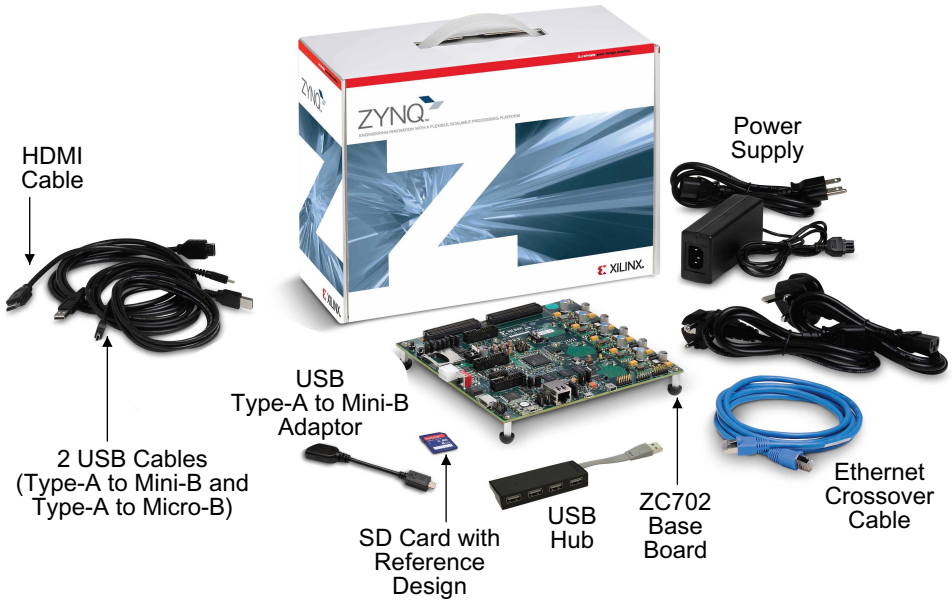
Zynq-7000 All Programmable SoC ZC702 Evaluation Kit

Quick Start Guide

The Zynq®-7000 All Programmable (AP) SoC ZC702 Evaluation Kit provides a platform for evaluating Xilinx Zynq-7000 AP SoC devices. The ZC702 kit contains the necessary hardware, tools, and IP to quickly evaluate and start the development of your embedded system.

This guide provides a kit overview and step-by-step instructions to set up and configure the board, run the built-in self-test (BIST), install Xilinx tools, and redeem the license voucher.

ZC702 Evaluation Kit



For more information, visit www.xilinx.com/zc702.

Built-In Self-Test (BIST) Instructions

ZC702 Evaluation Kit

STEP 1: Install Driver and Terminal Emulator

Install the Silicon Labs CP210x USB-to-UART drivers and a terminal emulator for the USB-to-UART on your PC.

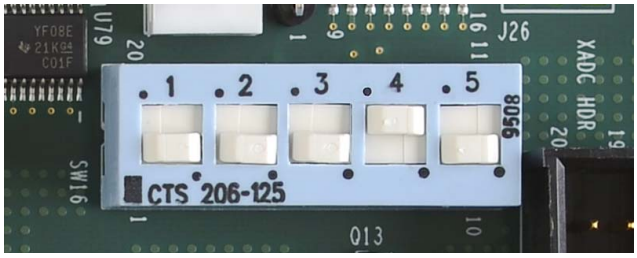
Install the CP210x USB to UART drivers as described in www.xilinx.com/kits/cp210x.

Xilinx recommends using Tera Term for terminal emulation as described in www.xilinx.com/kits/teraterm.

Note: If switches, jumpers, or flash memory images have been changed, refer to www.wiki.xilinx.com/Kits+ZC702+Getting+Started.

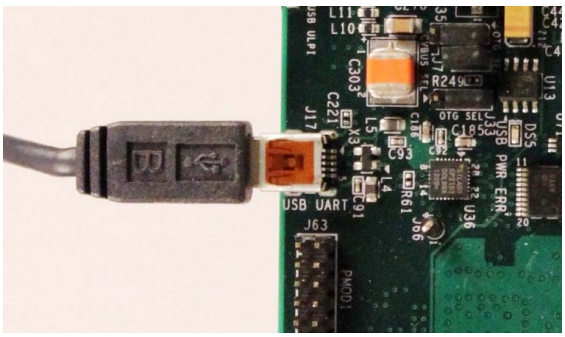
STEP 2: Set Switches

Set DIP switch SW16 to this configuration (00010):



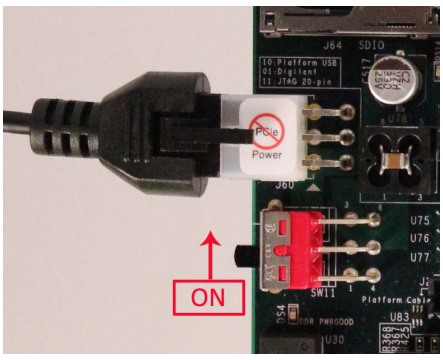
STEP 3: Connect Computer to ZC702 Board

Connect your computer to J17 on the ZC702 board using the Type-A to Mini-B USB cable.



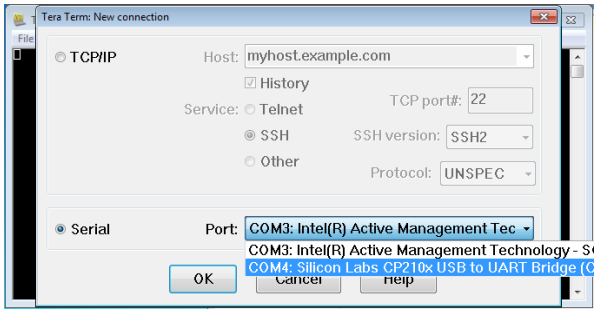
STEP 4: Connect Power

Connect the 6-pin power supply plug to J60 and turn the board on with SW11.



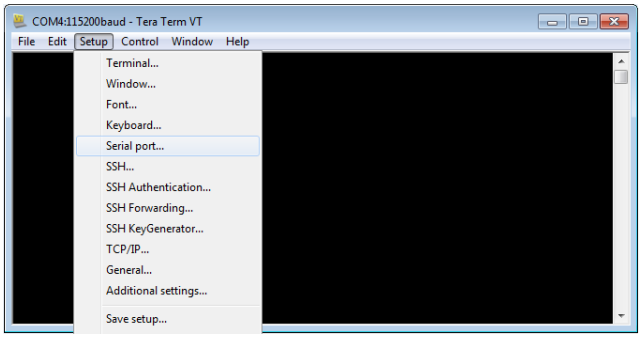
STEP 5: Set Up Terminal Emulator: Select COM Port

Open Tera Term, select **Serial**, and choose the COM port that correlates with the Silicon Labs CP210x USB-to-UART bridge. Click **OK**. Note the assigned COM port for Step 7.



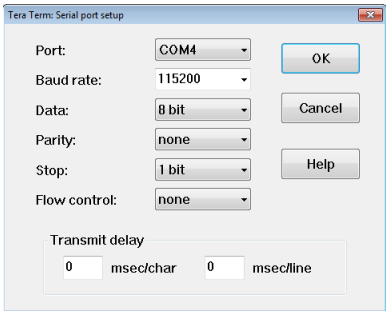
STEP 6: Set Up Terminal Emulator: Select Serial Port

Go to **Setup** and click **Serial port** to configure the terminal serial port setting.



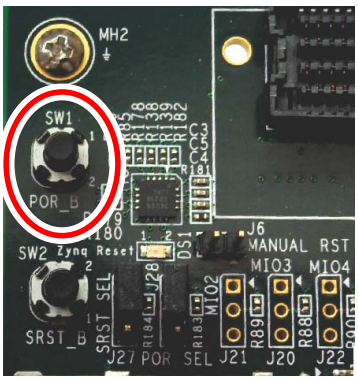
STEP 7: Set Up Terminal Emulator: Serial Setup

Select the same COM port assigned in Step 5 and set the **Baud rate** to **115200**, the **Data** to **8 bit**, the **Parity** to **none**, **Stop** to **1 bit**, and **Flow control** to **none**. Click **OK** to save the settings.



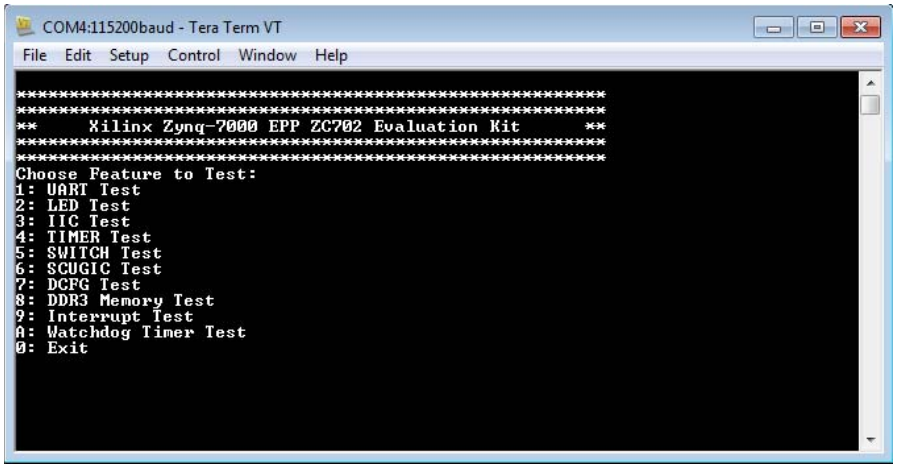
STEP 8: Initialize Configuration

Press **SW1 (POR_B)** to reinitialize the configuration for the ZC702 board.

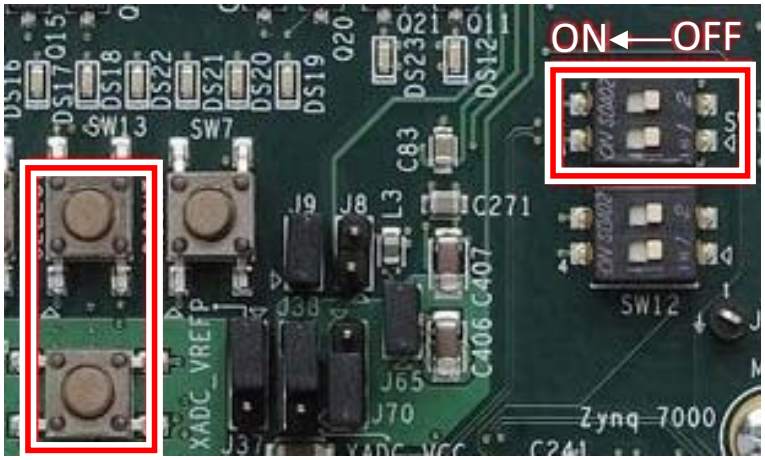


STEP 9: Terminal Display

After the ZC702 board is configured in Step 8, text appears in the terminal emulator window. Type the number or letter associated with a listed option to run a test application. For example, type **2** to run the LED Test application.



Note: DIP switches SW15-1 and SW15-2 are tied in parallel to pushbuttons SW13 and SW14, respectively. For SWITCH Test 5, either use DIP switches SW15-1 and SW15-2, or keep SW15-1 and SW15-2 OFF and use pushbuttons 13 and 14.



Install Xilinx Tools and Redeem the License Voucher

A Vivado® Design Suite: Design Edition, node-locked, device-locked license voucher code is included with this ZC702 Evaluation Kit and shown in Step 10.

STEP 10: Redeem the Vivado Tools License Voucher

To redeem the voucher code, go to www.xilinx.com/getlicense and enter the voucher code shown below. After it is redeemed, the licenses will appear in your entitlement account, and you can generate a license file, which will be emailed to you. For additional assistance redeeming your voucher, go to www.xilinx.com/kits/voucher.

Note: This code can only be used once and must be redeemed within one year of purchase.

Important

Important

STEP 11: Install the Vivado Design Suite

a. For the latest version, go to www.xilinx.com/download. Click **Archive**. Select and download the latest Vivado version for your operating system. The final release for ZC702 was 2015.4.
b. The Vivado installation flow will open the Vivado License Manager. Under the **Acquire a License** tab, select **Locate Existing License**. Click **Next**. In the **Manage Xilinx License** tab, click the **Load License** button and navigate to where you saved the license emailed to you in Step 10. Select the file. Click **Open**.
c. If you need assistance, review the Vivado installation guide at www.xilinx.com/kits/vivadoinstall.

Next Steps

Learn More

To learn more, please go to the next steps page (www.xilinx.com/zc702-nextsteps) which provides an extensive collection of resources, including tutorial and instructional videos, a detailed reference design guide, schematics, a hardware user guide, and other reference designs to move you from the evaluation and learning phase to developing your own product.

Support

For support options related to this product, see the Xilinx support website at www.xilinx.com/support.

Warranty

For the product warranty, go to www.xilinx.com/kits/warranty.

© Copyright 2014–2017 Xilinx, Inc. Xilinx, the Xilinx logo, Artix, ISE, Kintex, Spartan, Virtex, Vivado, Zynq, and other designated brands included herein are trademarks of Xilinx in the United States and other countries. All other trademarks are the property of their respective owners.