

## 6000 Series Duplex LC Fiber Buccaneer

The 6000 Series Fiber connectors are built to withstand the harshest of environments. Rated IP66, IP68 and IP69K when 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



<p><b>Duplex LC Fiber</b></p>  <p>PXF6050XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 Connectors</li> <li>○ Available in 5 - 450m Lengths</li> <li>○ Supplied with LC Fiber Plug</li> <li>○ 0S1, 0M1 or 0M3 Cable Options</li> </ul>	
<p><b>Duplex LC Fiber</b></p>  <p>PXF6051XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 Connectors</li> <li>○ Available in 5 - 450m Lengths</li> <li>○ Supplied with LC Fiber Plug</li> <li>○ 0S1, 0M1 or 0M3 Cable Options</li> </ul>	
<p><b>Duplex LC Fiber</b></p>  <p>PXF6054XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 Connectors</li> <li>○ Available in 5 - 450m Lengths</li> <li>○ Supplied with LC Fiber Plug</li> <li>○ 0S1, 0M1 or 0M3 Cable Options</li> </ul>	
<p><b>Duplex LC Fiber</b></p>  <p>PXF6055XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 Connectors</li> <li>○ Available in 5 - 450m Lengths</li> <li>○ Supplied with LC Fiber Plug</li> <li>○ 0S1, 0M1 or 0M3 Cable Options</li> </ul>	
<p><b>Rear Panel Mounting Connector</b></p>  <p>PXF6052XXX</p>	<ul style="list-style-type: none"> <li>○ LC Fiber Adapter</li> <li>○ Leaded with LC Connector</li> <li>○ Socket Variant Mates with PXF6050 Type Connectors</li> </ul>	

# 6000 Series Duplex LC Fiber Buccaneer

<p><b>Flex Cable Connector</b></p>  <p>PXF6050X</p>	<ul style="list-style-type: none"> <li>⬡ Mates with Flex In-Line or Panel Mounting versions PXF6051, PXF6053</li> <li>⬡ 30° Turn Locking Ring</li> <li>⬡ Supplied without LC Connectors</li> </ul>	
<p><b>In-Line Flex Cable Connector</b></p>  <p>PXF6051X</p>	<ul style="list-style-type: none"> <li>⬡ Mates with Flex Cable Connector PXF6050</li> <li>⬡ For In-Line Connection</li> <li>⬡ Supplied without LC Connectors</li> </ul>	
<p><b>Rear Panel Mounting Connector</b></p>  <p>PXF6052X</p>	<ul style="list-style-type: none"> <li>⬡ Mates with Flex Cable Connector PXF6050</li> <li>⬡ Rear Panel Mounting</li> <li>⬡ Single Hole Fixing</li> <li>⬡ Supplied without LC Connectors</li> </ul>	

# 6000 Series Duplex LC Fiber Buccaneer

<p><b>Sealing Caps</b></p>  <p>PXP6081 PXP6083</p>	<ul style="list-style-type: none"> <li>⬡ Sealing Caps to Maintain IP Rating</li> <li>⬡ PXP6081 for Cable Connectors PXF6050</li> <li>⬡ PXP6083 for Front Panel Mount Connectors PXF6052 &amp; PXF6051 with 30° Twist Lock</li> </ul>	 <p>PXP6081</p> <p>PXP6083</p>
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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  
IP68, EN60529:1992+A2:2013  
(10m depth for 2 weeks)  
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  
(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:

**Fiber Type:**

**Mode Field Diameter:**

**Cladding Diameter:**

**Core Concentricity Error:**

**Cladding Non-Circularity:**

**Coating Diameter:**

**Coating-Cladding Concentricity Error:**

**Cut-Off Wavelength:**

**Uncabled Fiber Macrobending Loss:**

**Min. Proof Stress:**

**Dynamic Fatigue Parameter:**

**Chromatic Dispersion Coefficient:**

**Other Parameters Meet Standard:**

### Detail:

/

Wavelength

Range of Nominal Values

Tolerance

Nominal

Tolerance

Nominal

Tolerance

Radius(mm)

Number of Turns

Max. at 1550nm(dB)

Max. at 1625 nm (dB)

λ0min

λ0max

S0max

ITU-T G.657

### Specification:

G.657A2 (OS1)

1310mm

8.6µm -9.5µm

±0.4 µm

125.0µm

±0.7 µm

≤0.5µm

≤1%

245µm

±10µm

≤12.5µm

≤1260 nm

15	10	7.5
10	1	1
0.03	0.1	0.5
0.1	0.2	1.0

0.69 GPa

≥20

1300 nm

1324 nm

0.092 ps/nm2 ×km

### Cable Construction:



# 6000 Series Duplex LC Fiber Buccaneer

## Optical Cable Specification:

### Structure Parameter

<b>Tight Buffer:</b>	Material	Polyolefin (POE)		
	Outer Diameter	0.85mm±0.05mm		
<b>Strength Member:</b>	Material	Aramid Yarn		
<b>Outer Sheath:</b>	Sheath Material	Polyolefin (POE)		
	Sheath Color	Yellow (Pantone 136C) Chromatic Aberration E: ≤4.0		
	Min. Sheath Thickness	0.3mm		
	Dimension	2.0mm±0.1mm		
<b>Transmission Performance</b>		Wavelength 1310nm~1625nm	≤0.4 dB/km	
<b>Attenuation Coefficient:</b>		Maximum at 1383 nm ±3 nm	≤0.4 dB/km	
		Wavelength 1550nm	≤0.3 dB/km	
<b>Macrobending Loss:</b>	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
<b>Other Performances</b>				
<b>Min. Bending Radius of Work:</b>		10mm		
<b>Other Parameter Meet Standard:</b>		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
	Sheath Material	Polyolefin (POE)
Outer Sheath:	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 $\mu\text{m}$
	Tolerance	$\pm 2.5 \mu\text{m}$
Cladding Diameter:	Nominal	125.0 $\mu\text{m}$
	Tolerance	$\pm 2 \mu\text{m}$
Core-Cladding Concentricity Error:		$\leq 3 \mu\text{m}$
Cladding Non-Circularity:		$\leq 2\%$
Core Non-Circularity:		$\leq 6\%$
Primary Coating Diameter (Uncoloured):	Nominal	245 $\mu\text{m}$
Primary Coating-Cladding	Tolerance	$\pm 10 \mu\text{m}$
Concentricity Error:		$\leq 12.5 \mu\text{m}$
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
	Overfilled Launch Bandwidth at 850nm	1500 MHz. km
Min. Mode Bandwidth:	Overfilled Launch Bandwidth at 1300nm	500 MHz. km
	Effective Laser Launch Bandwidth at 850nm	2000 MHz. km
		0.69 GPa
Min. Proof Stress:		$\leq 20$
Dynamic Fatigue Parameter:	$\lambda_{0\text{min}}$	1295 nm
	$\lambda_{0\text{max}}$	1340 nm
		0.105ps/nm <sup>2</sup> ×km
Chromatic Dispersion Coefficient:	S0max (from1295nm $\leq\lambda_0\leq$ 1310nm)	0.000375(1590- $\lambda_0$ ) ps/nm <sup>2</sup> ×km
	S0max (from1310nm $\leq\lambda_0\leq$ 1340nm)	
Other Parameters Meet Standard:	IEC 60793-2-10	

## Cable Construction:



## Optical Cable Specification:

### Structure Parameter

Tight Buffer:	Material	Polyolefin (POE)
	Outer Diameter	0.85mm $\pm$ 0.05mm
Strength Member:	Material	Aramid Yarn
	Sheath Material	Polyolefin (POE)
Outer Sheath:	Sheath Color	Aqua (Pantone 3248C) Chromatic Sberration E: $\leq 4.0$
	Min. Sheath Thickness	0.3mm
	Dimension	2.0mm $\pm$ 0.1mm

### Transmission Performance

Attenuation Coefficient:	Wavelength 850m	$\leq 3.5$ dB/km
	Wavelength 1300nm	$\leq 1.5$ 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
<b>Body Styles</b>	<b>Cable Type</b>	<b>Contact Type</b>
PXF6050	A = OM3 (Multimode)	<b>Blank</b> = No cable
PXF6051	B = OM1 (Multimode)	<b>AA</b> = 1 (1M on Chassis Version Only PXF6052)
PXF6052	C = OS1 (Single Mode)	<b>AA</b> = 5
PXF6054		<b>AB</b> = 10
PXF6055		<b>AC</b> = 15
		<b>AD</b> = 25
		<b>AE</b> = 50
		<b>AF</b> = 100
		<b>AG</b> = 150
		<b>AH</b> = 200
		<b>AJ</b> = 300
		<b>AK</b> = 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:**

