



ECB1200

802.11ac 2x2:2 Dual-Band High-Powered Wireless Access Point/Client Bridge

The EnGenius ECB1200 is an 802.11ac 2x2:2 Dual Band Wireless Access Point and Client Bridge that is ideal for use in a wide array of settings including multi-floor corporate offices, hotels, schools and universities, small-to-mid-sized companies and large homes.

The ECB1200 features Dual-Band, concurrent operations with Band Steering and Quantum Beam technology for highly optimized user capacity per band, and the latest 802.11ac speeds delivering up to 867 Mbps on the 5 GHz band and up to 300 Mbps on the 2.4 GHz band. Combining high-transmit power, enhanced receive sensitivity and 4 external high-gain MIMO antennas, the ECB1200 supports long-range wireless connectivity ensuring seamless application delivery to a large number of clients simultaneously.

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 and Benefits:

- > 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
- > Up to 26 dBm transmit power per band penetrates floors, ceilings and walls for long-range connectivity
- > Dual-Band-capable for expanded user capacity and support for higher bandwidth applications
- > Four (4) 5 dBi high-gain detachable Omni-Directional antennas; two (2) on 2.4 GHz/two (2) on 5 GHz
- > Band Steering detects Dual-Band clients, shifting them to 5 GHz, 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](#)
- > Fast Roaming configurable when used with a RADIUS server for seamless application delivery without delays
- > Wireless Encryption (64/128/152 bit)
- > 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: multi-floor corporate offices, hotels, schools, universities, small-to-mid-sized companies and large homes

Accelerated Dual-Band Performance

The EnGenius ECB1200's accelerated speed and performance for users with 802.11ac laptops and other devices ensures smooth, rapid wireless HD video streaming and large file transfers over long distances. With Dual-Band support, this 802.11ac 2x2:2 Indoor Access Point and Client Bridge features data speeds of 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 incorporates high-capacity performance without bottlenecks for legacy and newer devices to a large number of clients simultaneously.

Long-Range Connectivity with External Detachable Antennas

With powerful, long-range connectivity capacity, the ECB1200's external MIMO antenna array is comprised of four (4) detachable 5 dBi high-gain antennas; two (2) for the 2.4 GHz radio and two (2) for the 5 GHz radio, transmitting up to 26 dBm of power per band. This combination of high-transmit power, enhanced receive sensitivity and long-range high gain external antennas results in wide-reaching connectivity to client devices, and in some venues, drastically minimizes the number of APs needed for deployment compared to other solutions.

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.

Fast Roaming with Enhanced Security

When used with a RADIUS server, the ECB1200's Fast Roaming feature supports secure authentication, distributing and caching a designated WPA/WPA2-Enterprise encryption key to neighboring ECB Access Points. Together with the Fast Handover feature, the AP automatically initiates a secure client transfer from one ECB Access Point to the next nearest AP with a stronger signal, keeping clients continuously and seamlessly connected to the network.

Simplified AP Monitoring

For simplified Wireless Access Point 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 from the EnGenius web site. Since the ECB1200 requires no software, set up and configuration is easily completed through its web User Interface or the optional EZ Controller software.

Flexible Mode Configurations per Frequency Band

Easily configure the ECB1200 as an Access Point, Client Bridge or WDS (AP, Station & Bridge) based on user needs in each frequency band. When set to Client Bridge mode, Ethernet-enabled devices, such as printers, copiers or storage can join an existing wireless network when connected via a Switch or directly to the wired device, making applications like wireless printing and archiving from laptops and tablets even easier.

Technical Specifications

Standard	Physical Security	Wireless & Radio Specifications
IEEE 802.11a/n/ac on 5 GHz	Kensington Security Slot	Dual-Band, Dual-Concurrent Radio
IEEE 802.11b/g/n on 2.4 GHz		
IEEE 802.3at	LED Indicators	Operation Modes
	1 x Power	Access Point
Antenna	1 x LAN 1	Client Bridge
4 External Antennas	1 x 2.4 GHz	WDS AP
(2) Detachable 5 dBi 2.4 GHz Omni-Directional Antennas	1 x 5 GHz	WDS Bridge
(2) Detachable 5 dBi 5 GHz Omni-Directional Antennas	Power Source	WDS Station
	DC Input: 12VDC/2A	
Physical Interface	PoE: Compatible with 802.3at	Transmit Power (combined)
1 x 10/100/1000 Gigabit Ethernet Port with PoE support		2.4 GHz up to 26 dBm
1 x Reset Button	Memory Capacity	5 GHz up to 26 dBm
1 x Power Connector	16 MB Flash	
	128 MB SDRAM	Radio Chains/Spatial Streams
		2 x 2: 2

Technical Specifications continued

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 450 (MCS0 to MCS9, NSS=1 to 3)	
802.11ac: 6.5 to 1,300 (MCS0 to MCS9, NSS=1 to 3)	
Supported Radio Technologies	
802.11b: Direct-Sequence Spread Spectrum (DSSS)	
802.11a/g/n/ac: Orthogonal Frequency-Division Multiplexing (OFDM)	
802.11n/ac: 2x2 MIMO with 2 streams	
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	
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	
Save Configuration as Default	
Clients Statistics	
Email Alert	
Fast Roaming	
Fast Handover	
Client Limit	
Real Time Status	
RADIUS Accounting	
Guest Network	

Control	
EnGenius EZ Controller	
CLI Supported	
Multicast Supported	
Wi-Fi Scheduler	
Band Steering	
802.1x Supplicant (CB Mode)	
Auto Reboot	
Green Setting	
Security	
WEP Encryption (64/128/152 bit)	
WPA/WPA2 Personal (WPA-PSK using TKIP or AES)	
WPA/WPA2 Enterprise (WPA-PSK using TKIP)	
802.1x Authenticator	
Hide SSID in Beacons	
Client Isolation	
L2 Isolation (AP Mode)	
MAC Address Filtering, Up to 50 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:	
ECB1200 Device	
Weight: 1.20 lbs. (544.31 g)	
Length: 7.44" (189 mm)	
Width: 5.51" (140 mm)	
Height: 1.02" (26 mm)	

Packaging	
Weight: 2.8 lbs. (1.27 kg)	
Length: 12" (304.80 mm)	
Width: 3" (76.20 mm)	
Height: 1" (25.40 mm)	

Master Carton	
Weight: 28 lbs. (12.70 kg)	
Length: 19" (482.60 mm)	
Width: 15.4" (391.16 mm)	
Height: 13" (330.20 mm)	
No. of boxes per master carton: 10 units	

Package Contents	
ECB1200 802.11ac 2x2:2 Dual Band Indoor Access Point/ Client Bridge	
(2) Detachable 5 dBi 2.4 GHz Omni-Directional Antennas	
(2) Detachable 5 dBi 5 GHz Omni-Directional Antennas	
RJ-45 Cable	
Power Adapter (12V/2A)	
Wall Mount Kit	
Quick Installation Guide	

Certifications	
FCC, CE, IC	

Warranty:	
1 Year	

Antenna Specifications (External Antenna)

External Antenna	2.4 GHz	5 GHz
Average Antenna Gain	5.0dBi	5.0dBi
Polarization	Vertical	Vertical
Azimuth Beam-Width	360°	360°
Elevation Beam-Width	30°	30°
VSWR	1:2.0	1:2.0
Dimension	13(Φ)x199(L) mm	

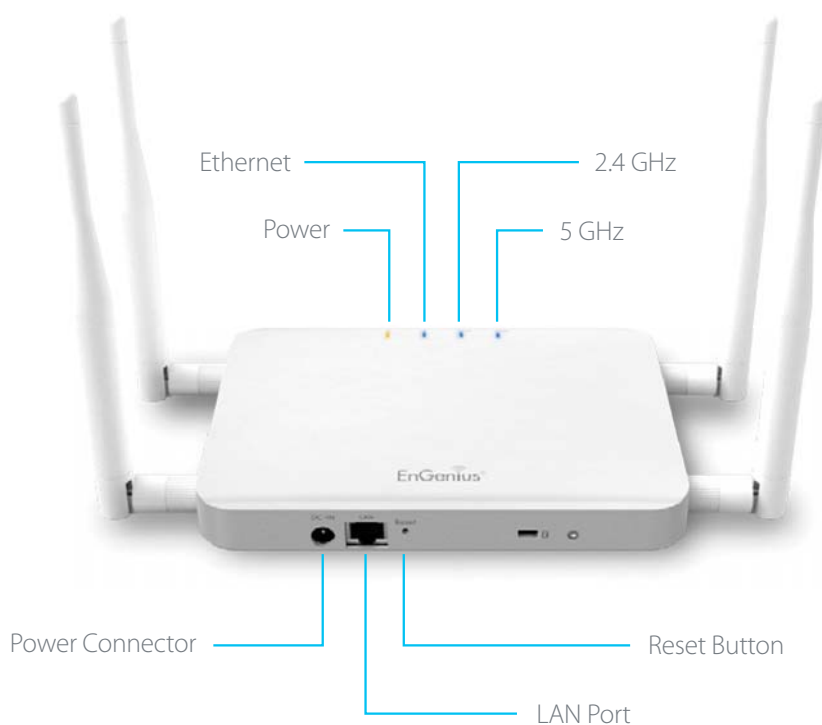
RF Specifications (Aggregated Value)

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.

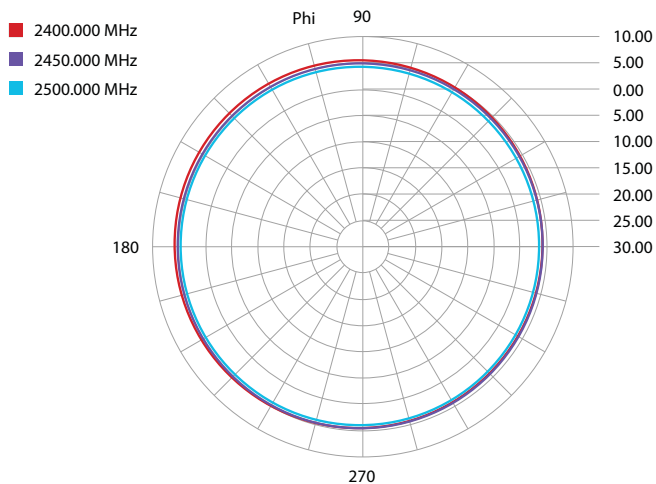
*The supported frequency band is restricted by local regulatory requirements.

*Transmit power is configurable in 1.0dB increments.

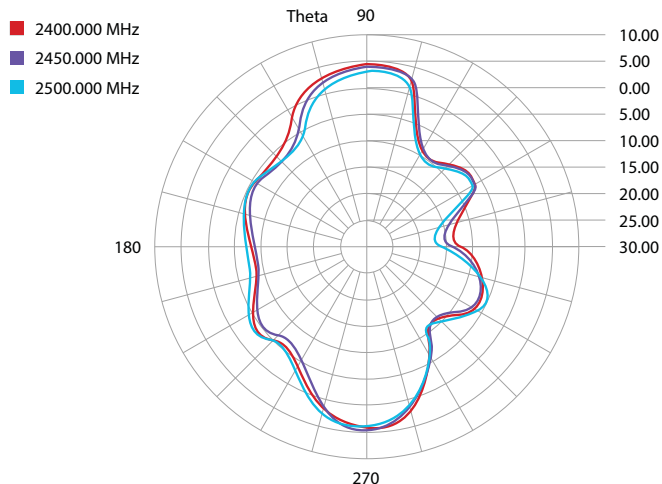


Antenna Radiation Patterns

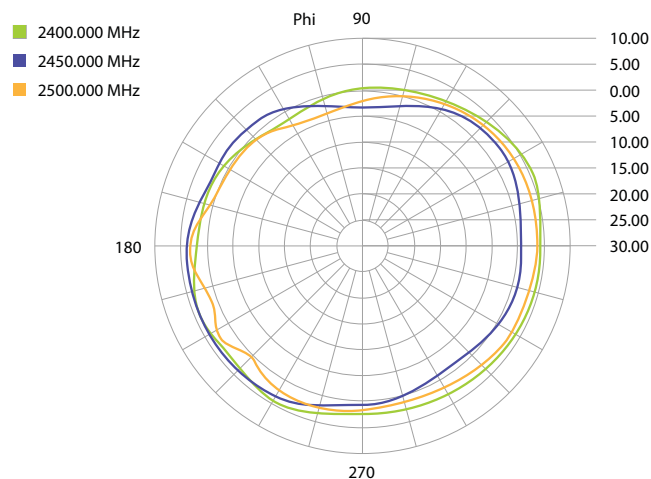
2.4 GHz-H Plane



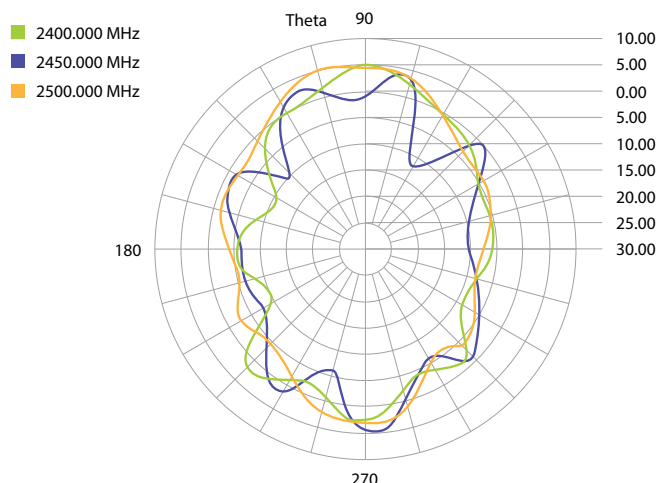
2.4 GHz-E Plane



5 GHz-H Plane



5 GHz-E 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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