

# Hardware Installation Guide

Product Model: DXS-3610 Series

Layer 3 Stackable 10GbE Managed Switch

Release 1.02

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### **FCC Compliance Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **CE Mark Warning**

This equipment is compliant with Class A of CISPR 32. In a residential environment, this equipment may cause radio interference.

### **Avertissement Concernant la Marque CE**

Cet équipement est conforme à la classe A de la norme CISPR 32. Dans un environnement résidentiel, cet équipement peut provoquer des interférences radio.

### **VCCI Warning**

この装置は、クラス A 機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。VCCI-A

### **BSMI Notice**

此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

### **Safety Compliance**

**Warning: Class 1 Laser Product:** When using a fiber optic media expansion module, never look at the transmit laser while it is powered on. In addition, never look directly at the fiber TX port and fiber cable ends when they are powered on.

**Avertissement: Produit Laser de Classe 1:** Ne regardez jamais le laser tant qu'il est sous tension. Ne regardez jamais directement le port TX (Transmission) à fibres optiques et les embouts de câbles à fibres optiques tant qu'ils sont sous tension.

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## Intended Readers

The DXS-3610 Series 100 Gigabit Ethernet Managed Switch Hardware Installation Guide contains detailed information about the hardware specifications of the switches in this series. It also contains brief information on how to configure and manage a switch in this series. This manual is intended for advanced level users that are familiar with network management concepts and terminology. For all practical reasons, all the switches in this series will simply be referred to as the *Switch* throughout this manual.

## Typographical Conventions

Convention	Description
<b>Boldface Font</b>	This convention is used to place emphasis on keywords. It also indicates a button, toolbar icon, menu, menu item, system message, or a prompt appearing on the screen. For example, click the <b>Apply</b> button.
Initial capital letter	This convention is used to indicate a window name or keyboard key. For example, press the Enter key.
<code>Blue Courier Font</code>	This convention is used to represent a CLI example.

## Notes and Cautions



**NOTE:** A note indicates important information that helps you make better use of your device.



**CAUTION:** A caution indicates a potential for property damage, personal injury, or death.

**ATTENTION :** Une précaution indique un risque de dommage matériel, de blessure corporelle ou de mort.

# 1. Introduction

**Switch Description**  
**Switch Series**  
**Package Contents**

## Switch Description

The DXS-3610 series is the latest generation of Managed switches from D-Link. Switches in this series feature a wide selection of different ports types and speeds that can be used to interconnect a variety of networking devices to communicate with each other. The QSFP28 and SFP+ ports, with fiber-optical cabling, can be used to uplink connections that may span over great distances. Switches in this series also implement D-Link's innovative third generation Green Ethernet technology (IEEE 802.3az) to save power from links that are inactive by turning LEDs off based on a customized schedule and by allowing ports to automatically enter a hibernated state.

## Switch Series

The following switches are part of the DXS-3610 series:

- **DXS-3610-54T** - L3 stackable 10GbE managed switch with 48 RJ45 10 Gbps and 6 QSFP28 100 Gbps ports
- **DXS-3610-54S** - L3 stackable 10GbE managed switch with 48 SFP+ 10 Gbps and 6 QSFP28 100 Gbps ports

## Package Contents

Open the shipping carton of the Switch and carefully unpack its contents. The carton should contain the following items:

- One DXS-3610 series switch
- Two pre-installed AC power supply modules (*DXS-PWR700AC*)
- Five pre-installed fan modules with front-to-back-airflow (*DXS-FAN200*)
- Two AC power cords
- One RJ45 to RS-232 console cable
- One micro-USB to Type-A USB cable
- Four rubber feet with adhesive backing
- One rack mounting kit, containing two brackets and a number of screws
- One quick installation guide



**NOTE:** If any item is missing or damaged, please contact your local D-Link reseller for replacement.

## 2. Hardware Components

Front Panel Components  
Rear Panel Components  
Side Panel Components

### Front Panel Components

The front panel features components like LED indicators, a Console port, an MGMT port, a micro-USB port, a reset button, and a variety of Ethernet ports. These components are described in detail below.

This following table lists the front panel components on **all** the switches in the series:

Port	Description
<b>Console Port</b>	The console port can be used to connect to the CLI of the Switch. This Out-Of-Band (OOB) connection can be made from the serial port of an administrative node to the RJ45 console port on the front panel of the Switch. The console cable (included in the package) must be used for the connection.
<b>MGMT Port</b>	The management (MGMT) port can be used to connect to the CLI or the Web UI of the Switch. SNMP-enabled connectivity can also be made through this port. This OOB connection can be made from a standard LAN adapter to the RJ45 MGMT port on the front panel of the Switch. This connection operates at 10/100/1000 Mbps.
<b>Micro-USB Port</b>	The micro-USB port provides additional storage space for firmware images and configuration files that can be copied to and from the Switch. Only endpoint devices like USB flash drives are supported.
<b>Reset Button</b>	The reset button can be used to reboot the switch or to reset the switch to its factory default settings depending on how long this button is pressed. <ul style="list-style-type: none"> <li>• <b>Press and hold for less than 5 seconds</b> This reboots the Switch. All unsaved configurations will be lost.</li> <li>• <b>Press and hold for between 5 and 10 seconds</b> This resets the software configuration on the Switch to the factory default settings.</li> </ul>
<b>Information Tag</b>	The sliding information tag is discretely located on the front panel, right next to the QSFP28 ports, and contains the product code, hardware version, serial number, and MAC address of the Switch. The QR code can be scanned to quickly obtain the abovementioned information.

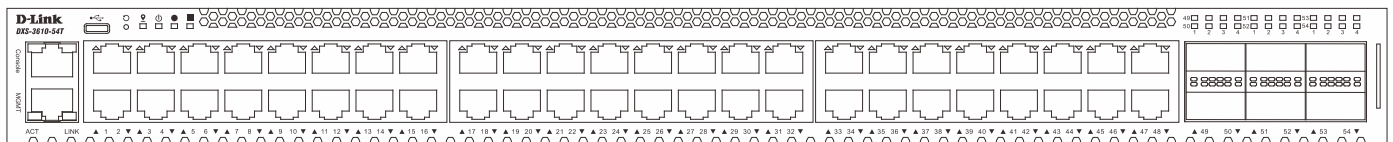


Figure 2-1 DXS-3610-54T Front Panel

This following table lists the front panel components unique to the **DXS-3610-54T**:

Port Type	Port Number	Description
<b>RJ45 Ports</b> (1/10 Gbps)	Ports 1 to 48	This switch is equipped with <b>48</b> RJ45 Ethernet ports that can operate at 1 and 10 Gbps wire-speeds.
<b>QSFP28 Ports</b> (40/100 Gbps)	Ports 49 to 54	This switch is equipped with <b>6</b> QSFP28 ports that can operate at 40 and 100 Gbps wire-speeds and support a wide collection of QSFP+/QSFP28 transceivers.

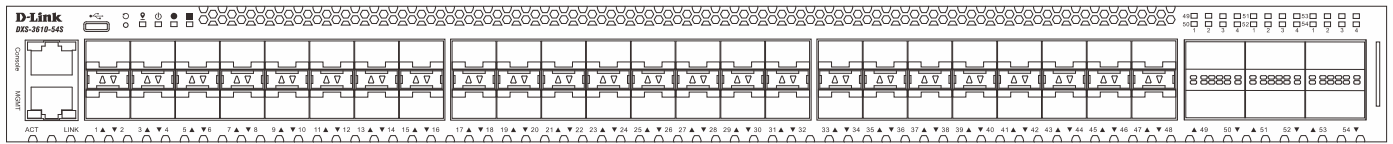


Figure 2-2 DXS-3610-54S Front Panel

This following table lists the front panel components unique to the **DXS-3610-54S**:

Port Type	Port Number	Description
<b>SFP+ Ports</b> (1/10 Gbps)	Ports 1 to 48	This switch is equipped with <b>48 SFP+</b> ports that can operate at 1 and 10 Gbps wire-speeds and support a wide collection of SFP/SFP+ transceivers.
<b>QSFP28 Ports</b> (40/100 Gbps)	Ports 49 to 54	This switch is equipped with <b>6 QSFP28</b> ports that can operate at 40 and 100 Gbps wire-speeds and support a wide collection of QSFP+/QSFP28 transceivers.

## Front Panel LED Indicators

The LED indicators provide valuable information in a variety of ways like their color, blinking times, and location.

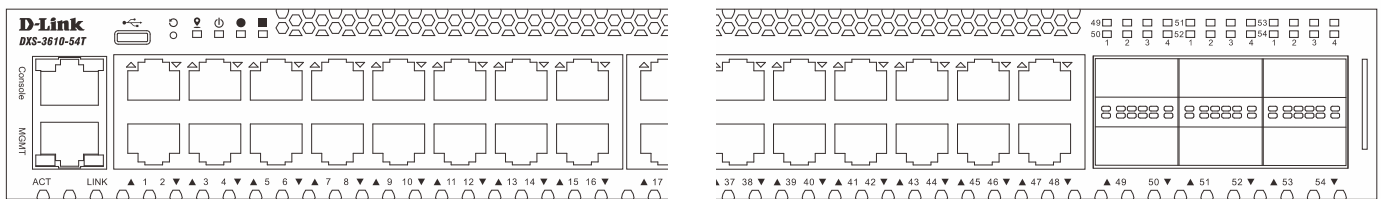


Figure 2-3 DXS-3610-54T Front Panel LED Indicators

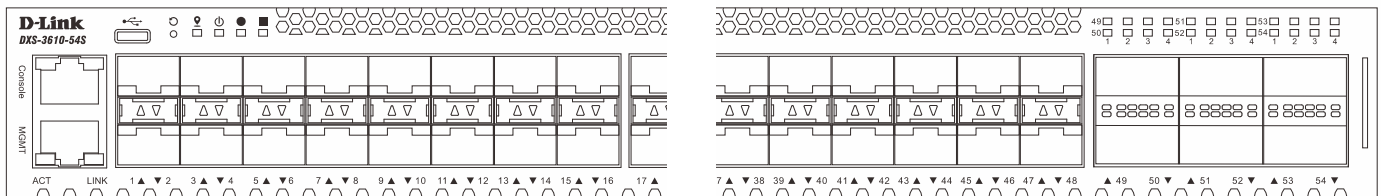


Figure 2-4 DXS-3610-54S Front Panel LED Indicators

The front panel LED indicators are described in the following table:

LED	Color	Status	Description
<b>Locator</b>	Blue	On (Solid)	User logged in
	-	Off	Locator function is disabled
<b>Power</b>	Green	On (Solid)	Power on
		On (Blinking)	Performing system self-test
	Amber	On (Solid)	PSU failed or Voltage/Current/Temperature too high
	-	Off	Power off
<b>Status</b>	Green	On (Solid)	POST passed and normal operation
		On (Blinking)	POST in progress
	Amber	On (Blinking)	POST/PSU/Fan failed or Temperature too high
	-	Off	Power off
<b>Fan</b>	Green	On (Solid)	Fan operation normal

LED	Color	Status	Description
	Amber	On (Blinking)	Fan error
	-	Off	Power off
<b>Link/Act</b> (Out-Of-Band port)	Green	On (Solid)	Active connection through the port
		On (Blinking)	Data transmitted and received through the port
	-	Off	Inactive connection, no link present, or port disabled
<b>Link/Act</b> (10GE RJ45 ports)	Green	On (Solid)	Active 10 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	Amber	On (Solid)	Active 1 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	-	Off	Inactive connection, no link present, or port disabled
<b>Link/Act</b> (10GE SFP+ ports)	Green	On (Solid)	Active 10 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	Amber	On (Solid)	Active 1 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	-	Off	Inactive connection, no link present, or port disabled
<b>Link/Act</b> (100GE QSFP28 ports)	White (LED 1)	On (Solid)	Active 100 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	Blue (LED 4)	On (Solid)	Active 40 Gbps connection through the port
		On (Blinking)	Data transmitted and received through the port
	Green (LED 1-4)	On (Solid)	Active 10/25 Gbps connection through each of the breakout ports
		On (Blinking)	Data transmitted and received through the port
	-	Off	Inactive connection, no link present, or port disabled
<b>Stacking (Master)</b> (100GE QSFP28 ports)	White (LED 1)	On (Solid)	Active 100 Gbps stacking connection through the port
		On (Blinking)	Data transmitted and received through the port
	Amber (LED 2)	On (Solid)	Active 100 Gbps stacking connection through the port
		On (Blinking)	Data transmitted and received through the port
	-	Off	No link present
<b>Stacking (Slave)</b> (100GE QSFP28 ports)	Amber (LED 3)	On (Solid)	Active 100 Gbps stacking connection through the port
		On (Blinking)	Data transmitted and received through the port
	Blue (LED 4)	On (Solid)	Active 100 Gbps stacking connection through the port
		On (Blinking)	Data transmitted and received through the port
	-	Off	No link present

The behavior of the LEDs during the booting or rebooting process is described per phase in the following table:

Phases	Locator	Power	Status	Fan	Port Link/Act
<b>Phase 1</b>	Blue (Solid)	Off	Off	Off	Off
<b>Phase 2</b>	Off	Off	Off	Off	Off
<b>Phase 3</b>	Off	Green (Solid)	Green (Blinks)	Green (Solid)	Off
<b>Phase 4</b>	Off	Green (Solid)	Green (Solid)	Green (Solid)	Off

The LEDs return to their normal operating behavior.

Phase	LED(s)	Behavior
Phase 1	Locator	Lights solid blue during this phase.
	Power	Remains off during this phase.
	Status	Remains off during this phase.
	Fan	Remains off during this phase.
	Port Link/Act	Remains off during this phase.
Phase 2	Locator	Turns off during this phase.
	Power	Remains off during this phase.
	Status	Remains off during this phase.
	Fan	Remains off during this phase.
	Port Link/Act	Remains off during this phase.
Phase 3	Locator	Lights solid green during this phase.
	Power	Lights solid green during this phase.
	Status	Blinks green during this phase.
	Fan	Lights solid green during this phase.
	Port Link/Act	Lights solid amber during this phase.
System Ready	All	Return to normal operation behavior.

## Rear Panel Components

The rear panel features components like LED indicators, PSU (Power Supply Unit) modules, fan modules, and an electrical grounding point. These components are described in detail below.



**CAUTION:** When two PSU modules are installed, they must be the **same type** (two ACs or two DC) and also use the same airflow direction (back-to-front or front-to-back).

**ATTENTION :** Lorsque deux modules d'alimentation sont installés, ils doivent être du même type (deux CA ou deux CC) et utiliser le même sens du flux d'air (dos à dos ou face à face).

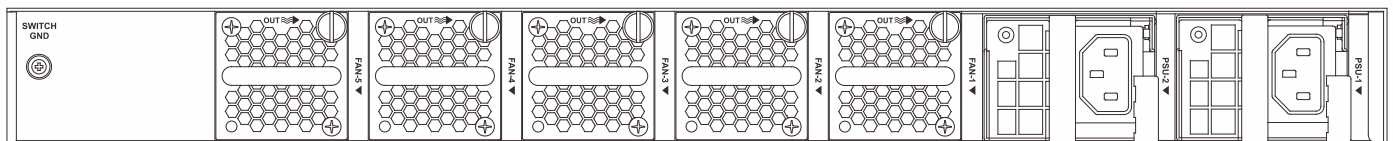


Figure 2-5 DXS-3610-54T/DXS-3610-54S Rear Panel (AC PSU)

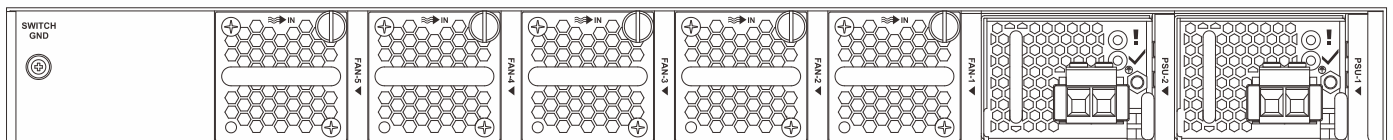


Figure 2-6 DXS-3610-54T/DXS-3610-54S Rear Panel (DC PSU)

This following table lists the rear panel components on the Switch:

Port	Description
Switch GND	Use an electrical grounding wire and connect one end of the wire to the switch GND and the other end of the wire to an electrical grounding point most commonly found on the Switch mounting rack itself.

Port	Description
<b>Fan Modules</b>	<p>These are five hot-swappable, redundant (4+1) fan module slots on the rear panel of the Switch. The following fan modules can be installed in these slots:</p> <ul style="list-style-type: none"> <li>• <b>DXS-FAN200</b> (Fan module with Front-to-Back airflow)</li> <li>• <b>DXS-FAN200-B</b> (Fan module with Back-to-Front airflow)</li> </ul> <p>When five fans modules are installed, four fan modules will be active and the fifth fan module will be passive until one of the four active fan modules fail.</p>
<b>Power Supply Module Slots</b>	<p>There are two hot-swappable, load-sharing power supply module slots on the rear panel of the Switch. The following power supply modules can be installed in these slots:</p> <ul style="list-style-type: none"> <li>• <b>DXS-PWR700AC</b> (AC PSU with Front-to-Back airflow)</li> <li>• <b>DXS-PWR700AC-B</b> (AC PSU with Back-to-Front airflow)</li> <li>• <b>DXS-PWR1000DC</b> (-48V DC PSU with Front-to-Back airflow)</li> <li>• <b>DXS-PWR1000DC-B</b> (-48V DC PSU with Back-to-Front airflow)</li> </ul> <p>When two PSU modules are installed, they will share the power load between them.</p>

## Rear Panel LED Indicators

The LED indicators provide valuable information in a variety of ways like their color, blinking times, and location.

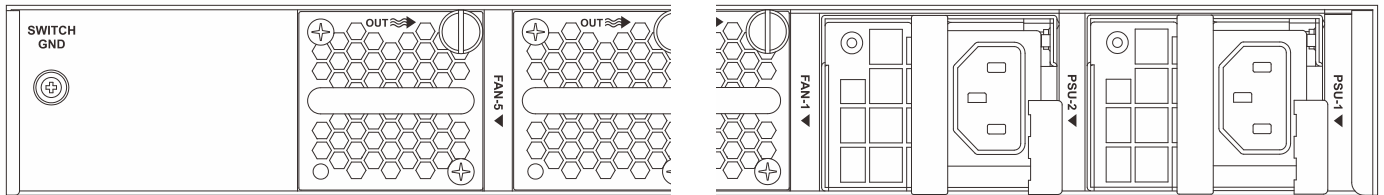


Figure 2-7 DXS-3610-54T/DXS-3610-54S Rear Panel LED Indicators

The rear panel LED indicators are described in the following table:

LED	Color	Status	Description
<b>Power Supply Module</b>	Green	On (Solid)	Normal power supply module operation
		On (Blinking)	PSU module is off but standby power is supplied
	Amber	On (Solid)	Critical event occurred, causing a PSU shutdown (PSU failure, OCP, OTP, OVP, UVP, and fan failure)
		On (Blinking)	Warning event occurred (power/current/temperature is too high, the fan is too slow, or the input voltage is not enough)
	-	Off	Power off
<b>Fan Module</b>	Green	On (Solid)	Fan operation is normal
		On (Blinking)	Fan error occurred
		-	Off

## Side Panel Components

The side panels feature components like rack-mounting screw holes and rack-mounting slider pegs.

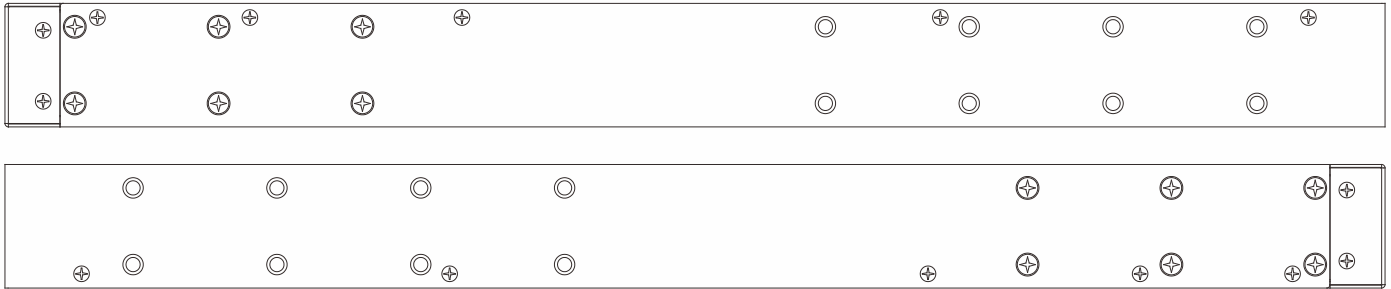


Figure 2-8 DXS-3610-54T/DXS-3610-54S Side Panels

## 3. Installation

### *Installation Guidelines*

#### *Installing the Switch without a Rack*

#### *Installing the Switch in a Standard 19" Rack*

#### *Installing Transceivers into the Transceiver Ports*

#### *Installing PSU Modules into the PSU Module Slots*

#### *Installing Fan Modules into the Fan Module Slots*

## Installation Guidelines

This section will discuss the hardware installation guidelines that the user must follow in order to properly and safely install this switch into the appropriate environment.

- Visually inspect the power cord and see that it is fully secured to both the power connector, on the Switch, and the electrical outlet that supplies power.
- Install the Switch in a fairly cool and dry place within the acceptable operating temperature and humidity ranges. For more information about the acceptable operating temperature and humidity ranges, refer to the Physical and Environmental section.
- Install the Switch in a site free from strong electromagnetic field generators such as motors, vibration, dust, and direct exposure to sunlight.

## Installing the Switch without a Rack

This section is used to guide the user through installing the Switch in an area other than a switch rack. Attach the included rubber feet to the bottom of the Switch. Take note that there should be marked blocks on the bottom of the Switch to indicate where to attach the rubber feet. These markings are usually found in each corner on the bottom of the device. The rubber feet cushion the Switch, protecting the casing from scratches and preventing it from scratching other surfaces.

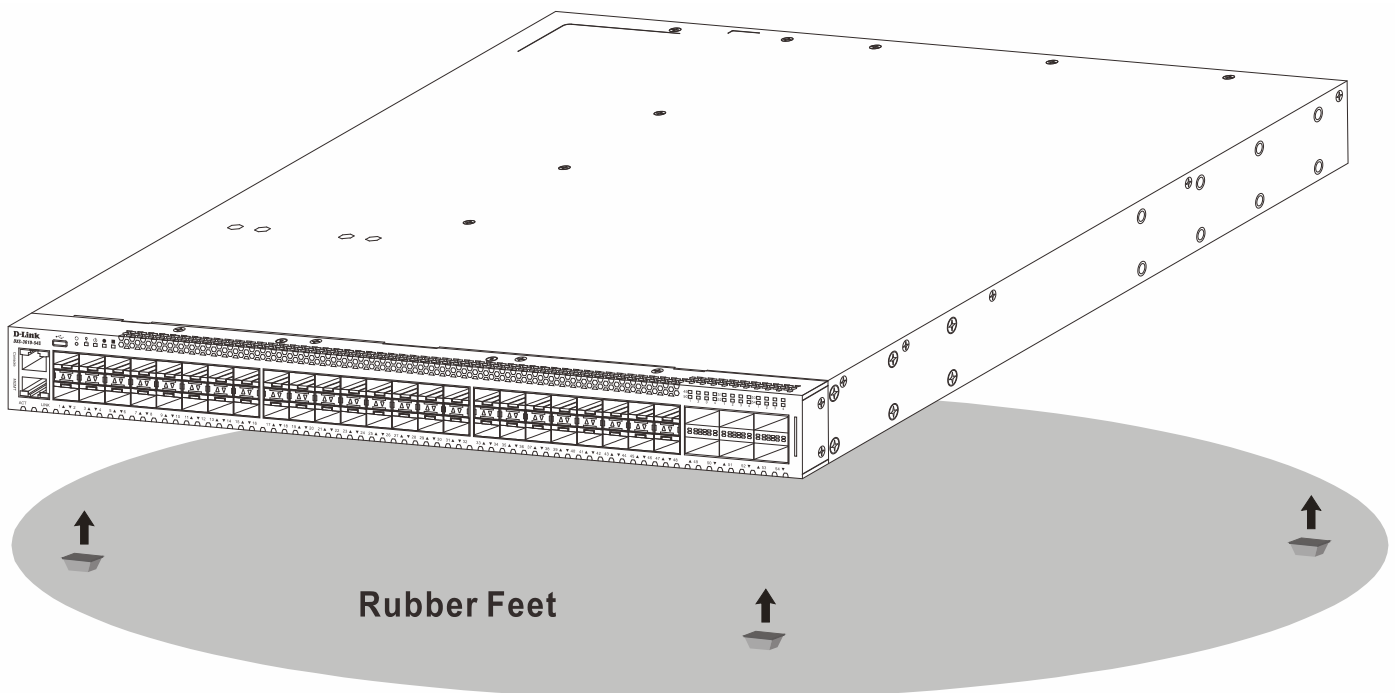


Figure 3-1 Attaching rubber feet to the Switch

Install the Switch on a sturdy, level surface that can support the weight of the Switch. Do not place any heavy objects on the Switch. The power outlet should be within 1.82 meters (6 feet) of the Switch. Make sure that there is proper

heat dissipation from and adequate ventilation around the Switch. Leave at least 10 cm (4 inches) of space at the front, sides, and rear of the Switch for ventilation.

## Installing the Switch in a Standard 19" Rack

This section is used to guide the user through installing the Switch into a switch rack. The Switch can be mounted in a standard 19"(1U) rack using the **rack mounting kit** included in the package contents.

Fasten the frontal rack-mounting brackets to the front-sides of the Switch using the screws provided.

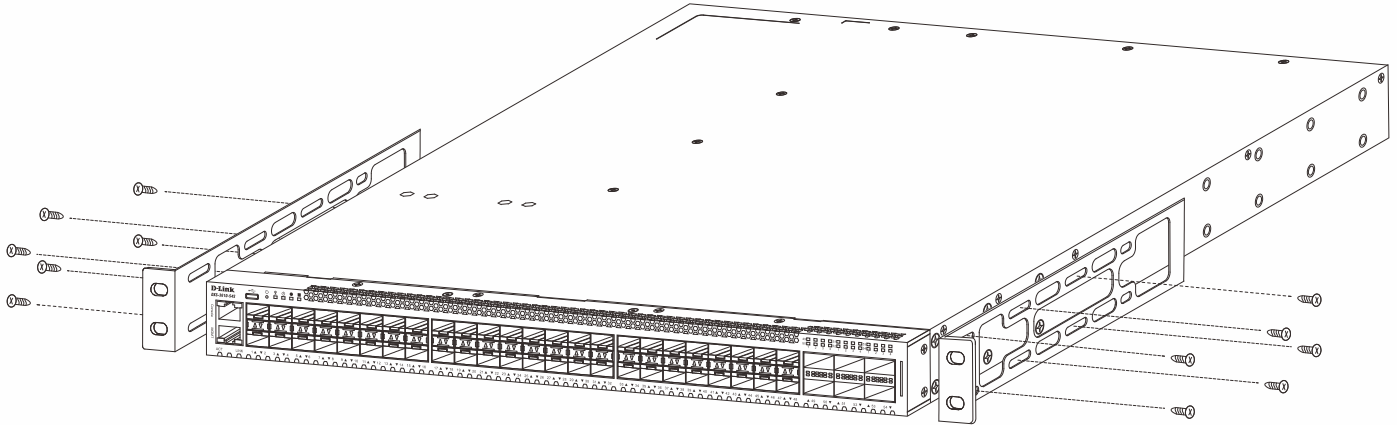


Figure 3-2 Attaching the frontal rack-mounting brackets

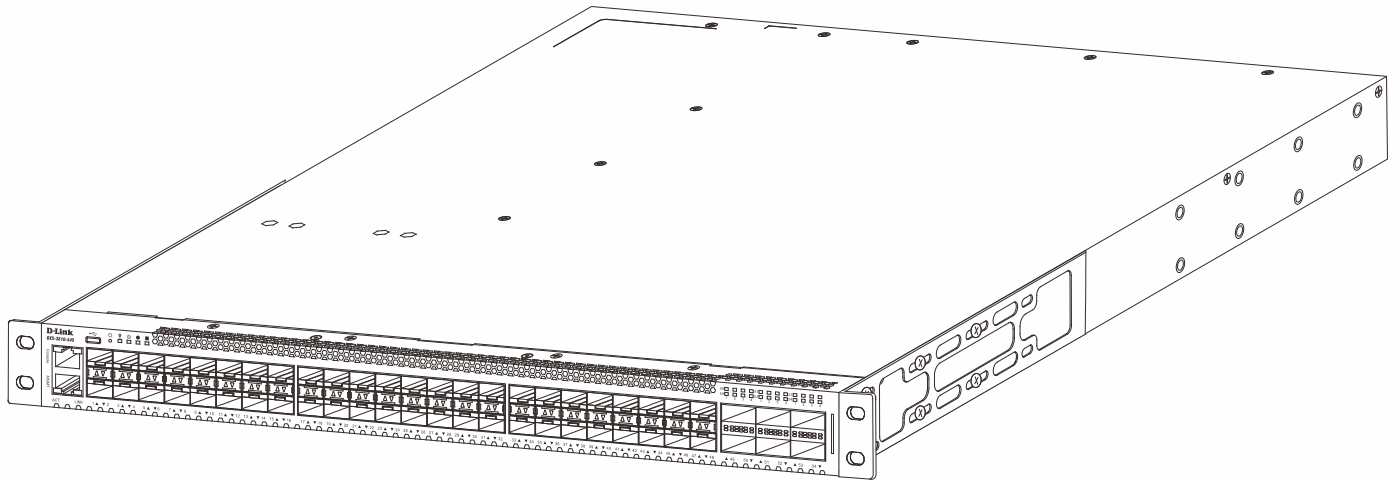
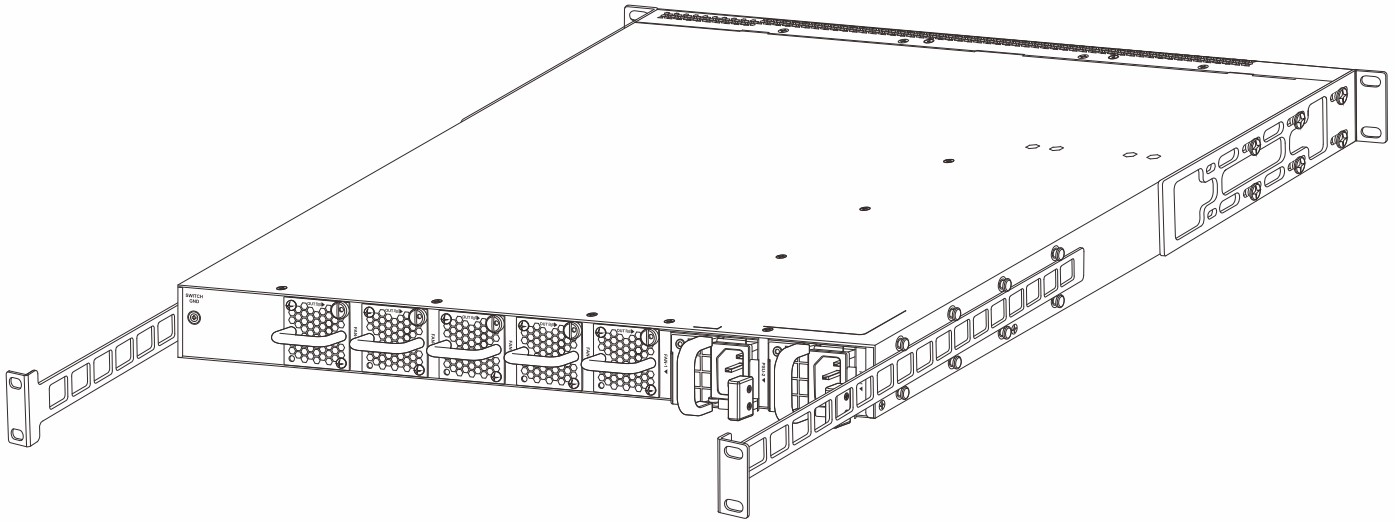


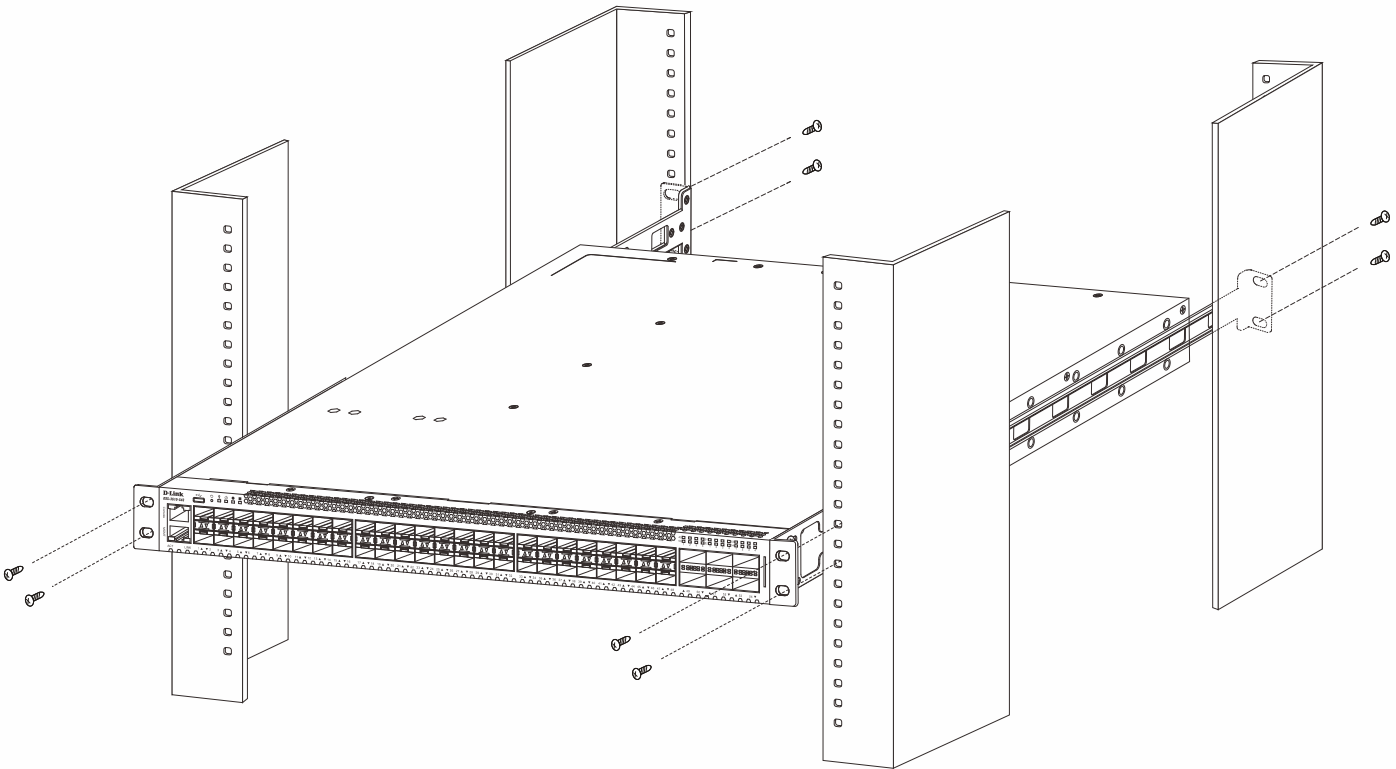
Figure 3-3 Frontal rack-mounting brackets attached

Slide the rear rack-mounting slider brackets into place, as illustrated below.



**Figure 3-4 Positioning the rear rack-mounting brackets**

Fasten the mounting brackets in any available open space in the rack using the screws provided.



**Figure 3-5 Installing the Switch in a Rack**

Make sure that there is adequate space around the Switch to allow for proper airflow, ventilation, and cooling.

# Installing Transceivers into the Transceiver Ports

Switches in this series are equipped with QSFP28 ports and the **DGS-3610-54S** is equipped with SFP+ ports. These ports can be used to connect various networking devices to this switch that do not support the standard RJ45 wiring connection. These ports are generally used to connect this switch to optical fiber connections and can be used to connect devices to the Switch over great distances. The maximum distance that the RJ45 wiring connection can reach is 100 meters. Fiber optic connections can span several kilometers.



**NOTE:**

- The **DXS-3610-54T** and **DXS-3610-54S** is equipped with *QSFP28 ports*.
- Only the **DXS-3610-54S** is equipped with *SFP+ ports*.

The figure below illustrates how to properly insert QSFP+/QSFP28 transceivers into the 100GE **QSFP28** ports.

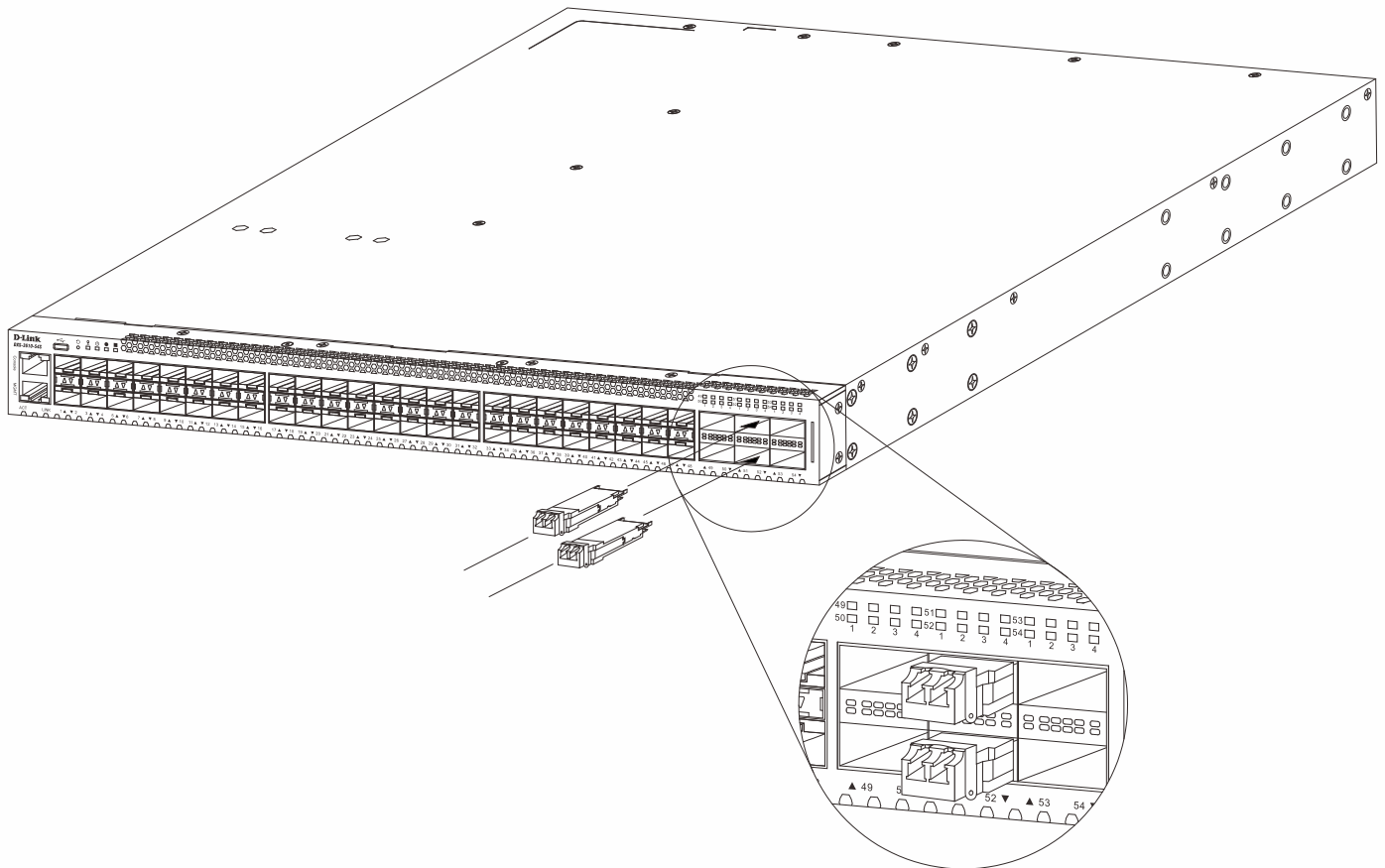


Figure 3-6 Inserting QSFP+/QSFP28 transceivers into the QSFP28 ports

The figure below illustrates how to properly insert SFP/SFP+ transceivers into the 10GE **SFP+** ports.

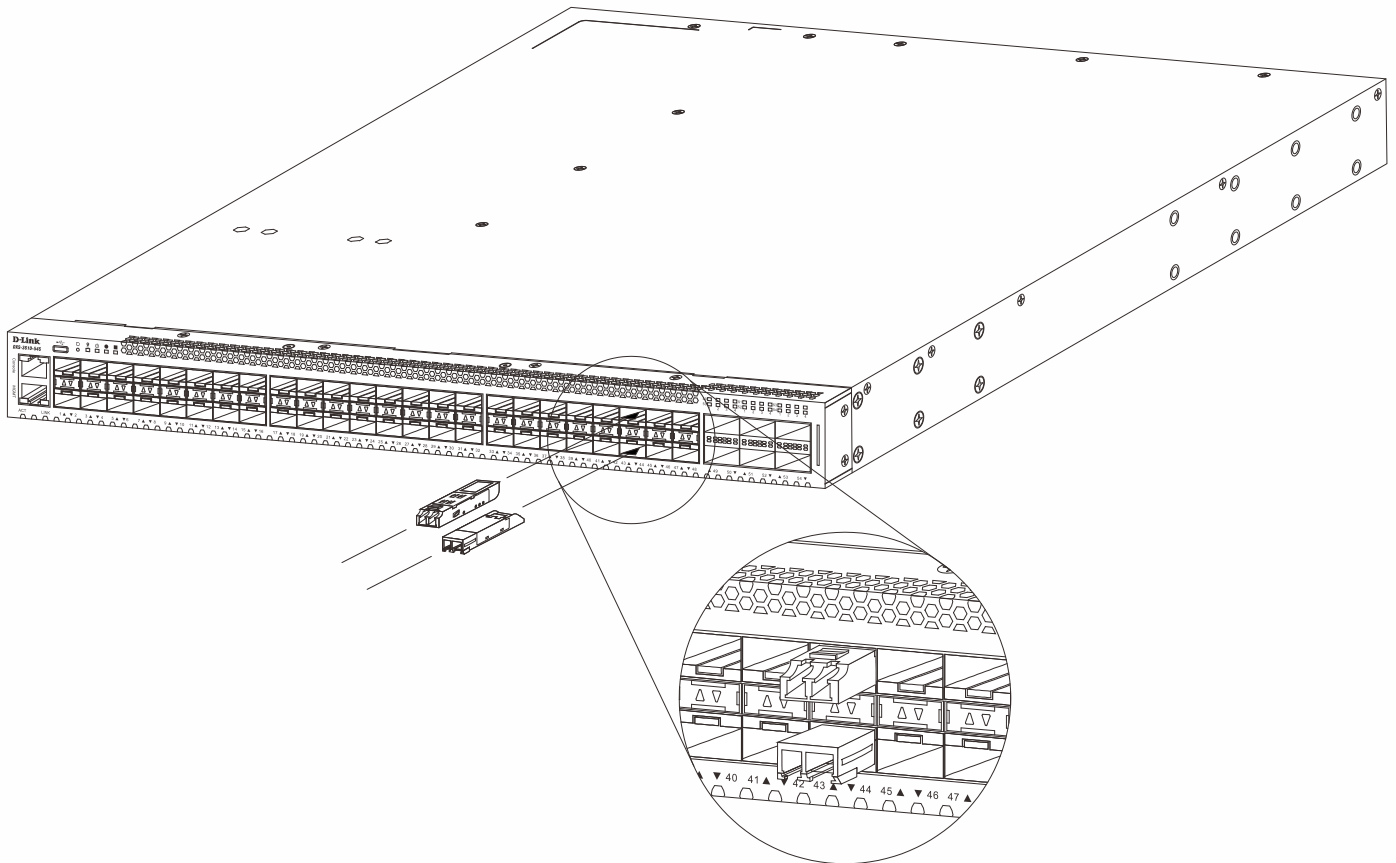


Figure 3-7 Inserting SFP/SFP+ transceivers into the SFP+ ports



**NOTE:** For the full list of D-Link SFP/SFP+/QSFP+/QSFP28 transceivers that are supported on the Switch, refer to the **Supported SFP/SFP+/QSFP+/QSFP28 Transceivers** table on page 31.



**NOTE:** Only use pluggable optical modules and Direct-Attach Cables (DAC) that meet the following regulatory requirements:

- Class 1 Laser Product
- UL and/or CSA registered component for North America
- FCC 21 CFR Chapter 1, Sub-chapter J in accordance with FDA & CDRH requirements
- IEC/EN 60825-1/-2: 2007 2nd edition or later, European Standard

## Installing PSU Modules into the PSU Module Slots

The Switch supports the installation of AC or DC PSU modules into the PSU module slots.



**NOTE:** The PSU modules support a specific airflow direction. This airflow direction must be the same as the fan module(s) installed. The default airflow direction is front-to-back on all the installed PSU modules and fan modules.

### Installing AC PSU Modules

When an existing AC PSU module needs to be replaced or an additional AC PSU module needs to be installed, it is important to know the proper installation of the AC PSU module. The AC PSU modules are hot-swappable and a second PSU module can be inserted or removed while the Switch is powered on.

To remove an existing AC PSU module, remove the AC power cord and then press the release clip to the side. Gently pull the AC PSU module out of the PSU module slot.



**NOTE:** Due to its mechanical design, the AC power cord needs to be removed before the release clip can be pressed to the side. If the AC power cord is still plugged in, the release clip can't be pressed to the side.

Insert the new AC PSU module into the PSU module slot until the release clip securely clicks into place.

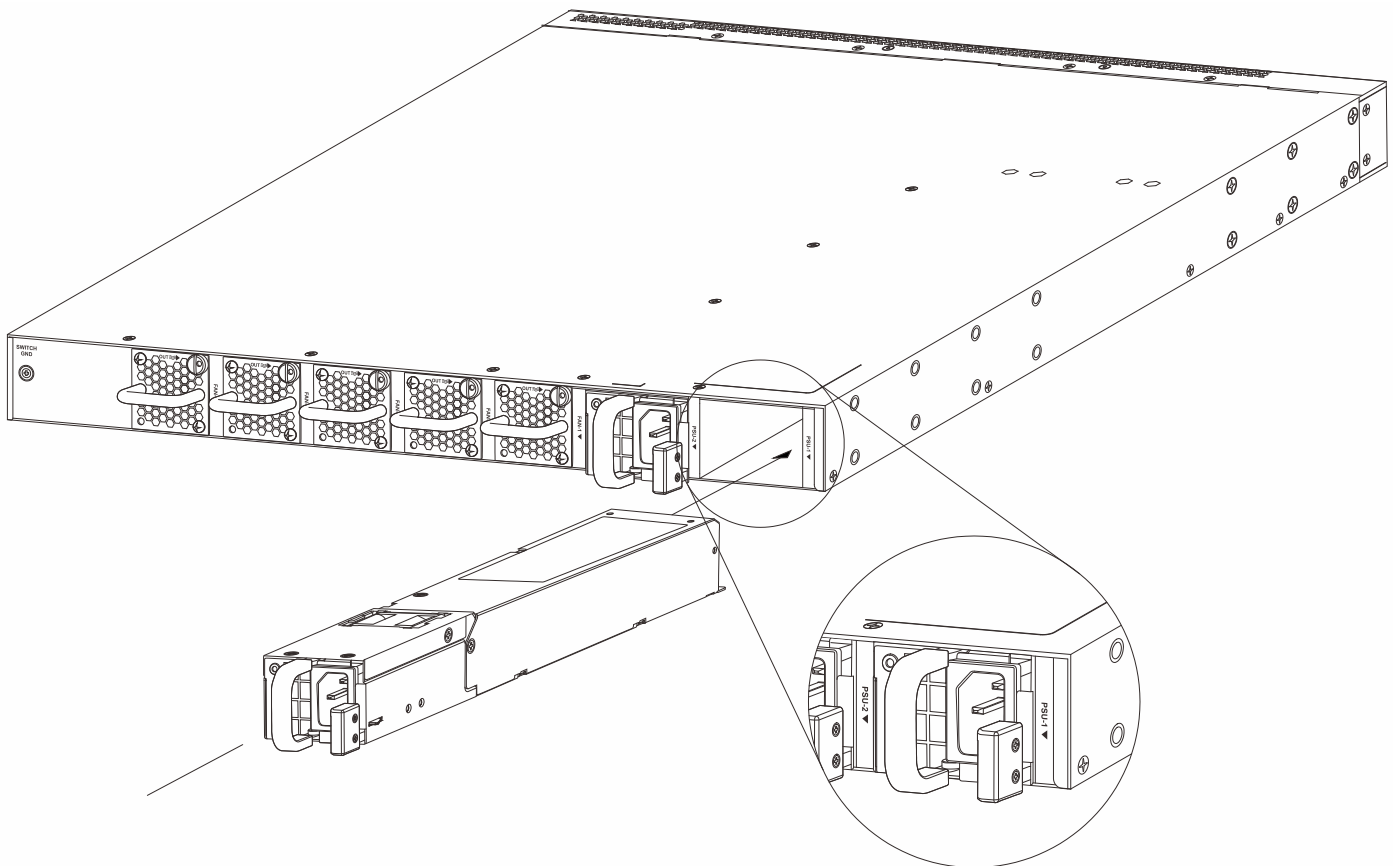


Figure 3-8 Installing an AC PSU Module

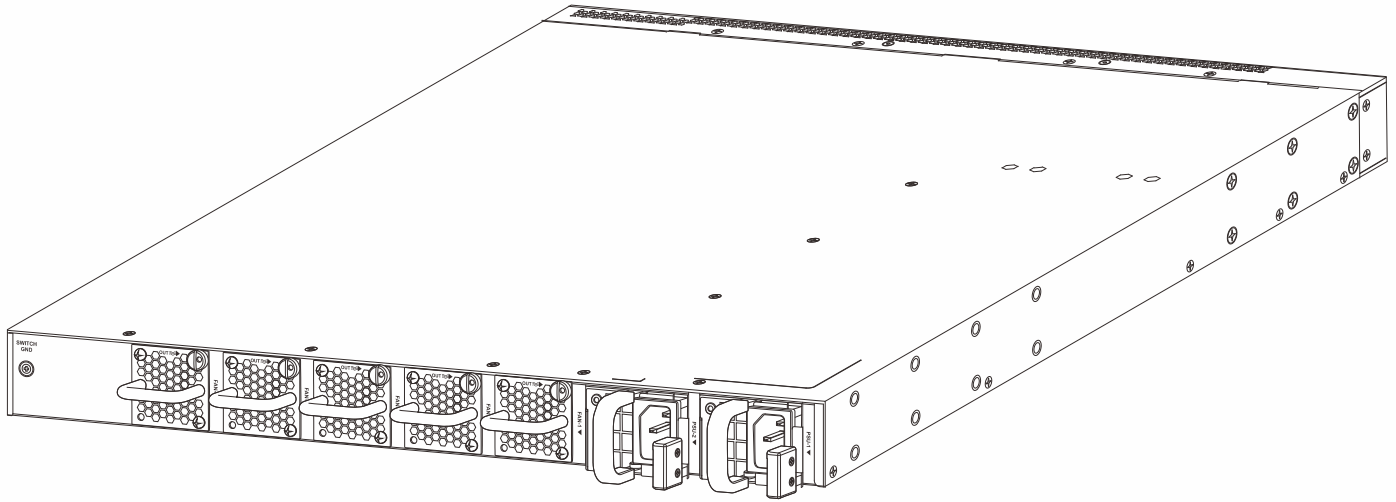


Figure 3-9 Installed AC PSU Module

When the AC PSU module is securely installed, plug one end of the AC power cord into the AC power socket on the AC PSU module and the other end of the AC power cord into a properly grounded AC power source outlet. There is no power switch/button on the AC PSU module. It will automatically receive power and adjust its power settings to adapt to any voltage supplied within the 100~240VAC range at 50~60Hz.

A second AC PSU module can be installed into the second PSU module slot labelled **PSU-2**. When the primary AC PSU fails, the second AC PSU will provide AC power to the Switch. This takes place immediately and automatically.

## Installing DC PSU Modules

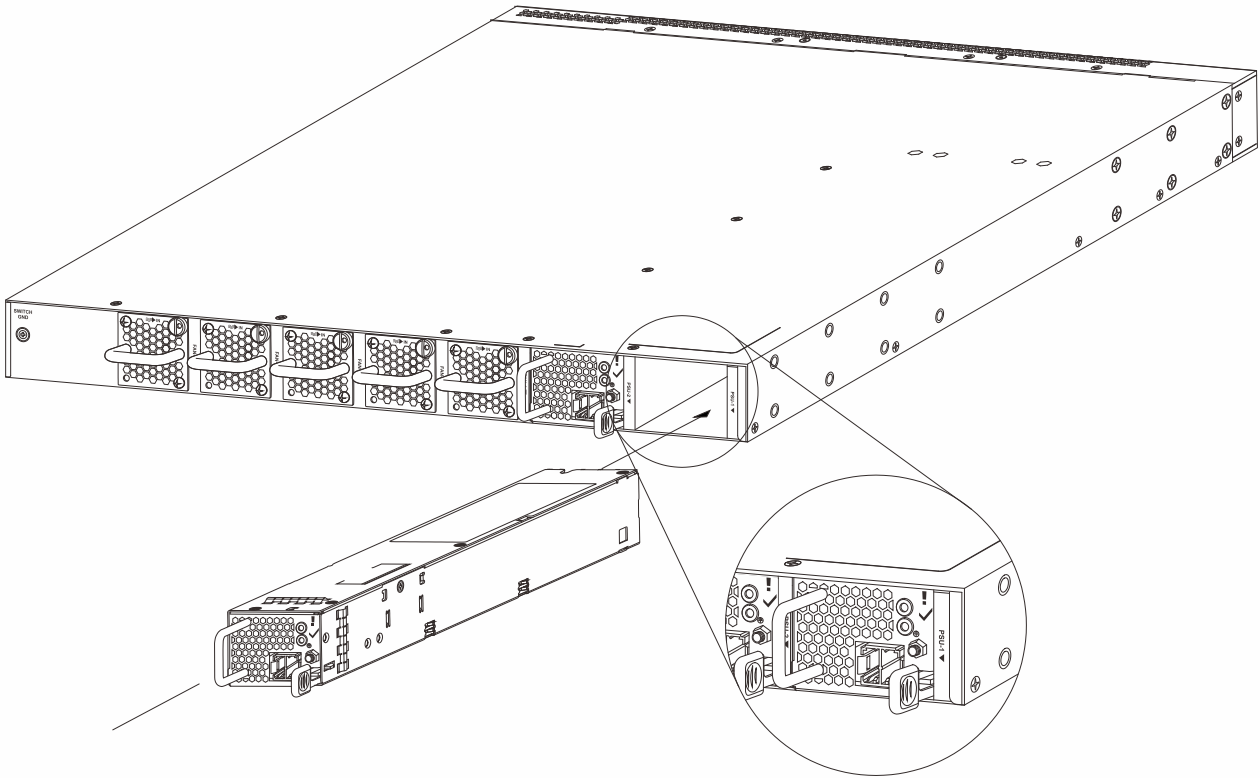
When an existing DC PSU module needs to be replaced or an additional DC PSU module needs to be installed, it is important to know the proper installation of the DC PSU module. The DC PSU modules are hot-swappable and a second PSU module can be inserted or removed while the Switch is powered on.



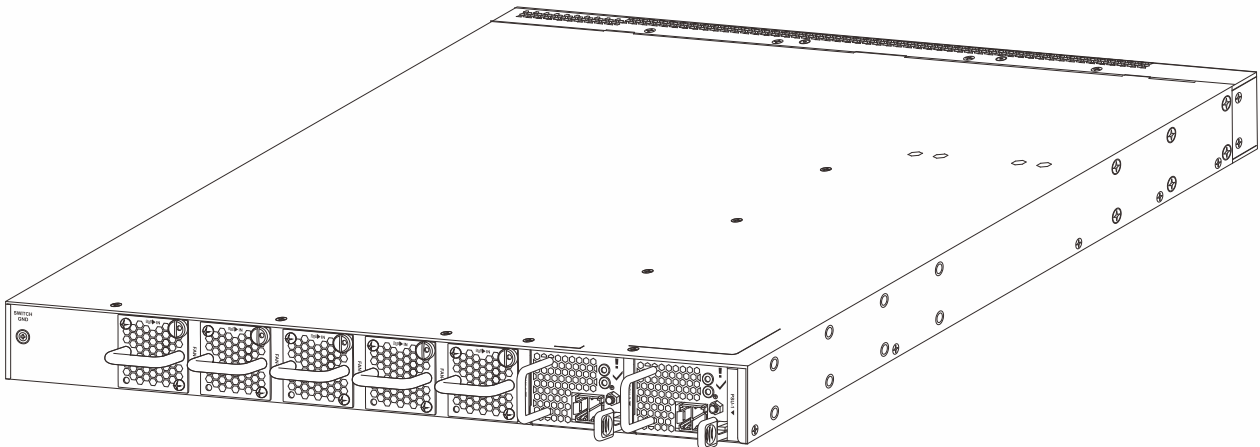
**NOTE:** Due to its mechanical design, the DC power cord needs to be removed before the release clip can be pressed to the side. If the DC power cord is still plugged in, the release clip can't be pressed to the side.

To remove an existing DC PSU module, press the release clip to the side. Gently pull the DC PSU module out of the PSU module slot.

Insert the new DC PSU module into the power supply module slot until the release clip securely clicks into place.



**Figure 3-10 Installing a DC PSU Module**



**Figure 3-11 Installed DC PSU Module**

To connect the DC power cord, remove the DC power cord plug first, by sliding the two orange sliders inwards and gently pulling out the plug. Attach the DC power cord to the DC power cord plug. Use the screws on the plug to secure the cord in place. Make sure that the connection polarity is correct to avoid any damaged, positive to the left and negative to the right (as indicated on the PSU). Insert the DC power cord with plug into the socket on the DC PSU.

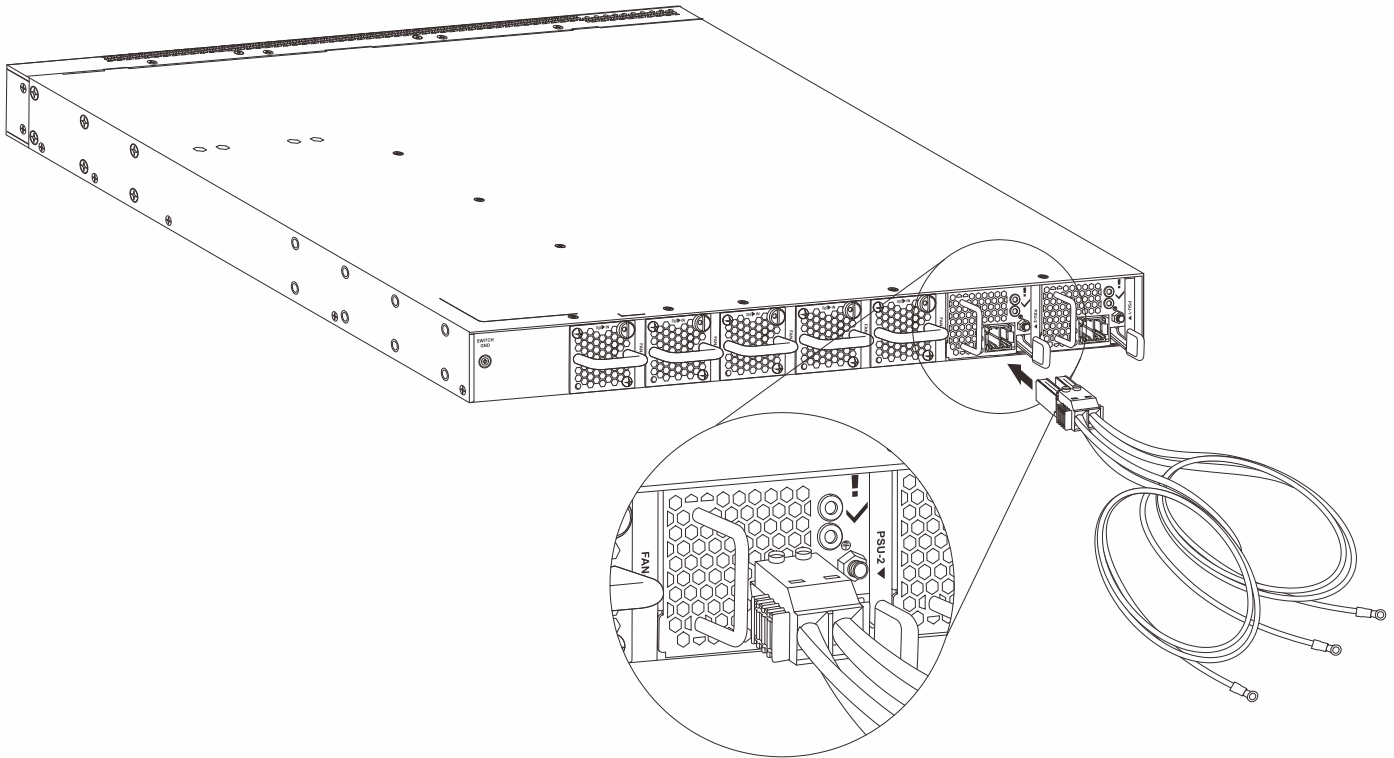


Figure 3-12 Installing the DC power cord

There is no power switch/button on the Switch. The DC PSU module will receive power automatically.



**CAUTION:** Before connecting the DC power cable to the DC power input socket, on the switch, the DC power cable must be properly connected to DC source, at your facility, by a qualified, licensed electrician.

**ATTENTION :** Avant de brancher le câble d'alimentation CC à la prise d'alimentation CC, sur le commutateur, le câble d'alimentation CC doit être correctement branché à la source CC, dans votre installation, par un électricien qualifié et agréé.



**CAUTION:** When installing a DC-powered switch, ground the chassis before connecting the switch to the DC power source and following the following instructions:

- Use a minimum of 18 AWG stranded copper wire for grounding. The wire should be long enough to reach from the installed switch to the facility ground point.
- Ground additional hardware appropriately to the earth ground connection at your site.
- Connect the DC power cable to a DC main circuit breaker rated no greater than 15A.

**ATTENTION :** Lorsque vous installez un commutateur alimenté en courant continu, mettez le châssis à la terre avant de connecter le commutateur à la source d'alimentation en courant continu et suivez les instructions ci-après:

- Utilisez un minimum de fil de cuivre toronné de 18 AWG pour la mise à la terre. Le fil doit être suffisamment long pour aller du commutateur installé au point de mise à la terre de l'installation.
- Mettez à la terre le matériel supplémentaire en fonction de la prise de terre de votre site.
- Connectez le câble d'alimentation DC à un disjoncteur principal DC d'une puissance maximale de 15A.

A second DC PSU module can be installed into the second PSU module slot labelled **PSU-2**. If the primary DC PSU fails, the second DC PSU is used to provide DC power to the Switch. This takes place immediately and automatically.

## Installing Fan Modules into the Fan Module Slots

This section guides the user through installing fan modules into the fan module slots. On the rear panel of the Switch, there are five fan module slots. Front-to-Back (FB) or Back-to-Front (BF) fan modules can be installed in these slots. By default, the Switch is shipped with five **DXS-FAN200** modules pre-installed.



**NOTE:** The fan modules support a specific airflow direction. This airflow direction must be the same as the PSU module(s) installed. The default airflow direction is front-to-back on all the installed PSU modules and fan modules.

To remove an existing fan module, use a flat-head screwdriver to unscrew the lag bolt (with a slot drive head) and gently pull the fan module out of the fan module slot.

Insert the new fan module into the fan module slot and fasten the lag bolt to secure the fan module into place.

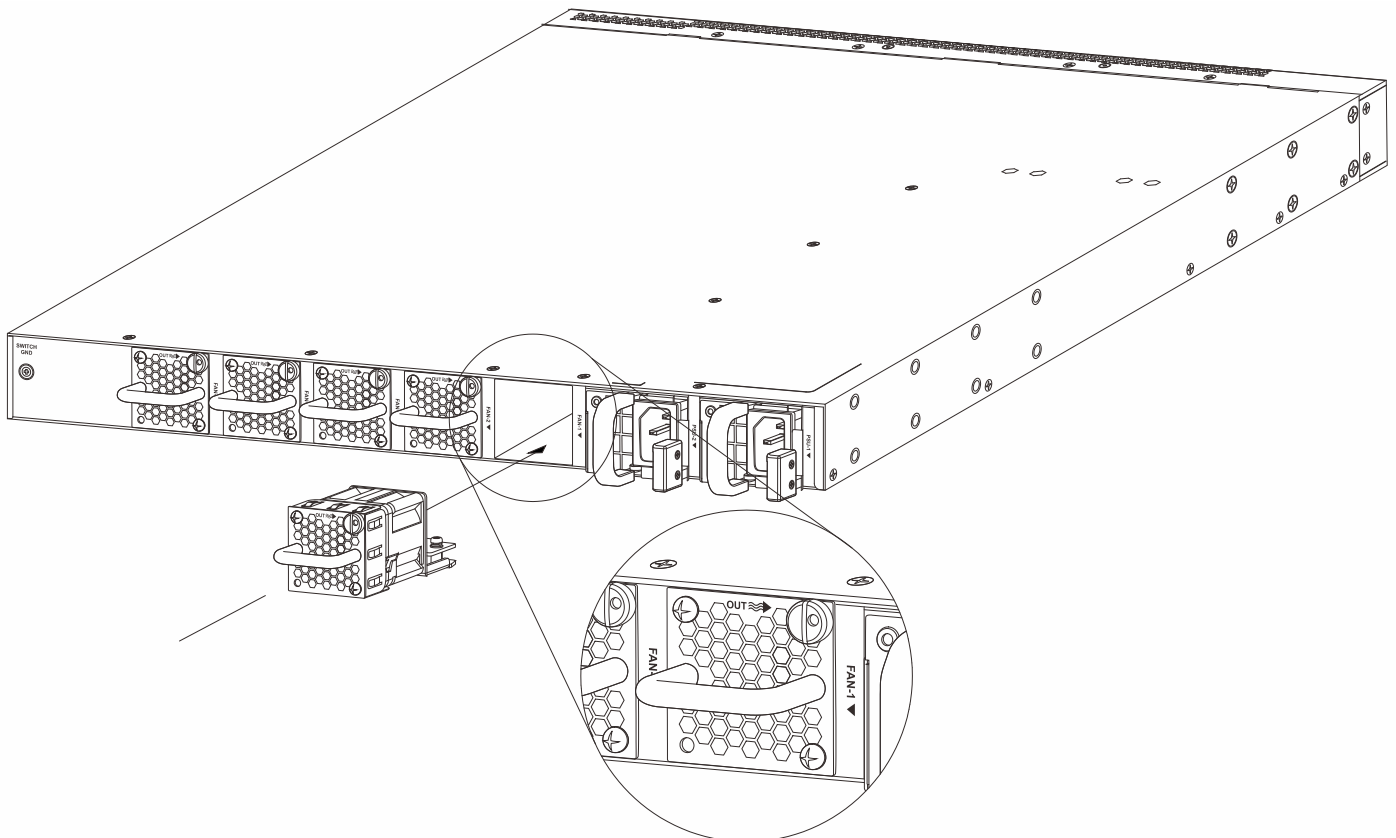


Figure 3-13 Installing a Fan Module

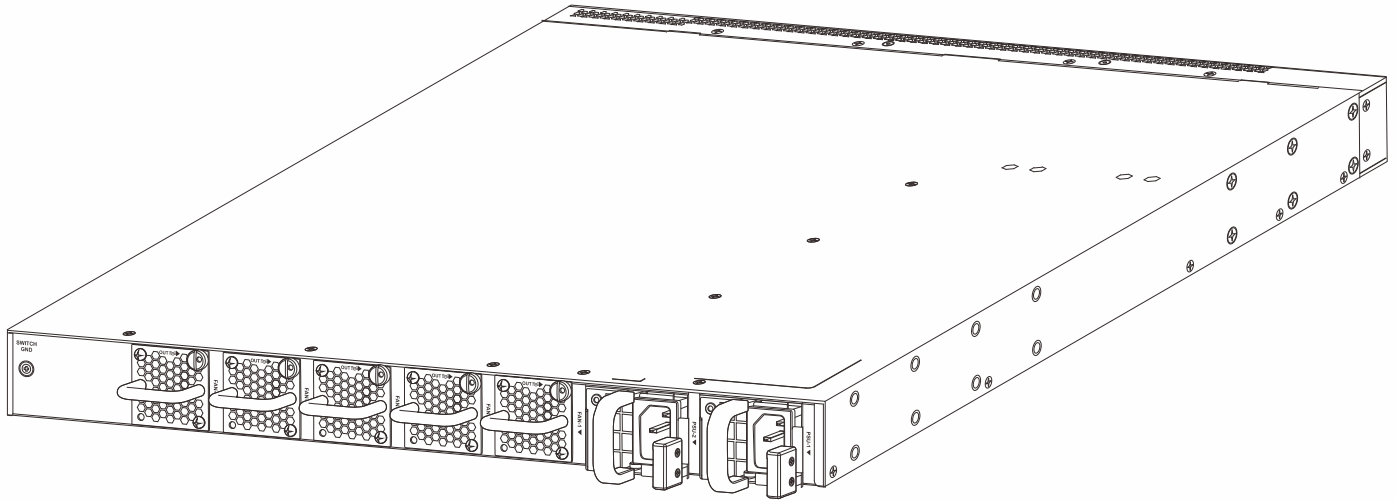


Figure 3-14 Installed Fan Module

## Smart Fans

The fan modules are capable to automatically adjust their speed depending on the IC sensor reading of the temperature required. This feature is so sensitive that it can even adjust the speed of the fan to accurately control the internal temperature.

The following table lists at what temperature the speed of the fan(s) will change:

Switch	Fan Module	Low Speed	Medium Speed	High Speed
<b>DXS-3610-54T</b>	<i>DXS-FAN200</i>	Below 30°C	At roughly 35°C	Above 40°C
	<i>DXS-FAN200-B</i>	Below 30°C	At roughly 35°C	Above 40°C
<b>DXS-3610-54S</b>	<i>DXS-FAN200</i>	Below 30°C	At roughly 35°C	Above 40°C
	<i>DXS-FAN200-B</i>	Below 30°C	At roughly 35°C	Above 40°C

## 4. Switch Connections

Stacking the Switch  
Switch to Server  
Switch to Switch  
Switch to End Node

### Stacking the Switch

Switches in this series support stacking up to 12 switches together while being managed through one console connection or MGMT connection on the master switch or through any of the inbound network ports using Telnet, the Web UI, and SNMP. This cost-effective switch provides an affordable solution for administrators to upgrade their networks using the stacking ports to scale and stack the Switches. This increases overall reliability, serviceability, and availability.

Switches in the series can be physically stacked with optical fiber cables or Direct Attached Cables (DACs) with QSFP28 connectors.



**NOTE:** When the last six QSFP28 ports are used for physical stacking, they can only operate at 100 Gbps. Stacking is not supported through a 40 Gbps connection.

The following stacking topologies are supported on the Switch:

- **Duplex Chain** - This topology stacks switches together in a chain-link format. Using this method, data transfer is only possible in one direction. If there is a break in the chain, data transfer will be affected.
- **Duplex Ring** - This topology stacks switches in a ring or circle format where data can be transferred in two directions. It is very resilient due to the fact that, if there is a break in the ring, data can still be transferred through the stacking cables between switches in the stack using the alternate path.

In the following diagram, switches are stacked in the **Duplex Chain** topology.

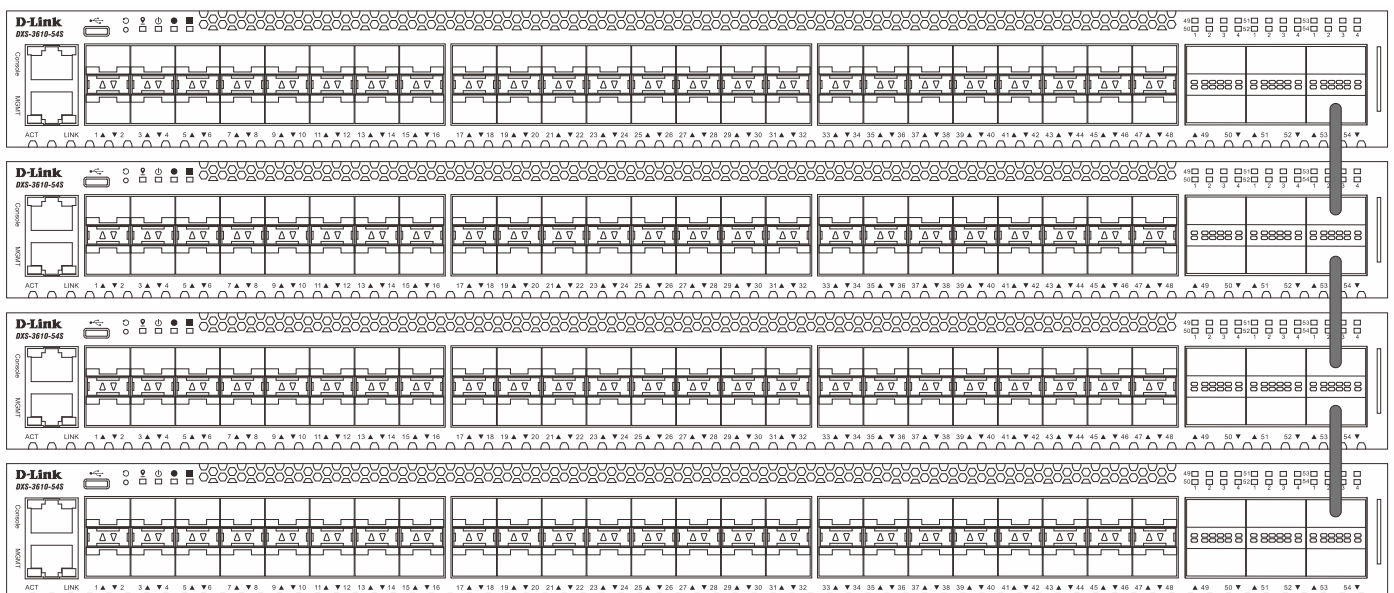
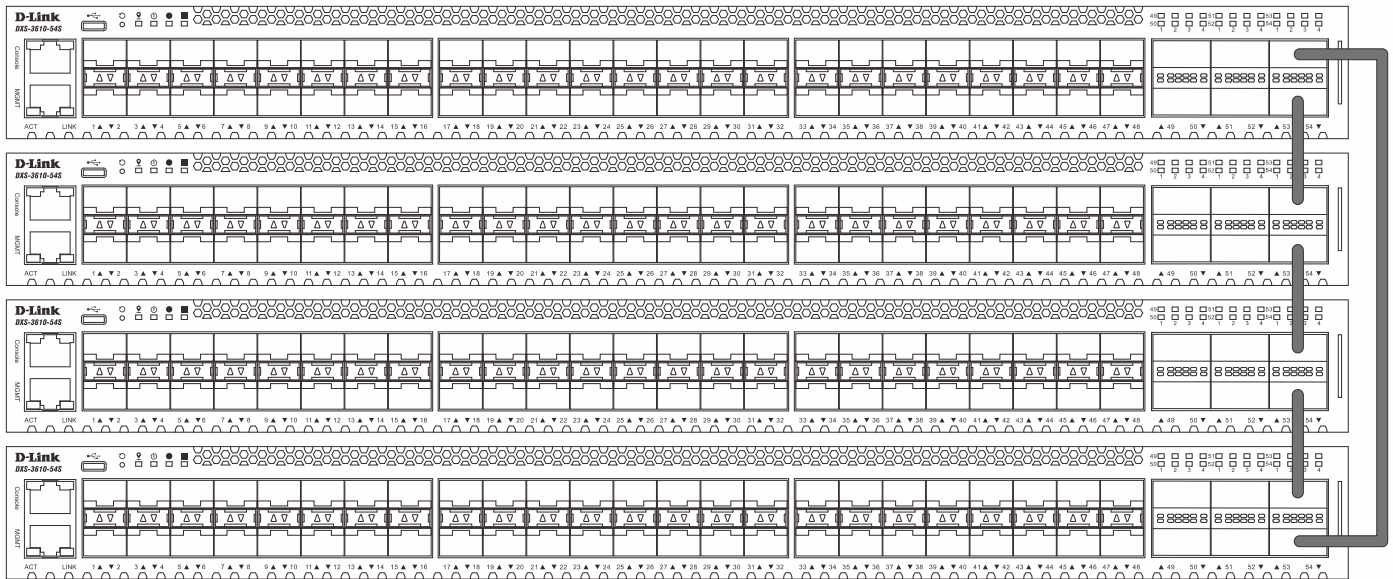


Figure 4-1 Duplex Chain Stacking Topology

In the following diagram, switches are stacked in the **Duplex Ring** topology.



**Figure 4-2 Duplex Ring Stacking Topology**

The stacking function needs to be enabled and configured to support either a **2-port**, **4-port**, or **6-port** stacking configuration. Stacking ports are grouped together into two logical stacking ports called **SIO1** (Stacking Input/Output 1) and **SIO2**. A group of logical stacking ports must always be connected, as a group, to another Switch in the stack.

The following table lists the stacking configuration with the corresponding SIO port pairs:

Configuration	Logical SIO1	Logical SIO2	Bandwidth
2-port	Port 53	Port 54	400 Gbps (full-duplex)
4-port	Port 51 and 53	Port 52 and 54	800 Gbps (full-duplex)
6-port	Port 49, 51, and 53	Port 50, 52, and 54	1200 Gbps (full-duplex)

## Switch to Switch

The Switch can be used to connect to any other switch or hub in the network. This network topology is used when the Switch does not have enough ports to cater for all the end nodes in the network.

There is a great deal of flexibility on how connections are made using the appropriate cabling.

- Connect a 1000BASE-T switch port to the Switch via a Category 5e UTP/STP cable.
- Connect a 10GBASE-T switch port to the Switch via a Category 6/6a/7 UTP/STP cable.
- Connect a fiber uplink switch port to the Switch's SFP+/QSFP28 port via a fiber optical cable.

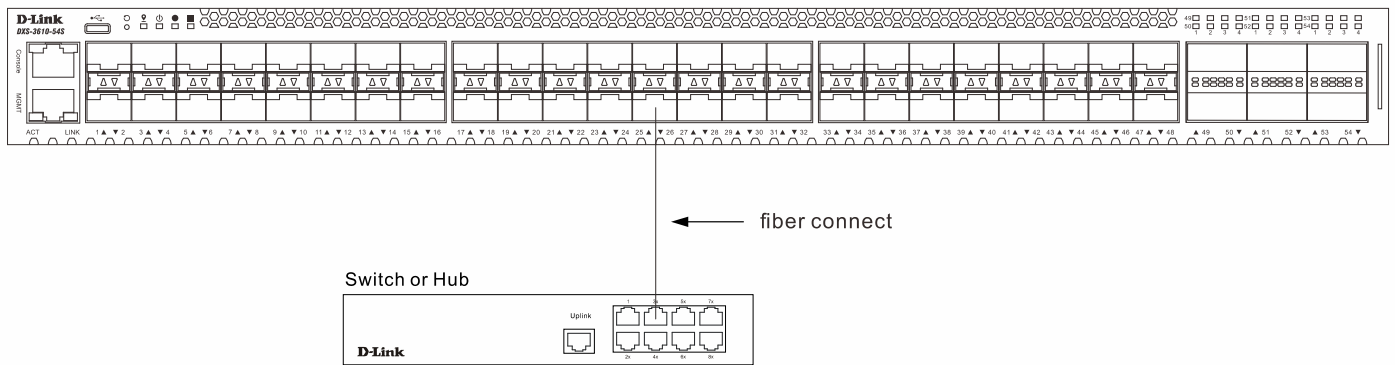


Figure 4-3 Switch to another Switch/Hub

## Switch to Server

The Switch is ideal for connecting to a network backbone, server, or server farm. The RJ45 ports operate at speeds of 1/10 Gbps, the SFP+ ports operate at speeds of 1/10 Gbps, and the QSFP28 ports operate at speeds of 40/100 Gbps.



Figure 4-4 Switch to a Server

## Switch to End Node

An end node is a generic name for edge networking devices that will be connected to this switch. Typical examples of end nodes are Personal Computers (PCs), Notebooks, Access Points, Print Servers, VoIP Phones and more. Each end node should be fitted with an RJ45 networking port. Normally, end nodes will connect to this switch by using a standard twisted-pair UTP/STP network cable. When a successful connection is established, the corresponding port light will illuminate and blink to indicate that network activity is taking place on that port.

The diagram below displays a typical end node connected to the Switch.

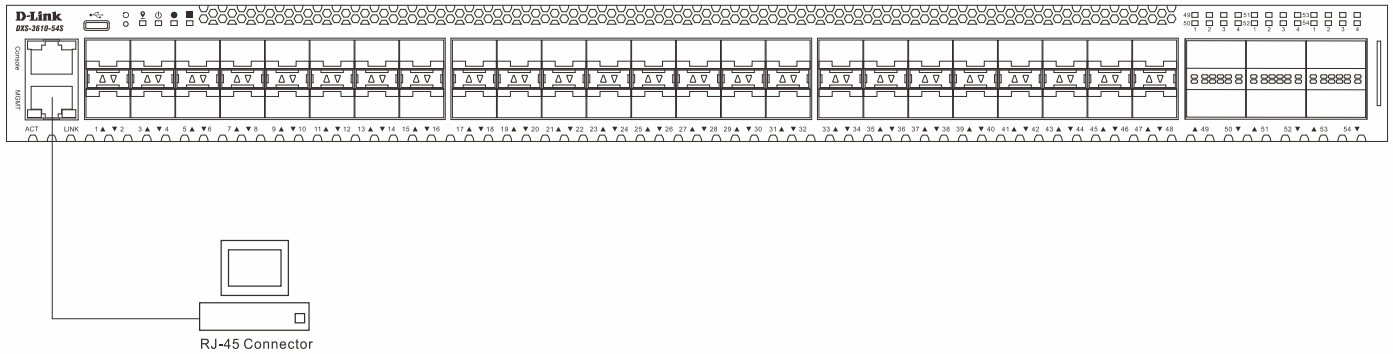


Figure 4-5 Switch to End Node

## 5. Switch Management

### Management Options

Command Line Interface (CLI)

Web User Interface (Web UI)

SNMP-based Management

## Management Options

To configure, manage, and monitor the software features on the Switch, users can connect to the Command Line Interface (CLI), Web User Interface (Web UI), or through the means of third-party SNMP software.

## Command Line Interface (CLI)

The CLI provides access to all of the software features available on the Switch. These features can be enabled, configured, disabled, or monitored by simply entering the appropriate command after the CLI prompt and pressing the Enter key. The Console port offers an Out-Of-Band (OOB) connection to the CLI and the LAN ports offers an in-band connection to the CLI using Telnet or SSH.



**NOTE:** For more information about the CLI, refer to the *DXS-3610 Series CLI Reference Guide*.

## Connecting to the Console Port

The Console port is used to connect to the CLI of the Switch. Connect the DB9 connector of the console cable (included in the packaging) to the Serial (COM) port of the computer. Connect the RJ45 connector of the console cable to the Console port on the Switch.

To access the CLI through the Console port, *Terminal Emulation Software* must be used like *PuTTY* or *Tera Term*. The Switch uses a connection of **115200** bits per second with **no flow control** enabled.

Port:	COM1	OK
Baud rate:	115200	Cancel
Data:	8 bit	Help
Parity:	none	
Stop:	1 bit	
Flow control:	none	

Figure 5-1 Console Connection Settings

After the boot sequence completed, the CLI login screen is displayed.



**NOTE:** The default username and password for the CLI and Web UI is *admin*.

## Logging into the CLI

At the login screen, enter the **Username** and **Password** and press **Enter** after each entry to access the CLI.

```
DXS-3610-54S TenGigabit Ethernet Switch

Command Line Interface
Firmware: Build 1.01.003
Copyright(C) 2020 D-Link Corporation. All rights reserved.

User Access Verification

Username:admin
Password:*****

Switch#
```



**NOTE:** For security reasons, it is highly recommended to configure a personal username and password for this Switch.

## Creating a User Account

To create a new user account, use the **username** command in the Global Configuration Mode.

```
Switch# configure terminal
Switch(config)# username NewUser password 12345
Switch(config)# username NewUser privilege 15
Switch(config)#
```

A user account with the username 'NewUser', password '12345', and privilege level 15 was created.



**NOTE:** Usernames can be up to 32 characters in length. Passwords can be up to 32 plain-text characters in length. Passwords are case sensitive.

## Configuring the IP Address

To configure the IP address of the Switch, use the **ip address** command in the VLAN Interface Configuration Mode.

```
Switch# configure terminal
Switch(config)# interface vlan 1
Switch(config-if)# ip address 10.50.50.50 255.0.0.0
Switch(config-if)#
```

The IP address of the Switch was change to '10.50.50.50' with the subnet mask of '255.0.0.0'.

## Web User Interface (Web UI)

The Web UI, a more graphical representation, provides access to most of the software features available on the Switch. These features can be enabled, configured, disabled, or monitored using any standard web browser, like Microsoft's Internet Explorer, Mozilla Firefox, Google Chrome, or Safari. The LAN ports offers an in-band connection to the Web UI using HTTP or HTTPS (SSL).



**NOTE:** For more information about the Web UI, refer to the *DXS-3610 Series Web UI Reference Guide*.

## Connecting to the Web UI

To access the Web UI, open a standard web browser, enter the IP address of the Switch into the address bar of the browser, and press the **Enter** key.



Figure 5-2 IP address in Internet Explorer



**NOTE:** The default IP address of the switch is **10.90.90.90** (subnet mask *255.0.0.0*). The default username and password is **admin**.

## Logging into the Web UI

In the authentication window, enter the **User Name** and **Password** and click the **Login** button to access the Web UI.

Connect to 10.90.90.90

User Name: admin

Password: ●●●●●

Login Reset

Figure 5-3 Web UI Login Window



**NOTE:** For security reasons, it is highly recommended to configure a personal username and password for this Switch.

## Web Interface Navigation

After accessing the Web UI, the following is displayed:

The screenshot shows the D-Link Web UI for a DXS-3610-54S switch. The interface is divided into four distinct areas:

- AREA 1:** Located at the top left, it features the D-Link logo and a graphical representation of the switch's front panel with ports and expansion modules.
- AREA 2:** Located at the top right, it contains a toolbar with buttons for 'Save', 'Tools', and 'Logout'. It also displays the user account and IP address.
- AREA 3:** Located on the left side, it is a navigation menu with a 'Fuzzy Search' box and various feature categories like System, Management, L2 Features, L3 Features, QoS, ACL, Security, OAM, MPLS, MPLS L2VPN, Monitoring, Green, and OpenFlow.
- AREA 4:** The main content area, which is currently displaying 'Device Information' and 'Utilization' graphs. The 'Device Information' section shows details such as Device Type (DXS-3610-54S TenGigabit Ethernet...), System Name (Switch), IP Address (172.31.131.110), and MAC Address (74-65-72-2D-32-30). The 'Utilization' section includes a 'CPU' graph showing an average of 8% and a 'Switch Storage' bar chart for Flash and Memory.

Figure 5-4 Web User Interface Areas (Standard Mode)

The Web UI is divided into four distinct areas that are described in the table below:

Area Number	Function
<b>AREA 1</b>	In this area, a graphical near real-time image of the front panel of the Switch is displayed with ports and expansion modules. Some management functions like port monitoring are also accessible here. Click the D-Link logo to go to the D-Link website.
<b>AREA 2</b>	In this area, a toolbar with access to functions like <b>Save</b> , <b>Tools</b> , and a <b>Logout</b> option is available. The user account and IP address, currently accessing the Web UI, is displayed on the right in this toolbar.
<b>AREA 3</b>	In this area, the software features available in the Web UI are grouped into folders containing hyperlinks that will open window frames in Area 4. There is also a search option in this area that can be used to search for specific feature keywords in the Web UI to easily find the link to the set of features.
<b>AREA 4</b>	In this area, configuration and monitoring window frames are available based on the selections made in Area 3.

## SNMP-based Management

The Switch can be managed with an SNMP-compatible console program. The Switch supports Simple Network Management Protocol (SNMP) versions 1, 2c, and 3. An SNMP agent decodes the incoming SNMP messages and responds to requests with MIB objects stored in the database. The SNMP agent updates the MIB objects to generate statistics and counters.

### Connecting using SNMP

In SNMP versions 1 and 2c, user authentication is accomplished using *community strings*, which function like passwords. The remote user SNMP application and the Switch must use the same community string. SNMP packets from any station that were not authenticated are ignored (dropped).

The default community strings for the Switch are:

- **public** - Allows authorized management stations to retrieve MIB objects.
- **private** - Allows authorized management stations to retrieve and modify MIB objects.

SNMPv3 uses a more sophisticated authentication process that is separated into two parts. The first part is to maintain a list of users and their attributes that are allowed to act as SNMP managers. The second part describes what each user on that list can do as an SNMP manager.

The Switch allows groups of users to be listed and configured with a shared set of privileges. This SNMP version may also be set for a listed group of SNMP managers. Thus, a group of SNMP managers can be created to view read-only information or receive traps using SNMP version 1, while assigning a higher level of security to another group, granting read/write privileges using SNMP version 3.

Using SNMP version 3 individual users or groups of SNMP managers can be allowed to perform or be restricted from performing specific SNMP management functions. The functions that have been allowed or restricted are defined using the Object Identifier (OID) associated with a specific MIB. An additional layer of security is available for SNMP version 3 in that SNMP messages may be encrypted.

### Traps

Traps are messages that are sent by an SNMP-enabled device to the Network Management Station (NMS) and can be used to alert network personnel of events that occur on the Switch. These events can be as serious, like a reboot (someone accidentally turned off the Switch), or less serious like a port status change. The Switch generates traps and sends them to a pre-configured IP address, usually an NMS. Typical traps include trap messages for Authentication Failure and Topology Change.

### Management Information Base (MIB)

A MIB stores management and counter information. The Switch uses the standard MIB-II Management Information Base module. Consequently, values for MIB objects can be retrieved from any SNMP-based network management software. In addition to the standard MIB-II, the Switch also supports its own proprietary enterprise MIB as an extended Management Information Base. The proprietary MIB may also be retrieved by specifying the MIB Object Identifier. MIB values can be either read-only or read-write.

# Appendix A - Technical Specifications

Physical Specifications				
Feature	Description			
Dimensions	<b>DXS-3610-54T</b>	441 mm (W) x 487.4 mm (D) x 43.5 mm (H)		
	<b>DXS-3610-54S</b>	441 mm (W) x 487.4 mm (D) x 43.5 mm (H)		
	All the switches are 19-inch, 1U rack-mount size			
Weight	<b>DXS-3610-54T</b>	9.88 kg		
	<b>DXS-3610-54S</b>	9.80 kg		
PSU Modules	<b>DXS-PWR700AC</b>		AC PSU (100~240 VAC, 50~60 Hz, 10A Max) Front-to-Back airflow	
	<b>DXS-PWR700AC-B</b>		AC PSU (100~240 VAC, 50~60 Hz, 10A Max) Back-to-Front airflow	
	<b>DXS-PWR1000DC</b>		DC PSU (-48V, 26A) Front-to-Back airflow	
	<b>DXS-PWR1000DC-B</b>		DC PSU (-48V, 26A) Back-to-Front airflow	
Power Consumption	<b>DXS-3610-54T</b>	<i>Maximum</i>	100 VAC / 60 Hz	330.2 Watts
			240 VAC / 50 Hz	315.9 Watts
		<i>Standby</i>	100 VAC / 60 Hz	103.7 Watts
			240 VAC / 50 Hz	120.6 Watts
	<b>DXS-3610-54S</b>	<i>Maximum</i>	100 VAC / 60 Hz	320.8 Watts
			240 VAC / 50 Hz	305.1 Watts
		<i>Standby</i>	100 VAC / 60 Hz	120.6 Watts
			240 VAC / 50 Hz	114.6 Watts
MTBF	<b>DXS-3610-54T</b>	<i>FB Airflow</i>	96503 Hours (with AC power)	
			74204 Hours (with DC power)	
		<i>BF Airflow</i>	96806 Hours (with AC power)	
			50044 Hours (with DC power)	
	<b>DXS-3610-54S</b>	<i>FB Airflow</i>	94262 Hours (with AC power)	
			72872 Hours (with DC power)	
		<i>BF Airflow</i>	94544 Hours (with AC power)	
			49433 Hours (with DC power)	
Fan Module Slots	The IC Sensor detects the temperature on the switch automatically and adjusts the speed.			
	<b>DXS-3610-54T</b>	5 fan module slots (4+1 redundancy)		
	<b>DXS-3610-54S</b>	5 fan module slots (4+1 redundancy)		
Fan Modules	<b>DXS-FAN200</b>		Removable, hot-swappable Front-to-Back airflow	
	<b>DXS-FAN200-B</b>		Removable, hot-swappable Back-to-Front airflow	
Surge Protection	<b>AC Power</b>	<i>CM</i>	2 KV	

Physical Specifications			
		<i>DM</i>	1 KV
	<b>DC Power</b>	<i>CM</i>	0.5 KV
	<b>Signal</b>	<i>CM</i>	1 KV (10G RJ45 Port)
<b>USB Port</b>	<b>Connector Type</b>		Micro USB
	<b>Standard Compliance</b>		USB 2.0 (5V/1A)

Environment Specifications			
Feature	Description		
<b>Temperature</b>	<b>Operating:</b> 0°C to 45°C (32°F to 113°F) <b>Storage:</b> -40°C to 70°C (-40°F to 158°F)		
<b>Humidity</b>	<b>Operating:</b> 0 % to 95 % RH (non-condensing) <b>Storage:</b> 0 % to 95 % RH (non-condensing)		
<b>Altitude</b>	0 to 2000 meters (6562 feet) above sea level		
<b>Electrostatic Discharge Protection</b>	<b>DXS-3610-54T</b>	<i>Contact</i>	4 KV
		<i>Air</i>	8 KV
	<b>DXS-3610-54S</b>	<i>Contact</i>	4 KV
		<i>Air</i>	8 KV

Performance Specification			
Feature	Description		
<b>Switching Capacity</b>	<b>DXS-3610-54T</b>	2.16 Tbps	
	<b>DXS-3610-54S</b>	2.16 Tbps	
<b>MAC Address Table</b>	Up to 288K entries (1K static MAC addresses)		
<b>Physical Stacking</b>	<b>Topology</b>	Duplex Ring and Duplex Chain	
	<b>Bandwidth</b>	Up to 1.2 Tbps (Full-duplex)	
	<b>Stack Number</b>	Up to 12 Switches	
	<b>Configurations</b>	<i>2-port</i>	Ports 53 to 54
<i>4-port</i>		Ports 51 to 54	
<i>6-port</i>		Ports 49 to 54	
<b>Packet Buffer</b>	<b>DXS-3610-54T</b>	32 MB	
	<b>DXS-3610-54S</b>	32 MB	
<b>Packet Forwarding Rate</b> (Maximum)	<b>DXS-3610-54T</b>	1607.04 Mpps	
	<b>DXS-3610-54S</b>	1607.04 Mpps	
<b>Forwarding Mode</b>	Store and forward Cut through forwarding		
<b>Priority Queues</b>	Supports the following: <ul style="list-style-type: none"> <li>Maximum of 8 Priority Queues per port</li> </ul>		
<b>Link Aggregation</b>	Supports the following: <ul style="list-style-type: none"> <li>Maximum of 32 groups per device</li> <li>Maximum of 12 ports per group</li> </ul>		
<b>Static Routes</b>	Supports the following:		

Performance Specification	
	<ul style="list-style-type: none"> <li>• Maximum of 1K static IPv4 routes</li> <li>• Maximum of 512 static IPv6 routes</li> </ul>
<b>Access Control List (ACL) Entries</b>	Supports the following: <ul style="list-style-type: none"> <li>• Maximum of 2304 MAC ingress ACL entries</li> <li>• Maximum of 2304 IP ingress ACL entries</li> <li>• Maximum of 2304 IPv6 ingress ACL entries</li> <li>• Maximum of 2048 MAC egress ACL entries</li> <li>• Maximum of 2048 IP egress ACL entries</li> <li>• Maximum of 1024 IPv6 egress ACL entries</li> </ul>

Port Type Specifications		
Feature	Description	
<b>Console Port</b>	The RJ45 console port provides out-of-band access to the CLI using the following settings:	
	<b>Baud Rate</b>	115200 (default), 19200, 38400, and 9600 bps
	<b>Data Bits</b>	8
	<b>Stop Bit</b>	1
	<b>Parity</b>	None
	<b>Flow Control</b>	None
<b>RJ45 Ports</b>	The RJ45 Ethernet ports provides in-band access to the CLI and Web UI, interconnect nodes, and support the following standards and features:	
	<b>Standards</b>	IEEE 802.3ab (1000BASE-T) IEEE 802.3an (10GBASE-T) IEEE 802.3az (Energy-Efficient Ethernet) IEEE 802.3x (Full-Duplex, Flow Control)
	The RJ45 ports support the following features: <ul style="list-style-type: none"> <li>• Back pressure for half-duplex mode</li> <li>• Head-of-line blocking prevention</li> <li>• Manual/auto MDI/MDIX configuration</li> <li>• Auto-negotiation for each port</li> </ul>	
<b>SFP+ Ports</b>	The SFP+ transceiver ports provides in-band access to the CLI and Web UI, interlink network segments, and support the following standards and features:	
	<b>Standards</b>	IEEE 802.3z (1000BASE-X) IEEE 802.3ah (1000BASE-BX10) IEEE 802.3ae (10GBASE-R)
	The SFP+ ports support the following features: <ul style="list-style-type: none"> <li>• Only full-duplex operation</li> <li>• The auto-negotiation and auto-speed functions are not supported</li> <li>• IEEE 802.3X flow control for the full-duplex mode</li> </ul> All SFP+ ports are backwards compatible to support SFP transceivers.	
<b>QSFP28 Ports</b>	The QSFP28 transceiver ports provides in-band access to the CLI and Web UI, interlink network segments, and support the following standards and features:	
	<b>Standards</b>	IEEE 802.3ba (40GBASE-R4, 100GBASE-R4) IEEE 802.3bm (40GBASE-R4, 100GBASE-R4) IEEE 802.3bj (100GBASE-R4)

### Port Type Specifications

The QSFP28 ports support the following features:

- Only full-duplex operation
- The auto-negotiation and auto-speed functions are not supported
- IEEE 802.3X flow control for the full-duplex mode
- Breakout connections of 4 x 10 Gbps and 4 x 25 Gbps
- Only one port can in a **Group** can be used for a breakout connection:
  - **Group A:** Port 49, 50, or 52
  - **Group B:** Port 51, 53, or 54

All QSFP28 ports are backwards compatible to support QSFP+ transceivers.

### Supported SFP/SFP+/QSFP+/SFP28 Transceivers

#### SFP Fiber Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>
DEM-310GT	1000BASE-LX	Single-mode	10 km	1310 nm	
DEM-311GT	1000BASE-SX	Multi-mode	550 m	850 nm	
DEM-312GT2	1000BASE-SX	Multi-mode	2 km	1310 nm	
DEM-314GT	1000BASE-LHX	Single-mode	50 km	1550 nm	
DEM-315GT	1000BASE-ZX	Single-mode	80 km	1550 nm	

#### SFP+ Fiber Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>
DEM-431XT	10GBASE-SR	Multi-mode	300 m	850 nm	
DEM-432XT	10GBASE-LR	Single-mode	10 km	1310 nm	
DEM-433XT	10GBASE-ER	Single-mode	40 km	1550 nm	
DEM-434XT	10GBASE-ZR	Single-mode	80 km	1550 nm	

#### SFP Copper Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Connector</u>	<u>Distance</u>	<u>TX/RX</u>	<u>Power</u>	<u>Amps</u>
DGS-712	1000BASE-T	SFP to RJ45	100 m	-	3.3 V	375 mA

#### SFP+ Copper Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Connector</u>	<u>Distance</u>	<u>TX/RX</u>	<u>Power</u>	<u>Amps</u>
DEM-410T	10GBASE-T	SFP+ to RJ45	30 m	-	3.3 V	780 mA

#### WDM (BiDi) SFP Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>
DEM-330T	1000BASE-BX-D	Single-mode	10 km	1550 nm	1310 nm
DEM-330R	1000BASE-BX-U	Single-mode	10 km	1310 nm	1550 nm
DEM-331T	1000BASE-BX-D	Single-mode	40 km	1550 nm	1310 nm
DEM-331R	1000BASE-BX-U	Single-mode	40 km	1310 nm	1550 nm

#### WDM (BiDi) SFP+ Transceivers

<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>
DEM-436XT-BXD	10GBASE-LR	Single-mode	20 km	1330 nm	1270 nm
DEM-436XT-BXU	10GBASE-LR	Single-mode	20 km	1270 nm	1310 nm

#### SFP+ Direct Attached Cables (DAC)

<u>Product Code</u>	<u>Standard</u>	<u>Cable</u>	<u>Dist.</u>	<u>Wire</u>	<u>Ω</u>	<u>Amps</u>
DEM-CB100S	10G SFP+	Twinaxial	1 m	30 AWG	100 Ω	0.5 A
DEM-CB300S	10G SFP+	Twinaxial	3 m	30 AWG	100 Ω	0.5 A

Supported SFP/SFP+/QSFP+/SFP28 Transceivers						
DEM-CB700S	10G SFP+	Twinaxial	7 m	30 AWG	100 Ω	0.5 A
QSFP+ Fiber Transceivers						
<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>	
DEM-QX01Q-SR4	40GBASE-SR4	Multi-mode	150 m	850 nm		
DEM-QX10Q-LR4	40GBASE-LR4	Single-mode	10 km	L0 = 1271 nm L1 = 1291 nm L2 = 1311 nm L4 = 1331 nm		
QSFP+ Direct Attached Cables (DAC)						
<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>Breakout Support</u>		
DEM-CB100QXS	40G QSFP+	Twinaxial	1 m	No		
DEM-CB300QXS	40G QSFP+	Twinaxial	3 m	No		
DEM-CB100QXS-4XS	40G QSFP+	Twinaxial	1 m	1 QSFP+ (40G) to 4 SFP+ (10G)		
QSFP28 Fiber Transceivers						
<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>TX</u>	<u>RX</u>	
DEM-Q2801Q-SR4	100GBASE-SR4	Multi-mode	100 m	850 nm		
DEM-Q2801Q-LR4	100GBASE-LR4	Single-mode	10 km	L0 = 1295.56 nm L1 = 1301.05 nm L2 = 1304.58 nm L3 = 1309.14 nm		
QSFP28 Direct Attached Cables (DAC)						
<u>Product Code</u>	<u>Standard</u>	<u>Mode</u>	<u>Distance</u>	<u>Breakout Support</u>		
DEM-CB100Q28	100G QSFP28	Twinaxial	1 m	No		
DEM-CB100Q28-4S28	100G QSFP28	Twinaxial	1 m	1 QSFP28 (100G) to 4 SFP28 (25G)		

Certifications	
<b>EMC Certifications</b>	CE Class A, FCC Class A, VCCI Report Class A, C-Tick Report Class A, BSMI
<b>Safety Certifications</b>	UL Mark (62368-1), CB Report (IEC60950-1), CB Report (IEC62368-1), LVD Report (62368-1), BSMI

## Appendix B - Cables and Connectors

### Ethernet Cable

When connecting the Switch to another switch, a bridge, or hub, a straight-through Category 5/5e/6a/7 cable is necessary. The following diagrams and tables show the standard RJ45 receptacle/connector and their pin assignments.

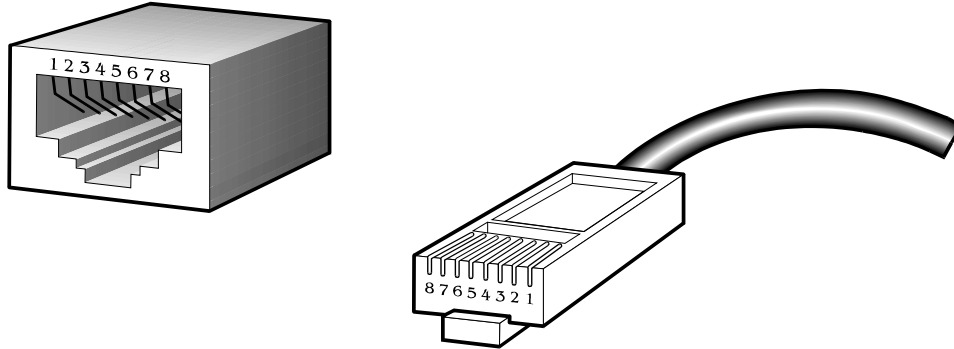


Figure B-1 Standard RJ45 port and connector

#### RJ45 Pin Assignment:

Contact	MDI-X Port	MDI-II Port
1	RD+ (receive)	TD+ (transmit)
2	RD - (receive)	TD - (transmit)
3	TD+ (transmit)	RD+ (receive)
4	1000BASE-T/10GBASE-T	1000BASE-T/10GBASE-T
5	1000BASE-T/10GBASE-T	1000BASE-T/10GBASE-T
6	TD - (transmit)	RD- (receive)
7	1000BASE-T/10GBASE-T	1000BASE-T/10GBASE-T
8	1000BASE-T/10GBASE-T	1000BASE-T/10GBASE-T

## Console Cable

A console cable is used to connect to the RJ45 console port of the Switch to access the command line interface. The following diagram and table show the standard RJ45 to RS-232 cable and pin assignments.

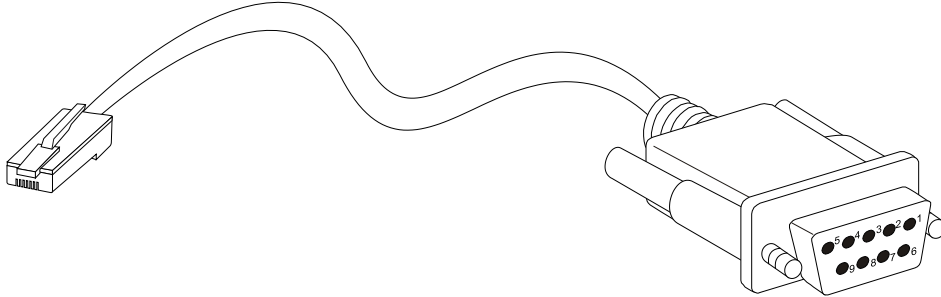


Figure B-2 Console to RJ45 Cable

### RJ45 To RS-232 Cable Pin Assignment Table:

Contact	Console (DB9/RS232)	RJ45
1	Not Used	Not Used
2	RXD	Not Used
3	TXD	TXD
4	Not Used	GND
5	GND (shared)	GND
6	Not Used	RXD
7	Not Used	Not Used
8	Not Used	Not Used

# Safety/Sécurité

## *Safety Instructions*

### *Consignes de sécurité*

#### *General Precautions for Rack-Mountable Products*

#### *Protecting Against Electrostatic Discharge*

## Safety Instructions

Please pay careful attention to the following safety guidelines to ensure your own personal safety and to help protect your system from potential damage.

## Safety Cautions

To greatly reduce the risk of physical injury, electrical shock, fire, and damage to equipment, observe the following precautions.

Observe and follow service markings.

- Do not attempt to service any product, except when it is explained in the system's documentation.
- Opening or removing covers, marked with a high voltage sign, may expose the user to electrical shock.
- Only a trained service technician should service components inside these compartments.

If any of the following conditions occur, unplug the product from the electrical outlet and replace the part or contact your trained service provider:

- Damage to the power cable, extension cable, or plug.
- An object has fallen into the product.
- The product has been exposed to water.
- The product has been dropped or damaged.
- The product does not operate correctly when the operating instructions are correctly followed.

General safety cautions:

- Electrical Hazard: Only qualified personnel should perform installation procedures.
- Before servicing, disconnect all power cords to remove power from the device.
- Keep the system away from radiators and heat sources. Also, do not block cooling vents.
- Do not spill food or liquids on system components, and never operate the product in a wet environment. If the system gets wet, contact your trained service provider.
- Do not push any objects into the openings of the system. Doing so can cause fire or electric shock by shorting out interior components.
- Only use this product with approved equipment.
- Allow the product to cool before removing the cover or touching internal components.
- Operate the product only from the type of external power source indicated on the electrical ratings label. If unsure of the type of power source required, consult your service provider or local power company.
- Be sure that attached devices are electrically rated to operate with the power available in your location.
- Use only approved power cable(s). If you have not been provided with a power cable for your system or for any AC-powered option intended for your system, purchase a power cable that is approved for use in your country. The power cable must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cable should be greater than the ratings marked on the product.
- To help prevent electric shock, plug the system and peripheral power cables into properly grounded electrical outlets. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If using an extension cable is necessary, use a 3-wire cable with properly grounded plugs.

- Observe the extension cable and power strip ratings. Make sure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
- To help protect the system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).
- Position system cables and power cables carefully. Route cables so that they cannot be stepped on or tripped over. Be sure that nothing rests on any cables.
- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local or national wiring rules.

When connecting or disconnecting power to and from hot-pluggable power supplies, observe the following guidelines:

- Install the power supply before connecting the power cable to the power supply.
- Unplug the power cable before removing the power supply.
- If the system has multiple sources of power, disconnect power from the system by unplugging all power cables from the power supplies.
- Move products with care and ensure that all casters and stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces.

To help avoid damage to the system, be sure that the voltage selection switch, on the power supply, is set to match the power available at the Switch's location:

- 115V/60Hz is used mostly in North and South America as well as Far Eastern countries like as South Korea and Taiwan
- 100V/50Hz is used mostly in Eastern Japan and 100V/60Hz in Western Japan
- 230V/50Hz is used mostly in Europe, the Middle East, Africa and the Far East



**CAUTION:** Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

**ATTENTION :** Risque d'explosion si la batterie est remplacée par un type incorrect. Jetez les piles usagées selon les instructions.

**警告：**如果更換不正確之電池型式會有爆炸的風險。請依製造商說明書處理用過之電池。

## Consignes de sécurité

Veillez prêter une attention particulière aux consignes de sécurité suivantes pour assurer votre sécurité personnelle et protéger votre système des dommages potentiels.

## Précautions de sécurité

Pour réduire considérablement les risques de blessure physique, de choc électrique, d'incendie et de détérioration du matériel, observez les précautions suivantes.

Observez et respectez les marquages relatifs à l'entretien et/ou aux réparations.

- N'essayez pas de réparer un produit, sauf si cela est expliqué dans la documentation du système.
- L'ouverture ou le retrait des capots, signalés par un symbole de haute tension, peut exposer l'utilisateur à un choc électrique.
- Seul un technicien de maintenance qualifié est habilité à réparer les composants à l'intérieur de ces compartiments.

Si l'un des cas suivants se produit, débranchez l'appareil du secteur et remplacez la pièce concernée ou contactez votre prestataire de services agréé.

- Endommagement du câble d'alimentation, du câble de rallonge ou de la fiche.

- Un objet est tombé dans le produit.
- Le produit a été exposé à l'eau.
- Le produit est tombé ou a été endommagé.
- Le produit ne fonctionne pas correctement lorsque les instructions d'utilisation sont correctement suivies.

Précautions générales de sécurité:

- Danger électrique: Seul le personnel qualifié doit effectuer les procédures d'installation.
- Avant de procéder à l'entretien, débranchez tous les cordons d'alimentation pour mettre le périphérique hors tension.
- Éloignez le système des radiateurs et des sources de chaleur. Par ailleurs, n'obturez pas les fentes d'aération.
- Ne versez pas de liquide sur les composants du système et n'introduisez pas de nourriture à l'intérieur. Ne faites jamais fonctionner l'appareil dans un environnement humide. Si le système est mouillé, contactez votre prestataire de services qualifié.
- N'insérez aucun objet dans les fentes de l'appareil. Vous risqueriez de provoquer un incendie ou un choc électrique en court-circuitant les composants internes.
- Utilisez ce produit uniquement avec un équipement approuvé.
- Laissez l'appareil refroidir avant de déposer le capot ou de toucher les composants internes.
- Faites fonctionner le produit uniquement avec la source d'alimentation indiquée sur l'étiquette signalétique où figurent les caractéristiques électriques nominales. Si vous ne savez pas avec certitude quel type de source d'alimentation est requis, consultez votre prestataire de services ou votre compagnie d'électricité.
- Assurez-vous que les caractéristiques nominales des appareils branchés correspondant à la tension du réseau électrique.
- Utilisez uniquement des câbles d'alimentation homologués. Si un câble d'alimentation n'est pas fourni pour le système ou pour un composant/accessoire alimenté par CA destiné au système, procurez-vous un câble d'alimentation homologué pour une utilisation dans votre pays. Le câble d'alimentation doit être adapté à l'appareil et ses caractéristiques nominales doivent correspondre à celles figurant sur l'étiquette du produit. La tension et le courant nominaux du câble doivent être supérieurs aux valeurs nominales indiquées sur l'appareil.
- Pour éviter tout risque de choc électrique, branchez les câbles d'alimentation du système et des périphériques à des prises électriques correctement mises à la masse. Ces câbles sont équipés de fiches à trois broches pour garantir une mise à la masse appropriée. N'utilisez pas d'adaptateur de prise, et n'éliminez pas la broche de mise à la masse du câble. Si un câble de rallonge est nécessaire, utilisez un câble à 3 fils avec des fiches correctement mises à la terre.
- Respectez les caractéristiques nominales de la rallonge ou du bloc multiprise. Assurez-vous que l'intensité nominale totale de tous les produits branchés à la rallonge ou au bloc multiprise ne dépasse pas 80 % de l'intensité nominale limite de la rallonge ou du bloc multiprise.
- Pour protéger le système contre les pics et les chutes de tension transitoires et soudains, utilisez un parasurtenseur, un filtre de secteur ou une alimentation sans interruption (ASI).
- Positionnez les câbles système et les câbles d'alimentation avec soin. Acheminez les câbles de manière à ce qu'ils ne puissent pas être piétinés ou trébuchés. Veillez à ce que rien ne repose sur les câbles.
- Ne modifiez pas les câbles ou les fiches d'alimentation. Contactez un électricien qualifié ou la compagnie d'électricité si des modifications sur site sont nécessaires. Respectez toujours la réglementation locale ou nationale en matière de câblage.

Lors de la connexion ou de la déconnexion de l'alimentation vers et depuis des blocs d'alimentation enfichables à chaud, respectez les consignes suivantes:

- Installez l'alimentation avant d'y brancher le câble d'alimentation.
- Débranchez le câble d'alimentation avant de couper l'alimentation.
- Si le système possède plusieurs sources d'alimentation, mettez-le hors tension en débranchant tous les câbles d'alimentation des prises.
- Déplacez les appareils avec précaution et assurez-vous que les roulettes et/ou que les pieds stabilisateurs sont bien fixés au système. Évitez les arrêts brusques et les surfaces inégales.

Pour éviter d'endommager le système, assurez-vous que le commutateur de sélection de tension de l'alimentation est réglé sur l'alimentation disponible à l'emplacement du commutateur:

- 115 V/60 Hz est principalement utilisé en Amérique du Nord et du Sud, ainsi que dans des pays d'Extrême-Orient tels que la Corée du Sud et Taïwan.

- 100 V/50 Hz est utilisé principalement dans l'est du Japon et 100 V/ 60 Hz dans l'ouest du Japon.
- 230 V/50 Hz est principalement utilisé en Europe, au Moyen-Orient, en Afrique et en Extrême-Orient.

## General Precautions for Rack-Mountable Products

Please pay careful attention to the following precautions concerning rack stability and safety. Systems are considered to be components in a rack. Thus, a component refers to any system, as well as to various peripherals or supporting hardware:



**CAUTION:** Installing systems in a rack without the front and side stabilizers installed could cause the rack to tip over, potentially resulting in bodily injury under certain circumstances. Therefore, always install the stabilizers before installing components in the rack. After installing system/components in a rack, never pull more than one component out of the rack on its slide assemblies at one time. The weight of more than one extended component could cause the rack to tip over and may result in serious injury.

**ATTENTION :** Le montage de systèmes sur un rack dépourvu de pieds stabilisateurs avant et latéraux peut faire basculer le rack, pouvant causer des dommages corporels dans certains cas. Par conséquent, installez toujours les pieds stabilisateurs avant de monter des composants sur le rack. Après l'installation d'un système ou de composants dans un rack, ne sortez jamais plus d'un composant à la fois hors du rack sur ses glissières. Le poids de plusieurs composants sur les glissières en extension peut faire basculer le rack, pouvant causer de graves dommages corporels.

- Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.
- Always load the rack from the bottom up, and load the heaviest item in the rack first.
- Make sure that the rack is level and stable before extending a component from the rack.
- Use caution when pressing the component rail release latches and sliding a component into or out of a rack; the slide rails can pinch your fingers.
- After a component is inserted into the rack, carefully extend the rail into a locking position, and then slide the component into the rack.
- Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
- Ensure that proper airflow is provided to components in the rack.
- Do not step on or stand on any component when servicing other components in a rack.



**CAUTION:** Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if uncertain that suitable grounding is available.

**ATTENTION :** Ne neutralisez jamais le conducteur de masse et ne faites jamais fonctionner le matériel en l'absence de conducteur de masse dûment installé. Contactez l'organisme de contrôle en électricité approprié ou un électricien qualifié si vous n'êtes pas sûr qu'un système de mise à la masse adéquat soit disponible.



**CAUTION:** The system chassis must be positively grounded to the rack cabinet frame. Do not attempt to connect power to the system until grounding cables are connected. Completed power and safety ground wiring must be inspected by a qualified electrical inspector. An energy hazard will exist if the safety ground cable is omitted or disconnected.

**ATTENTION :** La carcasse du système doit être positivement reliée à la masse du cadre du rack. N'essayez pas de mettre le système sous tension si les câbles de mise à la masse ne sont pas raccordés. Le câblage de l'alimentation et de la mise à la masse de sécurité doit être inspecté par un inspecteur qualifié en électricité. Un risque électrique existe si le câble de mise à la masse de sécurité est omis ou débranché.

## **Protecting Against Electrostatic Discharge**

Static electricity can harm delicate components inside the system. To prevent static damage, discharge static electricity from your body before touching any of the electronic components, such as the microprocessor. This can be done by periodically touching an unpainted metal surface on the chassis.

The following steps can also be taken prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until ready to install the component in the system. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads, workbench pads and an antistatic grounding strap.

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

**Limited Warranty:** D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

Limited Lifetime Warranty for the product is defined as follows:

- Hardware: For as long as the original customer/end user owns the product, or five (5) years after product discontinuance, whichever occurs first (excluding power supplies and fans)
- Power supplies and fans: Three (3) Year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

**Limited Software Warranty:** D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

**Non-Applicability of Warranty:** The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

**Submitting A Claim:** The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.com/>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to **D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708**. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

**What Is Not Covered:** The Limited Warranty provided herein by D-Link does not cover: Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

**Disclaimer of Other Warranties:** EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

**Limitation of Liability:** TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

**Governing Law:** This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

**Trademarks:** D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

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**CE Mark Warning:** This is a Class A product. In a residential environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**FCC Statement:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential environment is likely to cause harmful interference to radio or television reception. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.**

# *Product Registration*

*Register your D-Link product online at <http://support.dlink.com/register/>  
Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.*

# Technical Support

## U.S. and Canadian customers

This guide is only for initial configuration. Please refer to the user manual to learn more or visit <http://www.mydlink.com> for more information. Also feel free to contact us. U.S. and Canadian customers can contact D-Link Technical Support through our website.

### **USA**

<http://support.dlink.com>

### **Canada**

<http://support.dlink.ca>

# Europe customers

TECHNICAL SUPPORT	<b><a href="http://eu.dlink.com/support">eu.dlink.com/support</a></b>
TECHNISCHE UNTERSTÜTZUNG	
ASSISTANCE TECHNIQUE	
ASISTENCIA TÉCNICA	
SUPPORTO TECNICO	
TECHNISCHE ONDERSTEUNING	
POMOC TECHNICZNA	
TECHNICKÁ PODPORA	
TECHNIKAI TÁMOGATÁS	
TEKNISK STØTTE	
TEKNISK SUPPORT	
TEKNINEN TUKI	
TEKNISK SUPPORT	
ASSISTÊNCIA TÉCNICA	
ΤΕΧΝΙΚΗ ΥΠΟΣΤΗΡΙΞΗ	
TEHNIČKA PODRŠKA	
TEHNIČNA PODPORA	
SUPPORT TEHNIC	
ТЕХНИЧЕСКА ПОДДРЪЖКА	
TECHNICKÁ PODPORA	

## Australia customers

Tel: 1300-700-100

24/7 Technical Support

Web: <http://www.dlink.com.au>

E-mail: [support@dlink.com.au](mailto:support@dlink.com.au)

## India customers

Tel: +91-832-2856000 or 1860-233-3999

Web: [in.dlink.com](http://in.dlink.com)

E-Mail: [helpdesk@in.dlink.com](mailto:helpdesk@in.dlink.com)

## Singapore, Thailand, Indonesia, Malaysia, Philippines, Vietnam customers

Singapore - [www.dlink.com.sg](http://www.dlink.com.sg)

Thailand - [www.dlink.co.th](http://www.dlink.co.th)

Indonesia - [www.dlink.co.id](http://www.dlink.co.id)

Malaysia - [www.dlink.com.my](http://www.dlink.com.my)

Philippines - [www.dlink.com.ph](http://www.dlink.com.ph)

Vietnam - [www.dlink.com.vn](http://www.dlink.com.vn)

## Korea customers

Tel : 1899-3540

Monday to Friday 9:30am to 6:30pm

Web : <http://d-link.co.kr>

E-mail : [support@kr.dlink.com](mailto:support@kr.dlink.com)

## New Zealand customers

Tel: 0800-900-900

24/7 Technical Support

Web: <http://www.dlink.co.nz>

E-mail: [support@dlink.co.nz](mailto:support@dlink.co.nz)

## South Africa and Sub Sahara Region customers

Tel: +27 12 661 2025

08600 DLINK (for South Africa only)

Monday to Friday 8:30am to 9:00pm South Africa Time

Web: <http://www.d-link.co.za>

E-mail: [support@za.dlink.com](mailto:support@za.dlink.com)

## D-Link Middle East - Dubai, U.A.E.

Plot No. S31102, Jebel Ali Free Zone South, P.O.Box 18224, Dubai, U.A.E.

Tel: +971-4-8809022

Fax: +971-4-8809066 / 8809069

Technical Support: +971-4-8809033

General Inquiries: [info.me@me.dlink.com](mailto:info.me@me.dlink.com)

Tech Support: [support.me@me.dlink.com](mailto:support.me@me.dlink.com)

## Egypt

19 Helmy El-Masry, Almaza, Heliopolis Cairo, Egypt

Tel: +202-24147906

Technical Support Center no. : +202-25866777

General Inquiries: [info.eg@me.dlink.com](mailto:info.eg@me.dlink.com)

## Kingdom of Saudi Arabia

Riyadh - Saudi Arabia

E-Mail [info.sa@me.dlink.com](mailto:info.sa@me.dlink.com)

## Pakistan

Karachi Office:

D-147/1, KDA Scheme #1, Opposite Mudassir Park, Karsaz Road, Karachi – Pakistan

Phone: +92-21- 34548158, 34305069

Fax: +92-21-4375727

General Inquiries: [info.pk@me.dlink.com](mailto:info.pk@me.dlink.com)

## Morocco

Sidi Maarouf Bussiness Centre, 1100 Bd El Qods, Casanearshore 1

Casablanca 20270

Phone office: +212 700 13 14 15

Email: [morocco@me.dlink.com](mailto:morocco@me.dlink.com)

## Bahrain

Technical Support: +973 1 3332904

## Kuwait:

Tech Support: [kuwait@me.dlink.com](mailto:kuwait@me.dlink.com)

# Техническая Поддержка

Обновления программного обеспечения и документация доступны на Интернет-сайте D-Link.

D-Link предоставляет бесплатную поддержку для клиентов в течение гарантийного срока.

Клиенты могут обратиться в группу технической поддержки D-Link по телефону или через Интернет.

Техническая поддержка компании D-Link работает в круглосуточном режиме ежедневно, кроме официальных праздничных дней. Звонок бесплатный по всей России.

## **Техническая поддержка D-Link:**

8-800-700-5465

## **Техническая поддержка через Интернет:**

<http://www.dlink.ru>

e-mail: [support@dlink.ru](mailto:support@dlink.ru)

## **Изготовитель:**

Д-Линк Корпорейшн, 114, Тайвань, Тайпей, Нэйху Дистрикт, Шинху 3-Роуд, № 289

## **Уполномоченный представитель, импортер:**

ООО "Д-Линк Трейд"

390043, г.Рязань, пр. Шабулина, д.16

Тел.: +7 (4912) 503-505

# Офисы

Россия

Москва, Графский переулок, 14

Тел. : +7 (495) 744-00-99

E-mail: [mail@dlink.ru](mailto:mail@dlink.ru)

Україна

Київ, вул. Межигірська, 87-А

Тел.: +38 (044) 545-64-40

E-mail: [ua@dlink.ua](mailto:ua@dlink.ua)

Moldova

Chisinau; str.C.Negruzzi-8

Tel: +373 (22) 80-81-07

E-mail: [info@dlink.md](mailto:info@dlink.md)

Беларусь

Мінск, пр-т Незалежнасці, 169

Тэл.: +375 (17) 218-13-65

E-mail: [support@dlink.by](mailto:support@dlink.by)

Қазақстан

Алматы, Құрманғазы к-сі, 143 үй

Тел.: +7 (727) 378-55-90

E-mail: [almaty@dlink.ru](mailto:almaty@dlink.ru)

Հայաստան

Երևան, Դավթաշեն 3-րդ

թաղամաս, 23/5

Հեռ.՝ +374 (10) 39-86-67

Էլ. փոստ՝ [info@dlink.am](mailto:info@dlink.am)

Lietuva

Vilnius, Žirmūnų 139-303

Tel.: +370 (5) 236-36-29

E-mail: [info@dlink.lt](mailto:info@dlink.lt)

Eesti

E-mail: [info@dlink.ee](mailto:info@dlink.ee)

Türkiye

Uphill Towers Residence A/99

Ataşehir /ISTANBUL

Tel: +90 (216) 492-99-99

Email: [info.tr@dlink.com.tr](mailto:info.tr@dlink.com.tr)

ישראל

20 רח' המגשימים

קרית מטלון

פתח תקווה

072-2575555

[support@dlink.co.il](mailto:support@dlink.co.il)

## Soporte Técnico Para Usuarios En Latino America

Por favor revise el número telefónico del Call Center de su país en <http://www.dlinkla.com/soporte/call-center>

## Soporte Técnico de D-Link a través de Internet

Horario de atención Soporte Técnico en [www.dlinkla.com](http://www.dlinkla.com)

e-mail: [soporte@dlinkla.com](mailto:soporte@dlinkla.com) & [consultas@dlinkla.com](mailto:consultas@dlinkla.com)

## Clientes de Brasil

Caso tenha dúvidas na instalação do produto, entre em contato com o Suporte Técnico D-Link.

Acesse o site: **[www.dlink.com.br/suporte](http://www.dlink.com.br/suporte)**

# D-Link 友訊科技 台灣分公司 技術支援資訊

如果您還有任何本使用手冊無法協助您解決的產品相關問題，台灣、香港或是澳門用戶可至網站、電子郵件或電話等方式與D-Link技術支援工程師聯絡。

## 台灣D-Link免付費技術諮詢專線

台灣技術諮詢服務專線 0800-002-615

台灣手機付費電話 (02) 6600-0123#8715

台灣網站：<http://www.dlink.com.tw>

台灣電子郵件：[dssqa\\_service@dlink.com.tw](mailto:dssqa_service@dlink.com.tw)

產品保固期限、台灣技術諮詢時間、維修據點查詢，請參考<http://www.dlink.com.tw> 網頁說明

## 香港、澳門D-Link技術諮詢專線

香港技術諮詢服務專線 (852) 8100 8892

香港網站：<http://www.dlink.com.hk>

香港電子郵件：[service@cn.synnex-grp.com](mailto:service@cn.synnex-grp.com)

香港、澳門維修據點查詢請參考<http://www.dlink.com.hk/contact.html> 網頁說明。

如果您其他地區的用戶，請參考D-Link網站[www.dlink.com](http://www.dlink.com) 查詢全球各地分公司的聯絡資訊以取得相關支援服務。



立即掃描QR code

了解更多  
服務資訊

# Pelanggan Indonesia

Update perangkat lunak dan dokumentasi pengguna dapat diperoleh pada situs web D-Link.

Dukungan Teknis untuk pelanggan:

Tel: 0800-14014-97 (Layanan Bebas Pulsa)

Dukungan Teknis D-Link melalui Internet:

Pertanyaan Umum: [sales@id.dlink.com](mailto:sales@id.dlink.com)

Bantuan Teknis: [support@id.dlink.com](mailto:support@id.dlink.com)

Website : <http://www.dlink.co.id>

# 日本のお客様

この度は弊社製品をお買い上げいただき、誠にありがとうございます。

製品に同梱されている保証書の購入元にお問い合わせください。

# 中国客户

服务热线：4006-828-828

周一至周日：9:00-18:00

技术支持中心邮箱：[dlink400@cn.dlink.com](mailto:dlink400@cn.dlink.com)

各地维修中心地址请登录官方网站查询

网址：<http://www.dlink.com.cn>

# Registration Card

## All Countries and Regions Excluding USA

*Print, type or use block letters.*

Your name: Mr./Ms \_\_\_\_\_

Organization: \_\_\_\_\_ Dept. \_\_\_\_\_

Your title at organization: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Organization's full address: \_\_\_\_\_

Country: \_\_\_\_\_

Date of purchase (Month/Day/Year): \_\_\_\_\_

Product Model	Product Serial No.	* Product installed in type of computer	* Product installed in computer serial No.

(\* Applies to adapters only)

*Product was purchased from:*

Reseller's name: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Answers to the following questions help us to support your product:**

**1. Where and how will the product primarily be used?**

Home Office Travel Company Business Home Business Personal Use

**2. How many employees work at installation site?**

1 employee 2-9 10-49 50-99 100-499 500-999 1000 or more

**3. What network protocol(s) does your organization use ?**

XNS/IPX TCP/IP DECnet Others \_\_\_\_\_

**4. What network operating system(s) does your organization use ?**

D-Link LANsmart Novell NetWare NetWare Lite SCO Unix/Xenix PC NFS 3Com 3+Open Cisco Network  
Banyan Vines DECnet Pathwork Windows NT Windows 98 Windows 2000/ME Windows XP  
Others \_\_\_\_\_

**5. What network management program does your organization use ?**

D-View HP OpenView/Windows HP OpenView/Unix SunNet Manager Novell NMS  
NetView 6000 Others \_\_\_\_\_

**6. What network medium/media does your organization use ?**

Fiber-optics Thick coax Ethernet Thin coax Ethernet 10BASE-T UTP/STP  
100BASE-TX 1000BASE-T Wireless 802.11b and 802.11g wireless 802.11a Others \_\_\_\_\_

**7. What applications are used on your network?**

Desktop publishing Spreadsheet Word processing CAD/CAM  
Database management Accounting Others \_\_\_\_\_

**8. What category best describes your company?**

Aerospace Engineering Education Finance Hospital Legal Insurance/Real Estate Manufacturing  
Retail/Chain store/Wholesale Government Transportation/Utilities/Communication VAR  
System house/company Other \_\_\_\_\_

**9. Would you recommend your D-Link product to a friend?**

Yes No Don't know yet

**10. Your comments on this product?**

\_\_\_\_\_

\_\_\_\_\_

PLEASE  
PLACE STAMP  
HERE

**TO:**

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**D-Link®**