

ES4524M-PoE

L2 Gigabit Ethernet Standalone PoE Switch

Product Overview

The Edge-Core ES4524M-PoE is a Gigabit Ethernet Layer 2/4 Standalone PoE switch featuring 22 10/100/1000 RJ-45 including 2 combo GE ports with PoE.

It is ideal for desktop Gigabit Ethernet connectivity and for powering devices such as IP phones, wireless access points, surveillance cameras, etc, and for delivering data and power simultaneously over existing CAT 5 cables. It also has IP clustering management feature support up to 36 switches using a single IP address. The PoE function allows up to 7.5W maximum per port. Therefore, it's a good solution for VoIP/wireless or other devices support PoE IEEE 802.3af.



Key Features and Benefits

Performance and Scalability

With 48Gbps switching capacity, the ES4524M-PoE delivers wire-speed switching performance on all ports and simultaneously provides up to 7.5 Watts power to devices (PD) which conform to IEEE 802.3af and pre-802.3af devices.

Using the fiber optic module allows users to long distance connections to access remote site.

Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to core networks with rapid convergence to ensure faster recovery from failed links, enhancing overall network stability and reliability.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and provides load balancing and fault tolerance for uplink connection.

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

Comprehensive QoS

Up to 8 aggregation groups are supported, and up to 8 ports per group.

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 allowing maximum control of network resources.

Enhanced Security

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network.

Access Control Lists (ACLs) restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses and TCP/UDP ports.

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

Private VLAN isolates edge ports to ensure user privacy.

Simple Management

Industry standard Command Line Interface (CLI) via console port or Telnet provides a common user interface and command set for users to manipulate the switch.

Embedded user friendly web interface helps users quickly and simply configure switches.

SNMPv1, v2c, v3 network management is supported as well as four groups RMON for traffic management, monitoring and analysis.

TFTP can be used to backup and restore firmware and configuration files.

PoE Features

Transfer data and up to 7.5 Watts power to VoIP phones, wireless access points, surveillance cameras, etc, over existing CAT 5 cables to distances of up to 100 meters. The need for individual power sources is eliminated, saving on costs for power cable installation and avoiding power outlet availability issues later.

The ES4524M-PoE works as a centralized power distributor that can auto-detect power devices and power consumptions.

If the power demand exceeds the switch's maximum power supply, ports can be prioritized to receive power.



Features

Physical Ports

22 RJ-45 10/100/1000Base-T ports
 2 Combo G RJ-45/ SFP ports
 1 RS-232 DB-9 console port on the front

Performance

Switching Capability: 48Gbps
 Forwarding Rate: 35.7Mpps
 MAC Address Table Size: 8K
 Packet Buffer Size: 384KB

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)
 VLANs:
 ■ Supports 256 VLANs entries out of 4K VLAN IDs
 ■ Port-based VLANs
 ■ IEEE 802.1v Protocol-based VLANs
 ■ Private VLAN
 ■ GVRP
 Link Aggregation:
 ■ Static Trunk
 ■ IEEE 802.3ad Link Aggregation Control Protocol
 ■ Trunk groups: 3, Up 8 ports per group
 IGMP Snooping:
 ■ IGMP v1/ v2 /v3(*) snooping
 ■ IGMP Querier
 Supports jumbo frames up to 10KB all ports

QoS Features

Priority Queues: 4 hardware queues per port
 Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP,
 TCP/UDP port number, Access Control List
 Supports WRR and Strict scheduling
 Bandwidth Control:
 ■ Ingress rate limiting: metering at 64KB increment
 ■ Egress rate limiting: shaping at 64KB increment

Security

■ Supports IEEE 802.1X port-based access control
 ■ RADIUS authentication
 ■ TACACS+
 ■ Support Access Control Lists L2//3/L4 (100 per system)
 ■ SSH (v1.5/v2.0*)
 ■ SSL

Management

Switch Management:
 ■ CLI via console port or Telnet
 ■ WEB management
 ■ SNMP v1, v2c, v3
 Firmware & Configuration:
 ■ Dual firmware images
 ■ Firmware upgrade via TFTP server
 ■ 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 SNMP
 Event/Error Log/Syslog
 (Optional) ECview is a powerful network management software that maximizes the managed capabilities of Edge-Core devices:
 ■ Topology Management
 ■ Performance Management
 ■ Configuration Management
 ■ Event Management
 ■ SNMP Management

PoE Features

IEEE 802.3af compliant
 Supports up to 7.5W for each port
 Total power for PoE: Up to 180W

Mechanical

Dimensions (H x W x D): 43 x 438 x 328 mm (1RU)
 LED Indicators: Port, Uplink, System, Diagnostic

Safety

UL/ CUL ; CSA/CUS (UL60950-1, CSA 22.2.No 60950-1)
 TUV/GS (EN60950-1) ; CB (IEC60950-1)

Electromagnetic Compatibility

CE Mark
 FCC Class A
 VCCI Class A
 CISPR 22 Class A

Environmental Specifications

Temperature:
 ■ IEC 68-2-14
 ■ 0°C to 45°C (Standard Operating)
 ■ -40°C to 70°C (Non-Operating)
 Humidity: 10% to 90% (Non-condensing)
 MTBF : 8 Years

Warranty

Limited lifetime warranty

Ordering Information

Optional Accessories

ET4201-SX
 ET4201-LX
 ET4201-LHX
 ET4201-ZX
 ECview

Product Description

Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)
 Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)
 Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm)
 Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)