





# **EnGenius Cloud-enabled Switch Series**

Optimal Performance, Enterprise Features & Cloud Management

ECS series switches can be managed by EnGenius Cloud and on-premises ezMaster or can be worked as standalone switches, providing enterprise-class features for simplifying network configuration and monitoring at prices affordable to small and mid-sized businesses. With advanced management, EnGenius Switches enhance network performance to allow companies to focus on growing their business.

Simple — With easy-to-deploy design, EnGenius Managed Gigabit PoE Switches are operational within minutes. Organizations with limited IT support and budgets can create a reliable, efficiently managed network in no time.

Flexible — Choose the port and physical configuration that meets your network and space requirements for optimal performance. Select the management method most effective for the network – locally manage, remotely and locally manage or Cloud manage.

Reliable — EnGenius Cloud's reliable Gigabit access for networked devices reduces delays that interrupt communications

Secure — Keep your network safe with port and server-based security in addition to two factor authentication and encryption. By setting up event-based alerts, receive push notifications through the EnGenius Cloud app when potential issues arise.

#### Features & Benefits

- Real-Time System Metrics, Deep-Dive Analytics, and Remote Configurations
- Full-Featured Layer 2+ Switching
- 802.3at/af PoE+ Ready on All Ports with 55 - 740W PoE budgets
- 1-10 Gbps SFP+ Slots Extend Connectivity via Fiber Up links, Redundancy, and Failover
- Network Troubleshooting, Monitoring, and Email Alerts
- Advanced View Displays Network Topology with Devices and Relationships
- Hybrid Switch Mode Supports Multiple Management Options



### **Benefits to Help Grow Your Business**

#### **Increased Flexibility for Network Design**

Select either 8-, 24-, or 48-Gigabit ports and Power-over-Ethernet (PoE+)-ready Layer 2 switches with 1-10 Gbps SFP+ ports. Cloud Managed Switch model options also include desktop and rack mountable, fanless, and SmartFan designs.

#### **Enhanced Network Performance**

EnGenius' full-featured Layer 2 switches improve network speed and performance by controlling the available bandwidth speed for devices, such as access points, at the port level. By providing the available speed needed in areas where bandwidth needs vary, such as conference rooms and lobbies, EnGenius switches provides faster overall network performance.

#### **Optimized Network Devices**

EnGenius switches allow businesses to optimize the installation and power management of network devices, such as access points, IP cameras, and VoIP phones. By providing 802.3at/af PoE+ power and data on all ports, companies can regulate power budgets according to device requirements and remotely power cycle individual ports.

#### **High-Speed Gigabit with Fiber**

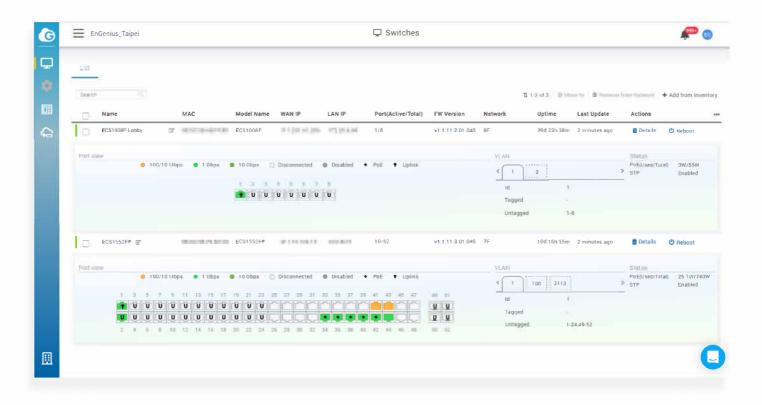
The switch's 1 or 10 Gbps SFP+ slot options connect wired network segments throughout buildings extending beyond the limitations of Ethernet cabling. By reducing delays, businesses experience more consistent and uninterrupted communications.

#### **Increased Access Control and Security**

Protect the network with 802.1X port-based client authentication with dynamic VLAN and security through a RADIUS server. Utilizing administrators can use Access Control Lists (ACLs) to see who has access to network segments while screening traffic from unauthorized MAC or IP addresses. By establishing a guest VLAN to grant and limit Internet resources for visitors, guests can use the network while also keeping the network secure.

#### Improved VLAN/Voice and Quality of Service

Segment the network by departments or traffic types for increased performance and security with 802.1Q VLAN statically or dynamically. While 802.1p Class of Service prioritizes compliant VoIP and video traffic ensuring bandwidth intensive, time-sensitive data is forwarded immediately for clear, smooth voice and video delivery.



#### **Provides In-Depth Network Visibility**

The Network Topology View automatically maps the network deployment and displays device relationships across the infrastructure. No more manual tracking required — simply use Network Topology view to troubleshoot switches or access points directly from the cloud management interface. Grab high-level information by hovering over the device icon or click on details to take you right to the cloud device page.

# Every Cloud Device is Secure and Protected by Advanced Authentication

With EnGenius Cloud, your network devices are protected with two-factor authentication and non-sequential serial numbers and MAC address verification to ensure only authorized cloud devices are on the network. Once devices are authenticated, a secure tunnel is established between the device and the cloud management system with a unique certificate to encrypt transmissions.

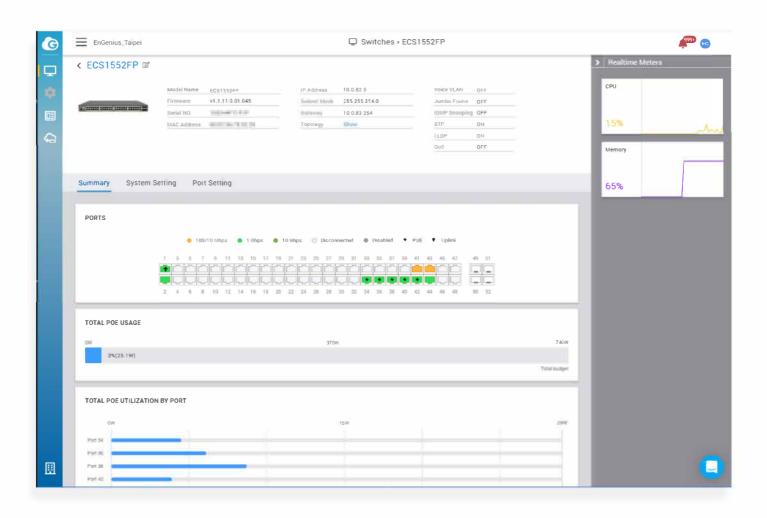
# Cloud Improves Setup, Registry and Device Management of Gigabit Switches

For quick and simple setup manage your switches using EnGenius Cloud. Scan and assign switches into an organization and network for device registration and configuration using the EnGenius Cloud app. Simply refine configurations under the list view for switches in the switch's detail page after initial setup and registration.

EnGenius Cloud's dashboard provides a quick health check status of all your switches in an organization and network and quick access into detailed switch configurations and system information.

Conveniently & easily monitor and troubleshoot all of your network switches in one location using switch list and detail view to compare resources, check overall configurations and real-time meters, and configure detailed system and port settings.

Set maintenance schedules across times zones to improve up-time, enable remote system log to track system modifications or configuration changes, establish event-based email alerts and receive push notifications via the EnGenius Cloud app.



# Simplified Switch Management, Visibility, and Troubleshooting

By using multiple methods to manage switches, EnGenius decreases administration time through remote management, visibility, and troubleshooting. Select the most effective management approach based on network architecture, administrative permissions, technical aptitude, or even budget.

Locally Manage – manage each EnGenius switch in a standalone setup from its intuitive user interface that provides full access into all the Layer 2 switching features.

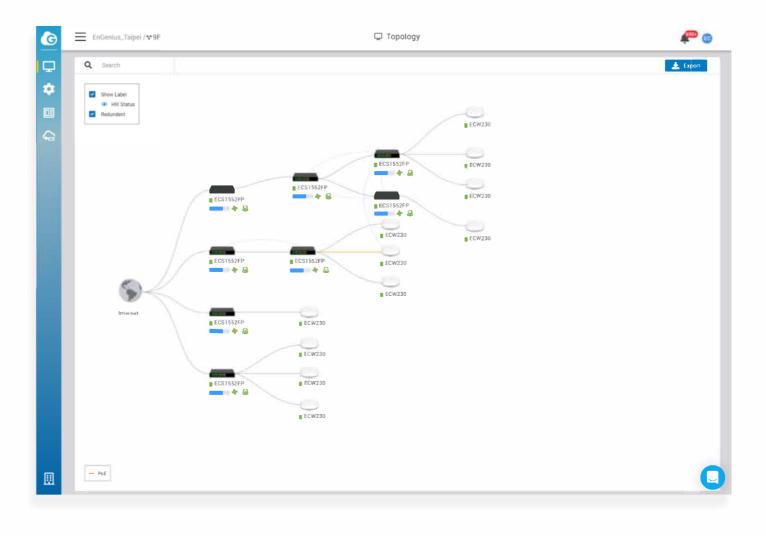
**Cloud Management** – remotely or locally manage EnGenius switches with EnGenius Cloud, a true license-free cloud management solution that provides quick deployment from anywhere, deep-dive analytics to review system performance, and custom device alerts through a simple to use smart phone app.

#### On-Premises Management - SkyKey

manage up to 100 EnGenius switches with the plug-and-play SkyKey device, which provides on-premises and subscription-free remote access capability through EnGenius Cloud under single-pane-of-glass capabilities.

#### **On-Premises Management – ezMaster**

manage 1,000s of EnGenius switches with ezMaster network software, an on-premises solution utilizing a Virtual Machine server or a private-cloud AWS account that easily configures and maintains multiple customer sites and thousands of devices via ezMaster network management software, all with no license or subscription fees.



**EnGenius Cloud Switches** 

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Models	ECS1008P	ECS1112FP	ECS1528FP	ECS1552FP
Network Standards	802.3 10Base-T Ethernet 802.3u 100Base-TX Ethernet 802.3ab 1000Base-T Ethernet 802.3x Full-Duplex Flow Control	802.3 10Base-T Ethernet 802.3u 100Base-TX Ethernet 802.3ab 1000Base-T Ethernet 802.3x Full-Duplex Flow Control	802.3 10Base-T Ethernet 802.3u 100Base-TX Ethernet 802.3ab 1000Base-T Ethernet 802.3x Full-Duplex Flow Control	802.3 10Base-T Ethernet 802.3u 100Base-TX Ethernet 802.3ab 1000Base-T Ethernet 802.3x Full-Duplex Flow Control
10/100/1000 Base-T, POE Ports	8	10	24	48
10/100/1000 SFP Ports	N/A	2 x 1G	N/A	N/A
10/100/1000/10000 SFP+ Ports	N/A	N/A	4 x10G	4 x10G
Rackmount	9.45" (desktop)	13" 1U	19″ 1U	19″ 1U
Total PoE Budget	55W	130W	410W	740W
PoE+ Capable Ports	1-8 (802.3af only)	1-8	1-24	1-48
Switching Capacity	16Gbps	24Gbps	128Gbps	176Gbps
Forwarding Mode	Store-and-forward	Store-and-forward	Store-and-forward	Store-and-forward
MAC Address Table	8k	8k	16k	32k
Packet Buffer Memory	512 KB	512 KB	2M	2M
Power Source	100 to 240 VAC 50/60Hz	100 ~ 240VAC 50-60Hz	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz
Full Load Power Consumption	63.18 Watts	152.8 Watts	412.26 Watts	745.61 Watts
VLANS	VID from 1-4094 (Max. 256 groups)			

#### **Technical Specifications**

#### **Port Standards**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP	
802.3 10Base-T Ethernet	
802.3u 100Base-TX Ethernet	
802.3ab 1000Base-T Ethernet	
802.3x Full-Duplex Flow Control	

#### **Network Ports**

ECS1008P 8 10/100/1000 Mbps Ports

ECS1112FP	
10 10/100/1000 Mbps Ports + 2x SFP Ports	
ECS1528FP	
24 10/100/1000 Mbps Ports + 4x SFP+ Ports	3

ECS1552FP

48 10/100/1000 Mbps Ports + 4x SFP+ Ports

#### Switching Capacity

ECS1008P	
16Gbps	
ECS1112FP	
24Gbps	
ECS1528FP	
128Gbps	
ECS1552FP	
176Gbps	

#### SDRAM

ECS1008P/ECS1112FP	
256MB	
ECS1528FP/ECS1552FP	

512MB

#### Flash Memory

ECS1008P/ECS1112FP 32MB ECS1528FP/ECS1552FP

128MB

#### **PoE Capable Ports**

ECS1008P	
1-8 (802.3af only)	
ECS1112P	
1-8	
ECS1528FP	
1-24	
ECS1552FP	
1-48	

#### **Total PoE Budget**

ECS1008P	
55W	
ECS1112FP	
130W	
ECS1528FP	
410W	
ECS1552FP	
740W	

#### Power Source

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

100 ~ 240VAC, 50-60Hz

#### **Physical Interface**

**LED Indicators** 

#### ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Power LED		
Fault LED		
PoE Max LED		
LAN Mode LED		
PoE Mode LED		

#### Ports

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

```
Link/Activity/Speed (per Ethernet port)
Link/Activity/Speed (per SFP slot)
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#### Software Features(L3 Feature)

Multiple IP Interface

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP 20 IPv6 address

#### ARP Table

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Max. 192 ARP entries

#### Static ARP

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP Static 192 ARP entries

IPv4 Static Route ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Max. 63 entries

#### **IPv6 Static Route**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Max. 21 entries

# Software Features(L2 Feature) Network Management ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP EnGenius Cloud ezMaster Local Web GUI

#### MAC Address Table

ECS1008P/ECS1112FP 8K ECS1528FP 16K ECS1552FP 32K

#### Jumbo Frame

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP 9K

#### **Multicast Group**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP Max 256 groups

#### MLD Snooping

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP MLD Snooping: v1

#### **QoS-Number of Priority Queues Supported**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP
Queue 8

#### **Trust Mode**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP Cos/802.1p DSCP Cos/802.1p-DSCP

#### Scheduling Mechanism

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Strict / WRR/ Strict + WRR

#### **Bandwidth Control**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Port-based bandwidth control (Ingress/Egress)

#### Port Security

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP Max 256 Entries

#### Access Control List (ACL)

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP MAC Based ACL IPv4/IPv6 Based ACL ACL Binding Time base ACL

#### **Technical Specifications**

#### Web Graphical User Interface(GUI)

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP	
HTTP IPv4 / IPv6	
HTTPS IPv4 / IPv6	

#### SSL Certificate

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

Certificate/Key Import

#### SNMP

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP	
SNMP v1/v2c/v3 Support	

#### RMON

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP RMON 1,2,3,9

#### System Time

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP	
Time Setting/Daylight saving	

#### **Common L2 Features**

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP	
802.1d Spanning tree	
Loopback Detection	
Multicast Filitering	
IGMP Multicast Forwarding	
IGMP Snooping	
MLD Multicast Forwarding	
802.1Q VLAN tagging	
802.3x flow control	
802.3ad Link Aggregation	
IPv4 DHCP Relay	
IPv4 DHCP Snooping	
IPv4 DHCP Snooping Source MAC Address Check-up	5
ARP Inspection	
ARP Packet Validation (additional validation checks)	
Voice VLAN	
Port-based VLAN	
Protocol-Based VLAN	
CoS Mapping	
802. 1X Radius Authentication Protocol	
IPv4 Settings	
IPv6 Settings	
IEEE 802. 3az Energy Efficeient Ethernet (EEE)	
Command Line Interface (CLI)	
SSH Server	
Telnet Server	
TFTP Client	
Comfoguration Upgrade/ Backup	
Simple Network Time Protocol (SNTP)	
SYSLOG	
802.1d Spanning tree	

#### **Environmental & Physical**

 Temperature Range

 ECS1008P

 Operating: 32°F to 104°F (0°C to 40°C)

 ECS1112FP/ECS1528FP/ECS1552FP

# Operating: 32°F to 122°F (0°C to 50°C)

#### Humidity (Non-Condensing)

ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP Operating: 5% - 95%

#### Package Contents

1x Rack Mount Kit

ECS1008P	
1x ECS Managed Gigabit Switch	
1x Quick Installation Guide	
1x Power Adapter	
1x Power Cord	
1x Wall Mount Kit	
1x Ground Screw Set	
ECS1112FP/ECS1528FP/ECS1552FP	
1x ECS Managed Gigabit Switch	
1x Quick Installation Guide	
1x Power Cord	
1x RJ45 Console Cable	

Weight	
ECS1008P	
Weight: 1.5Kg	
Width: 105mm	
Length: 240mm	
Height: 27mm	
ECS1112FP	
Weight: 1.9Kg	
Width: 330mm	
Length: 229mm	
Height: 44mm	
ECS1528FP	
Weight: 4.7Kg	
Width: 260mm	
Length: 440mm	
Height: 44mm	
ECS1552FP	
Weight: 5.9Kg	
Width: 310mm	
Length: 440mm	

#### Warranty

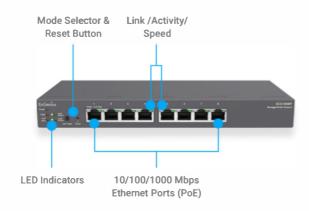
ECS1008P/ECS1112FP/ECS1528FP/ECS1552FP

2 year

Maximum data rates are based on IEEE 802.11 standards. Actual throughput and range may vary depending on distance between devices or traffic and bandwidth load in the network.

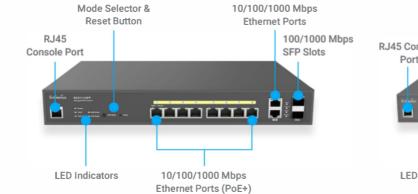
## Desktop

#### ECS1008P

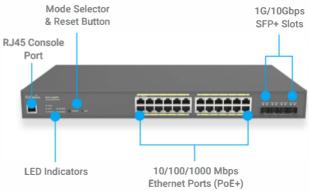


## Rackmount

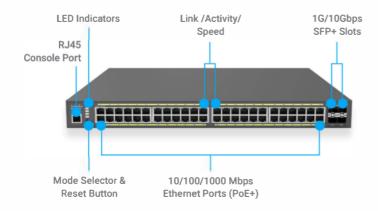
#### ECS1112FP



## ECS1528FP



#### ECS1552FP



EnGenius