

# CP-116E-A

## 16-port RS-232/422/485 PCI Express board with 4 kV surge protection



PCComm Lite

- > PCI Express x1 compliant
- > Serial communication speed up to 921.6 Kbps
- > 128-byte FIFO and on-chip H/W, S/W flow control
- > Variety of connection cables and boxes available for RS-232/422/485
- > Drivers provided for the latest versions of Windows, Linux, and Unix
- > Easy maintenance with on-board LED display and management software
- > 15 kV ESD and 4kV surge protection onboard



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Multiport Serial Boards > CP-116E-A

### : Overview

The CP-116E-A is a smart PCI Express multiport serial board designed for POS and ATM applications, and for use by industrial automation system manufacturers and system integrators. The CP-116E-A is compatible with all popular operating systems, and each of its 8

serial ports supports data rates of up to 921.6 kbps, and provides full modem control signals, ensuring compatibility with a wide range of serial peripherals. In addition, the CP-116E-A works with PCI Express x1, allowing the board to be installed in any PCI Express slot.

### : Specifications

#### Hardware

**Comm. Controller:** 16C550C compatible

**Bus:** PCI Express x1

**Connector:** VHDCI 68

#### Serial Interface

**Number of Ports:** 16

**Serial Standards:** RS-232/422/485

**Max. No. of Boards per PC:** 4

#### Serial Line Protection

**ESD Protection:** 15 KV on the board

**Surge Protection:** 4 kV

#### 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 2000/XP/2003/ Vista/2008/7/8/8.1 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64)

**Fixed TTY Drivers:** QNX 6, SCO OpenServer, UnixWare 7, Solaris 10 (x86/x64)

**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:** 97.9 x 88.9 mm (3.86 x 3.50 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:** 310,993 hrs

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

#### Power Requirements

**Power Consumption:**

2,733 mA @ 3.3 V

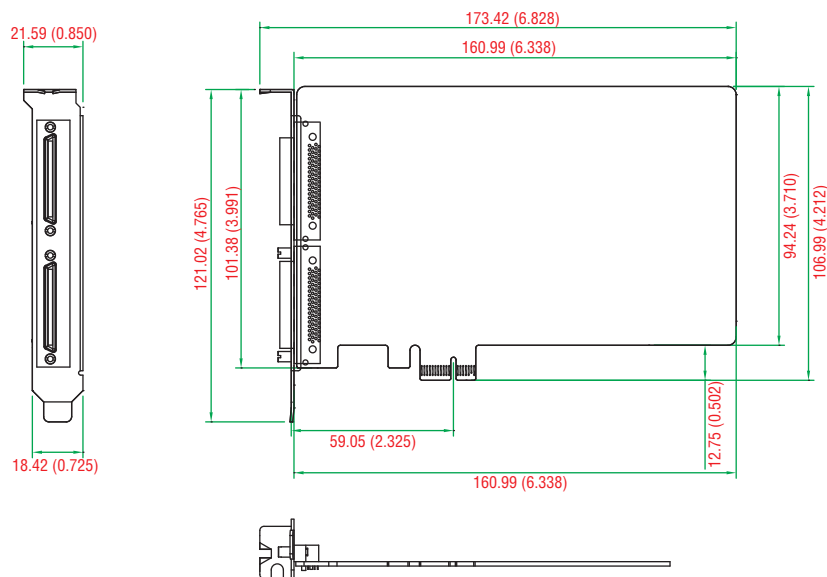
#### Warranty

**Warranty Period:** 5 years

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

## Dimensions

Unit: mm (inch)



## Ordering Information

### Available Models

**CP-116E-A:** 16-port RS-232/422/485 PCI Express board with 4 kV surge protection

### Package Checklist

- 1 CP-116E-A board
- 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)



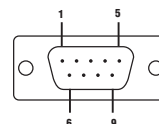
#### CBL-M68M9x8-100

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)



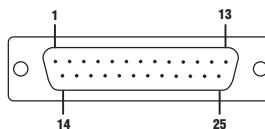
#### CBL-M68M25x8-100

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

