# 6000 Series Duplex LC Fiber Buccaneer

The 6000 Series Fiber connectors are built to withstand the harshest of environments. Rated IP66, IP68 and IP69Kwhen mated, the connectors also feature a secure, yet easy to operate 30 degree locking mechanism. This tamperproof lock also prevents accidental un-mating. IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks Duplex LC-Type Interface, the connector also features EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1.

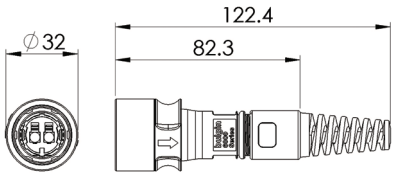
- Sealed to IP66 IP68 and IP69K when Mated
- IP68 Rating Tested at 1.054kg/sq cm (15lb/sq in) 10m Depth for 2 Weeks
- Duplex LC-Type Interface
- Cabled Versions: 0S1, 0M1, 0M3
- Cable Range from 5 to 450M
- Diameter Over Coupling Ring 32.0mm
- Flex, Flex In-Line & Rear Panel
- Secure, Proven Locking System
- 30° Twist Locking - Tamperproof Lock Prevents Accidental Un-Mating
- All Plastic Body Version; UL94-V0 Rated, UV Stable, Halogen Free
- Light-Weight, Self-Extinguishing Material Suitable for Long-Term Outdoor use.
- Sealing Caps available to Maintain IP68 Rating
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

# 6000 Series Duplex LC Fiber Buccaneer

### Duplex LC Fiber

PXF6050XXX

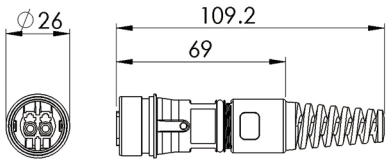
- Patchcords with IP68 Connectors
- Available in 5 - 450m Lengths
- Supplied with LC Fiber Plug
- 0S1, 0M1 or 0M3 Cable Options




### Duplex LC Fiber

PXF6051XXX

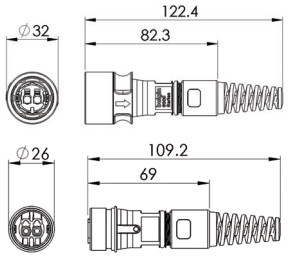
- Patchcords with IP68 Connectors
- Available in 5 - 450m Lengths
- Supplied with LC Fiber Plug
- 0S1, 0M1 or 0M3 Cable Options




### Duplex LC Fiber

PXF6054XXX

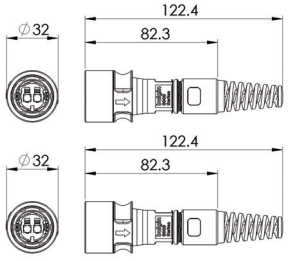
- Patchcords with IP68 Connectors
- Available in 5 - 450m Lengths
- Supplied with LC Fiber Plug
- 0S1, 0M1 or 0M3 Cable Options




### Duplex LC Fiber

PXF6055XXX

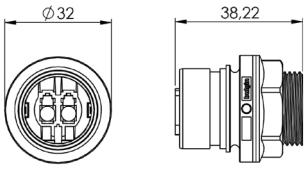
- Patchcords with IP68 Connectors
- Available in 5 - 450m Lengths
- Supplied with LC Fiber Plug
- 0S1, 0M1 or 0M3 Cable Options




### Rear Panel Mounting Connector

PXF6052XXX

- LC Fiber Adapter
- Leaded with LC Connector
- Socket Variant Mates with PXF6050 Type Connectors

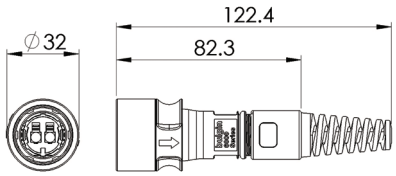


# 6000 Series Duplex LC Fiber Buccaneer

## Flex Cable Connector

PXF6050X

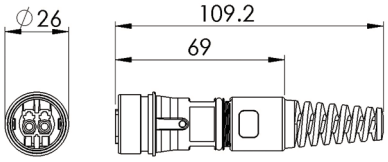
- Mates with Flex In-Line or Panel Mounting versions PXF6051, PXF6053
- 30° Turn Locking Ring
- Supplied without LC Connectors




## In-Line Flex Cable Connector

PXF6051X

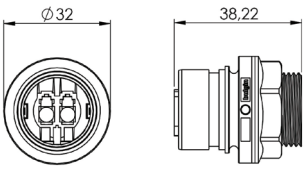
- Mates with Flex Cable Connector PXF6050
- For In-Line Connection
- Supplied without LC Connectors




## Rear Panel Mounting Connector

PXF6052X

- Mates with Flex Cable Connector PXF6050
- Rear Panel Mounting
- Single Hole Fixing
- Supplied without LC Connectors

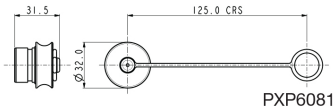


# 6000 Series Duplex LC Fiber Buccaneer

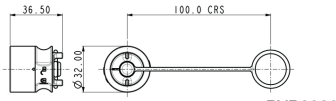
## Sealing Caps

PXP6081
PXP6083

- Sealing Caps to Maintain IP Rating
- PXP6081 for Cable Connectors PXF6050
- PXP6083 for Front Panel Mount Connectors PXF6052 & PXF6051 with 30° Twist Lock




PXP6081




PXP6083

| Part No. | Description |
|---|---|
| PXP6081 | Sealing Cap for Flex Cable Connectors (PXF6050) |
| PXP6083 | Sealing Cap for Front Panel Mounting Connector (PXF6052, PXF6051) |

# 6000 Series Duplex LC Fiber Buccaneer

## Cables & Connectors:

**Mechanical**

| | |
|---|---|
| **Sealing:** | IP69K, DIN40050-9<br>IP68, EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP66, EN60529:1992+A2:2013 |
| **Panel Mount Nut:** | 1.0 - 1.1NM (91lb.in) |
| **Operating Temperature:** | -25°C to +70°C |
| **Salt Mist:** | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1 |

**Optical**

| | |
|---|---|
| **IEC 61753-1:** | |
| **Max Insertion Loss:** | 0.2db } single mode |
| **AVG Insertion Loss:** | 0.1db } single mode |

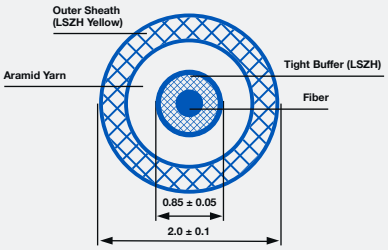
**Material**

| | |
|---|---|
| **Flex and panel types:** | Polyamide |
| **Body Mouldings:** | UL94v-0 |
| **Flammability Rating:** | To EN 500021:1999 |
| **UV Resistance:** | |
| **Cable Outer Jacket:** | Polyethylene for UV and Weather Resistance |
| **O Rings:** | Silicone |
| **Panel Sealing O Ring:** | Silicone |
| RoHS | Compliant |

## Fiber Specification - SECTION OSI:

| Item: | Detail: | Specification: | | |
|---|---|---|---|---|
| **Fiber Type:** | / | G.657A2 (OS1) | | |
| | Wavelength | 1310mm | | |
| **Mode Field Diameter:** | Range of Nominal Values | 8.6μm -9.5μm | | |
| | Tolerance | ±0.4 μm | | |
| **Cladding Diameter:** | Nominal | 125.0μm | | |
| | Tolerance | ±0.7 μm | | |
| **Core Concentricity Error:** | | ≤0.5μm | | |
| **Cladding Non-Circularity:** | | ≤1% | | |
| **Coating Diameter:** | Nominal | 245μm | | |
| | Tolerance | ±10μm | | |
| **Coating-Cladding Concentricity Error:** | | ≤12.5μm | | |
| **Cut-Off Wavelength:** | | ≤1260 nm | | |
| **Uncabled Fiber Macrobending Loss:** | Radius(mm) | 15 | 10 | 7.5 |
| | Number of Turns | 10 | 1 | 1 |
| | Max. at 1550nm(dB) | 0.03 | 0.1 | 0.5 |
| | Max. at 1625 nm (dB) | 0.1 | 0.2 | 1.0 |
| **Min. Proof Stress:** | | 0.69 GPa | | |
| **Dynamic Fatigue Parameter:** | | ≥20 | | |
| **Chromatic Dispersion Coefficient:** | λ0min | 1300 nm | | |
| | λ0max | 1324 nm | | |
| | S0max | 0.092 ps/nm2 ×km | | |
| **Other Parameters Meet Standard:** | ITU-T G.657 | | | |

## Cable Construction:



# 6000 Series Duplex LC Fiber Buccaneer

## Optical Cable Specification:

**Structure Parameter**

| | | | | |
|---|---|---|---|---|
| **Tight Buffer:** | Material | Polyolefin (POE) | | |
| | Outer Diameter | 0.85mm±0.05mm | | |
| **Strength Member:** | Material | Aramid Yarn | | |
| **Outer Sheath:** | Sheath Material | Polyolefin (POE) | | |
| | Sheath Color | Yellow (Pantone 136C) Chromatic Aberration E: ≤4.0 | | |
| | Min. Sheath Thickness | 0.3mm | | |
| | Dimension | 2.0mm±0.1mm | | |
| **Transmission Performance** | Wavelength 1310nm~1625nm | ≤0.4 dB/km | | |
| | Maximum at 1383 nm ±3 nm | ≤0.4 dB/km | | |
| **Attenuation Coefficient:** | Wavelength 1550nm | ≤0.3 dB/km | | |
| **Macrobending Loss:** | Radius(mm) | 15 | 10 | 7.5 |
| | Number of Turns | 10 | 1 | 1 |
| | Max. at 1550 nm(dB) | 0.03 | 0.1 | 0.5 |
| | Max. at 1625 nm (dB) | 0.1 | 0.2 | 1.0 |

**Other Performances**

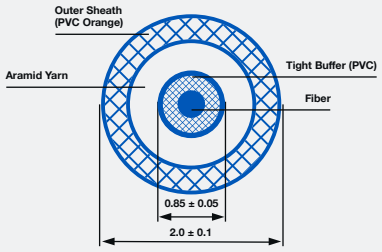
| | |
|---|---|
| **Min. Bending Radius of Work:** | 10mm |
| **Other Parameter Meet Standard:** | IEC60794-2-50, YD/T1258.2, ITU-T G.657 |

# 6000 Series Duplex LC Fiber Buccaneer

## Fiber Specification - SECTION OMI:

| Item: | Detail: | Specification: |
|---|---|---|
| **Fiber Type:** | / | 62.5/125(A1b) (OM1) |
| **Core Diameter:** | Normal Value | 62.5 µm |
| | Tolerance | ±3 µm |
| **Cladding Diameter:** | Nominal | 125.0µm |
| | Tolerance | ±2 µm |
| **Core-Cladding Concentricity Error:** | | ≤3µm |
| **Cladding Non-Circularity:** | | ≤2% |
| **Core Non-Circularity:** | | ≤6% |
| **Primary Coating Diameter (Uncoloured):** | Nominal | 245µm |
| | Tolerance | ±10µm |
| **Primary Coating-Cladding Concentricity Error:** | | ≤12.5µm |
| **Uncabled Fiber Macrobending Loss:** | Radius(mm) | 37.5 |
| | Number of Turns | 100 |
| | At Wavelengths 850 nm & 1300nm (dB) | 0.5 |
| **Min. Proof Stress:** | | 0.69 GPa |
| **Dynamic Fatigue Parameter:** | | ≥20 |
| **Minimum Modal Bandwidth- Length:** | Wavelength 850 nm | 200 MHzkm |
| **Product for Overfilled Launch:** | Wavelength 1300 nm | 500 MHzkm |
| **Other Parameters Meet Standard:** | IEC 60793-2-10 | |

### Cable Construction:




## Optical Cable Specification:

**Structure Parameter**

| | | |
|---|---|---|
| **Tight Buffer:** | Material | Polyolefin (POE) |
| | Outer Diameter | 0.85mm±0.05mm |
| **Strength Member:** | Material | Aramid Yarn |
| **Outer Sheath:** | Sheath Material | Polyolefin (POE) |
| | Sheath Color | Orange(Pantone 164C) Chromatic Aberration E: ≤4.0 |
| | Min. Sheath Thickness | 0.3mm |
| | Dimension | 2.0mm±0.1mm |

**Transmission Performance**

| | | |
|---|---|---|
| **Attenuation Coefficient:** | Wavelength 850m | ≤3.5 dB/km |
| | Wavelength 1300nm | ≤1.5 dB/km |

**Other Performances**

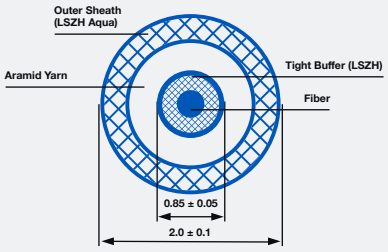
| | |
|---|---|
| **Min. Bending Radius of Work:** | 30mm |
| **Other Parameter Meet Standard:** | IEC60794-2-50, YD/T1258.2 |

# 6000 Series Duplex LC Fiber Buccaneer

## Fiber Specification - SECTION OM3:

| Item: | Detail: | Specification: |
|---|---|---|
| **Fiber Type:** | / | 50/125(OM3) |
| **Core Diameter:** | Normal value | 50 µm |
| | Tolerance | ±2.5 µm |
| **Cladding Diameter:** | Nominal | 125.0µm |
| | Tolerance | ±2 µm |
| **Core-Cladding Concentricity Error:** | | ≤3µm |
| **Cladding Non-Circularity:** | | ≤2% |
| **Core Non-Circularity:** | | ≤6% |
| **Primary Coating Diameter (Uncoloured):** | Nominal | 245µm |
| **Primary Coating-Cladding Concentricity Error:** | Tolerance | ±10µm |
| | | ≤12.5µm |
| **Uncabled Fiber Macrobending Loss:** | Radius(mm) | 15 7.5 |
| | Number of turns | 2 2 |
| | Max. at 850 nm (dB) | 0.1 0.2 |
| | Max. at 1300 nm (dB) | 0.3 0.5 |
| **Min. Mode Bandwidth:** | Overfilled Launch Bandwidth at 850nm | 1500 MHz. km |
| | Overfilled Launch Bandwidth at 1300nm | 500 MHz. km |
| | Effective Laser Launch Bandwidth at 850nm | 2000 MHz. km |
| **Min. Proof Stress:** | | 0.69 GPa |
| **Dynamic Fatigue Parameter:** | | ≤20 |
| **Chromatic Dispersion Coefficient:** | λ0min | 1295 nm |
| | λ0max | 1340 nm |
| | S0max (from1295nm≤λ0≤1310nm) | 0.105ps/nm2×km |
| | S0max (from1310nm≤λ0≤1340nm) | 0.000375(1590-λ0) ps/nm2×km |
| **Other Parameters Meet Standard:** | IEC 60793-2-10 | |

### Cable Construction:




## Optical Cable Specification:

**Structure Parameter**

| | | |
|---|---|---|
| **Tight Buffer:** | Material | Polyolefin (POE) |
| | Outer Diameter | 0.85mm±0.05mm |
| **Strength Member:** | Material | Aramid Yarn |
| | Sheath Material | Polyolefin (POE) |
| **Outer Sheath:** | Sheath Color | Aqua (Pantone 3248C) Chromatic Sberration E: ≤4.0 |
| | Min. Sheath Thickness | 0.3mm |
| | Dimension | 2.0mm±0.1mm |

**Transmission Performance**

| | | |
|---|---|---|
| **Attenuation Coefficient:** | Wavelength 850m | ≤3.5 dB/km |
| | Wavelength 1300nm | ≤1.5 dB/km |
| **Macrobending Loss:** | Radius (mm) | 15 7.5 |
| | Number of Turns | 2 2 |
| | Max. at 850 nm (dB) | 0.1 0.2 |
| | Max. at 1300 nm (dB) | 0.3 0.5 |

**Other Performances**

| | |
|---|---|
| **Min. Bending Radius of Work:** | 10mm |
| **Other Parameter Meet Standard:** | IEC60794-2-50, YD/T1258.2 |

# 6000 Series Duplex LC Fiber Buccaneer

| PXF605 x | / | X | / | XX |
|---|---|---|---|---|

**Body Styles**

**PXF6050**

**PXF6051**

**PXF6052**

**PXF6054**

**PXF6055**

**Cable Type**

**A =** OM3 (Multimode)

**B =** OM1 (Multimode)

**C =** OS1 (Single Mode)

**Contact Type**

**Blank =** No cable

**AA =** 1
(1M on Chassis Version Only PXF6052)

**AA =** 5

**AB =** 10

**AC =** 15

**AD =** 25

**AE =** 50

**AF =** 100

**AG =** 150

**AH =** 200

**AJ =** 300

**AK =** 450

**Example:**

**PXF6050A =** Flex connector, for OM3 (Multimode) no cable supplied

**PXF6050AAA =** Flex connector, OM3 multimode cable, 5 metre length to LC type connector

**PXF6052BAA =** Panel mount connector, OM1 multi mode cable, 1 metre length to LC type connector

**Fiber Assignment:**