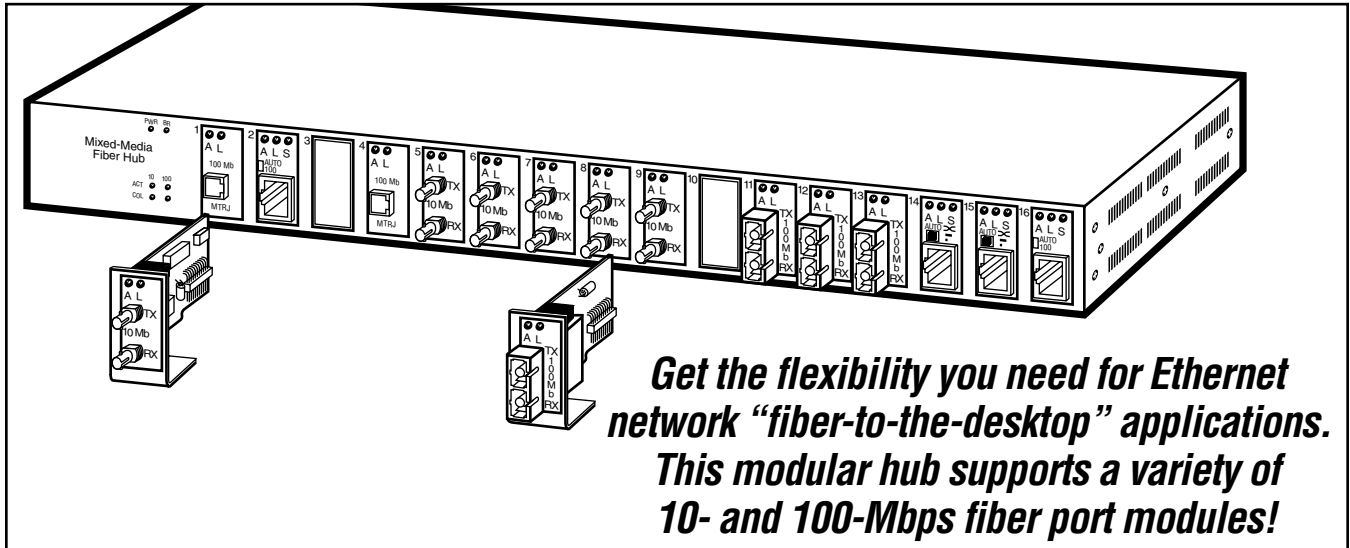


# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### MIXED-MEDIA FIBER HUBS



### Key Features

- ▶ **Supports many fiber port types.**
- ▶ **All RJ-45 ports are autosensing for 10 or 100 Mbps.**
- ▶ **Complies with 100BASE-T, 10BASE-T, and fiber Ethernet standards, plus functions as a full Class II+ repeater.**
- ▶ **10BASE-T, 10BASE-FL, 100BASE-TX, and 100BASE-FX Ethernet media types supported.**
- ▶ **There's even a module for a fast uplink to a file server or backbone!**

This is the must-have product for anyone who's gradually transitioning a small- to medium-sized network from 10-Mbps Ethernet to 100-Mbps Fast Ethernet. The Mixed-Media Fiber Hubs accept either 10- or 100-Mbps signals over fiber or copper cables, configured on a per-port basis.

Here's how it works. The Hub supports two shared traffic domains—one at 10 Mbps and one at 100 Mbps. An internal bridge connects the two domains.

Each fiber port can be installed as either 10- or 100-Mbps speed. Mix and match any combination of front-mounted port modules (ST, SC, FC, MT-RJ, VF-45, multimode, or single-mode) to fit your networking needs. Each RJ-45 port is also independently autosensing for 10/100 speed and adapts to match the speed of the connected devices.

And if 16 ports just aren't enough, you can add 16 more autosensing 10/100 twisted-pair ports: Just connect a Dual-Speed 10/100 Stackable Hub (LH8016A-C). Stacking the two hubs creates one 32-port hub. You can also stack one or two of the 16-Port Add-On Chassis (LH8050A-C) with a Base Chassis for a total of up to 48 ports.

The chassis is available with an additional switch-port module for switched 10- or 100-Mbps connection to high-speed devices, creating a third collision domain.

If you order a Mixed-Media Fiber Hub, you'll receive the 16-Port Mixed-Media Fiber Hub Chassis (with additional switch port module installed, if ordered), a users' manual, an AC power cord (115-VAC), and one set of metal ears for optional 19" rackmounting.

Note: These hubs can also be stacked with the 16-Port Dual-Speed 10/100 Stackable Hubs. The Mixed-Media Base Chassis is compatible with the Dual-Speed Master Hub (LH8016A-M), and the Mixed-Media Add-On Chassis is compatible with the Dual-Speed Client Hub (LH8016A-C).

# Specifications

**Auto-Reconnect** — Occurs after one packet of error-free reception

**Bridging** — Store-and-forward processing; 8 KB, self-learning address table; 2-MB dynamic packet buffers

**Compliance** — CE, FCC Part 15 Subpart B Class A, UL® listed (UL 1950), cUL

**Connectors** —

- AC Power connector: IEC-type, male, recessed; Modular connectors on a per-port basis;
- RJ-45 shielded female ports: 100 MB: Category 5 UTP/STP; 10 MB: Category 3, 4, 5 UTP/STP;
- Fiber ports at 100 MB and 10 MB; Port modules for all fiber connector types;
- (2) DB25F stacking connectors

**Manual Switches** — Up-link switch: LH8056C-UP module only (for crossover and cascading); Auto/100 switch: LH8056C and LH8056C-UP modules (for auto-negotiation or fixed 100-Mbps speed operation)

**Maximum Ethernet Segment (or Domain) Lengths** —

- 10BASE-T (Category 3, 4, 5 UTP): 328 ft. (100 m);
- 100BASE-TX (Category 5 UTP): 328 ft. (100 m); Shielded twisted pair: 492 ft. (150 m);
- 10BASE-FL multimode fiber optic: 6562 ft. (2 km);
- 10BASE-FL single-mode fiber optic: 32,810 ft. (10 km);
- 100BASE-FX half-duplex, multimode: 1350 ft. (412 m);
- 100BASE-FX full duplex multimode: 6562 ft. (2 km);
- 100BASE-FX half-duplex single-mode: 1350 ft. (412 m);
- 100BASE-FX full duplex single-mode: 49,215 ft. (15 km)

**Partitioning** — Enforced after 63 consecutive collisions

**PDV (100 MB Path Delay Value)** — 80BT exceeds Class II specification

**Speed** — 10 or 100 Mbps per port

**Standards** — IEEE 802.3u: 100BASE-TX, 100BASE-FX; IEEE 802.3: 10BASE-T, 10BASE-FL

**Indicators** — Chassis: LEDs: Power, Bridge Inside, Packet Activity 10, Packet Activity 100, Collision 10, Collision 100; Fiber Port Modules: Link, Activity; UTP Port; Modules: Link, Activity, Speed

**Temperature** — Operating: 32 to 120°F (0 to 49°C); Storage: -5 to +140°F (-21 to +60°C)

**Relative Humidity** — 10 to 95% noncondensing

**Cooling Method** — Fan-cooled, internal @ 9 cfm

**Enclosure** — Rugged sheet metal, suitable for standalone or rackmounting; metal brackets for 1U rackmounting included

**Power** — 90 to 260 VAC (autoranging), 47 to 63 Hz, 25 watts typical (30 watts maximum)

**Size** — Chassis: 1.75"H x 17"W x 10.5"D (4.5 x 43.2 x 26.7 cm)

**Weight** — Chassis: 4 lb. (1.8 kg); Modules: 0.5 lb. (0.2 kg)

# Ordering Information

ITEM	CODE
Mixed-Media Fiber Hubs	
16-Port Chassis .....	LH8050A
16-Port Chassis with Additional Switch Port Module Installed	
10/100-Mbps UTP .....	LH8050A-SRJ
100-Mbps Fiber	
Multimode ST .....	LH8050A-SST
Multimode SC .....	LH8050A-SSC
Single-Mode SC .....	LH8050A-SSCSM
16-Port Add-On Chassis .....	LH8050A-C
UTP Port Modules (RJ-45)	
10/100 Modules .....	LH8056C
10/100-Mbps, Switch-Selectable Uplink.....	LH8056C-UP
Fiber Port Modules	
10-Mbps, Multimode	
ST Connector .....	LE8055C-ST
SC Connector .....	LE8055C-SC
10-Mbps, Single-Mode	
ST Connector .....	LE8055C-SMST
100-Mbps, Multimode	
ST Connector .....	LH8051C-ST
SC Connector .....	LH8051C-SC
MT-RJ Connector .....	LH8053C-MTRJ
VF-45 Connector .....	LH8053C-VF45
FC Lucent Port Connector .....	LH8052C-FC
100-Mbps, Single-Mode	
SC Connector .....	LH8051C-SMSC
Blank Chassis Panel.....	LH8057A-PNL

*You may also want to order cable...*

Bulk Category 5 Solid-Conductor Cable, 2-Pair, PVC .....	EYN717A
Duplex Fiber Optic Cable, PVC, ST-ST, Custom Lengths.....	EFN062-CC

# Typical Application

Your department's first priority is a secure network. Since it's possible to eavesdrop with copper wiring, you need a fiber LAN to connect to each desktop and node.

The Mixed-Media Fiber Hub supports all of the fiber port types (including the latest models), adapting the fiber LAN to changing technology. The dual-speed feature means there's room for legacy 10-Mbps equipment as well as newer 100-Mbps equipment.