

CP-114UL

4-port RS-232/422/485 smart Universal PCI serial board



- > Over 800 Kbps data throughput for top performance
- > 921.6 Kbps maximum baudrate for super fast data transmission
- > 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 (Vista, 2003, XP, 2000), WinCE 5.0, Linux, and Unix
- > MD1 Low Profile for compact-sized PCs
- > Easy maintenance with on-board LED display, and management software
- > 15 KV ESD protection on the board

The certification logos shown here apply to some or all of the products in this section. Please see the **Specifications** section or Moxa's website for details.



Overview

The CP-114UL is a smart, 4-port serial board designed for long distance, multi-point, PC-based data acquisition applications. Industrial automation system integrators will be eager to use this board for many of their industrial automation projects.

On-chip ADDC® for precision RS-485 communication

RS-485 communication requires precise timing control to enable and disable the line driver, and the Moxa Turbo Serial Engine™ chip that powers the CP-114UL card comes with on-chip ADDC® (automatic data direction control) to make RS-485 as easy to use as RS-232.

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

The CP-114UL Universal PCI board has 4 RS-232/422/485 serial ports, each of which can achieve data rates up to 921.6 Kbps. In RS-485 mode, the serial port can connect up to 31 daisy-chained RS-485 devices within a range of 1.2 km.

Top Serial Performance

Moxa's 20-plus years of experience in serial board design is now concentrated in a new high performance serial data transmission chip. The Turbo Serial Engine™ chip provides serial boards with a 128-byte

FIFO, on-chip hardware and software flow control, and burst data mode. Thanks to the Turbo Serial Engine™, Moxa is able to offer the world's best performing smart serial boards.

Drivers provided for Windows, Linux, and Unix

One of Moxa's highest priorities is to provide drivers for all mainstream operating systems. Reliable, well-tested Windows COM and Linux/Unix TTY drivers are available for use with the CP-114UL. Other operating

systems, such as Windows XP embedded and WEPOS, are also supported to accommodate embedded integration applications.

Specifications

Hardware

Comm. Controller: MU860 (16C550C compatible)

Bus: 32-bit Universal PCI

Connector: DB44 female

Serial Interface

Number of Ports: 4

Serial Standards: RS-232/422/485

Number of Boards: 4 per PC (max.)

Serial Line Protection

ESD Protection: 15 KV on the board

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

10

Multiport Serial Boards > CP-114UL

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 x86/x64, 9X/ME/NT), Windows CE 5.0, Windows XP Embedded, DOS, Linux 2.4/2.6, FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7

Physical Characteristics

Dimensions: 64.5 x 120 mm (2.53 x 4.72 in)

Environmental Limits

- Operating Temperature:** 0 to 55°C (32 to 131°F)
- Operating Humidity:** 5 to 95% RH
- Storage Temperature:** -20 to 85°C (-4 to 185°F)
- Regulatory Approvals:** EN55022, EN55024, EN61000-3-2, EN61000-3-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11, FCC Part 15 Class B

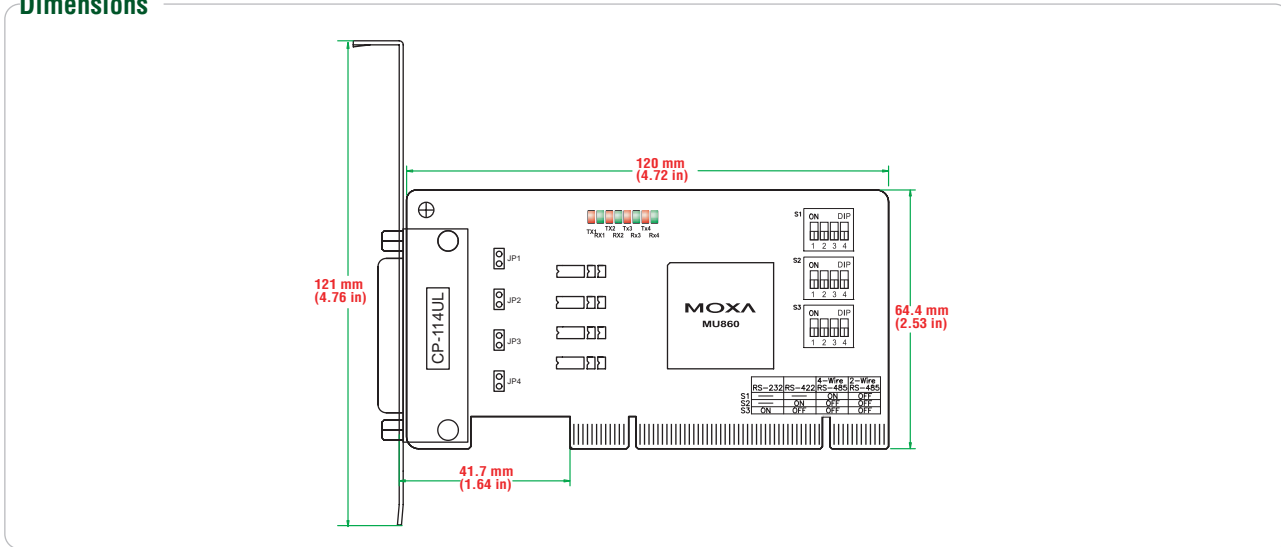
Power Requirements

Power Consumption: 320 mA @ +5 V (for RS-232)

Warranty

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

Dimensions



10

Multiport Serial Boards > CP-114UL

Ordering Information

Available Models

CP-114UL: 4-port RS-232/422/485 smart, low profile Universal PCI serial board

Package Checklist

- CP-114UL board
- Standard bracket and low profile bracket
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

Connection Options (can be purchased separately)

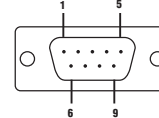
CBL-M44M9x4-50

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	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	TRS-(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

