



MOTOROLA

*Microprocessor and Memory
Technologies Group*

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REV. 1

MPC860ADS

Product Brief

MPC860ADS - Application Development System

INTRODUCTION

The MPC860ADS is an Applications Development System (ADS) designed to aid hardware and software developers of the MPC860 PowerQUICC, PowerPC QUad Integrated Communication Controller, in quickly evaluating and developing applications for this device. All of the hardware resources needed to download and debug application software are provided, such as large blocks of flash and Dynamic RAM for the processor, serial port, clock generation option 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 processor's pins in order to monitor bus activity. The expansion connectors let the user attach user hardware applications and utilize board resources to verify a design.

To serve as a convenient platform for software development, the MPC860ADS is provided with MPC8Bug, a monitor/debugger, for the PowerQUICC. The monitor/debugger provides operations of memory dump and set, single instruction execution, breakpoints and downloads, as well as a self-test verification suite. This monitor is downloaded via the MPC860ADI-PC or MPC860ADI-SUN4 which plugs into the user host system and connected to the ADS via a parallel ribbon cable.

The MPC860ADS board has a Ball Grid Array (BGA) socket to accommodate the MPC860 and its successors.

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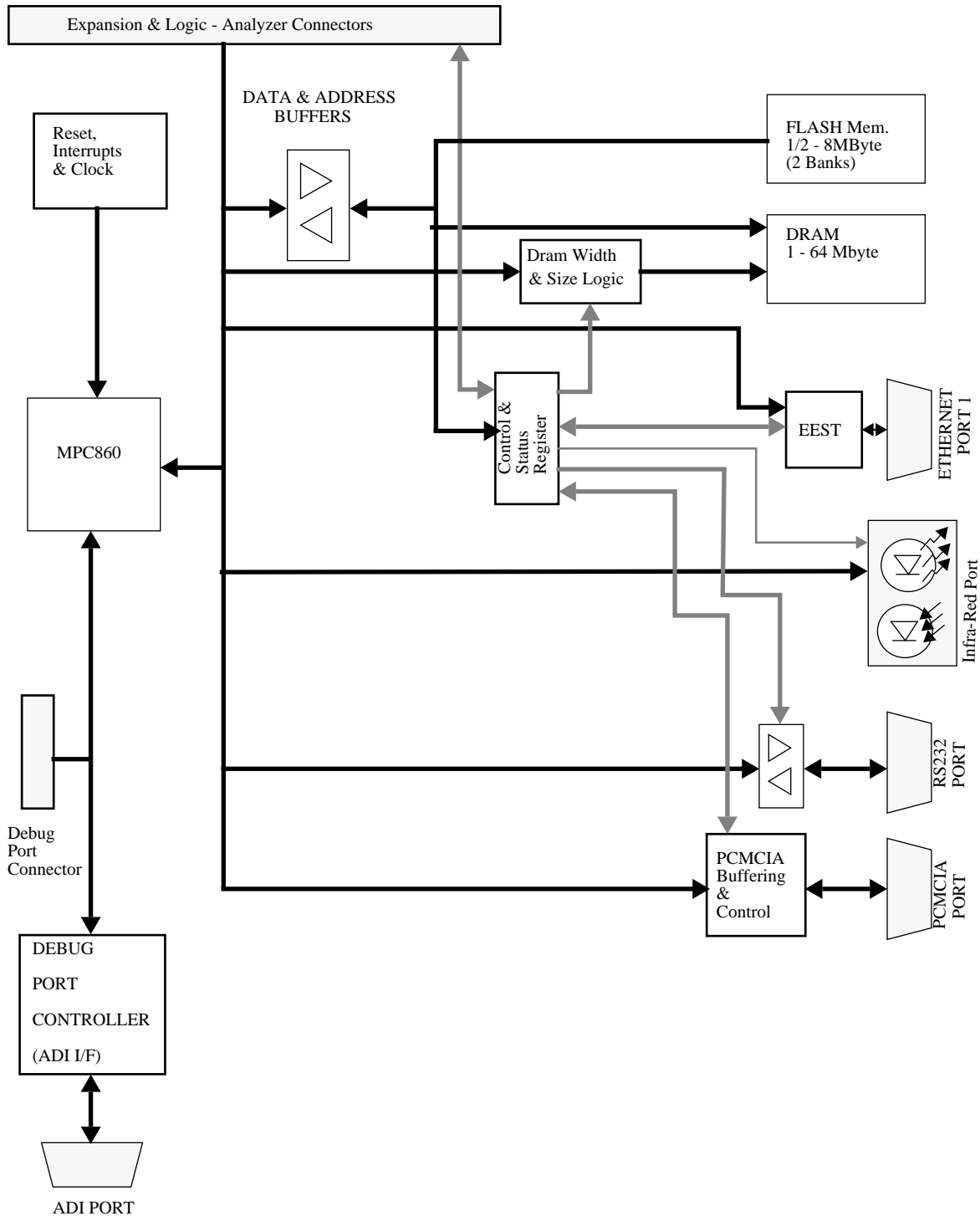
SEMICONDUCTOR PRODUCT INFORMATION

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MPC860 APPLICATION DEVELOPMENT SYSTEM FEATURES


- General Features
 - Supports the MPC860 up to 50MHz operation
 - On Board (MPC8Bug) Debugger Software with Host Debugger Interface (via ADI)
 - Crystal and Clock Generator options for the MPC860
 - PCMCIA (PC Card) Port Connector (2.1+ Standard)
 - Expansion Connectors Providing All the MPC860 Device Signals
 - 4 MBytes of 60ns DRAM on a standard 72 pin SIMM socket (handles up to 64 MByte)
 - Automatic DRAM SIMM identification.
 - 2 MBytes of Flash on a SIMM socket (handles up to 64MByte)
 - Automatic Flash SIMM identification
 - +5Vdc & +12V Power Supply connectors (+12V only required for programming of PC Card Flash)
 - RS232 port on SMC1 with low power option; DB9 connector
 - IrDA - Infra-red Transceiver on SCC2 with shutdown option
 - 10-Base-T Ethernet port on SCC1 using MC68160 (EEST)
 - Soft/Hard RESET and ABORT push buttons
 - RUN , FLASH ON, DRAM ON, ETH ON, IRD ON, RS232 ON, PCMCIA ON, VPP-GOOD, 5V and 3.3V Status Indicators (LED's)
 - On-board Debug Port Controller with ADI I/F and Port Connector
 - 3.3V/2V MPC860 internal logic operation, 3.3V MPC860 I/O operation

FIGURE 1-1 MPC860ADS Block Diagram



MPC860 Application Development System Part Number List

Part Number	Description
MPC860ADS	MPC860 Application Development System Includes User Manual, MPC8Bug and User manual, MPC860 Silicon Errata and ADS errata.
MPC860ADS - PC	MPC860 Application Development System with Interface Card for IBM-PC Includes User Manual, MPC8Bug and User manual, MPC860 Silicon Errata, ADS errata, ADI-PC host board and parallel connecting cable.
MPC860ADS- SUN4	MPC860 Application Development System with Interface Card for SUN4 Includes User Manual, MPC8Bug and User manual, MPC860 Silicon Errata, ADS errata, ADI-SUN4 host board and parallel connecting cable.

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