8-Port Unmanaged 10/100 Fast Ethernet Switch with 4 PoE Ports
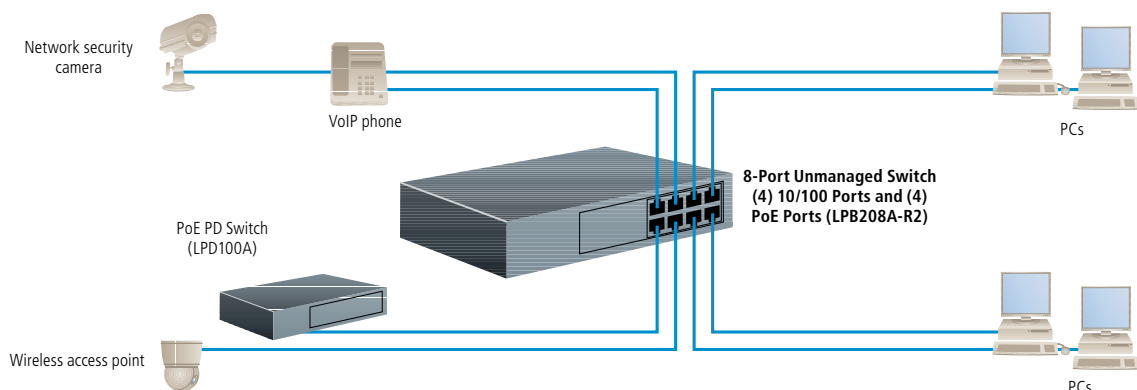
Save on infrastructure and power up to four devices with PoE.

FEATURES

» Power end-devices directly through LAN cables.
» Works with wireless access points, VoIP phones, security cameras, and more.
» Centralize power distribution and backup without the need to increase infrastructure.
» Auto detection of powered devices and consumption levels.
» Supports 10-/100-Mbps autodetect half- and full-duplex.
» Supports TP interface auto MDI/MDI-X function for auto TX/RX swap.
» Smart feature for PD on/off, PD detection, power level, PD status, and power feeding priority.
» Supports 802.3x flow control pause packet for full duplex.
» Unit is designed for fanless operation.

Link four PCs to four PoE devices.

Network security camera
VoIP phone
PoE PD Switch (LPD100A)
Wireless access point
8-Port Unmanaged Switch (4) 10/100 Ports and (4) PoE Ports (LPB208A-R2)
PCs
PCs

OVERVIEW

The 8-Port Unmanaged 10/100 Fast Ethernet Switch with 4 PoE Ports conforms to IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, and IEEE 802.3x flow control standards.

It enables you to power LAN devices through LAN cables. Use the switch with wireless access points, VoIP phones, security, and other devices.

You get central power distribution and backup. And, the switch automatically detects powered devices and power consumption levels.

Connect 10-/100-Mbps half- and full-duplex devices to the switch. It supports 802.3x flow control pause packet for full-duplex.

The switch has auto MDI/MDI-X to automatically swap TX/RX. Plus, it features PD on/off, PD detection, PD status, and power feeding priority. It also operates without fans.

TECH SPECS

Forwarding Rate — 10 Mbps: 14,880 pps; 100 Mbps: 148,800 pps
Operating Environment — Temperature: 32 to 104° F (0 to 40° C); Humidity: 5 to 90%
Standards — IEEE 802.3, IEEE802.3u, IEEE 802.3x
Switching Method — Store and forward
CE Approval — Yes
Indicators — LEDs: Power, Link/Act, Speed, PoE activity
Size — 1.7"H x 8.7"W x 5.1"D (4.4 x 22 x 13.1 cm)
Weight — 2.2 lb. (1 kg)

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

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• You don't have a purchase order number and the tech refuses to help you.
• It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

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LPB208A-R2: top: front view; bottom: rear view

Technically Speaking

Power over Ethernet (PoE).

What is PoE?

The seemingly universal network connection, twisted-pair Ethernet cable, has another role to play—providing electrical power to low-wattage electrical devices. Power over Ethernet (PoE) was ratified by the Institute of Electrical and Electronic Engineers (IEEE) in June 2000 as the 802.3af-2003 standard. It defines the specifications for low-level power delivery— roughly 13 watts at 48 VDC—over twisted-pair Ethernet cable to PoE-enabled devices such as IP telephones, wireless access points, Web cameras, and audio speakers.

How does PoE work?

The way it works is simple. Ethernet cable that meets CAT5 (or better) standards consists of four twisted pairs of cable, and PoE sends power over these pairs to PoE-enabled devices. In one method, two wire pairs are used to transmit data, and the remaining two pairs are used for power. In the other method, power and data are sent over the same pair.

When the same pair is used for both power and data, the power and data transmissions don't interfere with each other. Because electricity and data function at opposite ends of the frequency spectrum, they can travel over the same cable. Electricity has a low frequency of 60 Hz or less, and data transmissions have frequencies that can range from 10 million to 100 million Hz.

Basic structure.

There are two types of devices involved in PoE configurations: Power Sourcing Equipment (PSE) and Powered Devices (PD).

PSEs, which include end-span and mid-span devices, provide power to PDs over the Ethernet cable. An end-span device is often a PoE-enabled network switch that's designed to supply power directly to the cable from each port. The setup would look something like this:

End-span device → Ethernet with power

A mid-span device is inserted between a non-PoE device and the network, and it supplies power from that juncture. Here is a rough schematic of that setup:

Non-PoE switch → Ethernet without PoE → Mid-span device → Ethernet with power

Power injectors, a third type of PSE, supply power to a specific point on the network while the other network segments remain without power.

PDs are pieces of equipment like surveillance cameras, sensors, wireless access points, and any other devices that operate on PoE.

PoE applications and benefits.

- Use one set of twisted-pair wires for both data and low-wattage appliances.
- In addition to the applications noted above, PoE also works well for video surveillance, building management, retail video kiosks, smart signs, vending machines, and retail point-of-information systems.
- Save money by eliminating the need to run electrical wiring.
- Easily move an appliance with minimal disruption.
- If your LAN is protected from power failure by a UPS, the PoE devices connected to your LAN are also protected from power failure.

Related Products

- Hardened PSE Compact Media Converters, 100BASE-TX to 100BASE-SX/FX Duplex Fiber
- Web Smart Power over Ethernet Switch
- Power Panel CAT5/CAT6 DVM and Network PoE Tester
- Industrial MultiPower Media Converters, 10-/100-Mbps Copper to 100-Mbps Duplex Fiber
- PowerDsine 8000 Series High-Powered PoE Midspan Power Injectors
- PowerDsine 6500 Series PoE Midspan Power Injectors
- PoE PSE Media Converters
- PoE L2 Managed Gigabit Switch with (2) Dual-Media SFP Ports
- AirGuard 525C-3 Wireless Access Points
- PoE L2 Managed 10/100 Switch with (2) Dual-Media SFP Ports

Item	Code
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