EnGenius Neutron Series Outdoor Managed Access Points

Models	EWS860AP	EWS660AP	EWS650AP
Standards	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11b/g/n/ac
Frequency	2.4 & 5 GHz	2.4 & 5 GHz	2.4 & 5 GHz
2.4 GHz Max. Data Rate	450 Mbps	450 Mbps	300 Mbps
5 GHz Max. Data Rate	1,300 Mbps	1,300 Mbps	867 Mbps
Radio Chains/Streams	3 x 3:3	3 x 3:3	2 x 2:2
RF Output Power	29 dBm	29 dBm	27 dBm
Ingress Protection Rating	68	55	55
Primary Ethernet Port	1 x Gigabit Port	1 x Gigabit Port	1 x Gigabit Port
Secondary Ethernet Port	1 x Gigabit Port (PoE Output)	1 x Gigabit Port	1 x Gigabit Port
PoE Compliant	802.3at (PoE+)	802.3at (PoE+)	802.3at (PoE+)
Power Consumption (Peak)	35.7W	23W	23W
Integrated Antennas	N/A	6 x 5 dBi	2 x 5 dBi
External Antennas	2.4 GHz: 3 x 5 dBi 5 GHz: 3 x 7 dBi	N/A	N/A

Key Features

- Tough IP68- and IP55-Rated Housings
- 802.11ac Wireless Speeds
- Dynamic Channel Optimization
- Dual-Band
- Band Steering
- Seamless Roaming, Fast Handover
- Supports Connectivity of 100+ Users
- 16 SSIDs (8 SSIDS per frequency band)
- Wireless Traffic Shaping
- QoS
- SSID-to-VLAN Mapping
- Email Alert
- Wi-Fi Scheduler
- Auto-Reboot
- AP Detection

Technical Specifications

Frequency

RF: 2.4 and 5 GHz Frequency Bands

Standards

IEEE 802.11a/b/g/n/ac

Radio I

11b/g/n: 2.412~2.484 GHz

Radio II

11a/n/ac: 5.18-5.24 and 5.26-5.32 and 5.5-5.7 and 5.745-5.825 GHz

Data Rates

EWS650AP
Up to 300 Mbps in 2.4 GHz; up to 867 Mbps in 5 GHz

EWS660AP / EWS860AP
Up to 450 Mbps in 2.4 GHz; up to 1300 Mbps in 5 GHz

Memory

256MB

Flash Memory

16MB

Power Consumption

EWS650AP Up to 23W

EWS660AP Up to 23W

EWS860AP Up to 34W

Antenna Array

EWS650AP / EWS660AP

Internal High Gain Antenna Array supporting both 2.4 GHz and 5 GHz

EWS860AP

External High Gain Antennas 3 x 5 dBi for 2.4 GHz

External High Gain Antennas 3 x 7 dBi for 5 GHz

Physical Interface

2 x RJ45 Gigabit Ethernet (10/100/1000 Mbps) - PoE Capable 802.3at

1 x Reset Button

1 x Power Connector

LED Indicators

1 x Power

1 x 2.4 GHz

1 x 5 GHz

1 x WLAN (Wireless Connection)

1 x LAN

Power Requirements

Power Supply: 100 to 240V DC +/-10% 50/60 Hz

Active Ethernet (Power-over-Ethernet IEEE 802.3at)

PoE Injector DC IN, 48V/0.8A

Modulations

OFDM: BPSK, QPSK, 26-OAM, 64-QAM, DBPSK, DQPSK, CCK

Operating Channels

2.4 GHz US/Canada 1-11

5 GHz Country dependent for the following ranges: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 149, 153, 157, 161, 165

Operation Modes

Access Point

Multiple BSSID

Supports Up to 8 SSIDs Per Radio

SSID-to-VLAN Tagging

Supports 802.1q SSID-to-VLAN Tagging

Technical Specifications continued

Spanning Tree

Supports 802.1d Spanning Tree Protocol

Wireless

Wireless Mode: 11a/11b/11g/11n/11ac

Channel Selection (settings vary by country)

Channel Bandwidth (Auto, 20 MHz, 40 MHz, 80 MHz)

Transmission Rate

2.4 GHz 11n only, 11b/b/n mix, 11b only, 11b/g, 11g only

5 GHz 11ac only, 11n only, 11a/n mix, 11a only

QoS

WMM (Wireless Multimedia)

Wireless Management Features (with ezMaster & Neutron Switch)

Access Point Auto Discovery and Provisioning

Access Point Auto IP Assignment

Access Point Cluster Management

Remote Access Point Rebooting

Access Point Device Name Editing

Access Point Radio Settings

Band Steering

Traffic Shaping

Fast Handover

Fast Roaming

Access Point Client Limiting

Client Fingerprinting

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

AP VLAN Management

VLANs for Access Point- Multiple SSIDs

Secured Guest Network

Captive Portal

Access Point Status Monitoring

Rogue AP Detection

Wireless Client Monitoring

Background Scanning

Email Alert

Wireless Traffic & Usage Statistics

Real-time Throughput Monitoring

SmartSync Redundancy

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

Bulk Firmware Upgrade Capability

One-Click Update

Wireless Management Features (with ezMaster & Neutron Switch) continued

Intelligent Diagnostics

Kick/Ban Clients

Tx Power Control

Adjust Transmit Power by dBm

Configuration

Web-Based Configuration (http)

Firmware Upgrade

Via Web Browser

Administrator Settings

Administrator Username and Password Change

MIB

MIB I, MIB II (RFC1213) and private MIB

System Monitoring

Status Statistic and Event Log

SNMP

V1 / V2c / V3

Traffic Shaping

Incoming and Outgoing Wireless Traffic Shaping

Reset Settings

Reboot (press & hold for 2 seconds).
Reset to Factory Default (press & hold for 10 seconds)

Auto-Channel Selection

Automatically Selecting Least Congested Channel

Bandwidth Measurement

IP Range and Bandwidth Management

Schedule Reboot

Reboot Access Point by Minute, Hour, Day, or Week

Backup and Restore

Save and Restore Settings via Web Interface

CLI

Supports Command Line Interface

Diagnosis

IP Pinging Statistics

Log

SysLog and Local Log Support

LED Control

On/Off

AP Detection

Scanning for Available EnGenius APs

Wireless Security

WPA/WPA2 Personal (WPA-PSK using TKIP or AES)

WPA/WPA2 Enterprise (WPA-EAP using TKIP)

802.1X RADIUS Authenticator: MD5/TLS/TTLS, PEAP

SSID Broadcast Enable/Disable

MAC Address Filtering, Up to 50 Entries

Guest Network

L2 Isolation (Access Point mode)

QoS (Quality of Service)

WMM (Wireless Multimedia)

Temperature Range

Operating:

EWS860AP -4ºF to 158ºF (-20ºC to 70ºC)

EWS650AP / EWS660AP -4ºF to 140ºF (-20ºC to 60ºC)

Storage: -22ºF to 176ºF (-30ºC to 80ºC)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Weatherproof

EWS650AP IP55-Rated Enclosure

EWS660AP IP55-Rated Enclosure

EWS860AP IP68-Rated Enclosure

Certifications

FCC, IC, CE

Device Dimensions and Weights

EWS650AP / EWS660AP

Weight: 1.89 lbs. (857.2 g)

Length: 11.97" (304 mm)

Width: 7.13" (181.1 mm)

Height: 1.81" (45.9 mm)

EWS860AP

Weight: 4.17 lbs. (1.8 kg)

Length: 11.22" (284.9 mm)

Width: 8.58" (217.9 mm)

Height: 2.10" (53.3 mm)

Warranty

1-Year Standard