

# CP-168U

## 8-port RS-232 Universal PCI serial board



- > Over 700 Kbps data throughput for top performance
- > 921.6 Kbps maximum baudrate for super fast data transmission
- > 128-byte FIFO and on-chip H/W, S/W flow control
- > Choose from a wide range of connection cables and boxes
- > Compatible with 3.3/5V PCI and PCI-X
- > Drivers provided for Windows (2000, XP/2003/Vista/2008 x86/x64, 9X/ME/NT), Windows CE 5.0/6.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64), FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7
- > 15 KV ESD protection on the board
- > Wide temperature model available for -40 to 85°C environment

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.



### Overview

The CP-168U is a smart, 8-port universal PCI board designed for POS and ATM applications. It is a top choice of industrial automation engineers and system integrators, and supports many different operating systems, including Windows, Linux, and even Unix. In addition, each of the board's 8 RS-232 serial ports supports a super

fast 921.6 Kbps baudrate. The CP-168U provides full modem control signals to ensure compatibility with a wide range of serial peripherals, and works with both 3.3V and 5V PCI buses, allowing the board to be installed in virtually any available PC server.

### Specifications

#### Hardware

**Comm. Controller:** MU860 (16C550C compatible)

**Bus:** 32-bit Universal PCI

**Connector:** DB62 female

#### Serial Interface

**Number of Ports:** 8

**Serial Standards:** RS-232

**Max. No. of Boards per PC:** 4

#### Serial Line Protection

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

**Optical Isolation:** 500 V with connection box Opt8F (must be purchased separately)

#### 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

**Flow Control:** RTS/CTS, XON/XOFF

**I/O Address:** Assigned by BIOS

**IRQ:** Assigned by BIOS

#### Serial Signals

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

#### Driver Support

**Operating Systems:** Windows (2000, XP/2003/Vista/2008 x86/x64, 9X/ME/NT), Windows CE 5.0/6.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64), FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7

#### Physical Characteristics

**Dimensions:** 82 x 120 mm (3.22 x 4.72 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)

**Operating Humidity:** 5 to 95% RH

**Storage Temperature:** -20 to 85°C (-4 to 185°F)

#### Regulatory Approvals

**FCC:** Part 15 Class B

**EMS:** EN55022, EN55024, EN61000-3-2, EN61000-3-3, 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)

#### Power Requirements

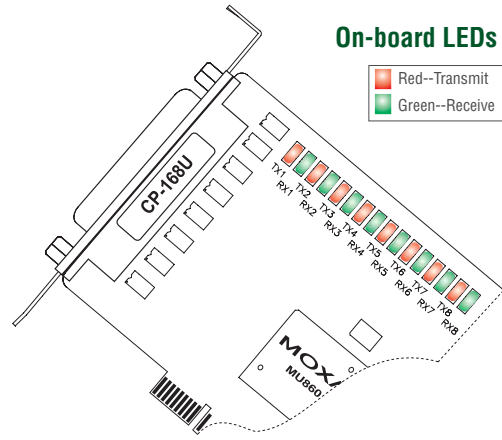
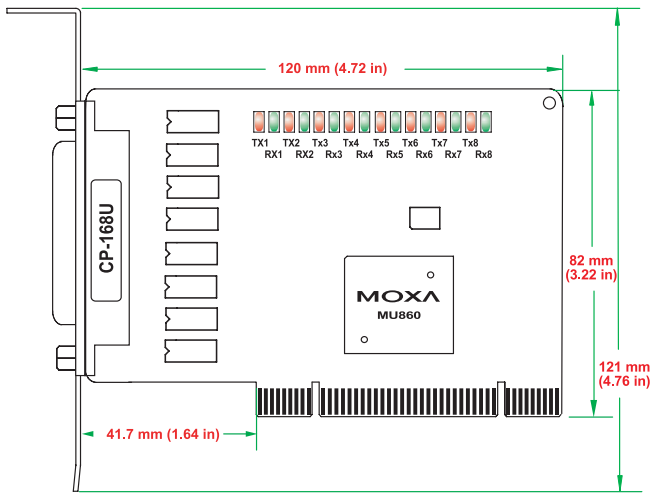
**Power Consumption:** 180 mA @ +5 V

#### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**



**Ordering Information**

**Available Models**

- CP-168U:** 8-port RS-232 Universal PCI serial board, 0 to 55°C operating temperature
- CP-168U-T:** 8-port RS-232 Universal PCI serial board, -40 to 85°C operating temperature

**Package Checklist**

- CP-168U board
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

**Connection Options** (can be purchased separately)

**OPT8-M9**

DB9 male x 8 (150 cm cable)



**CBL-M62M9x8-100 (OPT8D)**

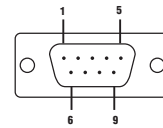
DB9 male x 8 (100 cm cable)



PIN	RS-232
1	DCD
2	RxD
3	TxD
4	DTR

PIN	RS-232
5	GND
6	DSR
7	RTS
8	CTS

**DB9 male**



**OPT8B**

DB25 male x 8 (150 cm cable)



**CBL-M62M25x8-100 (OPT8C)**

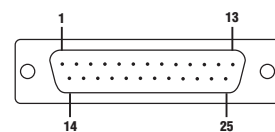
DB25 male x 8 (100 cm cable)



PIN	RS-232
2	TxD
3	RxD
4	RTS
5	CTS

PIN	RS-232
6	DSR
7	GND
8	DCD
20	DTR

**DB25 male**



**OPT8A**

DB25 female x 8 (150 cm cable)



**OPT8S**

DB25 female x 8 (150 cm cable)  
25 KV ESD Surge Protection



**OPT8F/Z (RS-422)**

DB25 female x 8 (150 cm cable)  
110 or 230 VAC power adaptor  
(115.2 Kbps max. baudrate)



OPT8F with 500 V isolation

**OPT8K(RS-422/485)**

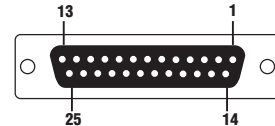
DB25 female x 8 (150 cm cable)  
110 or 230 VAC power adaptor



PIN	RS-232	PIN	RS-232
2	RxD	6	DTR
3	TxD	7	GND
4	CTS	8	DCD
5	RTS	20	DSR

PIN	RS-422/RS-485-4w	RS-485-2w
2	RxD+(B)	Data+(B)
3	TxD+(B)	
7	GND	GND
14	RxD-(A)	Data-(A)
16	TxD-(A)	

**DB25 female**



**OPT8-RJ45**

8-pin RJ45 x 8 (30 cm cable)



PIN	RS-232	PIN	RS-232
1	DSR	5	RxD
2	RTS	6	DCD
3	GND	7	CTS
4	TxD	8	DTR

**8-pin RJ45**

