Product Brief

INTRODUCTION

ALi's FINALi-486 - the M1489/M1487 - is a highly integrated two chip set for 486 PCI system. The M1489 is a cache, memory and PCI controller which supports EDO DRAM and fast PCI IDE function. The M1487 is an ISA bus controller which has built in RTC and keyboard controller. Together this 486 chip set provides the most highly integrated and cost-effective solution for a competitive 486 PCI system design.

The FINALi-486 supports Intel 486SX, 486DX, 486DX2, 486DX4, P24 Series, S-Series; AMD 486DX and DXLV Series; Cyrix M6 and M7; Texas Instruments 486 family of CPUs.

ALi also provides core logic solutions for Pentium/M1/K5 and RISC-based 64-bit processors. Graphics accelerators, super I/O, SCSI controllers and PCMCIA controllers are also available from ALi.

FEATURES

Supported CPUs

- Supports Intel 486, P24T, P24D, DX4, SL-Enhanced, Cyrix M7, UMC U5 and AMD AM486DXL CPUs in 25, 33, 40, 50 MHz 3V/5V CPU interface
- Supports CPU L1 writeback
- Supports Cyrix's linear addressing and (1+4) mode

L2 Cache Controller

- Write Back cache with standard SRAM
- 8 Tag Bit, always force Dirty or 7 Tag Bit, 1 Dirty bit
- Supports cache size of 128K to 1M with 32Kx8, 64Kx8, 128Kx8

- Supports 2-1-1-1 read burst timing
- Write hit 0 wait support

DRAM Controller

- Supports 5V/3V EDO DRAM
- Flexible DRAM type & Timing support
- Supports up to 128M bytes, 4-bank DRAM size
- Supports hidden refresh and RAS only normal refresh

Built in RTC & KBC

- Built in 128 byte Real Time Clock (RTC) & MC14069
- Built in Keyboard Controller (KBC) & 7406

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Built in IDE Controller

- Dedicated IDE pins, concurrent with PCI bus
- 4x32 bits Read-Ahead buffer and Write-Post buffer support
- Supports through ATA PIO mode 3, 4 harddisk

PCI Local Bus

- Synchronous 20, 25, 33 MHz PCI clock
- Supports PCI rev 2.0 with 4 PCI devices, 3 slot PCI masters, 1 slot PCI slave
- Supports 4 PCI interrupt steering input
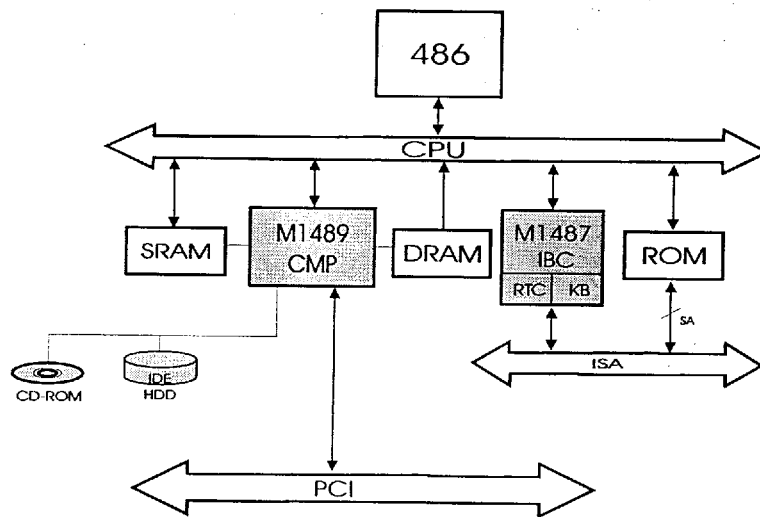- Supports CPU to PCI 4 layer DWord write buffer

- Supports PCI to memory 8 layer DWord write buffer
- Supports PCI parity

Power Management

- Deep Green SMM, SMI
- Suspend switch support, Green mode state is LED indicated
- Supports STPCLK control
- CLKCTR for clock generator control

Process/Packing

- M1489 0.6μ, 208-pin PQFP
- M1487 0.6μ, 160-pin PQFP

M1489/M1487 System Block Diagram

For more information contact:

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