



# 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

This document contains information on a product under development. Motorola reserves the right to change or discontinue this product without notice.

## **Freescale Semiconductor, Inc.**

- 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.

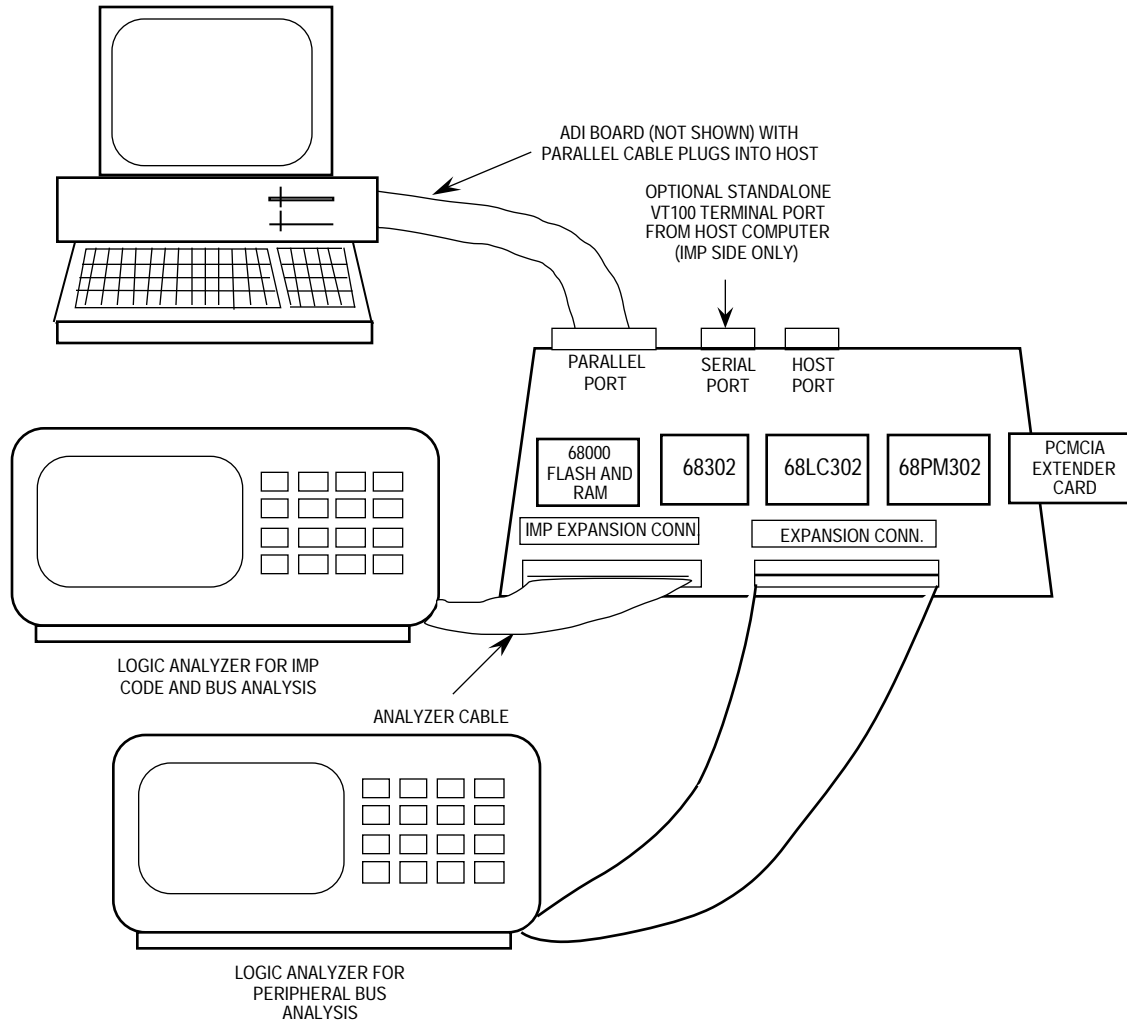



Figure 1. MC68302FADS

**MC68302 Family Application Development System Part Number List**

<u>Part Number</u>	<u>Description</u>
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

Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters can and do vary in different applications. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part. Motorola and  are registered trademarks of Motorola, Inc. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

#### Literature Distribution Centers:

USA: Motorola Literature Distribution; P.O. Box 20912, Arizona 85036.

EUROPE: Motorola Ltd.; European Literature Centre; 88 Tanners Drive, Blakelands, Milton Keynes, MK14 5BP, England.

JAPAN: Nippon Motorola Ltd.; 4-32-1, Nishi-Gotanda, Shinagawa-ku, Tokyo 141 Japan.

ASIA-PACIFIC: Motorola Semiconductors H.K. Ltd.; Silicon Harbour Center, No. 2 Dai King Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong.