

ECS3610-28T

L3 Fast Ethernet Management Switch



Product Overview

The Edge-Core ECS3610-28T is a Fast Ethernet managed Layer 3 switch featuring 24 10BASE-T/100BASE-TX RJ-45 ports, 2 Gigabit combination ports (RJ-45/SFP), and two 1000BASE-X SFP slots. It is an ideal workgroup Layer 3 switch that can separate users based on departmental or usage groups, providing greater network efficiency by reducing broadcast traffic, and offering a higher level of network security by routing unicast traffic between different VLANs or subnets. The switch also supports IP clustering for managing a virtual stack of up to 36 switches. The ECS3610-28T provides enhanced security and advanced QoS to the network edge, while maintaining simplicity of management.

Key Features and Benefits

Performance and Scalability

With 12.8 Gbps switching capacity, the ECS3610-28T delivers wire-speed performance for Layer 2 switching and Layer 3 IP routing on all ports.

The switch limits broadcast traffic from reducing network performance, provides security between different VLANs, yet allows unicast traffic to be routed.

High Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN and provides Layer 2 load sharing on redundant links.

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

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

Optional Redundant Power Supply provides uninterrupted power.

Comprehensive QoS

The switch's eight egress queues per port enables differentiated management of up to eight traffic types.

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 allows maximum control of network resources.

Enhanced Security

Port Security limits the total number of devices that can access a switch port based on MAC address.

IEEE 802.1X port-based and MAC-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) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, and TCP/UDP ports.

SSH, RADIUS and TACACS+ encrypts Telnet and web access to the switch, providing secure network management.

Private VLANs isolate edge ports to ensure user privacy.

Simplified Management

An industry-standard Command Line Interface (CLI), accessed through the console port or Telnet, provides a convenient way to configure and troubleshoot the switch. An embedded user-friendly web interface helps users quickly and simply configure the switch. Four-group RMON is supported to collect traffic statistics and run network diagnostics. The switch can also backup and restore firmware and configuration files via TFTP.

L3 Features

The ECS3610-28T delivers high-performance, hardware-based IP routing. RIP and OSPF provide dynamic routing by exchanging routing information with other Layer 3 switches or routers.

PIM-DM/PIM-SM Multicast Routing Protocol sends IP multicast traffic from one subnet to another.

VRRP prevents the switch from failing by dynamically backing up multiple L3 switches for routing.

Features

Physical Ports

24 10BASE-T/100BASE-TX ports with auto-negotiation
 2 Gigabit combination ports (10/100/1000BASE-T or 1000BASE-X)
 2 1000BASE-X SFP slots
 1 RS-232 DB-9 console port

Performance

Switching Capability: 12.8 Gbps
 Packet Buffer Size: 1 MB
 MAC Address Table: 16K
 Flash Memory: 32 MB

L2 Features

Auto-negotiation for port speed and duplex mode
 Flow Control: IEEE 802.3x & Back-Pressure
 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)
 ■ loop back detection
 ■ auto edge port
 ■ BPDU filter/ guard
 ■ BPDU forwarded
 ■ root guard
 DDM (Digital Diagnostic Monitoring)
 MVR
 IP multicast stream protect (Multicast protection)
 Q-in-Q
 Select Q-in-Q
 VLANs:
 ■ Supports 256 VLANs entries out of 4K VLAN IDs
 ■ IEEE 802.1Q VLANs, Port-based VLANs, GVRP
 ■ Private VLANs
 ■ Q-in-Q/Protocol-based VLANs
 Link Aggregation:
 ■ Static Trunk, IEEE 802.3ad with LACP (Dynamic)
 ■ Max. groups 32 groups; 2~8 ports per trunk
 IGMP Snooping:
 ■ IGMP v1/2/3 and IGMP snooping
 ■ IGMP Query/Multicast VLAN Registration (MVR)
 Supports jumbo frames up to 9KB

L3 Features

4K host table, 8K net table
 1K multicast table (shared with IPv6 & IGMP snooping)
 256 static routes
 ARP, ARP Proxy
 Multi-netting, Super-netting (CIDR)
 RIPv1, RIPv2, OSPFv2
 PIM-DM, PIM-SM,
 VRRP (16 groups)
 DHCP Relay ; DHCP Server
 IPv6:
 ■ hardware IP routing
 ■ 2K host table, 4K net table
 ■ 1K multicast table (shared with IPv6 & IGMP snooping)
 ■ Static routes
 ■ OSPFv3
 ■ MLD v1/v2
 ■ PIM-DM6

QoS Features

Priority Queues: 8 hardware queues per port
 Traffic classification based on IEEE 802.1p , IP Precedence, DSCP,
 TCP/UDP port number, Access Control Lists
 Supports SWRR, WRR, and Strict scheduling
 Bandwidth Control:
 ■ Egress Rate Limiting: 64 Kbps granularity
 ■ Ingress Rate Limiting: 64 Kbps granularity
 Diffsv

Mechanical

Dimensions (H x W x D): 44 x 230 x 440 mm (1RU)
 LED Indicators: Port, Uplink, System, Diagnostic
 Weight: 1.96 kg

Security

Supports IEEE 802.1X port-based and MAC-based access control
 VLAN assignment
 QoS assignment
 Guest VLAN
 Supplicant support
 Web authentication
 MAC authentication
 RADIUS /TACACS+ authentication
 Access Control Lists
 SSH (v1.5/v2.0)
 IP Source Guard
 Dynamic ARP inspection
 Link detection
 MAC filter

Management

Switch Management:
 ■ CLI via console port or Telnet
 ■ Web management
 ■ SNMP v1, v2c, v3
 Firmware & Configuration:
 ■ Dual firmware images
 ■ Firmware upgrade via TFTP/FTP/HTTP server
 ■ Auto upgrade via TFTP server
 ■ Multiple configuration files
 ■ Configuration file upload/download via TFTP server
 ■ Loader/Diagnostic upgrade support TFTP
 Supports RMON (groups 1, 2, 3 and 9)
 Supports BOOTP, DHCP for IP address assignment
 Supports DHCP snooping
 Supports DHCP dynamic provision (option 66/67)
 Supports SNTP
 sFlow
 LLDP
 Event/Error Log/Syslog
 Dynamic ARP inspection (DAI)
 VLAN mirroring
 MAC-based mirroring
 Auto Traffic Control (ATC)
 Delay reload
 IPv6:
 SNMP/HTTP/Telnet/SSH/ICMP/RADIUS/SSH/SMTP/ACL/Dual Stack/Neighbor
 discover/DSCP remapping CoS/System log/DNS resolver/TFTP/Remote
 Ping
 DHCP Snooping

IEEE Standards

IEEE 802.3-2005 Ethernet, Access Ethernet, Fast Ethernet, Gigabit Ethernet,
 Link Aggregation Control Protocol (LACP), Full-duplex flow control
 IEEE 802.1D Spanning Tree Protocol
 IEEE 802.1w Rapid Spanning Tree Protocol
 IEEE 802.1s Multiple Spanning Tree Protocol
 IEEE 802.1p priority tags
 IEEE 802.3ac VLAN tagging
 IEEE 802.1Q Virtual LAN
 IEEE 802.1v protocol-based VLANs

Safety

CSA/NRTL (UL60950-1, CSA 60950-1)
 CB (IEC 60950-1)

Electromagnetic Compatibility

CE Mark
 FCC Class A
 EN55022 (CISPR 22) Class A

Environment Specifications

Temperature:
 ■ 0°C to 40°C (Standard Operating)
 ■ -40°C to 70°C (Storage)
 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

Warranty

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