Key Features

- IEEE 802.11 b/g/n compliant
- Up to 300Mbps (2.4GHz)
- Complaint with IEEE 802.3 at for PoE supported
- PoE injector with reset from remote-end
- Two Gigabit Ethernet Port
- Waterproof Housing IP68 rated
- AP/CB/WDS Modes support
- Configure by web GUI or EZ controller
- SNMP V1/ V2c/V3, MIB I/II supported
- WEP/WPA/WPA2 wireless encryption
- Support IPV4/IPV6
- Seamless stream service (Fast Roaming)
- Manage and monitor by the AP, SSID

802.11 b/g/n N300 Access Point

EnGenius Outdoor Base Station designs High Power, High Sensitivity and Strong Reliability Solutions under Harsh Environment.

ENH220EXT engineered with dual-band concurrent architecture which offers the bandwidth up to 300Mbps on 2.4GHz band. With the IP68-rated waterproof enclosure and the flexible mounting capability, the product is able to be applied under challenging environments.

Power Over Ethernet (PoE) and Reset from Remote-end Support

ENH220EXT equips with two gigabit Ethernet ports that support **IEEE 802.3at PoE input** and PoE injector with reset function. To fulfill the operation from distantly use, clients can reset the ENH220EXT to default value via EPE-48GR from remote-end.

Enterprise high-end Solutions

ENH220EXT can be configured by web configuration or EnGenius Zone Controller (EZ controller) software. With full-featured software built-in, the device allows administrator to control, manage, and optimize the network effectively from a central location which can decrease the maintenance cost greatly. ENH220EXT can operate into three different modes with **Access Point, Client Bridge** and **WDS Modes**. With powerful solution and individual interfaces, ENH220EXT can connect with the multiple devices and extend the wireless signal easily, as well as be the point to point connection between office buildings.

Effective Management

EnGenius has developed the advanced functions for maximum security, monitoring and easily management to ensure the optimal users' experience. To provide the reliable connection and stable performance on the transmission, ENH220EXT provides wide-range of authentication and encryption standards (including WEP, WPA, WPA2, TKIP/AES and IEEE 802.1X) to enforce the maximum security, as well as configure the band steering, fast roaming and clients status to enhance the quality of wireless service.

Physical Interface

Gigabit Ethernet Port		N-Type Connector	
1	LAN1 Port, IEEE 802.3at PoE Input	3 4	Detachable 5dBi 2.4GHz Omni-directional Antennas
2	LAN2 Port		

Specification

Wireless Radio Specification

- 2.4GHz 802.11b/g/n
  - Max 300Mbps
- Transmit Power (Maximum Value)
  - 2.4GHz: Max 27dBm
  - Maximum power is limited by regulatory power
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum(DSSS)
  - 802.11g/n: Orthogonal frequency-division multiplexing (OFDM)
  - 802.11n with 20/40 MHz channel width
  - 802.11b/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
  - 802.11g: 6, 9, 12, 18, 36, 48, 54
  - 802.11n: 6.5 to 300 (MCS0 to MCS15)

Power

- Power Source:
  - 802.3at compliant source
- Power Consumption:
  - 14.9W

Antennas

- Six detachable high gain antennas
  - Two detachable 5dBi 2.4GHz antennas
- Omni-Directional type
  - Provide the optimal coverage
- Compliant with N type connector

Interface

- Two 10/100/1000 BASE-T Ethernet Ports:
  - One Port (LAN1) supports 802.3at PoE input
  - One Port (LAN2) supports signal extension
  - Reset button on the PoE injector (EPE-48GR)

Mechanical & Environment

- Dimensions / Weight
  - 285mm (L) x 218mm (W) x 55.5mm (H)
  - 1890g (Unit, without mounting kit and antennas)
- Operating:
  - Temperature: -20°C~70°C
- Storage:
  - Temperature: -30°C~80°C
  - Humidity: 0%～90% typical
- Storage:
  - Temperature: -30°C~80°C
- Surge / ESD Protection
  - ESD Protection: 8KV (Air); 4KV(Contact)
  - Surge Protection: 4KV (Certificated standard is 1KV)
- Harsh Environment Use:
  - IP68 rated

Operation Mode

- Access Point / Client Bridge / WDS:
  - A variety of operation modes to serve multiple constituencies and applications.

Easy to Management

- Auto Channel Selection
  - Setting varies by Regulatory Domains
- SSIDs:
  - BSSID support
  - Support 8 SSIDs
- VLAN Pass-through:
  - VLAN pass through over WDS bridge mode
- SNMP &MIB
  - v1/v2c/v3 support
  - MIB I/II, Private MIB
- Save Configuration as Default:
  - Saves the users' configuration as default value.
- Clients Traffic Status:
  - Reports the various main information timely which is required by administrator
- Guest Network
  - Allows users to manage easily grant "visitor" access within the network.
- E-mail Alert:
  - Provides a network monitoring tool for administrators to stay informed the configuration change.
- QoS:
  - Complaint with IEEE 802.11e standard
- RADIUS Accounting:
  - Assist operators to offload 3G to the wi-fi seamlessly

Effective Control and Use

- CLI Comments Support
  - Setting varies by Regulatory Domains
- Distance Control (Ack Timeout)
- Multicast Supported
- Wi-fi Scheduler
  - Set the schedule for rebooting the device
- Fast Roaming
  - Minimize perceptible delay during re-association.
- Fast handover
  - Steer clients from the AP to other APs under the same encryption and SSID when the signal is above the default value.

Reinforcement Security

- WEP Encryption-64/128/152 bit
- WPA/WPA2 Enterprise (WPA-EAP using TKIP or AES)
- Hide SSID in beacons
- MAC address filtering
  - Filter up to 32 MACs per SSID
- Wireless STA (Client) connection list:
  - Reports the various main information timely which is required by administrator
- Https
  - Widely used communications approach for securing communication over a computer network.
- SSH
  - Provide confidentiality and integrity of data over an unsecured network, such as the Internet.

RF Specification (Aggregated Value)

Channel	Data Rate	Transmit Power (Aggregated, dBm)	Receive Sensitivity (Aggregated, dBm)
802.11b 2.4 GHz	1 Mbps	27.0	-96.0
	2 Mbps	27.0	-95.0
	5.5 Mbps	27.0	-93.0
	11 Mbps	27.0	-92.0
802.11g 2.4 GHz	6 Mbps	27.0	-94.0
	54 Mbps	25.0	-75.0
802.11a 5 GHz	6 Mbps	27.0	-94.0
	54 Mbps	22.0	-75.0
802.11n HT20 2.4 GHz	MCS 0 / 8	27.0	-95.0
	MCS 7 / 15	24.0	-70.0
802.11n HT40 2.4 GHz	MCS 0 / 8	27.0	-94.0
	MCS 7 / 15	24.0	-69.0
802.11n HT20 5GHz	MCS 0 / 8	26.0	-95.0
	MCS 7 / 15	22.0	-70.0
802.11n HT40 5GHz	MCS 0 / 8	26.0	-94.0
	MCS 7 / 15	20.0	-69.0
802.11ac VHT20 5GHz	MCS0_1SS / 2SS/ 3SS	-	-
	MCS8_1SS / 2SS/ 3SS	-	-
802.11ac VHT40 5GHz	MCS0_1SS / 2SS/ 3SS	-	-
	MCS9_1SS / 2SS/ 3SS	-	-
802.11ac VHT80 5GHz	MCS0_1SS / 2SS/ 3SS	-	-
	MCS9_1SS / 2SS/ 3SS	-	-

*Maximum performance of the hardware provided. Maximum transmit power is limited by local regulatory.

*The supported frequency band is restricted by local regulatory requirements.

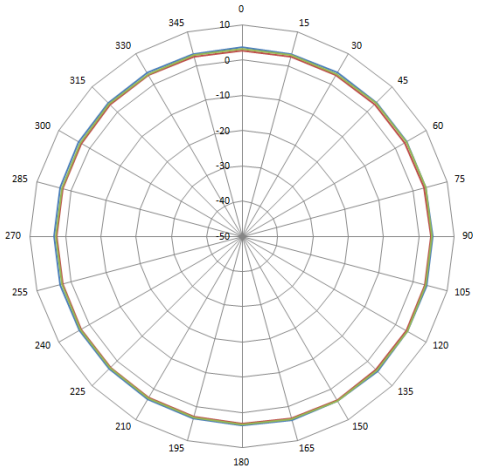
*Transmit power is configured in 1.0dBm increments.

Antenna Specificaitons (External Antenna)

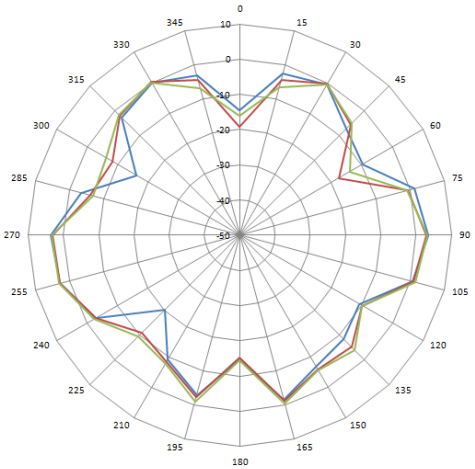
Frequency	2.4GHz
Average Antenna Gain	5.0dBi
Polariztion	Linear
Azimuth Beam-Width	360°
Elevation Beam-Width	28°
VSWR	1:2.0
Dimension	22.8(Φ)x187(L) mm

Diagram Pattern

2.4GHz-H Plane



2.4GHz-E Plane

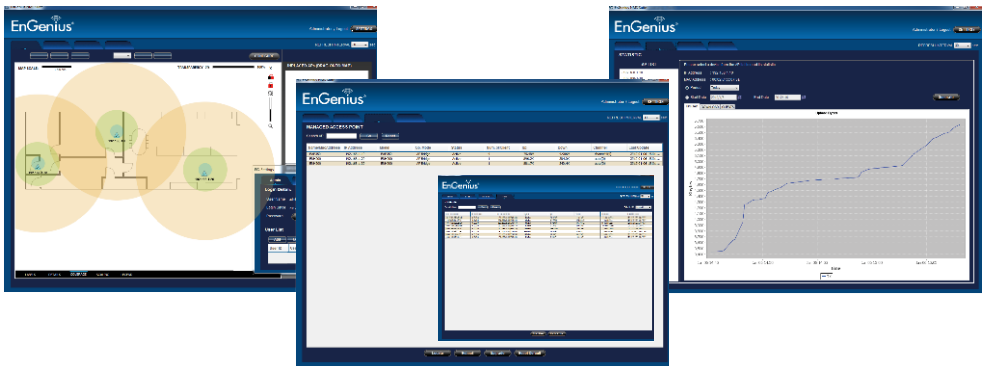


EZ CONTROLLER

Network Management System - EnGenius Zone Controller

In enhancing the real-time functionality of a network, applying the best network management software tool is necessary. Built-in Network Management System, EZ Controller (EnGenius Zone Controller), provides an intelligent tool for IT manager, installer, and network administrators to configure control, and manage all wireless devices within network from one central location. This application ensures the entire network will optimally operate without troubles, glitches and interruptions.

The growing demand of performance related results from service providers or someone involved in an enterprise, you need to provide a huge platform to make it successful. The robust design of EZ Controller can manage different devices simultaneously and precisely, as well as configure the advanced service for wireless clients.



Configure, control and manage EnGenius Enterprise Wireless Devices from one central location.

Features:

- Easy-to-use User Interface
- Optimize network performance
- Eliminate downtime
- Check real-time wireless coverage
- Monitor and control each sheet
- Monitor traffic loads by AP, MAC or IP address
- Sequential firmware upgrades to deployed APs / Bridges
- Import and archive floorplan maps for radio coverage plotting
- Labels assets by MAC and IP address or user-defined aliases
- Export real-time AP statistics report

An intelligent solution for different business environment

Villa

Campus

Office

Plaza