

Linux-based Arm9 Programmable Automation Controller

PAC-4070



Features

- · ATMEL AT91SAM9G20 400MHz CPU w/ MMU
- · Linux kernel 2.6.29 with file system
- · 64MB SDRAM and 256MB NAND Flash
- GNU C / C++ toolchain is included
- · 4 x 16-bit multiplexed differential analog inputs
- 4 x 2500Vrms 500mA High-Drive digital outputs
- · 4 x 5000Vrms Opto-isolated bipolar digital inputs
- · 2 x 10/100Mbps Ethernet ports
- Up to 4 x RS-232 ports, 921.6Kbps max.
- 2 x 1500Vrms isolated RS-485 ports, with auto direction

H/W Specifications

CPU / Memory

- · CPU: ATMEL AT91SAM9G20 400MHz w/ MMU
- · Memory: 64MB SDRAM, 256MB NAND Flash
- DataFlash®: 2MB, for system backup

Network Interface

- · No. of Ports: 2
- · Type: 10/100Mbps Ethernet, RJ45 connector
- Protection: 1.5KV magnetic isolation

TTY (Serial) Ports

- Port 1: Can be set as RS-232 or RS-485, software selectable RS-232: TX, RX, RTS, CTS, GND RS-485: D+, D- (must wiring to terminal block)
- Port 2: Can be set as RS-232 or RS-485, software selectable RS-232: TX, RX, RTS, CTS, DSR, DTR, DCD, GND RS-485: D+, D- (must wiring to terminal block)
- Port 3, 4: RS-232 only RS-232: TX, RX, RTS, CTS, GND

Common UART Parameters

- · Baud Rate: Up to 921.6Kbps
- · Parity: None, Even, Odd, Mark, Space
- · Data Bits: 5, 6, 7, 8
- Stop Bits: 1, 1.5, 2
- Flow Control: RTS / CTS, XON / XOFF, None

- · Host Ports: 2, USB 2.0 compliant
- · Client Port: 1, USB 2.0 compliant
- · Speed: Supports 12Mbps full-speed mode

SD Socket (Secure Digital Card)

- 1 x Micro-SD socket (at bottom side)
- · SD 2.0 Compliant, support SDHC

Real Time Clock

- · Chip: ST M41T81
- Backup Battery: Lithium, 48mAh, on-board

Watchdog Timer

· CPU built-in watchdog timer, used by Linux kernel

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- Type: RS-232 serial console, inside the box
- · Signals: Tx, Rx, GND

High-precision Analog Input

- · A/D Converter: AD7712 (Analog Devices)
- · No. of Channels: 4, multiplexed, differential
- Sampling Speed: 10 readings per second
- Input Range (selected by software): 0~150mV, 0~500mV, +/-150mV, +/-500mV 0~1V, 0~5V, 0~10V, +/-1V, +/-5V, +/-10V 0~20mA
- · Resolution: 16-bit
- Accuracy: +/-0.1%
- · Voltage Input Mode: Differential, 100db CMR
- · Voltage Input Impedance: 20M Ohms
- · Current Input Impedance: 120 Ohms
- · Isolation Protection: 1500VDC

Isolated Digital Input

- No. of Channels: 4, supporting bipolar input
- · Opto-isolation: 5000Vrms
- Logical High: 5~24VDC
- · Logical Low: 0~1.5VDC
- Response Time: 20µs

High-Drive Digital Output

- · No. of Channels: 4
- · Source Driver: UDN2981A (Allegro MicroSystems)
- · Source Voltage (VDD): 5~50VDC
- · Output Current: 500mA max.
- · Isolation: 2500Vrms

- · Power Input Range: +9V~+48VDC
- · Power Consumption: 12VDC@500mA, 6 Watts max.
- Operating Temperature: 0~70°C (32~158°F)
- EMC Regulation: CE Class A, FCC Class A
- Dimensions (W x H x D): 65 x 130 x 102.5mm (2.56x5.12x4.03in)
- · Mounting: DIN RAIL mountable

■ Ordering Information

· Linux-based Arm9 Programmable Automation Controller

CB-RJ45F9-150 (91-R45F9-150)

· Serial Cable (RI45 to DB9 Female, 150cm)

CB-PHDF9-050 (91-PHDF9-050)

· Console Cable (Wafer Box to DB9 Female, 50cm)

PWR-12V-1A

· 100~240VAC to 12VDC 1A Power Adapter

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