

# Fiber Optic Components

## IFC Assemblies

There has been a strong movement toward the use of intrafacility fiber cable (IFC) pre-terminated with connectors. This trend is expected to continue and to grow in the future.

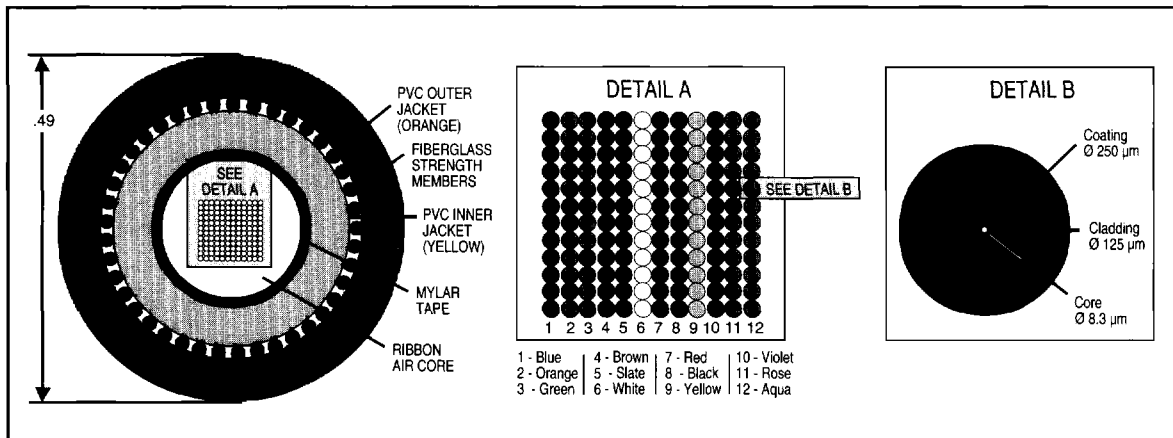
Before the introduction of IFC, outside plant (OSP) fiber was spliced to pigtails at the fiber distribution frame (or fiber panel). Pre-terminated IFC replaces these pigtails and can be thought of as very long pigtails, allowing the customer to move the splice location away from the frame, increasing termination density at the frame.

With the use of IFC, OSP cable is now brought into the central office to a splice location located in the vault or a designated splicing area. The OSP cable is then spliced to an IFC. The other end of the IFC is terminated at the fiber distribution frame or a connector module. FDF connector modules with IFC must be mounted from the rear of the FDF.

Intrafacility fiber cable (IFC) is a multifiber 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 (riser rating) required in the central office. The number of fibers range from 12 to 96. All IFC assemblies meet UL-1666 OFNR. Two types of IFC are available: ribbon and stranded.

## Ribbon IFC

Ribbon cable consists of multifibers arranged in ribbons. The number of fibers per ribbon can vary from 4 to 12 fibers. However, 12 fibers per ribbon is the dominant style. Each ribbon is considered and 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. Two benefits are derived from the construction: the outer jacket is more robust than stranded cable; and the outer diameter of the cable remains constant over the range of fiber counts available.



*Ordering information appears on page 16*

# Fiber Optic Components

## IFC 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. The outer jacket of the stranded cables is not as robust as OSP cable, but are sufficient for in-building use. Cable diameters increase in proportion with the fiber counts.

**CORNING GLASS**

**36 FIBER CABLE**

**72 FIBER CABLE**

NOTE: FOR 12 FIBER CABLE EXAMPLE, SEE DETAIL B

**AT&T GLASS**

**2-12 FIBER CABLE**  
(12 FIBER EXAMPLE SHOWN)

**24-36 FIBER CABLE**  
(24 FIBER EXAMPLE SHOWN)

**DETAIL A**

PVC JACKET (YELLOW)  
OUTSIDE DIAMETER: .184"  
NOMINAL THICKNESS: .020"

**DETAIL B**

PVC JACKET (YELLOW)  
OUTSIDE DIAMETER: .206"  
NOMINAL THICKNESS: .020"

**DETAIL C**  
BUFFERED FIBER

CORNING STRANDED CABLE SPECIFICATIONS				
NUMBER OF FIBERS IN CABLE	CABLE OUTER DIAMETER	CABLE WEIGHT (LBS/100')	TENSILE LOAD (SHORT/LONG) (LBS)	BEND RADIUS (SHORT/LONG) (INCHES)
12	.278"	3.2	425/213	4.2/2.8
24	.541"	10.3	1496/748	8.1/5.4
36	.851"	15.3	2896/1448	9.8/6.5
48	.990"	13.5	2216/1108	8.9/5.9
72	.722"	19.0	2896/1448	10.8/7.2
96	.836"	26.8	3577/1788	12.5/8.4
108	.894"	31.5	4247/2123	13.4/8.9
120	.940"	28.0	4193/2097	14.1/9.4
144	.940"	28.0	4193/2097	14.1/9.4

AT&T STRANDED CABLE SPECIFICATIONS				
NUMBER OF FIBER IN CABLE	CABLE OUTER DIAMETER	CABLE WEIGHT (LBS/100')	TENSILE LOAD (LBS.)	BEND RADIUS (SHORT/LONG)
12	.275"	2.8	150	5.5" / 2.75"
24	.480"	8.7	150	9.6" / 4.8"
36	.480"	8.7	150	9.6" / 4.8"
72	.630"	13.1	150	12.6" / 6.3"

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

Ordering information appears on page 16

# Fiber Optic Components

## IFC Assemblies Ordering Information

### Singlemode IFC Assemblies

All PC connectors listed are polished to ultra PC specifications with greater than 50 dB return loss.

#### Connectors

0	On one end
1	On both ends

#### Connector/ Adapter Type

1	Biconic to stub
2	PCFC to stub
3	PCD4 to stub
4	PCST to stub
7	PCSC to stub
8	Keyed biconic to stub
C	Biconic to biconic
E	PCD4 to PCD4
F	PCST to PCST
H	PCSC to PCSC
J	Keyed biconic to keyed biconic
K	Biconic to PCST
M	Biconic to PCSC
X	PCSC to PCFC



#### Cable Type

A	12 fiber stranded	Corning
B	24 fiber stranded	Corning
C	36 fiber stranded	Corning
2	48 fiber stranded	Corning
7	54 fiber stranded	Corning
V	72 fiber stranded	Corning
L	96 fiber stranded	Corning
D	12 fiber stranded	AT&T
E	24 fiber stranded	AT&T
F	36 fiber stranded	AT&T
I	72 fiber stranded	AT&T
G	12 fiber AccuRibbon	AT&T
H	24 fiber AccuRibbon	AT&T
M	36 fiber AccuRibbon	AT&T
J	48 fiber AccuRibbon	AT&T
Q	60 fiber AccuRibbon	AT&T
K	72 fiber AccuRibbon	AT&T
9	84 fiber AccuRibbon	AT&T
N	96 fiber AccuRibbon	AT&T

#### Glass Type

#### Breakout\*/ Panel Type

LEAVE BLANK	FCM
L	FDM
A	FDS
2	FL2

#### Length (in meters)

Example:  
0 5 0 = 50 meters  
1 2 5 = 125 meters  
To convert from feet to meters, divide the total number of feet by 3.28 and round up to the nearest whole number.

#### Cable Manufacturer

LEAVE BLANK	ADC or AT&T
P	Pirelli

## Multimode IFC Assemblies

\*ADC will customize the breakout length of the IFC to ensure proper cable management. For competitor products, ADC recommends using the FCM breakout length (5.9' = 1.8 m).

\*\*Contact your ADC representative for additional fiber sizes and ordering information.

#### Connector #1 Type

5	Multimode ST*
9	Multimode SC
A	Multimode FC

#### Connector #2 Type

0	Stub
5	Multimode ST*
9	Multimode SC
A	Multimode FC



#### Multimode Cable Type, Glass and Fiber Size\*\*

AB	12 fiber stranded - 62.5/125	Corning
BB	24 fiber stranded - 62.5/125	Corning
CB	36 fiber stranded - 62.5/125	Corning
VB	72 fiber stranded - 62.5/125	Corning
LB	96 fiber stranded - 62.5/125	Corning
GB	12 fiber AccuRibbon - 62.5/125	AT&T
HB	24 fiber AccuRibbon - 62.5/125	AT&T
MB	36 fiber AccuRibbon - 62.5/125	AT&T
KB	72 fiber AccuRibbon - 62.5/125	AT&T
NB	96 fiber AccuRibbon - 62.5/125	AT&T

#### Breakout\* / Panel Type

LEAVE BLANK	FCM
A	FDS

#### Length (in meters)

Example:  
050 = 50 meters  
125 = 125 meters  
To convert from feet to meters, divide the total number of feet by 3.28 and round up to the nearest whole number.

Fiber Frame connector modules sold after April 1991 include additional cable management features on the rear of the module which facilitate the installation of the IFC. If you are installing cable in modules sold before this time, or if you have any existing connector modules without these features, you can purchase a kit which includes these extra cable management accessories. This kit is recommended, but not required. One kit is required per module.

#### Ordering Information

Description	Catalog Number
Cable clamp kit	E-501-L40
Connector module upgrade kit	DFD-ACC038