# 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 a broad selection of operating systems, including the latest Windows and Linux
- > Easy maintenance with on-board LEDs and management software















#### 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 and Linux/ Unix 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

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

#### **Physical Characteristics**

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

**Driver Support** 

Windows: Windows 95/98/ME/NT/2000. Windows XP/2003/ Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2

Linux: Linux 2.4.x, 2.6.x, 3.x

Unix-like Systems: QNX 6, SCO OpenServer, UnixWare 7, Solaris 10 Note: Please refer to Moxa's website for the latest driver support information.

**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: EN 55022/24

EMI: CISPR 22. FCC Part 15B Class B

#### EMS:

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m

IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV

IEC 61000-4-5 Surge: Power: 2 kV

IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m

IEC 61000-4-8 PFMF

IEC 61000-4-11

MTBF (mean time between failures)

Time: 3,601,447 hrs

Standard: Telcordia (Bellcore) TR/SR

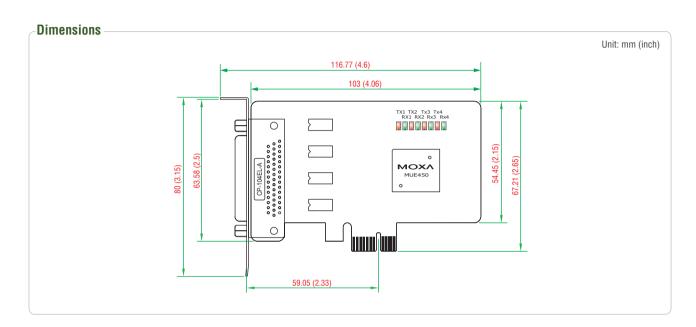
**Power Requirements** 

Input Current: 805 mA @ 3.3 VDC

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty



### **Ordering Information**

#### **Available Models**

CP-104EL-A-DB9M: 4-port RS-232 PCI low profile Express x1 serial board (CBL-M44M9x4-50 cable included)

CP-104EL-A-DB25M: 4-port RS-232 low profile PCI Express x1 serial board (CBL-M44M25x4-50 cable included)

#### **Connection Options** (can be purchased separately)

Low Profile Bracket: Bracket for DB44 connector (149000001000)

CBL-M44M9x4-50: M44 to 4 x DB9-M cable, 50 cm

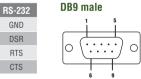
CBL-M44M25x4-50: M44 to 4 x DB25-M cable, 50 cm

#### CBL-M44M9x4-50

DB44 male to DB9 male x 4 (50 cm cable)



PIN	RS-232
1	DCD
2	RxD
3	TxD
4	DTR



GND

DSR

RTS

CTS

6

7

8

#### **Package Checklist**

- 1 CP-104EL-A board
- Low profile bracket
- 1 connection cable
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

#### 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

