

## **Chapter 1**

### **INTRODUCTION**

The MS-6111 is a high-performance personal computer mainboard based on the Pentium® II processor.

The mainboard uses the highly integrated Intel® 82440LX chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The Intel® 82371AB 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 82371AB 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 LM78 System Hardware Monitor Controller as optional function. The LM78 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 Pentium® II processor
- Supports 200MHz, 233MHz, 266MHz, 300MHz, and 333MHz.
- Core/Bus ratios are x2, x2.5, x3, x3.5, x4, x4.5, x5, x5.5, x6 and higher.

### **Switching Voltage Regulator**

- On-board switching mode DC-DC Step Down Regulator.
- Conforms to Intel® VRM ver 8.1 specifications.
- Over-Voltage and Over-Current protection.

### **Chip Set**

- Intel® 82440LX PCI Chipset.

### **Clock Generator**

- 66.6MHz clocks are supported.

### **Main Memory**

- Supports eight memory banks using four 168-pin unbuffered DIMM sockets.
- Supports a maximum memory size of 512MB with SDRAM, or 1GB with EDO.
- Supports ECC(Error Check Correct) and EC(Multiple-Bit Error Correction) function.
- 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
- Four 32-bit Master PCI Bus slots and three 16-bit ISA bus slots wherein one shared slot that can be used as ISA or PCI.
- Supports 3.3v/5v PCI bus Interface.

**On-Board IDE**

- An IDE controller on the Intel® 82371AB 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 Fast IrDA(reserved).

**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.

**On-Board System Hardware Monitor(LM78)**

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

**RTC**

- Non-Volatile RTC.

**Keyboard Connector**

- PS/2® keyboard interface and PS/2® mouse interface.

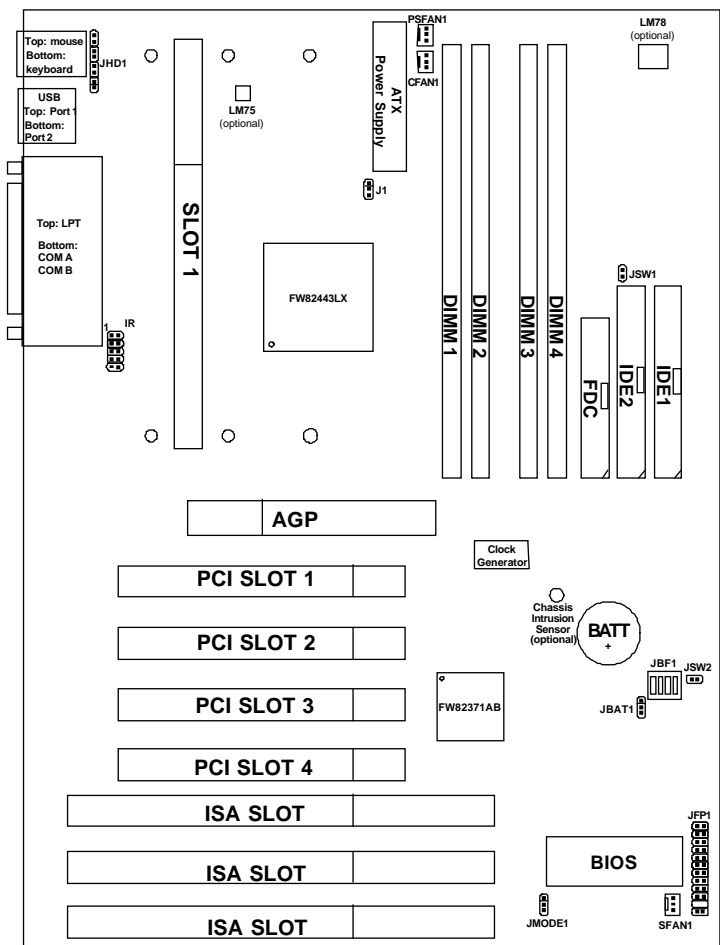
**Dimension**

- ATX Form Factor: 30cm(L) x 23cm(W) x 4 layers PCB.
- Double deck I/O connectors, compatible with Intel® Venus Mainboard.

**Mounting**

- 9 mounting holes.

1.2 Mainboard Layout



MS-6111