Key Features

- IEEE 802.11 ac and IEEE 802.11 a/b/g/n compliant
- Up to 450Mbps (2.4GHz) + 1300Mbps (5GHz)
- Complaint with IEEE 802.3 at for PoE supported
- AP/WDS Modes support
- Configure via web GUI or EZ controller
- 8 SSIDs support per radio + VLAN tagged
- SNMP V1/ V2c/V3, MIB I/II supported
- WEP/WPA/WPA2 wireless encryption
- Support IPv4/IPv6
- Intelligent Connection (Band Steering)
- Seamless stream service (Fast Roaming)
- Manage and monitor by the AP, SSID

AC1750 Dual Radio Concurrent Ceiling Mount Access Point

State-of-the-art 802.11ac brings revolutionary Speed on your WLAN for diversity of multimedia applications
EAP1750H 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.

Cutting-edge Solutions
Each radio of the EAP1750H is build the higher strength and sensitivity; the specification will assist to reduce dead in your deployed WLAN and boost received signal quality on both ends of AP and wireless client devices. EAP1750H offers multiple SSIDs (up to 16 sets) and each SSID can configure its bandwidth and WLAN security settings, enabling various applications running over WLAN with different levels of security strength and bandwidth limit. EAP1750H also provides the advanced wireless features including the fast roaming and band steering for achieving seamless connection and intelligent connection to optimize the signal quality.

Efficient Configuration and Real-time Management

EAP1750H 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. EAP1750H can operate into different modes with **Access Point** and **WDS Modes**. With powerful solution and individual interfaces, EAP1750H can connect with the multiple devices and extend the wireless signal easily.

Comprehensive Application

To enhance the spectrum usage, EAP1750H has enclosure the band steering technology, enabling 5GHz-capable clients to associate with its 5GHz radio and offloading air utilization in 2.4GHz band. Regarding users' mobility, PMKSA caching will enable fast roaming upon handoff so remaining 4-way handshake can complete key exchange within association process in educed time interval. With intelligent wireless mesh management from EWS switch, mesh connection can extend WLAN coverage great; coupling with client limit and fast handover features. EAP1750H can assure scarce wireless resources and optimize to deployed environment.

802.3at compliant PoE for Alternative Power Sourcing

EAP1750H can be powered by the enclosed adapter, off-the-shelf 802.3at-compliant PoE switches, as well as proprietary 48V PoE input for solving the common power sourcing issue and extend the distance for signal transmission.

Physical Interface
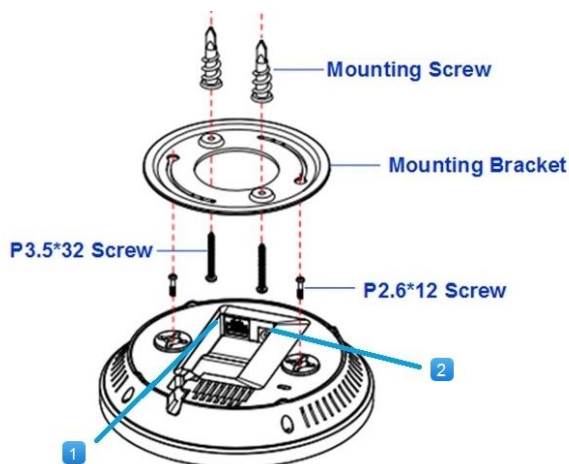
Physical Interface	
1	LAN1 Port, IEEE 802.3at PoE Input
2	Power Connector (DC 12V/2A Input)

Note: The EAP1750H supports both IEEE 802.3at PoE (Power over Ethernet) and regular power adapter. You should use either one as the power source. **Please do not apply both at the same time.**

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 28dBm
  - 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: DC 12V/2A
  - PoE: compatible with 802.3at
- Internal High Gain Antennas
  - 3 x 5dBi 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 / Weight
  - 161.5 x 41.5mm (Diameter x Height)
  - 290g
- Mounting
  - Ceiling mount or wall mount
- Physical Security
  - Kensington security slot

Wireless

- Operating Modes
  - AP / WDS
- 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
  - Allocates a separate network segment for guest access within the same WLAN
- QoS
  - Supports 802.11e/WMM
- Band Steering
  - Moves 5GHz-compatible clients to 5GHz band to ease traffic congestion on 2.4GHz band
- 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)
  - Station separation

Management

- 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
  - Provides a network monitoring tool for administrators to stay informed upon configuration change or network errors

Environment

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

RF Specification (Aggregated Value)

| Channel	Data Rate	Transmit Power (Aggregated, dBm)	Receive Sensitivity (Aggregated, dBm)
802.11b 2.4 GHz	1 Mbps	28.0	-96.0
	2 Mbps	28.0	-95.0
	5.5 Mbps	28.0	-95.0
	11 Mbps	28.0	-93.0
802.11g 2.4 GHz	6 Mbps	27.0	-92.0
	54 Mbps	24.0	-76.0
802.11a 5 GHz	6 Mbps	26.0	-92.0
	54 Mbps	23.0	-76.0
802.11n HT20 2.4 GHz	MCS 0 / 8 / 16	27.0	-92.0
	MCS 7 / 15 / 23	23.0	-73.0
802.11n HT40 2.4 GHz	MCS 0 / 8 / 16	27.0	-88.0
	MCS 7 / 15 / 23	23.0	-72.0
802.11n HT20 5GHz	MCS 0 / 8 / 16	25.0	-92.0
	MCS 7 / 15 / 23	22.0	-73.0
802.11n HT40 5GHz	MCS 0 / 8 / 16	24.0	-88.0
	MCS 7 / 15 / 23	21.0	-72.0
802.11ac VHT20 5GHz	MCS0_1SS / 2SS/ 3SS	25.0	-92.0
	MCS8_1SS / 2SS/ 3SS	21.0	-69.0
802.11ac VHT40 5GHz	MCS0_1SS / 2SS/ 3SS	24.0	-88.0
	MCS9_1SS / 2SS/ 3SS	20.0	-64.0
802.11ac VHT80 5GHz	MCS0_1SS / 2SS/ 3SS	24.0	-86.0
	MCS9_1SS / 2SS/ 3SS	19.0	-62.0

*Maximum transmit power is limited by local regulation.

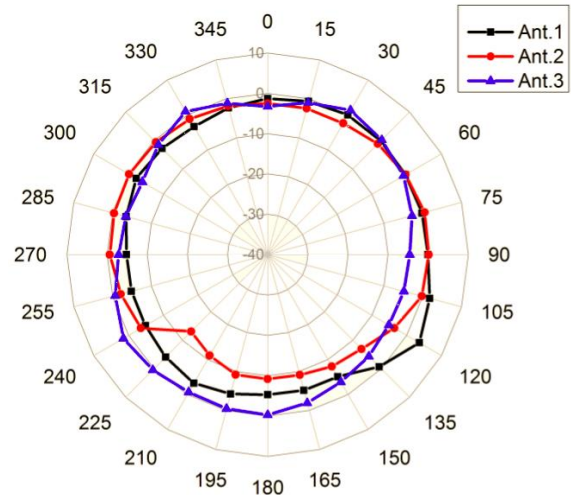*The supported frequency band is restricted by local regulatory requirements.

*Transmit power is configurable in 1.0dB increments.

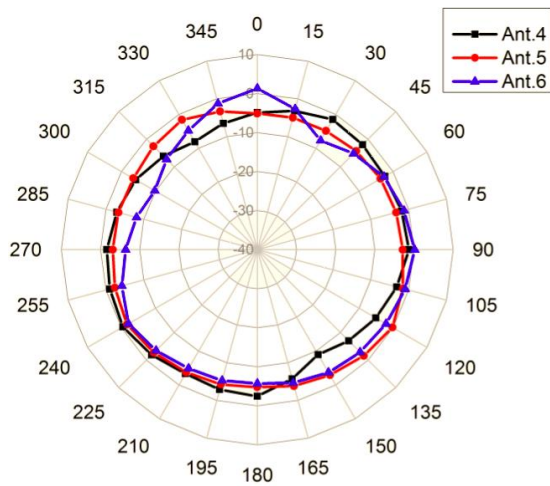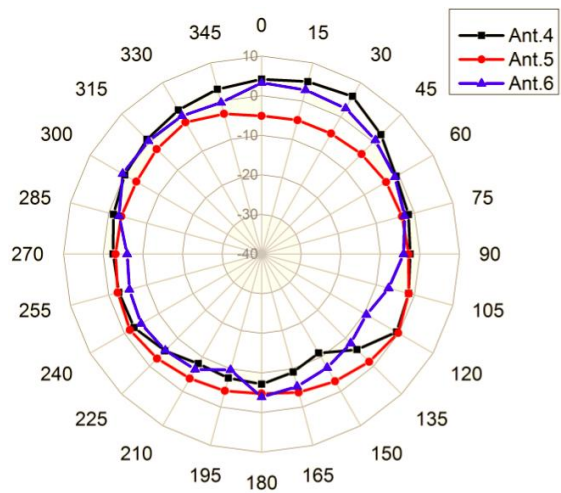# Antenna Radiation Patterns (Internal Antenna)

2.4GHz Azimuth-Plane
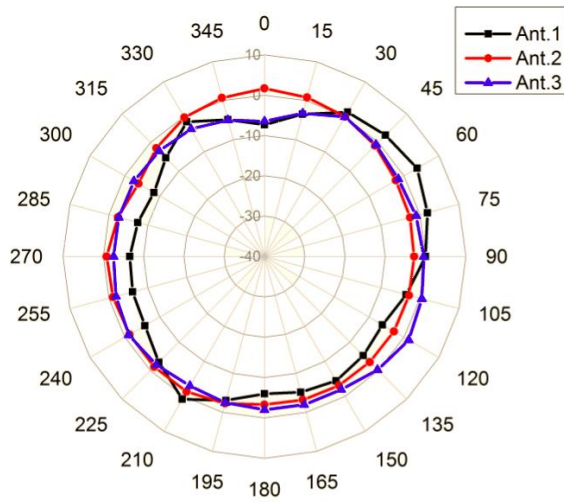
## 2.4GHz Elevation-Plane

5GHz Azimuth-Plane

5GHz Elevation-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.
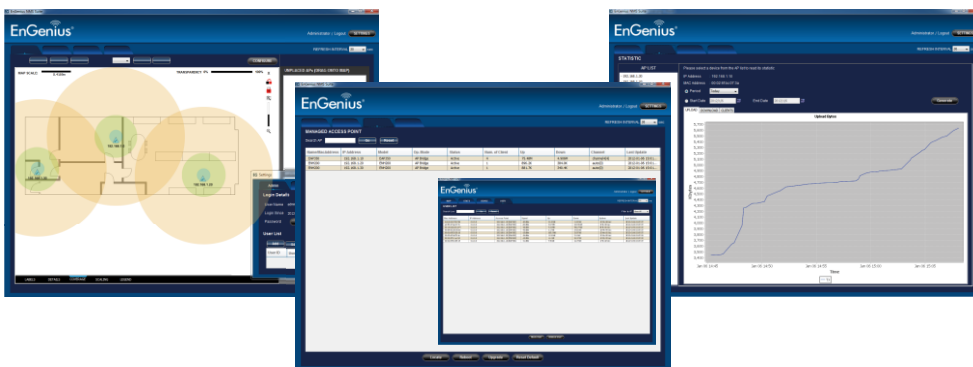
Configure, control and manage
EnGenius Enterprise Wireless
Devices from one central location.

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 |