unless otherwise specified)

POWER METER	SINGLE-MODE OTDR		LONG RANGE QUAD OTDR		QUAD OTDR	
	DUAL-WAVE	TRIPLE-WAVE	MULTIMODE	SINGLE-MODE	MULTIMODE	SINGLE-MODE
Calibrated Wavelengths	850, 980, 1300, 1310, 1490, 1550, 1625 nm (displays up to 3 simultaneously)		850, 980, 1300, 1310, 1490, 1550, 1625 nm (displays up to 3 simultaneously)		850, 980, 1300, 1310, 1490, 1550, 1625 nm (displays up to 3 simultaneously)	
Detector Type	Filtered InGaAs detector		InGaAs 2mm		InGaAs 2mm	
Measurement Range (dBm)	+26 to -50 dBm		+6 to -70 dBm		+6 to -70 dBm	
Accuracy [1]	±0.25		±0.25		±0.25	
Measurement Units	dB, dBm, mW		dB, dBm, mW		dB, dBm, mW	
Wavelength ID [2]	Yes		Yes		Yes	
Set Reference	Yes		Yes		Yes	
Data Storage	Yes		Yes		Yes	
Tone Detection	270 Hz, 330 Hz, 1 kHz, 2 kHz		270 Hz, 330 Hz, 1 kHz, 2 kHz		270 Hz, 330 Hz, 1 kHz, 2 kHz	

1 Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.
2 Automatic wavelength identification and switching when used with Noyes Wave ID Series Light Sources.

VISUAL FAULT LOCATOR	SINGLE-MODE OTDR	LONG RANGE QUAD OTDR	QUAD OTDR
Emitter Type	Laser		
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03		
Wavelength	650 nm		
Output Power (nominal)	0.8 mW		

GENERAL	SINGLE-MODE OTDR		LONG RANGE QUAD OTDR		QUAD OTDR	
Display	16.51 cm (6.5 in), color, transflective (indoor/outdoor) touch screen display					
Anti-Reflective (AR) Coating	Yes	Yes	Yes	Yes	—	—
Size	190.5 x 269.2 x 69.8 mm (7.5 x 10.6 x 2.75 in)					
Weight	2.36 kg (5.22 lb)					
Operating Temperature	-10 to +50°C, 0 to 90% RH (non-condensing)					
Storage Temperature	-20 to +60°C, 0 to 90% RH (non-condensing)					
Power	Rechargeable Li-Ion or AC power adapter					
Battery Life [1]	> 8 hours continuous OTDR testing					
Recharge Time [2]	4 hours					

1 Typical, depending on display brightness.
2 Typical, from fully discharged to fully charged state, unit may be operating.
   External battery charger available.

NOYES
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M700 Series OTDRs

Ordering Information

Each M700 model includes the M700 OTDR, USB Flash drive, PC software for OTDR trace analysis and OPM loss reporting, AC adapter, switchable test ports adapters, and cleaning accessories in a soft carry case (see table below).

OTDR	CARRY CASE	CLEANING PRODUCTS	OTDR PORT ADAPTERS	OPM PORT ADAPTERS	VFI PORT ADAPTERS
M700-20, M700-21	Soft case	One-Click Cleaner SC/ST/FC, 2.5mm	SC, FC, LC	SC, 2.5mm, 1.25mm	2.5mm 1.25mm
M700-24, M700-25	Soft case	One-Click Cleaner SC/ST/FC, 2.5mm	SC, ST, LC	SC, 2.5mm, 1.25mm	2.5mm 1.25mm

Model Configurator

When placing an order, select options as follows: Optical Configuration (NN), OTDR port ferrule (F), and Language (LL).

Example: M700 — 25U — 01 The model number M700 — 25U — 01 indicates M700 QUAD with UPC OTDR port ferrule and English language option.

M700 — **NN** **F** — **LL**

Optical Configuration (NN)
20 = 1310/1550 nm SM
21 = 1310/1550/1625 nm SM
24 = QUAD LR (long range):
850/1300 nm MM and 1310/1550 nm SM
25 = QUAD: 850/1300 nm MM and 1310/1550 nm SM

Language (LL)
All (LL) options support English language
01 = English
08 = Chinese (Simplified/Traditional)

OTDR port ferrule (F)
A = APC
U = UPC
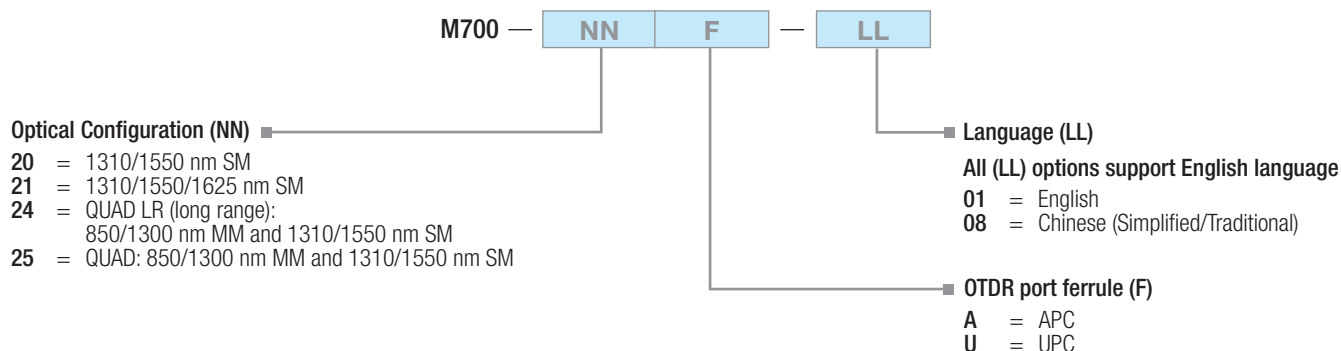
Specify power cord type (country) when ordering an M700 OTDR. One power cord is included with each AC adapter at no charge.
Additional power cords may be purchased separately.

MODEL	COUNTRY	DESCRIPTION
6000-00-0001MR	USA	3-conductor, IEC320, 115V, Type K
6000-00-0012MR	Euro	3-conductor, IEC320, 250V, Type B
6000-00-0015MR	UK	3-conductor, IEC320, 250V, Type D
6000-00-0016MR	Australia, China	3-conductor, IEC320, 250V, Type C
6000-00-0017MR	Denmark	3-conductor, IEC320, 250V, Type E
6000-00-0018MR	Japan	2-conductor, IEC320, 125V, Type M
6000-00-0019MR	Swiss	3-conductor, IEC320, 250V, Type L
6000-00-0020MR	Italy	3-conductor, IEC320, 250V, Type I
6000-00-0021MR	Israel	3-conductor, IEC320, 250V, Type H
6000-00-0022MR	India	3-conductor, IEC320, 250V, Type G

NOYES
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M700 Series OTDRs Accessories

Ordering Information (continued)

Custom kits may be created by ordering the M700 OTDR model with H1 carry case option along with separately ordered accessories from the OTDR Accessories table and/or Cleaning Accessories table.

OTDR Accessories

MODEL	DESCRIPTION
M700-H1	Hard case with One-Click Cleaner SC/ST/FC (2.5mm), One-Click Cleaner LC/MU (1.25mm), and Cletop-SB white tape
FR1-M5-150-x1-x2	Fiber ring, standard, one fiber, 50/125μm, multimode, 150 m (492 ft)
FR1-L5-150-x1-x2	Fiber ring, standard, one fiber, Laser Optimized, 50μm multimode, 150 m (492 ft)
FR1-M6-150-x1-x2	Fiber ring, standard, one fiber, 62.5/125μm multimode,150 m (492 ft)
FR1-SM-150-y1-y2	Fiber ring, standard, one fiber, single-mode, 150 m (492 ft)
FR1-SM-500-y1-y2	Fiber ring, standard, one fiber, single-mode, 500 m (1640 ft)
FR1-SM-1000-y1-y2	Fiber ring, standard, one fiber, single-mode, 1000 m (3280 ft)
OLS2-Dual	OLS2-Dual laser light source with Wave ID, 1310/1550 nm
OLS4	OLS4 integrated LED and laser light source with Wave ID, 850/1300/1310/1550 nm
OFS 300-200C	Optical microscope, 200X magnification

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.

Cleaning Accessories

MODEL	DESCRIPTION	INCLUDES
8500-20-0900	Wet cleaning kit for SC/FC/ST/LC connectors	Cletop-SB, connector cleaning tips for 2.5mm ferrule in adapters or sockets (SC, FC, ST in adapters), connector cleaning tips for 1.25mm ferrule in adapters or sockets (LC, MU in adapters), optical quality cleaning fluid for fiber connector end faces
8500-20-0901	Dry cleaning kit	Cletop-SB, ACT-01 2.5mm adapter cleaning tips
8500-20-0902MZ	Fiber cleaning refill kit	FiberWipes™, Fiber Prep cleaning fluid
8500-05-0001MZ	One-Click Cleaner SC/ST/FC, 2.5mm	Qty = 1 cleaner
8500-05-0002MZ	One-Click Cleaner LC/MU, 1.25mm	Qty = 1 cleaner
8500-10-0016MZ	Cletop-SB with white tape	Qty = 1 cleaner
8500-10-0017MZ	Replacement tape for Cletop (white)	Qty = 1 reel

Preconfigured Accessories Kit M700 - H9

The M700 - H9 is a preconfigured accessories kit (M700 OTDR is not included) for QUAD OTDR models M700-24 and M700-25.

CASE MODEL	CARRY CASE AND ACCESSORIES	FIBER RINGS [1] & TEST CORDS [2]	CLEANING PRODUCTS	ADAPTERS	
				OLS	OFS
M700 - H9	Hard cases, OLS4, OFS300-200C	SC/ST	One-Click Cleaner SC/ST/FC (2.5mm), Cletop-SB white tape	SC	2.5mm

1   (2) each - 150m (62.5μm, 50μm, SM)
2   (2) each - 2m (62.5μm, 50μm, SM)

NOYES
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M200 Handheld OTDR

The Noyes M200 from AFL Telecommunications offers unmatched OTDR capabilities in a handheld package weighing less than 1 kg (2 lb). Multimode, Single-mode, and 'Quad' wavelength models are offered. With short dead zone and intermediate range specifications, the M200 is ideal for Tier 2 testing of premises (building and campus) networks or certification and troubleshooting of FTTX PON networks. And its bright, transflective display makes it suitable for both indoor and outdoor operation.

The M200 is based on a new hardware/software platform that supports automatic and manual setup, precision event analysis, dual-wavelength testing, rich file naming and folder setup, 6-hour battery life, internal and removable media data storage, and USB connectivity. Test ports are equipped with tool-free adapters, which can be changed in seconds. A custom-designed polycarbonate case and shock-absorbing boot make it our most rugged OTDR ever.

Results are saved as industry standard .SOR files, which can be viewed, printed, and analyzed on a PC using free-ware available to you and your customers (go to www.afltele. com to download). Unit firmware, user settings, and test results are saved in non-volatile memory. Thus the M200 may be stored with battery removed for an extended period of time and still be up and running in seconds when needed.

New Feature

USB Host Port offers a new convenient way to transfer data from the M200 to a PC. By using a standard USB Flash Drive to transfer traces, the user no longer needs a USB Cable, ActiveSync or a Compact Flash reader. Using the Tools in the M200 File Manager, one or more folders or files can be copied to a USB Flash Drive for transfer to a PC. Thousands of files will fit on a 64 MB or larger USB Flash Drive.

Features

- Handheld, 0.9 kg (2 lb)
- 22 dB (MM), 26 dB (SM) dynamic range
- Integrated VFL (650 nm)
- Tool-free, switchable adapters
- Transflective (indoor/outdoor) touch-screen display
- USB Host and Function Ports

Applications

- Tier 2 testing of premises networks
- FTTX PON certification and troubleshooting
- Fast fault location
- Splice verification
- Network documentation

Ordering Information

MODEL	DESCRIPTION	TEST PORT ADAPTERS
M200-00-0900PR	850/1300nm multimode and 1310/1550nm single-mode OTDR	(1) ST, (2) SC, and (1) FC *
M200-11-0900PR	1310/1550nm single-mode OTDR	SC and FC *
M200-12-0900PR	850/1300nm multimode OTDR	ST and SC *

* LC test port adapters are available (order separately).

NOTES:

1. All models include a rugged, soft-sided carry case with shoulder strap, 110/220 VAC power adapter with country-specific power cord, and user guide.
2. M200 Standard OTDR supported languages: English, French, German, Italian, Portuguese and Spanish. For Chinese/Taiwanese, Japanese, or Korean models part numbers, please contact Noyes.

NOYES
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M200 OTDR with standard accessories

M200 OTDR with standard and optional accessories

M200 Handheld OTDR in a Hard Case

The Noyes M200 OTDR is also available in a tough injection molded ABS carrying case. The rugged transit case has a full length hinge, padlock loops, secure snap latches and an O-ring seal to protect the contents from dust and water. In addition to the OTDR, the custom case has room for cleaning products, launch and receive rings, documentation and more. Order the Hard Case alone or with one of the M200 configurations. Add test accessories such as fiber rings and cleaning kits to be ready to clean and test fiber optic networks.

M200 Hard Case Ordering Information

The M200 Hard Case option should be specified when ordering the M200 OTDR. For the M200 OTDR in a Hard Case ordering information, refer to the table below.

MODEL NUMBER	DESCRIPTION
1400-01-0075PZ	Hard Case for M200
M200-00-0903PR	850/1300nm multimode and 1310/1550nm single-mode M200 OTDR in Hard Case
M200-11-0904PR	1310/1550nm single-mode M200 OTDR in Hard Case
M200-12-0902PR	850/1300nm multimode M200 OTDR in Hard Case

NOTE: *Fiber rings and cleaning supplies are not included with the M200 in the Hard Case option, they must be purchased separately. To order fiber rings or cleaning supplies with your M200, refer to the 'Accessories Ordering Information' table below.*

Accessories Ordering Information

MODEL NUMBER	DESCRIPTION
FIBER RINGS	
FR1-M5-150-x1-x2	Standard, 1 fiber, 50/125 μm multimode, 150m
FR1-L5-150-x1-x2	Standard, 1 fiber, Laser Optimized, 50 μm multimode, 150m
FR1-M6-150-x1-x2	Standard, 1 fiber, 62.5/125 μm multimode, 150m
FR1-SM-150-y1-y2	Standard, 1 fiber, single-mode, 150m
CLEANING ACCESSORIES	
8500-20-0900	Wet Cleaning Kit (shown) for SC/FC/ST/LC connectors. Includes: • 8500-10-0016MZ, Cletop-SB. • CCTS-25-0900MZ, Connector Cleaning Tips for 2.5mm ferrule in adapters or sockets (SC, FC, ST in adapters). Blue (40 sticks per tube). Qty = 1 tube • CCTS-12-0900MZ, Connector Cleaning Tips for 1.25mm ferrule in adapters or sockets (LC, MU in adapters). Green (40 sticks per tube). Qty = 1 tube • FCC2-00-0900, optical quality Cleaning Fluid for fiber connector end faces.
8500-20-0901	Dry Cleaning Kit Includes: • 8500-10-0016MZ, Cletop -SB. • 8500-10-0024MZ, ACT-01 2.5mm adapter cleaning tips (Qty = 200).
8500-05-0001MZ	One-Click Cleaner SC
8500-05-0002MZ	One-Click Cleaner LC/MU

NOTE: *When ordering Fiber Rings, specify connector types (x1, x2, y1,y2)*

NOYES
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M200 Handheld OTDR

Specifications

OTDR SPECIFICATIONS	MULTIMODE	SINGLE-MODE
Emitter Type	Laser	
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1:2007-03	
Center Wavelengths	850/1300 nm	1310/1550 nm
Wavelength Tolerance	± 20/± 30 nm	± 20/± 30 nm
Dynamic Range (SNR = 1)	22 dB	26 dB
Event Dead Zone [1]	1.5 m	1.5 m
Attenuation Dead Zone [2]	9 m	9 m
Pulse Widths [3]	10, 30, 100, 300 ns, 1, 3 μs	10, 30, 100, 300 ns, 1, 3, 10 μs
Range Settings	250 m to 32 km	250 m to 208 km
Sampling Points	Up to 16,000	Up to 16,000
Min. Data Point Spacing	0.25 m	
Group Index of Refraction (GIR)	1.4000 to 1.6000	
Distance Uncertainty (m)	± (1 + 0.005% x distance + data point spacing)	
Linearity	± 0.05 dB/dB (typical)	
Trace File Format	Bellcore GR-196 Version 1.1	
Trace File Storage Medium	Internal non-volatile memory, removable Compact Flash Card (not included), and USB Flash Drive	
Trace File Storage Capacity	> 100 internal; thousands on Compact Flash or USB Flash Drive	
Trace File Transfer to PC	USB Flash Drive Type 1.1, Compact Flash or Mini USB Cable with ActiveSync	
VISUAL FAULT LOCATOR SPECIFICATIONS		
Emitter Type	Laser	
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11; IEC 825-1:1993, 60825-1:2007-03	
Wavelength	650 nm	
Output Power (nominal)	0.8 mW	
GENERAL SPECIFICATIONS		
Size (in boot)	23 x 11 x 7 cm (8.8 x 4.3 x 2.8 inches)	
Weight	0.9 kg (2 lb)	
Operating Temperature	-10 to +50 °C	
Storage Temperature	-20 to +60 °C	
Relative Humidity	0 to 95% RH (non-condensing)	
Power	Removable Li-Ion or 110/220 VAC power adapter	
Battery Life[4]	6 hours	
Recharge Time [4 & 5]	3 hours	

NOTES:

1. Typical distance between the two points 1.5 dB down each side of a reflective spike caused by a -40 dB (Multimode) or -45 dB (single-mode) event using 10 ns pulse width.

2. Typical distance from event location to point where trace is within 0.5 dB of backscatter.

3. 3 μs pulse width not available at 850 nm.

4. New battery.

5. Typical, from fully discharged to fully charged state, unit may be operating.

All specifications are subject to change.

All specifications valid at 23°C ± 2°C (73.4°F ± 3.6°F) unless otherwise specified.

NOYES
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OFL280 FlexTester
Multifunction OTDR and Loss Test Set

The Noyes OFL280 FlexTester offers an unmatched combination of fiber optic test functions, ease-of-use, portability, and value. All OFL280 FlexTester models include an integrated single-mode 1310/1550 nm OTDR with PON-optimized and standard test modes, optical power meter, 1310/1550 nm laser source, and visual fault locator.

For many users the two-wavelength OFL280-100 will provide the best balance of functionality and value. Testing at 1310 and 1550 nm is normally sufficient to certify point-to-point or FTTx PON fibers and allows the detection of macro bends. The three-wavelength OFL280-101 and OFL280-102 models add 1625 nm or 1490 nm respectively. Testing at 1625 nm allows testing of the L band. Testing at 1490 nm is required by some network operators to certify FTTx PONs. The filtered, three-wavelength OFL280-103 can certify dark fibers at 1310/1550 nm, fault-locate live FTTx fibers at 1625 nm, and measure FTTx power levels at 1490 and 1550 nm, all from a single test port.

The OFL280 FlexTester user interface provides operating modes suitable for a wide range of users and features a top-down menu structure that is both easy to learn and a pleasure to use.

OTDR test results may be saved as industry standard SOR files, which can be transferred to a PC for viewing, printing, and analysis using supplied Windows® compatible software.

Features

- Rugged, handheld and light weight
- Standard OTDR, PON OTDR, live fiber OTDR, and FTTx PON meter all from the same test port
- 0.8 m event dead zone, 3.5 m attenuation dead zone
- 34 dB dynamic range
- Fast Real Time OTDR mode
- Internal storage (>1000 OTDR traces in standard .SOR format)
- High-contrast display is clear and bright in any lighting condition, including direct sunlight
- Transfer test results to a PC via USB
- 10-hour operation, fast charge, Li-Ion battery
- Short power-on time (< 5 sec)
- Easy to use and learn

Applications

- **PON OTDR -** FTTx PON construction certification
- **Live Fiber OTDR -** FTTx service turn-up and troubleshooting
- **Full Auto OTDR -** Normal (point-to point) fiber cable construction testing and fault location
- **Expert OTDR -** Full function OTDR for experienced users
- **Real Time OTDR -** Fault location, splice verification, first connector checker
- **End Locator -** Quickly locate breaks or measure fiber length
- **Optical Power Meter -** Measure optical power or fiber loss
- **Laser Source -** Measure end-to-end loss or trace fibers using the tone feature and a Noyes OFI
- **Visual Fault Locator -** Red laser for fiber bend/break location and tracing

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OFL280 FlexTester

OFL280 Features and Applications by Model

FEATURES	OFL280 MODELS			
	-100	-101	-102	-103
Compatible with all Noyes optical power meters and laser sources (OPM/OLS), including tone and wave ID features	◆	◆	◆	◆
Compatible with Noyes optical fiber identifiers (OFI)	◆	◆	◆	◆
Integrated hi-power optical power meter	◆	◆	◆	◆
Integrated visual fault locator (red laser)	◆	◆	◆	◆
1310 nm – OTDR, PON OTDR, laser source (CW, wave ID, tone)	◆	◆	◆	◆
1550 nm – OTDR, PON OTDR, laser source (CW, wave ID, tone)	◆	◆	◆	◆
1490 nm – OTDR, PON OTDR, laser source (CW, wave ID, tone)			◆	
1625 nm – OTDR, PON OTDR		◆		◆
1625 nm – FTTx live fiber OTDR				◆
1490/1550 nm – FTTx PON Meter				◆

FIBER TESTING APPLICATIONS	OFL280 MODELS			
	-100	-101	-102	-103
Point-to-point cable construction and troubleshooting Fiber loss, splice/connection loss and reflectance, fault-location	◆	◆	◆	◆
FTTx PON construction Fiber loss, splitter loss and reflectance, splice or connection loss and reflectance, fault-location	◆	◆	◆ [1]	◆
FTTx customer fiber troubleshooting - dark fibers (hard faults) Locate cable cuts, open splices, and bad connections	◆	◆	◆	◆
FTTx customer fiber troubleshooting - live fibers (marginal faults) Locate marginal faults such as macro bends, poor splices, high-loss connections, high loss fiber sections due to water intrusion (requires live fiber OTDR)				◆
FTTx service turn-up (commissioning) At the ONT (customer) location, verify network power levels, and if needed, locate faults on the drop cable or customer fiber				◆

1. Adds ability to perform OTDR and loss tests at 1490 nm. However, testing at 1310 and 1550 nm is generally all that is needed and what is recommended to test or fault-locate FTTx PONs during construction, in other words while they are still dark.

OFL280-100, -101, and -102 models

OFL280-103 model

![NOYES Test & Inspection logo]
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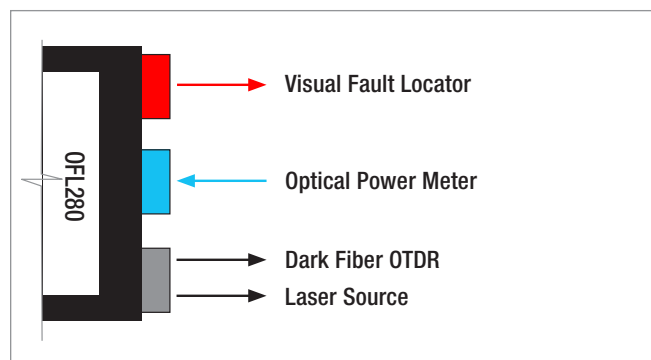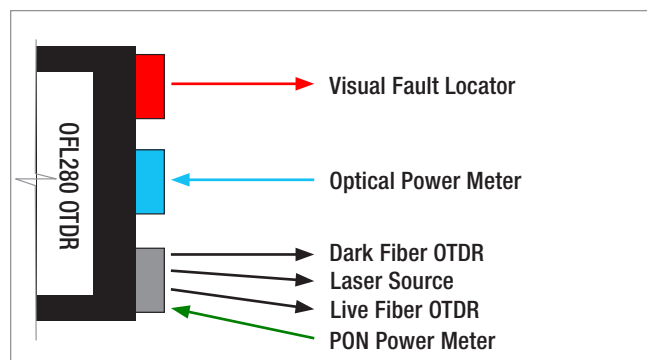
OFL280 FlexTester

Specifications (All specifications valid at 25°C unless otherwise specified)

OTDR	
Emitter Type	Laser
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Available Wavelengths	1310/1490/1550/1625 nm
Wavelength Tolerance	±20/±20/±20/±10 nm
Dynamic Range (SNR=1)	34/32/32/30 dB
Event Dead Zone [1]	0.8 m
Attenuation Dead Zone [2]	3.5 m
Pulse Widths	5, 10, 30, 100, 300 ns, 1, 3, 10 µs
Range Settings	250 m to 240 km
Data Points	Up to 30,000
Data Point Spacing	5.0 cm (range < 1.5 km), Range/30,000 (range > 1.5 km)
Group Index of Refraction (GIR)	1.4000 to 1.6000
Distance Uncertainty (m)	± (1 + 0.005% x distance + data point spacing)
Trace File Format	Bellcore GR-196 V.1.1
Trace File Storage Medium	Internal memory (>1000 traces)
Data Transfer to PC	USB cable
PON OTDR Modes	FTTx - PON Construction, FTTx - In Service
Standard OTDR Modes	Full Auto, Expert, Real Time

1. *Typical distance between the two points 1.5 dB down each side of a reflective spike caused by a -45 dB event using 5 ns pulse width.*

2. *Typical distance from the location of a -45 dB reflective event to the point where the trace falls and stays within 0.5 dB of backscatter, using a 5 ns pulse width.*

PON POWER METER FOR SINGLE-MODE ONLY	
Calibrated Wavelengths	1490, 1550 nm
Detector Type	Filtered InGaAs
Isolation	> 40 dB
Measurement Range	+23 to – 50 dBm
Accuracy [1]	± 0.5 dB
Resolution	0.01 dB
Measurement Units	dBm or watts

1. *At calibration wavelengths and power levels of approximately -5 dBm for 1550 nm and -10 dBm for 1490 nm.*

OPTICAL POWER METER	
Calibrated Wavelengths	1310, 1490, 1550, 1625, 1650 nm
Detector Type	InGaAs
Measurement Range	+23 to – 50 dBm
Tone Detect Range	+3 to -35 dBm
Wavelength ID Range	+3 to -35 dBm
Accuracy [1]	± 0.25 dB
Resolution	0.01 dB
Measurement Units	dB, dBm or Watts

1. *At calibration wavelengths and power level of approximately -10 dBm.*

LASER SOURCE	
Emitter Type	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Available Wavelengths (nm)	1310, 1490, 1550
Wavelength Tolerance	± 20 nm
Spectral Width (FWHM)	2 nm (maximum)
Internal Modulation	1 kHz, 2 kHz, CW
Wavelength ID (one, two, or three wavelengths)	Compatible with Noyes Optical Power Meters and Light Sources
Output Power Stability	0.25 dB
Output Power	0 dBm

VISUAL FAULT LOCATOR	
Emitter Type	Laser
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Wavelength	650 nm
Output Power (nominal)	0.8 mW into single-mode fiber

GENERAL	
Size (in boot)	19 x 11.2 x 4.7 cm (7.5 x 4.4 x 1.9 in)
Weight	0.8 kg (1.7 lb)
Operational Temperature	-10 to +50°C, 0 to 95% RH (non-condensing)
Storage Temperature	-20 to +60°C, 0 to 95% RH (non-condensing)
Power	Rechargeable Li-Ion or AC adapter
Battery Life	10 hours, backlight ON, continuous operation
Display	LCD, 320 x 240, 3.5 inch (89 mm), color, high-contrast transflective with backlight and AR coating

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OFL280 FlexTester

Ordering Information

MODEL	WAVELENGTHS AND ADDED FEATURES	NOTES
OFL280-100	1310, 1550 nm	Dual-wavelength OTDR/Loss test set for both point-to-point and PON applications
OFL280-101	1310, 1550, 1625 nm	Adds ability to test at 1625 nm (L band)
OFL280-102	1310, 1490, 1550 nm	Adds ability to test at 1490 nm (FTTx downstream data)
OFL280-103	1310, 1550, 1625 nm, Live Fiber filter, PON meter	Adds ability to test (dark fibers) at 1625 nm (L band), filter to test FTTx live fibers at 1625 nm, and PON meter to measure FTTx downstream power at 1490 and 1550 nm

Note: All OFL280 FlexTester models come with a carry case, (1) SC and (1) FC adapter for the OTDR/OLS port, (1) 2.5 mm universal adapter for the OPM port, (1) 2.5 mm universal adapter for the VFL port, One-Click Cleaner SC/ST/FC (2.5mm), USB cable (connects with Type A USB port on your PC), and AC power adapter with a country-specific power cord.

When placing an order, select options as follows:

Optical Configuration (NN), OTDR port ferrule type (F), and Language of the provided Quick Reference Guide (LLL)*.

Example: OFL280-102U-ENG indicates a three-wavelength (1310/1490/1550 nm) OFL280 with UPC OTDR port ferrule and Quick Reference Guide printed in English.

OFL280 — **NN** **F** — **LLL**

Optical Configuration (NN)
100 = 1310/1550 nm
101 = 1310/1550/1625 nm
102 = 1310/1490/1550 nm
103 = 1310/1550/1625 nm, Live Fiber filter, PON meter

OTDR port ferrule (F)
A = APC
U = UPC

Quick Reference Guide Language (LLL)*
ENG = English

*** All OFL280 models come preloaded with the GUI in English, Simplified Chinese, and other languages. Contact AFL/Noyes for a complete list of currently available languages (GUI and printed Quick Reference Guide).*

Available Accessories

Fiber Rings (use as launch or receive/tail fibers)

MODEL	CONFIGURATION	FIBER TYPE	FIBER LENGTH
FR1-SM-150-y1-y2	Standard, one fiber	Single-mode	150 m (492 ft)
FR1-SM-500-y1-y2	Standard, one fiber	Single-mode	500 m (1640 ft)
FR1-SM-1000-y1-y2	Standard, one fiber	Single-mode	1000 m (3280 ft)

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

Test Port Adapters

MODEL	DESCRIPTION
2900-50-0002MR	FC adapter for OTDR/OLS port
2900-50-0003MR	SC adapter for OTDR/OLS port
2900-50-0004MR	ST adapter for OTDR/OLS port
2900-50-0006MR	LC adapter for OTDR/OLS port
2900-52-0001MR	FC adapter for OPM port
2900-52-0002MR	SC adapter for OPM port
2900-52-0003MR	ST adapter for OPM port
2900-52-0004MR	LC adapter for OPM port
2900-52-0005MR	2.5mm Universal adapter for OPM port
2900-52-0006MR	1.25mm Universal adapter for OPM port
2900-53-0001MR	2.5mm Universal adapter for VFL port
2900-53-0002MR	1.25mm Universal adapter for VFL port
8800-00-0072PR	Universal flip-top dust cap for UCI outputs

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OFL 250 Handheld OTDR

The Noyes OFL 250 from AFL Telecommunications is a single-mode OTDR with an integrated Optical Power Meter (OPM), Laser Source (OLS), and Visual Fault Locator (VFL) in a handheld package weighing only 0.8 kg (1.7 lb). With short dead zone and mid-range dynamic range performance, the OFL 250 is ideal for testing optical fibers in service provider metro areas and FTTx networks.

The OFL 250 provides automatic and manual setup, precision event analysis, multiple-wavelength testing, a 12-hour battery life, internal data storage, and USB connectivity. OTDR and OPM test ports are equipped with tool-free adapters, which can be changed in seconds.

Results are saved as industry standard .SOR files, which can be transferred to a PC for viewing, printing, and analyzing with the supplied Windows® compatible software.

Features

- Handheld, 0.8 kg (1.7 lb)
- Multiple-wavelength single-mode OTDR
- 1.5 m (typ.) event dead zone
- 26 dB dynamic range
- Integrated OPM, OLS, and VFL (650 nm)
- Tool-free, switchable adapters for OTDR & OPM ports (FC, SC, ST, LC, E2000 are available)
- Bellcore (GR-196) .SOR file format
- Rechargeable (> 12 hours) Li-Ion battery or AC power
- 3.5-inch, indoor/outdoor LCD
- Windows® compatible software to view, print, and archive test record
- Mini USB Port (connect to PC with cable)

Ordering Information

MODEL NUMBER	DESCRIPTION	WAVELENGTHS
OFL2-26-0910PR	OFL 250 Single-mode OTDR	1310/1550 nm
OFL2-26-0924PR	OFL 250 Single-mode OTDR	1310/1550/1625 nm

NOTE: All OFL 250 models come with: a carry case, SC and FC adapters for the OTDR/OLS port, 2.5mm Universal adapters for the OPM and VFL ports, USB cable (connects with normal (Type A) USB port on your PC), AC power adapter, country-specific power cord, and a user guide.

NOYES
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OFL 250 Handheld OTDR

Specifications

OTDR	
Emitter Type	Laser
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Center Wavelengths	1310/1550/1625 nm
Wavelength Tolerance	± 20/± 20/± 10 nm
Dynamic Range (SNR=1)	26/26/26 dB
Event Dead Zone [1]	1.5 m
Attenuation Dead Zone @ 5ns [2]	Typ.6.0 m, max. 6.5 m
Pulse Widths	5, 10, 30, 100, 300 ns, 1, 3, 10 µs
Range Settings	250 m to 256 km
Data points	Up to 16,000
Data Point Spacing	12.5 cm (range $\leq$ 4 km), Range/16000 (range > 4 km)
Group Index of Refraction (GIR)	1.4000 to 1.6000
Distance Uncertainty (m)	± (1 + 0.005% x distance + data point spacing)
Trace File Format	Bellcore GR-196 V.1.1
Trace File Storage Medium	Internal memory (>1000 traces)
Data Transfer to PC	USB cable
OTDR Modes	Full Auto, End Locate, Expert, Live

1. *Typical distance between the two points 1.5 dB down each side of a reflective spike caused by a -45 dB event using 10 ns pulse width.*

2. *Typical distance from event location to point where trace is within 0.5 dB of backscatter.*

OPTICAL POWER METER	
Calibrated Wavelengths	1310, 1490, 1550, 1625 nm
Detector Type	InGaAs
Measurement range	+23 to - 45 dBm
Tone detect range	+3 to -35 dBm
Wavelength ID range	+3 to -35 dBm
Accuracy	± 0.25 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW, nW

OPTICAL LIGHT SOURCE	
Emitter Type	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Center Wavelengths	1310 / 1550 / 1625 nm
Wavelength Tolerance	± 20 / ± 20 / ± 10 nm
Spectral Width (FWHM)	5 nm (max)
Internal Modulation	1 kHz, 2 kHz
Wavelength ID	Compatible with Noyes Optical Power Meters & Light Sources
Output Power Stability	< ± 0.25 dB after 15 min
Output Power	– 3 dBm

VISUAL FAULT LOCATOR	
Emitter type	Laser
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Wavelength	650 nm
Output Power (nominal)	0.8 mW into SMF-28

GENERAL	
Size (in boot)	19 x 11.2 x 4.7 cm (7.5 x 4.4 x 1.9 in)
Weight	0.8 kg (1.7 lb)
Operational Temperature	-10 to +50°C, 0 to 95% RH (non-condensing)
Storage Temperature	-20 to +60°C, 0 to 95% RH (non-condensing)
Power	Rechargeable LiIon or AC adapter
Battery life (backlight ON in OTDR mode)	> 12 hours
Display	LCD, 320 x 240, 3.5 inch (89 mm) , color, transflective
OTDR and OPM ports	Switchable. See website or contact AFL for available adapter types.

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Fiber Ring, MM - 150 m

Fiber Ring, SM - 1000 m

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, Noyes 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.

Fiber Ring Models

MODEL	CONFIGURATION	FIBER TYPE	FIBER LENGTH
FR1-M5-150- x1- x2	Standard, one fiber	Multimode, 50 μm	150 m (492 ft)
FR1-L5-150-x1-x2	Standard, one fiber, Laser Optimized	Multimode, 50 μm	150m (492 ft)
FR1-M6-150- x1- x2	Standard, one fiber	Multimode, 62.5 μm	150 m (492 ft)
FR1-SM-150- y1- y2	Standard, one fiber	Single-mode	150 m (492 ft)
FR1-SM-500- y1- y2	Standard, one fiber	Single-mode	500m (1640 ft)
FR1-SM-1000- y1- y2	Standard, one fiber	Single-mode	1000m (3280 ft)
FR3-M5-x1-MTRJ	MT-RJ near-end, A and B fibers	Multimode, 50 μm	150 m (492 ft)
FR3-M6-x1-MTRJ	MT-RJ near-end, A and B fibers	Multimode, 62.5 μm	150 m (492 ft)
FR3-SM-x1-MTRJ	MT-RJ near-end, A and B fibers	Single-mode	150 m (492 ft)
FR1-M5-x1-E2000	E2000 to ST, SC, FC, etc., one fiber	Multimode, 50 μm	150 m (492 ft)
FR1-M6-x1-E2000	E2000 to ST, SC, FC, etc., one fiber	Multimode, 62.5 μm	150 m (492 ft)
FR1-SM-y1-E2000	E2000 to ST, SC, FC, etc., one fiber	Single-mode	150 m (492 ft)
FR1-M5-E2000-E2000	E2000 to E2000, one fiber	Multimode, 50 μm	150 m (492 ft)
FR1-M6-E2000-E2000	E2000 to E2000, one fiber	Multimode, 62.5 μm	150 m (492 ft)
FR1-SM-E2000-E2000	E2000 to E2000, one fiber	Single-mode	150 m (492 ft)

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.

Fiber Ring, Laser Optimized

![NOYES logo] **NOYES**
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www.AFLtele.com or 1.800.321.5298 / 1.603.528.7780

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OTDR Fiber Rings

How to Generate a Baseline Trace Using Fiber Rings

- Use the Fiber Ring as a launch cable.
  Connect the Fiber Ring between your OTDR and the fiber link under test. This will allow you to measure the loss of the near-end connection.
- Use the Fiber Ring as a receive cable.
  Cconnect the Fiber Ring to the far-end connector of your fiber link under test. This will allow you measure the loss of the far-end connection.
- By using Fiber Rings as both launch and receive cables, as shown in the diagram below, you can measure total insertion loss of the fiber link under test.

fiber ring - launch cable **2** **6** fiber link under test **7** fiber ring - receive cable

fiber ring connector

1

OTDR port

OTDR

4

fusion splice

3 **5** **8**

near-end connection   far-end connection   end of receive cable
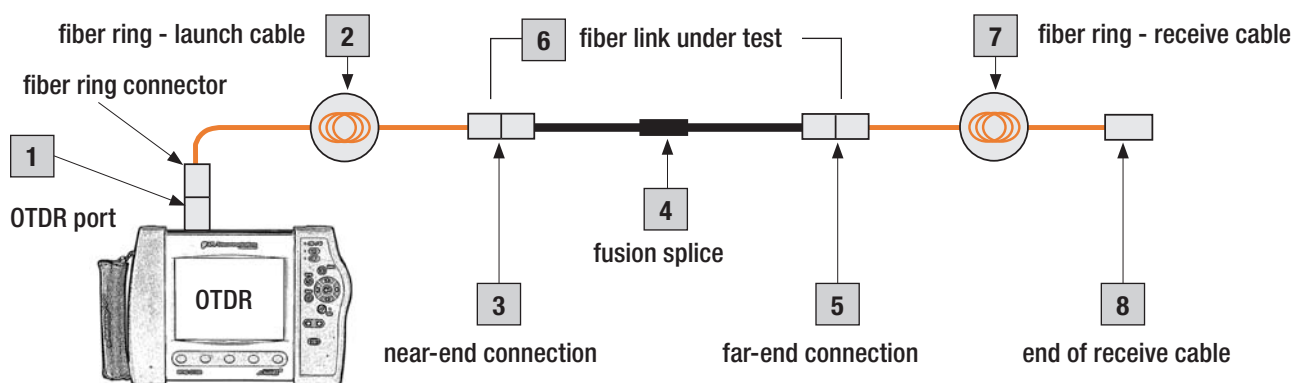
Example OTDR Test Configuration With Launch And Receive Cables.

OTDR port **1** **8** end of receive cable

near-end connection **3** **6** fiber link under test

fiber ring - launch cable **2** **5** far-end connection

fusion splice **4** **7** fiber ring - receive cable
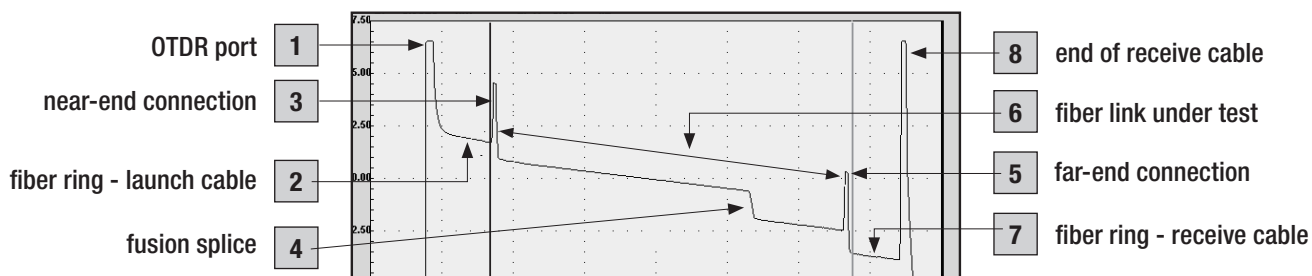
OTDR Trace Made Using Launch And Receive Cables.

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OPM5 Optical Power Meter
With Innovative File Management System

The new Noyes OPM5 is a full-featured, handheld optical power meter designed for measuring optical power in premise, Telco, or broadband networks and for performing insertion loss measurements on multimode or single-mode fiber optic links. The standard Wave ID feature (when used with Noyes OLS series light sources) automatically detects and sets the wavelength(s), preventing setup and measurement errors. It significantly increases efficiency and reduces technician errors—and saves testing time—by eliminating the need to test each wavelength individually. The OPM5 stores optical references for each calibrated wavelength and offers multiple test tone detection for fiber identification. The OPM5 is fully N.I.S.T. traceable.

New Feature

The new File Management system allows technicians to organize test results into multiple files and transfer stored results via USB to a PC for analyzing, generating reports, and printing. The supplied powerful PC Analysis & Reporting Tool (TRM - Test Results Management software) allows users to apply industry standards based rules to test results and create comprehensive certification reports. Users can generate network Pass/Fail results demonstrating compliance to industry standards and illustrate headroom. TRM is a Windows® compatible software.

Features

- Multimode or single-mode applications
- Wave ID (auto identification/switching)
- Multiple-wavelength testing
- 270Hz, 330Hz, 1kHz, 2kHz tone detection
- Large LCD with backlight
- Power measurements in dBm or μW; insertion loss in dB
- Reference power level storage
- File management system
- Up to 675 fibers storage capability
- USB port and Windows® compatible software for download of stored data
- Automatic power-off function
- Battery gauge

Long battery life with 2 x AA alkaline, optional AC adapter

- Handheld, rugged, lightweight

Applications

- Premises (Ge), Telco (InGaAs), and Broadband (+26 dBm) models
- Passive Optical Networks (PON) testing

Specifications

OPTICAL	OPM5-2D	OPM5-3D	OPM5-4D
Calibrated Wavelengths	850, 1300, 1310, 1490, 1550 nm	850, 1300, 1310, 1550, 1490, 1625 nm	850, 980, 1310, 1490, 1550, 1625 nm
Detector Type	Germanium (Ge)	InGaAs	Filtered InGaAs
Measurement Range	+6 to -60 dBm	+10 to -75 dBm	+26 to -50 dBm
Tone Detect Range	+6 to -50 dBm +6 to -45 dBm for 850 nm	+10 to -50 dBm +10 to -45 dBm for 850 nm	+6 to -30 dBm +6 to -25 dBm for 850 nm
Wavelength ID Range	+6 to -50 dBm +6 to -45 dBm for 850 nm	+10 to -50 dBm +10 to -45 dBm for 850 nm	+6 to -30 dBm +6 to -25 dBm for 850 nm
Accuracy*	± 0.25 dB		
Resolution	0.01 dB		
Measurement Units	dB, dBm, μW		
GENERAL			
Power	2 x AA batteries, optional AC adapter		
Battery Life	300 hours		
Operating Temperature	-10 to 50°C, 90% RH (non-condensing)		
Storage Temperature	-30 to 60°C, 90% RH (non-condensing)		
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)		
Weight	0.26 kg (0.58 lb)		

* *Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.*
All specifications at 25°C

Ordering Information

MODEL	INCLUDES
All OPM5 models	OPM5 optical power meter, 2 x AA batteries, protective rubber boot, USB cable, Windows® compatible software, and carry case.

NOYES
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OPM4 Optical Power Meter

The Noyes OPM4 from AFL is a handheld optical power meter designed for measuring optical power in Premises, Telco, or Broadband networks and for performing insertion loss measurements on multimode or single-mode fiber optic links.

The OPM4 features automatic wavelength identification and switching (Wave ID) when used with Noyes OLS series light sources, multiple test Tone detection for fiber identification, and stores optical references for each calibrated wavelength. A large dual-wavelength LCD display with backlight shows measured power [dBm or µW] or insertion loss [dB], calibrated wavelengths [nm], tone signal [Hz], wavelength ID, and estimated remaining battery life.

The OPM4 optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements. The OPM4 offers a five-minute auto-off feature and long battery life from common AA alkaline batteries.

The OPM4 is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Multimode or single-mode applications
- Wave ID (auto identification & switching)
- Multiple-wavelength testing
- 270Hz, 330Hz, 1kHz, 2kHz Tone detection
- Large LCD with backlight
- Power measurements in dBm or µW; insertion loss in dB
- Reference power level storage
- Automatic power-off function
- Battery gauge
- Long battery life with 2 x AA alkaline
- N.I.S.T traceable

Applications

- Premises (Ge), Telco (InGaAs), and Broadband (+26 dBm) models
- Passive Optical Networks (PON) testing

Specifications

OPTICAL	OPM4-1D	OPM4-2D	OPM4-3D	OPM4-4D
Calibrated wavelengths	660, 780, 850 nm	850, 1300, 1310, 1490, 1550 nm	850, 1300, 1310, 1490, 1550, 1625 nm	850, 980, 1310, 1490, 1550, 1625 nm
Detector type	Silicon (Si)	Germanium (Ge)	InGaAs	Filtered InGaAs
Measurement range	+6 to -70 dBm	+6 to -60 dBm	+10 to -75 dBm	+26 to -50 dBm
Tone detect range	+6 to -45 dBm	+6 to -50 dBm +6 to -45 for 850 nm	+10 to -50 dBm +10 to -45 for 850 nm	+6 to -30 dBm +6 to -25 for 850 nm
Wavelength ID range	—	+6 to -50 dBm +6 to -45 dBm for 850 nm		+6 to -30 dBm +6 to -25 dBm for 850 nm
Accuracy*	± 0.25 dB			
Resolution	0.01 dB			
Measurement units	dB, dBm, µW			
GENERAL				
Power	2 x AA batteries			
Battery life	300 hours			
Operating temperature	-10 to 50°C, 90% RH (non-condensing)			
Storage temperature	-30 to 60°C, 90% RH (non-condensing)			
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)			
Weight	0.26 kg (0.58 lb)			

* *Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.*
All specifications at 25°C

Ordering Information

MODEL	INCLUDES
All OPM4 models	OPM4 optical power meter, 2 x AA batteries, protective rubber boot, user's guide, and carry case.

NOYES
Test & Inspection

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OPM4-FTTx PON Power Meter

The Noyes OPM4-FTTx from AFL Telecommunications is designed to measure optical power in FTTH and other passive optical networks (PONs) that use 1490 nm for downstream data and 1550 nm for downstream video traffic. In addition, the OPM4-FTTx provides an integrated Visual Fault Locator (VFL) - 650 nm (red) laser for short-range fault location and connectivity testing.

Equipped with wavelength filters and a dual photo detector, the OPM4-FTTx can separately and simultaneously measure 1490 and 1550 nm power at the ONT or other points in an FTTx PON. A large, dual-wavelength LCD display with backlight shows power at both wavelengths in units of dBm or µW. The "set reference" feature may be used to measure the difference between two power (dBm) levels, in units of dB measured at different parts of the network.

The power meter and VFL ports accept Noyes thread-on style adapter caps and are compatible with angled or non-angled connectors. The OPM4-FTTx offers an automatic power shut-off feature, long battery life from standard AA alkaline batteries, and is fully N.I.S.T. traceable.

Features

- BPON, GPON, and EPON compatible
- Simultaneous power measurement at 1490 and 1550 nm
- Power shown in units of dBm or µW
- Comparison of power levels in dB
- Integrated VFL
- Auto power shut-off feature
- Dual-wavelength, sunlight readable LCD display
- Compatible with APC or UPC connectors
- Standard alkaline AA batteries
- Handheld, rugged, lightweight
- N.I.S.T traceable

Applications

- ONT splitter installation testing
- Fault-locating drop cables and F2 fibers from FDH to ONT

Specifications

POWER METER	
Calibrated wavelengths	1490 nm, 1550 nm
Signal format	CW or downstream BPON, GPON, or EPON
Detector type	Filtered InGaAs
Measurement range	+10 to -50 dBm @ 1490 nm; +20 to -50 dBm @ 1550 nm
Accuracy *	± 0.5 dB (± 0.35 dB typical)
Resolution	0.01 dB
Measurement units	dB, dBm, µW
VFL LASER	
Output power (typical)	0.8 mW
Wavelength (nominal)	650 nm
Safety	Class II, FDA 21 CFR 1040.10 & 1040.11, IEC 60825-1:2007
GENERAL	
Power	2 x AA batteries
Battery life (typical)	Power meter: 100 hours Power meter (backlight on): 16 hours Power meter + VFL: 16 hours Power meter (backlight on) + VFL: 5 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)
Weight	0.26 kg (0.58 lb)

* At calibration power levels of approximately -5 dBm for 1550 nm and -10 dBm for 1490 nm.
   All specifications at 25°C

Ordering Information

MODEL	INCLUDES
OPM4-FTTx	OPM4-FTTx PON power meter, 2 x AA batteries, protective rubber boot, SC adapter for power meter port, 2.5 mm universal adapter for VFL port, user's guide, and carry case.

* Additional adapters are available and must be ordered separately

NOYES
Test & Inspection
A Division of **AFL**Telecommunications

OLS7-FTTH & OLS7-3
Triple Wavelength Laser Sources

The OLS7-FTTH and OLS7-3 from AFL Telecommunications are handheld, rugged laser sources designed for performing insertion loss measurements on single-mode fiber optic links when used with an optical power meter. When paired with an optical fiber identifier, both models may be used for fiber identification. The LASER output is stabilized to ensure accurate test results per current TIA/EIA requirements.

The OLS7-FTTH and OLS7-3 feature a triple wavelength LASER output from a single port and are easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS7 will also support transmitting pairs of wavelengths in an alternating pattern and triple wavelengths in a sequential pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength wavelength(s) along with battery charge status and external power presence.

The OLS7-FTTH model is designed specifically for today's FTTH network architectures featuring a triple wavelength LASER output from a single port: 1310nm output for testing in the upstream direction and 1490 or 1550nm, for testing in the downstream direction. The OLS7-3 model features 1310/1550/1625 nm triple wavelength LASER output that is used for single-mode applications, such as Telecom or CATV.

The OLS7-FTTH & OLS7-3 output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned. Both models offer long battery life from common AA alkaline batteries with external AC adapter available as an option. The OLS7 is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Triple wavelengths from a single port
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Low battery LED indicator
- Long battery life with 2 x AA alkaline, optional AC adapter
- Cost-effective, easy to use
- N.I.S.T. Traceable

Applications

- Passive Optical Networks (PON) testing
- Certify SM links per TIA/EIA standards
- Fiber identification prior to splicing

Ordering Information

MODEL	INCLUDES
OLS7-FTTH	OLS7-FTTH optical light source, protective rubber boot, 2 x AA batteries, user's guide, and carry case.
OLS7-3	OLS7-3 optical light source, protective rubber boot, 2 x AA batteries, user's guide, and carry case.

⌐ NOYES
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Specifications

OPTICAL	MODEL OLS7-FTTH			MODEL OLS7-3		
Wavelength (±20 nm)	1310 nm	1490 nm	1550 nm	1310 nm	1550 nm	1625 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03					
Spectral width	5 nm	3 nm	5 nm	5 nm	5 nm	2 nm
Output power	-5 dBm (typical) into 9/125 fiber					
Output stability	± 0.05 dB over 1 hour (after 15 min warm-up, after 30 sec typical) ± 0.1 dB over 8 hours (after 15 min warm-up, after 30 sec typical)					
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz					
GENERAL	MODELS OLS7-FTTH & OLS7-3					
Available adapters	SC FC, ST, LC					
Power	2 x AA batteries, optional AC adapter					
Battery life	Typical 72 hours (with one laser active), minimum 40 hours					
Operating temperature	-10° to 50°C, 90% RH (non-condensing)					
Storage temperature	-30° to 60°C, 90% RH (non-condensing)					
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)					
Weight	0.3 kg (0.66 lb)					

All specifications at 25°C.

Features

- Handheld, rugged, lightweight
- Integrated LED and Laser light source
- Dual wavelengths from a single port
- Dual or single Wave ID, CW, Tone (SM output)
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Low battery LED indicator
- Long battery life with 2 x AA alkaline, optional AC adapter
- Free 50 µm and 62.5 µm mandrels
- Cost-effective, easy to use
- N.I.S.T. Traceable

Applications

- Certify multimode and single-mode links per TIA/EIA standards
- Fiber identification prior to splicing

![NOYES Test & Inspection logo]

A Division of **AFL** Telecommunications

OLS4 Integrated Laser and LED Source

The OLS4 from AFL Telecommunication is a handheld, rugged, integrated two-port LED and LASER light source designed for performing insertion loss measurements on multimode or single-mode fiber optic links when used with an optical power meter. When paired with an optical fiber identifier, the OLS4 may be used for fiber identification. The LED and LASER outputs are stabilized to ensure accurate test results per current TIA/EIA requirements.

The OLS4 features 850/1300 nm LED output from a multimode output port and 1310/1550 nm LASER output from a single-mode output port. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone (SM output). Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS4 supports transmitting pairs of wavelengths in an alternating pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength(s) along with battery charge status and external power presence.

Both output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned. The OLS4 coffers long battery life from common AA alkaline batteries with external AC adapter available as an option.

The OLS4 is fully N.I.S.T. traceable.

Specifications

OPTICAL	MM OPTICAL PORT		SM OPTICAL PORT	
Wavelength	850 ± 30 nm	1300 -10/+50 nm	1310 ± 20 nm	1550 ± 20 nm
Emitter type	LED		Laser	
	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03			
Spectral width	40 nm (typ)	120 nm (typ)	5 nm (max)	5 nm (max)
Output power	> - 20 dBm, 62.5 µm multimode*		0 dBm, 9 µm single-mode	
Output Stability	± 0.1 dB over 8 hours (after 5 min. warm-up)		± 0.05 dB over 1 hour (after 15 min. warm-up) ± 0.1 dB over 8 hours (after 15 min. warm-up)	
GENERAL				
Power	2 x AA batteries, optional AC adapter			
Battery life	Typical 30 hours, minimum 20 hours		Typical 72 hours, minimum 40 hours	
Available adapters	SC FC, ST, LC			
Operating temperature	-10 to 50°C, 90% RH (non-condensing)			
Storage temperature	-30 to 60°C, 90% RH (non-condensing)			
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)			
Weight	0.29 kg (0.65 lb)			

* *Output power will be approximately 3 dB less if a 50µm mandrel-wrapped jumper is used instead of a 62.5µm mandrel-wrapped jumper.*
All specifications at 25°C.

Ordering Information

MODEL	INCLUDES
OLS4	OLS4 optical light source, protective rubber boot, 2 x AA batteries, mandrels, user's guide, and carry case.

OLS2-Dual Laser Light Source

The OLS2-Dual from AFL Telecommunications is a handheld, rugged laser source designed for performing insertion loss measurements on single-mode fiber optic links when used with an optical power meter. When paired with an optical fiber identifier, the OLS2-Dual may be used for fiber identification. The LASER output is stabilized to ensure accurate test results per current TIA/EIA requirements.

The OLS2-Dual features 1310 nm and 1550 nm LASER output from a single output port and offers several modes of operation. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS2-Dual supports transmitting pairs of wavelengths in an alternating pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength(s) along with battery charge status and external power presence.

The OLS2-Dual output port is equipped with a UCI based removable adapter to allow the output connector to be inspected and cleaned. The OLS2-Dual offers long battery life from common AA alkaline batteries with external AC adapter available as an option.

The OLS2-Dual is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Dual wavelengths from a single port
- Dual or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Adjustable output
- Low battery LED indicator
- Long battery life with 2 x AA alkaline, optional AC adapter
- Cost-effective, easy to use
- N.I.S.T. Traceable

Applications

- Certify SM links per TIA/EIA standards
- Fiber identification prior to splicing

Specifications

OPTICAL	OLS2-DUAL (SINGLE PORT)	
Wavelength	1310 ±20 nm	1550 ±20 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03	
Spectral width (FWHM)	5 nm (max)	
Output power	0 dBm*	
Output stability	± 0.05 dB over 1 hour (after 15 min. warm-up) ± 0.1 dB over 8 hours (after 15 min. warm-up)	
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz	
GENERAL		
Power	2 x AA batteries, optional AC adapter	
Battery life	Typical 120 hours, minimum 75 hours	
Available adapters	SC FC, ST, LC	
Operating temperature	-10 to 50°C, 90% RH (non-condensing)	
Storage temperature	-30 to 60°C, 90% RH (non-condensing)	
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)	
Weight	0.29 kg (0.65 lb)	

* *Adjustable 2 dB.*
All specifications at 25°C.

Ordering Information

MODEL	INCLUDES
OLS2-Dual	OLS2-Dual optical light source, protective rubber boot, 2 x AA batteries, user's guide, and carry case.

NOYES
Test & Inspection

A Division of **AFL**Telecommunications

OLS1-Dual LED Light Source

The OLS1-Dual from AFL Telecommunication is a handheld, rugged LED light source designed for performing insertion loss measurements on multimode fiber optic links when used with an optical power meter. The LED output is stabilized to ensure accurate test results per current TIA/EIA requirements.

The OLS1-Dual features 850 nm and 1300 nm LED output from a single output port and is easy to operate with only a power button and a wavelength select button. Each wavelength may be transmitted individually at CW or with Wave ID. When transmitting with Wave ID, the OLS1-Dual supports transmitting pairs of wavelengths in an alternating pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength(s) along with battery charge status and external power presence.

The output port is equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned. The OLS1-Dual offers long battery life from common AA alkaline batteries with external AC adapter available as an option.
The OLS1-Dual is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Dual wavelengths from a single port
- Dual or single Wave ID, CW
- Low battery LED indicator
- Long battery life with 2 x AA alkaline, optional AC adapter
- Free 50 µm and 62.5 µm mandrels
- Cost-effective, easy to use
- N.I.S.T. Traceable

Applications

- Certify 50 or 62.5 µm multimode fiber links for any 850 or 1300 nm application, including Gigabit Ethernet (GBE) per TIA/EIA standards
- The 1300 nm output can also be used to test short distance (up to 10 km) single-mode fiber links

Specifications

OPTICAL	OLS1-DUAL (SINGLE PORT)	
Wavelength	850 ±30 nm	1300 +50/-10 nm
Emitter type	LED, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03	
Spectral width	40 nm (typ)	120 nm (typ)
Output power	>-20 dBm*	
Output stability	± 0.1 dB over 8 hours (after 5 min. warm-up)	
Fiber size	62.5 µm**	
GENERAL		
Power	2 x AA batteries, optional AC adapter	
Battery life	Typical 30 hours, minimum 20 hours	
Available adapters	SC, FC, ST	
Operating temperature	-10 to 50°C, 90% RH (non-condensing)	
Storage temperature	-30 to 60°C, 90% RH (non-condensing)	
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)	
Weight	0.29 kg (0.65 lb)	

* Output power will be approximately 3 dB less if a 50µm mandrel-wrapped jumper is used instead of a 62.5µm mandrel-wrapped jumper.
** May be used to test 50 or 62.5µm fiber with supplied mandrels.
All specifications at 25°C.

Ordering Information

MODEL	INCLUDES
OLS1-Dual	OLS1-Dual optical light source, protective rubber boot, 2 x AA batteries, mandrels, user's guide, and carry case.

NOYES
Test & Inspection

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OLS1 LED Light Source

The OLS1 LED light source is a cost-effective, rugged, handheld instrument designed for performing insertion loss measurements on fiber optic links when used with an optical power meter. The LED output is stabilized to ensure accurate test results per current TIA/EIA requirements.

The OLS1 is easy to operate with only a [Wavelength/ Power] switch, which selects optical wavelengths or disables unit (Ⓞ position). [Active Output], [Battery], and [External Power] indicators identify the currently enabled output port, battery charge status, and external power presence. Weighing only 0.65 lb, the OLS1 is compact and convenient for field use. The OLS1 operates over 60 hours from a typical 9V alkaline battery. An AC adapter is optional for extended use.

The OLS1 light source is fully N.I.S.T. traceable.

Features

- Rugged, handheld, lightweight
- 850 and 1300 nm LED (multimode) light sources (660 nm available)
- Certify 50 or 62.5 µm multimode fiber links for any 850 or 1300 nm application, including Gigabit Ethernet (GBE) per TIA/EIA standards
- Free 50 µm and 62.5 µm mandrels
- Long battery life
- Cost-effective, easy to use
- N.I.S.T. Traceable

Ordering Information

MODEL	INCLUDES
All OLS1 models	Protective rubber boot, 9V battery, 50 and 62.5µm mandrels, manual, and carrying case.

Optical light sources and optical power meters can be packaged together as a kit.

Applications

- Operating at 850 nm, the OLS1-1C can be used for testing Ethernet, Gigabit Ethernet, Token Ring, and other multimode LAN systems.
- Operating at 660 nm, the OLS1-1C can test 1000µ fiber and trace fibers with the visible 660 nm output.
- The OLS1-2C operates at 850 and 1300 nm for use on Ethernet, Token Ring, and FDDI. The 1300 nm output can also be used to test short distance (up to 10 km) single-mode fiber links.

Specifications

OPTICAL SPECIFICATIONS	OLS1-1C		OLS1-2C	
Output ports	2		2	
Output wavelength	660 nm- red	850 + 35/-40 nm	850 + 35/-40 nm	1300 +50/-10 nm
Spectral width (typ) (FWHM)	30 nm	40 nm	40 nm	120 nm
Output power	-10 dBm*	>-20 dBm	>-20 dBm	>-20 dBm
Fiber size	1000 µm, 62.5 µm**		62.5 µm**	
Output connector	ST		ST	
Emitter classification	Class 1 (IEC 60825 - 1)			
Stability	± 0.1 dB over 8 hours (after 5 min. warm-up)			
GENERAL SPECIFICATIONS				
Power	Typical 60 hours with 9V battery, optional AC adapter			
Operating temperature	-10 to 50°C			
Storage temperature	-30 to 60°C			
Size (H x W x D)	5.5 x 3.2 x 1.5 in (14.0 x 8.1 x 3.8 cm)			
Weight	0.65 lb (.29 kg)			

* -10 dBm output is into 1000 micron fiber.
* * May be used to test 50 or 62.5 µm fiber with supplied mandrels.
All specifications at 25°C

NOYES
Test & Inspection

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SLP5 Triple Wave Test Kits with Wave ID, Set Reference, and Data Storage

The SLP5 triple wavelength single-mode test kits are available in two models, SLP5-FTTH and SLP5-7. The SLP5-FTTH and SLP5-7 model combine the OPM5-4D optical power meter and either OLS7-FTTH (1310/1490/1550 nm) or OLS7-3 (1310/1550/1625 nm) LASER source respectively.

The OLS7-FTTH and OLS7-3 feature a triple wavelength LASER output from a single port and are easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS7 will also support transmitting pairs of wave-lengths in an alternating pattern and triple wavelengths in a sequential pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength wavelength(s) along with bat-tery charge status and external power presence. The OLS7-FTTH & OLS7-3 output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

The OPM5-4D features automatic wavelength identification and switching (Wave ID) when used with the OLS7, multiple test Tone detection for fiber identification, and stores optical references for each calibrated wavelength. A large dual-wavelength LCD display with backlight shows measured power [dBm or µW] or insertion loss [dB], calibrated wavelengths [nm], tone signal [Hz], wavelength ID, and estimated remaining battery life. The OPM5-4D optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements.

The OPM5-4D and OLS7 offer long battery life from common AA alkaline batteries with external AC adapter available as an option.
The SLP5-FTTH and SLP5-7 test kits are fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Wave ID (auto identification & switching)
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Large LCD with backlight (OPM5-4D)
- Power measurements in dBm or µW; insertion loss in dB
- Reference power level storage
- Up to 500 records per wavelength storage
- USB port for download of stored records
- Windows® compatible software to view, print, and archive stored records
- Low battery indicator
Long battery life with 2 x AA alkaline, optional AC adapter
- Cost-effective, easy to use
- N.I.S.T traceable

Applications

- Passive Optical Networks (PON) testing
- Certify SM links per TIA/EIA standards
- Fiber identification prior to splicing

Ordering Information

MODEL	INCLUDES
SLP5 -7	OLS7-3 optical light source, OPM5-4D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, SLP5-7 test kit user's guide, and carry case.
SLP5-FTTH	OLS7-FTTH optical light source, OPM5-4D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, SLP5-FTTH test kit user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL Telecommunications.

NOYES
Test & Inspection

A Division of **AFL** Telecommunications

SLP5 Triple Wave Test Kits with Wave ID, Set Reference, and Data Storage

OLS7 Specifications

OPTICAL	MODEL OLS7-FTTH			MODEL OLS7-3		
Wavelength (±20 nm)	1310 nm	1490 nm	1550 nm	1310 nm	1550 nm	1625 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03					
Spectral width	5 nm	3 nm	5 nm	5 nm	5 nm	2 nm
Output power	-5 dBm (typical) into 9/125 fiber					
Output stability	± 0.05 dB over 1 hour (after 15 min warm-up, after 30 sec typical)					
	± 0.1 dB over 8 hours (after 15 min warm-up, after 30 sec typical)					
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz					
GENERAL	MODELS OLS7-FTTH & OLS7-3					
Available adapters	SC, FC, ST, LC					
Power	2 x AA batteries, optional AC adapter					
Battery life	Typical 72 hours (with one laser active), minimum 40 hours					
Operating temperature	-10° to 50°C, 90% RH (non-condensing)					
Storage temperature	-30° to 60°C, 90% RH (non-condensing)					
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)					
Weight	0.3 kg (0.66 lb)					

All specifications at 25°C.

OPM5-4D specifications

OPTICAL	OPM5-4D
Calibrated wavelengths	850, 980, 1310, 1490, 1550, 1625 nm
Detector type	Filtered InGaAs
Measurement range	+26 to -50 dBm
Tone detect range	+6 to -30 dBm
	+6 to -25 dBm for 850nm
Wavelength ID range	+6 to -30 dBm
	+6 to -25 dBm for 850nm
Accuracy*	± 0.25 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW
GENERAL	
Power	2 x AA batteries, optional AC adapter
Battery life	300 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)
Weight	0.26 kg (0.58 lb)

* *Accuracy measured at 25°C and -10 dBm per N.I.S.T. standards.*
All specifications at 25°C

NOYES
Test & Inspection

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A Fujikura Business

SLP5-6D Single-mode Test Kit with Wave ID, Set Reference, and Data Storage

The SLP5-6D test kit combines the OPM5-4D optical power meter and OLS2-Dual LASER light source and is ideally suited for testing single-mode fiber optic networks.

The OLS2-Dual features 1310 nm and 1550 nm LASER output from a single output port and offers several modes of operation. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS2-Dual supports transmitting pairs of wavelengths in an alternating pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength(s) along with battery charge status and external power presence. The OLS2-Dual output port is equipped with a UCI based removable adapter to allow the output connector to be inspected and cleaned.

The OPM5-4D features automatic wavelength identification and switching (Wave ID) when used with the OLS2-Dual, multiple test Tone detection for fiber identification, and stores optical references for each calibrated wavelength and up to 500 records per wavelength of power or insertion loss measurements. Using the supplied Windows® compatible software and USB connection, test records are transferred to a PC for analysis, printing, and storage. A large dual-wavelength LCD display with backlight shows measured power [dBm or µW] or insertion loss [dB], calibrated wavelengths [nm], tone signal [Hz], wavelength ID, and estimated remaining battery life. The OPM5-4D optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements.

The OPM5-4D and OLS2-Dual offer long battery life from common AA alkaline batteries with external AC adapter available as an option.
The SLP5-6D test kit is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Wave ID (auto identification & switching)
- Dual or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Adjustable output
- Large LCD with backlight (OPM5-4D)
- Power measurements in dBm or µW; insertion loss in dB
- Reference power level storage
- Up to 500 records per wavelength storage
- USB port for download of stored records
- Windows® compatible software to view, print, and archive stored records
- Low battery indicator
- Long battery life with 2 x AA alkaline, optional AC adapter
- Cost-effective, easy to use
- N.I.S.T traceable

Applications

- Certify single-mode links per TIA/EIA standards
- Fiber identification prior to splicing

Ordering Information

MODEL	INCLUDES
SLP5 -6D	OLS2-Dual optical light source, OPM5-4D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, SLP5-6D test kit user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL Telecommunications.

NOYES
Test & Inspection

A Division of **AFL** Telecommunications

SLP5-6D Single-mode Test Kit with Wave ID, Set Reference, and Data Storage

OLS2-Dual specifications

OPTICAL	OLS2-DUAL (SINGLE PORT)	
Wavelength	1310 ±20 nm	1550 ±20 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03	
Spectral width (FWHM)	5 nm (max)	
Output power	0 dBm*	
Output stability	± 0.05 dB over 1 hour (after 15 min. warm-up) ± 0.1 dB over 8 hours (after 15 min. warm-up)	
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz	
GENERAL		
Power	2 x AA batteries, optional AC adapter	
Battery life	Typical 120 hours, minimum 75 hours	
Available adapters	SC FC, ST, LC	
Operating temperature	-10 to 50°C, 90% RH (non-condensing)	
Storage temperature	-30 to 60°C, 90% RH (non-condensing)	
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)	
Weight	0.29 kg (0.65 lb)	

* *Adjustable 2 dB.*
All specifications at 25°C.

OPM5-4D specifications

OPTICAL	OPM5-4D
Calibrated wavelengths	850, 980, 1310, 1490, 1550, 1625 nm
Detector type	Filtered InGaAs
Measurement range	+26 to -50 dBm
Tone detect range	+6 to -30 dBm +6 to -25 dBm for 850nm
Wavelength ID range	+6 to -30 dBm +6 to -25 dBm for 850nm
Accuracy*	± 0.25 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW
GENERAL	
Power	2 x AA batteries, optional AC adapter
Battery life	300 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)
Weight	0.26 kg (0.58 lb)

* *Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.*
All specifications at 25°C

![NOYES Test & Inspection logo]

A Division of **AFL** Telecommunications

SLP4 Triple Wave Test Kits with Wave ID and Set Reference

The SLP4 triple wavelength single-mode test kits are available in two models, SLP4-FTTH and SLP4-7. The SLP4-FTTH and SLP4-7 model combine the OPM4-4D optical power meter and either OLS7-FTTH (1310/1490/1550 nm) or OLS7-3 (1310/1550/1625 nm) LASER source respectively.

The OLS7-FTTH and OLS7-3 feature a triple wavelength LASER output from a single port and are easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS7 will also support transmitting pairs of wavelengths in an alternating pattern and triple wavelengths in a sequential pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength wavelength(s) along with battery charge status and external power presence. The OLS7-FTTH & OLS7-3 output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

The OPM4-4D features automatic wavelength identification and switching (Wave ID) when used with the OLS7, multiple test Tone detection for fiber identification, and stores optical references for each calibrated wavelength. A large dual-wavelength LCD display with backlight shows measured power [dBm or µW] or insertion loss [dB], calibrated wavelengths [nm], tone signal [Hz], wavelength ID, and estimated remaining battery life. The OPM4-4D optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements.

The OPM4-4D and OLS7 offer long battery life from common AA alkaline batteries. The SLP4-7 and SLP4-FTTH kits are fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Wave ID (auto identification & switching)
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Large LCD with backlight (OPM4-4D)
- Power measurements in dBm or µW; insertion loss in dB
- Reference power level storage
- Low battery indicator
- Long battery life with 2 x AA alkaline
- Cost-effective, easy to use
- N.I.S.T traceable

Applications

- Passive Optical Networks (PON) testing
- Certify single-mode links per TIA/EIA standards
- Fiber identification prior to splicing

Ordering Information

MODEL	INCLUDES
SLP4-7	OLS7-3 optical light source, OPM4-4D optical power meter, AA batteries, protective rubber boots, adapter cap, SLP4-7 test kit user's guide, and carry case.
SLP4-FTTH	OLS7-FTTH optical light source, OPM4-4D optical power meter, AA batteries, protective rubber boots, adapter cap, SLP4-FTTH test kit user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL Telecommunications.

NOYES
Test & Inspection

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SLP4 Triple Wave Test Kits with Wave ID and Set Reference

OLS7 Specifications

OPTICAL	MODEL OLS7-FTTH			MODEL OLS7-3		
Wavelength (±20 nm)	1310 nm	1490 nm	1550 nm	1310 nm	1550 nm	1625 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03					
Spectral width	5 nm	3 nm	5 nm	5 nm	5 nm	2 nm
Output power	-5 dBm (typical) into 9/125 fiber					
Output stability	± 0.05 dB over 1 hour (after 15 min warm-up, after 30 sec typical) ± 0.1 dB over 8 hours (after 15 min warm-up, after 30 sec typical)					
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz					
GENERAL	**MODELS OLS7-FTTH & OLS7-3**					
Available adapters	SC FC, ST, LC					
Power	2 x AA batteries, optional AC adapter					
Battery life	Typical 72 hours (with one laser active), minimum 40 hours					
Operating temperature	-10° to 50°C, 90% RH (non-condensing)					
Storage temperature	-30° to 60°C, 90% RH (non-condensing)					
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)					
Weight	0.3 kg (0.66 lb)					

All specifications at 25°C.

OPM4-4D specifications

OPTICAL	OPM4-4D
Calibrated wavelengths	850, 980, 1310, 1490, 1550, 1625 nm
Detector type	Filtered InGaAs
Measurement range	+26 to -50 dBm
Tone detect range	+6 to -30 dBm +6 to -25 for 850 nm
Wavelength ID range	+6 to -30 dBm +6 to -25 dBm for 850 nm
Accuracy*	± 0.25 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW
GENERAL	
Power	2 x AA batteries
Battery life	300 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)
Weight	0.26 kg (0.58 lb)

* *Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.*
All specifications at 25°C

NOYES
Test & Inspection

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SLP4-6D Single-mode Test Kit with Wave ID and Set Reference

The SLP4-6D test kit combines the OPM4-4D optical power meter and OLS2-Dual LASER light source and is ideally suited for testing single-mode fiber optic networks.

The OLS2-Dual features 1310 nm and 1550 nm LASER output from a single output port and offers several modes of operation. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS2-Dual supports transmitting pairs of wavelengths in an alternating pattern. Associated with each operating condition, the designated LED indicator will illuminate to identify the currently enabled operating mode and emitted wavelength(s) along with battery charge status and external power presence. The OLS2-Dual output port is equipped with a UCI based removable adapter to allow the output connector to be inspected and cleaned.

The OPM4-4D features automatic wavelength identification and switching (Wave ID) when used with the OLS2-Dual, multiple test Tone detection for fiber identification, and stores optical references for each calibrated wavelength. A large dual-wavelength LCD display with backlight shows measured power [dBm or µW] or insertion loss [dB], calibrated wavelengths [nm], tone signal [Hz], wavelength ID, and estimated remaining battery life. The OPM4-4D optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements.

The OPM4-4D and OLS2-Dual offer long battery life from common AA alkaline batteries. The SLP4-6D test kit is fully N.I.S.T. traceable.

Features

- Handheld, rugged, lightweight
- Wave ID (auto identification & switching)
- Dual or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone
- Adjustable output
- Large LCD with backlight (OPM4-4D)
- Power measurements in dBm or µW; insertion loss in dB
- Reference power level storage
- Low battery indicator
- Long battery life with 2 x AA alkaline
- Cost-effective, easy to use
- N.I.S.T traceable

Applications

- Certify single-mode links per TIA/EIA standards
- Fiber identification prior to splicing

Ordering Information

MODEL	INCLUDES
SLP4-6D	OLS2-Dual optical light source, OPM4-4D optical power meter, AA batteries, protective rubber boots, adapter cap, SLP4-6D test kit user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL Telecommunications.

NOYES
Test & Inspection

A Division of **AFL** Telecommunications

SLP4-6D Single-mode Test Kit with Wave ID and Set Reference

OLS2-Dual specifications

OPTICAL	OLS2-DUAL (SINGLE PORT)	
Wavelength	1310 ±20 nm	1550 ±20 nm
Emitter type	Laser, Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03	
Spectral width (FWHM)	5 nm (max)	
Output power	0 dBm*	
Output stability	± 0.05 dB over 1 hour (after 15 min. warm-up) ± 0.1 dB over 8 hours (after 15 min. warm-up)	
Tone output	270 Hz, 330 Hz, 1 kHz, 2 kHz	
GENERAL		
Power	2 x AA batteries, optional AC adapter	
Battery life	Typical 120 hours, minimum 75 hours	
Available adapters	SC FC, ST, LC	
Operating temperature	-10 to 50°C, 90% RH (non-condensing)	
Storage temperature	-30 to 60°C, 90% RH (non-condensing)	
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)	
Weight	0.29 kg (0.65 lb)	

* *Adjustable 2 dB.*
  All specifications at 25°C.

OPM4-4D specifications

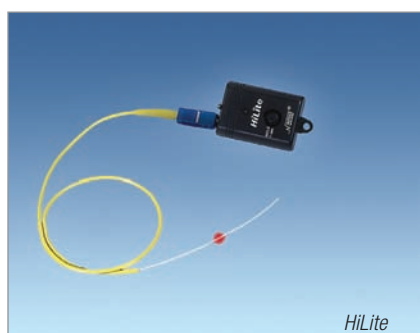| OPTICAL	OPM4-4D
Calibrated wavelengths	850, 980, 1310, 1490, 1550, 1625 nm
Detector type	Filtered InGaAs
Measurement range	+26 to -50 dBm
Tone detect range	+6 to -30 dBm +6 to -25 for 850 nm
Wavelength ID range	+6 to -30 dBm +6 to -25 dBm for 850 nm
Accuracy*	± 0.25 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW
GENERAL	
Power	2 x AA batteries
Battery life	300 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)
Weight	0.26 kg (0.58 lb)

* *Accuracy measured at 25ºC and -10 dBm per N.I.S.T. standards.*
  All specifications at 25°C

NOYES
Test & Inspection

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VFI 2

HiLite

HiLite and VFI2 Visual Fault Identifiers

The HiLite and VFI2 are compact and powerful visible red laser sources designed to troubleshoot faults on fiber optic cables. Light generated by these units will escape from sharp bends and breaks in jacketed or bare fibers, as well as poorly mated connectors. They enable technicians to quickly identify faults in fiber optic jumper cables, distribution frames, patch panels, and splice trays.

The HiLite and VFI2 are an excellent complement to an OTDR because they can locate faults inside the OTDR's dead-zone. Other applications include end-to-end continuity checks, identifying connectors in patch panels and fibers during splicing operations. The universal connector interface provides fast operation with many connector styles without changing an adapter.

Features

- Visible red laser source, 650 nm
- High power, 1 mW
- Compact size
- Universal connector interface for quick connection
- 2.5 mm Universal adapter included

Specifications

OPTICAL	VFI2	HILITE
Emitter type	Laser, Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1:2007-03	
Wavelength	650 nm ± 10 nm	
Output power	1 mW (into single-mode fiber)	
Modulation	2 Hz or CW selected	2 Hz
GENERAL		
Adapter	2.5 mm Universal	
Power	2 AA alkaline batteries (60 hours typical)	1 AAA alkaline battery (16 hours typical)
Operating temperature	-10 to 50°C, 85% humidity non condensing	
Storage temperature	-30 to 60°C, 95% humidity non condensing	
Size (H x W x D)	14.0 x 6.2 x 3.2 cm (5.5 x 2.4 x 1.3 in)	7.0 x 3.6 x 1.5 cm (2.8 x 1.4 x 0.6 in)
Weight	< 200 g (7.06 oz)	50 g (1.75 oz)

Ordering Information

MODEL	INCLUDES
VFI2	VFI2 unit, instruction card, and carrying case
HiLite	HiLite unit, instruction card, and carrying case

Available Adapters

MODEL	DESCRIPTION
2900-50-0007MR	2.5 mm Universal adapter [1] with captivated sleeve
2900-50-0010MR	1.25 mm Universal adapter [2] with captivated sleeve

1   2.5 mm Universal adapter accepts SC, FC, ST, E2000, etc. ferrules.
2   1.25 mm Universal adapter accepts LC, MU, etc. ferrules.

NOYES
Test & Inspection

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OFI-FTTx Active ONT Detector

The OFI-FTTx is a rugged, handheld optical fiber identifier designed to identify the presence or absence of an active Optical Network Terminal (ONT) on FTTx F2 fibers at the Fiber Distribution Hub (FDH). During a test the F2 fiber does not have to be removed from service. Thus the OFI-FTTx can verify whether a splitter pigtail at the FDH is connected to an active circuit before it is disconnected for fault location or re-use. The OFI-FTTx can help verify FTTx network records and recover splitter pigtails and F2 fibers that are connected at the FDH but, in fact, are available for new customers.

When applied to a splitter pigtail at the FDH, the OFl FTTx will report either that the ONT is 'Active' or 'Not Detected'. Time to complete each test is typically one second.
The OFI-FTTx is compatible with 2mm jumper cable containing standard single-mode fiber, such as SMF-28e ®, or bend insensitive fiber (BIF) with a 15mm bend radius specification, such as AFL Bend Insensitive.

The OFI-FTTx is powered by two standard AA alkaline batteries, provides a low battery indication, and can typically be operated 800 times before battery replacement is necessary.

Features

- Rugged, handheld, lightweight
- In-service detection of upstream (1310 nm) activity on FTTx networks
- Determines which unparked splitter pigtails are connected to ONTs
- Does not require travel to customer (ONT) site
- Does not require disconnect of splitter pigtails
- Visual and audible indicators
- Battery operated
- Low battery indication

Applications

- FACILITY RECOVERY: Harvest unparked splitter legs and F2 fibers not connected to sub-scribers.
- TROUBLE-SHOOTING: Real-time confirmation of OLT to ONT connectivity at the FDH.

Ordering Information

MODEL	INCLUDES
OFI-FTTx	OFI-FTTx, user's guide, and carry case

Patent Pending

Specifications

MODEL	OFI-FTTX
Network Types	FTTx BPON, GPON, EPON, ≥ 1:4 splitter ratio
Network Locations	Between splitter and customer ONT
Fiber Type	2mm jacketed SMF-28e ®, 15mm bend radius AFL Bend Insensitive, and equivalents
Induced Loss (Typ)	< 1 dB @ 1550 nm
Test Time (Typ)	1 sec
Operating Range*	Loss from ONT to FDH: 0 to 7 dB (BPON), 0 to 9 dB (GPON, EPON)
User interface	Audio indicator and four red LEDs
Power	2 x AA batteries
Battery Life	800 tests typical
Operating Temperature	-10 to 40°C
Storage Temperature	-20 to 50°C
Dimensions (H x W x D)	22 x 3.8 x 3.2 cm (8.5 x 1.5 x 1.25 in)
Weight	0.23 kg (0.5 lbs)

* Maximum values are typical and depend on fiber type and jacket material.

NOYES
Test & Inspection

OFI Optical Fiber Identifiers

OFI 200

OFI 400

Noyes Optical Fiber Identifiers are rugged, handheld, and easy-to-use fiber optic test instruments designed to detect optical signals transmitted through a single-mode fiber without disrupting traffic. During installation, maintenance, rerouting, or restoration; it is often necessary to isolate a specific fiber. By simply clamping an Optical Fiber Identifier onto a gently bent fiber, the unit will indicate if there is [No Signal], [Tone], or [Traffic] and identify signal direction.

The OFI 200 model and OFI 400 model Identifiers are equipped with a unique two-position head design that can be configured to work with 250 μm, 900 μm, ribbon, or jacketed fiber in seconds, without tools or adjustments. When testing coated fibers, the slim design of the OFI 200 and OFI 400 models allows easier access on a splice tray where the amount of work space is limited. The clamping trigger is ergonomically designed to fit the natural motion of the operator's hand. A high impact molded plastic case makes the OFI models suitable for use outside plant or in the central office.

The OFI 400 model is the next generation of Noyes Optical Fiber Identifiers. It has all the features of the OFI 200 model plus easy-to-read LCD display with Backlight, multiple [TONE] signal detection (270 Hz, 330 Hz, 1 kHz, or 2 kHz), power saving feature, and [Set Reference] feature. The OFI 400 model also measures and displays fiber core power or relative power on an LCD display.

Both models are battery operated with the battery indication feature and perform thousands of tests before batteries replacement is necessary.

Features

- Rugged, handheld, lightweight
- Accepts 250 μm, 900 μm coated fiber, 3 mm jacketed fiber cable, and ribbon fiber
- No head swapping or adjustments
- Identifies light carrying fiber
- Low insertion loss - traffic remains uninterrupted
- Indicates direction of traffic
- Indicates Tone signal visually and audibly
- 2 kHz Tone detection - OFI 200 models
- 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone detection - OFI 400 models
- Easy-to-read LCD display with Backlight - OFI 400 models
- Measures fiber core or relative power - OFI 400 models
- Power Off and Set Reference feature - OFI 400 models
- Battery operated
- Low battery indication
- Low cost, easy to use

NOYES
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OFI Optical Fiber Identifiers

Applications

- Live fiber identification - used during installation, maintenance, rerouting, or restoration to positively identify fibers prior to cutting and splicing
- Tone detection
- The OFI 400 models may also be used for measuring core power or relative power

Ordering Information

MODEL	INCLUDES
OFI 200D	User's guide and carry case
OFI 400	User's guide and carry case

Specifications

DETECTABLE SIGNAL RANGE

FIBER TYPE	PARAMETER	WAVELENGTH, SIGNAL	OFI 200D	OFI 400
250 µm coated fiber (SMF-28 with 250 µm CPC6 coating)	Minimum detect level (average power, typical)	1310 nm, CW or Traffic 1310 nm, Tone 1550 nm, CW or Traffic 1550 nm, Tone	-40 dBm -43 dBm -45 dBm -50 dBm	-45 dBm -45 dBm -50 dBm -50 dBm
	Insertion loss (typical)	1310 nm 1550 nm	0.6 dB 2.5 dB	0.6 dB 2.5 dB
3 mm jacketed fiber (SMF-28 with 250 µm CPC6 coating and 3 mm, yellow jacket)	Minimum detect level (average power, typical)	1310 nm, CW or Traffic 1310 nm, Tone 1550 nm, CW or Traffic 1550 nm, Tone	-30 dBm -32 dBm -33 dBm -37 dBm	-30 dBm -30 dBm -33 dBm -33 dBm
	Insertion loss (typical)	1310 nm 1550 nm	0.8 dB 2.5 dB	1.0 dB 2.8 dB

OPTICAL SPECIFICATIONS

MODEL	OFI 200D	OFI 400
Detector type	InGaAs	
Wavelength range	800 - 1700 nm	
Calibrated size of fiber and wavelength	N/A	250 µm (SMF-28) @1550 nm
Fiber stress	<100 kPSI max	
Fiber size	250 µm, 900 µm, 2 mm or 3 mm jacketed & ribbon fiber	
Tone detection	2000 ±100Hz	270, 330, 1000, or 2000 Hz (±5%)
Core power measurement range	N/A	+13 dBm to – 50 dBm SMF28/28E 250um @ 1550nm
Measurement units	N/A	dBm, dB

GENERAL SPECIFICATIONS

Display Type	N/A	Multi 7 segment LCD; 3 LEDs; 1 piezo buzzer
Power	1 x 9V Alkaline	2 x 1.5V Alkaline
Battery life	>10,000 operations typical	>10,000 operations typical
Operation temperature	0° to 50°C 90% RH (Non-condensing)	
Storage temperature	-30 to +60°C 90% RH (Non-condensing)	
Dimensions (H x W x D)	22 x 3.8 x 2.8 cm (8.5 x 1.5 x 1.1 in)	
Weight	210 g (7.5 oz)	168 g (6 oz)

Notes:

1. 250 µm coated fiber parameters are specified with OFI plunger in the "250/900/RIB" position.
   2mm/ 3mm jacketed fiber parameters are specified with OFI plunger in the "2 mm/ 3 mm" position.

2. Unless noted otherwise, all specifications are typical. Actual results can vary by several dB depending on fiber type, coating material, jacket color, jacket hardness, and other factors.
   All specifications stated above are as measured at 25°C.

3. [CW] is a light signal that is not modulated.
   [Traffic] is a light signal modulated by a random data sequence.
   [Tone] is a light signal modulated into a nominal 50% duty cycle square wave.

NOYES
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Features

- Video Technology
- No optical path to your eye
- 400X magnification
- Resolves ¾ micron scratches
- Universal Adaptor Interface with new "pan and lock" centering mount
- Video Output

VS 300 View Safe Inspection Scope

The VS 300 Video Fiber Scope removes concerns for eye safety while inspecting optical fiber connectors. The design eliminates the optical path to the eye by utilizing a miniature camera and a state-of-the-art micro-display that achieves unparalleled clarity and resolution.

The VS 300 is modeled after the functionality of our highly successful OFS 300 product line with the following improvements:

- The VS 300 has no optical path to the user's eye.
- The VS 300 has NTSC video output.
- The VS 300 has the familiar shape and control positions of the OFS 300 but is half the weight and has a molded easy grip case with easy access battery compartment.

The magnification of the unit is equivalent to 400X (23-degree field of view comparable to 8" monitor viewed at a distance of 20") and provides 600X when its video output is displayed on a 12" monitor. The unit uses all the OFS 300 adaptor caps and has an energy saving automatic shutoff.

Specifications

OPTICAL SPECIFICATIONS	
Magnification	400X equivalent to 8" monitor for 20" distance, 600X on 12" monitor
Adaptor mount	Thread-on (Universal)
Safety filter	Not Required - No optical path to user
Video output	NTSC

GENERAL SPECIFICATIONS	
Operating temperature	0 to +50°C
Storage temperature	-20 to +60°C
Humidity	0 to 90% (non - condensing)
Power supply	2 AA alkaline batteries, optional AC adapter
Battery life	10 hours continuous
Indicators	Low battery
Weight	0.94 lbs (0.42 kg)
Size (H x W x D)	3.5 x 1.5 x 8.5 in (8.9 x 3.8 x 21.6 cm)

Ordering Information

MODEL	INCLUDES
VS 300	VS 300 Inspection Scope, 2 x AA batteries, neck strap, 2.5 mm universal adapter cap, and user's guide

NOYES
Test & Inspection

A Division of **AFL** Telecommunications

OFS 300 Optical Fiber Scope

The Noyes OFS 300 from AFL Telecommunications is a versatile Optical Fiber Scope with precision 200X magnification. This handheld and rugged scope is used for inspection of optical fiber connectors for scratches, dirt, or other problems normally associated with poor transmission performance.

A built-in laser safety filter provides > 40 dB IR protection to reduce risk of injury to the eye if accidentally viewing an active fiber.* The OFS 300 features a universal adapter cap mount that accepts a variety of Noyes thread-on style adapter caps (ordered separately) to ease inspection of many connector style. A momentary power switch located on the top panel keeps one hand free for focusing.

The OFS 300 offers 60 hours of continuous battery life from standard 2 x AA batteries and features an LED indicator, which will flash when barriers require replacement.

Features

- Laser safety filter installed*
- Precision 200X zoom
- Universal adapter interface
- Low battery LED indicator
- Long battery life with 2 x AA alkaline
- Tripod mount
- Rugged, handheld, easy to use

*Always follow your company's laser safety procedures and never use an optical microscope to view live fiber optic connectors.

Specifications

OPTICAL SPECIFICATIONS	
Nominal magnification	200X
Adapter mount	Universal, thread-on
Safety filter	Schott KG3, > 40 dB IR

GENERAL SPECIFICATIONS	
Operating temperature	0 to +50°C
Storage temperature	-20 to +50°C
Power	2 x AA batteries
Battery life	> 60 hours
Weight in use	0.67 kg (1.5 lbs)
Size (H x W x D)	13 x 5 x 20 cm (5 x 2 x 8 in)

Ordering Information

MODEL	INCLUDES
OFS 300	OFS 300 Inspection Scope, 2 x AA batteries, neck strap, 2.5 mm universal adapter cap, and user's guide

NOYES
Test & Inspection

A Division of **AFL** Telecommunications

One-Click Cleaner

With Innovative Push-to-Clean Design

The One-Click Cleaner is an easy-to-use option for cleaning connectors in adapters. Simply insert the One-Click Cleaner into an adapter and push until an audible "click" is heard. The One-Click Cleaner uses the mechanical push action to advance an optical grade cleaning tape while the cleaning tip is rotated to ensure the fiber end-face is effectively, but gently, cleaned.
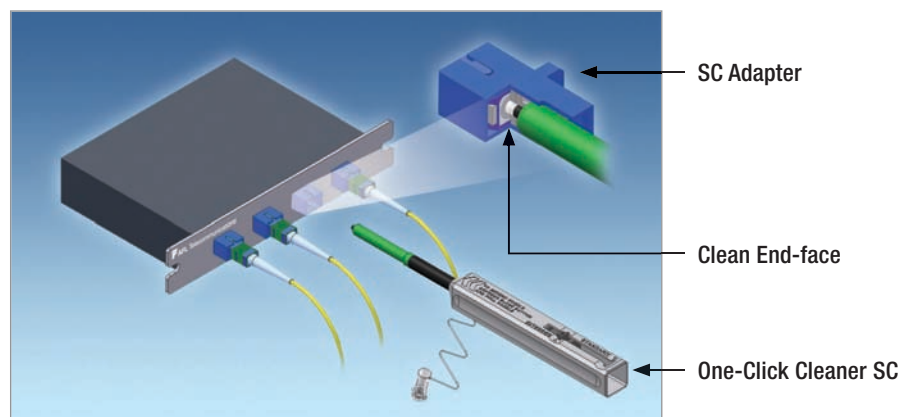
New! Rugged ODC® Version Available

With the increasing demand of Outdoor Connector (ODC) plug and socket styles, the ODC One-Click Cleaner, which cleans the ferrules in ODC plug, socket and 1.25 mm ferrules, is an essential cleaning tool for WiMax Base Station, Fiber-to-the Antenna, Broadcasting and Surveillance Video technicians.

The One-Click Cleaner is a must-have for field technicians. Small enough to fit in a shirt pocket and a great addition to cleaning kits. Save your wrist – no more twist!

Dimensions

- Base: 17.5mm x 17.5mm (0.68" x 0.68")
- Length: 172mm (6.88")
- Extended Length: 252mm (9.92")
- Adjustable tip extends from 40mm to 80mm (1.77" to 3.15") to reach deep into panel

MU/LC Cleaner *SC/ST/FC Cleaner* *ODC Cleaner*

Features

- Cleans both APC and UPC connectors
- Cleans ODC® connectors
- Ergonomic, comfortable design with single action cleaning
- Precise mechanical action delivers consistent cleaning results
- Low cost per clean with over 500 cleanings in one unit
- Effective on a variety of contaminates including dust and oils
- Automatic advance ensures each clean is performed with fresh cleaning tape
- Compliant with EU/95/2002/EC Directive (RoHS)

SC Adapter

Clean End-face

One-Click Cleaner SC

Illustration of cleaning procedure for SC connectors

Ordering Information

PART NUMBER	DESCRIPTION
8500-05-0001MZ	Cleans SC, ST, and FC connectors in adapters and exposed 2.5mm ferrules
8500-05-0002MZ	Cleans LC and MU connectors in adapters and exposed 1.25mm ferrules
8500-05-0004MZ	Cleans ODC's plug and socket connectors and exposed 1.25mm ferrules

Note: ODC is a registered trademark of Huber+Suhner

Cletop -S Series

Cletop Series

Features

- Compact and lightweight design is ideal for use in laboratories, assembly lines, or in the field
- Consistent cleaning results without IPA alcohol, which is toxic, flammable, and leaves a residue on fiber ends (white haze)
- Excellent anti-static properties for static sensitive applications and to minimize reattachment of dust to ferrule after cleaning
- Simple push button shutter operation exposes cleaning tape only when in use – minimizing unwanted dust
- Replaceable and cost effective cleaning tape
- Over 400 wipes per tape

Cletop Cassette Cleaner Series

The Cletop connector cleaner is a rugged palm-sized cleaner that offers exceptional performance with a proven track record. The choice of many leading manufacturers and telecom carries worldwide for nearly 20 years – Cletop is a name you can rely on.

Why Clean Fiber Connectors?

- Pits and scratches are often caused by dirt
- Dust, dirt, oils, etc. are everywhere and will migrate to exposed connector end-faces
- Dirty connectors attenuate signal levels and can increase digital bit error rates
- Always clean both connectors when mating / unmating to avoid contamination transfer

Cletop Cassette Cleaner Options

- Cletop Series - Original version (proven reliability)
- Cletop –S Series - Second generation cleaner offering the same Cletop cleaning performance with "Drop-in" replacement tape cartridge and ergonomic design that works equally well for left or right handed operators
- Type A & -SA - Designed for single 2.5mm ferrules (SC, FC, ST, & D4)
- Type B & -SB - Cleans SC, SC2, FC, ST®, DIN, D4, MU, LC, MT, MPO/MTP® without pins, MT-RJ without pins
- Type MPO - Accepts MPO/MTP® connectors with pins
- Type MT-RJ - Accepts MT-RJ connectors with pins

Specifications

PARAMETER	VALUE
Size	5.1 x 3.0 x 1.6 inches (130 x 75 x 40 mm)
Weight	0.35 pounds / 160 grams

Ordering Information

PART NUMBER	DESCRIPTION
CLETOP – S SERIES	
8500-10-0020MZ	Cletop -SA with Blue Tape
8500-10-0029MZ	Cletop -SB with Blue Tape
8500-10-0016MZ	Cletop -SB with White Tape
8500-10-0021MZ	Replacement Tape Type S - Blue
8500-10-0017MZ	Replacement Tape Type S - White
CLETOP ORIGINAL SERIES	
8500-10-0027MZ	Cletop Type A with Blue Tape
8500-10-0011MZ	Cletop Type A with White Tape
8500-10-0028MZ	Cletop Type B with Blue Tape
8500-10-0014MZ	Cletop Type B with White tape
8500-10-0032MZ	Cletop for MT-RJ with pins (White Tape)
8500-10-0033MZ	Cletop for MPO/MTP with pins (White Tape)
8500-10-0012MZ	Replacement Tape Blue
8500-10-0015MZ	Replacement Tape White

ST is a registered trademark of Lucent Technologies
MTP is a registered trademark of US Conec

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FCC2 Fiber Connector Cleaner

FCC2 is a nonflammable, environmentally safe, residue-free solvent engineered to clean fiber connector end-faces. A new and improved design of the 3-way dispenser intended for easy one-handed use with fiber wipes, convenient wetting of CCT connector cleaning tips, and spray nozzle functionality. Packaged in unique, spill-proof containers, it can be shipped with tool kits so technicians avoid wasting time sourcing a cleaner locally. Offering high purity and fast consistent cleaning, FCC2 was developed with and is packaged by Micro Care Corporation, a world leader in cleaning solvents.

Features

New 3-way dispenser in one convenient package

Electrically conductive, FCC2 neutralizes "particle cling" by releasing ionic bonds that bind contaminates to the fiber end-face

Double-filtered to 0.2 microns, this optical grade solvent leaves no residue when drying

Less drying time than IPA Alcohol

Low odor, nonflammable

Ozone safe, environmentally safe, US EPA SNAP approved

Not Hazardous/Not Regulated for all modes of transport, including air cargo

Can be shipped with a fusion splicer or test equipment

Applications

Designed for use with CCT Connector Cleaning Sticks

Excellent for cleaning light oils, salts, moisture, fingerprints, dust, lint, grime, flux residues, and uncured epoxies

With rapid drying time, the FCC2 is essential when cleaning connectors in adapters where airflow is minimal

> *NOTE*: *While it is generally safe on plastics, testing is recommended when used on plastic optical fibers.*

EU RoHS / WEEE Compliant

FCC2 is certified as a lead-free product and meets RoHS and WEEE standards.

Health, Safety & Environmental Data

PARAMETER	VALUE
Flashpoint (TCC)	None
Weight	3 oz / 85 g
Safety Rating	Nonflammable
NFPA	Health: 1 Fire: 0 Reactivity: 1
Vapor Density (Air = 1)	4
Ozone Impact	Zero
TSCA Listed	No

Ordering Information

PART NUMBER	DESCRIPTION
FCC2-00-0900	Fiber Connector Cleaner in 3 oz / 85 g can
FCC2-00-0901	Case of 12 cans

FPF1 Fiber Prep Fluid

FPF1 fluid is a nonflammable, nonhazardous cleaner for use on optical fiber after stripping, prior to termination or fusion splicing, and for cleaning connector end-faces after polishing. A new and improved design of the 3-way dispenser intended for easy one-handed use with fiber wipes, convenient wetting of CCT connector cleaning tips, and spray nozzle functionality. Packaged in unique, spill-proof containers, it can be shipped with tool kits so technicians avoid wasting time sourcing a cleaner locally. Offering high purity and fast consistent cleaning, FPF1 was developed with and is packaged by Micro Care Corporation, a world leader in cleaning solvents.

Features

New 3-way dispenser in one convenient package

Electrically conductive, FPF1 neutralizes "particle cling" by releasing ionic bonds that bind contaminates to the fiber end-face

Double-filtered to 0.2 microns, this optical grade solvent leaves no residue when drying

Less drying time than IPA Alcohol

Low odor, nonflammable

Ozone safe, environmentally safe, US EPA SNAP approved

Not Hazardous/Not Regulated for all modes of transport, including air cargo.

Can be shipped with a fusion splicer or test equipment

Applications

Cleaning optical fibers prior to termination or fusion splicing

Excellent for cleaning light oils, salts, moisture, fingerprints, dust, lint, grime, flux residues, and uncured epoxies

> *NOTE*: While it is generally safe on plastics, testing is recommended when used on plastic optical fibers.

EU RoHS / WEEE Compliant

FPF1 is certified as a lead-free product and meets RoHS and WEEE standards.

Health, Safety & Environmental Data

PARAMETER	VALUE
Weight	3 oz / 85 g
Flashpoint (TCC)	None
Safety Rating	Nonflammable
NFPA	Health: 1 Fire: 0 Reactivity: 1
Vapor Density (Air = 1)	4
Ozone Impact	Zero
TSCA Listed	No

Ordering Information

PART NUMBER	DESCRIPTION
FPF1-00-0900	Fiber Prep Fluid in 3 oz / 85 g can
FPF1-00-0901	Case of 12 cans

FiberWipes™

New Material – New Packaging – Superior Wipes

Specifically designed to remove and trap common contaminants found in fiber optic installations, AFL Telecommunications' FiberWipes provide superior cleaning results from material that is stronger and more absorbent, yet softer than traditional cellulose wipes. Packaged in a clean room, the fabric is considered "fiber optic grade". FiberWipes are available in rugged mini-tubs (90 wipes) or in hermetically sealed individual packages (FiberAide 1) and are the perfect size for tool kits and test kits.

Applications

- Cleaning optical fibers prior to termination or splicing
- Cleaning fiber optic connector end-faces
- Cleaning lenses, mirrors, and other optical surfaces

FiberWipes

- Small package footprint ideal for a laboratory or field use
- Rugged 90-wipe mini-tub keeps wipes clean and dry prior to use
- Octagonal cover minimizes rolling distance if dropped
- Solvent safe; may be moistened to provide wet / dry cleaning
- Instructions for use on the side of the tub

FiberAide 1

- Hermetically sealed wipes remain uncontaminated and ready for use
- Foil backed wipes protect skin from cleaning solvents and cable gel
- Packaging contains no glues to leach out
- Button hole for placement on panel board or keychain
- Ideal for shipping with OEM equipment to prevent contamination of fiber surfaces at installation
- Solvent safe; may be moistened to provide wet / dry cleaning
- Pictorial instructions on each package

Features

- Lint free
- Sized for fiber and connector cleaning
- Robust and tear-resistant

Specifications

PRODUCT	WIPE SIZE	PACKAGE SIZE	PACKAGE WEIGHT
FiberWipes	4.25" W x 2" H	3" Dia x 3" H	2.6 oz
FiberAide 1	2.75" W x 1.5" H	4.25" W x 2.75" H	0.6 oz / 10 packets

Ordering Information

PART NUMBER	DESCRIPTION
9000-03-0026MZ	FiberWipes – case of 24 mini-tubs (2160 total wipes, 90 wipes per mini-tub)
9000-03-0027MZ	FiberAide 1 – case of 600 packets (60 bundles, 10 packets per bundle)

FiberWipes is a trademark of MicroCare Corporation.
FiberAide 1 is patent pending.

FCP1 Series Cleaning Kit

C182120 Cleaning Kit

Fiber Optic Cleaning Kits

AFL Telecommunications offers a complete selection of fiber optic cleaning kits for field cleaning of connector end faces in fiber frames, adapters and on jumpers. Using our exclusive FCC2 and FPF1 non-hazardous cleaning fluids and CCT molded cleaning tips, the AFL cleaning kits deliver compact, safe, easy to use, reliable cleaning for all types of fiber optic connector end faces including Military and Multiple Fiber Ferrule designs.

Kit Contents by Application

APPLICATION	CLEANING MATERIALS	DESCRIPTION
For cleaning connector end-faces within alignment sleeves (bulkhead adaptors, female socket connectors)	FCC2	Optical quality cleaning fluid
	CCTS-25	2.5mm cleaning tips for FC, SC, ST type standard connectors
	CCTS-12	1.25mm cleaning tips for LC, MU type small form factor connectors
	CCTS-16	1.6mm cleaning tips for 2.0mm and 1.6mm termini in military connectors and D4 connectors
For cleaning ferrule end-faces that are exposed (jumpers and patch cords)	FCC2	Optical quality cleaning fluid
	Cletop	Reel type cleaner
	CCTP-25	Universal cleaning tip for exposed ferrule and termini end-faces on jumpers or military connectors
For cleaning alignment sleeves	FCC2	Optical quality cleaning fluid.
	ACT01	2.5mm swabs for FC, SC, ST type standard connectors
	ACT02	1.25mm swabs for LC, MU type small form factor connectors
	Cletop Stick-Type	2.0mm swabs for D4 connectors
Additional options	Canned air	For cleaning work area
	VS 300 OFS 300-200 OFS 300-400	Optical or video microscope for end-face inspection
For cleaning fibers prior to fusion splicing or installing FAST™ connectors	FPF1	Optical quality cleaning fluid
	FiberWipes™	Lint free, tear-resistant wipes

See individual data sheets for specification on individual supplies.

Ordering Information

A wide variety of pre-stocked kits makes ordering easy. Choose from the standard kits listed on the page 2 or call us at 800-321-5298 for a custom kit to meet your application needs. To keep your cleaning kits stocked and ready for use, page 3 lists individual cleaning items (refills).

Fiber Optic Cleaning Kits – Selection Guide

Cleaning Supplies

Each kit consists of a wall or rack mountable carry case, FCC2 cleaning fluid, and color-coded instructions.

Each VS300 Scope includes 2.5 mm Universal Cap.

Each stick is double ended, designed for two (2) cleanings.

PART NUMBER	OLD PART NUMBER	CCTS-25-0900 40 pieces for FC, SC, ST adapters BLUE	CCTS-12-0900 40 pieces for LC, MU adapters GREEN	CCTS-16-0900 40 pieces for D4 and Mil socket adapters ORANGE	CCTP-25-0900 20 pieces for all connector end YELLOW	CCTX-MT-0900 20 pieces for MTP, MPO, MPX PINK	CLETOP TYPE	VS 300 VIEW SAFE SCOPE
SOFT CASE CLEANING KITS								
FCP1-00-0900		1	1		2		A	
FCP1-00-0901		1			2		SB	
FCP1-00-0902		1			2			
FCP1-00-0903		1	1	1	2	2		
FCP1-00-0904		1	1	2	6			
FCP1-00-0905		1	1	1	2		SB	
FCP1-00-0906		1	1	1	2			
FCP1-00-0907	FCP1-37A	3	1		1	1		
FCP1-00-0908	FCP1-37B	3	1		1	1	SB	
FCP1-00-0909	FCP1-25D	3			1			
FCP1-00-0912	FCP1-25F	5			1			
FCP1-00-0913	FCP1-25A	3			1		SB	
FCP1-00-0914	FCP1-37C	2	1		1		SB	
FCP1-00-0915	FCP1-37D	3	1	1	4	1		
FCP1-00-0916	FCP1-GBE1	2	1		1		SB [1]	
FCP1-00-0917	FCP1-LM1	2	1		6			
FCP1-01-0900		1			2		A	1
FCP1-01-0901		1			2			1
FCP1-01-0902		1	1	1	2		SB	1 [2]
FCP1-01-0903		1	1	1	2			1 [2]
FCP1-01-0904		2	2		2		A	1 [2]
FCP1-01-0905		1	1		2	1	SB	1
HARD CASE CLEANING KITS								
FCP1-02-0901PF		3	3		2		SB	1 [3]
C182120	AFL Connector/Adapter Cleaning Kit includes: Cletop –SB (Qyt = 1), Replacement Reel for Cletop –SB (Qty = 1), ACT-01 Cleaning Tips for 2.5mm adaptors (Qty = 20), 2 mini-tubs of FiberWipes (Qty = 90 wipes per mini-tub) , Can of Fiber Prep Cleaning Fluid (Qty = 1).							

1 Includes SB replacement cartridge.
2 Includes 2.0mm and 1.25mm Universal Cap.
3 Includes 1.25mm Universal Cap.

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Fiber Optic Cleaning Kits – Restocking Guide

Cleaning Fluids and CCT Double Ended Cleaning Sticks

For best results, use CCT sticks with FCC2 fluid.

PART NUMBER	DESCRIPTION
FCC2-00-0900 FCC2-00-0901	FCC2 - Fiber Connector Cleaner: Optical Quality Cleaning Fluid for fiber connector end faces - nonflammable, not hazardous, not regulated (Including air-cargo).
FPF1-00-0900 FPF1-00-0901	FPF1 - Fiber Preparation Fluid: Optical Quality Cleaning Fluid for cleaning optical fiber (after stripping) before field termination or fusion splicing. Also works well as connector end face cleaner after polishing and as electrical contact cleaner - nonflammable, not hazardous, not regulated (Including air-cargo).
CCTP-25-0900	Connector Cleaning Tips for exposed 2.5mm, 2.0mm, 1.6mm ferrules and termini (FC, SC, ST, LC, MU, etc., jumpers and male Mil C 38999 & 28876). Yellow (20 sticks per tube).
CCTS-25-0900	Connector Cleaning Tips for 2.5mm ferrule in adapters or sockets (SC, FC, ST, etc. in adapters). Blue (40 sticks per tube).
CCTS-12-0900	Connector Cleaning Tips for 1.25mm ferrule in adapters or sockets (LC, MU, etc., in adapters). Green (40 sticks per tube).
CCTS-16-0900	Connector Cleaning Tips for MT-RJ connectors and 2.0mm and 1.6mm termini in sockets (female Mil C 38999 & 28876 and MT-RJ both jumpers and adapters). Orange (40 sticks per tube).
CCTX-MT-0900	Connector Cleaning Tips for Biconic & MT ferrule connectors both jumpers and in adapters (Biconic, MTP, MPO, MPX, etc.) Pink (20 sticks per tube).

Cletop (ACT) Cleaning Sticks

PART NUMBER	DESCRIPTION
8500-10-0024MZ	**ACT-01** 2.5mm single-ended sticks (box of 200) For FC, SC, ST, & D4
8500-10-0022MZ	**ACT-02** 1.25mm single-ended sticks (box of 200) For LC & MU
8500-10-0023MZ	**ACT-03** 2.0mm single-ended sticks (box of 200) For Military and Hight Definition Video (LEMO)
8500-10-0030MZ	2.0/2.5mm double-ended sticks (box of 100) For Military and Hight Definition Video (LEMO)
8500-10-0031MZ	2.5mm single-ended sticks w/ guide sleeve (box of 100) For Military and Hight Definition Video (LEMO)

Cletop Cassette Cleaner Options

PART NUMBER	DESCRIPTION
Cletop –S Series	
8500-10-0020MZ	Cletop –SA with Blue Tape
8500-10-0029MZ	Cletop –SB with Blue Tape
8500-10-0016MZ	Cletop –SB with White Tape
8500-10-0021MZ	Replacement Tape Type S - Blue
8500-10-0017MZ	Replacement Tape Type S - White
Cletop Original Series	
8500-10-0027MZ	Cletop Type A with Blue Tape
8500-10-0011MZ	Cletop Type A with White Tape
8500-10-0028MZ	Cletop Type B with Blue Tape
8500-10-0014MZ	Cletop Type B with White Tape
8500-10-0032MZ	Cletop for MT-RJ with pins (White Tape)
8500-10-0033MZ	Cletop for MPO/MTP with pins (White Tape)
8500-10-0012MZ	Replacement Tape Blue
8500-10-0015MZ	Replacement Tape White

FiberWipes

PART NUMBER	DESCRIPTION
9000-03-0026MZ	FiberWipes – case of 24 mini-tubs (2160 total wipes, 90 wipes per mini-tub)
9000-03-0027MZ	FiberAide 1 – case of 600 packets (60 bundles,10 packets per bundle)

Refills for Test & Inspection Kits

PART NUMBER	DESCRIPTION	IMCLUDES
8500-20-0900	Wet Cleaning Kit	8500-10-0016MZ, Cletop-SB. CCTS-25-0900, Connector Cleaning Tips for 2.5mm ferrule in adapters or sockets (SC, FC, ST in adaptors). Blue (1 tube = 40 sticks). CCTS-12-0900, Connector Cleaning Tips for 1.25mm ferrule in adapters or sockets (LC, MU, etc., in adapters). Green (1 tube = 40 sticks). FCC2-00-0900, Optical Quality Cleaning Fluid for fiber connector end faces.
8500-20-0901	Dry Cleaning Kit	8500-10-0016MZ, Cletop -SB. 8500-10-0024MZ, ACT-01 2.5mm adapter cleaning tips – Qty = 200.

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