



# **EnSky Series Indoor Access Points**

# **EnSky Series**Indoor Managed Access Points

# **High Performance Reliability**

EnGenius' EnSky 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, EnSky access points meet the high-bandwidth requirements and features of today's BYOD users.

No matter what size network you need to support, EnSky access points are flexible enough to meet your needs. Start small and grow or go big. Deploy and manage a few or 10000+ APs on an unlimited number of networks distributed across various locations - regardless of their size and infrastructures. EnSky Series easily scales with your networking needs.

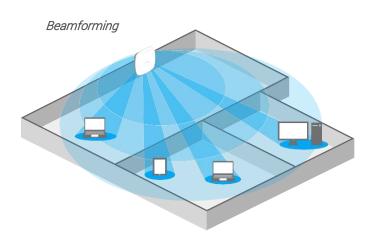
# **Features & Benefits**

- High-Capacity 11ac Wave 2 Speeds up to 2.5 Gbps
- Tri-Radio & Dual-Radio MU-MIMO Improves Performance, Expands Capacities
- Beamforming Technology Optimizes Signal, Reception & Reliability
- Operate as a Stand-Alone AP or Centrally Manage via Switch
- Remotely Manage 1-1000+ APs via ezMaster™
- Versatile 4x4, 3x3 & 2x2 11ac & Single-Band 11n Models
- No Access Point Licensing or Subscription Fees
- GbE PoE-Compliant Ports Expand Deployment & Power Options
- Low-Profile Ceiling, Wall-Mount & Wall Plate Designs Blend
  With Environment
  - Mesh Wireless Support Simplifies Setup, Optimizes Signals & Self-Heals (Select Models)



# **Ultra-Fast 11ac Wave 2 Speeds**

EnGenius' 11ac Wave 2 Access Points deliver the highest available speeds for Wi-Fi devices reaching 2.5 Gbps. Beamforming technology focuses signals directly to client devices, providing optimal, reliable reception even in densely crowded environments. Four spatial streams and dual-concurrent MU-MIMO radio operation sends beams to multiple users simultaneously, creating increased network capacity.



# Flexibility in Deployment

EnSky'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 EnSky Switch or use ezMaster software to control 1000+ APs.

# Optimize Connectivity With Wireless Mesh On Selected Models

Utilize mesh access point mode on select EnSky 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.

# **Protected by Advanced Encryption**

With EnSky 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 EnSky'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 EnSky 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 EnSky Managed Gigabit PoE+ Switch or with a PoE adapter up to 328 feet from the power source.

# **Simplified Deployment & Provisioning**

In combination with EnSky Switches and ezMaster Network Management Software, EnSky 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 EnSky Switches

In small settings, any EnSky Managed Switch can act as a wireless controller capable of managing up to 50 EnSky Access Points. IT administrators have access to all connected EnSky 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.

# ezMaster

Network Management Software

# Flexible Distributed Network Management

ezMaster Network Management Software expands the flexibility and scalability of EnSky Series 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 EnSky APs, Switches and IP Cameras across geographically diverse properties. Centrally manage an unlimited number of independent distributed networks in the same subnet or cross-subnets from a single, ataqlance 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 10000+ EnSky devices and 10000+ concurrent users. Together, EnSky 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™ i7 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

# Recommended environment for managing 1000+ APs

CPU: Intel® Xeon® Processor E3 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 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 1000+ EnSky 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
- Traffic Shaping
- Captive Portal
- Email Alert
- Kick/Ban Clients
- One-Click Update
- Remote Logging
- Scheduling
- Seamless Migration
- Syslog

# **EnSky Series Indoor Access Points**



# **Technical Specifications**

### Frequency

EWS330AP/EWS360AP/EWS370AP/EWS371AP/ EWS385AP/EWS550AP

2.4 and 5 GHz Frequency Bands

#### **Standards**

EWS330A/EWS360AP/EWS370AP/EWS371AP/ EWS550AP/EWS385AP

IEEE 802.11a/b/g/n/ac

#### Radio I

11b/g/n: 2.412~2.484 GHz

#### Radio II (Dual-Band models only)

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

#### Radio III

11a/n/ac: 5150~5250, 5250~5350 GHz

# **Data Rates**

#### EWS385AP

Up to 400 Mbps on 2.4 GHz; Up to 867 Mbps on 5.4 GHz, Up to 867 GHz on 5.6 GHz

#### EWS360AP

Up to 450 Mbps on 2.4 GHz; Up to 1300 Mbps on 5 GHz

#### EWS370AP/EWS371AP

Up to 2.5Gbps; Up to 800 Mbps on the 2.4 GHz band; Up to 1,733 Mbps on the 5 GHz band

#### EWS330AP/EWS550AP

Up to 400 Mbps on 2.4 GHz; Up to 867 Mbps on 5 GHz

# **Power Consumption**

EWS330AP Up to 12W

EWS360AP Up to 22.8W

EWS370AP Up to 21W

EWS371AP Up to 21W

EWS550AP Up to 10W

EWS385AP Up to 12W

# Antennas

# EWS330AP

2 x 5 dBi 2.4 GHz Internal

2 x 5 dBi 5 GHz Internal

#### EWS360AP

3 x 5 dBi 2.4 GHz Internal

3 x 5 dBi 5 GHz Internal

#### EWS370AP

4 x 3 dBi (RP-SMA) 2.4 GHz Internal

 $4 \times 3$  dBi (RP-SMA) 5 GHz Internal

# EWS371AP

4 x 3 dBi 2.4 GHz Detachable

4 x 3 dBi 5 GHz Detachable

### EWS385AP

2 x 5 dBi 2.4 GHz Internal

2 x 5 dBi 5 GHz Internal

2 x 5 dBi 5 GHz Internal

#### EWS550AP

2 x 4 dBi 2.4 GHz Internal

2 x 6 dBi 5 GHz Internal

#### Physical Interface

#### EWS360AP

1 x RJ45 10/100/1000 Mbps - PoE Capable - 802.3at PoE Input

1 x Reset Button

1 x Power Connector

1 x Kensington Lock Slot

#### EWS330AP

1 x RJ45 10/100/1000 Mbps - PoE Capable - 802.3af PoE Input

1 x DC Jack

1 x Reset Button

### EWS370AP/EWS371AP

 $2\times RJ45$  10/100/1000 Mbps Ports (Link Aggregation Achieves 2 Gbps Throughput)

- LAN1: 802.3at PoE Input

- LAN2: Pass-Through Port

1 x Reset Button

1 x DC Power Connector

1 x Kensington Lock Slot

#### EWS385AP

2 x RJ45 10/100/1000 Mbps Ports

- LAN1: 802.3aF PoF Input

- LAN2: Pass-Through Port

1 x Reset Button

1 x DC Power Connector

1 x Kensington Lock Slot

### EWS550AP

1 x 10/100/1000 Mbps Uplink Port (back plate)

 $3 \times 10/100/1000$  Mbps Ethernet Switched Ports (client ports)

- Port 1 (PSE) 802.3af PoE (requires 802.3at power source)

2 x 110 Punch Down Block (1x Passthrough Port, 1x Uplink Port)

2 x RJ45 Pass-Through Ports

1 x Reset Button

1 x Kensington Lock Slot

#### **LED Indicators**

# EWS360AP

1 x Power

1 x WLAN (Wireless Connection)

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

#### EWS330AP

1 x Power

1 x 2.4 GHz

1 x 5 GHz

# EWS370AP/EWS371AP

1 x Power

2 x LAN

1 x 2.4 GHz

1 x 5 GHz

1 x Mesh

#### EWS385AP

1 x Power

2 x LAN

1 x 2.4 GHz

2 x 5 GHz

1 x Mesh

### EWS550AP

1 x Power

1 x Uplink

1 x 5 GHz

1 x 2.4 GHz

1 x PoE Out

1 x LAN

#### **Power Requirements**

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

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

EWS330AP 12 V/1A

EWS360AP/EWS370AP/EWS371AP 12V/2A

EWS550AP Power-over-Ethernet with 802.3at in

#### Modulations

OFDM: BPSK, QPSK, 26-OAM, 16-QAM,

64-QAM, 256-QAM (EWS371AP/EWS370AP/

EWS550AP/EWS330AP) 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

Mesh (EWS360AP/EWS330AP/EWS550AP/EWS385AP)

# Multiple BSSID

Supports up to 8 unique SSIDs for both 2.4 GHz & 5 GHz

#### SSID-to-VLAN Tagging

Supports 802.1q SSID-to-VLAN Tagging

# Spanning Tree

Supports 802.1d Spanning Tree Protocol

Wireless

EWS330AP/EWS360AP/EWS370AP/EWS371AP/ EWS550AP/EWS385AP

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

All EWS 11ac APs

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

Tx Beamforming (Tx BF)

EWS330AP/EWS370AP/EWS371AP/EWS550AP/EWS38

SU-MIMO

EWS370AP/EWS371AP

4 Spatial Streams to 2500Mbps to single client

EWS330AP/EWS355AP/EWS550AP/EWS385AP

2 Spatial Streams to 1267 Mbps to single client

**MU-MIMO** 

EWS370AP/EWS371AP

4 Spatial Stream up to 1733 Mbps to 2 Clients

MU-MIMO-Capable Devices Simultaneously

EWS330AP/EWS355AP/EWS550AP/EWS385AP

2 Spatial Stream to 1167 Mbps to 2 Clients

MU-MIMO Capable Devices Simultaneously

Stand-Alone Management Features

Auto Channel Selection

Auto Transmit Power

Wireless STA (Client) Connected List

Captive Network (Guest Network)

Fast Roaming (802.11k & 802.11r)

Fast Roaming (802.11v) By default enabled

Pre-Authentication (802.11i, 802.11x)

PMK Caching (802.11i)

RSSI Threshold

Band Steering per SSID

Traffic Shaping

VLANs for Access Point - Multiple SSIDs

MAC Address Filtering

Backup/Restore Settings

Power Save Mode

Auto Reboot

E-Mail Alert

Site Survey

Save Configuration as Default

Background Scanning

Client Fingerprinting

Multicast to Unicast

Captive Portal

Wi-Fi Scheduler

**RADIUS Accounting** 

Wireless Management Features (with ezMaster & EnSky 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 per SSID

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

Muti-Tenant

One-Click Update

Intelligent Diagnostics

Kick/Ban Clients

Wi-Fi Scheduler

**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

**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

Wireless Security

WPA2 Personal (WPA-PSK using AES)

WPA2 Enterprise (WPA-EAP using AES)

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

SSID Broadcast Enable/Disable

MAC Address Filtering, Up to 50 Entries

L2 Isolation

QoS (Quality of Service)

IEEE 802.11e

WMM (Wireless Multimedia)

Temperature Range

Operating: 0°C to 40°C

Storage Temperature: -40°C to 80°C

Humidity (non-condensing)

Operating: 90% or less

Operating: 90% or less

Physical Security
Kensington Security Slot
Device Dimensions and Weights
EWS330AP
Weight: 0.180g
Diameter: 130 mm
Height: 40 mm
EWS360AP
Weight: 362.8 g
Length: 165.1 mm
Width: 165.1 mm
Height: 41.6 mm
EWS370AP/EWS371AP
Weight: 1.67 kg
Length: 215 mm
Width: 215 mm
Height: 55.8 mm
EWS385AP
Weight: 0.54 kg
Length: 200 mm

EWS550AP
Weight: 0.45 0kg
Width: 125 mm
Length: 188 mm
Height: 26 mm
Package Contents
EWS330AP
Power Adapter (12V/1A)
2 size T-rail brackets + screw set
Quick Installation Guide
EWS360AP
Power Adapter (12V/1A)
T-rail mounting kit, mounting bracket + screw set
RJ-45 Ethernet Cable
Quick Installation Guide
EWS370AP
Power Adapter (12V/2A)
2 size T-rail bracket + screw set
RJ-45 Ethernet Cable
Quick Installation Guide
EWS371AP

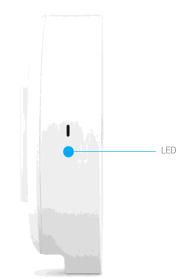
8 x Detachable RP-SMA Antennas

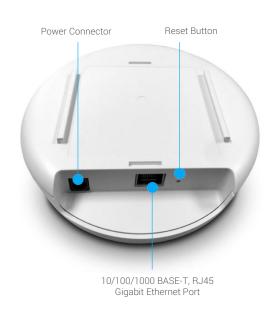
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# **EWS330AP Indoor Access Point**

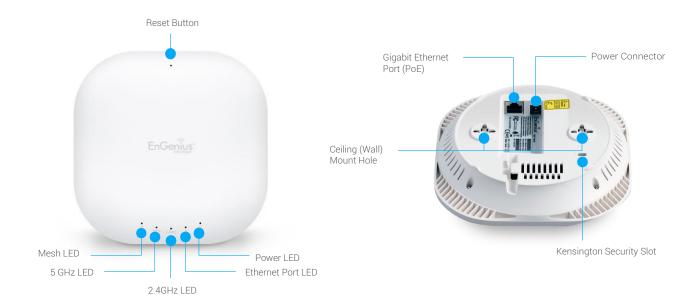
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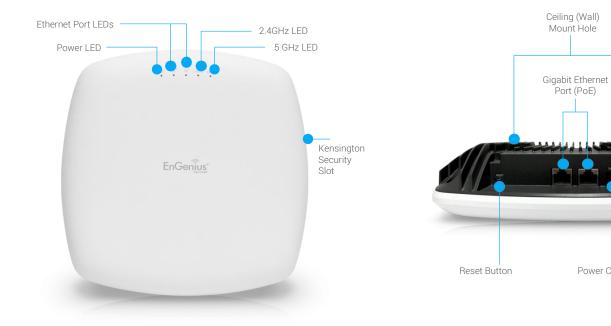




# **EWS360AP Indoor Access Point**

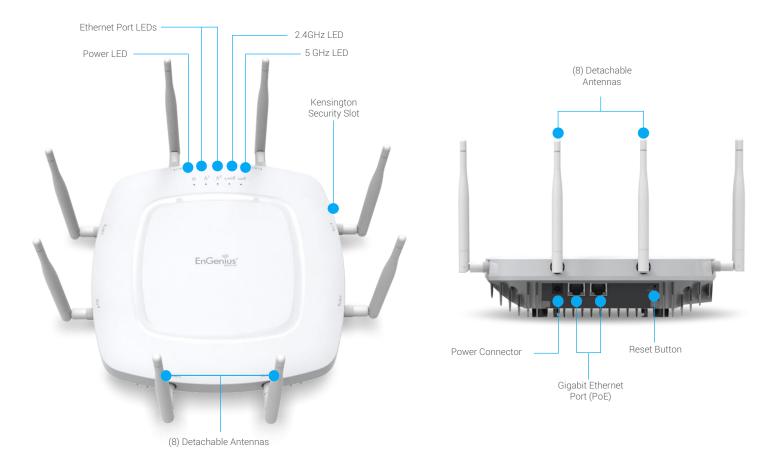


# **EWS370AP Indoor Access Point**

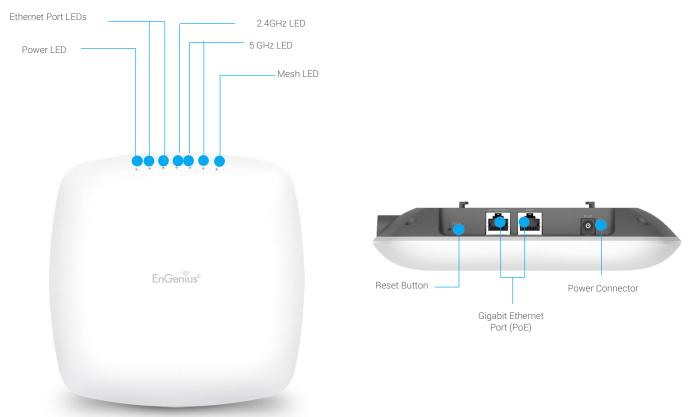


Power Connector

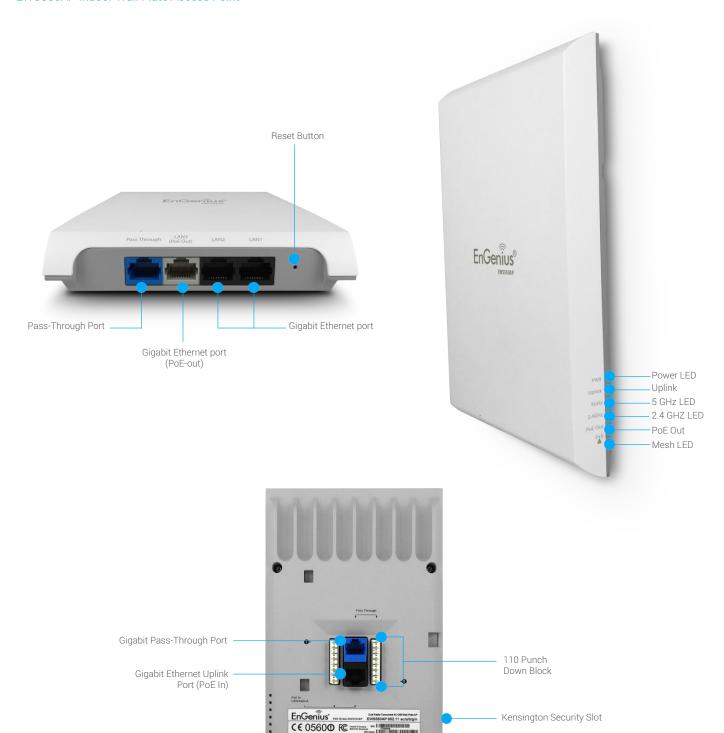
# EWS371AP Indoor Access Point



# **EWS385AP Indoor Access Point**



# EWS550AP Indoor Wall Plate Access Point



Fellenoord 180, 5611 ZB Eindhoven - Nederland Email: sales@engeniusnetworks.eu | Phone: +31 40 8200 888 | Website: engeniusnetworks.eu Version 20200225EU 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. All rights reserved.