

ENH710EXT

## Dual Band Wireless Ruggedized N600 Outdoor Access Point

For those looking to upgrade their single band networks, extend your wireless coverage to the outdoors with the high-power ENH710EXT Access Point, an 802.11a/b/g/n long-range Dual Band Wireless Ruggedized N600 Outdoor Access Point with speeds up to 300 Mbps on both its Dual Band (2.4 and 5 GHz) concurrent operation that functions as a stand-alone Access Point or as part of the EnGenius Electron Series Solution of mix-and-match business-class networking products to provide a seamless enterprise-class experience. Configurable in a number of operations modes, this versatile outdoor Access Point can be utilized for a wide variety of applications.

### Key Features

- IEEE 802.11a/b/g/n Wireless speeds of up to 300 Mbps on both 2.4 GHz and 5 GHz frequency bands
- Up to 27 dBm transmit power on both 2.4 and 5 GHz frequency bands, enabling long range connectivity
- Two (2) Gigabit Ethernet Ports
- Supports Separate Mode Configuration per Frequency Band: Access Point, Client Bridge and WDS
- 4 Detachable High-Gain External Antennas: Two (2) 5 dBi high gain Omni-directional antennas for 2.4 GHz, two (2) 7 dBi high gain Omni-directional antennas for 5 GHz
- SSID-to-VLAN Tagging
- IP68-Rated waterproof housing for withstanding UV radiation and severe exposure to the elements
- Band Steering supported
- Fast Roaming supported
- Can be used with included power injector or with PoE 802.3at capable Switches
- CLI supported
- Secured Guest Network supported
- Can be monitored after deployment with EnGenius EZ Controller™ software for Windows, Mac OS X and Linux (available as a free download)
- Easy to Navigate Browser Based GUI

Operating in both the 2.4 and 5 GHz frequency spectrums and supporting 802.11a/b/g/n standards, the ENH710EXT features wireless speeds up to 300 Mbps on both frequency bands and includes a Gigabit port for connecting to 802.3at-capable PoE Switches. As the ENH710EXT is designed to be mounted in high locations where power outlets may be scarce, it also supports PoE (Power-over-Ethernet) IEEE 802.3at for use with an 802.3at-capable PoE injector.

When several ENH710EXTs are deployed in a campus setting, the 5 GHz band can be configured as a backhaul connecting several ENH710EXT units back to a central ENH710EXT. Thus, while several 2.4 GHz wireless cells are created to provide coverage for laptop computers or mobile devices like tablets and smartphones in common outdoor areas, they all link back to the main network via 5 GHz. So, whether your business needs just one ENH710EXT or a dozen to expand your network for your campus and offer greater connectivity to your network and other networked resources, the ENH710EXT is a great place to start.

The ENH710EXT can be configured in a number of different modes giving 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. With two onboard radios, each can be configured into different operation modes independently, thus adding an additional layer of flexibility that single-band Access Points can't offer.

In Access Point mode, the ENH710EXT expands the overall bandwidth of an outdoor Wi-Fi solution and users who wish to stream video or transfer large files now have the option to associate to any one of the AP's with up to eight (8) configurable 5 GHz SSIDs— particularly useful in areas where there may be a preponderance of competing and overlapping 2.4 GHz signals from Access Points and devices not affiliated with the company's network (Support 8 SSIDs on 2.4GHz and 8 SSIDs on 5GHz).

For secure network configurations, the ENH710EXT 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 according to their MAC addresses.

The ENH710EXT 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.

When Band Steering is enabled, the ENH710EXT automatically detects Dual Band capable 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 for more optimal data traffic flow.

Network administrators can also configure an additional layer of security by tagging each of the ENH710EXT'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 ENH710EXT units.

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 ENH710EXT can support a tethered IP camera on the available 802.3af Gigabit port for security applications in areas such as warehouses, stadiums, airports, corporate campuses and more.

The ENH710EXT's external MIMO antenna array is comprised of two (2) detachable 5 dBi high gain antennas for the 2.4 GHz radio and two (2) detachable 7 dBi high-gain antennas for the 5 GHz radio. This combination of high transmit power, enhanced receive sensitivity, and four (4) high gain antennas results in long range connectivity to client devices and in some venues can minimize the number of Access Points necessary for a deployment, maximizing the overall performance of devices.

The ENH710EXT 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 IP68-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 ENH710EXT an ideal outdoor wireless solution for virtually any locale or venue including ski and beach resorts, sports arenas, college and corporate campuses, indoor industrial environments, and businesses located in snowy, rainy, and arid climates.

## High Power, Long-Range Coverage

Up to 27 dBm transmit power on both the 2.4 GHz and 5 GHz radios, enabling long range connectivity.

## Expand the Capacity of Your Current Wireless Network

Up to 300 Mbps on both 2.4 GHz and 5 GHz bands for faster file transfers and smoother video streaming.

## Dual Band Operation for Expanded User Capacity

- Utilizes 2.4 GHz and 5 GHz frequency bands for expanded user capacity.
- Greater numbers of channels available on the 5 GHz frequency spectrum to support higher bandwidth applications like HD video streaming.

## Improves and Optimizes Wireless Traffic with Band Steering

Detects Dual Band clients and shifts them to the 5 GHz band to relieve network congestion on the 2.4 GHz band to maintain optimal data traffic flow.

## Maximize RF Performance With High Gain Antennas

Two (2) detachable 5dBi high-gain Omni-directional antennas for 2.4 GHz and two (2) detachable 7 dBi high-gain omni-directional antennas for 5 GHz.

## Flexible Deployment Scenarios

Choose one of three modes available to the ENH710EXT depending on user needs: Access Point, Client Bridge, or WDS (AP, Station, & 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 IP68-Rated Waterproof Housing

- Designed to withstand extremely harsh environmental conditions via its water and dust proof IP68-Rated housing.
- Repels UV radiation.

## Keeps Employees, Staff Constantly Connected to the Network

When used with a RADIUS server, Fast Roaming 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.

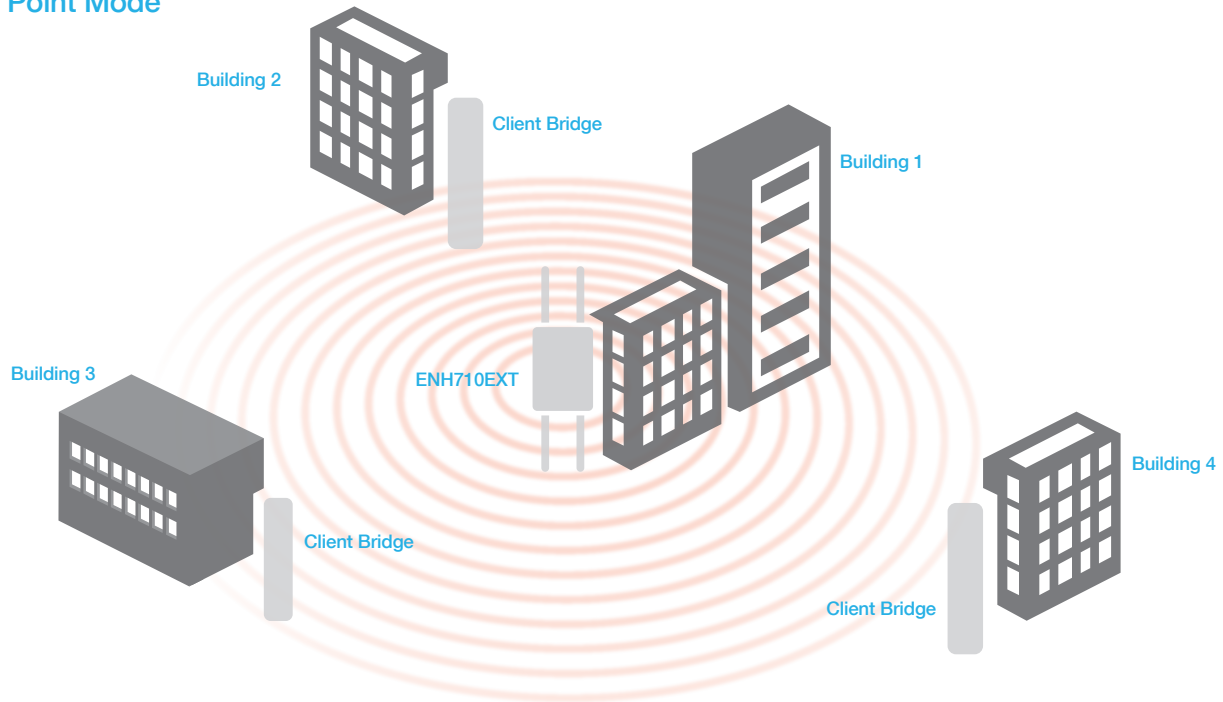
## Keep Sensitive Information Safe with SSID-to-VLAN Tagging

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

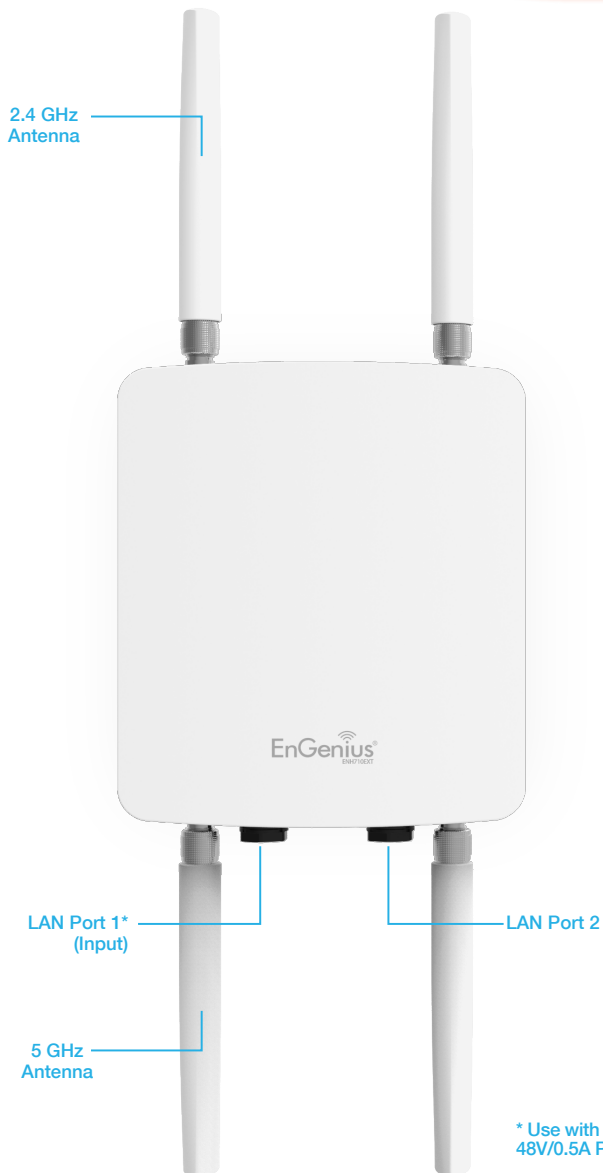
## User-Friendly Installation Kit

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.

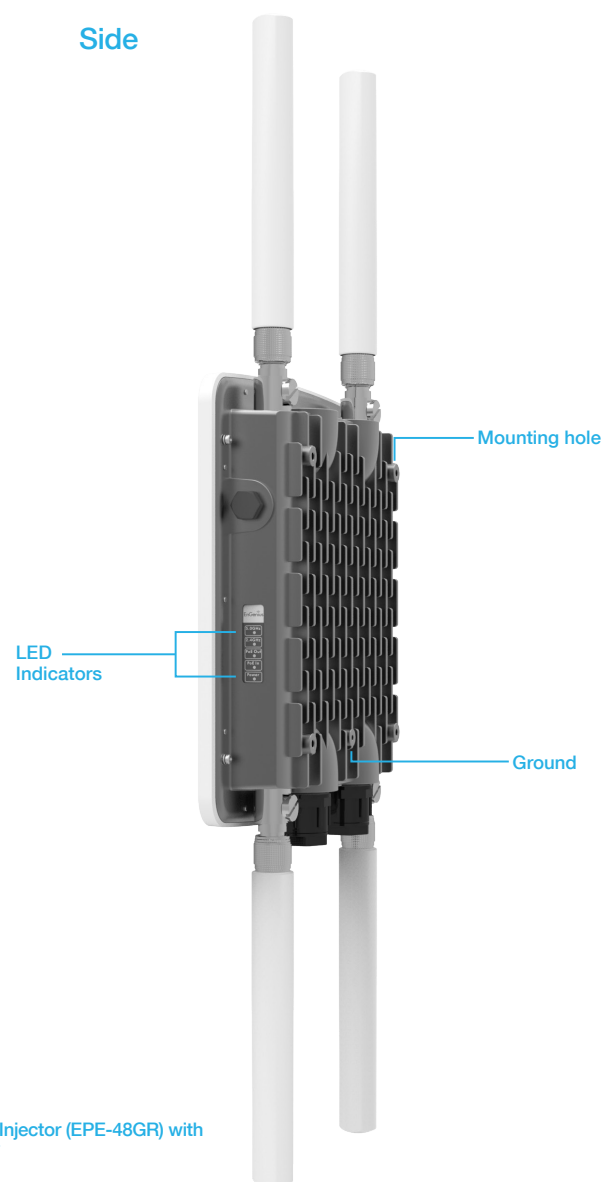
## Access Point Mode



## Front



## Side



\* Use with included PoE Injector (EPE-48GR) with 48V/0.5A Power Adapter

# Specifications

## Standard

IEEE 802.11a/b/g/n

Data Rate: Up to 300 Mbps on each frequency band

IEEE 802.3at

## Transmit Power

2.4 GHz: Max 27 dBm

5 GHz: Max 27 dBm

## Supported Radio Technologies

802.11b: Direct-Sequence Spread Spectrum (DSSS)

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

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

## 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 (MCS0 to MCS15)

## Power Source

External Power Adapter on PoE Injector (EPE-48GR); DC IN, 48V/0.5A

IEEE 802.3at Compliant

## Power Requirements

Active Ethernet (Power-over-Ethernet)

Proprietary PoE Design

Power Adapter (United States) 48V/ 0.5A

Power Source: 802.3at Compliant

Power Consumption: Up to 22 Watts

## Antennas

Two (2) Detachable 5 dBi high gain Omni-directional antennas for 2.4 GHz,

Two (2) Detachable 7 dBi high gain Omni-directional antennas for 5 GHz

Compliant with N type Connector

## Physical Interface

ENH710EXT Device:

LAN 1: 10/100/1000 BASE-T Ethernet Port – PoE Capable 802.at (Input)

LAN 2: 10/100/1000 BASE-T Ethernet Port – Supports Signal Extension

EPE-48GR PoE Injector:

1 x Reset Button

1 x DC IN 48 V/0.5A

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

Client Bridge

WDS

## Management

### Auto Channel Selection

Setting Varies by Regulatory Domains

### SSIDs

BSSID Support

Supports 8 SSIDs per Band

### VLAN Pass-Through

VLAN Pass-through over WDS Bridge Mode

SNMP & MIB v1/v2c/v3 Support

MIN I/II, Private MIB

Save Configuration as Default

Client Traffic Status

Guest Network

Email Alerts

### Firmware Upgrade

Via web browser, settings are reserved after upgrade

### Reset & Backup

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

QoS

RADIUS Accounting

### Control Features

CLI

Distance Control (Ack Timeout)

Multicast Supported

Wi-Fi Scheduler

Fast Roaming

Fast Handover

### Wireless Security

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

WPA/WPA2 Enterprise (WPA-EAP using TKIP)

802.1X RADIUS Supplicant (Client Bridge Mode)

Hidden SSID Broadcast

MAC Address Filtering, Up to 32 MACs per SSID

L2 Isolation (Access Point Mode)

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 158 °F (-20 °C to 70 °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: 11.22" (285 mm)

Length: 8.58" (218 mm)

Height: 2.19" (55.5 mm)

Weight: 3.96 lbs. (1795 g)

### Certifications

FCC, CE

### Warranty

1 Year

### Surge / ESD Protection

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

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

### Waterproof

IP68 Rated Enclosure

### Package Contents

ENH710EXT

2 x detachable 2.4 GHz 5 dBi omni-directional N-Type antennas

2 x detachable 5 GHz 7 dBi omni-directional N-Type antennas

PoE Injector (EPE-48GR)

Power Adapter

Grounding Cable

Pole Mount Bracket

Wall Mount Base

Mounting Screw Set

Quick Installation Guide