Chapter 1

INTRODUCTION

The MICRO ATX EX6 mainboard is a high-performance personal computer mainboard based on the Intel® Pentium® II processor. This mainboard combines leading edge AGP ATI® 3D RAGE PRO technology in graphics and YAMAHA® YMF740 technology in audio. The Intel® Pentium® II processor supports MMX™(Multimedia Extension) technology.

The mainboard uses the highly integrated Intel® 82440EX chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The 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. This function includes: CPU /power supply/chassis fan revolution detect, CPU/system voltage monitor, and system temperature monitor.

1.1 Mainboard Features

CPU
- Slot 1 for Intel® Pentium® II processor.
- Supports 233MHz, 266MHz, 300MHz, and 333MHz.

Chipset
- Intel® 82440EX chipset.

Clock Generator
- 66.6MHz clock is supported.

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

Slots
- Two 32-bit Master PCI Bus slots and one 16-bit ISA bus slots
- 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.
    - 2 serial ports (COMA + COMB)
    - 1 parallel port supports SPP/EPP/ECP mode
    - 2 USB ports
    - 1 IrDA connector for SIR.

VGA
- ATI®Rage PRO/RAGE IIC
    - Running on AGP BUS 2x for RAGE PRO/1X for RAGE IIC.
    - Onboard 2MB SGRAM (optional 4MB).
    - 3D Acceleration.

Sound
- YAMAHA®YMF740
    - PCI 2.1 compliant
    - AC97/98 specification compliant
    - 3D audio effects.
    - 32-voice XG 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
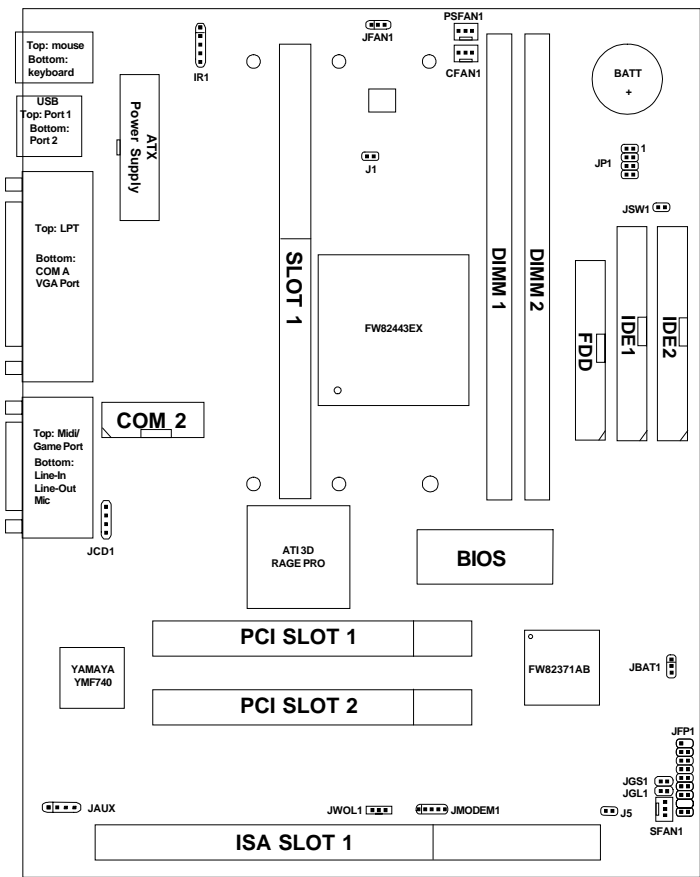- MICRO ATX Form Factor : 24.4cm(L) x 19cm(W) x 4 layers PCB

Mounting
- 7 mounting holes.

System Hardware Monitor(optional)
- CPU/Power Supply/Chassis Fan Revolution Detect
- CPU Fan Control (the fan will automatically stop when the system enters suspend mode)
- System Voltage Detect
- Display Actual Current Voltage

1.2 Mainboard Layout

MS-6132