

ECS5510-48S/24S

High Density 48/24 SFP+ Ports

10G Ethernet L2 TOR Switches



Product Overview

The Edge-Core ECS5510-48S and ECS5510-24S are a family of 48- and 24-port 10G Ethernet L2 switches designed from the ground up to be deployed in medium to large data centers. With unmatched port density and speed, the ECS5510-48S/24S family is ideally suited for converged Ethernet applications such as 10 Gigabit Ethernet traffic aggregation and Fibre Channel over Ethernet (FCoE) storage solutions for LAN, SAN, and IPC networks.

Key Features and Benefits

Performance

The ECS5510-48S/24S family of high-density L2 10GbE switches are encased in a small 1U form factor. Featuring 48/24 10GbE SFP+ interfaces, the switches offer unparalleled switching capacity, making them an ideal solution for medium to large sized data centers.

The ECS5510-48S/24S switches are capable of 960/480 Gbps of network throughput, enabling them to fully support the demand for bandwidth as data centers transit from 1GbE to 10GbE.

Continuous Availability

Dual hot-swappable power supplies enable the system to continue operation even in the event of a single power supply failure. To ensure longevity, the ECS5510-48S/24S employs data center-friendly front to back cooling, dissipating unwanted heat efficiently and effectively.

Data Center Requirements

With Ethernet fast becoming the de facto standard for the interconnection of data center devices, the ECS5510-48S/24S is designed to overcome the challenges in a high-traffic-load environment, ensuring that traffic flows smoothly through the network without delay. The ECS5510-24S/48S family features:

- Jumbo frames up to 10K bytes
- 802.1Qau Quantized Congestion Notification (QCN)
- 802.1Qbb Priority Flow Control (PFC)
- 802.1Qaz Enhanced Transmission Selection (ETS)
- FCoE ACL and FIP snooping

Energy Efficiency

The ECS5510-48S/24S switches are easy on the environment as well as your energy budget. At less than 3 watt per port, they are simply without peer. This level of performance is the result of an uncompromising design philosophy, utilizing:

- State-of-the-art packet processor
- Power supplies with greater than 90% efficiency
- Variable-speed fans
- Advanced physical layer design

Simple and Flexible Management

The ECS5510-48S/24S features both a user-friendly web interface and a command-line interface. SNMP-based management is also fully supported. When used in conjunction with ECView Pro, Edge-Core's own network management system, the task of monitoring and provisioning can be easily accomplished.

Features

Physical Ports

- 48/24 10 Gigabit SFP+ ports
- 1 RJ-45 console port
- 2 PSU slots for removable power supplies
- 1 slot for a removable fan tray

Performance

- Switching Capability: 980/480 Gbps
- Forwarding Rate: 714/357 Mpps
- Packet Buffer Size: 4 MB
- MAC Address Table: 32K

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)
 - Per-VLAN Rapid spanning tree (PVRST)
- VLANs support:
 - Supports 4K VLANs
 - Supports IEEE 802.1Q VLAN
 - Port-based VLAN
 - MAC based VLAN
 - Protocol-based VLAN
 - Support private VLAN edge
 - GVRP
 - Q-in-Q
- Support IGMP
 - IGMP snooping v1/v2/v3
 - IGMP querier
 - IGMP immediate leave
 - IGMP throttling
 - IGMP filtering
 - IFMPSNP leave proxy
- Supports multicast VLAN registration (MVR)
- Provides Link Aggregation
- Support IEEE 802.3ad
- Manual trunking (Static trunking)

QoS Features

- 8 priority queues per port/128 groups per system
- Priority queue scheduling scheme: strict priority, WRR
- L2/L3/L4 Traffic classification/Priority Management
 - IEEE 802.1P (COS)
 - DSCP/ToS
 - TCP/UDP port number
- Per-port bandwidth management

Data Center Features

- FCoE
- ACL and FIP snooping
- 802.1Qau Congestion Notification (QCN)
- 802.1Qaz Enhanced Transmission Selection (ETS)
- 802.1Qbb Priority Based Flow Control (PFC)

Security

- Supports L2/L3/L4 access control list
- User/Password protected system management terminal (SNMP, Telnet, Web)
- Static port security (MAC based)
- Dynamic port security (MAC based)*
- Supports RADIUS authentication
- Supports TACACS+ authentication
- MAC-based authentication
 - User name password authentication
 - Local authentication
- Remote authentications via RADIUS/TACACS+
- Supports management interface access filtering
 - SNMP
 - Web
 - Telenet
- Supports SSH v1.5/v2
- Supports HTTPS/SSL
- Supports IEEE 802.1x
 - Port-based
 - MAC-based security*

Management

- Switch Management:
 - CLI via console port or Telnet
 - Web management
 - SNMP v1, v2c, v3
- Firmware & Configuration:
 - Firmware upgrade via TFTP server
 - Dual firmware images
 - Multiple configuration files
- Configuration file upload/download via TFTP server
- Supports RMON (groups 1, 2, 3 and 9)
- Supports BOOTP, DHCP for IP address assignment
- Supports SNTP
- Event/Error Log/Syslog
- (Optional) ECView Pro, a powerful network management software that maximizes the managed capabilities of Edge-Core devices with:
 - Topology Management
 - Performance Management
 - Configuration Management
 - Event Management
 - SNMP Management

Features

Electromagnetic Compatibility

CE Mark
FCC Class A

Environmental Specifications

Temperature:
■ IEC 68-2-14
■ 0°C ~ 40°C (32°F~104°F) Standard Operating
■ -40°C to 70°C (-40°F~158°F) Non-Operating
Humidity: 5% to 95% (Non-condensing)
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

Mechanical

Dimensions (W x D x H): 440 x 596 x 44 mm
(17.32 x 27.46 x 1.75 inches)
Weight: 10kg (22lbs)
LED Indicators: Port, Uplink, System, Diagnostic

Safety

CSA (CSA 22.2. NO 60950-1 & UL60950-1)
CB (IEC60950-1)

Warranty

Please check 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

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.

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Ordering Information

Optional Accessories

ET5402-SR
ET5402-LR
ET5402-ER
Network Management System

Product Description

Small Form-factor Pluggable Plus (10GBASE-SR: Distance: 300m; Wavelength: 850nm)
Small Form-factor Pluggable Plus (10GBASE-LR: Distance: 10km; Wavelength: 1310nm)
Small Form-factor Pluggable Plus (10GBASE-ER: Distance: 40km; Wavelength: 1550nm)
ECView Pro Network Management Software