EnGenius

EWS360AP

Neutron AC1750
Indoor Managed
Access Points

High Performance Reliability

EnGenius' Neutron Series line of Managed Indoor Access Points provides wireless connectivity that's flexible, scalable and reliable for a broad range of indoor applications.

Whether you are looking to connect a luxury home or office or need to provide ultra-fast Wi-Fi access to a large resort or campus, Neutron EWS Access Points meet the high-bandwidth requirements of today's mobile users.

No matter what size network you need to support, Neutron EWS Access Points are flexible enough to meet your needs. Start small and grow or go big. Deploy and manage a few or 1,000+ APs on an unlimited number of networks distributed across various locations—regardless of their size and infrastructures. Neutron Series easily scales with your networking needs.

Features & Benefits

- High-Capacity 11ac Speeds up to 1750Mbps
- Dual-Radio MIMO Improves Performance, Expands Capacities
- Latest 11ac Technology Optimizes Signal, Reception & Reliability
- Operate as a Stand-Alone AP or Centrally Manage
- Remotely Manage 1-1,000+ APs via ezMaster™
- Supports Smart MESH Network
- No Access Point Licensing or Subscription Fees
- GigE PoE-Compliant Ports Expand Deployment & Power Options
- Low-Profile Ceiling-Mount Designs Blend with Environment

Flexibility in Deployment

Neutron's versatile line of high-performance, managed, indoor ceiling- and wall-mount access points range from single-band 11n models to high-capacity 4x4 dual-band 11ac Wave 2 versions. Wall-plate models serve as all-in-one communication "hubs" for in-room wireless connectivity. Configure APs individually as stand-alone units, locally manage up to 50 per Neutron Switch or use ezMaster software to control 1,000+ APs.

11ac Speeds

EnGenius' 11ac Access Points deliver the highest available speeds for Wi-Fi devices reaching 1700Mbps. Beamforming technology focuses signals directly to client devices, providing optimal, reliable reception even in densely crowded environments. Three spatial streams and dual-concurrent 3x3 MIMO radio operation, creating increased network capacity.

Optimized Connectivity

Neutron EWS APs feature dual-band[1] concurrent wireless coverage, high speeds, and high-device capacities. Band Steering optimizes network traffic flow by automatically directing dual-band clients to the less congested 5 GHz band. Fast Roaming capability ensures seamless, reliable connectivity for mobile users as they move between access points.

2.4 GHz / 5 GHz

Band Steering
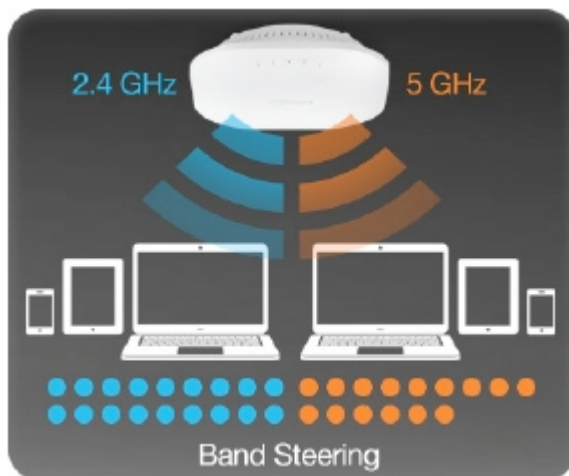
Protected by Advanced Encryption

With Neutron EWS APs, your network is protected from attacks at multiple levels through advanced wireless encryption standards such as Wi-Fi Protected Access Encryption and authentication. Network threats are quickly detected and avoided through rogue AP detection, email alerts and real-time wireless invasion monitoring, allowing for immediate action to divert network hacks and other security threats.

Secure Guest Networks

Organizations that offer Internet access to patrons or visitors— notably hotels, retail shops and restaurants—will appreciate Neutron's guest network capabilities. Establish a secure guest network that blocks access to main corporate computers. Create separate Virtual LANs for increased security, network reliability and bandwidth conservation.

Power-over-Ethernet Convenience

All Neutron EWS Access Points feature at least one Gigabit PoE port, enabling placement in discreet locations where power outlets are scarce or unavailable. Power the APs through a connected Ethernet cable directly to a Neutron Managed Gigabit PoE+ Switch or with a PoE adapter up to 328 feet from the power source.

Simplified Deployment & Provisioning

In combination with Neutron Switches and ezMaster Network Management Software, Neutron EWS APs are automatically discovered and provisioned. One-click individual or bulk configurations and upgrades save time. In addition, these access points are quickly and easily deployed and operated by users with limited networking experience.

Manage Up to 50 APs with Neutron Switches

In small settings, any Neutron Managed Switch can act as a wireless controller capable of managing up to 50 Neutron EWS Access Points. IT administrators have access to all connected Neutron devices and a full array of Layer 2 management tools. Choose between PoE+ and non-PoE switch models with flexible deployment and management options.

ezMaster™
Network Management Software

Flexible Distributed Network Management

EzMaster Network Management Software expands the flexibility and scalability of Neutron Series EWS Managed Access Points and Switches.

EzMaster allows organizations, such as branch offices and managed service providers, to easily and affordably deploy, monitor and manage a large number of Neutron APs, Switches and IP Cameras across geographically diverse properties. Centrally manage an unlimited number of independent distributed networks in the same subnet or cross-subnet from a single, at-a-glance network dashboard, no matter where they're located.

Deploy ezMaster locally, remotely or via a Cloud-based service with or without an onsite controller.

Powerful, Scalable Options

EzMaster scales with your growing business needs. Manage 1,000+ Neutron EWS devices and 10,000+ concurrent users. Together, Neutron APs, Switches and ezMaster provide a flexible, fully integrated solution with redundancy support and future expandability for broader device connectivity.

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

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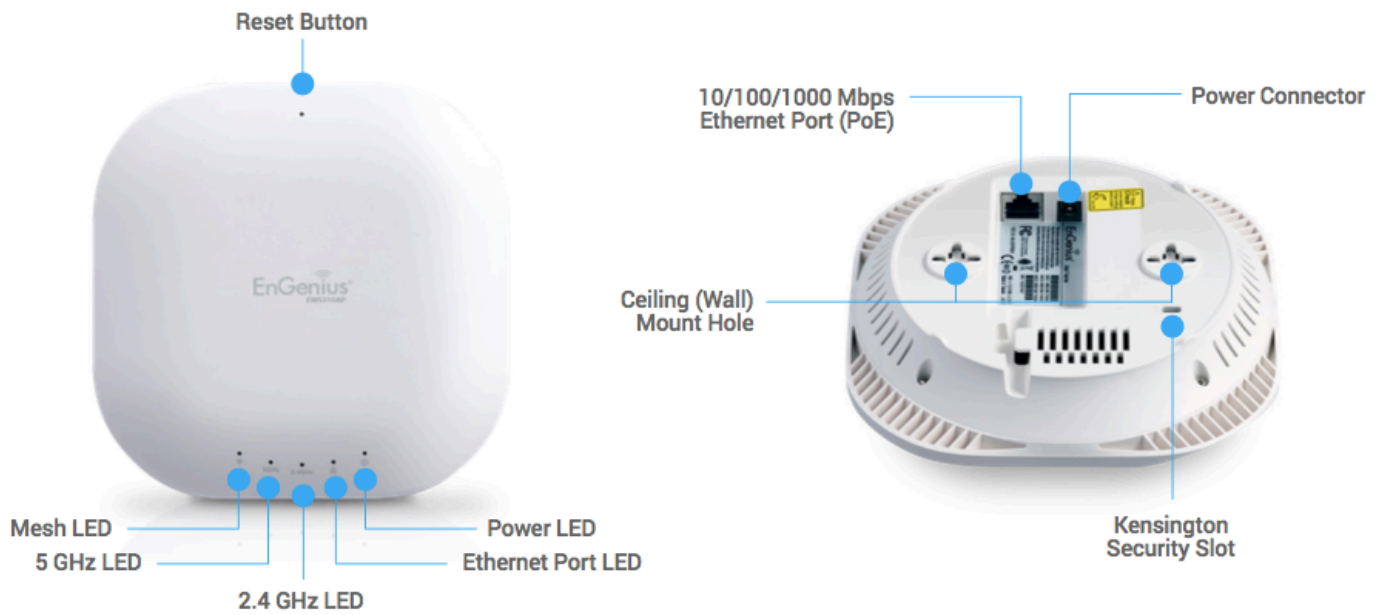At sites where APs are deployed: A DHCP-enabled network for APs to obtain an IP address

Simplified Device Management

EzMaster Network Management Software makes centralized device management easy. How? Through centralized bulk configuration, provisioning and monitoring, a comprehensive at-a-glance network dashboard, rich analytics and reporting, and much more.

ezMaster Software Features

- Centralized Management
    - Configure, Managed & Monitor 1,000+ Neutron Devices
    - Cross-Network AP Management
    - AP Group Configuration
- Access Point Configuration & Management
    - Auto Channel Selection
    - Auto Tx Power
    - Background Scanning
    - Band Steering (Auto Band Steering & Band Balancing)
    - Client Isolation
    - Client Limiting
    - Fast Roaming
    - L2 Isolation
    - LED On/Off Control
    - Multiple SSID
    - RSSI Threshold
    - Secure Guest Network
    - Traffic Shaping
    - VLAN Isolation
    - VLAN Tag
- Comprehensive Monitoring
    - Device Status Monitoring
    - Floor Plan View
    - Map View
    - Rogue AP Detection
    - System Status Monitoring
    - Visual Topology View
    - Wireless Client Monitoring
    - Wireless Coverage View
    - Wireless Traffic & Usage Statistics
- Management & Maintenance
    - Bulk Firmware Upgrade
    - Captive Portal
    - Email Alert
    - Kick/Ban Clients
    - One-Click Update
    - Remote Logging
    - Seamless Migration
    - Syslog

EWS360AP Physical Inteface

Reset Button

10/100/1000 Mbps
Ethernet Port (PoE)

Power Connector

Ceiling (Wall)
Mount Hole

Kensington
Security Slot

Mesh LED

5 GHz LED

2.4 GHz LED

Power LED

Ethernet Port LED

Antenna Radiation Patterns (Internal Antenna)

2.4GHz Azimuth-Plane

Ant.1
Ant.2
Ant.3

2.4GHz Elevation-Plane

Ant.1
Ant.2
Ant.3

5GHz Azimuth-Plane

Ant.4
Ant.5
Ant.6
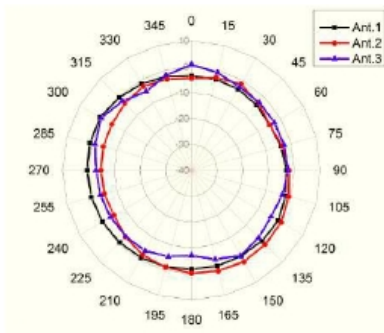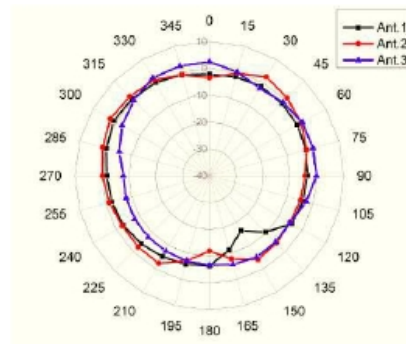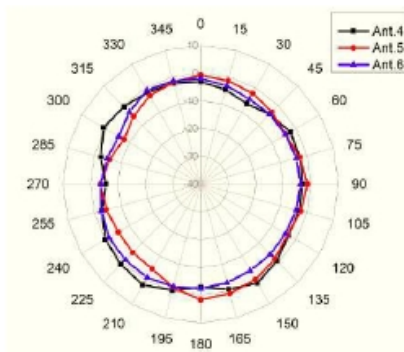
5GHz Elevation-Plane

Ant.4
Ant.5
Ant.6
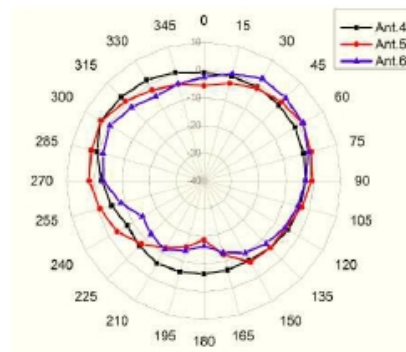
Technical Specifications continued

Frequency
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 & 5.26-5.32 & 5.5-5.7 & 5.745-5.825 GHz

Data Rates continued
Up to 450 Mbps on the 2.4 GHz frequency band; Up to 1300 Mbps on the 5 GHz band

Memory
128MB

Flash Memory
16MB

Power Consumption
Up to 22.8W

Antennas
3 x 5 dBi 2.4 GHz Internal Antennas

3 x 5 dBi 5 GHz Internal Antennas

Physical Interface
1 x RJ45 Gigabit Ethernet 10/100/1000 — PoE Capable

1 x Reset Button, 1 x Power Connector

1 x Reset Button

1 x DC Power Connector

LED Indicators
1 x Power

1 x WLAN (Wireless Connection)

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

1 Mesh Link

Power Requirements
Power Supply: 100 to 240 VDC ± 10%, 50/60 Hz (depends on different countries)

Active Ethernet (Power-over-Ethernet, IEEE 802.3at/af)

12V/2A

Modulations
OFDM: BPSK, QPSK, 26-OAM (EWS300AP) 16-QAM, 64-QAM, 256-QAM (EWS371AP/EWS370AP) DBPSK, DQPSK, CCK

Radio Technologies
802.11b: Direct-Sequence Spread Spectrum (DSSS)

802.11a/g/n/ac: Orthogorial Frequency Division Multiflexing (OFDM)

Operating Channels
2.4 GHz US/Canada 1-11

5 GHz (Dual-Band models only): 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 up to 8 SSIDs Per Radio

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 (Dual-Band models only): 11ac only, 11n only, 11a/n mix, 11a only

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

L2 Isolation

WEP Encryption 64/128/152 bit

Key Features
- Sectorized 3D Antennas
- Dynamic Channel Optimization
- Dual-Band (selected models)
- Band Steering (Dual-Band models)
- Fast Roaming
- 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
- Support MESH networks

Device Dimensions and Weights
Weight: 0.80 lbs. (362.8 g)

Length: 6.5" (165.1 mm)

Width: 6.5" (165.1 mm)

Height: 1.64" (41.6 mm)

Package Contents
Power Adapter (12V/1A)

T-Rail Mounting Kit

Ceiling and Wall Mount Screw Kits

Mounting Brackets

Quick Installation Guide

RJ45 Ethernet Cable

Technical Specifications continued

Wireless Management Features (with ezMaster & Neutron Switch)

Access Point Auto Discovery and 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 (Dual-Band models only)

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)

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

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

Intelligent Diagnostics

Kick/Ban Clients

Wi-Fi Scheduler

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

Auto-Channel Selection

Automatically Selecting Least Conjested 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

QoS (Quality of Service)

IEEE 802.11e

WMM (Wireless Multimedia)

Temperature Range

Operating: 32ºF to 104ºF (0ºC to 40ºC)

Storage Temperature: -4ºF to 140ºF (-20ºC to 60ºC)

Humidity (non-condensing)

Operating: 90% or less

Operating: 90% or less

RF Performance Table

Channel	Data Rate	Transmit Power (Combined, dBm)	(Combined, dBm) Receive Sensitivity
802.11b 2.4 GHz	1 Mbps	15	-96
	2 Mbps	15	-95
	5.5 Mbps	15	-95
	11 Mbps	15	-93
802.11g 2.4 GHz	6 Mbps	14	-92
	54 Mbps	12	-76
802.11a 5 GHz	6 Mbps	12	-92
	54 Mbps	11	-76
802.11n HT20 2.4 GHz	MCS 0 / 8 / 16	14	-92
	MCS 7 / 15 / 23	13	-73
802.11n HT40 2.4 GHz	MCS 0 / 8 / 16	14	-88
	MCS 7 / 15 / 23	12	-72
802.11n HT20 5GHz	MCS 0 / 8 / 16	12	-92
	MCS 7 / 15 / 23	11	-73
802.11n HT40 5GHz	MCS 0 / 8 / 16	13	-88
	MCS 7 / 15 / 23	11	-72
802.11ac VHT20 5GHz	MCS0	13	-92
	MCS8	11	-69
802.11ac VHT40 5GHz	MCS0	13	-88
	MCS9	11	-64
802.11ac VHT80 5GHz	MCS0	12	-86
	MCS9	11	-62

Maximum transmit power is limited by local regulation.
The supported frequency band is restricted by local regulatory requirements

Features and performance may vary depending on the system configuration, settings, network conditions and environmental factors. EnGenius reserves all rights to amend any features, errors,