

L2+/L3 Lite Gigabit Ethernet Switch

ECS4130-28T/ECS4130-28T-DC



The Edgecore ECS4130-28T 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 and 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



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

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	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

Datasheet

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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

EEE 802.1Q VLAN

GVRP

IEEE 802.1v Protocol-based VLAN

IP Subnet-based VLAN

MAC-based VLAN

Traffic Segmentation

■ L2 Virtual Private VLAN:

O-in-C

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)

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)

 ${\sf IP}\ {\sf extended}\ {\sf access}\ {\sf control}\ {\sf list}\ ({\sf Source/Destination}\ {\sf IP}, {\sf Protocol},$

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)

Datasheet

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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)

Supported Transceivers and Cables

- 1000BASE-SX/LX/EX/ZX/RJ45/BD43-10-I/BD34-10-I
- 10GBASE-SR/LR/ER/ZR
- 10GBASE-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:
 - 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 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.

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