

## Fiber Optic Connectivity

### Singlemode and Multimode, Simplex and Duplex Patchcords & Pigtails

We stock a vast selection of singlemode and multimode patchcords and pigtails in varying lengths with a selection of a number of industry standard connectors. Each patchcord or pigtail is supplied with a detailed data sheet with its test and performance results.

**Connectors available are:**

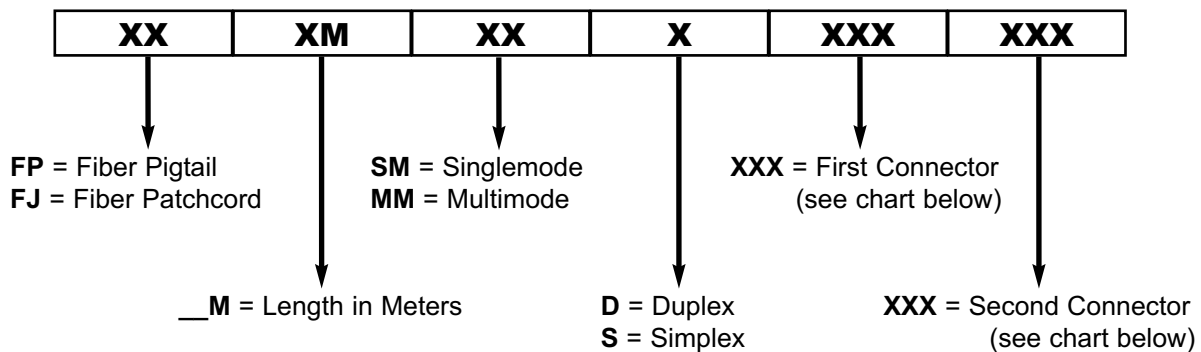
SC/UPC, ST/UPC, SC/APC, LC/UPC, FC/UPC, LC/APC, FC/APC, E2000/APC

**Features:**

- T900 um Buffer tube for secure and reliable connectorization
- Yellow - singlemode, Orange - Multimode
- Aramid yarn reinforcement for strength and protection
- Tested and designed in accordance to Bellcore GR-409-CORE
- Meets TIA/EIA 586A
- Individually packaged



### Patchcord & Pigtail Part Number Matrix



Connectors available are (prefix-connector type):

**SC** = SC/UPC  
**FCA** = FC/APC

**SCA** = SC/APC  
**LC** = LC/UPC

**ST** = ST/UPC  
**LCA** = LC/APC

**FC** = FC/UPC  
**E2000A** = E2000/APC

**Example:** **FJ/12M/SM/S/SCA/LCA**

is a Fiber Patchcord / 12 Meters / Singlemode / Simplex SC/APC connector / LC/APC connector

## Optical Attenuators



**OTOA-1000  
Step Attenuator**

Optical attenuators are used normally at optical receivers to adjust for the optimum optical input power level to ensure proper operating parameters of the receiver. Both fixed (connectorized) attenuator and variable (step) attenuators are available.

Step attenuators like the OTOA-1000 operate on the principle of putting a "microbend" in the optical cable allowing some light to escape the cladding, resulting in some light loss or attenuation. The OTOT-1000 has a combination of 1, 2, and 4 dB loops that when combined, can provide from 1 to 7 dB of attenuation in standard 3 mm singlemode optical cable at 1310 nm. Other cable or wavelengths may result in different attenuation characteristics.

## Fixed Attenuators



**FC/UPC Male to Female**



**FC/APC Male to Female**



**ST/UPC Male to Female**



**SC/APC Male to Female**



**LC/UPC Male to Female**



**SC/UPC Male to Female**

## Fixed Attenuator Part Number Matrix

<b>FA</b>	<b>MF</b>	<b>XXX</b>	<b>XX</b>
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↓  
FA = Fiber Attenuator

↓  
MF = Male/Female

↓  
**Connector Type**  
FC = FC/UPC  
FCA = FC/APC  
SC = SC/UPC  
SCA = SC/APC  
ST = ST/UPC  
LC = LC/APC

↓  
Value 1 to 10 dB in  
1 dB steps, plus 15  
and 20 dB

## Mating Sleeves

Mating sleeves are connectors for connecting together two optical connectors of the same type. These could commonly be referred to as a female to female splice connector in the copper world.



Model Number	Description
MS/F/F/SM/ST	Mating Sleeve, Female to Female, Singlemode, ST/UPC Connector
MS/F/F/SM/SC	Mating Sleeve, Female to Female, Singlemode, SC/UPC Connector
MS/F/F/SM/SCA	Mating Sleeve, Female to Female, Singlemode, SC/APC Connector
MS/F/F/SM/FC	Mating Sleeve, Female to Female, Singlemode, FC/UPC Connector
MS/F/F/SM/FCA	Mating Sleeve, Female to Female, Singlemode, FC/APC Connector
MS/F/F/SM/LC	Mating Sleeve, Female to Female, Singlemode, LC/UPC Connector
MS/F/F/SM/LCA	Mating Sleeve, Female to Female, Singlemode, LC/APC Connector

## Hybrid Adapters

Hybrid adapters are the connecting devices that allow you to mate one type of connector to another

Model Number	Description
HA/F/F/SC/ST	Hybrid Adapter, Female to Female, SC/UPC to ST/UPC
HA/F/F/FC/ST	Hybrid Adapter, Female to Female, FC/UPC to ST/UPC
HA/F/F/SC/FC	Hybrid Adapter, Female to Female, SC/UPC to FC/UPC
HA/F/F/SC/LC	Hybrid Adapter, Female to Female, SC/PC to LC/PC
HA/F/F/SCA/FCA	Hybrid Adapter, Female to Female, SC/APC to FC/APC
HA/F/F/ST/LC	Hybrid Adapter, Female to Female, ST/UPC to LC/UPC



**Optical Couplers (Splitters)**

We stock a wide selection of optical couplers in several different packaging options. All couplers are precision dual window (1310/1550 nm) couplers.



**Light Duty**



**Heavy Duty**



**LG Style**



**Rack Mount**

**Optical Couplers Part Number Matrix**

FC	XXX	XXXXX	XXXXX	XXX	XXX
FC = Fiber Coupler	Package Type LD = Light Duty 250 μm MD = Medium Duty 900 μm RM = Rack Mount LGX = 3 RU LG Module SA = Stand Alone	Port Configuration 1x2 1x3 1x4 1x5 1x6 1x7 1x8 1x10 1x12 1x16 1x24 1x32	Coupling Ratio 60/40 90/10 Even Almost any ratio is available	Termination Type 1M = 1 meter 900 μm SC = SC/UPC SCA = SC/APC FC = FC/UPC FCA = FC/APC ST = ST/UPC LC = LC/UPC LCA = LC/APC E2000A = E2000/APC	

**Example: FC/LGX/1x4/EVEN/SCA/SCA**

is a fiber coupler in an LG style module, 1x4 port configuration, even split (25%), SC/APC input and output

**Optical Couplers Even Split Loss @ 1310 nm**

1 x 2	3.55 typ / 3.70 max	1x7	9.80 typ / 10.00 max	1x16	13.60 typ / 13.80 max
1 x 3	5.40 typ / 5.60 max	1x8	10.00 typ / 10.30 max	1x24	15.30 typ / 15.70 max
1 x 4	7.10 typ / 7.40 max	1x10	12.00 typ / 12.30 max	1x32	16.60 typ / 17.00 max
1 x 5	8.00 typ / 8.20 max	1x12	12.80 typ / 13.10 max	1x64	19.50 typ / 19.70 max
1 x 6	9.20 typ / 9.50 max				