EnGenius

Datasheet

EAP1750H

802.11ac 3x3 Dual Band Ceiling Mount Access Point/WDS

The EAP1750H leverages the breakthrough speed and performance of 802.11ac for connecting to laptops and other devices that need to wirelessly stream HD video or transfer large files. The EAP1750H is an 802.11ac 3x3 Indoor Access Point. This high-powered ceiling mount Dual Band Access Point features speeds up to 450 Mbps on 2.4 GHz and up to 1300 Mbps on the 5 GHz band when associated with AC client devices. It can be configured as an Access Point, Client Bridge, or WDS (AP & Bridge) and features a high transmit RF power of 28 dBm transmit RF power on both 2.4 GHz and 5 GHz band for long range connectivity. The EAP1750H includes a Gigabit Ethernet port for connecting to 802.3at-capable PoE Switches and an enhanced receive sensitivity MIMO (Multiple In / Multiple Out) integrated sectorized 3D antenna array. It's an ideal solution for spacious interior environments such as large homes, small and medium-sized businesses, multiple-floor buildings, hotels, hospitals, and other venues.

The EAP1750H can be configured to operate in several different modes for unique and customized deployment scenarios; as a Dual Band Wireless AC1750 Access Point, a WDS Bridge, or a WDS Access Point.

Key Features

- 802.11ac wireless speeds of up to 1300 Mbps on the 5 GHz band
- 802.11n wireless speeds up to 450 Mbps on the 2.4 GHz band
- Up to 28 dBm transmit power on both 2.4 GHz and 5 GHz band for longer range and enhanced wireless coverage
- Internal 3D Sectorized Antenna Array that minimizes RF interference
- Can be monitored after deployment with EnGenius EZ Controller™ software for Windows, Mac OS X and Linux (available as a free download)
- Can be used with included power adapter or via PoE with PoE 802.3at capable switches
- Dual Band / Three Stream (3x3)
- Band Steering feature detects Dual Band clients and shifts them to the 5 GHz band to relieve network congestion on the 2.4 GHz band to maintain optimal data traffic flow
- Secured Guest Network option available
- SSID-to-VLAN Tagging

The EAP1750H also features Band Steering, which shifts traffic for Dual Band-capable clients to the 5 GHz band from the 2.4 GHz band, helping to relieve network congestion and maintain optimal data throughput. Multiple EAP1750Hs can also be configured for Fast Roaming when used with a RADIUS server, so employees can stay connected as they roam throughout a building. The EAP1750H is a cost-effective solution for small-to-medium sized or larger companies that need to provide employees with network or Internet access on either band whenever they're away from their desks or attending meetings in another part of the building.

To unobtrusively blend in with other common building infrastructure appliances, the ceiling mount EAP1750H appears as a low profile smoke detector and can be powered via a PoE (Power-over-Ethernet) from an IEEE 802.3at rated switch.

The EAP1750H also supports wireless encryption standards such as Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) Encryption, IEEE 802.1X with RADIUS. MAC Address Filtering is also included for network administrators to allow or deny network access to client devices (computers, tablet PCs, NAS, smartphones, etc.) according to their MAC addresses. EnGenius' EZ Controller™ Management Software for Windows, Mac OSX, and Linux (available as a free download) allows monitoring, management, and sequential firmware upgrades of EnGenius Access Points that have already been deployed in the network from the convenience of a desk.

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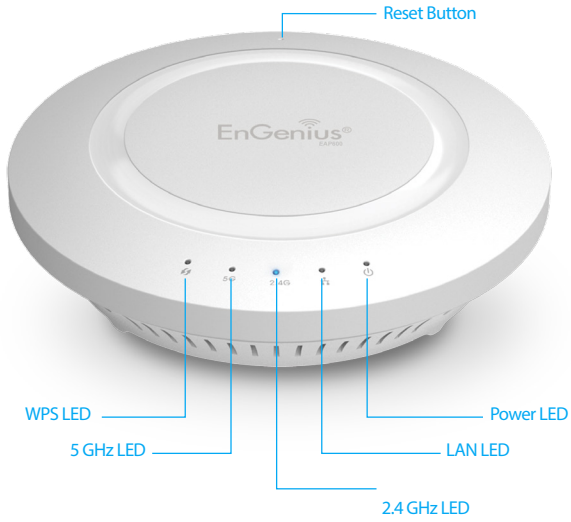
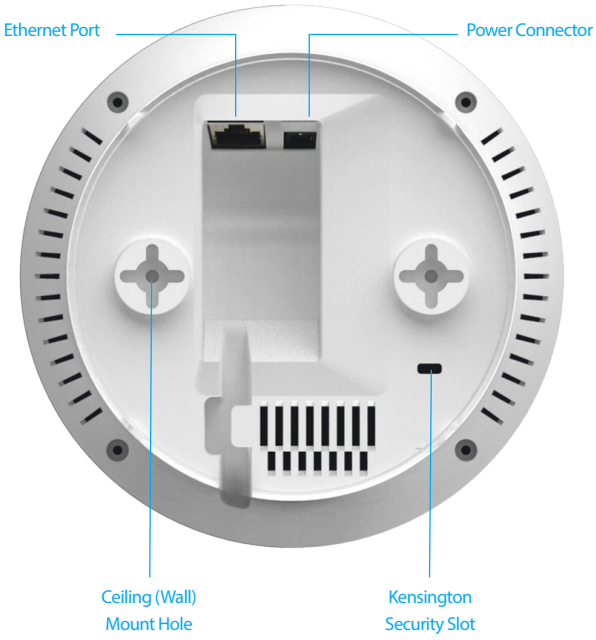
3D Sectorized Antenna





3 Stream 802.11ac Wireless Speeds on 5 GHz

Up to 1300 Mbps on its 5 GHz for faster file transfers and smoother video streaming.

3 Stream 802.11n Wireless Speeds on 2.4 GHz

Up to 450 Mbps on the 2.4 GHz band.

High Power, Long-Range and Multiple Floor Penetration

28 dBm for both 2.4GHz and 5 GHz RF transmit power enables the wireless signal to penetrate floors, ceilings, and walls for greater device connectivity.

Dual Band operation

- 2.4 GHz and 5 GHz frequency bands for expanded user capacity.
- Greater number of channels available on the 5 GHz frequency spectrum to support higher bandwidth applications like HD video streaming.

Unobtrusive Housing

- Blends in with other common building infrastructure appliances, the ceiling mount EAP1750H appears as a low profile smoke detector and can be powered via a PoE (Power-over-Ethernet) from an IEEE 802.3at rated switch.
- Integrated sectorized 3D Antenna array to minimize RF interference.

Supports Separate Mode Configuration per Frequency Band

Choose one of two (2) modes available depending on your need: Access Point or WDS (AP & Bridge).

Band Steering

Detects and allows Dual Band clients to shift to the 5 GHz band from the 2.4 GHz band, relieving network congestion and maintain optimal data traffic flow.

Fast Roaming

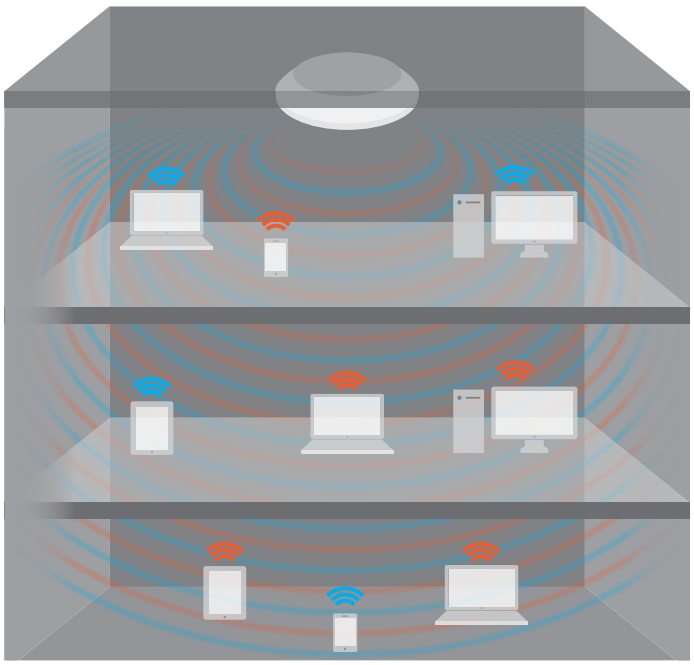
Multiple EAP1750Hs can also be configured for Fast Roaming when used with a RADIUS server. This means that employees can be constantly connected to the network – whether they are warehouse workers scanning and capturing barcode information, employees on Wi-Fi phone calls while walking to meetings on another part of a building or healthcare professionals capturing patient information on mobile devices.

SSID-to-VLAN Tagging

Can be configured to broadcast up to eight (8) SSIDs per frequency band. Each SSID can be tagged to a specified company network VLAN for different user access based on established access rights.

Simplified AP Monitoring and Management

For easier monitoring and maintenance after deployment on rooftops and other hard to reach places, users can monitor the Access Point remotely with SNMP-based EZ Controller wireless Access Point software for Windows, Mac OSX, and Linux (available online as a free download).



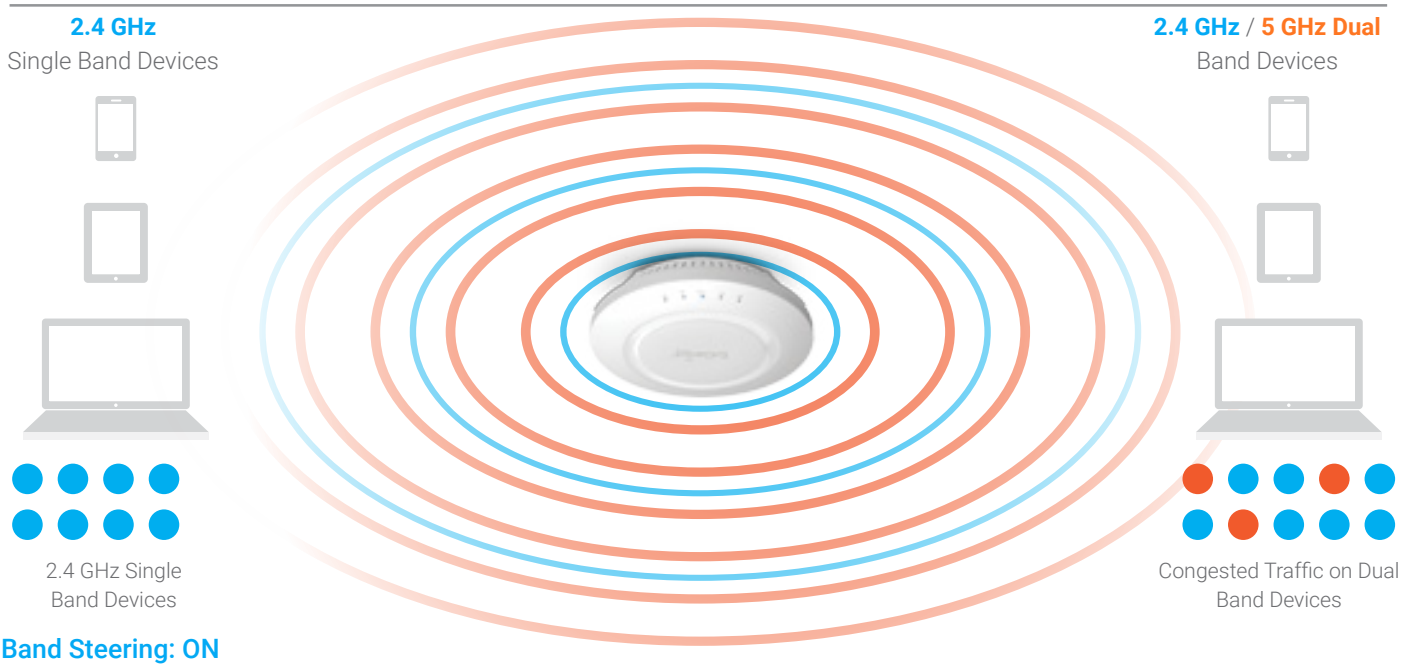
2.4 GHz (450 Mbps) 5 GHz (1300 Mbps)

Band Steering

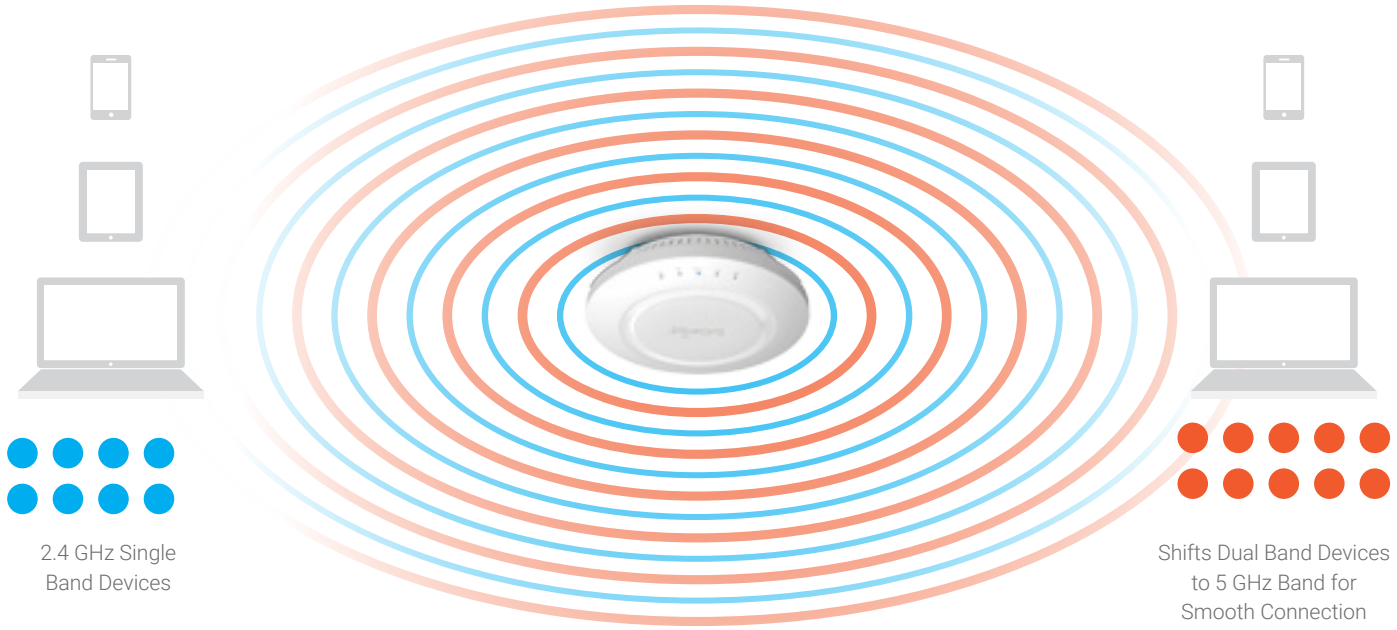
How Band Steering Works and Its Benefit

When wireless networks experience excessive traffic, users may be inconvenienced by slower file transfers and frequent video buffering especially on the 2.4 GHz band. Several of the Electron Series Access Points include a Band Steering option which when applied in the browser-based interface, automatically shifts the connection of Dual-Band client computers, tablets, smart phones and other devices to the 5 GHz band where there is less traffic and more available RF channels. This leaves Single-Band 2.4 GHz (802.11b/g/n) clients to operate in the 2.4 GHz band that with Band Steering activated becomes less congested.

Band Steering: OFF



Band Steering: ON



2.4 GHz Band 5 GHz Band

Specifications

Standards

IEEE 802.11a/n/ac on 5 GHz

IEEE 802.11b/g/n on 2.4 GHz

IEEE 802.3at

Antenna

Integrated 3D Sectorized Antenna

4 dBi on 2.4 GHz

5 dBi on 5 GHz

Physical Interface

1 x 10/100/1000 Gigabit Ethernet Port

1 x Reset Button

1 x Power Connector

LED Indicator

Power

WPS

WLAN (Wireless Connection)

LAN

Power Requirements

Active Ethernet (Power-over-Ethernet)

Proprietary PoE Design

Power Adapter

Operation Modes

Access Point/WDS

WDS AP

WDS Bridge

Security

WEP (64/128bit)

WPA/WPA2 (TKIP/AES)

Hidden SSID

MAC address filtering, up to 50 field

802.1x Authenticator (MD5/TLS/TTLS/PEAP)

Guest Network

QoS (Quality of Service)

WMM (Wireless Multimedia)

Wireless Management

Web interface (HTTP/HTTPS)

SNMP v1/v2c/v3 with MIB I/II and private MIB

CLI (Telnet/SSH)

Firmware Upgrade

Backup/Restore Settings

Save Configuration as Default

Auto Reboot

E-mail Alert/Syslog Notification

Environmental & Mechanical

Power Source

DC Input: 12VDC/2A

PoE: Compatible with 802.3at

Physical Security

Kensington Security Slot

Temperature Range

Operating: 32 to 104°F / 0 to 40°C

Storage: -4 to 140°F / -20 to 60 ° C

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Weights & Measures

Diameter: 6.36" (161.54 mm)

Height: 1.64" (41.66 mm)

Weight: 0.65 lbs

Warranty

1 Year

Package Contents

EAP1750H 802.11ac 3x3 Dual Band Ceiling Mount Indoor Access Point

12V/2A Power Adapter

T-Rail Mounting Kit

Ceiling and Wall Mount Screw Kit

Mounting Bracket

RJ-45 Ethernet Cable

Quick Installation Guide

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. Compliant with FCC - This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

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