Chapter 1

Introduction

1-1 Product Specifications

❐ **Processor**
- Supports AMD Socket A Athlon/Duron processors
- System clock supports 200/266MHz DDR (Double Data Rate)

❐ **Chipset**
 - VIA KT133A(or KTE133)+ VT82C686B two chip AGPset

❐ **DRAM Memory**
- Two 3.3V 168-pin DIMM sockets support up to 1GB
- Supports PC-100, PC-133 SDRAM, and VCM

❐ **Expansion Slots**

- One 32-bit AGP slot for both 2x/4xAGP

- Three 32-bit PCI slots (Rev 2.2 compliant)

- One CNR slot support for modem,audio riser only

❐ **2Mb Boot-Block Flash ROM**
- Award System BIOS, supports PnP, APM, DMI,ACPI & Multi-device booting features i.e. floppy, LS120, CD-ROM, HDD(IDE, SCSI), ZIP-ATAPI etc.
- Includes Anti-Virus protection for virus-free boot and virus free operating system

❐ **Embedded Ultra DMA-100 PCI IDE controller**
- Supports two IDE ports up to 4 ATAPI devices
- Supports up to PIO Mode 4 up to 16.6MBps, Multi-Word Mode 4 up to 66MBps and Multi Word Mode 5 up to 100MBps with bus mastering
- Bus Master software drivers for all common multi-task operating systems

❐ **Embedded Super I/O Functions**
- Two UARTs support two serial ports and IR function for HPSIR and ASKIR
- One parallel supports SPP/ECP/EPP
- One floppy disk drive connector supports up to 2.88MB, Japanese 3- Mode and 1Mbps transfer rate
- Supports Game/MIDI port for soft-audio

❐ **Double Stack Back-Panel I/O Connectors with PC99 Colored Codes**
- PS/2 Mini-DIN keyboard and mouse ports
- Two Channel USB ports
- Two D-SUB 9-pin male serial port
- One D-SUB 25-pin female Printer port
- One D-SUB 15-pin female Game/MIDI port
- Audio Line-out, Line-in, Mic-in jacks

❐ **Optional PCI Audio Subsystem**
- CMedia 8738 audio chip w/ integrated CODEC legacy audio SB16/Pro compatible
- Programmable independent sample rate form 4KHz to 48KHz for record and playback
- Full-duplex operation for simultaneous recording and playback
- DLS-based wavetable music synthesizer w/ maximum 32 simultaneous notes, supports MS DirectMusic (Wavetable technology licensed from ERSO w/ General MIDI 128 sounds, 8 drum kit)
- 32-voice HRTF 3D positional audio, CRL 3D supports MS DirectSound3D, Aureal A3D and Creative EAX(Environment Audio Extensions) APIs
- Supports 24-bit S/PDIF-in/out for digital audio **(Optional)**
- 4 or 6 (optional) channel speaker audio support
- Supports MIDI and dual game ports
- PCI V2.1 compliant and full Legacy DOS software compatible
- Supports Fiber Optic module for Internet music, PC, and MD connections

❐ **Embedded USB Controller**
- USB host controller (UHCI v1.0 compliant) with Root Hub
- Four USB ports with over-current protection
- Optional USB riser with 2 additional USB ports

❐ **Embedded System Monitoring Hardware Subsystem**
- 5 external voltage inputs for CPU Vcore, VDD, +12v, +5v and 3.3v (internal detecting)
- 2 temperature sensor with thermistor for CPU and System
- 2 Fan speed (CPU and System) monitoring

❐ **Board Dimensions**
- Micro ATX form factor, 244mm x 220mm, 4 Layers

❒ **Switching Power Supply Requirement**

Output Voltage	Max. Regulation Requirement	Min. Current Requirement (Amps)
+12V	+/- 5%	5.5
+5V	+/- 5%	20
+3.3V	+/- 5%	15
-5V	+/- 10%	0.5
-12V	+/- 10%	0.5
+5VSB	**+/- 5%**	**0.75**

Table 1-1

3.3Vat 15Amps is necessary to guarantee full loading operation because some AGP cards and memory modules have high current consumption.

1-2 Product Feature

- Poly-fuse over-current protection with error warning for keyboard circuitry
- Complete Data Security:
  * **Flash BIOS write protection** against unauthorized access
  * **Trend ChipAway Virus** for a 100% virus free system boot-up
  * **Embbeded Flash Utility** ease the upgrade way and solve the incompatibility between flash type and flash utility

- Advanced Management Features**:**
  * Power-on events:
    WOL(Wake-on-LAN) network card, Modem ring, RTC Alarm
  * Software power-off control for Win9x
  * Over-ride power button
  * Three states advanced Power-failure recovery: Always On, Always Off, Last state
  * Chassis intrusion detection with mnemonics during power loss
  * Blinking Power-LED in suspend

1-3 Package Contents
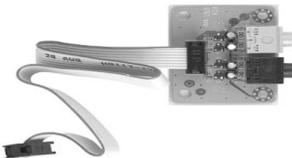
This product comes with the following components:

❐ One mainboard

❐ One 40-pin (80-conductor) UDMA-100 IDE connector ribbon cable(Figure 1-1)
  ***Color coded connection:** Blue to mainboard, Gray to Master and Black to slave

❐ One 34-pin floppy disk drive ribbon cable (Figure 1-2)

❐ Optional 6 Channel Audio Adapter card with cable (Figure 1-3)

❐ One User's Manual

❐ One CD-ROM that includes

 - Acrobat Reader
 - Award Flash EPROM Utility
 - Award DMI Utility for DOS
 - VIA Service Pack for **Win9x/ME/2000/XP** including Bus Master IDE drivers, AGP VxD and etc.
 - CMedia audio drivers for Win3.1, Win95/98/ME/2000/XP, NT4.0 and Linux
 - CMedia Multimedia Decks
 - Optional **Value Pack 2002** software pack including Norton AntiVirus, Adobe ActiveShare, Acrobat Reader, Acrobat eBook Reader, Imagemore and AutoSave.

Figure 1-1   UDMA-66/100 IDE cable

Figure 1-2   Standard Floppy cable

Figure 1-3   (Optional) 6 Channel Audio Adapter card

Memo