

## 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>	
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<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>	
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<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>	
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<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>	
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<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>	
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# 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		
	Maximum at 1383 nm ±3 nm	≤0.4 dB/km		
<b>Attenuation Coefficient:</b>	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
	Overfilled Launch Bandwidth at 1300nm	500 MHz. km
	Effective Laser Launch Bandwidth at 850nm	2000 MHz. km
Min. Mode Bandwidth:		0.69 GPa
Min. Proof Stress:		$\leq 20$
Dynamic Fatigue Parameter:	$\lambda_{0\text{min}}$	1295 nm
	$\lambda_{0\text{max}}$	1340 nm
Chromatic Dispersion Coefficient:	S0max (from 1295nm $\leq \lambda_0 \leq 1310\text{nm}$ )	0.105 ps/nm <sup>2</sup> × km
	S0max (from 1310nm $\leq \lambda_0 \leq 1340\text{nm}$ )	0.000375 (1590- $\lambda_0$ ) ps/nm <sup>2</sup> × 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 $\pm$ 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:**

