Edge-corE
Powered by Accton

ES3528M

L2/4 Fast Ethernet Standalone Switch

Product Overview

The Edge-Core ES3528M is a Fast Ethernet Layer 2/4 switch featuring 28 ports; 24 100Base-TX ports and 4 combo Gigabit Ethernet RJ-45/SFP (Small Form Factor Pluggable) ports. It is ideal for desktop Fast Ethernet connectivity and wiring closet installations. Using IP Clustering for a virtual stack of up to 36 switches. The whole stack can be managed as a single entity with a single IP address. This switch is packed with features and is a cost-effective solution that brings continuous availability, enhanced security and advanced QoS to the network edge, while maintaining simplicity of management.

Key Features and Benefits

Performance and Scalability

With 12.8 Gbps switching capacity, the ES3528M 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

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

Traffic is prioritized according to 802.1p and 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 or MAC-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.

ES3528M Product Specifications

Features

Physical Ports

24 100Base-TX ports
4 Combo Gigabit (RJ-45/SFP) ports
1 RS-232 DB-9 console port

Performance

Switching Capability: 12.8Gbps
Packet Buffer Size: 1Mbits
MAC Address Table: 8K

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)
- Loop Back Detection
- BPDU Guard
- BPDU Filter
- Root Guard
- Auto Edge

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/v2/v3* snooping
- IGMP Queried
- IGMP Filtering

MVR (Multicast VLAN Registration)
DHCP Option 82
DHCP Dynamic provision
Supports jumbo frames up to 10KB

QoS Features

Priority Queues: 4 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, IP and DSCP.
Supports WRR and Strict scheduling
Bandwidth Control:
- Egress rate limiting: FE: 64K bits/sec ~ 100M bits/sec GE: 64K bits/sec ~ 1000M bits/sec
- Ingress rate limiting: FE: 64K bits/sec ~ 100M bits/sec GE: 64K bits/sec ~ 1000M bits/sec

Security

Supports IEEE 802.1X port based/MAC-based access control
Qos Assignment
RADIUS authentication
IP Source Guard
Dynamic ARP Inspection
Link Detection
MAC Filter
TACACS+ 3.0
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

Auto Upgrade 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

Dynamic ARP Inspection
sFlow
MAC Based Mirror
ATC
Delay Reload

SNMP Standards

RFC 1493 Bridge MIB
RFC 3289 Differentiated Service MIB
RFC 2742 SNMP Agents MIB
RFC 2096 Forwarding Table MIB
RFC 2933 IGMP MIB
RFC 2233 Interface Group MIB
RFC 2668 MAU MIB
RFC 1213 MIB II
RFC 2621 RADIUS Authentication Client MIB
RFC 2819 RMON MIB
RFC 2021 RMON II Probe Configuration Group
RFC 2011 SNMPv2 IP MIB
RFC 3584 SNMP Community MIB
RFC 3411 SNMP Framework MIB
RFC 3412 SNMP-MPD MIB
RFC 3413 SNMP Target MIB, SNMP Notification MIB
RFC 3414 SNMP User-Based SM MIB
RFC 3415 SNMP View Based ACM MIB
RFC 2013 TCP MIB
RFC 1215 Trap
RFC 2012 UDP MIB
RFC 2013 TCP MIB
RFC 1541 DHCP Client
RFC 1112 IGMP
RFC 2236 IGMPv2
RFC 2618 RADIUS
RFC 1757 RMON
RFC 1157 SNMP
RFC 2571 SNMPv2
RFC 2030 SNTP
RFC 1350 TFTP
TACACS Authentication Client MIB
Private MIB
Quality of Service MIB

Ordering Information

	Product Description
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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ES3528M Product Specifications

Features

IEEE Standards

IEEE 802.1D Spanning Tree Protocol and traffic priorities
IEEE 802.1 w Rapid Spanning Tree Protocol
IEEE 802.1p Priority tags
IEEE 802.1Q VLAN
IEEE 802.1v Protocol-based VLANs
IEEE 802.1x Port Authentication
IEEE 802.3-2005
Ethernet, Fast Ethernet, Gigabit Ethernet
Full-Duplex flow control
Link Aggregation Control Protocol
IEEE 802.3ac VLAN tagging

Mechanical

Dimensions (H x W x D): 4.3 x 44 x 17.1 cm (1RU)
LED Indicators: Port, Uplink, System, Diagnostic
Weight: 2kg

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 45℃ (Standard Operating)
-40℃ to 70℃ (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

Limited lifetime warranty

Ordering Information

Optional Accessories

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* Future Upgradeable

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