riverbed®

SteelConnect™ Gateway Hardware Installation Guide

Models SDI-130, SDI-330, SDI-1030

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riverbed®

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Contents

Welcome

About this guide

This guide describes the SteelConnect gateways and provides information you need to install the hardware.

This guide is written for administrators responsible for SteelConnect hardware installation and includes information relevant to the following products:

- SteelConnect SDI-130
- SteelConnect SDI-130W
- SteelConnect SDI-330
- SteelConnect SDI-1030

Documentation and release notes

The most current version of all Riverbed documentation can be found on the Riverbed Support site at https://support.riverbed.com.

See the Riverbed Knowledge Base for any known issues, how-to documents, system requirements, and common error messages. You can browse titles or search for keywords and strings. To access the Riverbed Knowledge Base, log in to the Riverbed Support site at https://support.riverbed.com.

Each software release includes release notes. The release notes list new features, known issues, and fixed problems. To obtain the most current version of the release notes, go to the Software and Documentation section of the Riverbed Support site at https://support.riverbed.com.

Examine the release notes before you begin the installation and configuration process.

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This section describes how to contact departments within Riverbed.

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1

SteelConnect Overview

The SteelConnect gateways offer the benefits of software-defined networking (SDN) automation coupled with the ability for customers to protect their privacy by storing their network configuration locally. The gateways allow you to easily set up a secure connection between local area networks, data centers, and home offices. Uplink balancing can be used for backup or load balancing purposes. The Next Generation Firewall provides user-based and application-based firewalling.

This overview provides a description of the SteelConnect gateway appliances and includes the following sections:

Branch gateway interfaces per model

The number of physical interfaces supported for each branch gateway model are:

- SDI-130 - 2
- SDI-330 - 2
- SDI-1030 -12

The 130 and 330 gateway models have two physical interfaces.

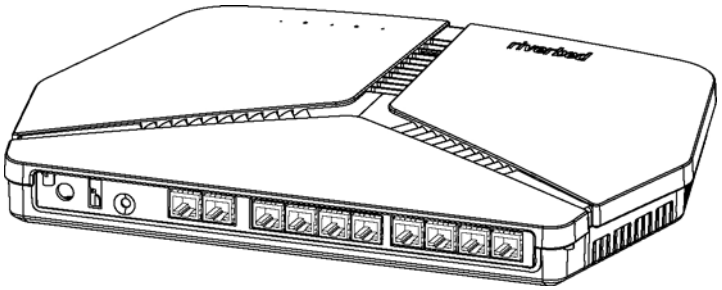
Note: After attaching a modem to one of the interfaces on a 130 or 330 gateway, you can only support two WANs on that device. For example, MPLS on interface 1 and internet through a LTE modem on interface 2.

On the 1030 gateway model, you can configure all 12 ports as uplink interfaces, or as zone/multizone interfaces. Although 12 uplinks are technically supported, realistically you need to use a port for at least one LAN connection.

SteelConnect SDI-130 gateways

The SDI-130 and wireless SDI-130W gateways are recommended for small branch or retail offices.

Figure 1-1. SteelConnect SDI-130 and SDI-130W



The following features can be found on the SDI-130 gateways:

- DC inlet
- One USB 2.0 port
- A reset button
  - Press the reset button to reboot the appliance.
  - Hold the reset button for 10 seconds to reset the appliance to the factory default state. The LEDs will blink when a reset is in progress.
- 10 GbE ports (RJ45)
  - Eight LAN (switched) ports on the SDI-130 and SDI-130W
  - Two WAN ports on the SDI-130
  - Two WLAN ports on the SDI-130W

SteelConnect SDI-130 and SDI-130W gateway LEDs

State of the LED	Description
Off	Connection to the SteelConnect Controller established.
Solid green	Trying to establish a connection to the SteelConnect Controller.
Blinking	Factory reset in progress.
Solid blue	Indicates high availability (HA) master gateway.

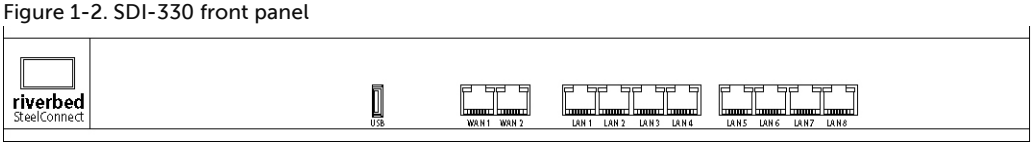
Ethernet Copper Port LEDs	State	Definition
Top left orange	Blinking	Activity
Top right green	On	Link is up
	Off	Link is down

SteelConnect SDI-330 gateway

The SDI-330 is a 1U gateway recommended for medium branch offices.

The virtual gateway interfaces are labeled as LAN on the Ports page.

Figure 1-2. SDI-330 front panel



The following features can be found on the front panel of the SDI-330 gateway:

- An organic LED (OLED) screen
- USB 2.0 port
- 10 GbE ports (RJ45)
  - Eight LAN (switched) ports
  - Two WAN ports

The following features can be found on the back panel of the SDI-330 gateway:

- AC power supply inlet
- Grounding screw
- A reset button
  - Press the reset button to reboot the appliance.
  - Hold the reset button for 10 seconds to reset the appliance to the factory default state. The LEDs will blink when a reset is in progress.

Figure 1-3. SDI-330 back panel

SteelConnect SDI-330 gateway LEDs

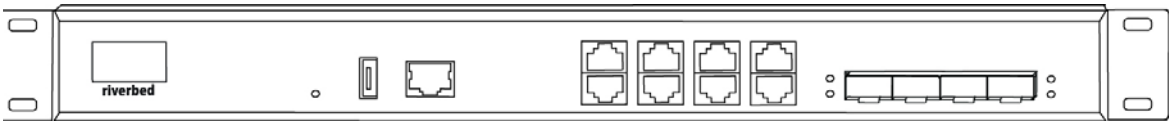
OLED text	Definition
Connected!	Connection to the SteelConnect Controller established.
Connecting	Trying to establish a connection to the SteelConnect Manager.
Booting	The appliance is booting.
Rebooting	The appliance is preparing to reboot.
Factory reset	Factory reset is in progress.

Ethernet Copper Port LEDs	State	Definition
Top left orange	Blinking	Activity
Top right green	On	Link is up
	Off	Link is down
Blue	Solid	Indicates high availability HA master gateway.

SteelConnect SDI-1030 gateway

The SDI-1030 is a 1U gateway recommended for medium to large branch offices.

Figure 1-4. SDI-1030 Front panel



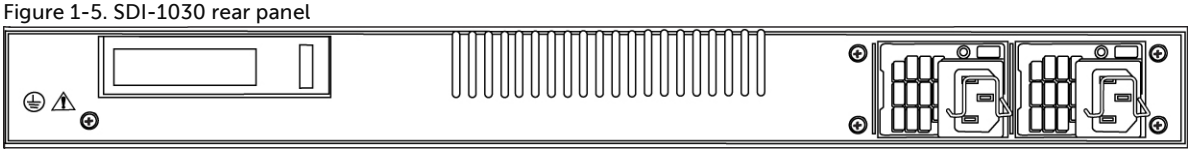
The following features can be found on the front panel of the SDI-1030 gateway:

- Organic LED (OLED) screen
- Reset button
  - n Press the reset button to reboot the appliance.
  - n Hold the reset button for 10 seconds to reset the appliance to the factory default state. The LEDs will blink when a reset is in progress.
- USB 2.0 port
- Serial console port
- 8 GbE ports (RJ45)
- 4 10GbE SFP+ ports

The following features can be found on the back panel of the SDI-1030 gateway:

- AC power supply inlet
- Grounding screw
- PCIE slot (not supported)

Figure 1-5. SDI-1030 rear panel



SteelConnect SDI-1030 gateway LEDs

OLED text	Definition
Connected!	Connection to the SteelConnect Controller established.
Connecting	Trying to establish a connection to the SteelConnect Controller.
Booting	The appliance is booting.
Rebooting	The appliance is preparing to reboot.
Factory reset	Factory reset in progress.

Ethernet copper port LEDs	State	Definition
Top left orange	On	Link is up.
	Blinking	Activity.
Top right green	On	Link is up.
	Off	Link is down.
Top right blue	On	Blue tick light indicates HA master gateway.

SFP+ port LEDs	Definition
Green	Link is up.
Off	Link is down.

2

Installing the SteelConnect Gateways

This chapter describes how to install or mount the SteelConnect gateway appliances and discusses the following topics:

Site preparations or considerations

Safety information

- Do not attempt to service the appliance. This sealed unit contains no user-serviceable parts or adjustments. Do not open or tamper with the power supply.
- Carefully inspect the work area in which the appliance will be located to ensure against hazards such as damp floors, ungrounded power extension cords, and missing ground connections.
- Before you connect the appliance to power, locate the power OFF switch on the appliance and locate the main circuit breaker for the room in which the appliance is installed. If an electrical accident occurs, turn power OFF immediately.
- Before operating the appliance, ensure that external power sources comply with the requirements.
- Ensure that the ampere rating of all equipment plugged into wall outlets does not exceed the capacity of the outlet.
- If you require an extension cord, ensure that the ampere rating of all equipment plugged into the extension cord does not exceed the cord's ampere rating.
- If the appliance is exposed to moisture or condensation, disconnect it from the power source immediately and obtain service assistance.

- If the appliance exhibits unexpected behavior, such as smoking or becoming extremely hot, disconnect it from the power source immediately and then obtain service assistance.

Environmental considerations

The following is a list of environmental considerations that will ensure safe and efficient operations of the appliance:

- Ensure that the appliance has at least 12 inches of clearance on all sides to allow for proper ventilation. The appliance generates heat and requires adequate circulation to maintain proper operating temperatures. Never cover or obstruct the appliance ventilation slots.
- Do not position the appliance near high-powered radio transmitters or electrical equipment, such as electrical motors or air conditioners. Interference from electrical equipment can cause intermittent failures.
- Do not install the appliance in areas where condensation, water, or other liquids may be present. These may cause safety hazards and equipment failure.

Required tools and equipment

You need the following tools and equipment to mount the SteelConnect SDI-130 and SDI-130W:

- A power drill
- The mounting kit that ships with your gateway

You need the following tools and equipment to mount the SteelConnect SDI-330 and SDI-1030 in a rack:

- A standard server-type rack
- A standard Phillips screwdriver
- The rack-mount kit that ships with your gateway

Mounting the SDI-130 and SDI-130W gateways

The SDI-130 and SDI-130W gateways can be mounted to a wall or ceiling using the snap disk. If a solid mount is not required, the gateways can be used as a tabletop unit. Distance from the gateway to the power supply source should be considered before mounting.

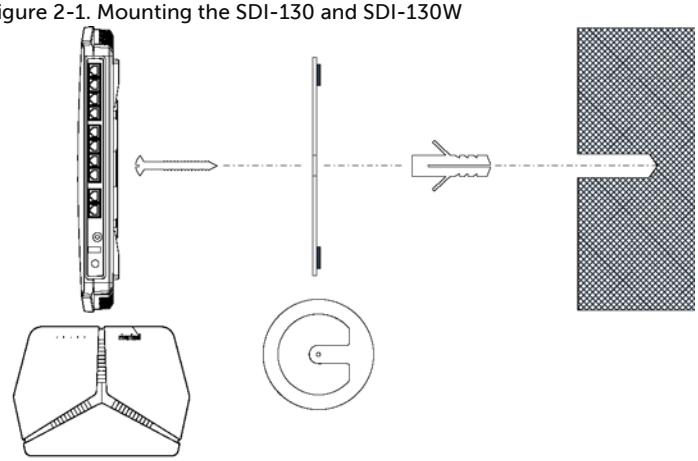
The gateway ships with a snap disk, screw, and drywall anchor. Supply the gateway with power by either using the power supply or a Power over Ethernet (PoE). Attach the power to the gateway before mounting it.

To mount the SDI-130 and SDI-130W gateways to a wall or ceiling

1. Use a power drill to drill pilot holes for the dry wall anchor. Insert the drywall anchor into the pilot hole.
2. Place the snap disk over the drywall anchor. Secure the snap disk to the wall by driving the screw into the drywall anchor.

3. Place the gateway over the snap disk and snap it into place.
4. Plug in the power supply to power up the gateway.

Figure 2-1. Mounting the SDI-130 and SDI-130W

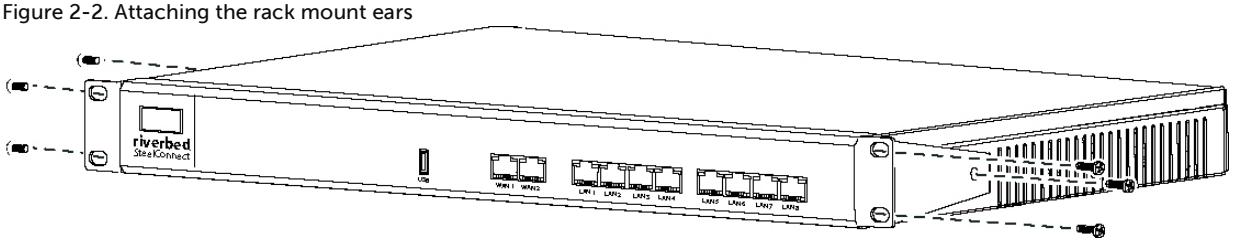


Rack mounting the SDI-330 gateway

The SDI-330 gateway ships with hardware for rack mounting and rubber feet to attach to the appliance for desktop placement.

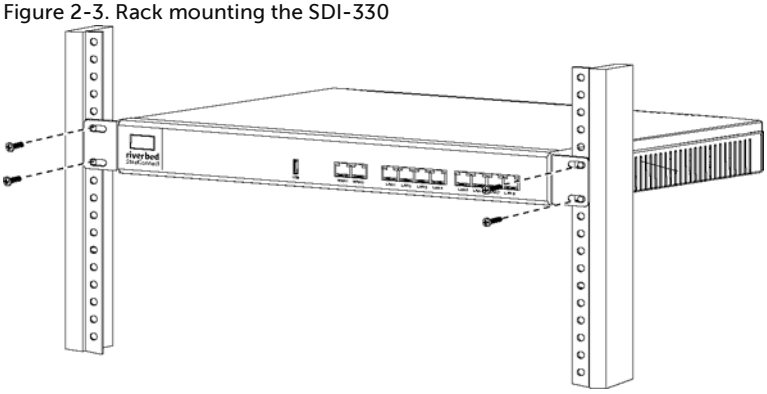
1. Attach the rack mount ears to the appliance with the included screws.

Figure 2-2. Attaching the rack mount ears



2. Position the gateway in the rack and attach the rack mount ears to the rack with the included screws.

Figure 2-3. Rack mounting the SDI-330

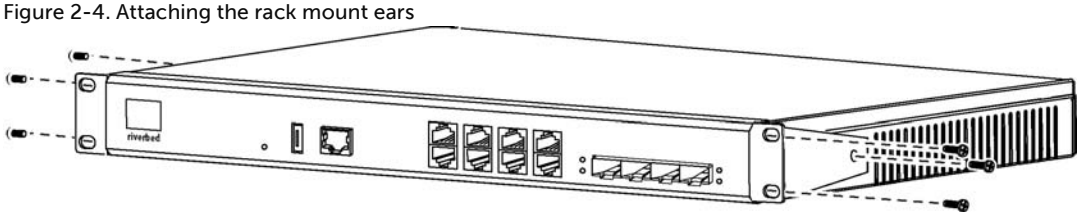


Rack mounting the SDI-1030 gateway

The SDI-1030 gateway ships with the hardware for rack mounting and the rubber feet to attach to the appliance for desktop placement.

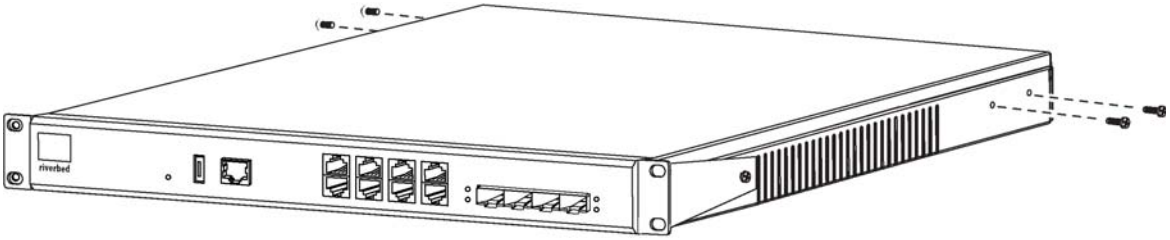
1. Attach the rack mount ears to the appliance with the included screws.

Figure 2-4. Attaching the rack mount ears



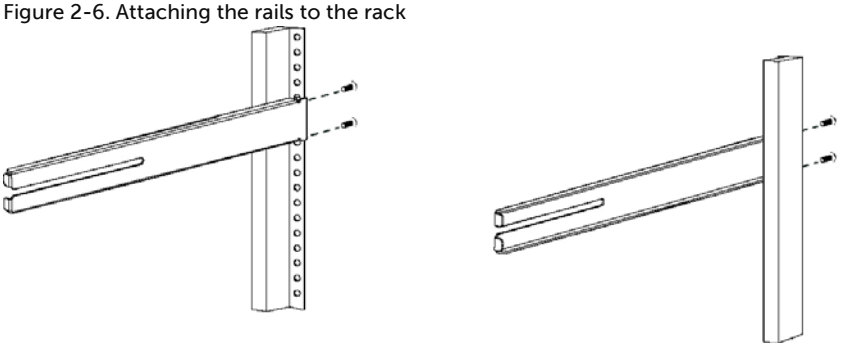
2. Loosely install the four screws, two on each side, along the back sides of the switch. You will tighten the screws when the switch is placed in the rack. Set the appliance aside.

Figure 2-5. Attaching the rear rail screws



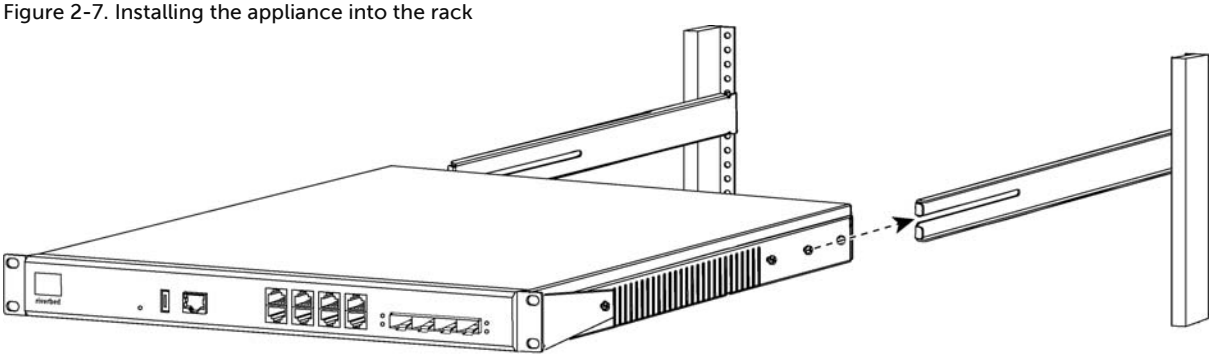
3. Determine the placement in the rack and then use the screws that ship with the rack-mount kit to attach the rails to the rack.

Figure 2-6. Attaching the rails to the rack



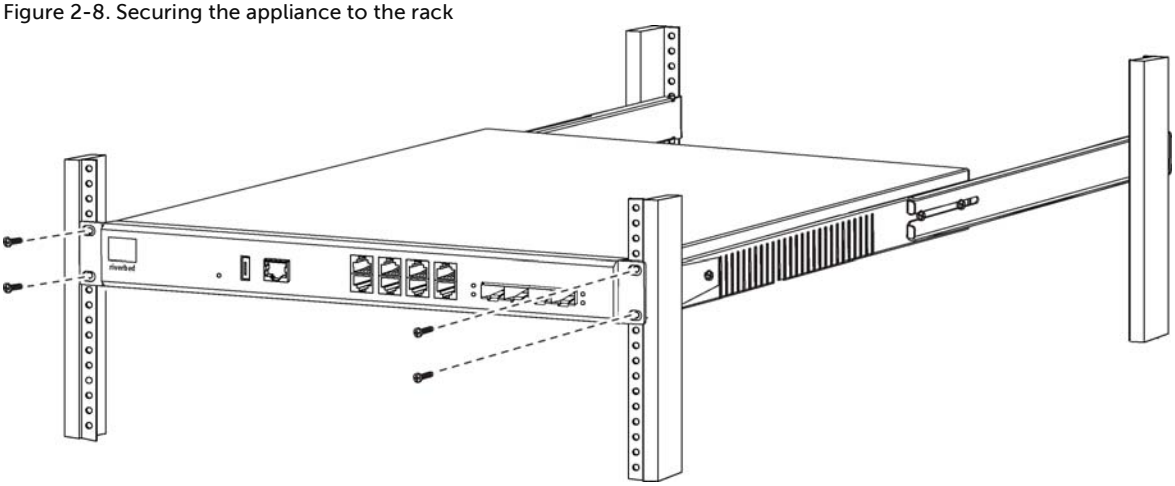
4. Insert the appliance into the rack and line the screws up to the rails so that you can insert the screws and slide the appliance into the rack.

Figure 2-7. Installing the appliance into the rack



5. Use screws to secure the front of the appliance to the rack. Then tighten the screws along the back of the appliance to secure the rail to it. This secures the rear of the appliance to the rack.

Figure 2-8. Securing the appliance to the rack



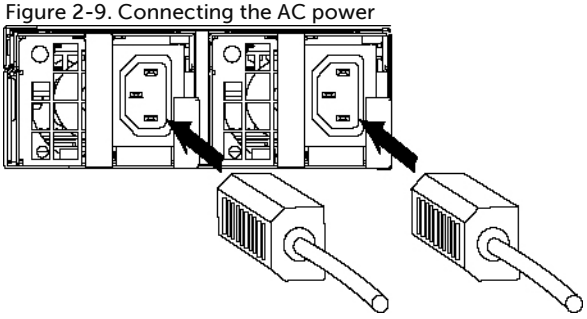
Powering the gateways

Caution: In European electrical environments you must ground (earth) the Green/Yellow tab on the power cord to avoid electrical shock.

1. If your system has a master power switch, ensure that the master power switch is in the off position on the rear of the appliance.

2. Plug the AC power cord into the power source.

Figure 2-9. Connecting the AC power



3. Plug the AC power cord into an uninterrupted AC power source.
4. Press the system power switch on. If the appliance doesn't immediately power on, press the power switch off, and then press the power switch on again.
5. Check the status lights on the appliance.

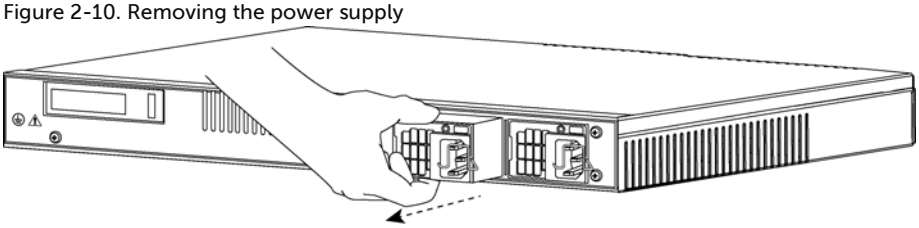
Replacing the power supplies in the SDI-1030

The SDI-1030 ships with two power supplies that can be replaced.

Removing the power supplies

1. Grasp the handle on the failed power supply and pull the power supply out of the bay.

Figure 2-10. Removing the power supply



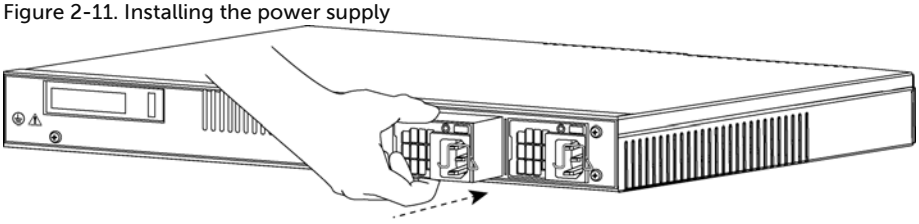
2. If you are installing a new power supply, see "Installing the power supplies" on page 18 for instructions.
3. If you are leaving the bay empty, place the power supply bay cover over the opening. Use a screwdriver to tighten the screws and secure the cover over the opening.

Installing the power supplies

1. Remove the new power supply from its packaging and position it into the power supply bay.

2. Push the power supply into the bay until it is fully seated.

Figure 2-11. Installing the power supply



3. Repeat this process for the second power supply.

A

SteelConnect Gateway Specifications

SteelConnect SDI-130 and SDI-130W specifications

Specification	Definition
Interface	2 physical interfaces **Note:** If you attach a modem, you can only support two WANs on that device. For example, MPLS on interface 1 and internet through a LTE modem on interface 2. 8 x GbE LAN ports 2 x GbE WAN ports 2 x WLAN (2.4/5 GHz, 2x2 MIMO) SDI-130W only 1 x USB 2.0 port
Power	12V/2A DC power adapter
Dimensions	12.6 x 9.3 x 1.8 in. (32.0 x 23.5 x 4.5 cm)
Weight	1.8 lb (0.8 kg)
Temperature range	Operating: 32 to 104°F (0 to 40°C) Storage: -4 to 140°F (-20 to 60°C)

SteelConnect SDI-330 specifications

Specification	Definition
Interface	2 physical interfaces **Note:** f you attach a modem, you can only support two WANs on that device. For example, MPLS on interface 1 and internet through a LTE modem on interface 2. 8 x GbE LAN ports 2 x GbE WAN ports 1 x USB 2.0 port OLED status display
Power	100-240V 50/60Hz AC (built in)
Dimensions	17.4 x 8.6 x 1.7 in. (44.1 x 21.9 x 4.4 cm)

Specification	Definition
Weight	6.61 lb (3 kg)
Temperature Range	Operating: 32 to 104°F (0 to 40°C) Storage: -4 to 140°F (-20 to 60°C)

SteelConnect SDI-1030 specifications

Specification	Definition
Interface	12 physical interfaces: – 4 x 10 GbE SFP+ ports – 8 x GbE ports **Note:** You can configure all 12 ports as uplink interfaces, or as zone/multizone interfaces. Although 12 uplinks are technically supported, realistically you need to use a port for at least one LAN connection. Console 1 x USB 2.0 port Reset button OLED status display
Power	100-240V 50/60Hz 1.5A
Dimensions	173.6 x 14.4 x 1.73 in. (44.1 x 36.5 x 4.4 cm)
Weight	13.75 lb (6.24 kg)
Temperature range	Operating: 32 to 104°F (0 to 40°C) Storage: -4 to 140°F (-20 to 60°C)