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

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 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: VHDCI 68

Serial Interface
Number of Ports: 8
Serial Standards: RS-232
Max. No. of Boards per PC: 8

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, RTS Toggle (RS-232 only)

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

Physical Characteristics
Dimensions: 64.42 x 102 mm (2.54 x 4.02 in)

Driver Support
Windows: Windows 95/98/ME/NT/2000, Windows XP/2003/ Vista/2008/7/8/8.1/10 (x86/x64), Windows Server 2008 R2/2012/2012 R2/2016 (x64), DOS
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 55032/24
EMI: CISPR 32, 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:** 2,351,336 hrs
Standard: Telcordia (Bellcore) TR/SR

Power Requirements
Input Current: 1,225 mA @ 3.3 VDC

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)

18.42 (0.725)

59.1 (2.327)
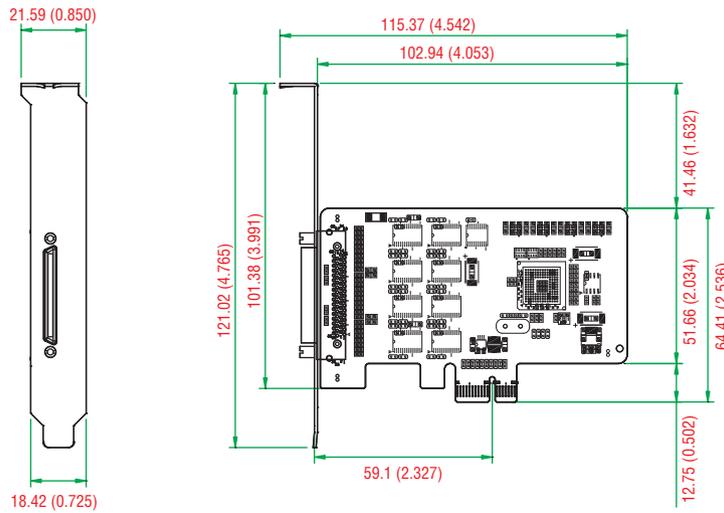
: Ordering Information

Available Models
CP-168EL-A: 8-port RS-232 low profile PCI Express x1 serial board
Connection Options (can be purchased separately)
Low Profile Bracket: Bracket for VHDCI connector (1490000008000)
CBL-M68M9x8-100: SCSI VHDCI 68 to 8 x DB9-M cable, 100 cm
CBL-M68M25x8-100: SCSI VHDCI 68 to 8 x DB25-M cable, 100 cm
Optional Connectors (choose one per board)
OPT8-M9+: VHDCI 68 to 8 x DB9-M connection box
OPT8B+: VHDCI 68 to 8 x DB25-M connection box
OPT8A+: VHDCI 68 to 8 x DB25-F connection box
OPT8-RJ45+: VHDCI 68 to 8 x RJ45 (8-pin) connection box
OPT8S+: VHDCI 68 to 8 x DB25-F connection box w/ surge protection

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

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
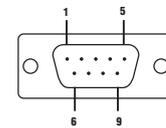
OPT8B+
DB25 male x 8 (150 cm cable)

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
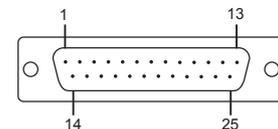
OPT8A+
DB25 female x 8, 150 cm cable

OPT8S+
DB25 female x 8 (150 cm cable)

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

DB25 female