

Overview

HPE FlexFabric 12500 Switch Series



HPE FlexFabric 12508E Switch



HPE FlexFabric 12518E Switch

Models

HPE 12504 AC Switch Chassis	JC654A
HPE 12504 DC Switch Chassis	JC655A
HP 12508 AC Switch Chassis	JF431C
HP 12508 DC Switch Chassis	JC652A
HP 12518 AC Switch Chassis	JF430C
HP 12518 DC Switch Chassis	JC653A
HPE FlexFabric 12508E AC Switch Chassis	JG782A

Overview

HPE FlexFabric 12508E DC Switch Chassis	JG783A
HPE FlexFabric 12518E AC Switch Chassis	JG784A
HPE FlexFabric 12518E DC Switch Chassis	JG785A

Product overview

The HPE 12500 Switch Series is a family of powerful, next-generation routing switches with outstanding capacity and scale for the network core or data center.

Designed for high performance with nonblocking and distributed Clos architecture, these switches deliver up to 24.3 Tbps switching capacity and 10.8 Bpps throughput with up to 400 Gbps per line card slot.

The 12500 switches also have energy-efficiency features that drive down operational expenses and are ideal for organizations contemplating large-scale data center consolidations, business continuity and disaster recovery sites, metropolitan area network deployments, and other applications requiring a robust, reliable and highly available switching platform.

Key features

- Optimized for data centers with extensive virtualization and convergence features
- Broad interface options from 1G to 100G scaling up to 24.3 Tbps switching capacity
- SDN ready with Open Flow 1.3 support
- Large Layer 2 and Layer 3 tables to support large scale deployments
- Fully redundant architecture with hot swappable components

Features and benefits

Data center optimized

- **Scalable Layer 2 fabrics**
build flexible, resilient, and scalable Layer 2 fabrics with SPB and HPE IRF
- **Multitenant Device Context (MDC)**
is an innovative data center virtualization solution that enables multi-tenancy, giving customers the ability to virtualize a physical switch into multiple logical devices, with each logical switch having its own tenants
- **HPE Ethernet Virtual Interconnect (EVI)**
is an HPE Virtual Application Network innovation that provides a Layer 2 extension across the data center to simplify the interconnectivity of geographically disperse data centers
- **NEW Data Center Bridging (DCB) protocols**
provide support for IEEE 802.1Qaz Data Center Bridging Exchange (DCBX), Enhanced Transmission Selection (ETS), and IEEE 802.1Qbb Priority Flow Control (PFC) for converged fabrics
- **NEW Fibre Channel over Ethernet (FCoE) features**
deliver support for FCoE, including expansion, fabric, trunk VF and N ports, and aggregation of E-port and N-port virtualization
- **Accelerated performance with jumbo frames**
for intra-data-center communication, or for data center to data center traffic (disaster recovery), reducing the amount of time required for data backup and recovery
- **Network load balancing (NLB) multicast ARP**
Microsoft® NLB co-works with multicast ARP to provide servers with load balancing and fault switchover, which lowers costs and investment

Overview

Software-defined networking

- **NEW Supports OpenFlow 1.3 specifications**

to enable SDN by allowing separation of the data (packet forwarding) and control (routing decision) paths

Performance

- **NEW High performance design with nonblocking and distributed Clos architecture**

delivers up to 24.3 Tbps switching capacity and 10.8 Bpps throughput with up to 400 Gbps per line card slot

- **NEW High-density 1GbE, 10GbE and 40GbE interface connectivity**

offers up to 18 interface module slots to scale up to 864 1GbE and 1/10GbE and 288 40GbE ports

- **Hardware-based wirespeed access control lists (ACLs)**

help provide high levels of security and ease of administration without impacting network performance with a feature-rich TCAM-based ACL implementation

- **High-performance processor system**

the supervisor module uses three different processors to isolate key tasks: control plane (STP, OSPF, BGP, MPLS, etc.), fast recovery protocols (RRPP, BFD, etc.), and chassis management (temperature, power, etc.)

Product architecture

- **Distributed architecture with separation of data and control planes**

delivers enhanced fault tolerance and facilitates continuous operation and zero service disruption during planned or unplanned control-plane events

- **Advanced Comware modular operating system**

brings modularity, enhanced serviceability, stability and independent process monitoring through modern Comware v7 Operating System

- **In-Service Software Upgrade (ISSU)**

provides an upgrade of the entire chassis, or an individual task or process, with zero packet loss

Resiliency and high availability

- **Intelligent Resilient Fabric (IRF)**

creates virtual resilient switching fabrics, where two or more switches perform as a single L2 switch and L3 router; switches do not have to be co-located and can be part of a disaster-recovery system; servers or switches can be attached using standard LACP for automatic load balancing and high availability; can eliminate the need for complex protocols like Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP, thereby simplifying network operation

- **Ultrafast protocol convergence**

enables link connectivity monitoring and reduces network convergence time for RIP, OSPF, BGP, IS-IS, VRRP, MPLS, and IRF

- **Device Link Detection Protocol (DLDP)**

monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

- **Complete set of routing protocols (Layer 3 IPv4 and IPv6)**

support virtually all existing routing protocols (RIP, OSPF, IS-IS, and BGP) for both Layer 3 IPv4 and Layer 3 IPv6; complete support of PIM-DM, PIM-SM, PIM-SSM, and MSDP

- **Hot patching**

the 12500 switch series supports hot patching, allowing in-service patching for some isolated software problems

- **Non Stop Forwarding/Graceful Restart (NSF/GR)**

Overview

using standardized-based IETF protocols, the 12500 switch series provides nonstop forwarding (switching/routing) for Layer 3 routing protocols (control plane – OSPF, BGP, and MPLS), providing hitless failover

- **Fully redundant and hot swappable components**

providing full hardware redundancy for each component including power supplies, fan trays, supervisor modules and fabric modules to enable the highest level of availability

- **Rapid Ring Protection Protocol (RRPP)**

provides fast recovery for ring Ethernet-based topology

Quality of Service (QoS)

- **Virtual Output Queue (VOQ)**

prevents head-of-line (HOL) blocking per port at peak time and distributes it over a period of time, increasing switch performance

- **IEEE 802.1p prioritization**

delivers data to devices based on the priority and type of traffic

- **Layer 4 prioritization**

enables prioritization based on TCP/UDP port numbers

- **Broadcast control**

allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic

- **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

- **Bandwidth shaping**

- **Port-based rate limiting**

provides per-port ingress-/egress-enforced maximum bandwidth

- **Classifier-based rate limiting**

uses access control lists (ACLs) to enforce maximum bandwidth for ingress/egress traffic on each port

Compartmentalization

- **Department protection**

using network virtualization standards (QinQ, VRF, and MPLS), the 12500 switch series allows organizations to isolate different business units with different resources (VRFs); using standard-based mechanisms, the network is completely virtualized, reducing cost and operations

- **IEEE 802.1ah Provider Backbone Bridge (MAC in MAC)**

Provider Backbone Bridge (PBB) is a Layer 2 VPN technology that allows a complete separation of customer and provider domains by sealing the user MAC in the service provider MAC, which enhances the scalability of an Ethernet network

Layer 2 switching

- **Multiple VLAN Registration Protocol (MVRP)**

helps to maintain VLAN configuration dynamically based on current network configurations

- **GARP VLAN Registration Protocol**

allows automatic learning and dynamic assignment of VLANs

- **IP multicast snooping and data-driven IGMP**

automatically prevents flooding of IP multicast traffic

- **IEEE 802.1ad QinQ**

increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network

Overview

- **Bridge Protocol Data Unit (BPDU) tunneling**

transmits Spanning Tree Protocol BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs

- **VLAN support and tagging**

supports IEEE 802.1Q (4K VLAN IDs)

- **Spanning Tree**

the 12500 switch series supports the entire set of STP protocols (STP, RSTP, and MSTP), facilitating a complete integration with standard networks

Layer 3 routing

- **Layer 3 IPv4 routing**

provides routing of IPv4 at media speed; supports static routes, RIP and RIPv2, OSPF, IS-IS, and BGP

- **RIP and RIPng support**

provides complete support of RIP for both IPv4 and IPv6

- **OSPF and OSPFv3 support**

provides complete support of OSPF for both IPv4 and IPv6

- **IS-IS and IS-ISv6 support**

provides complete support of IS-IS for both IPv4 and IPv6

- **Equal-Cost Multipath (ECMP)**

enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth

- **Layer 3 IPv6 routing**

provides routing of IPv6 at media speed; supports static routes, RIPng, OSPFv3, IS-ISv6, and BGP4+

- **IPv6 tunneling**

allows a smooth transition from IPv4 to IPv6 by encapsulating IPv6 traffic over an existing IPv4 infrastructure

- **Complete multicast protocol stack**

PIM-DM, PIM-SM, PIM-SSM, MSDP, and extensions to BGP provide one of the most complete multicast protocol stacks

- **Policy routing**

allows custom filters for increased performance and security; supports ACLs, IP prefix, AS paths, community lists, and aggregate policies

- **MPLS support**

provides extended support of MPLS, including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)

- **VPLS support**

provides extended support of VPLS for data center to data center communication at Layer 2; provides support of hierarchical VPLS for scalability

Management

- **sFlow**

provides scalable, ASIC-based network monitoring and accounting; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes

- **IEEE 802.1ab LLDP discovery**

advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

- **USB support**

- **File copy**

allows users to copy switch files to and from a USB flash drive

- **Multiple configuration files**

can be stored to the flash image

Overview

- **Command-line interface (CLI)**
provides a secure, easy-to-use CLI for configuring the module via SSH or a switch console; provides direct real-time session visibility
- **Logging**
provides local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated
- **Management interface control**
enables or disables each of the following interfaces depending on security preferences: console port, Telnet port, and SSH port
- **Out-of-band interface**
isolates management traffic from user data plane traffic for complete isolation and total reachability, no matter what happens in the data plane
- **Network management**
HPE Intelligent Management Center (IMC) centrally configures, updates, monitors, and troubleshoots
- **Network management**
SNMP v2c/v3 MIB-II with traps
- **RADIUS accounting**
logs all session details that can be used to generate usage reports or interface to a billing system
- **RMON**
provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Remote Intelligent Mirroring**
mirrors ingress ACL-selected traffic from a switch port or VLAN to a local or remote switch port anywhere on the network

Connectivity

- **IPv6 native support:**
 - **IPv6 host**
enables switches to be managed and deployed at the IPv6 network's edge
 - **Dual stack (IPv4 and IPv6)**
transitions from IPv4 to IPv6, supporting connectivity for both protocols
 - **Multicast Listener Discovery (MLD) snooping**
forwards IPv6 multicast traffic to the appropriate interface
 - **IPv6 ACL/QoS**
supports ACL and QoS for IPv6 network traffic, preventing traffic flooding
 - **IPv6 routing**
supports IPv6 static routes and IPv6 versions of RIP and OSPF routing protocols

Security

- **Control Plane Policing (CoPP)**
provides protection against DoS attacks at infrastructure routers and switches and ease of configuration for control plane policies
- **IEEE 802.1X and RADIUS network logins**
control port-based access for authentication and accountability
- **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**
can require either RADIUS or TACACS+ authentication for secure switch CLI logon

Overview

- **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
- **Secure Shell (SSHv2)**
encrypts all transmitted data for secure, remote CLI access over IP networks
- **Secure management access**
securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2 and SNMPv3
- **Access control lists (ACLs)**
provide IPv4 and IPv6 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **Media access control (MAC) authentication**
provides simple authentication based on a user's MAC address; supports local or RADIUS-based authentication

Convergence

- **Layer 2, 3, and 4 QoS mechanisms**
support DiffServ priority tagging based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, and source port
- **IP multicast snooping and data-driven IGMP**
automatically prevent flooding of IP multicast traffic
- **LLDP-MED**
is a standard extension that automatically configures network devices, including LLDP-capable IP phones
- **Internet Group Management Protocol (IGMP)**
is used by IP hosts to establish and maintain multicast groups; supports IGMPv1, v2, and v3; utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks
- **Protocol Independent Multicast (PIM)**
defines modes of Internet IPv4 and IPv6 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM Dense Mode (DM), Sparse Mode (SM), and Source-Specific Multicast(SSM)
- **Multicast Source Discovery Protocol (MSDP)**
is used for inter-domain multicast applications, allowing multiple PIM-SM domains to interoperate
- **Multicast VLAN**
allows multiple VLANs to receive the same IPv4 or IPv6 multicast traffic, lessening network bandwidth demand by reducing or eliminating multiple streams to each VLAN

Monitor and diagnostics

- **Port mirroring**
enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **Connectivity fault detection (IEEE 802.1ag)**
connectivity fault detection (CFD) provides a Layer 2 link Operations, Administration, and Maintenance (OAM) mechanism used for link connectivity detection and fault locating

Investment protection

- **Modular switch fabric**
provides investment protection by enabling future performance upgrades and increased port density
- **Environmentally friendly**

Overview

RoHS support and low power consumption based on the latest technology provide outstanding power efficiency

Warranty and support

- **1-year warranty**

see <http://www.hpe.com/networking/warrantysummary> for warranty and support information included with your product purchase.

- **Software releases**

to find software for your product, refer to <http://www.hpe.com/networking/support>; for details on the software releases available with your product purchase, refer to <http://www.hpe.com/networking/warrantysummary>

Configuration

Build To Order:

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

HPE 12504 AC Switch Chassis

JC654A

- 2 - MPUx (Management Ports)
- 4 - I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- Must select min 1 PEM
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

HPE 12504 DC Switch Chassis

JC655A

- 2 - MPUx (Management Ports)
- 4- I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- 1 PEM included
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

HP 12508 AC Switch Chassis

JF431C

- 2 - MPUx (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- Must select min 1 PEM
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

HPE FlexFabric 12508E AC Switch Chassis

JG782A

- 2 - MPUx (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module

See
Configuration
NOTE:1

Configuration

- Must select min 3 Power Supply
- PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

PDU Cable NA/MEX/TW/JP

JG782A#B2B

- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW

JG782A#B2C

- C19 PDU Jumper Cord (ROW)

High Volt Power Entry Module to Wall Power Cord

JG782A#B2E

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

HP 12508 DC Switch Chassis

JC652A

- 2 - MPUx (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- 1 PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

HPE FlexFabric 12508E DC Switch Chassis

JG783A

- 2 - MPUx (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

HP 12518 AC Switch Chassis

JF430C

- 2 - MPUx (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots

Configuration

- Must select min 1 Management Module
- Must select min 6 Power Supply
- Must select min 2 PEM
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

HPE FlexFabric 12518E AC Switch Chassis

JG784A

See
Configuration
NOTE:1

- 2 - MPUs (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

PDU Cable NA/MEX/TW/JP

JG784A#B2B

- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW

JG784A#B2C

- C19 PDU Jumper Cord (ROW)

High Volt Power Entry Module to Wall Power Cord

JG784A#B2E

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

HP 12518 DC Switch Chassis

JC653A

- 2 - MPUs (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- 2 PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

HPE FlexFabric 12518E DC Switch Chassis

JG785A

- 2 - MPUs (Management Ports)
- 18 - I/O module slots

Configuration

- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

Configuration Rules:

Note 1 Localization required on orders without #B2B, #B2C or #B2E options.

Box Level Integration CTO Models

CTO Solution Sku

HP 125xx Configure-to-order Switch Solution

JG477A

- SSP trigger SKU

CTO Switch Chassis

HPE 12504 AC Switch Chassis

JC654A

- 2 - MPUs (Management Ports)
- 4 - I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- Must select min 1 PEM
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

See
Configuration
NOTE:1, 2

HPE 12504 DC Switch Chassis

JC655A

- 2 - MPUs (Management Ports)
- 4- I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- 1 PEM included
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

See
Configuration
NOTE:2, 3

Configuration

Configuration Rules:

Note 1 If this Switch is selected at least one of these Power Supply is required: (Use #0D1 if switch is CTO)
JC429A - HPE 12500 2000W AC Power Supply

Note 2 If the Switch Chassis is to be Box Level Factory Integrated (CTO), Then the #0D1 is required on the Switch Chassis and integrated to the JG477A - HP 125xx Configure-to-order Switch Solution (Min 1/Max 1 Switch per SSP)

Note 3 If this Switch is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)
JC651A - HPE 12500 1800W DC Power Supply

Rack Level Integration CTO Models

HPE 12504 AC Switch Chassis

JC654A

- 2 - MPUx (Management Ports)
- 4 - I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- Must select min 1 PEM
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

See
Configuration
NOTE:1, 2, 3

HPE 12504 DC Switch Chassis

JC655A

- 2 - MPUx (Management Ports)
- 4 - I/O module slots
- 4 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- 1 PEM included
- Must select Min 1 Fans
- Must select Min 4 Fabric Modules
- 10U - Height Rack

See
Configuration
NOTE: 3, 4

HP 12508 AC Switch Chassis

JF431C

- 2 - MPUx (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- Must select min 1 PEM
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules

See
Configuration
NOTE:1, 2, 3

Configuration

- 22U - Height Rack

HPE FlexFabric 12508E AC Switch Chassis

JG782A

- 2 - MPUs (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

See
Configuration
NOTE:1, 3, 5

PDU Cable NA/MEX/TW/JP

JG782A#B2B

- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW

JG782A#B2C

- C19 PDU Jumper Cord (ROW)

HP 12508 DC Switch Chassis

JC652A

- 2 - MPUs (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- 1 PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

See
Configuration
NOTE: 3, 4

HPE FlexFabric 12508E DC Switch Chassis

JG783A

- 2 - MPUs (Management Ports)
- 8- I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 3 Power Supply
- PEM included
- Must select Min 2 Fans
- Must select Min 8 Fabric Modules
- 22U - Height Rack

See
Configuration
NOTE: 3, 4

Configuration

HP 12518 AC Switch Chassis

- 2 - MPUx (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- Must select min 2 PEM
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

JF430C

See
Configuration
NOTE:1, 2, 3

HPE FlexFabric 12518E AC Switch Chassis

- 2 - MPUx (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

JG784A

See
Configuration
NOTE:1, 3, 5

PDU Cable NA/MEX/TW/JP

JG784A#B2B

- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW

JG784A#B2C

- C19 PDU Jumper Cord (ROW)

HP 12518 DC Switch Chassis

JC653A

See
Configuration
NOTE: 3, 4

- 2 - MPUx (Management Ports)
- 18 - I/O module slots
- 9 - Fabric module slots
- Must select min 1 Management Module
- Must select min 6 Power Supply
- 2 PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

HPE FlexFabric 12518E DC Switch Chassis

JG785A

See
Configuration

- 2 - MPUx (Management Ports)
- 18 - I/O module slots

Configuration

- 9 - Fabric module slots **NOTE: 3, 4**
- Must select min 1 Management Module
- Must select min 6 Power Supply
- PEM included
- Must select min 2 Fans
- Must select Min 8 Fabric Modules
- 38U - Height Rack

Configuration Rules:

Note 1 If this Switch is selected at least one of these Power Supply is required: (Use #0D1 if switch is CTO)
JF429A - HPE 12500 2000W AC Power Supply

Note 2 When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Power Electrical Module. (See Drop down remark in the "Internal Power Supplies" section.)

Note 3 If HPE CTO Switch Chassis is selected to be Rack Level Integration, Then the CTO Switch Chassis needs to integrate (with #0D1) to the BW966A or BW968A HPE Universal Rack Only. (Default to the BW966A.)

Note 4 If this Switch is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)
JC651A - HPE 12500 1800W DC Power Supply

Note 5 Localization required on orders without #B2B or #B2C options.

Internal Power Supplies

12508 and 12504 - System (std 0 // max 6) User Selection (min 3 // max 6)

12508E - System (std 0 // max 8) User Selection (min 3 // max 8)

12518 - System (std 0 // max 12) User Selection (min 6 // max 12)

12518E - System (std 0 // max 16) User Selection (min 6 // max 16)

HPE 12500 2000W AC Power Supply	JF429A See Configuration NOTE:1
---------------------------------	--

HPE 12500 1800W DC Power Supply	JC651A See Configuration NOTE:2
---------------------------------	--

Configuration

Configuration Rules:

Note 1 Supported on Switches JC654A, JF431C, JF430C, JG782A and JG784A only.

Note 2 Supported on Switches JC655A, JC652A, JC653A, JG783A and JG785A only.

Remarks: 12504 and 12508 only - Default 6 power supplies and allow the user to change down to 3.

12508E only - Default 6 power supplies and allow the user to change down to 3.

12518 only - Default 12 power supplies and allow the user to change down to 6.

12518E only - Default 12 power supplies and allow the user to change down to 6.

The power module support load balancing and N+1/N+M redundancy. Deploying N+1 power redundancy

The total number of power modules (JF431C, JF430C) = Ceiling (total power load of the chassis/2000) + 1

For example, if the total load of the chassis is 3000 W, the number of power modules must be $2 + 1 = 3$.

Deploying 1:1 power redundancy

JF431C-Requires 6 power modules.

JF430C-Total number of power modules = [Ceiling (total power load of the chassis/2000)] x 2

For example, if the total power load of the chassis is 7000 W, the total number of power modules must be $(4 + 1) \times 2 = 10$.

Localization is not required on these internal AC power supplies. Localization is covered on the chassis for the 125x8E AC models (JG782A, JG784A), or on the PEMs listed below for the AC 125xx models (JC654A, JF431C, JF430C).

Localization

HPE 12500 AC Power Entry Module - Chile - English localization

JF426A#A1X

- Power Cord: Quantity :6, CEI 23-50, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8121-0923

HPE 12500 AC Power Entry Module - U.S. - English localization

JF426A#ABA

- Power Cord: Quantity :6, NEMA 5-20P, C19 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet, Store Part# :8120-6361

HPE 12500 AC Power Entry Module - Europe - English localization

JF426A#ABA

- Power Cord: Quantity :6, NEMA 6-20P / L6-20P, C19 STRAIGHT, 250 V, 20 A, 2.5 meters, 8.21 feet, Store Part# :8120-6360

HPE 12500 AC Power Entry Module - Europe - English localization

JF426A#ABB

- Power Cord: Quantity :6, CEE 7-VII, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8120-

Configuration

6352

HPE 12500 AC Power Entry Module - Australia - English localization	JF426A#ABG
<ul style="list-style-type: none">Power Cord: Quantity :6, AS/NZS 3112, C19 STRAIGHT, 250 V, 15 A, 2.5 meters, 8.21 feet, Store Part# :8120-6351	
HPE 12500 AC Power Entry Module - Brazil - Portuguese localization	JF426A#AC4
<ul style="list-style-type: none">Power Cord: Quantity :6, NBR 14136 Fig13, C19 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21 feet, Store Part# :8121-1101	
HPE 12500 AC Power Entry Module - Korea - English localization	JF426A#AC6
<ul style="list-style-type: none">Power Cord: Quantity :6, CEE 7-VII, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8120-6352	
HPE 12500 AC Power Entry Module - United Kingdom - English localization	JF426A#ACC
<ul style="list-style-type: none">Power Cord: Quantity :6, BS 1363/A, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8120-6353	
HPE 12500 AC Power Entry Module - Switzerland - English localization	JF426A#ACD
<ul style="list-style-type: none">Power Cord: Quantity :6, IEC 309, C19 STRAIGHT, 250 V, 16 A, 2.5 meters, 8.21 feet, Store Part# :8121-1287	
HPE 12500 AC Power Entry Module - Denmark - English localization	JF426A#ACE
<ul style="list-style-type: none">Power Cord: Quantity :6, IEC 309, C19 STRAIGHT, 250 V, 16 A, 2.5 meters, 8.21 feet, Store Part# :8121-1287	
HPE 12500 AC Power Entry Module - Japan - English localization	JF426A#ACF
<ul style="list-style-type: none">Power Cord: Quantity :6, NEMA 5-20P, C19 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet, Store Part# :8120-6361	
HPE 12500 AC Power Entry Module - India - English localization	JF426A#ACJ
<ul style="list-style-type: none">Power Cord: Quantity :6, SABS 164, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8121-0915	
HPE 12500 AC Power Entry Module - South Africa - English localization	JF426A#ACQ
<ul style="list-style-type: none">Power Cord: Quantity :6, SABS 164, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8121-	

Configuration

0915

HPE 12500 AC Power Entry Module - Israel - English localization JF426A#AKJ

- Power Cord: Quantity :6, SI 32 90-DEG, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8121-1010

HPE 12500 AC Power Entry Module - Thailand - English localization JF426A#AKL

- Power Cord: Quantity :6, NEMA 5-15P, C19 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet, Store Part# :8121-0922

HPE 12500 AC Power Entry Module - China - English localization JF426A#AKM

- Power Cord: Quantity :6, GB 1002, C19 STRAIGHT, 250 V, 16 A, 2.5 meters, 8.21 feet, Store Part# :8121-0924

HPE 12500 AC Power Entry Module - Taiwan - English localization JF426A#ARB

- Power Cord: Quantity :6, CNS 690 Type 2(3), C19 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet, Store Part# :8121-1286

HPE 12500 AC Power Entry Module - Argentina - English localization JF426A#ARM

- Power Cord: Quantity :6, IRAM 2073, C19 STRAIGHT, 250 V, 16 A, 2.5 meters, 8.21 feet, Store Part# :8121-0925

HPE 12500 AC Power Entry Module - L6-20 220V-NA JF426A#B2E

- Power Cord: Quantity :6, NEMA 6-20P / L6-20P, C19 STRAIGHT, 250 V, 20 A, 2.5 meters, 8.21 feet, Store Part# :8120-6360

Part Store URL: <http://h20141.www2.hpe.com/Hpparts/CountryChoice.aspx?mscssid=&valid=False>

Configuration Rules:

Note 1 Supported on Switches JC654A, JF431C and JF430C only.

Note 2 Supported on Switches JC655A, JC652A and JC653A only.

Remarks: 12504 and 12508 only - Default 6 power supplies and allow the user to change down to 3.

12518 only - Default 12 power supplies and allow the user to change down to 6.

- The power module support load balancing and N+1/N+M redundancy. Deploying N+1 power redundancy

Configuration

- The total number of power modules (JF431C, JF430C) = Ceiling (total power load of the chassis/2000) + 1
For example, if the total load of the chassis is 3000 W, the number of power modules must be $2 + 1 = 3$.
- Deploying 1:1 power redundancy
- JF431C-Requires 6 power modules.
- JF430C-Total number of power modules = [Ceiling (total power load of the chassis/2000)] x 2
For example, if the total power load of the chassis is 7000 W, the total number of power modules must be $(4 + 1) \times 2 = 10$.

Power Electrical Module

12504 and 12508 Only - System (std 0 // max 1) User Selection (min 1 // max 1)

12518 - System (std 0 // max 2) User Selection (min 2 // max 2)

HPE 12500 AC Power Entry Module	JF426A
	See Configuration NOTE:1, 2, 3,4

PDU Cable NA/MEX/TW/JP	JF426A#B2B
• C19 PDU Jumper Cord (NA/MEX/TW/JP)	

PDU Cable ROW	JF426A #B2C
• C19 to C20 Jumper Cord	

High Volt Power Entry Module to Wall Power Cord	JF426A #B2E
• NEMA L6-20P Cord (NA/MEX/JP/TW)	

Configuration Rules:

Note 1 Supported on Switch JC654x, JF431x and JF430x only.

Note 2 Localization required on orders without #B2B, #B2C or #B2E options.

Note 3 When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Power Electrical Module. (See Drop down remark in the "Internal Power Supplies" section.)

Note 4 #B2E is Offered only in NA, Mexico, Taiwan and Japan.

Remarks: Drop down under power supply should offer the following options and results:

Power Electrical Module to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW.
(Watson Default B2B or B2C for Rack Level CTO)

Configuration

Power Electrical Module to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO)
High Volt Power Electrical Module 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 above if order is factory built.

Modules

Fabric Modules

12504 - System (std 0 // max 4) User Selection (min 4 // max 4) per Switch

12508 and 12518 System (std 0 // max 9) User Selection (min 8 // max 9) per Switch

HP 12518 Fabric Module	JC066A See Configuration NOTE:2, 4
HPE 1250x G2 Fabric Module	JC658A See Configuration NOTE:1, 3, 4
HP 12518 G2 Fabric Module	JC657A See Configuration NOTE:2, 4
HPE FlexFabric 12508E Fabric Module	JG798A See Configuration NOTE:4, 6
HPE FlexFabric 12518E Fabric Module	JG800A See Configuration NOTE:4, 7

Configuration Rules:

Note 1 Supported on Switch JF431C and JC652A Switch Chassis only.

Note 2 Supported on Switch JF430C and JC653A Switch Chassis only.

Configuration

Note 3 Supported on Switch JC654A and JC655A Switch Chassis only.

Note 4 Fabric Modules cannot be mixed, They must all be the same SKU.

Note 6 Supported on Switch JG782A and JG783A Switch Chassis only.

Note 7 Supported on Switch JG784A and JG785A Switch Chassis only.

Remarks: 12504 Only - Default 4 of the JC658A Fabric Modules.

12508 and 12518 Only - Default 9 of the JC658A or JC657A Fabric Modules and allow the user to change to 8 if desired.

12508E and 12518E Only - Default 9 of the JG798A or JG800A Fabric Modules and allow the user to change to 8 if desired.

Management Modules

System (std 0 // max 2) User Selection (min 1 // max 2) per Switch

HP 12500 Main Processing Unit

JC072B

- No supported Transceivers

See

Configuration

NOTE:1, 3

HP 12500 MPU w/Comware V7 OS

JG497A

- No supported Transceivers

See

Configuration

NOTE:1, 3, 4

HPE FlexFabric 12500E Main Processing Unit

JG802A

- No supported Transceivers

See

Configuration

NOTE:1, 3, 4

Configuration Rules:

Note 1 Management Modules cannot be mixed, They must all be the same SKU.

Note 3 Supported on JF431C, JC652A, JF430C, JC653A, JC654A and JC655A Switch Chassis only.

Note 4 Supported on JG782A, JG783A, JG784A and JG785A Switch Chassis only.

Remarks: Default 2 of the JG497A's for JF431C, JC652A, JF430C, JC653A, JC654A and JC655A, but allow to go down 1.

Default 2 of the JG802A's for JG782A, JG783A, JG784A and JG785A, but allow to go down 1.

Configuration

I/O Modules

12504 - System (std 0 // max 4) User Selection (min 0 // max 4)

12508 - System (std 0 // max 8) User Selection (min 0 // max 8)

12518 - System (std 0 // max 18) User Selection (min 0 // max 18)

HP 12500 48-port GbE SFP LEB Module

- Min 0 // Max 48 SFP Transceivers

JC075B

See
Configuration
NOTE:3, 10

HPE 12500 48-port GbE SFP LEC Module

- Min 0 // Max 48 SFP Transceivers

JC069B

See
Configuration
NOTE:3, 10

HP 12500 32-port 10GbE SFP+ REB Module

- Min 0 // Max 32 SFP+ Transceivers

JC064B

See
Configuration
NOTE:4, 10

HP 12500 32-port 10GbE SFP+ REC Module

- Min 0 // Max 32 SFP+ Transceivers

JC476B

See
Configuration
NOTE:4, 10

HP 12500 48-port Gig-T LEB Module

- No supported Transceivers

JC074B

See
Configuration
NOTE:10

HPE 12500 48-port Gig-T LEC Module

- No supported Transceivers

JC065B

See
Configuration
NOTE:10

HP 12500 8-port 10GbE SFP+ LEF Module

- Min 0 // Max 8 SFP+ Transceivers

JC659A

See
Configuration
NOTE:4, 10

HPE 12500 48-port GbE SFP LEF Module

JC660A

Configuration

• Min 0 // Max 48 SFP Transceivers	See Configuration NOTE:3, 10
HP 12500 8-port 10GbE SFP+ LEB Module	JC780A
• Min 0 // Max 8 SFP+ Transceivers	See Configuration NOTE:4, 10
HP 12500 8-port 10GbE SFP+ LEC Module	JC781A
• Min 0 // Max 8 SFP+ Transceivers	See Configuration NOTE:4, 10
HP 12500 16-port 10GbE SFP+ LEB Module	JC782A
• Min 0 // Max 16 SFP+ Transceivers	See Configuration NOTE:4, 6, 10
HP 12500 16-port 10GbE SFP+ LEC Module	JC783A
• Min 0 // Max 16 SFP+ Transceivers	See Configuration NOTE:4, 6, 10
HPE FlexFabric 12500 16-port 40GbE QSFP+ FD Module	JG790A
• Min 0 // Max 16 QSFP+ Transceivers	See Configuration NOTE:2, 6, 10, 11
HPE FlexFabric 12500 48-port 1/10GbE SFP+ FD Module	JG796A
• Min 0 // Max 48 SFP+ Transceivers	See Configuration NOTE:3, 4, 6, 10, 11
HPE FlexFabric 12500 40-port 1/10GbE SFP+ FD Module	JG792A
• Min 0 // Max 40 SFP+ Transceivers	See Configuration NOTE:3, 4, 6, 10, 11
HPE FlexFabric 12500 40-port 1/10GbE SFP+ FG Module	JG794A
• Min 0 // Max 40 SFP+ Transceivers	See Configuration NOTE:3, 4, 6, 10, 11

Configuration

Configuration Rules:

Note 2 The following 40G Transceivers install into this Module:

HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A

Note 3 The following Transceivers install into this Module:

HPE X170 1G SFP LC LH70 1550 Transceiver	JD109A
HPE X170 1G SFP LC LH70 1570 Transceiver	JD110A
HPE X170 1G SFP LC LH70 1590 Transceiver	JD111A
HPE X170 1G SFP LC LH70 1610 Transceiver	JD112A
HPE X170 1G SFP LC LH70 1510 Transceiver	JD115A
HPE X120 1G SFP LC LH100 Transceiver	JD103A
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B

Note 4 The following Transceivers install into this Module:

HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE X130 10G SFP+ LC LH 80km Transceiver	JG915A
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C

Note 5 The following Transceivers install into this Module:

HPE X135 10G XFP LC ER Transceiver	JD121A
HPE X130 10G XFP LC LR Single Mode 10km 1310nm Transceiver	JD108B
HPE X130 10G XFP LC SR Transceiver	JD117B
HPE X130 10G XFP LC ZR Single Mode 80km 1550nm Transceiver	JD107A
HPE X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A
HPE X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A

Note 6 If this Module is selected then ONLY the following Fabric Modules must be selected as well:

HP 12518 G2 Fabric Module	JC657A
HPE 1250x G2 Fabric Module	JC658A
HPE FlexFabric 12508E Fabric Module	JG798A
HPE FlexFabric 12518E Fabric Module	JG800A

Configuration

Note 7 The following Transceivers install into this Module: (Use #0D1 if switch is CTO) - if applicable

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B

Note 9 "These modules are Not Supported with Management Module JG497A - HPE 12500 Type A MPU w/Comware v7 OS.

They are Only Supported with Management Modules JC072B - HP 12500 Main Processing Unit,

Note 10 Supported on JF431C, JC652A, JF430C, JC653A, JC654A, JC655A, JG782A, JG783A, JG784A and JG785A Switch Chassis only.

Note 11 These modules require JG800A, JG798A, JC658A, JG657A, JC815A, JC816A, JG497A or JG802A MPU.

Remarks JC064B and JC476B - Do not install the card in any of the following slots: slot 16, 17, 18, or 19 of the S12518.

Transceivers

SFP Transceivers

HPE X170 1G SFP LC LH70 1550 Transceiver	JD109A
HPE X170 1G SFP LC LH70 1570 Transceiver	JD110A
HPE X170 1G SFP LC LH70 1590 Transceiver	JD111A
HPE X170 1G SFP LC LH70 1610 Transceiver	JD112A
HPE X170 1G SFP LC LH70 1510 Transceiver	JD115A
HPE X120 1G SFP LC LH100 Transceiver	JD103A
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B

SFP+ Transceivers

HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LRM Transceiver	JD093B
HPE X130 10G SFP+ LC LR Transceiver	JD094B

Configuration

HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE X130 10G SFP+ LC LH 80km Transceiver	JG915A
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C#B01
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C#B01
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C#B01

QSFP+ Transceivers

HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A

XFP Transceivers

HPE X135 10G XFP LC ER Transceiver	JD121A
HPE X130 10G XFP LC ZR Single Mode 80km 1550nm Transceiver	JD107A
HPE X130 10G XFP LC SR Transceiver	JD117B
HPE X130 10G XFP LC LR Single Mode 10km 1310nm Transceiver	JD108B
HPE X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A
HPE X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A

Server Specific Options

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

Cable Guides

System (std 0 // max 1) User Selection (min 0 // max 1) Per Switch

HP 12500 Side Cable Management Guide	JC084A
HP 12508 Top and Bottom Cable Guides for AC Powered Switch	JC785A See Configuration NOTE:1
HP 12518 Top and Bottom Cable Guides for AC Powered Switch	JC786A See Configuration

Configuration

NOTE:2

HP 12508 Top and Bottom Cable Guides for DC Powered Switch JC787A
See Configuration
NOTE:3

HP 12518 Top and Bottom Cable Guides for DC Powered Switch JC788A
See Configuration
NOTE:4

HPE FlexFabric 12508E Optional Extended Cable Guide for AC Powered Switch JG830A
See Configuration
NOTE:5

HPE FlexFabric 12518E Optional Extended Cable Guide for AC Powered Switch JG831A
See Configuration
NOTE:6

HPE FlexFabric 12508E Optional Extended Cable Guide for DC Powered Switch JG832A
See Configuration
NOTE:7

HPE FlexFabric 12518E Optional Extended Cable Guide for DC Powered Switch JG833A
See Configuration
NOTE:8

Configuration Rules:

Note 1 Supported on Switch JF431x - HPE 12508 AC Switch Chassis only.

Note 2 Supported on Switch JF430x - HPE 12518 AC Switch Chassis only.

Note 3 Supported on Switch JC652x -HPE 12508 DC Switch Chassis only.

Note 4 Supported on Switch JC653x - HPE 12518 DC Switch Chassis only.

Note 5 Supported on Switch JG782A - HPE FlexFabric 12508E AC Switch Chassis only.

Note 6 Supported on Switch JG784A - HPE FlexFabric 12518E AC Switch Chassis only.

Configuration

Note 7 Supported on Switch JG783A - HPE FlexFabric 12508E DC Switch Chassis only.

Note 8 Supported on Switch JG785A - HPE FlexFabric 12518E DC Switch Chassis only.

Remarks: These items are optional and used by customers for I/O cabling management.

Fan Assemblies

12504 Only - System (std 0 // max 1) User Selection (min 1 // max 1) Per Switch

12508 and 12518 Only - System (std 0 // max 2) User Selection (min 2 // max 2) Per Switch

HPE 12504 Fan Assembly JC664A
See Configuration
NOTE:3

HP 12518 Fan Assembly JC080A
See Configuration
NOTE:2

HP 12508 Fan Assembly JC081A
See Configuration
NOTE:1

HPE FlexFabric 12500E Fan Tray Assembly JG805A
See Configuration
NOTE:4

Configuration Rules:

Note 1 Supported on Switch JF431C and JC652A Switch Chassis only.

Note 2 Supported on Switch JF430C and JC653A Switch Chassis only.

Note 3 Supported on Switch JC654A and JC655A Switch Chassis only.

Note 4 Supported on JG782A, JG783A, JG784A and JG785A Switch Chassis only

Air Filter Assemblies

Configuration

System (std 0 // max 1) User Selection (min 0 // max 1)

HP 12508 Optional Air Filter	JC082A
	See Configuration NOTE:1
HP 12518 Optional Air Filter	JC083A
	See Configuration NOTE:2
HPE FlexFabric 12508E Optional Air Filter	JG808A
	See Configuration NOTE:3
HPE FlexFabric 12518E Optional Air Filter	JG809A
	See Configuration NOTE:4

Configuration Rules:

Note 1 Supported on Switch JF431C and JC652A Switch Chassis only.

Note 2 Supported on Switch JF430C and JC653A Switch Chassis only.

Note 3 Supported on Switch JF431C, JC652A, JG782A and JG783A Switch Chassis only.

Note 4 Supported on Switch JF430C, JC653A, JG784A and JG785A Switch Chassis only.

Power Monitor Module

12508E and 12518E only-System (std 0 // max 1) User Selection (min 0 // max 1) Per Switch

12504 and 12508 only-System (std 0 // max 1) User Selection (min 0 // max 1) Per Switch

12518 only-System (std 0 // max 2) User Selection (min 0 // max 2) Per Switch

HP 12500 Spare Power Monitor Module	JC502A
	See Configuration NOTE:1
HPE FlexFabric 12500E Spare Power Monitor Module	JG804A
	See

Configuration

Configuration
NOTE:2

Configuration Rules:

Note 1 This item is only used to replace the Power Monitor Module of an JF431C, JF430C, JC652A and JC653A . A host is delivered with the Power Monitor Module.

Note 2 This item is only used to replace the Power Monitor Module of an JG782A, JG784A, JG783A and JG785A . A host is delivered with the Power Monitor Module.

Power Cables

12500 only-System (std 0 // max 6 or 12) User Selection (min 0 // max 6 or 12)

12500E only-System (std 0 // max 8 or 16) User Selection (min 0 // max 8 or 16)

HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable

JG280A

See
Configuration
NOTE:1

Configuration Rules:

Note 1 If the DC Power Supplies are selected, Then the number of DC power cables should match the number of DC power supplies.

Compact Flash cards

HPE X600 1G Compact Flash Card

JC684A

- Parts List Only

HPE FlexFabric 4GB Compact Flash Card

JG806A

See
Configuration
NOTE:1

Configuration Rules:

Note 1 Supported on MPU Module JG802A only. (std 0 // max 1) User Selection (min 0 // max 1)

SDRAM

HP X610 1GB DDR2 SDRAM Memory

JC071A

Configuration

- Parts List Only

HP A-Series 2GB Registered DDR2 SDRAM JC609A

- Parts List Only

HPE FlexFabric 4GB DDR3 SDRAM Memory JG807A

See

Configuration

NOTE:1

Configuration Rules:

Note 1 Supported on MPU Module JG802A only. (std 0 // max 1) User Selection (min 0 // max 1)

Mounting Kit

HPE X421 Chassis Universal 4-post Rackmount Kit JC665A

Remarks: This item is optional and used by customers to allow the chassis to slide in and out of the rack

Technical Specifications

HPE 12504 AC Switch Chassis (JC654A)

I/O ports and slots	4 open module slots Supports a maximum of 192 Gigabit Ethernet ports or 192 1/10GbE ports or 64 40GbE ports, or a combination
Additional ports and slots	2 MPU (for management modules) slots 4 switch fabric slots
Physical characteristics	Dimensions 17.4(w) x 27.87(d) x 17.4(h) in (44.2 x 70.8 x 44.2 cm) (10U height) Weight 132.28 lb (60 kg) Full configuration weight 220.46 lb (100 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput 1920 Mpps Routing/Switching capacity 3240 Gb/s
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity 5% to 95%, non-condensing
Electrical characteristics	Frequency 50/60 Hz Maximum heat dissipation 8123 BTU/hr (8569.77 kJ/hr) Voltage 100 - 120 / 200 - 240 VAC, rated (depending on power supply chosen) Maximum power rating 2380 W Notes Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance

Technical Specifications

Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A
Immunity	
Generic	ETSI EN 300 386 V1.3.3
EN	EN 55024:1998+ A1:2001 + A2:2003
ESD	EN 61000-4-2; IEC61000-4-2
Radiated	EN 61000-4-3; IEC61000-4-3
EFT/Burst	EN 61000-4-4; IEC61000-4-4
Surge	EN 61000-4-5; IEC61000-4-5
Conducted	EN 61000-4-6; IEC61000-4-6
Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

HPE 12504 DC Switch Chassis (JC655A)

I/O ports and slots	4 open module slots Supports a maximum of 192 Gigabit Ethernet ports or 192 1/10GbE ports or 64 40GbE ports, or a combination
Additional ports and slots	2 MPU (for management modules) slots 4 switch fabric slots
Physical characteristics	Dimensions 17.4(w) x 27.87(d) x 17.4(h) in (44.2 x 70.8 x 44.2 cm) (10U height) Weight 132.28 lb (60 kg) Full configuration weight 220.46 lb (100 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 1920 Mpps Routing/Switching capacity 3240 Gbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C)

Technical Specifications

	Operating relative humidity	5% to 95%, non-condensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Maximum heat dissipation	8123 BTU/hr (8569.77 kJ/hr)
	Voltage	-48 to -60 VDC, rated (depending on power supply chosen)
	Maximum power rating	2380 W
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC61000-4-2 Radiated EN 61000-4-3; IEC61000-4-3 EFT/Burst EN 61000-4-4; IEC61000-4-4 Surge EN 61000-4-5; IEC61000-4-5 Conducted EN 61000-4-6; IEC61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC61000-4-11 Harmonics EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3	
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HP 12508 AC Switch Chassis (JF431C)

I/O ports and slots	8 open module slots Supports a maximum of 384 Gigabit Ethernet ports or 384 1/10GbE ports or 128 40GbE ports, or a
----------------------------	---

Technical Specifications

	combination	
Additional ports and slots	2 MPU (for management modules) slots	9 switch fabric slots
Physical characteristics	Dimensions	17.4(d) x 29.13(w) x 38.39(h) in. (44.2 x 73.99 x 97.51 cm) (22U height)
	Weight	209.44 lb (95 kg)
	Full configuration weight	374.78 lb. (170 kg)
Memory and processor	Gigabit Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports)
	10G Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports)
	Management Module	Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM
	Fabric	PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet	
Performance	Throughput	up to 3840 Mpps
	Routing/Switching capacity	6120 Gbps
Environment	Operating temperature	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 95%, non-condensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Frequency	50/60 Hz
	Achieved Miercom Certified Green Award*	
	* Products within this series have achieved sufficient scores in each of the rated criteria to achieve the Miercom Certified Green distinction Award. See the Specifications section of this series for more information.	
	Description	10GbE modules consume half the power compared to competitive products; redundant, scalable, 90% efficient power supplies deliver high reliability in the data center; new ASIC technology has low power consumption when providing rich features.
	Maximum heat dissipation	14587 BTU/hr (15389.29 kJ/hr)
	Voltage	100 - 120 / 200 - 240 VAC, rated (Depending on power supply chosen)
	Maximum power rating	4750 W
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of	

Technical Specifications

	Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic	ETSI EN 300 386 V13.3
	EN	EN 55024:1998+ A1:2001 + A2:2003
	ESD	EN 61000-4-2; IEC61000-4-2
	Radiated	EN 61000-4-3; IEC61000-4-3
	EFT/Burst	EN 61000-4-4; IEC61000-4-4
	Surge	EN 61000-4-5; IEC61000-4-5
	Conducted	EN 61000-4-6; IEC61000-4-6
	Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
	Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HP 12508 DC Switch Chassis (JC652A)

I/O ports and slots	8 open module slots Supports a maximum of 384 Gigabit Ethernet ports or 384 1/10GbE ports or 128 40GbE ports, or a combination
Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(d) x 29.13(w) x 38.39(h) in. (44.2 x 73.99 x 97.51 cm) (22U height) Weight 209.44 lb (95 kg) Full configuration weight 374.78 lb. (170 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM MB
Mounting	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	up to 3840 Mpps

Technical Specifications

	Routing/Switching capacity	6120 Gbps
Environment	Operating temperature	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 95%, non-condensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Maximum heat dissipation	14587 BTU/hr (15389.29 kJ/hr)
	Voltage	-48 to -60 VDC, rated (depending on power supply chosen)
	Maximum power rating	4750 W
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC61000-4-2 Radiated EN 61000-4-3; IEC61000-4-3 EFT/Burst EN 61000-4-4; IEC61000-4-4 Surge EN 61000-4-5; IEC61000-4-5 Conducted EN 61000-4-6; IEC61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC61000-4-11 Harmonics EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3	
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

Technical Specifications

HP 12518 AC Switch Chassis (JF430C)

I/O ports and slots	18 open module slots Supports a maximum of 864 Gigabit Ethernet ports or 864 1/10GbE ports or 288 40GbE ports, or a combination
Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(d) x 29.13(w) x 66.38(h) in. (44.2 x 73.99 x 168.61 cm) (38U height) Weight 352.74 lb (160 kg) Full configuration weight 639.33 lb (290 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 8640 Mpps Routing/Switching capacity 13.3 Tbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity 5% to 95%, non-condensing
Electrical characteristics	Frequency 50/60 Hz Maximum heat dissipation 32859 BTU/hr (34666.24 kJ/hr) Voltage 100 - 120 / 200 - 240 VAC, rated (depending on power supply chosen) Maximum power rating 10700 W Notes Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A

Technical Specifications

Immunity	Generic	ETSI EN 300 386 V1.3.3
	EN	EN 55024:1998+ A1:2001 + A2:2003
	ESD	EN 61000-4-2; IEC61000-4-2
	Radiated	EN 61000-4-3; IEC61000-4-3
	EFT/Burst	EN 61000-4-4; IEC61000-4-4
	Surge	EN 61000-4-5; IEC61000-4-5
	Conducted	EN 61000-4-6; IEC61000-4-6
	Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
	Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HP 12518 DC Switch Chassis (JC653A)

I/O ports and slots	18 open module slots Supports a maximum of 864 Gigabit Ethernet ports or 864 1/10GbE ports or 288 40GbE ports, or a combination
Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(d) x 29.13(w) x 66.38(h) in. (44.2 x 73.99 x 168.61 cm) (38U height) Weight 352.74 lb (160 kg) Full configuration weight 639.33 lb (290 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 8640 Mpps Routing/Switching capacity 13.3 Tbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing

Technical Specifications

	humidity	
	Nonoperating/Storage	-40°F to 158°F (-40°C to 70°C)
	temperature	
	Nonoperating/Storage	5% to 95%, non-condensing
	relative humidity	
Electrical characteristics	Maximum heat dissipation	32859 BTU/hr (34666.24 kJ/hr)
	Maximum power rating	10700 W
	Voltage	-48 to -60 VDC, rated (depending on power supply chosen)
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic	ETSI EN 300 386 V1.3.3
	EN	EN 55024:1998+ A1:2001 + A2:2003
	ESD	EN 61000-4-2; IEC61000-4-2
	Radiated	EN 61000-4-3; IEC61000-4-3
	EFT/Burst	EN 61000-4-4; IEC61000-4-4
	Surge	EN 61000-4-5; IEC61000-4-5
	Conducted	EN 61000-4-6; IEC61000-4-6
	Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
	Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE FlexFabric 12508E AC Switch Chassis (JG782A)

I/O ports and slots	8 open module slots Supports a maximum of 384 Gigabit Ethernet ports or 384 1/10GbE ports or 128 40GbE ports
----------------------------	---

Technical Specifications

Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(w) x 29.13(d) x 38.39(h) in (44.2 x 74.0 x 97.51 cm) (22U height) Weight 242.51 lb (110 kg) Full configuration weight 374.78 lb (170 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 4800 Mpps Routing/Switching capacity 10.8 Tbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity 5% to 95%, non-condensing
Electrical characteristics	Frequency 50/60 Hz Description Achieved Miercom Certified Green Award 10GbE modules consume half the power compared to competitive products; redundant, scalable, 90% efficient power supplies deliver high reliability in the data center; new ASIC technology has low power consumption when providing rich features. Maximum heat dissipation 14587 BTU/hr (15389.29 kJ/hr) Voltage 100 - 120 / 200 - 240 VAC, rated (depending on power supply chosen) Maximum power rating 4750 W Notes Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A

Technical Specifications

Immunity	Generic	ETSI EN 300 386 V1.3.3
	EN	EN 55024:1998+ A1:2001 + A2:2003
	ESD	EN 61000-4-2; IEC61000-4-2
	Radiated	EN 61000-4-3; IEC61000-4-3
	EFT/Burst	EN 61000-4-4; IEC61000-4-4
	Surge	EN 61000-4-5; IEC61000-4-5
	Conducted	EN 61000-4-6; IEC61000-4-6
	Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
	Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE FlexFabric 12508E DC Switch Chassis (JG783A)

I/O ports and slots	8 open module slots Supports a maximum of 384 Gigabit Ethernet ports or 384 1/10GbE ports or 128 40GbE ports
Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(w) x 29.13(d) x 38.39(h) in (44.2 x 73.99 x 97.51 cm) (22U height) Weight 209.44 lb (95 kg) Full configuration weight 374.78 lb (170 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 4800 Mpps Routing/Switching capacity 10.8 Tbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing

Technical Specifications

	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Maximum heat dissipation	14587 BTU/hr (15389.29 kJ/hr)
	Maximum power rating	4750 W
	Voltage	-48 to -60 VDC, rated (depending on power supply chosen)
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC61000-4-2 Radiated EN 61000-4-3; IEC61000-4-3 EFT/Burst EN 61000-4-4; IEC61000-4-4 Surge EN 61000-4-5; IEC61000-4-5 Conducted EN 61000-4-6; IEC61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC61000-4-11 Harmonics EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3	
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE FlexFabric 12518E AC Switch Chassis (JG784A)

I/O ports and slots	18 open module slots Supports a maximum of 864 Gigabit Ethernet ports or 864 1/10GbE ports or 288 40GbE ports, or a combination
----------------------------	--

Technical Specifications

Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots
Physical characteristics	Dimensions 17.4(w) x 29.13(d) x 66.38(h) in (44.2 x 73.99 x 168.61 cm) (38U height) Weight 352.74 lb (160 kg) Full configuration weight 639.33 lb (290 kg)
Memory and processor	Gigabit Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports) 10G Module PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports) Management Module Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM Fabric PowerPC @ 400 MHz, 128 MB RAM
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet
Performance	Throughput up to 10.8 Bpps Routing/Switching capacity 24.3 Tbps
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative humidity 5% to 95%, non-condensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity 5% to 95%, non-condensing
Electrical characteristics	Frequency 50/60 Hz Maximum heat dissipation 32859 BTU/hr (34666.24 kJ/hr) Voltage 100 - 120 / 200 - 240 VAC, rated (depending on power supply chosen) Maximum power rating 10700 W Notes Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A
Immunity	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC61000-4-2

Technical Specifications

Radiated	EN 61000-4-3; IEC61000-4-3								
EFT/Burst	EN 61000-4-4; IEC61000-4-4								
Surge	EN 61000-4-5; IEC61000-4-5								
Conducted	EN 61000-4-6; IEC61000-4-6								
Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8								
Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11								
Harmonics	EN 61000-3-2, IEC 61000-3-2								
Flicker	EN 61000-3-3, IEC 61000-3-3								
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface								
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office								
HPE FlexFabric 12518E DC Switch Chassis (JG785A)									
I/O ports and slots	18 open module slots Supports a maximum of 864 Gigabit Ethernet ports or 864 1/10GbE ports or 288 40GbE ports, or a combination								
Additional ports and slots	2 MPU (for management modules) slots 9 switch fabric slots								
Physical characteristics	<table border="0"> <tr> <td>Dimensions</td><td>17.4(w) x 29.13(d) x 66.38(h) in (44.2 x 73.99 x 168.61 cm) (38U height)</td></tr> <tr> <td>Weight</td><td>352.74 lb (160 kg)</td></tr> <tr> <td>Full configuration weight</td><td>639.33 lb (290 kg)</td></tr> </table>	Dimensions	17.4(w) x 29.13(d) x 66.38(h) in (44.2 x 73.99 x 168.61 cm) (38U height)	Weight	352.74 lb (160 kg)	Full configuration weight	639.33 lb (290 kg)		
Dimensions	17.4(w) x 29.13(d) x 66.38(h) in (44.2 x 73.99 x 168.61 cm) (38U height)								
Weight	352.74 lb (160 kg)								
Full configuration weight	639.33 lb (290 kg)								
Memory and processor	<table border="0"> <tr> <td>Gigabit Module</td><td>PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports)</td></tr> <tr> <td>10G Module</td><td>PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports)</td></tr> <tr> <td>Management Module</td><td>Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM</td></tr> <tr> <td>Fabric</td><td>PowerPC @ 400 MHz, 128 MB RAM</td></tr> </table>	Gigabit Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports)	10G Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports)	Management Module	Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM	Fabric	PowerPC @ 400 MHz, 128 MB RAM
Gigabit Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress, shared by 24 1-GbE ports)								
10G Module	PowerPC @ 667 MHz, 1 GB RAM; Packet buffer size: 512 MB (Ingress/shared by 2 10GbE ports)								
Management Module	Quad Core CPU @ 1800 MHz, 512 MB flash, 4 GB compact flash, 8 GB RAM								
Fabric	PowerPC @ 400 MHz, 128 MB RAM								
Mounting and enclosure	Mounts in an EIA-standard 19 in. Telco rack or equipment cabinet								
Performance	<table border="0"> <tr> <td>Throughput</td><td>up to 10.8 Bpps</td></tr> <tr> <td>Routing/Switching capacity</td><td>24.3 Tbps</td></tr> </table>	Throughput	up to 10.8 Bpps	Routing/Switching capacity	24.3 Tbps				
Throughput	up to 10.8 Bpps								
Routing/Switching capacity	24.3 Tbps								
Environment	<table border="0"> <tr> <td>Operating temperature</td><td>32°F to 104°F (0°C to 40°C)</td></tr> <tr> <td>Operating relative humidity</td><td>5% to 95%, non-condensing</td></tr> <tr> <td>Nonoperating/Storage temperature</td><td>-40°F to 158°F (-40°C to 70°C)</td></tr> </table>	Operating temperature	32°F to 104°F (0°C to 40°C)	Operating relative humidity	5% to 95%, non-condensing	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)		
Operating temperature	32°F to 104°F (0°C to 40°C)								
Operating relative humidity	5% to 95%, non-condensing								
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)								

Technical Specifications

	Nonoperating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Maximum heat dissipation	32859 BTU/hr (34666.24 kJ/hr)
	Maximum power rating	10700 W
	Voltage	-48 to -60 VDC, rated (depending on power supply chosen)
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	CE Labeled; cUL Certified; UL Listed; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60825; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1-03; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; UL 60950-1:2003; EN 60950-1:2001; ROHS Compliance	
Emissions	VCCI Class A; EN 55022 Class A; VCCI V-3/2000.04; ICES-003 Class A; AS/NZS CISPR22 Class A; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Immunity	Generic	ETSI EN 300 386 V1.3.3
	EN	EN 55024:1998+ A1:2001 + A2:2003
	ESD	EN 61000-4-2; IEC61000-4-2
	Radiated	EN 61000-4-3; IEC61000-4-3
	EFT/Burst	EN 61000-4-4; IEC61000-4-4
	Surge	EN 61000-4-5; IEC61000-4-5
	Conducted	EN 61000-4-6; IEC61000-4-6
	Power frequency magnetic field	IEC 61000-4-8; EN61000-4-8
	Voltage dips and interruptions	EN 61000-4-11; IEC61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; out-of-band management (serial RS-232C); SNMP Manager; Telnet; RMON1; FTP; in-line and out-of-band; terminal interface (serial RS-232C); modem interface	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	
Standards and protocols	BGP	RFC 2466 ICMPv6 MIB
(Applies to all products in series)	RFC 1657 Definitions of Managed Objects for BGPv4	RFC 2571 SNMP Framework MIB
	RFC 1771 BGPv4	RFC 2572 SNMP-MPD MIB
	RFC 1772 Application of the BGP	RFC 2573 SNMP-Target MIB
	RFC 1773 Experience with the BGP-4 Protocol	RFC 2613 SMON MIB
	RFC 1774 BGP-4 Protocol Analysis	RFC 2618 RADIUS Client MIB
		RFC 2620 RADIUS Accounting MIB

Technical Specifications

RFC 1997 BGP Communities Attribute	RFC 2665 Ethernet-Like-MIB
RFC 1998 PPP Gandalf FZA Compression Protocol	RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2385 BGP Session Protection via TCP MD5	RFC 2737 Entity MIB (Version 2)
RFC 2439 BGP Route Flap Damping	RFC 2787 VRRP MIB
RFC 2796 BGP Route Reflection	RFC 2819 RMON MIB
RFC 2842 Capability Advertisement with BGP-4	RFC 2863 The Interfaces Group MIB
RFC 2858 BGP-4 Multi-Protocol Extensions	RFC 2925 Ping MIB
RFC 2918 Route Refresh Capability	RFC 2932IP (Multicast Routing MIB)
Denial of service protection	RFC 2933 IGMP MIB
RFC 2267 Network Ingress Filtering	RFC 3273 HC-RMON MIB
Automatic Filtering of well known Denial of Service Packets	RFC 3414 SNMP-User based-SM MIB
CPU DoS Protection	RFC 3415 SNMP-View based-ACM MIB
Rate Limiting by ACLs	RFC 3418 MIB for SNMPv3
Device management	RFC 3621 Power Ethernet MIB
RFC 1155 Structure and Mgmt Information (SMIv1)	RFC 3813 MPLS LSR MIB
RFC 1157 SNMPv1/v2c	RFC 3814 MPLS FTN MIB
RFC 1305 NTPv3	RFC 3815 MPLS LDP MIB
RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0	RFC 3826 AES for SNMP's USM MIB
RFC 2452 MIB for TCP6	RFC 4133 Entity MIB (Version 3)
RFC 2454 MIB for UDP6	LLDP-EXT-DOT1-MIB
RFC 2573 (SNMPv3 Applications)	LLDP-EXT-DOT3-MIB
RFC 2578-2580 SMIv2	LLDP-MIB
RFC 2579 (SMIv2 Text Conventions)	MPLS
RFC 2580 (SMIv2 Conformance)	RFC 2205 Resource ReSerVation Protocol (RSVP) - Version 1 Functional Specification
RFC 2819 (RMON groups Alarm, Event, History and Statistics only)	RFC 2209 Resource ReSerVation Protocol (RSVP)
RFC 2819 RMON	RFC 2702 Requirements for Traffic Engineering Over MPLS
RFC 3417 (SNMP Transport Mappings)	RFC 2858 Multiprotocol Extensions for BGP-4
SNMP v3 and RMON RFC support	RFC 3031 Multiprotocol Label Switching Architecture
SSHv1/SSHv2 Secure Shell	RFC 3032 MPLS Label Stack Encoding
TACACS/TACACS+	RFC 3036 LDP Specification
General protocols	RFC 3107 Carrying Label Information in BGP-4
IEEE 802.1ad Q-in-Q	RFC 3209 RSVP-TE: Extensions to RSVP for LSP Tunnels
IEEE 802.1ag Service Layer OAM	RFC 3479 Fault Tolerance for the Label Distribution Protocol (LDP)
IEEE 802.1ah Provider Backbone Bridges	RFC 3487 Graceful Restart Mechanism for LDP
IEEE 802.1D MAC Bridges	RFC 4090 Fast Reroute Extensions to RSVP-TE for LSP Tunnels
IEEE 802.1p Priority	RFC 4364 BGP/MPLS IP Virtual Private Networks (VPNs)
IEEE 802.1Q VLANs	RFC 4379 Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures
IEEE 802.1s Multiple Spanning Trees	RFC 4447 Pseudowire Setup and Maintenance Using LDP
IEEE 802.1v VLAN classification by Protocol and Port	
IEEE 802.1w Rapid Reconfiguration of Spanning Tree	
IEEE 802.1X PAE	

Technical Specifications

IEEE 802.3ab 1000BASE-T	RFC 4448 Encapsulation Methods for Transport of Ethernet over MPLS Networks
IEEE 802.3ad Link Aggregation (LAG)	RFC 4664 Framework for Layer 2 Virtual Private Networks
IEEE 802.3ae 10-Gigabit Ethernet	RFC 4665 Service Requirements for Layer 2 Provider Provisioned Virtual Private Networks
IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber – EFMF	RFC 4761 Virtual Private LAN Service (VPLS) Using BGP for Auto-Discovery and Signaling
IEEE 802.3ba 40 and 100 Gigabit Ethernet Architecture	RFC 4762 Virtual Private LAN Service (VPLS) Using Label Distribution Protocol (LDP) Signaling
IEEE 802.3i 10BASE-T	
IEEE 802.3u 100BASE-X	
IEEE 802.3x Flow Control	
IEEE 802.3z 1000BASE-X	
RFC 768 UDP	
RFC 783 TFTP Protocol (revision 2)	
RFC 791 IP	
RFC 792 ICMP	
RFC 793 TCP	
RFC 826 ARP	
RFC 854 TELNET	
RFC 868 Time Protocol	
RFC 903 RARP	
RFC 951 BOOTP	
RFC 959 File Transfer Protocol (FTP)	
RFC 1027 Proxy ARP	
RFC 1042 IP Datagrams	
RFC 1350 TFTP Protocol (revision 2)	
RFC 1519 CIDR	
RFC 1542 BOOTP Extensions	
RFC 1812 IPv4 Routing	
RFC 2131 DHCP	
RFC 2338 VRRP	
RFC 2784 Generic Routing Encapsulation (GRE)	
RFC 2865 Remote Authentication Dial In User Service (RADIUS)	
IP multicast	
RFC 1112 IGMP	
RFC 2236 IGMPv2	
RFC 2283 Multiprotocol Extensions for BGP-4	
RFC 2362 PIM Sparse Mode	
RFC 2934 Protocol Independent Multicast MIB for IPv4	
RFC 3376 IGMPv3	
RFC 3618 Multicast Source Discovery Protocol (MSDP)	
RFC 4601 PIM Sparse Mode	
IPv6	
RFC 1350 TFTP	
Network management	
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)	
IEEE 802.1D (STP)	
RFC 1155 Structure of Management Information	
RFC 1157 SNMPv1	
RFC 1215 SNMP Generic traps	
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events	
RFC 1905 SNMPv2 Protocol Operations	
RFC 2211 Controlled-Load Network	
RFC 2272 SNMPv3 Management Protocol	
RFC 2273 SNMPv3 Applications	
RFC 2274 USM for SNMPv3	
RFC 2571 SNMP Management Frameworks	
RFC 2572 SNMPv3 Message Processing	
RFC 2573 SNMPv3 Applications	
RFC 2576 Coexistence between SNMP versions	
RFC 2578 SMIv2	
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)	
RFC 3164 BSD syslog Protocol	
RFC 3415 SNMPv3 View-based Access Control Model VACM)	
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)	
SNMPv1/v2c/v3	
OSPF	
RFC 1245 OSPF protocol analysis	
RFC 1246 Experience with OSPF	
RFC 1587 OSPF NSSA	
RFC 1765 OSPF Database Overflow	
RFC 1850 OSPFv2 Management Information Base (MIB), traps	
RFC 2328 OSPFv2	
RFC 2370 OSPF Opaque LSA Option	

Technical Specifications

RFC 1981 IPv6 Path MTU Discovery	RFC 3101 OSPF NSSA
RFC 2080 RIPng for IPv6	RFC 3623 Graceful OSPF Restart
RFC 2460 IPv6 Specification	
RFC 2461 IPv6 Neighbor Discovery	QoS/CoS
RFC 2462 IPv6 Stateless Address Auto-configuration	IEEE 802.1p (CoS)
RFC 2463 ICMPv6	RFC 2212 Guaranteed Quality of Service
RFC 2473 Generic Packet Tunneling in IPv6	RFC 2474 DS Field in the IPv4 and IPv6 Headers
RFC 2475 IPv6 DiffServ Architecture	RFC 2475 DiffServ Architecture
RFC 2529 Transmission of IPv6 Packets over IPv4	RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2710 Multicast Listener Discovery (MLD) for IPv6	RFC 2598 DiffServ Expedited Forwarding (EF)
RFC 2740 OSPFv3 for IPv6	RFC 2697 A Single Rate Three Color Marker
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers	RFC 2698 A Two Rate Three Color Marker
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)	Bi-directional Rate Shaping
RFC 3315 DHCPv6 (client only)	
RFC 3484 Default Address Selection for IPv6	Security
RFC 3513 IPv6 Addressing Architecture	IEEE 802.1AE MAC Security Standard (MACSec)
RFC 3587 IPv6 Global Unicast Address Format	IEEE 802.1X Port Based Network Access Control
RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6	RFC 1321 The MD5 Message-Digest Algorithm
RFC 4251 SSHv6 Architecture	RFC 2082 RIP-2 MD5 Authentication
RFC 4252 SSHv6 Authentication	RFC 2104 Keyed-Hashing for Message Authentication
RFC 4253 SSHv6 Transport Layer	RFC 2716 PPP EAP TLS Authentication Protocol
RFC 4254 SSHv6 Connection	RFC 2865 RADIUS Authentication
RFC 4541 IGMP & MLD Snooping Switch	RFC 2866 RADIUS Accounting
RFC 4862 IPv6 Stateless Address Auto-configuration	RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support
	RFC 2868 RADIUS Attributes for Tunnel Protocol Support
	RFC 2869 RADIUS Extensions
	RFC 3567 Intermediate System (IS) to IS Cryptographic Authentication
	Access Control Lists (ACLs)
	Guest VLAN for 802.1X
	MAC Authentication
	SSHv2 Secure Shell
	Web Authentication
MIBs	IKEv1
IEEE8023-LAG-MIB	RFC 2865 - Remote Authentication Dial In User Service (RADIUS)
RFC 1213 MIB II	
RFC 1229 Interface MIB Extensions	
RFC 1286 Bridge MIB	
RFC 1493 Bridge MIB	
RFC 1573 SNMP MIB II	
RFC 1643 Ethernet MIB	
RFC 1657 BGP-4 MIB	
RFC 1724 RIPv2 MIB	
RFC 1757 Remote Network Monitoring MIB	
RFC 1850 OSPFv2 MIB	
RFC 2011 SNMPv2 MIB for IP	
RFC 2012 SNMPv2 MIB for TCP	
RFC 2013 SNMPv2 MIB for UDP	
RFC 2021 RMONv2 MIB	

Technical Specifications

RFC 2096 IP Forwarding Table MIB
RFC 2233 Interfaces MIB
RFC 2273 SNMP-NOTIFICATION-MIB
RFC 2452 IPV6-TCP-MIB
RFC 2454 IPV6-UDP-MIB
RFC 2465 IPv6 MIB

Accessories

HPE FlexFabric 12500 Switch Series accessories

Modules

HPE FlexFabric 12500E Main Processing Unit	JG802A
HP 12500 MPU w/Comware V7 OS	JG497A
HP 12500 Main Processing Unit	JC072B
HPE FlexFabric 12500 4-port 100GbE CFP FD Module	JG786A
HPE FlexFabric 12500 4-port 100GbE CFP FG Module	JG788A
HPE FlexFabric 12500 16-port 40GbE QSFP+ FD Module	JG790A
HPE FlexFabric 12500 48-port 1/10GbE SFP+ FD Module	JG796A
HPE FlexFabric 12500 40-port 1/10GbE SFP+ FD Module	JG792A
HPE FlexFabric 12500 40-port 1/10GbE SFP+ FG Module	JG794A
HP 12500 16-port 10GbE SFP+ LEB Module	JC782A
HP 12500 16-port 10GbE SFP+ LEC Module	JC783A
HP 12500 32-port 10GbE SFP+ REB Module	JC064B
HP 12500 32-port 10GbE SFP+ REC Module	JC476B
HP 12500 8-port 10GbE SFP+ LEB Module	JC780A
HP 12500 8-port 10GbE SFP+ LEC Module	JC781A
HP 12500 8-port 10GbE SFP+ LEF Module	JC659A
HP 12500 48-port Gig-T LEB Module	JC074B
HPE 12500 48-port Gig-T LEC Module	JC065B
HP 12500 48-port GbE SFP LEB Module	JC075B
HPE 12500 48-port GbE SFP LEC Module	JC069B
HPE 12500 48-port GbE SFP LEF Module	JC660A
HP 12500 Spare Power Monitor Module	JC502A

Transceivers

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC LH100 Transceiver	JD103A
HPE X170 1G SFP LC LH70 1550 Transceiver	JD109A
HPE X170 1G SFP LC LH70 1570 Transceiver	JD110A
HPE X170 1G SFP LC LH70 1590 Transceiver	JD111A
HPE X170 1G SFP LC LH70 1610 Transceiver	JD112A
HPE X170 1G SFP LC LH70 1510 Transceiver	JD115A
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X130 10G XFP LC ZR Single Mode 80km 1550nm Transceiver	JD107A

Accessories

HPE X130 10G XFP LC LR Single Mode 10km 1310nm Transceiver	JD108B
HPE X130 10G XFP LC SR Transceiver	JD117B
HPE X135 10G XFP LC ER Transceiver	JD121A
HPE X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A
HPE X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A
HPE X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver	JG230A
HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LRM Transceiver	JD093B
HPE X130 10G SFP+ LC LR Transceiver	JD094B
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE X130 10G SFP+ LC LH 80km Transceiver	JG915A
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A
HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
HP X150 100G CFP LC LR4 10km SM Transceiver	JG829A

Cables

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

Mounting Kit

HPE X421 Chassis Universal 4-post Rackmount Kit	JC665A
---	--------

Memory

HPE FlexFabric 4GB Compact Flash Card	JG806A
HPE FlexFabric 4GB DDR3 SDRAM Memory	JG807A
HPE X600 1G Compact Flash Card	JC684A

HPE 12504 AC Switch Chassis (JC654A)

HPE 1250x G2 Fabric Module	JC658A
HPE 12500 AC Power Entry Module	JF426A
HPE 12500 2000W AC Power Supply	JF429A
HPE 12504 Fan Assembly	JC664A

HPE 12504 DC Switch Chassis (JC655A)

HPE 1250x G2 Fabric Module	JC658A
HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable	JG280A
HPE 12500 1800W DC Power Supply	JC651A
HPE 12504 Fan Assembly	JC664A

HP 12508 AC Switch Chassis (JF431C)

HPE 1250x G2 Fabric Module	JC658A
----------------------------	--------

Accessories

HP 12508 Top and Bottom Cable Guides for AC Powered Switch	JC785A
HP 12500 Side Cable Management Guide	JC084A
HPE 12500 2000W AC Power Supply	JF429A
HPE 12500 AC Power Entry Module	JF426A
HP 12508 Fan Assembly	JC081A
HP 12508 Optional Air Filter	JC082A

HP 12508 DC Switch Chassis (JC652A)

HP 12508 Fabric Module	JC067B
HPE 1250x G2 Fabric Module	JC658A
HP 12508 Top and Bottom Cable Guides for DC Powered Switch	JC787A
HP 12500 Side Cable Management Guide	JC084A
HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable	JG280A
HPE 12500 1800W DC Power Supply	JC651A
HP 12508 Fan Assembly	JC081A
HP 12508 Optional Air Filter	JC082A

HP 12518 AC Switch Chassis (JF430C)

HP 12518 G2 Fabric Module	JC657A
HP 12518 Fabric Module	JC066A
HP 12518 Top and Bottom Cable Guides for AC Powered Switch	JC786A
HP 12500 Side Cable Management Guide	JC084A
HPE 12500 2000W AC Power Supply	JF429A
HPE 12500 AC Power Entry Module	JF426A
HP 12518 Fan Assembly	JC080A
HP 12518 Optional Air Filter	JC083A

HP 12518 DC Switch Chassis (JC653A)

HP 12518 G2 Fabric Module	JC657A
HP 12518 Fabric Module	JC066A
HP 12518 Top and Bottom Cable Guides for DC Powered Switch	JC788A
HP 12500 Side Cable Management Guide	JC084A
HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable	JG280A
HPE 12500 1800W DC Power Supply	JC651A
HP 12518 Fan Assembly	JC080A
HP 12518 Optional Air Filter	JC083A

HPE FlexFabric 12508E AC Switch Chassis (JG782A)

HPE FlexFabric 12508E Fabric Module	JG798A
HPE FlexFabric 12508E Optional Extended Cable Guide for AC Powered Switch	JG830A
HPE FlexFabric 12508E Optional Extended Cable Guide for DC Powered Switch	JG832A
HPE 12500 2000W AC Power Supply	JF429A
HPE FlexFabric 12500E Spare Power Monitor Module	JG804A
HPE FlexFabric 12500E Fan Tray Assembly	JG805A
HPE FlexFabric 12508E Optional Air Filter	JG808A

HPE FlexFabric 12508E DC Switch Chassis (JG783A)

HPE FlexFabric 12508E Fabric Module	JG798A
HP 12508 Top and Bottom Cable Guides for DC Powered Switch	JC787A

Accessories

HP 12500 Side Cable Management Guide	JC084A
HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable	JG280A
HPE FlexFabric 12508E Optional Extended Cable Guide for DC Powered Switch	JG832A
HPE 12500 1800W DC Power Supply	JC651A
HPE FlexFabric 12500E Spare Power Monitor Module	JG804A
HPE FlexFabric 12500E Fan Tray Assembly	JG805A
HPE FlexFabric 12508E Optional Air Filter	JG808A

HPE FlexFabric 12518E AC Switch Chassis (JG784A)

HPE FlexFabric 12518E Fabric Module	JG800A
HP 12518 Top and Bottom Cable Guides for AC Powered Switch	JC786A
HP 12500 Side Cable Management Guide	JC084A
HPE FlexFabric 12518E Optional Extended Cable Guide for AC Powered Switch	JG831A
HPE 12500 2000W AC Power Supply	JF429A
HPE 12500 AC Power Entry Module	JF426A
HPE FlexFabric 12500E Spare Power Monitor Module	JG804A
HPE FlexFabric 12500E Fan Tray Assembly	JG805A
HPE FlexFabric 12518E Optional Air Filter	JG809A

HPE FlexFabric 12518E DC Switch Chassis (JG785A)

HPE FlexFabric 12518E Fabric Module	JG800A
HP 12518 Top and Bottom Cable Guides for DC Powered Switch	JC788A
HP 12500 Side Cable Management Guide	JC084A
HP X210 10m JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable	JG280A
HPE FlexFabric 12518E Optional Extended Cable Guide for DC Powered Switch	JG833A
HPE 12500 1800W DC Power Supply	JC651A
HPE FlexFabric 12500E Spare Power Monitor Module	JG804A
HPE FlexFabric 12500E Fan Tray Assembly	JG805A
HPE FlexFabric 12518E Optional Air Filter	JG809A

Accessory Product Details

NOTE: Details are not available for all accessories. The following specifications were available at the time of publication.

Modules

HPE FlexFabric 12500 4- I/O ports and slots port 100GbE CFP FG Module (JG788A)	Physical characteristics	Dimensions	4 CFP 100GbE ports
		Weight	15.75(w) x 18.39(d) x 1.57(h) in (40.0 x 46.7 x 4.0 cm) 13.12 lb (5.95 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	
HPE FlexFabric 12500 4- I/O ports and slots port 100GbE CFP FD Module (JG786A)	Physical characteristics	Dimensions	4 CFP 100GbE ports 15.75(w) x 18.39(d) x 1.57(h) in (40.0 x 46.7 x 4.0 cm) 12.68 lb (5.75 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	
HP 12500 48-port Gig-T Ports LEB Module (JC074B)	Physical characteristics	Dimensions	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 18.39(d) x 15.75(w) x 1.57(h) in. (46.7 x 40 x 4 cm) 9.37 lb. (4.25 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE 12500 48-port Gig- Ports T LEC Module (JC065B)	Physical characteristics	Dimensions	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 18.39(d) x 15.75(w) x 1.57(h) in. (46.7 x 40 x 4 cm) 9.79 lb. (4.44 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-	

Accessory Product Details

level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

HP 12500 48-port GbE	Ports	48 SFP 100/1000 Mbps ports
SFP LEB Module (JC075B)	Physical characteristics	Dimensions 18.39(d) x 15.75(w) x 1.57(h) in. (46.7 x 40 x 4 cm)
		Weight 9.96 lb. (4.52 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
HPE 12500 48-port GbE	Ports	48 SFP 100/1000 Mbps ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)
SFP LEC Module (JC069B)		Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only
	Physical characteristics	Dimensions 18.39(d) x 15.75(w) x 1.57(h) in. (46.7 x 40 x 4 cm)
		Weight 10.03 lb. (4.55 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
HP 12500 32-port 10GbE Ports		32 SFP+ 10-GbE ports
SFP+ REB Module (JC064B)		Duplex: full only
	Physical characteristics	Dimensions 18.39(d) x 15.75(w) x 1.57(h) in. (46.7 x 40 x 4 cm)
		Weight 13.45 lb. (6.10 kg)
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

Transceivers

HPE X125 1G SFP LC	Ports	1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
LH40 1310nm Transceiver (JD061A)	Connectivity	Connector type LC
A small form-factor pluggable SFP Gigabit LH40 transceiver that		Wavelength 1310 nm
	Physical characteristics	Dimensions 2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight 0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical 0.8 W

Accessory Product Details

<p>provides a full duplex Gigabit solution up to 40km on a single-mode fiber.</p> <p>Cabling</p>	<p>Power consumption maximum</p> <p>Cable type:</p> <p>Single-mode fiber optic, complying with ITU-T G.652;</p> <p>Maximum distance:</p> <ul style="list-style-type: none"> • 40km distance 	<p>1.0 W</p>
<p>Services</p>	<p>Fiber type</p> <p>Single Mode</p> <p>Refer to the Hewlett Packard Enterprise website at:</p> <p>http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office</p>	
<p>HPE X120 1G SFP LC LH40 1550nm Transceiver (JD062A)</p> <p>A small form-factor pluggable (SFP) Gigabit LH40 transceiver that provides a full-duplex Gigabit solution up to 40 km on a single mode fiber.</p>	<p>Ports</p> <p>Connectivity</p> <p>Physical characteristics</p>	<p>1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)</p> <p>Connector type</p> <p>LC</p> <p>Wavelength</p> <p>1550 nm</p> <p>Dimensions</p> <p>2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)</p> <p>Full configuration weight</p> <p>0.04 lb. (0.02 kg)</p>
<p>Electrical characteristics</p>	<p>Power consumption typical</p> <p>0.8 W</p> <p>Power consumption</p> <p>maximum</p> <p>Cable type:</p> <p>Single-mode fiber optic, complying with ITU-T G.652;</p>	<p>0.04 lb. (0.02 kg)</p> <p>1.0 W</p>
<p>Cabling</p>	<p>Maximum distance:</p> <ul style="list-style-type: none"> • 40km distance 	
<p>Services</p>	<p>Fiber type</p> <p>Single Mode</p> <p>Refer to the Hewlett Packard Enterprise website at:</p> <p>http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office</p>	
<p>HPE X125 1G SFP LC LH70 Transceiver (JD063B)</p> <p>A small form-factor pluggable (SFP) Gigabit LH70 transceiver that</p>	<p>Ports</p> <p>Connectivity</p> <p>Physical characteristics</p>	<p>1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)</p> <p>Connector type</p> <p>LC</p> <p>Wavelength</p> <p>1550 nm</p> <p>Dimensions</p> <p>2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)</p> <p>Full configuration weight</p> <p>0.04 lb. (0.02 kg)</p>

Accessory Product Details

provides a full-duplex Gigabit solution up to 70km on a single-mode fiber.

	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type:	Single-mode fiber optic, complying with ITU-T G.652;
		Maximum distance:	
		• 70km	
		Fiber type	Single Mode
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE X120 1G SFP RJ45 T Transceiver (JD089B)	Ports	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T)	
A small form factor pluggable (SFP) Gigabit 1000Base-T transceiver that provides a full duplex Gigabit solution up to 100m on a Cat-5+ cable.	Connectivity	Connector type	RJ-45
	Physical characteristics	Dimensions	2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
		Full configuration weight	0.07 lb. (0.03 kg)
	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type:	1000BASE-T: Category 5 (5E or better recommended), 100 U differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T;
		Maximum distance:	
		• 100m	
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE X120 1G SFP LC BX 10-U Transceiver (JD098B)	Ports	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only	
A small form-factor pluggable (SFP) Gigabit LX-BX10-U transceiver that provides a full duplex Gigabit solution up to	Connectivity	Connector type	LC
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W

Accessory Product Details

10km on a single mode cable.

	Power consumption maximum	1.0 W
Cabling	Maximum distance: • 10km	
	Fiber type	Single Mode
Notes	TX 1310nm RX 1490nm	
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE X120 1G SFP LC BX Ports

10-D Transceiver

(JD099B)

A small form-factor pluggable (SFP) Gigabit LX-BX10-D transceiver that provides a full duplex Gigabit solution up to 10km on a single mode cable.

	Connectivity	Connector type	LC
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • Up to 10km	
		Fiber type	Single Mode
	Notes	TX 1490nm RX 1310nm	
	Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	

HPE X120 1G SFP LC

LH100 Transceiver

(JD103A)

A small form factor pluggable (SFP) Gigabit LH100 transceiver that provides a full-duplex Gigabit solution up to 100km on a single mode fiber.

	Ports	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)
	Connectivity	Connector type
		LC
		Wavelength
		1550 nm
	Electrical characteristics	Power consumption typical
		0.8 W
		Power consumption maximum
		1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652;
		Maximum distance: • Up to 100km

Accessory Product Details

	Fiber type	Single Mode
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	
HPE X120 1G SFP LC SX Transceiver (JD118B)		
Ports	1 LC 1000BASE-SX port	
Connectivity	Connector type	LC
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550m on a Multimode fiber.	Wavelength	850 nm
	Physical characteristics	Dimensions
		2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
	Electrical characteristics	Full configuration weight
		0.04 lb. (0.02 kg)
	Power consumption typical	0.8 W
	Power consumption maximum	1.0 W
Cabling	Maximum distance:	
	• FDDI Grade distance = 220m	
	• OM1 = 275m	
	• OM2 = 500m	
	• OM3 = Not Specified by standard	
	Cable length	up to 550m
	Fiber type	Multi Mode
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office	
HPE X120 1G SFP LC LX Transceiver (JD119B)		
Ports	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
Connectivity	Connector type	LC
A small form-factor pluggable (SFP) Gigabit LX transceiver that provides a full duplex Gigabit solution up to 550m on MMF or 10Km on SMF	Wavelength	1300 nm
	Physical characteristics	Dimensions
		2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
	Electrical characteristics	Full configuration weight
		0.04 lb. (0.02 kg)
	Power consumption typical	0.8 W
	Power consumption maximum	1.0 W
Cabling	Cable type:	
		Either single mode or multimode;

Accessory Product Details

	Maximum distance: • 550m for Multimode • 10km for Singlemode
	Fiber type Both
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
<hr/>	
Cables	
HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 1m Cable (QK732A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. <ul style="list-style-type: none">• Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE 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.• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 2m Cable (QK733A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. <ul style="list-style-type: none">• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um,
---	--

Accessory Product Details

	Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. <ul style="list-style-type: none">• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 5m Cable (QK734A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. <ul style="list-style-type: none">• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE 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.• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 15m Cable (QK735A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. <ul style="list-style-type: none">• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um,

Accessory Product Details

Services	<p>Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.</p> <ul style="list-style-type: none">• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45 <p>Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office</p>
HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 30m Cable (QK736A)	<p>Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.</p> <ul style="list-style-type: none">• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE 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.• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
Services	<p>Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office</p>
HP Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 50m Cable (QK737A)	<p>Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.</p> <ul style="list-style-type: none">• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um• Bandwidth: 3000 MHz-km @ 850nm (Laser)• Jacket Color: Blue• Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic• Boot Color: White• Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um,

Accessory Product Details

		Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. <ul style="list-style-type: none">• Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m• Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
Services		Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office
HP 12500 MPU w/Comware V7 OS (JG497A)	Physical characteristics	Dimensions 23.2(w) x 30.7(d) x 11.2(h) in (58.93 x 77.98 x 28.45 cm) Weight 22.16 lb (10.05 kg)
Services		Refer to the Hewlett Packard Enterprise website at: http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

Summary of Changes

Date	Version History	Action	Description of Change
06-June-2016	From Version 35 to 36	Changed	Document name changed to HPE FlexFabric 12500 Switch Series. Product description updated.
22-Apr-2016	From Version 34 to 35	Changed	SKU descriptions updated on the entire document
18-Mar-2016	From Version 33 to 34	Changed	Changes made on Configuration section and Product images
16-Feb-2016	From Version 32 to 33	Added	SKU added: JL251A
		Changed	Accessories and Technical Specifications updated
8-Jan-2016	From Version 31 to 32	Changed	Warranty and Support updated
2-Oct-2015	From Version 30 to 31	Changed	Models list added on Overview
21-Aug-2015	From Version 29 to 30	Changed	Configuration Menu updated
30-Mar-2015	From Version 28 to 29	Added	Transceiver added: JG915A
		Changed	Changes made on the entire QuickSpecs
20-Jan-2015	From Version 27 to 28	Changed	Minor changes made on Technical Specifications
15-Jan-2015	From Version 26 to 27	Changed	Minor changes made on Technical Specifications
13-Aug-2014	From Version 25 to 26	Changed	General protocols and Security updated on Technical Specifications
3-Jul-2014	From Version 23 to 25	Changed	Configuration menu updated.
12-May-2014	From Version 22 to 23	Added	Added two new modules to the Accessories section.
14-Apr-2014	From Version 21 to 22	Changed	Configuration was revised.
31-Mar-2014	From Version 20 to 21	Changed	Configuration was revised.
16-Jan-2014	From Version 19 to 20	Changed	Corrected the descriptions of the images.
12-Nov-2013	From Version 18 to 19	Changed	Notes were revised in Configuration.
18-Oct-2013	From Version 17 to 18	Changed	Configuration was revised.
30-Sep-2013	From Version 16 to 17	Added	HPE 12504 DC Switch Chassis, HPE 125008 DC Switch Chassis, HPE 12518 AC Switch Chassis, HPE 12500 8-port 10GbE XFP LEC Module, HPE 12500 20Gbps VPN Fire Module were added to Configuration
15-Jul-2013	From Version 14 to 16	Changed	Corrected the new Configuration section.
10-Jun-2013	From Version 13 to 14	Added	OM4 cables were added, as well as mounting kit information in the Configuration section.
19-Mar-2013	From Version 12 to 13	Changed	Corrected the new Configuration section.
1-Mar-2013	From Version 11 to 12	Changed	Corrected the formatting in the new Configuration section.
19-Feb-2013	From Version 10 to 11	Added	Added the Configuration section, as well as several images.

Summary of Changes

4-Dec-2012	From Version 9 to 10	Changed	Significant changes were made to the first half of Features and Benefits. The model specifications had minor updates, as did the Accessories section.
2-Nov-2012	From Version 8 to 9	Changed	Updated Jumbo frames in Features and Benefits.
24-Sep-2012	From Version 7 to 8	Changed	Updated Features and Benefits, Introduction, the specifications, and Accessories.
26-Mar-2012	From Version 6 to 7	Changed	The Accessories and specifications sections were updated.
13-Feb-2012	From Version 5 to 6	Added	Some new modules were added.
		Changed	The model numbers were updated, as well as the part numbers for some of the modules.
14-Nov-2011	From Version 4 to 5	Changed	Changes were made throughout, including changing the title.
7-Sep-2011	From Version 3 to 4	Added	Jumps were added to the Accessory Product Details.
30-Aug-2011	From Version 2 to 3	Added	Added the Accessories Product Details section.
15-Mar-2011	From Version 1 to 2	Changed	Accessories was revised.

Summary of Changes



[**Sign up for updates**](#)

© Copyright 2016 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

To learn more, visit: [**http://www.hpe.com/networking**](http://www.hpe.com/networking)

c04111591 - 13785 - Worldwide - V36 - 6-June-2016

