## Moxa UPort 1150

# Moxa UPort 1150 USB to 1-Port RS-232/422/485 Serial Converter Instruction Manual

**Brand:** Moxa | **Model:** UPort 1150

## 1. INTRODUCTION AND OVERVIEW

The Moxa UPort 1150 is a high-performance USB to 1-port RS-232/422/485 serial converter designed to seamlessly connect legacy serial devices to modern computers via a USB interface. This converter is ideal for industrial automation, POS systems, data acquisition, and other applications requiring reliable serial communication. It features high-speed data transmission, broad operating system compatibility, and robust protection features.

Figure 1: Moxa UPort 1150 USB to 1-Port RS-232/422/485 Serial Converter. This image displays the compact silver converter unit with a USB-A connector on one end and a DB9-female serial port on the other. Three small indicator LEDs are visible on the top surface.

## 2. PRODUCT FEATURES

- **High-Speed USB 2.0 Connectivity:** Supports data transmission rates up to 480 Mbps for the USB interface.

- **Fast Serial Data Transmission:** Achieves a maximum baudrate of 921.6 kbps for efficient serial communication.

- **Broad Operating System Support:** Drivers are provided for Windows, Windows CE, and Linux operating systems, ensuring wide compatibility.

- **Easy Wiring with Mini-DB9-to-Terminal-Block Adapter:** Includes a mini-DB9-female-to-terminal-block adapter for convenient and flexible wiring of various serial devices.

- **LED Indicators for Activity Monitoring:** Equipped with LEDs to indicate USB activity (Active) and serial data transmission/reception (TxD/RxD), aiding in status monitoring and troubleshooting.

- **Enhanced ESD Protection:** Features 15KV ESD protection to safeguard the device and connected equipment from electrostatic discharge. Certain models (designated with "-I") offer 2 kV isolation protection for industrial environments.

# 3. SETUP GUIDE

## 3.1. Package Contents

- Moxa UPort 1150 USB to 1-Port RS-232/422/485 Serial Converter
- Mini-DB9-female-to-terminal-block adapter
- Documentation (Quick Installation Guide, Driver CD/Download Information)

## 3.2. Driver Installation

1. **Do NOT connect the UPort 1150 to your computer yet.**

2. Insert the provided driver CD into your computer's CD-ROM drive, or download the latest drivers from the official Moxa website (www.moxa.com).

3. Follow the on-screen instructions to install the drivers for your specific operating system (Windows, Windows CE, or Linux).

4. Once the driver installation is complete, proceed to hardware connection.

## 3.3. Hardware Connection

1. Connect the USB-A connector of the UPort 1150 to an available USB port on your computer. The 'Active' LED on the converter should illuminate, indicating power.

2. Connect your RS-232/422/485 serial device to the DB9-female port on the UPort 1150. If your device uses a terminal block connection, first attach the mini-DB9-female-to-terminal-block adapter to the UPort 1150, then wire your serial device to the appropriate terminals on the adapter.

3. Your operating system should now recognize the UPort 1150 and assign a COM port number. You can verify this in your system's Device Manager (Windows) or by using relevant commands (Linux).

# 4. OPERATING INSTRUCTIONS

## 4.1. LED Indicators

The UPort 1150 features three LED indicators to provide real-time status information:

- **Active LED:** Illuminates when the UPort 1150 is powered on and successfully connected to the USB host.

- **TxD LED (Transmit Data):** Flashes when data is being transmitted from the computer through the serial port to the connected device.

- **RxD LED (Receive Data):** Flashes when data is being received by the serial port from the connected device to the computer.

## 4.2. Serial Port Configuration

To ensure proper communication, configure the serial port settings in your application or operating system to match those of your connected serial device. Key settings include:

- **Baud Rate:** Up to 921.6 kbps (e.g., 9600, 19200, 115200).
- **Data Bits:** 5, 6, 7, or 8.
- **Stop Bits:** 1, 1.5, or 2.
- **Parity:** None, Odd, Even, Mark, Space.
- **Flow Control:** None, Hardware (RTS/CTS), Software (XON/XOFF).

## 5. Specifications

| Feature | Description |
|---|---|
| Brand | Moxa |
| Model Number | UPort 1150 |
| Connector Type | USB to 1-Port RS-232/422/485 Serial Adapter (DB9-female) |
| Cable Type | USB |
| Compatible Devices | Laptop, Desktop PCs |
| Special Feature | Fast data transfer, 15KV ESD Protection, 2KV Isolation (for -I models) |
| Data Transfer Rate | USB 2.0: 480 Mbps; Serial: 921.6 Kbps (max) |
| Number of Pins | 9 (DB9) |
| Operating System Support | Windows, Windows CE, Linux |
| Item Weight | 5.6 ounces |
| Product Dimensions (LxWxH) | 1.48 x 0.79 x 2.36 inches |
| Material | Plastic |

## 6. Troubleshooting

- **Device Not Recognized:**
  - Ensure the USB cable is securely connected to both the UPort 1150 and the computer.
  - Verify that the drivers are correctly installed. Check Device Manager (Windows) for any yellow exclamation marks.
  - Try connecting to a different USB port on your computer.

- **No Data Transmission/Reception:**
  - Check the TxD and RxD LEDs on the UPort 1150. If they are not flashing during communication attempts, there might be an issue with the serial device or its settings.
  - Confirm that the serial port settings (baud rate, data bits, stop bits, parity, flow control) in your software application match those of the connected serial device.
  - Ensure the serial cable connecting the UPort 1150 to your device is correctly wired and securely attached.

- **Compatibility Issues:**
  - The UPort 1150 supports Windows, Windows CE, and Linux. Ensure your operating system is compatible.
  - Note that the product does not support Windows ARM systems.

## 7. Maintenance

To ensure the longevity and optimal performance of your Moxa UPort 1150, follow these maintenance guidelines:

- Keep the device clean and free from dust and debris. Use a soft, dry cloth for cleaning.

- Avoid exposing the converter to extreme temperatures, humidity, or direct sunlight.

- Handle the cables and connectors with care to prevent physical damage. Do not pull on the cables to disconnect the device.

- Store the device in a safe, dry place when not in use.

## 8. RELATED PRODUCT VIDEOS

### Gearmo USB to Serial Adapters with LED Activity Monitoring

This video from Usbgear demonstrates the functionality and benefits of USB to serial adapters, specifically highlighting the utility of LED indicators for real-time signal testing and troubleshooting connectivity issues. It also covers wide OS compatibility and various parity/flow control options, providing a general overview applicable to the Moxa UPort 1150's features.

### USB 2.0 RS-232 Serial Adapter w/ LED Indicators GM-FTDI-LED

Presented by Usbgear, this video showcases a USB 2.0 RS-232 serial adapter with LED indicators. It details how the adapter connects serial devices to computers lacking serial ports, emphasizes the high-performance FTDI chipset, and illustrates the ease of testing connections using activity monitoring LEDs. The video also highlights multi-OS platform support and the COM retention feature, which are relevant aspects of the Moxa UPort 1150.

### USB to Female Serial Adapter

This video from CableCreation demonstrates a USB 2.0 to RS232 Female Adapter, showing its physical connections and compatibility with various serial devices like PLC controllers, barcode printers, modems, cash registers, and temperature testers. It highlights the Prolific PL-2303 chipset for reliable performance and illustrates connecting a laptop to a temperature control device, providing a practical example of serial adapter usage.

### USB to Serial DB9 RS232 Converter with Prolific Chipset

This video from Store4PC features a USB to Serial DB9 RS232 Converter with a Prolific Chipset. It emphasizes the cable's universal device connection support, easy installation without needing additional drivers for many systems, high-speed data transfer capabilities, and error-free data transmission due to its robust construction. The video also highlights wide-range compatibility with Windows, Mac, and Linux, making it a useful reference for understanding general serial adapter functionality.

## 9. WARRANTY AND SUPPORT

For specific warranty information and technical support regarding your Moxa UPort 1150, please refer to the documentation included with your product or visit the official Moxa website. Warranty terms and support options may vary by region and reseller.

## Related Documents - UPort 1150

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|---|---|
| UPort™ 1100 Series<br>Quick Installation Guide<br><br>Version 8.1, January 2021<br><br>Technical Support Contact Information<br>www.moxa.com/support<br><br>MOXA<br>© 2021 Moxa Inc. All rights reserved.<br>P/N: 1802011062018 | **Moxa UPort 1100 Series Quick Installation Guide**<br>This guide provides instructions for installing and using the Moxa UPort 1100 Series USB-to-Serial Converters, including driver installation for Windows, macOS, and Linux. |
| UPort 1200/1400/1600 Series<br>User's Manual<br><br>Version 9.1, June 2021<br><br>www.moxa.com/product<br><br>MOXA<br>© 2021 Moxa Inc. All rights reserved. | **UPort 1200/1400/1600 Series User's Manual - Moxa**<br>This user's manual provides comprehensive information on the Moxa UPort 1200/1400/1600 Series USB-to-serial converters, including features, specifications, installation, and troubleshooting. |
| UPort™ 1200-G2 Series<br>Quick Installation Guide<br><br>Version 1.0, March 2024<br><br>Technical Support Contact Information<br>www.moxa.com/support<br><br>MOXA<br>© 2024 Moxa Inc. All rights reserved.<br>P/N: 1802012065001 | **Moxa UPort 1200-G2 Series Quick Installation Guide**<br>This guide provides essential information for installing and setting up the Moxa UPort 1200-G2 Series USB-to-serial converters. It covers hardware introduction, cable usage, LED indicators, serial port pin assignments, DIP switch settings, software installation for Windows, Linux, and macOS, communication testing, and mounting instructions. |
| 2G NPort Real TTY Driver Manager<br>for UC-7400 Series<br><br>First Edition, January 2006<br><br>www.moxa.com/product<br><br>MOXA<br>Moxa Systems Co., Ltd. | **Moxa UC-7400 Series: 2G NPort Real TTY Driver Manager Installation and Configuration Guide**<br>Comprehensive guide to installing and configuring the Moxa 2G NPort Real TTY Driver Manager on UC-7400 embedded computers for managing remote serial device servers. Covers hardware specifications, software setup, port mapping, and serial programming APIs. |
| TCF-142 Series | **Moxa TCF-142 Series: RS-232/422/485 to Fiber Media Converters**<br>Detailed specifications and features of the Moxa TCF-142 Series serial media converters, offering RS-232/422/485 to optical fiber conversion for extended, interference-free data transmission. Includes technical specifications, ordering information, and DIP switch settings. |

**NPort DE-311 Series**
**Quick Installation Guide**

**Version 5.2, January 2021**

**MOXA**

P/N: 1802003115003

[Moxa NPort DE-311 Series Quick Installation Guide](#)
A quick installation guide for the Moxa NPort DE-311 series, a compact serial device server that enables RS-232/422/485 serial devices to communicate over an Ethernet network. Includes hardware overview, package checklist, DIP switch settings, and wiring diagrams.