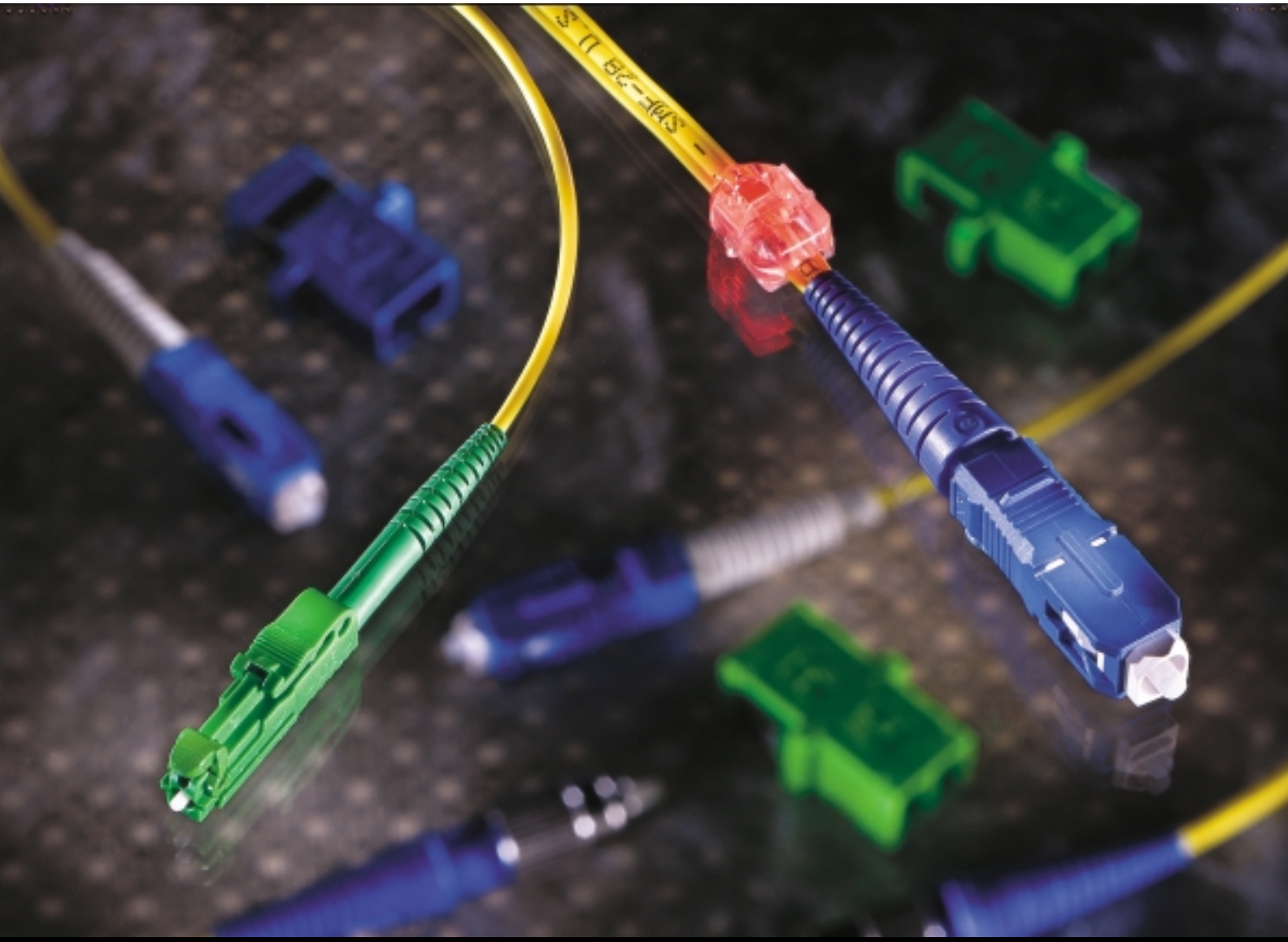


Fiber Optic

Cable Assemblies
and Accessories

ADC®

Fiber Optic Components
Table of Contents

7/01 • 100300PR

Introduction

ADC produces a wide variety of fiber cable assemblies and accessories designed to meet the specific application needs of our customers. With an expansive product line ranging from patch cords and connectors to adapters and attenuators, ADC is the choice for the essential products necessary to meet the requirements of today's high-speed networks.

Advanced manufacturing processes allow us to meet some of the strictest specifications in the industry at prices comparable to those of less stringently produced components. ADC's innovative polishing techniques, rigorous evaluation of epoxies, serialized tracking and the strictest testing in the industry are among the processes that make us an industry leader in fiber components.

Bar Code System

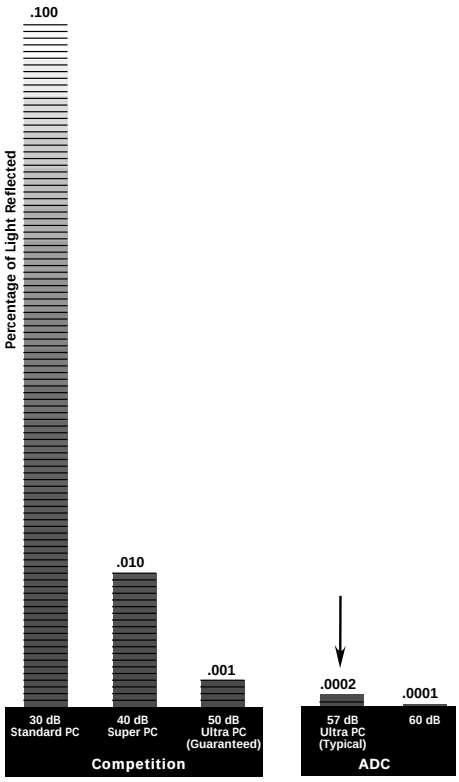
We test every singlemode connector and apply a bar code that indicates the exact insertion loss and return loss for that termination. This aids in the documentation of the exact losses in the network. The bar code system also stores information about the materials used and the manufacturing process applied to produce the patch cord. ADC retains these records for your reference for over three years.

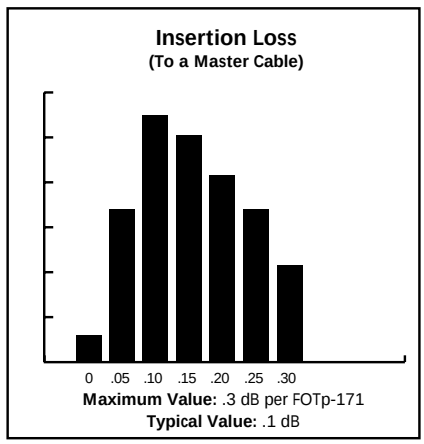
Insertion and Return Loss

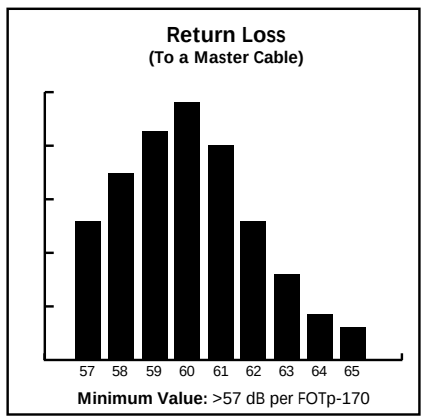
ADC has excellent insertion and return loss values due to our polishing process and our proprietary cleaning system. Insertion and return loss values are affected by the endface geometries of the fiber connector.

Ultra Physical Contact Patch Cords

To a Master Cable







Patch Cords
Introduction

ADC offers an extensive collection of fiber optic patch cords and cable assemblies used throughout high-speed networks in cross-connect, test, or equipment areas to link optical equipment. Our patch cords are available in three jacket sizes with a variety of cables and connectors, including our innovative LX.5® small form factor connector.

Our patch cords go through an extensive manufacturing and inspection process to ensure the guaranteed performance specifications of your high-speed network.

Every patch cord manufactured by ADC must pass rigorous qualification testing that includes:

ADC's patch cord manufacturing personnel must be certified through ADC's rigorous internal fiber patch cord training processes.

Item Specifications	Test
Temperature shock	FOTP-3
Humidity	FOTP-5
Temperature life	FOTP-4
Mating durability	FOTP-21
Vibration	FOTP-11

Item Specifications	Test
Cable flex	FOTP-1A
Cable retention	FOTP-6
Cable twist	FOTP-36
Impact	FOTP-2

Every patch cord shipping container shows the catalog number clearly and includes the exact measured values for insertion and return loss. Through the use of bar code data acquisition techniques, ADC can determine the exact date of manufacture, the materials used and the process followed in manufacturing.

Patch cord shipping container

Patch Cords
Fiber Optic Patch Cords

Singlemode

All patch cords undergo stringent testing for both insertion loss and return loss at the factory before shipment to ensure that only quality product is delivered to the customer.

ADC offers ultra physical contact polish on the SC, ST®, FC, and LC connector styles. Typical insertion loss is 0.1 dB.

Angled polish is available on the new LX.5® small form factor connector, SC, FC, and the E-2000 connector styles. Angled polish should be used in applications that require better control of return loss. ADC has tight tolerances regarding the rotation of the ferrule to maintain low insertion loss values.

Singlemode Patch Cord

Catalog Number

__ - __ - S - __ M

Cable Option

FPC	Connector on both ends (patch cord)
FPT	Connector on one end (pigtail)

Length
X Length in meters

Cable Type

Leave Blank	3 mm single
M	2 mm single
F	1.7 mm single
9	900 micron
Z	3 mm dual zip
2	2 mm dual zip
T	1.7 mm dual zip

Connector Type***

SPSC	SC ultra polish
SPST	ST® ultra polish
SPFC	FC ultra polish
APSC	SC angled polish
APFC	FC angled polish
ALX5	LX.5® angled polish*
AE2	E-2000 angled polish
SPLC	LC ultra polish*
SDSC	SC duplex**
ADLX	LX.5® angled polish duplex*

*Requires 900 micron or 1.7 mm cable.

**One connector per end; requires zip cable.

***For hybrid patch cords, enter both connector types in this field, separate them with a slash mark and remove the "S" from the second connector.

Ordering Example

FPC2-SPFC-10M: Patch cord with ultra polish FC connectors on both ends, 2 mm dual zip cable, 10 meters in length with standard breakout length of 12" on both ends.

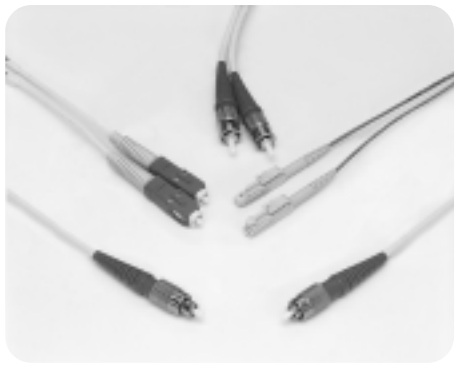
FPC-SPST/PSC-S-10M: Patch cord with ST® ultra polish connector on one end and SC ultra polish connector on the other end, 10 meters in length.

Patch Cords
Fiber Optic Patch Cords

Multimode

Multimode patch cords are available with the new LX.5® small form factor connector and the traditional SC, ST®, and FC connector styles.

Multimode patch cords are assembled using the same advanced manufacturing processes as the singlemode, ensuring the highest quality standards.



Multimode Patch Cord

Catalog Number

__ __ - __ - __ - __ **M**

Cable Option

FPC	Connector on both ends (patch cord)
FPT	Connector on one end (pigtail)

Cable Type

Leave Blank	
	3 mm single
M	2 mm single
F	1.7 mm single
9	900 micron
Z	3 mm dual zip
2	2 mm dual zip
T	1.7 mm dual zip

Length
X Length in meters

Fiber Size

A	50/125
B	62.5/125

Connector Type***

MSC	SC ultra polish
MST	ST® ultra polish
MFC	FC ultra polish
MLX5	LX.5®*
MDSC	SC duplex**
MDLX	LX.5® duplex*

*Requires 900 micron or 1.7 mm cable.

**One connector per end; requires zip cable.

***For hybrid patch cords, enter both connector types in this field and separate them with a slash mark.

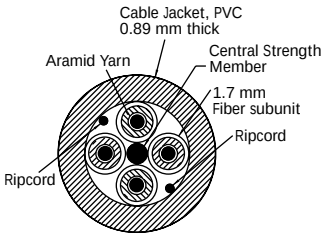
Ordering Example

FPC-MST/MSC-B-7M: Patch cord with ST® ultra polish connector on one end and SC ultra polish connector on the other end, 62.5/125 fiber size, 7 meters in length.

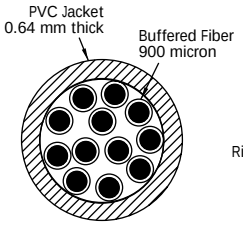
Patch Cords

Multifiber Patch Cords (4 to 24 fibers)

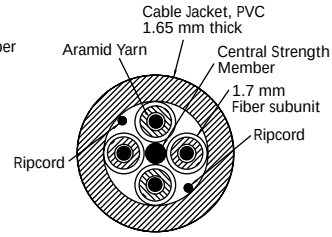
Singlemode



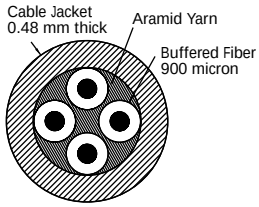
Standard Wall
(4 Fiber Shown)



Soft Wall
(12 Fiber Shown)



Thick Wall
(4 Fiber Shown)



Thin Wall
(4 Fiber Shown)

Standard wall: Available with 4, 6 or 12 tight buffered 1.7 mm fibers enclosed in a standard wall outer jacket. Each 1.7 mm fiber is coded for easy identification of individual fibers. Central strength member, aramid yarn; PVC jacket thickness 0.89 mm.

Soft wall: Available with 6, 8 or 12 tight buffered 900 micron fibers with a thin outer jacket. No central strength member or aramid yarn; PVC jacket thickness 0.64 mm.

Thick wall: Available with 4 or 24 tight buffered 1.7 mm fibers. Each 1.7 mm fiber is coded for easy identification of individual fibers. Central strength member, aramid yarn; PVC jacket thickness 1.65 mm.

Thin wall: Available with 4 tight buffered 900 micron fibers with a thin outer jacket (4.8 mm overall diameter). No central strength member, aramid yarn; PVC jacket thickness 0.48 mm.

Catalog Number

FPM-0 __ / __ - _____ M- __ __ / __ __

Connector Type (1st and 2nd end)

0	Stub
7	SC ultra polish
4	ST® ultra polish
2	FC ultra polish
E	SC angled polish
D	FC angled polish
L	LX.5® angled polish
J	E-2000 angled polish*
K	LC ultra polish

* E-2000 is not available with 1.7 mm subunits.

Length
X Length in meters

Breakout Length
X Length in inches
Leave blank if both ends 12"

Cable Type

A	4-fiber thick wall
D	4-fiber standard wall
W	4-fiber thin wall
E	6-fiber standard wall
P	6-fiber soft wall
L	8-fiber soft wall
F	12-fiber standard wall
M	12-fiber soft wall
AD	24-fiber thick wall

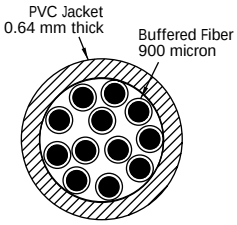
Ordering Examples

FPM-07/0-P005M: Multifiber patch cord with ultra polish SC connectors on one end, no connectors on the other end (pigtail), 6-fiber soft wall, 5 meters long with standard breakout.

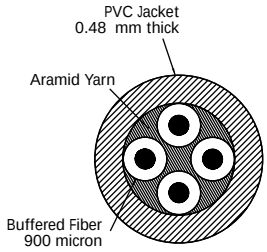
Patch Cords

Multifiber Patch Cords (4 to 12 fibers)

Multimode



Soft Wall
(12 Fiber Shown)



Thin Wall
(4 Fiber Shown)

Soft wall: Available with 6 or 12 tight buffered 900 micron fibers with a thin outer jacket. No central strength member or aramid yarn; PVC jacket thickness 0.64 mm.

Thin wall: Available with 4 tight buffered 900 micron fibers with a thin outer jacket. No central strength member, aramid yarn; PVC jacket thickness 0.48 mm.

Catalog Number

MFPM- __ / __ - _____ **M-** ___ / __

Connector Type (1st and 2nd end)

0	Stub
9	SC ultra polish
5	ST® ultra polish
A	FC ultra polish
X	LX.5®

Length
X Length in meters

Breakout Length
X Length in inches
Leave blank if both ends 12"

Cable Type

WB	4-fiber thin wall, 62.5/125
PB	6-fiber soft wall, 62.5/125
NB	12-fiber soft wall, 62.5/125

Ordering Examples

MFPM-9/X-PB008M: Multifiber patch cord with SC connectors on one end and LX.5 connectors on the other end, 6-fiber soft wall cable, 8 meters in length with standard breakout.

Patch Cords
TracerLight™

ADC's innovative TracerLight™ Connector Identification System offers a quick and accurate method of identifying the termination point of optical patch cords. Each end of a TracerLight patch cord features a flashing light source allowing technicians to visually trace individual patch cords from one end to the other without pulling or affecting the patch cord.

TracerLight™ optical patch cords feature a flashing light source (LED) component near each connector end. The TracerLight power source is inserted with minimal force into the TracerLight component on one end of the patch cord. This causes the LED on each end to begin flashing rapidly. As a result, the distant end of the patch cord can be quickly and easily identified without interruption of service.

Available in any standard length or connector style, TracerLight patch cords have the same functions, features, and stringent environmental requirements as our standard patch cords. Optical performance of the patch cords is not affected by the TracerLight components. TracerLight patch cords are installed in the same manner as standard patch cords and can be pulled through ADC's FiberGuide® Fiber Cable Management System with ease.

The compact power source is comprised of a lightweight, plastic flashlight body featuring two AA batteries and a printed circuit board (PCB). It provides approximately 80 hours of continuous service and features 1-hour auto-off. The end of battery life is indicated by a slowing of the blink rate.

TracerLight Power Source
FTL-PS

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Patch Cords
TracerLight™

Singlemode Ordering Information

Catalog Number

FTL- __ / __ - _ _ _ _ M

Connector Style (first end)

7	SC ultra polish
4	ST® ultra polish
2	FC ultra polish
E	SC angled polish
D	FC angled polish
L	LX.5® angled polish

Connector Style (second end)

7	SC ultra polish
4	ST® ultra polish
2	FC ultra polish
E	SC angled polish
D	FC angled polish
L	LX.5® angled polish

Length (in meters)

Example: 050 = 50 meters
125 = 125 meters

Cable Type

D	Singlemode single fiber

Ordering Example

FTL-2/2-D003M: Single fiber patch cord with FC connectors on both ends, 3 meters in length

Multimode Ordering Information

Catalog Number

FTL- __ / __ - _ _ _ _ M

Connector Style (first end)

9	SC
5	ST®
A	FC
X	LX.5®

Connector Style (second end)

9	SC
5	ST®
A	FC
X	LX.5®

Length (in meters)

Example: 050 = 50 meters
125 = 125 meters

Cable Type

A	Multimode 50/125 single fiber
B	Multimode 62.5/125 single fiber

Ordering Example

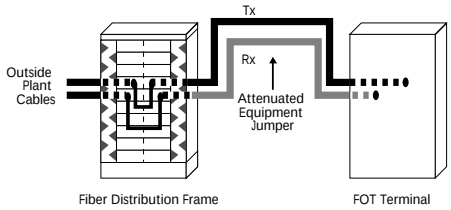
FTL-5/X-B050M: Single fiber patch cord with an ST® connector on one end and an LX.5® connector on the other end, with multimode 62.5/125 single fiber cable type, 50 meters in length

Patch Cords

Adjustable Optical Attenuation Patch Cord

ADC offers adjustable attenuation fiber patch cords as a flexible, cost-effective solution to fixed attenuated adapters. You can set your receiver signal to the exact level desired, eliminating the need to purchase a wide range of attenuators. The attenuation level can be continuously adjusted from 1.5 dB to 20 dB.

Attenuated patch cords used as equipment jumpers may be purchased double ended or single ended. With a single ended cord, the stub end can be cut to the exact length and field terminated with a connector. The attenuator resides close to the fiber optic terminal for easy access.



Catalog Number

APC- __ / __ - __ - __ M

Connector #1*

SPSC	SC ultra polish
SPST	ST® ultra polish
SPFC	FC ultra polish
APSC	SC angled polish
APFC	FC angled polish
AE2	E-2000 angled polish

Connector #2

Leave Blank	Stub
PSC	SC ultra polish
PST	ST® ultra polish
PFC	FC ultra polish
APSC	SC angled polish
APFC	FC angled polish
AE2	E-2000 angled polish

Length in Meters

Example: 4 = 4 meters
35 = 35 meters

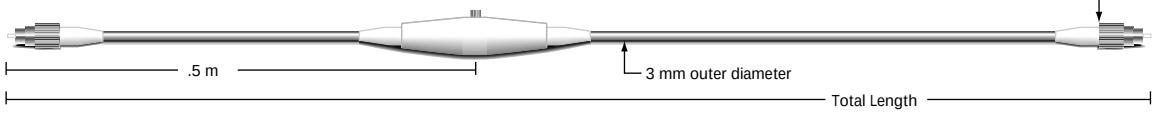
Attenuation Range

S	4 to 20 dB**
H	1.5 to 20 dB**

**1310 nm wavelength

Connector #1*
(Closest connector to variable attenuator)

Connector #2

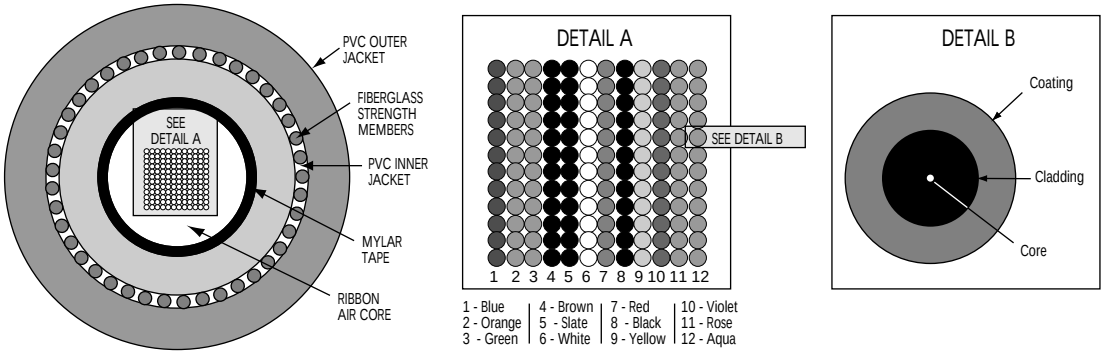


Cable Assemblies
IFC Assemblies

Intrafacility fiber cable (IFC) is a multi-fiber cable designed for use within a building. Generally, it will be constructed without metallic strength members and is designed to meet the fire resistant characteristics required in the central office. The number of fibers range from 12 to 216. Standard IFC assemblies are riser rated and meet UL-1666 OFNR. Two types of IFC are available: ribbon and stranded.

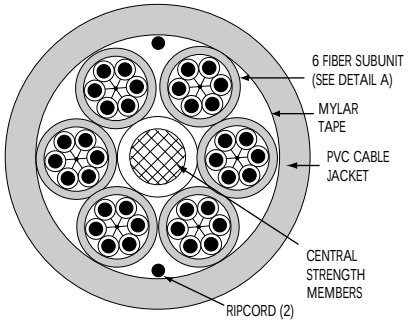
Ribbon IFC

Ribbon cable consists of multi-fibers arranged in ribbons. Each ribbon contains 12 fibers and is identified as a subunit. The fibers which comprise the ribbons are color-coded for identification. With the construction of ribbon cable, the fibers are located in the center of the cable and the outer jacket provides the strength and protection of the cable. Three benefits are derived from the construction: the outer jacket is more robust than stranded cable; the outer diameter of the cable remains constant over the range of fiber counts available; and ribbon cable may be used with mass fusion type splicing.

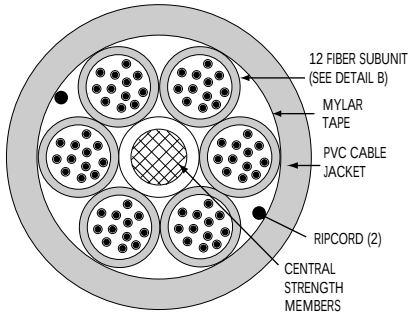


Cable Assemblies
Stranded IFC

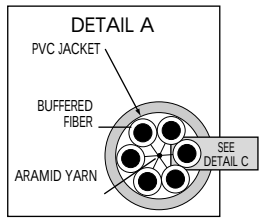
With stranded cable, individual 900 micron fibers make up the construction of the cable. The fibers are bundled into subunits of 6 or 12 fibers each. Each subunit is identified and the individual fibers within the subunits are color-coded. Stranded IFC diameters increase in proportion with the fiber counts.

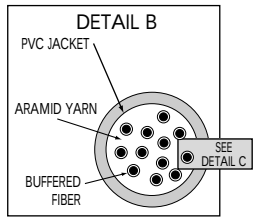


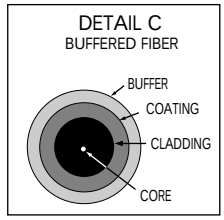
6 fiber subunits
(example shows 36 fibers)

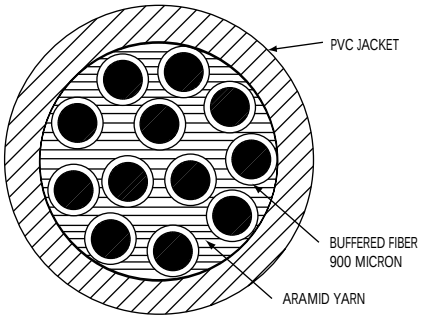


12 fiber subunits
(example shows 72 fibers)









(12 fiber shown)

COLOR CODE CHART	
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	SLATE
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET
11	ROSE
12	AQUA

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Cable Assemblies
Singlemode IFC Assemblies

7/01 • 100300PR

Catalog Number

IFC - __ / __ __ __ __ - __

Connector Style

0	Stub
7	SC ultra polish
4	ST® ultra polish
2	FC ultra polish
E	SC angled polish
D	FC angled polish
L	LX.5® angled polish
J	E-2000 angled polish
K	LC ultra polish

Length (In meters)

Example: 020 = 50 meters
150 = 150 meters

Cable Type*

A	12-fiber stranded
B	24-fiber stranded
C	36-fiber stranded
2	48-fiber stranded
V	72-fiber stranded
L	96-fiber stranded
NA	12-fiber ribbon
HA	24-fiber ribbon
MA	36-fiber ribbon
JA	48-fiber ribbon
DS	72-fiber ribbon
LA	96-fiber ribbon

Breakout/Panel Type**

None	8" FCM
L	FDM
A	7" FCM
2A	FL2, 12 exit up or down
2B	FL2, 24 exit up or down
2C	FL2, 48 exit up or down
2D	FL2, 72 exit up
2E	FL2, 96 exit up
2F	FL2, 72 exit down
2G	FL2, 96 exit down
FTB	FTB MOD
3A1	FL1-A, bottom
3A2	FL1-A, top

* For 144 or 216 fiber counts, additional fiber types and ordering information, contact your ADC representative.

** ADC will customize the breakout length of the IFC to ensure proper cable management. For competitors' products, ADC recommends using the FCM breakout length (6' = 1.8 m).

For information on ADC's FL2 panel products and Next Generation Frame Fiber Termination Blocks (FTB), call ADC Technical Assistance Center, 1-800-366-3891, ext. 63475.

Cable Assemblies

Multimode IFC Assemblies

Catalog Number

MIFC - __ / __ __ __ __ __ - __

Connector #1 Type

9	SC ultra polish
5	ST® ultra polish
A	FC ultra polish
X	LX.5® ultra polish

Connector #2 Type

0	Stub
9	SC ultra polish
5	ST® ultra polish
A	FC ultra polish
X	LX.5® ultra polish

Length (In meters)
Example: 050 = 50 meters
125 = 125 meters

Cable Type / **Fiber size**

AB	12-fiber stranded	62.5
BB	24-fiber stranded	62.5
CB	36-fiber stranded	62.5
2B	48-fiber stranded	62.5
VB	72-fiber stranded	62.5
LB	96-fiber stranded	62.5

Breakout/Panel Type*

None	8" FCM
L	FDM
A	7" FCM
2A	FL2, 12 exit up or down
2B	FL2, 24 exit up or down
2C	FL2, 48 exit up or down
2D	FL2, 72 exit up
2E	FL2, 96 exit up
2F	FL2, 72 exit down
2G	FL2, 96 exit down
FTB	FTB MOD
3A1	FL1-A, bottom
3A2	FL1-A, top

*ADC will customize the breakout length of the IFC to ensure proper cable management. For competitors' products, ADC recommends using the FCM breakout length (6' = 1.8 m).

Contact your ADC representative for additional fiber types and ordering information.

For information on ADC's FL2 panel products and Next Generation Frame Fiber Termination Blocks (FTB), call ADC Technical Assistance Center, 1-800-366-3891, ext. 63475.

FasTerm™

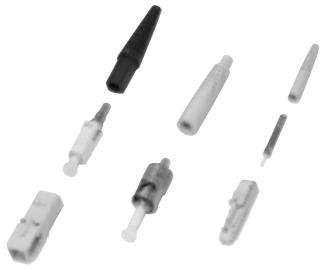
Features:

- 62.5/125 or 50/125 µm multimode fiber size; 9/125 µm singlemode fiber
- Pre-radiused zirconia ceramic ferrrule
- Installs in less than three minutes with standard fiber optic tools (per Bellcore specifications)
- No need for access to electricity and curing ovens
- No mixing of epoxies or use of syringes – with all of the advantages of epoxy-based connectors
- Complete self-contained assembly kit
- Each connector comes complete with strain relief boots for either 3 mm or 900 micron cable (1.7 mm or 900 micron cable for LX.5®)

Connectors

Ordering Information

Description	Catalog Number
Multimode FasTerm™ Connectors	
Multimode FasTerm SC connector	FTC-SCM111
Multimode FasTerm ST® connector	FTC-STM111
Multimode FasTerm LX.5® connector kit*	FTC-LXM111
Singlemode FasTerm™ Connectors	
Singlemode FasTerm SC connector	FTC-SCS111
Singlemode FasTerm ST® connector	FTC-STS111
Singlemode FasTerm FC connector	FTC-FCS111



* Includes strain relief boots for either 1.7 mm or 900 micron cable

Tool Kits

Ordering Information

Description	Catalog Number
FasTerm™ Tool kits	
Multimode tool kit	FTC-KIT001
Multimode LX.5® tool kit	FTC-LXKIT001
Singlemode SC tool kit*	FTC-KIT002-SC
Singlemode ST® tool kit*	FTC-KIT002-ST
Singlemode FC tool kit*	FTC-KIT002-FC

Accessories

Ordering Information

Description	Catalog Number
Multimode consumables kit (100 terminations); connectors not included	FTC-CNSM01
Multimode LX.5® consumables kit (100 terminations); connectors not included	FTC-CNMLX
Singlemode consumables kit (25 terminations); connectors not included	FTC-CNSM02
Multimode duplex SC connector clip (attaches 2 FasTerm SC connectors for duplex requirements)	FBA-DCLIP-M
Multimode duplex LX.5® connector clip (attaches 2 LX.5® connectors for duplex requirements)	FBA-DCLIP-MLX5
Singlemode duplex SC connector clip (attaches 2 FasTerm SC connectors for duplex requirements)	FBA-DCLIP-S

* Each tool kit is identical except for the polishing puck. Additional pucks may be purchased to expand the capabilities of a singlemode kit.

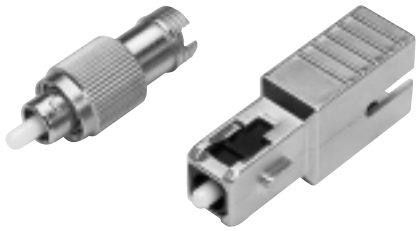
Attenuators

A fiber optic attenuator is an optical device that induces a calibrated fixed loss between two connectors, which dampens, or attenuates, the fiber optic signal. Attenuation is required if an optical signal has too much power, exceeding the operating range of the equipment, which causes saturation at the receiver and induces system errors or failures.

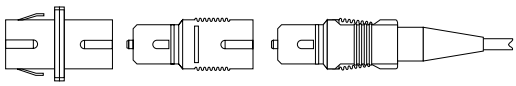
ADC's full line of attenuators is manufactured to meet the demands of your network.

In-Line Attenuators

ADC's in-line attenuators are installed between an adapter and a connector; they are fused attenuators, providing exceptional optical performance.



In-Line SC Attenuator



Adapter | In-Line Attenuator | Connector/ Patch Cord

SPECIFICATIONS

Attenuation	Tolerance
≤5 dB	±0.75 dB
>5 dB	±10%

Ordering Information

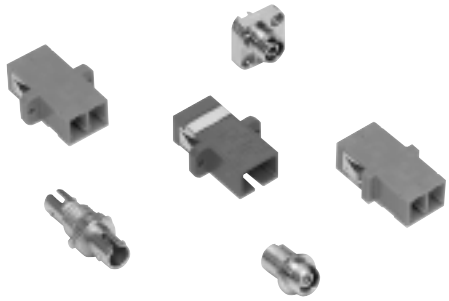
Description	Catalog Number
SC Ultra	
05 dB	FOA-INSC05
10 dB	FOA-INSC10
15 dB	FOA-INSC15
20 dB	FOA-INSC20
SC Angled	
05 dB	FOA-INASC05
10 dB	FOA-INASC10
15 dB	FOA-INASC15
20 dB	FOA-INASC20
ST® Ultra	
05 dB	FOA-INST05
10 dB	FOA-INST10
15 dB	FOA-INST15
20 dB	FOA-INST20
FC Ultra	
05 dB	FOA-INFC05
10 dB	FOA-INFC10
15 dB	FOA-INFC15
20 dB	FOA-INFC20
FC Angled	
05 dB	FOA-INAFC05
10 dB	FOA-INAFC10
15 dB	FOA-INAFC15
20 dB	FOA-INAFC20

Adapters

ADC's bulkhead adapters are available for all standard connector types in both singlemode and multimode. The adapters are color-coded allowing easy identification of the adapter type.

The adapter sleeve aligns the ferrules and holds them in place. Singlemode adapters are available with either zirconia or phosphor bronze sleeves. Zirconia sleeves provide tighter tolerances, generally required for angled physical contact connectors.

Multimode adapters are available with phosphor bronze sleeves, which provide good performance for spherical polished connectors.



LX.5® adapters are available as duplex, enabling two connectors to be used in the same footprint as the traditional SC connector.

Ordering Information

Description	Catalog Number
Simplex adapters	
With phosphor bronze sleeve	
Singlemode SC	FBA-SC
Singlemode SC - no flange	FBA-SCNF
Singlemode ST®	FBA-SST
Singlemode FC - round adapter	FBA-FR
Multimode SC	FBA-MSC
Multimode SC- no flange	FBA-MSCNF
Multimode ST®	FBA-MST
Multimode FC - round adapter	FBA-MF
With zirconia sleeve	
Singlemode SC	FBA-SCZ
Singlemode SC - no flange	FBA-SCZNF
Singlemode SC (for APC applications)	FBA-ASCZ
Singlemode ST®	FBA-SSTZ
Singlemode FC - round adapter	FBA-FRZ
Singlemode E-2000 (for APC applications)	FBA-AE2Z
SC duplex adapters	
With phosphor bronze sleeve	
Singlemode SC	FBA-DSCNF
Multimode SC	FBA-DMSCNF
With zirconia sleeve	
Singlemode SC	FBA-DSCZNF
Singlemode SC (for APC applications)	FBA-DASCZNF
LX.5® adapters	
With phosphor bronze sleeve	
Multimode LX.5® - no flange	FBA-MLX5-B-NF
Multimode LX.5®	FBA-MLX5-B
With zirconia sleeve	
Singlemode LX.5® - no flange (for APC applications)	FBA-ALX5-Z-NF
Singlemode LX.5® (for APC applications)	FBA-ALX5-Z
LC adapters	
With zirconia sleeve, simplex	FBA-LC-Z-NF
With zirconia sleeve, duplex	FBA-DLC-Z-NF

Accessories

Fiber Connector/Adapter Cleaning Kit

The fiber connector/adapter cleaning kit contains all the items required to adequately clean fiber connectors and adapters. The performance of an optical fiber system is largely dependent on the fiber connector cleaning procedures followed prior to installation. It is suggested that all the connectors and adapters be cleaned before making any connections. The kit cleans approximately 500 connectors or adapters.

Ordering Information

Description	Catalog Number
Fiber connector/adapter cleaning kit *Includes:* • Instruction sheet • Lint-free wipes • Isopropyl alcohol • Cotton swabs • Lint-free pipe cleaners • Oil-free compressed air	FPC-CLNKIT

This kit contains flammable alcohol and compressed air. For this reason, it can be shipped by surface method only.

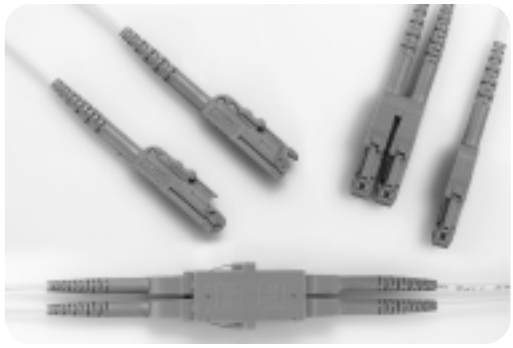
7/01 • 100300PR

Accessories

LX.5® Connector Kit

Features:

- Connector kits are designed for high precision factory termination
- 62.5/125 or 50/125 µm multimode fiber size; 9/125 µm singlemode fiber
- Pre-radiused zirconia ceramic ferrules
- Pre-angled APC singlemode ferrules
- 1.7 mm and 900 micron strain relief boots



Connectors and Adapters

Ordering Information

Description	Catalog Number
Connector Kit	
Singlemode APC LX.5® connector kit (50 terminations)	FOC-ALX5
Multimode LX.5® connector kit (50 terminations)	FOC-MLX5
Adapters	
Singlemode duplex APC LX.5® adapter	
with flange (zirconia split sleeves)	FBA-ALX5-Z
without flange (zirconia split sleeves)	FBA-ALX5-Z-NF
Multimode duplex LX.5® adapter	
with flange (phosphorus bronze sleeves)	FBA-MLX5-B
without flange (phosphorus bronze sleeves)	FBA-MLX5-B-NF

Tools

Ordering Information

Description	Catalog Number
Press/crimp tool	FTC-CRIMP2
Assembly Manual	ADCP-90-433

Note: Polishing fixtures are available from REALM Communications.
Please call 408-944-9090 for information.

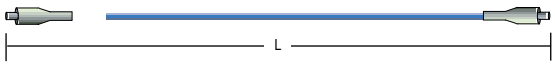
Fiber Optic Specifications

Singlemode Ultra Polish Connectors (UPC)	SC	ST®	FC	LC
Insertion Loss (1310 nm)	0.3 dB max. 0.1 dB typical	0.3 dB max. 0.15 dB typical	0.3 dB max. 0.1 dB typical	0.3 dB max.
Return Loss (1310 nm)	57 dB min.	57 dB min.	57 dB min.	55 dB min.
Polished Endface Radius	10 mm to 25 mm	10 mm to 25 mm	10 mm to 25 mm	7 mm to 25 mm
Fiber Recess	± 50 nm	± 50 nm	± 50 nm	-100 to +50 nm
Apex Offset	50 micron max.	50 micron max.	50 micron max.	50 micron max.

Singlemode Angled Polish Connectors (APC)	SC	ST®	FC	LX.5®	E-2000
Insertion Loss (1310 nm)	0.5 dB max. 0.15 dB typical	0.5 dB max. 0.2 dB typcial	0.5 dB max. 0.15 dB typcial	0.3 dB max. 0.1 dB typical	0.5 dB max. 0.2 dB typical
Return Loss (1310 nm)	65 dB min.	55 dB min.	65 dB min.	65 dB typical	65 dB min.
Polished Endface Radius	5 mm to 15 mm	5 mm to 15 mm	5 mm to 15 mm	5 mm to 12 mm	5 mm to 15 mm
Fiber Recess	-100 to +50 nm	-100 to +50 nm	-100 to +50 nm	-100 to +50 nm	-100 to +50 nm
Apex Offset	50 micron	50 micron	50 micron	50 micron	50 micron
Endface Angle	8° ± 0.5	8° ± 0.5	8° ± 0.5	8° ± 0.5	8° ± 0.5

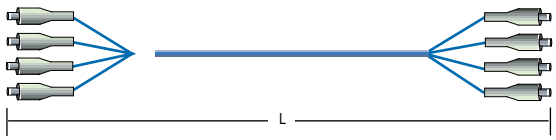
Multimode Ultra Polish Connectors	SC	ST®	FC	LX.5®
Insertion Loss (1310 nm)	0.7 dB max.	0.7 dB max.	0.7 dB max.	0.4 dB max. 0.15 dB typical
Return Loss (1310 nm)	20 dB min.	20 dB min.	20 dB min.	25 dB min.

Patch Cords



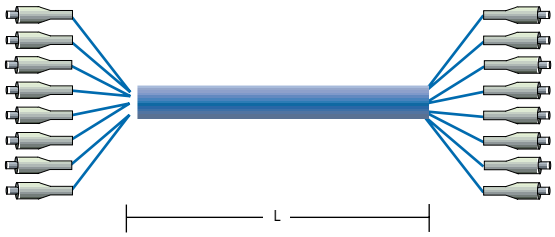
Length	Tolerance
0 to 15 m	+16 cm/-0 cm
+15 m	+1%/-0 cm

Multifiber



Length	Tolerance
0 to 15 m	+16 cm/-0 cm
+15 m	+1%/-0 cm

IFC

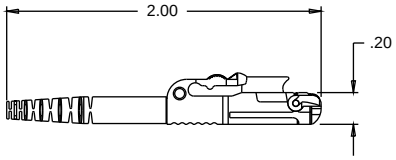


Stranded Length	Tolerance
0 to 15 m	+16 cm/-0 cm
+15 m	+1%/-0 cm

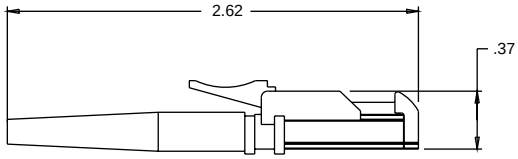
Ribbon Length	Tolerance
0 to 20 m	+15 cm/-0 cm
+20 m	+90 cm/-0 cm

7/01 • 100300PR

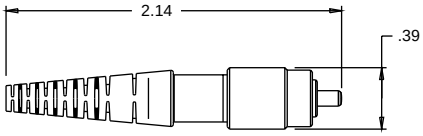
Fiber Optic Specifications



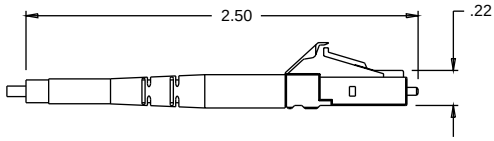
LX.5®
(1.7 mm version shown for reference)



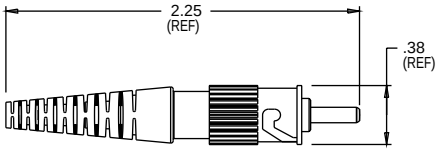
E-2000
(3 mm version shown for reference)



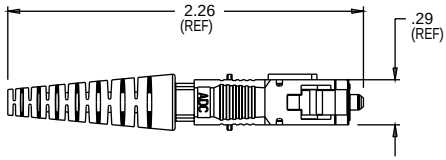
FC
(3 mm version shown for reference)



LC
(1.7 mm version shown for reference)



ST
(3 mm version shown for reference)



SC
(3 mm version shown for reference)

Fiber Optic Glossary

Adapter

A device used for joining two fiber optic connectors together.

Angled Polish

Connector polished at slight angle, which typically provides back reflections (return loss) greater than 65 dB.

Attenuation

The decrease of power from one point to another. It is caused by absorption, fiber imperfection, scattering and bending loss. In optical fibers, the (optional) power loss per unit length is expressed logarithamically in decibels per kilometer (dB/km) at a specific wavelength.

Attenuator

Optical device that induces a calibrated fixed loss in the fiber optic system.

Bend Radius

Minimum radius a fiber can bend before the risk of breakage or increase in attenuation.

Breakout

The point on a multifiber cable where the outer jacket is cut to expose the cable subunits.

Buffer

Material used to protect optical fiber from physical damage.

Bundle

Many individual fibers contained within a single jacket. Also a group of buffered fibers distinguished in some fashion from another group in the same cable core.

Cable Assembly

Fiber optic cable that has connectors installed on one or both ends.

Cladding

The material surrounding the core of an optical fiber which promotes total internal reflection.

Coating

A material that is put over the core and cladding of an optical fiber to protect it from the environment.

Color-coded Cable

Cable having color-coded insulation on the conductors to aid identification.

Connector

Hardware installed on cable ends to provide physical and optical cable attachment to a transmitter, receiver or another cable. A junction which allows an optical fiber or cable to be repeatedly connected or disconnected to a device such as a source or detector.

Core

The light-conducting portion of a fiber defined by its high refractive index. The core is normally in the center of a fiber bounded by concentric cladding of lower refractive index.

Fan-out

Used to provide a transition from ribbon fibers to individual fiber connection ports.

Ferrule

The alignment sleeve portion of an optical connector; aligns the end of the fiber. Standard connectors have a 2.5 mm ferrule diameter; small form factor connectors use 1.25 mm.

In-line Attenuator

Installed between an adapter and a connector. It adds attenuation to optical signals.

Insertion Loss

The total optical power loss caused by the insertion of an optical component such as a connector, splice or coupler.

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Fiber Optic Glossary

Intrafacility Fiber Cable (IFC)

A generic term referring to a multifiber cable designed with properties required in a central office, including the requirement that the cable be fire retardant. Cables are available in ribbon or stranded fiber configuration with varied fiber counts.

Jacket

A layer of material, generally plastic, that surrounds an optical fiber to protect it from physical damage. Unlike the cladding, the jacket is physically distinct from the fiber core.

Modes

Individual paths in optical waveguides. Singlemode fiber has only one mode, the fundamental mode, while multimode fiber has several hundred modes. The upper limit to the number of modes is determined by the core diameter of the waveguide.

Multimode Fiber

An optical fiber whose core diameter is large compared with the optical wavelength - contains more than one mode.

Patch Cord

An optical fiber with a connector on each end. Also referred to as a jumper.

Pigtail

An optical fiber cable with a connector on one end.

Plenum Cable

Cable made from flame-retartdent material that generates little smoke. Generally installed in plenum air ducts.

Return Loss

A measurement of the light reflected back to the source at an optical interface.

Riser Cable

Cable made from flame-retartdent material intended for use in riser shafts without the use of conduit. Cable material will prevent the carrying of fire from floor to floor.

Singlemode Fiber

An optical waveguide in which only one mode propagates due to its small core diameter of approximately 8 microns.

Ultra PC

Ultra Physical Contact is a term used to refer to connectors with a flat polish which provide back reflections (also referred to as Return Loss) of greater than 50 dB and typical insertion losses of .2 dB.

Wavelength

A parameter of the light used in a fiber optic system. Because the attenuation of a fiber is highly dependent on the wavelength of the light traveling through it, optimum performance (i.e. minimum attenuation) can be achieved only by operating at one or two specific wavelengths. The specific wavelength at which the light is most transparent is called a "window."

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For a complete listing of ADC's global sales office locations, please refer to our web site.

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