

## **Chapter 1**

### **INTRODUCTION**

The MICRO ATX LX10 mainboard is a high-performance personal computer mainboard based on the Socket 370 Intel® Celeron™ processor. This mainboard combines leading edge AGP slot with 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**

- One AGP (Accelerated Graphics Port) slot.
  - AGP specification
  - AGP 66/133MHz 3.3v device support
- Three 32-bit Master PCI Bus slots and one 16-bit ISA bus slots (wherein one slot 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+ COM B)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 2 USB ports
  - 1 IrDA connector for SIR.

**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.

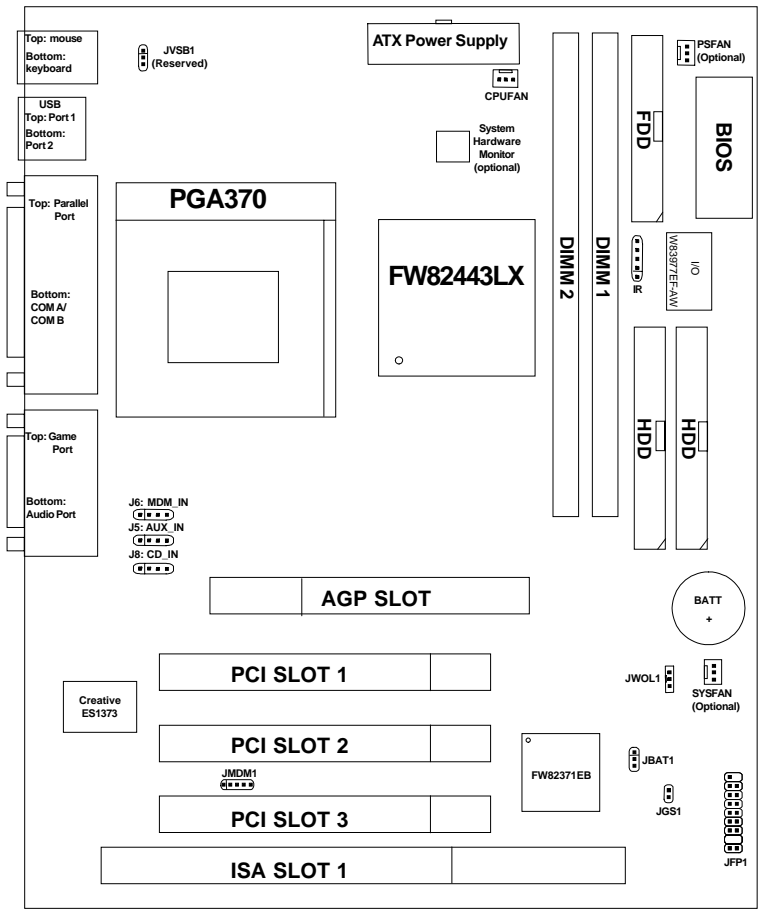
**System Hardware Monitor (Optional)**

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

**Other Features**

- Keyboard Password Wake-Up
- LAN Wake-UP
- Internal/External Modem Wake-Up

1.2 Mainboard Layout



MS-6160 MICRO ATX LX10 Mainboard