

#### Datolink Ltd

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# Datolink fiber optic patch cord FC/UPC-LC/UPC

Datolink Ltd make high quality fiber optic patch cord, which provides low insertion loss, high return loss, low polarization effects which can provides excellent environmental stability for PM amplifer, fiber lasers and test instrumentation applications.

LC stands for Lucent Connector. The LC is a small form-factor Fiber optic connector. The LC Connector uses a 1.25 mm ferrule, half the size of the ST. Otherwise; it is a standard ceramic Ferrule connector. The LC has good performance and is highly favored for single mode.

FC stands for Fixed Connection. It is fixed by way of threaded barrel housing. FC connectors are typical in test environments and for single mode applications. FC connectors were designed for use in high-vibration environments. The FC Connector is the most popular connector used today. It can be seen in every area of the communications environment, from a telecom's distribution room to a LAN closet, the FC has set the standard for optical Fiber connectors. FCS are being replaced by SC and LC connectors.

#### FC/UPC-LC/UPC, MM,50/125,OM3,Duplex,LSZH,1mts,3.0mm

#### Features:

- 1. Low insertion loss and high return loss
- 2. Free-floating ceramic ferrule
- 3. UL-rated plastic housing and boot
- 4. Boots in a variety of colors
- 5. High precision alignment







## **Applications:**

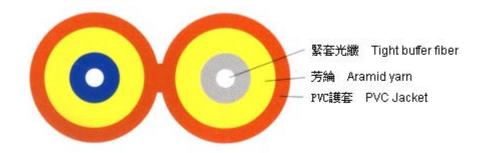
Local Area Networks (LANs) and Wide Area Networks (WANs)
Fiber Optic CATV, FTTH,FTTB,FTTP etc
Fiber Optic telecommunication systems
Transmission Mode (ATM)
Fiber Optic Backbone
Military Instrumentation

#### Availability:

- -The connector can be supplied as a pre-assembled one-piece connector or as connector kits.
- -Clips are available for SC and LC duplex connectors Housing kits without ferrule are available.
- -PC, UPC and APC are available

| Specifications        |                                      |                             |  |
|-----------------------|--------------------------------------|-----------------------------|--|
|                       | Single mode                          | Multimode                   |  |
| Insert Loss           | ≤0.30dB ≤0.3dB                       |                             |  |
|                       | ≥50 dB (PC)                          |                             |  |
| Return Loss           | ≥55 dB (UPC)                         |                             |  |
|                       | ≥65 dB (APC)                         |                             |  |
| Durability            | <0.20 dB typical change, 1000 mating |                             |  |
| Operating Temperature | From -40 to + 80°C                   | From -40 to + 80°C          |  |
| Ferrule Hole Sizes    | 125.0+1/-0µm, Concentricity: ≤1.0µm  | 125µm, Concentricity: 1≤3µm |  |
|                       | 125.5+1/-0µm, Concentricity: ≤1.0µm  | 127µm, Concentricity: 1≤3µm |  |
|                       | 126.0+1/-0μm, Concentricity: ≤1.0μm  | 128µm, Concentricity: 1≤3µm |  |

#### Cable type:

















Comply with Standard YD/T 1258.3-2003, ICEA-596, GR-409, IEC794, etc; and meet the requirements of UL approval for OFNR and OFNP.

#### Cable Code:

|                            | ZCC-III             | ZCC-II              | ZCC-I               |
|----------------------------|---------------------|---------------------|---------------------|
| Cable<br>Diameter<br>(mm)  | (6.0±0.4)×(2.8±0.2) | (4.2±0.4)×(2.0±0.2) | (3.4±0.4)×(1.6±0.2) |
| Cable<br>Weight<br>(kg/km) | 15.6                | 10.5                | 7.3                 |
| TBF<br>Diameter            | 900±50μm            | 900±50μm            | 600±50µm            |

### **Mechanical Characteristics:**

|                     | Long term  | 100N              | 100N       |  |
|---------------------|------------|-------------------|------------|--|
| Tensile Strength    | Short term | 200N              | 200N       |  |
|                     | Long term  | 200N/100mm        | 100N/100mm |  |
| Crush<br>Resistance | Short term | 1000N/100mm       | 500N/100mm |  |
|                     | Dynamic    | 20×H (Cable Axis) |            |  |
| Bending Radius      | Static     | 10×H (Cable Axis) |            |  |

# **Optical Characteristics:**

| 50/12 | 25µm 62.5/125µ | m G.652 | G.655 |
|-------|----------------|---------|-------|
|       |                |         |       |

|   | @850nm  | ≤3.5dB/km     | ≤3.5dB/km     |            |            |
|---|---------|---------------|---------------|------------|------------|
|   | @1300nm | ≤1.5dB/km     | ≤1.5dB/km     |            |            |
| Attenuation(+20℃)                                   | @1310nm |               |               | ≤0.45dB/km | ≤0.50dB/km |
|   | @1550nm |               |               | ≤0.30dB/km | ≤0.50dB/km |
|   | @850nm  | ≥500MHz·km    | ≥200MHz·km    |            |            |
| Bandwidth (Class A)                                 | @1300nm | ≥1000MHz·km   | ≥600MHz·km    |            |            |
| Numerical Aperture                                  |         | 0.200±0.015NA | 0.275±0.015NA |            |            |
| Cable Cut-off Wavelength λcc                        |         |               |               | ≤1260nm    | ≤1480nm    |
| Δα(-20°C~+85°C)                                     | @1300nm | ≤0.25dB/km    | ≤0.25dB/km    |            |            |
| Attenuation at temperature cycling<br>Δα(-20℃~+85℃) | @1550nm |               |               | ≤0.10dB/km | ≤0.15dB/km |

## **Environmental Characteristics:**

| Transport Temperature    | -20℃~+60℃   |
|--------------------------|-------------|
| Storage Temperature      | -20°C~+60°C |
| Installation Temperature | -5°C~+50°C  |
| Operating Temperature    | -20°C~+60°C |