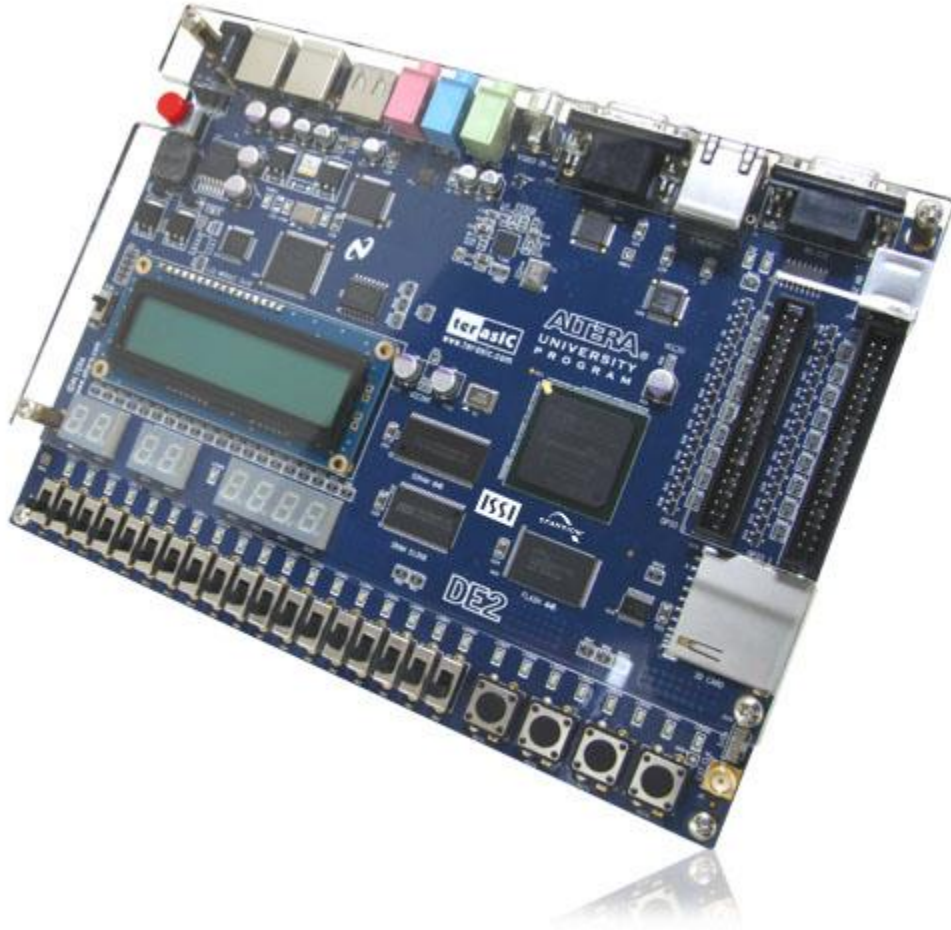


Altera DE2 Board

1. Overview



The purpose of the Altera DE2 Development and Education board is to provide the ideal vehicle for advanced design prototyping in the multimedia, storage, and networking.

It uses the state-of-the-art technology in both hardware and CAD tools to expose designers to a wide range of topics. The board offers a rich set of features that make it suitable for use in a laboratory environment for university and college courses, for a variety of design projects, as well as for the development of sophisticated digital systems. Altera provides a suite of supporting materials for the DE2 board, including tutorials, "ready-to-teach" laboratory exercises, and illustrative demonstrations.

2. Specification

- **Company:** Terasic
- **Tel:** +886-3-5750880
- **Fax:** +886-3-5726690
- **Add:** 9F., No.176, Sec.2, Gongdao 5th Rd, East Dist, Hsinchu City, 30070. Taiwan

DE2 board provides users many features to enable various multimedia project development. Component selection was made according to the most popular design in volume production multimedia products such as DVD, VCD, and MP3 players. The DE2 platform allows users to quickly understand all the insight tricks to design real multimedia projects for industry.

- Altera Cyclone II 2C35 FPGA with 35000 LEs
- Altera Serial Configuration devices (EPCS16) for Cyclone II 2C35
- USB Blaster built in on board for programming and user API controlling
- JTAG Mode and AS Mode are supported
- 8Mbyte (1M x 4 x 16) SDRAM
- 512K byte(256K X16) SRAM
- 4Mbyte Flash Memory (upgradeable to 4Mbyte)
- SD Card Socket
- 4 Push-button switches
- 18 DPDT switches
- 9 Green User LEDs
- 18 Red User LEDs
- 16 x 2 LCD Module
- 50-MHz oscillator and 27-MHz (from TV decoder) for clock sources
- 24-bit CD-Quality Audio CODEC with line-in, line-out, and microphone-in jacks
- VGA DAC (10-bit high-speed triple DACs) with VGA out connector
- TV Decoder (NTSC/PAL) and TV in connector
- 10/100 Ethernet Controller with socket.
- USB Host/Slave Controller with USB type A and type B connectors.
- RS-232 Transceiver and 9-pin connector
- PS/2 mouse/keyboard connector
- IrDA transceiver
- Two 40-pin Expansion Headers with diode protection
- DE2 Lab CD-ROM which contains many examples with source code to exercise the boards, including: SDRAM and Flash Controller, CD-Quality Music Player, VGA and TV Labs, SD Card reader, RS-232/PS-2 Communication Labs, NIOSII, and Control Panel API



3. Kit content

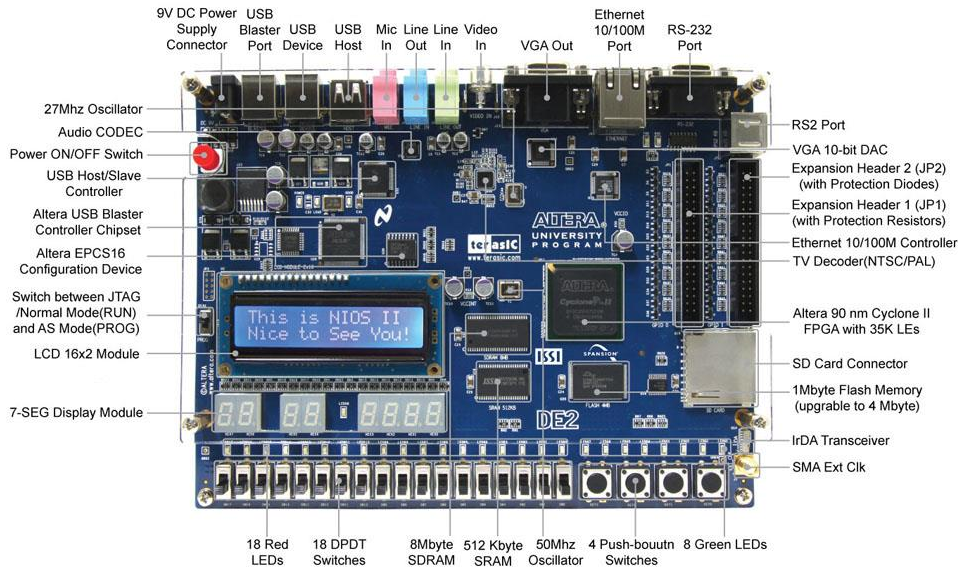
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- Altera DE2 Board
- Altera DE2 CD - Version 2.0
- Altera Quartus II DVD with Nios II - Version 11.1
(We provide Quartus II Web Edition software. To learn more about the details please visit [Quartus II Software—Subscription Edition and Web Edition Comparison](#))
- 1 Adapter DC 9V/1.3A (US wall plug)
- 1 USB Cable
- 6 Silicon Footstands
- 2 Cables (black- and red-colored)
- 2 PIN Headers, 1PIN

4. Layout

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- Size : 153*203 mm

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