ECW510P

Cloud7 2x2

Cloud Managed Wi-Fi 7 2x2 Indoor Access Point

Overview

EnGenius Cloud Managed Wi-Fi 7 2x2 Access Point ECW510P supports dual concurrent 802.11be Wi-Fi 7 architecture, delivering supercharged speeds up to 4,300 Mbps (5 GHz), and up to 700 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 802.11be Wi-Fi 7 architecture & backward compatibility
- Supercharged speeds up to 4,300 Mbps (5 GHz) & up to 700 Mbps (2.4 GHz)
- 2.5 GbE realizes greater throughput and supports 802.3at and PoE injector input for flexible installation over 100 meters (328 feet)
- WPA3 & WPA2-AES authentication support
- Cloud Managed with AP & Mesh mode
- Quick-scan device registration & 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

General

Standards
IEEE 802.11be on 2.4 GHz
IEEE 802.11be on 5 GHz
Backward compatible with 802.11a/b/g/n/ac/ax
IEEE 802.3 u/ab

Antenna
2 x 2.4 GHz: 3.5 dBi(Integrated Omni-Directional)
2 x 5 GHz: 6.9 dBi(Integrated Omni-Directional)

Physical Interfaces
1 x 2.5GE Port (PoE+)
1 x DC Jack
1 x Reset Button

LED Indicators
1 x Multi-color LED

Power Source
Power-over-Ethernet: 802.3at Input
12VDC /2.5A Power Adapter (optional)

Maximum Power Consumption
21.384 W

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 19 dBm on 2.4 GHz
Up to 19 dBm on 5 GHz
(Maximum power is limited by regulatory domain)

Radio Chains
2 × 2:2

SU-MIMO Capability
Two(2) spatial stream Single User (SU) MIMO for up to 700 Mbps wireless data rate with EHT40 bandwidth to a 2x2 wireless device under the 2.4GHz radio.
Two(2) spatial stream Single User (SU) MIMO for up to 4,300 Mbps wireless data rate with EHT240 to a 2x2 wireless device under the 5GHz radio.

MU-MIMO Capability
Two(2) spatial stream MU-MIMO for up to 700 Mbps wireless data rate with EHT40 bandwidth to a 2x2 wireless device under the 2.4GHz radio.
Two(2) spatial stream MU-MIMO for up to 4,300 Mbps wireless data rate with EHT240 to a 2x2 wireless device under the 5GHz radio simultaneously.

Supported Data Rates
802.11be:
2.4 GHz: Max 700 (MCS0 to MCS13, NSS = 1 to 2)
5 GHz: Max 4,300 (MCS0 to MCS13, NSS = 1 to 2)
802.11ax:
2.4 GHz: 9 to 574 (MCS0 to MCS11, NSS = 1 to 2)
5 GHz: 18 to 2,400 (MCS0 to MCS11, 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 (MCS0 to MCS15)
802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2)

Supported Radio Technologies
802.11be/ax: Orthogonal Frequency Division Multiple Access(OFDMA)
802.11a/g/n/ac: Orthogonal Frequency Division Multiple (OFDM)
802.11b: Direct-sequence spread-spectrum (DSSS)

Channelization
802.11be supports extreme high efficiency (EHT) —EHT 20/40/80/160/240/320MHz
802.11ax supports high efficiency throughput (HE) —HE 20/40/80/160 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
802.11be: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM
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/JP

Max Concurrent User
256

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

Fast Roaming
802.11k/v/r

Technical Specifications

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

Local Web Access

Supports HTTP or HTTPS

Environmental & Physical

Temperature Range

Operating: 32°F~104°F (0 °C~40 °C)
Storage: -4 °F~158 °F (-20 °C~70 °C)

Humidity (non-condensing)

Operating: 90% or less
Storage: 90% or less

Dimensions & Weight

Weight

513.6g

Dimensions

Width: 158 mm
Length: 158 mm
Height: 35.8mm

Package Contents

1 – ECW510P 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 – Product Card

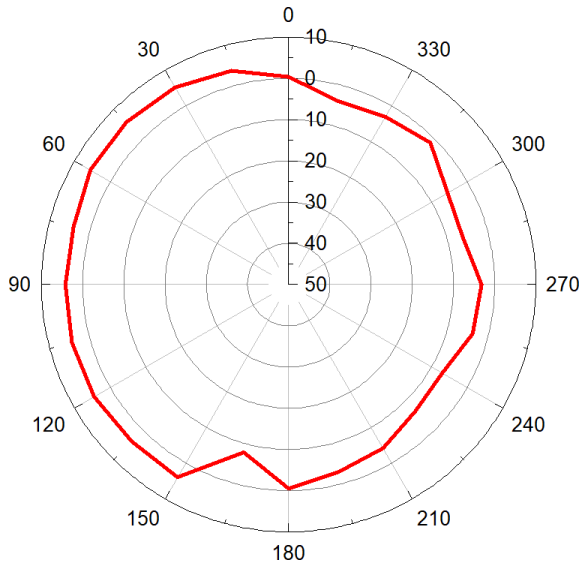
Compliance

Regulatory Compliance

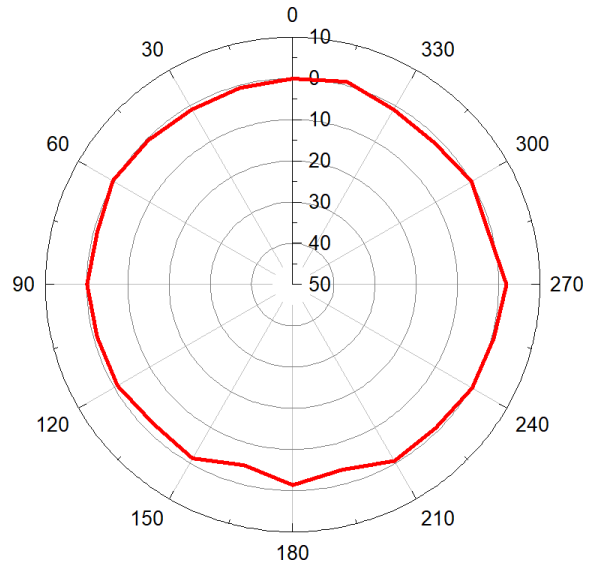
FCC
IC
CE
UKCA
AU
JP
TW

Antennas Patterns

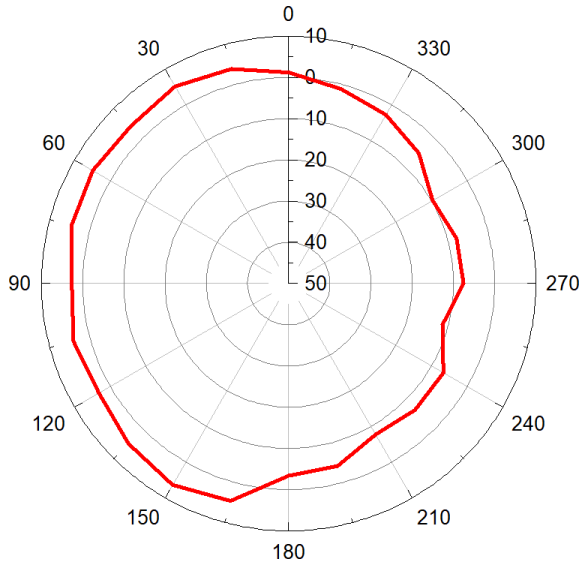
2.4GHz H-Plane



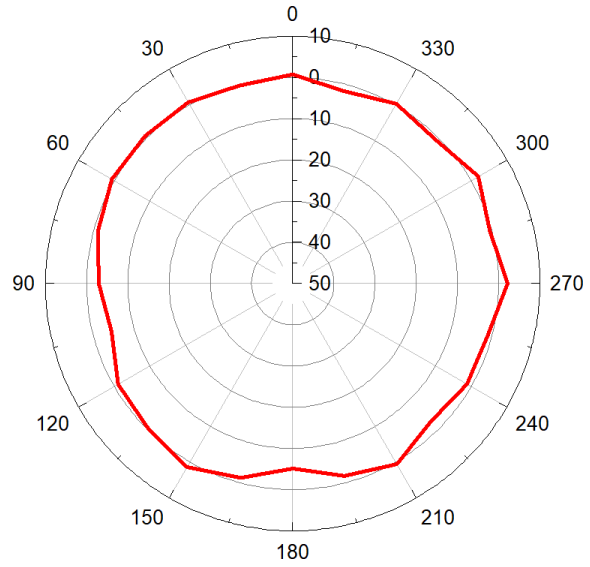
2.4GHz E-Plane



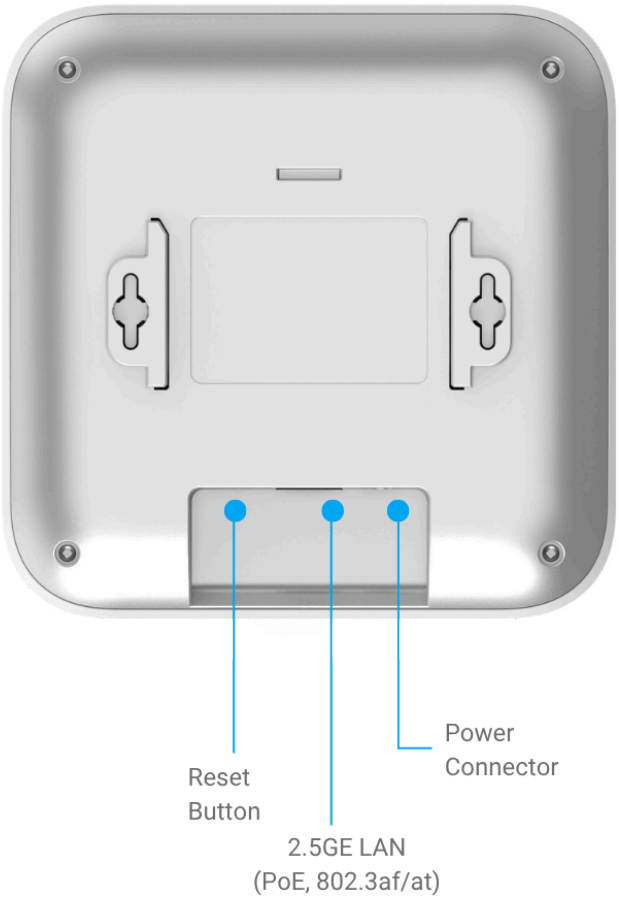
5GHz H-Plane



5GHz E-Plane



Hardware Overview



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