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 models: DB25 female CP-102U models: 2 x DB9 male
Max. No. of Boards per PC	8
No. of Ports	2
Serial Standards	RS-232
Bitrate	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	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded
Linux Drivers	Linux kernel 5.x Linux kernel 4.x Linux kernel 3.x Linux kernel 2.6.x Linux kernel 2.4.x
UNIX Drivers	QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD
Arm®-based Platform Support	Linux Kernel 5.x / 4.x

Power Parameters

Input Current	93 mA @ 5 VDC

Physical Characteristics

Dimensions	CP-102U models: 80 x 120 mm (3.15 x 4.72 in) CP-102UL models: 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 55032/35
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 models: 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 models: 574,050 hrs CP-102UL models: 576,401 hrs
Standards	CP-102UL models: Telcordia (Bellcore) Standard TR/SR CP-102U models: MIL-HDBK-217F

Warranty

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

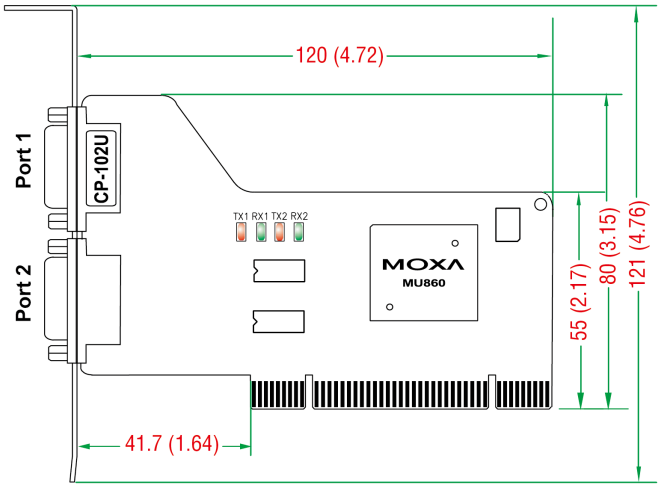
Package Contents

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 quick installation guide 1 x substance disclosure table 1 x warranty card

Dimensions

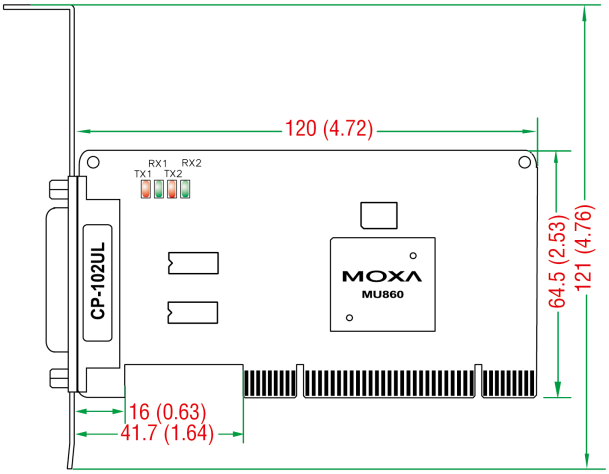
CP-102U

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)

Cables

CBL-M25M9x2-50	M25 to 2 x DB9 male serial cable, 50 cm

Connection Boxes

CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m

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