# **FLEX PCI Development Kit**

Solution Brief 46 December 1999, ver. 1

### **Target Applications:**

All PCI-based systems

### Family:

FLEX® 10K

## Ordering Code: PCI-BOARD2

Vendor:



101 Innovation Drive San Jose, CA 95134 http://www.altera.com Tel. (408) 544-7000

#### **Features**

- 32-bit to 64-bit/33-MHz to 66-MHz peripheral component interconnect (PCI) development and prototyping platform
- Easy-to-use Windows-based program for design analysis and system performance measurement
- Includes a demonstration design with the pci\_mt64 MegaCore<sup>TM</sup> function, an SDRAM controller, a direct memory access (DMA) controller, a first-in first-out (FIFO) buffer, and control logic
- FLEX® 10KE EPF10K100E-1 device in a 484-pin FineLine BGA<sup>TM</sup> package
- On-board features:
  - I/O prototype area for custom logic
  - DB9 connector for RS-232 serial communication
  - Standard PMC connector
  - 144-pin small outline DIMM 32-Mbyte SDRAM module
  - Voltage regulator that automatically generates 2.5 V and 3.3 V from a 5.0-V power supply
- Supports in-circuit reconfiguration with an EPC2 configuration device and a ByteBlasterMV<sup>TM</sup> download cable
- Flexible clocking options for on-board logic, including a PCI clock, an on-board crystal oscillator, or an external clock

### **General Description**

The FLEX PCI development kit is extremely versatile and can be used to prototype a variety of custom designs that use any of Altera's PCI MegaCore functions. The FLEX PCI development board includes socketed SDRAM, PMC connectors, and an RS-232 port. The board also provides a prototyping area that can implement custom off-chip logic, a flexible clock distribution network, and in-circuit configuration capability. With the Windows-based application software provided with the kit, you can easily measure data transfer speeds attained through the Altera PCI MegaCore function. Figures 1 and 2 show the FLEX PCI development board.

Figure 1. FLEX PCI Development Board

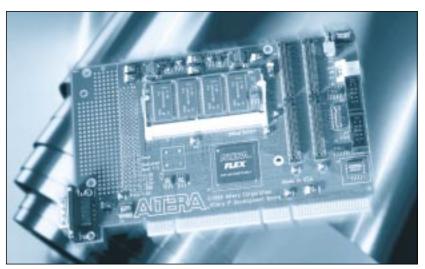
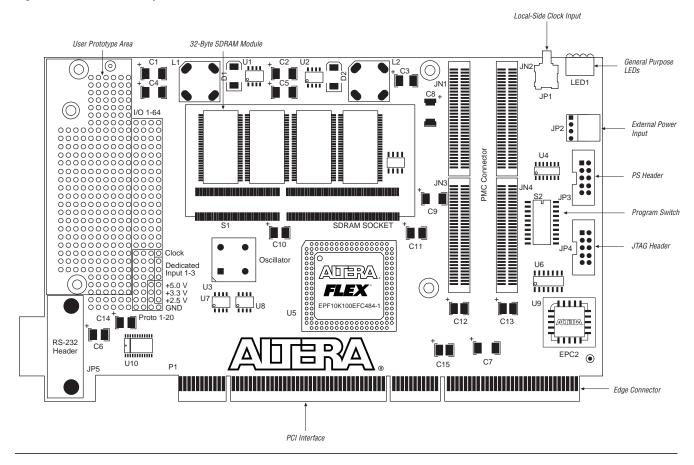




Figure 2. FLEX PCI Development Board Schematic



### FLEX PCI Development Kit Deliverables

Altera provides the following items with the FLEX PCI development kit:

- FLEX PCI development board
- ByteBlasterMV parallel port download cable
- CD-ROM containing all PCI MegaCore functions, demonstration designs, and support literature
- Development board schematics are available upon request



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