

CP-102U/102UL Series

2-port RS-232 Universal PCI serial boards



Features and Benefits

- Excellent data throughput at over 800 kbps
- 921.6 kbps maximum baudrate for fast data transmission
- 128-byte FIFO and on-chip H/W, S/W flow control
- Compatible with 3.3/5 V PCI and PCI-X
- Drivers provided for a broad selection of operating systems, including Windows, Linux, and UNIX
- MD1 low-profile form factor (CP-102UL) fits compact PCs
- Wide-temperature model available for -40 to 85°C environments

Certifications



Introduction

The CP-102U and CP-102UL are 2-port universal PCI boards designed for POS and ATM applications. They are designed especially for industrial automation engineers and system integrators to support many different operating systems, including Windows, Linux, and even UNIX. In addition, each RS-232 serial port supports up to 921.6 kbps baudrate. The CP-102U and CP-102UL implement full modem control signals to ensure compatibility with a wide range of serial peripherals, and they work with both 3.3 V and 5 V PCI buses, allowing the boards to be installed in virtually any PC.

Designed for Standard and Compact PCs

The CP-102UL is a low-profile board requiring a 5 VDC power supply. It is compatible with both a 3.3 V and 5 V PCI bus, allowing the CP-102UL to be tucked inside compact PCs.

Top Serial Performance

With 30-plus years of experience in serial board design, Moxa is now concentrating on a new high-performance serial data transmission chip. The Turbo Serial Engine™ chip provides serial boards with a 128-byte FIFO, on-chip hardware and software flow control, and burst data mode. With Turbo Serial Engine™, Moxa is able to offer advanced smart serial boards with unbeatable transmission performance.

Drivers Provided for Windows, Linux, and UNIX

Moxa continues to support a wide variety of operating systems, and the CP-102U/UL boards are no exception. Reliable Windows and Linux/UNIX drivers are provided for all Moxa boards, with support for many operating systems, including WEPOS, for embedded integration.

Specifications

Serial Interface

| | |
|---------------------------|--|
| Comm. Controller | MU860 (16C550C compatible) |
| Bus | 32-bit Universal PCI |
| Connector | CP-102UL Series: DB25 female CP-102U Series: 2 x DB9 male |
| Max. No. of Boards per PC | 8 |
| No. of Ports | 2 |
| Serial Standards | RS-232 |
| Baudrate | 50 bps to 921.6 kbps |
| Data Bits | 5, 6, 7, 8 |

| | |
|--|--|
| Stop Bits | 1, 1.5, 2 |
| 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 |
| UNIX Drivers | QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD |
| Power Parameters | |
| Input Current | 93 mA @ 5 VDC |
| Physical Characteristics | |
| Dimensions | CP-102U Series: 80 x 120 mm (3.15 x 4.72 in) CP-102UL Series: 64.5 x 120 mm (2.53 x 4.72 in) |
| LED Interface | |
| LED Indicators | Built-in Tx, Rx LEDs for each port |
| Environmental Limits | |
| Operating Temperature | Standard Models: 0 to 55°C (32 to 131°F) Wide Temp. Models: -40 to 85°C (-40 to 185°F) |
| Storage Temperature (package included) | -40 to 85°C (-40 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 | All models: IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m CP-102UL Series: 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 |
| International Approval | CP-102U: KC |
| Declaration | |
| Green Product | RoHS, CRoHS, WEEE |
| MTBF | |
| Time | CP-102U Series: 574,050 hrs CP-102UL Series: 576,401 hrs |
| Standards | CP-102UL Series: Telcordia (Bellcore) Standard TR/SR CP-102U Series: MIL-HDBK-217F |

Warranty

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

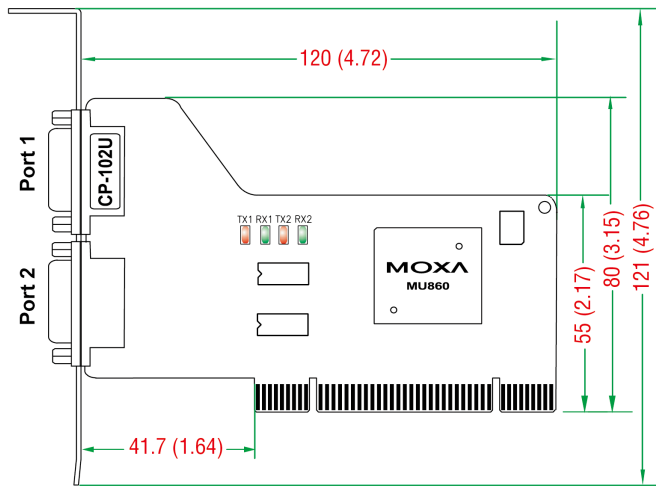
Package Contents

| | |
|---------------|---|
| Device | 1 x CP-102U/102UL Series serial board |
| Cable | CP-102UL-DB9M: 1 x M25 to 2 x DB9-M cable, 50 cm |
| Documentation | 1 x document and software CD 1 x quick installation guide 1 x substance disclosure table 1 x warranty card |

Dimensions

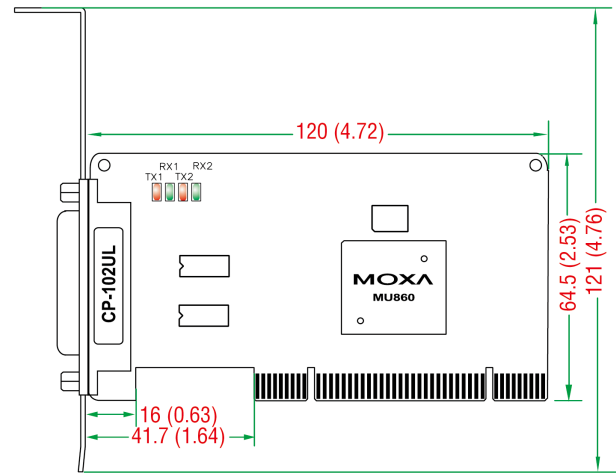
CP-102U

Unit: mm (inch)



CP-102UL

Unit: mm (inch)



Ordering Information

| Model Name | Serial Bus | No. of Serial Ports | Form Factor | Operating Temp. | Included Cable |
|---------------|---------------|---------------------|----------------|-----------------|----------------|
| CP-102U | Universal PCI | 2 | Standard board | 0 to 55°C | - |
| CP-102U-T | Universal PCI | 2 | Standard board | -40 to 85°C | - |
| CP-102UL-DB9M | Universal PCI | 2 | Low profile | 0 to 55°C | CBL-M25M9x2-50 |
| CP-102UL-T | Universal PCI | 2 | Low profile | -40 to 85°C | - |

Accessories (sold separately)

Brackets

| | |
|---------------|-----------------------|
| 1490000001000 | Bracket for DB44 pack |
|---------------|-----------------------|

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 |

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