

High-density Ceiling-mounted Wireless AP

WAP2100-T Series



Product Overview

BDCOM WAP2100-T Series is the ceiling-mounted wireless AP launched by BDCOM for high-density wireless scenarios such as enterprises, campus, hospitals, governments, hotels, and smart buildings. WAP2100-T Series is designed with high-performance RF chip solution, boasting high throughput and strong concurrent access capability. In conjunction with its built-in omnidirectional MIMO high-power antenna, it can maximize WLAN wireless coverage and avoid signal dead zones. It supports both PoE and Adaptor power supply solutions. It has a beautiful appearance and can be widely used for ceiling-mounting in various occasions such as gypsum board and cement roof. Therefore, WAP2100-T Series is your best choice for building an economical wireless network solution.



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



- 802.11a/b/g/n/ac/wave2/ax/be up to 32 SSID
- Max. 256 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-T Series is built with high-performance wireless chipset, and supports 802.11a/b/g/n/ac/Wave2/ax/be protocols, with high throughput and good stability. The 2.4G and 5G devices can support up to 5400Mbps data rate to satisfy up to 256 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.

Powerful Automatic Network Optimization

Supports wired and wireless QoS, automatic terminal identification, automatic channel selection, automatic power adjustment, dynamic receiving sensitivity and other carrier-level network optimization features while accessing a large number of users, which serves enterprises with easy-to-use and practical WLAN.

WAP2100-T Series can also cooperate with WSC6100 series wireless controllers to achieve the "one-key wireless automatic optimization" and "background automatic optimization", ensuring that users complete network tuning by themselves when the wireless environment changes, without waiting for manufacturers or agents to come to service.

Comprehensive Security Features

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

Supports docking with 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 Details

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-T Series and its mounting bracket adopt ultra-thin shape, and the network port is also designed to be retracted and hidden. The well-installed AP can be better integrated with the surroundings to ensure beauty and cleanliness.

Rich Manageable Features

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-T Series can also be managed through the BDCOM PALLAS cloud 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	WAP2100-T618-V2	WAP2100-T630-V2	WAP2100-T630E-V2
Ethernet port	1-port Gigabit WAN (PoE) 1-port Gigabit LAN	1-port Gigabit WAN (PoE) 1-port Gigabit LAN	1-port 2.5GE WAN (PoE) 1-port Gigabit LAN
Frequency	2.4GHz + 5GHz	2.4GHz + 5GHz	2.4GHz + 5GHz
IEEE Standard	802.11 a/b/g/n/ac/wave2/ax	802.11 a/b/g/n/ac/wave2/ax	802.11 a/b/g/n/ac/wave2/ax
Max. Data Rate(Mbps)	1775	2975	2975
Signal Rate	575 Mbps (2.4 GHz) 1200 Mbps (5 GHz)	575 Mbps (2.4 GHz) 2400 Mbps (5 GHz)	575 Mbps (2.4 GHz) 2400 Mbps (5 GHz)
MIMO	2x2/2x2	2x2/2x2	2x2/2x2
Transmission Power	< 22 dBm (2.4 GHz) < 22 dBm (5 GHz)	< 22 dBm (2.4 GHz) < 22 dBm (5 GHz)	< 21 dBm (2.4 GHz) < 22 dBm (5 GHz)
Coverage Radius(m)	<20	<20	<20
Concurrent Clients	128	128	150
Button	1 RST/LED	1 RST/LED	1 RST/LED
Power Supply	PoE + 12V DC	PoE + 12V DC	PoE + 12V DC
Power Consumption(W)	17	17	14
Mounting	Ceiling/Wall mounting(Kits included)	Ceiling/Wall mounting(Kits included)	Ceiling/Wall mounting(Kits included)
Dimensions (WxDxH)(mm)	180×180×26	180×180×26	225×220×42
Weight(g)	400	400	700
Environment	Operating Temperature: 0–50 ℃ (32–122 ℃) Storage Temperature: -40–70 ℃ (-40–158 ℃) Operating Humidity: 10–95% RH non-condensing Storage Humidity: 5–95% RH non-condensing		
Protection Level	IP31	IP31	IP31

Product Specifications

Model	WAP2100-T654	WAP2100-T751-V1
Ethernet port	1-port 2.5GE WAN (PoE) 1-port Gigabit LAN	1-port 2.5GE WAN (PoE) 1-port Gigabit LAN
Frequency	2.4GHz + 5GHz	2.4GHz + 5GHz
IEEE Standard	802.11 a/b/g/n/ac/wave2/ax	802.11 a/n/ac/wave2/ax/be
Max. Data Rate(Mbps)	5375	5011
Signal Rate	575 Mbps (2.4 GHz) 4800 Mbps (5 GHz)	688 Mbps (2.4 GHz) 4323 Mbps (5 GHz)
MIMO	2x2/4x4	2x2/3x3
Transmission Power	< 29 dBm (2.4 GHz) < 30 dBm (5 GHz)	< 23 dBm (2.4 GHz) < 22 dBm (5 GHz)
Coverage Radius(m)	<30	<20
Concurrent Clients	256	150
Button	1 RST/LED	1 RST/LED
Power Supply	PoE + 12V DC	PoE + 12V DC
Power Consumption(W)	22	14
Mounting	Ceiling/Wall mouting(Kits included)	Ceiling/Wall mouting(Kits included)
Dimensions (WxDxH)(mm)	198×198×44	225×220×42
Weight(g)	960	700
Environment	Operating Temperature: 0–50 ℃ (32–122 ℃) Storage Temperature: -40–70 ℃ (-40–158 ℃) Operating Humidity: 10–95% RH non-condensing Storage Humidity: 5–95% RH non-condensing	
Protection Level	IP31	IP31

Software Specification

Working mode

- Supports AP Mode, Routing mode, Bridging Mode

IP functions

- Supports IPv4, DHCP, NTP protocols
- Supports address acquisition methods such as static IP assignment, dynamic DHCP, and PPPoE

Wireless management

- CAPWAP and MQTT
- Supports discovery of AC through Option 43, DNS, etc.
- Supports Layer 2 and Layer 3 networking of AC and AP
- Supports cross-NAT networking for AC and AP
- Supports user roaming based on Layer 2 and Layer 3
- Supports clock synchronization, version synchronization, and configuration synchronization between AC and AP

Wireless access

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

- Supports SSID-based user limit and isolation
- Allows setting individual parameter templates for each SSID
- Supports country code settings

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
- Provides traffic rate limiting based on AP, VLAN, and user
- Supports user load balancing based on wireless frequency bands and APs

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

- Supports 5G prior access, supports restrict access of low-rate users

Security

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

Management and maintenance

- Supports traditional device management such as Telnet, SSH, Web, SNMP and Cloud
- Offers diagnostic tools such as ping, tracer, and debug
- Supports centralized AC management via CAPWAP and MQTT
- Supports PALLAS unified cloud management
- Support AP indicator light control