## Overview

### HPE FlexNetwork 7500 Switch Series

#### Product overview

The HPE FlexNetwork 7500 Switch Series comprises modular, multilayer chassis switches that meet the evolving needs of integrated services networks. The switches can be deployed in multiple network environments, including the enterprise LAN core, aggregation layer, and wiring closet edge.

They offer 40GbE connectivity and cost-effective, wire-speed 10GbE ports to safeguard the throughput and bandwidth needed for your mission-critical data and high-speed communications. A passive backplane, support for load sharing, and redundant management and fabrics help the switch series provide high availability.

Moreover, these switches deliver wire-speed Layer 2 and Layer 3 routing services for the most demanding applications with hardware-based IPv4 and IPv6 support.



#### Models

| | |
|---|---|
| HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH333A |
| HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH332A |
| HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH331A |
| HPE FlexNetwork 7510 Switch Chassis | JD238C |
| HPE FlexNetwork 7506 Switch Chassis | JD239C |
| HPE FlexNetwork 7503 Switch Chassis | JD240C |
| HPE FlexNetwork 7502 Switch Chassis | JD242C |

#### Key features

- Versatile, high-performance modular switches
- Enterprise LAN core, aggregation, and edge
- Extensive switching and routing, IPv6, and multiprotocol label switching (MPLS)
- Advanced functionality with service modules
- Robust network and service virtualization

## Overview

## Features and benefits

**Quality of Service** (QoS)

- **IEEE 802.1p prioritization**
  delivers data to devices based on the priority and type of traffic
- **Class of Service (CoS)**
  sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- **Bandwidth shaping**
  - **Port-based rate limiting**
    provides per-port ingress-/egress-enforced increased bandwidth
  - **Classifier-based rate limiting**
    uses an access control list (ACL) to enforce increased bandwidth for ingress traffic on each port
  - **Reduced bandwidth**
    provides per-port, per-queue egress-based reduced bandwidth
- **Weighted random early detection (WRED)/random early detection (RED)**
  delivers congestion avoidance capabilities through the use of queue management algorithms
- **Powerful QoS feature**
  supports the following congestion actions: strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), and WRED
- **Traffic policing**
  supports Committed Access Rate (CAR) and line rate

**Intrusion detection/prevention system** (IDS/IPS)

- **Deep packet inspection**
  module supports deep packet inspection and examines the packet payload as well as the frame and packet headers; packets are dropped if attacks or intrusions are detected using signature-based or protocol anomaly-based detection
- **Signature-based detection**
  detects attacks that have known attack patterns; IPS maintains a signature database that contains the pattern definitions for known attacks that can be updated automatically using a subscription service
- **Protocol anomaly-based detection**
  detects attacks that use anomalies in application protocol payloads
- **Severity-based action policies**
  involve action taken against attacks based on their severity; available actions are "allow," "block," and "terminate connection" to provide appropriate mitigation
- **Signature update service**
  provides regular updates to the signature database, helping to ensure that the latest available signatures are installed

**Virtual private network** (VPN)

- **IPSec**
  provides secure tunneling over an untrusted network such as the Internet or a wireless network; offers data confidentiality, authenticity, and integrity between two network endpoints
- **Generic Routing Encapsulation (GRE)**
  transports Layer 2 connectivity over a Layer 3 path in a secured way; enables the segregation of traffic from site to site
- **Manual or automatic Internet Key Exchange (IKE)**
  provides both manual or automatic key exchange required for the algorithms used in encryption or authentication; auto-IKE allows automated management of the public key exchange, providing the highest levels of encryption
- **Virtual Extensible LAN (VXLAN)**
  delivers network virtualization, enabling IP-based networks to support many VLAN overlays for use as a private collaboration network, or a single, end-to-end VLAN for WiFi. Requires Comware v7 with specific hardware only. Refer to

# Overview

the hardware manuals for details.

## Management

- **Management interface control**
  provides management access through a modem port and terminal interface, as well as in-band and out-of-band Ethernet ports; provides access through terminal interface, Telnet, or secure shell (SSH)
- **Industry-standard CLI with a hierarchical structure**
  reduces training time and expenses, and increases productivity in multivendor installations
- **Management security**
  restricts access to critical configuration commands; offers multiple privilege levels with password protection; ACLs provide Telnet and SNMP access; local and remote syslog capabilities allow logging of all access
- **SNMPv1, v2, and v3**
  provide complete support of SNMP; provide full support of industry-standard Management Information Base (MIB) plus private extensions; SNMPv3 supports increased security using encryption
- **sFlow (RFC 3176)**
  provides scalable ASIC-based wirespeed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes
- **Remote monitoring (RMON)**
  uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **FTP, TFTP, and SFTP support**
  offers different mechanisms for configuration updates; FTP allows bidirectional transfers over a TCP/IP network; trivial FTP (TFTP) is a simpler method using User Datagram Protocol (UDP); Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security
- **Debug and sampler utility**
  supports ping and traceroute for both IPv4 and IPv6
- **Network Time Protocol (NTP)**
  synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time
- **Network Quality Analyzer (NQA)**
  analyzes network performance and service quality by sending test packets, and provides network performance and service quality parameters such as jitter, TCP, or FTP connection delays and file transfer rates; allows a network manager to determine overall network performance and to diagnose and locate network congestion points or failures
- **Information center**
  provides a central repository for system and network information; aggregates all logs, traps, and debugging information generated by the system and maintains them in order of severity; outputs the network information to multiple channels based on user-defined rules
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
  advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- **Dual flash images**
  provides independent primary and secondary operating system files for backup while upgrading
- **Multiple configuration files**
  stores easily to the flash image

## Connectivity

- **High-density port connectivity**
  Provides up to 10 interface module slots and up to 40 40GbE ports, 84 10GbE ports, 480 Fiber Gigabit ports, or 480 PoE-enabled ports per HPE 7500 Switch Series system
- **Jumbo frames**
  Allow high-performance remote backup and disaster-recovery systems with up to 9,216 bytes
- **Loopback**

# Overview

supports internal loopback testing for maintenance purposes and an increase in availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility

- **Ethernet operations, administration and maintenance (OAM)**
  detects data link layer problems that occurred in the "last mile" using the IEEE 802.3ah OAM standard; monitors the status of the link between two devices
- **Flexible port selection**
  Includes 100/1000BASE-X auto speed selection, 10/100/1000BASE-T auto speed detection, as well as auto duplex and MDI/MDI-X
- **Monitor link**
  collects statistics on performance and errors on physical links, increasing system availability
- **IEEE 802.3af Power over Ethernet (PoE)**
  provides up to 15.4 W per port to IEEE 802.3af-compliant PoE-powered devices such as IP phones, wireless access points, and security cameras
- **Dual-personality functionality**
  includes four 10/100/1000 ports or SFP slots for optional fiber connectivity such as Gigabit-SX, -LX, and -LH, or 100-FX
- **Packet storm protection**
  protects against unknown broadcast, unknown multicast, or unicast storms with user-defined thresholds
- **Flow control**
  provides back pressure using standard IEEE 802.3x, reducing congestion in heavy traffic situations
- **IEEE 802.3at Power over Ethernet (PoE+) support**
  provides up to 30 watts of power at the power sourcing equipment (PSE)

## Performance

- **High-speed fully distributed architecture**
  Supports a maximum of 4,160 Gb/s switching capacity, providing enhanced performance and future expansion capability; delivers up to 2,380 Mp/s throughput with dual fabrics; performs all switching and routing functions in the I/O modules; and meets the current and future demand of an enterprise's bandwidth-intensive applications
- **Scalable system design**
  Provides investment protection to support future technologies and higher-speed connectivity with a backplane designed to accommodate bandwidth increases
- **Flexible chassis selection**
  Enables you to tailor your product selections to your budget with a choice of six chassis, ranging from a 10-slot to a 2-slot chassis

## Resiliency and high availability

- **Redundant/load-sharing fabrics, management, fan assemblies, and power supplies**
  increase total performance and power availability while providing hitless, stateful failover
- **All hot-swappable modules**
  Allows replacement of modules without any impact on other modules
- **Dual internal power supply**
  provides high reliability
- **Separate data and control paths**
  separates control from services and keeps service processing isolated; increases security and performance
- **Passive design system**
  delivers increased system reliability as the backplane has no active components
- **IEEE 802.3ad link-aggregation control protocol (LACP)**
  Supports up to 128 trunks, each with 8 links per trunk; and provides support for static or dynamic groups and a user-selectable hashing algorithm
- **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

## Overview

Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP, thereby simplifying network operation

- **IRF capability**
  provides single IP address management for a resilient virtual switching fabric of up to four switches
- **Ring resiliency protection protocol (RRPP)**
  Provides standard sub-100 ms recovery for a ring Ethernet-based topology
- **Virtual Router Redundancy Protocol (VRRP)**
  allows a group of routers to dynamically back each other up to create highly available routed environments
- **Graceful restart**
  supports graceful restart for OSPF, IS-IS, BGP, LDP, and RSVP; the network remains stable during the active-standby switchover; after the switchover, the device quickly learns the network routes by communicating with adjacent routers; forwarding remains uninterrupted during the switchover to achieve nonstop forwarding (NSF)
- **Ultrafast protocol convergence with standards-based failure detection—bidirectional forwarding detection**
  Enables link connectivity monitoring and reduces network convergence time for the routing information protocol (RIP), OSPF, BGP, IS-IS, VRRP, MPLS, and IRF
- **Smart link**
  allows 50 ms failover between links
- **IP/LDP FRR**
  nodes are configured with backup ports, routes, and LSPs; local implementation requires no cooperation of adjacent devices, simplifying the deployment; solves the traditional convergence faults in IP forwarding and MPLS forwarding, protecting the links, nodes, and paths without establishing respective backup LSPs for them; realizes restoration within 50 ms, with the restoration time independent of the number of routes and fast link switchovers, without route convergence
- **In-Service Software Upgrade (ISSU)**
  applies patches and new service features to be installed without restarting the system, increasing network uptime and simplifying maintenance. Requires use of IRF, and R7169P01 or later releases.

**Layer 2 switching**

- **VLAN**
  Supports up to 4,096 port-based or IEEE 802.1Q-based VLANs; and supports MAC-based VLANs, protocol-based VLANs, and
  IP-subnet-based VLANs for added flexibility
- **Port isolation**
  increases security by isolating ports within a VLAN while still allowing them to communicate with other VLANs
- **Bridge Protocol Data Unit (BPDU) tunneling**
  transmits Spanning Tree Protocol BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs
- **GARP VLAN Registration Protocol**
  allows automatic learning and dynamic assignment of VLANs
- **Port mirroring**
  Duplicates port traffic (ingress and egress) to a local or remote monitoring port; and supports four mirroring groups, with an unlimited number of ports per group
- **Spanning Tree Protocol (STP)**
  supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- **Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) protocol snooping**
  controls and manages the flooding of multicast packets in a Layer 2 network
- **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
- **IEEE 802.1ad QinQ and selective QinQ**
  increase the scalability of an Ethernet network by providing a hierarchical structure; connect multiple LANs on a high-speed campus or metro network
- **Super VLAN**
  Saves IP address space, using RFC 3069 standard (also called VLAN aggregation)
- **Per-VLAN Spanning Tree Plus (PVST+)**

# Overview

allows each VLAN to build a separate spanning tree to improve link bandwidth usage in network environments with multiple VLANs

## Layer 3 services

- **Address Resolution Protocol (ARP)**
  determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 etwork
- **User Datagram Protocol (UDP) helper**
  redirects UDP broadcasts to specific IP subnets to prevent server spoofing
- **Dynamic Host Configuration Protocol (DHCP)**
  simplifies the management of large IP networks and supports client and server; DHCP Relay enables DHCP operation across subnets
- **Domain Name System (DNS)**
  provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server

## Layer 3 routing

- **Static IPv4 routing**
  provides simple manually configured IPv4 routing
- **Routing Information Protocol (RIP)**
  uses a distance vector algorithm with UDP packets for route determination; supports RIPv1 and RIPv2 routing; includes loop protection
- **Open shortest path first (OSPF)**
  delivers faster convergence; uses this link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- **Intermediate system to intermediate system (IS-IS)**
  uses a path vector Interior Gateway Protocol (IGP), which is defined by the ISO organization for IS-IS routing and extended by IETF RFC 1195 to operate in both TCP/IP and the OSI reference model (Integrated IS-IS)
- **Border Gateway Protocol 4 (BGP-4)**
  delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors; uses TCP for enhanced reliability for the route discovery process; reduces bandwidth consumption by advertising only incremental updates; supports extensive policies for increased flexibility; scales to very large networks
- **Policy-based routing**
  makes routing decisions based on policies set by the network administrator
- **IP performance optimization**
  Provides a set of tools to improve the performance of IPv4 networks; and includes directed broadcasts, customization of TCP parameters, support of ICNP error packets, and extensive display capabilities
- **Unicast Reverse Path Forwarding (uRPF)**
  limits erroneous or malicious traffic in accordance with RFC 3074
- **Static IPv6 routing**
  provides simple manually configured IPv6 routing
- **Dual IP stack**
  maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design
- **Routing Information Protocol next generation (RIPng)**
  extends RIPv2 to support IPv6 addressing
- **OSPFv3**
  provides OSPF support for IPv6
- **IS-IS for IPv6**
  extends IS-IS to support IPv6 addressing
- **BGP+**
  extends BGP-4 to support Multiprotocol BGP (MBGP), including support for IPv6 addressing

# Overview

- **IPv6 tunneling**
  allows IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet; supports manually configured, 6to4, and Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) tunnels; is an important element for the transition from IPv4 to IPv6
- **Multiprotocol Label Switching (MPLS)**
  uses BGP to advertise routes across Label Switched Paths (LSPs), but uses simple labels to forward packets from any Layer 2 or Layer 3 protocol, which reduces complexity and increases performance; supports graceful restart for reduced failure impact; supports LSP tunneling and multilevel stacks
- **Multiprotocol Label Switching (MPLS) Layer 3 VPN**
  allows Layer 3 VPNs across a provider network; uses MP-BGP to establish private routes for increased security; supports RFC 2547bis multiple autonomous system VPNs for added flexibility
- **Multiprotocol Label Switching (MPLS) Layer 2 VPN**
  establishes simple Layer 2 point-to-point VPNs across a provider network using only MPLS Label Distribution Protocol (LDP); requires no routing and therefore decreases complexity, increases performance, and allows VPNs of non-routable protocols; uses no routing information for increased security; supports Circuit Cross Connect (CCC), Static Virtual Circuits (SVCs), Martini draft, and Kompella-draft technologies
- **Virtual Private LAN Service (VPLS)**
  establishes point-to-multipoint Layer 2 VPNs across a provider network
- **Service loopback**
  allows any module to take advantage of higher-featured modules, including OAA modules, by redirecting traffic; reduces investment and enables higher bandwidth and load sharing; supports IPv6, IPv6
  multicast, tunneling, and MPLS

## Security

- **Access control list (ACL)**
  supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can be set to operate on specific dates or times
- **Remote Authentication Dial-In User Service (RADIUS)**
  eases switch security access administration by using a password authentication server
- **Terminal Access Controller Access-Control System (TACACS+)**
  delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security
- **Switch management logon security**
  helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
- **Secure shell (SSHv2)**
  uses external servers to securely log in to a remote device; with authentication and encryption, it protects against IP spoofing and plain-text password interception; increases the security of Secure FTP (SFTP) transfers
- **DHCP snooping**
  enables DHCP clients to receive IP addresses from authorized DHCP servers and maintains a list of DHCP entries for trusted ports; prevents users from receiving fake IP addresses and reduces ARP attacks, improving security
- **IP source guard**
  filters packets on a per-port basis to prevent illegal packets from being forwarded
- **ARP attack protection**
  protects from attacks using a large number of ARP requests with a host-specific, user-selectable threshold
- **Port security**
  allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **IEEE 802.1X support**
  provides port-based user authentication with support for Extensible Authentication Protocol (EAP) MD5, TLS, TTLS, and PEAP with choice of AES, TKIP, and static or dynamic WEP encryption for protecting wireless traffic between authenticated clients and the access point
- **Media access control (MAC) authentication**
  provides simple authentication based on a user's MAC address; supports local or RADIUS-based authentication
- **Multiple user authentication methods**

# Overview

- **IEEE 802.1X**
  uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
- **Web-based authentication**
  provides a browser-based environment, similar to IEEE 802.1X, to authenticate clients that do not support the IEEE 802.1X supplicant
- **MAC-based authentication**
  authenticates the client with the RADIUS server based on the client's MAC address

- **DHCP protection**
  blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Endpoint Admission Defense (EAD)**
  provides security policies to users accessing a network
- **Port isolation**
  secures and adds privacy, and prevents malicious attackers from obtaining user information
- **IEEE 802.1AE MACsec**
  provides switch-to-host with IEEE 802.1X or switch-to-switch hardware encryption, and authentication. Requires Comware v7 with specific hardware only. Refer to the hardware manuals for details.

## Convergence

- **LLDP-MED (Media Endpoint Discovery)**
  defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **Multicast Source Discovery Protocol (MSDP)**
  allows multiple PIM-SM domains to interoperate; is used for inter-domain multicast applications
- **Internet Group Management Protocol (IGMP)**
  utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3
- **Protocol Independent Multicast (PIM)**
  defines modes of Internet IPv4 and IPv6 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM Dense Mode (DM), Sparse Mode (SM), and Source-Specific Multicast(SSM)
- **Multicast Border Gateway Protocol (MBGP)**
  allows multicast traffic to be forwarded across BGP networks and kept separate from unicast traffic
- **Multicast Listener Discovery (MLD) protocol**
  establishes, maintains, and manages IPv6 multicast groups and networks; supports v1 and v2 and utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM)
- **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
- **Voice VLAN**
  automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance

## Integration

- **Open Application Architecture (OAA)**
  provides high-performance application-specific modules fully integrated with the switching architecture; uses the chassis high-speed backplane to access network-related data; increases performance, reduces costs, and simplifies network management
- **VPN 20 Gb/s firewall module**
  Provides enhanced stateful packet inspection and filtering; supports flexible security zones and virtual firewall containment; offers advanced VPN services with 3DES and AES encryption at high performance and low latency; facilitates Web content filtering; and enables application prioritization and optimization

# Overview

## Software-defined networking

- **OpenFlow 1.3**
  enables SDN to provide an end-to-end solution to automate the network, allowing for rapid application deployments (Comware v7 only)

## Additional information

- **Green initiative support**
  provides support for RoHS and WEEE regulations
- **Low power-consumption switch**
  Is rated among the switches with the lowest power consumption in the industry by Miercom independent tests
- **Unified Hewlett Packard Enterprise Comware operating system with modular architecture**
  provides an easy-to-enhance-and-extend feature set, which doesn't require whole-scale changes; all switching, routing, and security platforms leverage the Comware OS, a common unified modular operating system
- **OPEX savings**
  simplifies and streamlines deployment, management, and training through the use of a common operating system, thereby cutting costs as well as reducing the risk of human errors associated with having to manage multiple operating systems across different platforms and network layers

## 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 FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle
- Must select min 1 Power Supply
- 2 - JH209A included
- min=0 \ max=8 SFP/SFP +  Transceivers
- Min=0 \ Max = 2 QSFP Transceiver
- 10U - Height

JH331A
See Configuration
**NOTE:**1, 2, 3

HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle
- Must select min 1 Power Supply
- 2 - JH209A included
- min=0 \ max=8 SFP/SFP +  Transceivers
- Min=0 \ Max = 2 QSFP Transceiver
- 13U - Height

JH332A
See Configuration
**NOTE:**1, 2, 3

HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle
- Must select min 1 Power Supply
- 2 - JH209A included
- min=0 \ max=8 SFP or SFP +  Transceivers
- Min=0 \ Max = 2 QSFP Transceiver
- 16U - Height

JH333A
See Configuration
**NOTE:**1, 2, 3

HPE FlexNetwork 7502 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 4U - Height

JD242C

HPE FlexNetwork 7503 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 4U - Height

JD240C

HPE FlexNetwork 7506 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 13U - Height

JD239C

HPE FlexNetwork 7510 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 16U - Height

JD238C

Configuration Rules:

Note 1        The following Transceivers install into this Module: (Use BTO only when adding to switch)

## Configuration

| | |
|---|---|
| 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 |
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |

**Note 2**   The following 40G Transceivers install into this Module: (Use BTO only when adding to switch)

| | |
|---|---|
| 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 |
| HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver | JL251A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable | JG326A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable | JG327A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable | JG328A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable | JG329A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | JG330A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable | JG331A |

**Note 3**   The following Transceivers install into this Module: (Use BTO only when adding to switch)

| | |
|---|---|
| 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 FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| 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 |

**Remarks:**   BTO Model 1s should never receive an 0D1 and therefore cannot be factory integrated into a rack.

## Box Level Integration CTO Models

**CTO Solution Sku**

# Configuration

HPE 75xx Configure-to-order Switch Solution      JG707A
- SSP trigger sku

**CTO Base Sku**

HPE FlexNetwork 7502 Switch Chassis      JD242C
- Must select min 1 Power Supply      See Configuration
- Must select Min 1 Fabric Module      **NOTE:**2, 3
- 4U - Height

HPE FlexNetwork 7503 Switch Chassis      JD240C
- Must select min 1 Power Supply      See Configuration
- Must select Min 1 Fabric Module      **NOTE:**1, 3, 4
- 10U - Height

HPE FlexNetwork 7506 Switch Chassis      JD239C
- Must select min 1 Power Supply      See Configuration
- Must select Min 1 Fabric Module      **NOTE:**1, 3, 4
- 13U - Height

HPE FlexNetwork 7510 Switch Chassis      JD238C
- Must select min 1 Power Supply      See Configuration
- Must select Min 1 Fabric Module      **NOTE:**3, 4
- 16U - Height

Configuration Rules:

Note 1      If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit      JH215A

Note 2      If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7502 300W AC Power Supply | JD226A |
| HPE FlexNetwork 7500 650W DC Power Supply | JD209A |
| HPE FlexNetwork 7500 650W AC Power Supply | JD217A |

Note 3      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 JG707A - HPE 75xx Configure-to-order Switch Solution. (Min 1/Max 1 Switch per SSP)

Note 4      If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |

## Rack Level Integration CTO Models

# Configuration

HPE FlexNetwork 7502 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 4U - Height

JD242C
See Configuration
**NOTE:**1, 3

HPE FlexNetwork 7503 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 10U - Height

JD240C
See Configuration
**NOTE:**2, 3, 4

HPE FlexNetwork 7506 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 13U - Height

JD239C
See Configuration
**NOTE:**2, 3, 4

HPE FlexNetwork 7510 Switch Chassis
- Must select min 1 Power Supply
- Must select Min 1 Fabric Module
- 16U - Height

JD238C
See Configuration
**NOTE:**2, 3, 4

Configuration Rules:

Note 1    If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7502 300W AC Power Supply | JD226A |
| HPE FlexNetwork 7500 650W DC Power Supply | JD209A |
| HPE FlexNetwork 7500 650W AC Power Supply | JD217A |

Note 2    If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit | JH215A |

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 and BW968A HPE Universal Rack Only. (Default to the BW966A.)

Note 4    If this Switch Chassis is selected at least one of these Power Supplies is required: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |

# Modules

## Fabric Modules

System (std 0 // max 2) User Selection (min 1 // max 2) per enclosure
JH333A JH332A, and JH331A only System (std 2 // max 2) User Selection (min 0 // max 0) per enclosure

# Configuration

HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU

- min=0 \ max=8 SFP/SFP +  Transceivers
- Min=0 \ Max = 2 QSFP Transceiver

JH209A
See Configuration
**NOTE:**5, 15, 16, 17, 18

HPE FlexNetwork 7502 Main Processing Unit

- No supported Transceivers

JH208A
See Configuration
**NOTE:**14

HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit

- Min=0 \ Max = 2 QSFP Transceiver

JH207A
See Configuration
**NOTE:**15, 16

HPE FlexNetwork 7500 384Gbps Fabric Module with 2 XFP Ports

- min=0 \ max=2 XFP    Transceivers

JD193B
See Configuration
**NOTE:**1, 4

HPE FlexNetwork 7500 384Gbps Fabric Module

- No supported Transceivers

JD194B
See Configuration
**NOTE:**1

HPE FlexNetwork 7500 384Gbps Fabric Module with 12 SFP Ports

- min=0 \ max=12 SFP Transceivers

JD224A
See Configuration
**NOTE:**1, 5

HPE FlexNetwork 7500 384Gbps Advanced Fabric Module

- No supported Transceivers

JD195A
See Configuration
**NOTE:**1

HPE FlexNetwork 7500 768Gbps Fabric Module

- No supported Transceivers

JD220A
See Configuration
**NOTE:**11

Configuration Rules:

Note 1    These Modules install to the following switches: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7506 Switch Chassis | JD239C |
| HPE FlexNetwork 7503 Switch Chassis | JD240C |

Note 4    The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |
| HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver | JG228A |
| HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver | JG229A |
| HPE X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver | JG230A |

## Configuration

| | |
|---|---|
| HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver | JG231A |
| HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver | JG232A |
| HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver | JG233A |

Note 5    The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |

Note 11    These Modules install to the following switches only: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7510 Switch Chassis | JD238C |

Note 12    If 2 Fabric Modules are selected they must be the same Sku number.

Note 13    The following PoE DIMM installs into this Module: (Use #0D1 if switch is CTO)

Note 14    These Modules install to the following switches: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7502 Switch Chassis | JD242C |

Note 15    These Modules install to the following switches only: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7503 Switch Chassis | JD240C |
| HPE FlexNetwork 7506 Switch Chassis | JD239C |
| HPE FlexNetwork 7510 Switch Chassis | JD238C |

Note 16    The following 40G Transceivers install into this Module:  (Use #0D1 or #B01 if switch is CTO)

| | |
|---|---|
| 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 |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable | JG326A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable | JG327A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable | JG328A |

## Configuration

| | | |
|---|---|---|
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable | JG329A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | JG330A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable | JG331A |

Note 17    The following Transceivers install into this Module: (Use #0D1 or #B01 if switch is CTO)

| | |
|---|---|
| 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+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| 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 |

Note 18    The following LC Transceivers install into this Module:  (Use #0D1 or #B01 if switch is CTO)

| | |
|---|---|
| HPE X130 10G SFP+ LC LH80 tunable Transceiver | JL250A |
| HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver | JL251A |

Remark:    For Switch A7503,A7506 and A7506-V, these modules can only be inserted into the Slot 0 and Slot 1. And for Switch A7510, this module can only be inserted into the Slot 5 and Slot 6.

For Switch A7503-S, this module can only be inserted into the Slot 0.

### Ethernet Modules

(Switch JD242C )  System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure
(Switch JD240C and JH331A)  System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure
(Switch JD239C and JH331A)  System (std 0 // max 6) User Selection (min 0 // max 6) per enclosure
(Switch JD238C and JH331A)  System (std 0 // max 10) User Selection (min 0 // max 10) per enclosure

HPE FlexNetwork 7500 24-port GbE SFP SC Module                                              JD203B
- min=0 \ max=24 SFP Transceivers                                            See Configuration
**NOTE:**1, 18, 19

HPE FlexNetwork 7500 12-port GbE SFP SC Module                                              JD207A
- min=0 \ max=12 SFP Transceivers                                            See Configuration
**NOTE:**1, 18, 19

HPE FlexNetwork 7500 48-port GbE SFP Enhanced Module                                        JD221A
- min=0 \ max=48 SFP Transceivers                                            See Configuration
**NOTE:**1, 16, 19, 20

HPE FlexNetwork 7500 40-port Gig-T/8-port SFP PoE-upgradable SC Module                      JD228B
- min=0 \ max= 8 SFP Transceivers                                            See Configuration
**NOTE:** 1, 8, 14, 17, 18, 19

HPE FlexNetwork 7500 24-port GbE SFP Enhanced Module                                        JD231A

# Configuration

- min=0 \ max=24 SFP Transceivers

See Configuration
**NOTE:** 1, 16, 19, 20

HPE FlexNetwork 7500 24-port GbE SFP with 8 Combo SD Module
- 16 SFP 100/1000 Mbps ports
- 8 dual-personality ports - 1000M Combo ports (SFP or RJ-45)
- min=0 \ max=24 SFP Transceivers

JD234A
See Configuration
**NOTE:** 1, 16, 19, 20

HPE FlexNetwork 7500 48-port GbE SFP SD Module
- min=0 \ max=48 SFP Transceivers

JD237A
See Configuration
**NOTE:** 1, 16, 19, 20

HPE FlexNetwork 7500 48-port GbE SFP SC Module
- min=0 \ max=48 SFP Transceivers

JD211B
See Configuration
**NOTE: 1, 18, 19**

HPE FlexNetwork 7500 20-port Gig-T/4-port GbE Combo PoE-upgradable SC Module
- min=0 \ max= 4 SFP Transceivers

JC669A
See Configuration
**NOTE:** 1, 12, 17, 18, 19

HPE FlexNetwork 7500 8-port 10G SFP+ SC Module
- min=0 \ max=8 per SFP+ Transceivers

JF290A
See Configuration
**NOTE:** 3, 16, 19, 20

HPE FlexNetwork 7500 4-port 10GbE XFP Enhanced Module
- min=0 \ max=4 XFP

JD232A
See Configuration
**NOTE:** 4, 16, 19, 20

HPE FlexNetwork 7500 2-port 10GbE XFP Enhanced Module
- min=0 \ max=2 XFP

JD233A
See Configuration
**NOTE:** 4, 16, 19, 20

HP FlexNetwork 7500 8-port 10GbE XFP SD Module
- min=0 \ max=8 XFP Transceivers

JD191A
See Configuration
**NOTE:** 4, 16, 19, 20

HPE FlexNetwork 7500 2-port 10GbE XFP SC Module
- min=0 \ max=2 XFP Transceivers

JD201A
See Configuration
**NOTE: 4, 18, 19**

HPE FlexNetwork 7500 24-port Gig-T/2-port 10GbE XFP SC Module
- min=0 \ max=2 XFP  Transceivers

JD206A
See Configuration
**NOTE: 4, 18, 19**

HPE FlexNetwork 7500 4-port 10GbE XFP SD Module
- min=0 \ max=4 XFP  Transceivers

JD235A
See Configuration
**NOTE:**4, 16, 19, 20

HPE FlexNetwork 7500 2-port 10GbE XFP SD Module
- min=0 \ max=2 XFP  Transceivers

JD236A
See Configuration

# Configuration

**NOTE:** 4, 16, 19, 20

HPE FlexNetwork 7500 24-port GbE SFP/2-port 10GbE XFP Module
- min=0 \ max=2 XFP  min=0 \ max=24 SFP Transceivers

JD205A
See Configuration
**NOTE:** 5, 18, 19

HPE FlexNetwork 7500 24-port GbE SFP with 8 Combo and 2-port 10GbE XFP SD Module
- 16 SFP 100/1000 Mbps ports
- 8 dual-personality ports - 1000M Combo ports (SFP or RJ-45)
- 2 XFP 10GbE ports
- min=0 \ max=2  XFP min=0 \ max=24 SFP Transceivers

JD230A
See Configuration
**NOTE:** 4, 5, 16, 19, 20

HPE FlexNetwork 7500 24-port Gig-T SC Module
- No supported Transceivers

JD204B
See Configuration
**NOTE:** 18, 19

HPE FlexNetwork 7500 48-port Gig-T PoE-ready SC Module
- No supported Transceivers

JD210A
See Configuration
**NOTE:** 8, 14, 18, 19

HPE FlexNetwork 7500 48-port Gig-T PoE+ SD Module
- Includes DIMM

JD229B
See Configuration
**NOTE:** 16, 17, 19, 20

HPE FlexNetwork 7500 48-port 1000BASE-T PoE+ SC Module
- No supported Transceivers

JG663A
See Configuration
**NOTE: 16, 17, 19, 20**

HPE FlexNetwork 7500 Load Balancing Module
- No supported Transceivers

JD252A
See Configuration
**NOTE:** 18, 19

HP 10500/7500 NetStream Monitoring Module
- No supported Transceivers

JD254A

See Configuration
**NOTE:** 18, 19

HP 7500 48-port Gig-T PoE-ready Module
- No supported Transceivers

JD199B
See Configuration
**NOTE:** 7, 8, 14, 17, 18, 19

HPE 10500/11900/7500 20Gbps VPN Firewall Module
- min=0 \ max=2 SFP Transceivers

JG372A
See Configuration
**NOTE:** 13, 16, 19

HPE FlexNetwork 7500 4-port 40GbE QSFP+ SC Module
- min=0 \ max=4 QSFP+  Transceivers

JC792A
See Configuration
**NOTE:** 10, 16, 19

# Configuration

HP 7500 4-port 40GbE CFP SC Module                                                                JG373A
- min=0 \ max=4 CFP  Transceivers

See Configuration
**NOTE:** 11, 18, 19


HP 10500/7500 20G Unified Wired-WLAN Module                                                        JG639A

See Configuration
**NOTE: 15, 16, 19**


HPE FlexNetwork 7500 44-port SFP/4-port SFP+ SE Module                                             JH210A
- min=0 \ max=48 SFP Transceivers or
- min=0 \ max=4 SFP+ Transceivers or
- min=0 \ max=48 JD102B

See Configuration
**NOTE:**1, 3, 16, 20

HPE FlexNetwork 7500 24-port SFP/4-port SFP+ SE Module                                             JH211A
- min=0 \ max=24 SFP Transceivers or
- min=0 \ max=4 SFP+ Transceivers or
- min=0 \ max=28 JD102B

See Configuration
**NOTE:**1, 3, 16, 20

HPE FlexNetwork 7500 48-port 1000BASE-T SE Module                                                  JH212A
- No supported Transceivers

See Configuration
**NOTE:**16, 20


HPE FlexNetwork 7500 48-port 1000BASE-T with PoE+ SE Module                                        JH213A
- No supported Transceivers

See Configuration
**NOTE:**16, 17, 20


HPE FlexNetwork 7500 16-port 1/10GbE SFP+ SF Module                                                JH214A
- min=0 \ max=16 SFP Transceivers or
- min=0 \ max=16 SFP+ Transceivers or

See Configuration
**NOTE:**1, 3, 16, 20

HPE FlexNetwork 7500 12-port 1/10GbE SFP+ EC Module                                                JH309A
- min=0 \ max=12 SFP Transceivers or
- min=0 \ max=12 SFP+ Transceivers or

See Configuration
**NOTE:**1, 3, 16, 20

Configuration Rules:


Note 1      The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |

## Configuration

| | |
|---|---|
| HPE X120 1G SFP LC BX 10-D Transceiver | JD099B |
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |

Note 2    The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |

Note 3    The following Transceivers install into this Module: (Use #0D1 or #B01 if switch is CTO)

| | |
|---|---|
| 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 FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| 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 |

Note 4    The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |
| HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver | JG228A |
| HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver | JG229A |
| HPE X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver | JG230A |
| HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver | JG231A |
| HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver | JG232A |
| HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver | JG233A |

Note 5    The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |

## Configuration

| | |
|---|---|
| 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 |
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| 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 |

Note 6      The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| 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 |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |

Note 7      This Module is not supported on the JD242x at this time.

Note 8      The following DIMMs install into this Module: (Use #0D1 if switch is CTO)

| | |
|---|---|
| HPE FlexNetwork 7500 PoE DIMM Memory Module | JD192B |

Note 10     The following 40G Transceivers install into this Module:  (Use #0D1 or #B01 if switch is CTO)

| | |
|---|---|
| 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 |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable | JG326A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable | JG327A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable | JG328A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable | JG329A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | JG330A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable | JG331A |

Note 11     The following CFP Transceivers install into this Module:

| | |
|---|---|
| HPE X140 40G CFP LC LR4 10km SM Transceiver | JC857A |

## Configuration

**Note 13**   The following Transceivers install into this Module: (Use #0D1 if switch is CTO)

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 14**   The following PoE DIMM installs into this Module: (Use #0D1 if switch is CTO)

HPE FlexNetwork 7500 PoE DIMM Memory Module                                        JD192B

**Note 16**   Selecting this module requires one of the following:

HPE FlexNetwork 7503 Switch Chassis                                                JD240C
HPE FlexNetwork 7506 Switch Chassis                                                JD239C
HPE FlexNetwork 7510 Switch Chassis                                                JD238C
HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle  JH331A
HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle  JH332A
HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle  JH333A

**Note 17**   If JD242C and JH208a is selected, Then this Module is not allowed.

**Note 18**   This Module is not supported with the following MPU's:

HPE FlexNetwork 7502 Main Processing Unit                                          JH208A
HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing   JH207A
Unit
HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+   JH209A
MPU

**Note 19**   If this module is selected, then the following Comware V5 MPU's are compatible:

HPE FlexNetwork 7500 384Gbps Fabric Module with 2 XFP Ports                        JD193B
HPE FlexNetwork 7500 384Gbps TAA-compliant Fabric/MPU with 2 10GbE XFP Ports       JC699A
HPE FlexNetwork 7500 384Gbps Fabric Module                                         JD194B
HPE FlexNetwork 7500 384Gbps Fabric Module with 12 SFP Ports                       JD224A
HPE FlexNetwork 7500 384Gbps Advanced Fabric Module                                JD195A
HPE FlexNetwork 7500 384Gbps TAA-compliant Fabric/Main Processing Unit             JC700A
HPE FlexNetwork 7500 768Gbps Fabric Module                                         JD220A
HPE FlexNetwork 7500 768Gbps TAA-compliant Fabric/Main Processing Unit             JC701A

**Note 20**   If this module is selected, then the following Comware V7 MPU's are compatible:

HPE FlexNetwork 7502 Main Processing Unit                                          JH208A
HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing   JH207A
Unit
HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+   JH209A
MPU

**Remark:**   JG639A and JG645A - Additional AP licenses available below in the 'Switch Enclosure Options'
category.

**7500 PoE Module**

# Configuration

System (std 0 // max 1) User Selection (min 0 // max 1) per Ethernet or Fabric Module

HPE FlexNetwork 7500 PoE DIMM Memory Module                                                JD192B
                                                                                  See Configuration
                                                                                  **NOTE:**1, 3, 6

Configuration Rules:

Note 1      The JD192B is optional when you have selected the JD199B, JD198B, JD210A, JC709A,
            JC710A or JD228B modules.

Note 3      If 1 or more of the JD192B (PoE DIMM Module) is ordered than the customer must also order
            2 of JD208A, JD218A, JD219A, or JD227A in order to support PoE. (Except for JD242x see
            rule 6)

Note 6      This Module is supported on the JD242x only when an External DC Power Source is connected
            to the rear terminals. (See Installation Guide)

# Transceivers

## 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 |
| HPE X130 10G SFP+ LC ER 40km Transceiver | JG234A |
| HPE X130 10G SFP+ LC LH 80km Transceiver | JG915A |
| HPE X130 10G SFP+ LC LH80 tunable Transceiver | JL250A |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| 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 |

## 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 X120 1G SFP RJ45 T Transceiver | JD089B |
| HPE X120 1G SFP LC SX Transceiver | JD118B |
| HPE X120 1G SFP LC LX Transceiver | JD119B |
| HPE X125 1G SFP LC LH70 Transceiver | JD063B |
| HPE X120 1G SFP LC BX 10-U Transceiver | JD098B |
| HPE X120 1G SFP LC BX 10-D Transceiver | JD099B |

# Configuration

| | |
|---|---|
| HPE X110 100M SFP LC LH40 Transceiver | JD090A |
| HPE X110 100M SFP LC LH80 Transceiver | JD091A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |

## 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 |
| HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver | JG228A |
| HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver | JG229A |
| HPE X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver | JG230A |
| HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver | JG231A |
| HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver | JG232A |
| HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver | JG233A |

## 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 |
| HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver | JL251A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable | JG326A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable | JG327A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable | JG328A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable | JG329A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | JG330A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable | JG331A |

## CFP Transceivers

| | |
|---|---|
| HPE X140 40G CFP LC LR4 10km SM Transceiver | JC857A |

# Internal Power Supplies

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

| | |
|---|---|
| HPE FlexNetwork 7502 300W AC Power Supply | JD226A |
| • includes 1 x c13, 300w | See Configuration |
| | **NOTE:**1, 4 |
| | |
| PDU Cable NA/MEX/TW/JP | JD226A#B2B |
| • C15 PDU Jumper Cord (NA/MEX/TW/JP) | |

# Configuration

PDU Cable ROW                                                                                                  JD226A#B2C
- C15 PDU Jumper Cord (ROW)

HPE FlexNetwork 7500 650W DC Power Supply                                          JD209A
                                                                                                      See Configuration
                                                                                                      **NOTE:**1

HPE FlexNetwork 7500 650W AC Power Supply                                          JD217A
- includes 1 x c13, 650w                                                                  See Configuration
                                                                                                      **NOTE:**1, 4

PDU Cable NA/MEX/TW/JP                                                                       JD217A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW                                                                                          JD217A#B2C
- C15 PDU Jumper Cord (ROW)

HPE FlexNetwork 7500 1400W DC Power Supply                                        JD208A
                                                                                                      See Configuration
                                                                                                      **NOTE:**2

HPE FlexNetwork 7500 1400W AC Power Supply                                        JD218A
- includes 1 x c19, 1400w                                                                See Configuration
                                                                                                      **NOTE:**2, 4

PDU Cable NA/MEX/TW/JP                                                                       JD218A#B2B
- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW                                                                                          JD218A#B2C
- C19 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord                                                       JD218A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HPE FlexNetwork 7500 2800W AC Power Supply                                        JD219A
- includes 2 x c19, 2800w                                                                See Configuration
                                                                                                      **NOTE:**2, 4

PDU Cable NA/MEX/TW/JP                                                                       JD219A#B2B
- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW                                                                                          JD219A#B2C
- C19 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord                                                       JD219A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HPE FlexNetwork 7500 6000W AC Power Supply                                        JD227A
- includes 4 x c19, 6000w                                                                See Configuration
                                                                                                      **NOTE:**2, 4

# Configuration

PDU Cable NA/MEX/TW/JP                                                          JD227A#B2B
- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW                                                                   JD227A#B2C
- C19 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord                                             JD227A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit                      JH215A
- includes 4 x c19, 6000w                                          See Configuration
                                                                    **NOTE:**4, 5

PDU Cable NA/MEX/TW/JP                                                          JH215A#B2B
- C19 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW                                                                   JH215A#B2C
- C19 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord                                             JH215A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Configuration Rules:

Note 1      Only supported on the JD242x .

Note 2      Only supported on the following:

| HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH331A |
| --- | --- |
| HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH332A |
| HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH333A |
| HPE FlexNetwork 7503 Switch Chassis | JD240C |
| HPE FlexNetwork 7506 Switch Chassis | JD239C |
| HPE FlexNetwork 7510 Switch Chassis | JD238C |

Note 3      If 2 power supplies are selected they must be the same Sku number.

Note 4      Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or
            #B2E. (See Localization Menu)
            REMARK: When Switches/Routers are Factory Racked, Then #B2B, #B2C should be the
            Defaulted Power Cable option on the Switches/Routers.

Note 5      Only supported on the following:

| HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH331A |
| --- | --- |
| HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH332A |
| HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle | JH333A |
| HPE FlexNetwork 7503 Switch Chassis | JD240C |
| HPE FlexNetwork 7506 Switch Chassis | JD239C |

# Configuration

Remarks:     Drop down under power supply should offer the following options and results:
Switch to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C
ROW. (Watson Default B2B or B2C for Rack Level CTO)
Switch 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)

# Switch Enclosure Options

### Software Licenses

HP Unified Wired-WLAN 128 AP E-LTU                                              JG649AAE
 (min 0 // max 7)                                                        See Configuration
REMARK: This license is for use with the Primary Controllers.                  **NOTE:**1

HP Unified Wired-WLAN 128 AP Redundant E-LTU                                    JG902AAE
 (min 0 // max 7)                                                        See Configuration
REMARK: This license is for use with the Redundant Controllers.                **NOTE:**1

Configuration Rules:

Note 1      Only supported on JG639A and JG645A.

### Compact Flash cards

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

HPE X600 1G Compact Flash Card                                                  JC684A
                                                                        See Configuration
                                                                               **NOTE:**1

HPE X600 512M Compact Flash Card                                                JC685A
                                                                        See Configuration
                                                                               **NOTE:**1

HPE X600 256M Compact Flash Card                                                JC686A
                                                                        See Configuration
                                                                               **NOTE:**1

Configuration Rules:

Note 1      These CF Cards are supported on the following Modules only:
HPE FlexNetwork 7500 384Gbps Fabric Module with 2 XFP Ports          JD193B
HPE FlexNetwork 7500 384Gbps Fabric Module                           JD194B
HPE FlexNetwork 7500 768Gbps Fabric Module                           JD220A
HPE FlexNetwork 7500 384Gbps Advanced Fabric Module                  JD195A
HPE FlexNetwork 7500 384Gbps Fabric Module with 12 SFP Ports         JD224A
HP 7503-S 144Gbps Fabric/MPU with PoE Upgradable 20-port Gig-T/4-port GbE Combo   JC666A
HP 9500 VPN Firewall Module                                          JD245A

# Configuration

**Options for the SSL VPN Service Board Modules (JD253x)**

**Spare Fan Assembly**

| | |
|---|---|
| HPE FlexNetwork 7502 Spare Fan Assembly | JD213A |
| HPE FlexNetwork 7503 Spare Fan Assembly | JD212A |
| HPE FlexNetwork 7506 Spare Fan Assembly | JD214A |
| HPE FlexNetwork 7510 Spare Fan Assembly | JD216A |

Remarks:    JD213A - This item is only used to replace the fan module of an 7502 . A host is delivered with the fan module.

JD212A - This item is only used to replace the fan module of a 7503. A host is delivered with the fan module.

JD214A - This item is only used to replace the fan module of a 7506. A host is delivered with the fan module.

JD216A - This item is only used to replace the fan module of a 7510. A host is delivered with the fan module.

# Opacity Shield Kit

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

| | |
|---|---|
| HPE FlexNetwork 7510 Opacity Shield Kit | JG565A |
| • Supported on JD238C | See Configuration |
| | **NOTE:**1, 4 |
| | |
| HPE FlexNetwork 7506 Opacity Shield Kit | JG566A |
| • Supported on JD239C | See Configuration |
| | **NOTE:**1, 3 |
| | |
| HPE FlexNetwork 7503 Opacity Shield Kit | JG568A |
| • Supported on JD240C | See Configuration |
| | **NOTE:**1, 2 |

Configuration Rules:

Note 1       If selected with a CTO Switch Solution, Quantity 1 of JG586A#B01 must also be ordered.

Note 2       Only supported on the following:
              HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle          JH331A
              HPE FlexNetwork 7503 Switch Chassis          JD240C

Note 3       Only supported on the following:
              HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle          JH332A
              HPE FlexNetwork 7506 Switch Chassis          JD239C

## Configuration

Note 4 Only supported on the following:

        HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle     JH333A

        HPE FlexNetwork 7510 Switch Chassis     JD238C

## Tamper Evidence Labels

HPE 12mm x 60mm Tamper Evidence (100) Labels     JG586A

See Configuration
**NOTE:**1, 2

Configuration Rules:

Note 1 If selected with a CTO Switch Solution, Quantity 1 of JG565A#B01, JG566A#B01 or JG568A#B01 must also be ordered.

Note 2 Only supported on the following:

        HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle     JH331A

        HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle     JH332A

        HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle     JH333A

        HPE FlexNetwork 7503 Switch Chassis     JD240C

        HPE FlexNetwork 7506 Switch Chassis     JD239C

        HPE FlexNetwork 7510 Switch Chassis     JD238C

Remarks: Each JG565A, JG566A or JG568A would use 1 of JG586A.

# Technical Specifications

**HPE FlexNetwork 7510 Switch Chassis** (JD238C)

| | |
|---|---|
| **Included accessories** | 1 HP 7510 Spare Fan Assembly (JD216A) |
| **I/O ports and slots** | 10 I/O module slots<br>Supports a maximum of 480 Gigabit Ethernet ports or 480 autosensing 10/100/1000 ports or 160 1/10GbE ports or 80 10GbE ports or 40 40GbE ports, or a combination |
| **Additional ports and slots** | 2 switch fabric slots |
| **Power supplies** | 2 power supply slots |
| | 1 minimum power supply required (ordered separately) |
| **Fan tray** | includes: 1 x JD216A |
| | 1 fan tray slot |

| | | |
|---|---|---|
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 27.87(h) in (43.6 x 42.0 x 70.8 cm) (16U height) |
| | **Weight** | 211 lb (95.71 kg) shipping weight |
| **Mounting and enclosure** | | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
| | **Operating relative humidity** | 10% to 95%, noncondensing |
| | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
| | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
| | **Acoustic** | Low-speed fan: 53.5 dB, High-speed fan: 56.7 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz |
| | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
| | **Current** | 16/50 A |
| | **Power output** | 1400 W |
| | **Notes** | Based on a common power supply of 1400 W (AC/DC) |
| **Safety** | | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 |
| **Emissions** | | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
| | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
| | **ESD** | EN 61000-4-2 |
| | **Radiated** | EN 61000-4-3 |
| | **EFT/Burst** | EN 61000-4-4 |
| | **Surge** | EN 61000-4-5 |
| | **Conducted** | EN 61000-4-6 |
| | **Power frequency magnetic field** | IEC 61000-4-8 |
| | **Voltage dips and** | EN 61000-4-11 |

# Technical Specifications

|  |  |  |
|---|---|---|
|  | **interruptions** |  |
|  | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |
| **Notes** | RFCs supported only in Comware v7:<br>1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 460, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192<br>For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A).<br>Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs:<br>• Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A<br>• Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A<br>Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 2,380 MPPS for packet performance and 4,160 Gbps for total switching capacity. | |
| **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 FlexNetwork 7506 Switch Chassis** (JD239C)

|  |  |  |
|---|---|---|
| **Included accessories** | 1 HP 7506 Spare Fan Assembly (JD214A) | |
| **I/O ports and slots** | 6 I/O module slots<br>Supports a maximum of 288 Gigabit Ethernet ports or 288 autosensing 10/100/1000 ports or 96 1/10GbE ports or 48 10GbE ports or 24 40GbE ports, or a combination | |
| **Additional ports and slots** | 2 switch fabric slots | |
| **Power supplies** | 2 power supply slots<br>1 minimum power supply required (ordered separately) | |
| **Fan tray** | includes: 1 x JD214A<br>1 fan tray slot | |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 22.64(h) in (43.6 x 42.0 x 57.5 cm) (13U height) |
|  | **Weight** | 207 lb (93.9 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
|  | **Operating relative humidity** | 10% to 95%, noncondensing |
|  | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
|  | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
|  | **Acoustic** | Low-speed fan: 53.6 dB, High-speed fan: 57.7 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz<br>Achieved Miercom Certified Green Award |

# Technical Specifications

|  |  |  |
|---|---|---|
|  | **Description** | The H3C S7506E (HPE 7606) is Certified Green in the 2009 Miercom Green Switches Industry Assessment |
|  | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
|  | **Current** | 16/50 A |
|  | **Power output** | 1400 W |
|  | **Notes** | Based on a common power supply of 1400 W (AC/DC) |
| **Safety** |  | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 |
| **Emissions** |  | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
|  | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
|  | **ESD** | EN 61000-4-2 |
|  | **Radiated** | EN 61000-4-3 |
|  | **EFT/Burst** | EN 61000-4-4 |
|  | **Surge** | EN 61000-4-5 |
|  | **Conducted** | EN 61000-4-6 |
|  | **Power frequency magnetic field** | IEC 61000-4-8 |
|  | **Voltage dips and interruptions** | EN 61000-4-11 |
|  | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib |
| **Notes** |  | RFCs supported only in Comware v7:<br>1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192<br>For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A).<br>Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs:<br>• Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A JH213A, JH214A, and JH309A<br>• Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A<br>Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 1,428 MPPS for packet performance and 2,880 Gbps for total switching capacity. |
| **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 FlexNetwork 7503 Switch Chassis** (JD240C)

| | |
|---|---|
| **Included accessories** | 1 HP 7503 Spare Fan Assembly (JD212A) |
| **I/O ports and slots** | 3 I/O module slots<br>Supports a maximum of 144 Gigabit Ethernet ports or 144 autosensing 10/100/1000 ports or 48 |

# Technical Specifications

| | | |
|---|---|---|
| **Additional ports and slots** | 1/10GbE ports or 24 10GbE ports or 12 40GbE ports, or a combination<br>2 switch fabric slots | |
| **Power supplies** | 2 power supply slots | |
| | 1 minimum power supply required (ordered separately) | |
| **Fan tray** | includes: 1 x JD212A | |
| | 1 fan tray slot | |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 17.36(h) in (43.6 x 42.0 x 44.1 cm) (10U height) |
| | **Weight** | 147 lb (66.68 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
| | **Operating relative humidity** | 10% to 95%, noncondensing |
| | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
| | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
| | **Acoustic** | Low-speed fan: 51.6 dB, High-speed fan: 56.1 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz |
| | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
| | **Current** | 16/50 A |
| | **Power output** | 1400 W |
| | **Notes** | Based on a common power supply of 1400 W (AC/DC) |
| **Safety** | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 | |
| **Emissions** | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A | |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
| | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
| | **ESD** | EN 61000-4-2 |
| | **Radiated** | EN 61000-4-3 |
| | **EFT/Burst** | EN 61000-4-4 |
| | **Surge** | EN 61000-4-5 |
| | **Conducted** | EN 61000-4-6 |
| | **Power frequency magnetic field** | IEC 61000-4-8 |
| | **Voltage dips and interruptions** | EN 61000-4-11 |
| | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |

## Technical Specifications

**Notes**                   RFCs supported only in Comware v7:
1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192
For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A).
Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs:
• Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A
• Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A
Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 714 MPPS for packet performance and 1,920 Gbps for total switching capacity.

**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 FlexNetwork 7502 Switch Chassis** (JD242C)

| | | |
|---|---|---|
| **Included accessories** | 1 HP 7502 Spare Fan Assembly (JD213A) | |
| **I/O ports and slots** | 2 I/O module slots<br>Supports a maximum of 96 Gigabit Ethernet ports or 96 autosensing 10/100/1000 ports or 32 1/10GbE ports or 16 10GbE ports or 8 40GbE ports, or a combination | |
| **Additional ports and slots** | 2 MPU (for management modules) slots | |
| **Power supplies** | 2 power supply slots | |
| | 1 minimum power supply required (ordered separately) | |
| **Fan tray** | includes: 1 x JD213A | |
| | 1 fan tray slot | |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 6.89(h) in (43.6 x 42.0 x 17.5 cm) (4U height) |
| | **Weight** | 59 lb (26.76 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
| | **Operating relative humidity** | 10% to 95%, noncondensing |
| | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
| | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
| | **Acoustic** | Low-speed fan: 49.8 dB, High-speed fan: 56.7 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz |
| | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
| | **Current** | 5/10 A |
| | **Power output** | 300 W |
| | **Notes** | Based on a common power supply of 300 W (AC/DC) |

# Technical Specifications

| | | |
|---|---|---|
| **Safety** | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 | |
| **Emissions** | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A | |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
| | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
| | **ESD** | EN 61000-4-2 |
| | **Radiated** | EN 61000-4-3 |
| | **EFT/Burst** | EN 61000-4-4 |
| | **Surge** | EN 61000-4-5 |
| | **Conducted** | EN 61000-4-6 |
| | **Power frequency magnetic field** | IEC 61000-4-8 |
| | **Voltage dips and interruptions** | EN 61000-4-11 |
| | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |
| **Notes** | RFCs supported only in Comware v7: 1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192 For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A). IRF functionality is not supported on the HP 7502 Switch Chassis. Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs: • Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A • Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A Performance depends on the MPU/Fabric installed, and when installed with two (2) JH208A the performance are as follows: up to 476 MPPS for packet performance and 640 Gbps for total switching capacity. | |
| **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 FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle** (JH333A)

| | |
|---|---|
| **Included accessories** | 1 HP 7510 Spare Fan Assembly (JD216A) 2 HP 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ Main Processing Unit (JH209A) |
| **I/O ports and slots** | 10 I/O module slots Supports a maximum of 480 Gigabit Ethernet ports or 480 autosensing 10/100/1000 ports or 160 1/10GbE ports or 80 10GbE ports or 40 40GbE ports, or a combination |
| **Additional ports and slots** | 2 switch fabric slots |
| **Power supplies** | 2 power supply slots 1 minimum power supply required (ordered separately) |

## Technical Specifications

| | | |
|---|---|---|
| **Fan tray** | includes: 1 x JD216A<br>1 fan tray slot | |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 27.87(h) in (43.6 x 42.0 x 70.8 cm) (16U height) |
| | **Weight** | 211 lb (95.71 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
| | **Operating relative humidity** | 10% to 95%, noncondensing |
| | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
| | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
| | **Acoustic** | Low-speed fan: 53.5 dB, High-speed fan: 56.7 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz |
| | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
| | **Current** | 16/50 A |
| | **Power output** | 1400 W |
| | **Notes** | Based on a common power supply of 1400 W (AC/DC) |
| **Safety** | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 | |
| **Emissions** | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A | |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
| | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
| | **ESD** | EN 61000-4-2 |
| | **Radiated** | EN 61000-4-3 |
| | **EFT/Burst** | EN 61000-4-4 |
| | **Surge** | EN 61000-4-5 |
| | **Conducted** | EN 61000-4-6 |
| | **Power frequency magnetic field** | IEC 61000-4-8 |
| | **Voltage dips and interruptions** | EN 61000-4-11 |
| | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |
| **Notes** | RFCs supported only in Comware v7:<br>1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192<br>For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN | |

## Technical Specifications

Firewall Module (JG372A).
- Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs:
- Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A
- Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A

Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 2,380 MPPS for packet performance and 4,160 Gbps for total switching capacity.

| | |
|---|---|
| **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 FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle** (JH332A)

| | | |
|---|---|---|
| **Included accessories** | 1 HP 7506 Spare Fan Assembly (JD214A)<br>2 HP 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and<br>2-port 40GbE QSFP+ Main Processing Unit (JH209A) | |
| **I/O ports and slots** | 6 I/O module slots<br>Supports a maximum of 288 Gigabit Ethernet ports or 288 autosensing 10/100/1000 ports or 96 1/10GbE ports or 48 10GbE ports or 24 40GbE ports, or a combination | |
| **Additional ports and slots** | 2 switch fabric slots | |
| **Power supplies** | 2 power supply slots | |
| | 1 minimum power supply required (ordered separately) | |
| **Fan tray** | includes: 1 x JD214A | |
| | 1 fan tray slot | |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 22.64(h) in (43.6 x 42.0 x 57.5 cm) (13U height) |
| | **Weight** | 207 lb (93.9 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
| | **Operating relative humidity** | 10% to 95%, noncondensing |
| | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
| | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
| | **Acoustic** | Low-speed fan: 53.6 dB, High-speed fan: 57.7 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz<br>Achieved Miercom Certified Green Award |
| | **Descriptions** | The H3C S7506E (HP 7506) is Certified Green in the 2009 Miercom Green Switches Industry Assessment. |
| | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
| | **Current** | 16/50 A |
| | **Power output** | 1400 W |
| | **Notes** | Based on a common power supply of 1400 W (AC/DC) |

## Technical Specifications

| | | |
|---|---|---|
| **Safety** | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 | |
| **Emissions** | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A | |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
| | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
| | **ESD** | EN 61000-4-2 |
| | **Radiated** | EN 61000-4-3 |
| | **EFT/Burst** | EN 61000-4-4 |
| | **Surge** | EN 61000-4-5 |
| | **Conducted** | EN 61000-4-6 |
| | **Power frequency magnetic field** | IEC 61000-4-8 |
| | **Voltage dips and interruptions** | EN 61000-4-11 |
| | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |
| **Notes** | RFCs supported only in Comware v7: 1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192<br>For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A).<br>Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs:<br>•Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A<br>•Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A<br>Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 1,428 MPPS for packet performance and 2,880 Gbps for total switching capacity. | |
| **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 FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle** (JH331A)

| | |
|---|---|
| **Included accessories** | 1 HP 7503 Spare Fan Assembly (JD212A)<br>2 HP 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ Main Processing Unit (JH209A) |
| **I/O ports and slots** | 3 I/O module slots<br>Supports a maximum of 144 Gigabit Ethernet ports or 144 autosensing 10/100/1000 ports or 48 1/10GbE ports or 24 10GbE ports or 12 40GbE ports, or a combination |
| **Additional ports and slots** | 2 switch fabric slots |
| **Power supplies** | 2 power supply slots |
| | 1 minimum power supply required (ordered separately) |
| **Fan tray** | includes: 1 x JD212A |

# Technical Specifications

|  |  |  |
|---|---|---|
|  | 1 fan tray slot |  |
| **Physical characteristics** | **Dimensions** | 17.17(w) x 16.54(d) x 17.36(h) in (43.6 x 42.0 x 44.1 cm) (10U height) |
|  | **Weight** | 147 lb (66.68 kg) shipping weight |
| **Mounting and enclosure** | Mounts in an EIA-standard 19 in. rack or other equipment cabinet (hardware included); Horizontal surface mounting only | |
| **Reliability** | **Availability** | 99.999% |
| **Environment** | **Operating temperature** | 32°F to 113°F (0°C to 45°C) |
|  | **Operating relative humidity** | 10% to 95%, noncondensing |
|  | **Nonoperating/Storage temperature** | -40°F to 158°F (-40°C to 70°C) |
|  | **Nonoperating/Storage relative humidity** | 5% to 95%, noncondensing |
|  | **Acoustic** | Low-speed fan: 51.6 dB, High-speed fan: 56.1 dB |
| **Electrical characteristics** | **Frequency** | 50/60 Hz |
|  | **Voltage** | 100 - 120 / 200 - 240 VAC, rated<br>-48 to -60 VDC, rated<br>(depending on power supply chosen) |
|  | **Current** | 16/50 A |
|  | **Power output** | 1400 W |
|  | **Notes** | Based on a common power supply of 1400 W (AC/DC) |
| **Safety** | UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11 | |
| **Emissions** | VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A | |
| **Immunity** | **Generic** | ETSI EN 300 386 V1.3.3 |
|  | **EN** | EN 61000-4-2:1995+A1:1998+A2:2001 |
|  | **ESD** | EN 61000-4-2 |
|  | **Radiated** | EN 61000-4-3 |
|  | **EFT/Burst** | EN 61000-4-4 |
|  | **Surge** | EN 61000-4-5 |
|  | **Conducted** | EN 61000-4-6 |
|  | **Power frequency magnetic field** | IEC 61000-4-8 |
|  | **Voltage dips and interruptions** | EN 61000-4-11 |
|  | **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; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet mib; Ethernet interface mib | |
| **Notes** | RFCs supported only in Comware v7:<br>1541, 1542, 1981, 2080, 2460, 2464, 2473, 2474, 2545, 2711, 2863, 2868, 3315, 3413, 3416, 3484, 3575, 3736, 3810, 3956, 4123, 4271, 4291, 4292, 4293, 4443, 4552, 4607, 4659, 4798, 4861, 4862, 5080, 5095, 5340, 5492, 5905 and 6192<br>For non-TAA environments, IKE/IPSec functionality is provided by the HPE 7500/10500 20Gbps VPN Firewall Module (JG372A).<br>Comware v7 MPUs (JH207A, JH208A and JH209A) only support these LPUs: | |

# Technical Specifications

- Comware v7 LPUs- JH209A, JH210A, JH211A, JH212A, JH213A, JH214A, and JH309A
- Comware v5 LPUs- JG663A, JD229B, JD230A, JD234A, JD237A, JD221A, JD231A, JD232A, JD233A, JD191A, JD235A, JD236A, JF290A, and JC792A

Performance depends on the MPU/Fabric installed, and when installed with two (2) JH209A the performance are as follows: up to 714 MPPS for packet performance and 1,920 Gbps for total switching capacity.

**Services**  Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office

---

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

**BGP**
RFC 1771 BGPv4
RFC 1772 Application of the BGP
RFC 1997 BGP Communities Attribute
RFC 1998 PPP Gandalf FZA Compression Protocol
RFC 2385 BGP Session Protection via TCP MD5
RFC 2439 BGP Route Flap Damping
RFC 2796 BGP Route Reflection
RFC 2858 BGP-4 Multi-Protocol Extensions
RFC 2918 Route Refresh Capability
RFC 3065 Autonomous System Confederations for BGP
RFC 3392 Capabilities Advertisement with BGP-4
RFC 4271 A Border Gateway Protocol 4 (BGP-4)
RFC 4272 BGP Security Vulnerabilities Analysis
RFC 4273 Definitions of Managed Objects for BGP-4
RFC 4274 BGP-4 Protocol Analysis
RFC 4275 BGP-4 MIB Implementation Survey
RFC 4276 BGP-4 Implementation Report
RFC 4277 Experience with the BGP-4 Protocol
RFC 4360 BGP Extended Communities Attribute
RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
RFC 5291 Outbound Route Filtering Capability for BGP-4
RFC 5292 Address-Prefix-Based Outbound Route Filter for BGP-4

**Denial of service protection**
RFC 2267 Network Ingress Filtering
RFC 6192: Protecting the Router Control Plane
Automatic filtering of well-known denial-of-service packets
CPU DoS Protection
Rate Limiting by ACLs

**Device management**
RFC 1157 SNMPv1/v2c
RFC 1305 NTPv3
RFC 1902 (SNMPv2)
RFC 2579 (SMIv2 Text Conventions)
RFC 2580 (SMIv2 Conformance)
RFC 2819 (RMON groups Alarm, Event, History and Statistics only)
Multiple Configuration Files

**MIBs**
RFC 1156 (TCP/IP MIB)
RFC 1157 A Simple Network Management Protocol (SNMP)
RFC 1213 MIB II
RFC 1215 A Convention for Defining Traps for use with the SNMP
RFC 1229 Interface MIB Extensions
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 1907 SNMPv2 MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2012 SNMPv2 MIB for TCP
RFC 2013 SNMPv2 MIB for UDP
RFC 2096 IP Forwarding Table MIB
RFC 2233 Interfaces MIB
RFC 2452 IPV6-TCP-MIB
RFC 2454 IPV6-UDP-MIB
RFC 2465 IPv6 MIB
RFC 2466 ICMPv6 MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2573 SNMP-Target MIB
RFC 2578 Structure of Management Information Version 2 (SMIv2)
RFC 2580 Conformance Statements for SMIv2
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2787 VRRP MIB
RFC 2819 RMON MIB
RFC 2863 The Interfaces Group MIB
RFC 2925 Ping MIB
RFC 2932 IP (Multicast Routing MIB)
RFC 2933 IGMP MIB
RFC 2934 Protocol Independent Multicast MIB for IPv4

## Technical Specifications

Multiple Software Images
SSHv1/SSHv2 Secure Shell
TACACS/TACACS+

**General protocols**
IEEE 802.1ad Q-in-Q
IEEE 802.1ag Service Layer OAM
IEEE 802.1AX-2008 Link Aggregation
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3ab 1000BASE-T
IEEE 802.3ac (VLAN Tagging Extension)
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber - EFMF
IEEE 802.3at
IEEE 802.3ba 40 and 100 Gigabit Ethernet Architecture
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 894 IP over Ethernet
RFC 903 RARP
RFC 906 TFTP Bootstrap
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 959 File Transfer Protocol (FTP)
RFC 1027 Proxy ARP
RFC 1035 Domain Implementation and Specification
RFC 1042 IP Datagrams
RFC 1058 RIPv1
RFC 1142 OSI IS-IS Intra-domain Routing Protocol
RFC 1195 OSI ISIS for IP and Dual Environments
RFC 1213 Management Information Base for Network Management of TCP/IP-based internets
RFC 1256 ICMP Router Discovery Protocol (IRDP)
RFC 1293 Inverse Address Resolution Protocol
RFC 1305 NTPv3
RFC 1350 TFTP Protocol (revision 2)
RFC 1393 Traceroute Using an IP Option

RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 3417 Simple Network Management Protocol (SNMP) over IEEE 802 Networks
RFC 3418 MIB for SNMPv3
RFC 3595 Textual Conventions for IPv6 Flow Label
RFC 3621 Power Ethernet MIB
RFC 3813 MPLS LSR MIB
RFC 3814 MPLS FTN MIB
RFC 3815 MPLS LDP MIB
RFC 3826 AES for SNMP's USM MIB
RFC 4133 Entity MIB (Version 3)
RFC 4444 Management Information Base for Intermediate System to Intermediate System (IS-IS)

**MPLS**
RFC 2205 Resource ReSerVation Protocol
RFC 2209 Resource ReSerVation Protocol (RSVP)
RFC 2702 Requirements for Traffic Engineering Over MPLS
RFC 2858 Multiprotocol Extensions for BGP-4
RFC 2961 RSVP Refresh Overhead Reduction Extensions
RFC 3031 Multiprotocol Label Switching Architecture
RFC 3032 MPLS Label Stack Encoding
RFC 3107 Carrying Label Information in BGP-4
RFC 3209 RSVP-TE: Extensions to RSVP for LSP Tunnels
RFC 3212 Constraint-Based LSP Setup using LDP
RFC 3479 Fault Tolerance for the Label Distribution Protocol (LDP)
RFC 3487 Graceful Restart Mechanism for LDP
RFC 3564 Requirements for Support of Differentiated Service-aware MPLS Traffic Engineering
RFC 4364 BGP/MPLS IP Virtual Private Networks (VPNs)
RFC 4379 Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures
RFC 4447 Pseudowire Setup and Maintenance Using LDP
RFC 4448 Encapsulation Methods for Transport of Ethernet over MPLS Networks
RFC 4664 Framework for Layer 2 Virtual Private Networks
RFC 4665 Service Requirements for Layer 2 Provider Provisioned Virtual Private Networks
RFC 4761 Virtual Private LAN Service (VPLS) Using BGP for Auto-Discovery and Signaling
RFC 4762 Virtual Private LAN Service (VPLS)

## Technical Specifications

RFC 1519 CIDR
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor
Extensions
RFC 1541 DHCP
RFC 1542 BOOTP
RFC 1591 DNS (client only)
RFC 1624 Incremental Internet Checksum
RFC 1701 Generic Routing Encapsulation
RFC 1721 RIP-2 Analysis
RFC 1723 RIP v2
RFC 1812 IPv4 Routing
RFC 1981 Path MTU Discovery for IP version 6
RFC 2030 Simple Network Time Protocol (SNTP)
v4
RFC 2082 RIP-2 MD5 Authentication
RFC 2091 Trigger RIP
RFC 2131 DHCP
RFC 2138 Remote Authentication Dial In User
Service (RADIUS)
RFC 2236 IGMP Snooping
RFC 2338 VRRP
RFC 2453 RIPv2
RFC 2460 IPv6
RFC 2464 Transmission of IPv6 Packets over
Ethernet Networks
RFC 2474 Definition of the Differentiated Services
Field (DS Field) in the IPv4 and IPv6 Headers
RFC 2644 Directed Broadcast Control
RFC 2711 IPv6 Router Alert Option
RFC 2763 Dynamic Name-to-System ID mapping
support
RFC 2784 Generic Routing Encapsulation (GRE)
RFC 2865 Remote Authentication Dial In User
Service (RADIUS)
RFC 2868 RADIUS Attributes for Tunnel Protocol
Support
RFC 2966 Domain-wide Prefix Distribution with
Two-Level IS-IS
RFC 2973 IS-IS Mesh Groups
RFC 3022 Traditional IP Network Address
Translator (Traditional NAT)
RFC 3277 IS-IS Transient Blackhole Avoidance
RFC 3413 Simple Network Management Protocol
(SNMP) Applications
RFC 3416 Protocol Operations for SNMP
RFC 3484 Default Address Selection for Internet
Protocol version 6 (IPv6)
RFC 3567 Intermediate System to Intermediate
System (IS-IS) Cryptographic Authentication
RFC 3575 IANA Considerations for RADIUS
RFC 3719 Recommendations for Interoperable
Networks using Intermediate System to
Intermediate System (IS-IS)
RFC 3736 Stateless Dynamic Host Configuration
Protocol (DHCP) Service for IPv6

Using
Label Distribution Protocol (LDP) Signaling
RFC 5036 LDP Specification

**Network management**
IEEE 802.1AB Link Layer Discovery Protocol
(LLDP)
RFC 1155 Structure of Management Information
RFC 1157 SNMPv1
RFC 1448 Protocol Operations for version 2 of the
Simple Network Management Protocol (SNMPv2)
RFC 2211 Controlled-Load Network
RFC 2819 Four groups of RMON: 1 (statistics), 2
(history), 3 (alarm) and 9 (events)
RFC 3176 sFlow
RFC 3411 SNMP Management Frameworks
RFC 3412 SNMPv3 Message Processing
RFC 3414 SNMPv3 User-based Security Model
(USM)
RFC 3415 SNMPv3 View-based Access Control
Model VACM)
ANSI/TIA-1057 LLDP Media Endpoint Discovery
(LLDP-MED)

**OSPF**
RFC 1245 OSPF protocol analysis
RFC 1246 Experience with OSPF
RFC 1765 OSPF Database Overflow
RFC 1850 OSPFv2 Management Information Base
(MIB), traps
RFC 2154 OSPF w/ Digital Signatures (Password,
MD-5)
RFC 2328 OSPFv2
RFC 2370 OSPF Opaque LSA Option
RFC 3101 OSPF NSSA
RFC 3137 OSPF Stub Router Advertisement
RFC 3623 Graceful OSPF Restart
RFC 3630 Traffic Engineering Extensions to
OSPFv2
RFC 4061 Benchmarking Basic OSPF Single
Router
Control Plane Convergence
RFC 4062 OSPF Benchmarking Terminology and
Concepts
RFC 4063 Considerations When Using Basic OSPF
Convergence Benchmarks
RFC 4222 Prioritized Treatment of Specific OSPF
Version 2 Packets and Congestion Avoidance
RFC 4577 OSPF as the Provider/Customer Edge
Protocol for BGP/MPLS IP Virtual Private Networks
(VPNs)
RFC 4811 OSPF Out-of-Band LSDB
Resynchronization
RFC 4812 OSPF Restart Signaling
RFC 4813 OSPF Link-Local Signaling
RFC 4940 IANA Considerations for OSPF

## Technical Specifications

RFC 3784 ISIS TE support
RFC 3786 Extending the Number of IS-IS LSP
Fragments Beyond the 256 Limit
RFC 3787 Recommendations for Interoperable IP
Networks using Intermediate System to
Intermediate System (IS-IS)
RFC 3810 Multicast Listener Discovery Version 2
(MLDv2) for IPv6
RFC 3847 Restart signaling for IS-IS
RFC 3956 Embedding the Rendezvous Point (RP)
Address in an IPv6 Multicast Address
RFC 4123: Session Initiation Protocol (SIP)-H.323
Interworking Requirements
RFC 4251 The Secure Shell (SSH) Protocol
Architecture
RFC 4271 A Border Gateway Protocol 4 (BGP-4)
RFC 4291 IP Version 6 Addressing Architecture
RFC 4292 IP Forwarding Table MIB
RFC 4293 Management Information Base for the
Internet Protocol (IP)
RFC 4443 Internet Control Message Protocol
(ICMPv6) for the Internet Protocol Version 6
(IPv6) Specification
RFC 4486 Subcodes for BGP Cease Notification
Message
RFC 4552 Authentication/Confidentiality for
OSPFv3
RFC 4607 Source-Specific Multicast for IP
RFC 4659 BGP-MPLS IP Virtual Private Network
(VPN) Extension for IPv6 VPN
RFC 4798 Connecting IPv6 Islands over IPv4
MPLS Using IPv6 Provider Edge Routers (6PE)
RFC 4861 Neighbor Discovery for IP version 6
(IPv6)
RFC 4862 IPv6 Stateless Address
Autoconfiguration
RFC 4884 Extended ICMP to Support Multi-Part
Messages
RFC 4941 Privacy Extensions for Stateless
Address Autoconfiguration in IPv6
RFC 5095 Deprecation of Type 0 Routing Headers
in IPv6
RFC 5130 A Policy Control Mechanism in IS-IS
Using Administrative Tags
RFC 5340 OSPF for IPv6
RFC 5492 Capabilities Advertisement with BGP-4
RFC 5905 Network Time Protocol Version 4:
Protocol and Algorithms Specification

### IP multicast
RFC 2236 IGMPv2
RFC 2283 Multiprotocol Extensions for BGP-4
RFC 2362 PIM Sparse Mode
RFC 3376 IGMPv3
RFC 3446 Anycast Rendezvous Point (RP)
mechanism using Protocol Independent Multicast

### QoS/CoS
IEEE 802.1p (CoS)
RFC 1349 Type of Service in the Internet Protocol
Suite
RFC 2211 Specification of the Controlled-Load
Network Element Service
RFC 2212 Guaranteed Quality of Service
RFC 2474 DSCP DiffServ
RFC 2475 DiffServ Architecture
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

### Security
IEEE 802.1X Port Based Network Access Control
RFC 1321 The MD5 Message-Digest Algorithm
RFC 1334 PPP Authentication Protocols (PAP)
RFC 1492 TACACS+
RFC 1994 PPP Challenge Handshake
Authentication Protocol (CHAP)
RFC 2082 RIP-2 MD5 Authentication
RFC 2104 Keyed-Hashing for Message
Authentication
RFC 2408 Internet Security Association and Key
Management Protocol (ISAKMP)
RFC 2409 The Internet Key Exchange (IKE)
RFC 2716 PPP EAP TLS Authentication Protocol
RFC 2865 RADIUS Authentication
RFC 2866 RADIUS Accounting
RFC 2867 RADIUS Accounting Modifications for
Tunnel Protocol Support
RFC 2868 RADIUS Attributes for Tunnel Protocol
Support
RFC 2869 RADIUS Extensions
RFC 5080: Common Remote Authentication Dial In
User Service (RADIUS) Implementation Issues and
Suggested Fixes
Access Control Lists (ACLs)
Guest VLAN for 802.1X
MAC Authentication
Port Security
SSHv1/SSHv2 Secure Shell

### VPN
RFC 2403 - HMAC-MD5-96
RFC 2404 - HMAC-SHA1-96
RFC 2405 - DES-CBC Cipher algorithm
RFC 2407 - Domain of interpretation
RFC 2473 Generic Packet Tunneling in IPv6
Specification
RFC 2547 BGP/MPLS VPNs
RFC 2917 A Core MPLS IP VPN Architecture
RFC 3947 - Negotiation of NAT-Traversal in the
IKE
RFC 4302 - IP Authentication Header (AH)
RFC 4303 - IP Encapsulating Security Payload

## Technical Specifications

(PIM) and Multicast Source Discovery Protocol (MSDP)
RFC 3618 Multicast Source Discovery Protocol (MSDP)
RFC 3973 PIM Dense Mode
RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener
Discovery (MLD) Snooping Switches
RFC 4601 Draft 10 PIM Sparse Mode
RFC 4604 Using Internet Group Management Protocol Version 3 (IGMPv3) and Multicast Listener
Discovery Protocol Version 2 (MLDv2) for Source-Specific Multicast
RFC 4605 IGMP/MLD Proxying
RFC 4607 Source-Specific Multicast for IP
RFC 4610 Anycast-RP Using Protocol Independent
Multicast (PIM)
RFC 5059 Bootstrap Router (BSR) Mechanism for Protocol Independent Multicast (PIM)

**IPv6**
RFC 1886 DNS Extension for IPv6
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2081 RIPng Protocol Applicability Statement
RFC 2292 Advanced Sockets API for IPv6
RFC 2373 IPv6 Addressing Architecture
RFC 2375 IPv6 Multicast Address Assignments
RFC 2460 IPv6 Specification
RFC 2461 IPv6 Neighbor Discovery
RFC 2462 IPv6 Stateless Address Auto-configuration
RFC 2463 ICMPv6
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2473 Generic Packet Tunneling in IPv6
RFC 2526 Reserved IPv6 Subnet Anycast Addresses
RFC 2529 Transmission of IPv6 Packets over IPv4
RFC 2545 Use of MP-BGP-4 for IPv6
RFC 2553 Basic Socket Interface Extensions for IPv6
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2740 OSPFv3 for IPv6
RFC 2767 Dual stacks IPv46 & IPv6
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3307 IPv6 Multicast Address Allocation

(ESP)

**IPsec**
RFC 1828 IP Authentication using Keyed MD5
RFC 1829 The ESP DES-CBC Transform
RFC 2085 HMAC-MD5 IP Authentication with Replay Prevention
RFC 2401 IP Security Architecture
RFC 2402 IP Authentication Header
RFC 2406 IP Encapsulating Security Payload
RFC 2410 - The NULL Encryption Algorithm and its
use with IPsec
RFC 2411 IP Security Document Roadmap

## Technical Specifications

RFC 3315 DHCPv6 (client and relay)
RFC 3484 Default Address Selection for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3736 Stateless Dynamic Host Configuration
Protocol (DHCP) Service for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4214 Intra-Site Automatic Tunnel Addressing
Protocol (ISATAP)
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-
configuration

## Accessories

### HPE FlexNetwork 7500 Switch Series accessories

**Modules**

| | |
|---|---|
| HPE FlexNetwork 7500 12-port GbE SFP SC Module | JD207A |
| HPE FlexNetwork 7500 24-port GbE SFP SC Module | JD203B |
| HPE FlexNetwork 7500 24-port GbE SFP Enhanced Module | JD231A |
| HPE FlexNetwork 7500 24-port GbE SFP with 8 Combo SD Module | JD234A |
| HPE FlexNetwork 7500 24-port GbE SFP/2-port 10GbE XFP Module | JD205A |
| HPE FlexNetwork 7500 24-port GbE SFP with 8 Combo and 2-port 10GbE XFP SD Module | JD230A |
| HPE FlexNetwork 7500 48-port GbE SFP SC Module | JD211B |
| HPE FlexNetwork 7500 48-port GbE SFP Enhanced Module | JD221A |
| HPE FlexNetwork 7500 48-port GbE SFP SD Module | JD237A |
| HPE FlexNetwork 7500 20-port Gig-T/4-port GbE Combo PoE-upgradable SC Module | JC669A |
| HPE FlexNetwork 7500 24-port Gig-T SC Module | JD204B |
| HPE FlexNetwork 7500 24-port Gig-T/2-port 10GbE XFP SC Module | JD206A |
| HPE FlexNetwork 7500 40-port Gig-T/8-port SFP PoE-upgradable SC Module | JD228B |
| HPE FlexNetwork 7500 48-port Gig-T PoE-ready SC Module | JD210A |
| HPE FlexNetwork 7500 48-port Gig-T PoE+ SD Module | JD229B |
| HPE FlexNetwork 7500 48-port 1000BASE-T PoE+ SC Module | JG663A |
| HPE FlexNetwork 7500 2-port 10GbE XFP SC Module | JD201A |
| HPE FlexNetwork 7500 2-port 10GbE XFP Enhanced Module | JD233A |
| HPE FlexNetwork 7500 2-port 10GbE XFP SD Module | JD236A |
| HPE FlexNetwork 7500 4-port 10GbE XFP Enhanced Module | JD232A |
| HPE FlexNetwork 7500 4-port 10GbE XFP SD Module | JD235A |
| HP FlexNetwork 7500 8-port 10GbE XFP SD Module | JD191A |
| HPE FlexNetwork 7500 8-port 10G SFP+ SC Module | JF290A |
| HPE FlexNetwork 7500 4-port 40GbE QSFP+ SC Module | JC792A |
| HP 7500 4-port 40GbE CFP SC Module | JG373A |
| HPE FlexNetwork 7500 44-port SFP/4-port SFP+ SE Module | JH210A |
| HPE FlexNetwork 7500 24-port SFP/4-port SFP+ SE Module | JH211A |
| HPE FlexNetwork 7500 48-port 1000BASE-T SE Module | JH212A |
| HPE FlexNetwork 7500 48-port 1000BASE-T with PoE+ SE Module | JH213A |
| HPE FlexNetwork 7500 16-port 1/10GbE SFP+ SF Module | JH214A |
| HPE FlexNetwork 7500 12-port 1/10GbE SFP+ EC Module | JH309A |
| HP 7500 48-port 100BASE-FX Module | JD197B |

**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 1590 Transceiver | JD111A |
| HPE X170 1G SFP LC LH70 1610 Transceiver | JD112A |
| HPE X170 1G SFP LC LH70 1510 Transceiver | JD115A |

## Accessories

| | |
|---|---|
| HPE X120 1G SFP LC SX Transceiver | JD118B |
| HPE X120 1G SFP LC LX Transceiver | JD119B |
| HPE X115 100M SFP LC BX 10-U Transceiver | JD100A |
| HPE X115 100M SFP LC BX 10-D Transceiver | JD101A |
| HPE X115 100M SFP LC FX Transceiver | JD102B |
| HPE X110 100M SFP LC LX Transceiver | JD120B |
| HPE X130 10G XFP LC ZR Single Mode 80km 1550nm Transceiver | JD107A |
| 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 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 LH80 tunable Transceiver | JL250A |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| 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 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 ER 40km Transceiver | JG234A |
| HPE X140 40G QSFP+ MPO SR4 Transceiver | JG325B |
| HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver | JG661A |
| HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver | JG709A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable | JG326A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable | JG327A |
| HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable | JG328A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable | JG329A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | JG330A |
| HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable | JG331A |
| HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver | JL251A |

### Cables

| | |
|---|---|
| HPE LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable | AJ839A |
| HPE LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable | AJ838A |
| HPE LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable | AJ837A |
| HPE LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable | AJ836A |
| HPE LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable | AJ835A |
| HPE LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable | AJ834A |
| HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable | AJ833A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable | QK732A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable | QK733A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable | QK734A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable | QK735A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable | QK736A |
| HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable | QK737A |

### Mounting Kit

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

# Accessories

**Appliance**

| | |
|---|---|
| HPE 10500/11900/7500 20Gbps VPN Firewall Module | JG372A |

**Memory**

| | |
|---|---|
| HPE FlexNetwork 7500 PoE DIMM Memory Module | JD192B |
| HPE X600 1G Compact Flash Card | JC684A |
| HPE X600 512M Compact Flash Card | JC685A |
| HPE X600 256M Compact Flash Card | JC686A |

**HPE FlexNetwork 7510 Switch Chassis (JD238C)**

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7510 Spare Fan Assembly | JD216A |

**HPE FlexNetwork 7506 Switch Chassis (JD239C)**

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit | JH215A |
| HPE FlexNetwork 7506 Spare Fan Assembly | JD214A |

**HPE FlexNetwork 7503 Switch Chassis (JD240C)**

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit | JH215A |
| HPE FlexNetwork 7503 Spare Fan Assembly | JD212A |

**HPE FlexNetwork 7502 Switch Chassis (JD242C)**

| | |
|---|---|
| HPE FlexNetwork 7502 Main Processing Unit | JH208A |
| HPE FlexNetwork 7500 650W AC Power Supply | JD217A |
| HPE FlexNetwork 7500 650W DC Power Supply | JD209A |
| HPE FlexNetwork 7502 300W AC Power Supply | JD226A |
| HPE RPS 800 Redundant Power Supply | JD183A |
| HPE FlexNetwork 7502 Spare Fan Assembly | JD213A |

**HPE FlexNetwork 7510 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle (JH333A)**

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |

# Accessories

| | |
|---|---|
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7510 Spare Fan Assembly | JD216A |

## HPE FlexNetwork 7506 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle (JH332A)

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit | JH215A |
| HPE FlexNetwork 7506 Spare Fan Assembly | JD214A |

## HPE FlexNetwork 7503 Switch with 2x2.4Tbps Fabric and Main Processing Unit Bundle (JH331A)

| | |
|---|---|
| HPE FlexNetwork 7500 1.2Tbps Fabric with 2-port 40GbE QSFP+ for IRF-only Main Processing Unit | JH207A |
| HPE FlexNetwork 7500 2.4Tbps Fabric with 8-port 1/10GbE SFP+ and 2-port 40GbE QSFP+ MPU | JH209A |
| HPE FlexNetwork 7500 1400W DC Power Supply | JD208A |
| HPE FlexNetwork 7500 1400W AC Power Supply | JD218A |
| HPE FlexNetwork 7500 2800W AC Power Supply | JD219A |
| HPE FlexNetwork 7500 6000W AC Power Supply | JD227A |
| HPE FlexNetwork 7503/7506/7506 V 650W AC Power Supply Unit | JH215A |
| HPE FlexNetwork 7503 Spare Fan Assembly | JD212A |

## Summary of Changes

| Date | Version History | Action | Description of Change: |
|------|-----------------|--------|------------------------|
| 02-Sep-2016 | From Version 46 to 47 | Changed | Minor changes made on Technical Specifications |
| 26-Aug-2016 | From Version 45 to 46 | Changed | Edits made on F&B and Technical Specifications |
| 01-Aug-2016 | From Version 44 to 45 | Added | SKUs added: JL250A |
|  |  | Changed | Technical Specifications and Accessories updated. |
| 10-Jun-2016 | From Version 43 to 44 | Changed | Updates on the Configuration section |
| 06-Jun-2016 | From Version 42 to 43 | Changed | Document name changed to HPE FlexNetwork 7500 Switch Series.<br>Product description updated. |
| 08-Apr-2016 | From Version 41 to 42 | Changed | SKU descriptions updated on all document. |
| 18-Mar-2016 | From Version 40 to 41 | Changed | Overview, Features and Benefits, Configuration, Technical Specifications and Accessories updated. |
| 15-Jan-2016 | From Version 39 to 40 | Changed | Overview and Technical Specifications updated |
|  |  | Removed | SKUs removed: JD238B, JD239B, JD240B, JD242B |
| 01-Dec-2015 | From Version 38 to 39 | Changed | Overview and Technical Specifications updated |
| 02-Oct-2015 | From Version 37 to 38 | Changed | Configuration section updated |
| 28-Sep-2015 | From Version 36 to 37 | Added | Models added: JD238C, JD239C, JD240C, JD242C, JH331A, JH332A, JH333A<br>Accessories section added |
|  |  | Changed | Updates made on Overview, Features and Benefits, Configuration and Technical Specifications. |
| 17-Feb-2015 | From Version 35 to 36 | Changed | SKUs descriptions and Configuration menu updated. |
| 03-Jul-2014 | From Version 34 to 35 | Changed | Configuration menu updated. |
| 10-Jun-2014 | From Version 33 to 34 | Changed | Switch Enclosure Options were updated in the Configuration section. |
| 15-Apr-2014 | From Version 30 to 33 | Changed | Minor edit was made in Product Overview. |
| 31-Mar-2014 | From Version 29 to 30 | Changed | Configuration Rules was revised throughout Configuration. |
| 19-Mar-2014 | From Version 28 to 29 | Changed | Transceivers were revised in Configuration. |
| 22-Nov-2013 | From Version 27 to 28 | Changed | Box Level Integration CTO Models, Rack Level Integration CTO Models, and Internal Power Supplies were revised in Configuration. |
| 14-Oct-2013 | From Version 26 to 27 | Changed | Configuration was revised, including adding a new Transceiver. |
| 30-Sep-2013 | From Version 25 to 26 | Changed | Configuration was revised.<br>Features and Benefits was revised.<br>Product overview was revised. |
| 27-Sep-2013 | From Version 24 to 25 | Changed | Configuration was revised. |
| 11-Sep-2013 | From Version 23 to 24 | Changed | Minor edit was made in Configuration. |
| 19-Aug-2013 | From Version 22 to 23 | Changed | Box Level Integration CTO Models and Rack Level Integration CTO Models were revised in Configuration. |

## Summary of Changes

| 12-Jul-2013 | From Version 21 to 22 | Changed | Updated the Configuration Information. |
|---|---|---|---|
| 19-Jun-2013 | From Version 20 to 21 | Changed | HP 10500/7500 20G Unified Wired-WLAN Module was added to Accessory Product Details<br>Integration was revised in Features and Benefits |
| 07-Jun-2013 | From Version 19 to 20 | Changed | Updated the Direct Attach Copper Cables in the Configuration Information section. |
| 22-May-2013 | From Version 18 to 19 | Changed | Updated the Configuration Information. |
| 12-Apr-2013 | From Version 17 to 18 | Removed | Completely removed Accessories section.<br>Accessory Product Details: Removed several sections. |
|  |  | Changed | Configuration: Completely updated Build To Order section. |
| 19-Mar-2013 | From Version 16 to 17 | Changed | Corrected the new Configuration section. |
| 01-Mar-2013 | From Version 15 to 16 | Changed | Corrected the formatting in the new Configuration section. |
| 19-Feb-2013 | From Version 13 to 15 | Added | Added the Configuration section. |
|  |  | Changed | Changes were made to Features and Benefits. The model specifications had minor updates, as did the Accessories section. |
| 04-Dec-2012 | From Version 12 to 13 | Changed | Changes were made to Features and Benefits. The model specifications had minor updates, as did the Accessories section. |
| 24-Sep-2012 | From Version 11 to 12 | Changed | Updated Features and Benefits, Introduction, the specifications, and Accessories. |
| 21-May-2012 | From Version 10 to 11 | Changed | Updated the Standards and protocols section of Technical specifications. |
| 14-May-2012 | From Version 9 to 10 | Changed | Features and Benefits, Accessories, and the weight and dimensions for each spec were revised. |
| 02-Apr-2012 | From Version 8 to 9 | Changed | Part number was revised. |
| 26-Mar-2012 | From Version 7 to 8 | Changed | Accessories were revised. |
| 16-Nov-2011 | From Version 6 to 7 | Changed | Specifications were revised. |
| 26-Sep-2011 | From Version 5 to 6 | Changed | Models, Features and Benefits and Accessories were revised. |
| 07-Sep-2011 | From Version 4 to 5 | Added | Accessory Product Details was added. |
| 07-Mar-2011 | From Version 3 to 4 | Changed | Accessories product descriptions and notes and services in Models were revised. |
| 18-Feb-2011 | From Version 2 to 3 | Changed | Clarified in a couple of locations about the availability of IRF. |
| 08-Oct-2010 | From Version 1 to 2 | Changed | Corrected the options section. |
|  |  |  |  |

## Summary of Changes

**Sign up for updates**

To learn more, visit: **http://www.hpe.com/networking**

c04111585 - 13805 - Worldwide - V47 - 2-September-2016