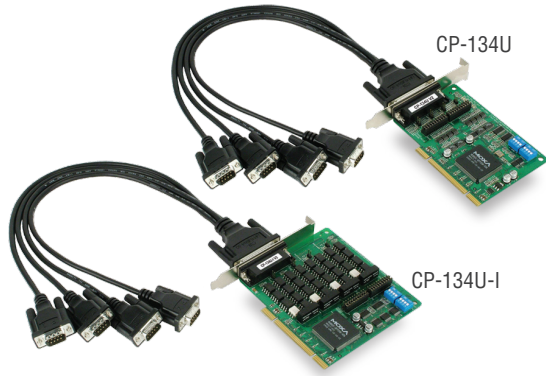


# CP-134U/U-I

## 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 3.3/5V PCI and PCI-X
- > Drivers provided for Windows (7 x86/x64, XP/2003/Vista/2008 x86/x64, 2000, 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 OpenServer 5/6, UnixWare 7, Solaris 10 x86/x64
- > 15 KV ESD protection on the board
- > 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, multi-point, 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 optical 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 COM and Linux/Unix TTY 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

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

**Optical 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

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

**IRQ:** Assigned by BIOS

#### 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

#### Driver Support

**Operating Systems:** Windows 9X/ME/NT/2000, Windows XP/2003/Vista/2008/7 x86/x64, Windows CE 5.0/6.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 x86/x64, FreeBSD 4/5, QNX 6, SCO OpenServer 5/6, UnixWare 7, Solaris 10 x86/x64

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

#### 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)

#### 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)

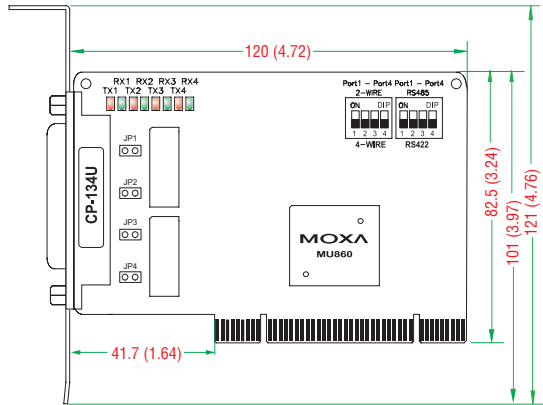
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)  
**Standards and Certifications**  
**EMC:** CE, FCC  
**EMI:** EN 55022, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class B  
**EMS:** EN 55024, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, 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:** 480,209 hrs  
**Database:** Telcordia (Bellcore), GB  
**Power Requirements**  
**Power Consumption:**  
 CP-134U: 180 mA @ +5 V  
 CP-134U-I: 850 mA @ +5 V  
**Warranty**  
**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

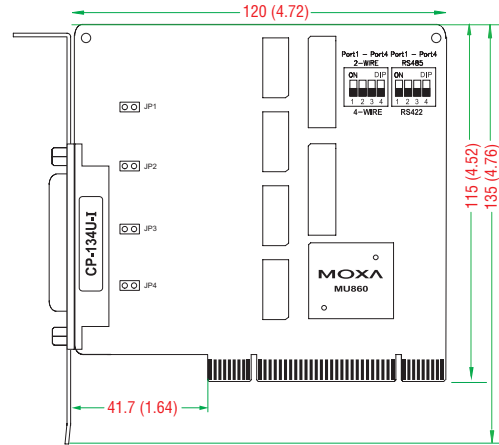
**Dimensions**

Unit: mm (inch)

**CP-134U**



**CP-134U-I**



**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 (includes DB9 male cable)
- CP-134U-DB25M:** 4-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature (includes DB25 male cable)
- CP-134U-I:** 4-port RS-422/485 Universal PCI serial board with optical isolation, 0 to 55°C operating temperature
- CP-134U-I-DB9M:** 4-port RS-422/485 Universal PCI serial board with optical isolation, 0 to 55°C operating temperature (includes DB9 male cable)
- CP-134U-I-DB25M:** 4-port RS-422/485 Universal PCI serial board with optical isolation, 0 to 55°C operating temperature (includes DB25 male cable)
- 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 optical isolation, -40 to 85°C operating temperature

**Package Checklist**

- 1 CP-134U or CP-134U-I board
- DB9 or DB25 cable included
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

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

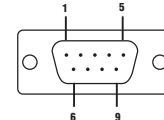
**CBL-M44M9x4-50**

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**

