Chapter 1

INTRODUCTION

The MICRO ATX LX9 mainboard is a high-performance personal computer mainboard based on the Intel® Celeron™ processor. This mainboard combines leading edge ATI® 3D RAGE PRO in graphics and Creative® ES1373 PCI technology in audio. The Intel® Celeron™ processor supports MMX™(Multimedia Extension) technology.

The mainboard uses the highly integrated Intel® 82443LX AGP chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The Intel® 82371EB 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 Intel® 82371EB chipset also improves the IDE transfer rate by supporting Ultra DMA/33 IDE that transfers data at the rate of 33MB/s.

The mainboard also supports the System Hardware Monitor Controller as an optional function. Its functions include: CPU /power supply/chassis fan revolution detect, CPU/system voltage monitor, system temperature monitor, and chassis intrusion detect(optional).

1.1 Mainboard Features

CPU
- Socket 370 for Intel® Celeron™ processor.
- Supports 300MHz, 333MHz, 366MHz, 400MHz, and faster.

Chipset
- Intel® 82440LX chipset.

Clock Generator
- 66.6/68MHz clocks are supported
- 75/83MHz are only used for overclocking.

Main Memory
- Supports four memory banks using two 168-pin unbuffered DIMM.
- Supports a maximum memory size of 256MB for EDO/SDRAM
- Supports 3.3v Extended Data Output (EDO) and SDRAM DIMM.

Slots
- Three 32-bit Master PCI Bus slots and one 16-bit ISA bus slots (wherein 1 PCI/ISA is shared)
- Supports 3.3v/5v PCI bus Interface.

On-Board IDE
- An IDE controller on the Intel® 82371EB PCI Chipset provides IDE HDD/ CD-ROM with PIO, Bus Master and Ultra DMA/33 operation modes.
- Can connect up to four IDE devices.

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

- 1 IrDA connector for SIR.
- 1 VGA PORT

Graphics
- ATI® 3D RAGE PRO Turbo
    - Running on AGP BUS.
    - Onboard 8MB SDRAM.
    - 3D Acceleration.

Sound
- Creative® ES1373
    - PCI 2.1 compliant
    - PC97/PC98 specification compliant
    - 3D audio effects.
    - 64-voice wavetable synthesizer
    - Direct Sound Hardware Accelerator
    - Direct Music Hardware Accelerator
    - Full-Duplex stereo

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.
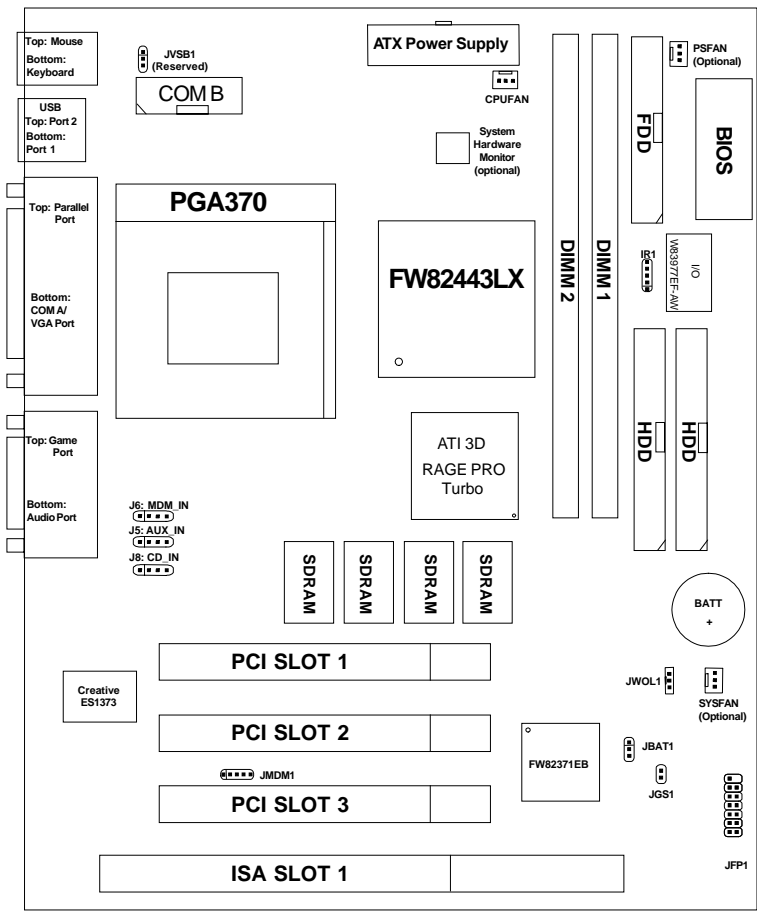
Dimension
- MICRO-ATX Form Factor : 24.4cm(L) x 19 cm(W) x 4 layers PCB

Mounting
- 6 mounting holes.

1.2 Mainboard Layout

MS-6159 MICRO ATX LX9 Mainboard