

# 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

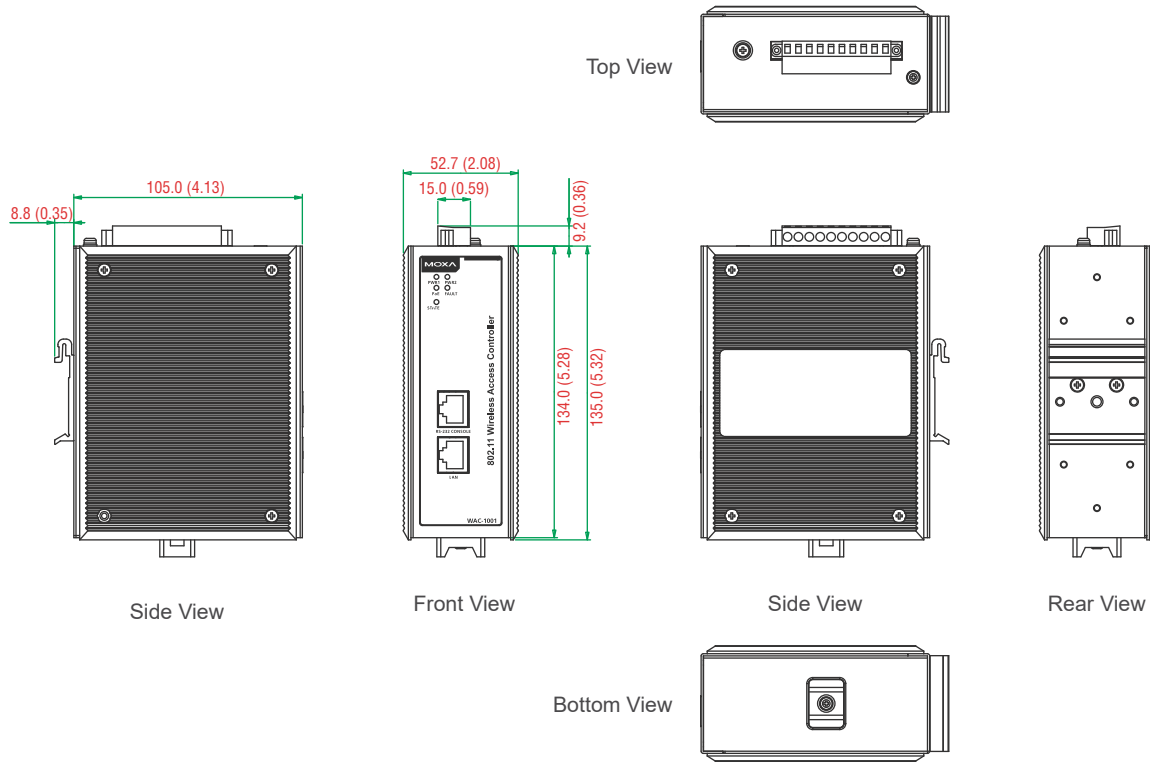
**Warranty**

Warranty Period: 5 years

Details: See [www.moxa.com/warranty](http://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