

# UPort® 1400 Series

**4-port RS-232 and 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
- > 15N high retention USB type B connector
- > 128-byte FIFO and on-chip H/W, S/W flow control
- > Built-in 15 KV ESD protection for all serial ports
- > 2 KV optical isolation protection (UPort® 1450I only)
- > IP30-rated, rugged metal housing
- > COM port assignments maintained across different PCs
- > Drivers provided for Windows, WinCE, and Linux
- > Choose bus power or external power (UPort® 1410/1450 only)
- > Locking power cord



## Overview

The UPort® 1400 USB-to-serial converters allow you to connect 4 RS-232 or RS-232/422/485 devices to your laptop or workstation through the USB (Universal Serial Bus) port. The UPort® 1400

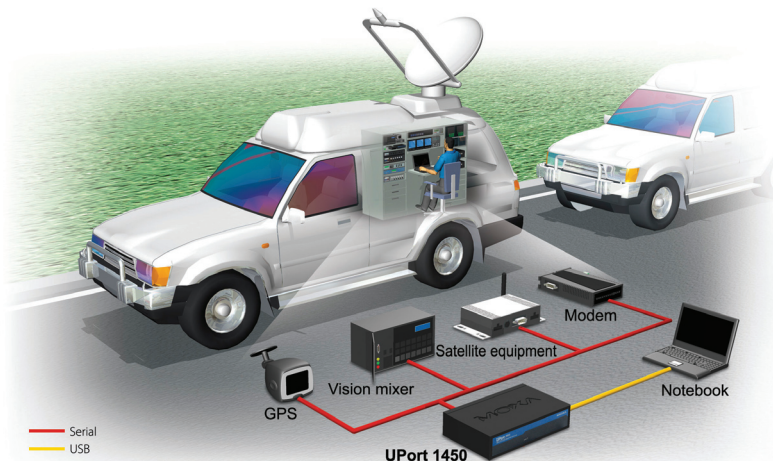
converters are compatible with new and legacy serial devices, and are perfect for mobile, instrumentation, and point-of-sale applications.

## Typical Application—Military Satellite Truck

Before the arrival of mobile satellite technology, military applications relied on terrestrial communication systems to collect data in remote locations and broadcast the signals to a geostationary communications satellite. Satellite trucks, which are commonly used in modern Satellite News Gathering (SNG), allow military command centers to gather intelligence and other data with greater mobility and flexibility than before. Due to the mobile nature of SNG technology, onboard data acquisition equipment needs to be highly portable yet provide seamless and reliable communication. In addition, satellite trucks are outfitted with various degrees of video production and editing gear that need to be readily available and connected at all times. One of our

military clients uses Moxa's UPort® 1450 converter as their solution of choice for reliable device connectivity in their fleet of satellite trucks. The UPort® 1450 has the following features:

- No data loss with 128-byte FIFO and on-chip flow control for hardware and software
- Electrostatic protection and LED indicators designed for critical environments
- Small form factor and wall-mountable to save space
- Easy COM port configuration and plug & play capability
- 3-in-1 RS-232/422/485 support for connecting any serial interface device



## 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:** 4

**Serial Standards:**

UPort® 1410: RS-232

UPort® 1450/1450I: RS-232/422/485

**Connector:** DB9 male

### Serial Line Protection

**ESD Protection:** 15 KV embedded

**Optical Isolation:** 2 KV (UPort® 1450I 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, WinCE 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: 720 g (1.59 lb)

Packaged: 1320 g (2.91 lb)

**Dimensions:** 204 x 30 x 125 mm (8.03 x 1.18 x 4.92 in)

### Environmental Limits

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

**Operating Humidity:** 5 to 95% RH

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

**Regulatory Approvals:** EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, FCC Part 15 Class A, UL, CUL, TÜV

### Power Requirements

**Power Consumption:**

• Bus power:

UPort® 1410: 180 mA @ 5 VDC

• 12 to 48 VDC external power:

UPort® 1410: 180 mA @ 12 VDC

UPort® 1450: 260 mA @ 12 VDC

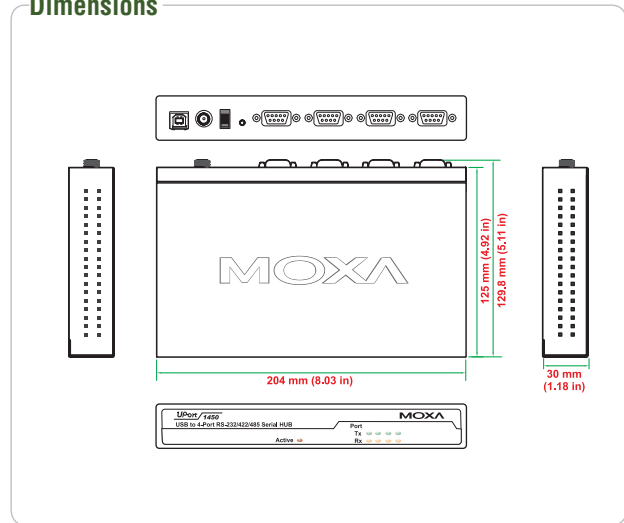
UPort® 1450I: 360 mA @ 12 VDC

### Warranty

**Warranty Period:** 5 years

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

### Dimensions



## Ordering Information

### Available Models

**UPort® 1410:** 4-port RS-232 USB-to-serial converter

**UPort® 1450:** 4-port RS-232/422/485 USB-to-serial converter, adaptor included

**UPort® 1450I:** 4-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

**Magnet Accessory:** Magnets for attaching the UPort® 1400 to the PC's housing

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

**DIN-Rail Kit:** DIN-Rail kit for the UPort® 1400 series

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

### Power Adaptors (can be purchased separately)

*Note: Available for the UPort® 1410 if the USB port does not provide enough power. You must purchase the adaptor plus one power cord.*

**PWR-12120-DT-S2:** 100-240 VAC to 12 VDC @ 1.2 A power adaptor

**PWC-C7US-2B-183:** US plug, 2-pin power cord

**PWC-C7UK-2B-183:** UK plug, 2-pin power cord

**PWC-C7EU-2B-183:** EU plug, 2-pin power cord

**PWC-C7JP-2B-183:** JP plug, 2-pin power cord

**PWC-C7AU-2B-183:** SAA plug, 2-pin power cord

### Package Checklist

- UPort® 1400 USB-to-serial converter
- USB-IF certified cable
- 1 mini DB9 female to terminal block adaptor (UPort® 1450 and 1450I only)
- Power adaptor (UPort® 1450 and 1450I only)
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card