

# OWL540

## OUTDOOR ACCESS POINT



### INTRODUCTION

4ipnet OWL540 is an enterprise-grade, concurrent dual-band 802.11n outdoor access point, designed specifically to withstand harsh weather conditions in outdoor and industrial environments. Featuring two 2x2 MIMO radios that can each support up to 300 Mbps data rates in the 2.4 and 5 GHz bands respectively, the OWL540 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. However, due to the significant proportion of 2.4 GHz-only clients in use today, the OWL540's ability to service clients in both the 2.4 GHz and 5 GHz bands becomes essential for organizations that wish to improve overall wireless experience without sacrificing legacy support.

The OWL540's exterior is an IP68 rated, rust-resistant metal housing that is extremely sturdy and flexible to deploy. With the included mounting kit, the OWL540 can be easily and securely mounted on poles. The four 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, the OWL540 offers unparalleled deployment flexibility.

When used with the 4ipnet WHG Controller, the OWL540 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 OWL540 becomes the ideal choice for wireless connectivity in all types of outdoor deployments.

### HIGHLIGHTS

- Concurrent dual-band 2.4 & 5 GHz
- 802.11n 2x2 MIMO supporting up to 300 Mbps per radio
- Pole mountable IP68 weatherproof metal housing
- 802.3at Power over Ethernet
- Standalone or centrally managed by 4ipnet WHG 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>

\*1: When used in conjunction with 4ipnet WHG Controller

### FEATURES

#### Maximum Deployment Flexibility

Supporting 802.3at PoE, the OWL540 can be easily placed in outdoor locations where traditional power sources are unavailable. Furthermore, the OWL540'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 OWL540 can be placed in virtually any climate, altitude, or geographic location.

#### Ready for High Density Environments

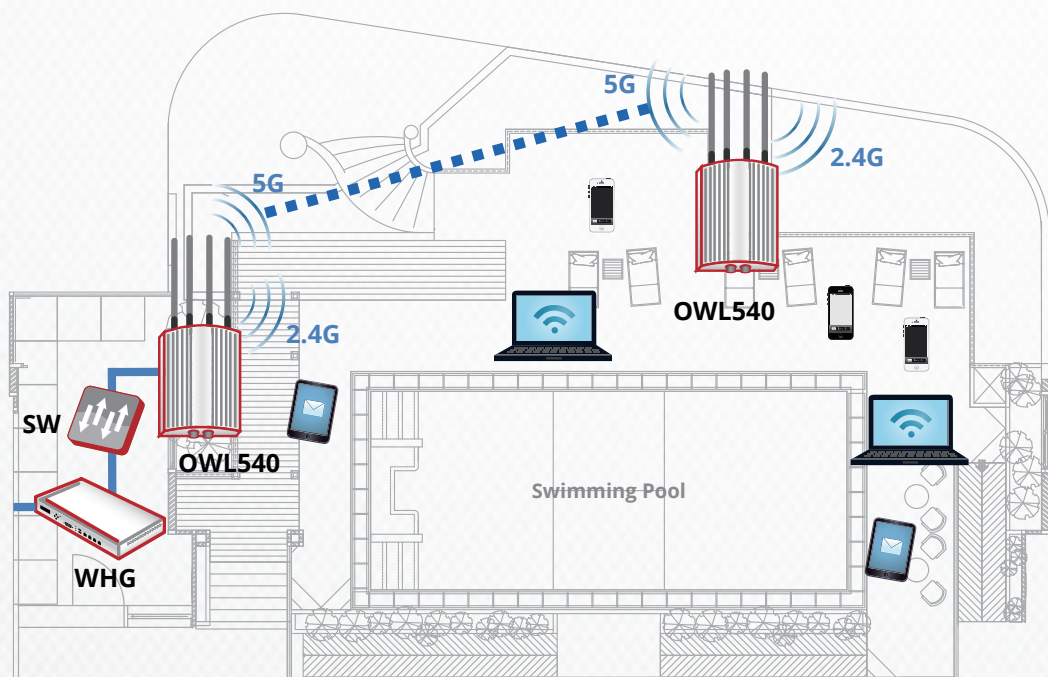
With the ability to operate in the 2.4 and 5 GHz bands, the OWL540 can distribute clients on separate channels, thereby mitigating channel congestion. The OWL540 also implements advanced AP features such as airtime fairness, multicast to unicast conversion and optimal client filtering that improve wireless 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.

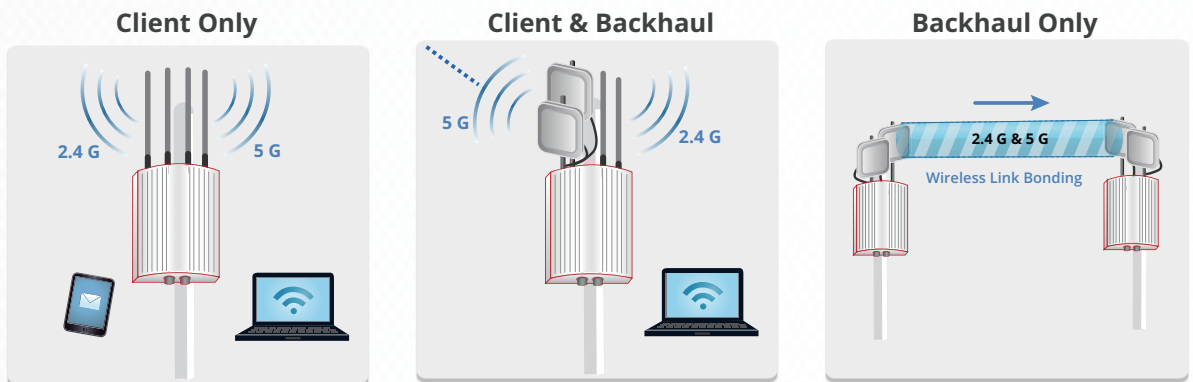
#### Diverse Outdoor Applications

The two radios of the OWL540 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 OWL540 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

Power	<ul style="list-style-type: none"> <li>♦ PoE: 802.3at compliant (PoE injector optional)</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>♦ 25.0 cm (L) x 20.0 cm (W) x 7.4 cm (H)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>♦ 2.80 kg (6.17 lbs)</li> </ul>
Interfaces	<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> </ul>
Environmental Conditions	<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>
Power Consumption	<ul style="list-style-type: none"> <li>♦ 17W max.</li> </ul>
Antenna	<ul style="list-style-type: none"> <li>♦ Type: 4 x External N-type connectors</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>♦ Pole mount (Mounting kit included)</li> </ul>
Protective Vent Plug	

### WI-FI

Standards	<ul style="list-style-type: none"> <li>♦ 802.11 a/b/g/n</li> <li>♦ Concurrent dual-band 2.4 &amp; 5 GHz</li> </ul>
Supported Data Rates	<ul style="list-style-type: none"> <li>♦ 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>♦ 802.11b: 1, 2, 5.5, 11 Mbps</li> <li>♦ 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>♦ 802.11n: 6.5 – 144.4 Mbps (20 MHz), 13.5 – 300 Mbps (40 MHz)</li> </ul>
Radio Chains	<ul style="list-style-type: none"> <li>♦ 2 x 2</li> </ul>
Spatial Streams	<ul style="list-style-type: none"> <li>♦ 2</li> </ul>
Output Power	<ul style="list-style-type: none"> <li>♦ 2.4 GHz: Up to 27 dBm*<sup>1</sup></li> <li>♦ 5 GHz: Up to 26 dBm*<sup>1</sup></li> </ul>
Channelization	<ul style="list-style-type: none"> <li>♦ 20 MHz</li> <li>♦ 40 MHz</li> </ul>
Frequency Band	<ul style="list-style-type: none"> <li>♦ 2.412 – 2.472 GHz</li> <li>♦ 5.180 – 5.825 GHz</li> </ul>
Operating Channels	<ul style="list-style-type: none"> <li>♦ 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan)</li> <li>♦ 5 GHz*<sup>2</sup>: 36 – 165 (US), 36 – 140 (Europe), 100 – 140 (Japan)</li> </ul>
ESSIDs	<ul style="list-style-type: none"> <li>♦ Up to 16 per radio (32 total)</li> </ul>

\*1: Maximum power is limited by local regulatory requirements

\*2: Some channels are restricted by local regulatory requirements

**PERFORMANCE**

Physical Data Rate	♦ Up to 300 Mbps per radio
Concurrent Users	♦ Up to 256 per radio (512 total)

**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 4ipnet WHG Controller</li> <li>♦ IPv4 &amp; IPv6 compatible</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

**RECEIVE SENSITIVITY**

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-91
	11 Mbps	-85
802.11a	6 Mbps	-89
	54 Mbps	-70
802.11g	6 Mbps	-89
	54 Mbps	-70
802.11n (HT20)	MCS0	-83
	MCS7	-65
	MCS8	-83
	MCS15	-65
802.11n (HT40)	MCS0	-80
	MCS7	-62
	MCS8	-80
	MCS15	-62