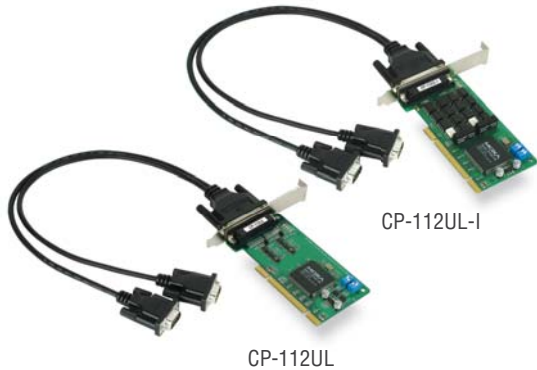# CP-112UL/UL-I Series

2-port RS-232/422/485 Universal PCI serial boards with optional 2 KV isolation

CP-112UL-I

CP-112UL

> Over 700 Kbps data throughput for top performance
> 128-byte FIFO and on-chip H/W, S/W flow control
> Universal PCI compatible with 3.3/5 V PCI and PCI-X
> Serial communication speed up to 921.6 Kbps
> Drivers provided for Windows (2000, XP/2003/Vista/2008 x86/ x64), Windows CE 5.0/6.0, Windows XP Embedded, Linux 2.4, Linux 2.6 (x86/x64), SCO OpenServer 5/6, UnixWare 7
> Easy maintenance with on-board LED display
> On-board 15 KV ESD and 2 KV optical isolation protection
> Wide temperature model available for -40 to 85°C environments

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.

: Overview

Moxa's CP-112UL/UL-I series of multiport serial boards are designed to be used by industrial automation system integrators for long distance, multi-point, PC-based data acquisition applications. On-chip Automatic Data Direction Control for precision RS-485 communication requires precise timing control for enabling and disabling the line driver. The Moxa Turbo Serial Engine™ chip that powers the CP-112UL/UL-I boards comes with on-chip ADDC®, which makes RS-485 as easy to use as RS-232. The boards come with 2 RS-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. For long distance RS-485 communication, 2 KV optical isolation protection is available to prevent equipment damage.

: Support for Major Windows and Linux/Unix OS drivers

Moxa continues to support a wide variety of operating systems, and the CP-112UL/UL-I boards are no exception. Reliable Windows COM and Linux/Unix TTY drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration.

: Specifications

Hardware

Comm. Controller: MU860 (16C550C compatible)
Bus: 32-bit Universal PCI
Connector: DB25 female

Serial Interface

Number of Ports: 2
Serial Standards: RS-232/422/485
Max. Number of Boards per PC: 4
ESD Protection: 15 KV on the board
Optical Isolation: 2 KV (CP-112UL-I only)

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

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/2008 x86/x64), Windows CE 5.0/6.0, Windows XP Embedded, Linux 2.4, Linux 2.6 (x86/x64), SCO OpenServer 5/6, UnixWare 7

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)
Operating Humidity: 5 to 95% RH
Storage Temperature: -20 to 85°C (-4 to 185°F)

Regulatory Approvals

FCC: Part 15 Class B
EMS: EN55022, EN55024, EN61000-3-2, EN61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 (DIPS)
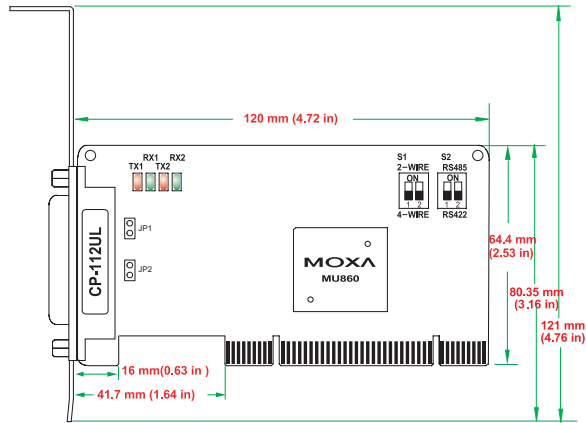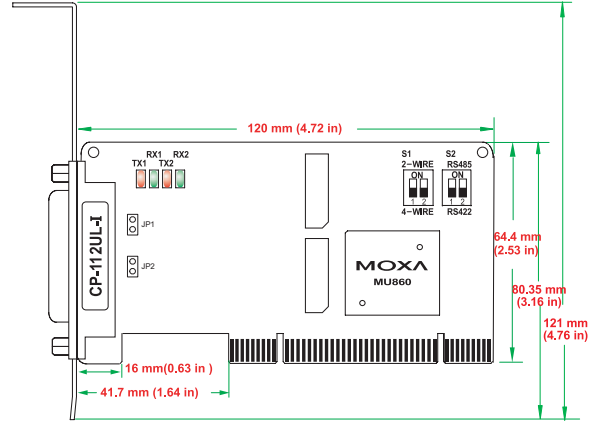
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

CP-112UL

CP-112UL-I

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Multiport Serial Boards > CP-112UL/UL-I Series

: Ordering Information

Available Models

CP-112UL-DB9: 2-port RS-232/422/485 low profile Universal PCI board, 0 to 55°C operating temperature (includes DB9 male cable)

CP-112UL-I-DB9: 2-port RS-232/422/485 low profile Universal PCI board with optical isolation, 0 to 55°C operating temperature (includes DB9 male cable)

CP-112UL-T: 2-port RS-232/422/485 low profile Universal PCI board, -40 to 85°C operating temperature

CP-112UL-I-T: 2-port RS-232/422/485 low profile Universal PCI board with optical isolation, -40 to 85°C operating temperature

Package Checklist

- CP-112UL or CP-112UL-I board
- Low profile bracket
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

Connection Options (can be purchased separately)

CBL-M25M9x2-50
DB25 male to DB9 male x 2
(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	---	---	---
7	RTS	---	---	---
8	CTS	---	---	---
9	---	---	---	---

DB9 male