# UPort 1100 Series

*1-port RS-232, RS-422/485, and RS-232/422/485 USB-to-serial converters*

### Features and Benefits

- 921.6 kbps maximum baudrate for fast data transmission
- Drivers provided for Windows, macOS, Linux, and WinCE
- Virtual machine supported for VMWare Fusion/ESXi and Parallels
- 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® 1100 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® 1100 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 |
| USB Connector | USB Type A: UPort 1110/1130/1130I/1150: <br> USB Type B: UPort 1150I: |
| USB Standards | USB 2.0 compatible, USB 1.0/1.1 compliant |

### Serial Interface

| | |
| --- | --- |
| No. of Ports | 1 |
| 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 <br> RTS/CTS <br> XON/XOFF |
| Isolation | 2 kV (I models) |
| Serial Standards | RS-232: UPort 1110 <br> RS-422/485: UPort 1130/1130I <br> RS-232/422485: UPort 1150/1150I |

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## 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 11, 10, 8.1, 8, 7, Vista, ME, and XP<br>Windows Server 2022, 2019, 2016, 2012 R2, 2012, 2008 R2, 2008, 2003, 2000, and NT |
| Linux Drivers | Kernel 6.x, 5.x, 4.x, 3.x, 2.6.x, and 2.4.x |
| Mac Drivers | macOS 10.12 to 10.15 |
| Arm®-based Platform Support | Linux kernel 6.x, 5.x, and 4.x<br>Windows 11 |
| Virtual Machine | VMware Fusion (Windows on macOS 10.12 to 10.15)<br>VMWare ESXi (Windows 7 to 10, Windows Server 2008 R2 to 2019)<br>VMWare ESXi (Linux kernel 5 and 4)<br>Parallels Desktop (Windows on macOS 10.12 to 10.15) |
| Android API | Android 3.1.x and later |

## Power Parameters

| | |
|---|---|
| Input Voltage | 5 VDC |
| Input Current | UPort 1110: 30 mA<br>UPort 1130: 60 mA<br>UPort 1130I: 65 mA<br>UPort 1150: 77 mA<br>UPort 1150I: 260 mA |

## Physical Characteristics

| | |
|---|---|
| Housing | UPort 1110/1130/1130I/1150: ABS + Polycarbonate<br>UPort 1150I: Metal |
| Dimensions | UPort 1110/1130/1130I/1150:<br>37.5 x 20.5 x 60 mm (1.48 x 0.81 x 2.36 in)<br><br>UPort 1150I:<br>52 x 80 x 22 mm (2.05 x 3.15 x 0.87 in) |
| Weight | UPort 1110/1130/1130I/1150: 65 g (0.14 lb)<br>UPort 1150I: 75 g (0.16 lb) |

## Environmental Limits

| | |
|---|---|
| Operating Temperature | 0 to 55°C (32 to 131°F) |
| Storage Temperature (package included) | -20 to 70°C (-4 to 158°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |

## Standards and Certifications

| | |
|---|---|
| EMC | EN 55032/35 |
| EMI | CISPR 32, FCC Part 15B Class 1 |

| EMS | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV |
| | IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m |
| | IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV |
| | IEC 61000-4-5 Surge: Power: 2 kV |
| | IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m |
| | IEC 61000-4-8 PFMF |
| Safety | UL 60950-1 (UPort 1150I) |

### Declaration

| Green Product | RoHS, CRoHS, WEEE |

### MTBF

| Time | 1,949,025 hrs |
| Standards | MIL-HDBK-217F |
| | Telcordia (Bellcore), GB |

### Package Contents

| Device | 1 x UPort 1100 Series USB-to-serial converter |
| Cable | UPort 1150I: 1 x USB type A male to USB type B male |
| Connectors | 1 x Mini DB9F-to-TB (UPort 1130/1150 Models) |
| Documentation | 1 x quick installation guide |
| | 1 x warranty card |

### Warranty

| Warranty Period | 5 years |
| | Note: Product only |
| Details | See www.moxa.com/warranty |

## Dimensions

**UPort 1110/1130/1130I/1150**



**UPort 1150I**

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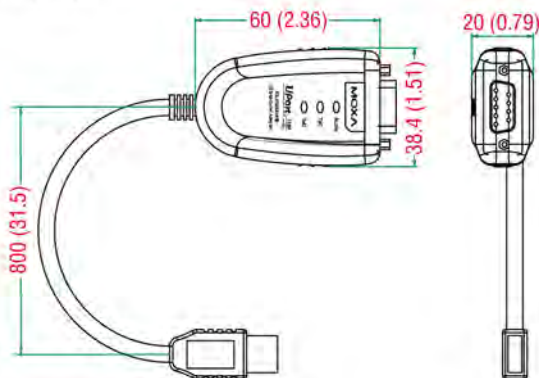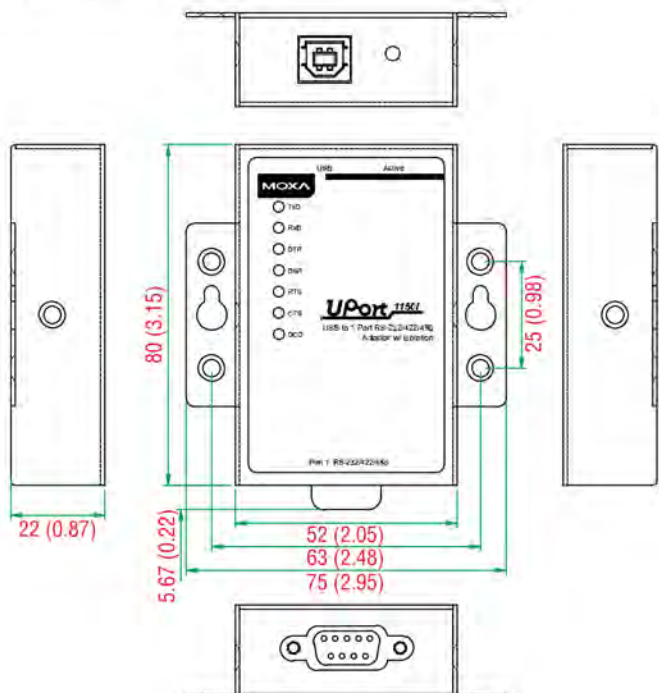
# Ordering Information

| Model Name | USB Interface | Serial Standards | No. of Serial Ports | Isolation | Housing Material | Operating Temp. |
|---|---|---|---|---|---|---|
| UPort 1110 | USB 1.1 | RS-232 | 1 | – | ABS+PC | 0 to 55°C |
| UPort 1130 | USB 1.1 | RS-422/485 | 1 | – | ABS+PC | 0 to 55°C |
| UPort 1130I | USB 1.1 | RS-422/485 | 1 | 2 kV | ABS+PC | 0 to 55°C |
| UPort 1150 | USB 1.1 | RS-232/422/485 | 1 | – | ABS+PC | 0 to 55°C |
| UPort 1150I | USB 1.1 | RS-232/422/485 | 1 | 2 kV | Metal | 0 to 55°C |

# Accessories (sold separately)

### Cables

| | |
|---|---|
| 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 |
| CBL-USBA/B-100 | USB Type A to USB Type B cable, 1 m |

### Connectors

| | |
|---|---|
| Mini DB9F-to-TB | DB9 female to terminal block connector |
| ADP-RJ458P-DB9F | DB9 female to RJ45 connector |

### Wireless Adapters

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

### Rack-Mounting Kits

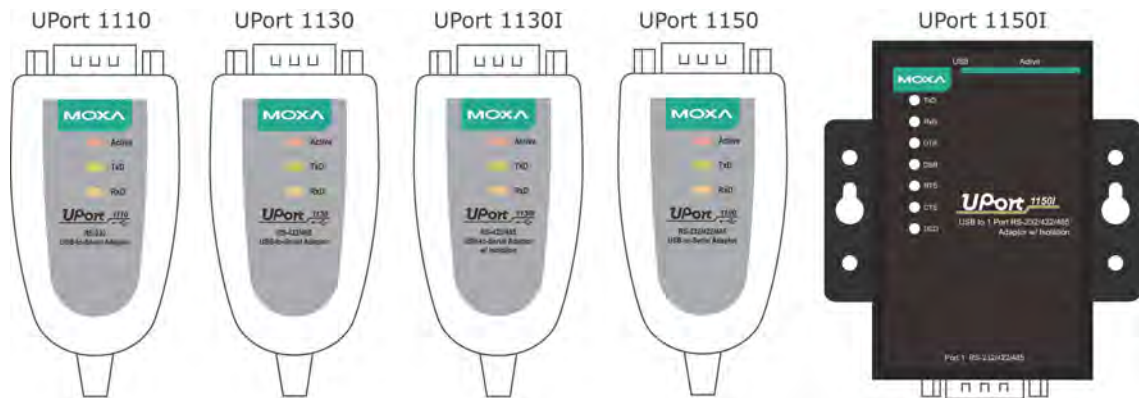| | |
|---|---|
| WK-44-01 | Rack-mounting kit, 2 L-shaped plates, 8 screws, 44 x 57.5 x 1.6 mm<br><br>Applicable Models:<br>UPort 1150I |

### Wall-Mounting Kits

| | |
|---|---|
| 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 1150I |

# LED Indicators



**UPort 1110/1130/1130I/1150 LED description:**

| Name | Color | Description |
|---|---|---|
| Active | Red | This LED indicates normal operation. Steady: The UPort is operational. Off: A fault condition exists: there may be a problem with the converter, the driver installation, or PC configuration. |
| TxD | Green | Blinking: Serial device is transmitting data. |
| RxD | Yellow | Blinking: Serial device is receiving data. |

**UPort 1150I LED description:**

| Name | Color | Description |
|---|---|---|
| Active | Red | Steady: The UPort is operational. Off: A fault condition exists: there may be a problem with the converter, the driver installation, or PC configuration. |
| TxD | Green | Blinking: Serial device is transmitting data. |
| RxD | Yellow | Blinking: Serial device is receiving data. |
| DTR, DSR, RTS, CTS, DCD | Red | Steady: Require these signals to operate. Off: Disable these signals to operate. |
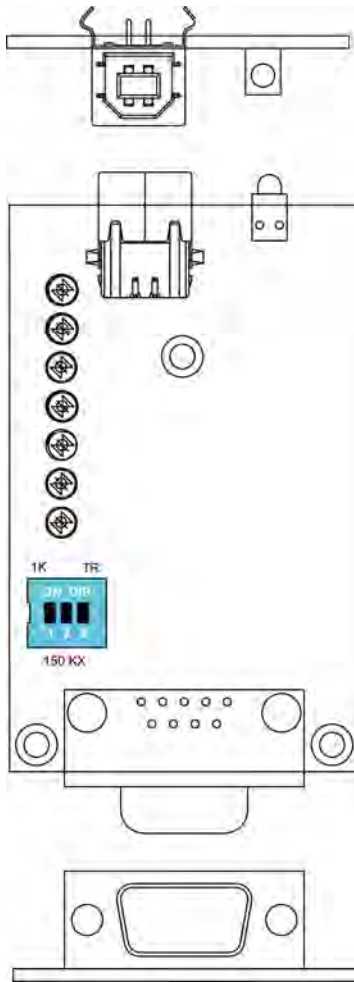
# Adjustable Pull High/Low, Terminator Resistors for the RS-485 Port

In some critical environments, you may need to add termination resistors to prevent the reflection of serial signals. When using termination resistors, it is important to set the pull high/low resistors correctly so that the electrical signal is not corrupted. The UPort uses DIP switches to set the pull high/low resistor values for each serial port.

**To set the pull high/low resistors to 150 kΩ**, make sure both of the assigned DIP switches are in the OFF position.
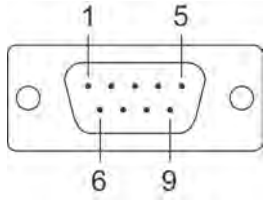
**To set the pull high/low resistors to 1 kΩ**, make sure both of the assigned DIP switches are in the ON position. This is the default setting.

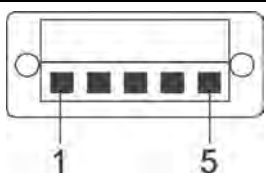| SW | 1 | 2 | 3 |
|----|---|---|---|
|    | **Pull High** | **Pull Low** | **Terminator** |
| **ON** | 1kΩ | 1kΩ | 120 Ω |
| **OFF** | 150 kΩ | 150 kΩ | Disable |

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# Pin Assignment

## UPort DB9 Pin Assignments

The UPort 1100 series uses male DB9 connectors. Pin assignments are shown in the following diagram:

| DB9 (male) | Pin | RS-232 | RS-422 4-wire RS-485 | 2-wire RS-485 |
|---|---|---|---|---|
| | 1 | DCD (in) | TxD-(A) | – |
| | 2 | RxD (in) | TxD+(B) | – |
| | 3 | TxD (out) | RxD+(B) | Data+(B) |
| | 4 | DTR (out) | RxD-(A) | Data-(A) |
| | 5 | GND | GND | GND |
| | 6 | DSR (in) | – | – |
| | 7 | RTS (out) | – | – |
| | 8 | CTS (in) | – | – |

## Terminal Block Pin Assignments

The UPort 1130/1130I/1150/1150I comes with a DB9 to terminal block converter, with pin assignments as shown below:

| Terminal Block | Pin | RS-422 4-wire RS-485 | 2-wire RS-485 |
|---|---|---|---|
| | 1 | TxD+(B) | – |
| | 2 | TxD-(A) | – |
| | 3 | RxD+(B) | Data+(B) |
| | 4 | RxD-(A) | Data-(A) |
| | 5 | GND | GND |

Note that the converter maps pin 1 on the DB9 connector to pin 2 on the terminal block and pin 2 on the DB9 connector to pin 1 on the terminal block.