# 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 in the world
- 2-port RS-422/485 interface with ADDC<sup>™</sup> 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











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 line driver enable and disable. Powered by Moxa's Turbo Serial Engine™ chip that comes with on-chip ADDC™, sending RS-485 packets over CP-132UL V2 is as easy as using RS-232.

#### 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.

## **■** Top Performance with 128-byte FIFO and On-chip (H/W. S/W Flow Control

Based on over 17 years of experience, Moxa has developed the Turbo Serial Engine™ chip for high performance serial data transmission. Thanks to Turbo Serial Engine™, CP-132UL V2 Series is equipped with a 128-byte FIFO and on-chip hardware, software

flow control and burst data mode. These excellent features make CP-132UL V2 the top performer among all smart multiport serial boards in the world.

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

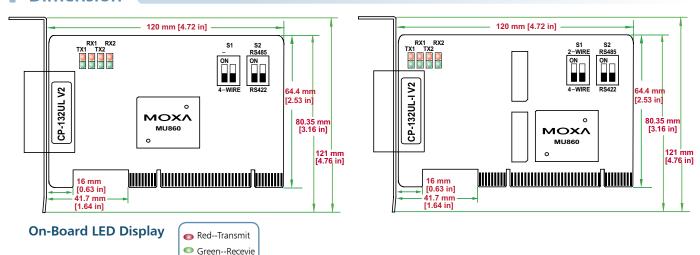
other operating systems, such as Windows XP embedded also supported for embedded integration.

#### 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.



#### **Dimension**



#### **Connection Options**





PIN	RS-422	4W RS485	2W 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)

**DB9 Male** 

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: DB25 Female

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

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

**Power Consumption CP-132UL V2:** 120mA(+5V) **CP-132UL-I V2:** 490mA(+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, FCC

OS Supported:

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 2KV Isolation Protection

#### All items include:

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