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Microprocessor and Memory Technologies Group

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M68302FADS

Product Brief

MC68302 Family Application Development System

INTRODUCTION

The M68302FADS is an integrated Family Applications Development System (FADS) designed to aid hardware and software developers of the MC68302, MC68LC302, MC68PM302, and MC68EN302 in quickly evaluating and developing applications for these devices. All of the hardware resources needed to download and debug application software are provided, such as large blocks of flash and static RAM for the processors, serial ports, clock generation circuitry, logic analyzer connectors, expansion connectors as well as monitor/debugger hardware and software. The logic analyzer connectors provide the user with access to all of the processors' pins in order to monitor bus activity. The expansion connectors let the user attach hardware applications and to use board resources to verify a design.

To serve as a convenient platform for software development, the M68302FADS is provided with a monitor/debugger for the Integrated Multiprotocol Processor (IMP) section. The monitor/debugger provides operations of memory dump and set (with optional disassembly of 68K instructions), single instruction execution, breakpoints and downloads. The debugger interface can work together in separate Windows 3.0 DOS shells on the same x86 based PC to communicate with the on-board IMP hardware. Future support for SUN platforms is planned.

The M68302FADS board has sockets for and is shipped with the MC68302RC25, MC68LC302RC20, MC68PM302RC20.

MC68302 FAMILY APPLICATION DEVELOPMENT SYSTEM FEATURES

- General Features
  - —Supports the 68302 family of processors : MC68302, MC68LC302, MC68PM302 and MC68EN302 (with and adaptor).
  - —On board IMP(68302) debugger software with host Debugger interface.
  - —Separate external clock generators for the IMP(68302)
  - —PCMCIA port connector with extender card to plug directly into PCMCIA sockets.
  - —Expansion connectors providing all the 68302 family device signals.
  - —68000 bus signals brought out to logic analyzer connectors.
  - —Single +5Vdc power supply with onboard 5V to +/-12Volt converter.
- IMP(68302) Support Features Included

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—MC68302 at 25 MHz

— MC68LC302 at 20 MHz

—MC68PM302 at 20 MHz.

—512K byte, zero wait state static RAM, expandable up to 1M byte. (16 bit orientation)

—1M byte FLASH. (16 bit orientation)

—2K byte EEPROM. (8 bit orientation)

—MC68681 DUART, with two RS232 serial ports.

—Serial RS-232 terminal connect.

—RESET and ABORT controls.

—RUN and HALT status indicators. (LED's).

—Bus expansion connector pin out, is compatible with the 302ADS

—ADI port connector.

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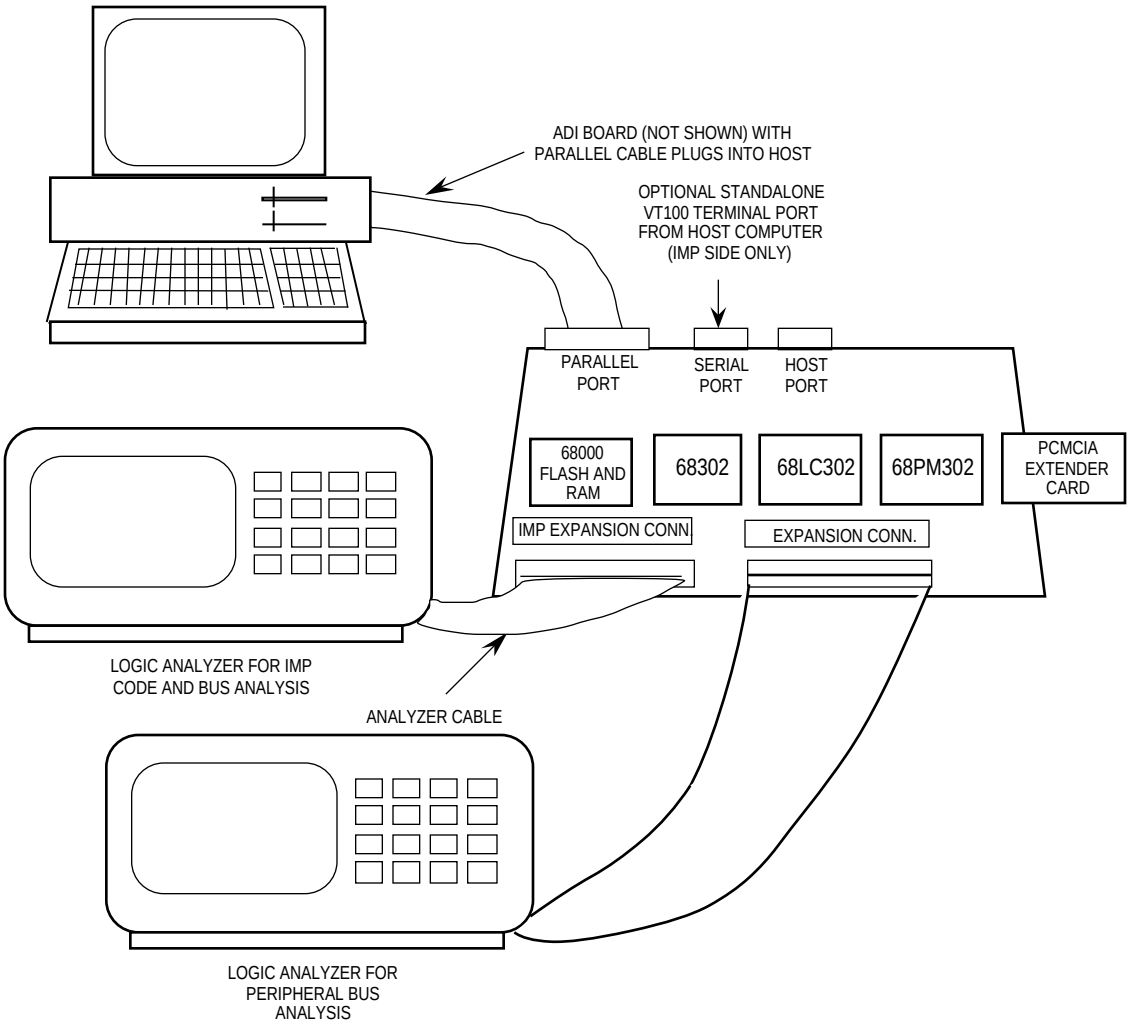

Figure 1. MC68302FADS

MC68302 Family Application Development System Part Number List

Part Number	Description
M68302FADS	M68302 Family Development System
M68302ADI - PC	M68302 Family I/F Board for IBM PC
M68302ADI - SUN4	M68302 Family I/F Board for SUN 4

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