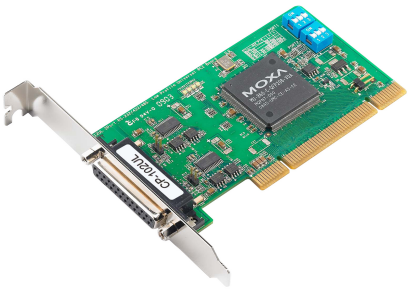
CP-112UL Series

2-port RS-232/422/485 Universal PCI serial boards with optional 2 kV isolation



Features and Benefits

- Over 700 kbps data throughput for top performance
- 128-byte FIFO and on-chip H/W, S/W flow control
- Universal PCI compatible with 3.3/5 V PCI and PCI-X
- 921.6 kbps maximum baudrate for fast data transmission
- Drivers provided for a broad selection of operating systems, including Windows, Linux, and UNIX
- Easy maintenance with built-in LEDs
- Wide-temperature model available for -40 to 85°C environments

Certifications

Introduction

Moxa's CP-112UL Series of multiport serial boards are designed to be used by industrial automation system integrators for long-distance, multipoint, PC-based data acquisition applications. On-chip Automatic Data Direction Control for precision RS-485 communication requires precise timing control for enabling and disabling the line driver. Moxa's Turbo Serial Engine™ chip that powers the CP-112UL boards comes with on-chip ADDC®, which makes RS-485 as easy to use as RS-232. The boards come with 2 RS-422/485 serial ports, both of which can achieve data rates up to 921.6 kbps. In RS-485 mode, the serial port can connect up to 31 daisy-chained RS-485 devices within a range of 1.2 km. For long-distance RS-485 communication, 2 kV electrical isolation protection is available to prevent equipment damage.

Drivers Provided for Windows, Linux, and UNIX

Moxa continues to support a wide variety of operating systems, and the CP-112UL boards are no exception. Reliable Windows, Linux, and UNIX drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration.

Specifications

Serial Interface

Comm. Controller	MU860 (16C550C compatible)
Bus	32-bit Universal PCI
Connector	DB25 female
FIFO	128 bytes
Max. No. of Boards per PC	8
No. of Ports	2
Serial Standards	RS-232 RS-422 RS-485
Bitrate	50 bps to 921.6 kbps
Data Bits	5, 6, 7, 8
Parity	None Even Odd Space

	Mark
Flow Control	None RTS/CTS XON/XOFF
Isolation	CP-112UL-I-DB9M: 2 kV CP-112UL-I-T: 2 kV

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND

Serial Software Features

Windows Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10/11 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (x64)/2022, 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	CP-112UL models: 175 mA @ 5 VDC CP-112UL-I models: 290 mA @ 5 VDC

Physical Characteristics

Dimensions	64.4 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
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

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	219,971 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

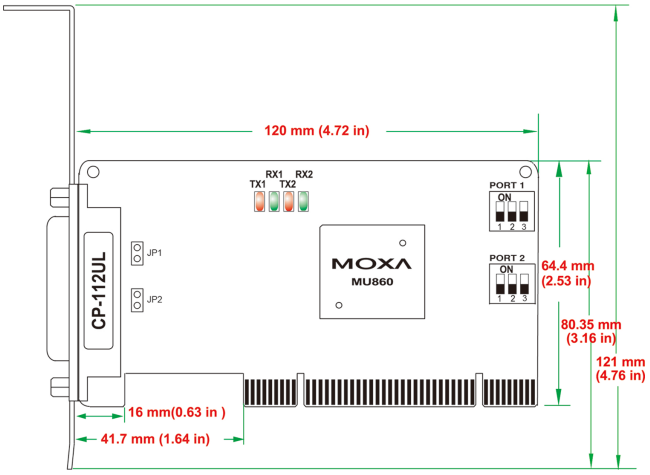
Package Contents

Device	1 x CP-112UL Series serial board
Cable	CP-112UL-DB9M: 1 x M25 to 2 x DB9-M cable, 50 cm CP-112UL-I-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

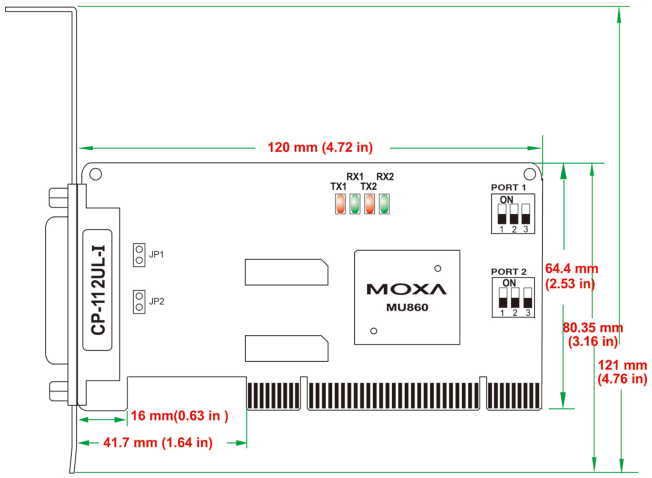
CP-112UL

Unit: mm (inch)



CP-112UL-I

Unit: mm (inch)



Ordering Information

Model Name	Serial Bus	No. of Serial Ports	Serial Isolation Protection	Operating Temp.	Included Cable
CP-112UL-DB9M	Universal PCI	2	–	0 to 55°C	CBL-M25M9x2-50
CP-112UL-I-DB9M	Universal PCI	2	2 kV	0 to 55°C	CBL-M25M9x2-50
CP-112UL-T	Universal PCI	2	–	-40 to 85°C	–
CP-112UL-I-T	Universal PCI	2	2 kV	-40 to 85°C	–

Accessories (sold separately)

Cables

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

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