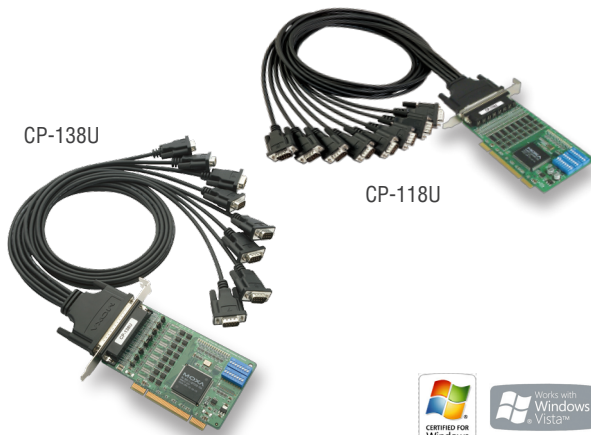# CP-118U/138U

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

> Over 700 Kbps data throughput for top performance
> 921.6 Kbps maximum baudrate for super fast data transmission
> 128-byte FIFO and on-chip H/W, S/W flow control
> Compatible with 3.3/5V PCI and PCI-X
> Drivers provided for Windows (2000, XP/2003/Vista/2008 x86/x64, 9X/ME/NT), Windows CE 5.0/6.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64), FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7
> Easy maintenance with on-board LED display, and management software
> 15 KV ESD protection on the board
> Wide temperature model available for -40 to 85°C environments

CP-138U

CP-118U

: Overview

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 3.3V and 5V PCI buses, making them suitable for installation in most PC servers.

: Drivers Provided for Windows, Linux, and Unix

One of Moxa's highest priorities is to provide drivers for all mainstream operating systems. Reliable, well-tested Windows COM and Linux/Unix TTY drivers are available for use with the CP-118U and CP-138U serial

boards. Other operating systems, such as Windows XP embedded and WEPOS, are also supported to accommodate embedded integration applications.

: Specifications

Hardware
Comm. Controller: MU860 (16C550C compatible)
Bus: 32-bit Universal PCI
Connector: DB62 female

Serial Interface
Number of Ports: 8
Serial Standards:
CP-118U: RS-232/422/485
CP-138U: RS-422/485
Max. No. of Boards per PC: 4

Serial Line Protection
ESD Protection: 15 KV on the board

Performance
Baudrate: 50 bps to 921.6 Kbps

Serial Communication Parameters
Data Bits: 5, 6, 7, 8
Stop Bits: 1, 1.5, 2
Parity: None, Even, Odd, Space, Mark
Flow Control: RTS/CTS, XON/XOFF
I/O Address: Assigned by BIOS
IRQ: Assigned by BIOS

Serial Signals
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422: TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND
RS-485-4w: TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

RS-485-2w: Data+(B), Data-(A), GND

Driver Support
Operating Systems: Windows (2000, XP/2003/Vista/2008 x86/x64, 9X/ME/NT), Windows CE 5.0/6.0, Windows XP Embedded, DOS, Linux 2.4, Linux 2.6 (x86/x64), FreeBSD 4/5, QNX 6, SCO Open Server 5/6, UnixWare 7

Physical Characteristics
Dimensions: 82 x 135 mm (3.22 x 5.31 in)

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)
Operating Humidity: 5 to 95% RH
Storage Temperature: -20 to 85°C (-4 to 185°F)

Regulatory Approvals
FCC: Part 15 Class B
EMS: EN55022, EN55024, EN61000-3-2, EN61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 (DIPS)

Power Requirements
Power Consumption:
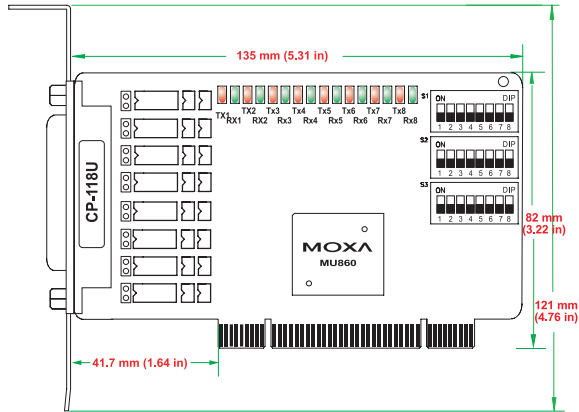CP-118U: 240 mA @ +5 V (RS-232), 300 mA @ +5 V (RS-422)
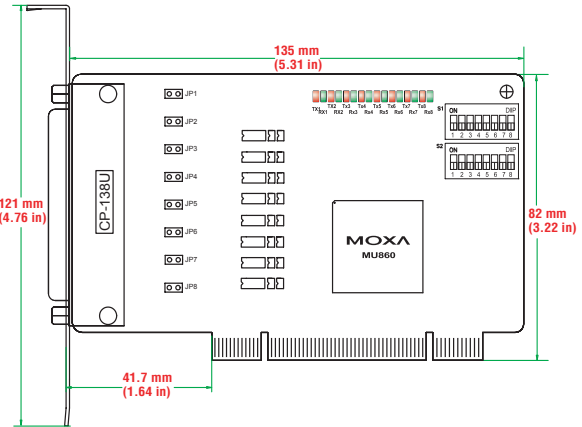CP-138U: 135 mA @ +5V (RS-422)

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

Dimensions

CP-118U

135 mm (5.31 in)
82 mm (3.22 in)
121 mm (4.76 in)
41.7 mm (1.64 in)

CP-138U

135 mm (5.31 in)
121 mm (4.76 in)
82 mm (3.22 in)
41.7 mm (1.64 in)

Ordering Information

Available Models

CP-118U: 8-port RS-232/422/485 Universal PCI serial board, 0 to 55°C operating temperature
CP-138U: 8-port RS-422/485 Universal PCI serial board, 0 to 55°C operating temperature
CP-118U-T: 8-port RS-232/422/485 Universal PCI serial board, -40 to 85°C operating temperature
CP-138U-T: 8-port RS-422/485 Universal PCI serial board, -40 to 85°C operating temperature

Package Checklist

- CP-118U or CP-138U board
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

Connection Options (can be purchased separately)

OPT8-M9
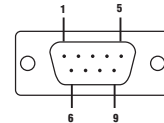DB9 male x 8 (150 cm cable)

CBL-M62M9x8-100 (OPT8D)
DB9 male x 8 (100 cm cable)

PIN	RS-232	PIN	RS-232
1	DCD	5	GND
2	RxD	6	DSR
3	TxD	7	RTS
4	DTR	8	CTS

DB9 male

OPT8B
DB25 male x 8 (150 cm cable)

CBL-M62M25x8-100 (OPT8C)
DB25 male x 8 (100 cm cable)

PIN	RS-232	PIN	RS-232
2	TxD	6	DSR
3	RxD	7	GND
4	RTS	8	DCD
5	CTS	20	DTR

DB25 male
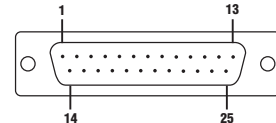
OPT8A
DB25 female x 8 (150 cm cable)

OPT8S
DB25 female x 8 (150 cm cable)
25 KV ESD Surge Protection

OPT8F/Z (RS-422)
DB25 female x 8 (150 cm cable)
110 or 230 VAC power adaptor
(115.2 Kbps max. baudrate)

OPT8F with 500 V isolation

OPT8K (RS-422/485)
DB25 female x 8 (150 cm cable)
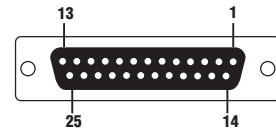110 or 230 VAC power adaptor

PIN	RS-232	PIN	RS-232
2	RxD	6	DTR
3	TxD	7	GND
4	CTS	8	DCD
5	RTS	20	DSR

PIN	RS-422
2	RxD+(B)
3	TxD+(B)
7	GND
14	RxD-(A)
16	TxD-(A)

PIN	RS-422/RS-485-4w	RS-485-2w
2	RxD+(B)	Data+(B)
3	TxD+(B)	
7	GND	GND
14	RxD-(A)	Data-(A)
16	TxD-(A)	

DB25 female

OPT8-RJ45
8-pin RJ45 x 8 (30 cm cable)

PIN	RS-232	PIN	RS-232
1	DSR	5	RxD
2	RTS	6	DCD
3	GND	7	CTS
4	TxD	8	DTR

8-pin RJ45