

Chapter 1

INTRODUCTION

The MS-6347 ATX VA mainboard is a high-performance computer mainboard based on VIA® KT133 chipset. The MS-6347 is designed for the AMD® Duron & Thunderbird processor for inexpensive business/personal desktop markets.

The KT133 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 VT8363 supports six banks of DRAM's up to 1.5 GB and full AGP v2.0 capability for maximum bus utilization including 1x, 2x and 4x mode transfers, SBA (SideBand Addressing), Flush/Fence commands, and pipelined burst. The chip also supports enhanced PCI bus commands such as Memory-Read-Line, Memory-Read-Multiple and Memory-Write-Invalid commands to minimize snoop overhead.

The VT82C686A 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 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 KT133 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® Duron™ & Thunderbird processor.
- Support 600MHz, 650MHz, 700MHz or higher processor

Chipset

- VIA® KT133 chipset. (552 BGA)
 - FSB @200MHz
 - AGP 4x and PCI Advanced high performance memory controller
 - Support PC100/133 SDRAM, & VCM technology
- VIA® VT686A 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
 - Integrated Hardware Soundblaster
 - Direct Sound AC97 Audio
 - ACPI
 - Hardware Monitor (5 voltage sensor, 2 temp sensor, 2 fan speed)

Clock Generator

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

MainMemory

- Support six memory banks using three 168-pin unbuffered DIMM.
- Support a maximum memory size of 1.5GB (32M x 8).
- Support 3.3v SDRAM DIMM.

Slots

- One AGP(Accelerated Graphics Port) Pro slot.
 - AGP 4x mode
- One CNR(Communication Network Riser) slot.
- Six 32-bit Master PCI Bus slots.
- Supports 3.3v/5v PCI bus Interface.

On-Board IDE

- An IDE controller on the VIA® VT686A Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66 operation modes.
- Can connect up to four IDE devices.

Audio

- Chip Integrated
 - Direct Sound AC97 Audio

Onboard Ultra 160 SCSI Connector

- Adaptec AIC-7892
 - supports high performance 160Mbytes/sec Single Channel Ultra SCSI
 - supports Ultra(SE) 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)
 - 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

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.

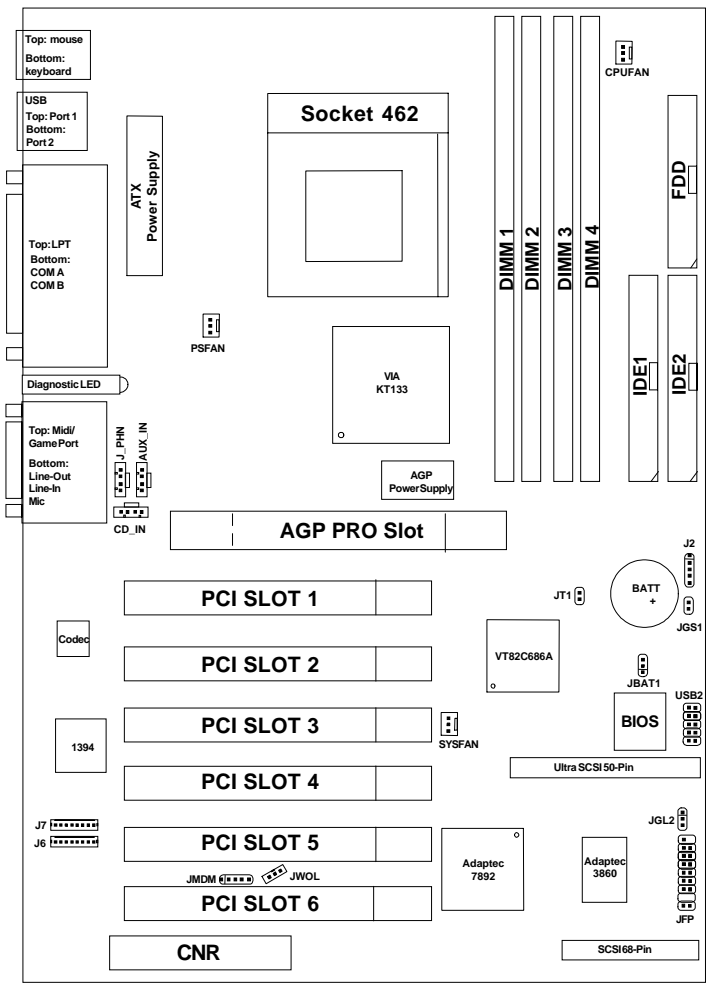
Dimension

- ATX Form Factor: 30.5cm x 24.4cm

Mounting

- 9 mounting holes.

1.2 Mainboard Layout



MS-6347 ATX VA Mainboard