

# CP-132UL/CP-132UL-I V2

## 2-port RS-422/485 Universal PCI Smart Serial Board with 2 KV Isolation Protection

### Features

- Over 800 Kbps data throughput, for top performance
- 2-port RS-422/485 interface with ADDC™ and up to 921.6 Kbps
- 2-wire/4-wire RS-485 communication up to 1.2 km
- Built-in 15 KV ESD and optional 2 KV optical isolation protection
- 128-byte FIFO and on-chip H/W, S/W flow control
- Universal PCI compatible with 3.3/5V PCI and PCI-X
- MD1 Low profile board for compact-sized PCs
- Windows 2003/XP/2000/98/ME, Linux, Unix driver support



### Overview

CP-132UL V2 Series of Smart Multiport Serial Boards is designed for Industrial Automation system integrators for long distance, multi-point PC-based data acquisition.

#### On-chip Automatic Data Direction Control for Precision RS-485 Communication

RS-485 communication requires precise timing control for enabling and disabling the line driver. Powered by Moxa's Turbo Serial Engine™ chip that comes with on-chip ADDC™, sending RS-485 packets through CP-132UL V2 is as easy as using RS-232.

#### Top Performance with 128-byte FIFO and on-chip H/W, S/W Flow Control

Our 17 plus years of experience in serial board design is now concentrated in Moxa's new top performance serial data transmission chip, called Turbo Serial Engine™, which equips the CP-132UL/CP-132UL-I V2 series board with a 128-byte FIFO, on-

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

CP-132UL V2 Universal PCI Multiport Serial Board provides 2 RS-422/485 serial ports, each capable of 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. For long distance RS-485 communication, optional 2 KV isolation protection is available (CP-132UL-I V2) to prevent equipment damage.

chip hardware and software flow control, and burst data mode. This makes CP-132UL/CP-132UL-I V2 the top performing smart multiport serial board in the world.

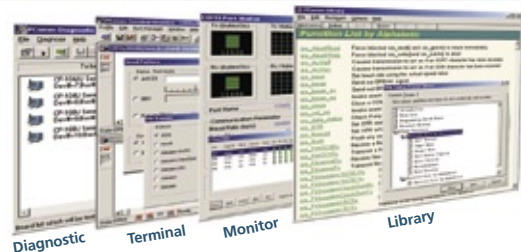
#### Support for Major Windows and Linux/Unix OS drivers

Moxa continues to support today's mainstream operating systems, and CP-132UL V2 provides field proof. Reliable Windows COM and Linux/Unix TTY drivers are available for use with CP-

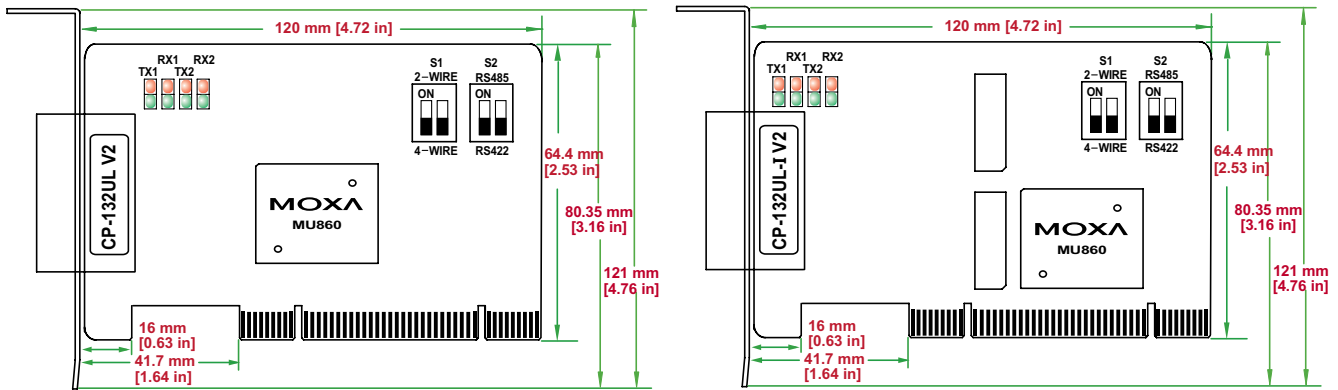
132UL V2, with other operating systems, such as Windows XP embedded also supported for embedded integration.

#### PComm Lite Utility for Easy Management and Software Development

CP-132UL's software package includes the PComm Lite utility, which is used to diagnose and monitor the status of installed Moxa serial boards. In addition, PComm Library, with its basic serial I/O and file transfer library, is supplied free for easy software development under Windows.



## Dimensions



### On-Board LED Display

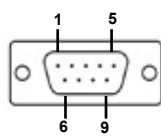
- Red--Transmit
- Green--Receieve

## Connection Options

**CBL-M25M9x2-50**  
(DB25 to male DB9 x 2)



**Male DB9**



PIN	RS-422	4-wire RS-485	2-wire RS-485
1	TxD-(A)	TxD-(A)	---
2	TxD+(B)	TxD+(B)	---
3	RxD+(B)	RxD+(B)	Data+(B)
4	RxD-(A)	RxD-(A)	Data-(A)
5	GND	GND	GND
6	RTS-(A)	---	---
7	RTS+(B)	---	---
8	CTS+(B)	---	---
9	CTS-(A)	---	---

## Specifications

### Communications

**Bus Interface:** 32-bit Universal PCI

**Number of Ports:** 2

**Max No. of Boards:** 4 (only one IRQ required)

**I/O address/IRQ:** BIOS assigned

**Comm. Controller:** MOXA UART (16C550C compatible)

**Baud Rate:** 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:** RTS/ CTS, XON/ XOFF

### Signals

**RS-422:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), RTS+(B), RTS-(A), CTS+(B), CTS-(A), GND

**4-wire RS-485:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**2-wire RS-485:** Data+(B), Data-(A), GND

**Connectors:** Female DB25

**Surge Protection:** Embedded 15 KV ESD Surge Protection

**Optical Isolation:** 2KV (CP-132UL-I V2)

### Power Consumption

**CP-132UL V2:** 120 mA (+5V)

**CP-132UL-I V2:** 490 mA (+5V)

### Environmental

**Operating Temperature:** 0 to 55°C

**Storage Temperature:** -20 to 85°C

**Humidity:** 5 to 95% RH

### Mechanical

**Dimensions (W x D):**

120 x 64.5 mm (4.72 x 2.53 in) (CP-132UL V2)

120 x 64.5 mm (4.72 x 2.53 in) (CP-132UL-I V2)

(LP Bracket: 80 mm) (Std. Bracket: 121 mm)

**Regulatory Approvals:** CE Class B, FCC Class B

### Operating Systems:

Windows NT/2000/XP/2003, Windows 95/98/ME, Linux 2.4/2.6 (Red Hat/SuSe...), FreeBSD 4.x, Windows XP Embedded, DOS

## Ordering Information

### CP-132UL V2:

2-port RS-422/485 board

### CP-132UL-I V2:

2-port RS-422/485 board with 2 KV Isolation Protection

### All items include:

- MSB with standard bracket and low profile bracket
- DB9 Connection cable (CBL-M25M9x2-50)
- Documentation & Software CD-ROM
- Quick Installation Guide