

# 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
<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, Linux kernel 4.x, Linux kernel 5.x
UNIX Drivers	QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD
<b>Power Parameters</b>	
Input Current	93 mA @ 5 VDC
<b>Physical Characteristics</b>	
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)
<b>LED Interface</b>	
LED Indicators	Built-in Tx, Rx LEDs for each port
<b>Environmental Limits</b>	
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)
<b>Standards and Certifications</b>	
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
<b>Declaration</b>	
Green Product	RoHS, CRoHS, WEEE
<b>MTBF</b>	
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 <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

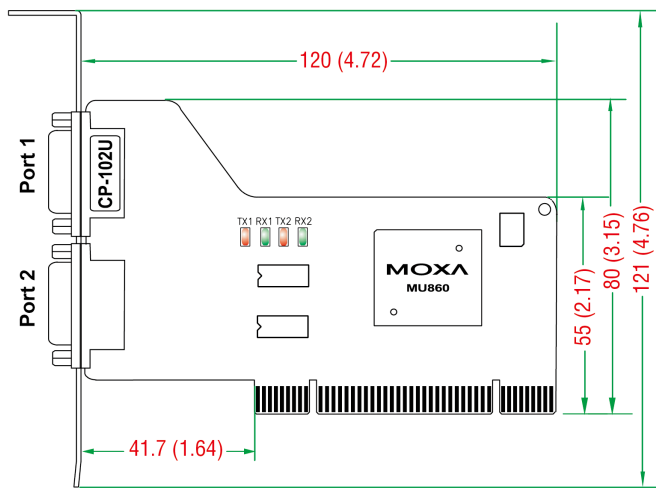
## Package Contents

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

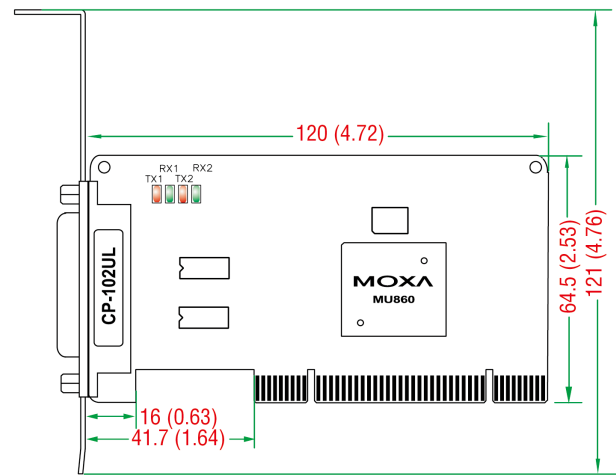
### CP-102U

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
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### 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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