

CHAPTER 1

INTRODUCTION

- This chapter briefly introduces the characteristics of this mainboard. It includes the information regarding the chipset, CPU types, built-in functions and layout. Users will have more ideas about mainboards after reading this chapter.

THIS CHAPTER CONTAINS THE FOLLOWING TOPICS :

- 1-1 MAINBOARD SPECIFICATION**
- 1-2 MAINBOARD LAYOUT**
- 1-3 CHIPSET DIAGRAM**

1-1 MAINBOARD SPECIFICATION

1-1-1 PROCESSOR

- Supporting AMD Athlon Thunderbird processors up to 1.5GHz.
- Supporting AMD Athlon Duron processors up to 1.2GHz.
- Supporting processor VID (voltage ID) and FID (frequency ID) auto detection.
- Supporting AMD Athlon processor with 200 and 266MHz Front Side bus.

1-1-2 CHIPSET

- North Bridge VIA VT8363A (KT-133A) system controller High Performance Athlon CPU Interface.
- South Bridge VIA VT82C686B.

1-1-3 ADVANCED HIGH PERFORMANCE DRAM CONTROLLER

- Supporting PC133 and PC100 SDRAM and Virtual Channel Memory (VCM) SDRAM up to 3 DIMMs.
- 64-bit data width and 3.3V DRAM interface.
- Supporting up to 1.5 GB memory space.
- Supporting Different DRAM types used in mixed combinations.
- PCI-2.2 compliant, 32 bit 3.3V PCI interface with 5V tolerant inputs.

1-1-4 FULL FEATURED ACCELERATED GRAPHICS PORTS (AGP) CONTROLLER

- Synchronous and pseudo-synchronous with the host CPU bus with optimal skew control PCI AGP Mode 33MHz/66MHz/100MHz DDR 3x synchronous.
- Supporting 66MHz 1x, 2x and 4x modes for AD and SBA signaling.
- AGP v2.0 compliant.

1-1-5 MULTI-I/O FUNCTION

- Two UARTs for complete Serial Ports.
- One dedicated IR connector supporting:
 - A third serial port dedicated to IR function either through the two complete serial ports or the third dedicated port Infrared-IrDA (HPSIR) and ASK(Amplitude Shift Keyed) IR.
- Multi-mode parallel connector supporting:

- Standard mode, ECP and EPP.
- Floppy Disk connector supporting:
 - Two FDDs with drive swap function.
- Universal Serial Bus connector supporting:
 - USB v1.1 and Intel Universal HCI v1.1 compatible.
 - 2 built-in USB connectors, in addition to one internal USB header which requires a USB cable to support 2 more optional USB ports.
- PS/2 keyboard connector.
- PS/2 Mouse connector.

1-1-6 EXPANSION SLOTS

- Five PCI bus Master slots.
- One ISA slot.
- One AGP Pro 4x mode slot.
- Three DIMM slots.

1-1-7 AWARD BIOS V6.0, SUPPORTING

- Plug & Play V1.0.
- Flash Memory for easy upgrade.
- Year 2000 compliant.
- BIOS writing protection.
- SMARTDOC ANTI-BURN SHIELD.
- RedStorm Overclocking Tech.

1-1-8 SOUND CONTROLLER

- SoundBlaster Pro Hardware and Direct Sound Ready AC97 Digital Audio Controller with Codec onboard.

1-1-9 POWER MANAGEMENT

- ACPI 1.0 compliant (Advanced Configuration and Power Interface).
- APM V1.2 compliant (Advanced power management).
- Supporting ACPI suspend STR mode (Suspend To RAM) and POS mode (Power On Suspend).
- Supporting Wake On LAN (WOL) & Wake On Modem.
- Supporting real time clock (RTC) with date alarm, month alarm, and century field.

- Supporting USB boot-up Function.

1-1-10 FORM FACTOR

- ATX form factor, 4 layer PCB.
- Mainboard size: 22.0cm x 30.5cm.

1-1-11 HARDWARE MONITORING

- Programmable control, status, to provide monitoring and alarm for flexible desktop management of hardware temperature. (software included in support CD)
- 5 positive voltage statuses monitoring.
- 2 temperature statuses monitoring.
- 2 fan speeds statuses monitoring.

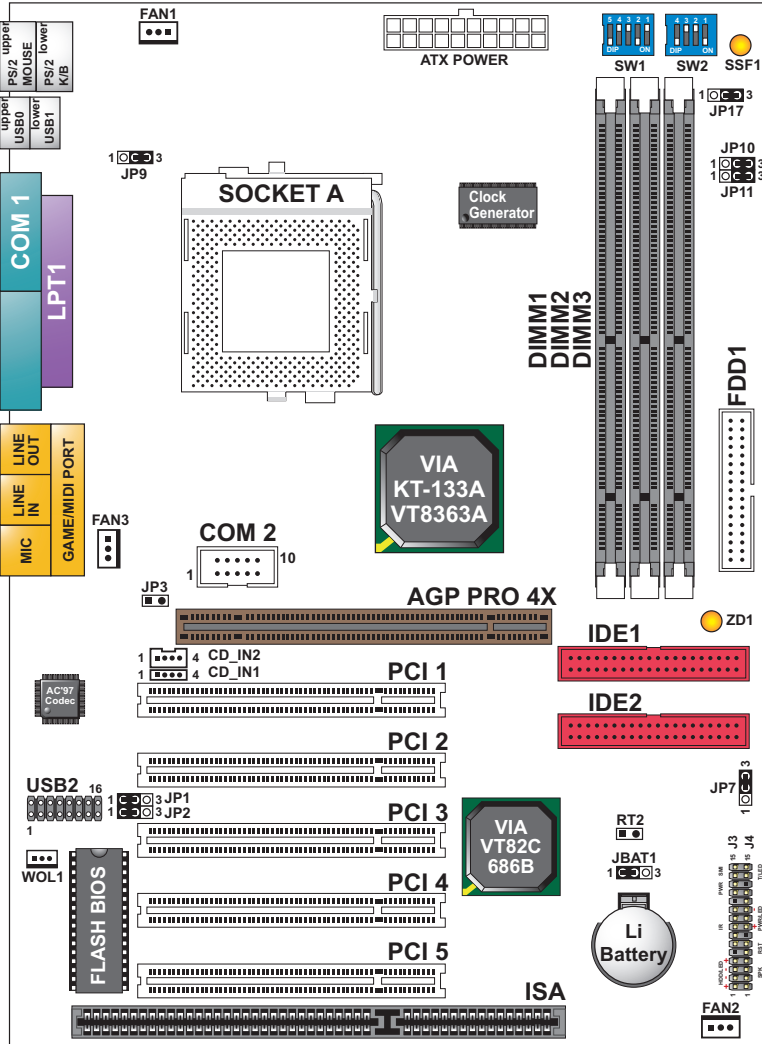
1-1-12 OTHERS

- Clock generator supporting 1 MHz linear clock setting.

1-2 MAINBOARD LAYOUT

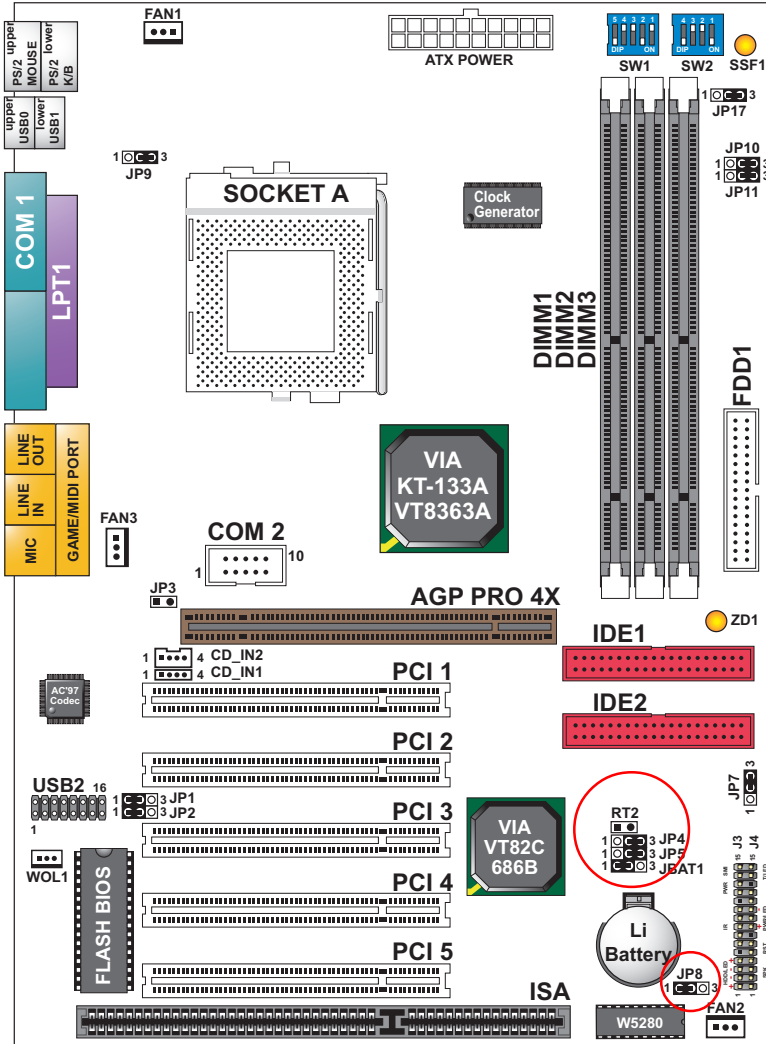
1-2-1 MAINBOARD LAYOUT --- 75KAV

- Default Setting: 100MHz CPU External clock.



1-2-2 MAINBOARD LAYOUT --- 75KAV-X

- Default Setting: 100MHz CPU External clock.



1-3 CHIPSET DIAGRAM

- The KT-133A / VT82C686B chipset is a high performance, cost-effective and energy efficient system controller for the implementation of AGP / PCI / ISA desktop personal computer system based on 64-bit Socket-A (AMD Athlon) processors.

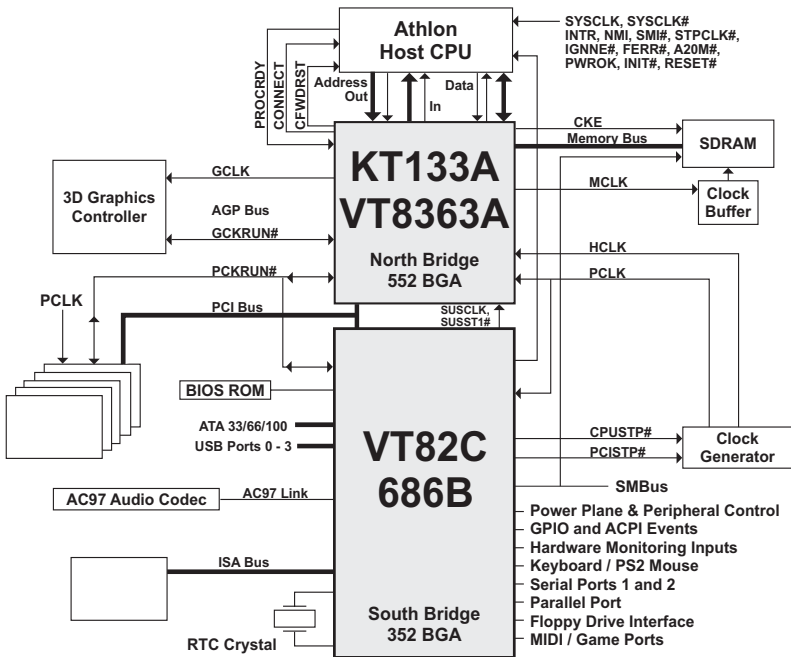


Diagram of KT133A System Block Using the VT82C686B South Bridge

