

Dimension ES-2008 Series

Layer 2 Managed Switch



The ES-2008 is a managed layer 2 non-blocking switch for workgroups, building applications or access applications. It is equipped with eight 10/100Mbps ports and one uplink module for easily connecting workgroups and apartments to metropolitan fiber networks with a minimal initial investment. The uplink options include 1000Base-T, 100FX multi-mode fiber, and 100FX single-mode fiber interfaces.

Its advanced features, such as IGMP snooping, broadcast storm control, MAC address filtering, Virtual LAN, enhanced security and bandwidth utilization fit a variety of applications. Additionally, its standard-compliant implementation ensures interoperability with equipment from other vendors.

With its built-in Simple Network Management Protocol (SNMP) and web-based management, the ES-2008 offers an easy-to-use, platform-independent management and configuration facility. For text-based management, the ES-2008 can also be accessed via Telnet and the console port.

Benefits

Port Trunking Provides Higher Availability

The ES-2008 supports IEEE 802.1ad with load distribution control and fail over recovery. It supports up to 4 groups with each group aggregating traffic from 1 to 8 ports. The ES-2008 distributes traffic to each trunk port based on MAC address, and thus balances the traffic load.

VLAN Offers Both Security and Performance

The VLAN feature in the ES-2008 offers the benefits of both security and performance. VLAN is used to isolate traffic between different users and thus provides better security. Performance is also enhanced by limiting the broadcast traffic to the same VLAN broadcast domain.

Port Mirroring Achieves a Better Network Monitoring

Port mirror copies traffic from a specific port to a target port. This mechanism helps track network errors or abnormal packet transmission without interrupting the flow of data across the network.

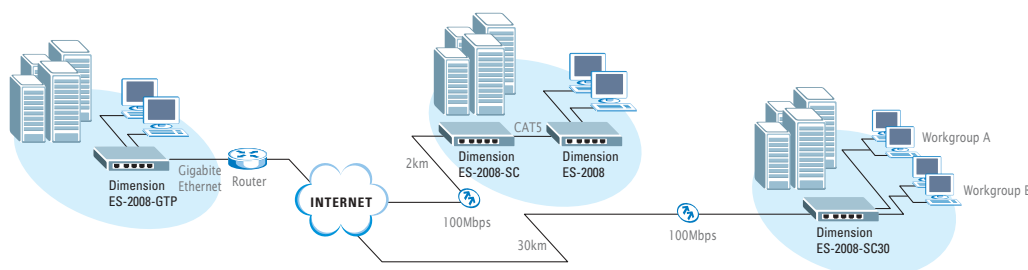
Multicasting and Broadcast Storm Control Optimize Bandwidth Utilization

The IGMP snooping feature reduces multicast traffic and optimizes bandwidth utilization for bandwidth-consuming applications such as broadcast video. The per-port broadcast storm control allows a user-defined threshold to limit broadcast traffic and avoid degrading overall system performance.

Access Control Enhances Network Security

The ES-2008 supports port-based access control for subscriber authentication and allows system administrators to define a limited number of MAC addresses that can access the network from a particular port. This feature denies access of unauthorized devices to communicate through the switch, thus highly enhancing the network security.

Application Diagram



Features & Specifications

General

Standard

- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- ANSI/IEEE 802.3 Auto-negotiation
- IEEE 802.3x Flow Control
- IEEE802.1p Priority Queues
- IEEE802.1Q VLAN
- IEEE802.1d Spanning Tree

Interface

- 8 10/100BASE-T Ethernet port
- One SC connector for 100FX fiber (ES-2008-SC, ES-2008-SC30)
- One RJ-45 connector for 1000Base-T (ES-2008-GTP)
- One Console port on the rear side

Data Transfer Rate

- Ethernet: 10Mbps (half duplex), 20Mbps (full duplex)
- Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)

Cabling

- 10BASE-T: UTP Cat. 3, 4, 5 (100m)
- 100BASE-TX: UTP Cat. (100m)
- 1000BASE-T: UTP Cat 5. (100m) (ES-2008-GTP)
- 100BASE-FX:
 - 50~62.5/125 micron multi-mode fiber-optics (ES-2008-SC)
 - 8~10/125 micron single-mode fiber-optics (ES-2008-SC30)

Full/Half Duplex

- Full/Half duplex for 10/100Mbps speeds

Media Interface Exchange

- All ports MDI-II/MDI-X auto-adjustment

Performance & Management

Back Plane

- Non-Blocking full wire speed forwarding rate 3.6Gbps

Packet Forwarding Rate

- 14880pps for 10BASE-T
- 148800pps for 100BASE-TX/FX

Switching Method

- Store-and-forward

MAC Address Table

- 8K entries

Data Buffer

- 256KB

VLAN

- IEEE 802.1Q tag-based VLAN, 4095

Max

- Port-based VLAN

IEEE 802.1p Priority Queues

- 2 queues

Port Trunking

- IEEE802.1ad port trunking, up to 4 ports for each group

Port Security

- Static MAC address filtering

Multicasting

- Support IGMP snooping

Broadcast Storm

- Support broadcast storm control

Port Mirroring

- All ports support port mirroring

Management

- Local console
- Telnet
- Web-based management
- SNMP

Physical & Environmental

Weight

- 1.08Kg

LED

- Main switch: power, 10/100Mbps, LK/ACT, FD/COL
- 100FX Fiber: LK/ACT, FD/COL (ES-2008-SC and ES-2008-SC30)
- 1000BAES-T: LK/ACT, FD/COL

Dimensions

- 250(L) x 132(D) x 37(H) mm

Power Supply

- 100 - 240VAC 50/60Hz internal universal power supply

Power Consumption

- 17W max.

Operating Temperature

- 0°C to 45°C (32°F to 113°F)

Operational Humidity

- 10% to 90% (Non-condensing)

EMI

- FCC Class A
- CE

Safety

- UL, cUL

Available Models

Model Name

Description

ES-2008	8x 10/100 L2 manageable Ethernet switch
ES-2008-GTP	8x 10/100 L2 manageable Ethernet switch with 1x 1000BASE-T, RJ-45 connector
ES-2008-SC	8x 10/100 L2 manageable Ethernet switch with 1x 100FX, Multi-mode Fiber, SC connector
ES-2008-SC30	8x 10/100 L2 manageable Ethernet switch with 1x 100FX, single-mode fiber, SC connector, 30Km



Corporate Headquarters
 ZyXEL Communications Co.
 Tel: +886-3-578-3942
 Fax: +886-3-578-2439
 Email: sales@zyxel.com.tw
 http://www.zyxel.com

North America
 ZyXEL Communications Inc.
 Tel: +1-714-632-0882
 Fax: +1-714-632-0858
 Email: sales@zyxel.com
 http://www.zyxel.com

Germany
 ZyXEL Deutschland GmbH.
 Tel: +49 2405 6909 0
 Fax: +49 2405 6909 99
 Email: sales@zyxel.de
 http://www.zyxel.de

Denmark
 ZyXEL Communications A/S
 Tel: +45 39 55 07 00
 Fax: +45 39 55 07 07
 Email: sales@zyxel.dk
 http://www.zyxel.dk

Norway
 ZyXEL Communications A/S
 Tel: +47 22 80 61 80
 Fax: +47 22 80 61 81
 Email: sales@zyxel.no
 http://www.zyxel.no

Sweden
 ZyXEL Communications A/S
 Tel: +46 31 744 7700
 Fax: +46 31 744 7701
 Email: sales@zyxel.se
 http://www.zyxel.se

Finland
 ZyXEL Communications Oy
 Tel: +358-9-4780 8400
 Fax: +358-9-4780 8448
 Email: sales@zyxel.fi