

STP2001QFP

July 1997

SUN MICROELECTRONICS

Slave I/O

DATA SHEET

Integrated SBus Interface Slave I/O Controller

DESCRIPTION

The STP2001 Slave I/O Controller is a highly integrated, low-cost, low-power device designed for use in single-processor systems with an SBus interface. The STP2001 provides serial I/O for keyboard, mouse and general-purpose use. In addition, a floppy disk interface, an external byte-wide expansion bus (EBus) for TOD and EPROM, I/O registers and reset control logic are integrated. Together, the STP2001 and the STP2000 Master I/O Controller, provide a complete I/O subsystem.

The two serial ports for keyboard/mouse and general purpose use are compatible with the AMD AM85C30, rev C Serial Communications Controller. The TTY A/B serial ports are fully synchronous, while the keyboard/mouse ports are asynchronous only. All ports support data rates up to 38.4 Kb/s. The NCR82077 floppy disk interface is compatible with the Intel 8077A-1 single-chip floppy controller, supporting up to a 1 MBit/sec transfer rate.

Features

- Integrates two dual serial controllers, a high-speed floppy controller, uniprocessor interrupt, reset, and counter/timer circuitry, power-down control and an EBus in a single package
- Directly interfaces to CPU through the SBus
- Auxiliary I/O registers (used for LED, floppy and system power-down)
- Interrupt Controller for single-processor SBus system
- System reset control
- Counter/timers for single-processor SBus system
- EBus interface
- JTAG internal and boundary SCAN logic
- 160-pin PQFP packaging
- IC is also available from NCR Corp. (PN - NCR89105)

Benefits

- Saves cost, power, board space, and weight
- Improved performance
- High level of system integration; ease of design
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- Generic 8-bit interface available
- Improved chip and board level testability
- Cost effective packaging
- Second source



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BLOCK, APPLICATION, AND LOGIC DIAGRAMS

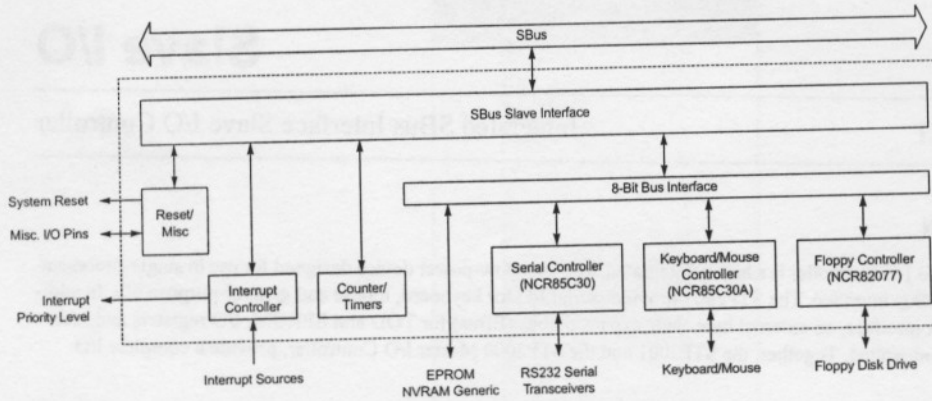


Figure 1. STP2001 Block Diagram

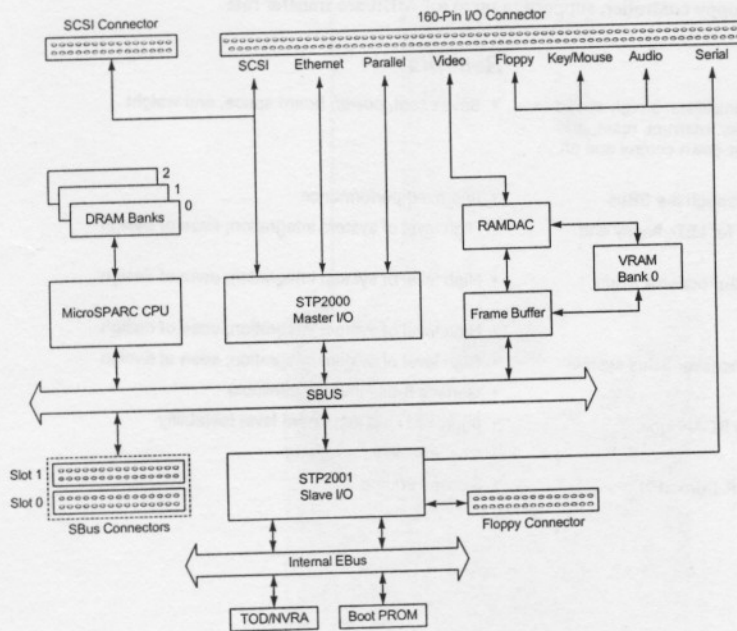


Figure 2. STP2001 Typical Application

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160-Pin PQFP Package Dimensions

