

CP-168EL

8-port RS-232 smart 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 (Vista, 2003, XP, 2000), WinCE 5.0, Linux, and Unix
- > 15 KV ESD protection on the board

The certification logos shown here apply to some or all of the products in this section. Please see the **Specifications** section or Moxa's website for details.



Overview

The CP-168EL 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 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 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 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: VHDCI 68

Serial Interface

Number of Ports: 8

Serial Standards: RS-232

Number of Boards: 4 per PC (max.)

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

I/O Address: Assigned by BIOS

IRQ: Assigned by BIOS

Serial Signals

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

Driver Support

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

Physical Characteristics

Dimensions: 62.71 x 102 mm (2.47 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: EN55022, 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, FCC Part 15 Class B

Power Requirements

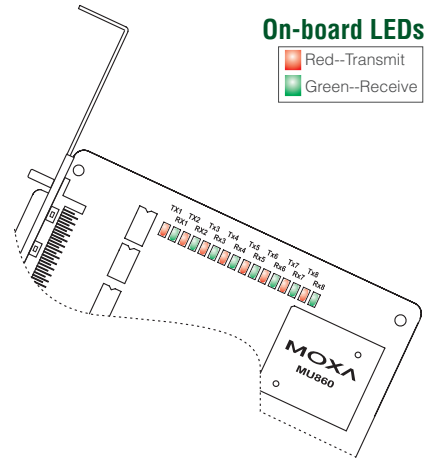
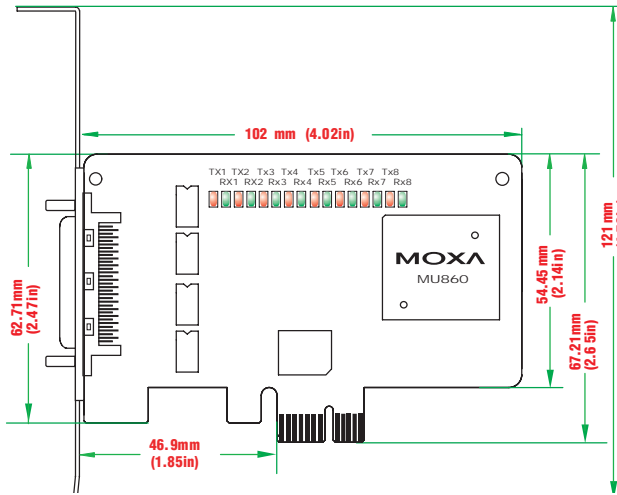
Power Consumption: 630 mA @ 3.3 V

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions



Ordering Information

Available Models

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

Package Checklist

- CP-168EL 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 (OPT8D+)

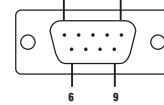
DB9 male x 8 (100 cm cable)



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 (OPT8C+)

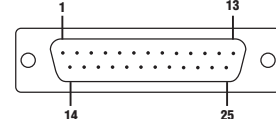
DB25 male x 8 (100 cm cable)



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+/I+ (RS-422/485)

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



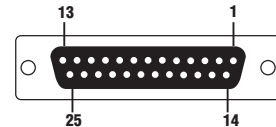
OPT8I+ with 2 KV isolation

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

PIN	RS-232
6	DTR
7	GND
8	DCD
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



OPT8-RJ45+

8-pin RJ45 (30 cm cable)



PIN	RS-232
1	DSR
2	RTS
3	GND
4	TxD

PIN	RS-232
5	RxD
6	DCD
7	CTS
8	DTR

8-pin RJ45

