Edge-corE
Powered by Accton

ES4524D/ES4548D

L2 Gigabit Ethernet Stackable Switch

Product Overview

The Edge-Core ES4524D, ES4548D are Gigabit Ethernet Layer 2/4 Stackable switches featuring 24 or 48 ports; 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. The whole stack can be managed as a single entity with a single IP address.

Key Features and Benefits

Performance and Scalability

With 48Gbps, 96Gbps switching capacity, the ES4524D/ES4548D delivers wire-speed and Non-blocking switching performance on all gigabit ports, allowing users to take full advantage of existing high-performance.

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.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.

IEEE 802.3ad (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.

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 allows maximum control of network resources.

IEEE 802.1Q-in-Q allows the service provider to provide certain services, such as Internet access on specific VLANs for specific customers, and provides other types of services for their other customers on other VLANs.

Enhanced Security

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

IEEE 802.1X port-based access control (login) 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.

SSL, Web Management Encryption, RADIUS and TACACS+ protect data communication and ensure data privacy.

Private VLAN isolates edge ports to ensure user privacy.

Simple Management

Industry standard Command Line Interface (CLI) via console port orTelnet 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.

Backup and restore firmware and configuration files via TFTP.

IPv6 Features

IPv6 is the exponentially greater number of IP addresses it can support compared to IPv4. The internals of the IPv6 protocol have been designed with scalability and extensibility in mind. This will allow many different kinds of devices besides PCs, like cell phones and home appliances, to more easily join the Internet in future.

Ethernet Switch

ES4524D/ES4548D Product Specifications

Features

Physical Ports

20/44 RJ-45 10/100/1000Base-T ports
4 Combo G (RJ-45/SFP SX/LX/LHX/ZX) ports
1 RJ-45 console port
1 Redundant Power Supply Connector

Performance

Switching Capacity: 48Gbps/96Gbps
Forwarding Rate: 35.7Mpps/71.4Mpps
MAC Address Table Size: 8K
Packet Buffer Size: 0.75MB

L2 Features

Auto-negotiation for port speed and duplex mode
Flow Control: IEEE 802.3x & Back-Pressure
Store & Forward switching methods
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 (QoS)VLANs,Taggings.
- Port-based VLANs, GVRP
- IEEE 802.1v Protocol-based VLANs
- Private VLAN

Link Aggregation:
- Static Trunk, IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 32, Trunk links: 2~8

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

Supports QinQ
Supports jumbo frames up to 9KB

IPv6 Features

IPv4/IPv6 Dual Protocol
IPv6 Address Types Stack: Multicast / Nicest
IPv6 Neighbor Discovery
ICMPv6 Redirect
SNMP over IPv6
IPv6 ACL

QoS Features

Priority Queues: 8 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:
- Egress rate limiting: 1Mbps granularity
- Ingress rate limiting: 1Mbps granularity

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

Security

Supports IEEE 802.1X port-based access control
Port Mirroring :A method whereby data on a target port is mirrored to a monitor port for troubleshooting with a logic analyzer or RMON probe. This allows data on the target port to be studied unobstructively.
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

Mechanical

Dimensions (H x W x D): 4.4 x 44.0 x 41.5 cm (1RU)
19”rack-mount metal case
LED Indicators: Port, Uplink, System, Diagnostic

Safety

CSA/NRTL (UL1950, CSA 22.2.950)
TUV/GS (EN60950)
CB

Electromagnetic Compatibility

CE Mark
FCC Class A
VCCI Class A

Environmental Specifications

Temperature:
- IEC 68-2-14
- 0℃ to 50℃ (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

RPS600WA

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

Product Description

4 DC output redundant power supply connectors (Supports Max. power output 150W/12V per port)

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)

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