

# ECS2000 Series

## L2 Edge Gigabit Ethernet Switch



### Product Overview

The Edge-Core ECS2000 series is a Layer 2 Edge switches featuring 10/18/26/50 ports w/wo PoE; with 8/16/24/48 10/100/1000Base-T ports, and 2 SFP 100/1000Base-X SFP slots. The ECS2000 series enable networks of all sizes to introduce Gigabit Ethernet to the desktop with management features targeted to meet the needs of SMB network. It is packed with features and is a cost-effective solution that brings continuous availability, QoS priority queuing with classification, and prioritization at Layer 2.

### Key Features and Benefits

#### Performance and Scalability

The ECS2000-10P/18T/18P/26T/26P/50T/50P are entry-level managed switch with 20/36/36/52/52/100/100Gbps switching capacity. It delivers wire-speed switching performance on all ports connecting end stations to the corporate network.

There are two SFP ports for Gigabit Ethernet fiber uplink flexibility. Optional Gigabit Ethernet SFP transceivers can be installed for various fiber uplink distances.

#### Continuous Availability

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

IEEE 802.1Q VLAN-segmented broadcast domains reduce broadcast traffic and increase LAN security and performance.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and provides load balancing and fault tolerance for uplink connections.

#### Comprehensive QoS

Eight egress queues per port enables differentiated management of up to eight traffic types.

Traffic is prioritized according to 802.1p or DSCP, 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 allows maximum control of network resources.

#### Enhanced Security

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

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using a standards-based RADIUS server.

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

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypts Telnet and web access to the switch, providing secure network management.

IP Source Guard can be enabled with DHCP snooping on trunk ports with a large number of VLANs to filter and control IP traffic access to the network.

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

#### Simple Management

An embedded user-friendly web interface helps users quickly and simply configure switches. SNMP v1/v2 are supported for management from a network management station. Telnet and SSH provide a safe and easy way for network administrators to manage the switch. This new Edge-Core switch also supports management functions through both IPv4 and IPv6.

#### PoE Features

The ECS2000-10P/18P/26P/50P can provide up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, surveillance cameras, etc, all over existing Cat. 5 cables. The switch can deliver up to 30 Watts on 2/4/6/12 ports, 15.4 Watts on 4/8/12/24 ports, or 7.5 Watts on 8/16/24/48 ports. This eliminates the need for individual power sources for devices in the network, saving on costs for power cables and avoiding power outlet availability issues. If the power demand exceeds the switch's maximum power budget, ports can be prioritized to receive power.

## Technical Specifications

Product Model		ECS2000-10P	ECS2000-18T	ECS2000-18P
Product Image				
Port	RJ-45 10/100/1000 Ports	8	16	16
	SFP Uplink Ports	2	2	2
	PoE Port	8	X	16
Performance	Switching Capacity	20Gbps	36Gbps	36Gbps
	Forwarding Rate	14.9Mpps	26.8Mpps	26.8Mpps
	Flash Memory	8M	16M	16M
	DRAM	64M	128M	128M
	MAC Address Table Size	8K	8K	8K
	Jumbo Frames	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	O	O	O
PoE	Support on all Gigabit ports based on IEEE 802.3af	O	X	O
	PoE+ based on IEEE 802.3at	O	X	O
	Auto disable after exceeding power budget	O	X	O
	Dynamic Power Allocation	O	X	O
	PoE Power Budget	75W	X	190W
Mechanical	Rack Space	19"	19"	19"
	Dimension (W x D x H) cm	33 x 20.4 x 4.3	44 x 28 x 4.4	44 x 35 x 4.45
	Weight	2.2kg	1.91kg	4.05kg
Power Supply	100-240 VAC, 50/60Hz	O	O	O
	Max Power Consumption (Watts)	100W	20W	250W
Environmental	Operating Temperature	0°C to 50°C	0°C to 50°C	0°C to 50°C
	Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%
	Environmental Regulation Compliance: WEEE	O	O	O
	Environmental Regulation Compliance: RoHS	O	O	O
Certification	FCC Class A	O	O	O
	CE	O	O	O
	Safety Compliance: CB	O	O	O
	Safety Compliance: UL	O	O	O

## Technical Specifications

Product Model		ECS2000-26T	ECS2000-26P	ECS2000-50T	ECS2000-50P
Product Image					
Port	RJ-45 10/100/1000 Ports	24	24	48	48
	SFP Uplink Ports	2	2	2	2
	PoE Port	X	24	X	48
Performance	Switching Capacity	52Gbps	52Gbps	100Gbps	100Gbps
	Forwarding Rate	38.7Mpps	38.7Mpps	74.4Mpps	74.4Mpps
	Flash Memory	16M	16M	16M	16M
	DRAM	128M	128M	128M	128M
	MAC Address Table Size	8K	8K	32K	32K
	Jumbo Frames	10K	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	O	O	O	O
PoE	Support on all Gigabit ports based on IEEE 802.3af	X	O	X	O
	PoE+ based on IEEE 802.3at	X	O	X	O
	Auto disable after exceeding power budget	X	O	X	O
	Dynamic Power Allocation	X	O	X	O
	PoE Power Budget	X	190W	X	375W
Mechanical	Rack Space	19"	19"	19"	19"
	Dimension (W x D x H) cm	44 x17.3 x 4.45	44 x 35 x 4.45	43 x 25 x 4.45	44 x 35 x 4.45
	Weight	1.91kg	4.05kg	2.98kg	5.19kg
Power Supply	100-240 VAC, 50/60Hz	O	O	O	O
	Max Power Consumption (Watts)	20W	250W	50W	525W
Environmental	Operating Temperature	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
	Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Environmental Regulation Compliance: WEEE	O	O	O	O
	Environmental Regulation Compliance: RoHS	O	O	O	O
Electromagnetic Compatibility	FCC Class A	O	O	O	O
	CE	O	O	O	O
	Safety Compliance: CB	O	O	O	O
	Safety Compliance: UL	O	O	O	O

## Features

### 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
- Spanning Tree Protocol:
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
  - BPDU Guard
  - Root Guard
- VLANs:
  - Supports 4K IEEE 802.1Q VLANs
  - Port-based VLANs
  - IP based VLANs
  - Private VLANs
  - Voice VLAN
  - Q-in-Q
  - Select Q-in-Q
- Link Aggregation:
  - Static Trunk
  - IEEE 802.3ad Link Aggregation Control Protocol
- IGMP Snooping:
  - IGMP v1/v2/v3 snooping
  - IGMP v1/v2/v3 proxy
  - IGMP Filtering
  - IGMP Throttling
  - IGMP Immediate Leave
  - IGMP Querier
- MVR (Multicast VLAN Registration)

### IPv6 Features

- IPv4/IPv6 Dual Protocol stack
- IPv6 Address Types Stack: Unicast
- ICMPv6
- ICMPv6 Redirect (Host)
- Stateless Auto configuration
- IPv6 Neighbor Discovery
- SNMP over IPv6
- HTTP over IPv6
- DHCPv6 Client
- Remote IPv6 Ping
- NTPv6

### QoS Features

- Priority Queues: 8 hardware queues per port
- Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number
- Supports WRR and Strict scheduling
- Rate Limiting (Ingress and Egress, per port base)
- Diffserv

### Security Features

- Static Port Security (MAC-based)
- Dynamic Port Security (MAC-based)
- MAC Limitation per port
- Supports IEEE 802.1X port based (single host & multiple host)
- VLAN Assignment
- QoS Assignment
- Dynamic VLAN Assignment, Auto QoS
- MAC authentication & Web authentication
- Guest VLAN
- RADIUS Accounting
- AMC Spoofing
- IP MAC Binding
- TACACS+
- TACACS+ Accounting
- IP Source Guard
- ACL
- Support DHCP snooping

### Management

- Switch Management:
  - Telnet
  - WEB management
  - SNMP v1, v2, v3
- Firmware and Configuration: Upgrade via TFTP/HTTP
- Supports RMON (groups 1, 2, 3 and 9)
- Supports DHCP Client
- Supports DHCP Server
- Supports DNS client, proxy
- Supports HTTP Server
- Supports HTTPs
- Supports SSHv2
- Supports System Syslog
- Supports LLDP
- Support sFlow

### 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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\* Future Release

## Ordering Information

### Optional Accessories

- ET4201-SX
- ET4201-LX
- ET4201-LHX
- ET4201-ZX
- ET4202-SX
- ET4202-LX

### Product Description

- Small Form Factor Pluggable (1000BASE-SX; Distance: 500m; Wavelength: 850nm)
- Small Form Factor Pluggable (1000BASE-LX; Distance: 10km; Wavelength: 1310nm)
- Small Form Factor Pluggable (1000BASE-LHX; Distance: 40km; Wavelength: 1310nm)
- Small Form Factor Pluggable (1000BASE-ZX; Distance: 80km; Wavelength: 1550nm)
- Small Form Factor Pluggable (1000BASE-SX; Distance: 500m; Wavelength: 850nm,DDM)
- Small Form Factor Pluggable (1000BASE-LX; Distance: 10km; Wavelength: 1310nm,DDM)



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