

Chapter 1

INTRODUCTION

The ATX EX1 mainboard is a high-performance personal computer mainboard based on the Pentium® II processor.

The mainboard uses the highly integrated Intel®82440EX AGPset which optimize the system bandwidth and concurrency with the implementation of Quad Port Acceleration (QPA). QPA provides 4-port concurrent arbitration of the processor bus, graphics, PCI bus and SDRAM.

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 optional function. This function includes: CPU /power supply/chassis fan revolution detect, CPU/system voltage monitor, system temperature monitor, and chassis intrusion detect(optional).

1.1 Mainboard Features

CPU

- Slot 1 for Intel®Pentium®II and Celeron™ processor.
- Supports 200MHz, 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

- One AGP(Accelerated Graphics Port) slot.
 - AGP specification compliant
 - AGP 66/133MHz 3.3v device support
- Three 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 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.

Sound

- YAMAHA®YMF715
 - 3D audio effects.
 - 16 bit full-duplex stereo.
 - 16 bit address decode.

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

- ATX Form Factor : 30.5cm(L) x 17.6cm(W) x 4 layers PCB

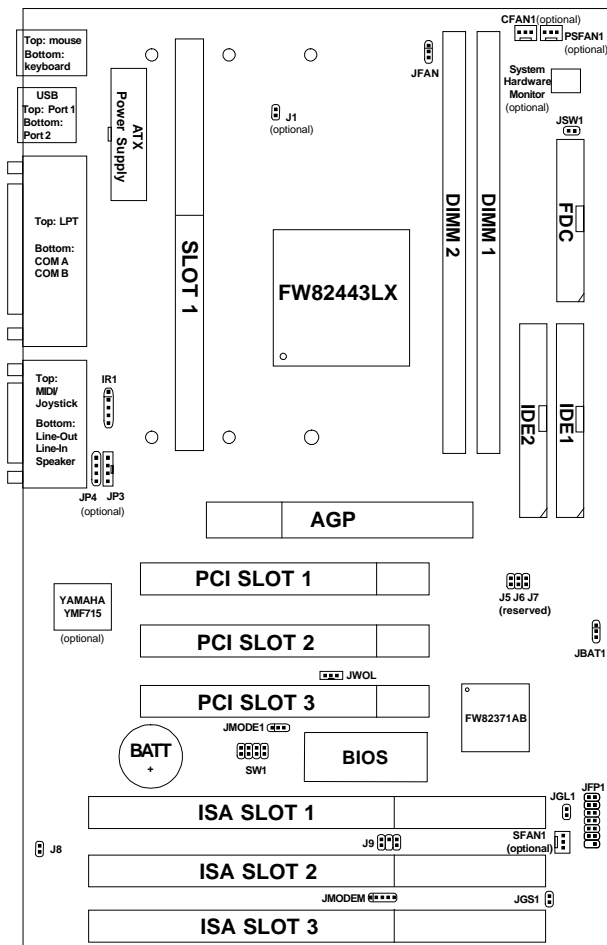
Mounting

- 6 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
- Chassis Intrusion Detect(reserved)
- Display Actual Current Voltage

1.2 Mainboard Layout



MS-6122