

Ultra-Slim In-Wall Wireless AP

WAP2100-W Series



Product Overview

WAP2100-W Series is a high-performance WiFi6 in-wall wireless AP designed by BDCOM for space-intensive indoor scenarios such as school dormitories, hotel rooms, hospital wards, and shared apartments. WAP2100-W Series is compatible with the 86x86mm design, meeting national standards and offering strong versatility. Its embedded installation design hides the AP's power, data cables, and WiFi antenna, helping to maintain a neat and aesthetic indoor environment for users while reducing potential network failure points and simplifying maintenance.



- 802.3af/at standard POE power input
- Energy efficiency design



- 802.11a/b/g/n/ac/wave2/ax, up to 30 SSID
- Max. 128 concurrent users



- FIT and FAT AP mode
- SNS, SMS and white-list login authentication



- Universal network management
- Cloud platform
- Portal 2.0

Product Characteristics

High-performance Wireless Solutions

WAP2100-W Series is built with high-performance wireless chipset, and supports 802.11a/b/g/n/ac/wave2/ax and other wireless protocols, with high throughput and good stability. The 2.4G and 5G devices can support 2975Mbps air interface bandwidth to satisfy up to 80 users with service access, with strong concurrency capability.

Supports wireless load balancing. In high-density access scenarios, it 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

Supports WEP/WPA/WAP2/WPA3 access modes, wireless IPS/IDS, the layer-2 user isolation, and centralized ACL control.

Supports docking with WSC6100 wireless AC and Pallas cloud platform, provides rich and practical diversified authentication functions for computers, mobile phones, tablets and other terminals, to facilitate user access authentication.

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 Optimizations

Supports an LED concealment design: during normal operation, the LED indicator can be covered by the panel to prevent light from disturbing users. For network inspections, the panel can be removed to reveal the LED, enhancing engineer efficiency. All LEDs can be batch-configured from the AC controller or individually toggled per AP via a button, offering great flexibility and convenience.

Supports interchangeable covers, providing color options such as classic white, pure black, deep gray, and light gold to perfectly match users' personalized interior decor styles.

Practical Engineering Design

Compact and Aesthetic: WAP2100-W Series is designed to fit entirely within an 86mm national standard wall mount, ensuring a neat and aesthetic appearance. The chassis is made of cast aluminum, ensuring excellent heat dissipation and stable operation while delivering high-performance wireless capabilities.

Integrated Wired and Wireless Design: In addition to providing WLAN wireless signal coverage, WAP2100-W Series also offers an Ethernet interface, ensuring that existing network cable resources are not wasted, thus protecting the user's investment.

Rich Manageable Features

Supports a unified Fat/Fit AP design, allowing it to be configured for standalone use or integrated with BDCOM's WSC6100 series wireless AC products for management via CLI, Web, SNMP, and other methods.

It can also connect to BDCOM's PALLAS platform, enabling unified cloud management with AC, switches, routers, and security products, significantly enhancing O&M efficiency.

Model list



WAP2100-W618-V2



- 1-Port Gigabit PoE WAN,
- 1-Port Gigabit RJ45 LAN,
- 1800Mbps WiFi6

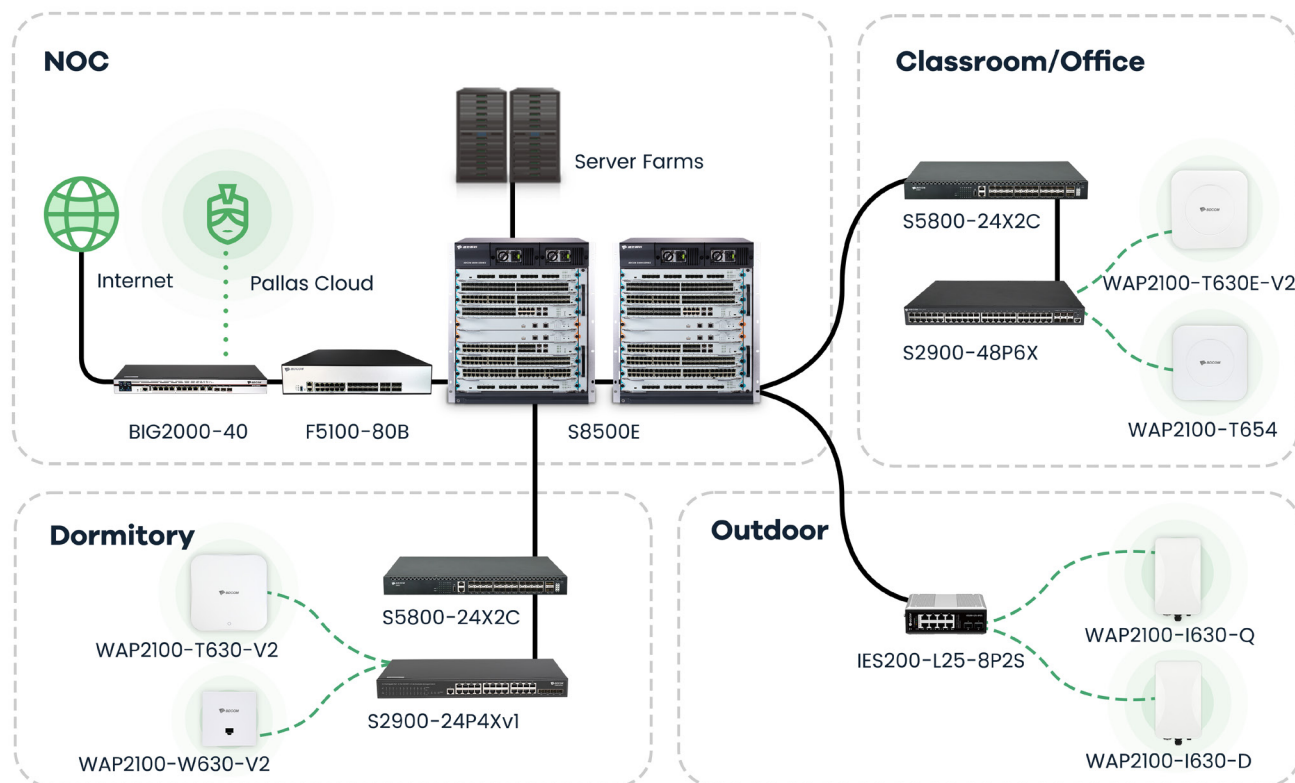
WAP2100-W630-V2



- 1-Port Gigabit PoE WAN,
- 1-Port Gigabit RJ45 LAN,
- 3000Mbps WiFi6

Application Diagram

— Optical fiber - - - Copper



Product Specifications

Model	WAP2100-W618-V2	WAP2100-W630-V2
Ethernet port	1-port Gigabit WAN (PoE) 1-port Gigabit LAN	1-port Gigabit WAN (PoE) 1-port Gigabit LAN
Operating frequency	2.4GHz/5GHz	2.4GHz/5GHz
Wireless protocol	802.11 a/b/g/n/ac/wave2/ax	802.11 a/b/g/n/ac/wave2/ax
Wireless MIMO	2x2/2x2	2x2/2x2
Air interface rate	1800Mbps	3000Mbps
RF Power	16dBm	16dBm
Coverage areas	Recommended 10 meters, a single room	Recommended 10 meters, a single room
Recommended concurrent users	80	80
Other interface	1 RST switch	
Power supply	PoE input	
Power consumption	Max 13W	
Deployment method	86*86mm in-wall	
Dimensions (WxDxH)	86×86×43mm	
Weight	250g	
Operating temperature	0°C~50°C	
Operating humidity	10%~95% (non-condensation)	
Protection class	IP41	

Software Specification

Working mode

- Supports AP Mode, Routing mode, Bridging Mode

IP functions

- Supports IPv4, DHCP, NTP protocols
- Supports static IP assignment, dynamic DHCP, and PPPoE for address acquisition

Wireless management

- Supports CAPWAP management protocol
- Allows AC discovery through Option 43, DNS, etc.
- Supports Layer 2 and Layer 3 networking between AC and AP
- Supports AC and AP cross-NAT networking
- Supports user roaming across Layer 2 and Layer 3
- Supports clock, version and configuration synchronization of AC and AP

Wireless access

- Supports 802.11 protocol suite
- Supports multi-SSID management, SSID hiding
- Supports unbinding of SSID and VLAN

- Supports user limit and isolation based on SSID
- Supports individual parameter templates for each SSID
- Supports country code settings
- Supports 5G priority access and restrictions on low-rate users

User authentication

- Supports local authentication and Cloud authentication
- Supports multiple authentication methods such as local account, SMS, WeChat, and vouchers
- Supports user whitelist and blacklist
- Controls user access time and bandwidth

QoS

- Supports 802.11e/WMM
- Supports global traffic rate limit
- Supports traffic rate limiting based on AP, VLAN, and user
- Supports user load balancing based on wireless bands and AP

Wireless optimization

- Supports one-click automatic network optimization and custom RF parameter settings
- Default 8 wireless scene templates, supports user-defined templates
- Supports automatic background optimization without manual intervention

Security

- Supports PSK authentication method
- Supports wireless encryption with WEP, WPA, WPA2, and WPA3
- Supports security filtering based on IP and MAC
- Protects against DDoS, De-Auth, and similar attacks
- Supports Rogue AP detection

Application added

- Supports for RTLS probes
- Supports docking wireless positioning system

Management and maintenance

- Supports traditional device
- Supports diagnostic tools such as ping, tracer, and debug
- Supports centralized AC management via CAPWAP
- Supports PALLAS unified cloud management
- Allows control of AP indicator lights

Ordering Information

WAP2100-W618-V2	WAP2100-W618-V2 In-wall Intelligent Wireless AP, 1-port Gigabit WAN + 1-port Gigabit LAN, built-in MIMO antenna, supports WiFi6 protocol, 1800Mbps wireless rate, supports PoE power supply (PoE devices need to purchase.)
WAP2100-W630-V2	WAP2100-W630-V2 In-wall Intelligent Wireless AP, 1-port Gigabit WAN + 1-port Gigabit LAN, built-in MIMO antenna, supports WiFi6 protocol, 3000Mbps wireless rate, supports PoE power supply (PoE devices need to purchase.)
WAP-PSE-1000B	Single-port Gigabit PSE power supply module

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