

## ES4324

### L2 Gigabit Ethernet Web Smart Switch



#### Product Overview

The Edge-Core ES4324 is Gigabit Ethernet Layer 2 switch featuring 20 RJ-45 10/100/1000 ports and 4 combo Gigabit Ethernet RJ-45/SFP ports.

This switch enables networks of all sizes to introduce Gigabit Ethernet with management features targeted to meet the needs of the SMB network, and Gigabit to the desktop for power users. It is packed with features and is a cost-effective solution that brings continuous availability, QoS priority queuing with classification and prioritization at Layer2.

#### Key Features and Benefits

##### Performance and Scalability

With 48Gbps switching capacity, the ES4324 delivers wire-speed switching performance on all gigabit ports, allowing users to take full advantage of existing high-performance, gigabit integrated Servers, PCs and laptops by significantly improving the responsiveness of applications and file transfer times.

There are four Gigabit Ethernet combo ports for uplink flexibility, allowing copper or fiber uplinks.

##### Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network 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 providing load balancing and fault tolerance for uplink connections.

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

Broadcast Storm Control prevents faulty end stations from degrading overall system performance.

IEEE 802.1Q-in-Q VLAN Tag is purpose to expand the VLAN space by tagging the tagged packets, thus producing a "double-tagged" frame. The expanded VLAN space allows the service provider to provide certain services, such as Internet access on specific VLANs for specific customers, and yet still allows the service provider to provide other types of services for their other customers on other VLANs.

##### Comprehensive QoS

4 egress queues per port enable differentiated management of up to 4 traffic types.

Traffic is prioritized according to 802.1p, DSCP, 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

Port Security ensures access to switch ports based on MAC address, limits the total number of devices from using a switch port and protects against MAC flooding attacks.

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 any standard-based RADIUS server.

##### Simple Management

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

It's also supports SNMP v1/v2c to be managed and control SNMP network station.



## Features

Physical Ports	Management
20 RJ-45 10/100/1000Base-T ports 4 Combo G (RJ-45/SFP) ports	Switch Management: WEB management SNMP v1, v2c Firmware & Configuration: Firmware upgrade via WEB Supports RMON (groups 1) (Optional) ECView is a powerful network management system that maximizes the capabilities of Edge-Core devices with: Topology Management Performance Management Configuration Management Event Management SNMP Management
Performance	Mechanical
Switching Capability: 48Gbps Forwarding Rate: 35.7Mpps MAC Address Table Size: 8K Packet Buffer Size: 400 KB	Dimensions (H x W x D): 4.4 x 44 x 17cm(1RU) LED Indicators: Port, Link/Activity, 1000Mbps
L2 Features	Safety
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 255 IEEE 802.1Q VLANs Port-based VLANs Link Aggregation: Static Trunk IEEE 802.3ad Link Aggregation Control Protocol Trunk groups: 8, Trunk links: 2~8 IGMP Snooping: IGMP v1, v2 and v3 snooping IGMP Queried Supports QinQ Supports jumbo frames up to 9.6KB	CSA/NRTL (UL60950, CSA 22.2. NO60950-1) TUV/GS (EN60950-1) CB(IEC60950-1)
QoS Features	Electromagnetic Compatibility
Priority Queues: 4 hardware queues per port Traffic classification based on IEEE 802.1p CoS, DSCP Supports WRR and Strict scheduling Bandwidth Control: Egress rate limiting: 128Kbps/1Mbps/10Mbps/30Mbps/100Mbps granularity Ingress rate limiting: 128Kbps/1Mbps/10Mbps/30Mbps/100Mbps granularity	CE Mark FCC Class A VCCI Class A
Security	Environmental Specifications
Supports IEEE 802.1X port-based access control Access Control List IP Filter	Temperature: IEC 68-2-14 0°C to 40°C (Standard Operating) -40°C to 70°C (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
Warranty	Security
Three years warranty	Supports IEEE 802.1X port-based access control Access Control List IP Filter

## Ordering Information

Optional Accessories	Product Description
ET4201-SX ET4201-LX ET4201-LHX ET4201-ZX ECView	1Gbps, Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm) 1Gbps, Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm) 1Gbps, Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm) 1Gbps, Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm) SNMP Network Management Software

\* Feature Release