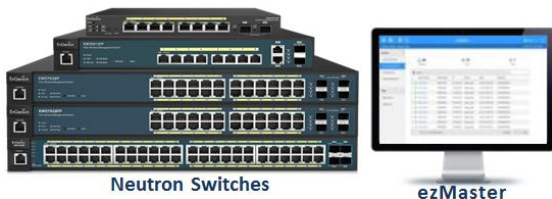




## Key Features

- Advanced AP mode with Mesh support
- Dual Concurrent 2.4GHz and 5GHz architecture with max transfer rates of up to 300+867 Mbps
- Integrated WLAN management solution with EWS Neutron Series Switches
- Gigabit Ethernet port with IEEE802.3af standard PoE support
- Secure Guest Network option available
- Built-in internal high performance antennas for low profile design
- Full HD Sony CMOS image sensor delivers 30fps in 1080P resolution
- Provide true day/night functionality with 20 meter IR LEDs and IR cut filter
- H.264 high compression video with VLAN and prioritizing QoS for delivering easily
- Diagonal 120° wide angle Lens with F2.0
- Free bundle Video Management Software
- ONVIF compatible (Profile S)

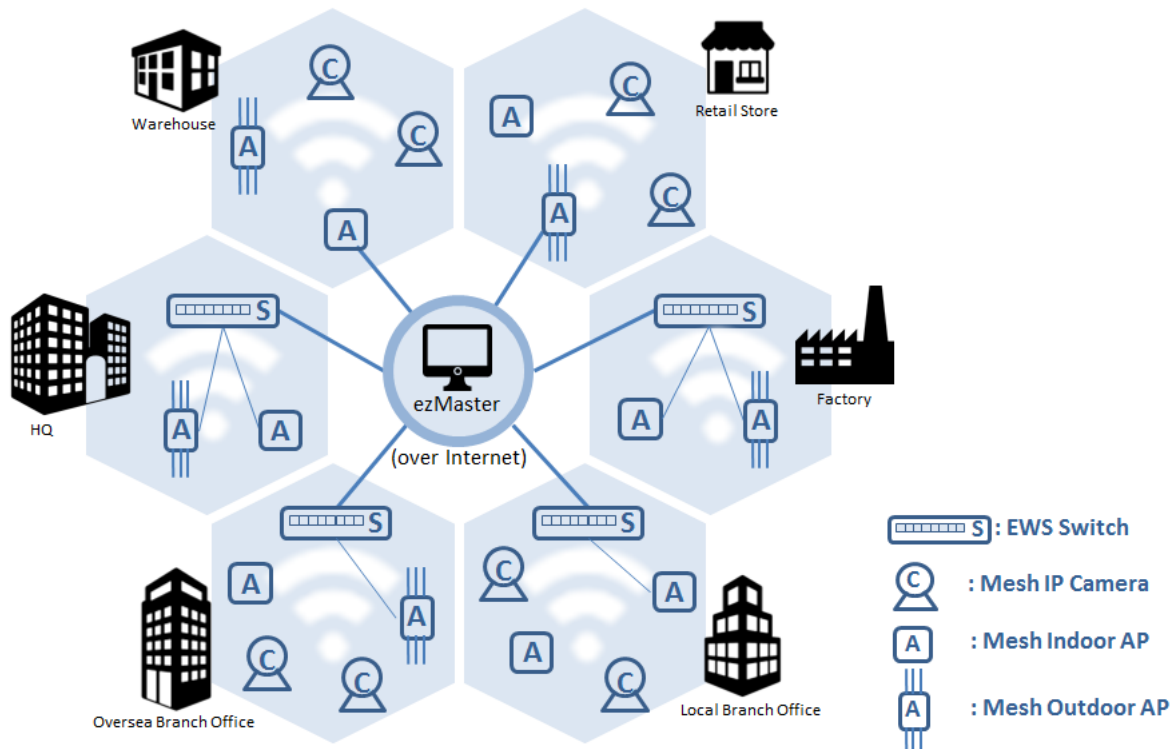


## Wireless Mesh AP 2-Megapixel Surveillance Solution

EnGenius wireless 2.4GHz & 5GHz dual band Access Point with IP camera can solve significant security challenges at voice and data applications.

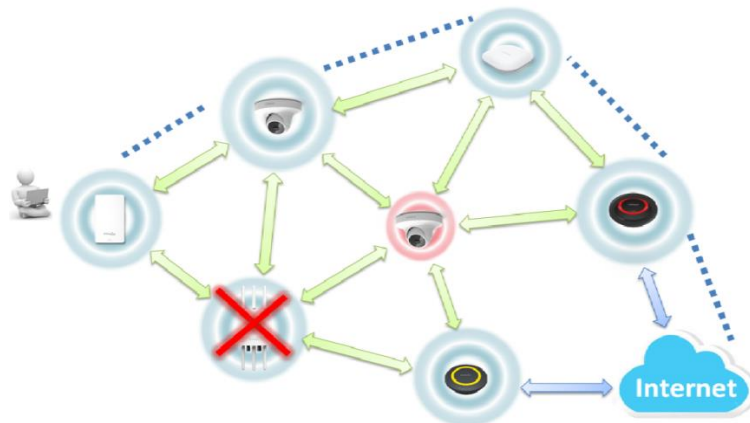
EnGenius Indoor Mesh Access Point Camera is a new concept of dual band concurrent, high power, high sensitivity and strong reliability for enterprise solutions. Easy setup and installation for combination of two products – Access point and IP camera, one PoE or DC power solve the power input, and single UI interface for all configurations. To integrate the hotspot service and surveillance, EWS1025CAM not only wireless mesh access point extends wireless access over large, metro scale areas, eliminates costly Ethernet cabling to every Wi-Fi access point, but also provides high resolution video streaming for security. It can be easily deployed and maintained with no configuration deployment and recovery capacity. Extended signal range from high-gain antenna arrays reduce the number of mesh nodes typically required. The EWS1025CAM is a component of the EWS Neutron Series Switches, delivering a robust

wireless network with maximum capacity and uptime, the wireless mesh can be seamlessly deployed as an extension of wired and wireless networks, with central management through controllers. No IT experts required for installation, system automatically determines the optimal network topology and maintains the best connections between mesh nodes. The centralize functions of the wireless LAN to provide scalable management, advanced security, seamless mobility, and proven reliability.



## EnGenius wireless Mesh topology

Simple to deploy and create a mesh network by the EWS controller or EzMaster in minutes. Once plugged into any power source, the EnGenius mesh devices automatically optimizes routes between wireless mesh devices and creates a truly adaptive mesh infrastructure with all system. As the wireless environment changes, such as the addition of a new node or link broken, data paths are re-evaluated, and the mesh network self-tunes automatically to maintain its performance. All self-tuning processes are dynamic, occurring in the background and in real time.



**Configuration and management with ease**

EWS1025CAM can be flexibly deployed either as a standalone wireless access point or as a managed access point controlled by a Neutron Wireless Management Switch; a part of EnGenius' integrated WLAN management solution, providing intuitive web-based configuration, management, and monitoring features. The EWS1025CAM is automatically discovered and provisioned by the Neutron Wireless Management Switch in your network, and once added into the managed device list, IT managers can effortlessly use individual or cluster settings to rapidly deploy numerous EWS1025CAM with the desired settings, saving repetitive configuration tasks.

**Digitalize Surveillance Solution**

The EWS1025CAM a small form-factor dome type IP camera, comes with 2 Megapixel providing up to 30 fps at 1080p viewing resolution. The camera supports dual streams from H.264 and MJPEG video compression formats. Equipped with a wide angle Lens plus twenty-four IR LEDs for enabling the night visibility of up to 20 meters, the camera meet a wide variety of needs for surveillance.

The 3DNR (3Digital Noise Reduction) function is designed for reducing the noises in the images, allowing the camera to better distinguish between real motion and image noise, and thus results in a possibility to store more video evidence on the connected storage devices.

**State-of-the-art 802.11ac brings revolutionary connection speed on your WLAN for diversity of multimedia applications**

EWS1025CAM equips with two powerful independent RF interfaces that support 2.4GHz 802.11b/g/n (2T2R) and 5GHz 802.11a/n/ac (2T2R), offering bandwidth up to 300Mbps + 867Mbps to accommodate traffic-intensive applications such as multimedia streaming. Each radio of EWS1025CAM has been enhanced to provide higher signal strength and receive sensitivity; this will assist to reduce dead spots in your deployed WLAN and boost received signal quality on both ends of Access Point and wireless client devices.

**Advanced WLAN Features to Facilitate Smooth Roaming and Effective Spectrum Usage**

For effective spectrum usage, EWS1025CAM has enclosed band steering technology in high-capacity environment, enabling 5GHz-capable clients to associate with its 5GHz radio and offloading air utilization in 2.4GHz-band. In addition, EnGenius fast roaming minimizes service down-time during handoff from one base station to another.

**24 hours x 365 days Security Guard**

The EWS1025CAM IP-based camera perform 1080P (Full HD) resolution and advanced IR-cut filter for day and night working. With the ePTZ (electric pan-tilt-zoom) feature on the unit, network administrators and IT managers can also scan and digitally zoom in close to specific areas for a more detailed view.

**802.3af-compliant Power-over-Ethernet (PoE) for Second Power Sourcing Alternative**

EWS1025CAM can be powered by enclosed power adapter or off-the-shelf 802.3af-compliant PoE switches; solving

common power sourcing issue in the field where devices are usually placed at drop-ceiling or mounted on walls.

### Video-specific Optimization: Quality of Service (QoS) and VLAN per SSID supports video streaming

With QoS, access points can deliver a high quality user experience, while controlling applications' access to the bandwidth, so they can reduce minimize latency and guarantee bandwidth for time-sensitive application, such as video and specific data.

With EnGenius, a VLAN ID can be associated with a WLAN service set identifier (SSID) which extends VLAN QoS priorities to users and applications assigned to different SSIDs.

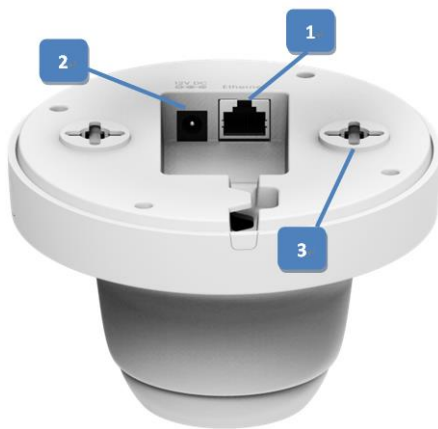
### Industrial end-to-end security

Communications between wireless clients and EWS1025CAM Access Point are protected and encrypted with Wi-Fi Protected Access (WPA and WPA2), which uses the temporal key integrity protocol (TKIP). EnGenius also support the advanced encryption standard (AES) to encrypt traffic between access points and clients.

### VMS: Video Management Software

With 16-channel 1080p VMS software you can monitor up to 16 camera streams in real time. The VMS software also includes intelligent video analytics help to better manage and analyze images for security purposes.

### Indicator and Physical Interface



Physical Interface		Indicator	
1	RJ45 Giga Ethernet Port(PoE)	6	LED Indicators
2	Power Connector	7	Built-in LENS
3	Ceiling Mount Hole	8	Built-in Microphone
4	Micro SD Card Slot	9	IR illuminator
5	Reset Button		

## Technical Specification

### Wireless Radio Specification

- Dual Concurrent Radio
  - 2.4GHz: 802.11b/g/n with max data rate up to 300Mbps
  - 5GHz: 802.11 a/n/ac with max data rate up to 867Mbps
- Transmit Power (combined):
  - 2.4GHz: max 21dBm
  - 5GHz: max 19dBm
  - Maximum transmit power is limited by regulatory power
- Radio Chains / Spatial Streams: 2 x 2 : 2
- Supported Radio Technology:
  - 802.11b: direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n/ac: orthogonal frequency-division multiplexing (OFDM)
- Channelization
  - 802.11ac with 20/40/80 MHz channel width
  - 802.11n with 20/40 MHz channel width
  - 802.11a/b/g with 20 MHz channel width
- Supported Modulation:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
  - 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
- Supported data rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: 6.5 to 300 (MCS0 to MCS15)
  - 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 ~ 2)

### Power

- Power Source:
  - 12VDC/1.5A
  - Active Ethernet (Power over Ethernet, PoE)
- Power Consumption:
  - Maximum 12.4W

### Camera

- Image Sensor:
  - Sony 1/2.9" 2-Megapixel Progressive Scan CMOS
  - Humidity: 0%~90% typical
- LENS:
  - Fixed board LENS, f=2.8mm / F2.0
  - F.O.V : 120°(Diagonal)
- Day/Night:
  - Removable IR-cut filter
- Minimum illumination:
  - Color (IR-off): 0.1Lux / F2.0
  - B/W (IR-On: 0 Lux / F2.0
- IR illuminator:

### Antennas

- Internal high gain antennas
  - 5dBi 5GHz antenna
  - 5dBi 2.4GHz antenna

### Easy to Management

- Event
  - Event trigger: Motion/Tamper/Audio
  - Pre-alarm and post-alarm (5 sec)
  - Type of notification : File upload to NFS/SAMBA/FTP /SMT/EnGenius-Cloud & Play Audio
  - EnGenius Smart Recording: Available with EnGenius Cloud Router/Gateway
- QoS:
  - Complaint with IEEE 802.11e standard
- DiffServ (DSCP):
  - Specifies a simple, scalable and coarse-grained mechanism for classifying and managing network traffic and providing quality of service (QoS) on modern IP networks.
- Samba Client:
  - Provides file and print services for various windows clients and can integrate with a windows server domain, either as a primary domain controller (PDC) or as a domain member.
- Supporting Protocol:
  - IPv4, TCP, UDP, DHCP, DNS, SMTP
  - FTP
  - RTP (Real Time Protocol): Deliver audio and video over IP networks
  - RTSP (Real Time Streaming Protocol): The protocol is used for establishing and controlling media sessions between end points.
  - NFS: allowing a user on a client computer to access files over a network much like local storage is accessed.
- Time Zone Management
  - NTP mechanism built-in

### Operation Mode

- Mesh Access Point / Access Point /WDS:  
A variety of operation modes to serve multiple constituencies and applications

### Interface

- One(1) 100/1000 BASE-T Ethernet Ports
  - Compatible with 802.3af PoE input
- DC Jack:
  - 12VDC / 1.5A
- Reset Button
  - Reboot, Reset device to factory default
- Micro SDXC

- 24pcs of LEDs, up to 20m range
- Shutter Time: 1/2 sec. to 1/10,000 sec

## Video

- Multi Compression:
  - H.264/MJPEG
- Frame rates:
  - 30FPS at 1920x1080 resolution
- Image Settings:
  - Adjustable image size, quality and bit rate
  - Brightness, contrast, saturation, sharpness, white balance and exposure time stamp and text caption overlay
  - Flip & Mirror, AGC/AWB/AES

## Mechanical & Environment

- Dimension (ΦxH):
  - Φ134 x 97 mm
- Weight:
  - 1.05 lbs/478g
- Operating:
  - Temperature: 0°C ~ 50°C
  - Humidity: 10% ~ 80%

- Supported 32GB SD card or above.
- Audio
  - Built-in microphone

## Effective Control and Use

- Operation system:
  - Windows XP/2000/Vista/2003/2008/7
- Web browser:
  - Compatible with Internet Explorer
- Video Management Software:
  - EnGenius VMS Support and provide at included CD.
  - Support Windows XP/2000/Vista/2003/2008/7/8/10

## RF Specification (Aggregated Value)

Channel	Data Rate	Transmit Power (Aggregated, dBm)	Receive Sensitivity (Aggregated, dBm)
802.11b 2.4 GHz	1 Mbps	21	-92
	11 Mbps	21	-85
802.11g 2.4 GHz	6 Mbps	19	-85
	54 Mbps	17	-71
802.11a 5 GHz	6 Mbps	19	-88
	54 Mbps	16	-71
802.11n HT20 2.4 GHz	MCS 0 / 8 / 16	19	-84
	MCS 7 / 15 / 23	14	-68
802.11n HT40 2.4 GHz	MCS 0 / 8 / 16	19	-81
	MCS 7 / 15 / 23	14	-66
802.11n HT20 5GHz	MCS 0 / 8 / 16	17	-88
	MCS 7 / 15 / 23	14	-69
802.11n HT40 5GHz	MCS 0 / 8 / 16	17	-86
	MCS 7 / 15 / 23	14	-67
802.11ac VHT20 5GHz	MCS0	17	-88
	MCS8	13	-66
802.11ac VHT40 5GHz	MCS0	17	-85
	MCS9	12	-60
802.11ac VHT80 5GHz	MCS0	17	-83
	MCS9	12	-58

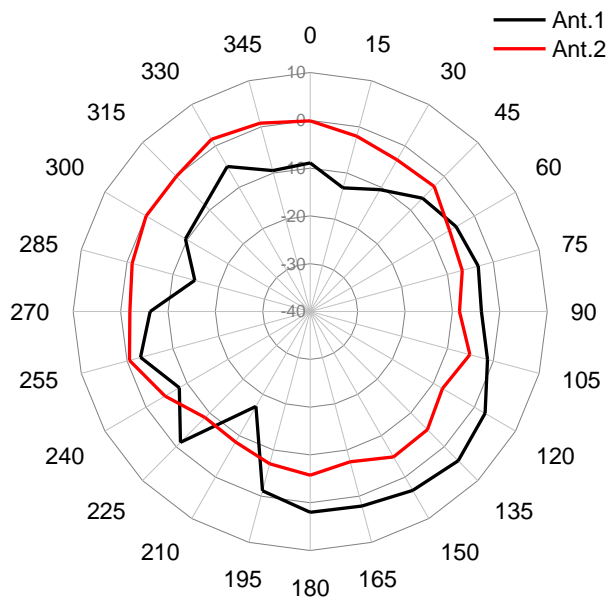
\*Maximum performance of the hardware provided. Maximum transmit power is limited by local regulatory.

\*The supported frequency band is restricted by local regulatory requirements.

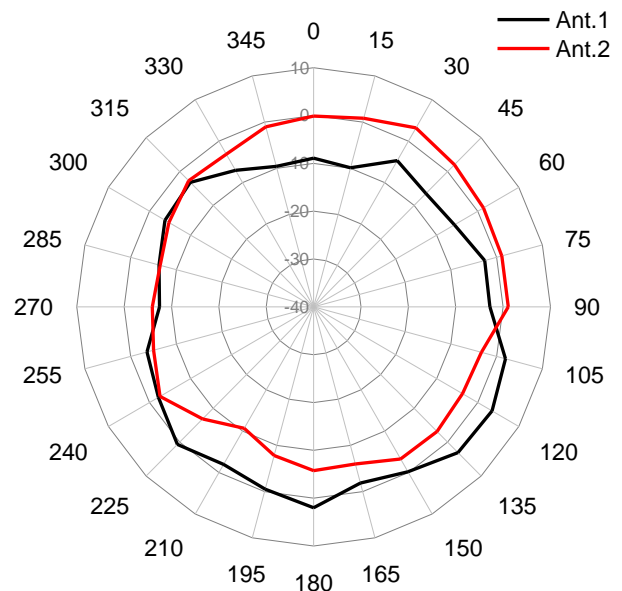
\*Transmit power is configured in 1.0dBm increments.

### Radiation Diagram

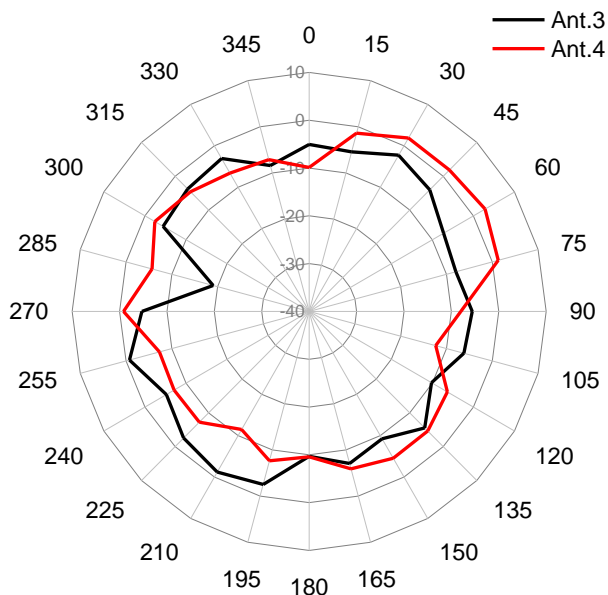
#### 2.4GHz : E-Plane



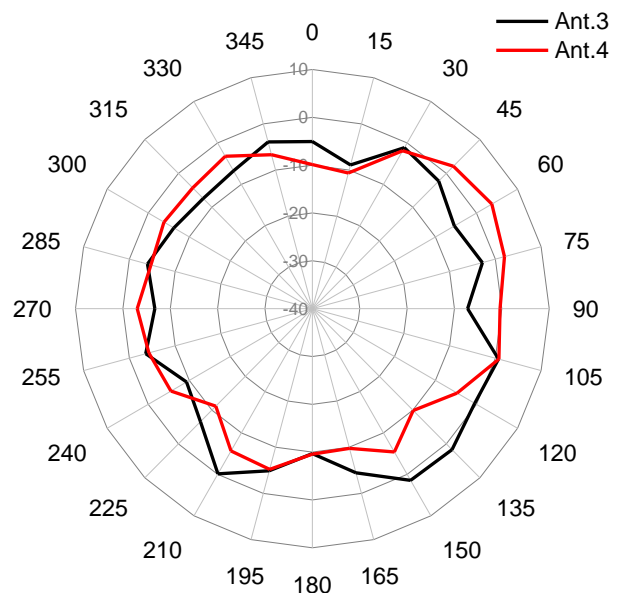
#### 2.4GHz : H-Plane



#### 5GHz : E-Plane

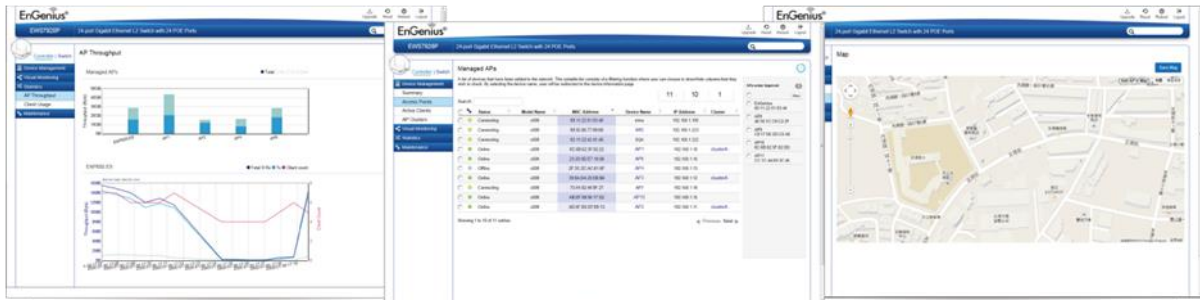


#### 5GHz : H-Plane



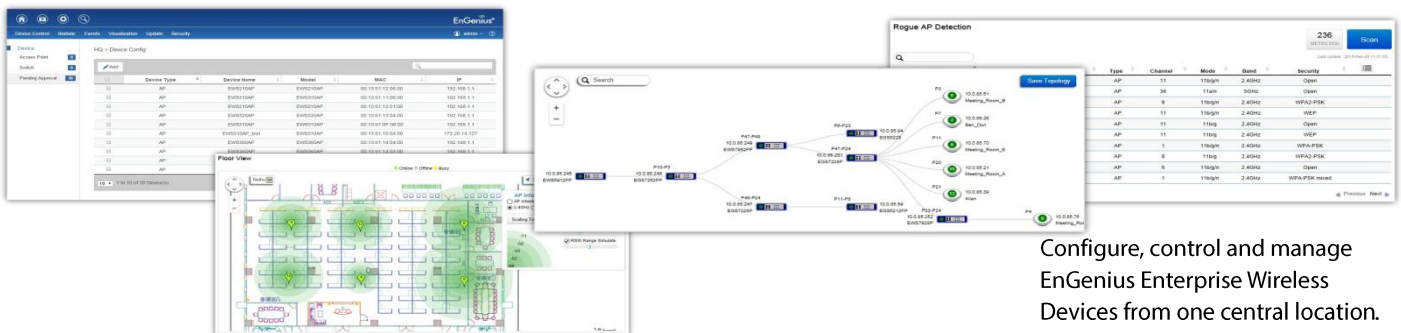
## Neutron PoE Wireless Management Switches

EnGenius Neutron Wireless Management Switch is an affordable centralized wired/wireless management system developed specifically for entry-level small-to-medium businesses. This powerful device can be easily deployed and operated by network amateur and installed effortless and efficiently. Any organization with limited IT engineer and budget can create a stable and secure wireless network in no time. Without additional costs or license purchasing necessary, network administrators can manage and monitor both wired and wireless nodes through a single web interface.



## Network Management System - EnGenius ezMaster

EnGenius ezMaster is a powerful and easy-to-use enterprise-class centralized network management system that manages EnGenius Neutron Series products for building and managing enterprise grade Wi-Fi infrastructures for all sizes of businesses from a single console. Through an intuitive user interface, Neutron devices are managed based on projects, enabling simplified WLAN configuration, firmware upgrades, centralized monitoring and much more, making managing thousands of devices as easy as managing a single device. Designed for ease-of-use, ezMaster lowers total operating costs by speeding deployment, configuration, and monitoring of an entire network with minimal IT assistance.



Configure, control and manage EnGenius Enterprise Wireless Devices from one central location.

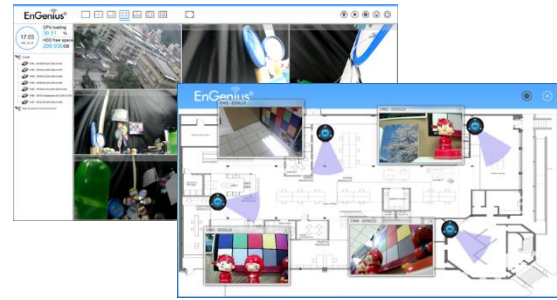
### Features:

- Easy-to-use User Interface
- Optimize network performance
- Eliminate downtime
- Check real-time wireless coverage
- Monitor and control each sheet
- Monitor traffic loads by AP, MAC or IP address
- Sequential firmware upgrades to deployed APs / Bridges
- Import and archive floorplan maps for radio coverage plotting
- Labels assets by MAC and IP address or user-defined aliases
- Export real-time AP statistics report

Maximum data rates are based on IEEE 802.11 standards. Actual throughput and range can vary depending on many factors including environmental conditions, distance between devices, radio interference in the operating environment, and mix of devices in the network. Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. Copyright © 2016 EnGenius. All rights reserved.

### VMS: Video Management Software

- Support OS: Windows XP/ 2000/ Vista/ 2003 /2008 /7 /8/10)
- Free bundle a 32-channel recording software
- Support H.264/MPEG4/MJPEG
- Live View, Record and playback
- eMAP with camera icons and mini live view
- Dual monitor management
- Time base search bar on Playback



### Ordering Information

Product No.	Product Description
<b>Wireless Management Switch</b>	
EWS2910P	8-Port Gigabit PoE L2 Wireless Management Switch with 2 Dual-Speed SFP; 61.6w
EWS5912FP	8-Port Gigabit PoE+ L2 Wireless Management Switch with 2 GbE Ports and 2 Dual-Speed SFP; 130w
EWS7928P	24-Port Gigabit PoE+ L2 Wireless Management Switch with 4 Dual-Speed SFP; 185w
EWS7928FP	24-Port Gigabit PoE+ L2 Wireless Management Switch with 4 Dual-Speed SFP; 370w
EWS7952FP	48-Port Gigabit PoE+ L2 Wireless Management Switch with 4 Dual-Speed SFP; 740w
<b>Wireless Managed Access Point</b>	
EWS300AP	Single Band Wireless N300 Managed Indoor Access Point
EWS310AP	Dual Band Wireless N600 Managed Indoor Access Point
EWS320AP	Dual Band Wireless N900 Managed Indoor Access Point
EWS350AP	Dual Band Wireless AC1200 Managed Indoor Access Point
EWS360AP	Dual Band Wireless AC1750 Managed Indoor Access Point
EWS500AP	Single Band Wireless N300 Managed Wall Plate Access Point
EWS510AP	Dual Band Wireless N600 Managed Wall Plate Access Point
EWS650AP	Dual Band Wireless AC1200 Managed Outdoor Access Point; IP55
EWS660AP	Dual Band Wireless AC1750 Managed Outdoor Access Point; IP55
EWS860AP	Dual Band Wireless AC1750 Managed Outdoor Access Point; IP68
<b>PoE+ Layer 2 Managed Switch</b>	
EGS5212FP	8-Port Gigabit PoE+ L2 Managed Switch with 2 GbE Ports and 2 Gigabit SFP; 130w
EGS7228P	24-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 185w
EGS7228FP	24-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 370w
EGS7252FP	48-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 740w
<b>PoE Adaptor</b>	
EPA5006GP	Input 100V to 240V AC/50-60Hz proprietary 54V/0.6A power supply, 10/100/1000 solution
EPA5006GAT	Input 100V to 240V AC/50-60Hz 802.3af/at/at power supply , 10/100/1000 solution