

USB to RS-422/485 Converter Quick Installation Guide

Introduction

The *USB to RS-422/485 Converter* is designed to convert USB signals to RS-422/485 compatible signal.

Features and Benefits

- Auto detect between RS-422 or RS-485 signal
- Zero jumper configuration
- 15KV ESD immunity, surge protection and short circuit protection
- USB port powered; no AC adapter required

System Requirements

- Pentium[®]II or equivalent PC with an available USB port
- Windows[®] 8 (32-/64-bit) / 7 (32-/64-bit) / Vista (32-/64-bit) / XP (32-/64-bit) / Server 2003 (32-/64-bit) / Server 2008 (32-/64-bit) / Server 2008 R2 / 2000
- Linux 2.6 / 3.x

Serial Number Sticker

For future product return or exchange, this serial number is required. Please keep it for your reference.

Serial Number

Part Number

Package Contents

- USB to RS-422/485 Converter
- USB cable
- Quick installation guide

Layout







Figure 2: Side Layout

DIP Switch

You can change the DIP switch to avoid impedance mismatched problems.

- For RS-422, move DIP switch 1 down and switch 2 up to **ON** to enable 120 ohms terminal resistor
- For RS-485, move DIP switch 1 up to **ON** and switch 2 down to enable 120 ohms terminal resistor
- Move switch 1 & 2 down to disable terminal resistor

RS-422 or 4-wire RS-485 working model with termination resistor:



2-wire RS-485 working model with termination resistor:



Pin Assignment

Refer to **Figure 2** for the position of pin 1-4, then refer to **Table 1** below for pin assignment.

	pin 1	pin 2	pin 3	pin 4
RS- 422	T+	T-	R+	R-
RS- 485	D+	D-	Х	Х

Table 1

Driver Installation

This section provides information on how to install the *USB to RS-422/485* drivers.

Windows 8 (32-/64-bit) / 7 (32-/64-bit) / Vista (32-/ 64-bit) / XP (32-/64-bit) / Server 2003 & 2008 (32-/ 64-bit) / Server 2008 R2

Important: Do not plug the *USB to RS-422/485 Converter* into the computer until instructed to do so. Plugging in the converter prematurely will cause the driver installation to fail. If you have already plugged the converter into the computer, please unplug it before proceeding to step 1.

- 1. Insert the driver CD. Close the CD autoplay window if prompted.
- 2. Press Windows key and R key. <u>For 32-bit</u>: Type D:\Windows\CP210xVCP Installer_x86.exe, click Enter. (Change D: to match your CD-ROM drive letter). <u>For 64-bit and Server 2008 R2</u>: Type D:\Windows\ CP210xVCPInstaller_x64.exe, click Enter. (Change D: to match your CD-ROM drive letter).
- 3. At User Account Control, click **Yes** or **Allow**. Skip this step if not prompted
- 4. At CP210x USB to UART Bridge Driver Installer, click **Next**.
- 5. Select I accept this agreement, click Next.
- 6. Click **Finish**.
- 7. Insert the *USB to RS-422/485 Converter* into a USB port. The driver will install automatically.
- 8. Restart your system to complete the installation.

Windows 2000

Important: Do not plug the *USB to RS-422/485 Converter* into the computer until instructed to do so. Plugging in the converter prematurely will cause the driver installation to fail. If you have already plugged the converter into the computer, please unplug it before proceeding to step 1.

- 1. Insert the driver CD. Close the CD autoplay window if prompted.
- Click Start and Run, type D:\Windows\Win
 2000\setup.exe, click Enter. (Change D: to match your CD-ROM drive letter).
- 3. At Silicon Laboratories CP210x VCP Drivers for Windows, click **Next**.
- 4. Select I accept the terms of the license agreement, click Next.
- 5. Click **Next**, **Install**, **Finish**.
- 6. Click **Install**, **OK**.
- 7. Insert the *USB to RS-422/485 Converter* into a USB port. The driver will install automatically.
- 8. Restart your system to complete the installation.

To Verify Installation

1. Check Device Manger to verify installation.

For Windows 8/7/XP/Server 2003/2000: Right click **Computer** or **My Computer**, click **Manage**, then click **Device Manager**.

For Windows Vista: Right click **Computer**, click **Manage**, click **Continue**, click **Device Manager**.

For Server 2008 & 2008 R2: Right click **Computer**, click **Manage**, double click **Diagnostics**, click **Device Manager**.

2. Double click **Ports (COM&LPT)**, **Silicon Labs CP210x USB to UART Bridge** should be displayed.

Technical Support and Warranty

QUESTIONS? SIIG's **Online Support** has answers! Simply visit our web site at *www.siig.com* and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a 5-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for five (5) years from the date of purchase of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased it.

B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

Step 1: Submit your RMA request. Go to **www.siig.com**, click **Support**, then **Request A Product Replacement** to submit a request to <u>SIIG RMA</u> or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

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SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA
RMA #:
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• SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/ Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. All centered around the distribution and switching of A/V signals over CAT5/6, these products include matrix switches, distribution amplifiers, extenders, converters, splitters, cabling, and more.

SIIG is the premier one-stop source of upgrades and is committed to providing high quality products while keeping economical and competitive prices. High-quality control standards are evident by one of the lowest defective return rates in the industry. Our products offer comprehensive user manuals, user-friendly features, and most products are backed by a lifetime warranty.

SIIG products can be found in many computer retail stores, mail order catalogs, and e-commerce sites in the Americas, as well as through major distributors, system integrators, and VARs.

PRODUCT NAME

USB to RS-422/485 Converter

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc. 6078 Stewart Avenue Fremont, CA 94538-3152, USA Phone: 510-657-8688

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