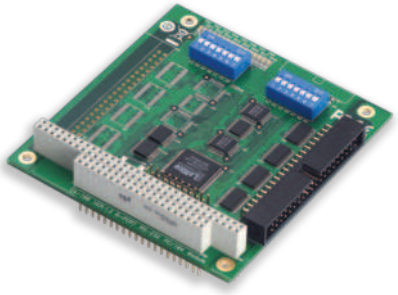
# CA-104 Series

## 4-port RS-232 PC/104 modules



- 921.6 kbps maximum baudrate for super fast data transmission
- On-chip software flow control
- Built-in 15 kV ESD protection
- IRQ and I/O settings are jumper and DIP switch selectable
- Onboard Tx and Rx LED indicators for each port
- Windows CE 5.0/6.0 and Windows XP embedded operating systems supported
- Wide temperature model available for -40 to 85°C environments

## Overview

The CA-104 PC/104 modules are reliable, high performance, multiport serial communication solutions that have 4 RS-232 ports, and can be used with PC/104 CPU boards that accept the PC/104 expansion interface. Optional DB9 and DB25 connection cables are available for connecting to serial devices, and the CA-104s' versatile driver support makes the modules suitable for a wide range of applications.

## Specifications

### Hardware

**Comm. Controller:** 16C550C or compatible x 4
**Bus:** PC/104 bus
**Connector:** 40-pin box header
**DIP Switches:** I/O base address, interrupt vector

### Serial Interface

**Number of Ports:** 4
**Serial Standards:** RS-232
**Max. No. of Boards per PC:** 4

### Serial Line Protection

**ESD Protection:** 15 kV on the board

### Performance

**Baudrate:** 50 bps to 921.6 kbps

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8
**Stop Bits:** 1, 1.5, 2
**Parity:** None, Even, Odd, Space, Mark
**IRQ:** 3, 4, 5, 6, 7, 9, 10, 11, 12, 15 (shared for all ports)
**FIFO:** 64 bytes

### Serial Signals

**RS-232:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

### Operating Systems

**Windows Real COM Drivers:** Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008 (x86/x64), DOS, Windows Embedded CE 5.0/6.0, Windows XP Embedded
**Fixed TTY Drivers:** QNX 4, QNX 6
**Linux Real TTY Drivers:** Linux 2.4.x, 2.6.x
Note: Please refer to Moxa's website for the latest driver support information.

### Physical Characteristics

**Dimensions:** 90 x 96 mm (3.54 x 3.78 in)

### Environmental Limits

**Operating Temperature:**
Standard Models: 0 to 55°C (32 to 131°F)
Wide Temp. Models: -40 to 85°C (-40 to 185°F)
**Storage Temperature:** -40 to 85°C (-40 to 185°F)
**Ambient Relative Humidity:** 5 to 95% (non-condensing)
**Altitude:** Up to 2000 m
Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

### Standards and Certifications

**EMC:** CE, FCC
**EMI:** EN 55022, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class A
**EMS:** EN 55024, IEC 61000-6-2, IEC 61000-6-4, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 (DIPS)
**Green Product:** RoHS, CRoHS, WEEE

### MTBF (mean time between failures)

**Time:** 897,459 hrs
**Database:** Telcordia (Bellcore), GB

### Power Requirements

**Power Consumption:** 210 mA @ +5 V

### Warranty

**Warranty Period:** 5 years
**Details:** See www.moxa.com/warranty

## Ordering Information

### Available Models

**CA-104:** 4-port RS-232 PC/104 module, 0 to 55°C operating temperature
**CA-104-T:** 4-port RS-232 PC/104 module, -40 to 85°C operating temperature

### Connection Options (can be purchased separately)

**CBL-F40M9x4-50:** 40-pin box header to male DB9 x 4 connection cable, 50 cm
**CBL-F40M25x4-50:** 40-pin box header to DB25 male x 4 connection cable, 50 cm

### Package Checklist

- 1 CA-104 or CA-104-T module
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card


© Moxa Inc. All Rights Reserved. Updated Mar. 28, 2014. Specifications subject to change without notice. Please visit our website for the most up-to-date product information.