EnGenius

Datasheet

EAP1200H

Ceiling Mount AC1200 Dual-Band Wireless Indoor Access Point

Joining the Electron Series' expansive line of mix-and-match business-class networking products, the EnGenius EAP1200H is a Ceiling Mount AC1200 Dual Band Wireless Indoor Access Point designed for spacious interior environments including large homes and offices, small and mid-sized business, multi-floor buildings, hotels, hospitals and other settings where network expansion is needed. The EAP1200H features dual-band, concurrent operations with Band Steering and combines high-transmit power, enhanced receive sensitivity MIMO and 4 internal high-gain antennas providing expanded user capacity, maximized network performance and greater device network connectivity.

Achieving the latest 802.11ac speeds and superior, super fast 5 GHz performance, the EAP1200H yields up to 867 Mbps data rates on the 5 GHz band and up to 300 Mbps speeds on the 2.4 GHz band supporting the newest laptops, tablets and cell phones at speeds nearly 2Xs faster than previous wireless standards.

An expert in wireless communications and RF technology, EnGenius delivers feature-rich, long-range wireless communications technology for voice and data. The versatility and performance of the company's solutions lower total cost of ownership, increase productivity and maximize return on investment.

Key Features

- 802.11ac wireless speeds up to 867 Mbps on 5 GHz band
- 802.11n wireless speeds up to 300 Mbps on 2.4 GHz band
- Low-profile design features internal antennas and smoke detector-style ceiling mount housing
- Up to 26 dBm transmit power per band for longer range and enhanced wireless coverage
- Internal 3D Sectorized Antenna Array that minimizes RF interference
- Dua-Band-capable for expanded user capacity and support for higher bandwidth applications
- Band Steering detects Dual-Band clients, shifting them to 5 GHz while optimizing data flow
- Power-over-Ethernet (PoE)-compatible for flexible power options with PoE 802.3at-capable Switches or the EnGenius Gigabit PoE Injector EPE-4818G
- Easy AP monitoring through EnGenius' SNMP-based EZ Controller software
- Fast Roaming with PMKSA support for enhanced security when roaming between neighboring APs
- Secured Guest Network option keeps primary network secure, limiting Internet resources
- SSID-to-VLAN Tagging – tag and assign different user access rights on the company VLAN
- Supports IPv4/IPv6
- Designed for use in: large homes and offices, small and mid-sized businesses, multi-floor buildings, hotels, hospitals and other settings where network expansion is needed

Accelerated Dual-Band Performance with Band Steering

The EnGenius EAP1200H leverages the accelerated speed and performance of 802.11ac laptops and other devices ensuring smooth, rapid wireless HD video streaming and large file transfers. This AP features speeds up to 867 Mbps on the 5 GHz band, when associated with AC client devices, and up to 300 Mbps on the 2.4 GHz band.

Its Dual-Band feature expands user capacity, and like a traffic cop, Band Steering automatically directs Dual-Band clients to the less congested 5 GHz frequency, maximizing efficiency and network performance to a large number of clients simultaneously.

Powerful, Long-Range Connectivity

With powerful connectivity capacity, the EAP1200H's integrated, sectorized 3D antenna array transmits up to 26 dBm of power per band providing more than 2Xs greater coverage over mainstream competitor's solutions. Combining high-transmit power, enhanced receive sensitivity MIMO (Multiple In/Multiple Out) and high-gain Internal 5dB; antennas, the AP's wireless signal is able to penetrate floors, ceilings and walls for greater device connectivity.

Customize Wireless Access for Different Departments or Workgroups

Create and configure up to eight (8) separate wireless networks per frequency band for a total of 16 SSIDs. Utilizing SSID-to-VLAN tagging (802.11q) can help increase security, network reliability and conserve bandwidth by limiting who has access to connect.

Secured Guest Network Option

Establish and secure Guest Networks and control access to company computers and servers. Limit Internet resources available to visiting customers, clients and vendors and ensure your company network and servers are kept secure from sophisticated Trojans and malware that can use guest's mobile devices to attack your network.

Low-Profile Design & PoE Support

Its award-winning, low-profile design blends nicely with other common building appliances, making it perfect for settings where room aesthetics or a more discrete ceiling placement is desired. Because the EAP1200H is designed for deployments on ceilings, where power outlets may be scarce, it can be powered via Power-over-Ethernet (PoE) from an 802.3at-rated Switch or used with the EnGenius Gigabit PoE Injector EPE-4818G 802.3at-capable PoE Injector.

Fast Roaming with Enhanced Security

When used with a RADIUS server, the EAP1200H's Fast Roaming feature supports PMKSA that distributes and caches a designated WPA/WPA2-Enterprise encryption key to neighboring EAP Access Points. Together with the Fast Handover feature, the AP automatically initiates a secure client transfer from one EAP Access Point to the next nearest AP with a stronger signal, keeping clients continuously and seamlessly connected to the network.

Flexible Modes for Versatility

Easily configure the EAP1200H as an Access Point or WDS AP or WDS Bridge based on user needs in each frequency band. This allows multiple operation combinations on a single device to address specific deployment requirements.

Simplified AP Monitoring

For simplified Wireless AP monitoring and sequential firmware upgrades after deployment, IT managers can download the free the SNMP-based EZ Controller software for Windows, Mac OSX and Linux. Since software is not required, set up and configuration is completed quickly through the Access Point's web User Interface or optional EZ Controller software.

Technical Specifications

Standard

IEEE 802.11a/n/ac on 5 GHz

IEEE 802.11b/g/n on 2.4 GHz

IEEE 802.3at

Antenna

(4) Integrated 3D Sectorized Antenna Array

(2) Internal 5 dBi on 2.4 GHz

(2) Internal 5 dBi on 5 GHz

Physical Interface

1 x 10/100/1000 Gigabit Ethernet Port with PoE support

1 x Reset Button

1 x Power Connector

Physical Security

1 x Kensington Security Slot

LED Indicators

1 x Power

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

1 x WPS

LED Control

On/Off

Power Source

Power Supply: 90 to 240 VDC ± 10%, 50/60 Hz

DC Input: 12VDC/2A

PoE: Compatible with 802.3at

Memory Capacity

16 MB Flash

128 MB SDRAM

Wireless & Radio Specifications

Dual-Band, Dual-Concurrent Radio

Operation Modes

Access Point

WDS Bridge

WDS Access Point

Transmit Power (combined)

2.4 GHz up to 26 dBm

5 GHz up to 26 dBm

Radio Chains/Spatial Streams

2 x 2: 2

Supported Data Rates (Mbps)

2.4 GHz: Max 300

5 GHz: Max 867

802.11b: 1, 2, 5.5, 11

802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54

802.11n: 6.5 to 300 (MCS0 to MCS15)

802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS=1 to 2)

Supported Radio Technologies

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, 16-QAM, 64-QAM

802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

802.11ac: BPSK, QPSK, 16-QAM, 256-QAM

Management

Auto Channel Selection

Multiple SSID: 16 SSIDs, 8 SSIDs per Radio

SNMP V1/V2c/V3

MIB I/II, Private MIB

VLAN Tag/VLAN Pass-through

Wireless Clients List

Guest Network

Fast Roaming

Fast Handover

Client Limit

RADIUS Accounting

Mobility: PMKSA for Fast Roaming

Firmware Upgrade: Web UI/CLI

Backup/Restore

Save Configuration as Default

Auto Reboot

Email Alert

Control

EnGenius EZ Controller

CLI Supported (Telnet/SSH)

Multicast Supported

Band Steering

Security

WEP Encryption: 64/128/152-bit

WPA/WPA2 Personal (WPA-PSK using TKIP or AES)

WPA/WPA2 Enterprise (WPA-EAP using TKIP)

802.1X RADIUS Authenticator: MD5/TLS/TTLS, PEAP

SSID Broadcast Enable/Disable

Hidden BSSID

Client Isolation

L2 Isolation

MAC Address Filtering, Up to 64 Fields

Wireless STA (Client) Connection List

Https Support

SSH Support

QoS (Quality of Service)

Supports 802.11e/WMM/Traffic Shaping Standards

(WMM - Wireless Multimedia)

Environmental & Physical

Temperature Range

Operating: 32 °F to 122 °F (0°C to 50 °C)

Storage: -4 °F to 140°F (-20 °C to 60 °C)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Dimensions & Weights

EAP1200H Device

Weight: 0.62 lbs. (28.12 g)

Diameter: 6.36" (161.54 mm)

Height: 1.64" (41.66 mm)

Packaging

Weight: 1.42 lbs. (644.10 g)

Length: 12" (304.80 mm)

Width: 9" (228.60 mm)

Height: 3" (76.2 mm)

Master Carton

Weight: 24 lbs. (10.89 kg)

Length: 19" (482.60 mm)

Width: 15.25" (387.35 mm)

Height: 13" (330.20 mm)

No. of boxes per master carton: 10 units

Package Contents

EAP1200H Dual Band AC1200 Ceiling Mount Indoor Access Point

Power Adapter (12V/2A)

T-Rail Mounting Kit

Ceiling and Wall Mount Screw Kits

Mount Brackets

Installation Template

RJ-45 Ethernet Cables

Quick Installation Guide

Certifications

FCC, CE, IC

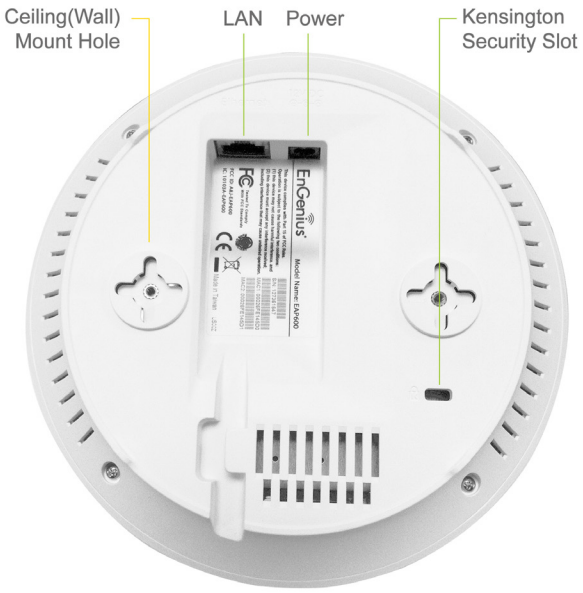
Warranty

1 year

RF Specifications (Aggregated Value)

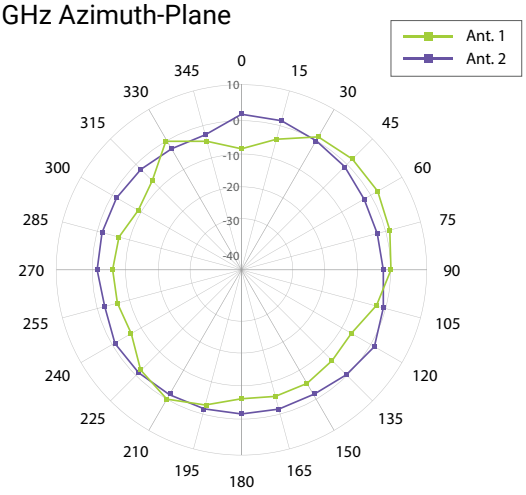
Channel	Data Rate	Transmit Power (Combined, dBM)	Receive Sensitivity (Combined, dBm)
802.11b 2.4 GHz	1 Mbps	26.0	-92.0
	2 Mbps	26.0	-91.0
	5.5 Mbps	26.0	-91.0
	11 Mbps	26.0	-89.0
802.11g 2.4 GHz	6 Mbps	25.0	-88.0
	54 Mbps	22.0	-72.0
802.11a 5 GHz	6 Mbps	26.0	-90.0
	54 Mbps	23.0	-72.0
802.11n HT20 2.4 GHz	MCS 0 / 8	25.0	-88.0
	MCS 7 / 15	22.0	-69.0
802.11n HT40 2.4 GHz	MCS 0 / 8	25.0	-84.0
	MCS 7 / 15	21.0	-68.0
802.11n HT20 5GHz	MCS 0 / 8	26.0	-89.0
	MCS 7 / 15	22.0	-70.0
802.11n HT40 5GHz	MCS 0 / 8	26.0	-85.0
	MCS 7 / 15	21.0	-68.0
802.11ac VHT20 5GHz	MCS0	25.0	-88.0
	MCS8	19.0	-65.0
802.11ac VHT40 5GHz	MCS0	25.0	-85.0
	MCS9	17.0	-61.0
802.11ac VHT80 5GHz	MCS0	25.0	-82.0
	MCS9	17.0	-58.0

*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.

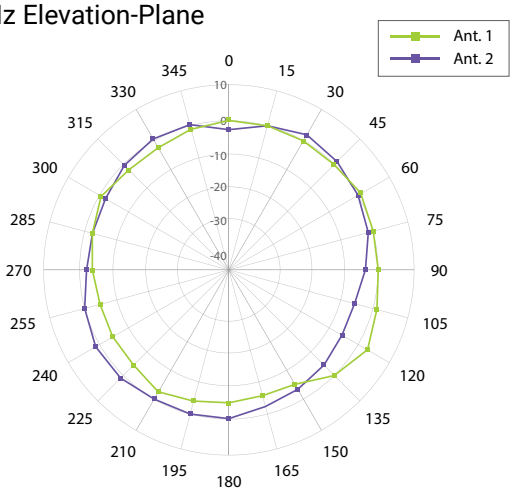


Antenna Radiation Patterns (Internal Antenna)

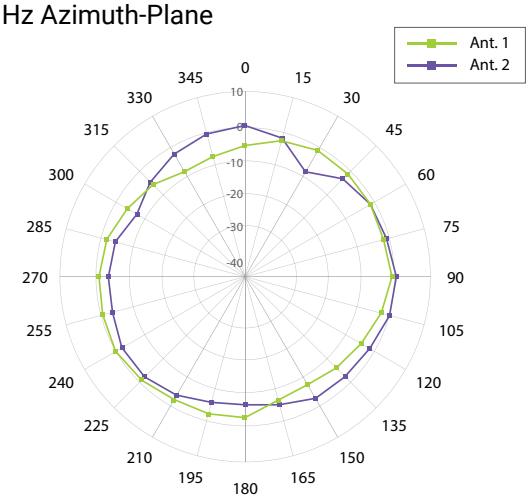
2.4 GHz Azimuth-Plane



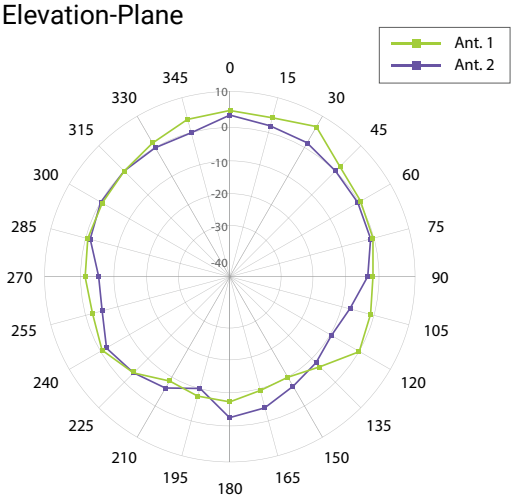
2.4 GHz Elevation-Plane



5 GHz Azimuth-Plane



5 GHz Elevation-Plane



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 ©2015 EnGenius Technologies, Inc. All rights reserved. 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.

EnGenius Technologies | 1580 Scenic Ave. Costa Mesa, CA 92626
Email: partners@engeniustech.com | Phone: 888-735-7888 | Website: engeniustech.com

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