ENH202

802.11b/g/n Long Range Wireless Outdoor CPE

Key Features

- IEEE 802.11 b/g/n compliant
- Up to 300Mbps
- 24V Proprietary PoE support
- Waterproof Housing IP65 rated
- AP/CB/CR/WDS Modes
- 4 SSIDs support per radio + VLAN tagged
- Configure by Web UI or 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

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

ENH202 engineered with the powerful independent RF interface that offers bandwidth up to 300Mbps on 2.4GHz band for accommodating heavy traffic services. The high-efficient 10dBi directional with polarization antenna provides an optimal, extended real outdoor throughput performance via point to point transmission in long range distances.

Multiple Operation Modes

ENH202 can operate into four different modes with **Access Point**, **Client Bridge, Client Router** and **WDS Mode**.

Effective Management

ENH202 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. ENS202 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.

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Datasheet

ENH202

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

SPECIFICATIONS

Wireless Radio Specification	
2.4GHz 802.11b/g/n	Max 300Mbps
Transmit Power (Maximum Value)	2.4GHz: Max 15dBm
	Maximum power is limited by regulatory power
Supported Radio Technology	802.11b: Direct-sequence spread-spectrum (DSSS)
	802.11n: Orthogonal frequency-division multiplexing (OFDM)
	802.11n with 20/40 MHz channel width
	802.11g with 20 MHz channel width
Supported Modulation Types	802.11b: BPSK, QPSK, CCK
	802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Supported Data Rates (Mbps)	802.11b: 1, 2, 5.5, 11
	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	24V propietary compliant source
	Active Ethernet (Power over Ethernet, PoE)
Antennas	
Directional high gain antennas	10dBi dual polarization antenna

	Point to point transmission in the long range distance
Interface	
Two 10/100 BASE-T Ethernet Ports	One port supports 24V proprietary PoE input
	One port supports the extension of internet signal
One reset button	
Enable to reset from PoE injector	
Mechanical & Environment	
Dimensions/Weight	260mm (L) x 84mm (W) x 55mm (H)
	380g (unit without mounting ki)
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
PPPoE under CR Mode	
PPPoE Pass-through under CB Mode	
Easy to Management	
Auto Channel Selection	Setting varies by regulatory domain
SSIDs	BSSID support
	8 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
Clients Traffic Status	Reports the various main information timely which is required by administrator QoS
	Complaint on IEEE802.11e standards

QoS	Complaint on 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	
Wi-Fi Scheduler	Set the schedule for rebooting the device
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)	Received Sensitivity (Aggregated, dBm)
802.11b 2.4 GHz	1 Mbps	15.0	-97.0
	2 Mbps	15.0	-95.0
	5.5 Mbps	15.0	-92.0
	11 Mbps	14.0	-89.0
802.11g 2.4 GHz	6 Mbps	15.0	-96.0
	54 Mbps	14.0	-75.0
802.11n HT20 2.4 GHz	MCS 0 / 8	13.0	-95.0
	MCS 7 / 15	13.0	-73.0
802.11n HT40 2.4 GHz	MCS 0 / 8	15.0	-94.0
	MCS 7 / 15	13.0	-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 Specifications (Internal Antenna)

External Antenna	2.4GHz (V-Polar)	2.4GHz (H-Polar)

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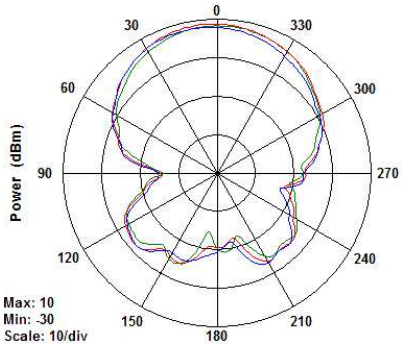
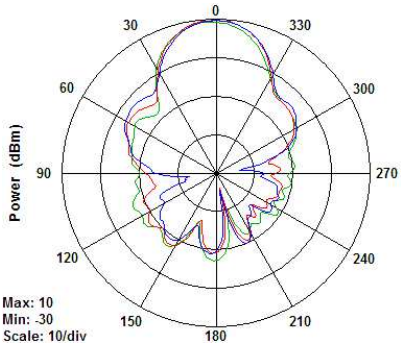
Datasheet
ENH202

Average Antenna Gain	10.0dBi	10.0dBi
Polariztion	Linear	Linear
Azimuth Beam-Width	84°	74°
Elevation Beam-Width	38°	40°
VSWR	1:2.0	1:2.0
Dimension	180(L)x64(W)x5.8(H) mm	
Radiation Diagram (TBD)	**Port1 : H-Plane**	**Port1 : E-Plane**

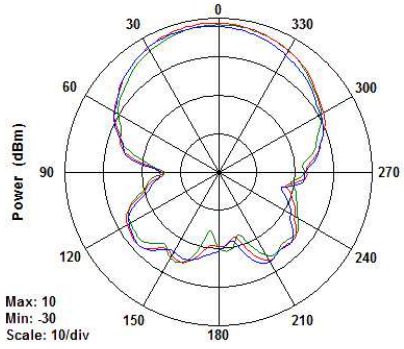


2400MHz
2450MHz
2500MHz



2400MHz
2450MHz
2500MHz

Port2 : H-Plane	**Port2 : E-Plane**



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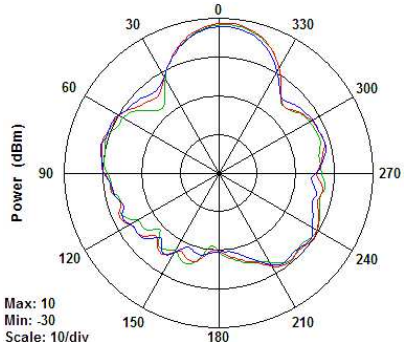

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Network Management System

EZ CONTROLLER

Datasheet
ENH202

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 floor plan 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

ENH202v2 Data sheet Version 050514

Learn more about EnGenius Solution at **www.engeniustech.com.sg**