



# USB Function Evaluation Board

February 8, 1998

Product Specification



## Inventra™

A Business Unit of Mentor Graphics  
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## Features

Use to evaluate and prototype a 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 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.

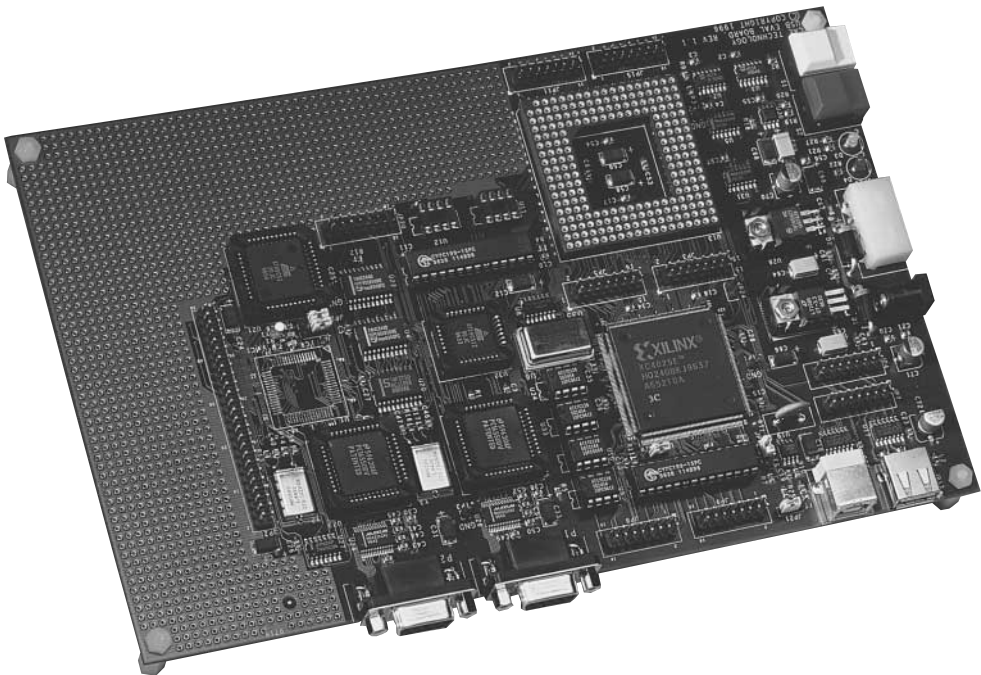


Figure 1: USB Function Evaluation Board

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.

## Available Support Products

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

- USB Simulation Model
- USB Cores for host, hub and function controllers.

## Ordering Information

To purchase or make further inquiries about this or other Inventra products, contact your local Mentor Graphics sales representative, or Inventra directly.

## Related Information

### Xilinx Programmable Logic

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

Xilinx, Inc.  
2100 Logic Drive  
San Jose, CA 95124  
Phone: +1 408-559-7778  
Fax: +1 408-559-7114  
URL: [www.xilinx.com](http://www.xilinx.com)

For general Xilinx literature, contact:

Phone: +1 800-231-3386 (inside the US)  
+1 408-879-5017 (outside the US)  
E-mail: [literature@xilinx.com](mailto:literature@xilinx.com)

For AllianceCORE™ specific information, contact:

Phone: +1 408-879-5381  
E-mail: [alliancecore@xilinx.com](mailto:alliancecore@xilinx.com)  
URL: [www.xilinx.com/products/logiccore/alliance/tblpart.htm](http://www.xilinx.com/products/logiccore/alliance/tblpart.htm)

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