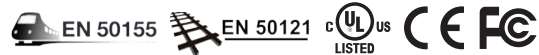# WAC-1001

Industrial wireless access controller

> Redundant 12 to 48 VDC power inputs
> Less than 50 ms controller controller empowered Turbo Roaming
> Supported models: AWK-RTG series
> Compliant with essential sections of EN 50155
> IEEE 802.11i-compliant wireless security
> DIN-Rail or wall mounting for onsite installation
> -40 to 75°C operating temperature range (T model)

EN 50155   EN 50121   c(UL)us LISTED   CE   FC

: Introduction

The goal of zero-latency-roaming is to create networks that maintain communications seamlessly as clients move from one access point to another. For this, as a part of the AWK-RTG series, Moxa has introduced the WAC-1001 with Turbo Roaming technology, a wireless access controller that can achieve less than 50ms roaming. This advanced roaming capability securely hands off clients at speeds so high that wireless clients may roam between APs almost seamlessly, with virtually no interruption in connectivity. Moreover, the WAC-1001 is suitable for use even in extremely demanding environments, meeting the essential sections of EN 50155 that cover operating temperature, power input voltage, surge, ESD and vibration.

Maximum Availability
• Less-than-50ms 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 10/100BaseT(X)
IEEE 802.3af for Power-over-Ethernet
Security: WPA /WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP, and AES)

Interface
LAN Port: 10/100BaseT(X), auto negotiation speed (RJ45-type)
Console: RS-232 (RJ45-type)
LED Indicators: PWR1, PWR2, PoE, FAULT, STATE, 10M, 100M
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, providing IP30 protection
Weight: 700 g
Dimensions: 52.85 x 135 x 105 mm (2.08 x 5.31 x 4.13 in)
Installation: DIN-Rail mounting, wall mounting

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)
*Compliant with EN 50155 on 24 VDC
Connector: 10-pin removable terminal block
Power Consumption:
• 12 to 48 VDC, 0.121 to 0.494 A
• 24 VDC, 0.3 A
Reverse Polarity Protection: Present

Standards and Certifications
Safety: UL 60950-1, EN 60950-1
EMC: FCC Part 15 Subpart B Class A, EN 55022/55024
Rail Traffic: EN 50155, EN 50121-1/4
Note: Please check Moxa's website for the most up-to-date certification status.
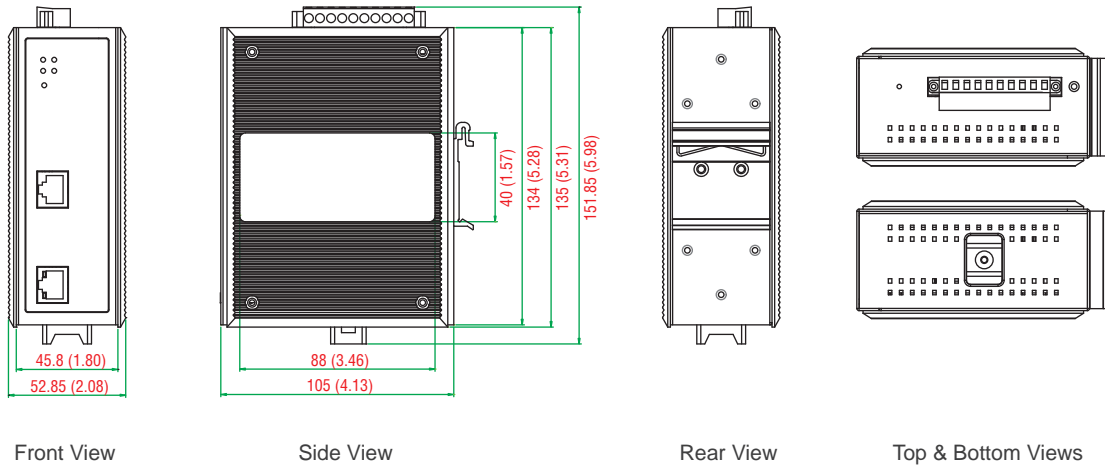
Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

45.8 (1.80)
52.85 (2.08)

40 (1.57)
134 (5.28)
135 (5.31)
151.85 (5.98)

88 (3.46)
105 (4.13)

Front View   Side View   Rear View   Top & Bottom Views

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

Package Checklist

- WAC-1001 wireless controller
- Wall mounting kit
- Cable holder with one screw
- 2 protective caps
- DIN-Rail kit
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card