

ECS5510-48S

High Density 48 Ports 10Gb Ethernet L2 Switch



Product Overview

The Edge-Core ECS5510-48S is a 48 port 10Gb Ethernet L2 switch designed from the ground up to be deployed and utilized in medium to large data centers. With its unmatched density, the ECS5510-48S is ideally suited for converged Ethernet applications such as 10Gb traffic aggregation and iSCSI storage interconnect.

Key Features and Benefits

Performance

The ECS5510-48S is a high density L2 10Gb Ethernet switch encased in a small 1U form factor. Featuring 48 10Gb SFP+ interface, it offers unparalleled switching capacity, making it the ideal solution for the medium to large sized data centers.

The ECS5510-48S is capable of 960Gb of network throughput. Given the demand for bandwidth brought on by server virtualization.

Continuous Availability

Dual hot-swappable power supplies allow the system to continue operation even in the event of a single power supply failure. To ensure longevity, the ECS5510-48S 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 is conceived and designed to overcome the challenges in a high traffic load environment, ensuring that traffic flows smoothly through the network without delay. It features

Jumbo frame up to 10K bytes

802.1Qau congestion notification

802.1Qbb priority flow control

802.1Qaz enhanced transmission selection

FCoE ACL & FIP snooping

Energy Efficiency

The ECS5510-48S is easy on the environment as well as your energy budget. At less than 3 watt per port, it is simply without peer. This level of performance is the result of a 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 features both an user-friendly web interface and a command line interface for the advanced user. SNMP based management is also fully supported. When used in conjunction with ECView Pro, Edge-Core own network management system, the task of monitoring and provisioning can be easily accomplished.



Features

Physical Ports

48 10Gigabit SFP ports
 1 RJ-45 management port
 1 RJ-45 console port
 2 PSU slot for removable power supply

Performance

Switching Capability: 960Gbps
 Forwarding Rate: 714Mpps
 Packet Buffer Size: 4MB
 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 512 active 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 Snooping:
 IGMP v1/v2snooping
 IGMP Immediate leave
 IGMP throttling
 IGMP filtering
 IFMPSNP leave proxy
 Supports multicast VLAN registration (MVR)
 Provides Link Aggregation
 Support IEEE 802.3ad
 Manual trunking

QoS Features

Priority 8 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 (group 1,2,3 and 9)
 Supports BOOTP, DHCP for IP address assignment
 Supports SNMP
 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

Safety

CSA (CSA 22.2 NO 60950-1 & UL 60950-1)
 CB(IEC/EN60950-1)

Mechanical

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

Electromagnetic Compatibility

CE Mark
 FCC Class A

Environmental Specifications

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

Ordering Information

Optional Accessories

10G SFP+ SR
 10G SFP+ LR
 10G SFP+ LRM
 10G SFP+ CR pre-terminated twin-ax copper cables
 10G SFP for 1000Base-X or 1000Base-T

Product Description

10Gbps, Small Form Factor Pluggable (Distance: 350m; Wavelength: 850nm)
 10Gbps, Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)

* Future Release