



ECB1750



802.11ac 3x3 Dual Band High-Powered Wireless Access Point/Client Bridge

The ECB1750 marks a new speed and performance breakthrough for users with 802.11ac laptops and other devices, who need to wirelessly stream HD video or transfer large files. The ECB1750 is an 802.11ac 3x3 Dual Band Indoor Access Point and Client Bridge. This desktop or wall mount Dual Band Access Point features speeds up to 1300 Mbps on the 5 GHz band when associated with AC client devices and up to 450 Mbps on the 2.4 GHz band. It can be configured as an Access Point, Client Bridge, or WDS (AP, Station, & Bridge) and features a high transmit RF power of 29 dBm on both frequency bands for long range connectivity. The ECB1750 is a cost-effective solution for hotels, multi-floor corporate offices, schools and universities, small-to-medium sized companies and even larger homes.

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 29 dBm transmit power per band, enabling long range connectivity
- Fast Roaming protects sensitive delay applications such as Voice and Video from disconnecting
- Three detachable 5 dBi 2.4 GHz Omni-directional antennas
- Three detachable 5 dBi 5 GHz Omni-directional antennas
- 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 or injectors
- Quantum Beam Technology™
- 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
- Supports IPv4/IPv6
- Secured Guest Network option available
- SSID-to-VLAN Tagging

When set to Client Bridge mode, Ethernet-enabled devices such as printers and copiers can join a business's existing wireless network when they are connected to the ECB1750's Gigabit Ethernet port, making applications like printing from wireless laptops or tablets even easier. In WDS mode, the ECB1750 enables a company's wireless network to be expanded without a wired connection between devices.

The ECB1750 features Quantum Beam™ technology on the 5 GHz band which finds the most efficient signal path to AC compatible computers and other devices (up to 1300 Mbps) exceeding wired Gigabit speeds and nearly 3x faster than Wireless N. The ECB1750's Gigabit Ethernet port also offers greater bandwidth capacity and faster data transfers through the network. This means that bandwidth sensitive applications such as video and VoIP (Voice over IP) perform with improved quality and a minimum of packet loss.

The ECB1750 also features Band Steering that shifts wireless traffic for Dual Band-capable clients to the 5 GHz band from the 2.4 GHz band, which helps to relieve network congestion and maintain optimal throughput speeds.

The ECB1750 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 allowing 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.

The ECB1750's external MIMO antenna array is comprised of three (3) detachable 5 dBi high gain antennas for the 2.4 GHz radio and three (3) detachable 5 dBi high-gain antennas for the 5 GHz radio. This combination of high transmit power, enhanced receive sensitivity, and six (6) high gain antennas results in long range connectivity to client devices and in some venues can minimize the number of Access Points necessary for a deployment.

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 its 2.4 GHz.

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.

Long-Range Coverage with High Output RF Power and High Gain Antennas

- Up to 29 dBm transmit power enables the wireless signal to penetrate floors, ceilings, and walls for greater device connectivity.
- Three detachable 5 dBi high gain Omni-directional antennas for 2.4 GHz
- Three detachable 5 dBi high gain Omni-directional antennas for 5 GHz

Supports Separate Mode Configuration per Frequency Band

Choose one of three modes available to the ECB1750 depending on user needs: Access Point, Client Bridge, or WDS (AP, Station, & Bridge).

Simplified Monitoring and Management

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

Band Steering

Detects and allows Dual Band capable 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

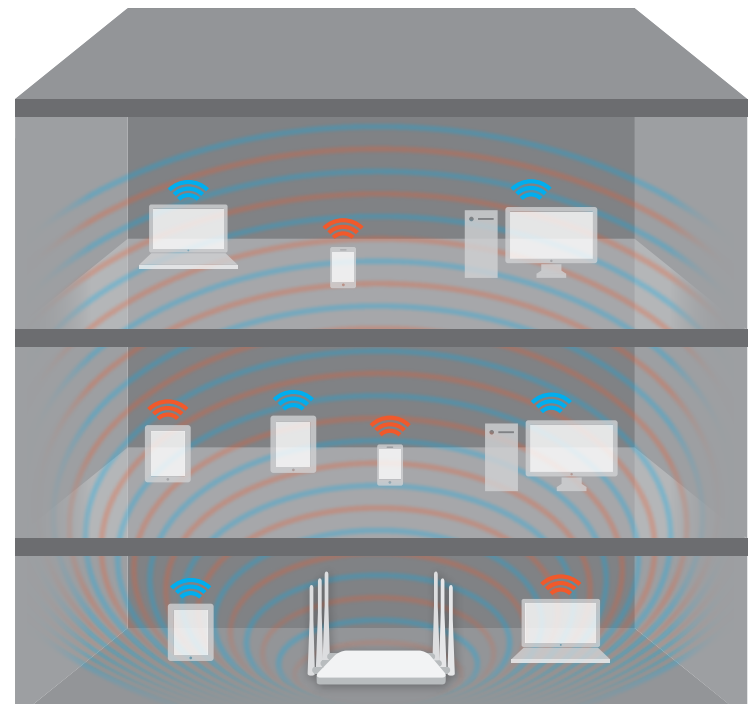
Multiple ECB1750s can also be configured for Fast Roaming when used with a RADIUS server. This means that employees can be constantly connected to the network – whether they are warehouse workers scanning and capturing barcode information, employees on Wi-Fi phone calls while walking to meetings on another part of a building or healthcare professionals capturing patient information on mobile devices.

Quantum Beam Technology

Seeks the most efficient signal path to AC compatible computers and other devices and transfers data up to 1300 Mbps and nearly 3x faster than Wireless N

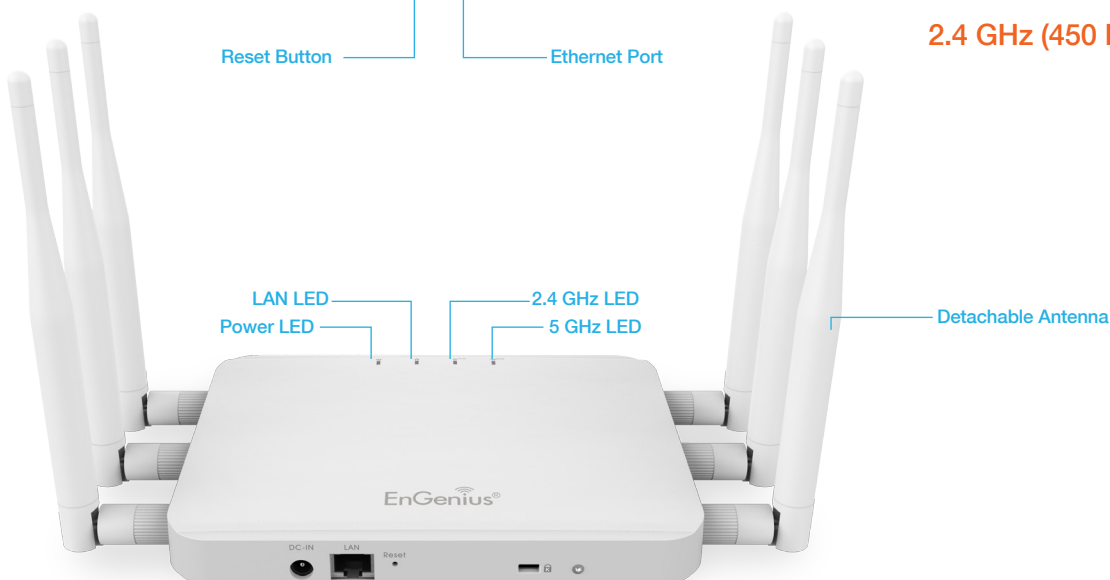
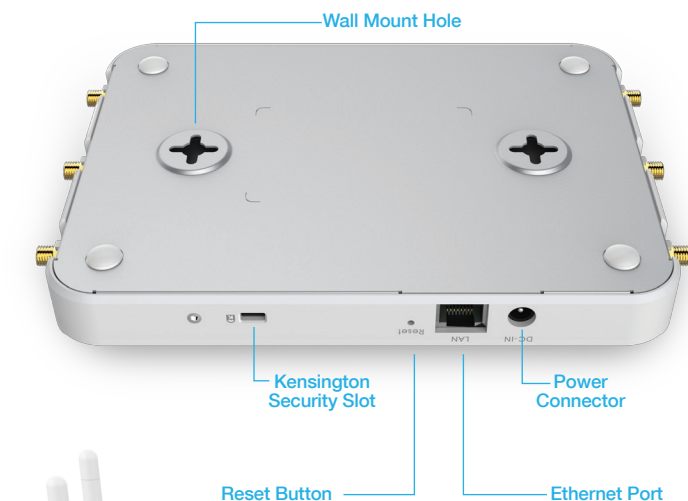
SSID-to-VLAN Tagging

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.



2.4 GHz (450 Mbps)

5 GHz (1300 Mbps)



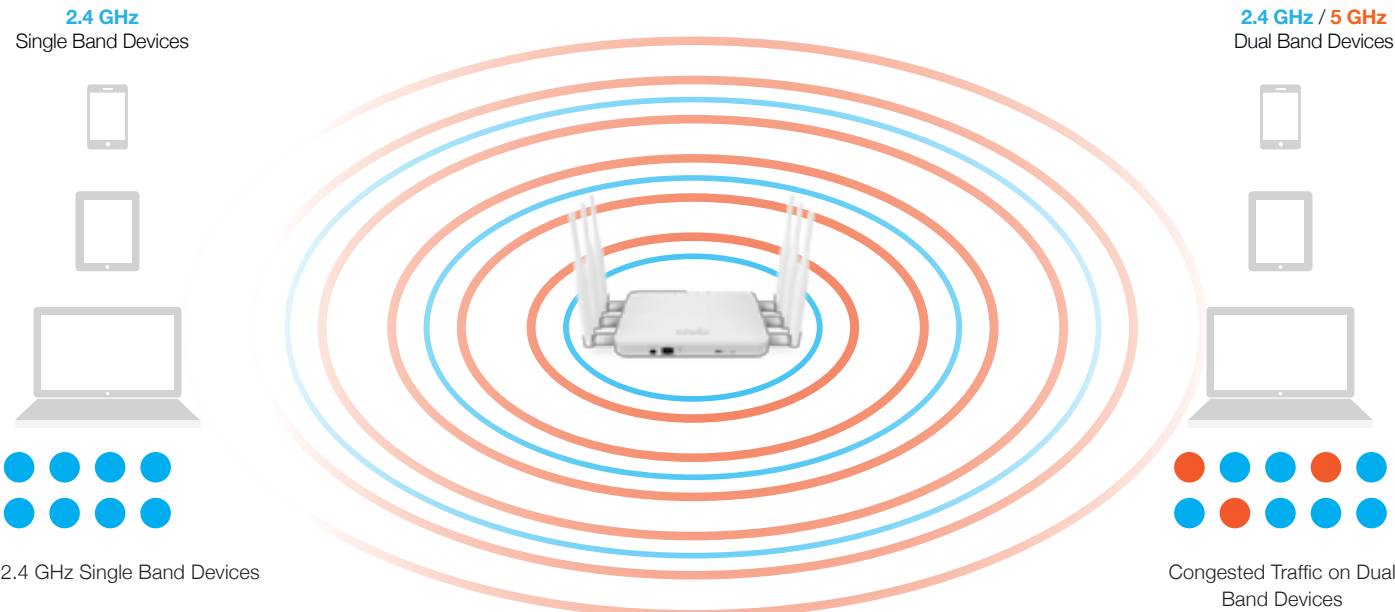
Band Steering

How Band Steering Works and Its Benefit

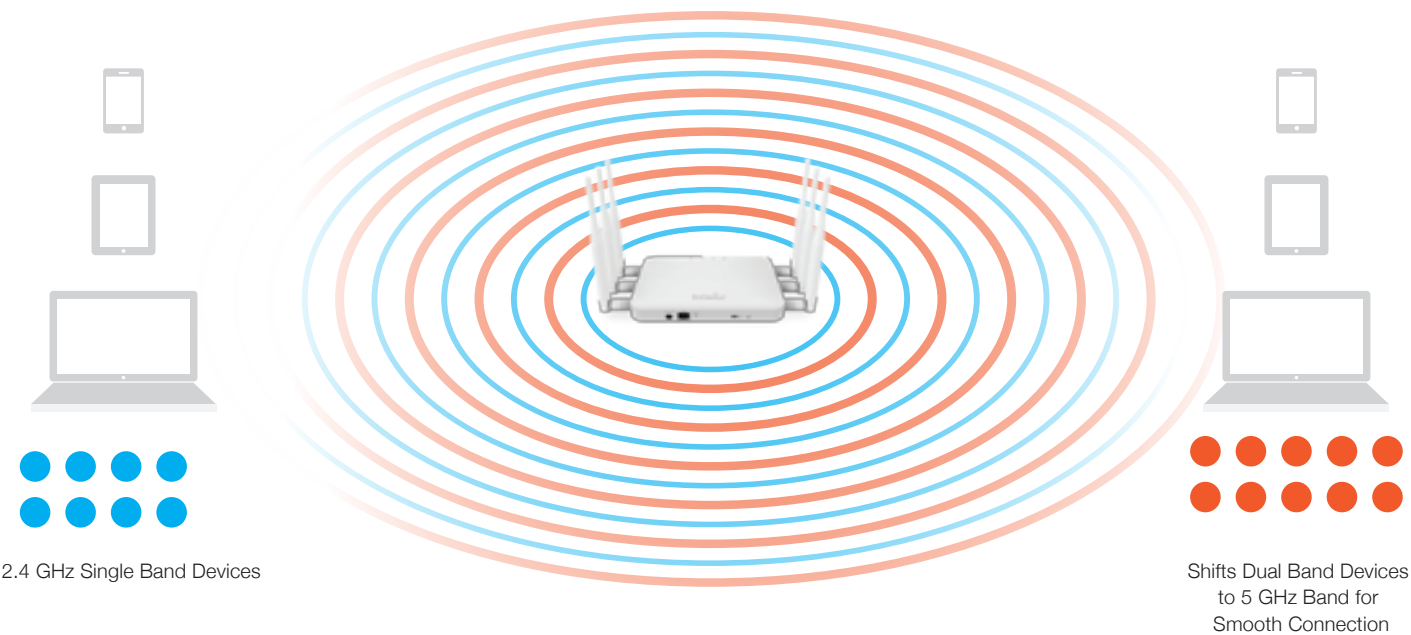
When wireless networks experience excessive traffic, users may be inconvenienced by slower file transfers and frequent video buffering especially on the 2.4 GHz band. Several of the Electron Series Access Points include a Band Steering option which when applied in the browser-based interface,

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	
IEEE802.11a/n/ac on 5 GHz	
IEEE802.11b/g/n on 2.4 GHz	
IEEE802.3at	
Transmit Power	
2.4 GHz up to 29 dBm	
5 GHz up to 29 dBm	
Antenna	
6 External Antennas	
3 x Detachable 5 dBi 2.4 GHz Omni-directional Antennas	
3 x Detachable 5 dBi 5 GHz Omni-directional Antennas	
Physical Interface	
1 x 10/100/1000 Gigabit Ethernet Port - IEEE802.3at PoE Input	
1 x Reset Button	
LED Indicator	
Power	
LAN	
2.4 GHz	
5 GHz	
Power Source	
DC Input: 12VDC/2A	
PoE: Compatible with 802.3at	
Operation Modes	
Access Point	
Client Bridge	
WDS AP	
WDS Bridge	
WDS Station	
Security	
WEP Encryption (64/128/152 bit)	
WPA/WPA2 Enterprise (WPA-PSK using TKIP or AES)	
Hide SSID in beacons	
MAC address filtering, up to 50 MACs	
Wireless STA (Client) connection list	
Https Support	
SSH Support	
QoS (Quality of Service)	
Complaint on IEEE 802.11e Standards	

Management
Auto Channel Selection
Multiple SSID: 16 SSIDs, 8 SSIDs per Radio
BSSID
SNMP V1/V2c/V3
MIB I/II, Private MIB
VLAN Tag/VLAN Pass-through
Clients Statistics
Fast Roaming
RADIUS Accounting
Guest Network
Control
CLI Supported
Multicast Supported
Wi-Fi Scheduler
802.1X Supplicant (CB Mode)
Multicast Supported
Wi-Fi Scheduler

Environmental & Mechanical
Temperature Range
Operating: -32 to 122°F / 0 to 50°C
Storage: -4 to 140°F / -20 to 60 ° C
Humidity (non-condensing)
Operating: 90% or less
Storage: 90% or less
Physical Security
Kensington Security Slot
Weights & Measures
Weight: 1.20 lbs. (544.31 g)
Length: 7.44" (189 mm)
Width: 5.51" (140 mm)
Height: 1.02" (26 mm)
Warranty: 1 Year

Package Contents
ECB1750 802.11ac 3x3 Dual Band Indoor Access Point/Client Bridge
3 Detachable 5 dBi 2.4 GHz Omni-directional Antennas
3 Detachable 5 dBi 5 GHz Omni-directional Antennas
RJ-45 Cable
Power Adapter (12V/2A)
Wall Mount Kit
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.