**FORTINET FAP-231G-A**

# Fortinet FortiAP 231G User Manual

Model: FAP-231G-A

## 1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Fortinet FortiAP 231G Wireless Access Point. The FortiAP 231G is a high-performance 2x2 Wi-Fi 6E indoor access point featuring tri-radio capabilities, internal antennas, and multiple RJ45 ports, designed for robust wireless connectivity in business environments.

Image: Front view of the Fortinet FortiAP 231G access point, showing the Fortinet logo and model name.

## 2. PACKAGE CONTENTS

Verify that all items are present in your FortiAP 231G package:

- FortiAP 231G Wireless Access Point
- 1x 2.5GE Ethernet port
- 1 x GE RJ45 port
- 1x Type A USB port
- Console Port (RJ45)
- Internal antenna (integrated)
- Mounting kit (if applicable, not explicitly listed but common for APs)
- Power adapter (if applicable, not explicitly listed but common for APs)

*Note: Specific contents may vary slightly based on region or bundle.*

# 3. PRODUCT FEATURES

The FortiAP 231G is engineered with advanced features to deliver superior wireless performance and security:

- **Wi-Fi 6E (802.11ax) Support:** Provides higher throughput, lower latency, and increased capacity across 2.4 GHz, 5 GHz, and 6 GHz bands.
- **Tri-Radio Design:** Dedicated radios for 2.4 GHz, 5 GHz, and 6 GHz for optimized performance and spectrum utilization.
- **2x2 MU-MIMO:** Enhances multi-user efficiency and data rates.
- **OFDMA:** Improves efficiency for small packet transmission and reduces latency.
- **Internal Antennas:** Integrated antenna system for a streamlined design.
- **Multiple Ethernet Ports:** Includes one 2.5GE RJ45 port and one GE RJ45 port for flexible network connectivity.
- **WPA3 Security:** Supports the latest Wi-Fi Protected Access 3 for enhanced network security.
- **Integrated WLAN Controller:** Seamless integration with FortiGate appliances for centralized management.
- **FortiOS Integration:** Leverages the power of Fortinet's operating system for advanced security and networking features.



Image: Side view of the FortiAP 231G, highlighting key features such as 802.11AX Wi-Fi 6, 2x2 MU-MIMO, OFDMA, and Enhanced Target Wake Time.

# 4. SETUP GUIDE

## 4.1 Physical Installation

The FortiAP 231G is designed for indoor deployment. Ensure the chosen location provides optimal Wi-Fi coverage and is within reach of necessary network cabling.

1. **Mounting:** Securely mount the access point to a wall or ceiling using the provided mounting kit. Refer to the mounting template for precise drilling if required.
2. **Power Connection:**

- **Power over Ethernet (PoE):** Connect an Ethernet cable from a PoE-enabled switch or injector to the LAN1 PoE/2.5G port on the FortiAP. This port provides both data and power.
- **DC Power:** Alternatively, connect a compatible 12V DC/2.5A power adapter (sold separately) to the DC power input port.

3. **Network Connection:** Connect an Ethernet cable from your network infrastructure to either the LAN1 PoE/2.5G port or the LAN2/1G port. The LAN1 port supports 2.5 Gigabit Ethernet, while LAN2 supports Gigabit Ethernet.

4. **Console Connection (Optional):** For initial configuration or troubleshooting, connect a console cable from your management workstation to the RJ45 Console port.



Image: Rear view of the FortiAP 231G, showing the 12V DC/2.5A power input, Reset button, Console port, LAN2/1G port, and LAN1 PoE/2.5G port.

## 4.2 Initial Configuration

The FortiAP 231G is typically managed by a FortiGate firewall or FortiManager. Refer to the FortiGate or FortiManager documentation for detailed instructions on FortiAP discovery and provisioning.

- Ensure your FortiGate is running a compatible FortiOS version.
- Connect the FortiAP to a network segment accessible by the FortiGate.
- The FortiAP will attempt to discover the FortiGate controller.
- Authorize and provision the FortiAP from the FortiGate GUI or CLI.
- Configure SSIDs, security settings, and other wireless parameters on the FortiGate.

## 5. OPERATING INSTRUCTIONS

Once configured, the FortiAP 231G operates autonomously under the management of your FortiGate controller. Users can connect to the configured Wi-Fi networks.

## 5.1 LED Indicators

The FortiAP 231G features LED indicators to provide status information:

- **Power LED:** Indicates power status. Solid green typically means powered on.
- **Wi-Fi LED:** Indicates wireless activity. Blinking or solid green typically means Wi-Fi is active and transmitting.
- **LAN LED:** Indicates Ethernet port activity. Blinking or solid green/amber typically means network connection and data transfer.

## 5.2 Network Management

All network configurations, including SSID creation, security profiles, VLAN tagging, and user access control, are managed centrally through the FortiGate interface. Refer to your FortiGate documentation for detailed network management procedures.

## 6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your FortiAP 231G.

- **Firmware Updates:** Keep the FortiAP firmware updated to the latest version. Firmware updates are typically managed through the FortiGate controller. Refer to Fortinet's support portal for release notes and update procedures.
- **Cleaning:** Periodically clean the exterior of the access point with a soft, dry cloth. Do not use liquid or aerosol cleaners.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges to prevent damage.
- **Physical Inspection:** Periodically inspect cables and connections for any signs of wear or damage.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your FortiAP 231G.

| Problem | Possible Cause | Solution |
|---|---|---|
| AP not powering on | No power from PoE switch/injector; DC adapter not connected or faulty. | Verify PoE source or DC power adapter connection. Check power outlet. |
| AP not discovered by FortiGate | Network connectivity issue; FortiAP not authorized; FortiGate configuration. | Check network cables. Ensure FortiAP is on the same network segment or has proper routing to FortiGate. Authorize the AP on the FortiGate. Verify FortiGate firmware and AP settings. |
| Poor Wi-Fi performance | Interference; improper AP placement; outdated firmware; channel congestion. | Relocate AP for better coverage. Update firmware. Perform site survey to identify interference and optimize channel selection. |
| Clients cannot connect to SSID | Incorrect Wi-Fi password; SSID not broadcast; security settings mismatch. | Verify SSID and password. Check FortiGate configuration for SSID broadcast and security settings (WPA3, WPA2). |

For more advanced troubleshooting, consult the Fortinet documentation or contact Fortinet support.

## 8. SPECIFICATIONS

Detailed technical specifications for the Fortinet FortiAP 231G (FAP-231G-A):

| Attribute | Value |
|---|---|
| Model Name | FAP-231G-A |
| Wireless Communication Standard | 802.11ax (Wi-Fi 6E) |
| Frequency Band Class | Quad-Band (2.4 GHz, 5 GHz, 6 GHz) |
| Antennas | Internal |
| Ethernet Ports | 1x 2.5GE, 1x GE RJ45 |
| Other Ports | 1x Type A USB, Console Port (RJ45) |
| Special Features | WPA3, Integrated WLAN Controller, FortiOS |
| Connectivity Technology | Wi-Fi, Ethernet |
| Recommended Uses | Business |
| Compatible Devices | Laptop, Personal Computer, Tablet, Smartphone |
| Package Dimensions | 11.69 x 9.61 x 4.49 inches |
| Item Weight | 2.98 pounds |

# FortiAP 231G Specifications

| | |
|---|---|
| Max Data Rate (up to)     Radio 1: 574 Mbps     Radio 2:1.2 Gbps     Radio 3: 2.4 Gbps | |
| 802.11AX Wi-Fi 6 | Yes |
| UL / DL MU-MIMO | Yes |
| Antennas | 4 Internal + 1 Internal BLE |
| GE RJ45 ports | 3 |
| OFDMA | Yes |

Image: A table summarizing key specifications for the FortiAP 231G, including max data rates, Wi-Fi 6 support, MU-MIMO, antennas, GE RJ45 ports, and OFDMA.

## 9. WARRANTY AND SUPPORT

Fortinet products typically come with a limited hardware warranty. For specific warranty terms and conditions, please refer to the warranty information included with your product or visit the official Fortinet website.

## Technical Support

For technical assistance, product documentation, and software downloads, please visit the Fortinet Support website. You will need your product's serial number for support inquiries.

**Fortinet Support Website:** support.fortinet.com

It is recommended to register your product with Fortinet to receive important updates and support notifications.