

## **Chapter 1**

### **INTRODUCTION**

The 694 Master (MS-6309) ATX mainboard is a high-performance computer mainboard based on VIA® VT82C694X chipset. The 694 Master (MS-6309) is designed for the Intel® Celeron™ or Coppermine(FC-PGA) processor for inexpensive business/personal desktop markets.

The Apollo Pro133A (VT82C694X) is a Socket-370 system logic north bridge with the addition of 133 MHz capability for both the CPU and SDRAM interfaces. Apollo Pro133A may be used to implement both desktop and notebook personal computer systems from 66MHz to 133MHz based on Socket-370. The primary features of the Apollo Pro133A-North Bridge are: Slot-1 or Socket-370 CPU (Front Side Bus) Interface (66 / 100 / 133MHz), DRAM Memory Interface (66 / 100 / 133MHz), AGP Bus Interface (66MHz), PCI Bus Interface (33MHz), Mobile Power Management.

The VT82C686A PSIPC (PCI Super-I/O Integrated Peripheral Controller) is a high integration, high performance, power-efficient, and high compatibility device that supports Intel and non-Intel based processor to PCI bus bridge functionality to make a complete Microsoft PC99-compliant PCI/ISA system.



## **Mainboard Features**

### **CPU**

- Socket 370 for Intel® Celeron™/ Coppermine processor.
- Supports 233MHz, 266MHz, 300MHz, 333MHz, 350MHz, 400MHz, 450MHz, 500MHz, 533MHz...1GHz or faster processor.

### **Chipset**

- VIA® 694X chipset. (510 BGA)
  - AGP 4x and PCI plus Advanced ECC Memory Controller
  - Support PC100/133 SDRAM, VCM technology
- VIA® VT82C686A chipset. (352 BGA)
  - Advanced Power Management Features
  - Integrated Super I/O (FDC, LPT, COM 1/2, and IR)
  - DirectSound AC97 Audio
  - Dual bus Master IDE Ultra DMA33/66
  - ACPI

### **Clock Generator**

- 66.6MHz, 100MHz and 133MHz clocks are supported.

### **Main Memory**

- Support eight memory banks using four 168-pin unbuffered DIMM.
- Support a maximum memory size of 2GB (32M x 8).
- Support ECC(1-bit Error Code Correct) function.
- Support 3.3v SDRAM DIMM.

### **Slots**

- One AGP (Accelerated Graphics Port) slot.
    - AGP specification compliant
    - AGP 66MHz 3.3v/1.5v for 2x/4x device support
  - One CNR (Communication Network Riser) slot which support Modem only.
  - Six 32-bit Master PCI Bus slots.
  - Supports 3.3v/5v PCI bus Interface.
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**On-Board IDE**

- An IDE controller on the VIA®VT82C686A Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66 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
  - 4 USB ports
  - 1 IrDA/HP connector for SIR
  - 1394 (optional)

**Audio**

- Chip Integrated (Software Audio)
  - AC'97 Compliant

**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**

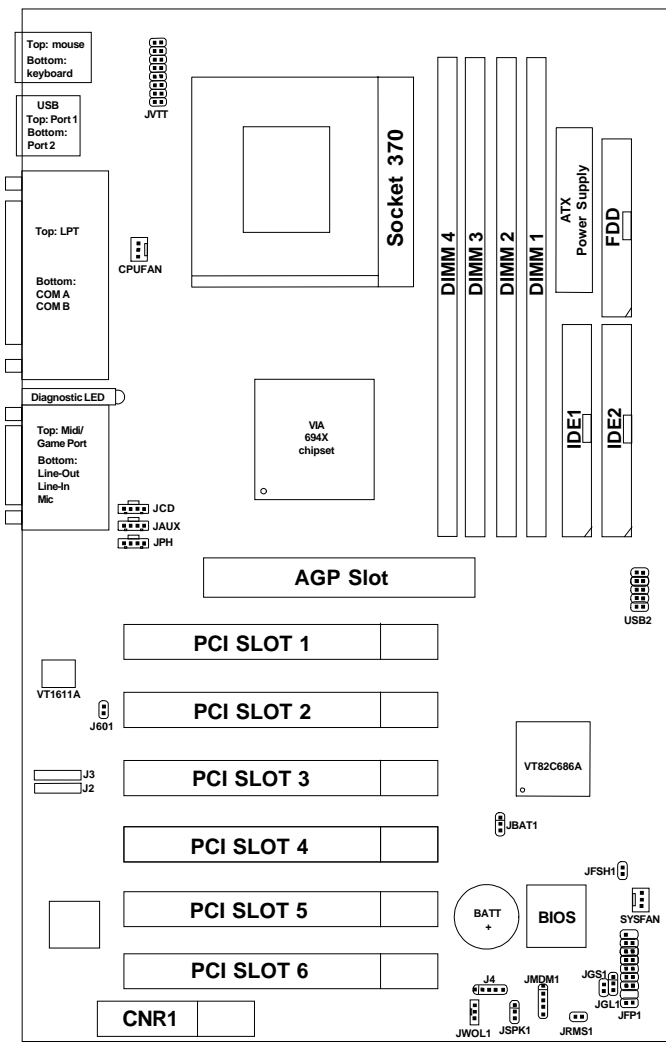
- ATX Form Factor : 30.5cm(L) x 21cm(W) x 4 layers PCB

**Mounting**

- 6 mounting holes.



Mainboard Layout



694 Master (MS-6309) Mainboard