

Chapter 1

INTRODUCTION

The ATX AL9 mainboard is a high-performance personal computer mainboard. This mainboard supports Intel®Pentium®processor/Pentium® processor with MMX™ technology, Cyrix®6x86/6x86L/6x86MX, AMD®K5/K6/K6 2, and IDT C6™ processors. The mainboard also supports one AGP slot and four 32-bit PCI (Peripheral Component Interconnect) Local Bus standard slots.

The mainboard uses the highly integrated Aladdin®5 chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The Aladdin®5 chipset integrates all system control functions such as ACPI (Advanced Configuration and Power Interface). The ACPI provides more Energy Saving Features for the OSPM(OS Direct Power Management) function. The Aladdin®5 chipset also improves the IDE transfer rate by supporting Ultra DMA/33 IDE that transfer data at the rate of 33MB/s.

The mainboard also supports the System Hardware Monitor as an optional function. This function includes: CPU/chassis/power fan monitor, CPU temperature detect and system voltage detect.

1.1 Mainboard Features

CPU

- Socket 7 supports Intel® Pentium® processor/Pentium® processor with MMX™ technology.
- The Cyrix® 6x86/6x86L/6x86MX, AMD® K5/K6/K6 2 and IDT C6™ processors are also supported.

Chipset

- Aladdin®5 M1531/M1543 chipset.

Clock Generator

- 100/95/83.3/75/66MHz clocks are supported.

***60MHz clocks are not supported.**

Cache Memory

- Supports 512K Pipelined Burst cache memory.
- Cacheable Area: 128/512 MB.

Main Memory

- Supports six memory banks using three 168-pin unbuffered DIMM.
- Supports a maximum memory size of 768MB.
- Supports 3.3v Extended Data Output (EDO) and SDRAM DIMM.

Slots

- One AGP(Accelerated Graphics Port) slot.
 - AGP specification compliant
 - AGP 66/133MHz 3.3v device support
- Four 32-bit Master PCI Bus slots and three 16-bit ISA bus slots
- Supports 3.3v/5v PCI bus Interface.

On-Board IDE

- An IDE controller on the Aladdin®M1543 PCI Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA/33 operation modes. Connect up to four IDE devices.

Remote Control

- Meet ACPI specifications.
- Power ON/OFF switch connector on-board.
- Soft Power-Off.
- Support modem ring wake-up .
- Support alarm wake-up.

On-Board Peripherals

- On-Board Peripherals include:
 - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
 - 2 serial ports (COMA + COMB)
 - 1 parallel port supports SPP/EPP/ECP mode
 - 2 USB ports

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically.
- The mainboard provides a Desktop Management Interface(DMI) function which records your mainboard specifications.

Dimension

- Standard ATX form factor
- 30cm(L) x 18.6cm(W) x 4 layer PCB

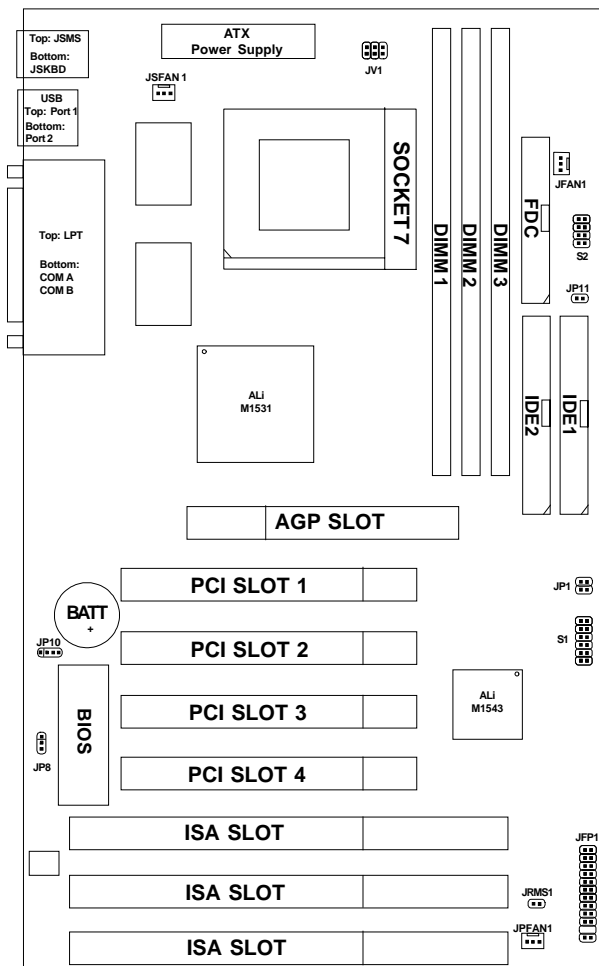
Mounting

- 6 mounting holes

System Hardware Monitor (optional)

- CPU Rotation Speed Control
- CPU Fan Control (the fan will automatically stop when the system enters suspend mode)
- CPU and Power Fan Control (reserved)
- System Voltage Detect
- Display Actual Current Voltage

1.2 Mainboard Layout



MS-5169