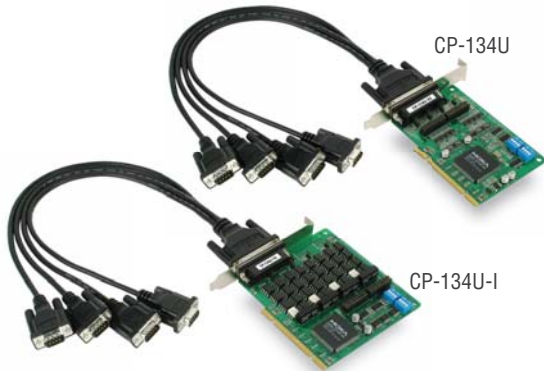# CP-134U/U-I

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

CP-134U

CP-134U-I

> 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 (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 OpenServer 5/6, UnixWare 7
> 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

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-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 precision 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), 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 (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 OpenServer 5/6, UnixWare 7

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)

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)
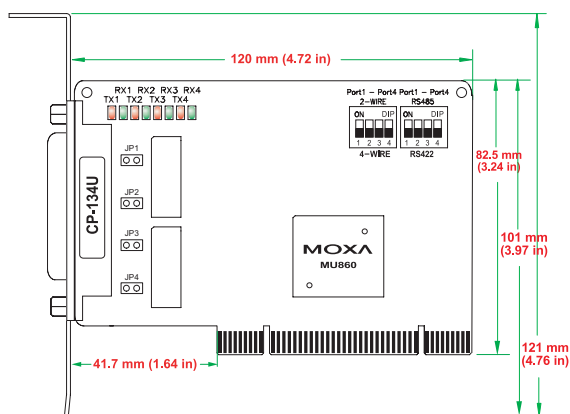
Power Requirements

Power Consumption:
CP-134U: 180 mA @ +5 V
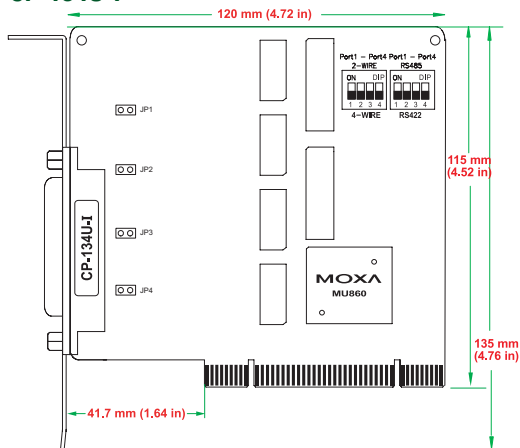CP-134U-I: 850 mA @ +5 V

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

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

- CP-134U or CP-134U-I board
- DB9 or DB25 cable included
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

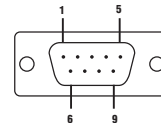### Connection Options (can be purchased separately)

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	---	---	---
7	RTS	---	---	---
8	CTS	---	---	---
9	---	---	---	---

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	---	---	---
5	CTS	---	---	---
6	DSR	---	---	---
7	GND	GND	GND	GND
8	DCD	TxD-(A)	TxD-(A)	---
20	DTR	RxD-(A)	RxD-(A)	Data-(A)
22	---	---	---	---

DB25 male

10 — **Multiport Serial Boards > CP-134U/U-I**