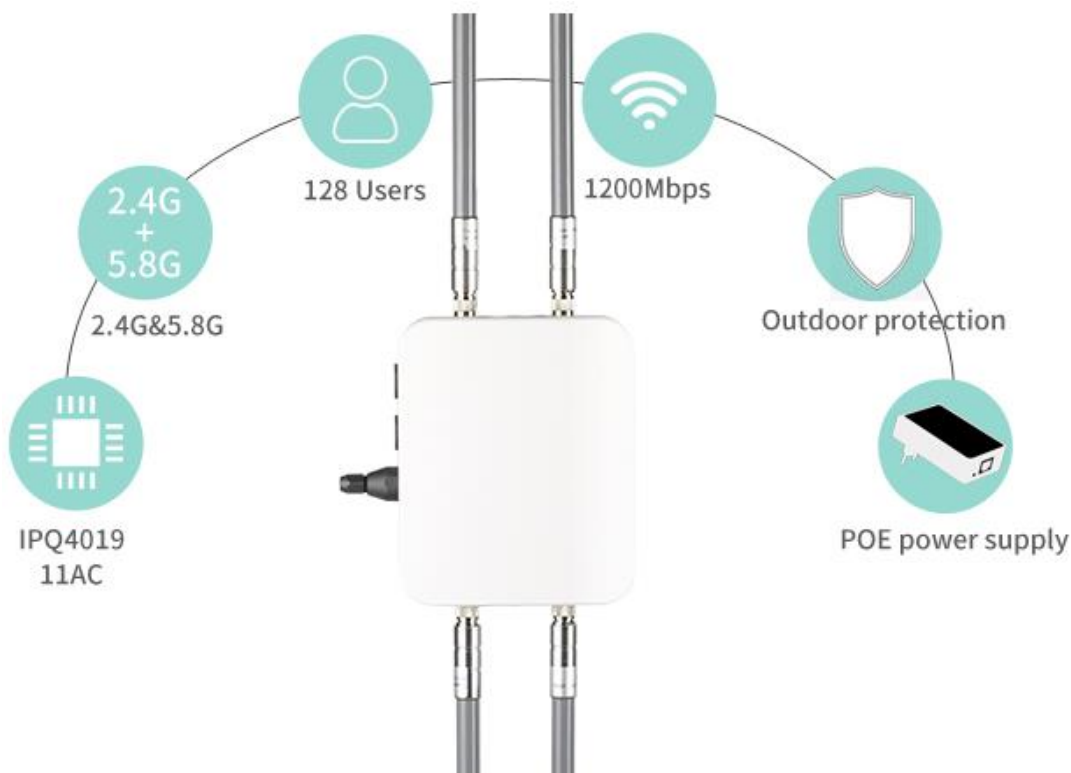# BL290HW

## 11AC 1200Mbps Dual Band Outdoor Wireless Access Point

BL290HW is a high performance and high-speed 11AC 1200Mbps dual-band 1000mw high-power carrier-grade outdoor wireless access point. It Built-in high-power amplifier and high-gain antennas, comes with the next generation Wi-Fi standard – 802.11ac, 3 times faster than 802.11n speeds and uses a professional industrial-grade Qualcomm chip to delivery a combined extremely fast dual-band wireless data transfer rate of up to 1.2Gbps. (300Mbps over the 2.4GHz band and 867Mbps wireless speeds over the 5.8GHz band), supports multiple devices simultaneously. Four high gain antennas make all of your connections more efficient and stable. LNA (Low Noise Amplifier) of the 5.8GHz wireless band increases the receiving sensitivity to enlarge Wi-Fi coverage. Besides that. It supports MU-MIMO Wave2 technology (Multi-User Multiple Input Multiple Output),8 spatial streams, 160MHz channel bandwidth and 256QAM modulation technologies that enable the highest wireless speed can reach up to 1.2Gbps, You can use it for WiFi Hotspot network coverage in the application scenarios like Airport, hotel, school, hospital, office, supermarket, campus, smart city, etc. It's your superior choice for seamless HD streaming, online gaming and other bandwidth-intensive tasks. Enjoy fast, reliable WiFi connections for gaming and streaming in the best quality.

# Product Features

- IEEE 802.11ac standard, complies with IEEE 802 11a/b/g/n WiFi standard.
- Dual-Band Speed up to 2.4GHz 300Mbps, 5GHz 867Mbps.
- Robust IP67 weatherproof case and RJ45 Connector withstand harsh outdoor conditions
- Support IEEE 802.3at 48V Power over Ethernet (PoE) for Flexible Deployment.
- Provides high performance with multiple high gain antennas.
- Features up to 1000mW of power and enhanced receiver design.
- Wi-Fi Security with 802.1X, WAP, and WPA2.

# Industry-leading Hardware

It consists of four external antennas with 2.4G and 5.8G dual frequency bands, making it possible to cover hard-to-reach dead zones. It's made of weatherproof and heat-resistant materials to deal with extreme weather.

# Super-fast Wireless AC Performance

It comes with next-generation 802.11AC wave2 MU-MIMO Wi-Fi technology, the access point operates on both 2.4GHz and 5.8GHz could reach up to 1200 Mbps. It allows more devices to connect simultaneously which is the superior choice for seamless HD streaming, online gaming and other bandwidth-intensive tasks.

# Built-in High Power Amplifiers

It equipped with a large Internal amplifier to improve the quality of the signal. The power amplifier (PA) is used to increase the magnitude of power. On the other hand, the low-noise amplifier (LNA) is designed to minimize additional noise and increase the power of the signal.

# Designed to be Powerful

It adopts high power amplifiers and four omnidirectional antennas with two frequency bands which extensively enable strengthen Wi-Fi signal as well as to enlarge wider coverage in the open air to ensure that you can easily access the Internet.

# Easy to configure and manage

This high-power wireless access point is specifically designed to provide an effective solution for outdoor wireless networking applications. With its centralized management platform and a high degree of flexibility, it's the ideal choice for providing WiFi Hotspot for outdoor project deployment.

# Power Over Ethernet

It has integrated Power over Ethernet (PoE) support, allowing the access point to be installed in areas where power outlets are not readily available.

# Easy to Fix and install, Design for Harsh Outdoor Environment

It equipped with excellent industry-leading hardware that could ensure the access point can be deployed in a wide variety of environments, withstanding broad ranges of humidity and temperature (-30°C~70°C) (-22°F~158°F).

| Product parameters | |
|---|---|
| Model | BL290HW |
| Chipset | Qualcomm IPQ4019+QCA9886+QCA8075 |
| RAM | 256MB |
| Flash | 32MB |
| Physical Interface | 1x10/100/1000 RJ45 Gigabit Ethernet supports 802.3at 48V PoE |
| | 1*GE SFP combo |
| | 1* console |

| Physical Interface (cont.) | | | |
|---|---|---|---|
| | Power Supply x1 | Green | ON : Power ON OFF : Power OFF |
| | SFP | Green | Active: Blinking To 4019 GPIO_45 |
| | WLAN x1 | Green | Link: Solid Light Active: Blinking 5G to 4019 GPIO_48 2.4G to 4019 GPIO_49 |

| Power | POE/48V0.5A |
|---|---|
| **Working frequency** | **Radio I: 11b/g/n : 2.412 ~ 2.484 GHz Radio II: 11ac/a/n :5.18 ~ 5.24 & 5.26 ~ 5.32 & 5.5 ~ 5.7 & 5.745 ~ 5.825 GHz** |

## Wireless specification

| | |
|---|---|
| Modulation | OFDM: BPSK, QPSK, 16-QAM, 64-QAM DBPSK, DQPSK, CCK |
| Working channel | North America 11, Japan 14, Europe 13 5G depends on the country you set up |
| Wireless setting· | Working mode AP Wireless mode 11ac/11a/11b/ 11g /11n Channel selection (displays the number of channels in different areas by country setting) Channel bandwidth (Auto, 20Mhz, 40Mhz) Transmission rate 2.4GHz: 11n only, 11b/g/n mix, 11b only, 11b/g, 11g only 5GHz: 11n only mode, 11a/n mix mode, 11a only mode, 11ac only mode |

| | | |
|---|---|---|
| Receiving sensitivity | 802.11b -95dBm @ 1Mbps -91dBm @ 11Mbps 802.11g -94dBm @ 6Mbps -78dBm @ 54Mbps 802.11n (2.4GHz) -90dBm @ MCS0 -73dBm @ MCS7 -87dBm @ MCS8 -70dBm @ MCS15 | 802.11a -94dBm @ 6Mbps -78dBm @ 54Mbps 802.11n (5GHz) -90dBm @ MCS0/HT20 -71dBm @ MCS7 /HT20 -87dBm @ MCS1/HT40 -68dBm @ MCS7/HT40 |
| 802.11b | 1Mbps-11Mbps | 27+/-2 dBm |
| | 6Mbps -9Mbps | 27+/-2 dBm |
| | 12Mbps -18Mbps | 25+/-2 dBm |
| | 24Mbps -36Mbps | 25+/-2 dBm |
| | 48Mbps -54Mbps | 25+/-2 dBm |
| | MCS 0-1 / 8-9 | 27+/-2 dBm |
| | MCS 2-3 / 10-11 | 27+/-2 dBm |
| | MCS 4-5 / 12-13 | 27+/-2 dBm |
| | MCS 6-7 / 14-15 | 27+/-2 dBm |

## Software specifications

### Status

| System status | Current wireless settings | Ap mode, wireless channel/frequency, Layer 2 user isolation, multiple SSID settings |
|---|---|---|
| User list | | Display the users on the current connection, only the users who are authenticated and connected normally |
| System log | | Display system triggered log events |

### Wireless function list

| Operating mode | AP mode |
|---|---|
| WiFi Protocol | IEEE802.11b/g/n/a/ac MIMO |
| Channel setting | Manual / Auto (automatically select the best channel) |
| Transmission rate setting | Manual / Auto |
| Output power control | User-defined output power in dBm |
| Power saving mode | Wireless power saving mode is controllable |
| Multiple SSID support (multiple APs) | Support 2.4G 4 SSID support 5.8G 4 SSID Separate WIFI settings and security settings for each SSID |
| WEP | WPE(64/128bit) |
| WPA/WPA2 | TKIP/AES |
| MAC address filtering | Provide 30 MAC address filtering |
| 802.1x certification | MD5/ TLS/ TTLS, PEAP |

## Software specifications

| | |
|---|---|
| 802.1x support | TTLS, PEAP |
| LAN port settings | IP (check validity and DHCP server IP range) MAC |
| DHCP server | DHCP address pool length update time DHCP user list |
| Multiple SSID VLNA | SSID-based 802.1Q VLAN |
| Management VLAN (Ethernet VID) | Users can specify VID user management |
| Tag/ Untag option | Independent VLAN settings can be enabled or disabled |
| Add a VLAN tag | Any packet entering the device without a VLAN tag will have a VLAN tag inserted into a PVID (Ethernet Port VID) |
| Backup/restore settings | Backup Current Settings Restore Backup Settings Restore Factory Defaults |
| QOS management | WMM |
| Network management | Support management software centralized management |
| Firmware upgrade | Allows users to save current settings or restore factory defaults due to upgrades |
| Advanced management | Automatic restart setting |
| RADIUS account | Support |

## Environmental and physical parameters

| | |
|---|---|
| Operating temperature | Operating temperature: -40 ° C ~ 70 ° C Storage temperature: -40 ° C ~ 85 ° C |
| Humidity | 0%~90% typical non-condensing |