

Cypress CY7C64225 USB-to-UART Setup Guide

Version 1.3

Document Control

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Prior Version History

Version	Date	Comment
1.0	8/3/12	Initial release for Windows XP/Vista/7
1.1	8/7/12	Updated Driver Install Instructions
1.2	12/3/13	Updated Driver Install for Port Persist
1.3	1/23/14	Updated Windows XP Install Instructions

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. Starting with version 3.13.0.20, dated 8/26/13, the driver optionally supports a 'Port Persist' mode which enables it to maintain a connection to a terminal program even when the board is powered down.

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

2 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 may automatically find and download the latest driver from Windows Update.
 - a. If that is successful, skip to step 8.
 - b. If Windows did not automatically download the latest driver or, if you would like to force an update to the latest driver, proceed to step 3.
3. Unplug your USB UART device.
4. Browse to the Cypress's website: <https://secure.cypress.com/?mpn=CY7C64225-28PVXC>
5. Scroll down to **Technical Documents** and download the "**Microsoft Certified USB UART Driver**" for your PC's operating system. You may need to setup or log into a Cypress account to download the driver.
6. Unzip the driver to a convenient location and run "Setup.exe". The new driver will be installed.
7. Connect the evaluation board's Cypress UART-USB interface to the PC.
8. Open Device Manager
 - a) Windows 7 → click Windows Start Button, type "Device Manager" in the search field.
 - b) WinXP: click Start → Run, type "devmgmt.msc".

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.

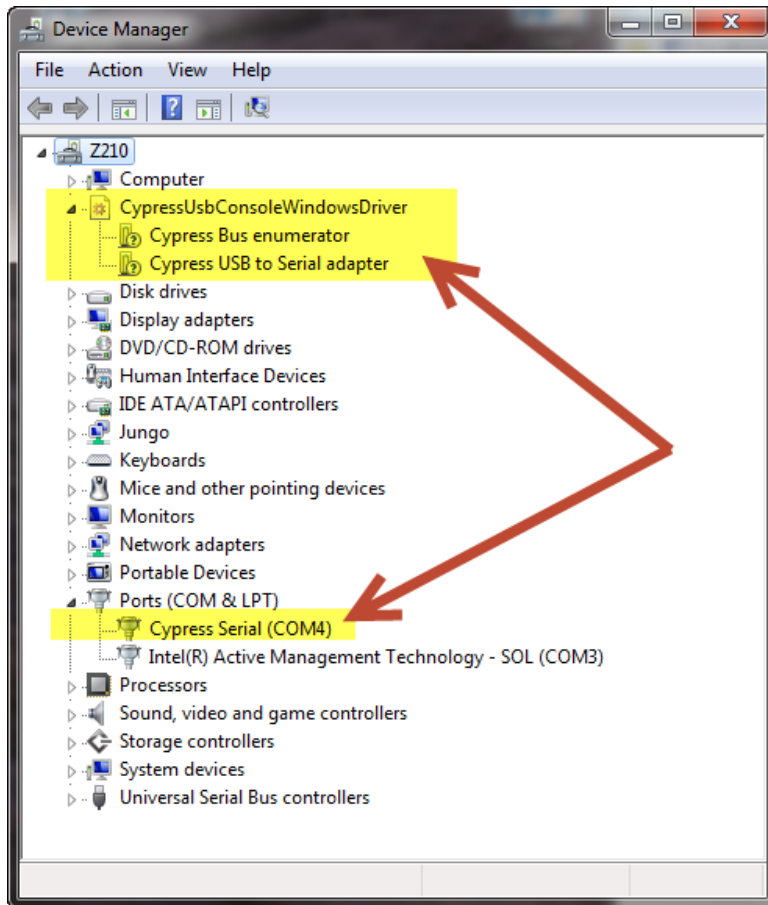
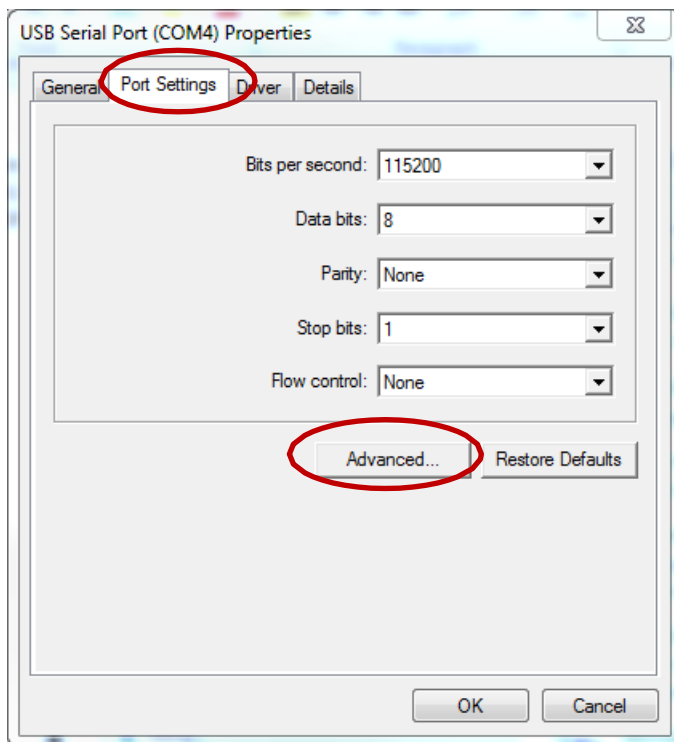
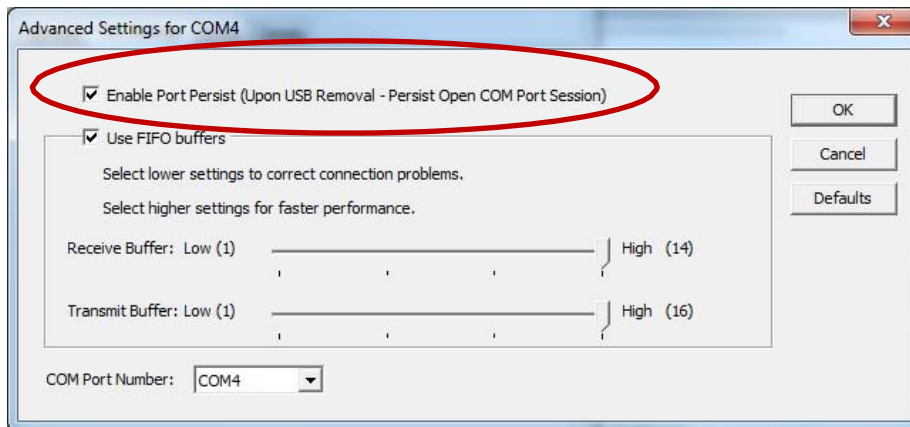


Figure 4 – Identifying COM Port Address

10. To enable 'Port Persist' mode double click on the "USB Serial Port (COMx)" or "Cypress Serial (COMx)" port under "Ports (COM & LPT)". Select the "Port Setting" tab.



11. Click the "Advanced" button and check the "Enable Port Persist" check box in the Advanced Settings dialog box. Click OK to close the Advanced Settings dialog box and again to close the Serial Port Properties box. The Port Persist property should be enabled the next time the serial port is opened.



12. 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 **TeraTerm** (<http://ttssh2.sourceforge.jp/>).
13. 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:

avnet.com/us/drc