

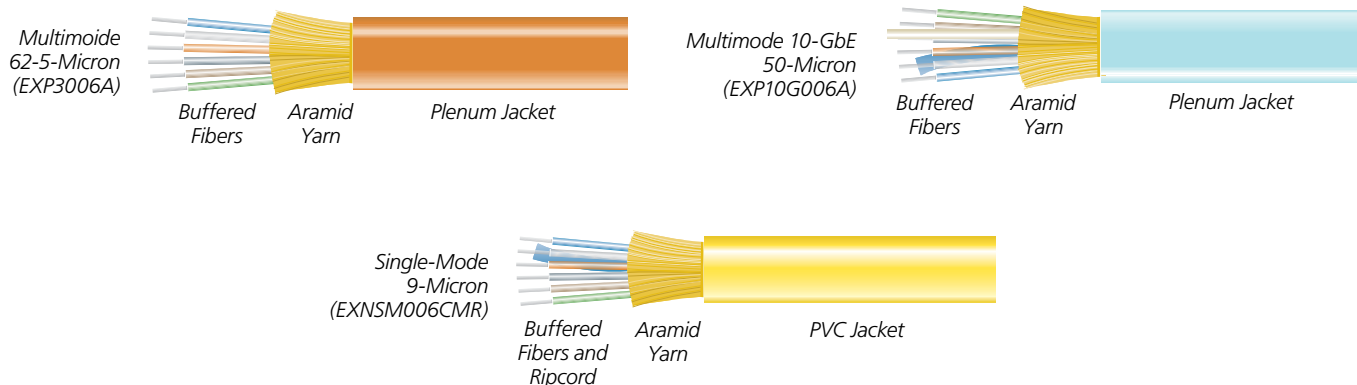
Fiber Product Specifications and Submittal

Connect with Black Box fiber solutions.

- » Bulk Cable
- » Patch Cable
- » Termination Enclosures



Tight-Buffered, Distribution-Style Fiber Optic Bulk Cut-to-Length Cable



- Why waste money? Get your cable cut to the exact lengths you need.
- Designed for backbone intrabuilding runs.
- Rated for indoor use.
- Can be terminated into connectors in loaded panels.
- Ideal for routing between closets and equipment rooms.
- 10-GbE laser-optimized rivals single-mode fiber for performance but at a better price.
- Use with either LED or laser light sources.
- With a laser light source, effective modal bandwidth (EMB) increases to 2000 MHz.
- Works in 10-GbE runs up to 300 meters.
- All: Made in the U.S.A.
- ♦♦ **WARRANTY** — All: 1 Year

Construction

- A 900- μ m coating provides easy stripping and handling.
- Features tight-buffered fiber, aramid yarn, ripcord, plenum jacket.

Applications

- Gigabit Ethernet.
- 10-Gigabit Ethernet.
- Indoor high-performance applications:
 - Backbone.
 - Horizontal.
 - Intrabuilding.

Compliance

- TIA/EIA 568-A, GR-409-CORE.
- RoHS: 2002/95 EC.
- C (ETL): 115304.
- TAA compliant.

NOTE: Other fiber counts and zipcord cables are available. For details, contact our FREE Tech Support or go to blackbox.com.

Learn more at blackbox.com/go/Resources

White paper: Fiber Optic Technology

Video: F3X Fiber Fault Finder Gun

Black Box Explains: OM3 and OM4, and many more

TECH SPECS

Attenuation (Maximum) — Multimode 62.5-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.2 dB/km; Multimode 50-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.5 dB/km; Multimode 10-GbE 50-micron: 850 nm: 3.0 dB/km; 1300 nm: 1.2 dB/km; Single-Mode 9-micron: 850 nm: N/A; 1300 nm: 0.5 dB/km; 1550 nm: 0.5 dB/km

Bend Radius — 6-fiber: Installation: 3.0" (7.6 cm), Long-Term: 2.0" (5.1 cm); 12-fiber: Installation: 3.5" (8.9 cm), Long-Term: 2.5" (6.4 cm)

Diameters — 62.5-micron, 50-micron, or 9-micron core, 125-micron cladding, 900-micron buffering

Distance (Minimum) — Multimode 62.5-micron: Gigabit Ethernet: 850 nm: 300 m; 1300 nm: 550 m; 10-Gigabit Ethernet: 850 nm: 32 m; 1300 nm: N/A; Multimode 50-micron: Gigabit Ethernet: 850 nm: 600 m; 1300 nm: 600 m; 10-Gigabit Ethernet: 850 nm: 82 m; 1300 nm: N/A; Multimode 10-GbE 50-micron: Gigabit Ethernet: 850 nm: 1000 m; 1300 nm: 550 m; 10-Gigabit Ethernet: 850 nm: 300 m; 1300 nm: N/A; Single-mode 9-micron: Gigabit Ethernet: 850 nm: N/A; 1300 nm: 5000 m; 10-Gigabit Ethernet: 850 nm: N/A; 1300 nm: 10,000 m

Jacket — Multimode 62.5 and 50-micron: orange; Multimode 10-GbE 50-micron: aqua; Single-mode: yellow

Outer Diameter (Nominal) — 6-fiber: 0.17" (0.4 cm); 12-fiber: 0.22" (0.6 cm)

Overfill Launch Bandwidth (Minimum) — Multimode 62.5-micron: 850 nm: 200 MHz/km; 1300 nm: 600 MHz/km; Multimode 50-micron: 850 nm: 500 MHz/km; 1300 nm: 500 MHz/km; Multimode 10-GbE 50-micron: 850 nm: 1500 MHz/km; 1300 nm: 500 MHz/km

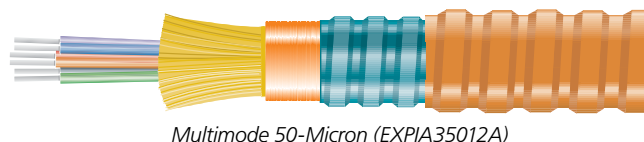
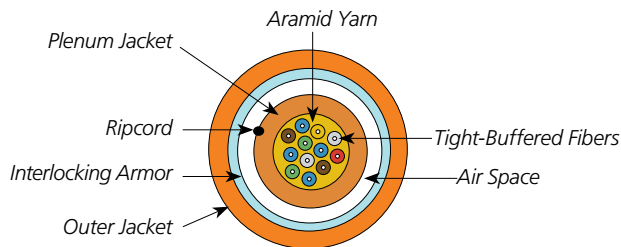
Temperature — Installation/operation: 32 to 158° F (0 to 70° C); Storage: -40 to +167° F (-40 to +75° C)

Tension — 6-fiber: Installation: 286 lb. (1272 N), Long-Term: 143 lb. (636 N); 12-fiber: Installation: 239 lb. (1063 N), Long-Term: 119 lb. (529 N);

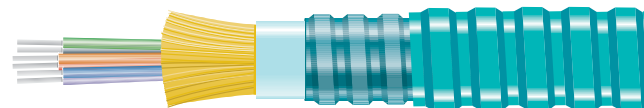
Weight — Multimode 6-fiber: 13 lb./1000 ft. (20 kg/km); Multimode 12-fiber: 20 lb./1000 ft. (30 kg/km); Single-Mode: 6-fiber: PVC: 12 lb./1000 ft. (17 kg/km); Plenum: 13 lb./1000 ft. (20 kg/km); 12-fiber: PVC: 17 lb./1000 ft. (25 kg/km); Plenum: 20 lb./1000 ft. (30 kg/km)

Item			Code	
Tight-Buffered, Distribution-Style Fiber Optic Bulk Cable, Custom Lengths				
Multimode	62.5-Micron	Plenum CMP	6-Fiber EXP3006A	
			12-Fiber EXP3012A	
	50-Micron	Plenum CMP	6-Fiber EXP35006A	
			12-Fiber EXP35012A	
50-Micron	10-GbE Laser Optimized OM3	Plenum CMP	6-Fiber EXP10G006A	
			12-Fiber EXP10G012A	
	Single-Mode	9-Micron	PVC CMR	6-Fiber EXNSM006CMR
			Plenum CMP	12-Fiber EXNSM012CMR
			6-Fiber EXPSM006CMP	
			12-Fiber EXPSM012CMP	

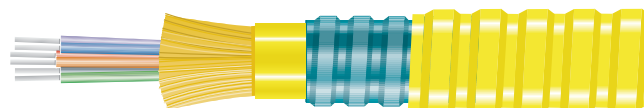
Tight-Buffered, Distribution-Style, Interlocking Armored Fiber Optic Bulk Cable



Multimode 50-Micron (EXPIA35012A)



Multimode 50-Micron 10-GbE (EXPIA10G12A)



Single-Mode 9-Micron (EXPIASM12A)

This fiber cable is jacketed in aluminum interlocking armor so you can run it anywhere in your building. There's no need to pull innerduct.

- Save a ton on labor and materials. Pull this cable once instead of pulling conduit and then pulling cable.
- Cable is jacketed in aluminum interlocking armor so you can run it anywhere in your building.
- Lightweight and flexible but extraordinarily strong.
- Rugged and rodent resistant.
- Save plenum space. Cables are almost an inch smaller than innerducts.

- 10-GbE laser-optimized cable rivals single-mode fiber for performance, but at a better price.
- Use 10-GbE with either LED or laser light sources.
- With a laser light source, 10-GbE effective modal bandwidth (EMB) increases to 2000 MHz.
- Works in 10-GbE runs up to 300 meters

- All: Made in the U.S.A.
- ♦♦ **WARRANTY** — All: Lifetime

Construction

- Features tight-buffered fiber, aramid yarn, ripcord, air space, plenum jacket, interlocking armor, outer jacket.

Applications

- Gigabit Ethernet.
- 10-Gigabit Ethernet.
- Harsh, industrial environments.
- Manufacturing plants.
- Areas requiring rodent resistance.

Compliance

- TIA/EIA 568-B3, GR-409-CORE.
- UL® listed.

TECH SPECS

Attenuation (Maximum) —

- Multimode 62.5-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.2 dB/km;
- Multimode 50-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.5 dB/km;
- Multimode 10-GbE 50-micron: 850 nm: 3.0 dB/km; 1300 nm: 1.2 dB/km;
- Single-Mode 9-micron: 850 nm: N/A; 1300 nm: 0.5 dB/km; 1550 nm: 0.5 dB/km

Bend Radius — Installation: 8.0" (20.3 cm), Long-Term: 5.3" (13.5 cm)

Diameters — 62.5-micron, 50-micron, or 9-micron core, 125-micron cladding, 900-micron buffering

Distance (Minimum) — Multimode 62.5-micron: Gigabit Ethernet: 850 nm: 300 m;

- 1300 nm: 550 m; 10-Gigabit Ethernet: 850 nm: 32 m; 1300 nm: N/A;
- Multimode 50-micron: Gigabit Ethernet: 850 nm: 600 m; 1300 nm: 600 m;
- 10-Gigabit Ethernet: 850 nm: 82 m; 1300 nm: N/A;
- Multimode 10-GbE 50-micron: Gigabit Ethernet: 850 nm: 1000 m;
- 1300 nm: 550 m; 10-Gigabit Ethernet: 850 nm: 300 m; 1300 nm: N/A;
- Single-mode 9-micron: Gigabit Ethernet: 850 nm: N/A; 1300 nm: 5000 m;
- 10-Gigabit Ethernet: 850 nm: N/A; 1300 nm: 10,000 m

Jacket — Multimode 62.5 and 50-micron: orange;

- Multimode 10-GbE 50-micron: aqua;
- Single-mode: Yellow

Outer Diameter (Nominal) — 0.53" (1.4 cm)

Overfill Launch Bandwidth (Minimum) —

- Multimode 62.5-micron: 850 nm: 200 MHz/km; 1300 nm: 600 MHz/km;
- Multimode 50-micron: 850 nm: 500 MHz/km; 1300 nm: 500 MHz/km;
- Multimode 10-GbE 50-micron: 850 nm: 1500 MHz/km; 1300 nm: 500 MHz/km;
- Single-mode: N/A

Temperature — Installation/operation: 32 to 158° F (0 to 70° C);

- Storage: -40 to +167° F (-40 to +75° C)

Tension — Installation: 239 lb. (1063 N), Long-Term: 119 lb. (529 N)

Weight — 132 lb./1000 ft. (196 kg/km)

Indoor/Outdoor Bulk Cable , p. 4.



Patch Cable, pp. 5–6.



Item

Code

Tight-Buffered, Distribution-Style, Interlocking Armored Fiber Optic Bulk Cable, Plenum (OFCP), Custom Lengths, 12-Strand

Multimode	62.5-Micron	EXPIA3012A
	50-Micron	EXPIA35012A
	50-Micron 10-GbE Laser-Optimized OM3	EXPIA10G12A
Single-Mode	9-Micron	EXPIASM12A

Indoor/Outdoor Tight-Buffered Multimode Fiber Optic Cable



Run this tight-buffered fiber cable anywhere—between and within buildings.
Shown: Multimode 62.5-Micron (EXPIO3012A)

- Can be pulled anywhere—between and within buildings.
- Meet GR-20-CORE water penetration requirements, which also helps ensure that any cable damage can be contained to a repairable length.
- Doesn't require termination within 50 feet (15.2 m) of building entrance.
- **◆◆ WARRANTY** — Lifetime

Construction

- UV stabilizer guards against sun exposure.
- Moisture resistant with water-blocking strength member.
- Outer jacket resists fungus, making it ideal for humid climates and underground runs.

Applications

- Riser and plenum.
- Within and between buildings.
- Underground.
- MSHA approved for mining.

Compliance

- TIA/EIA 568-A.
- GR-409-CORE.
- ICEA-S-104-696.
- RoHS: 2002/95 EC.

TECH SPECS

Attenuation (Maximum) — 62.5-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.2 dB/km; 50-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.5 dB/km
Bandwidth (OFL Minimum) —
 62.5-micron: 850 nm: 200 MHz/km; 1300 nm: 600 MHz/km;
 50-micron: 850 nm: 500 MHz/km; 1300 nm: 500 MHz/km
Bend Radius — Installation: 5.5 in. (14 cm); Long term: 2.8 in. (7 cm)
Diameter (Nominal) — 0.26" (7 mm)
Distance (Minimum) —
 62.5-micron: Gigabit Ethernet: 850 nm: 300 m; 1300 nm: 550 m;
 10-Gigabit Ethernet: 850 nm: 32 m;
 50-micron: Gigabit Ethernet: 850 nm: 600 m; 1300 nm: 600 m;
 10-Gigabit Ethernet: 850 nm: 82 m;
Temperature — Operating: -76 to +158° F (-60 to +185° C)
Tensile Load — Installation: 388 lb./ft. (1726 N); Long term: 194 lb./ft. (863 N)
Weight — 34 lb./1000 ft. (60 kg/km)

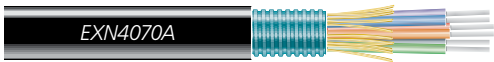
Item

Code

Indoor/Outdoor 12-Strand, Multimode Fiber Optic Cable, Plenum (OFNP), Custom Lengths	62.5-Micron	EXPIO3012A
	50-Micron	EXPIO35012A

Loose-Tube Fiber Optic Bulk Cable

Armored Loose-Tube Outside-Plant Fiber Optic Bulk Cable



Multimode,
62.5-Micron
(EXN4070A-1000)

Outdoor cable with a built-in conduit.

- Suitable for aerial lashed, duct, and direct-burial applications.
- Ripcord for faster cable entry and outer jacket removal.
- 2.5-mm flexible buffer tubes simplify routing and splicing.

Construction

- Color-coded fibers in buffer tubes stranded around a central member.
- Corrugated steel armor and Kevlar® strength members.
- Core is surrounded by an aramid yarn layer and jacketed with medium-density PVC.

Compliance

- Telcordia GR 20 CORE.
- ANSI/ICEA S-87-640.
- RUS.

TECH SPECS

Attenuation (Maximum) — Multimode: 850 nm: 3.5 dB/km; 1300 nm: 1.0 dB/km; Single-Mode: 1310 nm: 0.35 dB/km; 1383 nm: 0.35 dB/km; 1550 nm: 0.25 dB/km
Bandwidth (Minimum) — Multimode: 850 nm: 200 MHz/km; 1300 nm: 500 MHz/km
Bend Radius —
 Armored cable: Multimode: Load: 13" (33 cm); Operating: 9.8" (24.8 cm);
 Single-mode: Load: 9" (23 cm); No load: 5" (11 cm);
 Outside plant and indoor/outdoor: Load: 8" (20.3 cm); No load: 4" (10.2 cm)
Crush Resistance — Multimode: 55 lb. per inch for 10 minutes;
 Single-Mode: 9.7 lb. per inch for 10 minutes
Jacket Type — All except EXN4012A: Outdoor-rated medium density polyethylene (MDPE); EXN4012A: PVC
Outer Diameter — Armored: Multimode: 0.5" (1.27 cm); Single-Mode: 0.45" (1.1 cm);
 Outside-plant: Multimode: 0.4" (1.01 cm), Single-Mode: 0.45" (1.14 cm)
 Indoor/outdoor: 0.42" (1.06 cm)
Temperature — Armored and outside-plant: Installation: -22 to +158° F (-30 to +70° C);
 Operating: -40 to +158° F (-40 to +70° C); Storage: -40 to +158° F (-40 to +70° C);
 Indoor/outdoor: Installation: 14 to +176° F (-10 to +80° C);
 Operating: -40 to +176° F (-40 to +80° C)
Tensile Load — Armored and outside-plant: Multimode: Operation: 200 lb./ft. (890 N);
 Single-mode: Installation: 600 lbs./ft.
 Indoor/outdoor: operation: 200 lb./ft. (890 N)
Weight — Armored: multimode: 155 lb./1000 ft. (213 kg/km);
 Single-mode: 92 lb./1000 ft. (137 kg/km); Outside plant: 53 lb./1000 ft. (74 kg/km);
 Indoor/outdoor: 61 lb./1000 ft. (91 kg/km)

Loose-Tube Outside-Plant Fiber Optic Bulk Cable



Multimode,
62.5-Micron
(EXN3006A)

Outdoor cable for interbuilding runs.

- Use in extreme conditions—airial installations, ducts, or buried.
- Features buffered fibers, a ripcord, aramid yarn, and an outdoor-rated MDPE jacket.
- FDDI compliant.

Loose-Tube Indoor/Outdoor Fiber Optic Bulk Cable



Multimode,
62.5-Micron
(EXN4012A-1000)

Suitable for inter- and intrabuilding runs.

- Use for aerial, duct, tray, and riser applications.
- Riser rated to exceed the 50-foot restriction from the building entrance.
- Cables use dry-block technology to seal ruptures against moisture seepage and gel-filled buffer tubes to halt moisture migration.
- Designed with 12 250-µm fibers in buffer tubes around a central member.
- Includes ripcord, core binder, flame-retardant layer, overcoat, aramid yarn, and outer jacket.

- **◆◆ WARRANTY** — All: 1 Year

Item

Code

Armored Loose-Tube Outside-Plant Fiber Optic Bulk Cable, 1000-ft. (304.8-m)	Multimode	62.5-Micron	6-Fiber	EXN4070A-1000
			12-Fiber	EXN4075A-1000
	Single-Mode	9-Micron	24-Fiber	EXN5080A
Loose-Tube Outside-Plant Fiber Optic Bulk Cable, Custom Lengths	Multimode	62.5-Micron	6-Fiber	EXN3006A
			12-Fiber	EXN3012A
	Single-Mode	9-Micron	24 Fiber	EXN5080NA
Loose-Tube Indoor/Outdoor Fiber Optic Bulk Cable, 1000-ft. (304.8-m)	Multimode	62.5-Micron	12-Fiber	EXN4012A-1000

NOTE: For all, higher fiber count and custom lengths are available.

Multimode Duplex Fiber Optic Patch Cable

- Insertion loss of less than 3 dB.
- Ceramic connectors provide low signal loss and high reliability.
- Great for new buildings and upgrades to existing buildings.
- **◆◆ WARRANTY** — Lifetime

Low
0.3-dB
insertion
loss



Compliance

- UL® Listed.
- NEC® OFNR or OFNP.
- CSA FT-4 or FT-6.
- RoHS: 2002/95 EC.

Construction

- Features two 900-µm buffered fibers, acrylate coating, aramid yarn strength members, PVC or plenum jacket, and ceramic connectors.

TECH SPECS

Attenuation (Maximum) —

62.5-micron: 850 nm: 3.5 dB;
1300 nm: 1.5 dB;
50-micron: 850 nm: ≤2.3 dB;
1300 nm: ≤0.7 dB;

Bandwidth (Maximum) —

62.5-micron: 850 nm: 160 MHz;
1300 nm: 500 MHz;
50-micron: 500 nm: 160 MHz

Bend Radius — 62.5-micron: Load:

1.98" (5 cm); Unload: 1.2" (3 cm);
50-micron: Load: 2.3" (5.8 cm);
Unload: 1.1" (2.9 cm)

Diameters — 900 µm buffering, 125 µm cladding

Insertion Loss — ≤ 0.3 dB

Outer Diameter — ST, SC: 2.9 mm

(0.11")/6.0 mm (0.23");
LC: 2.0 mm (0.07")/4.0 mm (0.15");
MT-RJ: 1.8 mm (0.07")/3.7 mm (0.14")

Standards — IEC 60793-2

Temperature — Operating: -4 to +176° F

(-20 to +80° C);

Storage: -40 to +176° F (-40 to +80° C)

Tensile Load — Short Term: 150 N

(33.75 lb./ft.);

Long Term: 80 N (18 lb./ft.)

Wavelength — 850/1300 nm

NOTE: 5-m cable is not available with ST-SC or MT-RJ–MT-RJ connectors.

10- and 20-meter lengths are available on some cables.

ST simplex cable is also available. Check with Customer Service.

*MT denotes MT-RJ.

Item

Multimode Duplex Fiber Optic Patch Cable

62.5-Micron	PVC Riser	1-m (3.2-ft.)	2-m (6.5-ft.)	3-m (9.8-ft.)	5-m (16.4-ft.)	10-m (32.8-ft.)	15-m (49.2-ft.)	20-m (65.6-ft.)	30-m (98.4-ft.)	Custom Lengths	Code
											EFN110-001M-XXXX
											EFN110-002M-XXXX
											EFN110-003M-XXXX
											EFN110-005M-XXXX
											EFN110-010M-XXXX
											EFN110-015M-XXXX
											EFN110-020M-XXXX
											EFN110-030M-XXXX
											EFN110-XXXX
	Plenum	10-m (32.8-ft.)									EFP110-010M-XXXX
		15-m (49.2-ft.)									EFP110-015M-XXXX
		30-m (98.4-ft.)									EFP110-030M-XXXX
		Custom Lengths									EFP110-XXXX

To order, replace the "Xs" with your choice of connectors.

STST	STSC	STLC	STMT*	SCSC
SCLC	SCMT*	LCLC	LCMT*	MTMT*
50-Micron	PVC Riser	1-m (3.2-ft.)		EFN60XX-001M
		2-m (6.5-ft.)		EFN60XX-002M
		3-m (9.8-ft.)		EFN60XX-003M
		5-m (16.4-ft.)		EFN60XX-005M
		10-m (32.8-ft.)		EFN60XX-010M
		Custom Lengths		EFN60XX

To order, replace the "Xs" with the number assigned to each connector.

ST-ST: 23	ST-SC: 24	ST-LC: 22	ST-MT-RJ: 27
SC-SC: 25	SC-LC: 21	SC-MT-RJ: 28	
LC-LC: 20	LC-MT-RJ: 29	MT-RJ-MT-RJ: 26	

10-Gigabit Multimode, 50-Micron Fiber Optic Patch Cable



Laser-
optimized
OM3



- Use with either LED or laser light sources.
- With a laser light source, bandwidth increases to 2000 MHz/km.
- Meets Optical Multimode 3 (OM3) standard for high-bandwidth communications. Rivals single-mode fiber in performance while being significantly less expensive.
- **◆◆ WARRANTY** — Lifetime

Construction

- Features tight-buffered fiber, aramid yarn strength members, and a flexible, flame-retardant PVC jacket with a UV-curable acrylate coating.

Compliance

- OM3.
- UL® Listed.
- NEC® OFNR or OFNP.
- CSA FT-4 or FT-6.
- RoHS: 2002/95 EC

Application

- 10-GbE up to 300 meters.
- Patches and interconnects.

TECH SPECS

Attenuation — ≤2.4 dB/km at 850 nm;

≤0.7 dB/km at 1300 nm

Bandwidth — 1500/500 MHz/km

OFL at 850/1310 nm

Distance — 10-GbE: 300 m

Fiber Type — Laser-optimized 50-micron, OM3

Outer Diameter —

STLC, SCLC, LCLC: 2.0 mm/4.2-mm;

STST, STSC, SCSC: 2.9 mm/6.0 mm

Temperature — -4 to +140° F

(-20 to +60° C)

Tensile Load — Short Term: 150 N

(33.75 lb./ft.);

Long Term: 80 N (18 lb./ft.)

Item

10-Gigabit Multimode, 50-Micron Fiber Optic Patch Cable, Zipcord, PVC

1-m (3.2-ft.)	EFNT010-001M-XXXX
2-m (6.5-ft.)	EFNT010-002M-XXXX
3-m (9.8-ft.)	EFNT010-003M-XXXX
5-m (16.4-ft.)	EFNT010-005M-XXXX
10-m (32.8-ft.)	EFNT010-010M-XXXX
Custom Lengths	EFNT010-XXXX

To order, replace the "Xs" with your choice of connectors.

STST	STSC	STLC	SCSC	SCLC	LCLC
------	------	------	------	------	------

Single-Mode Patch Cable, p. 6.



Single-Mode, 9-Micron, Duplex Fiber Optic Cable

Construction

- Features tight-buffered fiber with a dual-layer FCC acrylate fiber coating and aramid yard strength members.

Application

- 10-GbE, Gigabit Ethernet.
- Campus/backbone connections.

Compliance

- UL® Listed.
- NEC® OFNR or OFNP.
- ITU-T Recommendation G.652.D.
- TIA/EIA 492 CAAB.
- EN/IEC 60793-250 Type B1.3.
- Telcordia GR 20 CORE.
- RoHS: 2002/95 EC.

- **WARRANTY** — Lifetime

TECH SPECS

Attenuation — 1310 nm: ≤ 0.35 dB/km;
1550 nm: ≤ 0.21 dB/km
Diameters — 900 μm buffering,
125 μm cladding
Crush Resistance — 750 N/cm
Ferrule — Ceramic
Housing — Composite
Insertion Loss — ≤ 0.2 dB typical

Outer Diameter —
STST, STSC, SCSC: 2.9 mm/6.0 mm;
STLC, SCLC, LCLC: 2.0 mm/4.2 mm
Return Loss — ≥ 55 typical
Temperature — Operating:
-76 to +167° F (-60 to +185° C)
Tensile Strength —
240 N (54 lb./24.5 kg)
Wavelength — 1310 nm, 1550 nm



Single-Mode 9-Micron
(EFN310-STST)



Item

Single-Mode, 9-Micron, Duplex Fiber Optic Cable

Item	Length	Code
PVC	1-m (3.2-ft.)	EFN310-001M-XXXX
	2-m (6.5-ft.)	EFN310-002M-XXXX
	3-m (9.8-ft.)	EFN310-003M-XXXX
	5-m (16.4-ft.)	EFN310-005M-XXXX
	10-m (32.8-ft.)	EFN310-010M-XXXX
	15-m (49.2-ft.)	EFN310-015M-XXXX
	20-m (65.6-ft.)	EFN310-020M-XXXX
Plenum	30-m (98.4-ft.)	EFN310-030M-XXXX
	5-m (16.4-ft.)	EFP310-005M-XXXX
	10-m (32.8-ft.)	EFP310-010M-XXXX
	15-m* (49.2-ft.)	EFP310-015M-XXXX
	20-m*	EFP310-020M-XXXX
	30-m* (98.4-ft.)	EFP310-030M-XXXX

To order, replace the "Xs" with your choice of connectors.

STST STSC STLC SCSC SCLC LCLC

*Not available with ST-SC or SC-SC connectors.

Rackmount Fiber Panels, Preloaded

- Adapters feature high-retention phosphor bronze alignment sleeves suitable for most single-mode and all multimode applications.
- Swing-out fiber management tray makes it easy to maintain fiber optic cable bend-radius requirements.
- Fit 19" or 23" racks.
- **WARRANTY** — Lifetime

NOTE: Custom configurations are available for these panels and all the fiber termination enclosures featured on these two pages. For details, call our FREE Tech Support.

TECH SPECS

Adapters — Phosphorus bronze sleeves
Insertion Loss — Typical: 0.2 dB;
Maximum: /0.30 dB
Material — 16-gauge cold-rolled steel
RoHS — Yes

Size — 1.75"H (1U) x 17"W x 11"D
(4.4 x 43.2 x 27.9 cm)
Weight — 10.3 lb. (4.7 kg)

Item

Rackmount Fiber Panels, 1U, Preloaded with Single-Mode/Multimode Connectors with (24) Simplex ST
JPM370A-R2
with (12) Duplex SC Pairs
JPM375A-R2
with (12) Duplex LC Pairs
JPM380A
with (24) Duplex LC Pairs
JPM385A



Rackmount Fiber Cabinets

- 2U and 3U cabinets fit 19" or 23" racks and cabinets.
- Just snap in up to 6, 9, or 12 adapter panels (**below**).
- Lockable, smoked-plastic front door protects connections.
- A removable rear cover makes patch cords and pigtails accessible.
- **WARRANTY** — Lifetime

TECH SPECS

Material — 16-gauge cold-rolled steel
RoHS — Yes
Size — JPM418A-R4, JPM419A:
3.5"H (2U) x 17"W x 13.1"D
(8.9 x 43.2 x 33.3 cm);
JPM419A:
3.5"H (2U) x 18.6"W x 12.3"D
(8.9 x 47.2 x 31.2 cm);

JPM406A-R5: 5.25"H (3U) x 17"W x
13.7"D (13.3 x 43.2 x 34.7 cm)
Weight — JPM418A-R4: 16.5 lb. (7.5 kg);
JPM419A: 11 lb. (4.9 kg);
JPM406A-R5: 17.2 lb. (7.8 kg)

Item

Rackmount Fiber Cabinets
2U 6-Adapter Panel
JPM418A-R4
2U 9-Adapter Panel*
JPM419A
3U 12-Adapter Panel
JPM406A-R5

* Lock not included in the JPM419A. To add a lock, contact Tech Support.



Fiber Wall Cabinets

Open-Style Cabinets

- Low-profile cabinets conserve wall space and can be mounted almost anywhere.
- Interconnect to active equipment or patch vertical or horizontal runs.
- Snap in up to two or four adapter panels (**below**).

Lock-Style Cabinets

- Use when installing secure fiber networks.
- Separate lockable covers provide access to the users' side and the technician's side.
- Feature full front access.
- Snap in up to 4 or 12 adapter panels (**below**).

- **◆◆ WARRANTY** — All: Lifetime



TECH SPECS

Material — 16-gauge cold-rolled steel
RoHS — Yes
Size — JPM400A-R2: 10.5"H x 8.5"W x 2.5"D (26.7 x 21.6 x 6.4 cm);
 JPM401A-R2–JPM402A-R2: 12.1"H x 14"W x 3.4"D (30.7 x 35.6 x 8.6 cm);
 JPM403A-R2: 16"H x 14"W x 6.5"D (40.6 x 35.6 x 16.5 cm)
Weight — JPM400A-R2: 4.4 lb. (1.8 kg); JPM401A-R2: 9.5 lb. (4.3 kg);
 JPM402A-R2: 10 lb. (4.5 kg); JPM403A-R2: 18 lb. (8.2 kg)

Item	Code
Fiber Wall Cabinets	
Open-Style	
2-Adapter Panel	JPM400A-R2
4-Adapter Panel	JPM401A-R2
Lock-Style	
4-Adapter Panel	JPM402A-R2
12-Adapter Panel	JPM403A-R2

Rackmount Fiber Shelf

- Organize fiber connections and splice trays in 19" or 23" racks.
- Only 1U high. Panels are recessed horizontally.
- Splice tray stud enables you to install pigtail splice trays.
- Accepts three snap-in adapter panels (**below**).
- **◆◆ WARRANTY** — Lifetime



TECH SPECS

Material — 16-gauge cold-rolled steel
RoHS — Yes
Size — 1.75"H (1U) x 17"W x 11"D (4.4 x 43.2 x 27.9 cm)
Weight — 10.3 lb. (4.7 kg)

Item	Code
Rackmount Fiber Shelf, 1U, 3-Adapter Panel	JPM407A-R4

Click and find at blackbox.com.
 More fiber termination enclosures.

Adapter Panels



- Adapters snap easily into the fiber enclosures.
- **◆◆ WARRANTY** — Lifetime

RoHS — Yes except JPM417A

Item	Code
Standard Adapter Panels, Duplex Fiber	
(3) ST Pairs	JPM404A-R2
(3) SC Pairs	JPM405A-R2
(6) MT-RJ Pairs	JPM409A-R2
(6) LC Pairs	JPM410A-R2
4-Pack Jack Pack, Unloaded	JPM417A
Blank Adapter Panel	JPM408A-R2
HD Fiber Adapter Panels	
(4) ST Pairs	JPM411A-R2
(6) SC Duplex Pairs	
Blue	JPM412A-R2
Gray	JPM420A
Beige	JPM421
Yellow	JPM413A
Orange	JPM414A
(6) ST Pairs–(6) SC Pairs	JPM415A-R2
(8) MT-RJ Pairs	JPM416A-R2
(12) LC Pairs	JPM422A

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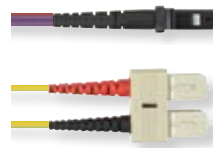
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