Chapter 1

Overview

The AX5T is a high-performance Pentium ®-based system board that utilizes the PCI/ISA architecture and **ATX** form factor. It integrates the Intel **82430TX** PCIset, a Ultra I/O controller, and a PCI mode 4 enhanced IDE controller with bus master and **Ultra DMA/33** to enhance system performance. It has 256KB or **512KB** pipelined-burst second-level **cache onboard** and support four single in-line memory module (SIMM) plus two Dual in-line memory module (DIMM) that allow to **mix EDO and SDRAM** memory and expansion up to a maximum of 256MB. For the memory and IDE performance, the Intel 430TX chipset is currently the **fastest Pentium chipset** in the market.

Another feature that AX5T intends to implement is the **Advanced Configuration Power Interface (ACPI).** It introduces many new power management functions. The most attractive feature of ACPI for desktop user is probably **OnNow**, an idea from Notebook. You don't have to go through the entire boot process, into Win95, and back to your original work. Since ACPI specification is not fully defined yet. AX5T implements **Suspend to Hard Drive** by BIOS, from user point of view, it is the same as OnNow. Note that you have to use VESA compatible VGA (AOpen S3 PCI PV60/PT60), Sound Blaster compatible sound card (AOpen AW32/MP32), Rockwell compatible Modem (AOpen F34I/MP32) for Suspend to Hard Drive to work properly.

There are many user friendly features such as **Modem Wake Up, RTC Wake Up Timer, Power Bottom Override**. Refer to section 3.5 "Power management Setup" and Appendix B "Frequent Ask Question" for detail. Furthermore, AX5T uses **2M bit Flash ROM** BIOS to reserve for future new functions.

AX5T has also passed FCC **DoC** test, this means you can use any kind of housing with very low EMI radiation.

Note: *ACPI is a specification of PC97, it is not fully defined yet. Although Aopen will try the best to support ACPI (normally, through BIOS modifications), it is still possible AX5T can not fully comply ACPI specification.*

1.1 Specifications

Form Factor	ATX
Board Size	305 mm x 244 mm
CPU	Intel Pentium Processor P54C, PP/MT (P55C), AMD K5 and Cyrix 6x86
System Memory	FPM (Fast Page Mode) or EDO (Extended Data Output) 72-pin SIMM x4, and SDRAM 168-pin x2 maximum 256MB.
Second-level Cache	256KB or 512KB pipelined-burst cache onboard
Chipset	Intel 82430TX PCIset
Expansion Slots	ISA x4 and PCI x4
Serial Port	Two serial ports UART 16C550 compatible
Parallel Port	One parallel port supports standard parallel port (SPP), enhanced parallel port (EPP) or extended capabilities port (ECP).
Floppy Interface	Floppy interface supports 3.5 inches drives with 720KB, 1.44MB or 2.88MB format or 5.25 inches drives with 360KB, 1.2MB format
IDE Interface	Dual-channel IDE interface support maximum 4 IDE hard disks or CDROM, mode 4 , bus master hard disk drives and Ultra DMA/33 mode hard drives are also supported.
USB Interface	Two USB ports supported by USB bracket, the BIOS also supports USB driver to simulate legacy keyboard.
PS/2 Mouse	Mini-Din PS/2 mouse connector onboard.
Keyboard	Mini-Din PS/2 keyboard connector onboard.
RTC and Battery	RTC within Intel PIIX4 chipset, Battery is Lithium (CR-2032).
BIOS	AWARD Plug-and-Play, 2M bit Flash ROM BIOS
Modem Wake Up	Special circuit (patent applied) to support modem ring wake up by external box modem or internal AOpen F34I/MP32 modem card.
Suspend to Hard Drive	Supported by BIOS, save your work to hard disk and resume within a very short time. VESA compatible VGA and Sound Blaster compatible sound card required.
RTC Wake Up Timer	Program the date/time to wake up your system.