


Alibaba Cloud Wi-Fi® Wireless AP Product Manual Model: AP4220

 Alibaba Cloud

Overview

AP4220 is a cloud and big data platform-based next-generation access point (AP) launched by Alibaba Cloud Wi-Fi. It complies with IEEE 802.11ac and supports 2x2 multi-user multiple-input multiple-output (MU-MIMO). AP4220 provides stable wireless experience in high-density environments and can satisfy complex enterprise and commercial requirements. It supports easy large-scale deployment. You can configure auto APs, and log on to a cloud access controller (AC) by using your Taobao account. Then, you can configure and maintain large-scale wireless networks as easily as shopping online.

Ultra-high performance

| High bandwidth

2x2 MU-MIMO, 2.4 GHz and 5 GHz dual-band Wi-Fi signals, and an air interface rate up to 1.3 Gbit/s

| Assisted roaming

The system monitors the speed and signal strength of all clients in real time. When a client moves away from an AP and the signal becomes weak, the AP immediately disconnects the client. In addition, the client roams to the closest AP without losing connection, by using a series of optimized roaming protocols.

| 5 GHz priority

5 GHz outshines 2.4 GHz in signal quality. A client first connects to the 5 GHz band based on the system protocol. This ensures smoother wireless experience.

Security and flexibility

- AP4220 supports common IEEE 802.11 security protocols such as WEP, WPA/WPA2-PSK, WPA/WPA2-802.1X, MAB, and WEB. It enables secure cloud-based SMS authentication, cloud portals, and app account logon based on big data in the Alibaba ecosystem. It also simplifies the network access of clients, thereby delivering more secure and stable user experience.
- The system monitors, identifies, prevents, and takes action against illegal devices. It implements fine-grained management and control to safeguard the air interface environment and wireless transmission.

Stability and reliability

A cloud AC is managed online 24/7 by the Alibaba Cloud Wi-Fi operation team. Before its launch, AP4220 has undergone rigorous laboratory tests, and repeated verifications by VeriWave and Spirent. For example, the number of daily online terminals on a campus network has been more than 50,000 for an extended period of time. Over the past two years, AP4220 has supported 10 large activities with more than 1,000 participants. It provides you with stable network connection and immeasurable big data value.

Simplicity and agility

| Quick deployment

AP4220 supports standard power over Ethernet (PoE) power supply, auto APs, auto-configuration, and plug-and-play network deployment.

| Convenient maintenance

You can manage cloud APs in a centralized manner by using a cloud AC. You can use your Taobao account to log on to the cloud AC over HTTP, and configure and maintain large-scale wireless networks as easily as shopping online.

| Cost-effectiveness

Cloud APs are deployed on Alibaba Cloud, with super computing power and unlimited extensible space. You can register cloud APs with a cloud AC, free from AC costs, license fees, and subsequent charges. The system can be flexibly scaled to cut the cost and shorten the cycle of network deployment as a company grows rapidly and expands due to mergers and acquisitions (M&A).

Big data

While AP4220 provides a wealth of network management data, it creates profiles of online and historical clients in real time based on big data. A client profile contains information such as the user's age, family information, spending power, and consumption preferences. AP4220 can also push ads to specified users based on big data analytics.

Parameters

Category		Description
Physical parameters	Size (Length × Width × Height)	195 mm × 191 mm × 43.5 mm
	Weight	360 g
	Ports	One 10/100/1,000 Mbit/s WAN port (with PoE) One 10/100/1,000 Mbit/s LAN port (without PoE)
	Power supply	Not supported
	Indicator lights	Indicator lights that show the start-up, normal, alerting, and failure states
	Working temperature	0°C to 40°C
	Installation methods	Wall-mounted and ceiling-mounted (with accessories)
USB		Supported
Bluetooth		Bluetooth Low Energy (BLE) 5.0
Console		RJ45 console port
Radio frequency (RF) parameters	Antenna	Built-in antenna (360° omnidirectional)
	RF protocol	IEEE 802.11a/b/g/n/ac
	Communication channel	Wi-Fi channel (Chinese standard)
	Channel width	20 MHz/s, 40 MHz/s, and 80 MHz/s modes supported
	Maximum transmit power	20 dBm (Chinese standard)
	Power regulation range	0 dBm to 20 dBm
	Maximum negotiation rate	1.3 Gbit/s
	Number of service set identifiers (SSIDs)	16 (with hidden features configurable for each SSID)
Maximum number of terminals supported		256

Category		Description
Network parameters	Public network deployment	Supported deployment of remote access points across WANs and in NAT mode
	Address assignment	DHCP clients supported
	Configuration and maintenance	Cloud web console
	Client isolation	Inter- and intra-SSID isolation supported
Security parameters	IEEE 802.11 standard protocols	WEP, WPA/WPA2, EAP-TLS, TTLS, MSCHAPv2, PEAP, 802.1X MAC address authentication, portal authentication, and dynamic VLAN
	Extended authentication methods	Blacklists and whitelists, SMS authentication, temporary visitor authentication, authentication exemption for frequent users, and Alibabaecosystem account authentication

The Alibaba Cloud Wi-Fi department boasts a strong lineup of industry experts. On the basis of cutting-edge big data technology and the advanced Alibaba Cloud platform, AP4220 assists you in planning, building, and stably managing your wireless networks. AP4220 also offers a variety of big data analysis reports to bring great value for your business. AP4220 provides you with a lifetime warranty on cloud AP hardware and backup services.



<https://www.alibabacloud.com/product/cloudap>