



Shanghai Baud Data
Communication Co., Ltd.

WLAN Wireless

WAP2100-I654-Q Series
Integrated Outdoor Wireless AP

WAP2100-I654-Q Series Integrated Outdoor Wireless AP

Product Overview

BDCOM WAP2100-I654-Q is an outdoor wireless AP product series developed by BDCOM for various outdoor medium to high-density wireless scenarios such as campuses, scenic spots, factories, warehouses, and sports venues.

WAP2100-I654-Q outdoor AP features a high-performance RF chip design, providing high wireless throughput and strong concurrent access capabilities. It includes a built-in high-power MIMO antenna and a lightning protection module, ensuring robust wireless coverage in various complex outdoor scenarios while significantly reducing installation difficulties. WAP2100-I654-Q supports IP67 protection and wide temperature design, and it features a 2.5G ultra-gigabit interface for backhaul. It uses standard PoE remote power supply, offering great flexibility in AP planning and placement. It is an ideal choice for building various outdoor high-density wireless networks.



WAP2100-I654-Q

Product Characteristics

■ High-performance Wireless Solutions

WAP2100-I654-Q is built with high-performance wireless chips and supports multiple wireless protocols, including 802.11a/b/g/n/ac/wave2/ax. It offers high throughput and excellent stability. The device supports 2.4G and 5G bands with an air interface bandwidth of up to 5400Mbps, accommodating over 200 terminal users with strong concurrent access capabilities.

WAP2100-I654-Q supports wireless load balancing technology, ensuring even distribution of traffic across multiple APs to avoid local congestion. It also allows for rational distribution of terminals on 2.4GHz and 5GHz spectrums within a single AP, ensuring a good internet experience for each user.

■ Powerful Automatic Network Optimization

WAP2100-I654-Q supports a large number of users and offers wired and wireless QoS, automatic terminal identification, automatic channel selection, automatic power adjustment, and

dynamic receive sensitivity. These carrier-grade network optimization features provide enterprise customers with easy-to-use WLAN services.

WAP2100-I654-Q, when paired with the WSC6100 series wireless controllers, supports “one-click automatic optimization” and “background automatic optimization,” enabling users to optimize the network themselves when the wireless environment changes or user experience decreases, without waiting for service from manufacturers or agents.

■ Comprehensive Security Features

WAP2100-I654-Q provides various secure access methods, including WEP/WPA/WPA2/WPA3, and supports wireless IPS/IDS, layer-2 user isolation, and centralized ACL control.

WAP2100-I654-Q integrates with the WSC6100 wireless AC to offer diverse and practical authentication functions for different terminals such as computers, phones, and tablets, providing convenient access services.

WAP2100-I654-Q also supports rogue AP detection and subsequent handling, wireless attack prevention, and static black and white lists to reduce unauthorized access to the wireless network.

■ Industrial-Grade Product Design

WAP2100-I654-Q features a built-in antenna and lightning protection module, significantly simplifying installation and ensuring consistency during mass deployment and installation processes, delivering a high-quality wireless network to users.

WAP2100-I654-Q is IP67-rated for waterproof and dustproof protection, with a wide temperature tolerance range of -30~55°C, suitable for harsh outdoor environments. It supports pole-mount and wall-mount installations, along with PoE remote power supply up to 100 meters, reducing constraints on AP placement.

■ Rich Manageable Features

WAP2100-I654-Q supports the integrated design of fat and thin APs, which can be individually configured, and can also be connected to BDCOM WSC6100 series ACs to realize various management modes such as CLI, Web, SNMP.

WAP2100-I654-Q can also connect with the BDCOM PALLAS cloud management platform for unified cloud management of AC, switching, routing, and security products, significantly enhancing maintenance efficiency.

Product Specifications

Product model	WAP2100-I654-Q
Ethernet ports	1 x 2.5GE port, backward compatible with Gigabit (supports PoE) 1 x GE port
Operating Frequency	2.4GHz and 5GHz
Wireless Protocols	802.11 a/b/g/n/ac/wave2/ax
Wireless MIMO	2.4GHz: MIMO2*2, 5.0GHz: MIMO4*4 Dual frequency 6-stream
Air Interface Rate	5400Mbps
Antenna type	Built-in omnidirectional
RF Power	27dBm
Coverage	Radius of 100 meters (subject to environmental factors)
Recommended Concurrent Users	200 active users (subject to environmental factors)
Power supply	Standard 48V PoE
Power consumption	Max. 20W
Deployment Method	Pole-mount
Dimensions (W*D*H)	304×180×88mm
Device Weight	2.5Kg
Operating temperature	-30~55°C, supports cold start at -15°C
Operating humidity	10%~95% (non-condensation)
Protection level	IP67

Software Specification

Working mode	AP Mode	Support
	Routing Mode	Support
	Bridging Mode	Support

IP functions	IPv4 Protocol Stack	Support
	DHCP	Support
	NTP Protocol	Support
CAPWAP	Option 43 discovery of AC	Support
	DNS discovery of AC	Support
	AC and AP networking across three layers	Support
	AC and AP networking across NAT	Support
	Layer 2 roaming within the same AC	Support
	Layer 3 roaming within the same AC	Support
	Clock synchronization between AC and AP	Support
	Version synchronization between AC and AP	Support
	Configuration deployment from AC to AP	Support
Wireless access	802.11 Protocol Suite	Support
	Multiple SSIDs	Support
	Wireless user isolation (VLAN-based)	Support
	SSID-based user number limit	Support
	Automatic aging for user without traffic	Support
	User Online Status Detection	Support
	SSID Hiding	Support
	Chinese SSID	Support
	Deployment with Multiple Country Codes	Support
	Open System	Support
	WPA authentication	Support
	WPA2 authentication	Support
	WAP & WAP2 hybrid authentication	Support
Wireless authentication	Local authentication	Support
	Cloud authentication	Support
	WeChat authentication	Support

	Time-based Control per Account	Support
	Bandwidth Control per Account	Support
	Whitelist for Unauthenticated Users	Support
QoS	802.11e/WMM	Support
	ESS-based traffic rate limiting	Support
	Global traffic rate limiting	Support
	VLAN-based traffic rate limiting	Support
	User-based traffic rate limiting	Support
	AP-based flow load balancing	Support
	Frequency band-based traffic load balancing	Support
Wireless optimization	Static AP Channel and Power Settings	Support
	Dynamic AP Channel and Power Settings	Support
	5G prior access	Support
	Restrict access of low-rate users	Support
	Preset and customized scene management	Support
	One-click network optimization	Support
Security	ACL filtration	Support
	MAC filtration	Support
	URL filtration	Support
	DDoS anti-attack	Support
	De-Auth anti-attack	Support
	Rogue AP detection	Support
Value-added application	RTLS (Real-Time Location Services)	Support
	Wireless positioning	Support
Management	Telnet	Support
	SSH	Support
	Web Interface	Support
	SNMPv2 / v3	Support

	Global LED Control	Support
	Global AP states display	Support
	Global terminal states display	Support
	Network diagnostic tools	Support
	Integration with BDCOM PALLAS Cloud Management Platform	Support

Ordering Information

Model	Description
WAP2100-I654-Q	WAP2100-I654-Q High-density Outdoor Wireless AP, one 2.5GE port and one GE port, supports WiFi6 protocol with a maximum rate of 5400Mbps, built-in high-gain MIMO omnidirectional antenna, IP67 protection rating, supports PoE power supply (PoE equipment needs to be purchased).
WAP-PSE-1000	Single-port Gigabit PSE power module

For More Information

For more information about [BDCOM WAP2100-I654-Q Outdoor Wireless AP](#), please contact your local BDCOM account representative.

Copyright ©Shanghai Baud Data Communication Co., LTD. 2025. All Rights Reserved.

This document is BDCOM Public Information.

BDCOM reserves the right to alter, update and otherwise change the information contained in the document from time to time without notice.

Shanghai Baud Data Communication Co., LTD.

No.123, Juli Road,

Pudong Zhangjiang High-Tech Park,

Shanghai 201203, China

www.bdc.com.cn

Tel: +86-21-50800666

