QuickSpecs

Overview

HPE MSR93x Router Series

Models

HP MSR930 Router	JG511B
HP MSR930 Wireless 802.11n (NA) Router	JH012B
HP MSR930 3G Router	JG513B
HP MSR931 Router	JG514B
HP MSR931 Dual 3G Router	JG531B
HP MSR935 Router	JG518B
HP MSR930 Wireless Router	JG512A
HP MSR930 4G LTE/3G WCDMA Global Router	JG665A
HP MSR930 4G LTE/3G WCDMA ATT Router	JG704A
HP MSR931 3G Router	JG515A
HP MSR933 Router	JG516A
HP MSR933 3G Router	JG517A
HP MSR935 Wireless Router	JG519A
HP MSR935 3G Router	JG520A
HP MSR936 Wireless Router	JG597A

Key features

- Converged high-performance routing, switching, security, SIP, and 300 Kpps performance
- Integrated GbE WAN and LAN, ADSL2+, and serial port
- Integrated 4G LTE and 3G/dual 3G wireless WAN (WWAN) as well as IEEE 802.11b/g/n WLAN
- Embedded encryption, firewall, NAT, DVPN, GDVPN, security features
- Unified OS, zero-touch solution, and single-pane-of-glass management

Product overview

The HPE MSR93x Router Series is a high-performance small-branch router that delivers integrated routing, switching, security, SIP, embedded IEEE 802.11b/g/n WLAN connectivity, integrated 4G LTE and 3G, serial port, ADSL2+, and an optional dual 3G WAN—all in a single box.

The MSR93x solutions deliver up to 300 Kpps forwarding with comprehensive IPv4 and IPv6 routing, MPLS, QoS, firewall, network address translation (NAT), VPN, switching, voice, and wireless capabilities in a compact, fixed form factor. Moreover, this router series is based on open standards for seamless integration within small-branch deployments.

Features and benefits

Quality of Service (QoS)

- **Traffic policing**
  supports Committed Access Rate (CAR) and line rate
- **Congestion management**
  supports FIFO, PQ, CQ, WFQ, CBQ, and RTPQ

Hewlett Packard Enterprise

Overview

- **Weighted random early detection (WRED)/random early detection (RED)**
  delivers congestion avoidance capabilities through the use of queue management algorithms
- **Other QoS technologies**
  support traffic shaping, FR QoS, and MP QoS/LFI

Management

- **Industry-standard CLI with a hierarchical structure**
  reduces training time and expenses, and increases productivity in multivendor installations
- **Management security**
  restricts access to critical configuration commands; offers multiple privilege levels with password protection; ACLs provide Telnet and SNMP access; local and remote syslog capabilities allow logging of all access
- **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
- **Remote monitoring (RMON)**
  uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **FTP, TFTP, and SFTP support**
  offers different mechanisms for configuration updates; FTP allows bidirectional transfers over a TCP/IP network; trivial FTP (TFTP) is a simpler method using User Datagram Protocol (UDP); Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security
- **Debug and sampler utility**
  supports ping and traceroute for both IPv4 and IPv6
- **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
- **Information center**
  provides a central repository 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

Connectivity

- **Packet storm protection**
  protects against broadcast, multicast, or unicast storms with user-defined thresholds
- **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 basis for added flexibility
- **Integrated 3G Wireless WAN (WWAN) capability**
  o offers models with built-in 3G and dual 3G WWAN connectivity
  o supports up to 4 antennas in dual 3G models for improved connectivity and throughput
  o comes with default 3G antenna; additional 3G antennas available
- **3G and 4G LTE access**
  Supports popular 3G and 4G LTE USB modems; for a list of supported products, contact your local Hewlett Packard Enterprise representative
- **Multiple Gigabit Ethernet connection options**
  provides GbE WAN and GbE LAN ports onboard
- **4G LTE Verizon and global carrier support**
  delivers embedded 4G LTE wireless WAN backhaul connectivity with two different carrier chipset options

Overview

- **Multiple advanced WAN interfaces**
  provides traditional connection options including serial, ADSL2+ (Annex A/M, Annex B/J, over POTS or ISDN), 4-pair G.SHDSL and WAN Gigabit Ethernet ports; offers wireless access with 4G LTE and 3G connectivity

Performance

- **Forwarding performance**
  provides up to 300 Kpps; meets current and future bandwidth-intensive application demands for enterprise businesses
- **Embedded encryption**
  supports up to 100 VPN tunnels and up to 160 Mb/s encryption throughput
- **Gigabit Ethernet interface**
  provides a connection to the network that eliminates the network as a bottleneck

Resiliency and high availability

- **Backup Center**
  acts as a part of the management and backup function to provide backup for device interfaces; delivers reliability by switching traffic over to a backup interface when the primary one fails
- **Virtual Router Redundancy Protocol (VRRP)**
  allows groups of two routers to dynamically back each other up to create highly available routed environments; and supports VRRP load balancing
- **Wireless WAN (WWAN) with integrated 3G**
  allows small-branch users to maintain remote office data connectivity to data center or headquarters, using the integrated carrier connections

Layer 2 switching

- **Spanning Tree Protocol (STP)**
  supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- **Internet Group Management Protocol (IGMP) and Multicast**
  Listener Discovery (MLD) protocol snooping controls and manages the flooding of multicast packets in a Layer 2 network
- **Port mirroring**
  duplicates port traffic (ingress and egress) to a local or remote monitoring port
- **Port isolation**
  increases security by isolating ports within a VLAN while still allowing them to communicate with other VLANs
- **VLANs**
  supports IEEE 802.1Q-based VLANs
- **sFlow**
  allows traffic sampling

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
- **Dynamic Host Configuration Protocol (DHCP)**
  simplifies the management of large IP networks and supports client and server; DHCP Relay enables DHCP operation across subnets

Overview

- **Built-in applications support**
  - **Device management controller (DMC)**: acts as the gateway of a virtual "network training room"
  - **Wisdom Network (WiNet) technology**: helps manage a large number of scattered network devices centrally
  - **Remote terminal connection (RTC) and true type terminal (TTY) access:** allows the connection of a terminal to a router through an asynchronous interface for data exchange with a front-end processor (FEP) or another terminal through the router

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)**
  delivers faster convergence; uses this link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- **Border Gateway Protocol 4 (BGP-4)**
  delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors; uses TCP for enhanced reliability for the route discovery process; reduces bandwidth consumption by advertising only incremental updates; supports extensive policies for increased flexibility; scales to very large networks
- **Intermediate system to intermediate system (IS-IS)**
  uses a path vector Interior Gateway Protocol (IGP), 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**
  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; is an important element for the transition from IPv4 to IPv6
- **Policy routing**
  allows custom filters for increased performance and security; supports ACLs, IP prefix, AS paths, community lists, and aggregate policies
- **BGP4+ support**
  utilizes the BGP-4 (RFC 4271) exterior routing protocol for routing integrity and reliability between different autonomous systems

Security

Overview

- **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

- **Terminal Access Controller Access-Control System (TACACS+)**
  delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security

- **Network login**
  allows authentication of multiple users per port using the IEEE 802.1X standard

- **Remote Authentication Dial-in user Service (RADIUS) login**
  eases security access administration by using a password authentication server

- **NAT enablement:**
  facilitates one-to-one NAT, many-to-many NAT, and NAT control—enabling NAT-PT to support multiple connections; supports blacklisting in the NAT/NAT-PT; and enables a limit on the number of connections, session logs, and multiple instances

- **SSHv2:**
  uses external servers to securely log in to a remote device or MSRs from a remote location; protects against IP spoofing and plain-text password interception, with authentication and encryption; and increases the security of SFTP transfers

- **Unicast Reverse Path Forwarding (URPF):**
  allows normal packets to be forwarded correctly, but discards the attaching packets due to lack of a reverse path route or an incorrect inbound interface; and helps prevents source spoofing and distributed attacks

- **IPSec VPN:**
  supports DES, 3DES, and AES 128/192/256 encryption as well as MD5 and SHA-1 authentication

- **DVPN:**
  collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making the VPN establishment available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, the 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

Convergence

- **Internet Group Management Protocol (IGMP)**
  utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3

- **Protocol Independent Multicast (PIM)**
  defines modes of Internet IPv4 and IPv6 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM Dense Mode (DM), Sparse Mode (SM), and Source-Specific Mode (SSM)

- **Multicast Source Discovery Protocol (MSDP)**
  allows multiple PIM-SM domains to interoperate; is used for inter-domain multicast applications

- **Multicast Border Gateway Protocol (MBGP)**
  allows multicast traffic to be forwarded across BGP networks and kept separate from unicast traffic

- **Internet Group Management Protocol (IGMP) snooping and proxy**
  - monitors and observes IGMP network traffic, allowing the network device to listen in on the IGMP conversation between hosts and routers—enabling better IP multicast stream control
  - allows a multicast router to learn multicast group membership information; and enables it to forward multicast packets

- **Multicast VPN and bidirectional protocol independent-multicasting (PIM)**
  - allows rich multicast services such as video conferencing and data sharing amongst enterprise VPN-based deployments

Overview

o improves scalability of various applications through the use of bidirectional PIM

Integration

- **Embedded NetStream**
improves traffic distribution using powerful scheduling algorithms, including Layer 4 to 7 services; monitors the health status of servers and firewalls
- **Embedded VPN firewall**
  - o provides enhanced stateful packet inspection and filtering
  - o delivers advanced VPN services with Triple DES (3DES) and Advanced Encryption Standard (AES) encryption at high performance and low latency
  - o offers Web content filtering and application prioritization and enhancement

Additional information

- **Green initiative support**
provides support for RoHS and WEEE regulations
- **OPEX savings**
simplifies and streamlines deployment, management, and training through the use of a common operating system, thereby cutting costs as well as reducing the risk of human errors associated with having to manage multiple operating systems across different platforms and network layers
- **Faster time to market**
allows new and custom features to be brought rapidly to market through engineering efficiencies, delivering better initial and ongoing stability

Warranty and support

- **1-year Warranty 2.0**
See **http://www.hpe.com/networking/warrantysummary** for warranty and support information included with your product purchase.
- **Software releases**
to find software for your product, refer to **http://www.hpe.com/networking/support** ; for details on the software releases available with your product purchase, refer to **http://www.hpe.com/networking/warrantysummary**

Configuration

Build To Order:
BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

HP MSR930 Router	JG511B
• 1 RJ-45 autosensing 10/100/1000 WAN port	See Configuration
• 4 RJ-45 autosensing 10/100/1000 LAN ports	**NOTE:**2

PDU Cable NA/MEX/TW/JP	JG511B#B2B
• C15 PDU Jumper Cord (NA/MEX/TW/JP)	

PDU Cable ROW	JG511B#B2C
• C15 PDU Jumper Cord (ROW)	

HP MSR930 Wireless Router	JG512A
• 1 RJ-45 autosensing 10/100/1000 WAN port	See Configuration
• 4 RJ-45 autosensing 10/100/1000 LAN ports	**NOTE:**2, 3, 5
• Wireless - 802.11 b/g/n	
• Included antennas: 2	
• Maximum antennas: 2	

Russian Reduced Encryption	JG512A#A59

PDU Cable NA/MEX/TW/JP	JG512A#B2B
• C15 PDU Jumper Cord (NA/MEX/TW/JP)	

PDU Cable ROW	JG512A#B2C
• C15 PDU Jumper Cord (ROW)	

High Volt Switch to Wall Power Cord	JG512A#B2E
• NEMA L6-20P Cord (NA/MEX/JP/TW)	

HP MSR930-W (NA) Router	JH012B
• 1 RJ-45 autosensing 10/100/1000 WAN port	See Configuration
• 4 RJ-45 autosensing 10/100/1000 LAN ports	**NOTE:**2, 3
• Wireless - 802.11 b/g/n	
• Included antennas: 2	
• Maximum antennas: 2	

PDU Cable NA/MEX/TW/JP	JH012B#B2B
• C15 PDU Jumper Cord (NA/MEX/TW/JP)	

High Volt Switch to Wall Power Cord	JH012B#B2E
• NEMA L6-20P Cord (NA/MEX/JP/TW)	

Configuration

HP MSR930 3G Router   JG513B
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2
- Included 3G antennas: 1
- Maximum 3G antennas: 2

PDU Cable NA/MEX/TW/JP   JG513B#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG513B#B2C
- C15 PDU Jumper Cord (ROW)

HP MSR931 Router   JG514B
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 4
- 1 Serial port (min=0 \ max=1 Serial Port Cable)

PDU Cable NA/MEX/TW/JP   JG514B#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG514B#B2C
- C15 PDU Jumper Cord (ROW)

HP MSR931 3G Router   JG515A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**5, 4, 9
- 1 Serial port (min=0 \ max=1 Serial Port Cable)
- Included 3G antennas: 1
- Maximum 3G antennas: 2

Russian Reduced Encryption   JG515A#A59

HP MSR933 Router   JG516A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 3, 5
- 1 8-wire G.SHDSL port

Russian Reduced Encryption   JG516A#A59

PDU Cable NA/MEX/TW/JP   JG516A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

                                                                                       JG516A
PDU Cable ROW   #B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord   JG516A#B2E

Configuration

- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR933 3G Router	JG517A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- 1 8-wire G.SHDSL port
- Embedded 3G
- Included 3G antennas: 1
- Maximum 3G antennas: 2

See Configuration
NOTE:2, 3, 5

Russian Reduced Encryption   JG517A#A59

PDU Cable NA/MEX/TW/JP   JG517A #B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG517A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord   JG517A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR935 Router   JG518B
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- 1 ADSL2+ ANNEX A/M port

See Configuration
NOTE:2

PDU Cable NA/MEX/TW/JP   JG518B#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG518B#B2C
- C15 PDU Jumper Cord (ROW)

HP MSR935 Wireless Router   JG519A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- 1 ADSL2+ ANNEX A/M port
- Wireless - 802.11 b/g/n
- Included antennas: 2
- Maximum antennas: 2

See Configuration
NOTE:2, 3, 5

Russian Reduced Encryption   JG519A#A59

PDU Cable NA/MEX/TW/JP   JG519A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG519A#B2C
- C15 PDU Jumper Cord (ROW)

Configuration

High Volt Switch to Wall Power Cord   JG519A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR935-W (NA) Router   JH013A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 3
- 1 ADSL2+ ANNEX A/M port
- Wireless - 802.11 b/g/n
- Included antennas: 2
- Maximum antennas: 2

High Volt Switch to Wall Power Cord   JH013A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR935 3G Router   JG520A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 3, 5
- 1 ADSL2+ ANNEX A/M port
- Embedded 3G
- Included 3G antennas: 1
- Maximum 3G antennas: 2

Russian Reduced Encryption   JG520A#A59

PDU Cable NA/MEX/TW/JP   JG520A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG520A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord   JG520A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR931 Dual 3G Router   JG531B
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 4
- 1 Serial port (min=0 \ max=1 Serial Port Cable)
- Included 3G antennas: 2
- Maximum 3G antennas: 4

PDU Cable NA/MEX/TW/JP   JG531B#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG531B#B2C
- C15 PDU Jumper Cord (ROW)

HP MSR930 4G LTE/3G CDMA Router   JG596A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration

Configuration

- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 3
- 1 GPS L1/GLONASS Antenna port
- 4G-LTE-V
- Included 4G antennas: 2
- Maximum 4G antennas: 2

PDU Cable NA/MEX/TW/JP   JG596A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

High Volt Switch to Wall Power Cord   JG596A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR930 4G LTE/3G WCDMA ATT Router   JG704A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**9
- 1 GPS L1/GLONASS Antenna port
- 4G-LTE
- Included 4G antennas: 2
- Maximum 4G antennas: 2

HP MSR936 Wireless Router   JG597A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 5
- 1 ADSL2+ ANNEX B/J port
- Wireless - 802.11 b/g/n
- Included antennas: 2
- Maximum antennas: 2

Russian Reduced Encryption   JG597A#A59

PDU Cable NA/MEX/TW/JP   JG597A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG597A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord   JG597A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HP MSR930 4G LTE/3G WCDMA Global Router   JG665A
- 1 RJ-45 autosensing 10/100/1000 WAN port   See Configuration
- 4 RJ-45 autosensing 10/100/1000 LAN ports   **NOTE:**2, 5
- 1 GPS L1/GLONASS Antenna port
- 4G-LTE-G
- Included 4G antennas: 2
- Maximum 4G antennas: 2

Russian Reduced Encryption   JG665A#A59

Configuration

PDU Cable NA/MEX/TW/JP   JG665A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW   JG665A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord   JG665A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Configuration Rules:

Note 2   Localization required on orders without #B2B, #B2C or #B2E. (See Localization Menu)

Note 3   #B2E is Offered only in AMS, Taiwan, and Japan.

Note 4   The following Cables install into this Router:
                 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 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

Note 5   If this product is ordered for delivery to Russia, it must be ordered with the A59 option (also
                 allowed for other countries desiring Low Encryption), then #A59 is the required option in
                 addition to Localization or #B2x options.

Note 9   Localization required. (See Localization Menu)

Router Options

Mounting Kit

HP MSR930 Chassis Rack Mount Kit   JG852A
                                                                                     See Configuration
                                                                                             NOTE:1

HP MSR931/3/5/6 Chassis Rack Mount Kit   JG853A
                                                                                     See Configuration
                                                                                             NOTE:2

Configuration Rules:

Note 1   This Rack Kit is supported on the following Routers:
                 HP MSR930 Router   JG511B

Configuration

HP MSR930 Wireless Router	JG512A
HP MSR930 Wireless 802.11n (NA) Router	JH012B
HP MSR930 3G Router	JG513B
HP MSR930 4G LTE/3G CDMA Router	JG596A
HP MSR930 4G LTE/3G WCDMA Global Router	JG665A
HP MSR930 4G LTE/3G WCDMA ATT Router	JG704A

Note 2   This Rack Kit is supported on the following Routers:

HP MSR931 Router	JG514B
HP MSR931 3G Router	JG515A
HP MSR931 Dual 3G Router	JG531B
HP MSR933 Router	JG516A
HP MSR933 3G Router	JG517A
HP MSR935 Router	JG518B
HP MSR935 Wireless Router	JG519A
HP MSR935 Wireless 802.11n (NA) Router	JH013A
HP MSR935 3G Router	JG520A
HP MSR936 Wireless Router	JG597A

3G / 4G Antenna's

(JG513B, JG515A, JG517A, JG520A) System (std 1 // max 2) User Selection (min 0 // max 1) per Router
(JG512A, JH012B, JG519A, JH013A, JG597A, JG596A, JG665A, JG704A) System (std 2 // max 2) User Selection (min 0 // max 0) per Router
(JG531B) System (std 2 // max 4) User Selection (min 0 // max 2) per Router

HP MSR 3G Antenna	JG521A
	See Configuration
	NOTE:1

HP MSR 4G 5W Antenna	JG669A
• Spare Parts Only	See Configuration
	NOTE:3

Configuration Rules:

Note 1   This Antenna is supported on the following Routers:

HP MSR930 3G Router	JG513B
HP MSR931 3G Router	JG515A
HP MSR933 3G Router	JG517A
HP MSR935 3G Router	JG520A
HP MSR931 Dual 3G Router	JG531B

Note 3   This Antenna is supported on the following Routers:

HP MSR930 4G LTE/3G CDMA Router	JG596A
HP MSR930 4G LTE/3G WCDMA Global Router	JG665A
HP MSR930 4G LTE/3G WCDMA ATT Router	JG704A

Configuration

Antenna Cables

System (std 0 // max 1) User Selection (min 0 // max 1) per Antenna (Supported on JG521A, JG704A and JG669A)

HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A

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 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

Technical Specifications

HP MSR930 Router (JG511B)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J	
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B	
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet MIB	
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.	

HP MSR930 Wireless 802.11n (NA) Router (JH012B)

Technical Specifications

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
AP characteristics Radios (built-in)		802.11b/g/n
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	2.65 lb (1.2 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; AS/NZS 60950-1
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		Supports 802.11b/g/n Default antennas: 2 Maximum antennas: 2
Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

Technical Specifications

HP MSR930 3G Router (JG513B)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
AP characteristics Radios (built-in)		3G
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		Supports HSPA+ SIM card not included Default antennas: 1 Maximum antennas: 2 Optional antenna cable also available for remote location

Technical Specifications

	3G firmware changes through CLI
	For regional carrier certifications please contact your local Hewlett Packard Enterprise sales representative
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR931 Router (JG514B)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
	1 Serial port	
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	5.95 lb (2.7 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J	
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B	
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5	
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet;	

Technical Specifications

	RMON1; FTP; IEEE 802.3 Ethernet mib
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR931 Dual 3G Router (JG531B)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
		1 Serial port
AP characteristics Radios (built-in)		3G
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	5.95 lb (2.7 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet;

Technical Specifications

	RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	Supports HSPA+
	SIM cards not included
	Default antennas: 2
	Maximum antennas: 4
	Optional antenna cable also available for remote location
	3G firmware changes through CLI
	For regional carrier certifications please contact your local Hewlett Packard Enterprise sales representative
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR935 Router (JG518B)HP MSR930 Wireless Router (JG512A)
HP MSR930 Wireless 11n (NA) Router (JH012A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
	1 ADSL 2+ ANNEX A/M port	
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J	

Technical Specifications

Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	Supports ADSL 2+ ANNEX A/M
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR930 Wireless Router (JG512A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
AP characteristics Radios (built-in)	802.11b/g/n	
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	2.65 lb (1.2 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; AS/NZS 60950-1	
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-	

Technical Specifications

	3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	Supports 802.11b/g/n Default antennas: 2 Maximum antennas: 2
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR930 4G LTE/3G CDMA Router (JG596A)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
AP characteristics Radios (built-in)		3G, 4G LTE
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1;

Technical Specifications

	EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	For local 4GLTE/3G carrier certification, please contact your regional sales team. This router has the Sierra Wireless MC7750 AirPrime Series • Module embedded with support the following specs:- Air Interface: LTE/EV-DO LTE Freq. Bands: 700 (B13) MHz CDMA 1xRTT/EV-DO RevA: 800/1900MHz • This model (JG665A) is certified with Verizon Wireless 4GLTE networks • Carrier SIM Card Not Included • Default Antennas: 2 • Maximum Antennas: 2 • Optional antenna cable extensions available HP MSR 3G RF 2.8m Antenna Cable (JG522A) HP MSR 3G RF 6m Antenna Cable (JG666A) HP MSR 3G RF 15m Antenna Cable (JG667A) • Only 4G Antenna (JG669A HP MSR 4G 5W TNC Antenna) is supported
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR930 4G LTE/3G WCDMA Global Router (JG665A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
AP characteristics Radios (built-in)	3G, 4G LTE	
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat**	20 BTU/hr (21.1 kJ/hr)

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	dissipation	
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		For local 4GLTE/3G carrier certification, please contact your regional sales team. This router has the Sierra Wireless MC7710 AirPrime Series Wireless Module • Module embedded with support the following specs:- Air Interface: LTE/HSPA+ LTE Freq. Bands: 800/900/1800/2100/2600 MHz WCDMA: 900/2100 MHz GSM/GPRS/EDGE: 900/1800/1900 MHz • This model (JG665A) is pre-certified with T-Mobile (EU) and conforms to above specifications for local certifications. • Carrier SIM Card Not Included • Default Antennas: 2 • Maximum Antennas: 2 • Optional antenna cable extensions available HP MSR 3G RF 2.8m Antenna Cable (JG522A) HP MSR 3G RF 6m Antenna Cable (JG666A) HP MSR 3G RF 15m Antenna Cable (JG667A) • Only 4G Antenna (JG669A HP MSR 4G 5W TNC Antenna) is supported.
Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR930 4G LTE/3G WCDMA ATT Router (JG704A)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
AP characteristics Radios (built-in)		3G, 4G LTE
Physical characteristics	**Dimensions**	9.06(w) x 6.3(d) x 1.72(h) in (23 x 16 x 4.36 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)

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	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		For local 4GLTE/3G carrier certification, please contact your regional sales team. This router has the Sierra Wireless AT&T, NTT Docomo MC7700 AirPrime Series Wireless Module • Module embedded with support the following specs:- Air Interface: LTE/HSPA+ LTE Freq. Bands: 700(B17)/AWS WCDMA: 850/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz Regulatory: TELEC Carriers: AT&T, NTT Docomo • This model (JG704A) is pre-certified with AT&T, NTT Docomo and conforms to above specifications for local certifications. • Carrier SIM Card Not Included • Default Antennas: 2 • Maximum Antennas: 2 • Optional antenna cable extensions available HP MSR 3G RF 2.8m Antenna Cable (JG522A) HP MSR 3G RF 6m Antenna Cable (JG666A) HP MSR 3G RF 15m Antenna Cable (JG667A) • Only 4G Antenna (JG669A HP MSR 4G 5W TNC Antenna) is supported.
Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR931 3G Router (JG515A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port
	4 RJ-45 autosensing 10/100/1000 LAN ports

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	1 Serial port	
AP characteristics Radios (built-in)	3G	
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	5.95 lb (2.7 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J	
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B	
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5	
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib	
Notes	Supports HSPA+ SIM card not included Default antennas: 1 Maximum antennas: 2 Optional antenna cable also available for remote location 3G firmware changes through CLI For regional carrier certifications please contact your local Hewlett Packard Enterprise sales representative	

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Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR933 Router (JG516A)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
		1 G.SHDSL (8-wire) port
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 10000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response

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times in your area, please contact your local Hewlett Packard Enterprise sales office.

HP MSR933 3G Router (JG517A)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
		1 G.SHDSL (8-wire) port
AP characteristics Radios (built-in)		3G
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		Supports HSPA+ SIM card included

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	Default antennas: 1 Maximum antennas: 2 Optional antenna cable also available for remote location 3G firmware changes through CLI For regional carrier certifications please contact your local Hewlett Packard Enterprise sales representative
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR935 Wireless Router (JG519A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
	1 ADSL 2+ ANNEX A/M port	
AP characteristics Radios (built-in)	802.11b/g/n	
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J	
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995	

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	+A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	Supports 802.11b/g/n Default antennas: 2 Maximum antennas: 2
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR935 3G Router (JG520A)

I/O ports and slots		1 RJ-45 autosensing 10/100/1000 WAN port
		4 RJ-45 autosensing 10/100/1000 LAN ports
		1 ADSL 2+ ANNEX A/M port
AP characteristics Radios (built-in)		3G
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)
Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.

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Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions	ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom	FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management	IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes	Supports HSPA+ SIM card included Default antennas: 1 Maximum antennas: 2 Optional antenna cable also available for remote location 3G firmware changes through CLI For regional carrier certifications please contact your local Hewlett Packard Enterprise sales representative
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP MSR936 Wireless Router (JG597A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 WAN port	
	4 RJ-45 autosensing 10/100/1000 LAN ports	
	1 ADSL 2+ ANNEX B/J ISDN backup port	
AP characteristics Radios (built-in)	802.11b/g/n	
Physical characteristics	**Dimensions**	11.81(w) x 7.87(d) x 1.74(h) in (30 x 20 x 4.42 cm)
	Weight	3.97 lb (1.8 kg)
Memory and processor	**Processor**	RISC @ 533 MHz, 256 MB DDR3 SDRAM, 128 MB NAND flash
Performance	**Throughput**	up to up to 300 Kpps (64-byte packets)
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	Forwarding table size	10000 entries (IPv4), 5000 entries (IPv6)
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 90%, noncondensing
	Shock and vibration	Anti-Seismic ETS 300 019-2-3 HALT: 0~40Grms
	Altitude	up to 6,561 ft (2 km)

Technical Specifications

Electrical characteristics	**Maximum heat dissipation**	20 BTU/hr (21.1 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	24 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.
Safety		UL 60950-1; CAN/CSA 22.2 No. 60950-1; AS/NZS 60950; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EN 60950-1/A11; FDA 21 CFR Subchapter J
Emissions		ANSI C63.4; EN 55022 Class B; ICES-003 Class B; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001; AS/NZS CISPR 22 Class B; FCC (CFR 47, Part 15) Class B
Telecom		FCC part 68; TIA-968-B; CS03 Part 8; AS/ACIF S043; G.992.1/2/3/5
Management		IMC - Intelligent Management Center; Command-line interface; Web browser; SNMP manager; Telnet; RMON1; FTP; IEEE 802.3 Ethernet mib
Notes		Supports 802.11b/g/n Default antennas: 2 Maximum antennas: 2
Services		Refer to the Hewlett Packard Enterprise website at **http://www.hpe.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 Hewlett Packard Enterprise sales office.

Standards and Protocols (applies to all products in series)	**BGP**	RFC 1163 Border Gateway Protocol (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 1997 BGP Communities Attribute RFC 1998 An Application of the BGP Community Attribute in Multi-home Routing RFC 2385 BGP Session Protection via TCP MD5 RFC 2439 BGP Route Flap Damping
	Denial of service protection	CPU DoS Protection Rate Limiting by ACLs
	Device management	RFC 1305 NTPv3 RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0 RFC 2452 MIB for TCP6 RFC 2454 MIB for UDP6
	General protocols	IIEEE 802.1: LAN/MAN Bridge and Management IEEE 802.1D MAC Bridges

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IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s (MSTP)
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X: Authenticated VLAN (multiple MAC, multiple VLANs per port)
IEEE 802.2: Logical Link Control
IEEE 802.3: Carrier Sense Multiple Access with Collision Detection
(CSMA/CD) access method and physical layer specifications
IEEE 802.3ad Link Aggregation (LAG)
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 858 Telnet Suppress Go Ahead Option
RFC 894 IP over Ethernet
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
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 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 1195 OSI ISIS for IP and Dual Environments
RFC 1256 ICMP Router Discovery Protocol (IRDP)
RFC 1293 Inverse Address Resolution Protocol
RFC 1315 Management Information Base for Frame Relay DTEs
RFC 1332 The PPP Internet Protocol Control Protocol (IPCP)
RFC 1333 PPP Link Quality Monitoring
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 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

Technical Specifications

RFC 1490 Multiprotocol Interconnect over Frame Relay
RFC 1519 CIDR
RFC 1534 DHCP/BOOTP Interoperation
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 1613 Cisco Systems X.25 over TCP (XOT)
RFC 1624 Incremental Internet Checksum
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 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 1795 Data Link Switching: Switch-to-Switch Protocol AIW DLSw RIG: DLSw Closed Pages, DLSw Standard Version 1
RFC 1812 IPv4 Routing
RFC 1829 The ESP DES-CBC Transform
RFC 1877 PPP Internet Protocol Control Protocol Extensions for Name Server Addresses
RFC 1878 Variable Length Subnet Table for IPv4
RFC 1944 Benchmarking Methodology for Network Interconnect Devices
RFC 1973 PPP in Frame Relay
RFC 1974 PPP Stac LZS Compression Protocol
RFC 1990 The PPP Multilink Protocol (MP)
RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
RFC 2091 Trigger RIP
RFC 2131 DHCP
RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 2166 APPN Implementer's Workshop Closed Pages Document DLSw v2.0 Enhancements
RFC 2205 Resource ReSerVation Protocol (RSVP) - Version 1 Functional Specification
RFC 2280 Routing Policy Specification Language (RPSL)
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 2570 Introduction to Version 3 of the Internet-standard Network

Technical Specifications

Management Framework
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 2747 RSVP Cryptographic Authentication
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 2784 Generic Routing Encapsulation (GRE)
RFC 2787 Definitions of Managed Objects for VRRP
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 2985 PKCS #9: Selected Object Classes and Attribute Types Version 2.0
RFC 2993 Architectural Implications of NAT
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 3036 LDP Specification
RFC 3046 DHCP Relay Agent Information Option
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 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 Introduction and Applicability Statements for Internet Standard Management Framework
RFC 3526 More Modular Exponential (MODP) Diffie-Hellman groups for Internet Key Exchange (IKE)
RFC 3602 The AES-CBC Cipher Algorithm and Its Use with IPSec
RFC 3706 A Traffic-Based Method of Detecting Dead Internet Key Exchange (IKE) Peers
RFC 3784 ISIS TE support
RFC 3786 Extending the Number of IS-IS LSP Fragments Beyond the 256 Limit
RFC 3847 Restart signaling for IS-IS
RFC 4301 Security Architecture for the Internet Protocol
RFC 5101 Specification of the IP Flow Information Export (IPFIX) Protocol

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		for the Exchange of IP Traffic Flow Information
		FRF.1.2 PVC User-to-Network Interface (UNI) Implementation Agreement - July 2000
		FRF.10.1: Network-to-Network Frame Relay/ATM SVC Service Interworking Implementation Agreement
		FRF.11.1 Voice over Frame Relay Implementation Agreement - May 1997 - Annex J added March 1999
		FRF.15: End-to-End Multilink Frame Relay Implementation Agreement
		FRF.16: Multilink Frame Relay UNI/NNI Implementation Agreement
		FRF.17: Frame Relay Privacy Implementation Agreement
		FRF.18: Network-to-Network Frame Relay/ATM SVC Service Interworking Implementation Agreement
		FRF.19: Frame Relay Operations, Administration and Maintenance Implementation
		FRF.2.1: Frame Relay Network-to-Network (NNI) Implementation Agreement Version 2.1
		FRF.20 Frame Relay IP Header Compression Implementation Agreement - June 2001
		FRF.3.2 Frame Relay Multiprotocol Encapsulation Implementation Agreement - April 2000
		FRF.4.1: SVC User-to-Network Interface (UNI) Implementation Agreement
		FRF.5: Frame Relay/ATM Network Internetworking Implementation Agreement
		FRF.6: Frame Relay Service Customer Network Management Implementation
		FRF.7 Frame Relay PVC Multicast Service and Protocol Description - October 1994
		FRF.8.1: Frame Relay/ATM PVC Service Internetworking Implementation Agreement
		FRF.9 Data Compression Over Frame Relay Implementation Agreement - January 1996
		ITU-T Recommendation X.29: Public Data Networks: Procedures for the Exchange of Control Information and User Data
		Q.921: ISDN user network interface-Data Link Layer specification
		Q.922 Annex A: Core aspects of Q.922 for use with frame relaying bearer service
		Q.931: ISDN user network interface-Layer 3 specification for basic call control
		Q.933 Annex A: Additional procedures for Permanent Virtual Connection (PVC) status management (using Unnumbered Information frames)
		X.25 : Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE)
	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
	IPv6	RFC 1981 IPv6 Path MTU Discovery
		RFC 2080 RIPng for IPv6
		RFC 2292 Advanced Sockets API for IPv6
		RFC 2373 IPv6 Addressing Architecture

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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 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 2740 OSPFv3 for IPv6
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3513 IPv6 Addressing Architecture
RFC 3596 DNS Extension for IPv6

MIBs

RFC 1213 MIB II
RFC 1229 Interface MIB Extensions
RFC 1286 Bridge MIB
RFC 1493 Bridge MIB
RFC 1573 SNMP MIB II
RFC 1724 RIPv2 MIB
RFC 1757 Remote Network Monitoring MIB
RFC 1850 OSPFv2 MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2012 SNMPv2 MIB for TCP
RFC 2013 SNMPv2 MIB for UDP
RFC 2233 Interfaces MIB
RFC 2454 IPV6-UDP-MIB
RFC 2465 IPv6 MIB
RFC 2466 ICMPv6 MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network management

IEEE 802.1D (STP)
RFC 1155 Structure of Management Information
RFC 1157 SNMPv1
RFC 1905 SNMPv2 Protocol Operations
RFC 2272 SNMPv3 Management Protocol
RFC 2273 SNMPv3 Applications
RFC 2274 USM for SNMPv3
RFC 2275 VACM for SNMPv3
RFC 2575 SNMPv3 View-based Access Control Model (VACM)
RFC 3164 BSD syslog Protocol

OSPF

RFC 1245 OSPF protocol analysis
RFC 1246 Experience with OSPF
RFC 1587 OSPF NSSA
RFC 1765 OSPF Database Overflow
RFC 1850 OSPFv2 Management Information Base (MIB), traps

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	RFC 2328 OSPFv2
	RFC 2370 OSPF Opaque LSA Option
QoS/CoS	IEEE 802.1p (CoS)
	RFC 2474 DS Field in the IPv4 and IPv6 Headers
	RFC 2475 DiffServ Architecture
	RFC 2597 DiffServ Assured Forwarding (AF)
	RFC 2598 DiffServ Expedited Forwarding (EF)
	RFC 3168 The Addition of Explicit Congestion Notification (ECN) to IP
Security	IEEE 802.1X Port Based Network Access Control
	RFC 1321 The MD5 Message-Digest Algorithm
	RFC 2082 RIP-2 MD5 Authentication
	RFC 2104 Keyed-Hashing for Message Authentication
	RFC 2138 RADIUS Authentication
	RFC 2209 RSVP-Message Processing
	RFC 2246 Transport Layer Security (TLS)
	RFC 2716 PPP EAP TLS Authentication Protocol
	RFC 2865 RADIUS Authentication
	RFC 2866 RADIUS Accounting
VPN	RFC 2403 - HMAC-MD5-96
	RFC 2404 - HMAC-SHA1-96
	RFC 2405 - DES-CBC Cipher algorithm
	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 2918 Route Refresh Capability for BGP-4
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 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)

Accessories

HPE MSR93x Router Seriesaccessories

HP MSR930 3G Router (JG513B)

HP MSR 3G Antenna	JG521A
HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A

HP MSR931 Dual 3G Router (JG531B)

HP MSR 3G Antenna	JG521A
HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A

HP MSR930 4G LTE/3G CDMA Router (JG596A)

HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A
HP MSR 4G 5W TNC Antenna	JG669A

HP MSR930 4G LTE/3G WCDMA Global Router (JG665A)

HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A
HP MSR 4G 5W TNC Antenna	JG669A

HP MSR930 4G LTE/3G WCDMA ATT Router (JG704A)

HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A
HP MSR 4G 5W TNC Antenna	JG669A

HP MSR931 3G Router (JG515A)

HP MSR 3G Antenna	JG521A
HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A

HP MSR933 3G Router (JG517A)

HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A
HP MSR 3G RF 15m Antenna Cable	JG667A

HP MSR935 3G Router (JG520A)

HP MSR 3G RF 2.8m Antenna Cable	JG522A
HP MSR 3G RF 6m Antenna Cable	JG666A

Accessories

HP MSR 3G RF 15m Antenna Cable   JG667A

Summary of Changes

Date	Version History	Action	Description of Change:
December 1, 2015	From Version 10 to 11	Changed	Overview and Technical Specifications updated
August 17, 2015	From Version 9 to 10	Added	Models added: • JG511B • JG513B • JG514B • JG518B • JG531B • JH012B
		Changed	Updated Technical Specifications and Accessories
February 11, 2015	From Version 8 to 9	Added	Added 2 models: • JH012A • JH013A
		Changed	Configuration Menu updated
August 18, 2014	From Version 7 to 8	Added	2 new models: JH012A, JH013A
		Changed	Content Edits on Overview Section Configuration Menu updated
June 17, 2014	From Version 6 to 7	Changed	Technical Specifications changed.
June 10, 2014	From Version 5 to 6	Changed	Configuration Information was revised.
February 18, 2014	From Version 4 to 5	Removed	Removed a model that had been added with the previous update.
February 18, 2014	From Version 3 to 4	Changed	Build to Order and Mounting Kit were revised in Configuration Information.
December 9, 2013	From Version 2 to 3	Changed	Build to Order was revised and Mounting Kit was added to Configuration.
September 17, 2013	From Version 1 to 2	Added	New models were added.

Summary of Changes

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