Chapter 1

INTRODUCTION

The MS-6340 Micro-ATX VA mainboard is a high-performance computer mainboard based on VIA® KZ133 chipset. The MS-6340 is designed for the AMD® Socket processor for inexpensive business/ personal desktop markets.

The KZ133 chipset consists of the VT8363 system controller (552 pin BGA) and the VT82C686A PCI to ISA bridge (352 pin BGA). The system controller provides superior performance between the CPU, DRAM, AGP bus, and PCI bus with pipelined burst, and concurrent operation.

The VT82C686A integrates all system control functions such as ACPI (Advances Configuration and Power Interface). The ACPI provides more Energy Saving Features for the OSPM (OS Direct Power Management) function. The VT82C686A chipset also improves the IDE transfer rate by supporting Ultra DMA-33/66 IDE that transfers data at the rate 33/66MB sec.

This mainboard which supports KZ133 chipset coupled with VT8363 and VT82C686A is ideal for high performance, high quality, high energy efficient and high integration desktop AGP/PCI/ISA computer systems.

1.1 Mainboard Features

CPU
- Socket A for AMD® PGA Duron/Athlon processor.
- Support 550~850MHz or higher processor.

Chipset
- VIA® KZ133 VT8363 chipset. (552 BGA)
  - FSB @200MHz
  - AGP 4x and PCI Advanced high performance memory controller
  - Support PC100/133 SDRAM, & VCM technology
- VIA® VT82C686A chipset. (352 BGA)
  - Enhanced Power Management Features
  - Integrated Super I/O (FDC, LPT, COM 1/2, and IR)
  - Dual bus Master IDE Ultra DMA33/66/100
  - Integrated Hardware Sound Blaster
  - Direct Sound AC97 Audio
  - ACPI

Clock Generator
- 100Mhz clocks are supported. (200MHz Internal System Bus)

Main Memory
- Support four memory banks using two 168-pin unbuffered DIMM.
- Support a maximum memory size of 1GB (32M x 8).
- Support 3.3v SDRAM DIMM.

Slots
- One AGP(Accelerated Graphics Port) slot.
  - AGP specification compliant
  - Support AGP 2.0 1x/2x/4x
- One CNR(Communication Network Riser) slot.
- Three 32-bit Master PCI Bus slots.
- Supports 3.3v/5v PCI bus Interface.

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 + COM B) or 1 serial port with 1 VGA port.
  - 1 parallel port supports SPP/EPP/ECP mode
  - 4 USB ports (2 Rear Connectors/USB Front Pin Header)
  - 1 IrDA connector for SIR/CIR/FIR/ASKIR/HPSIR.
  - 1 Audio/Game port

Audio
- Chip Integrated
  - Direct Sound AC97 Audio.
- Sigmatel 9708
  - AC97 2.1 Compliant.
  - Support 4 Channels Audio.
- Creative® CT5880 (Optional)
  - PCI 2.2 compliant.
  - 3D audio effects.
  - 32-voice XG wave table synthesizer.
  - Direct Sound/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.
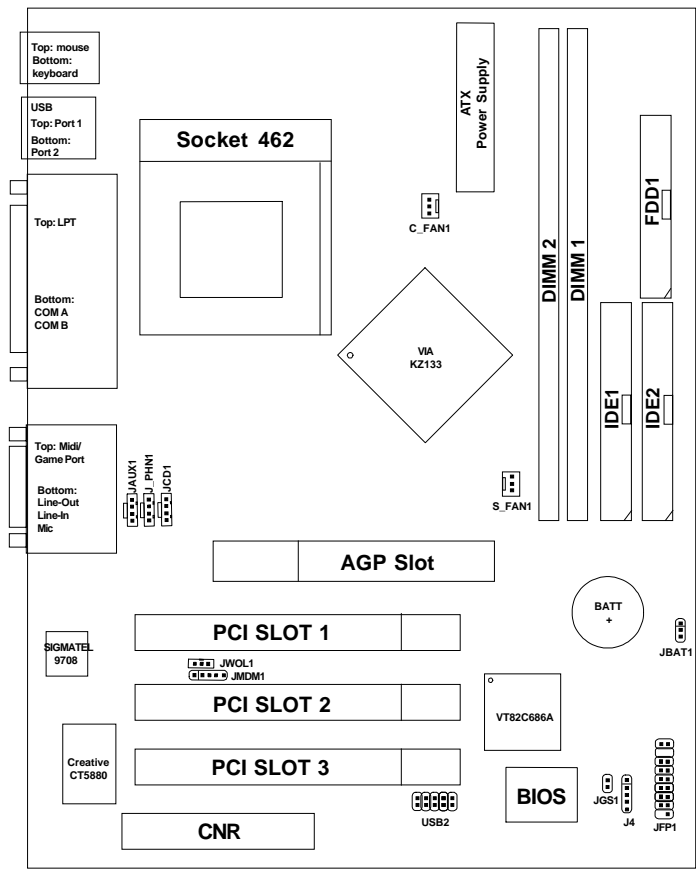
Dimension
● Micro ATX Form Factor: 20.8cm x 24.3cm.

Mounting
● 6 mounting holes.

1.2 Mainboard Layout

MS-6340 Micro-ATX VA Mainboard