



# MODEL DM1

## DUAL FIBER HIPPI MODEM

## Features / Benefits

### Features

- ▶ Two complete dual simplex HIPPI channels using dual fibers for each channel.
- ▶ Full HIPPI bandwidth of 800 Megabits per second (Mbps) on each channel
- ▶ Ports transmit and receive reliably over distances of up to 10 kilometers with singlemode fiber using 1300 nm transceivers
- ▶ Ports transmit and receive reliably over distances of up to 300 meters with multimode fiber using 850 nm transceivers
- ▶ Expected Bit Error Rate of  $1 \times 10^{-14}$  or less over maximum supported distances
- ▶ Ports utilize SC fiber connections
- ▶ Special versions of the modem can be provided to achieve translation from longwave to shortwave transmission and vice versa.

### Benefits

- ▶ Provides long distance extension of existing HIPPI products
- ▶ Provides the high data reliability and integrity of HIPPI channels for dedicated links
- ▶ Compact size, moderate power requirements, and low cost

## Specifications/Standards

- ▶ Physical
  - Dimensions: (HxWxD) 17" x 12.5" x 1.75" (43 cm x 31.6 cm x 4.4 cm)
  - Weight: 3.6 lb. (1.6 kg)
- ▶ Standards Compliance
  - Serial HIPPI ANSI X3.300-1997 HIPPI-SERIAL Standard.
- ▶ Power
  - Supply: Autoranging 100-240 VAC, 50/60 Hz
  - Power Consumption: 120 Watts max
- ▶ Environmental
  - Environment Temperature 32° - 104° F
  - Humidity 10% - 90% non-condensing
  - Altitude to 10,000 feet (3,048 meters)
- ▶ Safety Certifications (pending)
  - EN 60950
  - CSA-C22.2 No. 950-93
- ▶ Electromagnetic Emissions Certifications (pending)
  - FCC Class B
  - CSA/TUV

### Overview

The Model DM1 Dual Fiber Modem is a stand-alone rack-mountable unit providing two fiber optic transceivers for transmission of information using the serial HIPPI protocol. The unit can be connected to any HIPPI host for extension of the host interconnect distance from 25 meters to 10 kilometers.

### Host Computer Interface

The Dual Fiber Modem can be driven by any host supporting the ANSI X3.183-1991 HIPPI-PH (HIPPI Physical) Standard. It will support the full rate of data transmission by the host under this standard, up to the maximum 800 Mbps in each direction.

### Singlemode Fiber and Multimode Fiber options

The Dual Fiber Modem will function ably and reliably over either singlemode or multimode fiber. When used with 8/125 micron singlemode fiber, the transceiver will function reliably over distances up to 10 kilometers. When used with 62.5/125 micron FDDI-grade multimode fiber, the transceiver will function reliably over distances up to 300 meters. These options require the use of the transceiver wavelength which is correctly matched to the fiber type. Generally, use of singlemode fiber requires the use of 1300nm transceivers, while multimode fiber is normally used with 850nm transceivers.

### Reliability of Transmission

The Dual Fiber Modem has expected bit error rates of less than  $1 \times 10^{-14}$ , when the modem is used with good quality cables within the maximum distance specification.

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