

# UPort® 1250/1250I

**2-port RS-232/422/485 USB-to-serial converters with optional 2 kV isolation**



- > Hi-Speed USB 2.0 for up to 480 Mbps USB transmission
- > 921.6 kbps maximum baudrate for super fast data transmission
- > 128-byte FIFO and on-chip H/W, S/W flow control
- > 15N high retention type B connector
- > Drivers provided for Windows, WinCE, and Linux
- > LEDs for easy monitoring
- > Locking power jack



## Overview

The UPort® 1250/1250I USB-to-serial converters allow you to connect 2 RS-232/422/485 devices to your laptop or workstation through the

USB (Universal Serial Bus) port. These plug & play USB solutions are perfect for mobile, instrumentation, and point-of sale applications.

## Typical Application—Connecting Instruments in a Medical Lab

In medical labs, research scientists typically collect large quantities of data from many samples using a variety of different instruments. Most research devices have parameters that can be accessed via a serial port for convenient reconfiguration. Laptops are often used as convenient and space-efficient computing solutions in medical labs, but most modern laptops no longer offer serial ports and only come equipped with USB ports. This presents a connectivity issue unless the USB ports can be expanded into serial ports.

Moxa's solution is the UPort® 1250, which is an RS-232/422/485 USB-to-serial converter that can be used to connect 2 serial interface

instruments to a computer's USB port, and is particularly convenient for medical researchers since advanced technical expertise is not required. The UPort® 1250 has the following features:

- 2 serial ports for easy USB-to-serial expansion
- True USB 2.0 high-speed transmission
- 128-byte FIFO and on-chip hardware and software flow control to ensure stable data transmission
- Easy troubleshooting with LED indicators for each serial port
- Compatible with both laptops and desktop PCs

## Specifications

### USB Interface

**Compliance:** USB 1.1/2.0 compliant

**Connector:** USB type B

**Speed:** 480 Mbps (Hi-Speed USB) and 12 Mbps (Full-Speed USB)

### Serial Interface

**Number of Ports:** 2

**Serial Standards:** RS-232/422/485

**Connector:** DB9 male

**Electrical Isolation:** 2 kV (UPort 1250I only)

### Performance

**Baudrate:** 50 bps to 921.6 kbps (including 500 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

**FIFO:** 128 bytes

### Serial Signals

**RS-232:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**RS-422:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-4w:** TxD+(B), TxD-(A), RxD+(B), RxD-(A), GND

**RS-485-2w:** Data+(B), Data-(A), GND

**RS-485 Data Direction:** ADDC® (Automatic Data Direction Control)

### Operating Systems

**Windows Real COM Drivers:** Windows 2000, Windows XP/2003/ Vista/2008/7/8/8.1 (x86/x64), Windows 2012 (x64), Windows Embedded CE 5.0/6.0

**Linux Real TTY Drivers:** Linux 2.6.x, 3.x

**Note:** Please refer to Moxa's website for the latest driver support information.

### Physical Characteristics

**Housing:** SECC sheet metal (1 mm)

**Weight:**

Product only: 180 g (0.40 lb)

Packaged:

UPort 1250: 370 g (0.82 lb)

UPort 1250I: 680 g (1.5 lb)

**Dimensions:** 77 x 26 x 111 mm (3.03 x 1.02 x 4.37 in)

### Environmental Limits

**Operating Temperature:** 0 to 55°C (32 to 131°F)

**Storage Temperature:** -20 to 75°C (-4 to 167°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

**Safety:** UL 60950-1

**EMC:** CE, FCC

**EMI:** EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class A

**EMS:** EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, IEC 61000-4-8, IEC 61000-4-11

**Green Product:** RoHS, CRoHS, WEEE

### Power Requirements

**Power Consumption:**

UPort 1250 (bus power): 360 mA @ 5 VDC

UPort 1250I (12 to 48 VDC external power): 200 mA @ 12 VDC

**MTBF (mean time between failures)**

**Time:** 563,179 hrs

**Database:** Telcordia (Bellcore), GB

### Warranty

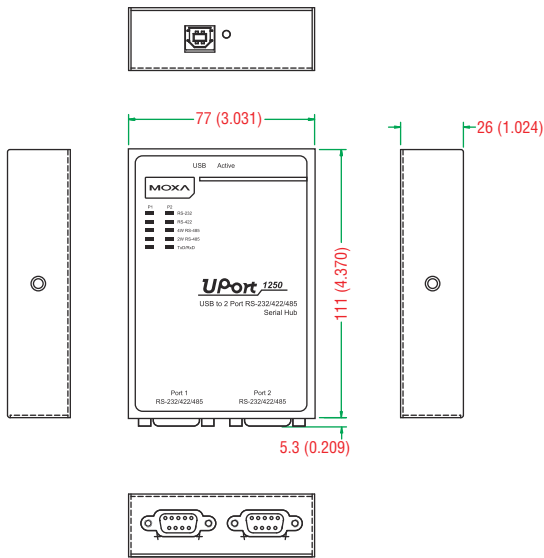
**Warranty Period:** 5 years

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

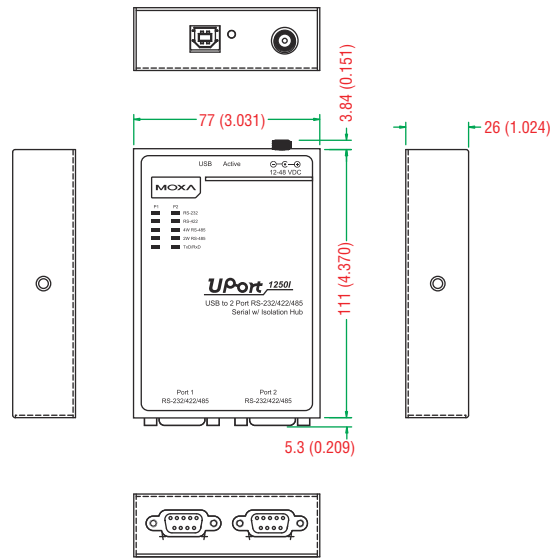
### Dimensions

Unit: mm (inch)

#### UPort® 1250



#### UPort® 1250I



## Ordering Information

### Available Models

**UPort 1250:** 2-port RS-232/422/485 USB-to-serial converter

**UPort 1250I:** 2-port RS-232/422/485 USB-to-serial converter with 2 kV electrical isolation, adaptor included

**Optional Accessories** (can be purchased separately)

**Mini DB9F-to-TB Adapter:** DB9 female to terminal block adapter for RS-422/485 applications

**Wall Mount Kit:** Metal plates and screws

**DK35A:** Mounting kit for 35-mm DIN-Rail

### Package Checklist

- 1 UPort 1250 or 1250I USB-to-serial converter
- USB-IF certified cable
- 1 mini DB9 female to terminal block adapter
- Power adapter (UPort 1250I)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card