BLACK BOX®
NETWORK SERVICES

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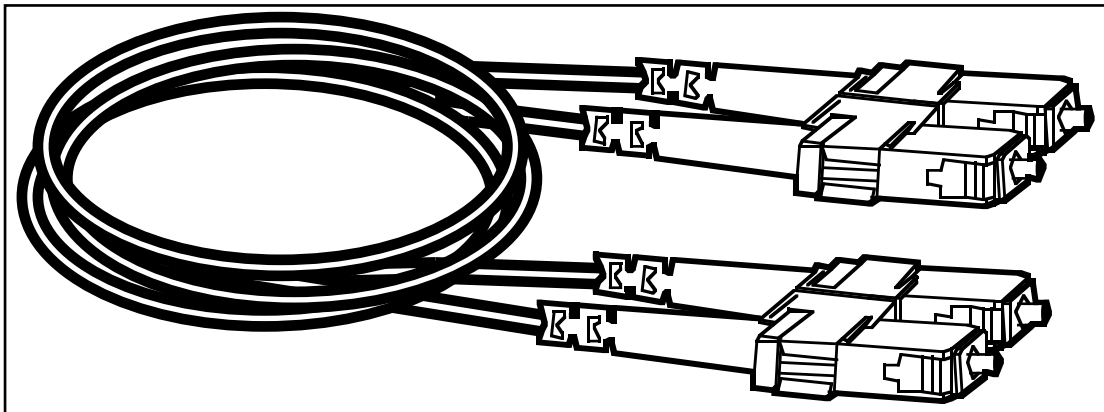
50-MICRON MULTIMODE DUPLEX FIBRE OPTIC CABLES



Get more bandwidth, more speed, and more distance with these cables.

Key Features

- ***Provides three times the bandwidth of 62.5-micron fibre cables.***
- ***Greater performance over longer distances.***
- ***Built for today's and tomorrow's high-speed networks.***
- ***Ceramic connectors provide low signal loss, high reliability, and long life.***
- ***Two 900-µm buffered fibers are surrounded by aramid yarn and PVC jacketing.***
- ***Immune to EMI/RFI.***

Holler if you like having greater amounts of bandwidth.

We hear you.

That's why Black Box brings you 50-Micron Multimode Duplex Fibre Optic Cables. These cables provide three times the bandwidth of 62.5-micron cables! That means you get reliable performance over long distances.

Speaking of distance, these cables support longer link lengths than 62.5-micron cable at 850 nm. While 62.5-micron fibre cables support 850-nm links up to 220 metres (721.8 ft.), our 50-Micron Multimode Duplex Fibre Optic Cables can be used in links as long as 550 metres (1804.5 ft.)!

Our 50-micron fibre cables are built for today's and tomorrow's networks. They're perfect for Ethernet, storage area networks, high-speed parallel optics interconnects, and other high-speed/high-capacity interconnect applications. This is the fibre cable you'll want to have for emerging technologies.

The 50-Micron Multimode Duplex Fibre Optic Cables feature two 900-µm TBII® buffered fibres surrounded by aramid yarn that protects the fibers from crushes and bends. Ceramic connectors provide low signal loss, high reliability, and extra durability. In addition, the cables have a flame-retardant jacket.

Like all fibre optic cables, our 50-micron solutions provide total immunity to electrical interference. They meet National Electrical Code® (NEC®) requirements, and are listed as Type OFNR and CSA FT-4.

Technically Speaking

As a general rule, use ceramic ferrules (used in the 50-Micron Multimode Duplex Fibre Optic Cables) for critical network connections, such as backbone cables or for connections that will be changed frequently. Ceramic ferrules are more precisely molded and fit closer to the fibre, which gives the fibre optic cables a lower optical loss.

Technically Speaking

As today's networks expand, the demand for more bandwidth and greater distances increases accordingly. Thus, there is a renewed interest in 50-micron fibre optic cable. Although introduced in 1976, 50-micron cable has not experienced the widespread use in North America that 62.5-micron cable has, which was introduced in 1986.

These cables share many characteristics. Although 50-micron fibre cable features a smaller core, which is the light-carrying portion of the fibre, both 50- and 62.5-micron cable use the same glass cladding diameter of 125 microns. Because they have the same outer diameter, both types of cable are equally strong and are handled in the same way. Also, 50-micron cable and 62.5-micron cable both use LED and laser light sources.

As with 62.5-micron cable, you can use 50-micron fibre in all types of applications: Ethernet, FDDI, 155-Mbps ATM, Token Ring, Fast Ethernet, and Gigabit Ethernet. It is recommended for all premise applications—backbone, horizontal, and intrabuilding connections—and it should be considered especially for any new construction and installations.

The big difference between 50-micron and 62.5-micron cable is in bandwidth—50-micron cable features three times the bandwidth of standard 62.5-micron cable. At 850 nm, it's rated at 500 MHz/km versus 160 MHz/km. The 850-nm wavelength is becoming more important as lasers are being developed and used more frequently as light sources for networks.

Other differences are distance and speed. The bandwidth an application needs depends on the data transmission rate. Usually, data rates are inversely proportional to distance. As the data rate goes up (MHz), the distance that rate can be sustained goes down. So a higher fibre bandwidth enables you to transmit at a faster rate or for longer distances. In short, 50-micron cable provides longer link lengths and/ or higher speeds in the 850-nm wavelength. For example, the proposed link length for 50-micron cable is 550 metres versus 220 metres for 62.5-micron cable.

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognise any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.

According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.

Specifications

Attenuation:
Maximum: 3.5 dB/km at 850 nm, 1.5 dB at 1300 nm;
Typical: 3 dB/km at 850 nm, 1 dB at 1300 nm

Bandwidth: 500 MHz/km at 850 nm; 500 MHz at 1300 nm

Bend Radius (Minimum):
Loaded: 5 cm (2 in.);
Installed: 3 cm (1.2 in.)

Buffering Diameter: 900 µm

Cladding Diameter: 125 µm

Core Diameter: 50 µm

Connectors: EFN6012: (2) SC;
EFN6013: (2) ST®;
EFN6014: (1) SC, (1) ST;
EFN6015: (2) LC;
EFN6016: (1) LC, (1) ST;
EFN6017: (1) LC, (1) SC

Connector Durability: ≤ 0.2 dB change, 1000 rematings, FOTP-21

Connector Tensile Strength: ≤ 0.2 dB change, 20 lb. FOTP-6

Ferrule: Ceramic

Fiber Count: 2

Fiber Type: Multimode (2.8 x 5.6 mm)

Operating Temperature: -4 to +158°F (-20 to +70°C)

Standards: NEC® OFNR, CSA FT-4, UL® 1666 flame resistance for riser and general building applications

Tensile Load (Maximum):
Short Term: 1000 N (225 lb./ft.);
Long Term: 480 N (108 lb./ft.)

Outer Diameter (Nominal): 0.11" x 0.22"

Weight: 9.4 lb./1000 ft. (14 kg/km)

Ordering Information

ITEM	CODE
50-Micron Multimode Duplex Fibre Optic Cables, 50-µm/125-µm, PVC	
SC–SC	
1-m (3.2-ft.)	EFN6012-001M
2-m (6.5-ft.)	EFN6012-002M
3-m (9.8-ft.)	EFN6012-003M
5-m (16.4-ft.)	EFN6012-005M
10-m (32.8-ft.)	EFN6012-010M
Custom Lengths	EFN6012
ST–ST	
1-m (3.2-ft.)	EFN6013-001M
2-m (6.5-ft.)	EFN6013-002M
3-m (9.8-ft.)	EFN6013-003M
5-m (16.4-ft.)	EFN6013-005M
10-m (32.8-ft.)	EFN6013-010M
Custom Lengths	EFN6013
ST–SC	
1-m (3.2-ft.)	EFN6014-001M
2-m (6.5-ft.)	EFN6014-002M
3-m (9.8-ft.)	EFN6014-003M
5-m (16.4-ft.)	EFN6014-005M
10-m (32.8-ft.)	EFN6014-010M
Custom Lengths	EFN6014

Ordering Information

ITEM	CODE
LC–LC	
1-m (3.2-ft.)	EFN6015-001M
2-m (6.5-ft.)	EFN6015-002M
3-m (9.8-ft.)	EFN6015-003M
5-m (16.4-ft.)	EFN6015-005M
10-m (32.8-ft.)	EFN6015-010M
Custom Lengths	EFN6015
LC–ST	
1-m (3.2-ft.)	EFN6016-001M
2-m (6.5-ft.)	EFN6016-002M
3-m (9.8-ft.)	EFN6016-003M
5-m (16.4-ft.)	EFN6016-005M
10-m (32.8-ft.)	EFN6016-010M
Custom Lengths	EFN6016
LC–SC	
1-m (3.2-ft.)	EFN6017-001M
2-m (6.5-ft.)	EFN6017-002M
3-m (9.8-ft.)	EFN6017-003M
5-m (16.4-ft.)	EFN6017-005M
10-m (32.8-ft.)	EFN6017-010M
Custom Lengths	EFN6017