ECS4810-28TS

L2 Managed Stackable Switch

Product Overview

The Edge-Core ECS4810-28TS is a managed stackable Gigabit Ethernet Layer 2 switch with 24 10/100/1000BASE-T ports and 4 Gigabit Ethernet combination ports (RJ-45/SFP). The ECS4810-28TS is a fully-managed switch that supports power saving with an operating temperature range of -20°C to 65°C. It offers advanced administration through a user-friendly web browser interface and supports SNMP. The DB-9 console port provides out-of-band management with straightforward CLI commands. With software control, the ECS4810-28TS provides resilient stacking capability of up to 16 units with a 4G stack backplane, which can be managed through a single IP.

Key Features and Benefits

Performance and Scalability

With 56 Gbps switching capacity, the Edge-Core ECS4810-28TS delivers non-blocking, wire-speed switching performance for all Gigabit connections. The Edge-Core ECS4810-28TS supports 24 10/100/1000BASE-T ports and 4 Gigabit Ethernet combination ports that offer flexible choices for copper or fiber uplinks.

The Edge-Core ECS4810-28TS provides a stacking capability that can support up to 16 units per stack. The bi-directional stack connections seek the best, shortest path between switches and provide 4 Gbps of backplane bandwidth. The stacking mechanism recover time is less than 9 seconds, while master failover time is only 2 seconds.

High Availability

With IEEE 802.1w Rapid Spanning Tree Protocol, the Edge-Core ECS4810-28TS provides a loop-free network and redundant links to the core network with rapid convergence in less than 2 seconds. IEEE 802.1s Multiple Spanning Tree Protocol allows a spanning-tree instance per VLAN, with Layer 2 load sharing on redundant links.

The Edge-Core ECS4810-28TS supports IEEE 802.3ad Link Aggregation Control Protocol (LACP). LACP 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 Edge-Core ECS4810-28TS offers advanced QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice and video traffic at wire speed. With 4 egress queues per port, differentiated management of up to 4 traffic types is supported. Traffic is prioritized according to IEEE 802.1p, DSCP, IP precedence, and TCP/UDP port number to provide optimal performance for real-time applications.

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

IEEE 802.1Q Tunneling (Q-in-Q) allows service providers to offer differentiated services, such as Internet access for specific customers with specific VLANs, and assign other VLANs to other customers for other types of services.

Enhanced Security

The Edge-Core ECS4810-28TS provides enhanced security for connectivity and access control, including Access Control Lists (ACLs), authentication, and port-level security with IEEE 802.1X.

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) can be used to restrict access to sensitive network resources by denying packets based on frame header information. headers.

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypt network management information via Telnet and web, providing secure network management.

TACACS+/RADIUS authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

Private VLANs isolate edge ports to ensure user privacy.

Simplified Management

For IP multicast traffic, the Edge-Core ECS4810-28TS uses IGMP snooping to provide fast client joins and leaves of multicast streams. It prevents flooding of IP multicast traffic, and limits bandwidth-intensive video traffic to the subscribers only.

The Edge-Core ECS4810-28TS supports IPv6 management functions for SNMP, Telnet, and TFTP.

The Edge-Core ECS4810-28TS can be managed through an industry-standard Command Line Interface (CLI) that provides a familiar look and feel, which reduces training and operation costs. The switch also provides an easy-to-use web GUI interface through a standard web browser.

The Edge-Core ECS4810-28TS can also backup and restore firmware and configuration files via TFTP.

Ethernet Switch

ECS4810-28TS Product Specifications

www.edge-core.com

Features

Physical Ports

24 RJ-45 10BASE-T/100BASE-TX/1000BASE-T ports
4 Gigabit Ethernet combination ports
(10/100/1000BASE-T or 100BASE-FX/1000BASE-X)
1 DB-9 console port

Performance

Switching Capacity: 56 Gbps
Forwarding Rate: 41.7 pps
MAC Address Table Size: 8K
Packet Buffer Size: 1.75 MB

L2 Features

Auto-negotiation of port speed and duplex mode
Flow Control: IEEE 802.3x and 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)
- BPDU guard
- Root guard
- Auto Edge
- Loop detection

VLANs:
- 4K IEEE 802.1Q VLANs, Port-based VLANs
- IEEE 802.1v Protocol-based VLANs
- Private VLAN
- Q-in-Q VLAN Tunneling

Link Aggregation:
- Static Trunk, IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 32, Trunk links: 2~8

IGMP Snooping:
- IGMP v1, v2 snooping
- IGMP Queried
- IGMP snooping leave proxy
- IGMP filtering/throttling
- IGMP immediate leave

Storm Control:
- Broadcast
- Multicast
- Unknown unicast

Jumbo frames up to 9KB

IPv6 Features

IPv4/IPv6 dual protocol stack
IPv6 Address Types Stack: Multicast/Unicast
IPv6 Neighbor Discovery
ICMPv6 Redirect (host)
IPv6 SNMP/HTTP/Telnet/SSH/RADIUS/TACACS+
IPv6 ACL and DSCP remapping

QoS Features

Priority Queues: 4 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number and Access Control Lists
Scheduling: WRR and strict priority
DiffServ
Bandwidth Control:
- Egress rate limiting: 1 Mbps granularity
- Ingress rate limiting: 1 Mbps granularity

Security

IEEE 802.1X port-based/MAC-based* access control
RADIUS Authentication
IP Source Guard
TACACS+
Access Control Lists
SSH v2
Web Authentication
MAC Authentication
HTTPS/SSL
Dynamic VLAN assignment with Guest VLAN

Management

Switch Management:
- CLI via console port or Telnet
- Web management
- SNMP v1, v2c, v3

Firmware and Configuration:
- Dual firmware images
- Firmware upgrade via TFTP server
- Multiple configuration files
- Configuration file upload/download via TFTP server

RMON (groups 1, 2, 3 and 9)
BOOTP, DHCP for IP address assignment
DHCP snooping
DHCP option 82 relay
IP Source guard
SNTP
Event/Error Log/Syslog
Dynamic ARP Inspection (DAI)
LLDP
Hardware stacking (4 Gbps bandwidth,16 units per stack)

Electromagnetic Compatibility

CE Mark Class A
EN50081-1:
EN55022 Class A
EN50082-1:
IEC 1000-4-2/3/4/6
EN60555-2 Class A
EN60555-3
FCC Class A
VCCI Class A

Environmental Specifications

Temperature:
- IEC 68-2-14
- -20ºC to 65ºC (Standard Operating)
- -40ºC to 70ºC (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

Mechanical

Dimensions (H x W x D): 4.3 x 44 x 22 cm
Weight: 2.22 kg (4.89 lbs)
LED Indicators: Port, Uplink, System, Diagnostic
AC Power Input: 100 ~ 240 VAC, 50 ~ 60 Hz

Safety

CSA/NRTL (UL60950, CSA 22.2.No 60950)
TUV/GS (EN60950)
CB

Warranty

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

*Future Release

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