

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
- > 15 kV ESD protection for all serial ports
- > Locking power cord for the UPort 1250I



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

Serial Line Protection

ESD Protection: 15 kV embedded
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

Android Driver

Linux Real TTY Drivers: Linux 2.4.x, 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

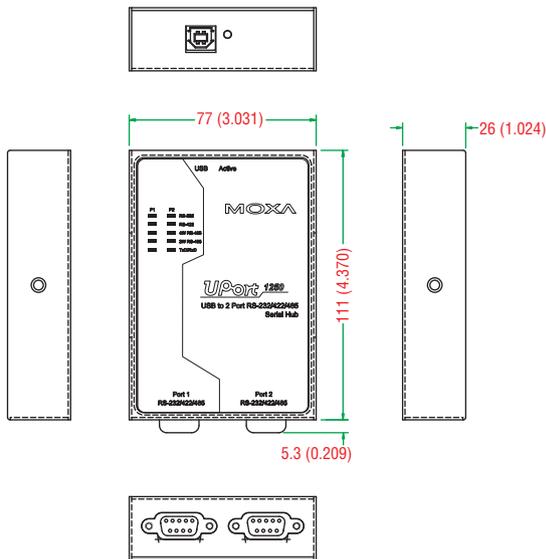
Warranty Period: 5 years

Details: See www.moxa.com/warranty

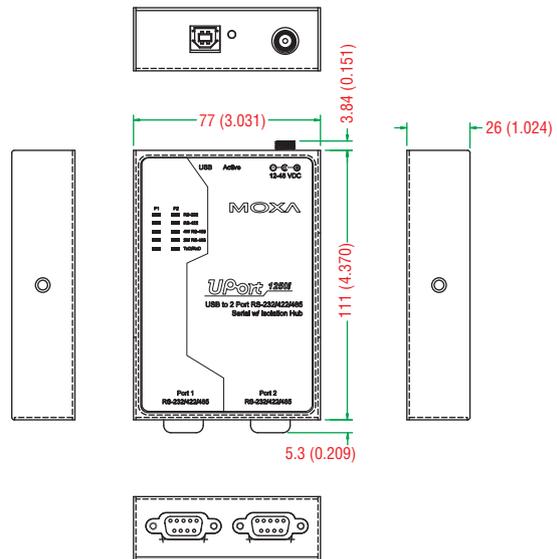
Dimensions

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 Adaptor: DB9 female to terminal block adaptor for RS-422/485 applications

Wall Mount Kit: Metal plates and screws

DK35A: Mounting kit for 35-mm DIN-Rail

Mini DB9F-to-TB Adaptor: DB9 female to terminal block adaptor for RS-422/485 applications

Package Checklist

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