A Perfect Fit for Your Automation Applications

MC-1100 Series

Compact, rugged DIN-rail computers

Moxa's MC-1100 is a DIN-rail mountable x86-based computing platform that features an Intel® Atom™ E3800 series processor and a variety of communication interfaces, providing users with a powerful solution for high-speed serial communication, network redundancy, and dual storage. The advanced thermal design of the MC-1100 ensures reliable system operation in extreme temperatures ranging from -40 to 70°C. This powerful, palm-sized computer has the versatility you need for space-constrained, 24/7 industrial automation applications.

Rugged Design

- Fanless design
- -40 to 70°C wide operating temperature range with LTE module installed
- DNV, IEC 60945, Zone 2 compliance*

Powerful, Versatile, and Compact

- Intel® Atom™ processor E3800 series
- Multiple interfaces (2 serial ports, 4 Giga LANs, 4 DIs, 4 DOs, 2 USB 2.0 ports, 1 VGA, 1 DisplayPort)
- Dual storage (SD and CFast slots)
- Mini-PCIe sockets for wireless modules that support Wi-Fi, 3G, LTE, and GPS

Predictive Maintenance Support

- Proactive Monitoring tool
- Smart Recovery utility

Available Models

MC-1111-E2-T
DIN-rail mountable, fanless automation PC with Intel Atom E3826 1.46 GHz processor, 2 GB RAM, VGA/DP, 2 Giga LANs, 2 USBs, 1 CFast socket, 1 SD slot, 12 to 36 VDC power, -40 to 70°C operating temperature

MC-1111-E4-T
DIN-rail mountable, fanless automation PC with Intel Atom E3845 1.91 GHz processor, 2 GB RAM, VGA/DP, 2 Giga LANs, 2 USBs, 1 CFast socket, 12 to 36 VDC power, -40 to +70°C operating temperature range

MC-1121-E2-T
DIN-rail mountable, fanless automation PC with Intel Atom E3826 1.46 GHz processor, 2 GB RAM, VGA/DP, 4 Giga LANs, 2 USBs, 2 COM, 4 DIs, 4 DOs, 1 CFast socket, 1 SD slot, 12 to 36 VDC power, -40 to +70°C operating temperature

MC-1121-E4-T
DIN-rail mountable, fanless automation PC with Intel Atom E3845 1.91 GHz processor, 2 GB RAM, VGA/DP, 4 Giga LANs, 2 USBs, 2 COM, 4 DIs, 4 DOs, 1 CFast socket, 1 SD slot, 12 to 36 VDC power, -40 to +70°C operating temperature

Scan this QR code to learn more or visit http://www.moxa.com/product/MC-1100_Series.htm

*Certification process expected to be completed in March 2017

MOXA®
Reliable Networks ▲ Sincere Service

Overview

An integrated automation system (IAS) for marine applications facilitates fully-integrated operation of a ship where systems and equipment function seamlessly to increase productivity and efficiency. Computers play an important role in the success of an IAS platform as they are used to collect and transmit data from a wide array of systems, including alarm and monitoring, engine, thruster, and propulsion monitoring. Computers also facilitate communication with external systems. To ensure safe operation of a ship, computers are used to constantly monitor the systems in real time and trigger alarms and warnings as well as deliver information to the control systems for processing.

System Architecture
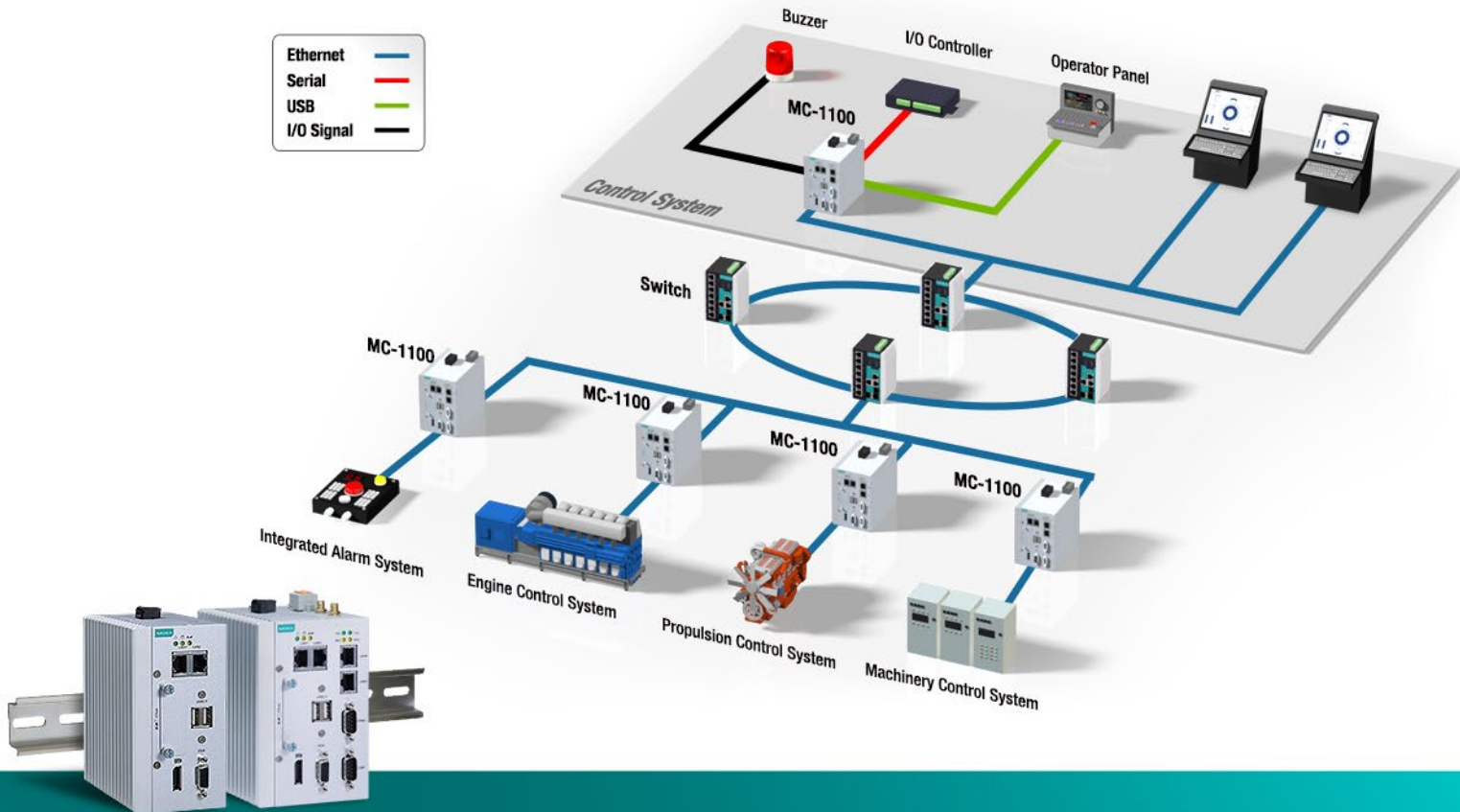
▶ System Requirements

- Computers that can be installed in control consoles and I/O cabinets or boxes where the space is constrained
- High-performance computers for the efficient handling of multiple tasks, including data collection, monitoring, system control, and data transmission, simultaneously
- A variety of I/O interfaces to connect to different sensors and machinery
- Multiple LAN ports for receiving data simultaneously from different systems
- Robust product design that provides reliable operation in harsh environments

▶ Moxa's Solution

The MC-1100 is an x86-based computing platform that includes:

- Compact DIN-rail mountable computers with front-access I/Os that are ideal for space-critical installations onboard a marine vessel
- Quad core Intel® Atom™ E3800 series processor that delivers outstanding computational power and performance
- Multiple connection options, including 4 LAN ports, 2 serial ports, 4 DIs, and 4 DOs
- Industrial-grade fanless design and a wide-operating temperature range of -40 to 70°C
- DNV, IEC 60945, Zone 2 compliance*

*Certification process expected to be completed in March 2017

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Moxa Inc.   www.moxa.com

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Overview

An oil field typically consists of many wells and pump stations scattered across a wide area. The challenge therefore is in processing the large amount of data acquired from various sensors and IP cameras installed at each pump station. A powerful and reliable industrial computing platform is the key to increasing efficiency and thereby maximizing the output of oil and gas. Computers installed in oil fields also monitor and control a pump jack with the help of advanced software tools and respond to any change in data detected by sensors.

System Architecture
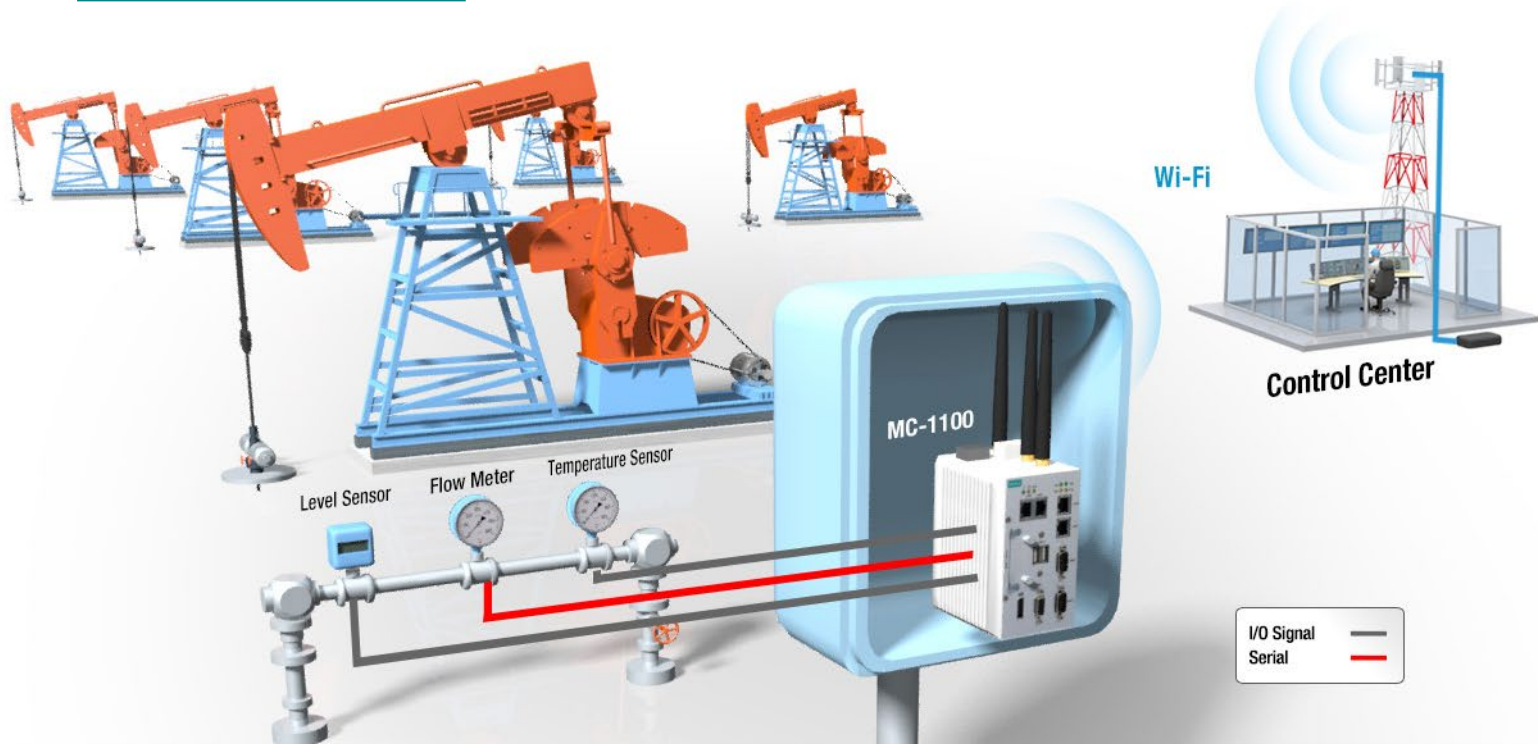
▶ System Requirements

- Industrial computers that comply with the ATEX certification and UL approval requirements are able to withstand temperature extremes and hazardous environments and provide system reliability and safety

- Robust product design that can endure continuous vibration caused by normal operations of the pump jacks because the computers are usually installed close to them

- Wireless connectivity to acquire and transmit data remotely since oil fields are often located at sites where wire runs are difficult

- The ability to monitor the system and send out alarms and warnings early on to prevent potential damage and to eliminate system downtime in unmanned sites

- Various I/O interfaces are required to connect different sensors and devices

▶ Moxa's Solution

The MC-1100 is an x86-based computing platform that includes:

- Industrial-grade fanless design and a wide-operating temperature range of -40 to 70°C

- ATEX/ IECEx Zone 2 compliance* for use in explosive atmospheres

- Compact DIN-rail computer with front access I/Os ideal for easy installation and maintenance

- Various options for wireless connectivity, including Wi-Fi, 3G, and 4G LTE

- Proactive Monitoring tool to help monitor the status of the computer in order to facilitate predictive maintenance measures to maximize system uptime

- Multiple connection options including 4 LAN ports, 2 serial ports, 4 DIs, and 4 DOs

*Certification process expected to be completed in March 2017

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Overview

Industry 4.0 is helping factories increase their production efficiency and reduce downtime. An increasing number of sensing devices are being connected and used to send data through wired and wireless networks. An edge computing platform is used to integrate large volumes of data from sensors into manufacturing systems, which include material handling systems, production automation systems, and enterprise IT systems. Industry 4.0 increases engineering efficiency by helping to upgrade existing legacy automation systems and develop these systems into intelligent systems for smart factories.

System Architecture
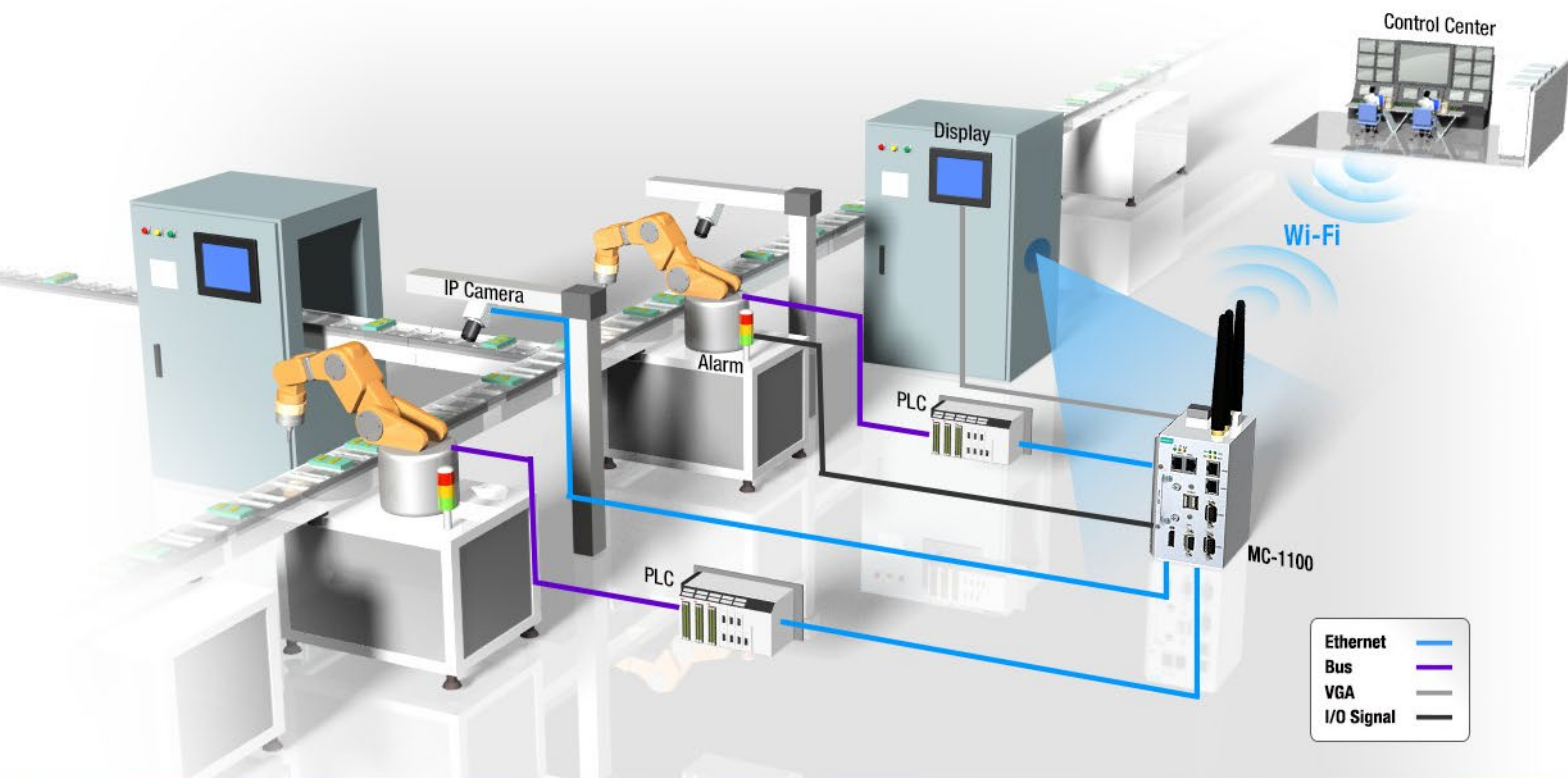
▶ System Requirements

- Computers are installed alongside switches, PLCs, and I/Os in a small control box
- Various I/O interfaces are required for connecting different sensors and machinery
- Multiple LAN ports for transferring data between different stations, simultaneously
- Wireless connection for long-distance data transmission
- Robust product design for durability and operation reliability
- A high-performance computer is a must to deal with multiple tasks, including control, data collection, monitoring, and data transmission, simultaneously

▶ Moxa's Solution

The MC-1100 is an x86-based computing platform that includes:

- Compact DIN-rail computer with front access I/Os ideal for installation and maintenance
- Multiple connection options including 4 LAN ports, 2 serial ports, 4 DIs, and 4 DOs
- Various options for wireless connectivity, including Wi-Fi, 3G, and 4G LTE
- Industrial-grade fanless design and a wide-operating temperature of -40 to 70°C
- Quad core Intel® Atom™ processor E3845 series that delivers outstanding computational power and performance