

**Cloud7 2x2**

Cloud Managed Wi-Fi 7 2x2 Indoor Access Point

Overview

EnGenius Cloud Managed Wi-Fi 7 2x2 Access Point ECW510 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-compatible
- 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 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/ax

Antenna

2 x 2.4 GHz: 3 dBi(Integrated Omni-Directional)

2 x 5 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 Multi-color LED

Power Source

Power-over-Ethernet: 802.3at Input

12VDC /1.5A Power Adapter

Maximum Power Consumption

15.5W

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, 5850MHz ~ 5895MHz

Transmit Power

Up to 23 dBm on 2.4 GHz

Up to 21 dBm on 5 GHz

(Maximum power is limited by regulatory domain)

Radio Chains

2 x 2:2

SU-MIMO

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

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.

*EHT 240 MHz bandwidth is available on the 5GHz band and may be supported in some regions/countries due to regulatory restrictions.

Supported Data Rates

802.11be:

2.4 GHz: Max 700 (MCS0 to MCS13, NSS = 1 to 4)

5 GHz: Max 4,300 (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 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

802.11be/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

Client Balancing

Yes

Auto Channel Selection

Yes

Technical Specifications

Management Features

Multiple BSSID

8 SSIDs on both 2.4GHz, 5GHz and 6GHz 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: 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

660 g

Dimensions

160 x 160 x 32 mm

Package Contents

1 – ECW510 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

CE

IC

UKCA

VCCI

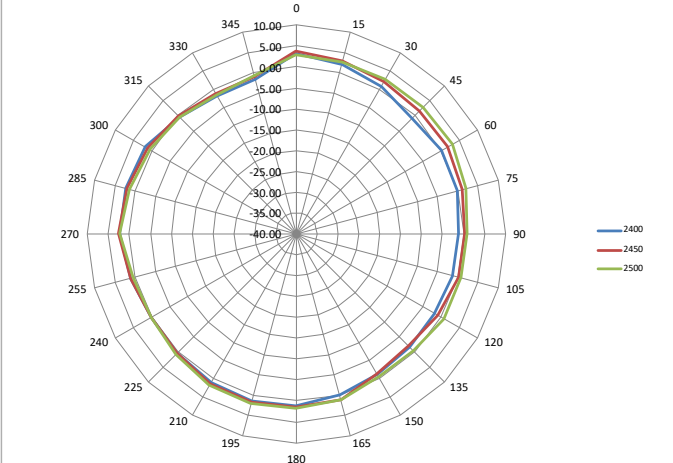
AU

Antennas Patterns

2.4GHz

H-Plane

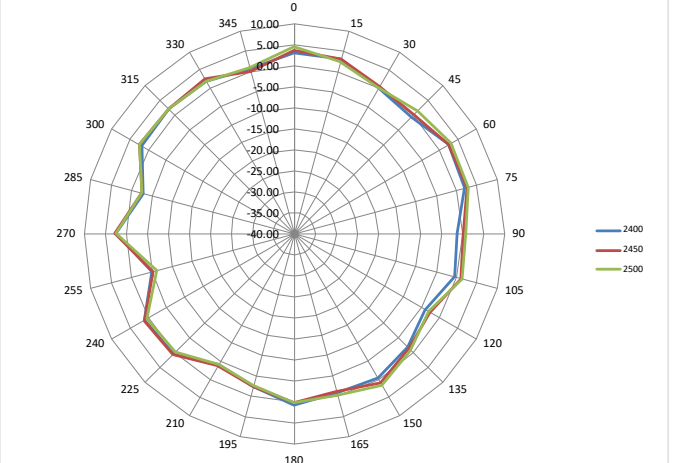
dBi gain (XY plane)



2.4GHz

E-Plane

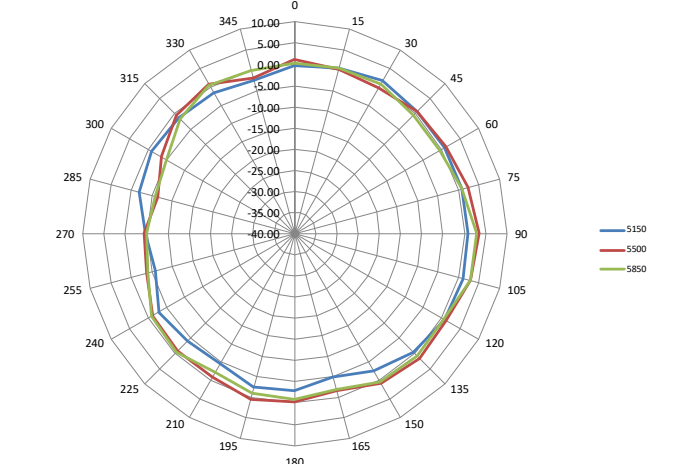
dBi gain (YZ plane)



5GHz

H-Plane

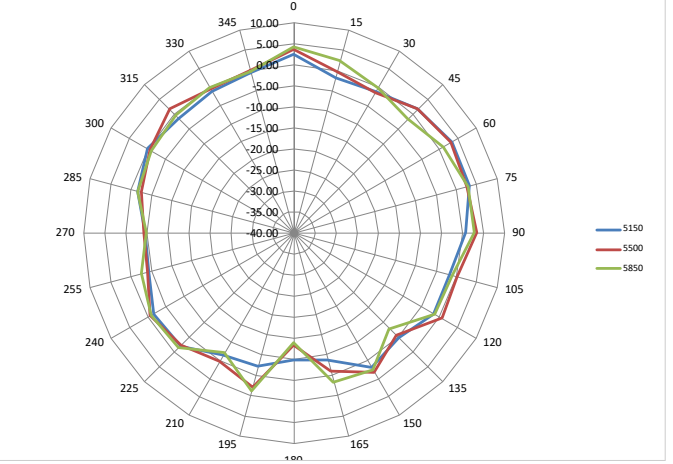
dBi gain (XY plane)



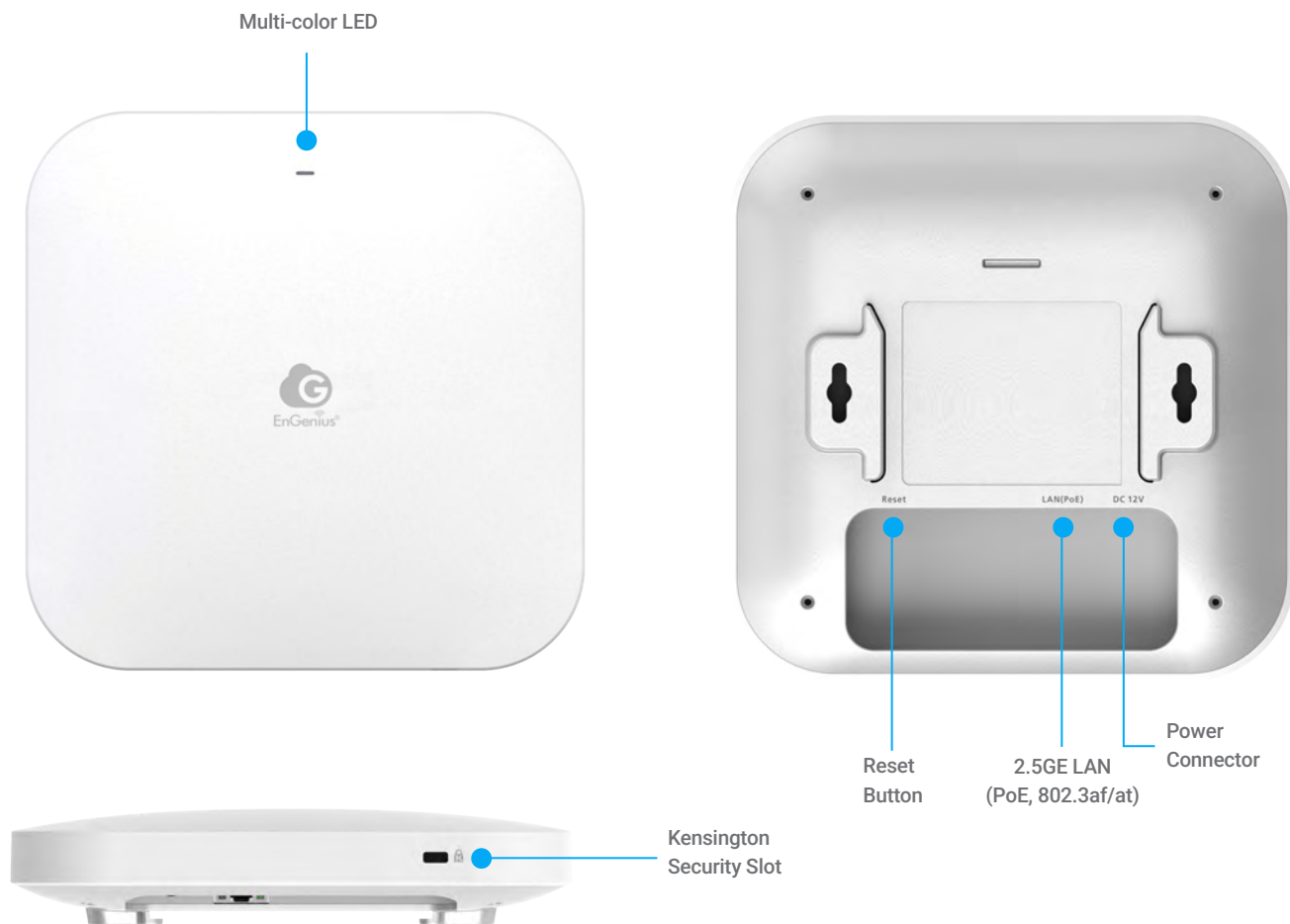
5GHz

E-Plane

dBi gain (YZ plane)



Hardware Overviews



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EnGenius