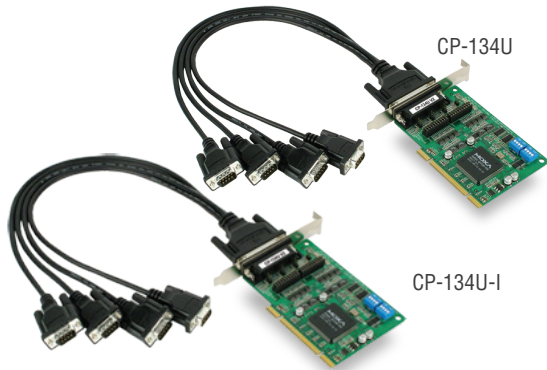


# CP-134U/U-I

## 4-port RS-422/485 Universal PCI serial boards with optional 2 kV isolation



- > Over 700 kbps data throughput for top performance
- > 921.6 kbps maximum baudrate for super fast data transmission
- > ADDC® provides automatic data direction control for RS-485 signals
- > 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
- > Added bonus! Ports 1 and 2 support RS-232 and RS-422/485
- > Wide temperature model available for -40 to 85°C environments



### Overview

The CP-134U and CP-134U-I 4-port universal PCI boards are designed for industrial automation applications that require a long distance, multipoint, PC-based data acquisition solution.

#### On-chip Automatic Data Direction Control for precise RS-485 communication

RS-485 communication requires precise timing control to enable and disable the line driver. The Moxa Turbo Serial Engine™ chip that powers the CP-134U board comes with on-chip ADDC®, which makes

RS-485 as easy to use as RS-232.

#### RS-485 multidrop for up to 31 devices within 1.2 km

The CP-134U universal PCI board has 4 RS-422/485 serial ports, each of which can achieve data rates up to 921.6 kbps. In RS-485 mode, the board can connect up to 31 daisy-chained RS-485 devices within a range of 1.2 km. For long distance RS-485 communication, choose the CP-134U-I, which comes with 2 kV electrical isolation protection to prevent equipment damage.

### Drivers Provided for Windows, Linux, and Unix

Moxa continues to support a wide variety of operating systems, and the CP-134U and CP-134U-I boards are no exception. Reliable

Windows and Linux/Unix drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration.

### Specifications

#### Hardware

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

**Bus:** 32-bit Universal PCI

**Connector:** DB44 female

#### Serial Interface

**Number of Ports:** 4

**Serial Standards:** 2 x RS-232/422/485, 2 x RS-422/485

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

#### Serial Line Protection

**Electrical Isolation:** 2 kV (CP-134U-I configured for RS-422/485 only)

#### 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), RTS+(B), RTS-(A), CTS+(B), CTS-(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:

CP-134U: 82.5 x 120 mm (3.24 x 4.72 in)

CP-134U-I: 115 x 120 mm (4.52 x 4.72 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:** 480,209 hrs  
**Standard:** Telcordia (Bellcore) TR/SR

### Power Requirements

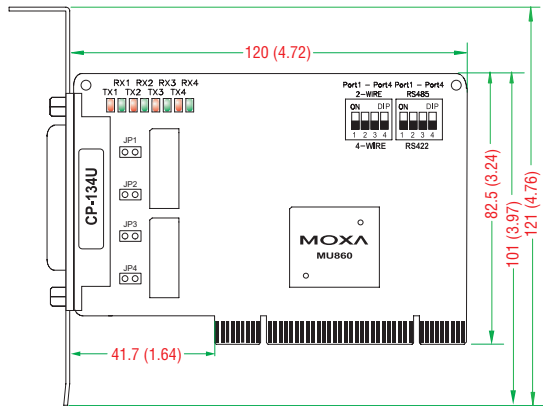
**Input Current:**  
 CP-134U: 180 mA @ 5 VDC  
 CP-134U-I: 850 mA @ 5 VDC

### Warranty

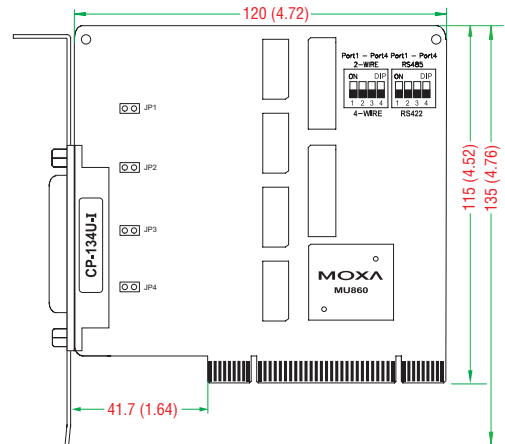
**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

**CP-134U**



**CP-134U-I**



Unit: mm (inch)

## Ordering Information

### Available Models

- CP-134U:** 4-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature
- CP-134U-DB9M:** 4-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature (CBL-M44M9x4-50 cable included)
- CP-134U-DB25M:** 4-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature (CBL-M44M25x4-50 cable included)
- CP-134U-I:** 4-port RS-422/485 Universal PCI serial board with electrical isolation, 0 to 55°C operating temperature
- CP-134U-I-DB9M:** 4-port RS-422/485 Universal PCI serial board with electrical isolation, 0 to 55°C operating temperature (CBL-M44M9x4-50 cable included)
- CP-134U-I-DB25M:** 4-port RS-422/485 Universal PCI serial board with electrical isolation, 0 to 55°C operating temperature (CBL-M44M25x4-50 cable included)
- CP-134U-T:** 4-port RS-422/485 Universal PCI serial board, -40 to 85°C operating temperature
- CP-134U-I-T:** 4-port RS-422/485 Universal PCI serial board with electrical isolation, -40 to 85°C operating temperature

### Package Checklist

- 1 CP-134U or CP-134U-I board
- 1 connection cable (optional)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

### Connection Options (can be purchased separately)

**Low Profile Bracket:** Bracket for DB44 connector (1490000001000)

**CBL-M44M9x4-50:** M44 to 4 x DB9-M cable, 50 cm

**CBL-M44M25x4-50:** M44 to 4 x DB25-M cable, 50 cm

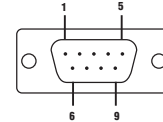
#### CBL-M44M9x4-50

DB44 male to DB9 male x 4 (50 cm cable)



PIN	RS-232	RS-422	RS-485-4w	RS-485-2w
1	DCD	TxD-(A)	TxD-(A)	-
2	RxD	TxD+(B)	TxD+(B)	-
3	TxD	RxD+(B)	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	RxD-(A)	Data-(A)
5	GND	GND	GND	GND
6	DSR	RTS-(A)	-	-
7	RTS	RTS+(B)	-	-
8	CTS	CTS+(B)	-	-
9	-	CTS-(A)	-	-

#### DB9 male



#### CBL-M44M25x4-50

DB44 male to DB25 male x 4 (50 cm cable)



PIN	RS-232	RS-422	RS-485-4w	RS-485-2w
2	TxD	RxD+(B)	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	TxD+(B)	-
4	RTS	RTS+(B)	-	-
5	CTS	CTS+(B)	-	-
6	DSR	RTS-(A)	-	-
7	GND	GND	GND	GND
8	DCD	TxD-(A)	TxD-(A)	-
20	DTR	RxD-(A)	RxD-(A)	Data-(A)
22	-	CTS-(A)	-	-

#### DB25 male

