# EnGenius

### Dual band Wireless AC1750 Managed Outdoor Access Point

## High power, high sensitivity and high reliability solution designed to operate under harsh environments

The EWS660AP is a versatile, high power outdoor access point designed to withstand harsh environments making it an ideal solution for creating outdoor wireless networks. With transfer rates of up to 1300Mbps in 5GHz and 450Mbps in 2.4GHz, users are able to enjoy faster wireless connections for bandwidth hungry applications such as audio, video and voice streaming. With its IP55-rated waterproof enclosure and the flexible mounting capabilities, this product is suitable to be installed in stadiums, school campuses, stations, airports, manufacturing plants or virtually any venue requiring a robust outdoor wireless solution.

#### Enhanced Signal Strength to Further Extend WLAN Coverage

Equipped with built-in high-gain antennas designed for high power radio, the EWS660AP has been enhanced to provide higher signal strength and sensitivity; this will assist to reduce dead spots in your deployed WLAN and boost received signal quality on both ends of AP and wireless client devices.

#### 802.3at Power Over Ethernet (PoE) Support

EWS660AP can be powered using the enclosed PoE injector or any off-theshelf 802.3at-compliant PoE switches, solving the common power sourcing issue in the field where devices are usually placed in outdoor environment. With PoE power management from EWS management switch, the power budget of EWS660AP and its consumption can be configured and monitored immediately.

#### **Configuration and Management with Ease**

EWS-series managed AP is designed to work with EWS-series Wireless Management Switch as part of EnGenius' integrated WLAN management solution, providing intuitive web-based configuration, management, and advanced wireless features such as fast handover, fast roaming, and band steering. The AP is self-discovered by EWS management switch on your WLAN without extra efforts; once added into managed device list, WLAN administrator can easily use individual or cluster settings to fast deploy numbers of AP with desired settings, saving repetitive configuration tasks. Other than intuitive device management, this integrated solution provides map-view UI on EWS switch for AP placement visualization with built-in troubleshooting tools to perform diagnosis upon error occurred.

#### **Key Features**

+ Draft IEEE 802.11ac and IEEE802.11b/g/n compliant

+ Up to 450Mbps(2.4GHz) + 1300Mbps(5GHz) wireless data transmission rate

+ Compliant with IEEE802.3at for PoE support

+ IP55 Rated Waterproof Housing

+ Built-in high-gain antennas for low profile design

+ Integrated WLAN management solution with EWS-series PoE switch

+ Advanced AP mode with mesh support (future firmware)

- + SNMP v1/ v2c/v3, MIB I/II supported
- + WEP/WPA/WPA2 wireless encryption
- + IPv4/IPv6 support

EnGenius Europe | Veldzigt 28, 3454 PW Utrecht (NL) +31 (0)30 66 91 417 | info@engenius-europe.com Follow us



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ww.engenius-europe.com

#### Wireless Radio Specification

Dual Radio, 5GHz 802.11a/n/ac and 2.4GHz 802.11b/g/n - 2.4GHz: Max 450Mbps

- 5GHz: Max 1300Mbps
- Dual concurrent radio support
- Transmit power (maximum value)
- 2.4GHz/5Ghz: Max 29dBm

- Maximum power is limited by regulatory power

Supported radio technologies

- 802.11b: direct-sequence spread-spectrum (DSSS)

- 802.11a/g/n/ac: Orthogonal freugency-division multiplexing (OFDM)

- 802.11n/ac: 3x3 MIMO with 3 streams

- 802.11ac with 20/40/80MHz channel width
- 802.11n with 20/40MHz channel width
- 802.11a/b/g with 20MHz 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 to 450 (MCS0 to MCS23)
- 802.11ac: 6.5 to 1,300 (MCS0 to MCS9, NSS=1 to 3)

#### Power

Power source

- 802.3af/at compliant source
- Active Ethernet (Power over Ethernet, PoE)

#### Atennas

Internal high gain antennas - 3T3R 5dBi dual concurrent omni antenna

#### Interface

*Two 10/100/1000 BASE-T Ethernet Port* - LAN1 supports 802.3af/at PoE input - LAN2 is used to extend internet signal

Reset button

#### **Mechanical & environment**

Dimensions / Weight - 300mm (L) x 181mm (W) x 34.1mm (H) Operating - Temperature: -20°~70°C Harsh environment use - IP55 rated

#### **Operation mode**

A variety of operation modes to serve multiple constituencies and applications. (Access point, WDS and Mesh (future firmware).

#### **Easy management**

- Auto Channel selection
- Setting varies by regulatory domains.

SSIDs

- BSSID support
- 16 SSIDs support

- Supports 8 SSIDs on both 2.4GHz and 5GHz band SNMP & MIB

- v1/v2c/v3 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.

- Guest network
- Allows the administrator 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

- Compliant with IEEE802.11e standard

RADIUS accounting

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- Help operators to offload 3G to Wi-Fi seamlessly

## Specifications

#### 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 Band steering - Shift the clients from 2.4GHz band to 5GHz band when te clients contest in 2.4GHz band 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/WPA 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.

Maximum data rates are based on IEEE 802.11

standards. Actual throughput and range may vary depending on many factors including environmental conditions, distance between devices, radio interference in the operating environment, and mix of devices in the network. Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. For United States of America: Copyright ©2013 EnGenius Technologies, Inc. All rights reserved.

EnGenius Europe | Veldzigt 28, 3454 PW Utrecht (NL) +31 (0)30 66 91 417 | info@engenius-europe.com



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