

## **Chapter 1**

### **INTRODUCTION**

The K7T PRO (MS-6330) ATX VA mainboard is a high-performance computer mainboard based on VIA®KT133 chipset. The K7T PRO is designed for the AMD®Socket 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 efficiency and high integration desktop AGP/PCI/ISA computer systems.

## **1.1 Mainboard Features**

### **CPU**

- Socket A for AMD® PGA Duron/Athlon processor.
- Support 500MHz, 550MHz, 600MHz, 650MHz or higher processor.

### **Chipset**

- VIA® KT133
  - FSB @200MHz
  - AGP 4x and PCI Advanced high performance memory controller
  - Support PC100/133 SDRAM,
- 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

### **Clock Generator**

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

### **Main Memory**

- 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) slot.
  - AGP specification compliant
  - Support AGP 2.0 1x/2x/4x
- One CNR(Communication Network Riser) slot.
- PCI/ISA Slots may be configured in 2 ways:
  - Six 32-bit Master PCI bus slots
  - Five 32-bit Master PCI bus slots and 1 ISA slot (wherein one PCI/ISA slot is shared).

- 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.

**On-Board Peripherals**

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, .44M and 2.88Mbytes.
  - 2 serial ports (COMA + COM B) or 1 serial port with 1 VGA port
  - 1 parallel port supports SPP/EPP/ECF mode
  - 4 USB ports (2 Rear Connectors/USB Front Pin Header)
  - 1 IrDA connector for SIR/CIR/ASKIR/HPSIR.
  - 1 Audio/Game port

**Audio**

- Chip Integrated
  - Direct Sound AC97 Audio

**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.

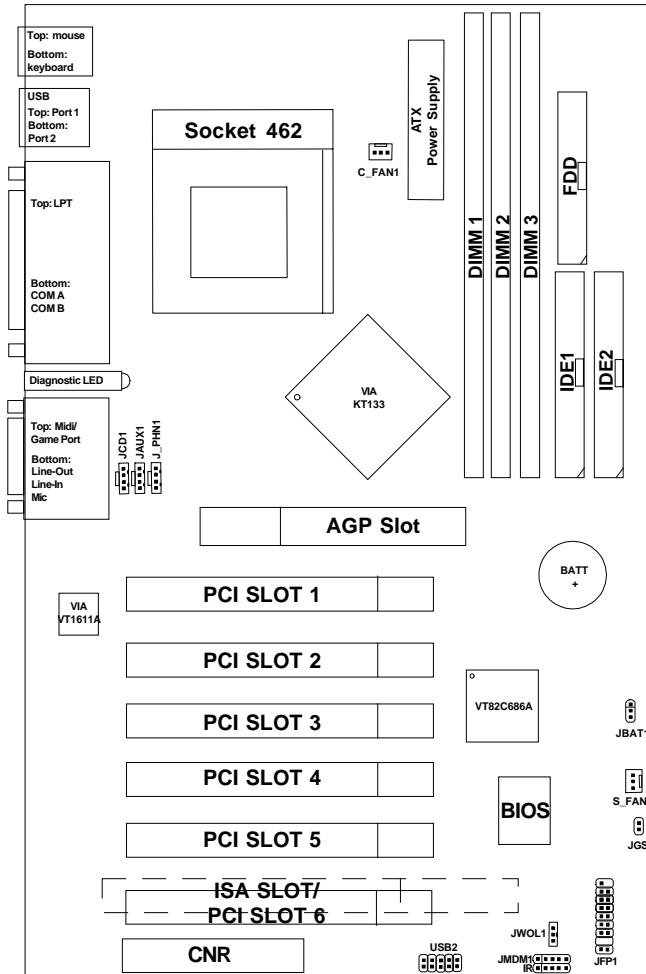
**Dimension**

- ATX Form Factor: 30.4cm x 20.3cm

**Mounting**

- 6 mounting holes.

## 1.2 Mainboard Layout



## K7T PRO(MS-6330) ATX VA Mainboard