

Cypress CY7C64225 USB-to-UART Setup Guide

Version 1.1

Overview

The Cypress CY7C64225 is a fully integrated USB-to-UART Bridge that provides a simple way of updating RS-232 based devices to USB with a minimal number of components. The CY7C64225 includes a USB 2.0 Full-Speed controller, a UART transceiver, internal regulator, internal oscillator and internal EEPROM in a 28-pin SSOP package. The internal EEPROM can be used to program customer specific information for OEM applications. This is done in-system via USB.

This provides our evaluation boards with a UART interface. When connected to a PC, a virtual COM port is created by means of a Microsoft Certified USB UART Driver.

To install the Cypress USB UART Driver follow the instructions listed below.

Procedure: Download and Install the Driver

1. Connect the evaluation board's Cypress UART-USB interface to the PC.
2. If the PC has a valid internet connection, Windows will automatically find and download the latest driver from Windows Update.
 - a. If that is successful, skip to step 7.
 - b. If no internet connection is available, proceed to step 3.
3. Browse to the **Cypress's** website:
<https://secure.cypress.com/?mpn=CY7C64225-28PVXC>
4. Scroll down to **Technical Documents** and download the "**Microsoft Certified USB UART Driver**" for your PC's operating system.
5. Unzip the driver to a known directory, not a temporary directory that may be deleted later.
6. Windows will search for a driver. If it does not automatically find the driver you will need to select one. Navigate to the directory where the files were unzipped, select the folder matching the desired operating system:

Windows 7 32-bit: win7\x86
Windows 7 64-bit: win7\amd64
Windows Vista 32-bit: wlh-vista\x86
Windows Vista 64-bit: wlh-vista\amd64
Windows XP 32-bit: wxp\x86
Windows XP 64-bit: wxp\amd64
7. It may be required to install the driver twice. Once for a "Cypress-0123456" device, which when installed creates a Bus Enumerator device, "Cypress Virtual Comm Port00". Once created, install the driver again for the new bus enumerator "Cypress Virtual Comm Port00".
8. Open Device Manager
 - a. Windows 7 → click Windows Start Button, type "Device Manager" in the search field.
 - b. WinXP: click Start → Run, type "Device Manager".

9. In the Device Manager, scroll down to Ports and expand the list. You will see the CypressUsbConsoleWindowDriver as well as its assigned COM port. In the example below, it is COM4. Use this value when configuring the COM port setting in your terminal program.

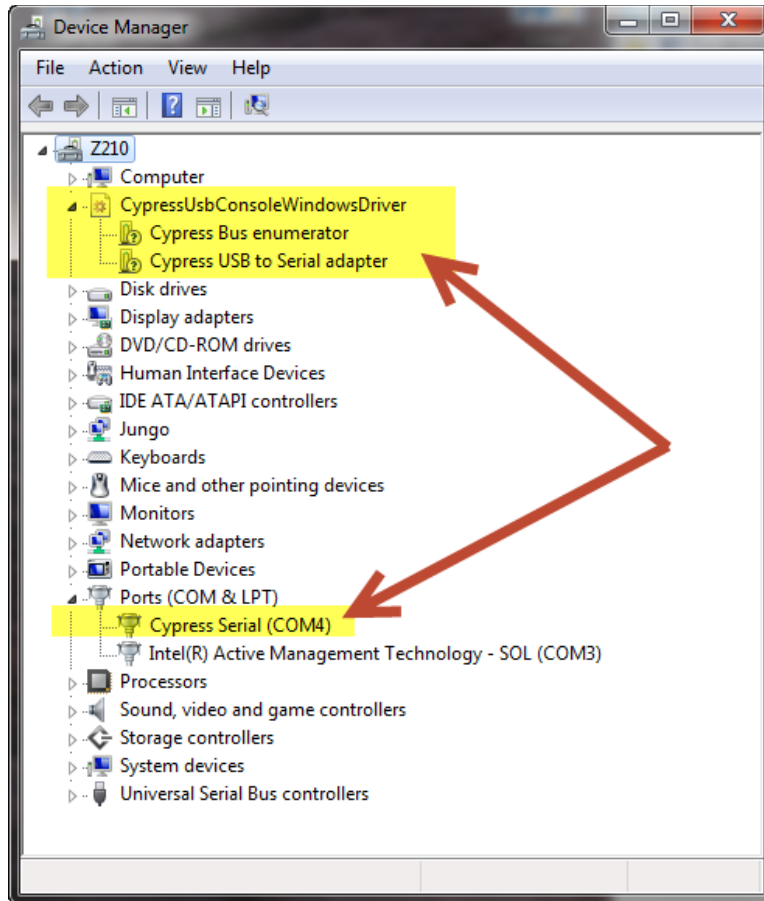


Figure 4 – Identifying COM Port Address

10. Launch a Terminal. Windows XP users can open HyperTerminal, **Start → All Programs → Accessories → Communication → Hyper Terminal** and give it a name (ie..HT115200). Windows 7 users will need to download a terminal program such as **Tera Term** (<http://ttssh2.sourceforge.jp/>).
11. The UART configuration is dictated by your design. For many preprogrammed evaluation kits, the default setup is 115,200 Baud, 8 bits data and no parity. Configure the terminal program accordingly and you will be ready to use the CY7C64225 USB-to-UART interface.

For more information on Cypress, please visit their website at:

<http://www.cypress.com/>

For more information on Avnet evaluation boards please visit our Design Resource Center at:

<http://www.em.avnet.com/drc>.

Revision History

Version	Description	Date
1.0	Initial release for Windows XP/Vista/7	8/3/12
1.1	Updated Driver Install Instructions	8/7/12