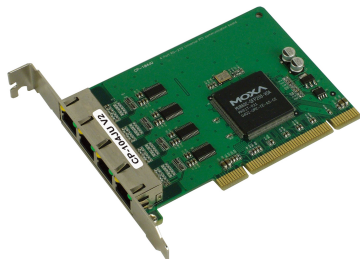


# CP-104UL/104JU Series

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



### Features and Benefits

- Over 800 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
- Wide-temperature model available for -40 to 85°C environments

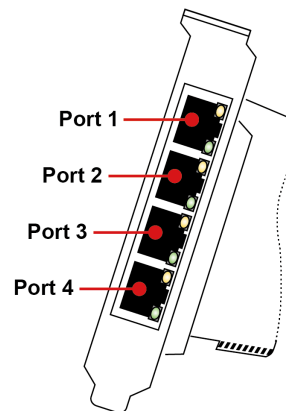
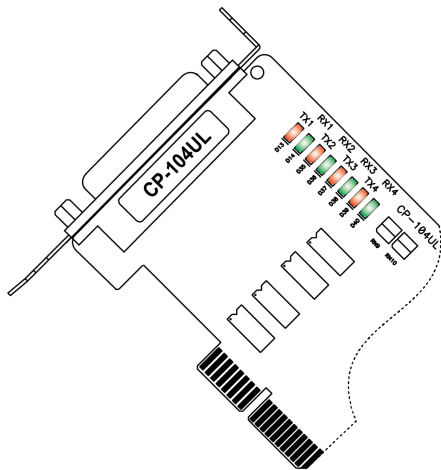
### Certifications



### 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 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.

### Built-In LEDs



### Specifications

#### Serial Interface

|                           |                                                           |
|---------------------------|-----------------------------------------------------------|
| Comm. Controller          | MU860 (16C550C compatible)                                |
| Bus                       | 32-bit Universal PCI                                      |
| Connector                 | CP-104UL models: DB44 female<br>CP-104JU models: 4 x RJ45 |
| FIFO                      | 128 bytes                                                 |
| Max. No. of Boards per PC | 8                                                         |

|                  |                                      |
|------------------|--------------------------------------|
| No. of Ports     | 4                                    |
| Serial Standards | RS-232                               |
| Baudrate         | 50 bps to 921.6 kbps                 |
| Data Bits        | 5, 6, 7, 8                           |
| Stop Bits        | 1, 1.5, 2                            |
| Parity           | None<br>Even<br>Odd<br>Space<br>Mark |
| Flow Control     | None<br>RTS/CTS<br>XON/XOFF          |

#### Serial Signals

|        |                                        |
|--------|----------------------------------------|
| RS-232 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, 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<br>Linux kernel 4.x<br>Linux kernel 3.x<br>Linux kernel 2.6.x<br>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-104UL models: 120 mA @ 5 VDC<br>CP-104JU models: 135 mA @ 5 VDC |
|---------------|--------------------------------------------------------------------|

#### Physical Characteristics

|            |                                                                                                  |
|------------|--------------------------------------------------------------------------------------------------|
| Dimensions | CP-104UL models: 64.4 x 120 mm (2.53 x 4.72 in)<br>CP-104JU models: 83 x 120 mm (3.27 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)<br>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

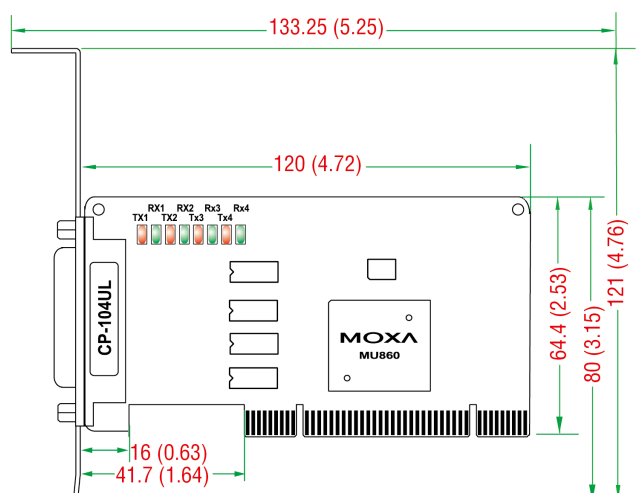
|     |                                |
|-----|--------------------------------|
| EMC | EN 55032/35                    |
| EMI | CISPR 32, FCC Part 15B Class B |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMS                    | <p>CP-104UL models:<br/> IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br/> IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m<br/> IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV<br/> IEC 61000-4-5 Surge: Power: 2 kV<br/> IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m<br/> IEC 61000-4-8 PFMF</p> <p>CP-104JU models:<br/> IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br/> IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m</p> |
| International Approval | CP-104UL-DB9M: KC                                                                                                                                                                                                                                                                                                                                                                                                              |
| Declaration            |                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Green Product          | RoHS, CRoHS, WEEE                                                                                                                                                                                                                                                                                                                                                                                                              |
| MTBF                   |                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Time                   | <p>CP-104UL models: 558,961 hrs<br/> CP-104JU models: 571,627 hrs</p>                                                                                                                                                                                                                                                                                                                                                          |
| Standards              | Telcordia (Bellcore) Standard TR/SR                                                                                                                                                                                                                                                                                                                                                                                            |
| Warranty               |                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Warranty Period        | 5 years                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Details                | See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>                                                                                                                                                                                                                                                                                                                                                           |
| Package Contents       |                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Device                 | 1 x CP-104UL/104JU Series serial board                                                                                                                                                                                                                                                                                                                                                                                         |
| Cable                  | <p>1 x M44 to 4 x DB9-M cable, 50 cm (CP-104UL-DB9M)<br/> 1 x M44 to 4 x DB25-M cable, 50 cm (CP-104UL-DB25M)</p>                                                                                                                                                                                                                                                                                                              |
| Documentation          | <p>1 x quick installation guide<br/> 1 x substance disclosure table<br/> 1 x warranty card</p>                                                                                                                                                                                                                                                                                                                                 |

## Dimensions

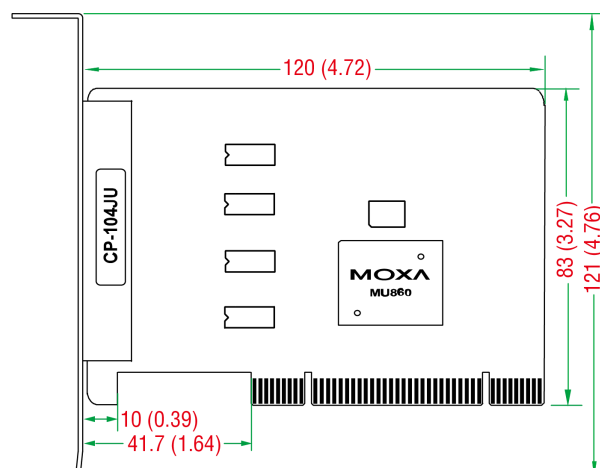
### CP-104UL

Unit: mm (inch)



### CP-104JU

Unit: mm (inch)



## Ordering Information

| Model Name     | Serial Bus    | No. of Serial Ports | Serial Connector | Operating Temp. | Included Cable  |
|----------------|---------------|---------------------|------------------|-----------------|-----------------|
| CP-104UL-DB9M  | Universal PCI | 4                   | DB44 female      | 0 to 55°C       | CBL-M44M9x4-50  |
| CP-104UL-DB25M | Universal PCI | 4                   | DB44 female      | 0 to 55°C       | CBL-M44M25x4-50 |
| CP-104UL-T     | Universal PCI | 4                   | DB44 female      | -40 to 85°C     | –               |
| CP-104JU       | Universal PCI | 4                   | 8-pin RJ45       | 0 to 55°C       | –               |
| CP-104JU-T     | Universal PCI | 4                   | 8-pin RJ45       | -40 to 85°C     | –               |

## Accessories (sold separately)

### Cables

|                 |                                                                                       |
|-----------------|---------------------------------------------------------------------------------------|
| CBL-F9M9-150    | DB9 female to DB9 male serial cable, 1.5 m<br><br>Applicable Models:<br>CP-104UL-DB9M |
| CBL-F9M9-20     | DB9 female to DB9 male serial cable, 20 cm<br><br>Applicable Models:<br>CP-104UL-DB9M |
| CBL-M44M25x4-50 | DB44 male to 4 DB25 male serial cable, 50 cm<br><br>Applicable Models:<br>CP-104UL-T  |
| CBL-M44M9x4-50  | DB44 male to DB9 male serial cable, 50 cm<br><br>Applicable Models:<br>CP-104UL-T     |

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