



Panduit ® Opti-Core ® Fiber Optic Cable

High-Speed Fiber Cabling Systems

Panduit provides high bandwidth and mission-critical physical infrastructures in data center, enterprise, and campus networks with comprehensive fiber optic systems that deliver high performance, reliability, and scalability. The deployment of high-speed cabling systems has been increasing rapidly as data centers enable their physical infrastructure with 10 Gb/s capacity to support server virtualization, I/O consolidation, and convergence of backbone applications.

Structured Cabling Infrastructure

A properly designed and implemented cabling infrastructure is a fundamental asset of every business. Carefully planning a structured cabling solution facilitates the delivery of new services, lowers network maintenance costs, and increases productivity. New high-bandwidth applications enable organizations to better fulfill their need for productivity and innovation in a rapidly changing world.

Innovative Data Center Infrastructure Solutions

Panduit provides a comprehensive, intelligent data center offering that supports best practice methodologies. Our data center solutions enable physical to logical architecture integration, and deliver robust, scalable physical infrastructures that address:

- Visibility and control for managing and automating real-time data processes and documentation
- · Convergence of new technologies and high-speed data applications
- Operational efficiency through process improvement and IT initiatives, such as cooling conservation through energy efficient data cabinets
- · Capacity management for greater real estate utilization
- Modular pods designed to support high-density applications and provide consistent, reliable deployments while lowering
 infrastructure risk and costs

Panduit's intelligent data center solutions facilitate faster implementation and simple specification, streamlining the process of designing, specifying, installing, and managing the increasingly complex physical infrastructure necessary to optimize your data center. Panduit knows the data center space intimately. We help you discover tangible infrastructure and business process improvements that increase functionality, interoperability, and manageability of mission-critical operations across your entire organization.

High Speed Data Transport Solutions

High Speed Data Transport (HSDT) Solutions are a set of complementary copper and optical fiber technologies for mission critical data center applications, spanning storage and compute requirements and leading edge architectures. Based on an understanding of today's vital business and technology challenges and how they impact data centers, Panduit has created best-in-class physical infrastructure solutions for HSDT. Panduit provides the broadest offering of end-to-end HSDT solutions supporting all data center architectures. Designed for high-density/high-speed applications, Panduit HSDT solutions are backed by comprehensive research and development programs to ensure high network performance, systems reliability, energy efficiencies, and seamless integration.

PanNet® System Warranty

All Panduit channels are field tested by Panduit Certified Installers (PCI) using industry standard hand-held devices which provide verified network performance, and ensures your network operates at optimal performance.

Cable Fire Ratings Reference Guide

Cable fire ratings need to be considered when specifying cabling infrastructure to ensure local building codes are met. The below rating guide provides the information needed to determine which rating is appropriate for different installation environments.

Plenum Rated Cable (OFNP)

A Plenum Rating (OFNP) signifies cable that has passed stringent burn testing and is suitable for installation into air plenum spaces. OFNP cables have fire-resistance and low smoke production characteristics. They can be installed in ducts, plenums, and other spaces used for building airflow. This is the highest fire rating fiber cable and no other cable types can be used as substitutes.

Plenum Rated Cable (OFCP)

A Plenum Rating (OFCP) differs from OFNP in that the cable contains metallic elements, typically armor, and therefore, conducts electricity. All other aspects of this rating are the same as OFNP.

Riser Rated Cable (OFNR)

A Riser Rating (OFNR) is commonly required when cables are run between floors through open vertical shafts. OFNR cables are used in Riser areas which are building vertical shafts or runs from one floor to another floor. OFNR cables cannot be installed in plenum areas since they do not have the required smoke rating as plenum rated cables. OFNP plenum cables can be used as substitutes for OFNR Riser cables.

Riser Rated Cable (OFCR)

A Riser Rating (OFCR) differs from OFNR in that the cable contains metallic elements, such as a layer of armor, and therefore, conducts electricity. All other aspects of this rating are the same as OFNR.

Low Smoke Zero Halogen (LSZH)

A Low Smoke Zero Halogen Rating (LSZH) is sometimes referred to as low toxicity cable. When burned, PVC-based cables produce a cloud of toxic smoke containing corrosive compounds such as hydrochloric acid. The LSZH cables do not contain the Halogen type compounds that form these toxic substances. Smoke emitted from burning LSZH cables do not produce the toxic halogen-based gasses previously mentioned. LSZH ratings are expressed as OFN-LS or OFNR-LS if the cable also meets the requirements of a OFNR rated cable.

Non-Flame Rated

Outside Plant (OSP) cables are intended for outdoor use only. Typically, these cables are constructed using varying densities of Polyethylene, (PE) in the outer jacket, and perhaps in other OSP cable components. Because cables without flame ratings do not contain flame suppressants and emit noxious gasses when burned, building codes often restrict the distance installers are permitted to route inside buildings before termination.

Fiber Cable for Americas

(North America and Latin America)

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, routing in tight spaces such as panels, cable trays, and fiber-to-the-desk (FTTD) applications.



Strength members Optical fiber Outer jacket 900µm buffer

Character Example

S

0

1 and 2 - Fiber Product

FS = Fiber - OM1, OM2, OS2

FO = Fiber - OM3, OM4

3 - Cable Construction I = Interconnect cable

4 - Flame Rating

P = Plenum R = Riser

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

 $6 = OM1 6.25//125 \mu m$

 $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

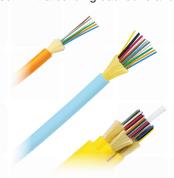
02 = 2-fiber

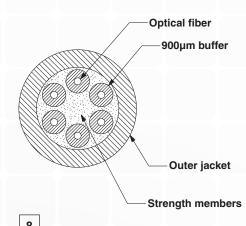
8 - RoHS

Y = RoHs compliant

Opti-Core® Indoor Distribution Cable

For indoor use in intra-building backbone and horizontal installations.





Character

D

0

6 and 7 - Fiber Count

06 = 6-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

72 = 72-fiber

Example

1 and 2 - Fiber Product

3 - Cable Construction

FS = Fiber - OM1, OM2, OS2

FO = Fiber - OM3, OM4

D = Distribution cable

S

4 - Flame/Smoke Rating

R = Riser (OFNR) P = Plenum (OFNP)

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

6 = OM1 62.5/125µm

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125 \mu m$

8 - RoHS

Y = RoHS compliant

4 Visit www.panduit.com for more information.

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibers

These cables provide an effective solution for inter-building and building transition applications.



Optical fiber **Buffer** Aramid strength members [∠]Outer jacket

Character Example

F

S

Κ

R

1

2

1 and 2 - Fiber Product

FS = Fiber - OM1, OM2, OS2

FO = Fiber - OM3, OM4

3 - Cable Construction

K = Indoor/outdoor tight buffered unarmored

4 - Flame/Smoke Rating

R = Riser

P = Plenum

5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 6.25//125µm

5 = OM2 50/125µm

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber

72 = 72-fiber 08 = 8-fiber

12 = 12-fiber

1A = 144-fiber (Riser only)

24 = 24-fiber

96 = 96-fiber

36 = 36-fiber

48 = 48-fiber

Opti-Core® Indoor/Outdoor All-Dielectric Cable

Allows installation using loose tube cable methods within buildings and outdoor environments for transitional aerial, duct applications, and entrance facilities.



Water-blocking strength members **Dry-blocked** buffer tube Rip cord 250µm optical fibers (up to 12) Flame retardant outer jacket Outer strength members

Character

Example

1

2 S 3 C 4

5 5

6 0 7 6 8 Υ

1 and 2 - Fiber Product

FS = Fiber - OM1, OM2, OS2

FO = Fiber - OM3, OM4

3 - Cable Construction

C = Indoor/outdoor central tube (up to 12 fibers)

N = Indoor/outdoor stranded tube (24 fibers and greater)

4 - Flame Rating

R = Riser

P = Plenum

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

 $6 = OM1 62.5/125 \mu m$ $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125 \mu m$

6 and 7 - Fiber Count

06 = 6-fiber

12 = 12-fiber

24 = 24 fiber

36 = 36 fiber

48 = 48 fiber

72 = 72 fiber

96 = 96 fiber

1A = 144 fiber

Y = RoHS compliant

8 - RoHS

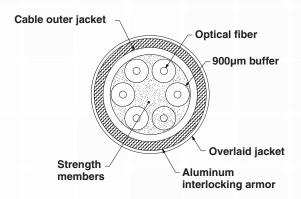
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Opti-Core® Interlocking Armored Cable Offering

Opti-Core® Indoor Interlocking Armored Cable

Used in intrabuilding backbone, building backbone, and horizontal installations and harsh environments.

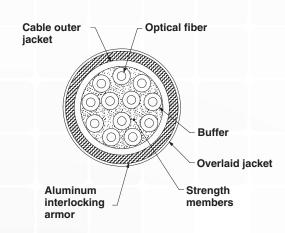




Opti-Core® Indoor/Outdoor Interlocking Armored Cable with Tight Buffered Fibers

For use indoors and outdoors. Interlocking aluminum armor eliminates the need for inner duct or conduit.

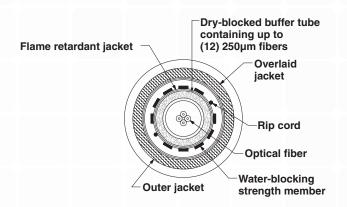




Opti-Core® Indoor/Outdoor Interlocking Armored Cable

For use indoor and outdoors. Central loose tube constructions. Interlocking aluminum armor eliminates the need for inner duct or conduit.





Character Example 1 F 2 S 3

4 P 5

6

8 Y

1 and 2 - Fiber Product

FS = Fiber – OM1, OM2, OS2

FO = Fiber – OM3, OM4

3 - Cable Construction

G = Indoor/outdoor interlocking armored central tube (up to 12 fibers)

M = Indoor/outdoor interlocking armored stranded tube (24 fibers and greater)

L = Indoor/outdoor tight buffered

P = Indoor interlocking armored 4 - Flame Rating

R = Riser

P = Plenum

5 - Fiber Type

9 = OS2 9/125μm 6 = OM1 62.5/125μm

 $5 = OM2 50/125 \mu m$

X = OM3 10G 50/125µm

Z = OM4 10G 50/125µm

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber

08 = 8-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber 48 = 48-fiber

72 = 72 fiber

96 = 96-fiber

1A = 144-fiber

8 - RoHS

Y = RoHS compliant

Fiber Cable for Americas

(North America and Latin America)

Opti-Core® Dielectric Conduited Fiber (DCF) Optic Cable

For indoor use in intra-building backbone and horizontal installations.



Cable outer jacket

Aramid strength members

Dielectric conduit

Buffer

Character Example 1 F 2 S 3 A 4 D 5

6 1 7

8

9 B 10 L

Lxumpic

1 and 2 – Fiber Product FS = OM1, OM2, OS2 FO = OM3, OM4

3 - Cable Construction

A = Dielectric Conduited Distribution (indoor

4 - Flame/Smoke Rating

D = Dual rated riser (OFNR) and low smoke zero halogen 5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 6.25/125µm

 $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber

08 = 8-fiber 12 = 12-fiber 8 - Dash

9 and 10 - Jacket color

BL = Black

Opti-Core® Gel-Free All-Dielectric Outside Plant Cable

For use outdoors in aerial and duct applications.



Dry-blocked buffer tube containing 6 or 12 fibers

Central strength member

Outer strength members

Filler tube

Water-blocking tape

Character Example 1 F 2 O 3 T 4 N

5 X

6 7 0 6

1 and 2 - Fiber Product

FS = Fiber – OM1, OM2, OS2

FO = Fiber – OM3, OM4

3 - Cable Construction

T = Outside plant stranded cable (all fiber counts)

4 - Flame Rating

N = Non-rated

5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 6.25//125µm

 $5 = OM2 50/125 \mu m$

X = OM3 10G 50/125μm

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

06 = 6-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

72 = 72-fiber

72 = 72-fiber 96 = 96-fiber

1A = 144-fiber

Opti-Core® Gel-Free Armored Outside Plant Cable

Corrugated steel armor provides superior crush resistance for extended durability in direct burial applications.



Character Example

1 and 2 - Fiber Product

1 F

FS = Fiber - OM1, OM2, OS2

FO = Fiber - OM3, OM4

2

3 W 4 N 5 X

3 - Cable Construction

W = Outside plant armored stranded cable (all fiber counts)

4 - Flame/Smoke Rating

N = Non-rated

Dry-blocked buffer tube containing 6 or 12 fibers

Central strength member

Outer strength members

Filler tube

Corrugated steel armor

5 - Fiber Type

6

0

9 = OS2 9/125µm

6 = OM1 6.25/125µm

7

6

 $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$ $Z = OM4 10G 50/125\mu m$ 6 and 7 - Fiber Count

06 = 6-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber 48 = 48-fiber

72 = 72-fiber

96 = 96-fiber

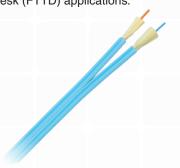
1A = 144-fiber

Fibre Cable for EMEA

(Europe, Middle East, and Africa)

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, and for routing in tight spaces such as panels, cable trays, and fibre-to-the-desk (FTTD) applications.



Cable print 900µm Buffer legend Strength 900µm Buffer members **Optical fibre** Outer jacket

Character

0

Example

1 and 2 - Fibre Product FP = Fibre - OM1, OM2, OS2 FQ = Fibre - OM3. OM4

I = Interconnect zip-cord cable

3 - Cable Construction

4 - Flame Rating

L = Low smoke zero halogen (LSZH)

5 - Fibre Type

 $9 = OS2 9/125 \mu m$

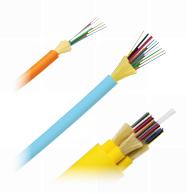
5 = OM2 50/125µm

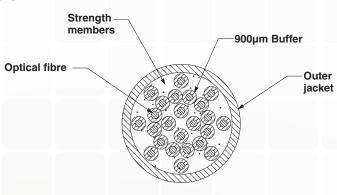
X = OM3 10G 50/125μm $Z = OM4 10G 50/125\mu m$

6 = OM1 62.5/125µm

Opti-Core® Indoor Distribution Cable

For indoor use in intrabuilding backbone and horizontal installations.





Character Example

F

2 Р D

9

2 4

1 and 2 - Fibre Product

FP = Fibre - OM1, OM2, OS2

FQ = Fibre - OM3, OM4

3 - Cable Construction

D = Distribution cable

4 - Flame/Smoke Rating

L = Low smoke zero halogen (LSZH)

5 - Fibre Type

 $9 = OS2 9/125 \mu m$

 $6 = OM1 62.5/125 \mu m$

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fibre Count

6 and 7 - Fibre Count

02 = 2-fibre

04 = 4-fibre

08 = 8-fibre

12 = 12-fibre

24 = 24-fibre

36 = 36-fibre

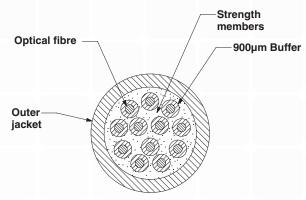
72 = 72-fibre

(Europe, Middle East, and Africa)

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibres

For indoor and outdoor use.





Character Example 1 F 2

3 K 4

6

7

1 and 2 - Fibre Product

FP = Fibre - OM1, OM2, OS2

FQ = Fibre – OM3, OM4

3 – Cable Construction
K = Indoor/outdoor tight buffered unarmored

4 - Flame Rating

L - Low smoke zero halogen

5 - Fibre Type

 $9 = OS2 9/125 \mu m$

6 = OM1 62.5/125µm

5 = OM2 50/125µm

 $X = OM3 10G 50/125 \mu m$

Z = OM4 10G 50/125µm

6 and 7 - Fibre Count

02 = 2-fibre

04 = 4-fibre

06 = 6-fibre

08 = 8-fibre 12 = 12-fibre 24 = 24-fibre 36 = 36-fibre

48 = 48-fibre

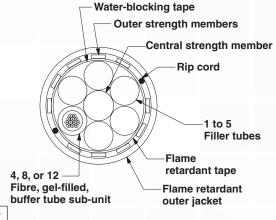
72 = 72-fibre

96 = 96-fibre

Opti-Core® Indoor/Outdoor All-Dielectric Cable

For use indoor or outdoors. Central and stranded loose tube constructions are all-dielectric.





Character

Example

2 P 3 N

4 L

3

7

1 and 2 - Fibre Product

FP = Fibre - OM1, OM2, OS2

FQ = Fibre - OM3, OM4

3 - Cable Construction

C = Indoor/outdoor central tube (up to 24 fibres)

N = Indoor/outdoor stranded tube (36 fibres and greater)

4 - Flame Rating

L = Low smoke zero halogen (LSZH) 5 - Fibre Type

9 = OS2 9/125µm

 $6 = OM1 62.5/125 \mu m$ $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

Z = OM4 10G 50/125µm

6 and 7 - Fibre Count

04 = 4-fibre

08 = 8-fibre

12 = 12-fibre

24 = 24-fibre

36 = 36-fibre

48 = 48-fibre 72 = 72-fibre

96 = 96-fibre

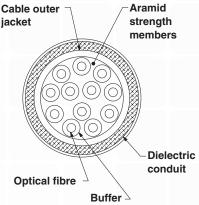
Fibre Cable for EMEA

(Europe, Middle East, and Africa)

Opti-Core® Dielectric Conduited (DCF) Fibre Optic Cable

For indoor use in intrabuilding backbone and horizontal installations.





S

1

Gel-filled tube containing

up to 12 fibre

9 В 10

Character

Example

1 and 2 - Fibre

FS= OM1, OM2, OS2 FO= OM3, OM4

3 - Cable Construction

A = Dielectric conduited distribution (indoor)

4 - Flame/Smoke Rating

D = Dual rated riser (OFNR) and low smoke zero halogen (LSZH)

5 - Fibre Type

 $9 = OS2 9/125 \mu m$

6 = OM1 6.25/125µm

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fibre Count

02 = 2-fibre

04 = 4-fibre

06 = 6-fibre

08 = 8-fibre 12 = 12-fibre 8 - Dash

9 and 10 - Jacket color

Rip cord

Central strength member

> Strength member

Filler tube Water-blocking tape

BL = Black

Opti-Core® Gel-Filled All-Dielectric Outside Plant Cable

For use outdoors in aerial or duct applications. Stranded loose tube constructions are all-dielectric. No need to ground or bond.





Character Example

2

Т

6

7 1 2

1 and 2 - Fibre Product

FP = Fibre - OM1, OM2, OS2 FQ = Fibre - OM3, OM4

3 - Cable Construction

U = Indoor/outdoor central tube (up to 24 fibres)

T = Indoor/outdoor stranded tube (all fibre counts)

4 - Flame Rating

N = Non-rated

5 - Fibre Type

 $9 = OS2 9/125 \mu m$ $6 = OM1 62.5/125 \mu m$

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

Outer jacket

 $Z = OM4 10G 50/125 \mu m$

6 and 7 - Fibre Count

06 = 6-fibre

08 = 8-fibre

12 = 12-fibre

24 = 24-fibre

36 = 36-fibre

48 = 48-fibre

72 = 72-fibre

96 = 96-fibre

1A = 144-fibre

Opti-Core® Gel-Filled Single Armor Single Jacket Outside Plant Cable

For use outdoors in direct burial applications. Central loose tube constructions are armored with corrugated steel tape for greater crush resistance.



Rip cord

Flame retardant jacket

Gel-filled tube containing 24 – 250µm fibers

Corrugated steel armor

Water blocking strength member

Character Example 1 F 2 P 3 S 5

1

7

1 and 2 – Fibre Product FP = Fibre – OM1, OM2, OS2 FQ = Fibre – OM3, OM4 3 - Cable Construction

S = Gel-filled single armor single jacket outside plant cable

4

4 - Flame Rating

N = Non-rated

5 - Fibre Type

9 = OS2 9/125μm 6 = OM1 62.5/125μm

5 = OM2 50/125μm X = OM3 10G 50/125μm

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fibre Count

04 = 4-fibre 06 = 6-fibre

08 = 8-fibre

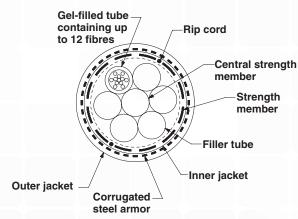
12 = 12-fibre

24 = 24-fibre

Opti-Core® Gel-Filled Single Armor Double Jacket Outside Plant Cable

For use outdoors in direct burial applications. Stranded loose tube constructions are armored with corrugated steel tape for greater crush resistance.





Character Example 1 F

2

3 Q

4 N

5

6

7

8 B

1 and 2 - Fibre Product

FP = Fibre – OM1, OM2, OS2 FQ = Fibre – OM3, OM4

3 - Cable Construction

Q = Gel-filled single armor double jacket outside plant cable 4 - Flame Rating

N = Non rated

5 - Fibre Type

9 = OS2 9/125μm 6 = OM1 62.5/125μm

5 = OM2 50/125μm

 $X = OM3 10G 50/125\mu m$ $Z = OM4 10G 50/125\mu m$ 6 and 7 - Fibre Count

02 = 2-fibre 04 = 4-fibre 06 = 6-fibre 08 = 8-fibre

08 = 8-fibre 12 = 12-fibre

24 = 24-fibre 36 = 36-fibre 48 = 48-fibre

72 = 72-fibre 96 = 96-fibre 1A = 144-fibre

8 - Fibre Cable

B = single armor double jacket stranded tube

Fiber Cable for APAC

(Asia Pacific)

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, routing in tight spaces such as panels, cable trays, and fiber-to-the-desk (FTTD) applications.



Strength members Optical fiber Outer jacket 900µm buffer

Character Example

6

0

2

Υ

1 and 2 - Fiber Product FL = Fiber - OS2, OM1, OM2, OM3, OM4

F

3 - Cable construction

I = Interconnect zipcord

4 - Flame/Smoke Rating

L = Low smoke zero halogen (LSZH)

R = Riser

5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 6.25/125µm

5 = OM2 50/125µm

 $X = OM3 10G 50/125\mu m$ $Z = OM4 10G 50/125 \mu m$

6 and 7 - Fiber Count

02 = 2-fiber

8 -RoHS

Y = RoHs compliant

Optical fiber

900µm buffer

Y = RoHS compliant

8 - RoHS

Opti-Core® Indoor Distribution Cable

For indoor use in intrabuilding backbone and horizontal installations.



Strength members Outer jacket

Character **Example**

0

1 and 2 - Fiber Product

FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 - Cable Construction

D = Distribution cable 4 - Flame/Smoke Rating

> L = Low smoke zero halogen (LSZH)

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

6 = OM1 62.5/125µm

 $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber

08 = 8-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

14 Visit www.panduit.com for more information.

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibers

For use indoor and outdoors.



Strength members Optical fiber 900µm Buffer Outer jacket

Character Example

1 2

1 and 2 - Fiber Product

FL = Fiber - OM1, OM2, OS2, OM3, OM4

3 - Product Type

K = Indoor/outdoor tight buffered unarmored 4 - Flame/Smoke Rating

R = Riser (ONFR) L = Low Smoke Źero halogen (LSZH)

5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 62.5/125µm

 $5 = OM2 \, 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

04 = 4-fiber

06 = 6-fiber

08 = 8-fiber

12 = 12-fiber

16 = 16-fiber

24 = 24-fiber

48 = 48-fiber

72 = 72-fiber

Opti-Core® Indoor/Outdoor All-Dielectric Cable

For use indoor or outdoors. Central loose tube and stranded loose tube constructions are all-dielectric.



Central loose tube Water-blocking gel 250µm coated optical fiber Rip cord Outer jacket Water-blocking glass yarn

Character

Example

2

С

6 0 8 Υ

1 and 2 - Fiber Product

FL = Fiber - OM1, OM2, OS2, OM3, OM4

3 - Product Type

C = Indoor/outdoor central tube (up to 12 fibers)

N = Indoor/outdoor stranded tube (24 fibers and greater)

4 - Flame/Smoke Rating

R = Riser (OFNR)

L = Low smoke zero halogen (LSZH)

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

2

6 = OM1 62.5/125µm

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

08 = 8-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

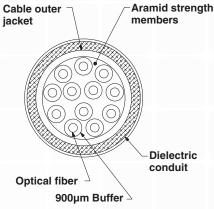
48 = 48-fiber

Fiber Cable for APAC (Asia Pacific)

Opti-Core® Dielectric Conduited (DCF) Fiber Optic Cable

For indoor use in intrabuilding backbone and horizontal installations.





Character

1

1

9 В 10

Example

1 and 2 - Fiber Product FS= OM1, OM2, OS2

FO= OM3, OM4 3 – Cable Construction

A = Dielectric conduited distribution (indoor) 4 - Flame/Smoke Rating

D = Dual rated riser (OFNR) and low smoke zero halogen (LSZH)

5 - Fiber Type

 $9 = OS2 9/125 \mu m$

 $6 = OM1 6.25/125 \mu m$

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125\mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber 08 = 8-fiber

12 = 12-fiber

8 - Dash

9 and 10 - Jacket color

BL = Black

48 = 48-fiber

72 = 72-fiber

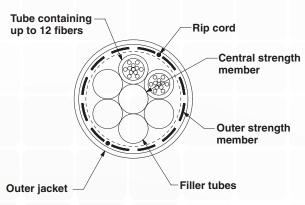
96 = 96-fiber

1A = 144-fiber

Opti-Core® Gel-Filled All-Dielectric Outside Plant Cable

For use outdoors in aerial or duct applications. Stranded constructions are all-dielectric. Gel-filled. Non-rated PE outer jacket.





Character Example

F

2

4 Ν

5 5 6 1 7 2

1 and 2 - Fiber

FL = Fiber - OS2, OM1, OM2, OM3, OM4

3 - Cable Construction

T = Outside plant stranded cable (all fiber counts)

4 - Flame/Smoke Rating

N = Non-rated

Т 5 - Fiber Type

3

9 = OS2 9/125µm

6 = OM1 62.5/125µm

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

04 = 4-fiber

06 = 6-fiber

08 = 8-fiber

12 = 12-fiber

24 = 24-fiber

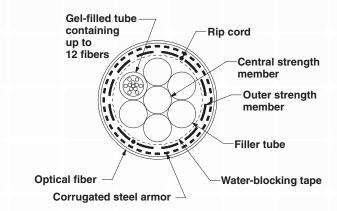
36 = 36-fiber

16 Visit www.panduit.com for more information.

Opti-Core® Gel-Filled Armored Outside Plant Cable

For use outdoors in direct burial applications. Stranded loose tube constructions are armored with corrugated steel tape for greater crush resistance. Gel-filled. Non-rated PE outer jacket.





Character Example 1 F 2 L 3 W 4 N 5

7

1 and 2 - Fiber Product

FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 - Cable Construction

W = Outside plant armored stranded cable (all fiber counts)

4 - Flame/Smoke Rating

N = Non-rated

5 - Fiber Type

9 = OS2 9/125µm

6 = OM1 62.5/125µm

 $5 = OM2 50/125 \mu m$

 $X = OM3 10G 50/125 \mu m$

 $Z = OM4 10G 50/125\mu m$

6 and 7 - Fiber Count

02 = 2-fiber

6

1

04 = 4-fiber 06 = 6-fiber

08 = 8-fiber

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

72 = 72-fiber

96 = 96-fiber

1A = 144-fiber

OptiCam® Pre-Polished Cam Fiber Optic Termination Kit

- For termination of all Panduit OptiCam® Pre-Polished and Field Polish Connectors
- OptiCam® Termination Tool simplifies tooling and termination, and virtually eliminates operator error by providing visual indication of proper termination after the cam step has been completed
- · No adhesive or electricity required for pre-polished termination
- Include installation instructions and stripping templates for all Panduit® OptiCam® Pre-Polished Connectors;
 also available on www.panduit.com

Field Polish Fiber Optic Termination Kit

- Fast acting adhesive; no long curing epoxy required for field polish termination
- FIELDKIT provides consumable for terminating up to 200 field polish connectors
- Include installation instructions and stripping templates for all Panduit Field Polish Connectors;
 also available on www.panduit.com



FIELDKIT for use with Field Polished Fiber Optic Connectors



FCAMKIT for use with Pre-Polished Fiber Optic Connectors

OptiCam® Pre-Polished and Field Polish Fiber Optic Connectors

- TIA/EIA-604 FOCIS compatible connectors
- Exceed TIA/EIA-568-B.3 requirements
- Connector housing and boot colors follow TIA/EIA-568-C.3 suggested color identification scheme
- Non-optical disconnect maintains data transmission under tensile loads for jacketed cable
- · Quick installation; provide field termination in less than half the time of field polish connectors
- Patented re-termination capability provides yield rates approaching 100%
- Factory pre-polished fiber endface eliminates time-consuming field polishing to reduce installation costs, labor, scrap and the number of tools required
- Cam activated fiber and buffer clamp mechanisms provide superior fiber and buffer retention less sensitivity to fiber tensile loading

Opti-Cam® Pre-Polished Fiber Optic Connectors LC OptiCam® Pre-Polished Fiber Optic Connectors

Quick installation - provides field termination in less than half the time of field polish connectors. Patented re-termination capability.



selection information

Part Number	Connector Type	Ferrule Material	Fiber	Ferrule Finish	Backbone Color	Boot Color	Average Insertion Loss**	Return Loss
FLCSMCXAQY	Simplex	Zirconia	10 GbE 50/125µm (laser optimized) OM3/OM4	SPC	Agua	Aqua	0.3dB	, 06dD
FLCDMCXAQY	Duplex	Ceramic			Aqua			>26dB
FLCSMC5BLY	Simplex	Zirconia	50/125μm OM2	SPC	Black	Black	0.3dB	, 00dD
FLCDMC5BLY	Duplex	Ceramic						>20dB
FLCSMC6BLY	Simplex	Zirconia	00 5/405 0144	SPC	Electric	Black	0.040	>20dB
FLCDMC6BLY	Duplex	Ceramic	62.5/125μm OM1	5PC	Ivory	ыаск	0.3dB	>200B
FLCSSCBUY	Simplex	Zirconia	9/125μm OS1/OS2	LIBC	Blue	Blue	0.3dB	> E0dB
FLCDSCBUY	Duplex	Ceramic		UPC	Blue			>50dB

^{*}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

SC OptiCam® Pre-Polished Fiber Optic Connectors



selection information

Part Number	Connector Ferrule Type Material		Fiber	Ferrule Finish	Housing Color	Backbone Color	Boot Color	Average Insertion Loss**	Return Loss
FSCMCXAQ	Simplex	Zirconia	10 GbE 50/125µm (laser	000		A	Aqua		
FSCDMCXAQ	Duplex	Ceramic	optimized) OM3/OM4	SPC	Black	Aqua		0.3dB	>26dB
FSCMC5BL	Simplex	Zirconia		SPC	Black	Black	Black	0.3dB	
FSCDMC5BL	Duplex	Ceramic	50/125μm OM2						>20dB
FSCMPC5BL	Simplex	Composite							ı
FSCMC6BL	Simplex	Zirconia				Electric Ivory	Black	0.3dB	
FSCDMC6BL	Duplex	Ceramic	62.5/125µm OM1	SPC	Electric Ivory				>20dB
FSCMPC6BL	Simplex	Composite			1.51 y	1.01 y			
FSCSCBU	Simplex	Zirconia Ceramic	9/125μm OS1/OS2	UPC	Blue	Blue	Blue	0.3dB	>50dB

^{**}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

ST OptiCam® Pre-Polished Fiber Optic Connectors



selection information

Part Number	Connector Type	Ferrule Material	Fiber	Ferrule Finish	Backbone Color	Boot Color	Average Insertion Loss**	Return Loss
FSTMCXAQ	Simplex	Zirconia Ceramic	10 GbE 50/125µm (laser optimized) OM3/OM4		Aqua	Aqua	0.3dB	>26dB
FSTMC5BL	Simplex	Zirconia Ceramic	50/125μm OM2	SPC	Black	Black	0.3dB	>20dB
FSTMC6BL	Simplex	Zirconia Ceramic	62.5/125µm OM1		Black	Black	0.3dB	>20dB
FSTSCBU	Simplex	Zirconia Ceramic	9/125µm OS1/OS2	UPC	Blue	Blue	0.3dB	>50dB

^{**}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

Field Polish Fiber Optic Connectors

LC OptiCam® Field Polish Fiber Optic Connectors

Non-optical disconnect maintains data transmission under tensile loads for jacketed cable. Tight buffered fiber cable type recommended.



selection information

Part Number	Connector Type	Cable Type	Fiber	Ferrule	Housing Color	Boot Color	Average Insertion Loss*	Return Loss
FLCSMEIY	Simplex	900µm buffered fiber and 1.6mm – 2.0mm jacketed cable						
FLCSM3.0EI	Simplex	3.0mm jacketed cable	OM1	Zirconia Ceramic	Electric Ivory	Electric		
FLCDMEIY	Duplex	1.6mm – 2.0mm jacketed cable	Multimode			lvory	0.1dB	>20
FLCDM900EIY	Duplex	900µm buffered fiber						
FLCDM3.0EI	Duplex	3.0mm jacketed cable						
FLCSMBLY	Simplex	900µm buffered fiber and 1.6mm – 2.0mm jacketed cable						
FLCSM3.0BL	Simplex	3.0mm jacketed cable	OM2,	Zirconia	Black I	Black	0.1dB	
FLCDMBLY	Duplex	1.6mm – 2.0mm jacketed cable	OM3, OM4 Multimode	Ceramic				>20
FLCDM900BLY	Duplex	900µm buffered fiber	- Widitifficac					
FLCDM3.0BL	Duplex	3.0mm jacketed cable						

^{*}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

SC OptiCam® Field Polish Fiber Optic Connectors







Part Number	Connector Type	Cable Type	Fiber	Ferrule	Housing Color	Boot Color	Average Insertion Loss*	Return Loss
FSCM5BL	Simplex	900µm buffered fiber and 3.0mm jacketed cable						
FSCM2.05BL	Simplex	900 micron buffered fiber and 1.6 – 2.0mm jacketed cable			Black	Black		
FSCDM5BL	Duplex	3.0mm jacketed cable						
FSCMBL	Simplex	900µm buffered fiber and 3.0mm jacketed cable	Multimoda Zirconia				0.1dB	>20
FSCMRD	Simplex	900µm buffered fiber and 3.0mm jacketed cable	Multimode	Ceramic		Red	0.105	>20
FSCM2.0BL	Simplex	900µm buffered fiber and 1.6mm – 2.0mm jacketed cable			Electric Ivory	Black		
FSCM2.0RD	Simplex	900µm buffered fiber and 1.6mm – 2.0mm jacketed cable				Red		
FSCDM	Duplex	3.0mm jacketed cable				Red and Black		
FSCSBU	Simplex	900µm buffered fiber and 3.0mm jacketed cable	Singlemode	Zirconia	Blue	Dive	0.15dB	>40
FSCS2.0BU	Simplex	900µm buffered fiber and 1.6mm – 2.0mm jacketed cable	Sirigierilode	Ceramic	Dide	Blue		>40

^{*}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

ST OptiCam® Field Polish Fiber Optic Connectors



selection information

Part Number	Connector Type	Ferrule Material	Fiber	Ferrule Finish	Housing Color	Backbone Color	Boot Color	Average Insertion Loss*	Return Loss
FSTMABL	Simplex	Zirconia Ceramic	Multimode	UPC	Black	Nickel Plated Zinc	Black	0.15dB (multimode)	>20dB (multimode)
FSTMARD	Simplex	Zirconia Ceramic	Multimode	UPC	Red	Nickel Plated Zinc	Red	0.15dB (multimode)	>20dB (multimode)
FSTSABU	Simplex	Zirconia Ceramic	Singlemode	UPC	Blue	Nickel Plated Zinc	Blue	0.20dB (single- mode)	>40dB (singlemode)

^{*}All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

Optical Fiber Color Coding

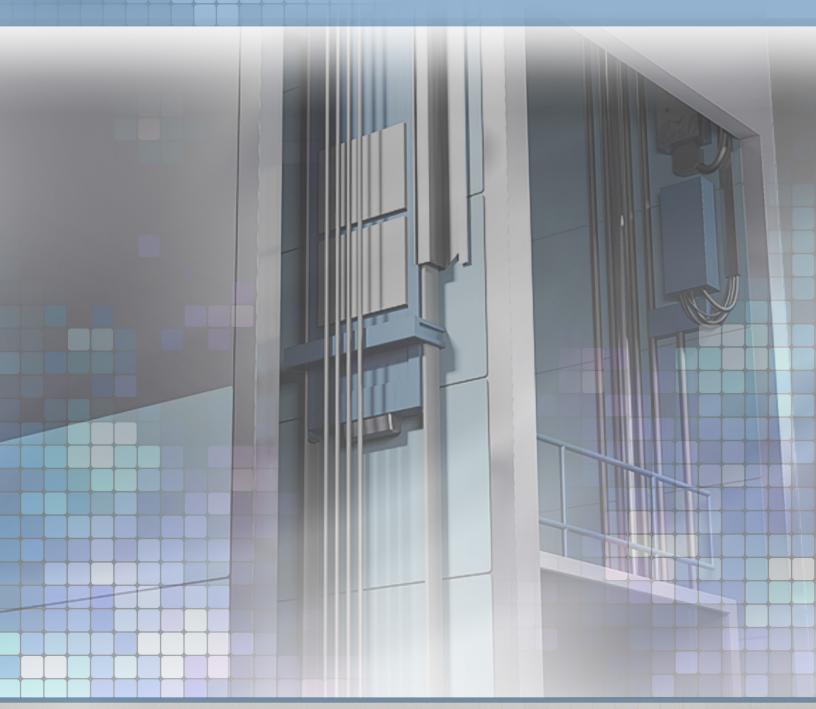
TIA 598-C

The Telecommunications Industry Association's TIA-598-C Optical Fiber Cable Color Coding, is an American National Standard, that provides all necessary information for color-coding optical fiber cables in a uniform manner. It defines identification schemes for fibers, buffered fibers, fiber units, and groups of fiber units within outside plant and premises optical fiber cables. This standard allows for fiber units to be identified by means of a printed legend. The legend will contain a corresponding printed numerical position number and/or color for use in identification.

TIA-598-C Fiber Color Code Chart

1	Blue	13	Blue with black tracer
2	Orange	14	Orange with black tracer
3	Green	15	Green with black tracer
4	Brown	16	Brown with black tracer
5	Slate	17	Slate with black tracer
6	White	18	White with black tracer
7	Red	19	Red with black tracer
8	Black	20	Black with black tracer
9	Yellow	21	Yellow with black tracer
10	Violet	22	Violet with black tracer
11	Rose	23	Rose with black tracer
12	Aqua	24	Aqua with black tracer

Contact Customer Service for fiber cable minimum order quantities, lead times, and stocked availability.



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