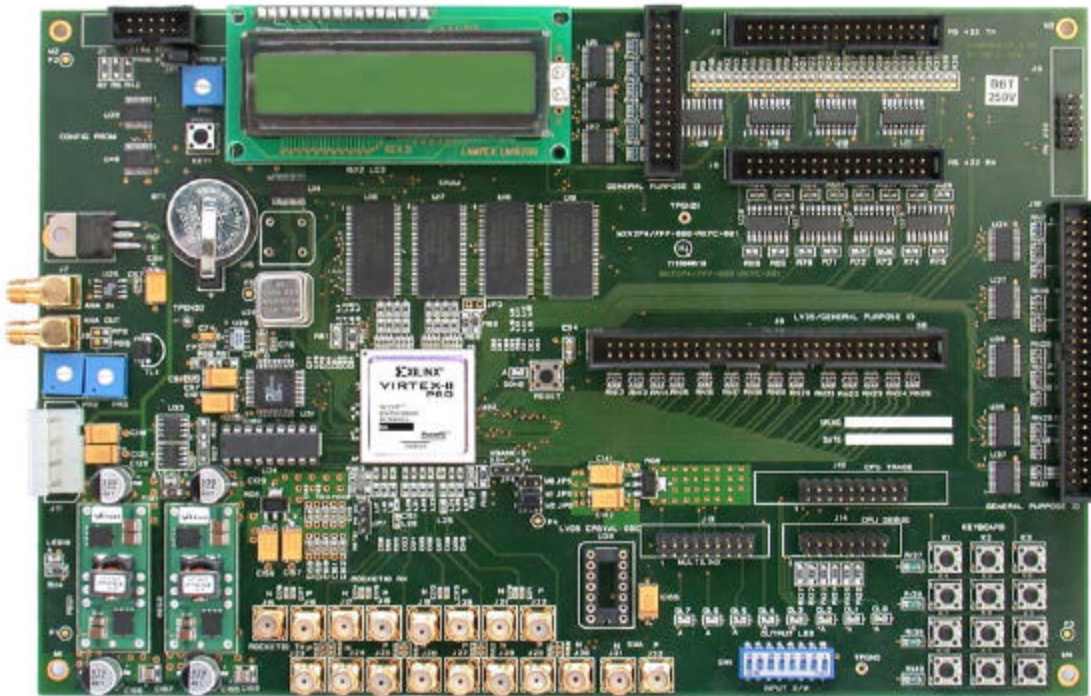


Photo of the entire system



Overview

The very first board wherein Virtex II Pro being used is designed for the customer who is in the field of Verification of different Algorithms.

Idea behind designing this board was high speed data transfer interface, Power PC applications and analog interface.

The Protoboard is suitable for implementing embedded processor based applications with extreme flexibility using IP cores and customized modules.

As powerful RocketIO Multi Gigabit Transceivers (MGT) is provided on the board; protoboard is useful in developing high-speed serial Transceiver applications (Ethernet applications).

Digital IOs provided on the board are useful for external device interfacing.

One bank (bank-6) of digital IOs on FPGA is user configurable to select DCI IO standards (e.g. LVDCI_33 etc) or differential LVDS IO standards (e.g. LVDS_25).

Features

1. FPGA - XC2VP4 or XC2VP7 with on chip PowerPC-405 Processor
2. ADC - 14 bit, 10MSPS analog input channel is available using AD9240
3. DAC - One channel, using 12-bit DAC AD7541
4. Digital I/O – 98/120 DCI digital I/Os. (While using P4, 98 user ios are available)
5. High Speed IO's –
 - ✍ Two Rocket IO channels if XC2VP4 is used
 - ✍ Four Rocket IO channels if XC2VP7 is used
6. Data Memory -
 - ✍ Up to 4M X 16 onboard memory
7. RS-232 Serial port
8. RS-422 Transceivers
9. Code Memory -
 - ✍ Up to 2MX16 onboard memory
10. Serial Interface -
 - ✍ 16 Channel RS422 transmitters.
 - ✍ 16 Channel RS422 receivers.
 - ✍ Two RS232 full duplex channels.
 - ✍ 4*3 Key Board Interface connector.
 - ✍ 16*2 LCD Interface connector.
 - ✍ 8 LEDs for output indication.
 - ✍ 8 DIP switches for inputs.
11. Supported IO Standards
 - ✍ LVTTTL
 - ✍ LVCMOS
 - ✍ LVDCI_33
 - ✍ LVDS_25 (differential)

PCB Specifications

Eight layer board: Five signal planes and three power planes.

Special care for different standards.

Length matching of tracks for differential standard.