

# Cisco 90 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® 90 Series Unmanaged Switches.

Cisco 90 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 90 Series Unmanaged Switches

Cisco 90 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 90 Series switches bring the proven reliability and investment protection of Cisco networking solutions to your small business.

Figure 1. Cisco 90 Series Unmanaged Switches







#### Features and Benefits

Cisco 90 Series switches provide an easy-to-use solution for your small business network. They offer:

- Ease of use: Cisco 90 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 90 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 90 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 90 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 90 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. All of the switches have no fans, so they run silently and
  unobtrusively while lowering energy costs.
- 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 90 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.

### 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 www.cisco.com/go/warranty.

#### **World-Class Service and Support**

Cisco 90 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 90 Series Unmanaged Switches

Table 1. Product Specifications

| SF90D-05: 0.80 Gbps SF90D-16: 3.2 Gbps SF90D-16: 3.2 Gbps SG90D-05: 10 Gbps SG90D-08: 16 Gbps SG90D-08: 1.4 mpps SF90D-05: 0.74 mpps SF90D-06: 1.4 mpps SF90D-16: 1.4 mpps SF90D-16: 1.4 mpps SG90D-08: 11.9 mpps SG90D-08: 11.9 mpps SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX  | Feature                     | Description   |  |
|--|-----------------------------|---|--|
| SF90D-08: 1.6 Gbps SF90D-16: 3.2 Gbps SF90D-24: 4.8 Gbps SG90D-08: 16 Gbps SG90D-08: 16 Gbps SG90D-08: 16 Gbps SG92-16: 32 Gbps SG92-24: 48 Gbps Orwarding capacity  Forwarding rate in million packets per second (mpps) (based on 64-byte packets): SF90D-05: 0.74 mpps SF90D-06: 1.4 mpps SF90D-06: 1.4 mpps SF90D-16: 1.4 mpps SG90D-06: 7.4mpps SG90D-06: 7.4mpps SG90D-06: 7.4mpps SG90D-06: 11.9 mpps SG92-16: 23.8 mpps SG92-16: 23.8 mpps SG92-16: 23.8 mpps SG92-16: 20.8 mpps SG92-16: 20.8 mpps SG92-16: 10.9 mpps SG92-16: 20.8 mpps SG92-16: 10.9 m | Performance                 |   |  |
| SF90D-05: 0.74 mpps SF90D-08: 1.4. mpps SF90D-18: 1.4 mpps SF90D-24: 3.6 mpps SG90D-06: 7.4mpps SG90D-06: 7.4mpps SG90D-06: 7.4mpps SG90D-08: 11.9 mpps SG92-16: 23.8 mpps SG92-24: 35.7 mpps  ayer 2 Switching  lead-of-line (HOL) blocking HOL blocking prevention umbo Frame 9216 bytes  tuality of Service (QoS)  riority levels 4 hardware queues cheduling Priority queuing and weighted round-robin (WRR)  class of service 802.1p priority based  roduct Specifications  orts SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-06: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX   | Switching capacity          | SF90D-08: 1.6 Gbps<br>SF90D-16: 3.2 Gbps<br>SF90-24: 4.8 Gbps<br>SG90D-05: 10 Gbps<br>SG90D-08: 16 Gbps<br>SG92-16: 32 Gbps   |  |
| lead-of-line (HOL) blocking  HOL blocking prevention  9216 bytes  Ruality of Service (QoS)  Priority levels  | Forwarding capacity         | SF90D-05: 0.74 mpps<br>SF90D-08: 1.4. mpps<br>SF90D-16: 1.4 mpps<br>SF90-24: 3.6 mpps<br>SG90D-05: 7.4mpps<br>SG90D-08: 11.9 mpps<br>SG92-16: 23.8 mpps   |  |
| umbo Frame  9216 bytes  quality of Service (QoS)  priority levels  4 hardware queues  priority queuing and weighted round-robin (WRR)  plass of service  802.1p priority based  product Specifications  ports  SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX All units: Automatic medium dependent interface (MDI) and MDI crossover   | Layer 2 Switching           |   |  |
| A hardware queues  Priority levels  4 hardware queues  Priority queuing and weighted round-robin (WRR)  Plass of service  802.1p priority based  Product Specifications  Product Specifications  SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX   | Head-of-line (HOL) blocking | HOL blocking prevention   |  |
| rriority levels  4 hardware queues  Priority queuing and weighted round-robin (WRR)  Product Specifications  Product Specifications  Product Specifications  SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/100BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/100BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover   | Jumbo Frame                 | 9216 bytes  |  |
| cheduling Priority queuing and weighted round-robin (WRR)  802.1p priority based  Product Specifications  Forts SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover  | Quality of Service (QoS)    |   |  |
| Class of service  802.1p priority based  Product Specifications  SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX/100BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover   | Priority levels             | 4 hardware queues   |  |
| SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX/100BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover  | Scheduling                  | Priority queuing and weighted round-robin (WRR)   |  |
| SF90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover   | Class of service            | 802.1p priority based   |  |
| SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover  | Product Specifications      |   |  |
| (MDI-X); auto negotiated port for connecting 10-, 100-, 1000- Mbps devices   | Ports                       | SF90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX SF90D-16: 16 RJ-45 connectors for 10BASE-T/100BASE-TX SF90-24: 24 RJ-45 connectors for 10BASE-T/100BASE-TX SG90D-05: 5 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports SG90D-08: 8 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T ports All units: Automatic medium dependent interface (MDI) and MDI crossover |  |
| Unshielded twisted pair (UTP) Category 5 or better for 10BASE-T/100BASE-TX; 1000BASE-T recommended   | Cabling type                |   |  |
| EDs System/PWR, Link/Activity, 100M,* Gigabit,*  | LEDs                        | System/PWR, Link/Activity, 100M,* Gigabit,*   |  |

| Feature                 | Description  |  |
|-------------------------|--|--|
| Standards               | 802.3 10BASE-T Ethernet 802.3u 100BASE-TX Fast Ethernet 802.3ab 1000BASE-T Gigabit Ethernet 802.3z Gigabit Ethernet 802.3x flow control 802.1p priority 802.3az, Energy Efficient Ethernet   |  |
| Environmental           |  |  |
| Dimensions<br>W x H x D | SF90D-05: 4.33 x 1.8 x 2.95 inches (110 x 30 x 75 mm) SF90D-08: 6.2 x 1.18 x 3.5 inches (160 x 30 x 90 mm) SF90D-16: 6.2 x 1.71 x 3.5 inches (160 x 43.5 x 90 mm) SF90D-24: 11 x 1.75 x 6.7 inches (279.4 x 44.5 x 170 mm) SG90D-05: 4.33 x 1.18 x 3.93 inches (110 x 30 x 100mm) SG90D-08: 6.2 x 1.18 x 5.05 inches (160 x 30 x 128.5 mm) SG92-16: 11x 4.33x 1.02 inches (279.4 x 110 x 26 mm) SG92-24: 11x 4.33x 1.02 inches (279.4 x 110 x 26 mm) |  |
| Unit weight             | SF90D-05: 0.53 lb. (0.24kg) SF90D-08: 1.4 lb. (0.625kg) SF90D-16: 0.99 lb. (0.45kg) SF90-24: 2.8 lb. (1.27 kg) SG90D-05: 0.35 lb. (0.16 kg) SG90D-08: 0.46 lb. (0.21 kg) SG92-16: 1.71 lb. (0.78 kg) SG92-24: 3.14 lb. (1.425 kg)  |  |
| Power                   | SF90D-05: DC 12V, 500mA<br>SF90D-08: DC 12V, 500mA<br>SF90D-16, SG90D-08, SG90D-05: DC 12V, 1.0A<br>SF90-24: 100–240VAC, 50–60 Hz, internal, universal<br>SG92-16: 100–240VAC, 50–60 Hz, internal, universal<br>SG92-24: 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°F (0° to 40°C)  |  |
| Storage temperature     | -4° to 158°F (-20° to 70°C)  |  |
| Operating humidity      | 10% to 90%, relative, non-condensing   |  |
| Storage humidity        | 10% to 90%, relative, non-condensing   |  |
| Package Contents        |  |  |

### Package Contents

- Cisco 90 Series Switch
- Power cord/power adapter
- Mounting hardware
- Quick-start guide

#### Minimum Requirements

- Category 5 Ethernet network cable
- TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in the network

<sup>\*</sup>If present.

## **Ordering Information**

Table 2 provides ordering information for the Cisco 90 Series Switches.

Table 2. Ordering Information

| Product Order ID Number | Description   |
|-------------------------|---|
| SF90D-05                | 5 10/100 ports  |
|                         | Unmanaged desktop switch                                    |
| SF90D-08                | 8 10/100 ports  |
|                         | Unmanaged desktop switch                                    |
| SF90D-16                | 16 10/100 ports   |
|                         | Unmanaged desktop switch                                    |
| SF90-24                 | 24 10/100 ports   |
|                         | Unmanaged rack-mount switch                                 |
| SG90D-05                | 5 10/100/1000 ports   |
|                         | Unmanaged Gigabit desktop switch                            |
| SG90D-08                | 8 10/100/1000 ports   |
|                         | Unmanaged Gigabit desktop switch                            |
| SG92-16                 | 16 Port Gigabit Desktop Switch                              |
| SG92-24                 | 24-port Compact Gigabit Switch with 2 Combo Mini-GBIC Ports |

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

Don't compromise on the performance and reliability of your computers, printers, and other vital network-connected resources. With Cisco 90 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 90 Series Unmanaged Switches, visit: www.cisco.com/go/90switches.



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