

ES4612

L3 Gigabit Ethernet Standalone Switch



Product Overview

The Edge-Core ES4612 is a Gigabit Ethernet Layer 3 Standalone switch featuring 12 ports; 8 SFP ports and 4 combo GE RJ-45/SFP ports. It is ideal for use in the distribution layer of three-tier networks and provides long distance fiber connections to aggregate access layer switches that are dispersed in different buildings. It also an excellent choice as a core switch for small enterprises.

Ethernet Switch

Key Features and Benefits

Performance and Scalability

With 24Gbps switching capacity, the ES4612 delivers wire-speed performance on all ports for Layer 2 switching and Layer 3 IP routing, interconnecting L2 switches in the access Layer for unicast traffic routing between different VLANs.

The SFP ports support various optional Gigabit Ethernet mini GBIC transceivers, available by Edge-Core, for different distance fiber connections.

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 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.

Optional Redundant Power Supply provides uninterrupted power.

L3 Features

The ES4612 delivers high-performance, hardware based IP routing.

RIP and OSPF provide dynamic routing through the exchange routing information with other routers or Layer 3 switches.

DVMRP, PIM-DM Multicast Routing Protocols send IP multicast traffic from one subnet to another.

VRRP prevents your system from failing by dynamically backing up multiple L3 switches for routing.

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.

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.

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 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.

Supports four groups of RMON.

Backup and restore firmware and configuration files via TFTP.

ES4612/ES4612-DCPW Product Specifications

Features

Physical Ports

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

Performance

Switching Capacity: 24Gbps
Forwarding Rate: 17.9Mpps
MAC Address Table Size: 16K
Packet Buffer Size: 1MB

L2 Features

Auto-negotiation for port speed and duplex mode
Flow Control: IEEE 802.3x & Back-Pressure
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, GVRP
- IEEE 802.1v Protocol-based VLANs
- Private VLAN

Link Aggregation:

- Static Trunk, IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 6, Trunk links: 2-8

IGMP Snooping: IGMP v1, v2 snooping and IGMP Querier
Supports jumbo frames up to 9KB

L3 Features

4K IP Address entries
256 static routes
ARP
Multi-netting, Super-netting (CIDR)
RIPv1, RIPv2
OSPF
DVMRP, PIM-DM
VRRP
DHCP/BootP relay
DHCP server
DNS proxy

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 and Ingress rate limiting

Security

Supports IEEE 802.1X port-based access control
RADIUS and TACACS+ authentication
Access Control List
SSH (v1.5/v2.0)
SSL

Management

Switch Management:

- CLI via console port or Telnet
- WEB management
- SNMP v1, v2c

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, a powerful network management software that maximizes the managed capabilities of Edge-Core devices with:

- Topology Management
- Performance Management
- Configuration Management
- Event Management
- SNMP Management

Mechanical

Dimensions (H x W x D): 4.4 x 44.0 x 32.4 cm (1RU)
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
CISPR Class A

Environmental Specifications

Temperature:

- IEC 68-2-14
- 0°C to 50°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

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

ECview

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)

SNMP Network Management Software



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