

Chapter 1

INTRODUCTION

The ATX AL9 mainboard is a high-performance personal computer mainboard. This mainboard supports Intel® Pentium® processor with MMX™ technology, Cyrix® 6x86L/6x86MX, and AMD® K6/K6-2/K6-III 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 support Intel® Pentium® processor with MMX™ technology.
- The Cyrix® 6x86L/6x86MX and AMD® K6/K6-2/K6-III processors are also supported.

Chipset

- Aladdin®5 chipset.

Clock Generator

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

Cache Memory

- Support 512K Pipelined Burst cache memory. (1 MB optional)
- Cacheable Area: 128 MB.

Main Memory

- Support six memory banks using three 168-pin unbuffered DIMM.
- Support a maximum memory size of 768MB.
- Support 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
- Support 3.3v/5v PCI bus Interface.

On-Board IDE

- An IDE controller on the Aladdin®M1543C 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 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

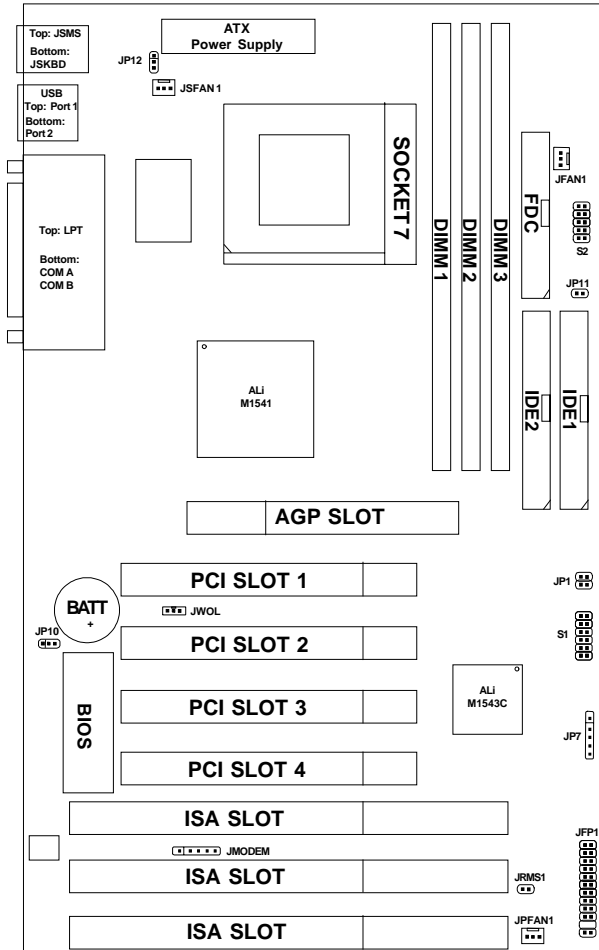
Mounting

- 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