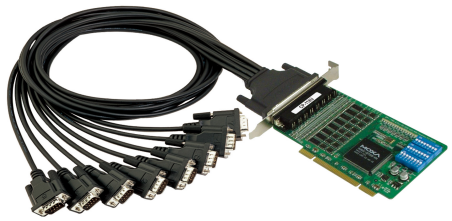
CP-118U/138U Series

8-port RS-232/422/485 Universal PCI serial boards



Features and Benefits

- Over 700 kbps data throughput for top performance
- 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
- Easy maintenance with built-in LEDs and management software
- Wide-temperature model available for -40 to 85°C environments

Certifications

Introduction

The CP-118U and CP-138U are smart, 8-port Universal PCI serial boards designed for POS and ATM applications and for use by industrial automation system manufacturers and system integrators. Both boards are compatible with all major operating systems. In addition, the CP-118U's 8 RS-232/422/485 ports and the CP-138U's 8 RS-422/485 ports support data rates up to 921.6 kbps and provide full modem control signals to ensure compatibility with a wide range of serial peripherals. The CP-118U and CP-138U support both 3.3 V and 5 V PCI buses, making them suitable for installation in most PC servers.

Drivers Provided for Windows, Linux, and UNIX

Moxa continues to support a wide variety of operating systems, and the CP-118U and CP-138U serial boards are no exception. Reliable Windows and Linux/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	CP-118U/138U Series: DB62 female CP-118U-I/138U-I Series: DB78 female
FIFO	128 bytes
Max. No. of Boards per PC	8
No. of Ports	8
Serial Standards	CP-118U Series: RS-232, RS-422, RS-485 CP-138U Series: RS-422, RS-485
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	CP-118U Series: None, RTS/CTS, XON/XOFF CP-138U Series: None, XON/XOFF
Isolation	CP-118U-I: 2 kV CP-118U-I-T: 2 kV CP-138U-I: 2 kV CP-138U-I-T: 2 kV

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, 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-118U Series: 240 mA @ 5 VDC (RS-232); 300 mA @ 5 VDC (RS-422) CP-138U Series: 135 mA @ 5 VDC (RS-422)

Physical Characteristics

Dimensions	82 x 135 mm (3.22 x 5.31 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	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m
International Approval	CP-138U: KC

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	CP-118U Series: 1,073,385 hrs CP-138U Series: 1,147,210 hrs
Standards	Telcordia Standard SR-332

Warranty

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

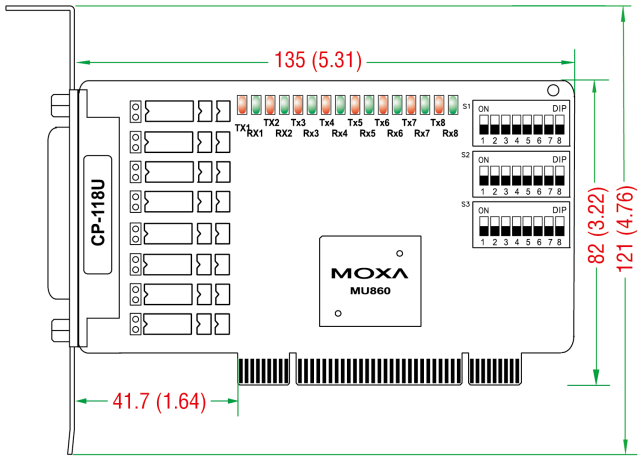
Package Contents

Device	1 x CP-118U/138U Series serial board
Documentation	1 x quick installation guide 1 x substance disclosure table 1 x warranty card

Dimensions

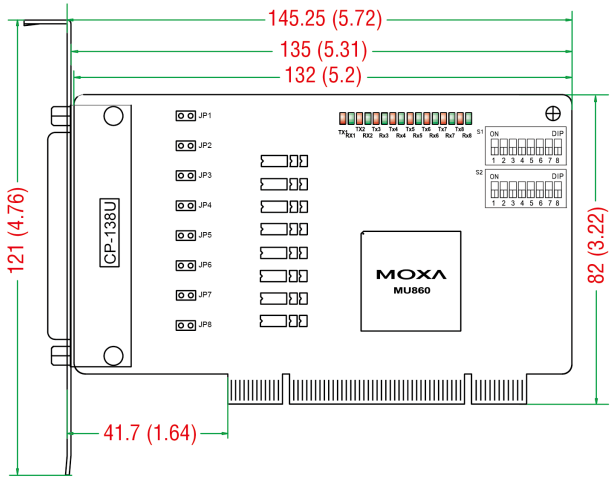
CP-118U

Unit: mm (inch)



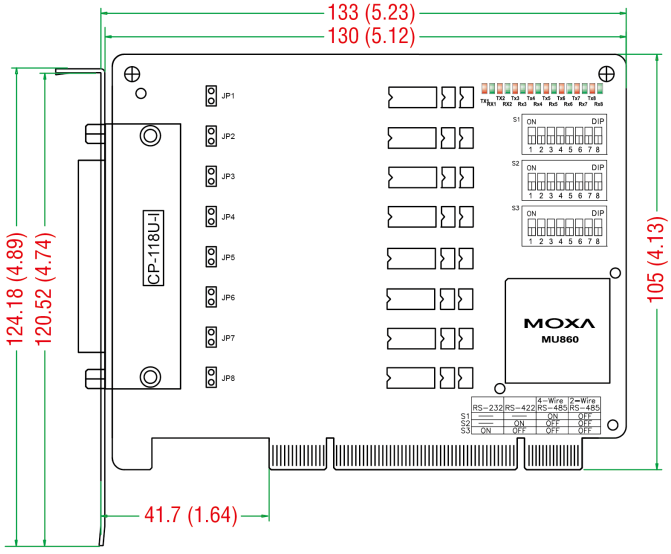
CP-138U

Unit: mm (inch)



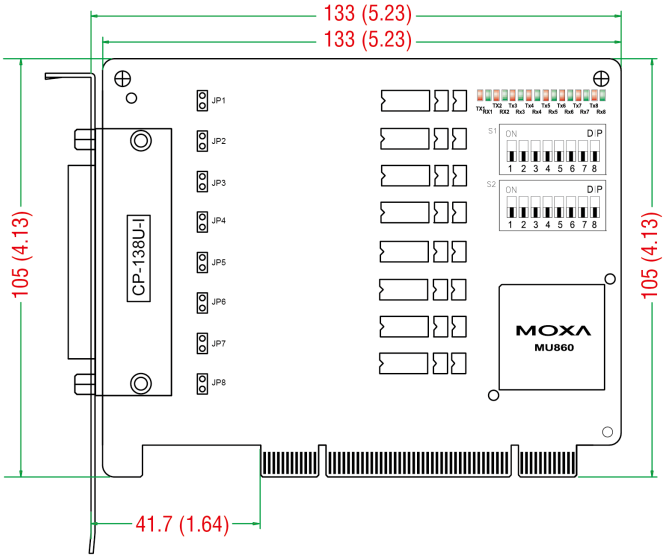
CP-118U-I

Unit: mm (inch)



CP-138U-I

Unit: mm (inch)



Ordering Information

Model Name	Serial Standards	No. of Serial Ports	Serial Connector	Serial Isolation Protection	Operating Temp.
CP-118U	RS-232/422/485	8	DB62 female	–	0 to 55°C
CP-138U	RS-422/485	8	DB62 female	–	0 to 55°C
CP-118U-T	RS-232/422/485	8	DB62 female	–	-40 to 85°C
CP-138U-T	RS-422/485	8	DB62 female	–	-40 to 85°C
CP-118U-I	RS-232/422/485	8	DB78 female	2 kV	0 to 55°C
CP-138U-I	RS-422/485	8	DB78 female	2 kV	0 to 55°C
CP-118U-I-T	RS-232/422/485	8	DB78 female	2 kV	-40 to 85°C
CP-138U-I-T	RS-422/485	8	DB78 female	2 kV	-40 to 85°C

Accessories (sold separately)

Cables

CBL-M62M25x8-100	M62 to 8 x DB25 male serial cable, 1 m Applicable Models: CP-118U-T CP-118U CP-138U CP-138U-T
CBL-M62M9x8-100	M62 to 8 x DB9 male serial cable, 1 m Applicable Models: CP-118U CP-118U-T CP-138U CP-138U-T
CBL-M78M25x8-100	M78 to 8 x DB25 male serial cable, 1 m Applicable Models: CP-138U-I CP-118U-I CP-138U-I-T CP-118U-I-T
CBL-M78M9x8-100	M78 to 8 x DB9 male serial cable, 1 m Applicable Models: CP-118U-I-T CP-138U-I-T CP-138U-I CP-118U-I

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector

Connection Boxes

OPT8A	M62 to 8 x DB25 female connection box with DB62 male to DB62 female serial cable Applicable Models: CP-138U-T CP-138U CP-118U CP-118U-T
OPT8B	M62 to 8 x DB25 male connection box with DB62 male to DB62 female cable, 1.5 m Applicable Models: CP-118U CP-138U-T CP-118U-T CP-138U
OPT8S	M62 to 8 x DB25 female connection box with surge protection and a DB62 male to DB62 female cable, 1.5 m Applicable Models: CP-118U CP-138U CP-138U-T CP-118U-T

OPT8-M9	M62 to 8 x DB9 male connection box, DB62 male to DB62 female cable, 1.5 m Applicable Models: CP-138U CP-118U-T CP-138U-T CP-118U
OPT8-RJ45	M62 to 8 x RJ45 (8-pin) connection box, 30 cm Applicable Models: CP-118U CP-118U-T CP-138U CP-138U-T

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