WAC-1001 Series

Industrial wireless access controller

- Redundant 12 to 48 VDC power inputs
- Controller-based Turbo Roaming (less than 50 ms)
- Supported models: AWK-RTG Series
- IEEE 802.11i-compliant wireless security
- DIN-rail or wall mounting (optional) for on-site installation
- -40 to 75°C operating temperature range (T model)

Introduction

The goal of zero-latency roaming is to create networks that maintain seamless communications as clients switch from one access point to another. As part of its AWK-RTG Series, Moxa has introduced the WAC-1001 wireless access controller that uses controller-based Turbo Roaming to achieve less than 50 ms roaming on three channels. This advanced roaming capability securely hands off clients at speeds so high that wireless clients can enjoy seamless roaming between APs, with virtually no interruption in connectivity.

Maximum Availability

- Enables millisecond-level Turbo Roaming
- Configuration back-up
- Dual redundant DC power inputs

Advanced Security

- IEEE802.1X/RADIUS supported
- WPA/WPA2/802.11i supported
- Integrated DI/DO for on-site monitoring and warnings

Specifications

WLAN Interface

Standards:
IEEE 802.11i for Wireless Security
IEEE 802.3u for 10/100/1000BaseT(X)
IEEE 802.3af for Power-over-Ethernet
Security: WPA/WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP, and AES)

LAN Interface

Standards:
IEEE 802.1x (Radius client)
IEEE 802.3u for 10/100/1000BaseT(X)
IEEE 802.3af for Power-over-Ethernet

Interface

LAN Port: 10/100/1000BaseT(X), auto negotiation speed (RJ45-type)
Console Port: RS-232 (RJ45-type)
LED Indicators: PWR1, PWR2, PoE, FAULT, STATE, LAN
Alarm Contact: 1 relay output with current carrying capacity of 1 A @ 24 VDC
Digital Inputs: 2 electrically isolated inputs
• +13 to +30 V for state “1”
• +3 to -30 V for state “0”
• Max. input current: 8 mA

Physical Characteristics

Housing: Metal, IP30 protection
Weight: 1060 g (2.34 lb)
Dimensions: 52.85 x 135 x 105 mm (2.08 x 5.32 x 4.13 in)
Installation: DIN-rail mounting, wall mounting (optional)

Environmental Limits

Operating Temperature:
Standard Models: 0 to 60°C (32 to 140°F)
Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Input Voltage: 12 to 48 VDC, redundant dual DC power inputs or 48 VDC Power-over-Ethernet (IEEE 802.3af compliant)
Input Current: 0.6 A @ 12 VDC; 0.15 A @ 48 VDC
Connector: 10-pin removable terminal block
Reverse Polarity Protection: Present

Standards and Certifications

Safety: EN 60950-1(LVD), UL 60950-1, IEC 60950-1(CB)
EMC: EN 55032/24
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 1 GHz: 10 V/m
IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV
IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV
EN 61000-4-6 CS: 10 V
EN 61000-4-8
Note: Please check Moxa’s website for the most up-to-date certification status.

MTBF (mean time between failures)

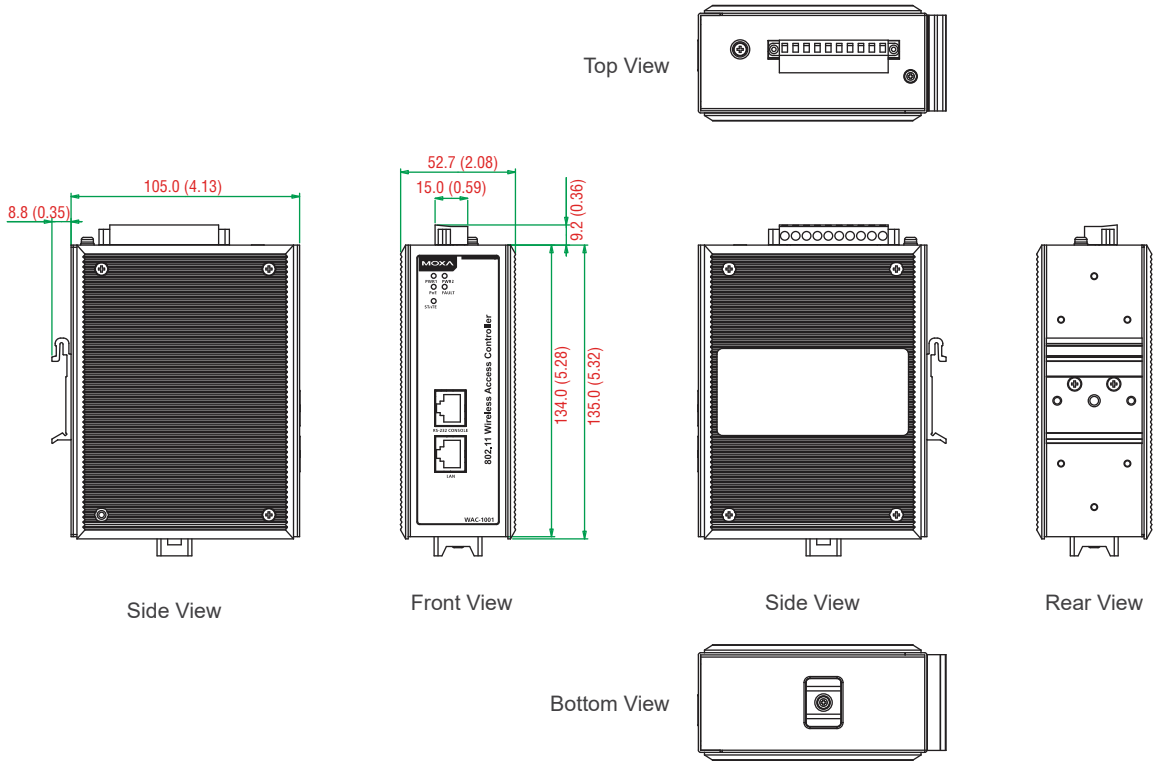
Time: 477,425 hrs
Standard: Telcordia SR332

Warranty

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

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

WAC-1001: Industrial wireless access controller, 0 to 60°C operating temperature
WAC-1001-T: Industrial wireless access controller, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

WK-51-01: DIN-rail/wall-mounting kit, 2 plates with 6 screws
DK-DC50131: Din-rail mounting kit, 50 x 131 mm

Package Checklist

- WAC-1001 wireless controller
- Cable holder with 1 screw
- 2 protective caps
- DIN-rail kit
- Quick installation guide (printed)
- Warranty card