

# ARISTA



## Quick Start Guide

### 7500N Series Modular Data Center Switch

**Arista Networks**

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## Overview

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### 1.1 Scope

This guide is intended for properly trained service personnel and technicians who need to install the following Arista Networks Data Center Switches:

- DCS-7504N
- DCS-7508N
- DCS-7512N
- DCS-7516N

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**Important!** Only qualified personnel should install, service, or replace this equipment.

Seul le personnel qualifié doit installer, service, ou remplacer cet équipement.

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### 1.2 Receiving and Inspecting the Equipment

Upon receiving the switch, inspect the shipping boxes and record any external damage. Retain packing materials if you suspect that part of the shipment is damaged; the carrier may need to inspect them.

If the boxes were not damaged in transit, unpack them carefully. Ensure that you do not discard any accessories that may be packaged in the same box as the main unit.

Inspect the packing list and confirm that you received all listed items. Compare the packing list with your purchase 7500N Series Modular Switches order. [Appendix B](#) provides a list of components included with the switch.

### 1.3 Installation Process

The following tasks are required to install and use the switch:

**Step 1** Select and prepare the installation site ([Section 2.1](#)).

**Step 2** Assemble the installation tools listed ([Section 2.2](#)).

**Step 3** Attach the mounting brackets and install the switch in an equipment rack ([Chapter 3](#)).

**Step 4** Connect the switch to the power source and network devices ([Chapter 4](#)).

**Step 5** Configure the switch ([Chapter 5](#)).

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**Important!** Class 1 Laser Product: This product has provisions to install Class 1 laser transceivers that provides optical coupling to the communication network. Once a Class 1 laser product is installed, the equipment is a Class 1 Laser Product (Appareil à Laser de Classe 1). The customer is responsible for selecting and installing the Class 1 laser transceiver and for insuring that the Class 1 AEL (Allowable Emission Limit) per EN/IEC 60825, CSA E60825-1, and Code of Federal Regulations 21 CFR 1040 is not exceeded after the laser transceiver have been installed. Do not install laser products whose class rating is greater than 1. Refer to all safety instructions that accompanied the transceiver prior to installation. Only Class 1 laser devices certified for use in the country of installation by the cognizant agency are to be utilized in this product.

Produit Laser de classe 1: Ce produit a des dispositions pour installer des émetteurs-récepteurs de laser de classe 1 qui offre de couplage au réseau de communication optique. Une fois un produit laser de classe 1 est installé, l'équipement est un produit Laser de classe 1 (Appareil à Laser de Classe 1). Le client est responsable pour sélectionner et installer l'émetteur/récepteur de laser de classe 1 et pour assurer que la classe 1 AEL (limite d'émission admissible) par EN/IEC 60825, CSA E60825-1, et Code des règlements fédéraux 21 CFR 1040 ne soit pas dépassée après avoir installé l'émetteur/récepteur de laser. Ne pas installer des appareils à laser dont la cote de classe est supérieure à 1. Voir toutes les consignes de sécurité qui ont accompagné l'émetteur-récepteur avant l'installation. Seuls appareils laser de classe 1 certifiés pour une utilisation dans le pays d'installation par l'organisme compétent doivent être utilisées dans ce produit.

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**Important!** Ultimate disposal of this product should be handled in accordance with all national laws and regulations.

Aucune pièce réparable par l'utilisateur à l'intérieur. Confiez toute réparation à un technicien qualifié.

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## 1.4 Safety Information

Refer to the Arista Networks document Safety Information and Translated Safety Warnings available at:

<https://www.arista.com/en/support/product-documentation>

## 1.5 Obtaining Technical Assistance

Any customer, partner, reseller or distributor holding a valid Arista Service Contract can obtain technical support in any of the following ways:

- **Email:** support@arista.com. This is the easiest way to create a new service request. Include a detailed description of the problem and the output of "show tech-support".
- **Web:** <https://www.arista.com/en/support>  
A support case may be created through the support portal on our website. You may also download the most current software and documentation, as well as view FAQs, Knowledge Base articles, Security Advisories, and Field Notices.
- **Phone:** +1 866-476-0000 or +1 408-547-5502.

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**Important!** No user serviceable parts inside. Refer all servicing to qualified service personnel.

Aucune pièce réparable par l'utilisateur à l'intérieur. Confiez toute réparation à un technicien qualifié.

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## 1.6 Specifications

[Table 1-1](#) lists the specifications of Arista Data Center modular switches covered by this guide.

**Table 1-1 Modular switch specifications**

	DCS-7504N	DCS-7508N	DCS-7512N	DCS-7516N
<b>Height</b>	7RU: 312 mm (12.25 inches)	13RU: 578 mm (22.75 inches)	18RU: 801 mm (31.53 inches)	29RU: 1289 mm (50.75 inches)
<b>Width</b>	483 mm (19 inches) maximum	483 mm (19 inches) maximum	483 mm (19 inches) maximum	483 mm (19 inches) maximum
<b>Depth</b>	795 mm (31.3 inches)	795 mm (31.3 inches)	849 mm (33.4 inches)	941 mm (37.1 inches)
<b>Weight</b>	222 lbs (101 kg) fully loaded	400 lbs (182 kg) fully loaded	661 lbs (300 kg) fully loaded	1025 lbs (465 kg) fully loaded
<b>DC Input Voltage (per circuit)</b>	-48/-60 V DC	-48/-60 V DC	-48/-60 V DC	-48/-60 V DC,
<b>DC Branch Circuit Protection</b>	100 A	100 A	100 A	100 A
<b>AC Input Voltage (per circuit)</b>	200-240 V	200-240 V	200-240 V	200-240 V
<b>AC Branch Circuit Protection</b>	20 A	20 A	20 A	20 A
<b>Input Power Circuits</b>	2 to 4 circuits	2 to 8 circuits	2 to 12 circuits	6 to 20 circuits
<b>Ambient Temperature</b>	0° to 40°C (32° to 104°F)	0° to 40°C (32° to 104°F)	0° to 40°C (32° to 104°F)	0° to 40°C (32° to 104°F)
<b>Storage Temperature</b>	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)
<b>Relative Humidity</b>	5 to 90%	5 to 90%	5 to 90%	5 to 90%
<b>Altitude</b>	0 to 3,000 meters (0 to 10,000 feet)	0 to 3,000 meters (0 to 10,000 feet)	0 to 3,000 meters (0 to 10,000 feet)	0 to 3,000 meters (0 to 10,000 feet)
<b>Cooling</b>	See Power draw configurations in <a href="#">Table 1-2</a>	See Power draw configurations in <a href="#">Table 1-2</a>	See Power draw configurations in <a href="#">Table 1-2</a>	See Power draw configurations in <a href="#">Table 1-2</a>

Table 1-2 lists power specifications of modular switch components.

Table 1-2 7500N Series power specifications

Module Type	Part Number	Power Draw (Typical / {Hot}Maximum)
<b>Supervisor Modules</b>	DCS-7500E-SUP	47 W / 87 W
	DCS-7500-SUP2	80 W / 120 W
	DCS-7516-SUP	88 W / 130 W
<b>Line Card Modules</b>	DCS-7500E-36Q-LC	450 W / 556 W
	DCS-7500E-72S-LC	212 W / 305 W
	DCS-7500E-48S-LC	197 W / 285 W
	DCS-7500E-12CM-LC	408 W / 495 W
	DCS-7500E-6C2-LC	300 W / 320 W
	DCS-7500E-12CQ-LC	414 W / 486 W
	DCS-7500E-48T-LC	318 W / 332 W
	DCS-7500R-36CQ-LC	758 W / 863W
	DCS-7500R-36Q-LC	368 W / 406 W
	DCS-7500R-48S2CQ-LC	202 W / 220 W
	DCS-7500RM-36CQ-LC	944 W / 1040 W
	DCS-7500R2-18CQ-LC	313 W / 350 W
	DCS-7500R2-36CQ-LC	601 W / 654 W
	DCS-7500R2A-36CQ-LC	830 W / 921 W
	DCS-7500R2M-36CQ-LC	845 W / 941 W
	DCS-7500R2AM-36CQ-LC	963 W / 1085 W
	DCS-7500R2AK-36CQ-LC	830 W / 921 W
	DCS-7500R2AK-48YCQ-LC	253 W / 276 W
	DCS-7500R-8CFPX-LC	900 W / 1180 W
	DCS-7500R3-36CQ-LC	410 W / 450 W
DCS-7500R3K-36CQ-LC	410 W / 450 W	
DCS-7500R3-24P-LC	538 W / 558 W	
DCS-7500R3-24D-LC	530 W / 550 W	
<b>Fabric Modules</b>	DCS-7504E-FM	80 W / 105 W
	DCS-7508E-FM	155 W / 195 W
	DCS-7504R-FM	121 W / 163 W / 237 W
	DCS-7508R-FM	224 W / 298 W / 433 W
	DCS-7512R-FM	570 W / 680 W / 760 W
	DCS-7516R-FM	570 W / 770 W / 1053 W
	DCS-7504R3-FM	220 W / 287 W
	DCS-7508R3-FM	280 W / 387 W
<b>Power Supply</b>	PWR-2700-DC-R (Fan Power)	43 W / 47 W
	PWR-3KT-AC RED (Fan Power)	43 W / 47 W
	PWR-3K-DC-RED (Fan Power)	43 W / 47 W
<b>7504N Series System</b>	Full chassis loaded with 2 DCS-7500E-SUP 4 DCS-7504E-FM 4 DCS-7500E-36Q-LC	3150 W / 3400 W
	Full chassis loaded with 2 DCS-7500-SUP2 4 DCS-7504R-FM 4 DCS-7500E-36CQ-LC	3500 W / 4500 W

Table 1-2 7500N Series power specifications (Continued)

Module Type	Part Number	Power Draw (Typical / {Hot}Maximum)
<b>7508N Series System</b>	Full chassis loaded with 2 DCS-7500E-SUP 6 DCS-7508E-FM 8 DCS-7500E-36Q-LC	5500 W / 6400 W
	Full chassis loaded with 2 DCS-7500-SUP2 6 DCS7508R-FM 8 DCS-7500E-36Q-LC	5820 W / 6880 W / 7750 W
	Full chassis loaded with 2 DCS-7500-SUP2, 6 DCS7508R-FM 8 DCS-7500R-36CQ-LC	7720 W / 8990 W / 9880 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7508R-FM, 8 DCS-7500R-36Q-LC	4600 W / 5360 W / 6230 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7508R-FM 8 DCS-7500R-48S2CQ-LC	3270 W / 3900 W / 4740 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7508R-FM 8 DCS-7500RM-36CQ-LC	9100 W / 10300 W / 11000 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7508R-FM 8 DCS-7500R2-36CQ-LC	6400 W / 7300 W / 7900 W
<b>7512N Series System</b> <b>Note:</b> 7512N systems support only 7500R and 7500R3 Series Line cards.	Full chassis loaded with 2 DCS-7500-SUP2, 6 DCS75012R-FM 12 DCS-7500R-36CQ-LC	12800 W / 14700 W / 15300 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7512R-FM 9 DCS-7500R-36CQ-LC 3 DCS-7500R-36Q-LC	11600 W / 13300 W / 13900 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7512R-FM 3 DCS-7500R-36CQ-LC 9 DCS-7500R-36Q-LC	9300 W / 10600 W / 11200 W
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7512R-FM 12 DCS-7500RM-36CQ-LC	14400 W / 16600 W / 18000 W*
	Full Chassis loaded with 2 DCS-7500-SUP2 6 DCS-7512R-FM 12 DCS-7500R2-36CQ-LC	10200 W / 11800 W / 13200 W

Table 1-2 7500N Series power specifications (Continued)

Module Type	Part Number	Power Draw (Typical / {Hot}Maximum)
<b>7516N Series System</b> <b>Note:</b> 7516N systems support only 7500R Series Line cards.	Full chassis loaded with 2 DCS-7516-SUP, 6 DCS7516R-FM 16 DCS-7500R-36CQ-LC 16 PWR-3KT-AC-RED	16000 W / 19000 W / 21000 W
	Full chassis loaded with 2 DCS-7516-SUP, 6 DCS7516R-FM 16 DCS-7500R2-36CQ-LC 16 PWR-3KT-AC-RED	13500 W / 15600 W / 17500 W
	Full chassis loaded with 2 DCS-7516-SUP, 6 DCS7516R-FM 16 DCS-7500RM-36CQ-LC 20 PWR-3KT-AC-RED	19000 W / 22000 W / 24000 W

Note1: Includes typical power supply conversion inefficiency. Contact your local Sales Engineer for 7500 power calculator details.

Note2: Power numbers given as Typical/Maximum or Typical/Hot/Maximum where Hot is defined as 40°C Sea Level.

\* Not N+N redundant power at worst case Temp/Elevation.

## Preparation

### 2.1 Site Selection

The following criteria should be considered when selecting a site to install the switch:

- **Floor Space:** Install the switch in an area that provides adequate clearance for removing front and rear components.

Figure 2-1 displays the dimensions and footprint of the switch clearance requirements for the switches.

Figure 2-1: Clearance requirements and footprint for switches

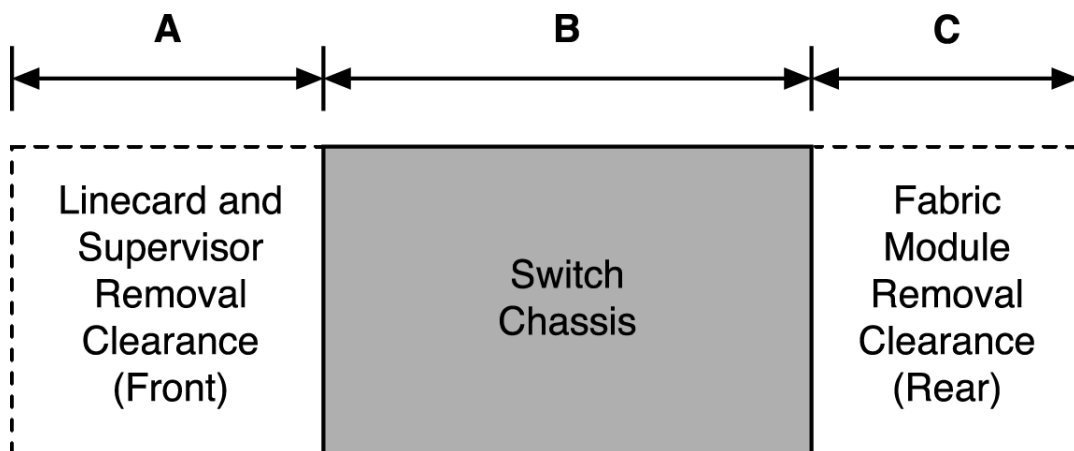


Table 2-1 shows the dimensions for each of the modular switches.

Table 2-1 Clearance requirements and footprint dimensions

Switch	Clearance Requirements Dimensions		
	A	B	C
DCS-7504N	60 cm (24 in.)	88.6 cm (34.9 in.)	36.8 cm (14.5 in.)
DCS-7508N	60 cm (24 in.)	88.6 cm (34.9 in.)	36.8 cm (14.5 in.)
DCS-7512N	60 cm (24 in.)	94.0 cm (37.0 in.)	50.8 cm (20.0 in.)
DCS-7516N	60 cm (24 in.)	94.8 cm (37.3 in.)	50.8 cm (20.0 in.)

- **Temperature and Ventilation:** For proper ventilation, install the switch where there is ample airflow to the front and back of the switch. The temperature should not go below 0° or exceed 40°C.

**Important!** To prevent the switch from overheating, do not operate it in an area where the ambient temperature exceeds 40°C (104°F).

Pour empêcher l'interrupteur de surchauffe, ne pas utiliser il dans une zone où la température ambiante est supérieure à 40°C (104°F).

- **Airflow Orientation:** The fans direct air from the front panel to the rear panel. Orient the front panel toward the cool aisle.
- **Rack Space Requirements:** [Table 2-2](#) shows the rack space requirements for each of the modular switches.

Table 2-2 Rack space requirements

Switch	Rack or cabinet (standard 19" EIA)		Switch Height (RU)
	2-post	4-post	
DCS-7504N	Yes	Yes	7
DCS-7508N	Yes	Yes	13
DCS-7512N	No	Yes	18
DCS-7516N	No	Yes	29

**Note** The accessory kit provides the required mounting brackets or shelf for each switch.

- **Power Requirements:** Arista switches require a minimum number of operating power supplies in the top section of all chassis, AC or DC and for each power domain of switches with multiple power domains. Refer to [Power Supply Specifications](#) for more details regarding your switch.

**Important!** DC cables should be protected with circuit over-current protection devices and circuit disconnect means. To power off a unit, power must be disconnected from ALL power cables.

DC câbles doivent être protégés avec dispositifs de protection de surintensité circuit et moyens de déconnexion du circuit. Pour alimenter un appareil hors tension, l'alimentation doit être débranchée de tous les câbles d'alimentation.

- **Other Requirements:** Select a site where liquids or objects cannot fall onto the equipment and foreign objects are not drawn into the ventilation holes. Verify these guidelines are met:
  - Clearance areas to the front and rear panels allow for unrestricted cabling.
  - All front and rear panel indicators can be easily read.
  - AC power cords can reach from the AC power outlet to the input connectors.
  - DC power cables can reach from the DC power distribution unit to the input connectors.

## 2.2 Tools and Parts Required for Installation

The following tools are required to install a modular switch:

- Mechanical device capable of lifting chassis being installed ([Table 1-1 on page 3](#)).

- Torque reading nut driver (for DC power supplies)
- #2 Phillips head screwdriver
- Torque reading screwdriver using #2 Pozidriv or 1/4" flat bit (Needed for PWR-2700-DC-R)

**Two-post and four-post rack mounts:** [Table 2-3](#) shows the rack components required for each of the modular switches.

**Table 2-3 Rack component requirements**

Switch	Rack or cabinet (standard 19" EIA)		
	Rack screws <sup>1</sup>	Rack nuts <sup>2</sup>	Notes
DCS-7504N	8	8	2-post installation
	10	10	4-post installation
DCS-7508N	10	10	2-post installation
	16	16	4-post installation
DCS-7512N	22	22	4-post installation
DCS-7516N	24	24	4-post installation

<sup>1</sup> The accessory kit includes screws that fit many common equipment racks.

<sup>2</sup> Rack nuts are only for racks with unthreaded, rack-post holes.

## 2.3 Electrostatic Discharge (ESD) Precautions

Observe these guidelines to avoid ESD damage when installing or servicing the switch.

- Assemble or disassemble equipment only in a static-free work area.
- Use a conductive work surfaces (such as an anti-static mat) to dissipate static charge.
- Wear an ESD wrist strap to dissipate static charge accumulation.
- Minimize handling of assemblies and components.
- Keep replacement parts in their original static-free packaging.
- Remove all plastic, foam, vinyl, paper, and other static-generating materials from the work area.
- Use tools that do not create ESD.





## Rack Mounting the Switch

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The accessory kit provides components for installing the switch in two-post and four-post racks.

- [Section 3.1.1](#) provides instructions for mounting the switch in a two-post rack.
- [Section 3.1.4](#) provides instructions for mounting the 7504N and 7508N switches in a four-post rack.
- [Section 3.2](#) provides instructions for mounting the 7512N and the 7516N switches in a shelf four-post rack.

The rack mounting procedure is identical for the 7504N and 7508N Series switches. Illustrations in this chapter depict the mounting of an unpopulated 8-slot chassis.

The 7512N and the 7516N switches require a different mounting shelf, and only for the four-post rack. Illustrations in this chapter depict the mounting of an unpopulated 12-slot chassis and a 16-slot chassis.

After completing the instructions for your rack type, proceed to [Chapter 4](#).

### 3.1 7504N and 7508N Rack Mounting

#### 3.1.1 Two-Post Rack Mount

To mount the switch to a two-post rack, assemble mounting brackets to the middle of the chassis, then attach the brackets to the rack. The switch does not support a front or rear mount into a two-post rack.

The accessory kit includes the following two-post mounting parts:

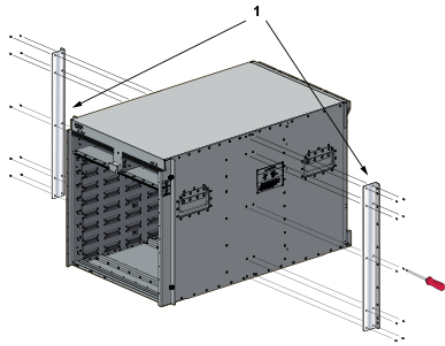
- 2 center-mount brackets
- 20 M4x8 pan-head Phillips screws

#### 3.1.2 Attaching Mounting Brackets to the Chassis

**Step 1** Orient the switch chassis and the two center-mount brackets ([Figure 3-1 on page 12](#)).

Position the flanges that attach to the rack posts toward the rear of the chassis.

**Step 2** Attach both center-mount brackets to the chassis. Each bracket requires ten M4x8 pan-head Phillips screw.

**Figure 3-1: Attaching the center-mount brackets**

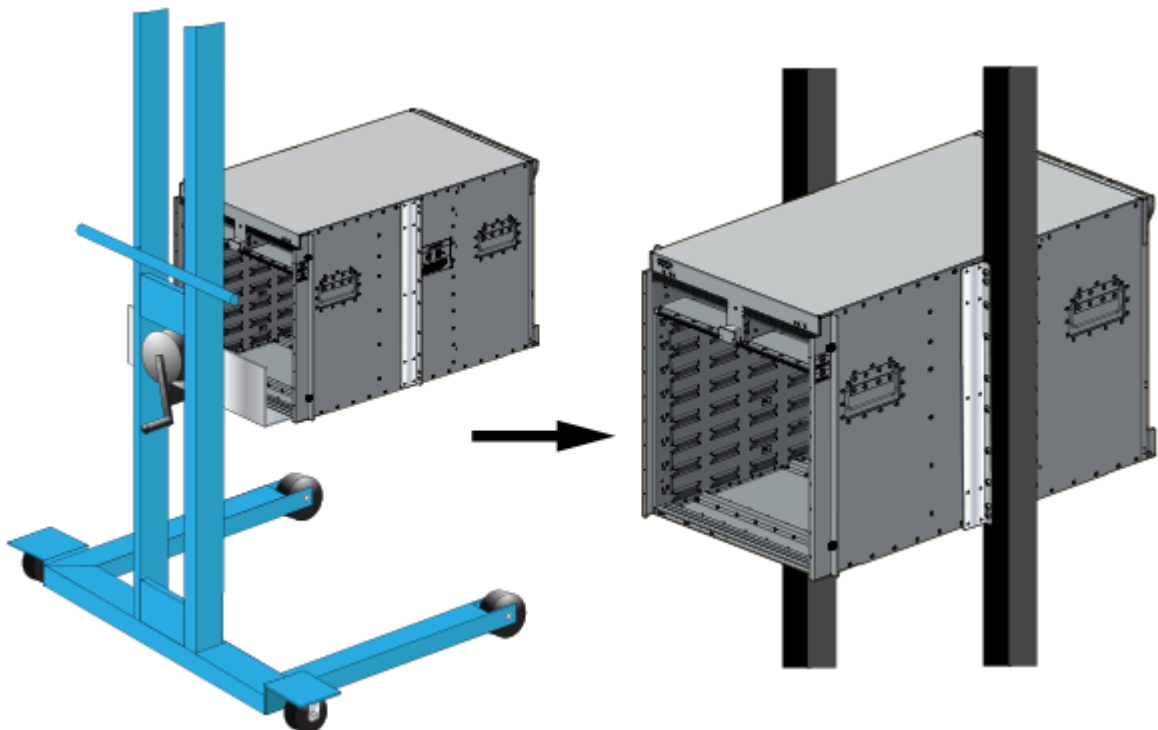
1 Center mount brackets

### 3.1.3 Inserting the Switch into the Rack

**Step 1** Move the chassis to the rack using a mechanical lift.

If modules are inserted in the chassis, use the lift carefully to avoid damaging any components.

**Step 2** Lift the chassis into the rack. Position the flanges against the rack posts (Figure 3-2).

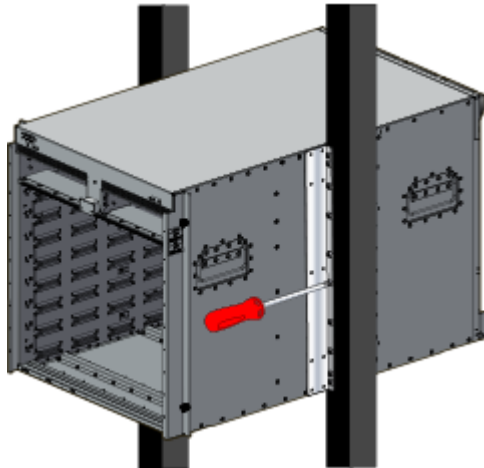
**Figure 3-2: Lifting the chassis into the two post rack**

**Step 3** Select mounting screws that fit your equipment rack.

**Step 4** A minimum of four screws is required on each side of the chassis. The accessory kit provides screws that fit many common equipment racks. When installing the switch into a rack with unthreaded post holes, nuts are also required to secure the switch to the rack posts.

**Step 5** Attach the bracket flanges to the rack posts ([Figure 3-3 on page 13](#)). Space the screws evenly along the flange.

**Figure 3-3: Attaching flanges to the rack post**



**Step 6** After completing the two-post installation, proceed to [Chapter 4](#).

### 3.1.4 Four-Post Rack Mount

The switch is mounted onto a four-post rack by assembling a shelf into the rack, then placing the switch on the shelf.

Illustrations in this chapter depict the mounting of an unpopulated 8-slot chassis.

The accessory kit provides the following four-post mounting parts:

- 2 front brackets
- 4 shelf supports
- 2 back brackets (not needed for racks with threaded holes)
- left shelf
- right shelf

[Figure 3-4 on page 14](#) displays the front four-post mounting parts. [Figure 3-5 on page 15](#) displays the rear four-post mounting parts.

### 3.1.5 Assembling the Shelf

**Step 1** Attach the front bracket and shelf support to the left front rack post, as shown in [Figure 3-4 on page 14](#). An up arrow is printed on the shelf support to indicate its proper orientation.

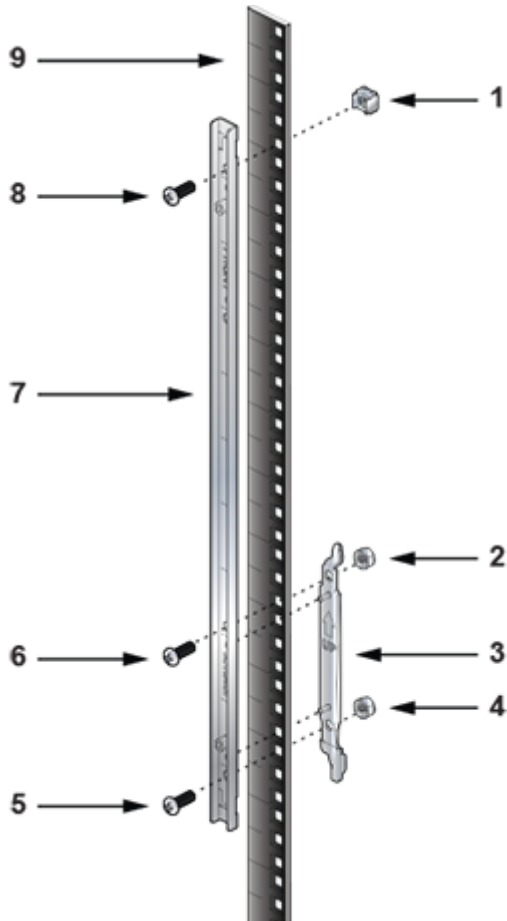
**Unthreaded rack holes:** Use the M6 screws and cage nuts supplied in the accessory kit.

**Threaded rack holes:** Attach the front bracket to the post with screws that can be threaded through the rack post.

**Step 2** Secure the shelf support to the post with nuts that fit the screws threaded through the post.

- 7504N - Requires six M6 screws and cage nuts.
- 7508N - Requires eight M6 screws and cage nuts.

Figure 3-4: Left front post assembly: Four post rack mount



1	M6 cage nut	4	M6 nut	7	Front bracket
2	M6 nut	5	M6 screw	8	M6 screw
3	Shelf support	6	M6 screw	9	Front rack post

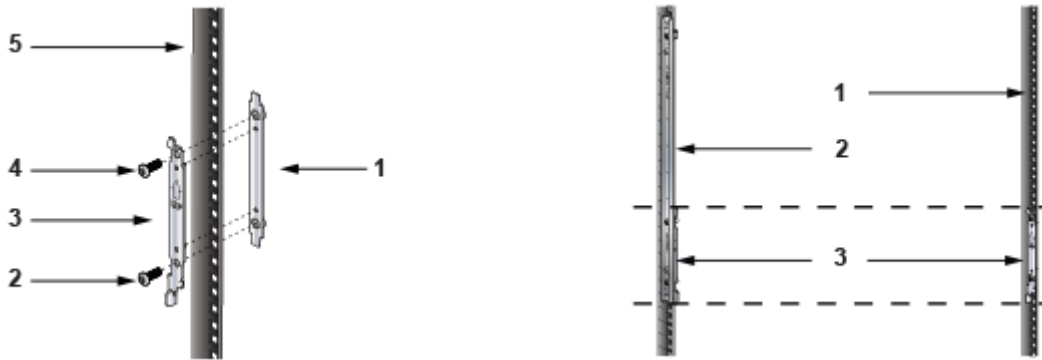
**Step 3** Repeat step 1 on the right front rack post, assembling the parts at the same vertical level as those on the left rack post.

**Step 4** Attach the shelf support and back bracket to the left rear post ([Figure 3-5-left](#)). The shelf support must be assembled at the same vertical level on the front and rear posts. An up arrow is printed on the shelf support to indicate its proper orientation.

**Unthreaded rack holes:** Attach the parts as displayed in [Figure 3-5-left](#).

**Threaded rack holes:** Attach the shelf support to the post with screws that thread into the rack post. The back bracket is not required on threaded racks.

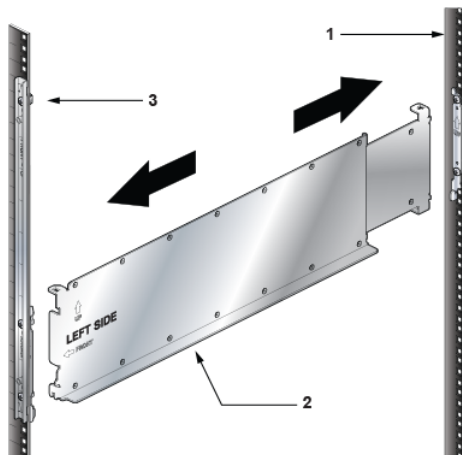
Figure 3-5: Left rear post assembly and shelf support orientation



- |   |               |   |                |   |                 |
|---|---------------|---|----------------|---|-----------------|
| 1 | Back bracket  | 4 | M6 screw       | 1 | Rear rack post  |
| 2 | M6 screw      | 5 | Rear rack post | 2 | Front rack post |
| 3 | Shelf support |   |                | 3 | Shelf supports  |

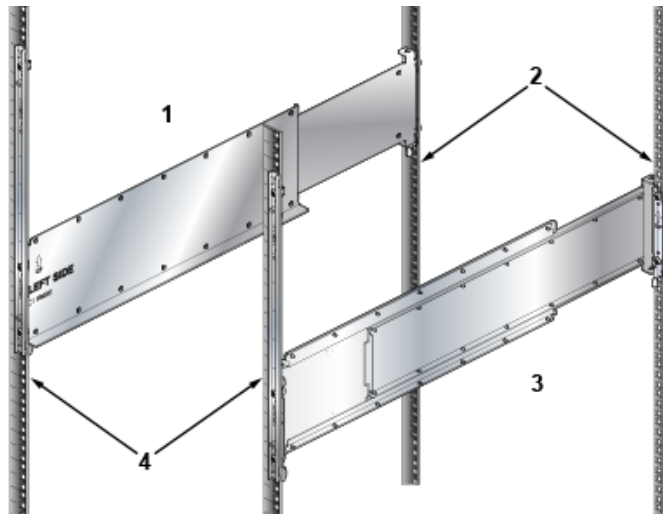
- Step 5** Adjust the left shelf by sliding its components to fit between the front left and rear left rack posts, as shown in [Figure 3-6](#).
- Step 6** Lift the left shelf above the shelf supports installed on the front left and rear left rack posts (step 1 and step 4). Align the holes and hook with the stubs on the brackets as shown in [Figure 3-7](#). Lower the shelf such that the bracket stubs are inserted into the shelf holes and hook.
- Step 7** Press down firmly on the shelf to ensure it is seated securely on the rack posts.
- Step 8** Install the right shelf on the right front and right rear rack posts by repeating step 5 and step 6 to obtain the rack configuration shown in [Figure 3-8](#).

Figure 3-6: Adjusting the left shelf



- |   |                 |
|---|-----------------|
| 1 | Rear rack post  |
| 2 | Left shelf      |
| 3 | Front rack post |

Figure 3-7: Both switch shelves installed



- |   |                 |   |                  |
|---|-----------------|---|------------------|
| 1 | Left shelf      | 3 | Right shelf      |
| 2 | Rear rack posts | 4 | Front rack posts |

### 3.1.6 Inserting the Switch into the Rack

The rack mounting assembly is identical for the 7504N and 7508N switches. Illustrations in this chapter depict the mounting of an unpopulated 8-slot chassis.

**Step 1** Move the chassis to the rack using a mechanical lift ([Figure 3-8](#)).

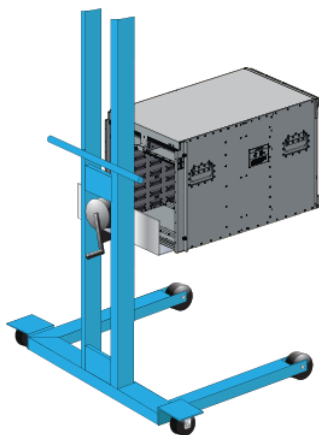
---

**Note** If modules are inserted in the chassis, use the lift carefully to avoid damaging any components.

---

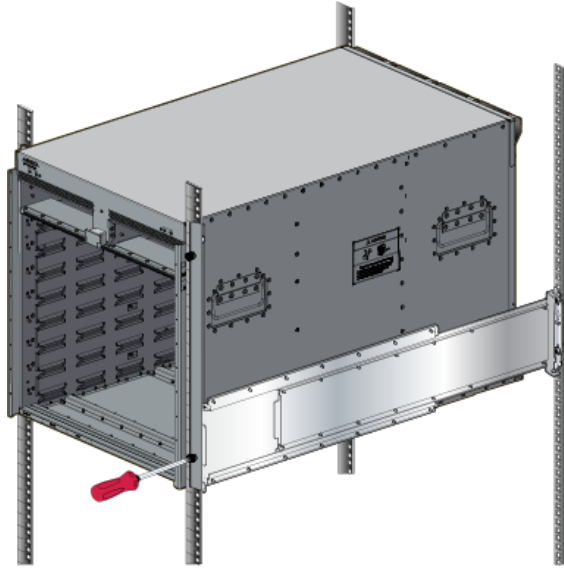
**Step 2** Lift the chassis into the rack.

Figure 3-8: Lifting the chassis



**Step 3** Secure the chassis by tightening the thumbscrews on the front flanges into the rack posts (Figure 3-9).

**Figure 3-9: Secure the switch to the rack shelf**



**Step 4** After completing the Four-Post Installation, proceed to [Chapter 4](#).

## 3.2 7512N and 7516N Shelf Rack Mount Installation

The rack mounting assembly is for the 7512N and 7516N Series switch.

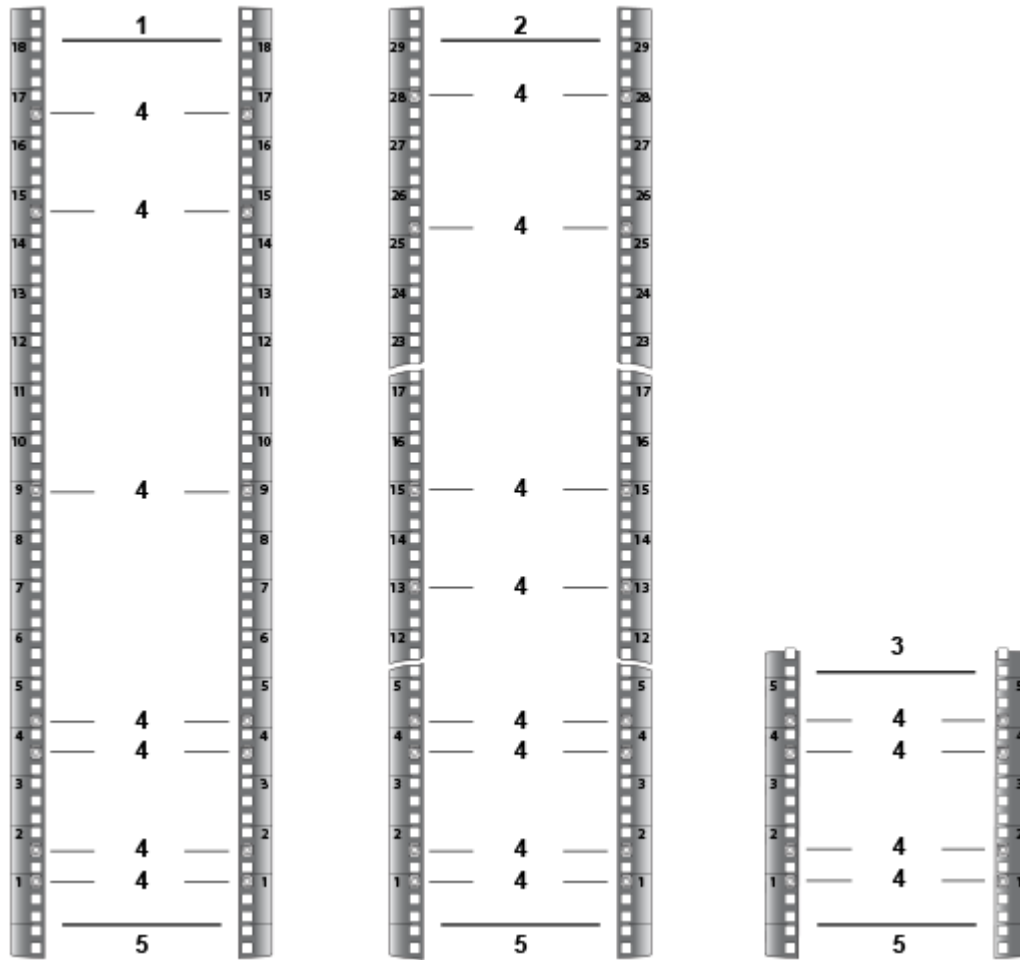
### 3.2.1 Assembling the Shelf

**Step 1** For threaded racks, remove the plastic alignment spacers and use the 3 mm diameter alignment pins (Figure 3-10).

**Figure 3-10: Alignment spacer**



Figure 3-11: Rack mount shelf orientation



- |   |                             |   |                    |
|---|-----------------------------|---|--------------------|
| 1 | 7512N Top (Front)           | 4 | Cage nut locations |
| 2 | 7516N Top (Front)           | 5 | Switch Bottom      |
| 3 | Rack (Rear - both switches) |   |                    |



Table 3-1 lists the cage nut locations for the switches on the rack front and rear.

**Table 3-1 Cage nut locations on rack**

Switch	Cage Nut Locations
<b>7512N</b> <b>(Front of the rack)</b>	Top hole 1st U Middle hole 2nd U Middle hole 4th U Bottom hole 5th U Top hole 9th U Middle hole 15th U Middle hole 17th U
<b>7516N</b> <b>(Front of the rack)</b>	Top hole 1st U Middle hole 2nd U Middle hole 4th U Bottom hole 5th U Top hole 13th U Top hole 16th U Bottom hole 26th U Top hole 28th U
<b>7512N and 7516N</b> <b>(Rear of the rack)</b>	Top hole 1st U Middle hole 2nd U Middle hole 4th U Bottom hole 5th U

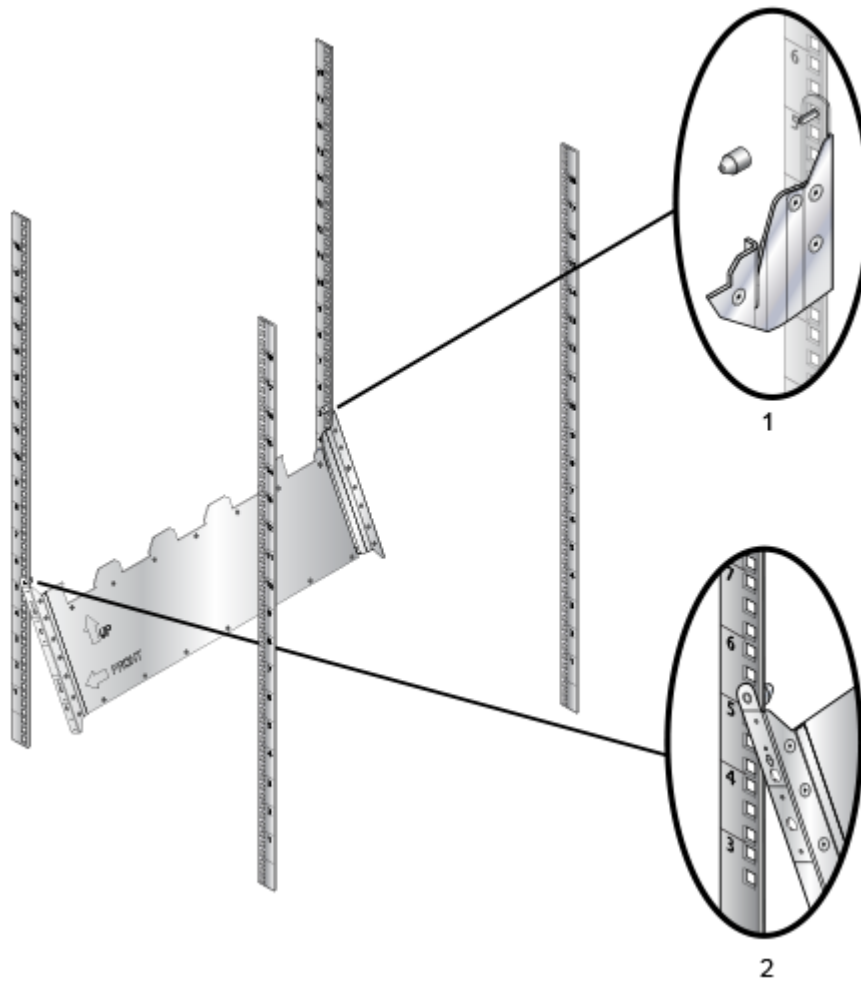
**Step 2** Attach the front bracket of the shelf support to the left front rack post, as shown in [Figure 3-11](#). An up arrow is printed on the shelf support to indicate its proper orientation.

**Unthreaded rack holes:** Use the M6 screws and cage nuts supplied in the accessory kit.

**Threaded rack holes:** Attach the front bracket to the post with screws that can be threaded through the rack post.

**Step 3** Hook the alignment pin to the bottom hole of the 6th U from bottom ([Figure 3-12 on page 20](#)).

Figure 3-12: Left front post assembly



- 1 For threaded rack, remove the plastic alignment spacer and use 3 mm diameter alignment pin as shown
- 2 Hook the alignment pin to the bottom hole of the 6th U from the bottom

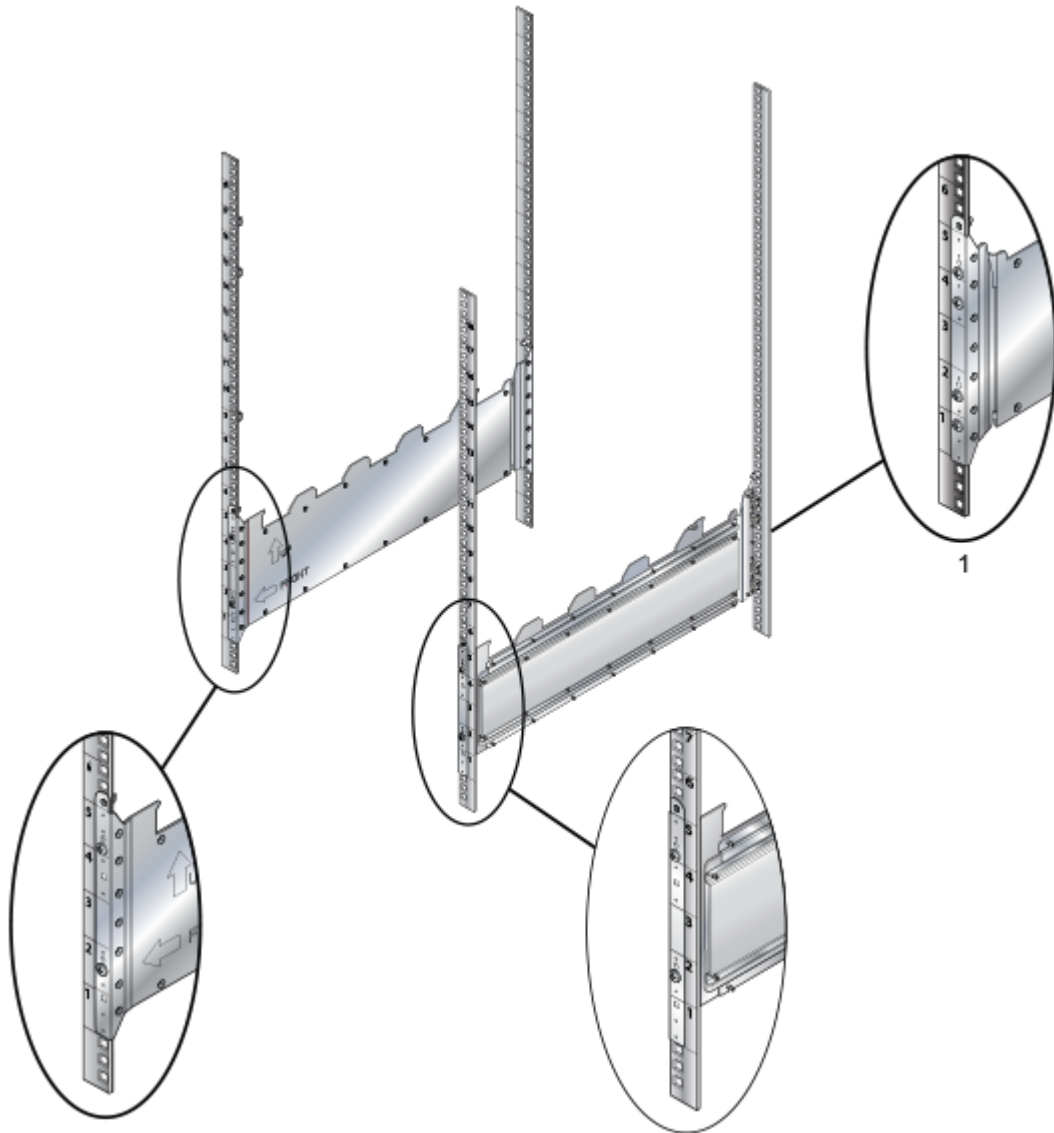
**Step 4** Repeat step 1 and 3 on the right front rack post, assembling the parts at the same vertical level as those on the left rack post.

**Step 5** Attach the shelf support and back bracket to the left rear post ([Figure 3-13 on page 21](#)). The shelf support must be assembled at the same vertical level on the front and rear posts. An up arrow is printed on the shelf support to indicate its proper orientation.

**Unthreaded rack holes:** Use the M6 screws and cage nuts supplied in the accessory kit.

**Threaded rack holes:** Attach the shelf support to the post with screws that thread into the rack post.

Figure 3-13: Left rear post assembly and shelf support orientation



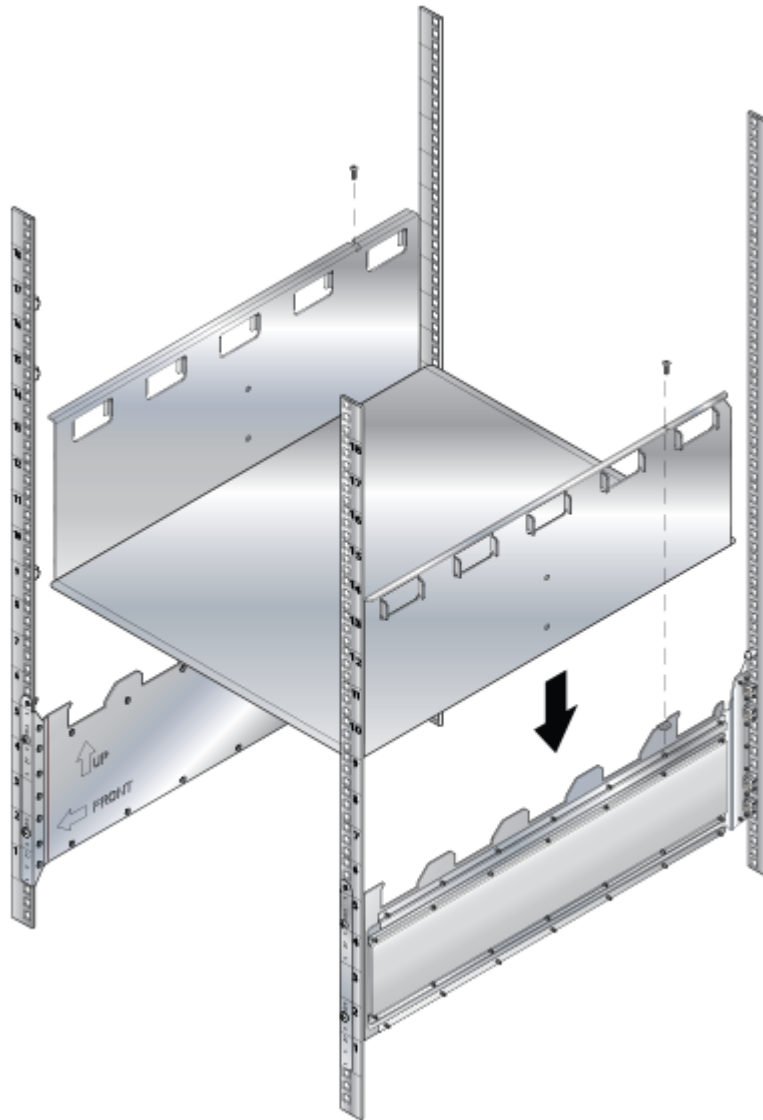
1 Install all four screws in the back

**Step 6** Lift the shelf above the shelf supports installed on the left and right rack posts (step 2 and step 3). Align the holes and hook with the stubs on the brackets. Lower the shelf such that the shelf-support-bracket stubs are inserted into the shelf holes and hook ([Figure 3-14 on page 22](#)).

**Step 7** Rear: Fasten screws to all holes

- Front: Fasten screws only where indicated with arrows (2x).
- Rear: Fasten screws to all holes.

Figure 3-14: Lower the shelf into the bracket stubs



**Step 8** Press down firmly on the shelf to ensure it is seated securely on the rack posts.

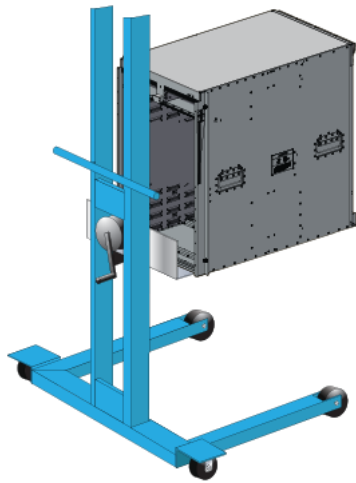
### 3.2.2 Inserting the Switch into the Rack

The rack mounting assembly is identical for all 7500N Series switches. Illustrations in this chapter depict the mounting of an unpopulated 12- or 16-slot chassis.

**Step 1** Move the chassis to the rack using a mechanical lift ([Figure 3-15 on page 23](#) shows the 12-slot).

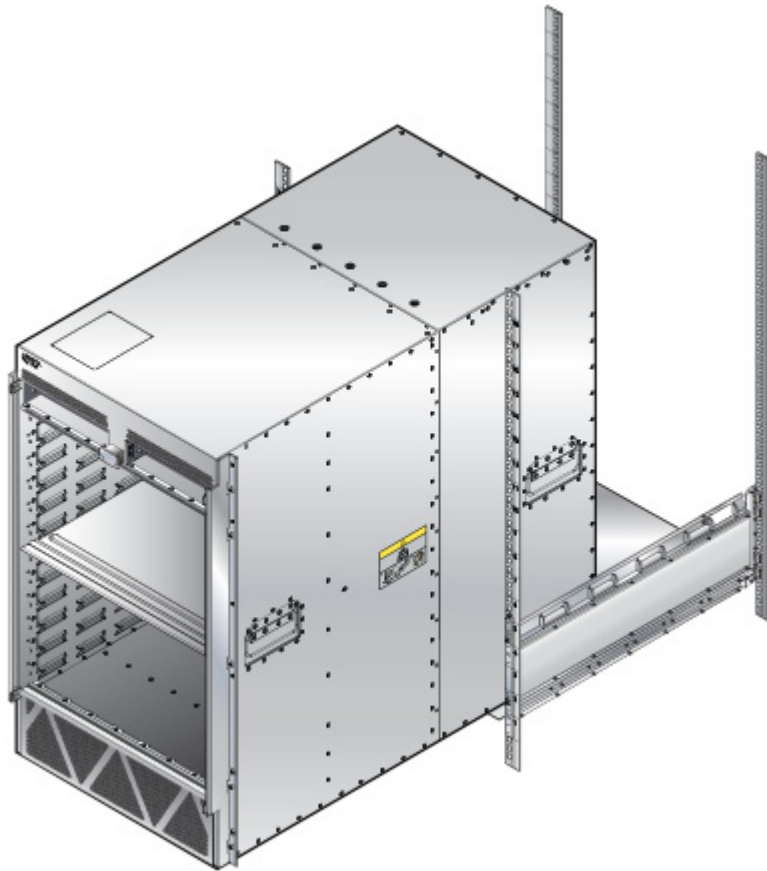
If modules are inserted in the chassis, use the lift carefully to avoid damaging any components.

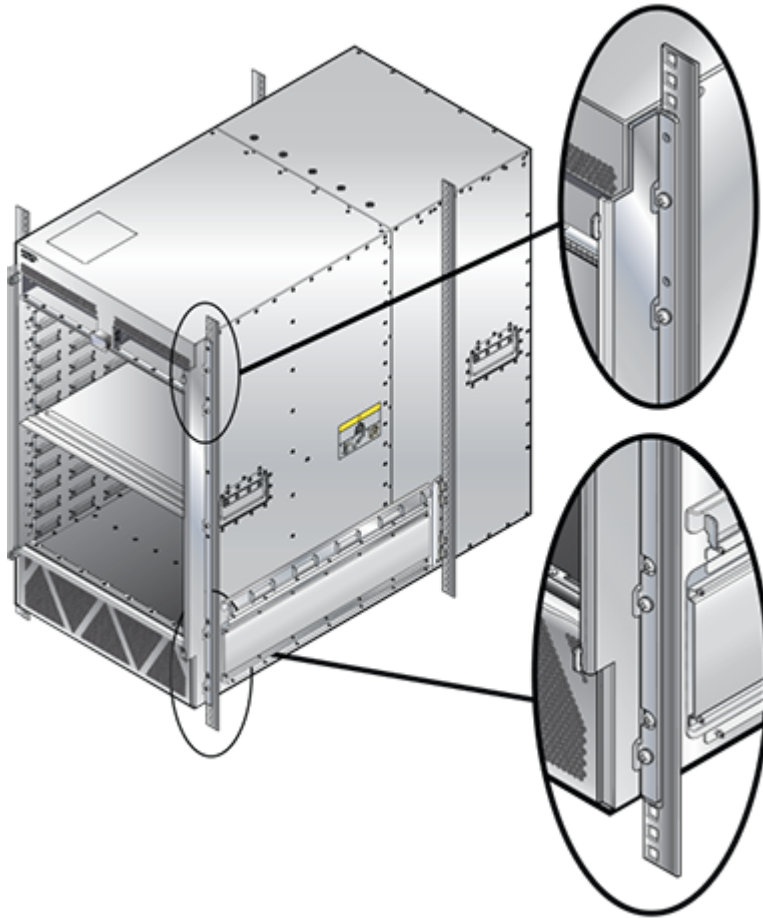
Figure 3-15: Lifting the 12-slot chassis



**Step 2** Carefully install the switch into the rack.

Figure 3-16: Installing the switch into the rack



**Figure 3-17: Secure the chassis to the rack**

- Step 3** Ensure the rack kit is firmly installed.
- Step 4** Secure the chassis by use of 10 rack screws attaching the ears of the chassis to the front flanges of the rack posts ([Figure 3-17](#)).
- Step 5** After completing the Shelf Rack Mount Installation, proceed to [Chapter 4](#).

## Cabling the Modular Switch

---

### 4.1 Cabling the Power Supplies

Before you begin, refer to the Arista Networks document Compliance and Safety Guide available at: <https://www.arista.com/en/support/product-documentation>.

---

**Important!** Power down the switch: Remove all power cords from the power inlets.

Mettez le commutateur: Retirez tous les cordons d'alimentation des prises d'alimentation.

---

**Important!** Installation of this equipment must comply with local and national electrical codes. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.

Installation de cet équipement doit être conformes aux codes électriques locaux et nationaux. Si nécessaire, consulter les organismes de réglementation appropriés et des autorités de contrôle pour assurer la conformité.

---

**Note** Many configurations will require additional power supplies.

Nombreuses configurations exigera des alimentations supplémentaires.

---

**Important!** All power supply slots must be filled with either a power supply or blank to ensure proper air flow.

Tous les emplacements d'approvisionnement de puissance doivent être remplis avec une alimentation ou vide pour assurer un débit d'air appropriée.

---

**Important!** Read all installation instructions before connecting the system to the power source.

Lire toutes les instructions d'installation avant de brancher le système à la source d'alimentation.

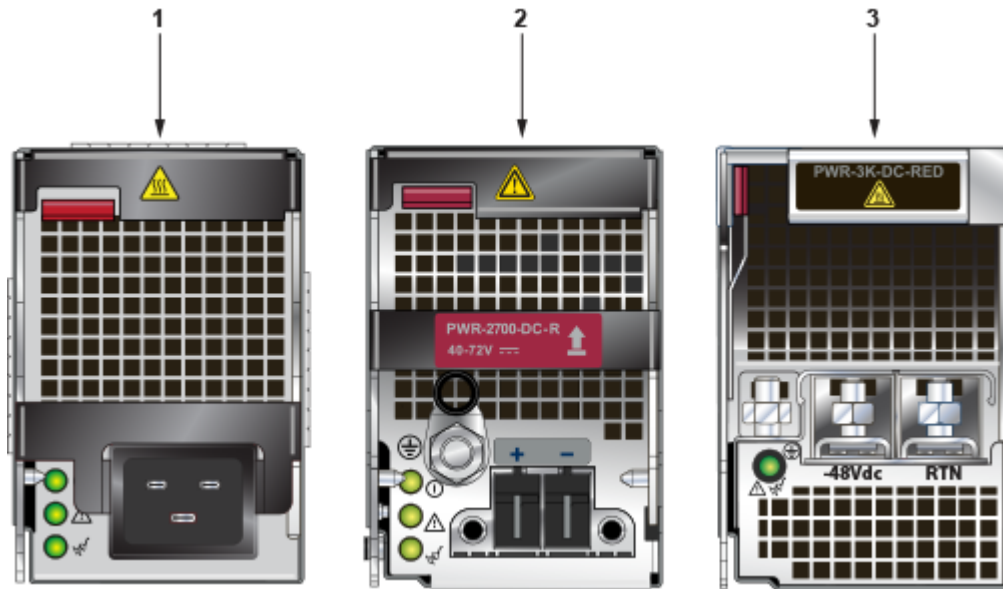
---

The 7500N chassis requires the connection of at least two operating power supplies in the top row to active circuits.

Each power supply includes a fan that maintains proper power supply temperature and cools the supervisor modules. The appendices display the location of components for all switches described in this guide.

Figure 4-1 shows the supported power supplies for the 7500N family of switches.

Figure 4-1: Supported Power Supplies



- 1 PWR-3KT-AC-Red
- 2 PWR-2700-DC-R
- 3 PWR-3K-DC-Red

## 4.2 Cabling Secondary Ground

Appendix C displays the location of the secondary grounding pads on front panel of the switch chassis. After mounting the switch into the rack, connect at least one of the secondary grounds to the data center ground. After the switch is grounded, ESD wrist straps can be grounded by connecting them to one of the attach points.

---

**Important!** Grounding wires and grounding lugs are not supplied. Wire size should meet local and national installation requirements. Commercially available 2 or 4 AWG wire is recommended for installations in the U.S.

À la terre et de mise à la terre fils cosses ne sont pas fournis.  
Calibre des fils doit satisfaire des exigences de l'installation locale et nationale.  
Disponible dans le commerce 2 ou 4 AWG fil est recommandé pour les installations aux États-Unis.

---

**Important!** This equipment must be grounded. Never defeat the ground conductor. This unit requires over-current protection.

Cet équipement doit être mis à la terre. Ne jamais modifier le conducteur de terre. Cet appareil nécessite de protection contre les surintensités.

---



---

**Important!** Secondary Grounding wires, lugs and screws (M4 x 0.7) are not supplied.

Secondaire à la terre, câbles, cosses et vis (M4 x 0.7) ne sont pas fournis.

---

Secondary ground locations on the switches are displayed in [Appendix D](#).

**Power down the switch:** Remove all power cords from the power inlets.

## 4.3 Cabling the AC Power Supply

[Appendix D](#) displays the rear panel location of power supplies and fabric modules.

The switch uses power cables with IEC-320 C-19 plugs. The accessory kit provides IEC-320 C-19 to C-20 power cables, each two meters long. To insert a power cable, plug the power cables into the inlet.

## 4.4 Cabling the DC Power Supply

---

**Note** The -48V and Battery-Return leads are a pair and should run adjacent to each other and be approximately the same length.

Le - 48V et câbles de batterie-retour sont une paire courir à côté de l'autre et doivent être à peu près la même longueur.

---

### 4.4.1 DC Power Supplies

The 7500N Series chassis supports two DC power supplies.

- [PWR-3K-DC-RED Power Supply](#)
- [DC Power Adapter Installation for PWR-2700-DC-R](#)

### 4.4.2 Wire and Lug Preparation

Before performing any installation actions, ensure power is removed from DC circuits by turning off the power line servicing the circuits. Prepare the stranded wiring before you begin a DC power installation.

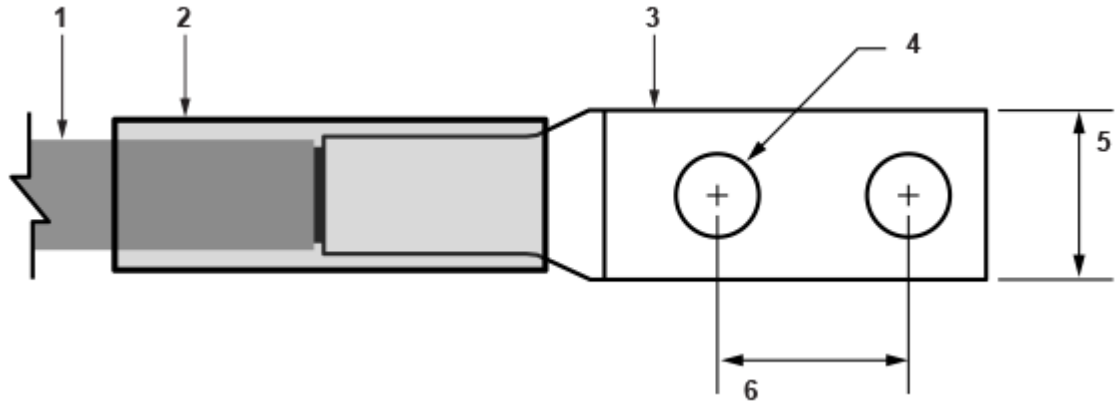
**Step 1** Stranded copper wiring is required.

- Commercially available 2 to 4 AWG wire is recommended for installations in the U.S.
- Wire size should meet local and national installation requirements.
- Grounding wires and grounding lugs are not supplied.
- Strip the wires to the appropriate length for the lugs.

The wires connecting the DC power supply to the power source must meet the following requirements:

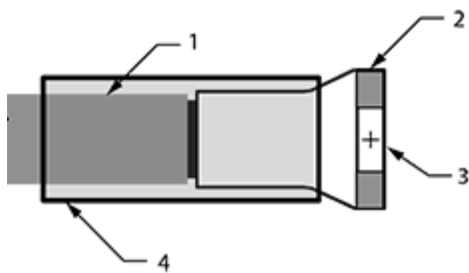
- DC Input Wire Size: 2 – 4 AWG (33.6 mm<sup>2</sup> to 21.2 mm<sup>2</sup>).
- Primary Ground Wire Size: 2 – 4 AWG (33.6 mm<sup>2</sup> to 21.2 mm<sup>2</sup>) per power supply.
- The conductors are copper.

Figure 4-2: Lugs wiring terminations



- |   |                    |   |                |   |      |
|---|--------------------|---|----------------|---|------|
| 1 | Insulated wire     | 3 | -48V + RTN lug | 5 | 1/2" |
| 2 | Heat-shrink tubing | 4 | 1/4"           | 6 | 5/8" |

Figure 4-3: Ground lug wiring termination (PWR-2700W-DC-R)



- |   |                          |   |                    |
|---|--------------------------|---|--------------------|
| 1 | Insulated wire           | 3 | 5/16" Ø            |
| 2 | Ground lug (right angle) | 4 | Heat-shrink tubing |

**Note**

You can also use a 45° angled connector instead of the straight connector shown.

**Step 2** Use agency-approved compression (pressure) lugs for wiring terminations with a single 5/16" mounting hole. Two-hole lugs should have 1/4" mounting holes on 5/8" centers.

The PWR-2700W-DC-R ground lug is a right-angle lug. Check the terminations for the appropriate wire size. Use a ground wire of at least 2 – 4 AWG. Use only copper wire.

**Step 3** Slip on heat-shrink tubing on the wire ends before assembling the lugs on to the wire.

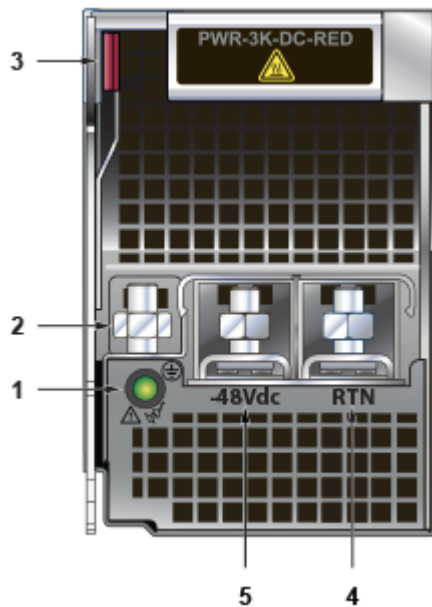
- The lugs must be crimped with the proper tool.
- The tubing should extend over the lug's barrel and the wire's insulator.

**Step 4** Shrink the tubing with a heat gun.

### 4.4.3 PWR-3K-DC-RED Power Supply

Figure 4-4 displays the PWR-3K-DC-RED power supply.

Figure 4-4: PWR-3K-DC-RED power supply



1	Status LED	3	Ejector	5	-48V terminal
2	Ground terminal	4	RTN terminal		

**Step 1** Prepare the stranded wiring, see [Section 4.4.2](#)

**Step 2** Attach the power cable to the supply terminals.

**Step 3** Tightening Torque: 2.7 N-m (24 in.-lbs.)

## 4.5 DC Power Adapter Installation for PWR-2700-DC-R

### 4.5.1 Connecting the Power Cable Lug to the Terminal Studs

**Step 1** Prepare the stranded wiring, see [Section 4.4.2](#).

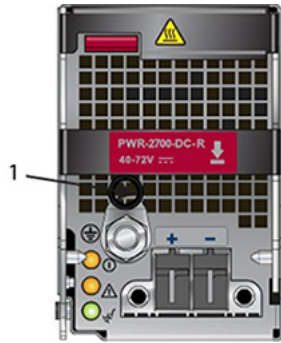
**Step 2** Remove the clear plastic cover protecting the terminal studs on the adapter by lifting the small center tab while sliding the cover off the adapter.

### 4.5.2 Connecting the Ground to PWR-2700-DC-R Power Supply

The primary ground on the system requires a 2 – 4 AWG 5/16 inch lug per power supply.

[Figure 4-5](#) displays the PWR-2700-DC-R power supply without the DC adapter.

Figure 4-5: DC power supply



1 Ground

**Step 1** Prepare the stranded wiring, see [Section 4.4.2](#).

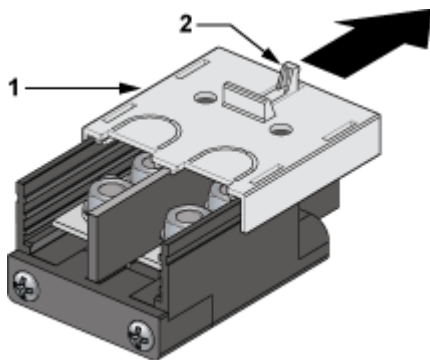
**Step 2** Attach the ground cable to the ground stud.

**Step 3** Tightening Torque: 2.7 N-m (24 in.-lbs.)

### 4.5.3 Connecting the Power Cable Lug to the Terminal Studs

**Step 1** Prepare the stranded wiring, see [Section 4.4.2](#).

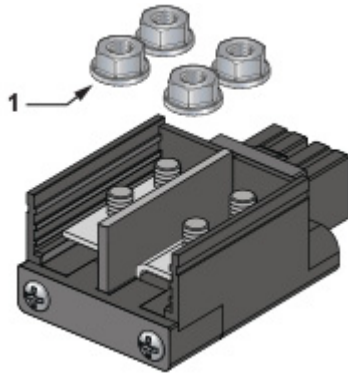
**Step 2** Remove the clear plastic cover protecting the terminal studs on the adapter by lifting the small center tab while sliding the cover off the adapter.



1 Plastic lid

2 Center tab

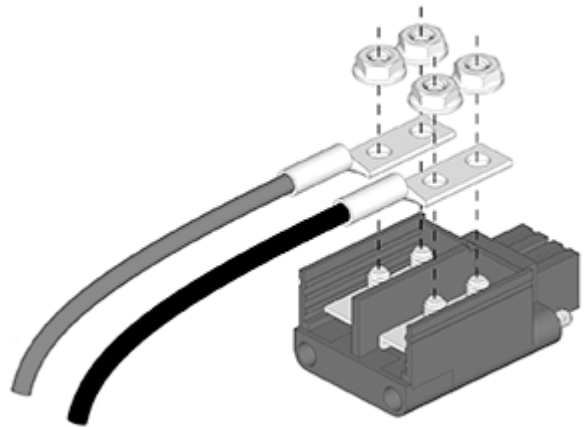
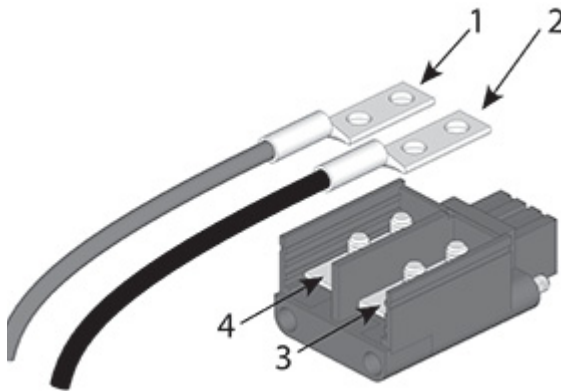
**Step 3** Remove the flange locking nuts from each of the terminal studs.



1 Flange locking nuts

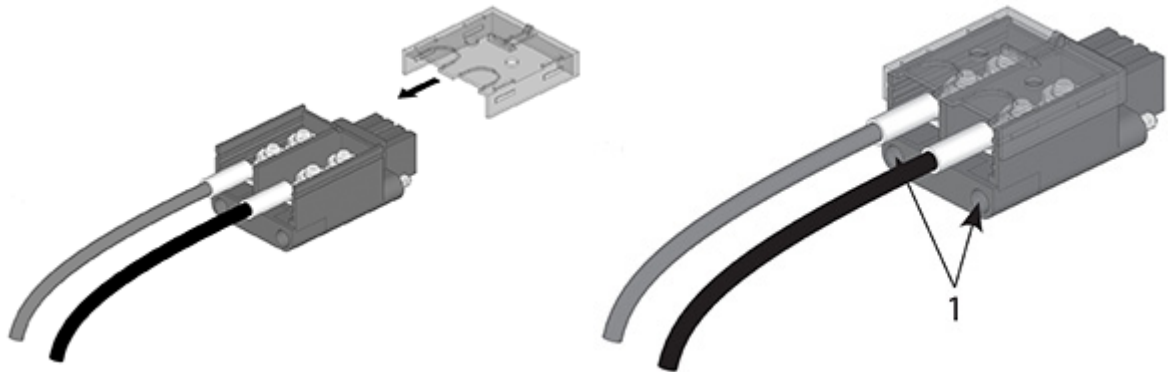
**Step 4** Secure each power cable lug to the terminal studs with the flange locking nuts.

- Attach the positive (+) DC source power cable lug to the RTN (return) terminal.
- Attach the negative (-) DC source power cable lug to the -48V (input) terminal.
- Torque the four flange locking nuts to 2.7 N-m (24 in.-lbs.).



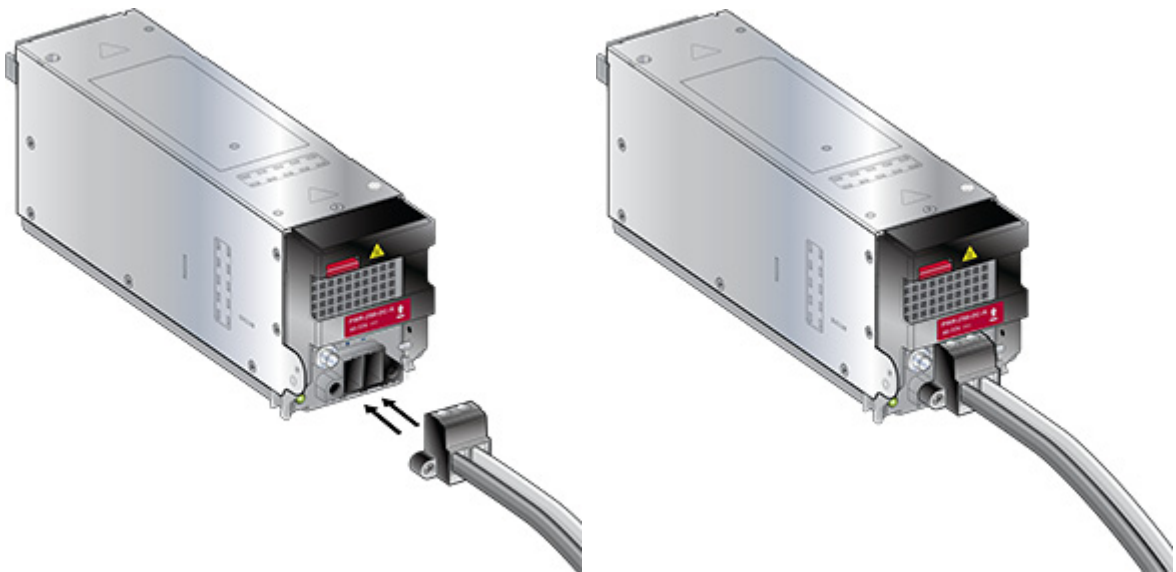
1	Compression lugs	3	-48V
2	Compression lugs	4	RTN

**Step 5** Slide the cover over the terminal studs until it clicks into place.



1 Captive screw slots

**Step 6** Insert the adapter into the DC power supply.



**Step 7** Tighten the two captive screws (on the bottom of the adapter) to the power supply module. Torque screws with #2 Posidriv to 2 N-m (17.7 in.-lbs.)

**Step 8** Attach the power cable to the DC power source.

---

**Important!** Apply the ground connection first during installation and remove last when removing power.

Appliquer le motif connexion tout d'abord pendant l'installation et supprimer dernière lors du retrait de puissance.

---

## 4.6 Power Supply Specifications

Table 4-1 shows the power supply specifications for each of the PSUs supported.

Table 4-1 Power supply specifications (each PSU)

Power Supply	Maximum output power rating (DC)	Input voltage and frequency	Maximum input current	Input branch circuit protection
PWR-2700-DC-R	2600 W	-48 or -60 V (nominal)	80 A	100 A
PWR-3K-DC-RED	3000 W	-48 or -60 V (nominal)	80 A	100 A
PWR-3KT-AC RED	3000 W	200 to 240 V (nominal) 50 - 60 Hz (nominal)	16 A	20 A

## 4.7 Power Supply Configurations

Table 4-2 shows the power supply configurations for the modular switches.

Table 4-2 Power supply configurations

Modular switch	Recommended number of PSUs (for redundancy)	Number of PSUs shipped in bundle	Minimum number of PSUs required (per power domain)	Maximum number of PSUs supported	Number of power domains
DCS-7504N	4	4	2	4	1
DCS-7508N	6	6	2	8	1
DCS-7512N	8	8	2	12	1
DCS-7516N	12	12	3	20	2

### 4.7.1 Recommendations for power supply usage

- Use separate circuit with required protection for each power supply.
- Use the same PSU model when replacing a failed PSU. Check for a suitable alternative if the model is no longer supported or available.
- Unless your switch allows for mixing power supplies, do not mix power supply types.
- You must populate each power domain with the minimum number of PSUs required. Domains are separate banks of grouped supplies, Ten high and ten low for the 16 slot chassis (Domain 1: PS1 – PS10; domain 2: PS11 – PS20).
- Chassis with multiple power domains should have an equal number of supplies in each domain.
- For supervisor cooling purposes, all systems require the minimum number of PSUs, as specified in Table 4-2, in the top section behind the supervisors.
- For 8- & 12-slot chassis, (grouped power supplies top and bottom) Arista recommends equal number of power supplies in the top and bottom groups.
- For the 16-slot chassis with 2 power domains, the power domain with the lowest number of power supplies prescribes the total power available, therefore, Arista recommends equal number of PSUs in each domain.
- Valid redundancy configurations for each domain are described in [Power Supply Redundancy](#) section.

## 4.8 Power Supply Redundancy

**Important!** Installation of this equipment must comply with local and national electrical codes. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.

Installation de cet équipement doit être conformes aux codes électriques locaux et nationaux. Si nécessaire, consulter les organismes de réglementation appropriés et des autorités de contrôle pour assurer la conformité.

**Important!** Read all installation instructions before connecting the system to the power source.

Lire toutes les instructions d'installation avant de brancher le système à la source d'alimentation.

Most installations will have redundant, dual, independent power feeds.

For the following examples, each power feed originates from a different power provider. Each independent power feed will be referenced as label A and B.

- Each supply is wired to one feed, either A, or B.
- The recommended installation is to alternate A, B feeds. In a four supply system configuration, you would wire ABAB, left to right.
- All power supply slots must be filled with a powered supply (A or B), or a blank (X), or a non-powered power supply.

For supervisor cooling purposes, all systems require a minimum number of operating power supplies (see [Table 4-2](#)) at all times in the top half of the chassis. For optimal performance, alternate pairs of power supplies (A and B) evenly from top to bottom (8 or more slot chassis).

Valid examples include:

- AXAX Minimum Configuration supported, 2+0 (non-redundant)
- ABAB 2+2 redundant
- ABAB (Upper), AB (Lower) 3+3 redundancy
- ABAB (Upper), ABAB (Lower) 4+4 redundancy
- ABXXAB (Upper), ABXXAB (Lower) 4+4 redundancy (12-slot chassis)
- ABABAB (Upper), ABABAB (Lower) 6+6 redundancy
- AAAX for 3+0 or 2+1 redundancy, with the X anywhere
- AAAA for 4+0 or 3+1 redundancy
- ABABAB (Upper), ABABAB (Lower) 6+6 redundancy (12-Slot Chassis)
- XABAX/XBABX (Upper), XABAX/XBABX (Lower) 6+6 redundancy (16-slot chassis)
- BABAB/ABABA (Upper), BABAB/ABABA (Lower) 10+10 redundancy (16-slot chassis)

Each power supply includes a fan that maintains proper power supply temperature and cools the supervisor modules. The following appendices display the location of the following component on all switches described in this guide.

[Appendix C](#) displays the front panel location of the supervisor modules.

[Appendix D](#) displays the rear panel location of power supplies and fabric modules.



**Important!** This unit requires over-current protection.

Cet appareil nécessite de protection contre les surintensités.

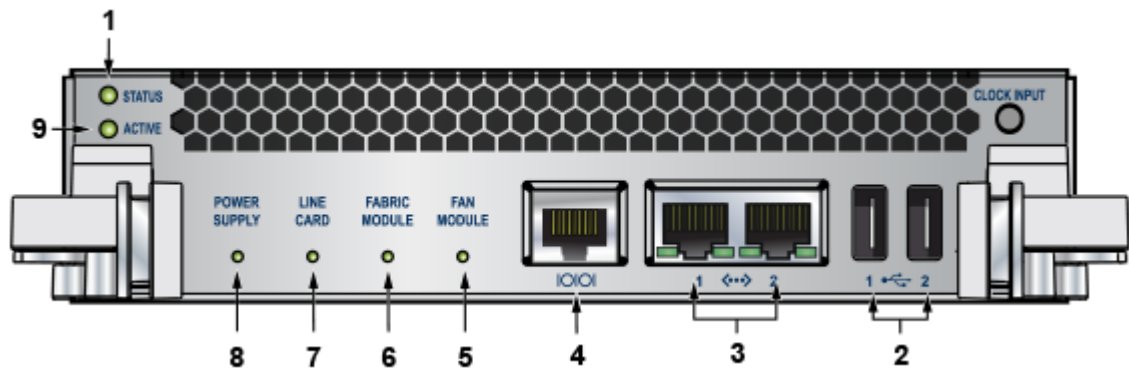
**Important!** Unused slots must be occupied or covered with a blank to ensure proper airflow through the chassis.

Les emplacements inutilisés doivent être occupés ou recouvert d'un blanc pour assurer la bonne circulation d'air dans le châssis.

## 4.9 Connecting Supervisor Cables

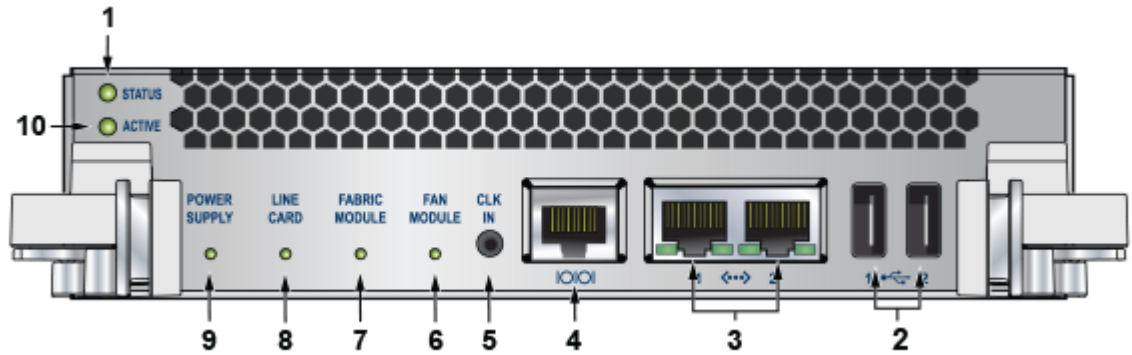
Supervisor modules contain console, management, and USB ports. [Figure 4-6](#) and [Figure 4-7](#) displays port locations on the supervisors. Refer to the chassis specification in [Table 4-3](#) for additional information.

**Figure 4-6: Supervisor DCS-7500E-SUP**



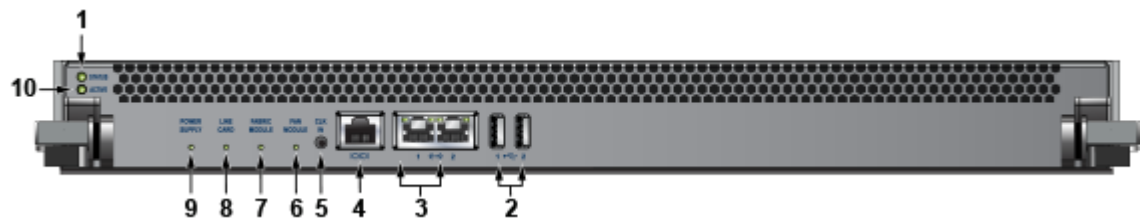
1	Status LED	5	Fan module status LED	9	Active LED
2	USB ports	6	Fabric module status LED		
3	Ethernet management ports	7	Linecard status LED		
4	Serial console port	8	Power supply status LED		

Figure 4-7: Supervisor DCS-7500E-SUP 2



- |   |                           |   |                             |    |                         |
|---|---------------------------|---|-----------------------------|----|-------------------------|
| 1 | Status LED                | 5 | Clock input port (optional) | 9  | Power supply status LED |
| 2 | USB ports                 | 6 | Fan module status LED       | 10 | Active LED              |
| 3 | Ethernet management ports | 7 | Fabric module status LED    |    |                         |
| 4 | Serial console port       | 8 | Linecard status LED         |    |                         |

Figure 4-8: Supervisor DCS-7516-SUP



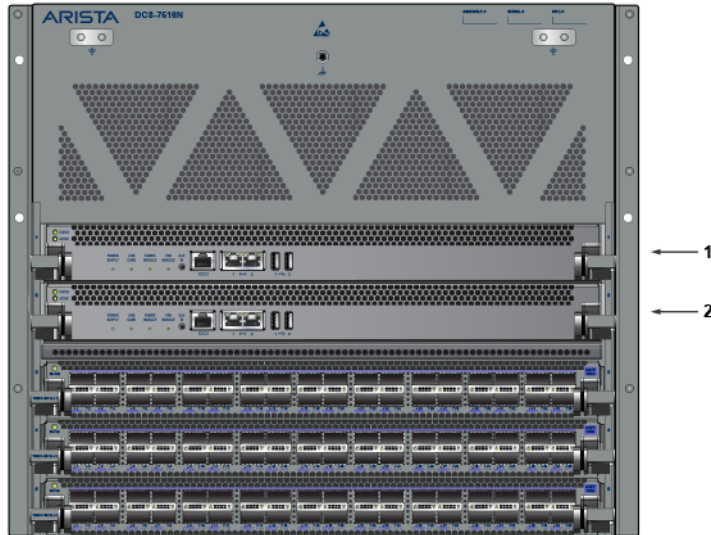
- |   |                           |   |                             |    |                         |
|---|---------------------------|---|-----------------------------|----|-------------------------|
| 1 | Status LED                | 5 | Clock input port (optional) | 9  | Power supply status LED |
| 2 | USB ports                 | 6 | Fan module status LED       | 10 | Active LED              |
| 3 | Ethernet management ports | 7 | Fabric module status LED    |    |                         |
| 4 | Serial console port       | 8 | Linecard status LED         |    |                         |

- **Console (Serial) Port:** Connect to a PC with RJ-45 to DB-9 serial adapter cable. Default switch settings include:
  - 9600 baud
  - No flow control
  - 1 stop bit
  - No parity bits
  - 8 data bits

The DCS-7516-SUP supervisor cards must be installed in one of the two slots designated for them in the DCS-7516N switch as shown in [Figure 4-9](#).

**Note** Do not insert a line card into either of the slots 1 and 2, designated for a supervisor card. This could damage the modular switch. Slots for the line cards are numbered 3 through 18.

**Figure 4-9: DCS 7516N Supervisor Slots**



- 1 Supervisor slot 1
- 2 Supervisor slot 2

**Table 4-3 RJ-45 to DB-9 Connections**

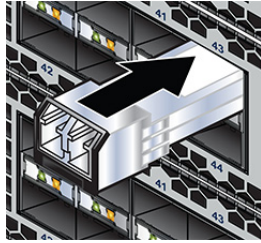
RJ-45		DB-9		RJ-45		DB-9	
RTS	1	8	CTS	GND	5	5	GND
DTR	2	6	DSR	RXD	6	3	TXD
TXD	3	2	RXD	DSR	7	4	DTR
GND	4	5	GND	CTS	8	7	RTS

- **Ethernet management port:** Connect to 10/100/1000 management network with RJ-45 cable.
- **USB Port:** May be used for software or configuration updates.
- **Clock Input Port:** Port type is MCX connector, 2-5.5V, 50 ohm termination.

## 4.10 Connecting Line Card Modules and Cables

Install required SFP, SFP+, QSFP+, QSFP100 and CFP2 optic modules in line card module ports (Figure 4-10).

Figure 4-10: SFP or SFP+ ports



Connect cables as required to line card module ports or fixed MPO ports. Supervisor and line card module ejectors on the front of the chassis assist with cable management.

---

**Caution** Excessive bending can damage interface cables, especially optical cables.

Flexion excessive peut endommager les câbles d'interface, en particulier les câbles optiques.

---

---

**Note** You must ensure that any open slots for modules, power supplies, etc. are covered by the appropriate “blank” plates. Check with your local Arista Networks representative if you have questions.

---

## Configuring the Modular Switch

---

Arista switches ship from the factory in Zero Touch Provisioning (ZTP) mode. ZTP configures the switch without user intervention by downloading a startup configuration file or a boot script from a location specified by a DHCP server. To manually configure a switch, ZTP is bypassed. The initial configuration provides one username (**admin**) accessible only through the console port because it has no password.

When bypassing ZTP, initial switch access requires logging in as **admin**, with no password, through the console port. Then you can configure an **admin** password and other password protected usernames.

This manual configuration procedure cancels ZTP mode, logs into the switch, assigns a password to **admin**, assigns an IP address to the management port, and defines a default route to a network gateway.

**Step 1** Provide power to the switch ([Chapter 4](#)).

**Step 2** Connect the console port to a PC.

As the switch boots without a **startup-config** file, it displays this message through the console:

```
The device is in Zero Touch Provisioning mode and is attempting to
download the startup-config from a remote system. The device will not
be fully functional until either a valid startup-config is downloaded
from a remote system or Zero Touch Provisioning is cancelled. To cancel
Zero Touch Provisioning, login as admin and type 'zerotouch cancel'
at the CLI.
```

```
localhost login:
```

**Step 3** Log into the switch by typing **admin** at the login prompt.

```
localhost login:admin
```

**Step 4** Cancel ZTP mode by typing **zerotouch cancel**. **IMPORTANT: This step initiates a switch reboot.**

```
localhost>zerotouch cancel
```

**Step 5** After the switch boots, log into the switch again by typing **admin** at the login prompt.

```
Arista EOS
localhost login:admin
Last login: Fri Mar 15 13:17:13 on console
```

**Step 6** Enter global configuration mode.

```
localhost>enable
localhost#config
```

**Step 7** Assign a password to the **admin** username with the **username secret** command.

```
localhost(config)#username admin secret pxq123
```

**Step 8** Configure a default route to the network gateway.

```
localhost(config)#ip route 0.0.0.0/0 192.0.2.1
```

**Step 9** Assign an IP address (**192.0.2.8/24** in this example) to an Ethernet management port.

```
localhost(config)#interface management 1/1
localhost(config-if-Ma1/1)#ip address 192.0.2.8/24
```

**Step 10** Save the configuration by typing **write memory** or **copy running-config startup-config**.

```
localhost#copy running-config startup-config
```

**Step 11** When the management port IP address is configured, use this command to access the switch from a host, using the address configured in step 9:

```
ssh admin@192.0.2.8
```

Refer to the **Arista Networks User Manual** for complete switch configuration information.

## Status Indicators

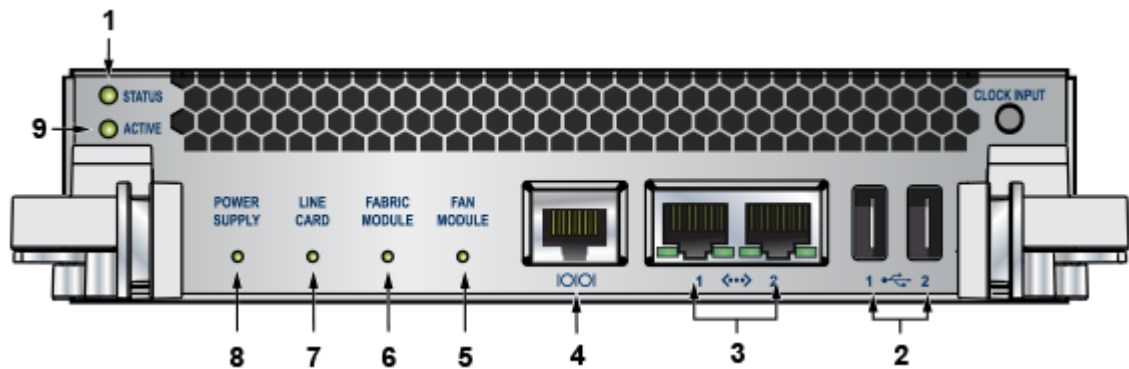
### A.1 Supervisor Module

While the front panel of each switch can house two supervisors, switch operations require only one. Supervisors display switch component status and contain Ethernet management and console ports.

#### A.1.1 Supervisor Indicators: 7500E-SUP/7500-SUP2

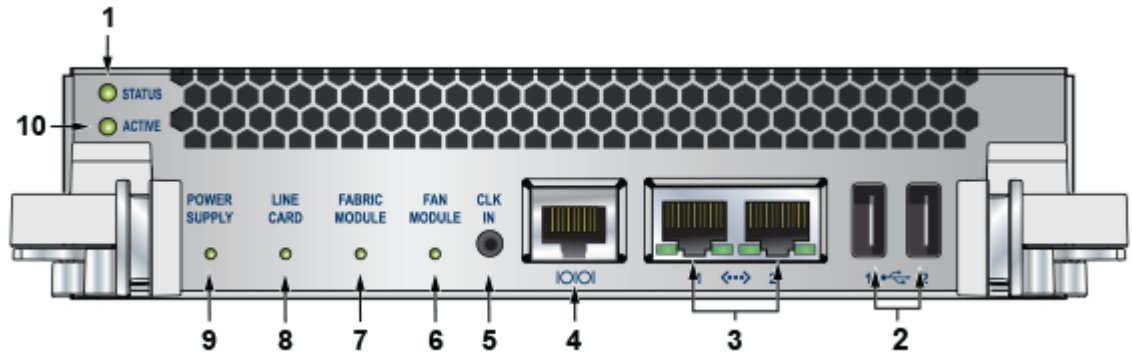
The supervisor provides one serial console port, two Ethernet management ports, two USB ports, and one clock input port. Supervisor activity is reported by LEDs in the upper left corner. Four LEDs located left of the input ports report status of other switch components.

Figure A-1: Supervisor 7500E-SUP



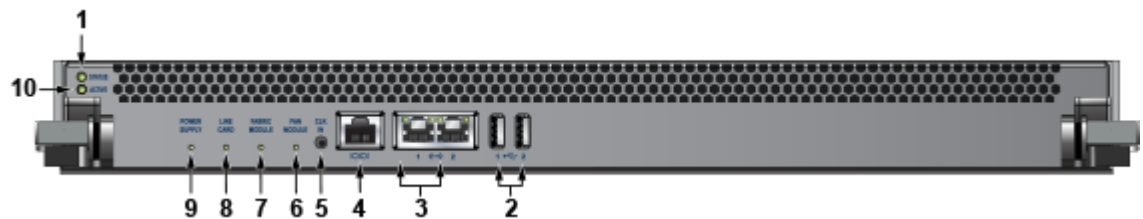
1	Status LED	5	Fan module status LED	9	Active LED
2	USB ports	6	Fabric module status LED		
3	Ethernet management ports	7	Linecard status LED		
4	Serial console port	8	Power supply status LED		

Figure A-2: Supervisor 7500-SUP 2



- |   |                           |   |                             |    |                         |
|---|---------------------------|---|-----------------------------|----|-------------------------|
| 1 | Status LED                | 5 | Clock input port (optional) | 9  | Power supply status LED |
| 2 | USB ports                 | 6 | Fan module status LED       | 10 | Active LED              |
| 3 | Ethernet management ports | 7 | Fabric module status LED    |    |                         |
| 4 | Serial console port       | 8 | Linecard status LED         |    |                         |

Figure A-3: Supervisor 7500E-SUP



- |   |                           |   |                             |    |                         |
|---|---------------------------|---|-----------------------------|----|-------------------------|
| 1 | Status LED                | 5 | Clock input port (optional) | 9  | Power supply status LED |
| 2 | USB ports                 | 6 | Fan module status LED       | 10 | Active LED              |
| 3 | Ethernet management ports | 7 | Fabric module status LED    |    |                         |
| 4 | Serial console port       | 8 | Linecard status LED         |    |                         |

**Supervisor Activity Status LEDs**

The Status and Active LEDs are located on the left side of the Supervisor Module. [Table A-1](#) interprets the states of these two LEDs.

**Table A-1 Supervisor activity LED states**

LED Name	LED State	Supervisor State
Status	Off	No power, failed, or improperly inserted.
	Green	Operating normally.
	Red	Supervisor failed.



Table A-1 Supervisor activity LED states (Continued)

LED Name	LED State	Supervisor State
Active	Off	Not active.
	Green	Active and controlling the switch.

**Component Activity Status LEDs**

LEDs located below the vents and left of the input ports display summary indicators for power supplies, fabric modules, fans, and line cards. [Table A-2](#) interprets the states of these indicators. When error conditions are indicated, refer to LEDs on the specified modules to determine the condition’s source.

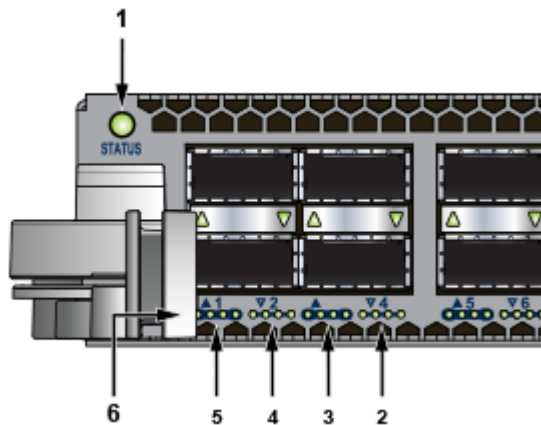
Table A-2 Component activity LED states

LED Name	LED State	Module State
Power Supply, Line Card Fabric Module Fans	Off	No modules are present or powered.
	Green	All powered modules are operating normally.
	Red	One or more components failed.

## A.2 Line Card Module Indicators

Each line card module provides one status LED plus LEDs for each port on the card. The figures in [Appendix E](#) indicate the location of the LEDs on each line card.

Figure A-4: Line card Status LED



- |   |                  |   |                                |
|---|------------------|---|--------------------------------|
| 1 | Status LED       | 4 | QSFP port 2 LEDs               |
| 2 | QSFP port 4 LEDs | 5 | QSFP port 1 LEDs               |
| 3 | QSFP port 3 LEDs | 6 | 10G / 40G /100G QSFP port LEDs |

Table A-3 interprets the states of the status LED.

Table A-3 Line card status LED states

LED State	Status
Off	Line card not inserted.
Green	Line card operating normally.
Yellow	Line card administratively shut down.
Red	Line card has failed.

The line card provides LEDs for each port module socket:

- Each LED corresponds to a module.
- A set of four LEDs correspond to each module. When the module is programmed as a 40G port, the first LED in the set reports status. When the module is programmed as four 10G or 100G ports, each port is assigned to an LED within the set.

Table A-4 interprets the port LED states.

Table A-4 Line card Port LED States

LED State	Status
Off	Port link is down.
Green	Port link is up.
Yellow	Port is disabled in software.

### A.3 Fabric Status Indicators

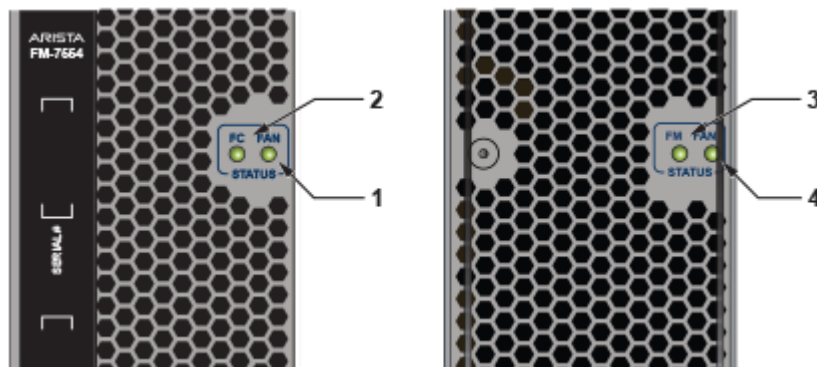
Fabric Status LEDs are on fan-fabric modules. Appendix D displays the position of these LEDs on the rear of each switch. Figure A-5 on page 44 displays fan status and fabric status LEDs on the switch.

---

**Note** Gen 1 Fabric modules are not supported.

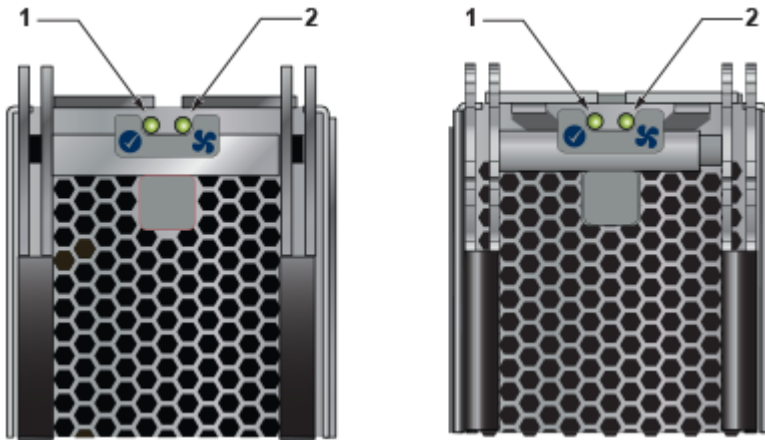
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Figure A-5: 7504N (left) and 7508N fan status and fabric status LEDs



- 1 Fan status LED
- 2 Fabric status LED
- 3 Fabric status LED
- 4 Fan status LED

Figure A-6: 7512N (left) and 7516N fan status and fabric status LEDs



- 1 Fabric status LED
- 2 Fan status LED

Table A-5 interprets the states of the fan and fabric status LED.

Table A-5 Fan status and fabric status LEDs on rear panel

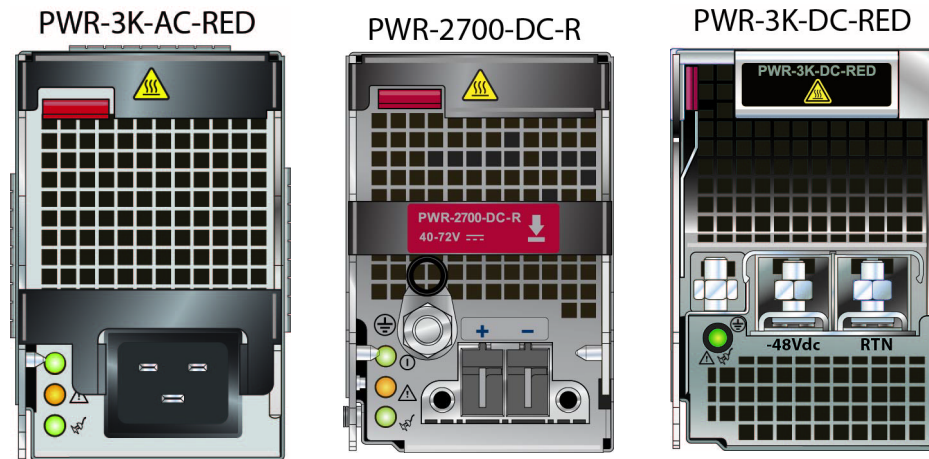
LED State	Status
Off	Module inserted, but status is unknown.
Green	Module operating normally
Red	Module failed

## A.4 Power Supply Status Indicators

- PWR-3KT-AC RED
- PWR-2700-DC-R
- PWR-3K-DC-RED

The power supply LEDs are on the power supply modules. The position of the LEDs are on the rear of each switch. [Figure A-7 on page 46](#) displays all the power supply modules supported on the 7500N.

Figure A-7: 7500N power supplies



**Note**

The LEDs for the power supplies with three-LED status indicators are:  
DC Good  
Fault and  
Vin Good  
from top to bottom as shown above.

Table A-6 interprets the power supply setup for LED status indicators.

**Table A-6 Power Supply Status LED states**

Power Supply State	LED Name	PWR-3KT-AC-Red	PWR-2700-DC-R	PWR-3K-DC-Red
Input power present Normal Operation	DC Good Fault Vin Good	Green Off Green	Green Off Green	Green
Input power present Main output off	DC Good Fault Vin Good	Off Off Green	Off Off Green	Blinking Green
Input power present Power Supply Fault	DC Good Fault Vin Good	Off Blinking Amber Green	Off Blinking Amber Green	Blinking Amber, 1 sec on, 1 sec off
No Input Power Supply installed in chassis	DC Good Fault Vin Good	Off Off Off	Off Off Off	Off
Input power present Supply not seated in chassis	DC Good Fault Vin Good	Off Off Blinking Green	Off Off Off	Blinking Amber, 0.5 sec on/off



# Appendix B

## Parts List

Each switch has an accessory kit that contains parts required to install the switch. [Table B-1](#) provides further details on the accessory kit for each switch. The following sections in the chapter list the installation parts provided by the accessory kit in more details.

**Table B-1** Accessory kits for the modular switches

	7504N	7508N	7512N	7516N
<b>Common cables and accessories</b> (See <a href="#">Section B.1</a> )	Included	Included	Included	Included
<b>Two-Post rack mount parts</b> (See <a href="#">Section B.2</a> )	Included	Included	N/A	N/A
<b>Four-post rack mount kit for 4-slot and 8-slot chassis</b> (See <a href="#">Section B.3</a> )	Included	Included	N/A	N/A
<b>Four-post rack mount kit for 12-slot and 16-slot chassis</b> (See <a href="#">Section B.4</a> )	N/A	N/A	Included	Included
<b>Number of Power cords (C19 - C20 type) included</b>	4	6	8	12

**Warning** All provided power cables are for use only with Arista products.

Câbles d'alimentation doivent être utilisés uniquement avec des produits de Arista

### 警告

すべての電源コードは提供する製品で使用するためだけを目的としている。

### 電源コードの他の製品での使用の禁止

Aristaが提供するすべての電源コードは、Aristaの製品でのみ使用してください。

## B.1 Parts Used in All Rack Mount Configurations

### B.1.1 Cables

**Table B-2 Cables Provided in Accessory Kit**

Quantity	Description
2	RJ-45 Patch Panel Cables, 2 meters
2	RJ-45 to DB9 Adapter Cable, 2 meters

### B.1.2 Getting-Started Booklet

One 2-page document

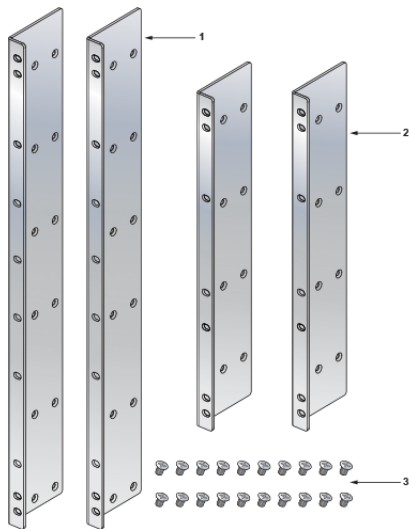
## B.2 Two-Post Rack Mount Parts

The following sections list the parts provided for the two-post rack mount installation.

**Table B-3 Two-Post rack mount parts**

Quantity	Description
2	Center-mount brackets
20	M4x8 pan-head Phillips screws

**Figure B-1: Two-Post rack mount parts**



- 1 Center-mount brackets (DCS-7508N only)
- 2 Center-mount brackets (DCS-7504N only)
- 3 M4x8 pan-head Phillips screws



## B.3 Four-Post Rack Mount Parts for 4-slot and 8-slot Chassis

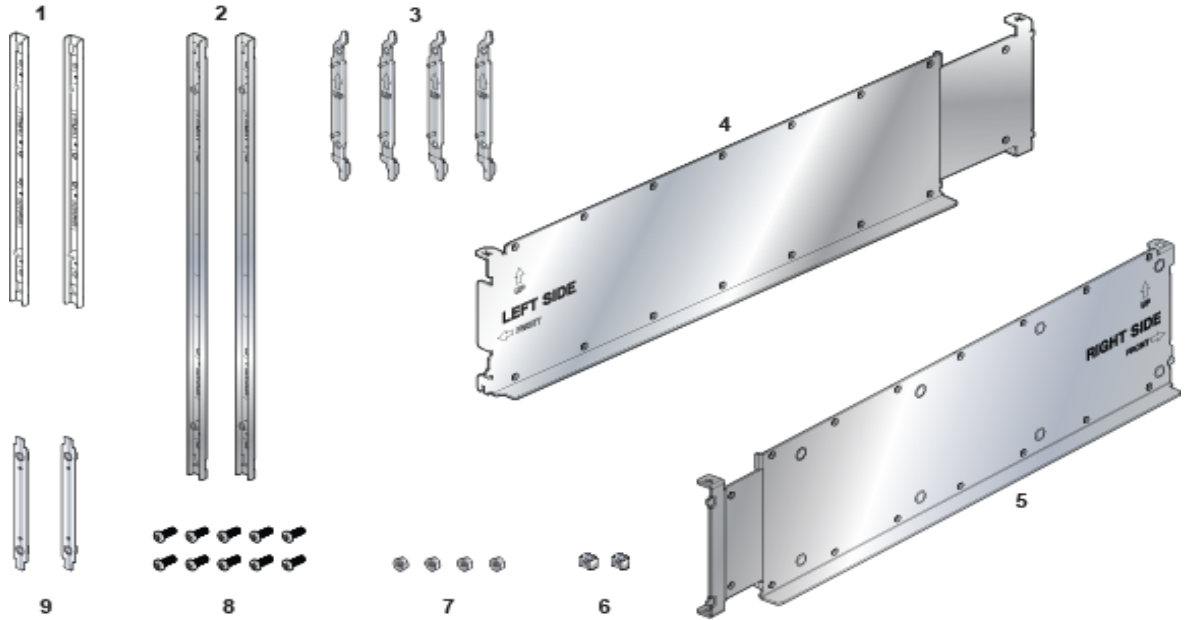
The following sections list the parts provided in the accessory kit for four-post rack mount installations of the 4- and 8-slot chassis.

**Table B-4 Four-Post rack mount parts for the 4- and 8-slot chassis**

Quantity <sup>1</sup>	Description
2	Front brackets.
4	Shelf supports.
2	Back brackets.
1	Left shelf.
1	Right shelf.
11 (17)	M6X16 pan-head Phillips screws.
7 (13)	M6 Hex Nuts.
3 (9)	M6 Cage Nut Square Hole Racks.
5	M5 Hex Nuts.
11 (17)	M5 pan-head Phillips screws.
5	#12-24 Hex Nuts.
11 (17)	#12-24 pan-head Phillips screws.
5	#10-32 Hex Nuts.
11 (17)	#10-32 pan-head Phillips screws.
1	Adjustable Wrench

1. Quantities in parentheses “()” are for the 7508N where the quantities differ from the 7504N.

Figure B-2: Four-Post rack mount parts for the 4- and 8-slot chassis



- |   |                                 |   |              |   |  |
|---|---------------------------------|---|--------------|---|--|
| 1 | Front brackets (DCS-7504N only) | 4 | Left shelf   | 7 | M6 hex nuts  |
| 2 | Front brackets (DCS-7508N only) | 5 | Right shelf  | 8 | M6x16 pan-head Phillips screws                           |
| 3 | Shelf support                   | 6 | M6 cage nuts | 9 | Back brackets (not needed for racks with threaded holes) |

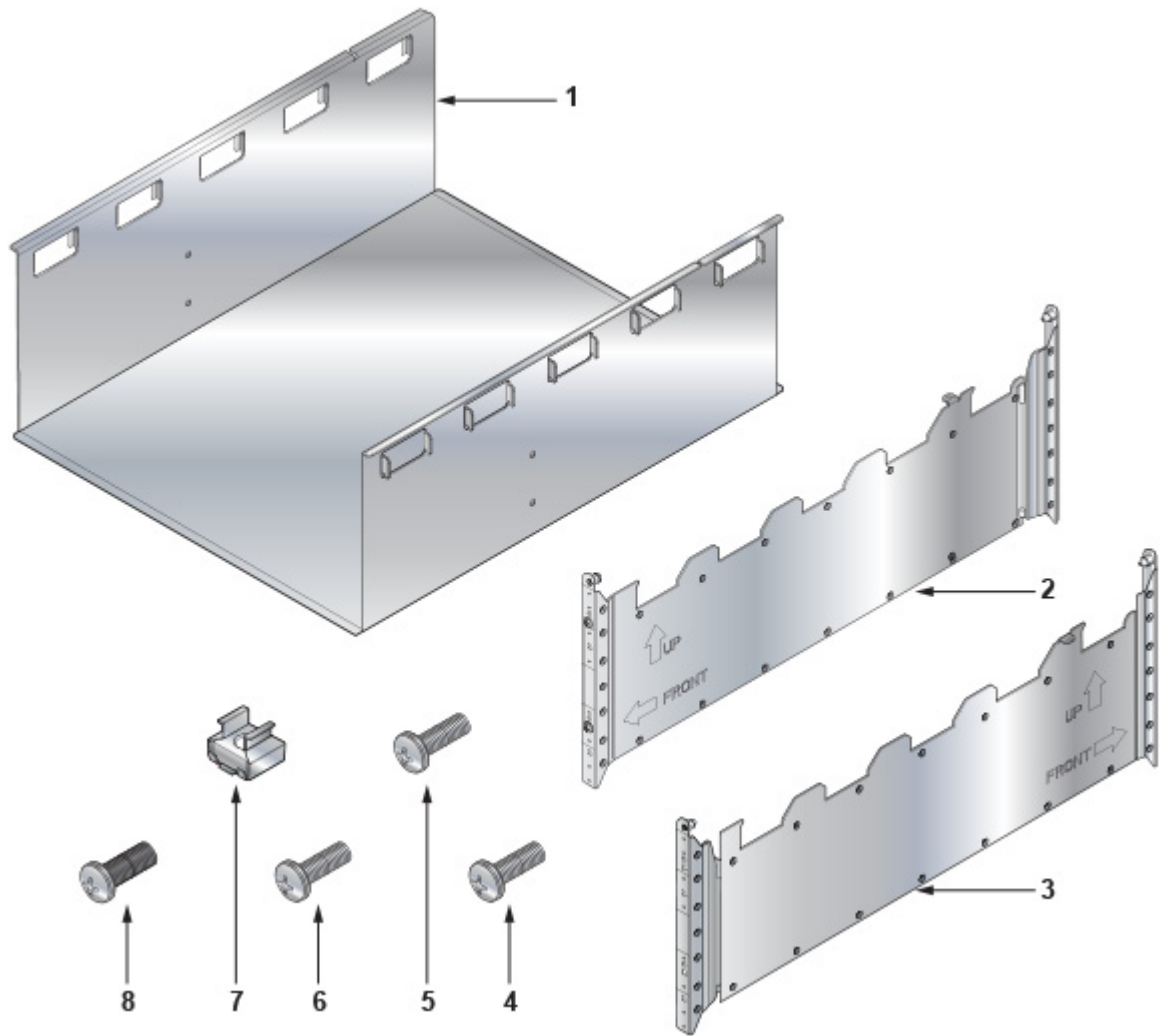
## B.4 Four Post Rack Mount for 12-slot and 16-slot Chassis

The following sections list the parts provided in the accessory kit for four-post rack mount installations of the 12- and 16-slot chassis.

**Table B-5 Four-Post rack mount parts for the 12- and 16-slot chassis**

Quantity	Description
1	Shelf (or cradle)
1	Left shelf support
1	Right shelf support
25	M6 cage nuts square hole
25	M6X16 pan-head Phillips screws
25	M5X16mm pan-head Phillip screws
25	12-24X5/8 pan-head Phillip screws
27	10-32X5/8 pan-head Phillip screws

Figure B-3: Four-Post rack mount parts for the 12- and 16-slot chassis



- |   |                       |   |                                    |   |                                      |
|---|-----------------------|---|------------------------------------|---|--------------------------------------|
| 1 | Cradle                | 4 | #10-32X5/8 pan-head Phillip screws | 7 | M6 cage nuts (for square hole racks) |
| 2 | Left telescoping arm  | 5 | #12-24X5/8 pan-head Phillip screws | 8 | M6x16 pan-head Phillips screws       |
| 3 | Right telescoping arm | 6 | M5X16mm pan-head Phillip screws    |   |                                      |

# Appendix C

## Front Panel

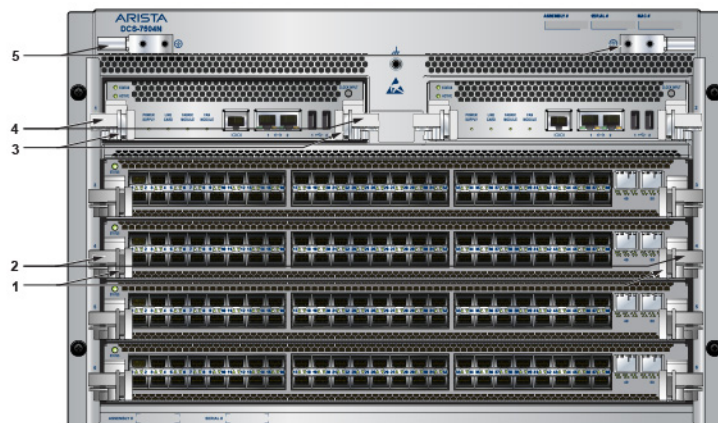
---

This appendix displays the front panel of all switches covered by this guide.

**Note** All devices are designed to fit in a 19" rack. Illustrations are not to scale.

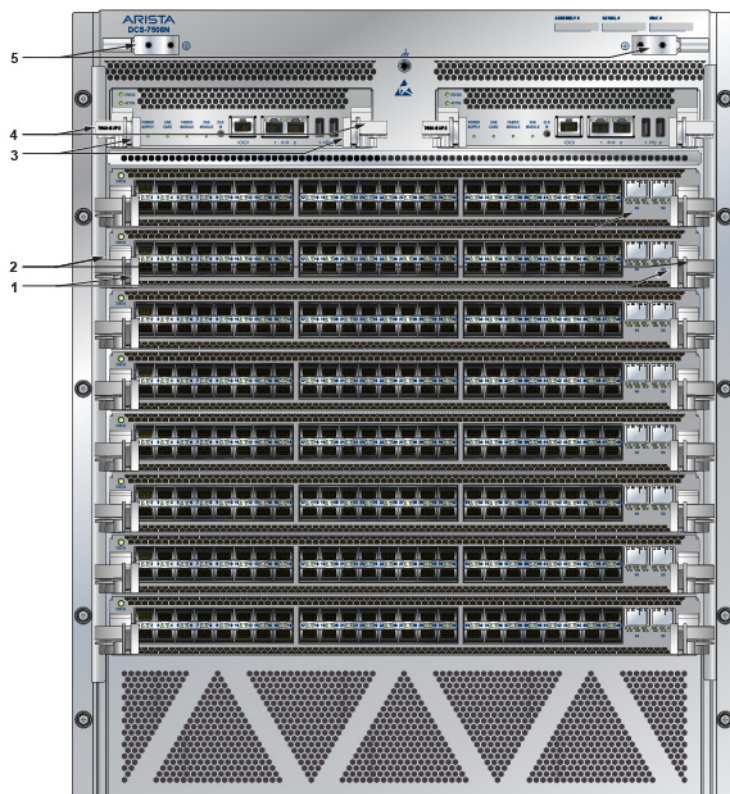
---

**Figure C-1: DCS-7504N front panel (fully populated)**



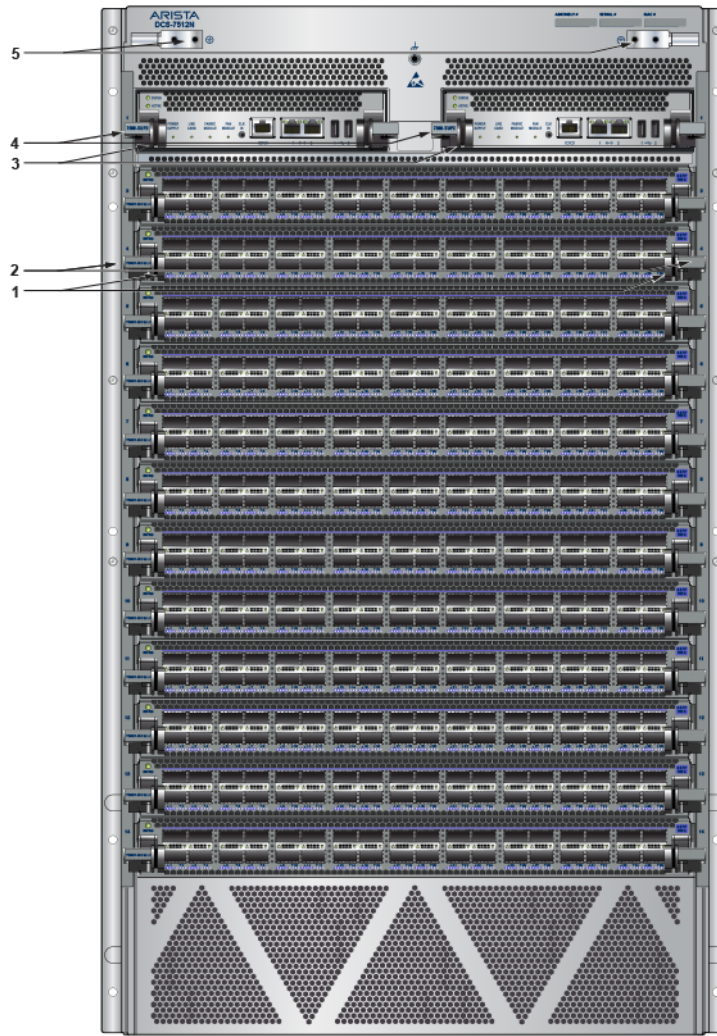
- |   |                         |   |                           |   |        |
|---|-------------------------|---|---------------------------|---|--------|
| 1 | Linecard ejector button | 3 | Supervisor ejector button | 5 | Ground |
| 2 | Linecard ejector handle | 4 | Supervisor ejector handle |   |        |

Figure C-2: DCS-7508N front panel (fully populated)



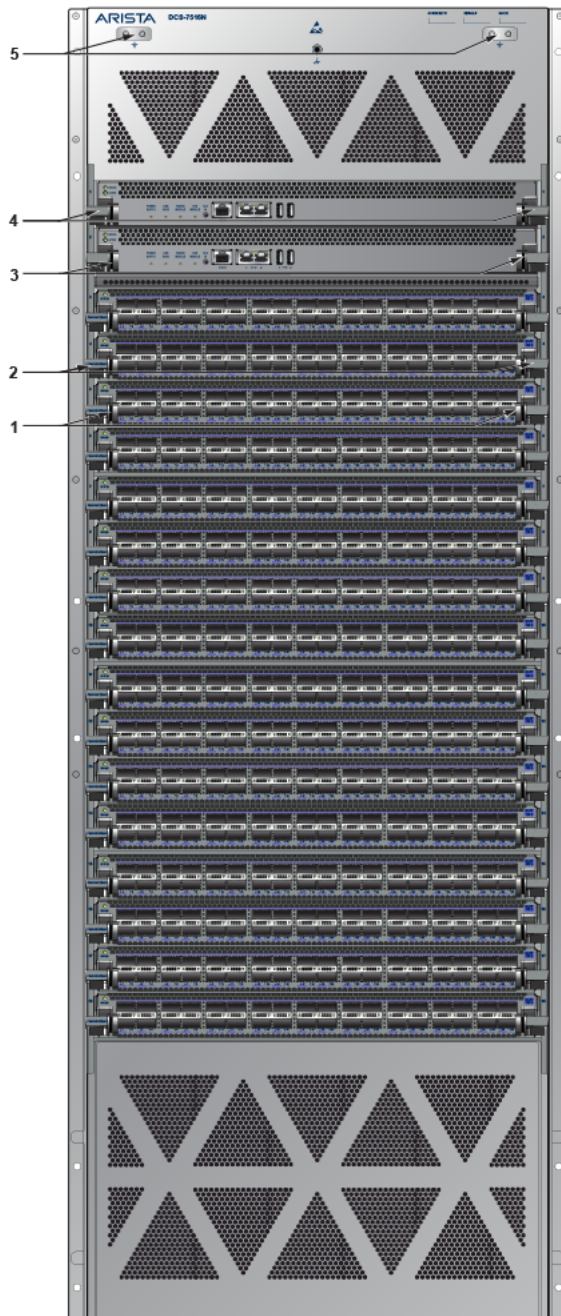
- |   |                         |   |                           |   |        |
|---|-------------------------|---|---------------------------|---|--------|
| 1 | Linecard ejector button | 3 | Supervisor ejector button | 5 | Ground |
| 2 | Linecard ejector handle | 4 | Supervisor ejector handle |   |        |

Figure C-3: DCS-7512N front panel (fully populated)



- |   |                         |   |                           |   |        |
|---|-------------------------|---|---------------------------|---|--------|
| 1 | Linecard ejector button | 3 | Supervisor ejector button | 5 | Ground |
| 2 | Linecard ejector handle | 4 | Supervisor ejector handle |   |        |

Figure C-4: DCS-7516N front panel (fully populated)



- |   |                         |   |                           |   |        |
|---|-------------------------|---|---------------------------|---|--------|
| 1 | Linecard ejector button | 3 | Supervisor ejector button | 5 | Ground |
| 2 | Linecard ejector handle | 4 | Supervisor ejector handle |   |        |



# Appendix D

## Rear Panel

---

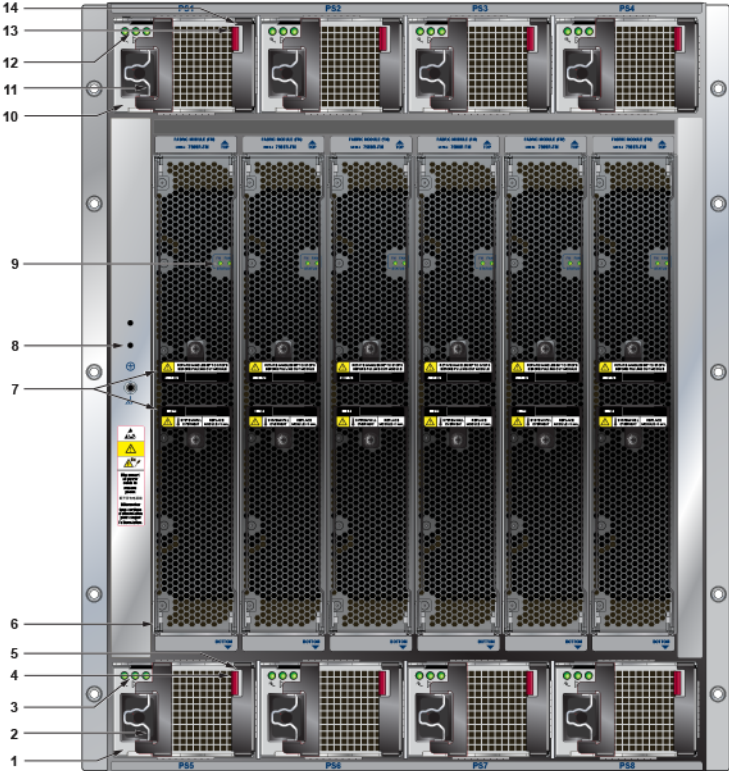
This appendix displays the rear panel of all switches covered by this guide.

**Figure D-1: DCS-7504N rear panel (fully populated)**



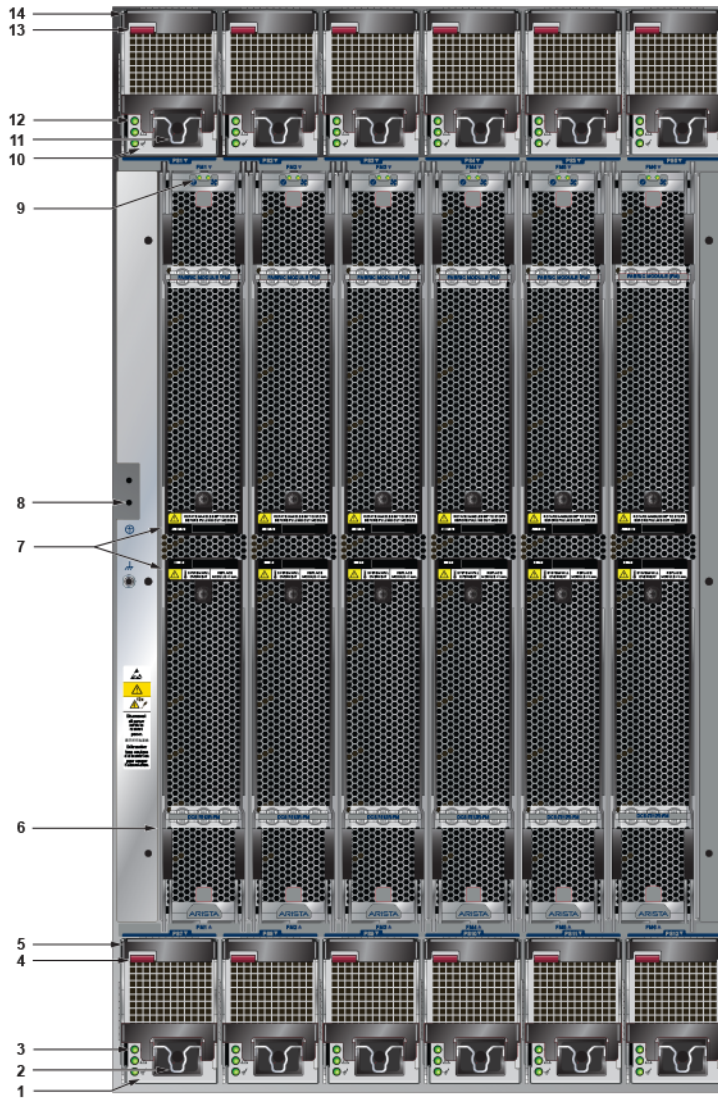
- |   |                              |   |                |   |                |
|---|------------------------------|---|----------------|---|----------------|
| 1 | Fabric module screw          | 4 | Chassis ground | 7 | Ground         |
| 2 | Fabric module ejector handle | 5 | PSU            | 8 | Ejector button |
| 3 | Fabric module status LEDs    | 6 | Release lever  | 9 | Status LEDs    |

Figure D-2: DCS-7508N rear panel (fully populated)



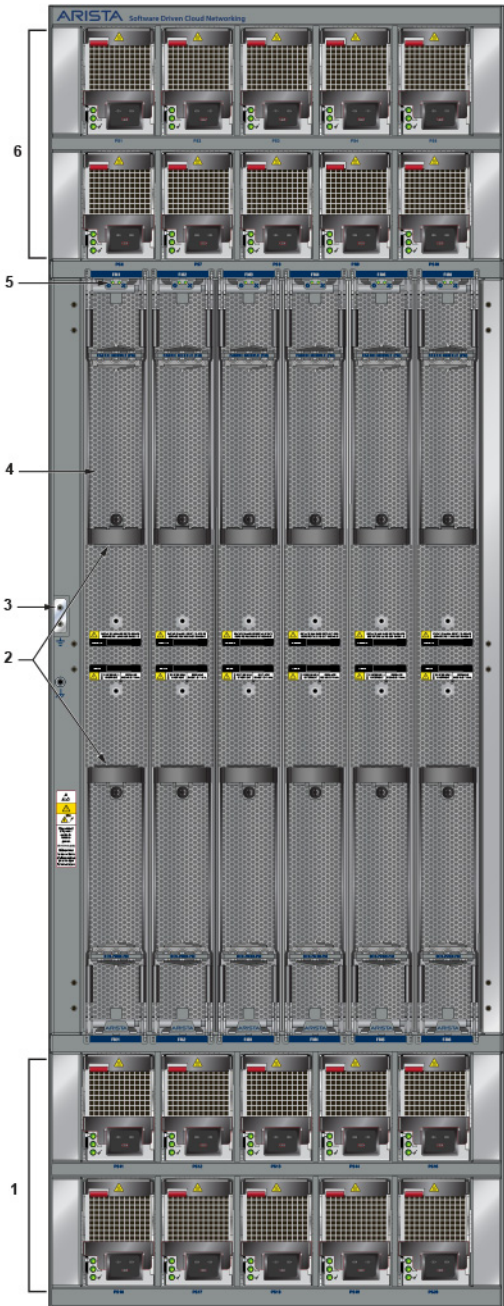
- |   |                            |    |                               |    |                            |
|---|----------------------------|----|-------------------------------|----|----------------------------|
| 1 | PSU bottom row (PS5)       | 6  | Fabric module                 | 11 | Power cord clip (optional) |
| 2 | Power cord clip (optional) | 7  | Fabric module ejector handles | 12 | Status LEDs (PS1)          |
| 3 | Status LEDs (PS5)          | 8  | Chassis ground (secondary)    | 13 | Ejector button             |
| 4 | Ejector button             | 9  | Fabric module status LEDs     | 14 | Release lever              |
| 5 | Release lever              | 10 | PSU top row (PS1)             |    |                            |

Figure D-3: DCS-7512N rear panel (fully populated)



- |   |                            |    |                               |    |                            |
|---|----------------------------|----|-------------------------------|----|----------------------------|
| 1 | PSU bottom row (PS7)       | 6  | Fabric module                 | 11 | Power cord clip (optional) |
| 2 | Power cord clip (optional) | 7  | Fabric module ejector handles | 12 | Status LEDs (PS1)          |
| 3 | Status LEDs (PS7)          | 8  | Chassis ground (secondary)    | 13 | Ejector button             |
| 4 | Ejector button             | 9  | Fabric module status LEDs     | 14 | Release lever              |
| 5 | Release lever              | 10 | PSU top row (PS1)             |    |                            |

Figure D-4: DCS-7516N rear panel (fully populated)



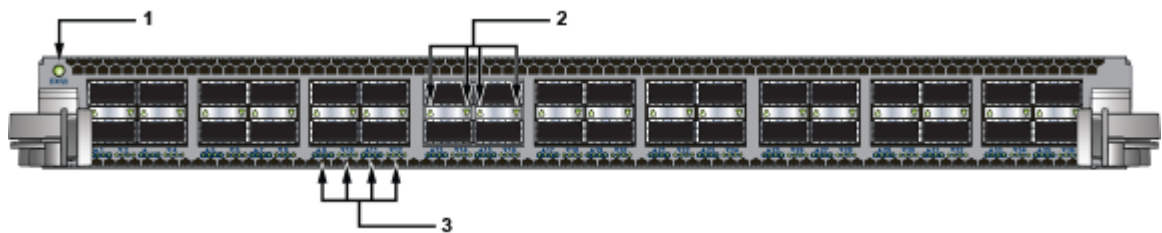
- 1 Power domain 2 (PSU11-PSU20)
- 2 Fabric module ejector handles
- 3 Chassis ground (secondary)
- 4 Fabric module
- 5 Fabric module status LEDs
- 6 Power domain 1 (PSU1-PSU10)

## Line Cards

This appendix displays the line cards supported by modular switches covered by this guide.

### DCS-7500E-36Q-LC

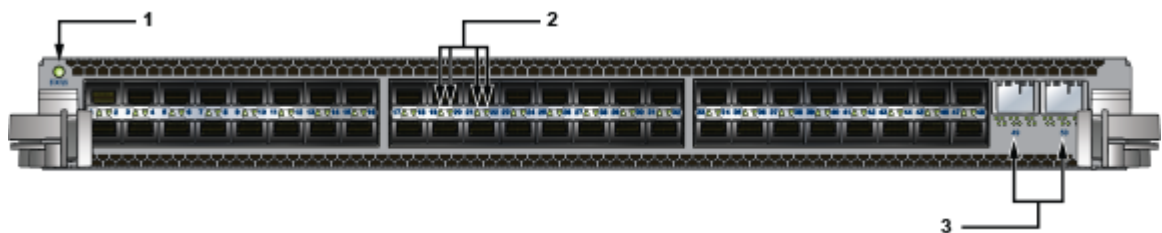
The 36 port QSFP+ line card has 36 QSFP+ ports that allow for a high degree of flexibility in a mixed 10G/40G network. All QSFP+ ports can operate as either a single 40Gb Ethernet port or quad 10Gb Ethernet ports with up to 36 ports of 40G or 144 ports of high-density 10G.



- |   |               |   |               |
|---|---------------|---|---------------|
| 1 | Status LED    | 3 | 10G port LEDs |
| 2 | 40G port LEDs |   |               |

### DCS-7500E-72S-LC

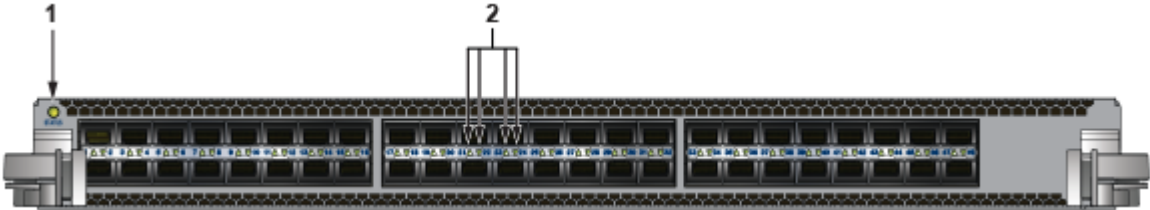
The 48 SFP+ and 2 port 100GbE MXP line card provides a flexible combination of 48 ports of SFP+ and 2 MPO ports for up to 72 10Gb Ethernet ports. The two 100G MTP/MPO ports provide 100G capability using Arista Multi-speed Ports (MXP) with integrated optics. MXP ports use 100GBASE-SR10 (Short Range) transceivers and are fully compatible with any standards compliant 100GBASE-SR10 ports. Each MXP port can be easily configured as a single 100Gb, triple 40Gb or twelve 10Gb Ethernet.



- 1 Status LED
- 2 10G port LEDs
- 3 MXP port LEDs

**DCS-7500E-48S-LC**

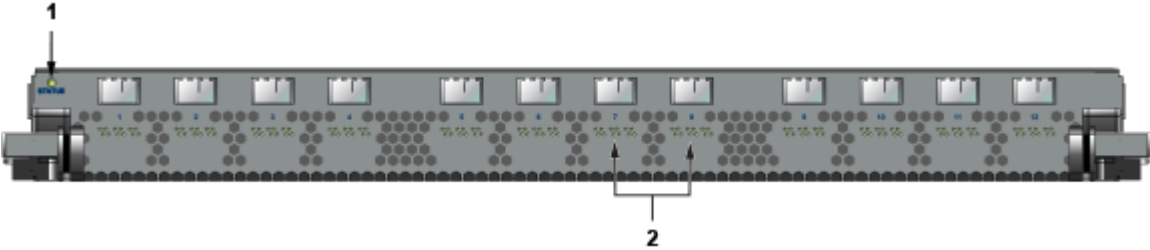
The 48 port 1/10GbE SFP+ line card has 48 SFP+ ports. Having 48 ports of SFP+ ports allows this line card the flexibility to utilize any existing Arista SFP+ optic or direct attach cables, and to support both 1Gb and 10Gb speeds.



- 1 Status LED
- 2 10G port LEDs

**DCS-7500E-12CM-LC**

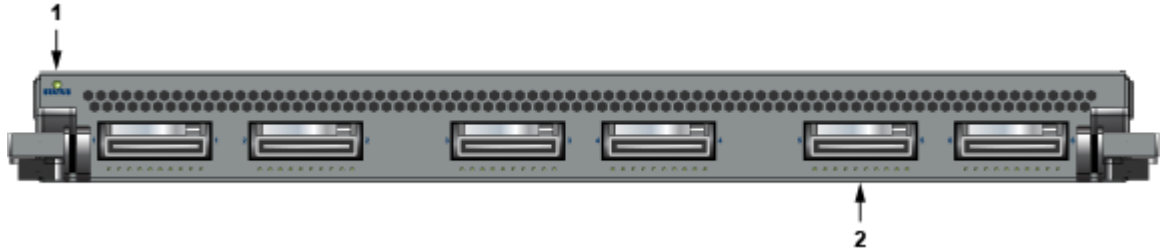
The 12 x 100G MTP/MPO line card provides high density 100G using Arista Multi-speed Ports (MXP) with embedded optics. The MXP ports use 100GBASE-SR10 (Short Range) transceivers and are fully compatible with any standards compliant 100GBASE-SR10 ports. Each MXP port can be enabled in single 100Gb, triple 40Gb or twelve 10Gb Ethernet mode for up to 12 – 100Gb, 36 – 40Gb and 144 – 10Gb Ethernet ports per line card. Since each of MXP ports come with integrated optics, no external transceivers are required for this line card.



- 1 Status LED
- 2 MXP port LEDs

### DCS-7500E-6C2-LC

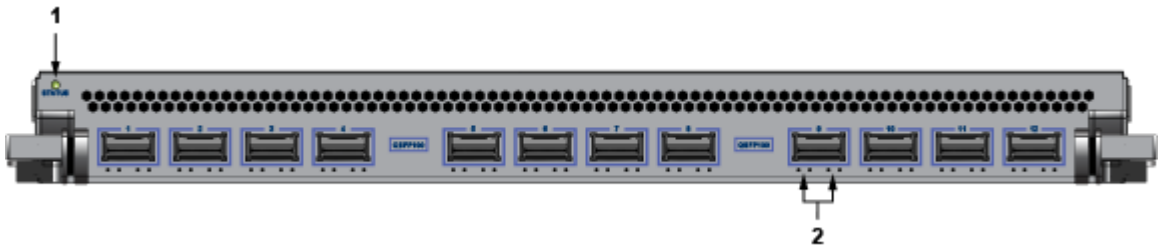
The 6 x 100G CFP2 line card provides high performance 100G using industry standard CFP2 optics that are hot pluggable. The CFP2 form factor is designed to allow for long haul optics with a size that is approximately 50% smaller than the CFP optic. As a result CFP2 based line cards allow for up to 6 ports per line card, which increases overall system density. The CFP2 form factor allows 100GbE optics to be installed and with the use of 10x10 and 2x40 mode a choice of 10/40/100GbE.



- 1 Status LED
- 2 CFP2 port LEDs

### DCS-7500E-12CQ-LC

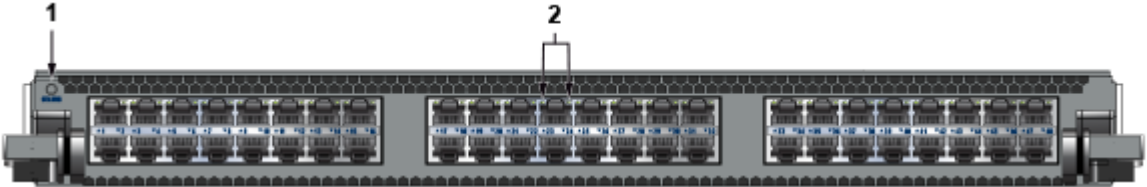
The 12 x 100G QSFP100 line card provides high density 100G using industry standard QSFP100 optics. The QSFP100 form factor is identical to the size of the 40G QSFP+ allowing for either 40GbE or 100GbE optics to be installed, for a dual speed choice of 40/100GbE on all ports. With 12 ports of 100GbE the card allows each port to operate in a choice of 4 x 10GbE (using 40GbE optics), 40GbE, or 100GbE.



- 1 Status LED
- 2 40/100G port LEDs

### DCS-7500E-48T-LC

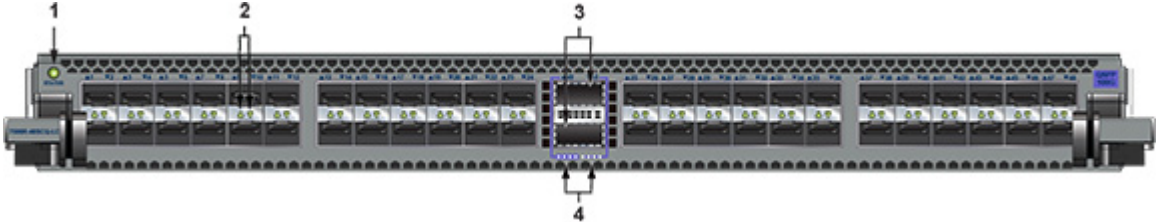
The 48 port RJ45 10GBASE-T wire-speed line card has 48 ports of RJ45 ports that supports 10Gb speeds.



- 1 Status LED
- 2 10G port LEDs

**DCS-7500R-48S2CQ-LC**

The 48 SFP+ and 2 port 100GbE QSFP line card provides a flexible combination of 48 ports of SFP+ and 2 QSFP100 ports for up to 56 10Gb Ethernet ports. The two 100G QSFP100 ports allow for 1x 100G, 1x40G, or 4x10G capability.



- 1 Status LED
- 2 Port LEDs
- 3 100G port LEDs
- 4 100G port LEDs

**DCS-7500R-36CQ-LC**

The 36 ports QSFP100 line card allows for a high degree of flexibility in a mixed 10G/40G/100G environment. All 36 ports can operate as either a single 100Gb or 40Gb Ethernet port. A wide range of additional interface speed flexibility is possible, with all ports able to support 4 x 10G Ethernet, 4 x 25G Ethernet or 2 x 50G Ethernet. This flexibility allows for a choice of 5 speeds on all ports and allow for simple migration from 10G to 100G and a wide range of combinations.

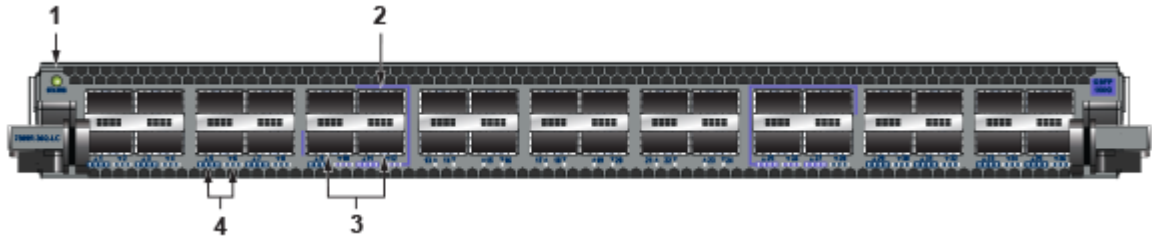


- 1 Status LED
- 2 Port LEDs



### DCS-7500R-36Q-LC

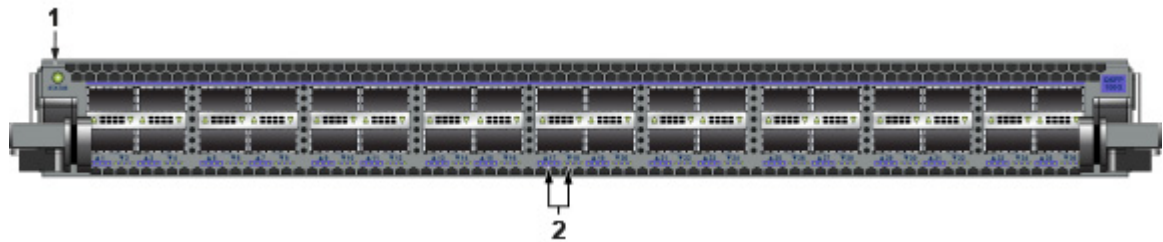
The 36 port QSFP+ line card allows for a wide range of flexibility in a mixed 10G/40G environment. All QSFP+ ports can operate as either a single 40Gb Ethernet port. Additional interface flexibility is possible, with up to 24 ports able to support 4x10G mode and 6 ports of 1x100G mode. These interface speed choices allow for simple migration from 10G to 100G and a wide range of possible combinations.



- |   |            |   |            |
|---|------------|---|------------|
| 1 | Status LED | 3 | 100G ports |
| 2 | 100G ports | 4 | Port LEDs  |

### DCS-7500RM-36CQ-LC

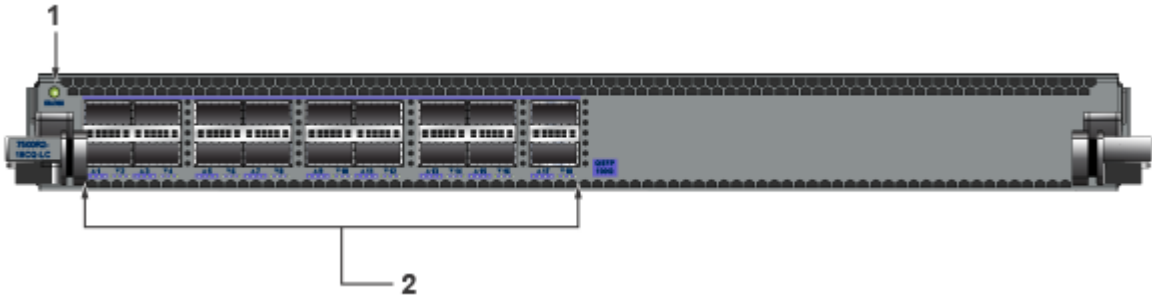
The 36 port QSFP100 line card allows 36 x 100G of wire rate performance with integrated MACsec on every port. Each Packet Processor connects to 6 ports of 100G with 4GB of deep packet buffer, the 100G ports support either QSFP100 (100G) or QSFP+ (40G).



- |   |                       |
|---|-----------------------|
| 1 | Status LED            |
| 2 | 100G MACsec port LEDs |

**DCS-7500R2-18CQ-LC**

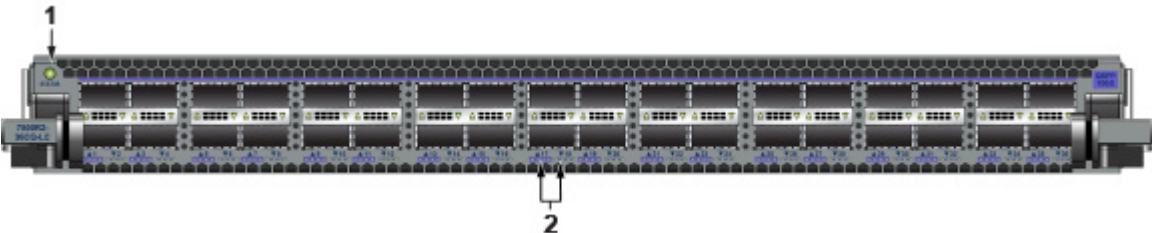
The 18 port QSFP100 line card allows 18 x 100G of wire rate performance.



- 1 Status LED
- 2 100G port LEDs

**DCS-7500R2-36CQ-LC**

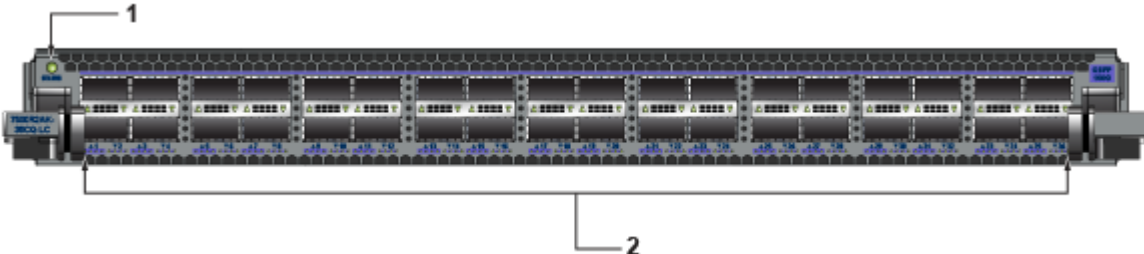
The 36 port QSFP100 line card allows 36 x 100G of wire rate performance.



- 1 Status LED
- 2 Port LEDs

**DCS-7500R2A-36CQ-LC**

The 36 port QSFP100 line card allows 36 x 100G of wire rate performance.



- 1 Status LED
- 2 100G ports

**DCS-7500R2M-36CQ-LC**

The 36 port QSFP100 line card allows 36 x 100G of wire rate performance.



- 1 Status LED
- 2 100G port LEDs

**DCS-7500R2AM-36CQ-LC**

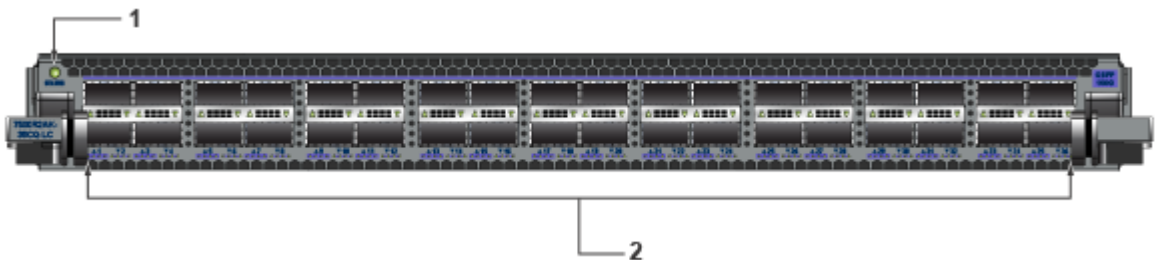
The 36 port QSFP100 line card allows 36 x 100G of wire rate performance.



- 1 Status LED
- 2 100G port LEDs

**DCS-7500R2AK-36CQ-LC**

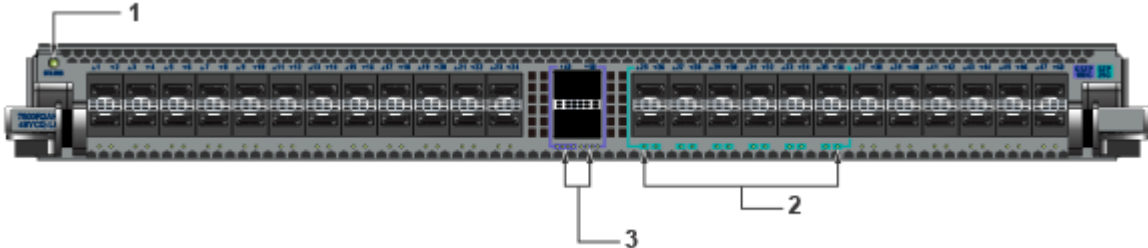
The 36 port QSFP100 line card allows 36 x 100G of wire rate performance.



- 1 Status LED
- 2 100G ports

**DCS-7500R2AK-48YCQ-LC**

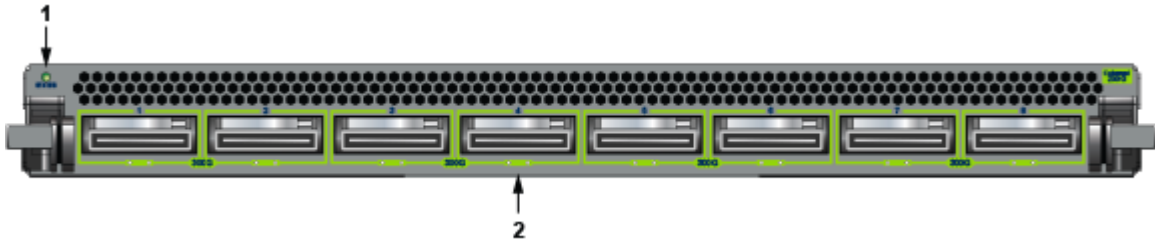
The line card has 2 x 100G ports and 12 x 25G ports.



- 1 Status LED
- 2 100G ports
- 3 25G ports

**DCS-7500R-8CFPX-LC**

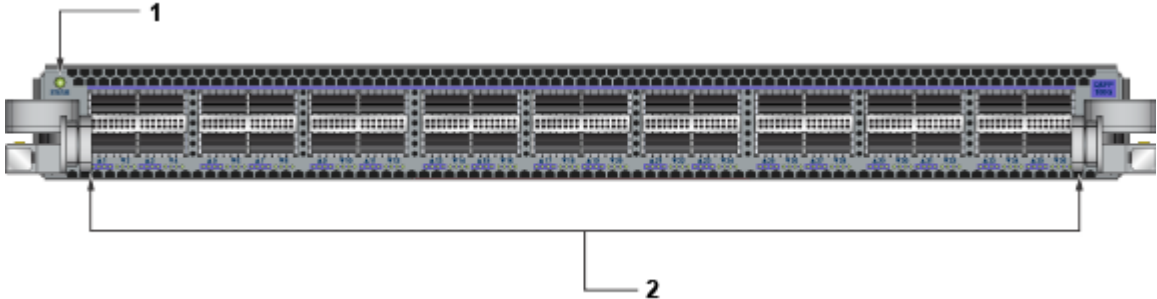
The 8 port tunable coherent DWDM with MACsec line card allows 200G of performance for long haul data.



- 1 Status LED
- 2 CFP2 port

**DCS-7500R3-36CQ-LC and DCS-7500R3K-36CQ-LC**

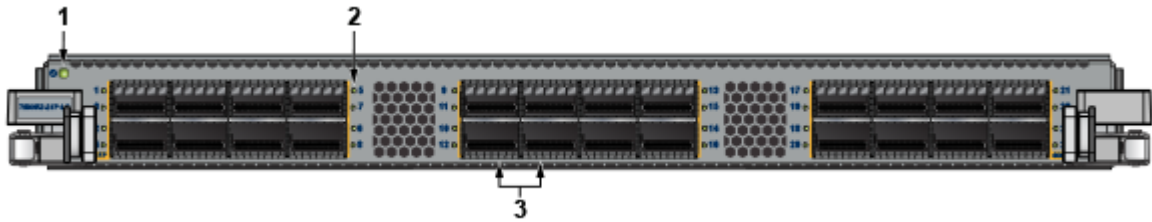
The line card can support up to 36 100G ports or 72 50G ports.



- 1 Status LED
- 2 100G port LEDs

**DCS-7500R3-24P-LC**

The line card can support 24, wire speed 400G OSFP ports or up to 96 100G ports with breakout cables and optics. The line card can support 10G, 25G, and 50G speeds with optics or cables.



- 1 Status LED
- 2 400G port LEDs
- 3 400G ports



# Appendix F

## Maintenance and Field Replacement

---

This appendix describes the process for replacing switch components. You must ensure that at least one of the secondary grounding pads located on the front panel of the chassis is connected to the data center ground. While working on the switches, use grounded, anti-static wrist straps connected to one of the attach points on the switch for grounding yourself and preventing ESD damage to the switch.

---

**Note** Illustrations in this appendix are examples for a representative switch and component(s). Procedures must be applied to component(s) supported by the specific device. You must use component(s) and the appropriate slots for those component(s) when replacing or adding them.

---

### F.1 Power Supplies

The switches support AC or DC Power supplies. The switches ship with a number of populated slots depending on the switch model. Empty slots are covered with a blank. For adding a new power supply in one of the available slots, remove the blank covering the slot before inserting a new power supply. The following steps are required for ESD protection when adding or replacing power supplies.

---

**Note** For the exact locations of power supplies for your device, refer to [Appendix D](#).

---

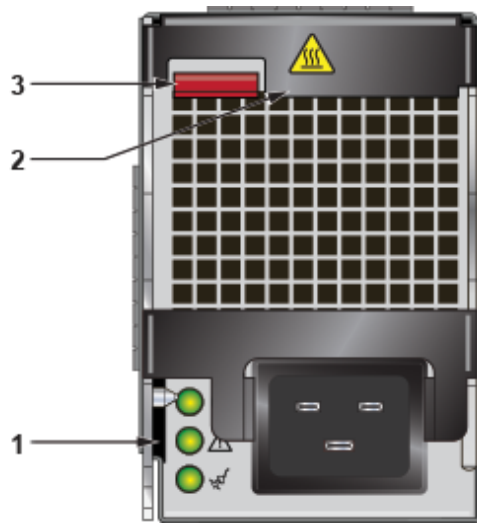
- Step 1** Ensure that the switch is grounded.
  - a Connect at least one of the secondary grounding pads located on the front panel of the chassis to the data center ground as needed.
- Step 2** Ground yourself using a connected, anti-static wrist strap.
  - a The anti-static ESD wrist strap must be connected to one of the attach points on the switch.
- Step 3** Remove the power supply to be replaced ([Removing AC Power Supply](#), [Removing DC Power Supply](#)) or the blank for the slot ([Removing Power Supply Blank](#)) in which the new power supply is to be added.

#### F.1.1 Removing AC Power Supply

Perform the following steps to remove an AC power supply.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Lift the retaining clip up and unplug the cable (if present).

Figure F-1: Unseat power supply



- |   |               |   |                |
|---|---------------|---|----------------|
| 1 | Status LED    | 3 | Ejector button |
| 2 | Release lever |   |                |

**Step 3** Pull the ejectors forward until the power supply disconnects.

**Step 4** Remove the power supply from the Switch using the power supply lever and handle.

### F.1.2 Removing DC Power Supply

Before performing any of the steps, ensure power is removed from DC circuits by turning off the power line servicing the circuits.

Make sure to remove the ground connection *last* when removing power.

**Step 1** Put on a grounded, anti-static ESD strap.

**Step 2** Disconnect the power cable from the DC power source.

**Step 3** Loosen the two captive screws on the bottom of the adapter from the power supply module.

**Step 4** Slide the cover out from the terminal studs.

**Step 5** Remove each power cable lug to the terminal studs with the flange locking nuts.

**Step 6** Remove the flange locking nuts to each of the terminal studs.

**Step 7** Remove the clear plastic cover protecting the terminal studs on the adapter. Slide the cover off of the adapter.

**Step 8** Disconnect the power cable lug from the terminal studs.

Make sure to remove the ground connection *last* when removing power.

### F.1.3 Removing Power Supply Blank

The power supply blank is screwed on. Use the appropriate screw driver for your switch.

**Step 1** Put on a grounded, anti-static ESD strap.



**Step 2** Unscrew the blank from the power supply slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a power supply slot is not populated.

### F.1.4 Installing AC Power Supply

You must make space for installing the power supply by removing an existing one ([Removing AC Power Supply](#), [Removing DC Power Supply](#)) or removing a blank ([Removing Power Supply Blank](#)) from a power supply slot available on the switch. Perform the following steps to install an AC power supply.

**Step 1** Put on a grounded, anti-static ESD strap.

**Step 2** Unpack the new power supply.

**Step 3** Insert the new power supply into the empty power supply slot.

**Step 4** After you insert the power supply, push gently on the power supply until the power supply is fully seated.

**Step 5** Pull up on the handle on the power supply to lock the power supply in place.

**Step 6** Connect the power cord to the power supply.

**Step 7** Fasten the spring-release clip to the power cord.

**Step 8** Connect to the power source.

**Step 9** Verify normal operation using the LED indicators for your switch [Table A-6 on page 47](#).

### F.1.5 Installing DC Power Supply

You must make space for installing the power supply by removing an existing one ([Removing AC Power Supply](#), [Removing DC Power Supply](#)) or removing a blank ([Removing Power Supply Blank](#)) from a power supply slot available on the switch. Perform the following steps to install a DC power supply.

**Step 1** Put on a grounded ESD strap.

**Step 2** Unbox the new power supply.

**Step 3** Insert the new power supply into the empty power supply slot.

**Step 4** After you insert the power supply, push gently on the power supply until the power supply is fully seated.

**Step 5** Pull up on the handle on the power supply to lock the power supply in place.

**Step 6** Connect the cables for your power supply as explained in the guide ([Section 4.4](#)).

## F.2 Fabric and Fan Module (Fabric Module)

### Note

For NEBS-compliant Service Provider installations, refer to [Removing Service Provider 7500N Series Fan and Safety Guard](#). Contact your Arista representative if needed.

The fabric and fan modules are hot-swappable. They are accessible from the rear of the switch ([Appendix D](#)). You must take into account that the module you are inserting is compatible with the switch and the module that you are replacing. Perform the following steps to remove and replace a fabric and fan module, or a fan-only module, if your switch supports one.

## F.2.1 Removing Fabric Module

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Loosen the two Phillips screws on fabric module.
- Step 3** Pull out the ejector handle on the fabric module.
- Step 4** Pull the ejector handles outwards by 90 degrees to disengage the fabric module.
- Step 5** Pull on the ejector handles to remove the fabric module from the slot.

---

**Note** Fabric modules can be heavier than 25 lbs. Provide adequate support while handling them to prevent injury or damage.

---

## F.2.2 Removing Fabric Module Blank

The fabric module blank is screwed on. Use the appropriate screw driver for your switch.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unscrew the blank from the fabric module slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a fabric module slot is not populated.

## F.2.3 Installing Fabric Module

You must make space for installing the module by removing an existing one ([Removing Fabric Module](#)) or removing a blank ([Removing Fabric Module Blank](#)) from a fabric module slot available on the switch. Perform the following steps to install the module.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unpack the module to be installed.
- Step 3** Open the ejector handles and carefully slide the module into the open slot.
- Step 4** Seat the module with the ejector handles open at 90 degrees.
- Step 5** Close the ejector handles.
- Step 6** Screw in the two Phillips screws.
- Step 7** Verify that the module is operating normally ([Table A-5 on page 45](#)).
- Step 8** Use the **show environment cooling** command to further verify normal operation.

## F.2.4 Removing Service Provider 7500N Series Fan and Safety Guard

### ESD GROUNDING STRAP ADDITION

This product must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. When installing or replacing this product, the ground connection must always be made first and disconnected last, and the person performing the task(s) must wear a grounded, ESD (anti-static) strap.

**On 7500 series products, you must replace the entire fabric module to replace a fan.**

- For **7504** and **7508**, unscrew the two Phillips screws on the back of the fabric module. Rotate the ejector handle(s) 90 degrees back to hard stops and pull fabric module straight back to remove. Install the replacement fabric module by first opening the ejector handle(s), then aligning the module in its slot **with the same orientation as the original**, and sliding it into the slot in the same orientation as the one removed. When the module is seated, rotate the ejector handle(s) forward and fasten the Phillips screws. **Do not overtighten Phillips screws.**
- For **7512** the failed fan replacement requires the removal of the plastic safety guard in addition to the fabric module. First, in the CLI console, enter the global configuration mode by issuing the commands **enable**, then **config**, followed by **env fan-speed override 100** to increase fan speeds. Wait five minutes for the system to sufficiently cool. Unscrew the six captive screws on outside perimeter of plastic safety guard. Set safety guard aside. Fabric module removal and reinstallation procedure is same as **7504/7508** instructions above. **Caution**, 7512R fabric module weighs more than 25lbs. Support module during handling. Reinstall plastic safety guard and fasten the six captive screws. Issue the **env fan-speed auto** command in the CLI console for normal operation.

## F.3 Touch Point Shield (Optional)

### F.3.1 Installing the Touch Point Shield

The 7512N supports an optional Touch Point Shield component that is attached to the rear of the device. Perform the following steps to install the Touch Point Shield to the 7512N.

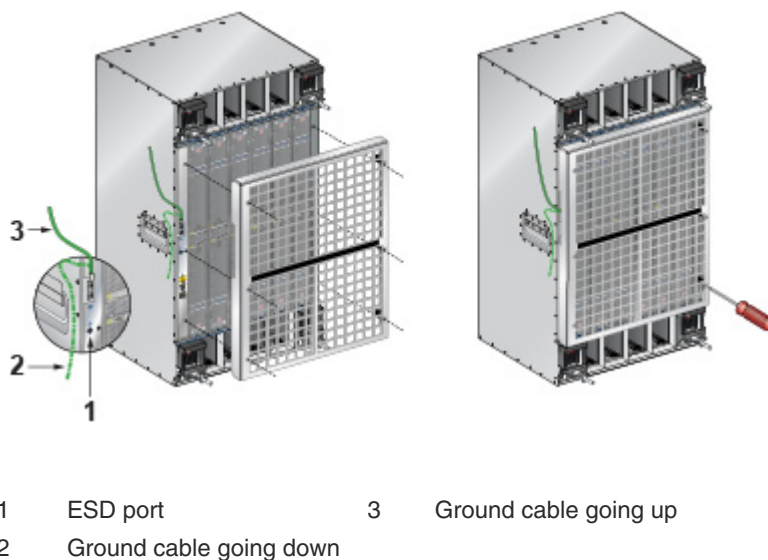
**Step 1** Attach the ground cable to the chassis.

#### Note

The ground cable should be attached so that it exits upwards to enable access to the ESD port on the chassis. You may arc the ground cable downwards, if needed ([Figure F-2](#)).

**Step 2** Match the six screws on the Touch Point Shield to the holes on the chassis and screw in the Touch Point Shield as shown in ([Figure F-2](#)).

**Figure F-2: Installing the Touch Point Shield (7512N)**



## F.4 Supervisor Module

The supervisor modules are hot-swappable. They are accessible from the front of the switch. You must take into account that the module you are inserting is compatible with the switch and the module that you are replacing. Use the following procedure to remove and replace a supervisor module. For the supervisor module locations for your device, refer to [Appendix C](#).

### F.4.1 Removing Supervisor Module

Perform the following steps to remove the module.

- Step 1** Put on a grounded ESD strap.
- Step 2** Pinch ejector buttons on handles or levers on each end of the supervisor card.
- Step 3** Spread the ejector buttons on the handles outwards.
- Step 4** Pull the supervisor module out by the ejector buttons on the handles of supervisor card.
- Step 5** Slide supervisor module out of the slot.

### F.4.2 Removing Supervisor Module Blank

The fabric module blank is screwed on. Use the appropriate screw driver for your switch.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unscrew the blank from the fabric module slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a fabric module slot is not populated.

### F.4.3 Installing Supervisor Module

You must make space for installing the module by removing an existing one ([Removing Supervisor Module](#)) or removing a blank ([Removing Supervisor Module Blank](#)) from a supervisor module slot available on the switch. Perform the following steps to install the module.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unpack the supervisor module to be installed.
- Step 3** Pinch ejector buttons on handles or levers on each end of the card.
- Step 4** Slide supervisor module into slot.
- Step 5** Spread ejector buttons on the handles.
- Step 6** Verify that the module is operating normally ([Table A-1 on page 42](#)).

## F.5 Linecards

The linecards are hot-swappable. They are accessible from the front of the switch. You must take into account that the linecard you are inserting is compatible with the switch and the linecard that you are replacing. Use the following procedure to remove and replace a linecard. If you are adding a new linecard, remove the blank from the linecard slot and install the new linecard. For the linecard locations on your switch, refer to [Appendix C](#).

### F.5.1 Removing Linecard

Perform the following steps to remove a linecard.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Pinch ejector buttons on handles or levers on each end of the linecard.
- Step 3** Pull the linecard out by the ejector buttons on the handles of linecard.
- Step 4** Slide linecard out of the slot.

### F.5.2 Removing Linecard Blank

The linecard blank is screwed on. Use the appropriate screw driver for your switch.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unscrew the blank from the linecard slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a linecard slot is not populated.

### F.5.3 Installing Linecard

You must make space for installing the linecard by removing an existing one ([Removing Linecard](#)) or removing a blank ([Removing Linecard Blank](#)) from a linecard slot available on the switch.

- Step 1** Put on a grounded, anti-static ESD strap.
- Step 2** Unpack the linecard to be installed.
- Step 3** Pinch ejector buttons on handles or levers on each end of the linecard.
- Step 4** Spread ejector buttons on the handles.
- Step 5** Slide the linecard into the slot.
- Step 6** Push ejector buttons on the handles of the linecard.
- Step 7** Verify that the linecard is operating normally ([Table A-3 on page 44](#)).



# Appendix G

## Taiwan RoHS Information

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This appendix provides Taiwan RoHS information for switches covered by this guide.

For Taiwan BSMI RoHS Table, go to <https://www.arista.com/assets/data/pdf/AristaBSMIoHS.pdf>.

