Edge-corE
Powered by Accton

ES4512C/ES4524C/ES4548C L2 Gigabit Ethernet Standalone Switch

Product Overview

The Edge-Core ES4512C, ES4524C, ES4548C are Gigabit Ethernet Layer 2/4 Standalone switches featuring 12, 24 or 48 ports; 8, 20 or 44 RJ-45 10/100/1000 ports and 4 combo Gigabit Ethernet RJ-45/SFP ports. They are ideal for high performance server aggregations, such as enterprise data centers, to connect high-end or network attached file servers over copper ports. High speed workgroups backbone upgrades, and Gigabit to the desktop for power users. This switch series offers the maximum bandwidth performance with up to 10 times the speed of 100Mb switches. Protect you investment while preparing for future growth.

Ethernet Switch

Key Features and Benefits

Performance and Scalability

With 24Gbps, 48Gbps, 96Gbps switching capacity, the ES4512C/ES4524C/ES4548C 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 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.

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.

Optional Redundant Power Supply provides uninterrupted power.

Comprehensive QoS

8 egress queues per port enable differentiated management of up to 8 traffic types.

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

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.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, TCP/UDP ports. This is done by hardware, so switching performance is not compromised.

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

TACACS+/RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

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.
Four groups of RMON are supported for traffic management, monitoring and analysis.
When upgrading firmware or fine tuning configuration, the dual software images and multiple configuration files can be used for backup.
TFTP can be used to backup or restore firmware and configuration files.

ES4512C/ES4524C/ES4548C Product Specifications

Features

Physical Ports

8/20/44 RJ-45 10/100/1000Base-T ports
4 Combo G (RJ-45/SFP) ports
1 RS-232 DB-9 console port
1 Redundant Power Supply Connector

Performance

Switching Capability: 24Gbps/48Gbps/96Gbps
Forwarding Rate: 17.8Mpps/35.7Mpps/70.1Mpps
MAC Address Table Size: 16K
Packet Buffer Size: 2MB

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)

VLANs:
- Supports 255 IEEE 802.1Q VLANs
- 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: 4, Trunk links: 2~8

IGMP Snooping:
- IGMP v1 and v2 snooping
- IGMP Queried

Supports jumbo frames up to 9KB

QoS Features

Priority Queues: 8 hardware queues per port
Supports Marking and Re-marking
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:
- Egress rate limiting: 1Mbps granularity
- Ingress rate limiting: 1Mbps granularity

Security

Supports IEEE 802.1X port-based access control
RADIUS authentication
TACACS+
Access Control List
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 SNTP
Event/Error Log/Syslog
(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

Mechanical

Dimensions (H x W x D): 44 x 440 x 324 mm (1RU) for ES4512C
43 x 440 x 354 mm (1RU) for ES4524C
43 x 440 x 410 mm (1RU) for ES4548C
LED Indicators: Port, Uplink, System, Diagnostic

Safety

CSA/NRTL (UL1950, CSA 22.2.9.50)
TUV/GS (EN60950)

Electromagnetic Compatibility

CE Mark
FCC Class A
VCCI Class A
CISPR Class A

Environmental Specifications

Temperature:
- IEC 68-2-14
- 0℃ to 40℃ (Standard Operating)
- -40℃ to 70℃ (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

Warranty

Limited lifetime warranty

Ordering Information

Optional Accessories	Product Description
RPS600WA	4 DC output redundant power supply connectors (Supports max. power output 150W/12V per port)
ET4201-SX	Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)
ET4201-LX	Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)
ET4201-LHX	Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm)
ET4201-ZX	Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)
ECview	SNMP Network Management Software

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