

# FIBER PATCHCORDS & PIGTAILS

## FIBER PATCHCORDS

Optec's top-of-the-line fiber patchcords provide reliable and flexible interconnect cabling solutions for use in different optical fiber networks, from data centers & enterprises, industrial & transportation, to telecom networks. Every assembly produced under stringent quality control and tested to ensure exceptional optical performance with traceable data.

All patchcords are customized in length with specified fiber modes and connector types. Customers may even request highly customized specifications with specific optical performance at competitive prices.



## Features And Applications

Superior optical performance  
100% factory tested assemblies with traceable test data

Customized fiber optic assemblies  
Suits for different installation environments and be applicable for all kinds of fiber optic networks

Available in singlemode (OS2), multimode (OM1~5) with customized length and structures  
Satisfies client's needs in different industries

Top-of-the-line quality with stringent manufacturing process  
High performance factory-tested assemblies made to comply Telcordia GR-326-CORE

Comprehensive range of offering  
Full spectrum of connector interface options applicable for all kinds of optical networks



Simplex Patchcord



Duplex Patchcord

## Specifications

### Generic Connector Termination

| Optical Performance ** |         |                 |          |                |
|------------------------|---------|-----------------|----------|----------------|
| Performance            | Type    | Singlemode      |          | Multimode      |
|                        |         | UPC             | APC      | PC             |
| Insertion Loss         | Maximum | ≤ 0.3 dB        | ≤ 0.3 dB | ≤ 0.3 dB       |
|                        | Typical | 0.1 dB          | 0.1 dB   | 0.1 dB         |
| Return Loss            |         | ≥ 55 dB         | ≥ 65 dB  | ≥ 25 dB        |
| Test Wavelength        |         | 1310nm & 1550nm |          | 850nm & 1300nm |
| Geometric performance  |         |                 |          |                |

Manufactured to Telcordia standard GR-326-CORE

*Note: The above table refers to Optec standard grade performance. Due to material optimization and manufacturing techniques, we can provide different performance grade products in a cost-effective way to meet customer expectations and requirements. Please contact our professional sales team for details.*

### Fiber Patchcords

#### Ordering Information

**ASM**

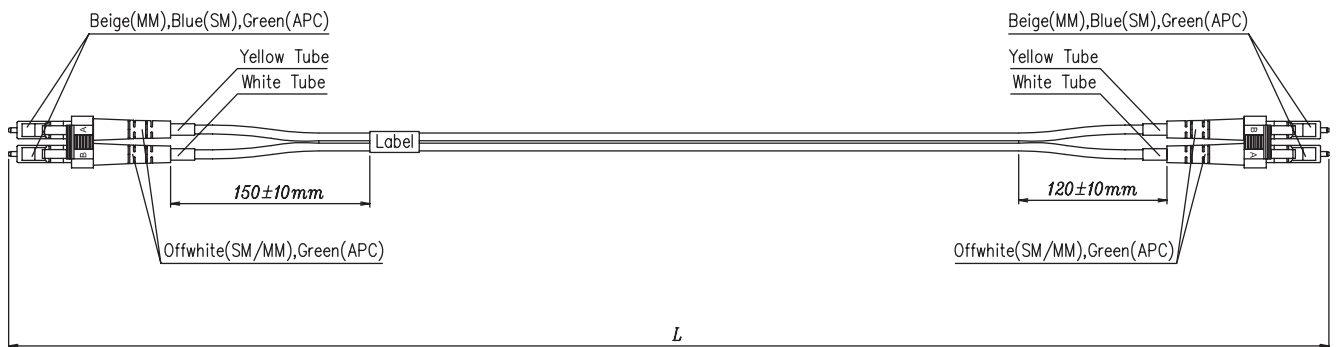
|   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| 1   | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10   |
| <b>Fiber Count</b><br>SX = Simplex (1-Fiber)<br>DX = Duplex (2-Fiber) | <b>A-End Connector</b><br>A = FC<br>B = SC<br>C = ST<br>D = LC<br>E = MU<br>F = E2000<br>G = Mini-LC<br>H = Uniboot LC<br><i>See notes (1) &amp; (2)</i> | <b>A-End Polish</b><br>1 = PC<br>2 = UPC<br>3 = APC 8-degree | <b>B-End Connector</b><br>A = FC<br>B = SC<br>C = ST<br>D = LC<br>E = MU<br>F = E2000<br>G = Mini-LC<br>H = Uniboot LC<br><i>See notes (1) &amp; (2)</i> | <b>B-End Polish</b><br>1 = PC<br>2 = UPC<br>3 = APC 8-degree | <b>Fiber Type</b><br>SM = OS2 (SM 9/125)<br>M1 = OM1 (MM 62.5/125)<br>M2 = OM2 (MM 50/125)<br>M3 = OM3 (MM 50/125)<br>M4 = OM4 (MM 50/125)<br>M5 = OM5 (WBMM 50/125)<br><i>See notes (3)</i> | <b>Cable Structure</b><br>0 = 900um Simplex<br>1 = 2mm Simplex<br>2 = 3mm Simplex<br>3 = 1.6mm DX Zipcord<br>4 = 2.0mm DX Zipcord<br>5 = 3.0mm DX Zipcord<br>6 = Round Duplex Cable<br>7 = Flat Twin Double Jacketed<br>8 = Others, please specify Cable<br><i>See notes (4)</i> | <b>Jacket Material</b><br>P = Plenum (OFNP)<br>R = Riser (OFNR)<br>L = Low Smoke Zero Halogen (LSZH) | <b>Length</b><br>xxx = 001 ~ 999<br>(please specify) | <b>Unit of Measurement</b><br>F = Feet<br>N = Inch<br>M = Meters<br>C = Centimeter |

**NOTES**

- (1) Connectors other than the above are available, please specified and contact our sales team for more details
- (2) For ordering MPO/MTTP® patchcords, please refer to page 16-17 for details
- (3) Fiber types other than the above are available (e.g. Singlemode G657A/B series), please contact our sales team for details
- (4) Other cable structures are available, please specified and contact our sales team for more details

#### Product Illustration & Example

**EXAMPLE**    **Ordering Code:** ASM-DX-D-2-D-2-SM-4-R-005-M  
**Item Description:** Fiber Patchcord, Duplex, LC/UPC to LC/UPC, Singlemode, 2.0mm DX Zipcord, Riser, 5 Meters



Length Tolerance:

| Length (L) | Tolerance |
|------------|-----------|
| ≤ 3m       | +150mm/-0 |
| > 3m       | +300mm/-0 |

# FIBER PATCHCORDS & PIGTAILS

## FIBER PIGTAILS

Optec offers top-of-the-line fiber optic pigtails in a variety of configurations for end-to-end fiber connections. All pigtails are customizable with connector options including: FC, SC, ST, LC, MU and E2000. All connectors are terminated with 900 $\mu$ m buffered cable or the customer specified cable type (i.e. simplex, duplex, as well as multi-core jacketed ribbon distribution cables.)

Available in individual / 6 / 8 / 12pcs per pack, Optec's pigtail sets are one of the most convenient solutions for on-site fusion splice terminations. We offer high flexibility to satisfy customers' needs for customized lengths and fiber modes of different configurations.



## Features And Applications

Fully customizable fiber optic assemblies

Suitable for different installation requirements and be applicable for all kinds of fiber optical networks

100% factory tested assemblies with traceable test data  
Made to comply Telcordia GR-326-CORE

Superior optical performance

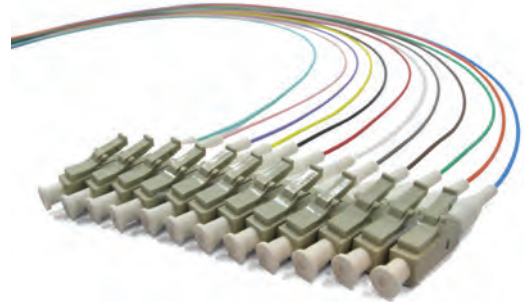
Low insertion loss and return loss to improve link loss budget during on-site installation

Offer high flexibility to satisfy different customer needs

Available in FC, SC, ST, LC, MU & E2000 terminating with different fiber mode and cable structures

Variety of cable options

Options of simplex buffered cable, duplex zipcord, as well as multi-core jacketed ribbon or distribution cables



12-color pigtails set

## Specifications

### Generic Connector Termination

| Optical Performance ** |         |                 |          |                |
|------------------------|---------|-----------------|----------|----------------|
| Performance            | Type    | Singlemode      |          | Multimode      |
|                        |         | UPC             | APC      | PC             |
| Insertion Loss         | Maximum | ≤ 0.3 dB        | ≤ 0.3 dB | ≤ 0.3 dB       |
|                        | Typical | 0.1 dB          | 0.1 dB   | 0.1 dB         |
| Return Loss            |         | ≥ 55 dB         | ≥ 65 dB  | ≥ 25 dB        |
| Test Wavelength        |         | 1310nm & 1550nm |          | 850nm & 1300nm |

#### Geometric performance

Manufactured to Telcordia standard GR-326-CORE

*Note: The above table refers to Optec standard grade performance. Due to material optimization and manufacturing techniques, we can provide different performance grade products in a cost-effective way to meet customer expectations and requirements. Please contact our professional sales team for details.*

### Fiber Pigtails

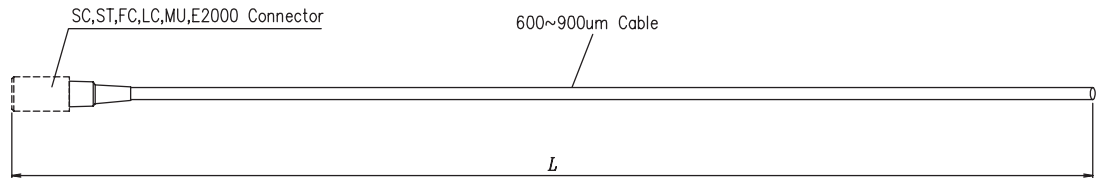
#### Ordering Information

**ASM** | P | T | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

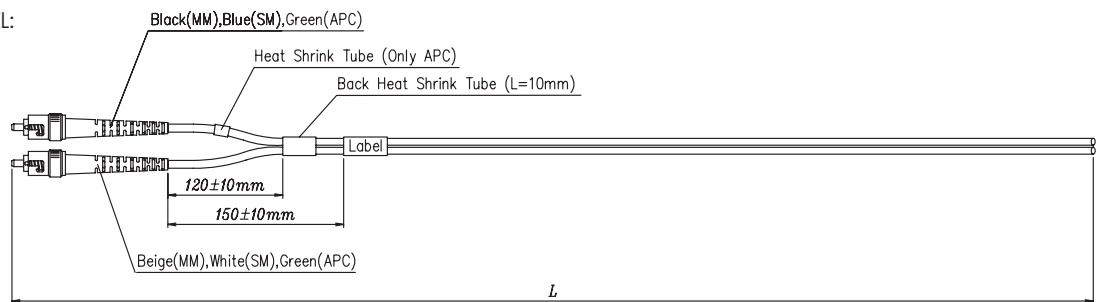
|   |   |   |   |   |
|---|---|---|---|---|
| <p><b>1 Fiber Count</b></p> <p>01 = 1-Fiber (Simplex)<br/>                 02 = 2-Fiber (Duplex)<br/>                 OT = Other Fiber Count (please specify)</p> | <p><b>2 A-End Connector</b></p> <p>A = FC<br/>                 B = SC<br/>                 C = ST<br/>                 D = LC<br/>                 E = MU<br/>                 F = E2000<br/>                 G = Mini-LC<br/> <i>See notes (1)</i></p> | <p><b>3 A-End Polish</b></p> <p>1 = PC<br/>                 2 = UPC<br/>                 3 = APC 8-degree</p>   | <p><b>4 Fiber Type</b></p> <p>SM = OS2 (SM 9/125)<br/>                 M1 = OM1 (MM 62.5/125)<br/>                 M2 = OM2 (MM 50/125)<br/>                 M3 = OM3 (MM 50/125)<br/>                 M4 = OM4 (MM 50/125)<br/>                 M5 = OM5 (WBMM 50/125)<br/> <i>See notes (2)</i></p> | <p><b>5 Cable Structure</b></p> <p>0 = 900um Simplex<br/>                 1 = 2mm Simplex<br/>                 2 = 3mm Simplex<br/>                 3 = 1.6mm DX Zipcord<br/>                 4 = 2.0mm DX Zipcord<br/>                 5 = 3.0mm DX Zipcord<br/>                 6 = Round Duplex Cable<br/>                 7 = Flat Twin Double Jacketed Cable<br/>                 8 = Others, please specify<br/> <i>See notes (3)</i></p> |
| <p><b>6 Jacket Material</b></p> <p>P = Plenum (OFNP)<br/>                 R = Riser (OFNR)<br/>                 L = Low Smoke Zero Halogen (LSZH)</p>             | <p><b>7 Length</b></p> <p>xxx = 001 ~ 999 (please specify)</p>  | <p><b>8 Unit of Measurement</b></p> <p>F = Feet<br/>                 N = Inch<br/>                 M = Meters<br/>                 C = Centimeter</p> | <p><b>NOTES</b></p> <p>(1) Connectors other than the above are available, please specified and contact our sales team for more details</p> <p>(2) Fiber types other than the above are available (e.g. Singlemode G657A/B series), please contact our</p>   |   |

#### Product Illustration & Examples

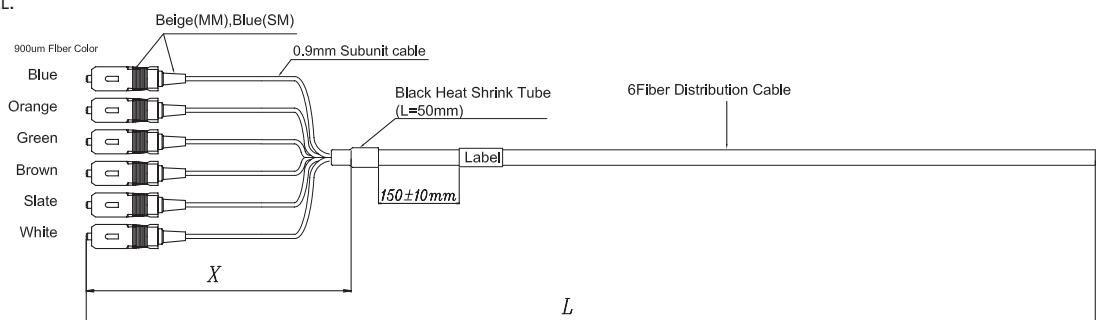
**EXAMPLE SIMPLEX PIGTAIL:**



**EXAMPLE DUPLEX PIGTAIL:**



**EXAMPLE DUPLEX PIGTAIL:**



# FIBER PATCHCORDS & PIGTAILS

## MINI-LC PATCHCORDS

Optec offers Mini LC Patchcords with a reduced center ferrule pitch from 6.25mm to 5.25mm for optimizing space efficiency. They can work with mini SFP transceivers, a small form factor optical transceiver, to increase the port density without changing the overall enclosure for data center equipment.

Our Mini LC Patchcords increase network utilization with higher speeds, and is available for singlemode or multimode fiber at customized lengths to meet different installation needs.



## Features And Applications

Reduced center ferrule pitch from 6.25mm to 5.25mm  
Provides higher port density compared to traditional LC patchcord

HD cable management that improve energy efficiency  
Compacted in size for improving heat dissipation and energy efficiency in workstations

Available in singlemode(OS2) and multimode (OM1~OM5) with bend-insensitive fiber as an option  
Satisfies client's needs in different installation environments

Customized length and assembly configurations  
Fits for each installation needs

Available in Mini LC to MPO/MTP® interfacewith staggered lengths for HD data center application  
Removes slack at each port

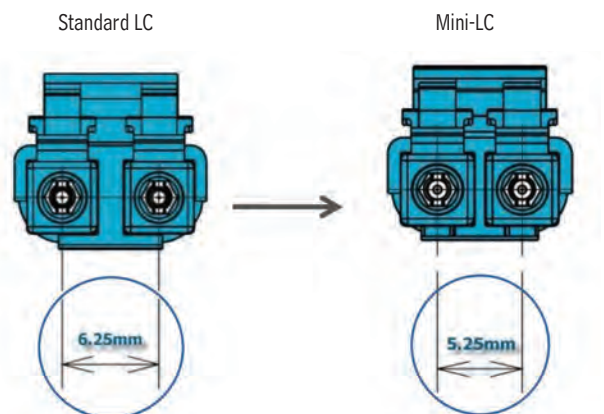
## Specifications

| Optical Performance ** |         |                 |          |                |
|------------------------|---------|-----------------|----------|----------------|
| Performance            | Type    | Singlemode      |          | Multimode      |
|                        |         | UPC             | APC      | PC             |
| Insertion Loss         | Maximum | ≤ 0.3 dB        | ≤ 0.3 dB | ≤ 0.3 dB       |
|                        | Typical | 0.1 dB          | 0.1 dB   | 0.1 dB         |
| Return Loss            |         | ≥ 55 dB         | ≥ 65 dB  | ≥ 25 dB        |
| Test Wavelength        |         | 1310nm & 1550nm |          | 850nm & 1300nm |

### Geometric performance

Manufactured to Telcordia standard GR-326-CORE

*Note: The above table refers to Optec standard grade performance. Due to material optimization and manufacturing techniques, we can provide different performance grade products in a cost-effective way to meet customer expectations and requirements. Please contact our professional sales team for details.*



### Mini-LC Patchcords

#### Ordering Information

**ASM** | M | L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

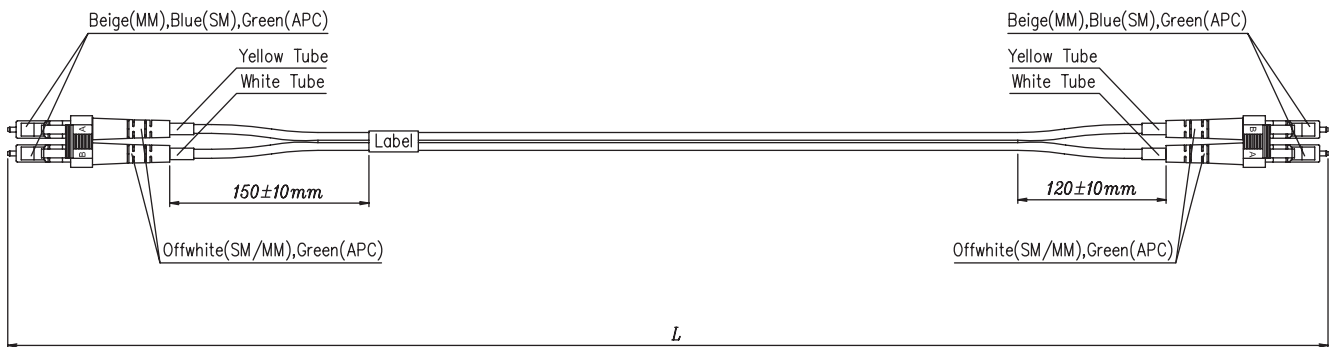
|  |  |  |   |  |
|--|--|--|---|--|
| <p><b>1 A-End Connector</b><br/>G = Mini-LC (Duplex)<br/><i>See notes (1)</i></p>  | <p><b>2 A-End Polish</b><br/>1 = PC<br/>2 = UPC<br/>3 = APC 8-degree</p>   | <p><b>3 B-End Connector</b><br/>A = FC<br/>B = SC<br/>C = ST<br/>D = LC<br/>E = MU<br/>F = E2000<br/>G = Mini-LC (Duplex)<br/><i>See notes (1)</i></p> | <p><b>4 B-End Polish</b><br/>1 = PC<br/>2 = UPC<br/>3 = APC 8-degree</p>                        | <p><b>5 Fiber Type</b><br/>SM = OS2 (SM 9/125)<br/>M1 = OM1 (MM 62.5/125)<br/>M2 = OM2 (MM 50/125)<br/>M3 = OM3 (MM 50/125)<br/>M4 = OM4 (MM 50/125)<br/>M5 = OM5 (WBMM 50/125)<br/><i>See notes (2)</i></p> |
| <p><b>6 Cable Structure</b><br/>1 = 1.6mm DX Zipcord P<br/>2 = 2.0mm DX Zipcord<br/>3 = Round Duplex Cable<br/>4 = Others, please specify<br/><i>See notes (3)</i></p> | <p><b>7 Jacket Material</b><br/>P = Plenum (OFNP)<br/>R = Riser (OFNR)<br/>L = Low Smoke Zero Halogen (LSZH)</p> | <p><b>8 Length</b><br/>xxx = 001 ~ 999<br/>(please specify)</p>  | <p><b>9 Unit of Measurement</b><br/>F = Feet<br/>N = Inch<br/>M = Meters<br/>C = Centimeter</p> |  |

**NOTES**

- (1) Connectors other than the above are available, please specified and contact our sales team for more details
- (2) Fiber types other than the above are available (e.g. Singlemode G657A/B series), please contact our sales team for details
- (3) Other cable structures are available, please specified and contact our sales team for more details

#### Product Illustration & Example

**EXAMPLE**    **Ordering Code:** ASM-ML-G-1-G-1-M3-3-R-003-M  
**Item Description:** Fiber Patchcord, Mini-LC, Mini-LC/PC to Mini-LC/PC, OM3, 1.6mm DX Zipcord, Riser, 3 Meters



Length Tolerance:

| Length (L) | Tolerance |
|------------|-----------|
| ≤ 3m       | +150mm/-0 |
| > 3m       | +300mm/-0 |

# FIBER PATCHCORDS & PIGTAILS

## 1.2MM PATCHCORDS

Optec offers 1.2mm fiber patchcords as an effective solution to resolve cabling congestion problems. Particularly suitable for high-density patching environments, the ultra-small 1.2mm jacketed cable suited on the patchcord saves over 60% of space, compared to the more common 2.0mm cable patchcord, without compromising pulling force.

We offer a wide range of connector options including LC, FC and SC, with different polishing types and fiber modes for custom configurations. All solutions offer superior optical performance with traceable data.



### Features And Applications

Satisfies client's needs in high density applications  
Available in LC, SC, ST and FC configuration (both SM and MM versions)

Conforms and exceeds industry standards  
Compliant with GR-409 and GR-326 mechanical and performance requirements

Relieves cabling congestion & provides better air-flow  
Appreciable size for 1.2mm in both Simplex & Duplex structures

Ensures high operation performance  
100% factory-tested with traceable data

Increases network utilization  
Reduces cost in installation and maintenance.



Common LC Patchcord

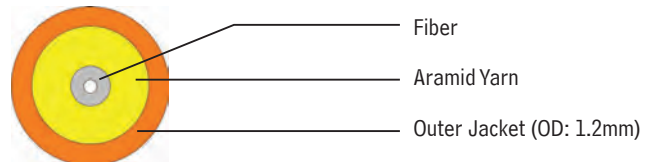


1.2mm Mini-LC Patchcord

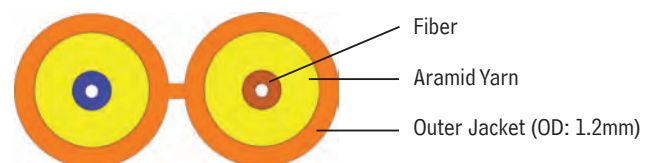
#### Cable Structure with 1.2mm diameter :

- ✓ Ultra small 1.2mm jacket cable
- ✓ save more than 60% of space
- ✓ uncompromising pulling force

#### Simplex Cable (OD: 1.2mm)



#### Duplex Zipcord Cable (OD: 1.2mm x 2 )



### Specifications

#### Generic Connector Termination

| Optical Performance ** |         |                 |          |                |
|------------------------|---------|-----------------|----------|----------------|
| Performance            | Type    | Singlemode      |          | Multimode      |
|                        |         | UPC             | APC      | PC             |
| Insertion Loss         | Maximum | ≤ 0.3 dB        | ≤ 0.3 dB | ≤ 0.3 dB       |
|                        | Typical | 0.1 dB          | 0.1 dB   | 0.1 dB         |
| Return Loss            |         | ≥ 55 dB         | ≥ 65 dB  | ≥ 25 dB        |
| Test Wavelength        |         | 1310nm & 1550nm |          | 850nm & 1300nm |

#### Geometric performance

Manufactured to Telcordia standard GR-326-CORE

Note: The above table refers to Optec standard grade performance. Due to material optimization and manufacturing techniques, we can provide different performance grade products in a cost-effective way to meet customer expectations and requirements. Please contact our professional sales team for details.

### 1.2mm Patchcord

#### Ordering Information

**ASM EM**

|  |  |  |  |   |
|--|--|--|--|---|
| <p>1</p> <p><b>Assembly Type</b><br/>SX = Simplex<br/>DX = Duplex Zipcord</p>                                    | <p>2</p> <p><b>Fiber Type</b><br/>SM = OS2 (SM 9/125)<br/>M1 = OM1 (MM 62.5/125)<br/>M2 = OM2 (MM 50/125)<br/>M3 = OM3 (MM 50/125)<br/>M4 = OM4 (MM 50/125)<br/>M5 = OM5 (WBMM 50/125)<br/><i>See note (1)</i></p> | <p>3</p> <p><b>Cable Jacket</b><br/>OR = Riser<br/>LS = Low-Smoke Zero Halogen</p>                               | <p>4</p> <p><b>A-End Connector Type</b><br/>A = FC<br/>B = SC<br/>C = LC<br/><i>See note (2)</i></p>         |   |
| <p>5</p> <p><b>A-End Polishing Type</b><br/>1 = PC<br/>2 = UPC<br/>3 = APC 8-degree<br/><i>See notes (3)</i></p> | <p>6</p> <p><b>B-End Connector Type</b><br/>A = FC<br/>B = SC<br/>C = LC<br/><i>See notes (2)</i></p>  | <p>7</p> <p><b>B-End Polishing Type</b><br/>1 = PC<br/>2 = UPC<br/>3 = APC 8-degree<br/><i>See notes (3)</i></p> | <p>8</p> <p><b>Cable Length (Meters)</b><br/>xxx = 001~999<br/>(please specify)<br/><i>See notes (4)</i></p> | <p>9</p> <p><b>Unit of Measurement</b><br/>F = Feet<br/>N = Inch<br/>M = Meter<br/>C = Centimeter</p> |

**NOTES**

- (1) Fiber types other than the above are available (e.g. Singlemode G657A/B series), please contact our sales team for details
- (2) Connectors other than the above are available, please contact our sales team for details
- (3) APC & UPC for Singlemode, PC for Multimode
- (4) Cable length is measured from connector ferrule tip to connector ferrule tip



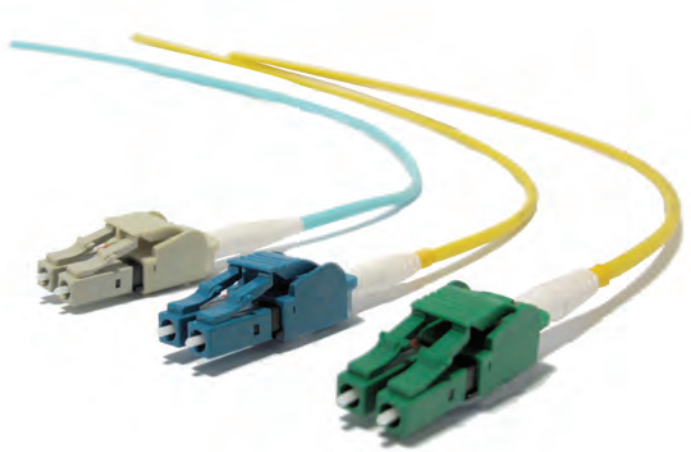
# FIBER PATCHCORDS & PIGTAILS

## LC UNIBOOT PATCHCORDS

Optec provides a high performance Dual LC Uniboot Patchcords, which save half of the operation spaces required.

The Uniboot LC patchcord uses unified connector housing and single-jacketed 3.0mm duplex cable, which dramatically reduces the cable required. Ultimately, it facilitates improved airflow within high density environments, such as data centers and 10G/40G optical networks.

Our manufacturing standards and 100% factory-tested products guarantee excellent optical cable performance.



## Features And Applications

Unified connectors housing and single boot  
Saves the operation space and enhance air flow

Utilizes single-jacketed round duplex cable  
Reduces 50% of the cable management space comparing to standard LC patchcords

Ideal for high density installation environment  
Ideal for connecting 10GBase transceivers, SFP+ & QSFP+ transceivers for 10 gigabit network connections

Variety of fiber options and enface polishing  
Available in G652D OS2, G657A2, OM1~OM5 in different endface polishing include APC, UPC & PC.

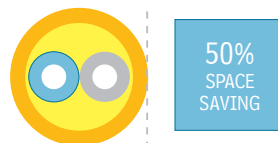
Conforms and exceeds industry standards  
Compliant with IEC and TIA performance requirements

- ✓ Utilizes single-jacketed round duplex cable
- ✓ Save 50% of cable management space
- ✓ Enhance air flow over high density environment

### Cable Structure with Single-jacketed Round Duplex Cable

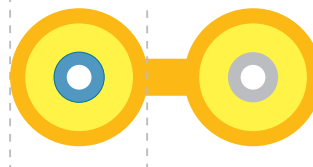
#### Single-jacketed Round Duplex Cable

- ✓ Cable Size =  $\varnothing$  3mm
- ✓ Space required for 2-fiber installation = 3mm



#### Traditional Duplex Zipcord Cable

- ✓ Cable Size =  $\varnothing$  3mm x 2
- ✓ Space required for 2-fiber installation = 6mm



### Specifications

#### Generic Connector Termination

| Optical Performance **                         |         |                 |          |                |
|--|---------|-----------------|----------|----------------|
| Performance                                    | Type    | Singlemode      |          | Multimode      |
|  |         | UPC             | APC      | PC             |
| Insertion Loss                                 | Maximum | ≤ 0.3 dB        | ≤ 0.3 dB | ≤ 0.3 dB       |
|  | Typical | 0.1 dB          | 0.1 dB   | 0.1 dB         |
| Return Loss                                    |         | ≥ 55 dB         | ≥ 65 dB  | ≥ 25 dB        |
| Test Wavelength                                |         | 1310nm & 1550nm |          | 850nm & 1300nm |
| Geometric performance                          |         |                 |          |                |
| Manufactured to Telcordia standard GR-326-CORE |         |                 |          |                |

Note: The above table refers to Optec standard grade performance. Due to material optimization and manufacturing techniques, we can provide different performance grade products in a cost-effective way to meet customer expectations and requirements. Please contact our professional sales team for details.

### LC Uniboot Patchcords

#### Ordering Information

**ASM UB**

|  |   |  |   |
|--|---|--|---|
| <p>1</p> <p><b>Fiber Type</b><br/>                 SM = OS2 (SM 9/125)<br/>                 M1 = OM1 (MM 62.5/125)<br/>                 M2 = OM2 (MM 50/125)<br/>                 M3 = OM3 (MM 50/125)<br/>                 M4 = OM4 (MM 50/125)<br/>                 M5 = OM5 (WBMM 50/125)<br/>                 See note (1)</p> | <p>2</p> <p><b>Jacket Material</b><br/>                 OR = Riser<br/>                 LS = Low-Smoke Zero Halogen</p>   | <p>3</p> <p><b>A-End Connector Type</b><br/>                 GL = LC Uniboot<br/>                 See note (2)</p>                                       | <p>4</p> <p><b>A-End Polishing Type</b><br/>                 1 = PC<br/>                 2 = UPC<br/>                 3 = APC 8-degree<br/>                 See notes (3)</p> |
| <p>5</p> <p><b>B-End Connector Type</b><br/>                 GL = LC Uniboot<br/>                 See note (2)</p>   | <p>6</p> <p><b>B-End Polishing Type</b><br/>                 1 = PC<br/>                 2 = UPC<br/>                 3 = APC 8-degree<br/>                 See notes (3)</p> | <p>7</p> <p><b>Cable Length (Meters)</b><br/>                 xxx = 001~999<br/>                 (please specify)<br/>                 See notes (4)</p> | <p>8</p> <p><b>Unit of Measurement</b><br/>                 F = Feet<br/>                 N = Inch<br/>                 M = Meter<br/>                 C = Centimeter</p>     |

**NOTES**

- (1) Fiber types other than the above are available (e.g. Singlemode G657A/B series), please contact our sales team for details
- (2) Connectors other than the above are available, please contact our sales team for details
- (3) APC & UPC for Singlemode, PC for Multimode
- (4) Cable length is measured from connector ferrule tip to connector ferrule tip