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

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 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) 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) 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 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

Datasheet

Warranty

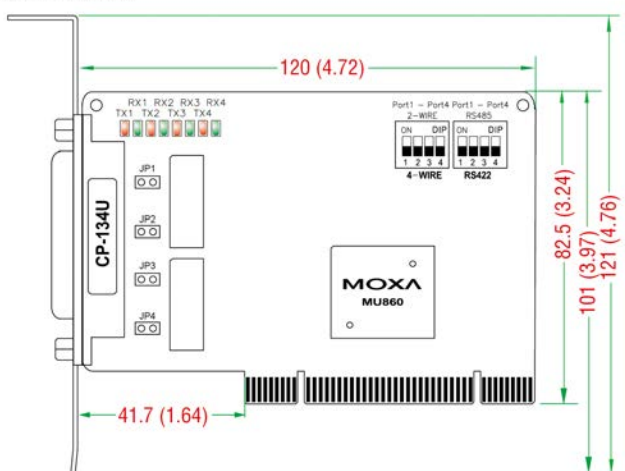|	
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

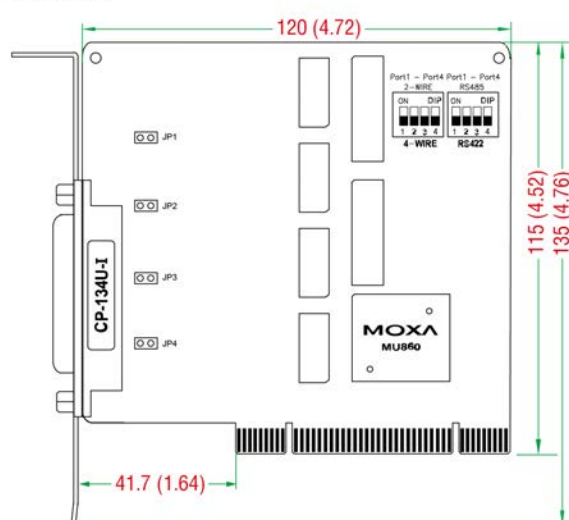|	
Device	1 x CP-134U Series serial board
Cable	1 x M44 to 4 x DB9-M cable, 50 cm (-DB9M models) 1 x M44 to 4 x DB25-M cable, 50 cm (-DB25M models)
Documentation	1 x document and software CD 1 x quick installation guide 1 x substance disclosure table 1 x warranty card

Dimensions

CP-134U

CP-134U-I

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 2 x RS-422/485	4	–	0 to 55°C	–
CP-134U-T	2 x RS-232/422/485 2 x RS-422/485	4	–	-40 to 85°C	–
CP-134U-DB9M	2 x RS-232/422/485 2 x RS-422/485	4	–	0 to 55°C	CBL-M44M9x4-50
CP-134U-DB25M	2 x RS-232/422/485 2 x RS-422/485	4	–	0 to 55°C	CBL-M44M25x4-50
CP-134U-I	2 x RS-232/422/485 2 x RS-422/485	4	2 kV	0 to 55°C	–
CP-134U-I-T	2 x RS-232/422/485 2 x RS-422/485	4	2 kV	-40 to 85°C	–
CP-134U-I-DB9M	2 x RS-232/422/485 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 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