



AWK-3131A

Advanced 802.11n industrial wireless solution

The AWK-3131A 3-in-1 industrial wireless AP/bridge/client meets the growing need for faster data transmission speeds by supporting IEEE 802.11n technology with a net data rate of up to 300 Mbps. The AWK-3131A is compliant with industrial standards

and approvals covering operating temperature, power input voltage, surge, ESD, and vibration. The two redundant DC power inputs increase the reliability of the power supply, and the AWK-3131A can be powered via PoE to make deployment easier.



KEY FEATURES

- IEEE802.11a/b/g/n compliant AP/bridge/client support for flexible deployment
- Supports 60 clients connected concurrently
- Integrated antenna and power isolation designed to provide 500 V insulation protection against external electrical interference
- Hazardous location wireless communication with Class I Div II and ATEX Zone 2 certifications
- Smooth wireless communication in harsh environments

Specifications

Security

- SSID broadcast enable/disable
- Firewall for MAC/IP/Protocol/Port-based filtering
- 64-bit and 128-bit WEP encryption, WPA/WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP, and AES)

Power Requirements

Input Voltage: 12 to 48 VDC, redundant dual DC power inputs or 48 VDC Power-over-Ethernet Plus (IEEE 802.3af compliant)

Input Current: 0.6 A @ 12 VDC; 0.15 A @ 48 VDC

Connector: 10-pin removable terminal block, 500 V insulation

Power Consumption: 7.2 W

Reverse Polarity Protection: Present

Standards and Certifications

Safety: UL 60950-1, EN 60950-1

Hazardous Location: UL/cUL Class I Division 2, ATEX Zone 2

EMC: EN 61000-6-2/6-4

EMI: CISPR 22, FCC Part 15B Class B

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: 2 kV

IEC 61000-4-6 CS: 10 V

IEC 61000-4-8

Radio:

EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID

SLE-WAPN005

NOTE: Please check Moxa's website for the most up-to-date certification status.



Specifications - AWK-3131A

Interface

Default Antennas:

2 dual-band omni-directional antennas, 2 dBi, RP-SMA (male)

Connector for External Antennas:

RP-SMA (female), 500 V insulation)

LAN Ports:

1, RJ45, 10/100/1000 BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection

Console Port:

RS-232 (RJ45-type)

Reset: Present

LED Indicators:

PWR1, PWR2, PoE, FAULT, STATE, SIGNAL*, WLAN, LAN

* Signal strength indicator

Alarm Contact (digital output):

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

Protocol Support

General Protocols:

Proxy ARP, DNS, HTTP, HTTPS, IP, ICMP, SNMP, TCP, UDP, RADIUS, SNMP, DHCP, VLAN, STP/RSTP

Transmission Rates

802.11b: 1, 2, 5.5, 11 Mbps

802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11n: 6.5 to 300 Mbps (multiple rates supported)

WLAN Interface

Standards:

IEEE 802.11a/b/g/n for Wireless LAN

IEEE 802.11i for Wireless Security

IEEE 802.3 for 10BaseT

IEEE 802.3u for 100BaseT(X)

IEEE 802.3ab for 1000BaseT

IEEE 802.3af for Power-over-Ethernet Plus

IEEE 802.1D for Spanning Tree Protocol

IEEE 802.1w for Rapid STP

IEEE 802.1Q for VLAN

Spread Spectrum and Modulation (typical):

- DSSS with DBPSK, DQPSK, CCK
- OFDM with BPSK, QPSK, 16QAM, 64QAM
- 802.11b: CCK @ 11/5.5 Mbps, DQPSK @ 2 Mbps, DBPSK @ 1 Mbps
- 802.11a/g: 64QAM @ 54/48 Mbps, 16QAM @ 36/24 Mbps, QPSK @ 18/12 Mbps, BPSK @ 9/6 Mbps
- 802.11n: 64QAM @ 300 Mbps to BPSK @ 6.5 Mbps (multiple rates supported)

Operating Channels (central frequency):

2.412 to 2.462 GHz (11 channels)

5.180 to 5.240 GHz (4 channels)

5.260 to 5.320 GHz (4 channels)*

5.500 to 5.700 GHz (8 channels,

excluding 5.600 to 5.640 GHz)*

5.745 to 5.825 GHz (5 channels)

* DFS (Dynamic Frequency Selection) channel support: In AP mode, when a radar signal is detected, the device will automatically switch to another channel. However according to regulations, after switching channels, a 60-second availability check period is required before starting the service.

Operating Temperatures

Wide Temp: -40 to 75°C (-40 to 167°F)

Ambient Relative Humidity: 5% to 95% (non-condensing)

Warranty

Warranty Period: One year



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