

# Opti-Core™ Fibre Optic Patch Cords – Low Smoke Zero Halogen (LSZH) Rated

## specifications

RoHS compliant fibre optic patch cords shall include simplex or duplex LC, SC, ST or MT-RJ connectors, or FJ or keyed FJ plugs or jacks on both ends. RoHS compliant fibre optic pigtailed shall include simplex or duplex LC, SC, ST, or MT-RJ connectors, or FJ or keyed FJ plugs or jacks on one end and open (unterminated) on the other end. Patch cords and pigtailed shall include laser optimised OM4, OM3 fibre or OM2, OM1 or OS1/OS2 fiber in 900µm tight-buffered fibre, 1.6mm or 3.0mm simplex or duplex zipcord jacketed cable, or 1.8mm duplex zipcord jacketed cable. Jacketed cable shall be compliant with IEC-60332-3 (LSZH) flame ratings. Patch cords and pigtailed shall meet or exceed requirements of TIA/EIA-568-C.3. The fibre connectors shall be FOCIS compliant or compatible, and exceed the requirements of TIA/EIA-455-21A for 500 mating cycles.



## technical information

|                                |  |
|--------------------------------|--|
| <b>Standards requirements:</b> | All connectors exceed TIA/EIA-455-21A: 500 mating cycles<br>Compliant with: TIA/EIA-568-C.3 and ISO/IEC 11801<br>IEC-61754-7 (International)<br>TIA-604-5 (FOCIS-5)<br>IEC-60332-3 (LSZH) flame rating   |
| <b>Insertion loss:</b>         | Per connection: 0.10dB typical (multimode), 0.25dB max. (OM1, OM2 and Standard OM3, OM4)<br>0.15dB max. (optimized OM3 and Optimized OM4) for SC and LC<br>0.30dB max. for other connectivity<br>0.50dB max. (MT-RJ multimode);<br>0.25dB typical singlemode, 0.35dB max., (SM-UPC) for LC,<br>0.50dB max. (SM-UPC) for other connectivity |
| <b>Return loss:</b>            | 20dB min. (multimode); 26dB min. (10Gig™ multimode);<br>55dB min. (singlemode)   |

## key features and benefits

|  |   |
|--|---|
| <b>Factory terminated and 100% tested for insertion loss (all) and return loss (10Gig™ and SM)</b> | Assures high performance for increased up-time and lower cost of ownership  |
| <b>Low smoke zero halogen rated jacket</b>   | Meets IEC-60332-3 (LSZH) flame rating for standard compliant safety   |
| <b>Singlemode endface geometry 100% factory inspected</b>  | Every singlemode endface is inspected in compliance with Telcordia GR-326-CORE, Issue 3 requirements to assure high performance   |
| <b>Singlemode endface UPC polished (55dB min. return loss)</b>                                     | Ensure a high quality endface for higher return loss to meet application requirements   |
| <b>Singlemode patch cords include low water peak fibre</b>   | Eliminates high attenuation in the E-band and allows operation over the entire 1260nm – 1625nm wavelength range; excellent for CWDM and DWDM applications   |
| <b>Certified 10 GbE performance</b>  | 10Gig™ Patch Cords and Pigtailed are tested per IEEE 802.3ae 10 GbE to support network transmission speeds up to 10 Gb/s for link lengths up to 300m for OM3 and up to 550 meters for OM4 at 850nm to assure high performance and reliability |
| <b>Test data supplied with each patch cord</b>   | Establishes a performance reference to streamline maintenance and troubleshooting   |
| <b>Q.C. identification label</b>   | Quality control reference provides lifetime traceability of test data   |

## applications

Opti-Core™ Fibre Optic Patch Cords provide interconnect and cross-connect of applications over installations in entrance facilities, telecommunications rooms, data centres and at the desk. They support network applications to interconnect pre-terminated cassettes in main distribution, horizontal distribution, and equipment distribution areas. These low smoke zero halogen (LSZH) rated patch cords support installations that require these flame ratings in specific environments. Opti-Core™ Fibre Optic Patch Cords

and Pigtailed are available in OM4, OM3 fibre or OM2, OM1 or OS1/OS2 fibre types to meet the demands of Gigabit Ethernet, 10 Gigabit Ethernet and high speed Fibre Channel systems while maintaining compatibility with Ethernet, Fast Ethernet, FDDI and ATM. If application requires riser (OFNR) or Plenum (OFNP) rated fibre optic patch cords or pigtailed, refer to Opti-Core™ Fibre Optic Patch Cords or Pigtailed – Riser (OFNR) and Plenum (OFNP) Rated specification sheet.

### Opti-Core™ Low Smoke Zero Halogen (LSZH) Fibre Optic Patch Cords

|  |                          |
|--|--------------------------|
| <b>Duplex LC to LC 1.6mm jacketed cable:</b>       | F <sup>^</sup> LE10-10M‡ |
| <b>Duplex SC to SC 3mm jacketed cable:</b>         | F <sup>^</sup> LD3-3M‡   |
| <b>Duplex ST to ST 3mm jacketed cable:</b>         | F <sup>^</sup> LD2-2M‡   |
| <b>Duplex MT-RJ to MT-RJ 1.8mm jacketed cable:</b> | F <sup>^</sup> LZ12-12M‡ |

### Opti-Core™ Low Smoke Zero Halogen (LSZH) Hybrid Fibre Optic Patch Cords

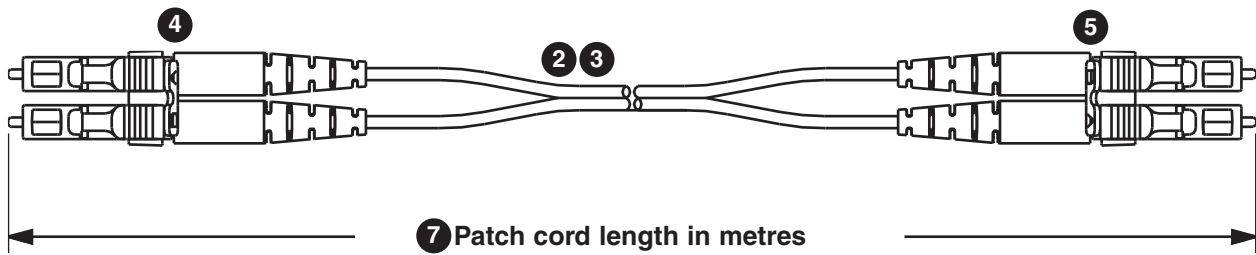
|   |                          |
|---|--------------------------|
| <b>Duplex SC to LC 1.6mm jacketed cable:</b>          | F <sup>^</sup> LE3-10M‡  |
| <b>Duplex ST to LC 1.6mm jacketed cable:</b>          | F <sup>^</sup> LE2-10M‡  |
| <b>Duplex ST to SC 3mm jacketed cable:</b>            | F <sup>^</sup> LD2-3M‡   |
| <b>Duplex SC to MT-RJ 1.8mm jacketed cable:</b>       | F <sup>^</sup> LZ3-12M‡  |
| <b>Duplex ST to MT-RJ 1.8mm jacketed cable:</b>       | F <sup>^</sup> LZ2-12M‡  |
| <b>Duplex FJ™ Plug to MT-RJ 1.8mm jacketed cable:</b> | F <sup>^</sup> LZ6P-12M‡ |

Substitute for fibre type:  
Z = OM4 – 10Gig™ 50/125µm  
ZO = Optimized OM4 – 10Gig™ 50/125µm  
X = OM3 – 10Gig™ 50/125µm  
XO = Optimized OM3 – 10Gig™ 50/125µm  
5 = OM2 – 50/125µm,  
6 = OM1 – 62.5/125µm, or  
9 = OS1 – 9/125µm

‡Substitute for length in metres:  
Patch cords 1m – 10m, 15m, 20m, 25m or 30m; pigtailed – 1, 2, or 3.  
Contact Customer Service for other available lengths.

# Opti-Core™ Fibre Optic Patch Cords (LSZH)

## Fibre Optic Patch Cord Detail



## Part Number Configurator

Example:

|          |           |          |           |   |           |          |          |          |
|----------|-----------|----------|-----------|---|-----------|----------|----------|----------|
| <b>F</b> | <b>XL</b> | <b>E</b> | <b>10</b> | — | <b>10</b> | <b>M</b> | <b>5</b> | <b>Y</b> |
| 1        | 2         | 3        | 4         |   | 5         | 6        | 7        | 8        |

**FXLE10-10M5** = Opti-Core™ 10Gig™ LC to LC Duplex Fibre Optic Patch Cord, OM3/OM4 – 10Gig™ 50/125µm multimode low smoke zero halogen rated cable, LC duplex connectors on each end, and 5m in length.

### 2 Fibre Type and Jacket Flame Rating

Low Smoke Zero Halogen (LSZH) rated cable:

- ZL = OM4 – 10Gig™ 50/125µm
- ZOL = Optimized OM4 – 10Gig™ 50/125µm
- XL = OM3 – 10Gig™ 50/125µm
- XOL = Optimized OM3 – 10Gig™ 50/125µm
- 5L = OM2 – 50/125µm,
- 6L = OM1 – 62.5/125µm, or
- 9L = OS1 – 9/125µm

### 3 Cable Type

- D = 3mm duplex zipcord jacketed cable
- S = 3mm simplex jacketed cable
- E = 1.6mm duplex zipcord jacketed cable
- F = 1.6mm simplex jacketed cable
- Z = 1.8mm duplex zipcord jacketed cable

### 4 and 5 Connector Styles

Select one style for each end, listing lower number first, or 6P first.  
 2 = ST, 3 = SC, 6P = FJ™ Plug, 10 = LC,  
 12 = MT-RJ or 16 = E-2000

### 6 Unit of Measure (M = Metres)

### 7 Length

Patch Cords: 1-10, 15, 20, 25 and 30 metre lengths.  
 Pigtails: 1, 2, and 3 metre lengths.

### 8 RoHS Compliance

All patch cords and pigtails are RoHS compliant.

**Note:** Not all cable types and connector combinations are available. Contact customer service for availability and other lengths.

^Substitute for fibre type: Z = OM4 – 10Gig™ 50/125µm, X(OM3 – 10Gig™ 50/125µm), 5(OM2 – 50/125µm), 6(OM1 – 62.5/125µm) and 9(OS1/OS2 – 9/125µm).

\*MTP is a registered trademark of US Conec Ltd.

## WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA  
 Markham, Ontario  
 cs-cdn@panduit.com  
 Phone: 800.777.3300

PANDUIT EUROPE LTD.  
 London, UK  
 cs-emea@panduit.com  
 Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.  
 Republic of Singapore  
 cs-ap@panduit.com  
 Phone: 65.6305.7575

PANDUIT JAPAN  
 Tokyo, Japan  
 cs-japan@panduit.com  
 Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA  
 Guadalajara, Mexico  
 cs-la@panduit.com  
 Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.  
 Victoria, Australia  
 cs-aus@panduit.com  
 Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to [www.panduit.com/warranty](http://www.panduit.com/warranty)

For more information

Visit us at [www.panduit.com](http://www.panduit.com)

Contact Customer Service by email:  
[cs-emea@panduit.com](mailto:cs-emea@panduit.com)

**PANDUIT™**

©2011 Panduit Corp.  
 ALL RIGHTS RESERVED.

**WW-FBSP34-GB**  
 10/2011

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: [ocean@oceanchips.ru](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А