

## ECS2100 Series



### Product Highlight

- 2.65 cm high wall-mountable design (ECS2100-10PE)
- Fanless design (ECS2100-10T/P/PE/28T)
- Up to 370 W PoE (ECS2100-28PP)
- Dual firmware/configuration
- IPv4/IPv6
- IEEE 802.3az
- L3 static routing
- Console port
- PoE timer
- Dashboard
- Auto firmware upgrade

### Product Overview

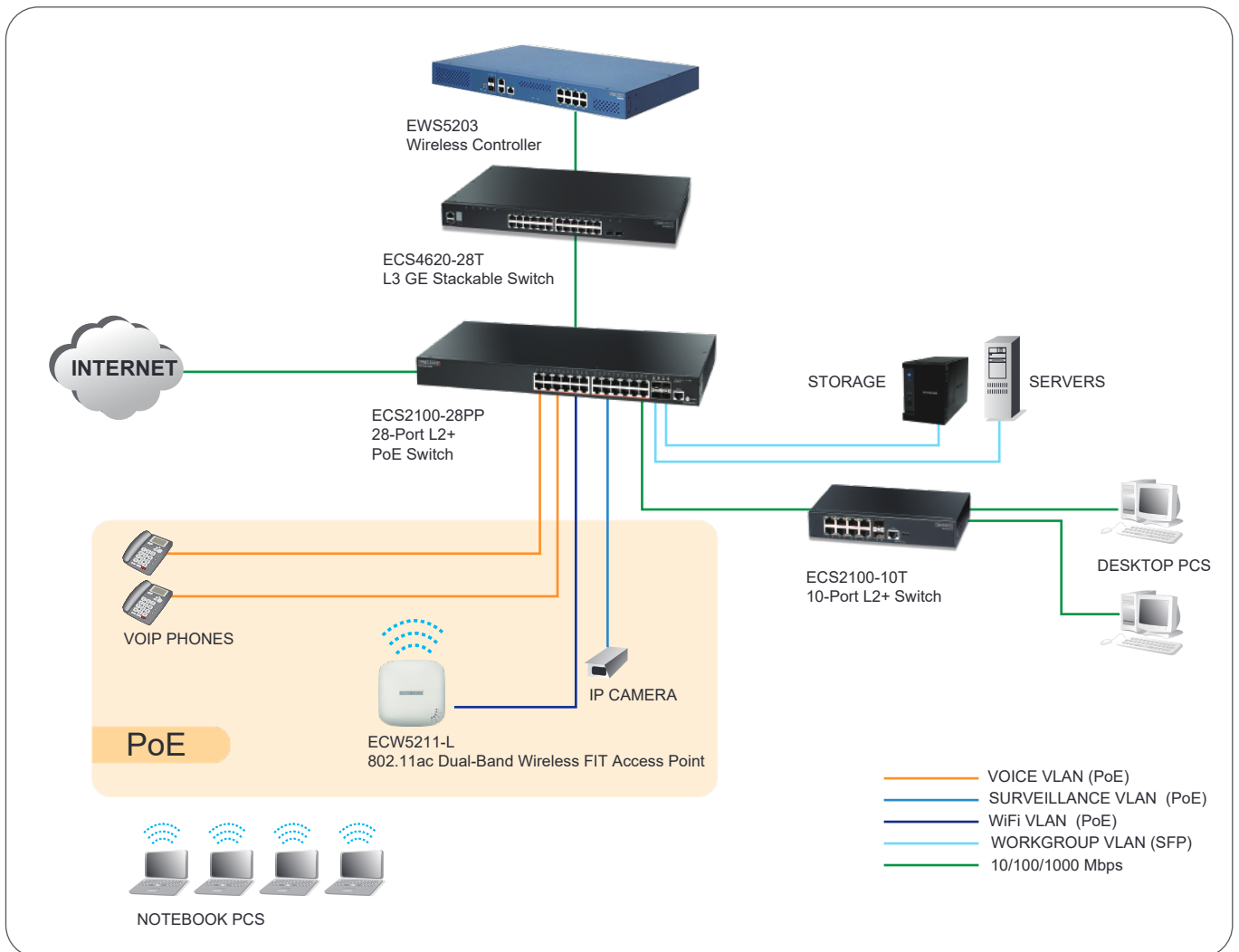
The ECS2100 Series is Edgecore's L2+ managed switch advantage. The ECS2100 Series provides plenty of management options, such as a console port on the L2+ managed switches. With powerful software and hardware features, the ECS2100 is designed for SMB and enterprise markets and provides a complete solution, including both non-PoE and PoE options.

The ECS2100 Series offers complete PoE solutions from 65 W to 370 W. The ECS2100-10PE is the most compact (height: 2.65 cm) managed PoE switch design, a cost-effective PoE switch with powerful software and security features. The switch can be mounted in many small spaces, on a wall or in a rack. The ECS2100-10P is a full-PoE fanless design switch, it supports up to 8 ports at 15.4W, or 4 ports at 30 W to meet the increasing power demands of users. The ECS2100-28PP is a PoE switch, it delivers a default 370 W of PoE power to support future IP cameras, IP telephones, or access points.

The ECS2100 Series supports 8, 24, and 48 10/100/1000BASE-T ports, with each switch supporting 2 or 4 Gigabit SFP ports.

As well as IPv4 and IPv6 features, the ECS2100 Series supports L3 static routing. The ECS2100 Series includes the best green-saving technologies (IEEE 802.3az and Green-Ethernet). Using the Energy Efficient Ethernet standard, the switch automatically decreases power usage when network traffic is low.

Network Application



## Hardware Features Benefits

Hardware Features	Benefits
IEEE 802.3af/802.3at Standard PoE	The ECS2100 Series PoE switches all support IEEE 802.3af and 802.3at for your VoIP, surveillance, and Wi-Fi APs.
Integrated 2 or 4 Gigabit SFP	The ECS2100-28T/52T switches support 4 integrated Gigabit SFP ports. Besides providing more uplink bandwidth, the SFP ports can be used for redundant links.
Console Port	The ECS2100 Series includes a console port. All switches support multiple management access through CLI/SNMP/Web/Telnet.
Diag LED	The ECS2100 Series includes a Diag LED to help check the switch status. When the switch boots, it runs a self-check. When the LED is on green, it means the switch operating status is normal.
Compact Wall-Mountable Design	The ECS2100-10PE is compact, wall-mountable external power PoE switch design. The PoE power budget is 65 W. The Switch can be easily deployed in small office with its height as 2.65 cm only as well as thin space requirement.
Software Features	Benefits
Dual Firmware/Configuration	The ECS2100 Series can save dual firmware/configuration files to provide redundancy and more security for users.
Static Routing	The ECS2100 Series supports L3 static routing to group different network segments and increase user flexibility.
Dynamic VLAN Assignment	Dynamic VLAN Assignment automatically assigns the same port to different VLANs to increase user convenience.
PoE Timer	The PoE Timer can define a PoE power schedule for different customer applications. This saves money and reduces unnecessary waste.
IGMP and MLD Snooping	IGMP/MLD snooping manages multicast streams to ensure high-quality, smooth video.
802.3az and Green-Ethernet	The ECS2100 Series supports the new IEEE 802.3az and Green Ethernet. Using the Energy Efficient Ethernet standard, the switch automatically decreases power usage when network traffic is low.
Multi Network Management	The ECS2100 Series supports CLI, Web, SNMP v1/v2c/v3, and Telnet management to provide multiple network management access. The switch supports a private MIB for detailed information.
Enhanced Security	The ECS2100 Series supports multiple security features, such as ACLs, storm control, 802.1X, port security, MAC filters, IP source guard, and AAA.
Comprehensive QoS	The ECS2100 Series supports 8 hardware queues, port-based QoS (IPv4/IPv6 DSCP), and DiffServ features to provide optimal real-time services.
DDOS Protection	The ECS2100 Series provides DDOS protection to avoid hacker attacks on your network.
Cable Diagnostics	Cable diagnostics check real-time cable status to find network problems immediately.
Auto Voice	The ECS2100 Series supports automatic voice and surveillance VLANs, providing VoIP and IP cameras the optimum network traffic usage.
Dashboard	The ECS2100 Series provides a fantastic feature called "Dashboard". It provides the several useful current switch status, like CPU, Memory utilization and Event and traffic status and so on. With those useful information, users could quickly overview and maintain the switch status.

## Key Features

### Performance and Scalability

The ECS2100 Series is a range of L2+ switches designed for the SMB market. The switches can be deployed in different target network topologies, from small to large. Besides powerful software features and a 500 MHz processor, the switches provide a complete solution, including both non-PoE and PoE options.

The ECS2100 Series offers complete PoE solutions from 65 W to 370 W. The ECS2100-10PE is the most compact (height: 2.65 cm) managed PoE switch design, a cost-effective PoE switch with powerful software and security features. The switch can be mounted many small spaces, on a wall or in a rack. The ECS2100-10P is a full-PoE fanless design switch, it supports up to 8 ports at 15.4 W, or 4 ports at 30 W to meet the increasing power demands of users. The ECS2100-28PP is an 802.3af/at PoE switch, it delivers a default 370 W of PoE power to support future IP cameras, IP telephones, or access points.

### Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, which ensures a faster recovery from failed links, enhancing overall network stability and reliability.

IEEE 802.1Q VLAN-segmented broadcast domains reduce broadcast traffic and increase LAN security and performance.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and provides load balancing and fault tolerance for uplink connections.

### Multi Management

The ECS2100 Series supports CLI, Web, SNMP v1/v2c/v3, and Telnet management to provide multiple network management access. The switch supports a private MIB for detailed information.

This new Edgecore switch also supports management functions through both IPv4 and IPv6.

### Comprehensive QoS

Eight egress queues per port enables differentiated management of up to eight traffic types.

Traffic is prioritized according to 802.1p or DSCP, 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 allows access to a switch port based on MAC address. This limits the total number of devices from using a switch port and protects from MAC flooding attacks.

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 a standards-based RADIUS server.

Access Control Lists (ACLs) restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, and TCP/UDP ports. ACLs are hardware supported, so switching performance is not compromised.

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypts Telnet and web access to the switch, providing secure network management.

IP Source Guard can be enabled with DHCP snooping on trunk ports with a large number of VLANs to filter and control IP traffic access to the network.

DHCP snooping provides security by filtering un-trusted DHCP messages and by building and maintaining a DHCP snooping binding table.

Dynamic VLAN assignment for user authentication and location-independent access to the network.

### Smart Network Deployment

Automatic Voice VLAN for quick deployment of VoIP, and automatic Video VLAN to help deploy your IP-based surveillance system. Static routing helps you set simple routes for control of your network resources.

IGMP and MLD snooping provide better multicast services.

### PoE Support

The ECS2100-10PE/10P/28P/28PP provide up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, and surveillance cameras, all over existing Ethernet cables. The switch can deliver up to 30 Watts on 2/4/6/12 ports, or 15.4 Watts on 4/8/12/24 ports.

The ECS2100-10PE is compact, wall-mountable external power PoE switch design. The PoE power budget is 65 W. The switch can be easily deployed in small office with its height as 2.65 cm only as well as thin space requirement.

Product Model		ECS2100-10T	ECS2100-28T	ECS2100-52T
<b>Product Image</b>				
<b>Port</b>	RJ-45 10/100/1000 Ports	8	24	48
	SFP or SFP+ Uplink Ports	2 (1G)	4 (1G)	4 (1G)
	PoE Ports	X	X	X
	Console Port	1	1	1
<b>Performance</b>	Switching Capacity	20 Gbps	56 Gbps	104 Gbps
	Forwarding Rate	14.9 Mpps	41.7 Mpps	77.4 Mpps
	Flash Memory	32 MB	32 MB	32 MB
	DRAM	256 MB	256 MB	256 MB
	Packet Buffer	4.1 Mbits	4.1 Mbits	12 Mbits
	MAC Address Table	8 K	8 K	16 K
	Jumbo Frames	10 K	10 K	10 K
	MTBF	553,190 hrs	563,826 hrs	534,057 hrs
	Heat Dissipation	27.297 (Btu/H)	68.242 (Btu/H)	136.48 (Btu/H)
	Acoustic Noise	0 dB (A)	0 dB (A)	54.2 dB (A)
<b>Power Supply</b>	100-240 VAC, 50-60 Hz	0	0	0
	Max System Power Consumption (Watts)	8 W	20 W	40 W
<b>PoE</b>	IEEE 802.3af/802.3at	X	X	X
	PoE Power Budget	X	X	X
	PoE Timer	X	X	X
<b>Mechanical</b>	Rack Space	9"	19"	19"
	Form Factor	Rackmount	Rackmount	Rackmount
	Dimension (W x D x H)	19.6 x 11.7 x 3.6 cm (7.7 x 4.6 x 1.4 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)
	Weight	816 g (1.81 lb)	2.2 kg (4.86 lb)	2.5 kg (5.51 lb)
<b>Environmental</b>	Operating Temperature	0 ~ 50°C	0 ~ 50°C	0 ~ 50°C
	Storage Temperature	-40 ~ 70°C	-40 ~ 70°C	-40 ~ 70°C
	Altitude	3000 m	3000 m	3000 m
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%
	WEEE	0	0	0
	RoHS	0	0	0
<b>ecCloud Management</b>	Supported	Supported	Supported	

Product Model		ECS2100-10PE	ECS2100-10P	ECS2100-28P	ECS2100-28PP
<b>Product Image</b>					
<b>Port</b>	RJ-45 10/100/1000 Ports	8	8	24	24
	SFP or SFP+ Uplink Ports	2 (1G)	2 (1G)	4 (1G)	4 (1G)
	PoE Ports	8	8	24	24
	Console Port	1	1	1	1
<b>Performance</b>	Switching Capacity	20 Gbps	20 Gbps	56 Gbps	56 Gbps
	Forwarding Rate	14.9 Mpps	14.9 Mpps	41.7 Mpps	41.7 Mpps
	Flash Memory	32 MB	32 MB	32 MB	32 MB
	DRAM	256 MB	256 MB	256 MB	256 MB
	Packet Buffer	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits
	MAC Address Table	8 K	8 K	8 K	8 K
	Jumbo Frames	10 K	10 K	10 K	10 K
	MTBF	493,517 hrs	865,820 hrs	681,017 hrs	370,636 hrs
	Heat Dissipation	272.966 (Btu/H)	545.933 (Btu/H)	887.141 (Btu/H)	1678.743 (Btu/H)
	Acoustic Noise	0 dB (A)	0 dB (A)	46.1 dB (A)	49.7 dB (A)
<b>Power Supply</b>	100-240 VAC, 50-60 Hz	External Power 54 V, 1.67 A	0	0	0
	Max System Power Consumption (Watts)	80 W	160 W	260 W	490 W
<b>PoE</b>	IEEE 802.3af/802.3at	0	0	0	0
	PoE Power Budget	65 W	125 W	200 W	370 W
	PoE Timer	0	0	0	0
<b>Mechanical</b>	Rack Space	10"	13"	19"	19"
	Form Factor	Wallmount	Rackmount	Rackmount	Rackmount
	Dimension (W x D x H)	24 x 15.5 x 2.65 cm (9.4 x 6.1 x 1.04 in)	33 x 20.4 x 4.26 cm (12.9 x 8 x 1.67 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)
	Weight	973 g (2.15 lb)	2.4 kg (5.34 lb)	2.8 kg (6.18 lb)	3.1 kg (6.85 lb)
<b>Environmental</b>	Operating Temperature	0 ~ 50°C	0 ~ 40°C	0 ~ 50°C	0 ~ 45°C
	Storage Temperature	-40 ~ 70°C	-40 ~ 70°C	-40 ~ 70°C	-40 ~ 70°C
	Altitude	3000 m	3000 m	3000 m	3000 m
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	WEEE	0	0	0	0
	RoHS	0	0	0	0
<b>ecCloud Management</b>			Supported	Supported	Supported

## L2 Features

- RJ-45 port support:
  - 10BASE-T (IEEE 802.3)
  - 100BASE-TX (IEEE 802.3u)
  - 1000BASE-T (IEEE 802.3ab)
- SFP port support:
  - IEEE 802.3u (100BASE-FX) transceivers
  - IEEE 802.3z (1000BASE-SX/LX/LHX/ZX) transceivers
- Digital Diagnostic Monitoring (DDM) on 1G SFP port
- Flow Control :
  - IEEE 802.3x for full-duplex mode
  - Back-pressure for half-duplex mode
- Spanning Tree Protocol:
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP, 64 instances)
- Loopback Detection
- Bridge Protocol Data Unit (BPDU) Filter/Guard
- Bridge Protocol Data Unit (BPDU) Forward
- Root Guard
- VLANs:
  - Supports 4K IEEE 802.1Q VLANs
  - Port-Based/MAC-Based/IEEE802.1v (Protocol-Based VLAN)
  - Guest VLAN
  - Auto Voice VLAN
- Link Aggregation:
  - Static Trunk
  - IEEE 802.3ad(802.1ax) Link Aggregation Control Protocol (LACP)
- IGMP Snooping:
  - IGMP v1/v2/v3 snooping
  - IGMP Filtering/Throttling
  - IGMP Queries
  - IGMP Immediate leave
  - MLD Snooping
- LLDP/LLDP-MED
- Green-Saving: IEEE 802.3az/Cable Length/No Link Power-Saving
- Jumbo Frame: 10 K
- Cable Diagnostic
- Q-in-Q
- mDNS
- IP Clustering (Software Stacking)

## L3 Features

- Static Routing
- RIP (ECS2100-10T/10P/10PE/28T/28P/28PP only )

## QoS Features

- Rate Limiting (Ingress/Egress Port-Based):
  - 64 Kbps ~ 1000 Mbps
  - Resolution 16 Kbps
- Priority Queues Schedule (WRR/Strict Priority/Hybrid QoS)
- Port-Based QoS
- IPv4/IPv6 DSCP
- DiffServ
- Auto VoIP
- 8 HW Queues per port
- Dynamic QoS

## IPv6

- IPv4/IPv6 Dual Protocol Stack
- IPv6 Management
  - IPv6 Ping/Trace
  - IPv6 Telnet
  - IPv6 Syslog
  - IPv6 TFTP
- HTTP over IPv6
- SNMP over IPv6

## PoE

- Support IEEE 802.3af (15.4 W)/IEEE802.3at (30 W) on each port (Total PoE Power Budget as follows):
  - ECS2100-10PE (65 W)
  - ECS2100-10P (125 W)
  - ECS2100-28P (200 W)
  - ECS2100-28PP (370 W)
- Dynamic Power Allocation
- Auto disable after exceeding power budget
- PoE Timer

## Security

- DDOS Protection
- CPU Guard (CPU Protection)
- Port Isolation
- Port Mirror (One to One, One to Many)
- Remote Mirror
- Storm Control
- Broadcast/Multicast/Unknown Storm Control
- IEEE 802.1X
- ACL
  - Ingress Only
  - L2/L3/L4
  - ACL entry: 512
  - IPv4/IPv6
  - TCP/UDP-Based, MAC-Based ACL
- Port Security
- MAC Filter
- MAC Authentication
- Port max count per port
- Dynamic VLAN Assignment
- Dynamic ARP Inspection
- AAA (RADIUS/TACACS+)
- IP Source Guard
- SSH v1.5/v2.0
- SSL v1/v2/v3
- SSL IPv4/IPv6
- SFlow
  - 10T/P/PE/28T/28P/28PP Trace on port -Ingress only
  - 52T trace multi port
- Web Authentication

## Management

- System password protection
- NTP/SNTP
- Dual Image/Configuration
- Configuration upload/download (HTTP/TFTP/FTP/SFTP)
- Firmware upload/download (HTTP/TFTP/FTP/SFTP)
- Auto Firmware Upgrade
- RMON (groups 1,2,3 and 9)
- SNMP
  - SNMP Trap
  - SNMP v1/v2c/v3
  - SNMP Standard/Private MIB
- Management Access (Console/SNMP/Web /Telnet )
- Memory Flash Log
- Event/Error Log/Syslog
- DHCP v4/v6 Client//DHCP Snooping
- DHCP Snooping Option82
- Dynamic Provision (via Option 66,67)
- DHCP Relay v4 (v6)
- Port Mirroring (One to One) TX/RX (both)
- DNS Client without DNS proxy

## Safety

- CSA (CSA 22.2 NO 60950-1 & UL 60950-1)
- CB (IEC/EN60950-1)

## Electromagnetic Compatibility

- CE Mark
- FCC Class A
- EN 55022 (CISRP 22) Class A
- EN 61000-3-2/3
- VCCI

## 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).

## About Edgecore Networks Corporation

Edgecore Networks Corporation is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edgecore Networks Corporation delivers the software and systems that transform the way the world connects. Edgecore Networks Corporation serves customers and partners worldwide. Additional information can be found at [www.edge-core.com](http://www.edge-core.com).

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.

To purchase Edgecore Networks solutions, please contact your Edgecore Networks Corporation representatives at +886 3 563 8888 (HQ) or +1 (949)-336-6801 or authorized resellers.

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## Ordering Information

Optional Accessories	Product Description
ET4202-SX	1Gbps, Small Form Factor Pluggable (Distance: 550 m; Wavelength: 850 nm, DDM)
ET4202-LX	1Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310 nm, DDM)
ET4202-EX	1Gbps, Small Form Factor Pluggable (Distance: 40 km; Wavelength: 1310 nm, DDM)
ET4202-ZX	1Gbps, Small Form Factor Pluggable (Distance: 80 km; Wavelength: 1550 nm, DDM)
120500000027A	Console Cable
1206000000225A	Brazil Power Cord
ecCloud Network Management Software	