HPE Aruba Networking 8325H Switch Series

Installation and Getting Started Guide

Hewlett Packard Enterprise

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Acknowledgments

Chapter 1
About this Document

This document is intended for network administrators and support personnel.

The display and command line illustrated in this document are examples and might not exactly match your particular switch or environment. The switch and accessory drawings in this document are for illustration only, and may not exactly match your particular switch and accessory products.

Applicable Products

Model	Description
S4B20A	HPE Aruba Networking CX 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU Switch
S4B21A	HPE Aruba Networking CX 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU Switch
S4B22A	HPE Aruba Networking CX 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU Switch
S4B23A	HPE Aruba Networking CX 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU Switch
S2T42A	HPE Aruba Networking CX 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU TAA Switch
S2T46A	HPE Aruba Networking CX 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU TAA Switch
S2T47A	HPE Aruba Networking CX 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU TAA Switch
S2T48A	HPE Aruba Networking CX 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU TAA Switch

Related Publications

- START HERE: Installation, Safety, and Regulatory Information for the HPE Aruba Networking 8325H Switches
- AOS-CX Transceiver Guide
- AOS-CX software manuals
- Fundamentals Guide for more information about installing, configuring, and managing your switch.

To view and download the latest version of the above publications, visit the HPE Networking Support Portal at https://networkingsupport.hpe.com/downloads .

Chapter 2
Introducing the HPE Aruba Networking 8325H Switch

Overview

The HPE Aruba Networking 8325H switch is a half-width data center switch that is positioned as a top-of-rack solution connecting servers and storage. It can serve as a leaf-spine (collapsed fabric) networking solution or as a Layer 3 solution for data centers, as well as a campus aggregation core, to build high-performance switched networks. The switch supports either cut-through (low-latency) or store-and-forward switching. The HPE Aruba Networking 8325H switch also supports full network management capabilities.

These switches are intended for indoor use only. They are for use in commercial applications. A typical installation is in an environmentally controlled data center. The end-use environment may or may not be a restricted access location.

Table 1: *Switches Described in this Manual*

Switch	Description
S4B20A	Includes an 18-port 25 Gbps and 4-port 100 Gbps switch with four fixed fans and two fixed PSUs installed with front-to-back airflow.
S4B21A	Includes an 18-port 25 Gbps and 4-port 100 Gbps switch with four fixed fans and two fixed PSUs installed with back-to-front airflow.
S4B22A	Includes a 16-port 100 Gbps switch with four fixed fans and two fixed PSUs installed with front-to-back airflow.
S4B23A	Includes a 16-port 100 Gbps switch with four fixed fans and two fixed PSUs installed with back-to-front airflow.
S2T42A	Includes an 18-port 25 Gbps and 4-port 100 Gbps TAA switch with four fixed fans and two fixed PSUs installed with front-to-back airflow.
S2T46A	Includes an 18-port 25 Gbps and 4-port 100 Gbps TAA switch with four fixed fans and two fixed PSUs installed with back-to-front airflow.
S2T47A	Includes a 16-port 100 Gbps TAA switch with four fixed fans and two fixed PSUs installed with front-to-back airflow.
S2T48A	Includes a 16-port 100 Gbps TAA switch with four fixed fans and two fixed PSUs installed with back-to-front airflow.

Table 2: *Accessories List*

Rack mount kits (Must be ordered separately to mount the switch.)	Description
HPE Aruba Networking 8325H 4-post Rack Mount Kit (S2T43A)	Tray for mounting one or up to two 8325H half-width switch onto a four-post rack.
Aruba X414 1U Universal 4-post Rack Mount Kit (J9583B)	Must be paired together with four-post Rack Mount Kit (S2T43A).
HPE Aruba Networking 8325H 2-post Rack Mount Kit (S2T44A)	Tray with two-post bracket for mounting one or up to two 8325H half-width switch onto a two-post rack.
HPE Aruba Networking 8325H Rack Mount Blank Panel (S5D79A)	To fill empty Tray slot with no half-width switch, used with four-post Rack Mount Kit (S2T43A) or two-post Rack Mount Kit (S2T44A).

Management Ports

The following section provides information about the console ports (RJ45 and USB-C), out-of-band management (OOBM) port, and the USB-A Aux port.

Console Port

RJ45

The HPE Aruba Networking 8325H switches include an RJ45 serial console port on the front of the switch. This port is used to connect a console to the switch by using an RJ45 serial cable (not supplied). The following cables can be ordered separately from HPE:

- JL448A HPE Aruba Networking X2C2 RJ45 to DB9 Console Cable
- R9G48B HPE Aruba Networking USB-A to RJ45 PC-to-Switch Cable

USB-C

The 8325H switches also include a USB-C port on the back of the switch. This port can be used to connect a console to the switch by using a standard USB-C cable (not supplied). The USB-C has precedence for input over the RJ45 console port. If both cables are plugged in, the console output is echoed to both the RJ45 and the USB-C port, but the input is only accepted from the USB-C port.

The following cables can be ordered separately from HPE:

- R9J32A HPE Aruba Networking USB-A to USB-C PC-to-Switch Cable
- R9J33A HPE Aruba Networking USB-C to USB-C PC-to-Switch Cable

For more information on console connections, see Setup for Initial Configuration. The console can be a PC or workstation running a VT-100 terminal emulator, or a VT-100 terminal.

Out-of-band Management (OOBM) Port

This RJ45 port is used to connect a dedicated management network to the switch. To use it, connect an RJ45 network cable to the management port to manage the switch through SSH or Telnet from a remote PC or a UNIX workstation.

To use this port, see the *Fundamentals Guide* for your switch. For more detailed information, refer to the switch software manuals for your switch provided at the HPE Networking Support Portal at https://networkingsupport.hpe.com/downloads.

A networked out-of-band connection through the management port allows you to manage data network switches from a physically and logically separate management network.

USB-A Aux Port

A USB-A port is used for file management, uploading switch software, or use of HPE Aruba Networking accessories.

The HPE Aruba Networking CX mobile app and the HPE Aruba Networking USB-A Bluetooth adapter S1H23A (ordered separately) enable you to configure your switch from your mobile device. For information about using the HPE Aruba Networking CX mobile app to configure the switch, see the *Fundamentals Guide* for your switch and software release.

Front of the Switch

This chapter provides information about the components on the front of the switch.

Figure 1 *Front of the HPE Aruba Networking 8325H 18-port 25Gbps and 4-port 100Gbps Switch*

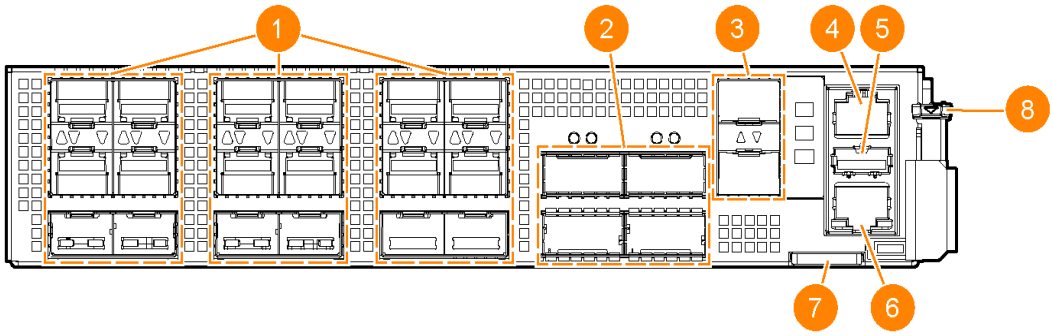


Table 3: *Front of the HPE Aruba Networking 8325H (S4B20A, S4B21A, S2T42A, and S2T46A) Switch*

Label	Description
1	SFP/SFP+/SFP28 ports
2	QSFP+/QSFP28 ports
3	SFP/SFP+ ports
4	RJ45 console port
5	USB Type-A auxiliary port
6	Out-of-band Management port
7	Switch product label pull tab
8	Lock latch

Figure 2 *Front of the HPE Aruba Networking 8325H 16-port 10/25/40/100Gbps Switch*

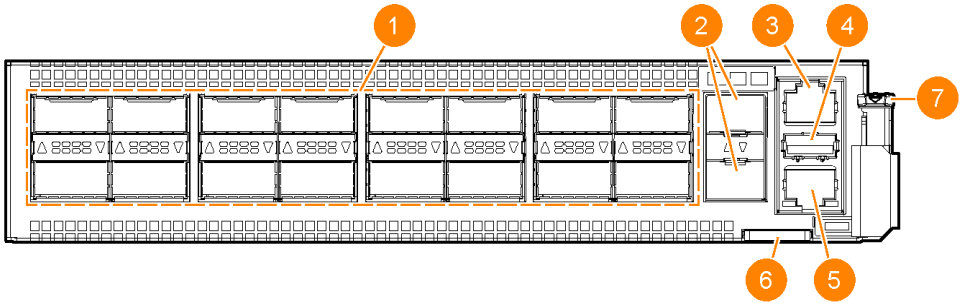


Table 4: *Front of the HPE Aruba Networking 8325H (S4B22A, S4B23A, S2T47A, and S2T48A) Switch*

Label	Description
1	QSFP+/QSFP28 ports
2	SFP/SFP+ ports
3	RJ45 console port
4	USB Type-A auxiliary port
5	Out-of-band Management port
6	Switch product label pull tab
7	Lock latch

Network Ports

Table 5: *Network Ports*

Product Number	Model Name	QSFP28 Ports	SFP28 Ports	SFP+ Ports
S4B20A	HPE Aruba Networking 8325H 18Y 4C FB 4 F 2 PSU switch	4 Ports 19-22 Supports 100G and 40G products	18 Ports 1-18 Supports 25G, 10G and 1G* products	2 Ports 23 and 24 Supports 10G and 1G* products
S4B21A	HPE Aruba Networking 8325H 18Y 4C BF 4 F 2 PSU switch			
S2T42A	HPE Aruba Networking 8325H 18Y 4C FB 4 F 2 PSU TAA switch			
S2T46A	HPE Aruba Networking 8325H 18Y 4C BF 4 F 2 PSU TAA switch			
S4B22A	HPE Aruba Networking 8325H 16C FB 4 F 2 PSU switch	16 Ports 1-16 Supports 100G and 40G products	-	2 Ports 17 and 18 Supports 10G and 1G* products
S4B23A	HPE Aruba Networking 8325H 16C BF 4 F 2 PSU switch			
S2T47A	HPE Aruba Networking 8325H 16C FB 4 F 2 PSU TAA switch			
S2T48A	HPE Aruba Networking 8325H 16C BF 4 F 2 PSU TAA switch			

* Optical 1G transceivers only support forced mode. The following command is required for 1G optics (do not use with 10G optics/DACs):

```
8325(config)# int 1/1/1 speed 1000-full
```

Also, ensure that the link partner is using forced mode.

For supported transceivers, see the latest version of the ArubaOS-Switch and ArubaOS-CX Transceiver Guide.

For information about HPE Aruba Networking transceivers, refer to the transceiver guide at the HPE Networking Support Portal at https://networkingsupport.hpe.com.

Complete the following steps to access the *ArubaOS Transceiver Guide* and related documents:

- Log in to the portal and click on the **Switches** tab.
- Type **aos-cx transceiver** in the search bar and hit enter.

  The *ArubaOS Transceiver Guide* and related documents are displayed on this page.

Split Mode for QSFP28 Ports

QSFP28 ports on the HPE Aruba Networking CX 8325H switch series are capable of operating in 'split port' mode using the CLI command:

```
split [<count>] [<speed>] [confirm]
```

The `<count>` parameter specifies the number of child interfaces to activate upon splitting the port. The `<SPEED>` parameter specifies the speed for the child interfaces.

Table 6: *Split Mode for QSFP28 Ports*

Number of Child Interfaces	Child Interface Speed	Example Product (see datasheet for more information) "*" are the solution on the far end of the link
4	25G	(845420-B21) HPE QSFP28 to 4x25G SFP28 7m AOC {HPE Server product} *Connect to ports that are 25G SFP28. JL309A HPE Aruba Networking 100G QSFP28 MPO SR4 MMF xcvr *Connect to 25G SR transceivers.
4	10G	(721064-B21) - HPE 40G QSFP+ to 4x10G SFP+ 3m DAC Splitter JH233A HPE X142 40G QSFP+ MPO eSR4 300M XCVR * J9150D Aruba 10G SFP+ LC SR 300m MMF XCVR

Chassis and Port LEDs on the Front of the Switch

This section describes the chassis and port LEDs on the front of the switch.

Figure 3 *Chassis LEDs for the HPE Aruba Networking 8325H 18-port 25Gbps and 4-port 100Gbps Switch*

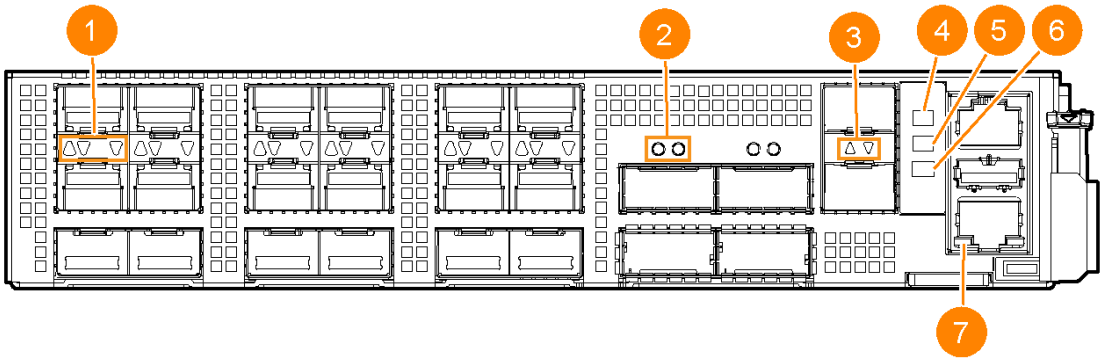


Table 7: *Chassis LED Labels for the HPE Aruba Networking 8325H (S4B20A, S4B21A, S2T42A, and S2T46A) Switch*

Label	Description
1	SFP28 port indicator LEDs
2	QSFP28 port indicator LEDs
3	SFP+ port indicator LEDs
4	Global status LED
5	Unit Identification / Locator LED
6	Back status indicator LED
7	Out-of-band-Management (OOBM) LED

Figure 4 *Chassis LEDs for the HPE Aruba Networking 8325H 16-port 10/25/40/100Gbps Switch*

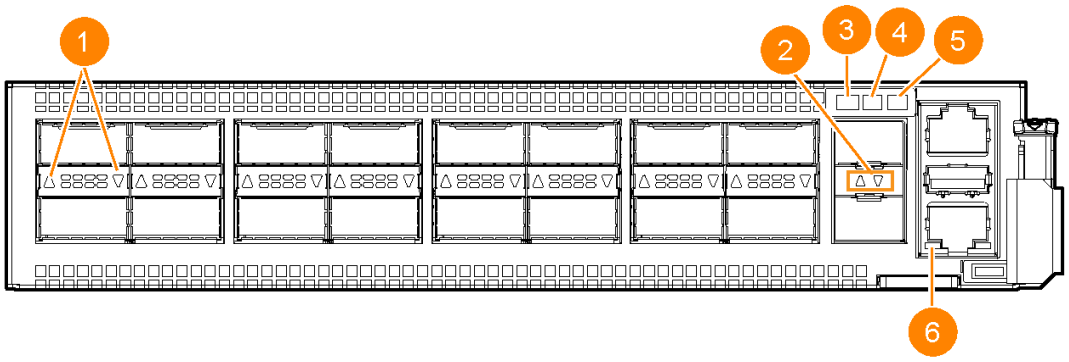


Table 8: *Chassis LED Labels for the HPE Aruba Networking 8325H (S4B22A, S4B23A, S2T47A, and S2T48A) Switch*

Label	Description
1	QSFP28 port indicator LEDs
2	SFP+ port indicator LEDs
3	Back status indicator LED
4	Unit Identification / Locator LED
5	Global status LED
6	Out-of-band-Management (OOBM) LED

Switch Product Label

The switch product label is an orange-colored tab on the bottom right side of the switch's front panel. Pull the tab out to view the product label information.

The product label information includes the part number, model number, serial number, and MAC address of the unit. The information and bar codes are on two labels affixed to the top and bottom of the product label tab.

Figure 5 *HPE Aruba Networking 8325H Switch Product Label*

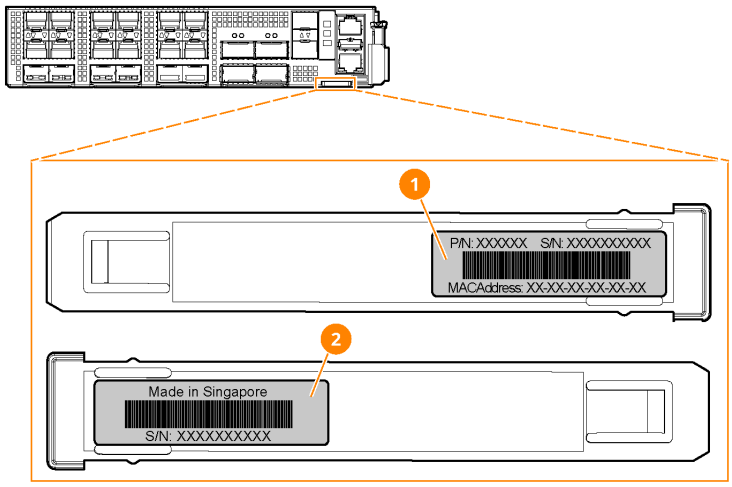


Table 9: *HPE Aruba Networking 8325H Switch Product Label*

Label	Description
1	Product label bottom side. Information includes the serial number, MAC address, and part number.
2	Product label top side. Information includes the country of origin and serial number.

Back of the Switch

The back of the switch includes two fixed power supply units and air outlets/inlets.

Figure 6 *Back of the HPE Aruba Networking 8325H Switch*

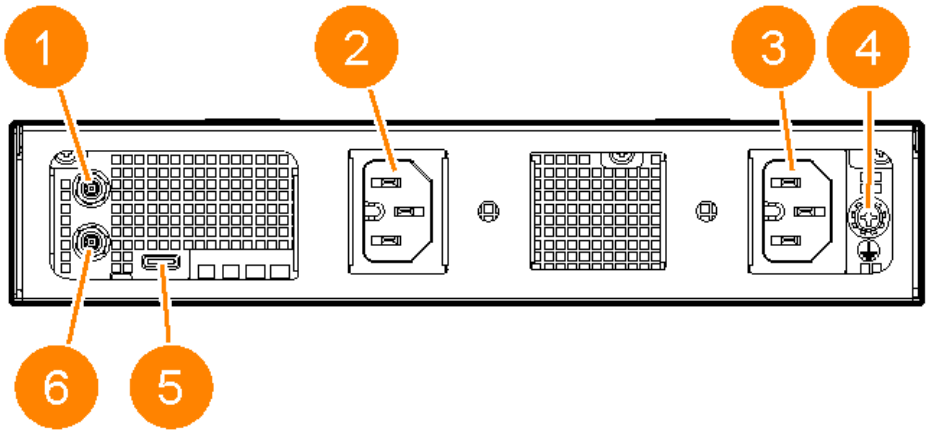


Table 10: *Back of the HPE Aruba Networking 8325H (S4B20A, S4B21A, S4B22A, S4B23A, S2T42A, S2T46A, S2T47A, and S2T48A) Switch Labels and Descriptions*

Label	Description
1	1PPS Input / Output SMB connector
2	PS1 AC Inlet (C16 Socket)
3	PS2 AC Inlet (C16 Socket)
4	Optional Ground Lug mounting location M4x0.7, 7.7mm long ground screw with lock washer
5	USB-C console port
6	10MHz Input / Output SMB connector

Power Supplies

The HPE Aruba Networking 8325H switch does not have a power switch; it is powered on when at least one internal power supply is connected to an active power source. The AC power supplies automatically adjust to any voltage between 100-127 and 200-240 volts and either 50 or 60 Hz.

The switch has two fixed power supplies to support load sharing, redundancy, and fault tolerance.

Load Sharing

Load sharing occurs when two power supplies are turned on. Load sharing divides the total power load of the switch between both the power supplies.

Redundancy

With power redundancy, the HPE Aruba Networking 8325H switch can continue normal operation even when one power supply fails or is powered off.

Chassis LEDs on the Back of the Switch

The section describes the chassis LEDs on the back of the switch.

Figure 7 *Chassis LEDs for the HPE Aruba Networking 8325H (S4B20A, S4B21A, S4B22A, S4B23A, S2T42A, S2T46A, S2T47A, and S2T48A) Switch*

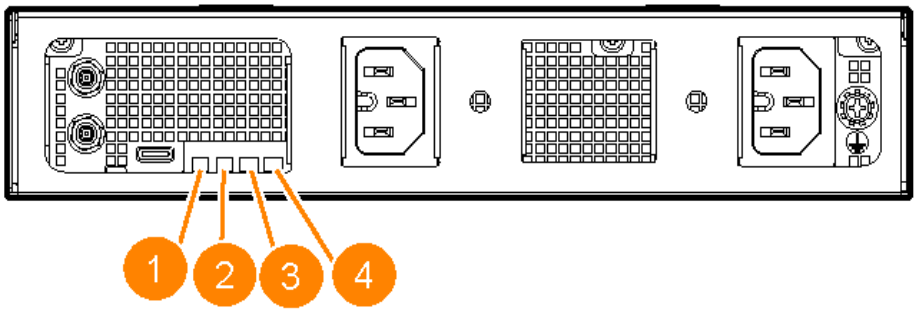


Table 11: *Chassis LED Labels for the HPE Aruba Networking 8325H (S4B20A, S4B21A, S4B22A, S4B23A, S2T42A, S2T46A, S2T47A, and S2T48A) Switch*

Label	Description
1	Global status LED
2	Unit Identification / Locator LED
3	PS1 Status indicator LED
4	PS2 Status indicator LED

LED Behavior

Table 12: *Front of the Switch LED Behavior*

Front Chassis LEDs	Function	Switch Behavior	LED State	Meaning
QSFP28, SFP28 and SFP+ port indicator	Displays link information for the port.	Startup	On green	OS-CX: Default SVOS: Default
		Normal	Off	No valid link.
			On green	Valid link indication.
		Fault	Flashing amber blinks with Global Status LED.	Fault*
QSFP28 port indicator in split mode	Displays link information for the ports.	Startup	On green	OS-CX: Default SVOS: Default
		Normal	Off	No valid link on all lanes.
			On green	Valid link indication on one or more lanes.
		Fault	Flashing amber blinks with Global Status LED.	Fault on one or more lanes.*
Out-Of-Band-Management (OOBM) indicator	Displays link and activity information for the OOBM port.	Startup	Off	OS-CX: Default SVOS: Default
		Normal	Off	OOBM port is not connected and no link is established.
			On green	Valid link indication.
			Flashing green	Indicator of traffic activity.
		Fault	Not implemented	No fault defined.
Global status indicator	Displays overall health status for the unit.	Startup	Flashing green	OS-CX: ArubaOS loading SVOS: Self test in progress
		Normal	On green	OS-CX: Self test PASS, Fans and PSUs OK.
		Fault	Flashing amber	OS-CX: Fault* SVOS: Self test failure.

Front Chassis LEDs	Function	Switch Behavior	LED State	Meaning
Unit identification/ locator indicator	Customer selectable through UI to help ID/locate unit.	Startup	On blue	SVOS: Default
		Normal	Off	Normal operation
			On/Flashing blue	User defined
		Fault	Not implemented	No fault defined.
Back status indicator	Indicates the status of devices on the back of the switch.	Startup	Flashing green	Initialization in progress.
		Normal	On green	Normal operation
		Fault	Flashing amber blinks with Global Status LED	PSU faulted. This can also indicate a thermal shutdown.

Table 13: *Back of the Switch LED Behavior*

Rear Chassis LEDs	Function	Switch Behavior	LED State	Meaning
Global status indicator	Displays overall health status for the unit.	Startup	Flashing green	OS-CX: ArubaOS loading SVOS: Self test in progress
		Normal	On green	OS-CX: Self test PASS, Fans and PSUs OK.
		Fault	Flashing amber	OS-CX: Fault* SVOS: Self test failure.
Unit Identification/Locator indicator	Customer selectable through UI to help ID/locate unit.	Startup	On blue	SVOS: Default
		Normal	Off	Normal operation
			On/Flashing blue	User defined
		Fault	Not implemented	No fault defined.
PSU status indicator	Indicates status of PSU module.	Normal	On green	Default
			Flashing green	PSU FW upgrade in progress.
		Fault	Off	PSU unpowered, disabled or faulted.*

* Refer to system logs for details.

Switch Features

The features of the HPE Aruba Networking 8325H switches include the following:

- Combinations of fixed QSFP28, SFP28, and SFP+ ports, as described under Network Ports.
- For a secure environment, all ports are disabled by default.
- Easy management of the switch through several available interfaces. The following are the available interfaces:
  - **Command line interface**—A full featured, easy to use, VT-100 terminal interface for out-of-band switch management.
  - **Web browser interface**—An easy to use built-in graphical interface that can be accessed from common web browsers.
  - **Bluetooth adapter (separately orderable, SKU# S1H23A) and ArubaOS-CX Mobile App:** A convenient way to manage or configure your switch using your mobile device.
  - **Aruba AirWave*:** A powerful and easy-to-use network operations system that manages wired and wireless infrastructures. For more information, visit https://www.arubanetworks.com/products/networking/management/airwave.
  - **Aruba Activate:** Cloud-based service that provides inventory control and facilitates Zero Touch Provisioning.
  - **Aruba ClearPass Policy Manager:** Network policy management software for wired and wireless network devices that provide on-boarding and role-based control/security.
  - **Aruba Central:** Network management software cloud platform. It offers IT organizations a simple, secure, and cost-effective way to manage and monitor HPE Aruba Networking switches and HPE Aruba Networking instant wireless APs.
- Support for the Spanning Tree Protocol to eliminate network loops.
- Support for up to 4094 IEEE 802.1Q-compliant VLANs so you can divide the attached end nodes into logical groupings that fit your business needs.
- Support for many advanced features to enhance network performance.
- To download product updates, go to either of the following portals:
  - Hewlett Packard Enterprise Support Center **Get connected with updates from HPE** page: www.hpe.com/support/e-updates.
  - HPE Networking Support Portal: https://networkingsupport.hpe.com/downloads
  - To view and update your entitlements, and to link your contracts and warranties with your profile, go to the **Service Management** tab on the HPE Networking Support Portal at https://networkingsupport.hpe.com.

***Aruba AirWave** to be supported in a future release.

Chapter 3
Installing the Switch

This chapter shows how to install the switch. The HPE Aruba Networking 8325H switch requires you to order a rack mount kit for mounting the switch in a standard 19-inch telco rack, or in an equipment cabinet. For mounting options, see Mount the Switch or contact your HPE Aruba Networking representative or HPE Aruba Networking-authorized reseller.

Included Parts

The HPE Aruba Networking 8325H switch is shipped with the following components:

- Documentation kit
- If you have ordered the product with power cables, two power cords are included for your specific region.
- The following (part number or J-number/SKU) are orderable through HPE Aruba Networking purchasing if replacements are needed.

Argentina	8121-1481 J9960A	Israel	8121-1478 J9958A
Australia/New Zealand	8121-1476 J9941A	Japan	8121-1482 J9950A
Brazil	8121-1265 J9951A	Switzerland	8121-1480 J9957A
Chile	8121-1477 J9946A	South Africa	8121-1483 J9956A
China	8121-1484 J9949A	Taiwan	8121-1511 J9947A
Continental Europe/South Korea	8121-1479 J9945A	Philippines/Thailand	8121-1485 J9952Aa
Denmark	8121-1486 J9948A	UK/Hong Kong/Singapore/Malaysia	8121-1475 J9942A
India	8121-1721 JL696A	US/Canada/Mexico	8121-0914 J9953A
PDU Rest of World (Jumper cable)	8121-1094 J9944A	PDU NA/Japan/TW/Rest of World	8121-1091 J9943A
220V NA	8120-8945 JL336A	PDU India (Jumper cable)	P09373-001 JL672A

Japan Power Cord Warning

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

Installation Precautions

To avoid personal injury or product damage when installing your switch, read the installation precautions and guidelines below.

For more information, refer to the Installation **Precautions and Guidelines** section of the *Start Here: Installation, Safety, and Regulatory Information* guide.

- Do not mount the switch on a wall, on or under a table, or on or under any other horizontal surface.
- Mount devices in a rack or cabinet as low as possible. Put the heaviest devices at the bottom and progressively lighter devices installed above.
- To prevent the rack or cabinet from becoming unstable and/or falling over, ensure that it is adequately secured.

- Ensure the power source circuits are properly grounded. Then connect the switch to the power source by using the power cord supplied with the switch.
- If your installation requires a different power cord than the one supplied with the switch and power supply, be sure that the cord is adequately sized for the switch's current requirements. In addition, be sure to use a power cord displaying the mark of the safety agency that defines the regulations for power cords in your country. The mark is your assurance that the power cord can be used safely with the switch and power supply.
- When installing the switch, the AC outlet should be near the switch and be easily accessible in case the switch must be powered off.

- Do not install the switch in an environment where the operating ambient temperature exceeds its specification. (See the Environmental Specifications information).
- Ensure that the switch does not overload the power circuits, wiring, and over-current protection. To determine the possibility of overloading the supply circuits, add the ampere ratings of all devices installed on the same circuit as the switch. Then compare the total with the rating limit for the circuit. The maximum ampere ratings are usually printed on the devices near the AC power connectors.
- Ensure that the air flow around the switch is not restricted. For air flow direction, determine whether the cooling airflow in your switch is front-to-back or back-to-front.
- Install cover plate on unused slot of the rack mount tray.
- Install port plugs for unused network ports.

Installation Procedures

To install your switch, complete the following steps:

1. Prepare the Installation Site
2. Mount the Switch
3. (Optional) Install Transceivers
4. Connect the Switch to a Power Source
5. Power-on the Switch and Check the LEDs
6. Power off the Switch
7. Setup for Initial Configuration
8. Connect the Network Cables

At this point, your switch is fully installed. See the rest of this chapter for more detailed information on any of these installation steps.

Prepare the Installation Site

To prepare the installation site, complete the following procedures:

Cabling Infrastructure: Ensure that the cabling infrastructure meets the necessary network specifications.

Installation Location: Before installing the switch, plan its location and orientation relative to other devices and equipment as follows:

- In the front of the switch, leave at least 3 inches (7.6 cm) of space for the twisted-pair and fiber-optic cabling.
- In the back of the switch, leave at least 3 inches (7.6 cm) of space for the power cord.

Cooling air flow in HPE Aruba Networking 8325H switches is Front-to-Back (FB) or Back-to-Front (BF), depending on the switch model. For specific model information, see Overview.

To avoid personal injury or product damage, review Installation Precautions before beginning the installation process.

Mount the Switch

The supported mounting options for the HPE Aruba Networking 8325H switch include:

- HPE Aruba Networking 8325H 2-post Rack Mount Kit (S2T44A; sold separately) — Includes tray with two-post bracket.
- HPE Aruba Networking 8325H 4-post Rack Mount Kit (S2T43A; sold separately)
- Aruba X414 1U Universal 4-post Rack Mount Kit (J9583B) — Must be paired together with four-post Rack Mount Kit (S2T43A).

See Installation Precautions before mounting your switch.

- Airflow and air temperature within an equipment rack can be variable and are dependent on the overall rack configuration. In some configurations, there may be insufficient or recirculating airflow that causes the switch to operate at an elevated temperature. Position and orientation should be considered when configuring the switch within the rack to minimize these effects and maintain compliance with the switch's temperature limits.
- For empty tray slot with no half-width switch installed, a rack mount blank panel (S5D79A) can be used to cover the slot (sold separately).

Two-post Rack Mount Option

The switch is designed to be mounted in any EIA-standard 19-inch telco rack or communication equipment cabinet using the HPE Aruba Networking 8325H 2-post Rack Mount Kit (S2T44A; sold separately).

The mounting brackets must only be attached for mid-mounting the rack-mount tray in a two-post rack. Secure the rack in accordance with the manufacturer's safety guidelines.

WARNING

For safe operation, please review the mounting precautions in Installation Precautions, before mounting a switch.

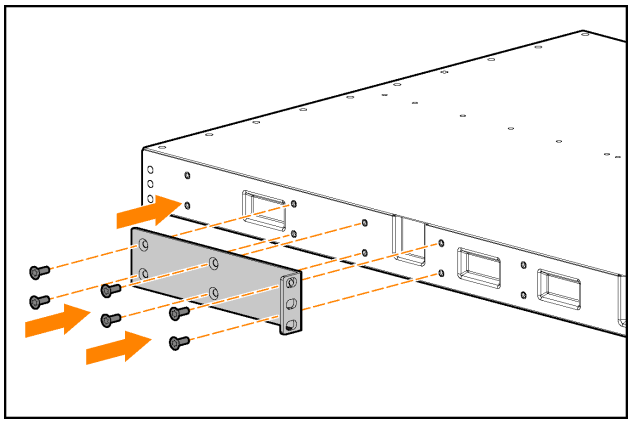
NOTE

The 12-24 screws supplied with the switch are the correct threading for standard EIA/TIA open 19-inch racks. If installing the switch in an equipment cabinet such as a server cabinet, use the clips and screws that came with the cabinet in place of the 12-24 screws that are supplied with the Rack Mount Kit Tray.

Complete the following steps to mount the tray to a two-post rack:

1. Use a screwdriver and attach the mounting brackets to the rack-mount tray with the included 6-mm M4 black screws. The brackets must only be attached for mid-mounting the rack-mount tray in a two-post rack. Ensure the holes in the bracket are aligned with the correct holes in the tray, as per the diagram.

   Figure 8 *Attaching Two-post Mounting Brackets to the Tray*

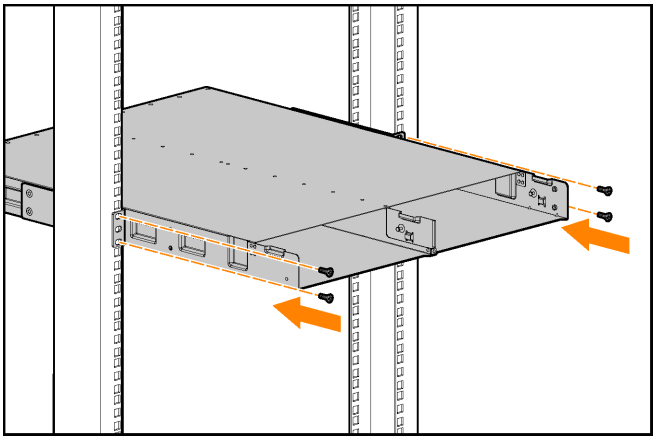
   

   WARNING

   For safe, reliable installation, only use the black screws provided in the accessory kit to attach the mounting brackets to the tray. The same 6-mm M4 black screws together with the spare can be used with the Aruba X414 1U Universal 4-post Rack Mount Kit (J9583B).

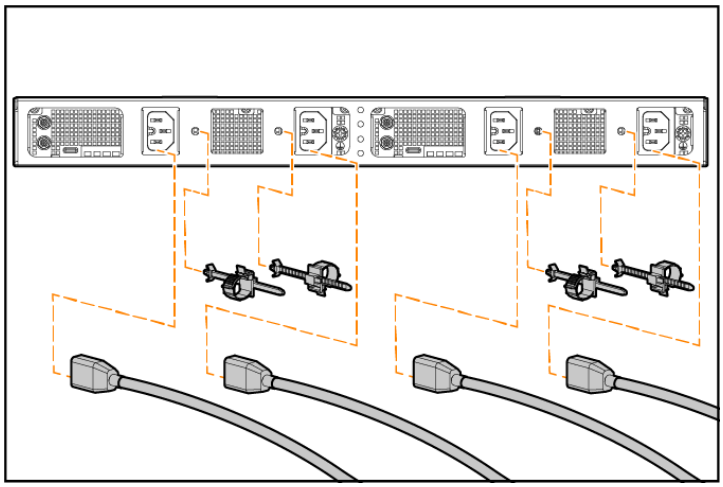
2. Hold the rack-mount tray with attached brackets up to the rack, move it vertically until rack holes line up with the bracket holes, and then insert and tighten the four number 12-24 screws holding the brackets to the rack.

Figure 9 *Mounting the Tray in a Two-post Rack*



3. Install the switch in the tray slots, and secure it in place with the lock latch.
   To remove the switch, press the lock latch down and pull the switch out.
4. Install the power cord retention clips by identifying the insertion holes on the back of the chassis.

Figure 10 *Power Cord Retention Clips*



Align the prongs of the clips with the insertion holes and push them in firmly till they snap in place. Route the power cord through them to secure it.

Only use the power cord retention clips supplied in the kit (5300-2991). The kit (5300-2991) is orderable through HPE Aruba Networking purchasing if replacements are needed.

Four-Post Rack Mount Option

The HPE Aruba Networking 8325H switch can be mounted in four-post racks and cabinets by using the HPE Aruba Networking 8325H 4-post Rack Mount Kit (S2T43A and J9583B; each sold separately). Determine whether you are installing a front-to-back airflow switch or a back-to-front airflow switch, then use the instructions below to attach the mounting brackets and mount the switch.

The brackets must only be attached for front-flush mounting the switch in a four-post rack. Secure the rack in accordance with the manufacturer's safety guidelines.

WARNING

For safe operation, please read the mounting precautions in Installation Precautions, before mounting a switch.

CAUTION

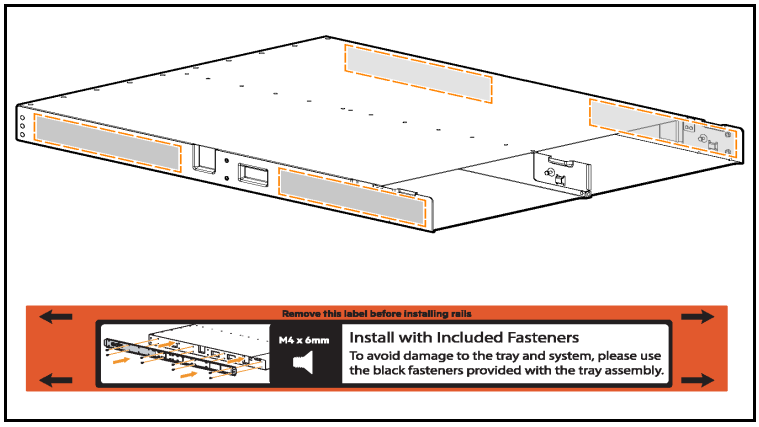
The rack sliders are intended for ease of installation only, do not use the rack sliders to support the tray in any extended position. The tray must be immediately secured with screws after installation.

1. Use a screwdriver and attach the rack mount brackets to the tray with the included 6-mm M4 black screws (16X), included with S2T43A.

CAUTION

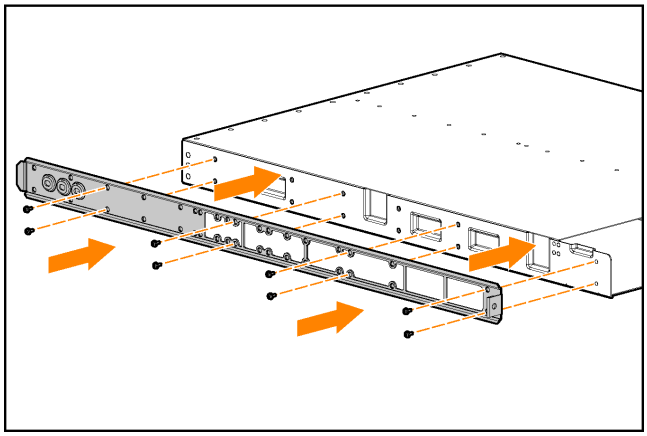
Do not use the M4 silver screws included with J9583B. They will protrude farther into the rack mount tray and can possibly cause damage.

Figure 11 *Rack-mount Label*



Read the instructions on the label and remove it before proceeding to mount the rack sliders.

Figure 12 *Attaching Four-post Slider to the Switch*

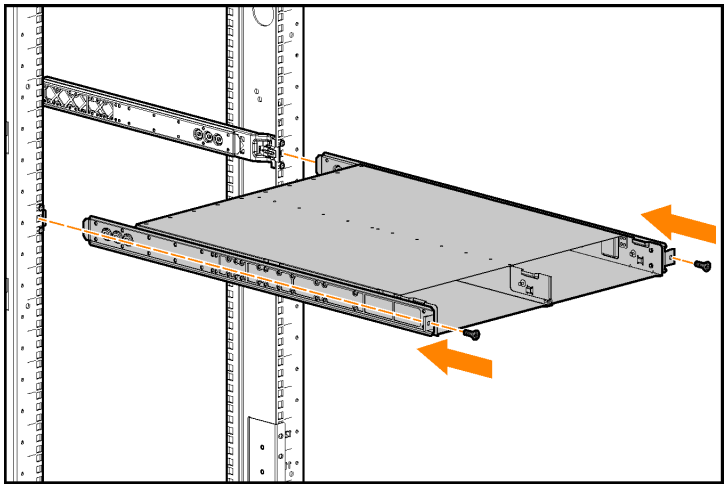


WARNING

For safe, reliable installation, only use the black screws provided in the HPE Aruba Networking 8325H 4-post Rack Mount Kit (S2T43A) to attach the slider (J9583B) to the tray.

2. Attach the sliders to the sides of the tray using eight 6-mm M4 black screws. Eight screws per slide.
3. Install rack rail assemblies to the four-post rack and secure them with two 10-32 mounting screws at the rear.
4. Hold the rack-mount tray with the attached sliders, align the sliders with the rails, and slide the tray into the rails. At the front of the tray, secure the sliders to the rack columns using 10-32 screws, one on each side.

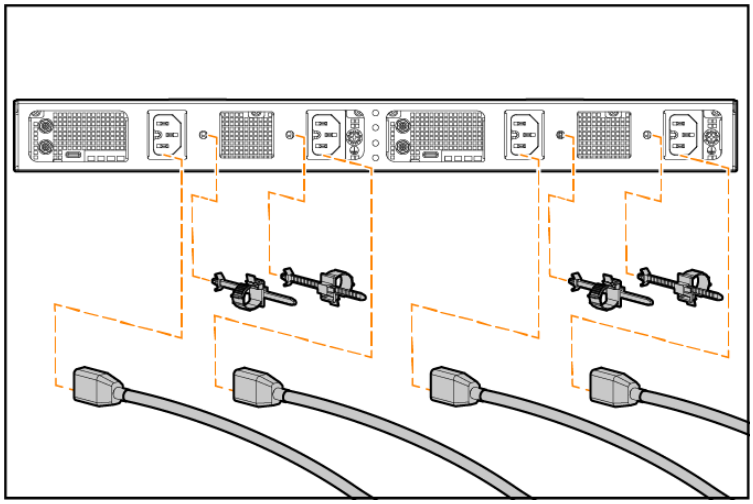
Figure 13 *Mounting the Rack-mount Tray in a Four-post Rack*



5. Install the switch in the tray slots, and secure it in place with the lock latch.

   To remove the switch, press the lock latch down and pull the switch out.
6. Install the power cord retention clips by identifying the insertion holes on the back of the chassis.

Figure 14 *Power Cord Retention Clips*



Align the prongs of the clips with the insertion holes and push them in firmly till they snap in place. Route the power cord through them to secure it.

NOTE

Only use the power cord retention clips supplied in the kit (5300-2991). The kit (5300-2991) is orderable through HPE Aruba Networking purchasing if replacements are needed.

Install Transceivers

Hold the transceiver by its sides and gently insert it into the switch until it clicks into place. When a transceiver is inserted, the switch will authenticate it. This will typically take 1-3 seconds, with the worst case being 5 seconds.

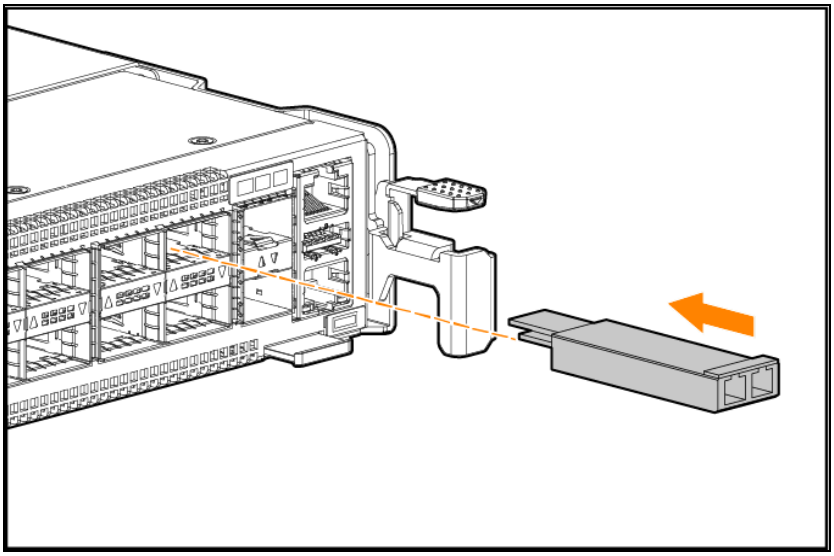
NOTE

- The transceivers operate only at full duplex. Half duplex operation is not supported.
- Ensure the network cable is NOT connected when you install or remove a transceiver.
- You can install or remove transceivers from the slots of the switch without having to power off the switch.

WARNING

- Use only supported HPE Aruba Networking transceivers as shown in the ArubaOS-Switch and ArubaOS-CX Transceiver Guide (https://networkingsupport.hpe.com/downloads).
- The HPE Aruba Networking transceivers are Class 1 laser devices. Avoid direct eye exposure to the beam coming from the transmit port.
- Use of supported genuine HPE Aruba Networking transceivers is always recommended. Non-HPE Aruba Networking SFP/SFP+/SFP28/QSFP+/QSFP28 transceivers can be used in unsupported transceiver mode, but no support or warranty will be provided. Should you require additional transceivers, contact your HPE Aruba Networking sales representative or an authorized reseller.

Figure 15 *Installing a Transceiver*



Removing Transceivers

Depending on the transceiver, it will have either of the three different release mechanisms mentioned below:

- A plastic tab on the bottom of the transceiver.
- A plastic collar around the transceiver.
- A wire bail.

To remove the transceivers that have the plastic tab or plastic collar, push the tab or collar toward the switch until the transceiver releases from the switch (it will move outward slightly), then pull it from the slot.

To remove the transceivers that have the wire bail, lower the bail until it is approximately horizontal, and then using the bail, pull the transceiver from the slot.

Hot Swapping SFP/SFP+/SFP28/QSFP+/QSFP28 Transceivers

Supported SFP/SFP+/SFP28/QSFP+/QSFP28 transceivers that you can install in your HPE Aruba Networking switch can be hot swapped—removed and installed while the switch is receiving power. However, disconnect the network cables from the SFP/SFP+/SFP28/QSFP+/QSFP28 transceivers before hot-swapping them.

When you replace an SFP/SFP+/SFP28/QSFP+/QSFP28 transceiver with another transceiver of a different type, the switch may retain selected port-specific configuration settings that were configured for the replaced unit. Be sure to validate or reconfigure port settings as required.

SFP/SFP+/SFP28/QSFP+/QSFP28 Connections to Devices with Fixed Speed/duplex Configurations

When connecting a device to your switch port that contains an SFP/SFP+/SFP28/QSFP+/QSFP28 transceiver, the speed and duplex settings of the switch port and the connected device must match. Otherwise, the device may not link properly—you may not get a link. For some older network devices, the default speed/duplex settings may be predefined (for example, to 1000 Mbps/Full Duplex), or otherwise set differently from the default configuration of your switch. These setting differences may also apply to some older Hewlett Packard Enterprise devices. Because of these default speed/duplex

considerations, make sure that devices connected to your SFP/SFP+/SFP28/QSFP+/QSFP28 ports are properly configured. At a minimum, make sure the configurations match.

Connect the Switch to a Power Source

To connect the switch to a power source, complete the following steps:

1. Connect an AC power cord to the switch and to an AC power source.
2. Check the LEDs. See Chassis and Port LEDs on the Front of the Switch.

NOTE

One power supply provides power to operate the switch. If both the power supplies are connected to AC power source, redundant power can be supplied in case of loss of one of the power sources.

Power-on the Switch and Check the LEDs

The HPE Aruba Networking 8325H switch does not contain a power on/off switch. It is turned on by connecting a power cord to the switch and to a power source. Power on the switch and check the LEDs. For more information, see Chassis and Port LEDs on the Front of the Switch.

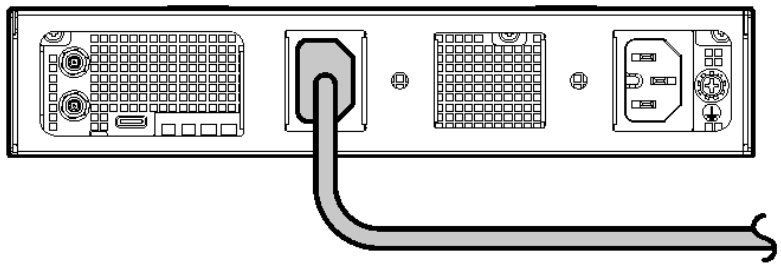
AC Power Supplies

Plug an AC power cord into the power connector on the switch and into an AC power source.

NOTE

Ensure that the AC power source is switched off before plugging the AC power cord into the switch's power connector.

Figure 16 *Connecting AC Power to the Switch*



Power off the Switch

To power-off a switch, remove all the power cords from the switch and/or from the power source.

Setup for Initial Configuration

You can perform the initial configuration of the switch using one of the following methods:

- **Using Zero Touch Provisioning (ZTP):** Use ZTP to configure a switch automatically from a remote server. The switch must be in the factory default configuration. If ZTP is to be used, your network administrator or installation site coordinator must provide an RJ45 cable connected to the appropriate network. Connect the switch to the network using the RJ45 out-of-band management port and power on the switch (or power off, then power on the switch). The ZTP operation is attempted for the first 10 minutes after the switch is powered on. For more information about ZTP, see the *Fundamentals Guide* for your switch and software release.
- **Using the HPE Aruba Networking CX mobile app:** The HPE Aruba Networking CX mobile app and the HPE Aruba Networking USB Bluetooth adapter (separately orderable SKU# S1H23A) enable you to configure your switch from your mobile device. For information about using the HPE Aruba Networking CX mobile app to configure the switch, see the *Fundamentals Guide* for your switch and software release.
- **Using an out-of-band serial console:** Use a workstation configured with a suitable VT-100 terminal emulation software and connect the workstation to the switch's RJ45 Console Port. A DB9-to-RJ45 console cable can be ordered from HPE: JL448A, HPE Aruba Networking X2C2 RJ45 to DB9 Console Cable. For more information about this method, see Initial Configuration with an Out-of-Band Serial Connection.
- **Using connections to the out-of-band dedicated management network:** Use a workstation configured with a suitable VT-100 terminal emulation software and SSH software. Connect the workstation and the switch to the same management network. Connect the switch to the network using the RJ45 out-of-band management port. For more information about using this method, see the *Fundamentals Guide* for your switch and software release. The switch can simultaneously support one console session through the console port and multiple network SSH sessions through the management port.

Connect the Network Cables

Connect the network cables, described under **Cabling Infrastructure** in Prepare the Installation Site chapter, from the network devices or your patch panels to the RJ45 out-of-band management port on the switch or to any transceivers you have installed in the switch.

Using RJ45 Out-of-band Management Port

If you plan to manage the switch from a dedicated management network, connect an RJ45 network cable from the management network to the Mgmt port. The Mgmt port supports 10, 100, and 1000 Mbps connections.

To Connect:

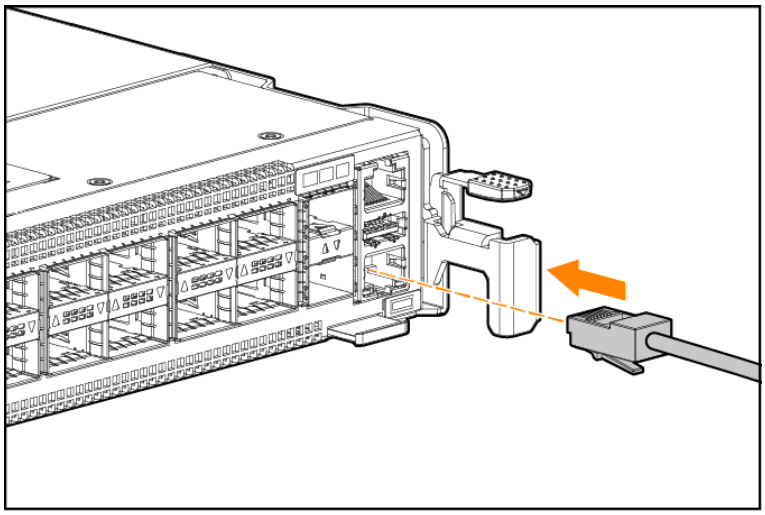
Push the RJ45 plug into the RJ45 port until the tab on the plug clicks into place. When the switch and the connected device are powered, and the ports are enabled on both ends, the Link LED for the port should light up to confirm that a powered-on device (for example, an end node) is at the other end of the cable.

If the Link LED does not turn on when the network cable is connected to the port, see Diagnosing with the LEDs in the Troubleshooting chapter.

To Disconnect:

Press the small tab on the plug and pull the plug out of the port.

Figure 17 *Connecting an RJ45 Cable*



Connecting Cables to Transceivers

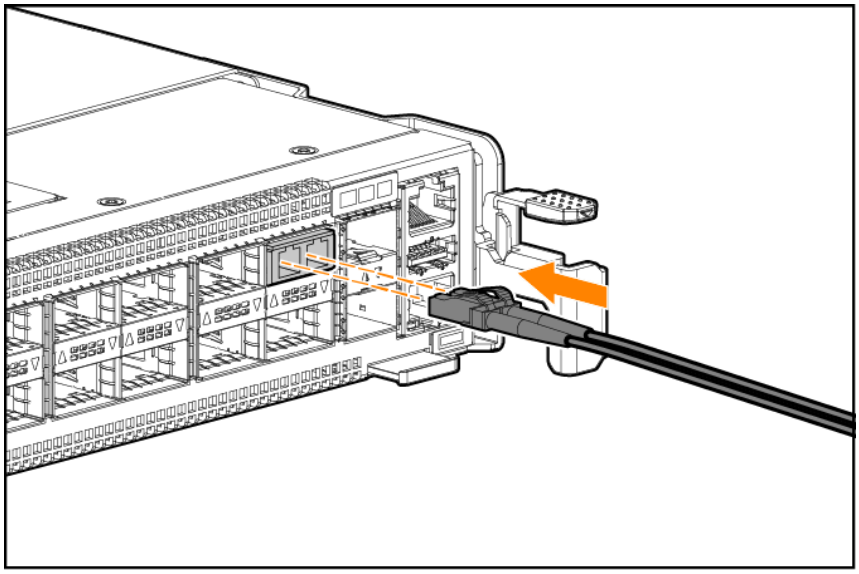
If you have any transceivers installed in the switch, the type of network connections you will need to use depends on the type of transceivers installed.

For transceiver ports, and in general for all the switch ports, a network cable from an active network device is connected to the port. If the port LED does not come on when the network cable is connected to the port, see Diagnosing with the LEDs in the Troubleshooting chapter.

NOTE

Ports are disabled by default.

Figure 18 *Connecting a Cable to a Transceiver*



Terminal Configuration

To configure a terminal, complete the following steps:

- Configure the PC terminal emulator as a DEC VT-100 (ANSI) terminal or use a VT-100 terminal, and configure either one to operate with the following settings:

  Baud rate: 115200
  Data bits: 8
  Stop bit: 1
  Parity: None
  Flow control: Off

- For the Windows Terminal program, also disable (uncheck) the **Use Function, Arrow, and Ctrl Keys for Windows** option.
- For the Hilgraeve HyperTerminal program, select the **Terminal keys** option for the **Function, Arrow, and Ctrl keys act as** parameter.

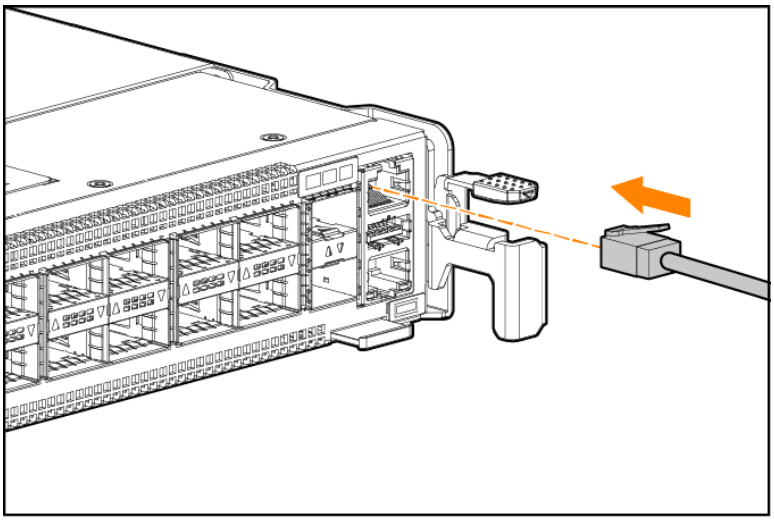
If you want to operate the console using a different configuration, make sure you change the settings on both the terminal and on the switch so they are compatible. Change the switch settings first, then change the terminal settings, then reboot the switch and reestablish the console session.

Connect to a Console Port

To connect a console to the switch, complete the following steps:

1. Connect the PC or terminal to the switch's Console Port using a console cable (JL448A; sold separately).

   Figure 19 *Connecting a Console Cable*

2. Turn on the terminal or PC's power and, if using a PC, start the PC terminal program.
3. Press **Enter** two or three times. When prompted to log in specify **admin**. When prompted for the password, press **Enter**. (By default, no password is defined).

   You are placed into the manager command context, which is identified by the prompt: `switch#`. For example:

```
login as: admin
Password:

switch#
```

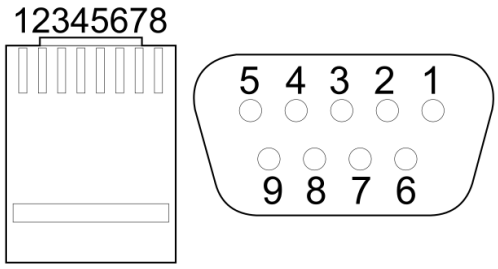
NOTE

If you want to continue with console management of the switch at this time, see the Fundamentals Guide for ArubaOS-CX for initial configuration steps. For more detailed information, refer to the switch software manuals for your switch and software version provided at https://networkingsupport.hpe.com/downloads.

Console Cable Pinouts

The HPE Aruba Networking X2C2 RJ45 to DB9 Console Cable (JL448A) has an RJ45 plug on one end and a DB-9 female connector on the other end.

Figure 20 *RJ45 to DB9 Pinouts*



The following table describes the mapping of the RJ45 to DB9 pins.

Table 14: *Mapping of the RJ45 to DB9 Console Cable*

RJ45 Signals (Signal Reference from Chassis)	RJ45 Pin	DB9 Pin	DB9 Signals (Signal reference from PC)
Reserved	1	8	CTS
Reserved	2	6	DSR
TXD	3	2	RXD
Reserved	4	1	DCD
GND	5	5	GND
RXD	6	3	TXD
Reserved	7	4	DTR
Reserved	8	7	RTS
No connection	-	9	RI

Chapter 5
Troubleshooting

This chapter describes how to troubleshoot your switch. This document describes troubleshooting primarily from a hardware perspective. You can perform more in-depth troubleshooting on these devices using the software tools available with the switches, including the full-featured console interface, the built-in web browser interface, and IMC, the SNMP-based network management tool, or HPE Aruba Networking AirWave.

This chapter describes the following:

Basic Troubleshooting Tips

Most problems are caused by the following situations. Check for these items first when starting your troubleshooting:

- **Faulty or loose cables:** Look for loose or obviously faulty connections. If the cables appear to be OK, make sure the connections are snug. If that does not correct the problem, try a different cable.
- **Non-standard cables:** Non-standard and miswired cables may cause network collisions and other network problems, and can seriously impair network performance. Use a new correctly-wired cable.
- **Improper network topologies:** It is important to make sure you have a valid network topology. Common topology faults include excessive cable length and excessive repeater delays between end nodes. If you have network problems after recent changes to the network, change back to the previous topology. If you no longer experience the problems, the new topology is most likely at fault.

  In addition, you should make sure that your network topology contains **no data path loops**. Between any two end nodes, there should be only one active cabling path at any time. Data path loops can cause broadcast storms that will severely impact your network performance.

  For your switch, if you want to build redundant paths between important nodes in your network to provide some fault tolerance, you should enable **Spanning Tree Protocol** support on the switch. This ensures that only one of the redundant paths is active at any time, thus avoiding data path loops. Spanning Tree can be enabled through the switch console or the web browser interface. For more information on Spanning Tree, see the Layer 2 Bridging Guide for your switch at https://networkingsupport.hpe.com/downloads.

By default, ports do not run selftest at boot. To enable port selftest on boot, save the **no fastboot** configuration to the switch. See the AOS-CX software documentation for further details.

Diagnosing with the LEDs

If possible, check the switch Logs and status information to find more detailed information for LED error indications.

LED Patterns for General Switch Troubleshooting

1. Check in the following table for the LED pattern you see on your switch.
2. Refer to the corresponding diagnostic tip on the next few pages.

Table 15: *LED Error Indicators*

LED Pattern Indicating Problems				
Front/Rear Global Status LEDs	**PS1/PS2 Status LEDs**	**Back Status LED**	**Port LED**	**Diagnostic Tip**
-	Both PS1 and PS2 LEDs are off with power cords plugged in.	-	-	1
Flashing amber	Either PS1 or PS2 LED is off but not both.	Flashing amber	-	2
Flashing amber	-	-	Flashing amber	3
On green	-	-	Off with transceiver cable connected	4
On green	-	-	On Green but no port communication	5
Flashing amber	-	Flashing amber	-	6

Diagnostic Tips

The following table describes the diagnostic tips.

Table 16: *Diagnostic Tips*

Tip	Problem	Solution
1	Both switch power supplies are not plugged into an active power source.	■ Verify the power source works by plugging another device into the outlet, try plugging the power supplies into different outlets, or try different power cords. ■ If the problem is still not resolved, both power supplies or the switch may be faulty.
2	The PSU with the LED Off is not receiving power.	■ Provide power to the PSU. Verify the power cord is plugged into an active power source and to the power supply. Make sure these connections are snug. If the LED is still not On Green, verify the power source works by plugging another device into the outlet. Or try plugging the switch into a different outlet or try a different power cord. ■ If the condition persists, the switch power supply has failed. Call your HPE Aruba Networking authorized network reseller, or use the electronic support services from HPE Aruba Networking to get assistance. ■ Do not attempt to replace the PSU on your own.
3	The network port for which the LED is flashing has experienced a self-test failure, initialization failure, or unsupported transceiver.	■ Check the switch Event Log and `show interface` command output for indication of the fault condition. If a port failed during its selftest, contact HPE Aruba Networking support. ■ If the port has a transceiver installed, verify the transceiver is either a supported HPE Aruba Networking transceiver, or if using an unsupported transceiver, confirm that Unsupported Transceiver mode is enabled. For a list of supported transceivers, see the ArubaOSSwitch and ArubaOS-CX Transceiver Guide. ■ The transceivers are also tested when they are “hot-swapped”— installed or changed while the switch is powered on. ■ To verify the transceiver has failed, remove and reinstall the transceiver without powering off the switch. If the port fault indication reoccurs, the transceiver should be replaced. Check the event log to see why the transceiver failed. ■ A possibility may be that the transceiver has been disabled due to thermal issues or limitations.

Tip	Problem	Solution
		■ To get assistance, call your HPE Aruba Networking authorized network reseller, or use the electronic support services from HPE Aruba Networking.
4	The port is not able to establish link.	Try the following procedures: ■ For the indicated port, verify that both ends of the cabling, at the switch and the connected device, are connected properly. ■ Verify the connected device and switch are both powered on and operating correctly. ■ Verify you have used the correct cable type for the connection: ◦ For fiber-optic connections, verify the transmit port on the switch is connected to the receive port on the connected device, and the switch receive port is connected to the transmit port on the connected device. ◦ The cable verification process must include all patch cables from any end devices, including the switch, to any patch panels in the cabling path. ■ Verify the port has not been disabled through a switch configuration change. You can use the console interface, or, if you have configured an IP address on the switch, use the Web browser interface to determine the state of the port and re-enable the port if necessary. ■ Verify the switch port configuration matches the configuration of the attached device. For example, if the switch port is configured as “Fullduplex”, the port on the attached device also MUST be configured as “Full-duplex”. If the configurations don’t match, the results could be a very unreliable connection, or no link at all. ■ Run an internal selftest on the port. ■ If the command reports a failure, contact HPE Support. There may be a hardware fault. ■ If the other procedures don’t resolve the problem, try using a different port or a different cable.
5	The port gets link but does not forward traffic.	■ Use the switch console to see if the port is part of a dynamic trunk (through the LACP feature) or to see if Spanning Tree is enabled on the switch, and to see if the port may have been put into a “blocking” state by those features. The `show lacp interfaces` command displays the port status for the LACP feature; the `show spanning-tree` command displays the port status for Spanning Tree.

Tip	Problem	Solution
		■ Other switch features that may affect the port operation include VLANs, IGMP, and VSX. Use the switch console to see how the port is configured for these features. ■ Also ensure, that the device at the other end of the connection is indicating a good link to the switch. If it is not, the problem may be with the cabling between the devices or the connectors on the cable.
6	The switch is cooling down for 5 minutes following a thermal shutdown.	■ If the switch is unresponsive and the fans are spinning at maximum speed, it is cooling down for five minutes following a thermal shutdown. The system will reboot after the five-minute timeout. ■ Verify the number of operating fans is sufficient and that no airflow is blocked. ■ Ensure that the operating temperature is within the product specification. Otherwise, check the system logs for details about faults.

Hardware Diagnostic Tests

This section describes the basic tests for checking hardware.

Testing the Switch by Resetting It

If you believe the switch is not operating correctly, you can reset the switch to test its circuitry and operating code. To reset a switch, complete either of the following steps:

- Unplug and plug in the power cords (power cycling). Wait a minimum of five seconds after unplugging, before plugging the power cord back in.
- Reboot the switch through the management console's `boot system` command.

Power cycling the switch causes the switch to reset. The reset process also causes any network traffic counters and the System Up Time timer to be reset to zero.

Checking the Switch LEDs

See Diagnosing with the LEDs for information on interpreting the LED patterns.

Checking Console Messages

Useful diagnostic messages may be displayed on the console screen when the switch is reset. Connect a PC running a VT-100 terminal emulator program to the switch's Console Port and configure it to run at 115200 baud, and with the other terminal communication settings shown in Connect the Network Cables. Then, when you reset the switch, note the messages that are displayed. Additionally, you can check the switch event log, which can be accessed from the console using the `show events` command.

Testing Switch-to-Device Network Communications

You can perform the following communication tests to verify the network is operating correctly between the switch and any connected device that can respond correctly to the communication test.

- **Link Test:** A physical layer test that sends IEEE 802.2 test packets to any device identified by its MAC address.
- **Ping Test:** A network layer test used on IP networks that sends test packets to any device identified by its IP address.

These tests can be performed through the switch console interface from a terminal connected to the switch, through a Telnet connection, or from the switch's web browser interface.

Testing End-to-End Networking Communications

Both the switch and the cabling can be tested by running an end-to-end communications test—a test that sends known data from one network device to another through the switch. For example, if you have two PCs on the network that have LAN adapters between which you can run a link-level test or Ping test through the switch, you can use this test to verify that the entire communication path between the two PCs is functioning correctly. See your LAN adapter documentation for more information on running a link test or Ping test.

Downloading New Switch Software

Software Updates can be downloaded to the switch through several methods. See Accessing Updates.

Hewlett Packard Enterprise Customer Support Services

If you are still having trouble with your product, see Support and Other Resources.

Chapter 6
Specifications

This section lists specifications for the 8325H switch series.

Physical

The following table describes the physical specifications of the switch.

Table 17: *Physical Specifications*

Model	Description	Dimensions (W x D x H)	Weight
S4B20A	HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU Switch	8.27" x 22.70" x 1.69" (21.0 x 57.7 x 4.3 cm)	13.08 lb (5.94 kg)
S4B21A	HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU Switch		
S2T42A	HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU TAA Switch		
S2T46A	HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU TAA Switch		
S4B22A	HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU Switch		13.24 lb (6.01 kg)
S4B23A	HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU Switch		
S2T47A	HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU TAA Switch		
S2T48A	HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU TAA Switch		

Electrical

The following table describes the electrical specifications of the switch.

Table 18: *Electrical Specifications*

Model	Maximum Current	Nominal Voltage	Frequency Range
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU Switch (S4B20A)	7A/4A	100-127V/200-240V	50-60Hz
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU Switch (S4B21A)			
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T42A)			
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T46A)			
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU Switch (S4B22A)			
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU Switch (S4B23A)			
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T47A)			
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T48A)			

Power Cords

HPE Aruba Networking includes the power cord intended for use with your HPE Aruba Networking switch and power supply. Different countries/regions may require different power cords. For a list of the power cords that apply to your switch, see Included Parts.

- Only HPE Aruba Networking-approved power cords may be used with HPE Aruba Networking devices. To access power cord information for your switch, see Included Parts. Lost or damaged power cords must be replaced only with HPE Aruba Networking-approved power cords. If your installation requires a different power cord than the one supplied with the switch and/or power supply, be sure that the cord is adequately sized for the current requirements of the switch. In addition, be sure to use a power cord displaying the mark of the safety agency that defines the regulations for power cords in your country/region. The mark is your assurance that the power cord can be used safely with the switch and power supply.
- Remove the power cord from the switch before mounting or unmounting the switch.
- Do not use a damaged or non-recommended power cord with your switch. Using such power cords voids the switch and power supply warranty. It can also cause serious electrical problems, including injury or death to personnel, and damage to the switch and other property. If you cannot verify that you have a power cord approved for use with your switch model, contact your authorized HPE Aruba Networking dealer or sales representative for assistance.

Power Consumption

The following table describes the power consumption specifications of the switch.

Table 19: *Power Consumption Specifications*

Switch Model	Power Consumption
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU Switch (S4B20A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU Switch (S4B21A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T42A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T46A)	100% Traffic Rate: 340W Typical: 123W Idle: 100W
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU Switch (S4B22A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU Switch (S4B23A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T47A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T48A)	100% Traffic Rate: 349W Typical: 133W Idle: 105W

- 100% traffic rate power measured with DACs only, 240VAC at 45°C (F2B) and 40°C (B2F), and full fan speed.
- Idle power measured with DACs only, 0% traffic, 240VAC at 25°C.
- Typical power measured with DACs only, 50% traffic, 240VAC at 25°C.
- Power consumption will vary depending on the installed transceivers.

Battery Statements

- Where a battery incorporated by HPE is too small to bear the CE marking, it conforms with applicable requirements.
- These switches use a lithium battery. Do not attempt to replace the battery. Return the switch to HPE Aruba Networking for battery replacement.

- The only indicator of battery failure is the failure of the switch's internal clock to keep the correct time across a reboot or power cycle. If a battery failure occurs, contact your authorized HPE Aruba Networking representative for assistance. Batteries are not customer-serviceable and battery failures should be referred only to HPE Aruba Networking-authorized service personnel.
- For important safety, environmental, and regulatory information, see the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts.

ATTENTION	Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

ATTENTION	The battery supplied with this product may contain perchlorate material. Special handling may apply in California and certain other states. See http://www.dtsc.ca.gov/hazardouswaste/perchlorate website for more information.

A risk of explosion exists if a battery is replaced by an incorrect type. Dispose of used batteries according to the battery disposal regulations for your country or region.

Environmental Specifications

The following table describes the environmental specifications of the switch.

Table 20: *Environmental Specifications*

	HPE Aruba Networking 8325H Switches
Operating temperature*	Front-to-Back airflow: 32°F to 113°F (0°C to 45°C) at sea level Back-to-Front airflow: 32°F to 104°F (0°C to 40°C) at sea level Derate -1°C for every 1,000 ft to 10,000 ft (300 m to 3.0 km)
Non-operating temperature	-40°F to 158°F up to 15,000 ft (-40°C to 70°C up to 4.6 km)
Operating relative humidity	Front-to-Back airflow: 5% to 95% @ 113°F (45°C) non-condensing Back-to-Front airflow: 5% to 95% @ 104°F (40°C) non-condensing
Non-operating storage relative humidity	5% to 95% @ 149°F (65°C) non-condensing
Max operating altitude	10,000 ft (3.0 km) Max
Max non-operating altitude	15,000 ft (4.6 km) Max
*Some transceivers may have different operating temperature ranges to provide thermal protection to the transceiver. Refer to the latest AOS-S and AOS-CX Transceiver Guide for Transceiver/AOC operating temperature ranges.	

Acoustics

The following table describes the typical operating acoustic specifications of the switch.

Table 21: *Acoustic Specifications*

Switch Model	Acoustics
HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU Switch (S4B20A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU Switch (S4B21A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T42A) HPE Aruba Networking 8325H 18p SFP28 25G 4p QSFP28 100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T46A)	F2B LpAm (Bystander) = 41.4 dB; LWAd = 5.6 Bel B2F LpAm (Bystander) = 40.6 dB; LWAd = 5.5 Bel
HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU Switch (S4B22A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU Switch (S4B23A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Front-to-Back 4 Fans 2 PSU TAA Switch (S2T47A) HPE Aruba Networking 8325H 16p QSFP28 40G/100G Back-to-Front 4 Fans 2 PSU TAA Switch (S2T48A)	F2B LpAm (Bystander) = 40.1 dB; LWAd = 5.5 Bel B2F LpAm (Bystander) = 40.4 dB; LWAd = 5.5 Bel

Acoustics are measured in 23± 2°C hemi-anechoic chamber with a loading of 50% traffic on all ports. The ports are fully populated with DACs. Acoustic sound levels are measured in accordance with ISO 7779. The values presented is the mean bystander A-weighted Sound Pressure Level (LpAm) and Sound Power (LWAd).

RoHS

RoHS EN IEC 63000:2018

Safety and Regulatory Information

For important safety, environmental, and regulatory information, see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts.

Table 22: *Safety and Regulatory Information for HPE Aruba Networking 8325H Switch Models*

Safety	EN 62368-1 2nd Ed; EN 62368-1 3rd Ed; UL 62368-1 3rd Ed; CSA C22.2 NO. 62368-1:2019 3rd Ed; GB 4943.1:2022; CNS 15598:2020; IEC 62368-1:2014 & 2018 w/all known national deviations.
Lasers	EN 60825-1:2014 / IEC 60825-1: 2014 Class 1 Class 1 Laser Products / Laser Klasse 1
EMC	EN 55032:2015+A11:2020, Class A EN 55035:2017+A11:2020 EN 61000-3-2: 2019/A1:2021 EN 61000-3-3: 2013/A2:2021 EN 301-489-1-19 EN 303-413 EN 61000-4-5 CISPR 32:2015 Class A CISPR 35 2016 FCC CFR 47 Part 15:2020, Subpart B Class A ICES-003 Class A 2020 Issue 7 VCCI-32:2016 Class A AS/NZS CISPR 32:2015 +AMD:2020 Class A CNS 15936
RoHS	EN 63000:2018

Connectivity Standards

See the latest *Transceiver Guide* for your HPE Aruba Networking 8325H series switch at the HPE Support Portal.

Chapter 7
Support and Other Resources

Accessing HPE Aruba Networking Support

HPE Aruba Networking Support Services	https://www.arubanetworks.com/support-services/
HPE Networking Support Portal	https://networkingsupport.hpe.com
North America telephone	1-800-943-4526 (US & Canada Toll-Free Number)
International telephone	https://www.arubanetworks.com/support-services/contact-support/

Be sure to collect the following information before contacting Support:

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Other Useful Sites

Listed below are other websites that can be used to find information:

Airheads social forums and Knowledge Base	https://community.arubanetworks.com/
Software licensing	https://licensemanagement.hpe.com/
End-of-Life information	https://networkingsupport.hpe.com/notifications
HPE Aruba Networking software and documentation	https://networkingsupport.hpe.com/downloads

Accessing Updates

You can access updates from the HPE Networking Support Portal or the HPE My Networking Website.

HPE Networking Support Portal

https://networkingsupport.hpe.com/downloads

If you are unable to find your product in the HPE Networking Support Portal, you may need to search My Networking, where older networking products can be found.

My Networking

https://www.hpe.com/networking/support

To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page using the link below:

https://support.hpe.com/portal/site/hpsc/aae/home/

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.

To subscribe to eNewsletters and alerts, use the following link:

https://networkingsupport.hpe.com/notifications/subscriptions (requires an active HPE Networking Support Portal account to manage subscriptions). Security notices are viewable without an HPE Networking Support Portal account.

Warranty Information

To view warranty information for your product, go to https://www.arubanetworks.com/support-services/product-warranties/.

Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at https://www.hpe.com/support/Safety-Compliance-EnterpriseProducts.

Additional Regulatory Information

HPE Aruba Networking is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements, environmental data (company programs, product recycling, energy efficiency), and safety information and compliance data (RoHS and WEEE). For more information, see https://www.arubanetworks.com/company/about-us/environmental-citizenship/.

Documentation Feedback

HPE Aruba Networking is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (hpe-aruba-techpub@hpe.com). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.