



ZC702 Restoring Flash Contents

June 2014

XTP183

Revision History

Date	Version	Description
06/09/14	10.0	Recompiled for 2014.2.
04/16/14	9.0	Recompiled for 2014.1.
12/18/13	8.0	Recompiled for 2013.4.
10/23/13	7.0	Recompiled for 2013.3.
06/19/13	6.0	Recompiled for Vivado 2013.2.
04/16/13	5.1	Added AR54225.
04/03/13	5.0	Recompiled for 14.5.
04/16/13	4.1	Added AR52143
12/18/12	4.0	Recompiled for 14.4.
10/23/12	3.0	Recompiled for 14.3.
07/25/12	2.0	Recompiled for 14.2.
05/25/12	1.0	Initial version for 14.1.

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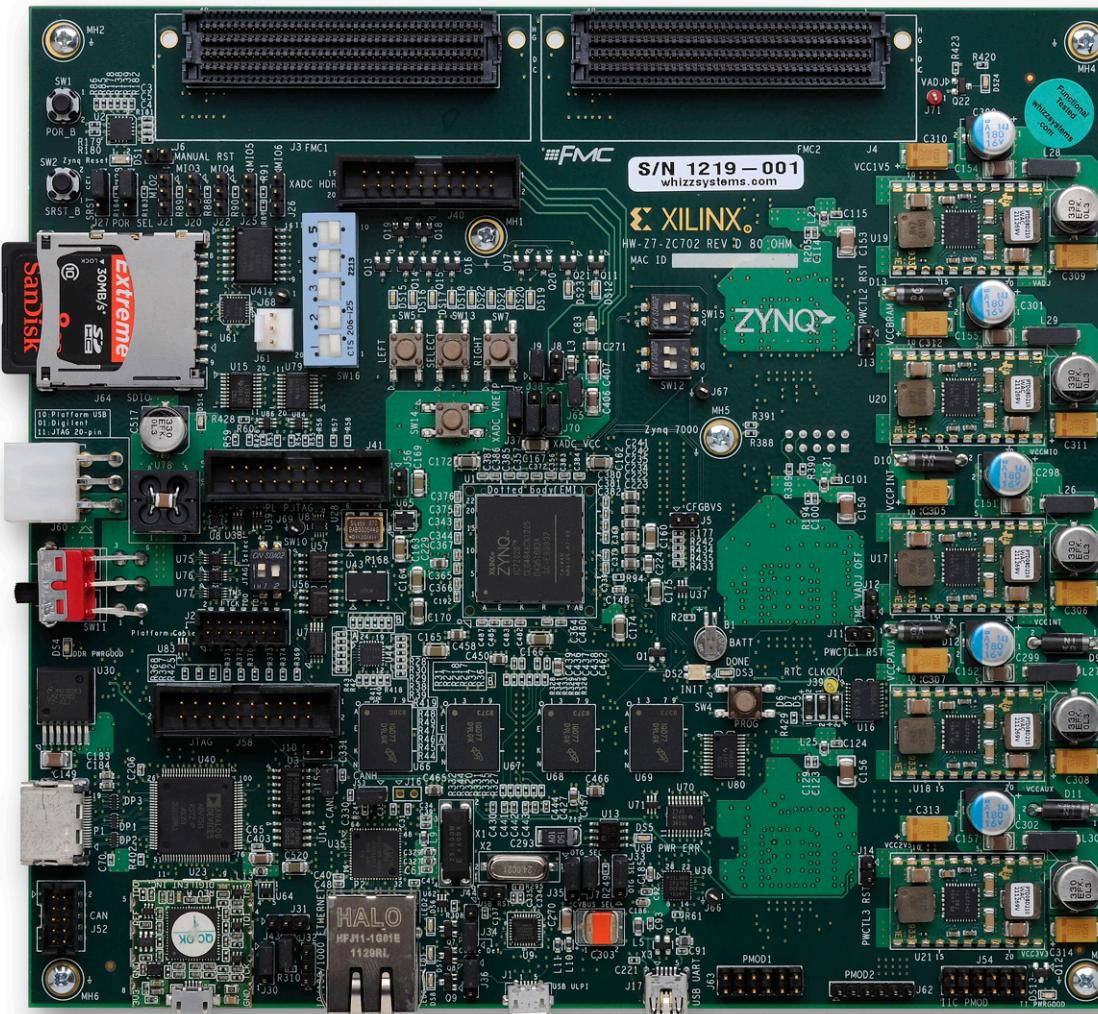
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Overview

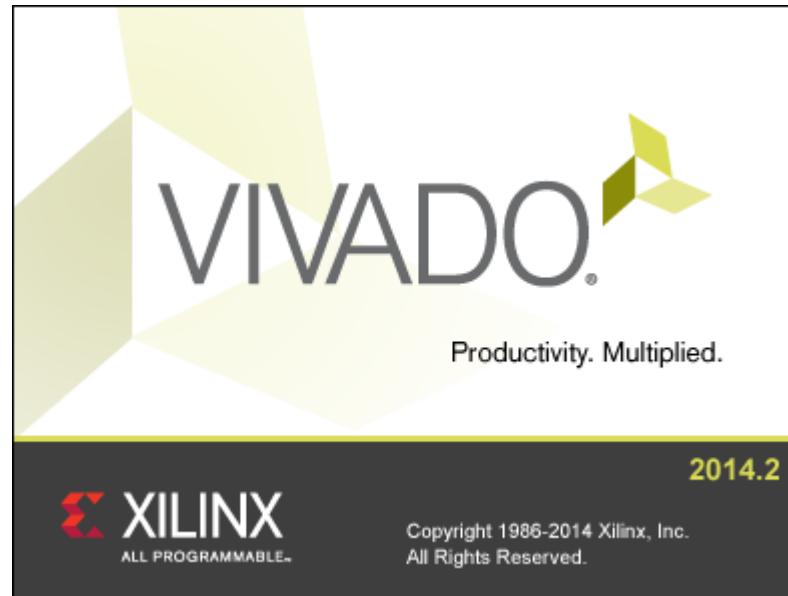
- Xilinx ZC702 Board
- Software Requirements
- ZC702 Setup
- Restoring ZC702 QSPI Flash
- References

ZC702 Board



Vivado Software Requirements

- Xilinx Vivado Design Suite 2014.2, Design Edition + SDK
 - Combined installer



ZC702 Setup

► Connect a USB Type-A to Micro-B cable to the USB JTAG (Digilent) connector on the ZC702 board

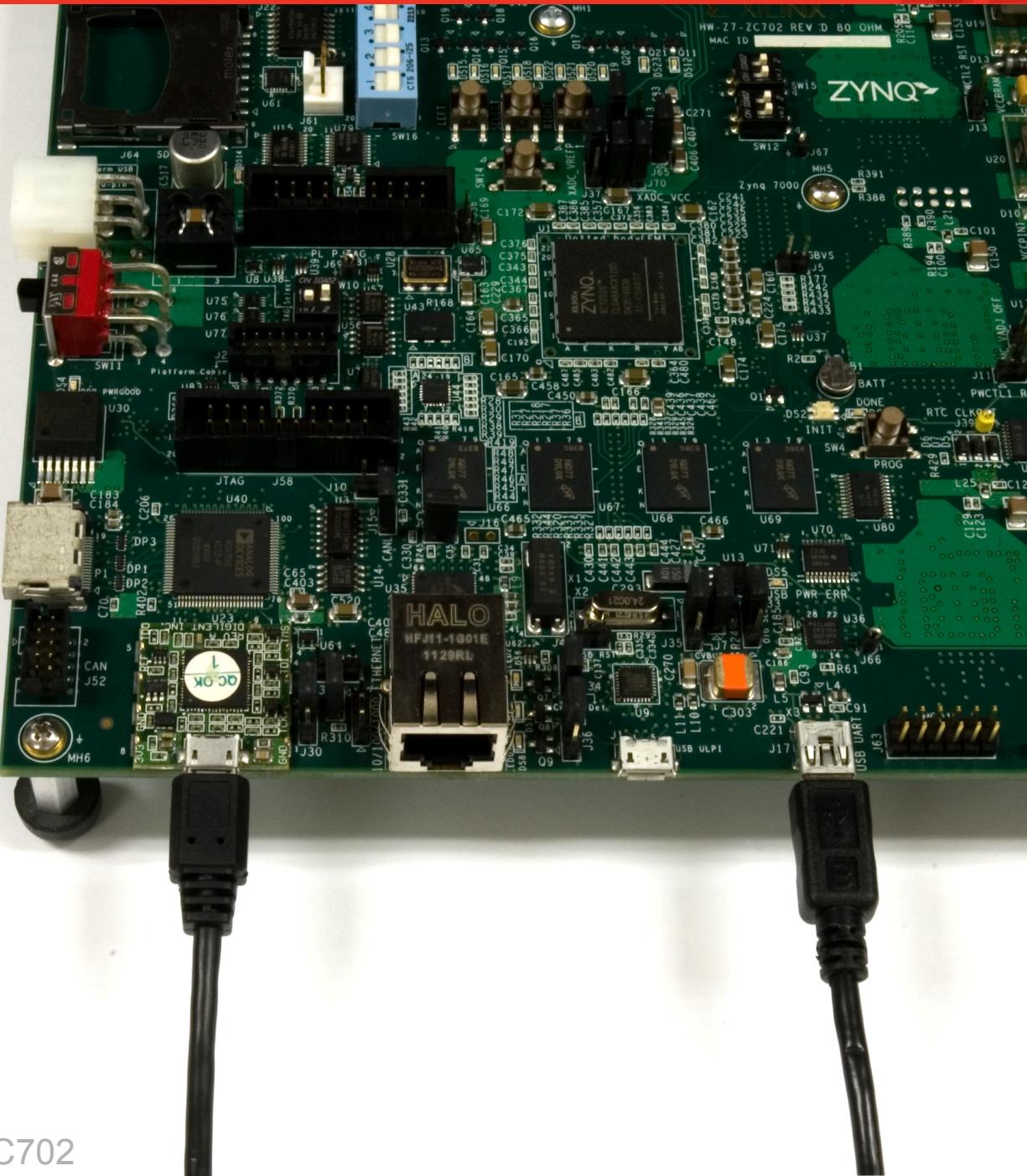
- Connect this cable to your PC
- Set the JTAG Select Switch, SW10, to **01**
- If using a Platform Cable USB (II) JTAG Cable, set SW10 to **10**



ZC702 Setup

► Connect a USB Type-A to Mini-B cable to the USB UART connector on the ZC702 board

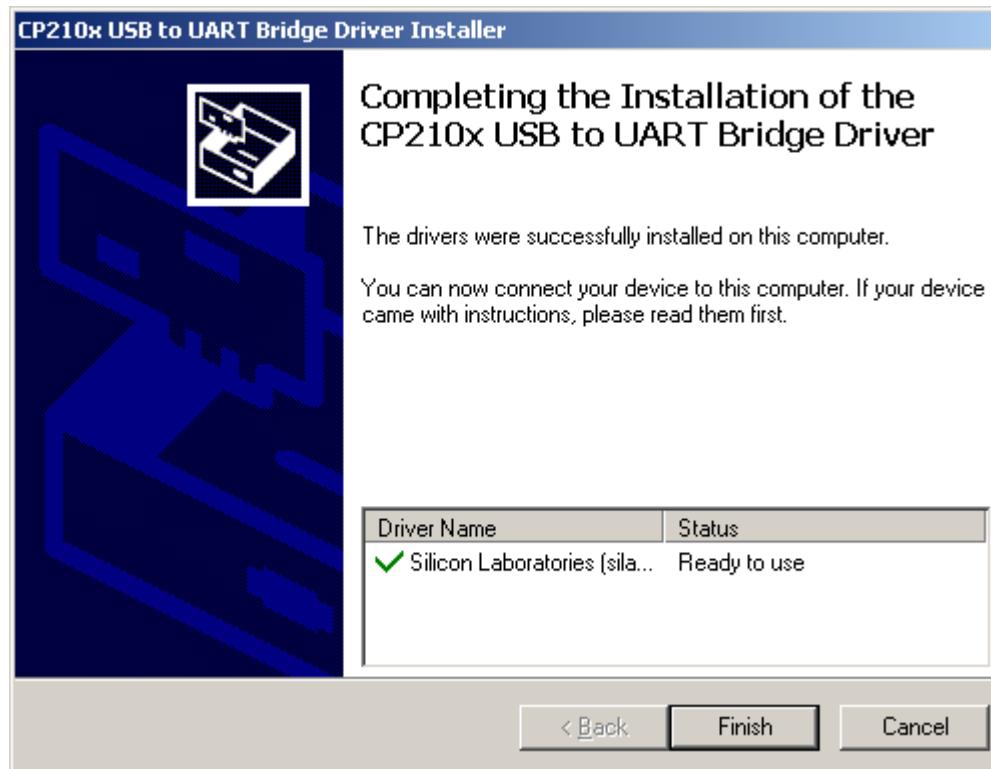
- Connect this cable to your PC
- Power on the ZC702 board for UART Drivers Installation



ZC702 Setup

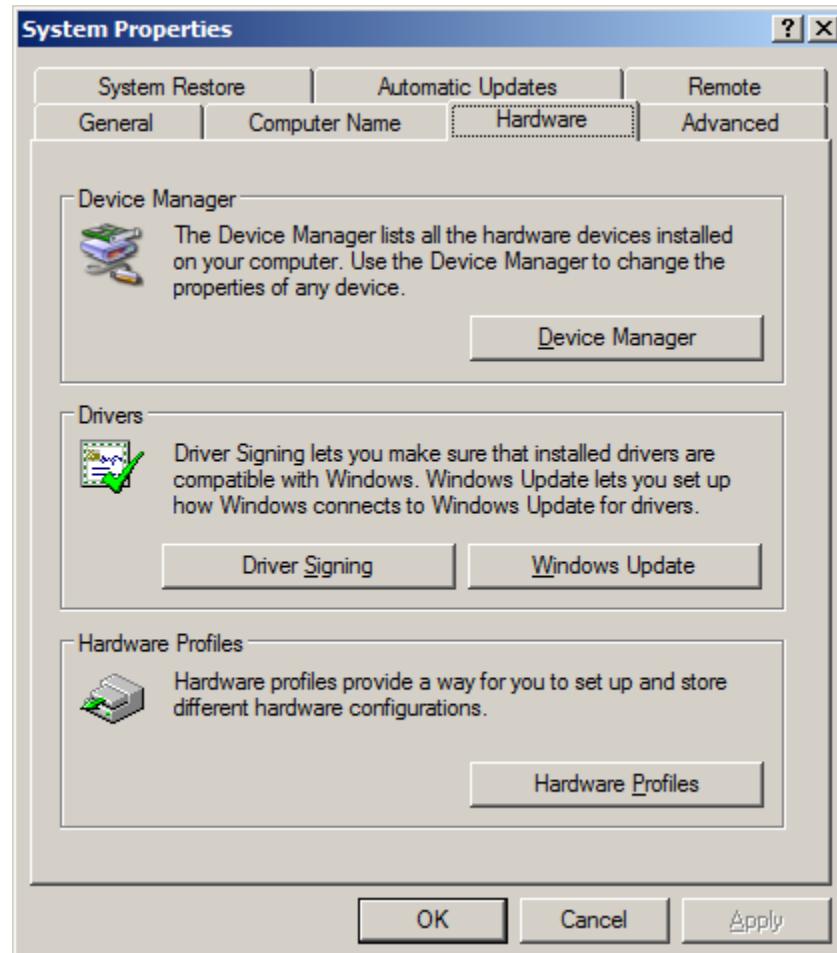
➤ Install USB UART Drivers

- Refer to [UG1033](#) for details on installing the USB to UART Drivers



ZC702 Setup

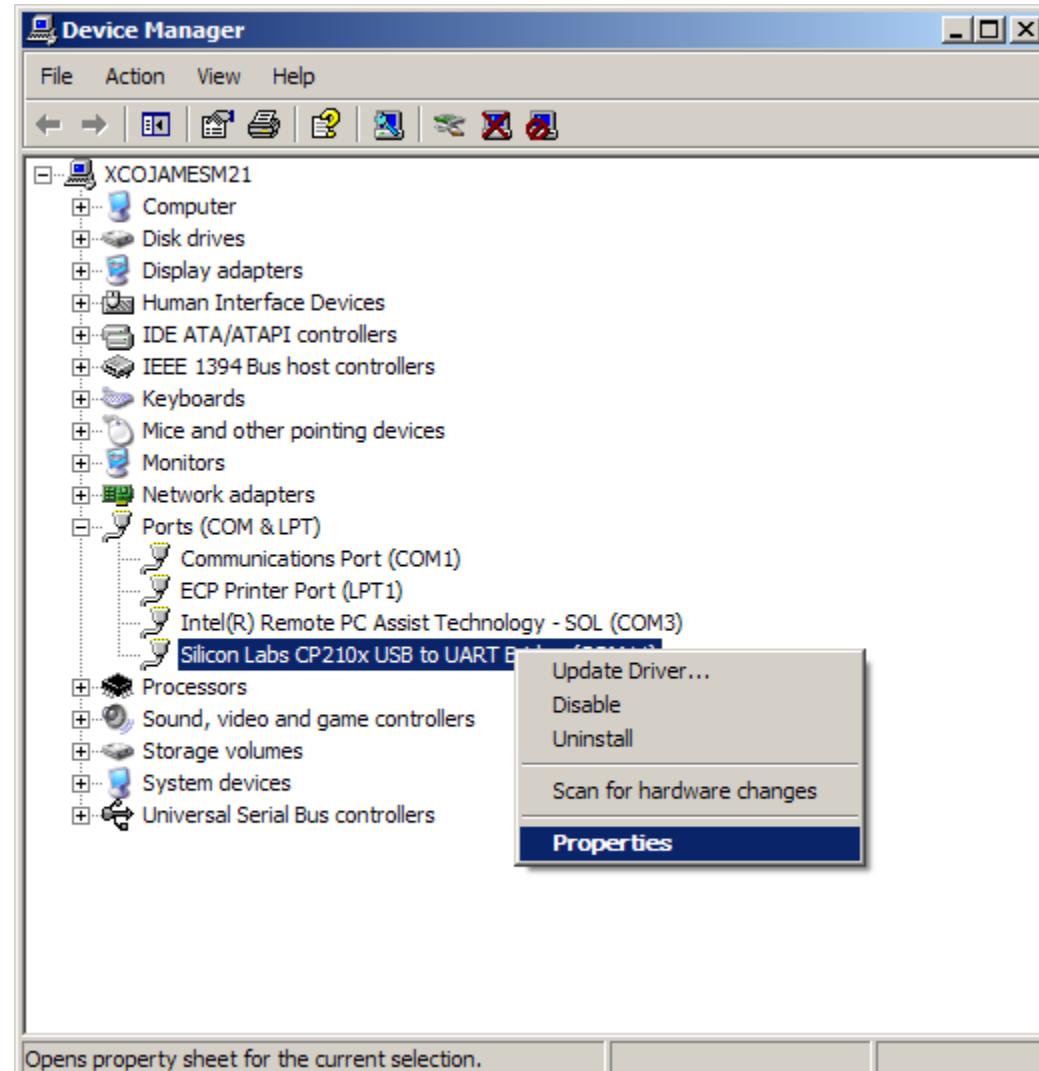
- Reboot your PC if necessary
- Right-click on My Computer and select Properties
 - Select the Hardware tab
 - Click on Device Manager



ZC702 Setup

► Expand the Ports Hardware

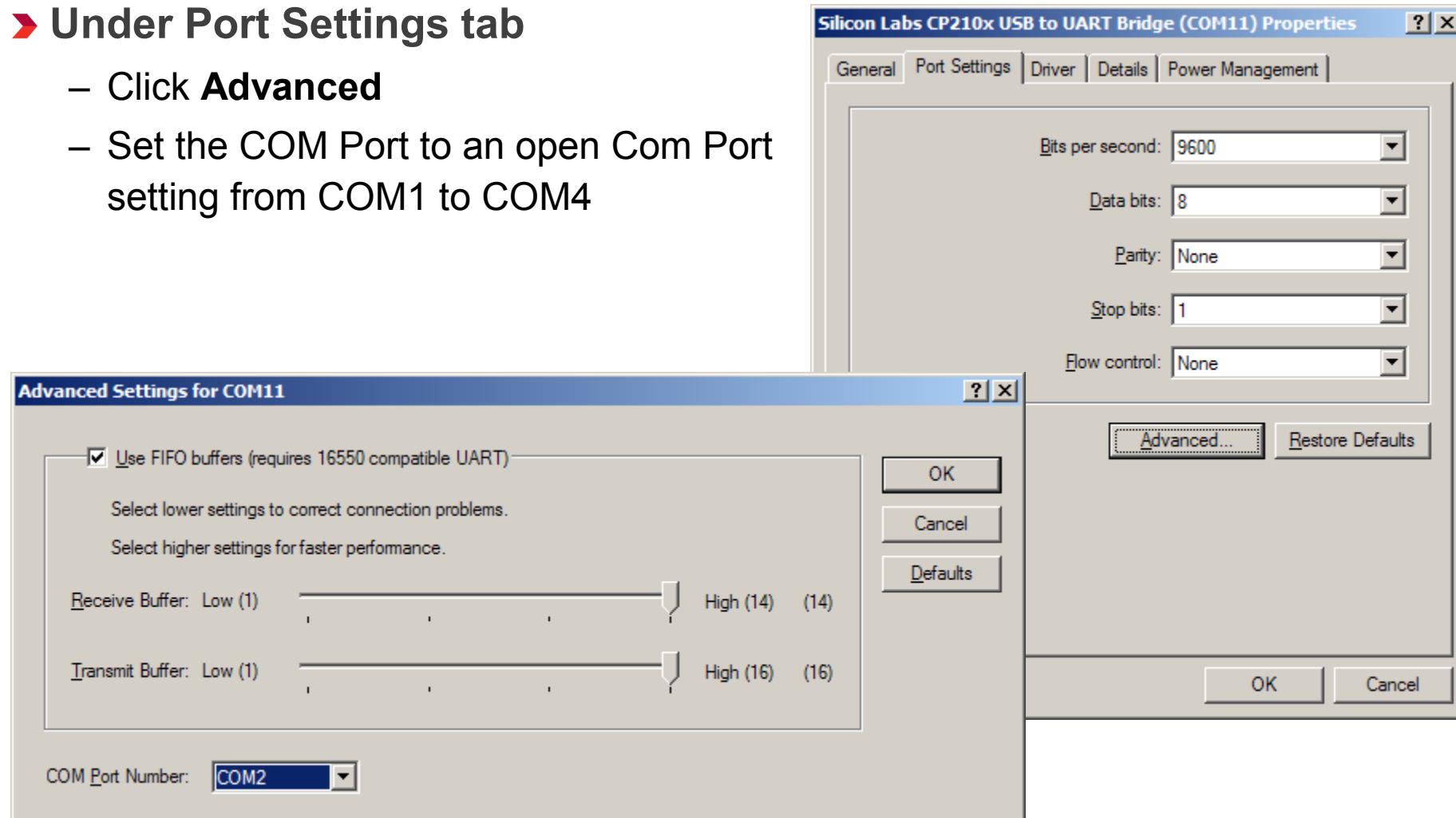
- Right-click on **Silicon Labs CP210x USB to UART Bridge** and select Properties



ZC702 Setup

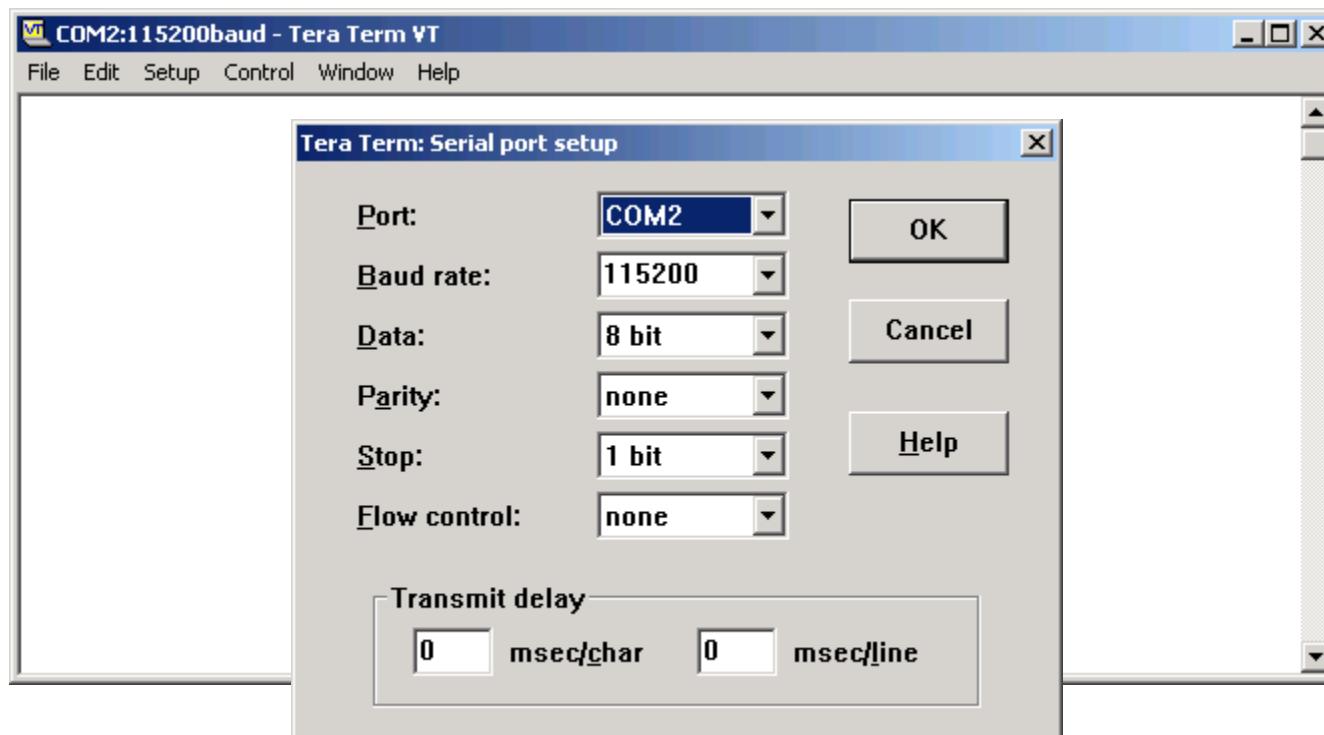
► Under Port Settings tab

- Click Advanced
- Set the COM Port to an open Com Port setting from COM1 to COM4



ZC702 Setup

- Refer to [UG1036](#) regarding Tera Term installation
- Board Power must be on before starting Tera Term
- Start the Terminal Program
 - Select your USB Com Port
 - Set the baud to **115200**

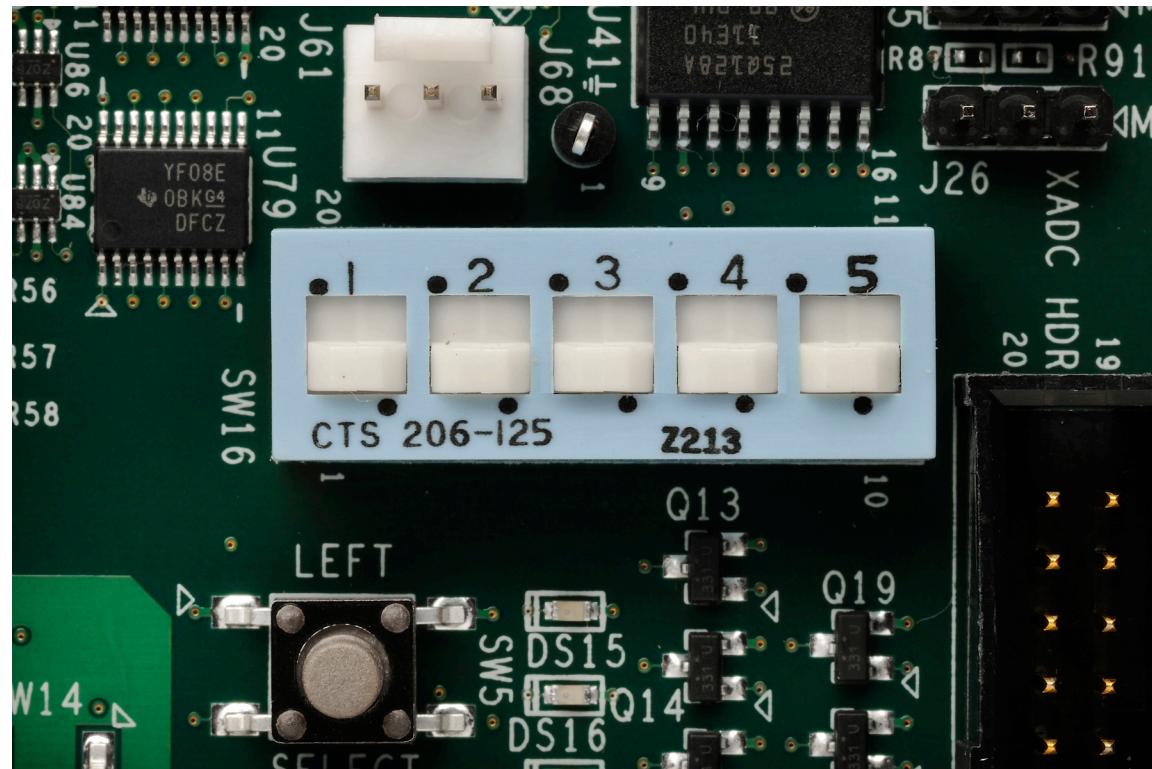


Restoring ZC702 QSPI Flash

Restoring ZC702 QSPI Flash

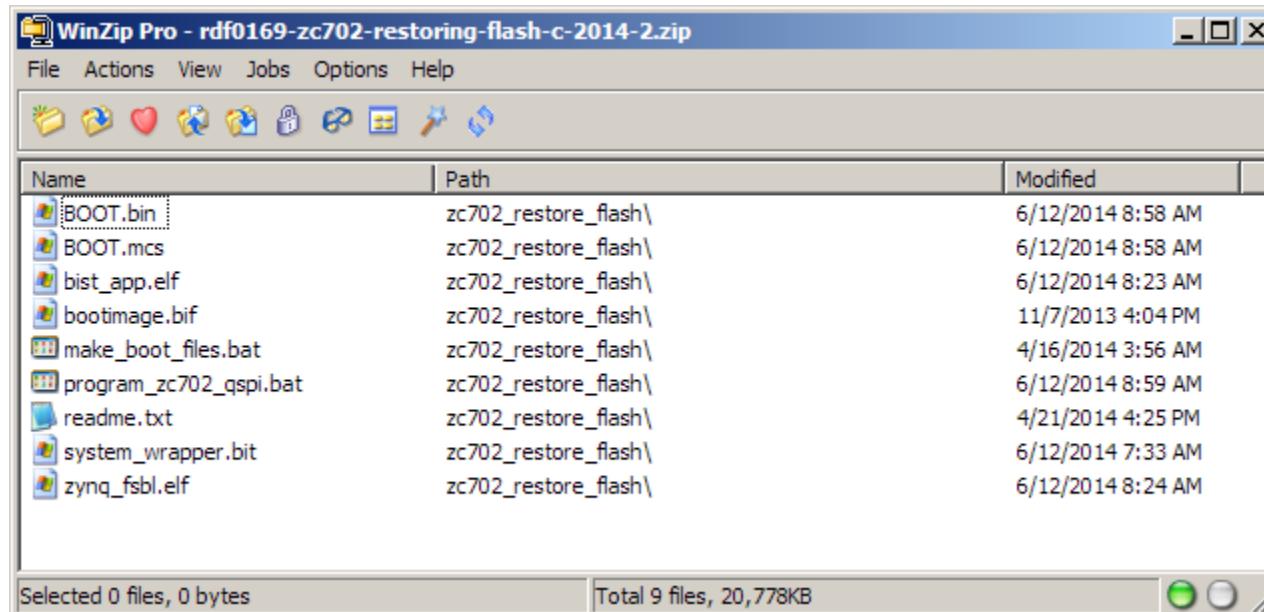
► Set SW16 DIP Switches to 00000

- As per [AR52143](#), if using “CES” Silicon, set the mode pins to 00010



Restoring ZC702 QSPI Flash

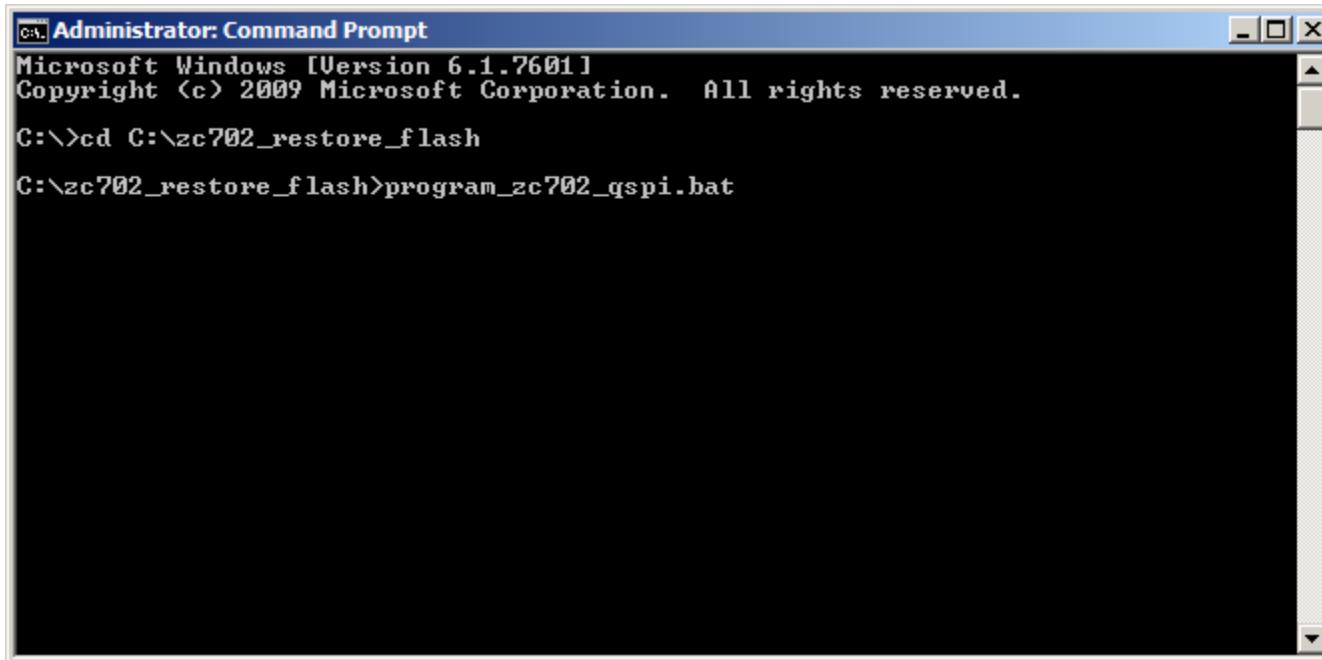
- Unzip the RDF0169 - ZC702 Restoring Flash Design Files (2014.2 C) zip file to your C:\ drive
 - Available through <http://www.xilinx.com/zc702>



Restoring ZC702 QSPI Flash

- Program the QSPI Flash
- In a Windows prompt type:

```
cd C:\zc702_restore_flash  
program_zc702_qspi.bat
```

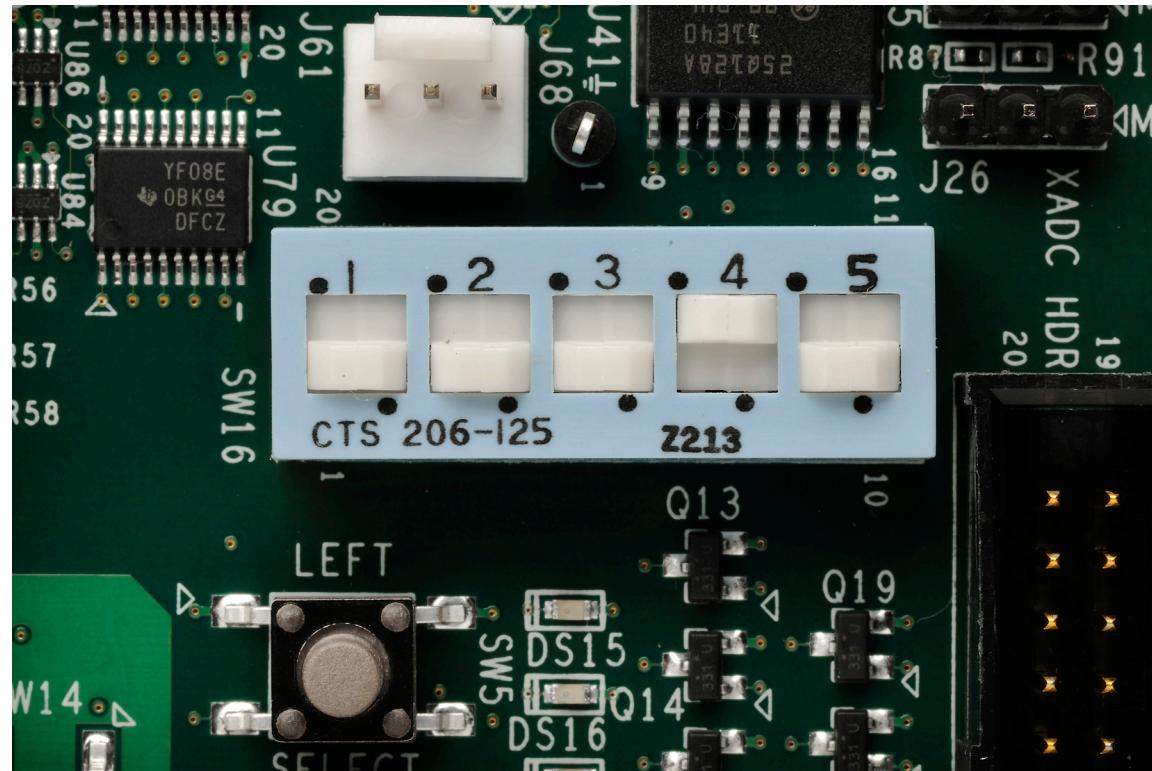


The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The window displays the following text:
Microsoft Windows [Version 6.1.7601]
Copyright © 2009 Microsoft Corporation. All rights reserved.
C:\>cd C:\zc702_restore_flash
C:\zc702_restore_flash>program_zc702_qspi.bat

Restoring ZC702 QSPI Flash

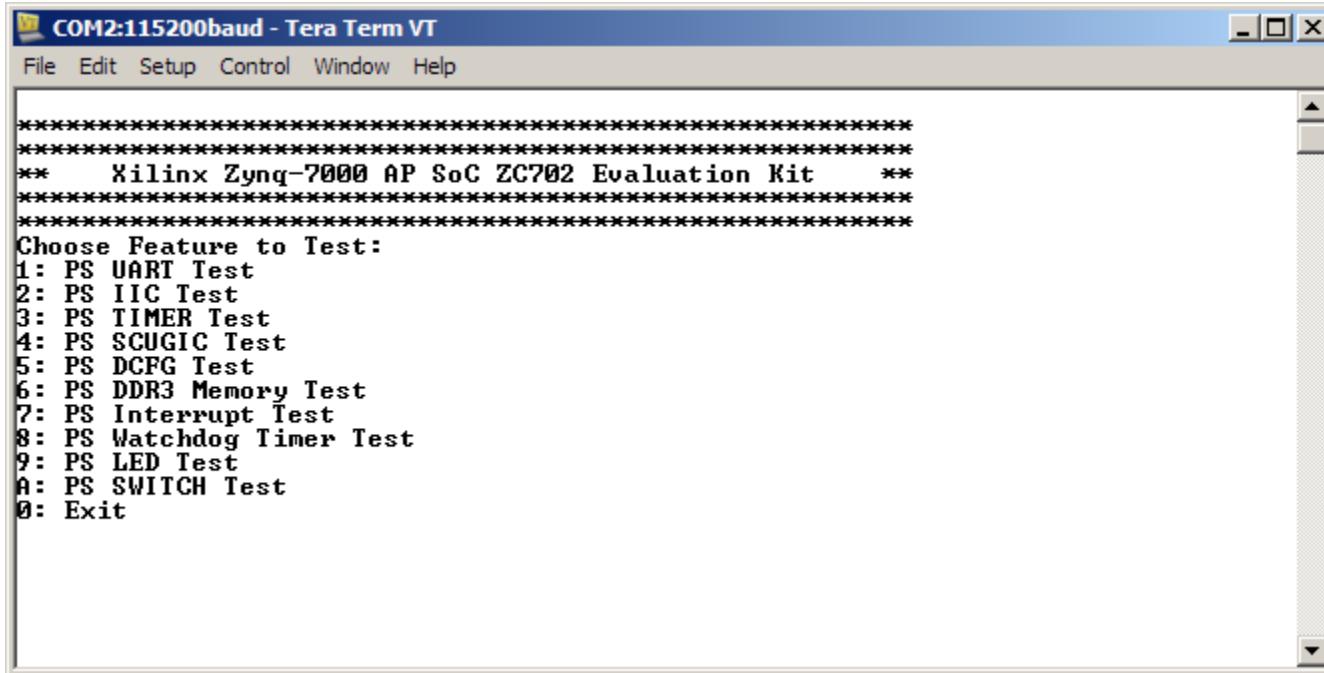
► Set the SW16 DIP switches to boot from QSPI: 00010

- The ZC702 QSPI comes preloaded with the BIST Application
- Cycle power to start the BIST Application



Restoring ZC702 QSPI Flash

► View initial BIST screen



References

References

► 7 Series Configuration

- 7 Series FPGAs Configuration User Guide
 - http://www.xilinx.com/support/documentation/user_guides/ug470_7Series_Config.pdf

Documentation

Documentation

➤ Zynq-7000

- Zynq-7000 All Programmable SoC
 - <http://www.xilinx.com/products/silicon-devices/soc/zynq-7000/index.htm>

➤ ZC702 Documentation

- Xilinx Zynq-7000 SoC ZC702 Evaluation Kit
 - <http://www.xilinx.com/products/boards-and-kits/EK-Z7-ZC702-G.htm>
- ZC702 Getting Started Guide – UG926
 - http://www.xilinx.com/support/documentation/boards_and_kits/zynq-7000/zc702_gsg/v3_0/UG926_Z7_ZC702_Eval_Kit.pdf
- ZC702 Hardware User Guide – UG850
 - http://www.xilinx.com/support/documentation/boards_and_kits/zc702_zvic/ug850-zc702-eval-bd.pdf