ECS4610-26T/ECS4610-50T

Managed 24/48-Port Gigabit Ethernet Stackable L3 Switch with 4 Combo SFP Slots

Product Overview

The Edge-Core ECS4610 Series includes two stackable Gigabit Ethernet routing switches with a choice of 24 or 48 Gigabit 10/100/1000BASE-T ports, four combination Gigabit Ethernet SFP slots, two optional 10 Gigabit Ethernet slots, and two stacking ports on the rear panel. The ECS4610 Series is ideal for service provider edge aggregation, enterprise wiring closets, data center aggregation, and network core deployment. It provides high performance, resilient stacking, wire-speed L2 switching and L3 routing, comprehensive QoS, and advanced security to deliver the scalability and resiliency to increase your company's productivity while reducing operation costs.

Ethernet Switch

Key Features and Benefits

Resilient Stacking up to 8 Units

The Edge-Core ECS4610 Series currently includes two different models, the ECS4610-26T and ECS4610-50T, with dual optional 10 Gigabit Ethernet uplinks. The two models provide full non-blocking performance to meet network demands for voice and video streaming. Optional 10GBASE-XFP transceivers can support fiber uplinks up to 40 km.

The Edge-Core ECS4610 Series provides two stacking ports for hardware stacking with up to 320 Gbps throughput. Any combination of ECS4610 Series units can be stacked up to 8 units high, or to a maximum of 400 ports. The stack acts as a single switching unit that is managed by a master switch, elected from one of the member switches. The master switch automatically creates and updates all the switching and optional routing tables. A working stack can add new members or delete old ones without service interruption.

High Availability

With IEEE 802.1w Rapid Spanning Tree Protocol, the Edge-Core ECS4610 Series provides a loop-free network and redundant links to the core network with rapid convergence of less than 2 seconds. IEEE 802.1s Multiple Spanning Tree Protocol allows a Spanning Tree instance per VLAN, for Layer 2 load sharing on redundant links.

The Edge-Core 4610 Series supports IEEE 802.3ad Link Aggregation Control Protocol (LACP). The switches increase bandwidth by automatically aggregating several physical links together as a logical trunk and offer load balancing and fault tolerance for uplink connections.

Adding an optional redundant power supply ensures that the Edge-Core ECS4610 Series remains stable to support today's high-availability, mission-critical environments.

Comprehensive QoS

The Edge-Core ECS4610 Series offers advance QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice, and video traffic at wire speed. Eight egress queues per port enable differentiated management of up to eight traffic types across the stack. Traffic is prioritized according to 802.1p, DSCP, IP precedence, and TCP/UDP port number to provide optimal performance for real-time applications. Weighted Round Robin (WRR) and strict priority ensure differential prioritization of packet flows and avoid congestion of ingress and egress queues.

With bidirectional rate-limiting, per port or traffic class, the Edge-Core ECS4610 Series preserves network bandwidth and allows full control of network resources.

Enhanced Security

The Edge-Core ECS4610 Series provides enhanced security features for connectivity and access control, including ACLs, authentication, and port-level security with IEEE 802.1X. Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers. SSH and RADIUS authentication protect data communications and ensure data privacy. IEEE 802.1X port-based access control ensures dynamic, port-based security, and user authentication for network access.

IP source guard prevents a malicious user from spoofing or taking over another user's IP address by creating a binding table between client's IP and MAC address, port, and VLAN.

Simplified Management

For IP multicast traffic, the Edge-Core 4610 Series enables IGMP snooping to provide fast client joins and leaves of multicast streams. The switches prevent flooding of IP multicast traffic, and limit bandwidth-intensive video traffic to only the subscribers.

The Edge-Core ECS4610 Series supports IPv6 management functions in SNMP, HTTP, Telnet, TFTP, ICMP, SSH, and IPv6 QoS remapping when connecting to the switch or stack.

The Edge-Core ECS4610 Series can be managed through an industry-standard Command Line Interface (CLI) that provides a common look and feel to reduce training and operating costs. The switches also provide an easy-to-use web interface through a standard web browser.

Four-group RMON is supported to collect traffic statistics and run network diagnostics. The switches can also backup and restore firmware and configuration files via TFTP.

Advanced IPv6 and IPv4 Routing

The Edge-Core ECS4610 Series supports hardware-based IPv6 and IPv4 routing for maximum performance. The switches provide a seamless migration path from IPv4 to IPv6 for future network upgrades and investment protection.

Advanced routing protocols such as RIP and OSPF provide dynamic routing by exchanging routing information with other Layer 3 switches or routers. Multicast routing is supported under independent multicast protocols, including PIM-DM and PIM-SM.

ECS4610-26T/ECS4610-50T Product Specifications

www.edge-core.com

Features

Physical Ports

20 or 44 RJ-45 10/100/1000BASE-T ports, with auto-negotiation
4 Combination (RJ-45/SFP) Gigabit Ethernet ports
2 10GBASE extender module slots for XFP transceivers
2 slots for stacking transceivers
1 RJ-45 console port
1 Redundant power supply connector

Performance

Switching Capacity: 128 Gbps/176 Gbps
Forwarding Rate: 95.2 Mpps/130.9 Mpps
MAC Address Table Size: 16K
Packet Buffer Size: 2 MB

L2 Features

Spanning Tree
- Loopback detection
- Auto edge port
- BPDU filter/guard

VLAN
- IP subnet based VLAN
- Private VLAN Isolated
- Private VLAN
- GVRP/GARP
- 802.1v protocol
- Voice VLAN
- VLAN translation
- IPv6 VLANs
- VLAN Trunking

Jumbo Frame : 9K
IGMP Snooping v1/v2/v3
Select Q-in-Q

L3 Features

Host table: 8K
Route table: 8K
Static route table: 512
Multicast table: 1K
Unicast routing
- Static unicast routes
- RIP v1/v2
- OSPF
- BGP

Multicast routing
- PIM-DM
- PIM-SM
- IGMP v1/v2/v3
- IGMP v3 proxy

IP Redundancy
Proxy ARP
UDP Helper

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, marking
DiffServ
Supports WRR and strict priority
Port rate limiting

Security

Port security
IP Source Guard
Supports IEEE 802.1X port-based and MAC-based access control
IP filter configuration for management interface (SNMP, Telnet, Web)
RADIUS authentication
Access Control List
SSH v2
HTTPS/SSL
MAC filter
Dynamic ARP Inspection
Link detection

IPv6 Features

IPv4/IPv6 Dual Protocol Stack
IPv6 Address Types : Unicast, Multicast
ICMPv6
ICMPv6 Redirect
IPv6 Path MTU Discovery
IPv6 Neighbor Discovery
SNMP over IPv6
HTTP over IPv6
SSH over IPv6
Support IPv6 Telnet
Support IPv6 DNS Resolver
Support IPv6 syslog
Support IPv6 SNTP
Support IPv6 TFTP
Remote IPv6 ping
Ping over IPv6
Trace route over IPv6
IPv6 DHCP relay
sFlow over IPv6
IPv6 ACL
IPv6 DiffServ
PIM-DMv6
PIM-SMv6
MVRv6

Management

Switch Management:
- CLI via console port or Telnet
- Web management
- SNMP v1, v2c, v3
- IGMP snooping (v1/v2)

Firmware and Configuration:
- Dual firmware images
- Firmware upgrade via TFTP/FTP/Xmodem
- Multiple configuration files
- Configuration file upload/download via TFTP/FTP server

Supports RMON (groups 1, 2, 3 and 9)
Supports BOOTP, DHCP for IP address assignment
DHCP Snooping
DHCP option 66, 67
Supports SNTP
Supports event/error log, system log
Cable diagnostics
ATC traffic control
Delay reload
sFlow
CPU Process Utilization
Cable Diagnostic
IP Clustering
Port Mirroring

SNMP Standards

RFC 1907 SNMPv2-MIB (MIB-II)
RFC 2011 IP-MIB (MIB-II)
RFC 2012 TCP-MIB (MIB-II)
RFC 2013 UDP-MIB (MIB-II)
IEEE 802.1X IEEE8021-PAE-MIB
RFC 1493 Bridge MIB
RFC 2863 IF-MIB
RFC 2819 RMON MIB
RFC 2618 RADIUS MIB
RFC 2665 Etherlike MIB
RFC 2737 Entity MIB
RFC 2674 P-bridge, Q-bridge
V-Bridge MIB
RFC 3036 MAU MIB
RFC 1612 DNS Reslover MIB
RFC 3411 SNMP Framework
RFC 3412 SNMP MPD MIB
RFC 3413 SNMP Target MIB, SNMP Notify MIB
RFC 3415 SNMP View-Based ACM MIB
SNMP Trap Supported:
RFC 1215, 1907, 2863, 1493, 1757, 2819
Private MIB

ECS4610-26T/ECS4610-50T Product Specifications

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Features

Electrical

Power Consumption (Max.):
ECS4610-26T
- 49.6 Watts (without expansion XFP modules)
- 63.96 Watts (with two expansion XFP modules)

ECS4610-50T
- 98.16 Watts (without expansion XFP modules)
- 104.16 Watts (with two expansion XFP modules)

Power characteristics:
- Voltage: 100-240V AC auto-ranging
- Frequency: 47-63Hz

Current:
ECS4610-26T
- 0.58 A @ 110 VAC (without expansion XFP modules)
- 0.74 A @ 110 VAC (with two expansion XFP modules)
- 0.312 A @ 240 VAC (without expansion XFP modules)
- 0.375 A @ 240 VAC (with two expansion XFP modules)

ECS4610-50T
- 0.995 A @ 110 VAC (without expansion XFP modules)
- 1.21 A @ 110 VAC (with two expansion XFP modules)
- 0.54 A @ 240 VAC (without expansion XFP modules)
- 0.605 A @ 240 VAC (with two expansion XFP modules)

Standards & Compliance

IEEE 802.3-2005
Ethernet, Fast Ethernet, Gigabit Ethernet
Full-duplex flow control
IEEE 802.3ae 10 Gigabit Ethernet
IEEE 802.3D Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol
IEEE 802.1s Multiple Spanning Tree Protocol
IEEE 802.1Q Virtual LAN
ISO/IEC 8802-3 CSMA/CD

Reliability

ECS4610-26T
- MTBF 25ºC 146,894 hours
- MTBF 50ºC 65,293 hours

ECS4610-50T
- MTBF 25ºC 125,128 hours
- MTBF 55ºC 56,627 hours

Electromagnetic Compatibility

CE Mark (EN55022 (CISPR 22) Class A
EN 61000-3/2/3
FCC Class A
VCCI Class A

Environmental Specifications

Temperature:
- IEC 68-2-14
- 0ºC to 50ºC (standard operating)
- -40ºC to 70ºC (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

Mechanical

Dimensions (H x W x D): 4.4 x 44 x 41.5 cm (1.7 x 17.3 x 16.3 inch)
LED Indicators: Port, Uplink, System, Diagnostic
AC Power Input: 100 ~ 240 VAC, 50 ~ 60 Hz
Weight:
ECS4610-26T: 5.7 kg (12.6 lbs)
ECS4610-50T: 6.1 kg (13.4 lbs)

Safety

UL60950-1 & CSA 60950-1
IEC 60950-1 & EN 60950-1

Warranty

Please check www.edge-core.com for the warranty terms in your country.

For More Information

To find out more about Edge-Core Networks products and solutions, visit www.edge-core.com

About Edge-Core Networks

Edge-Core Networks is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edge-Core Networks delivers the software and systems that transform the way the world connects. Edge-Core Networks serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

To purchase Edge-Core Networks solutions, please contact your Edge-Core Networks representative at 886 3 563 8888 or authorized reseller.

Ordering Information

RPS600WA	4 DC output redundant power supply connectors (Supports max. power output 150W/12V per port)
ECS4600-STACABLE-S	Stacking cable for ECS4610-26T/ECS4610-50T, 30cm
ECS4600-STACABLE-L	Stacking cable for ECS4610-26T/ECS4610-50T, 130cm
EM4626H-XG-XFP	10G XFP module
ET4201-SX	1000BASE-SX Multi mode SFP transceiver, up to 500m (850nm)
ET4201-LX	1000BASE-LX Single mode SFP transceiver, up to 10Km (1310nm)
ET4201-LHX	1000BASE-LHX Single mode SFP transceiver, up to 40Km (1310nm)
ET4201-ZX	1000BASE-ZX Single mode SFP transceiver, up to 80Km (1550nm)
ET5302-SR	10G XFP transceiver, 300m, 850nm, LC connector (Multi-mode)
ES5302-LR	10G XFP transceiver, 10km, 1310nm, LC connector (Single-mode)
ET5302-ER	10G XFP transceiver, 10km, 1550nm, LC connector (Single-mode)
EM4626H-XG10GSFP+	10G SFP+ module
ET5402-SR	10G SFP+ transceiver, 300m, 850nm, LC connector (Multi-mode)
ET5402-LR	10G SFP+ transceiver, 10km, 1310nm, LC connector (Single-mode)
Network Management System	ECView Pro Network Management Software

Edge-corE NETWORKS
www.edge-core.com.au
sales@endy.com.au
1300 725 323