EnGenius

Datasheet

Neutron Series Switches

Neutron Series

Managed Gigabit Switches

Optimal Performance, Enterprise Features & Robust Management Options

Neutron Series EWS Managed Gigabit Switches offer enterprise-class features, simplified network configuration, monitoring, and management options and optimal network performance for small to mid-size organizations.

Choose between 8-, 24-, and 48-Gigabit ports and standard or Power-over-Ethernet (PoE+)-ready Layer 2 switches with SFP ports. EWS Managed Switch model options also include desktop and rack mountable, fanless and SmartFan designs.

EWS Managed Gigabit Switches support easy deployment and operation. Organizations with limited IT support and budgets can create a reliable, efficiently managed network in no time.

Features & Benefits

- 10/100/1000 GbE Ports
- On-Board Network Management Tools
- 802.3at/af PoE+ Ready & Non-PoE Switches
- Network Troubleshooting, Monitoring & Email Alerts
- SFP Slots Extend Connectivity via Fiber Uplinks, Redundancy & Failover
- Full-Featured Layer 2 Switching
- Topology View Displays Network Devices & Relationships
- Added Bonus: License-Free AP Management Built-In
- Added Bonus: License-Free Remote Management With ezMaster™



In-Switch Management

Simplified Network Management, Visibility & Troubleshooting

Achieve network management, visibility, and troubleshooting locally through the switch's on-board Web interface tools. Establish event-based email alerts for notification of predetermined activities.

Supports 4 Different Types of Management

1 Wired LAN Only
Manage via third-party SNMP manager



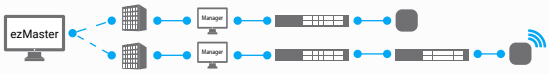
2 Wired LAN+ Local Management
Manage locally via on-board tools



3 Wired LAN + Wireless APs + Local Management
Manage locally via built-in controller



4 Wired LAN + Wireless APs + Remote Management
Manage remote and distributed networks via ezMaster™



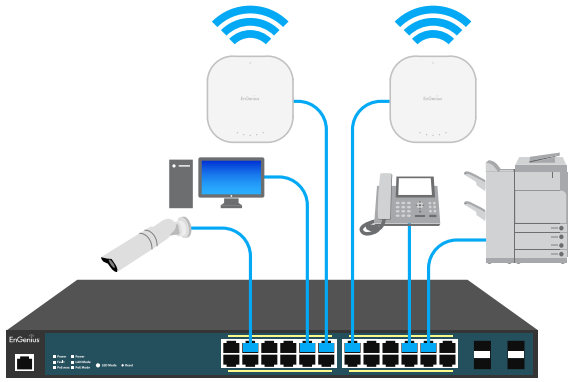
Full-Feature Layer 2 Gigabit Switching

High-Speed Gigabit

Provide reliable Gigabit access for networked devices and reduce delays that interrupt communications. The switch's SFP slots are suitable for connecting wired network segments throughout buildings that extend beyond the limitations of Ethernet cabling.

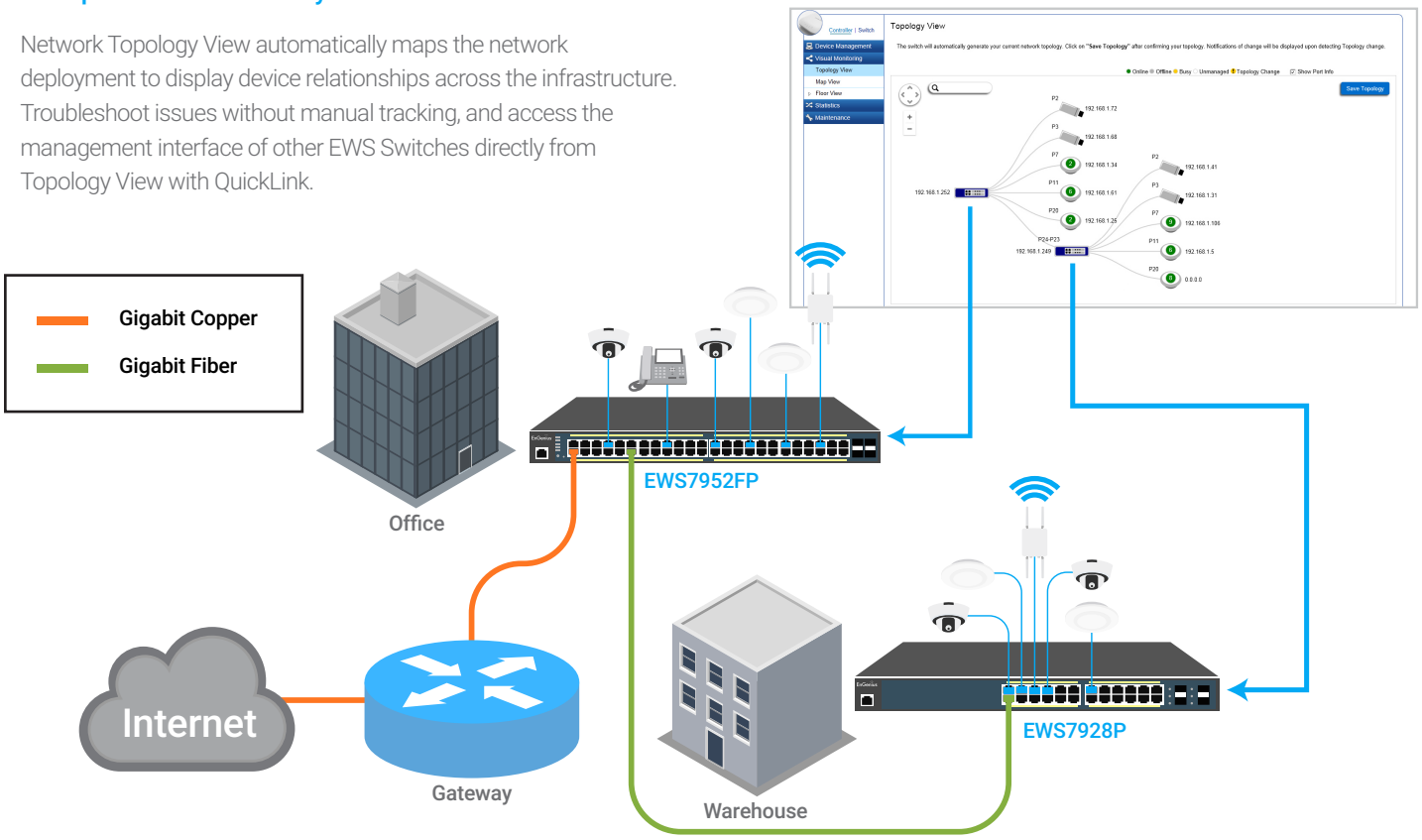
Power & Connect Multiple Devices

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. Regulate power budgets according to device requirements and remotely power cycle individual ports.



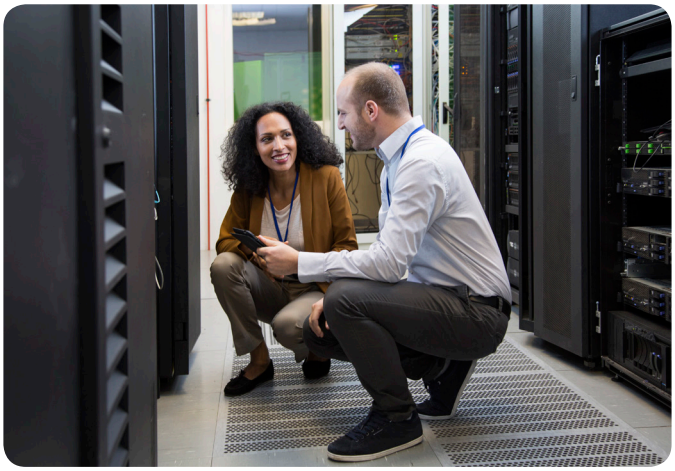
In-Depth Network Visibility

Network Topology View automatically maps the network deployment to display device relationships across the infrastructure. Troubleshoot issues without manual tracking, and access the management interface of other EWS Switches directly from Topology View with QuickLink.



Network Traffic Management

Neutron full-featured Layer 2 Switches offer performance-enhancing features that reduce multicasting traffic, speed up port blocking and port forwarding, and increase bandwidth via load balancing. Control each port's available bandwidth speeds for connected devices like APs in areas where more or less speed is needed, such as in lobbies or conference rooms.



VLAN/Voice & Quality of Service

Segment the network by departments or traffic types for increased performance and security with 802.1Q VLAN. 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.

Access Control & Security

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

Network Monitoring & Troubleshooting

Enable 3rd party SNMP management and monitor the network's performance by viewing port statistics, system logs, and RMON data. Perform port diagnostics through Ping Tests, diagnose cable failure and trace the route data takes through the network to troubleshoot slowdowns or connection issues.

Added Bonus: License-Free Access Point & Remote Management

Locally Manage Wireless Access Points With On-Board Tools

Quickly discover, configure and monitor Neutron EWS Access Points and manage up to 50 APs within the local subnet, license-free, through the switch's suite of wireless management features.

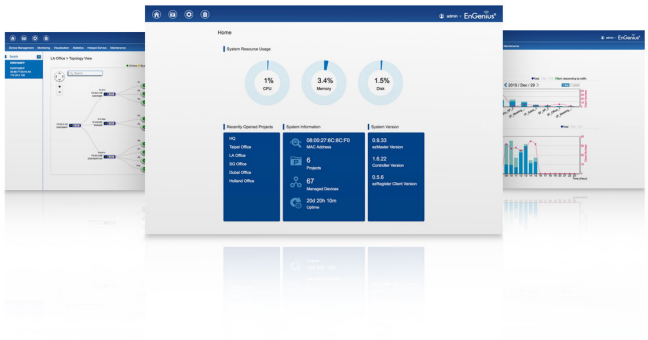
Centrally Manage Wired & Wireless Devices via ezMaster

Manage Neutron EWS Access Points, Switches, and IP Cameras through ezMaster Network Management Software for remote, centralized management of hundreds of EWS devices across the network or multiple sites regardless of size or location without licensing or subscription fees.



Simplified Device Management

Centralized device management is easy through both the switch's on-board tools and ezMaster Software. Group Neutron devices for streamlined configuration, provisioning and monitoring; view wired and wireless traffic via a comprehensive at-a-glance dashboard and get rich analytics and reporting.



Managed Gigabit PoE+ Switches

						
Models	**EWS7952FP**	**EWS1200-28TFP**	**EWS7928FP**	**EWS7928P**	**EWS5912FP**	**EWS2910P**
10/100/1000 Base-T, POE+	48	24	24	24	8	8
10/100/1000 SFP Ports	4	4	4	4	2	2
RJ45 Console Port	•	•	•	•	•	-
Auto Uplink Gigabit Ports	-	-	-	-	2	-
Rackmount	19" 1U	19" 1U	19" 1U	19" 1U	13" 1U	9.45" (desktop)
Total PoE Budget	740W	410W	370W	185W	130W	61.6W
PoE+ Capable Ports	1-48	1-24	1-24	1-24	1-8	1-8 (802.3af only)
Switching Capacity	104 Gbps	56 Gbps	56 Gbps	56 Gbps	24 Gbps	20 Gbps
Forwarding Mode	Store-and-forward	Store-and-forward	Store-and-forward	Store-and-forward	Store-and-forward	Store-and-forward
MAC Address Table	8k	8k	8k	8k	8k	8k
Packet Buffer Memory	1.5 MB	512 KB	512 KB	512 KB	512 KB	512 KB
Power Source	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz	100 to 240 VAC 50/60Hz
Full Load Power Consumption	885.23 Watts	409.74 Watts	452.06 Watts	235.3 Watts	152.8 Watts	79.4 Watts
Management	Wireless AP Controller, ezMaster Network Management Software, Web GUI, CLI, SNMP, RMON, HTTPS, Dual Image					
Wireless EWS AP Support	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50
Advanced QoS with IPv4/IPv6 Multicast Filtering	IGMP and MLD Snooping					
Auto-VoIP	•	•	•	•	•	•
VLANs	Max 4094 Static Groups, Voice VLAN					
Network Standards	IEEE 802.3 Ethernet IEEE 802.3i 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 10000Base-T Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3z Gigabit Ethernet 1000Base-SX/LX IEEE 802.3ad Link Aggregation (Trunking) IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) IEEE 802.1Q VLAN Tagging IEEE 802.1ab Link Layer Discovery Protocol (LLDP) IEEE 802.1p Quality of Service IEEE 802.1X RADIUS Access Control IEEE 802.3az Energy Efficient Ethernet					

Managed Gigabit Smart Switches

			
Models	**EWS1200-52T**	**EWS1200-28T**	**EWS1200D-10T**
10/100/1000 Base-T Ports	48	24	8
100/1000 SFP Ports	4	4	2
Console Port	1 RJ45	1 RJ45	-
Rackmount	19" 1U	19" 1U	9.44" (desktop)
Switching Capacity	104 Gbps	56 Gbps	20 Gbps
Forwarding Mode	Store-and-forward	Store-and-forward	Store-and-forward
MAC Address Table	8k	8k	8k
Packet Buffer Memory	1.5 MB	512 KB	512 KB
Power Source	60W Internal Power	30W Internal Power	DC12V/1A External
Full Load Power Consumption	54.02W	24.48W	6.59W
Management	Wireless AP Controller, ezMaster Network Management Software, Web GUI, CLI, SNMP, RMON, HTTPS, Dual Image		
Wireless EWS AP Support	Up to 50	Up to 50	Up to 50
Advanced QoS with IPv4/IPv6 Multicast Filtering	IGMP and MLD Snooping		
Auto-VoIP	•	•	•
VLANs	Max 4094 Static Groups, Voice VLAN		
Network Standards	IEEE 802.3 Ethernet IEEE 802.3i 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 10000Base-T Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3z Gigabit Ethernet 1000Base-SX/LX IEEE 802.3ad Link Aggregation (Trunking) IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) IEEE 802.1Q VLAN Tagging IEEE 802.1ab Link Layer Discovery Protocol (LLDP) IEEE 802.1p Quality of Service IEEE 802.1X RADIUS Access Control IEEE 802.3az Energy Efficient Ethernet		

Technical Specifications

Network Ports

EWS2910P

8 x 10/100/1000 Mbps Ports

2 x 100/1000 Mbps SFP Slot

EWS5912FP

8 x 10/100/1000 Mbps Ports

2 x 100/1000 Mbps SFP Slot

2 x 100/1000 Mbps Uplink

1 x RJ45 Console Port

EWS7928P / EWS7928FP / EWS1200-28TFP

24 x 10/100/1000 Mbps Ports

4 x 100/1000 Mbps SFP Slot

1 x RJ45 Console Port

EWS7952FP

48 x 10/100/1000 Mbps Ports

4 x 100/1000 Mbps SFP Slot

1 x RJ45 Console Port

EWS1200D-10T

8 x 10/100/1000 Mbps Ports

2 x 100/1000 Mbps SFP Ports

EWS1200-28T

24 x 10/100/1000 Mbps Ports

4 x 100/1000 Mbps SFP Ports

1 x RJ45 Console Port

EWS1200-52T

48 x 10/100/1000 Mbps Ports

4 x 100/1000 Mbps SFP Ports

1 x RJ45 Console Port

Switching Capacity

EWS2910P: 20 Gbps

EWS5912FP: 24 Gbps

EWS7928P: 56 Gbps

EWS1200-28TFP: 56 Gbps

EWS7928FP: 56 Gbps

EWS7952FP: 104 Gbps

EWS1200D-10T: 20 Gbps

EWS1200-28T: 56 Gbps

EWS1200-52T: 104 Gbps

Forwarding Mode

Store and Forward

SDRAM

256MB

Flash Memory

32MB

EWS1200D-10T / EWS1200-28T

Packet Buffer Memory: 512 KB

EWS1200-52T

Packet Buffer Memory: 1.5 MB

PoE Capability

EWS2910P

PoE Standard: Ports 1~8 Support IEEE 802.3af

EWS5912FP

PoE Standard: Ports 1~8 Support IEEE 802.3at/af

EWS7928P / EWS7928FP / EWS1200-28TFP

PoE Standard: Ports 1~24 Support IEEE 802.3at/af

EWS7952FP

PoE Standard: Ports 1~48 Support IEEE802.3at/af

PoE Capable Ports

EWS2910P Ports 1~8 Can Output Up to 15W

EWS5912FP Ports 1~8 Can Output Up to 30W

EWS7928P All Gigabit Ethernet Ports/Up to 30W

EWS1200-28TFP All Gigabit Ethernet Ports/Up to 30W

EWS7928FP All Gigabit Ethernet Ports/Up to 30W

EWS7952FP All Gigabit Ethernet Ports/Up to 30W

Total PoE Budget

EWS2910P: 61.6W

EWS5912FP: 130W

EWS7928P: 185W

EWS7928FP: 370W

EWS1200-28TFP: 410W

EWS7952FP: 740W

Power & Source

EWS7952FP

Full Load Power Consumption: 885.23 Watts

110 to 240 VAC 50/60Hz

EWS1200-28TFP

Full Load Power Consumption: 409.74 Watts

110 to 240 VAC 50/60Hz

EWS7928FP

Full Load Power Consumption: 452.06 Watts

110 to 240 VAC 50/60Hz

EWS7928P

Full Load Power Consumption: 235.3 Watts

110 to 240 VAC 50/60Hz

EWS5912FP

Full Load Power Consumption: 152.8 Watts

110 to 240 VAC 50/60Hz

EWS2910P

Full Load Power Consumption: 79.4 Watts

110 to 240 VAC 50/60Hz

EWS1200D-10T

Full Load Power Consumption: 6.59W

DC12V/1A External

EWS1200-28T

Full Load Power Consumption: 24.48W

30W Internal Power

EWS1200-52T

Full Load Power Consumption: 54.02W

60W Internal Power

LED Indicators

1 x Power LED

1 x Fault LED

1 x PoE Max LED

1 x LAN Mode LED

1 x PoE Mode LED

Copper Ports: LAN/PoE Mode, Link/Act

SFP Ports: Link/Act, Speed (EWS2910P, EWS7952FP, EWS1200D-10T, EWS1200-28T, & EWS120052T only)

Software Features

Layer 2 Features

802.3ad Link Aggregation

- Maximum of 8 Groups/8 Ports per Group

Port Mirroring

- One-to-One
- Many-to-One

Spanning Tree Protocol

- 802.1D Spanning Tree Protocol (STP)
- 802.1w Rapid Spanning Tree Protocol (RSTP)
- 802.1s Multiple Spanning Tree Protocol (MSTP)

MAC Address Table

- 8K Entries

Static MAC Address

- 256 Entries

802.1ab Link Layer Discovery Protocol

IGMP Snooping

- IGMP v1/v2/v3 Snooping
- Supports 4094 IGMP Groups
- IGMP per VLAN
- IGMP Snooping Querier
- IGMP Snooping Fast Leave

MLD Snooping

- MDL Snooping v1/v2
- Supports 4,094 MLD Groups
- MLD per VLAN

Jumbo Frame

- Up to 9,216 bytes

802.3x Flow Control

802.3az Energy Efficient Ethernet

VLAN

802.1Q Support

VLAN Group

- Max 4,094 Static VLAN Groups

Voice VLAN

Technical Specifications continued

QoS

802.1p Quality of Service
- 8 Queues per Port

Queue Handling
- Strict
- Weighted Round Robin (WRR)

QoS Based on:
- 802.1p Priority
- DSCP

Bandwidth Control
- Port-Based (Ingress/Egress, 64 Kbps~1000 Mbps)

Broadcast/Unknown Multicast/Unknown Unicast Storm Control

Access Control List (ACL)

Layer 2/3
- Supports Maximum 32 Entries (ACL)
- Supports Maximum 256 Entries (ACE)

ACL Based on:
- MAC Address
- VLAN ID
- 802.1p Priority
- Ethertype
- IP Address
- Protocol Type
- DSCP

Security

802.1X
- Guest VLAN
- Port-Based Access Control

Supports RADIUS Authentication

Port Security
- Up to 256 MAC Addresses per Port

Port Isolation

DoS Attack Prevention

BPDU Attack Prevention

Monitoring

Port Statistics

System Log

RMON

Management

Web Graphical User Interface (GUI)

Command Line Interface (CLI)

BootP/DHCP Client/DHCPv6 Client

SSH Server

Telnet Server

TFTP Client

HTTPS

SNMP

Management continued

Web Graphical User Interface (GUI)

Command Line Interface (CLI)

BootP/DHCP Client/DHCPv6 Client

SSH Server

Telnet Server

TFTP Client

HTTPS

SNMP
- Supports v1/v2c/v3

SNMP Trap

SNTP

Configuration Restore/Backup

Dual Images

Email Alerts

PoE Management

Power On/Off Per Port

Power Class Configuration

Power Feeding with Priority

User Defined Power Limit

Diagnostic

Cable Diagnostic

Ping Test

Trace Route

IPV6 Ping Test

MIB/RFC Standards

RFC1213

RFC1493

RFC1757

RFC2674

RFC 2863

Wireless Management Features (with Neutron Series Access Points & ezMaster)

AP Supported (up to 50 APs in controller mode)

Access Point Auto Discovery & Provisioning

Access Point Auto IP-Assignment

Access Point Group Management

Remote Access Point Rebooting

Access Point Device Name Editing

Access Point Radio Settings

Band Steering

Traffic Shaping

Fast Roaming (802.11k & 802.11r)

Pre-Authentication (802.11i & 802.11x)

PMK Caching (802.11i)

RSSI Threshold

Access Point Client Limiting

Client Fingerprinting

Wireless Security (WEP, WPA/WPA2 Enterprise, WPA/WPA2 PSK)

Wireless Management Features (with Neutron Series Access Points & ezMaster) continued

AP VLAN Management

VLANs for Access Point- Multiple SSIDs

Secured Guest Network

Capture Portal

Access Point Status Monitoring

Rogue AP Detection

Email Alert

Wireless Client Monitoring

Background Scanning

Wireless Traffic & Usage Statistics

Real-Time Throughput Monitoring

Visual Topology View

Floor Plan View

Map View

Wireless Coverage Display

Secure Control Messaging (SSL Certificate)

Local MAC Address Database

Remote MAC Address Database (RADIUS)

Unified Configuration Import/Export

Intelligent Diagnostics

Bulk Firmware Upgrade Capability

One-Click Update

Kick/Ban Clients

Wi-Fi Scheduler

ezMaster System Requirements

Recommended environment for managing up to 500 APs

CPU: Intel® Core™ i3 3.6 GHz dual-core or above

RAM: 4 GB minimum

HDD: 500 GB (actual requirement dependent on log size)

OS: Microsoft® Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

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

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Recommended environment for managing up to 1,000+ APs

CPU: Intel® Core™ i5 3.2 GHz quad-core or above

RAM: 4 GB minimum

HDD: 500 GB (actual requirement dependent on log size)

OS: Microsoft® Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

Browser Requirements

Internet Explorer 10 or better

Firefox 34.0 or better

Chrome 31.0 or better

Safari 8.0 or better

Network Topology Requirements

At sites where APs are deployed: A DHCP-enabled network for APs to obtain an IP address

Technical Specifications continued

Environmental & Mechanical

Temperature Range

EWS2910P

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

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

EWS5912FP / EWS7928P / EWS1200-28TFP / EWS7928FP / EWS7952FP

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

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

EWS1200D-10T

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

Storage: -40°F to 158°F (-40°C to 70 °C)

EWS1200-28T / EWS1200-52T

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

Storage: -40°F to 158°F (-40°C to 70 °C)

Humidity (non-condensing)

Operating: 5% - 95%

Device Dimensions & Weights

EWS2910P

Weight: 1.36 lbs. (620 g)

Width: 9.45" (240 mm)

Length: 4.13" (105 mm)

Height: 1.06" (27 mm)

EWS5912FP

Weight: 4.4 lbs. (1.9 kg)

Width: 13.00" (330.20 mm)

Length: 9" (228.60 mm)

Height: 1.73" (43.94 mm)

EWS7928P

Weight: 7.82 lbs. (3.5 kg)

Width: 17.3" (439 mm)

Length: 10.24" (260 mm)

Height: 1.73" (44 mm)

Device Dimensions & Weights continued

EWS1200-28TFP

Weight: 7.82 lbs. (3.5 kg)

Width: 17.3" (439 mm)

Length: 10.24" (260 mm)

Height: 1.73" (44 mm)

EWS7928FP

Weight: 10.36 lbs. (4.7 kg)

Width: 17.3" (439 mm)

Length: 12.2" (310 mm)

Height: 1.73" (44 mm)

EWS7952FP

Weight: 14.15 lbs. (6.4 kg)

Width: 17.32" (439.9 mm)

Length: 16.14" (409.9 mm)

Height: 1.73" (43.9 mm)

EWS1200D-10T

Weight: 1.33 lbs. (.61 kg)

Width: 9.44" (240 mm)

Depth: 4.13" (105 mm)

Height: 1.06" (27 mm)

EWS1200-28T

Weight: 6.6 lbs. (3 kg)

Width: 17.32" (440 mm)

Depth: 10.23" (260 mm)

Height: 1.73" (44 mm)

EWS1200-52T

Weight: 8 lbs. (3.68 kg)

Width: 17.32" (440 mm)

Depth: 10.23" (260 mm)

Height: 1.73" (44 mm)

Package Contents

1x EWS Managed Gigabit Switch

1x Quick Installation Guide

EWS2910P

1x Power Adapter

1x Power Cord

1x Wall Mount Kit

1x Ground Screw Set

EWS5912FP / EWS7928P / EWS7928FP / EWS-7952FP

1x Power Cord

1x RJ45 Console Cable

1x Rack Mount Kit

EWS1200D-10T

1x Power Adapter

1x Wall-Mount Kit

EWS1200-28T

1x Power Cord

1x Rack Mount Kit

EWS1200-52T

1x Power Cord

1x Rack Mount Kit

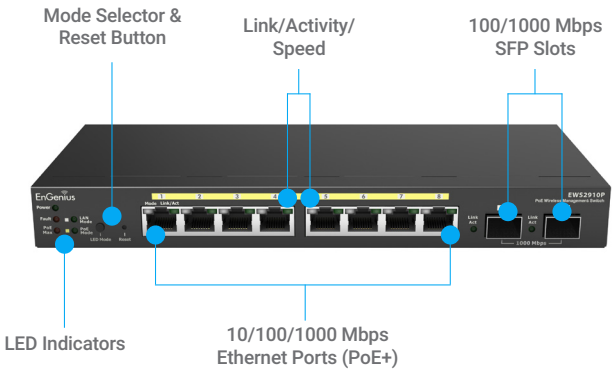
Certifications

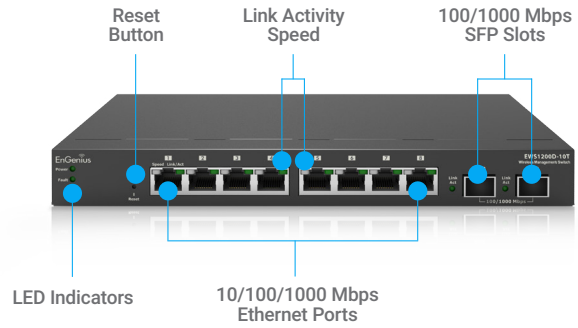
CE, FCC, IC

Warranty

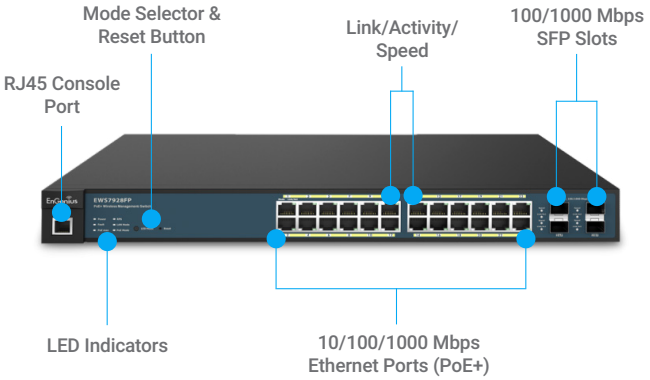
1 Year

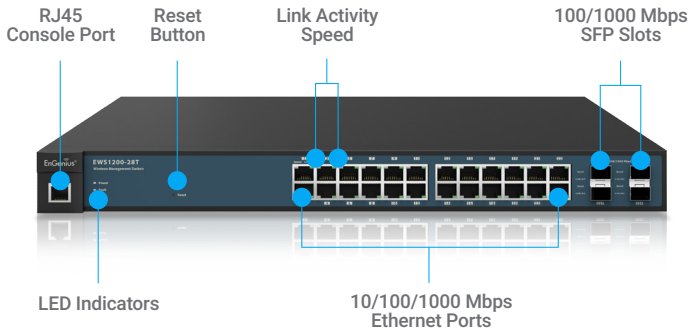
Desktop





Rackmount





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.

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