

# L2+/L3 Lite Gigabit Ethernet Switch

ECS4150-28T/ECS4150-28P



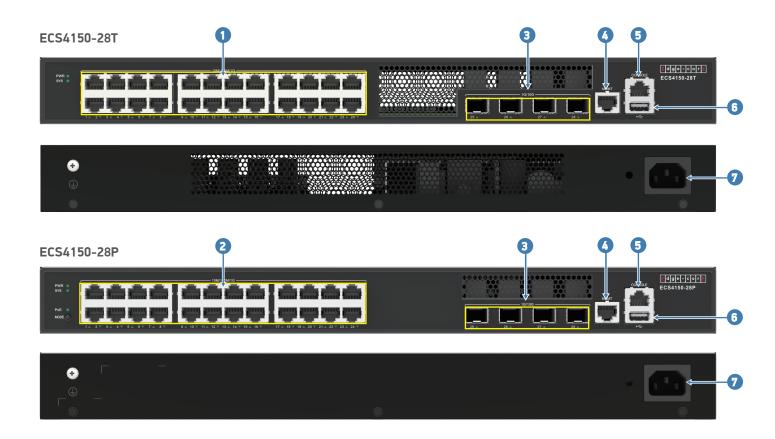
The Edgecore ECS4150-28T switch is a Gigabit Ethernet access switch with four 10G SFP+ uplinks. The switch is ideal for Internet Service Providers (ISPs) and Multiple System Operators (MSOs) wanting to provide home users with triple-play services with up to a Gigabit of bandwidth. This switch is also positioned as Cloud Edge access switch to connect IOT and other devices in Enterprises and SMB deployments. It is also an ideal Gigabit access switch for SMB, enterprise, and campus networks. The ECS4150-28P is a PoE switch which can provide up to 30 Watts to Power Devices such as Wireless Access Point, VoIP Phone, Surveillance camera, IoT devices etc over Cat 5 UTP cable eliminate the need for individual power source. The ECS4150-28T/ECS4150-28P is packed with features that bring high availability, comprehensive security, robust multicast control, and advance QoS to the network edge, while maintaining simple management. The switch also supports the most advance IPv6 management, IPv6 security, and IPv6 multicast control in accordance with the growth of IPv6 deployment.

# **Key Features and Benefits**

- Best price-performance Gigabit Ethernet access switch with 10G uplinks
- Low power consumption with fanless and noiseless design (ECS4150-28T) and fan speed control (ECS4150-28P)
- ITU-T G.8032 ERPS L2 Ring protection with <50 convergence time
- Comprehensive and field proven software features for ISP/ Carrier to provide broadband access, IPTV services
- L2+/ Lite L3 feature upgrades the L2 switch with routing functionality
- Enhanced Security, IPv6 and Multicast features
- Simple management (CLI, SNMP, Web)
- Complete Private MIB to fully control and monitor the switch via customer's EMS



# **Interfaces**



## Description

- 1. 24 x RJ-45 10/100/1000BASE-T ports (ECS4150-28T)
- 2. 24 x RJ-45 10/100/1000BASE-T PoE ports (ECS4150-28P)
- 3. 4 x SFP+ 10 Gigabit uplink ports
- 4. RJ-45 management port

- 5. RJ-45 console port
- 6. USB management port
- 7. AC power input

# L2+/L3 Lite Gigabit Ethernet Switch



	Product Model	ECS4150-28T	ECS4150-28P
	Product Image		
Port	RJ-45 10/100/1000BASE-T Ports	24	24
	SFP+ 10 Gigabit Uplink Ports	4	4
	RJ-45 Console Port	1	1
	USB port	1	1
Performance	Switching Capacity	128 Gbps	128 Gbps
	Forwarding Rate	95 Mpps	95 Mpps
	NAND Flash Memory	256 MB	256 MB
	DRAM	1 GB	1 GB
	MAC Address Table	16 K	16 K
	Jumbo Frames	10 KB	10 KB
	Auto-negotiation, Auto-MDI/MDIX	Yes	Yes
Mechanical	Dimension (W x D x H) cm	44 x 22 x 4.4 cm	44 x 28 x 4.4 cm
	Weight	3.05 kg (6.72 lb)	4.75 kg (10.47 lb)
Power Supply	AC 100-240 VAC, 50/60 Hz	Yes	Yes
	Max System Power Consumption (Watts)	25 Watts	450 Watts
PoE	IEEE 802.3af	Χ	Yes
	IEEE 802.3at	X	Yes
	Power budget	Χ	370 W
	Auto disable exceeding power budget	Χ	Yes
	Dynamic power allocation	X	Yes
Environmental	Operating Temperature	-5 ~ 45°C	-5 ~ 45°C
	Storage Temperature	-40 ~ 70°C	-40 ~ 70°C
	Operating Humidity (non-condensing)	5% to 95%	5% to 95%
	Storage Humidity (non-condensing)	5% to 95%	5% to 95%
	Environmental Regulation compliance: WEEE	Yes	Yes
	Environmental Regulation compliance: RoHS	Yes	Yes
Certification	FCC Class A	Yes	Yes
	CE	Yes	Yes
	Safety Compliance: CB (IEC/EN 62368-1)	Yes	Yes
	Safety Compliance: UL (CSA 22.2 No 62368-1 ® UL62368-1)	Yes	Yes

# Datasheet

## L2+/L3 Lite Gigabit Ethernet Switch



#### L2 Features

- 10/100/1000BASE-T copper interfaces
- Auto-negotiation for port speed and duplex mode
- Auto MDI/MDI-X
- Dual-speed (1G and 10G) fiber interfaces
- SFP+ Ports Support:

IEEE 802.3ae changeable (10GBASE-SR/LR)

IEEE 802.3z (1000BASE-SX/LX) transceivers, and 10G DAC/AOC

- Digital Diagnostic Monitoring (DDM) on 10G SFP+ port
- Flow Control:

IEEE 802.3x for full duplex mode

Back-Pressure for half duplex mode

- Jumbo frames 10KB
- Broadcast/Multicast/ Unknown Unicast Storm Control
- 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), 64 instances

**BPDU** Guard

BPDU filtering

Root Guard

BPDU transparent

Loopback detection

- Non-Spanning Tree Loopback detection
- ITU-T G.8032 Ethernet Ring Protection:

Sub 50 msec convergence

Revertive operation mode

Multiple-ring network

■ VLANs:

Supports 4K VLAN

Port-based VLAN

IEEE 802.1Q VLAN

**GVRP** 

IEEE 802.1v Protocol-based VLAN

IP Subnet-based VLAN

MAC-based VLAN

Traffic Segmentation

■ L2 Virtual Private VLAN:

Q-in-Q

L2 Protocol tunneling (xSTP, CDP, VTP and PVST+, LLDP)

CDP/PVST+ Filtering

Selective Q-in-Q

■ Link Aggregation:

Static Trunk

IEEE 802.3ad Link Aggregation Control Protocol

Trunk Groups: 16, up to 8 GE/4 10G ports per group

Load Balancing: SA+DA, SA, DA, SIP+DIP, SIP, DIP

- Multi-chassis Link Aggregation
- Static LACP
- IGMP Snooping:

IGMP Authentication

IGMP v1/v2/v3 snooping

IGMP Proxy reporting

IGMP Filtering

IGMP Throttling

IGMP Immediate Leave

IGMP Querier

- MVR (Multicast VLAN Registration): Supports 5 multicast VLANs
- Port mirroring

VLAN Mirror/Mac Based Mirror/ACL Mirror

■ Remote port mirror (RSPAN)

#### **OoS Features**

- Priority Queues: 8 hardware queues per port
- Traffic classification:

IEEE 802.1p CoS

IP Precedence

DSCP

MAC Access control list ( Source/Destination MAC, Ether type,

Priority ID/ VLAN ID )

IP standard access control list (Source IP)

IP extended access control list (Source/Destination IP, Protocol, TCP/UDP port number)

■ Traffic Scheduling:

Strict Priority

Weighted Round Robin

Strict + WRR

- Ingress policy map (police rate, remark CoS)
- Egress policy map (police rate, remark CoS/DSCP)
- Rate Limiting (Ingress and Egress, per port base)
  GE: Resolution 64Kbps ~ 1,000Mbps
  10G: Resolution 64Kbps ~ 10,000Mbps
- Auto Traffic Control

## Security

- Port security
- IEEE 802.1X port based and MAC based authentication
- IEEE 802.1X Supplicant
- Dynamic VLAN Assignment, Auto QoS
- MAC authentication
- Web authentication
- Voice VLAN
- Guest VLAN
- L2/L3/L4 Access Control List:

MAC Access control list (Source/Destination MAC, Ether type, Priority ID/ VLAN ID )

IP standard access control list (Source IP)

IP extended access control list (Source/Destination IP. Protocol.

- TCP/UDP port number)
- IPv6 ACL
- DHCP Snooping
- DHCP Info
- DHCP Option 82
- DHCP Option 82 Relay
- IP Source Guard
- PPPoE IA
- Dynamic ARP Inspection
- Denial of Service
- Login Security
- RADIUS authentication
- RADIUS accounting
- TACACS + authentication
- TACACS + accounting
- TACACS + authorization
- Management Interface Access Filtering (SNMP, Web, Telnet)
- SSH (v1.5/v2.0) for security Telnet
- SSL for HTTPS
- SNMPv3

# **Datasheet**

## L2+/L3 Lite Gigabit Ethernet Switch



#### **Green Ethernet**

■ IEEE 802.3az Energy-Efficient Ethernet (EEE)

#### **IPv6 Features**

- IPv4/IPv6 Dual Protocol stack
- IPv6 Address Types Stack: Unicast
- IPv6 Neighbor Discovery:

Duplicate address

Address resolution

Unreachable neighbor detection

- Stateless auto-configuration
- Manual configuration
- Remote IPv6 ping
- IPv6 Telnet support
- HTTP over IPv6
- SNMP over IPv6
- IPv6 Syslog support
- IPv6 TFTP support
- MLD Snooping v1/v2
- IPv6 source guard
- DHCPv6 snooping
- MVR6

## Management

- Zero Touch provisioning
- mDNS
- Switch Management:

CLI via console port or Telnet

Web management

SNMP v1, v2c, v3

■ Firmware and Configuration:

Firmware upgrade via TFTP/HTTP/FTP/SFTP server

Multiple configuration files

Configuration file upload/download via TFTP/HTTP/FTP/SFTP

- RMON (groups 1, 2, 3 and 9)
- DHCP client for IP address assignment
- DHCP dynamic provision option 66,67
- SNITD
- Syslog (local Flash)
- Remotelog (RFC3164)
- SMTP (E-mail Notification)
- Supports LLDP (802.1ab)
- sFlow v4, v5
- IPv6 sFlow

## **Routing**

■ IPv4 Static Route

### **Dying Gasp**

## Safety

- UL (CSA 22.2. NO 60950-1 and UL60950-1)
- CB (IEC60950-1)

## **Power Supply**

Power input: 100 to 240 VAC, 50/60 Hz

### **Supported Transceivers and Cables**

- 1000BASE-SX/LX
- 10GBASE-SR/LR/RJ45
- 10GBASE-DAC/AOC Cable
  - Note: More optics and detailed cabling information can be found at www.edge-core.com.

## **Electromagnetic Compatibility**

- CE Mark
- FCC Class A
- CISPR Class A
- BSMI

## **Environmental Specifications**

- Temperature:
  - -5°C to 45°C (Standard Operating)
  - -40°C to 70°C (Non-Operating)
- Humidity: 5% to 95% (Non-condensing)

### Warranty

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

## **For More Information**

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

## **About Edgecore Networks Corporation**

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Edgecore Networks Corporation is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edgecore data center switches are developed and manufactured by Accton.

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