

Gigabit Unmanaged Switches with SFP Uplinks, 16-Port and 24-Port

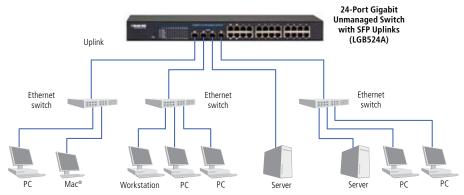
# Solid Gigabit switching in a rackmount chassis.



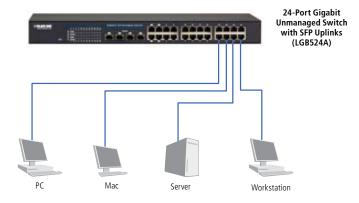
#### **FEATURES**

- » Quickly increase port count.
- » Features 16 or 24 autosensing, autonegotiating 10-/100-/1000-Mbps ports; four are dual-media ports, which may be used as Gigabit Ethernet UTP or SFP ports.
- » Accepts 1250-Mbps SFPs.
- » Rackmount brackets are included.
- » Complies with the IEEE 802.3 Ethernet, IEEE 802.3u Fast Ethernet, and IEEE 802.3ab Gigabit Ethernet standards.
- » Supports non-blocking and non-head-of-line blocking full-wire-speed forwarding.
- » Supports store-and-forward operation.
- » Features an embedded 500 KB packet buffer.
- » Supports 9.6 KB JUMBO packets
- » Provides 8K MAC address entry.
- » Supports broadcast storm filtering.
- » All ports provide autonegotiation and Auto-MDI/ MDI-X functions.
- Supports flow control: backpressure for half-duplex and IEEE 802.3x for full-duplex mode.
- Smart plug-and-play.

The switch provides automatic crossover detection for any port. This enables you to connect to another switch or to PCs, servers, and other network devices without using a crossover cable.



Switches connected to LGB524A.



PC and other devices connected to LGB524A.

#### **OVERVIEW**

The Switch provides (16) or (24) 10-/100-/1000-Mbps RJ-45 ports and can support (4) Combo SFP ports for uplink. The switch is easy to install and provides high performance in an environment where traffic on the network and the number of users increases continuously. The switch uses the latest Gigabit chipsets providing it with the best performance and features available; this enables the switch to support full-duplex Gigabit speed on every port without any issues.

The switch also provides MDI/MDI-X automatic crossover detection on every port, so it connects to another switch without crossover cable.

The 19" rackmount size makes the switch a perfect fit for medium to large workgroups. It fits easily into your existing 19" racks and only uses 1 rack unit (RU) of space. Because the switch is unmanaged, it's easy to install. Just install the switch in your rack or cabinet and you are ready to connect up to 16 or 24 more devices to your network.

#### Choose from two models:

- Gigabit Unmanaged Switch with SFP Uplinks, 16-Port (LGB516A).
- Gigabit Unmanaged Switch with SFP Uplinks, 24-Port (LGB524A).



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#### TECH SPECS

Buffer Memory — LGB516A: 340 KB:

LGB524A: 500 KB

Certifications — FCC Class B, CE, RoHS

Filtering/Forwarding Rates — 1000-Mbps port: 1,488,000 pps;

100-Mbps port: 148,800 pps; 10-Mbps port: 14,880 pps

Jumbo Frames — 9.6 KB

MAC Address — 8 K

Method — Store-and-forward

**Standards** — IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab

1000BASE-T, IEEE 802.3z, IEEE 802.3x flow control

Transmission Media — 10BASE-T CAT3, 4, 5 UTP/STP;

100BASE-TX CAT5 UTP/STP; 1000BASE-T CAT5e UTP/STP

Connectors — LGB516A: Ethernet: (12) RJ-45,

Dual media: (4) ports, each consisting of (1) RJ-45 + (1) SFP port; LGB524A: Ethernet: (20) RJ-45 ports.

Dual media: (4) ports, each consisting of (1) RJ-45 + (1) SFP port Indicators — LGB516A: (37) LEDs: (16) Link/Act, (16) 1000M, (4) F1-F4,

LGB524A: (53) LEDs: (24) Link/Act, (24) 1000M, (4) F1-F4, (1) Power

Temperature Tolerance — Operating: 32 to 104° F (0 to 40° C);

Storage:  $-4 \text{ to } +194^{\circ} \text{ F } (-20 \text{ to } +90^{\circ} \text{ C})$ 

Relative Humidity — 10 to 90% noncondensing

Power — Input: 115-240 VAC, 50-60 Hz;

Consumption: 25 watts maximum

Size — LGB516A, LGB524A: 1.7"H x 17.3"W x 8.7"D (4.4 x 44 x 22 cm)

Weight — LGB516A: 6.4 lb. (2.9 kg);

LGB524A: 6.6 lb. (3 kg)

#### What's included

#### LGB516A:

- ◆ Gigabit Unmanaged Switch with SFP Uplinks, 16-Port
- ◆ Rackmount kit
- ◆ AC power cord
- ◆ This user's manual

#### LGB524A:

- ◆ Gigabit Unmanaged Switch with SFP Uplinks, 24-Port
- ◆ Rackmount kit
- ◆ AC power cord
- ♦ This user's manual

Item	Code
Gigabit Unmanaged Switch with SFP Uplinks	
16-Port	LGB516A
24-Port	LGB524A
You may also need	
SFP, 1250-Mbps Fiber with Extended Diagnostics	
850-nm Multimode, LC, 550 m	LFP411
1310-nm Multimode, LC, 2 km	LFP412
1310-nm Single-Mode, LC, 10 km	LFP413
1310-nm Single-Mode, LC, 30 km	LFP414



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### **Technically Speaking**

The difference between unmanaged, managed, and Web-smart switches.

With regard to management options, the three primary classes of switches are unmanaged, managed, and Web smart. Which you choose depends largely on the size of your network and how much control you need over that network.

Unmanaged switches are basic plug-and-play switches with no remote configuration, management, or monitoring options, although many can be locally monitored and configured via LED indicators and DIP switches. These inexpensive switches are typically used in small networks or to add temporary workgroups to larger networks.

Managed switches support Simple Network Management Protocol (SNMP) via embedded agents and have a command line interface (CLI) that can be accessed via serial console, Telnet, and Secure Shell. These switches can often be configured and managed as groups. More recent managed switches may also support a Web interface for management through a Web browser.

These high-end switches enable network managers to remotely access a wide range of capabilities including:

- SNMP monitoring.
- Enabling and disabling individual ports or port Auto MDI/MDI-X.
- Port bandwidth and duplex control.
- IP address management.
- MAC address filtering.

- · Spanning Tree.
- Port mirroring to monitor network traffic.
- Prioritization of ports for quality of service (QoS).
- VLAN settings.
- 802.1X network access control.
- IGMP snooping.
- Link aggregation or trunking.

Managed switches, with their extensive management capabilities, are at home in large enterprise networks where network administrators need to monitor and control a large number of network devices.

Web-smart switches—sometimes called smart switches or Web-managed switches—have become a popular option for mid-sized networks that require management. They offer access to switch management features such as port monitoring, link aggregation, and VPN through a simple Web interface via an embedded Web browser. What these switches generally do not have is SNMP management capabilities or a CLI. Web-smart switches must usually be managed individually rather than in groups.

Although the management features found in a Web-smart switch are less extensive than those found in a fully managed switch, these switches are becoming smarter with many now offering a lot of the features of a fully managed switch.

- 802.1X network access control.
- IGMP snooping.
- Link aggregation or trunking.

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

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- 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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