EnGenius®

ENH500

Datasheet

Key Features

- IEEE 802.11 a/n compliant
- Up to 300Mbps (5GHz)
- 24V Proprietary PoE support
- Waterproof Housing IP65 rated
- AP/CB/CR/WDS Modes
- 4 SSIDs support + VLAN tagged supported
- Web Configuration and EZ controller software
- SNMP V1/ V2c/v3, MIB I/II supported
- WEP/WPA/WPA2 wireless encryption
- Enable to configure IPv4 / IPv6
- PPPoE equipped / PPPoE Pass-through

802.11a/n Long Range Wireless Outdoor CPE

EnGenius Outdoor Access Points design High Power, High Sensitivity and Strong Reliability Solutions under Harsh Environment.

ENH500 engineered with the powerful independent RF interface that offers bandwidth up to 300Mbps on 5GHz band for accommodating heavy traffic services. The high-efficient 13dBi directional with polarization antenna provides an optimal, extended real outdoor throughput performance via point to point transmission in long range distances.

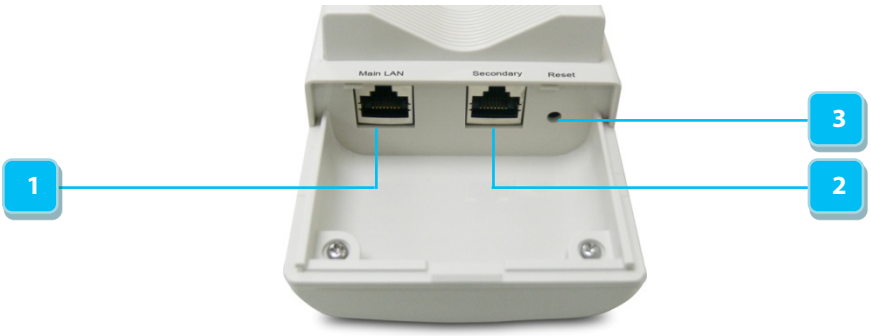
Multiple Operation Modes

ENH500 can operate into four different modes with **Access Point**, **Client Bridge, Client Router** and **WDS Mode**.

Effective Management

ENH500 integrated with Network Management Software "EZ controller" can offer variety uses in constructing scalable wireless network of all possible application and also allow centralized management via user-interface. EnGenius has developed the multiple functions for maximum security, monitoring and easily management to ensure the optimal users' experience. ENH500 provides wide-range of authentication and encryption standards (including WEP, WPA, WPA2, TKIP/AES and IEEE 802.1X) to enforce the maximum security. Along with Proprietary PoE support excellent long-range network installation when used in conjunction with its outdoor family – ENH900EXT.

Physical Interface



Physical Interface	
1	Fast Ethernet Port with PoE Input (Main LAN)
2	Fast Ethernet Port (Secondary)
3	Reset Button

Specification

Wireless Radio Specification

- 5GHz 802.11a/n
  - Max 300Mbps
- Transmit Power (Maximum Value)
  - Max 15dBm
  - Maximum power is limited by regulatory power
- Supported radio technologies:
  - 802.11a/n: Orthogonal frequency-division multiplexing (OFDM)
  - 802.11n with 20/40 MHz channel width
  - 802.11a with 20 MHz channel width
- Supported modulation types:
  - 802.11a/n: BPSK, QPSK, 16-QAM, 64-QAM
- Supported data rates (Mbps):
  - 802.11a: 6, 9, 12, 18, 36, 48, 54
  - 802.11n: 6.5 to 300 (MCS0 to MCS15)

Power

- Power Source:
  - 24V proprietary compliant source
  - Active Ethernet (Power over Ethernet, PoE)

Antennas

- Directional high gain antennas
  - 13dBi 5GHz antennas
  - Point to point transmission in the long range distance

Interface

- Two 10/100 BASE-T Ethernet Port
  - One port supports 24V proprietary PoE input
  - One port supports the extension of internet signal
- One reset button

Mechanical & Environment

- Dimensions / Weight
  - 260mm (L) x 84mm (W) x 55mm (H)
  - 380g (Unit, without mounting kit)
- Operating:
  - Temperature: -20°C~70°C
  - Humidity: 0%～90% typical
- Storage:
  - Temperature: -30°C~80°C
- Harsh Environment Use:
  - IP65 rated
- ESD Protection: 15KV (Certificated Standard is 8KV)

Operation Mode

- Access Point / Client Bridge / Client Router / 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
  - 4 SSIDs support
- VLAN Tag:
  - Independent VLAN setting can be enable or disable
  - Any packet that enters the Device without a VLAN tag will have a VLAN tag inserted with a PVID (Ethernet Port VID)
- VLAN Pass-through:
  - VLAN pass through over WDS bridge
- SNMP &MIB
  - v1/v2c support
  - MIB I/II, Private MIB
- Save Configuration as Default:
  - Saves the customized configuration as default value for different customer demands.
- Clients Traffic Status:
  - Reports the various main information timely which is required by administrator
- QoS
  - Complaint with IEEE 802.11e standard
- RADIUS Accounting:
  - Help 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

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 50 MACs
- Wireless STA (Client) connection list:
  - Reports the various main information timely which is required by administrator

RF Specification (Aggregated Value)

Channel	Data Rate	Transmit Power (Aggregated, dBm)	Receive Sensitivity (Aggregated, dBm)
802.11a 5 GHz	6 Mbps	15.0	-95.0
	54 Mbps	15.0	-75.0
802.11n HT20 5GHz	MCS 0 / 8 / 16	15.0	-94.0
	MCS 7 / 15 / 23	12.0	-73.0
802.11n HT40 5GHz	MCS 0 / 8 / 16	15.0	-93.0
	MCS 7 / 15 / 23	12.0	-72.0

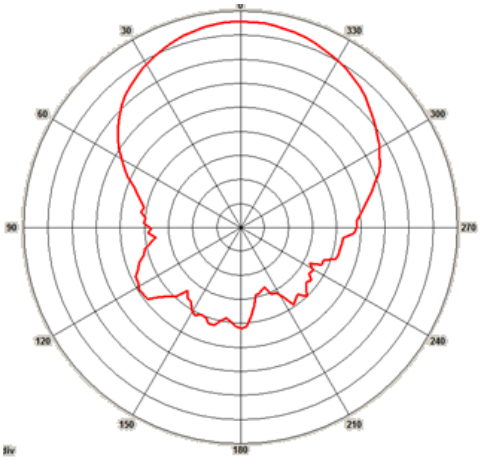
*Maximum performance of the hardware provided. Maximum transmit power is limited by local regulatory.
*The supported frequency band is restricted by local regulatory requirements.
*Transmit power is configured in 1.0dBm increments.

Antenna Specificaitons (Integrated Solution)

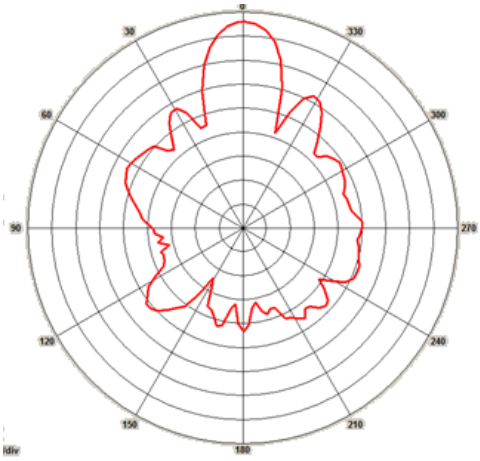
Dual Polarization	5GHz (Port1)	5GHz (Port2)
Average Antenna Gain	13dBi	13dBi
Polariztion	Linear	Linear
Azimuth Beam-Width	18°	18°
Elevation Beam-Width	58°	85°
VSWR	1:2.0	1:2.0
Dimension	186(L)x63(W)x4.4(H) mm	

Radiation Diagram

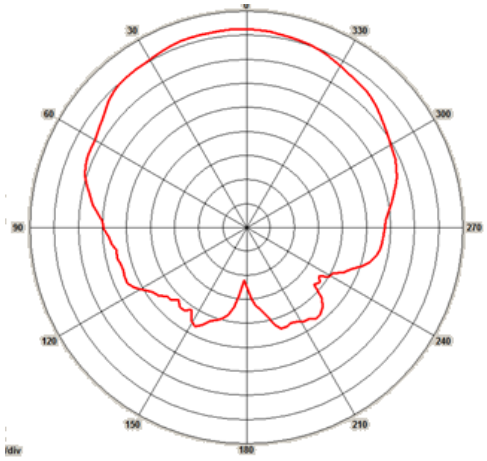
Port1: H-Plane



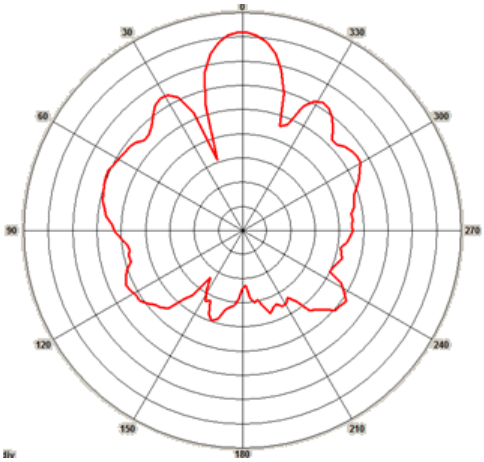
Port1: E-Plane



Port2: H-Plane



Port2: E-Plane



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