CP-104EL

4-port RS-232 PCI Express serial board

> PCI Express x1 compliant
> 921.6 Kbps maximum baudrate for super fast data transmission
> 128-byte FIFO and on-chip H/W, S/W flow control
> Low profile form factor fits small-sized PCs
> Drivers provided for Windows (2000, XP/2003/Vista/2008 x86/x64), Windows CE 5.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64) FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7
> Easy maintenance with on-board LEDs 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. For details, see "Regulatory Approvals" under "Specifications" below.

Overview

The CP-104EL is a smart, 4-port PCI Express board designed for POS and ATM applications. It is a top choice of industrial automation engineers and system integrators, and supports many different operating systems, including Windows, Linux, and even Unix. In addition, each of the board's 4 RS-232 serial ports supports a super fast 921.6 Kbps baudrate. The CP-104EL provides full modem control signals to ensure compatibility with a wide range of serial peripherals, and its PCI Express "x1" classification allows it to be installed in any PCI Express slot.

Smaller Form Factor

The CP-104EL is a low profile board that is compatible with any PCI Express slot. The board requires only a 3.3 VDC power supply, which means that the board fits any host computer, ranging from shoebox to standard-sized PCs.

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

Moxa continues to support a wide variety of operating systems, and the CP-104EL board is 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: PCI Express x1
Connector: DB44 female

Serial Interface
Number of Ports: 4
Serial Standards: RS-232
Max. No. of Boards per PC: 4

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

Serial Signals
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Driver Support
Operating Systems: Windows (2000, XP/2003/Vista/2008 x86/x64), Windows CE 5.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64), FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7

Physical Characteristics
Dimensions: 67.21 x 100 mm (2.65 x 3.94 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

FCC: Part 15 Class B

EMS: EN55024, EN61000-3-2, EN61000-3-3, EN61000-6-2, 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
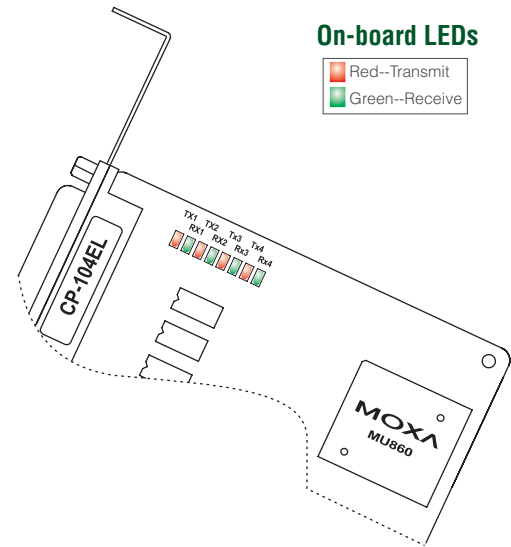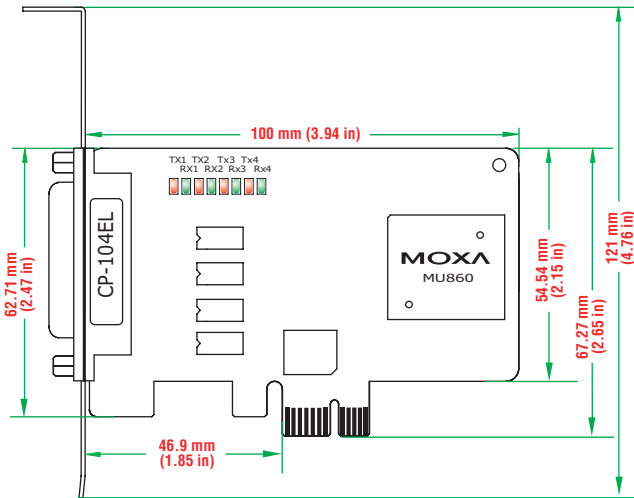
Power Requirements

Power Consumption: 430 mA @ 3.3 V

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

On-board LEDs

Red--Transmit
Green--Receive

Ordering Information

Available Models

CP-104EL-DB9M: 4-port RS-232 PCI low profile Express x1 serial board (includes DB9 male cable)

CP-104EL-DB25M: 4-port RS-232 low profile PCI Express x1 serial board (includes DB25 male cable)

Package Checklist

- CP-104EL board
- DB9-M or DB25-M connection cable
- Standard bracket and low profile bracket
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card
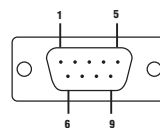
Connection Options (can be purchased separately)

CBL-M44M9x4-50
DB44 male to DB9 male x 4 (50 cm cable)

PIN	RS-232	PIN	RS-232
1	DCD	5	GND
2	RxD	6	DSR
3	TxD	7	RTS
4	DTR	8	CTS

DB9 male

CBL-M44M25x4-50
DB44 male to DB25 male x 4 (50 cm cable)

PIN	RS-232	PIN	RS-232
2	TxD	6	DSR
3	RxD	7	GND
4	RTS	8	DCD
5	CTS	20	DTR

DB25 male