Data sheet

HP HSR6600 Router Series

Key features

- High-performance WAN routing
- Compact, multi-core centralized processing architecture
- Comprehensive routing, switching, and security
- Modular WAN and LAN connectivity options
- Robust high availability and resiliency

Product overview

The HP HSR6600 Router Series is made up of high-performance services WAN routers that are ideal for small- to medium-sized campus WAN edge and aggregation, as well as high-end branch deployments.

These routers are built with a compact multi-core centralized processing architecture that delivers, in a 2 RU form factor, robust routing, security, full Layer 2 switching, and modular WAN and LAN interface options, all integrated in a single fast and powerful routing platform.

In addition, these routers feature robust carrier-class reliability capabilities to reduce disruption from network or system failures.

Features and benefits

Connectivity

- **Multiple WAN interfaces**
  support Fast Ethernet/Gigabit Ethernet/10GbE ports, OC3~OC48 POS/CPOS, and ATM ports
- **Flexible port selection**
  provides a combination of fiber/copper interface modules, 100/1000BASE-X auto-speed selection, and 10/100/1000BASE-T auto-speed detection plus auto duplex and MDI/MDI-X; is speed adaptable between 155 M POS/622 M POS/Gigabit Ethernet
- **Loopback**
  supports internal loopback testing for maintenance purposes and an increase in availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility

Performance

- **High-performance platform**
  provides up to 15 Mpps forwarding performance

Resiliency and high availability

- **Separate data and control planes**
  provide greater flexibility and enable continual services
- **Hot-swappable modules**
  facilitate the replacement of hardware interface modules without impacting the traffic flow through the system
- **Optional redundant power supply**
  provides uninterrupted power; allows hot-swapping of one of the two supplies when installed
- **Virtual Router Redundancy Protocol (VRRP)**
  allows groups of two routers to dynamically back each other up to create highly available routed environments
- **Graceful restart**
  features are fully supported, including graceful restart for OSPF, IS-IS, BGP, LDP, and RSVP; the network remains stable during the active-standby switchover; after the switchover, the device quickly learns the network routes by communicating with adjacent routers; forwarding remains uninterrupted during the switchover to achieve nonstop forwarding (NSF)
- **Hitless software upgrades**
  allow patches to be installed without restarting the device, increasing network uptime and simplifying maintenance
- **IP Fast Reroute Framework (FRR)**
  nodes are configured with backup ports and routes; local implementation requires no cooperation of adjacent devices, simplifying the deployment; solves the traditional convergence faults in IP forwarding; realizes restoration within 50 ms, with the restoration time independent of the number of routes and fast link switchovers without route convergence

Product architecture

- **Multi-core CPU**
  delivers multi-thread processing, with eight cores and 32 hardware threads
- **Distributed processing**
  two kinds of engines are hardware separated: main controller engine (routing engine) and service engines (Flexible Interface Platform [FIP]); the main controller engine is used for route computing and system management, and service engines are used for processing services

Layer 3 routing

- **Static IPv4 routing**
  provides simple, manually configured IPv4 routing
- **Routing Information Protocol (RIP)**
  uses a distance vector algorithm with UDP packets for route determination; supports RIPv1 and RIPv2 routing; includes loop protection
- **Open Shortest Path First (OSPF)**
  Interior Gateway Protocol (IGP) uses link-state protocol for faster convergence; supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- **Border Gateway Protocol 4 (BGP-4)**
  Exterior Gateway Protocol (EGP) with path vector protocol uses TCP for enhanced reliability for the route discovery process, reduces bandwidth consumption by advertising only incremental updates, and supports extensive policies for increased flexibility, as well as scales to very large networks
- **Intermediate system to intermediate system (IS-IS)**
  Interior Gateway Protocol (IGP) uses path vector protocol, which is defined by the ISO organization for IS-IS routing and extended by IETF RFC 1195 to operate in both TCP/IP and the OSI reference model (Integrated IS-IS)
- **Static IPv6 routing**
  provides simple, manually configured IPv6 routing
- **Dual IP stack**
  maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design
- **Routing Information Protocol next generation (RIPng)**
  extends RIPv2 to support IPv6 addressing
- **OSPFv3**
  provides OSPF support for IPv6
- **BGP+**
  extends BGP-4 to support Multiprotocol BGP (MBGP), including support for IPv6 addressing
- **IS-IS for IPv6**
  extends IS-IS to support IPv6 addressing

- **IPv6 tunneling**
  is an important element for the transition from IPv4 to IPv6; allows IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet; supports manually configured, 6to4, and Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) tunnels
- **Multiprotocol Label Switching (MPLS)**
  uses BGP to advertise routes across Label Switched Paths (LSPs), but uses simple labels to forward packets from any Layer 2 or Layer 3 protocol, thus reducing complexity and increasing performance; supports graceful restart for reduced failure impact; supports LSP tunneling and multilevel stacks
- **Multiprotocol Label Switching (MPLS) Layer 3 VPN**
  allows Layer 3 VPNs across a provider network; uses MP-BGP to establish private routes for increased security; supports RFC 2547bis multiple autonomous system VPNs for added flexibility
- **Multiprotocol Label Switching (MPLS) Layer 2 VPN**
  establishes simple Layer 2 point-to-point VPNs across a provider network using only MPLS Label Distribution Protocol (LDP); requires no routing and therefore decreases complexity, increases performance, and allows VPNs of non-routable protocols; uses no routing information for increased security; supports Circuit Cross Connect (CCC), Static Virtual Circuits (SVCs), Martini draft, and Kompella-draft technologies
- **Policy routing**
  allows custom filters for increased performance and security; supports ACLs, IP prefix, AS paths, community lists, and aggregate policies
- **Multicast VPN**
  supports Multicast Domain (MD) multicast VPN, which can be distributed on separate service cards, providing high performance and flexible configuration
- **Virtual Private LAN Service (VPLS)**
  establishes point-to-multipoint Layer 2 VPNs across a provider network
- **Bidirectional Forwarding Detection (BFD)**
  enables link connectivity monitoring and reduces network convergence time for RIP, OSPF, BGP, IS-IS, VRRP, MPLS, and IRF
- **IGMPv1, v2, and v3**
  allow individual hosts to be registered on a particular VLAN
- **PIM-SSM, PIM-DM, and PIM-SM (for IPv4 and IPv6)**
  support IP Multicast address management and inhibition of DoS attacks
- **Equal-Cost Multipath (ECMP)**
  enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth
- **OSPFv3 MCE**
  Multi-VPN-Instance CE (MCE) binds different VPNs to different interfaces on one single CE; the OSPFv3 MCE feature creates and maintains separate OSPFv3 routing tables for each IPv6 VPN to isolate VPN services in the device

Layer 3 services

- **Address Resolution Protocol (ARP)**
  determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- **User Datagram Protocol (UDP) helper**
  redirects UDP broadcasts to specific IP subnets to prevent server spoofing
- **Domain Name System (DNS)**
  provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server
- **Dynamic Host Configuration Protocol (DHCP)**
  simplifies the management of large IP networks

Security

- **Dynamic Virtual Private Network (DVPN)**
  collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making VPN establishment available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, DVPN technology is more flexible and has richer features, such as NAT traversal of DVPN packets, AAA identity authentication, IPSec protection of data packets, and multiple VPN domains
- **Group Domain Virtual Private Network (GDVPN)**
  a tunnel-less VPN technology that allows for native end-to-end security for a full meshed network; suitable for an enterprise running encryption over a private Multiprotocol Label Switching (MPLS)/IP-based core network, as well as to encrypt multicast traffic
- **Stateful VPN Firewall**
  provides enhanced stateful packet inspection and filtering; supports flexible security zones and virtual firewall containment; provides advanced VPN services with Triple DES (3DES) and Advanced Encryption Standard (AES) encryption at high performance and low latency, Web content filtering, and application prioritization and enhancement
- **Access control list (ACL)**
  supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can be set to operate on specific dates or times
- **Unicast Reverse Path Forwarding (URPF)**
  allows normal packets to be forwarded correctly, but discards the attaching packet due to lack of reverse path route or incorrect inbound interface; prevents source spoofing and distributed attacks; supports distributed UFPF

- **Secure shell (SSHv2)**
  uses external servers to securely log in to a remote device; with authentication and encryption, it protects against IP spoofing and plain-text password interception; increases the security of Secure FTP (SFTP) transfers
- **Remote Authentication Dial-In User Service (RADIUS)**
  eases switch security access administration by using a password authentication server
- **Terminal Access Controller Access-Control System (TACACS+)**
  is an authentication tool using TCP with encryption of the full authentication request that provides additional security
- **Network address translation (NAT)**
  supports repeated multiplexing of a port and automatic 5-tuple collision detection, enabling NAPT to support unlimited connections; supports blacklist in NAT/NAPT/internal server, a limit on the number of connections, session log, and multi-instance

Quality of Service (QoS)

- **HQoS / Nested QoS**
  - allows for precise and flexible traffic classification and scheduling
- **Traffic policing**
  supports Committed Access Rate (CAR) and line rate
- **Congestion management**
  supports FIFO, PQ, CQ, WFQ, CBQ, and RTPQ
- **Congestion avoidance**
  Weighted Random Early Detection (WRED)/Random Early Detection (RED)
- **Other QoS technologies**
  support traffic shaping, FR QoS, MPLS QoS, and MP QoS/LFI

Management

- **Industry-standard CLI with a hierarchical structure**
  reduces training time and expenses, and increases productivity in multivendor installations
- **SNMPv1, v2, and v3**
  provide complete support of SNMP; provide full support of industry-standard Management Information Base (MIB) plus private extensions; SNMPv3 supports increased security using encryption
- **Management interface control**
  each of the following interfaces can be enabled or disabled depending on security preferences: console port, telnet port, or reset button
- **Remote monitoring (RMON)**
  uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **Management security**
  multiple privilege levels with password protection restrict access to critical configuration commands; ACLs provide telnet and SNMP access; local and remote syslog capabilities allow logging of all access
- **FTP, TFTP, and SFTP support**
  FTP allows bidirectional transfers over a TCP/IP network and is used for configuration updates; Trivial FTP is a simpler method using User Datagram Protocol (UDP)
- **Debug and sampler utility**
  supports ping and traceroute for both IPv4 and IPv6
- **Network Quality Analyzer (NQA)**
  analyzes network performance and service quality by sending test packets, and provides network performance and service quality parameters such as jitter, TCP, or FTP connection delays and file transfer rates; allows a network manager to determine overall network performance and to diagnose and locate network congestion points or failures
- **Network Time Protocol (NTP)**
  synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time
- **Info center**
  provides a central information center for system and network information; aggregates all logs, traps, and debugging information generated by the system and maintains them in order of severity; outputs the network information to multiple channels based on user-defined rules

Multicast support

- **Internet Group Management Protocol (IGMP)**
  is used by IP hosts to establish and maintain multicast groups; supports v1, v2, and v3; utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks
- **Protocol Independent Multicast (PIM)**
  is used for IPv4 and IPv6 multicast applications; supports PIM Dense Mode (PIM-DM), Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM)
- **Multicast Source Discovery Protocol (MSDP)**
  is used for interdomain multicast applications, allowing multiple PIM-SM domains to interoperate
- **Multicast Border Gateway Protocol (MBGP)**
  allows multicast traffic to be forwarded across BGP networks, separate from unicast traffic

Additional information

- **Green initiative support**
  provides support for RoHS and WEEE regulations

Warranty and support

- **1-year warranty**
  with advance replacement and 10-calendar-day delivery (available in most countries)

- **Electronic and telephone support**
  limited electronic and telephone support is available from HP; to reach our support centers, refer to **www.hp.com/networking/contact-support**; for details on the duration of support provided with your product purchase, refer to **www.hp.com/networking/warrantysummary**
- **Software releases**
  to find software for your product, refer to **www.hp.com/networking/support**; for details on the software releases available with your product purchase, refer to **www.hp.com/networking/warrantysummary**

HP HSR6600 Router Series

Specifications

	HP HSR6602-G Router (JG353A)	HP HSR6602-XG Router (JG354A)
Ports	4 dual-personality 1000 Mbps ports (IEEE 802.3ab Type 1000BASE-T) 1 open module slot; for either a FIP10 or FIP20 Module 2 RJ-45 serial console ports 1 USB 2.0 1 RJ-45 out-of-band management port 1 Compact Flash port	4 dual-personality 1000 Mbps ports (IEEE 802.3ab Type 1000BASE-T) 2 SFP+ 10GbE ports (IEEE 802.3ae Type 10GBASE-SR) 1 open module slot; for either a FIP10 or FIP20 Module 2 RJ-45 serial console ports 1 USB 2.0 1 RJ-45 out-of-band management port 1 Compact Flash port
Physical characteristics		
	17.32(w) x 18.9(d) x 3.46(h) in (44 x 48 x 8.8 cm) (2U height)	17.32(w) x 18.9(d) x 3.46(h) in (44 x 48 x 8.8 cm) (2U height)
Weight	26.68 lb (12.1 kg), Fully loaded Chassis and power supplies as shipped	26.68 lb (12.1 kg), Fully loaded Chassis and power supplies as shipped
Memory and processor		
Processor	Multi-core PowerPC @ 1500 MHz, 8 MB flash, 2 GB SDRAM, 512 MB compact flash	Multi-core PowerPC @ 1500 MHz, 8 MB flash, 4 GB SDRAM, 512 MB compact flash
Mounting	EIA standard 19 in. rack	EIA standard 19 in. rack
Performance		
	IPv6 Ready Certified	IPv6 Ready Certified
Latency	13.5 µs (FIFO 64-byte packets)	13.5 µs (FIFO 64-byte packets)
Throughput	up to 9 million pps (64-byte packets)	up to 15 million pps (64-byte packets)
Switch fabric speed	80 Gbps	80 Gbps
Routing table size	1000000 entries (IPv4), 1000000 entries (IPv6)	4000000 entries (IPv4), 2000000 entries (IPv6)
Forwarding table size	1000000 entries (IPv4), 1000000 entries (IPv6)	1000000 entries (IPv4), 1000000 entries (IPv6)
Backplane bandwidth	80 Gbps	80 Gbps
Environment		
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Altitude	up to 13,123 ft (4 km)	up to 13,123 ft (4 km)
Electrical characteristics		
Frequency	50/60 Hz	50/60 Hz
Voltage	100-240 VAC	100-240 VAC
DC voltage	-48 VDC to -60 VDC	-48 VDC to -60 VDC
Maximum power rating	300 W	300 W
Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 1950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825; AS/NZS 60950; KN 60950; GOST R MEK60950; IEC 60950; EN 60950; IEC 60825; ROHS Compliance	UL 60950; CAN/CSA 22.2 No. 60950; EN 60825; AS/NZS 60950; GOST R MEK60950; IEC 60950; EN 60950; IEC 60825; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; AS/NZS CISPR 22 Class A; CSA 2.22 60950; EN 61000-3-2; EN 61000-3-3; UL 60950; EN 60950-1; IEC 60950-1; FCC (CFR 47, Part 15) Subpart B Class A; ETSI EN 300 386 Class A; KN22 Class A; GB 9254 Class A; AS/NZS 60950-1	VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; AS/NZS CISPR 22 Class A; CSA 2.22 60950; EN 61000-3-2; EN 61000-3-3; UL 60950; EN 60950-1; IEC 60950-1; FCC (CFR 47, Part 15) Subpart B Class A; ETSI EN 300 386 Class A; KN22 Class A; GB 9254 Class A; AS/NZS 60950-1
Immunity		
Generic	ETSI EN 300 386 V1.3.3; KN24	ETSI EN 300 386 V1.3.3; KN24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
Management	command-line interface; out-of-band management; SNMP Manager; Telnet; RMON1; terminal interface (serial RS-232C); Ethernet Interface MIB	command-line interface; out-of-band management; SNMP Manager; Telnet; RMON1; terminal interface (serial RS-232C); Ethernet Interface MIB
Services	Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP HSR6600 Router Series

Specifications (continued)

	HP HSR6602-G Router (JG353A)	HP HSR6602-XG Router (JG354A)
Standards and protocols (applies to all products in series)	**BGP** RFC 1267 Border Gateway Protocol 3 (BGP-3) RFC 1657 Definitions of Managed Objects for BGPv4 RFC 1771 BGPv4 RFC 1772 Application of the BGP RFC 1773 Experience with the BGP-4 Protocol RFC 1774 BGP-4 Protocol Analysis RFC 1965 BGP4 confederations RFC 1997 BGP Communities Attribute RFC 1998 PPP Gandalf FZA Compression Protocol RFC 2385 BGP Session Protection via TCP MD5 RFC 2439 BGP Route Flap Damping RFC 2796 BGP Route Reflection RFC 2842 Capability Advertisement with BGP-4 RFC 2858 BGP-4 Multi-Protocol Extensions RFC 2918 Route Refresh Capability **Denial of service protection** CPU DoS Protection Rate Limiting by ACLs **Device management** RFC 1155 Structure and Mgmt Information (SMIv1) RFC 1157 SNMPv1/v2c RFC 1305 NTPv3 RFC 1901 (Community based SNMPv2) RFC 1901-1907 SNMPv2c, SMIv2 and Revised MIB-II RFC 1902 (SNMPv2) RFC 1908 (SNMP v1/2 Coexistence) RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0 RFC 2068 Hypertext Transfer Protocol -- HTTP/1.1 RFC 2271 FrameWork RFC 2452 MIB for TCP6 RFC 2454 MIB for UDP6 RFC 2573 (SNMPv3 Applications) RFC 2576 (Coexistence between SNMP V1, V2, V3) RFC 2578-2580 SMIv2 RFC 2579 (SMIv2 Text Conventions) RFC 2580 (SMIv2 Conformance) RFC 2819 (RMON groups Alarm, Event, History and Statistics only) RFC 2819 RMON RFC 3410 (Management Framework) RFC 3416 (SNMP Protocol Operations v2) RFC 3417 (SNMP Transport Mappings) Multiple Configuration Files Multiple Software Images SNMP v3 and RMON RFC support SSHv1/SSHv2 Secure Shell TACACS/TACACS+ **General protocols** IEEE 802.1ad Q-in-Q IEEE 802.1ag Service Layer OAM IEEE 802.1ah Provider Backbone Bridges IEEE 802.1AX-2008 Link Aggregation IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q (GVRP) IEEE 802.1Q VLANs IEEE 802.1s (MSTP) IEEE 802.1s Multiple Spanning Trees IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.1X PAE IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3ac (VLAN Tagging Extension) IEEE 802.3ad Link Aggregation (LAG) IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3ae 10-Gigabit Ethernet IEEE 802.3ag Ethernet OAM IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber - EFMF	IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-X IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 791 IP RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 855 Telnet Option Specification RFC 856 TELNET RFC 857 Telnet Echo Option RFC 858 Telnet Suppress Go Ahead Option RFC 894 IP over Ethernet RFC 896 Congestion Control in IP/TCP Internetworks RFC 906 TFTP Bootstrap RFC 925 Multi-LAN Address Resolution RFC 950 Internet Standard Subnetting Procedure RFC 951 BOOTP RFC 959 File Transfer Protocol (FTP) RFC 1006 ISO transport services on top of the TCP: Version 3 RFC 1027 Proxy ARP RFC 1034 Domain Concepts and Facilities RFC 1035 Domain Implementation and Specification RFC 1042 IP Datagrams RFC 1058 RIPv1 RFC 1071 Computing the Internet Checksum RFC 1091 Telnet Terminal-Type Option RFC 1093 NSFNET routing architecture RFC 1122 Host Requirements RFC 1141 Incremental updating of the Internet checksum RFC 1142 OSI IS-IS Intra-domain Routing Protocol RFC 1144 Compressing TCP/IP headers for low-speed serial links RFC 1171 Point-to-Point Protocol for the transmission of multi-protocol datagrams over Point-to-Point links RFC 1191 Path MTU discovery RFC 1195 OSI ISIS for IP and Dual Environments RFC 1213 Management Information Base for Network Management of TCP/IP-based internets RFC 1253 (OSPF v2) RFC 1256 ICMP Router Discovery Protocol (IRDP) RFC 1293 Inverse Address Resolution Protocol RFC 1305 NTPv3 RFC 1315 Management Information Base for Frame Relay DTEs RFC 1321 The MD5 Message-Digest Algorithm RFC 1332 The PPP Internet Protocol Control Protocol (IPCP) RFC 1333 PPP Link Quality Monitoring RFC 1334 PPP Authentication Protocols (PAP) RFC 1334 PPP Authentication Protocols (PAP) RFC 1349 Type of Service RFC 1350 TFTP Protocol (revision 2) RFC 1377 The PPP OSI Network Layer Control Protocol (OSINLCP) RFC 1381 SNMP MIB Extension for X.25 LAPB RFC 1389 RIPv2 MIB Extension RFC 1471 The Definitions of Managed Objects for the Link Control Protocol of the Point-to-Point Protocol RFC 1472 The Definitions of Managed Objects for the Security Protocols of the Point-to-Point Protocol RFC 1490 Multiprotocol Interconnect over Frame Relay RFC 1519 CIDR RFC 1531 Dynamic Host Configuration Protocol RFC 1533 DHCP Options and BOOTP Vendor Extensions RFC 1534 DHCP/BOOTP Interoperation RFC 1541 DHCP RFC 1542 BOOTP Extensions RFC 1542 Clarifications and Extensions for the Bootstrap Protocol RFC 1552 The PPP Internetworking Packet Exchange Control Protocol (IPXCP) RFC 1577 Classical IP and ARP over ATM RFC 1631 NAT RFC 1638 PPP Bridging Control Protocol (BCP) RFC 1661 The Point-to-Point Protocol (PPP) RFC 1662 PPP in HDLC-like Framing RFC 1695 Definitions of Managed Objects for ATM Management Version 8.0 using SMIv2 RFC 1700 Assigned Numbers RFC 1701 Generic Routing Encapsulation RFC 1702 Generic Routing Encapsulation over IPv4 networks RFC 1721 RIP-2 Analysis RFC 1722 RIP-2 Applicability RFC 1723 RIP v2 RFC 1812 IPv4 Routing RFC 1829 The ESP DES-CBC Transform RFC 1877 PPP Internet Protocol Control Protocol Extensions for Name Server Addresses RFC 1944 Benchmarking Methodology for Network Interconnect Devices RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0 RFC 1973 PPP in Frame Relay RFC 1974 PPP Stac LZS Compression Protocol RFC 1981 Path MTU Discovery for IP version 6 RFC 1990 The PPP Multilink Protocol (MP) RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP) RFC 2082 RIP-2 MD5 Authentication RFC 2091 Trigger RIP RFC 2104 HMAC: Keyed-Hashing for Message Authentication RFC 2131 DHCP RFC 2132 DHCP Options and BOOTP Vendor Extensions RFC 2138 Remote Authentication Dial In User Service (RADIUS) RFC 2205 Resource ReSerVation Protocol (RSVP) - Version 1 Functional Specification RFC 2209 Resource ReSerVation Protocol (RSVP) -- Version 1 Message Processing Rules RFC 2236 IGMP Snooping RFC 2246 The TLS Protocol Version 1.0 RFC 2252 Lightweight Directory Access Protocol (v3): Attribute Syntax Definitions RFC 2280 Routing Policy Specification Language (RPSL) RFC 2283 MBGP RFC 2284 EAP over LAN RFC 2338 VRRP RFC 2364 PPP Over AAL5 RFC 2374 An Aggregatable Global Unicast Address Format RFC 2451 The ESP CBC-Mode Cipher Algorithms RFC 2453 RIPv2 RFC 2510 Internet X.509 Public Key Infrastructure Certificate Management Protocols RFC 2511 Internet X.509 Certificate Request Message Format RFC 2516 A Method for Transmitting PPP Over Ethernet (PPPoE) RFC 2529 Transmission of IPv6 over IPv4 Domains without Explicit Tunnels RFC 2616 HTTP Compatibility v1.1 RFC 2622 Routing Policy Specification Language (RPSL) RFC 2644 Directed Broadcast Control RFC 2661 L2TP RFC 2663 NAT Terminology and Considerations RFC 2684 Multiprotocol Encapsulation over ATM Adaptation Layer 5 RFC 2694 DNS extensions to Network Address Translators (DNS_ALG) RFC 2702 Requirements for Traffic Engineering Over MPLS

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Specifications (continued)

	HP HSR6602-G Router (JG353A)	HP HSR6602-XG Router (JG354A)	
Standards and protocols (applies to all products in series)	RFC 2716 PPP EAP TLS Authentication Protocol RFC 2747 RSVP Cryptographic Authentication RFC 2763 Dynamic Name-to-System ID mapping RFC 2763 Dynamic Name-to-System ID mapping support RFC 2765 Stateless IP/ICMP Translation Algorithm (SIIT) RFC 2766 Network Address Translation - Protocol Translation (NAT-PT) RFC 2767 Dual Stacks IPv4 & IPv6 RFC 2784 Generic Routing Encapsulation (GRE) RFC 2787 Definitions of Managed Objects for VRRP RFC 2865 Remote Authentication Dial In User Service (RADIUS) RFC 2866 RADIUS Accounting RFC 2868 RADIUS Attributes for Tunnel Protocol Support RFC 2869 RADIUS Extensions RFC 2961 RSVP Refresh Overhead Reduction Extensions RFC 2966 Domain-wide Prefix Distribution with Two-Level IS-IS RFC 2973 IS-IS Mesh Groups RFC 2976 The SIP INFO Method RFC 3022 Traditional IP Network Address Translator (Traditional NAT) RFC 3027 Protocol Complications with the IP Network Address Translator RFC 3031 Multiprotocol Label Switching Architecture RFC 3032 MPLS Label Stack Encoding RFC 3036 LDP Specification RFC 3046 DHCP Relay Agent Information Option RFC 3063 MPLS Loop Prevention Mechanism RFC 3065 Support AS confederation RFC 3137 OSPF Stub Router Advertisement RFC 3209 RSVP-TE Extensions to RSVP for LSP Tunnels RFC 3210 Applicability Statement for Extensions to RSVP for LSP-Tunnels RFC 3212 Constraint-Based LSP setup using LDP (CR-LDP) RFC 3214 LSP Modification Using CR-LDP RFC 3215 LDP State Machine RFC 3246 Expedited Forwarding PHB RFC 3268 Advanced Encryption Standard (AES) Ciphersuites for Transport Layer Security (TLS) RFC 3277 IS-IS Transient Blackhole Avoidance RFC 3279 Algorithms and Identifiers for the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile RFC 3280 Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile RFC 3392 Support BGP capabilities advertisement RFC 3410 Applicability Statements for SNMP RFC 3416 Protocol Operations for SNMP RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP) RFC 3479 Fault Tolerance for the Label Distribution Protocol (LDP) RFC 3487 Graceful Restart Mechanism for LDP RFC 3509 OSPF ABR Behavior RFC 3526 More Modular Exponential (MODP) Diffie-Hellman groups for Internet Key Exchange (IKE) RFC 3564 Requirements for Support of Differentiated Services-aware MPLS Traffic Engineering RFC 3567 Intermediate System to Intermediate System (IS-IS) Cryptographic Authentication RFC 3602 The AES-CBC Cipher Algorithm and Its Use with IPsec RFC 3619 Ethernet Automatic Protection Switching (EAPS) RFC 3623 Graceful OSPF Restart RFC 3704 Unicast Reverse Path Forwarding (URPF) RFC 3706 A Traffic-Based Method of Detecting Dead Internet Key Exchange (IKE) Peers RFC 3768 Virtual Router Redundancy Protocol (VRRP) RFC 3784 ISIS TE support RFC 3786 Extending the Number of IS-IS LSP Fragments Beyond the 256 Limit	RFC 3811 Definitions of Textual Conventions (TCs) for Multiprotocol Label Switching (MPLS) Management RFC 3812 Multiprotocol Label Switching (MPLS) Traffic Engineering (TE) Management Information Base (MIB) RFC 3847 Restart signaling for IS-IS RFC 4213 Basic IPv6 Transition Mechanisms **IP multicast** RFC 1112 IGMP RFC 2236 IGMPv2 RFC 2283 Multiprotocol Extensions for BGP-4 RFC 2362 PIM Sparse Mode RFC 2934 Protocol Independent Multicast MIB for IPv4 RFC 3376 IGMPv3 RFC 3973 PIM Dense Mode RFC 4601 PIM Sparse Mode RFC 4605 IGMP/MLD Proxying **IPv6** RFC 1350 TFTP RFC 1881 IPv6 Address Allocation Management RFC 1886 DNS Extension for IPv6 RFC 1887 IPv6 Unicast Address Allocation Architecture RFC 1981 IPv6 Path MTU Discovery RFC 2080 RIPng for IPv6 RFC 2292 Advanced Sockets API for IPv6 RFC 2373 IPv6 Addressing Architecture RFC 2375 IPv6 Multicast Address Assignments RFC 2460 IPv6 Specification RFC 2461 IPv6 Neighbor Discovery RFC 2462 IPv6 Stateless Address Auto-configuration RFC 2463 ICMPv6 RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2472 IP Version 6 over PPP RFC 2473 Generic Packet Tunneling in IPv6 RFC 2475 IPv6 DiffServ Architecture RFC 2529 Transmission of IPv6 Packets over IPv4 RFC 2545 Use of MP-BGP-4 for IPv6 RFC 2553 Basic Socket Interface Extensions for IPv6 RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2711 IPv6 Router Alert Option RFC 2740 OSPFv3 for IPv6 RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 3056 Connection of IPv6 Domains via IPv4 Clouds RFC 3162 RADIUS and IPv6 RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses (v2 models only) RFC 3307 IPv6 Multicast Address Allocation RFC 3315 DHCPv6 (client and relay) RFC 3363 DNS support RFC 3484 Default Address Selection for IPv6 RFC 3493 Basic Socket Interface Extensions for IPv6 (v2 models only) RFC 3513 IPv6 Addressing Architecture RFC 3542 Advanced Sockets API for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) RFC 3810 MLDv2 for IPv6 RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6 RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4252 SSHv6 Transport Layer RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH	RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4862 IPv6 Stateless Address Auto-configuration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6 RFC 5340 OSPF for IPv6 RFC 5340 OSPFv3 for IPv6 RFC 5722 Handling of Overlapping IPv6 Fragments **MIBs** IEEE 8021-PAE-MIB IEEE 8023-LAG-MIB RFC 1156 (TCP/IP MIB) RFC 1212 Concise MIB Definitions RFC 1213 MIB II RFC 1229 Interface MIB Extensions RFC 1286 Bridge MIB RFC 1493 Bridge MIB RFC 1573 SNMP MIB II RFC 1643 Ethernet MIB RFC 1650 Ethernet-Like MIB RFC 1657 BGP-4 MIB RFC 1724 RIPv2 MIB RFC 1757 Remote Network Monitoring MIB RFC 1850 OSPFv2 MIB RFC 1907 SNMPv2 MIB RFC 2011 SNMPv2 MIB for IP RFC 2012 SNMPv2 MIB for TCP RFC 2013 SNMPv2 MIB for UDP RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2233 Interfaces MIB RFC 2273 SNMP-NOTIFICATION-MIB RFC 2452 IPV6-TCP-MIB RFC 2454 IPV6-UDP-MIB RFC 2465 IPv6 MIB RFC 2466 ICMPv6 MIB RFC 2571 SNMP Framework MIB RFC 2572 SNMP-MPD MIB RFC 2574 SNMP USM MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2737 Entity MIB (Version 2) RFC 2787 VRRP MIB RFC 2819 RMON MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB RFC 2932IP (Multicast Routing MIB) RFC 2933 IGMP MIB RFC 3273 HC-RMON MIB RFC 3414 SNMP-User based-SM MIB RFC 3415 SNMP-View based-ACM MIB RFC 3418 MIB for SNMPv3 RFC 3813 MPLS LSR MIB RFC 3814 MPLS FTN MIB RFC 3815 MPLS LDP MIB RFC 3826 AES for SNMP's USM MIB RFC 4113 UDP MIB RFC 4133 Entity MIB (Version 3) RFC 4221 MPLS FTN MIB LLDP-EXT-DOT1-MIB LLDP-EXT-DOT3-MIB LLDP-MIB **Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.1D (STP) RFC 1098 A Simple Network Management Protocol (SNMP) RFC 1155 Structure of Management Information RFC 1157 SNMPv1

HP HSR6600 Router Series

Specifications (continued)

	HP HSR6602-G Router (JG353A)	HP HSR6602-XG Router (JG354A)	
Standards and protocols (applies to all products in series)	RFC 1215 SNMP Generic traps RFC 1757 RMON 4 groups: Stats, History, Alarms and Events RFC 1901 SNMPv2 Introduction RFC 1902 SNMPv2 Structure RFC 1903 SNMPv2 Textual Conventions RFC 1904 SNMPv2 Conformance RFC 1905 SNMPv2 Protocol Operations RFC 1906 SNMPv2 Transport Mappings RFC 1918 Private Internet Address Allocation RFC 2272 SNMPv3 Management Protocol RFC 2273 SNMPv3 Applications RFC 2274 USM for SNMPv3 RFC 2275 VACM for SNMPv3 RFC 2570 SNMPv3 Overview RFC 2571 SNMP Management Frameworks RFC 2572 SNMPv3 Message Processing RFC 2573 SNMPv3 Applications RFC 2574 SNMPv3 User-based Security Model (USM) RFC 2575 SNMPv3 View-based Access Control Model (VACM) RFC 2575 VACM for SNMP RFC 2576 Coexistence between SNMP versions RFC 2578 SMIv2 RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 2819 Remote Network Monitoring Management Information Base RFC 3164 BSD syslog Protocol RFC 3176 sFlow RFC 3411 SNMP Management Frameworks RFC 3412 SNMPv3 Message Processing RFC 3414 SNMPv3 User-based Security Model (USM) RFC 3415 SNMPv3 View-based Access Control Model VACM) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2 SNMPv1/v2c SNMPv1/v2c (read only) SNMPv1/v2c/v3 **OSPF** RFC 1245 OSPF protocol analysis RFC 1246 Experience with OSPF RFC 1253 OSPFv2 MIB RFC 1583 OSPFv2 RFC 1587 OSPF NSSA RFC 1745 OSPF Interactions RFC 1765 OSPF Database Overflow RFC 1850 OSPFv2 Management Information Base (MIB), traps RFC 2154 OSPF w/ Digital Signatures (Password, MD-5) RFC 2178 OSPFv2	RFC 2328 OSPFv2 RFC 2370 OSPF Opaque LSA Option RFC 3101 OSPF NSSA RFC 3623 Graceful OSPF Restart RFC 5340 OSPF for IPv6 RFC 5340 OSPFv3 for IPv6 **QoS/CoS** IEEE 802.1P (CoS) RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2474 DiffServ precedence, with 4 queues per port RFC 2474 DS Field in the IPv4 and IPv6 Headers RFC 2474 DSCP DiffServ RFC 2474, with 4 queues per port RFC 2475 DiffServ Architecture RFC 2597 DiffServ Assured Forwarding (AF) RFC 2597 DiffServ Assured Forwarding (AF)- partial support RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1321 The MD5 Message-Digest Algorithm RFC 1492 TACACS+ RFC 2082 RIP-2 MD5 Authentication RFC 2104 Keyed-Hashing for Message Authentication RFC 2138 RADIUS Authentication RFC 2139 RADIUS Accounting RFC 2209 RSVP-Message Processing RFC 2246 Transport Layer Security (TLS) RFC 2408 Internet Security Association and Key Management Protocol (ISAKMP) RFC 2409 The Internet Key Exchange (IKE) RFC 2459 Internet X.509 Public Key Infrastructure Certificate and CRL Profile RFC 2548 Microsoft Vendor-specific RADIUS Attributes RFC 2716 PPP EAP TLS Authentication Protocol RFC 2818 HTTP Over TLS RFC 2865 RADIUS (client only) RFC 2865 RADIUS Authentication RFC 2866 RADIUS Accounting RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support RFC 2868 RADIUS Attributes for Tunnel Protocol Support RFC 2869 RADIUS Extensions RFC 3567 Intermediate System (IS) to IS Cryptographic Authentication RFC 3576 Dynamic Authorization Extensions to RADIUS RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP) RFC 3580 IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines	Access Control Lists (ACLs) Guest VLAN for 802.1x MAC Authentication Port Security Secure Sockets Layer (SSL) SSHv1 Secure Shell SSHv1.5 Secure Shell SSHv1/SSHv2 Secure Shell SSHv2 Secure Shell **VPN** RFC 2403 - HMAC-MD5-96 RFC 2404 - HMAC-SHA1-96 RFC 2405 - DES-CBC Cipher algorithm RFC 2407 - Domain of interpretation RFC 2547 BGP/MPLS VPNs RFC 2764 A Framework for IP Based Virtual Private Networks RFC 2796 BGP Route Reflection - An Alternative to Full Mesh IBGP RFC 2842 Capabilities Advertisement with BGP-4 RFC 2858 Multiprotocol Extensions for BGP-4 RFC 2917 A Core MPLS IP VPN Architecture RFC 2918 Route Refresh Capability for BGP-4 RFC 3107 Carrying Label Information in BGP-4 RFC 4302 - IP Authentication Header (AH) RFC 4303 - IP Encapsulating Security Payload (ESP) RFC 4305 - Cryptographic Algorithm Implementation Requirements for ESP and AH **IPsec** RFC 1828 IP Authentication using Keyed MD5 RFC 2401 IP Security Architecture RFC 2402 IP Authentication Header RFC 2406 IP Encapsulating Security Payload RFC 2407 - Domain of interpretation RFC 2408 - Internet Security Association and Key Management Protocol (ISAKMP) RFC 2409 - The Internet Key Exchange RFC 2410 - The NULL Encryption Algorithm and its use with IPsec RFC 2411 IP Security Document Roadmap RFC 2412 – OAKLEY RFC 2865 - Remote Authentication Dial In User Service (RADIUS) **IKEv1** RFC 2865 - Remote Authentication Dial In User Service (RADIUS) RFC 3748 - Extensible Authentication Protocol (EAP)

HP HSR6600 Router Series accessories

Transceivers

HP X110 100M SFP LC LH40 Transceiver (JD090A)
HP X110 100M SFP LC LH80 Transceiver (JD091A)
HP X110 100M SFP LC FX Transceiver (JD102B)
HP X110 100M SFP LC LX Transceiver (JD120B)
HP X120 622M SFP LC LX 15km Transceiver (JF829A)
HP X120 622M SFP LC LH 40km 1310 Transceiver (JF830A)
HP X120 622M SFP LC LH 80km 1550 Transceiver (JF831A)
HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A)
HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A)
HP X120 1G SFP LC BX 10-U Transceiver (JD098B)
HP X120 1G SFP LC BX 10-D Transceiver (JD099B)
HP X120 1G SFP LC LH100 Transceiver (JD103A)
HP X120 1G SFP LC SX Transceiver (JD118B)
HP X120 1G SFP LC LX Transceiver (JD119B)
HP X125 1G SFP LC LH70 Transceiver (JD063B)
HP X120 1G SFP RJ45 T Transceiver (JD089B)
HP X160 2.5G SFP LC 2km Transceiver (JD084A)
HP X160 2.5G SFP LC 15km Transceiver (JD085A)
HP X160 2.5G SFP LC 40km Transceiver (JD086A)
HP X160 2.5G SFP LC 80km Transceiver (JD087A)
HP X135 10G XFP LC ER Transceiver (JD121A)
HP X130 10G XFP LC LR Transceiver (JD108B)
HP X130 10G XFP LC SR Transceiver (JD117B)
HP X130 10G SFP+ LC SR Transceiver (JD092B)
HP X130 10G SFP+ LC LR Transceiver (JD094B)
HP X130 10G SFP+ LC ER 40km Transceiver (JG234A)

Cables

HP X200 V.24 DTE 3m Serial Port Cable (JD519A)
HP X200 V.24 DCE 3m Serial Port Cable (JD521A)
HP X200 V.35 DTE 3m Serial Port Cable (JD523A)
HP X200 V.35 DCE 3m Serial Port Cable (JD525A)
HP X200 X.21 DTE 3m Serial Port Cable (JD527A)
HP X200 X.21 DCE 3m Serial Port Cable (JD529A)
HP X260 RS449 3m DTE Serial Port Cable (JF825A)
HP X260 RS449 3m DCE Serial Port Cable (JF826A)
HP X260 RS530 3m DTE Serial Port Cable (JF827A)
HP X260 RS530 3m DCE Serial Port Cable (JF828A)
HP X260 8E1 BNC 75 ohm 3m Router Cable (JD512A)
HP X260 E1 RJ45 BNC 75-120 ohm Conversion Router Cable (JD511A)

Power Supply

HP 5800 300W AC Power Supply (JC087A)
HP 5800 300W DC Power Supply (JC090A)

Fan Tray

HP HSR6602 Router Spare Fan Assembly (JG359A)

Router Modules

HP 6600 8-port 10/100Base-T HIM Module (JC575A)
HP 6600 4-port Gig-T HIM Module (JC163A)
HP 6600 8-port Gig-T HIM Module (JC164A)
HP 6600 4-port GbE SFP HIM Module (JC171A)
HP 6600 8-port GbE SFP HIM Module (JC174A)
HP 6600 1-port 10-GbE XFP HIM Module (JC168A)
HP 6600 1-port OC-3/STM-1 (E1/T1) CPOS SFP HIM Module (JC161A)
HP 6600 2-port OC-3/STM-1 (E1/T1) CPOS SFP HIM Module (JC162A)
HP 6600 2-port OC-3/STM-1 (E3/T3) CPOS SFP HIM Module (JC169A)
HP 6600 1-port OC-3/STM-1 (E3/T3) CPOS SFP HIM Module (JC170A)
HP 6600 4-port OC-3c/STM-1c or 2-port OC-12c/STM-4c POS SFP HIM Module (JC172A)
HP 6600 2-port OC-3c/STM-1c or 1-port OC-12c/STM-4c POS SFP HIM Module (JC173A)
HP 6600 1-port OC-3c/STM-1c ATM SFP HIM Module (JC175A)
HP 6600 1-port OC-48c/STM-16c POS/CPOS SFP HIM Module (JC494A)
HP 6600 2-port OC-3c/STM-1c ATM SFP HIM Module (JC495A)
HP 6600 2-port OC-48c/STM-16c RPR SFP HIM Module (JC576A)
HP MSR 2-port Enhanced Sync/Async Serial MIM Module (JD540A)
HP MSR 8-port T1/Fractional T1 MIM Module (JC159A)
HP MSR 8-port T1/CT1/PRI MIM Module (JC160A)
HP MSR 4-port Enhanced Sync/Async Serial MIM Module (JD541A)
HP MSR 8-port Enhanced Sync/Async Serial MIM Module (JD552A)
HP MSR 1-port T3/CT3/FT3 MIM Module (JD628A)
HP MSR 1-port FE3/CE3 MIM Module (JD630A)
HP MSR 8-port E1/Fractional E1 (75ohm) MIM Module (JF255A)
HP 6600 FIP-10 Flexible Interface Platform Router Module (JG357A)
HP 6600 FIP-20 Flexible Interface Platform Router Module (JG358A)

Memory

HP X610 2G VLP DDR3 SDRAM Memory (JG482A)

Products within this series are IPv6 Ready certified. See the Specifications section of this series for more information.

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