

# CP-168EL-A

## 8-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
- > Choose from a wide range of connection cables and boxes
- > 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
- > 15 KV ESD protection on the board



### : Overview

The CP-168EL-A is a smart, 8-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 8 RS-232 serial ports supports a super fast 921.6 Kbps baudrate. The CP-168EL-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-168EL-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-168EL-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:** VHDCI 68

#### Serial Interface

**Number of Ports:** 8

**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

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

#### Physical Characteristics

**Dimensions:** 64.42 x 102 mm (2.54 x 4.02 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:** 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

#### Power Requirements

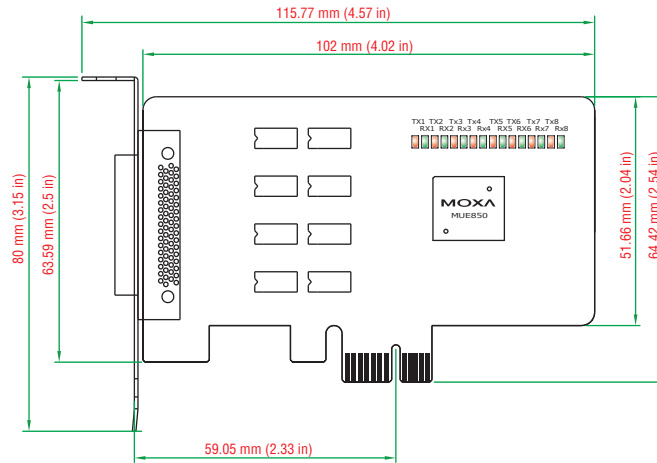
**Power Consumption:** 1225 mA @ 3.3 V

#### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## Dimensions



## Ordering Information

### Available Models

**CP-168EL-A:** 8-port RS-232 low profile PCI Express x1 serial board

### Package Checklist

- CP-168EL-A board
- Standard bracket and low profile bracket
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

### Connection Options (can be purchased separately)

#### OPT8-M9+

DB9 male x 8 (150 cm cable)



#### CBL-M68M9x8-100

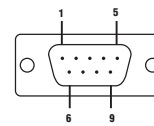
DB9 male x 8 (100 cm cable)



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

PIN	RS-232
5	GND
6	DSR
7	RTS
8	CTS

#### DB9 male



#### OPT8B+

DB25 male x 8 (150 cm cable)



#### CBL-M68M25x8-100

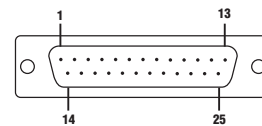
DB25 male x 8 (100 cm cable)



PIN	RS-232
2	TxD
3	RxD
4	RTS
5	CTS

PIN	RS-232
6	DSR
7	GND
8	DCD
20	DTR

#### DB25 male



#### OPT8A+

DB25 female x 8, 150 cm Cable



#### OPT8S+

DB25 female x 8 (150 cm cable)  
25 KV ESD protection



#### OPT8F+/Z+ (RS-422)

DB25 female x 8 (150 cm cable)  
110 or 230 VAC power adaptor  
(115.2 Kbps max. baudrate)



OPT8F+ with 500 V isolation

#### OPT8K+ (RS-422/485)

DB25 female x 8 (150 cm cable)  
110 or 230 VAC power adaptor



OPT8K+ with 2 KV isolation

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

PIN	RS-422/RS-485-4w	RS-485-2w
2	RxD+(B)	Data+(B)
3	TxD+(B)	
7	GND	GND
14	RxD-(A)	Data-(A)
16	TxD-(A)	

#### DB25 female

