



USB Function Evaluation Board

February 1997

Product Description 1.0

Features

- Use to evaluate and prototype a CAE/Inventra USB function core in a Xilinx XC4000E FPGA
- Flexible microcontroller interface with built-in support for
 - ◊ Atmel AT89C51/AT89C52
 - ◊ Mitsubishi M37690
 - ◊ Any other 8-bit MCU via 50 pin connector
- 64 KB socketed FLASH
- 32 KB socketed SRAM
- 4KB Fast SRAM for endpoint FIFO expansion
- Flexible power connection
- Reset and Break switches
- LEDs
- Extra 223-pin PGA socket for Xilinx XC4000E FPGA
 - ◊ Use for additional custom logic
- Wirewrap area for prototyping
- Firmware implements Chapter 9 of USB Specification 1.0

General Description

The USB Function Evaluation Board can be used to evaluate or prototype a complete USB function using any of CAE/Inventra's USB Function Controller cores and a Xilinx FPGA.

This board can be powered either by a PC disk connector or a 12 Volt DC adapter. A jumper is provided to use either micro controller's internal program space or an external PROM.

There are two serial ports available on the board. Port 1 is used to get debug information. The serial port can be connected to any terminal. (Usually a PC running terminal emulation software like PROCOMM or QLFAX).

An upstream port is used to connect to the host computer while the downstream port can be used to connect to another device.

Additional Available Products

Inventra/CAE supplies a complete line of hardware and software products for USB system development. Contact Inventra/CAE for more information.

USB Simulation Model

This is a complete simulation environment that allows the user to configure and simulate a USB network with multiple functions and hubs, including a mixture of both full- and low-speed devices.

USB Cores

Inventra/CAE offers USB host, hub and function controller cores that have been optimized for Xilinx FPGAs.

Ordering Information

CAE Technology is now part of the Inventra™ business unit of Mentor Graphics Corporation Company. To purchase or make further inquiries about this or other Inventra/CAE products, contact your local Mentor Graphics sales representative, or Inventra/CAE directly:

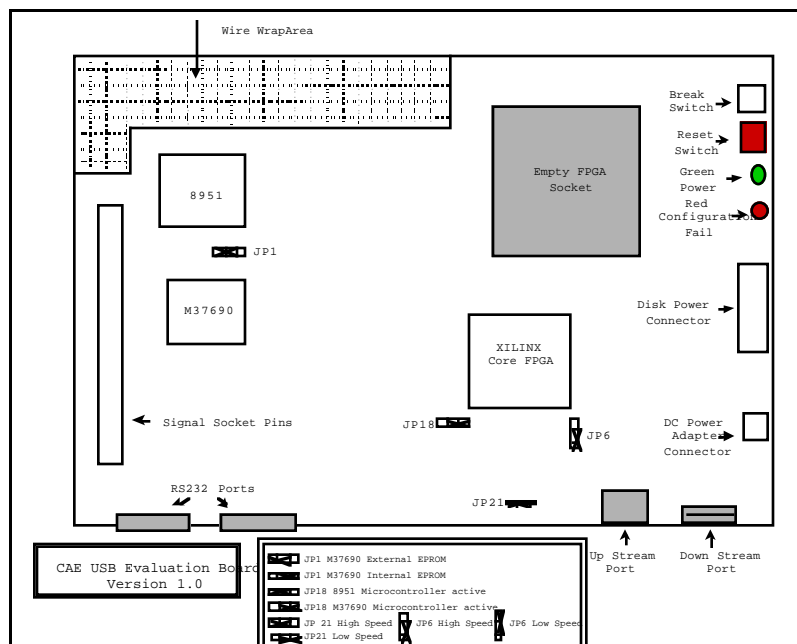


Figure 1. Block diagram.

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For general Xilinx literature, contact:
Phone: 800-231-3386 (inside the US)
408-879-5017 (outside the US)
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Related Documentation and Information

Xilinx Programmable Logic

For information on Xilinx programmable logic or development system software, contact your local Xilinx sales office, or:

For AllianceCORE™ specific information, contact:
Phone: 408-879-5017
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URL: www.xilinx.com/products/logicore/logicore.htm

