

# ES5508

## L2 10Gigabit Ethernet Standalone Switch



### Product Overview

The Edge-Core ES5508 is a 10 Gigabit Ethernet Layer 2/4 Standalone switch featuring 8 XFP ports which support for SR, LR and ER optics. The ES5508 is ideal for aggregating the gigabit switch with 10G uplinks to the core network, relieving bottlenecks created on the uplink ports of Gigabit switches. It is also ideal for aggregating server farms that are equipped with 10G NIC cards to provide line speed 10G switching. With a 10Gigabit Ethernet backbone, high speed and high bandwidth applications such as video on demand e-learning and network storage data backup can achieve superior performance.

Ethernet Switch

### Key Features and Benefits

#### Performance and Scalability

With 160Gbps switching capacity, Edge-Core's ES5508 delivers wire-speed 10Gigabit per second performance on all ports.

The 10Gigabit Ethernet connectivity is accomplished via 10Gigabit Small Form-factor Pluggable module (XFP) which is hot-pluggable, supports distances up to 300 meters over multimode fiber and 10km and 40km over single-mode fiber.

#### 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 allows maximum control of network resources.

#### Enhanced Security

Port Security ensures access to a switch port 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 and 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 back up and restore firmware and configuration files.

# ES5508 Product Specifications

## Features

### Physical Ports

- 8 10Gigabit XFP ports
- 1 RJ-45 management ports
- 1 RS-232 DB-9 console port
- 1 Redundant Power Supply Connector

### Performance

- Switching Capacity: 160Gbps
- Forwarding Rate: 119Mpps
- MAC Address Table Size: 16K
- Packet Buffer Size: 0.25MB

### 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 Querier

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
- Ingress rate limiting

### 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 SNMP

Event/Error Log/Syslog

(Optional) ECview, 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): 4.3 x 44 x 41cm (1RU)

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

### Environmental Specifications

Temperature:

- IEC 68-2-14
- 0°C to 40°C (Standard Operating)
- -40°C to 70°C (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

ET5302A-LR

ECview

### Product Description

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

10G XFP Optical Transceiver (10KM)

SNMP Network Management Software



Powered by Accton

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