Arm-based Computers Application

Increase Industrial Productivity With Real-time Machine Health Monitoring



Why Moxa

Moxa's UC-3400A Series ATEX and CID2 compliant computer is designed to meet the rigorous requirements of manufacturing applications in hazardous or classified locations. Their compact size makes them ideal for installation in cabinets near machines, simplifying deployment in the field. Additionally, the UC-3400A features built-in dual wireless connectivity for seamless integration for enhanced data aggregation and analytics. Wireless connectivity enables remote maintenance and monitoring of machine health, helping to predict potential risks and reduce maintenance and repair costs.



UC-3400A Series*

- Dual wireless built-in
- ATEX and CID2 compliance for safe and reliable operations in hazardous locations
- Moxa Industrial Linux 3 (MIL3)
- Moxa connection manager (MCM) for simplified wireless, automatic network failover, and connection keep-alive

*Available in Q1, 2025

Background

As industrial automation demands increase, the heavy machinery used in manufacturing, oil and gas, transportation, and energy sectors will require significant human resources to maintain to ensure equipment safety and normal operations. The complexity of the systems deployed to manage the machinery also makes identifying and resolving issues time-consuming. Machines that are monitored are often located in hazardous or classified manufacturing locations and must be certified for safe use at these locations. This adds another layer of complexity to maintenance and monitoring tasks. Real-time machine health monitoring becomes crucial to address these challenges.

Moxa's Solutions

Reliable, low-power edge computers are crucial for machine health monitoring in harsh environments to collect and transmit sensor data to the cloud and facilitate remote monitoring. Moxa's UC-3400A Series is ideal for machine health monitoring in harsh environments. With ATEX and CID2 certifications, these rugged computers ensure reliable operation in harsh, hazardous, and classified environments. The thermal-in design enhances performance, while the wireless module offers uninterrupted connectivity in any environment, even under extreme temperatures. The built-in dual wireless connectivity simplifies overall system architecture, allowing users to connect sensors and aggregate data using either Wi-Fi or Bluetooth*. For cloud-based monitoring, sensor data can be transmitted via cellular or Wi-Fi. This flexible wireless connectivity supports a variety of applications.

Moxa Connection Manager (MCM) utility ensures continuous connectivity through automatic network failover. By continuous monitoring of machine health, businesses can reduce downtime, maximize production capacity, and optimize the maintenance and repair costs.

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