

# 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
- > 15 kV ESD protection on the board



### 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 super fast 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 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-232/422/485  
**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  
**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

#### 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:** 68.9 x 88 mm (2.71 x 3.46 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:** 2,079,962 hrs

**Database:** Telcordia (Bellcore), GB

#### Power Requirements

**Power Consumption:** 1285 mA @ 3.3 V

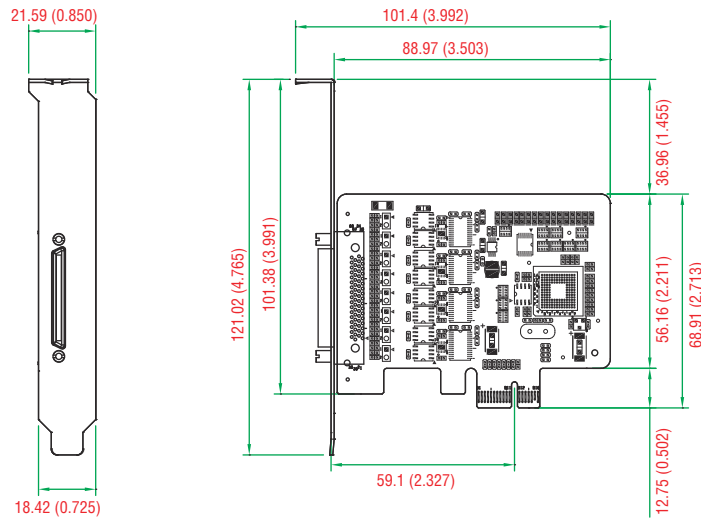
#### Warranty

**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

#### Package Checklist

- 1 CP-118EL-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)



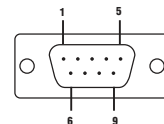
#### CBL-M68M9x8-100

DB9 male x 8 (100 cm cable)



PIN	RS-232	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)



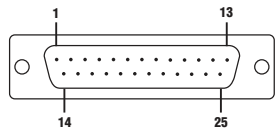
#### CBL-M68M25x8-100

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)  
25 kV ESD Surge Protection



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

