





# IEEE 802.3az-compliant Switch with Decent Performance for Small-group Networks

- · Non-blocking, wire-speed transmission
- Auto MDI/MDI-X support
- IEEE 802.3az compliant (ES1100-8P/16P/16/24E/24)
- · Fanless design for silent operation (ES1100-8P/16/24E/24/24G)
- **IEEE 802.3x flow control** supported
- IEEE 802.1p CoS supported
- IEEE 802.3af power on up to 4/8 ports (ES1100-8P/16P)
- Limited life-time warranty\*
  - \* Warranty terms, service availability, and service response times may vary from country or region.

The ZyXEL ES1100 Series 8/16/24-port FE Unmanaged Switch is designed for SMBs to boost business network performance and efficiency. The Series provides not only plug-and-play simplicity for high-bandwidth connectivity, but also N-way auto-negotiation to connect network counterparts with the highest possible data speed and to activate duplex mode automatically. The ES1100 Series is ideal for typical noise-sensitive office environments for its superior energy efficiency and Ethernet connectivity. The ZyXEL ES1100 Series consists of four Fast Ethernet switches and two Power over Ethernet (PoE) switches: the ES1100-16, ES1100-24, ES1100-24E, ES1100-24G, ES1100-8P and ES1100-16P. The desktop design of the ES1100-8P/16P/16/24E is ideal for SB or SOHO users seeking reliable network connectivity, while the ES1100-24/24G is designed for 19" racks, making it easy to be deployed in standard wiring closets.

# **Benefits**

#### **Green networking**

The environment-aware ZyXEL ES1100 Series offers 10/100 Mbps Ethernet speeds that is critical to nextgeneration network applications. It also provides power-saving functions to reduce energy consumption for lowered operating costs.

#### Traffic detection — IEEE Energy Efficient Ethernet (EEE) compliance (ES1100-8P/16P/16/24E/24)

The IEEE Energy Efficient Ethernet (EEE) feature automatically detects network traffic and adjusts power consumption dynamically, enabling the switch to reduce power consumption during low link utilization periods.

#### **Inactive link detection**

The inactive link detection function automatically reduces power usage when inactive links or devices are detected. The ZyXEL ES1100 Series can adjust power consumption according to link status and the number of active network devices.

#### **Cable length detection**

This green feature enables the switch to automatically detect the length of connected Ethernet cables and adjust power usage accordingly. The shorter the cable length, the less power it consumes.



ES1100 Series 8/16/24-port FE **Unmanaged Switch** 













# ES1100 Series 8/16/24-port FE Unmanaged Switch

#### **Best-in-class solution for Fast Ethernet environments**

The ZyXEL ES1100 Series comprises of unmanaged Fast Ethernet switches that provide an inexpensive solution for Fast Ethernet connections to the desktop with outstanding performance. The ES1100 Series is an ideal solution for bandwidth-intensive applications such as high-resolution photo delivery, video/audio streaming and downloading as well as server farm connections.

#### **Better performance and efficiency**

The full ES1100 range of Fast Ethernet switches have been designed to boost your network performance and efficiency. With N-way auto-negotiation, the ES1100 Series connects to network counterparts with the highest possible data speed and activates duplex mode automatically.

#### **Transmission reliability**

Unlike shared 10/100 Mbps networks, dedicated bandwidth is provided by the ZyXEL ES1100 Series to eliminate traffic congestion. With the duplex mode, the ES1100 Series can also double the effective bandwidth by enabling two-way communication. The store-and-forward service brings low latency and error-free packet delivery, while the plug-and-play and multiple network protocol compatibility of the ES1100 Series make installation and management easier and faster than ever.

#### Desktop size with flexible rackmount/wallmount design for every working environment (ES1100-8P/16P/16/24E)

With embedded rackmount brackets, the desktop-size models not only fit in desktop environments, but also on racks easily. These models come with wallmount accessories that make it easy to install on the walls when necessary.

#### Freedom of installation via PoE (ES1100-8P/16P)

The ZyXEL ES1100-8P and ES1100-16P support IEEE 802.3af PoE to ease the installation of network devices in challenging spaces such as ceilings or walls. The power supply of up to 15.4 watts per port allows the ES1100 Series PoE switches to power PoE-enabled WLAN APs, VoIP phones and IP surveillance cameras through CAT-5 cables of less than 100 meters (300 feet) in length. With the ES1100 Series PoE switches, there is no need for extra power adapters in installing PoE devices in difficult locations. This feature helps enterprises reduce installation time and cost when there are many such devices on the network.



# **Specifications**

| Model                                 | ES1100-8P                                  | ES1100-16P                                 | ES1100-16                                 | ES1100-24E                                | ES1100-24                                 | ES1100-24G                                |
|---------------------------------------|--|--|---|---|---|---|
| Product name                          | 8-port FE<br>Unmanaged<br>PoE Switch       | 16-port FE<br>Unmanaged<br>PoE Switch      | 16-port FE<br>Unmanaged<br>Switch         | 24-port FE<br>Unmanaged<br>Switch         | 24-port FE<br>Unmanaged<br>Switch         | 24-port FE<br>Unmanaged<br>Switch         |
|                                       | *****                                      | ****                                       | 1000 0000                                 | ***************************************   |   | THE STATE OF STATE                        |
| Port Density                          |  |  |   |   |   |   |
| Total port count                      | 8  | 16   | 16  | 24  | 24  | 26  |
| 10/100 Mbps                           | 4  | 8  | 16  | 24  | 24  | 24  |
| 10/100 Mbps PoE                       | 4  | 8  | -   | -   | -   | -   |
| Dual personality GbE ports            | -  | -  | -   | -   | -   | 2   |
| Performance                           |  |  |   |   |   |   |
| Switching capacity (Gbps)             | 1.6  | 3.2  | 3.2                                       | 4.8                                       | 4.8                                       | 8.8                                       |
| Switching forwarding rate (Mpps)      | 1.2  | 2.4  | 2.4                                       | 3.6                                       | 3.6                                       | 6.6                                       |
| Packet buffer (byte)                  | 96 K                                       | 160 K                                      | 256 K                                     | 256 K                                     | 256 K                                     | 320 K                                     |
| MAC address                           | 1 K  | 8 K  | 8 K                                       | 8 K                                       | 8 K                                       | 8 K                                       |
| Jumbo frame support (up to 2048 byte) | -  | -  | Yes                                       | Yes                                       | Yes                                       | -   |
| 802.3x flow control prioritization    | Yes  | Yes  | Yes                                       | Yes                                       | Yes                                       | Yes                                       |
| 802.1p CoS                            | Yes  | Yes  | Yes                                       | Yes                                       | Yes                                       | Yes                                       |
| Back-pressure-based flow control      | Yes  | Yes  | Yes                                       | Yes                                       | Yes                                       | Yes                                       |
| Loop detection                        | -  | -  | Yes                                       | Yes                                       | Yes                                       | -   |
| Auto MDI/MDI-X                        | Yes  | Yes  | Yes                                       | Yes                                       | Yes                                       | Yes                                       |
| Power Requirement                     |  |  |   |   |   |   |
| Input voltage of AC                   | 100 - 240 V AC, 50/60 Hz                   |  |   |   |   |   |
| Maximum power consumption (watt)      | 68.1                                       | 146.5                                      | 2.5                                       | 3.9                                       | 3.9                                       | 12.65                                     |
| Physical Specifications               |  |  |   |   |   |   |
| Fanless                               | Yes  | -  | Yes                                       | Yes                                       | Yes                                       | Yes                                       |
| Item dimensions (WxDxH)(mm/in.)       | 262 x 184 x 41/<br>10.31 x 7.24 x<br>1.61  | 262 x 184 x 41/<br>10.31 x 7.24 x<br>1.61  | 216 x 133 x 42/<br>8.50 x 5.24 x<br>1.65  | 267 x 162 x 42/<br>10.51 x 6.38 x<br>1.65 | 441 x 131 x 44/<br>17.36 x 5.16 x<br>1.73 | 441 x 131 x 44/<br>17.36 x 5.16 x<br>1.73 |
| Item weight (kg/lb.)                  | 1.4/3.09                                   | 1.7/3.75                                   | 0.77/1.70                                 | 1.28/2.82                                 | 1.35/2.98                                 | 1.5/3.31                                  |
| Packing dimensions (WxDxH)(mm/in.)    | 318 x 275 x 73/<br>12.52 x 10.83 x<br>2.87 | 318 x 275 x 73/<br>12.52 x 10.83 x<br>2.87 | 325 x 227 x 71/<br>12.80 x 8.94 x<br>2.80 | 325 x 227 x 71/<br>12.80 x 8.94 x<br>2.80 | 477 x 222 x 71/<br>18.78 x 8.74 x<br>2.80 | 477 x 222 x 71/<br>18.78 x 8.74 x<br>2.80 |
| Packing weight (kg/lb.)               | 2.2/4.85                                   | 2.5/5.51                                   | 1.59/3.51                                 | 2.1/4.63                                  | 2.14/4.72                                 | 2.2/4.85                                  |
| Environmental Specifications          |  |  |   |   |   |   |
| Operating temperature                 | 0°C to 50°C/32°F to 122°F                  |  |   |   |   |   |
| Storage temperature                   | -40°C to 70°C/-40°F to 158°F               |  |   |   |   |   |
| Operating humidity                    | 10% to 95% (non-condensing)                |  |   |   |   |   |
| MTBF (hr)                             | 164,603                                    | 75,888                                     | 322,400                                   | 100,833                                   | 295,895                                   | 100,833                                   |
| Heat dissipation (BTU/hr)             | 232.22                                     | 499.57                                     | 8.53                                      | 13.3                                      | 13.3                                      | 43.14                                     |

## **Features**

## **Standard Compliance**

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3ab 1000BASE-T Ethernet (ES1100-24G)
- IEEE 802.3af PoE (ES1100-8P/16P)
- $\bullet$  IEEE 802.3x flow control and back-pressure
- IEEE 802.1p CoS
- IEEE 802.3az EEE (ES1100-8P/16P/16/24E/24)

## Certification

#### Safety

- EN 60950-1
- IEC 60950-1
- EU RoHS compliant
- BSMI CNS14336-1

#### **Emission (EMC)**

- FCC Part 15 (Class A)CE EMC (Class A)
- BSMI CNS13438

## **Green Features**

- Energy Efficient Ethernet for reduced power consumption in low-traffic periods (ES1100-8P/16P/16/24E/24)
- Inactive link detection for dynamic power output adjustment
- Adjusts power usage according to the length of connected Ethernet cables
- Easy device power-off with the power on/off switch











