



Datasheet

The Neutron Series

ART. 42/93075-00



Key Features

- Integrated 802.11n wireless access point and 4 port Ethernet switch
- Gigabit Ethernet uplink provides high speed Internet access
- 4 x 10/100Mbps Ethernet port for wired device connectivity (1 port includes PoE output)
- Additional RJ45 pass-through port for connecting to phone systems
- Powered by 802.11af/at Power over Ethernet or 48VDC adapter
- Internal high-performance antennas for low profile design
- Effective and flexible bandwidth management
- Secure Guest Network option available
- Ideal for audio, video and voice application
- Mounts onto any standard wall box

Neutron Wireless Managed Wall Plate AP

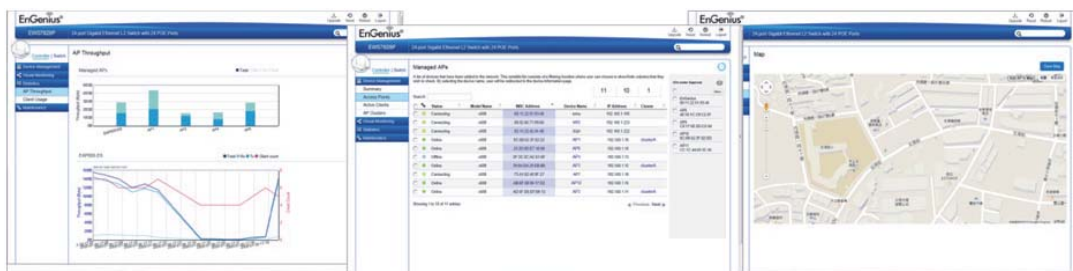
Reliable in-room wired/wireless connectivity for hospitality and education

EnGenius EWS500AP / EWS510AP is a wall plate access point designed to be installed onto any standard wall junction box, providing not only wireless, but also PoE and phone connectivity from a single device. By using the existing structured cabling system present in a building, the access point is ideal for offering in-room wired and wireless network access in hotel guest rooms, university dormitories, serviced apartments, classrooms, and other multitenant environments.

The sleek and compact designed EWS500AP delivers high performance 2.4 GHz 802.11n wireless coverage with data rate up to 300Mbps while the EWS510AP delivers dual band 2.4 GHz and 5 GHz 802.11n concurrent wireless coverage up to 600Mbps. For wired connectivity, the EWS500AP / EWS510AP features a total of four Ethernet downlink ports: 3 (10/100Mbps) data ports and 1 (10/100Mbps) 802.3af compliant PoE port for powering devices such as VoIP phones directly from the access point without additional cabling, switch ports and power sourcing equipment. An additional passive pass-through port allows connectivity for phones or fax machines. The device can be powered using standard 802.3af/at PoE or a DC48V power adapter (sold separately).

Configuration and management with ease

Neutron Series Access Points 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 AP 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 AP with the desired settings, saving repetitive configuration tasks.



802.3af/at-compliant Power-over-Ethernet (PoE) for alternative power sourcing

Neutron APs can be either powered by the enclosed power adapter or any off-the-shelf 802.3af/at-compliant PoE switches, solving common power sourcing issue in the field where devices are usually placed at drop-ceiling or mounted on walls. With PoE power management from the Neutron Switch, AP device power budget and consumption can be instantly configured and monitored.

Flexible bandwidth management and enterprise-class WLAN security for versatile applications

Neutron Access Points supports the latest standards in Wi-Fi security, including WEP, WPA and WPA2. In addition, Neutron APs supports up to 8 SSIDs per radio, which allows IT managers to assign different access privileges to different groups of users. In terms of user mobility, PMKSA caching will facilitate fast roaming upon handoff so that the remaining 4-way handshake can complete the key exchange within the association process to reduce time interval. In addition, Guest Network feature also allocates a separate network segment for guest access within the deployed WLAN so access attempts on internal networks can be restricted.

Dual Band Operation

- The 2.4 GHz and the 5 GHz frequency bands for expanded user capacity.
- Greater number of channels available on the 5 GHz frequency spectrum to support higher bandwidth applications like HD video streaming.

Band Steering

When wireless networks experience congested traffic, users may suffer slower file transfers and frequent video buffering especially on the 2.4 GHz band. Neutron AP dual-band models include a Band Steering option which can be enabled to automatically shifts the connection of Dual-Band client computers, tablets, smart phones and other devices to the 5 GHz band where there is less traffic and more available RF channels, leaving single-band 2.4 GHz (802.11b/g/n) clients to operate on the 2.4 GHz band that greatly optimizes overall bandwidth traffic on the network.

Fast Roaming

Multiple Neutron APs can also be configured for Fast Roaming. This feature uses protocols defined in 802.11r to allow continuous connectivity for wireless devices in motion, with fast and secure roaming from one AP to another. Coupled with 802.11k, wireless devices are able to quickly identify nearby APs that are available for roaming and once the signal strength of the current AP weakens and your device starts to search for a new AP, it will identify which AP is the best to connect with. This means that employees can be constantly connected to the network – whether they are warehouse workers scanning and capturing barcode information, employees on Wi-Fi phone calls while walking to meetings on another part of a building or healthcare professionals capturing patient information on mobile devices.

**SSID-to-VLAN Tagging**

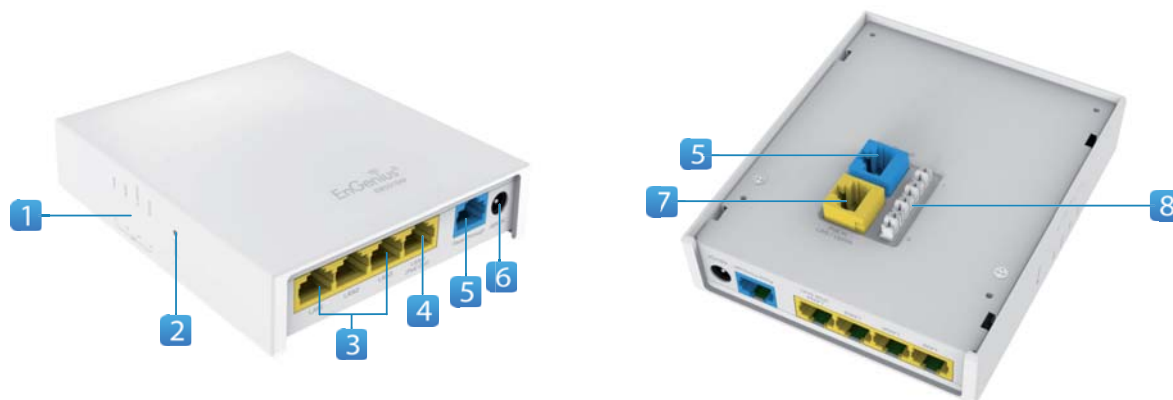
Can be configured to broadcast up to eight (8) SSIDs per frequency band. Each SSID can be tagged to a specified company network VLAN for different user access based on established access rights.

Guest Network

The Guest Network feature allows administrators to grant Internet connectivity to visitors or guests while keeping other networking devices and sensitive personal or company information private and secure.

Physical Interface

1. LED Indicators
2. Reset Button
3. 10/100 LAN Ports
4. 10/100 LAN Port (PoE Out)
5. RJ45 Pass Through Port
6. DC48V Input
7. 10/100/1000 RJ45 Uplink (PoE In)
8. 110 Punch Down Block





Model Comparison Chart



	EWS500AP	EWS510AP
Wi-Fi Standards	802.11b/g/n	802.11a/b/g/n
2.4GHz	✓	✓
5GHz	N/A	✓
Radio Chains/Streams	2 x 2:2	2 x 2:2
2.4GHz Max Data Rate	300 Mbps	300 Mbps
5GHz Max Data Rate	N/A	300 Mbps
RF Output Power 2.4GHz	17 dBm	17 dBm
RF Output Power 5GHz	N/A	17 dBm
Ethernet Ports	1 x GbE, 4 x FE	1 x GbE, 4 x FE
Passive Pass-through	✓	✓
PoE Compliant	802.3af/at	802.3af/at
	(Available Q3 2015)	(Available Q3 2015)



EWS500AP Technical Specifications

Radio Specification

Operation Frequency:

- 2.4GHz: 802.11b/g/n with max data rate up to 300Mbps

Transmit Power (combined):

- 2.4GHz: max 17dBm
- Max 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)
- 802.11g/n: orthogonal frequency-division multiplexing (OFDM)

Channelization:

- 802.11n with 20/40 MHz channel width
- 802.11b/g with 20 MHz channel width

Supported Modulation:

- 802.11b: BPSK, QPSK, CCK
- 802.11g/n: BPSK, QPSK, 16-QAM, 64-QAM

Supported data rates (Mbps):

- 802.11b: 1, 2, 5.5, 11
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n: 6.5 to 300 (MCS0 to MCS15)

Physical & Environment

Power Source:

- DC Input: DC48V/0.8A
- PoE: compatible with 802.3af/at

Internal Antenna:

- 2 x 4dBi 2.4GHz antennas

Interface:

- 1 x 10/100/1000Mbps Uplink Port with 802.3af/at PoE
- 3 x 10/100Mbps Access Port
- 1 x 10/100Mbps Access Port with PoE Output
- 2 x RJ45 Pass Through Port
- 1 x 110 Punch Down Block
- 1 x DC power connector
- 1 x Reset button

Dimensions (W x D x H):

- 110 x 37 x 130 mm

Mounting:

- Wall mount (standard US/EU single gang wall jack)

Environment:

- Operating temperature: 0°C~50°C
- Operating humidity: 0%~90% typical
- Storage temperature: -20°C~60°C

Wireless

Operating Mode:

- AP Mode

Auto Channel Selection:

- Setting varies by regulatory domains

SSIDs:

- Supports up to 8 SSIDs

VLAN Tag / VLAN Pass-through

Wireless Client List

Guest Network:

- Allocates a separate network segment for guest access within the same WLAN

QoS:

- Supports 802.11e/WMM

Mobility:

- PMKSA support for fast roaming

Security:

- WEP encryption: 64/128/152-bit
- WPA/WPA2 Enterprise/PSK
- Hidden SSID
- MAC address filtering (up to 50 MAC)
- Client isolation

Management

Deployment Options

- Standalone Mode
- Managed Mode (by Neutron Switch)

Configuration

- Web interface (HTTP)
- SNMP v1/v2c/v3 with MIB I/II and private MIB
- CLI (Telnet)

Firmware Upgrade

- Web interface or CLI (FTP/HTTP)

Backup / Restore Settings

- Revert to factory default settings

Schedule Reboot:

- Specifies interval to reboot system periodically

E-mail Alert / Syslog Notification



EWS510AP Technical Specifications

Radio Specification

Dual Concurrent Radio:

- 2.4GHz: 802.11b/g/n with max data rate up to 300Mbps
- 5GHz: 802.11a/n with max data rate up to 300Mbps

Transmit Power (combined):

- 2.4GHz: max 17dBm
- 5GHz: max 17dBm
- Max 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: orthogonal frequency-division multiplexing (OFDM)

Channelization:

- 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

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 MCS23)

Physical & Environment

Power Source:

- DC Input: DC48V/0.8A
- PoE: compatible with 802.3af/at

Internal Antenna:

- 2 x 4dBi 2.4GHz antennas
- 2 x 5dBi 5GHz antennas

Interface:

- 1 x 10/100/1000Mbps Uplink Port with 802.3af/at PoE
- 3 x 10/100Mbps Access Port
- 1 x 10/100Mbps Access Port with PoE Output
- 2 x RJ45 Pass Through Port
- 1 x 110 Punch Down Block
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Dimensions (W x D x H):

- 110 x 37 x 130 mm

Mounting:

- Wall mount (standard US/EU single gang wall jack)

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Schedule Reboot:

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E-mail Alert / Syslog Notification



Application Scenario: Hotel Room (one AP per room)





Ordering Information

Product No.	Product Description
Wireless Management Switch	
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
EWS7928P	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
Wireless Managed Access Point	
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
PoE+ Layer 2 Managed Switch	
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

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