## 1 Product Introduction

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## Switch Description

The DGS-1210/ME Metro Ethernet Switch is equipped with **Copper ports** (10/100/1000Mbps) and **SFP ports** (1000Mbps) that can be used to attach various networking devices to the network like Computers, Notebooks, Print Servers, Network Attached Storage devices, IP Cameras, VoIP PBX devices, and other Switches. The Small Form Factor Portable (SFP) ports can be used together with fiber-optical transceivers in order to connect various other networking devices, using a fiber-optic connection, to the network at Gigabit Ethernet speeds over great distances.

This DGS-1210/ME Metro Ethernet Switch provides unsurpassed performance, fault tolerance, scalability, robust security, standard-based interoperability and impressive technology to future-proof departmental and enterprise network deployments.

It allows IGMP Snooping and Authentication, QoS, Bandwidth Control, ACL and many security functions. It can be managed by Web UI, or commands via Telnet.

The DGS-1210/ME Metro Ethernet Switches have different port configuration (10/100/1000Base-T or SFP ports) that may be used in to uplink various network devices to the Switch, including PCs, hubs and other switches to provide a gigabit Ethernet uplink in full-duplex mode. The SFP (Small Form Factor Portable) ports are used with fiber-optical transceiver cabling in order to uplink various other networking devices for a gigabit link that may span great distances.

#### Front Panel Description

The front panel of the **DGS-1210-10/ME** switch consists out of the following:

- 8 10/100/1000Mbps Copper Ports
- 2 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, RPS, Link/Act for port 1 ~ 10

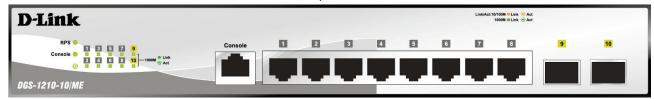


Figure 1.1 - DGS-1210-10/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the DGS-1210-10P/ME switch consists out of the following:

- 8 10/100/1000Mbps Copper Ports
- 2 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, PoE Max, Console, Link/Act for port 1 ~ 10
- Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes.

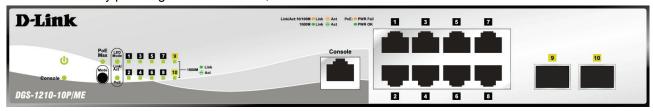


Figure 1.2 - DGS-1210-10P/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



**NOTE:** The power budget is 78 Watts for DGS-1210-10P/ME.

The front panel of the **DGS-1210-12TS/ME** switch consists out of the following:

- 10 1000Mbps SFP port
- 2 10/100/1000Mbps Copper Ports
- One RJ-45 Console Port
- LEDs for Power, Console, RPS, Link/Act for port 1 ~ 12



Figure 1.3 – DGS-1210-12TS/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the **DGS-1210-20/ME** switch consists out of the following:

- 16 10/100/1000Mbps Copper Ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, RPS, Link/Act for port 1 ~ 20

Figure 1.4 - DGS-1210-20/ME Front Panel

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**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the **DGS-1210-28/ME** switch consists out of the following:

- 24 10/100/1000Mbps Copper Ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, RPS, Console, Link/Act for port 1 ~ 28



Figure 1.5 - DGS-1210-28/ME Front Panel

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**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the DGS-1210-28P/ME switch consists out of the following:

- 24 10/100/1000Mbps Copper Ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, Pwr Max, Link/Act for port 1 ~ 28
- Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes



Figure 1.6 - DGS-1210-28P/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



NOTE: The power budget is 193 Watts for DGS-1210-28P/ME.

The front panel of the **DGS-1210-28MP/ME** switch consists out of the following:

- 24 10/100/1000Mbps Copper Ports
- 4 1000Mbps SFP port
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, Pwr Max, Link/Act for port 1 ~ 28
- Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes



Figure 1.7 - DGS-1210-28MP/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



NOTE: The power budget is 370 Watts for DGS-1210-28MP/ME.

The front panel of the **DGS-1210-28X/ME** switch consists out of the following:

- 24 10/100/1000Mbps Copper Ports
- 4 1000Mbps/10G SFP+ port
- One RJ-45 Console Port
- LEDs for RPS, Power, Console, Fan Error, Link/Act for port 1 ~ 28

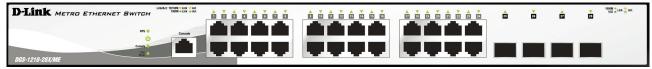


Figure 1.8 - DGS-1210-28X/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the DGS-1210-28XS/ME switch consists out of the following:

- 24 100/1000Mbps SFP port
- 4 1000Mbps/10G SFP+ ports
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, RPS, Link/Act for port 1 ~ 28

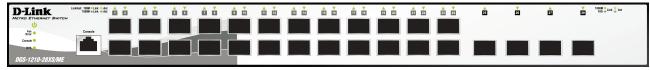


Figure 1.9 – DGS-1210-28XS/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the **DGS-1210-52/ME** switch consists out of the following:

- 48 10/100/1000Mbps Copper Ports
- 4 1000Mbps SFP ports
- LEDs for Power, Console, Fan Error, RPS, Link/Act for port 1 ~ 52



Figure 1.10 - DGS-1210-52/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.

The front panel of the **DGS-1210-52P/ME** switch consists out of the following:

- 48 10/100/1000Mbps Copper Ports
- 24 10/100/1000Mbps PoE ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, PoE Max, Link/Act for port 1 ~ 52
- Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes



Figure 1.11 - DGS-1210-52P/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



**NOTE:** The power budget is 193 Watts for DGS-1210-52P/ME.

The front panel of the **DGS-1210-52MP/ME** switch consists out of the following:

- 48 10/100/1000Mbps Copper and PoE Ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, PoE Max, Link/Act for port 1 ~ 52

Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes



Figure 1.12 - DGS-1210-52MP/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



NOTE: The power budget is 370 Watts for DGS-1210-52MP/ME.

The front panel of the **DGS-1210-52MPP/ME** switch consists out of the following:

- 48 10/100/1000Mbps Copper and PoE Ports
- 4 1000Mbps SFP ports
- One RJ-45 Console Port
- LEDs for Power, Console, Fan Error, PoE Max, Link/Act for port 1 ~ 52
- Mode: By pressing the Mode button, the Port LED will switch between Link/Act and PoE modes



Figure 1.13 - DGS-1210-52MPP/ME Front Panel



**CAUTION:** The MiniGBIC ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.



**PRÉCAUTION:** Les ports Mini GBIC doivent utiliser la liste UL. Produit émetteur-récepteur optique, classe laser I. 3.3Vdc.



**NOTE:** The power budget is 740 Watts for DGS-1210-52MPP/ME.

#### **LED Indicators**

The Switch supports LED indicators for Power, Console, Fan, and Link/Act for each port. The following shows the LED indicators for the DGS-1210/ME Metro Ethernet Switch along with an explanation of each indicator.



Figure 1.14 -LED Indicators on DGS-1210/ME SERIES

Location	LED Indicative	Color	Status	Description
Per Device	Power	Green	Solid Light	Power on.
			Light off	Power off.

			Solid	Console on.
	Console	Green	Light Blinking	POST is in progress.
			Light	Console off.
	Fan F		off	Console on.
	Fan Error (for DGS-1210-28P/ME, 28MP/ME, 28X/ME, 28XS/ME, 52/ME, 52P/ME, 52MP/ME, 52MPP/ME)	Red	Solid light	The fan has runtime failure and is brought offline.
	Pwr/PoE Max. (for DGS-1210-10P/ME, 28P/ME, 28MP/ME 52P/ME, 52MP/ME, 52MPP/ME)	Red	Solid light	The Pwr/PoE Max LED lights up when the total PoE output of Switch reached or exceeded 71 Watts for DGS-1210-10P/ME, 186 Watts for DGS-1210-28P/52P/ME, 363 Watts for DGS-1210-28MP/52MP/ME, and 733 Watts for DGS-1210-52MPP/ME. In the meantime, no additional PoE device can be supported.
			Light off	When the system power usage does not reach the guard band range.
	RPS (DGS-1210-	Green	Solid Light	RPS power on.
	10/12TS/20/28/28X/28XS/52/ME)		Light off	RPS power off.
LED Per 10/100/1000Mbps Copper Port	Link/Act	Green/Amber	Solid Green	When there is a secure 1000Mbps Ethernet connection (or link) at any of the ports.
			Green	When there is reception or transmission (i.e. Activity—Act) of data occurring at a 1000Mbps Ethernet connected port.
				When there is a secure 10/100Mbps Ethernet connection (or link) at any of the ports.
			Amber	When there is reception or transmission (i.e. Activity—Act) of data occurring at a 10/100Mbps Ethernet connected port.
			Light off	No link.
	PoE Mode	Green	Solid Light	Power feeding
		Amber	Solid Light	Error Condition
		Off	Solid Off	No Power feeding
LED Per SFP Port	Link/Act	Green	Solid Green	When there is a secure 1000Mbps Ethernet connection (or link) at any of the ports.
				When there is reception or transmission (i.e. Activity—Act) of data occurring at a 1000Mbps Ethernet connected port.

		Amber	Light Blinking	When there is a secure 100Mbps connection at the port. (For DGS-1210-28XS/ME only) When there is reception or transmission occurring at the
			Solid	port. (For DGS-1210-28XS/ME only) No link.
		Oli	Off	
LED Per 10G SFP+ Port (for DGS-1210- 28X/ME, 28XS/ME)	Link/Act	Green		When there is a secure 10Gbps connection at the port.
			Blinking Green	When there is reception or transmission occurring at the port.
			Solid Light	When there is a secure 1000Mbps connection at the port.
			Blinking Amber	When there is reception or transmission occurring at the port.
		Off	Solid off	No link.

## Rear Panel Description

The rear panel of the Switch contains an AC power connector. The AC power connector is a standard three-pronged connector that supports the power cord. Plug-in the female connector of the provided power cord into this socket, and the male side of the cord into a power outlet. The Switch automatically adjusts its power setting to any supply voltage in the range from 100 to 240 VAC at 50 to 60 Hz. Connect the Kensington-compatible security lock, at the rear of the switch, to a secure immovable device. Insert the lock into the notch and turn the key to secure the lock.

The rear panel also includes an outlet for an optional external power supply and one RJ-45 console port. When a power failure occurs, the optional external RPS will immediately and automatically assume the power supply for the Switch.

#### DGS-1210-10/ME



Figure 1.15 - DGS-1210-10/ME Rear Panel

#### **DGS-1210-10P/ME**



Figure 1.16 - DGS-1210-10P/ME Rear Panel

#### **DGS-1210-12TS/ME**



Figure 1.17 - DGS-1210-12TS/ME Rear Panel

## DGS-1210-20/ME



Figure 1.18 - DGS-1210-20/ME Rear Panel

#### **DGS-1210-28/ME**



Figure 1.19 – DGS-1210-28/ME Rear Panel

#### DGS-1210-28P/ME



Figure 1.20 — DGS-1210-28P/ME Rear Panel

#### **DGS-1210-28MP/ME**



Figure 1.21 — DGS-1210-28MP/ME Rear Panel

#### DGS-1210-28X/ME



Figure 1.22 - DGS-1210-28X/ME Rear Panel

## DGS-1210-28XS/ME



Figure 1.23 — DGS-1210-28XS/ME Rear Panel

#### **DGS-1210-52/ME**



Figure 1.24 — DGS-1210-52/ME Rear Panel

#### DGS-1210-52P/ME



Figure 1.25 — DGS-1210-52P/ME Rear Panel

#### **DGS-1210-52MP/ME**



Figure 1.26 — DGS-1210-52MP/ME Rear Panel

#### **DGS-1210-52MPP/ME**



Figure 1.27 — DGS-1210-52MPP/ME Rear Panel

## Side Panel Description

The left- and right-hand panels of the Switch have heat vents to dissipate heat. Do not block these openings, and leave at least 6 inches of space at the rear and sides of the Switch for proper ventilation. Be reminded that without proper heat dissipation and air circulation, system components might overheat, which could lead to system failure.

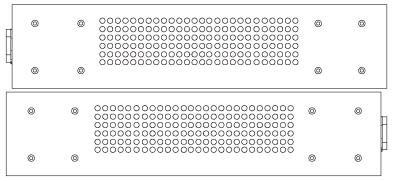


Figure 1.28 - Side panels of the DGS-1210/ME SERIES

## **Gigabit Fiber Ports**

The DGS-1210/ME Series features support four Small Form Factor Portable (SFP) ports (optional). See the diagram below to view the four SFP port modules being plugged into the Switch.

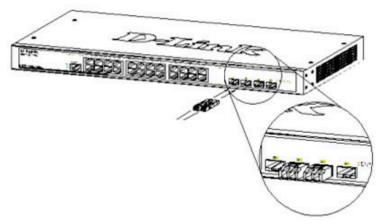


Figure 1.29 - Inserting the SFP modules into the Switch



Figure 1.30 - Installing the SFP Module

The Switch is equipped with SFP ports, which are to be used with fiber-optical transceiver cabling in order to uplink various other networking devices for a gigabit link that may span great distances.

# Connecting the DPS-200A/500A/500DC to the RPS Port (for DGS-1210-10/12TS/20/28/28X/28XS/52/ME only)

The DPS-200A/500A/500DC redundant power supply can be connected to the RPS port of the Switch using the DC power supply cord, called the DPS-CB150-2PS. It is important to notice that the DPS-200A/500A/500DC can supply power to one or two DGS-1210-10/ME at the same time.

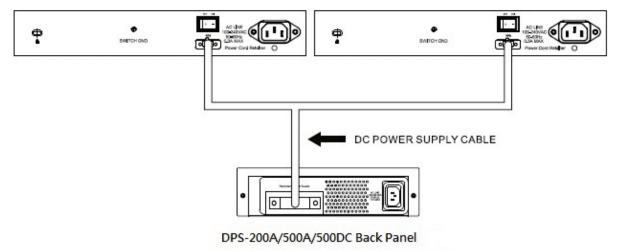


Figure 1.31 - Connecting two Switches to the DPS-200A/500A/500DC

The following section explains how to connect the DPS-200A/500A/500DC to the Switch.

- Disconnect the Switch from the main AC power source.
- Insert the 14-pin end of the DPS-CB150-2PS into the DPS-200A/500A/500DC and the 2-pin end into the receptacle of the RPS port on the Switch.
- Using a standard AC power cord, connect the DPS-200A/500A/500DC to the main AC power source.
   A green LED on the front panel of the DPS-200A/500A/500DC will illuminate to indicate a successful connection.
- Make sure that the ON/OFF toggle switch on the rear panel of the Switch is turned on.
- Re-connect the Switch to the AC power source and power on the DPS-200A/500A/500DC.

No configuration is needed in the Switch software for this installation.



**NOTE:** See the DPS-200A/500A/500DC Quick Installation Guide for more information.

# Installing the RPS into a Rack-mount Chassis (for DGS-1210-10/12TS/20/28/28X/28XS/52/ME only)

The DPS-200A/500A/500DC are the redundant power supply unit designed to conform to the voltage requirements of the RPS port of the Switch being supported. The DPS-200A/500A/500DC can be installed into a DPS-800 rack-mount chassis unit.



**CAUTION:** DO NOT connect the RPS to the AC power before the DC power cable is connected. Connecting the AC power before the DC power is connected might damage the internal power supply.



**PRÉCAUTION:** NE branchez PAS le RPS sur le courant alternatif avant que le câble d'alimentation en courant continu ne soit branché. Le fait de brancher le courant alternatif avant le courant continu peut endommager l'alimentation interne.

#### **DPS-800 Rack-mount Chassis**

The DPS-800 is a standard-size rack-mount (1 standard unit in height) designed to hold up to three DPS-200A/500DC redundant power supplies.

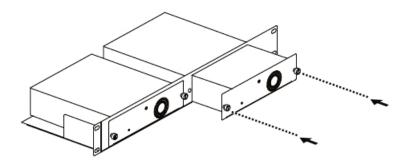


Figure 1.32 -Installing the DPS-200A/500A/500DC in the DPS-800

The DPS-800 rack-mount chassis can be mounted into a standard 19" rack. Use the following diagram for quidance.