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

UPort® 1250   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
Optical 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)

Driver Support
Operating Systems: Windows 2000, Windows XP/2003/Vista/2008/7 x86/x64, Win CE 5.0/6.0, Linux 2.4, Linux 2.6 x86/x64
Note: Please refer to Moxa's website for the latest driver support information.

Physical Characteristics
Housing: SECC sheet metal (1 mm), IP30 protection
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)
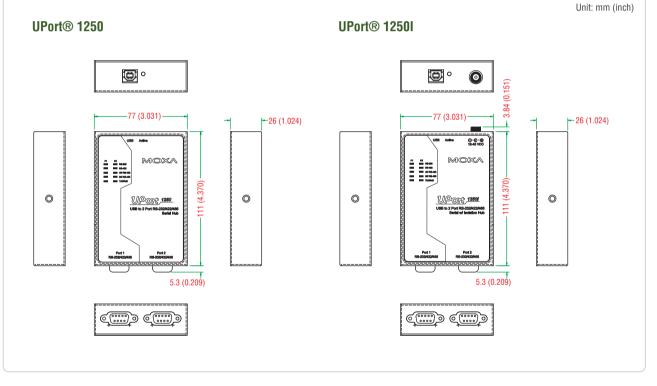**Ambient Relative Humidity:** 5 to 95% (non-condensing)

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 optical 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

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