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 3.3/5V PCI and PCI-X
> Drivers provided for a broad selection of operating systems, including the latest Windows and Linux
> 15 kV ESD protection on the board
> 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 3.3V and 5V 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
Connectors:
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
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

Operating Systems


Fixed TTY Drivers: QNX 6, SCO OpenServer, UnixWare 7, Solaris 10, FreeBSD

Linux Real TTY Drivers: Linux 2.4.x, 2.6.x
Note: Please refer to Moxa’s website for the latest driver support information.

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)

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)

Altitude: Up to 2000 m
Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

Standards and Certifications

EMC: CE, FCC
EMI: EN 55022, FCC Part 15 Subpart B Class B
EMS: EN 55024, IEC 61000-4-2, IEC 61000-4-3

Green Product: RoHS, CrHs, WEEE

MTBF (mean time between failures)
Time: 558,961 hrs

Database: MIL-HDBK-217F, GB 25°C

Power Requirements

Power Consumption:
CP-104UL: 120 mA @ +5 V
CP-104JU: 135 mA @ +5 V

Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty
**Multiport Serial Boards**

### Dimensions

**CP-104UL**

- **133.25 (5.25)** mm
- **120 (4.72)** mm

**CP-104JU**

- **133.25 (5.25)** mm
- **120 (4.72)** mm

### On-board LEDs

- Port 1
- Port 2
- Port 3
- Port 4

### Available Models

- **CP-104UL-DB9M**: 4-port RS-232 low profile Universal PCI serial board, 0 to 55°C operating temperature (includes DB9 male cable)
- **CP-104UL-DB25M**: 4-port RS-232 low profile Universal PCI serial board, 0 to 55°C operating temperature (includes DB25 male cable)
- **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)

- **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)
- **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)

### Package Checklist

- 1 CP-104UL or CP-104JU board
- Low profile bracket (CP-104UL only)
- DB9-M or DB25-M cable included (CP-104UL only)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card