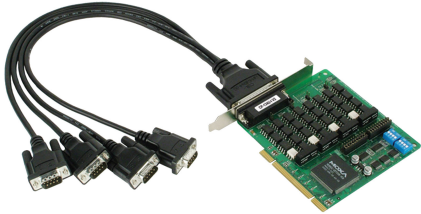# CP-134U Series

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

## Features and Benefits

- Over 700 kbps data throughput for top performance
- 921.6 kbps maximum baudrate for 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 Windows, Linux, and UNIX
- Ports 1 and 2 support RS-232 and RS-422/485
- Wide-temperature model available for -40 to 85°C environments

## Certifications

CE  FC

## Introduction

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 four 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

We continue to support a wide variety of operating systems, and the CP-134U and CP-134U-I boards are no exception. Reliable Windows, Linux, and UNIX drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration.

## Specifications

### Serial Interface

| | |
|---|---|
| Comm. Controller | MU860 (16C550C compatible) |
| Bus | 32-bit Universal PCI |
| Connector | DB44 female |
| FIFO | 128 bytes |
| Max. No. of Boards per PC | 8 |
| No. of Ports | 4 |
| Serial Standards | 2 x RS-232/422/485, 2 x RS-422/485 |
| Baudrate | 50 bps to 921.6 kbps |
| Data Bits | 5, 6, 7, 8 |

| Stop Bits | 1, 1.5, 2 |
|---|---|
| Parity | None, Even, Odd, Space, Mark |
| Flow Control | None, RTS/CTS, XON/XOFF |
| Isolation | CP-134U-I Series: 2 kV |

### Serial Signals

| RS-232 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND |
|---|---|
| RS-422 | Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND |
| RS-485-4w | Tx+, Tx-, Rx+, Rx-, GND |
| RS-485-2w | Data+, Data-, GND |

### Serial Software Features

| Windows Drivers | DOS, 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), Windows Embedded CE 5.0/6.0, Windows XP Embedded |
|---|---|
| Linux Drivers | Linux kernel 2.4.x, Linux kernel 2.6.x, Linux kernel 3.x |
| UNIX Drivers | QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD |

### Power Parameters

| Input Current | CP-134U Series: 180 mA @ 5 VDC<br>CP-134U-I Series: 850 mA @ 5 VDC |
|---|---|

### Physical Characteristics

| Dimensions | CP-134U Series: 82.5 x 120 mm (3.24 x 4.72 in)<br>CP-134U-I Series: 115 x 120 mm (4.52 x 4.72 in) |
|---|---|

### LED Interface

| LED Indicators | Built-in Tx, Rx LEDs for each port |
|---|---|

### Environmental Limits

| Operating Temperature | Standard Models: 0 to 55°C (32 to 131°F)<br>Wide Temp. Models: -40 to 85°C (-40 to 185°F) |
|---|---|
| Storage Temperature (package included) | -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<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m |

### Declaration

| Green Product | RoHS, CRoHS, WEEE |
|---|---|

### MTBF

| Time | 480,209 hrs |
|---|---|
| Standards | Telcordia SR332 |

## Warranty

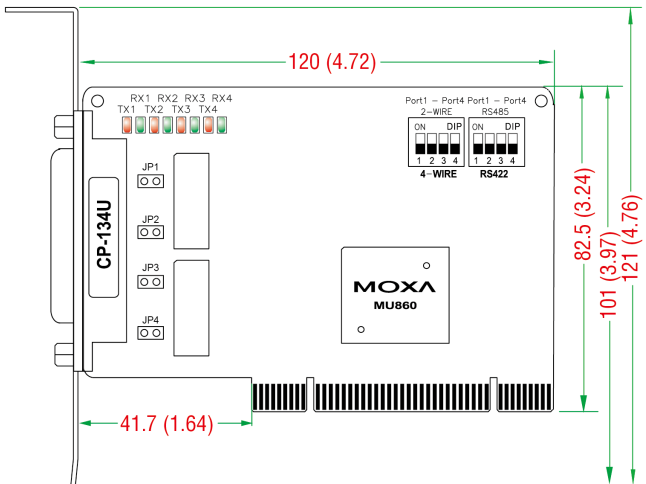| | |
|---|---|
| Warranty Period | 5 years |
| Details | See www.moxa.com/warranty |

## Package Contents

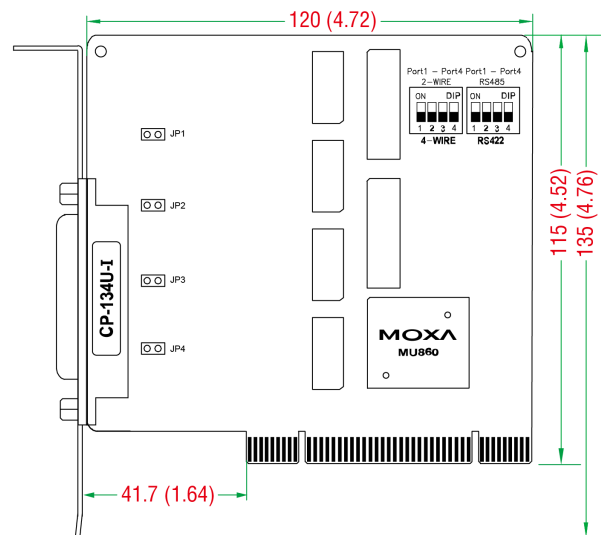| | |
|---|---|
| Device | 1 x CP-134U Series serial board |
| Cable | 1 x M44 to 4 x DB9-M cable, 50 cm (-DB9M models)<br>1 x M44 to 4 x DB25-M cable, 50 cm (-DB25M models) |
| Documentation | 1 x document and software CD<br>1 x quick installation guide<br>1 x substance disclosure table<br>1 x warranty card |

## Dimensions

**CP-134U**

Unit: mm (inch)



**CP-134U-I**

Unit: mm (inch)



## Ordering Information

| Model Name | Serial Standards | No. of Serial Ports | Serial Isolation Protection | Operating Temp. | Included Cable |
|---|---|---|---|---|---|
| CP-134U | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | – | 0 to 55°C | – |
| CP-134U-T | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | – | -40 to 85°C | – |
| CP-134U-DB9M | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | – | 0 to 55°C | CBL-M44M9x4-50 |
| CP-134U-DB25M | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | – | 0 to 55°C | CBL-M44M25x4-50 |
| CP-134U-I | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | 2 kV | 0 to 55°C | – |
| CP-134U-I-T | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | 2 kV | -40 to 85°C | – |
| CP-134U-I-DB9M | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | 2 kV | 0 to 55°C | CBL-M44M9x4-50 |
| CP-134U-I-DB25M | 2 x RS-232/422/485<br>2 x RS-422/485 | 4 | 2 kV | 0 to 55°C | CBL-M44M25x4-50 |

## Accessories (sold separately)

### Brackets

| | |
|---|---|
| 1490000001000 | Bracket for DB44 pack |

### Cables

| | |
|---|---|
| CBL-M44M25x4-50 | M44 to 4 x DB25 male cable, 50 cm |
| CBL-M44M9x4-50 | 4-port DB44 male to DB9 male cable, 50 cm |