

## Chapter 1

### INTRODUCTION

The MS-6318 Micro ATX VA6 mainboard is a high-performance computer mainboard based on VIA® VT82C694X chipset. The MS-6318 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 (Intel Celeron/Coppermine(FC-PGA) processors). 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 VT82C686B 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.

## 1.1 Mainboard Features

### CPU

- Socket 370 for Intel® Celeron™/Coppermine™ processor.
- Supports 233MHz, 266MHz, 300MHz, 333MHz, 350MHz, 400MHz, 450MHz, 500MHz, 533MHz., 550MHz, 667MHz or faster processor.

### Chipset

- VIA® 694X chipset. (510 BGA)
  - FSB @133MHz
  - AGP 4x and PCI plus Advanced ECC Memory Controller
  - Support PC100/133 SDRAM technology
- VIA® VT82C686B chipset. (352 BGA)
  - Advanced Power Management Features
  - Integrated Super I/O (FDC, LPT, and COM 1/2)
  - Dual bus Master IDE Ultra DMA33/66/100
  - ACPI

### Clock Generator

- 66.6MHz to 133Mhz clocks are supported.

### MainMemory

- Support two memory banks using two 168-pin unbuffered DIMM.
- Support a maximum memory size of 1GB (32MB 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 66/133MHz 3.3v device and 266MHz 1.5v device support
- Three 32-bit Master PCI Bus slots.
- Supports 3.3v/5v PCI bus Interface.

**On-Board IDE**

- An IDE controller on the VIA® VT82C686B Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66/100 operation modes.
- Can connect up to four IDE devices.

**Audio**

- Creative CT5880.
  - 64 Voice WaveTable Synthesizer
  - Sound Library of over 4000 different sounds
  - Support Microsoft Direct Sound, Direct Sound 3D, Direct Music, and A3DAPL.

**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 (reserved 2 USB Front Pin Header)

**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.

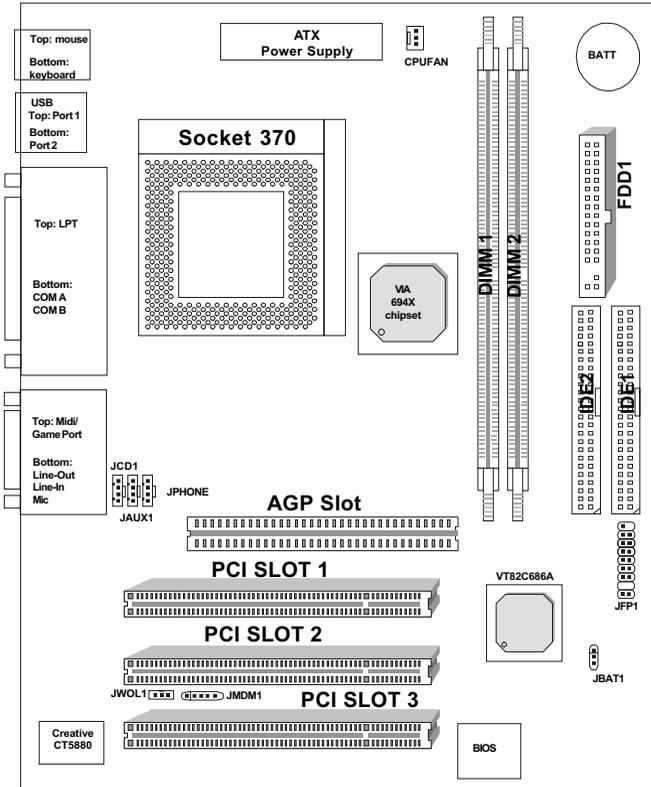
**Dimension**

- Micro-ATX Form Factor: 24.4cm (L) x 20cm (W)

**Mounting**

- 6 mounting holes.

## 1.2 Mainboard Layout



MS-6318 Micro ATX VA6 Mainboard