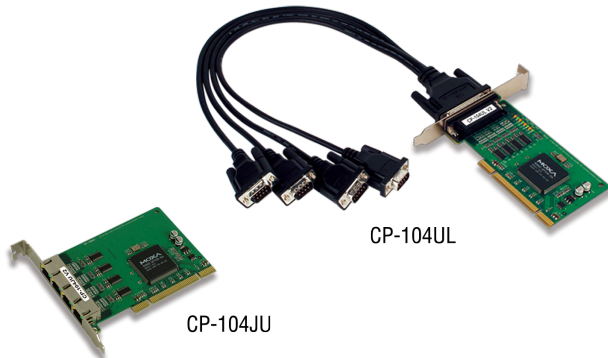# CP-104UL/JU

4-port RS-232 smart Universal PCI serial boards

CP-104UL

CP-104JU

> Over 800 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 3.3/5 V PCI and PCI-X
> Drivers provided for a broad selection of operating systems, including the latest Windows and Linux
> Wide temperature model available for -40 to 85°C environments

PComm Lite | Extreme Performance Turbo Serial Engine | -40°C 85°C

Compatible with Windows 7 | Windows | RoHS | CE FC

: Introduction

The CP-104UL and CP-104JU 4-port universal PCI boards are designed for POS and ATM applications. They are a top choice of industrial automation engineers and system integrators, and support many different operating systems, including Windows, Linux, and even Unix. In addition, each of the boards' RS-232 serial ports supports a super fast 921.6 kbps baudrate. The CP-104UL and CP-104JU provide 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 available PC server.

: Specifications

Hardware
Comm. Controller: MU860 (16C550C compatible)
Bus: 32-bit Universal PCI
Connector:
CP-104UL: DB44 female
CP-104JU: RJ45 x 4
Serial Interface
Number of Ports: 4
Serial Standards: RS-232
Max. No. of Boards per PC: 8
Performance
Baudrate: 50 bps to 921.6 kbps (supports non-standard baudrates)
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, RTS Toggle (RS-232 only)
Serial Signals
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
Physical Characteristics
Dimensions:
CP-104UL: 64.4 x 120 mm (2.53 x 4.72 in)
CP-104JU: 83 x 120 mm (3.27 x 4.72 in)
Driver Support
Windows: Windows 95/98/ME/NT/2000, Windows XP/2003/
Vista/2008/7/8/8.1/10 (x86/x64), Windows Server 2008
R2/2012/2012/2016 R2 (x64), DOS, Windows Embedded CE 5.0/6.0,
Windows XP Embedded
Linux: Linux 2.4.x, 2.6.x, 3.x
Unix-like Systems: QNX 6, SCO OpenServer, UnixWare 7, Solaris 10,
FreeBSD
Note: Please refer to Moxa's website for the latest driver support information.

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: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Standards and Certifications
EMC: EN 55032/24
EMI: CISPR 32, FCC Part 15B Class B
EMS:
CP-104UL:
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
IEC 61000-4-8 PFMF
IEC 61000-4-11
CP-104JU:
IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m
MTBF (mean time between failures)
Time:
CP-104UL: 558,961 hrs
CP-104JU: 571,627 hrs
Standard:
CP-104UL: MIL-HDBK-217F
CP-104JU: Telcordia (Bellcore) TR/SR
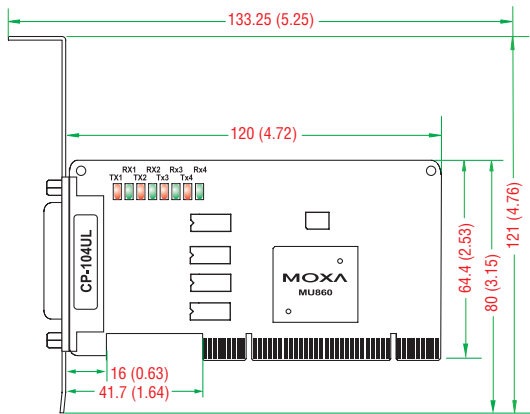### Power Requirements
Input Current:
CP-104UL: 120 mA @ 5 VDC
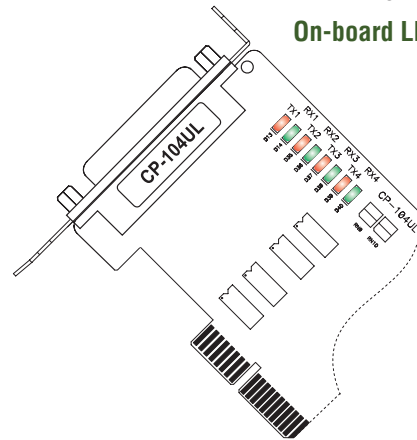CP-104JU: 135 mA @ 5 VDC
Warranty
Warranty Period: 5 years
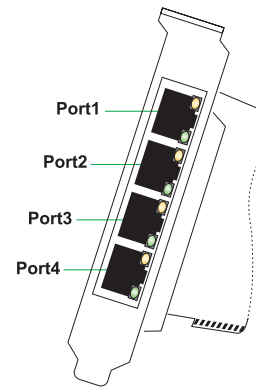**Details:** See www.moxa.com/warranty

Dimensions
CP-104UL

Unit: mm (inch)

133.25 (5.25)
120 (4.72)
121 (4.76)
64.4 (2.53)
80 (3.15)
16 (0.63)
41.7 (1.64)

RX1 RX2 Rx3 Rx4
TX1 TX2 Tx3 Tx4

CP-104UL
MOXA MU860

On-board LEDs

CP-104UL

CP-104JU

120 (4.72)
121 (4.76)
83 (3.27)
10 (0.39)
41.7 (1.64)

CP-104JU
MOXA MU860

Port1
Port2
Port3
Port4
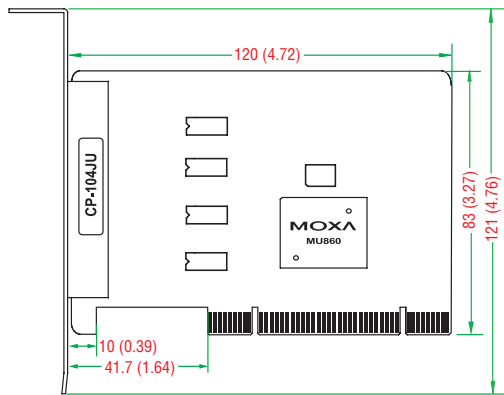
Ordering Information

Available Models

CP-104UL-DB9M: 4-port RS-232 low profile Universal PCI serial board, 0 to 55°C operating temperature (CBL-M44M9x4-50 cable included)

CP-104UL-DB25M: 4-port RS-232 low profile Universal PCI serial board, 0 to 55°C operating temperature (CBL-M44M25x4-50 cable included)

CP-104JU: 4-port RS-232 Universal PCI serial board with RJ45 ports on the board, 0 to 55°C operating temperature

CP-104UL-T: 4-port RS-232 low profile Universal PCI serial board, -40 to 85°C operating temperature

CP-104JU-T: 4-port RS-232 Universal PCI serial board with RJ45 ports on the board, -40 to 85°C operating temperature

Package Checklist

- 1 CP-104UL or CP-104JU board
- Low profile bracket (CP-104UL only)
- 1 connection cable (optional)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

Connection Options (can be purchased separately)

Low Profile Bracket: Bracket for DB44 connector (1490000001000)

CBL-M44M9x4-50: M44 to 4 x DB9-M cable, 50 cm

CBL-M44M25x4-50: M44 to 4 x DB25-M cable, 50 cm

CBL-M44M9x4-50
DB44 male to DB9 male x 4
(50 cm cable)

CBL-RJ45M9-150
8-pin RJ45 to DB9 male
(150 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

1   5
6   9
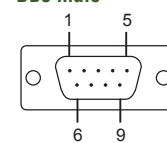
CBL-M44M25x4-50
DB44 male to DB25 male x 4
(50 cm cable)

CBL-RJ45M25-150
8-pin RJ45 to DB25 male
(150 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

1   13
14   25