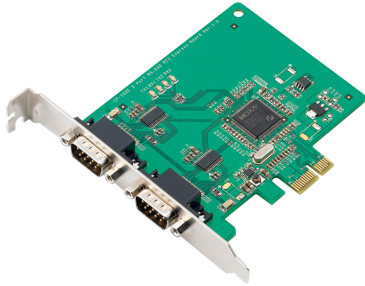# CP-102E/102EL Series

2-port RS-232 PCI Express boards

Features and Benefits

- PCI Express 1.0 compliant

- 921.6 kbps maximum baudrate for 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 Windows, Linux, and UNIX

- Easy maintenance with built-in LEDs and management software

Certifications

CE FC

Introduction

The CP-102E and low-profile CP-102EL are 2-port PCI Express boards designed for POS and ATM applications. Moxa's PCI Express boards are a top choice of industrial automation engineers and system integrators, particularly since the boards support many different operating systems, including Windows, Linux, and UNIX. The CP-102E/EL's 2 RS-232 serial ports support a fast 921.6 kbps baudrate and provide full modem control signals to ensure compatibility with a wide range of serial peripherals. In addition, the boards' x1 classification allows them to be installed in any PCI Express slot.

Smaller Form Factor

The CP-102EL is a low-profile board that is compatible with any PCI Express slot. The CP-102EL board only requires 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 there is no exception for the CP-102E/EL boards. Reliable Windows and Linux drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration applications.

Specifications

Serial Interface

Comm. Controller	MU860 (16C550C compatible)
Bus	PCI Express 1.0
Connector	CP-102E: 2 x DB9 male CP-102EL: DB25 female
FIFO	128 bytes
Max. No. of Boards per PC	8
No. of Ports	2
Serial Standards	RS-232
Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Stop Bits	1, 1.5, 2

MOXA
Reliable Networks ▲ Sincere Service

Parity	None, Even, Odd, Space, Mark
Flow Control	None, RTS/CTS, XON/XOFF

Serial Signals

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

Serial Software Features

Windows Drivers	DOS, 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), Windows Embedded CE 5.0/6.0, Windows XP Embedded
Linux Drivers	Linux kernel 2.4.x, Linux kernel 2.6.x, Linux kernel 3.x, Linux kernel 4.x, Linux kernel 5.x
UNIX Drivers	QNX 6, Solaris 10, UnixWare 7, SCO OpenServer 5, SCO OpenServer 6

Power Parameters

Input Current	CP-102E: 520 mA @ 3.3 VDC CP-102EL-DB9M: 552 mA @ 3.3 VDC

Physical Characteristics

Dimensions	CP-102E: 85.04 x 100 mm (3.35 x 3.94 in) CP-102EL-DB9M: 67.21 x 100 mm (2.65 x 3.94 in)

LED Interface

LED Indicators	Built-in Tx, Rx LEDs for each port

Environmental Limits

Operating Temperature	0 to 55°C (32 to 131°F)
Storage Temperature (package included)	-20 to 85°C (-4 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/24
EMI	CP-102E: CISPR 32, FCC Part 15B Class A CP-102EL-DB9M: 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

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	4,947,552 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

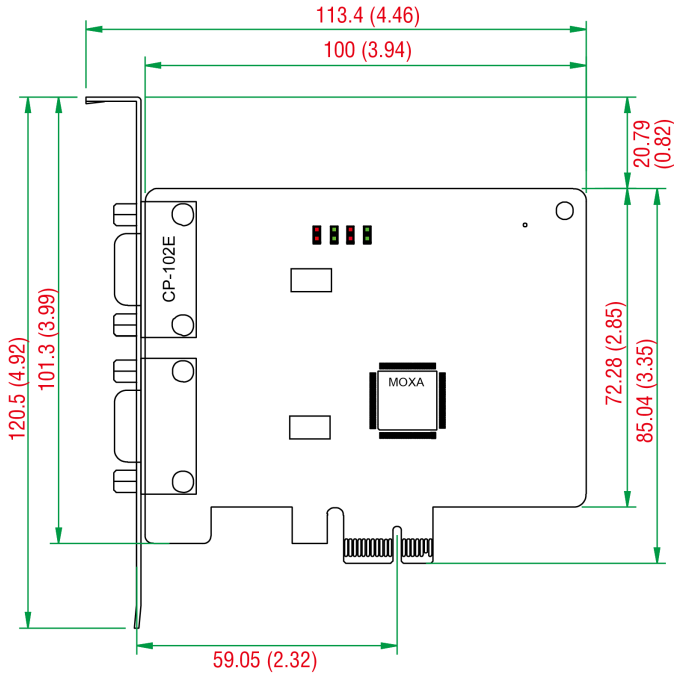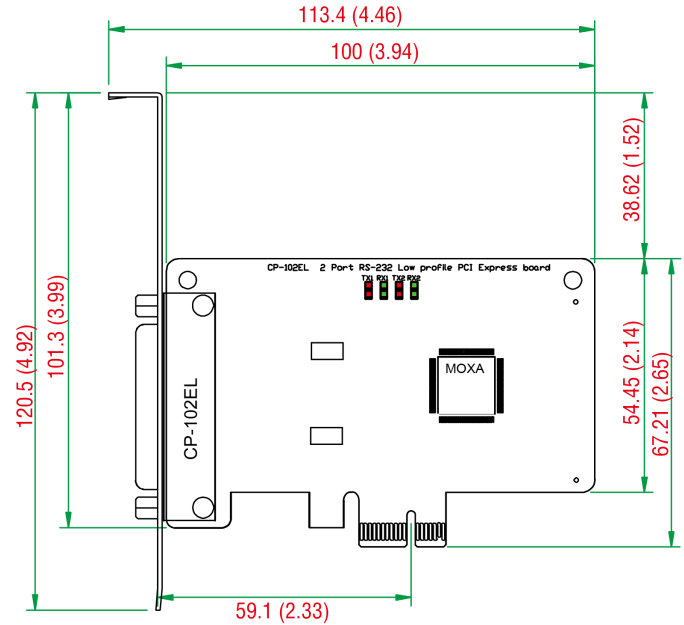|	
Device	1 x CP-102E/102EL Series serial board
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

Dimensions

CP-102E

Unit: mm (inch)

CP-102EL

Unit: mm (inch)

Ordering Information

Model Name	Serial Standards	No. of Serial Ports	Included Cable	Form Factor
CP-102EL-DB9M	RS-232	2	CBL-M25M9x2-50	Low profile
CP-102E	RS-232	2	–	Standard board

Accessories (sold separately)

Brackets

1490000001000	Bracket for DB44 pack Applicable Models: CP-102EL-DB9M
3095010000007	Bracket for DB44 pack Applicable Models: CP-102EL-DB9M

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-M25M9x2-50	M25 to 2 x DB9 male serial cable, 50 cm

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