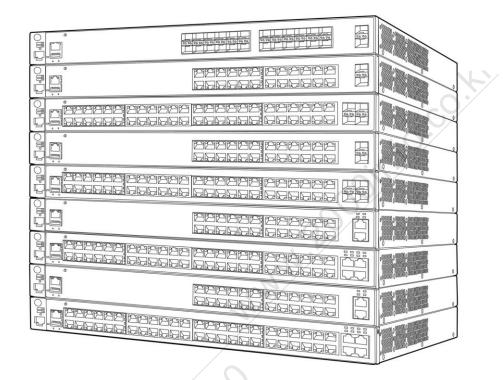
Overview

## **HP 3800 Switch Series**



#### HP 3800 Switch Series Family

### Models

i ioucio	
HP 3800-24G-PoE+-2SFP+ Switch	J9573A
HP 3800-48G-PoE+-4SFP+ Switch	J9574A
HP 3800-24G-2SFP+ Switch	J9575A
HP 3800-48G-4SFP+ Switch	J9576A
HP 3800-24G-2XG Switch	J9585A
HP 3800-48G-4XG Switch	J9586A
HP 3800-24G-PoE+-2XG Switch	J9587A
HP 3800-48G-PoE+-4XG Switch	J9588A
HP 3800-24SFP-2SFP+ Switch	J9584A

### **Key features**

- Fully managed L3 stackable switch series
- Highly resilient low-latency architecture
- SFP+, 10GBASE-T, PoE+, and modular stacking
- Highly resilient meshed stacking technology
- Limited Lifetime Warranty 2.0 with 3 years 24x7 phone support

## **Product overview**

The HP 3800 Switch Series is a family of nine fully managed Gigabit Ethernet switches available in 24-port and 48-port models,



### Overview

with or without PoE+, and with either SFP+ or 10GBASE-T uplinks. The 3800 Switch Series utilizes the latest HP ProVision ASIC technology and advances in hardware engineering to deliver one of the most resilient and energy-efficient switches in the industry. In addition, meshed stacking technology is implemented in this switch series to deliver chassis-like resiliency in a flexible, stackable form factor.

### **Features and benefits**

#### Software-defined networking

#### NEW OpenFlow

is a key technology that enables SDN by allowing separation of the data (packet forwarding) and control (routing decision) paths

#### **Unified Wired and Wireless**

#### HTTP redirect function

supports HP Intelligent Management Center (IMC) bring your own device (BYOD) solution

#### Quality of Service (QoS)

• Advanced classifier-based QoS

classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis

- 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), Layer 3 protocol, TCP/UDP port number,
   source port, and DiffServ
- Bandwidth shaping:
  - **Port-based rate limiting**: provides per-port ingress-/egress-enforced increased bandwidth
  - **Classifier-based rate limiting**: uses an access control list (ACL) to enforce increased bandwidth for ingress traffic on each port
  - o Reduced bandwidth: provides per-port, per-queue egress-based reduced bandwidth

#### • Remote intelligent mirroring

mirrors selected ingress/egress traffic based on ACL, port, MAC address, or VLAN to a local or remote HP 8200 zl, 6600, 6200 yl, 5400 zl, 3800, or 3500 Switch anywhere on the network

RMON, XRMON, and sFlow v5
 provide advanced monitoring

provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events

• **Traffic prioritization** allows real-time traffic classification into eight priority levels mapped to eight queues

#### Management

- Friendly port names allows assignment of descriptive names to ports
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- Command authorization
   leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; an audit trail
   documents activity
- Uni-Directional Link Detection (UDLD) monitors a cable between two switches and shuts down the ports on both ends if the cable is broken, turning the bidirectional link into a unidirectional one; this prevents network problems such as loops



### Overview

- Multiple configuration files allows assignment of descriptive names to ports
- Dual flash images
   provides independent primary and secondary operating system files for backup while upgrading
- Out-of-Band Ethernet management port enables management over a separate physical management network; keeps management traffic segmented from network data traffic
- Comware-compatible CLI
  - Comware-compatible CLI
  - bridges the experience of HP Comware CLI users who are using the HP ProVision software CLI
     Display and fundamental Comware CLI commands
  - are embedded in the switch CLI as native commands; display output is formatted as on Comware-based switches, and fundamental commands provide a Comware-familiar initial switch setup
  - Configuration Comware CLI commands when Comware commands are entered, CLI help is elicited to formulate the correct ProVision software CLI command

#### Connectivity

• Jumbo frames

on Gigabit Ethernet and 10-Gigabit Ethernet ports, jumbo frames allow high-performance remote backup and disasterrecovery services

- IEEE 802.3at Power Over Ethernet Plus (PoE+) provides up to 30 W per port to IEEE 802.3 for PoE-/PoE+-powered devices such as video IP phones, IEEE 802.11n wireless access points, and advanced pan/zoom/tilt security cameras
- Prestandard PoE support detects and provides power to pre-standard PoE devices; see list of supported devices in the product FAQs at: www.hp.com/networking
- Choice of uplinks:
  - o SFP+ uplink models: provide fiber-optic (up to 70 km) or direct attach cable (DAC) connectivity
  - 10GBASE-T uplink models: offer 10GbE speeds using standard RJ-45 connectors and standard twisted pair cabling up to 100 m
- Auto-MDIX
  - automatically adjusts for straight-through or crossover cables on all RJ-45 ports
- IPv6:
  - **IPv6 host**: enables switches to be managed in an IPv6 network
  - **Dual stack** (IPv4 and IPv6): transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - o MLD snooping: forwards IPv6 multicast traffic to the appropriate interface
  - IPv6 ACL/QoS: supports ACL and QoS for IPv6 network traffic
  - IPv6 routing: supports static and OSPFv3 routing protocols
  - o 6in4 tunneling: supports encapsulation of IPv6 traffic in IPv4 packets
  - Security: provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown

#### Performance

• Selectable queue configurations

allows for increased performance by selecting the number of queues and associated memory buffering that best meet the requirements of the network applications

- Energy-efficient design:
  - High-efficiency power supplies: 80 PLUS Gold-certified power supplies increase power savings
  - **Energy-efficient Ethernet support**: IEEE 802.3az support reduces power consumption
- Meshed stacking technology:
  - **High-performance stacking**: provides up to 336 Gb/s of stacking throughput; each 4-port stacking module can support up to 42 Gb/s in each direction per stacking port



### Overview

- **Ring, chain, and mesh topologies**: support up to a 10-member ring or chain and 5-member fully meshed stacks; meshed topologies offer increased resiliency vs. a standard ring
- Virtualized switching: when stacked, switches appear as a single chassis, providing simplified management HP ProVision ASIC architecture

designed with the latest HP ProVision ASIC, with very low latency, increased packet buffering, and adaptive power consumption

#### Resiliency and high availability

- NEW Virtual Router Redundancy Protocol (VRRP) allows groups of two routers to dynamically back each other up to create highly available routed environments in IPv4 and IPv6 networks
- Nonstop switching and routing improves network availability to better support critical applications such as unified communication and mobility; traffic will continue to be forwarded during failover when the backup member of the stack becomes the commander
- IEEE 802.3ad Link Aggregation Protocol (LACP) and HP port trunking support up to 24 trunks, each with up to 8 links (ports) per trunk
- IEEE 802.1s Multiple Spanning Tree provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- Virtual Router Redundancy Protocol (VRRP) allows groups of two routers to dynamically back each other up to create highly available routed environments
- Dual hot-swappable power supplies
  - **Increased resiliency**: second power supply can allow for complete switch power redundancy in case of power line or supply failure
  - Increased PoE+ power: second power supply can increase total available PoE+ powerr

### • Distributed trunking

enables loop-free and redundant network topology without using Spanning Tree Protocol; allows a server or switch to connect to two switches using one logical trunk for redundancy and load sharing

NEW SmartLink

provides easy-to-configure link redundancy of active and standby links

### Layer 2 switching

- GARP VLAN Registration Protocol
   allows automatic learning and dynamic assignment of VLANs
- IEEE 802.1ad QinQ increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a highspeed campus or metro network
- VLAN support and tagging supports the IEEE 802.1Q standard and 2,048 VLANs simultaneously
- IEEE 802.1v protocol VLANs isolate select non-IPv4 protocols automatically into their own VLANs
- MAC-based VLAN provides granular control and security; uses RADIUS to map a MAC address/user to specific VLANs
- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- HP switch meshing dynamically load balances across multiple active redundant links to increase available aggregate bandwidth; allows concurrent Layer 3 routing

#### Layer 3 services

Loopback interface address



### **HP 3800 Switch Series**

# QuickSpecs

### Overview

defines an address in Routing Information Protocol (RIP) and Open Standard Path First (OSPF), improving diagnostic capability

- Route maps
- provide more control during route redistribution; allow filtering and altering of route metrics

• User Datagram Protocol (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

### Layer 3 routing

- Routing Information Protocol (RIP) provides RIPv1 and RIPv2 routing
- Static IP routing
   provides manually confi
- provides manually configured routing for both IPv4 and IPv6 networks
  OSPF
  - provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
- Policy-based routing makes routing decisions based on policies set by the network administrator
- **Border Gateway Protocol** (BGP) provides IPv4 Border Gateway Protocol routing, which is scalable, robust, and flexible

### Security

- Source-port filtering allows only specified ports to communicate with each other
- RADIUS/TACACS+
   eases switch management security administration by using a password authentication server
- Secure shell
  - encrypts all transmitted data for secure remote CLI access over IP networks
- Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- Port security
- allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC address lockout
   prevents particular configured MAC addresses from connecting to the network
   Detection of melliping dataset
- Detection of malicious attacks monitors 10 types of network traffic and sends a warning when an anomaly that potentially can be caused by malicious attacks is detected
- Secure FTP

allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file

- Switch management logon security helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
- Secure management access securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
   ICMP throttling
  - defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- Virus throttling

detects traffic patterns typical of worm-type viruses and either throttles or entirely prevents the virus from spreading across the routed VLANs or bridged interfaces without requiring external appliances

- Identity-driven ACL enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- STP BPDU port protection



### Overview

blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks

- Dynamic IP lockdown
- works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing **DHCP protection**
- DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- Dynamic ARP protection blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
   STP Root Guard
  - **STP Root Guard** protects the root bridge from malicious attacks or configuration mistakes
- Management Interface Wizard helps secure management interfaces such as SNMP, telnet, SSH, SSL, Web, and USB at the desired level
- Security banner displays a customized security policy when users log in to the switch
- Switch CPU protection
   provides automatic protection against malicious network traffic trying to shut down the switch
- Access control lists (ACLs) provide filtering based on the IP field, source/destination IP address/subnet, and source/destination TCP/UDP port number on a per-VLAN or per-port basis
- Multiple authentication methods
  - IEEE 802.1X

authenticates multiple IEEE 802.1X users per port; prevents a user from "piggybacking" on another user's authentication

- Web-based authentication authenticates from Web browser for clients that do not support 802.1X supplican
- MAC-based authentication authenticates client with the RADIUS server based on client's MAC address
- Concurrent authentication modes enables each switch port to accept up to 32 sessions of 802.1X, Web, and MAC authentication

### Convergence

•

- IP multicast snooping (data-driven IGMP) automatically prevents flooding of IP multicast traffic
- 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
- IP multicast routing
   includes DIM Compared D
  - includes PIM Sparse and Dense modes to route IP multicast traffic
  - Auto VLAN configuration for voice
    - RADIUŠ VLAN
    - uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
    - o CDPv2
      - uses CDPv2 to configure legacy IP phones
- NEW Local MAC Authentication

assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

### Warranty and support

• Limited Lifetime Warranty v2.0

Advance hardware replacement with next-business-day delivery (available in most countries). See www.hp.com/networking/warrantysummary for duration details.



### Overview

#### • Electronic and telephone support (for Limited Lifetime Warranty 2.0)

1051-891-201

limited 24x7 telephone support is available from HP for the first 3 years; limited electronic and business hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to www.hp.com/networking/warrantysummary

### • Software releases

to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available with your product purchase, refer to www.hp.com/networking/warrantysummary



## 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 3800-24G-PoE+-2SFP+ Switch 24 RJ-45 autosensing 10/100/1000 PoE+ ports 2 fixed 1000/10000 SFP+ ports1 open stacking module slot min=0 \ max=2 SFP+ Transceivers 1 HP X312 100w Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 U - Height	J9573A See Configuration Note:1, 2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9573A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9573A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9573A#B2E
HP 3800-48G-PoE+-4SFP+ Switch 48 RJ-45 autosensing 10/100/1000 PoE+ ports 4 fixed 1000/10000 SFP+ ports min=0 \ max=4 SFP+ Transceivers 1 open stacking module slot 1 HP X312 100w Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 U - Height	J9574A See Configuration Note:1, 2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9574A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9574A#B2C
<ul> <li>High Volt Switch to Wall Power Cord</li> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9574A#B2E
HP 3800-24G-2SFP+ Switch	J9575A

## • 24 RJ-45 autosensing 10/100/1000 ports24 autosensing

J9575A See Configuration



Configuration	
<ul> <li>2 fixed 1000/10000 SFP+ ports</li> <li>min=0 \ max=2 SFP+ Transceivers</li> <li>1 open stacking module slot</li> <li>1 X311 400W Power Supply included</li> <li>1 HP E3800 Switch Fan Tray (J9582A) included</li> <li>1U - Height</li> </ul>	Note:1, 2
• TO - Height	
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9575A#B2B
PDU Cable ROW	J9575A#B2C
C15 PDU Jumper Cord (ROW)	
High Volt Switch to Wall Power Cord	J9575A#B2E
NEMA L6-20P Cord (NA/MEX/JP/TW)	
HP 3800-48G-4SFP+ Switch	J9576A
48 autosensing 10/100/1000 port	See Configuration
• 4 fixed 1000/10000 SFP+ ports	Note:1, 2
<ul> <li>min=0 \ max=4 SFP+ Transceivers</li> </ul>	
<ul> <li>1 open stacking module slot</li> <li>1 X311 400W Power Supply included</li> </ul>	
<ul> <li>1 HP E3800 Switch Fan Tray (J9582A) included</li> </ul>	
• 1U - Height	
C15 PDU NA     C15 to C14 Jumper Cord (NA)	J9576A#B2B
PDU Cable NA/MEX/TW/JP	J9576A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP)	
$\neq$	
C15 PDU ROW	J9576A#B2C
C15 to C14 Jumper Cord (ROW)	J3570A#B2C
PDU Cable ROW	J9576A#B2C
C15 PDU Jumper Cord (ROW)	
220 NA	J9576A#B2E
NEMA L6-20P Cord	

<ul> <li>High Volt Switch to Wall Power Cord</li> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9576A#B2E
HP 3800-24SFP-2SFP+ Switch 24 SFP 100/1000 Mbps ports min=0 \max=24 SFP Transceivers 2 fixed 1000/10000 SFP+ ports min=0 \max=2 SFP+ Transceivers 1 open stacking module slot 1 X311 400WPower Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 U - Height	J9584A See Configuration Note:1, 2, 4
PDU Cable NA/MEX/TW/JP <ul> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9584A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9584A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9584A#B2E
HP 3800-24G-2XG Switch 24 RJ-45 autosensing 10/100/1000 ports 2 RJ-45 10GbE ports 1 X311 400W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot 1 U - Height	J9585A See Configuration Note:2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9585A#B2B
<ul> <li>PDU Cable ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9585A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9585A#B2E



Configuration	
<ul> <li>HP 3800-48G-4XG Switch</li> <li>48 RJ-45 autosensing 10/100/1000 ports</li> <li>4 RJ-45 10GbE ports</li> <li>1 HP X311 400W Power Supply included</li> <li>1 HP E3800 Switch Fan Tray (J9582A) included</li> <li>1 open stacking module slot</li> <li>1U - Height</li> </ul>	J9586A See Configuration Note:2
PDU Cable NA/MEX/TW/JP	J9586A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU Cable ROW	J9586A#B2C
C15 PDU Jumper Cord (ROW)	
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9586A#B2E
HP 3800-24G-PoE+-2XG Switch	J9587A
<ul> <li>24 RJ-45 autosensing 10/100/1000 PoE+ ports</li> <li>2 RJ-45 10GbE ports</li> <li>1 HP X312 1000W Power Supply include</li> <li>1 HP E3800 Switch Fan Tray (J9582A) included</li> <li>1 open stacking module slot</li> <li>1U - Height</li> </ul>	See Configuration Note:2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9587A#B2B
	105074#026
PDU Cable ROW     C15 PDU Jumper Cord (ROW)	J9587A#B2C
<ul> <li>High Volt Switch to Wall Power Cord</li> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9587A#B2E
HP 3800-48G-PoE+-4XG Switch 48 RJ-45 autosensing 10/100/1000 PoE+ ports 4 RJ-45 10GbE ports 1 HP X312 1000W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot	J9588A

### Configuration

• 1U - Height

PDU Cable NA/MEX/TW/JP

• C15 PDU Jumper Cord (NA/MEX/TW/JP)

### PDU Cable ROW

#### High Volt Switch to Wall Power Cord

#### **Configuration Rules:**

ΗP	3800	Switch	Series
	3000	30010011	301103

J9588A#B2C

J9588A#B2B

J9588A#B2E

PDU Cable ROV • C15 P	V DU Jumper Cord (ROW)	9 <sup>,195</sup>
-	ch to Wall Power Cord L6-20P Cord (NA/MEX/JP/TW)	J95
Configuration	Rules:	
Note 1	The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports): HP X121 1G SFP LC LH Transceiver	
		J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver HP X122 1G SFP LC BX-D Transceiver	J4858C J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9142B
	HP X122 TG SFP RJ45 T Transceiver	J8177C
	HP X132 10G SFP+ LC SR Transceiver	J9150A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X132 10G SFP+ LC LR Transceiver	J9151A
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
	HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
	HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
	X	
Note 2	Localization required on orders without #B2B, #B2C or #B2E options.	
Note 4	The following Transceivers install into this Switch:	
	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B
	HP X121 1G SFP RJ45 T Transceiver	J8177C
	HP X111 100M SFP LC FX Transceiver	J9054C
	HP X112 100M SFP LC BX-D Transceiver	J9099B
	HP X112 100M SFP LC BX-U Transceiver	J9100B
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X132 10G SFP+ LC SR Transceiver	J9150A



## Configuration

HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B

### **Box Level Integration CTO Models**

#### **CTO Solution Sku**

HP 38xx CTO Switch Solution

• SSP trigger sku

#### **CTO Switch Chassis**

HP 3800-24G-PoE+-2SFP+ Switch

- 24 RJ-45 autosensing 10/100/1000 PoE+ ports
- 2 fixed 1000/10000 SFP+ ports
- min=0 \ max=2 SFP+ Transceivers
- 1 open stacking module slot
- 1 HP X312 100w Power Supply included
- 1 HP E3800 Switch Fan Tray (J9582A) included
- 1U Height

#### PDU Cable NA/MEX/TW/JP

• C15 PDU Jumper Cord (NA/MEX/TW/JP)

#### PDU Cable ROW

• C15 PDU Jumper Cord (ROW)

### High Volt Switch to Wall Power Cord

• " NEMA L6-20P Cord (NA/MEX/JP/TW)

### HP 3800-48G-PoE+-4SFP+ Switch

- 48 RJ-45 autosensing 10/100/1000 PoE+ ports
- 4 fixed 1000/10000 SFP+ ports
- min=0 \ max=4 SFP+ Transceivers
- 1 open stacking module slot
- 1 HP X312 100w Power Supply included
- 1 HP E3800 Switch Fan Tray (J9582A) included
- 1U Height

### PDU Cable NA/MEX/TW/JP

J9574A#B2B



J9573A See Configuration Note:1, 2, 10, 11

JG501A

J9573A#B2E

J9573A#B2C

J9573A#B2B

J9574A See Configuration Note:1, 2, 10, 11

## Configuration

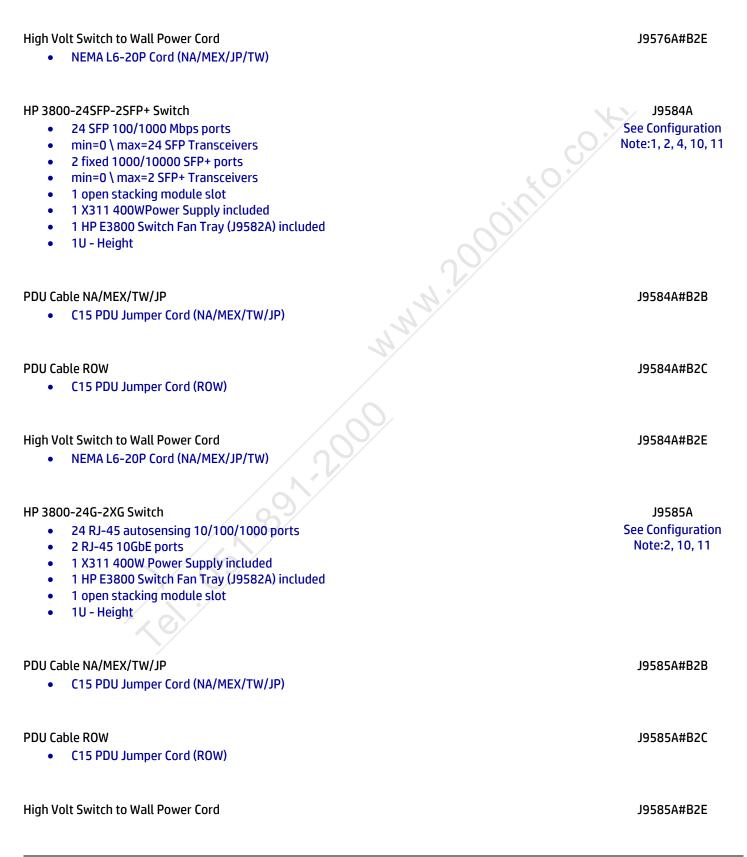
• C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9574A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9574A#B2E
HP 3800-24G-2SFP+ Switch 24 RJ-45 autosensing 10/100/1000 ports 2 fixed 1000/10000 SFP+ ports min=0 \ max=2 SFP+ Transceivers 1 open stacking module slot 1 X311 400W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 U - Height	J9575A See Configuration Note:1, 2, 10, 11
PDU Cable NA/MEX/TW/JP <ul> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9575A#B2B
PDU Cable ROW  • C15 PDU Jumper Cord (ROW)	J9575A#B2C
High Volt Switch to Wall Power Cord • "NEMA L6-20P Cord (NA/MEX/JP/TW)	J9575A#B2E
HP 3800-48G-4SFP+ Switch 48 RJ-45 autosensing 10/100/1000 ports 4 fixed 1000/10000 SFP+ ports min=0 \ max=4 SFP+ Transceivers 1 open stacking module slot 1 X311 400W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 U - Height	J9576A See Configuration Note:1, 2, 10, 11
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9576A#B2B
PDU Cable ROW	J9576A#B2C



## Configuration

• C15 PDU Jumper Cord (ROW)





## Configuration

• NEMA L6-20P Cord (NA/MEX/JP/TW)

HP 3800-48G-4XG Switch 48 RJ-45 autosensing 10/100/1000 ports 4 RJ-45 10GbE ports 1 HP X311 400W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot 1U - Height	J9586A See Configuration Note:2, 10, 11
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9586A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9586A#B2C
High Volt Switch to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	J9586A#B2E
HP 3800-24G-PoE+-2XG Switch 24 RJ-45 autosensing 10/100/1000 PoE+ ports 2 RJ-45 10GbE ports 1 HP X312 1000W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot 1U - Height	J9587A See Configuration Note:2, 10, 11
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9587A#B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	J9587A#B2C
<ul> <li>High Volt Switch to Wall Power Cord</li> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9587A#B2E
HP 3800-48G-PoE+-4XG Switch • 48 RJ-45 autosensing 10/100/1000 PoE+ ports • 4 RJ-45 10GbE ports	J9588A See Configuration Note:2, 10, 11

• 1 HP X312 1000W Power Supply included



## Configuration

- 1 HP E3800 Switch Fan Tray (J9582A) included •
- 1 open stacking module slot
- 1U Height •

#### PDU Cable NA/MEX/TW/JP

#### PDU Cable ROW

#### **Configuration Rules:**

PDU Cable N	IA/MEX/TW/JP	1920
• C1	5 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU Cable F		J95
	5 PDU Jumper Cord (ROW)	C Jas
• C1:	S PDO Juliper Cold (ROW)	. 0.7
Hiah Volt Sv	vitch to Wall Power Cord	J95
-	MA L6-20P Cord (NA/MEX/JP/TW)	
Configuratio	on Rules:	
Note 1	The following Transceivers install into this Switch:	
	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B
	HP X121 1G SFP RJ45 T Transceiver	J8177C
	HP X132 10G SFP+ LC SR Transceiver	J9150A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X132 10G SFP+ LC LR Transceiver	J9151A
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
	HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
	HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
Note 2	Localization required on orders without #B2B, #B2C or #B2E options.	
NULE 2	בטכמובמנטון ופעטו פט טו אדב א אדב טו אד	
Note 4	The following Transceivers install into this Switch: (For the 100/1000 SFP	Ports)
Note 4	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B
	HP X121 1G SFP RJ45 T Transceiver	J8177C
	HP X111 100M SFP LC FX Transceiver	J9054C
	HP X112 100M SFP LC BX-D Transceiver	J9099B

J9588A#B2B

J9588A#B2C

J9588A#B2E



HP X112 100M SFP LC BX-U Transceiver

J9100B

Note 10	If the Switch Chassis is to be Factory Integrated (CTO), Then the #0D1 is integrated to the JG501A - HP 3800 CTO Enablement. (Min 1/Max 1 Swit	
Note 11	If this Switch is selected, Then a Minimum of 1 factory integrated access CTO chassis. See Menu below, option must have a #0D1 to be integrated	
Rack Level	Integration CTO Models	×->
<ul> <li>24 RJ-4</li> <li>2 fixed</li> <li>min=0</li> <li>1 open</li> <li>1 HP X3</li> </ul>	oE+-2SFP+ Switch IS autosensing 10/100/1000 PoE+ ports 1000/10000 SFP+ ports \max=2 SFP+ Transceivers stacking module slot B12 100w Power Supply included B800 Switch Fan Tray (J9582A) included ight	J9573A See Configuration Note:1, 2, 5, 6, 11
PDU Cable NA/M • C15 PD	IEX/TW/JP U Jumper Cord (NA/MEX/TW/JP)	J9573A#B2B
PDU Cable ROW • C15 PD	U Jumper Cord (ROW)	J9573A#B2C
<ul> <li>48 RJ-4</li> <li>4 fixed</li> <li>min=0</li> <li>1 open</li> <li>1 HP X3</li> </ul>	oE+-4SFP+ Switch 45 autosensing 10/100/1000 PoE+ ports 1000/10000 SFP+ ports \max=4 SFP+ Transceivers stacking module slot 812 100w Power Supply included 8800 Switch Fan Tray (J9582A) included sight	J9574A See Configuration Note:1, 2, 5, 6, 11
PDU Cable NA/M • C15 PD	IEX/TW/JP U Jumper Cord (NA/MEX/TW/JP)	J9574A#B2B
PDU Cable ROW • C15 PD	U Jumper Cord (ROW)	J9574A#B2C
<ul> <li>2 fixed</li> <li>min=0</li> </ul>	SFP+ Switch I5 autosensing 10/100/1000 ports 1000/10000 SFP+ ports \ max=2 SFP+ Transceivers stacking module slot	J9575A See Configuration Note:1, 2, 5, 6, 11



### Configuration

- 1 X311 400W Power Supply included
- 1 HP E3800 Switch Fan Tray (J9582A) included
- 1U Height

#### PDU Cable NA/MEX/TW/JP

• C15 PDU Jumper Cord (NA/MEX/TW/JP)

#### PDU Cable ROW

• C15 PDU Jumper Cord (ROW)

HP 3800-48G-4SFP+ Switch

- 48 RJ-45 autosensing 10/100/1000 ports
- 4 fixed 1000/10000 SFP+ ports
- min=0 \ max=4 SFP+ Transceivers
- 1 open stacking module slot
- 1 X311 400W Power Supply included
- 1 HP E3800 Switch Fan Tray (J9582A) included
- 1U Height

#### PDU Cable NA/MEX/TW/JP

• C15 PDU Jumper Cord (NA/MEX/TW/JP)

#### PDU Cable ROW

• C15 PDU Jumper Cord (ROW)

#### HP 3800-24SFP-2SFP+ Switch

- 24 SFP 100/1000 Mbps ports
- min=0 \ max=24 SFP Transceivers
- 2 fixed 1000/10000 SFP+ ports
- min=0 \ max=2 SFP+ Transceivers
- 1 open stacking module slot
- 1 X311 400WPower Supply included
- 1 HP E3800 Switch Fan Tray (J9582A) included
- 1U Height

#### PDU Cable NA/MEX/TW/JP

C15 PDU Jumper Cord (NA/MEX/TW/JP)

#### PDU Cable ROW

• C15 PDU Jumper Cord (ROW)

/

J9575A#B2B

### J9575A#B2C

#### J9576A See Configuration Note:1, 2, 5, 6, 11

J9576A#B2B

J9576A#B2C

#### J9584A See Configuration Note: 1, 2, 4, 5, 6, 11

J9584A#B2B

J9584A#B2C



## Configuration

HP 3800-24G-2XG Switch 24 RJ-45 autosensing 10/100/1000 ports 2 RJ-45 10GbE ports 1 X311 400W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot 1U - Height	J9585A
<ul> <li>PDU Cable NA/MEX/TW/JP</li> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9585A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9585A#B2C
HP 3800-48G-4XG Switch <ul> <li>48 RJ-45 autosensing 10/100/1000 ports</li> <li>4 RJ-45 10GbE ports</li> <li>1 HP X311 400W Power Supply included</li> <li>1 HP E3800 Switch Fan Tray (J9582A) included</li> <li>1 open stacking module slot</li> <li>1U - Height</li> </ul>	J9586A See Configuration Note:2, 5, 6, 11
PDU Cable NA/MEX/TW/JP <ul> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9586A#B2B
PDU Cable ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9586A#B2C
HP 3800-24G-PoE+-2XG Switch 24 RJ-45 autosensing 10/100/1000 PoE+ ports 2 RJ-45 10GbE ports 1 HP X312 1000W Power Supply included 1 HP E3800 Switch Fan Tray (J9582A) included 1 open stacking module slot 1 U - Height	J9587A See Configuration Note:2, 5, 6, 11
PDU Cable NA/MEX/TW/JP <ul> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9587A#B2B

PDU Cable ROW

J9587A#B2C



## Configuration

C15 PDU Jumper Cord (ROW)

- 48 RJ-45 autosensing 10/100/1000 PoE+ ports •
- 4 RJ-45 10GbE ports •
- 1 HP X312 1000W Power Supply included •
- 1 HP E3800 Switch Fan Tray (J9582A) included •
- 1 open stacking module slot •
- 1U Height •

#### PDU Cable ROW

J9588A See Configuration Note:2, 5, 6, 11

J9588A#B2B

J9588A#B2C

#### **Configuration Rules:**

• 4 R	J-45 10GbE ports	Note:
• 1H	P X312 1000W Power Supply included	
• 1H	P E3800 Switch Fan Tray (J9582A) included	
	pen stacking module slot	
• 10	- Height	-0%
		5/
		/
PDU Cable N	IA/MEX/TW/JP	J958
• C1	5 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU Cable F	ow	J958
• C1	5 PDU Jumper Cord (ROW)	
Configuratio	n Rules:	
comgulatio	Arreaces.	
Note 1	The following Transceivers install into this Switch:	
Hote I	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B
	HP X121 1G SFP RJ45 T Transceiver	J8177C
	HP X132 10G SFP+ LC SR Transceiver	J9150A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X132 10G SFP+ LC LR Transceiver	J9151A
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
	HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
	HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
	The Tod A244 ATE to STEE Shi birect Attach copper cable	JJJJUZA
Note 2	Localization required on orders without #B2B or #B2C options.	
NOTE 2		
Note 4	The following Transceivers install into this Switch: (For the 100/1000 SFP Ports)	
Note 4	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4859C
	HP X122 1G SFP LC BX-D Transceiver	J4656C J9142B
	HP X122 1G SFP LC BX-D Transceiver	J9142B J9143B
	HP X122 TG SFP LC BX-0 Transceiver HP X121 1G SFP RJ45 T Transceiver	
	TE VICT IN SER KIAS I HAUSERVEI	J8177C



### Configuration

	HP X111 100M SFP LC FX Transceiver	J9054C
	HP X112 100M SFP LC BX-D Transceiver	J9099B
	HP X112 100M SFP LC BX-U Transceiver	J9100B
Note 5	When Switches/Routers are Factory Racked, Then #B2B, or #B2C should the Switches/Routers.	be the Defaulted Power Cable option on
Note 6	If this switch is factory installed in HP Universal Racks, Then the J9583A#	tOD1 is required.
	CLIC Only - Allow the J9583AZ in all regions.	60.1
Note 11	If the CTO Switch Chassis needs to be racked, Then the CTO Base Model n Universal Rack.	eeds to integrate (with #0D1) to the HP
Internal Po	ower Supplies	
System (std 1 /	// max=2) User Selection (min 0 / max=1) per Switch	
HP X312 1000	W 100-240VAC to 54VDC Power Supply	J9580A
	all	See Configuration Note:1, 3, 4,5

C15 PDU Jumper Cord (NA/MEX/TW/JP)

• C15 PDU Jumper Cord (ROW)

PDU Cable NA/MEX/TW/JP

•

PDU Cable ROW

J9580A#B2B

J9580A#B2C

J9580A#B2E

J9581A See Configuration Note:2, 3, 4,5

J9581A#B2B

J9581A#B2C

J9581A#B2E

High Volt Power Supply to Wall Power Cord	
NEMA L6-20P Cord (NA/MEX/JP/TW)	
HP X311 400W 100-240VAC to 12VDC Power Supply	
PDU Cable NA/MEX/TW/JP	
C15 PDU Jumper Cord (NA/MEX/TW/JP)	

**PDU Cable ROW** 

C15 PDU Jumper Cord (ROW) •

High Volt Power Supply to Wall Power Cord

NEMA L6-20P Cord (NA/MEX/JP/TW) •



## Configuration

#### **Configuration Rules:**

If this Power supply is selected, Then J9573A, J9574A, J9587A, J9588A must be the switch its installed into.
If this Power supply is selected, Then J9575A, J9576A, J9584A, J9585A, J9586A, must be the switch its installed into.
Localization required on orders without #B2B or #B2C options.
When Switches are Factory Racked with this power supply, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Power Supplies. (See Drop down remark in "Internal Power Supplies" section.)
If Power Supply is ordered with a Switch/Router Solution, then the default Power Cable option should be the same as the Router/Switch.
Drop down under power supply 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)
Switch/Router/Power Supply to Wall Power Cord - 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)

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

### Modules

System (std 0 // max=1) User Selection (min 0 / max=1) per Chassis

HP 3800 4-port Stacking Module

J9577A See Configuration Note:1

Configuration Rules: Note 1 The following Cables install into this Module: (Use #B01 quoted to switch if switch is CTO) - if applicable

J9578A - HP E3800 0.5m Stacking Cable J9665A - HP E3800 1m Stacking Cable J9579A - HP E3800 3m Stacking Cable

### Transceivers

**SFP Transceivers** 

HP X121 1G SFP LC LH Transceiver	J4860C
HP X121 1G SFP LC LX Transceiver	J4859C
HP X121 1G SFP LC SX Transceiver	J4858C



### **HP 3800 Switch Series**

## Configuration

HP X122 1G SFP LC BX-D Transceiver	J9142B
HP X122 1G SFP LC BX-U Transceiver	J9143B
HP X121 1G SFP RJ45 T Transceiver	J8177C
HP X111 100M SFP LC FX Transceiver	J9054C
HP X112 100M SFP LC BX-D Transceiver	J9099B
HP X112 100M SFP LC BX-U Transceiver	J9100B
SFP+ Transceivers	
HP X132 10G SFP+ LC ER Transceiver	J9153A
HP X132 10G SFP+ LC SR Transceiver	J9150A
HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B#B01
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B#B01
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B#B01
HP X242 SFP+ SFP+ 10m Direct Attach Cable	J9286B
HP X242 SFP+ SFP+15m Direct Attach Cable	J9287B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A#B01
HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A#B01
HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A#B01
Cables	
Stacking Cables	

System (std 0 // max=4) User Selection (min 0 / max=4) per Switch

HP E3800 0.5m Stacking CableJ9578A#B01HP E3800 1m Stacking CableJ9665A#B01



## HP 3800 Switch Series

Configuration	
HP E3800 3m Stacking Cable	J9579A#B01
Multi-Mode Cables	
HP .5m Multi-mode OM3 LC/LC FC Cable	AJ833A
HP 1m Multi-mode OM3 LC/LC FC Cable	AJ834A
HP 2 m Multimode OM3 LC/LC FC Cable	AJ835A
HP 5 m Multimode OM3 LC/LC FC Cable	AJ836A
HP 15 m Multimode OM3 LC/LC FC Cable	AJ837A
HP 30 m Multimode OM3 LC/LC FC Cable	AJ838A
HP 50 m Multimode OM3 LC/LC FC Cable	AJ839A
HP Premier Flex LC/LC OM4 2f 1m Cbl	QK732A
HP Premier Flex LC/LC OM4 2f 2m Cbl	QK733A
HP Premier Flex LC/LC OM4 2f 5m Cbl	QK734A
HP Premier Flex LC/LC OM4 2f 15m Cbl	QK735A
HP Premier Flex LC/LC OM4 2f 30m Cbl	QK736A
HP Premier Flex LC/LC OM4 2f 50m Cbl	QK737A
Switch Enclosure Options	
Rack Mount Kit	

HP X410 1U Univ 4-post Rack Mnt Kit

J9583A See Configuration Note:1

Configuration Rules: Note 1 If this switch is factory installed in HP Universal Racks, Then the J9583A#0D1 is required.

CLIC Only - Allow the J9583AZ in all regions.

### Fan Tray

HP 3800 Switch Fan Tray

• This is a Spare Only

J9582A

hp

## **Technical Specifications**

#### HP 3800-24G-PoE+-2SFP+ Switch (J9573A)

Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)		
I/O ports and slots	24 RJ-45 autosensing 10/100/1000 PoE+ ports; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+)		
	2 fixed 1000/10000 SFP+ ports		
Additional ports and slots	1 RJ-45 serial console por	t	
	1 RJ-45 out-of-band management port		
	1 stacking module slot		
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)		
Fan tray	includes: 1 x J9582A 1 fan tray slot		
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)	
	Weight	15.9 lb (7.21 kg) switch chassis with 1 power supply and fan tray installed	
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic	
Mounting and enclosure	Mounts in an EIA-standard surface mounting only	d 19 in. telco rack or equipment cabinet (hardware included); horizontal	
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	
	Throughput	up to 65.4 Mpps (64-byte packets)	
	Switching capacity	88 Gbps	
	Routing table size	10000 entries (IPv4)	
	MAC address table size	65500 entries	
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed	
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	
$\geq$	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
4	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	
Y	Altitude	up to 10,000 ft (3 km)	
	Acoustic	Power: 49 dB, Pressure: 33.7 dB	
<b>Electrical characteristics</b>	Frequency	50/60 Hz	
	Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)	
	AC voltage	100-120/200-240 VAC	
	Current	9.4/7.8 A	
	Maximum power rating	127 W	
	Idle power	70 W	
	PoE power	720 W PoE+	



Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825		
Emissions	FCC Class A; VCCI Class A	; EN 55022/CISPR 22 Class A	
Immunity	EN	EN 55024, CISPR 24	
	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3; 3 V/m	
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	
	Surge	IEC 61000-4-5; 1 kV/2 kV AC	
	Conducted	IEC 61000-4-6; 3 V	
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	
	Harmonics	EN 61000-3-2, IEC 61000-3-2	
	Flicker	EN 61000-3-3, IEC 61000-3-3	
Management	HP PCM+; HP PCM; comm	nand-line interface; Web browser; configuration menu	
Notes	Supported 1G SFP transo later, for example, J9142	ceivers are revision "B" or later (product number ends with the letter "B" or 2B, J8177C).	
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
HP 3800-48G-PoE+-4SFP	<b>+ Switch</b> (J9574A)		
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)		
I/O ports and slots	48 RJ-45 autosensing 10/100/1000 PoE+ ports; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Typ 1000BASE-T, IEEE 802.3at PoE+)		
	4 fixed 1000/10000 SFP		
Additional ports and slot	<b>s</b> 1 RJ-45 serial console po		
•	1 RJ-45 out-of-band ma		
	1 stacking module slot	5	
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)		
Fan tray	includes: 1 x J9582A 1 fan tray slot		
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)	
	Weight	16.84 lb (7.64 kg) switch chassis with 1 power supply and fan tray installed	
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	
	Throughput	up to 130.9 Mpps (64-byte packets)	
	Switching capacity	176 Gbps	



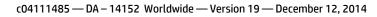
### **Technical Specifications**

	Routing table size	10000 entries (IPv4)
	MAC address table size	65500 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 57 dB, Pressure: 41.2 dB
Electrical characteristics	Frequency	50/60 Hz
	Maximum heat dissipation	635 BTU/hr (669.93 kJ/hr)
	AC voltage	100-120/200-240 VAC
	Current	9.4/7.8 A
	Maximum power rating	186 W
	Idle power	97 W
	PoE power	1080 W PoE+
Safety	EN 60950/IEC 60950; UL 6	60950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions	FCC Class A; VCCI Class A; I	EN 55022/CISPR 22 Class A
Immunity	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3; 3 V/m
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	Surge	IEC 61000-4-5; 1 kV/2 kV AC
	Conducted	IEC 61000-4-6; 3 V
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management 🛛 🖂 🍃 👩	HP PCM+; HP PCM; comma	and-line interface; Web browser; configuration menu
Notes	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later, for example, J9142B, J8177C).	
Services	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.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 HP sales office.	
HP 3800-24G-2SFP+ Switt	<b>ch</b> (J9575A)	
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)	
I/O ports and slots		100/1000 porter Duplay: 10PACE T/100PACE TV: half or full: 1000PACE T

I/O ports and slots24 RJ-45 autosensing 10/100/1000 ports; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T:<br/>full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3 u Type 100BASE-TX, IEEE 802.3 ab Type 1000BASE-T)

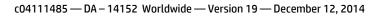


	2 fixed 1000/10000 SFP+ ports		
Additional ports and slots	ts 1 RJ-45 serial console port		
	1 RJ-45 out-of-band management port		
	1 stacking module slot		
Power supplies	2 power supply slots		
	1 minimum power supply		
Fan tray	includes: 1 x J958TA (HP X	(311 400W 100-240VAC to 12VDC Power Supply)	
raii tiay	1 fan tray slot		
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)	
	Weight	15.26 lb (6.92 kg) switch chassis with 1 power supply and fan tray installed	
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	
	Throughput	up to 65.4 Mpps (64-byte packets)	
	Switching capacity	88 Gbps	
	Routing table size	10000 entries (IPv4)	
	MAC address table size	65500 entries	
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed	
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	
	Altitude	up to 10,000 ft (3 km)	
	Acoustic	Power: 36 dB, Pressure: 26.4 dB	
Electrical characteristics	Frequency	50/60 Hz	
X	Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)	
× × ¢	AC voltage	100-127/200-240 VAC	
	Current	6/3 A	
	Maximum power rating	127 W	
	Idle power	66 W	
Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825		
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A		
Immunity	EN	EN 55024, CISPR 24	
	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3; 3 V/m	
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	
	Surge	IEC 61000-4-5; 1 kV/2 kV AC	
	Conducted	IEC 61000-4-6; 3 V	





	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; comma	and-line interface; Web browser; configuration menu
Notes	Supported 1G SFP transce later, for example, J9142I	vivers are revision "B" or later (product number ends with the letter "B" or B, J8177C).
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP 3800-48G-4SFP+ Swite	<b>ch</b> (J9576A)	
Included accessories	1 HP 3800 Switch Fan Tra 1 HP X311 400W 100-240	y (J9582A) IVAC to 12VDC Power Supply (J9581A)
Ports	48 RJ-45 autosensing 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 fixed 1000/10000 SFP+ ports	
Additional ports and slot	<b>s</b> 1 RJ-45 serial console por	
Additional poils and stor:	1 RJ-45 out-of-band man	
	1 stacking module slot	agement port
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)	
Fan tray	includes: 1 x J9582A 1 fan tray slot	000
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)
	Weight	16.01 lb (7.26 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)
4.6	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)
í K	Throughput	up to 130.9 Mpps (64-byte packets)
	Switching capacity	176 Gbps
	Routing table size	10000 entries (IPv4)
	MAC address table size	65500 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing





## **HP 3800 Switch Series**

### **Technical Specifications**

	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 36 dB, Pressure: 25.4 dB
Electrical characteristics	Maximum heat dissipation	635 BTU/hr (669.93 kJ/hr)
	AC Voltage	100-127/200-240 VAC
	Current	6/3 A
	Idle power	70 W
	Maximum power rating	186 W
	Frequency	50/60 Hz
	Notes	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.
Safety	EN 60950/IEC 60950; UL 6	50950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions	FCC Class A; VCCI Class A;	EN 55022/CISPR 22 Class A
Immunity	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3; 3 V/m
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	Surge	IEC 61000-4-5; 1 kV/2 kV AC
	Conducted	IEC 61000-4-6; 3 V
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	
Notes	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later, for example, J9142B, J8177C).	
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP 3800-24G-2XG Switch	(J9585A)	
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)	
Ports	24 RJ-45 autosensing 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	
	•	E 802.3an-2006 Type 10GBASE-T; Duplex: full only
Additional ports and slot	<b>s</b> 1 RJ-45 serial console por	t
	1 RJ-45 out-of-band man	agement port
	1 stacking module slot	
Power supplies	2 power supply slots	



1 minimum power supply required

includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)Fan trayincludes: 1 x J9582A 1 fan tray slotPhysical characteristicsDimensions17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)Weight15.81 lb (7.17 kg) switch chassis with 1 power supply and fan tray instaMemory and processorProcessorHP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GE		
Physical characteristicsDimensions17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)Weight15.81 lb (7.17 kg) switch chassis with 1 power supply and fan tray insta		
Memory and processor Processor HP ProVision ASIC/ARM @ 350 MHz: Freescale P2020 @ 1200 MHz. 4 GB		
flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic		
Mounting and enclosure Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance         1000 Mb Latency         < 2.8 μs (LIFO 64-byte packets)		
<b>10 Gbps Latency</b> < 1.9 μs (LIFO 64-byte packets)		
Throughput up to 65.4 Mpps (64-byte packets)		
Switching capacity 88 Gbps		
Routing table size 10000 entries (IPv4)		
MAC address table size 65500 entries		
Environment Operating temperature 32°F to 131°F (0°C to 55°C)		
<b>Operating relative</b> 15% to 95% @ 104°F (40°C), noncondensing humidity		
Nonoperating/Storage -40°F to 158°F (-40°C to 70°C) temperature		
Nonoperating/Storage 15% to 90% @ 149°F (65°C), noncondensing relative humidity		
Altitude up to 10,000 ft (3 km)		
Acoustic Power: 39 dB, Pressure: 25.5 dB		
Electrical characteristics Maximum heat 434 BTU/hr (457.87 kJ/hr) dissipation		
AC Voltage 100-127/200-240 VAC		
Current 6/3 A		
Idle power 70 W		
Maximum power rating 127 W		
Frequency 50/60 Hz		
NotesIdle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-ca theoretical maximum numbers provided for planning the infrastructure 		
Safety EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825		
Emissions FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A		
Immunity EN EN 55024, CISPR 24		
ESD IEC 61000-4-2		
<b>Radiated</b> IEC 61000-4-3; 3 V/m		
<b>EFT/Burst</b> IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)		
Surge IEC 61000-4-5; 1 kV/2 kV AC		
<b>Conducted</b> IEC 61000-4-6; 3 V		
Power frequency IEC 61000-4-8; 1 A/m, 50 or 60 Hz magnetic field		



## **Technical Specifications**

	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; comma	and-line interface; Web browser; configuration menu
Services		t: www.hp.com/networking/services for details on the service-level numbers. For details about services and response times in your area, please as office.
HP 3800-48G-4XG Switch	(J9586A)	$\sim$ $^{\prime}$
Included accessories	1 HP 3800 Switch Fan Tra 1 HP X311 400W 100-240	y (J9582A) JVAC to 12VDC Power Supply (J9581A)
Ports	48 RJ-45 autosensing 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	
	•	E 802.3an-2006 Type 10GBASE-T; Duplex: full only
Additional ports and slots	s 1 RJ-45 serial console por	
	1 RJ-45 out-of-band man	agement port
	1 stacking module slot	
Power supplies	2 power supply slots 1 minimum power supply includes: 1 x J9581A (HP >	required X311 400W 100-240VAC to 12VDC Power Supply)
Fan tray	includes: 1 x J9582A 1 fan tray slot	
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)
	Weight	16.36 lb (7.42 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic
Mounting and enclosure	Mounts in an EIA-standard surface mounting only	d 19 in. telco rack or equipment cabinet (hardware included); horizontal
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)
	Throughput	up to 130.9 Mpps (64-byte packets)
	Switching capacity	176 Gbps
$\lambda$	Routing table size	10000 entries (IPv4)
	MAC address table size	65500 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); Max temperature is 45C when SFP+ Tranceivers are installed
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 34 dB, Pressure: 24.5 dB
Electrical characteristics	Maximum heat dissipation	635 BTU/hr (669.93 kJ/hr)
	AC Voltage	100-127/200-240 VAC

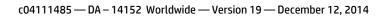
	Current	6/3 A
	Idle power	74 W
	Maximum power rating	186 W
	Frequency	50/60 Hz
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	EN 60950/IEC 60950; UL 6	50950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions		EN 55022/CISPR 22 Class A
Immunity	EN	EN 55024, CISPR 24
•	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3; 3 V/m
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	Surge	IEC 61000-4-5; 1 kV/2 kV AC
	Conducted	IEC 61000-4-6; 3 V
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	FCC Class A; VCCI Class A;	EN 55022/CISPR 22 Class A
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP 3800-24G-PoE+-2XG S	Switch (J9587A)	
Included accessories	1 HP 3800 Switch Fan Tra 1 HP X312 1000W 100-24	y (J9582A) IOVAC to 54VDC Power Supply (J9580A)
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
4,0	2 RJ-45 10-GbE ports IEEE	E 802.3an-2006 Type 10GBASE-T; Duplex: full only
Additional ports and slot	<b>s</b> 1 RJ-45 serial console por	t
	1 RJ-45 out-of-band man	agement port
	1 stacking module slot	
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)	
Fan tray	includes: 1 x J9582A 1 fan tray slot	
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)
	Weight	16.45 lb (7.46 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic



Mounting and enclosure	Mounts in an EIA-standard surface mounting only	1 19 in. telco rack or equipment cabinet (hardware included); horizontal
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)
	Throughput	up to 65.4 Mpps (64-byte packets)
	Switching capacity	88 Gbps
	Routing table size	10000 entries (IPv4)
	MAC address table size	65500 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 48 dB, Pressure: 32.6 dB
Electrical characteristics	Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)
	AC Voltage	100-120/200-240 VAC
	Current	9.4/7.8 A
	Idle power	71 W
	Maximum power rating	127 W
	PoE power	720 W PoE+
	Frequency	50/60 Hz
	Notes	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). With a single power supply at 120 V input, a maximum of 572 W of PoE power is available.
Safety	EN 60950/IEC 60950; UL 6	60950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions		EN 55022/CISPR 22 Class A
Immunity	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3; 3 V/m
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	Surge	IEC 61000-4-5; 1 kV/2 kV AC
	Conducted	IEC 61000-4-6; 3 V
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods



	Harmonics	EN 61000-3-2, IEC 61000-3-2	
	Flicker	EN 61000-3-3, IEC 61000-3-3	
Management	HP PCM+; HP PCM; comma	and-line interface; Web browser; configuration menu	
Services	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-lev descriptions and product numbers. For details about services and response times in your a contact your local HP sales office.		
HP 3800-48G-PoE+-4XG S	witch (J9588A)		
Included accessories	1 HP 3800 Switch Fan Tray 1 HP X312 1000W 100-24	y (J9582A) OVAC to 54VDC Power Supply (J9580A)	
Ports	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only		
	•	802.3an-2006 Type 10GBASE-T; Duplex: full only	
Additional ports and	1 RJ-45 serial console por	t	
slots	1 RJ-45 out-of-band man	agement port	
	1 stacking module slot		
Power supplies	2 power supply slots 1 minimum power supply includes: 1 x J9580A (HP X	required (312 1000W 100-240VAC to 54VDC Power Supply)	
Fan tray	includes: 1 x J9582A 1 fan tray slot	AN	
Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)	
	Weight	17.24 lb (7.82 kg) switch chassis with 1 power supply and fan tray installed	
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	
	Throughput	up to 130.9 Mpps (64-byte packets)	
	Switching capacity	176 Gbps	
	Routing table size	10000 entries (IPv4)	
$\mathbf{\lambda}$	MAC address table size	65500 entries	
Environment	Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45C when SFP+ transceivers are installed	
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	
	Altitude	up to 10,000 ft (3 km)	
	Acoustic	Power: 57 dB, Pressure: 41.5 dB	
Electrical characteristics	Maximum heat dissipation	635 BTU/hr (669.93 kJ/hr)	
	AC Voltage	100-120/200-240 VAC	
	Current	9.4/7.8 A	





### **HP 3800 Switch Series**

## **Technical Specifications**

	Idle power	100 W	
	Maximum power rating	g 186 W	
	PoE power	1080 W PoE+	
	Frequency	50/60 Hz	
	Notes	<ul> <li>Idle power is the actual power consumption of the device with no ports connected.</li> <li>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.</li> <li>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).</li> </ul>	
		With a single power supply at 120 V input, a maximum of 514 W of PoE power is available. With a single power supply at 240 V input, a maximum of 814 W of PoE power is available.	
Safety	EN 60950/IEC 60950; U	L 60950; CAN/CSA 22.2 No. 60950; EN 60825	
Emissions	FCC Class A; VCCI Class	A; EN 55022/CISPR 22 Class A	
Immunity	EN	EN 55024, CISPR 24	
	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3; 3 V/m	
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	
	Surge	IEC 61000-4-5; 1 kV/2 kV AC	
	Conducted	IEC 61000-4-6; 3 V	
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	
	Harmonics	EN 61000-3-2, IEC 61000-3-2	
	Flicker	EN 61000-3-3, IEC 61000-3-3	
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu		
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
HP 3800-245FP-25FP+ 5	witch (J9584A)		
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)		
Ports		ports (IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); alf or full; 1000BASE-T: full only	
	2 fixed 1000/10000 SF	P+ ports	
Additional ports and slot	<b>ts</b> 1 RJ-45 serial console p	port	
	1 RJ-45 out-of-band m	anagement port	
	1 stacking module slot		
Power supplies	2 power supply slots 1 minimum power supp includes: 1 x J9581A (H	oly required P X311 400W 100-240VAC to 12VDC Power Supply)	
Fan tray	includes: 1 x J9582A 1 fan tray slot		



## **Technical Specifications**

Physical characteristics	Dimensions	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)		
i nysicat characteristics	Weight	16.01 lb (7.26 kg) switch chassis with 1 power supply and fan tray installed		
Memory and processor	Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB		
		flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic		
Mounting and enclosure	Mounts in an EIA-standarc surface mounting only	d 19 in. telco rack or equipment cabinet (hardware included); horizontal		
Performance	1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)		
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)		
	Throughput	up to 65.4 Mpps (64-byte packets)		
	Switching capacity	88 Gbps		
	Routing table size	10000 entries (IPv4)		
	MAC address table size	65500 entries		
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)		
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing		
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)		
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing		
	Altitude	up to 10,000 ft (3 km)		
	Acoustic	Power: 36 dB, Pressure: 25 dB		
<b>Electrical characteristics</b>	Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)		
	AC Voltage	100-127/200-240 VAC		
	Current	6/3 A		
	Idle power	55 W		
	Maximum power rating	127 W		
	Frequency	50/60 Hz		
	Notes	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.		
Safety	EN 60950/IEC 60950; UL 6	0950; CAN/CSA 22.2 No. 60950; EN 60825		
Emissions	FCC Class A; VCCI Class A; I	EN 55022/CISPR 22 Class A		
Immunity	EN	EN 55024, CISPR 24		
	ESD	IEC 61000-4-2		
	Radiated	IEC 61000-4-3; 3 V/m		
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)		
	Surge	IEC 61000-4-5; 1 kV/2 kV AC		
	Conducted	IEC 61000-4-6; 3 V		
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz		
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods		
	Harmonics	EN 61000-3-2, IEC 61000-3-2		



## **Technical Specifications**

rechnical Specificat				
	Flicker EN 61000-3-3, IEC 61000-3-3			
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu			
Notes	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later, for example, J9142B, J8177C).			
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.			
Standards and protocols	BGP		RFC 4022 MIB for TCP	
(applies to all products in series)	in RFC 1997 BGP Communities Attribute RFC 2918 Route Refresh Capability RFC 4271 A Border Gateway Protocol 4 (BGP-4) RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)		RFC 4087 IP Tunnel MIB RFC 4113 MIB for UDP RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication	
	RFC 5492 Capabilities Adv		RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection	
	Denial of service protect CPU DoS Protection	ion	RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4294 IPv6 Node Requirements	
	<b>Device management</b> RFC 1591 DNS (client) HTML and telnet manage	ment	RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch	
	-	- Charles - Char	RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-	
	<b>General protocols</b> IEEE 802.1ad Q-in-Q		configuration	
	IEEE 802.1AX-2008 Link /	Aggregation	RFC 5095 Deprecation of Type 0 Routing Headers	
	IEEE 802.1D MAC Bridges		in IPv6	
	IEEE 802.1p Priority		RFC 5340 OSPFv3 for IPv6	
	IEEE 802.1Q VLANs		RFC 5453 Reserved IPv6 Interface Identifiers	
	IEEE 802.1s Multiple Spar IEEE 802.1v VLAN classifi Port		RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only) RFC 5722 Handling of Overlapping IPv6 Fragments	
	IEEE 802.1 w Rapid Recon	figuration of Spanning	MIBs	
	Tree IEEE 802.3ad Link Aggreg	ation Control Protocol	IEEE 802.1ap (MSTP and STP MIB's only)	
	(LACP)		RFC 1155 Structure & ID of Mgmt Info for TCP/IP	
	IEEE 802.3af Power over	Ethernet	Internets	
	IEEE 802.3x Flow Control		RFC 1213 MIB II RFC 1493 Bridge MIB	
	RFC 768 UDP		RFC 1724 RIPv2 MIB	
$\neq$	RFC 783 TFTP Protocol (re	evision 2)	RFC 1850 OSPFv2 MIB	
	RFC 792 ICMP		RFC 2021 RMONv2 MIB	
7	/ RFC 793 TCP RFC 826 ARP		RFC 2096 IP Forwarding Table MIB	
	RFC 854 TELNET		RFC 2578 Structure of Management Information	
	RFC 868 Time Protocol		Version 2 (SMIv2)	
	RFC 951 BOOTP		RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB	
	RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR		RFC 2620 RADIUS Accounting MIB	
			RFC 2665 Ethernet-Like-MIB	
			RFC 2668 802.3 MAU MIB	
	RFC 1542 BOOTP Extension RFC 1918 Address Allocat		RFC 2674 802.1p and IEEE 802.1Q Bridge MIB	
		<pre>control Private internet &lt; Time Protocol (SNTP) v4</pre>	RFC 2737 Entity MIB (Version 2)	
	RFC 2131 DHCP RFC 2453 RIPv2		RFC 2787 VRRP MIB RFC 2863 The Interfaces Group MIB	



### **Technical Specifications**

RFC 2548 (MS-RAS-Vendor only) RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority RFC 5798 VRRP (exclude Accept Mode and sub-sec timer) UDLD (Uni-directional Link Detection)

#### **IP multicast**

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RFC 3376 IGMPv3 (host joins only) RFC 3973 PIM Dense Mode RFC 4601 PIM Sparse Mode

#### IPv6

RFC 1981 IPv6 Path MTU Discovery RFC 2375 IPv6 Multicast Address Assignments **RFC 2460 IPv6 Specification** RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client only) RFC 3484 Default Address Selection for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only)

RFC 2925 Ping MIB RFC 2932 IP (Multicast Routing MIB) RFC 2933 IGMP MIB RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)

#### Network management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow RFC 5424 Syslog Protocol ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON

#### OSPF

RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 3623 Graceful OSPF Restart (Unplanned Outages only) RFC 5340 OSPFv3 for IPv6

#### QoS/CoS

RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF)

#### Security

RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 3623 Graceful OSPF Restart (Unplanned Outages only) RFC 5340 OSPFv3 for IPv6



### Accessories

HP 3800 Switch	Modules	
Series accessories	HP 3800 4-port Stacking Module	J9577A
	Cables	
	HP 3800 0.5m Stacking Cable	J9578A
	HP 3800 1m Stacking Cable	J9665A
	HP 3800 3m Stacking Cable	J9579A
	Power Supply	
	HP X311 400W 100-240VAC to 12VDC Power Supply	J9581A
	HP X312 1000W 100-240VAC to 54VDC Power Supply	J9580A
	Fan Tray	
	HP 3800 Switch Fan Tray	J9582A
	Mounting Kit	
	HP X410 1U Universal 4-post Rack Mounting Kit	J9583A
	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
	HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
	HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	
	HP X132 10G SFP+ LC LR Transceiver	J9151A
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
$\rightarrow$	HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
	HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
	HP 3800-24G-2SFP+ Switch (J9575A)	104 54 4
	HP X132 10G SFP+ LC LR Transceiver	J9151A
	HP X132 10G SFP+ LC LRM Transceiver	J9152A
	HP X132 10G SFP+ LC ER Transceiver	J9153A
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B







### **HP 3800 Switch Series**

#### Accessories

HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable HP 3800-48G-4SFP+ Switch (J9576A)	QK737A
HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X132 10G SFP+ LC ER Transceiver	J9152A
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9755K
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
HP 3800-24G-2XG Switch (J9585A)	
HP X311 400W 100-240VAC to 12VDC Power Supply	J9581A
HP 3800-48G-4XG Switch (J9586A)	
HP X311 400W 100-240VAC to 12VDC Power Supply	J9581A
HP 3800-24G-PoE+-2XG Switch (J9587A)	
HP X312 1000W 100-240VAC to 54VDC Power Supply	J9580A
HP 3800-48G-PoE+-4XG Switch (J9588A)	
HP X312 1000W 100-240VAC to 54VDC Power Supply	J9580A
HP 3800-24SFP-2SFP+ Switch (J9584A)	
HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X132 10G SFP+ LC ER Transceiver	J9153A
HP X111 100M SFP LC FX Transceiver	J9054C
HP X112 100M SFP LC BX-D Transceiver	J9099B
HP X112 100M SFP LC BX-U Transceiver	J9100B
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	A0302
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable	J9302A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A



#### **HP 3800 Switch Series**

#### Accessories

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK734A QK735A QK736A QK737A
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NOTE. Details are not a	wailable for all accorrig	The following execification	s were available at the time of publication.
NUTE. Details are not a	ועמוומטופ וטו מוו מננפגגטוופ	s. The following specification	is were available at the time of publication.

HP 3800 4-port Stacking Module (J9577A)	Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
<b>HP X410 1U Universal 4- post Rack Mounting Kit</b> (J9583A)	Notes	The rack mounting kit supports the 1U, full width switches in the follow switch series and the power supply: V1810 Series, E2510 Series, E2520 Series, E2610 Series, E2810 Series, E2910 Series, E3500 Series, and th E620 Power Supply This universal rack mounting kit is design to fit the following racks: HP 10642, HP 10K 10842, Panduit CN, Panduit CS, Wrightline Vantage S2, Netshelter 600mm, and APC Netshelter 800mm. It may well fit many o brands and models too.		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
HP X121 1G SFP LC SX	Ports	1 LC 1000BASE-SX port; Duplex: full only		
<b>Transceiver</b> (J4858C)	Physical characteristics	Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm) Weight: 0.04 lb. (0.02 kg)		
A small form-factor		Transceiver form factor: SFP		
pluggable (SFP) Gigabit SX	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C)		
transceiver that provides a		Operating relative humidity: 5% to 85%, noncondensing		
full-duplex Gigabit		Nonoperating/Storage temperature: -40°F to 203°F (-40°C to 85°C)		
solution		Altitude: up to 10,000 ft. (3 km)		
up to 550 m on multimode	<b>Electrical characteristics</b>			
fiber.		Power consumption maximum: 0.7 W		
	Cabling	Туре:		
$\sum$		<ul> <li>62.5/125 μm or 50/125 μm (core/cladding) diameter, graded- index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively;</li> </ul>		
×~~	5/	Maximum distance:		
7		<ul> <li>2-220 m (62.5 μm core diameter, 160 MHz*km bandwidth</li> <li>2-275 m (62.5 μm core diameter, 200 MHz*km bandwidth</li> <li>2-500 m (50 μm core diameter, 400 MHz*km bandwidth)</li> <li>2-550 m (50 μm core diameter, 500 MHz*km bandwidth)</li> </ul>		
	Services	Cable length: 2-550m Fiber type: Multi Mode Refer to the HP website at: www.hp.com/networking/services for details of the service-level descriptions and product numbers. For details about		
		services and response times in your area, please contact your local HP sal office.		



### **HP 3800 Switch Series**

### **Accessory Product Details**

HP X121 1G SFP LC LXPortsTransceiver (J4859C)Physical characteristics		1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)			
	r nysicat characteristics	Weight:0.04 lb. (0.02 kg)			
HP X121 1G SFP LC LX Environment		Operating temperature: 32°F to 158°F (0°C to 70°C)			
Transceiver: An SFP		Operating relative humidity: 0% to 85%, noncondensing			
format		Nonoperating/Storage temperature: -40°F to 212°F (-40°C to 100°C)			
gigabit transceiver with LC connectors using LX		Altitude: up to 10,000 ft. (3 km)			
technology.	Cabling	Туре:			
		<ul> <li>Either single mode or multimode; 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Low metal content, single- mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1;</li> </ul>			
		Maximum distance:			
		<ul> <li>2-550 m (multimode 62.5 µm core diameter, 500 MHz*km bandwidth)</li> </ul>			
		<ul> <li>2-550 m (multimode 50 µm core diameter, 400 MHz*km bandwidth)</li> </ul>			
		<ul> <li>2-550 m (multimode 50 μm core diameter, 500 MHz*km bandwidth)</li> </ul>			
		• 2-10,000 m (single-mode fiber)			
	Notes	A mode conditioning patch cord may be needed in some multimode fiber installations.			
		Wavelength: 1310nm Power Consumption: < 500mW Typical			
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about			
		services and response times in your area, please contact your local HP sales office.			
HP X121 1G SFP LC LH Transceiver (J4860C)	Ports	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics); Duplex: full only			
A small form-factor	Physical characteristics	Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm) Weight: 0.04 lb. (0.02 kg)			
pluggable (SFP) Gigabit LH	Environment	Operating temperature: -40°F to 185°F (-40°C to 85°C)			
transceiver that provides a		Operating relative humidity: 0% to 95% @ 77°F (25°C), noncondensing			
full-duplex Gigabit		Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C)			
solution up to 70 km on		Altitude: up to 10,000 ft. (3 km)			
single-mode fiber.	Cabling	Cable type:			
		• Low metal content, single-mode fiber-optic, complying with ITU-T			

 Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1;

Maximum distance:



### **HP 3800 Switch Series**

Accessory Product	Details	
		• 10-70,000 m (single-mode fiber)
	Notes	Power consumption is 0.8 watts typical with 1 watt maximum at 100% utilization. For distances less than 20 km, a 10 dB attenuator must be used. For distances between 20 km and 40 km, a 5 dB attenuator must be used. Attenuators can be purchased from most cable vendors.
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP X121 1G SFP RJ45 T Transceiver (J8177C)	Ports	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T); Duplex: full only
HP X121 1G SFP RJ45 T	Physical characteristics	Dimensions: 2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm) Weight: 0.06 lb. (0.03 kg)
Transceiver: An SFP format	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C); with 100 LFM airflow over the SFP module
gigabit transceiver with RJ45 connectors using		Operating relative humidity: 0% to 95% @ 75°F (25°C), noncondensing
1000BaseT technology.		Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C)
		Nonoperating/Storage relative humidity: 0% to 95% @ 77°F (25°C), noncondensing
		Altitude: up to 10,000 ft. (3000 km)
	Cabling	Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T;
		Maximum distance:
	85	• 100 m
	Notes	Power consumption is nominally 1 watt. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J8177C 1000Base-T Mini-GBIC" on the "HP Mini-GBICs and SFPs" Manuals Web page. The J8177C Gigabit copper mini-GBIC is not supported on dual-personality ports.
		The J8177C is capable of 100 Mb operation. This is supported on only the HP E8200zl, E5400zl, and HP E6200-24G-mGBIC yl Switches using software version K.12.21 or later. Use the "auto-100" port setting to enable 100 Mb operation. Important: The earlier J8177B does not support 100 Mb operation. When used in the Switch gl 20-Port 10/100/1000 Module (J4908A), the J8177C mini-GBIC can be installed in either the upper or lower mini-GBIC port, but will block access to the other port.
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



HP X122 1G SFP LC BX-D Transceiver (J9142B)	Ports	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-D); Duplex: full only				
A small form-factor	Physical characteristics	Dimensions	2.19(d) x 0.54(w) x 0.46(h) in. (5.57 x 1.37 x 1.18 cm)			
pluggable (SFP) Gigabit-		Weight	0.04 lb. (0.02 kg)			
BX (bi-directional) "downstream" transceiver	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)			
that provides a full- duplex Gigabit solution up		Operating relative humidity	0% to 95%, non-condensing			
to 10 km on one strand of single-mode fiber. The		Non-operating/ Storage temperature	–40ºF to 185ºF –40ºC to 85ºC)			
J9142B connects to the	Cabling	Туре:	<u>v</u> O.			
J9143B "upstream" transceiver, or to any		Single-mode fiber optic, complying with ITU-T G.652;				
IEEE-standard 1000BASE- BX10-U ("upstream")		Maximum distance:	-0011			
device.		• 0.5-10,000 m (single-mode fiber)				
	Notes	Transmit wavelength: 1490 nm. Receive wavelength: 1310 nm. Power consumption is 1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HP BX Transceivers" on the "HP Mini-GBICs and SFPs" Manuals Web page. The J9142B connects to the J9143B "upstream" transceiver, or to any IEEE-standard 1000BASE-BX10-U ("upstream") device. (A 1000-BX-D transceiver can only connect to a 1000-BX-U product. You cannot connect two 1000-BX-D transceivers together.)				
	Services	on the service-level descr	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.			
HP X122 1G SFP LC BX-U Transceiver (J9143B)	Ports	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only				
A small form-factor	Physical characteristics	Dimensions	2.19(d) x 0.54(w) x 0.46(h) in. (5.57 x 1.37 x 1.18 cm)			
pluggable (SFP) Gigabit-		Weight	0.04 lb. (0.02 kg)			
BX (bi-directional) "upstream" transceiver	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)			
that provides a full- duplex Gigabit solution up		Operating relative humidity	0% to 95%, non-condensing			
to 10 km on one strand of single-mode fiber. The		Non-operating/ Storage temperature	–40ºF to 185ºF –40ºC to 85ºC)			
J9143B connects to the J9142B "downstream" transceiver, or to any IEEE-standard 1000BASE-	Cabling	Type: Single-mode fiber optic, complying with ITU-T G.652;				
BX10-D ("downstream") device.		Maximum distance:				
		• 0.5-10,000 m (si	ngle-mode fiber)			
	Notes	Transmit wavelength: 13	10 nm. Receive wavelength: 1490 nm.			

		For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HP BX Transceivers" on the "HP Mini-GBICs and SFPs" Manuals Web page. The J9143B connects to the J9142B "downstream" transceiver, or to any IEEE-standard 1000BASE-BX10-D ("downstream") device. (A 1000-BX-U transceiver can only connect to a 1000-BX-D product. You cannot connect two 1000-BX-U transceivers together.) Power consumption is 1 watt maximum. Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
	Services		
HP X132 10G SFP+ LC SR	Ports	1 L C 10-GbE port (IEEE 80)	2.3ae Type 10Gbase-SR); Duplex: full only
Transceiver (J9150A)	Connectivity	Connector type	LC
	-	Wavelength	850 nm
A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit	Physical characteristics	Dimensions	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
SR standard, providing		Weight	0.04 lb. (0.02 kg)
10-Gigabit connectivity up		Transceiver form factor	SFP+
to 300 m on multimode	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)
fiber.		Operating relative humidity	0% to 85%, noncondensing
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	Power consumption typical	0.6 W
		Power consumption maximum	0.8 W
	Cabling	Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance:	
		<ul> <li>2-26m with 62.5 µm multimode cable @ 160 MHz*k</li> <li>2-33m with 62.5 µm multimode cable @ 200 MHz*k</li> <li>2-66m with 50 µm multimode cable @ 400 MHz*km</li> <li>2-82m with 50 µm multimode cable @ 500 MHz*km</li> <li>2-300m with 50 µm multimode cable @ 2000 MHz*</li> </ul>	
		Cable length	2-300m
		Fiber type	Multi Mode
	Notes	For fiber patch cords, use	Ultra Physical Contact (UPC) surface d Physical Contact (APC) is not recommended.
	Services	Refer to the HP website at: www.hp.com/networking/services for det the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local H	



		sales office.		
HP X132 10G SFP+ LC LR	Ports	1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-LR); Duplex: full only		
Transceiver (J9151A)	Connectivity	Connector type	LC	
A 10 Cigobit transcoiver in		Wavelength	1310 nm	
A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit	Physical characteristics	Dimensions	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)	
LR standard, providing		Weight	0.04 lb. (.02 kg)	
10-Gigabit connectivity up		Transceiver form factor	SFP+	
to 10 km on single-mode	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)	
fiber.		Operating relative humidity	0% to 85%, noncondensing	
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)	
		Altitude	up to 10,000 ft. (3 km)	
	Electrical characteristics	Power consumption typical	0.9 W	
		Power consumption maximum	1 W	
	Cabling	Cable type: Low metal content, single-mode fiber-optic, complying with ITU-T and ISO/IEC 793-2 Type B1; Maximum distance:		
		• 2m-10km with 9/125 μm single-mode cable		
		Cable length	2m to 10km	
		Fiber type	Single Mode	
	Notes		bles are not supported. Ultra Physical Contact (UPC) surface d Physical Contact (APC) is not recommended.	
	Services	the service-level description	: www.hp.com/networking/services for details on ons and product numbers. For details about es in your area, please contact your local HP	
HP X132 10G SFP+ LC LRM	Ports	1 LC 10-GbE port (IEEE 802	2.3aq Type 10Gbase-LRM); Duplex: full only	
Transceiver (J9152A)	Connectivity	Connector type	LC	
A 10 Circhit transmission		Wavelength	1310 nm	
A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit LRM standard, for 10- Gigabit connectivity up to	Physical characteristics	Dimensions	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)	
		Weight	0.04 lb. (.02 kg)	
		Transceiver form factor	SFP+	
220 m on legacy multimode fiber.	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)	
		Operating relative humidity	0% to 85%, noncondensing	
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)	



,		Altitude	up to 10,000 ft. (3 km)	
	<b>Electrical characteristics</b>		0.7 W	
		typical	0.7 11	
		Power consumption maximum	1 W	
	Cabling	metal content, multimode ISO/IEC 793-2	m (core/cladding) diameter, graded-index, low e fiber optic, complying with ITU-T G.651 and vely (a mode conditioning patch cord may be le fiber installations);	
			KO.	
		<ul> <li>0.5-220m with 6.</li> <li>0.5-100m with 5.</li> <li>0.5-220m with 5.</li> </ul>	2.5 μm multimode cable @ 160/500 MHz*km 2.5 μm multimode cable @ 200/500 MHz*km 0 μm multimode cable @ 400/400 MHz*km 0 μm multimode cable @ 500/500 MHz*km 0 μm multimode cable @ 1500/500 MHz*km	
		Cable length	0.5m to 220m	
		Fiber type	Multi Mode	
	Notes	For OM3 cable (50 µm mul conditioning patch cord is require mode-conditionin listed above.	ltimode @ 1500/500 MHz*km), a mode- not required. Other multimode cables may g patch cords to achieve the maximum distances Ultra Physical Contact (UPC) surface	
		termination/polish. Angled Physical Contact (APC) is not recom		
	Services	Refer to the HP website at: www.hp.com/networking/services for details of the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
HP X132 10G SFP+ LC ER	Ports	1   C 10-GbF port (IFFF 80)	2.3ae Type 10Gbase-ER); Duplex: full only	
Transceiver (J9153A)	Connectivity	Connector type	LC	
	6	Wavelength	1550 nm	
The SFP+ ER Transceiver will transmit 10Gbps over up to 40km using	Physical characteristics	Dimensions	2.22(d) x 0.55(w) x 0.47(h) in. (5.65 x 1.39 x 1.19 cm)	
standard OM3 fiber cable.		Weight	.04 lb., Fully loaded	
This product expands the		Transceiver form factor	SFP+	
HP Networking transceiver portfolio for	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)	
connections from 0m to 40km. Use only genuine HP transceivers with your HP Networking equipment to ensure reliability and support.		Operating relative humidity	5% to 95%, noncondensing	
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)	
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
		Altitude	up to 10,000 ft. (3 km)	
	Electrical characteristics	Power consumption typical	1.3 W	
		Power consumption	1.5 W	



		maximum		
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance:		
		• 40km		
		Fiber type Single Mode		
	Notes	Check switch release notes for minimum version of software required to support this transceiver. Some switches have limits as to how many of this particular transceiver can be installed. See the release notes of the switch software/firmware being used for more details.		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
<b>HP 0.5 m Multimode OM3</b> <b>LC/LC Optical Cable</b> (AJ833A)	Cabling	<b>Cable type</b> : 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m		
		Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m		
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.		
	891	<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> </ul>		
		<ul> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>		
	Services	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about		

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		services and response times in your area, please contact your local HP sales office.
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m
		Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
	891	<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	Cabling	<b>Cable type</b> : 50/125 $\mu$ m (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<b>Maximum distance</b> : 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> </ul>



		<ul> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
<b>HP 5 m Multimode OM3 LC/LC Optical Cable</b> (AJ836A)	Cabling	<b>Cable type</b> : 50/125 μm core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
	Notes	10Gbps Transfer Rate (Ethernet): 300m Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> </ul>



	Services	<ul> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul> Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about
		services and response times in your area, please contact your local HP sales office.
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
		10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km</li> </ul>
		@850/1300nm.
		<ul> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> </ul>
	0	<ul> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> </ul>
		<ul> <li>Boot Color: White</li> </ul>
		<ul> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003</li> <li>dB (Madded for longths &gt; 20 meters)</li> </ul>
	2	<ul> <li>dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<b>Maximum distance</b> : 10Gbps Transfer Rate (Ethernet): 300m



	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> </ul>
	Services	• Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	Cabling	<b>Cable type:</b> 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<b>Maximum distance</b> : 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen</li> </ul>



	Services	<ul> <li>thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul> Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
	Familian	<ul> <li>Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm</li> </ul>



Accessory Product	Details	
	Services	@ 23°C as tested in accordance with EIA 455-45 Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH)</li> </ul>
		<ul> <li>thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
	. 05/189	<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> </ul>
	3	<ul> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors



Accessory Product I	Details		
<b>30m Cable</b> (QK736A)		on each end.	
		diameter: 245 ± 10um • Bandwidth: 3000 MHz-4 • Jacket Color: Blue • Jacket Material: Riser G thermoplastic • Boot Color: White • Outer Jacket Print: HP P Type OFNR (UL), LSZH, cU white stripe that runs the • Insertion Loss: Less tha added for lengths >30m	rade – Low Smoke Zero Halogen (LSZH) PremierFlex OM3+ Fiber Optic Cable, 50/125um, JL, OFN FT4, ROHS. Cable also has a longitudinal e entire length of the cable. n 0.5dB @ 850nm with LED source, 0.003dB/m ation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm
	Services	on the service-level desc	at: www.hp.com/networking/services for details riptions and product numbers. For details about nes in your area, please contact your local HP
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)	Notes	<ul> <li>Cable Specs: Graded-index, "bendable" fiber optic multimode OM 50/125um duplex cable and Ethernet assembly with LC duplex coon each end.</li> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; C diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/<sup>7</sup> Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a long white stripe that runs the entire length of the cable.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.00 added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
	051-891		
4	Services	on the service-level desc	nt: www.hp.com/networking/services for details riptions and product numbers. For details about nes in your area, please contact your local HP
HP X242 SFP+ SFP+ 1 m	Connectivity	Length	3.28 ft. (1 m)
<b>Direct Attach Cable</b> (J9281B)	Physical characteristics	Weight	0.24 lb. (0.11 kg) the cable with an SFP+ transceiver at each end of the cable
	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)
		Operating relative humidity	5% to 95%, noncondensing
		Nonoperating/Storage temperature	14ºF to 185ºF (-10ºC to 85ºC)
		Nonoperating/Storage	5% to 95%, noncondensing



		relative humidity		
		Altitude	up to 10,000 ft. (3 km)	
	Electrical characteristics	Notes	0.04 watts maximum per transceiver end	
	Notes	Electrical Properties • Cable Characteristic Impedance: 100 ohms • Crosstalk between pairs: 2% max • Time delay: 1.31 nsec/ft		
		Physical Properties • Cable Diameter: 0.180" • Minimum Cable Bend Ra		
	Services	the service-level descript	t: www.hp.com/networking/services for details on ions and product numbers. For details about nes in your area, please contact your local HP	
HP X242 SFP+ SFP+ 3 m	Connectivity	Length	10 ft. (3 m)	
<b>Direct Attach Cable</b> (J9283B)	Physical characteristics	Weight	.49 lb. (0.22 kg), Fully loaded the cable with an SFP+ transceiver at each end of the cable	
	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)	
		Operating relative humidity	5% to 95%, noncondensing	
		Nonoperating/Storage temperature	14ºF to 185ºF (-10ºC to 85ºC)	
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
		Altitude	up to 10,000 ft. (3 km)	
	<b>Electrical characteristics</b>	Notes	0.04 watts maximum per transceiver end	
	Notes	Electrical Properties • Cable Characteristic Imp • Crosstalk between pairs • Time delay: 1.31 nsec/fi	:: 2% max	
	65	Physical Properties • Cable Diameter: 0.180" • Minimum Cable Bend Ra	idius: 1.0"	
	Services	the service-level descript	t: www.hp.com/networking/services for details on ions and product numbers. For details about nes in your area, please contact your local HP	
HP X242 SFP+ SFP+ 7 m	Connectivity	Length	22.97 ft. (7 m)	
<b>Direct Attach Cable</b> (J9285B)	Physical characteristics	Weight	1.02 lb., Fully loaded the cable with an SFP+ transceiver at each end of the cable	
	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)	
		Operating relative humidity	5% to 95%, noncondensing	
		Nonoperating/Storage temperature	14ºF to 185ºF (-10ºC to 85ºC)	
		Nonoperating/Storage	5% to 95%, noncondensing	



	Electrical characteristics Notes	relative humidity Altitude Notes Electrical Properties • Cable Characteristic Imp • Crosstalk between pairs • Time delay: 1.31 nsec/ft	:: 2% max
	Services	the service-level descript	adius: 1.0" t: www.hp.com/networking/services for details on ions and product numbers. For details about nes in your area, please contact your local HP
HP X244 XFP SFP+ 1 m Direct Attach Cable	Connectivity	Length	3.28 ft. (1 m)
(A00EeL)	Physical characteristics	Weight	.27 lb. (0.12 kg), Fully loaded cable with XFP transcevier on one end and SFP+ on the other end
A 1m direct attach copper	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)
cable with an XFP connector attached on one end and an SFP+		Operating relative humidity	5% to 95%, noncondensing
connector attached on the other end. This cable		Nonoperating/Storage temperature	32ºF to 158ºF (0ºC to 70ºC)
provides a low price connectivity option		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
between switches/servers/		Altitude	up to 10,000 ft. (3 km)
storage to interconnect	Notes		ts SFP+ end consumes 0.036 watts
XFP and SFP+ form factors.	Services	Refer to the HP website at: www.hp.com/networking/services for detail on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X244 XFP SFP+ 3 m	Connectivity	Length	9.84 ft. (3 m)
Direct Attach Cable (J9301A)	Physical characteristics	Weight	.51 lb. (0.23 kg), Fully loaded cable with XFP transcevier on one end and SFP+ on the other end
A 3m direct attach copper	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)
cable with an XFP connector attached on one end and an SFP+		Operating relative humidity	5% to 95%, noncondensing
connector attached on the other end. This cable		Nonoperating/Storage temperature	32ºF to 158ºF (0ºC to 70ºC)
provides a low price connectivity option		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
between switches/servers/		Altitude	up to 10,000 ft. (3 km)
storage to interconnect XFP and SFP+ form	Cabling	Maximum distance: • 3m Direct Attach Cable	
	Notes	XFP end consumes 2 wat	ts SFP+ end consumes 0.036 watts



factors.	Services	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.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 HP sales office.		
HP X244 XFP SFP+ 5 m	Connectivity	Length	16.4 ft. (5 m)	
<b>Direct Attach Cable</b> (J9302A)	Physical characteristics	Weight	.74 lb. (0.34 kg), Fully loaded cable with XFP transcevier on one end and SFP+ on the other end	
A 5m direct attach copper cable with an XFP connector attached on one end and an SFP+ connector attached on the other end. This cable provides a low price connectivity option	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)	
		Operating relative humidity	5% to 95%, noncondensing	
		Nonoperating/Storage temperature	32ºF to 158ºF (0ºC to 70ºC)	
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
between switches/servers/		Altitude	up to 10,000 ft. (3 km)	
storage to interconnect	Notes	XFP end consumes 2 watt	s SFP+ end conumes 0.036 watts	
XFP and SFP+ form factors.	Services	Refer to the HP website at: www.hp.com/networking/services for de on the service-level descriptions and product numbers. For details al services and response times in your area, please contact your local H sales office.		
HP X111 100M SFP LC FX Transceiver (J9054C)	Ports	1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or f		
	Physical characteristics	Dimensions	2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm)	
		Weight	0.06 lb. (0.03 kg)	
	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)	
	61.891	Operating relative humidity	5% to 95%	
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)	
		Nonoperating/Storage relative humidity	5% to 85%	
X		Altitude	up to 10,000 ft. (3 km)	
	Cabling	Cable type: 62.5/125 im or 50/125 im (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2 km (full duplex) or 412 m (half duplex)		
	Notes	Transmitter wavelength: 1310nm Power consumption is 1.1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J9054C 100-FX SFP- LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page.		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		



HP X112 100M SFP LC BX- D Transceiver (J9099B)	Ports	1 LC 100BASE-BX10 port (IEEE 802.3ah Type 100BASE-BX10-D); Duplex: full only		
A small form-factor	Physical characteristics	Dimensions	2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm)	
pluggable (SFP) 100-		Weight	0.04 lb. (0.03 kg)	
Megabit BX (bi-	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)	
directional) "downstream" transceiver that provides 100 Mbps full-duplex connectivity up to 10 km on one strand of singlemode fiber. The J9099B connects to the		Operating relative humidity	0% to 95%, noncondensing	
		Nonoperating/Storage temperature	-40ºF to 185ºF (-40ºC to 85ºC)	
	Cabling	Туре:	40'	
J9100B "upstream" transceiver, or to any		Single-mode fiber optic, complying with ITU-T G.652; Maximum distance:		
IEEE-standard 100BASE-				
BX10-U ("upstream")				
device.		• 0.5-10,000 m (single-mode fiber)		
	Notes	Transmit wavelength: 1550 nm. Receive wavelength: 1310 nm. Power consumption is 1.1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HP BX Transceivers" on the "HP Mini-GBICs and SFPs" Manuals Web page. The J9099B connects to the J9100B "upstream" transceiver, or to any IEEE- standard 100BASE-BX10-U ("upstream") device. (A 100-BX-D transceiver can only connect to a 100-BX-U product. You cannot connect two 100-BX-D transceivers together.)		
	Services	transceivers together.) Refer to the HP website at on the service-level descr		
HP X112 100M SFP LC BX- U Transceiver (J9100B)	89	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office.	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about	
<b>U Transceiver</b> (J9100B) A small form-factor	89	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about les in your area, please contact your local HP	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100-	Ports	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port of full only	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about les in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100- Megabit BX (bi-	Ports	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port ( full only <b>Dimensions</b>	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about les in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm)	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100- Megabit BX (bi- directional) "upstream" transceiver that provides 100 Mbps full-duplex	Ports Physical characteristics	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port ( full only Dimensions Weight	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about les in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm) 0.07 lb. (.03 kg)	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100- Megabit BX (bi- directional) "upstream" transceiver that provides 100 Mbps full-duplex connectivity up to 10 km on one strand of	Ports Physical characteristics	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port ( full only Dimensions Weight Operating temperature Operating relative	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about les in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm) 0.07 lb. (.03 kg) 32°F to 158°F (0°C to 70°C)	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100- Megabit BX (bi- directional) "upstream" transceiver that provides 100 Mbps full-duplex connectivity up to 10 km on one strand of singlemode fiber. The J9100B connects to the	Ports Physical characteristics	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port of full only Dimensions Weight Operating temperature Operating relative humidity Nonoperating/Storage	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about tes in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm) 0.07 lb. (.03 kg) 32°F to 158°F (0°C to 70°C) 0% to 95%, noncondensing	
U Transceiver (J9100B) A small form-factor pluggable (SFP) 100- Megabit BX (bi- directional) "upstream" transceiver that provides 100 Mbps full-duplex connectivity up to 10 km on one strand of singlemode fiber. The	Ports Physical characteristics Environment	transceivers together.) Refer to the HP website at on the service-level descr services and response tim sales office. 1 LC 100BASE-BX10 port of full only Dimensions Weight Operating temperature Operating relative humidity Nonoperating/Storage temperature Type:	-BX-U product. You cannot connect two 100-BX-E :: www.hp.com/networking/services for details iptions and product numbers. For details about tes in your area, please contact your local HP (IEEE 802.3ah Type 100BASE-BX10-U); Duplex: 2.7(d) x 0.55(w) x 0.48(h) in. (6.86 x 1.39 x 1.22 cm) 0.07 lb. (.03 kg) 32°F to 158°F (0°C to 70°C) 0% to 95%, noncondensing	

Accessory Product Details				
device.		• 0.5-10,000 m (single-mode fiber)		
	Notes	For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HP BX Transceivers" on the "HP Mini-GBICs and SFPs" Manuals Web page. The J9100B connects to the J9099B "downstream" transceiver, or to any IEEE-standard 100BASE-BX10- D ("downstream") device. (A 100-BX-U transceiver can only connect to a 100-BX-D product. You cannot connect two 100-BX-U transceivers together.) Transmit wavelength: 1310 nm. Receive wavelength: 1550 nm. Power consumption is 1.1 watts maximum.		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		

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## Summary of Changes

Date	Version History	Action	Description of Change:
December 12, 2014	From Version 18 to 19	Changed	<ul> <li>Added Power Supply SKUs on the Accessories section:</li> <li>HP X311 400W 100-240VAC to 12VDC Power</li> </ul>
			Supply (J9581A) • HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)
December 1, 2014	From Version 17 to 18	Changed	Overview, Features and benefits, Specifications, Warranty and support, Accessories were revised.
July 3, 2014	From Version 16 to 17	Changed	Configuration menu updated.
February 17, 2014	From Version 14 to 16	Changed	SFP+ Transceivers were revised.
November 12, 2013	From Version 13 to 14	Changed	Note was revised in Box Level Integration CTO Models in Configuration.
October 18, 2013	From Version 12 to 13	Changed	Configuration was revised.
September 27, 2013	From Version 11 to 12	Changed	Notes section was reconfigured in Configuration.
July 2, 2013	From Version 10 to 11	Added	Added J9150A - HP X132 10G SFP+ LC SR Transceiver to Note 1 in the Configuration section.
June 10, 2013	From Version 9 to 10	Added	OM4 cables were added.
May 14, 2013	From Version 8 to 9	Changed	Updated the Configuration section.
April 22, 2013	From Version 7 to 8	Added	Overview: Added an image.
March 25, 2013	From Version 6 to 7	Added	Added the Configuration section.
March 1, 2013	From Version 5 to 6	Changed	Minor wording changes were made in Features and Benefits and Introductions.
	8		Minor changes were made to the specifications for the switches, including updating Included accessories, Fan tray, power supplies, and routing table size.
September 24, 2012	From Version 4 to 5	Changed	The Introduction and Features and Benefits. Minor changes were made to the specifications for the switches.
June 25, 2012	From Version 3 to 4	Changed	Features and Benefits and the weight and dimensions for each spec were revised.
May 14, 2012	From Version 2 to 3	Changed	Features and Benefits, Accessories, and the weight and dimensions for each spec were revised.
October 4, 2011	From Version 1 to 2	Changed	Accessories, Accessory Product Details, Models, Features and Benefits, and the Specifications were updated.

## Summary of Changes

To learn more, visit: www.hp.com/networking

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X-051-891-2000