

## **Chapter 1**

### **INTRODUCTION**

The Baby AL7 mainboard is a high-performance personal computer mainboard. This mainboard supports Intel®Pentium®processor and Pentium®processor with MMX™ technology, Cyrix®6x86/6x86L/6x86MX processors, and AMD®K5/K6 processors. The mainboard also supports five 32-bit PCI (Peripheral Component Interconnect) Local Bus standard slots.

The mainboard uses the highly integrated Aladdin®4+ chipset to support the PCI/ISA and Green standards, and to provide the Host/PCI bridge. The Aladdin®4+ 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 Aladdin®4+ chipset also improves the IDE transfer rate by supporting Ultra DMA/33 IDE that transfer data at the rate of 33MB/s.

The mainboard also supports the LM78 Hardware Monitor Controller which is an optional function. The LM78 function includes: CPU/chassis/power fan control, and system voltage detect.

## **1.1 Mainboard Features**

### **CPU**

- Socket 7 supports Intel® Pentium® processor /Pentium® processor with MMX™ technology .
- The Cyrix® 6x86/6x86L/6x86MX and AMD® K5/K6 processors are also supported.

### **Chipset**

- Aladdin®4+ M1531/M1543.

### **Cache Memory**

- Supports 512K pipelined burst cache memory.

### **Main Memory**

- Supports six memory banks of SDRAM or eight memory banks of FP/EDO using four 72-pin SIMM sockets and two 168-pin DIMM sockets (for unbuffered DIMM).
- Up to 1GB main memory.
- Supports EDO Hyper Page Mode DRAM, Standard Fast Page mode DRAM and SDRAM(Synchronous DRAM).

### **Slots**

- Five 32-bit PCI Bus slots + three 16-bit ISA bus slots wherein one shared slot can be used as ISA or PCI.

### **On-Board IDE**

- Supports Bus Master and Ultra DMA/33 IDE.
- Supports up to 4 IDE drives.

### **Remote Control**

- Meets ACPI specifications (reserved for future BIOS)
- Power ON/OFF switch connector on board
- Soft Power-Off
- Modem Ring Wake-Up
- Alarm Wake-Up (reserved for future BIOS)

**On-Board Peripherals**

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD
  - 2 serial ports (COMA + COMB)
  - 1 parallel port supports ECP or EPP mode
  - USB Ports

**Dimensions**

- Baby AT form factor
- 25cm(L) x 22cm(W) x 4 layer PCB

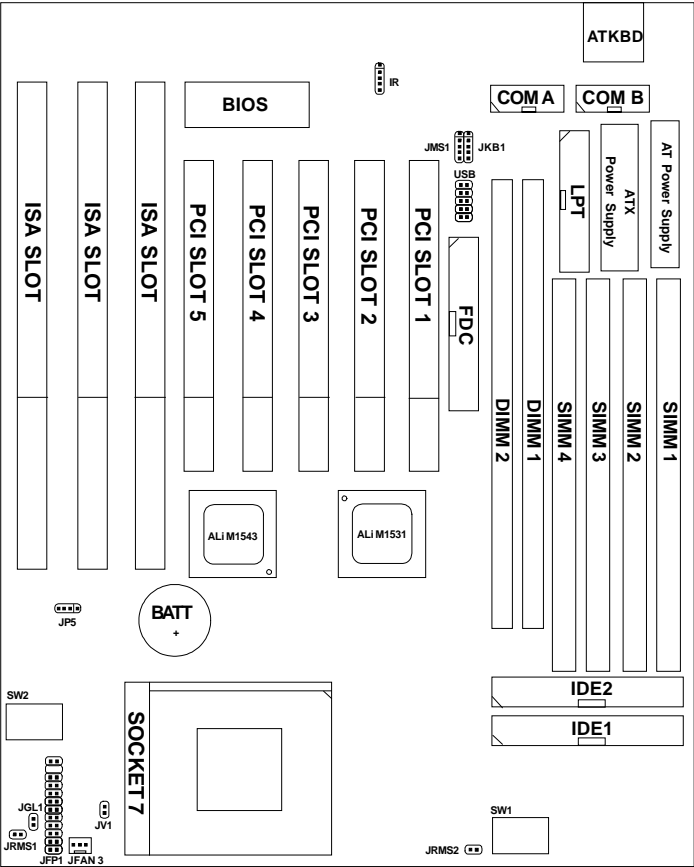
**Mounting**

- 6 mounting holes

**LM78 System Hardware Monitor (optional)**

- CPU Rotation Speed Control
- CPU Fan Control (the fan will automatically stop when the system enters suspend mode)
- Chassis and Power Fan Control (reserved)
- System Voltage Detect
- Display Actual Current Voltage

1.2 Mainboard Layout



MS-5164