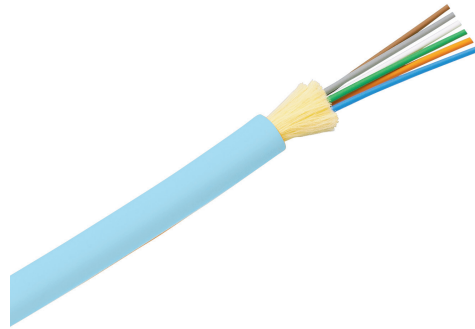


## technical information

Opti-Core® Fiber Optic Distribution Cable is an integral part of the Panduit end-to-end fiber optic solution, designed to support today's data needs while meeting tomorrow's ever-advancing network requirements. Opti-Core® Fiber Optic Distribution Cable is used within buildings to provide high-density connectivity and ease of installation. Applications include intra building backbones, routing between telecommunications rooms and connectorized cables in riser and plenum environments. Opti-Core® Fiber Optic Distribution Cable meets or exceeds the requirements of Telcordia GR-409 and with relevant EIA/TIA-455 series FOTPs for fiber optic cables. Opti-Core® Fiber Optic Distribution Cable features the highest quality OM3 and OM4 laser optimized fiber to support 10 Gb/s applications while maintaining compatibility with existing 50µm multimode systems. Standard singlemode and multimode distribution cable is available in fiber counts from 6 to 144 fibers. Distribution cable in 6, 12, and 24-fiber counts in a "single jacket" designs feature 900µm tight-buffered fibers surrounded by aramid yarn strength members. Larger distribution cable (36 fibers and greater) features a "sub-unit" design that simplifies fiber identification, provides easy access and routing of the fibers and increases cable durability with a dielectric central strength member.



## application

For indoor use in intra-building and horizontal installations.

## standards

UL-1666 NFPA 262 ROHS Compliant	ANSI/ICEA S-83-596 CSA 22.2 Telcordia GR-409
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## construction

Inner sheath	PVC	
Outer sheath	PVC	
<b>Mechanical Properties</b>	<b>Riser</b>	<b>Plenum</b>
Tensile strength (< 12 fibers)	Installation: 300 lb. (1335N) Long term: 100 lb. (440 N)	Installation: 100 lb. (440 N) Long term: 30 lb. (132 N)
Tensile strength (>24 fibers)	Installation: 600 lb. (2670 N) Long term: 180 lb. (800 N)	Installation: 300 lb. (1335 N) Long term: 100 lb. (440 N)
Compressive strength (crush)	57lbs/inch for up to 24 fibers and 125lbs/inch for higher fiber counts	
Impact	3 at 4.4 Nm	
Torsion	10 Cycles	
Temperature range	Storage: -40°F to 158°F (-40°C to 70°C) Operation: -4°F to 158°F (-20°C to 70°C) Installation: 4°F to 158°F (-20°C to 70°C)	40°F to 158°F (40°C to 70°C) -4°F to 158°F (-20°C to 70°C) 32°F to 140°F (-0°C to 60°C)

# Opti-Core® Fiber Optic Distribution Cable

## physical properties – riser

Fiber Count	Cable OD Inches	Long Term Bend Radius Inches	Installation Bend Radius Inches	Cable Weight Lb/kft
2	0.19	3.7	1.9	15
4	0.22	4.4	2.2	19
6	0.24	4.7	2.3	21
8	0.25	4.9	2.5	23
12	0.28	5.5	2.8	30
24	0.32	6.4	3.2	43
36	0.65	12.9	6.5	155
48	0.63	12.6	6.3	135
60	0.66	6.6	9.9	165
72	0.79	16.0	8.0	204
96	0.92	18.4	9.2	282
144	0.95	19.0	9.5	333

## physical properties – plenum

Fiber Count	Cable OD Inches	Installation Bend Radius Inches	Long Term Bend Radius Inches	Cable Weight Lb/kft
2	0.16	3.2	1.6	9
4	0.17	3.4	1.7	14
6	0.18	3.6	1.8	15
8	0.20	4.0	2.0	18
12	0.23	4.6	2.3	22
24	0.30	6.0	3.0	42
36	0.66	13.2	6.6	177
48	0.66	13.2	6.6	166
60	0.62	9.3	6.2	168
72	0.79	15.7	7.9	257
96	0.91	18.2	9.1	356
144	0.89	13.4	9.0	318

## technical properties

	Singlemode	OM1	OM2	OM3	OM4
Cabled Attenuation (maximum)					
850nm		3.0dB/km	3.0dB/km	3.0dB/km	3.0dB/km
1300nm		1.0dB/km	1.0dB/km	1.0dB/km	1.0dB/km
1310nm	.7dB/km				
1550nm	.7dB/km				
Core Diameter	8.2µm *				
Cladding Diameter	125µm ± 0.7µm	62.5µm ± 2.5µm	50µm ± 2.5µm	50µm ± 2.5µm	50µm ± 2.5µm
Coating Diameter	245µm ± 10µm	245µm ± 10µm	245µm ± 5µm	245µm ± 5µm	245µm ± 5µm
Overfilled Bandwidth- 850nm (MHz-km)	—	≥200	≥500	≥1500	≥3500
Overfilled Bandwidth- 1300nm (HMz-km)	—	≥500	≥500	≥500	≥500
Effective Modal Bandwidth- 850nm (MHz-km)	—	≥220	≥950	≥2000	≥4700
Compliance	ITU-T G.652 (A,B,C, D), ITU-T G.657.A1 IEC 60793-2-50, ISO 11801 OS2, TIA-492-CAAB, Telcordia GR-20	TIA-492AAAA IEC 60793-2-10	TIA-492AAAB, TIA-492AAAC, TIA-492AAAD, IEC 60793-2-10	TIA-492AAAB, TIA-492AAAC, TIA-492AAAD, IEC 60793-2-10	TIA-492AAAB, TIA-492AAAC, TIA-492AAAD, IEC 60793-2-10

# Opti-Core® Fiber Optic Distribution Cable

## fiber color code

1 Blue	7 Red
2 Orange	8 Black
3 Green	9 Yellow
4 Brown	10 Violet
5 Slate	11 Rose
6 White	12 Aqua

## ordering information

\*Example: FODRZ12Y – Fiber, Distribution, Riser rated, OM4, 12-fiber

Character	1	2	3	4	5	6	7	8
Example*	F	O	D	R	Z	1	2	Y

### 1 & 2 – Fiber Product

FS = Fiber – OM1, OM2, OS1

FO = Fiber – OM3, OM4

### 3 – Cable Construction

D = Distribution

### 4 – Flame Rating

R = Riser

P = Plenum

### 5 – Fiber Type

9 = Singlemode (OS2 ITU G.652.D)

6 = Multimode (OM1)

5 = Multimode (OM2)

X = Multimode (OM3)

Z = Multimode (OM4)

### 6 & 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

60 = 60-fiber

72 = 72-fiber

96 = 96-fiber

1A = 144-fiber

### 8 – RoHS

Y = Yes

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