

DESCRIPTION

The SSI 39C1010 device is a CMOS integrated circuit housed in a 100 pin TQFP package. The device is a member of the Silicon Systems chip set enabling an ATA or ATAPI storage device to be accessed via the IEEE 1394-1995 High Speed Serial Bus. Operating at five volts, the 39C1010 directly interfaces with an external physical interface chip to communicate over the serial bus. The 39C1010 implements the link layer of IEEE 1394-1995, the X3T10 SBP-2 protocol, the X3T13 Tailgate protocol and ATA/ATAPI-4 functionality defined for "Tailgate" operation. State machine control inside the 39C1010 manages all incoming and outgoing packet transfers. Multiple packet data buffering enables packet error detection, 1394-ATA/ATAPI transfer speed matching, and optimal performance. When a packet is being transferred, the next packet can be saved in the data buffer to reduce latency. The 39C1010 manages all the 1394, SBP-2, Tailgate, and ATA/ATAPI activities automatically. No firmware or external controller is needed.

FEATURES

1394 Interface

- Transmits and receives 1394 packets in asynchronous mode
- 4KB data FIFO for optimal transfer performance
- Supports speeds of 100, 200 and 400 Mb/s
- Interfaces directly to TSB11C01, TSB11LV01 and TSB21LV03 Phy chips

ATA/ATAPI Interface

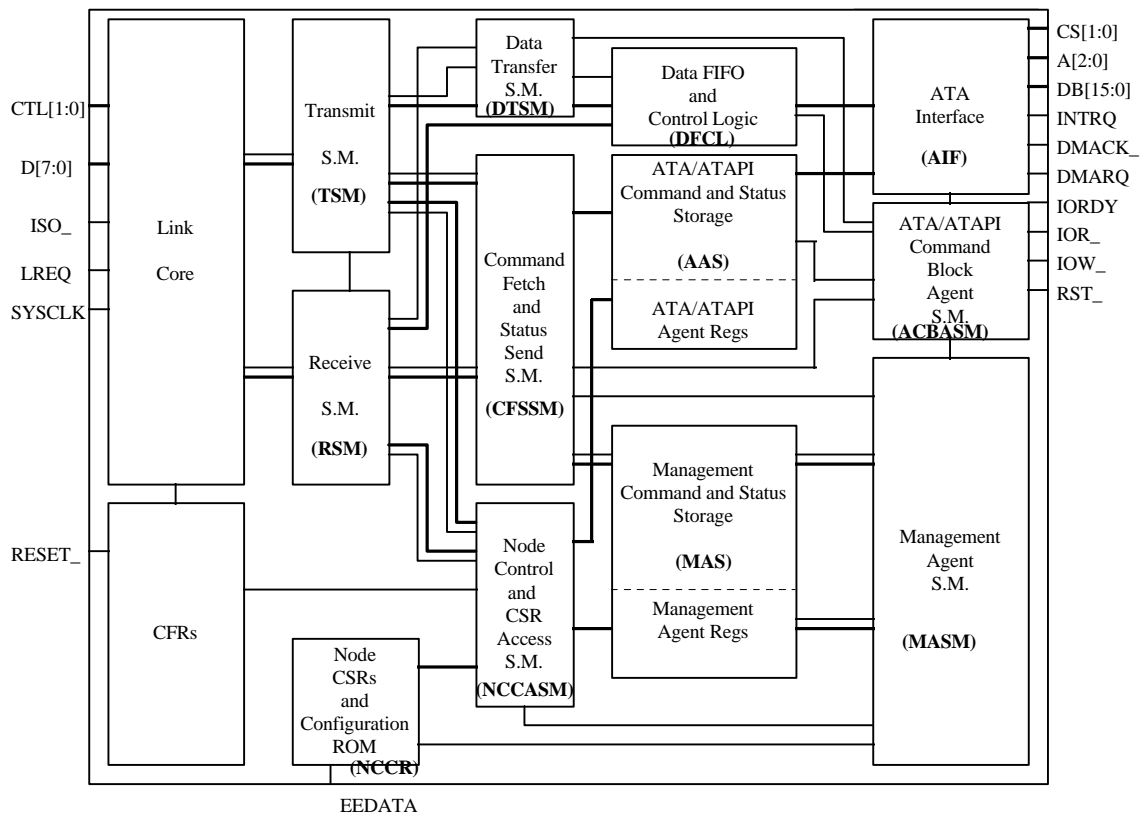
- Performs the function of an ATA/ATAPI host interface
- Support PIO modes 0-4, DMA modes 0-2

SBP-2 protocol

- Implement SBP-2 management and command fetch, decode and execute
- Implement SBP-2 and tailgate registers
- Supports two logical units
- Configuration ROM

General

- 5V operation
- 100 pin TQFP package



SSI 39C1010 Block Diagram

Target Specification: The target specification is intended as an initial disclosure of specification goals for the product. The specifications are based on design goals, subject to change and are not guaranteed. Silicon Systems assumes no obligation regarding future manufacture unless agreed to in writing.

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Silicon Systems, Inc., 14351 Myford Road, Tustin, CA 92680-7022 (714) 573-6000, FAX 573-6914