

# ECS2100 Series Gigabit Web-Smart Pro Switches

## Product Highlight

- 2.65 cm high wall-mountable design (ECS2100-10PE)
- Fanless design (ECS2100-10T/P/PE/28T/ECS2110-26T)
- 10G support (ECS2110-26T)
- Up to 740 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

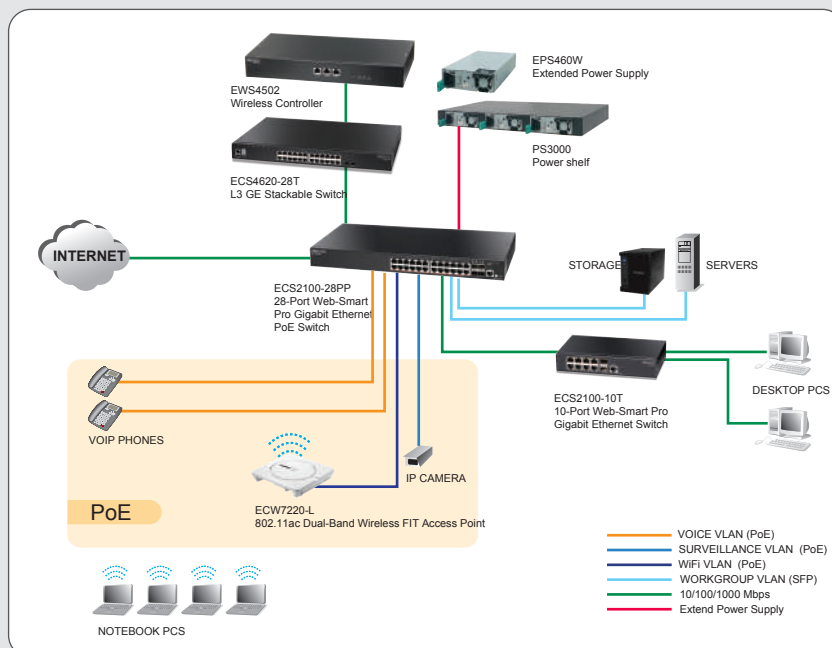
The ECS2100 Series is Edgecore's new combination web-smart and L2 managed switch advantage. The ECS2100 takes web-smart cost-effective switches and provides plenty of management options, such as a console port on the L2 managed switches. With powerful software and hardware features, the ECS2100 is designed for SMB and enterprise markets and provides a complete solution from 1G to 10G, including both non-PoE and PoE options.

The ECS2100 Series offers complete PoE solutions from 65 W to 740 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 15.4 W, or 4 ports at 30 W to meet the increasing power demands of users. The ECS2100-28PP is an extendable PoE switch, it delivers a default 370 W of PoE power, but can be extended up to 740 W by purchasing a PS3000 (Power Shelf) and EPS460W (Extended Power Supply) 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. The ECS2110-26T provides 2 10G uplink SFP ports to increase switch uplink bandwidth and meet the needs of future 802.11ac routers.

As well as IPv4 and IPv6 features, the ECS2100 supports L3 static routing. The ECS2100 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



Gigabit Web-Smart Pro Switches

## Feature 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 or 2 10G SFP+ Uplinks | The ECS2100-28/52 switches support 4 integrated Gigabit SFP ports. Besides providing more uplink bandwidth, the SFP ports can be used for redundant links. The ECS2110-26T supports 2 10G SFP+ ports for 10G switch or server connectivity.   |
| 740 W PoE Power                                     | The ECS2100-28PP can extend PoE power by purchasing accessories. The Power Shelf (PS3000) and External Power Supply (EPS460W) support 24-ports at 30 W to meet 740 W high PoE power demands.  |
| 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 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 web-smart switches designed for the SMB market. The switches can be deployed in different target network topologies, from small to large. Besides powerful software features, the switches provide a complete solution from 1G to 10G, including both non-PoE and PoE options.

The ECS2100 Series offers complete PoE solutions from 65 W to 740 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 15.4 W, or 4 ports at 30 W to meet the increasing power demands of users. The ECS2100-28PP is an extendable PoE switch, it delivers a default 370 W of PoE power, but can be extended up to 740 W by purchasing a PS3000 (Power Shelf) and EPS460W (Extended Power Supply) 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 ECS2100-28PP can extend its power budget up to 740 Watts by connecting an external power bank (PS3000 and EPS460W) to deliver 30 Watts on 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.


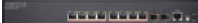


# ECS2100 Series Product Specifications

www.edge-core.com

| Product Model |                                      | ECS2100-10T   | ECS2100-28T  | ECS2100-52T   | ECS2110-26T   |
|---------------|--------------------------------------|---|--|---|---|
| Product Image |                                      |  |  |  |  |
| Port          | RJ-45 10/100/1000 Ports              | 8   | 24   | 48  | 24  |
|               | SFP or SFP+ Uplink Ports             | 2 (1G)  | 4 (1G)   | 4 (1G)  | 2 (10G)   |
|               | PoE Ports                            | X   | X  | X   | X   |
|               | Console Port                         | 1   | 1  | 1   | 1   |
| Performance   | Switching Capacity                   | 20 Gbps   | 56 Gbps  | 104 Gbps  | 88 Gbps   |
|               | Forwarding Rate                      | 14.9 Mpps   | 41.7 Mpps  | 77.4 Mpps   | 65.5 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  | 12 Mbits  | 12 Mbits  |
|               | MAC Address Table                    | 8 K   | 8 K  | 16 K  | 16 K  |
|               | Jumbo Frames                         | 10 K  | 10 K   | 10 K  | 10 K  |
|               | MTBF                                 | 553,190 hrs   | 563,826 hrs  | 534,057 hrs   | 636,219 hrs   |
|               | Heat Dissipation                     | 27.297 (Btu/H)  | 68.242 (Btu/H)   | 136.48 (Btu/H)  | 68.242 (Btu/H)  |
|               | Acoustic Noise                       | 0 dB (A)  | 0 dB (A)   | 54.2 dB (A)   | 0 dB (A)  |
| Power Supply  | 100-240 VAC, 50-60 Hz                | O   | O  | O   | O   |
|               | Max System Power Consumption (Watts) | 8 W   | 20 W   | 40 W  | 20 W  |
| PoE           | IEEE 802.3af/802.3at                 | X   | X  | X   | X   |
|               | PoE Power Budget                     | X   | X  | X   | X   |
|               | PoE Timer                            | X   | X  | X   | X   |
| Mechanical    | Rack Space                           | 9"  | 19"  | 19"   | 19"   |
|               | Form Factor                          | Rackmount   | Rackmount  | Rackmount   | Rackmount   |
|               | Dimension (W x D x H)                | 19.6 x 11.7 x 3.6 cm<br>(7.7 x 4.6 x 1.4 in)                                      | 44 x 22 x 4.4 cm<br>(17.3 x 8.6 x 1.7 in)  | 44 x 22 x 4.4 cm<br>(17.3 x 8.6 x 1.7 in)   | 44 x 22 x 4.4 cm<br>(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)  | 2.29 kg (5.04 lb)   |
| Environmental | Operating Temperature                | 0 ~ 50°C  | 0 ~ 50°C   | 0 ~ 50°C  | 0 ~ 50°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 Temperature (non-condensing) | 10% to 90%  | 10% to 90%   | 10% to 90%  | 10% to 90%  |
|               | WEEE                                 | O   | O  | O   | O   |
|               | RoHS                                 | O   | O  | O   | O   |

# ECS2100 Series Product Specifications

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| Product Model |                                      | ECS2100-10PE  | ECS2100-10P  | ECS2100-28P   | ECS2100-28PP  |
|---------------|--------------------------------------|---|--|---|---|
| Product Image |                                      |  |  |  |  |
| Port          | RJ-45 10/100/1000 Ports              | 8   | 8  | 24  | 24  |
|               | SFP Uplink Ports                     | 2 (1G)  | 2 (1G)   | 4 (1G)  | 4 (1G)  |
|               | PoE Ports                            | 8   | 8  | 24  | 24  |
|               | Console Port                         | 1   | 1  | 1   | 1   |
| Performance   | 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)   |
| Power Supply  | 100-240 VAC, 50-60 Hz                | External Power<br>54V,1.67A   | ○  | ○   | ○   |
|               | Max System Power Consumption (Watts) | 80 W  | 160 W  | 260 W   | 490 W (950 W)   |
| PoE           | IEEE 802.3af/802.3at                 | ○   | ○  | ○   | ○   |
|               | PoE Power Budget                     | 65 W  | 125 W  | 200 W   | 370 W (740 W)   |
|               | PoE Timer                            | ○   | ○  | ○   | ○   |
| Mechanical    | 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<br>(9.4 x 6.1 x 1.04 in)                                      | 33 x 20.4 x 4.26 cm<br>(12.9 x 8 x 1.67 in)  | 44 x 22 x 4.4 cm<br>(17.3 x 8.6 x 1.7 in)   | 44 x 22 x 4.4 cm<br>(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)  |
| Environmental | Operating Temperature                | 0 ~ 50°C  | 0 ~ 40°C   | 0 ~ 50°C  | 0 ~ 45°C (370W) (*)<br>0 ~ 40°C (740W)  |
|               | 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 Temperature (non-condensing) | 10% to 90%  | 10% to 90%   | 10% to 90%  | 10% to 90%  |
|               | WEEE                                 | ○   | ○  | ○   | ○   |
|               | RoHS                                 | ○   | ○  | ○   | ○   |

## Features

### L2 Features

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  
BDPU Filter/Guard  
BDPU 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 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  
G.8032 (Ethernet Ring Protection)  
IP Clustering (Software Stacking)

### L3 Features

Static Routing

### 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  
Auto Video  
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 (30W) 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)  
(Up to 740W using PS3000+EPS460W)  
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: RFC 2318 + 2866/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/26T 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/v2/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

## Features

### 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 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

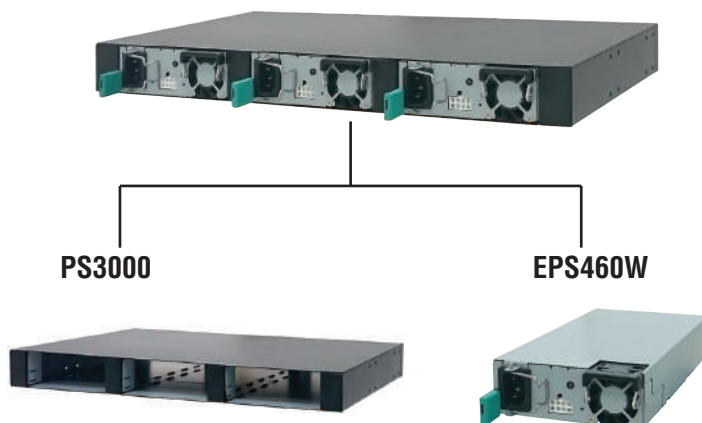
Edgecore Networks Corporation is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edgecore Networks Corporation delivers the software and systems that transform the way the world connects. Edgecore Networks Corporation serves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

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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## Accessories



## Installation



## Ordering Information

| Optional Accessories | Product Description   |
|----------------------|---|
| PS3000               | Power Shelf (For ECS2100-28PP)  |
| EPS460W              | Entended Power Supply 460 W (For ECS2100-28PP)                                |
| ET4201-SX            | 1Gbps, Small Form Factor Pluggable (Distance: 500 m; Wavelength: 850nm)       |
| ET4201-LX            | 1Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310 nm)     |
| ET4201-LHX           | 1Gbps, Small Form Factor Pluggable (Distance: 40 km; Wavelength: 1310 nm)     |
| ET4201-ZX            | 1Gbps, Small Form Factor Pluggable (Distance: 80 km; Wavelength: 1550 nm)     |
| ET4202-SX            | 1Gbps, Small Form Factor Pluggable (Distance: 500 m; Wavelength: 850 nm, DDM) |
| ET4202-LX            | 1Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310nm, DDM) |
| ET5402-SR            | 10Gbps, Small Form Factor Pluggable (Distance: 300 m; Wavelength: 850 nm)     |
| ET5402-LR            | 10Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310 nm)    |
| ET5402-ER            | 10Gbps, Small Form Factor Pluggable (Distance: 40 km; Wavelength: 1550 nm)    |
| ECView Pro           | SNMP Network Management Software  |
| 120500000027A        | Console Cable   |