

# ECWO5210-L

## OUTDOOR ACCESS POINT



### INTRODUCTION

The ECWO5210-L is an enterprise-grade, concurrent dual-band 802.11ac outdoor access point, designed specifically to withstand harsh weather conditions in outdoor and industrial environments. Featuring two 3x3 MIMO radios that can each support up to 450 Mbps and 1300 Mbps data rates in the 2.4 GHz and 5 GHz bands respectively, the ECWO5210-L is ideal for providing wire-like performance that is crucial for businesses. Traffic prioritization ensures that bandwidth-hungry applications such as HD videos can stream perfectly, while enforcing strict quality of service requirements for VoIP and mission-critical services.

Given the overcrowding of the 2.4 GHz band by legacy Wi-Fi devices, more and more devices and networks are migrating to the 5 GHz band for increased performance. The wider channels and additional spatial streams offered by 802.11ac allows the ECWO5210-L to meet high-capacity demands while providing three-fold performance over 802.11n networks. However, due to the significant proportion of 2.4 GHz-only clients in use today, the ECWO5210-L's ability to service clients in both the 2.4 GHz and 5 GHz bands becomes essential for organizations that want to improve overall wireless experience without sacrificing legacy support.

The ECWO5210-L's exterior is an IP68-rated, rust-resistant metal housing that is extremely sturdy and flexible to deploy. With the included mounting kit, the ECWO5210-L can be easily and securely mounted on poles. The six external N-type connectors can be coupled with antennas of varying gains, allowing wireless coverage to be optimized for each deployment scenario. Combined with PoE (Power over Ethernet) support that eliminates the need for traditional power sources, and a unique downlink PoE LAN port for supplying power to other IP-based devices, the ECWO5210-L offers unparalleled deployment flexibility.

When used with an Edgecore controller, the ECWO5210-L supports a wide-array of value-added applications required by enterprises and organizations, such as bandwidth control, user authentication and billing, centralized WLAN management, and much more. Along with stringent yet customizable security policies, the flexible and fully-featured ECWO5210-L becomes the ideal choice for wireless connectivity in all types of outdoor deployments.

### HIGHLIGHTS

- Concurrent dual-band 2.4 & 5 GHz
- 802.11ac 3x3 MIMO supporting up to 1.3 Gbps data rate
- Pole mountable IP68 weatherproof metal housing
- 802.3at Power over Ethernet compatible with 802.3af downlink PoE
- Standalone or centrally managed by an Edgecore Controller
- Integrated enterprise-grade, standards-based security
- Up to 16 ESSIDs per radio with 802.1Q VLAN
- Captive portal and Guest provisioning\*<sup>1</sup>
- Rogue AP detection & Load balancing\*<sup>1</sup>
- Fast Layer 2/Layer 3 roaming\*<sup>1</sup>

\*<sup>1</sup>: When used in conjunction with Edgecore Controller

## FEATURES

### Maximum Deployment Flexibility

Supporting 802.3at PoE, the ECWO5210-L can be easily placed in outdoor locations where traditional power sources are unavailable. Furthermore, the ECWO5210-L's built-in surge protection can prevent damage caused by potential power surges. Along with the IP68-rated housing and wide operating temperature range, the ECWO5210-L can be placed in virtually any climate, altitude, or geographic location. In addition, the downlink PoE LAN port allows it to supply power to another AP or IP-based device, eliminating the need for additional cabling and increasing deployment flexibility.

### Ready for High Density Environments

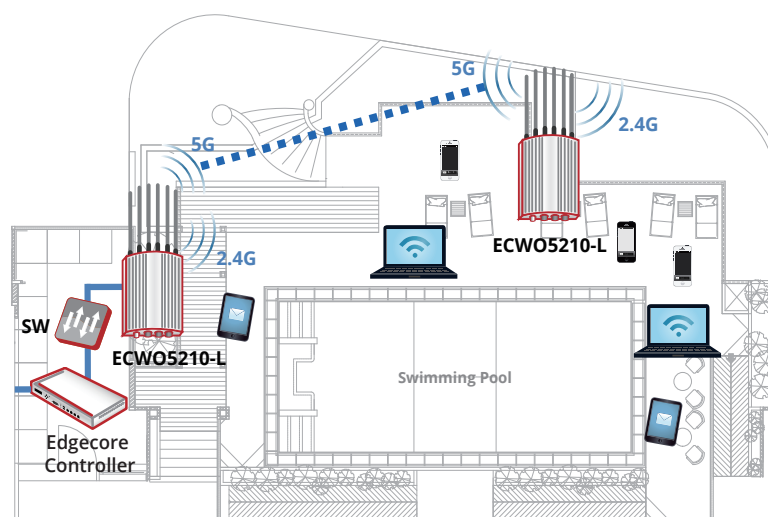
With the ability to operate in the 2.4 and 5 GHz bands, the ECWO5210-L can distribute clients on separate channels, thereby mitigating channel congestion. The ECWO5210-L also implements advanced AP features such as airtime fairness, multicast to unicast conversion, and optimal client filtering that improve wireless performance in high density environments, ensuring uninterrupted access to mission-critical resources and delay sensitive applications. Wireless QoS with standards-based 802.11e/WMM (Wi-Fi Multimedia) further guarantees a wire-like experience.

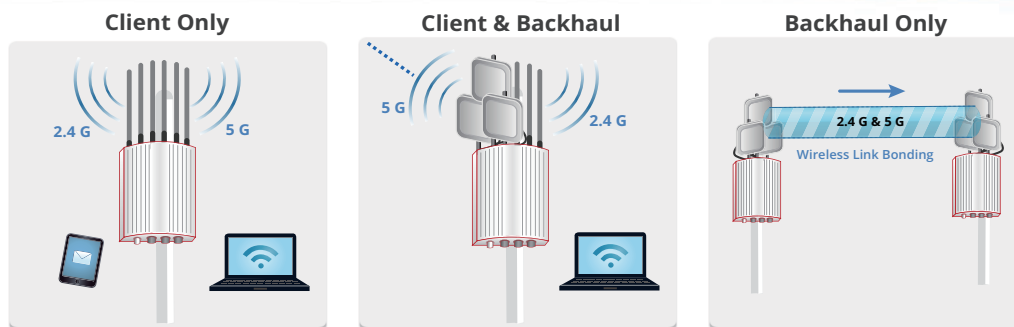
### Diverse Outdoor Applications

The two radios of the ECWO5210-L can be configured in a variety of operating modes to suit the needs of different operators and organizations. With one radio operating in the 2.4 GHz band while the other in the 5 GHz band, the need for simultaneous client connectivity and wireless backhaul can be fulfilled. Furthermore, for high-throughput backhaul applications, data transmission of both radios can be aggregated to achieve better performance redundancy.

### Enterprise-grade, Standards-based Security

With 802.1X authentication and a backend RADIUS server, the ECWO5210-L can prevent unauthorized users from accessing the corporate intranet. Furthermore, the AP's Layer 2 firewall capability blocks unwanted traffic, reducing network overhead and providing an added layer of security. Finally, the AP can be configured with multiple SSIDs, each utilizing different security standards (e.g. WPA2-Enterprise) and VLAN tags, which enables easy network segmentation to protect corporate resources.





## SPECIFICATIONS

### PHYSICAL

|                                 |  |
|---------------------------------|--|
| <b>Power</b>                    | <ul style="list-style-type: none"> <li>DC Input: 12V / 2.5A or 12V / 4A (M12 connector)</li> <li>PoE: 802.3at compliant (PoE injector optional)</li> </ul>   |
| <b>Dimensions</b>               | <ul style="list-style-type: none"> <li>25.0 cm (L) x 20.0 cm (W) x 7.4 cm (H)</li> </ul>   |
| <b>Weight</b>                   | <ul style="list-style-type: none"> <li>2.80 kg (6.17 lbs)</li> </ul>   |
| <b>Interfaces</b>               | <ul style="list-style-type: none"> <li>Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE</li> <li>LAN: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45</li> <li>802.3af downlink PoE on LAN port</li> <li>Console: 1 x RJ-45</li> </ul> |
| <b>Environmental Conditions</b> | <ul style="list-style-type: none"> <li>Operating Temperature: -30°C (-22°F) to 70°C (158°F)</li> <li>Operating Humidity: 0% to 95% non-condensing</li> <li>IP68 Rating</li> </ul>  |
| <b>Power Consumption</b>        | <ul style="list-style-type: none"> <li>22W max.</li> </ul>   |
| <b>Antenna</b>                  | <ul style="list-style-type: none"> <li>Type: 6 x External N-type connectors</li> </ul>   |
| <b>Mounting</b>                 | <ul style="list-style-type: none"> <li>Pole mount (Mounting kit included)</li> </ul>   |

### Protective Vent Plug

### WI-FI

|                             |  |
|-----------------------------|--|
| <b>Standards</b>            | <ul style="list-style-type: none"> <li>802.11 a/b/g/n/ac</li> <li>Concurrent dual-band 2.4 &amp; 5 GHz</li> </ul>  |
| <b>Supported Data Rates</b> | <ul style="list-style-type: none"> <li>802.11b: 1, 2, 5.5, 11 Mbps</li> <li>802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>802.11n: 6.5 – 216.7 Mbps (20 MHz)</li> <li>802.11n: 13.5 – 450 Mbps (40 MHz)</li> <li>802.11ac: 6.5 – 260.1 Mbps (20 MHz)</li> <li>802.11ac: 13.5 – 600 Mbps (40 MHz)</li> <li>802.11ac: 29.3 – 1300 Mbps (80 MHz)</li> </ul> |
| <b>Radio Chains</b>         | <ul style="list-style-type: none"> <li>3 x 3</li> </ul>  |
| <b>Spatial Streams</b>      | <ul style="list-style-type: none"> <li>3</li> </ul>  |
| <b>RF Output Power*1</b>    | <ul style="list-style-type: none"> <li>2.4 GHz: Up to 28 dBm*2</li> <li>5 GHz: Up to 23 dBm*2</li> </ul>   |
| <b>Channelization</b>       | <ul style="list-style-type: none"> <li>20 MHz</li> <li>40 MHz</li> <li>80 MHz</li> </ul>   |
| <b>Frequency Band</b>       | <ul style="list-style-type: none"> <li>2.412 – 2.472 GHz</li> <li>5.180 – 5.825 GHz</li> </ul>   |
| <b>Operating Channels</b>   | <ul style="list-style-type: none"> <li>2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan)</li> <li>5 GHz*3: 36 – 165 (US), 36 – 140 (Europe), 100 – 140 (Japan)</li> </ul>  |
| <b>ESSIDs</b>               | <ul style="list-style-type: none"> <li>Up to 16 per radio (32 total)</li> </ul>  |

\*1: RF output power aggregates across MIMO chains and doesn't contain antenna gain

\*2: Maximum power is limited by local regulatory requirements

\*3: Some channels are restricted by local regulatory requirements

**PERFORMANCE**

|                    |  |
|--------------------|--|
| Physical Data Rate | <ul style="list-style-type: none"> <li>Up to 450 Mbps (2.4 GHz)</li> <li>Up to 1.3 Gbps (5 GHz)</li> </ul> |
| Concurrent Users   | <ul style="list-style-type: none"> <li>Up to 384 (256 on 2.4 GHz, 128 on 5 GHz)</li> </ul>                 |

**QUALITY OF SERVICE**

|                                 |
|---------------------------------|
| Wireless QoS (802.11e/WMM)      |
| DSCP (802.1p)                   |
| Airtime Fairness                |
| Band Steering                   |
| Multicast to Unicast Conversion |
| Optimal Client Filtering        |

**SECURITY**

|                       |   |
|-----------------------|---|
| Wireless Security     | <ul style="list-style-type: none"> <li>WEP</li> <li>WPA/WPA2 Mixed</li> <li>WPA2-Personal</li> <li>WPA2-Enterprise (802.1X)</li> <li>TKIP and AES Encryption</li> </ul> |
| VLAN Tagging (802.1Q) |   |
| Station Isolation     |   |
| DHCP Snooping         |   |
| Layer-2 Firewall      |   |

**MANAGEMENT**

|               |  |
|---------------|--|
| Deployment    | <ul style="list-style-type: none"> <li>Standalone</li> <li>Tunneled management by Edgework Controller</li> <li>IPv4 &amp; IPv6 compatible</li> <li>LLDP</li> </ul> |
| Configuration | <ul style="list-style-type: none"> <li>Web User Interface (HTTP/HTTPS)</li> <li>SNMP v1, v2c, v3</li> </ul>  |

**MOBILITY/ROAMING**

|                              |
|------------------------------|
| 802.1X Preauthentication     |
| Layer 2/Layer 3 Fast Roaming |
| Hotspot 2.0                  |

**RECEIVE SENSITIVITY**

| Operating Mode   | Data Rate | Receive Sensitivity (dBm) |
|------------------|-----------|---------------------------|
| 802.11b          | 1 Mbps    | -93                       |
|                  | 11 Mbps   | -90                       |
| 802.11a          | 6 Mbps    | -90                       |
|                  | 54 Mbps   | -72                       |
| 802.11g          | 6 Mbps    | -90                       |
|                  | 54 Mbps   | -74                       |
| 802.11n (HT20)   | MCS0      | -86                       |
|                  | MCS7      | -69                       |
|                  | MCS8      | -84                       |
|                  | MCS15     | -65                       |
| 802.11n (HT40)   | MCS0      | -83                       |
|                  | MCS7      | -66                       |
|                  | MCS8      | -81                       |
| 802.11ac (VHT20) | MCS0      | -90                       |
|                  | MCS8      | -67                       |
|                  | MCS9      | -61                       |
| 802.11ac (VHT40) | MCS0      | -87                       |
|                  | MCS9      | -61                       |
| 802.11ac (VHT80) | MCS0      | -84                       |
|                  | MCS9      | -58                       |