

# CA-108 Series

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



### Features and Benefits

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

### Certifications



## Introduction

The CA-108 PC/104 modules are reliable, high-performance, multiport serial communication solutions that have 8 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 versatile driver support makes the modules suitable for a wide range of applications.

## Specifications

### Serial Interface

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Comm. Controller          | 16C550C or compatible x 4                               |
| Bus                       | PC/104 bus                                              |
| Connector                 | 40-pin box header                                       |
| DIP Switches              | I/O base address, Interrupt vector                      |
| IRQ                       | 3, 4, 5, 6, 7, 9, 10, 11, 12, 15 (shared for all ports) |
| FIFO                      | 64 bytes                                                |
| Max. No. of Boards per PC | 8                                                       |
| No. of Ports              | 8                                                       |
| Serial Standards          | RS-232                                                  |
| Baudrate                  | 50 bps to 921.6 kbps                                    |
| Data Bits                 | 5, 6, 7, 8                                              |
| Stop Bits                 | 1, 1.5, 2                                               |
| Parity                    | None, Even, Odd, Space, Mark                            |
| Flow Control              | None, RTS/CTS, XON/XOFF                                 |

### Serial Signals

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

## Serial Software Features

|                 |                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Windows Drivers | DOS, Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded |
| Linux Drivers   | Linux kernel 2.4.x, Linux kernel 2.6.x                                                                                                                                         |
| UNIX Drivers    | FreeBSD 4.x, QNX 4                                                                                                                                                             |

## Power Parameters

|               |                |
|---------------|----------------|
| Input Current | 210 mA @ 5 VDC |
| Input Voltage | 5 VDC          |

## Physical Characteristics

|            |                             |
|------------|-----------------------------|
| Dimensions | 90 x 96 mm (3.54 x 3.78 in) |
|------------|-----------------------------|

## LED Interface

|                |                                    |
|----------------|------------------------------------|
| LED Indicators | Built-in Tx, Rx LEDs for each port |
|----------------|------------------------------------|

## Environmental Limits

|                                        |                                                                         |
|----------------------------------------|-------------------------------------------------------------------------|
| Operating Temperature                  | CA-108: 0 to 55°C (32 to 131°F)<br>CA-108-T: -40 to 85°C (-40 to 185°F) |
| Storage Temperature (package included) | -40 to 85°C (-40 to 185°F)                                              |
| Ambient Relative Humidity              | 5 to 95% (non-condensing)                                               |

## Standards and Certifications

|                       |                                                                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC                   | EN 55032/24                                                                                                                                                                                                                                                                        |
| EMI                   | CISPR 32, FCC Part 15B Class A                                                                                                                                                                                                                                                     |
| EMS                   | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m<br>IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV<br>IEC 61000-4-5 Surge: Power: 0.5 kV<br>IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m<br>IEC 61000-4-8 PFMF<br>IEC 61000-4-11 |
| Environmental Testing | IEC 60068-2-1<br>IEC 60068-2-2<br>IEC 60068-2-3<br>IEC 60068-2-14                                                                                                                                                                                                                  |
| Vibration             | IEC 60068-2-6                                                                                                                                                                                                                                                                      |

## Declaration

|               |                   |
|---------------|-------------------|
| Green Product | RoHS, CRoHS, WEEE |
|---------------|-------------------|

## MTBF

|           |                          |
|-----------|--------------------------|
| Time      | 897,459 hrs              |
| Standards | Telcordia (Bellcore), GB |

## Warranty

|                 |                                                                      |
|-----------------|----------------------------------------------------------------------|
| Warranty Period | 5 years                                                              |
| Details         | See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a> |

## Package Contents

|               |                                                   |
|---------------|---------------------------------------------------|
| Device        | 1 x CA-108 Series PC/104 module                   |
| Documentation | 1 x quick installation guide<br>1 x warranty card |

## Ordering Information

| Model Name | Serial Bus | Serial Standards | No. of Serial Ports | Operating Temp. |
|------------|------------|------------------|---------------------|-----------------|
| CA-108     | PC/104     | RS-232           | 8                   | 0 to 55°C       |
| CA-108-T   | PC/104     | RS-232           | 8                   | -40 to 85°C     |

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