WAC-2004A Series

Industrial wireless access controllers



Features and Benefits

- 2-in-1 AP controller and mobile IP home agent
- Millisecond-level controller-based Turbo Roaming
- IEEE 802.11i-compliant wireless security
- Layer-3 mobile IP technology
- Scalable tunneling capacity

Certifications

Introduction

The goal of zero-latency roaming is to allow clients to seamlessly maintain their connection as they move from one access point to another. Moxa's WAC-2004A Industrial Wireless Access Controller features Controller-based Turbo Roaming technology to enable millisecond-level roaming across different IP subnets. The advanced roaming algorithm along with Mobile IP technology allows wireless clients to roam between APs in different IP subnets within milliseconds, while upholding stringent security in extremely demanding environments. The rugged WAC-2004A is capable of operating at temperatures of 0 to 50°C and is suitable for on-site installation in harsh industrial environments.

Maximum Availability

- Device-level redundancy via hot standby controller

Minimum Handover Time

- Millisecond-level Turbo Roaming
- Inter-controller roaming

Maximum Mobility in L3 Networks

- Mobile IP tunneling
- Care-of-Address (CoA) assignment
- Cross Layer 3 subnet roaming

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 802.3ab for 1000BaseT(X) IEEE 802.1X for authentication

Ethernet Software Features	
Management	IPv4, SNMPv1/v2c/v3, Syslog, TCP/IP, Telnet, TFTP, Web Console, Wireless Search Utility
Security	HTTPS/SSL, RADIUS, SSH
Time Management	NTP Client, SNTP

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/L3) with inter-controller capabilities
WLAN Products Supported	Layer 2 networks: Up to 190 clients roaming between 400 APs Layer 3 networks: Up to 100 clients roaming between 190 APs

Supported Devices

TAP Products	TAP-213/323 Series
AWK Products	AWK-3131A-RTG 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	4,550 g (10.03 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	IEC 60950-1, UL 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	447,959 hrs
Standards	Telcordia SR332

Warranty

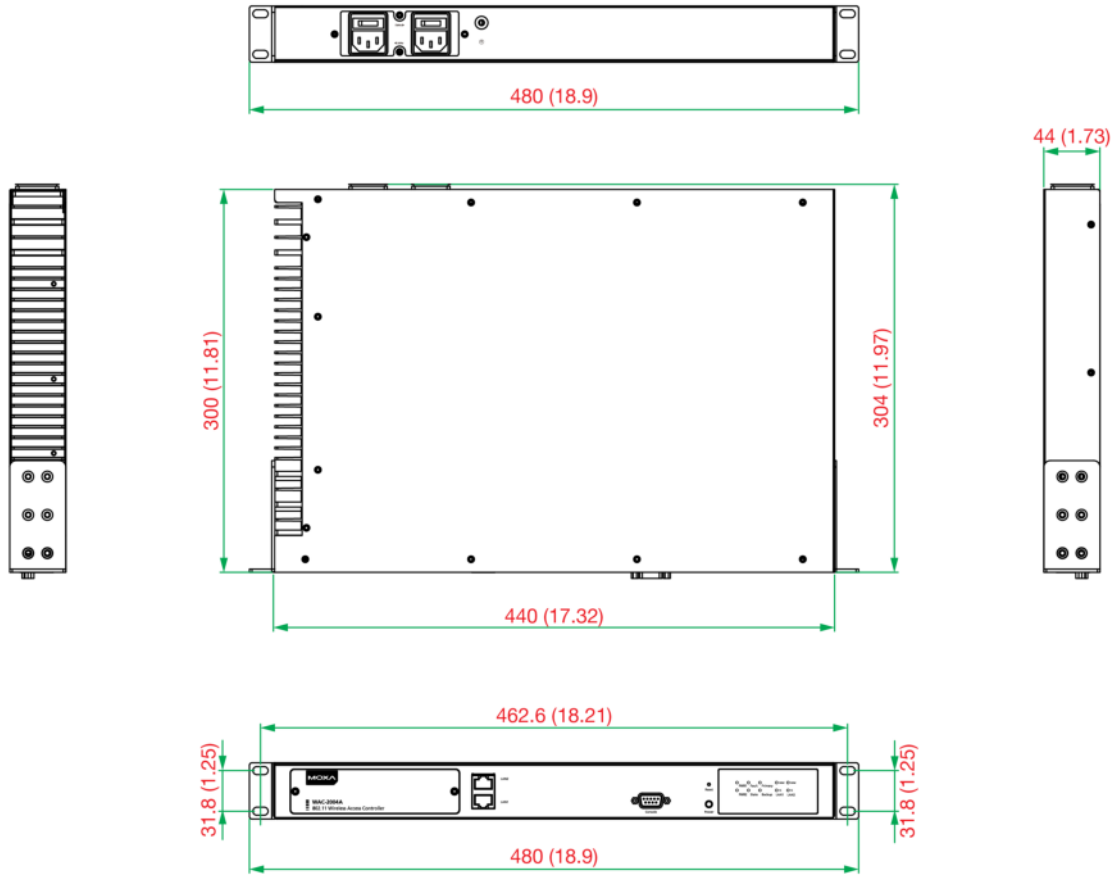
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x WAC-2004A Series wireless access controller
Installation Kit	2 x cap, plastic, for RJ45 port 2 x rack-mounting ear
Cable	1 x DB9 female to RJ45
Power Supply	2 power cords, C13-type, US and EU type
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Application	Operating Temp.
WAC-2004A	Industrial wireless access controller	0 to 50°C

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