

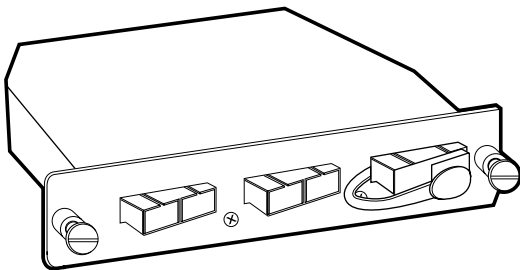


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Multimode 62.5/125- μ m Gigabit Fiber Tap



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)

FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**

Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018

Web site: www.blackbox.com • E-mail: info@blackbox.com

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1. Specifications

Fiber Type: Multimode 62.5/125 μm ,
wavelength of 850 nm

Table 1-1. Multimode fiber insertion loss.

Split ratio insertion loss	Network port insertion loss	Analyzer port insertion loss
90/10	≤ 1.3 dB	≤ 11.5 dB
80/20	≤ 1.8 dB	≤ 8.1 dB
70/30	≤ 2.4 dB	≤ 6.3 dB
60/40	≤ 3.1 dB	≤ 5.1 dB
50/50	≤ 4.5 dB	≤ 4.5 dB

Connectors: (1) duplex SC (analyzer port);
(2) duplex SC (network ports)

Indicators: None

Temperature Tolerance: Operating: 50 to 131°F
(10 to 55°C);
Storage: 32 to 158°F (0 to 70°C)

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Relative Humidity: 10 to 90%, noncondensing

Power: Non-powered

Size: 1.3"H x 4.5"W x 5"D (3.3 x 11.4 x 12.7 cm)

Weight: 0.4 lb. (0.2 kg)

2. Overview

2.1 Description

Use the Gigabit Fiber Tap to passively monitor all traffic on a Gigabit network link. It attaches to a network monitoring device (such as a protocol analyzer, intrusion-detection system, or RMON probe). Monitor the network around the clock without disrupting the data stream or introducing a point of failure. Taps can be left in-line permanently without degrading network performance.

Compatible with all major manufacturers' network equipment, the Gigabit Fiber Tap supports passive monitoring at speeds up to 1000 Mbps. It lets you monitor both sides of a full-duplex connection. And since the tap is transmit-only on the monitoring side, the monitoring devices are invisible to the network—this keeps your network secure.

This completely transparent fiber tap requires no power to operate. All network connections are front-mounted for easy installation and operation.

Also available are a three-module rack for network taps (TS241) and a blank panel (TS242).

2.2 What's Included

Your package should contain the Gigabit Fiber Tap and this users' manual. If either is missing, please call Black Box at 724-746-5500.

2.3 What You Need to Supply

- (1) Custom analyzer fiber cable (EFN4029-CT; this cable can be ordered from Black Box)

NOTE

You *must* use the EFN4029-CT cable to connect the tap to the monitoring device.

- (1) multimode fiber cable with SC connectors on one end, and a fiber connector compatible with a DTE on the other end
- (1) multimode fiber cable with SC connectors on one end, and a fiber connector compatible with a DCE on the other end

NOTE

The length and connectors of the fiber cable that connects to the DTE and the one that connects to the DCE may vary depending on your application. Call Technical Support for details.

2.4 The Fiber Tap Illustrated

Figure 2-1 illustrates the Gigabit Fiber Tap.

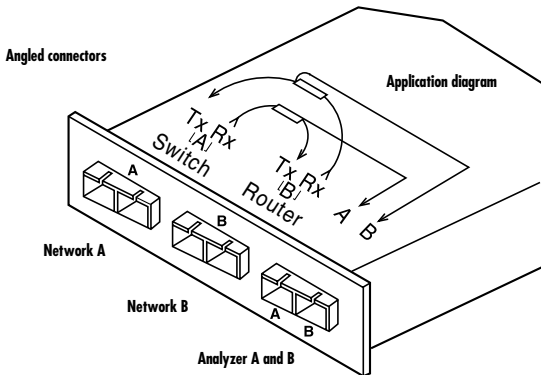


Figure 2-1. The Gigabit Fiber Tap should be installed in the fiber network via ports A and B.

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See Figure 2-2 for typical application using the Gigabit Fiber Tap. It shows a monitoring device attached to the tap, which is installed between a DCE and a DTE device.

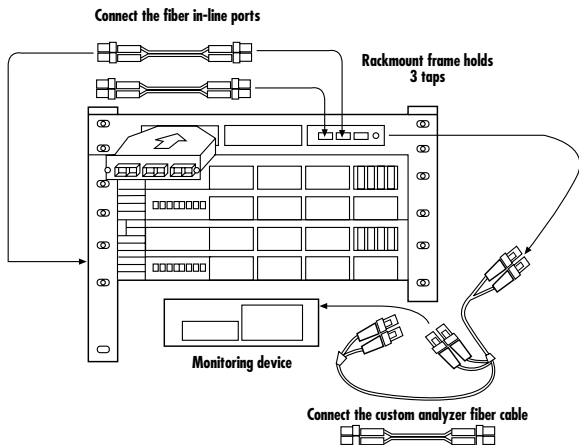


Figure 2-2. Connect a monitoring device to the Gigabit Fiber Tap that's installed in a fiber network.

3. Installation

To install the Gigabit Fiber Tap, you'll need to connect it to the network (**Section 3.1**). Then connect it to the monitoring device (**Section 3.2**). That's all you need to do since the tap is a passive device and it operates unattended.

3.1 Connecting the Gigabit Fiber Tap to the Network

1. Unpack the Gigabit Fiber Tap, and verify that you have all the necessary cables (described in **Section 2.3**) to successfully install the tap. The tap uses a custom analyzer fiber cable (EFN4029-CT) to connect to the monitoring device. And it uses multimode fiberoptic cable compatible with your application to connect to the network devices.
2. Connect network port A to the appropriate switch, server, or router device using a multimode fiber cable with SC connectors on one end, and a fiber connector compatible with a DCE on the other end.
3. Connect network port B to the appropriate switch, server, or router device using a multimode fiber cable with SC connectors on one end, and a fiber connector compatible with a DTE on the other end.

4. Verify that the tap's network ports are cabled in-line between two devices.

3.2 Connecting the Gigabit Fiber Tap to the Monitoring Device

1. Connect the single-duplex end (one pair of SC connectors) of the custom analyzer fiber cable (part number EFN4029-CT, ordered separately) to the Gigabit Fiber Tap's analyzer A/B port. You *must* use this particular cable. Attach the dual-duplex end of the cable (two pairs of SC connectors) to the monitoring device as described in steps 2 and 3 below.
2. Attach the dual-duplex end of the cable labeled DCE to the appropriate monitoring device port to monitor the DCE link.
3. Connect the other dual-duplex end to the appropriate monitoring device port to monitor the DTE link.

Once you finish connecting the tap to the network and to the monitoring device, the tap is ready to operate. You don't need to do anything else; the passive tap operates unattended.

4. Troubleshooting

4.1 Calling Black Box

If you determine that your Gigabit Fiber Tap is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

4.2 Shipping and Packaging

If you need to transport or ship your Gigabit Fiber Tap:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the Gigabit Fiber Tap for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.