

ES3552M

L2/4 Fast Ethernet Standalone Switch



Product Overview

The Edge-Core ES3552M is a Fast Ethernet Layer 2/4 switch featuring 52 ports; 48 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 ES3552M 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.

High 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.

Simplified 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.



Features

Physical Ports

48100Base-TX ports
4 Combo Gigabit (RJ-45/SFP) ports
1 RS-232 DB-9 console port

Performance

Switching Capability: 17.6Gbps
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 ~ 100M bits/sec
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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 APR 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

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)

SNMP Network Management Software



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 23 cm (1RU)
LED Indicators: Port, Uplink, System, Diagnostic
Weight: 2.9kg

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°C to 45°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

Limited lifetime warranty



1800 817 807

www.alloy.com.au
sales@alloy.com.au

Proudly distributed in Australia by

Alloy Computer Products Pty Ltd

Melbourne

4/585 Blackburn Road, Notting Hill, VIC 3168
Tel: (03) 85629000 Fax: (03) 8562 9099

Sydney

Suite 204, Milsons Landing, 6A Glen Street,
Milsons Point, NSW, 2061
Tel: (02) 8080 9600 Fax: (03) 8562 9099

Ordering Information

Optional Accessories

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ET4201-LX
ET4201-LHX
ET4201-ZX

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SNMP Network Management Software