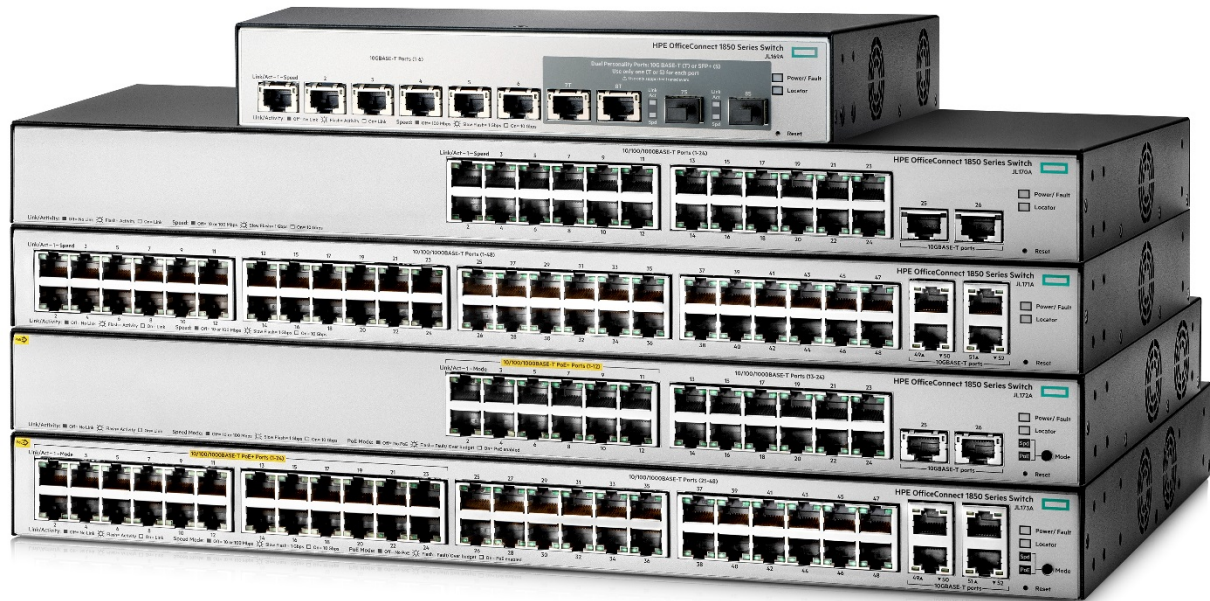


### Overview

### HPE OfficeConnect 1850 Switch Series



### Models

HPE OfficeConnect 1850 6XGT and 2XGT/SPF+ Switch	JL169A
HPE OfficeConnect 1850 24G 2XGT Switch	JL170A
HPE OfficeConnect 1850 48G 4XGT Switch	JL171A
HPE OfficeConnect 1850 24G 2XGT PoE+ 185W Switch	JL172A
HPE OfficeConnect 1850 48G 4XGT PoE+ 370W Switch	JL173A

### Key features

- 10-Gigabit 10GBASE-T on all models for high-speed interconnect
- Non-PoE and PoE+ 24- and 48 port models
- 8 port 10GBASE-T switch with 2 SFP+ dual-personality ports
- Intuitive Web management interface for easy switch configuration
- Limited Lifetime Warranty

### Product overview

HPE OfficeConnect 1850 Switch Series devices are basic smart-managed, fixed-configuration Gigabit plus 10 Gigabit Ethernet Layer 2 switches designed for small businesses looking for high performance in an easy-to-administer solution. The series is part of the OfficeConnect portfolio of Hewlett Packard Enterprise small business networking products.

The series consists of five switch models. Four are Gigabit switches each with 10-Gigabit 10GBASE-T uplink ports. One is an 8-port 10-Gigabit aggregator switch. Together, you can build a high bandwidth network with Gigabit edge port switches interconnected at 10-Gigabit speeds. Non-PoE and PoE+ models are available. The 24 port models include 2 10GBASE-T ports; the 48 port

## Overview

models include 4 10GBASE-T ports and an 8 port model includes 8 10GBASE-T ports with 2 dual-personality SFP+ ports. All HPE OfficeConnect 1850 Switches support flexible installation options including mounting on wall, under table, or on a desktop.

These Gigabit switches are plug-and-play out of the box, yet network operation can be fine-tuned through features available from a simple web browser-based GUI, if necessary. Customizable features include VLANs, Rapid Spanning Tree, IGMP Snooping, link aggregation trunking and DSCP QoS policies. All models include the latest energy-saving capabilities, including Energy Efficient Ethernet (EEE) and idle-port power down. All models include variable speed fans operating only at the speed necessary to maintain operating temperature to reduce excess noise and power consumption by the switch. HPE OfficeConnect 1850 Switch Series includes a Limited Lifetime Warranty.

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## Features and benefits

### Management

- **Simple Web management**  
allows for easy management of the switch—even by nontechnical users—through an intuitive Web GUI; supports HTTP and HTTP Secure (HTTPS)
- **SNMPv1, v2c**  
enables devices to be discovered and monitored from an SNMP management station
- **Port mirroring**  
enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **Dual flash images**  
provides independent primary and secondary operating system files for backup while upgrading
- **Network Time Protocol (NTP)**  
synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network
- **Manual network time configuration**  
manually set the date and time on the switch in the absence of an NTP server
- **Default DHCP client mode**  
allows the switch to be directly connected to a network, enabling plug-and-play operation; in absence of a DHCP server on the network, the switch falls back to a default, fixed IP address

### Quality of Service (QoS)

- **Traffic prioritization**  
provides time-sensitive packets (like VoIP and video) with priority over other traffic based on DSCP or IEEE 802.1p classification; packets are mapped to eight hardware queues for more effective throughput
- **Broadcast control**  
allows limiting of broadcast traffic rate to reduce unwanted network broadcast traffic
- **IEEE 802.1p/Q**  
delivers data to devices based on the priority and type of traffic; supports IEEE 802.1Q Virtual LANs (VLANs)

### Connectivity

- **Auto-MDI/MDIX**  
automatically adjusts for straight-through or crossover cables on all ports
- **IEEE 802.3X flow control**  
provides a flow throttling mechanism propagated through the network to prevent packet loss at a congested node
- **Loop protection**  
if the switch detects a loop, it disables the source port from forwarding data packets originating from the switch to avoid broadcast storms.
- **IEEE 802.3at Power over Ethernet (PoE+)**  
provides up to 30W per port, which allows support of the latest PoE+-capable devices such as IP phones, wireless access

## Overview

points, and security cameras, as well as any IEEE 802.3af-compliant end device; lowers the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments

- **PoE+ port availability**  
ports 1 – 12 provide PoE+ on the HPE 1850 24G 2XGT PoE+ 185W Switch. Ports 1-24 provide PoE+ on the HPE 1850 48G 4XGT PoE+ 370W Switch.
- **Auto PoE power configuration**  
the switch automatically assigns the required power to a port for a PD device based on LLDP (Link Layer Discovery Protocol). Optionally, the switch permits manual, per port, PoE power configuration.
- **PoE shut down mode**  
a PoE scheduler provides the ability to define the hours of PoE power being supplied on a group of switch ports based on a 24 hour day. The scheduler enables the flexibility to select individual days of a week as well as recurrence on a weekly basis with a start and end date
- **Energy Efficient Ethernet**  
compliant with IEEE 802.3az standard requirements to save energy during periods of low data activity.
- **Auto port shut-down**  
the switch saves power by automatically shutting down power to inactive ports. Power is restored on a port upon link detection
- **Energy efficient cooling**  
all models include variable speed fans operating only at the speed necessary to maintain operating temperature to reduce excess noise and power consumption by the switch
- **Energy savings status**  
the switch provides an estimated cumulative energy savings due to green Ethernet features enabled

## Security

- **Secure Socket Layer (SSL)**  
encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch.
- **Automatic denial-of-service protection**  
monitors nine types of malicious attacks and protects the network by blocking these attacks
- **Management password**  
provides security so that only authorized access to the Web browser interface is allowed

## Performance

- **Half- and full-duplex auto-negotiating capability on every port**  
doubles the throughput of every port
- **IGMP snooping**  
improves network performance through multicast filtering, instead of flooding traffic to all ports.

## Layer 2 switching

- **VLAN support and tagging**  
supports up to 64 port-based VLANs and dynamic configuration of IEEE 802.1Q VLAN tagging, providing security between workgroups
- **Jumbo packet support**  
improves the performance of large data transfers; supports frame size of up to 9220 bytes

## Resiliency and high availability

- **IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1W Rapid Spanning Tree Protocol (RSTP)**  
provides redundant links while preventing network loops
- **Link aggregation**  
brings together groups of ports automatically using Link Aggregation Control Protocol (LACP) or, manually, to form an

## Overview

ultra-high-bandwidth connection to the network backbone; helps prevent traffic bottlenecks; the 8 port model supports 4 trunks, the 24-port models support 8 trunks and the 48-port models support 16 trunks. The 8- and 24-port switches can support up to 4 ports per trunk, the 48-port switches can support up to 8 ports per trunk

### Ease of use

- **Locator LED**  
allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches
- **Comprehensive LED display with per-port indicators**  
provides an at-a-glance view of status, activity, speed, and full-duplex operation.

### Flexibility

- **Flexible installation**  
allows mounting on wall, desktop, or under-table with supplied hardware
- **Rack mountable**  
all models include rack-mounting hardware for mounting in a standard 19 inch telco rack.

### Warranty and support

- **Limited Lifetime Warranty**  
See <http://www.hpe.com/officeconnect/support> for warranty and support information included with your product purchase.

## 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.

HPE OfficeConnect 1850 6XGT and 2XGT/SPF+ Switch	JL169A
<ul style="list-style-type: none"> <li>6 RJ-45 1/10GBASE-T ports</li> <li>2 Dual Personality SFP+ 1/10GBASE-T ports (min=0 \ max=2 SFP/SFP+ Transceivers)</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE:1, 2</b>
PDU Cable NA/MEX/TW/JP	JL169A#B2B
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	
PDU Cable ROW	JL169A#B2C
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (ROW)</li> </ul>	
High Volt Switch to Wall Power Cord	JL169A#B2E
<ul style="list-style-type: none"> <li>HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)</li> </ul>	
No Power Cord	JL169A#AC3
<ul style="list-style-type: none"> <li>No Localization Power Cord Selected</li> </ul>	
HPE OfficeConnect 1850 24G 2XGT Switch	JL170A
<ul style="list-style-type: none"> <li>24 RJ-45 autosensing 10/100/1000 ports</li> <li>2 RJ-45 1/10GBASE-T ports</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 2</b>
PDU Cable NA/MEX/TW/JP	JL170A#B2B
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	
PDU Cable ROW	JL170A#B2C
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (ROW)</li> </ul>	
High Volt Switch to Wall Power Cord	JL170A#B2E
<ul style="list-style-type: none"> <li>HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)</li> </ul>	
No Power Cord	JL170A#AC3
<ul style="list-style-type: none"> <li>No Localization Power Cord Selected</li> </ul>	
HPE OfficeConnect 1850 48G 4XGT Switch	JL171A
<ul style="list-style-type: none"> <li>48 RJ-45 autosensing 10/100/1000 ports</li> <li>4 RJ-45 1/10GBASE-T ports</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 2</b>
PDU Cable NA/MEX/TW/JP	JL171A#B2B
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	
PDU Cable ROW	JL171A#B2C
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (ROW)</li> </ul>	

Configuration

High Volt Switch to Wall Power Cord	JL171A#B2E
• HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	
No Power Cord	JL171A#AC3
• No Localization Power Cord Selected	
HPE OfficeConnect 1850 24G 2XGT PoE+ 185W Switch	JL172A
• 12 RJ-45 autosensing 10/100/1000 PoE+ ports	See Configuration
• 12 RJ-45 autosensing 10/100/1000 ports	<b>NOTE: 2</b>
• 2 RJ-45 1/10GBASE-T ports	
• 1U - Height	
PDU Cable NA/MEX/TW/JP	JL172A#B2B
• C13 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU Cable ROW	JL172A#B2C
• C13 PDU Jumper Cord (ROW)	
High Volt Switch to Wall Power Cord	JL172A#B2E
• HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	
No Power Cord	JL172A#AC3
• No Localization Power Cord Selected	
HPE OfficeConnect 1850 48G 4XGT PoE+ 370W Switch	JL173A
• 24 RJ-45 autosensing 10/100/1000 PoE+ ports	See Configuration
• 24 RJ-45 autosensing 10/100/1000 ports	<b>NOTE: 2</b>
• 4 RJ-45 1/10GBASE-T ports	
• 1U - Height	
PDU Cable NA/MEX/TW/JP	JL173A#B2B
• C15 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU Cable ROW	JL173A#B2C
• C15 PDU Jumper Cord (ROW)	
High Volt Switch to Wall Power Cord	JL173A#B2E
• HPE 2.5m C15 to NEMA 6-20P 250V Non-locking Power Cord (JL336A)	
No Power Cord	JL173A#AC3
• No Localization Power Cord Selected	

Configuration Rules:

Note 1	The following Transceivers install into this switch:	
	Aruba 1G SFP LC SX 500m MMF XCVR	J4858D
	Aruba 1G SFP LC LX 10km SMF XCVR	J4859D

## Configuration

Aruba 10G SFP+ LC SR 300m MMF XCVR	J9150D
Aruba 10G SFP+ LC LR 10km SMF XCVR	J9151D
Aruba 10G SFP+ LC LRM 220m MMF XCVR	J9152D
Aruba 10G SFP+ to SFP+ 1m DAC Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m DAC Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m DAC Cable	J9285D

**Note 2** Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or #B2E. (See Localization Menu)  
If #AC3 is selected then no Localized Power Cord is required.

**Remarks:** OCA Only Model Selection Form -  
HPE Offering > Aruba > OfficeConnect - Smart Web Managed Switch:  
HPE OfficeConnect 1850 Switch Series

## Rack Level Integration CTO Models

HPE OfficeConnect 1850 24G 2XGT Switch	JL170A
<ul style="list-style-type: none"> <li>24 RJ-45 autosensing 10/100/1000 ports</li> <li>2 RJ-45 1/10GBASE-T ports</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE:2, 3</b>
PDU Cable NA/MEX/TW/JP	JL170A#B2B
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	
PDU Cable ROW	JL170A#B2C
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (ROW)</li> </ul>	
High Volt Switch to Wall Power Cord	JL170A#B2E
<ul style="list-style-type: none"> <li>HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)</li> </ul>	
No Power Cord	JL170A#AC3
<ul style="list-style-type: none"> <li>No Localization Power Cord Selected</li> </ul>	
HPE OfficeConnect 1850 48G 4XGT Switch	JL171A
<ul style="list-style-type: none"> <li>48 RJ-45 autosensing 10/100/1000 ports</li> <li>4 RJ-45 1/10GBASE-T ports</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 2, 3</b>
PDU Cable NA/MEX/TW/JP	JL171A#B2B
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	
PDU Cable ROW	JL171A#B2C
<ul style="list-style-type: none"> <li>C13 PDU Jumper Cord (ROW)</li> </ul>	
High Volt Switch to Wall Power Cord	JL171A#B2E
<ul style="list-style-type: none"> <li>HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)</li> </ul>	
No Power Cord	JL171A#AC3
<ul style="list-style-type: none"> <li>No Localization Power Cord Selected</li> </ul>	

Configuration

HPE OfficeConnect 1850 24G 2XGT PoE+ 185W Switch	JL172A
<ul style="list-style-type: none"><li>24 RJ-45 autosensing 10/100/1000 PoE+ ports</li><li>24 RJ-45 autosensing 10/100/1000 ports</li><li>2 RJ-45 1/10GBASE-T ports</li><li>1U - Height</li></ul>	See Configuration <b>NOTE: 2, 3</b>
PDU Cable NA/MEX/TW/JP	JL172A#B2B
<ul style="list-style-type: none"><li>C13 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	
PDU Cable ROW	JL172A#B2C
<ul style="list-style-type: none"><li>C13 PDU Jumper Cord (ROW)</li></ul>	
High Volt Switch to Wall Power Cord	JL172A#B2E
<ul style="list-style-type: none"><li>HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)</li></ul>	
No Power Cord	JL172A#AC3
<ul style="list-style-type: none"><li>No Localization Power Cord Selected</li></ul>	
HPE OfficeConnect 1850 48G 4XGT PoE+ 370W Switch	JL173A
<ul style="list-style-type: none"><li>48 RJ-45 autosensing 10/100/1000 PoE+ ports</li><li>48 RJ-45 autosensing 10/100/1000 ports</li><li>4 RJ-45 1/10GBASE-T ports</li><li>1U - Height</li></ul>	See Configuration <b>NOTE: 2, 3</b>
PDU Cable NA/MEX/TW/JP	JL173A#B2B
<ul style="list-style-type: none"><li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	
PDU Cable ROW	JL173A#B2C
<ul style="list-style-type: none"><li>C15 PDU Jumper Cord (ROW)</li></ul>	
High Volt Switch to Wall Power Cord	JL173A#B2E
<ul style="list-style-type: none"><li>HPE 2.5m C15 to NEMA 6-20P 250V Non-locking Power Cord (JL336A)</li></ul>	
No Power Cord	JL173A#AC3
<ul style="list-style-type: none"><li>No Localization Power Cord Selected</li></ul>	

Configuration Rules:

Note 2	Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) . (See Localization Menu) REMARK: When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches/Routers. If #AC3 is selected then no Localized Power Cord is required.
Note 3	If this switch is factory installed in any HP Racks, Then the J9583A#OD1 is required.
Remarks	Drop down under power cords should offer the following options and results: Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO)



Configuration

- Switch/Router/Power Supply to Wall Power Cord - #B2C Localized Option (Watson Default for BTO and Box Level CTO)
- High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)
- No Power Cord - #AC3 Option

Enter the following menu selections as integrated to the CTO Model X server above if order is factory built.

Transceivers

SFP Transceivers

Aruba 1G SFP LC SX 500m MMF XCVR	J4858D
Aruba 1G SFP LC LX 10km SMF XCVR	J4859D
Aruba 10G SFP+ LC SR 300m MMF XCVR	J9150D
Aruba 10G SFP+ LC LR 10km SMF XCVR	J9151D
Aruba 10G SFP+ LC LRM 220m MMF XCVR	J9152D

Cables

Multi-Mode Cables

Aruba 10G SFP+ to SFP+ 1m DAC Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m DAC Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m DAC Cable	J9285D

Switch Enclosure Options

Rail Kit

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
<ul style="list-style-type: none"><li>Supported on JL170A, JL171A, JL172A, JL173A</li></ul>	See Configuration
	<b>NOTE:1</b>

Configuration Rules:

Note 1

If this Rail Kit is order with #OD1 then it integrates to the HPE Network Rack. (not the switch)

## Technical Specifications

### HPE OfficeConnect 1850 6XGT and 2XGT/SPF+ Switch (JL169A)

<b>I/O ports and slots</b>	6 RJ-45 1/10GBASE-T ports 2 dual-personality ports; each port can be used as either an RJ-45 1/10GBASE-T port or an SFP+ fixed 1000/10000 slot	
<b>Physical characteristics</b>	<b>Dimensions</b>	9.96(w) x 10.26(d) x 1.73(h) in (25.3 x 26.07 x 4.4 cm) (1U height)
	<b>Weight</b>	3.84 lb (1.74 kg)
<b>Memory and processor</b>	BCM53412 embedded ARM Cortex-A9 @ 600 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 2 MB	
<b>Performance</b>	<b>100 Mb Latency</b>	< 6.8 $\mu$ s (64-byte packets)
	<b>1000 Mb Latency</b>	< 2.9 $\mu$ s (64-byte packets)
	<b>10 Gbps Latency</b>	< 6.8 $\mu$ s (64-byte packets)
	<b>Throughput</b>	up to 119 Mpps
	<b>Switching capacity</b>	160 Gbps
	<b>MAC address table size</b>	16000 entries
	<b>MTBF (years)</b>	64.5
<b>Reliability</b>		
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 95% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 9,842 ft (3 km)
	<b>Acoustic</b>	Power: 45 dB
	<b>Airflow direction</b>	Side-to-side
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	100 - 127 / 200 - 240 VAC, rated
	<b>Current</b>	.9/5 A
	<b>Maximum power rating</b>	42.8 W
	<b>Idle power</b>	19.4 W
	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected. 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.
<b>Safety</b>	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1	
<b>Emissions</b>	VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32	
<b>Immunity</b>	<b>Generic</b>	EN 55024, CISPR 24
	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4

## Technical Specifications

	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	EN 61000-3-2, IEC 61000-3-2
	<b>Flicker</b>	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Web browser	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/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 Hewlett Packard Enterprise sales office.	

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<b>HPE OfficeConnect 1850 24G 2XGT Switch (JL170A)</b>		
<b>I/O ports and slots</b>	24 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 RJ-45 1/10GBASE-T ports	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42 (w) x 9.7(d) x 1.73(h) in (44.25 x 24.64 x 4.4 cm) (1U height)
	<b>Weight</b>	5.86 lb (2.66 kg)
<b>Memory and processor</b>	BCM53346 embedded ARM Cortex-A9 @ 400 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 1.5 MB	
<b>Performance</b>	<b>100 Mb Latency</b>	< 9.1 μs (64-byte packets)
	<b>1000 Mb Latency</b>	< 3.7 μs (64-byte packets)
	<b>10 Gbps Latency</b>	< 3.7 μs (64-byte packets)
	<b>Throughput</b>	up to 65 Mpps (64-byte packets)
	<b>Switching capacity</b>	88 Gbps
	<b>MAC address table size</b>	16000 entries
<b>Reliability</b>	<b>MTBF (years)</b>	99
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 95% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 9,842 ft (3 km)
	<b>Acoustic</b>	Power: 36 dB
	<b>Airflow direction</b>	Side-to-side
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	100 - 120 / 200 - 240 VAC, rated (200 - 240 VAC, max)
	<b>Current</b>	.6/4 A
	<b>Maximum power rating</b>	29.5 W
	<b>Idle power</b>	19.1 W
	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected.

## Technical Specifications

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.

<b>Safety</b>	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1	
<b>Emissions</b>	VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32	
<b>Immunity</b>	<b>Generic</b>	EN 55024, CISPR 24
	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
<b>Management</b>	<b>Harmonics</b>	EN 61000-3-2, IEC 61000-3-2
	<b>Flicker</b>	EN 61000-3-3, IEC 61000-3-3
<b>Services</b>	Web browser	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/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 Hewlett Packard Enterprise sales office.	

### HPE OfficeConnect 1850 48G 4XGT Switch (JL171A)

<b>I/O ports and slots</b>	48 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 RJ-45 1/10GBASE-T ports	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 9.7(d) x 1.73(h) in (44.25 x 24.64 x 4.4 cm) (1U height)
	<b>Weight</b>	7.05 lb (3.2 kg)
<b>Memory and processor</b>	BCM53346 embedded ARM Cortex-A9 @ 400 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 3 MB	
<b>Performance</b>	<b>100 Mb Latency</b>	< 9.7 $\mu$ s (64-byte packets)
	<b>1000 Mb Latency</b>	< 3.7 $\mu$ s (64-byte packets)
	<b>10 Gbps Latency</b>	< 3.7 $\mu$ s (64-byte packets)
	<b>Throughput</b>	up to 131 Mpps (64-byte packets)
	<b>Switching capacity</b>	176 Gbps
	<b>MAC address table size</b>	16000 entries
<b>Reliability</b>	<b>MTBF (years)</b>	79.4
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)

## Technical Specifications

<b>Electrical characteristics</b>	<b>Nonoperating/Storage relative humidity</b>	15% to 95% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 9,842 ft (3 km)
	<b>Acoustic</b>	Power: 34 dB
	<b>Airflow direction</b>	Side-to-side
	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	100 - 127 / 200 - 240 VAC, rated
	<b>Current</b>	1/6 A
	<b>Maximum power rating</b>	49.3 W
	<b>Idle power</b>	30 W
	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected. 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.
<b>Safety</b>	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1	
<b>Emissions</b>	VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32	
<b>Immunity</b>	<b>Generic</b>	EN 55024, CISPR 24
	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	EN 61000-3-2, IEC 61000-3-2
	<b>Flicker</b>	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Web browser	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/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 Hewlett Packard Enterprise sales office.	

### HPE OfficeConnect 1850 24G 2XGT PoE+ 185W Switch (JL172A)

<b>I/O ports and slots</b>	12 RJ-45 auto-negotiating 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE, IEEE 802.3at); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	12 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	2 RJ-45 1/10GBASE-T ports	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 9.7(d) x 1.73(h) in (44.25 x 24.64 x 4.4 cm) (1U height)
	<b>Weight</b>	7.28 lb (3.3 kg)

## Technical Specifications

<b>Memory and processor</b>	BCM53346 embedded ARM Cortex-A9 @ 400 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 1.5 MB	
<b>Performance</b>	<b>100 Mb Latency</b>	< 8.6 $\mu$ s (64-byte packets)
	<b>1000 Mb Latency</b>	< 3.6 $\mu$ s (64-byte packets)
	<b>10 Gbps Latency</b>	< 3.6 $\mu$ s (64-byte packets)
	<b>Throughput</b>	up to 65 Mpps (64-byte packets)
	<b>Switching capacity</b>	88 Gbps
	<b>MAC address table size</b>	16000 entries
<b>Reliability</b>	<b>MTBF (years)</b>	71.4
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 95% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 9,842 ft (3 km)
	<b>Acoustic</b>	Power: 44 dB
	<b>Airflow direction</b>	Side-to-side
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	100 - 127 / 200 - 240 VAC, rated
	<b>Current</b>	2.5/1.3 A
	<b>Maximum power rating</b>	222.9 W
	<b>Idle power</b>	24.4 W
	<b>PoE power</b>	185 W PoE+
	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected. 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. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of an External Power Supply (EPS).
<b>Safety</b>	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1	
<b>Emissions</b>	VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32	
<b>Immunity</b>	<b>Generic</b>	EN 55024, CISPR 24
	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8

## Technical Specifications

	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	EN 61000-3-2, IEC 61000-3-2
	<b>Flicker</b>	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Web browser	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/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 Hewlett Packard Enterprise sales office.	

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<b>HPE OfficeConnect 1850 48G 4XGT PoE+ 370W Switch (JL173A)</b>		
<b>I/O ports and slots</b>	24 RJ-45 auto-negotiating 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE, IEEE 802.3at); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 24 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) 4 RJ-45 1/10GBASE-T ports	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 12.7(d) x 1.73(h) in (44.25 x 32.26 x 4.4 cm) (1U height)
	<b>Weight</b>	10.3 lb (4.67 kg)
<b>Memory and processor</b>	BCM53346 embedded ARM Cortex-A9 @ 400 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 3 MB	
<b>Performance</b>	<b>100 Mb Latency</b>	< 10 μs (64-byte packets)
	<b>1000 Mb Latency</b>	< 3.8 μs (64-byte packets)
	<b>10 Gbps Latency</b>	< 3.8 μs (64-byte packets)
	<b>Throughput</b>	up to 131 Mpps (64-byte packets)
	<b>Switching capacity</b>	176 Gbps
	<b>MAC address table size</b>	16000 entries
<b>Reliability</b>	<b>MTBF (years)</b>	57.1
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	15% to 95% (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 95% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 9,842 ft (3 km)
	<b>Acoustic</b>	Power: 40 dB
	<b>Airflow direction</b>	Side-to-side
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	100 - 127 / 200 - 240 VAC, rated
	<b>Current</b>	5/2.4 A
	<b>Maximum power rating</b>	446.4 W
	<b>Idle power</b>	46.5 W
	<b>PoE power</b>	370 W PoE+
	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure

## Technical Specifications

with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.

PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of an External Power Supply (EPS).

<b>Safety</b>	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1	
<b>Emissions</b>	VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32	
<b>Immunity</b>	<b>Generic</b>	EN 55024, CISPR 24
	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	EN 61000-3-2, IEC 61000-3-2
	<b>Flicker</b>	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Web browser	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/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 Hewlett Packard Enterprise sales office.	

### Standards and protocols Denial of service protection

(applies to all products in series) CPU DoS Protection

#### General protocols

IEEE 802.1AB-2005 Link Layer Discovery Protocol (LLDP) I  
 IEEE 802.1D Spanning Tree Protocol  
 IEEE 802.1p Priority  
 IEEE 802.1Q VLANs  
 IEEE 802.1W Rapid Spanning Tree Protocol  
 IEEE 802.3ad Link Aggregation Control Protocol (LACP)  
 IEEE 802.3x Flow Control  
 RFC 1534 DHCP/BOOTP Interoperation  
 RFC 2030 Simple Network Time Protocol (SNTP) v4



Accessories

HPE OfficeConnect 1850 Switch Series accessories

HPE OfficeConnect 1850 6XGT and 2XGT/SPF+ Switch (JL169A)

Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151D
Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D

HPE OfficeConnect 1850 24G 2XGT Switch (JL170A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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HPE OfficeConnect 1850 48G 4XGT Switch (JL171A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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HPE OfficeConnect 1850 24G 2XGT PoE+ 185W Switch (JL172A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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HPE OfficeConnect 1850 48G 4XGT PoE+ 370W Switch (JL173A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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## Summary of Changes

Date	Version History	Action	Description of Change:
07-May-2018	Version 3	Changed	Accessories updated
04-Sep-2017	Version 2	Changed	Updates made on Features and benefits
07-Nov-2016	Version 1	Created	Document creation



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