

# ECS3510-26P

## L2 Fast Ethernet Switch with PoE



### Product Overview

The Edge-Core ECS3510-26P is a high-performance Fast Ethernet Layer 2/4 switch featuring 26 ports; 24 10/100Mbps PoE ports and 2 combo Gigabit Ethernet RJ-45/SFP (Small Form Factor Pluggable) ports. It is ideal for desktop Fast Ethernet connectivity and wiring closet installations. This switch is packed with features and is a cost-effective solution that brings continuous availability, enhanced security and advanced QoS to the network edge, while maintaining simplicity of management.

### Key Features and Benefits

#### Performance and Scalability

It's a great entry level managed with 8.8Gbps switching capacity delivers wire-speed switching performance to take full advantage of existing high-performance on PCs and laptops by significantly improving the responsiveness of applications and file transfer times.

The device also has two Gigabit Ethernet combo ports for uplink flexibility, allowing copper or fiber uplinks port for high speed uplinks to servers or backbones.

#### Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, to ensure faster recovery from failed links, enhancing overall network stability and reliability.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links up to 8 instances.

Multicast VLAN Registration (MVR) is designed for applications such as Media-on-Demand is using multicast traffic across an Ethernet network.

IGMP snooping prevents flooding of IP multicast traffic and limits bandwidth intensive video traffic to only the subscribers.

The voice VLAN feature enables access ports to carry IP voice traffic from an IP phone.

The IEEE 802.1Q-in-Q VLAN Tag is purpose to expand the VLAN space by tagging the tagged packets.

#### Comprehensive QoS

Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allowing maximum control of network resources.

#### Enhanced Security

Port Security ensures access to switch ports based on MAC address, limits the total number of devices from using a switch port and protects against MAC flooding attacks.

IEEE 802.1x port-based or MAC-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based dynamic VLAN assignment with RADIUS server by guest VLAN.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, TCP/UDP ports. This is done by hardware, so switching performance is not compromised.

Security Shell (SSHv1.5/v2.0) and Secure Sockets Layer (SSL/HTTPS) encrypt network management information via Telnet and web, providing secure network management.

TACACS+3.0 Authentication for applications such as network access or IP mobility enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

Private VLAN isolates edge ports to ensure user privacy.

#### Simple Management

Industry standard Command Line Interface (CLI) via console port or Telnet provides a common user interface and command set for users to manipulate the switch.

IP Source Guard is enabled on a trunk port with a large number of VLANs that have DHCP snooping enabled, you might run out of ACL.

DHCP snooping provides security by filtering un-trusted DHCP messages and by building and maintaining a DHCP snooping binding table.

## Features

### Ports

24 RJ-45 10/100Base-TX ports  
2 Combo Gigabit (RJ-45/SFP) ports  
1 RJ-45 console port

### Performance

Switching Capability: 8.8Gbps  
Packet Buffer Size: 4Mb  
MAC Address Table: 8K

### L2 Features

Auto-negotiation for port speed and duplex mode

Flow Control:

- IEEE 802.3x for full duplex mode
- Back-Pressure for half duplex mode
- Supports jumbo frames up to 10KB

Spanning Tree Protocol:

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Fast forwarding
- BPDU Forwarding with STP disable
- Auto edge port
- BPDU filter/guard
- Root Guard

Storm Control

VLANs:

- Supports IEEE 802.1Q VLANs
- Port-based VLANs
- MAC-based VLANs
- IEEE 802.1v Protocol-based VLANs\*
- IP-based
- Private VLAN
- Voice VLAN
- Guest VLAN
- VLAN Aggregation
- Auto VLAN assignment
- GVRP
- MVR
- Supports Q-in-Q
- VLAN Translation

Link Aggregation:

- Static Trunk
- IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 5, Trunk links: 2~8

IGMP Snooping:

- IGMP v1/v2/v3 snooping
- IGMP v1/v2 Querier
- IGMP Filtering/Throttling
- IGMP Immediate Leave
- IGMP Snooping Leave Proxy
- IGMP v1/v2/v3 proxy

### QoS

Priority Queues: 4 hardware queues per port  
Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, IPv6, IP SA/DA, MAC SA/DA  
Supports DWRR and Strict scheduling  
IPv4/v6 Diffserv  
Rate Limiting (Ingress and Egress, per port base)

### Security

Port security (Static/Dynamic)  
MAC Limitation  
L2/L3/L4 Access Control List  
RADIUS  
TACAS+  
SSH (v1.5/v2.0)  
HTTPS/SSL  
Support IEEE 802.1X  
Port based  
MAC based  
VLAN Assignment, QoS, Web authentication, MAC authentication  
Guest VLAN

- Intrusion Lock (Link Detection)
- IP source guard
- DoS Protection
- ARP Inspection

### Management

Switch Management:

- CLI via console port or Telnet
- WEB management
- SNMP v1, v2c, v3

Firmware & Configuration:

- Firmware upgrade via TFTP/HTTP
- Multiple configuration files
- Configuration file upload/download via TFTP/HTTP

Supports RMON (groups 1, 2, 3 and 9), RMON II, MIB I/II  
Supports BOOTP, DHCP client for IP address assignment  
Supports DHCP Relay, DHCP Snooping  
DNS Client, Proxy  
Port Mirroring  
Supports SNMP  
Event/Error Log/Syslog, SMTP  
Supports LLDP (802.1ab), LLDP-MED  
Remote Ping  
IP Clustering  
MAC Flash  
Dynamic ARP Inspection  
IPv6 Management

### PoE Features

Compliant with IEEE 802.3af  
Compliant with IEEE 802.3at draft  
Simultaneously 24 ports can support a maximum of 7.5W per port  
Simultaneously 12 ports can support a maximum of 15.4W per port  
Simultaneously 6 ports (1~6) can support a maximum of 30W per port

### Mechanical

Dimensions: 440 mm x 280 mm x 44 mm (17.32 X 11.0 X 1.73 in)  
Weight: 3.28 kg (7.23 lbs)  
LED Indicators: Port, Uplink, System, Diagnostic

### Safety

UL (CSA 22.2. NO 60950-1 & UL60950-1)  
CB (IEC60950-1)

### Electromagnetic Compatibility

CE Mark  
FCC Class A  
VCCI Class A

## Features

### Environmental Specifications

Temperature:

- IEC 68-2-14
- 0°C to 50°C (32°F to 122°F Standard Operating)
- -40°C to 70°C (-40°F to 158°F Non-Operating)

Humidity: 10% to 90% (Non-condensing)

Vibration: IEC 68-2-36, IEC 68-2-6

Shock: IEC 68-2-29

Drop: IEC 68-2-32

### Power Supply

AC Power cord

- 100 to 240 V, 50-60 Hz, 3.0A

Power Supply

- Internal, auto-ranging transformer: 100 to 240 VAC, 50 to 60 Hz

### Warranty

Please check [www.edge-core.com](http://www.edge-core.com) for the warranty terms in your country.

### For More Information

To find out more about Edge-Core Networks products and solutions, visit [www.edge-core.com](http://www.edge-core.com)

### About Edge-Core Networks

Edge-Core Networks is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edge-Core Networks delivers the software and systems that transform the way the world connects.

Edge-Core Networks serves customers and partners worldwide. Additional information can be found at [www.edge-core.com](http://www.edge-core.com).

To purchase Edge-Core Networks solutions, please contact your Edge-Core Networks representative at 886 3 563 8888 or authorized reseller.

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## Ordering Information

### Optional Accessories

ET4201-SX  
ET4201-LX  
ET4201-LHX  
ET4201-ZX  
Ecview Pro

### Product Description

1Gbps, Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)  
1Gbps, Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)  
1Gbps, Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm)  
1Gbps, Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)  
SNMP Network Management Software