AFL Telecommunications
A Fujikura Business

Optical Connectivity

Cable Assemblies

Components

Accessories

Table of Contents

FAST™ Connectors

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

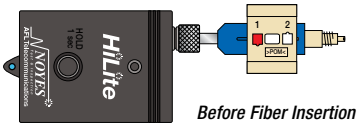
Features

- Pre-stubbed, factory-polished ferrule
- No epoxy required
- Precision mechanical alignment insures low loss
- Fiber can be reseated
- 3.0mm, 2.0mm, and 900µm boot provided with each connector
- VFI can be used to confirm fiber is installed properly
- Meets TIA/EIA 568A performance requirements
- Meets TIA/EIA 604 (FOCIS) connector interface requirements

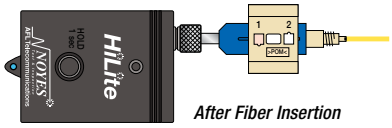
Applications

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

Testing



Before Fiber Insertion



After Fiber Insertion

Specifications

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

Ordering Information

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

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

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

FAST™ Connector Universal Tool Kit

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

CT-30A Universal Cleaver (included)

Features

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

Applications

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

Ordering Information

DESCRIPTION	PART #
FAST™ Connector Universal Tool Kit	CS001201
Kit includes:	
CT-30A Universal Cleaver	S014080
FAST Assembly Tool	CS009494
3mm Cable Clamp	S014704
2mm Cable Clamp	S014705
0.25/0.9mm Cable Clamp	CS004442
Fiber Stripper	CS001205
Kevlar Scissors	C095257
Fiber Preperation Fluid	FPF1-00-0900
Lint-free Cloth Wipes	FM000413
Marker Pen	C015830
Installation Instructions	CS007701
Strip Length Template	CS001203
Assembly Video (CD)	CS001204
Carrying Case	CS001202

Field Master® Connectors

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

Features

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

Applications

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

Ordering Information

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

** Packaged 100 pieces per bag.*

Field Master® Tool Kit

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

Features

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

Ordering Information

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

Crimp Tool for Field Master® Connectors

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

FuseConnect™ SC Connecter

FuseConnect™ LC Connecter

FuseConnect™ Packaging

FuseConnect™ Installation Kit

FuseConnect™ in Fusion Splicer

FuseConnect™

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

FuseConnect™ utilizes a fusion splicer to terminate the connector in the field, addressing return loss concerns present in analog optical networks. This advanced process yields true APC performance of >65dB return loss in an SC/APC configuration and SC single-mode is compliant to GR-326-CORE. Designed to work with an industry standard 10mm cleave length and splicers utilizing a fiber holder system, FuseConnect™ is compatible not only with Fujikura's fusion splicers, but also with most other fiber holder-based fusion splicing platforms currently available in the industry.

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

Features

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

Applications

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

Specifications

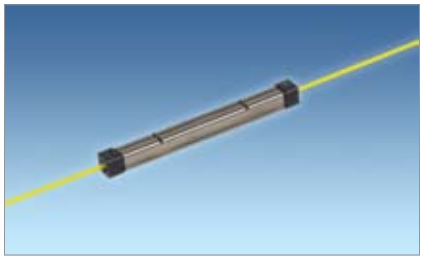
PARAMETER	VALUE
Connector Type	SC [TIA/EIA-604-3 (FOCIS 3)] / LC [TIA/EIA-604-10A (FOCIS 10)]
Cable Type	900µm, 2mm, 3mm
Polish	APC, UPC, PC
Insertion Loss	SM: 0.15dB (average), 0.3dB (maximum) / MM: 0.10dB (average), 0.3dB (maximum)
Return loss	SM = > 65dB (APC), > 55dB (UPC) / MM = > 30dB (PC)
Operating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

Ordering Information

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

* Part number is for a single unit

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



SpliceConnect™ with Tool Kit

AFL Telecommunications' 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 <0.1dB 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
- 250µm and/or 900µm fiber capabilities
- Both fiber and coating are secured independently

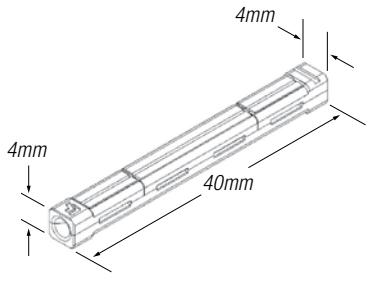
Applications

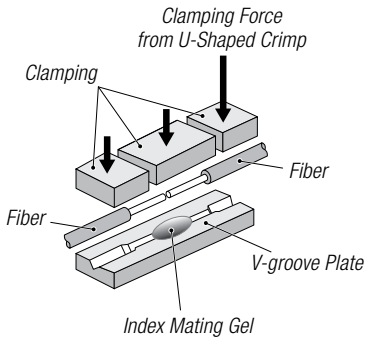
- Restoration
- Premise environments
- Fiber-to-the-Subscriber (FTTx) applications

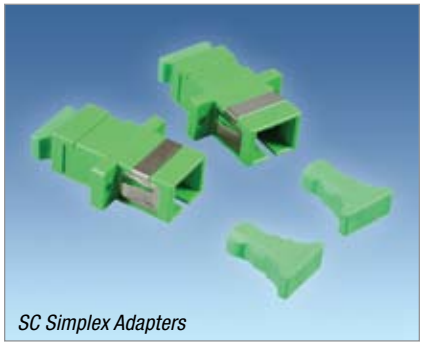
Ordering Information

DESCRIPTION	AFL P/N
SpliceConnect™ Mechanical Splices (Bag of 6)	CS004154
SpliceConnect™ Mechanical Splice Tool Kit	CS004162
Kit Includes:	
SpliceConnect™ Mechanical Splicing Tool	CS004155
Fiber Holder, 250µm	CS004442
Fiber Holder, 900µm	CS004443
Instruction Manual	CS004159
Instruction Video	CS004160
Carrying Case	CS004161
SpliceConnect™ Mechanical Splicing Tool	CS004155
Fiber Holder, 250µm	CS004442
Fiber Holder, 900µm	CS004443

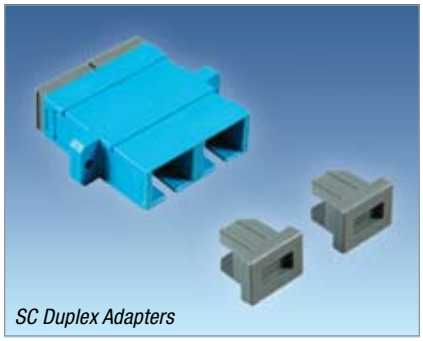
Dimensions and Structure







SC Simplex Adapters



SC Duplex Adapters

SC Adapters

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

SC SIMPLEX ADAPTERS

TYPE	MODE	DESCRIPTION	SLEEVE	COLOR	PART NUMBER
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	PART NUMBER
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	PART NUMBER
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	N/A	N/A	N/A	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 2.0mm key width. An assortment of hybrid configurations is available.

TYPE	MODE	DESCRIPTION	INSERT	COLOR	PART NUMBER
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	PART NUMBER
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	PART NUMBER
LC Duplex	SM	Ceramic	Blue	C178298
LC Duplex	SM/AP	Ceramic	Green	C203962
LC Duplex	MM	Metallic	Beige	C203956
LC Simplex	SM	Ceramic	Blue	C186363
LC Simplex	MM	Metallic	Beige	C209176

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	PART NUMBER
MT-RJ Duplex	MM	Flange Mount	—	Beige	C196855

MTP Adapters

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

TYPE	MODE	DESCRIPTION	INSERT	COLOR	PART NUMBER
MTP	SM/MM	Flange Mount	—	Black	C057010

Hybrid Adapters

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

TYPE	MODE	DESCRIPTION	INSERT	COLOR	PART NUMBER
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

Buildout Attenuators

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

Features

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

Application

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

Specifications

PARAMETER	VALUE
Standard Attenuation Values	5, 10, 15 and 20dB
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)

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

ULTRA SC SINGLE-MODE BOAS (MALE TO FEMALE)

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

ANGLE FC SINGLE-MODE BOAS (MALE TO FEMALE)

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

ANGLE SC SINGLE-MODE BOAS (MALE TO FEMALE)

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

ULTRA ST SINGLE-MODE BOAS

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

ULTRA LC SINGLE-MODE BOAS

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

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

Optical Terminators

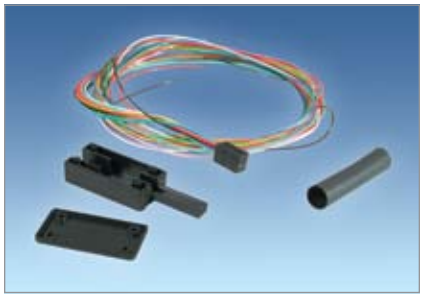
Optical terminators are used to terminate unused connector ports in fiber optic systems so that unwanted reflections are not introduced back into the system. All AFL optical terminators feature zirconia ferrules for long life and durability.

Specifications

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

Ordering Information

DESCRIPTION	ITEM NUMBER
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 250µm fiber into 900µm 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	PART NUMBER
Loose Tube Fanout Kit (for 3.0mm tube)	6 Fiber	24 inches	C189826
Loose Tube Fanout Kit (for 3.0mm tube)	12 Fiber	24 inches	C189818
Ribbon-Link® Fanout Kit	6 Fiber	36 inches	C189842
Ribbon-Link® Fanout Kit	12 Fiber	36 inches	C189834
Uni-Tube Fanout Kit	6 Fiber	36 inches	C193114
Uni-Tube Fanout Kit	12 Fiber	36 inches	C193122

Connector Specifications

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

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

Simplex Cable Assemblies

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

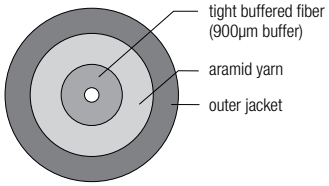
Features

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

Applications

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

Cable Components



Ordering Information

ASC	ASC	RS	001	Q	0010
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length
Single-mode ASC = Angle SC AFC = Angle FC ALC = Angle LC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC UMA = Ultra MU UMJ = Ultra MU-J **Multimode** PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM	**Single-mode** ASC = Angle SC AFC = Angle FC ALC = Angle LC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC UMA = Ultra MU UMJ = Ultra MU-J XXX = No connector **Multimode** PSC = SC MM PFC = FC MM PLC = LC MM PST = ST MM XXX = No connector	RS = 3.0mm Riser PS = 3.0mm Plenum RM = 1.6m Riser PM = 1.6mm Plenum RT = 2.0mm Riser PT = 2.0mm Plenum JH = 900µm	001 = 1	Q = Single-mode ITU-T G.652D X = Single-mode ITU-T G.657A BIF 2 = Multimode 62.5/125µm OM1 R = Multimode 50/125µm OM2 L = Multimode 50/125µm OM3/10G	0010 = 10 meters (specify length)

NOTES: 1. Refer to page on Connector Specifications.

Two-Fiber Cable Assemblies

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

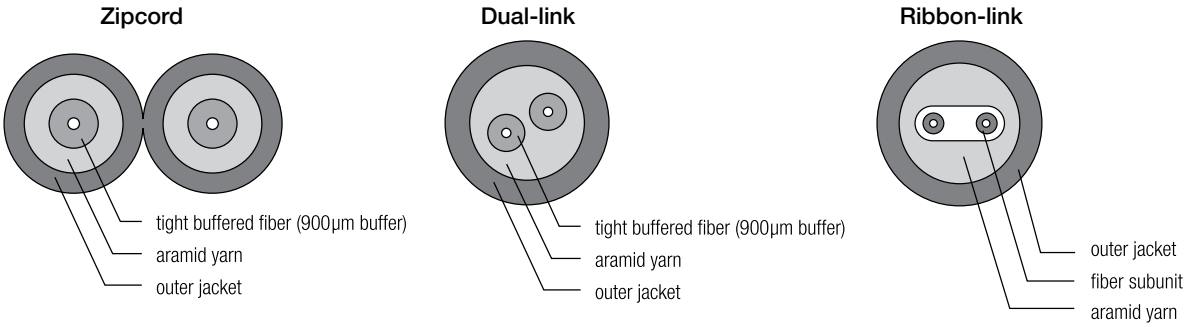
Features

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

Applications

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

Cable Components



Ordering Information

UST	UST	RD	002	Q	0010
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length (meters)

Connector End A

Single-mode
ASC = Angle SC
AFC = Angle FC
USC = Ultra SC
UFC = Ultra FC
UST = Ultra ST
ULC = Ultra LC
* (single connector options, quantity two per end)
USF = Ultra SC Duplex
UDL = Ultra LC Duplex
SJF = MT-RJ Female
SJM = MT-RJ Male

Multimode
PSC = SC MM
PFC = FC MM
PLC = LC MM
PST = ST MM
* (single connector options, quantity two per end)
PSF = SC Duplex MM
PDL = LC Duplex MM
PJF = MT-RJ Female MM
PJM = MT-RJ Male MM

Connector End B

Single-mode
ASC = Angle SC
AFC = Angle FC
USC = Ultra SC
UFC = Ultra FC
UST = Ultra ST
ULC = Ultra LC
* (single connector options, quantity two per end)
USF = Ultra SC Duplex
UDL = Ultra LC Duplex
SJF = MT-RJ Female
SJM = MT-RJ Male
XXX = No connector

Multimode
PSC = SC MM
PFC = FC MM
PLC = LC MM
PST = ST MM
* (single connector options, quantity two per end)
PSF = SC Duplex MM
PDL = LC Duplex MM
PJF = MT-RJ Female MM
PJM = MT-RJ Male MM
XXX = No connector

Cable Type
RZ = 3.0mm Riser Zipcord
PZ = 3.0mm Plenum Zipcord
R20Z = 2.0mm Riser Zipcord
P20Z = 2.0mm Plenum Zipcord
R16Z = 1.6mm Riser Zipcord
P16Z = 1.6mm Plenum Zipcord
RD = Riser Dual Link
PD = Plenum Dual Link
R7 = Riser Ribbon (for MT-RJ only)
P7 = Plenum Ribbon (for MT-RJ only)

Fiber Count
002 = 2

Fiber Type
Q = Single-mode ITU-T G.652D
X = Single-mode ITU-T G.657A BIF
2 = Multimode 62.5/125µm OM1
R = Multimode 50/125µm OM2
L = Multimode 50/125µm OM3/10G

Cable Length (meters)
XXXX (specify length)
0010 = 10 meters

NOTES: 1. Refer to page on Connector Specifications.

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

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 2.8mm 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.

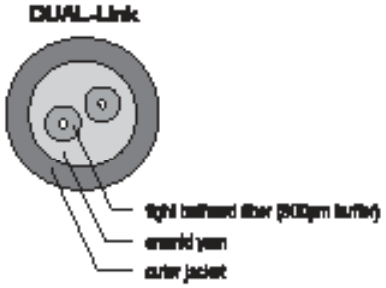
Features

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

Applications

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

Cable Components



Specifications

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

Ordering Information:

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

FIBER TYPE	PART NUMBER
62.5/125µm (OM1)	CS007814-XXXX
50/125µm (OM2)	CS008116-XXXX
50/125µm 10gig 300 (OM3)	CS007783-XXXX
50/125µm 10gig 550 (OM4)	CS009233-XXXX
Single-mode	CS009234-XXXX

XXXX = Length (meters)
Example: 0010 = 10

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

Quad Cable Assemblies

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

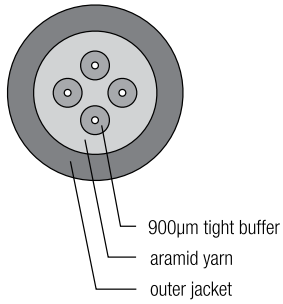
Features

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

Applications

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

Cable Components

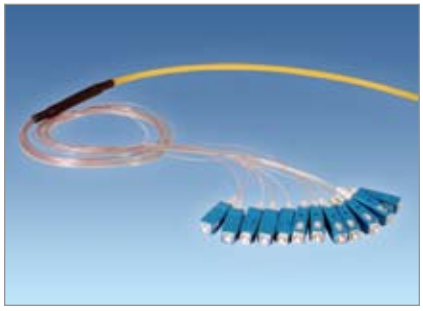


Ordering Information

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

NOTES: 1. Refer to page on Connector Specifications.

2. Duplex connectors are assembled with removable clip.



Ribbon Cable Assemblies

Ribbon cable assemblies feature up to 12 fibers in a ribbon structure, allowing a higher density configuration than conventional buffered designs.

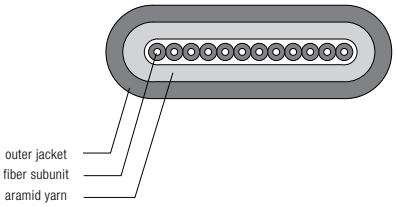
Features

- Combines high fiber density in small diameter, flexible package
- Terminate with MTP/MPO connectors, or fan out for individual connectorization
- RoHS complaint - Riser, Plenum, and LSZH rated cables available
- Cable tested to meet or exceed EIA/TIA 568-A/GR-409-CORE
- Connectors compliant with Telcordia GR-326

Applications

- Direct interface to computers with use of "backpane" style fiber connectors
- High density fiber management
- LAN/WAN Premises
- DWDM & Switching (Network Elements)
- Data Centers

Cable Components



Ordering Information

ASC	ASC	RR	012	Q	0010	NN
Connector End A	Connector End B	Cable Type	Fiber Count	Fiber Type	Cable Length (meters)	

Connector End A

Single-mode
ASC = Angle SC
AFC = Angle FC
ALC = Angle LC
USC = Ultra SC
UFC = Ultra FC
UST = Ultra ST
ULC = Ultra LC
UMA = Ultra MU
UMJ = Ultra MU-J
ATM = Angle Male MTP
ATF = Angle Female MTP

Multimode
PSC = SC MM
PFC = FC MM
PST = ST MM
PLC = LC MM
FTM = Male MTP
FTF = Female MTP
PJM = MT-RJ Male
PJF = MT-RJ Female

Connector End B

Single-mode
ASC = Angle SC
AFC = Angle FC
ALC = Angle LC
USC = Ultra SC
UFC = Ultra FC
UST = Ultra ST
ULC = Ultra LC
UMA = Ultra MU
UMJ = Ultra MU-J
ATM = Angle Male MTP
ATF = Angle Female MTP
XXX = No connector

Multimode
PSC = SC MM
PFC = FC MM
PST = ST MM
PLC = LC MM
FTM = Male MTP
FTF = Female MTP
PJM = MT-RJ Male
PJF = MT-RJ Female
XXX = No connector

Cable Type

CR = Bare Ribbon
RR = Riser Jacketed Ribbon
PR = Plenum Jacketed Ribbon

Fiber Count

004 = 4
006 = 6
008 = 8
012 = 12

Fiber Type

Q = Single-mode ITU-T G.652D
X = Single-mode ITU-T G.657A BIF
2 = Multimode 62.5/125µm OM1
R = Multimode 50/125µm OM2
L = Multimode 50/125µm OM3/10G

Cable Length (meters)

0010 = 10 meters
(specify length)

Leg Diameter

N = 900µm End A / XXX End B
NN = 900µm End A and B
F = Furcated End A / XXX End B
FF = Furcated Ends A and B
FN = Furcated Ends A / 900µm End B
NF = 900µm End A / Furcated Ends B

NOTE: Refer to page on Connector Specifications.

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)
- 900µm tight buffered fibers allows direct termination; 2.0mm furcation available
- Cable tested to meet or exceed EIA/TIA 568-A/GR-409-CORE
- Telcordia GR-326 compliant connectors

Applications

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

Ordering Information

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

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

Sub-unitized Premise MicroCore® Cable Assemblies

Sub-unitized Premise Microcore cable assemblies provide high performance for Premise installations where space is a premium. The small diamter, subunitized design offers 12 250µm colored fibers per tube, with aramid strength members enclosed by a PVC jacket, enabling high density architecture. The cable allows quick and efficient termination of MTP connectors, as well as, breakout capability to single fiber connectors.

Features

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

Applications

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

Specifications

	SINGLEMODE ASSEMBLIES						MULTI-MODE ASSEMBLIES		
	LC		SC		MTP		LC	SC	MTP
PARAMETER	ULTRA	ANGLED	ULTRA	ANGLED	ULTRA	ANGLED			
Insertion Loss (Typical dB)***	0.15	0.15	0.15	0.2	N/A	0.35	0.15	0.15	0.35
Return Loss (Minimum dB)	-55	-65	-55	-65		-65	-30	-30	-30
Temperature Range (°C)	-40 to +85		-40 to +85		-40 to +75		-40 to +85	-40 to +85	-40 to +75
Durability Cycles	500		500		200		500	500	200

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

Ordering Information – MTP-MTP Assemblies

(Female MTPs on both ends – no pins)

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

NOTE: Refer to page on Connector Specifications.

Ordering Information continued –>

Sub-unitized Premise MicroCore® Cable Assemblies

Ordering Information – MTP Fanout Assemblies

(Male MTPs - Duplex Connectors)

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

Ordering Information – LC and SC Trunk Assemblies

(Duplex LC and SC Connectors)

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

Bend Insensitive Cable Assemblies

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

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

Applications

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

Features

CONNECTORS

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

CABLE

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

Specifications

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

Ordering Information:

SIMPLEX CABLE ASSEMBLIES, 2MM JACKET DIAMETER

DESCRIPTION	PART NUMBER
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, 3.2MM JACKET DIAMETER

DESCRIPTION	PART NUMBER
USC-USC	C141246B-X
ULC-ULC	CS000813B-XXXX
USC-ULC	CS000812B-XXXX
USC-UFC	C124414B-XXXX

QUAD 4-FIBER CABLE ASSEMBLIES, 4.7MM JACKET DIAMETER

DESCRIPTION	PART NUMBER
USC-USC	C183518B-XXXX
ULC-ULC	CS000818B-XXXX
USC-ULC	CS000661B-XXXX
USC-UFC	C178379B-XXXX

OCTO 8-FIBER CABLE ASSEMBLIES, 5.2MM JACKET DIAMETER

DESCRIPTION	PART NUMBER
USC-USC	CS000619B-XXXX
ULC-ULC	CS00815B-XXXX
USC-ULC	CS000814B-XXXX

SC Angled Pigtail Assemblies

AFL single-mode SC Angled Pigtail Assemblies are designed to meet 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.

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 -65dB return loss

CABLE:

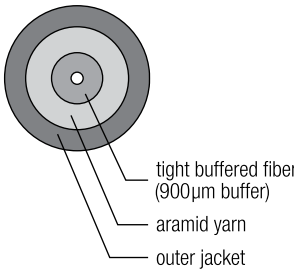
- Cable constructions meet or exceed Telcordia GR-409
- 3.0mm cable diameter available in Riser and Plenum grade
- Simplex and Duplex zipcord cable construction, RoHS compliant
- Cable manufactured using Corning SMF-28e singlemode fiber

Specification

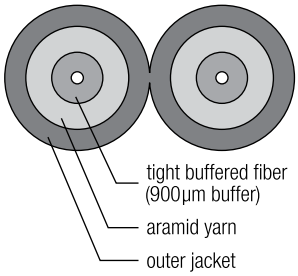
PARAMETER		VALUE
Insertion loss	maximum typical	0.25 dB 0.15 dB
Return Loss	maximum typical	-65 dB -68 dB
Durability		200 cycles
Operating Temperature		-40°C to + 85°C
Storage Temperature		-40°C to + 85°C

Cable Components

Simplex



Duplex Zipcord



Ordering

RISER GRADE, SINGLE-ENDED, 3MM

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, 3MM

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

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

Polarization Maintaining (PM) Assemblies

Advances in telecommunications and optical technology have led to a demand for polarization control in optical signal processing. AFL Telecommunications offers SC, FC and LC style jumpers with the optical polarization control of PANDA® fiber. Fujikura PANDA fiber is recognized worldwide as the industry standard for polarization maintaining applications.

Features

- High extinction ratio
- Low insertion loss
- Custom polarization orientation
- Custom designs available

Applications

- Polarization based modulators
- Fiber Optic Gyros
- High bit rate telecommunications
- Interferometry
- Optical amplifiers

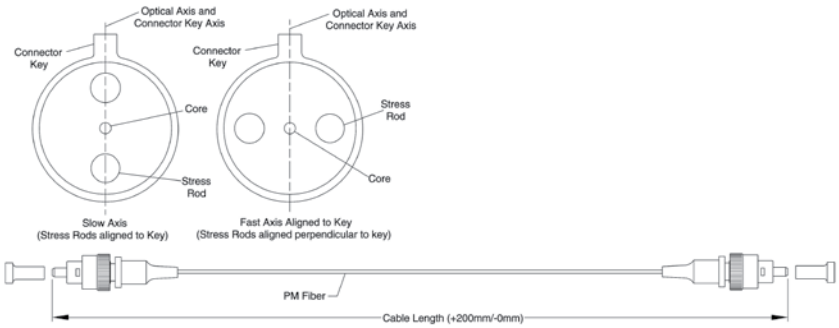
Specifications

PARAMETER	STANDARD (SC/FC/LC)		PREMIUM (SC/FC/LC)	
Polish	UPC	APC	UPC	APC
IL (dB)	<0.5	<0.5	<0.3	<0.3
RL (dB)	>50	>60	>55	>65
Polarization Axis Alignment Accuracy	(±) 3°	(±) 3°	(±) 3°	(±) 3°
Extinction Ratio	>25	>25	>27	>27
Fiber Type	Fujikura PANDA®			
Fiber Length (including connectors[1])	0 to 5.0m			
Operating Temperature Storage Temperature	using UV/UV-250 or UV/UV-400 -20 to +70°C using UV/NY-900 +5 to +45°C -40 to +70°C			
FC Key Width (External)	narrow key 1.97-2.02mm			

1. Please specify the length upon ordering
2. LC not available in APC

NOTE: Unless otherwise stated, the specifications listed were measured at ambient temperature (25 ±5°C)

Cross Section of PANDA® Fiber Relative to Connector Key



Ordering Information

P M J –	3	2	0	5	3	2	1	3

Connector A
0 = No Connector
1 = FC/UPC
2 = FC/APC
3 = SC/UPC
4 = SC/APC
5 = LC/UPC

Connector A Alignment
0 = No Alignment
1 = Slow Axis
2 = Fast Axis
3 = Custom

Jumper Length
00 = Custom
01 = 1 meter
02 = 2 meters
03 = 3 meters
04 = 4 meters
05 = 5 meters

Connector B
0 = No Connector
1 = FC/UPC
2 = FC/APC
3 = SC/UPC
4 = SC/APC
5 = LC/UPC

Connector B Alignment
0 = No Alignment
1 = Slow Axis
2 = Fast Axis
3 = Custom

Fiber Type
1 = PANDA® 1550
2 = PANDA® 980
3 = Custom

Jacket Type
1 = 250µm
2 = 400µm
3 = 900µm
4 = 900µm Hytrel
5 = 3mm PVC
6 = Custom

*** Max. Length is 5 meters
+ Please call AFL for detailed information on customized specifications and other fiber types

Future Access™ Single-Fiber HFOC Drop Cable for MDU Applcations

Used in MDU applications, the Future Access Single-Fiber HFOC (Hardened Fiber Optic Connector) Drop Cable provides a quick and easy installation from the pre-installed HFOC terminal residing on a pole, pedestal or hand-hole to a far end termination. With environmentally-sealed SC/APC connectors, the Single-Fiber HFOC Drop Cable is factory terminated using dielectric or toneable flat cables in customer specified lengths, single or doubled-ended. The single-fiber drop cable saves time and money with faster deployments in the optical FTTx network.

Features

- Environmentally sealed SC/APC connectors equipped with protective cap
- Factory termination – single or double-ended
- Faster deployment, saving time and money
- Cable available in dielectric or toneable flat drop and in varying lengths
- Tested to Telcordia GR-3120 requirement

Specifications

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

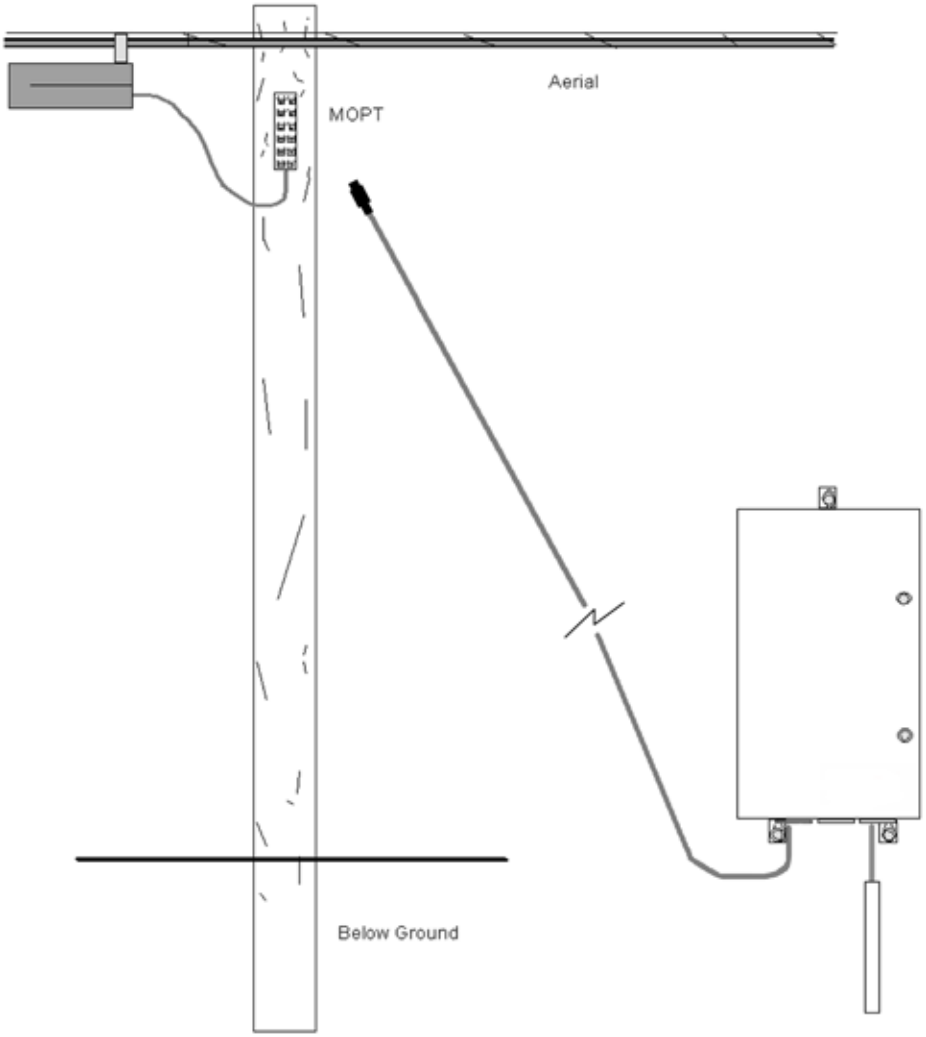
Ordering Information

DESCRIPTION	PART #
Single-Fiber HFOC Drop Cable – Single-ended Dielectric	CS002823-XXXXFT
Single-Fiber HFOC Drop Cable – Single-ended Toneable	CS008995-XXXXFT
Single-Fiber HFOC Drop Cable – Double-ended Dielectric	CS008994-XXXXFT
Single-Fiber HFOC Drop Cable – Double-ended Toneable	CS008993-XXXXFT

NOTE: XXXX is the length in feet.

Future Access™ Single-Fiber HFOC Drop Cable for MDU Applcations

Application



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

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

Features

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

Specifications

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

Ordering Information

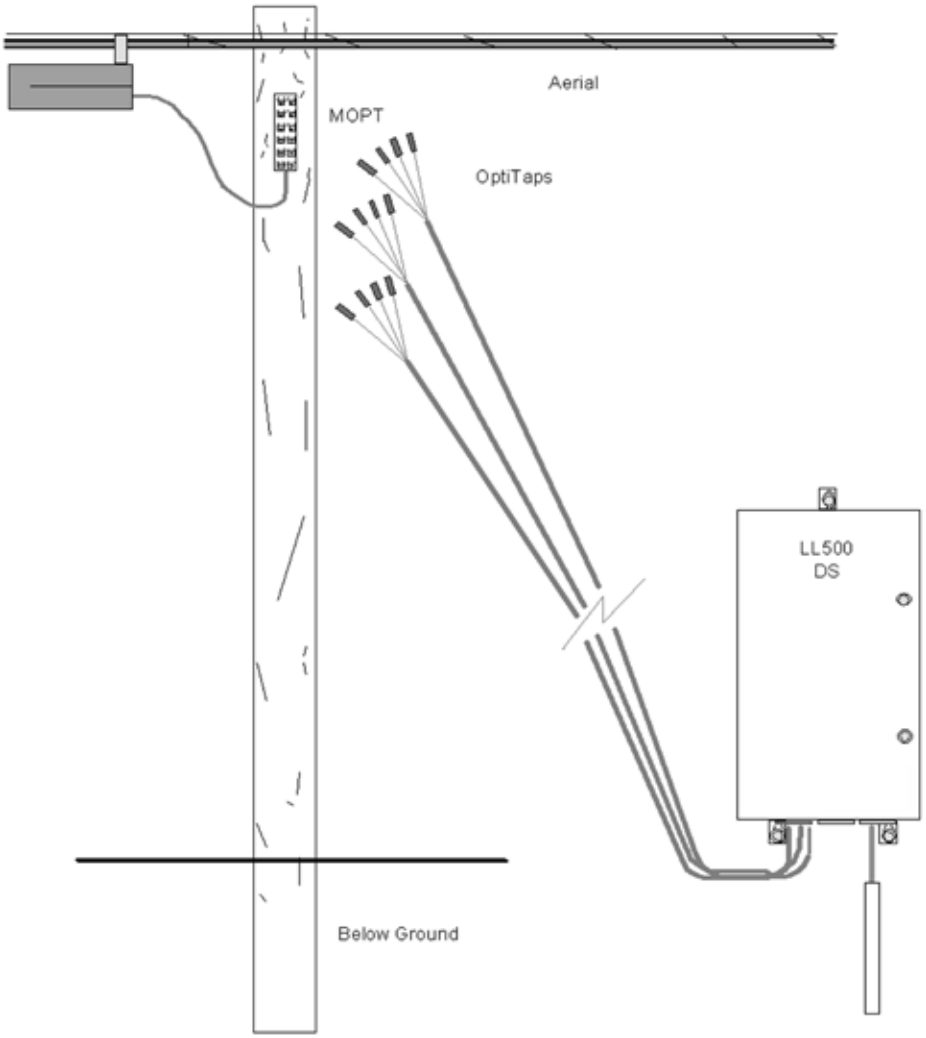
DESCRIPTION	PART #
4-Fiber HFOC Drop Cable – 200 Feet Dielectric	CS004232-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Dielectric	CS004232-0500FT
4-Fiber HFOC Drop Cable – 200 Feet Toneable	CS004233-0200FT
4-Fiber HFOC Drop Cable – 500 Feet Toneable	CS004233-0500FT

Accessories

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

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

Application



Loose Tube & Riser Rated Indoor/ Outdoor Loose Tube Cable Assemblies

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

Applications

- Outdoor Cabinets
- External-Building Runs
- Vaults
- CEV's.

Features

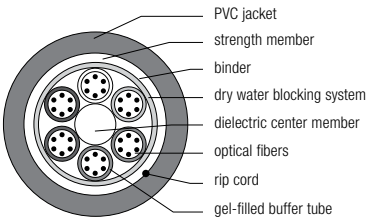
- Fiber counts from 6 to 144 fibers
- Available with ST, SC, FC, and LC connectors single-mode
- Pigtail assemblies, standard configuration (nonstandard configurations available)
- ST, SC, FC and LC connectors available in both single-mode and multimode
- Pre-installed pulling eye kits available
- 1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

Specifications

Riser Rated Indoor/Outdoor Loose Tube

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

Cable Components



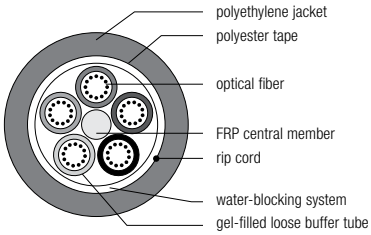
Temperature Range

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

Loose Tube

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

Cable Components



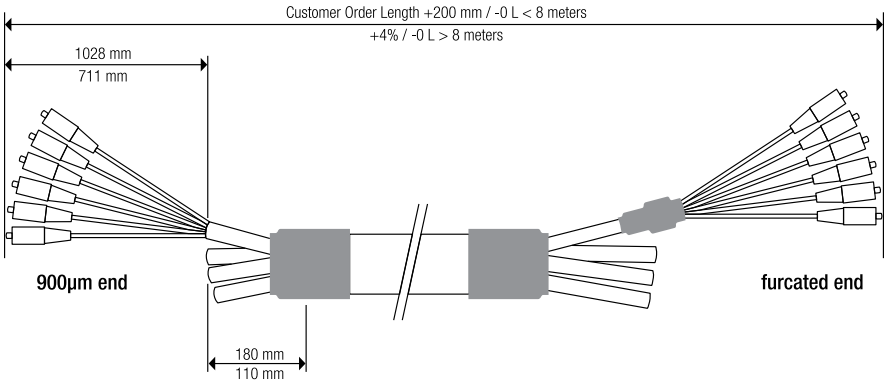
Temperature Range

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

NOTE: Refer to page on Connector Specifications.

Loose Tube & Riser Rated Indoor/ Outdoor Loose Tube Cable Assemblies

Dimensions



Ordering Information

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

Lengths Available

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

LightLink™ Fiber Receiver Service Cable Assemblies (FRSC)

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

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

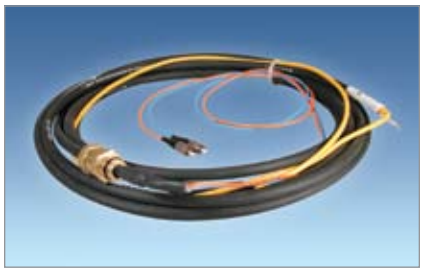
Features

- Field proven, durable connecting hardware
- High quality optical terminations meet all geometric and optical performance requirements
- Ordering flexibility; available in standard and custom lengths and connector counts
- Mini-central core type cable
- Installed hard-line entry connector
- Gel-filled cable
- Individualized serial numbers
- SC/UPC, FC/UPC, SC/APC, FC/APC, LC/UPC
- Two to twelve fiber counts available

Fiber Receiver Service Cable with Armored PE Jacket

Specifications

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



LightLink™ Fiber Receiver Service Cable Assemblies (FRSC)

Fiber Receiver Service Cable with Non-Armored All-Dielectric UniFlex™

Features

- Polyurethane riser rated indoor/outdoor loose tube single-mode cable
- Polyurethane jacket reinforced with aramid yard for exceptional durability
- Easy installation
- Design eliminates movement of cable components
- 900µm or 2.4mm upjacketed color-coded legs, 2.0mm LC
- Breakout length 1 meter
- Available in single-mode pigtails
- Pulling strength in excess of 150 lbs.
- Anti-twist crimp
- Flexible bend radius of 19cm for installation and 10cm for operation
- Variety of single-mode connector styles (not available in multimode)
- Cable cut and terminated to custom lengths
- Connector ends clearly labeled for quick identification
- Available in fiber counts from 2-12 fibers
- Ultra Polish available for all connector types
- Angle Polish available on FC and SC connectors

Specifications

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

GROMMET SPECIFICATIONS - STANDARD D	
Inner Diameter	0.375"
Active Pull Test	35 lbs.
Overall length	45mm
Hex Nut Size	7/8"
Length from Hex Nut to end of front body	6mm
Material	Aluminum Gold Anodized

Ordering Information

ASC	XXX	NC	012	Q	0010	N
Connector End A	**Connector End B**	**Cable Type**	**Fiber Count**	**Fiber Type**	**Cable Length (meters)**	**Leg Diameter**
Single-mode ASC = Angle SC AFC = Angle FC USC = Ultra SC UFC = Ultra FC UST = Ultra ST ULC = Ultra LC	**Single-mode** XXX = No connector	NC = Uni-Flex AN = Armored PE	002 = 2 004 = 4 006 = 6 008 = 8 010 = 10 012 = 12	Q = Single-mode	XXXX (specify length) 0010 = 10 meters	N = 900µm End A F = Furcated End A

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 Telecommunications' fused biconic technology, and is designed and manufactured to meet Military and Telcordia requirements.

Features

- Dual window wideband operation
- Low insertion loss over entire bandwidth and temperature (typical IL change <±0.1dB)
- 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

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)

RATIO	SPECIFICATIONS (DB)		PART NUMBER
	PRIMARY/SECONDARY PORT	PDL (DB)	
50/50	3.6/3.6	0.15	C198364-P
55/45	3.2/4.1	0.15	C198358-P
60/40	2.7/4.7	0.14	C198353-P
65/35	2.3/5.3	0.14	C198349-P
67/33	2.2/5.7	0.14	C198904-P
70/30	2.0/6.0	0.13	C198346-P
75/25	1.8/6.8	0.13	C198340-P
80/20	1.3/7.8	0.10	C198335-P
85/15	1.0/9.2	0.10	C198331-P
90/10	0.8/11.2	0.10	C198328-P
95/5	0.5/14.4	0.10	C198322-P

Ruggedized Wideband Couplers

Enhancing AFL Telecommunications' wideband coupler offering are two package styles for ruggedized versions of these reliable, standardized couplers. 3mm and 900um furcated pigtail options and a variety of connector styles are offered in both single-mode and multimode applications. All AFL Telecommunications' 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 -40C to +85C

Applications

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

Ordering Information

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

Wavelength Division Multiplexer Couplers

The WDM separates or combines wavelengths in the 1310 and 1550nm bands over an ultra-wide bandwidth (+ 20nm) 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 1209 and 1221 requirements.

Features

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

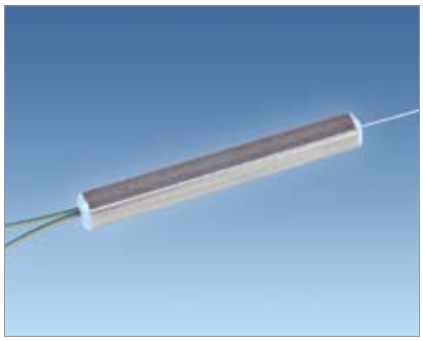
Applications

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

Specifications (Single-Mode Premium)

PARAMETER	VALUE
Model Number	**S004794**
Configuration	1 x 2
Wavelength	1310 / 1550nm
Directivity	<-65dB
Operating Temperature	-40º to +85ºC
Typical Temperature Stability	<0.1dB
Typical Polarization Stability (passband)	<0.1dB
Isolation	20dB

*Isolation of 32dB and higher not available in 63mm L or 69mm L x 3mm OD



Planar Couplers

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

Features

- Low insertion loss
- Compact design
- Stable optical performance
- Dual Window (1310 & 1550nm)
- 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

Specifications

PARAMETER	VALUE			
PART NUMBER	**CM000034**	**CM000033**	**C198299**	**TBA**
Operating Wavelength (Grade)	1260-1360nm and 1480-1580nm (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 250µm equivalent			
Input/Output Fiber Length	1 meter	1.5 meters	1.5 meters	1.5 meters
Operating Temperature	–40° to +85°C			
Package Dimensions (LxWxH) (mm)	40 x 4 x 4	40 x 4 x 4	40 x 4 x 4	50 x 6.5 x 4

Optical Coupler Modules

The optical coupler module offers management of optical power and wavelength, packaged in the LGX® 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 +/- 40nm / 1550 +/-40nm
- RoHS compliant
- Packaged individually / tamper-proof seal

Applications

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

Specifications

PARAMETER	VALUE	
	Singlemode	
	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

			OUTPUT PORT COUPLING RATIO (PORT)		INSERTION LOSS (IL) PORT 01		INSERTION LOSS (IL) PORT 02	
I/O PORTS	I/O CONN	AFL PART #	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.

Optical Coupler Modules

Ordering Information (continued)

			OUTPUT PORT COUPLING RATIO (PORT)			INSERTION LOSS					
						PORT 01		PORT 02		PORT 03	
I/O PORTS	I/O CONN	AFL PART #	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

			OUTPUT PORT COUPLING RATIO (PORT)				INSERTION LOSS							
							PORT 01		PORT 02		PORT 03		PORT 04	
I/O PORTS	I/O CONN	AFL PART #	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

			OUTPUT PORT COUPLING RATIO (PORT)								INSERTION LOSS															
											PORT 01		PORT 02		PORT 03		PORT 04		PORT 05		PORT 06		PORT 07		PORT 08	
I/O PORTS	I/O CONN	AFL PART #	01	02	03	04	05	06	07	08	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	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	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	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	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	9.3	11.4	9.3	11.4	9.3	11.4	9.3	11.4

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

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

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. The shelf is comprised of a Planar Lightwave Circuit allowing a signal to be split into 32 channels in a 1U rack-mountable housing. The 2x32 option provides a filter WDM concatenated to a Planar Lightwave Circuit, which allows 1310/1490/1550nm signal management evenly across 32 channels.

Features

- Telcordia 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	1x32	2x32	
Insertion Loss	17.5 - 18.5dB	17.5 - 19dB	
Uniformity	1.8dB Typical	1.8dB Typical	
PDL	<0.45dB	<0.45dB	
Return Loss	<55dB	<40dB	
Directivity	<55dB	<50dB	
Fiber Type	SMF-28e 250µm	SMF-28e 250µm	
Operating Temp	-40°C to +85°C	-40°C to +70°C	
Storage Temp	-40°C to +85°C	-40°C to +85°C	
Operating Bandwidth	NA	1550nm Band - Port 1 (Pass)	1550 - 1560nm
		1310+1490nm - Port 2 (Reflect)	1260-1360nm & 1480-1500nm

Ordering Information

PART #	DESCRIPTION
FM000775	1x32 Optical Splitter Shelf, ASC inputs/outputs, 1U, textured White
FM000622	2x32 Optical Splitter Shelf, ASC inputs/outputs, 1U, textured White

Optical FTTX Coupler Module

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

Specifications

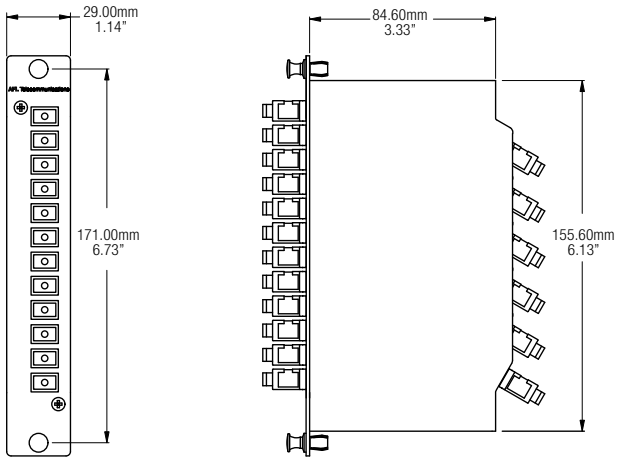
PARAMETER	VALUE
Performance	
Wavelength	1540-1560 nm
Insertion Loss	1550 < 3.9 dB
PDL	<0.2 dB
PMD	< 0.05 ps
Return Loss	> 55 dB
Directivity	> 55 dB
Operating Temperature	-40 to +75 °C
Storage Temperature	-40 to +85 °C
Relative Humidity	0 to 90%
Optical Power	500 mW

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

PART NUMBER	DESCRIPTION
CM000072	Optical FTTX Coupler Module

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 1550nm bandwidths in FTTX applications. The module features a compact footprint with adapter ports consisting of SC (UPC or APC) outputs.

Specifications

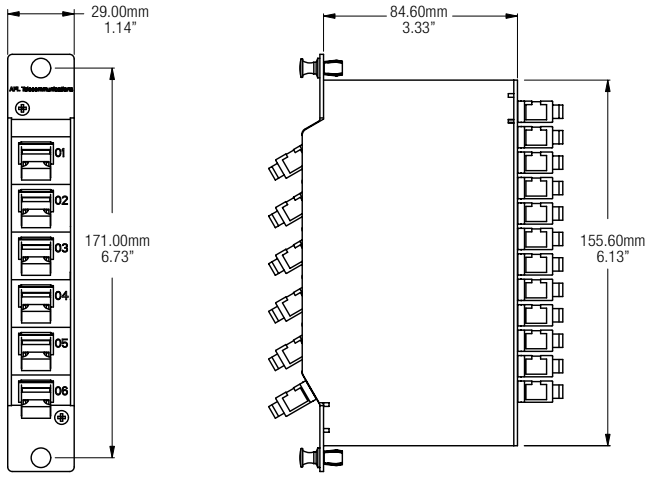
PARAMETER	VALUE
1550 Band – Port 1 (Pass)	1550-1560 nm
1310 + 1490 Band – Port 2 (Reflect)	1260-1360 & 1480-1500 nm
Insertion Loss	1550 < 1.2 dB 1310 + 1490 < 1.2 dB
Isolation	1550 > 25 dB 1310 + 1490 > 20 dB
PDL	<0.2 dB
PMD	< 0.2 ps
Return Loss	> 50 dB
Directivity	> 50 dB
Operating Temperature	-40 to +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

PART NUMBER	DESCRIPTION
CM000043	Optical FTTX WDM Module

Dimensions



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

Double-width LGX 118 package shown

Dense WDM (DWDM) Modules

AFL Telecommunications' 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 two, four, eight, and sixteen channel configurations, with 100GHz and 200GHz spaced central wavelength options on the ITU-T Grid in the C-Band (1528nm-1568nm) and L-Band (1568nm-1610nm). 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
- 100GHz & 200GHz ITU-T Channel Spacing
- 2, 4, 8 and 16 Channel Configurations
- Most Industry Standard Connectors
- Low Insertion Loss
- High Isolation
- Epoxy-free optical path

Applications

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

Specifications

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

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

Dense WDM (DWDM) Modules

Ordering Information

DWDM — 04 — 5 — 1 — 20 — 24 — ASC — ISP

Channel Count
- 02 = 2 Channel
- 04 = 4 Channel
- 08 = 8 Channel
- 16 = 16 Channel

Package/Pigtail
- 1 = Thin Cassette, 1 Meter Pigtail
- 3 = Thin Cassette, 3 Meter Pigtail
- 5 = Thin Cassette, 5 Meter Pigtail
- L = LGX 118

Spacing
- 1 = 100GHz
- 2 = 200GHz

Start Channel
20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58

End Channel
21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59

Connectors
- ASC = SC/APC
- USC = SC/UPC
- ALC = LC/APC
- ULC = LC/UPC
- X = No connectors

Double-width LGX 118 package shown

Coarse WDM Modules (CWDM)

AFL Telecommunications 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 two, four, eight, and sixteen 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 1310nm Mux/Demux Upgrade Port is available to allow seamless integration of legacy voice, video, and data services.

Features

- Telcordia® Qualified Components
- 20nm Channel Spacing
- 2/4/8/16 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

Specifications

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

** Includes Connectors*

Ordering Information

CWDM — 04 — 5 — 1271 — 1331 — B — ASC — ISP

Channel Count
02 = 2 Channel
04 = 4 Channel
08 = 8 Channel
16 = 16 Channel

Package/Pigtail
1 = Thin Cassette, 1 Meter Pigtail
3 = Thin Cassette, 3 Meter Pigtail
5 = Thin Cassette, 5 Meter Pigtail
L = LGX 118

Start Wavelength (nm)
1271
1291
1311
1331
1351
1371
1391
1411
1431
1451
1471
1491
1511
1531
1551
1571
1591

End Wavelength (nm)
1291
1311
1331
1351
1371
1391
1411
1431
1451
1471
1491
1511
1531
1551
1571
1591
1611

Options
U = 1310 Upgrade Port
T = 2% Tap Port
X = No Option
B = 1310 Upgrade Port and 2% Tap Port

Connectors
ASC = SC/APC
USC = SC/UPC
ALC = LC/APC
ULC = LC/UPC
X = No connectors

Adapter Cleaners

For economical and fast removal of dirt, dust, oil and grease from adapters, choose AFL Telecommunication's convenient adapter cleaners. Designed to thoroughly clean hard to reach areas and adapters, they require no alcohol or solvents and their small size makes them ideal for field applications.

MODEL NUMBER	DESCRIPTION	PART NUMBER
ACT-01	Adapter Cleaner Tips for SC, ST, FC (5 pack)	C008812
ACT-02	Adapter Cleaner Tips for MU and LC (5 pack)	C194404

Cletop-A

Cletop-S

Cletop Ferrule Cleaner

The Cletop Automatic Ferrule Connector Cleaner quickly and effectively cleans fiber optic connectors without the need for alcohol or solvent wipes. The dry woven cloth effectively removes dirt, dust, oil, grease and debris from connector and end face. The Cletop-A is designed to clean SC, ST and FC connector types, while the Cletop-S has an open cleaning slot more suitable for LC, MTP and MT-RJ connectors.

MODEL NUMBER	DESCRIPTION	PART NUMBER
Cletop-A	Cleaner for SC, ST and FC connectors	C036692
	Refill for Cletop-A	C036684
Cletop-S	Cleaner for LC, MTP and MT-RJ connectors	CS000135
	Refill for Cletop-S	CS000136

Features

- Compact and light weight
- Ideal for assembly lines and in the field
- 400 swipes each reel
- Replacement reels are available (400 swipes per reel)

MPO Cleaner (MPO-CLK-A)

The MPO Cleaner is a high-performance device designed for cleaning the ferrule endfaces of MPO (MTP®) connectors. This tool cleans the fiber endface without the use of alcohol. It also effectively cleans all 12 fibers at once.

Features

- Intermateability with FOCIS-5 (MPO)
- Capable of cleaning MPO/MTP ferrules inside or outside a MPO/MTP adapter
- Capable of cleaning ferrules with or without guide pins
- 500 Cleanings

Ordering Information

MODEL	DESCRIPTION	PART NUMBER
MPO-CLK-A	Cleaner for MPO and MTP connectors	CS000710

Connector/Adapter Cleaning Kit

The Connector/Adapter Cleaning Kit is a complete kit solution for maintaining the optical integrity of passive network components such as connectors, jumpers, couplers, patch panels, etc. The Connector/Adapter Cleaning Kit includes all the cleaning supplies you need to maintain clean ferrules and connectors in an organized, portable and rugged carrying case.

Kit Includes

- Rugged carrying case for complete protection and organization of supplies
- FCC-02R Prep Cleaner (1)
- FCC-R Replacement cartridge (400 wipes)
- ACT-01 Adapter Cleaner Tips (20)
- Alcohol dispenser (1)
- Lint free Kim Wipes
- Carry case

Ordering Information

DESCRIPTION	PART NUMBER
Connector/Adapter Cleaning Kit	C182120

AFL Telecommunications
A Fujikura Business

www.AFLtele.com • 1.800.235.3423

CAT-01006