ECS4110 Series

L2 Gigabit Ethernet Standalone Switch

Product Overview

The Edge-Core ECS4110 series is a Layer 2 switches featuring 28/52 ports; with 24/48 10/100/1000Base-T ports, and 4 SFP uplink ports that support enterprise-class Layer 2 switching features including advanced QoS, security and simplified and intuitive management features allowing network administrators to build high performing robust networks affordably.

Key Features and Benefits

Performance and Scalability

ECS4110-28T/52T/52P are high performance Gigabit Ethernet Layer 2 managed switch, with 56/96/96Gbps switching capacity, it delivers wire-speed switching performance on all Gigabit ports, taking full advantage of existing high-performance on PCs, laptops, significantly improving the responsiveness of applications and file transfer times.

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 32 instances.

The ECS4110-28T/52T/52P support IEEE 802.3ad Link Aggregation Control Protocol (LACP). It increases bandwidth by automatically aggregating several physical links together as a logical trunk and offers load balancing and fault tolerance for uplink connections.

Comprehensive QoS

The ECS4110-28T/52T/52P offer advance QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice, and video traffic at wire speed. 4 egress queues per port enable differentiated management of up to 4 traffic types across the stack. Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number to provide optimal performance to real-time applications. Weight Round Robin (WRR) and strict priority ensure differential prioritization of packet flows and avoid congestion of ingress and egress queues.

PoE Features

The ECS4110-52P 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 13 ports, 15.4 Watts on 25 ports, or 7.5 Watts on 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 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. When a user is authenticated, the VLAN, QoS and security policy will be automatically applied the port where the user connected, otherwise it will be grouped to guest VLAN with limited access.

DHCP snooping allows a switch to protect a network from rogue DHCP servers to offer invalid IP address.

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.

DAI (Dynamic ARP Inspection) is a security feature that validates Address Resolution Protocol (ARP) packets in a network. DAI allows a network administrator to intercept, log, and discard ARP packets with invalid MAC address to IP address bindings.

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.

Green Ethernet

The ECS4110-28T/52T/52P switch incorporate a range of green Ethernet technologies to help you save energy costs for your network. The switches can't only use the latest Energy Efficient Ethernet standard to make better use of the Ethernet ports and others can also detect link status and cable length, allowing each port to power down when the port is not connected or using shorter cables.

ECS4110 Series Product Specifications

Technical Specifications

Product Model		ECS4110-28T	ECS4110-52T	ECS4110-52P
Product Image				
Port	RJ-45 10/100/1000 Ports	24	48	48
	SFP Uplink Ports	4	4	4
	PoE Port	X	X	48
	RJ-45 Console Port	O	O	O
Performance	Switching Capacity	56Gbps	104Gbps	104Gbps
	Forwarding Rate	41.7Mpps	77Mpps	77Mpps
	Flash Memory	32M	32M	32M
	DRAM	128M	128M	128M
	MAC Address Table Size	8K	16K	16K
	Jumbo Frames	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	O	O	O
PoE	Support on all Gigabit ports based on IEEE 802.3af	X	X	O
	PoE+ based on IEEE 802.3at	X	X	O
	Auto disable after exceeding power budget	X	X	O
	Dynamic Power Allocation	X	X	O
	PoE Power Budget	X	X	410W
Mechanical	Rack Space	19”	19”	19”
	Dimension (W x D x H)	44 x 28x 4.4 cm	44 x 28 x 4.4 cm	44 x 37.9 x 44 cm
	Weight	2.68kg	3.14kg	5.27kg
Power Supply	100-240 VAC, 50/60Hz ±2Hz	O	O	O
	Max Power Consumption (Watts)	31W	65W	530W
Environmental	Operating Temperature	0℃ to 50℃	0℃ to 50℃	0℃ to 50℃
	Storage Temperature	-40℃ to 70℃	-40℃ to 70℃	-40℃ to 70℃
	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
MTBF	System MTBF (Hours)	257,848	239,141	211,769

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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 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- BPDU Guard
- BPDU filtering
- Root Guard

Broadcast/Multicast/Unknown Unicast Storm Control
VLANs:
- Supports 4K IEEE 802.1Q VLANs
- Active VLANs: 4K
- Port-based
- GVRP
- IEEE 802.1v Protocol-based VLANs
- Mac-based VLANs
- IP based VLAN
- Private VLAN
- Guest VLAN
- Voice VLAN
- VLAN ACL*

Link Aggregation:
- Static Trunk
- IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 12
- Maximum number of members per group: 8

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)
Supports QinQ

QoS Features

Priority Queues: 4 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, DSCP
Supports WRR and Strict scheduling
Rate Limiting (Ingress and Egress, per port base)
DiffServ
Marking
Remarking

Security

Port security
IEEE 802.1X port based and MAC based authentication
MAC authentication
Access Control List
DHCP Snooping
IP Source Guard
Dynamic ARP Inspection
RADIUS authentication
TACACS + authorization and accounting
SSH (v1.5/v2.0)
SSL and HTTPS

Management

Switch Management:
- CLI via console port or Telnet
- WEB management
- SNMP v1, v2, v3

Firmware & Configuration:
- Firmware upgrade via TFTP server
- Supports dual image
- Supports auto configuration provision
- Supports auto firmware upgrade
- Multiple configuration files
- Configuration file upload/download via TFTP server

Supports RMON (groups 1, 2, 3 and 9)
Supports BOOTP, DHCP client for IP address assignment
Supports DHCP snooping
Supports SNTP (RFC 2030)
Supports IP clustering up to 36 switches
Event/Error Log/Syslog
Supports MIB
Supports LLDP (802.1ab) & LLDP-MED
Supports IPv6 management

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Supports IPv6 management
Different privilage levels on console
Port Mirroring

IEEE Standards

IEEE 802.1p Priority tags
IEEE 802.1x Port Authentication
IEEE 802.3x Ethernet frame start and stop requests and timers used for flow control on full-duplex links
IEEE 802.3u CSMA/CD access method and physical layer specifications for 100BASETX Fast Ethernet
IEEE 802.3z CSMA/CD access method and physical layer specifications for 1000BASE Gigabit Ethernet
IEEE 802.1q Virtual LAN
IEEE 802.1d Spanning Tree Protocol
IEEE 802.3ad Link Aggregation Control Protocol
IEEE 802.1s Rapid Spanning Tree Protocol
IEEE 802.1w Multiple Spanning Tree Protocol

Warranty

Please check www.edge-core.com for the warranty terms in your country

Ordering Information

Optional Accessories	Product Description
ET4201-SX	Small Form Factor Pluggable (1000BASE-SX; Distance: 500m; Wavelength: 850nm)
ET4201-LX	Small Form Factor Pluggable (1000BASE-LX; Distance: 10km; Wavelength: 1310nm)
ET4201-LHX	Small Form Factor Pluggable (1000BASE-LHX; Distance: 40km; Wavelength: 1310nm)
ET4201-ZX	Small Form Factor Pluggable (1000BASE-ZX; Distance: 80km; Wavelength: 1550nm)
ET4202-SX	Small Form Factor Pluggable (1000BASE-SX; Distance: 500m; Wavelength: 850nm,DDM)
ET4202-LX	Small Form Factor Pluggable (1000BASE-LX; Distance: 10km; Wavelength: 1310nm.DDM)
ECView Pro	Network Management Software

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