
HP Router TR

Technical Data

Product Number
27286A

The HP 27286A Router TR is a high-performance, multiprotocol router for connection of Ethernet, token ring, and wide area networks. Using the same form factor as the HP EtherTwist hubs and bridges, this 4-port router is the newest addition to the HP modular “rack-and-stack” family. The HP Router TR connects to one local Ethernet/IEEE 802.3 network, one token ring 4/16-Mbit/s network, and up to two synchronous WAN links, each at speeds up to 2.048 Mbits/s. The port configuration on the HP Router TR is ideal for internetworking different network types.

Coupled with HP OpenView Resource Manager, the HP Router TR is capable of providing instrumentation-like functions across your network. This will eliminate the need for a LAN analyzer per segment. HP EASE (Embedded Advanced Sampling Environment) is a breakthrough technology that allows HP EtherTwist devices

to do protocol analysis. This will identify top talkers, heavy users, errors, and communication pairs.

Highlights

- **Concurrent Multiprotocol Routing:** The standard configuration of the HP Router TR supports concurrent operation of five popular routing protocols: TCP/IP (RIP/OSPF), DECnet IV, Novell® IPX, Xerox XNS, and AppleTalk II. For packets that cannot be routed, the HP Router TR can function as a MAC-layer bridge with the IEEE Spanning Tree Protocol on the Ethernet port and Source Routing Protocol on the token ring port. Bridging is possible only between one of the local ports and the WAN ports. The router comes standard with X.25 software for configuring one or both WAN ports. The router's port configuration allows connection to two local area networks (one Ethernet and one token ring) and two wide area networks.
- **High Performance:** The Router TR employs a Motorola 68020 (25 MHz) processor, a multiple-bus architecture, and the FASTMAC software from MADGE Networks, Ltd., for excellent Ethernet-to-token ring routing performance, even in multiprotocol networks with high traffic loads. Approximately 5,500 (64-byte) packets per second can be forwarded between the two LANs.
- **Ease of Use:** Despite the inherent complexities of routing, the HP Router TR approaches the level of “plug-and-play” operation. The “Quick-Config” utility on the console port allows the router's basic parameters to be set by answering a short Series of questions; a split screen displays the current configuration and provides context-sensitive help. Extensive router management is available through the router's console port or via Telnet (remote terminal) access over the network. The HP Interconnect Manager

applications offer both a DOS and UNIX® version for control of the router's SNMP parameters.

Features

- Provides concurrent multiprotocol routing between all ports and bridging for each LAN and WAN port for maximum flexibility in supporting the connection of different multivendor devices on the network.
- Offers five standard routing protocols: TCP/IP (RIP/OSPF), DECnet IV, Xerox XNS, Novell IPX, and AppleTalk II.
- Operates concurrently as a bridge between the LAN and WAN ports. The IEEE 802.1 Spanning Tree Protocol can be used on the Ethernet LAN port and IEEE Source Routing can be used on the token ring port.
- Transfers data through X.25 public data networks (PDN) and defense data networks (DDN) on both WAN ports. The X.25 software is included as a standard feature at no additional cost.
- Allows load balancing between two WAN links of equal bandwidth for best use of leased lines between multiple remote routers.
- Supports two synchronous WAN connections via the HP universal interface ports with the appropriate 5-meter interface cable (RS-232, RS-422/449, V.35, or X.21). The HP Router TR automatically senses which interface cable is connected. Wide area link speeds between 19.2 Kbits/s and 2.048 Mbits/s are possible.
- Provides support of synchronous pass-through to allow certain IBM SNA traffic to use common internet services.
- Supports BOOTP relay agent for initializing from a preset configuration held in a server.
- Allows remote software updates via TFTP, allowing the vehicle to download a new software version over the LAN to multiple routers.
- Provides network security and isolation by allowing user-configurable traffic filtering based on type of service, protocol, subnet address, and/or network node addresses.
- Offers standards-based network management using the Simple Network Management Protocol (SNMP). This protocol is supported by HP's OpenView Interconnect Manager, both UNIX and DOS versions (HP 27360A, 27361A, and 27256D). In addition, router management is available through the router's console (RS-232) port and via Telnet (remote terminal) access over the network.
- Allows for easy configuration using the "Quick-Config" option on the terminal menu. A complete configuration editor is available for detailed tuning of the router's configuration.
- Mounts in a standard 19-inch equipment rack, using only one 1.75-inch rack space. All necessary mounting hardware is included.
- Includes computer-based tutorial (CBT) on 5.25-inch media to provide a self-paced training overview of router operation. HP is the only router vendor supplying valuable training with all units, at no cost.

Specifications

Environmental Characteristics

Operating Temperature: 0°C to 55°C (32°F to 131°F)
Relative Operating Humidity: 15% to 95% at 40°C (104°F) noncondensing

Physical Characteristics (without brackets)

Dimensions: 42.54 cm by 23.50 cm by 4.34 cm (16.75 in by 9.25 in by 1.72 in)
Weight: 2.72 kg (6.0 lb)

Electrical Characteristics

ac Voltage	100-120 V	220-240 V
Current	0.9 A	0.6 A
Frequency	50/60 Hz	50/60 Hz

The HP Router TR has an autoranging power supply that will adjust to any voltage between 90 and 240 volts.

Standards

Communications:

- IEEE 802.3 Ethernet Version 1.0 and 2.0
- IEEE 802.1 Spanning Tree Protocol Version 9
- RS-232-C on the console port

Emissions:

- FCC Part 15 Class A
- FTZ-1046/84 (VDE Level B)
- VCCI Class 2
- CISPR-22 EN 55022 Class B

Immunity:

- ESD: IEC 801-2 Level 3 (10 kV), EN 55101-3
- Radiated Emissions: IEC 801-2 Level 3 (3V/m), EN 55101-3

Safety Approvals:

- UL 1950
- CSA 950
- Verified to IEC 950/EN60950

Ordering Information

The WAN (synchronous) interface cable must be ordered separately. Choose the appropriate cable listed below and place the order with HP's Support Material Organization (SMO). This adapter cable must be ordered for each synchronous port to provide the physical interface connection to the DSU/CSU.

- 28606-63008 V.35 Synchronous Port
- 28606-63006 RS-232 Synchronous Port
- 28606-63005 RS-449/422 Synchronous Port
- 28606-63001 X.21 Synchronous Port

Warranty

HP 27286A Router TR is warranted for one year against defects.

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