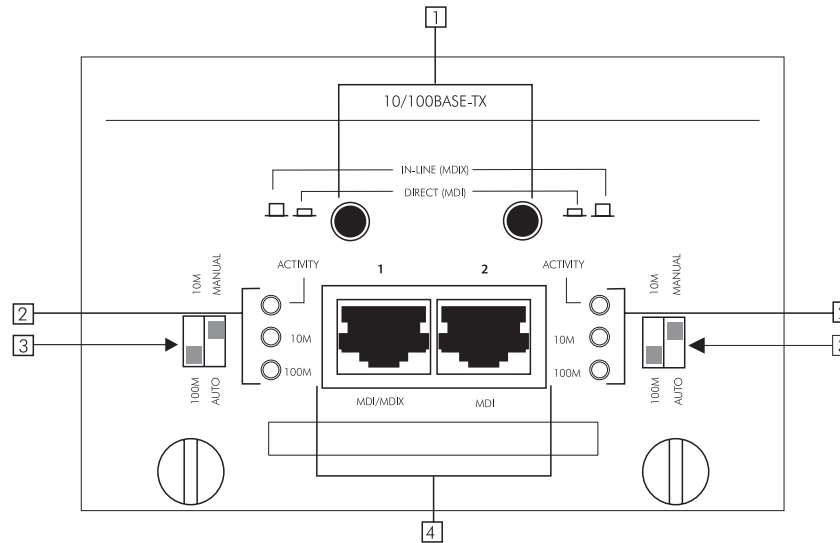




SUPERSTACK II ENTERPRISE MONITOR 10/100BASE-TX ETHERNET MODULE (3C81650) QUICK REFERENCE GUIDE

Module Overview



The parts labeled 1 through 4 are:

- 1 2 x Mode Switches** Switch the Module between Direct and In-line modes. Both switches should be in the same position.
 - Direct mode selected. In-line mode selected.By default, Direct mode is selected.
- 2 2 x Port Status LEDs** Show segment speed and network activity.

- 3 2 x Speed Switches** If Manual is selected, either 10 Mbps or 100 Mbps speed can be set. If Auto is selected, the autosensing facility will automatically detect the network speed. By default, a network speed of 100 Mbps and Manual are selected.
- 4 2 x 10/100BASE-TX Ethernet Ports** Connect either 2 Direct links or a single In-line link.

Introduction

The 10/100BASE-TX Ethernet Module has two modes, Direct and In-line.

Direct Mode This is used when connecting to a hub or a switch monitoring port. Taking the example in [Figure 1-1](#), an Enterprise Monitor connected to a hub would monitor all the packets that the hub sees but no other packets on the network. In Direct mode, both ports 1 and 2 are MDI and are completely independent.

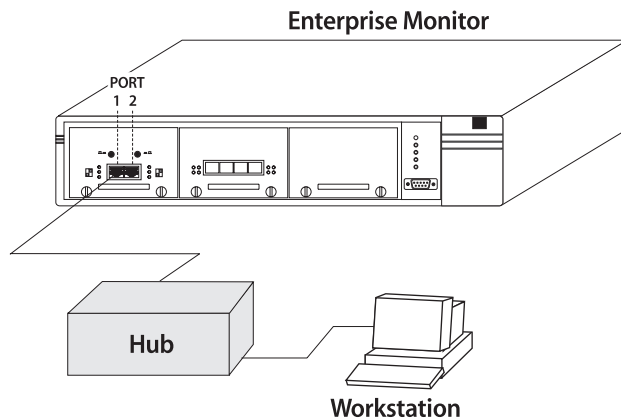


Figure 1-1 Example of a Direct mode link

In-line Mode A way of monitoring switch-to-switch or switch-to-server links on your network. These links may be operating at half or full duplex. Taking the example in [Figure 1-2](#), an Enterprise Monitor could monitor the whole switch-to-server link. In In-line mode, port 1 is MDI-X and port 2 is MDI. Both ports are required to monitor a single In-line (also known as point-to-point) link.



In-line mode is not suitable in a repeated network. Instead, you should use Direct mode and attach to a repeater port.

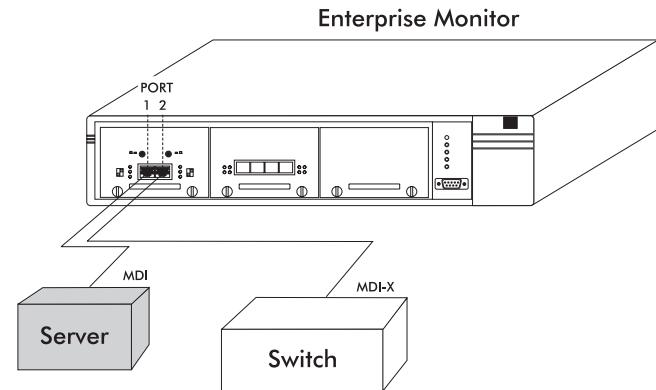


Figure 1-2 Example of an In-line link

3Com's SwitchSafe™ technology ensures that if the Enterprise Monitor suffers a power failure, the link will be maintained. There will be a break of a few milliseconds as the power is switched off or on, but most networks should be resilient to this.

This quick reference guide describes:

- Inserting or removing the Module.
- Connecting the Enterprise Monitor to the network.
- Network connection
 - Cabling and connector requirements.
 - Setting up and connecting to the network.
- Checking status using the LEDs.

Inserting or Removing the Module



CAUTION: Modules are made of extremely sensitive electronic components that may be damaged by static electricity. Handle Modules only by the front panel and by their non-conducting edges, and wear a wrist strap attached to an unpainted part of the Enterprise Monitor's chassis.



WARNING: Do not insert or remove a Module with the power still connected.

Inserting the Module

- 1 Remove the blanking plate from the Module slot:
 - a Turn the two captive screws a quarter turn anti-clockwise.
 - b Pull the blanking plate towards you.
- 2 Insert the 10/100BASE-TX Ethernet Module:
 - a Align the rear edges of the Module with the rails on each side of the Module slot. Push forward until the Module is flush with the front panel of the Enterprise Monitor. Press firmly to ensure connection.
 - b Secure the two captive screws by turning them a quarter turn clockwise.
- 3 You are now ready to connect the Module to your network.

Removing the Module

- 1 Remove the 10/100BASE-TX Ethernet Module from the Module slot:
 - a Turn the two captive screws a quarter turn anti-clockwise and pull the Module towards you.
 - b Insert another Module or a blanking plate.

Network Connection

This section describes:

- Cabling and connection requirements.
- How to set up and connect the 10/100BASE-TX Ethernet Module to your network.

The mode you choose depends on which point of your network you wish to monitor. Refer to ["Introduction"](#) for a description of the two modes.

Cabling and Connector Requirements

The following cabling and connector requirements must be followed:



CAUTION: To comply with EMC regulations, shielded twisted pair (STP) cable, grade category 5, with RJ45 connectors should be used.

- The maximum cabling length for 10/100BASE-TX links is 100 metres.



CAUTION: Ensure that your cabling lengths comply with the appropriate standard.

- If you are connecting the probe in In-line mode, you may require crossover cables to connect the probe to the link. (See ["In-line Mode"](#)).

Setting up and Connecting to the Network

Follow the steps for the mode you intend to use:

Direct Mode

- 1 Ensure the Enterprise Monitor is powered off.
- 2 Set both mode switches to Direct.

Network Connections (Continued)

3 To set the network speed, do one of the following:

- Set the Auto/Manual Switch for the port(s) you are using to Auto.

With Auto switched ON, the autosensing facility will attempt to detect the network speed, ignoring the setting of the Speed Switch.

- Set the Auto/Manual Switch for the port(s) you are using to Manual and select your network's speed.

4 Power on the Enterprise Monitor.

5 Connect an STP cable between the port you have chosen to use and the hub or repeater you are monitoring.

In-line Mode

1 Ensure the Enterprise Monitor is powered off.

2 Set both mode switches to In-line.

3 Set the Auto/Manual Switch to Manual and set both speed switches to match the speed of your network.

4 Power on the Enterprise Monitor.

5 Make the connections between the Module and your network devices using two STP cables:

- If you are connecting an MDI port to an MDI-X port, you must use a straight-through cable.
- If you are connecting similar ports, you must use a crossover cable. For example, when connecting an MDI port to an MDI port or an MDI-X port to an MDI-X port.

Subsequent Mode and Speed Changes

For any subsequent mode or speed changes made with the probe powered on, the Enterprise Monitor should be restarted for the changes to take effect.

To restart the Enterprise Monitor, use one of the following:

- **Configuration System Main Menu** From the Main Menu screen, select option 3, `Warm start` and `Exit`.
- **A management application** You can use this if the Enterprise Monitor already has a network connection configured.



A warm start will cause statistics stored in the Enterprise Monitor's RAM to be lost.

Resetting the Enterprise Monitor will clear existing statistics from the RMON tables. This ensures the integrity of new statistics added to the tables.

Checking Status Using the LEDs

10M/100M *Green* indicates selected speed.

ACTIVITY *Green or flashing* indicates data being received from the network.

In Direct mode, the LEDs will show activity related to the traffic coming from the directly connected device.

In In-line mode, the rate of flashing on each port of the link will vary according to the traffic from the device on that side of the link.