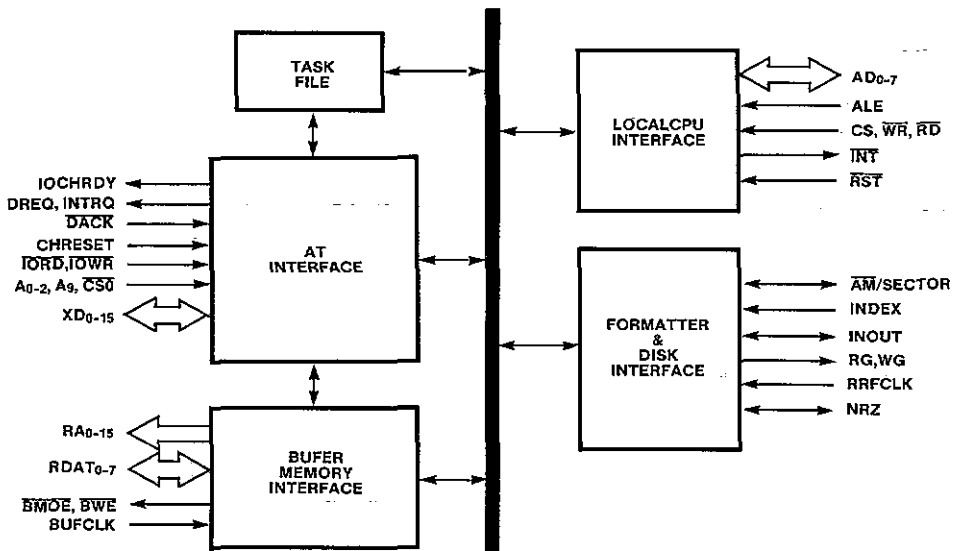
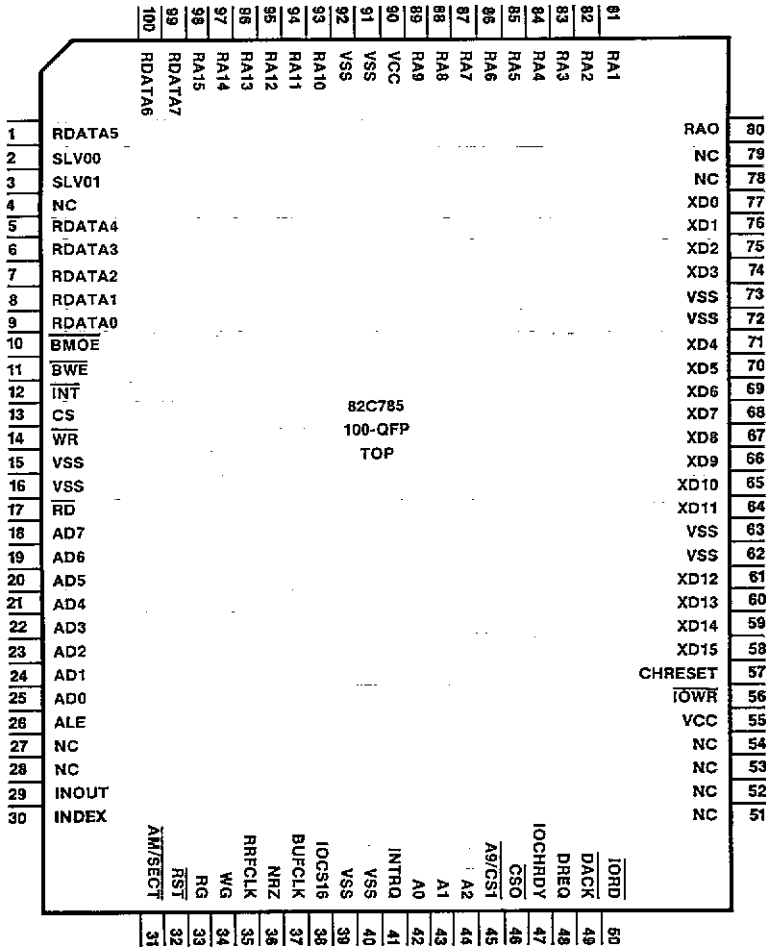


82C785 SINGLE CHIP PC-AT HARD DISK CONTROLLER

- Low Power Advanced 1.5 μ CMOS Technology, 100 QFP/84PLCC
- 100% IBM PC/AT Compatible Task File Support
- 24 mA Drivers for Direct Interface to the PC/AT Bus
- Auto-Generated Wait States For Interfacing to Fast Hosts
- PIO and DMA Modes for Buffer Data Transfers Up To 8 MBytes/s
- Auto-Command Mode to Speed Up Disk Command Response
- Support for Daisy Chaining of Two Embedded Drives
- Control for Implementation of a 64K Dual Port Static RAM Buffer
- Optional Auto-Increment of Address Pointer for Local CPU to Buffer Access
- Higher Buffer Memory Throughput, Up To 10 MBytes/s
- Supports Disk Data Rates Up To 24 Mbits/s
- Programmable Disk Sequencer RAM of 30 x 4 Bytes
- Optional Dual Brand Registers
- Support for 16-Bit CRC and 32/56-Bit Programmable ECC
- Provides Complete On-Board Power Management Features



Functional Block Diagram



Physical Pin Out of the 100-Pin QFP Package

The 82C785 is an enhanced, high-performance VLSI circuit that provides an optimum implementation of a Winchester disk controller for the PC-AT compatible interface. It incorporates the function of a disk formatter, buffer memory controller and AT bus interface controller. It is capable of accomplishing 1:1 interleave format with concurrent transfers of up to 24 Mbits/s on the disk and 8 MBytes/s on the host. The built-in AT interface logic, with 24

mA drive capability, allows the chip to support the 40-pin Conners interface, popular with the embedded disk drive designs. In addition the 82C785 provides support for complete power management, thereby lending itself to drive implementations oriented towards the laptop market. Also because of its high integration levels, it provides an opportunity for the OEM to develop low-cost solutions for the add-on board market.

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