

5-Port Gigabit 802.3af PoE Switch

3.2 PC/Other Devices to 5-Port Gigabit 802.3af PoE Switch

You can connect this switch to PCs, servers, and other network devices using a straight-through Ethernet cable.

3.3 Connecting a Powered Device to the Switch Using Power over Ethernet (PoE)

Using a CAT5 cable, connect the powered device (PD) to any of the four device ports on the switch. The switch will detect the PD and supply 48-V power to the device over the CAT5 cable.

NOTE: The PD must comply with the IEEE 802.3af standard.

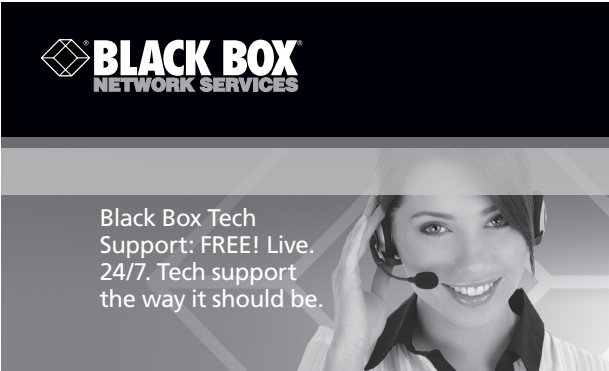
4. Operation

LED indicators on the 5-Port Gigabit 802.3af PoE Switch's front panel show status.

Table 4-1. LEDs and their Functions.

LED	Status	Description
Power	Green On	Power to the unit is on and normal
	Off	Power to the unit is off
Uplink	Green/Yellow On	Ethernet uplink port is connected
	Green flashing	Uplink data activity at 1000 Mbps
	Yellow flashing	Uplink data activity at 100 Mbps
	Flashing	Uplink data activity at 10 Mbps
LAN	Green/Yellow On	Ethernet uplink port is connected
	Green flashing	Ethernet uplink data activity at 1000 Mbps
	Yellow flashing	Ethernet uplink data activity at 100 Mbps
	Flashing	Ethernet uplink data activity at 10 Mbps
PoE	Green On	PoE function is enabled
	Off	PoE function is disabled

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LPB1205A, rev. 1

5-Port Gigabit 802.3af PoE Switch

**Add 4 PoE devices to your
existing Gigabit LAN.**



1. Specifications

Buffer Memory — 104 Kbits

Certifications — FCC Class A

Filtering/Forwarding Rates —
1000-Mbps port: 1,488,000 pps;
100-Mbps port: 148,800 pps;
10-Mbps port: 14,880 pps

MAC Address — 1 K

PoE — Supports up to 15.4 W for each PoE port,;
PoE power budget: 62 W; PD classification identify;
PoE overcurrent protection; PoE overcurrent
protection, PoE circuit sorting protection; PoE power
on RJ-45 Pins 3 and 6 for power +, Pins 1 and 2
for power -

Standards — IEEE 802.3 10BASE-T, IEEE 802.3u
100BASE-TX, IEEE 802.3ab 1000BASE-TX, IEEE
802.3af Power over Ethernet

Transmission Media —
10BASE-T: CAT3, 4, 5 UTP/STP;
100/1000BASE-TX: CAT5e/6/7 UTP/STP

5-Port Gigabit 802.3af PoE Switch

- Connectors** — (4) RJ-45 PSE/PoE, (1) RJ-45 uplink port
- Indicators** — (10) LEDs: Per port: (1) LAN, (1) PoE, Per unit: (1) Power LED, (1) Uplink LED
- Temperature Tolerance** — Operating: 32 to 122° F (0 to 50° C)
- Relative Humidity** — 10 to 90%, noncondensing
- Power** — 100–240 VAC/50-60 Hz external power supply
- Size** — 2.8”H x 9”W x 12”D (7.1 x 22.9 x 30.5 cm)
- Weight** — 2.6 lb. (1.2 kg)

2. Overview

2.1 Introduction

This switch provides five 10-/100-/1000-Mbps ports ([1] Gigabit uplink port and [4] Power-over-Ethernet [PoE] ports). Each port supplies up to 15.4 W, and the total PoE budget is 62 W. The switch is ideal for office and home users who want to use a combination of PoE and non-PoE enabled devices. The switch’s four PoE-enabled ports connect to a mixture of PoE IP phones, PoE with APs, and PoE IP cameras. Plus, it automatically detects an IEEE 802.3af compliant device connected to the switch and provides power and data over a single cable.

2.2 What’s Included

Your package should contain the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- (1) 5-Port 802.3af PoE Gigabit Ethernet Switch
- (1) AC to DC power adapter (48-VDC/1.35 A)
- This user’s manual

5-Port Gigabit 802.3af PoE Switch

2.3 Features

- Each port autonegotiates between 10, 100, and 1000 Mbps.
- Four ports support PSE/PoE.
- Supports up to 15.4 W maximum power for each PSE/PoE port.
- Auto-learns network configurations.
- Auto-detects full-/half-duplex modes for any port.
- Offers dedicated full-duplex 2000-Mbps bandwidth.
- Store-and-forward switching methods.
- IEEE 802.3x flow control for full-duplex and back-pressure flow control for half-duplex operation.
- Non-blocking and non-head-of-line blocking full wire-speed forwarding.
- Auto-MDI/MDI-X function for any port.
- Smart plug-and-play.

2.4 Hardware Description

Figures 2-1 and 2-2 show the switch’s front and back panels. Table 2-1 describes its components.

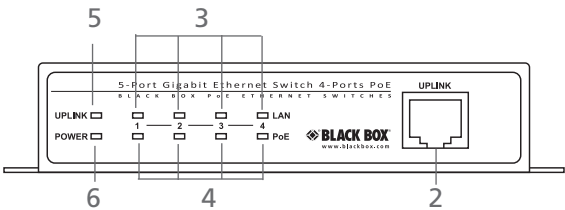


Figure 2-1. Front panel.

5-Port Gigabit 802.3af PoE Switch

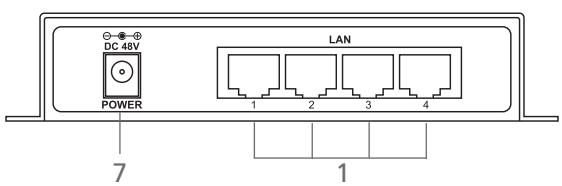


Figure 2-2. Back panel.

Table 2-1. Components.

Number	Component	Description
1	(4) RJ-45 connectors	Link to 10/100/1000 Ethernet devices
2	(1) RJ-45 connector	Connects to 1000-Mbps uplink
3	(4) LAN LEDs	Lights when port is connected; flashes when data is transmitting or receiving.
4	(4) PoE LEDs	Lights when port is linked to power device; Off when no power device is connected.
5	(1) Uplink LED	Green/yellow on: Ethernet uplink port is connected; Green flashing: Uplink data activity at 1000 Mbps; Yellow flashing: Uplink data activity at 100 Mbps; Flashing: Uplink data activity at 10 Mbps
6	(1) Power LED	Lights when power to the unit is on and normal
7	(1) barrel connector for power	Connects to power adapter

3. Installation

3.1 Switch/Hub to 5-Port Gigabit 802.3af PoE Switch

This switch provides automatic crossover detection for any port so it’s simple to uplink to another switch without using a crossover cable.