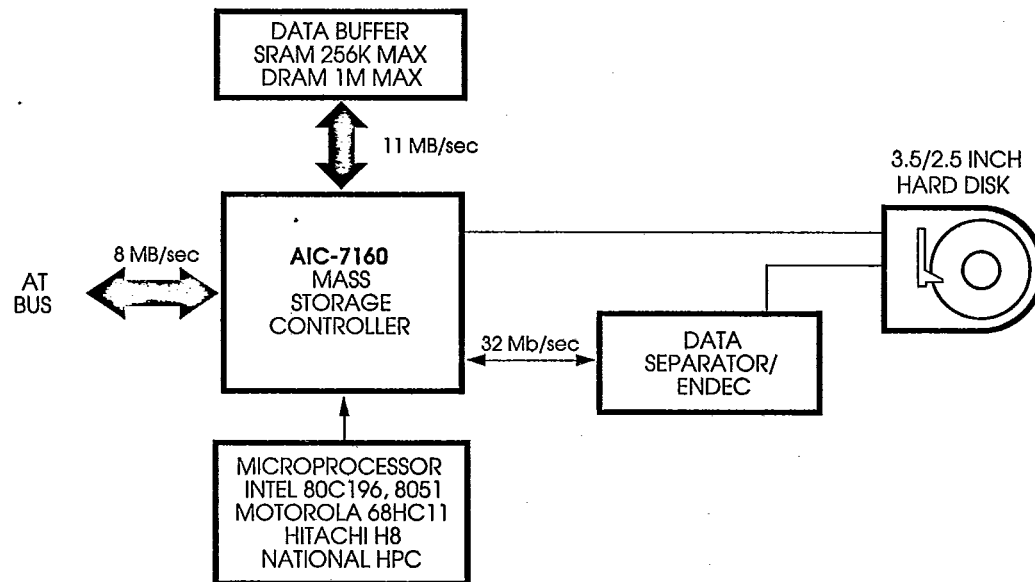


# AIC-7160

## Single-Chip PC XT/AT Mass Storage Controller



### AIC-7160 Typical Application

#### FEATURES

##### Disk Interface

- Constant Density Recording (CDR) support for multiple sector splits
- Error correction
  - 88-bit Reed-Solomon on-the-fly auto-correcting
  - 56-bit on-the-fly auto-correcting
  - 32-bit ECC
- 32 MHz NRZ rate
- Unattended full track read
- Automatic time out on sync field

##### Data Buffer Interface

- 11 MBytes/sec buffer bandwidth with SRAM or DRAM (page mode)
- Segmentable buffer: 8 KByte to 1 MByte segments
- Buffer microprocessor scratch pad: 0 to 4 KBytes
- Direct addressing
  - 256 KByte SRAM
  - 1 MByte DRAM
- Dedicated host and disk pointers or read and write pointers

##### XT/AT Interface

- Full BIOS compatibility
- On-chip 28 mA drivers
- I/O channel-ready signal
- Daisy chaining capability

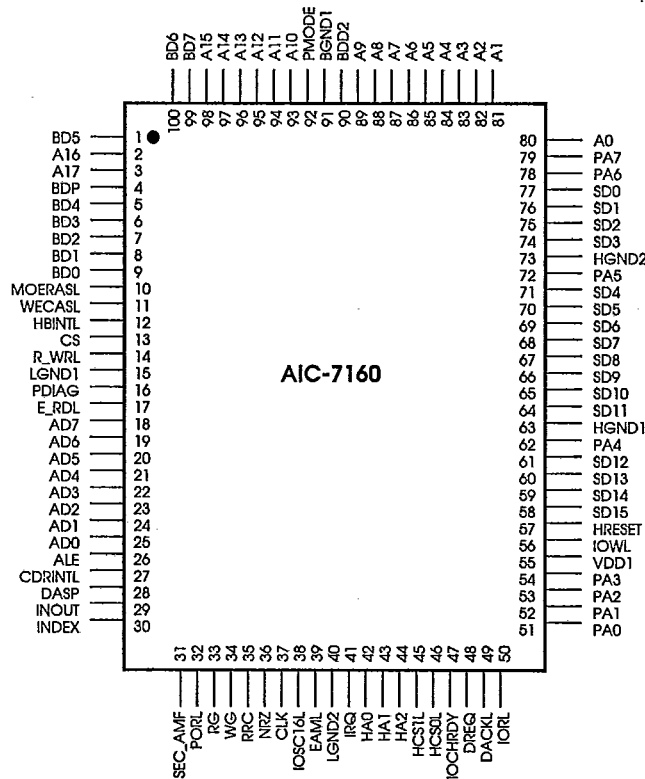
##### Microprocessor Interface

- Multiplexed and non-multiplexed bus compatible
- Support for microprocessor wait states
- Separate host and disk interrupts

##### Other

- Complete power-down and wake-up mode

# AIC-7160



**AIC-7160 Quad PLCC Package**

## Overview

The AIC-7160 is a single-chip controller solution focusing on the emerging generation of XT/AT embedded controller drives. Features of the AIC-7160 allow increases in drive capacity, performance and reliability while decreasing system cost, size and power requirements.

As an evolution of the popular AIC-6160/6060 series, the AIC-7160 provides a low risk and quick time-to-market solution for the highest performance single-chip embedded controller to date. The AIC-7160 provides an enhanced 88-bit Reed-Solomon error correction capability (ECC) scheme, a greater data rate capability (AT - 8 MHz, NRZ - 32 MHz), and support for Constant Density Recording.

The companion chip, the AIC-7110, combines the identical buffer and disk controller interface with a SCSI host interface. These two new products, collectively called the 7100 series controller chips, provide a common solution for your SCSI and XT/AT embedded controller needs.