**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.

**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.

**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
## ECS5510-48S/24S Product Specifications

### 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
  - Telnet
- 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.

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

### 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

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