

# EnGenius® ECB300

Business Class Indoor Long Range Wireless-N  
Access Point/Client Bridge/WDS/  
Repeater/AP Router



## Key Differentiators

### HIGH-POWER, LONG-RANGE WI-FI

- Up to 29dBm RF Tx power provides more than twice the Wi-Fi coverage of ordinary APs

### WIRELESS-N WITH MULTIPLE OPERATION MODES

- Six operation modes: Access Point/Client Bridge/Universal Repeater/WDS Bridge/WDS AP/AP Router

### AP MANAGEMENT SOFTWARE

- Includes EZ Controller for configuring, managing and monitoring multiple APs from one central location

### WIRELESS-N 6X SPEED OVER 802.11G NETWORKS

- MIMO delivers up to 300Mbps speed rate

### SSID TO VLAN MAPPING

- Supports 802.1q mapping of SSIDs and up to 4 VLANs

### 802.3af PoE Compatible

- Supports Power over Ethernet (IEEE 802.3af) and allows deployment in areas where power outlets are not available

### DUAL HIGH GAIN DETACHABLE ANTENNA DESIGN

- 2x 5dBi upgradable antennas with optimized configuration and RF performance for increased Wi-Fi coverage and receive sensitivity

The EnGenius ECB300 is a 2.4GHz Wireless-N Indoor Access Point / Client Bridge / WDS / Repeater that features high transmit power (up to 29 dBm) for long range Wi-Fi coverage, wireless speeds up to 300Mbps and a Fast Ethernet port for connecting to a switch or router.

This high-powered AP/CB is designed to expand the number of users and devices that can access an existing wireless network within large or multi-story buildings or expansive, client-intensive facilities like hotels, resorts, hospitals, office buildings, universities or other multibuilding campus facilities.

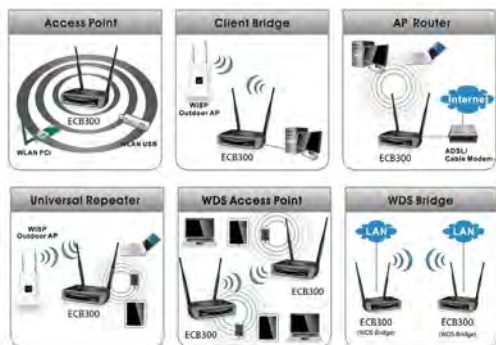
The ECB300's two detachable/upgradable MIMO (Multiple In/Multiple Out) 5dBi antenna array results in enhanced receive sensitivity and connectivity to access points and wireless clients even in areas where connections have been previously challenging or nonexistent.

For deployments on ceilings or in crawlspaces where power outlets may be scarce, the ECB300 is also PoE (Power-over-Ethernet) capable when used with a PoE injector, like the 802.3af compliant EnGenius EPE5818af.

The ECB300 includes EZ Controller Access Point Management software that provides a robust suite of tools for IT managers, installers and network administrators who deploy, manage and maintain wireless networks. With EZ Controller, EnGenius Wireless Indoor and Outdoor Access Points and Client Bridges can be configured, controlled and monitored from one central location.

	ECB3500 High-powered Wireless-G AP/CB	ECB9500 Wireless-N AP/CB	ECB150 High-powered Wireless-N AP/CB	ECB300 High-powered Wireless-N AP/CB	ECB350 High-powered Wireless-N AP/CB
<b>Features</b>					
Frequency	802.11 b/g	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Data speed rate	Up to 54Mbps	Up to 300Mbps	Up to 150Mbps	Up to 300Mbps	Up to 300Mbps
LAN Interface	10/100	10/100/1000	10/100	10/100	10/100/1000
Transmit power (in dBm)	28dBm	20dBm	26dBm	29dBm	29dBm
Transmit power (in mW)	600mW	100mW	400mW	800mW	800mW
Antenna	2x 5dBi Omni RP-TNC Female	3x 5dBi Omni RP-TNC Female	1x 5dBi Omni RP-SMA Female	2x 5dBi Omni RP-SMA Female	2x 5dBi Omni RP-SMA Female
Users support	Up to 32	Up to 32	Up to 32	Up to 32	Up to 50
<b>Operation Modes</b>					
Access Point	•	•	•	•	•
Client Bridge	•	•	•	•	•
Client Router	•	•	•	•	•
AP Router	•	•	•	•	•
WDS Bridge	•	•	•	•	•
WDS AP	•	•	•	•	•
WDS Station	•	•	•	•	•
Universal Repeater	•	•	•	•	•
<b>Security</b>					
SSIDs blocking	•	•	•	•	•
Client isolation	•	•	•	•	•
VPN pass-through	•	•	•	•	•
MAC address filtering	•	•	•	•	•
802.1x Radius support	•	•	•	•	•
SSID to VLAN mapping	•	•	•	•	•
<b>Functions</b>					
Multiple SSIDs	•	•	•	•	•
QoS (WMM)	•	•	•	•	•
Browser-based interface	•	•	•	•	•
AP Management Software (EZC)	•	•	•	•	•
IEEE 802.3af PoE Compliant	•	•	•	•	•

## Ideal For:



# ECB300 - Technical Specifications

## HARDWARE SPECIFICATIONS

MCU/RF	RTL8196C + RTL8192CE
Memory	32 MB
Flash	4 MB
Physical Interface	LAN: 1 x 10/100 Fast Ethernet (RJ-45) port Reset Button Power Jack
LED Indicators	Power/Status LAN (10/100Mbps) WLAN (Wireless connection)
Power requirement	Power Supply: 90 to 240 VDC $\pm$ 10%, 50/60 Hz (Depends on different countries) Active Ethernet (Power over Ethernet, IEEE802.3af) 48 VDC/0.375A Device: 12V/1A

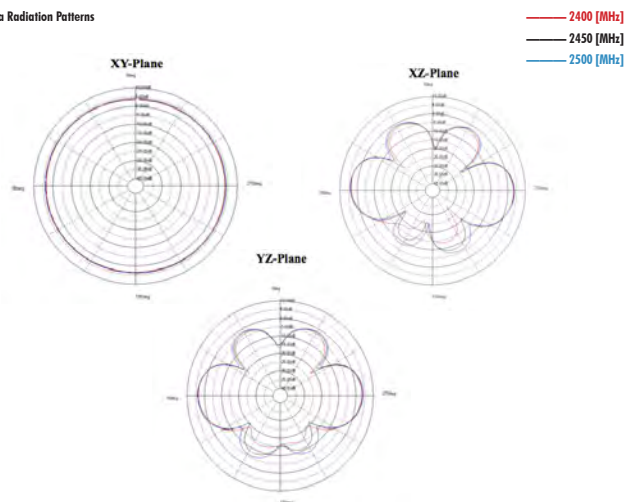
## RF SPECIFICATIONS

Wireless standard	IEEE802.11 b/g/n		
Frequency	2.400 ~ 2.484GHz (b/g/n)		
Modulation Technology	OFDM: BPSK, QPSK, 16-QAM, 64-QAM DBPSK, DQPSK, CCK		
Operating Channels	11 channels		
Transmit Power	802.11b (2.412~2.47GHz) 29 dBm @ 1Mbps 29 dBm @ 2Mbps 29 dBm @ 5.5Mbps 29 dBm @ 11Mbps	802.11g (2.412~2.47GHz) 29 dBm @ 6Mbps 29 dBm @ 9Mbps 28 dBm @ 12Mbps 28 dBm @ 18Mbps 24 dBm @ 24Mbps 24 dBm @ 36Mbps 23 dBm @ 48Mbps 23 dBm @ 54Mbps	802.11n(2.412~2.47GHz) 26 dBm @ MCS0/MCS8 26 dBm @ MCS1/MCS9 25 dBm @ MCS2/MCS10 25 dBm @ MCS3/MCS11 24 dBm @ MCS4/MCS12 24 dBm @ MCS5/MCS13 23 dBm @ MCS6/MCS14 23 dBm @ MCS7/MCS15
Receiver Sensitivity	802.11b (2.412 ~ 2.472 GHz) best $\leq$ -98 dBm	802.11g (2.412 ~ 2.472 GHz) best $\leq$ -93 dBm	802.11n (2.412 ~ 2.472 GHz) best $\leq$ -93 dBm
Antenna	2x external 5dBi SMA antennas (Diversity support)		

## ENVIRONMENT & PHYSICAL

Temperature Range	Operating: 0 to 50° C (32° to 122° F) Storage: -20 to 60° C (-4° to 140° F)
Humidity (non-condensing)	Operating: 90% or less Storage: 90% or less
Dimensions	L: 5.32"(135mm), W: 4.14"(105mm), H: 1.18"(30mm)
Weight	0.77 lb. (280g)
Certifications	FCC, CE, IC

Antenna Radiation Patterns



## SOFTWARE SPECIFICATIONS

Topology	Infrastructure/Ad-Hoc
Operation Mode	Access Point/Client Bridge/Universal Repeater/WDS Bridge/WDS AP/AP Router
Multiple BSSID	Supports up to 4 BSSIDs
LAN	IP (check validity and DHCP server IP range)
DHCP Server	DHCP range, lease time, client list
VLANs	Supports 802.1q (up to 4 VLANs) SSID to VLAN mapping
Spanning Tree	Supports 802.1d Spanning Tree Protocol
Wireless	Wireless mode: 11b/11g/11n Channel selection (setting varies by country) Channel bandwidth (Auto, 20MHz, 40MHz) Transmission rate: 11n only, 11b/g/n mix, 11b only, 11b, 11g only
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
QoS	WMM
WPS	Software only
Security	WEP Encryption - 64/128 bit WPA Personal (WPA-PSK using TKIP or AES) WPA Enterprise (WPA-EAP using TKIP) 802.1x Authenticator SSID broadcast enable/disable WLAN MAC Address Filter WLAN L2 isolation (AP mode) Wireless STA (Client) connected list (Idle/Connection Time, Pkt statistics)

## MANAGEMENT

Tx Power Control	Adjust transmit power by dBm
Configuration	Web-based configuration (HTTP/Telnet)
Telnet Server	CLI
Firmware Upgrade	Upgrade firmware via web browser
Administrator Setting	Administrator Username & Password change
Reset Setting	Reboot (press 1 second). Reset to Factory Default (press 10 second)
System Monitoring	Status Statistic and Event log
SNMP	V1, V2c
MIB	MIB I, MIB II, and Private MIB
Traffic Measurement	Per interface
Auto-channel Selection	Automatically selecting least congested channel
Bandwidth Measurement	IP range and bandwidth management
Backup & Restore	Save & restore settings through Web interface
Diagnosis	IP pinging statistics
AP Detection	Scanning for available EnGenius APs

