

## L2+/L3 Lite Gigabit Ethernet Switch

ECS4130-28T/ECS4130-28T-DC



The Edgecore ECS4130-28T 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. It is also an ideal Gigabit access switch for SMB, enterprise, and campus networks. The ECS4130-28T 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.

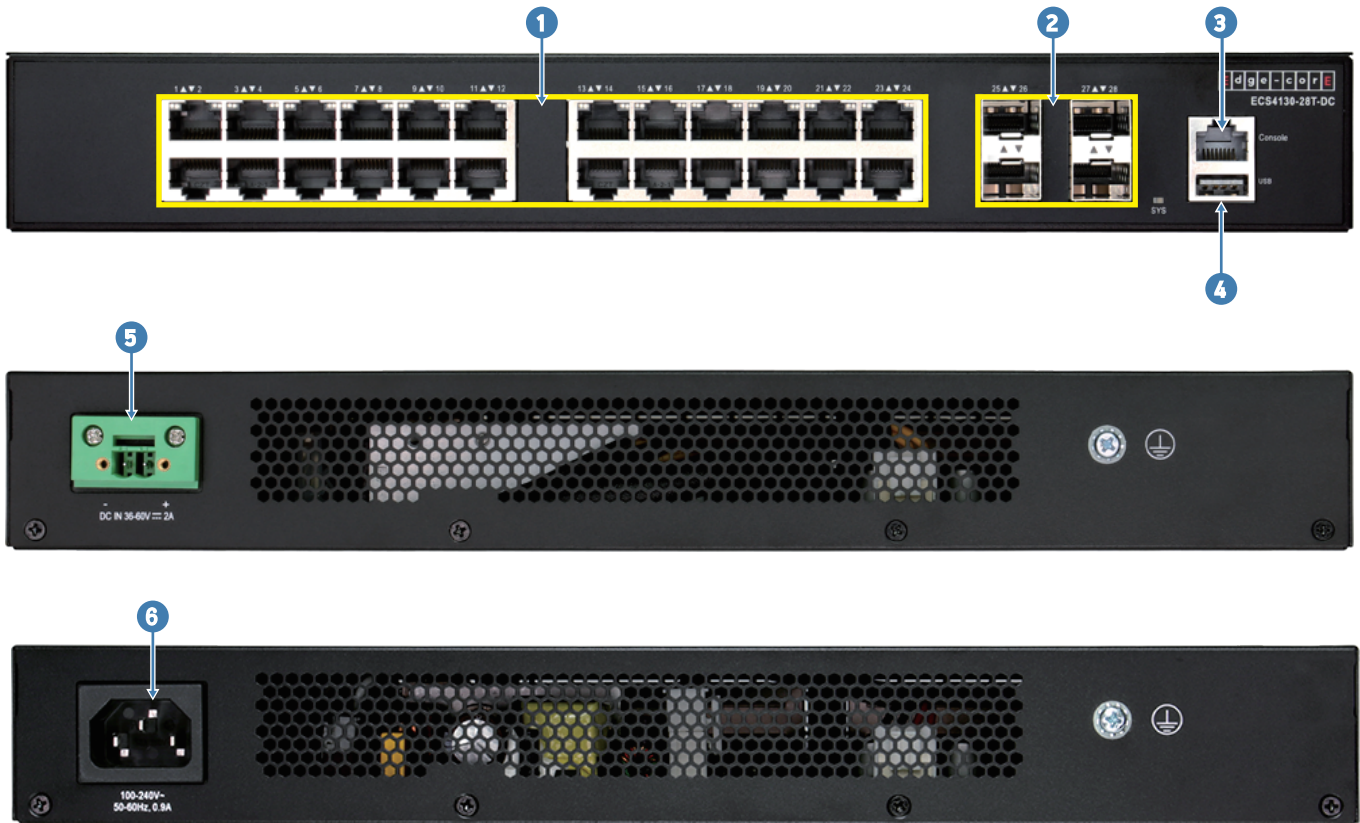
### Key Features and Benefits

- Best price-performance Gigabit Ethernet access switch with 10G uplinks
- Compact size for space saving installation
- Optional AC or DC power input
- Low power consumption with fanless and noiseless design
- 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
- Simple management (CLI, SNMP, Web)
- Complete Private MIB to fully control and monitor the switch via customer's EMS

Software Supported





Interfaces



Description

1	24 x RJ-45 10/100/1000BASE-T ports	4	USB management port
2	4 x SFP+ 10 Gigabit uplink ports	5	DC power input
3	RJ-45 console port	6	AC power input

Product Model		ECS4130-28T	ECS4130-28T-DC
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
	Flash Memory	1 G	1 G
	DRAM	512MB	512 MB
	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	33 x 23 x 4.4 cm	33 x 23 x 4.4 cm
	Weight	2 kg	2 kg
Power Supply	AC 100-240 VAC, 50/60 Hz	Yes	Yes
	DC 36-60 V, 2 A	No	Yes
	Max System Power Consumption (Watts)	23 W (full loading)	23 W (full loading)
Environmental	Operating Temperature	0 ~ 45°C	0 ~ 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	Yes	Yes
	Safety Compliance: UL	Yes	Yes

## L2 Features

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

IGMP Snooping:

- 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

Remote port mirror (RSPAN)

## QoS 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

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 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

## 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**

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 server

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

**Routing**

IPv4 Static Route

**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 (ECS4130-28T)
- DC in 36-60V (ECS4130-28T-DC)

**Electromagnetic Compatibility**

CE Mark  
FCC Class A  
CISPR Class A  
BSMI

**Environmental Specifications**

Temperature:

- 0°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](http://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](http://www.edge-core.com).

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## Ordering Information

Model Number	Description
ET4202-SX	1000BASE-SX Multi mode LC Duplex SFP transceiver, up to 550 m (850 nm)
ET4201-LX	1000BASE-LX Single mode LC Duplex SFP transceiver, up to 10 km (1310 nm)
ET4352-BX20	1000BASE Single mode LC Simplex SFP transceiver with DDM, up to 20 km, Wavelength: Tx1310 nm/Rx1550 nm
ET4532-BX20	1000BASE Single mode LC Simplex SFP transceiver with DDM, up to 20 km, Wavelength: Tx1550 nm/Rx1310 nm
ET5402-SR	10GBASE-SR Multi mode LC Duplex SFP+ transceiver with DDM, up to 300 m (850 nm)
ET5402-LR	10GBASE-LR Single mode LC Duplex SFP+ transceiver with DDM, up to 10 km (1310 nm)
ET5402-DAC-3M	10G to 10G DAC cable, 10G SFP+ DAC cable, 3 m
ET5402-AOC-7M	10G to 10G AOC cable, 10G SFP+ AOC cable, 7 m