Neutron Series
Indoor Managed Access Points

High Performance Reliability

Equipped with Qualcomm's latest chipset, the Neutron Series AX indoor access points feature AX technology, which deepens and expands the capabilities of Wi-Fi as well as fortifies SMB networks. The new 802.11ax technology builds upon real-world deployment of 11ac. As next-generation Wi-Fi, 11ax is no longer just about speeds but also about stronger, steadier, and more efficient wireless connections.

Features & Benefits

- High-capacity & high-efficient Wi-Fi (Wi-Fi 6)
- Uplink & downlink of OFDMA for more efficient channel use
- 1024 QAM for 25% increase in throughput
- Target Wake Time (TWT) for power-saving wake times
- BSS Coloring for tagging packets with "color" to differentiate data
- Spatial reuse for simultaneous tranmissions on same channel
- Uplink & downlink of MU-MIMO for optimal signal & reception reliability
- Operate as a stand-alone AP or centrally manage via switch
- Remotely manage 1-1,000+ APs via ezMaster
- GigE PoE-compliant ports expand deployment & power options
- Low-profile designs for ceiling or wall mount

LED Indicators

Kensington Lock

Reset Button   RJ45   DC-Jack
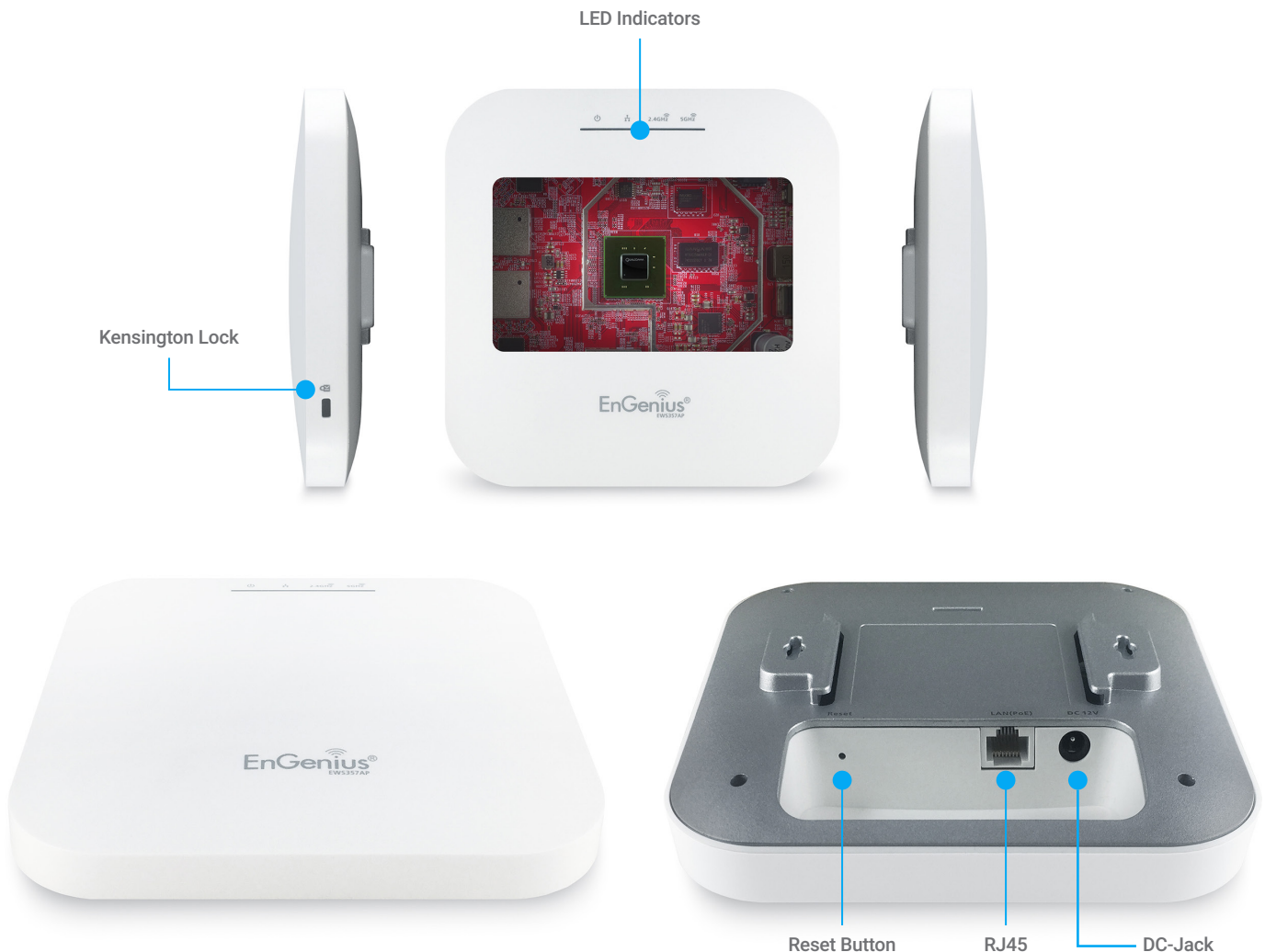
Next-Generation Wi-Fi

The Neutron Series AX Access Points take advantage of 11ax technology, which enables more efficient channel use, reduces latency between AP and client devices, and provides ground-breaking features, such as uplink and downlink of OFDMA, Target Wake Time, uplink and downlink of MU-MIMO, BSS Coloring, spatial reuse, and preamble updates.

11ax »»»

- OFDMA (in both uplink and downlink): enables more efficient channel use, reduces latency between AP and client devices, and provides backward-compatibility with 2.4 GHz and 5 GHz

- 1024 QAM: boosts throughput by 25% and provides greater reliability in short distances

- BSS coloring: tags packets with a "color" to differentiate between adjacent basic service sets to potentially help minimize co-channel interference (CCI)

- Spatial reuse: identifies the different "colors" via BSS coloring and simultaneously transmits on the same channel, which reduces waiting time and lessens contention; determines whether the transmission will be deferred or reused on the channel

- Uplink & downlink of MU-MIMO: supports up to eight client devices and provides greater network efficiency, focuses radio energy on specific users, and ensures optimal signal and reception reliability

- Target Wake Time (TWT): reduces power consumption, schedules wake times, and extends client battery life of mobile and IoT devices

- Longer OFDM symbols: enables shorter wait times between data transmissions and tolerates more noise, which allows greater coverage

Flexibility in Deployment

Neutron's new 11ax line of high-performance, managed, indoor ceiling- and wall-mount access points consists of 2x2 11ax dual-band for general use and a 4x4 dual-band 11ax version for high-capacity use that are ready to immediately deploy. Configure APs individually as stand-alone units, locally manage up to 50 per Neutron switch or use ezMaster software to control 1,000+ APs.

Optimize Connectivity With Wireless Mesh on Selected Models

Utilize mesh access point mode on Neutron APs for retrofit or new install applications where wire runs are not possible. Mesh's smart sensing technology adds devices quickly, optimizes routes between APs, and automatically self-heals the network in the event an AP should ever lose connection.

The Latest in Wi-Fi Security

With the Neutron 11ax (WiFi 6) access points, your network is protected by WPA3, which delivers next-generation wireless security by making connecting client and IoT devices more secure and easier, as well as WPA2-AES. The high level of security expected and demanded by enterprises now protects SMBs as well.

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 11ax access points support 1 and 2.5 Gigabit PoE ports, enabling placement in discreet locations where power outlets are scarce or unavailable. Power the access points 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 11ax 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 8-, 24-, and 48-Port PoE+ switch models with flexible deployment and management options.

EnGenius Neutron Series Indoor Managed Access Points

11ac WAVE 2	CEILING-MOUNT	
Models	EWS377AP	EWS357AP
Standards	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax
Frequency	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
2.4 GHz Max. Data Rate	1,148 Mbps	574 Mbps
5 GHz Max. Data Rate	2,400 Mbps	1,200Mbps
Radio Chains/Streams	4 x 4:4	2 X 2:2
RF Output Power (2.4 GHz)	15 dBm	15 dBm
RF Output Power (5 GHz)	15 dBm	15 dBm
Ethernet Ports	1 x Port (PoE+) 2.5 Gigabit Ethernet	1 x Port (PoE+) 1 Gigabit Ethernet
Power-over-Ethernet	802.3at	802.3af
Power Consumption (Peak)	19.5W	12.5W
Integrated Antenna	4 x 3 dBi @ 2.4 GHz 4 x 3 dBi @ 5 GHz	2 x 3 dBi @ 2.4 GHz 2 x 3 dBi @ 5 GHz

Technical Specifications

Standards

EWS377AP/EWS357AP

IEEE 802.11ax on 2.4 GHz

IEEE 802.11ax on 5 GHz

Backward compatible with 802.11b/g/n/ac

Processor

EWS377AP

Qualcomm® Quad-Core CPU ARM Cortex A53s @ 2.0GHz

EWS357AP

Qualcomm® Quad-Core CPU ARM Cortex A53s @ 1.0GHz

Antenna

EWS377AP

4 x 2.4 GHz: 3 dBi

4 x 5 GHz: 3 dBi

Integrated Omni-Directional Antenna

EWS357AP

2 x 2.4 GHz: 3 dBi

2 x 5 GHz: 3 dBi

Integrated Omni-Directional Antenna

Physical Interface

EWS377AP

1 x 10/100/1000/2500 NBASE-T, RJ-45 Gigabit Ethernet Port

1x DC Jack

1 x Reset Button

Physical Interface

EWS357AP

1 x 10/100/1000 BASE-T, RJ-45 Gigabit Ethernet Port

1x DC Jack

1 x Reset Button

LED Indicators

EWS377AP

1 x Power

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

EWS357AP

1 x Power

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

Power Source

EWS377AP

Power-over-Ethernet: 802.3at Input

12VDC /2A Power Adapter(Optional)

EWS357AP

Power-over-Ethernet: 802.3at Input

12VDC /1.25A Power Adapter (Optional)

Maximum Power Consumption

EWS377AP

19.5W

EWS357AP

12.5W

Wireless & Radio Specifications Operating Frequency

EWS377AP/EWS357AP

Dual-Radio Concurrent 2.4 GHz & 5 GHz

Operation Modes

EWS377AP/ EWS357AP

Managed mode: AP, AP Mesh, Mesh

Stand alone: AP, AP Mesh, Mesh

Note: AP Mesh and Mesh function will only be released in the later date

Frequency Radio

EWS377AP/EWS357AP

2.4 GHz: 2400 MHz ~ 2835 MHz

5 GHz: 5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz, 5725 MHz ~ 5850 MHz

Transmit Power

EWS377AP

Up to 15 dBm on 2.4 GHz

Up to 15 dBm on 5 GHz

Technical Specifications continued

Transmit Power

EWS357AP

Up to 15 dBm on 2.4 GHz

Up to 15 dBm on 5 GHz

Tx Beamforming (TxBF)

EWS377AP/EWS357AP

Radio Chains/Spatial Stream

EWS377AP 4x4

EWS357AP 2x2

SU-MIMO

EWS377AP

Four(4) spatial stream SU-MIMO for 2.4GHz and four(4) spatial stream SU-MIMO for 5GHz up to 3,548 Mbps wireless data rate to a single wireless client device under the both 2.4gHz and 5GHz radio.

EWS357AP

Two (2) spatial streams SU-MIMO for 2.4GHz and two (2) spatial streams SU-MIMO for 5GHz up to 1,774Mbps wireless data rate to a single 11ax wireless client device under the both 2.4G Hz and 5GHz radio.

MU-MIMO

EWS377AP

Four (4) spatial streams Multiple (MU)-MIMO for up to 2400 Mbps wireless data rate to transmit to two (2) two streams MU-MIMO 11ax capable wireless client devices under 5GHz simultaneously.

Four(4) Multiple (MU)-MIMO for up to 1148 Mbps wireless data rate to transmit to two (2) two streams MU-MIMO 11AX capable wireless client devices under 2.4GHz simultaneously.

EWS357AP

Two (2) spatial streams Multiple (MU)-MIMO for up to 1200 Mbps wireless data rate to transmit to one (1) two streams MU-MIMO 11ax capable wireless client devices under 5GHz simultaneously.

Two (2) Multiple (MU)-MIMO for up to 574 Mbps wireless data rate to transmit to one (1) two streams MU-MIMO 11ax capable wireless client devices under 2.4GHz simultaneously.

Supported Data Rates (Mbps)

EWS377AP

802.11ax:
2.4 GHz: 9 to 1148 (MCS0 to MCS11, NSS = 1 to 4)
5 GHz: 18 to 2400 (MCS0 to MSC11, NSS = 1 to 4)
802.11b: 1, 2, 5.5, 11
802.11a/g: 6, 9, 12, 18, 36, 48, 54
802.11n: 6.5 to 600 Mbps (MCS0 to MCS31)
802.11ac: 6.5 to 1733 Mbps (MCS0 to MCS9, NSS = 1 to 4)

EWS357AP

802.11ax:
2.4 GHz: 9 to 287 (MCS0 to MCS11, NSS = 1 to 2)
5 GHz: 18 to 1200 (MCS0 to MSC11, NSS = 1 to 2)
802.11b: 1, 2, 5.5, 11
802.11a/g: 6, 9, 12, 18, 36, 48, 54
802.11n: 6.5 to 300 Mbps (MCS0 to MCS15)
802.11ac: 6.5 to 867 Mbps (MCS0 to MCS9, NSS = 1 to 2)

Supported Radio Technologies

EWS377AP/EWS357AP

802.11ax: Orthogonal Frequency Division Multiple Access (OFDMA)

802.11b: Direct-sequence spread-spectrum (DSSS)

802.11ac/a/g/n: Orthogonal Frequency Division Multiple (OFDM)

Channelization

EWS377AP/EWS357AP

802.11ax supports high efficiency (HE) —HE20/HE40/HE80 MHz

802.11ac supports very high throughput (VHT) —VHT 20/40/80 MHz

802.11n supports high throughput (HT) —HT 20/40 MHz

802.11n supports very high throughput under the 2.4GHz radio —VHT40 MHz (256-QAM)

802.11n/ac/ax packet aggregation: A-MPDU, A-SPDU

Supported Modulation

EWS377AP/EWS357AP

2.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

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

802.11b: BPSK, QPSK, CCK

Management Multiple BSSID

EWS377AP/EWS357AP

8 SSIDs for both 2.4GHz and 5GHz radios

VLAN Tagging

EWS377AP/EWS357AP

Supports 802.1q SSID-to-VLAN Tagging

Cross-Band VLAN Pass-Through

Management VLAN

Spanning Tree

EWS377AP/EWS357AP

Supports 802.1d Spanning Tree Protocol

QoS (Quality of Service)

EWS377AP/EWS357AP

Complaint With IEEE 802.11e Standard

WMM

SNMP

EWS377AP/EWS357AP

v1, v2c, v3

MIB

EWS377AP/EWS357AP

I/II, Private MIB

Management Features Deployment Options

EWS377AP/EWS357AP

Stand-Alone (Individually Managed)
Managed Mode
(with Neutron Series Switch/ezMaster)

Stand-Alone Management Features

EWS377AP/EWS357AP

Auto Channel Selection

Auto Transmit Power

Wireless STA (Client)
Connected List Auto Channel Selection

Captive Portal Per SSID

Fast Roaming (802.11k & 802.11r)

Pre-Authentication (802.11i, 802.11x)

PMK Caching (802.11i)

Band Steering per SSID

Traffic Shaping per SSID/per user

VLAN Per SSID

Backup/Restore Settings

Auto Reboot

E-Mail Alert

Site Survey

Save Configuration as Users' Default

EWS377AP-VLANs for Access Point – Multiple SSIDs

Wireless Management Features (With ezMaster & Neutron Switch)

EWS377AP/EWS357AP

AP Auto Discovery & Provisioning

AP Auto IP Assignment

AP Group Management

Auto AP Rebooting

AP Device Name Editing

Band Steering Per SSID

Traffic Shaping Per SSID and Per User

Fast Roaming (802.11k & 802.11r)

Pre-Authentication (802.11i, 802.11x)

PMK Caching (802.11i)

AP Client Limiting

Client Fingerprinting

AP VLAN Management

VLAN Per SSID

Captive Portal Per SSID

Multi-Tenant Account

AP Traffic Log

Access Point Status Monitoring

Wireless Client Monitoring

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

Schedule reboot

Technical Specifications continued

Wireless Security

EWS377AP/EWS357AP

WPA3

WPA2 Enterprise (AES)

Hide SSID in Beacons

MAC Address Filtering, Up to 32 MACs per SSID

Wireless STA (Client) Connected List

SSH Tunnel

Client Isolation

Environment & Physical Temperature Range

EWS377AP/EWS357AP

Operating: 32ºF~104ºF (0 ºC~40 ºC)

Storage: -22 ºF~176 ºF (-30 ºC~80 ºC)

Humidity (non-condensing)

EWS377AP/EWS357AP

Operating: 90% or less

Storage: 90% or less

Dimensions & Weights EWS377AP Device

EWS377AP

Weight: TBD

Length: 8.07" (205 mm)

Length: 8.07" (205 mm)

Height: 1.31" (33.2 mm)

EWS357AP

Weight: TBD

Length: 6.30" (160 mm)

Width: 6.30" (160 mm)

Height: 1.31" (33.2 mm)

Packaging

EWS377AP

Weight: 1.9 lbs (0.866kg)

Length: 9.65" (245 mm)

Width: 9.65" (245 mm)

Height: 3.35" (85 mm)

EWS357AP

Weight: 1.28 lbs (0.58Kg)

Length: 8.07" (205 mm)

Width: 8.07" (205 mm)

Height: 3.27" (83 mm)

Master Carton

EWS377AP

Weight: 21 lbs (9.66kg)

Length: 19.77" (502 mm)

Width: 17.40" (442 mm)

Height: 10.00" (254 mm)

No. of boxes per carton: 4 units

EWS357AP

Weight: 15 lbs (6.8Kg)

Length: 17.71" (450 mm)

Width: 16.93" (430 mm)

Height: 9.05" (230 mm)

No. of boxes per carton: 10 units

Package Contents

1-EWS377AP Dual-Band AX3600 Indoor Access Point

1-EWS357AP Dual-Band AX1800 Indoor Access Point

1 – Ceiling Mount Base (9/16" Trail)

1 – Ceiling Mount Base (15/16" Trail)

1 – Ceiling and Wall Mount Screw Kits

1 – Quick Installation Guide

Certifications

EWS377AP/EWS357AP

FCC, CE

Warranty:

EWS377AP/EWS357AP

1 Year

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. Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. For United States of America: Copyright ©2018 EnGenius Technologies, Inc. All rights reserved.