

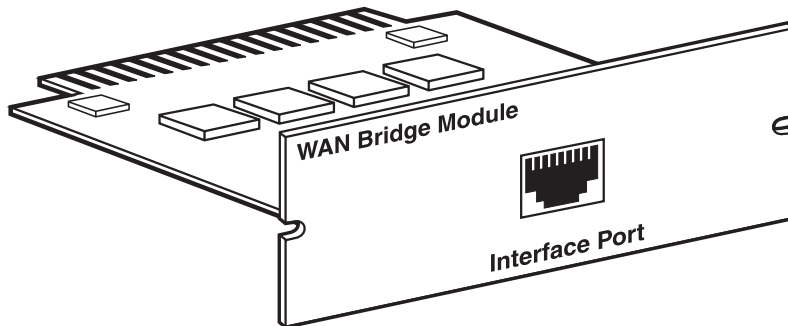


# BLACK BOX<sup>®</sup>

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Black Box Corporation.

*The World's Source for Connectivity<sup>SM</sup>*

## WAN Bridge Module



*Add seamless Ethernet LAN extension to your campus driver.*

### Key Features

- ▶ *Installs in copper or fiber campus driver base units.*
- ▶ *Provides MAC-level connection between two peered Ethernet LANs.*
- ▶ *Transparent to higher-level protocols, such as TCP/IP, DECnet, and IPX.*
- ▶ *Plug and play: No configuration needed.*
- ▶ *Automatically discovers, loads, and deletes MAC addresses.*
- ▶ *512 KB on-board RAM for smooth data transfer.*
- ▶ *LED pulses convey status and integrity of system.*
- ▶ *No switches or jumpers needed.*

**G**et the Ethernet connectivity you need in your campus environment with the WAN Bridge Module.

The device, designed to be used as one of a pair of units, installs in either a Modular Fiber Campus Driver or in a high-speed copper 2- or 4-Wire Modular Campus Driver to provide seamless Ethernet LAN extension. (See the Ordering Information section for Campus Driver part numbers.)

The module performs the bridging function between two physically separate Ethernet LANs at the Medium Access Control (MAC) level, forwarding LAN broadcasts, multicasts, and frames routed for the peered Ethernet LAN at your remote end. (*Note:* The base unit at the remote end must be equipped with a WAN Bridge Module.)

The operation of the device is transparent to higher network-level protocols, such as TCP/IP, DECnet<sup>™</sup>, NETBIOS, and IPX<sup>™</sup>.

You can even link peered Ethernet LANs over leased 2-wire/4-wire, Digital Data System, Pulse Code Modulation, and campus fiber circuits.

What's more, you don't need any switches or jumpers. Settings such as the type of medium and the clocking mode are made through your baseband modems.

The RJ-45 Ethernet port on the WAN Bridge Module easily connects directly to a 10BASE-T network. Using Category 4 or 5 cable, you can make connections up to 330 ft. (100.5 m).

The module connects the 10BASE-T Ethernet port to a 10BASE-T Hub via a straight-through cable. But you can also connect the port (which is configured as Data Terminal Equipment) to another DTE device, such as a 10BASE-T network interface card in a PC. You simply use a 10BASE-T crossover cable.

The WAN Bridge Module is completely plug and play. It contains a 50-pin card edge connector on one side and an Ethernet interface on the other. With little effort, you slide the module into the base unit chassis, securing the card

edge against the interior chassis socket. Once it's installed, the module requires no configuration. Apply power, and the device automatically starts performing the bridging function—without any user intervention.

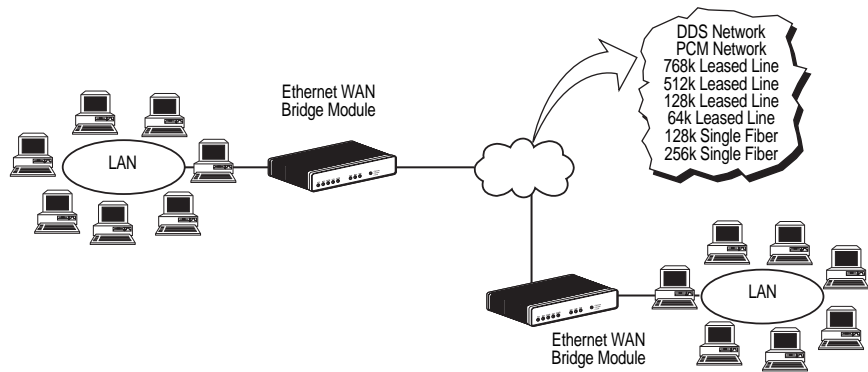
The MAC addresses discovered are automatically loaded into the MAC address table. And if the addresses remain inactive for an 8-minute period, they're immediately deleted from the table.

You monitor the module's activity via two LEDs, which inform you of the device's general operating status and the integrity of the 10BASE-T twisted-pair link. The LEDs, located beneath the device's RJ-45 jack, glow green to indicate good link integrity and blink yellow from one to four times to indicate system status. One pulse tells you the module is doing its job, while four pulses tell you that the buffer is saturated.

### Typical Application

*Plug the WAN Bridge Module directly into the rear of a Modular Campus Driver (see the diagram on the next page).*

Connect your corporate headquarters LAN to your local LAN via a pair of Campus Drivers equipped with WAN Bridge Modules.



**Specifications**

**LAN Connection** — RJ-45, 10BASE-T, 802.3 Ethernet

**Temperature** — 32 to 122° F (0 to 50° C)

**MAC Address Table Size** — 4096 entries

**Interface** — Card-edge connection to module port on base unit

**MAC Address Aging** — MAC addresses deleted after 8 minutes of inactivity

**Power Supply** — +5 Volts @ 510 mA supplied to module from interface

**On-Board Memory** — 512 KB RAM; 128 KB FLASH

**Size** — 2.9" x 3.2" (7.4 x 8.1 cm)

**Frame Latency** — 1 frame

**Weight**—0.25 lb. (0.11 kg)

**LED Indicators** — (1) General Status, (1) Link Integrity

**Additional equipment you may need:**

- Fiber Optic Cable.
- Category 4 or 5 Cable.
- Modular Fiber Campus Driver.
- A second WAN Bridge Module.

**For these and other components...**

Call our expert Technical Support Staff for all your WAN needs. They'll help you find the best equipment for your application.

**Ordering Information**

This information will help you place your order quickly.

PRODUCT NAME	ORDER CODE
WAN Bridge Module .....	ME530A

**Installs in one of the following Campus Drivers:**

<b>2-Wire Modular Campus Driver (Standalone)</b>	
115-VAC .....	ME485A
230-VAC .....	ME485AE
48-VDC .....	ME485A-D48
<b>4-Wire Modular Campus Driver (Standalone)</b>	
115-/230-VAC .....	ME480A-R2
48-VDC .....	ME480A-D48
Modular Fiber Campus Driver Plus (256 kbps) .....	ME620A
Modular Fiber Campus Driver (128 kbps) .....	ME621A

ACCESSORY	ORDER CODE
Fiber Optic Cable, ST-ST, Custom Lengths.....	EFN062-CC
Category 5 Cable, 4-Pair PVC, Custom Lengths.....	EYN737A