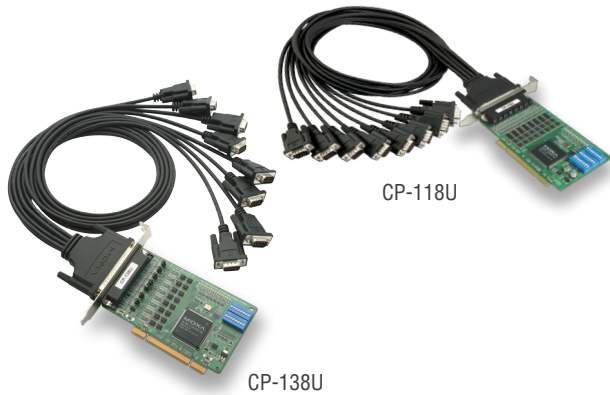


# CP-118U/138U

## 8-port RS-232/422/485 Universal PCI serial boards



- > 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
- > Compatible with 3.3/5 V PCI and PCI-X
- > Drivers provided for a broad selection of operating systems, including the latest Windows and Linux
- > Easy maintenance with on-board LED display, and management software
- > Wide temperature model available for -40 to 85°C environments



### Overview

The CP-118U and CP-138U are smart, 8-port Universal PCI serial boards designed for POS and ATM applications and for use by industrial automation system manufacturers and system integrators. Both boards are compatible with all major operating systems. In addition, the CP-118U's 8 RS-232/422/485 ports and the CP-138U's

8 RS-422/485 ports support data rates up to 921.6 kbps and provide full modem control signals to ensure compatibility with a wide range of serial peripherals. The CP-118U and CP-138U support both 3.3 V and 5 V PCI buses, making them suitable for installation in most PC servers.

### Drivers Provided for Windows and Linux

One of Moxa's highest priorities is to provide drivers for all mainstream operating systems. Reliable, well-tested Windows and Linux/Unix drivers are available for use with the CP-118U and CP-138U serial

boards. Other operating systems, such as Windows XP embedded and WEPOS, are also supported to accommodate embedded integration applications.

### Specifications

#### Hardware

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

**Bus:** 32-bit Universal PCI

**Connector:** DB62 female

#### Serial Interface

**Number of Ports:** 8

**Serial Standards:**

CP-118U: RS-232/422/485

CP-138U: RS-422/485

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

#### 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

#### Serial Signals

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

**RS-422:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-4w:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-2w:** Data+(B), Data-(A), GND

#### Physical Characteristics

**Dimensions:** 82 x 135 mm (3.22 x 5.31 in)

#### Driver Support

**Windows:** Windows 95/98/ME/NT/2000, Windows XP/2003/ Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64), DOS, Windows Embedded CE 5.0/6.0, Windows XP Embedded

**Linux:** Linux 2.4.x, 2.6.x, 3.x

**Unix-like Systems:** QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD

*Note: Please refer to Moxa's website for the latest driver support information.*

#### 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)

#### Standards and Certifications

**EMC:** EN 55032/24

**EMI:** CISPR 32, FCC Part 15B Class B

**EMS:**

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m

#### MTBF (mean time between failures)

**Time:**

CP-118U: 1,073,385 hrs

CP-138U: 1,147,210 hrs

**Standard:** Telcordia (Bellcore) SR-332

### Power Requirements

#### Input Current:

CP-118U: 240 mA @ 5 VDC (RS-232); 300 mA @ 5 VDC (RS-422)

CP-138U: 135 mA @ 5 VDC (RS-422)

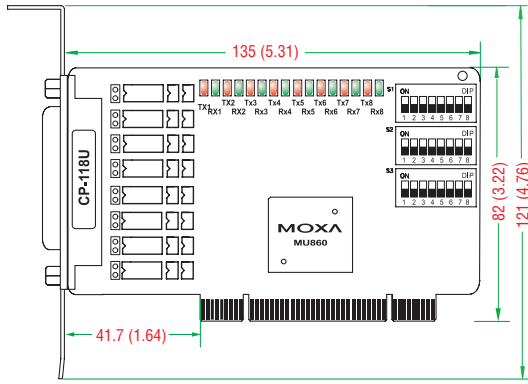
### Warranty

Warranty Period: 5 years

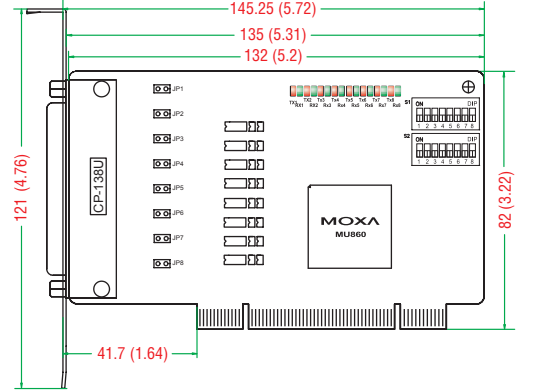
Details: See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

#### CP-118U



#### CP-138U



Unit: mm (inch)

## Ordering Information

### Available Models

**CP-118U:** 8-port RS-232/422/485 Universal PCI serial board, 0 to 55°C operating temperature

**CP-138U:** 8-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature

**CP-118U-T:** 8-port RS-232/422/485 Universal PCI serial board, -40 to 85°C operating temperature

**CP-138U-T:** 8-port RS-422/485 Universal PCI serial board, -40 to 85°C operating temperature

### Connection Options (can be purchased separately)

**CBL-M62M9x8-100:** M62 to 8 x DB9-M cable, 100 cm

**CBL-M62M25x8-100:** M62 to 8 x DB25-M cable, 100 cm

### Optional Connectors (choose one per board)

**OPT8A:** M62 to 8 x DB25-F connection box with 150 cm DB62-M to DB62-F cable

**OPT8B:** M62 to 8 x DB25-M connection box with 150 cm DB62-M to DB62-F cable

**OPT8S:** M62 to 8 x DB25-F connection box w/ surge protection, with 150 cm DB62-M to DB62-F cable

**OPT8-M9:** M62 to 8 x DB9-M connection box with 150 cm DB62-M to DB62-F cable

**OPT8-RJ45:** M62 to 8 x RJ45 (8-pin) connection box with 30 cm cable

### Package Checklist

- 1 CP-118U or CP-138U board
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

#### OPT8-M9

DB9 male x 8 (150 cm cable)



#### CBL-M62M9x8-100 (OPT8D)

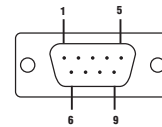
DB9 male x 8 (100 cm cable)



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)

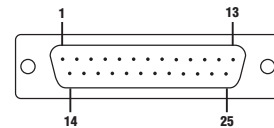
DB25 male x 8 (100 cm cable)



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

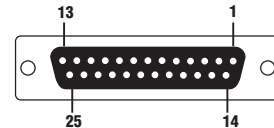
DB25 female x 8 (150 cm cable)



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

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

#### DB25 female



#### OPT8-RJ45

8-pin RJ45 x 8 (30 cm cable)



PIN	RS-232
1	DSR
2	RTS
3	GND
4	TxD

PIN	RS-232
5	RxD
6	DCD
7	CTS
8	DTR

#### 8-pin RJ45

