



H/W Specifications

CPU / Memory

- CPU: ATMEL 180MHz AT91RM9200 (ARM9, w/ MMU)
- Memory: 64MB SDRAM, 16MB NOR Flash

Network Interface

- Type: 2 x 10/100BaseT, RJ45 connector

USB Ports

- Host Ports: 2, USB 2.0 compliant, with 10-pin header
- Data Rate: Up to 12Mbps

Mass Storage

- 1 x SD 1.0 compliant socket inside

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: 8
- Logical High: 5~24VDC
- Logical Low: 0~1.5VDC
- Input Resistance: 1.2K ohms@0.5W
- Response Time: 20µs
- Opto-isolation: 2500Vrms

Digital Output

- No. of Channels: 8
- Source Driver: UDN2981A (Allegro MicroSystems)
- Source Voltage (VDD): 5~50VDC
- Output Current: 500mA max.

General

- Watchdog Timer: Yes, for kernel use
- Real Time Clock: Yes
- Buzzer: Yes
- Power Input: 9~40VDC
- Power Consumption: 800mA@12VDC
- Dimensions (W x H x D): 160 x 104 x 32mm
- Operating Temperature: 0~70°C (32~158°F)
- Regulation: CE Class A, FCC Class A

Features

- Linux kernel 2.6.14 OS with file system
- 64MB SDRAM and 16MB NOR Flash
- 4 x 16-bit high-precision multiplexed analog inputs
- 8 x 2500Vrms opto-isolated digital inputs
- 8 x 500mA High-Drive digital outputs
- 2 x 10/100Mbps Ethernet ports
- 1 x RS-232 port, 1 x RS-485 port
- 2 x USB 2.0 host ports for add-on functionality expansion
- 1 x SD memory card slot included for storage expansion
- GNU C / C++ toolchain for Linux / Windows environment
- 9~40VDC input range

S/W Specifications

General

- OS: Linux, kernel 2.6.14
- Boot Loader: U-Boot 1.1.2
- File Systems: JFFS2, ETX2 / ETX3, VFAT / FAT, NFS

Protocol Stacks

- IPv4, ICMP, ARP, DHCP, NTP, TCP, UDP, FTP, TELNET, HTTP, PPP, PPPoE, CHAP, PAP, SMTP, SNMP V1 / V2, SSL, SSH 1.0 / 2.0

Pre-installed Utilities

- bash: shell command
- tinylogin: login and user manager utility
- telnet: telnet client program
- busybox: Linux utility collection
- ftp: ftp client program

Daemons

- pppd: dial in / out over serial port and PPPoE
- snmpd: SNMP agent program
- telnetd: telnet server program
- inetd: TCP server program
- ftpd: ftp server program
- boa: web server program
- sshd: secured shell server
- iptables: firewall service manager
- amgrd: Artila manager daemon

Toolchain for Linux

- GCC: C / C++ PC cross compiler for Linux, Cygwin
- GLIBC: POSIX Library

Device Drivers

- SD / MMC, UART, Real Time Clock, Buzzer, Digital I/O, Ethernet, Watchdog Timer

USB Host Drivers (Could Be Customized)

- Flash disk
- WiFi (IEEE-802.11b/g)
- RS-232 adapters

Ordering Information

- **PAC-5070**
Linux-based ARM9 Programmable Automation Controller
- **CBL-F10M9-20 (91-0P9M9-001)**
Console Cable (10Pin Header to DB9 Male, 20cm)