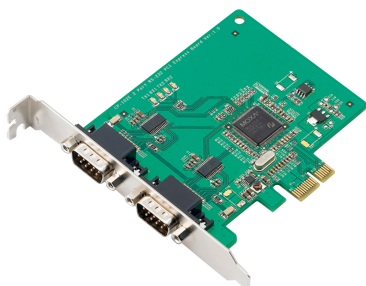


# CP-102E/102EL Series



## 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



## 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<br>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                                              |

|                                        |                                                                                                                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parity                                 | None, Even, Odd, Space, Mark                                                                                                                                                                                                                                     |
| Flow Control                           | None, RTS/CTS, XON/XOFF                                                                                                                                                                                                                                          |
| <b>Serial Signals</b>                  |                                                                                                                                                                                                                                                                  |
| RS-232                                 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND                                                                                                                                                                                                                           |
| <b>Serial Software Features</b>        |                                                                                                                                                                                                                                                                  |
| 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                                                                                                                                                                                                         |
| UNIX Drivers                           | QNX 6, Solaris 10, UnixWare 7, SCO OpenServer 5, SCO OpenServer 6                                                                                                                                                                                                |
| <b>Power Parameters</b>                |                                                                                                                                                                                                                                                                  |
| Input Current                          | CP-102E: 520 mA @ 3.3 VDC<br>CP-102EL-DB9M: 552 mA @ 3.3 VDC                                                                                                                                                                                                     |
| <b>Physical Characteristics</b>        |                                                                                                                                                                                                                                                                  |
| Dimensions                             | CP-102E: 85.04 x 1000 mm (3.35 x 3.94 in)<br>CP-102EL-DB9M: 67.21 x 100 mm (2.65 x 3.94 in)                                                                                                                                                                      |
| <b>LED Interface</b>                   |                                                                                                                                                                                                                                                                  |
| LED Indicators                         | Built-in Tx, Rx LEDs for each port                                                                                                                                                                                                                               |
| <b>Environmental Limits</b>            |                                                                                                                                                                                                                                                                  |
| 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)                                                                                                                                                                                                                                        |
| <b>Standards and Certifications</b>    |                                                                                                                                                                                                                                                                  |
| EMC                                    | EN 55032/24                                                                                                                                                                                                                                                      |
| EMI                                    | CP-102E: CISPR 32, FCC Part 15B Class A<br>CP-102EL-DB9M: CISPR 32, FCC Part 15B Class B                                                                                                                                                                         |
| EMS                                    | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m<br>IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV<br>IEC 61000-4-5 Surge: Power: 2 kV<br>IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m<br>IEC 61000-4-8 PFMF |
| <b>Declaration</b>                     |                                                                                                                                                                                                                                                                  |
| Green Product                          | RoHS, CRoHS, WEEE                                                                                                                                                                                                                                                |
| <b>MTBF</b>                            |                                                                                                                                                                                                                                                                  |
| Time                                   | 4,947,552 hrs                                                                                                                                                                                                                                                    |
| Standards                              | Telcordia (Bellcore) Standard TR/SR                                                                                                                                                                                                                              |
| <b>Warranty</b>                        |                                                                                                                                                                                                                                                                  |
| Warranty Period                        | 5 years                                                                                                                                                                                                                                                          |
| Details                                | See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>                                                                                                                                                                                             |

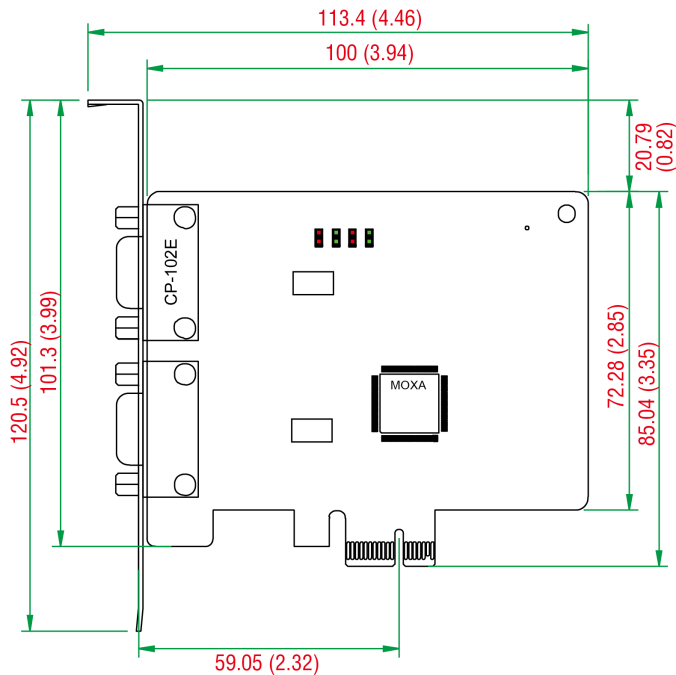
## Package Contents

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

## Dimensions

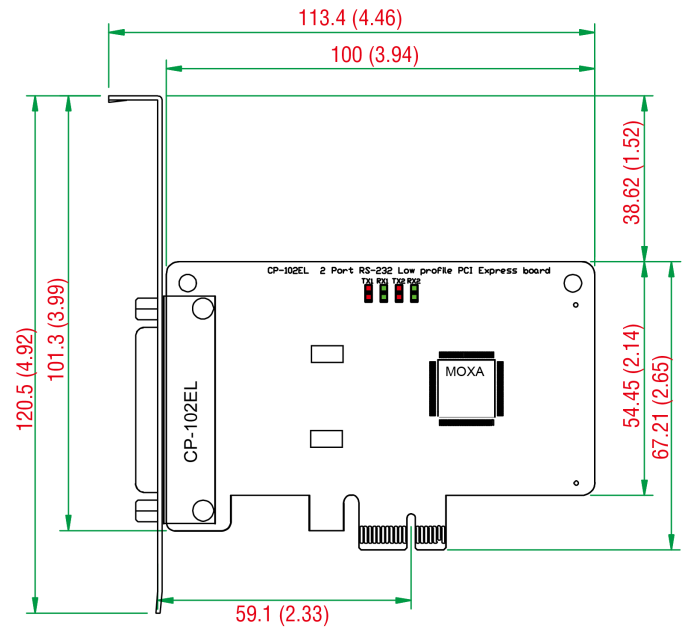
### CP-102E

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)

### 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 cable, 50 cm           |
|                | Applicable Models:<br>CP-102EL-DB9M        |

### Brackets

|               |                                     |
|---------------|-------------------------------------|
| 3095010000007 | Bracket for DB44 pack               |
|               | Applicable Models:<br>CP-102EL-DB9M |
| 1490000001000 | Bracket for DB44 pack               |
|               | Applicable Models:<br>CP-102EL-DB9M |

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