Introduction *1*

The MS-6385 Micro ATX mainboard supports the new Intel® Pentium™ 4 processor based on Intel® 82850 chipset. It's an high end motherboard for the uers who want to optimize the performance from the new Intel® Pentium™ 4 processor

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.

Chapter 1 contains the following topics:

Chapter 1

Mainboard Specification

CPU
- Support Intel® Pentium™ 4 processor.
- Support 1.7GHz or faster.

Chipset
- Intel® 850 chipset.
    - Up to 2GB maximum memory (Rambus)
    - AGP 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
    - Support up to 4 USB ports
    - Support one CNR slot

Main Memory
- Four 184-pin gold-lead RIMM sockets
- Support a maximum memory size of 2GB

Slots
- One AGP (Accelerated Graphics Port) slot
    - support 2x/4x mode.
- Three 32-bit/33MHz Master PCI Bus slots
- Support 3.3v/5v PCI bus Interface
- One CNR slot

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

Audio
- ICH2 chip integrated
- AC'97 Compliant

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. 88 Mbytes.
- 2 serial ports (COM A & COM B)
- 1 parallel port supports SPP/EPP/ECP mode

Network (Optional)
- Intel® 82562 ET/EM Platform LAN connect for 10 Base-T and 100 Base-T

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, support ECC/Parity, support LS120

Dimension
- Micro-ATX Form Factor : 9.6 inches (L) x 9.6 inches(W) PCB

Mounting
- 8 mounting holes.

Special Features

- ○ **Microsoft® PC99 Compliant**
- ○ **Micro-ATX Form Factor**
- ○ **Support Intel® Pentium® 4 processors**
- ○ **Support DMI(Desktop Management Interface) through BIOS**
- ○ **LAN Wake Up Function via PME**
- ○ **PC Alert System Hardware Monitor (optional)**
- ○ **Modem Wake Up Function via PME**
- ○ **Support PCI 2.2**
- ○ **Suspend to RAM/Disk**

Chapter 1

Mainboard Layout

MS-6385 MICRO ATX Mainboard

Quick Components Guide

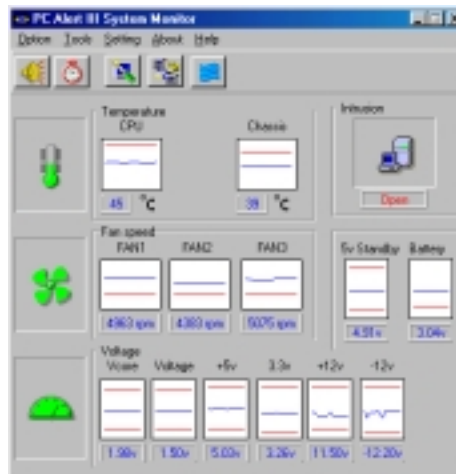| Component	Function	Reference
Socket 423	Installing CPU	p. 2-2
RIMM1~4	Installing memory module	p. 2-4
ATX Power Supply	Installing power supply	p. 2-6
FDD	Connecting to floppy disk drive	p. 2-11
JUSB2	Connecting to USB device	p. 2-11
IDE1 & IDE2	Connecting to HDD drive	p. 2-12
JFP2	Connecting to case	p. 2-13
J15	Connecting to IR module	p. 2-14
J12 & 17	Connecting to chassis intrusion switch	p. 2-14
CPUFAN1	Connecting to processor fan	p. 2-15
SYSFAN1&2	Connecting to system fan	p. 2-15
J18	Connecting to front audio	p. 2-17
JBAT1	Setting clear CMOS	p. 2-18
J13	Clearing BIOS password	p. 2-19
J16	Setting beep by buzzer/speaker	P. 2-19
JP2	Setting onboard audio codec	P. 2-20
J14	Setting BIOS flash	P. 2-21
AGP	Inserting AGP expansion card	p. 2-22
PCI Slot	Inserting expansion cards	p. 2-22
CNR	Inserting CNR expansion card	p. 2-22

MSI Special Features

The MSI special features are designed by MSI R&D which are only available in MSI mainboards. The 6385 mainboard is equipped with PC Alert™ III.

PC Alert™ III

The PC Alert™ III is a utility you can find in the CD-ROM. The utility is just like your PC doctor that can detect the following PC hardware status during real time operation:

   * monitor CPU & system temperature
   * monitor fan speed
   * monitor system voltage
   * monitor chassis intrusion

If one of the items above is abnormal, the program main screen will be immediately shown on the screen, with the abnormal item highlighted in red. This will continue to be shown until user disables warning.

Features:

● Network Management

- Monitoring & remote control

● Basic System Utilities

- Scandisk & Defragment to maintain your HDD

● 3D Graphics Design

- Enables a more friendly user interface

● Software Utilities

- SoftCooler Optimized Cooling