# POS-104UL

## *4-port RS-232 Universal PCI boards with power over serial*
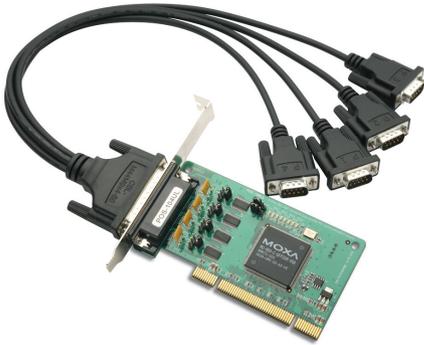
> Over 800 kbps data throughput, for top performance
> Power options for each port: 5 V (output), 12 V (output), and RI (input)
> Serial port power from bus or power supply
> 921.6 kbps maximum baudrate for super fast data transmission
> 128-byte FIFO and on-chip H/W, S/W flow control
> Compatible with 3.3/5 V PCI and PCI-X
> Low profile board, suitable for compact-sized PCs
> 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 POS-104UL is a smart, 4-port Universal PCI serial board designed for POS and ATM applications and for use by industrial automation system manufacturers and system integrators. The POS-104UL is compatible with all major operating systems. In addition, each of the 4 RS-232 serial ports supports data rates up to 921.6 kbps and provides full modem control signals to ensure compatibility with a wide range of serial peripherals. The POS-104UL supplies 5 or 12 volts of power to each serial port, and it works with both 3.3 V and 5 V PCI buses, making it suitable for installation in most PC servers.

## : Specifications

### Hardware
**Comm. Controller:** MU860 (16C550C compatible)
**Bus:** 32-bit Universal PCI
**Connector:** DB44 female

### 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, RI (optional)

### Physical Characteristics
**Dimensions:** 64.4 x 120 mm (2.53 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 61000-6-2/6-4
**EMI:** CISPR 22, FCC Part 15B Class B
**EMS:**
IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m
IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV
IEC 61000-4-5 Surge: Power: 2 kV
IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m
IEC 61000-4-8 PFMF
IEC 61000-4-11

### MTBF (mean time between failures)
**Time:** 2,124,022 hrs
**Standard:** Telcordia (Bellcore) TR/SR

### Power Requirements
**Input Current:** 145 mA @ 5 VDC

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

## Dimensions

Unit: mm (inch)
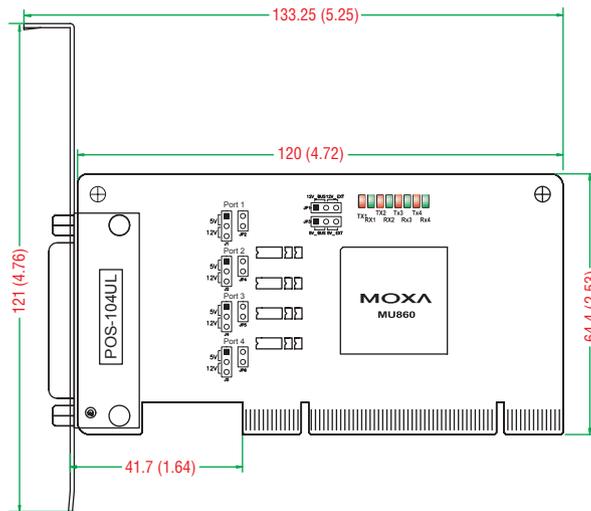


## : Ordering Information

### Available Models

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

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

### Connection Options (can be purchased separately)

**CBL-M44M9x4-50 (POS):** M44 to 4 x DB9-M cable, 50 cm
**Low Profile Bracket:** Bracket for DB44 connector (1490000001000)

#### Package Checklist

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

**CBL-M44M9x4-50 (POS)**



| PIN | RS-232 |
|-----|-----------|
| 1 | DCD |
| 2 | RxD |
| 3 | TxD |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | 5V/12V/RI |

**DB9 male**