



## HP V1910 Switch Series

### Product overview

HP V1910 series devices are smart-managed, voice-ready fixed configuration Gigabit Layer 2+ switches designed for small and midsize businesses looking for an easy-to-manage yet advanced networking solution. The series has five models: the HP V1910-16G, V1910-24G, V1910-48G, V1910-24G-PoE (170 W), and V1910-24G-PoE (365 W) Switch. Each V1910 switch has 10/100/1000 ports and an additional four true Gigabit SFP ports. These smart-managed switches deliver advanced features for environments not requiring centralized administration and allow network operation to be enhanced using an intuitive Web-based management interface. Advanced features include Layer 3 static routing, access control lists for enhanced security, auto-voice VLAN, QoS traffic prioritization, LLDP, Spanning Tree Protocols, and Power over Ethernet models. All switches are supported by a 3-year warranty.

### Key features

- Advanced smart-managed switching for SMBs
- Intuitive Web interface for network enhancement
- Layer 2+ operation with 32 static Layer 3 routes
- PoE models with up to 365 W of PoE power
- 3-year warranty

# Features and benefits

## Management

- **Simple Web management:** intuitive Web GUI allows for easy management of device by even nontechnical users
- **Single IP management:** enables management of up to 32 V1910 devices using a single Web interface; simplifies management of multiple devices
- **Secure Web GUI:** provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- **SNMP v1, v2c, and v3:** facilitate centralized discovery, monitoring, and secure management of networking devices
- **Logging:** provides local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated
- **Complete session logging:** provides detailed information for problem identification and resolution
- **Uni-Directional Link Detection (UDLD):** monitors cable between two switches and shuts down the ports on both ends if the cable is broken turning the bi-directional link into uni-directional; this prevents network problems such as loops
- **Dual flash images:** provide independent primary and secondary operating system files for backup while upgrading
- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **Management security:** multiple privilege levels, with password protection, restrict access to critical configuration commands; ACLs provide telnet and SNMP access; local and remote syslog capability allows logging of all access
- **Network Time Protocol (NTP):** synchronizes timekeeping among distributed time servers and clients; keeps consistent timekeeping among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping by network management applications
- **DHCP options:** client allows automatic setting of IP address

- **Limited CLI:** enables users to quickly deploy and trouble shoot devices in the network
- **RMON:** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

## Connectivity

- **Auto-MDI/MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **IEEE 802.3X flow control:** provides a flow throttling mechanism propagated through the network to prevent packet loss at a congested node
- **IEEE 802.3af Power over Ethernet (PoE) ready:** works with external power supply (ProCurve 600 or 610 power supplies) to provide up to 15.4 W per port to power standards-compliant IP phones, wireless LAN access points, Web cameras, and more
- **Jumbo frames:** on Gigabit and 10-Gigabit ports, allow high-performance remote backup and disaster-recovery services
- **Packet storm protection:** protects against broadcast, multicast, or unicast storms with user-defined thresholds

## Performance

- **Half-/Full-duplex autonegotiating capability on every port:** doubles the throughput of every port
- **Advanced QoS and traffic shaping:** provides traffic prioritization using IEEE 802.1p Quality of Service (QoS) and Type of Service (TOS) with Differentiated Services Code Point (DSCP) and ingress/egress rate shaping to help ensure that critical time-sensitive traffic like voice receives the priority needed for quality communications
- **VLANs:** segment the network by grouping users based on their data or traffic exchange requirements; help ensure improved use of available bandwidth as traffic flow is directed according to the needs of the business
- **Link aggregation (trunking):** groups together up to 8 ports automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone; helps prevent traffic bottlenecks
- **Selectable queue configurations:** increase performance by selecting the number of queues and associated memory buffering that best meet the requirements of your network applications

- **Spanning Tree Protocol (STP/RSTP/MSTP):** improves network compatibility, scalability, and availability
- **IGMP snooping:** multicast filtering improves network performance, instead of flooding traffic to all ports
- **Unique voice features:** automatic assignment of voice traffic separates VLANs (“auto-voice VLAN”); advanced voice QoS, traffic shaping, multicast filtering, and PoE support delivers the support necessary for quality voice communications
- **Fiber uplink:** provides greater distance connectivity using Gigabit fiber uplinks
- **PoE support (PWR model only):** provides power for IP phones, wireless LAN access points, and other IEEE 802.3af-compliant devices over the same cable used for data; lowers total cost of ownership because there is no need to run additional electrical wiring; supports prestandard PoE plus, allowing the switch to deliver up to 30 W of power
- **Spanning Tree:** fully supports standard IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol
- **Port mirroring:** duplicates port traffic (ingress and egress) to a local or remote monitoring port
- **BPDU tunneling:** transmits Spanning Tree Protocol BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs
- **Spanning Tree/MSTP, RSTP, STP Root Guard:** prevents network loops
- **8K MAC addresses:** allows multiple Layer 2 devices to be networked through the switch

### Layer 3 services

- **UDP helper function:** allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP
- **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

### Layer 3 routing

- **Static IP routing:** provides manually configured routing; includes ECMP capability

### Security

- **Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **IEEE 802.1X and RADIUS network logins:** control port-based access for authentication and accountability
- **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **Automatic VLAN assignment:** automatically assigns users to the appropriate VLAN based on their identity and location, and the time of day
- **STP BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP Root Guard:** protects root bridge from malicious attack or configuration mistakes

### Resiliency and high availability

- **IEEE 802.1w Rapid Convergence Spanning Tree Protocol:** increases network uptime through faster recovery from failed links
- **Spanning Tree Protocol (IEEE 802.1D):** provides redundant links while preventing network loops
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- **Link aggregation (trunking):** groups together up to 8 ports automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone; helps prevent traffic bottlenecks
- **Redundant Power Supply (365 PWR model only):** DC power supply provides additional PoE budget of up to 740 W for high power applications like Gigabit IntelliJack switches

### Layer 2 switching

- **VLAN support and tagging:** support the IEEE 802.1Q (4094 VLAN IDs) and 256 VLANs simultaneously
- **Jumbo packet support:** supports up to 9220-byte frame size to improve performance of large data transfers

- **Network login:** standard IEEE 802.1x allows authentication of multiple users per port, or when a port is shared with an IP phone
- **RADIUS:** eases switch security access administration by using a password authentication server
- **Advanced access control lists (ACLs):** MAC- and IP-based ACLs enable network traffic filtering and enhance network control; time-based ACLs allow for greater flexibility with managing network access

## Convergence

- **LLDP-MED (Media Endpoint Discovery):** is a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **PoE allocations:** support multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user specified) to allocate PoE power for more efficient energy savings
- **Automated voice VLAN assignment:** recognizes IP phones and automatically assigns voice traffic to dedicated VLAN for IP phones (may not apply to all models; see specifications for more details)

## Quality of Service (QoS)

- **IEEE 802.1p prioritization:** delivers data to devices based on the priority and type of traffic
- **Traffic prioritization (IEEE 802.1p):** allows real-time traffic classification mapped to four hardware queues per port
- **Layer 4 prioritization:** enables prioritization based on TCP/UDP port numbers
- **Class of Service (CoS):** sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), L3 protocol, TCP/UDP port number, source port, and DiffServ
- **Rate limiting:** sets per-port ingress enforced maximums and per-port, per-queue guaranteed minimums
- **Broadcast control:** allows limitation of broadcast traffic rate to cut down on unwanted broadcast traffic on the network

## Monitor and diagnostics

- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **Software updates:** free downloads from the Web

## Ease of use

- **Flow control:** helps ensure reliable communications during full-duplex operation
- **Power over Ethernet:** power via standards-based PoE source eliminates the need to run costly power outlets at the access point
- **Ease of Use:** GUI driven central management and configuration

## Addition information

- **Green IT and power:** uses the latest advances in silicon development, shuts off unused ports, and uses variable speed fans to improve power efficiency

## Warranty and support

- **3-year warranty:** with advance replacement and next-business-day delivery (available in most countries)
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to [www.hp.com/networking/support](http://www.hp.com/networking/support) for details on the support provided and the period during which support is available
- **Software releases:** refer to [www.hp.com/networking/support](http://www.hp.com/networking/support) for details on the software releases provided and the period during which software releases are available for your product(s)

# HP V1910 Switch Series

## Specifications



HP V1910-48G Switch (JE009A)



HP V1910-24G-PoE (365 W) Switch (JE007A)



HP V1910-24G-PoE (170 W) Switch (JE008A)

<b>Ports</b>	Supports a maximum of 48 auto-sensing 10/100/1000 ports plus 4 1000Base-X SFP ports, or a combination	Supports a maximum of 24 auto-sensing 10/100/1000 ports plus 4 1000Base-X SFP ports, or a combination	Supports a maximum of 24 auto-sensing 10/100/1000 ports plus 4 1000Base-X SFP ports, or a combination
<b>Physical characteristics</b>			
Dimensions	10.24(d) x 17.4(w) x 1.7(h) in. (26.01 x 44.2 x 4.32 cm) (1U height)	16.54(d) x 17.4(w) x 1.7(h) in. (42.01 x 44.2 x 4.32 cm) (1U height)	16.54(d) x 17.4(w) x 1.7(h) in. (42.01 x 44.2 x 4.32 cm) (1U height)
Weight	6.8 lb. (3.08 kg)	6.8 lb. (3.08 kg)	6.8 lb. (3.08 kg)
<b>Memory and processor</b>			
Module	ARM @ 333 MHz, 128 MB flash, 128 MB RAM; packet buffer size: 512 KB	ARM @ 333 MHz, 128 MB flash, 128 MB RAM; packet buffer size: 512 KB	ARM @ 333 MHz, 128 MB flash, 128 MB RAM; packet buffer size: 512 KB
<b>Mounting</b>			
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
<b>Performance</b>			
100 Mb Latency	< 5 $\mu$ s	< 5 $\mu$ s	< 5 $\mu$ s
1000 Mb Latency	< 5 $\mu$ s	< 5 $\mu$ s	< 5 $\mu$ s
Throughput	77.4 million pps	41.7 million pps	41.7 million pps
Routing/Switching capacity	104 Gbps	56 Gbps	56 Gbps
Routing table size	32 entries	32 entries	32 entries
<b>Environment</b>			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	10% to 90%, non-condensing	10% to 90%, non-condensing	10% to 90%, non-condensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Non-operating/Storage relative humidity	10% to 95%, non-condensing	10% to 95%, non-condensing	10% to 95%, non-condensing
<b>Electrical characteristics</b>			
	Achieved Miercom Certified Green Award		
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
<b>Safety</b>			
	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03
<b>Emissions</b>			
	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
<b>Management</b>			
	IMC - Intelligent Management Center; limited command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; limited command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; limited command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB
<b>Notes</b>			
	The HP V1910-48G Switch (JE009A) was formerly sold as the 3Com Baseline Plus 2952 (3CRBSG5293) and may ship with this product labeling. SFP ports and copper ports are mutually exclusive to give a total of 52 Gigabit-capable ports.	The HP V1910-24G-PoE (365 W) Switch (JE007A) was formerly sold as the 3Com Baseline Plus 2928 HPWR (3CRBSG28HPWR93) and may ship with this product labeling. SFP ports and copper ports are mutually exclusive to give a total of 28 Gigabit-capable ports.	The HP V1910-24G-PoE (170 W) Switch (JE008A) was formerly sold as the 3Com Baseline Plus 2928 PWR (3CRBSG28PWR93) and may ship with this product labeling. SFP ports and copper ports are mutually exclusive to give a total of 28 Gigabit-capable ports.

## Specifications (continued)

	HP V1910-48G Switch (JE009A)	HP V1910-24G-PoE (365 W) Switch (JE007A)	HP V1910-24G-PoE (170 W) Switch (JE008A)
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV804E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW033E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW036E)</p> <p>3-year, 24x7 SW phone support, software updates (UV807E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV805E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW034E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW037E)</p> <p>4-year, 24x7 SW phone support, software updates (UV808E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV806E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW035E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW038E)</p> <p>5-year, 24x7 SW phone support, software updates (UV809E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW039E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW040E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW041E)</p> <p>Refer to the HP website at <a href="http://www.procurve.com/services">www.procurve.com/services</a> 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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV804E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW033E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW036E)</p> <p>3-year, 24x7 SW phone support, software updates (UV807E)</p> <p>Installation with minimum configuration, system-based pricing (UW451E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV805E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW034E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW037E)</p> <p>4-year, 24x7 SW phone support, software updates (UV808E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV806E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW035E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW038E)</p> <p>5-year, 24x7 SW phone support, software updates (UV809E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW039E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW040E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW041E)</p> <p>Refer to the HP website at <a href="http://www.procurve.com/services">www.procurve.com/services</a> 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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV804E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW033E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW036E)</p> <p>3-year, 24x7 SW phone support, software updates (UV807E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV805E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW034E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW037E)</p> <p>4-year, 24x7 SW phone support, software updates (UV808E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV806E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW035E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW038E)</p> <p>5-year, 24x7 SW phone support, software updates (UV809E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW039E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW040E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW041E)</p> <p>Refer to the HP website at <a href="http://www.procurve.com/services">www.procurve.com/services</a> 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.</p>
<b>Standards and protocols</b> (applies to all products in series)	<p><b>Device management</b></p> <p>RFC 2819 RMON</p> <p><b>General protocols</b></p> <p>IEEE 802.1s Multiple Spanning Trees</p> <p>IEEE 802.1w Rapid Reconfiguration of Spanning Tree</p> <p>IEEE 802.3ab 1000BASE-T</p> <p>IEEE 802.3ac (VLAN Tagging Extension)</p> <p>IEEE 802.3ad Link Aggregation Control Protocol (LACP)</p> <p>IEEE 802.3ae 10-Gigabit Ethernet</p> <p>IEEE 802.3ag Ethernet OAM</p> <p>IEEE 802.3i 10BaseT</p> <p>IEEE 802.3u 100BASE-X</p> <p>IEEE 802.3x Flow Control</p> <p>IEEE 802.3z 1000BASE-X</p>	<p><b>MIBs</b></p> <p>RFC 1213 MIB II</p> <p>RFC 1493 Bridge MIB</p> <p>RFC 2021 RMONv2 MIB</p> <p>RFC 2233 Interface MIB</p> <p>RFC 2233 Interfaces MIB</p> <p>RFC 2571 SNMP Framework MIB</p> <p>RFC 2572 SNMP-MPD MIB</p> <p>RFC 2573 SNMP-Notification MIB</p> <p>RFC 2573 SNMP-Target MIB</p> <p>RFC 2613 SMON MIB</p> <p>RFC 2618 RADIUS Client MIB</p> <p>RFC 2620 RADIUS Accounting MIB</p> <p>RFC 2665 Ethernet-Like-MIB</p> <p>RFC 2667 IP Tunnel MIB</p> <p>RFC 2668 802.3 MAU MIB</p> <p>RFC 2674 802.1p and IEEE 802.1Q Bridge MIB</p>	<p>RFC 2737 Entity MIB (Version 2)</p> <p>RFC 3414 SNMP-User based-SM MIB</p> <p>RFC 3415 SNMP-View based-ACM MIB</p> <p>RFC 3418 MIB for SNMPv3</p> <p><b>Network management</b></p> <p>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</p> <p>IEEE 802.1D (STP)</p> <p>RFC 1215 SNMP Generic traps</p> <p><b>QoS/Cos</b></p> <p>IEEE 802.1P (CoS)</p> <p><b>Security</b></p> <p>IEEE 802.1X Port Based Network Access Control</p>

# HP V1910 Switch Series

## Specifications



HP V1910-24G Switch (JE006A)



HP V1910-16G Switch (JE005A)

<b>Ports</b>	Supports a maximum of 24 auto-sensing 10/100/1000 ports plus 4 1000Base-X SFP ports, or a combination	Supports a maximum of 16 auto-sensing 10/100/1000 ports plus 4 1000Base-X SFP ports, or a combination
<b>Physical characteristics</b>		
Dimensions	6.3(d) x 17.4(w) x 1.7(h) in. (16 x 44.2 x 4.32 cm) (1U height)	6.3(d) x 17.4(w) x 1.7(h) in. (16 x 44.2 x 4.32 cm) (1U height)
Weight	6.8 lb. (3.08 kg)	6.8 lb. (3.08 kg)
<b>Memory and processor</b>		
Module	ARM @ 333 MHz, 128 MB flash, 128 MB RAM; packet buffer size: 512 KB	ARM @ 333 MHz, 128 MB flash, 128 MB RAM; packet buffer size: 512 KB
<b>Mounting</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
<b>Performance</b>		
100 Mb Latency	< 5 $\mu$ s	< 5 $\mu$ s
1000 Mb Latency	< 5 $\mu$ s	< 5 $\mu$ s
Throughput	41.7 million pps	29.8 million pps
Routing/Switching capacity	56 Gbps	40 Gbps
Routing table size	32 entries	32 entries
<b>Environment</b>		
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	10% to 90%, non-condensing	10% to 90%, non-condensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Non-operating/Storage relative humidity	10% to 95%, non-condensing	10% to 95%, non-condensing
<b>Electrical characteristics</b>		
Voltage	100-240 VAC	100-240 VAC
Frequency	50 / 60 Hz	50 / 60 Hz
<b>Safety</b>	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03
<b>Emissions</b>	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
<b>Management</b>	IMC - Intelligent Management Center; limited command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; limited command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB
<b>Notes</b>	The HP V1910-24G Switch (JE006A) was formerly sold as the 3Com Baseline Plus 2928 (3CRBSG2893) and may ship with this product labeling. SFP ports and copper ports are mutually exclusive to give a total of 28 Gigabit-capable ports.	The HP V1910-16G Switch (JE005A) was formerly sold as the 3Com Baseline Plus PWR 2920 (3CRBSG2093) and may ship with this product labeling. SFP ports and copper ports are mutually exclusive to give a total of 20 Gigabit-capable ports.
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV804E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW033E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW036E)</p> <p>3-year, 24x7 SW phone support, software updates (UV807E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV805E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW034E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW037E)</p> <p>4-year, 24x7 SW phone support, software updates (UV808E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV806E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW035E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW038E)</p> <p>5-year, 24x7 SW phone support, software updates (UV809E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW039E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW040E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW041E)</p> <p>Refer to the HP website at <a href="http://www.procurve.com/services">www.procurve.com/services</a> 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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV804E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW033E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW036E)</p> <p>3-year, 24x7 SW phone support, software updates (UV807E)</p> <p>Installation with minimum configuration, system-based pricing (UW451E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV805E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW034E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW037E)</p> <p>4-year, 24x7 SW phone support, software updates (UV808E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV806E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW035E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW038E)</p> <p>5-year, 24x7 SW phone support, software updates (UV809E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW039E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW040E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW041E)</p> <p>Refer to the HP website at <a href="http://www.procurve.com/services">www.procurve.com/services</a> 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.</p>

# HP V1910 Switch Series

## Specifications (continued)

### HP V1910-24G Switch (JE006A)

#### Standards and protocols (applies to all products in series)

#### Device management RFC 2819 RMON

#### General protocols

IEEE 802.1s Multiple Spanning Trees  
IEEE 802.1w Rapid Reconfiguration of Spanning Tree  
IEEE 802.3ab 1000BASE-T  
IEEE 802.3ac (VLAN Tagging Extension)  
IEEE 802.3ad Link Aggregation Control Protocol (LACP)  
IEEE 802.3ae 10-Gigabit Ethernet  
IEEE 802.3ag Ethernet OAM  
IEEE 802.3i 10BaseT  
IEEE 802.3u 100BASE-X  
IEEE 802.3x Flow Control  
IEEE 802.3z 1000BASE-X

### HP V1910-16G Switch (JE005A)

#### MIBs

RFC 1213 MIB II  
RFC 1493 Bridge MIB  
RFC 2021 RMONv2 MIB  
RFC 2233 Interface MIB  
RFC 2233 Interfaces MIB  
RFC 2571 SNMP Framework MIB  
RFC 2572 SNMP-MPD MIB  
RFC 2573 SNMP-Notification MIB  
RFC 2573 SNMP-Target MIB  
RFC 2613 SMON MIB  
RFC 2618 RADIUS Client MIB  
RFC 2620 RADIUS Accounting MIB  
RFC 2665 Ethernet-Like-MIB  
RFC 2667 IP Tunnel MIB  
RFC 2668 802.3 MAU MIB  
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB

RFC 2737 Entity MIB (Version 2)  
RFC 3414 SNMP-User based-SM MIB  
RFC 3415 SNMP-View based-ACM MIB  
RFC 3418 MIB for SNMPv3

#### Network management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)  
IEEE 802.1D (STP)  
RFC 1215 SNMP Generic traps

#### QoS/Cos

IEEE 802.1P (CoS)

#### Security

IEEE 802.1X Port Based Network Access Control



# HP V1910 Switch Series accessories

## Transceivers

HP X125 1G SFP LC SX Transceiver (JD118B)  
HP X120 1G SFP LC LX Transceiver (JD119B)  
HP X125 1G SFP RJ45 T Transceiver (JD089B)  
HP X124 1G SFP LC LH40 1310nm Transceiver (JD061A)  
HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A)  
HP X125 1G SFP LC LH70 Transceiver (JD063B)

## Cables

**NEW** HP .5 m Multimode OM3 LC/LC Optical Cable (AJ833A)  
**NEW** HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)

**NEW** HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)  
**NEW** HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)  
**NEW** HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)  
**NEW** HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)  
**NEW** HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)



Products within this series have achieved sufficient scores in each of the rated criteria to achieve the Miercom Certified Green distinction Award. See the Specifications section of this series for more information.

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