QuickSpecs

Overview

HPE Networking Comware Switch Series 5140 EI

The HPE Networking Comware Switch Series 5140 EI comprises Gigabit Ethernet switches that support static, OSPF and RIP Layer 3 routing, convenient fixed 10GbE uplink ports, PoE+, ACLs, IPv6 and delivers energy savings with Energy Efficient Ethernet.

Unique Intelligent Resilient Fabric (IRF) technology creates a virtual fabric by managing several switches as one logical device, which increases network resilience, performance, and availability, while reducing operational complexity. These switches provide Gigabit Ethernet access and can be used at the edge of a network or to connect server clusters in small data centers.

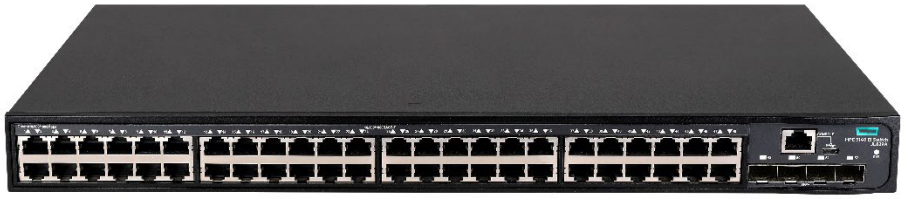
High availability, simplified management, and comprehensive security control policies are among the key features that distinguish this series.

HPE Networking Comware 5140 48G PoE+ 4SFP+ EI Switch (JL824A)

HPE Networking Comware 5140 24G PoE+ 4SFP+ EI Switch (JL827A)

Overview

HPE Networking Comware 5140 24G 4SFP+ EI Switch (JL828A)

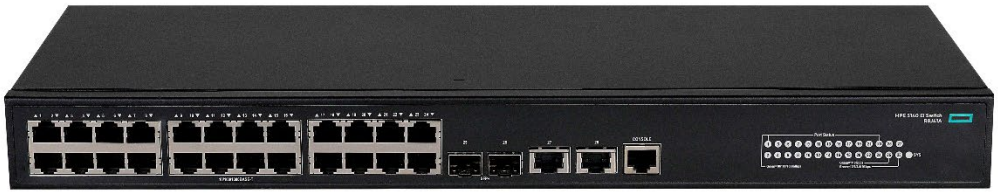


HPE Networking Comware 5140 48G 4SFP+ EI Switch (JL829A)

HPE Networking Comware 5140 24G POE+2SFP+2XGT EI Switch (JL823A)

Overview

HPE Networking Comware 5140 48G PoE+ 4SFP+ EI Switch (JL824A)



HPE Networking Comware 5140 24G 2SFP+ 2XGT EI Switch (R8J41A)

HPE Networking Comware 5140 8G 2SFP 2GT Combo EI Switch (R8J42A)

Overview

Models

HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140	JL823A
HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140	JL824A
HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140	JL825A
HPE Networking Comware Switch 24G SFP w/8G Combo 4SFP+ EI 5140	JL826A
HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140	JL827A
HPE Networking Comware Switch 24G 4SFP+ EI 5140	JL828A
HPE Networking Comware Switch 48G 4SFP+ EI 5140	JL829A
HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140	R8J41A
HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140	R8J42A

Key features

- Gigabit Ethernet access switch with static layer 3 routing, RIP, high density 10GbE uplinks and POE+ models for voice, video and wireless
- IRF technology that enables plug-and-play device aggregation and link aggregation across multiple devices
- Embedded network management capabilities at no additional cost with Smart Management Centre (SmartMC)
- Energy-saving green design features such as automatic switching of idle ports to energy-saving mode and powering down unused ports

Standard Features

Software-defined networking

- **OpenFlow**
  Supports OpenFlow 1.3 specification to enable SDN by allowing separation of the data (packet forwarding) and control (routing decision) paths

Quality of Service (QoS)

- **Broadcast control**
  Allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic
- **Advanced classifier-based QoS**
  Classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a port, VLAN, or whole switch
- **Powerful QoS feature**
  Supports the following congestion actions: strict priority (SP) queuing, weighted round robin (WRR), and SP+WRR
- **Traffic policing**
  Supports Committed Access Rate (CAR) and line rate

Connectivity

- **Auto-MDIX**
  Automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Flow control**
  Provides back pressure using standard IEEE 802.3x, reducing congestion in heavy traffic situations
- **High-density connectivity**
  Provides up to 48 fixed 10/100/1000BASE-T ports in a Layer 2/Layer 3 switch
- **IEEE 802.3at Power over Ethernet (PoE+) support**
  Simplifies deployment and dramatically reduces installation costs by helping to eliminate the time and cost involved in supplying local power at each access point location
- **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

Resiliency and high availability

- **Separate data and control paths**
  Separate control from services and keeps service processing isolated; increases security and performance
- **External redundant power supply**
  Provides high reliability
- **Smart link**
  Allows 100 ms failover between links
- **Spanning Tree/MSTP, RSTP, PVST+, RPVST+**
  Link redundancy with support for protocols such as Multiple Spanning Tree Protocol (MSTP), Rapid Spanning Tree Protocol (RSTP), Per-VLAN Spanning Tree (PVST+), Rapid Per-VLAN Spanning Tree (RPVST+), and Smart Link provides high availability
- **Intelligent Resilient Fabric (IRF)**
  Creates virtual resilient switching fabrics, where two or more switches perform as a single L2 switch and L3 router; switches do not have to be co-located and can be part of a disaster-recovery system; servers or switches can be attached using standard LACP for automatic load balancing and high availability; can eliminate the need for complex protocols like Spanning Tree Protocol, (), or VRRP, thereby simplifying network operation

Standard Features

Layer 3 routing

- **Static IP routing**
  Provides manually configured routing for both IPv4 and IPv6 networks
- **Open Shortest Path First (OSPF)**
  An Interior Gateway Protocol (IGP) that uses a link state routing algorithm; supports OSPFv1/v2 and OSPFv3
- **Routing Information Protocol (RIP)**
  Uses a distance vector algorithm with UDP packets for route determination; supports RIPv1 and RIPv2 routing; includes loop protection

Management

- **Remote configuration and management**
  Enables configuration and management through a secure Web browser or a CLI located on a remote device
- **Manager and operator privilege levels**
  Provides read-only (operator) and read/write (manager) access on CLI and Web browser management interfaces
- **Command authorization**
  Leverages HWTACACS to link a custom list of CLI commands to an individual network administrator's login; also provides an audit trail
- **Secure Web GUI**
  Provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- **Multiple configuration files**
  Stores easily to the flash image
- **Complete session logging**
  Provides detailed information for problem identification and resolution
- **Remote monitoring (RMON)**
  Uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **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
- **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
- **Management VLAN**
  Segments traffic to and from management interfaces, includingCLI/telnet, a Web browser interface, and SNMP
- **Remote intelligent mirroring**
  Mirrors ingress ACL-selected traffic from a switch port or VLAN to a local or remote switch port anywhere on the network
- **Device Link Detection Protocol (DLDP)**
  Monitors a cable between two compatible switches and shuts down the ports on both ends if the cable is broken, which prevents network problems such as loops
- **IPv6 management**
  Provides future-proof networking because the switch is capable of being managed whether the attached network is running IPv4 or IPv6; supports pingv6, tracertv6, Telnetv6, TFTPv6, DNSv6, syslogv6, FTPv6, SNMPv6, DHCPv6, and RADIUS for IPv6
- **Troubleshooting**
  Ingress and egress port monitoring enables network problem-solving; virtual cable tests provide visibility into cable problems
- **Smart Management Center (SmartMC)**
  Embedded network management tool with a web-based GUI to simplify operations and facilitate centralized management. It is made available at no additional cost and offers centralized configuration backup, software version management and seamless switch replacement.

Standard Features

- **HPE Intelligent Management Center (IMC)**
  Integrates fault management, element configuration, and network monitoring from a central vantage point; built-in support for third-party devices enables network administrators to centrally manage all network elements with a variety of automated tasks, including discovery, categorization, baseline configurations, and software images; the software also provides configuration comparison tools, version tracking, change alerts, and more
- **Network Management**
  SNMP v1/v2c/v3, MIB-II with Traps, and RADIUS Authentication Client MIB (RFC 2618); embedded HTML management tool with secure access

Security

- **Access control lists (ACLs)**
  Provides IP Layer 2 to Layer 4 traffic filtering; supports global ACL, VLAN ACL, port ACL, and IPv6 ACL
- **IEEE 802.1X**
  Industry-standard method of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
- **MAC-based authentication**
  Client is authenticated with the RADIUS server based on the client's MAC address
- **Identity-driven security and access control**
  - **Per-user ACLs**
    Permits or denies user access to specific network resources based on user identity and time of day, allowing multiple types of users on the same network to access specific network services without risking network security or providing unauthorized access to sensitive data
  - **Automatic VLAN assignment**
    Automatically assigns users to the appropriate VLAN based on their identities
- **Secure management access**
  Delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, HTTPS and/or SNMPv3
- **Secure FTP/ SCP**
  Allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Guest VLAN**
  Provides a browser-based environment to authenticated clients that is similar to IEEE 802.1X
- **Port security**
  Allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **Port isolation**
  Secures and adds privacy, and prevents malicious attackers from obtaining user information
- **STP BPDU port protection**
  Blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP root guard**
  Protects the root bridge from malicious attacks or configuration mistakes
- **DHCP protection**
  Blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **IP source guard**
  Helps prevent IP spoofing attacks
- **Dynamic ARP protection**
  Blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **RADIUS/HWTACACS**
  Eases switch management security administration by using a password authentication server

Standard Features

Performance

- **Nonblocking architecture**
  Up to 176 Gb/s nonblocking switching fabric provides wirespeed switching with up to 130.9 Mpps throughput
- **Hardware-based wirespeed access control lists (ACLs)**
  Help provide high levels of security and ease of administration without impacting network performance with a feature-rich TCAM-based ACL implementation

Device support

- **Prestandard PoE Support**
  Detects and provides power to prestandard PoE devices such as wireless LAN access points and IP phones

Convergence

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
  Facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- **LLDP-MED**
  Is a standard extension that automatically configures network devices, including LLDP-capable IP phones
- **LLDP-CDP compatibility**
  Receives and recognizes CDP packets from Cisco's IP phones for seamless interoperation
- **IEEE 802.3at Power over Ethernet (PoE+)**
  Provides up to 30 W per port that allows support of the latest PoE+-capable devices such as IP phones, wireless access points, and security cameras, as well as any IEEE 802.3af-compliant end device; eliminates the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments
- **PoE allocations**
  Supports multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user-specified) to allocate PoE power for more efficient energy savings
- **Voice VLAN**
  Automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance
- **IP multicast snooping (data-driven IGMP)**
  Prevents flooding of IP multicast traffic

Additional information

- **Green IT and power**
  Improves energy efficiency through the use of the latest advances in silicon development; shuts off unused ports and utilizes variable-speed fans, reducing energy costs
- **Green initiative support**
  Provides support for RoHS and WEEE regulations
- **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

Energy Efficient Ethernet (EEE) Support

Reduces power consumption in accordance with IEEE 802.3az

Layer 2 switching

- **16K MAC address table**
  Provides access to many Layer 2 devices
- **VLAN support and tagging**
  Supports IEEE 802.1Q with 4,094 simultaneous VLAN IDs
- **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

Standard Features

- **10GbE port aggregation**
  Allows grouping of ports to increase overall data throughput to a remote device
- **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
- **Jumbo Frame Support**
  Improves the performance of large data transfers; supports frame size of up to 9K-bytes

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 network
- **Dynamic Host Configuration Protocol (DHCP)**
  Simplifies the management of large IP networks; supports client; DHCP Relay enables DHCP operation across subnets
- **Loopback interface address**
  Defines an address that can always be reachable, improving diagnostic capability
- **User Datagram Protocol (UDP) helper function**
  Allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP
- **Route maps**
  Provide more control during route redistribution; allow filtering and altering of route metrics
- **DHCP server**
  Centralizes and reduces the cost of IPv4 address management

Warranty and support

- **Limited Lifetime 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 Information

BTO Models

Switch Chassis

Rule #	Description	SKU
2, 3, 4	HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140 • 24 POE RJ-45 autosensing 10/100/1000 ports • 2 SFP Ports, 2 XGT Ports • min=0 \ max=2 SFP Transceivers • Power supply included • 1U - Height	JL823A
	HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL823A
	HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140 • C15 PDU Jumper Cord (ROW)	JL823A
	HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL823A
	HPE Networking Comware Switch 24G POE+2SFP+2XGT EI 5140 • No Localized Power Cord Selected	JL823A
2, 3, 4	HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140 • 48 RJ-45 autosensing 10/100/1000BASE-T ports • 4 SFP+ ports • min=0 \ max=4 SFP+ Transceivers • Power supply included • 1U - Height	JL824A
	HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL824A
	HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140 • C15 PDU Jumper Cord (ROW)	JL824A
	HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL824A
	HPE Networking Comware Switch 48G PoE+ 4SFP+ EI 5140 • No Localized Power Cord Selected	JL824A
2, 3, 4	HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140 • 48 POE RJ-45 autosensing 10/100/1000 ports • 2 SFP+ Ports, 2 XGT Ports • min=0 \ max=2 SFP+ Transceivers • Power supply included • 1U - Height	JL825A
	HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL825A
	HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140 • C15 PDU Jumper Cord (ROW)	JL825A
	HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL825A
	HPE Networking Comware Switch 48G POE+ 2SFP+ 2XGT EI 5140 • No Localized Power Cord Selected	JL825A

Configuration Information

1, 2	HPE Networking Comware Switch 24G SFP w/8G Combo 4SFP+ EI 5140 • 24 SFP ports (Of the 24, 8 are dual-personality ports - autosensing 10/100/1000BASE-T or SFP) min=0 \ max=24 SFP Transceivers • 4 SFP+ ports min=0 \ max=4 SFP+ Transceivers • Must select min 1 power supply 1U - Height	JL826A
2, 3, 4	HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140 • 24 RJ-45 autosensing 10/100/1000 ports • 4 SFP+ ports min=0 \ max=4 SFP+ Transceivers • Power supply included 1U - Height	JL827A
	HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140 C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL827A
	HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140 C15 PDU Jumper Cord (ROW)	JL827A
	HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140 NEMA L6-20P Cord (NA/MEX/JP/TW)	JL827A
	HPE Networking Comware Switch 24G PoE+ 4SFP+ EI 5140 No Localized Power Cord Selected	JL827A
2, 3, 4	HPE Networking Comware Switch 24G 4SFP+ EI 5140 • 24 RJ-45 autosensing 10/100/1000 ports • 4 SFP+ ports min=0 \ max=4 SFP+ Transceivers • Power supply included 1U - Height	JL828A
	HPE Networking Comware Switch 24G 4SFP+ EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL828A
	HPE Networking Comware Switch 24G 4SFP+ EI 5140 • C15 PDU Jumper Cord (ROW)	JL828A
	HPE Networking Comware Switch 24G 4SFP+ EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL828A
	HPE Networking Comware Switch 24G 4SFP+ EI 5140 • No Localized Power Cord Selected	JL828A
2, 3, 4	HPE Networking Comware Switch 48G 4SFP+ EI 5140 • 48 RJ-45 autosensing 10/100/1000 ports • 4 SFP+ ports min=0 \ max=4 SFP+ Transceivers • Power supply included 1U - Height	JL829A
	HPE Networking Comware Switch 48G 4SFP+ EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL829A
	HPE Networking Comware Switch 48G 4SFP+ EI 5140 • C15 PDU Jumper Cord (ROW)	JL829A
	HPE Networking Comware Switch 48G 4SFP+ EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL829A
	HPE Networking Comware Switch 48G 4SFP+ EI 5140 • No Localized Power Cord Selected	JL829A

Configuration Information

2, 3, 4	HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140 • 24 RJ-45 autosensing 10/100/1000 ports • 2 SFP+ Ports, 2 XGT Ports • min=0 \ max=2 SFP+ Transceivers • Power supply included • 1U - Height	R8J41A
	HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	R8J41A
	HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140 • C15 PDU Jumper Cord (ROW)	R8J41A
	HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	R8J41A
	HPE Networking Comware Switch 24G 2SFP+ 2XGT EI 5140 • No Localized Power Cord Selected	R8J41A
1, 3, 4	HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140 • 8 RJ-45 autosensing 10/100/1000 ports • 2 SFP Ports, 2 GT Ports (4 port combo unit, can use 1 pair of 2 ports at a time) • min=0 \ max=2 SFP Transceivers • Power supply included • 1U - Height	R8J42A
	HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140 • C15 PDU Jumper Cord (NA/MEX/TW/JP)	R8J42A
	HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140 • C15 PDU Jumper Cord (ROW)	R8J42A
	HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140 • NEMA L6-20P Cord (NA/MEX/JP/TW)	R8J42A
	HPE Networking Comware Switch 8G 2SFP 2GT Combo EI 5140 • No Localized Power Cord Selected	R8J42A

Configuration Rules

Rule #	Description	
1	The following Transceivers install into this Switch: (SFP Ports)	
	HPE Networking X115 100M SFP LC FX Transceiver	JD102B
	HPE Networking X110 100M SFP LC LX Transceiver	JD120B
	HPE Networking X115 100M SFP LC BX 10-U Transceiver	JD100A
	HPE Networking X115 100M SFP LC BX 10-D Transceiver	JD101A
	HPE Networking X120 1G SFP LC SX Transceiver	JD118B
	HPE Networking X120 1G SFP LC LX Transceiver	JD119B
	HPE Networking X120 1G SFP RJ45 T Transceiver	JD089B
	HPE Networking X120 1G SFP LC BX 10-U Transceiver	JD098B
	HPE Networking X120 1G SFP LC BX 10-D Transceiver	JD099B
	HPE Networking X120 1G SFP LC LH100 Transceiver	JD103A
2	The following Transceivers install into this Switch: (SFP+ Ports)	
	HPE Networking X120 1G SFP LC SX Transceiver	JD118B
	HPE Networking X120 1G SFP LC LX Transceiver	JD119B
	HPE Networking X120 1G SFP RJ45 T Transceiver	JD089B
	HPE Networking X120 1G SFP LC BX 10-U Transceiver	JD098B
	HPE Networking X120 1G SFP LC BX 10-D Transceiver	JD099B
	HPE Networking X120 1G SFP LC LH100 Transceiver	JD103A
	HPE Networking X130 10G SFP+ LC SR Transceiver	JD092B
	HPE Networking X130 10G SFP+ LC LR Transceiver	JD094B
	HPE X130 10G SFP+ LC BiDi 10km-Uplink Transceiver	JL737A
	HPE X130 10G SFP+ LC BiDi 10km-Downlink Transceiver	JL738A
	HPE X130 10G SFP+ LC BiDi 40km-Uplink Transceiver	JL739A

Configuration Information

	HPE X130 10G SFP+ LC BiDi 40km-Downlink Transceiver	JL740A
	HPE Networking X240 10G SFP+ SFP+ 0.65m DAC Cable	JD095C
	HPE Networking X240 10G SFP+ SFP+ 1.2m DAC Cable	JD096C
	HPE Networking X240 10G SFP+ SFP+ 3m DAC Cable	JD097C
	HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
	HPE X2A0 10G SFP+ to SFP+ 7m Active Optical Cable	JL290A
	HPE X2A0 10G SFP+ to SFP+ 10m Active Optical Cable	JL291A
	HPE X2A0 10G SFP+ to SFP+ 20m Active Optical Cable	JL292A

3 Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord), #B2E or #AC3. (See HPN Localization Menu)

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

Notes:

- Drop down under power supply should offer the following options and results:
  - Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO)
  - Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO)
  - High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)
  - No Localized Power Cord Selected - #AC3 Option
- OCA Only Model Selection Form -
  HPE Offering > HPE Aruba Networking > Switches - FlexNetwork:
  5140 EI Switch Series

Transceivers

SFP Transceivers

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

Rule #	Description	SKU
	HPE Networking X115 100M SFP LC FX Transceiver	JD102B
	HPE Networking X110 100M SFP LC LX Transceiver	JD120B
	HPE Networking X115 100M SFP LC BX 10-U Transceiver	JD100A
	HPE Networking X115 100M SFP LC BX 10-D Transceiver	JD101A
	HPE Networking X120 1G SFP LC SX Transceiver	JD118B
	HPE Networking X120 1G SFP LC LX Transceiver	JD119B
	HPE Networking X120 1G SFP RJ45 T Transceiver	JD089B
	HPE Networking X120 1G SFP LC BX 10-U Transceiver	JD098B
	HPE Networking X120 1G SFP LC BX 10-D Transceiver	JD099B
	HPE Networking X120 1G SFP LC LH100 Transceiver	JD103A

SFP+ Transceivers

Rule #	Description	SKU
	HPE Networking X130 10G SFP+ LC SR Transceiver	JD092B
	HPE Networking X130 10G SFP+ LC LR Transceiver	JD094B
	HPE X130 10G SFP+ LC BiDi 10km-Uplink Transceiver	JL737A
	HPE X130 10G SFP+ LC BiDi 10km-Downlink Transceiver	JL738A
	HPE X130 10G SFP+ LC BiDi 40km-Uplink Transceiver	JL739A
	HPE X130 10G SFP+ LC BiDi 40km-Downlink Transceiver	JL740A
	HPE Networking X240 10G SFP+ SFP+ 0.65m DAC Cable	JD095C
	HPE Networking X240 10G SFP+ SFP+ 1.2m DAC Cable	JD096C
	HPE Networking X240 10G SFP+ SFP+ 3m DAC Cable	JD097C
	HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
	HPE X2A0 10G SFP+ to SFP+ 7m Active Optical Cable	JL290A
	HPE X2A0 10G SFP+ to SFP+ 10m Active Optical Cable	JL291A
	HPE X2A0 10G SFP+ to SFP+ 20m Active Optical Cable	JL292A

Configuration Information

Cables

Multi-Mode Cables

Rule #	Description	SKU
	HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
	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 2.0m 1-Pack Fiber Optic Cable	AJ835A
	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 15.0m 1-Pack Fiber Optic Cable	AJ837A
	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 50.0m 1-Pack Fiber Optic Cable	AJ839A
	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

Internal Power Supplies

HPE X361 150W DC Power Supply

Rule #	Description	SKU
1, 2	HPE X361 150W 100-240VAC to 12VDC Power Supply	JD362B
Notes:	Includes 1 x c13, 150w	
	HPE X361 150W 100-240VAC to 12VDC Power Supply	JD362B
Notes:	C13 PDU Jumper Cord (NA/MEX/TW/JP)	
	HPE X361 150W 100-240VAC to 12VDC Power Supply	JD362B
Notes:	C13 PDU Jumper Cord (ROW)	
	HPE X361 150W 100-240VAC to 12VDC Power Supply	JD362B
Notes:	HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	HPE X361 150W 100-240VAC to 12VDC Power Supply	JD362B
Notes:	No Localized Power Cord Selected	

Configuration Rules

Rule #	Description
1	If #B2E is selected Then replace Localized option with #B2E for power supply and with #B2E for switch . (Offered only in North America, Mexico, Taiwan, and Japan)
2	Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) . (See Localization Menu)REMARK: When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches/Routers.

Notes:

- Drop down under power supply should offer the following options and results:
  - Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (OCA Default B2B or B2C for Rack Level CTO)
  - Switch/Router/Power Supply to Wall Power Cord - Localized Option (OCA Default for BTO)
  - High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)
  - No Localized Power Cord Selected - #AC3 Option

Configuration Information

Switch Enclosure Options

Rack Mount Kits

Rule #	Description	SKU
	HPE 5140 Rack Mount Kit	R8M91A

External/Redundant Power Supplies

Rule #	Description	SKU
2, 3, 5, 6	HPE Networking RPS 800 Redundant Power Supply	JD183A
Notes:	Height = 1U includes 1 x c13, 800w	
2, 3, 5	HPE RPS1600 Redundant Power System	JG136A
Notes:	Height = 1U includes 1 x c13, 1600w and Power Supply port	
1, 5	HPE RPS1600 1600W AC Power Supply	JG137A
Notes:	Installs into JG136A only	

Configuration Rules

Rule #	Description
1	If this power supply is selected, The JG136A - HP A-RPS1600 Redundant Power System must be on order or onsite.
2	Localization required. (See Localization Menu for list.)
3	Only 1 JD183A or JG136A can be connected per switch.
5	Supported on JL827A and JL824A
6	Supported on JL826A only when connected to DC Power Supply JD366B with cable JD186A.

External/Redundant Power Cables

Rule #	Description	SKU
1	HPE X290 500 V 1m RPS Cable	JD186A
2	HPE X290 1000 A JD5 2m RPS Cable	JD187A
3	HPE X290 1000 A JD5 NonPoE 2m RPS Cable	JD188A

Configuration Rules

Rule #	Description
1	Supported on JL826A with JD366B to connect to JD183A.
2	Supported on JL829A, JL827A, JL823A, JL825A to connect to JG136A.
3	Supported on JG829A and JL826A to connect to JG136A.

Technical Specifications

HPE FlexNetwork 5140 24G 4SFP+ EI Switch (JL828A)		
I/O ports and slots	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 SFP+ fixed 1000/10000 SFP+ ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 6.3(d) x 1.72(h) in (44 x 16 x 4.36 cm) (1U height)
	Weight	5.5 lb (2.5 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	95 Mpps
	Routing/Switching capacity	128 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 113°F (-5°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	High-speed fan: 36.8 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	64/88 BTU/hr (67.52/92.84 kJ/hr)
	Voltage	100 - 240 VAC, rated
	Current	2 A
	Maximum power rating	24 W
	Idle power	19 W
	Notes:	– Idle power is the actual power consumption of the device with no ports connected. – Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	

Technical Specifications

Emissions	FCC Part 15 Subpart B CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager	
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 5140 24G SFP 4SFP+ EI Switch (JL826A)		
I/O ports and slots	16 SFP 100/1000 Mbps ports	
	8 SFP dual-personality ports - 10/100/1000BASE-T RJ-45 or 100/1000BASE-X Combo Ports	
	4 SFP+ fixed 1000/10000 SFP+ ports	
Additional ports and slots	1 RJ-45 serial console port	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Physical characteristics	**Dimensions**	17.32(w) x 14.17(d) x 1.72(h) in (44 x 36 x 4.36 cm) (1U height)
	Weight	13.23 lb (6kg)
Memory and processor	512 MB SDRAM, 256 MB flash;	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	95 Mpps
	Routing/Switching capacity	128 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 113°F (-5°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 41.4 dB, High-speed fan: 47.7 dB; ISO 7779

Technical Specifications

Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	102/204 BTU/hr (107.61/215.22 kJ/hr), for AC Powered units. For DC powered units heat dissipation is 130 BTU/hr min, 232 BTU/hr max.
	Voltage	100 - 240 VAC -48 to -60 VDC
	Current	5 A
	Maximum power rating	60 W
	Idle power	30 W
	Notes:	– Idle power is the actual power consumption of the device with no ports connected. – Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. – Power Ratings for AC Power Supply indicated above. – For DC input power, Idle Power is 38W and Max is 68W. – DC Max input current is 8A. Units are supplied without a power supply. Customer must buy 1 or 2 JD362B (AC) or JD366B (DC) power supply.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart B CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC;command-line interface; Web browser; SNMP Manager	
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Technical Specifications

HPE FlexNetwork 5140 48G 4SFP+ EI Switch (JL829A)		
I/O ports and slots	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 SFP+ fixed 1000/10000 SFP+ ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 9.04(d) x 1.72(h) in (44 x 23 x 4.36 cm) (1U height)
	Weight	7.72 lb (3.5 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	131 Mpps
	Routing/Switching capacity	176 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 113°F (-5°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 42.2 dB, High-speed fan: 49.3 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	130/153 BTU/hr (137.15/161.42 kJ/hr), For AC powered units. For DC powered units heat dissipation is 130 BTU/hr min, 171 BTU/hr max
	Voltage	100 - 240 VAC -48 to -60 VDC
	Current	10 A
	Maximum power rating	44 W
	Idle power	38 W
	Notes:	– Idle power is the actual power consumption of the device with no ports connected. – Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. – Power ratings for AC power indicated above. Current used is 5A Max when DC Power used. For DC input power, idle power is 38W, maximum DC power used is 50W.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	

Technical Specifications

Emissions	FCC Part 15 Subpart B CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager	
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 5140 24G PoE+ 4SFP+ (370W) EI Switch (JL827A)		
I/O ports and slots	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) with 4 combo ports (RJ-45 or SFP); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 10.24(d) x 1.72(h) in (44 x 26 x 4.36 cm) (1U height)
	Weight	17.64 lb (8 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	95 Mpps
	Routing/Switching capacity	128 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 113°F (-5°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 44.4 dB, High-speed fan: 53.6 dB; ISO 7779

Technical Specifications

Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	102/1569 BTU/hr (107.61/1655.29 kJ/hr), for AC Power. For DC Power min heat dissipation is 85 BTU/hr and max heat dissipation is 2695 BTU/hr
	Voltage	100 - 240 VAC, -54 to -57 VDC
	Current	10 A
	Maximum power rating	451 W
	Idle power	30 W
	PoE power	370 W PoE+
	Notes:	– Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply. When supplemented with the use of an HPE RPS1600 Redundant Power System, up to 740 W of PoE+ can be supplied. – Max current rating for DC power is 25A. AC Input power is 30W typical, and 460W max(including 370W PoE+ consumption. DC Input voltage range is -54 to -57VDC. Total DC input power is 25W Typical and 790W with 740W PoE+ Power consumption. DC Input voltage range is -54VDC to -57VDC. DC Input Source is the HPE RPS1600.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager.	
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 5140 48G PoE+ 4SFP+ (370W) EI Switch (JL824A)		
I/O ports and slots	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 SFP+ fixed 1000/10000 SFP+ ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 14.17(d) x 1.72(h) in (44 x 36 x 4.36 cm) (1U height)
	Weight	17.64 lb (8 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	

Technical Specifications

Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	131 Mpps
	Routing/Switching capacity	176 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 113°F (-5°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 43.5 dB, High-speed fan: 52.8 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	160/1671 BTU/hr (168.8/1762.91 kJ/hr), for AC power. For DC power min heat dissipation is 147 BTU/hr and 3037 BTU/hr max.
	Voltage	100 - 240 VAC -54 to -57 VDC
	Current	10 A
	Maximum power rating	478 W
	Idle power	47 W
	PoE power	370 W PoE+
	Notes:	– Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply. When supplemented with the use of an HPE RPS1600 Redundant Power System, up to 740 W of PoE+ can be supplied. – Max current rating for DC power is 25A. AC Input power is 47W typical, and 490W max(including 370W PoE+ consumption. DC Input voltage range is -54 to -57VDC. Total DC input power is 43W typical and 890W with 800W PoE+ Power consumption. DC Input voltage range is -54VDC to -57VDC. DC Input Source is the HPE RPS1600.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart B CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager	

Technical Specifications

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 5140 24G PoE+ 2SFP+ 2XGT (370W) EI Switch (JL823A)		
I/O ports and slots	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: Ports 1-24 support 10BASE-T/100BASE-TX, 1000BASE-T (full only)	
	2 SFP+ fixed 1000/10000 SFP+ ports	
	2X1/2.5/5/10G BASE-T ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 12.6(d) x 1.72(h) in (44 x 32 x 4.36 cm) (1U height)
	Weight	9.92 lb (4.5 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	95 Mpps
	Routing/Switching capacity	128 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 122°F (-5°C to 50°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 44.4 dB, High-speed fan: 52.8 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	83.6/1433 BTU/hr (88.2/1511.9 kJ/hr)
	Voltage	100 - 240 VAC
	Current	10 A
	Maximum power rating	420 W
	Idle power	24.5 W
	PoE power	370 W PoE+
	Notes:	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	

Technical Specifications

Emissions	FCC Part 15 Subpart CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager.	
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 5140 48G PoE+ 2SFP+ 2XGT (370W) EI Switch (JL825A)		
I/O ports and slots	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	2 SFP+ fixed 1000/10000 SFP+ ports	
	2X1/2.5/5/10G BASE-T ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 12.6(d) x 1.72(h) in (44 x 32 x 4.36 cm) (1U height)
	Weight	13.23 lb (6 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	131 Mpps
	Routing/Switching capacity	176 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 122°F (-5°C to 50°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 43.5 dB, High-speed fan: 52.8 dB; ISO 7779

Technical Specifications

Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	117.7/1467 BTU/hr (124/1547.77 kJ/hr)
	Voltage	100 - 240 VAC
	Current	10 A
	Maximum power rating	430 W
	Idle power	34.5 W
	PoE power	370 W PoE+
	Notes:	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager.	
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 5140 8G 2SFP 2GT Combo EI Switch (R8J42A)		
I/O ports and slots	8 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: Ports 1-8 support 10BASE-T/100BASE-TX, 1000BASE-T (full only)	
	2 SFP fixed 1GbE ports	
	2 GT ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	10.47(w) x 6.3(d) x 1.72(h) in (26.6 x 16 x 4.36 cm) (1U height)
	Weight	3.3 lb (1.5 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	
Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	18 Mpps
	Routing/Switching capacity	24 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries

Technical Specifications

Environment	**Operating temperature**	23°F to 122°F (-5°C to 50°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	High-speed fan: 36.8 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	27.3/51.2 BTU/hr (28.8/54 kJ/hr)
	Voltage	100 - 240 VAC
	Current	10 A
	Maximum power rating	15 W
	Idle power	8 W
	Notes:	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager.	
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 5140 24G 2SFP+ 2XGT EI Switch (R8J41A)		
I/O ports and slots	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: Ports 1-24 support 10BASE-T/100BASE-TX, 1000BASE-T (full only)	
	2 SFP+ fixed 1000/10000 SFP+ ports	
	2X1/2.5/5/10G BASE-T ports	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 6.3(d) x 1.72(h) in (44 x 16 x 4.36 cm) (1U height)
	Weight	5.51 lb (2.5 kg)
Memory and processor	512 MB SDRAM, 256 MB flash	
Mounting and enclosure	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (Rack Mount Kit R8M91A sold separately)	

Technical Specifications

Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 5 µs
	10 Gbps Latency	< 3 µs
	Throughput	95 Mpps
	Routing/Switching capacity	128 Gbps
	Routing table size	1024 entries
	MAC address table size	16384 entries
Environment	**Operating temperature**	23°F to 122°F (-5°C to 50°C)
	Operating relative humidity	10% to 90%, noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 41.4 dB, High-speed fan: 47.7 dB; ISO 7779
Electrical characteristics	**Frequency**	50/60 Hz
	Maximum heat dissipation	49.5/112.6 BTU/hr (52.2/118.8 kJ/hr)
	Voltage	100 - 240 VAC
	Current	10 A
	Maximum power rating	33 W
	Idle power	14.5 W
	Notes:	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; IEC 62368-1; CAN/CSA-C22.2 No. 60950-1; EN 62368-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	
Emissions	FCC Part 15 Subpart CLASS A; ICES-003 CLASS A; VCCI-CISPR 32 CLASS A; EN 55032 CLASS; AS/NZS CISPR32 CLASS A; CISPR 24; EN 55024; EN 61000-3-2; EN 61000-3-3; ETSI EN 300 386; GB/T 9254; YD/T 993	
Immunity	**Generic**	EN 55024
	ESD	EN300 386
Management	IMC - Intelligent Management Center; SmartMC; command-line interface; Web browser; SNMP Manager.	
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Technical Specifications

Standards and Protocols (Applies to all products in series)

Device Management

- RFC 1157 SNMPv1/v2c
- RFC 1305 NTPv3
- RFC 2573 (SNMPv3 Applications)
- RFC 2819 (RMON groups Alarm, Event, History and Statistics only)
- RFC 3416 (SNMP Protocol Operations v2)
- HTML and telnet management
- Multiple Configuration Files
- SNMP v3 and RMON RFC support
- SSHv1/SSHv2 Secure Shell
- TACACS/TACACS+
- Web UI

QoS/CoS

- RFC 2474 DS Field in the IPv4 and IPv6 Headers
- RFC 3260 New Terminology and Clarifications for DiffServ

General Protocols

- IEEE 802.1ad Q-in-Q
- IEEE 802.1ak Multiple Registration Protocol (MRP) and Multiple VLAN Registration Protocol (MVRP)
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1D MAC Bridges
- 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 802.3 Type 10BASE-T
- 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 802.3at Power over Ethernet Plus
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.3i 10BASE-T
- IEEE 802.3u 100BASE-X
- IEEE 802.3x Flow Control
- IEEE 802.3z 1000BASE-X
- RFC 768 UDP
- RFC 783 TFTP Protocol (revision 2)
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 854 TELNET
- RFC 855 Telnet Option Specification
- RFC 894 IP over Ethernet

Technical Specifications

- RFC 950 Internet Standard Subnetting Procedure
- RFC 951 BOOTP
- RFC 1027 Proxy ARP
- RFC 1042 IP Datagrams
- RFC 1071 Computing the Internet Checksum
- RFC 1123 Requirements for Internet Hosts
- RFC 1166 - IP Addresses
- RFC 1213 Management Information Base for Network Management of TCP/IP-based internets
- RFC 1256 ICMP Router Discovery Protocol (IRDP)
- RFC 1305 NTPv3
- RFC 1350 TFTP Protocol (revision 2)
- RFC 1519 CIDR
- RFC 1533 DHCP Options and BOOTP Vendor Extensions
- RFC 1591 DNS (client only)
- RFC 1643 - Definitions of Managed Objects for the Ethernet-like Interface Types
- RFC 1812 IPv4 Routing
- RFC 1866 Hypertext Markup Language - 2.0
- RFC 1901 - Introduction to Community-based SNMPv2
- RFC 1902-1907 - SNMPv2
- RFC 2131 DHCP
- RFC 2236 IGMP Snooping
- RFC 2462 IPv6 Stateless Address Autoconfiguration
- RFC 2474 Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers
- RFC 2475 Architecture for Differentiated Services
- RFC 2597 Assured Forwarding PHB Group
- RFC 2616 HTTP Compatibility v1.1
- RFC 2665 Definitions of Managed Objects for the Ethernet-like Interface Types
- RFC 2668 Definitions of Managed Objects for IEEE 802.3 Medium Attachment Units (MAUs)
- RFC 2865 Remote Authentication Dial In User Service (RADIUS)
- RFC 2866 RADIUS Accounting
- RFC 3046 - DHCP Relay Agent Information Option
- RFC 3246 Expedited Forwarding PHB
- RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
- RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
- RFC 3416 Protocol Operations for SNMP
- RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
- RFC 3576 Ext to RADIUS (CoA only)
- RFC 3580 - IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines
- RFC 3587 IPv6 Global Unicast Address Format
- RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
- RFC 4030 Authentication Suboption for DHCP Relay Agent
- RFC 4213 Basic IPv6 Transition Mechanisms
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches
- RFC 4575 A Session Initiation Protocol (SIP) Event Package for Conference State
- RFC 4675 RADIUS VLAN & Priority
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- 802.1r - GARP Proprietary Attribute Registration Protocol (GPRP)

Technical Specifications

IPv6

- RFC 1981 IPv6 Path MTU Discovery
- RFC 2460 IPv6 Specification
- RFC 2461 IPv6 Neighbor Discovery
- RFC 2463 ICMPv6
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 3162 RADIUS and IPv6
- RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
- RFC 3315 DHCPv6 (client and relay)
- RFC 3484 Default Address Selection for IPv6
- RFC 3736 Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4293 MIB for IP
- RFC 4443 ICMPv6
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 6724 Default Address Selection for Internet Protocol Version 6 (IPv6)

MIBs

- RFC 1212 Concise MIB Definitions
- RFC 1213 MIB II
- RFC 1493 Bridge MIB
- RFC 1757 Remote Network Monitoring MIB
- RFC 2096 IP Forwarding Table MIB
- RFC 2233 Interface MIB
- RFC 2571 SNMP Framework MIB
- RFC 2572 SNMP-MPD MIB
- RFC 2573 SNMP-Notification MIB
- RFC 2573 SNMP-Target MIB
- RFC 2574 SNMP USM MIB
- RFC 2618 RADIUS Authentication Client MIB
- RFC 2620 RADIUS Accounting Client MIB
- RFC 2665 Ethernet-Like-MIB
- RFC 2668 802.3 MAU MIB
- RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
- RFC 2737 Entity MIB (Version 2)
- RFC 2819 RMON MIB
- RFC 2863 The Interfaces Group MIB
- RFC 2925 Ping MIB
- RFC 3414 SNMP-User based-SM MIB
- RFC 3415 SNMP-View based-ACM MIB
- RFC 3418 MIB for SNMPv3
- RFC 3621 Power Ethernet MIB

IP Multicast

- RFC 1112 IGMPv1
- RFC 3376 IGMPv3

Technical Specifications

Network Management

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- RFC 2579 Textual Conventions for SMIv2
- RFC 2580 Conformance Statements for SMIv2
- RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- SNMPv1/v2c/v3

Security

- IEEE 802.1X Port Based Network Access Control
- RFC 1492 TACACS+
- RFC 2138 RADIUS Authentication
- RFC 2139 RADIUS Accounting
- RFC 2865 RADIUS (client only)
- RFC 2866 RADIUS Accounting
- RFC 3260 New Terminology and Clarifications for DiffServ
- Secure Sockets Layer (SSL)
- SSHv2 Secure Shell

Summary of Changes

Date	Version History	Action	Description of Change:
04-Dec-2023	Version 12	Changed	Series name was updated.
17-Apr-2023	Version 11	Changed	Standard Features section was updated.
20-Feb-2023	Version 10	Changed	Technical Specifications section was updated.
03-Oct-2022	Version 9	Changed	Configuration Information section was updated.
06-Jun-2022	Version 8	Changed	Standard Features section was updated.
16-May-2022	Version 7	Changed	Configuration Information and Technical Specifications sections were updated.
18-Apr-2022	Version 6	Changed	Configuration Information and Technical Specifications sections were updated.
17-Jan-2022	Version 5	Changed	Technical Specifications section was updated.
06-Dec-2021	Version 4	Changed	Technical Specifications section was updated.
25-Oct-2021	Version 3	Changed	Technical Specifications section was updated.
02-Aug-2021	Version 2	Changed	Overview, Standard Features, Configuration Information, and Technical Specifications sections were updated, and SKUs were added.
07-Jun-2021	Version 1	New	New QuickSpecs

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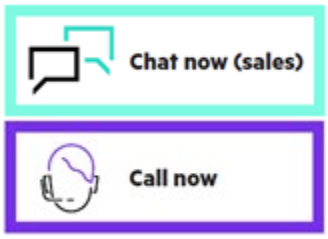

Get updates

Products within this series are IPv6 Ready certified. See the Specifications section of this series for more information.

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

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