

# Opti-Core® Fiber Optic Patch Cords and Pigtails

## technical information

Fiber optic patch cords and pigtails provide interconnect and cross-connect of applications over installations in entrance facilities, telecommunications rooms, data centers and at the desk. Patch cords support network applications in main, horizontal and equipment distribution areas and are available in riser (OFNR), and low smoke zero halogen (LSZH) rated jacket materials to comply with local cabling ordinances. Pre-terminated fiber optic pigtails support fusion splice field termination applications. Fiber optic patch cords and pigtails are available in OM4, OM3, OM2, OM1, or OS1/OS2 fiber types to meet the demands of Gigabit Ethernet, 10 Gigabit Ethernet and high speed Fibre Channel.



## application

Provide interconnect and cross-connect of applications in entrance facilities, telecommunications rooms, data centers, at the desk and network applications to interconnect pre-terminated cassettes in main distribution, horizontal distribution, and equipment distribution areas.

## construction

**Fiber count:** Simplex (1-fiber) jacketed  
Duplex (2-fiber) jacketed zipcord  
Tight buffered

**Cable jacket ratings:** Riser (OFNR)  
Low Smoke Zero Halogen (LSZH) per:  
IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2

**Fiber types:** Singlemode: OS1/OS2 9/125µm  
Multimode: OM1 62.5/125µm  
OM2 50/125µm  
OM3 50/125µm  
OM4 50/125µm

**Connector types end 'A':** Simplex or duplex LC, SC

**Jacket color:** OS1/OS2: Yellow  
OM1: Orange  
OM2: Orange  
OM3: Aqua  
OM4: Aqua  
Buffered fiber (pigtail): Blue

**Connector types end 'B':** Simplex or duplex LC, SC

Note: For hybrid cords, the SC connector is always on End B.

## physical properties

**Cable outside diameter (OD):** 1.6mm duplex  
3mm simplex  
900 micron

**Connector cable retention:** 50N @ 0°C  
19.4N @ 90°C

**Connector durability:** 500 cycles

**Bend radius, minimum:** 1.6mm: 16mm  
3mm: 29mm

## optical properties

**Connector insertion loss:** 0.25dB max. (Multimode - Standard IL)  
0.15dB max. (Multimode - Optimized IL)  
0.10dB max. (Multimode - Ultra IL)  
0.35dB max. (LC singlemode)  
0.50dB max. (SC singlemode)

**Connector return loss:** 20dB min. (OM1 and OM2)  
26dB min. (OM3 and OM4)  
55dB min. (OS1/OS2)

## environmental properties

**Storage and shipping temperature:** -40°C to 70°C

**Operating and installation temperature:** Riser: -20°C to 70°C  
Plenum: 0°C to 60°C

## standards

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-3 (FOCIS-3), TIA-604-10 (FOCIS-10)

**Restriction of Hazardous Substances (RoHS) Compliance:** All patch cord components meet the requirements of Directive 2002/95/EC.

# Opti-Core® Fiber Optic Patch Cords and Pigtails

## part number

Example: FZ2ERLNSNSNM005 = Fiber OM4, 2-fiber, 1.6mm cable, riser rated, LC duplex to SC duplex, standard IL, 5 meters

|           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Character | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Example   | F | Z | 2 | E | R | L | N | S | N | S  | N  | M  | 0  | 0  | 5  |

### 1 – Fiber Product

F = Fiber

### 2 – Fiber Type

6 = OM1 62.5/125µm

5 = OM2 50/125µm

X = OM3 50/125µm

Z = OM4 50/125µm

9 = OS1/OS2 9/125µm

### 3 – Fiber Count

1 = 1 fiber

2 = 2 fibers

### 4 – Cable Type

B = 900µm buffer

E = 1.6mm

3 = 3.0mm (For SC to SC cords)

### 5 – Jacket Type

L = LSZH (Low Smoke Zero Halogen)

N = (No Jacket) 900µm Buffered Fiber

R = OFNR (Riser)

### 6 – Connector Type - End A

1 = LC

3 = SC

L = LC duplex

S = SC duplex

### 7 – Connector Variant

N = No variant

### 8 – Connector Type - End B

1 = LC

3 = SC

L = LC duplex

N = None; pigtail

S = SC duplex

### 9 – Connector Variant

N = No variant

### 10 – Performance/Construction

S = Standard IL (A-B)

O = Optimized (A-B)

N = Ultra (A-B)

### 11 – Other

N = No variant

### 12 – Unit of Length

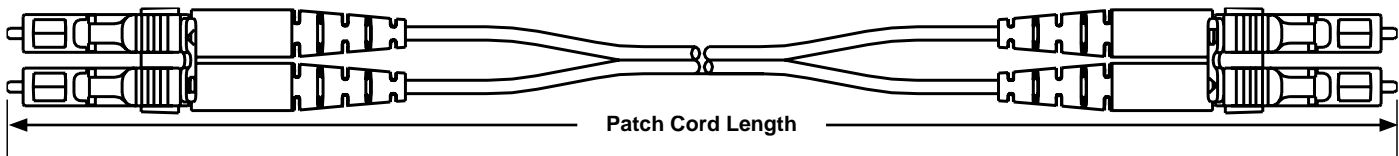
M = Meters

### 13, 14, 15 – Length

001-050

Note: For hybrid cords, the SC connector is always on End B.

## fiber optic patch cord detail



Other options are available as follows; contact Panduit for part number:

Fiber Type: OM4+(50/125µm Signature Core™)

Cable Type: 3.0mm

Jacket Type: OFNG (General Rated)

Connector Type: ST, FC, SC/APC, E2000, MTRJ Female, FJ Jack Keyed, FJ Plug Keyed, LC Keyed, FJ Jack, FJ Plug, MTRJ Male

Performance/Construction: Optimized IL – Straight Thru (A-B), Optimized IL – Flipped (A-A), Standard IL – Flipped (A-A)

Other: Non-standard colored cable

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