

Overview

Aruba 2930F Switch Series



Models

Aruba 2930F 24G 4SFP+ Switch	JL253A
Aruba 2930F 48G 4SFP+ Switch	JL254A
Aruba 2930F 24G PoE+ 4SFP+ Switch	JL255A
Aruba 2930F 48G PoE+ 4SFP+ Switch	JL256A
Aruba 2930F 8G PoE+ 2SFP+ Switch	JL258A
Aruba 2930F 24G 4SFP Switch	JL259A
Aruba 2930F 48G 4SFP Switch	JL260A
Aruba 2930F 24G PoE+ 4SFP Switch	JL261A
Aruba 2930F 48G PoE+ 4SFP Switch	JL262A

Key features

- Basic Layer 3 switch series with VSF stacking, RIP routing, Access OSPF, ACLs and robust QoS
- Advanced security and network management tools like Aruba ClearPass Policy Manager and Aruba Airwave
- Simple deployment with Zero Touch Provisioning and cloud-based Aruba Central support
- Convenient built-in 1GbE or 10GbE uplinks and up to 370W PoE+
- Ready for innovative SDN applications with OpenFlow support

Product overview

The Aruba 2930F Switch Series is designed for customers creating digital workplaces optimized for mobile users with an integrated wired and wireless approach. These basic Layer 3 access switches are easy to deploy and manage with advanced security and network management tools like Aruba ClearPass Policy Manager and Aruba AirWave. With support from Aruba Central, you can quickly set up remote branch sites with little or no IT support. A powerful Aruba ProVision ASIC delivers performance and value with support of the latest SDN apps with future proof programmability for tomorrow's applications. Stacking with Virtual Switching Framework (VSF) provides simplicity and scalability. The 2930F supports built-in 1GbE or 10GbE uplinks,

Overview

PoE+, Access OSPF routing, Tunnel node, robust QoS, RIP routing, and IPv6 with no software licensing required.

The Aruba 2930F Switch Series provides a convenient and cost-effective access switch solution that can be quickly set up with Zero Touch Provisioning. The robust basic Layer 3 feature set includes a limited lifetime warranty.

Features and benefits

Software-defined networking

- **OpenFlow**
supports OpenFlow 1.0 and 1.3 specifications to enable SDN by allowing separation of the data (packet forwarding) and control (routing decision) paths

Unified Wired and Wireless

- **ClearPass Policy Manager support**
unified wired and wireless policies using Aruba ClearPass Policy Manager
- **Switch auto-configuration**
automatically configures switch for different settings such as VLAN, CoS, PoE max power, and PoE priority when an Aruba access point is detected.
- **User role**
defines a set of switch-based policies in areas such as security, authentication, and QoS. A user role can be assigned to a group of users or devices, using switch configuration or ClearPass
- **Per-port tunneled node**
provides a secured tunnel to transport network traffic on a per-port basis to an Aruba Controller. Authentication and network policies will be applied and enforced at the Controller
- **HTTP redirect function**
supports HPE Intelligent Management Center (IMC) bring your own device (BYOD) solution
- **Static IP Visibility**
provides a way for ClearPass to do accounting for clients with static IP address

Quality of Service (QoS)

- **Traffic prioritization (IEEE 802.1p)**
allows real-time traffic classification into eight priority levels mapped to eight queues
- **Layer 4 prioritization**
enables prioritization based on TCP/UDP port numbers
- **Class of Service (CoS)**
sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- **Rate limiting**
sets per-port ingress enforced maximums and per-port, per-queue minimums
- **Large buffers:**
Provide graceful congestion management

Connectivity

- **Flexible 10 Gb/s Ethernet connectivity**
Four fixed 10 Gigabit ports (SFP+) available
- **Auto-MDIX**
provides automatic adjustments for straight-through or crossover cables on all 10/100 and 10/100/1000 ports
- **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

Overview

- **Pre-standard PoE support**
detects and provides power to pre-standard PoE devices
- **IPv6**
 - **IPv6 host**
enables switches to be managed in an IPv6 network
 - **Dual stack (IPv4 and IPv6)**
transitions from IPv4 to IPv6, supporting connectivity for both protocols
 - **MLD snooping**
forwards IPv6 multicast traffic to the appropriate interface
 - **IPv6 ACL/QoS**
supports ACL and QoS for IPv6 network traffic
 - **IPv6 routing**
supports static and RIPng protocols
 - **Security**
provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping

Performance

- **Energy-efficient design**
 - **80 PLUS Silver Certified power supply**
increases power efficiency and savings
 - **Energy-efficient Ethernet (EEE) support**
reduces power consumption in accordance with IEEE 802.3az
- **HPE/Aruba ASIC architecture**
is designed with the latest HPE/Aruba ASIC, providing very low latency, increased packet buffering, and adaptive power consumption
- **Selectable queue configurations**
allows for increased performance by selecting the number of queues and associated memory buffering that best meet the requirements of the network applications

Convergence

- **IP multicast routing**
includes PIM Sparse and Dense modes to route IP multicast traffic (limited to 16 interfaces)
- **IP multicast snooping and data-driven IGMP**
automatically prevent flooding of IP multicast traffic
- **LLDP-MED (Media Endpoint Discovery)**
defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to configure automatically network devices such as IP phones
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- **PoE and PoE+ allocations**
support multiple methods (automatic, IEEE 802.3at dynamic, LLDP-MED fine grain, IEEE 802.3af device class, or user-specified) to allocate and manage PoE/PoE+ power for more efficient energy savings
- **Local MAC Authentication**
assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

Resiliency and high availability

- **Virtual Switching Framework (VSF)**
creates one virtual resilient switch from up to four switches; servers or switches can be attached using standard LACP for automatic load balancing and high availability; simplify network operation by reduce the need for complex protocols like Spanning Tree Protocol (STP), Equal-Cost Multipath (ECMP), and VRRP
- **Virtual Router Redundancy Protocol (VRRP)**

Overview

allows groups of two routers to dynamically back each other up to create highly available routed environments for IPv4 and IPv6 networks (limited to 128 VRs)

- **IEEE 802.1s Multiple Spanning Tree**
provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- **IEEE 802.3ad link-aggregation-control protocol (LACP) and port trunking**
support up to 26 static, dynamic, or distributed trunks with each trunk having up to eight links (ports) per static trunk
- **SmartLink**
provides easy-to-configure link redundancy of active and standby links

Management

- **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
- **Zero-Touch Provisioning (ZTP)**
simplifies installation of the switch infrastructure using the Aruba Activate-based or a DHCP-based process with AirWave Network Management
- **Aruba Central support**
cloud based management platform offers simple, secure, and cost effective way to manage switches

Manageability

- **Dual flash images**
provides independent primary and secondary operating system files for backup while upgrading
- **Friendly port names**
allow assignment of descriptive names to ports
- **Find-Fix-Inform**
finds and fixes common network problems automatically, then informs administrator
- **Multiple configuration files**
allow multiple configuration files to be stored to a flash image
- **Software updates**
free downloads from the Web
- **RMON, XRMON, and sFlow**
provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Troubleshooting**
ingress and egress port monitoring enable network problem solving
- **Unidirectional link detection (UDLD)**
monitors the link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices
- **IP service level agreements (SLA) for voice**
monitor quality of voice traffic using the UDP jitter and UDP jitter for VoIP tests

Layer 2 switching

- **VLAN Support and Tagging**
supports IEEE 802.1Q (4094 VLAN IDs) and 2K VLANs simultaneously
- **Jumbo packet support**
improves the performance of large data transfers; supports frame size of up to 9220 bytes
- **IEEE 802.1v protocol VLANs**
isolate select non-IPv4 protocols automatically into their own VLANs
- **Rapid Per-VLAN Spanning Tree (RPVST+)**
allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- **GVRP and MVRP**

Overview

- allows automatic learning and dynamic assignment of VLANs
- **VxLAN**
encapsulation (tunneling) protocol for overlay network that enables a more scalable virtual network deployment

Layer 3 services

- **DHCP server**
centralizes and reduces the cost of IPv4 address management

Layer 3 routing

- **Static IP routing**
provides manually configured routing; includes ECMP capability
- **256 static and 10,000 RIP routes**
facilitate segregation of user data, without adding external hardware
- **Routing Information Protocol (RIP)**
provides RIPv1, RIPv2, and RIPv3 routing
- **Access OSPF**
provide OSPFv2 and OSPFv3 protocols for routing between access and the next layer on the LAN. Only one OSPF area and up to 8 interfaces are supported
- **Policy-based routing**
uses a classifier to select traffic that can be forwarded based on policy set by the network administrator (limited to 16 next-hop routes)

Security

- **Multiple user authentication methods**
 - **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
- **Authentication flexibility**
 - **Multiple IEEE 802.1X users per port**
provides authentication of multiple IEEE 802.1X users per port; prevents a user from "piggybacking" on another user's IEEE 802.1X authentication
 - **Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port**
switch port will accept up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- **Access control lists (ACLs)**
provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **Source-port filtering**
allows only specified ports to communicate with each other
- **RADIUS/TACACS+**
eases switch management security administration by using a password authentication server
- **Secure shell**
encrypts all transmitted data for secure remote CLI access over IP networks
- **Secure Sockets Layer (SSL)**
encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Port security**
allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**

Overview

- prevents particular configured MAC addresses from connecting to the network
- **Secure FTP**
allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Switch management logon security**
helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
- **Custom banner**
displays security policy when users log in to the switch
- **STP BPDU port protection**
blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **DHCP protection**
blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Dynamic ARP protection**
blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **STP root guard**
protects the root bridge from malicious attacks or configuration mistakes
- **Identity-driven ACL**
enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- **Per-port broadcast throttling**
Configures broadcast control selectively on heavy traffic port uplinks
- **Private VLAN**
provides network security by restricting peer-to-peer communication to prevent a variety of malicious attacks; typically a switch port can only communicate with other ports in the same community and/or an uplink port, regardless of VLAN ID or destination MAC address

Monitor and diagnostics

- **Digital optical monitoring of SFP+ and 1000BASE-T transceivers**
allows detailed monitoring of the transceiver settings and parameters

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

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.

Aruba 2930F 24G 4SFP+ Switch <ul style="list-style-type: none"> • 24 RJ-45 autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height 	JL253A See Configuration NOTE: 1, 2, 3
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"> • C15 PDU Jumper Cord (NA/MEX/TW/JP) 	JL253A#B2B
PDU Cable ROW <ul style="list-style-type: none"> • C15 PDU Jumper Cord (ROW) 	JL253A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	JL253A#B2E
Aruba 2930F 48G 4SFP+ Switch <ul style="list-style-type: none"> • 48 RJ-45 autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height 	JL254A See Configuration NOTE: 1, 2, 3
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"> • C15 PDU Jumper Cord (NA/MEX/TW/JP) 	JL254A#B2B
PDU Cable ROW <ul style="list-style-type: none"> • C15 PDU Jumper Cord (ROW) 	JL254A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	JL254A#B2E
Aruba 2930F 24G PoE+ 4SFP+ Switch <ul style="list-style-type: none"> • 24 RJ-45 PoE+ autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height 	JL255A See Configuration NOTE: 1, 2, 3

Configuration

PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL255A#B2B
PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL255A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL255A#B2E
Aruba 2930F 48G PoE+ 4SFP+ Switch <ul style="list-style-type: none">48 RJ-45 PoE+ autosensing 10/100/1000 ports4 SFP/SFP+ 1G/10G portsmin=0 \\ max=4 SFP/SFP+ Transceivers1U - Height	JL256A See Configuration NOTE: 1, 2, 3
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL256A#B2B
PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL256A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL256A#B2E
Aruba 2930F 8G PoE+ 2SFP+ Switch <ul style="list-style-type: none">8 RJ-45 PoE+ autosensing 10/100/1000 ports2 SFP/SFP+ 1G/10G portsmin=0 \\ max=2 SFP/SFP+ Transceivers1U - Height	JL258A See Configuration NOTE: 1, 2, 3
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL258A#B2B
PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL258A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL258A#B2E

Configuration

Aruba 2930F 24G 4SFP Switch

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 SFP 1G ports
- min=0 \\ max=4 SFP Transceivers
- 1U - Height

JL259A
See Configuration
NOTE: 1, 3

PDU Cable NA/MEX/TW/JP

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

JL259A#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JL259A#B2C

High Volt Switch to Wall Power Cord

- HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)

JL259A#B2E

Aruba 2930F 48G 4SFP Switch

- 48 RJ-45 autosensing 10/100/1000 ports
- 4 SFP 1G ports
- min=0 \\ max=4 SFP Transceivers
- 1U - Height

JL260A
See Configuration
NOTE: 1, 3

PDU Cable NA/MEX/TW/JP

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

JL260A#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JL260A#B2C

High Volt Switch to Wall Power Cord

- HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)

JL260A#B2E

Aruba 2930F 24G PoE+ 4SFP Switch

- 24 RJ-45 PoE+ autosensing 10/100/1000 ports
- 4 SFP 1G ports
- min=0 \\ max=4 SFP Transceivers
- 1U - Height

JL261A
See Configuration
NOTE: 1, 3

PDU Cable NA/MEX/TW/JP

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

JL261A#B2B

Configuration

PDU Cable ROW	JL261A#B2C
<ul style="list-style-type: none"> C15 PDU Jumper Cord (ROW) 	
High Volt Switch to Wall Power Cord	JL261A#B2E
<ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
Aruba 2930F 48G PoE+ 4SFP Switch	JL262A
<ul style="list-style-type: none"> 48 RJ-45 PoE+ autosensing 10/100/1000 ports 4 SFP 1G ports min=0 \\ max=4 SFP Transceivers 1U - Height 	See Configuration NOTE: 1, 3
PDU Cable NA/MEX/TW/JP	JL262A#B2B
<ul style="list-style-type: none"> C15 PDU Jumper Cord (NA/MEX/TW/JP) 	
PDU Cable ROW	JL262A#B2C
<ul style="list-style-type: none"> C15 PDU Jumper Cord (ROW) 	
High Volt Switch to Wall Power Cord	JL262A#B2E
<ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	

Configuration Rules:

NOTE 1 The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports):

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
HP X122 1G SFP LC BX-D Transceiver	J9142B
HP X122 1G SFP LC BX-U Transceiver	J9143B
HPE X111 100M SFP LC FX Transceiver	J9054C

NOTE 2 The following Transceivers install into this Switch:

HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B

NOTE 3 Localization required on orders without #B2B, #B2C or #B2E options.

Rack Level Integration CTO Models

Configuration

Aruba 2930F 24G 4SFP+ Switch

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 SFP/SFP+ 1G/10G ports
- min=0 \ max=4 SFP/SFP+ Transceivers
- 1U - Height

JL253A

See Configuration

NOTE: 1, 2, 3, 4, 5

PDU Cable NA/MEX/TW/JP

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

JL253A#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JL253A#B2C

High Volt Switch to Wall Power Cord

- HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)

JL253A#B2E

Aruba 2930F 48G 4SFP+ Switch

- 48 RJ-45 autosensing 10/100/1000 ports
- 4 SFP/SFP+ 1G/10G ports
- min=0 \ max=4 SFP/SFP+ Transceivers
- 1U - Height

JL254A

See Configuration

NOTE: 1, 2, 3, 4, 5

PDU Cable NA/MEX/TW/JP

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

JL254A#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JL254A#B2C

High Volt Switch to Wall Power Cord

- HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)

JL254A#B2E

Aruba 2930F 24G PoE+ 4SFP+ Switch

- 24 RJ-45 PoE+ autosensing 10/100/1000 ports
- 4 SFP/SFP+ 1G/10G ports
- min=0 \ max=4 SFP/SFP+ Transceivers
- 1U - Height

JL255A

See Configuration

NOTE: 1, 2, 3, 4, 5

PDU Cable NA/MEX/TW/JP

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

JL255A#B2B

Configuration

PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL255A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL255A#B2E
Aruba 2930F 48G PoE+ 4SFP+ Switch <ul style="list-style-type: none">48 RJ-45 PoE+ autosensing 10/100/1000 ports4 SFP/SFP+ 1G/10G portsmin=0 \\ max=4 SFP/SFP+ Transceivers1U - Height	JL256A See Configuration NOTE: 1, 2, 3, 4, 5
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL256A#B2B
PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL256A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL256A#B2E
Aruba 2930F 24G 4SFP Switch <ul style="list-style-type: none">24 RJ-45 autosensing 10/100/1000 ports4 SFP 1G portsmin=0 \\ max=4 SFP Transceivers1U - Height	JL259A See Configuration NOTE: 1, 3, 4, 5
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL259A#B2B
PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW)	JL259A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none">HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	JL259A#B2E
Aruba 2930F 48G 4SFP Switch <ul style="list-style-type: none">48 RJ-45 autosensing 10/100/1000 ports	JL260A See Configuration

Configuration

<ul style="list-style-type: none"> • 4 SFP 1G ports • min=0 \\ max=4 SFP Transceivers • 1U - Height 	NOTE: 1, 3, 4, 5
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"> • C15 PDU Jumper Cord (NA/MEX/TW/JP) 	JL260A#B2B
PDU Cable ROW <ul style="list-style-type: none"> • C15 PDU Jumper Cord (ROW) 	JL260A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	JL260A#B2E
Aruba 2930F 24G PoE+ 4SFP Switch <ul style="list-style-type: none"> • 24 RJ-45 PoE+ autosensing 10/100/1000 ports • 4 SFP 1G ports • min=0 \\ max=4 SFP Transceivers • 1U - Height 	JL261A See Configuration NOTE: 1, 3, 4, 5
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"> • C15 PDU Jumper Cord (NA/MEX/TW/JP) 	JL261A#B2B
PDU Cable ROW <ul style="list-style-type: none"> • C15 PDU Jumper Cord (ROW) 	JL261A#B2C
High Volt Switch to Wall Power Cord <ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	JL261A#B2E
Aruba 2930F 48G PoE+ 4SFP Switch <ul style="list-style-type: none"> • 48 RJ-45 PoE+ autosensing 10/100/1000 ports • 4 SFP 1G ports • min=0 \\ max=4 SFP Transceivers • 1U - Height 	JL262A See Configuration NOTE: 1, 3, 4, 5
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"> • C15 PDU Jumper Cord (NA/MEX/TW/JP) 	JL262A#B2B
PDU Cable ROW	JL262A#B2C

Configuration

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord

JL262A#B2E

- HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)

Configuration Rules:

NOTE 1

The following Transceivers install into this Switch:

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
HP X122 1G SFP LC BX-D Transceiver	J9142B
HP X122 1G SFP LC BX-U Transceiver	J9143B
HPE X111 100M SFP LC FX Transceiver	J9054C

NOTE 2

The following Transceivers install into this Switch:

HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B

NOTE 3

If this switch is factory installed in HPE Racks, Then the J9583A#0D1 is required.
CLIC Only - Allow the J9583AZ in all regions.

NOTE 4

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

NOTE 5

If this Switch Chassis is selected for Rack Level Integration, Then the Switch Chassis needs to integrate (with #0D1) to the HPE Rack.

Remarks:

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)

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

Transceivers

SFP Transceivers

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C

Configuration

HPE X121 1G SFP LC SX Transceiver	J4858C
HP X122 1G SFP LC BX-U Transceiver	J9143B
HPE X121 1G SFP RJ45 T Transceiver	J8177C
HPE X111 100M SFP LC FX Transceiver	J9054C

SFP+ Transceivers

HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B

Cables

Multi-Mode Cables

(std 0 // max 99) User Selection (min 0 // max 99) per switch

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

Configuration

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

Switch Enclosure Options

Rack Mount Kit

(std 0 // max 1) User Selection (min 0 // max 1) per switch

HPE X410 1U Universal 4-post Rackmount Kit	J9583A See Configuration NOTE: 1
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Configuration Rules:

NOTE 1 If this Mounting Kit is order with #0D1 then it integrates to the HPE Universal Rack. (not the switch)

NOTE 2 This Rack Mount Kit is not compatible with JL258A

Accessories

Aruba 2930F 8-port Cable Guard	JL311A
Aruba 2930F 8-port Power Shelf	JL312A

Technical Specifications

Aruba 2930F 24G 4SFP+ Switch (JL253A)

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+ 1/10GbE ports; PHY-less
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port
Physical characteristics	Dimensions 17.42(w) x 7.88(d) x 1.73(h) in (44.25 x 20.02 x 4.39 cm) (1U height) Weight 5.31 lb (2.41 kg)
Memory and processor	Dual Core ARM Coretex A9 @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC
Performance	1000 Mb Latency < 3.8 μ s (64-byte packets) 10 Gbps Latency < 1.6 μ s (64-byte packets) Throughput up to 95.2 Mpps Switching capacity 128 Gbps Routing table size 10000 entries (IPv4), 5000 entries (IPv6) MAC address table size 32768 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C); up to 15000 Feet Nonoperating/Storage temperature 15% to 95% @ 149°F (65°C), noncondensing Acoustic Power: 49.7 dB, Pressure: 37.1 dB Airflow direction Side-to-side
Electrical characteristics	Maximum heat dissipation 100 BTU/hr (105.5 kJ/hr) Voltage 100 - 127 / 200 - 240 VAC, rated Current 0.6/0.4 A Maximum power rating 29.3 W Idle power 19.5 W Frequency 50/60 Hz Notes Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated..
Safety	UL 60950-1, 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438
Immunity	Generic EN 55024:2010/CISPR 24

Technical Specifications

	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2
	Flicker	IEC/EN 61000-3-3
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)	
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.	
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Aruba 2930F 48G 4SFP+ Switch (JL254A)		
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+ 1/10GbE ports; PHY-less	
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port	
Physical characteristics	Dimensions	17.42(w) x 9.7(d) x 1.73(h) in (44.25 x 24.63 x 4.39 cm) (1U height)
	Weight	6.83 lb (3.10 kg)
Memory and processor	Dual Core ARM Coretex @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC	
Performance	1000 Mb Latency	< 3.8 μ s (64-byte packets)
	10 Gbps Latency	< 1.6 μ s (64-byte packets)
	Throughput	up to 112.0 Mpps
	Switching capacity	176 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	32768 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing
	Acoustic	Power: 54.1 dB, Pressure: 40.2 dB
	Airflow direction	Side-to-side
Electrical characteristics	Maximum heat dissipation	159 BTU/hr (167.74 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated

Technical Specifications

	Current	0.9/0.6 A
	Maximum power rating	46.6 W
	Idle power	32.7 W
	Frequency	50/60 Hz
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated..
Safety		UL 60950-1, 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1
Emissions		EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2
	Flicker	IEC/EN 61000-3-3
Management		Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)
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.

Aruba 2930F 24G PoE+ 4SFP+ Switch (JL255A)

I/O ports and slots		24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 SFP+ 1/10GbE ports; PHY-less
Additional ports and slots		1 dual-personality (RJ-45 or USB micro-B) serial console port
Physical characteristics	Dimensions	17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height)
	Weight	8.6 lb (3.9 kg)
Memory and processor		Dual Core ARM Coretex @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 GB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC
Performance	1000 Mb Latency	< 3.8 μ s (64-byte packets)
	10 Gbps Latency	< 1.6 μ s (64-byte packets)
	Throughput	up to 95.2 Mpps

Technical Specifications

	Switching capacity	128 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	32768 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing
	Acoustic	Power: 54.1 dB, Pressure: 40.2 dB
	Airflow direction	Side-to-side
Electrical characteristics	80plus.org Certification	Silver
	Maximum heat dissipation	1518 BTU/hr (1601.49 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	4.9/2.4 A
	Maximum power rating	445 W
	Idle power	36.8 W
	PoE power	370 W PoE+
	Frequency	50/60 Hz
	Notes	<p>Idle power is the actual power consumption of the device with no ports connected..</p> <p>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..</p>
Safety		UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1
Emissions		EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2
	Flicker	IEC/EN 61000-3-3
Management		Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band

Technical Specifications

	management (serial RS-232C or micro USB)
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.
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Aruba 2930F 48G PoE+ 4SFP+ Switch (JL256A)	
I/O ports and slots	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 SFP+ 1/10GbE ports; PHY-less
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port
Physical characteristics	Dimensions 17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height) Weight 9.83 lb (4.46 kg)
Memory and processor	Dual Core ARM Coretex @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC
Performance	1000 Mb Latency < 3.8 μ s (64-byte packets) 10 Gbps Latency < 1.6 μ s (64-byte packets) Throughput up to 112.0 Mpps Switching capacity 176 Gbps Routing table size 10000 entries (IPv4), 5000 entries (IPv6) MAC address table size 32768 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C); up to 15000 Feet Nonoperating/Storage temperature 15% to 95% @ 149°F (65°C), noncondensing Acoustic Power: 55.7 dB, Pressure: 41.7 dB Airflow direction Side-to-side
Electrical characteristics	80plus.org Certification Silver Maximum heat dissipation 1566 BTU/hr (1652.13 kJ/hr) Voltage 100 - 127 / 200 - 240 VAC, rated Current 5.1/2.5 A Maximum power rating 459 W Idle power 48.6 W PoE power 370 W PoE+ Frequency 50/60 Hz
	Notes Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated..
Safety	UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC

Technical Specifications

	60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1																				
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438																				
Immunity	<table> <tr> <td>Generic</td> <td>EN 55024:2010/CISPR 24</td> </tr> <tr> <td>ESD</td> <td>IEC 61000-4-2</td> </tr> <tr> <td>Radiated</td> <td>IEC 61000-4-3</td> </tr> <tr> <td>EFT/Burst</td> <td>IEC 61000-4-4</td> </tr> <tr> <td>Surge</td> <td>IEC 61000-4-5</td> </tr> <tr> <td>Conducted</td> <td>IEC 61000-4-6</td> </tr> <tr> <td>Power frequency magnetic field</td> <td>IEC 61000-4-8</td> </tr> <tr> <td>Voltage dips and interruptions</td> <td>IEC 61000-4-11</td> </tr> <tr> <td>Harmonics</td> <td>IEC/EN 61000-3-2</td> </tr> <tr> <td>Flicker</td> <td>IEC/EN 61000-3-3</td> </tr> </table>	Generic	EN 55024:2010/CISPR 24	ESD	IEC 61000-4-2	Radiated	IEC 61000-4-3	EFT/Burst	IEC 61000-4-4	Surge	IEC 61000-4-5	Conducted	IEC 61000-4-6	Power frequency magnetic field	IEC 61000-4-8	Voltage dips and interruptions	IEC 61000-4-11	Harmonics	IEC/EN 61000-3-2	Flicker	IEC/EN 61000-3-3
Generic	EN 55024:2010/CISPR 24																				
ESD	IEC 61000-4-2																				
Radiated	IEC 61000-4-3																				
EFT/Burst	IEC 61000-4-4																				
Surge	IEC 61000-4-5																				
Conducted	IEC 61000-4-6																				
Power frequency magnetic field	IEC 61000-4-8																				
Voltage dips and interruptions	IEC 61000-4-11																				
Harmonics	IEC/EN 61000-3-2																				
Flicker	IEC/EN 61000-3-3																				
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)																				
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.																				

Aruba 2930F 8G PoE+ 2SFP+ Switch (JL258A)

I/O ports and slots	8 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP+ 1/10GbE ports; PHY-less												
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port												
Physical characteristics	<table> <tr> <td>Dimensions</td> <td>10(w) x 10(d) x 1.73(h) in (25.4 x 25.4 x 4.39 cm) (1U height)</td> </tr> <tr> <td>Weight</td> <td>4.41 lb (2.0 kg)</td> </tr> </table>	Dimensions	10(w) x 10(d) x 1.73(h) in (25.4 x 25.4 x 4.39 cm) (1U height)	Weight	4.41 lb (2.0 kg)								
Dimensions	10(w) x 10(d) x 1.73(h) in (25.4 x 25.4 x 4.39 cm) (1U height)												
Weight	4.41 lb (2.0 kg)												
Memory and processor	Dual Core ARM Coretex A9 @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.785 Egress, 4 GB eMMC												
Performance	<table> <tr> <td>1000 Mb Latency</td> <td>< 3.8 μs (64-byte packets)</td> </tr> <tr> <td>10 Gbps Latency</td> <td>< 1.6 μs (64-byte packets)</td> </tr> <tr> <td>Throughput</td> <td>up to 41.7 Mpps</td> </tr> <tr> <td>Switching capacity</td> <td>56 Gbps</td> </tr> <tr> <td>Routing table size</td> <td>10000 entries (IPv4), 5000 entries (IPv6)</td> </tr> <tr> <td>MAC address table size</td> <td>32768 entries</td> </tr> </table>	1000 Mb Latency	< 3.8 μ s (64-byte packets)	10 Gbps Latency	< 1.6 μ s (64-byte packets)	Throughput	up to 41.7 Mpps	Switching capacity	56 Gbps	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	MAC address table size	32768 entries
1000 Mb Latency	< 3.8 μ s (64-byte packets)												
10 Gbps Latency	< 1.6 μ s (64-byte packets)												
Throughput	up to 41.7 Mpps												
Switching capacity	56 Gbps												
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)												
MAC address table size	32768 entries												
Environment	<table> <tr> <td>Operating temperature</td> <td>32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet</td> </tr> <tr> <td>Operating relative humidity</td> <td>15% to 95% @ 104°F (40°C), noncondensing</td> </tr> <tr> <td>Nonoperating/Storage temperature</td> <td>-40°F to 158°F (-40°C to 70°C); up to 15000 Feet</td> </tr> <tr> <td>Nonoperating/Storage temperature</td> <td>15% to 95% @ 149°F (65°C), noncondensing</td> </tr> </table>	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing				
Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet												
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing												
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet												
Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing												

Technical Specifications

	Acoustic	Power: 0 dB, Pressure: 0 dB Fanless
Electrical characteristics	Description	Power supply meets DoE VI certification.
	Maximum heat dissipation	529 BTU/hr (558.09 kJ/hr)
	Voltage	90 - 264 VAC, rated
	Current	2.6 A
	Maximum power rating	155 W
	PoE power	125 W PoE+
	Frequency	50/60 Hz
		Notes
Safety	UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1	
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438	
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2
	Flicker	IEC/EN 61000-3-3
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)	
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.	

Aruba 2930F 24G 4SFP Switch (JL259A)

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	
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port	
Physical characteristics	Dimensions	17.42(w) x 7.88(d) x 1.73(h) in (44.25 x 20.02 x 4.39 cm) (1U height)
	Weight	5.31 lb (2.41 kg)

Technical Specifications

Memory and processor	Dual Core ARM Coretex A9 @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.785 Egress, 4 GB eMMC	
Performance	1000 Mb Latency	< 3.8 μ s (64-byte packets)
	Throughput	up to 41.7 Mpps
	Switching capacity	56 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	32768 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing
	Acoustic	Power: 49.7 dB, Pressure: 37.1 dB
	Airflow direction	Side-to-side
Electrical characteristics	Maximum heat dissipation	100 BTU/hr (105.5 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	0.6/0.4 A
	Maximum power rating	29.3 W
	Idle power	19.5 W
	Frequency	50/60 Hz
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1	
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438	
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2

Technical Specifications

	Flicker	IEC/EN 61000-3-3
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)	
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
<hr/>		
Aruba 2930F 48G 4SFP Switch (JL260A)		
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	
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port	
Physical characteristics	Dimensions	17.42(w) x 9.7(d) x 1.73(h) in (44.25 x 24.63 x 4.39 cm) (1U height)
	Weight	6.83 lb (3.10 kg)
Memory and processor	Dual Core ARM Coretex @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC	
Performance	1000 Mb Latency	< 3.8 μ s (64-byte packets)
	Throughput	up to 77.4 Mpps
	Switching capacity	104 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	32768 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C), noncondensing
	Acoustic	Power: 54.1 dB, Pressure: 40.2 dB
	Airflow direction	Side-to-side
Electrical characteristics	Maximum heat dissipation	159 BTU/hr (167.74 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	0.9/0.6 A
	Maximum power rating	46.6 W
	Idle power	32.7 W
	Frequency	50/60 Hz
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1, 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC	

Technical Specifications

	60825-1:2007 Class 1																				
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438																				
Immunity	<table> <tr> <td>Generic</td> <td>EN 55024:2010/CISPR 24</td> </tr> <tr> <td>ESD</td> <td>IEC 61000-4-2:</td> </tr> <tr> <td>Radiated</td> <td>IEC 61000-4-3</td> </tr> <tr> <td>EFT/Burst</td> <td>IEC 61000-4-4</td> </tr> <tr> <td>Surge</td> <td>IEC 61000-4-5</td> </tr> <tr> <td>Conducted</td> <td>IEC 61000-4-6</td> </tr> <tr> <td>Power frequency magnetic field</td> <td>IEC 61000-4-8</td> </tr> <tr> <td>Voltage dips and interruptions</td> <td>IEC 61000-4-11</td> </tr> <tr> <td>Harmonics</td> <td>IEC/EN 61000-3-2</td> </tr> <tr> <td>Flicker</td> <td>IEC/EN 61000-3-3</td> </tr> </table>	Generic	EN 55024:2010/CISPR 24	ESD	IEC 61000-4-2:	Radiated	IEC 61000-4-3	EFT/Burst	IEC 61000-4-4	Surge	IEC 61000-4-5	Conducted	IEC 61000-4-6	Power frequency magnetic field	IEC 61000-4-8	Voltage dips and interruptions	IEC 61000-4-11	Harmonics	IEC/EN 61000-3-2	Flicker	IEC/EN 61000-3-3
Generic	EN 55024:2010/CISPR 24																				
ESD	IEC 61000-4-2:																				
Radiated	IEC 61000-4-3																				
EFT/Burst	IEC 61000-4-4																				
Surge	IEC 61000-4-5																				
Conducted	IEC 61000-4-6																				
Power frequency magnetic field	IEC 61000-4-8																				
Voltage dips and interruptions	IEC 61000-4-11																				
Harmonics	IEC/EN 61000-3-2																				
Flicker	IEC/EN 61000-3-3																				
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)																				
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.																				

Aruba 2930F 24G PoE+ 4SFP Switch (JL261A)

I/O ports and slots	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 SFP										
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port										
Physical characteristics	<table> <tr> <td>Dimensions</td> <td>17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height)</td> </tr> <tr> <td>Weight</td> <td>8.6 lb (3.9 kg)</td> </tr> </table>	Dimensions	17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height)	Weight	8.6 lb (3.9 kg)						
Dimensions	17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height)										
Weight	8.6 lb (3.9 kg)										
Memory and processor	Dual Core ARM Cortex A9 @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.785 Egress, 4 GB eMMC										
Performance	<table> <tr> <td>1000 Mb Latency</td> <td>< 3.8 μs (64-byte packets)</td> </tr> <tr> <td>Throughput</td> <td>up to 41.7 Mpps</td> </tr> <tr> <td>Switching capacity</td> <td>56 Gbps</td> </tr> <tr> <td>Routing table size</td> <td>10000 entries (IPv4), 5000 entries (IPv6)</td> </tr> <tr> <td>MAC address table size</td> <td>32768 entries</td> </tr> </table>	1000 Mb Latency	< 3.8 μ s (64-byte packets)	Throughput	up to 41.7 Mpps	Switching capacity	56 Gbps	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	MAC address table size	32768 entries
1000 Mb Latency	< 3.8 μ s (64-byte packets)										
Throughput	up to 41.7 Mpps										
Switching capacity	56 Gbps										
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)										
MAC address table size	32768 entries										
Environment	<table> <tr> <td>Operating temperature</td> <td>32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet</td> </tr> <tr> <td>Operating relative humidity</td> <td>15% to 95% @ 104°F (40°C), noncondensing</td> </tr> <tr> <td>Nonoperating/Storage temperature</td> <td>-40°F to 158°F (-40°C to 70°C); up to 15000 Feet</td> </tr> <tr> <td>Nonoperating/Storage temperature</td> <td>15% to 95% @ 149°F (65°C)</td> </tr> </table>	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C)		
Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet										
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing										
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet										
Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C)										

Technical Specifications

	Acoustic	Power: 54.1 dB, Pressure: 40.6 dB
	Airflow direction	Side-to-side
Electrical characteristics	80plus.org Certification	Silver
	Maximum heat dissipation	1518 BTU/hr (1601.49 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	4.9/2.4 A
	Maximum power rating	445 W
	Idle power	36.8 W
	PoE power	370 W PoE+
	Frequency	50/60 Hz
		Notes
Safety	UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1	
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438	
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2:
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC/EN 61000-3-2
	Flicker	IEC/EN 61000-3-3
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)	
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.	

Aruba 2930F 48G PoE+ 4SFP Switch (JL262A)

I/O ports and slots	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only
	4 SFP
Additional ports and slots	1 dual-personality (RJ-45 or USB micro-B) serial console port

Technical Specifications

Physical characteristics	Dimensions	17.42(w) x 11.98(d) x 1.73(h) in (44.25 x 30.42 x 4.39 cm) (1U height)
	Weight	9.83 lb (4.46 kg)
Memory and processor	Dual Core ARM Coretex @ 1016 MHz, 1 GB DDR3 SDRAM; Packet buffer size: 12.38 MB 4.5MB Ingress/7.875MB Egress, 4 GB eMMC	
Performance	1000 Mb Latency	< 3.8 μ s (64-byte packets)
	Throughput	up to 77.4 Mpps
	Switching capacity	104 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	32768 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C); up to 5000 Feet, - 0C to 40C (32F to 104F) up to 10000 Feet
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Nonoperating/Storage temperature	15% to 95% @ 149°F (65°C)
	Acoustic	Power: 55.7 dB, Pressure: 41.7 dB
	Airflow direction	Side-to-side
	Electrical characteristics	80plus.org Certification
Maximum heat dissipation		1566 BTU/hr (1652.13 kJ/hr)
Voltage		100 - 127 / 200 - 240 VAC, rated
Current		5.1/2.5 A
Maximum power rating		459 W
Idle power		48.6 W
PoE power		370 W PoE+
Frequency		50/60 Hz
Notes		Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety		UL 60950-1 2nd Edition; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 +A1:2009 +A2:2013; CSA 22.2 No. 60950-1-07 2nd; EN 60825-1:2007 / IEC 60825-1:2007 Class 1
Emissions	EN 55022:2010/CISPR 22 Class A; FCC CFR 47 Part 15 Class A; VCCI Class A; ICES-003 Class A; CNS 13438	
Immunity	Generic	EN 55024:2010/CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency	IEC 61000-4-8

Technical Specifications

magnetic field

Voltage dips and interruptions IEC 61000-4-11

Harmonics IEC/EN 61000-3-2

Flicker IEC/EN 61000-3-3

Management

Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; SNMP manager; Telnet; RMON1; FTP; Out-of-band management (serial RS-232C or micro USB)

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)

Denial of service protection

CPU DoS Protection

Device Management

RFC 1155 Structure and Mgmt Information (SMIv1)
 RFC 1157 SNMPv1/v2c
 RFC 1591 DNS (client)
 RFC 1901 (Community based SNMPv2)
 RFC 1901-1907 SNMPv2c, SMIv2 and Revised MIB-II
 RFC 1908 (SNMP v1/2 Coexistence)
 RFC 2576 (Coexistence between SNMP V1, V2, V3)
 RFC 2578-2580 SMIv2
 RFC 2579 (SMIv2 Text Conventions)
 RFC 2580 (SMIv2 Conformance)
 RFC 2819 (RMON groups Alarm, Event, History and Statistics only)
 RFC 3416 (SNMP Protocol Operations v2)
 RFC 3417 (SNMP Transport Mappings)
 HTML and telnet management
 HTTP, SSHv1, and Telnet
 Multiple Configuration Files
 Multiple Software Images
 SNMP v3 and RMON RFC support
 SSHv1/SSHv2 Secure Shell
 TACACS/TACACS+
 Web UI

General Protocols

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 802.1v VLAN classification by Protocol and Port
 IEEE 802.1w Rapid Reconfiguration of Spanning Tree
 IEEE 802.3ab 1000BASE-T
 IEEE 802.3ad Link Aggregation Control Protocol (LACP)
 IEEE 802.3af Power over Ethernet
 IEEE 802.3at PoE+
 IEEE 802.3az Energy Efficient Ethernet

Technical Specifications

IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 868 Time Protocol
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1256 ICMP Router Discovery Protocol (IRDP)
RFC 1350 TFTP Protocol (revision 2)
RFC 1519 CIDR
RFC 1542 BOOTP Extensions
RFC 1918 Address Allocation for Private Internet
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 2131 DHCP
RFC 2236 IGMP Snooping
RFC 2453 RIPv2
RFC 2865 Remote Authentication Dial In User Service (RADIUS)
RFC 2866 RADIUS Accounting
RFC 3046 DHCP Relay Agent Information Option
RFC 3411 An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks
RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413 Simple Network Management Protocol (SNMP) Applications
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 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)
RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
RFC 3575 IANA Considerations for RADIUS
RFC 3576 Ext to RADIUS (CoA only)
RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches
RFC 4675 RADIUS VLAN & Priority
RFC 4861 Neighbor Discovery for IP version 6 (IPv6)
RFC 4862 IPv6 Stateless Address Autoconfiguration
RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
UDLD (Uni-directional Link Detection)

IP Multicast

RFC 1112 IGMP
RFC 2236 IGMPv2
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 3376 IGMPv3
RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches

IPv6

RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2081 RIPng Protocol Applicability Statement

Technical Specifications

RFC 2082 RIP-2 MD5
RFC 2460 IPv6 Specification
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
RFC 2925 Remote Operations MIB (Ping only)
RFC 3019 MLDv1 MIB
RFC 3315 DHCPv6 (client and relay)
RFC 3484 Default Address Selection for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4022 MIB for TCP
RFC 4113 MIB for UDP
RFC 4251 SSHv6 Architecture
RFC 4252 SSHv6 Authentication
RFC 4253 SSHv6 Transport Layer
RFC 4254 SSHv6 Connection
RFC 4291 IP Version 6 Addressing Architecture
RFC 4293 MIB for IP
RFC 4419 Key Exchange for SSH
RFC 4443 ICMPv6
RFC 4541 IGMP & MLD Snooping Switch
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-configuration
RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
RFC 6620 FCFS SAVI
draft-ietf-savi-mix

MIBs

IEEE 802.1ap (MSTP and STP MIB's only)
IEEE 8021-Bridge-MIB (2008)
IEEE 8021-Q-Bridge-MIB (2008)
RFC 1155 Structure & ID of Mgmt Info for TCP/IP Internets
RFC 1156 (TCP/IP MIB)
RFC 1157 A Simple Network Management Protocol (SNMP)
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1724 RIPv2 MIB
RFC 2021 RMONv2 MIB
RFC 2578 Structure of Management Information Version 2 (SMIv2)
RFC 2579 Textual Conventions for SMIv2
RFC 2580 Conformance Statements for SMIv2
RFC 2613 SMON MIB
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 2737 Entity MIB (Version 2)
RFC 2819 RMON MIB
RFC 2863 The Interfaces Group MIB
RFC 2925 Ping MIB
RFC 2932 IP (Multicast Routing MIB)
RFC 2933 IGMP MIB

Technical Specifications

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 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)

Network Management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 1155 Structure of Management Information
RFC 1157 SNMPv1
RFC 2021 Remote Network Monitoring Management Information Base Version 2 using SMIv2
RFC 2576 Coexistence between SNMP versions
RFC 2578 Structure of Management Information Version 2 (SMIv2)
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)
RFC 2819 Remote Network Monitoring Management Information Base
RFC 2856 Textual Conventions for Additional High Capacity Data Types
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations
RFC 3164 BSD syslog Protocol
RFC 3176 sFlow
RFC 3411 SNMP Management Frameworks
RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413 Simple Network Management Protocol (SNMP) Applications
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 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
RFC 5424 Syslog Protocol
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3
XRMON

QoS/CoS

IEEE 802.1p (CoS)
RFC 2474 DiffServ Precedence, including 8 queues/port
RFC 2475 DiffServ Architecture
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)
Ingress Rate Limiting

Security

IEEE 802.1X Port Based Network Access Control
RFC 1321 The MD5 Message-Digest Algorithm
RFC 1334 PPP Authentication Protocols (PAP)
RFC 1492 An Access Control Protocol, Sometimes Called TACACS
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 2138 RADIUS Authentication
RFC 2139 RADIUS Accounting
RFC 2246 Transport Layer Security (TLS)
RFC 2548 Microsoft Vendor-specific RADIUS Attributes

Technical Specifications

RFC 2618 RADIUS Authentication Client MIB
RFC 2620 RADIUS Accounting Client MIB
RFC 2716 PPP EAP TLS Authentication Protocol
RFC 2818 HTTP Over TLS
RFC 2865 RADIUS (client only)
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 2882 NAS Requirements: Extended RADIUS Practices
RFC 3162 RADIUS and IPv6
RFC 3576 Dynamic Authorization Extensions to RADIUS
RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)
RFC 3580 IEEE 802.1X RADIUS
RFC 3580 IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines
RFC 4675 RADIUS Attributes
Access Control Lists (ACLs)
draft-grant-tacacs-02 (TACACS)
Guest VLAN for 802.1X
MAC Authentication
MAC Lockdown
MAC Lockout
Port Security
Secure Sockets Layer (SSL)
SSHv2 Secure Shell
Web Authentication

Accessories

Aruba 2930F Switch Series accessories

Transceivers

HPE X111 100M SFP LC FX Transceiver	J9054C
HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP RJ45 T Transceiver	J8177C
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B

Cables

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

Aruba 2930F 24G 4SFP+ Switch (JL253A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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Aruba 2930F 48G 4SFP+ Switch (JL254A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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Aruba 2930F 24G PoE+ 4SFP+ Switch (JL255A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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Aruba 2930F 48G PoE+ 4SFP+ Switch (JL256A)

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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Aruba 2930F 8G PoE+ 2SFP+ Switch (JL258A)

Accessories

Aruba 2930F 8-port Cable Guard	JL311A
Aruba 2930F 8-port Power Shelf	JL312A
Aruba 2930F 24G 4SFP Switch (JL259A)	
HPE X410 1U Universal 4-post Rackmount Kit	J9583A
Aruba 2930F 48G 4SFP Switch (JL260A)	
HPE X410 1U Universal 4-post Rackmount Kit	J9583A
Aruba 2930F 24G PoE+ 4SFP Switch (JL261A)	
HPE X410 1U Universal 4-post Rackmount Kit	J9583A
Aruba 2930F 48G PoE+ 4SFP Switch (JL262A)	
HPE X410 1U Universal 4-post Rackmount Kit	J9583A

Accessory Product Details

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

Aruba 2930F 8-port Cable Guard (JL311A)	Product Type Physical characteristics	Mounting Kit Dimensions: 1.42(w) x 4.33(d) x 0.69(h) in (3.6 x 11 x 1.75 cm) Weight: 1.28 lb (0.58 kg)
The Cable Guard secures cables that are connected to the switch and provides extra security against theft or tampering with the switch and its cables after it is installed	Notes Warranty Services	Dimensions: 10.94" x 3.62" x 1.69" or 27.8cm x 9.2cm x 4.3cm w/ears 10.94" x 1.69" x 1.69" or 27.8cm x 4.3cm x 4.3cm without ears Weight: 1.262 lbs or 57 kg (including faceplate, ears, and screws) 1.026 lbs or . 47 kg (faceplate only) Limited Lifetime Warranty: See http://www.hpe.com/networking/warrantysummary for warranty and support information included with your product purchase.
		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.
Aruba 2930F 8-port Power Shelf (JL312A)	Product Type Physical characteristics	Mounting Kit Dimensions: 10.75(w) x 6(d) x 2(h) in (27.31 x 15.24 x 5.08 cm) Weight: 0.93 lb (0.42 kg)
An easy-to-use solution for attaching the external power adapter to any of the Aruba 2530 8-port switches.	Overall Positioning Statement Key Features	The Aruba 2930F 8-port Power Shelf provides an easy to use solution for attaching the external power adapter to the Aruba 2930F 8G 2SFP+ PoE+ Switch. The power adapter shelf can be quickly attached on the rear of the Aruba 2930F 8G PoE+ 2SFP+ Switch and the adapter fit into place. This power adapter shelf is designed for wall, table or rack deployments.
		<ul style="list-style-type: none"> • Quickly attach external power adapter to 8 port switch • Designed for use with Aruba 2930F 8G PoE+ 2SFP+ Switch
	Notes	The Aruba 2930F 8-port Power Shelf is an accessory for the Aruba 2930F 8G PoE+ 2SFP+ Switch. The shelf mounts on the back of the switch providing a place to hold the external power adapter.
	Warranty Services	Limited Lifetime Warranty: See http://www.hpe.com/networking/warrantysummary for warranty and support information included with your product purchase.
		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 X121 1G SFP LC SX Transceiver (J4858C)	Ports Physical characteristics	1 LC 1000BASE-SX port; Duplex: full only Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm) Weight: 0.04 lb. (0.02 kg) Transceiver form factor: SFP
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.	Environment Electrical characteristics	Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 5% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 203°F (-40°C to 85°C) Altitude: up to 10,000 ft. (3 km) Power consumption typical: 0.4 W Power consumption maximum: 0.7 W

Accessory Product Details

Cabling

Type:

- 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively;

Maximum distance:

- 2-220 m (62.5 μm core diameter, 160 MHz*km bandwidth)
- 2-275 m (62.5 μm core diameter, 200 MHz*km bandwidth)
- 2-500 m (50 μm core diameter, 400 MHz*km bandwidth)
- 2-550 m (50 μm core diameter, 500 MHz*km bandwidth)

Cable length: 2-550m

Fiber type: Multi Mode

Services

Refer to the Hewlett Packard Enterprise website at

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

HPE X121 1G SFP LC LX Ports Transceiver (J4859C)

HPE X121 1G SFP LC LX

Transceiver: An SFP

format

gigabit transceiver with LC

connectors using LX

technology.

Physical characteristics

1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only

Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)

Weight: 0.04 lb. (0.02 kg)

Environment

Operating temperature: 32°F to 158°F (0°C to 70°C)

Operating relative humidity: 0% to 85%, noncondensing

Nonoperating/Storage temperature: -40°F to 212°F (-40°C to 100°C)

Altitude: up to 10,000 ft. (3 km)

Cabling

Type:

- Either single mode or multimode; 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1;

Maximum distance:

- 2-550 m (multimode 62.5 μm core diameter, 500 MHz*km bandwidth)
- 2-550 m (multimode 50 μm core diameter, 400 MHz*km bandwidth)
- 2-550 m (multimode 50 μm core diameter, 500 MHz*km bandwidth)
- 2-10,000 m (single-mode fiber)

Notes

A mode conditioning patch cord may be needed in some multimode fiber installations.

Wavelength: 1310nm

Power Consumption: < 500mW Typical

Services

Refer to the Hewlett Packard Enterprise website at

Accessory Product Details

<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 X121 1G SFP LC LH Ports Transceiver (J4860C)

A small form-factor pluggable (SFP) Gigabit LH transceiver that provides a full-duplex Gigabit solution up to 70 km on single-mode fiber.

Physical characteristics

1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics); Duplex: full only

Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm)

Weight: 0.04 lb. (0.02 kg)

Environment

Operating temperature: -40°F to 185°F (-40°C to 85°C)

Operating relative humidity: 0% to 95% @ 77°F (25°C), noncondensing

Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C)

Altitude: up to 10,000 ft. (3 km)

Cabling

Cable type:

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

Maximum distance:

- 10-70,000 m (single-mode fiber)

Notes

Power consumption is 0.8 watts typical with 1 watt maximum at 100% utilization.

For distances less than 20 km, a 10 dB attenuator must be used.

For distances between 20 km and 40 km, a 5 dB attenuator must be used.

Attenuators can be purchased from most cable vendors.

Services

Refer to the 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 X111 100M SFP LC FX Transceiver (J9054C)

HP X111 100M SFP LC FX Transceiver: An SFP format 100-megabit transceiver with LC connectors using FX technology.

Physical characteristics

1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or full

Dimensions: 2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm)

Weight: 0.06 lb. (0.03 kg)

Environment

Operating temperature: 32°F to 158°F (0°C to 70°C)

Operating relative humidity: 5% to 95%

Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C)

Nonoperating/Storage relative humidity: 5% to 85%

Altitude: up to 10,000 ft. (3 km)

Cabling

Cable type:

62.5/125 μ m or 50/125 μ m (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance:

- 2 km (full duplex) or 412 m (half duplex)

Notes

Transmitter wavelength: 1310nm

Power consumption is 1.1 watt maximum.

For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J9054C 100-FX SFP-LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page.

Accessory Product Details

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 LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable (AJ833A)

Cabling

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 \pm 3.0 μm Cladding diameter: 125 \pm 2.0 μm Coating diameter: 245 \pm 10 μm
- Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

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 Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125 μm duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core Diameter: 50 μm \pm 3 μm , Cladding diameter: 125 μm \pm 2 μm ; Coating diameter: 245 \pm 10 μm
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White

Accessory Product Details

	<ul style="list-style-type: none"> • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45 <p>Services</p> <p>Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.</p>
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HPE Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 2m Cable (QK733A)

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

	<p>Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.</p> <ul style="list-style-type: none"> • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
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Accessory Product Details

Services

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HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A) Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

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HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A) Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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

HPE Premier Flex LC/LC Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+

Accessory Product Details

Multi-mode OM4 2 fiber 50m Cable (QK737A)

50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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Summary of Changes

Date	Version History	Action	Description of Change:
20-Jan-2017	From Version 4 to 5	Changed	Minor changes made on Standards and protocols
07-Nov-2016	From Version 3 to 4	Changed	Product overview, Features and Benefits, Technical Specifications updated
02-Sep-2016	From Version 2 to 3	Changed	Product description updated.
24-June-2016	From Version 1 to 2	Changed	Updated B2E Attribute Description for all switches on the Configuration section.
06-Jun-2016	Version 1	Creation	Document creation



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