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 a broad selection of operating systems, including the latest Windows and Linux
> 15 kV ESD protection on the board

PComm Lite

⦂ 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

Operating Systems
Windows Real COM Drivers: Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64), DOS
Fixed TTY Drivers: QNX 6, SCO OpenServer, UnixWare 7, Solaris 10
Linux Real TTY Drivers: Linux 2.4.x, 2.6.x, 3.x
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)
Storage Temperature: -20 to 85°C (-4 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Altitude: Up to 2000 m
Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

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, 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: 6,824,634 hrs
Database: Telcordia (Bellcore), GB

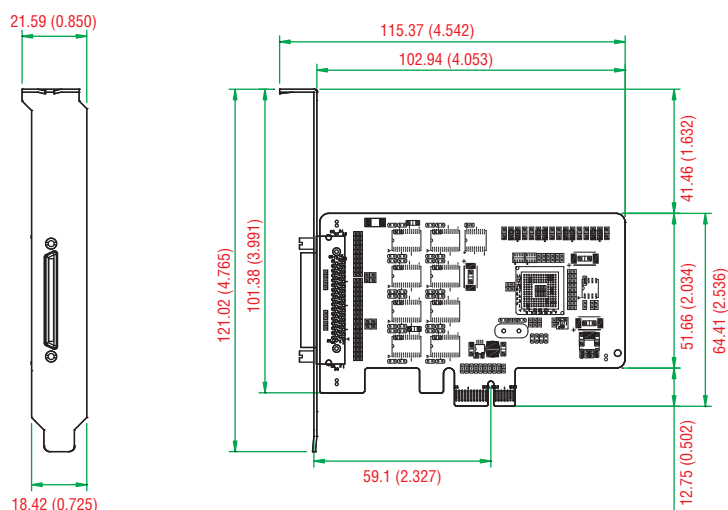### Power Requirements
Power Consumption: 1225 mA @ 3.3 V

Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty

MOXA®

Dimensions

Unit: mm (inch)

21.59 (0.850)

115.37 (4.542)

102.94 (4.053)

41.46 (1.632)

121.02 (4.765)

101.38 (3.991)

51.66 (2.034)

64.41 (2.536)

12.75 (0.502)

59.1 (2.327)

18.42 (0.725)

⠶ Ordering Information

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

Package Checklist
- 1 CP-168EL-A board
- Standard bracket and low profile bracket
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

Connection Options (can be purchased separately)

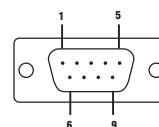**OPT8-M9+**
DB9 male x 8 (150 cm cable)

CBL-M68M9x8-100
DB9 male x 8 (100 cm cable)

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

DB25 male
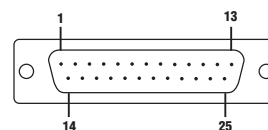
OPT8A+
DB25 female x 8, 150 cm Cable

OPT8S+
DB25 female x 8 (150 cm cable)
25 kV ESD protection

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

DB25 female