

Outdoor AP Series

WAP2100-I SERIES



AI-driven



Cloud-based
provisioning



Product Overview

BDCOM WAP2100-I Series is the BDCOM-developed WiFi6 ceiling-mounted wireless AP oriented for high-density wireless scenarios such as enterprises, campus, hospitals, governments, hotels, and smart buildings.

WAP2100-I Series is designed with high-performance RF chip solution, with high throughput and strong concurrent access capability. WAP2100-I Series stands out with the built-in omnidirectional MIMO high-power antenna to meet the wireless coverage to the greatest extent. WAP2100-I Series 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-I Series is your best choice for building an economical wireless network solution.

Product Characteristics

High-performance Wireless Solutions

WAP2100-I Series is built with high-performance wireless chipset, and supports 802.11a/b/g/n/ac/Wave2/ax protocols, with high throughput and good stability. The 2.4G and 5G devices can support 2976Mbps air interface bandwidth to satisfy up to 150 users with service access, with strong concurrency capability.

WAP2100-I Series supports wireless load balancing. In high-density access scenarios, WAP2100-I Series 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.

Product Characteristics

Powerful Automatic Network Optimization

WAP2100-I Series 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-I 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

WAP2100-I Series supports WEP/WPA/WAP2 access modes, wireless IPS/IDS, the layer-2 user isolation, and centralized ACL control.

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

WAP2100-I Series 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-I Series 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.

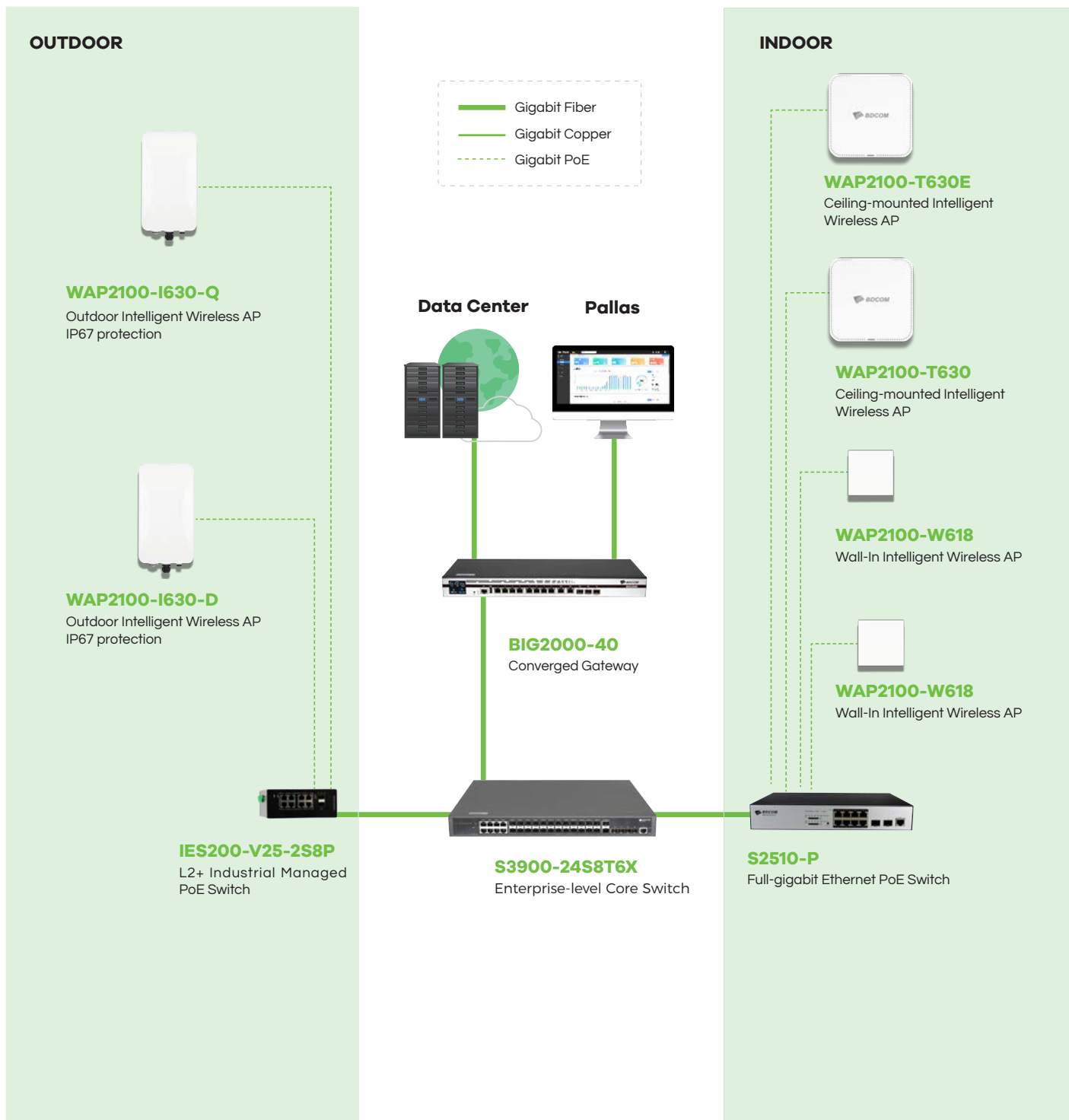
WAP2100-I Series and mounting bracket adopt ultra-thin shape, and the network port is also designed to be retracted and hidden. The well-installed AP can be better integrated with the surroundings to ensure beauty and cleanliness.

Rich Manageable Features

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

Application Diagram



Model



WAP2100-I630-Q

2.4GHz	802.11ax MIMO 2*2 576Mbps
5GHz	802.11ax MIMO 2*2 2400Mbps
coverage	150m



WAP2100-I630-D

2.4GHz	802.11ax MIMO 2*2 576Mbps
5GHz	802.11ax MIMO 2*2 2400Mbps
coverage	150m

System Performance

Item	WAP2100-I630-Q	WAP2100-I630-D
Weight(KG)	1.6	1.6
Mounting method	Pole-mount/Wall-mount	Pole-mount/Wall-mount
Dimensions(mm)	304x180x88	304x180x88
Ethernet port	1 GE WAN port (PoE supported)	1 GE WAN port (PoE supported)
Local power supply	PoE input or 12V DC	PoE input or 12V DC
PoE power supply	802.3at	802.3at
Antenna type	Built-in omnidirectional	Built-in omnidirectional
Antenna gain	8dBi	12dBi
Operating frequency bands	802.11a/n/ac : 5.725GHz-5.850GHz ; 5.15-5.35GHz 802.11 b/g/n/ac: 2.4GHz-2.483GHz	802.11a/n/ac : 5.725GHz-5.850GHz ; 5.15-5.35GHz 802.11 b/g/n/ac: 2.4GHz-2.483GHz
Wi-Fi data rate	2.4G: 2*2 11ax 576Mbps 5G: 2*2 11ax 2400Mbps	2.4G: 2*2 11ax 576Mbps 5G: 2*2 11ax 2400Mbps
Maximum total transmitting power (The actual transmission power is subject to relevant regulations.)	2.4 GHz: 27 dBm (combined power) 5 GHz: 27 dBm (combined power)	2.4 GHz: 27 dBm (combined power) 5 GHz: 27 dBm (combined power)
Modulation technology	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps, DQPSK@2Mbps, CCK@5.5/11Mbps MIMO-OFDM(11n): MCS 0-15 MIMO-OFDM(11ac): MCS 0-9 MIMO-OFDM(11ax): MCS 0-11	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps, DQPSK@2Mbps, CCK@5.5/11Mbps MIMO-OFDM(11n): MCS 0-15 MIMO-OFDM(11ac): MCS 0-9 MIMO-OFDM(11ax): MCS 0-11

System Performance

Item	WAP2100-I630-Q	WAP2100-I630-D
Modulation mode	11b: DSS: CCK@5.5/11Mbps, DQPSK@2Mbps, DBPSK@1Mbps	11b: DSS: CCK@5.5/11Mbps, DQPSK@2Mbps, DBPSK@1Mbps
	11a/g: OFDM: 64QAM@48/54Mbps, 16QAM@24Mbps, QPSK@12/18Mbps, BPSK@6/9Mbps	11a/g: OFDM: 64QAM@48/54Mbps, 16QAM@24Mbps, QPSK@12/18Mbps, BPSK@6/9Mbps
	11n: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM	11n: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM
	11ac: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM	11ac: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM
	11ax: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM	11ax: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Power adjustment	Automatic	Automatic
Reset	Supported	Supported
Status LED	SYS, WLAN, Link/Act	SYS, WLAN, Link/Act
Operating temperature/ Storage temperature	-35 °C ~55 °C / -40 °C ~70 °C	-35 °C ~55 °C / -40 °C ~70 °C
Operating humidity / Storage humidity	10%~95% (non-condensing)	10%~95% (non-condensing)
Protection class	IP67	IP67
Power consumption	<18W	<18W
MTBF	>250000H	>250000H

Software specifications

802.11ax compliance	Operating frequency bands	5GHz+2.4GHz
	11ax Max Link Rate	2400MbpsMbps + 576Mbps
	A-MPDU	Supported
	A-MPDU	Supported
	OFDMA	Supported
	MU-MIMO	Supported
	Transmit Beamforming (TxBF)	Supported
	Maximum Likelihood Demodulation (MLD)	Supported
	Maximum Ratio Combining (MRC)	Supported
	Space-Time Block Code (STBC)	Supported
	Operating frequency bands	Supported

Software specifications

802.11ac compliance	Operating frequency bands	5GHz
	A-MPDU	Supported
	A-MSDU	Supported
	Transmit Beamforming (TxBF)	Supported
	Maximum Likelihood Demodulation (MLD)	Supported
	Maximum Ratio Combining (MRC)	Supported
	Space-Time Block Code (STBC)	Supported
	Low Density Parity Check Coding (LDPC)	Supported
	MU-MIMO	Supported
802.11n compliance	Operating frequency bands	2.4GHz+5GHz
	A-MPDU	Supported
	Maximum Likelihood Demodulation (MLD)	Supported
	Transmit Beamforming (TxBF)	Supported
	Maximum Ratio Combining (MRC)	Supported
	Space-Time Block Code (STBC)	Supported
	Low Density Parity Check Coding (LDPC)	Supported
WLAN	Maximum number of users per band	128
	WPA-PSK/WPA2-PSK/WPA3-PSK	Supported
	RTS/CTS	Supported
	Guest network	Supported
	Smart device SSID	Supported
	Wired networking	Automatic detection and authorization
	Wireless Mesh networking	Automatic detection and authorization
	Automatic path switching	Supported
Advanced networking features	Automatic link fault detection and recovery	Supported
	Automatic network-wide channel adjustment	Supported
	Automatic network-wide bandwidth adjustment	Supported
	Automatic network-wide power adjustment	Supported
	Automatic network management	Automatic networking with distributed APs, which allows you to add or replace APs as needed
Security policy	Encryption	AES, WPA3
	802.11i	Supported
	Authentication	MAC Address/PSK
	Client isolation	1. Layer-2 wireless client isolation 2. SSID isolation
	Forwarding security	Packet filter, MAC address filter, and broadcast storm suppression
	SSID-VLAN binding	Supported
	Management frame protection (802.11w)	Supported
Advanced Wi-Fi features	802.11e	WMM
		Ethernet port 802.1P identification and marking
	Priority	Mapping from wireless priorities to wired priorities
	AI-QoS	Mapping based on application traffic and air interface queue

Advanced Wi-Fi features	Automatic channel/bandwidth/power selection	Supported
	Load balancing	Based on traffic / number of users / bands / air interface load
	802.11k / 802.11v / 802.11r	Supported
	AP steering	Supported
	Band steering	Supported
	Packet-by-packet power control	Supported
	Multicast enhancement	Multicast-to-unicast (IPv4)
	Inter-node Beamforming+	Supported
Power saving	PPC	Supported
	Green AP mode	Supported
	Dynamic MIMO power saving	Supported
	E-APSD	Supported
	WMM Power Save	Supported
Installation, management, and maintenance	Local management with app / Remote management	Supported
	Cloud AC Engine	Supported
	Local AC management	Supported
	Remote maintenance	Supported
	AP locating	Supported

Ordering Information

WAP2100-I630-Q	WAP2100-I630-Q High-density Outdoor Intelligent WiFi6 AP (1-Port Gigabit PoE WAN, built-in omni-directional antennas, 3000Mbps wireless, IP67, excluding PSE.)
WAP2100-I630-D	WAP2100-I630-D High-density Outdoor Intelligent WiFi6 AP (1-Port Gigabit PoE WAN, built-in directional antennas, 3000Mbps wireless, IP67, excluding PSE.)

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