

# CP-104EL-A

## 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 (7 x86/x64, XP/2003/Vista/2008 x86/x64, 2000), DOS, Linux 2.4/2.6, QNX 6, SCO Open Server 5/6, UnixWare 7, Solaris 10 x86/x64
- > Easy maintenance with on-board LEDs and management software
- > 15 KV ESD protection on the board



### : Overview

The CP-104EL-A 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-A 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-A 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.

### : Drivers Provided for Windows, Linux, and Unix

Moxa continues to support a wide variety of operating systems, and the CP-104EL-A 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:** 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, Windows XP/2003/Vista/2008/7 x86/x64, DOS, Linux 2.4, 2.6 x86/x64, QNX 6, SCO Open Server 5/6, UnixWare 7, Solaris 10 x86/x64

*Note: Please refer to Moxa's website for the latest driver support information.*

#### Physical Characteristics

**Dimensions:** 67.21 x 103 mm (2.65 x 4.06 in)

#### Environmental Limits

**Operating Temperature:** 0 to 55°C (32 to 131°F)

**Storage Temperature:** -20 to 85°C (-4 to 185°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

### Standards and Certifications

**EMC:** CE, FCC  
**EMI:** EN 55022, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class B  
**EMS:** EN 55024, EN 61000-6-2, EN 61000-6-4, 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)  
**Green Product:** RoHS, CRoHS, WEEE

### MTBF (mean time between failures)

**Time:** 7,723,378 hrs  
**Database:** Telcordia (Bellcore), GB

### Power Requirements

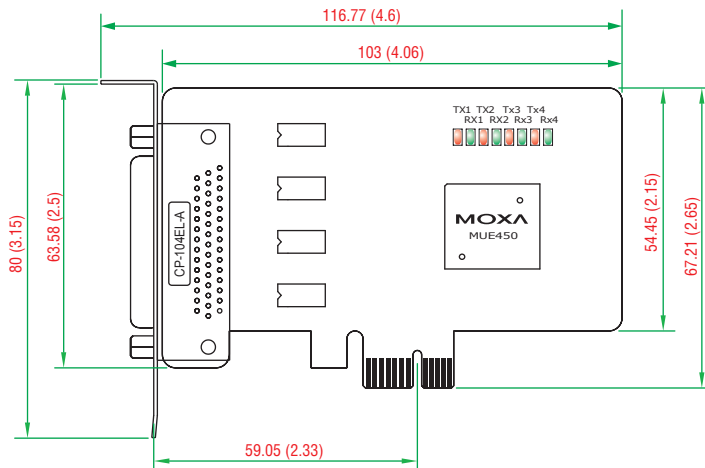
**Power Consumption:** 805 mA @ 3.3 V

### Warranty

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

Unit: mm (inch)



### Ordering Information

#### Available Models

**CP-104EL-A-DB9M:** 4-port RS-232 PCI low profile Express x1 serial board (includes DB9 male cable)  
**CP-104EL-A-DB25M:** 4-port RS-232 low profile PCI Express x1 serial board (includes DB25 male cable)

#### Package Checklist

- 1 CP-104EL-A board
- DB9-M or DB25-M connection cable
- Standard bracket and low profile bracket
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

### Connection Options (can be purchased separately)

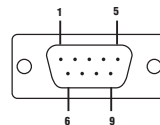
#### CBL-M44M9x4-50

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

