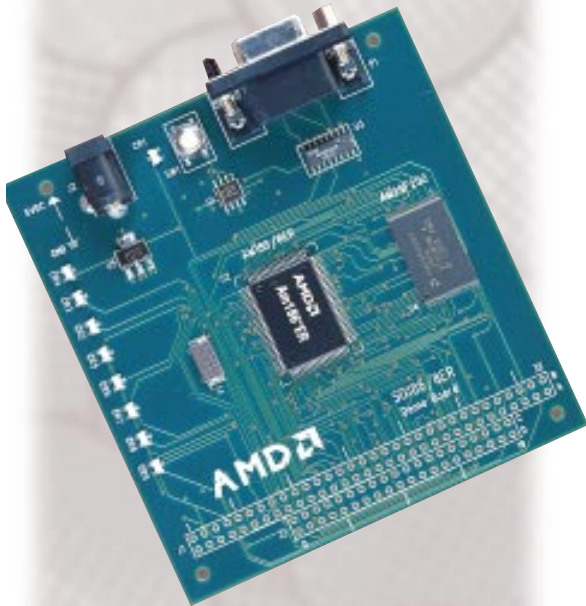




AMD SD186ER™ Demonstration Board



PRODUCT BRIEF

AMD® SD186ER Stand-Alone Evaluation Platform

The SD186ER demonstration board meets the needs of customers working with the Am186™ER microcontroller. This board provides a completely stand-alone, microcontroller-based evaluation platform in a low-cost, exceptionally small form-factor product. The SD188ER demonstration board is also available to meet the needs of customers working with the Am188™ER controller.

The Am186ER microcontroller is designed to meet the most common requirements of embedded products developed for the private and public communication infrastructure, mass storage, office automation, industrial, and general embedded markets. The SD186ER board demonstrates the basic processor functionality and features of the Am186ER microcontroller and the simplicity of its system design.

PRODUCT HIGHLIGHTS

40-MHz Am186ER Microcontroller

- 80C186 compatibility
- 32 Kbytes internal RAM
- Glueless interface to external PSRAM, SRAM, Flash, and ROM memory systems
- Nonmultiplexed address/data bus
- 32 programmable I/Os
- Three timers
- Two DMA controllers
- Interrupt controller
- Integrated asynchronous and synchronous serial ports

PC/104 Form Factor Interface Connector

- Facilitates system prototyping through access to Am186ER microcontroller signals

Glueless Interface to Memory

- 32 Kbytes of RAM integrated in Am186ER for board's read/write storage
- One Am29F200 Flash device provides 256 Kbytes of memory for boot monitor and application program code

RS-232 Serial Port

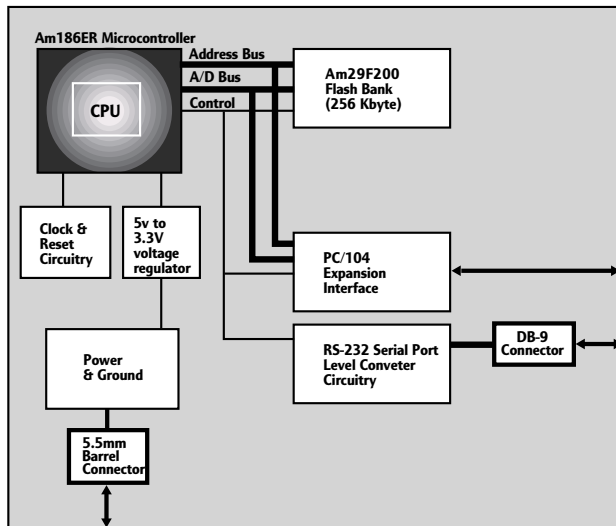
- Driven by Am186ER microcontroller
- Equipped with a DB-9 DCE connector

PRODUCT DESCRIPTION

The SD186ER demonstration board is a fully functional stand-alone evaluation platform for the Am186ER microcontroller. The Am186ER microcontroller integrates peripherals such as 32 Kbytes of RAM, DMA controllers, external memory controller, chip selects, serial ports, timers, and programmable I/Os to increase system functionality while reducing overall system cost. The memory controller supports a glueless connection to SRAM, EPROM, Flash, and pseudo-static RAM. The Am186ER 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. The Am186ER and Am188ER microcontrollers are available in a variety of speed and package combinations: 20-, 25-, 33-, and 40-MHz operating frequency, plus TQFP and PQFP packaging.

This new demonstration board highlights the Am186ER microcontroller's 32 Kbytes of integrated RAM, serial port, glueless interface to Flash, and the expansion interface to peripheral attachments. The SD186ER demonstration board's serial port serves as an interface to the Flash resident monitor.



SD186ER Demonstration Board Block Diagram

Related Literature:

E86 Family Products Brochure #19181



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