Overview

Aruba 2540 Switch Series

Designed for the digital workplace, the Aruba 2540 Switch Series is optimized for today's mobile and IoT needs. The switches are easy to deploy, use and manage using Aruba AirWave or Aruba Central. Aruba ClearPass offers centralized security and external captive portal support.

The Aruba 2540 Switch Series provides a convenient and cost-effective wired access solution that can be quickly set up with Zero Touch Provisioning. PoE+ models deliver power across all access ports for wireless APs, security cameras and other IoT devices. The 2540 has wire speed backhaul bandwidth capacity with built-in 10GbE uplinks, robust QoS, static & RIP routing, IPv6 and includes a limited lifetime warranty with no software licensing required.

Aruba 2540 Switch Series

Models

Aruba 2540 24G 4SFP+ Switch	JL354A
Aruba 2540 48G 4SFP+ Switch	JL355A
Aruba 2540 24G PoE+ 4SFP+ Switch	JL356A
Aruba Central Managed 2540 24G PoE+ 4SFP+ Switch	JL356ACM
Aruba 2540 48G PoE+ 4SFP+ Switch	JL357A

Key Features

- Aruba Layer 2 switch series with Static and RIP routing, ACLs and robust QoS
- Security and network management via Aruba ClearPass Policy Manager, Aruba AirWave and Aruba Central
- Simple deployment with Zero Touch Provisioning
- Convenient 10GbE uplinks and up to 370W PoE+
- Software-defined ready with REST APIs

Standard Features

Enhanced Features
Unified Wired and Wireless

- **Software-defined networks**
- supports REST APIs to enable automation of network operations, monitoring, and troubleshooting
- **Supports 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-based local user role or download from ClearPass
- **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**
  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+)
- **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
- **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

Standard Features

- **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 and efficiency
- **Energy-efficient design delivers power savings**
  - **80 PLUS Silver Certified power supply:**

    increases efficiency and savings
  - **Energy-efficient Ethernet (EEE) support**

    reduces power consumption in accordance with IEEE 802.3az
- **Designed with the latest Aruba ProVision ASIC**

  provides 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 snooping and IGMP**

  automatically prevent flooding of IP multicast traffic
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**

  facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- **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
- **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
- **IEEE 802.1s Multiple Spanning Tree**

  provides high link availability 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 or dynamic 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

Simplified configuration and management
- **SNMPv1, v2, and v3**

  provide complete support of SNMP; support of industry-standard Management Information Base

Standard Features

(MIB) plus private extensions; SNMPv3 supports increased security using encryption

- **Zero-Touch ProVisioning (ZTP)**
  simplifies installation of the switch using Aruba Activate or a DHCP-based process with AirWave Network Management
- **Flexible management with same hardware**
  supports both cloud-based Central and on-premise AirWave without ripping and replacing switching infrastructure
- **Aruba Central support**
  cloud based management platform offers simple, secure, and cost effective way to manage switches

Layer 3 routing

- **Static IP routing**
  provides manually configured routing; includes ECMP capability
- **256 static and 2,000 RIP route**
  facfacilitate segregation of user data, without adding external hardware
- **Routing Information Protocol (RIP)**
  provides RIPv1, RIPv2, and RIPng routing

Layer 3 services

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

Manageability

- **Dual flash images**
  provide 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 more efficient problem solving
- **Uni-Directional 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 SLA for voice**
  monitor quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests.

Layer 2 switching

- **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

Standard Features

- **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**
  allows automatic learning and dynamic assignment of VLANs
- **VLAN support and tagging**
  supports IEEE 802.1Q (4094 VLAN IDs) and 512 VLANs simultaneously

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**

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
  – Supports MAC-based authentication
    using MAC address
- **Authentication flexibility**
  – Multiple IEEE 802.1X users per port
    provides authentication of multiple devices on a single 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**

Standard Features

allows access only to specified MAC addresses, which can be learned or specified by the administrator

- **MAC address lockout**

  prevents particular configured MAC addresses from connecting to the network

- **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

- **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

- **Dynamic IP lockdown**

  works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing

- **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

Configuration Information

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.

Rule #	Description	SKU
1, 2, 3	Aruba 2540 24G 4SFP+ Switch	JL354A

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

	PDU Cable NA/MEX/TW/JP	JL354A #B2B

- HPE 2M C14 to C13 Power Cord (J9959A)

	PDU CABLE ROW	JL354A #B2C

- HPE 2M C14 to C13 Power Cord (J9959A)

	High Volt Switch to Wall Power Cord	JL354A #B2E

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

	No Power Cord	JL354A #AC3

- No Localized Power Cord Selected

1, 2, 3	Aruba 2540 48G 4SFP+ Switch	JL355A

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

	Aruba 2540 48G 4SFP+ Switch PDU NA, JP or TW	JL355A#B2B

- HPE 2M C14 to C13 Power Cord (J9959A)

	Aruba 2540 48G 4SFP+ Switch PDU ROW	JL355A#B2C

- HPE 2M C14 to C13 Power Cord (J9959A)

	Aruba 2540 48G 4SFP+ Switch United States 220 volt	JL355A#B2E

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

	Aruba 2540 48G 4SFP+ Switch	JL355A#AC3

- No Localized Power Cord Selected

1, 2, 3	Aruba 2540 24G PoE+ 4SFP+ Switch	JL356A

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

	Aruba 2540 24G PoE+ 4SFP+ Switch PDU NA, JP or TW	JL356A#B2B

- HPE 2M C14 to C13 Power Cord (J9959A)

	Aruba 2540 24G PoE+ 4SFP+ Switch PDU ROW	JL356A#B2C

- HPE 2M C14 to C13 Power Cord (J9959A)

	Aruba 2540 24G PoE+ 4SFP+ Switch United States 220 volt	JL356A#B2E

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

	Aruba 2540 24G PoE+ 4SFP+ Switch	JL356A#AC3

- No Localized Power Cord Selected

1, 2, 3	Aruba 2540 48G PoE+ 4SFP+ Switch	JL357A

Configuration Information

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

Aruba 2540 48G PoE+ 4SFP+ Switch PDU NA, JP or TW	JL357A#B2B

- HPE 2M C14 to C13 Power Cord (J9959A)

Aruba 2540 48G PoE+ 4SFP+ Switch PDU ROW	JL357A#B2C

- HPE 2M C14 to C13 Power Cord (J9959A)

Aruba 2540 48G PoE+ 4SFP+ Switch United States 220 volt	JL357A#B2E

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

Aruba 2540 48G PoE+ 4SFP+ Switch	JL357A#AC3

- No Localized Power Cord Selected

3 4, 5, 6   Aruba Central Managed 2540 24G PoE+ 4SFP+ Switch   JL356ACM

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

Aruba Central Managed 2540 24G PoE+ 4SFP+ Switch PDU NA, JP or TW	JL356ACM#B2B

- HPE 2.0m C13 to C14 PDU Pwr Cord (J9959A)

Aruba Central Managed 2540 24G PoE+ 4SFP+ Switch	JL356ACM#AC3

- No Localized Power Cord Selected

Configuration Rules

Rule #	Description	SKU
1	The following Transceivers install into this Module Switch:	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
2	The following Transceivers install into this Switch (Use #0D1 quoted to switch if switch is CTO) - if applicable:.	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
3	Localization required on orders without #B2B, #B2C or #B2E options.	
4	Central Managed Switch Chassis are available in the US, and Canada only.	
5	The following Transceivers install into this Switch:	
	Aruba CM 1G SFP LC SX 500m OM2 MMF Transceiver	J4858DCM
	Aruba CM 1G SFP LC LX 10km SMF Transceiver	J4859DCM
	Aruba CM 1G SFP LC LH 70km SMF Transceiver	J4860DCM
	Aruba CM 1G SFP RJ45 T 100m Cat5e Transceiver	J8177DCM
	Aruba CM 100M SFP LC FX 2km MMF Transceiver	J9054DCM

Configuration Information

6	The following Transceivers install into this Switch:	
	Aruba CM 10G SFP+ LC LR 10km SMF Transceiver	J9150DCM
	Aruba CM 10G SFP+ LC LR 10km SMF Transceiver	J9151ECM

Rack Level Integration CTO Models

Rule #	Description	SKU
1, 2, 3, 4, 5	Aruba 2540 24G 4SFP+ Switch	JL354A
	• 24 RJ-45 autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height	
	PDU Cable NA/MEX/TW/JP	JL354A #B2B
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	PDU CABLE ROW	JL354A #B2C
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	High Volt Switch to Wall Power Cord	JL354A #B2E
	• HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	
	No Power Cord	JL354A #AC3
	• No Localized Power Cord Selected	
1, 2, 3, 4, 5	Aruba 2540 48G 4SFP+ Switch	JL355A
	• 48 RJ-45 autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height	
	Aruba 2540 48G 4SFP+ Switch PDU NA, JP or TW	JL355A#B2B
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	Aruba 2540 48G 4SFP+ Switch PDU ROW	JL355A#B2C
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	Aruba 2540 48G 4SFP+ Switch United States 220 volt	JL355A#B2E
	• HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A)	
	Aruba 2540 48G 4SFP+ Switch	JL355A#AC3
	• No Localized Power Cord Selected	
1, 2, 3, 4, 5	Aruba 2540 24G PoE+ 4SFP+ Switch	JL356A
	• 24 RJ-45 PoE+ autosensing 10/100/1000 ports • 4 SFP/SFP+ 1G/10G ports • min=0 \\ max=4 SFP/SFP+ Transceivers • 1U - Height	
	Aruba 2540 24G PoE+ 4SFP+ Switch PDU NA, JP or TW	JL356A#B2B
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	Aruba 2540 24G PoE+ 4SFP+ Switch PDU ROW	JL356A#B2C
	• HPE 2M C14 to C13 Power Cord (J9959A)	
	Aruba 2540 24G PoE+ 4SFP+ Switch United States 220 volt	JL356A#B2E

Configuration Information

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

	Aruba 2540 24G PoE+ 4SFP+ Switch	JL356A#AC3
1, 2, 3, 4, 5	Aruba 2540 48G PoE+ 4SFP+ Switch	JL357A

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

Aruba 2540 48G PoE+ 4SFP+ Switch PDU NA, JP or TW	JL357A#B2B

- HPE 2M C14 to C13 Power Cord (J9959A)

Aruba 2540 48G PoE+ 4SFP+ Switch PDU ROW	JL357A#B2C

- HPE 2M C14 to C13 Power Cord (J9959A)

Aruba 2540 48G PoE+ 4SFP+ Switch United States 220 volt	JL357A#B2E

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

Aruba 2540 48G PoE+ 4SFP+ Switch	JL357A#AC3

Configuration Rules

Rule #	Description	SKU
1	The following Transceivers install into this Switch (Use #0D1 qutoed to switch if switch is CTO) - if applicable	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
2	The following Transceivers install into this Switch (Use #0D1 qutoed to switch if switch is CTO) - if applicable :	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
3	If this switch is factory installed in HPE Racks, Then the J9583A#0D1 is required. CLIC Only - Allow the J9583AZ in all regions.	
4	Localization required on orders without #B2B, #B2C, #B2E options.	
5	If this Switch Chassis is selected for Rack Level Integration, Then the Switch Chassis needs to integrate (with #0D1) to the HPE Rack.	
NOTE:	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) No Power Cord - #AC3	

Cables

Configuration Information

Rule #	Description	SKU
	Console Cables	
	(std 0 // max 99) User Selection (min 0 // max 99) per switch	
	Aruba X2C2 RJ45 to DB9 Console Cable	JL448A
NOTE:	Option not available for Central Managed Switch Configuration; Can be ordered Separately if needed.	
	Switch Enclosure Options	
	Mounting Kit	
	(std 0 // max 1) User Selection (min 0 // max 1) per switch	
	HPE X410 1U Universal 4-post Rackmount Kit	J9583A
NOTE:	If this Mounting Kit is order with #0D1 then it integrates to the HPE Universal Rack. (not the switch) Option not available for Central Managed Switch Configuration; Can be ordered Separately if needed.	

Transceivers

Rule #	Description	SKU
	SFP Transceivers	
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Only for Central Managed Switches	
	Aruba CM 100M SFP LC FX 2km MMF Transceiver	J9054DCM
	Aruba CM 1G SFP LC SX 500m OM2 MMF Transceiver	J4858DCM
	Aruba CM 1G SFP LC LX 10km SMF Transceiver	J4859DCM
	Aruba CM 1G SFP LC LH 70km SMF Transceiver	J4860DCM
	Aruba CM 1G SFP RJ45 T 100m Cat5e Transceiver	J8177DCM
	SFP+ Transceivers	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
NOTE:	No Support for 10G LRM (J9152D) and no support for 10G 7M DAC (J9285D)	
	Only for Central Managed Switches	
	Aruba CM 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150DCM
	Aruba CM 10G SFP+ LC LR 10km SMF Transceiver	J9151ECM

Related Options

Aruba 2540 Switch Series accessories

Transceivers

Rule #	Description	SKU
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
1	Aruba CM 100M SFP LC FX 2km MMF Transceiver	J9054DCM
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
1	Aruba CM 1G SFP RJ45 T 100m Cat5e Transceiver	J8177DCM
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
1	Aruba CM 1G SFP LC SX 500m OM2 MMF Transceiver	J4858DCM
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
1	Aruba CM 1G SFP LC LX 10km SMF Transceiver	J4859DCM
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
1	Aruba CM 1G SFP LC LH 70km SMF Transceiver	J4860DCM
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
1	Aruba CM 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150DCM
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
1	Aruba CM 10G SFP+ LC LR 10km SMF Transceiver	J9151ECM
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D

NOTE: No support for 10G LRM (J9152D) and no support for 10G 7m DAC (J9285D)

Configuration Rules:

1   All hardware SKUs can be managed by Aruba Central. Central Managed (CM) SKUs are used for simplified ordering within U.S. and Canada only. Append "CM" to the indicated SKU #: (e.g., J9772ACM to order the J9772A). Requires an active Central license and end-user information consistent with the Central license purchase. Applicable accessories with a valid "CM" suffix should also be placed on the same order.

Cables

Aruba X2C2 RJ45 to DB9 Console Cable	JL448A

Mounting Kit

HPE X410 1U Universal 4-post Rackmount Kit	J9583A

Technical Specifications

Aruba 2540 24G 4SFP+ Switch (JL354A)

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 µs (64-byte packets)
	10 Gbps Latency	< 1.6 µs (64-byte packets)
	Throughput	up to 95.2 Mpps
	Switching capacity	128 Gbps
	Routing table size	2000 entries (IPv4), 1000 entries (IPv6)
	MAC address table size	16384 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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C)
	Acoustic	Power: 49.7 dB, Pressure: 37.1 dB
	Airflow direction	Side-to-side
Electrical characteristics	**Frequency**	50/60 Hz
	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
	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

Technical Specifications

		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		VCCI Class A; CNS 13438; ICES-003 Class A; FCC CFR 47 Part 15, Class A ; EN 55022: 2010/CISPR-22, Class A
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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 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 2540 48G 4SFP+ Switch (JL355A)

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 A9 @ 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 μs (64-byte packets)
	10 Gbps Latency	< 1.6 μs (64-byte packets)
	Throughput	up to 112.0 Mpps
	Switching capacity	176 Gbps

Technical Specifications

	Routing table size	2000 entries (IPv4), 1000 entries (IPv6)
	MAC address table size	16384 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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C)
	Acoustic	Power: 54.1 dB, Pressure: 40.2 dB
	Airflow direction	Side-to-side
Electrical characteristics	**Frequency**	50/60 Hz
	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
	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	VCCI Class A; CNS 13438; ICES-003 Class A; FCC CFR 47 Part 15, Class A ; EN 55022: 2010/CISPR-22, Class A	
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

Technical Specifications

	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 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 2540 24G PoE+ 4SFP+ Switch (JL356A, JL356ACM[1])

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 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 µs (64-byte packets)
	10 Gbps Latency	< 1.6 µs (64-byte packets)
	Throughput	up to 95.2 Mpps
	Switching capacity	128 Gbps
	Routing table size	2000 entries (IPv4), 1000 entries (IPv6)
	MAC address table size	16384 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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C)
	Acoustic	Power: 54.1 dB, Pressure: 40.6 dB
	Airflow direction	Side-to-side
Electrical characteristics	**Frequency**	50/60 Hz
	80plus.org Certification	Silver
	Maximum heat dissipation	258.0 BTU/hr (272.2 kJ/hr)

Technical Specifications

Voltage	100 - 127 / 200 - 240 VAC, rated
Current	4.9/2.4 A
Maximum power rating	445 W
Idle power	36.8 W
PoE powe	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

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	VCCI Class A; CNS 13438; ICES-003 Class A; FCC CFR 47 Part 15, Class A ; EN 55022: 2010/CISPR-22, Class A

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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 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)
Notes	[1] All hardware SKUs can be managed by Aruba Central. Central Managed (CM) SKUs are used for simplified ordering within U.S. and Canada only. Append "CM" to the indicated SKU #: (e.g., J9772ACM to order the J9772A). Requires an active Central license and end-user information consistent with the Central license purchase. Applicable accessories with a valid "CM" suffix should also be placed on the same order.
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 2540 48G PoE+ 4SFP+ Switch (JL357A)

Technical Specifications

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 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 µs (64-byte packets)
	10 Gbps Latency	< 1.6 µs (64-byte packets)
	Throughput	up to 112.0 Mpps
	Switching capacity	176 Gbps
	Routing table size	2000 entries (IPv4), 1000 entries (IPv6)
	MAC address table size	16384 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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C); up to 15000 Feet
	Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C)
	Acou stic	Power: 55.7 dB, Pressure: 41.7 dB
	Airflow direction	Side-to-side
Electrical characteristics	**Frequency**	50/60 Hz
	80plus.org Certification	Silver
	Maximum heat dissipation	293.0 BTU/hr (309.1 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 powe	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

Technical Specifications

		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		VCCI Class A; CNS 13438; ICES-003 Class A; FCC CFR 47 Part 15, Class A ; EN 55022: 2010/CISPR-22, Class A
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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 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)

Technical Specifications

- 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
- 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 IGMPv2
- 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)

Technical Specifications

- 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 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches

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

IPv6

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

Technical Specifications

- 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
- 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

Technical Specifications

- 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

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
- 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

Technical Specifications

- 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 4576 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

Summary of Changes

Date	Version History	Action	Description of Change
04-Nov-2019	Version 11	Changed	Overview, Technical Specifications, Related Options and Configuration Information sections were updated. New SKUs were added.
04-Mar-2019	Version 10	Changed	SKU J9151D was replaced with J9151E Obsolete SKUs were removed.
10-Dec-2018	Version 9	Changed	Technical Specifications updated
03-Dec-2018	Version 8	Changed	Key Features, Product overview and Enhanced Features
02-Jul-2018	Version 7	Changed	Software feature update
05-Feb-2018	Version 6	Changed	Configuration section updated
08-Jan-2018	Version 5	Changed	Software feature update
03-Jul-2017	Version 4	Added	SKU added: JL448A
05-Jun-2017	Version 3	Changed	Minor edits made on Features and Benefits
17-Feb-2017	Version 2	Changed	Accessories updated
07-Nov-2016	Version 1	New	New QuickSpecs

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