



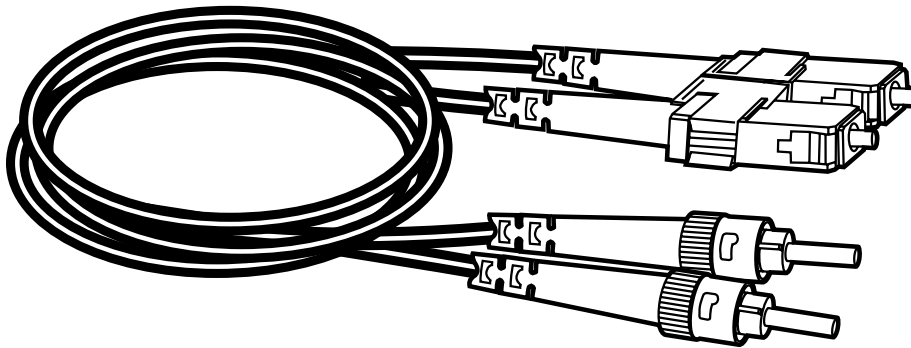
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Black Box Corporation.

BLACK BOX[®]

NETWORK SERVICES

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SINGLE-MODE, 9-MICRON DUPLEX FIBER OPTIC CABLES



Increase data transmission distance and speed without fear of interference.

Key Features

- ▶ **Easy to handle and use.**
- ▶ **9/125- μ m single-mode cable.**
- ▶ **Higher rate of data transmission than multimode fiber.**
- ▶ **One mode of propagation eliminates interference between wavelengths and reduces the need for repeaters.**
- ▶ **Choose from 14 different connector combinations.**

With Single-Mode Duplex Fiber Optic Cables, you get up to 50 times more distance than multimode fiber. And you can increase your throughput, too!

These single-mode fiberoptic cables are lighter and more durable than copper—which translates into easier handling and less replacement for you. And security isn't an issue—these cables can't be tampered with or have data taps installed.

The cables transmit data faster and over greater distances than multimode fibers—increasing the distance between repeaters.

Plus, they're immune to electromagnetic interference. You can install them safely with other fiber and/or copper cables without worrying about crosstalk.

These are the ideal cables to use to patch single-mode backbones to high-speed network devices, such as Gigabit Ethernet switches.

The PVC cable is certified OFNR for use as a riser cable. The plenum cable is certified OFNP for use in air plenums.

Specifications

Application: For duplex single-mode riser and plenum applications

Attenuation:
Maximum: 1.0/0.75 dB at 1310/1550 nm;
Typical: 0.5/0.4 dB at 1310/1550 nm

Bend Radius: Minimum 2" (5.1 cm) loaded, 1" (2.5 cm) unloaded

Buffer Diameter: 900 μ m

Cladding: 125 μ m

Conductors: 2

Core: 9 μ m

Distance: Serial Gigabit Ethernet: 5000 m at 1310 nm;
Serial 10 Gigabit Ethernet: 10,000/40,000 m at 1310/1550 nm

Ferrule: Ceramic

Housing: Composite

Insertion Loss: 0.2 dB typical

Tensile Loads (Maximum):

Short-term: 220 Newtons or 48 lbf;

Long-term: 66 Newtons or 15 lbf

Operating Temperature: 32 to 158°F (0 to 70°C)

Ordering Information

ITEM	CODE
Single-Mode, 9-Micron Duplex Fiber Optic Cables	
ST®-ST PVC	1-m (3.2-ft.).....EFN310-001M-STST
	2-m (6.5-ft.).....EFN310-002M-STST
	3-m (9.8-ft.).....EFN310-003M-STST
	5-m (16.4-ft.).....EFN310-005M-STST
	10-m (32.8-ft.).....EFN310-010M-STST
	15-m (49.2-ft.).....EFN310-015M-STST
	20-m (65.6-ft.).....EFN310-020M-STST
	30-m (98.4-ft.).....EFN310-030M-STST
	Custom Lengths.....EFN5009
Plenum	
	5-m (16.4-ft.).....EFP310-005M-STST
	10-m (32.8-ft.).....EFP310-010M-STST
	15-m (49.2-ft.).....EFP310-015M-STST
	30-m (98.4-ft.).....EFP310-030M-STST
SC-SC PVC	1-m (3.2-ft.).....EFN310-001M-SCSC
	2-m (6.5-ft.).....EFN310-002M-SCSC
	3-m (9.8-ft.).....EFN310-003M-SCSC
	5-m (16.4-ft.).....EFN310-005M-SCSC
	10-m (32.8-ft.).....EFN310-010M-SCSC
	15-m (49.2-ft.).....EFN310-015M-SCSC
	20-m (65.6-ft.).....EFN310-020M-SCSC
	30-m (98.4-ft.).....EFN310-030M-SCSC
	Custom Lengths.....EFN5010
Plenum	
	5-m (16.4-ft.).....EFP310-005M-SCSC
	10-m (32.8-ft.).....EFP310-010M-SCSC
	15-m (49.2-ft.).....EFP310-015M-SCSC
	30-m (98.4-ft.).....EFP310-030M-SCSC
ST-SC PVC	1-m (3.2-ft.).....EFN310-001M-STSC
	2-m (6.5-ft.).....EFN310-002M-STSC
	3-m (9.8-ft.).....EFN310-003M-STSC
	5-m (16.4-ft.).....EFN310-005M-STSC
	10-m (32.8-ft.).....EFN310-010M-STSC
	15-m (49.2-ft.).....EFN310-015M-STSC
	20-m (65.6-ft.).....EFN310-020M-STSC
	30-m (98.4-ft.).....EFN310-030M-STSC
	Custom Lengths.....EFN5011
Plenum	
	5-m (16.4-ft.).....EFP310-005M-STSC
	10-m (32.8-ft.).....EFP310-010M-STSC
	15-m (49.2-ft.).....EFP310-015M-STSC
	30-m (98.4-ft.).....EFP310-030M-STSC

Ordering Information

ITEM	CODE
MT-RJ-MT-RJ	
PVC	1-m (3.2-ft.).....EFN310-001M-MTMT
	2-m (6.5-ft.).....EFN310-002M-MTMT
	3-m (9.8-ft.).....EFN310-003M-MTMT
	5-m (16.4-ft.).....EFN310-005M-MTMT
	10-m (32.8-ft.).....EFN310-010M-MTMT
	15-m (49.2-ft.).....EFN310-015M-MTMT
	20-m (65.6-ft.).....EFN310-020M-MTMT
	30-m (98.4-ft.).....EFN310-030M-MTMT
	Custom Lengths.....EFN5013
Plenum	
	5-m (16.4-ft.).....EFP310-005M-MTMT
	10-m (32.8-ft.).....EFP310-010M-MTMT
	15-m (49.2-ft.).....EFP310-015M-MTMT
	30-m (98.4-ft.).....EFP310-030M-MTMT
MT-RJ-ST	
PVC	1-m (3.2-ft.).....EFN310-001M-STMT
	2-m (6.5-ft.).....EFN310-002M-STMT
	3-m (9.8-ft.).....EFN310-003M-STMT
	5-m (16.4-ft.).....EFN310-005M-STMT
	10-m (32.8-ft.).....EFN310-010M-STMT
	15-m (49.2-ft.).....EFN310-015M-STMT
	20-m (65.6-ft.).....EFN310-020M-STMT
	30-m (98.4-ft.).....EFN310-030M-STMT
	Custom Lengths.....EFN5014
Plenum	
	5-m (16.4-ft.).....EFP310-005M-STMT
	10-m (32.8-ft.).....EFP310-010M-STMT
	15-m (49.2-ft.).....EFP310-015M-STMT
	30-m (98.4-ft.).....EFP310-030M-STMT
MT-RJ-SC	
PVC	1-m (3.2-ft.).....EFN310-001M-SCMT
	2-m (6.5-ft.).....EFN310-002M-SCMT
	3-m (9.8-ft.).....EFN310-003M-SCMT
	5-m (16.4-ft.).....EFN310-005M-SCMT
	10-m (32.8-ft.).....EFN310-010M-SCMT
	15-m (49.2-ft.).....EFN310-015M-SCMT
	20-m (65.5-ft.).....EFN310-020M-SCMT
	30-m (98.4-ft.).....EFN310-030M-SCMT
	Custom Lengths.....EFN5015
Plenum	
	5-m (16.4-ft.).....EFP310-005M-SCMT
	10-m (32.8-ft.).....EFP310-010M-SCMT
	15-m (49.2-ft.).....EFP310-015M-SCMT
	30-m (98.4-ft.).....EFP310-030M-SCMT

Ordering Information

ITEM	CODE
Single-Mode, 9-Micron Duplex Fiber Optic Cables	
LC-LC PVC	1-m (3.2-ft.)EFN310-001M-LCLC
	2-m (6.5-ft.)EFN310-002M-LCLC
	3-m (9.8-ft.)EFN310-003M-LCLC
	5-m (16.4-ft.)EFN310-005M-LCLC
	10-m (32.8-ft.)EFN310-010M-LCLC
	15-m (49.2-ft.)EFN310-015M-LCLC
	20-m (65.6-ft.)EFN310-020M-LCLC
	30-m (98.4-ft.)EFN310-030M-LCLC
	Custom LengthsEFN092
Plenum	
	5-m (16.4-ft.)EFP310-005M-LCLC
	10-m (32.8-ft.)EFP310-010M-LCLC
	15-m (49.2-ft.)EFP310-015M-LCLC
	30-m (98.4-ft.)EFP310-030M-LCLC
LC-ST PVC	1-m (3.2-ft.)EFN310-001M-STLC
	2-m (6.5-ft.)EFN310-002M-STLC
	3-m (9.8-ft.)EFN310-003M-STLC
	5-m (16.4-ft.)EFN310-005M-STLC
	10-m (32.8-ft.)EFN310-010M-STLC
	15-m (49.2-ft.)EFN310-015M-STLC
	20-m (65.6-ft.)EFN310-020M-STLC
	30-m (98.4-ft.)EFN310-030M-STLC
	Custom LengthsEFN093
Plenum	
	5-m (16.4-ft.)EFP310-005M-STLC
	10-m (32.8-ft.)EFP310-010M-STLC
	15-m (49.2-ft.)EFP310-015M-STLC
	30-m (98.4-ft.)EFP310-030M-STLC
LC-SC PVC	1-m (3.2-ft.)EFN310-001M-SCLC
	2-m (6.5-ft.)EFN310-002M-SCLC
	3-m (9.8-ft.)EFN310-003M-SCLC
	5-m (16.4-ft.)EFN310-005M-SCLC
	10-m (32.8-ft.)EFN310-010M-SCLC
	15-m (49.2-ft.)EFN310-015M-SCLC
	20-m (65.6-ft.)EFN310-020M-SCLC
	30-m (98.4-ft.)EFN310-030M-SCLC
	Custom LengthsEFN094
Plenum	
	5-m (16.4-ft.)EFP310-005M-SCLC
	10-m (32.8-ft.)EFP310-010M-SCLC
	15-m (49.2-ft.)EFP310-015M-SCLC
	30-m (98.4-ft.)EFP310-030M-SCLC

Ordering Information

ITEM	CODE
MU-MU PVC	1-m (3.2-ft.)EFN095-001M
	2-m (6.5-ft.)EFN095-002M
	3-m (9.8-ft.)EFN095-003M
	5-m (16.4-ft.)EFN095-005M
	10-m (32.8-ft.)EFN095-010M
	Custom LengthsEFN095
MU-SC PVC	1-m (3.2-ft.)EFN096-001M
	2-m (6.5-ft.)EFN096-002M
	3-m (9.8-ft.)EFN096-003M
	5-m (16.4-ft.)EFN096-005M
	10-m (32.8-ft.)EFN096-010M
	Custom LengthsEFN096
MU-ST PVC	1-m (3.2-ft.)EFN097-001M
	2-m (6.5-ft.)EFN097-002M
	3-m (9.8-ft.)EFN097-003M
	5-m (16.4-ft.)EFN097-005M
	10-m (32.8-ft.)EFN097-010M
	Custom LengthsEFN097
MU-LC PVC	1-m (3.2-ft.)EFN098-001M
	2-m (6.5-ft.)EFN098-002M
	3-m (9.8-ft.)EFN098-003M
	5-m (16.4-ft.)EFN098-005M
	10-m (32.8-ft.)EFN098-010M
	Custom LengthsEFN098
MU-MT-RJ	
PVC	1-m (3.2-ft.)EFN099-001M
	2-m (6.5-ft.)EFN099-002M
	3-m (9.8-ft.)EFN099-003M
	5-m (16.4-ft.)EFN099-005M
	10-m (32.8-ft.)EFN099-010M
	Custom LengthsEFN099