Chapter 1

INTRODUCTION

The MS-6339 ATX TH1 mainboard is a high-performance computer mainboard based on Intel® 82850 chipset. The MS-6339 is optimized to support the Intel® Pentium® 4 (Willamete) processor for high-end business/ personal desktop markets.

The Intel® Tehama chipset supports 64B cache line size and a 32-bit host addressing, allowing the processor to access the entire 4GB of the chipset's memory address space. It also provides 4x AGP data transfers and 2x/4x AGP Fast Writes capability. Including a 3.2GBs memory bus bandwidth and 3.2GBs system bus bandwidth.

The Intel® Tehama chipset features a dual channel Direct RDRAM memory operating in lock-step using RSL technology. It is a highly-flexible chipset which is designed to extend the basic graphics/multimedia PC platform up to the mainstream performance desktop platform.

The Intel® 82801BA (ICH2) chipset is a highly integrated multifunctional I/O Controller Hub that provides the interface to the PCI Bus and integrates many of the functions needed in today's PC platforms. It communicates with the host controller over a dedicated hub interface and provides added flexibility in designing cost-effective system solutions.

Mainboard Features

CPU

- Support Intel® Willamette processor
- Supports 1.4GHz or faster

Chipset

- Intel® Tehama chipset
  - Up to 2GB maximum memory (RAMBUS).
  - AGP Pro interface with 4x SBA/Data Transfer
- Intel® ICH2 chipset
  - AC'97 Controller Integrated
  - 2 Full IDE channels, up to ATA100
  - Low pin count interface for SIO
  - 4 USB Ports

Main Memory

- Supports four 168-pin gold-lead RIMM sockets
- Supports a maximum memory size of 2GB

Slots

- One AGP (Accelerated Graphics Port) Pro slot
  - support up to 4x mode
- One CNR (Communication Network Riser) slot
- Five 32-bit/33MHz Master PCI Bus slots
- Supports 3.3v/5v PCI bus Interface

On-Board IDE

- An IDE controller on the Intel® ICH2 Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 100 operation modes
- Can connect up to four IDE devices

Integrated Super I/O Controller

- Winbond W83627HF-AW I/O controller
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes
  - 2 serial port (COM A + COM B)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 1 IrDA connector for SIR

Audio

- ICH2 chip integrated
- Creative CT5880 (optional)
  - 64 Voice WaveTable Synthesizer
  - Sound Library of over 4000 different sounds
  - Support SPDIF (AC3)
  - Support Microsoft Direct Sound, Direct Sound 3D, Direct Music, and A3DAPI

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically.
- IDE drive auto configure, Advanced Power Management (APM) 1.2, ACPI 1.0, DMI 2.0, ECC/Parity support.

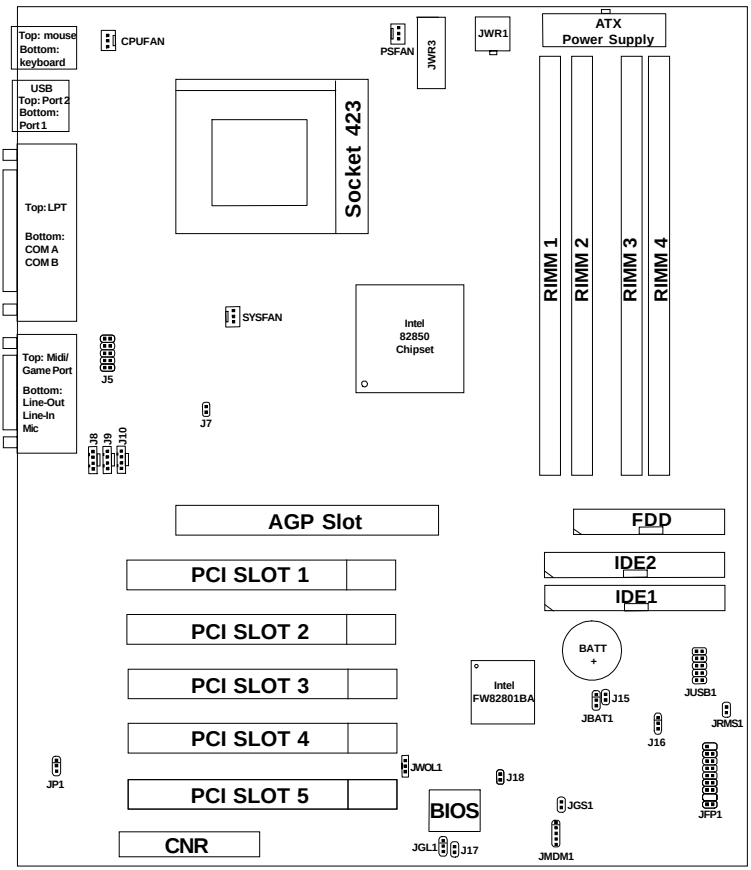
Dimension

- ATX Form Factor : 12inches(L) x 9.6inches(W) x 6 layers PCB

Mounting

- 12 mounting holes

Mainboard Layout



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