WAC-M300 Series

Railway train-to-ground wireless access controllers for the TAP-M310 Series

Features and Benefits

- Supports Layer 2 roaming

- Sub-50 ms controller-based Turbo Roaming for Wi-Fi 6 capable TAP rail devices

- Intuitive portal interface for centralized device management and wireless network maintenance

- Device-level redundancy via hot standby controller

Certifications

Introduction

The WAC-M300 Series railway train-to-ground wireless access controllers feature Layer 2 Controller-based Turbo Roaming technology, enabling seamless roaming under 50 ms to ensure uninterrupted client communication when moving between access points. The intuitive web interface simplifies large-scale network management by consolidating operations into an easy-to-use platform with API support for system integration. The WAC-M300 Series also supports device-level redundancy with hot standby controllers to enhance network availability.

Specifications

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	2 Port 1: Communications port for WAC/HA Port 2: Reserved
Standards	IEEE 802.11i for Wireless Security IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.1X for authentication

Ethernet Software Features

Management	IPv4 SNMPv1/v2c/v3 Syslog TCP/IP Telnet Web Console Wireless Search Utility MXconfig MXview One
Security	HTTPS/SSL RADIUS SSH
Time Management	NTP Client

Serial Interface

Console Port	RS-232 ports x 1 (DB9 male)
Flow Control	RTS/CTS, XON/XOFF
Parity	None, Even, Odd, Space, Mark

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Wireless Access Control

Controller Failover Mode	1-on-1 hot backup
Handover Time	50 ms
Roaming Support	Turbo Roaming (L2) with inter-controller capabilities
WLAN Products Supported	Layer 2 networks: Up to 190 clients roaming between 400 APs

Supported Devices

TAP Products	TAP-M310R Series

Power Parameters

Input Current	1.2 A @ 100 VAC
Input Voltage	100 to 240 VAC
No. of Power Inputs	2
Operating Voltage	100 to 240 VAC

Physical Characteristics

Housing	Metal
Dimensions (without ears)	304 x 440 x 44 mm (11.97 x 17.32 x 1.73 in)
Weight	5,480 g (12.08 lb)
Installation	19-inch rack mounting

Environmental Limits

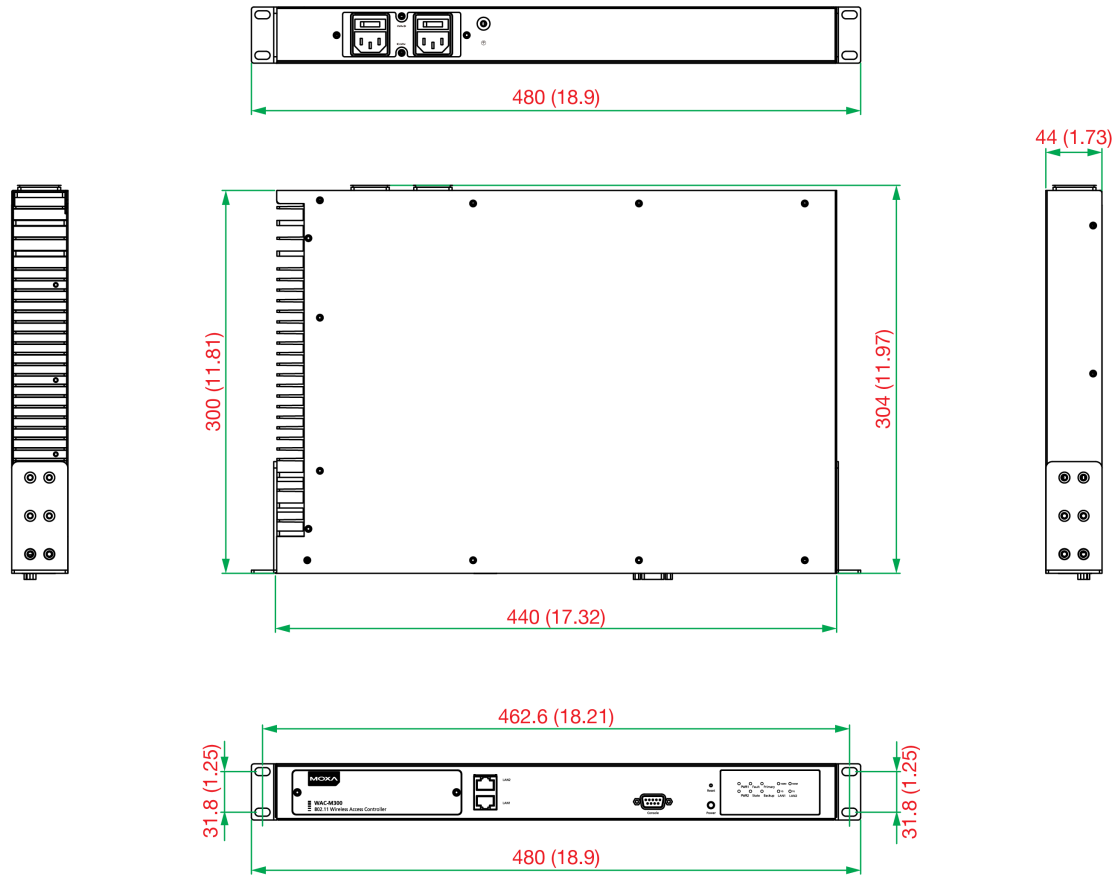|	
Operating Temperature	0 to 50°C (32 to 122°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	UL 62368-1 EN 62368-1 IEC 62368-1
EMC	EN 55032/35 EN 61000-6-2/-6-4

EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 20 V/m IEC 61000-4-3 RS: 1400 MHz to 2000 MHz: 10 V/m IEC 61000-4-3 RS: 2000 MHz to 2700 MHz: 5 V/m IEC 61000-4-3 RS: 5100 MHz to 6000 MHz: 3 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF: 100 A/m

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	770,346 hrs
Standards	Telcordia Standard SR-332

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x WAC-M300 Series wireless access controller
Installation Kit	2 x cap, plastic, for RJ45 port 1 x rack-mounting kit
Cable	1 x DB9 female to RJ45
Power Supply	2 x AC power cords, C13-type, US and EU type
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)

480 (18.9)

44 (1.73)

300 (11.81)

304 (11.97)

440 (17.32)

462.6 (18.21)

31.8 (1.25)

31.8 (1.25)

480 (18.9)

Ordering Information

Model Name	Application	Operating Temp.
WAC-M300	Industrial wireless access controller	0 to 50°C

www.moxa.com