

6 Linux BSP (Board Support Package)

Users can download the DE1-SoC Linux BSP from:

<http://cd-de1-soc.terasic.com>

The procedures to boot Linux from DE1-SoC are:

1. Download a preferred Linux image file from the link above.
2. Decompress the Linux image file and write the contents to a microSD card(*1).
3. Insert the microSD card into DE1-SoC and set the MSEL[4:0] = 00000(*2).
4. Connect a display(*3) to DE1-SOC.
5. Power on the DE1-SoC and the booting message will appear from the display.

***Note1:** The capacity of microSD card required depends on which Linux BSP to be loaded.

***Note2:** For any Linux BSP except the Linux Console, which requires the MSEL[4:0] to be set NOT 00000.

***Note3:** Linux Console requires connection to the host PC and run the UART terminal such as Puppy via UART-to-USB port. The others require a LCD monitor connected to the VGA port onboard.

For detailed operations, please refer to the Chapter 5 of the document

["DE1-SoC_Getting_Started_Guide.pdf"](#)

7 Starting Your First HPS Design

Users can refer to the document My_first_HPS.pdf from the manual folder in the DE1-SoC System CD.

This document describes the complete C/C++ design flow, including:

1. Create and build a C/C++ project.
2. Copy files to Linux running on DE1-SoC.
3. Launch executable files on Linux running on DE1-SoC.

8 Getting Help

For further discussion, support, and resources, please go to:

<http://de1-soc.terasic.com>



If you encounter any problems, please contact us via

Email: support@terasic.com

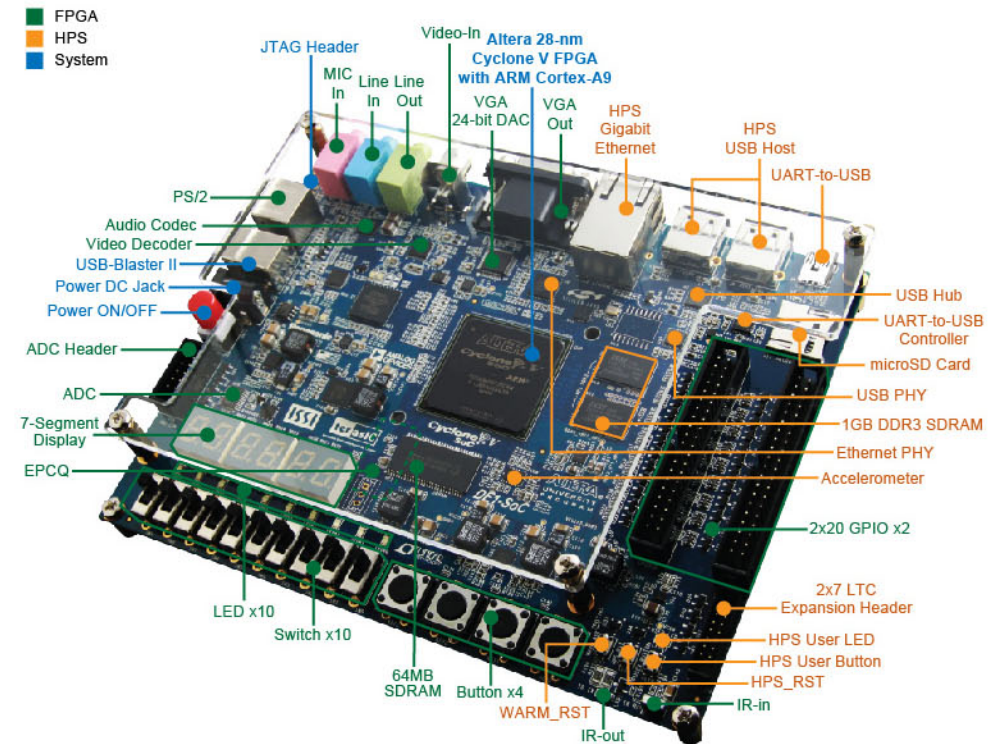
Tel: +886-3-575-0880

terasic
www.terasic.com

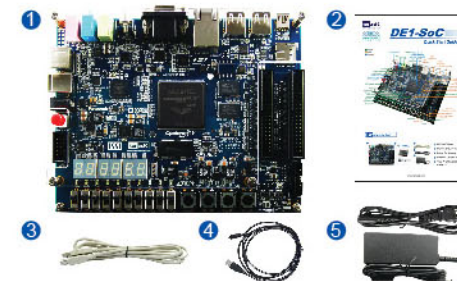
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PROGRAM

DE1-SoC

Quick Start Guide



1 What's in the Box?

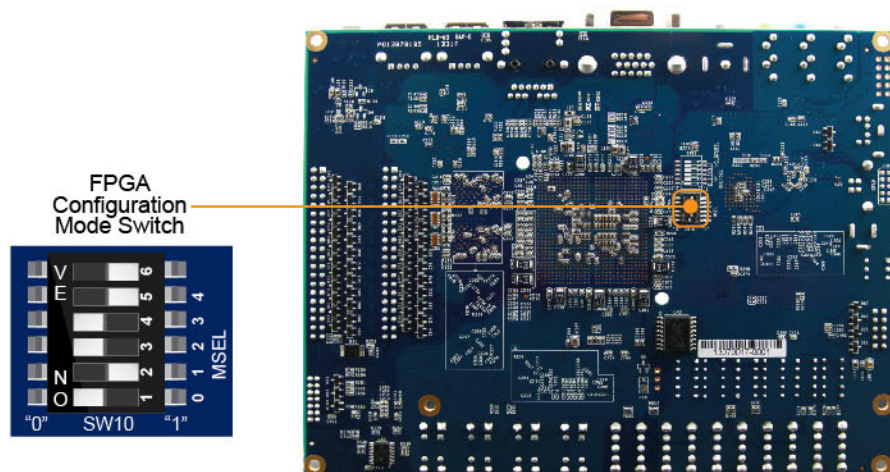
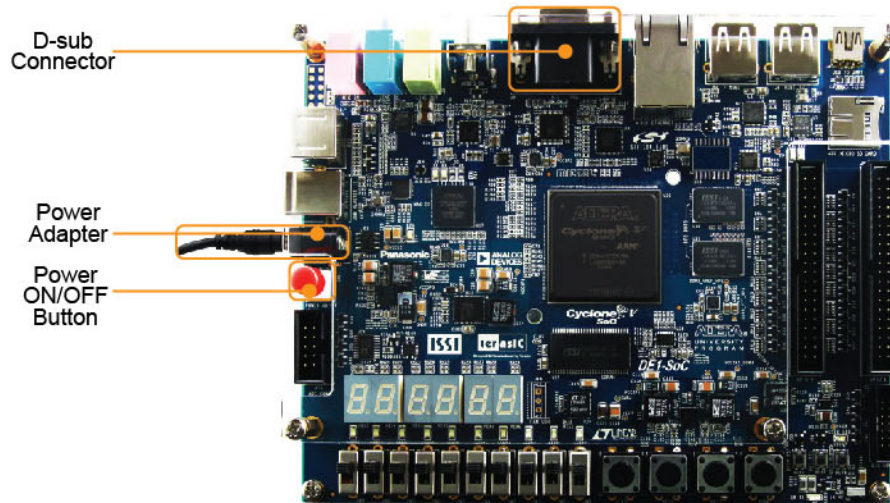


- 1 DE1-SoC Board
- 2 DE1-SoC Quick Start Guide
- 3 Type A to B USB Cable
- 4 Type A to Mini-B USB Cable
- 5 Power DC Adapter (12V)

Users can download the DE1-SoC System CD from the link below:

<http://de1-soc.terasic.com>


2 Performing Power-on Test



1. Set the MSEL[4:0]= 10010 in Fast AS Mode.
2. Connect the power adapter to the power jack on the DE1-SoC.
3. Press the red Power ON button.
4. All the FPGA user LEDs will be flashing and 7-Segment Displays will be counting.
5. Connect a VGA monitor to the D-sub connector(J9) and the VGA monitor will display the board image.

3 Contents of DE1-SoC System CD

Users can download the DE1-SoC System CD from the link below:

 <http://de1-soc.terasic.com>

DE1-SoC System CD Contents

Directory Name	Contents
User Manual	Contains the DE1-SoC documentations
Demonstrations	Contains design examples for DE1-SoC
Datasheet	Contains the datasheets of components on the DE1-SoC
Schematic	Contains the schematic of DE1-SoC
Tools	Contains the design and testing tools for DE1-SoC

4 Getting Started with the DE1-SoC Board

Users can refer to the document DE1-SoC_QSG.pdf from the manual folder in the DE1-SoC System CD. This guide contains a quick overview on the hardware and software setup including step-by-step procedures from installing the necessary software tools to using the DE1-SoC board.

The main topics that this guide covers are listed below:

1. Software Installation: Quartus II and EDS.
2. Development Board Setup: Power up the DE1-SoC.
3. Perform FPGA System Test: Download a FPGA SRAM Objective File (.sof).
4. Running Linux on DE1-SoC Board.

5 Starting Your First FPGA Design

Users can refer to the document My_first_FPGA.pdf from the manual folder in the DE1-SoC System CD.

This document describes the complete FPGA design flow, including:

1. Create a new Quartus II project.
2. Add user logic and utilize MegaCore IPs.
3. Download a .sof file to the FPGA to view the result.