EnGenius

ECW220S

Cloud6 2x2 S
Cloud Managed Wi-Fi 6 2x2 Indoor Access Point

Overview

EnGenius Cloud Managed Wi-Fi 6 2x2 Indoor Access Point ECW220 S supports dual concurrent 802.11ax Wi-Fi 6 architecture, delivering supercharged speeds up to 1,200 Mbps (5 GHz), and up to 600 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 1,200 Mbps (5 GHz) & up to 600 Mbps (2.4 GHz)

- 1 GbE realizes greater throughput and supports 802.3af & 48V PoE input for flexible installation over 100 meters (328 feet)

- Wireless security detection and protection by WIPS radio

- BLE client list by beacon scan

- 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

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

2 x 5 GHz: 5 dBi(Integrated Omni-Directional)

Physical Interfaces
1 x GE 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: 802.3af/at Input

12VDC /1.5A Power Adapter

Maximum Power Consumption
12.8W

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 25 dBm on 2.4 GHz

Up to 24 dBm on 5 GHz

(Maximum power is limited by regulatory domain)

Radio Chains
2 × 2:2

SU-MIMO
Two (2) spatial stream Single User (SU) MIMO for up to 574 Mbps wireless data rate with HE40 bandwidth to a 2x2 wireless client device under the 2.4GHz radio.

Two (2) spatial stream Single User (SU) MIMO for up to 1,200 Mbps wireless data rate with VHT80 to a 2x2 wireless device under the 5GHz radio.

MU-MIMO
Two (2) spatial streams Multiple (MU)-MIMO up to 1,200 Mbps wireless data rate for transmitting to two (2) streams MU-MIMO 11ax capable wireless client devices under 5GHz simultaneously.

Two (2) spatial streams Multiple (MU)-MIMO up to 574 Mbps wireless data rate for transmitting to two (2) streams MU-MIMO 11ax capable wireless client devices under 2.4GHz simultaneously.

Supported Data Rates
802.11ax:

2.4 GHz: 9 to 574 (MCS0 to MCS11, NSS = 1 to 2)

5 GHz: 18 to 1200 (MCS0 to MSC11, NSS = 1 to 2)

802.11b: 1, 2, 5.5, 11

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

802.11n: 6.5 to 300 Mbps (MCS0 to MCS15)

802.11ac: 6.5 to 867 Mbps (MCS0 to MCS9, NSS = 1 to 2)

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

AirGuard (WIPS/WIDS)
Yes

Zero-wait DFS
Yes

Dedicated Scanning Radio
Yes

Max Concurrent User
512 Per radio

Client Balancing
Yes

Auto Channel Selection
Yes

Technical Specifications

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

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: 32ºF~104ºF (0 ºC~40 ºC)

Storage: -40 ºF~176 ºF (-40 ºC~80 ºC)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Dimensions & Weight

Weight

390 g

Dimensions

160 x 160 x 33.2 mm

Package Contents

1 – ECW220S 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)
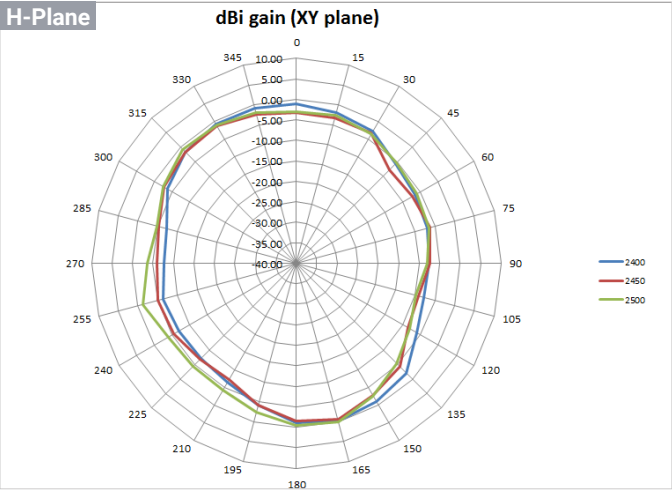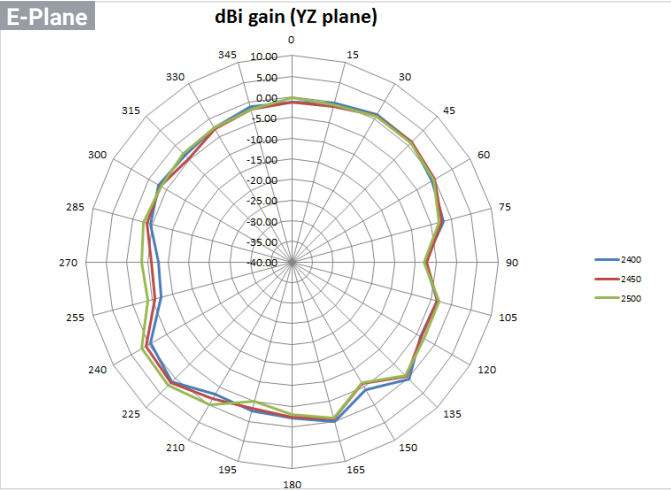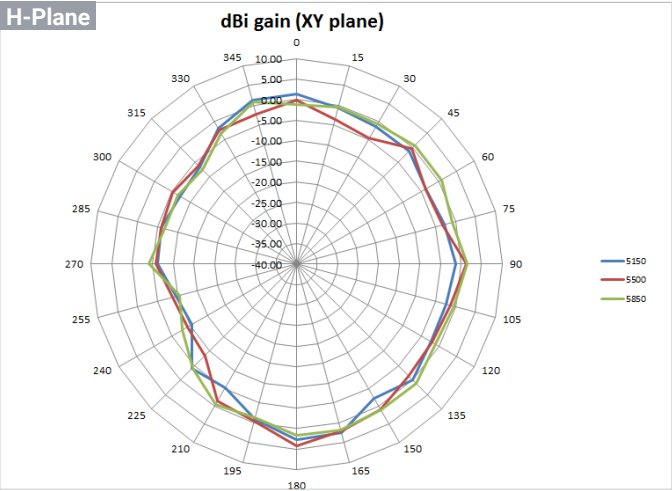
5GHz

E-Plane — dBi gain (YZ plane)
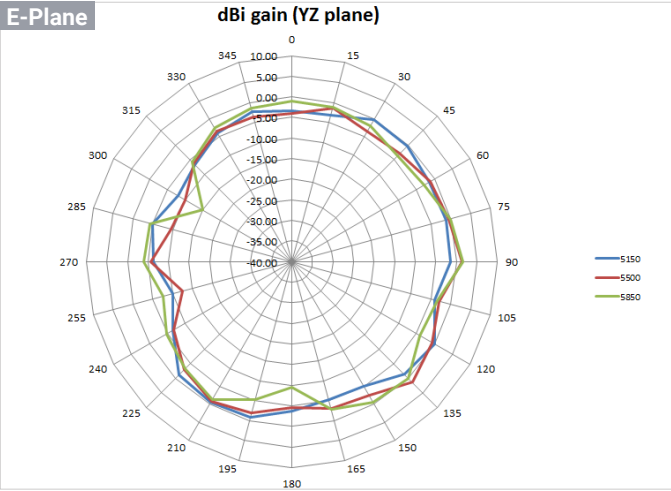
Hardware Overviews

LAN

Power

2.4GHz

5GHz
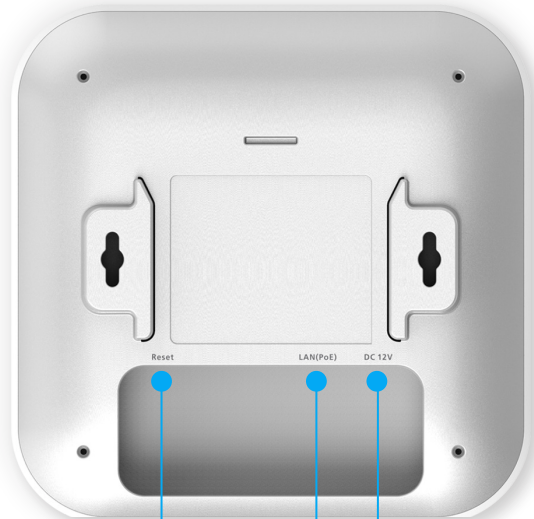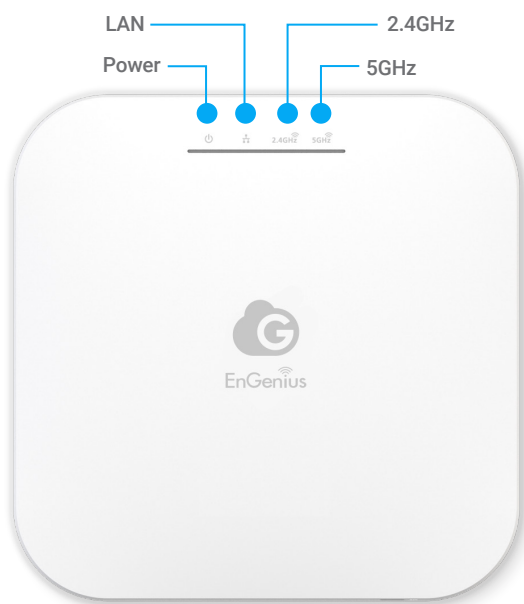
Reset Button

RJ45
(Power-over-Ethernet)

DC-In
connector

Kensington
Security Slot