ECW516L

Cloud7 2x3x3 Lite

Cloud Lite 802.11be 2x3x3 Tri-Band Indoor Access Point

Overview

EnGenius Cloud Managed Wi-Fi 7 2x3x3 Access Point ECW516L is a cost-effective model designed for small businesses. It support tri-concurrent 802.11be architecture, delivering speeds up to 700 Mbps on the 2.4GHz, 4,300 Mbps on the 5GHz, and 8,700 Mbps on the 6GHz band, providing high-performance connectivity. With seamless integration into the EnGenius Cloud platform, it offers easy management and robust security through WPA3, making it an ideal solution for businesses seeking enterprise-grade performance at an affordable price.

Features & Benefits

- **Wi-Fi 7 Technology:** Tri-concurrent 802.11be architecture with backward compatibility for legacy Wi-Fi devices.
- **High-Performance Speeds:** Delivers 8,700 Mbps (6GHz), 4,300 Mbps (5GHz), and 700 Mbps (2.4GHz) throughput.
- **Advanced Security:** Integrated WPA3 and WPA2-AES authentication protection.
- **Professional-Grade Antenna:** 5 dBi integrated system with 2x2 (2.4GHz) and 3x3 (5GHz/6GHz) configuration.
- **Versatile Connectivity:** 2.5GE PoE+ port for power and high-speed networking.
- **Cloud Management:** Free local and remote management via EnGenius Cloud.
- **Flexible Deployment:** Multiple operating modes with AP, STA, and Mesh support.

Technical Specifications

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Standards

IEEE 802.11be on 2.4 GHz

IEEE 802.11be on 5 GHz

IEEE 802.11be on 6 GHz

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

IEEE 802.3 u/ab

Antenna

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

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

3 x 6 GHz: 5 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

1 x 6GHz

Power Source

Power-over-Ethernet: 802.3at Input

12VDC /2A Power Adapter

Maximum Power Consumption

20.7W

Wireless & Radio Specifications

Operating Frequency

Tri-Radio Concurrent 2.4 GHz & 5 GHz & 6GHz

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

6GHz: 5925-7125MHz

Transmit Power

Up to 22 dBm on 2.4 GHz

Up to 22 dBm on 5 GHz

Up to 22 dBm on 6 GHz

(Maximum power is limited by regulatory domain)

Radio Chains

2 x 2:2

3 x 3:3

SU-MIMO

Two(2) spatial stream Single User (SU) MIMO for up to 700 Mbps wireless data rate with VHT40 bandwidth to a 2x2 wireless device under the 2.4GHz radio.

Three(3) spatial stream Single User (SU) MIMO for up to 4,300 Mbps wireless data rate with HE160 to a 3x3 wireless device under the 5GHz radio.

Three(3) spatial stream Single User (SU) MIMO for up to 8,700 Mbps wireless data rate with EHT320 to a 3x3 wireless device under the 6GHz radio.

MU-MIMO

Two(2) spatial stream MU-MIMO for up to 700 Mbps wireless data rate with VHT40 bandwidth to a 2x2 wireless device under the 2.4GHz radio.

Three(3) spatial stream MU-MIMO for up to 4,300 Mbps wireless data rate with HE160 to a 3x3 wireless device under the 5GHz radio simultaneously.

Three(3) spatial stream MU-MIMO for up to 8,700 Mbps wireless data rate with EHT320 to a 3x3 wireless device under the 6GHz radio simultaneously.

Supported Data Rates

802.11be:

2.4 GHz: Max 700 (MCS0 to MCS11, NSS = 1 to 4)

5 GHz: Max 4,300 (MCS0 to MCS11, NSS = 1 to 4)

6 GHZ: Max 8,700 (MCS0 to MCS13, NSS = 1 to 4)

802.11ax:

2.4 GHz: 9 to 574 (MCS0 to MCS11, NSS = 1 to 4)

5 GHz: 18 to 1,800 (MCS0 to MCS11, NSS = 1 to 4)

6 GHZ: 18 to 3,600 (MCS0 to MCS13, 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

802.11be/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 20/40/80/160/320 MHz

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

Max Concurrent User

128 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

WPA3-PSK

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: -40 °F~176 °F (-40 °C~80 °C)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Dimensions & Weight

Weight

TBD

Dimensions

205 x 205 x 33 mm

Package Contents

1 – ECW516L 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

CE

IC

UKCA

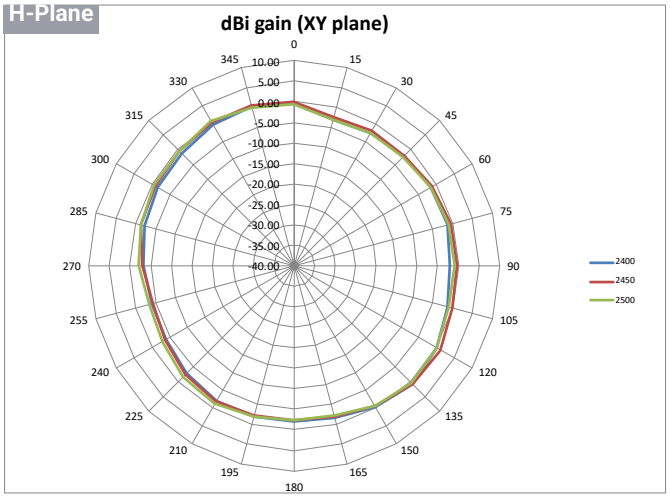
UK PSTI

AU

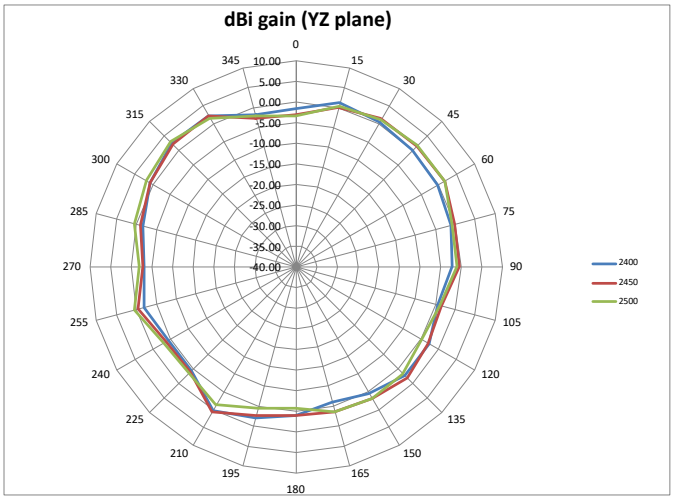
Antennas Patterns

2.4GHz

H-Plane

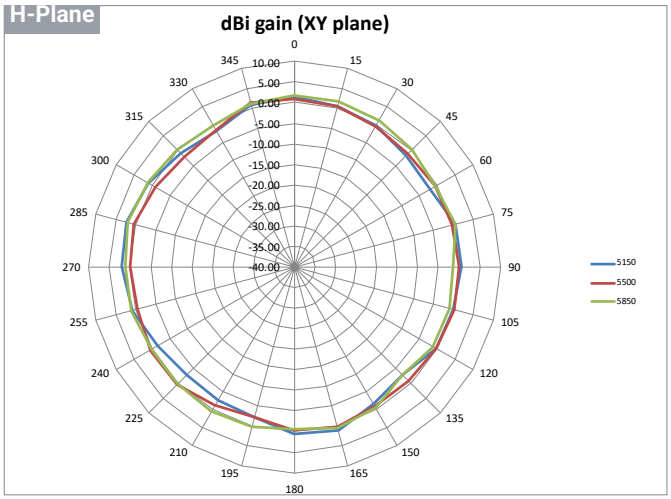


2.4GHz



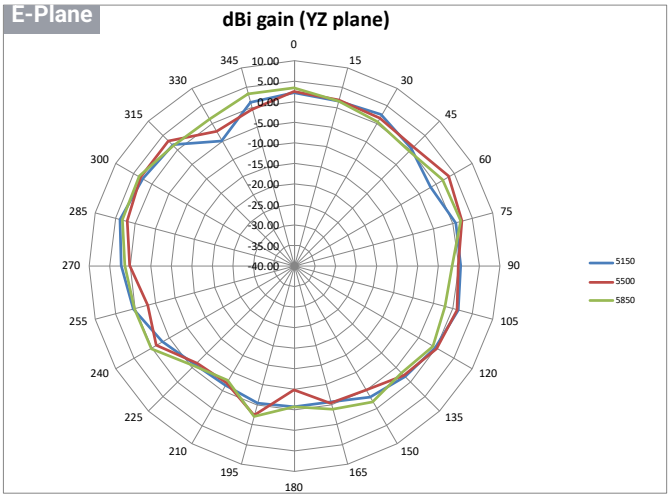
5GHz

H-Plane



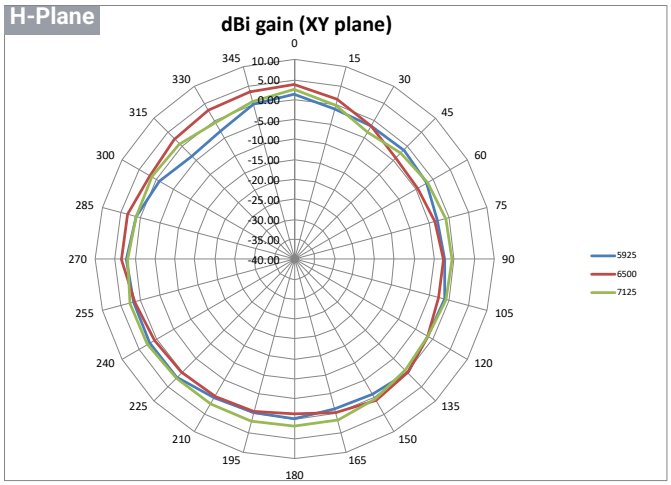
5GHz

E-Plane



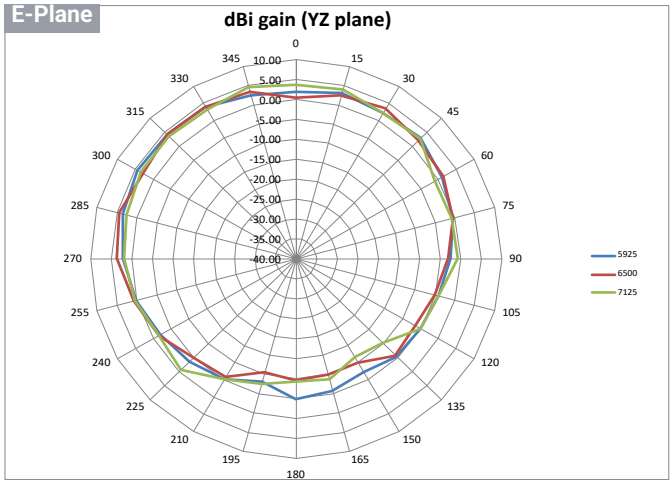
6GHz

H-Plane

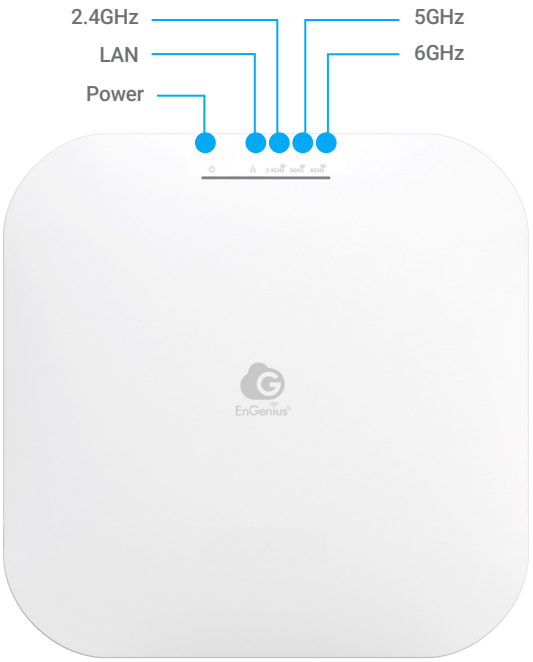


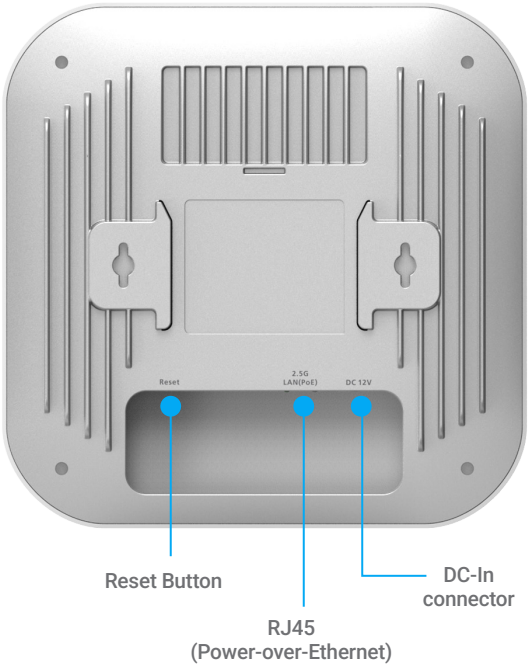
6GHz

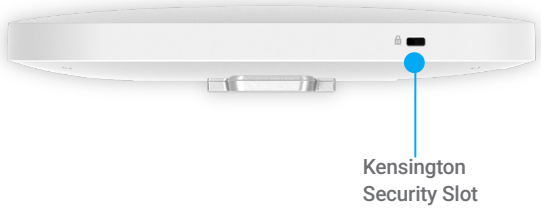
E-Plane



Hardware Overviews







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