

ENS1200

Dual Band Wireless **AC1200** Outdoor Access Point

Extend your wireless coverage to the outdoors with the high-powered ENS1200, an 802.11a/b/g/n/ac 2x2 long-range Dual Band Wireless AC1200 Outdoor Access Point with speeds up to 300 Mbps on the 2.4 GHz and 866 Mbps on the 5 GHz frequency bands that functions as a stand-alone Access Point or as part of an EnGenius Electron Series Solution of mix-and-match business-class networking products. Configurable in a number of operation modes, the ENS1200 can support a wide variety of applications, making it ideal for small-to-medium sized companies that wish to provide outdoor access to the company network for their employees or to provide network and/or Internet connectivity via a company's existing broadband connection.

Key Features

- IEEE 802.11a/b/g/n/ac Dual Concurrent Architecture
- Up to 27 dBm transmit power on the 2.4 GHz and 26 dBm transmit power on 5 GHz frequency bands, enabling long range connectivity
- 802.11ac wireless speeds of up to 866 Mbps on the 5 GHz frequency band and 802.11n wireless speeds of up to 300 Mbps on 2.4 GHz band
- Internal 5 dBi high gain omni-patch antennas for both 2.4 GHz and 5 GHz
- Two (2) Gigabit Ethernet Ports
- Multiple Operation Modes: AP & WDS (AP & Bridge)
- Band Steering
- SSID-to-VLAN Tagging
- IP55-Rated waterproof housing for exposure to the elements
- SNMP V1/V2c/V3, MIB I/II Supported
- Can be monitored after deployment with EnGenius EZ Controller™ software for Windows, Mac OS X and Linux (available as a free download)
- Fast Roaming
- Navigate via Browser Based GUI

Operating on both the 2.4 GHz and 5 GHz frequency bands and supporting 802.11a/b/g/n/ac standards, the ENS1200 features wireless speeds up to 300 Mbps on the 2.4 GHz and 866 Mbps on the 5 GHz frequency bands and a Gigabit port for connecting to 802.3at-capable PoE Switches. The ENS1200 is built with a higher signal strength and sensitivity than other Access Points in its class allowing for fewer Access Points required in a deployment. These specifications assist in reducing dead zones in a deployed WLAN and help boost received signal quality on both ends of the AP as well as client devices in the network.

The ENS1200 can be configured in a number of different modes such as Access Point, WDS AP and WDS Bridge modes which give VARs, system integrators, IT managers, and installers the ability to configure the device for discrete functionality based on their unique network topology or scalable needs. Unlike ordinary outdoor APs, the ENS1200 can be used in a number of configurations and supports connectivity to and from other outdoor client bridges in multiple-building campus deployments.

For secure network configurations, the ENS1200 includes wireless encryption standards such as Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) Encryption and IEEE 802.1X with RADIUS. MAC Address Filtering is also included allowing network administrators to allow or deny network access to clients devices (computers, tablet PCs, NAS, smartphones, etc.) according to their MAC addresses.

The ENS1200 supports Fast Roaming for clients authenticated to a RADIUS server. 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 corporate campus, healthcare professionals capturing patient information on mobile devices, or security personnel who need uninterrupted video surveillance on a mobile device when they are alerted to and making their way to the location of an incident.

In addition, the ENS1200 employs Band Steering, a feature that automatically detects Dual Band clients and moves them from the 2.4 GHz band to the 5 GHz band. This allows applications such as video streaming to flow more easily and helps to eliminate traffic congestion on the 2.4 GHz band.

Network administrators can also configure an additional layer of security by tagging each of the ENS1200's SSIDs to a company's established VLANs. This added feature helps to ensure that only users in specific VLANs are accessing information they have been authorized to access even when they work outside the building or from another building on the corporate campus that has been bridged to a main office via one or more ENS1200 units. These settings are available upon initial installation with the device's browser-based Graphical User Interface and through EZ Controller.

With EnGenius' EZ Controller™ Management Software, units that have already been deployed on rooftops or other difficult to access locations and other EnGenius APs or Client Bridges in the network can be reconfigured to a different operational mode or upgraded remotely without having to manually reconnect to them or re-install them onsite. When used together with its included PoE injector, the ENS1200 can support a tethered IP camera on the available 802.3af Gigabit port for security applications such as warehouses, stadiums, airports, corporate campuses and more.

The ENS1200's internal MIMO antenna array is comprised of two (2) internal 5 dBi omni-directional high-gain antennas for 2.4 GHz and two (2) internal 5 dBi omni-directional high-gain antennas for 5 GHz. This combination of high transmit power and enhanced receive sensitivity results in long range connectivity to client devices and in some venues can minimize the number of Access Points necessary for a deployment.

The ENS1200 is easy to install in virtually any location as well with its included PoE (Power over Ethernet) injector for quick outdoor installation. The Access Point's internal electronics have been mounted in an IP55-rated enclosure, one of the highest waterproof and dustproof ratings available, designed to withstand extreme environmental conditions including severe and prolonged exposure to sunlight, extreme cold, frost, snow, rainfall, hail and humidity. These protective measures make the ENS1200 an ideal outdoor wireless solution for virtually any locale or any venue including ski and beach resorts, sports arenas, college and corporate campuses, indoor industrial environments, and businesses located in snowy, rainy, and arid climates.

Faster File Transfers and Smoother Video Streaming

Up to 866 Mbps on the 5 GHz and up to 300 Mbps on the 2.4 GHz frequency bands for faster file transfers and smoother video streaming.

High-Power and Long-Range Coverage

Up to 27 dBm transmit power, enabling long range connectivity.

Dual Band Operation for Less Congested Networks

Enables 2.4 GHz and 5 GHz frequency bands to be used for expanded user capacity. Greater number of channels available on the 5 GHz frequency spectrum supports higher bandwidth applications like HD video streaming while relieving congestion on the 2.4 GHz band.

Maximize RF Performance With High Gain Antennas

Built-in 5 dBi high gain internal antennas for each band.

Keeps Employees, Staff Constantly Connected to the Network

When used with a RADIUS server, Fast Roaming feature enables users to be constantly connected to a network as they move throughout a building. This is especially useful for voice and video applications preventing delays and dropped signals for users on mobile devices.

Improve and Optimize Wireless Traffic with Band Steering

Band Steering automatically detects Dual Band clients and moves them from the 2.4 GHz band to the 5 GHz band. This allows applications such as video streaming to flow more easily and helps to eliminate traffic congestion on the 2.4 GHz band.

Flexible Deployment Scenarios

Choose one of two (2) modes available to the ENS1200 depending on user needs: Access Point or WDS (AP & Bridge).

Simplified AP Monitoring and Management

For easier monitoring and maintenance after deployment on rooftops and other hard to reach places, users can monitor the Access Point remotely with SNMP-based EZ Controller wireless Access Point software for Windows, Mac OSX, and Linux (available online as a free download).

Combat the Elements with IP55-Rated Waterproof Housing

Designed to withstand harsh environmental conditions via its waterproof IP55-Rated housing.

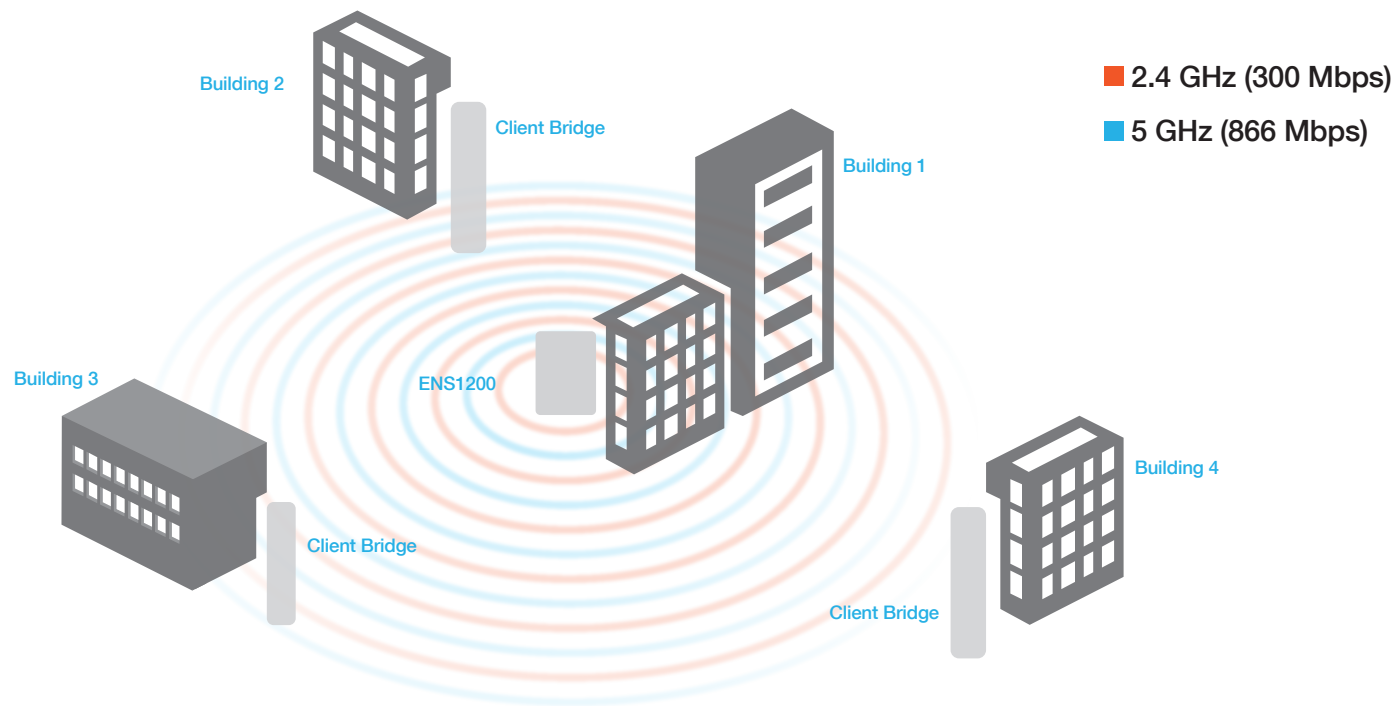
SSID-to-VLAN Tagging

Can be configured to broadcast up to sixteen (16) SSIDs (eight (8) SSIDs per band). Each SSID can be tagged to a specified company network VLAN for different user access based on established access rights.

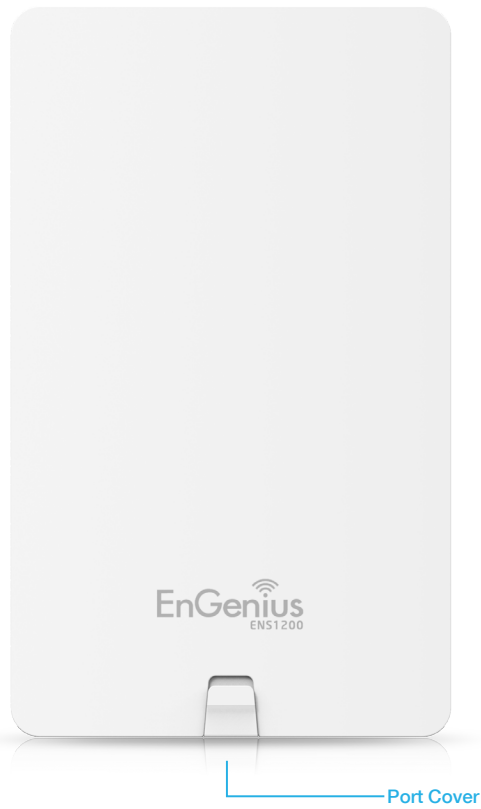
User-Friendly Installation Kit

Includes a proprietary PoE (Power-over-Ethernet) kit comprised of a PoE injector and Power Adapter. Also includes a mast mount kit with binding strap.

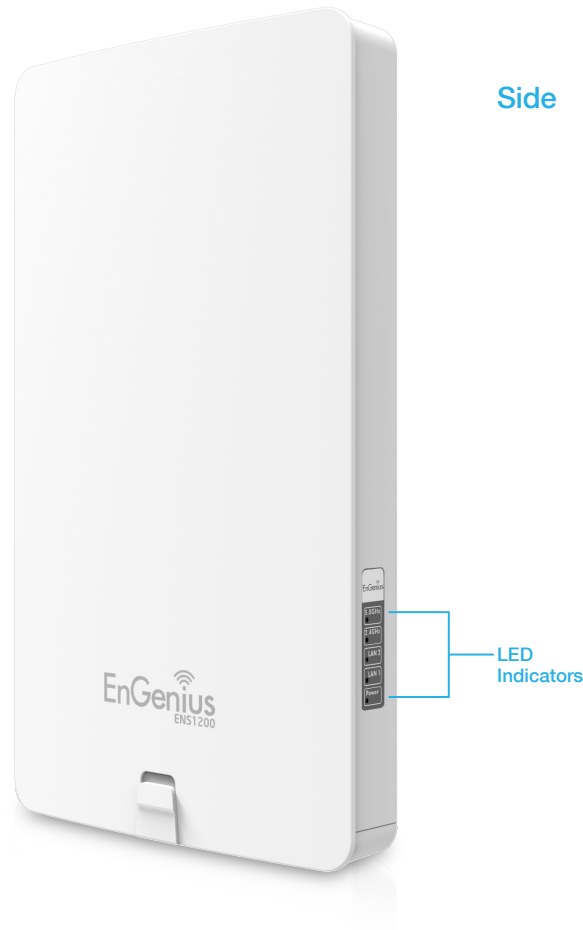
Access Point Mode



Front



Side



Specifications

Standard

IEEE 802.11a/b/g/n/ac

Data Rate: Up to 300 Mbps on 2.4 GHz, up to 866 Mbps on 5 GHz

IEEE 802.3at

Transmit Power

2.4 GHz: 27 dBm

5 GHz: 26 dBm

Maximum power is limited by regulatory power

Supported Radio Technologies

802.11b: Direct-Sequence Spread Spectrum (DSSS)

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

802.11n/ac: 2x MIMO with 2 Streams

802.11ac with 20/40/80 MHz Channel Width

802.11n with 20/40 MHz Channel Width

802.11a/b/g with 20 MHz Channel Width

Supported Modulation Types

802.11b: BPSK, QPSK, CCK

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

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

Supported Data Rates (Mbps)

802.11b: 1, 2, 5.5, 11

802.11a/g: 6, 9, 12, 18, 36, 48, 54

802.11n: 6.5~300 Mbps (MCS0 to MCS15)

802.11ac: 6.5~866 Mbps (MCS0 to MCS9, NSS= 1 to 3)

Power Source

External Power Adapter on PoE injector, DC IN, 48 V/0.8A

IEEE 802.3at Compliant Source

Active Ethernet (PoE)

Antenna Array

Internal 5 dBi Dual Concurrent Omni Antenna

Polarization: Linear

Azimuth Beam-Width: 360°

Elevation Beam-Width: 2.4 Ghz: 45°, 5 GHz: 40°

VSWR: 1:2.0

Physical Interface

ENS1200 Device:

LAN 1: 10/100/1000 BASE-T Ethernet Port – Supports 802.3at PoE Input

LAN 2: 10/100/1000 BASE-T Ethernet Port – Data Pass Through

Reset Button

EPE-48GR PoE Injector:

1 x Reset Button

1 x DC IN 48 V/0.8A

1 x AP/Bridge Port

1 x Gigabit Ethernet (10/100/1000 Mbps) Port

LED Indicator

Power

LAN 1

LAN 2

2.4 GHz

5 GHz

Operation Modes

Access Point

WDS AP

WDS Bridge

Management

Auto Channel Selection

Setting Varies by Regulatory Domains

SSIDs

BSSID Support

Supports 16 SSIDs (8 SSIDs per band)

VLAN Pass-Through

VLAN Pass-through over WDS Bridge Mode

Band Steering

VLAN Tagging

Save Configuration as Default

Client Traffic Status

Guest Network

RADIUS Accounting

Firmware Upgrade

Via web browser, settings are reserved after upgrade

Reset & Backup

Reset to factory default. Users can export all setting into a file via Web

Control Features

CLI Support

Distance Control (Ack Timeout)

Multicast Supported

Wi-Fi Scheduler/Auto Reboot

Fast Roaming

Fast Handover

SNMP v1/v2c/v3

MIB I/II, Private MIB

Email Alerts

Wireless Security

WEP Encryption 64/128/152 bit

WPA/WPA2 AES/TKIP (WPA-EAP using TKIP)

WPA/WPA2 Enterprise (WPA-EAP using TKIP)

802.1X RADIUS Supplicant (Client Bridge Mode)

Hide SSID in Beacons

MAC Address Filtering, Up to 32 MACs per SSID

Wireless STA (Client) Connected List

Https

SSH

QoS (Quality of Service)

Complaint with IEEE 802.11e Standard

Environmental & Mechanical

Temperature Range

Operating: -4 °F to 140 °F (-20 °C to 60 °C)

Storage: -22 °F to 176 °F (-30 °C to 80 °C)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Weights & Measures

Width: 7.13" (181 mm)

Length: 11.81" (300 mm)

Height: 1.34" (34.1 mm)

Weight: 1.89 lbs. (858g)

Certifications

FCC, CE

Warranty

1 Year

Surge / ESD Protection

Surge Protection: 4KV (Certificated Standard is 1KV)

ESD Protection: 8KV (Air); 4KV (Contact)

Waterproof

IP55-Rated Enclosure

Package Contents

ENS1200

PoE Injector (EPE-48GR)

Power Adapter

Pole Mounting Bracket

RJ-45 Ethernet Cable

Quick Installation Guide