WAC-M300 Series
Quick Installation Guide

Version 1.0, May 2025

Technical Support Contact Information
www.moxa.com/support

P/N: 1802003000010

Overview

The goal of fast roaming capability is to allow clients to maintain their communications as they move from one access point to another. Moxa's WAC-M300 Series advanced wireless access controller with controller-based Turbo Roaming technology enables millisecond-level roaming between different IP subnets. The advanced roaming algorithm combined with Mobile IP technology allows seamless roaming while maintaining stringent security in demanding network scenarios. The rugged WAC-M300 Series is rated to operate in temperatures of 0 up to 50°C and is suitable for on-site installation in harsh industrial environments.

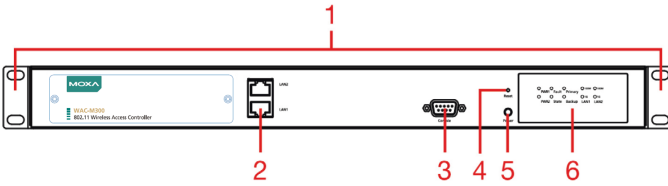
Package Checklist

The WAC-M300 Series wireless access controller is shipped with the following items. If any of these items are missing or damaged, please contact your customer service representative.

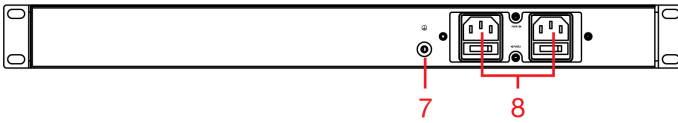
- WAC-M300 Series wireless access controller
- 2 AC power cords (C13-type, US and EU)
- 1 serial console cable (DB9-type, female-to-female)
- Rackmount kit
- Quick installation guide (printed)
- Warranty card

Panel Layout of the WAC-M300 Series

Front Panel View



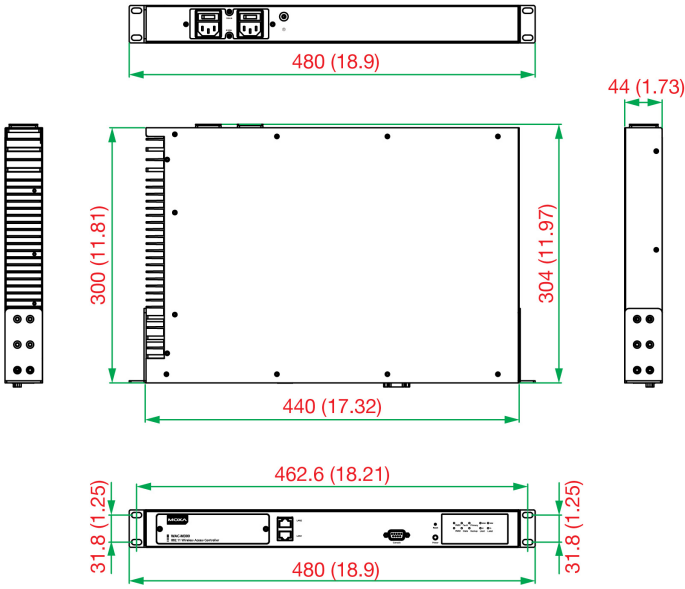
Back Panel View



1. Rackmount kit
2. LAN 1: 10/100/1000BaseT(X) (RJ45 type)
   LAN 2: Reserved for future expansion (RJ45 type)
3. RS-232 console port (DB9-type, male)
4. Reset button (reset power immediately)
5. Power button (long press to power off the device)
6. System LEDs: PWR1, PWR2, Fault, State, Primary, Backup, LAN1/2 LEDs: 100M/1G
7. Grounding screw
8. Power sockets for AC power input; requires a power cord with a type C13 connector

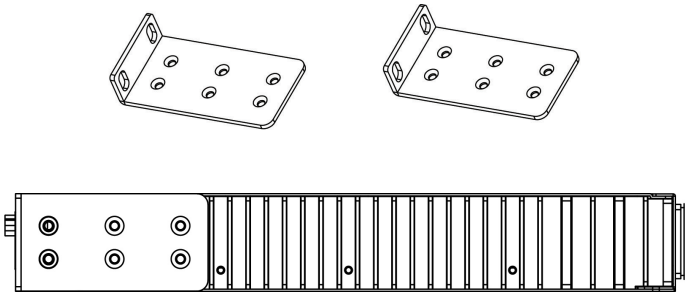
Mounting Dimensions

Unit = mm (inch)



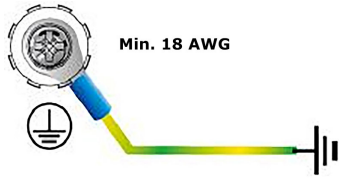
Rack Mounting the WAC-M300

Use six screws to attach the WAC-M300 to a standard rack.



Grounding the WAC-M300

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground wire from the ground screw on the rear side (shown below) to the grounding surface prior to connecting devices.

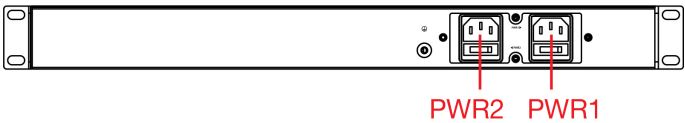


ATTENTION

If protective earthing is used as a safeguard, the instructions shall require connection of the equipment protective earthing conductor to the installation protective earthing conductor (for example, by means of a power cord connected to a socket outlet with earthing connection).

Connecting the Power Inputs

The WAC-M300 supports dual redundant power supplies: Power Supply 1 (PWR1) and Power Supply 2 (PWR2). The connections for PWR1 and PWR2 are located on the rear side (shown below). Be sure to use a standard power cord with an IEC C13 connector, which is compatible with the AC power inlet.



NOTE The WAC-M300 is powered up automatically once the AC power cord is connected and the switch of the power connector on the back panel is set to the **On** position.

To power off the WAC-M300, press the Power button on the front panel for 5 to 10 seconds. Turn off the switch on the power connector and remove the power cord if necessary.

If the power connector switch is not turned off, the AC power is not disconnected, and the WAC-M300 was powered off using the Power button, the device can be powered back on by pressing the Power button again.

CAUTION

Shock Hazard

Disconnect all power cords before servicing the device.

Administration Configuration

To configure the device:

1. Connect power inputs and power on the device.
2. Using a network cable, connect a computer to **LAN1**. The LED indicator illuminates.
3. Configure the computer IP address. For a default configuration, choose an IP address in the 192.168.127.xxx range (other than the device-default 192.168.168.250).
4. In the computer web browser, navigate to https://192.168.127.250. A welcome screen appears on successful connection.
5. Click **Start**, and then configure the following:
    a. Role
    Extended WAC requires an existing **Main WAC**.
    Main WAC requires a registration key.
    b. IP Address
    c. Subnet Mask
    d. Gateway

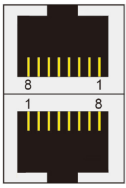
    Click **Next**.
6. Specify a case-sensitive administrator account and password, and then click **Save**. The Login Screen appears.
7. Sign in with your administrator credentials.

You can now configure your device.

Pin Assignments

Gigabit Ethernet Port Connection

The WAC-M300 provides 1 Gigabit Ethernet connector (LAN 1) and 1 reserved Ethernet connector (LAN 2) for future expansion. When the cable is properly connected, the LEDs on the RJ45 connectors will glow to indicate a proper connection.

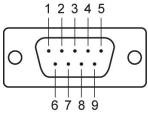


Pin	10/100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	–	TRD(2)+
5	–	TRD(2)-
6	ERx-	TRD(1)-
7	–	TRD(3)+
8	–	TRD(3)-

NOTE The pin numbers for the 8-pin RJ45 connectors (and ports) are typically not labeled on the connector (or port). Refer to the diagram above to see how the RJ45's pins are numbered.

Serial Console Connection

The WAC-M300 provides one serial port with a DB9 male connector for its console access. The pin assignments are shown in the following table:



Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	–

NOTE The pin numbers for the male DB9 connectors, and hole numbers for the female DB9 connectors are labeled on the connector. However, the numbers are typically very small, so you may need to use a magnifying glass to see the numbers clearly.

Front Panel LEDs

LED	Color	State	Description
Front Panel LED Indicators (System)			
PWR1	Green	On	Power is being supplied from power input 1.
		Off	Power is not being supplied from power input 1.
PWR2	Green	On	Power is being supplied from power input 2.
		Off	Power is not being supplied from power input 2.
Fault	Red	On	System error.
		Blinking	IP address conflict (interval: 0.5 sec).
		Off	The device is operating normally.
State	Green	On	Software is ready.
		Blinking	The WAC has been located by the Search Utility (interval: 1 sec).
	Red	On	Booting error.
Primary	Green	On	This WAC is operating as the primary roaming controller.
		Off	This WAC is not operating as the primary roaming controller.
Backup	Green	On	This WAC is operating as the backup roaming controller.
		Off	This WAC is not operating as the backup roaming controller.
LAN1/2 1G (2-reserved)	Green	On	The LAN port's 1000 Mbps link is active.

LED	Color	State	Description
		Blinking	Data is being transmitted at 1000 Mbps.
		Off	The LAN port's 1000 Mbps link is inactive.
LAN1/2 100M (2-reserved)	Amber	On	The LAN port's 100 Mbps link is active.
		Blinking	Data is being transmitted at 100 Mbps.
		Off	The LAN port's 100 Mbps link is inactive.

ATTENTION

The WAC-M300 is **NOT** designed for use by the general public. A well-trained technician is required to safely deploy the WAC-M300.

WARNING

Using an incorrect battery type with this device may incur a risk of explosion. If you need to replace the device's battery, contact the Moxa RMA service. For your safety, do not attempt to replace the battery yourself. Dispose of used batteries according to the instructions on the battery.