

# Industrial Wireless Connectivity



## When You Need Industrial-Grade Reliability and Performance

Wireless connectivity allows you to cover a wide area easily and quickly without trenching new cable, and your connected devices do not have to be physically tied to a fixed location. While you might be able to use commonly available commercial-grade wireless technology, **be aware that low-cost hardware may not be optimized for certain industrial use cases.**

- Are you connecting to devices in an outdoor, factory, or harsh environment?
- Does your application involve remote or unmanned operation?
- Will your operation be significantly affected by intermittent connection or hardware failure?

If these scenarios apply to you, you need **industrial-grade wireless equipment** that was designed specifically for these situations. You will gain high communications performance and reliability while reducing your overall operational costs.

**Moxa has 30 years of experience** designing and manufacturing this kind of communications equipment specifically for industrial use. Our hardware is tested and certified for high interoperability, wide temperature tolerances, and mission-critical performance. We have helped provide wireless connectivity for nuclear power plants, municipal transportation systems, and the International Space Station. And we can help you.

Visit [Moxa.com](https://www.moxa.com) to learn more.

# Moxa Industrial Wireless AP/Bridge/Clients



|   | Single-RF Wireless Transceiver                                     |  |  |   | Dual-RF Wireless Transceiver                                       |  |
|---|--|--|--|---|--|--|
|   | AWK-1131A  | AWK-3131A  | AWK-4131A  | AWK-3191  | AWK-5232   | AWK-6232   |
| <b>WLAN</b>                                   |  |  |  |   |  |  |
| Wireless Standard                             | 802.11a/b/g/n  | 802.11a/b/g/n  | 802.11a/b/g/n  | 900 MHz   | 802.11a/b/g/n  | 802.11a/b/g/n  |
| Number of RF Modules                          | 1  | 1  | 1  | 1   | 2  | 2  |
| Maximum Data Rate                             | 300 Mbps   | 300 Mbps   | 300 Mbps   | 54 Mbps   | 300 Mbps   | 300 Mbps   |
| Transmission Distance (with Default Antennas) | Up to 100 meters (in open areas)                                   | Up to 100 meters (in open areas)                                   | Up to 100 meters (in open areas)                                   | Up to 30 km point-to-point (with high gain Yagi-antennas) | Up to 100 meters (in open areas)                                   | Up to 100 meters (in open areas)                                   |
| <b>Interfaces</b>                             |  |  |  |   |  |  |
| Total Number of Antenna Ports                 | 2 (2x2 MIMO)   | 2 (2x2 MIMO)   | 2 (2x2 MIMO)   | 2 (2R1T Diversity)  | 4 (2x2 MIMO)   | 4 (2x2 MIMO)   |
| Antenna Port Type                             | RP-SMA (female)  | RP-SMA (female)  | N-Type (female)  | RP-SMA (female)   | RP-SMA (female)  | N-Type (female)  |
| Total Number of LAN Ports                     | 1  | 1  | 1  | 1   | 2  | 2  |
| LAN Port Type                                 | RJ45   | RJ45   | Waterproof RJ45  | RJ45  | RJ45   | M12 (female 8-pin A-coded)   |
| LAN Port Speed                                | 10/100/1000Base T (X)  | 10/100/1000Base T(X)   | 10/100/1000Base T(X)   | 10/100/Base T(X)  | 10/100/1000Base T(X)   | 10/100/1000Base T(X)   |
| <b>Power Requirements</b>                     |  |  |  |   |  |  |
| Input Voltage                                 | 12 to 48 VDC   | 12 to 48 VDC   | 12 to 48 VDC   | 12 to 48 VDC  | 12 to 48 VDC   | 12 to 48 VDC   |
| Connector Type                                | 4-pin terminal block   | 10-pin terminal block  | M12 (male 5-pin A-coded)   | 10-pin terminal block                                     | 10-pin terminal block  | M12 (male 5-pin A-coded)   |
| PoE Support                                   | -  | ✓  | ✓  | ✓   | ✓  | ✓  |
| <b>Standards and Certifications</b>           |  |  |  |   |  |  |
| Safety  | UL 60950-1, EN 60950-1   | UL 60950-1, EN 60950-1   | UL 60950-1, EN 60950-1   | UL 60950-1  | UL 60950-1, EN 60950-1   | UL 60950-1, EN 60950-1   |
| Hazardous Location                            | -  | UL/cUL CI D2, ATEX Zone2, IECEx                                    | -  | -   | -  | -  |
| EMC   | EN 55022/24  | EN 61000-6-2/6-4   | EN 61000-6-2/6-4   | -   | EN 55022/55024   | EN 55022/24  |
| Radio   | EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID SLE-WAPN005 | EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID SLE-WAPN005 | EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID SLE-WAPN008 | FCC ID SLE-WAFS001  | EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID SLE-WAPN001 | EN 301 489-1/17, EN 300 328, EN 301 893, TELEC, FCC ID SLE-WAPN001 |
| Operating Temperature                         | 0 to 60°C<br>-40 to 75°C (-T)                                      | -25 to 60°C<br>-40 to 75°C (-T)                                    | -40 to 75°C  | -25 to 60°C<br>-40 to 75°C (-T)                           | -25 to 60°C<br>-40 to 75°C (-T)                                    | -40 to 75°C  |
| IP Rating                                     | IP30   | IP30   | IP68   | IP30  | IP30   | IP68   |

## Contact us if you need the following:

- **Wireless access points** to establish hotspots
- **Wireless clients** to connect Ethernet devices to a hotspot
- **Wireless protocol gateways** to connect Modbus devices to a hotspot
- **Wireless device servers** to connect serial devices to a hotspot
- **Wireless antennas and other accessories** to support different deployment scenarios

