



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

- 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

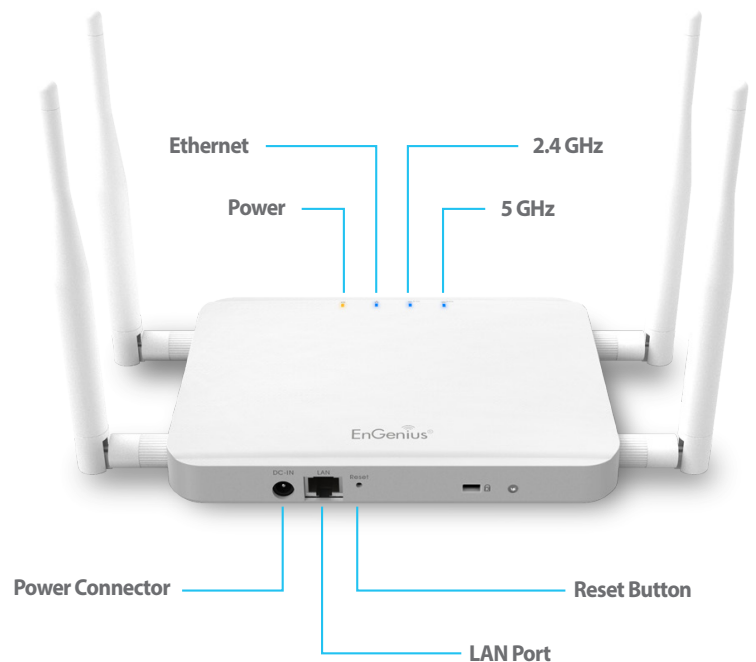
Create and configure up to eight (8) separate wireless networks per frequency band for a total of 16 SSIDs. Utilizing SSID-to-VLAN tagging (802.11q) can help increase security, network reliability and conserve bandwidth by limiting who has access to connect.

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	Radio Chains/Spatial Streams	Control	Packaging
IEEE 802.11a/n/ac on 5 GHz	2 x 2: 2	EnGenius EZ Controller	Weight: 2.8 lbs. (1.27 kg)
IEEE 802.11b/g/n on 2.4 GHz		CLI Supported	Length: 12" (304.80 mm)
IEEE 802.3at	Supported Data Rates (Mbps)	Multicast Supported	Width: 3" (76.20 mm)
	2.4 GHz: Max 300	Wi-Fi Scheduler	Height: 1" (25.40 mm)
Antenna	5 GHz: Max 867	Band Steering	Master Carton
4 External Antennas	802.11b: 1, 2, 5.5, 11	802.1x Supplicant (CB Mode)	Weight: 28 lbs. (12.70 kg)
(2) Detachable 5 dBi 2.4 GHz Omni-Directional Antennas	802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54	Auto Reboot	Length: 19" (482.60 mm)
(2) Detachable 5 dBi 5 GHz Omni-Directional Antennas	802.11n: 6.5 to 450 (MCS0 to MCS9, NSS=1 to 3)	Green Setting	Width: 15.4" (391.16 mm)
	802.11ac: 6.5 to 1,300 (MCS0 to MCS9, NSS=1 to 3)	Security	Height: 13" (330.20 mm)
Physical Interface	Supported Radio Technologies	WEP Encryption (64/128/152 bit)	No. of boxes per master carton: 10 units
1 x 10/100/1000 Gigabit Ethernet Port with PoE support	802.11b: Direct-Sequence Spread Spectrum (DSSS)	WPA/WPA2 Personal (WPA-PSK using TKIP or AES)	Package Contents
1 x Reset Button	802.11a/g/n/ac: Orthogonal Frequency-Division Multiplexing (OFDM)	WPA/WPA2 Enterprise (WPA-PSK using TKIP)	ECB1200 802.11ac 2x2:2 Dual Band Indoor Access Point/Client Bridge
1 x Power Connector	802.11n/ac: 2x2 MIMO with 2 streams	802.1x Authenticator	(2) Detachable 5 dBi 2.4 GHz Omni-Directional Antennas
Physical Security	Channelization	Hide SSID in Beacons	(2) Detachable 5 dBi 5 GHz Omni-Directional Antennas
Kensington Security Slot	802.11ac with 20/40/80 MHz channel width	Client Isolation	
LED Indicators	802.11n with 20/40 MHz channel width	L2 Isolation (AP Mode)	RJ-45 Cable
1 x Power	802.11a/b/g with 20 MHz channel width	MAC Address Filtering, Up to 50 Fields	Power Adapter (12V/2A)
1 x LAN 1		Wireless STA (Client) Connection List	Wall Mount Kit
1 x 2.4 GHz	Supported Modulation	Https Support	Quick Installation Guide
1 x 5 GHz	802.11b: BPSK, QPSK, CCK	SSH Support	Certifications
Power Source	802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM	QoS (Quality of Service)	FCC, CE, IC
DC Input: 12VDC/2A	802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	Supports 802.11e/WMM/Traffic Shaping Standards	Warranty:
PoE: Compatible with 802.3at	Management	(WMM – Wireless Multimedia)	1 Year
Memory Capacity	Auto Channel Selection	Environmental & Physical	
16 MB Flash	Multiple SSID: 16 SSIDs, 8 SSIDs per Radio	Temperature Range	
128 MB SDRAM	BSSID	Operating: 32 °F to 122 °F (0°C to 50 °C)	
Wireless & Radio Specifications	SNMP V1/V2c/V3	Storage: -4 °F to 140°F (-20 °C to 60 °C)	
Dual-Band, Dual-Concurrent Radio	MIB I/II, Private MIB	Humidity (non-condensing)	
Operation Modes	VLAN Tag/VLAN Pass-through	Operating: 90% or less	
Access Point	Save Configuration as Default	Storage: 90% or less	
Client Bridge	Clients Statistics	Dimensions & Weights:	
WDS AP	Email Alert	ECB1200 Device	
WDS Bridge	Fast Roaming	Weight: 1.20 lbs. (544.31 g)	
WDS Station	Fast Handover	Length: 7.44" (189 mm)	
Transmit Power (combined)	Client Limit	Width: 5.51" (140 mm)	
2.4 GHz up to 26 dBm	Real Time Status	Height: 1.02" (26 mm)	
5 GHz up to 26 dBm	RADIUS Accounting		
	Guest Network		

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

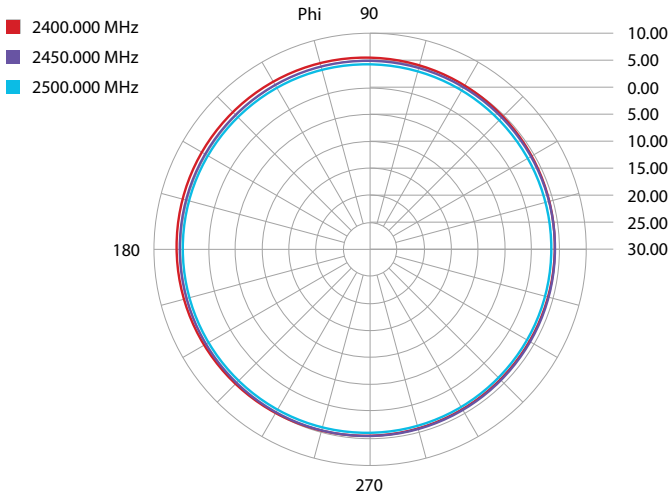
*Maximum transmit power is limited by local regulation.

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

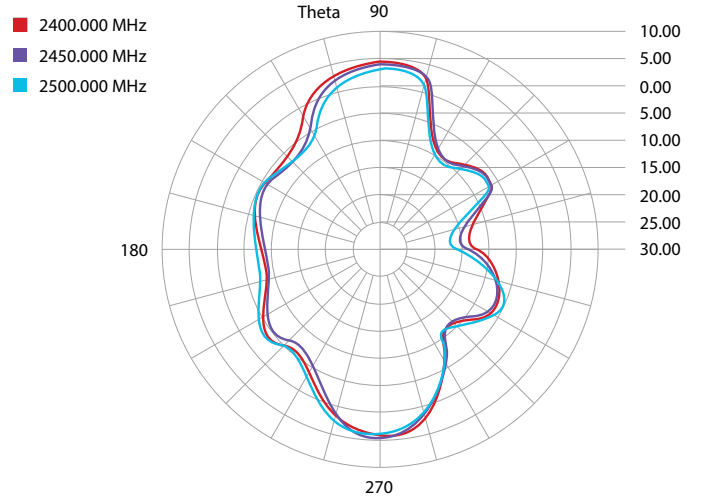
*Transmit power is configurable in 1.0dB increments.

Antenna Radiation Patterns

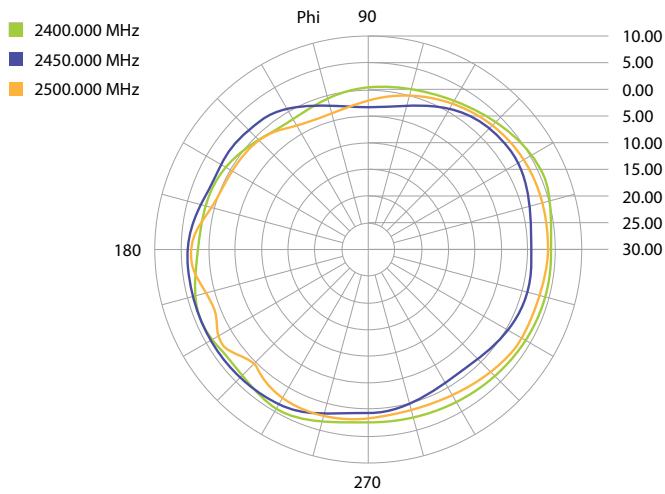
2.4 GHz-H Plane



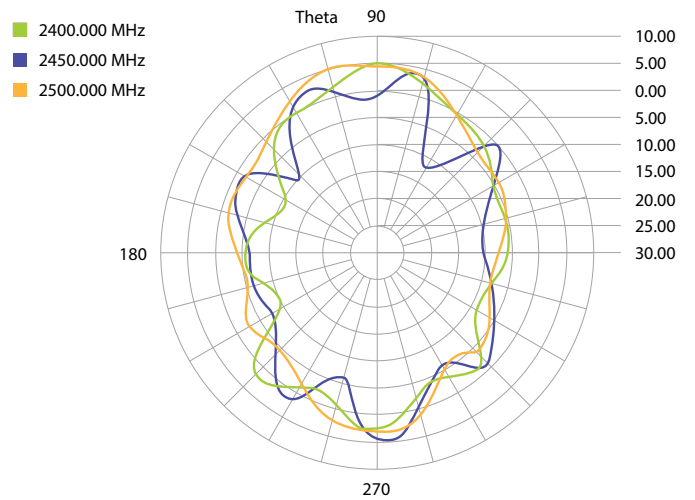
2.4 GHz-E Plane



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.

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