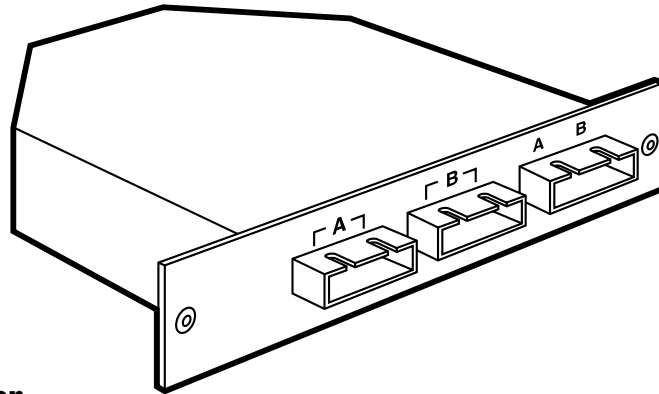




Fiber Optic Splitter Module



1. Overview and Installation

Thank you for purchasing this Fiber Optic Splitter Module. The Splitter Module can help you to monitor network traffic flowing in either direction on a fiberoptic network (Ethernet, Fast Ethernet, FDDI, ATM, SONET, etc.) at data rates up to OC3 (155 Mbps). It has four ports:

- Data Ports A and B are each *dual* SC female 62.5/125- μ m multimode fiberoptic connectors that can be attached to fiberoptic network devices (NICs, switches, routers, etc.).
- Analyzer Ports A and B are both carried on one dual SC female 62.5/125- μ m multimode fiberoptic connector that can be attached to a network analyzer.

The Splitter Module is light, compact, and tough, so it's quite portable, but you can also mount as many as three Modules in a 19" equipment rack with our 3-Module Rackmount Kit (our product code RM210; cover any open slots in the Kit with Filler Blanks, our product code RM211). Run standard 62.5/125- μ m multimode fiberoptic cable (with SC connectors on the Module end) from the Splitter Module to the other devices. For the connection to the network analyzer, we recommend our special Fiber Optic Analyzer Patch Cable (our product code EFN4029-CT), shown in Figure 1 below.

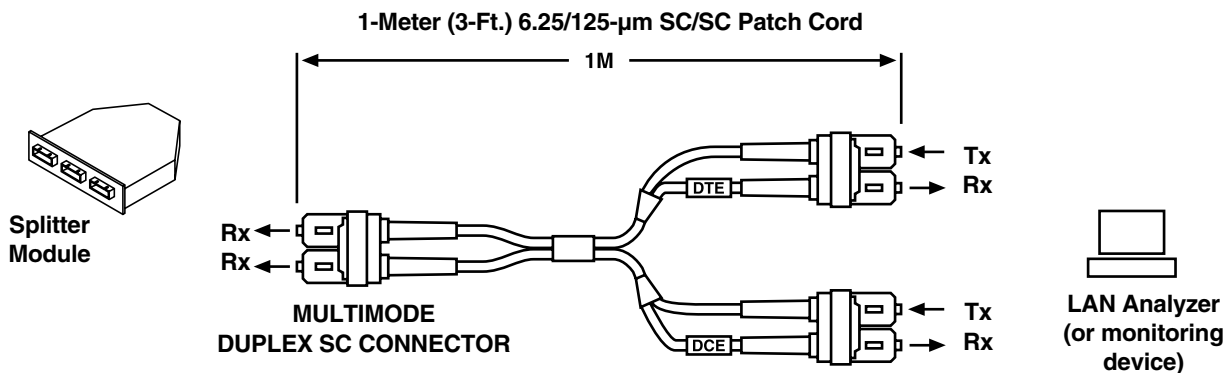


Figure 1. The Patch Cable.

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

FIBER OPTIC SPLITTER MODULE

2. Operation

Once you've connected the other devices to the Fiber Optic Splitter Module, it will begin operating immediately. (It's a passive device and doesn't need to draw power from anywhere.) The Splitter Module can operate in either half-duplex or full-duplex mode. It is designed to tap the incoming data on either or both strands of your network's fiberoptic lines and send 20% of the signal to the Analyzer Ports for performance evaluation and error detection, as shown in Figures 2 and 3 below.

The tapped data is fed to the Analyzer Ports at network speed (up to OC3, 155 Mbps) and at normal signal levels. Signal integrity is guaranteed for the lines (the tapping will not affect either the signal integrity or loading factor); the Splitter Module regenerates incoming data from the network lines before retransmitting it.

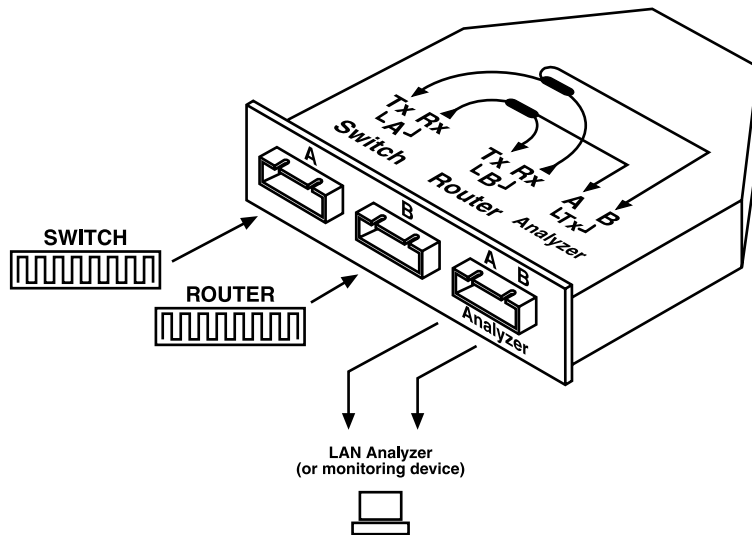


Figure 2. Attaching devices to the Splitter Module (internal data flow also shown).

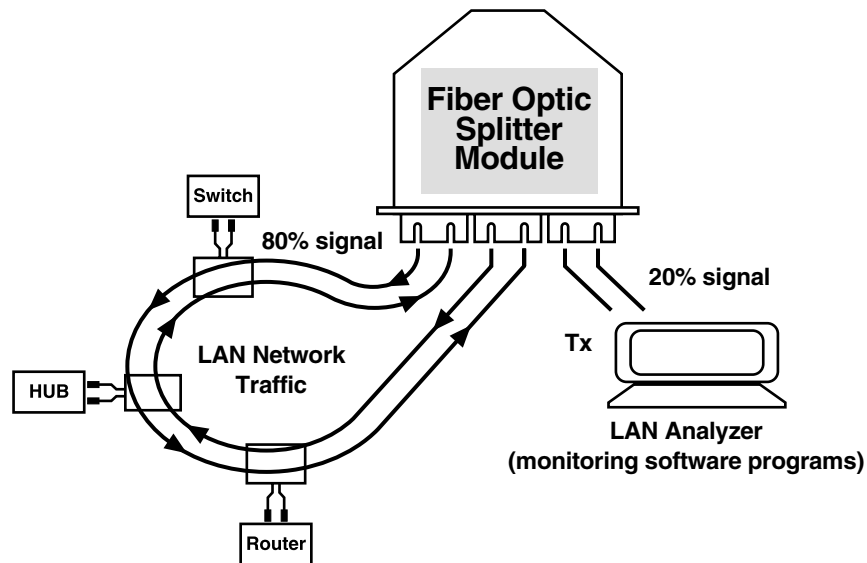


Figure 3. Total data flow in a ring network with a Splitter Module installed.

3. Specifications

| | |
|--|--|
| Compliance — | CE |
| Compatibility — | LAN: 10BASE-FL Ethernet, 100BASE-FX Fast Ethernet, FDDI, ATM, and SONET; Optical Wavelength: 850 and 1300 nm |
| Interface — | 6.5/125- μ m multimode fiberoptic |
| Signal-Split Ratio — | 80% to Data Ports, 20% to Analyzer Ports |
| Internal Loss due to Signal Splitting — | Data Ports: ≤ 2.2 dB; Analyzer Ports: ≤ 7 dB |
| Cable-Insertion Loss — | ≤ 0.35 dB |
| Polarization-Dependent Loss — | ≤ 0.1 dB |
| Connectors — | All front-mounted: (2) Dual (“duplex”) SC female for network connections; (1) Dual SC female for monitoring connection (but the two sides of this connector function as two independent ports) |
| Temperature Tolerance — | Operating: -40 to $+176^{\circ}\text{F}$ (-40 to $+80^{\circ}\text{C}$); Storage: -40 to $+185^{\circ}\text{F}$ (-40 to $+85^{\circ}\text{C}$) |
| Humidity Tolerance — | Up to 85% noncondensing |
| MTBF — | Device is solid state; internal components should never spontaneously fail |
| Enclosure — | 16-gauge cold-rolled steel |
| Size — | 1.2"H x 4.5"W x 5"D (3 x 11.4 x 12.7 cm) |
| Weight — | 0.5 lb. (0.2 kg) |