

Technical Data
HP Router CR

Product Numbers
27270A, 27271A, 27272A,
27274A, 27276A, 27277A,
and 27278A

The HP Router CR is a high-performance, multiprotocol router and bridge. It can be used to interconnect any number of LAN networks to create an internetwork which links together LANs on a single site, and/or connects LANs at multiple sites via high-speed links.

Highlights

† **Concurrent Multiprotocol Routing and Bridging:** The HP Router CR can be configured to support concurrent operation of five popular routing protocols: TCP/IP, DECnet IV, Novell[®] IPX, Xerox XNS, and AppleTalk II. For packets that cannot be routed, the router can function as an Ethernet/802.3 learning bridge with the IEEE Spanning Tree protocol and/or as a Token Ring (802.5) bridge with the Source Routing Transparent protocol. It can also connect to X.25 networks in a variety of configurations.

† **Flexibility:** By adding the appropriate network interfaces, the router can be configured to support from 2 to 8 LAN ports or a maximum of 16 WAN ports. It can also be used in combination with the HP Router ER and HP Remote Bridge to create cost effective internetworks.

† la3821ik.plt;11.501 cm;8.455 cm;HPGL

† **High Performance:** The HP Router CR employs a parallel, multiprocessor architecture for excellent LAN-to-LAN performance, even in multiprotocol networks with high traffic loads.

Features

- † Provides concurrent multiprotocol routing and bridging for maximum flexibility in connecting different multivendor devices on the network.
- † Offers five standard routing protocols: TCP/IP, DECnet IV, Xerox XNS, Novell IPX, and AppleTalk II.
- † Operates concurrently as a multiport Ethernet/802.3 bridge with the IEEE 802.1 Spanning Tree Protocol and/or Token Ring (802.5) bridge with the Source Routing Transparent protocol.
- † Allows connection of Ethernet/802.3 networks to Token Ring (802.5) for networks using TCP/IP, Novell IPX, and/or AppleTalk II protocols.
- † Supports the standard protocols used for routing table management in multiple router networks: Open Shortest Path First (OSPF) and Routing Information Protocol (RIP).
- † Supports from 2 to 8 Ethernet/802.3 connections via the standard AUI port.
- † Supports from 1 to 4 Token Ring (802.5) connections at 4 or 16 Mbit/s via the mini DB-9 connector.

HP Router CR Performance

(64 byte packets per second; no packets dropped)

Protocol	Port-to-Port k packets/s		Card-to-Card k packets/s	
Ethernet Learning Bridge	13.5	14.5		
IP Routing over Ethernet	8.4	10.1		
IP Routing over 802.3	7.4	8.7		
DECnet IV Routing over Ethernet		6.0	7.1	
Novell IPX Routing over Ethernet		5.8	6.8	
AppleTalk Routing over Ethernet		7.8	9.4	
Mix of above with SNMP & ARP			7.3	6.2

- † Can transfer data through X.25 public data networks (PDNs).
- † Supports up to 16 synchronous WAN connections. Different interface cable options provide RS-232, RS-422/449, V.35, or X.21 interfaces. Supports data rates up to 2.048 Mbit/s.
- † Allows load balancing between multiple WAN links of equal bandwidth.
- † Allows synchronous traffic from X.25 packet switches and/or mainframe terminal controllers to be integrated with router traffic over one set of WAN links. SDLC, HDLC, or LAP-B data streams can be

connected to a synchronous port on the router and forwarded to another router port in the network.

† Provides a wide variety of filtering options for network security and isolation.

† Supports the Simple Network Management Protocol (SNMP). Works with HP OpenView Network Management Software. Also manageable via the router's console (RS-232) port or Telnet (remote terminal) access over the network.

† Supports remote installation of new versions of HP Router CR software over the network using the Trivial File Transfer Protocol (TFTP).

† Optionally mounts in a standard 19-inch rack using the built-in mounting brackets.

Specifications

Environmental Characteristics

Operating Temperature:

5°C to 40°C (40°F to 104°F)

Relative Operating Humidity:

15% to 80% at 40°C (104°F)

Physical Characteristics

Height: 22.1 cm (8.7 in)

Width: 48.3 cm (19.0 in)

Depth: 50.0 cm (19.7 in)

Electrical Characteristics

ac Voltage	100–120 V	220–240 V
Current	6 A	3 A
Frequency	50/60 Hz	50/60 Hz

The HP Router CR can be configured to support either voltage range shown above.

Regulatory Safety:

→ UL 1950

→ CSA 950

→ TUV → IEC 950/EN60950

Emissions:

- FCC Part 15, Class A
- VDE 0871 Level A
- VCCI Class I
- CISPR-22 Class A
- EN 55022 Class-A

Immunity:

- ESD (8KV), IEC 801-2 Level 3 ENSS 101-2

Radiated Emissions:

- (3V/M), IEC 801-3 Level 2, ENSS 101-3

Data Communication Certification

The HP 27270A is approved under Approval Number NS/G/1234/J/100003 for indirect connection to the public telecommunications system within the United Kingdom.

X.25 Certification:

Hewlett-Packard has applied to the following agencies for certification for use on X.25 packet-switching networks. Certifications were still in progress at time of printing.

Country	Network
North America	
U.S.A.	Telenet, Tymnet
Asia/Pacific	
Japan	Venus-P
Europe	
Austria	DATEX-P
Belgium	DCS
Finland	DATAPAK-P
Germany	DATEX-P
Italy	ITAPEK
Luxembourg	LUXPAC
Netherlands	DATANET1
Norway	DATAPAK
Sweden	DATAPAK
United Kingdom	PSS

X.21 Certification:

In countries where interface protocol certification is required for connecting to leased digital lines or public data networks, the X.21 protocol must be used. Certification is in progress for the following countries:

Austria	Luxembourg
Belgium	Netherlands
Finland	Norway
Germany	Sweden
Iceland	U.K.
Italy	

Additional certification testing will continue on selected networks. Please contact your local HP Sales and Support Office for up-to-date information.

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