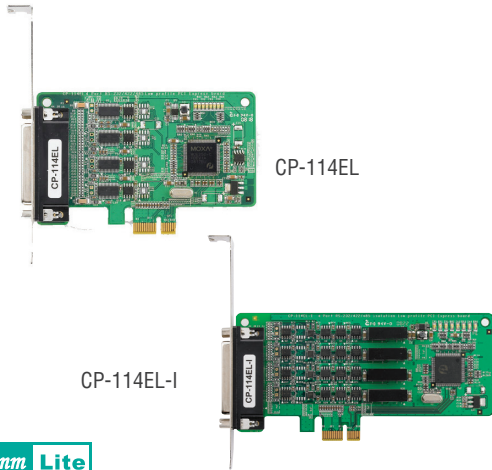# CP-114EL/EL-I

4-port RS-232/422/485 PCI Express boards with optional 2 kV isolation

CP-114EL

CP-114EL-I

> 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
> 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-114EL and CP-114EL-I are smart, 4-port PCI Express boards designed for POS and ATM applications. The boards are a top choice of industrial automation engineers and system integrators, and support many different operating systems, including Windows and Linux. In addition, each of the boards' 4 RS-232/422/485 serial ports supports a super fast 921.6 kbps baudrate. The CP-114EL and CP-114EL-I provide full modem control signals to ensure compatibility with a wide range of serial peripherals, and their PCI Express "x1" classification allows the boards to be installed in any PCI Express slot.

Smaller Form Factor

The CP-114EL and CP-114EL-I are low profile boards that are compatible with any PCI Express slot. The boards require only a 3.3 VDC power supply, which means that the boards fit 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-114EL/EL-I boards are no exception. Reliable Windows and Linux 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: DB44 female
Serial Interface
Number of Ports: 4
Serial Standards: RS-232/422/485
Max. No. of Boards per PC: 4
Serial Line Protection
Electrical Isolation: 2 kV (CP-114EL-I only)
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

Physical Characteristics
Dimensions:
CP-114EL: 67.21 x 103 mm (2.65 x 4.06 in)
CP-114EL-I: 67.21 x 135 mm (2.65 x 5.31 in)
Driver Support
Windows: Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2 (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

MOXA®

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:
CP-114EL: 2,347,197 hrs
CP-114EL-I: 603,671 hrs
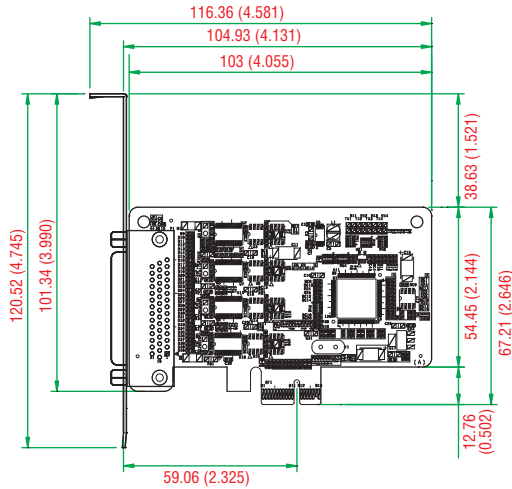**Standard:** Telcordia (Bellcore) TR/SR

Power Requirements
Input Current:
CP-114EL: 835 mA @ 3.3 VDC
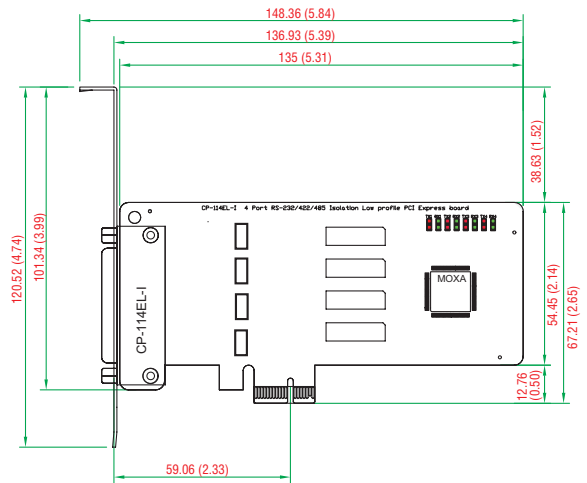CP-114EL-I: 1,170 mA @ 3.3 VDC
Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

CP-114EL

CP-114EL-I

Ordering Information

Available Models

CP-114EL: 4-port RS-232/422/485 low profile PCI Express x1 serial board

CP-114EL-I: 4-port RS-232/422/485 low profile PCI Express x1 serial board with electrical isolation

CP-114EL-DB9M: 4-port RS-232/422/485 low profile PCI Express x1 serial board (CBL-M44M9x4-50 cable included)

CP-114EL-DB25M: 4-port RS-232/422/485 low profile PCI Express x1 serial board (CBL-M44M25x4-50 cable included)

CP-114EL-I-DB9M: 4-port RS-232/422/485 low profile PCI Express x1 serial board with electrical isolation (CBL-M44M9x4-50 cable included)

CP-114EL-I-DB25M: 4-port RS-232/422/485 low profile PCI Express x1 serial board with electrical isolation (CBL-M44M25x4-50 cable included)

Connection Options (can be purchased separately)

Low Profile Bracket: Bracket for DB44 connector (1490000001000)
CBL-M44M9x4-50: M44 to 4 x DB9-M cable, 50 cm
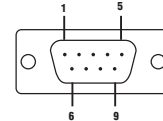**CBL-M44M25x4-50:** M44 to 4 x DB25-M cable, 50 cm

Package Checklist

- 1 CP-114EL or CP-114EL-I board
- Low profile bracket
- 1 connection cable (optional)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

CBL-M44M9x4-50
DB44 male to DB9 male x 4
(50 cm cable)

PIN	RS-232	RS-422	RS-485-4w	RS-485-2w
1	DCD	TxD–(A)	TxD–(A)	–
2	RxD	TxD+(B)	TxD+(B)	–
3	TxD	RxD+(B)	RxD+(B)	Data+(B)
4	DTR	RxD–(A)	RxD–(A)	Data–(A)
5	GND	GND	GND	GND
6	DSR	–	–	–
7	RTS	–	–	–
8	CTS	–	–	–
9	–	–	–	–

DB9 male

CBL-M44M25x4-50
DB44 male to DB25 male x 4
(50 cm cable)

PIN	RS-232	RS-422	RS-485-4w	RS-485-2w
2	TxD	RxD+(B)	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	TxD+(B)	–
4	RTS	–	–	–
5	CTS	–	–	–
6	DSR	–	–	–
7	GND	GND	GND	GND
8	DCD	TxD–(A)	TxD–(A)	–
20	DTR	RxD–(A)	RxD–(A)	Data–(A)
22	–	–	–	–

DB25 male