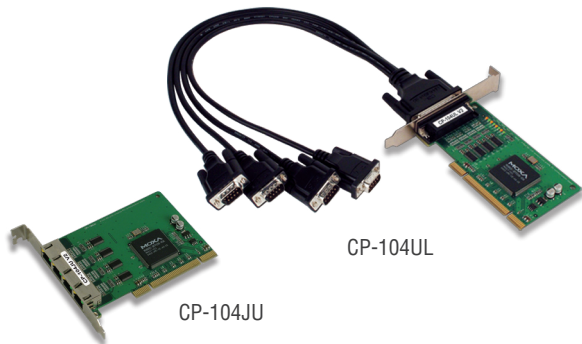


# CP-104UL/JU

## 4-port RS-232 smart Universal PCI serial boards



- > 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



### 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:** 4

#### 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

#### 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 2008 R2/2012/2012 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 55022/24

**EMI:** CISPR 22, 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

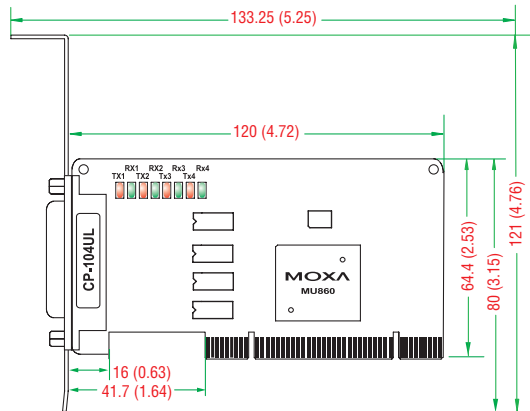
CP-104JU: 135 mA @ 5 VDC

#### Warranty

**Warranty Period:** 5 years

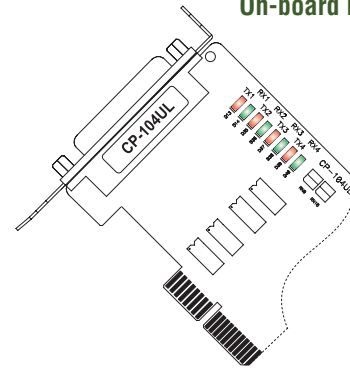
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**  
**CP-104UL**

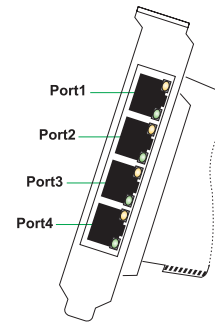
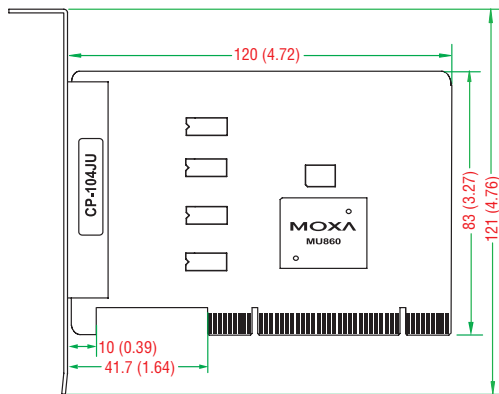


Unit: mm (inch)

**On-board LEDs**



**CP-104JU**



**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

**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

**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

**CBL-M44M9x4-50**

DB44 male to DB9 male x 4 (50 cm cable)



**CBL-RJ45M9-150**

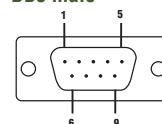
8-pin RJ45 to DB9 male (150 cm cable)



PIN	RS-232
1	DCD
2	RxD
3	TxD
4	DTR

PIN	RS-232
5	GND
6	DSR
7	RTS
8	CTS

**DB9 male**



**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
2	TxD
3	RxD
4	RTS
5	CTS

PIN	RS-232
6	DSR
7	GND
8	DCD
20	DTR

**DB25 male**

