BDCOM

In-Wall Intelligent Wireless AP
WAP2100-W
Series

High cost-effective
Up to dual-frequency 11ac
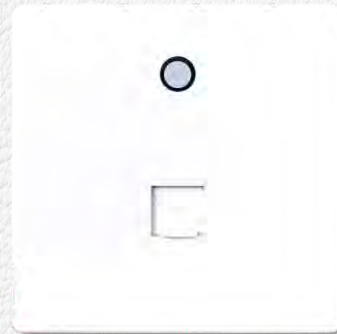Qualcomm chip
Half-occupation of Lic

Simple and easy
86-box in-wall design
Slender chassis
Convenient installation

User-friendly design
LED on-off as your wish
Dustproof Ethernet port
Invisible cables

Product Overview

BDCOM WAP2100-W Series is a wireless access point designed by BDCOM for the intensive indoors such as dormitories, wards and apartments. It adopts MIMO antenna optimization solution, providing a high-speed, stable and secure wireless network for the users.

WAP2100-W Series is characterized by in-wall design, merging with indoor environments. It can match AP with ceiling-mounted, desktop-mounted, and other installations, which forms a complete indoor wireless distribution system.

Besides, BDCOM WAP2100-W Series supports the power supply with PoE, and simple but satisfying construction plans.

W22B AP Series supports the power supply with optional Adaptor.

Product Characteristics

Network Performance

BDCOM WAP2100-W Series adopts the latest Qualcomm chip and 802.11 a/b/g/n/ac MIMO technique. Its transmission rate in the physical layer is up to 1167Mbps. It has been widely applied in indoors, such as hotels, hospitals, enterprises and halls.

WAP2100-W22B Ceiling Wireless AP is of high throughput and can access to 100 users in maximum and enables 80 users work concurrently.

One-Stop Solution

Collaborating with BDCOM WSC6100 Series AC, layer-2 and layer-3 PoE switches, broadband security flow gateways, large commercial egress gateways, BCP 8200 cloud platforms and network management system, WAP2100-W Series AP can provide one-stop solution to the user including authentication, pushing, operating, security, accounting and monitoring.

Wireless Security

BDCOM WAP2100-W Series supports WEP, WPA, WPA2, WPA-psk, WPA2-psk, 802.11i, MAC, Web, 802.1x authentication, illegal AP detection, blacklist and whitelist.

With these authentication and encryption measures, it provides with a safe and reliable network environment.

Enterprise-Level Application

BDCOM WAP2100-W Series has following functions: IEEE 802.11 serial, flow control, QoS, fair access time, automatic terminal identification, multiple SSIDs, dynamic power/rate regulation, dynamic reception flexibility and fat or fit AP mode.

Combining with BDCOM AC, BDCOM WAP2100-W Series can realize automatic channel selection, power adjustment, user and service load balance.
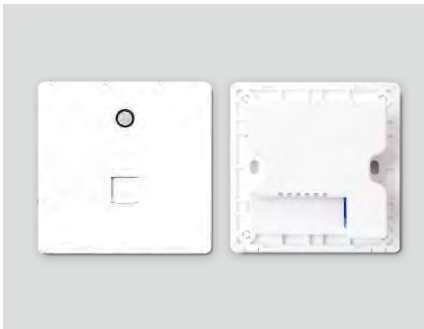
Flexible Installation Configuration

BDCOM WAP2100-W Series occupies no space and caused no inference on the decoration. Therefore, it is the top choice in deploying WiFi network in doors. Besides, the FAT AP is also an option when deploying a small-size network independently.

WAP2100-W22B Series adopts wall-mounted design, avoiding the interferences from non-standard 86mm switches of traditional buildings, surplus cables and building rubbish; possessing LED turnoff and antitheft.

Model list

WAP2100-W12D

- 1 *100M PoE WAN port
- 1 *100M TX LAN port
- 802.11 b/g/n
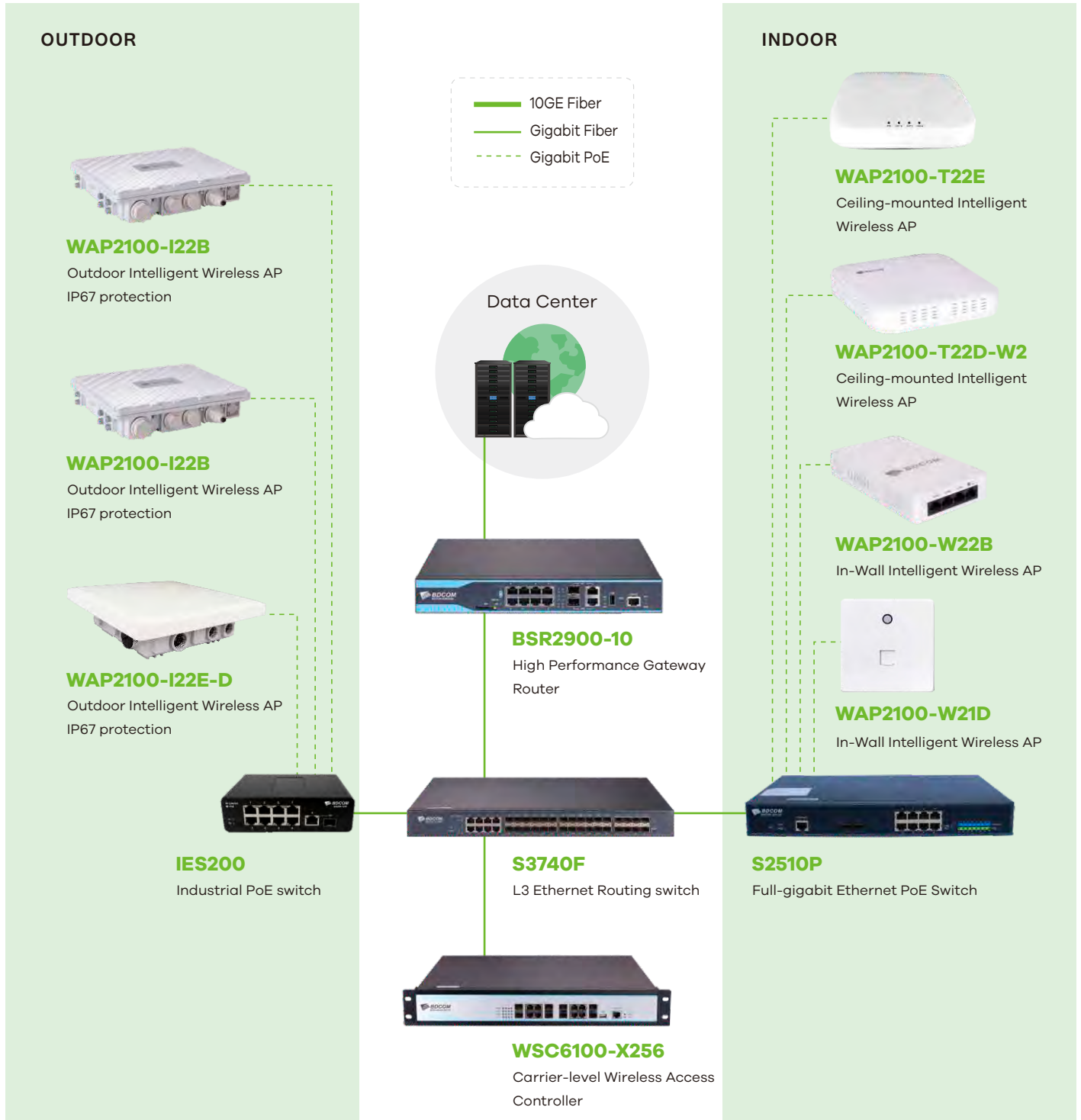- 300Mbps wireless
- PoE

WAP2100-W21D

- 1 *100M PoE WAN port
- 1 *100M TX LAN port
- 802.11 a/b/g/n/ac
- 733Mbps wireless
- PoE

WAP2100-W22B

- 1 *GE PoE WAN port
- 3 *GE TX LAN ports
- 1 pair of RJ11/RJ45 ports
- 1 USB2.0 port
- 1 MiniUSB console
- 802.11 a/b/g/n/ac
- 1167Mbps wireless
- PoE and Adaptor

Application Diagram

10GE Fiber
Gigabit Fiber
Gigabit PoE

WAP2100-I22B
Outdoor Intelligent Wireless AP
IP67 protection

WAP2100-I22B
Outdoor Intelligent Wireless AP
IP67 protection

WAP2100-I22E-D
Outdoor Intelligent Wireless AP
IP67 protection

Data Center

IES200
Industrial PoE switch

BSR2900-10
High Performance Gateway
Router

S3740F
L3 Ethernet Routing switch

WSC6100-X256
Carrier-level Wireless Access
Controller

WAP2100-T22E
Ceiling-mounted Intelligent
Wireless AP

WAP2100-T22D-W2
Ceiling-mounted Intelligent
Wireless AP

WAP2100-W22B
In-Wall Intelligent Wireless AP

WAP2100-W21D
In-Wall Intelligent Wireless AP

S2510P
Full-gigabit Ethernet PoE Switch

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System Performance

Item	WAP2100-W12D	WAP2100-W21D	WAP2100-W22B
Interface			
Port	1 100M PoE WAN port 1 100M TX LAN port	1 100M PoE WAN port 1 100M TX LAN port	1 1000M PoE WAN port 3 1000M TX LAN port 1 pair of RJ11/RJ45 port 1 USB 2.0 port 1 Mini USB console
Button	LED on/off, RESET	LED on/off, RESET	LED on/off, RESET
Wireless parameters			
Standard	802.11/b/g/n	802.11/a/b/g/n/ac	802.11/a/b/g/n/ac
	MIMO 2*2 300Mbps	MIMO 2*2/2*2 733Mbps	MIMO 2*2/2*2 1167Mbps
Best performance	60 user access	80 user access	120 user access
	30 users recommend	30 users recommend	60 users recommend
	16 SSIDs	32 SSIDs	32 SSIDs
Working frequency	2.412-2.4835GHz	2.412-2.4835GHz	2.412-2.4835GHz
		5.150-5.250GHz	5.150-5.250GHz
		5.250-5.350GHz	5.250-5.350GHz
		5.470-5.725GHz	5.470-5.725GHz
		5.745-5.825GHz	5.745-5.825GHz
Antenna	Built-in antenna 2dBi	Built-in antenna 3dBi	Built-in antenna 3dBi
Output power(dBm)	18/channel	18/channel	22/channel
Appearance			
Chassis	Dimensions (WxDxH) (mm)	86x86x36	86x86x36	180×180×25
	Weight(g) (empty)	82	80	210
Package	Dimensions (WxDxH) (mm)	120x110x65	120x110x65	210x140x83
	Weight(g)	380	380	640
Power supply	802.3af PoE	802.3af PoE	802.3at PoE/AV Adaptor
consumption	No-load(W)	3	3	10
	Full-load(W)	6	6	25
Working temperature	-20°C~55°C	-20°C~55°C	0°C~40°C
Operating humidity	10%~90% (non condensing)	10%~90% (non condensing)	10%~90% (non condensing)

Technical Specifications

Operating Mode

- FAT AP
- FIT AP
- Routing and Bridging mode

Network Protocol

- 802.1Q VLAN, 4K
- 802.1p priority queue
- IPv6 Pass-through
- DHCP snooping
- IGMP proxy
- DHCP Server
- NAT
- PPPoE
- SNMP
- SNTP

Security

- WPA-Personal/Enterprise
- WPA2-Personal/Enterprise
- WEP 64/128-bit Encryption
- EAP-SIM/EAP-AKA/EAP-MD5/ EAP- TLS/ EAP-TTLS/PEAP

- SSID broadcast disable
- MAC address filtering
- 802.1x RADIUS client with PAP/ CHAP
- Local and cloud portal authentication
- SNS/SMS based authentication
- Whitelist
- IP/MAC/URL filter
- Anti attack for DDOS

CAPWAP

- DHCP option 43 and DNS based AP discovery
- AC,AP cross- 3 layers and cross NAT networking
- AP layer-2 and layer-3 roaming under the same AC
- AC/AP clock synchronization
- AC/AP version synchronization
- AC/AP configuration synchronization

WLAN feature

- User isolation
- Multiple SSID
- SSID hide
- Static and dynamic configuration of AP channel
- Static and dynamic configuration of AP power
- Fair access time
- Automatic channel selection
- Automatic power control
- Wireless terminal identification
- 5G prior access

Mangement

- Web
- Telnet
- CLI
- AC centralized management
- SNMP
- Ping/traceroute
- COP platform

Ordering Information

WAP2100-W12D	BDCOM WAP2100-W12D In-Wall Intelligent Wireless AP (1*100M PoE WAN port, 1*100M TX LAN port,1 LED on/off, built-in MIMO antenna, 802.11 b/g/n, 300Mbps wireless, PoE power supply)
WAP2100-W21D	BDCOM WAP2100-W21D In-Wall Intelligent Wireless AP (1*100M PoE WAN port, 1*100M TX LAN port,1 LED on/off, built-in MIMO antenna, 802.11a/b/g/n/ac, 733Mbps wireless, PoE power supply)
WAP2100-W22B	BDCOM WAP2100-W22B In-Wall Intelligent Wireless AP (1*1000M POE WAN port, 3*1000M TX LAN ports, 1 pair of RJ45/RJ11 ports, 1 USB port, 1 MiniUSB console , built-in MIMO antenna, 802.11a/b/g/n/ac, 1167Mbps wireless, PoE and Adaptor power supply)
WAP-APT-48	AC-adaptor(48V/0.5A)
WAP-PSE-1000	Single port 1000M PSE power supply module

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