



## Cloud6 4x4

# Cloud Managed Wi-Fi 6 4x4 Indoor Access Point

### Overview

EnGenius Cloud Managed Wi-Fi 6 4x4 Indoor Access Point ECW230 supports dual concurrent 802.11ax Wi-Fi 6 architecture, delivering supercharged speeds up to 2,400 Mbps (5 GHz), and up to 1,200 Mbps (2.4 GHz). With WPA3 & WPA2-AES authentication support, remote monitoring & troubleshooting, and Mesh Wireless Support for optimized signal quality, it's easy to set up and manage an unlimited number of APs with the EnGenius Cloud App.



### Features & Benefits

- Dual concurrent 802.11ax Wi-Fi 6 architecture & backward-compatible
- Supercharged speeds up to 2,400 Mbps (5 GHz) & up to 1,200 Mbps (2.4 GHz)
- 2.5 GbE realizes greater throughput and supports 802.3at & 48V PoE input for flexible installation over 100 meters (328 feet)
- WPA3 & WPA2-AES authentication support
- Cloud Managed with AP & Mesh mode
- Quick-scan device register & configuration and remote monitoring & troubleshooting
- Cloud manage an unlimited number of APs from anywhere with the EnGenius Cloud App
- Mesh Wireless Support simplifies setup, optimizes signals & self-heals

# Technical Specifications

## Technical Specifications

### Standards

IEEE 802.11ax on 2.4 GHz

IEEE 802.11ax on 5 GHz

IEEE 802.3 u/ab

Backward compatible with 802.11a/b/g/n/ac

### Antenna

4 x 2.4 GHz: 5 dBi(Integrated Omni-Directional)

4 x 5 GHz: 6 dBi(Integrated Omni-Directional)

### Physical Interfaces

1 x 2.5GE Port (PoE+)

1 x DC Jack

1 x Reset Button

### LED indicators

1 x Power

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

### Power Source

Power-over-Ethernet: 802.3at Input

12VDC /2A Power Adapter

### Maximum Power Consumption

19.5W

## Wireless & Radio Specifications

### Operating Frequency

Dual-Radio Concurrent 2.4 GHz & 5 GHz

### Operation Modes

Managed mode: AP, AP Mesh, Mesh

### Frequency Radio

2.4 GHz: 2400 MHz ~ 2482 MHz

5 GHz: 5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz, 5725 MHz ~ 5850 MHz

### Transmit Power

Up to 23 dBm on 2.4 GHz

Up to 23 dBm on 5 GHz

(Maximum power is limited by regulatory domain)

### Radio Chains

4 x 4:4

### SU-MIMO

Four (4) spatial stream Single User (SU) MIMO for up to 1148 Mbps wireless data rate with HE40 bandwidth to a 4x4 wireless client device under the 2.4GHz radio.

Four (4) spatial stream Single User (SU) MIMO for up to 2400 Mbps wireless data rate with HE80 to a 4x4 wireless device under the 5GHz radio.

### MU-MIMO

Four (4) spatial streams Multiple (MU)-MIMO up to 2,400 Mbps wireless data rate for transmitting to four (4) streams MU-MIMO 11ax capable wireless client devices under 5GHz simultaneously.

Four (4) spatial streams Multiple (MU)-MIMO up to 1,148 Mbps wireless data rate for transmitting to four (4) streams MU-MIMO 11ax capable wireless client devices under 2.4GHz simultaneously.

### Supported Data Rates

802.11ax:

2.4 GHz: 9 to 1,148 (MCS0 to MCS11, NSS = 1 to 4)

5 GHz: 18 to 2,400 (MCS0 to MCS11, NSS = 1 to 4)

802.11b: 1, 2, 5.5, 11

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

802.11n: 6.5 to 600 (MCS0 to MCS31)

802.11ac: 6.5 to 1,733 (MCS0 to MCS9, NSS = 1 to 4)

### Supported Radio Technologies

802.11ax: Orthogonal Frequency Division Multiple Access(OFDMA)

802.11a/g/n/ac: Orthogonal Frequency Division Multiple (OFDM)

802.11b: Direct-sequence spread-spectrum (DSSS)

### Channelization

802.11ax supports high efficiency throughput (HE) –HE 20/40/80 MHz

802.11ac supports very high throughput (VHT) –VHT 20/40/80 MHz

802.11n supports high throughput (HT) –HT 20/40 MHz

802.11n supports high throughput under the 2.4GHz radio –HT40 MHz (256-QAM)

802.11n/ac/ax packet aggregation: A-MPDU, A-SPDU

### Supported Modulation

802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

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

802.11b: BPSK, QPSK, CCK

### DFS Certification

FCC/CE/IC

### Max Concurrent User

512 Per radio

### Client Balancing

Yes

### Auto Channel Selection

Yes

## Management Features

### Multiple BSSID

8 SSIDs on both 2.4GHz and 5GHz bands

### VLAN Tagging

Supports 802.1q SSID-to-VLAN Tagging

Cross-Band VLAN Pass-Through

Management VLAN

### Spanning Tree

Supports 802.1d Spanning Tree Protocol

### QoS (Quality of Service)

Compliance With IEEE 802.11e Standard

WMM

### SNMP

v1, v2c, v3

### MIB

I/II, Private MIB

# Technical Specifications

## Fast Roaming

802.11r/k

## Wireless Security

WPA2-PSK

WPA2-Enterprise

WPA3-PSK

WPA3-Enterprise

Hide SSID in Beacons

Wireless STA (Client) Connected List

Client Isolation

Client Access Control

## Interface

IPv4, IPv6

## Local Web Access

Supports HTTP or HTTPS

## Environmental & Physical

### Temperature Range

Operating: 32°F~104°F (0 °C~40 °C)

Storage: -40 °F~176 °F (-40 °C~80 °C)

### Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

## Dimensions & Weight

### Weight

597 g

### Dimensions

205 x 205 x 33.2 mm

### Package Contents

1 – ECW230 Cloud Managed Indoor Access Point

1 – Ceiling Mount Base (9/16" Trail)

1 – Ceiling Mount Base (15/16" Trail)

1 – Ceiling and Wall Mount Screw Kit

1 – Quick Installation Guide

## Compliance

### Regulatory Compliance

FCC

CE

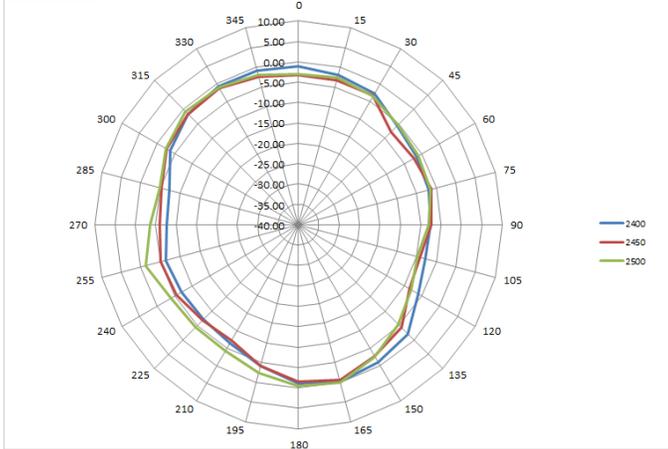
IC

# Antennas Patterns

2.4GHz

H-Plane

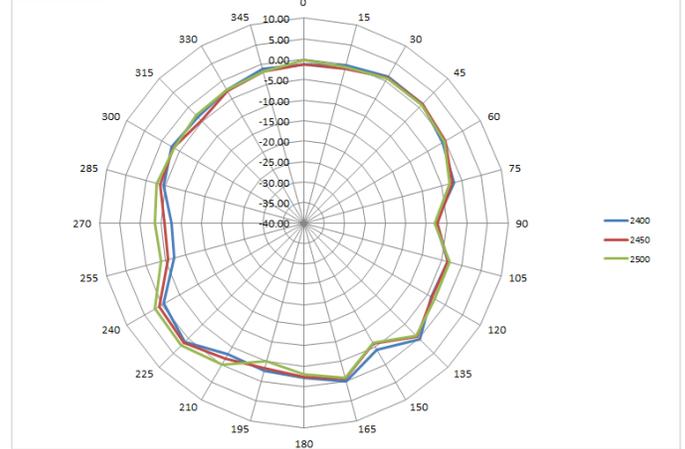
dBi gain (XY plane)



2.4GHz

E-Plane

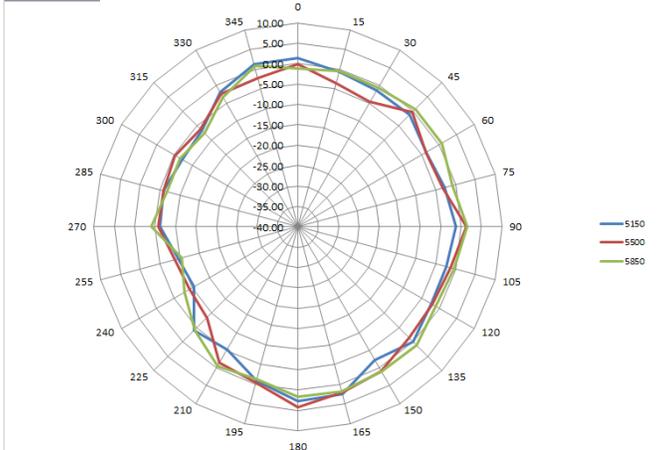
dBi gain (YZ plane)



5GHz

H-Plane

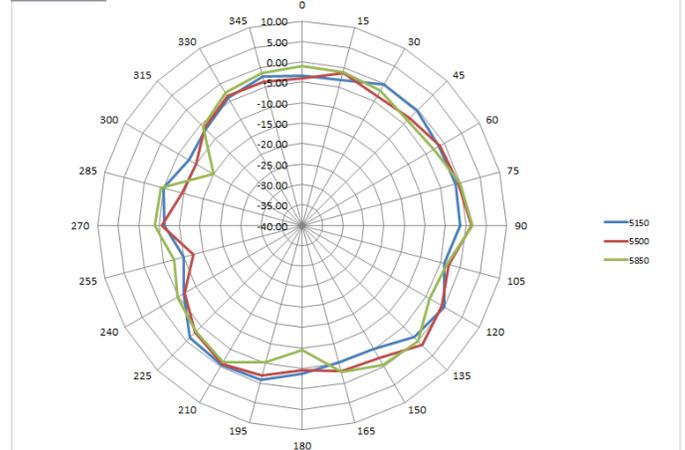
dBi gain (XY plane)



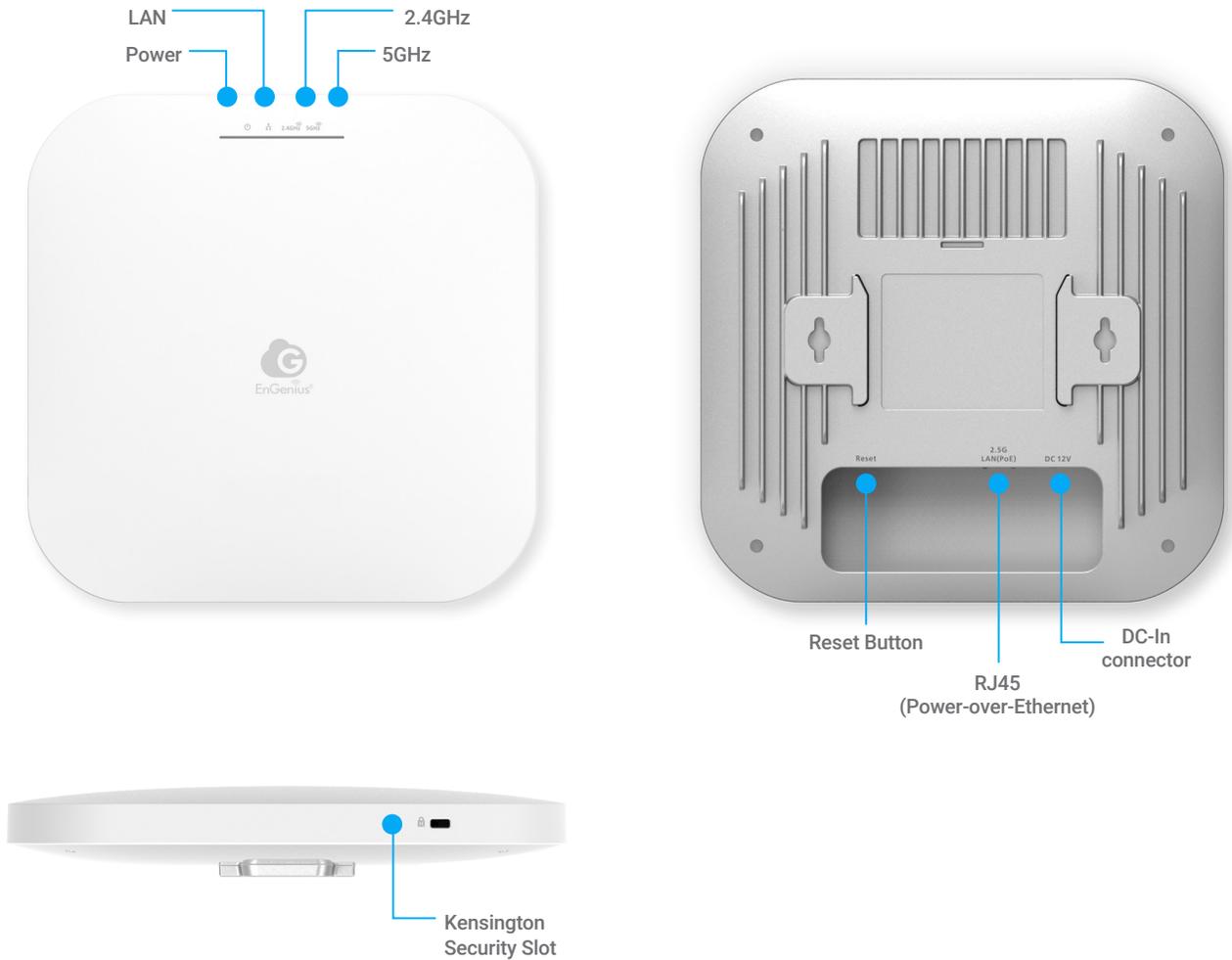
5GHz

E-Plane

dBi gain (YZ plane)



# Hardware Overviews



## EnGenius Technologies | Costa Mesa, California, USA

Email: [support@engeniustech.com](mailto:support@engeniustech.com)  
Website: [www.engeniustech.com](http://www.engeniustech.com)  
Local contact: (+1) 714 432 8668

## EnGenius Networks Singapore Pte Ltd. | Singapore

Email: [techsupport@engeniustech.com.sg](mailto:techsupport@engeniustech.com.sg)  
Website: [www.engeniustech.com/apac/](http://www.engeniustech.com/apac/)  
Local contact: (+65) 6227 1088

## EnGenius Technologies Canada | Ontario, Canada

Email: [support@engeniustech.com](mailto:support@engeniustech.com)  
Website: [www.engeniustech.com](http://www.engeniustech.com)  
Local contact: (+1) 905 940 8181

## EnGenius Networks Dubai | Dubai, UAE

Email: [support@engeniustech.com](mailto:support@engeniustech.com)  
Website: [www.engeniustech.com/apac/](http://www.engeniustech.com/apac/)  
Local contact: (+971) 4 339 1227

## EnGenius Networks Europe B.V. | Eindhoven, Netherlands

Email: [support@engeniustech.com](mailto:support@engeniustech.com)  
Website: [www.engeniustech.com/eu/](http://www.engeniustech.com/eu/)  
Local contact: (+31) 40 8200 887

## 恩碩科技股份有限公司 | Taiwan, R.O.C.

Email: [sales@engeniustech.com.tw](mailto:sales@engeniustech.com.tw)  
Website: [www.engeniustech.com/tw/](http://www.engeniustech.com/tw/)  
Local contact: (+886) 933 250 628

Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. 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. Prior to installing any surveillance equipment, it is your responsibility to ensure the installation is in compliance with local, state and federal video and audio surveillance and privacy laws.  
Version 1.2.06/ 13/ 2024

