EnGenius®

EWS360AP

Datasheet

Key Features

- Draft IEEE 802.11ac and IEEE 802.11 a/b/g/n compliant
- Up to 450Mbps (2.4GHz) + 1300Mbps (5GHz) wireless data transmission rate
- Gigabit Ethernet port with IEEE 802.3 at standard PoE support
- Internal high-performance antennas for low-profile design
- Integrated WLAN management solution with EWS-series PoE switch
- Advanced AP mode with mesh support*
- SNMP v1/ v2c/v3, MIB I/II supported
- WEP/WPA/WPA2 wireless encryption
- IPv4/IPv6 support
- Effective and flexible bandwidth management
- Band steering, client limit, and fast handover supported
- Guest network and client status supported

Dual Band Wireless AC1750 Managed Indoor Access Point

State-of-the-art 802.11ac brings revolutionary connection speed on your WLAN for diversity of multimedia applications

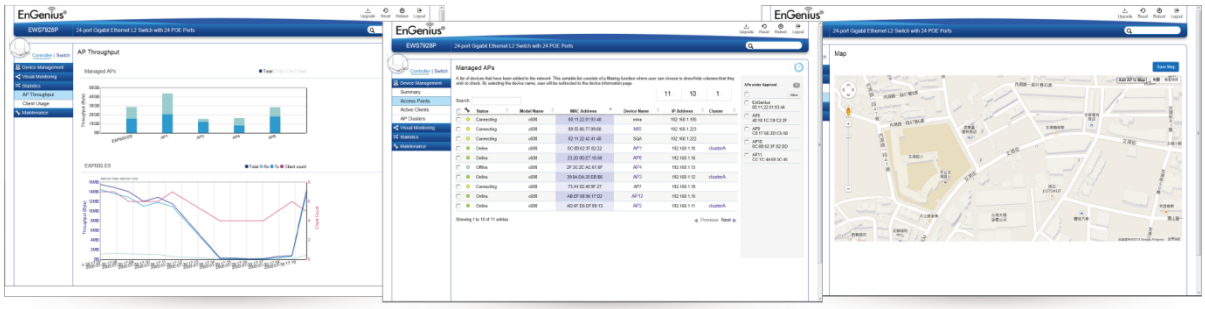
EWS360AP equips with two powerful independent RF interfaces that support 2.4GHz 802.11b/g/n (3T3R) and 5GHz 802.11a/n/ac (3T3R), offering bandwidth up to 450Mbps + 1300Mbps to accommodate traffic-intensive applications such as multimedia streaming.

Enhanced Signal Strength to Further Extend WLAN Coverage

Each radio of EWS360AP 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.

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 (models listed below for product ordering information) 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.



802.3at-compliant Power- over-Ethernet (PoE) for Alternative Power Sourcing

EWS360AP can be powered by enclosed power adapter or off-the-shelf 802.3at-compliant PoE switches, solving common power sourcing issue in the field where devices are usually placed at drop-ceiling or mounted on walls. With PoE power management from EWS management switch, AP device power budget and consumption can be real-time configured and monitored.

Advanced WLAN Feature to Facilitate Effective Spectrum Usage

For effective spectrum usage, EWS360AP has enclosed band steering technology, enabling 5GHz-capable clients to associate with its 5GHz radio and offloading air utilization in 2.4GHz-band. *With intelligent wireless mesh management from EWS switch, mesh connection can assist to further extend WLAN coverage; coupling with client limit and fast handover features, EWS360AP can preserve scarce wireless resources and best adapt to deployed environments.

Flexible Bandwidth Management and Enterprise-Class WLAN Security for Versatile Applications

EWS360AP offers multiple SSIDs (up to 16 sets) and each SSID can have its own bandwidth and WLAN security settings, enabling various applications running over WLAN with different levels of security strength and bandwidth limit. Regarding user mobility, PMKSA caching will facilitate fast roaming upon handoff so remaining 4-way handshake can complete key exchange within association process in reduced time interval. In addition, Guest Network feature also allocates a separate network segment for guest access within deployed WLAN so access attempts on internal networks can be restricted.

E-mail Alert and Syslog Notification

EWS360AP offers network monitoring tools for WLAN administrators to stay informed upon configuration change or network errors.

Physical Interface

1. LAN Port (802.3at PoE)
2. Power Connector

Technical Specifications

Radio Specification

- Dual Concurrent Radio
  - 2.4GHz: 802.11b/g/n with max data rate up to 450Mbps
  - 5GHz: 802.11 a/n/ac with max data rate up to 1300Mbps
- Transmit Power (combined):
  - 2.4GHz: max 28dBm
  - 5GHz: max 26dBm
  - Maximum transmit power is limited by regulatory power
- Radio Chains / Spatial Streams: 3 x 3 / 3
- Supported Radio Technology:
  - 802.11b: direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n/ac: orthogonal frequency-division multiplexing (OFDM)
- Channelization
  - 802.11ac with 20/40/80 MHz channel width
  - 802.11n with 20/40 MHz channel width
  - 802.11a/b/g with 20 MHz channel width
- Supported Modulation:
  - 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, 24, 36, 48, 54
  - 802.11n: 6.5 to 450 (MCS0 to MCS23)
  - 802.11ac: 6.5 to 1300 (MCS0 to MCS9, NSS = 1 ~ 3)

Physical Characteristics

- Power Source:
  - DC Input: 12 VDC 2A
  - PoE: compatible with 802.3at
- Internal High Gain Antennas
  - 3 x 3dBi 2.4GHz antennas
  - 3 x 5dBi 5GHz antennas
- Interface
  - 1 x 10/100/1000 BASE-T Ethernet (RJ45) with 802.3at PoE
  - 1 x DC power connector
  - 1 x reset button
- Dimensions
  - 161.5 x 41.5mm (Diameter x Height)
- Mounting
  - Ceiling mount or wall mount
- Physical Security
  - Kensington security slot

Environment

- Operating temperature: 0°C~40°C
- Operating humidity: 0%～90% typical
- Storage temperature: -20°C~60°C

Wireless

- Operating Mode
  - AP / Mesh AP** (configured by EWS switch)
- Auto Channel Selection
  - Setting varies by regulatory domains
- SSIDs:
  - Supports up to 8 SSIDs per frequency band
- VLAN Tag / VLAN Pass-through
- Wireless Client List
- Guest Network
- QoS
  - Supports 802.11e/WMM
- Band Steering
- Mobility
  - PMKSA support for fast roaming
- Security
  - WEP encryption: 64/128/152-bit
  - WPA/WPA2 Enterprise/PSK
  - Hidden SSID
  - MAC address filtering (up to 50 MAC)
  - Client isolation

Mesh*

- Auto configuration by EWS management switch
  - Secure mesh link with WPA2 encryption
  - Self-forming mesh connection within clustered managed APs on EWS switch
- Wireless service coverage extension beyond Ethernet cabling

Management

- Deployment Options
  - Standalone (individually managed)
  - Managed by EWS switch
- Configuration
  - Web interface (HTTP/S)
  - SNMP v1/v2c/v3 with MIB I/II and private MIB
  - CLI (Telnet/SSH)
- Firmware Upgrade
  - Web interface or CLI
- Backup / Restore Settings
  - Revert to factory default settings
- Save Configuration as Default:
  - Saves the customized configuration as default
- Auto Reboot
  - Specifies interval to reboot system periodically
- E-mail Alert / Syslog Notification

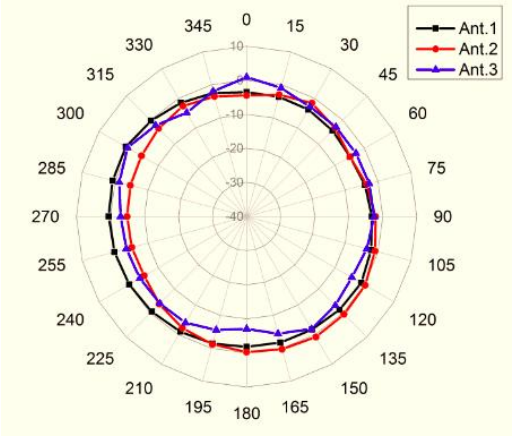
RF Performance Table

Channel	Data Rate	Transmit Power (Combined, dBm)	Receive Sensitivity (Combined, dBm)
802.11b 2.4 GHz	1 Mbps	28	-96
	2 Mbps	28	-95
	5.5 Mbps	28	-95
	11 Mbps	28	-93
802.11g 2.4 GHz	6 Mbps	27	-92
	54 Mbps	24	-76
802.11a 5 GHz	6 Mbps	26	-92
	54 Mbps	23	-76
802.11n HT20 2.4 GHz	MCS 0 / 8 / 16	27	-92
	MCS 7 / 15 / 23	23	-73
802.11n HT40 2.4 GHz	MCS 0 / 8 / 16	27	-88
	MCS 7 / 15 / 23	23	-72
802.11n HT20 5GHz	MCS 0 / 8 / 16	25	-92
	MCS 7 / 15 / 23	22	-73
802.11n HT40 5GHz	MCS 0 / 8 / 16	24	-88
	MCS 7 / 15 / 23	21	-72
802.11ac VHT20 5GHz	MCS0	25	-92
	MCS8	21	-69
802.11ac VHT40 5GHz	MCS0	24	-88
	MCS9	20	-64
802.11ac VHT80 5GHz	MCS0	24	-86
	MCS9	19	-62

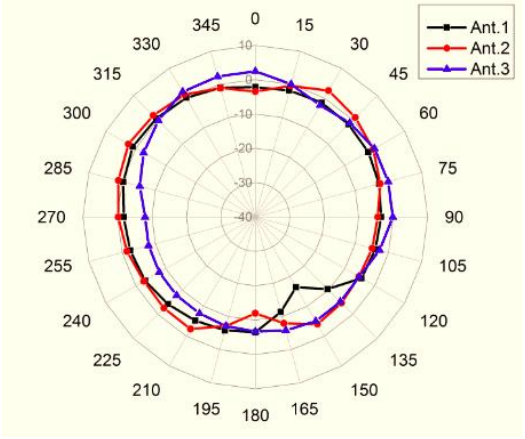
*Maximum transmit power is limited by local regulation.
*The supported frequency band is restricted by local regulatory requirements.

Antenna Radiation Patterns (Internal Antenna)

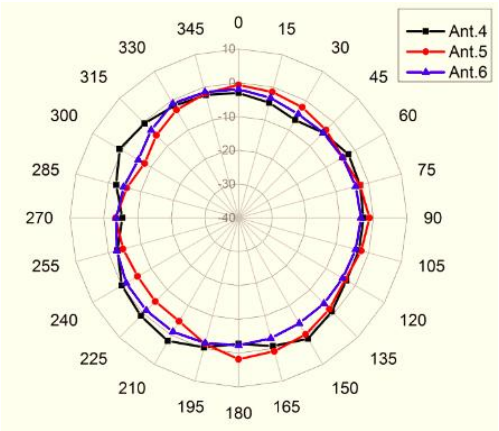
2.4GHz Azimuth-Plane



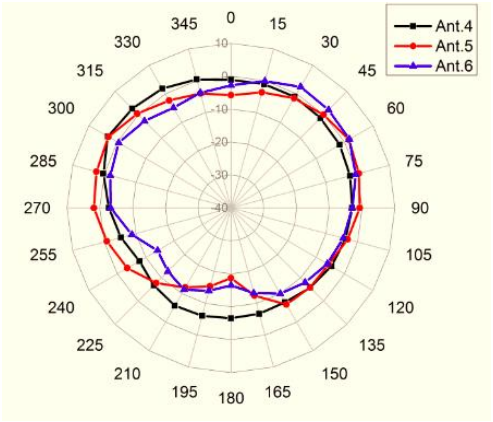
2.4GHz Elevation-Plane



5GHz Azimuth-Plane



5GHz Elevation-Plane



Ordering Information

Product No.	Product Description
Wireless Management Switch	
EWS5912FP	8-Port Gigabit PoE+ L2 Wireless Management Switch with 2 GbE Ports and 2 Dual-Speed SFP; 130w
EWS7928P	24-Port Gigabit PoE+ L2 Wireless Management Switch with 4 Dual-Speed SFP; 185w
EWS7952FP	48-Port Gigabit PoE+ L2 Wireless Management Switch with 4 Dual-Speed SFP; 740w
Wireless Managed Access Point	
EWS310AP	Dual Band Wireless N600 Managed Indoor Access Point
EWS320AP	Dual Band Wireless N900 Managed Indoor Access Point
EWS360AP	Dual Band Wireless AC1750 Managed Indoor Access Point
EWS660AP	Dual Band Wireless AC1750 Managed Outdoor Access Point
PoE+ Layer 2 Managed Switch	
EGS5212FP	8-Port Gigabit PoE+ L2 Managed Switch with 2 GbE Ports and 2 Gigabit SFP; 130w
EGS7228P	24-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 185w
EGS7228FP	24-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 370w
EGS7252FP	48-Port Gigabit PoE+ L2 Managed Switch with 4 Dual-Speed SFP; 740w