

## **FIBER INSIDE PLANT**

Rack Mount Panels | Optical Modules | Cable Assemblies | Components





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Wall Mount Interconnect Module (WME)

Wall Mount Interconnect Module (WME)

**Fiber Management** 







#### **Features**

- Pre-stubbed, factory-polished ferrule
- No epoxy required
- Precision mechanical alignment ensures low loss
- Fiber can be reseated
- 3.0 mm, 2.0 mm, and 900 µm 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

### **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 250  $\mu m$  and 900  $\mu m$  optical fibers, as well as 900  $\mu m$ , 2 mm, and 3 mm cordage. All primary fiber types are supported, and each connector is color coded per industry standard requirements to aide in identification during and after installation. A factory-installed wedge clip (included with each connector) is removed and discarded upon completion of the termination. Incorporated into this device is an innovative, translucent wedge enabling the use of a common VFI to provide a "pass/fail" signal once physical contact is achieved.

#### **Testing**



#### **Specifications**

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

#### **Ordering Information**

FIBER TYPE	HOUSING COLOR   CABLE SIZE		AFL NO.		
FAST SC Connector (packaged 12 per bag)					
Multimode 50/125	Black		CS007611-12		
Multimode 62.5/125	Beige	3.0 mm, 2.0 mm, 900 µm, 250 µm	CS007610-12		
Single-mode	Blue	3.0 mm, 2.0 mm, 900 µm, 250 µm	CS007609-12		
Multimode 50/125 OM3 (10 gig)	Aqua		CS007612-12		
FAST ST Connector (packaged 12 per bag)					
Multimode 50/125	Black		CS008481-12		
Multimode 62.5/125	Beige	2.0 2.0 000 250	CS008480-12		
Single-mode	Blue	3.0 mm, 2.0 mm, 900 μm, 250 μm	CS008479-12		
Multimode 50/125 OM3 (10 gig)	Aqua		CS008482-12		
FAST LC CONNECTOR (packaged 12 per bag)					
Multimode 50/125	Black		CS007615-12		
Multimode 62.5/125	Beige	3.0 mm, 2.0 mm, 900 µm, 250 µm	CS007614-12		
Single-mode	Blue	5.0 mm, 2.0 mm, 900 μm, 250 μm	CS007613-12		
Multimode 50/125 OM3 (10 gig)	Aqua		CS007616 -12		

DESCRIPTION	AFL NO.
VISUAL FAULT IDENTIFIERS	
AFL Noyes VFI 2	VFI2-00-0900
AFL Noyes HiLite	VFI3-00-0900
1.25 mm Universal Adapter	2900-50-0010MR

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





Tool Kit Contents

### **FAST™ Connector Universal Tool Kit**

The FAST Connector Universal Tool Kits provide all the necessary installation tools required for fiber preparation of 250  $\mu$ m or 900  $\mu$ m fibers, or 900  $\mu$ m, 2 mm, or 3 mm cordage for AFL's pre-polished FAST connectors. Featuring either the CT-30A or CT-10A fiber cleaver, the FAST Connector Universal Tool Kit contains all the industry standard termination tools required for fiber preparation. Additionally, the carrying case has adequate storage for extra FAST connectors for on-site convenience.

#### **Applications**

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

#### **Features**

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



CT-30A Cleaver

#### **Ordering Information**

DESCRIPTION	AFL NO.
FAST Connector Universal Tool Kit with CT-30A Cleaver	CS001201
FAST Connector Universal Tool Kit with CT-10A Cleaver	CS010975

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

### **Cleaver Specifications**



CT-10A Cleaver

	VALUE				
PARAMETER	CT-10A	CT-30A			
Applicable Fiber	Conventional silica optical fiber				
Fiber Count	Single fiber	Single fiber or ribbon fiber			
Coating Diameter	250 μm to 900 μm				
Cladding Diameter	125 μm				
Cleave Length	6 to 20 mm (with AD-10 & coating = 250 μm)	6 to 20 mm (with AD-30A & coating = 250 μm)			
	8 to 20 mm (with AD-10 & coating > 250 μm)	10 to 20 mm (with AD-30A & coating > 250 µm			
	10 mm (with FH-50/60 fiber holders)	10 mm (with FH-50/60 fiber holders)			
Cleave Angle Capability	Typically 0.5°	Typically < 0.5°			
Dimensions (W x D x H)	71 mm x 88 mm x 48 mm (2.8" x 3.5" x 1.9")	69 mm x 82 mm x 41 mm (2.7" x 3.2" x 1.6")			
Weight	220 g (0.48 lbs)	180 g (0.4 lbs)			
Blade Lifetime	64,000 fiber cleaves (4,000 x 16 positions) 48,000 fiber cleaves (4,000 x 12 positions) with FH-50/60 fiber holders	48,000 fiber cleaves (4,000 12-fiber cleaves)			





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

#### **Applications**

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

#### **Ordering Information**

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

<sup>\*</sup> Packaged 100 pieces per bag.





FuseConnect Connectors (SC, FC, LC, ST)



FuseConnect Packaging



FuseConnect LC Connecters – Duplex Clip Installed



FuseConnect in Fusion Splicer

# FuseConnect<sup>™</sup> Fusion Spliced Field-Terminated Connectors

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 minimizing the potential for operator error and expensive connector scrap.

FuseConnect utilizes a fusion splicer to terminate the connector in the field, addressing return loss concerns present in analog optical networks. This advanced process yields true APC performance of >65 dB return loss in an SC/APC configuration and SC single-mode is compliant to GR-326-CORE. Designed to work with an industry standard 10 mm cleave length and splicers utilizing a fiber holder system, FuseConnect is compatible with Fujikura fusion splicers and most other fiber holder-based fusion splicing platforms.

FuseConnect 900  $\mu$ m connectors do not require the optional FuseConnect Installation Kit. They only require the 900  $\mu$ m FuseConnect fiber holder for installation.

#### **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, LC, FC, ST
Cable Type	900 μm, 2 mm, 3 mm
Polish	APC, UPC, PC
Insertion Loss	SM: 0.15 dB (average), 0.3 dB (maximum) / MM: 0.10 dB (average), 0.3 dB (maximum)
Return loss	SM = > 65  dB (APC), > 55  dB (UPC) / MM = > 30  dB (PC)
Operating Temperature	-40°C to +75°C

#### **Ordering Information**

				AFL		
CONN. Type	BOOT TYPE	UPC SM (Blue)	APC SM (Green)	PC 62.5 µm MM (Beige)	PC 50.0 µm MM (Black)	PC 50.0 µm 10GIG MM (Aqua)
SC	900 µm**	CS010247	CS010245	CS010249	CS010251	CS010253
	2 mm	CS004519	CS004516	CS007794	CS007800	CS007806
	3 mm	CS004518	CS004515	CS007793	CS007799	CS007805
LC	900 µm	CS008237	CS010241	CS008243	CS008241	CS008239
	2 mm	CS008248	CS010242	CS008254	CS008252	CS008250
FC	900 µm	CS010259	_	CS010261	CS010341	CS010343
ST	900 µm	CS011251	_	CS011252	CS011253	CS011254

DESCRIPTION	AFL NO.
LC Duplex Clip (package of 6 clips)	CS010437-06

<sup>\*</sup> AFL NO. is for a single unit

<sup>\*\*</sup> FuseConnect SC 900 µm second generation





FuseConnect MPO Connectors, Cable



FuseConnect MPO Connectors, Ribbon

# FuseConnect™ MPO Fusion Spliced Field-Terminated Connectors

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

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

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

#### **Features**

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

#### **Applications**

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

#### **Specifications**

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



# FuseConnect™ MPO Fusion Spliced Field-Terminated Connectors

#### **Ordering Information**

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

<sup>\*</sup>Pack of 6 pieces

#### **Ordering Information - Accessories**

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





FuseConnect Installation Kit



FuseConnect in Fusion Splicer

#### **Applications**

- RF-overlay FTTP network connectorization
- Cable TV backbone network connectorization
- Outside plant connectorization
- Central office connector replacement
- Data center installation
- MDU optical fiber termination

# FuseConnect<sup>™</sup> Installation Kit For Fusion Spliced Field-Terminated Connectors

The FuseConnect Installation Kit is uniquely designed to extend the capability of fiber holder based fusion splicers beyond standard fiber splicing to field terminated connector splicing. The kit provides all items necessary to configure a splicer for field splicing of AFL FuseConnect field terminated connectors. The installation kits come equipped with all components necessary to handle 900  $\mu$ m, 2 mm, and 3 mm cable. FuseConnect is compatible not only with Fujikura's fusion splicers, but also with most other industry-available, fiber holder-based fusion splicing platforms.

#### **Kit Contents**

		KIT AFL NO>	S014492	S014516	
	SPLICER	COMPATIBILITY ->	18SR/60SR/50R/17R/17S-FH	11S/11R	
ITEM	DESCRIPTION	APPLICATION	SH-8C-23	SH-8C-43	AFL NO.
External Tube Heater	SH-8C	For FuseConnect tube heating	Included	Included	S014694
Fiber Holder	FH-FC-3000	3 mm cord clamp	Included	Included	S014695
	FH-FC-2000	2 mm cord clamp	Included	Included	S014696
	FH-FC-900	0.9 mm cord clamp	Included	Included	S014697
DC Power Cord	DCC-15	Connects SH-8 to splicer	Included	_	S014698
	DCC-17	Connects SH-8 to BTA-03 or DCA-02	_	Included	S014699
Hanger Plate	HP-08	Attaches SH-8C to 50R/17S-FH/17R	Included	_	S014700
	HP-10	Attaches SH-8C to 18SR/60SR	Included	_	S014701
Battery Adapter	BTA-03	Attaches SH-8C to 11S/11R	_	Included	S014702
Fiber Transfer Device	FTD-01	To transfer from splice point to tube heat device	Included	Included	S014703
Cable Clamp	CLAMP-FC-3000	For holding single 3 mm cord (qty 2)	Included	Included	S014704
	CLAMP-FC-2000	For holding single 2 mm cord (qty 2)	Included	Included	S014705

#### Notes:

- 1) SpliceMate™ requires two BTR-07 batteries for DC operation of both splicer and FuseConnect heater.
- 2) SpliceMate requires one DCA-02 for AC operation of both splicer and FuseConnect heater.
- 3) Configurations available for other splicer models, including competitor models. Please contact your AFL representative.

#### **Ordering Information**

DESCRIPTION	QUANTITY	AFL NO.
FuseConnect Installation Kit for:	1	S014492
FSM-60R/60S, FSM-18R/18S, FSM-50R, FSM-17R & FSM-17S-FH		
FuseConnect Installation Kit for: SpliceMate FSM-11S, FSM-11R	1	S014516

#### 900 µm and Fan-out Termination Only Accessories

DESCRIPTION	QUANTITY	AFL NO.
FH-FC-900	1	S014697
Fiber Clamp 250 μm	1	CS004442
S014752 Clamp-60D Left side only for 900 µm LT, FSM-60S, FSM-18S	1	S014752





FuseConnect LC Keyed Housings



LC Keyed Duplex Adapters



FuseConnect LC Keyed Housings Installed (900 µm)

## **FuseConnect™ Keyed LC Solutions**

AFL's keyed LC FuseConnect fusion splice connector utilizes the current FuseConnect LC design features, only using a keyed housing instead of standard housing. With the keyed configuration, this connector provides a secure network solution, suitable for backbone network infrastructure and Fiber-to-the-Desk.

The keyed LC housing is available in six different keying configurations, each with its own color designation. The physical keying feature inside the housing is designed to be compatible only with the same keyed color adapter configurations. Both LC keyed housings and adapters are designed to be tamper proof, prevent unauthorized connections and will not connect with generic LC connectors or adapters.

The four-component structure of FuseConnect eliminates the complexity associated with additional crimp ring parts, thereby 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.

#### **Ordering Information – FuseConnect Keyed Solutions**

			AFL NO.		
DESCRIPTION	COLOR	UOM	SINGLE-MODE	MULTIMODE	
FuseConnect LC Keyed Housing Kit (Package of 6 pieces per kit)					
FuseConnect LC, Red Keyed Housing	Red	KIT	CS009799		
FuseConnect LC, Blue Keyed Housing	Blue	KIT	CS009800		
FuseConnect LC, Black Keyed Housing	Black	KIT	CS009801		
FuseConnect LC, Yellow Keyed Housing	Yellow	KIT	CS009802		
FuseConnect LC, Orange Keyed Housing	Orange	KIT	CS009803		
FuseConnect LC, Green Keyed Housing	Green	KIT	CS009804		

LC Keyed Duplex Adapter (Package of one unit)						
LC Keyed Duplex Adapter, Red	Red	EA	CS009930-RED	CS009931-RED		
LC Keyed Duplex Adapter, Blue	Blue	EA	CS009930-BLU	CS009931-BLU		
LC Keyed Duplex Adapter, Black	Black	EA	CS009930-BLK	CS009931-BLK		
LC Keyed Duplex Adapter, Yellow	Yellow	EA	CS009930-YLW	CS009931-YLW		
LC Keyed Duplex Adapter, Orange	Orange	EA	CS009930-ORN	CS009931-ORN		
LC Keyed Duplex Adapter, Green	Green	EA	CS009930-GRN	CS009931-GRN		

LC Keyed Hybrid Duplex Adapter (Package of one unit)							
LC Keyed Hybrid Duplex Adapter, Red	Red	EA	CS009932-RED	CS009933-RED			
LC Keyed Hybrid Duplex Adapter, Blue	Blue	EA	CS009932-BLU	CS009933-BLU			
LC Keyed Hybrid Duplex Adapter, Black	Black	EA	CS009932-BLK	CS009933-BLK			
LC Keyed Hybrid Duplex Adapter, Yellow	Yellow	EA	CS009932-YLW	CS009933-YLW			
LC Keyed Hybrid Duplex Adapter, Orange	Orange	EA	CS009932-ORN	CS009933-ORN			
LC Keyed Hybrid Duplex Adapter, Green	Green	EA	CS009932-GRN	CS009933-GRN			

#### **Ordering Information – FuseConnect Connectors**

	AFL NO. (Package of one unit, keyed housing not included)						
BOOT TYPE							
900 μm	CS008237	CS008243	CS008241	CS008239			
2 mm	CS008248	CS008254	CS008252	CS008250			



## **FuseConnect<sup>™</sup> Keyed LC Solutions**



FuseConnect LC Connector in Package

#### **Specifications**

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







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

#### **Features**

- Quick splicing time
- Minimal tools
- 250 μm and/or 900 μm fiber capabilities
- Both fiber and coating are secured independently

#### **Applications**

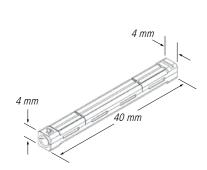
- Restoration
- Premise environments
- Fiber-to-the-Subscriber (FTTx) applications

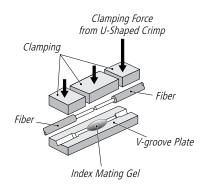


#### **Ordering Information**

DESCRIPTION	AFL NO.
SpliceConnect Mechanical Splices (Bag of 6)	CS004154
SpliceConnect Mechanical Splice Tool Kit	CS004162
Kit Includes:	
SpliceConnect Mechanical Splicing Tool	CS004155
Fiber Holder, 250 μm	CS004442
Fiber Holder, 900 μm	CS004443
Instruction Manual	CS004159
Instruction Video	CS004160
Carrying Case	CS004161
SpliceConnect Mechanical Splicing Tool	CS004155
Fiber Holder, 250 μm	CS004442
Fiber Holder, 900 μm	CS004443





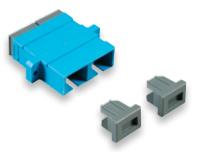








SC Simplex Adapters



SC Duplex Adapters

## **SC Adapters**

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

#### **SC Simplex Adapters**

TYPE	MODE	DESCRIPTION	SLEEVE	COLOR	AFL NO.
SC Simplex	MM	SC-A Type	Ceramic	Beige	C209560
SC Simplex	MM	SC-A Type	Metallic	Beige	C209563
SC Simplex	SM	SC-A Type	Ceramic	Blue	C028851
SC Simplex	SM	Short Flange	Ceramic	Blue	C058475
SC Simplex	SM	SC-A Type	Ceramic	Plated	C002766
SC Simplex	SM	SC-A Type	Metallic	Blue	C033235
SC Simplex	SM	Short Flange	Metallic	Blue	C057037
SC Simplex	SM	SC-A Type	Metallic	Plated	C002507
SC Simplex	SM / AP	SC-A Type	Ceramic	Green	C080810
SC Simplex	SM / AP	Short Flange	Ceramic	Green	C147880

#### **SC Duplex Adapters**

TYPE	MODE	DESCRIPTION	SLEEVE	COLOR	AFL NO.
SC Duplex	MM	Long Flange	Metallic	Beige	C209383
SC Duplex	MM	Long Flange	Ceramic	Beige	C209081
SC Duplex	SM	No Clip / Screw Mount	Ceramic	Blue	C094862
SC Duplex	SM	Long Flange	Ceramic	Blue	C092258
SC Duplex	SM	Long Flange	Metallic	Blue	C092266



## **SC Shuttered Adapters**

The SC Shuttered Adapters are a safety feature used to prevent potentially harmful exposure to the eye when the connector is not installed or is disengaged. A spring-loaded door automatically covers the adapter when the connector is not installed as safety protection.

#### **SC Style Adapters**

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
SC Simplex	SM	with Shutter Assembly	Metallic	Blue	C097268
SC Simplex	SM	with Shutter Assembly	Ceramic	Blue	C096210
SC Simplex	SM / AP	with Shutter Assembly	Ceramic	Green	C116004
SC Simplex	Shutter Only	-	_	<u> </u>	C087734





## **FC Adapters**

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

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
FC Simplex	SM / AP	Square Mount	Ceramic	Metal	C143346
FC Simplex	SM	Square Mount	Ceramic	Metal	C146558R
FC Simplex	SM	D Mount	Metallic	Metal	C143680
FC Simplex	SM / AP	D Mount	Ceramic	Metal	C146566
FC Simplex	SM	D Mount	Ceramic	Metal	C145357
FC Simplex	SM	Square Mount Die Cast	Metallic	Metal	C066443



## **ST Adapters**

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

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



### **LC Adapters**

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

TYPE	MODE	INSERT	COLOR	AFL NO.
LC Duplex	SM	Ceramic	Blue	C178298
LC Duplex	SM/AP	Ceramic	Green	C203962
LC Duplex	MM	Metallic	Beige	C203956
LC Simplex	SM	Ceramic	Blue	C207202
LC Simplex	MM	Ceramic	Beige	C207205





## **MT-RJ Adapters**

MT-RJ adapters connect industry standard MT-RJ connectors in high-density applications. MT-RJ adapters are keyed for proper alignment and conform to RJ-45 modular plates. Mounting hardware is not included.

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
MT-RJ Duplex	MM	Flange Mount	_	Beige	C196855



## **MTP Adapters**

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

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



## **Hybrid Adapters**

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

TYPE	MODE	DESCRIPTION	INSERT	COLOR	AFL NO.
FC - SC Simplex	SM / AP	Angled Adapter	Ceramic	Stainless Steel	C130082
FC - SC Simplex	SM	Square Mount	Metallic	Stainless Steel	C004127
FC - ST Simplex	SM	Square Mount	Metallic	Stainless Steel	C002401
FC - ST Simplex	SM	Square Mount	Ceramic	Stainless Steel	C032980
SC - FC Simplex	SM	Flat Mount	Metallic	Stainless Steel	C033022
SC - FC Simplex	SM	Square Mount	Ceramic	Stainless Steel	C002453
SC - FC Simplex	SM	Flat Mount	Ceramic	Stainless Steel	C033030
SC - ST Simplex	SM	Flat Mount	Metallic	Blue	C002499
SC - ST Simplex	SM	Square Mount	Metallic	Stainless Steel	C004133
SC - ST Simplex	SM	Flat Mount	Ceramic	Blue	C024392
SC - ST Simplex	SM	Flat Mount	Ceramic	Stainless Steel	C038733





#### **Features**

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

#### **Application**

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

### **Buildout Attenuators**

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

#### **Specifications**

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

#### **Ordering Information**

#### **ULTRA FC SINGLE-MODE BOAS (MALE TO FEMALE)**

CONTIC	\(\alpha\)	DAGIC DEEL	4 = 1 110
CONFIG.	VALUE (dB)	BACK REFL.	AFL NO.
FC / UP	1	≤ 55 dB	C201004
FC / UP	2	≤ 55 dB	C201010
FC / UP	3	≤ 55 dB	C201013
FC / UP	4	≤ 55 dB	C201017
FC / UP	5	≤ 55 dB	C201022
FC / UP	6	≤ 55 dB	C203303
FC / UP	7	≤ 55 dB	C203308
FC / UP	8	≤ 55 dB	C203314
FC / UP	9	≤ 55 dB	C203317
FC / UP	10	≤ 55 dB	C201028
FC / UP	11	≤ 55 dB	C203321
FC / UP	12	≤ 55 dB	C203326
FC / UP	15	≤ 55 dB	C201031
FC / UP	20	≤ 55 dB	C201035
FC / UP	25	≤ 55 dB	C203332
FC / UP	30	≤ 55 dB	C203335

#### ANGLE FC SINGLE-MODE BOAS (MALE TO FEMALE)

CONFIG.	VALUE (DB)	BACK REFL.	AFL NO.
FC / AP	5	≤ 60 dB	C197878
FC / AP	10	≤ 60 dB	C197881
FC / AP	15	≤ 60 dB	C197885
FC / AP	20	≤ 60 dB	C197890

#### **ULTRA ST SINGLE-MODE BOAS**

CONFIG.	VALUE (DB)	BACK REFL.	AFL NO.
ST / UP	5	≤ 55dB	C222113
ST / UP	10	≤ 55dB	C222118
ST / UP	15	≤ 55dB	C222124
ST / UP	20	≤ 55dB	C222127

#### **ULTRA SC SINGLE-MODE BOAS (MALE TO FEMALE)**

			•
CONFIG.	VALUE (DB)	BACK REFL.	AFL NO.
SC / UP	1	≤ 55 dB	C200938
SC / UP	2	≤ 55 dB	C200941
SC / UP	3	≤ 55 dB	C200945
SC / UP	4	≤ 55 dB	C200950
SC / UP	5	≤ 55 dB	C200956
SC / UP	6	≤ 55 dB	C200959
SC / UP	7	≤ 55 dB	C201946
SC / UP	8	≤ 55 dB	C200963
SC / UP	9	≤ 55 dB	C201949
SC / UP	10	≤ 55 dB	C200968
SC / UP	11	≤ 55 dB	C201953
SC / UP	12	≤ 55 dB	C201958
SC / UP	15	≤ 55 dB	C200974
SC / UP	20	$\leq$ 55 dB	C200977
SC / UP	25	≤ 55 dB	C200981
SC / UP	30	≤ 55 dB	C200986

#### ANGLE SC SINGLE-MODE BOAS (MALE TO FEMALE)

CONFIG.	VALUE (DB)	BACK REFL.	AFL NO.
SC / AP	5	≤ 60 dB	C197899
SC / AP	10	≤ 60 dB	C197903
SC / AP	15	≤ 60 dB	C197908
SC / AP	20	≤ 60 dB	C197914

#### **ULTRA LC SINGLE-MODE BOAS**

CONFIG.	VALUE (DB)	BACK REFL.	AFL NO.
LC / UP	5	≤ 55dB	CS000091
LC / UP	10	≤ 55dB	CS000092
LC / UP	15	≤ 55dB	CS000093
LC / UP	20	≤ 55dB	CS000094

NOTE: Attenuators are available in 1 dB increments. Contact customer service for ordering information.





## **Optical Terminators**

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

#### **Specifications**

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

#### **Ordering Information**

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



### **Fanout Kits**

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

#### **Ordering Information**

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



## **Connector Specifications**

PARAMETER	CONNEC	VNECTOR												
	SC		FC		ST		LC		MTP		MT-RJ		MU	
Single-mode Asse	mblies													
Image	-			1	100	1			9		-		1	
	Ultra	Angle	Ultra	Angle	Ultra	Angle	Ultra	Angle	Flat	Angle	Ultra	Angle	Ultra	Angle
Insertion loss (dB) Maximum Typical		0.25 0.2	0.2 0.25	0.25 0.2	0.2 0.15		0.2 0.15	0.25 0.15		0.75 0.35	0.5 0.25		0.25 0.2	
Return Loss (dB) Minimum	-55 dB	-65 dB	-55 dB	-65 dB	-55 dB	_	-55 dB	-65 dB	_	-55 dB	-35 dB	_	-55 dB	_
Temp Range (°C)	-40 to +8	35	-40 to +8	35	-40 to +8	35	-40 to +8	35	-40 to +7	75	-40 to +7	75	-40 to +8	85
Durability Cycles	500		500		500		500		200		200		500	

Multimode Assem	Multimode Assemblies													
Insertion loss (dB) Maximum Typical	1		0.5 0.25		0.5 0.25		0.5 0.25		0.75 0.35	_	0.5 0.25		0.5 0.25	_
Return Loss (dB) Minimum			-30 dB		-30 dB	_	-30 dB		-30 dB		-20 dB		-20 dB	_
Temp Range (°C)	-40 to +8	5	-40 to +85		-40 to +85		-40 to +85		-40 to +75		-40 to +7	5	-40 to +85	
Durability Cycles	500		500		500		500		200		200		500	
Cable Options	Simplex/D 900 µm 1.6 mm 2.0 mm 2.4 mm 3.0 mm	uplex	Simplex/Duplex         Simplex/Duplex           900 μm         900 μm           1.6 mm         1.6 mm           2.0 mm         2.0 mm           2.4 mm         2.4 mm           3.0 mm         3.0 mm		uplex	Simplex/D 900 µm 1.6 mm 2.0 mm	1.6 mm 8-12 Fiber Count		Ribbon	Bare Ribbon Jacketed Ribbon Dual Link Zipcord		900 μm 2.0 mm		
Applications	Telephony CATV/Bro Telco Bacl LAN/WAN	adband kplanes	Telephony CATV/Bro Telco Bacl LAN/WAN	adband cplanes	Telephony CATV/Bro Telco Bacl LAN/WAN	adband kplanes	Telephony CATV/Bro Telco Back LAN/WAN	adband cplanes	Telephony CATV/Bro Telco Bacl LAN/WAN	adband cplanes	Telephony CATV/Bro Telco Bacl LAN/WAN	adband kplanes	Telephony CATV/Bro Telco Back LAN/WAN	adband cplanes





## **Simplex Cable Assemblies**

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

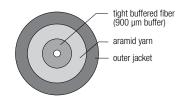
#### **Features**

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

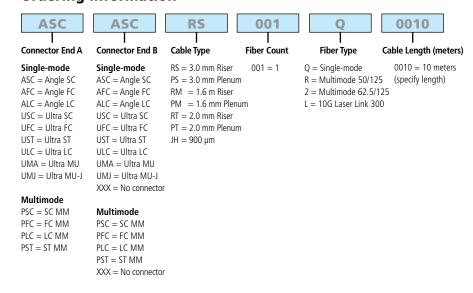
#### **Applications**

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

#### **Cable Components**



#### **Ordering Information**



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#### Two-Fiber Cable Assemblies

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

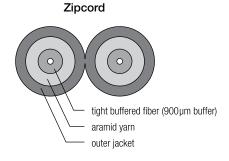
#### **Features**

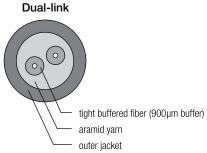
- Flexible, 2-fiber design
- RoHS compliant Riser, Plenum, and LSZH rated cables available
- Cable compliant with Telcordia® GR-409
- Connectors compliant with Telcordia GR-326

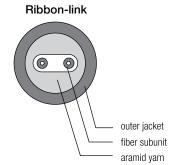
#### **Applications**

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

#### **Cable Components**







0010 Cable Length (meters)

XXXX (specify length)

0010 = 10 meters

**NOTES**: 1. Refer to page 15 for Connector Specifications.

removable clip.

Duplex connectors are assembled with

Single connector options, quantity two per end.

#### **Ordering Information**

#### **UST UST** RD 002 Connector End A Connector End B Cable Type **Fiber Count Fiber Type** 002 = 2Q = Single-mode ITU-T G.652D Single-mode Single-mode RZ = 3.0 mm Riser Zipcord ASC = Angle SCASC = Angle SC PZ = 3.0 mm Plenum Zipcord X = Single-mode ITU-T G.657A BIF AFC = Angle FCR20Z = 2.0 mm Riser Zipcord AFC = Angle FCUSC = Ultra SC USC = Ultra SC P20Z = 2.0 mm Plenum Zipcord 2 = Multimode UFC = Ultra FC UFC = Ultra FC R16Z = 1.6 mm Riser Zipcord 62.5/125 μm OM1 $\mathsf{UST} = \mathsf{Ultra}\;\mathsf{ST}$ $\mathsf{UST} = \mathsf{Ultra}\;\mathsf{ST}$ P16Z = 1.6 mm Plenum Zipcord R = Multimode ULC = Ultra LC ULC = Ultra LC RD = Riser Dual Link 50/125 μm OM2 USF = Ultra SC Duplex USF = Ultra SC Duplex PD = Plenum Dual Link L = Multimode50/125 μm OM3/10G UDL = Ultra LC Duplex UDL = Ultra LC Duplex SJF = MT-RJ Female SJF = MT-RJ Female SJM = MT-RJ Male SJM = MT-RJ Male XXX = No connector Multimode PSC = SC MMMultimode PFC = FC MM PSC = SC MMPLC = LC MMPFC = FC MMPST = ST MMPLC = LC MM

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 $\mathsf{PSF} = \mathsf{SC} \; \mathsf{Duplex} \; \mathsf{MM}$ 

PDL = LC Duplex MM

PIF = MT-RI Female MM

PJM = MT-RJ Male MM

PST = ST MM

PSF = SC Duplex MM PDL = LC Duplex MM

XXX = No connector

PJF = MT-RJ Female MM PJM = MT-RJ Male MM





#### **Features**

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

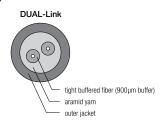
#### **Applications**

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

### **LC Uniboot Cable Assemblies**

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

#### **Cable Components**



#### **Specifications**

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

#### **Ordering Information:**

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

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

XXXX = Length (meters) Example: 0010 = 10

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

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### **Quad Cable Assemblies**

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

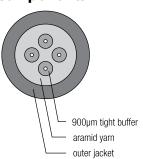
#### **Features**

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

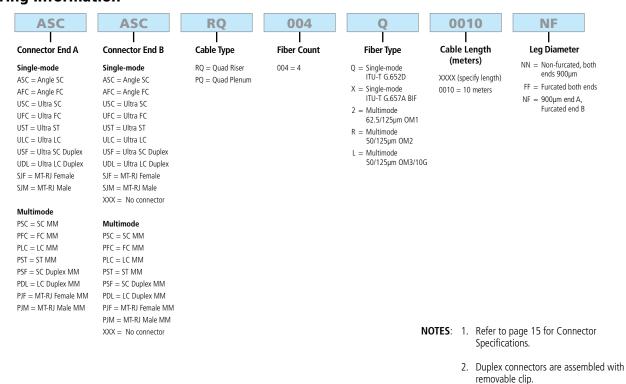
#### **Applications**

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

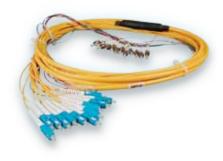
#### **Cable Components**



#### **Ordering Information**







## Circular Premise Cable (CPC) Assemblies

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

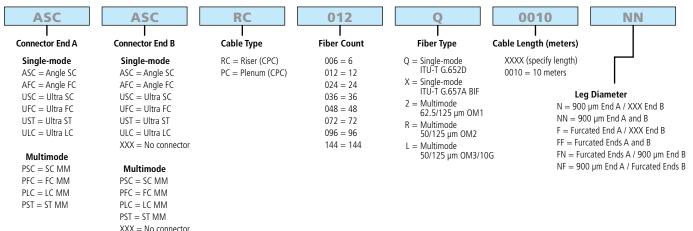
#### **Features**

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

#### **Applications**

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

#### **Ordering Information**



**NOTES**: 1. Refer to page 15 for Connector Specifications

2. Duplex SC and LC available





#### **Features**

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

#### **Applications**

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

## Sub-Unitized MicroCore® Trunk Cable Assemblies

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

#### **Specifications**

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

<sup>\*\*\*</sup> Typical values based on equal quality connectors.

#### **Ordering Information - MTP-MTP Assemblies**

(Female MTPs on both ends - no pins)

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

FIBER COUNT	FIBER	PULLING EYE	AFL NO.
12	Single-mode	No	CS009980-XXXX
12	Single-mode	Yes	CS009981-XXXX
24	Single-mode	No	CS009984-XXXX
24	Single-mode	Yes	CS009985-XXXX
72	Single-mode	No	CS009996-XXXX
72	Single-mode	Yes	CS009997-XXXX
12	50 μm 10gig 300 (OM3)	No	CS010013-XXXX
12	50 μm 10gig 300 (OM3)	Yes	CS010014-XXXX
24	50 μm 10gig 300 (OM3)	No	CS003700-XXXX
24	50 μm 10gig 300 (OM3)	Yes	CS010015-XXXX
72	50 μm 10gig 300 (OM3)	No	CS003720-XXXX
72	50 μm 10gig 300 (OM3)	Yes	CS010016-XXXX
12	50 μm 10gig 550 (OM4)	No	CS010064-XXXX
12	50 μm 10gig 550 (OM4)	Yes	CS010065-XXXX
24	50 μm 10gig 550 (OM4)	No	CS010100-XXXX
24	50 μm 10gig 550 (OM4)	Yes	CS010066-XXXX
72	50 μm 10gig 550 (OM4)	No	CS010101-XXXX
72	50 μm 10gig 550 (OM4)	Yes	CS010067-XXXX

NOTE: XXXX is length in meters.

Contact AFL Customer Service for additional polarity schemes available.

Ordering Information continued ->

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## Sub-Unitized MicroCore® Trunk Cable Assemblies



### Ordering Information – MTP Fanout Assemblies

(Male MTPs - Duplex Connectors)

			AFL NO.	
FIBER		PULLING	MALE MTP-LC	
COUNT	FIBER	EYE	DUPLEX	MALE MTP-SC DUPLEX
12	Single-mode	No	CS009521-XXXX	CS010020-XXXX
12	Single-mode	Yes	CS0010017-XXXX	CS010021-XXXX
24	Single-mode	No	CS003796-XXXX	CS010022-XXXX
24	Single-mode	Yes	CS010018-XXXX	CS010023-XXXX
72	Single-mode	No	CS003811-XXXX	CS010024-XXXX
72	Single-mode	Yes	CS010019-XXXX	CS010025-XXXX
12	50 μm 10gig 300 (OM3)	No	CS010026-XXXX	CS010030-XXXX
12	50 μm 10gig 300 (OM3)	Yes	CS010027-XXXX	CS010031-XXXX
24	50 μm 10gig 300 (OM3)	No	CS003795-XXXX	CS010032-XXXX
24	50 μm 10gig 300 (OM3)	Yes	CS010028-XXXX	CS010033-XXXX
72	50 μm 10gig 300 (OM3)	No	CS003810-XXXX	CS010034-XXXX
72	50 μm 10gig 300 (OM3)	Yes	CS010029-XXXX	CS010035-XXXX
12	50 μm 10gig 550 (OM4)	No	CS009519-XXXX	CS010073-XXXX
12	50 μm 10gig 550 (OM4)	Yes	CS010068-XXXX	CS010074-XXXX
24	50 μm 10gig 550 (OM4)	No	CS010069-XXXX	CS010075-XXXX
24	50 μm 10gig 550 (OM4)	Yes	CS010070-XXXX	CS010076-XXXX
72	50 μm 10gig 550 (OM4)	No	CS010071-XXXX	CS010077-XXXX
72	50 μm 10gig 550 (OM4)	Yes	CS010072-XXXX	CS010078-XXXX

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



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

NOTE: XXXX is length in meters.





#### **Applications**

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

#### **Features**

#### CONNECTORS

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

#### CABLE

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

### **Bend Insensitive Cable Assemblies**

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

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

#### **Specifications**

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

#### **Ordering Information**

## SIMPLEX CABLE ASSEMBLIES, 2 MM JACKET DIAMETER

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

XXXX = Length (meters) Example: 0010 = 10

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

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

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

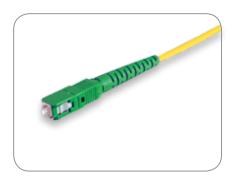
DESCRIPTION	AFL NO.
USC-USC	C183518B-XXXX
ULC-ULC	CS000818B-XXXX
USC-ULC	CS000661B-XXXX
USC-UFC	C178379B-XXXX

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

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

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#### **Applications**

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

#### **Features**

#### CONNECTORS:

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

#### CABLE:

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

## **SC Angled Pigtail Assemblies**

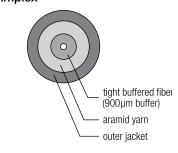
AFL single-mode SC Angled Pigtail Assemblies are designed to meet stringient performance requirements of the latest FTTH (Fiber to the Home) applications. Available in either simplex (one fiber) or duplex zipcord (two fiber) construction, the SC angled connector guarantees the high performance return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

#### **Specification**

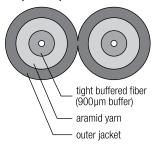
PARAMETER		VALUE
Insertion loss	maximum typical	0.25 dB 0.15 dB
Return Loss	maximum typical	-65 dB -68 dB
Durability		200 cycles
Operating Temperature		-40°C to + 85°C
Storage Temperature		-40°C to + 85°C

#### **Cable Components**

#### Simplex



#### **Duplex Zipcord**



#### **Ordering Information**

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

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

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

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

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

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

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#### **Features**

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

#### **Applications**

- Telecommunications
- CATV
- LAN
- Monitoring of Networks

## **Wideband Couplers**

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

#### **Specifications**

#### STANDARD AND PREMIUM GRADES

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

#### **Ordering Information**

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

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

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### **Ruggedized Wideband Couplers**

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

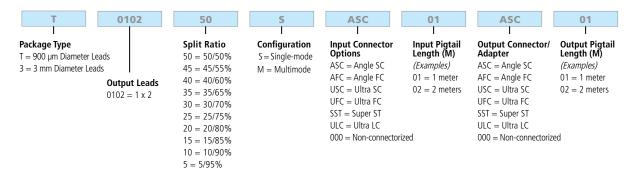
#### **Features**

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

#### **Applications**

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

#### **Ordering Information**







#### **Features**

- Low insertion loss
- Ultra-wide bandwidth
- Wide operating temperature
- Low PDL
- Highly stable and reliable
- Epoxy-free optical path

#### **Applications**

- Telecommunications
- CATV
- Fiber Optic Sensors and Instruments
- Subscriber Loops
- Military Systems, Fiber Optic Gyros
- FTTH

## **Wavelength Division Multiplexer Couplers**

The WDM separates or combines wavelengths in the 1310 and 1550 nm bands over an ultra-wide bandwidth (+ 20 nm) and temperature range while maintaining excellent stability and optical performance. The device, which is fabricated using an advanced fused biconical taper technology, is designed to meet Telcordia<sup>®</sup> 1209 and 1221 requirements.

#### **Specifications (Single-Mode Premium)**

PARAMETER	VALUE
Model Number	5004794
Configuration	1 x 2
Wavelength	1310 / 1550 nm
Directivity	<-65 dB
Operating Temperature	-40° to +85°C
Typical Temperature Stability	<0.1 dB
Typical Polarization Stability (passband)	<0.1 dB
Isolation	20 dB

<sup>\*</sup>Isolation of 32 dB and higher not available in 63 mm L or 69 mm L x 3 mm OD





#### **Features**

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

#### **Applications**

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

## **Planar Couplers**

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

#### **Specifications**

PARAMETER	VALUE							
AFL NO.	CM000034	CM000033	C198299	CS001470				
Operating Wavelength (Grade)	1260-1360 nm and 1480-1580 nm (Standard)							
Optical Split Ratio	1 x 4	1 x 8	1 x 16	1 x 32				
Maximum Insertion Loss (dB)	7.5	11.0	14.2	17.8				
Typical Insertion Loss (dB)	7.3	10.8	13.9	17.5				
Maximum Uniformity (dB)	1.0	1.0	1.5	2.0				
Typical Uniformity (dB)	0.8	0.8	1.3	1.8				
PDL (dB)	<0.3	<0.3	<0.4	<0.4				
Return Loss (dB)	>55	>55	>55	>55				
Directivity (dB)	>55	>55	>55	>55				
Fiber Type	SMF28e 250 μm e	equivalent						
Input/Output Fiber Length	1 meter	1.5 meters	1.5 meters	1.5 meters				
Operating Temperature	-40° to +85°C							
Package Dimensions (LxWxH) (mm)	40 x 4 x 4	40 x 4 x 4	40 x 4 x 4	50 x 6.5 x 4				





#### **Applications**

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

## **Optical Coupler Modules**

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

#### **Features**

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

#### **Specifications**

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

#### **Ordering Information**

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

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



## **Optical Coupler Modules**

#### **Ordering Information** (continued)

			OUTPUT	PORT		INSERTI	ON LOSS				
			COUPLIN	IG RATIO (PO	RT)	PORT 01		PORT 02	2	PORT 03	В
I/O PORTS	I/O CONN	AFL NO.	01	02	03	TYP	MAX	TYP	MAX	TYP	MAX
1 x 3	USC	CM000177	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ASC	CM000178	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ULC	CM000326	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2
1 x 3	ALC	CM000311	33.0	33.0	33.0	5.1	6.2	5.1	6.2	5.1	6.2

			OUTPU	T PORT			INSER	TION LOS	S					
			COUPL	NG RATIO	(PORT)		PORT (	01	PORT	02	PORT	03	PORT	04
I/O PORTS	I/O CONN	AFL NO.	01	02	03	04	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
1 x 4	USC	CM000179	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ASC	CM000180	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ULC	CM000327	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7
1 x 4	ALC	CM000312	25.0	25.0	25.0	25.0	6.3	7.7	6.3	7.7	6.3	7.7	6.3	7.7

				UT POR		\DT\						TION LO					DODE	
	1		COUP	LING RA	ATTO (PC	JKI)	1		1	1	PORT 01		PORT 02		PORT 03		PORT 04	
I/O	1/0																	
PORTS	CONN	AFL NO.	01	02	03	04	05	06	07	08	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
1 x 8	USC	CM000181	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ASC	CM000182	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ULC	CM000346	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ALC	CM000347	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4

				UT POR	-	\DT\					INSER	TION LO	OSS PORT	06	PORT	07	PORT	00
I/O	1/0	AEL NO			ATIO (PO		0.5	0.5	07	00								
PORTS	CONN	AFL NO.	01	02	03	04	05	06	07	08	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
1 x 8	USC	CM000181	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ASC	CM000182	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ULC	CM000346	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4
1 x 8	ALC	CM000347	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4

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

<sup>\*\*\*</sup> Additional split ratios available upon request.







## **Optical Splitter Shelf**

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

#### **Features**

- Telcordia<sup>®</sup> GR-63 NEBS tested housing
- Aluminum Material per ASTMB209
- Universal Mounting Bracket WECO, EIA
- 19" and 23" Rack Mountable
- Rugged construction, ensuring environmental, mechanical, and optical integrity
- WDM and PLC fully compliant to Telcordia GR-1209 and GR-1221
- Low Excess loss
- Low Polarization Dependent Loss

#### **Applications**

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

#### **Specifications**

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

#### **Ordering Information**

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

Telcordia is a registered trademark of Telcordia Technologies, Inc.







## **Optical FTTx Coupler Module**

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

#### **Specifications**

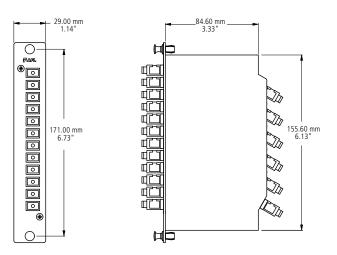
PARAMETER	VALUE
Performance	
Wavelength	1540-1560 nm
Insertion Loss	1550 < 3.9 dB
PDL	<0.2 dB
PMD	< 0.05 ps
Return Loss	> 55 dB
Directivity	> 55 dB
Operating Temperature	-40 to +75°C
Storage Temperature	-40 to +85 °C
Relative Humidity	0 to 90%
Optical Power	500 mW

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

#### **Ordering Information**

DESCRIPTION	AFL NO.
Optical FTTx Coupler Module	CM000072

#### **Dimensions**



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







## **Optical FTTx WDM Module**

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

#### **Specifications**

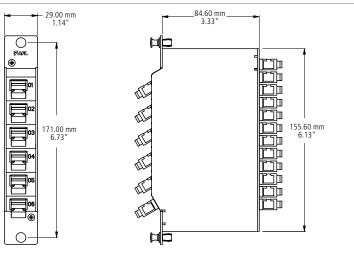
PARAMETER	VALUE
1550 Band – Port 1 (Pass)	1550-1560 nm
1310 + 1490 Band – Port 2 (Reflect)	1260-1360 & 1480-1500 nm
Insertion Loss	1550 < 1.2 dB
	1310 + 1490 < 1.2 dB
Isolation	1550 > 25 dB
	1310 + 1490 > 20 dB
PDL	<0.2 dB
PMD	< 0.2 ps
Return Loss	> 50 dB
Directivity	> 50 dB
Operating Temperature	-40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

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

#### **Ordering Information**

AFL NO.	DESCRIPTION
CM000043	Optical FTTx WDM Module

#### **Dimensions**



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





#### **Features**

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

### **Applications**

- PON FTTx Networks
- Access Networks
- CATV Links

### **RFoG WDM Module**

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

### **Specifications**

PARAMETER		UNIT	SPECIFICATION		
			MIN	MAX	
Wavelength Range	1310 Band	nm	1270	1350	
	1490 Band		1480	1500	
	1550 Band		1540	1570	
	1590/1610 Band		1584.5	1620	
Insertion Loss	1310+1490 Port	dB	-	1.2	
	1550 Port			1.4	
	1590/1610 Port			1.5	
Band Isolation	1310/1490 Port @ 1550	dB	40		
	1310/1490 Port @ 1590/1610		40		
	1550 Port @ 1310/1490		30		
	1550 Port @ 1590		15		
	1590/1610 Port @ 1310/1490/1550		35		
Wavelength Thermal St	ability	nm/°C		0.002	
Directivity PDL PMD		dB	50		
		dB		0.15	
		ps		0.10	
Return Loss	Return Loss		45		
Optical Power Handling	1	mW	300		

### **Environmental Specifications**

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

### **Ordering Information**

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

<sup>\*</sup> Additional configuration available upon request. Contact AFL Customer Service.





### **LGX® FTTx Splitter Modules**

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

#### **Features**

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

### **Applications**

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

### **Performance Specifications**

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

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

### **Ordering Information**

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

<sup>\*\*</sup> Value does not include connector loss.





### **LGX® FTTx WDM Modules**

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

### **Features**

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

### **Applications**

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

### **Performance Specifications**

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

### **Ordering Information**

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





Double-width LGX 118 package shown

### **Dense WDM (DWDM) Modules**

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

#### **Features**

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

### **Applications**

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

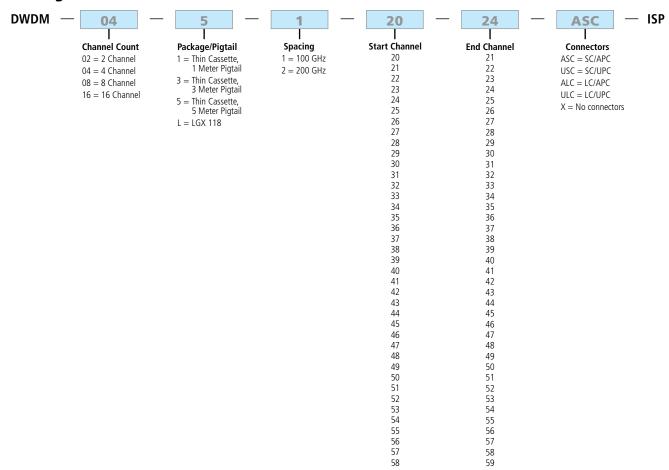
### **Specifications**

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



### **Dense WDM (DWDM) Modules**

### **Ordering Information**







Double-width LGX 118 package shown

#### **Features**

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

### **Applications**

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

### **Coarse WDM Modules (CWDM)**

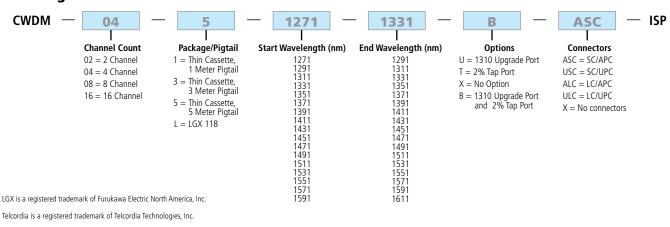
AFL's Coarse WDM modules are designed using proven thin-film filter technology providing high isolation, 20nm channel separation and a high level of thermal stability. CWDM modules are available in 2, 4, 8, and 16 channel configurations and are factory assembled in a thin cassette or rugged LGX® cassette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

### **Specifications**

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

<sup>\*</sup> Includes Connectors

### **Ordering Information**











### **Applications**

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

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

The AFL's 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.

#### **Features**

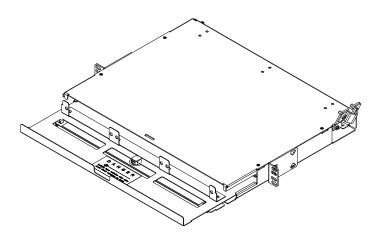
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Most common connector styles and types available
- Compatible with industry standard equipment frames
- Modular design
- Slide-out tray with relief cut-outs for simplified connector 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.





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

### **Configuration Part Numbers**

CONFIGURATION	AFL NO.				
1 RU PATCH PANELS - 12 FIBERS					
CON012P – EMPTY	FM001038				
CON012P w/ 12 PSC adapters (2 Six Packs) 118 LGX (Beige)	FM001344				
CON012P w/ 12 UST adapters (2 Six Packs) 118 LGX	FM001346				
CON012P w/ 12 PST adapters (2 Six Packs) 118 LGX	FM001347				
CON012P w/ 6 UDL (dup) adapters (2 Three Packs) 118 LGX (Blue)	FM001353				
CON012P w/ 6 PDL (dup) adapters (2 Three Packs) 118 LGX (Beige)	FM001354				
CON012P w/ 12 ASC adapters (2 Six Packs) 118 LGX (Green)	FM001352				
CON012P w/ 12 UFC adapters (2 Six Packs) 118 LGX	FM001349				
CON012P w/ 12 USC (ZR) adapters (2 Six Packs) 118 LGX (Blue)	FM001351				
CON012P w/ 12 AFC adapters (2 Six Packs) 118 LGX	FM001350				
1 RU HIGH DENSITY PATCH PANELS - 24 FIBERS					
CON024HD w/ 24 UST adapters (2 Twelve Packs) 118 LGX 24 Fibers	FM001355				
CON024HD w/ 24 PST adapters (2 Twelve Packs) 118 LGX 24 Fibers	FM001356				
CON024HD w/ 12 PDL (dup) adapters (2 Six Packs) 118 LGX 24 Fibers	FM001348				
CON024HD w/ 12 USF (dup) adapters (2 Six Packs) 118 LGX 24 Fibers	FM001357				
CON024HD w/ 12 ASF (dup) adapters (2 Six Packs) 118 LGX 24 Fibers	FM001358				
1U PATCH AND SPLICE PANELS - 12 FIBERS					
CNS012P – EMPTY	FM001328				
CNS012P w/ 12 PSC adapters (2 Six Packs)118 LGX, Splice Tray	FM001323				
CNS012P w/ 12 UST adapters (2 Six Packs)118 LGX, Splice Tray	FM001329				
CNS012P w/ 12 PST adapters (2 Six Packs)118 LGX, Splice Tray	FM001325				
CNSO12P w/ 6 UDL (dup) adapters (2 Three Packs) 118 LGX, Splice Tray (Blue)	FM001334				
CNSO12P w/ 6 PDL (dup) adapters (2 Three Packs) 118 LGX, Splice Tray (Beige)	FM001335				
CNS012P w/ 12 ASC adapters (2 Six Packs)118 LGX, Splice Tray	FM001333				
CNS012P w/ 12 UFC adapters (2 Six Packs)118 LGX, Splice Tray	FM001330				
CNS012P w/ 12 USC (ZR) adapters (2 Six Packs)118 LGX, Splice Tray	FM001332				
CNS012P w/ AFC adapters (2 Six Packs) 118 LGX, Splice Tray	FM001331				
1U HIGH DENSITY PATCH AND SPLICE PANELS - 24 FIBERS					
CNS024HD w/ 24 UST adapters (2 Twelve Packs)118 LGX, Splice Tray	FM001336				
CNS024HD w/ 24 PST adapters (2 Twelve Packs)118 LGX, Splice Tray	FM001337				
CNS024HD w/ 12 USF (dup) adapters (2 Six Packs)118 LGX, Splice Tray	FM001338				
CNSO24HD w/ 12 ASF (dup) adapters (2 Six Packs)118 LGX, Splice Tray	FM001339				

#### **Accessories**

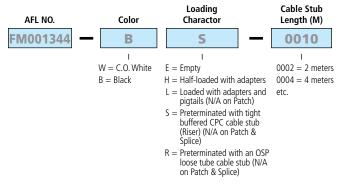
DESCRIPTION					
Splice Tray Kit: Single Fusion, 1RU Patch Panels, Standard Density (1 splice tray)	FM001313				
Splice Tray Kit: Single Fusion, 1RU Patch Panels, High Density (2 splice trays)	FM001314				
Kit, Lock, for CON / CNS Panels	FM001318				

### **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 AFL 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).



**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.







### **Applications**

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

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

The AFL 2RU Fiber Termination Patch/Splice Panel is designed for use as a rack mount interconnect point where termination and connectivity of up to 72 fibers is desired. The panel design is based on a 2 rack unit height and is provisioned with 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.

#### **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

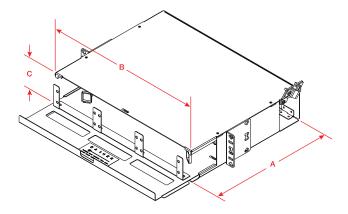
### **Specifications**

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

<sup>\* 72</sup> fiber capacity not available in Patch and Splice configuration.





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

### **Configuration Part Numbers**

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

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

#### **Accessories**

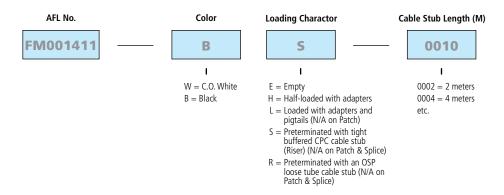
DESCRIPTION	AFL NO.
Splice Tray Kit: Single Fusion, 2RU Patch Panels, Standard Density (3 splice tray)	FM001315
Splice Tray Kit: Single Fusion, 2RU Patch Panels, High Density (4 splice trays)	FM001316
Kit, Lock, for CON / CNS Panels	FM001318

### **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 AFL 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.



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<sup>™</sup> LANSystem<sup>™</sup> CON048P Fiber Termination Patch Panel The CON048P Fiber Termination Panel is used where termination and connectivity.

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 nine 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.

### **Applications**

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

#### **Features**

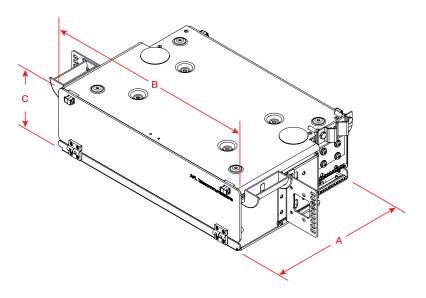
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate (118 mm)
- Modular design
- Provides maximum protection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

### **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

### **Dimensions**

DEPTH (A)	WIDTH (B)	HEIGHT (C)	RACK	FIBER	UNLOADED	MATERIAL
IN INCHES	IN INCHES	IN INCHES	UNITS	CAPACITY	WEIGHT	GAUGE
11	17	5.25	3	54/108	8.4 lbs.	





## **LightLink™ LANSystem™ CON048P Fiber Termination Patch Panel**

### **Ordering Information**

CONFIGURATION	AFL NO.
3 RU PATCH PATCH PANELS	
CON048P – EMPTY	C211291
CON048P with 48 USC (PB) adapters (8 Six Packs) 118 LGX (Blue)	C211300
CON048P with 48 PSC adapters (8 Six Packs) 118 LGX (Beige)	C211309
CON048P with 48 UST adapters (8 Six Packs) 118 LGX	C211336
CON048P with 48 PST adapters (8 Six Packs) 118 LGX	C211345
CON048P with 24 UDL (dup) adapters (8 Three Packs) 118 LGX (Blue)	FM000181
CON048P with 24 PDL (dup) adapters (8 Three Packs) 118 LGX (Beige)	FM000182
CON048P with 48 ASC adapters (8 Six Packs) 118 LGX (Green)	C213928
CON048P with 48 UFC adapters (8 Six Packs) 118 LGX	C213916
CON048P with 48 USC (ZR) adapters (8 Six Packs) 118 LGX (Blue)	C213923
CON048P with 48 AFC adapters (8 Six Packs) 118 LGX	C213919
CON048P with 48 ULC adapters (8 Six Packs) 118 LGX	C213934
CON048P with 24 PSF (dup) adapters (8 Three Packs) 118 LGX (Beige)	FM000183
CON048P with 24 USF (dup) adapters (8 Three Packs) 118 LGX (Blue)	FM000184
CON048P with 24 ASF (dup) adapters (8 Three Packs) 118 LGX (Green)	FM000185
CON048P with 48 MTRJ adapters (8 Six Packs) 118 LGX (Blue)	FM000186
3 RU HIGH DENSITY PATCH PANELS	
CON096HD with 96 UST adapters (8 Twelve Packs) 118 LGX 96 Fibers	FM000187
CON096HD with 96 PST adapters (8 Twelve Packs) 118 LGX 96 Fibers	FM000188
CON096HD with 48 UDL (dup) adapters (8 Six Packs) 118 LGX 96 Fibers	C211349
CON096HD with 48 PSF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers	C211313
CON096HD with 48 PDL (dup) adapters (8 Six Packs) 118 LGX 96 Fibers	C211360
CON096HD with 48 USF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers	FM000189
CON096HD with 48 ASF (dup) adapters (8 Six Packs) 118 LGX 96 Fibers	FM000190

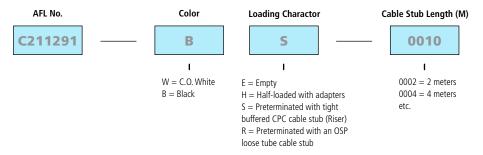
### **Connector/Adapter Key**

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

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

### **Ordering Information**

Select the seven digit AFL 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.



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**

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.

### **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 (118 mm or 130 mm)
- Modular design
- Provides maximum protection of optical components
- Available with I/O loose tube stub

### **Specifications**

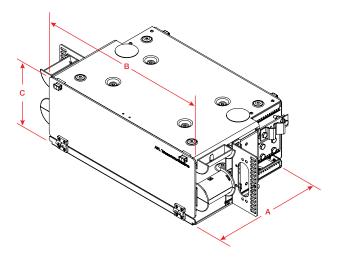
- Telcordia® GR-63 NEBS Tested
- Aluminum material per ASTMB209
- White or black texture powder coated
- Universal mounting bracket WECO, EIA
- 19" and 23" rack compatible
- 144 fiber (high density) version uses
   130 mm master plate

### **Applications**

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

### **Dimensions**

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





## **LightLink™ LANSystem™ CON072P Fiber Termination Patch Panel**

### **Ordering Information**

CONFIGURATION	AFL NO.
4 RU PATCH PANELS	
CON072P – EMPTY 118 LGX	C211372
CON072/96P – EMPTY 130 LGX	FM000344
CON072P with 72 USC (PB) adapters (12 Six Packs) 118 LGX (Blue)	C211381
CON072P with 72 PSC adapters (12 Six Packs) 118 LGX (Beige)	C211390
CON072P with 72 UST adapters (12 Six Packs) 118 LGX	C211417
CON072P with 72 PST adapters (12 Six Packs) 118 LGX	C211426
CON072P with 36 UDL (dup) adapters (12 Three Packs) 118 LGX (Blue)	FM000191
CON072P with 36 PDL (dup) adapters (12 Three Packs) 118 LGX (Beige)	FM000192
CON072P with 72 ASC adapters (12 Six Packs) 118 LGX (Green)	C213955
CON072P with 72 UFC adapters (12 Six Packs) 118 LGX	C213941
CON072P with 72 USC (ZR) adapters (12 Six Packs) 118 LGX (Blue)	C213952
CON072P with 72 AFC adapters (12 Six Packs) 118 LGX	C213946
CON072P with 72 ULC adapters (12 Six Packs) 118 LGX	C213959
CON072P with 36 PSF (dup) adapters (12 Three Packs) 118 LGX (Beige)	FM000193
CON072P with 36 USF (dup) adapters (12 Three Packs) 118 LGX (Blue)	FM000136
CON072P with 36 ASF (dup) adapters (12 Three Packs) 118 LGX (Green)	FM000194
CON072P with 72 MTRJ adapters (12 Six Packs) 118 LGX	FM000195
4 RU HIGH DENSITY PATCH PANELS	
CON144HD with 72 UDL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	C211432
CON144HD with 72 ADL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	FM000345
CON144HD with 72 PSF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	C211396
CON144HD with 72 PDL (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	C211439
CON144HD with 72 USF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	FM000196
CON144HD with 72 ASF (dup) adapters (12 Six Packs) 130 LGX 144 Fibers	FM000197
CON144HD with 144 UST adapters (12 Twelve Packs) 118 LGX 144 Fibers	FM000198
CON144HD with 144 PST adapters (12 Twelve Packs) 118 LGX 144 Fibers	FM000199
CON144HD with 144 UFC adapters (12 Twelve Packs) 118 LGX 144 Fibers	FM000200
CON144HD with 144 USC (PB) adapters (12 Twelve Packs) 130 LGX 144 Fibers	FM000133
CON144HD with 144 ASC adapters (12 Twelve Packs) 130 LGX 144 Fibers	FM000201

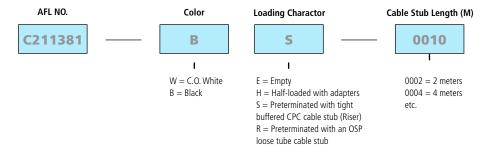
### **Connector/Adapter Key**

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

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

### **Ordering Information**

Select the seven digit AFL 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.



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.





### **Applications**

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

### **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**

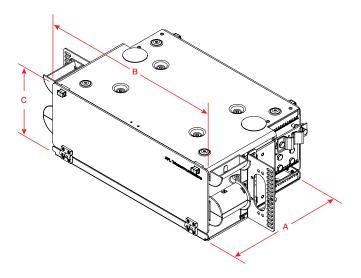
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles and types available
- Compatible with industry standard equipment frames
- LGX compatible master plate and footprint (130 mm)
- Modular design
- Provides maximum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

### **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

### **Dimensions**

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





## **LightLink™ LANSystem™ CON096P Fiber Termination Patch Panel**

### **Ordering Information**

CONFIGURATION	AFL NO
4 RU PATCH PANELS	
CON072/96P – EMPTY 130 LGX	FM000344
CON096P with 96 USC (PB) adapters (12 Eight Packs) 4U Housing 130 LGX	FM000202
CON096P with 96 PSC adapters (12 Eight Packs) 4U Housing 130 LGX	FM000203
CON096P with 96 UST adapters (12 Eight Packs) 4U Housing 130 LGX	C213964
CON096P with 96 PST adapters (12 Eight Packs) 4U Housing 130 LGX	FM000204
CON096P with 96 ASC adapters (12 Eight Packs) 4U Housing 130 LGX	C213982
CON096P with 96 UFC adapters (12 Eight Packs) 4U Housing 130 LGX	C213970
CON096P with 96 USC (ZR) adapters (12 Eight Packs) 4U Housing 130 LGX	C213977
CON096P with 96 AFC adapters (12 Eight Packs) 4U Housing 130 LGX	C213973
CON096P with 96 MTRJ adapters (12 Eight Packs) 4U Housing 130 LGX	FM000205

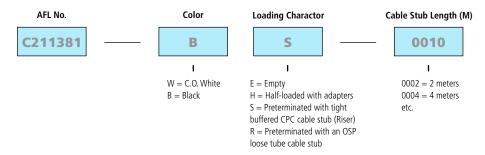
**Note:** All MM cable is 62.5 µm unless otherwise specified.

### **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 AFL 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.



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.





### **Applications**

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

### **LightLink™ LANSystem™ CON144P Fiber Termination Patch Panel**

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.

#### **Features**

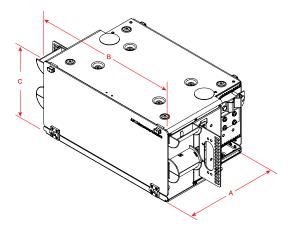
- Fits comfortably into new and existing interconnect, cross-connect, customer premise, and co-location environments
- Various connector styles & types available
- Compatible with industry standard equipment frames
- LGX compatible master plate (170 mm)
- Modular design
- Provides maximum protection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

### **Specifications**

- Telcordia<sup>®</sup> 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)	WIDTH (B)	HEIGHT (C)	RACK	FIBER	UNLOADED	MATERIAL
IN INCHES	IN INCHES	IN INCHES	UNITS	CAPACITY	WEIGHT	GAUGE
11	17	8.75	5	144/288	9 lbs.	





## **LightLink™ LANSystem™ CON144P Fiber Termination Patch Panel**

### **Ordering Information**

CONFIGURATION	AFL NO.
5 RU PATCH PANELS	<u>'</u>
CON144P – EMPTY 170 LGX	C211453
CON144P with 144 USC (PB) adapters (12 Twelve Packs) 170 LGX (Blue)	C211462
CON144P with 144 PSC adapters (12 Twelve Packs) 170 LGX (Beige)	C211471
CON144P with 144 UST adapters (12 Twelve Packs) 170 LGX	C211498
CON144P with 144 PST adapters (12 Twelve Packs) 170 LGX	C211507
CON144P with 72 UDL (dup) adapters (12 Six Packs) 170 LGX (Blue)	FM000206
CON144P with 72 PDL (dup) adapters (12 Six Packs) 170 LGX (Beige)	FM000207
CON144P with 144 ASC adapters (12 Twelve Packs) 170 LGX (Green)	C214009
CON144P with 144 UFC adapters (12 Twelve Packs) 170 LGX	C213995
CON144P with 144 USC (ZR) adapters (12 Twelve Packs) 170 LGX (Blue)	C214006
CON144P with 72 PSF (dup) adapters (12 Six Packs) 170 LGX (Beige)	FM000208
CON144P with 72 USF (dup) adapters (12 Six Packs) 170 LGX (Blue)	FM000209
CON144P with 72 ASF (dup) adapters (12 Six Packs) 170 LGX (Green)	FM000210
CON144P with 144 MTRJ adapters (12 Twelve Packs) 170 LGX	FM000211
5 RU HIGH DENSITY PATCH PANELS (USES TWO 144 STUBS)	
CON288HD with 144 UDL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	C211511
CON288HD with 144 ADL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	FM000346
CON288HD with 144 PDL (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	C211522
CON288HD with 144 PSF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	C211475
CON288HD with 144 USF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	FM000212
CON288HD with 144 ASF (dup) adapters (12 Twelve Packs) 170 LGX 288 Fibers	FM000213

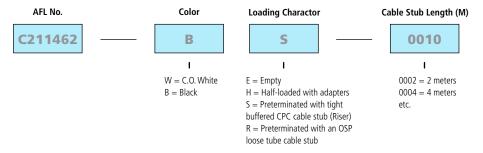
### **Connector/Adapter Key**

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

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

### **Ordering Information**

Select the seven digit AFL 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.



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.





### **Applications**

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

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

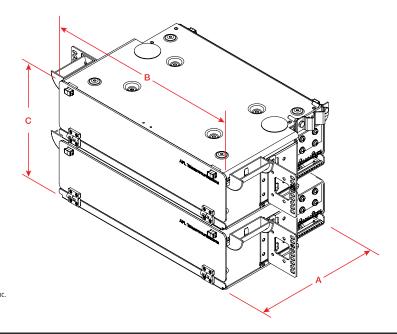
The CNS048P is a rack mountable fiber patch and splice panel designed to accomodate up to 48 fiber terminations (standard density) or 96 fiber terminations (high density) and up to 144 single fusion splices with optional STF-48 splice drawer. The CNS048P provides a compact and versatile method of splicing 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 (3 mm jacket)
- Uses two STF-48 splice drawers
- Two panel package 3U patch, 3U splice
- Nine 118 mm LGX® positions

#### **Dimensions**

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





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

### **Ordering Information**

CONFIGURATION	AFL NO.			
6U PATCH AND SPLICE PANELS (1 - 3U PATCH, 1 - 3U SPLICE)				
CNS048P — EMPTY	C211534			
CNS048P with 48 USC (PB) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211543			
CNS048P with 48 PSC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211552			
CNS048P with 48 UST adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211579			
CNS048P with 48 PST adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211588			
CNSO48P with 24 UDL (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000234			
CNS048P with 24 PDL (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000235			
CNS048P with 48 ASC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C210928			
CNS048P with 48 UFC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C210913			
CNSO48P with 48 USC (ZR) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C210922			
CNS048P with AFC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C210917			
CNS048P with ULC adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C210931			
CNS048P with 24 PSF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000236			
CNS048P with 24 USF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000237			
CNS048P with 24 ASF (dup) adapters (8 Three Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000238			
CNS048P with 48 MTRJ adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000239			
6U HIGH DENSITY PATCH AND SPLICE PANELS				
CNS096HD with 96 UST adapters (8 Twelve Packs) Splice Drawer 2 - 48 position) 118 LGX	FM000240			
CNS096HD with 96 PST adapters (8 Twelve Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000241			
CNS096HD with 48 UDL (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211594			
CNS096HD with 48 PSF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211558			
CNS096HD with 48 PDL (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	C211601			
CNS096HD with 48 USF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000242			
CNS096HD with 48 ASF (dup) adapters (8 Six Packs) Splice Drawer (2 - 48 position) 118 LGX	FM000243			

#### Accessories

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

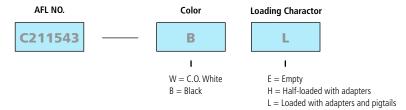
### **Connector/Adapter Key**

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

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

### **Ordering Information**

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



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





### **Applications**

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

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

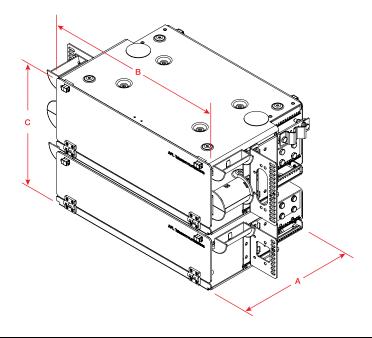
The CNS072P is a rack mountable fiber patch and splice panel designed to accommodate up to 72 fiber terminations (standard density) or 144 fiber terminations (high density) and up to 144 single fusion splices. The CNS072P provides a compact and versatile method of splicing and connectivity. Standard 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<sup>®</sup> 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 (3 mm jacket)
- Uses three STF-48 splice drawers
- Two panel package 4U patch, 3U splice
- Twelve 118 mm LGX<sup>®</sup> positions
- 144 fiber (high density) version uses 130 mm 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





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

### **Standard Panel Ordering Information**

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

### **Accessories**

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

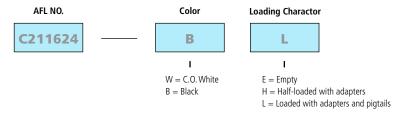
### **Connector/Adapter Key**

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

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

### **Ordering Information**

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



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.





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

The CNS096P is a rack mountable fiber patch and splice panel designed to accommodate 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).

### **Applications**

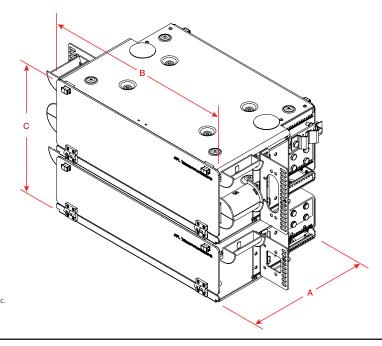
- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

### **Specifications**

- Telcordia® GR-63 NEBS tested
- Aluminum material per ASTMB209
- 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 (3 mm jacket)
- Uses two STF-48 splice drawers
- Two panel package 4U patch, 3U splice
- Twelve 130 mm LGX® positions
- Twelve 8-packs

#### **Dimensions**

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





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

### **Standard Panel Ordering Information**

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

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

### **Accessories**

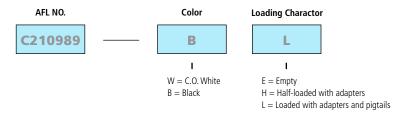
DESCRIPTION	AFL NO.
Telescoping Splice Drawer	911442-00-00

### **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 AFL number of the panel you need, specify black or C.O. white, and choose the loading character desired.



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.





### **Applications**

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

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

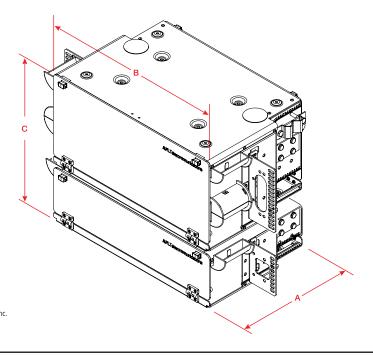
The CNS144P is a rack mountable fiber patch and splice panel designed to accomodate up to 144 fiber terminations (standard density) or 288 fiber terminations (high density) and up to 288 single fusion splices using double density splice trays. The CNS144P provides a compact and versatile method of splicing 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 (3 mm jacket)
- Uses six STF-48 splice drawers
- Two pane package 5U patch, 3U splice (4U splice panel with High Density version)
- Twelve 170 mm 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





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

### **Standard Panel Ordering Information**

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

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

### **Accessories**

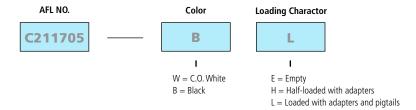
DESCRIPTION	AFL NO.
Telescoping Splice Drawer	911442-00-00

### **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 AFL number of the panel you need, specify black or C.O. white, and choose the loading character desired.



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







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.



SPL4RU

### **Applications**

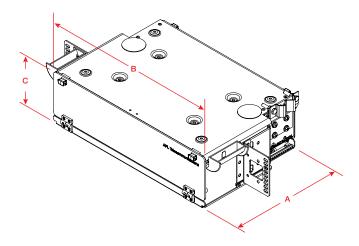
- Telecommunication Closets
- Data Centers
- Customer Premise
- Local Area Networks
- Wide Area Networks
- Central Offices
- Hubs
- Cabinets
- Remote Terminals

#### **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<sup>®</sup> 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





## **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.	2.03 mm
SPL4RU	6	11	17	7.00	4	288 single, 864 mass	9.0 lbs.	2.03 mm

### **Ordering Information**

DESCRIPTION	AFL NO.
SPL3RU	
CO White, 3RU (5.25") Optical Splice Shelf - Empty	C211777 - W
Black, 3RU (5.25") Optical Splice Shelf - Empty	C211777 - B
CO White, 3RU (5.25") Optical Splice Shelf - with 3 telescoping splice drawers	C211781 - W
Black, 3RU (5.25") Optical Splice Shelf - with 3 telescoping splice drawers	C211781 - B
SPL4RU	
CO White, 4RU (7.00") Optical Splice Shelf - Empty	C211795 - W
Black, 4RU (7.00") Optical Splice Shelf - Empty	C211795 - B
CO White, 4RU (7.00") Optical Splice Shelf - with 6 telescoping splice drawers	C211799 - W
Black, 4RU (7.00") Optical Splice Shelf - with 6 telescoping splice drawers	C211799 - B

#### **Accessories**

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





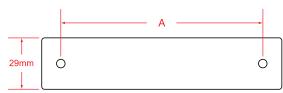
#### **Features**

- Metal Plate with Nylatches
- Polyurethane powder coated (CO white or Black)
- LGX<sup>®</sup> compatible

### **LightLink™ Adapter Plates**

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

### **Specifications**



DIMENSION A
118 mm LGX
130 mm LGX
170 mm LGX

MULTIPLE UNIT ORDERING OPTION

To order multiple units of the same part, select the base number from the ordering charts and add the quantity extension.

Example: FM000086 - 12Z

ORDERING MULTIPLE UNITS							
1 = 1	6 = 6						
2 = 2	8 = 8						
3 = 3	12 = 12						
4 = 4	XX = Specify						

### **Ordering Information**

LGX COMPATI	BLE PLATES							
AFL NO.	PLATE CAPACITY / STYLE	PLATE COLOR	PLATE FOOT PRINT	ADAPTER ORIENTATION	ADAPTER TYPE	ADAPTER AFL NO.	ADAPTER COLOR	SLEEVE MATERIAL
C215512	3 SC Duplex	White	LGX 118	Vertical	SC SM	C092258	Blue	Ceramic
C215518	3 SC Duplex	White	LGX 118	Vertical	SC SM	C096266	Blue	Metal
C215521	3 SC Duplex	Black	LGX 118	Vertical	SC SM	C092258	Blue	Ceramic
C215525	3 SC Duplex	Black	LGX 118	Vertical	SC SM	C096266	Blue	Metal
C215530	3 SC Duplex	White	LGX 118	Vertical	SC MM	C209081	Beige	Ceramic
C215536	3 SC Duplex	White	LGX 118	Vertical	SC MM	C209383	Beige	Metal
C215539	3 SC Duplex	Black	LGX 118	Vertical	SC MM	C209081	Beige	Ceramic
C215543	3 SC Duplex	Black	LGX 118	Vertical	SC MM	C209383	Beige	Metal
FM000115	3 SC Duplex	White	LGX 118	Vertical	SC MM	CS000099	Green	Ceramic
FM000114	3 SC Duplex	White	LGX 118	Vertical	SC MM	CS000099	Green	Ceramic
C215548	3 SC Duplex	Black	LGX 118	Vertical	Empty	Empty	Empty	Empty
C215554	3 SC Duplex	White	LGX 118	Vertical	Empty	Empty	Empty	Empty
C215557	3 SC Duplex	White	LGX 118	Angled	SC SM	C092258	Blue	Ceramic
C215561	3 SC Duplex	White	LGX 118	Angled	SC SM	C096266	Blue	Metal
C215566	3 SC Duplex	Black	LGX 118	Angled	SC SM	C092258	Blue	Ceramic
C215572	3 SC Duplex	Black	LGX 118	Angled	SC SM	C096266	Blue	Metal
C215575	3 SC Duplex	White	LGX 118	Angled	SC MM	C209081	Beige	Ceramic
C215579	3 SC Duplex	White	LGX 118	Angled	SC MM	C209383	Beige	Metal
C215584	3 SC Duplex	Black	LGX 118	Angled	SC MM	C209081	Beige	Ceramic
C215590	3 SC Duplex	Black	LGX 118	Angled	SC MM	C209383	Beige	Metal
FM000086	3 SC Duplex	White	LGX 118	Angled	SC MM	CS000099	Green	Ceramic
FM000085	3 SC Duplex	Black	LGX 118	Angled	SC MM	CS000099	Green	Ceramic
C215593	3 SC Duplex	Black	LGX 118	Angled	Empty	Empty	Empty	Empty
C215597	3 SC Duplex	White	LGX 118	Angled	Empty	Empty	Empty	Empty



### **Ordering Information (cont.)**

AFL NO.	PLATE CAPACITY / STYLE	PLATE COLOR	PLATE FOOT PRINT	ADAPTER ORIENTATION	ADAPTER TYPE	ADAPTER AFL NO.	ADAPTER COLOR	SLEEVE MATERIAL
C220853	6 SC Duplex	Black	LGX 118	Angled	SC SM	C096266	Blue	Ceramic
C220849	6 SC Duplex	White	LGX 118	Angled	SC SM	C096266	Blue	Ceramic
FM000054	6 SC Duplex	Black	LGX 118	Angled	SC SM	C092266	Blue	Metal
C220439	6 SC Duplex	White	LGX 118	Angled	SC SM	C092266	Blue	Metal
C220846	6 SC Duplex	Black	LGX 118	Angled	SC MM	C209081	Beige	Ceramic
C219967	6 SC Duplex	White	LGX 118	Angled	SC MM	C209081	Beige	Ceramic
C220435	6 SC Duplex	White	LGX 118	Angled	SC MM	C209383	Beige	Metal
C219598	6 SC Duplex	Black	LGX 118	Angled	SC MM	C209383	Beige	Metal
FM000079	6 SC Duplex	White	LGX 118	Angled	SC SM	CS000099	Green	Ceramic
FM000082	6 SC Duplex	Black	LGX 118	Angled	SC SM	CS000059	Green	Ceramic
FM000139	6 SC Duplex	White	LGX 118	Angled	Empty	Empty	Empty	Empty
FM000140	6 SC Duplex	Black	LGX 118	Angled	Empty	Empty	Empty	Empty
C215602	6 SC Simplex	White	LGX 118	Straight	SC SM	C028851	Blue	Ceramic
C215608	6 SC Simplex	White	LGX 118	Straight	SC SM	C033235	Blue	Metal
C215611	6 SC Simplex	Black	LGX 118	Straight	SC SM	C028851	Blue	Ceramic
C215615	6 SC Simplex	Black	LGX 118	Straight	SC SM	C033235	Blue	Metal
C215620	6 SC Simplex	White	LGX 118	Straight	SC MM	C209560	Beige	Ceramic
C215626	6 SC Simplex	White	LGX 118	Straight	SC MM	C209563	Beige	Metal
C215629	6 SC Simplex	Black	LGX 118	Straight	SC MM	C209560	Beige	Ceramic
C215633	6 SC Simplex	Black	LGX 118	Straight	SC MM	C209563	Beige	Metal
C215638	6 SC Simplex	White	LGX 118	Straight	SC SM AP	C080810	Green	Ceramic
C215644	6 SC Simplex	Black	LGX 118	Straight	SC SM AP	C080810	Green	Ceramic
C215647	6 SC Simplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
C215651	6 SC Simplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C215656	6 SC Simplex	White	LGX 118	Angled	SC SM	C028851	Blue	Ceramic
C215662	6 SC Simplex	White	LGX 118	Angled	SC SM	C033235	Blue	Metal
C215665	6 SC Simplex	Black	LGX 118	Angled	SC SM	C028851	Blue	Ceramic
C215669	6 SC Simplex	Black	LGX 118	Angled	SC SM	C209560	Blue	Metal
C215674	6 SC Simplex	White	LGX 118	Angled	SC MM	C209560	Beige	Ceramic
C215680	6 SC Simplex	White	LGX 118	Angled	SC MM	C209563	Beige	Metal
C215683	6 SC Simplex	Black	LGX 118	Angled	SC MM	C209560	Beige	Ceramic
C215687	6 SC Simplex	Black	LGX 118	Angled	SC MM	C209563	Beige	Metal
C215692	6 SC Simplex	White	LGX 118	Angled	SC SM AP	C080810	Green	Ceramic
C215698	6 SC Simplex	Black	LGX 118	Angled	SC SM AP	C080810	Green	Ceramic
C215701	6 SC Simplex	Black	LGX 118	Angled	Empty	Empty	Empty	Empty
C215705	6 SC Simplex	White	LGX 118	Angled	Empty	Empty	Empty	Empty
C220511	8 SC Simplex	White	LGX 118	Straight	SC SM	C028851	Blue	Ceramic
C224111	8 SC Simplex	White	LGX 118	Straight	SC SM	C033235	Blue	Metal
FM000156	8 SC Simplex	Black	LGX 118	Straight	SC SM	C028851	Blue	Ceramic
C224107	8 SC Simplex	Black	LGX 118	Straight	SC SM	C033235	Blue	Metal
C224129	8 SC Simplex	White	LGX 118	Straight	SC MM	C209560	Beige	Ceramic
C224122	8 SC Simplex	White	LGX 118	Straight	SC MM	C209563	Beige	Metal
C224125	8 SC Simplex	Black	LGX 118	Straight	SC MM	C209560	Beige	Ceramic
C224116	8 SC Simplex	Black	LGX 118	Straight	SC MM	C209563	Beige	Metal



### **Ordering Information (cont.)**

AFL NO.	PLATE CAPACITY / STYLE	PLATE COLOR	PLATE FOOT PRINT	ADAPTER ORIENTATION	ADAPTER TYPE	ADAPTER AFL NO.	ADAPTER COLOR	SLEEVE MATERIAL
FM000158	8 SC Simplex	White	LGX 118	Straight	SC SM AP	C080810	Green	Ceramic
FM000157	8 SC Simplex	Black	LGX 118	Straight	SC SM AP	C080810	Green	Ceramic
C224089	8 SC Simplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
C224089	8 SC Simplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C215710	8 SC Simplex	White	LGX 118	Straight	SC SM	C028851	Blue	Ceramic
C215716	8 SC Simplex	White	LGX 130	Straight	SC SM	C028831	Blue	Metal
C215710	8 SC Simplex	Black	LGX 130	Straight	SC SM	C033233	Blue	Ceramic
C215719	8 SC Simplex	Black	LGX 130		SC SM	C028831	Blue	Metal
C215723	8 SC Simplex	White	LGX 130	Straight Straight	SC MM	C209560	Beige	Ceramic
	<u> </u>	White			SC IVIIVI	C209563		
C215734	8 SC Simplex		LGX 130	Straight			Beige	Metal
C215737	8 SC Simplex	Black	LGX 130	Straight	SC MM	C209560	Beige	Ceramic
C215741	8 SC Simplex	Black	LGX 130	Straight	SC MM	C209563	Beige	Metal
C215746	8 SC Simplex	White	LGX 130	Straight	SC SM AP	C080810	Green	Ceramic
C215752	8 SC Simplex	Black	LGX 130	Straight	SC SM AP	C080810	Green	Ceramic
C215755	8 SC Simplex	Black	LGX 130	Straight	Empty	Empty	Empty	Empty
C215759	8 SC Simplex	White	LGX 130	Straight	Empty	Empty	Empty	Empty
C215764	8 SC Simplex	White	LGX 130	Angled	SC SM	C028851	Blue	Ceramic
C215770	8 SC Simplex	White	LGX 130	Angled	SC SM	C033235	Blue	Metal
C215773	8 SC Simplex	Black	LGX 130	Angled	SC SM	C028851	Blue	Ceramic
C215777	8 SC Simplex	Black	LGX 130	Angled	SC SM	C033235	Blue	Metal
C215782	8 SC Simplex	White	LGX 130	Angled	SC MM	C209560	Beige	Ceramic
C215788	8 SC Simplex	White	LGX 130	Angled	SC MM	C209563	Beige	Metal
C215791	8 SC Simplex	Black	LGX 130	Angled	SC MM	C209560	Beige	Ceramic
C215795	8 SC Simplex	Black	LGX 130	Angled	SC MM	C209563	Beige	Metal
C215800	8 SC Simplex	White	LGX 130	Angled	SC SM AP	C080810	Green	Ceramic
C215806	8 SC Simplex	Black	LGX 130	Angled	SC SM AP	C080810	Green	Ceramic
C215809	8 SC Simplex	Black	LGX 130	Angled	Empty	Empty	Empty	Empty
C215813	8 SC Simplex	White	LGX 130	Angled	Empty	Empty	Empty	Empty
FM000117	12 SC Simplex	White	LGX 130	Straight	Empty	Empty	Empty	Empty
FM000118	12 SC Simplex	Black	LGX 130	Straight	Empty	Empty	Empty	Empty
FM000119	12 SC Simplex	White	LGX 130	Straight	SC SM	C028851	Blue	Ceramic
FN000120	12 SC Simplex	White	LGX 130	Straight	SC SM AP	C080810	Green	Ceramic
FM000121	12 SC Simplex	Black	LGX 130	Straight	SC SM	C028851	Blue	Ceramic
FM000122	12 SC Simplex	Black	LGX 130	Straight	SC SM AP	C080810	Green	Ceramic
C215818	12 SC Simplex	White	LGX 170	Straight	SC SM	C028851	Blue	Ceramic
C215824	12 SC Simplex	White	LGX 170	Straight	SC SM	C033235	Blue	Metal
C215827	12 SC Simplex	Black	LGX 170	Straight	SC SM	C028851	Blue	Ceramic
C215831	12 SC Simplex	Black	LGX 170	Straight	SC SM	C033235	Blue	Metal
C215836	12 SC Simplex	White	LGX 170	Straight	SC MM	C209560	Beige	Ceramic
C215842	12 SC Simplex	White	LGX 170	Straight	SC MM	C209563	Beige	Metal
C215845	12 SC Simplex	Black	LGX 170	Straight	SC MM	C209560	Beige	Ceramic
C215849	12 SC Simplex	Black	LGX 170	Straight	SC MM	C209563	Beige	Metal
C215854	12 SC Simplex	White	LGX 170	Straight	SC SM AP	C080810	Green	Ceramic
C215860	12 SC Simplex	Black	LGX 170	Straight	SC SM AP	C080810	Green	Ceramic
C215863	12 SC Simplex	Black	LGX 170	Straight	Empty	Empty	Empty	Empty
C215867	12 SC Simplex	White	LGX 170	Straight	Empty	Empty	Empty	Empty



### **Ordering Information (cont.)**

AFL NO.	PLATE	PLATE	PLATE	ADAPTER	ADAPTER	ADAPTER	ADAPTER	SLEEVE
AFL NO.	CAPACITY / STYLE	COLOR	FOOT PRINT	ORIENTATION	TYPE	AFL NO.	COLOR	MATERIAL
C215926	6 FC Simplex	White	LGX 118	Straight	FC SM D Mount	C145357	Plated metal	Ceramic
C215932	6 FC Simplex	White	LGX 118	Straight	FC SM D Mount	C143680	Plated metal	Metal
C215935	6 FC Simplex	Black	LGX 118	Straight	FC SM D Mount	C145357	Plated metal	Ceramic
C215939	6 FC Simplex	Black	LGX 118	Straight	FC SM D Mount	C143680	Plated metal	Metal
C215944	6 FC Simplex	White	LGX 118	Straight	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C215950	6 FC Simplex	Black	LGX 118	Straight	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C215953	6 FC Simplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C215957	6 FC Simplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
C223747	8 FC Simplex	White	LGX 118	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223751	8 FC Simplex	White	LGX 118	Staggered	FC SM D Mount	C143680	Plated metal	Metal
C223756	8 FC Simplex	Black	LGX 118	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223762	8 FC Simplex	Black	LGX 118	Staggered	FC SM D Mount	C143680	Plated metal	Metal
FM000275	8 FC Simplex	White	LGX 118	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
FM000276	8 FC Simplex	Black	LGX 118	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C223666-TW	8 FC Simplex	White	LGX 118	Staggered	Empty	Empty	Empty	Empty
C223666-TB	8 FC Simplex	Black	LGX 118	Staggered	Empty	Empty	Empty	Empty
FM000279	8 FC Simplex	White	LGX 130	Straight	FC SM D Mount	C145357	Plated metal	Ceramic
FM000280	8 FC Simplex	White	LGX 130	Straight	FC SM D Mount	C143680	Plated metal	Metal
FM000277	8 FC Simplex	Black	LGX 130	Straight	FC SM D Mount	C145357	Plated metal	Ceramic
FM000278	8 FC Simplex	Black	LGX 130	Straight	FC SM D Mount	C143680	Plated metal	Metal
FM000281	8 FC Simplex	White	LGX 130	Straight	FC SM D Mt Angled	C146566	Plated metal	Ceramic
FM000282	8 FC Simplex	Black	LGX 130	Straight	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C215899	8 FC Simplex	White	LGX 130	Straight	Empty	Empty	Empty	Empty
C215903	8 FC Simplex	Black	LGX 130	Straight	Empty	Empty	Empty	Empty
C223765	12 FC Simplex	White	LGX 118	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223774	12 FC Simplex	Black	LGX 118	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223769	12 FC Simplex	White	LGX 118	Staggered	FC SM D Mount	C143680	Plated metal	Metal
C223780	12 FC Simplex	Black	LGX 118	Staggered	FC SM D Mount	C143680	Plated metal	Metal
FM000283	12 FC Simplex	White	LGX 118	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
FM000284	12 FC Simplex	Black	LGX 118	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C223672-TW	12 FC Simplex	White	LGX 118	Staggered	Empty	Empty	Empty	Empty
C223672-TB	12 FC Simplex	Black	LGX 118	Staggered	Empty	Empty	Empty	Empty
C223819	12 FC Simplex	White	LGX 170	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223825	12 FC Simplex	Black	LGX 170	Staggered	FC SM D Mount	C145357	Plated metal	Ceramic
C223823	12 FC Simplex	White	LGX 170	Staggered	FC SM D Mount	C143680	Plated metal	Metal
C223834	12 FC Simplex	Black	LGX 170	Staggered	FC SM D Mount	C143680	Plated metal	Metal
C223837	12 FC Simplex	White	LGX 170	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
C223841	12 FC Simplex	Black	LGX 170	Staggered	FC SM D Mt Angled	C146566	Plated metal	Ceramic
FM000305	12 FC Simplex	White	LGX 170	Staggered	Empty	Empty	Empty	Empty
FM000306	12 FC Simplex	Black	LGX 170	Staggered	Empty	Empty	Empty	Empty



### **Ordering Information (cont.)**

AFI NO	PLATE	PLATE	PLATE	ADAPTER	ADAPTER	ADAPTER	ADAPTER	SLEEVE
AFL NO.	CAPACITY / STYLE	COLOR	FOOT PRINT	ORIENTATION	TYPE	AFL NO.	COLOR	MATERIAL
C215962	6 ST Simplex	White	LGX 118	Straight	ST SM D Mount	C094994	Plated metal	Ceramic
C215968	6 ST Simplex	White	LGX 118	Straight	ST MM D Mount	C096377	Plated metal	Metal
C215971	6 ST Simplex	Black	LGX 118	Straight	ST SM D Mount	C094994	Plated metal	Ceramic
C215975	6 ST Simplex	Black	LGX 118	Straight	ST MM D Mount	C096377	Plated metal	Metal
C215980	6 ST Simplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C215986	6 ST Simplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
C223729	8 ST Simplex	White	LGX 118	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
C223733	8 ST Simplex	White	LGX 118	Staggered	ST MM D Mount	C096377	Plated metal	Metal
C223738	8 ST Simplex	Black	LGX 118	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
C223744	8 ST Simplex	Black	LGX 118	Staggered	ST MM D Mount	C096377	Plated metal	Metal
C223675-TW	8 ST Simplex	White	LGX 118	Staggered	Empty	Empty	Empty	Empty
C223675-TB	8 ST Simplex	Black	LGX 118	Staggered	Empty	Empty	Empty	Empty
C215908	8 ST Simplex	White	LGX 130	Straight	ST SM D Mount	C094994	Plated metal	Ceramic
C215917	8 ST Simplex	White	LGX 130	Straight	ST MM D Mount	C096377	Plated metal	Metal
C215917	8 ST Simplex	Black	LGX 130	Straight	ST SM D Mount	C094994	Plated metal	Ceramic
C215921	8 ST Simplex	Black	LGX 130	Straight	ST MM D Mount	C096377	Plated metal	Metal
C215376	8 ST Simplex	White	LGX 130	Straight	Empty	Empty	Empty	Empty
C216382	8 ST Simplex	Black	LGX 130	Straight	Empty	Empty	Empty	Empty
C223564	12 ST Simplex	White	LGX 118	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
C223567	12 ST Simplex	White	LGX 118	Staggered	ST MM D Mount	C096377	Plated metal	Metal
C223571	12 ST Simplex	Black	LGX 118	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
C223576	12 ST Simplex	Black	LGX 118	Staggered	ST MM D Mount	C096377	Plated metal	Metal
FM000285	12 ST Simplex	White	LGX 170	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
FM000123	12 ST Simplex	White	LGX 170	Staggered	ST MM D Mount	C096377	Plated metal	Metal
FM000286	12 ST Simplex	Black	LGX 170	Staggered	ST SM D Mount	C094994	Plated metal	Ceramic
FM000124	12 ST Simplex	Black	LGX 170	Staggered	ST MM D Mount	C096377	Plated metal	Metal
FM000287	12 ST Simplex	White	LGX 170	Staggered	Empty	Empty	Empty	Empty
FM000288	12 ST Simplex	Black	LGX 170	Staggered	Empty	Empty	Empty	Empty
C215503	Blank	White	LGX 118	N/A	N/A	N/A	N/A	N/A
C215507	Blank	Black	LGX 118	N/A	N/A	N/A	N/A	N/A
C216385	Blank	White	LGX 130	N/A	N/A	N/A	N/A	N/A
C216389	Blank	Black	LGX 130	N/A	N/A	N/A	N/A	N/A
C216394	Blank	White	LGX 170	N/A	N/A	N/A	N/A	N/A
C216400	Blank	Black	LGX 170	N/A	N/A	N/A	N/A	N/A
C216016	3 LC Simplex	White	LGX 118	Straight	LC SM	C207202	Blue	Ceramic
C216022	3 LC Simplex	Black	LGX 118	Straight	LC SM	C207202	Blue	Ceramic
C216025	3 LC Simplex	White	LGX 118	Straight	LC MM	C207205	Beige	Ceramic
C216029	3 LC Simplex	Black	LGX 118	Straight	LC MM	C207205	Beige	Ceramic
C216034	3 LC Simplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C216040	3 LC Simplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty



### **Ordering Information (cont.)**

	PLATE	PLATE	PLATE	ADAPTER	ADAPTER	ADAPTER	ADAPTER	SLEEVE
AFL NO.	CAPACITY / STYLE	COLOR	FOOT PRINT	ORIENTATION	TYPE	AFL NO.	COLOR	MATERIAL
FM000289	3 LC Duplex	White	LGX 118	Straight	LC SM	C178298	Blue	Ceramic
FM000290	3 LC Duplex	Black	LGX 118	Straight	LC SM	C178298	Blue	Ceramic
FM000291	3 LC Duplex	White	LGX 118	Straight	LC MM	C203956	Beige	Metal
FM000292	3 LC Duplex	Black	LGX 118	Straight	LC MM	C203956	Beige	Metal
FM000293	3 LC Duplex	White	LGX 118	Straight	LC SM AP	C203962	Green	Ceramic
FM000294	3 LC Duplex	Black	LGX 118	Straight	LC SM AP	C203962	Green	Ceramic
FM000295	3 LC Duplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
FM000296	3 LC Duplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
C215989	6 LC Duplex	White	LGX 118	Straight	LC SM	C178298	Blue	Ceramic
C215993	6 LC Duplex	Black	LGX 118	Straight	LC SM	C178298	Blue	Ceramic
C215998	6 LC Duplex	White	LGX 118	Straight	LC MM	C203956	Beige	Metal
C216004	6 LC Duplex	Black	LGX 118	Straight	LC MM	C203956	Beige	Metal
C216598	6 LC Duplex	White	LGX 118	Straight	LC SM AP	C203962	Green	Ceramic
C216601	6 LC Duplex	Black	LGX 118	Straight	LC SM AP	C203962	Green	Ceramic
C216007	6 LC Duplex	White	LGX 118	Straight	Empty	Empty	Empty	Empty
C216011	6 LC Duplex	Black	LGX 118	Straight	Empty	Empty	Empty	Empty
FM000307	6 LC Duplex	White	LGX 130	Straight	LC SM	C178298	Blue	Ceramic
FM000308	6 LC Duplex	Black	LGX 130	Straight	LC SM	C178298	Blue	Ceramic
FM000309	6 LC Duplex	White	LGX 130	Straight	LC MM	C203956	Beige	Metal
FM000310	6 LC Duplex	Black	LGX 130	Straight	LC MM	C203956	Beige	Metal
FM000311	6 LC Duplex	White	LGX 130	Straight	LC SM AP	C203962	Green	Ceramic
FM000312	6 LC Duplex	Black	LGX 130	Straight	LC SM AP	C203962	Green	Ceramic
FM000313	6 LC Duplex	White	LGX 130	Straight	Empty	Empty	Empty	Empty
FM000314	6 LC Duplex	Black	LGX 130	Straight	Empty	Empty	Empty	Empty
FM000297	6 LC Duplex	White	LGX 170	Straight	LC SM	C178298	Blue	Ceramic
FM000298	6 LC Duplex	Black	LGX 170	Straight	LC SM	C178298	Blue	Ceramic
FM000299	6 LC Duplex	White	LGX 170	Straight	LC MM	C203956	Beige	Metal
FM000300	6 LC Duplex	Black	LGX 170	Straight	LC MM	C203956	Beige	Metal
FM000301	6 LC Duplex	White	LGX 170	Straight	LC SM AP	C203962	Green	Ceramic
FM000302	6 LC Duplex	Black	LGX 170	Straight	LC SM AP	C203962	Green	Ceramic
FM000303	6 LC Duplex	White	LGX 170	Straight	Empty	Empty	Empty	Empty
FM000304	6 LC Duplex	Black	LGX 170	Straight	Empty	Empty	Empty	Empty
FM000131	12 LC Duplex	White	LGX 170	Straight	LC MM	C203956	Beige	Metal
FM000132	12 LC Duplex	Black	LGX 170	Straight	LC MM	C203956	Beige	Metal
FM000129	12 LC Duplex	White	LGX 170	Straight	LC SM	C178298	Blue	Ceramic
FM000130	12 LC Duplex	Black	LGX 170	Straight	LC SM	C178298	Blue	Ceramic
FM000338	12 LC Duplex	White	LGX 170	Straight	LC SM AP	C203962	Green	Metal
FM000339	12 LC Duplex	Black	LGX 170	Straight	LC SM AP	C203962	Green	Metal



### **Ordering Information (cont.)**

LGX® COMPA	LGX® COMPATIBLE PLATES										
AFL NO.	PLATE CAPACITY / STYLE	PLATE COLOR	PLATE FOOT PRINT	ADAPTER ORIENTATION	ADAPTER TYPE	ADAPTER AFL NO.	ADAPTER COLOR	SLEEVE MATERIAL			
C216043	3 MTP	White	LGX 118	Straight	MTP SM	C057010	Black	N/A			
C216047	3 MTP	Black	LGX 118	Straight	MTP SM	C057010	Black	N/A			
C216052	3 MTP	White	LGX 118	Straight	Empty	Empty	Empty	Empty			
C216058	3 MTP	Black	LGX 118	Straight	Empty	Empty	Empty	Empty			
C216061	6 MTP	White	LGX 118	Straight	MTP SM	C057010	Black	N/A			
C216065	6 MTP	Black	LGX 118	Straight	MTP SM	C057010	Black	N/A			
C216070	6 MTP	White	LGX 118	Straight	Empty	Empty	Empty	Empty			
C216076	6 MTP	Black	LGX 118	Straight	Empty	Empty	Empty	Empty			
C216079	6 MTRJ	White	LGX 118	Straight	MTRJ MM	C196855	Beige	N/A			
C216083	6 MTRJ	Black	LGX 118	Straight	MTRJ MM	C196855	Beige	N/A			
C216088	6 MTRJ	White	LGX 118	Straight	Empty	Empty	Empty	Empty			
C216094	6 MTRJ	Black	LGX 118	Straight	Empty	Empty	Empty	Empty			





## **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 footprint, 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<sup>™</sup> 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



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

### **Applications**

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



# **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 62.5 µm (Beige)	PC MM 50 µm (Beige)	PC MM 50 μm (Aqua)*
	C EIL	White	FM000705	FM000711	FM000706	FM001384	FM001380
6 Fibers	6 Fibers	Black	FM000748	FM000751	FM000749	FM001383	FM001379
	12 5:5	White	FM000631	FM000712	FM000700	FM000801	FM001365
SC	12 Fibers	Black	FM000742	FM000752	FM000743	FM001022	FM001366
	18 Fibers	White	FM000666	FM000713	FM000701	FM001374	FM001372
	18 FIDEIS	Black	FM000744	FM000753	FM000745	FM001373	FM001371
	12 Fibers	White	FM000699	FM001107	FM000826	FM000828	FM001364
1.0	12 Fibers	Black	FM000750	FM001106	FM000825	FM000827	FM001363
LC	24 Fibors	White	FM000935	FM000993	FM000938	FM000942*	FM000940
	24 Fibers	Black	FM000936	FM000994	FM000937	FM000941*	FM000939
	C Fibors	White	FM001156	_	FM001164	FM001160	_
ST	6 Fibers	Black	FM001155	_	FM001163	FM001159	_
31	12 Fibors	White	FM001154	_	FM001162	FM001158	_
	12 Fibers	Black	FM001153	_	FM001161	FM001157	_

#### LOADED WITH ADAPTERS ONLY

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

#### **ACCESSORIES AND REPLACEMENT PARTS**

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

<sup>\*</sup> MM 50  $\mu m$  Giga-Link 2000 fibers

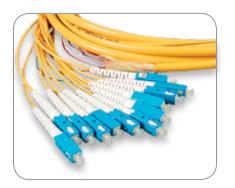


FM000948-B bracket is used to mount a single Poli-Mod to a 19" or 23" equipment rack or into limited space applications (e.g. traffic control cabinets).



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





# Pigtails Assemblies for Patch and Splice Panels

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

# **Splicer Connector Specifications**

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

# **Ordering Information**

	FIBER	CONNECTOR INT	ERFACE AFL NO.					
POLISH	TYPE	SC ST		LC				
CPC PIG	CPC PIGTAIL KITS, 3 METER, 12-FIBER							
APC	SMF	C152906-0003	_	CS007719-0003				
UPC	SMF	C165943-0003	C152671-0003	C223369-0003				
PC	62.5 µm	C165463-0003	C223366-0003	C223373-0003				
PC	50 µm	CS007672-0003	CS007674-0003	CS007676-0003				
PC	50 µm LO	CS007673-0003	CS007675-0003	CS007677-0003				

900 M TIGHT-BUFFERED PIGTAIL KITS, 3 METER, 12-FIBER							
APC	SMF	C223312-0003	_	CS003981-0003			
UPC	SMF	C223492-0003	CS003979-0003	CS001037-0003			
PC	62.5 µm	CS000386-0003	CS002150-0003	CS002067-0003			
PC	50 μm	CS001373-0003	CS002136-0003	CS002081-0003			
PC	50 µm LO	CS003056-0003	CS003980-0003	CS003058-0003			

# **Jumper Specifications**

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





# **Applications**

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

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

AFL's Xpress Fiber Management Optical Cassette product line is a family of preterminated fanout modules that streamline the deployment of optical network infrastructure. The primary function of these products is to 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<sup>®</sup> 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.

#### **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, 62.5 μm MMF, and 50 μm MMF supported
- SC- and LC-MTP standard configurations
- ST- and FC-MTP configurations available on special order

# **Optical Performance Data**

	Single-mo	de Fiber (OS1)	Multimode Fiber (OM2 and OM3)				
PARAMETER	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 1310 nm and 155 0nm
- 2. Multimode IL test wavelengths 850 nm and 1300 nm
- 3. Single-mode RL test wavelengths 1310 nm and 1550 nm
- 4. Multimode RL test wavelengths 850 nm and 1300 nm

#### Technical Specifications:

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

## **Ordering Information**

	CONFIGURATION									
CONNECTOR OPTION	12F Single-mode	12F Multimode 62.5 µm	12F Multimode 50 µm	24F Single-mode	24F Multimode 62.5 µm	24F Multimode 50 µm				
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	_	_	_				

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



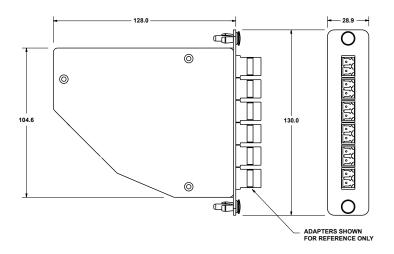
# **Xpress Fiber Management® (XFM) Optical Cassettes**



# **Ordering Information - Accessories**

DESCRIPTION	AFL NO.
145 mm Adapter Bracket – Allows standard LGX modules, such as AFL's Poli-Mod Intercon-	FM001636
nect Module and the XFM Optical Cassette, to be mounted into existing Corning Cable	
Systems <sup>™</sup> CCH series and PCH series racks and wall mount products.	

#### **Dimensions**



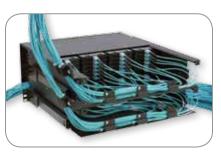




XFM-HD 1RU front view



XFM-HD 2RU front view with trays pulled out



XFM-HD 4RU rear view



XFM-HD Optical Cassette

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

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

#### **Features**

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

#### **Ordering Information**

DESCRIPTION	AFL NO.					
Patch Panels						
XFM-HD Panel, 1RU, Empty, 12 Cassette / 144F Capacity, Black	XFM-HD-1U					
XFM-HD Panel, 2RU, Empty, 24 Cassette / 288F Capacity, Black	XFM-HD-2U					
XFM-HD Panel, 4RU, Empty, 48 Cassette / 576F Capacity, Black	XFM-HD-4U					
Optical Cassettes						
XFM-HD High Density Optical Cassette, 12F Singlemode, LC/UPC - MPO Connectors	HDOC-SM-ULC					
XFM-HD High Density Optical Cassette, 12F 10G 50µm MM, LC/PC - MPO Connectors	HDOC-50-PLC					









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

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

#### **Features**

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

## **Applications**

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

## **Specifications**

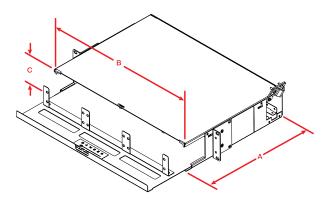
DEPTH	WIDTH	HEIGHT	RACK	CAPACITY	UNLOADED	
(A) (inches)	(B) (inches)	(C) (inches)	UNITS		WEIGHT	
15.5	17	3.5	2	(6) LGX 118	15 lbs.	

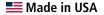
### **Ordering Information**

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

#### **Accessories**

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











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

The Xpress Fiber Management (XFM) 4U patch panel is a rack mountable interconnect point specifically designed to manage dense fiber applications. Based on the LGX® intermateability platform, the panel is fully compatible with AFL's XFM Optical Cassette and Poli-MOD solutions, offering enhanced management of densities up to 288F using MTP/MPO, single fiber, or patch and splice methodologies. A hinged fiber management panel can be secured in an upright or lowered position, which provides enhanced cable routing exiting the panel to the left or right, and also allows cable assemblies to be routed up and across the front of the panel for extreme density management. This panel can be provisioned with a key lock at the time of order for secure environments.

#### **Features**

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

# **Applications**

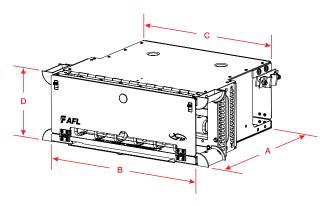
- Data Centers
- Enterprise Networks
- Telecommunications Closets
- Central Offices / Headends

### **Specifications**

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

#### **Ordering Information**

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







WME-02





WME-02 shown fully loaded

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

AFL's wall mount interconnect enclosure (WME-02) provides a convenient convergence point for interconnecting and/or splicing in wall mount applications. Provisioned for up to two LGX compatible adapter plates or optical modules, the enclosure features a well-engineered solution for fiber and cable management on both the ingress and egress openings of the enclosure. Robust steel construction ensures the highest level of protection for sensitive components while integrated roll-formed hinges eliminate possible fiber pinch points while deploying or servicing components within. All WME series enclosures feature discrete access doors for provider and customer access which are independently lockable with a common pad-lock or tube-style keyed lock.

#### **Features**

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

#### Applications

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

#### **Specifications**

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



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

# **Ordering Information**

EMPTY	
DESCRIPTION	AFL NO.
WME02 Empty	WME02E

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

## **Connector/Adapter Key**

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

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

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





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

AFL's wall mount interconnect enclosure (WME-04) provides a convenient convergence point for interconnecting and/or splicing in wall mount applications. Provisioned for up to four LGX compatible adapter plates or optical modules, the enclosure features a well-engineered solution for fiber and cable management on both the ingress and egress openings of the enclosure. Robust steel construction ensures the highest level of protection for sensitive components while integrated roll-formed hinges eliminate possible fiber pinch points while deploying or servicing components within. All WME series enclosures feature discrete access doors for provider and customer access which are independently lockable with a common pad-lock or tube-style keyed lock.



#### **Features**

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



### **Applications**

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

### Specifications

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



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

## **Ordering Information**

EMPTY	
DESCRIPTION	AFL NO.
WME04 Empty	WME04E

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

## **Connector/Adapter Key**

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

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

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

