For Small Business

## Cisco 100 Series Unmanaged Switches Cisco Small Business

# Affordable, Easy-to-Use Switches for Small Business Networks, with Zero Configuration Required

To stay on top of your business, you need to keep your office running smoothly. These days that means having a highly reliable network connecting your computers, printers, copiers, and other office equipment. But if your business is like most small companies, you don't have an IT staff to set up your network for you. Now you can have a high-performance, business-class office network that just works, right out of the box, with Cisco<sup>®</sup> 100 Series Unmanaged Switches.

Cisco 100 Series Unmanaged switches deliver basic network connectivity and reliability for small businesses, without complexity. These switches provide all of the features, expandability, and investment protection you expect from Cisco, with no installation software and nothing to configure. Just plug it in, connect your computers and other business equipment, and get to work.

#### Cisco 100 Series Unmanaged Switches

Cisco 100 Series Unmanaged switches (Figure 1), part of the Cisco Small Business networking solutions, are a line of unmanaged switches that provide wire-speed Fast Ethernet and Gigabit Ethernet connectivity to connect your small business office. Available in desktop and rack-mount models, these switches are designed to suit any office space with basic network needs and to optimize power efficiency. They use less power and provide the robust, reliable connectivity your business demands, as well as support for advanced features such as quality of service (QoS) – all in a switch that you can set up yourself, in minutes. A business-class, affordable network solution, Cisco 100 Series switches bring the proven reliability and investment protection of Cisco networking solutions to your small business.

Figure 1. Cisco 100 Series Unmanaged Switches



#### Features and Benefits

Cisco 100 Series switches provide an easy-to-use solution for your small business network. They offer:

- Ease of use: Cisco 100 Series switches work right out of the box, with no software to install and nothing to configure. Each switch port independently sets itself for the optimal speed and determines whether to run in half- or full-duplex mode automatically. As a standards-based Cisco solution, Cisco 100 Series switches are also designed to immediately accommodate all of the devices in your network, including:
  - Support for 10 megabits per second (Mbps), 100 Mbps, and up to 1 gigabit per second (1000 Mbps) devices in the same network
  - · Automatic cable detection, so you don't have to worry about using the wrong cable type
  - · Compatibility with network devices from other vendors
- Simple setup: Designed for small office spaces, Cisco 100 Series switches are available in both compact desktop and rack-mount models. The desktop models offer a wall-mount option for discreet mounting under a desk or on the wall of an office or conference room.
- High performance: Cisco 100 Series switches deliver the performance you need to run your business applications – including bandwidth-intensive video services – and avoid slow and sluggish networks. It supports up Gigabit Ethernet speeds, unlocking a new level of capacity and performance in your business network and letting you transfer large files in seconds.
- Reduced energy costs: Cisco 100 Series switches are designed to help conserve energy by
  optimizing power use without compromising performance, which protects our environment and reduces
  your energy costs. In addition, they support the Energy Efficient Ethernet (IEEE 802.3az) standard,
  which reduces energy consumption by monitoring the amount of traffic on an active link and putting the
  link into a sleep state during quiet periods. Most of the switches have no fans, so they run silently and
  unobtrusively while lowering energy costs.
- Power-over-Ethernet: Cisco 100 Series switches are available with PoE ports on both Fast Ethernet
  and Gigabit Ethernet models. This capability simplifies the deployment of IP telephony, wireless, video
  surveillance, and other solutions by allowing you to connect and power network endpoints over a single
  Ethernet cable. With no need to install separate power supplies for IP phones or wireless access points,
  you can take advantage of advanced communications technologies more quickly, and at a lower cost.
- Support for advanced technologies: All switches include advanced Cisco traffic-handling features to keep your applications running at peak performance. Integrated QoS intelligence on all models automatically prioritizes delay-sensitive services such as voice or video to improve your network's performance. Fast store-and-forward switching identifies damaged packets and prevents them from being passed on through the network. All of these features run automatically, with no management or configuration required.
- **Peace of mind:** Cisco 100 Series switches deliver the rock-solid reliability you expect from a Cisco switch. The solution has been rigorously tested to ensure optimal uptime and performance. In addition, unlike the purchase of a consumer-grade product, your investment in a Cisco Small Business network will grow with your business.

#### **Cisco Limited Lifetime Warranty**

Cisco Small Business products offer a limited lifetime hardware warranty with return to factory replacement and a 1-year limited warranty for fans and power supplies. In addition, Cisco offers software application updates for bug fixes, telephone technical, and online chat support at no charge for the first 12 months following the date of purchase. To download software updates, go to: <a href="https://www.cisco.com/go/smallbiz">www.cisco.com/go/smallbiz</a>.

Product warranty terms and other information applicable to Cisco products are available at <a href="http://www.cisco.com/go/warranty">www.cisco.com/go/warranty</a>.

#### World-Class Service and Support

Cisco 100 Series switches are backed by the Cisco Small Business Support Service, which provides affordable peace-of-mind coverage. This subscription-based service helps you protect your investment and derive maximum value from Cisco Small Business products. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates and access to the Cisco Small Business Support Center, and it extends technical service to three years.

Cisco Small Business products are supported by professionals in the Cisco Small Business Support Center, a dedicated resource for small business customers and networks, with locations worldwide that are specifically trained to understand your needs. You also have access to extensive technical and product information through the Cisco Small Business Support Community, an online forum that enables you to collaborate with your peers and reach Cisco technical experts for support information.

#### **Product Specifications**

Table 1 gives the product specifications for the Cisco 100 Series Switches.

| Feature             | Description  |  |
|---------------------|--|--|
| Performance         |  |  |
| Switching capacity  | SF100D-05: 1 Gbps  |  |
|                     | SF100D-08: 1.6 Gbps  |  |
|                     | SF100D-08P: 1.6 Gbps   |  |
|                     | SF100D-16: 3.2 Gbps  |  |
|                     | SF100-16: 3.2 Gbps   |  |
|                     | SF100D-16P: 3.2 Gbps   |  |
|                     | SF100-24: 4.8 Gbps   |  |
|                     | SF102-24: 8.8 Gbps   |  |
|                     | SG100D-05: 10 Gbps   |  |
|                     | SG100D-08: 16 Gbps   |  |
|                     | SG100D-08P: 16 Gbps  |  |
|                     | SG100-16: 32 Gbps  |  |
|                     | SG100-24: 48 Gbps  |  |
|                     | SG102-24: 48 Gbps  |  |
| Forwarding capacity | Forwarding rate in million packets per second (mpps) (based on 64-byte packets): |  |
|                     | SF100D-05: 0.74 mpps   |  |
|                     | SF100D-08: 1.4. mpps   |  |
|                     | S100D-08P: 1.2 mpps  |  |
|                     | SF100D-16: 1.4 mpps  |  |
|                     | SF100-16: 1.4 mpps   |  |
|                     | SF100D-16P: 1.4 mpps   |  |
|                     | SF100-24: 3.6 mpps   |  |

#### Table 1. Product Specifications

| Feature                     | Description  |  |
|-----------------------------|--|--|
|                             | SF102-24: 6.5 mpps   |  |
|                             | SG100D-05: 7.4 mpps  |  |
|                             | SG100D-08: 11.9 mpps   |  |
|                             | SG100D-08P: 11.9 mpps  |  |
|                             | SG100-16: 23.8 mpps  |  |
|                             | SG100-24: 35.7 mpps  |  |
|                             | SG102-24: 35.7 mpps  |  |
| Layer 2 Switching           |  |  |
| Head-of-line (HOL) blocking | HOL blocking prevention  |  |
| Jumbo Frame                 | 9216 bytes   |  |
| Quality of Service (QoS)    |  |  |
| Priority levels             | 4 hardware queues  |  |
| Scheduling                  | Priority queuing and weighted round-robin (WRR)  |  |
| Class of service            | 802.1p priority based  |  |
| Product Specifications      |  |  |
| Ports                       | SF100D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX  |  |
|                             | SF100D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX  |  |
|                             | SF100D-08P: 8 RJ-45 connectors for 10BASE-T/100BASE-TX;  |  |
|                             | SF100D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX   |  |
|                             | SF100D-16P: 16 RJ-45 connectors for 10BASE-T/100BASE-TX  |  |
|                             | SF100-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX  |  |
|                             | SF100-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX  |  |
|                             | SF102-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX; with 2 combo mini-GBIC slots  |  |
|                             | SG100D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports   |  |
|                             | SG100D-08P: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports  |  |
|                             | SG100-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports   |  |
|                             | SG100-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports with 2 combo<br>mini-GBIC slots   |  |
|                             | SG102-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports with 2 combo<br>mini-GBIC slots   |  |
|                             | All units: Automatic medium dependent interface (MDI) and MDI crossover (MDI-X); auto negotiated port for connecting 10-, 100-, 1000- Mbps devices |  |
| PoE                         | SF100D-08P: 4 PoE ports with 33.12W dedicated power budget   |  |
|                             | SF100D-16P: 8 PoE ports with 64W dedicated power budget  |  |
|                             | SG100D-08P: 4 PoE ports with 33.6W dedicated power budget  |  |
| Cabling type                | Unshielded twisted pair (UTP) Category 5 or better for 10BASE-T/100BASE-TX; 1000BASE-T recommended   |  |
| LEDs                        | System/PWR, Link/Activity, 100M,* PoE, Max PoE, Gigabit,* mini-GBIC*<br>*if present  |  |
| Standarde                   | 802.3 10BASE-T Ethernet  |  |
| Standards                   | 802.3 10BASE-T Einemet   |  |
|                             | 802.3ab 1000BASE-T Gigabit Ethernet  |  |
|                             | 802.3z Gigabit Ethernet  |  |
|                             | 802.3x flow control  |  |
|                             | 802.1p priority  |  |
|                             | IEEE 802.3az, Energy Efficient Ethernet  |  |
|                             | 802.3af , Power Over Ethernet  |  |
| Environmental               |  |  |
| Dimensions                  | SF100D-05: 3.65 x 1.06 x 3.57 inches (92.6 x 27 x 90.6 mm)   |  |
| WxHxD                       | SF100D-08: 5.12 x 1.06 x 5.12 inches (130 x 27 x 130 mm  |  |
|                             | SF100D-08P: 6.29 x 1.18 x 5.05 inches (160 x 30 x 128.5 mm)  |  |
|                             | SF100D-16: 5.12 x 1.52 x 5.12 inches (130 x 38.5 x 130 mm)   |  |
|                             | SF100-16: 11 x 1.75 x 6.7 inches (279.4 x 44.5 x 170 mm)   |  |
|                             | SF100D-16P: 6.29 x 3.54 x 1.69 inches (160 x 90 x 43 mm)   |  |

| Feature  | Description  |
|--|--|
|  | SF100-24: 11 x 1.75 x 6.7 inches (279.4 x 44.5 x 170 mm)   |
|  | SF102-24: 17.35 x 1.74 x 7.99 inches (440.6 x 202.82 x 44.32 mm)   |
|  | SG100D-05: 4.33 x 1.18 x 3.93 inches (110 x 30 x 100 mm)   |
|  | SG100D-08: 5.51 x 1.31 x 5.51 inches (140 x 33.35 x 140 mm)  |
|  | SG100D-08P: 6.29 x 1.18 x 5.05 inches (160 x 30 x 128.5 mm)  |
|  | SG100-16: 11 x 1.75 x 6.7 inches (279.4 x 44.5 x 170 mm)   |
|  | SG100-24: 17.35 x 1.74 x 7.99 inches (440.6 x 202.82 x 44.32 mm)   |
|  | SG102-24: 11 x 1.75 x 6.7 inches (279.4 x 44.5 x 170 mm)   |
| Unit weight  | SF100D-05: 0.47 lb. (0.22 kg)  |
|  | SF100D-08: 0.83 lb. (0.38 kg)  |
|  | SF100D-08P: 1.2 lb. (0.545 kg)   |
|  | SF100D-16: 1.03 lb. (0.46 kg)  |
|  | SF100-16: 2.79 lb. (1.25 kg)   |
|  | SF100D-16P: 0.99 lb. (0.45 kg)   |
|  | SF100-24: 2.91 lb. (1.32 kg)<br>SF102-24: 4.93 lb. (2.00 kg)   |
|  | SG100D-05: 0.70 lb. (0.32 kg)  |
|  | SG100D-08: 0.94 lb. (0.43 kg)  |
|  | SG100D-08P: 1.2 lb. (0.55 kg)  |
|  | SG100-16: 3.15 lb. (1.43 kg)   |
|  | SG100-24: 3.59 lb. (1.63 kg)   |
|  | SG102-24: 5.05 lb. (2.3 kg)  |
| Power  | SF100D-05, SF100D-08: DC 12V, 500mA  |
|  | SF100D-16, SG100D-08, SG100D-05: DC 12V, 1.0A  |
|  | SF100D-08P, SG100D-8P: DC 48V. 1.25A   |
|  | SF100-16, SF100D-16P, SF100-24, SG100-16, SG100-24, SG102-24: 100–240VAC, 50–60 Hz, internal, universal        |
| Certifications   | UL (UL 60950), CSA (CSA 22.2), CE mark, FCC Part 15 (CFR 47) Class A   |
| Operating temperature  | 32° to 104年 (0° to 40℃)  |
| Storage temperature  | -4°to 158年 (−20°to 70℃)  |
| Operating humidity   | 10% to 90%, relative, non-condensing   |
| Storage humidity   | 10% to 90%, relative, non-condensing   |
| Package Contents   |  |
| <ul> <li>Cisco 100 Series Switch</li> </ul>  |  |
| <ul> <li>Power cord/power adapter</li> </ul>   |  |
| <ul> <li>Mounting hardware</li> </ul>  |  |
| <ul> <li>Quick-start guide</li> </ul>  |  |
| Minimum Requirements   |  |
| <ul> <li>Category 5 Ethernet network</li> <li>TCP/IP, network adapter, and<br/>in the network</li> </ul> | cable<br>d network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer |

### **Ordering Information**

Table 2 provides ordering information for the Cisco 100 Series Switches.

 Table 2.
 Ordering Information

| Switch Models | Product Order ID Number | Description  |  |  |
|---------------|-------------------------|--|--|--|
| SF100D-05     | SF100D-05               | 5 Port 10/100 Desktop Switch   |  |  |
| SF100D-08     | SF100D-08               | 8 Port 10/100 Desktop Switch   |  |  |
| SF100D-08P    | SF100D-08P              | 8 Port 10/100 PoE Desktop Switch   |  |  |
| SF100D-16     | SF100D-16               | 16 Port 10/100 Desktop Switch  |  |  |
| SF100D-16P    | SF100D-16P              | 16 Port 10/100 PoE Desktop Switch  |  |  |
| SF100-16      | SF100-16                | 16 Port 10/100 Switch  |  |  |
| SF100-24      | SF100-24                | 24 Port 10/100 Switch  |  |  |
| SF102-24      | SF102-24                | 24-port 10/100 Switch with 2 Combo Mini-GBIC Ports and 2 GE uplink ports                                   |  |  |
| SG100D-05     | SG100D-05               | 5 Port Gigabit Desktop Switch  |  |  |
| SG100D-08     | SG100D-08               | 8 Port Gigabit Desktop Switch  |  |  |
| SG100D-08P    | SG100D-08P              | 8 Port PoE Gigabit Desktop Switch  |  |  |
| SG100-16      | SG100-16                | 16 Port Gigabit Switch   |  |  |
| SG100-24      | SG100-24                | 24 Port Gigabit Switch with 2 Combo Mini-GBIC Ports  |  |  |
| SG102-24      | SG102-24                | Compact 24 Port Gigabit Switch with 2 Combo Mini-GBIC Ports  |  |  |
| SF102-24      | SF102-24                | 24 10/100 ports + 2 combo* mini Gigabit Interface Converter (GBIC) ports<br>Unmanaged rack-mount switch    |  |  |
| SG100D-05     | SG100D-05               | 5 10/100/1000 ports<br>Unmanaged Gigabit desktop switch  |  |  |
| SG100D-08     | SG100D-08               | 8 10/100/1000 ports<br>Unmanaged Gigabit desktop switch  |  |  |
| SG100D-08P    | SG100D-8P               | 8 10/100/1000 ports<br>Unmanaged Gigabit desktop switch  |  |  |
| SG100-16      | SG100-16                | 16 10/100/1000 ports<br>Unmanaged rack-mount switch  |  |  |
| SG100-24      | SG100-24                | 22 10/100/1000 ports + 2 combo* mini-GBIC ports<br>Unmanaged rack-mount switch                             |  |  |
| SG102-24      | SG102-24                | 22 10/100/1000 ports + 2 combo* mini-GBIC ports<br>Compact unmanaged rack-mount switch                     |  |  |
| Transceivers  |                         |  |  |  |
|               | MGBLH1                  | Gigabit Ethernet LH mini-GBIC SFP transceiver, for distances up to 500 m or 40 km                          |  |  |
|               | MGBSX1                  | Gigabit Ethernet SX mini-GBIC SFP transceiver, for distances up to 220 or 550 $\rm m$                      |  |  |
|               | MGBT1                   | Gigabit Ethernet 1000BASE-T mini-GBIC SFP transceiver, for distances up to 100 m                           |  |  |
|               | MGBBX1                  | 1000BASE-BX-20U SFP transceiver, for single-mode fiber, 1310 nm wavelength, for distances up to 40 km $$   |  |  |
|               | MGBLX1                  | 1000BASE-LX SFP transceiver, for single-mode fiber, 1310 nm wavelength, for distances up to 10 $\mbox{km}$ |  |  |

\*Each combo mini-GBIC port has one 10/100/1000 copper Ethernet port and one mini-GBIC/SFP Gigabit Ethernet slot, with one port active at a time.

#### High-Performance, Trouble-Free Switches for Your Business Network

Don't compromise on the performance and reliability of your computers, printers, and other vital networkconnected resources. With Cisco 100 Series switches, you can have the quality, peace of mind, and investment protection that comes with business-class Cisco networking, in a small business solution that works right out of the box.

#### For More Information

To find out more about Cisco 100 Series Unmanaged Switches, visit: www.cisco.com/go/100switches.



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