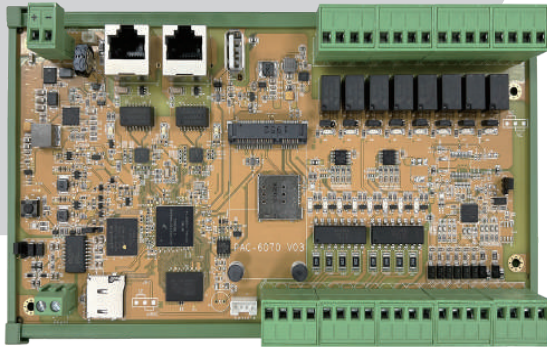


# Linux-Ready Arm Cortex-A7 Industrial Automation Controller PAC-6070



## Features

- Rugged Design for Industrial Automation Application
- Cost-Effective Linux Computing Platform
- NXP i.MX6ULL Arm Cortex-A7 CPU, Up to 800MHz
- 1GB LvDDR3 SDRAM, 16GB eMMC
- 8 x Opto-Isolated Digital Inputs
- 8 x Relay Outputs
- 5 x 24-bits A/D Channels
- 1 x Full Size miniPCIe Socket & 1 x Micro-SIM Slot
- 1 x Micro-SD Card Socket
- 2 x 10/100Mbps Ethernet Interface
- 1 x USB port
- 1 x RS-485 Serial Port
- +9~+48 VDC Wide-Range Power Input
- Dimension: 121.8mm x 204mm x 50mm (4.8" x 8" x 1.96")
- Easy for DIN-Rail Mounting

## ■ Introduction

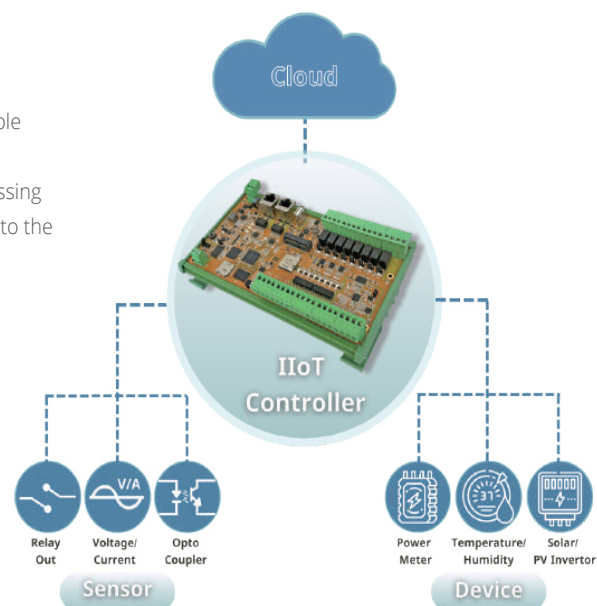
The PAC-6070 is a cost-effective Linux computing platform powered by Cortex-A7 MPU. It offers a versatile range of on-board IOs, including voltage/current measurement, opto-isolated digital inputs, and high-power relay outputs. With its comprehensive IO capabilities, the PAC-6070 enables efficient monitoring and control, making it the perfect choice for advanced Industrial IoT applications.

PAC-6070 is powered by NXP i.MX6ULL Cortex-A7 Processor with 1GB SDRAM and 16GB MMC. PAC-6070 features 4 A/D differential channels, 8 channels digital inputs, and 8 x relay outputs. In addition, PAC-6070 integrates two 10/100Mbps Ethernet, one isolated RS-485 ports, one USB hosts, and one MicroSD socket, one miniPCIe slot. The DIN-Rail also makes PAC-6070's onsite installation flexible.

## ■ Applications

PAC-6070 is a versatile Linux automation controller suitable for a wide-range of applications. With its support for the Industrial Internet of Things (IIoT) by collecting and processing data from various sources and sending instructions back to the devices or systems to optimize the process.

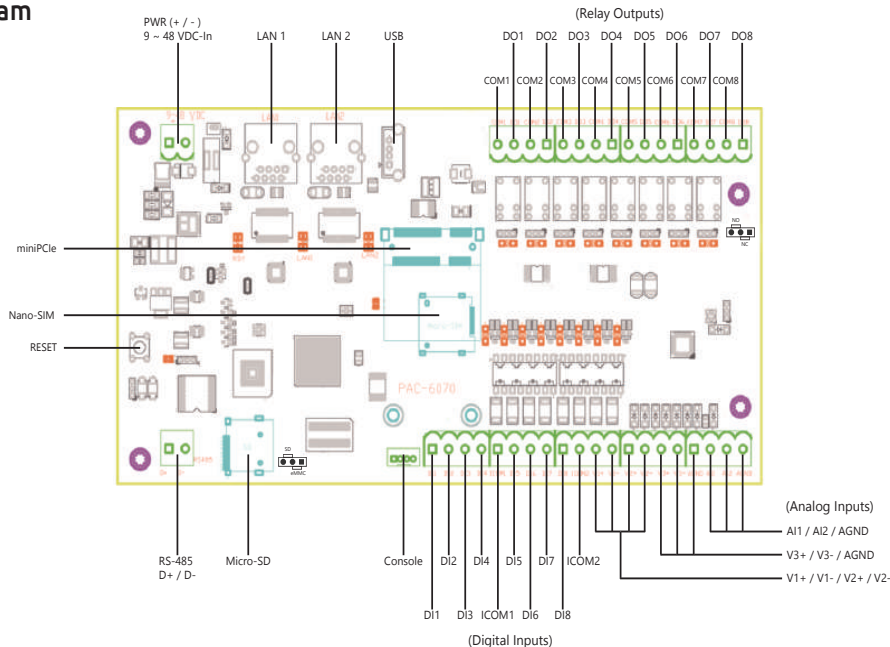
- Energy Management
- Intelligent Transportation
- Healthcare
- Industrial Automation
- Smart Cities



# Linux-Ready Arm Cortex-A7 Industrial Automation Controller

## PAC-6070

### ■ Diagram



### ■ H/W Specification

#### CPU / Memory

- CPU: NXP i.MX6ULL Cortex-A7 MPCore, Up to 800MHz
- SDRAM: 1GB LvDDR3
- Flash: 16GB eMMC

#### Network Interface

- Type: 2 x 10/100Mbps Ethernet
- Connector Type: RJ45

#### Serial Port

- 1 x RS-485 (1500Vrms isolation)
- Termination Resistor: 120ohm (Disable as default)
- Signal: RS-485 (Data+, Data-)
- Connector: Terminal block
- LED Indicator: YES

#### Digital Input

- 8 x digital input channels
- Isolation Protection: 5000Vrms (photo-coupler)
- Logical High: 5~24VDC
- Logical Low: 0~1.5VDC

#### Relay Output

- 8 x relay output channels
- Contact Rating: 125VAC@0.5A / 30VDC@1.0A
- Max. Switching Voltage: 125VAC / 60VDC
- Max. Switching Current: 2A

#### Analog Input

- 5 x 24-bits A/D channels
- Input Mode (Voltage): 3 channels (differential input)  
Input Range (Voltage): +/- 10VDC  
(Optional) 6 x Single-end channels, call for driver support
- Input Mode (Current): 2 channels (single-end)  
Input Current: 0~20mA

#### General

- WatchDog (WDT): YES
- Real-Time Clock(RTC): YES, backup by super capacitor
- Power Input: +9~+48 VDC (terminal block)
- Reset: Multi-function reset button
- Indicator: READY, LAN, RS-485, DI, Relay-Out, A/D
- Dimensions (WxLxH): 121.8 x 204 x 50mm (4.8 x 8 x 1.96in)
- Net Weight: 360g (0.791lb)
- Operating Temperature: 0~70°C (32~158°F)
- Regulation: CE Class A, FCC Class A
- Installation: DIN-rail mounting

#### Console / Debug Port

- 1 x 4-Pin box connector

#### SD Slot

- 1x Micro-SD socket, SD 2.0 compliant, supports SDHC

#### Expansion

- 1 x miniPCIe slot, 1 x Micro-SIM socket

#### USB Interface

- 1 x USB 2.0 Port, USB Type-A connector

### ■ S/W Specifications

#### Operation System

- Support Ubuntu and Embedded Linux, kernel 5.10.x (or up)
- Supports bootup from eMMC or SD card
- Supports backup from SD card or USB device

#### Software Development

- Toolchain: gcc 9.3.0 + glibc 2.31
- Supports in-place C/C++ code compilation

### ■ Ordering Information

#### PAC-6070

- Linux-based Arm Cortex-A7 Industrial Automation Controller

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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