

ECS2000 Series

L2 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/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.

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 2/6/6/12 ports, 15.4 Watts on 4/12/12/24 ports, or 7.5 Watts on 8/24/24/48 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.

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.

ECS2000 Series Product Specifications

www.edge-core.com





Features

Product Model		ECS2000-10T	ECS2000-10P	ECS2000-18T	ECS2000-18P
Product Image					
Port	RJ-45 10/100/1000 Ports	8	8	16	16
	SFP Uplink Ports	2	2	2	2
	PoE Port	X	8	X	16
Performance	Switching Capacity	20 Gbps	20 Gbps	36 Gbps	36 Gbps
	Forwarding Rate	14.9 Mpps	14.9 Mpps	26.8 Mpps	26.8 Mpps
	Flash Memory	8 M	8 M	16 M	16M
	DRAM	64 M	64 M	128 M	128 M
	MAC Address Table Size	8 K	8 K	8 K	8 K
	Jumbo Frames	10 K	10 K	10 K	10 K
	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	75 W	X	190 W
Mechanical	Rack Space	19"	19"	19"	19"
	Dimension (W x D x H) cm	19.64 x 11.63 x 3.66	33 x 20.4 x 4.3	44 x 17.3 x 4.4	44 x 35 x 4.4
	Weight	1.55 kg	2.2 kg	1.91 kg	4.05 kg
Power Supply	100-240 VAC, 50-60 Hz	O	O	O	O
	Max System Power Consumption (Watts)	20 W	100 W	20 W	250 W
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	Safety Compliance: UL	O	O	O	O
	CE	O	O	O	O
	Safety Compliance: CB	O	O	O	O
	Safety Compliance: UL	O	O	O	O

ECS2000 Series Product Specifications

www.edge-core.com

Features

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	52 Gbps	52 Gbps	100 Gbps	100 Gbps
	Forwarding Rate	38.7 Mpps	38.7 Mpps	74.4 Mpps	74.4 Mpps
	Flash Memory	16 Mpps	16 Mpps	16 Mpps	16 Mpps
	DRAM	128 M	128 M	128 M	128 M
	MAC Address Table Size	8 K	8 K	32 K	32 K
	Jumbo Frames	10 K	10 K	10 K	10 K
	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	190 W	X	375 W
Mechanical	Rack Space	19"	19"	19"	19"
	Dimension (W x D x H) cm	44 x 17.3 x 4.4	44 x 35 x 4.4	43 x 25 x 4.45	44 x 35 x 4.45
	Weight	2.01 kg	4.22 kg	2.99 kg	5.19 kg
Power Supply	100-240 VAC, 50-60 Hz	O	O	O	O
	Max System Power Consumption (Watts)	20 W	250 W	50 W	525 W
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	Safety Compliance: UL	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

Spanning Tree:

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP)
- Loopback detection
- BPDU Filter / Guard
- Root Guard

VLAN:

- Supports 4K IEEE 802.1Q VLANs
- Port-based / Private / Protocol / Management / Voice / Guest VLANs
- MVR
- Q-in-Q

Link Aggregation:

- Static Trunk
- IEEE 802.3ad (LACP) Link Aggregation Control Protocol

IGMP :

- IGMP snooping v1/v2/v3
- IGMP snooping v1/v2/v3 Proxy
- IGMP Filtering / Throttling
- IGMP immediate leave
- IGMP Querier
- MLD Snooping

Storm Control:

- Broadcast / Multicast / Unknown Storm Control

LLDP (802.1ab) LLDP/ LLDP-MED

802.3az EEE (No Link Power-Saving)

PoE Features

Support 802.3af/at

- Support 7.5W/15.4W/30W in each port

(Total PoE Power Budget have limited as follow)

PoE power budget:

- ECS2000-10P (75W)
- ECS2000-18P (190W)
- ECS2000-26P (190W)
- ECS2000-50P (375W)

Dynamic Power Allocation / Auto disable after exceeding power budget

QoS Features

Rate Limiting:

Priority Queues Schedule

- WRR/Strict Priority / Hybrid

CoS

- IEEE 802.1p QoS
- 8 HW Queues / per port
- TCP / UDP Port
- DSCP
- IPv4 / IPv6-Base QoS
- DiffServ

IPv6 Features

IPv4 / IPv6 Dual Protocol Stack

IPv6 Management

SNMP over IPv6 (ECS2000-10C and ECS2000-10P are not supported)

Security Features

IEEE 802.1X

ACL

- L2/L3/L4
- ACL entry (10C/10P/18C/18P/26C/26P: 256); (50C/50P: 512)
- IPv4/ IPv6

Port Security (Static / Dynamic)

Trusted MAC

MAC Filter

MAC limitation per port

DHCP Snooping

Dynamic ARP Inspection

AAA (RADIUS / TACACS+)

SSH1.5/2.0

SSL

- SSL L2/L3/L4
- SSL v3
- SSL IPv4/IPv6 (ECS2000-10C and ECS2000-10P are not supported)

Management Features

System password protection

sFlow (ECS2000-10C and ECS2000-10P are not supported)

NTP

Dual Image

Configuration upload / download (HTTP / TFTP)

Firmware upload / download (HTTP/ TFTP)

RMON(groups 1,2,3 and 9)

SNMP

- SNMP Trap
- SNMP v1/v2/v3
- SNMP Standard MIB

Management Access (SNMP / WEB /Telnet)

BOOTP

Memory Flash Log

Event / Error Log / Syslog

DHCP Client/ Option 82

Port Mirroring (One to One) TX/RX (both)

For More Information

To find out more about Edge-Core Networks products and solutions, visit 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.

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

ET4201-SX
ET4201-LX
ET4201-LHX
ET4201-ZX
ET4202-SX
ET4202-LX
ECView Pro

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