



PCMCIA Prototyping Card

February 1997

Product Description 1.02

Features

- Cuts PC-Card development time by half
- All PCMCIA interface components predesigned onto board
 - ◇ Xilinx XC3042 or XC3042A in 100-pin TQFP
 - ◇ 2Kx8 CIS EEPROM
 - ◇ PCMCIA and I/O connectors
- Includes 12 sq. in of bread board area for I/O devices such as Ethernet, Fax/Modem, etc.
- Separate analog Ground and Vcc for analog devices
- Support for logic analyzer and scope probes to ease debugging of board
- Optional PCMCIA macros for Xilinx for further reduction in PC Card development cycle
- Complete documentation and design support available from Mobile Media Research

Overview

The PC-Card Prototyping Board is intended for PC Card developers and can be used to verify PC-Card logic without spending a considerable amount of time on proper package availability, PCB layout or assembly.

A Xilinx FPGA in a 100-pin TQFP is pre-designed onto the prototyping board for developing interface logic. All necessary signals from the PCMCIA connector to the FPGA are pre-connected.

A 12 square-inch breadboard area is provided for I/O devices. Up to four memory or I/O devices can be put onto the bread-board area. Separate analog Ground and Vcc are provided for I/O devices requiring analog signals.

Also included is a logic analyzer strip to connect to signal analyzers for software or hardware tracing. Figure 1 shows a block diagram of the PC-Card Prototyping Board.

Product Description

The PC-Card Prototyping Board simplifies and accelerates the PCMCIA card development cycle. It contains a pre-connected Xilinx XC3042 or XC3042A FPGA in a 100 TQFP package. The PCMCIA signals are connected to the FPGA.

The FPGA provides the interface from the I/O devices to the PCMCIA bus. It also controls the CIS ROM. The Card Configuration registers are implemented on the XC3042. This requires that address decoding, reset and interrupts all go through the FPGA. The unconnected pins on the FPGA are brought out to test points from where they can easily be wired to other devices.

The breadboard area on the board is for circuitry or memory. Power and ground strips are provided throughout to support additional devices.

Also included on the board is a logic analyzer strip to assist in tracing hardware or software problems. All PCMCIA signals are routed to the logic analyzer strip. Other signals (from the FPGA, CIS or I/O) can easily be accessed either through test points or in the breadboard area.

The FPGA can be configured either from the XC1736 PROM or from a host via a download cable. The jumper J1 allows the user to select the programming option.

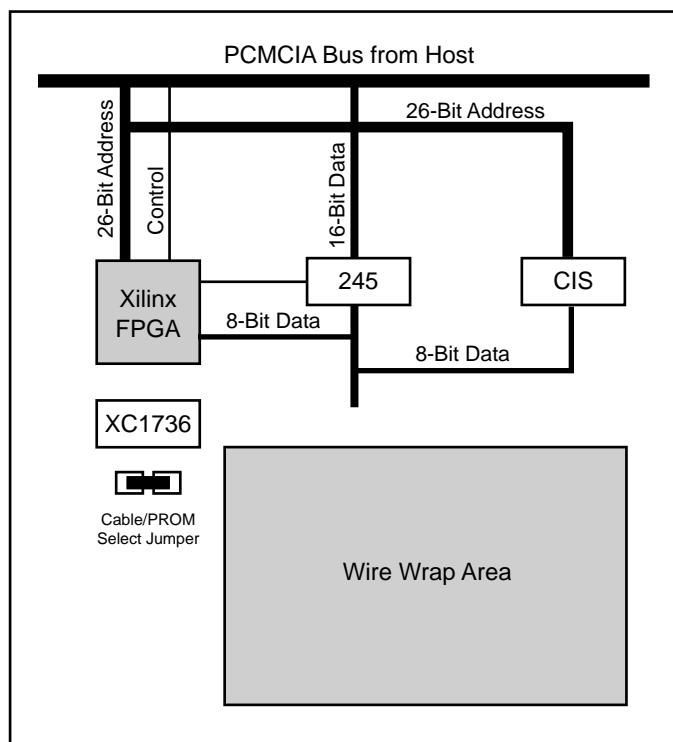


Figure 1. Block Diagram of PC-Card Prototyping Board.

Included Documentation

The following documentation is provided with the PC-Card Prototyping Card:

- Board schematic
- Board specifications
- Application brief on developing PC-Cards
- Sample modem card CIS
- A list of soft macros for the Xilinx device available from Mobile Media Research

Additional Available Products

Mobile Media Research supplies a complete line of hardware and software products for PCMCIA design. Contact MMRI for additional information.

Xilinx PCMCIA Fax/Modem Macro (SW-XM201)

A Xilinx FPGA-based macro for a PCMCIA fax/modem interface for implementing a complete fax/modem card using an external fax/modem chipset.

Xilinx PCMCIA Library R1.2 (SW-XL200)

A library of Xilinx FPGA-based PCMCIA interface macros that can be configured for custom backend PC-Card interfaces.

PCMCIA Card Debugger/Exerciser (SW-002)

A fully-compatible, Microsoft Windows based PCMCIA debugger and exerciser for hardware and software development.

CIS Generator 1.2 (SW-006-2)

This is a feature-rich, Windows-based compiler that automates the generation of a PCMCIA-compatible Card Information Structure.

Ordering Information

To purchase or make further inquiries about this or other MMRI products, contact Mobile Media directly:

Mobile Media Research, Inc.
3550 Mowry Ave., Suite 101
Fremont, CA 94538 USA
Phone: 800-799-MMRI (6674)
510-795-2212
Fax: 510-795-2219
E-mail: sales@mobmedres.com
URL: www.mobmedres.com

Related Documentation and 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: 408-559-7778
Fax: 408-559-7114
URL: www.xilinx.com

For general Xilinx literature, contact:

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

For AllianceCORE™ specific information, contact:

Phone: 408-879-5381
E-mail: logicore@xilinx.com
URL: www.xilinx.com/products/logicore/logicore.htm



MOBILE MEDIA RESEARCH



The Programmable Logic CompanySM