

# UPort 1200/1400/1600 Series

2 to 16-port RS-232, RS-422/485, and RS-232/422/485 USB-to-serial converters



## Features and Benefits

- Hi-Speed USB 2.0 for up to 480 Mbps USB data transmission rates
- 921.6 kbps maximum baudrate for fast data transmission
- Real COM and TTY drivers for Windows, Linux, and macOS
- Mini-DB9-female-to-terminal-block adapter for easy wiring
- LEDs for indicating USB and TxD/RxD activity
- 2 kV isolation protection (for “-I” models)

## Certifications



## Introduction

The UPort® 1200/1400/1600 Series of USB-to-serial converters is the perfect accessory for laptop or workstation computers that do not have a serial port. They are essential for engineers who need to connect different serial devices in the field or separate interface converters for devices without a standard COM port or DB9 connector.

The UPort® 1200/1400/1600 Series converts from USB to RS-232/422/485. All products are compatible with legacy serial devices, and can be used with instrumentation and point-of-sale applications.

## Specifications

### USB Interface

|               |                       |
|---------------|-----------------------|
| Speed         | 12 Mbps, 480 Mbps     |
| USB Connector | USB Type B            |
| USB Standards | USB 1.1/2.0 compliant |

### Serial Interface

|                  |  |
|------------------|--|
| No. of Ports     | UPort 1200 Series: 2<br>UPort 1400 Series: 4<br>UPort 1600-8 Series: 8<br>UPort 1600-16 Series: 16 |
| Connector        | DB9 male   |
| Baudrate         | 50 bps to 921.6 kbps   |
| Data Bits        | 5, 6, 7, 8   |
| Stop Bits        | 1, 1.5, 2  |
| Parity           | None, Even, Odd, Space, Mark   |
| Flow Control     | None, RTS/CTS, XON/XOFF  |
| Isolation        | 2 kV (I models)  |
| Serial Standards | UPort 1410/1610-8/1610-16: RS-232<br>UPort 1250/1250I/1450/1650-8/1650-16: RS-232, RS-422, RS-485  |

## Serial Signals

|           |  |
|-----------|--|
| RS-232    | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND |
| RS-422    | Tx+, Tx-, Rx+, Rx-, GND                |
| RS-485-4w | Tx+, Tx-, Rx+, Rx-, GND                |
| RS-485-2w | Data+, Data-, GND                      |

## Serial Software Features

|                 |  |
|-----------------|--|
| Windows Drivers | Windows 10 (x86/x64)<br>Windows 8.1<br>Windows 8<br>Windows 7<br>Windows ME<br>Windows Vista<br>Windows XP<br>Windows 98<br>Windows 95<br>Windows Server 2019<br>Windows Server 2016<br>Windows Server 2012 R2<br>Windows Server 2012<br>Windows Server 2008 R2<br>Windows Server 2008<br>Windows 2000<br>Windows NT |
| Mac Drivers     | macOS 11.0<br>macOS 10.15<br>macOS 10.14<br>macOS 10.13<br>macOS 10.12   |
| Linux Drivers   | Linux kernel 5.x, Linux kernel 4.x, Linux kernel 3.x, Linux kernel 2.6.x, Linux kernel 2.4.x   |

## Power Parameters

|               |  |
|---------------|--|
| Input Voltage | UPort 1250/1410/1450: 5 VDC <sup>1</sup><br>UPort 1250/1400/1600-8 Series: 12 to 48 VDC<br>UPort 1600-16 Series: 100 to 240 VAC  |
| Input Current | UPort 1250: 360 mA @ 5 VDC<br>UPort 1250I: 200 mA @ 12 VDC<br>UPort 1410/1450: 260 mA @ 12 VDC<br>UPort 1450I: 360 mA @ 12 VDC<br>UPort 1610-8/1650-8: 580 mA @ 12 VDC<br>UPort 1600-16 Series: 220 mA @ 100 VAC |

## Physical Characteristics

|            |   |
|------------|---|
| Housing    | Metal   |
| Dimensions | UPort 1250/1250I: 77 x 26 x 111 mm (3.03 x 1.02 x 4.37 in)<br>UPort 1410/1450/1450I: 204 x 30 x 125 mm (8.03 x 1.18 x 4.92 in)<br>UPort 1610-8/1650-8: 204 x 44 x 125 mm (8.03 x 1.73 x 4.92 in)<br>UPort 1610-16/1650-16: 440 x 45.5 x 198.1 mm (17.32 x 1.79 x 7.80 in) |
| Weight     | UPort 1250/1250I: 180 g (0.40 lb)<br>UPort 1410/1450/1450I: 720 g (1.59 lb)<br>UPort 1610-8/1650-8: 835 g (1.84 lb)<br>UPort 1610-16/1650-16: 2,475 g (5.45 lb)   |

1. UPort 1410/1450 Series: 5 V for USB port power, 12 V for external power adapter

## Environmental Limits

|  |  |
|--|--|
| Storage Temperature (package included) | -20 to 75°C (-4 to 167°F)  |
| Ambient Relative Humidity              | 5 to 95% (non-condensing)  |
| Operating Temperature                  | UPort 1200 Models: 0 to 60°C (32 to 140°F)<br>UPort 1400//1600-8/1600-16 Models: 0 to 55°C (32 to 131°F) |

## Standards and Certifications

|        |   |
|--------|---|
| EMC    | EN 55032/35   |
| EMI    | CISPR 32, FCC Part 15B Class A  |
| EMS    | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m<br>IEC 61000-4-4 EFT: Power: 1 kV<br>IEC 61000-4-5 Surge: Power: 1 kV<br>IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m<br>IEC 61000-4-8 PFMF |
| Safety | UPort 1200 / 1600-16 models : UL 60950-1<br>UPort 1400 / 1600-8 models : UL/IEC 62368-1   |

## Declaration

|               |                   |
|---------------|-------------------|
| Green Product | RoHS, CRoHS, WEEE |
|---------------|-------------------|

## MTBF

|           |   |
|-----------|---|
| Time      | UPort 1250/1250I: 563,179 hrs<br>UPort 1410: 394,441 hrs<br>UPort 1450/1450I: 546,770 hrs<br>UPort 1610-8: 208,413 hrs<br>UPort 1650-8: 186,567 hrs<br>UPort 1610-16: 138,704 hrs<br>UPort 1650-16: 120,001 hrs |
| Standards | UPort 1250/1250I/1410/1450/1450I: Telcordia (Bellcore) Standard<br>UPort 1610-8/1650-8/1610-16/1650-16: MIL-HDBK-217F   |

## Warranty

|                 |  |
|-----------------|--|
| Warranty Period | 5 years  |
| Details         | See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a> |

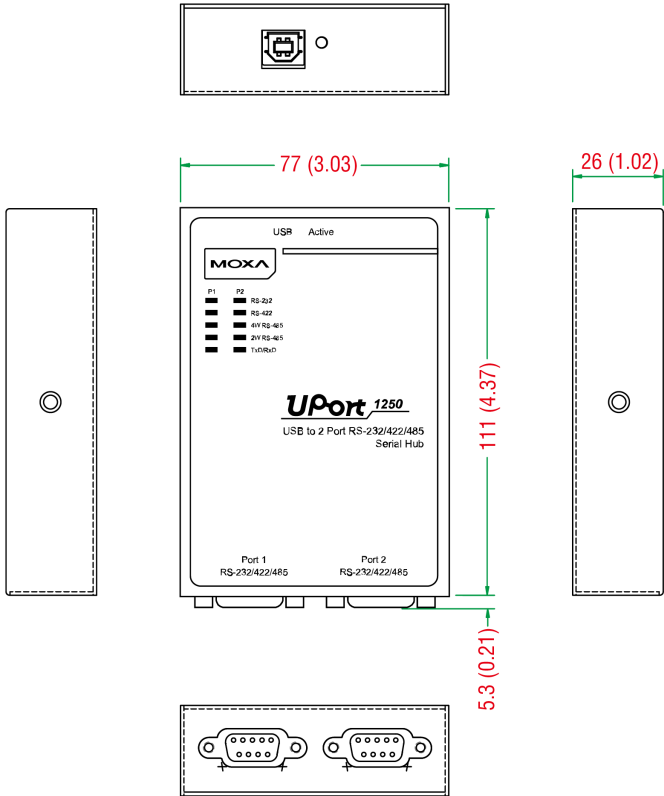
## Package Contents

|                  |  |
|------------------|--|
| Device           | 1 x UPort 1200/1400/1600 Series USB-to-serial converter  |
| Cable            | 1 x USB type A male to USB type B male   |
| Connectors       | 1 x Mini DB9F-to-TB (UPort 1250/1450/1650 Series)  |
| Power Supply     | 1 x power adapter, universal (UPort 1250I/1450/1450I/1600-8)<br>1 x power cord (UPort 1600-16) |
| Installation Kit | 1 x rack-mounting ear (UPort 1600-16 Series)   |
| Documentation    | 1 x quick installation guide<br>1 x warranty card  |

## Dimensions

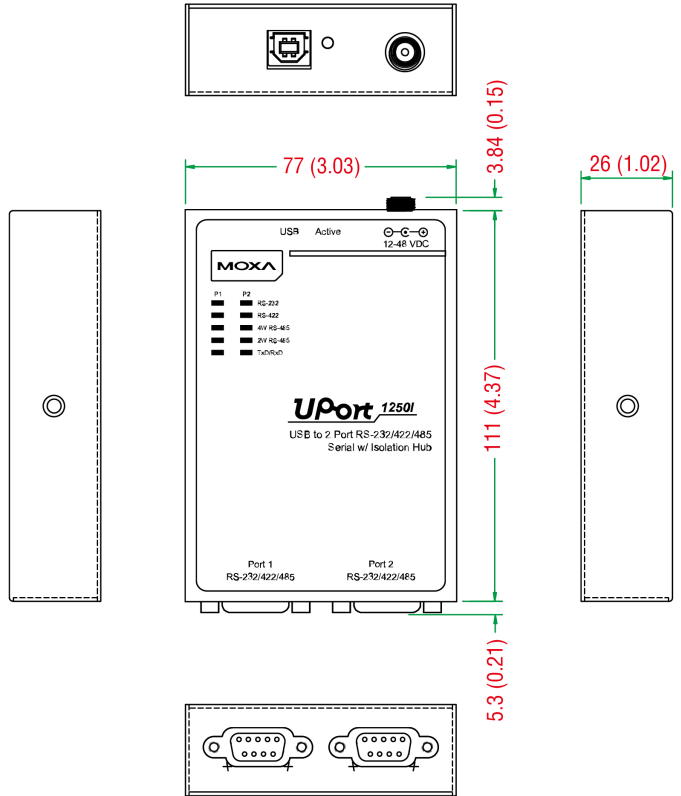
### UPort 1250

Unit: mm (inch)



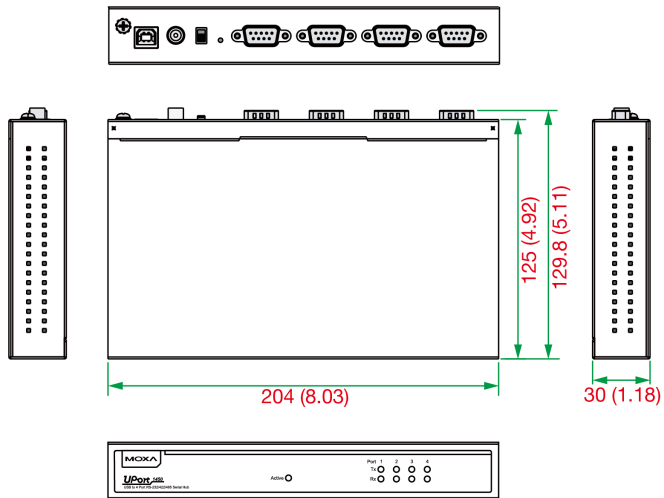
### UPort 1250I

Unit: mm (inch)



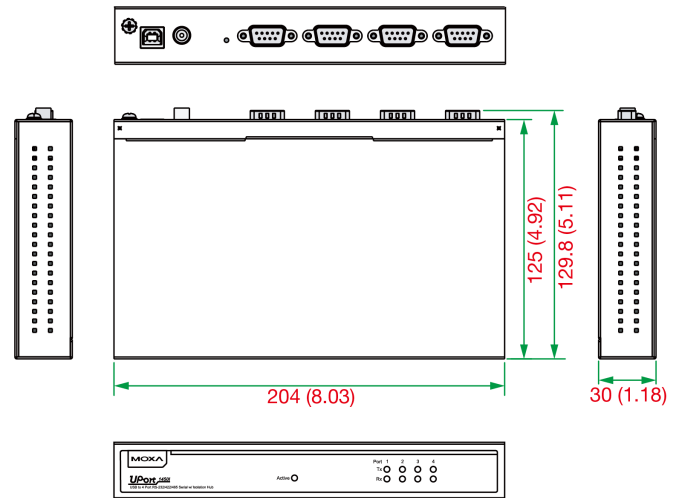
### UPort 1410/1450

Unit: mm (inch)



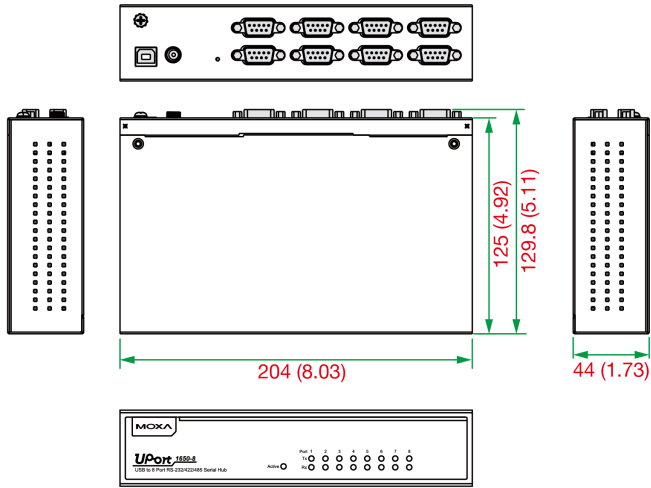
### UPort 1450I

Unit: mm (inch)



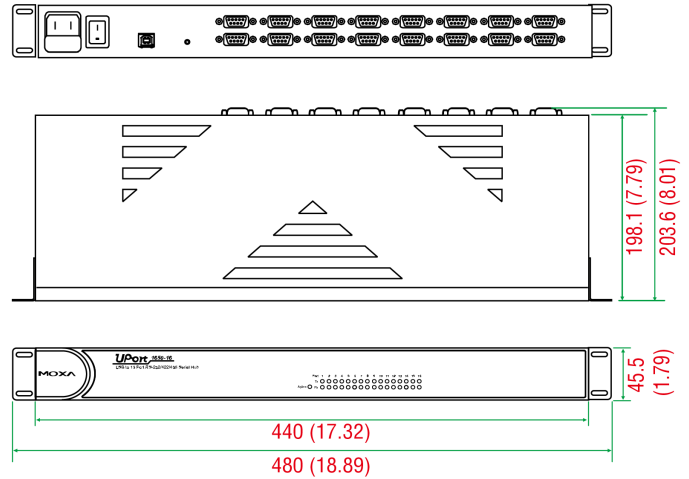
## UPort 1610-8/1650-8

Unit: mm (inch)



## UPort 1610-16/1650-16

Unit: mm (inch)



## Ordering Information

| Model Name    | USB Interface | Serial Standards | No. of Serial Ports | Isolation | Housing Material | Operating Temp. |
|---------------|---------------|------------------|---------------------|-----------|------------------|-----------------|
| UPort 1250    | USB 2.0       | RS-232/422/485   | 2                   | –         | Metal            | 0 to 55°C       |
| UPort 1250I   | USB 2.0       | RS-232/422/485   | 2                   | 2 kV      | Metal            | 0 to 55°C       |
| UPort 1410    | USB 2.0       | RS-232           | 4                   | –         | Metal            | 0 to 55°C       |
| UPort 1450    | USB 2.0       | RS-232/422/485   | 4                   | –         | Metal            | 0 to 55°C       |
| UPort 1450I   | USB 2.0       | RS-232/422/485   | 4                   | 2 kV      | Metal            | 0 to 55°C       |
| UPort 1610-8  | USB 2.0       | RS-232           | 8                   | –         | Metal            | 0 to 55°C       |
| UPort 1650-8  | USB 2.0       | RS-232/422/485   | 8                   | –         | Metal            | 0 to 55°C       |
| UPort 1610-16 | USB 2.0       | RS-232           | 16                  | –         | Metal            | 0 to 55°C       |
| UPort 1650-16 | USB 2.0       | RS-232/422/485   | 16                  | –         | Metal            | 0 to 55°C       |

## Accessories (sold separately)

### Cables

|                 |  |
|-----------------|--|
| CBL-USBA/B-100  | USB Type A to USB Type B cable, 1 m                          |
| CN20070         | 10-pin RJ45 to DB9 female serial cable                       |
| NP21101         | DB25 male to DB9 female cable for RS-232 transmission, 30 cm |
| CBL-F9M9-20     | DB9 female to DB9 male serial cable, 20 cm                   |
| CBL-F9M9-150    | DB9 female to DB9 male serial cable, 1.5 m                   |
| CBL-RJ45SF9-150 | 8-pin RJ45 to DB9 female serial cable with shielding, 1.5m   |

### Connectors

|                         |  |
|-------------------------|--|
| Mini DB9F-to-TB         | DB9 female to terminal block connector             |
| ADP-RJ458P-DB9F         | DB9 female to RJ45 connector                       |
| A-ADP-RJ458P-DB9F-ABC01 | DB9 female to RJ45 connector for the ABC-01 Series |

### Mounting Kits

|           |  |
|-----------|--|
| DK-UP1200 | DIN rail (25x48.3 mm) with 2 screws (FMS M3X6)<br>Applicable Models:<br>UPort 1250 |
|-----------|--|

|           |  |
|-----------|--|
|           | UPort 1250I  |
| DK-UP1400 | DIN-rail/wall-mounting kit, 2 plates, 6 screws, and 2 DIN-rail plates, 4 screws<br><br>Applicable Models:<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8 |

### DIN-Rail Mounting Kits

|             |   |
|-------------|---|
| DK-UP-14168 | DIN-rail kit with 2 plates (89 x 19 mm), 6 screws (FMS M3 x 5 mm) for the UPort 1400 (V1.5.0 and after) and 1600-8 (V1.4.0 and after) models<br><br>Applicable Models:<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8 |
|-------------|---|

### Wall-Mounting Kits

|             |  |
|-------------|--|
| WK-35-02    | Wall-mounting kit with 2 plates (35 x 24 x 1.2 mm) and 6 screws<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I   |
| WK-35-01    | Wall-mounting kit with 2 plates (35 x 44 x 2.5 mm) and 6 screws<br><br>Applicable Models:<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8   |
| WK-UP-14168 | Wall-mounting kit with 2 plates (35 x 44 mm), 6 screws (FMS M3 x 4 mm) for the UPort 1400 and 1600-8 models<br><br>Applicable Models:<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8 |

### Rack-Mounting Kits

|          |  |
|----------|--|
| WK-45-01 | Rack-mounting kit, 2 L-shaped plates, 6 screws, 45 x 57 x 2.5 mm<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16 |
|----------|--|

### Power Adapters

|                 |   |
|-----------------|---|
| PWR-12150-WP-S4 | PWR-12150-WP-S4<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8 |
|-----------------|---|

### Power Cords

|                  |   |
|------------------|---|
| PWC-C13EU-3B-183 | Power cord with Continental Europe (EU) plug, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16 |
|------------------|---|

|                  |  |
|------------------|--|
|                  | UPort 1650-16  |
| PWC-C13CN-3B-183 | Power cord with three-prong China (CN) plug, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16  |
| PWC-C13JP-3B-183 | Power cord with Japan (JP) plug, 7A/125V, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16   |
| PWC-C13US-3B-183 | Power cord with United States (US) plug, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16  |
| PWC-C13UK-3B-183 | Power cord with United Kingdom (UK) plug, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16   |
| PWC-C13AU-3B-183 | Power cord with Australian (AU) plug, 1.83 m<br><br>Applicable Models:<br>UPort 1610-16<br>UPort 1650-16   |
| PWC-C7EU-2B-183  | Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8                  |
| PWC-C7CN-2B-183  | Power cord with three-prong China (CN) plug, 2.5A/250V, 1.83 m<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8                   |
| PWC-C7JP-2B-183  | Power cord for desktop-type power adapters with Japan (JP) plug, 7A/125V, 1.83 m<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8 |
| PWC-C7US-2B-183  | Power cord with United States (US) plug, 10A/125V, 1.83 m<br><br>Applicable Models:<br>UPort 1250<br>UPort 1250I<br>UPort 1410<br>UPort 1450<br>UPort 1450I<br>UPort 1610-8<br>UPort 1650-8                        |

|                 |  |
|-----------------|--|
| PWC-C7UK-2B-183 | <p>Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m</p> <p>Applicable Models:<br/> UPort 1250<br/> UPort 1250I<br/> UPort 1410<br/> UPort 1450<br/> UPort 1450I<br/> UPort 1610-8<br/> UPort 1650-8</p> |
| PWC-C7AU-2B-183 | <p>Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m</p> <p>Applicable Models:<br/> UPort 1250<br/> UPort 1250I<br/> UPort 1410<br/> UPort 1450<br/> UPort 1450I<br/> UPort 1610-8<br/> UPort 1650-8</p>     |

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