ARISTA

QUICK START GUIDE

7500N Series
Modular Data Center Switches

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

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Contents

Chapter 1

Overview

This section discusses the following topics:

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

Important:

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

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

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 you do not discard any accessories 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 of the 7500N Series Modular Switches order. The Parts List provides a list of components included with the switch.

1.3 Installation Process

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

1. Select and prepare the installation site (Site Selection).
2. Assemble the installation tools listed (Tools and Parts Required for Installation).
3. Attach the mounting brackets and install the switch in an equipment rack (7504N and 7508N Rack Mounting and 7512N and 7516N Shelf Rack Mount Installation).
4. Connect the switch to the power source and network devices (Cabling the Power Supplies).
5. Configure the switch (Configuring the Modular Switch).

Important:

Class 1 Laser Product: This product has provisions for installing Class 1 laser transceivers that provide optical coupling to the communication network. After a Class 1 laser product is installed, the equipment is a Class 1 Laser Product. The customer is responsible for selecting and installing the Class 1 laser transceiver and for ensuring 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 accompany the transceiver before 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.

Important:

This product's ultimate disposal should be done per all national laws and regulations.

L'élimination finale de ce produit doit être effectuée conformément à toutes les lois nationales etrèglements.

1.4 Safety Information

Refer to the *Arista Networks Document Safety Information and Translated Safety Warnings* 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 "show tech-support" output.

- **Web:** https://www.arista.com/en/support.

  You can create a support ticket through the support portal on our website. You may also download the most current software and documentation and view FAQs, Knowledge Base articles, Security Advisories, and Field Notices.

- **Phone:** +1 866-476-0000 or +1 408-547-5502.

Important:

There are 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.

1.6 Specifications

The Modular Switch Specifications table lists the specifications of Arista Data Center modular switches covered by this guide.

Table 1: Modular Switch Specifications

	DCS-7504N	DCS-7508N	DCS-7512N	DCS-7516N
Height	7RU: 312 mm (12.25 inches)	13RU: 578 mm (22.75 inches)	18RU: 801 mm (31.53 inches)	29RU: 1289 mm (50.75 inches)
Width	483 mm (19 inches) maximum	483 mm (19 inches) maximum	483 mm (19 inches) maximum	483 mm (19 inches) maximum
Depth	795 mm (31.3 inches)	795 mm (31.3 inches)	849 mm (33.4 inches)	941 mm (37.1 inches)
Weight	101 kg (222 lbs) fully loaded	400 lbs (182 kg) fully loaded	300 kg (661 lbs) fully loaded	465 kg (1025 lbs) fully loaded
DC Input Voltage (per circuit)	-48/-60 V DC	-48/-60 V DC	-48/-60 V DC	-48/-60 V DC,
DC Branch Circuit Protection	100 A	100 A	100 A	100 A
AC Input Voltage (per circuit)	200-240 V	200-240 V	200-240 V	200-240 V
AC Branch Circuit Protection	20 A	20 A	20 A	20 A
Input Power Circuits	2 to 4 circuits	2 to 8 circuits	2 to 12 circuits	6 to 20 circuits
Ambient Temperature	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)
Storage Temperature	-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)
Relative Humidity	5 to 90%	5 to 90%	5 to 90%	5 to 90%
Altitude	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)
Cooling	See Power draw configurations in Table 2: 7500N Series Power Specifications	See Power draw configurations in Table 2: 7500N Series Power Specifications	See Power draw configurations in Table 2: 7500N Series Power Specifications	See Power draw configurations in Table 2: 7500N Series Power Specifications

The Table 2: 7500N Series Power Specifications table lists the power specifications of modular switch components.

Table 2: 7500N Series Power Specifications

Module Type	Part Number	Power Draw (Typical / {Hot} Maximum)
Supervisor Modules	DCS-7500E-SUP	47 W / 87 W
	DCS-7500-SUP2	80 W / 120 W
	DCS-7516-SUP	88 W / 130 W
Linecard Modules	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
Fabric Modules	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
Power Supply	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

Module Type	Part Number	Power Draw (Typical / {Hot} Maximum)
7504N Series System	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
7508N Series System	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
7512N Series System **Note:** 7512N systems support only 7500R and 7500R3 Series linecards.	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

Module Type	Part Number	Power Draw (Typical / {Hot} Maximum)
	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
7516N Series System **Note:** 7516N systems support only 7500R Series linecards.	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

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

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

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

Chapter 2

Preparation

This section discusses the following topics:

- Site Selection
- Tools and Parts Required for Installation
- Electrostatic Discharge (ESD) Precautions

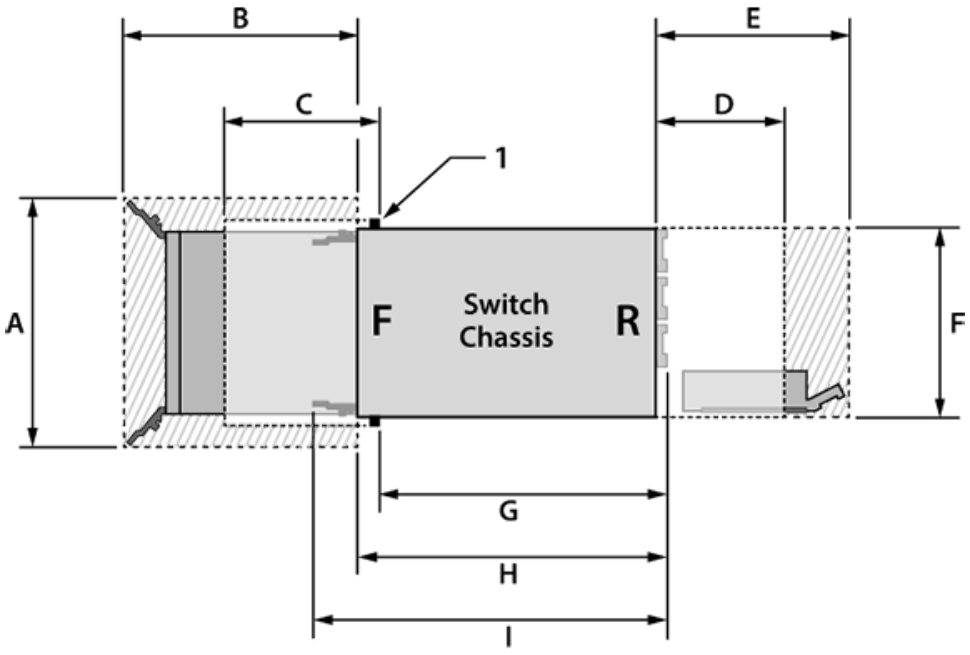
2.1 Site Selection

Consider the following criteria 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 and for air circulation.

Figure 2-1: Clearance Requirements and Footprint for Switches displays the dimensions and footprint of the switch clearance requirements.

Figure 2-1: Clearance Requirements and Footprint for Switches



1 Front mounting location

Note: Depending on deployment constraints such as cable management and servicing equipment, the minimum space required could be higher than those indicated. Validate the deployment location for sufficient service space.

Table 3: Clearance Requirements and Footprint Dimensions show the dimensions for each modular switch.

Table 3: Clearance Requirements and Footprint Dimensions

Dimensions	Switch			
	DCS-7504N	**DCS-7508N**	**DCS-7512N**	**DCS-7516N**
Width linecard open (A)	57.5 cm (22.6 in)	57.5 cm (22.6 in)	57.5 cm (22.6 in)	57.5 cm (22.6 in)
Minimum space to service modules (B)	63.2 cm (24.9 in)	63.2 cm (24.9 in)	62.3 cm (24.5 in)	62.3 cm (24.5 in)
Airflow clearance (C)	27.8 cm (11.0 in)	27.8 cm (11.0 in)	26.9 cm (10.6 in)	26.9 cm (10.6 in)
Airflow clearance (D)	24.0 cm (9.5 in)	24.0 cm (9.5 in)	24.0 cm (9.5 in)	24.0 cm (9.5 in)
Minimum space to service modules (E)	36.2 cm (14.3 in)	41.3 cm (16.3 in)	45.5 cm (17.9 in)	45.5 cm (17.9 in)
Width chassis (F)	45.3 cm (17.8 in)	45.3 cm (17.8 in)	45.3 cm (17.8 in)	45.3 cm (17.8 in)
Depth chassis (front rail to rear) (G)	79.5 cm (31.3 in)	79.5 cm (31.3 in)	89.9 cm (35.4 in)	89.9 cm (35.4 in)
Depth chassis (face plate to rear) (H)	75.8 cm (29.8 in)	75.8 cm (29.8 in)	95.6 cm (37.6 in)	95.6 cm (37.6 in)
Depth populated (I)	90.5 cm (35.6 in)	90.5 cm (35.6 in)	103.6 cm (40.8 in)	103.6 cm (40.8 in)

- **Temperature and Ventilation:** For proper ventilation, install the switch with ample airflow to the front and back of the switch. The temperature should not go below 0°C 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 4: Rack Space Requirements shows the rack space requirements for each modular switch.

Table 4: Rack Space Requirements

Switch	Rack or Cabinet (standard 19" EIA)		
	2-post	**4-post**	**Switch Height (RU)**
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 each switch's required mounting brackets or shelf.

- **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 overcurrent protection devices and circuit disconnect means. Power must be disconnected from ALL power cables to turn off a unit.

DC câbles doivent être protégés avec dispositifs de protection de surintensité circuit et moyens de déconnexion du circuit. Pour éteindre une unité, 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 the input connectors from the AC power outlet.
  - DC power cables can reach the input connectors from the DC power distribution unit.

2.2 Tools and Parts Required for Installation

The following tools are required to install a modular switch:

- A mechanical device capable of lifting the chassis being installed (Specifications).
- 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 5: Rack Component Requirements show the rack components required for each modular switch.

Table 5: Rack Component Requirements

Switch	Rack or Cabinet (standard 19" EIA)		
	Rack Screws [1]	Rack Nuts [2]	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

[1] The accessory kit includes screws that fit many common equipment racks.

[2] 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.
- Select a conductive work surface (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.
- Select tools that do not create ESD.

Chapter 3

Rack Mounting the Switch

This section discusses the following topics:

- 7504N and 7508N Rack Mounting
- 7512N and 7516N Shelf Rack Mount Installation

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

- Two-Post Rack Mount provides instructions for mounting the switch in a two-post rack.
- Four-Post Rack Mount provides instructions for mounting the 7504N and 7508N switches in a four-post rack.
- 7512N and 7516N Shelf Rack Mount Installation 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 7516N switches only require a different mounting shelf 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 Cabling the Modular Switch.

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:

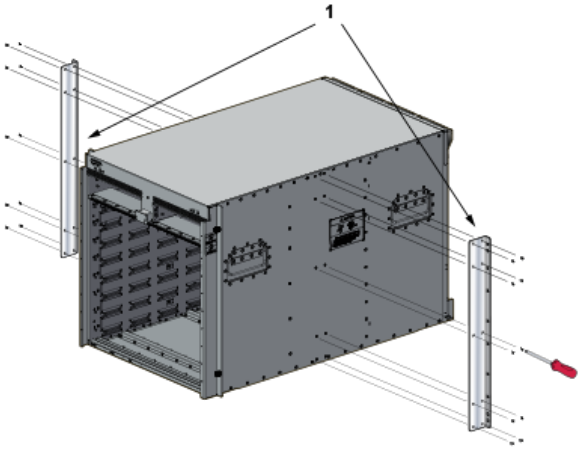
- 2 - center-mount brackets
- 20 - M4x8 pan-head Phillips screws

3.1.1.1 Attaching Mounting Brackets to the Chassis

1. Orient the switch chassis and the two center-mount brackets (Figure 3-1: Attaching the Center-mount Brackets).

   Position the flanges that attach to the rack posts toward the rear of the chassis.
2. Attach both center-mount brackets to the chassis. Each bracket requires ten M4x8 pan-head Phillips screws.

Figure 3-1: Attaching the Center-mount Brackets



1 Center mount brackets

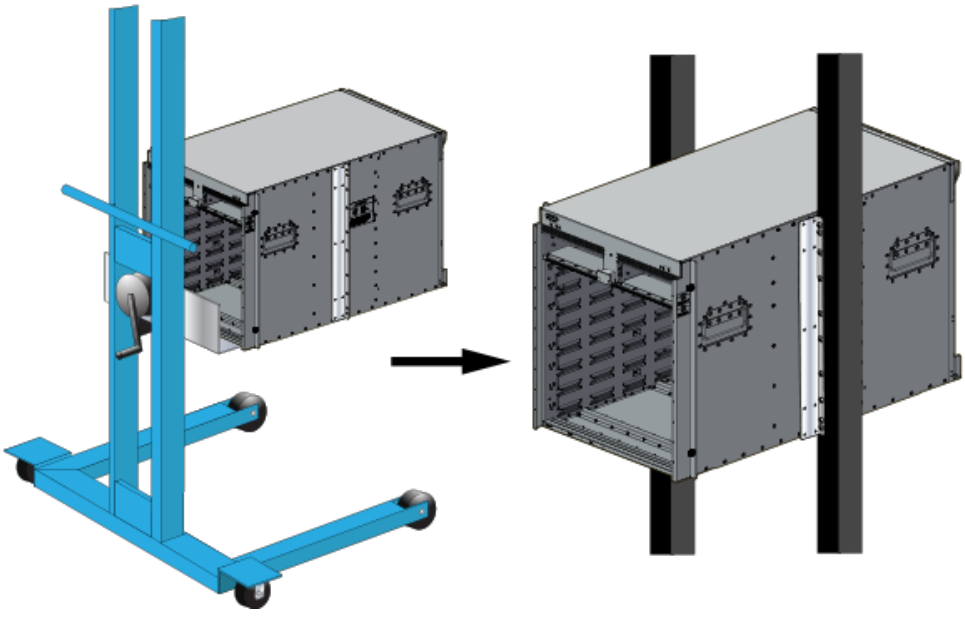
3.1.1.2 Inserting the Switch into the Rack (7504N)

The rack mounting assembly is identical for all 7500N Series switches.

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.
2. Lift the chassis into the rack. Position the flanges against the rack posts. See Figure 3-2: Lifting the Chassis into the Two-post Rack.

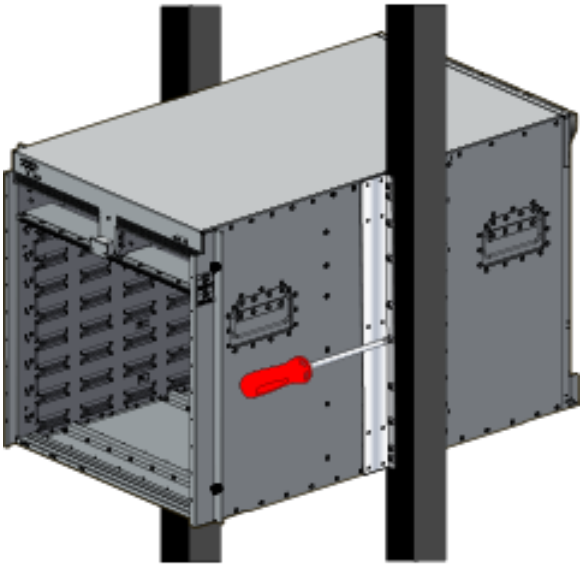
Figure 3-2: Lifting the Chassis into the Two-post Rack



3. Select mounting screws that fit your equipment rack.

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.
5. Attach the bracket flanges to the rack posts (Figure 3-3: Attaching Flanges to the Rack Post). Space the screws evenly along the flange.

Figure 3-3: Attaching Flanges to the Rack Post



6. After completing the two-post installation, proceed to Cabling the Modular Switch.

3.1.2 Four-Post Rack Mount

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

Illustrations in this section 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

The Figure 3-4: Left Front Post Assembly: Four-Post Rack Mount display the front four-post mounting parts. The Figure 3-5: Left Rear Post Assembly and Shelf Support Orientation display the rear four-post mounting parts.

3.1.2.1 Assembling the Shelf (7504N and 7508N)

1. Attach the front bracket and shelf support to the left front rack post, as shown in the "Left Front Post Assembly: Four-Post Rack Mount" image below.. 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.

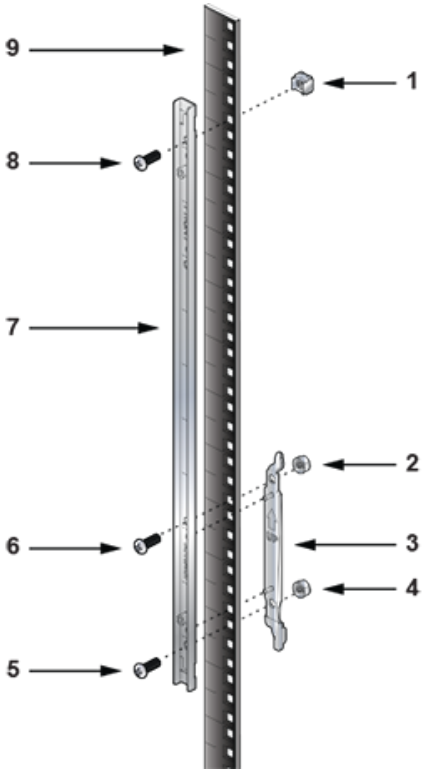
Threaded rack holes: Attach the front bracket to the post with screws that can be threaded through the rack post.

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



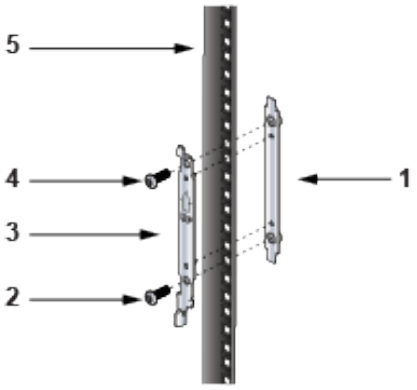
1 M6 cage nut	4 M6 nut	7 Front Bracket
2 M6 nut	5 Switch Bottom	8 M6 screw
3 Shelf support	6 Switch Top	9 Front rack post

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.
4. Attach the shelf support and back bracket to the left rear post. The shelf support must be assembled on the front and rear posts at the same vertical level. An up arrow is printed on the shelf support to indicate its proper orientation.

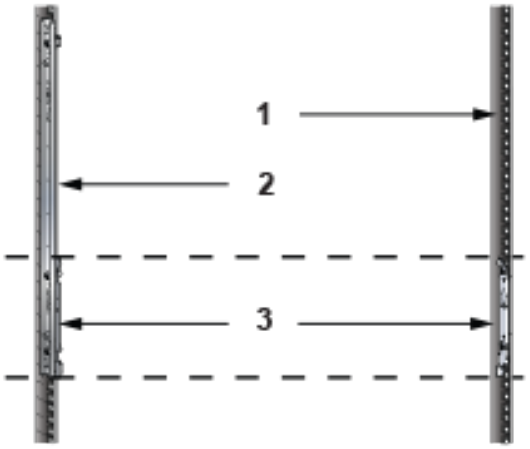
   Unthreaded rack holes: Attach the parts as displayed in following figures.

   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



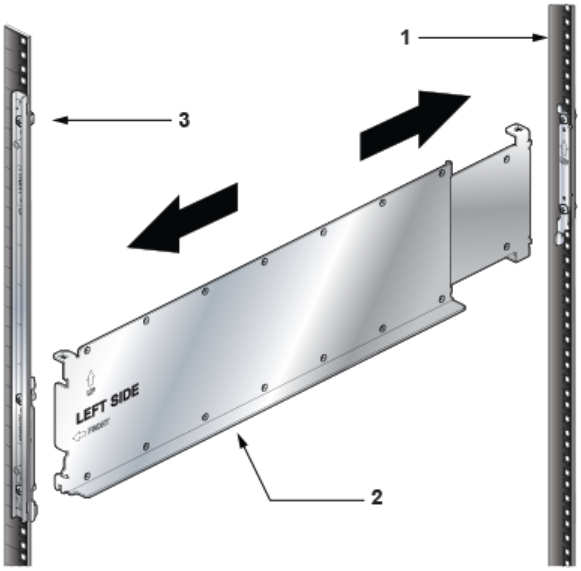
1 Back bracket
2 M6 screw
3 Shelf support
5 M6 screw
5 Rear rack post



1 Rear rack post
2 Front rack post
3 Shelf supports

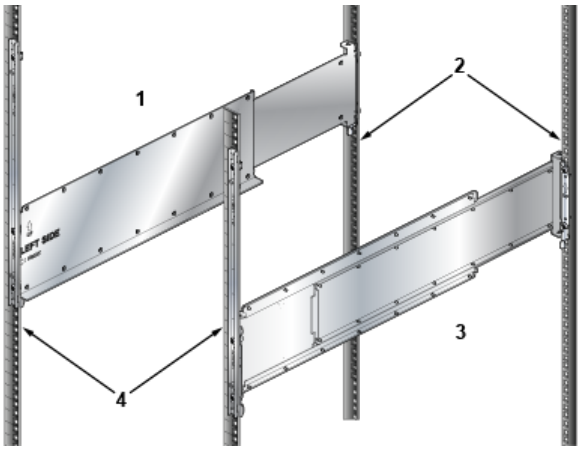
5. Adjust the left shelf by sliding its components to fit between the front left and rear left rack posts, as shown in Figure 3-6: Adjusting the Left Shelf.
6. Lift the left shelf above the shelf supports installed on the front left and rear left rack posts (**Step 1** and **Step 4**). Align the holes and hook with the stubs on the brackets as shown in Figure 3-7: Both Switch Shelves Installed. Lower the shelf so the bracket stubs are inserted into the shelf holes and hook.
7. Press firmly on the shelf to ensure it is seated securely on the rack posts.
8. Install the right shelf on the right front and rear rack posts by repeating **Step 5** and **Step 6** to obtain the rack configuration.

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
2 Rear rack post
3 Right shelf
4 Front rack post

3.1.2.2 Inserting the Switch into the Rack (7508N)

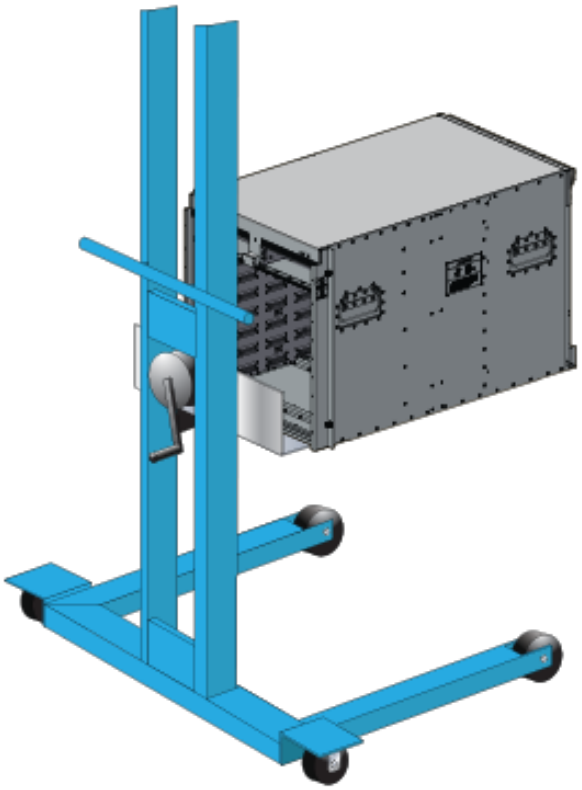
The rack mounting assembly is identical for the 7504N and 7508N switches. Illustrations in this chapter depict the mounting of an unpopulated 8-slot chassis.

1. Move the chassis to the rack using a mechanical lift, as shown in the following figure.

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

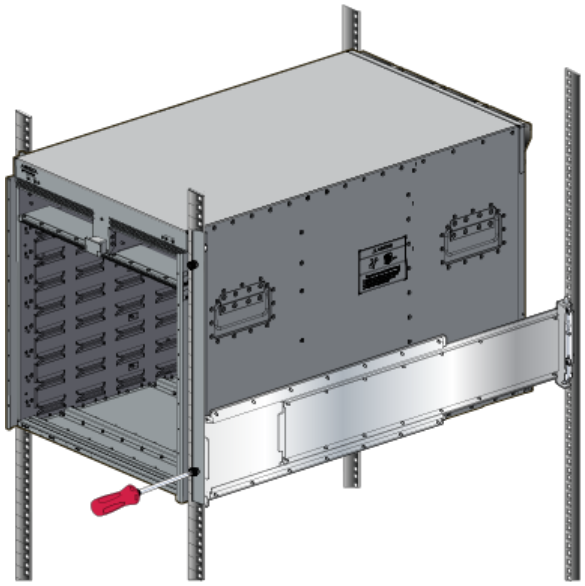
2. Lift the chassis into the rack.

Figure 3-8: Lifting the Chassis



3. Secure the chassis by tightening the thumbscrews on the front flanges into the rack posts, as shown in the following figure.

Figure 3-9: Secure the Switch to the Rack Shelf



4. After completing the two-post Installation, proceed to Cabling the Modular Switch.

3.2 7512N and 7516N Shelf Rack Mount Installation

The following discusses the rack mounting assembly procedure for the 7512N and 7516N Series switches.

3.2.1 Assembling the Shelf

1. Remove the plastic alignment spacers for threaded racks and select the 3 mm diameter alignment pins.

Figure 3-10: Alignment Spacer

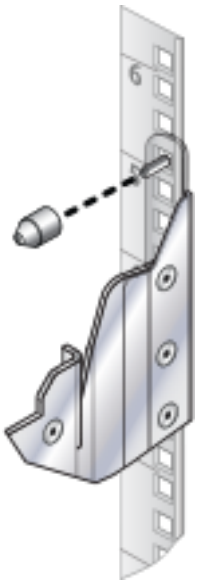
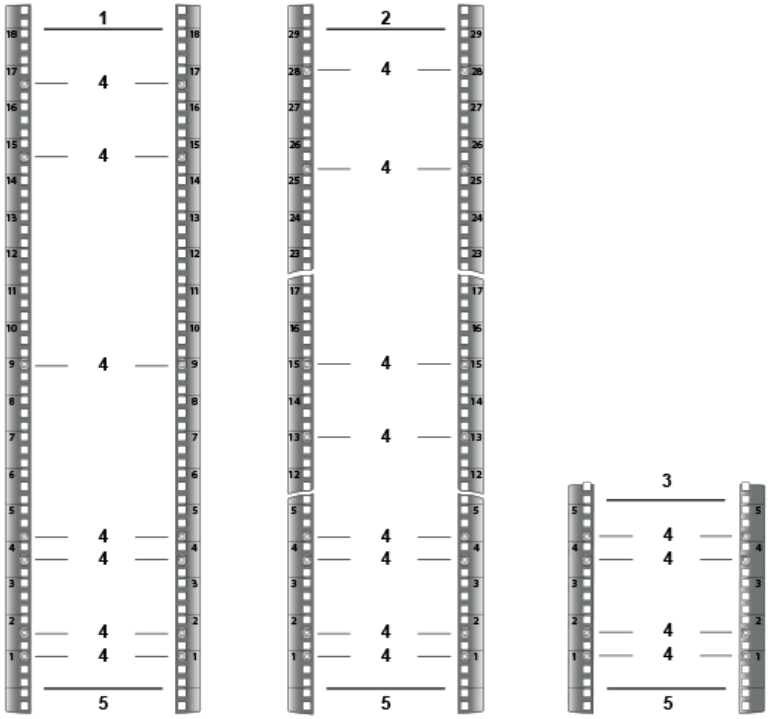


Figure 3-11: Rack Mount Shelf Orientation



1 7512N Top (Front)

2 7516N Top (Front)

3 Rack (Rear - both switches)

4 Cage nut locations

5 Switch Bottom

The following table lists the cage nut locations for the rack's front and rear switches.

Table 6: Cage Nut Locations on the Rack

Switch	Cage Nut Locations
7512N (Front of the rack)	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
7516N (Front of the rack)	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
7512N and 7516N (Rear of the rack)	Top hole 1st U Middle hole 2nd U Middle hole 4th U Bottom hole 5th U

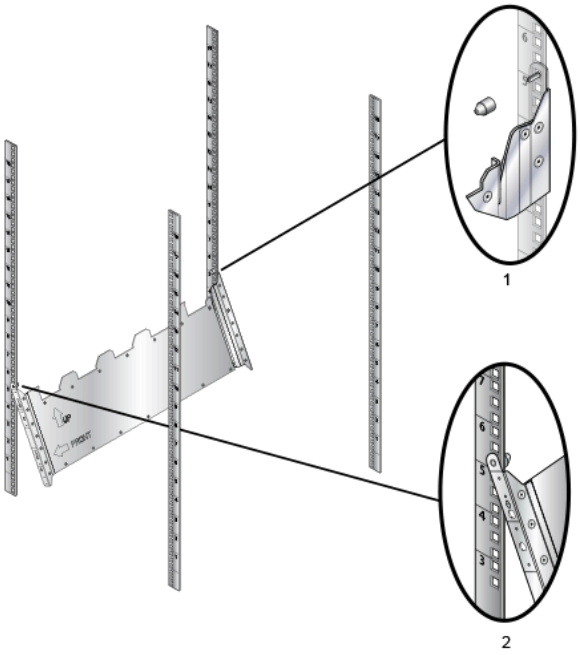
2. Attach the front bracket of the shelf support to the left front rack post, as shown in the Figure 3-12: Left Front Post Assembly. An up arrow is printed on the shelf support to indicate its proper orientation.

   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.

3. Hook the alignment pin to the bottom hole of the 6th U from the bottom, as shown.

Figure 3-12: Left Front Post Assembly



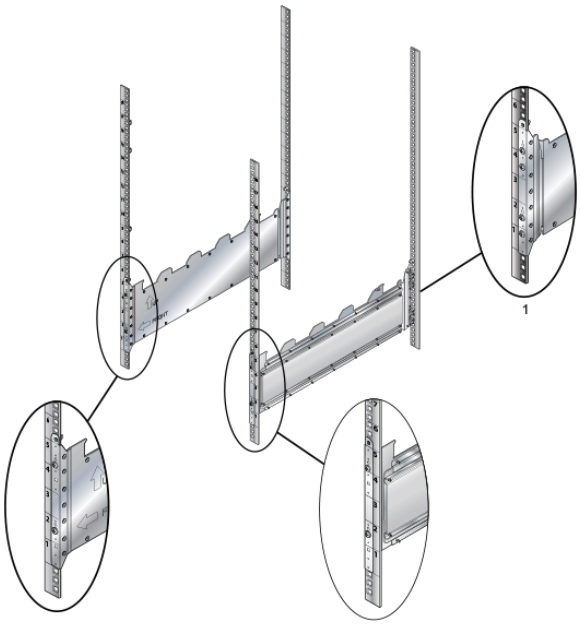
1 For the threaded rack, remove the plastic alignment spacer and use a 3 mm diameter alignment pin as shown.

2 Hook the alignment pin to the bottom hole of the 6th U from the bottom.

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

4. Attach the shelf support and back bracket to the left rear post. The shelf support must be assembled on the front and rear posts at the same vertical level. An up arrow is printed on the shelf support to indicate its proper orientation.
5. **Unthreaded rack holes:** Use the M6 screws and cage nuts supplied in the accessory kit.
6. **Threaded rack holes:** Attach the shelf support to the post with screws that thread into the rack post.

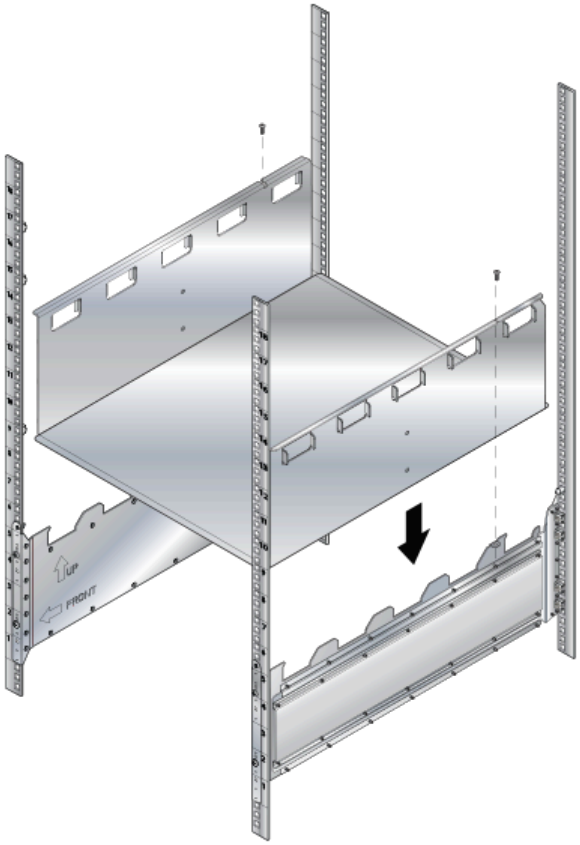
Figure 3-13: Left Rear Post Assembly and Shelf Support Orientation



1 Install all four screws in the back.

7. 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 so the shelf-support-bracket stubs are inserted into the shelf holes and hook.
8. 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



9. Press firmly on the shelf to ensure it is seated securely on the rack posts.

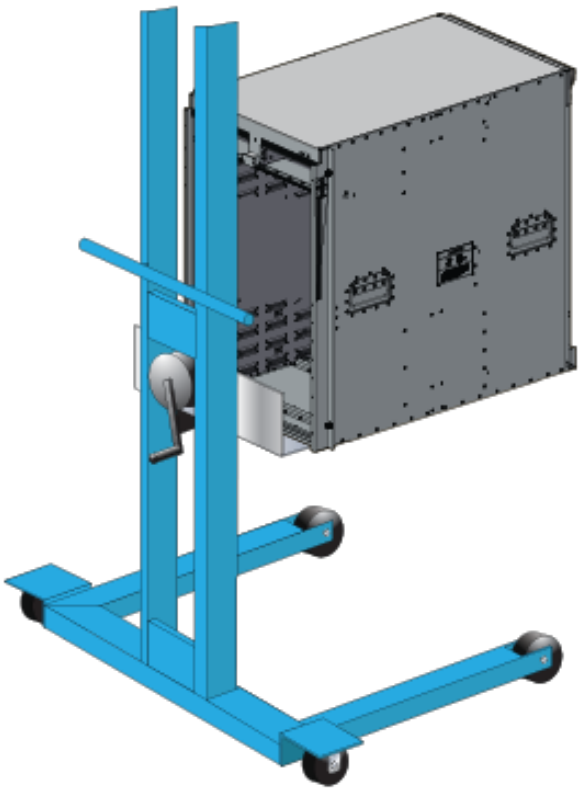
3.2.2 Inserting the Switch into the Rack

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

1. Move the chassis to the rack using a mechanical lift (Figure 3-15: Lifting the 12-slot Chassis 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



2. Carefully install the switch into the rack.

Figure 3-16: Installing the Switch into the Rack

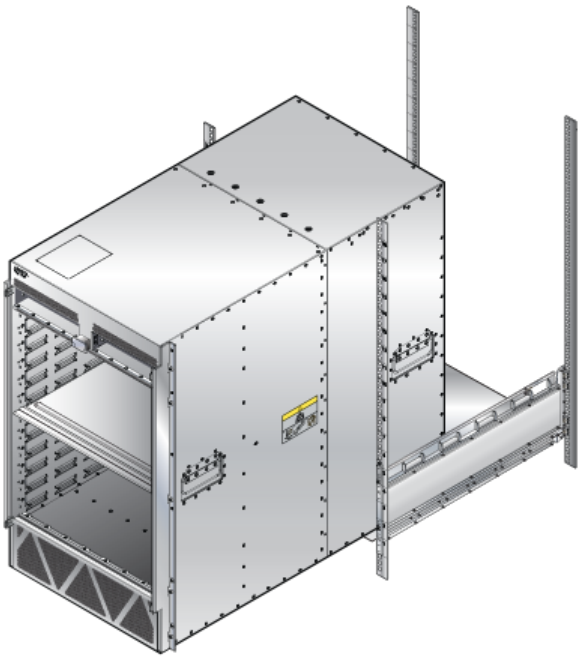
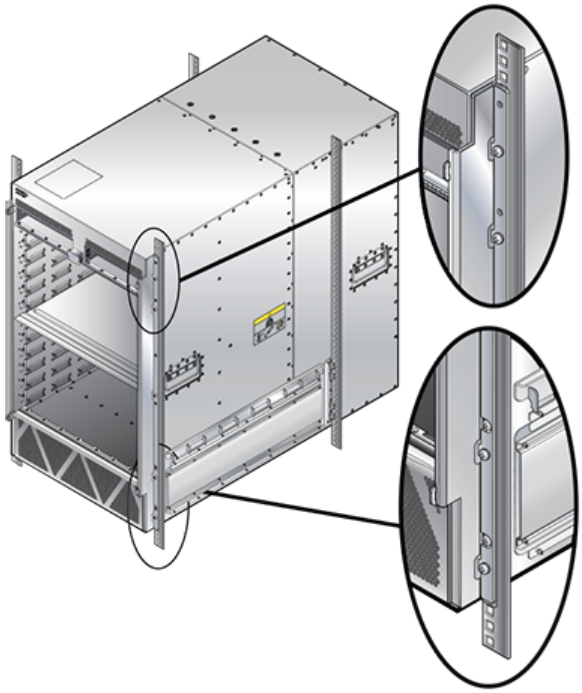


Figure 3-17: Secure the Chassis to the Rack



3. Ensure the rack kit is firmly installed.
4. Secure the chassis by use of 10 rack screws attaching the ears of the chassis to the front flanges of the rack posts.
5. After completing the Shelf Rack Mount Installation, proceed to Cabling the Modular Switch.

Chapter 4

Cabling the Modular Switch

This section discusses the following topics:

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. Consult with the appropriate regulatory agencies and inspection authorities to ensure compliance if necessary.

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 airflow.

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.

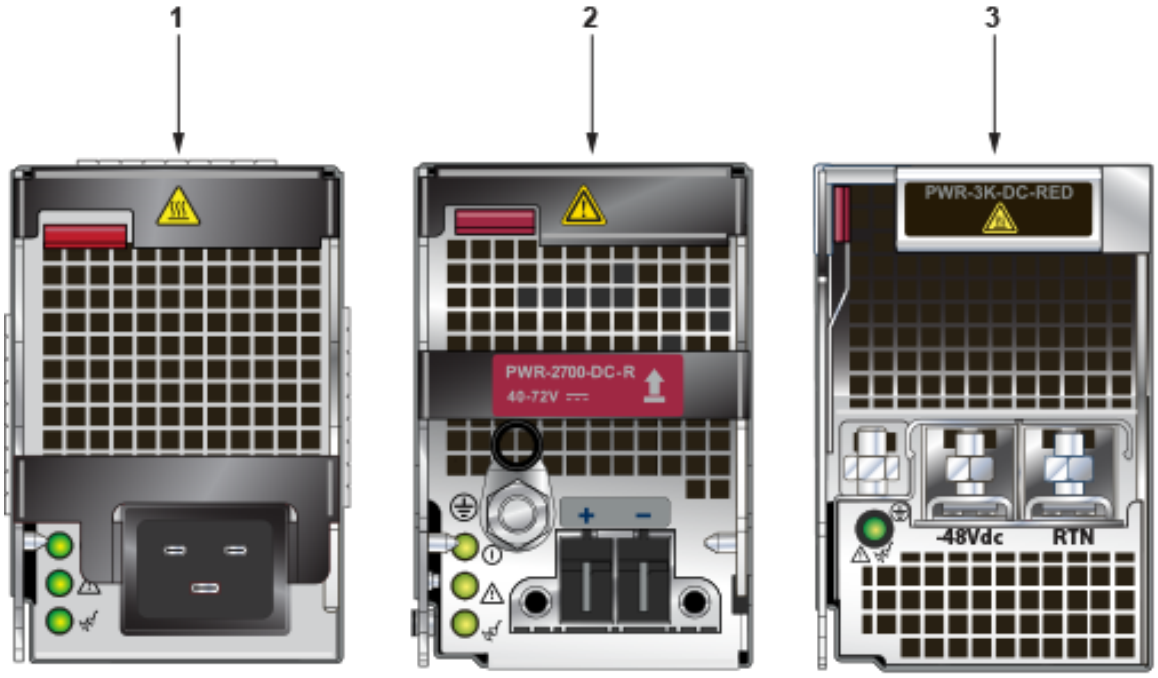
Lire toutes les instructions d'installation avant de brancher le système à la source d'alimentation.

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: Supported Power Supplies 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

The Front Panel displays the secondary grounding pads' location on the switch chassis's front panel. 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 the Rear Panel.

Turn off the switch: Remove all power cords from the power inlets.

4.3 Cabling the AC Power Supply

The Rear Panel 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

Important:

The -48V and Battery-Return leads are a pair and should run adjacent 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

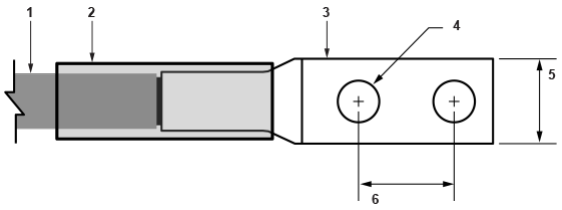
Before installing, remove power from DC circuits by turning off the power line servicing the circuits. Prepare the stranded wiring before you begin a DC power installation.

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:

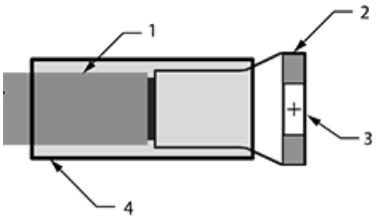
   - DC Input Wire Size: 2 – 4 AWG (33.6 mm^2 to 21.2 mm^2).
     - Primary Ground Wire Size: 2 – 4 AWG (33.6 mm^2 to 21.2 mm^2) per power supply.
       - The conductors are copper.

   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

2. Select 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. Select a ground wire of at least 2 – 4 AWG. Use only copper wire.

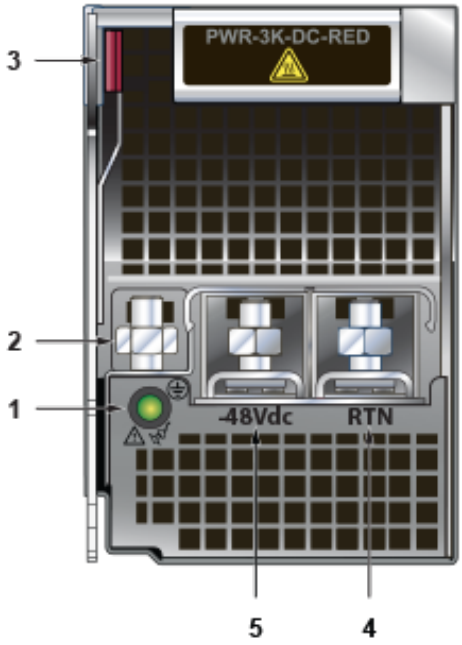
3. Slip on heat-shrink tubing on the wire ends before assembling the lugs onto the wire.
   - The lugs must be crimped with the proper tool.
   - The tubing should extend over the lug’s barrel and the wire's insulator.

4. Shrink the tubing with a heat gun.

4.4.3 PWR-3K-DC-RED Power Supply

The Figure 4-4: PWR-3K-DC-RED Power Supply displays the PWR-3K-DC-RED power supply.

Figure 4-4: PWR-3K-DC-RED Power Supply



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

1. Prepare the stranded wiring; see Wire and Lug Preparation.
2. Attach the power cable to the supply terminals.
3. Tightening Torque: 2.7 N-m (24 in.-lbs.)

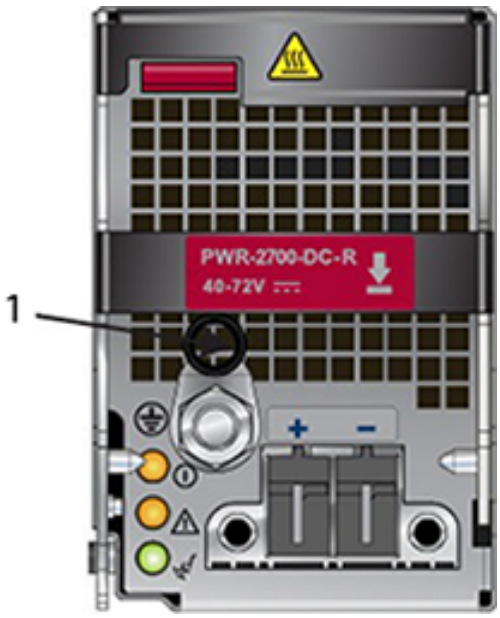
4.5 DC Power Adapter Installation for PWR-2700-DC-R

4.5.1 Connecting the 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.

The Figure 4-5: DC Power Supply displays the PWR-2700-DC-R power supply without the DC adapter.

Figure 4-5: DC Power Supply

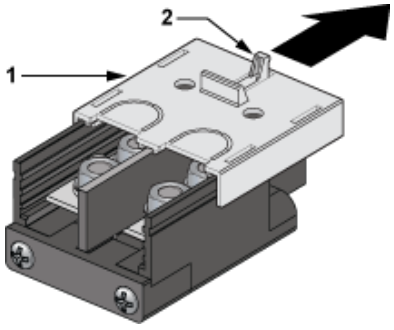


1 Ground

1. Prepare the stranded wiring; see Wire and Lug Preparation.
2. Attach the ground cable to the ground stud.
3. Tightening Torque: 2.7 N-m (24 in.-lbs.)

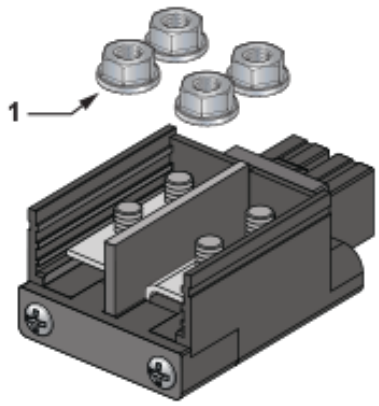
4.5.2 Connecting the Power Cable Lug to the Terminal Studs

1. Prepare the stranded wiring; see Wire and Lug Preparation.
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.



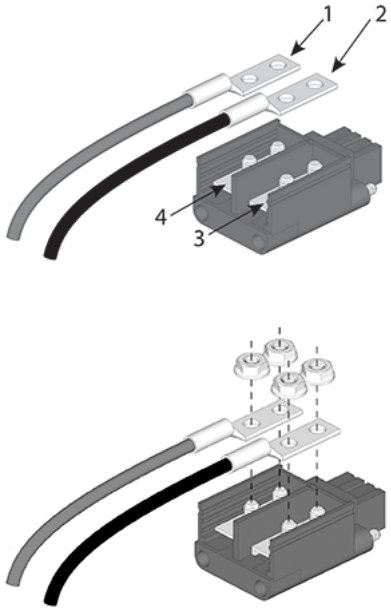
1 Plastic lid 2 Center tab

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



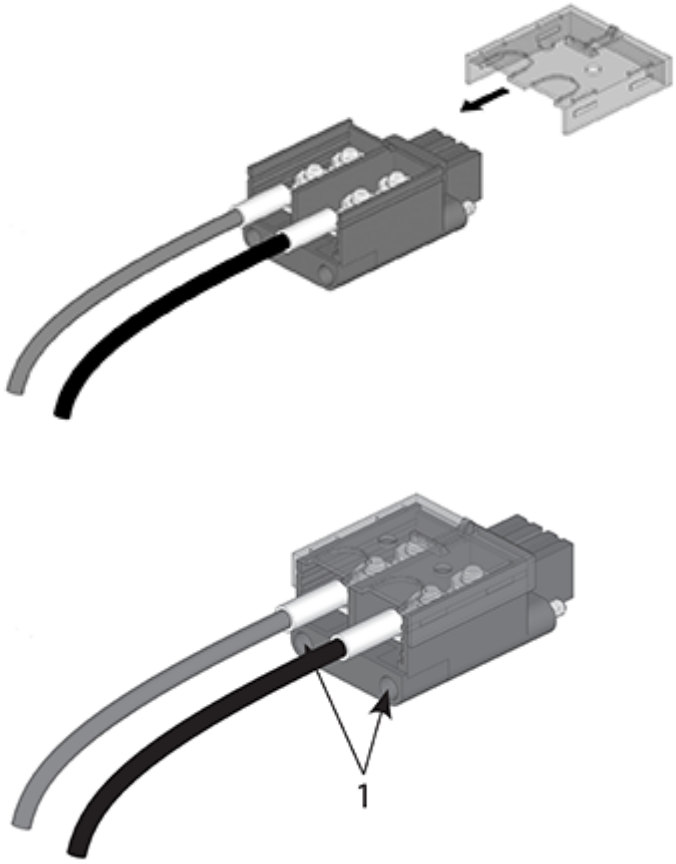
1 Flange locking nuts

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.).



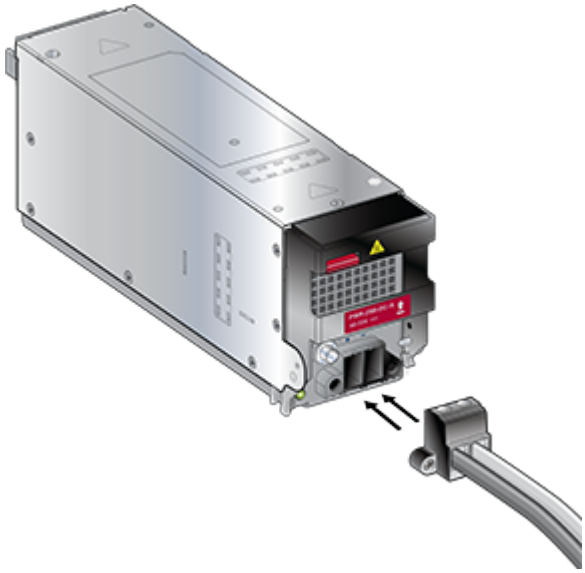
1 Compression lugs
2 Compression lugs
3 -48V
4 RTN

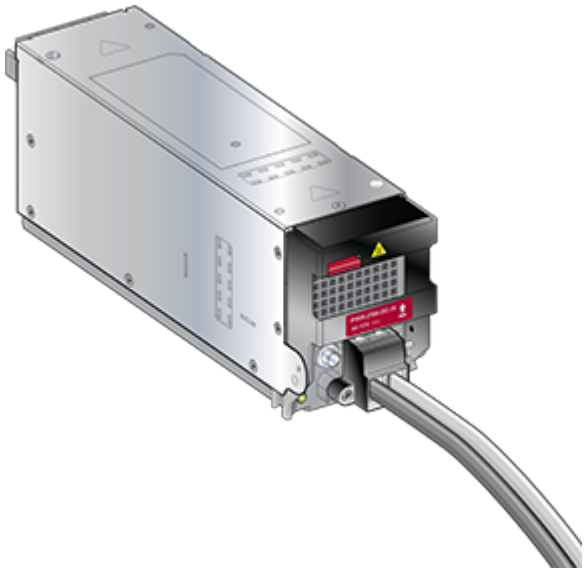
5. Slide the cover over the terminal studs until it clicks into place.



1 Captive screw slots

6. Insert the adapter into the DC power supply.





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.).
8. Attach the power cable to the DC power source.

Important:

Apply the ground connection first during installation and remove it 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

The Table 7: Power Supply Specifications (each PSU) table shows the power supply specifications for each of the PSUs supported.

Table 7: 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

The Table 8: Power Supply Configurations table shows the power supply configurations for the modular switches.

Table 8: 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 a separate circuit with the 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.
- Do not mix power supply types unless your switch allows for mixing power supplies.
- 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 160-slot chassis (Domain 1: PS1 – PS10; Domain 2: PS11 – PS20).
- Chassis with multiple power domains should have equal supplies in each domain.
- For supervisor cooling purposes, all systems require the minimum number of PSUs in the top section behind the supervisors, as specified in the Power Supply Configurations.
- For 8-slot and 12-slot chassis (grouped power supplies top and bottom), Arista recommends an equal number of power supplies in the top and bottom groups.
- For the 16-slot chassis with two power domains, the power domain with the lowest number of power supplies prescribes the total power available. Therefore, Arista recommends an equal number of PSUs in each domain.
- Valid redundancy configurations for each domain are described in the Power Supply Redundancy section.

4.8 Power Supply Redundancy

Important:

Installation of this equipment must comply with local and national electrical codes. Consult with the appropriate regulatory agencies and inspection authorities to ensure compliance if necessary.

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 fed originates from a different power provider. Each independent power feed will be referenced as labels A and B.

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

For supervisor cooling purposes, all systems require a minimum number of operating power supplies (see Power Supply Configurations) 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 appendices display the location of the components on all switches described in this guide.

The Front Panel displays the front panel location of the supervisor modules.

The Rear Panel 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:

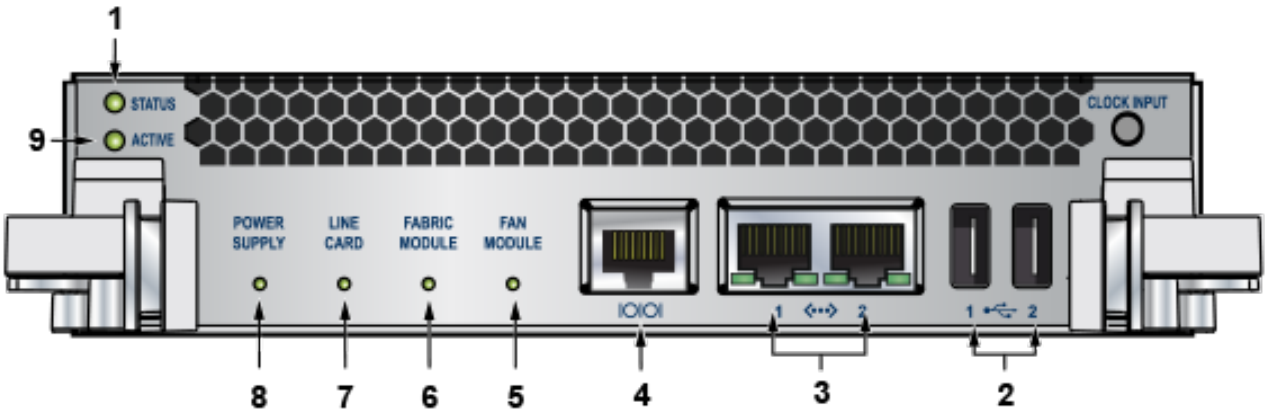
Unused slots must be occupied or covered with a blank to ensure proper airflow through the chassis.

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

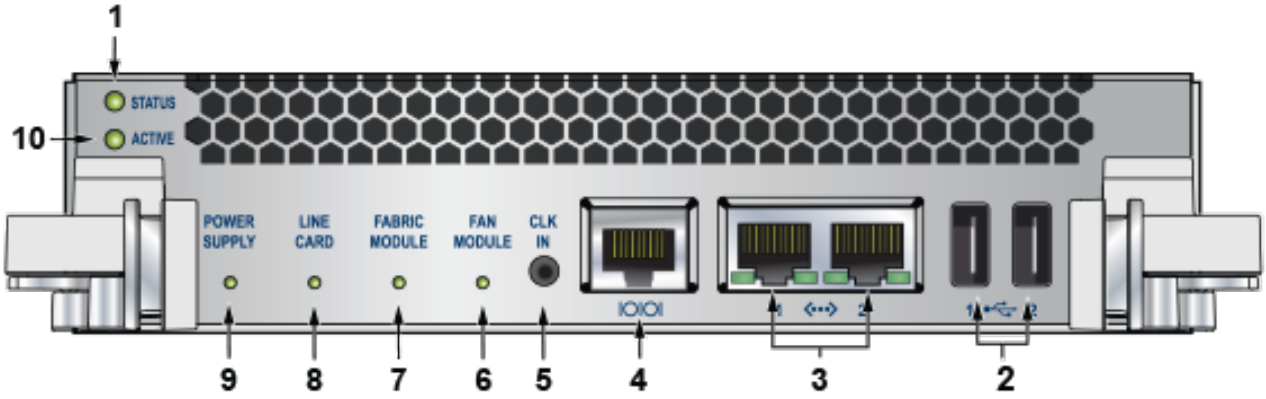
Supervisor modules contain console, management, and USB ports. Figure 4-6: Supervisor DCS-7500E-SUP and Figure 4-7: Supervisor DCS-7500E-SUP 2 display port locations on the supervisors.

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



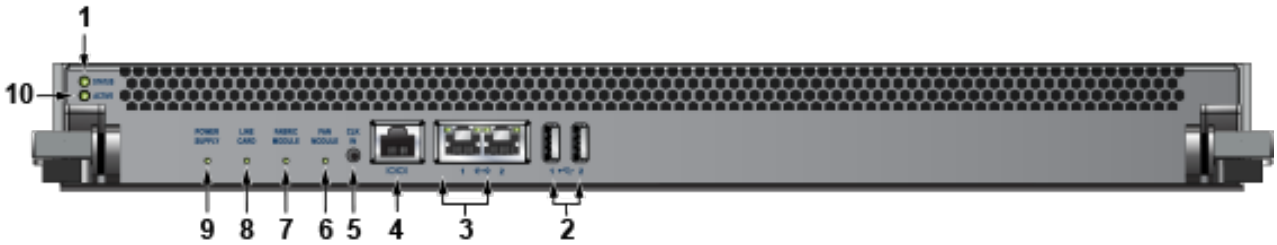
1 Status LED
2 USB ports
3 Ethernet management ports
4 Serial console port
5 Fan module status LED
6 Fabric module status LED
7 Linecard status LED
8 Power supply status LED
9 Active LED

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



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

Figure 4-8: Supervisor DCS-7516-SUP



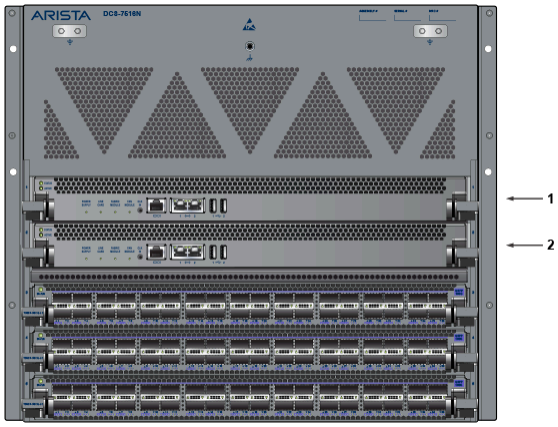
1	Status LED	5	Clock input port (optional)	9	Power supply status LED
2	USB ports	6	Fan module status LED	10	Active LED
3	Ethernet management ports	7	Fabric module status LED		
4	Serial console port	8	Linecard status LED		

- **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 designated slots in the DCS-7516N switch, as shown in Figure 4-9: DCS 7516N Supervisor Slots.

Note: Do not insert a linecard into either 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 9: RJ-45 to DB-9 Connections

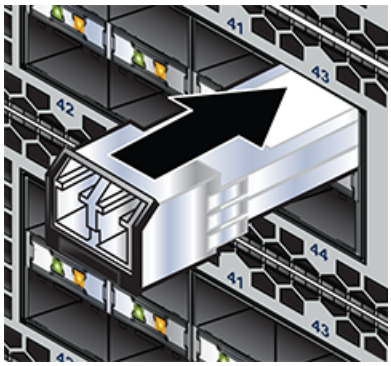
RJ-45		DB-9			RJ-45		DB-9	
RTS	1	8	CTS		GND	5	5	GND
DTR	2	6	DSR		RXD	6	3	TXD
TXD	3	2	RXD		DSR	8	4	DTR
GND	4	5	GND		CTS	8	7	RTS

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

4.10 Connecting Linecard Modules and Cables

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

Figure 4-10: SFP or SFP+ ports



Connect cables as required to linecard module ports or fixed MPO ports. Supervisor and linecard 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 the appropriate “blank” plates cover any open slots for modules, power supplies, etc. Check with your local Arista Networks representative if you have questions.

Chapter 5

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***) that is 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 the ***admin***, assigns an IP address to the management port, and defines a default route to a network gateway.

1. Provide power to the switch (Cabling the Modular Switch).
2. Connect the console port to a PC.

   As the switch boots without a ***startup-config*** file, it displays the following 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:
```

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

```
localhost login: admin
```

4. Cancel ZTP mode by typing **`zerotouch cancel`**.

   Important: This step initiates a switch reboot.

```
localhost> zerotouch cancel
```

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
```

6. Enter global configuration mode.

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

7. Assign a password to the ***admin*** username using the **`username secret`** command.

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

8. Configure a default route to the network gateway.

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

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

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

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

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

11. When the management port IP address is configured, select 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.

Appendix A

Status Indicators

This section discusses the following topics:

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.

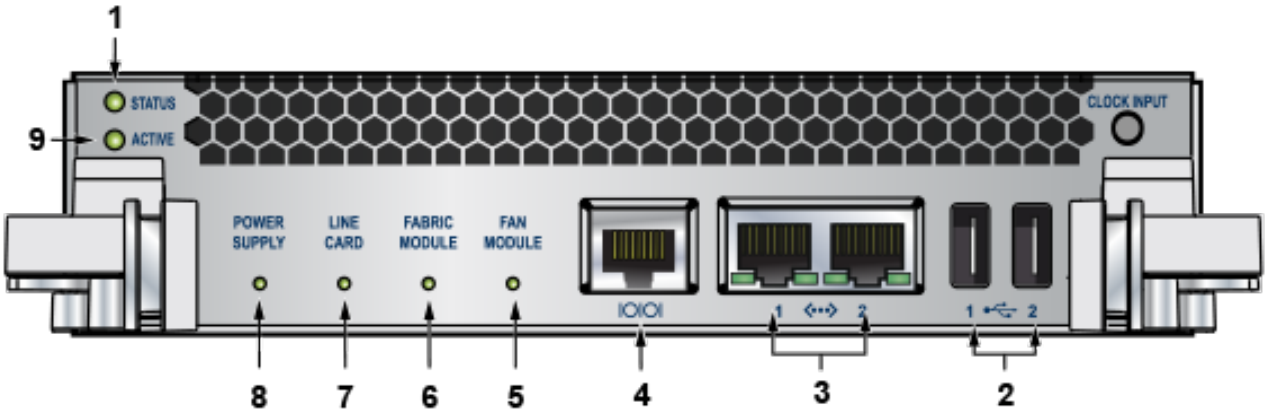
A.1.1 Supervisor Indicators: 7500E-SUP/7500-SUP2

The supervisor provides:

- One serial console port.
- Two Ethernet management ports.
- Two USB ports.
- One clock input port.

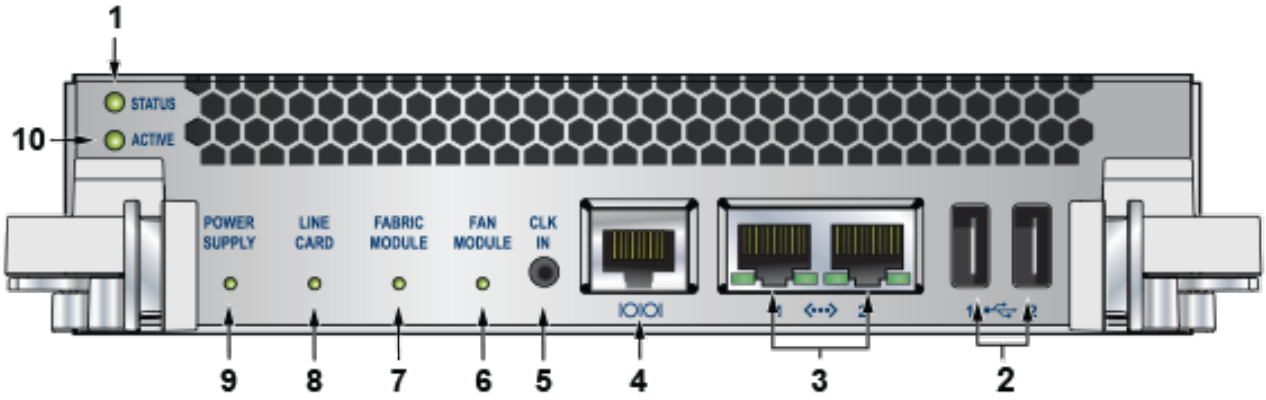
Supervisor activity is reported by LEDs in the upper left corner. Four LEDs on the left of the input ports report the status of other switch components.

Figure A-1: Supervisor 7500E-SUP



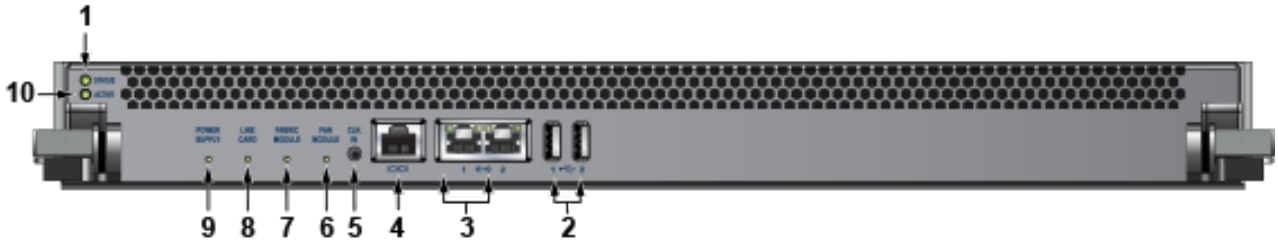
1	Status LED	2	USB ports	3	Ethernet management ports
4	Serial console port	5	Fan module status LED	6	Fabric module status LED
7	Linecard status LED	8	Power supply status LED	9	Active LED

Figure A-2: Supervisor 7500-SUP 2



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

Figure A-3: Supervisor 7500E-SUP



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

Supervisor Activity Status LEDs

The Status and Active LEDs are located on the left side of the Supervisor Module. Table 10: Supervisor Activity LED States interprets the states of these two LEDs.

Table 10: Supervisor Activity LED States

LED Name	LED State	Supervisor State
Status	Off	No power, failed, or improperly inserted.
	Green	Operating normally.
	Red	Supervisor failed.
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 linecards. Table 11: Component Activity LED States interprets the states of these indicators. When error conditions are indicated, refer to LEDs on the specified modules to determine the condition's source.

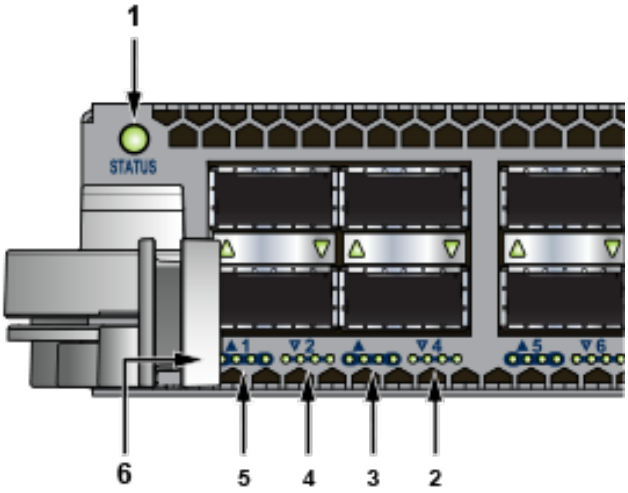
Table 11: Component Activity LED States

LED Name	LED State	Module State
Power Supply, Linecard 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 Linecard Module Indicators

Each linecard module provides one status LED plus LEDs for each port on the card. The figures in Linecards indicate the location of the LEDs on each linecard.

Figure A-4: Linecard Status LED



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

Table 12: Linecard Status LED States interprets the states of the status LED.

Table 12: Linecard Status LED States

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

The linecard 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 13: Linecard Port LED States interprets the port LED states.

Table 13: Linecard Port LED States

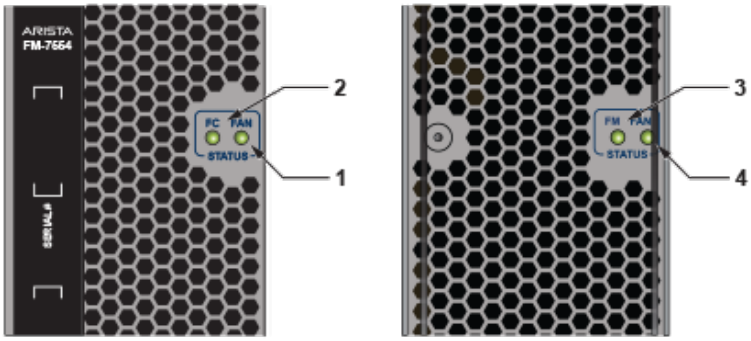
LED State	Status
Off	Port link is down.
Green	Port link is up.
Yellow	Port is disabled in software.

A.3 Fabric Status Indicators

Fabric Status LEDs are on fan-fabric modules. The Rear Panel displays the position of these LEDs on the rear of each switch. Figure A-5: 7504N (left) and 7508N Fan and Fabric Status LEDs display fan status and fabric status LEDs on the switch.

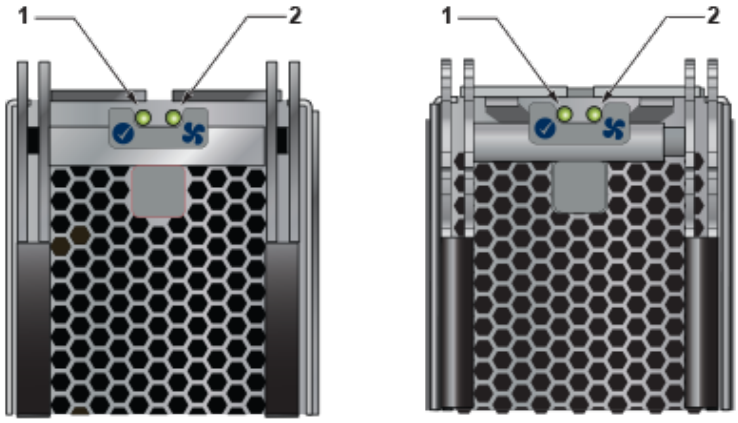
Note: Gen 1 Fabric modules are not supported.

Figure A-5: 7504N (left) and 7508N Fan 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 and Fabric Status LEDs



1 Fabric status LED
2 Fan status LED

Table 14: Fan and Fabric Status LEDs on the Rear Panel interpret the fan and fabric status LED states.

Table 14: Fan and Fabric Status LEDs on the Rear Panel

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

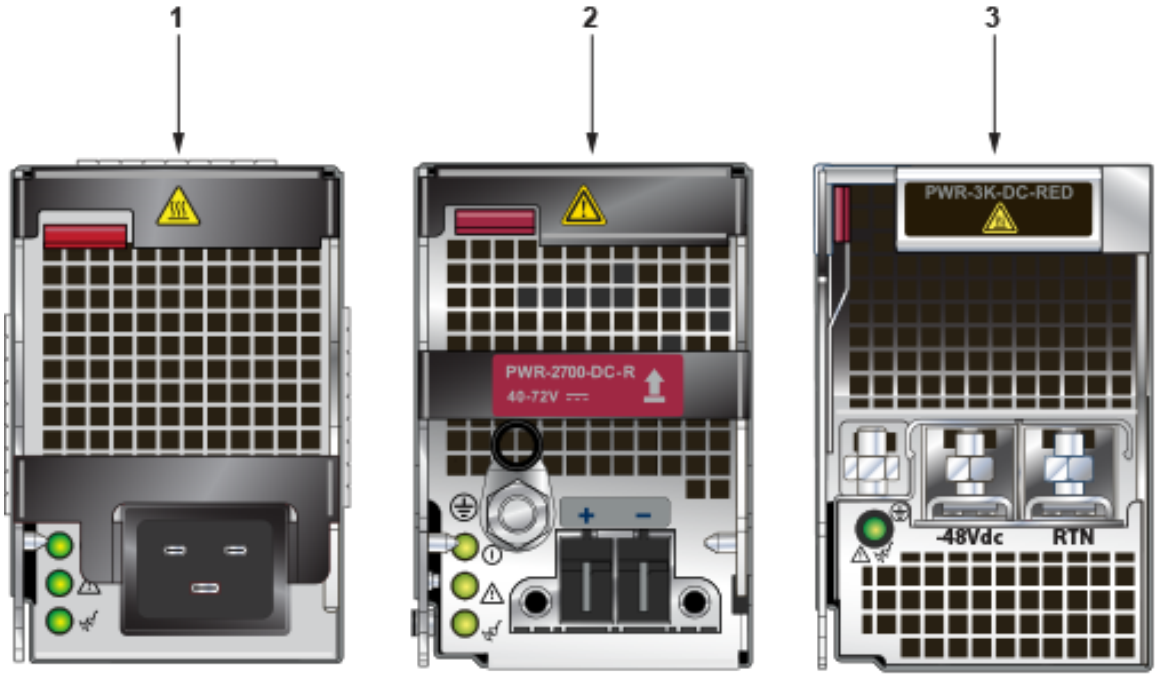
A.4 Power Supply Status Indicators

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

- PWR-3K-DC-RED

The power supply LEDs are on the power supply modules. The positions of the LEDs are on the rear of each switch. Figure A-7: 7500N Power Supplies display 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 from top to bottom are:

- DC Good
- Fault, and
- Vin Good

Table 15: Power Supply Status LED States interprets the power supply set up for LED status indicators.

Table 15: 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

This section discusses the following topics:

Each switch has an accessory kit that contains the parts required to install the switch. Table 16: Accessory Kits for the Modular Switches 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 detail.

Table 16: Accessory Kits for the Modular Switches

	7504N	7508N	7512N	7516N
Common cables and accessories	Included	Included	Included	Included
Two-Post rack mount parts	Included	Included	N/A	N/A
Four-post rack mount kit for 4-slot and 8-slot chassis	Included	Included	N/A	N/A
Four-post rack mount kit for 12-slot and 16-slot chassis	N/A	N/A	Included	Included
Number of Power cords (C19 - C20 type) included	4	6	8	12

Important:

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

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

Warning:

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 17: 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.

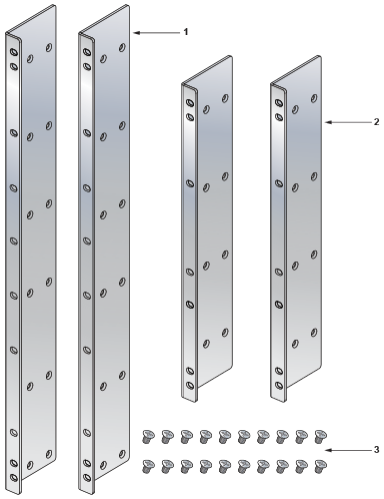
B.2 Two-Post Rack Mount Parts

The following section lists the parts provided for the two-post rack mount installation.

Table 18: 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

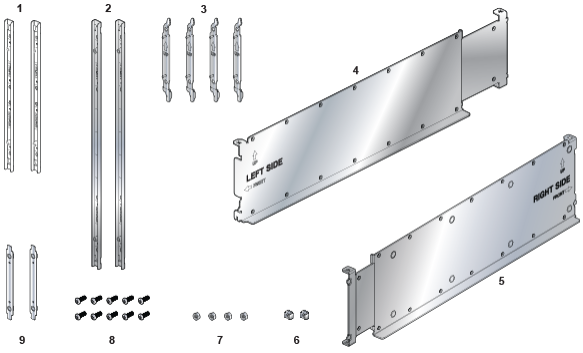
The following sections list the parts provided in the accessory kit for four-post rack mount installations of the 4-slot and 8-slot chassis.

Table 19: Four-Post Rack Mount Parts for the 4-slot and 8-slot Chassis

Quantity [1]	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-slot and 8-slot Chassis



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

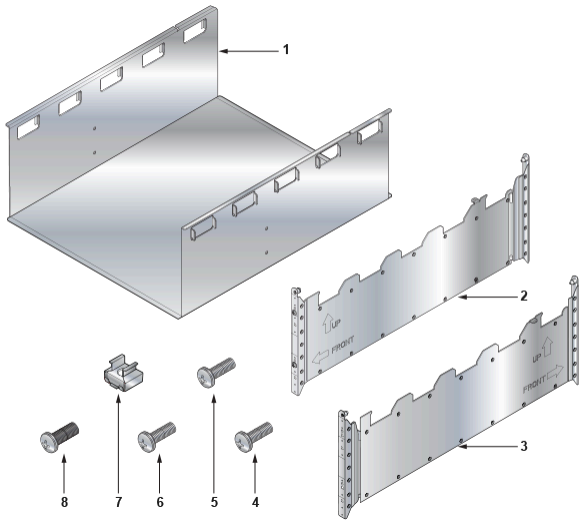
B.4 Four-post Rack Mount for 12-slot and 16-slot Chassis

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

Table 20: Four-post Rack Mount Parts for the 12-slot 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-slot and 16-slot Chassis



1 Cradle
2 Left telescoping arm
3 Right telescoping arm
4 #10-32x5/8 pan-head Phillip screws
5 #12-24x5/8 pan-head Phillip screws
6 M5x16mm pan-head Phillip screws
7 M6 cage nuts (for square hole racks)
8 M6x16 pan-head Phillips screws

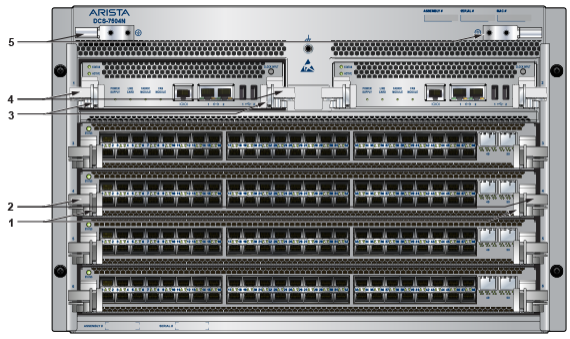
Appendix C

Front Panel

This section displays the front panel of all switches this guide covers.

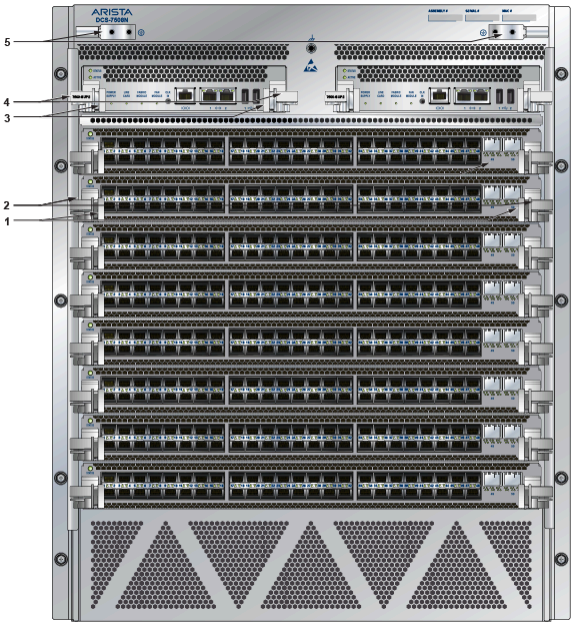
> **Note:** All devices are designed to fit in a 19” rack. Illustrations are not to scale.

Figure C-1: DCS-7504N Front Panel (fully populated)



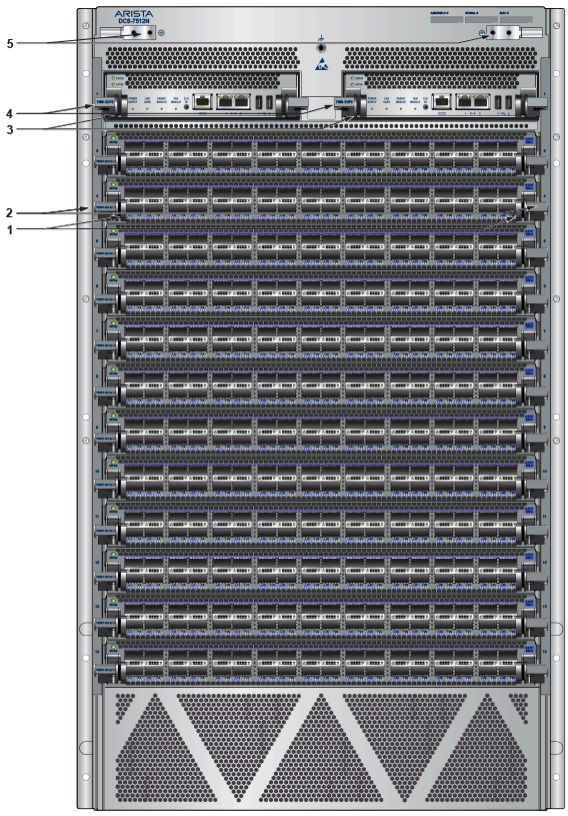
1 Linecard ejector button	3 Supervisor ejector button	5 Ground
2 Linecard ejector handle	4 Supervisor ejector handle	

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

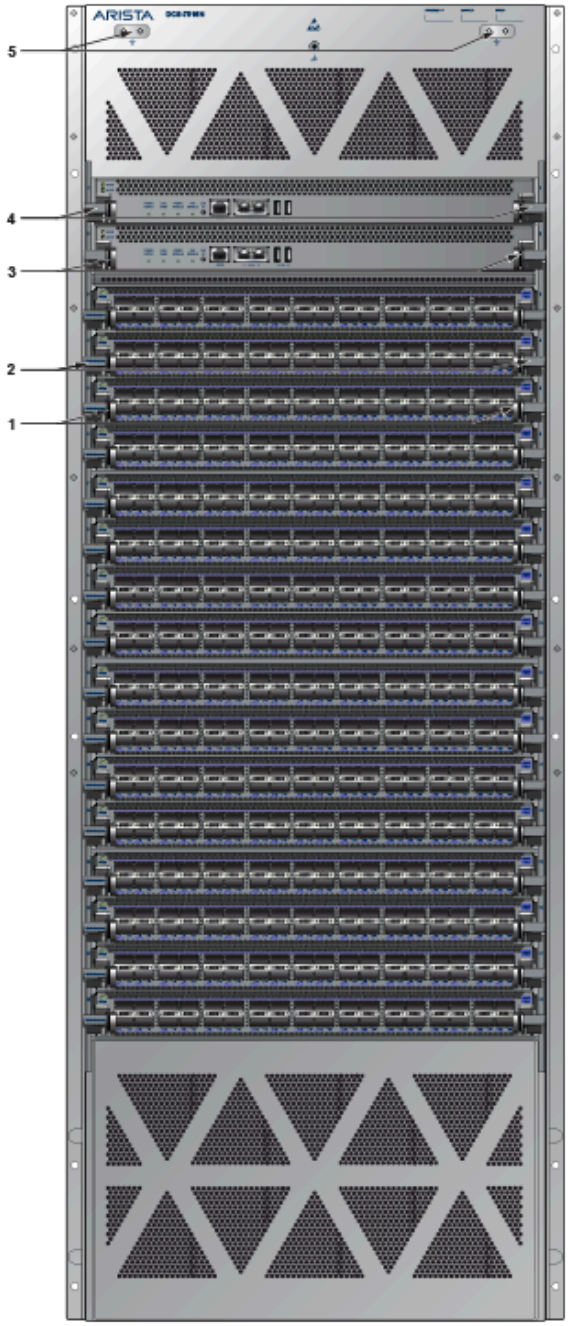
2 Linecard ejector handle

3 Supervisor ejector button

4 Supervisor ejector handle

5 Ground

Figure C-4: DCS-7516N Front Panel (fully populated)



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

Appendix D

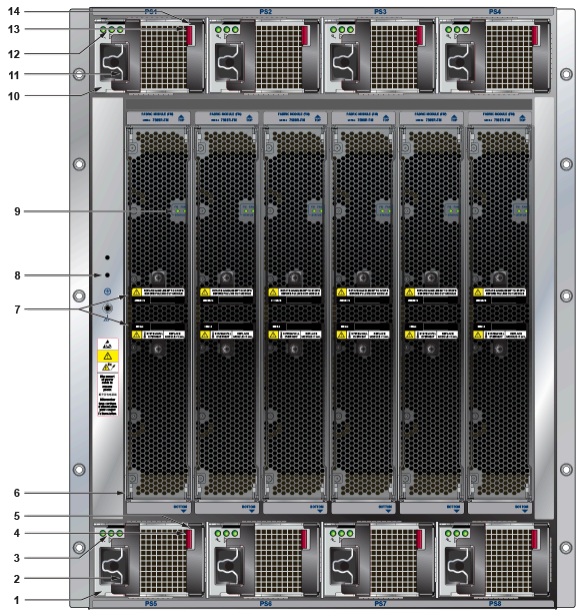
Rear Panel

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

Figure D-1: DCS-7504N Rear Panel (fully populated)

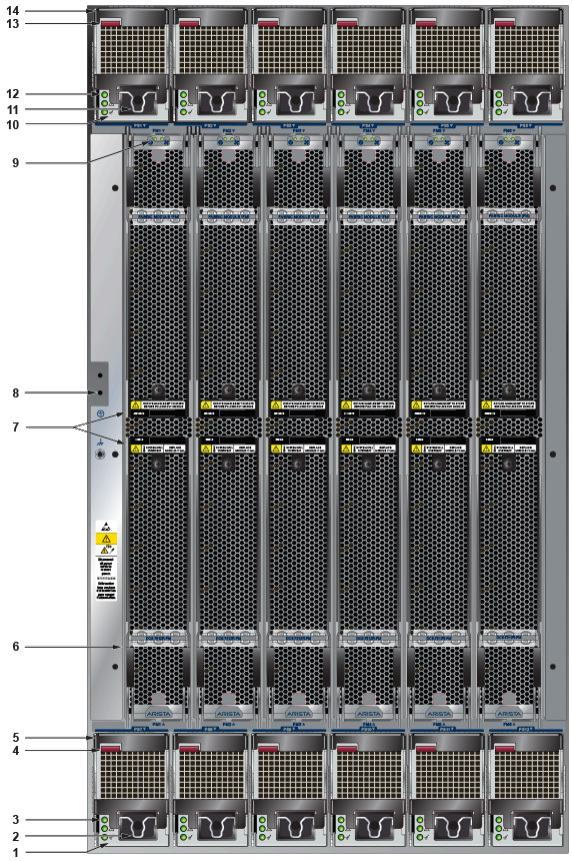
1	Fabric module screw	4	Chassis ground	7	Ground
2	Fabric module ejector handle	5	PSU	8	Ejector button
3	Fabric module status LEDs	6	Release lever	9	Status LEDs

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



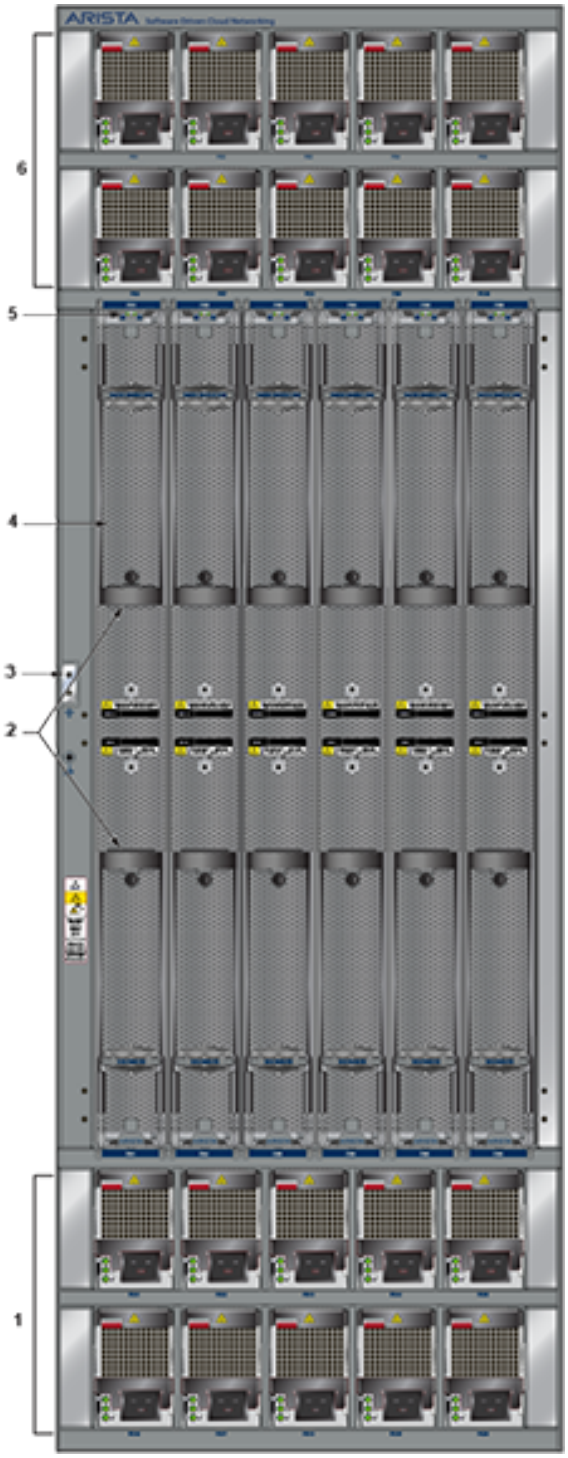
1 PSU bottom row (PS5)
2 Power cord clip (optional)
3 Status LEDs (PS5)
4 Ejector button
5 Release lever
6 Fabric module
7 Fabric module ejector handles
8 Chassis ground (secondary)
9 Fabric module status LEDs
10 PSU top row (PS1)
11 Power cord clip (optional)
12 Status LEDs (PS1)
13 Ejector button
14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

Figure D-3: DCS-7512N Rear Panel (fully populated)



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

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)

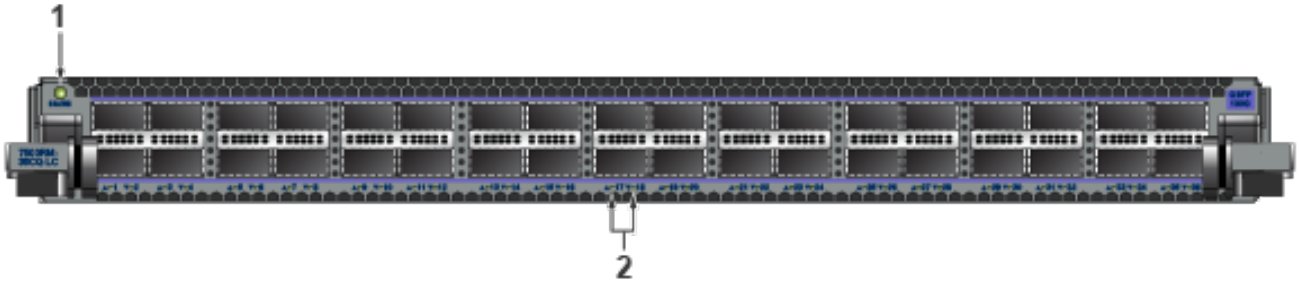
Appendix E

Linecards

This section displays the linecards supported by modular switches covered by this guide.

DCS-7500E-36Q-LC

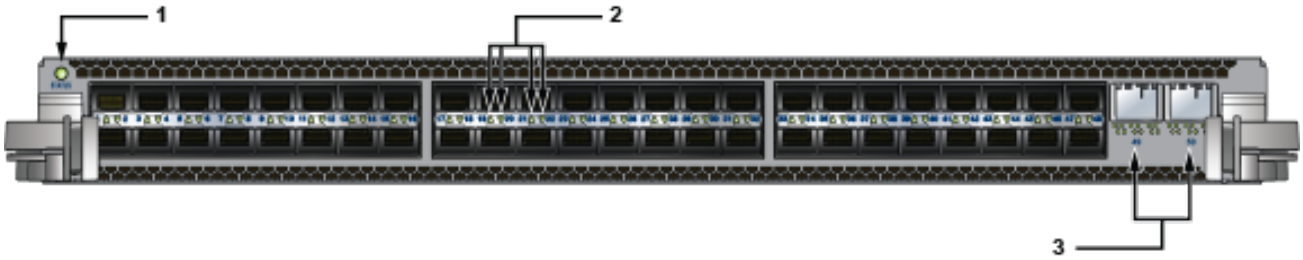
The 36-port QSFP+ linecard has 36 QSFP+ ports, allowing for a high degree of flexibility in a mixed 10G/40G network. All QSFP+ ports can operate as either a single 40Gb Ethernet port or quad 10Gb Ethernet ports with up to 36 port of 40G or 144 ports of high-density 10G.



1 Status LED 2 40G port LEDS

DCS-7500E-72S-LC

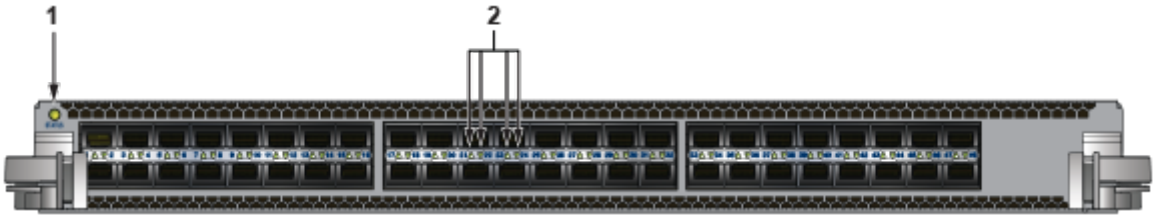
The 48-SFP+ and 2-port 100GbE MXP linecard provides a flexible combination of 48 ports of SFP+ and 2 MPO ports for up to 72 10Gb Ethernet ports. The two 100G MTP/MPO ports provide 100G capability using Arista Multi-speed Ports (MXP) with integrated optics. MXP ports use 100GBASE-SR10 (Short Range) transceivers 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+ linecard has 48 SFP+ ports. Having 48 SFP+ ports allows this linecard 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

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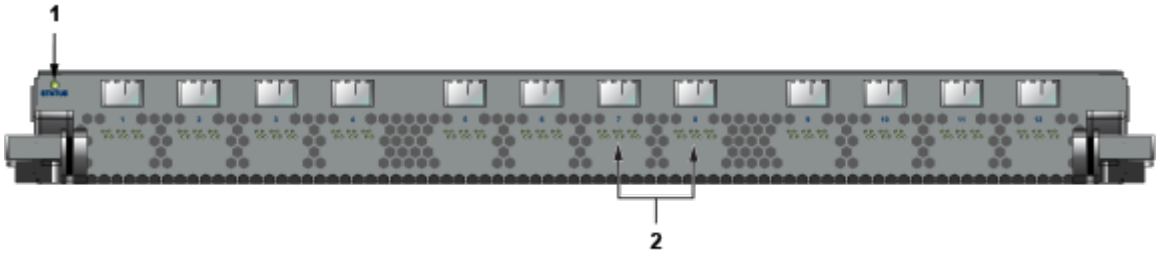
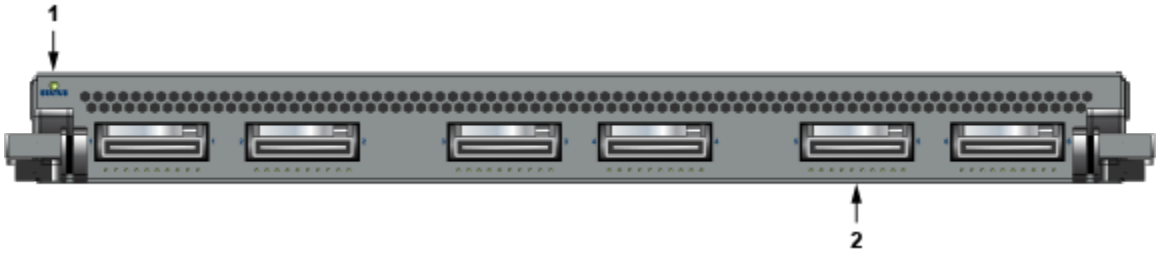
The 12 x 100G MTP/MPO linecard provides high-density 100G using Arista Multi-speed Ports (MXP) with embedded optics. The MXP ports use 100GBASE-SR10 (Short Range) transceivers and are fully compatible with any standards-compliant 100GBASE-SR10 ports. Each MXP port can be enabled in single 100Gb, triple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



1 Status LED 2 MXP port LEDS

DCS-7500E-6C2-LC

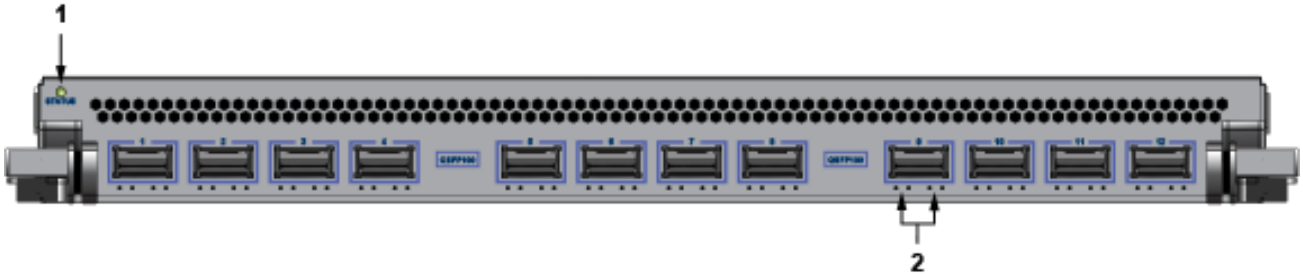
The 6 x 100G CFP2 linecard provides high-performance 100G using industry-standard CFP2 optics that are hot pluggable. The CFP2 form factor design allows long-haul optics that are approximately 50% smaller than the CFP optic. As a result, the CFP2-based linecards allow for up to 6 ports per linecard,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



1 Status LED 2 CFP2 port LEDS

DCS-7500E-12CQ-LC

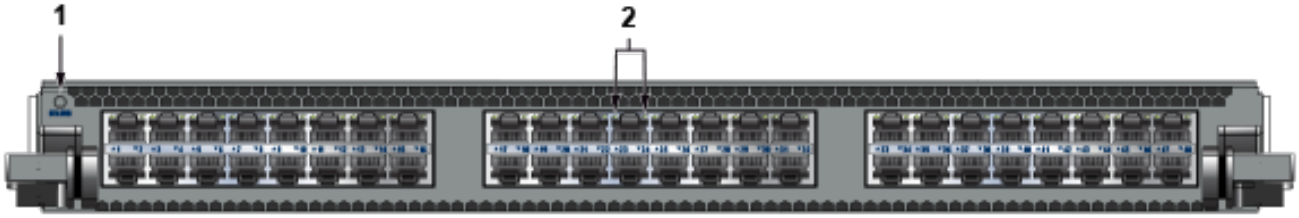
The 12 x 100G QSFP100 linecard provides high-density 100G using industry-standard QSFP100 optics. The QSFP100 form factor is identical to the size of the 40G QSFP+, allowing for either 40GbE or 100GbE optics to be installed for a dual speed choice of 40/100GbE on all ports. With 12 ports of 100GbE, the 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

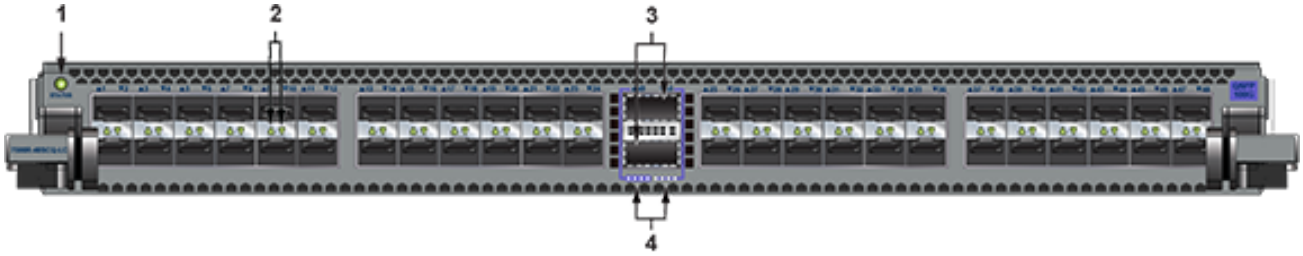
The 48-port RJ45 10GBASE-T wire-speed linecard has 48 RJ45 ports that support 10Gb speeds.



1 Status LED
2 10G port LEDS

DCS-7500R-48S2CQ-LC

The 48-SFP+ and 2-port 100GbE QSFP linecard provides a flexible combination of 48-SFP+ and 2-QSFP100 ports for up to 56 10Gb Ethernet ports. The two 100G QSFP100 ports allow 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-port QSFP100 linecard allows for high flexibility in a mixed 10G/40G/100G environment. All 36 ports can operate as a single 100Gb or 40Gb Ethernet port. A wide range of additional interface speed flexibility is possible, with all ports supporting 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, simple migration from 10G to 100G, and a wide range of combination

1 Status LED
2 Port LEDS

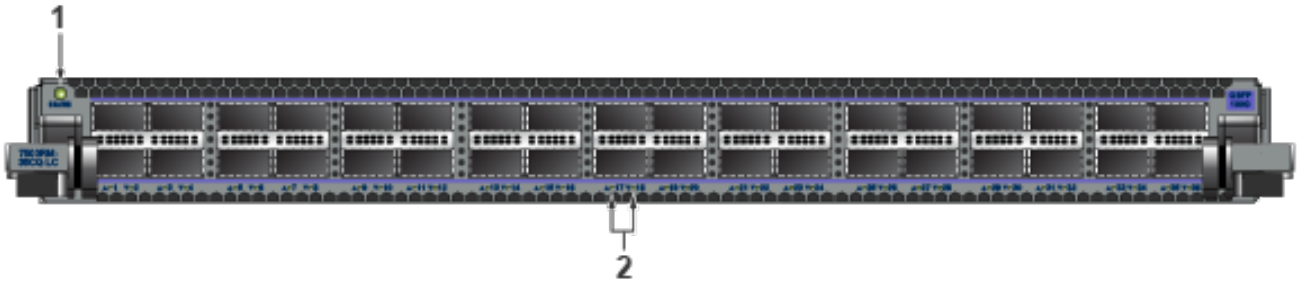
DCS-7500R-36Q-LC

The 36-port QSFP+ linecard 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 supporting 4x10G mode and 6 ports of 1x100G mode. These interface speed choices allow for simple migration from 10G to 100G and various possible combinations.

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

DCS-7500RM-36CQ-LC

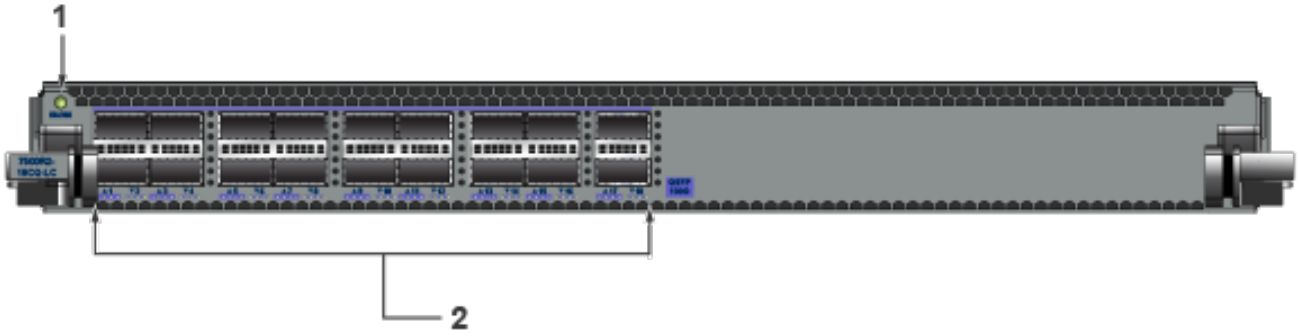
The 36-port QSFP100 linecard allows 36 x 100G of wire-rate performance with integrated MACsec on every port. Each packet processor connects to 6 ports of 100G with 4GB of deep packet buffer; the 100G ports support either QSFP100 (100G) or QSFP+ (40G).



1 Status LED 2 100G MACsec port LEDS

DCS-7500R2-18CQ-LC

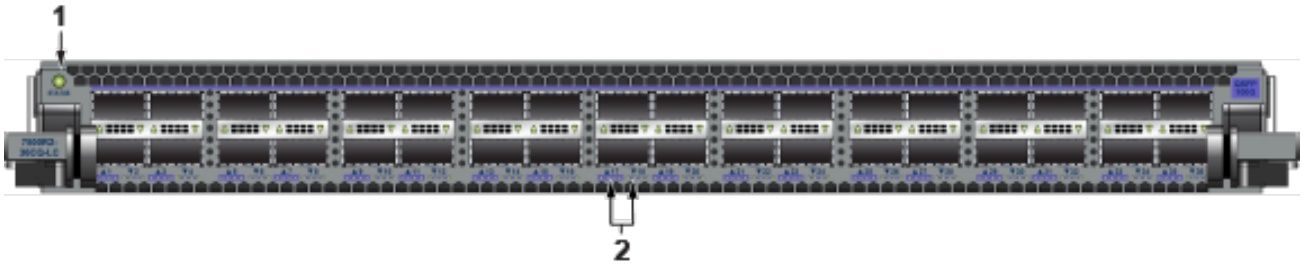
The 18-port QSFP100 linecard allows 18 x 100G of wire-rate performance.



1 Status LED 2 100G port LEDS

DCS-7500R2-36CQ-LC

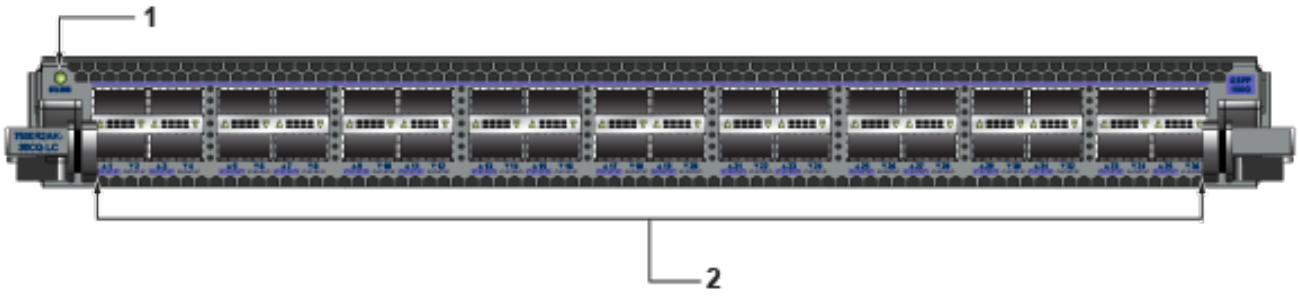
The 36-port QSFP100 linecard allows 36 x 100G of wire-rate performance.



1 Status LED 2 Port LEDS

DCS-7500R2A-36CQ-LC

The 36-port QSFP100 linecard allows 36 x 100G of wire-rate performance.



1 Status LED 2 100G ports

DCS-7500R2M-36CQ-LC

The 36-port QSFP100 linecard allows 36 x 100G of wire-rate performance.

1 Status LED 2 100G port LEDs

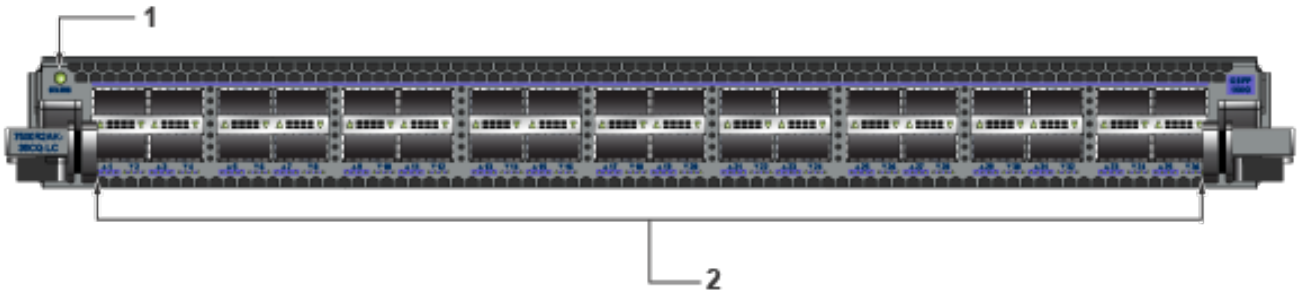
DCS-7500R2AM-36CQ-LC

The 36-port QSFP100 linecard allows 36 x 100G of wire rate performance.

1 Status LED 2 100G port LEDs

DCS-7500R2AK-36CQ-LC

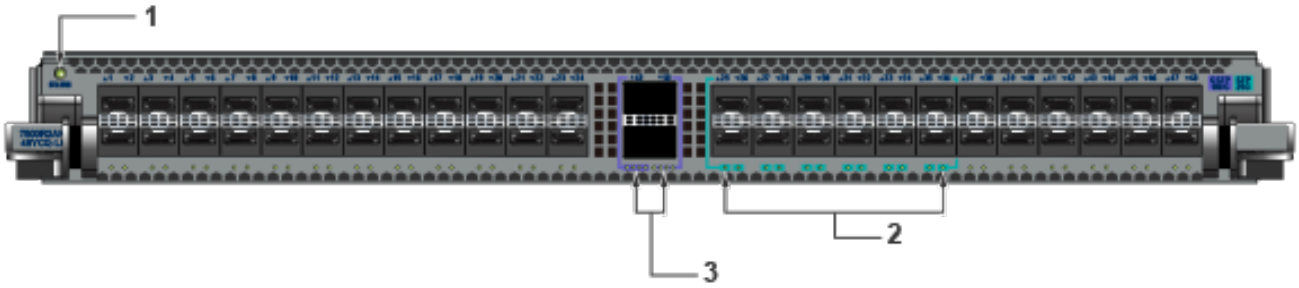
The 36-port QSFP100 linecard allows 36 x 100G of wire-rate performance.



1 Status LED 2 100G ports

DCS-7500R2AK-48YCQ-LC

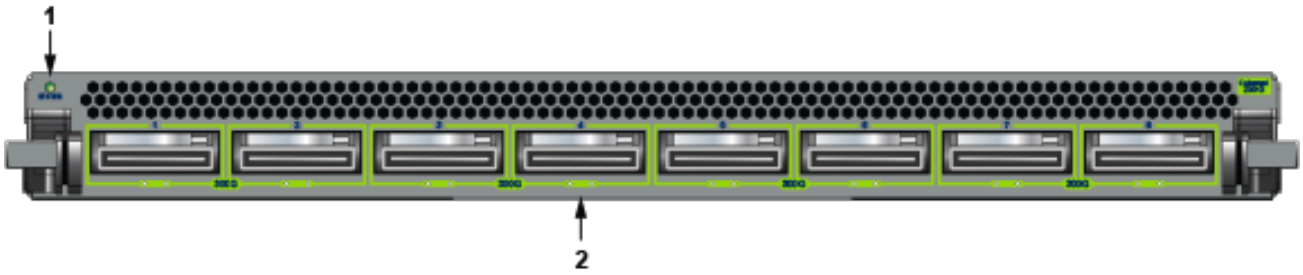
The linecard has 2 x 100G and 12 x 25G ports.



1 Status LED 2 25G ports 3 100G ports

DCS-7500R-8CFPX-LC

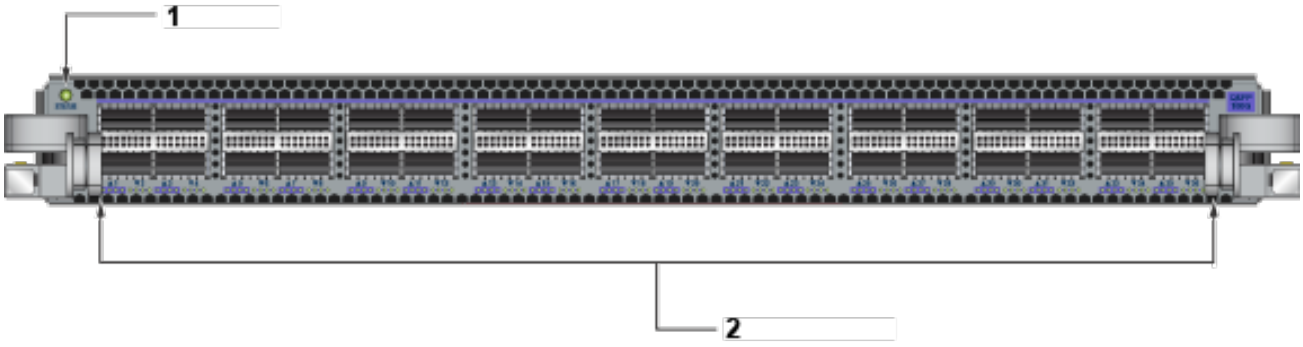
The 8-port tunable coherent DWDM with MACsec linecard allows 200G of long-haul data performance.



Status LED 2 CFP2 port

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

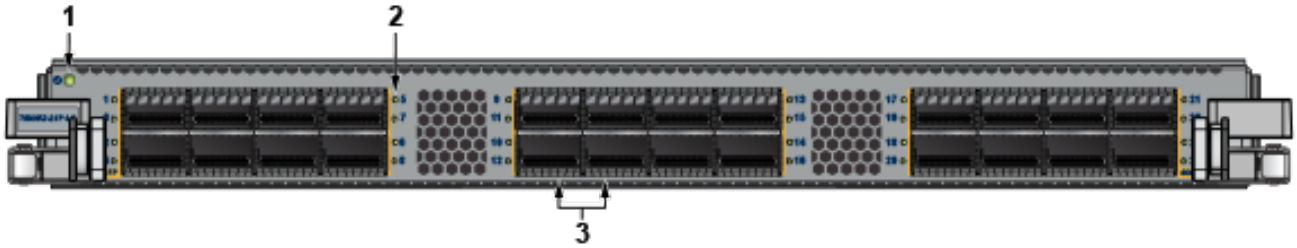
The linecard can support up to 36 100G or 72 50G ports.



1 Status LED 2 100G port LEDS

DCS-7500R3-24P-LC

The linecard can support 24-wire speed 400G OSFP ports or up to 96 100G ports with breakout cables and optics. The linecard 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 section discusses the process for replacing switch components.

- Power Supplies
- Fabric and Fan Module (Fabric Module)
- Touch Point Shield (Optional)
- Supervisor Module
- Linecards

You must ensure that at least one of the secondary grounding pads on the chassis's front panel is connected to the data center ground. While working on the switches, select 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 section are examples of 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 several populated slots depending on the switch model. Empty slots are covered with a blank. To add 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 Rear Panel.

1. Ensure that the switch is grounded.
   a. Connect at least one of the secondary grounding pads on the front to the data center ground as needed.
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.
3. Remove the power supply to be replaced (Removing AC Power Supply, Removing DC Power Supply) or the blank for the slot (Removing Fabric Module Blank) where the new power supply will be added.

F.1.1 Removing a Power Supply Blank

The power supply blank is screwed on. Select the appropriate screwdriver for your switch.

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

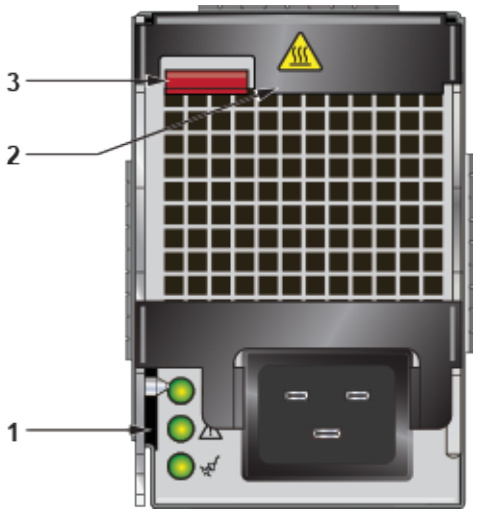
You can save the blank for future use as needed. The blank is needed for the switch to operate normally if a power supply slot is not populated.

F.1.2 Removing an AC Power Supply

Perform the following steps to remove an AC power supply.

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

Figure F-1: Unseat Power Supply



1 Status LED 2 Release lever 3 Ejector button

3. Pull the ejectors forward until the power supply disconnects.
4. Remove the power supply from the Switch using the power supply lever and handle.

F.1.3 Installing an AC Power Supply

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

Perform the following steps to install an AC power supply.

1. Put on a grounded, anti-static ESD strap.
2. Unpack the new power supply.
3. Insert the new power supply into the empty power supply slot.
4. After you insert the power supply, push gently on the power supply until the power supply is fully seated.
5. Pull up the handle on the power supply to lock the power supply in place.
6. Connect the power cord to the power supply.
7. Fasten the spring-release clip to the power cord.
8. Connect to the power source.
9. Verify normal operation using the LED indicators for your switch Power Supply Status Indicators.

F.1.4 Removing a DC Power Supply

Before performing any steps, remove power from DC circuits by turning off the power line servicing the circuits.

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

1. Put on a grounded, anti-static ESD strap.
2. Disconnect the power cable from the DC power source.
3. Loosen the two captive screws on the bottom of the adapter from the power supply module.
4. Slide the cover out from the terminal studs.
5. Remove each power cable lug to the terminal studs with the flange locking nuts.
6. Remove the flange locking nuts to each of the terminal studs.
7. Remove the clear plastic cover protecting the terminal studs on the adapter. Slide the cover off of the adapter.
8. Disconnect the power cable lug from the terminal studs.

F.1.5 Installing a DC Power Supply

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

Perform the following steps to install a DC power supply.

1. Put on a grounded ESD strap.
2. Un-box the new power supply.
3. Insert the new power supply into the empty power supply slot.
4. After you insert the power supply, push gently on the power supply until the power supply is fully seated.
5. Pull up the handle on the power supply to lock the power supply in place.
6. Connect the cables for your power supply as explained in the guide (Cabling the DC Power Supply).

F.2 Fabric and Fan Module (Fabric Module)

Note: Refer to Removing the 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 (Rear Panel). Consider that the module you insert is compatible with the switch and the module you are replacing. If your switch supports one, perform the following steps to remove and replace a fabric and fan module or a fan-only module.

F.2.1 Removing a Fabric Module Blank

The fabric module blank is screwed on. Select the appropriate screwdriver for your switch.

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

   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.2.2 Removing a Fabric Module

1. Put on a grounded, anti-static ESD strap.
2. Loosen the two Phillips screws on the fabric module.
3. Pull out the ejector handle on the fabric module.
4. Pull the ejector handles outwards by 90 degrees to disengage the fabric module.
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.2.3 Installing a Fabric Module

You must make space for installing the module by removing an existing one (Removing a Fabric Module) or a blank (Removing a Fabric Module Blank) from a fabric module slot available on the switch.

Perform the following steps to install the module.

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

F.2.4 Removing the 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 without as 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 the **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 the fabric module straight back to remove. Install the replacement fabric module by opening the ejector handle(s), 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 over-tighten Phillips screws.**
- For the **7512,** the failed fan replacement requires the removal of the plastic safety guard and the fabric module. First, enter the global configuration mode in the CLI console 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 the outside perimeter of the plastic safety guard. Set the safety guard aside. The fabric module removal and re-installation procedure is the

same as the **7504/7508** instructions. **Caution:** The 7512R fabric module weighs more than 25 lb. Support the module during handling. Reinstall the 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

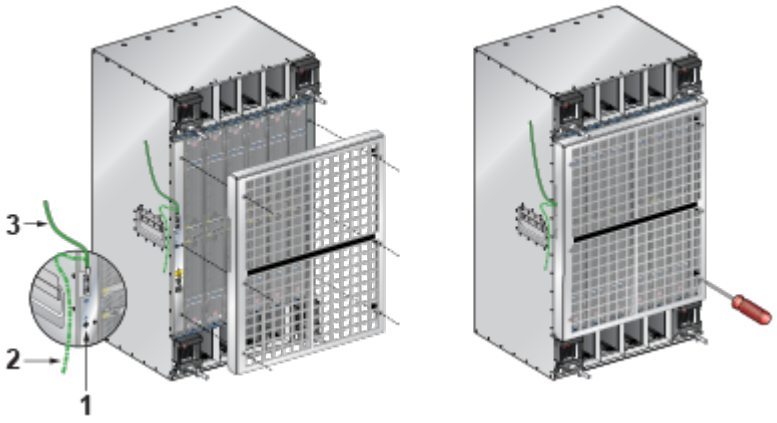
The 7512N supports an optional Touch Point Shield component that is attached to the rear of the device. Perform the following steps to install the Touch Point Shield to the 7512N.

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

2. Match the six screws on the Touch Point Shield to the holes on the chassis and screw in the Touch Point Shield).

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



1 ESD port

2 Ground cable going down

3 Ground cable going up

F.4 Supervisor Module

The supervisor modules are hot-swappable. They are accessible from the front of the switch. Consider that the module you insert is compatible with the switch and the module you are replacing. Use the following procedure to remove and replace a supervisor module. For the supervisor module locations for your device, refer to the Front Panel.

F.4.1 Removing a Supervisor Module Blank

The supervisor module blank is screwed on. Use the appropriate screwdriver for your switch.

1. Put on a grounded, anti-static ESD strap.
2. Unscrew the blank from the supervisor 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 supervisor module slot is not populated.

F.4.2 Removing a Supervisor Module

Perform the following steps to remove the supervisor module.

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

F.4.3 Installing a Supervisor Module

You must make space for installing the module by removing an existing one (Removing a Supervisor Module) or a blank (Removing a Supervisor Module Blank) from a supervisor module slot available on the switch.

Perform the following steps to install the module.

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

F.5 Linecards

The linecards are hot-swappable. They are accessible from the front of the switch. Consider 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 add a new linecard, remove the blank from the linecard slot and install the new linecard. For the linecard locations on your switch, refer to the Front Panel.

F.5.1 Removing a Linecard Blank

The linecard blank is screwed on. Select the appropriate screwdriver for your switch.

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

Save the blank for future use as needed. The blank is required for the switch to operate normally if a linecard slot is not populated.

F.5.2 Removing a Linecard

Perform the following steps to remove a linecard.

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

F.5.3 Installing a Linecard

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

1. Put on a grounded, anti-static ESD strap.
2. Unpack the linecard to be installed.
3. Pinch ejector buttons on handles or levers on each end of the linecard.
4. Spread ejector buttons on the handles.
5. Slide the linecard into the slot.
6. Push ejector buttons on the handles of the linecard.
7. Verify that the linecard is operating normally (Fabric Status Indicators).

Appendix G

Taiwan RoHS Information

This section provides the Taiwan RoHS information for switches this guide covers.

台灣RoHS相關資訊請參考下列網址:

https://www.arista.com/assets/data/pdf/AristaBSMIRoHS.pdf.