HP A5820X & A5800 Switch Series

Installation Guide

Abstract

This document guides you through installation of HP A Series products, including installing the device, connecting to the network, hardware management, and troubleshooting.

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Legal and notice information

Contents

Preparing for installation

The HP A5800 Switch Series includes the models in Table 1 and the HP A5820X Switch Series includes the models in Table 2.

Table 1 HP A5800 Switch Series models

Product code	HP description	Alias
JC101A	A5800-48G-PoE+ Switch with 2 Interface Slots	A5800-48G-PoE+ (2 slots)
JG242A	A5800-48G-PoE+ TAA Switch with 2 Interface Slots	A5800-48G-PoE+ TAA (2 slots)
JC105A	A5800-48G Switch with 1 Interface Slot	A5800-48G (1 slot)
JG258A	A5800-48G TAA Switch with 1 Interface Slot	A5800-48G TAA (1 slot)
JC104A	A5800-48G-PoE+ Switch with 1 Interface Slot	A5800-48G-PoE+ (1 slot)
JG257A	A5800-48G-PoE+ TAA Switch with 1 Interface Slot	A5800-48G-PoE+ TAA (1 slot)
JC100A	A5800-24G Switch	A5800-24G
JG255A	A5800-24G TAA Switch	A5800-24G TAA
JC099A	A5800-24G-PoE+ Switch	A5800-24G-PoE+
JG254A	A5800-24G-PoE+TAA Switch	A5800-24G-PoE+TAA
JC103A	A5800-24G-SFP Switch with 1 Interface Slot	A5800-24G-SFP (1 slot)
JG256A	A5800-24G-SFP TAA Switch with 1 Interface Slot	A5800-24G-SFP TAA (1 slot)
JG225A	A5800AF-48G Switch	A5800AF-48G

IMPORTANT:

For regulatory identification purposes, the A5800AF-48G switch is assigned a regulatory model number (RMN) BJNGA-AD0002. This regulatory number should not be confused with the marketing name HP A5800AF, or product code JG225A.

Table 2 HP A5820X Switch Series models

Product code	HP description	Alias
JG219A	HP A5820AF-24XG Switch	A5820AF-24XG
JC102A	HP A5820X-24XG-SFP+ Switch	A5820X-24XG-SFP+
JG243A	HP A5820X-24XG-SFP+ TAA-compliant Switch	A5820X-24XG-SFP+ TAA
JC106A	HP A5820X-14XG-SFP+ Switch with 2 Interface Slots	A5820X-14XG-SFP+ (2 slots)
JG259A	HP A5820X-14XG-SFP+ TAA Switch with 2 Interface Slots	A5820X-14XG-SFP+ TAA (2 slots)

IMPORTANT:

For regulatory identification purposes, the A5820AF-24XG switch is assigned a regulatory model number (RMN) BJNGA-AD0001. This regulatory number should not be confused with the marketing name HP A5820AF, or product code JG219A.

Safety recommendations

WARNING!

Read all of the safety instructions in the *Compliance and Safety Guide* supplied with your device before installation and operation.

This section provides general recommendations. For more information see the *Compliance and Safety Guide* included with your device.

- Turn off all the power and remove all the power cables before opening the chassis.
- Unplug all power and external cables before moving the chassis.
- Locate the emergency power off switch before installation and shut off power immediately if necessary.
- Always wear an ESD-preventive wrist strap when installing the device.
- Do not stare into the open optical interface; the high power density light can burn the retina.
- Use a good grounding system to protect your device against lightning shocks, interferences, and ESD; this is essential to the operating reliability of your switch.
- Make sure that the resistance between the chassis and the ground is less than 1 ohm.

Installation site requirements

This section provides information about temperature and humidity, cleanness, and air quality requirements.

For the temperature and humidity requirements of different switch models, see "Environmental specifications."

Table 3 Dust concentration limit in the equipment room

Substance	Concentration limit (particles/m3)
Dust particles	≤ 3 x 10^4 (No visible dust on desk in three days)
NOTE: Dust particle diameter ≥ 5 μm	

Table 4 Limits on harmful gases in the equipment room

Gas	Maximum concentration (mg/m^3)
SO_2	0.2
H_2S	0.06
NH_3	0.05
Cl_2	0.01

Rack-mounting requirements

Before rack-mounting a switch, make sure the rack meets the following requirements:

- HP recommends that you mount a switch in an open rack. If you mount a switch in a closed rack, make sure there is a good heat dissipation system.
- Make sure the rack is steady enough to support the switch and accessories.
- Make sure that the switch fits the rack size. Leave some spaces beside the left and right panels of the switch for chassis heat dissipation.

Installation tools

- Flat-blade screwdriver
- Phillips screwdriver
- ESD-preventive wrist strap

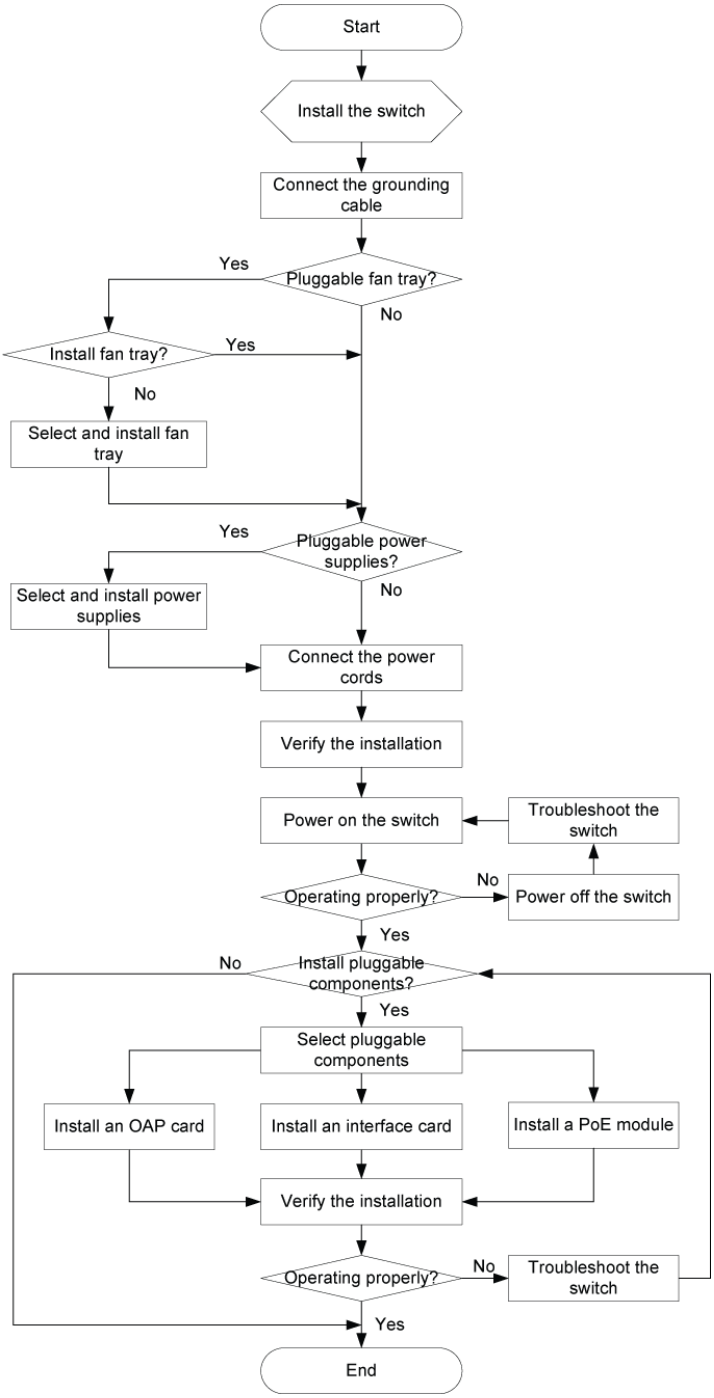
All these installation tools are user supplied.

Installing the switch

CAUTION:

Keep the tamper-proof seal on a mounting screw on the chassis cover intact, and if you want to open the chassis, contact HP for permission. Otherwise, HP shall not be liable for any consequence.

Figure 1 Hardware installation flow



Confirming installation preparations

Before you install the switch, make sure:

- You have read "Preparing for installation" carefully and the installation site meets all the requirements.
- A 19-inch rack is ready for use. For how to install a rack, see the rack installation guide.

Installing the switch in a 19-inch rack

Mounting bracket and cable management bracket kits

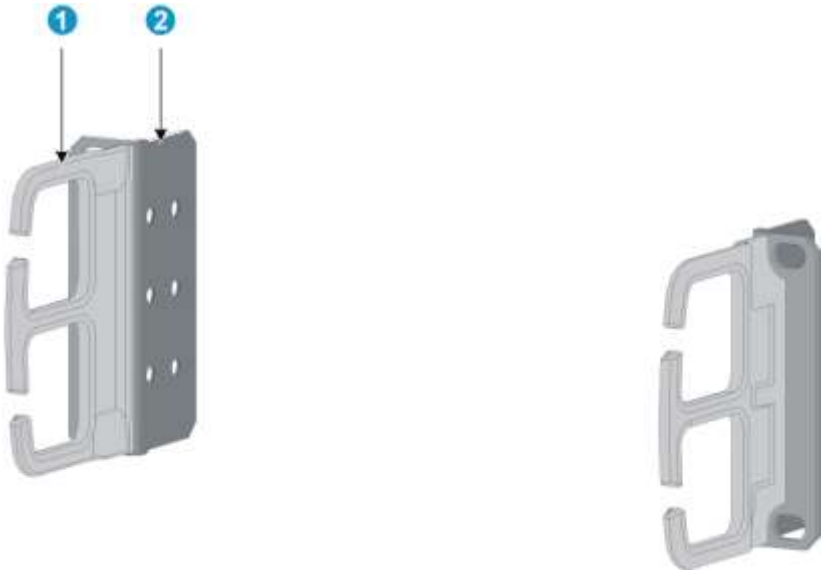
Table 5 describes the mounting bracket and cable management bracket kits shipped with the switches.

Table 5 Mounting bracket and cable management bracket kits

Chassis	Mounting brackets	Cable management brackets	Bracket view
All A5800 switches except the A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots) A5820AF-24XG A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	One pair of 1U mounting brackets (supplied with the switch)	N/A	See Figure 2.
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots) A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	One pair of 2U mounting brackets (supplied with the switch)	One pair (standard)	The mounting brackets and cable management brackets are secured together by default (see Figure 3).

Figure 2 1U mounting bracket kit

Figure 3 2U cable management bracket and mounting bracket kit

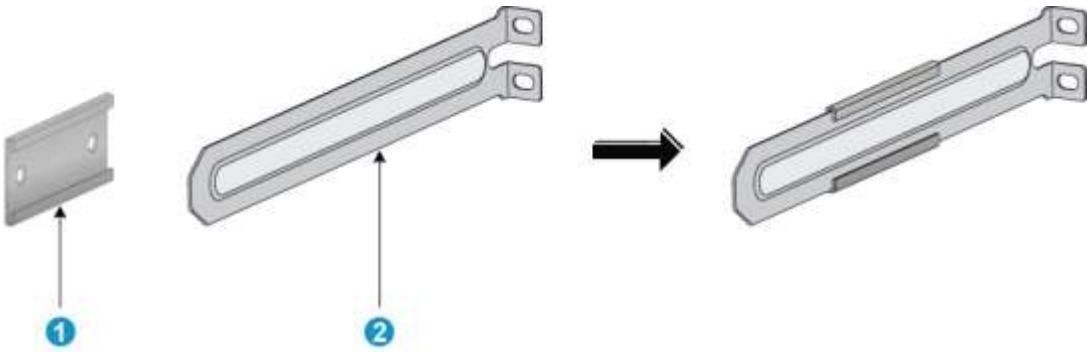


(1) Cable management bracket	(2) Mounting bracket

Rack mounting rail kit

The switches come with a pair of chassis rails and a pair of slide rails.

Figure 4 Rack mounting rail kit



(1) Chassis rail	(2) Slide rail

Rack-mounting procedure

You can install a switch in a 19-inch rack by using different rack mounting positions. Use Table 6 to identify the rack-mounting procedure for your switch.

Table 6 Rack-mounting procedures at a glance

Chassis	Procedure diagram	Procedure references
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots) A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Figure 5	1. Identifying the mounting position 2. Attaching the mounting brackets to the chassis (for all the switches except the A5800AF-48G/A5820AF-24XG) 3. Rack-mounting an A5800/A5820X switch except the A5800AF-48G/A5820AF-24XG
A5800AF-48G A5820AF-24XG	Figure 6	4. Identifying the mounting position 5. Attaching the mounting brackets, chassis rails, and grounding cable (A5800AF-48G/A5820AF-24XG) 6. Rack-mounting an A5800AF-48G/A5820AF-24XG switch
All other A5800 switches A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	Figure 7	7. Identifying the mounting position 8. Attaching the mounting brackets to the chassis (for all the switches except the A5800AF-48G/A5820AF-24XG) 9. Rack-mounting an A5800/A5820X switch except the A5800AF-48G/A5820AF-24XG

Figure 5 Rack-mounting procedure (I)

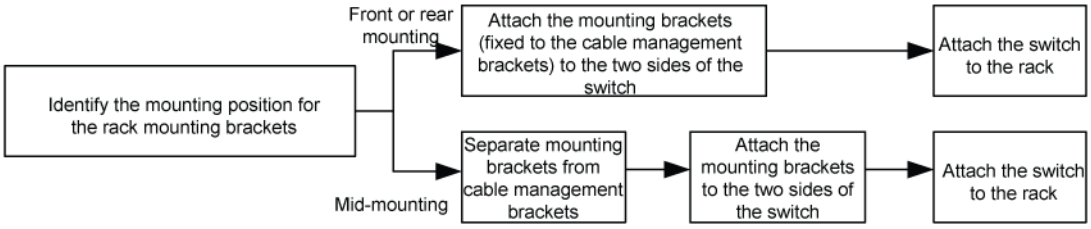


Figure 6 Rack-mounting procedure (II)

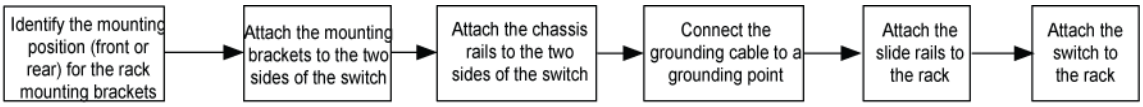
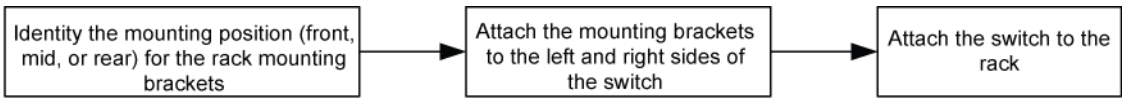


Figure 7 Rack-mounting procedure (III)



NOTE:

If a rack shelf is available, you can put the switch on the rack shelf, slide the switch to an appropriate location, and attach the switch to the rack with mounting brackets.

Identifying the mounting position

Table 7 describes the mounting positions for the A5800AF-48G and A5820AF-24XG switches and Table 8 describes the mounting positions for all the other switches in this series.

Table 7 Mounting positions for the A5800AF-48G/A5820AF-24XG

Mounting bracket position	Installing the mounting brackets	Installing the chassis rails and slide rails	Installing the switch
• Rear mounting (near the power supplies) • Front mounting (near the network ports)	See "Attaching the mounting brackets and chassis rails to the chassis."	Required. See "Attaching the mounting brackets and chassis rails to the chassis" and Attaching the slide rails to the rack.	See "Mounting the switch in the rack."

IMPORTANT:

The depth of the rack for the A5800AF-48G and A5820AF-24XG switches must be 1000 mm (39.37 in).

Table 8 Mounting positions for all the other A5800/A5820X switches

Mounting bracket position	Installing the mounting brackets	Installing the chassis rails and slide rails	Installing the switch
• Rear mounting (near the power supplies) • Front mounting (near the network ports) • Mid-mounting	See "Attaching the mounting brackets to the chassis (for all the switches except the A5800AF-48G/A5820AF-24XG)."	Not required	See "Rack-mounting an A5800/A5820X switch except the A5800AF-48G/A5820AF-24XG."

Attaching the mounting brackets, chassis rails, and grounding cable (A5800AF-48G/A5820AF-24XG)

The A5800AF-48G and A5820AF-24XG switches have one front mounting position (near the network ports) and one rear mounting position (near the power supplies). The switches also have one primary grounding point (with a grounding sign) and two auxiliary grounding points. In most cases, you use the primary grounding point. If the primary grounding point fails or is not suitable for the installation site, use one of the auxiliary grounding points.

Figure 8 Identifying the mounting and grounding positions

(1) Auxiliary grounding point 2	(2) Rear mounting position
(3) Primary grounding point	(4) Auxiliary grounding point 1
(5) Front mounting position	

Attaching the mounting brackets and chassis rails to the chassis

To attach the mounting brackets and chassis rails to the switch chassis:

1. Align the mounting brackets with the screw holes in the rear mounting position (see Figure 9) or front mounting position (see Figure 10).
2. Use M4 screws (supplied with the switch) to attach the mounting brackets to the chassis.
3. Align the chassis rails with the rail mounting holes in the chassis:
   - If the mounting brackets are in the rear mounting position, align the chassis rails with the screw holes at the front of the side panels (see Figure 9).
   - If the mounting brackets are in the front mounting position, align the chassis rails with the screw holes at the rear of the side panels (see Figure 10).
4. Use M4 screws (supplied with the switch) to attach the chassis rails to the chassis.

NOTE:

Secure the mounting brackets and chassis rails to both sides of the chassis in the same way.

Connecting the grounding cable to the chassis

CAUTION:

The primary grounding point and auxiliary grounding point 1 are located on the left side panel. If you use one of these grounding points, you must connect the grounding cable to the grounding point before you mount the switch in the rack.

NOTE:

- HP recommends that you use the primary grounding point or auxiliary grounding point 1 because the grounding cable and grounding screw that come with the switch are suitable only for these two grounding points.
- To use auxiliary grounding point 2, you must prepare a grounding cable yourself.

To connect the grounding cable to a chassis grounding point, for example, the primary grounding point:

1. Choose a grounding point.
2. Unpack the grounding cable and grounding screws.

   You can use the cable and screws shipped with the switch only for connecting to the primary grounding point or auxiliary grounding point 1.
3. Align the two-hole grounding lug at one end of the cable with the grounding holes of the grounding point, insert the grounding screws into the holes, and tighten the screws with a screwdriver to attach the grounding lug to the chassis, as shown in Figure 9.

Figure 9 Attaching the rear mounting brackets, the chassis rails, and the grounding cable to the chassis

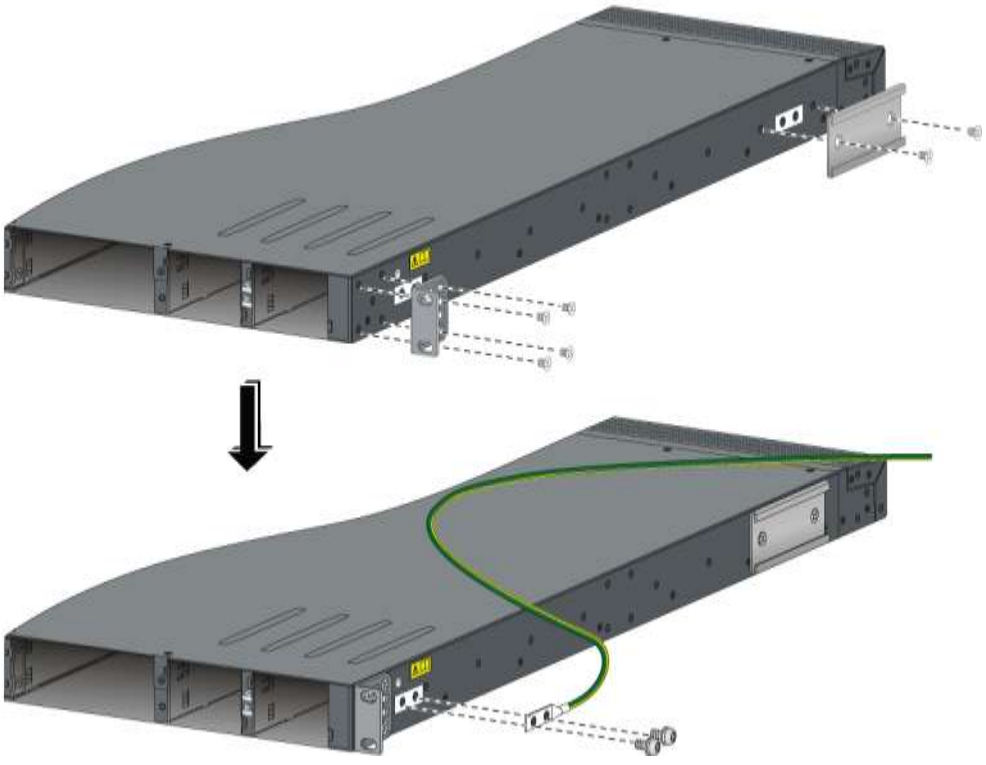
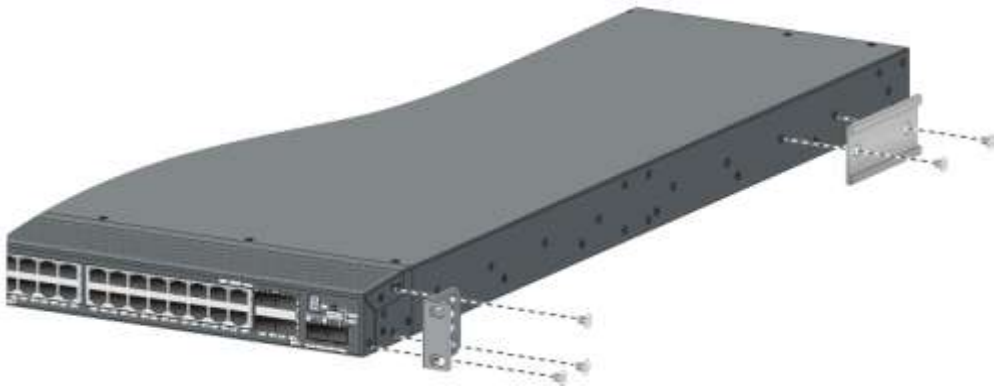


Figure 10 Attaching the front mounting brackets and the chassis rails to the chassis



Attaching the mounting brackets to the chassis (for all the switches except the A5800AF-48G/A5820AF-24XG)

All A5800 and A5820X switches except the A5800AF-48G and the A5820AF-24XG have three mounting positions: one front mounting position (near the network ports), one mid-mounting position, and one rear mounting position (near the power supplies).

To attach the mounting brackets in one of these positions:

1. Align one mounting bracket with the screw holes in the front-mounting position (Figure 11), mid-mounting position (Figure 12), or the rear-mounting position (Figure 13).

   These figures show attaching a 1U bracket to a 1U switch chassis. To attach a 2U bracket to a 2U switch chassis, see Figure 14.
2. Use M4 screws (supplied with the switch) to attach the mounting bracket to the chassis.
3. Repeat the proceeding steps to attach the other mounting bracket to the chassis.

Figure 11 1U mounting bracket front mounting position

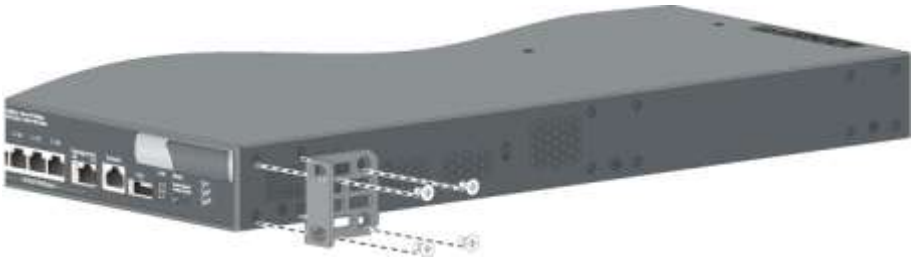


Figure 12 1U bracket mid-mounting position

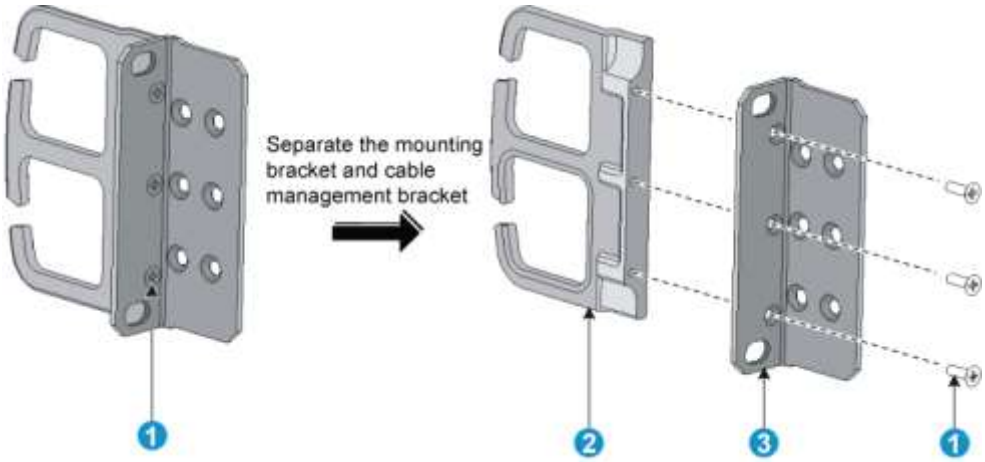
Figure 13 1U bracket rear mounting position

Figure 14 2U bracket front mounting position

NOTE:

- Installing the 2U mounting brackets in the rear mounting position is similar to installing the brackets in the front mounting position.
- To install the 2U mounting brackets in the mid-mounting position of a 2U switch chassis, first use a screwdriver to loosen the three captive screws and separate the mounting brackets from the cable management brackets (see Figure 15).

Figure 15 Separating a cable management bracket from a mounting bracket



(1) Captive screws (2) Cable management bracket (3) Mounting bracket

Rack-mounting an A5800AF-48G/A5820AF-24XG switch

Attaching the slide rails to the rack

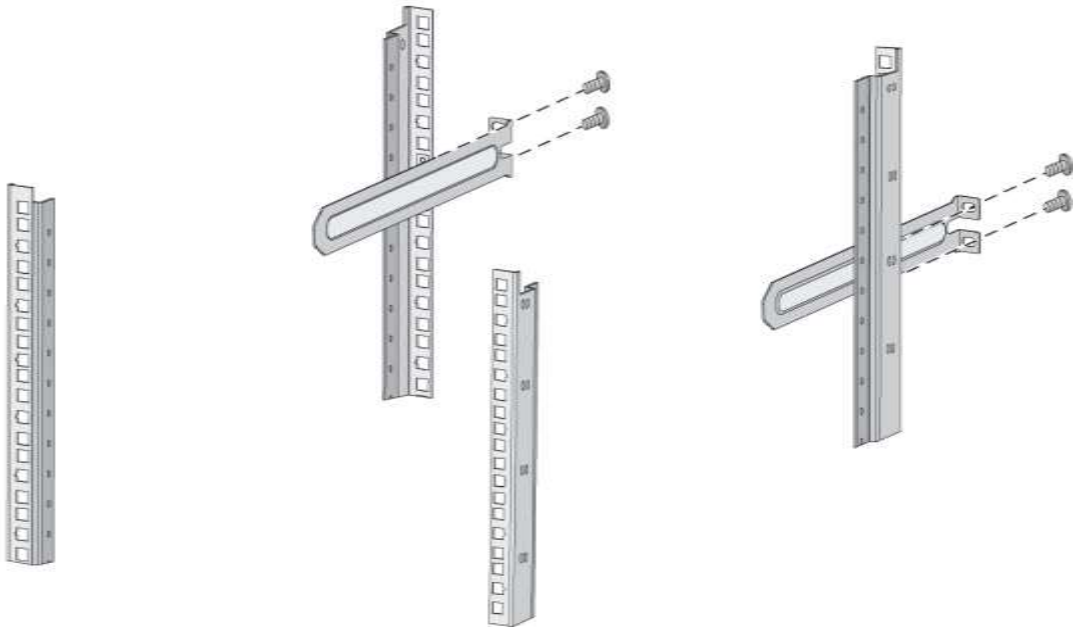
You must install slide rails for rack-mounting an A5800AF-48G or A5820AF-24XG switch.

To attach the slide rails to the rack:

1. Identify the rack attachment position for the slide rails.
2. Install cage nuts (user-supplied) in the mounting holes in the rack posts.
3. Align the screw holes in one slide rail with the cage nuts in the rack post on one side, and use screws (user supplied) to attach the slide rail to the rack, as shown in Figure 16.
4. Repeat the preceding step to attach the other slide rail to the rack post on the other side.

   Keep the two slide rails at the same height so the slide rails can attach into the chassis rails.

Figure 16 Installing the slide rails



Mounting the switch in the rack

This task requires two people. To mount the switch in the rack:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Check that the mounting brackets and chassis rails have been securely attached on the two sides of the switch.
3. Check that the slide rails have been correctly attached to the rear rack posts.
4. Install cage nuts (user-supplied) to the front rack posts and make sure they are at the same level as the slide rails.
5. Supporting the bottom of the switch, align the chassis rails with the slide rails on the rack posts, as shown in Figure 17. Work with another person to slide the chassis rails along the slide rails until the mounting brackets are flush with the rack posts.
6. Use screws (user-supplied) to attach the mounting brackets to the rack, as shown in Figure 18.
7. To secure the switch in the rack, make sure that the front ends of the slide rails reach out of the chassis rails, as shown in Figure 18.

Figure 17 Mounting the switch in the rack (I)

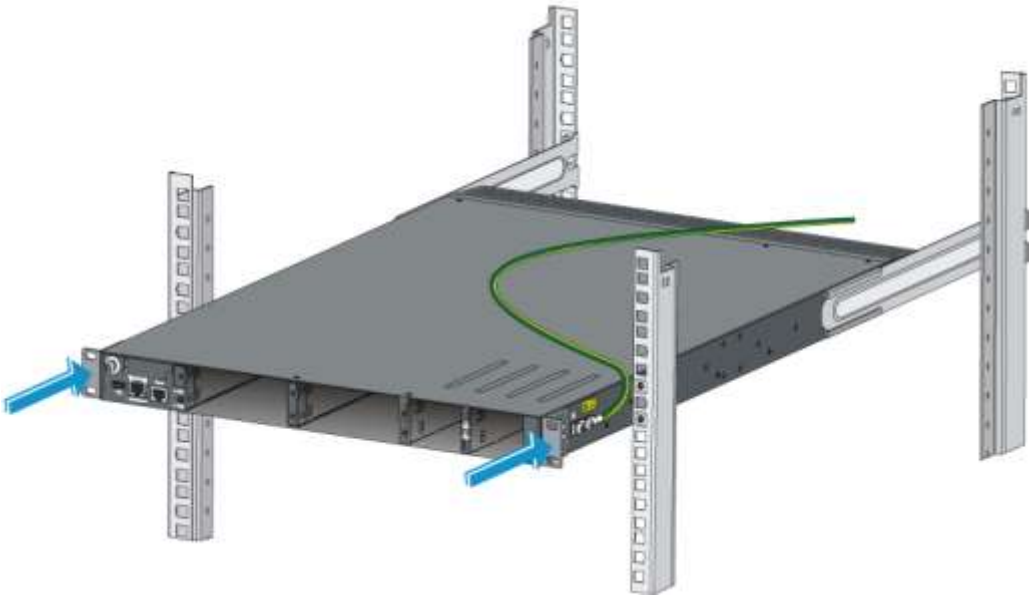
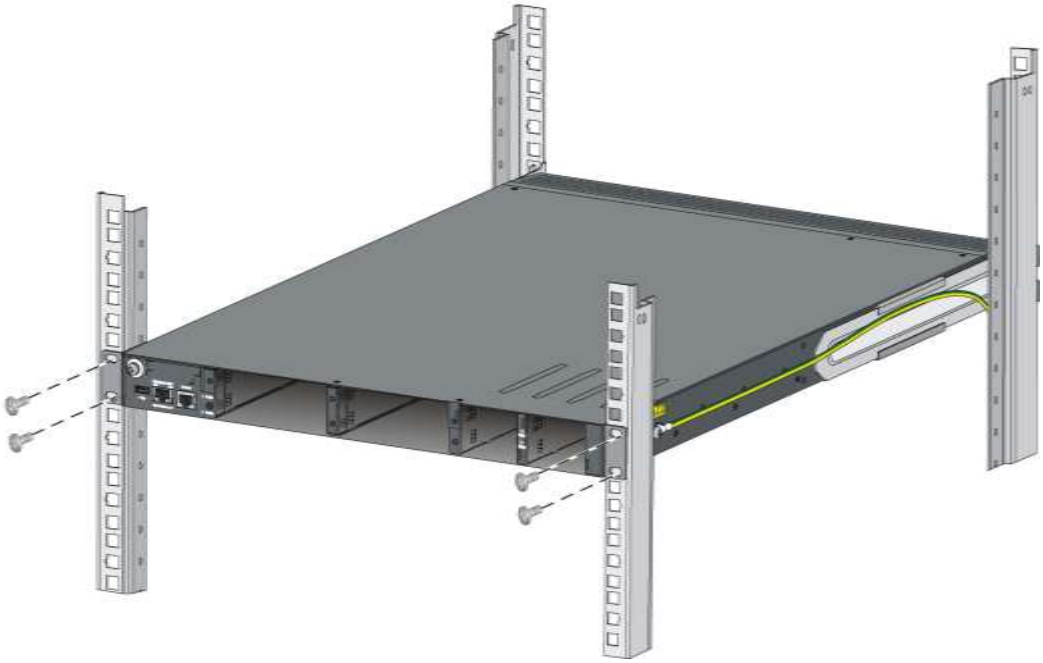


Figure 18 Mounting the switch in the rack (II)



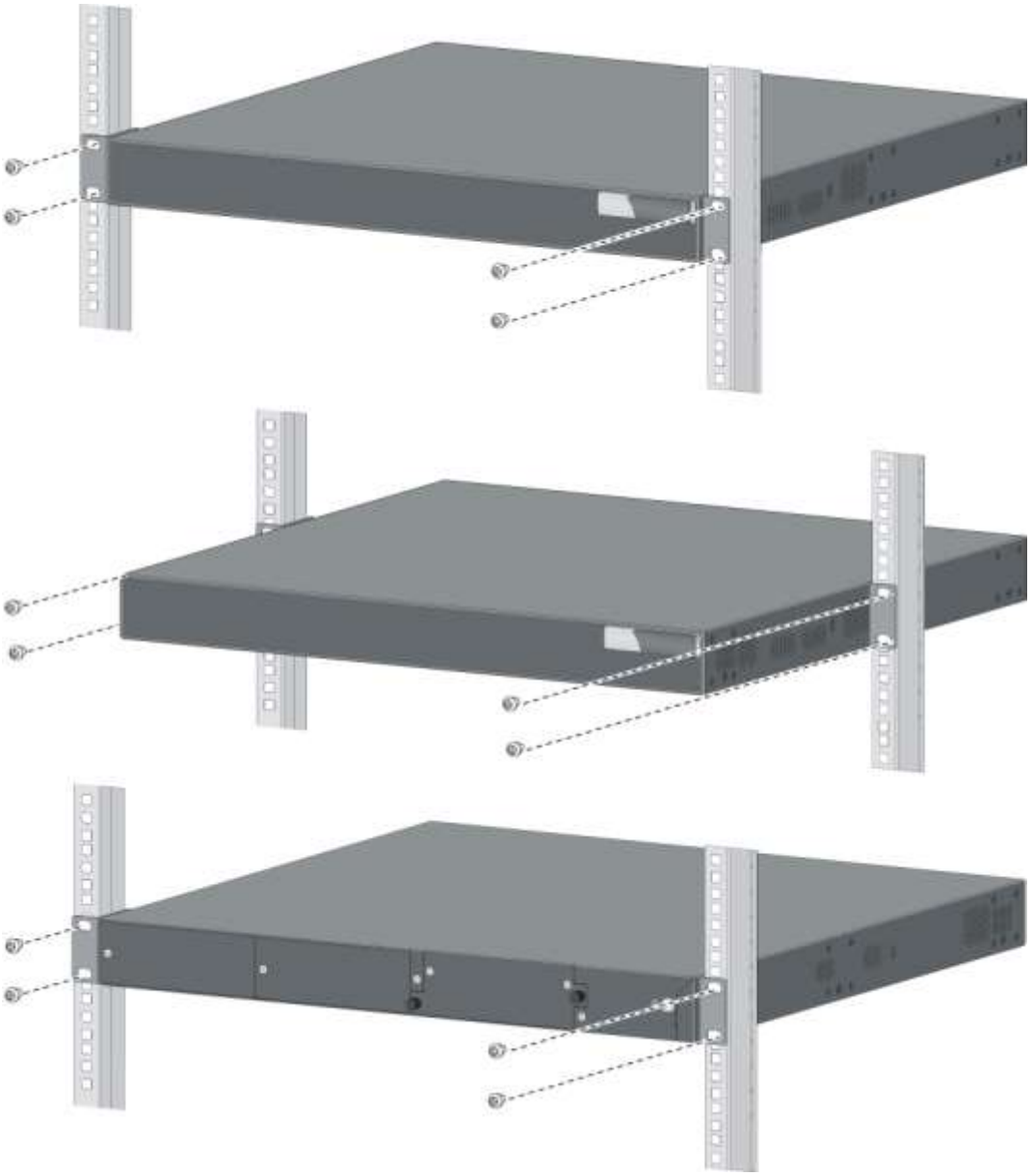
Rack-mounting an A5800/A5820X switch except the A5800AF-48G/A5820AF-24XG

This installation task requires two persons. To mount the switch in a rack:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Check that the mounting brackets have been securely attached to the switch chassis.

3. Install cage nuts (user-supplied) in the mounting holes in the rack posts.
4. One person holds the switch chassis and aligns the mounting brackets with the mounting holes in the rack posts, and the other person attaches the mounting brackets with screws (user-supplied) to the rack.
5. Check that the switch chassis is horizontal and tighten the screws.

Figure 19 Mounting a 1U A5800 switch in a rack



NOTE:

The procedure for rack-mounting a 2U switch is the same as rack-mounting a 1U switch.

Mounting the switch on a workbench

IMPORTANT:

- Ensure good ventilation and 10 cm (3.9 in) of clearance around the chassis for heat dissipation.
- Avoid placing heavy objects on the switch.

To mount a switch (except the A5800AF-48G and the A5820AF-24XG) on a workbench:

1. Check that the workbench is sturdy and well grounded.
2. Place the switch with bottom up, and clean the round holes in the chassis bottom with dry cloth.
3. Attach the rubber feet to the four round holes in the chassis bottom.
4. Place the switch with upside up on the workbench.

Grounding the switch

WARNING!

Correctly connecting the switch grounding cable is crucial to lightning protection and EMI protection.

The power input end of the switch has a noise filter, whose central ground is directly connected to the chassis to form the chassis ground (commonly known as PGND). You must securely connect this chassis ground to the earth so the faradism and leakage electricity can be safely released to the earth to minimize EMI susceptibility of the switch.

You can ground a switch by using a grounding strip at the installation site or the AC power cord connected to the switch.

NOTE:

The power and grounding terminals in this section are for illustration only.

Grounding the switch with a grounding strip

WARNING!

Connect the grounding cable to the grounding system in the equipment room. Do not connect it to a fire main or lightning rod.

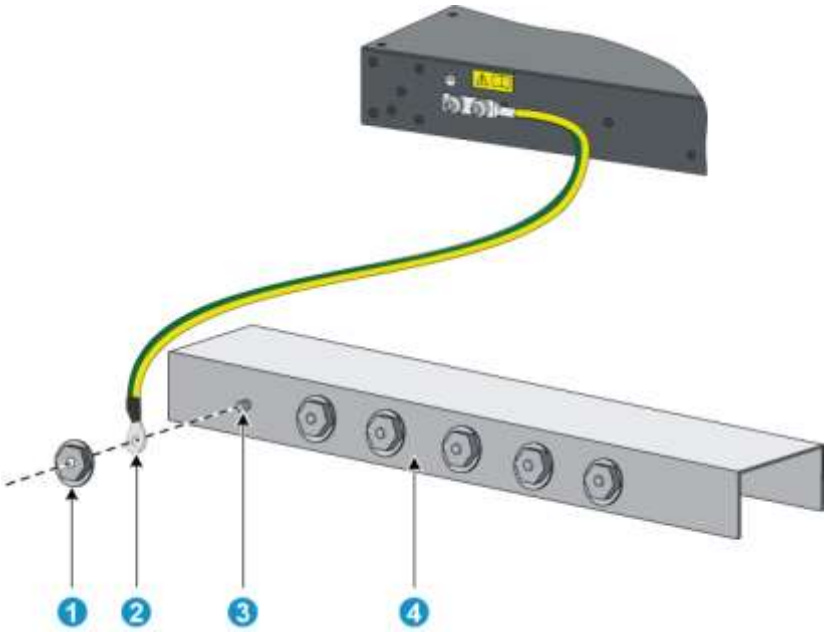
If a grounding strip is available at the installation site, connect the grounding cable to the grounding strip.

Grounding an A5800AF-48G/A5820AF-24XG switch

To connect the grounding cable:

1. Attach the two-hole grounding lug at one end of the grounding cable to a grounding point on the switch chassis see "Connecting the grounding cable to the chassis."
2. Remove the hex nut of a grounding post on the grounding strip.
3. Attach the OT terminal at the other end of the grounding cable to the grounding strip through the grounding post, and fasten the OT terminal with the removed hex nut.

Figure 20 Connecting the grounding cable to a grounding strip



(1) Hex nut	(2) OT terminal
(3) Grounding post	(4) Grounding strip

NOTE:

- HP recommends that you use the primary grounding point or auxiliary grounding point 1, because the grounding cable and grounding screw provided with the switch are applicable only to these two grounding points.
- To use auxiliary grounding point 2, you must prepare a grounding cable yourself. The connection method is the same as connecting to the other two grounding points.

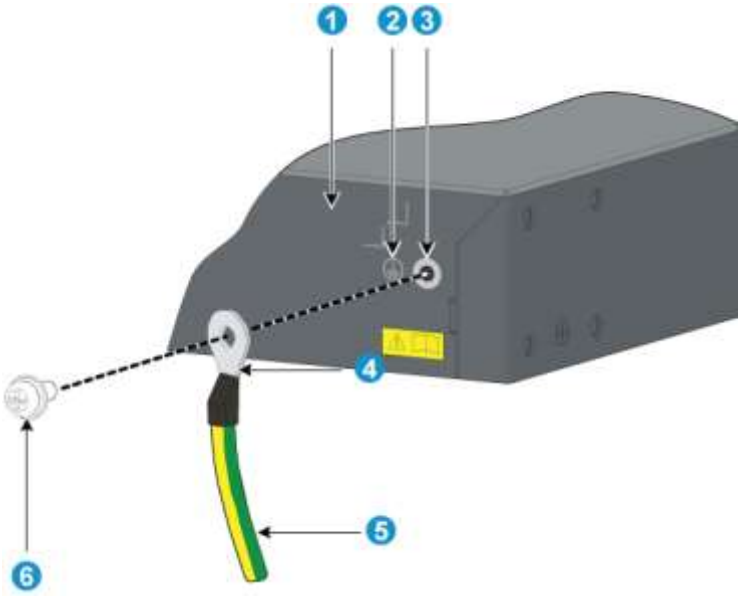
Grounding an A5800/A5820X switch (except the A5800AF-48G/A5820AF-24XG)

All A5800 and A5820X switches except the A5800AF-48G and the A5820AF-24XG have a grounding point (with a grounding sign) on their rear panels.

To connect the grounding cable:

1. Remove the grounding screw from the rear panel of the switch chassis.
2. Attach the grounding screw to the OT terminal of the grounding cable.
3. Use a screwdriver to fasten the grounding screw into the grounding screw hole.

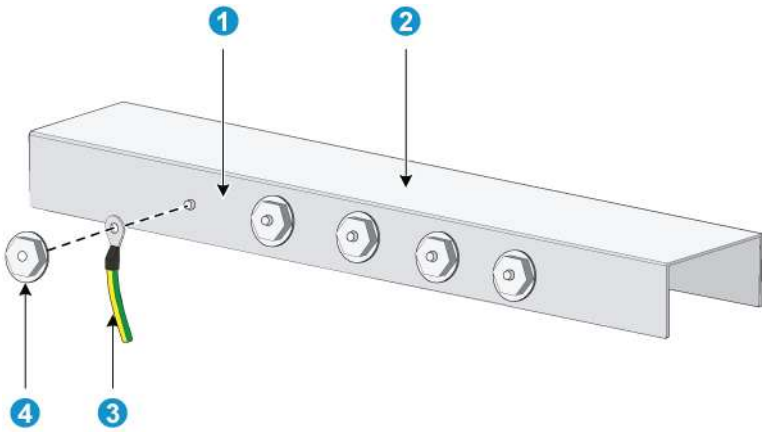
Figure 21 Connecting the grounding cable to the grounding hole of switch



(1) Chassis rear panel	(2) Grounding sign
(3) Grounding hole	(4) OT terminal
(5) Grounding cable	(6) Grounding screw

4. Remove the hex nut of a grounding post on the grounding strip.
5. Cut the grounding cable as appropriate for connecting to the grounding strip.
6. Peel 5 mm (0.20 in) of insulation sheath by using a wire stripper, and insert the bare metal part through the black insulation covering into the end of the OT terminal. (The switch comes with two OT terminals. Select the OT terminal appropriate to the size of the grounding post.)
7. Secure the metal part of the cable to the OT terminal with a crimper, cover the joint with the insulation covering, and heat the insulation covering with a blow dryer to completely cover the metal part.
8. Connect the OT terminal to the grounding pole of the grounding strip, and fasten it with the removed hex nut.

Figure 22 Connecting the grounding cable to a grounding strip



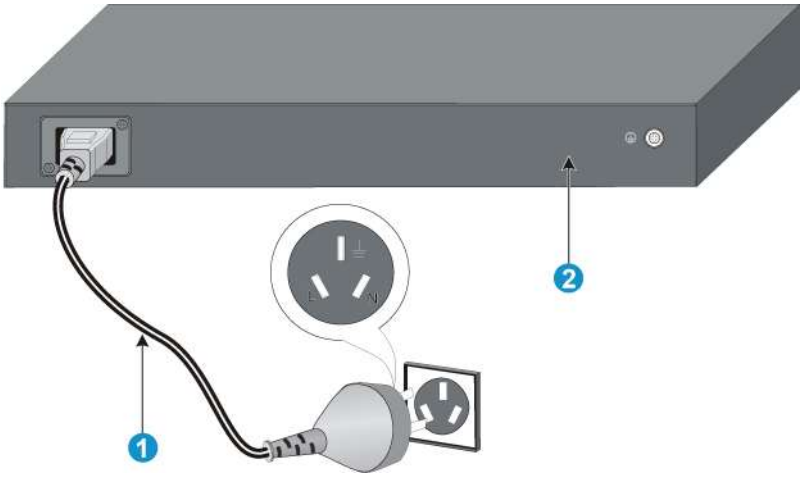
(1) Grounding post	(2) Grounding strip
(3) Grounding cable	(4) Hex nut

Grounding the switch by using the AC power cord

If the installation site has no grounding strips, you can ground an AC-powered switch through the PE wire of the power cord. Make sure that:

- The power cord has a PE terminal.
- The ground contact in the power outlet is securely connected to the ground in the power distribution room or on the AC transformer side.
- The power cord is securely connected to the power outlet. If the ground contact in the power outlet is not connected to the ground, report the problem and reconstruct the grounding system.

Figure 23 Grounding through the PE wire of the AC power cord



(1) Three-wire AC power cable	(2) Chassis rear panel

NOTE:

To guarantee the grounding effect, use the grounding cable provided with the switch to connect to the grounding strip in the equipment room as long as possible.

Installing/removing a fan tray

CAUTION:

The A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), and A5800-24G-SFP TAA (1 slot) switches, and all A5820X switches except the A5820AF-24XG have only one fan tray slot. To ensure good ventilation, follow these guidelines:

- Do not operate the switch without a fan tray.
- If the fan tray has problems during operation, replace it within 2 minutes while the switch is operating.

The A5800AF-48G and A5820AF-24XG switches require two same-direction air flow fan trays to function properly.

- Do not operate the system with only one fan tray for more than 24 hours.
- Do not operate the system without any fan tray for more than 2 minutes.
- Do not operate the system outside of the temperature range 0°C to 45°C (32°F to 113°F) degrees.
- Failure to comply with these operating requirements may void the warranty.

Installing a fan tray

To install a fan tray:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Unpack the fan tray and check that the fan tray model is correct.
3. Grasp the handle of the fan tray with one hand and support the fan tray bottom with the other, and slide the fan tray along the guide rails into the slot until the fan tray seats in the slot and good contact with the backplane (see callout 1 in Figure 24, Figure 25, or Figure 26).
4. Fasten the captive screw on the fan tray with a Philips screwdriver until the fan tray is securely attached in the chassis (see callout 2 in Figure 24, Figure 25, or Figure 26).

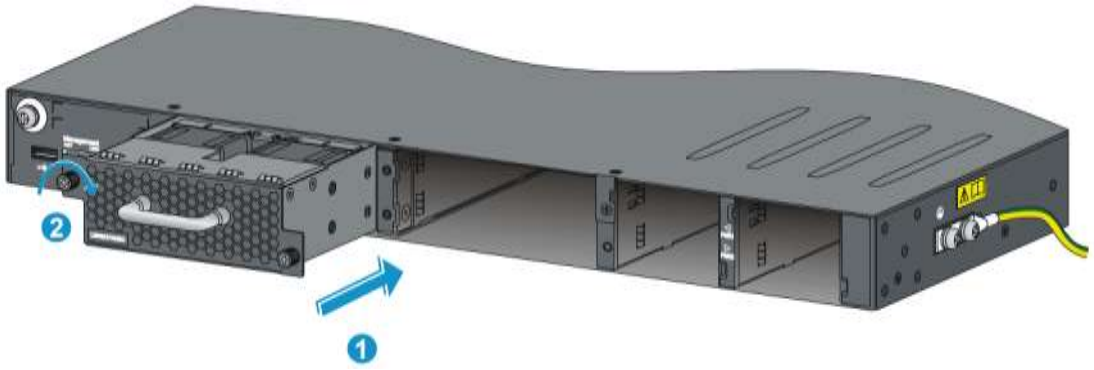
CAUTION:

- To prevent damage to the fan tray or the connectors on the backplane, insert the fan tray gently. If you encounter resistance while inserting the fan tray, pull out the fan tray and insert it again.
- If the captive screw cannot be tightly attached, check the installation of the fan tray.

Figure 24 Installing an LSW1FAN fan tray

Figure 25 Installing an LSW1BFAN fan tray

Figure 26 Installing an LSWM1FANSC or LSWM1FANSCB fan tray



Removing a fan tray

⚠ WARNING!

- Take out the fan tray after the fans completely stop rotating.
- To avoid an unbalanced fan causing loud noise, do not touch the fans, even if they are not rotating.

To remove a fan tray:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Loosen the captive screw of the fan tray with a Philips screwdriver until it is fully disengaged from the switch chassis.

3. Grasp the handle of the fan tray with one hand and pull the fan tray part way out the slot. Support the fan tray bottom with the other hand, and pull the fan tray slowly along the guide rails out of the slot.
4. Put away the removed fan tray in an antistatic bag for future use.

Installing/removing a power supply

⚠ WARNING!

In power redundancy mode, you can replace a power supply without powering off the switch but you must follow the installation and procedures in Figure 27 and Figure 28 closely to avoid any bodily injury or damage to the switch.

The A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), and A5800-24G-SFP TAA (1 slot) switches, and all the A5820X switches except the A5820AF-24XG come with power supply slot 1 empty and power supply slot 2 covered by a filler panel. The A5800AF-48G and A5820AF-24XG switches come with both power supply slots empty and the power filler modules as accessories.

You can install one or two power supplies for these switches as needed. For more information about the power supplies available for the switches, see "Hot swappable power supplies."

Figure 27 Installation procedure

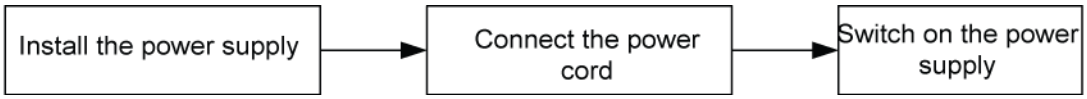


Figure 28 Removal procedure

NOTE:

The HP A58x0AF 650W AC power supply and the HP A58x0AF 650W DC power supply are referred to as the 650W AC power supply and the 650W DC power supply throughout this installation guide.

A5800AF-48G/A5820AF-24XG

Installing a power supply

To install a 650W AC power supply or 650W DC power supply into an A5800AF-48G or A5820AF-24XG switch:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Unpack the power supply and check that the power supply model is correct. If only one power supply is installed, install a power filler module in the empty power supply slot for good ventilation of the switch.

3. Correctly orient the power supply with the power supply slot (see Figure 29), grasp the handle of the power supply with one hand and support its bottom with the other, and slide the power supply slowly along the guide rails into the slot. Follow the forward inertia of the power supply when inserting it into the chassis, and make sure that the power supply has firm contact with the connectors on the backplane.
4. The receptacle is foolproof. If you cannot insert the power supply into the slot, re-orient the power supply rather than use excessive force to push it in to prevent damage to the connectors inside the switch chassis.

Figure 29 Installing a power supply

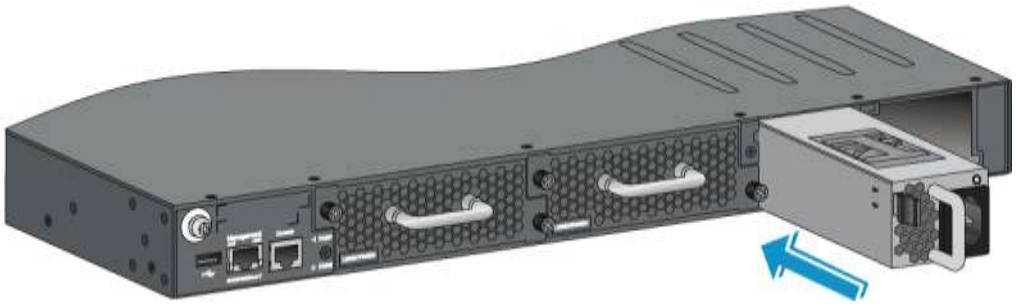
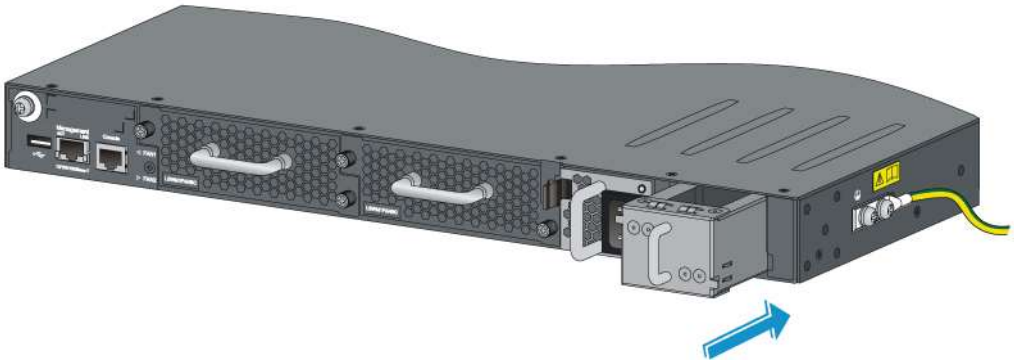


Figure 30 Installing a power filler module



Removing a power supply

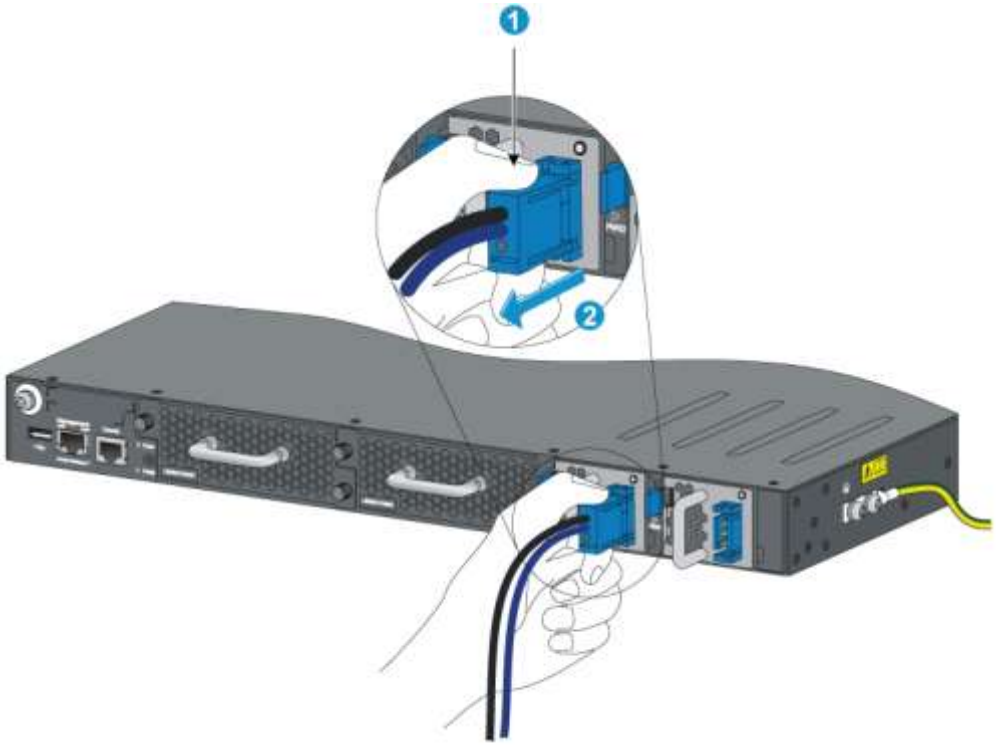
CAUTION:

If the switch has two power supplies, removing one power supply does not affect the operation of the switch. If the switch has only one power supply, removing the power supply powers off the switch.

To remove a 650W AC or DC power supply from an A5800AF-48G or A5820AF-24XG switch:

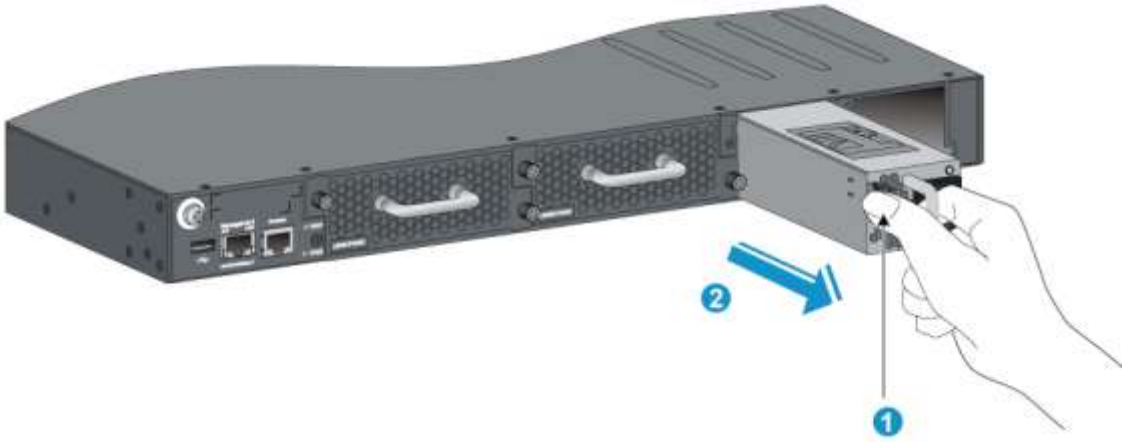
1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Squeeze the tabs on the power cord connector with your thumb and forefinger, and pull the connector out to remove the power cord, as shown in Figure 31.
3. Hold the handle on the power supply with one hand, pivot the latch on the power supply to the right with your thumb, and pull the power supply part way out of the slot, as shown in Figure 32.
4. Supporting the power supply bottom with one hand, slowly pull the power supply out with the other hand.
5. Put the removed power supply in an antistatic bag for future use.

Figure 31 Removing the DC power cord



(1) Press the tabs on the power cord connector with your thumb and forefinger	(2) Pull the power cord connector out

Figure 32 Removing the power supply



(1) Pivot the latch to the right with your thumb	(2) Pull the power supply out

NOTE:

The 650W AC power supply and the 650W DC power supply do not have a power switch. You do not need to switch on or switch off the power supply as described in the installation and removal procedures in Figure 27 and Figure 28.

A5800-48G-PoE+ (2 slots)/A5800-48G-PoE+ TAA (2 slots)/A5800-24G-SFP (1 slot)/A5800-24G-SFP TAA (1 slot)/all the A5820X switches except the A5820AF-24XG

Installing a power supply

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. If the power supply slot is covered by a filler panel, remove the filler panel first.
3. Before installing the PSR750-A into the A5800-48G-PoE+ (2 slots) or A5800-48G-PoE+ TAA (2 slots) switch, remove the filler module at the rear of the switch (see callout 1 and callout 2 in Figure 33).
4. Unpack the power supply and check that the power supply model is correct.
5. Correctly orient the power supply with the power supply slot, grasp the handle of the power supply with one hand and support its bottom with the other, and slide the power supply slowly along the guide rails into the slot (see callout 1 in Figure 34 or Figure 35).
6. The receptacle is foolproof. If you cannot insert the power supply into the slot, re-orient the power supply rather than use excessive force to push it in to avoid damage to the power supply or connectors on the backplane.
7. Fasten the captive screws on the power supply with a Philips screwdriver to secure the power supply in the chassis (see callout 2 in Figure 34 or Figure 35). If the captive screw cannot be tightly attached, check the installation of the power supply.

Figure 33 Removing the filler module before installing a PSR750-A power supply

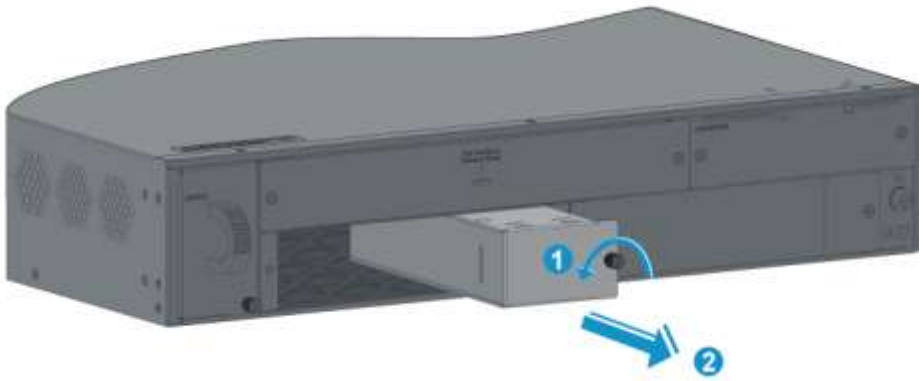


Figure 34 Installing the PSR750-A power supply

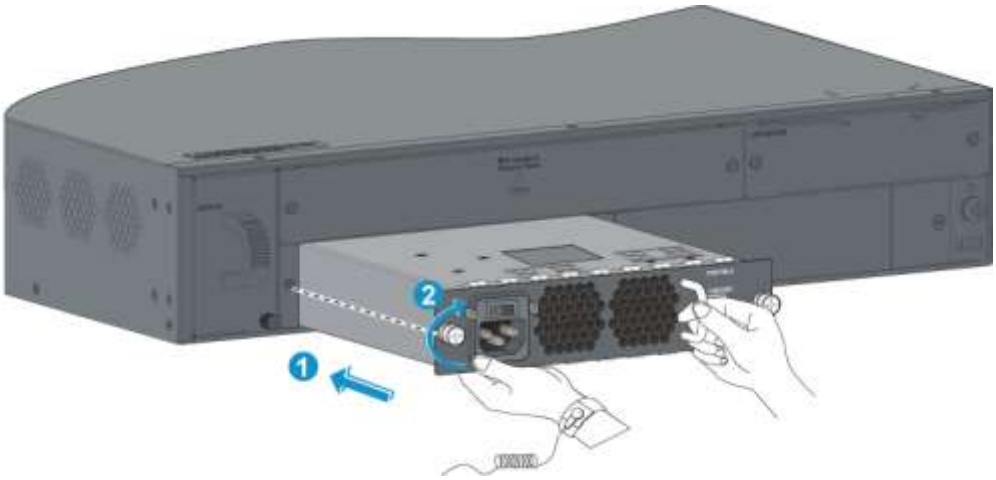
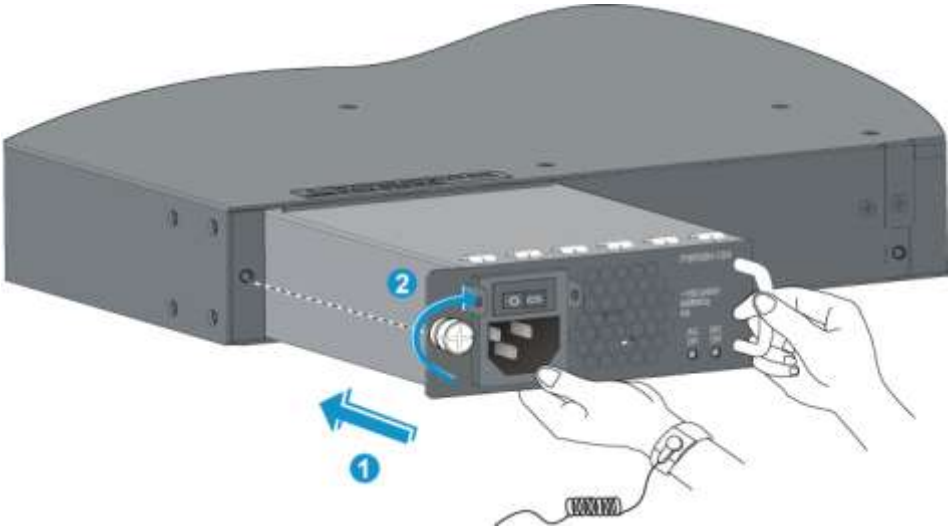


Figure 35 Installing other power supply models



NOTE:

- If you install only one power supply, install the filler panel over the empty power supply slot for good ventilation.
- Before installing a PSR300-12A or PSR300-12D1 power supply into an A5800-48G-PoE+ (2 slots) or A5800-48G-PoE+ TAA (2 slots) switch, make sure that the filler module has been installed at the rear of the switch.

Removing a power supply

To remove a power supply except the 650W AC power supply and the 650W DC power supply:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Switch off the power supply and disconnect the power cord.
3. Loosen the captive screws of the power supply with a Philips screwdriver until they are completely disengaged.
4. Grasp the handle of the power supply with one hand and pull it out a little, support the bottom with the other hand, and pull the power supply slowly along the guide rails out of the slot.
5. Put away the removed power supply in an antistatic bag for future use.

NOTE:

- The PSR150-A and PSR150-D power supplies do not have a power switch. You do not need to switch on or switch off the power supply as described in the installation and removal procedures in Figure 27 and Figure 28.

Connecting the power cord

Table 9 Power cord connection procedures at a glance

Power supply	Connection procedure reference
Fixed power supply	
AC input	Connecting an AC power cord to the switch
–54 VDC input (RPS powered)	Connecting the switch to a –54 VDC output RPS
12 VDC input (RPS powered)	Connecting the switch to a 12 VDC output RPS
Hot swappable power supply	
PSR150-A	Connecting the PSR150-A
PSR150-D	–48 VDC input: Connecting the PSR150-D to a –48 VDC power source –54 VDC input (RPS powered): Connecting the PSR150-D to a –54 VDC output RPS
PSR300-12A	Connecting the PSR300-12A
PSR300-12D1	–48 VDC input: Connecting the PSR300-12D1 to a –48 VDC power source –54 VDC input (RPS powered): Connecting the PSR300-12D1 to a –54 VDC output RPS
PSR750-A	Connecting the PSR750-A
650W AC power supply	Connecting the 650W AC power supply
650W DC power supply	–48 VDC input: Connecting the 650W DC power supply

Connecting an AC power cord to the switch

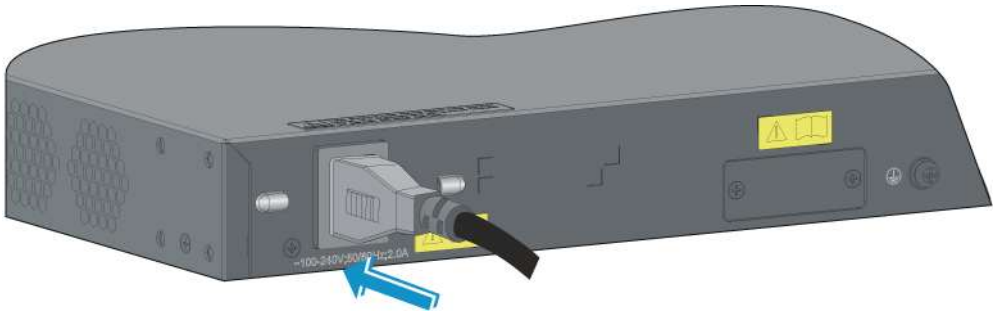
This section applies to the A5800-48G-PoE+ (1 slot), A5800-48G-PoE+ TAA (1 slot), A5800-24G-PoE+, A5800-24G-PoE+TAA, A5800-48G (1 slot), A5800-48G TAA (1 slot), A5800-24G, and A5800-24G TAA switches.

To connect an AC power cord to these switches:

1. Connect one end of the AC power cord to the AC-input power receptacle on the switch (see Figure 36 or Figure 37).
2. Connect the other end of the power cord to the AC power outlet.

Figure 36 Connecting the AC power cord to the switch

Figure 37 Connecting the AC power cord to the switch



Connecting the switch to a –54 VDC output RPS

This section applies to the A5800-48G-PoE+ (1 slot), A5800-48G-PoE+ TAA (1 slot), A5800-24G-PoE+, and A5800-24G-PoE+TAA switches.

To connect these switches to the RPS that provides –54 VDC output:

1. Unpack the RPS power cord, identify the plug for connecting to the switch, correctly orient the plug with the RPS receptacle on the switch chassis, and insert the plug into the receptacle (see callout 1 in Figure 38).

   The receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
2. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the RPS receptacle (see callout 2 in Figure 38).
3. Connect the other end of the power cord to the RPS.

Figure 38 Connecting the switch to a –54 VDC output RPS

Connecting the switch to a 12 VDC output RPS

This section applies to the A5800-48G (1 slot), A5800-48G TAA (1 slot), A5800-24G, and A5800-24G TAA switches.

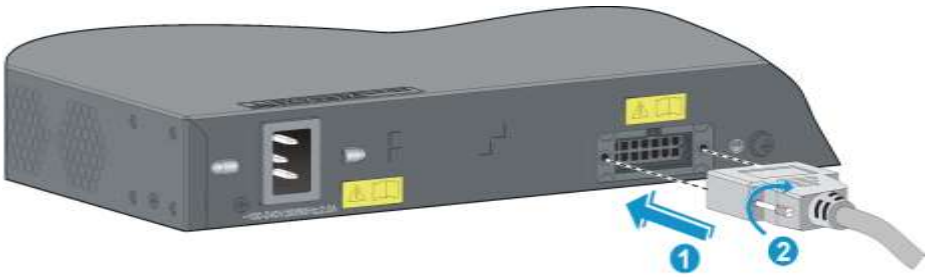
To connect these switches to the RPS that provides 12 VDC output:

1. Loosen the captive screws on the RPS receptacle and remove the cover, as shown in Figure 39.

   Put away the cover and re-install it after you remove the RPS DC-input power connector.
2. Unpack the RPS power cord, identify the plug for connecting to the switch, correctly orient the plug with the RPS receptacle on the switch chassis, and insert the plug into the receptacle (see callout 1 in Figure 40).
3. The power receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
4. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the power receptacle (see callout 2 in Figure 40).
5. Connect the other end of the power cord to the RPS.

Figure 39 Removing the cover over the RPS receptacle

Figure 40 Connecting the RPS power cord to the switch

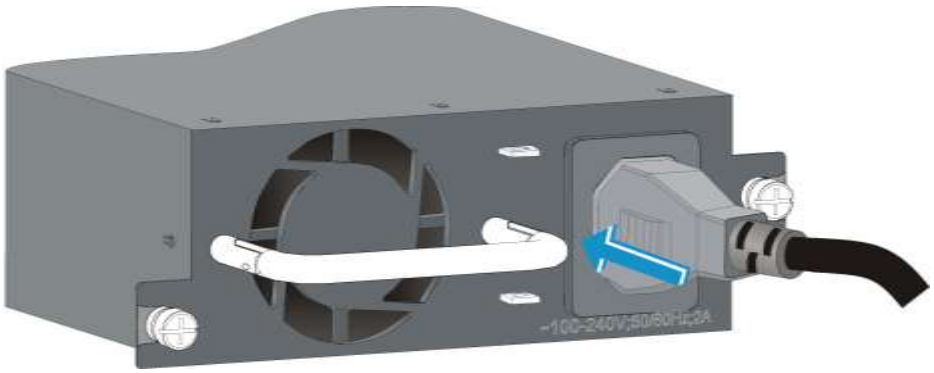


Connecting the PSR150-A

To connect the PSR150-A:

1. Connect one end of the AC power cord supplied with the power supply to the power receptacle on the power supply (see callout 1 in Figure 41).
2. Connect the other end of the AC power cord to an AC power outlet.

Figure 41 Connecting the PSR150-A

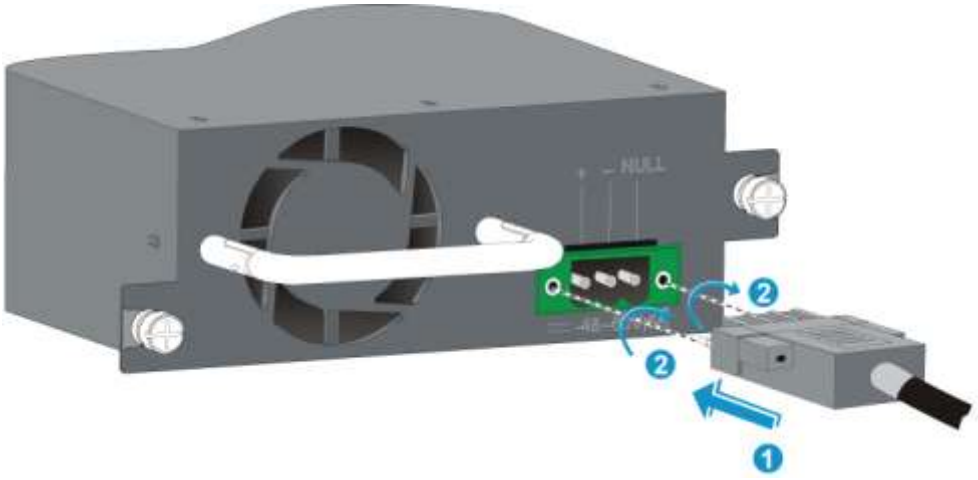


Connecting the PSR150-D to a –48 VDC power source

To connect the PSR150-D to a –48 VDC power source:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Unpack the DC power cord, correctly orient the plug at one end of the cable with the power receptacle on the power supply, and insert the plug into the power receptacle (see callout 1 in Figure 42).
3. The power receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
4. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the power receptacle (see callout 2 in Figure 42).
5. Connect the two wires at the other end of the power cord to a –48 VDC power source. Identify the positive (+) and negative (-) marks on the two wires to avoid connection mistakes.

Figure 42 Connecting the PSR150-D



Connecting the PSR150-D to a –54 VDC output RPS

To connect the PSR150-D to a –54 VDC output RPS:

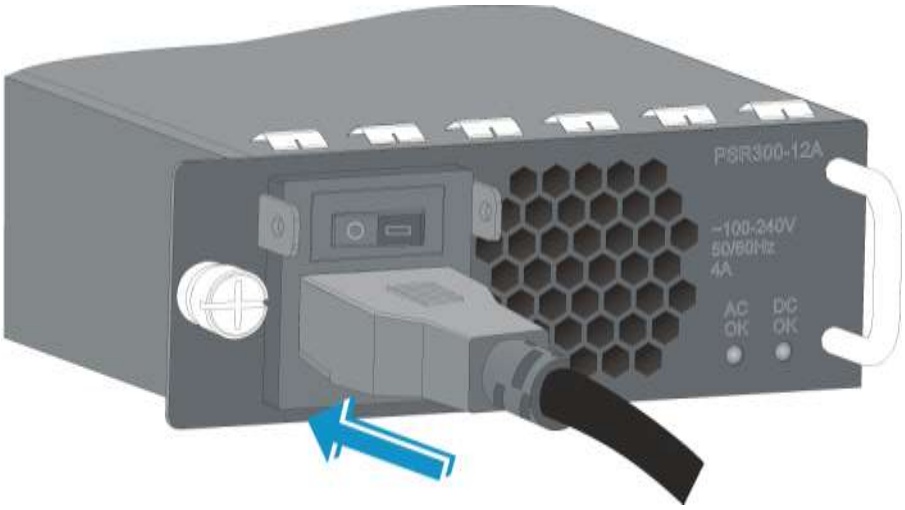
1. Unpack the RPS power cord, identify the plug for connecting to the power supply, correctly orient the plug with the power receptacle on the power supply, and insert the plug into the receptacle (see callout 1 in Figure 42).
2. The receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
3. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the power receptacle (see callout 2 in Figure 42).
4. Connect the other end of the power cord to the RPS.

Connecting the PSR300-12A

To connect the PSR300-12A:

1. Check that the AC power supply is off.
2. Connect one end of the AC power cord supplied with the power supply to the power receptacle on the power supply (see Figure 43).
3. Connect the other end of the power cord to an AC power outlet.

Figure 43 Connecting the PSR300-12A



Connecting the PSR300-12D1 to a –48 VDC power source

To connect the PSR300-12D1 to a –48 VDC power source:

1. Check that the DC power supply is off.
2. Unpack the DC power cord, correctly orient the plug at one end of the cable with the power receptacle on the power supply, and insert the plug into the receptacle (see callout 1 in Figure 44).
3. The receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
4. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the power receptacle (see callout 2 in Figure 44).
5. Connect the two wires at the other end of the power cord to the –48 VDC power source. Identify the positive (+) and negative (-) marks on the two wires to avoid connection mistakes.

Figure 44 Connecting the PSR300-12D1

Connecting the PSR300-12D1 to a –54 VDC output RPS

To connect the PSR300-12D1 to a –54 VDC output RPS:

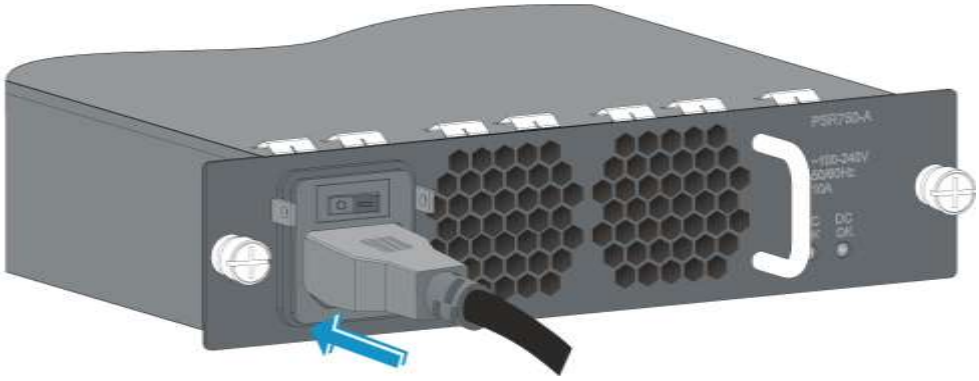
1. Unpack the RPS power cord, identify the plug for connecting to the power supply, orient the plug with the power receptacle on the power supply, and insert the plug into the receptacle (see callout 1 in Figure 44).
2. The receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
3. Tighten the screws on the plug with a flat-blade screwdriver to secure the plug in the power receptacle (see callout 2 in Figure 44).
4. Connect the other end of the power cord to the RPS.

Connecting the PSR750-A

To connect the PSR750-A:

1. Check that the AC power supply is off.
2. Connect one end of the AC power cord supplied with the power supply to the power receptacle on the power supply (see Figure 45).
3. Connect the other end of the power cord to an AC power outlet.

Figure 45 Connecting the PSR750-A

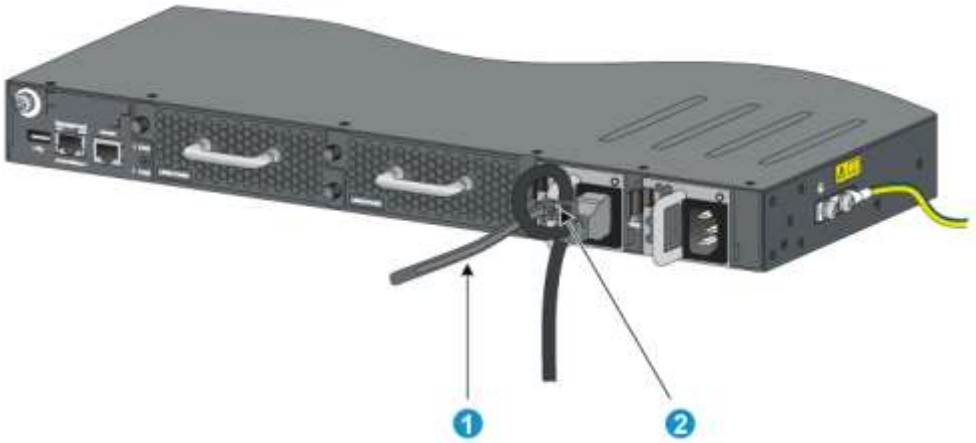


Connecting the 650W AC power supply

To connect the 650W AC power supply:

1. Insert the female connector of the AC power cord supplied with the power supply into the power receptacle on the power supply.
2. Use a cable tie to secure the power cord to the handle of the power supply, as shown in Figure 46.
3. Connect the other end of the power cord to an AC power outlet.

Figure 46 Connecting the 650W AC power supply



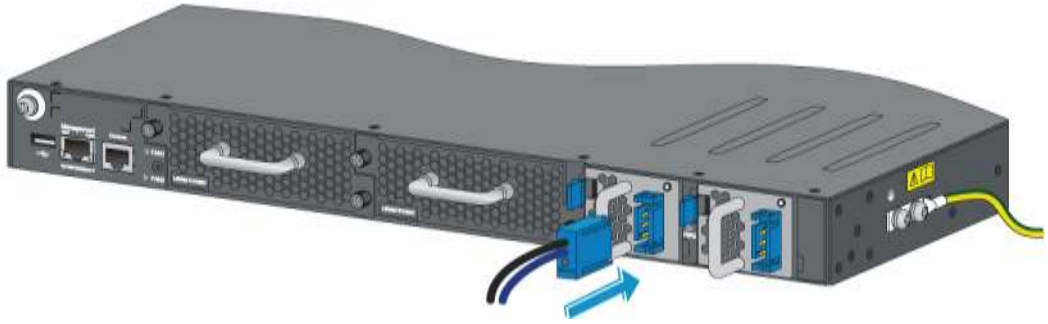
(1) Cable tie
(2) Tighten the cable tie to secure the power cord to the handle of the power supply

Connecting the 650W DC power supply

To connect the 650W DC power supply:

1. Unpack the DC power cord, identify the plug for connecting to the power supply, orient the plug with the power receptacle on the power supply, and insert the plug into the receptacle (see Figure 47).
2. The receptacle is foolproof. If you cannot insert the plug into the receptacle, re-orient the plug rather than use excessive force to push it in.
3. Use a cable tie to secure the power cord to the handle of the power supply, as shown in Figure 46.
4. Connect the other end of the power cord to the DC power source.

Figure 47 Connecting the 650W DC power supply



Installing/removing an interface card

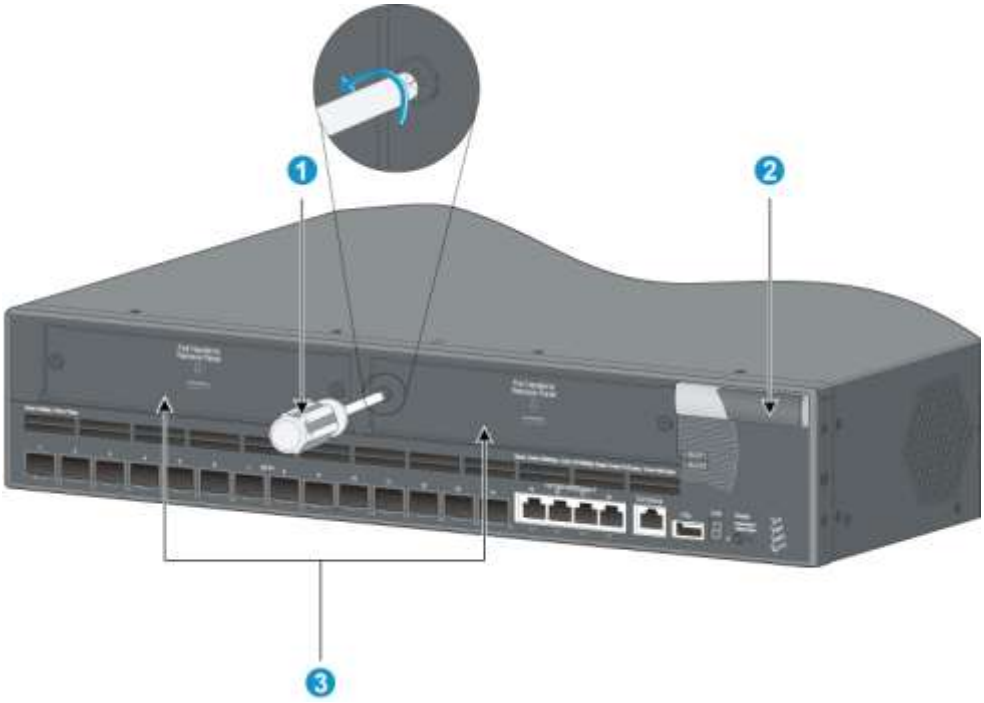
This section applies to switches that have expansion interface slots. For the interface cards available for the switches, see "Interface cards."

This section uses the LSW1SP4P0 interface card as an example to describe the procedures of installing and removing an interface card.

Installing an interface card

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Loosen the mounting screws on the filler panel over the interface card slot with a Phillips screwdriver and remove the filler panel.
3. Put away the removed filler panel for future use.

Figure 48 Removing the filler panel over an interface card slot



(1) Phillips screwdriver	(2) Chassis front panel	(3) Filler panel

4. Unpack the interface card and make sure that the ejector levers are perpendicular to the card panel.
5. Gently push the interface card in along the slot guide rails until the interface card has good contact with the switch chassis, and push the ejector levers inward.

Figure 49 Installing an interface card

(1) Chassis front panel	(2) Interface card
(3) Push the interface card	(4) Push the ejector levers inward

6. Tighten the captive screws with a Phillips screwdriver to attach the interface card in the slot.

Removing an interface card

CAUTION:

- Do not touch the surface-mounted components directly with your hands.

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Use a Phillips screwdriver to completely loosen the captive screws at both sides of the interface card.
3. Pull the ejector levers at both sides of the interface card outward, and pull the interface card along the guide rails until it completely comes out of the switch chassis. Do not use excessive force during the operation.
4. If no new card is to be installed, install the filler panel to prevent dust and ensure good ventilation in the switch.

Figure 50 Removing an interface card

(1) Chassis front panel	(2) Interface card
(3) Pull the ejector levers outward	(4) Pull out the interface card

Installing/removing an OAP card

WARNING!

Do not touch the protection cover marked by the yellow warning label 

on the OAP card. Underneath this protection cover is a heat radiator. After the OAP card runs for a period of time, this area can get very hot.

Before you install an OAP card, check the compatibility of the OAP card with your switch and identify in which slot you can install the OAP card (see "OAP card compatibility matrix" and "OAP cards").

Installing an OAP card in the OAP card slot

CAUTION:

- Do not touch the surface-mounted components directly with your hands.

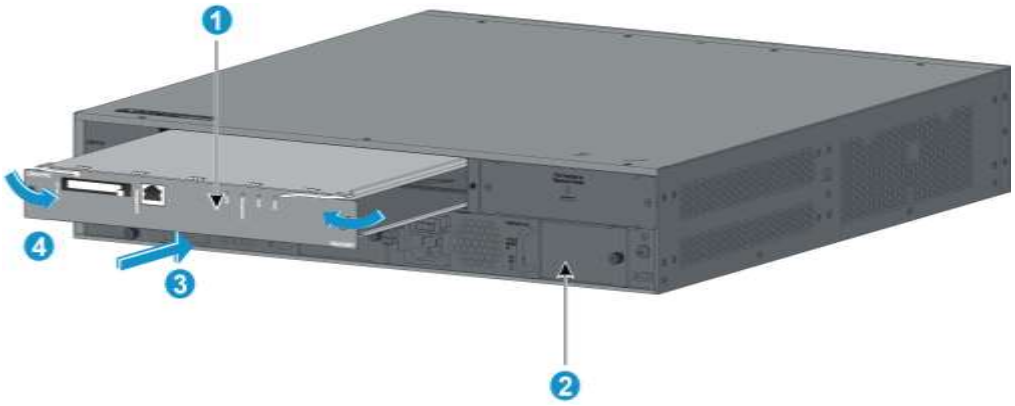
1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Loosen the captive screws on the filler panel over the OAP card slot with a Phillips screwdriver (see Figure 51), and remove the filler panel. Do not use excessive force when you install the OAP card. If you cannot insert the OAP card smoothly, check the installation method for mistakes.
3. Put away the removed filler panel for future use.

Figure 51 Removing the filler panel over the OAP card slot

(1) Rotate counterclockwise	(2) Filler panel over the OAP card slot	(3) Phillips screwdriver

4. Unpack the OAP card and check that this OAP card can be installed in the OAP card slot.
5. Hold the OAP card with the ejector levers on top, push the OAP card slowly along the guide rails into the slot (see callout 3 in Figure 52), and push the ejector levers inward to lock the OAP card in position (see callout 4 in Figure 52).

Figure 52 Installing an OAP card



(1) OAP card	(2) Chassis rear panel
(3) Push the OAP card	(4) Push the ejector levers inward

6. Fasten the captive screws on the OAP card with the Philips screwdriver to secure the OAP card in the slot.

Removing the card in the OAP card slot

CAUTION:

- Do not touch the surface-mounted components directly with your hands.

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Loosen the captive screws on the OAP card with the Philips screwdriver until all spring pressure is released.
3. Pull the ejector levers outward (see callout 3 in Figure 53), and pull out the OAP card slowly along the guide rails (see callout 4 in Figure 53). Do not use excessive force.
4. If you do not install a new OAP card in the slot, install a filler panel to prevent dust from entering the switch and ensure good ventilation in the switch.

Figure 53 Removing the OAP card

(1) OAP card	(2) Chassis rear panel
(3) Pull the ejector levers outward	(4) Pull out the OAP card

Installing an OAP card in an expansion interface card slot

Unpack the OAP card and check that the card can be installed in an expansion interface card slot (see "OAP cards").

Follow the procedure described in "Installing an interface card" to install the OAP card in an expansion interface card slot.

Removing the OAP card in an expansion interface card slot

See "Removing an interface card."

Installing/removing a PoE module

You can install a hot swappable PoE module (LSW148POEM) in an A5800-48G-PoE+ (2 slots) or A5800-48G-PoE+ TAA (2 slots) switch to supply power to devices such as IP telephones, wireless LAN access points (APs), and web cameras through Ethernet ports over twisted pair cable.

Installing a PoE module

To install a PoE module:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Loosen the captive screws on the filler panel over the PoE module slot with a Phillips screwdriver and remove the filler panel.
3. Put away the removed filler panel for future use.
4. Unpack the PoE module.
5. Push the PoE module slowly along the guide rails into the slot (see callout 1 in Figure 54) and push the ejector levers inward to lock the PoE module in position (see callout 2 in Figure 54).
6. Fasten the captive screws on the PoE module with a Philips screwdriver to securely attach the PoE module in the slot.

Figure 54 Installing a PoE module

Removing the PoE module

To remove the PoE module:

1. Wear an ESD-preventive wrist strap and make sure it makes good skin contact and is well grounded.
2. Use a Philips screwdriver to completely loosen the captive screws on the PoE module.
3. Pull the ejector levers outward (see callout 1 in Figure 55). Then pull out the PoE module slowly along the guide rails (see callout 2 in Figure 55).
4. If you do not install a new PoE module in the slot, install the filler panel to prevent dust from entering the switch and ensure the normal ventilation in the switch.

Figure 55 Removing a PoE module

NOTE:

- Do not use excessive force while installing or removing the PoE module.

Verifying the installation

After you complete the installation, verify that:

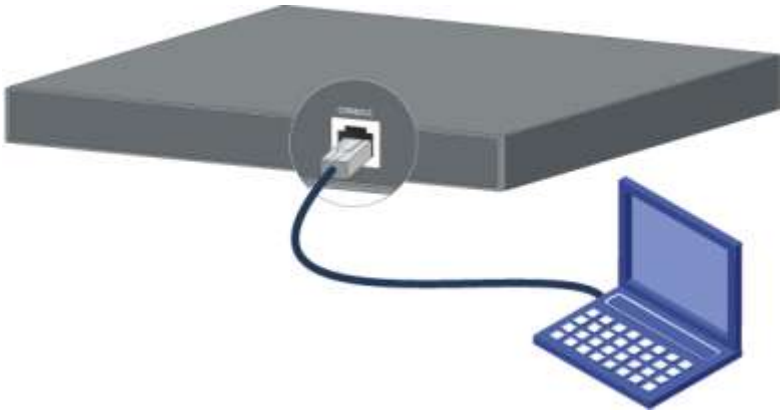
- There is enough space for heat dissipation around the switch, and the rack or workbench is stable.
- The grounding cable is securely connected.
- The correct power source is used.
- The power cords are properly connected.
- All the interface cables are cabled indoors. If any cable is routed outdoors, verify that the socket strip with lightning protection and lightning arresters for network ports have been properly connected.

Powering on the switch for the first time

Setting up the configuration environment

The first time you access the switch you must use a console cable to connect a console terminal. For example, a PC, to the console port on the switch, as shown in Figure 56.

Figure 56 Connecting the console port to a terminal

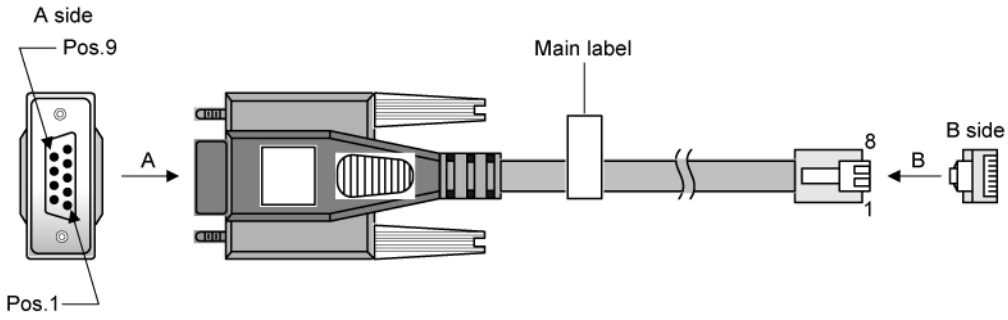


Connecting the console cable

Console cable

A console cable is an 8-core shielded cable, with a crimped RJ-45 connector at one end for connecting to the console port of the switch, and a DB-9 female connector at the other end for connecting to the serial port on the console terminal.

Figure 57 Console cable



Connection procedure

To connect a terminal to the switch (for example, a PC):

1. Plug the DB-9 female connector of the console cable to the serial port of the PC.
2. Connect the RJ-45 connector to the console port of the switch.

NOTE:

- Identify the mark on the console port and make sure that you are connecting to the correct port.
- The serial ports on PCs do not support hot swapping. If the switch has been powered on, connect the console cable to the PC before connecting to the switch, and when you disconnect the cable, first disconnect from the switch.

Setting terminal parameters

To configure and manage the switch, you must run a terminal emulator program on the console terminal.

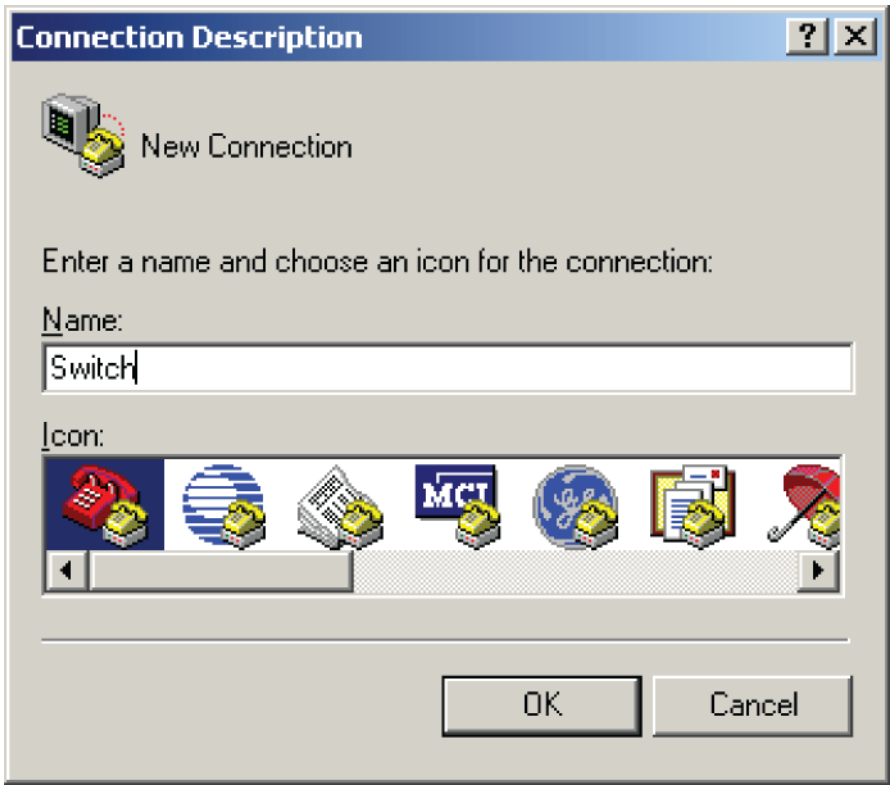
The following are the required terminal settings:

- **Bits per second**—9,600
- **Data bits**—8
- **Parity**—None
- **Stop bits**—1
- **Flow control**—None
- **Emulation**—VT100

To set terminal parameters, for example, on a Windows XP HyperTerminal:

1. Select **Start** > **All Programs** > **Accessories** > **Communications** > **HyperTerminal**.
   The **Connection Description** dialog box appears.
2. Enter the name of the new connection in the **Name** field and click **OK**.

Figure 58 Connection description

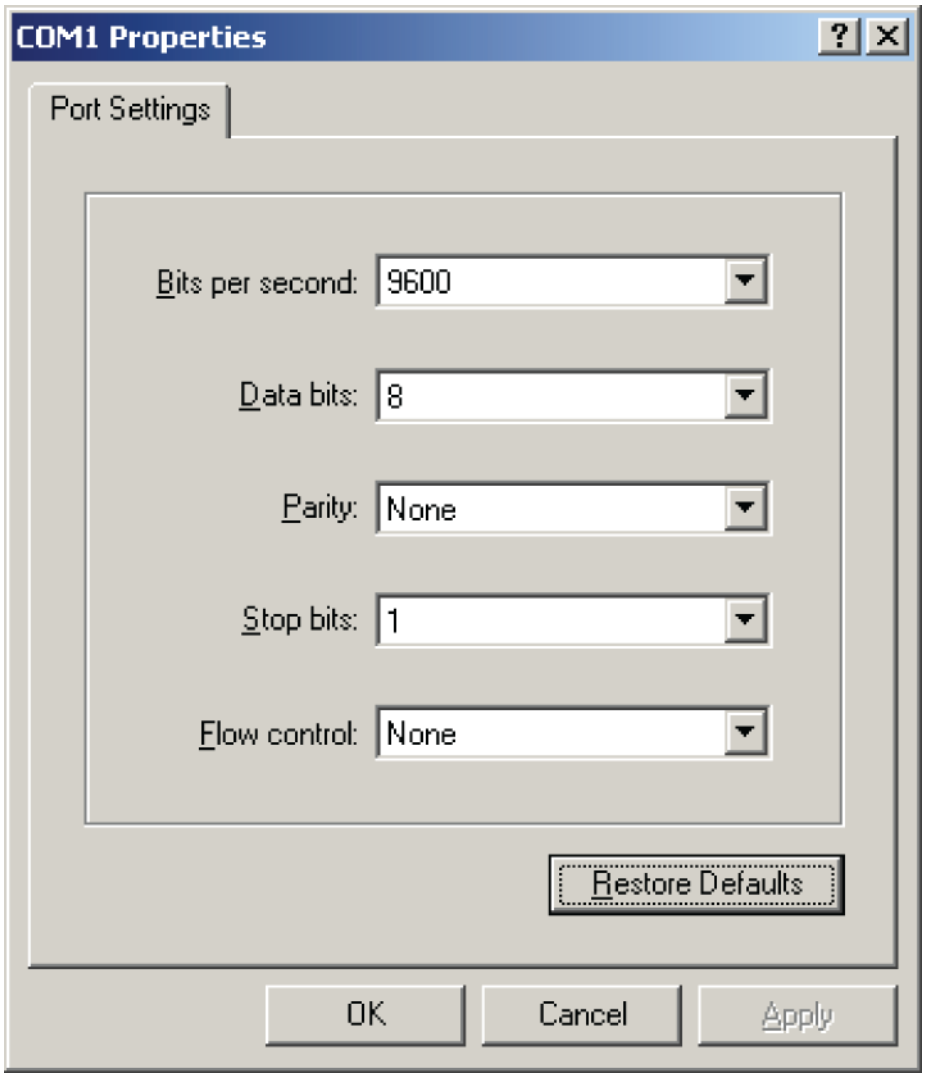


3. Select the serial port to be used from the **Connect using** list, and click **OK**.

Figure 59 Setting the serial port used by the HyperTerminal connection

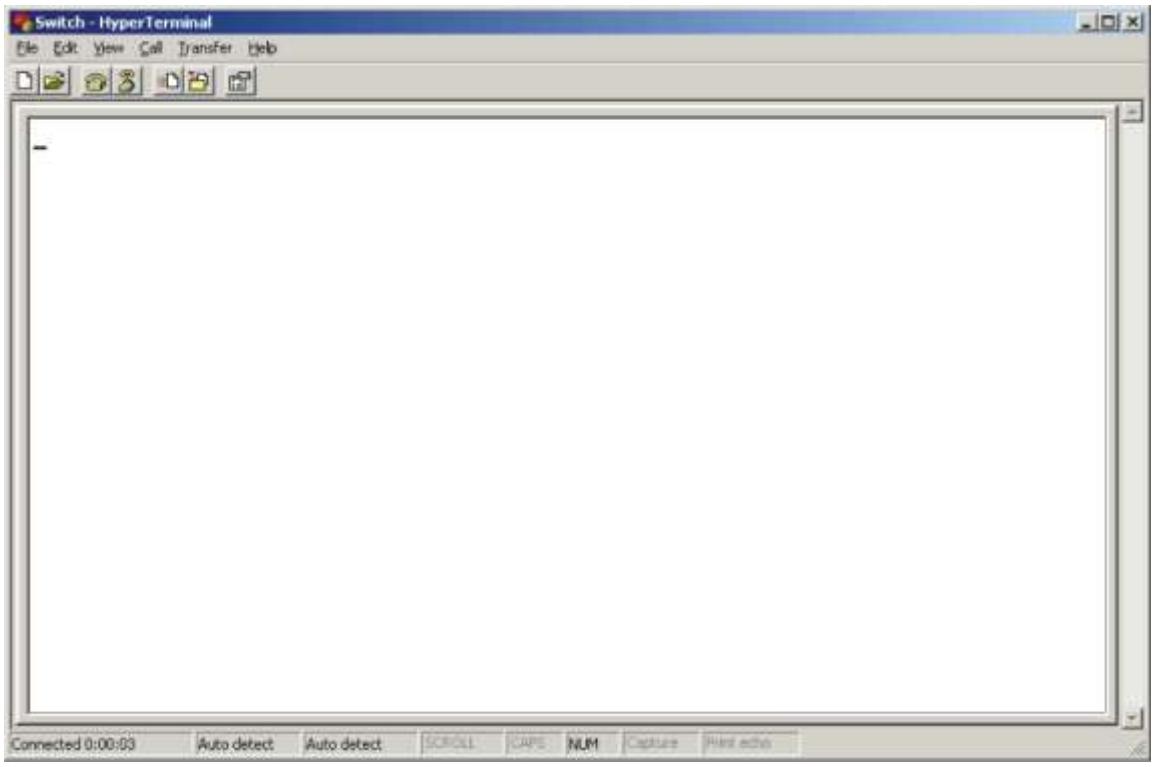
4. Set **Bits per second** to **9600**, **Data bits** to **8**, **Parity** to **None**, **Stop bits** to **1**, and **Flow control** to **None**, and click **OK**.

Figure 60 Setting the serial port parameters



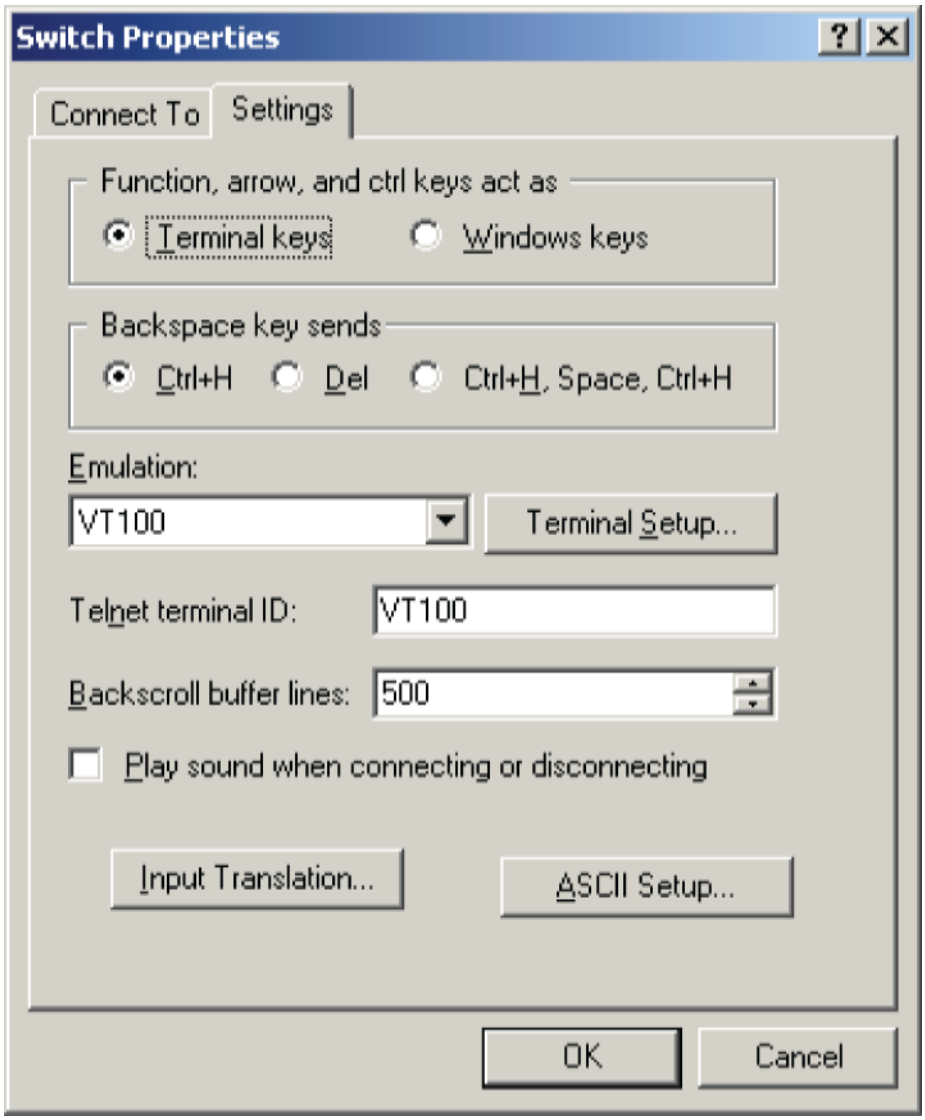
5. Select **File** > **Properties** in the HyperTerminal window.

Figure 61 HyperTerminal window



6. On the **Settings** tab, set the emulation to **VT100** and click **OK**.

Figure 62 Setting terminal emulation in Switch Properties dialog box



Powering on the switch

Verification before power-on

Before powering on the switch, verify that:

- The power cord is properly connected.
- The input power voltage meets the requirement of the switch.
- The console cable is properly connected, the terminal or PC used for configuration has started, and the configuration parameters have been set.

Powering on the switch

Power on the switch (for example, an A5800AF-48G switch), and you can see the following information:

```
Starting......

********************************************************************************
*                                                                              *
*                  HP A5800AF-48G Switch BOOTROM, Version 212                  *
*                                                                              *
********************************************************************************
Copyright (c) 2010-2011 Hewlett-Packard Development Company, L.P.

Creation Date   : Feb 23 2011,15:47:03
CPU Clock Speed : 750MHz
Memory Size     : 1024MB
Flash Size      : 512MB
CPLD Version    : 005
PCB Version     : Ver.A
Mac Address     : 00E058778800


Press Ctrl-B to enter Extended Boot menu...0
```

Press **Ctrl** + **B** at the prompt within five seconds to access the Boot menu, or wait for the system to automatically start up.

NOTE:

The system has two startup modes: normal (full) startup and fast startup. By default, the system starts up in normal mode and the waiting time is five seconds. If you set the startup mode to fast, the waiting time is one second. To change the startup mode, see "Changing the startup mode."

- If you press **Ctrl + B** within five seconds, the following Boot menu appears:

```
   BOOT  MENU

1. Download application file to flash
2. Select application file to boot
3. Display all files in flash
4. Delete file from flash
5. Modify BootRom password
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set BootRom password recovery
9. Set switch startup mode
0. Reboot

Enter your choice(0-9):
```

Table 10 Boot menu options

Item	Description
1. Download application file to flash	Download a software package file to the Flash memory.
2. Select application file to boot	Select the software package file to boot.
3. Display all files in flash	Display all files in the Flash memory.
4. Delete file from flash	Delete files from the Flash memory.
5. Modify BootRom password	Modify the Boot ROM password.
6. Enter BootRom upgrade menu	Access the Boot ROM update menu.
7. Skip current system configuration	Start the switch with the factory default configuration. This is a one-time operation and does not take effect at the next reboot. You use this option when you forget the console login password.
8. Set BootRom password recovery	Disable or enable the Boot ROM password recovery function. By default, Boot ROM recovery is enabled. You can disable this function to protect system security.
9. Set switch startup mode	Set the startup mode of the switch to normal (full) mode or fast mode, as described in "Changing the startup mode."
0. Reboot	Restart the switch.

- If you perform no operation or press a key other than **Ctrl + B** within five seconds, the system automatically starts up when the remaining time becomes zero, and displays the following information:

```
Starting to get the main application file--flash:/A5800_release.bin.....
The main application file is self-decompressing.............................
.....................................................................
.....................................................................
.....................................................................
.....................................................................
.......................Done!
System is starting...

            Board checking.....................LSW15856C
            SDRAM fast selftest.....................OK!
            Flash fast selftest.....................OK!
            CPLD selftest...........................OK!
            Switch chip selftest....................OK!
            PHY selftest............................OK!
            Please check leds.................FINISHED!

User interface aux0 is available.


Press ENTER to get started.
```

Press **Enter** at the prompt, and you can configure the switch when the prompt <HP> appears.

Changing the startup mode

The system by default starts up in normal (full) mode. To change the startup mode to **fast**, press **Ctrl + B** within five seconds to enter the Boot menu:

```
   BOOT  MENU

1. Download application file to flash
2. Select application file to boot
3. Display all files in flash
4. Delete file from flash
5. Modify BootRom password
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set BootRom password recovery
9. Set switch startup mode
0. Reboot

Enter your choice(0-9):
```

Enter **9** to change the startup mode.

```
The current mode is full startup mode!
Are you sure you want to change it to fast startup mode? Yes or No (Y/N):
```

Enter **Y** at the prompt.

```
Setting...done!

   BOOT  MENU

1. Download application file to flash
2. Select application file to boot
3. Display all files in flash
4. Delete file from flash
5. Modify BootRom password
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set BootRom password recovery
9. Set switch startup mode
0. Reboot

Enter your choice(0-9):
```

Enter **0** at the prompt. The system reboots in fast startup mode and displays the following information:

```
Starting......

******************************************************************************
*                                                                            *
*                  HP A5800AF-48G Switch BOOTROM, Version 212                *
*                                                                            *
******************************************************************************
Copyright (c) 2010-2011 Hewlett-Packard Development Company, L.P.
```

```
Creation Date   : Feb 23 2011,15:47:03
CPU Clock Speed : 750MHz
Memory Size     : 1024MB
Flash Size      : 512MB
CPLD Version    : 005
PCB Version     : Ver.A
Mac Address     : 00E058778800


Press Ctrl-B to enter Extended Boot menu...0
```

In fast startup mode, you must press **Ctrl + B** within one second to enter the Boot menu. If you perform no operation or press a key other than **Ctrl + B** within one second, the system automatically starts up and displays the following information:

```
Starting to get the main application
file--flash:/a5800.bin!.........................
................................................................................
................................................................................
................
The main application file is self-decompressing.............................
................................................................................
................................................................................
.........................Done!
The A5800  application file is self-decompressing.............................
................................................................................
................................................................................
...........Done!
System is starting...
User interface aux1 is available.



Press ENTER to get started.
```

Press **Enter** at the prompt, and you can configure the switch when the prompt <HP> appears.

NOTE:

For more information about the configuration commands and CLI, see *HP A5820X & A5800 Switch Series Configuration Guides* and *HP A5820X & A5800 Switch Series Command References*.

Setting up an IRF fabric

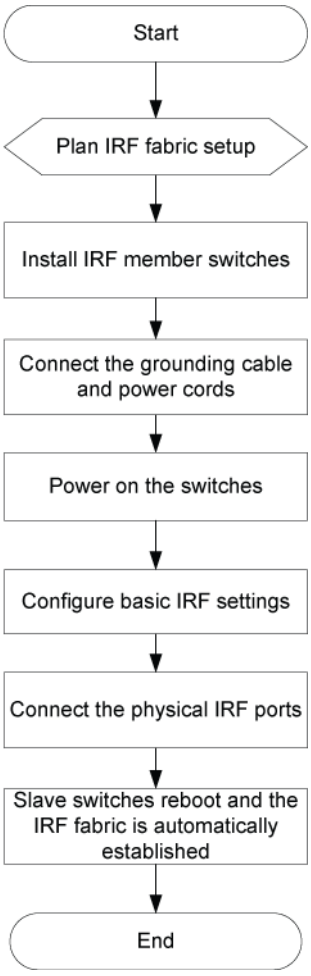
You can use HP IRF technology to connect and virtualize switches into a virtual switch called an "IRF fabric" or "IRF virtual device" for flattened network topology, and high availability, scalability, and manageability.

NOTE:

You can set up a heterogeneous IRF fabric that has both A5800 and A5820X switches or a homogeneous IRF fabric that has only A5800 or A5820X switches.

IRF fabric setup flowchart

Figure 63 IRF fabric setup flowchart



To set up an IRF fabric:

Step	Description
1. Plan IRF fabric setup	Plan the installation site and IRF fabric setup parameters: • Planning IRF fabric size and the installation site • Identifying the master switch and planning IRF member IDs • Planning IRF topology and connections • Identifying physical IRF ports on the member switches • Planning the cabling scheme
2. Install IRF member switches	See "Confirming installation preparations Before you install the switch, make sure: • You have read "Preparing for installation" carefully and the installation site meets all the requirements. • A 19-inch rack is ready for use. For how to install a rack, see the rack installation guide. Installing the switch in a 19-inch rack" or "Mounting the switch on a workbench."
3. Connect ground wires and power cords	See "Grounding the switch" and "Connecting the power cord."
4. Power on the switches	N/A
5. Configure basic IRF settings	See *HP A5820X & A5800 Switch Series IRF Configuration Guide*.
6. Connect the physical IRF ports	Connect physical IRF ports on switches. Use SFP+ transceiver modules and fibers to connect 10-Gigabit SFP+ ports over a long distance, or use SFP+ cables to connect 10-Gigabit SFP+ ports over a short distance. All switches except the master switch automatically reboot, and the IRF fabric is established.

Planning IRF fabric setup

Planning IRF fabric size and the installation site

Choose switch models and identify the number of required IRF member switches, depending on the user density and upstream bandwidth requirements. The switching capacity of an IRF fabric equals the total switching capacities of all member switches.

Plan the installation site depending on your network solution, as follows:

- Place all IRF member switches in one rack for centralized high-density access.
- Distribute the IRF member switches in different racks to implement the ToR access solution for a data center.

NOTE:

- An IRF fabric can have up to 10 switches. As your business grows, you can plug a switch into an IRF fabric to increase the switching capacity without any topology change or replacement.
- When you set up an IRF fabric that has both A5800 and A5820X switches, see *HP A5820X/A5800 Heterogeneous IRF Feature Guide*. A heterogeneous IRF fabric supports different specifications for some features than a homogeneous IRF fabric.

Identifying the master switch and planning IRF member IDs

IRF member switches will automatically elect a master. You can affect the election result by assigning a high member priority to the intended master switch. For more information about master election, see *HP A5820X & A5800 Switch Series IRF Configuration Guide*.

Determine which switch you want to use as the master for managing all member switches in the IRF fabric. An IRF fabric has only one master switch. You configure and manage all member switches in the IRF fabric at the command line interface of the master switch.

Prepare an IRF member ID assignment scheme. An IRF fabric uses member IDs to uniquely identify and manage its members, and you must assign each IRF member switch a unique member ID.

Planning IRF topology and connections

You can create an IRF fabric in daisy chain topology, or more reliably, ring topology. In ring topology, the failure of one IRF link does not cause the IRF fabric to split as in daisy chain topology. Rather, the IRF fabric changes to a daisy chain topology without interrupting network services.

You connect the IRF member switches through IRF ports, the logical interfaces for the connections between IRF member switches. Each IRF member switch has two IRF ports: IRF-port 1 and IRF-port 2. An IRF port goes up when you bind the first member physical port to it.

When connecting two neighboring IRF member switches, you must connect the physical ports of IRF-port 1 on one switch to the physical ports of IRF-port 2 on the other switch.

The switches can provide 10-GE IRF connections through SFP+ ports, and you can bind several SFP+ ports to an IRF port for increased bandwidth and availability.

Figure 64 and Figure 65 show the topologies of an IRF fabric made up of three A5800-24G switches that use the LSW1SP4P0 interface card for IRF connections. The IRF port connections in the two figures are for illustration only, and more connection methods are available.

NOTE:

- For information about the physical ports available for IRF connections on the switches, see Table 11.

Figure 64 IRF fabric in daisy chain topology

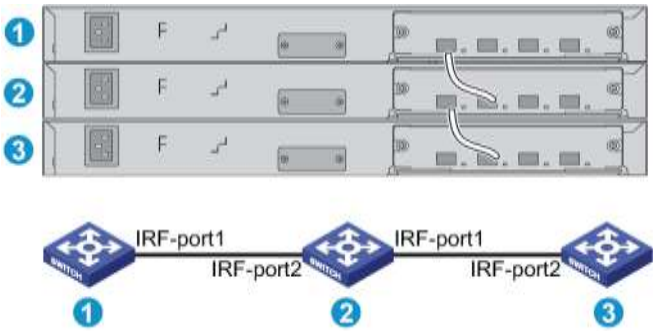
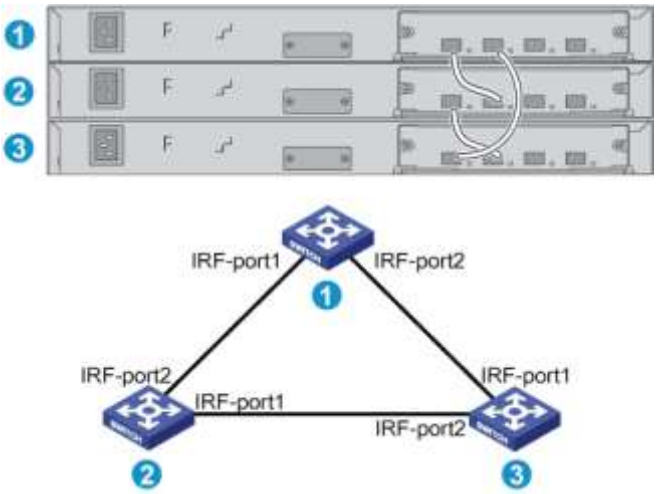


Figure 65 IRF fabric in ring topology



Identifying physical IRF ports on the member switches

Identify the physical IRF ports on the member switches according to your topology and connection scheme.

Table 11 shows the physical ports that can be used for IRF connection and the port use restrictions.

Table 11 Physical IRF port requirements

Chassis	Candidate physical IRF ports	Requirements
• A5800-48G-PoE+ (2 slots) • A5800-48G-PoE+ TAA (2 slots)	Ports on the expansion interface cards on the front panel	All physical ports of an IRF port must be located on the same interface card.
• A5800-48G (1 slot) • A5800-48G TAA (1 slot) • A5800-48G-PoE+ (1 slot) • A5800-48G-PoE+ TAA (1 slot)	• The four fixed SFP+ ports on the front panel • Ports on the expansion interface card on the rear panel	All physical ports of an IRF port must be located on the front panel or the interface card on the rear panel.

Chassis	Candidate physical IRF ports	Requirements
• A5800-24G/A5800-24G TAA • A5800-24G-PoE+ • A5800-24G-PoE+TAA	• The four fixed SFP+ ports on the front panel • Ports on the expansion interface card on the rear panel	An IRF port can use physical ports distributed on different cards.
• A5800-24G-SFP (1 slot) • A5800-24G-SFP TAA (1 slot)	• The four fixed SFP+ ports on the front panel • Ports on the expansion interface card on the front panel	An IRF port can use physical ports distributed on different cards.
A5800AF-48G	The six fixed SFP+ ports (in two groups) on the front panel: • The rightmost two SFP+ ports in one group • The rest four SFP+ ports in the other group	All physical ports of an IRF port must be in the same group.
• A5820X-14XG-SFP+ (2 slots) • A5820X-14XG-SFP+ TAA (2 slots)	• The 14 fixed SFP+ ports on the front panel • Ports on the expansion interface card on the front panel	An IRF port can use physical ports distributed on different cards.
• A5820X-24XG-SFP+ • A5820X-24XG-SFP+ TAA	The 24 fixed SFP+ ports on the front panel	An IRF port can use physical ports distributed on different cards.
A5820AF-24XG	The 24 fixed SFP+ ports on the front panel	An IRF port can use physical ports distributed on different cards.

Planning the cabling scheme

Use SFP+ cables or SFP+ transceiver modules and fibers to connect the IRF member switches. If the IRF member switches are far away from one another, choose the SFP+ transceiver modules with optical fibers. If the IRF member switches are all in one equipment room, choose SFP+ cables.

Table 12 lists the SFP+ transceiver modules and SFP+ cables available for IRF connections.

Table 12 SFP+ transceiver modules and SFP+ cables available for IRF connections

Product code	Module description	Central wavelength (in nm)	Connector	Cable/fiber specifications	Max transmission distance
JD092B	HP X130 10G SFP+ LC SR Transceiver	850	LC	50/125 μm multimode fiber	300 m (984.25 ft)
					82 m (269.03 ft)
					66 m (216.54 ft)
				62.5/125 μm multimode fiber	33 m (108.27 ft)
					26 m (85.30 ft)
JD093B	HP X130 10G SFP+ LC LRM	1310	LC	62.5/125 μm multimode fiber	220 m (721.78 ft)

Product code	Module description	Central wavelength (in nm)	Connector	Cable/fiber specifications	Max transmission distance
	Transceiver			50/125 μm multimode fiber	220 m (721.78 ft)
					100 m (328.08 ft)
JD094B	HP X130 10G SFP+ LC LR Transceiver	1310	LC	9/125 μm single-mode fiber	10 km (6.21 miles)
JD095B	HP X240 10G SFP+ SFP+ 0.65m DA Cable	N/A	N/A	SFP+ cable	0.65 m (2.1 ft)
JD096B	HP X240 10G SFP+ SFP+ 1.2m DA Cable	N/A	N/A	SFP+ cable	1.2 m (3.9 ft)
JD097B	HP X240 10G SFP+ SFP+ 3m DA Cable	N/A	N/A	SFP+ cable	3 m (9.8 ft)
JG081B	HP X240 10G SFP+ SFP+ 5m DA Cable	N/A	N/A	SFP+ cable	5 m (16.4 ft)

The following subsections describe several HP recommended IRF connection schemes, and all these schemes use a ring topology.

IMPORTANT:

In these schemes, all physical IRF ports are located on the same side. If physical IRF ports are on different sides, you must measure the distance between them to select an appropriate cable.

Connecting the IRF member switches in one rack

Use short-haul and long-haul SFP+ cables to connect the IRF member switches (10 switches in this example) in a rack as shown in Figure 66. The switches in the ring topology (see Figure 67) are in the same order as connected in the rack.

Figure 66 Connecting the switches in one rack

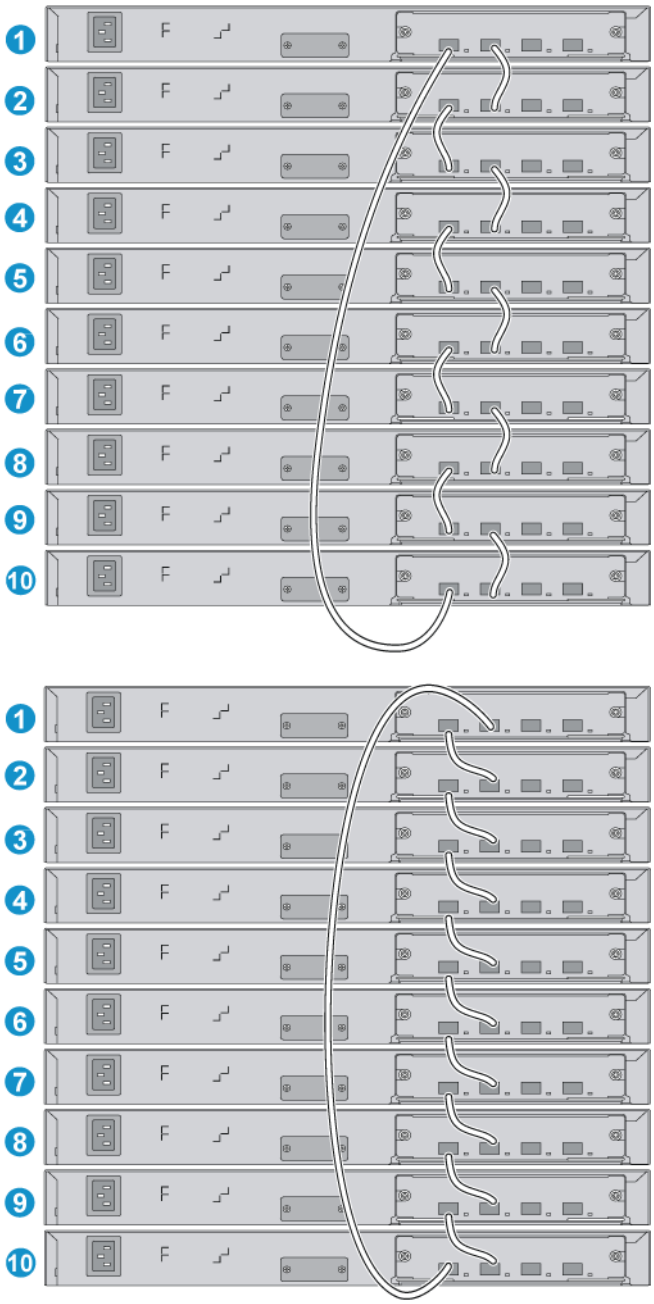
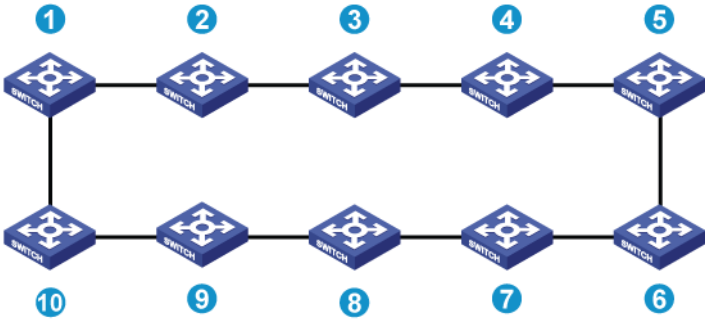


Figure 67 IRF fabric topology

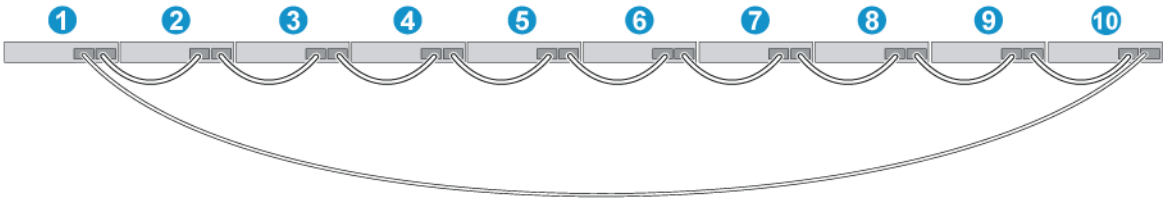


Connecting the IRF member switches in a ToR solution

You can install IRF member switches in different racks side by side to deploy a ToR solution.

Figure 68 shows an example for connecting 10 top of rack IRF member switches by using SFP+ transceiver modules and optical fibers. The topology is the same as Figure 67.

Figure 68 Using both long-haul and short-haul SFP+ cables for the ring connection



Configuring basic IRF settings

After you install the IRF member switches, power on the switches, and log in to each IRF member switch (see *HP A5820X & A5800 Switch Series Fundamentals Configuration Guide*) to configure their member IDs, member priorities, and IRF port bindings.

Follow these guidelines when you configure the switches:

- Assign the master switch higher member priority than any other switch.
- Bind physical ports to IRF port 1 on one switch and to IRF port 2 on the other switch. You perform IRF port binding before or after connecting IRF physical ports depending on the software release.
- To bind the ports on an interface card to an IRF port, you must install the interface card first. For how to install an interface card, see *HP A5820X & A5800 Switch Series Interface Cards User Guide*.
- Execute the **display irf configuration** command to verify the basic IRF settings.

For more information about configuring basic IRF settings, see *HP A5820X & A5800 Switch Series IRF Configuration Guide*.

Connecting the physical IRF ports

Use SFP+ cables or SFP+ transceiver modules and fibers to connect the IRF member switches as planned.

NOTE:

Wear an ESD-preventive wrist strap when you connect SFP+ cables or SFP+ transceiver modules and fibers. For how to connect them, see *SFP/SFP+/XFP Transceiver Modules Installation Guide*.

Verifying the IRF fabric configuration

After you finish configuring basic IRF settings and connecting IRF ports, verify the basic functionality of the IRF fabric:

1. Log in to the IRF fabric through the console port of any member switch.
2. Create a Layer 3 interface, assign it an IP address, and make sure that the IRF fabric and the remote network management station can reach each other.
3. Use Telnet, web, or SNMP to access the IRF fabric from the network management station. (See *HP A5820X & A5800 Switch Series Fundamentals Configuration Guide*.)
4. Check that you can manage all member switches as if they were one node.
5. Display the running status of the IRF fabric by using the commands in Table 13.

Table 13 Displaying and maintain IRF configuration and running status

To do …	Use the command…
Display information about the IRF fabric	**display irf**
Display all members' configurations that take effect after switch reboots	**display irf configuration**
Display topology information about the IRF fabric	**display irf topology**

NOTE:

To avoid IP address collision and network problems, configure at least one multi-active detection (MAD) mechanism to detect the presence of multiple identical IRF fabrics and handle collisions. For more information about MAD detection, see *HP A5820X & A5800 Switch Series IRF Configuration Guide*.

Maintenance and troubleshooting

This chapter describes how to troubleshoot your switch.

Password loss

This section provides information about console login and Boot ROM password loss.

Console login password loss

If you forget the console login password, access the Boot menu:

```
   BOOT  MENU

1. Download application file to flash
2. Select application file to boot
3. Display all files in flash
4. Delete file from flash
5. Modify BootRom password
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set BootRom password recovery
9. Set switch startup mode
0. Reboot

Enter your choice(0-9):
```

Enter **7** and restart the switch. The switch reboots with empty configuration, and you can log in through the console port without entering the password so you can check the configuration file for the user password.

Boot ROM password loss

Contact HP for help.

Power supply failure

Fixed power supply failure

The A5800-48G (1 slot), A5800-48G TAA (1 slot), A5800-48G-PoE+ (1 slot), A5800-48G-PoE+ TAA (1 slot), A5800-24G-PoE+, A5800-24G-PoE+TAA, A5800-24G, and A5800-24G TAA switches use fixed power supplies, and support three power input modes: AC input, RPS DC input, and concurrent AC and RPS DC inputs.

You can look at the system status LED and the RPS status LED of the switch to identify a power system failure.

Table 14 Description of the power failure indication LEDs

LED	Mark	Status	Description
System status LED	SYS	Off	The switch is powered off.
RPS status LED	RPS	Steady green	The AC input is normal, and the RPS is in position or working normally.
		Steady yellow	RPS power input is normal, but AC input has failed or AC input is not connected.
		Off	No RPS is connected.

AC input

If the system status LED is off, an AC input failure has occurred. Verify the following items:

- The AC power cord is securely connected to the switch, and the AC-input power receptacle on the switch and the connected AC power outlet are in good condition.
- The external AC power system is correctly working.
- The operating temperature of the switch is in the normal range, and the power supply has good ventilation. Over-temperature can cause the power supply to stop working and enter the protection state.

RPS DC input

If the system status LED or RPS status LED is off, an RPS input failure has occurred. Verify the following items:

- The switch is securely connected to the RPS.
- The RPS is correctly working.
- The operating temperature of the switch is in the normal range, and the power supply has good ventilation. Over-temperature can cause the power supply to stop working and enter the protection state.

Concurrent RPS and AC inputs

- If the system status LED is off, the AC power supply and the RPS both have an input failure.

  Verify the following items:

  - The AC power cord is securely connected to the switch, and the AC-input power receptacle on the switch and the connected AC power outlet are in good condition.
  - The external AC power system is correctly working.
  - The switch is securely connected to the RPS.
  - The RPS is correctly working.
  - The operating temperature of the switch is in the normal range, and the power supply has good ventilation. Over-temperature can cause the power supply to stop working and enter the protection state.
- If the system status LED is on but the RPS status LED is steady yellow, an AC input failure has occurred.

  Verify the following items:

- The AC power cord is securely connected to the switch, and the AC-input power receptacle on the switch and the connected AC power outlet are in good condition.
- The external AC power system is correctly working.

- If the system status LED is on but the RPS status LED is off, an RPS input failure has occurred.

  Verify the following items:
  - The switch is securely connected to the RPS.
  - The RPS is correctly working.

NOTE:

If the problem persists, contact HP for help.

Hot swappable power supply failure

This section applies to the A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800AF-48G, A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot), A5820AF-24XG, A5820X-24XG-SFP+, A5820X-24XG-SFP+ TAA, A5820X-14XG-SFP+ (2 slots), and A5820X-14XG-SFP+ TAA (2 slots) switches.

You can look at the PWR1 or PWR2 LED of the switch and the LEDs on the power supply to identify a power supply failure.

The A5800AF-48G/A5820AF-24XG switch does not have PWR1 or PWR2 LED. You can use the LEDs on the power supply to identify a power supply failure.

- For more information about the PWR1 and PWR2 LEDs on the front panel of the switch, see Table 26.
- For more information about the LEDs on a power supply, see *HP PSR300-12A & PSR300-12D1 Power Supplies User Guide, HP A58x0AF 650W AC (JC680A) & 650W DC (JC681A) Power Supplies User Guide*, and *HP PSR750-A Power Supply User Guide*.

Troubleshooting the PSR150-A/PSR150-D/PSR300-12A/PSR300-12D1/PSR750-A power supply

If the power supply system is correctly working, the power supply status LEDs are steady green. If the LEDs behave in any other way, verify the following items:

- The power supply is switched on. Skip this step if the power supply has no switch.
- The switch power cord is properly connected.
- The power source meets the requirement.
- The operating temperature of the switch is in the normal range and the power supply has good ventilation.

If the problem persists, contact HP for help.

To replace a hot swappable power supply, see "Installing/removing a power supply."

Troubleshooting the 650W AC power supply and the 650W DC power supply

The LEDs on the power supply are steady green (active) or blinking green (standby) while the power supply system is correctly working. If the LEDs behave in any other way, verify the following items:

- The switch power cord is properly connected.
- The power source meets the requirement.
- The operating temperature of the switch is in the normal range and the power supply has good ventilation.

If the problem persists, contact HP for help.

To replace a hot swappable power supply, see "Installing/removing a power supply."

OAP card failure

Failure of the OAP card in the OAP card slot

This section applies to the A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5820X-14XG-SFP+ (2 slots), and A5820X-14XG-SFP+ TAA (2 slots) switches.

You can look at the SLOT3 LED on the front panel of the switch and the LED on the OAP card to identify the failure of the OAP card in the OAP slot.

- For more information about the SLOT3 LED, see Table 36.
- For more information about the LEDs on the OAP card, see *HP OAP Cards User Guide*.

The OAP card LED (SLOT3) is steady green when the OAP card is correctly working. If the LED behaves in any other way, verify the following items:

- The OAP card is compatible with the switch and can be installed in the OAP card slot.
- The OAP card is correctly installed and well seated in the switch.

If the problem persists, contact HP for help.

To replace an OAP card in the OAP card slot, see "Removing the card in the OAP card slot" and "

Installing an OAP card in the OAP card slot."

Failure of the OAP card in an expansion interface card slot

This section applies to the A5820X-14XG-SFP+ (2 slots) and A5820X-14XG-SFP+ TAA (2 slots) switches, and all A5800 switches but the A5800AF-48G.

You can use the LEDs on the OAP card to identify its operating status. For more information about the LEDs, see the user guide that comes with the card. If your switch has a status LED for the expansion interface card slot, you can also use the LED to identify the operating status of the card.

If the OAP card is not correctly working, verify the following items:

- The OAP card is compatible with the switch and can be installed in an expansion interface card slot.
- The OAP card is correctly installed and well seated in the slot.

If the problem persists, contact HP for help.

To replace the OAP card in an expansion interface card slot, see "Removing the OAP card in an expansion interface card slot" and "Installing an OAP card in an expansion interface card slot."

Hot swappable PoE module failure

This section applies to the A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots) switches.

You can look at the SLOT4 LED on the front panel of the switch for a PoE module failure, as described in Table 37.

The SLOT4 LED is steady green when the PoE module is functioning normally. If the LED behaves in any other way, verify the following items:

- The switch supports the PoE module model.
- The PoE module is correctly installed and well seated in the switch.

If the problem persists, contact HP for help.

To replace a PoE module, see "Installing/removing a PoE module."

Fan failure

You can look at the system status LED and the seven-segment LED of an A5800 or A5820X switch to identify a fan failure. If both LEDs are behaving as described in Table 15, a fan failure occurs.

Table 15 LED behaviors that identify a fan failure

LED	Mark	State
System status LED	SYS	Steady red
Seven-segment LED	Unit	The LED displays **F** for fan failure. 

Fixed fan failure

The A5800-48G (1 slot), A5800-48G TAA (1 slot), A5800-48G-PoE+ (1 slot), A5800-48G-PoE+ TAA (1 slot), A5800-24G-PoE+, A5800-24G-PoE+TAA, A5800-24G, and A5800-24G TAA switches use fixed fans. If a fan failure occurs, contact HP for help and do not attempt to fix the problem yourself.

Hot swappable fan tray failure

CAUTION:

You can replace a hot swappable fan tray without powering off the switch. To prevent the device from overheating, replace the failed fan tray within 2 minutes for the A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot), A5820X-24XG-SFP+, A5820X-24XG-SFP+ TAA, A5820X-14XG-SFP+ (2 slots), and A5820X-14XG-SFP+ TAA (2 slots) switches.

CAUTION:

The A5800AF-48G and A5820AF-24XG switches require two same direction air flow fan trays to function properly.

- Do not operate the system with only one fan tray for more than 24 hours.
- Do not operate the system without any fan tray for more than 2 minutes.
- Do not operate the system outside of the temperature range 0°C to 45°C (32°F to 113°F) degrees.

Failure to comply with these operating requirements may void the warranty.

This section applies to the A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot), A5800AF-48G, A5820AF-24XG, A5820X-24XG-SFP+, A5820X-24XG-SFP+ TAA, A5820X-14XG-SFP+ (2 slots), and A5820X-14XG-SFP+ TAA (2 slots) switches.

To replace a failed fan tray, see "Installing/removing a fan tray."

Configuration terminal problems

If the configuration environment setup is correct, the configuration terminal displays booting information when the switch is powered on. If the setup is incorrect, the configuration terminal displays nothing or garbled text.

No terminal display

If the configuration terminal displays nothing when the switch is powered on, verify the following items:

- The power supply is supplying power to the switch.
- The console cable is properly connected.
- The console cable has no problem and the terminal settings are correct.

Garbled terminal display

If terminal display is garbled, verify that the following settings are configured for the terminal, for example, HyperTerminal:

- Baud rate—9,600
- Data bits—8

- Parity—none
- Stop bits—1
- Flow control—none
- Emulation—VT100

Support and other resources

Contacting HP

For worldwide technical support information, see the HP support website:

http://www.hp.com/support

Before contacting HP, collect the following information:

- Product model names and numbers
- Technical support registration number (if applicable)
- Product serial numbers
- Error messages
- Operating system type and revision level
- Detailed questions

Subscription service

HP recommends that you register your product at the Subscriber's Choice for Business website:

http://www.hp.com/go/wwalerts

After registering, you will receive email notification of product enhancements, new driver versions, firmware updates, and other product resources.

Related information

Documents

To find related documents, browse to the Manuals page of the HP Business Support Center website:

http://www.hp.com/support/manuals

- For related documentation, navigate to the Networking section, and select a networking category.
- For a complete list of acronyms and their definitions, see *HP A-Series Acronyms.*

Websites

- HP.com http://www.hp.com
- HP Networking http://www.hp.com/go/networking
- HP manuals http://www.hp.com/support/manuals
- HP download drivers and software http://www.hp.com/support/downloads
- HP software depot http://www.software.hp.com

Conventions

This section describes the conventions used in this documentation set.

Command conventions

Convention	Description
Boldface	**Bold** text represents commands and keywords that you enter literally as shown.
Italic	*Italic* text represents arguments that you replace with actual values.
[ ]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x | y | ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x | y | ...]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x | y | ... } *	Asterisk-marked braces enclose a set of required syntax choices separated by vertical bars, from which you select at least one.
[x | y | ...] *	Asterisk-marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in bold text. For example, the **New User** window appears; click **OK**.
>	Multi-level menus are separated by angle brackets. For example, **File** > **Create** > **Folder**.

Symbols

Convention	Description
WARNING	An alert that calls attention to important information that if not understood or followed can result in personal injury.
CAUTION	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
IMPORTANT	An alert that calls attention to essential information.
NOTE	An alert that contains additional or supplementary information.
TIP	An alert that provides helpful information.

Network topology icons

	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.

Port numbering in examples

The port numbers in this document are for illustration only and might be unavailable on your device.

Appendix A Technical specifications

Physical specifications

Chassis dimensions and weights

Chassis	Dimensions Dimensions (H × W × D)	Weight
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	86.1 × 440 × 465 mm (3.39 × 17.32 × 18.31 in)	≤ 18 kg (39.68 lb)
A5800-48G (1 slot) A5800-48G TAA (1 slot)	43.6 × 440 × 367 mm (1.72 × 17.32 × 14.45 in)	≤ 6.5 kg (14.33 lb)
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	43.6 × 440 × 427 mm (1.72 × 17.32 × 16.81 in)	≤ 8.5 kg (18.74 lb)
A5800AF-48G	43.6 × 440 × 660 mm (1.72 × 17.32 × 25.98 in)	≤ 12.2 kg (26.90 lb)
A5800-24G A5800-24G TAA	43.6 × 440 × 367 mm (1.72 × 17.32 × 14.45 in)	≤ 6.0 kg (13.23 lb)
A5800-24G-PoE+ A5800-24G-PoE+TAA	43.6 × 440 × 427 mm (1.72 × 17.32 × 16.81 in)	≤ 8 kg (17.64 lb)
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	43.6 × 440 × 427 mm (1.72 × 17.32 × 16.81 in)	≤ 8.5 kg (18.74 lb)
A5820AF-24XG	43.6 × 440 × 660 mm (1.72 × 17.32 × 25.98 in)	≤ 11.2 kg (24.69 lb)
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	43.6 × 440 × 427 mm (1.72 × 17.32 × 16.81 in)	≤ 8.5 kg (18.74 lb)
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	86 × 440 × 467 mm (3.39 × 17.32 × 18.39 in)	≤ 17 kg (37.48 lb)

Ports and slots (A5800 switches)

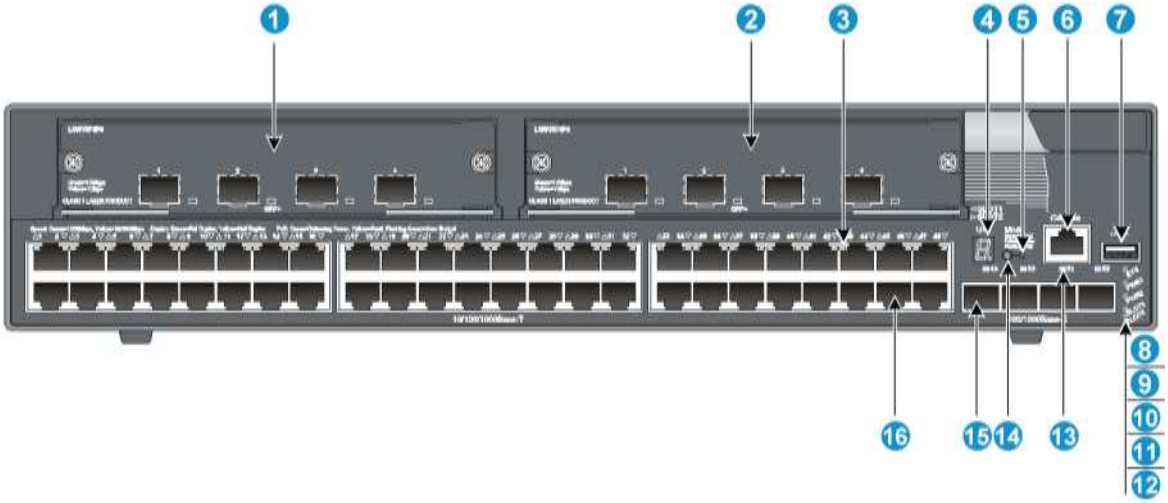
Item	A5800-48G-PoE+ (2 slots)/A5800-48G-PoE+ TAA (2 slots)	A5800-48G (1 slot)/A5800-48G TAA (1 slot)	A5800-48G-PoE+ (1 slot)/A5800-48G-PoE+ TAA (1 slot)	A5800AF-48G	A5800-24G/A5800-24G TAA	A5800-24G-PoE+/A5800-24G-PoE+TAA	A5800-24G-SFP (1 slot)/A5800-24G-SFP TAA (1 slot)
Console ports	1, front panel	1, covered by the logo plate on the front panel	1, covered by the logo plate on the front panel	1, rear panel	1, front panel	1, front panel	1, covered by the logo plate on the front panel
Management Ethernet ports	N/A	N/A	N/A	1, on the rear panel	N/A	N/A	1, on the rear panel
USB ports (full speed)	1, front panel	1, covered by the logo plate on the front panel	1, covered by the logo plate on the front panel	1, rear panel	1, front panel	1, front panel	1, covered by the logo plate on the front panel
10/100/1000Base-T Ethernet ports	48, PoE	48	48, PoE	48	24	24, PoE	N/A
100/1000Base-X SFP ports	4	N/A	N/A	N/A	N/A	N/A	24
SFP+ ports	N/A	4	4	6	4	4	4
Expansion interface card slots	2, front panel	1, rear panel	1, rear panel	N/A	1, rear panel	1, rear panel	1, front panel
OAP card slots	1	N/A	N/A	N/A	N/A	N/A	N/A
Fan tray slots	1, hot swapping	N/A (Fixed fans are used.)	N/A (Fixed fans are used.)	2, hot swapping	N/A (Fixed fans are used.)	N/A (Fixed fans are used.)	1, hot swapping
PoE module slots	1,	N/A	N/A	N/A	N/A	N/A	N/A
Power supply slots	2, hot swapping	N/A	N/A	2, hot swapping	N/A	N/A	2, hot swapping

Ports and slots (A5820X switches)

Item	A5820AF-24XG	A5820X-24XG-SFP+/A5820X-24XG-SFP+ TAA	A5820X-14XG-SFP+ (2 slots)/A5820X-14XG-SFP+ TAA (2 slots)
Console ports	1	1	1
Management Ethernet ports	1	1	N/A
USB ports	1	1	1
10/100/1000Base-T Ethernet ports	2	4	4
SFP+ ports	24	24	14
Expansion interface card slots	N/A	N/A	2, front panel
OAP card slots	N/A	N/A	1, rear panel
Fan tray slots	2, rear panel	1, rear panel	1, rear panel
Power supply slots	2, rear panel	2, rear panel	2, rear panel

A5800-48G-PoE+ (2 slots)/A5800-48G-PoE+ TAA (2 slots) panel views

Figure 69 Front panel

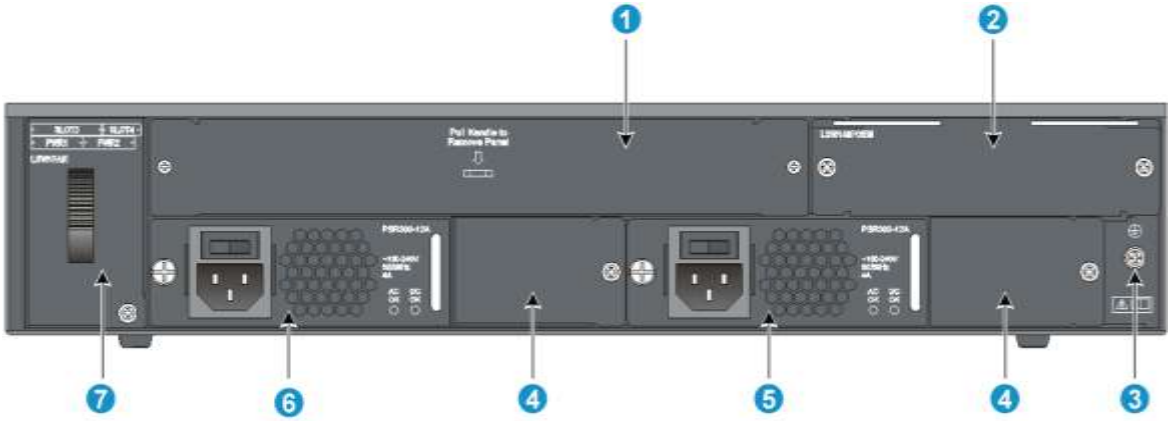


(1) Expansion interface card slot 1	(2) Expansion interface card slot 2
(3) 10/100/1000Base-T Ethernet port LED	(4) Seven-segment LED
(5) Port mode LED	(6) Console port
(7) USB port	(8) System status LED (SYS)
(9) Power supply 1 status LED (PWR1)	(10) Power supply 2 status LED (PWR2)
(11) OAP card status LED (SLOT3)	(12) PoE module status LED (SLOT4)
(13) 100/1000Base-X SFP port LED	(14) Port LED mode switching button
(15) 100/1000Base-X SFP port	(16) 10/100/1000Base-T auto-sensing Ethernet port

NOTE:

The A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots) switches come with the two expansion interface card slots covered by filler panels. In this figure, two LSW1SP4P0 interface cards are installed in the slots.

Figure 70 Rear panel



(1) OAP card slot	(2) PoE module slot
(3) Grounding screw	(4) Filler modules
(5) Power supply slot 1	(6) Power supply slot 2
(7) Hot swappable fan tray	

NOTE:

- The A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots) switches come with power supply slot 1 empty and power supply slot 2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In this figure, two PSR300-12A AC power supplies are installed in the slots.
- These two switches also come with the PoE module slot and the OAP card slot covered by filler panels. In this figure, a PoE module is installed.

A5800-48G (1 slot)/A5800-48G TAA (1 slot) panel views

Figure 71 Front panel

(1) 10/100/1000Base-T auto-sensing Ethernet port	(2) 10/100/1000Base-T Ethernet port LED
(3) Seven-segment LED	(4) Port mode LED
(5) SFP+ port LED	(6) Logo plate (A console port and a USB port are under this logo plate)
(7) System status LED (SYS)	(8) RPS status LED (RPS)
(9) Interface card status LED (SLOT1)	(10) SFP+ port
(11) Port LED mode switching button	

To use the console port and USB port, open the logo plate.

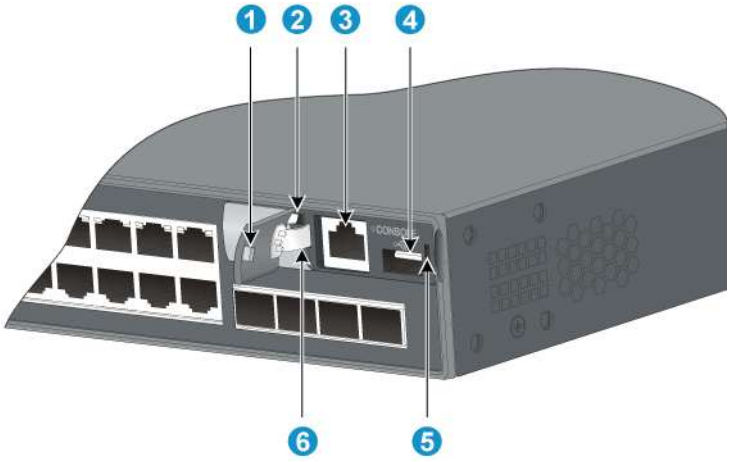
Figure 72 Open the logo plate

CAUTION:

To avoid any damage to the logo plate, always follow these instructions on opening and closing the logo plate:

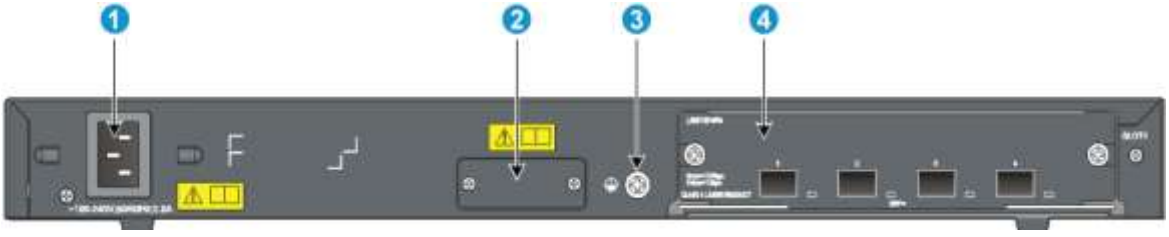
1. Insert your finger into the notch on the right side of the logo plate to open it. Do not try to open the logo plate in any other ways.
2. The logo plate is attached to the chassis with a rubber strip on its left. Rotate the logo plate within the elasticity of the rubber strip. To avoid the rubber strip falling off or being broken, do not pull or rotate the logo plate with excessive force.
3. When closing the logo plate, insert the pin on the left of the logo plate into the fastening hole in the front panel, rotate the logo plate inward until the tab on the right aligns with the fastening slot on the front panel, and slightly press the logo plate until the tab clicks into the hole. If the tab is not fully engaged in the fastening slot, make another try instead of pressing the logo plate with excessive force.

Figure 73 Logo plate and ports under the logo plate



(1) Tab of the logo plate	(2) Pin of the logo plate
(3) Console port	(4) USB port
(5) Fastening slot on the front panel	(6) Rubber strip

Figure 74 Rear panel



(1) AC-input power receptacle	(2) RPS receptacle
(3) Grounding screw	(4) Expansion interface card slot

NOTE:

- The A5800-48G (1 slot) and A5800-48G TAA (1 slot) switches come with the expansion interface card slot covered by a filler panel. In this figure, an LSW1SP4P0 interface card is installed in the slot.
- These two switches also come with the RPS receptacle covered by a protective cover.

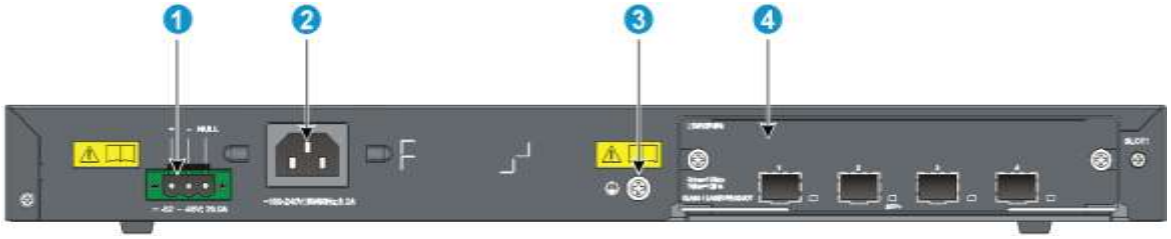
A5800-48G-PoE+ (1 slot)/A5800-48G-PoE+ TAA (1 slot) panel views

Figure 75 Front panel

(1) 10/100/1000Base-T auto-sensing Ethernet port	(2) 10/100/1000Base-T Ethernet port LED
(3) Seven-segment LED	(4) Port mode LED
(5) SFP+ port LED	(6) Logo plate (A console port and a USB port are under this logo plate)
(7) System status LED (SYS)	(8) RPS status LED (RPS)
(9) Interface card status LED (SLOT1)	(10) SFP+ port
(11) Port LED mode switching button	

To use the console port and USB port, open the logo plate, as shown in Figure 72 and Figure 73.

Figure 76 Rear panel



(1) RPS receptacle	(2) AC-input power receptacle
(3) Grounding screw	(4) Expansion interface card slot

NOTE:

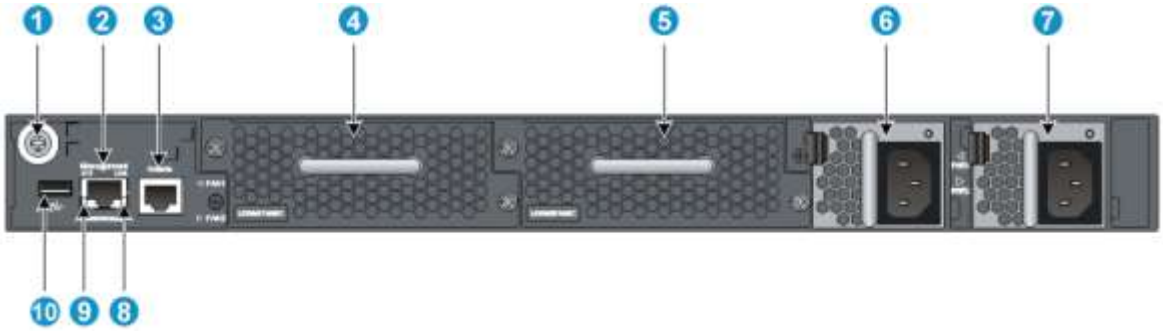
The A5800-48G-PoE+ (1 slot) and A5800-48G-PoE+ TAA (1 slot) switches come with the expansion interface card slot covered by a filler panel. In this figure, an LSW1SP4P0 interface card is installed in the slot.

A5800AF-48G panel views

Figure 77 Front panel

(1) 10/100/1000Base-T auto-sensing Ethernet port	(2) 10/100/1000Base-T Ethernet port LED
(3) SFP+ port	(4) Seven-segment LED
(5) Port LED mode switching button	(6) Port mode LED
(7) System status LED (SYS)	(8) SFP+ port LED

Figure 78 Rear panel



(1) Grounding screw (auxiliary grounding point 2)	(2) Management Ethernet port
(3) Console port	(4) Fan tray slot 1
(5) Fan tray slot 2	(6) Power supply slot 1
(7) Power supply slot 2	(8) LINK LED for the management Ethernet port
(9) ACT LED for the management Ethernet port	(10) USB port

NOTE:

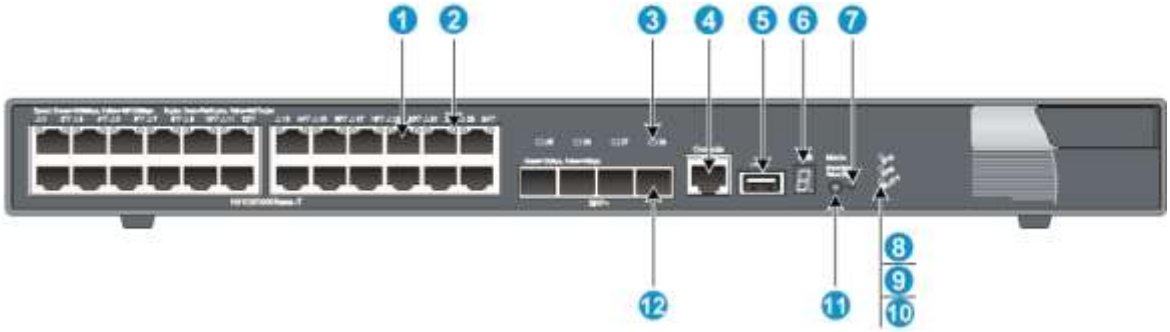
- The A5800AF-48G switch comes with the power supply slots empty and the filler modules for the slots as accessory. You can install one or two power supplies for the switch as needed. In this figure, two 650W AC power supplies are installed.
- The A5800AF-48G switch also comes with the fan tray slots empty. You must install two fan trays for the A5800AF-48G for adequate heat dissipation, and their models must be the same. In this figure, two LSWM1FANSC fan trays are installed.

Figure 79 Left side panel

(1) Primary grounding point	(2) Auxiliary grounding point 1

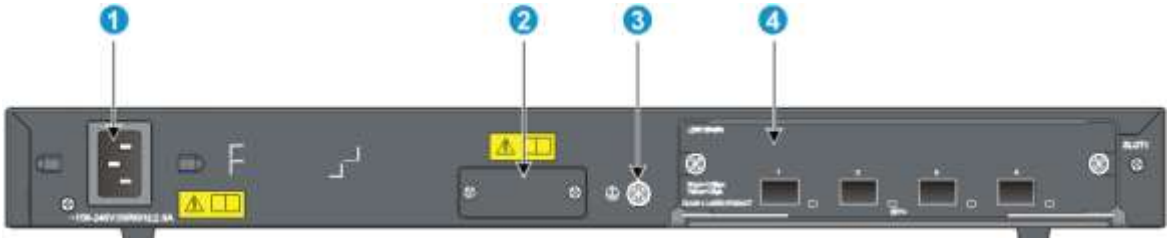
A5800-24G/A5800-24G TAA panel views

Figure 80 Front panel



(1) 10/100/1000Base-T auto-sensing Ethernet port	(2) 10/100/1000Base-T Ethernet port LED
(3) SFP+ port LED	(4) Console port
(5) USB port	(6) Seven-segment LED
(7) Port mode LED	(8) System status LED (SYS)
(9) RPS status LED (RPS)	(10) Interface card status LED (SLOT1)
(11) Port LED mode switching button	(12) SFP+ port

Figure 81 Rear panel



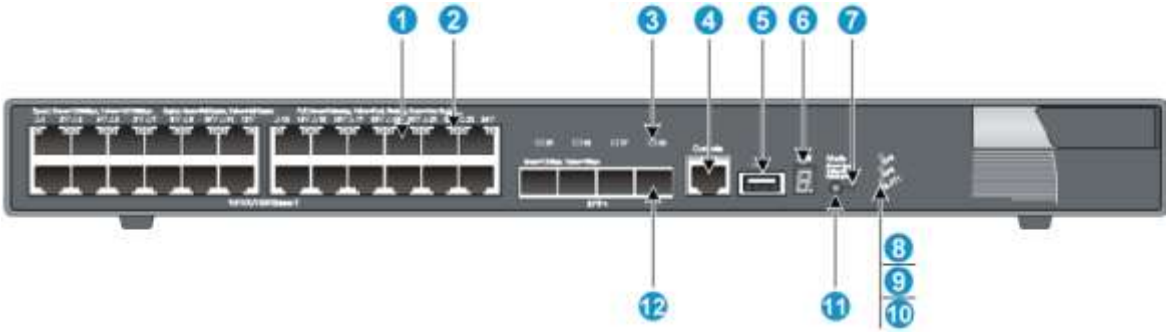
(1) AC-input power receptacle	(2) RPS receptacle
(3) Grounding screw	(4) Expansion interface card slot

NOTE:

- The A5800-24G and A5800-24G TAA switches come with the expansion interface card slot covered by a filler panel. In this figure, an LSW1SP4P0 interface card is installed in the slot.
- These two switches also come with the RPS receptacle covered by a protective cover.

A5800-24G-PoE+/A5800-24G-PoE+TAA panel views

Figure 82 Front panel



(1) 10/100/1000Base-T auto-sensing Ethernet port	(2) 10/100/1000Base-T Ethernet port LED
(3) SFP+ port LED	(4) Console port
(5) USB port	(6) Seven-segment LED
(7) Port mode LED	(8) System status LED (SYS)
(9) RPS status LED (RPS)	(10) Interface card status LED (SLOT1)
(11) Port LED mode switching button	(12) SFP+ port

Figure 83 Rear panel

(1) RPS receptacle	(2) AC-input power receptacle
(3) Grounding screw	(4) Interface card slot

NOTE:

The A5800-24G-PoE+ and A5800-24G-PoE+TAA switches come with the expansion interface card slot covered by a filler panel. In this figure, an LSW1SP4P0 interface card is installed in the slot.

A5800-24G-SFP (1 slot)/A5800-24G-SFP TAA (1 slot) panel views

Figure 84 Front panel

(1) Interface card slot	(2) 100/1000Base-X SFP port
(3) 100/1000Base-X SFP port LED	(4) Seven-segment LED
(5) Port mode LED	(6) SFP+ port LED
(7) Logo plate (A console port and a USB port are under this logo plate)	(8) System status LED (SYS)
(9) Power supply 1 status LED (PWR1)	(10) Power supply 2 status LED (PWR2)
(11) SFP+ port	(12) Port LED mode switching button

To use the console port and USB port, open the logo plate, as shown in Figure 72 and Figure 73.

NOTE:

The A5800-24G-SFP (1 slot) and A5800-24G-SFP TAA (1 slot) switches come with the expansion interface card slot covered by a filler panel. In this figure, an LSW1SP4P0 interface card is installed in the slot.

Figure 85 Rear panel

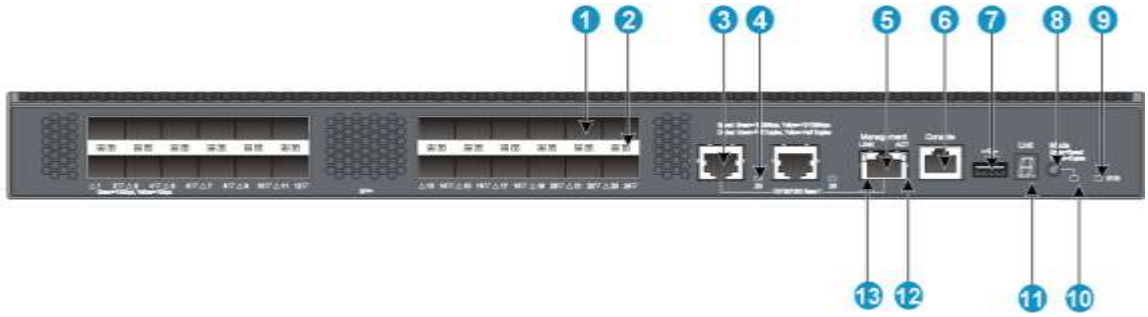
(1) Power supply slot 1	(2) Power supply slot 2
(3) Hot swappable fan tray	(4) Management Ethernet port
(5) Grounding screw	(6) ACT LED for the management Ethernet port
(7) LINK LED for the management Ethernet port	

NOTE:

The A5800-24G-SFP (1 slot) and A5800-24G-SFP TAA (1 slot) switches come with power supply slot 1 empty and power supply slot 2 covered by a filler panel. You can install one or two power supplies for the switch as needed. In this figure, two PSR150-A AC power supplies are installed in the slots.

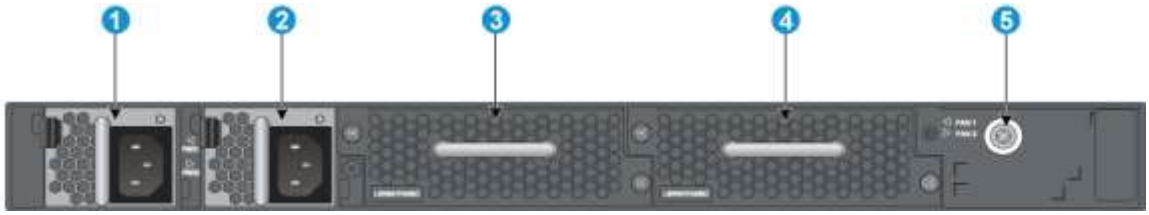
A5820AF-24XG panel views

Figure 86 Front panel



(1) SFP+ port	(2) SFP+ port LED
(3) 10/100/1000Base-T auto-sensing Ethernet port	(4) 10/100/1000Base-T Ethernet port LED
(5) Management Ethernet port	(6) Console port
(7) USB port	(8) Port LED mode switching button
(9) System status LED (SYS)	(10) Port mode LED
(11) Seven-segment LED	(12) ACT LED for the management Ethernet port
(13) LINK LED for the management Ethernet port	

Figure 87 Rear panel

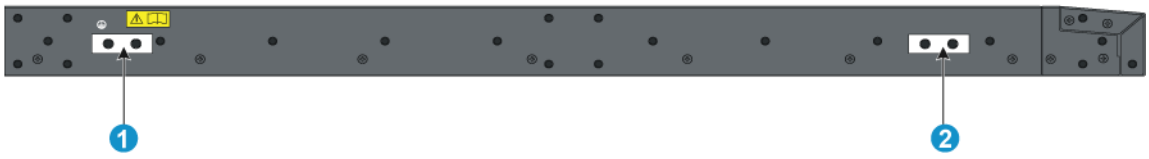


(1) Power supply slot 1	(2) Power supply slot 2
(3) Fan tray slot 1	(4) Fan tray slot 2
(5) Grounding screw (auxiliary grounding point 2)	

NOTE:

- The A5820AF-24XG switch comes with the power supply slots empty and the power filler modules as accessories. You can install one or two power supplies for your switch as needed. In this figure, two 650W AC power supplies are installed.
- The switch also comes with the fan tray slots empty. You must install two fan trays for the A5820AF-24XG for adequate heat dissipation, and their models must be the same. In this figure, two LSWM1FANSC fan trays are installed.

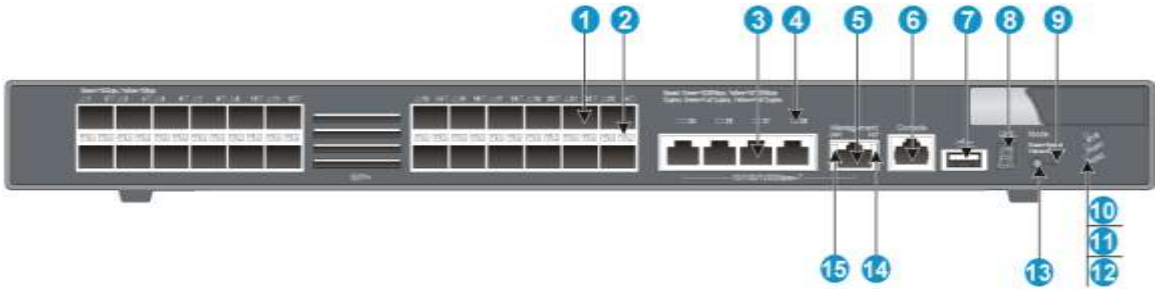
Figure 88 Left side panel



(1) Primary grounding point	(2) Auxiliary grounding point 1

A5820X-24XG-SFP+/A5820X-24XG-SFP+ TAA panel views

Figure 89 Front panel

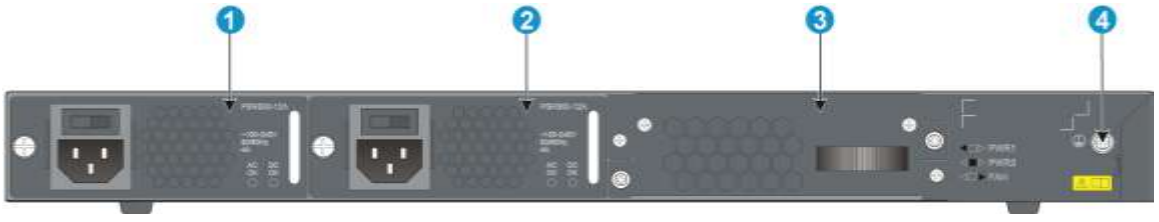


(1) SFP+ port	(2) SFP+ port LED
(3) 10/100/1000Base-T auto-sensing Ethernet port	(4) 10/100/1000Base-T Ethernet port LED
(5) Management Ethernet port	(6) Console port
(7) USB port	(8) Seven-segment LED
(9) Port mode LED	(10) System status LED (SYS)
(11) Power supply 1 status LED (PWR1)	(12) Power supply 2 status LED (PWR2)
(13) Port LED mode switching button	(14) ACT LED for the management Ethernet port
(15) LINK LED for the management Ethernet port	

NOTE:

- The SFP+ ports are numbered from left to right and from top to bottom, with you facing the front panel. The first top left SFP+ port is numbered 1, the first bottom left SFP+ port is numbered 2, the second top left port is numbered 3, and so on.
- The 10/100/1000Base-T auto-sensing Ethernet ports, from left to right, are numbered 25, 26, 27, and 28.

Figure 90 Rear panel



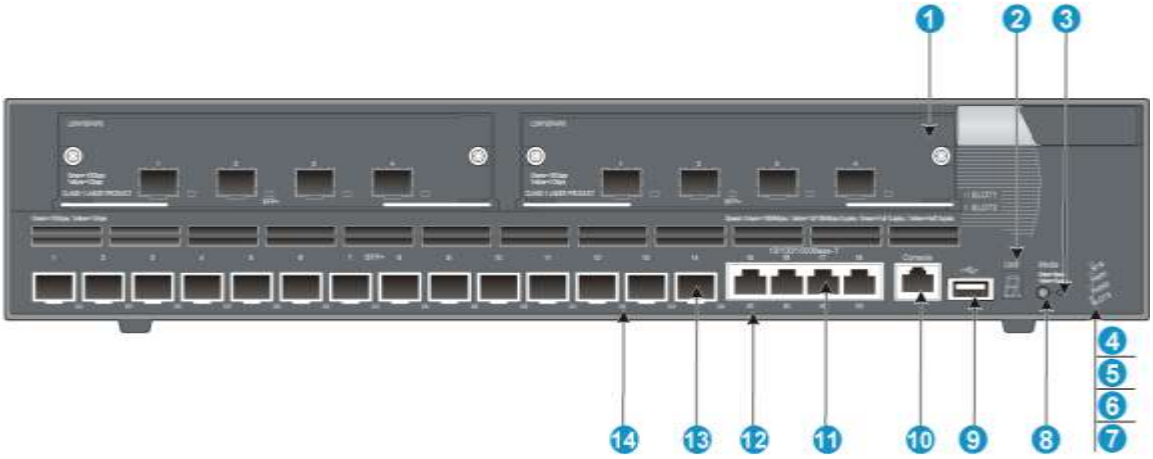
(1) Power supply slot 1	(2) Power supply slot 2
(3) Hot swappable fan tray	(4) Grounding screw

NOTE:

The A5820X-24XG-SFP+ and A5820X-24XG-SFP+ TAA switches come with power supply slot 1 empty and power supply slot 2 covered by a filler panel. You can install one or two power supplies for your switch as needed. In this figure, two PSR300-12A AC power supplies are installed in the slots.

A5820X-14XG-SFP+ (2 slots)/A5820X-14XG-SFP+ TAA (2 slots) panel views

Figure 91 Front panel

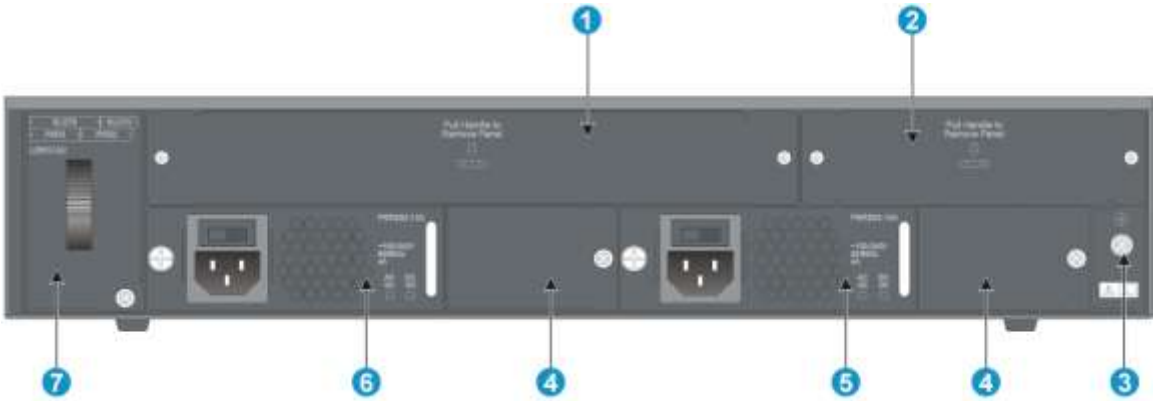


(1) Expansion interface card slot	(2) Seven-segment LED
(3) Port mode LED	(4) System status LED (SYS)
(5) Power supply 1 status LED (PWR1)	(6) Power supply 2 status LED (PWR2)
(7) OAP card status LED (SLOT3)	(8) Port mode LED switching button
(9) USB port	(10) Console port
(11) 10/100/1000Base-T auto-sensing Ethernet port	(12) 10/100/1000Base-T Ethernet port LED
(13) SFP+ port	(14) SFP+ port LED

NOTE:

The A5820X-14XG-SFP+ (2 slots) and A5820X-14XG-SFP+ TAA (2 slots) switches come with the expansion interface card slots covered by filler panels. In this figure, two LSW1SP4P0 interface cards are installed in the slots.

Figure 92 Rear panel



(1) OAP card slot	(2) Filler panel (do not remove it)
(3) Grounding screw	(4) Filler module (do not remove it)
(5) Power supply slot 2	(6) Power supply slot 1
(7) Hot swappable fan tray	

NOTE:

- The A5820X-14XG-SFP+ (2 slots) and A5820X-14XG-SFP+ TAA (2 slots) switches come with power supply slot 1 empty and power supply slot 2 covered by a filler panel. You can install one or two power supplies for your switch as needed. In this figure, two PSR300-12A AC power supplies are installed in the slots.
- These two switches also come with the OAP card slot covered by a filler panel.

Environmental specifications

Chassis	Operating temperature	Relative humidity	Fire resistance compliance
All chassis	0°C to 45°C (32°F to 113°F)	10% to 90%, noncondensing	UL60950-1, EN60950-1, IEC60950-1, GB4943

Power specifications

AC-input power specifications

Chassis	AC-input voltage	Min power consumption	Max power consumption
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	96 W	Single outputs: 714 W (425 W for PoE output) Dual outputs: 1147 W (740 W for PoE output)
A5800-48G (1 slot) A5800-48G TAA (1 slot)	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	102 W	163 W
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	131 W	673 W (370 W for PoE output)
A5800AF-48G	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	105 W	130 W
A5800-24G A5800-24G TAA	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	67 W	105 W
A5800-24G-PoE+ A5800-24G-PoE+TAA	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	85 W	598 W (370 W for PoE output)
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	67 W	146 W
A5820AF-24XG	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	135 W	205 W

Chassis	AC-input voltage	Min power consumption	Max power consumption
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	128 W	185 W
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz	105 W	245 W

DC-input power specifications

Chassis	DC-input rated voltage	Min power consumption	Max power consumption
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	–48 VDC to –60 VDC	94 W	Single DC output: 227 W Dual DC outputs: 237 W
A5800AF-48G	–40 VDC to –60 VDC	105 W	130 W
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	–48 VDC to –60 VDC	58 W	136 W
A5820AF-24XG	–40 VDC to –60 VDC	135 W	205 W
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	–48 VDC to –60 VDC	124 W	176 W
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	–48 VDC to –60 VDC	103 W	241 W

RPS DC-input power specifications

Chassis	DC-input rated voltage	Min power consumption	Max power consumption
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	–52 VDC to –55 VDC	94 W	Single DC output: 227 W Dual DC outputs: 237 W
A5800-48G (1 slot) A5800-48G TAA (1 slot)	10.8 VDC to 13.2 VDC	102 W	163 W
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	–52 VDC to –55 VDC	107 W	973 W (740 W for PoE output)
A5800-24G A5800-24G TAA	10.8 VDC to 13.2 VDC	67 W	105 W
A5800-24G-PoE+/A5800-24G-PoE+TAA	–52 VDC to –55 VDC	64 W	870 W (740 W for PoE output)
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	–52 VDC to –55 VDC	58 W	136 W
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	–52 VDC to –55 VDC	124 W	176 W
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	–52 VDC to –55 VDC	103 W	241 W

Appendix B FRUs and compatibility matrixes

This appendix describes the field replaceable units (FRUs) available for the A5800 and A5820X switches and their compatibility.

All the FRUs in this appendix are hot swappable.

Hardware compatibility matrixes

Interface cards, OAP cards, PoE modules, power supplies, and redundant power systems (RPSs) must be purchased separately. When you purchase or install these components, check that they are compatible with the switch.

You must separately purchase two fan trays for the A5800AF-48G or A5820AF-24XG switch. All other A5800 or A5820X switches come with fixed fans or a fan tray installed.

Power supply compatibility matrix

Chassis	PSR 300-12A (JC 087A)	PSR 300-12D1 (JC 090A)	PSR 750-A (JC 089A)	HP A58x0AF 650W AC power supply (JC680A)	HP A58x0AF 650W DC power supply (JC681A)	PSR 150-A (JD 362A)	PSR 150-D (JD 366A)
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	Yes	Yes	Yes	No	No	No	No
A5800-48G (1 slot) A5800-48G TAA (1 slot)	No	No	No	No	No	No	No
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	No	No	No	No	No	No	No
A5800AF-48G	No	No	No	Yes	Yes	No	No
A5800-24G A5800-24G TAA	No	No	No	No	No	No	No
A5800-24G-PoE+ A5800-24G-PoE+TAA	No	No	No	No	No	No	No
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	No	No	No	No	No	Yes	Yes
A5820AF-24XG	No	No	No	Yes	Yes	No	No
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	Yes	Yes	No	No	No	No	No
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Yes	Yes	No	No	No	No	No

NOTE:

- The power supplies on an A5800-48G-PoE+ (2 slots) or A5800-48G-PoE+ TAA (2 slots) switch can be different types, but the switches do not support the mix of a 300 W power supply (PSR300-12A or PSR300-12D1) and a 750 W power supply (PSR750-A). For more information, see *Hot Swappable Power Supply Ordering Guide for HP A5800-48G-PoE+ Switch with 2 Interface Slots.*
- The A5800AF-48G and A5820AF-24XG switches do not support the mix of a 650W AC power supply and a 650W DC power supply.
- The HP A58x0AF 650W AC power supply and the HP A58x0AF 650W DC power supply are referred to as the 650W AC power supply and the 650W DC power supply throughout this installation guide.

Fan tray compatibility matrix

Chassis	LSW1FAN (JC096A)	LSWM1FANSC (JC682A)	LSWM1FANSCB (JC683A)	LSW1BFAN (JC098A)
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	Yes	No	No	No
A5800-48G (1 slot) A5800-48G TAA (1 slot)	No	No	No	No
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	No	No	No	No
A5800AF-48G	No	Yes	Yes	No
A5800-24G A5800-24G TAA	No	No	No	No
A5800-24G-PoE+ A5800-24G-PoE+TAA	No	No	No	No
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	No	No	No	Yes
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Yes	No	No	No
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	No	No	No	Yes
A5820AF-24XG	No	Yes	Yes	No

Interface card compatibility matrix

Chassis	LSW1SP4P0 (JC091A)	LSW1SP2P0 (JC092B)	LSW1GP16P0 (JC095A)	LSW1GT16P (JC094A)
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	Yes	Yes	Yes	Yes
A5800-48G (1 slot) A5800-48G TAA (1 slot)	Yes	Yes	Yes	Yes
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	Yes	Yes	Yes	Yes
A5800AF-48G	No	No	No	No
A5800-24G A5800-24G TAA	Yes	Yes	Yes	Yes
A5800-24G-PoE+ A5800-24G-PoE+TAA	Yes	Yes	Yes	Yes
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	Yes	Yes	Yes	Yes
A5820AF-24XG	No	No	No	No
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Yes	Yes	No	No
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	No	No	No	No

PoE module compatibility matrix (only for the A5800 switches)

Chassis	LSW148POEM (JC097B)	LSW148POEM (JG260A)
A5800-48G-PoE+ (2 slots)	Yes	No
A5800-48G-PoE+ TAA (2 slots)	No	Yes
A5800-48G (1 slot) A5800-48G TAA (1 slot)	No	No
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	No	No
A5800AF-48G	No	No
A5800-24G A5800-24G TAA	No	No
A5800-24G-PoE+ A5800-24G-PoE+TAA	No	No
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	No	No

OAP card compatibility matrix

Chassis	LSWM1FW10 (JD255A)	LSWM1WCM10 (JD441A)	LSWM1WCM10 (JG261A)	LSWM1WCM20 (JD443A)	LSWM1WCM20 (JG262A)
A5800-48G (1 slot)	No	No	No	Yes	No
A5800-48G-PoE+ (1 slot)	No	No	No	Yes	No
A5800-48G-PoE+ (2 slots)	Yes	Yes	No	Yes	No
A5800AF-48G	No	No	No	No	No
A5800-24G	No	No	No	Yes	No
A5800-24G-PoE+	No	No	No	Yes	No
A5800-24G-SFP (1 slot)	No	No	No	Yes	No
A5800-48G-PoE+ TAA (1 slot)	No	No	No	No	Yes
A5800-48G-PoE+ TAA (2 slots)	No	No	Yes	No	Yes
A5800-48G TAA (1 slot)	No	No	No	No	Yes

Chassis	LSWM1FW10 (JD255A)	LSWM1WCM10 (JD441A)	LSWM1WCM10 (JG261A)	LSWM1WCM20 (JD443A)	LSWM1WCM20 (JG262A)
A5800-24G-PoE+ TAA	No	No	No	No	Yes
A5800-24G-SFP TAA (1 slot)	No	No	No	No	Yes
A5800-24G TAA	No	No	No	No	Yes
A5820AF-24XG	No	No	No	No	No
A5820X-24XG-SFP+	No	No	No	No	No
A5820X-24XG-SFP+ TAA	No	No	No	No	No
A5820X-14XG-SFP+ (2 slots)	Yes	Yes	No	Yes	No
A5820X-14XG-SFP+ TAA (2 slots)	No	No	Yes	No	Yes

NOTE:

You install the LSWM1WCM20 (JD443A, JG262A) card in the expansion interface card slot and all other OAP cards in the OAP card slot.

RPS compatibility matrix

Chassis	A-RPS1600 (JG136A)	A-RPS800 (JD183A)
A5800-48G-PoE+ (2 slots) A5800-48G-PoE+ TAA (2 slots)	Yes	Yes
A5800-48G (1 slot) A5800-48G TAA (1 slot)	No	Yes
A5800-48G-PoE+ (1 slot) A5800-48G-PoE+ TAA (1 slot)	Yes	No
A5800AF-48G	No	No
A5800-24G A5800-24G TAA	No	Yes
A5800-24G-PoE+ A5800-24G-PoE+TAA	Yes	No
A5800-24G-SFP (1 slot) A5800-24G-SFP TAA (1 slot)	Yes	Yes
A5820X-14XG-SFP+ (2 slots) A5820X-14XG-SFP+ TAA (2 slots)	Yes	Yes
A5820X-24XG-SFP+ A5820X-24XG-SFP+ TAA	Yes	Yes
A5820AF-24XG	No	No

Hot swappable power supplies

Power supply	Specifications	Reference
PSR150-A	• Rated input voltage range: —100 VAC to 240 VAC; 50 Hz or 60 Hz • Max input voltage range: 90 VAC to 264 VAC; 47 Hz or 63 Hz • Max output power: 150 W	*HP PSR150-A & PSR150-D Power Supplies User Guide*
PSR150-D	• Rated input voltage range: –48 VDC to –60 VDC • Max input voltage range: –36 VDC to –72 VDC • Max output power: 150 W	*HP PSR150-A & PSR150-D Power Supplies User Guide*
PSR300-12A	• Rated input voltage range: 100 VAC to 240 VAC; 50 Hz or 60 Hz • Max input voltage range: 90 VAC to 264 VAC; 47 Hz or 63 Hz • Max output power: 300 W	*HP PSR300-12A & PSR300-12D1 Power Supplies User Guide*
PSR300-12D1	• Rated input voltage range: –48 VDC to –60 VDC • Max input voltage range: –40.5 VDC to –72 VDC • Max output power: 300 W	*HP PSR300-12A & PSR300-12D1 Power Supplies User Guide*
650W AC Power Supply	• Rated input voltage range: 100 VAC to 240 VAC; 50 Hz or 60 Hz • Max input voltage range: 90 VAC to 264 VAC; 47 Hz or 63 Hz • Max output power: 650 W	*HP A58x0AF 650W AC (JC680A) & 650W DC (JC681A) Power Supplies User Guide*
650W DC Power Supply	• Rated input voltage range: –40 VDC to –60 VDC • Max input voltage range: –40 VDC to –72 VDC • Max output power: 650 W	*HP A58x0AF 650W AC (JC680A) & 650W DC (JC681A) Power Supplies User Guide*
PSR750-A	• Rated input voltage range: 100 VAC to 240 VAC; 50 Hz or 60 Hz • Max input voltage range: 90 VAC to 264 VAC; 47 Hz or 63 Hz • Max output power: 750 W	*HP PSR750-A Power Supply User Guide*

Hot swappable fan trays

Item	Specifications
LSW1FAN	
Fans	• Two 70 × 70 × 25.4 mm (2.76 × 2.76 × 1 in) fans • Four 40 × 40 × 28 mm (1.57 × 1.57 × 1.1 in) fans
Fan speed	• 70 × 70 × 25.4 mm (2.76 × 2.76 × 1 in) fans: 4700 R.P.M • 40 × 40 × 28 mm (1.57 × 1.57 × 1.1 in) fans: 9500 R.P.M
Max airflow	150 cubic feet per minute (CFM)
Input voltage	12 V
Maximum power consumption	15 W
Documentation reference	*HP LSW1FAN & LSW1BFAN Fan Assemblies Installation*
LSW1BFAN	
Fans	1
Fan speed	5000 R.P.M
Max airflow	41.65 CFM
Input voltage	12 V
Maximum power consumption	24 W
Documentation reference	*HP LSW1FAN & LSW1BFAN Fan Assemblies Installation*
LSWM1FANSC	
Fans	Two 40 × 40 × 28 mm (1.57 × 1.57 × 1.1 in) fans
Fan speed	18500 R.P.M
Max airflow	45 CFM
Airflow direction	Back to front (fans blow air from the power supply side to the network port side.)
Input voltage	12 V
Maximum power consumption	19.5 W
Docuementation reference	*HP LSWM1FANSC & LSWM1FANSCB Fan Assemblies Installation*
LSWM1FANSCB	
Fans	Two 40 × 40 × 28 mm (1.57 × 1.57 × 1.1 in) fans
Fan speed	18500 R.P.M
Max airflow	45 CFM
Airflow direction	Front to back (fans draw air from the network side to the power supply side.)
Input voltage	12 V
Maximum power consumption	19.5 W
Documentation reference	*HP LSWM1FANSC & LSWM1FANSCB Fan Assemblies Installation*

Interface cards

Card model	Name	Description
LSW1SP4P0	4-Port 10 GE Ethernet SFP+ optical interface card	Provides four 10 Gbps SFP+ optical ports
LSW1SP2P0	2-port 10 GE SFP+ optical interface card	Provides two 10 Gbps SFP+ optical ports
LSW1GP16P0	16-port 100/1000Base-X SFP interface card	Provides sixteen 100/1000 Mbps SFP copper/optical ports
LSW1GT16P	16-port 10/100/1000Base-T Ethernet electrical interface card	Provides sixteen 10/100/1000 Mbps Ethernet copper ports

For more information about the interface cards, see *HP A5820X & A5800 Switch Series Interface Cards User Guide*.

OAP cards

Card model	Name	Slot
LSWM1FW10 (JD255A)	Firewall card	OAP card slot
LSWM1WCM10 (JD441A)	WLAN access controller module	OAP card slot
LSWM1WCM10 (JG261A)	WLAN access controller module	OAP card slot
LSWM1WCM20 (JD443A)	WLAN access controller module	Expansion interface card slot
LSWM1WCM20 (JG262A)	WLAN access controller module	Expansion interface card slot

For more information about the LSWM1WCM20 card, see the user guide that comes with the card. For more information about any other OAP card, see *HP OAP Cards User Guide*.

Hot swappable PoE modules

You can install a hot swappable PoE module (LSW148POEM) in an A5800-48G-PoE+ (2 slots) or A5800-48G-PoE+ TAA (2 slots) switch to supply power to devices such as IP telephones, wireless LAN access points (APs), and web cameras through Ethernet ports over twisted pair cable.

For more information about this PoE module, see *HP LSW148POEM PoE Module User Guide*.

Appendix C Ports and LEDs

Ports

Console port

Every A5800 or A5820X switch has one console port.

Table 16 Console port specifications

Item	Specification
Connector type	RJ-45
Compliant standard	EIA/TIA-232
Transmission baud rate	9600 bps (default) to 115200 bps
Services	• Provides connection to an ASCII terminal. • Provides connection to the serial port of a local or remote (through a pair of modems) PC running terminal emulation program.

Management Ethernet port

The A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot), A5800AF-48G, A5820AF-24XG, A5820X-24XG-SFP+, and A5820X-24XG-SFP+ TAA switches have one management Ethernet port. You can connect this port to a PC or management station for loading and debugging software or remote management.

Table 17 Management Ethernet port specifications

Item	Specification
Connector type	RJ-45
Connector quantity	1
Port transmission rate	10/100/1000 Mbps, half/full duplex
Transmission medium and max transmission distance	100 m (328.08 ft) over category-5 twisted pair cable
Functions and services	Switch software and Boot ROM upgrade, network management

USB port

Every A5800 or A5820X switch has one OHC-compliant USB2.0 port that can upload and download data at a rate up to 12 Mbps. You can use this USB port to access the file system on the Flash of the switch, for example, to upload or download application and configuration files.

10/100/1000Base-T Ethernet port

All A5820X and A5800 switches but the A5800-24G-SFP (1 slot) and the A5800-24G-SFP TAA (1 slot), have 10/100/1000Base-T Ethernet ports.

Table 18 10/100/1000Base-T Ethernet port specifications

Item	Specification
Connector type	RJ-45
Interface attributes	• 10 Mbps, full duplex • 100 Mbps, full duplex • 1000 Mbps, full duplex • MDI/MDI-X, auto-sensing
Max transmission distance	100 m (328.08 ft)
Transmission medium	Category-5 (or above) twisted pair cable
Standards	IEEE 802.3i, 802.3u, 802.3ab

100/1000Base-X SFP port

The A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), and A5800-24G-SFP TAA (1 slot) switches have 100/1000Base-X SFP ports, and you can install the 1000 Mbps SFP transceiver modules in Table 19 and the 100 Mbps SFP modules in Table 20 in the ports.

Table 19 1000 Mbps SFP transceiver modules available for the 100/1000 Base-X SFP ports

Product Code	Module description	Central wavelength (nm)	Cable/fiber diameter (μm)	Multimode fiber modal bandwidth (MHz × km)	Max transmission distance
JD089B	HP X120 1G SFP RJ45 T transceiver	N/A	Category-5 twisted pair	N/A	100 m (328.08 ft)
JD118B	HP X120 1G SFP LC SX transceiver	850	50/125	500	550 m (1804.46 ft)
				400	500 m (1640.42 ft)
			62.5/125	200	275 m (902.23 ft)
				160	220 m (721.78 ft)
JD119B	HP X120 1G SFP LC LX transceiver	1310	9/125	N/A	10 km (6.21 miles)
JD061A	HP X125 1G SFP LC LH40 1310nm transceiver	1310	9/125	N/A	40 km (24.86 miles)
JD062A	HP X120 1G SFP LC LH40 1550nm transceiver	1550	9/125	N/A	40 km (24.86 miles)

Product Code	Module description	Central wavelength (nm)	Cable/fiber diameter (μm)	Multimode fiber modal bandwidth (MHz × km)	Max transmission distance
JD063B	HP X125 1G SFP LC LH70 Transceiver	1550	9/125	N/A	70 km (43.50 miles)

Table 20 100 Mbps SFP transceiver modules available for the 100/1000 Base-X SFP ports

Product code	Module description	Central wavelength (in nm)	Fiber diameter (in μm)	Max transmission distance
JD102B	HP X110 100M SFP LC FX transceiver	1310	62.5/125	2 km (1.24 miles)
JD120B	HP X110 100M SFP LC LX transceiver	1310	9/125	15 km (9.32 miles)
JD090A	HP X110 100M SFP LC LH40 transceiver	1310	9/125	40 km (24.86 miles)
JD091A	HP X110 100M SFP LC LH80 transceiver	1550	9/125	80 km (49.71 miles)

NOTE:

- To guarantee the functionality of the SFP ports, use only HP SFP transceiver modules.
- The SFP transceiver modules available for this switch series are subject to change over time. For the most up-to-date list of SFP transceiver modules, consult your HP sales representative or technical support engineer.
- For the SFP transceiver module specifications, see *HP A-Series Switches Transceiver Modules User Guide*.

SFP+ port

All A5800 and A5820X switches but the A5800-48G-PoE+ (2 slots) and the A5800-48G-PoE+ TAA (2 slots), has fixed SFP+ ports. You can plug the SFP transceiver modules in Table 21, the SFP+ transceiver modules in Table 22, and the SFP+ cables in Table 23 into the SFP+ ports as needed. You can use the SFP+ ports as IRF physical ports to connect A5800 and A5820X switches in an IRF deployment.

Table 21 1000 Mbps SFP transceiver modules available for the SFP+ ports

Product Code	Module description	Central wavelength (nm)	Cable/fiber diameter (μm)	Multimode fiber modal bandwidth (MHz × km)	Max transmission distance
JD089B	HP X120 1G SFP RJ45 T transceiver	N/A	Category-5 twisted pair	N/A	100 m (328.08 ft)
JD118B	HP X120 1G SFP LC SX transceiver	850	50/125	500	550 m (1804.46 ft)
				400	500 m (1640.42 ft)
			62.5/125	200	275 m (902.23 ft)

Product Code	Module description	Central wavelength (nm)	Cable/fiber diameter (μm)	Multimode fiber modal bandwidth (MHz × km)	Max transmission distance
				160	220 m (721.78 ft)
JD119B	HP X120 1G SFP LC LX transceiver	1310	9/125	N/A	10 km (6.21 miles)
JD061A	HP X125 1G SFP LC LH40 1310nm transceiver	1310	9/125	N/A	40 km (24.86 miles)
JD062A	HP X120 1G SFP LC LH40 1550nm transceiver	1550	9/125	N/A	40 km (24.86 miles)
JD063B	HP X125 1G SFP LC LH70 Transceiver	1550	9/125	N/A	70 km (43.50 miles)

Table 22 10 Gbps SFP+ transceiver modules available for the SFP+ ports

Product Code	Module description	Central wavelength (nm)	Fiber diameter (μm)	Multimode fiber modal bandwidth (MHz × km)	Max transmission distance
JD092B	HP X130 10G SFP+ LC SR transceiver	850	50/125	2000	300 m (984.25 ft)
				500	82 m (269.03 ft)
				400	66 m (216.54 ft)
JD093B	HP X130 10G SFP+ LC LRM transceiver	1310	62.5/125	200 160	220 m (721.78 ft)
JD094B	HP X130 10G SFP+ LC LR transceiver	1310	9/125	N/A	10 km (6.21 miles)

Table 23 SFP+ cables available for the SFP+ ports

Product code	Cable description	Cable length
JD095B	HP X240 10G SFP+ SFP+ 0.65m DA Cable	0.65 m (2.13 ft)
JD096B	HP X240 10G SFP+ SFP+ 1.2m DA Cable	1.2 m (3.94 ft)
JD097B	HP X240 10G SFP+ SFP+ 3m DA Cable	3 m (9.84 ft)
JG081B	HP X240 10G SFP+ SFP+ 5m DA Cable	5 m (16.40 ft)

NOTE:

- To guarantee the functionality of the SFP+ ports, use only HP SFP or SFP+ transceiver modules.
- The SFP and SFP+ transceiver modules available for this switch series are subject to change over time. For the most up-to-date list of SFP transceiver modules, consult your HP sales representative or technical support engineer.
- For the SFP transceiver module specifications, see *HP A-Series Switches Transceiver Modules User Guide*.

The SFP+ cables available for the A5800 and A5820X switches are 10 Gbps SFP+ Cu cables, as shown in Figure 93.

Figure 93 SFP+ cable

(1) Connector	(2) Pull latch

LEDs

Table 24 shows the availability of each LED on an A5800 or A5820X switch.

Table 24 LEDs at a glance

LED	Availability
System status LED	Both A5800 and A5820X series
Power supply status LED	A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot) A5820X-24XG-SFP+, A5820X-24XG-SFP+ TAA, A5820X-14XG-SFP+ (2 slots), A5820X-14XG-SFP+ TAA (2 slots)
RPS status LED	A5800 series but the following models: A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800AF-48G, A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot)
Port mode LED	Both A5800 and A5820X series
Seven-segment LED	Both A5800 and A5820X series
10/100/1000Base-T Ethernet port LED	Both A5800 and A5820X series but A5800-24G-SFP (1 slot) and A5800-24G-SFP TAA (1 slot)
100/1000Base-X SFP port LED	A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot)
SFP+ port LED	Both A5800 and A5820X series but A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots)

LED	Availability
Management Ethernet port LEDs	A5800AF-48G, A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot) A5820AF-24XG, A5820X-24XG-SFP+, A5820X-24XG-SFP+ TAA
OAP card status LED	A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots) A5820X-14XG-SFP+ (2 slots), A5820X-14XG-SFP+ TAA (2 slots)
PoE module status LED	A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots)
Interface card status LED	A5800 series but the following models: A5800-48G-PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800AF-48G, A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot)

System status LED

The system status LED shows the operating status of the switch.

Table 25 System status LED description

LED mark	Status	Description
SYS	Steady green	The switch is operating properly.
	Flashing green (1 Hz)	The switch is performing power-on self test (POST).
	Steady red	POST has failed.
	Flashing yellow (1 Hz)	Some ports have failed to pass POST.
	Off	The switch is powered off.

Power supply status LED

A power supply status LED shows how the hot swappable power supply in a slot is operating.

Table 26 Power supply status LED description

LED mark	Status	Description
PWR1	Steady green	A power supply is installed in power supply slot 1, and the power output is normal.
	Steady yellow	A power supply is installed in power supply slot 1, but the power supply has an output problem.
	Off	No power supply is installed in power supply slot 1, or no power is being input.
PWR2	Steady green	A power supply is installed in power supply slot 2, and the power output is normal.
	Steady yellow	A power supply is installed in power supply slot 2, but the power supply has an input problem.
	Off	No power supply is installed in power supply slot 2, or no power is input.

RPS status LED

The RPS status LED shows the status of the RPS DC input.

Table 27 describes the RPS status LED behaviors for the A5800-24G, A5800-24G TAA, A5800-48G (1 slot), and A5800-48G TAA (1 slot) switches.

Table 28 describes the RPS status LED behaviors for the A5800-24G-PoE+, A5800-24G-PoE+TAA, A5800-48G-PoE+ (1 slot), and A5800-48G-PoE+ TAA (1 slot) switches.

Table 27 RPS status LED description (I)

LED mark	Status	Description
RPS	Steady green	Both the RPS DC input and the AC input are normal, or an RPS is connected and the AC input is normal.
	Steady yellow	The RPS DC input is normal, but the AC input is disconnected or has failed.
	Off	No RPS is connected.

Table 28 RPS status LED description (II)

LED mark	Status	Description
RPS	Steady green	Both the RPS DC input and the AC input are normal.
	Steady yellow	The RPS DC input is normal, but the AC input is disconnected or has failed.
	Off	The RPS DC input is abnormal or no RPS is connected.

Port mode LED

The port mode LED indicates the type of information that the network port LEDs are showing. You can use the port LED mode switching button to change the type of displayed port information.

Table 29 Port mode LED description

LED mark	Status	Description
Mode	Steady green	The network port LEDs are showing port rates.
	Flashing green (1 Hz) (available only for PoE switches)	The network port LEDs are showing the status of PoE power supply on the ports.
	Steady yellow	The network port LEDs are showing duplex modes.

Seven-segment LED

The seven-segment LED, together with the system status LED, shows detailed system operating information (see Table 30).

The seven-segment LED can also show the total PoE output power as a percentage of the maximum PoE output power that a PoE-capable switch can supply (see Table 31). The PoE switches include A5800-48G-

PoE+ (2 slots), A5800-48G-PoE+ TAA (2 slots), A5800-48G-PoE+ (1 slot), A5800-48G-PoE+ TAA (1 slot), A5800-24G-PoE+, and A5800-24G-PoE+TAA.

Table 30 Seven-segment LED description (I)

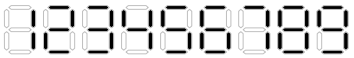
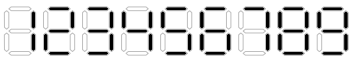
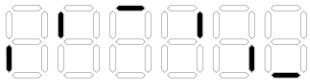
System status LED (SYS) status	Seven-segment LED (Unit) status	Description
Flashing green	The LED displays numbers one by one. 	POST is running, and the LED displays the ongoing test item ID.
Flashing red	The LED displays flashing numbers. 	POST has failed, and the LED flashes the ID of the failed test item.
Flashing green	A bar rotates clockwise around the LED. 	Software is loading.
Steady red	The LED displays a flashing **F** character. 	The switch is experiencing a fan failure.
Steady red	The LED displays a flashing **t** character. 	The switch is in an over-temperature condition.
Steady green	The LED displays a capital **C** character. 	The switch is the command switch in a cluster.
	The LED displays an **S** character. 	The switch is a member switch in a cluster.
	The LED displays a lowercase **c** character. 	The switch is a candidate switch for a cluster.
	The LED displays a number. 	The member ID of the switch (the character **A** represents 10).

Table 31 Seven-segment LED description (II)

Port mode LED (Mode) status	System status LED (SYS) status	Seven-segment LED (Unit) status	Description
Flashing green (1 Hz) (PoE mode)	Steady green	The LED displays different signs. 	For example, the  sign indicates that the switch is outputting 0 to 20% of the maximum PoE output power.

10/100/1000Base-T Ethernet port LED

Each 10/100/1000Base-T auto-sensing Ethernet port has a status LED to show port operating status and activities. The port mode LED indicates the type of port status information (for example, port rate or duplex mode) that the port LEDs are showing. You can use the port LED mode switching button to change the type of displayed port information.

Table 32 10/100/1000Base-T auto-sensing Ethernet port LED description

Port mode LED (Mode) status	Port LED status	Description
Steady green (rate mode)	Steady green	The port is operating at 1000 Mbps. The port LED fast flashes when the port is sending or receiving data.
	Steady yellow	The port is operating at 10/100 Mbps. The port LED fast flashes when the port is sending or receiving data.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.
Flashing green (1 Hz) (PoE mode, available only for PoE switches)	Steady green	PoE power supply is normal.
	Flashing green (3 Hz)	The device attached to the port requires power higher than the maximum or currently available PoE output power on the port.
	Steady yellow	The port is experiencing a PoE failure.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	The port is not supplying PoE power.
Steady yellow (duplex mode)	Steady green	The port is operating in full duplex mode. The port LED fast flashes when the port is sending or receiving data.
	Steady yellow	The port is operating in half duplex mode. The port LED fast flashes when the port is sending or receiving data.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.

100/1000Base-X SFP port LED

Each 100/1000Base-X SFP port has a status LED to show port operating status and activities. The port mode LED indicates the type of information (for example, port rate or duplex mode) that the port LEDs are showing. You can use the port LED mode switching button to change the type of displayed port information.

Table 33 100/1000Base-X SFP port LED description

Port mode LED (Mode) status	Port LED status	Description
Steady green (rate mode)	Steady green	The port is operating at 1000 Mbps. The port LED fast flashes when the port is sending or receiving data.
	Steady yellow	The port is operating at 100 Mbps. The port LED fast flashes when the port is sending or receiving data.

Port mode LED (Mode) status	Port LED status	Description
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.
Steady yellow (duplex mode)	Steady green	The port is operating in full duplex mode. The port LED fast flashes when the port is sending or receiving data.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.

SFP+ port LED

Each SFP+ port has a status LED to show port operating status and activities. The port mode LED indicates the type of information (for example, port rate or duplex mode) that the port LEDs are showing. You can use the port LED mode switching button to change the type of displayed port information.

Table 34 SFP+ port LED description

Port mode LED (Mode) status	SFP+ port LED status	Description
Steady green (rate mode)	Steady green	The port is operating at 10 Gbps. The port LED fast flashes when the port is sending or receiving data.
	Steady yellow	The port is operating at 1 Gbps. The port LED fast flashes when the port is sending or receiving data.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.
Steady yellow (duplex mode)	Steady green	The port is operating in full duplex mode. The port LED fast flashes when the port is sending or receiving data.
	Flashing yellow (3 Hz)	POST has failed on the port.
	Off	No link is present on the port.

Management Ethernet port LEDs

A management Ethernet port has one LINK LED and one ACT LED to show its link and data transmission status.

Table 35 Management Ethernet port LEDs description

Led mark	Status	Description
LINK	Off	The management Ethernet port is not connected.
	Steady green	The management Ethernet port is operating at 10/100/1000 Mbps.
ACT	Off	The management Ethernet port is not receiving or sending data.
	Flashing yellow	The management Ethernet port is sending or receiving data.

OAP card status LED

The SLOT3 LED on the front chassis panel shows the status of the card in the OAP card slot.

Table 36 OAP card status LED description

LED mark	Status	Description
SLOT3	Green	An OAP card is in the slot and operating properly.
	Flashing yellow (1 Hz)	The slot does not support the OAP card model, or the OAP card has failed.
	Off	The OAP card slot is empty.

PoE module status LED

The SLOT4 LED shows the status of the PoE module.

Table 37 PoE module status LED description

LED mark	Status	Description
SLOT4	Green	The PoE module is in position and operating properly.
	Flashing yellow (1 Hz)	The switch does not support the PoE module model, or the PoE module has failed.
	Off	The PoE module slot is empty.

Interface card status LED

The SLOT1 LED shows the status of the interface card or the OAP card in the expansion interface card slot.

Table 38 Interface card status LED description

LED mark	Status	Description
SLOT1	Green	The interface card or the OAP card is in position and operating properly.
	Flashing yellow (1 Hz)	The slot does not support the card model, or the card has failed.
	Off	The expansion interface card slot is empty.

Appendix D Cooling system

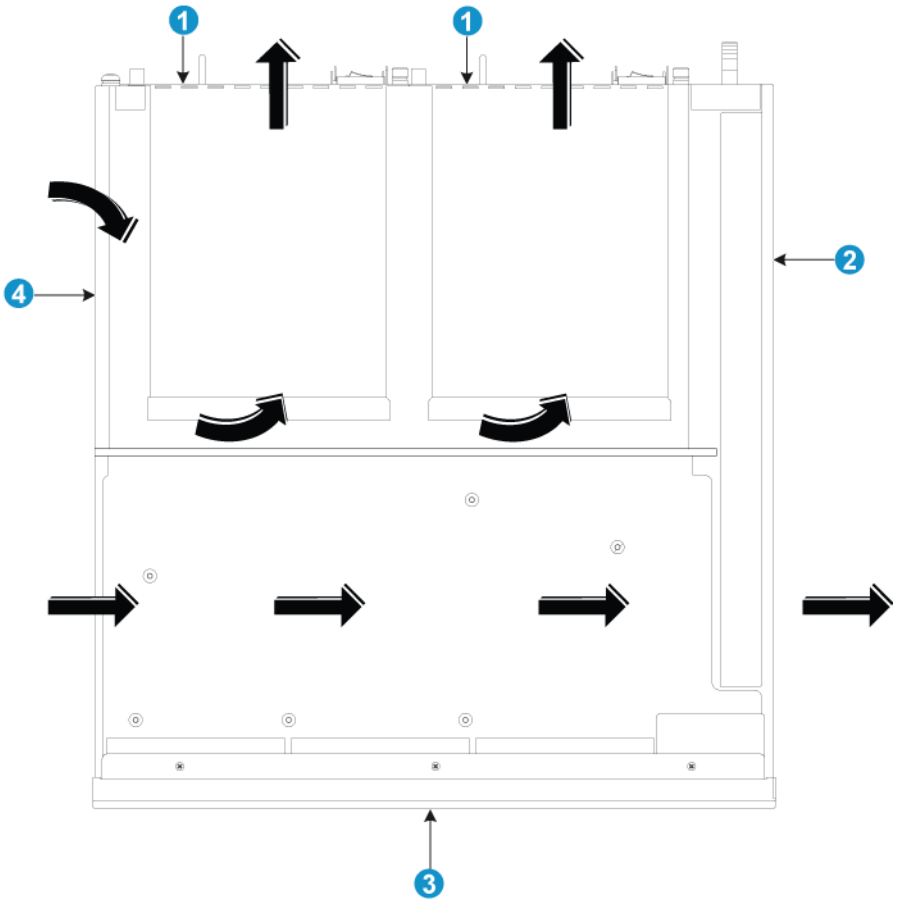
The cooling system of A5800 and A5820X switches is made up of the ventilation holes in the chassis, fan trays, and built-in fans of hot swappable power supplies. To guarantee that this cooling system can work effectively, consider the site ventilation design when you plan the installation site for the switches.

A5800-48G-PoE+ (2 slots)/A5800-48G-PoE+ TAA (2 slots)

The A5800-48G-PoE+ (2 slots) and A5800-48G-PoE+ TAA (2 slots) switch chassis are 2U high and use separate air aisles for their upper half and lower half. Make sure that the two air aisles have good ventilation.

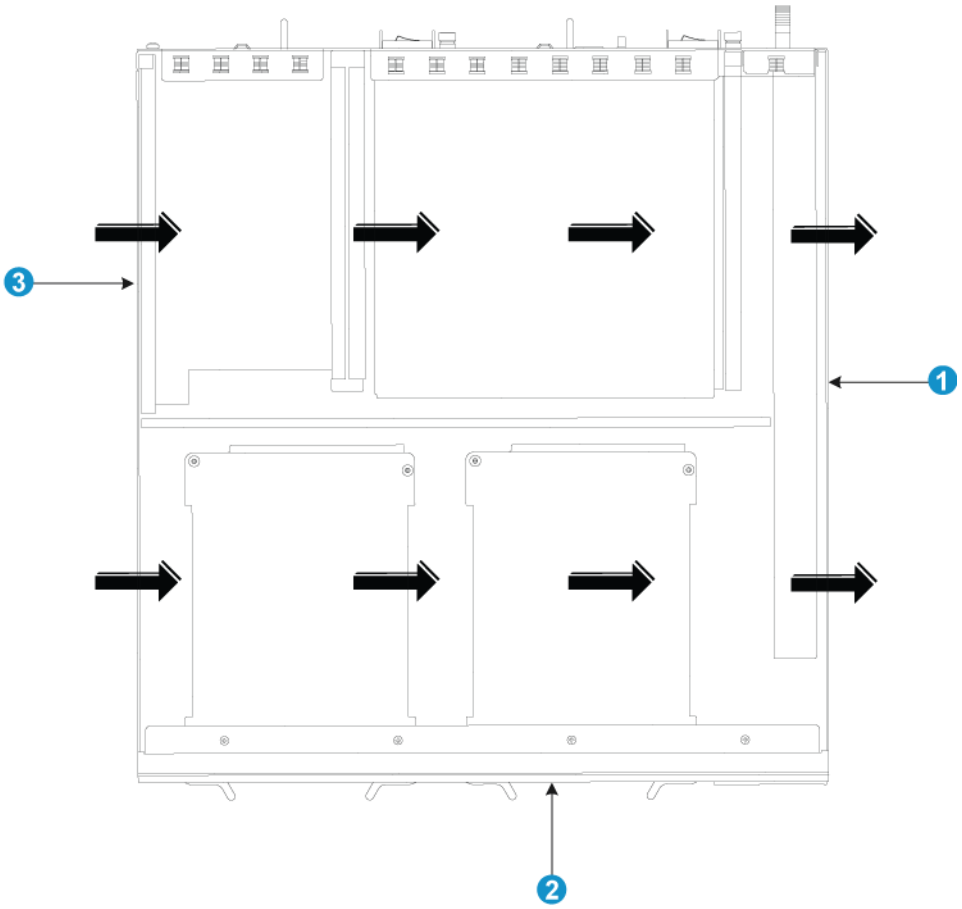
- Figure 94 shows the airflow through the lower half of the chassis. Cool air flows in from the left side of the chassis, circulates through the lower half of the chassis and the power supplies, and exhausts through the air vents in the fan tray panel and the power supply panels.
- Figure 95 shows the airflow through the upper half of the chassis. Cool air flows in from the left side of the chassis, circulates through the upper half of the chassis, including the OAP card and the interface card, and exhausts through the outlet air vents in the fan tray panel.

Figure 94 Airflow through the lower half of the chassis



(1) Outlet air vents in the power supply panels	(2) Outlet air vents in the fan tray panel
(3) Front panel	(4) Side inlet air vents

Figure 95 Airflow through the upper half of the chassis

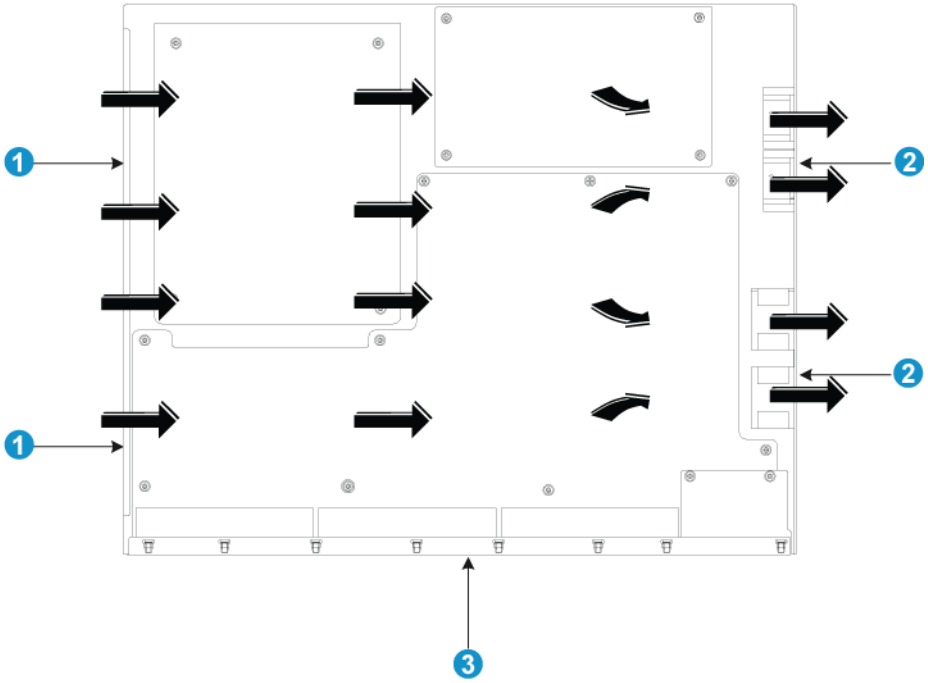


(1) Outlet air vents in the fan tray panel	(2) Front panel
(3) Side inlet air vents	

A5800-48G (1 slot)/A5800-48G TAA (1 slot)

Figure 96 shows the airflow design for the A5800-48G (1 slot) and A5800-48G TAA (1 slot) switches. Cool air flows in from the left side of the chassis, circulates through the chassis and the interface card, and exhausts out the right side of the chassis.

Figure 96 Airflow through the chassis

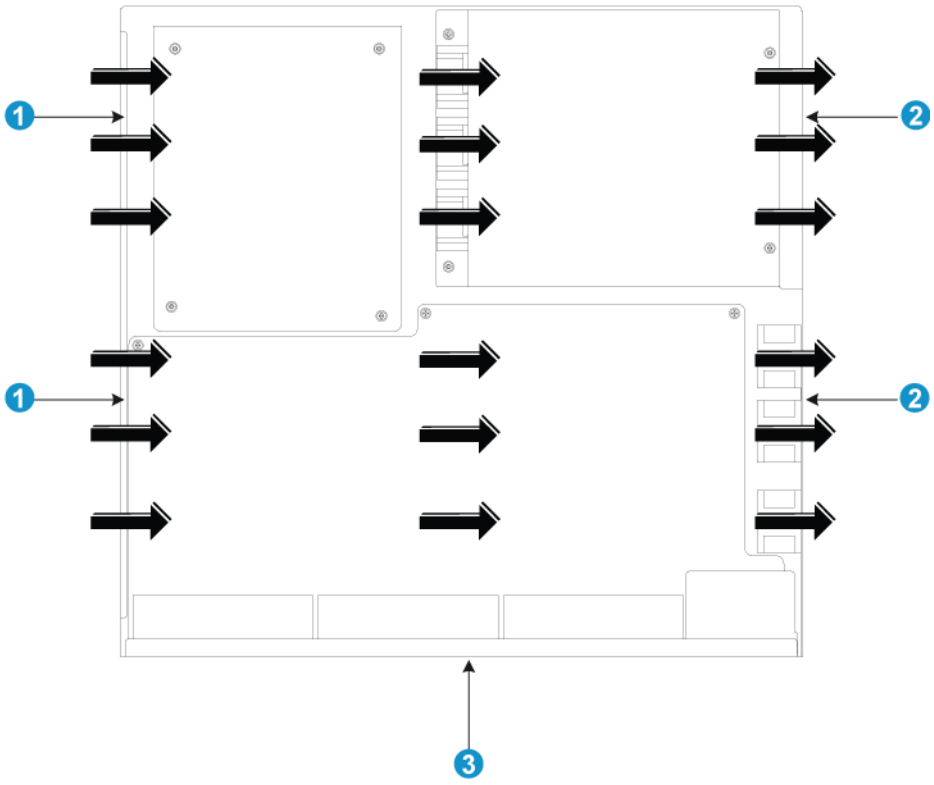


(1) Left-side inlet air vents	(2) Right-side outlet air vents
(3) Front panel	

A5800-48G-PoE+ (1 slot)/A5800-48G-PoE+ TAA (1 slot)

Figure 97 shows the airflow design for the A5800-48G-PoE+ (1 slot) and A5800-48G-PoE+ TAA (1 slot) switches. Cool air flows in from the left side of the chassis, circulates through the chassis and the interface card, and exhausts out the right side of the chassis.

Figure 97 Airflow through the chassis



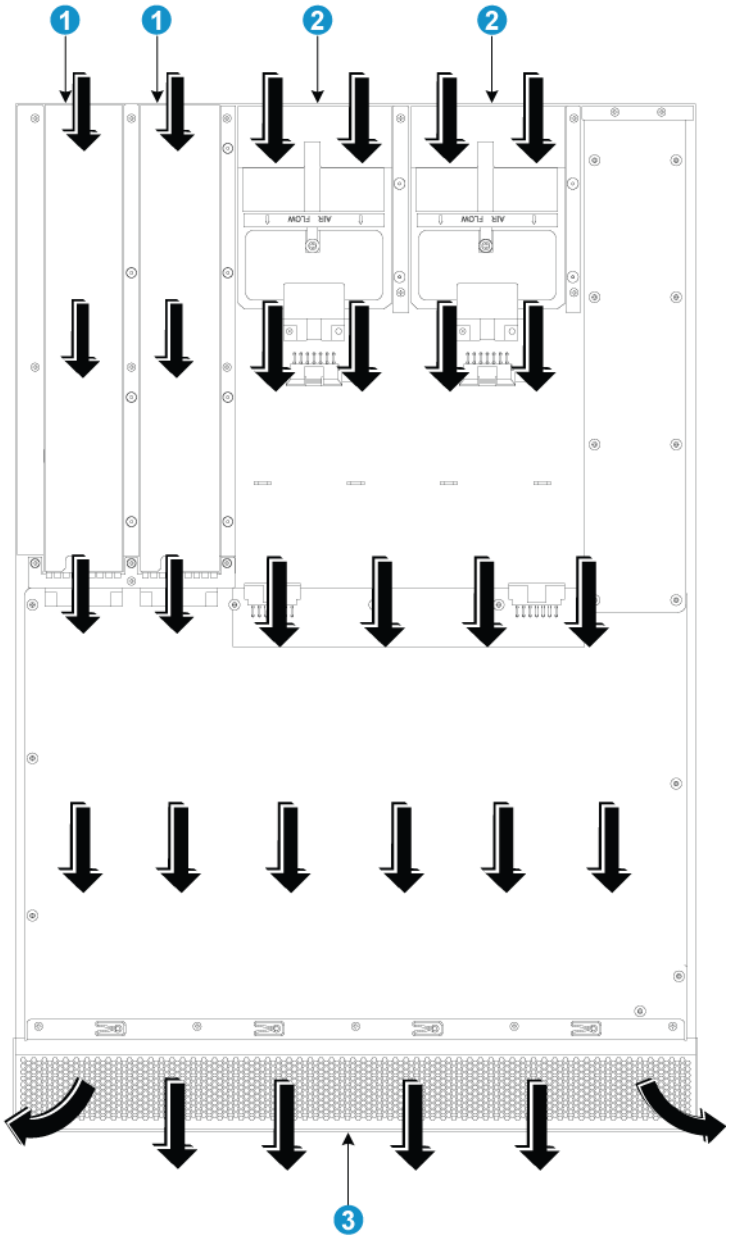
(1) Left-side inlet air vents	(2) Right-side outlet air vents
(3) Front panel	

A5800AF-48G

The fan trays in the A5800AF-48G switch must be the same type: LSWM1FANSC or LSWM1FANSCB.

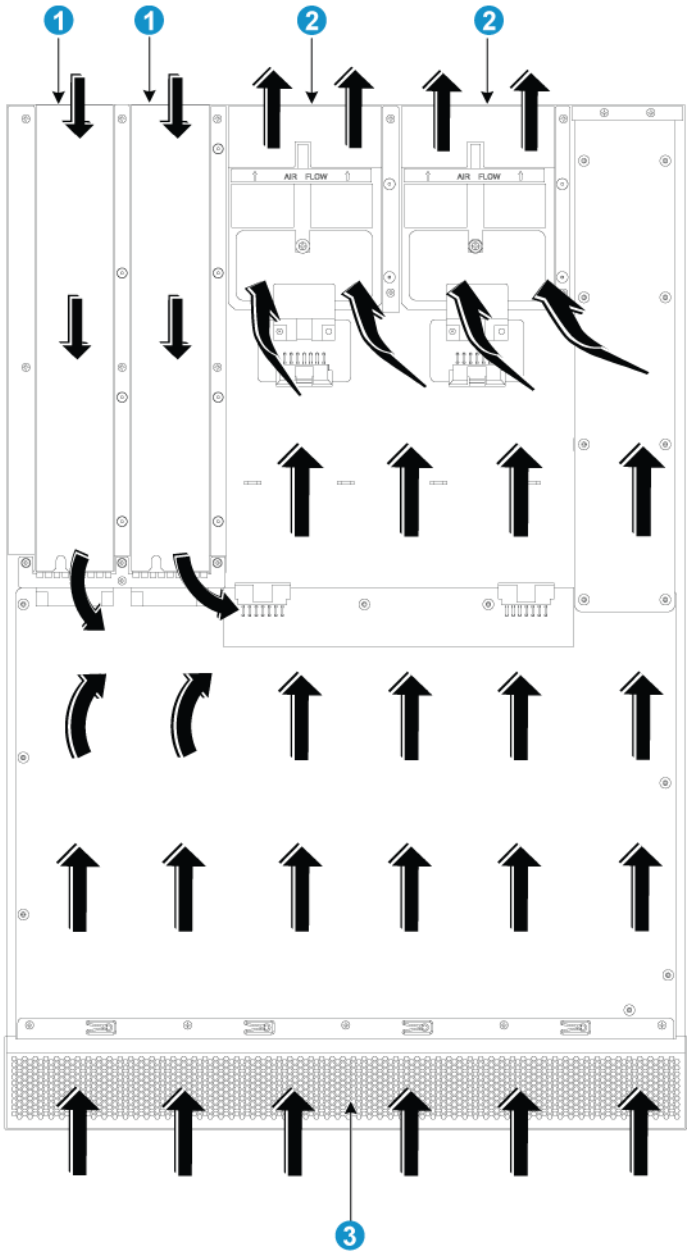
- When LSWM1FANSC fan trays are used, cool air flows in through the air vents in the fan tray panel and the power supply panels, circulates through the chassis and the power supplies, and exhausts at the network port side, as shown in Figure 98.
- When LSWM1FANSCB fan trays are used, cool air flows in through the air vents in the network port-side panel and the power supply panels, circulates through the chassis and the power supplies, and exhausts through the air vents in the fan tray panels, as shown in Figure 99.

Figure 98 Airflow through the chassis (with LSWM1FANSC fan trays)



(1) Power supply air vents	(2) Fan tray air vents
(3) Network port-side air vents	

Figure 99 Airflow through the chassis (with LSWM1FANSCB fan trays)



(1) Power supply air vents	(2) Fan tray air vents
(3) Network port-side air vents	

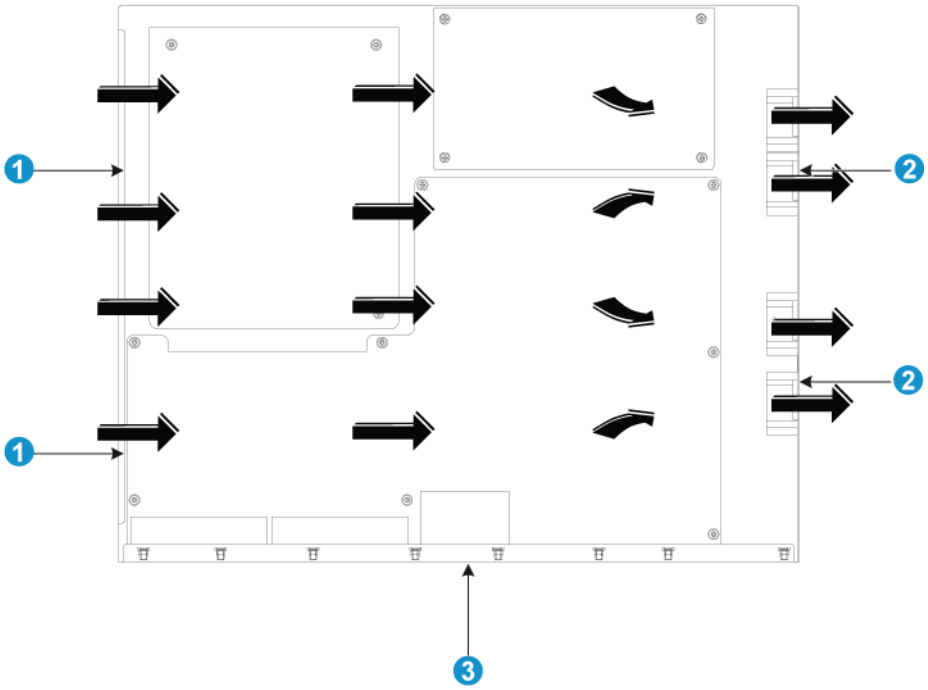
IMPORTANT:

The chassis and the power supplies use separate air aisles. Make sure that both aisles are not blocked.

A5800-24G/A5800-24G TAA

Figure 100 shows the airflow design for the A5800-24G and A5800-24G TAA switches. Cool air flows in from the left side of the chassis, circulates through the chassis and the interface card, and exhausts out the right side of the chassis.

Figure 100 Airflow through the chassis

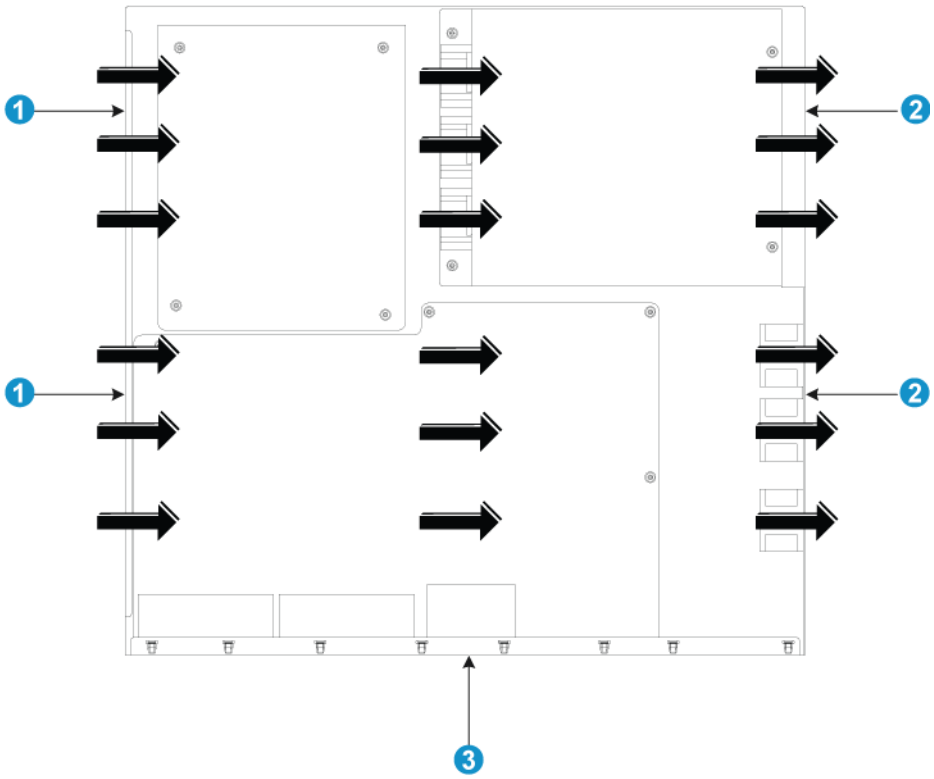


(1) Left-side inlet air vents	(2) Right-side outlet air vents
(3) Front panel	

A5800-24G-PoE+/A5800-24G-PoE+TAA

Figure 101 shows the airflow design for the A5800-24G-PoE+ and A5800-24G-PoE+TAA switches. Cool air flows in from the left side of the chassis, circulates through the chassis and the interface card, and exhausts out the right side of the chassis.

Figure 101 Airflow through the chassis

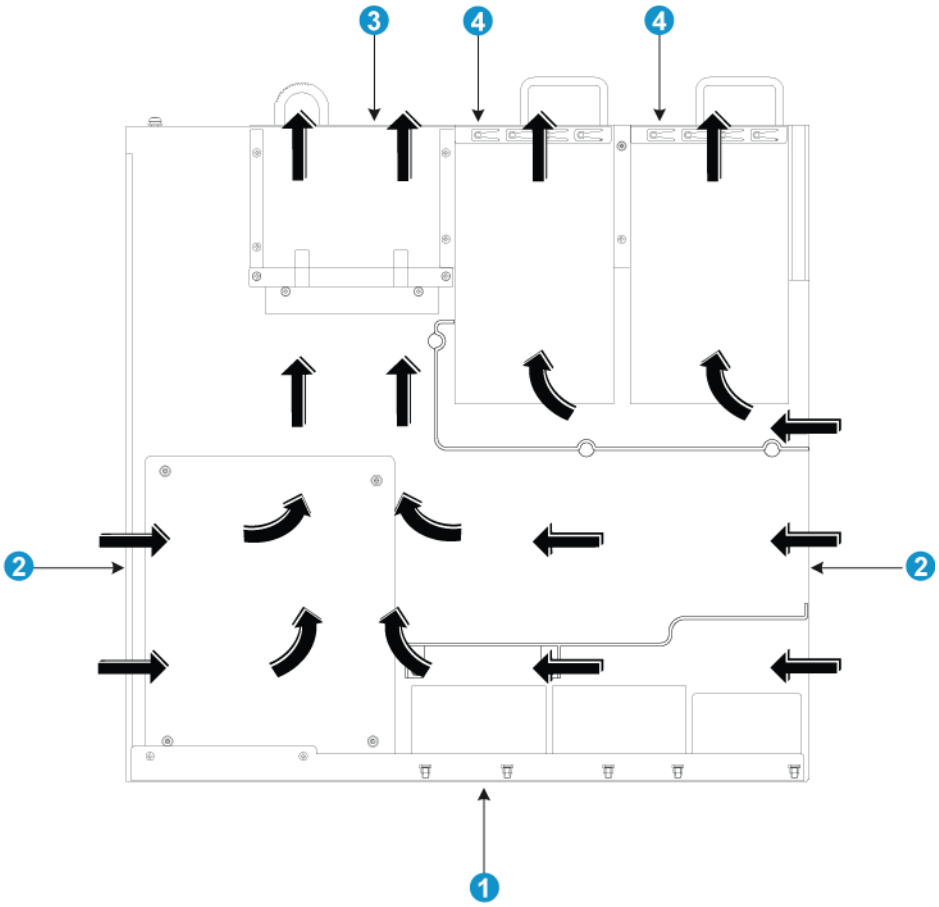


(1) Left-side inlet air vents	(2) Right-side outlet air vents
(3) Front panel	

A5800-24G-SFP (1 slot)/A5800-24G-SFP TAA (1 slot)

Figure 102 shows the airflow through the A5800-24G-SFP (1 slot)/A5800-24G-SFP TAA (1 slot) chassis and power supplies. Cool air flows in from the two sides of the chassis, circulates through the chassis and power supplies, and exhausts through the air vents in the fan tray panel and the power supply panels.

Figure 102 Airflow through the chassis



(1) Front panel	(2) Side inlet air vents
(3) Outlet air vents in the fan tray panel	(4) Outlet air vents in the power supply panels

IMPORTANT:

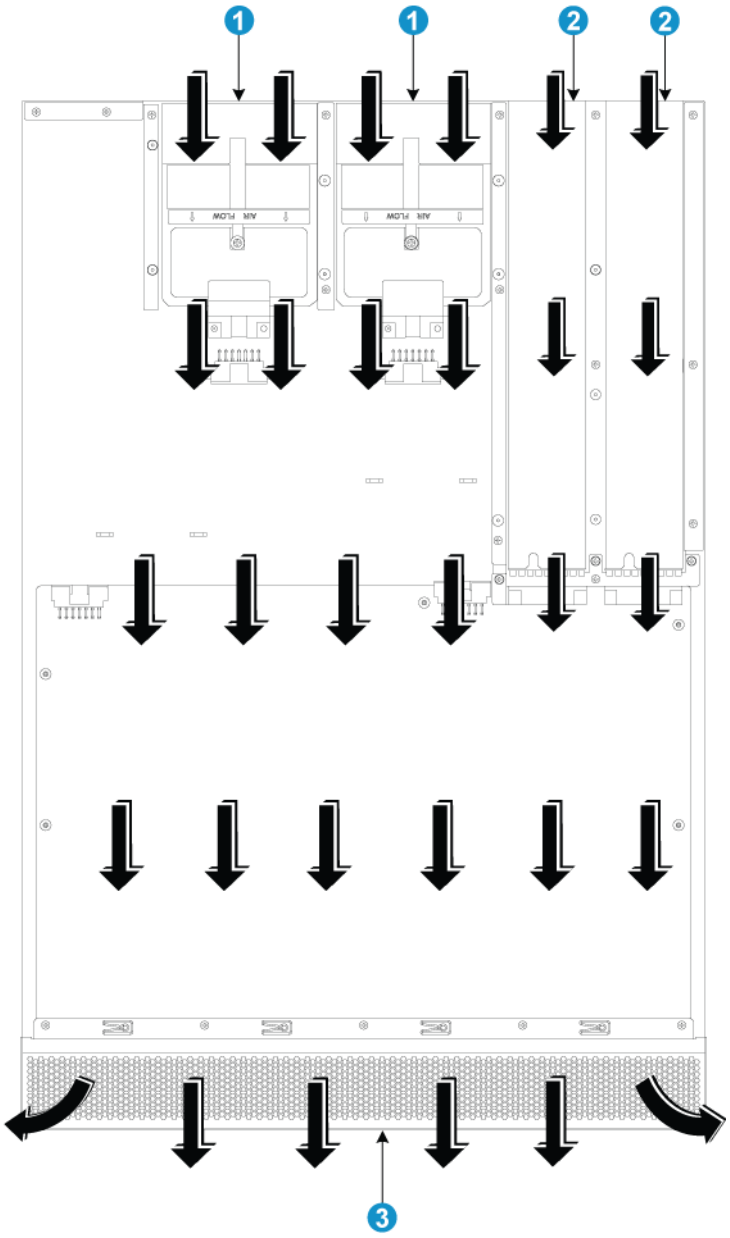
The chassis and the power supplies use separate air aisles. Make sure that both aisles have good ventilation.

A5820AF-24XG

The fan trays in the A5820AF-24XG switch must be the same type: LSWM1FANSC or LSWM1FANSCB.

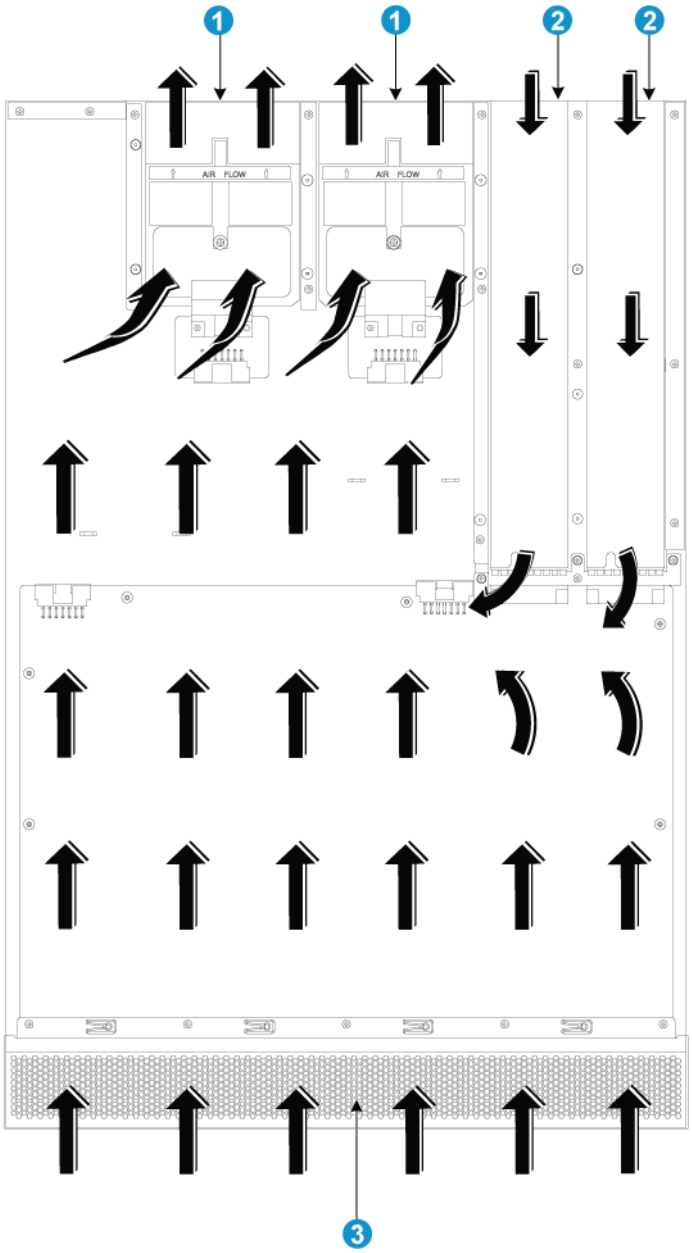
- When LSWM1FANSC fan trays are used, cool air flows in through the air vents in the fan tray panel and the power supply panels, circulates through the chassis and the power supplies, and exhausts at the network port side, as shown in Figure 103.
- When LSWM1FANSCB fan trays are used, cool air flows in through the air vents in the network port-side panel and the power supply panels, circulates through the chassis and the power supplies, and exhausts through the air vents in the fan tray panels, as shown in Figure 104.

Figure 103 Airflow through the chassis (with LSWM1FANSC fan trays)



(1) Fan tray air vents	(2) Power supply air vents
(3) Network port-side air vents	

Figure 104 Airflow through the chassis (with LSWM1FANSCB fan trays)



(1) Fan tray air vents	(2) Power supply air vents
(3) Network port-side air vents	

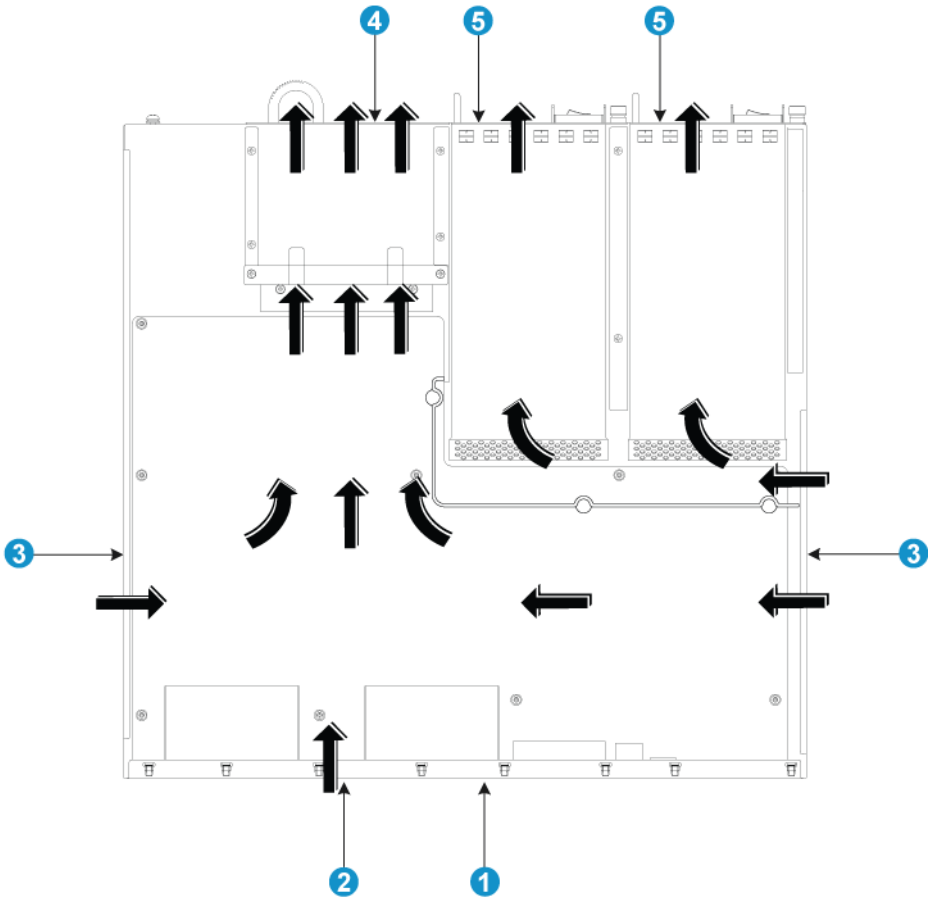
IMPORTANT:

The chassis and the power supplies use separate air aisles. Make sure that both aisles are not blocked.

A5820X-24XG-SFP+/A5820X-24XG-SFP+ TAA

Figure 105 shows the airflow through the A5820X-24XG-SFP+/A5820X-24XG-SFP+ TAA chassis and power supplies. Cool air flows in from the two sides and front of the chassis, circulates through the chassis and power supplies, and exhausts through the air vents in the fan tray panel and the power supply panels.

Figure 105 Airflow through the chassis



(1) Front panel	(2) Front inlet air vents
(3) Side inlet air vents	(4) Outlet air vents in the fan tray panel
(5) Outlet air vents in the power supply panels	

IMPORTANT:

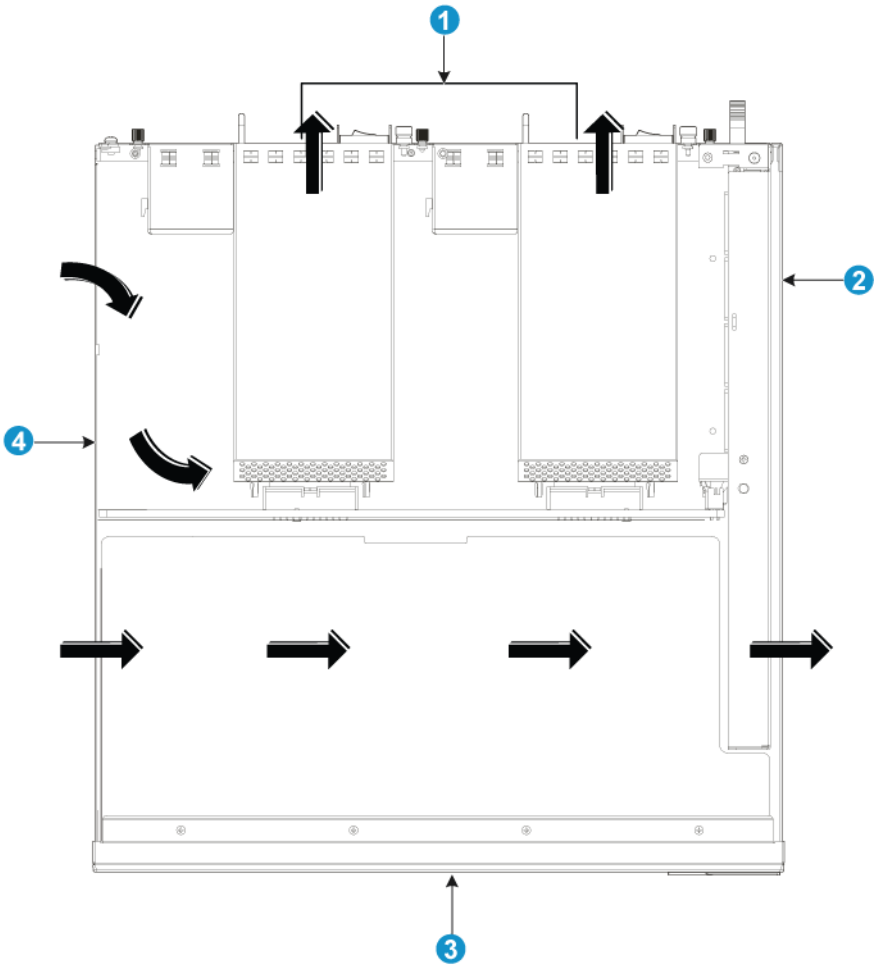
The chassis and the power supplies use separate air aisles. Make sure that both aisles have good ventilation.

A5820X-14XG-SFP+ (2 slots)/A5820X-14XG-SFP+ TAA (2 slots)

The A5820X-14XG-SFP+ (2 slots) and A5820X-14XG-SFP+ TAA (2 slots) switch chassis are 2U high and use separate air aisles for their upper half and lower half. Make sure that the two air aisles have good ventilation.

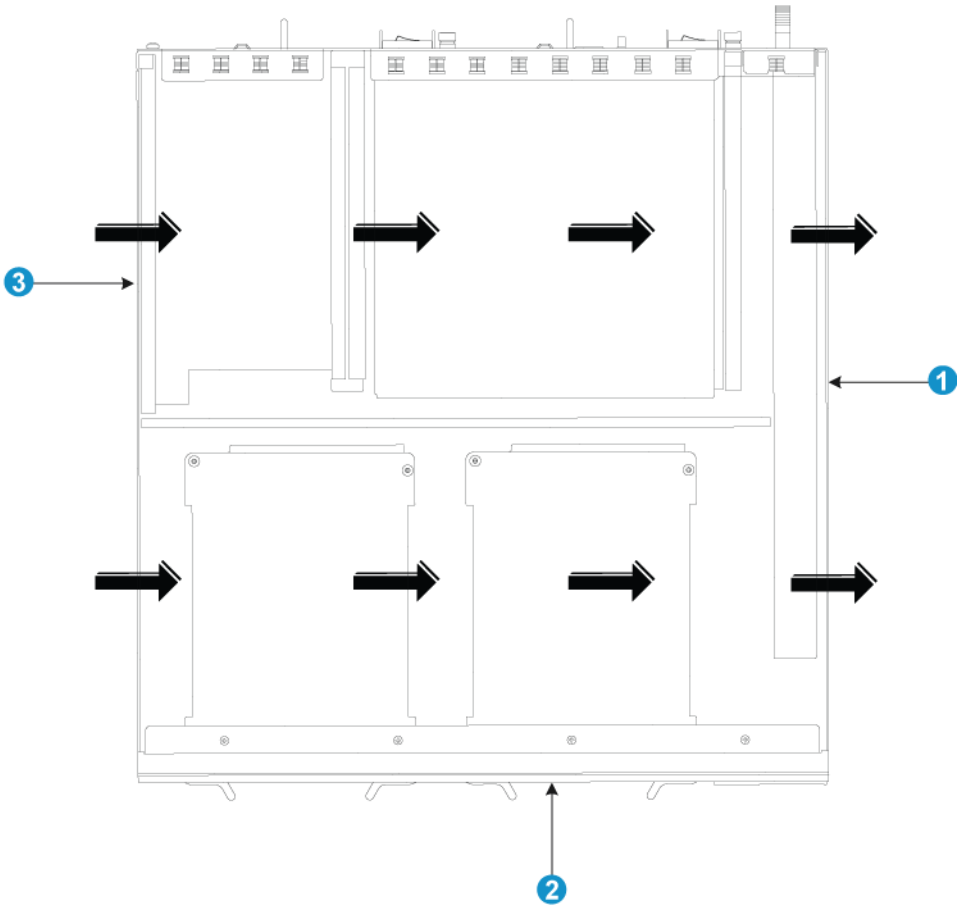
- Figure 106 shows the airflow through the lower half of the chassis. Cool air flows in from the left side of the chassis, circulates through the lower half of the chassis and the power supplies, and exhausts through the air vents in the fan tray panel and the power supply panels.
- Figure 107 shows the airflow through the upper half of the chassis. Cool air flows in from the left side of the chassis, circulates through the upper half of the chassis, including the OAP card and the interface card, and exhausts through the outlet air vents in the fan tray panel.

Figure 106 Airflow through the lower half of the chassis



(1) Outlet air vents in the power supply panels	(2) Outlet air vents in the fan tray panel
(3) Front panel	(4) Side inlet air vents

Figure 107 Airflow through the upper half of the chassis



(1) Outlet air vents in the fan tray panel	(2) Front panel
(3) Side inlet air vents	

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