

**IWAP3102 Interface
Outdoor Coverage AP
User Manual**

(Edition : V1.0)

Wuhan Maiwe Communication Co., Ltd.

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Statement

Due to continuous update and improvement of products and technology, the contents of this document may not be completely consistent with the actual products, appreciate for your understanding. If necessary to inquiry the updates of the product, please check our official website or contact our representative directly.

Revision history:

Version	Date	Reason
V1.0	2019.09	Create files

Safe Use Instruction

This product performance is excellent and reliable in the designed range of use, **but it's necessary to avoid man-made damage or destroy for the equipment.**

- Read the manual carefully and keep this manual for reference if need afterwards.
- Do not put the device close to the water sources or damp places.
- Do not put anything on the power cable, it should be placed out of reach.
- To avoid causing fire, do not knot or wrap the cable.
- Power connector and other device connectors should be firmly connected with each other, frequently inspection is needed.
- Please keep the fiber socket and plug clean. Do not look directly at the fiber section when the equipment is working.
- Please keep the equipment clean and wipe it with a soft cotton cloth if necessary.
- Please do not repair the equipment by yourself, unless there is clear instructions in the manual.

Under the following circumstances, please cut off power immediately and contact us.

- Equipment water damage.
- The equipment is broken or the casing is broken.
- The equipment works abnormally or the performance has completely changed.
- The equipment produces odor, smoke or noise.

Statement: Information requiring explanation in use of the managed software.

Attention: Matters requiring specific attention in the use of the managed software.

1. Introduction

1.1. Product description

The IWAP3102 series is an outdoor dual-frequency base station product with 802.11ac technology independently developed by Wuhan Maiwe Communication Co., Ltd. This product uses professional industrial-grade Qualcomm chips to provide 2.4GHz and dual 5.8GHz wireless services, and comes with 1 100M Network interface, 2.4G 802.11N 300Mbps + 5G 802.11AC 450Mbps wireless access speed, wireless processing speed up to 750Mbps. IWAP3102 series dual-band base stations have the characteristics of high performance, high gain, high receiving sensitivity, high bandwidth, etc., which not only cover a larger range, but also provide higher wireless transmission performance and stability. It is the best choice for wireless access in high-density environments such as campuses, scenic spots, and pipe corridors

1.2. Product characteristic

1.2.1. Hardware

- Protocol enterprise grade master chip, grade circuit design, support IEEE802.11AC, and provide 750Mbps wireless access speed. Ensure the real-time, long-term, stable, and high-efficiency transmission of user network data and user experience.
- High-power and high-receiving circuit design, combined with MIMO technology, greatly enhance the range of wireless coverage, and improve the performance and stability of wireless transmission.
- IP67 waterproof design, simple installation method, with wall mount. The pole installation, on the basis of not affecting the original design, greatly reduces the construction difficulty of the construction personnel and reduces the construction efficiency.

1.2.2. Software

- In AP working mode, the device is connected to WiFi, and the device IP is accessed through the browser to unify the administrative area network devices, unified configuration and wireless optimization settings. Solve the trouble of difficult management of wireless coverage in small LANs with less than 16 units, greatly simplifying the work of network administrators.
- Users can log in to the cloud remotely to view and set each device through mobile phones, tablets, computers and other terminal devices, easy to set up, manage at any time, simplify management methods, and eliminate the problem of network administrators who cannot solve the Internet when they are

not in the company.

- Both the mobile phone and the computer can view the device system status and interface status in real time. The simple and clear graphical interface allows users to know the working status of the device in real time.

- The equipment supports 2 ways of omnidirectional antenna and directional antenna (choose 1 from 2), flexible deployment, and easily adapt to various networks and field environments to complete the coverage and expansion of wireless local area network

- The device supports the issuance of 4 sets of SSIDs, and supports the combination of Chinese, letters, numbers and some special characters, helping you to easily complete the localized deployment of the device, allowing wireless terminals to easily access the designated network.

- The device supports SSID concealment, adopts advanced WPA-PSK&WPA2-PSK encryption strategy and wireless access black and white list security strategy to protect the user's network from hacker attacks at all times and ensure the user's data security.

- The equipment can accurately analyze the channel and field strength of the surrounding 2.4G&5.8G dual-frequency wireless signals, assist engineers in completing channel deployment plans, and improve the use of wireless networks.

- Users do not need to understand too much wireless knowledge, they can complete the device's Internet access requirements in just a few steps, and simple settings can complete the wireless optimization, which can easily improve the user's wireless Internet experience.

- The gateway mode supports the flow control function to ensure the network bandwidth requirements of wireless users at all times, and avoid the problem that the network of other terminals is too slow or unavailable due to excessive use of the network by a single terminal.

- Custom description, network time synchronization, access password modification, local backup/restore settings, factory reset, local/online upgrade, immediate/scheduled restart, simple and clear functions allow you to easily complete the system settings of the device and improve the robustness of the device.

- After the base station is powered on, it can cooperate with the gateway or AC to complete the wireless network coverage and deployment. Support functions such as unified management, seamless roaming, automatic load balancing, user authentication, advertising and marketing, application control, and traffic control.

1.2.3. Physical/software characteristics

Item	IWAP3102
Chips	Qualcomm QCA9531+QCA9887 750Mbps High-performance enterprise chip
Main frequency	550MHz
wireless technology	2.4G:300M 802.11b/g/n, 5.8G: 900M 802.11a/n/ac
memory	126MB DDR RAM
Flash	16MB
Dimension	300mm×220mm×110mm
interface	1 10/100 100M Ethernet port, support 802.3at POE Power over Ethernet
Indicator light	-
power supply	DC48V 802.3af
antenna	External 8dbi omnidirectional antenna
Working temperature	-40℃~55℃
Relative humidity	5%~95%

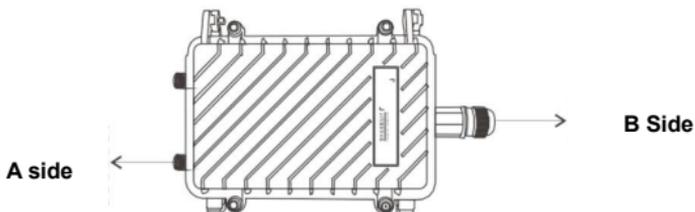
System requirements	Windows7\NT\2000\XP, MAC OS X (10.4)
Management	WEB IP
Browser	Microsoft IE 6.0 or above, Firefox 2.0 or above
Wireless management	WLAN configuration/WLAN analysis/Radio configuration/wireless users
Flow control	support
System	Device description, time zone and time configuration, login password modification, backup/restore
Update	Local update and online update based on WEB browser
Restart	Restart immediately, restart regularly

2. Device installation:

2.1. Interface

A Side: N-type female antenna interface, can be connected with high-gain antenna, expand wireless coverage

B Side: Rj45 network interface with waterproof button cover, support POE Power over Ethernet



2.2. Packing list

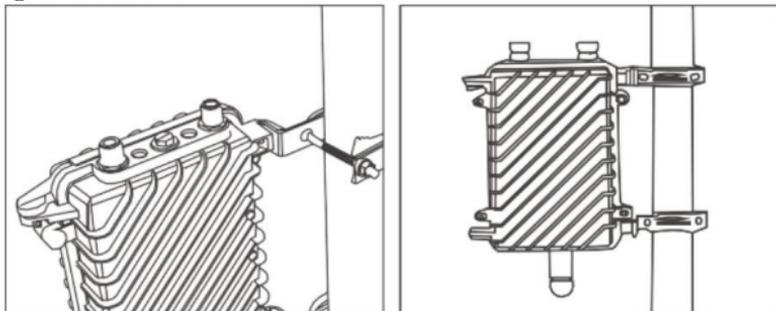


U-shaped fixing fixture



POE power adapter

Use U-shaped hoops, clamps, and screws to fix the device on the pole and tighten the screws



Accessory installation

Installation of lightning arrester

- A. Use a screwdriver to remove the grounding copper lug of the arrester;
- B. Pull the pure copper yellow wire around 5mm and insert it into the copper ear and pinch it with pliers. Pull the other end of the wire and connect it to the ground net;
- C. Fix the copper lug to the arrester with a screwdriver and tighten the screws;
- D. Connect the N-type male end of the arrester to the N-type female end of the device and tighten it, and connect the N-type female end to the jumper or antenna and tighten it.



1. Antenna installation



Omnidirectional antenna installation



Directional antenna installation

Notice:

1. If the outdoor equipment is installed in a thunderstorm area, please configure a lightning arrester, add lightning rods and effective grounding protection to the pole to prevent the equipment from being damaged by lightning;
2. Regularly check the working condition of the equipment. If the terminal surfs abnormally and the terminal surfs normally after removing the lightning arrester, it means that the lightning arrester has been damaged by lightning, please replace it in time;
3. Choose the antenna reasonably according to the coverage area. The antenna, lightning arrester and jumper can be matched freely, which is not in the scope of standard equipment accessories;
4. Antenna connectors, feeder connectors, equipment N-type connectors, and lightning arrester connectors are not within the scope of waterproof protection. Please follow the instructions below for effective waterproof protection;

3. Equipment configuration

3.1. Overview

IWAP3102 is a plug-and-play outdoor base station device based on Qualcomm's original SDK. It is specially developed for wireless engineering. The product integrates seamless roaming, load balancing, multi-service isolation, IPTC transparent transmission, channel optimization, AP tracking, AP diagnosis and other practical functions.

3.2. Device login

The management page defaults to login wired IP address: 6.6.6.6, user name: admin, password: admin, after login, the default home page displays the main status information of the AP system, such as CPU, memory, users, traffic..., allowing administrators to pass the status information Determine the operation of the AP.

Note: When the device is not connected to AC, AP will enable SSID starting with "SOS_", wireless password: 88888888

3.3. Wireless management

Wireless management is the main configuration item of AP

3.3.1. Basic settings

SOS Rescue SSID provides a convenient way to wirelessly log in and manage this wireless AP in an emergency. Tap the Reset button on the device, or when some abnormality occurs, a rescue SSID named SOS_130B will be released. The associated password of the rescue SSID is 88888888. After association, use the browser to log in to <http://6.6.6.6> for management or diagnosis.

3.3.2. SSID setting

The AP has an SSID configuration information by default, and the SSID can be modified or added.

Radio: In dual-band AP, you can choose to enable 2.4G, 5G or both.

Maximum number of connections: refers to the number of connections per SSID

VLAN: refers to the VLAN of the SSID, used with a VLAN switch or gateway to realize the VLAN isolation of the SSID

Terminal isolation: After opening, terminals connected to the same SSID are isolated from each other.

All radio configurations are divided into 2.4G and 5G, which are SSID configurations for APs.

3.3.3. Wireless users

The wireless user list displays the information of each SSID connected terminal

3.4. Micro AC

Micro AC is designed to work in a small environment, and stops working after more than 16 APs. Log in to any one of the APs, you can view and manage all APs in the network

3.4.1. AP list

Mainly display the number of APs in the local area network, status, capacity, speed and management

3.4.2. SSID list

View AP device corresponding to SSID, SSID radio frequency, vlan, terminal and other status

3.4.3. User list

The terminal user's display, corresponding SSID, AP, rate, signal and other status.

3.4.4. Statistics

Statistics show the number of APs, SSIDs, and terminals in the entire LAN.

3.5. Operating status

It mainly displays the status information of the AP during operation: routing table, system log, kernel log, and real-time information.

3.5.1. Routing Table

ARP cache information and system static routing table are displayed in the routing table.

3.5.2. System Log

The system log prints the AP system operation log in real time, and marks the

prompts according to different levels.

3.5.3. Kernel log

The kernel log prints the AP kernel system running log in real time for easy viewing.

3.5.4. Real-time information

Real-time information is to display the real-time status information of the AP's load, traffic, wireless, and session.

3.6. System Management

3.6.1. Basic configuration

You can set the account and password to log in to the web interface to restart regularly every day.

3.6.2. LAN Settings

It can be set to automatically obtain the gateway IP or static IP address.

3.6.3. Network diagnosis

Network diagnosis is mainly to diagnose the connection between AP and AC. When the AP cannot connect to the AC, the diagnosis information will be printed out after clicking "One-key Diagnosis" to assist the maintenance personnel in finding the cause of the problem.

3.6.4. System Upgrade

Select the corresponding upgrade package and upgrade.

3.6.5. reset

After restoration, the AP will be in the factory default configuration.

4. Maintenance and Service

5 years warranty from the date of shipment, if there is any failure or functional product fails within the warranty time, repair or replace is free. However, these commitments do not include improper use, accidents, natural disasters, improper operation or improper installation caused the damage.

To ensure that consumers benefit of products, through the following ways to get help and problem solving:

- Internet services.
- Call the technical support office.
- Product repair or replacement.

4.1. INTERNET service

Through the website of Wuhan Technical Support section, you can get more useful information and tips.

4.2. Technical support phone services

While using the product, you can connect with our technical support office for any queries, professional technical engineers are available to answer your questions.

4.3. The product repair or replacement

Product repair, replacement or return, please contact our sales staff.

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