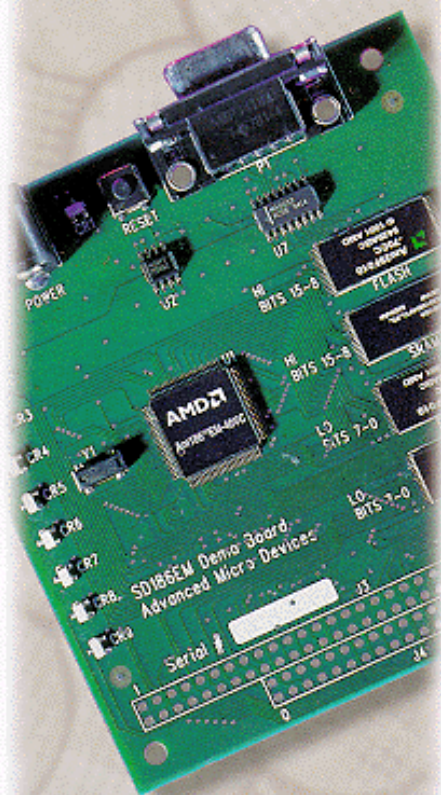




AMD SD186EM™ Demonstration Board



PRODUCT BRIEF

AMD SD186EM Stand-Alone Evaluation Platform

The SD186EM demonstration board meets the needs of customers working with the Am186™EM microcontroller. This board provides a completely stand-alone microcontroller-based evaluation platform in a low-cost, exceptionally small form-factor product.

The Am186EM microcontroller is designed to meet the most common requirements of embedded products developed for the office automation, mass storage, communications, industrial, and general embedded markets. The SD186EM board demonstrates the basic processor functionality and features of the Am186EM microcontroller and the simplicity of its system design.

PRODUCT HIGHLIGHTS

Am186EM 40-MHz Microcontroller

- 80C186 compatibility
- Glueless interface to PSRAM, SRAM, FLASH, and ROM memory systems
- Demultiplexed address/data bus
- 32 programmable I/Os
- Two DMA controllers

RS-232 Serial Port

- Driven by Am186EM microcontroller
- Equipped with a DB-9 DCE connector

PC/104 Form Factor

- Facilitates system prototyping through the use of industry-standard hardware development cards

Glueless Interface to SRAM and FLASH

- Close to processor to minimize noise and trace reflections
- Two FLASH devices providing for 256 Kbytes of memory for boot monitor and application program code
- Two SRAM devices providing for 256 Kbytes of memory for board's read/write storage

PRODUCT DESCRIPTION

The SD186EM demonstration board is a fully functional stand-alone evaluation platform for the Am186EM microcontroller. The Am186EM microcontroller integrates peripherals such as a DMA controller, memory controller, chip select, serial controller, programmable I/Os, and timers to increase system functionality while reducing overall cost. The memory controller supports a glueless connection to SRAM, EPROM, FLASH, and pseudo-static RAM. The Am186EM microcontroller also features an innovative bus design that frees the processor to run at nearly twice the speed of standard 80C186 processors—without an increase in memory speed requirements.

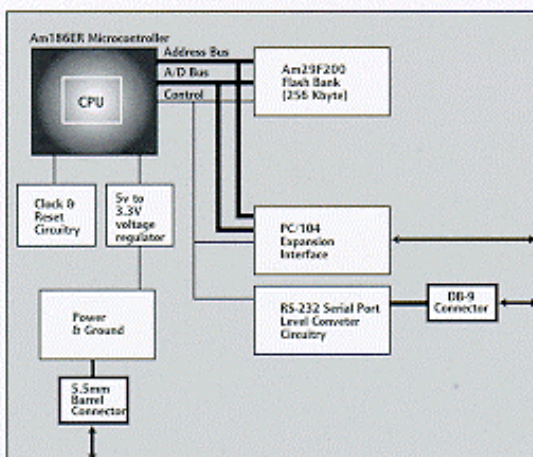


Figure 0-1. SD186EM Demonstration Board Block Diagram

This new demonstration board highlights the Am186EM microcontroller's serial port, glueless interface to SRAM and FLASH, and the expansion interface to peripheral attachments.

The SD186EM demonstration board's serial port serves as an interface to the FLASH resident debugger. The debugger will support transfer rates from 9600 or 115.2K baud.

Related Literature:

- E86 Family Products Brochure #19181
- FusionE86 Catalog #19255
- Am186EM and Am188EM
Microcontrollers Data Sheet #19168
- Am186EM and Am188EM
Microcontrollers User's Manual #19173

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One AMD Place
P.O. Box 3453
Sunnyvale, California 94088-3453
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