

# CP-118EL-A

## 8-port RS-232/422/485 PCI Express serial board



PCComm Lite

- > 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



### Overview

The CP-118EL-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 serial ports can be configured

independently for RS-232, RS-422, or RS-485 (either 2-wire or 4-wire), and the ports supports a superfast 921.6 kbps baudrate. The CP-118EL-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-118EL-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-118EL-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-232/422/485

**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

**RS-422:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-4w:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-2w:** Data+(B), Data-(A), GND

#### Physical Characteristics

**Dimensions:** 68.9 x 88 mm (2.71 x 3.46 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:** 1,359,482 hrs

**Standard:** Telcordia (Bellcore) TR/SR

#### Power Requirements

**Input Current:** 1,285 mA @ 3.3 VDC

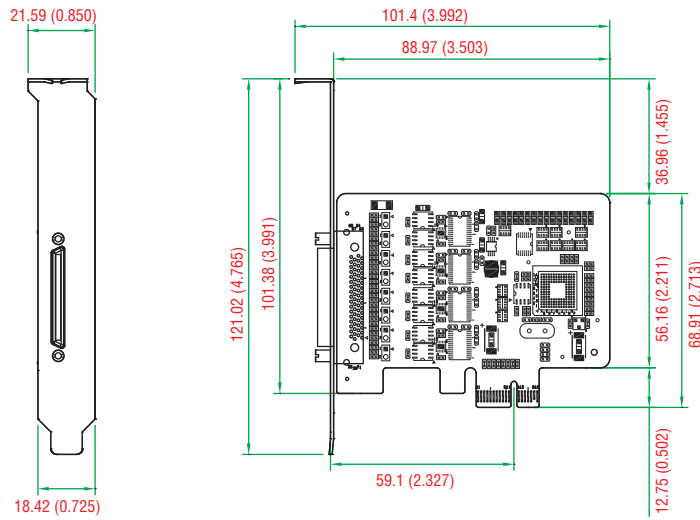
#### Warranty

**Warranty Period:** 5 years

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

**Dimensions**

Unit: mm (inch)



**Ordering Information**

**Available Models**

**CP-118EL-A:** 8-port RS-232/422/485 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-118EL-A board
- Low profile bracket
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

**OPT8-M9+**

DB9 male x 8 (150 cm cable)



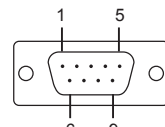
**CBL-M68M9x8-100**

DB9 male x 8 (100 cm cable)



PIN	RS-232	RS-422/RS-485-4w	RS-485-2w
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-

**DB9 male**



**OPT8B+**

DB25 male x 8 (150 cm cable)



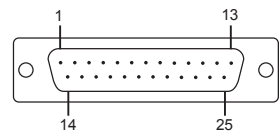
**CBL-M68M25x8-100**

DB25 male x 8, (100 cm cable)



PIN	RS-232	RS-422/RS-485-4w	RS-485-2w
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	-
4	RTS	-	-
5	CTS	-	-
6	DSR	-	-
7	GND	GND	GND
8	DCD	TxD-(A)	-
20	DTR	RxD-(A)	Data-(A)

**DB25 male**



**OPT8A+**

DB25 female x 8 (150 cm cable)



**OPT8S+**

DB25 female x 8 (150 cm cable)



PIN	RS-232	RS-422/RS-485-4w	RS-485-2w
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	CTS	-	-
5	RTS	-	-
6	DTR	RxD-(A)	Data-(A)
7	GND	GND	GND
8	DCD	TxD-(A)	-
20	DSR	-	-

**DB25 female**

