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.

**ATTENTION**
- All: 1 Year Warranty

**Construction**
- A 900-µm 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.

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**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: 2500 m; 1550 nm: 2500 m;

**Bend Radius**
- 6-fiber: Installation: 30 cm (1.2 m);
- 12-fiber: Installation: 45 cm (1.8 m);

**Distance (Minimum)**
- Multimode 62.5-micron: Gigabit Ethernet: 850 nm: 300 m; 1300 nm: 550 m;
- Multimode 50-micron: Gigabit Ethernet: 850 nm: 600 m; 1300 nm: 900 m;
- 10-Gigabit Ethernet: 850 nm: 32 m; 1300 nm: 55 m;

**Temperature**
- Installation/operation: -40 to +167°F (-40 to +75°C);
- Storage: -40 to +167°F (-40 to +75°C);

**Weight**
- Multimode 6-fiber: PVC: 13 lb./1000 ft. (20 kg/km);
- Plenum: 17 lb./1000 ft. (30 kg/km);
- Multimode 12-fiber: PVC: 20 lb./1000 ft. (30 kg/km);
- Plenum: 24 lb./1000 ft. (40 kg/km);
- Single-Mode 6-fiber: PVC: 12 lb./1000 ft. (17 kg/km);
- Plenum: 18 lb./1000 ft. (25 kg/km);
- 12-fiber: PVC: 23 lb./1000 ft. (35 kg/km);
- Plenum: 30 lb./1000 ft. (50 kg/km)

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**Item**

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

- 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.

ATTENUATION (MAXIMUM)
- Multi-mode 62.5-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.2 dB/km
- Multi-mode 50-micron: 850 nm: 3.5 dB/km; 1300 nm: 1.5 dB/km
- Multi-mode 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)
- Multi-mode 62.5-micron: Gigabit Ethernet: 850 nm: 300 m; 1300 nm: 550 m; 10-Gigabit Ethernet: 850 nm: 32 m; 1300 nm: N/A
- Multi-mode 50-micron: Gigabit Ethernet: 850 nm: 600 m; 1300 nm: 600 m; 10-Gigabit Ethernet: 850 nm: 82 m; 1300 nm: N/A
- Multi-mode 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 — Multi-mode 62.5 and 50-micron: orange;
- Multi-mode 10-GbE 50-micron: aqua;
- Single-mode: Yellow

OUTER DIAMETER (NOMINAL) — 0.53” (1.4 cm)

OVERFILL LAUNCH BANDWIDTH (MINIMUM)
- Multi-mode 62.5-micron: 850 nm: 200 MHz/km; 1300 nm: 600 MHz/km
- Multi-mode 50-micron: 850 nm: 500 MHz/km; 1300 nm: 500 MHz/km
- Multi-mode 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)

Item | Code
--- | ---
Tight-Buffered, Distribution-Style, Interlocking Armored Fiber Optic Bulk Cable, Plenum (OFCP), Custom Lengths, 12-Strand | EXPIA3012A
12-Strand | EXPIA35012A
10-GbE Laser-Optimized OM3 | EXPIA10G12A
Single-Mode 9-Micron | EXPIASM12A
Loose-Tube Fiber Optic Bulk Cable

**Loose-Tube Inside/Outdoor Fiber Optic Bulk Cable**

- Armored Loose-Tube Outside-Plant Fiber Optic Bulk Cable
- Loose-Tube Indoor/Outdoor Fiber Optic Bulk Cable
- Loose-Tube Outside-Plant Fiber Optic Bulk Cable

**TECH SPECS**

- **Attenuation (Maximum)** — Multimode: 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 (OFM 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)
- **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 +70°C)
- **Tensile Load** — Installation: 388 lbs./ft. (1726 N); Long term: 194 lbs./ft. (863 N)
- **Weight** — 34 lbs./1000 ft. (60 kg/km)

**Item** | **Code**
--- | ---
Indoor/Outdoor 12-Strand, Multimode Fiber Optic Cable, Plenum (OFNP) | EXP03012A
Custom Lengths | EXP035012A

**Loose-Tube Outside-Plant Fiber Optic Bulk Cable**

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

**TECH SPECS**

- **Multimode, 62.5-Micron (EXN4070A-1000)**
  - 724-746-5500 | blackbox.com
  - 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

**Item** | **Code**
--- | ---
Loose-Tube Outside-Plant Fiber Optic Bulk Cable, Custom Lengths | EXN3006A
12-Fiber | EXP0112A
6-Fiber | EXP0106A
24-Fiber | EXP0124A

**Loose-Tube Indoor/Outdoor Fiber Optic Bulk Cable**

- **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) | EXP04012A-1000
Multimode | EXP04070A-1000
9-Micron | EXP0409A-1000
6-Fiber | EXP0412A-1000
24-Fiber | EXP0424A-1000

**Loose-Tube Outside-Plant Fiber Optic Bulk Cable**

- **Weight** — 34 lbs./1000 ft. (60 kg/km)

**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

**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

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

- 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
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.

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

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<tr>
<td>30-m*</td>
<td>EFP310-030M-XXXX</td>
</tr>
</tbody>
</table>

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.

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 pigtailed accessible.
- 🚥 WARRANTY — Lifetime

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

**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)

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

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

**TECH SPECS**
Adapters — Phosphorus bronze sleeves
Insertion Loss — Typical:
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)
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)

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)

Adapter Panels

- Adapters snap easily into the fiber enclosures.  
- **WARRANTY** — Lifetime  
  **RoHS** — Yes except JPM417A

### TECH SPECS

**Material** — 16-gauge cold-rolled steel  
**RoHS** — Yes  
**Size** — JPM404A-R2: 1.5”H x 1.8”W x 3.5”D (3.8 x 4.6 x 8.9 cm); JPM407A-R2: 1.75”H (1U) x 17”W x 11”D (4.4 x 43.2 x 27.9 cm)  
**Weight** — JPM404A-R2: 0.4 lb. (0.2 kg); JPM407A-R2: 10.3 lb. (4.7 kg)

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