# BDCOM

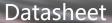# Shanghai Baud Data Communication Co., Ltd.

## WLAN Wireless

WAP2100-W512
In-wall/Panel Intelligent WAP

# WAP2100-W512 In-wall/Panel Intelligent WAP

## Product Overview

WAP2100-W512 is the BDCOM-developed in-wall wireless AP oriented for space-intensive indoor scenarios such as school dormitories, hotel rooms, hospital wards, and apartments.

WAP2100-W512 in-wall AP is suitable for 86*86mm universal design and conforms to national standards. The AP's power supply, data cable and WiFi antenna can be hid when installing, which helps to keep the user's indoor environment clean and tidy, and also helps to reduce network failure nodes and maintenance difficulty.

WAP2100-W512

## Product Characteristics

- **High-performance Wireless Solutions**

WAP2100-W512 is built with high-performance wireless chipset, and supports 802.11a/b/g/n/ac/wave2 and other wireless protocols, with high throughput and good stability. The 2.4G and 5G devices can support 1267Mbps air interface bandwidth to satisfy up to 40 users with service access, with strong concurrency capability.
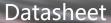
WAP2100-W512 supports wireless load balancing. In high-density access scenarios, WAP2100-W512 can achieve reasonable allocation of terminals within a single AP through the 2.4GHz and 5GHz spectrum while ensuring balanced traffic distribution among multiple APs to avoid congestion, which enables the AP to access more end users, and provides the better Internet service.

- **Comprehensive Security Features**

WAP2100-W512 supports WEP/WPA/WPA2 access modes, wireless IPS/IDS, the layer-2 user isolation, and centralized ACL control.

WAP2100-W512 supports docking with WSC6100 wireless AC and BCP8200 cloud platform, provides rich and practical diversified authentication functions for computers, mobile phones, tablets and other terminals, to facilitate user access authentication.

WAP2100-W512 provides illegal AP detection and subsequent processing, wireless attack defense, static black and white lists, to reduce the illegal intrusion on wireless networks.

■ **User-friendly Design Details**

WAP2100-W512 is equipped with LED controllable design: the LED lights can be turned off during the night break to avoid irritating the eyes; all the LED lights can be turned on to improve the operation efficiency during the network inspection. All the LEDs can be controlled in batches through the AC, and can also be switched individually with each AP button, which is very flexible and convenient.

WAP2100-W512, equipped with a dust-proof curtain on network ports, can effectively prevent dust to keep the device clean and tidy.

In addition to classic white shell, WAP2100-W512 is also available in pure black, dark gray and light gold, which perfectly match the user's interior decoration style.

■ **Practical Engineering Design**

The compact design of WAP2100-W512 can be completely embedded in the wall of 86*86mm national standard size. In the case of ensuring wireless signal coverage and heat control, the size of the AP is reduced by about 15%, which can not only keep the overall environment neat, but also help to deal with difficulties such as "cement block obstacles", "network cable reservation", and "thermal expansion and cold contraction" during construction.

WAP2100-W512 provides a wired and wireless integrated design. While providing WLAN wireless signal coverage, WAP2100-W512 also features an Ethernet interface to ensure that users' original network cable resources are not wasted.

■ **Rich Manageable Features**

WAP2100-W512 supports the integrated design of fat and thin APs, which can be individually configured, and can also be connected to BDCOM WSC6100 series wireless ACs to realize CLI, Web, SNMP management.

WAP2100-W512 can also be managed through the BDCOM cloud-based operation platform to achieve unified management of AC, switches, routers, security and other products, greatly improving the efficiency of operation and maintenance.

## Product Specifications

| Model | BDCOM WAP2100-W512 |
|---|---|
| **Ethernet port** | 1 GE WAN (POE supported) |
| | 1 GE LAN (dust-proof) |

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|---|---|
| **Operating frequency** | 2.4GHz and 5GHz |
| **Wireless protocol** | 802.11 a/b/g/n/ac/wave2 |
| **Wireless MIMO** | Dual frequency 4 streams |
| **Air interface rate** | 1267Mbps |
| **Antenna type** | Built-in omnidirectional |
| **RF Power** | 18dBm |
| **Coverage areas** | Recommended 10 meters, a single room |
| **Recommended concurrent users** | 40 users with service (may be affected by the environment) |
| **Other interface** | 1 RST/LED switch |
| **Power supply** | POE input |
| **Power consumption** | No more than 10W |
| **Deployment method** | 86*86mm in-wall |
| **Dimensions (WxDxH)** | 86×86×36mm |
| **Weight** | 100g |
| **Operating temperature** | $0^{\circ}$ C~$50^{\circ}$ C |
| **Operating humidity** | 10%~95% (non-condensation) |
| **Protection class** | IP41 |

## Software Specification

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|---|---|
| **Working mode** | Supports AP Mode, Routing mode, Bridging Mode |
| **IP functions** | Supports IPv4, DHCP, NTP protocols |
| | Supports static IP allocation, dynamic DHCP and PPPoE dial-up |
| **Wireless** | Supports CAPWAP management protocol |

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|---|---|
| **management** | Supports Option43, DNS to discover AC |
| | Supports Layer 2 and Layer 3 networking of AC and AP |
| | Supports cross-NAT networking of AC and AP |
| | Supports Layer 2 and Layer 3 user roaming |
| | Supports clock, version and configuration synchronization of AC and AP |
| **Wireless access** | Supports 802.11 protocol suite |
| | Supports multiple SSID management, Chinese SSID and SSID hiding |
| | Supports no SSID, VLAN binding function |
| | Supports SSID-based user limit and isolation |
| | Supports each SSID to specify the parameter template separately |
| | Supports country code setting |
| **User authentication** | Supports local authentication and Cloud authentication |
| | Supports multiple authentication methods such as local account, SMS, WeChat, and coupons |
| | Supports user black and white lists |
| | Supports account-based access period control and bandwidth control |
| **QoS** | Supports 802.11e/WMM |
| | Supports global traffic rate limit |
| | Supports AP-based, VLAN-based, User-based traffic rate limit |
| | Supports frequency-based, AP-based flow load balancing |
| **Wireless optimization** | Supports one-click network optimization, customs wireless RF parameters |
| | Default 8 wireless scene templates, supports user-defined templates |
| | Supports automatic background optimization |
| | Supports 5G prior access, supports restrict access of low-rate users |
| **Security** | Supports PSK authentication method |

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|---|---|
| | Supports WEP, WPA, WPA2 wireless encryption |
| | Supports IP-based, MAC-based filtration |
| | Supports DDoS, De-Auth anti-attack |
| | Supports Rogue AP detection |
| **Application added** | Supports for RTLS probes |
| | Supports docking wireless positioning system |
| **Management and maintenance** | Supports traditional device management such as Telnet, SSH, Web, SNMP and TR069 |
| | Supports ping, tracert, debug and other diagnostic tools |
| | Supports CAPWAP-based AC centralized management |
| | Supports COP unified management |
| | Support AP indicator on and off |

## Ordering Information

| Model | Description |
|---|---|
| **WAP2100-W512** | WAP2100-W512 in-wall intelligent WAP, 2 Gigabit Ethernet ports, 1 LED switch, built-in MIMO antenna, Wave2 protocol, 1267Mbps wireless rate, POE power supply (POE devices need to purchase.) |
| **WAP-Skin-Black-01** | Panel AP with black housing, suitable for WAP2100-W512 |
| **WAP-Skin-Grey-01** | Panel AP with gray housing, suitable for WAP2100-W512 |
| **WAP-Skin-Gold-01** | Panel AP with gold housing, suitable for WAP2100-W512 |
| **WAP-PSE-1000** | Single-port Gigabit PSE power supply module |

**For More Information**

For more information about BDCOM WAP2100-W512 In-wall Intelligent WAP, please contact your local BDCOM account representative.

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